AIPHONE®

General Line Catalog

2011

Building Communication.
Controlling Security.

See our NEW IP-Based Solution Intercom

→ *IS Series p.16*

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✛AIPHONE® at your SERVICE!

We can assist with any system in this catalog*

- LIVE PRODUCT DEMONSTRATIONS
- SYSTEM DESIGN AND APPLICATION ASSISTANCE

- USER TRAINING
- BROCHURES

- ON-SITE VISITS
- SPECIFICATIONS

Contact the regional sales representative in your area! For a current list, please visit our website at **www.aiphone.com/replist**

*The information in this catalog is subject to change without notice

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Entrances

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Internal Communication

Suggested Systems: IS Series p. 16, AX Series p. 40, JF Series p. 44

Security and Communication Solutions for
Government Applications

Local

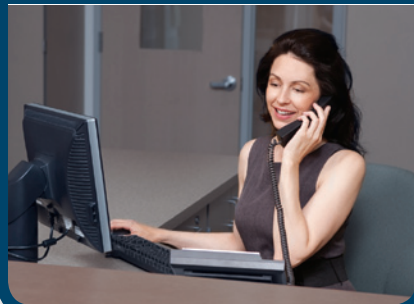Suggested Systems: IS Series p. 16, AX Series p. 40, JF Series p. 44

Federal

Suggested Systems: IS Series p. 16, AX Series p. 40, JF Series p. 44

State

Suggested Systems: IS Series p. 16, AX Series p. 40, JF Series p. 44

Abroad

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AIPHONE®

IP Intercoms

Enterprise level solutions

For larger or more complex applications, IP intercoms are designed to go where other intercoms cannot. Whether distance is a challenge or interfacing with other security systems is a requirement, an IP intercom is available to meet your needs.

IP Intercoms

Controlling Security

Offsite Control

The IS Series provides the power to identify or help individuals from another location, whether it is next door, across town, or on the other side of the world.

After Hours

When a building has been locked down for the evening, it does not mean it is unoccupied. Secure the building while still being able to communicate with those who might need access or assistance.

Video Identification

The IS Series video door stations feature a 170° wide angle camera with PanTilt & Zoom control, offering more flexible options for station installation and positioning.

SCHOOLS

SCHOOL DISTRICT OFFICES

CAMPUSES

Main Entrances

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

Classrooms

Broadcast messages throughout the school or to a particular classroom with the choice of either a hands-free or handset reply.

Offices

Communicate easily with offices anywhere in the world using standard or PC master stations. Avoid long distance phone charges.

LARGE CORPORATIONS

GOVERNMENT

HOSPITALS

SMALL BUSINESSES

RETAIL MALLS

Reception

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

Delivery Entrances

Identify and communicate with individuals at remote locations to determine if their access into the building is legitimate.

Parking Garages

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

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **17**

Preliminary Information - subject to change

IS Series
NEW

More than just an Intercom.

Photo
Alerts

Offices

Door
Control

PC Security
Control

AIPHONE® GLC 2011

Network-Based
Communication & Security Control

- Unlock doors remotely on a network

- Assist onsite visitors from any offsite phone

- Program daily bulletins & bell schedules

- Broadcast emergency announcements

- Communicate using a PC Master Station

Campuses

Schools

Garages

Remote Assistance

Building Communication

425-555-1212
High School Entrance
calling...

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **19**

Preliminary Information - subject to change

IS Series - Networked Series *NEW*

IP Video Intercom

Building Security

School districts, businesses or multi-building facilities can improve efficiency and decrease costs with centralized security and communication.

IP Intercoms

LAN / WAN

Middle School
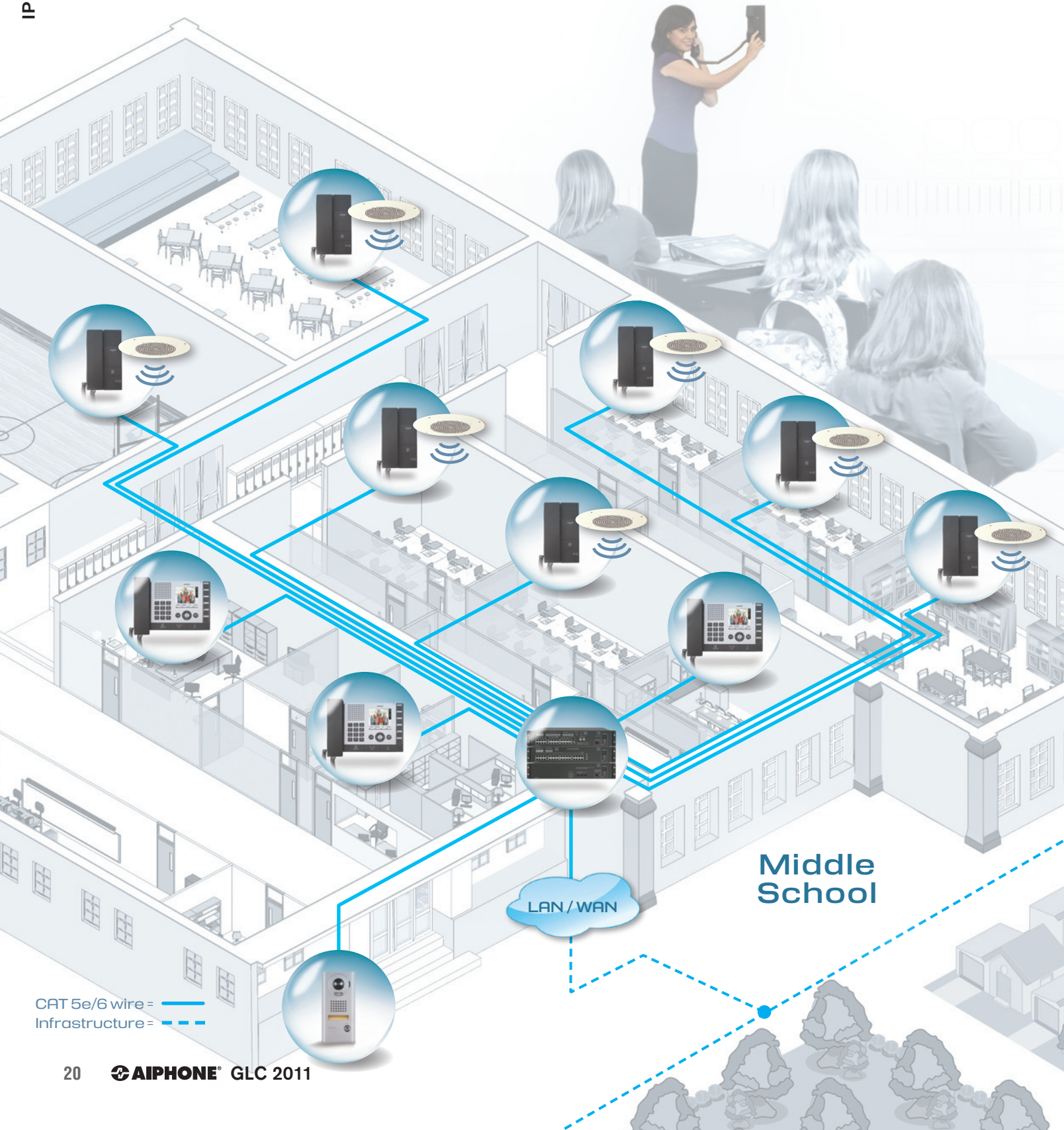
CAT 5e/6 wire =
Infrastructure =

Connect Multiple Schools within a District

◯ **Identify visitors from one school to another**
Install video door stations at entrances to maintain security all day on campus. Keep doors locked while safely identifying visitors.

◯ **Announce emergencies from any office on the network**
Should a problem arise in the community, schools may be quickly alerted to external threats, even from across town.

◯ **Communicate with classrooms or exterior buildings**
A room station and an overhead speaker allow for easy communication between offices and faculty around the school or district.

District Office

Elementary School

High School

LAN / WAN

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **21**

Preliminary Information - subject to change
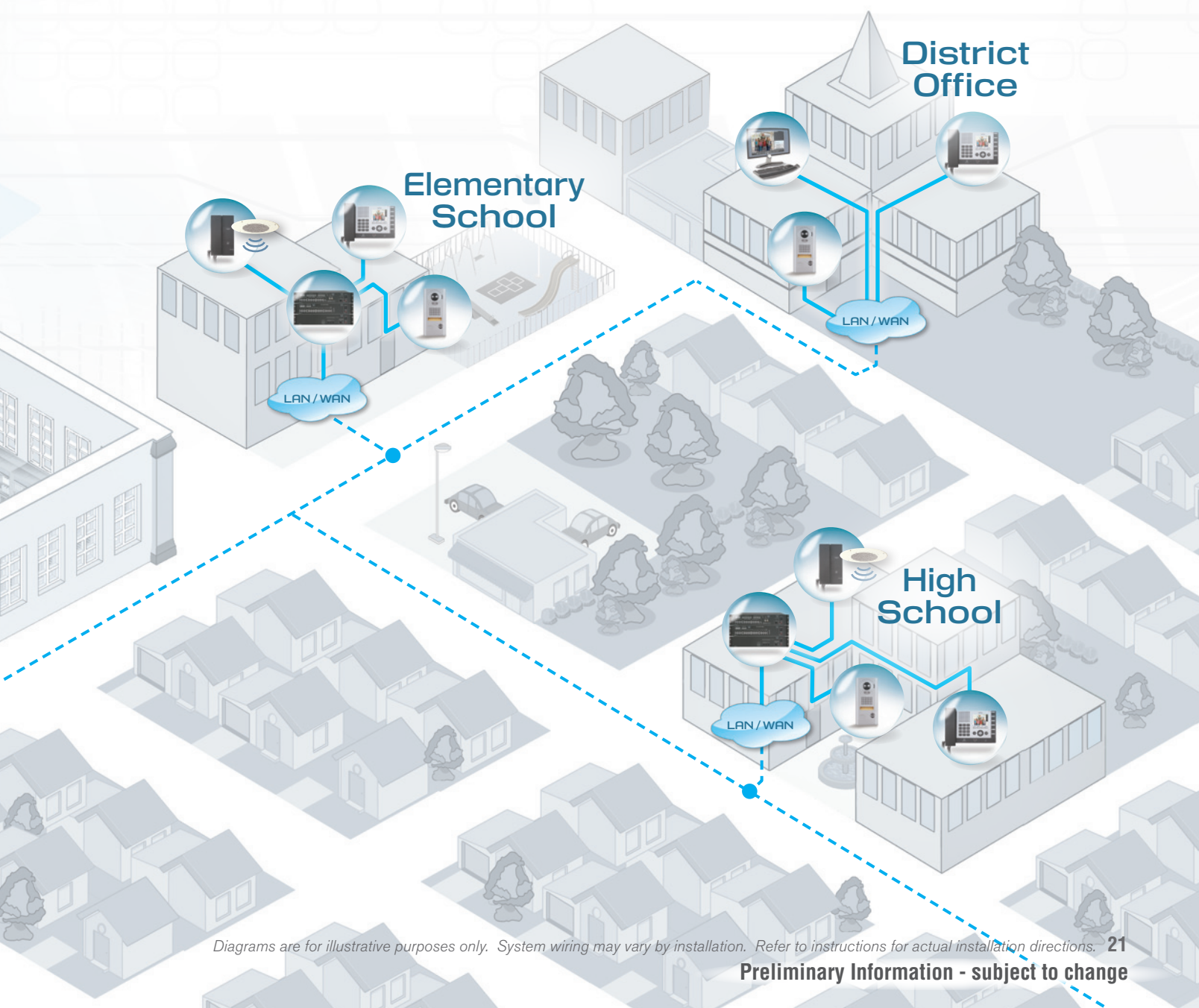
IS Series - Structured Wire System *NEW*
IP Video Intercom

IP Intercoms

Door/Sub Stations: MIX & MATCH up to 4 TOTAL Stations per IS-CCU

DOOR/SUB **4**

IS-RS
Audio only Room Sub Station
→ p.27

IS-DV
Wide Angle Digital PanTilt and Zoom Video Door Station, zinc die cast, surface mount
→ p.26

IS-DVF
Wide Angle Digital PanTilt and Zoom Video Door Station, stainless steel, flush mount
→ p.26

IS-SS
Audio only Door Station, stainless steel, flush mount
→ p.27

SP-2570N
Ceiling speaker, 25/70V, 4W, flush mount
→ p.114

2 wires — 2 wires

EL-12S*
Door Strike
→ p.108
*May also be wired to IS-CCU

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

Central Control Unit

IS-CCU+
Central Control Unit

+NOTE: *Maximum 4 Door/Sub Stations and 4 Master Stations per IS-CCU*

CAT-5e/6 wire N/A from Aiphone (Max. 980')

2 wires Aiphone #871802 (Max. 50')

IS-PU-UL
Power Supply, 48V DC, 2A
→ p.27

CAT-5e/6 wire x 3 N/A from Aiphone (Max. 650')

Door/Sub Stations: MIX & MATCH up to 8 TOTAL Stations per IS-SCU

DOOR/SUB **16**

IS-RS
→ p.27

IS-DV
→ p.26

IS-DVF
→ p.26

IS-SS
→ p.27

SP-2570N
Ceiling speaker, 25/70V, 4W, flush mount
→ p.114

2 wires — 2 wires

EL-12S**
Door Strike
→ p.108
**May also be wired to IS-SCU

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

Add-on Control Unit: Max. 2 per IS-CCU

CAT-5e/6 wire N/A from Aiphone (Max. 980')

IS-SCU‡
Add-on Central Control Unit

‡NOTE: *Maximum 8 Door/Sub Stations and 8 Master Stations per IS-SCU*

2 wires Aiphone #871802 (Max. 50')

IS-PU-UL
→ p.27

CAT-5e/6 wire x 2 N/A from Aiphone (Max. 650')

Features
NOTE: For features of the **IS Series** see **p.24**

Unit Dimensions & Descriptions
NOTE: For unit dimensions and descriptions of the **IS Series** see **p.26 ~ p.27**

Specifications
NOTE: For specifications of the **IS Series** see **p.25**

Room Station Control Unit: Max. 4 per IS-CCU

IS-RCU*
Room Station Control Unit

***NOTE:** *Maximum 30 Room Stations per IS-RCU*

2 wires Aiphone #871802 (Max. 50')

IS-PU-UL
→ p.27

Master Station: Up to **4 TOTAL** Stations per IS-CCU

MASTER
4

CAT-5e/6 wire
N/A from
Aiphone
(Max. 980')

IS-MV
Video Master Station
→ p.27

Master Station: Up to **8 TOTAL** Stations per IS-SCU

MASTER
16

CAT-5e/6 wire
N/A from
Aiphone
(Max. 980')

IS-MV
Video Master Station
→ p.27

Room Stations: **MIX & MATCH** up to **30 TOTAL** Stations per IS-RCU

ROOM
120

CAT-5e/6 wire
N/A from
Aiphone
(Max. 980')

IS-RS
→ p.27

IS-SS
→ p.27

2 wires

EL-12S
Door
Strike
→ p.108

2 wires

PT-1210N

SP-2570N
Ceiling speaker,
25/70V, 4W, flush
mount
→ p.114

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **23**

Preliminary Information - subject to change

DOOR/SUB	MASTER	ROOM	IP ADDRESS
160 ▸	**160** ▸	**960** ▸	**32**

IS Series - Networked System *NEW*
IP Video Intercom

IP Control Units: Network up to **8 TOTAL** Units‡

DOOR/SUB	MASTER	ROOMS
20 ▸	**20** ▸	**120**

CAT-5e/6 wire x 3
N/A from Aiphone
(Max. 650')

IS-IPC‡
IP Control Unit

IS-CCU
For IS-CCU layout details, see **p.22**
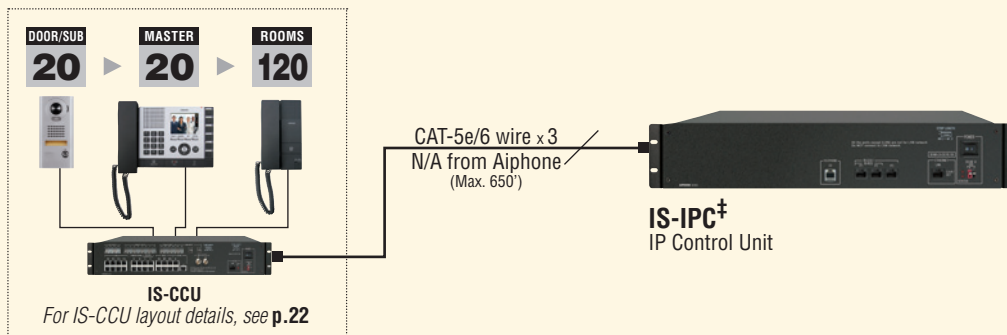
‡**NOTE:** *Each IS-IPC uses 1 of the 32 available IP addresses.*
Only 8 IS-IPC's allowed per network.
1 IS-IPC per IS-CCU (20 Door/Sub Stations, 20 Master Stations, and 120 Room Stations)

2 wires
Aiphone
#871802
(Max. 50')

IS-PU-UL
Power Supply,
48V DC, 2A
→ p.27

PBX Control Unit
(not supplied by Aiphone)

LAN/WAN

Features

- All-in-one communication system to control video entry, public address, access control, and scheduled bell systems
- Uses new or existing CAT-5e / 6 network infrastructure
- Program system functions via browser
- Basic conversation plus full range of exchange functions: Time based call forwarding, scan monitoring, emergency call, priority call, video audio recording, paging, and scheduled zone paging
- Transfer calls to outside phone lines
- Composite video output from IS-MV/IS-IPMV/IS-CCU/IS-SCU
- IP addressable stations available for easy network communication
- PC master station records audio/video directly to PC or NVR

Wiring

IS Series Wiring Distance	CAT-5e / 6 wire
Door / Sub Station to IS-CCU	980'
Master Station (IS-MV) to IS-CCU	980'
Room Station to IS-RCU	490'
IS-IPDV / IS-IPDVF / IS-IPMV / IS-SOFT to network node	330'
IS-SCU to IS-CCU	650'
IS-RCU to IS-CCU	650'
IS-IPC to IS-CCU / IS-RCU	30'
IS-IPC to network node	330'

Camera View Area
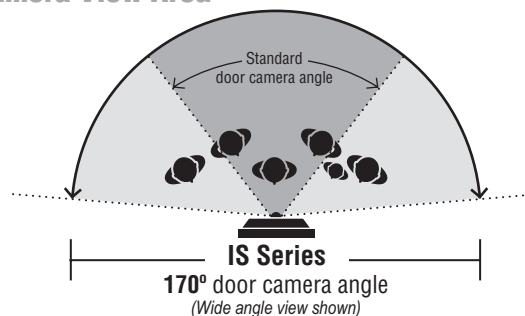
Standard
door camera angle

IS Series
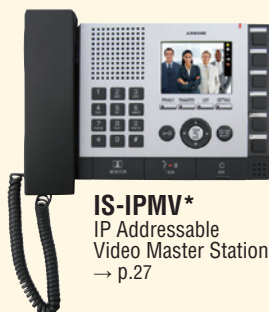**170⁰ door camera angle**
(Wide angle view shown)

Unit Dimensions & Descriptions

NOTE: For unit dimensions and descriptions of the **IS Series** see **p.26 ~ p.27**

IP Addressable Units: MIX & MATCH up to 31 TOTAL Units‡

IS-IPMV*
IP Addressable
Video Master Station
→ p.27

IS-IPDV*
IP Addressable Wide Angle
Digital PanTilt and Zoom Video
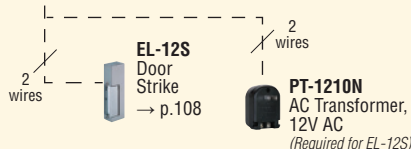Door Station, zinc die cast,
surface mount
→ p.26

IS-IPDVF*
IP Addressable Wide
Angle Digital PanTilt and
Zoom Video Door Station,
stainless steel, flush mount
→ p.26

IS-SOFT
PC Master Station Software
→ p.27

EL-12S
Door
Strike
→ p.108

2
wires

2
wires

PT-1210N
AC Transformer,
12V AC
(Required for EL-12S)

One PS-2420UL is required for every one IS-IPDV, IS-IPDVF or IS-IPMV

2 wires
Aiphone
#871802
(Max. 33')

PS-2420UL
Power Supply,
24V DC, 2A
→ p.116

or Power over ethernet
(802.3af)

Communication Network

Paging System

PBX Phone System

Bell / Chime System

Program system
via browser

Video out to DVR

Access Control

IS-IPDV
IP Door Station

IS-SOFT
PC Master Station Software

IS-IPMV
IP Master Station
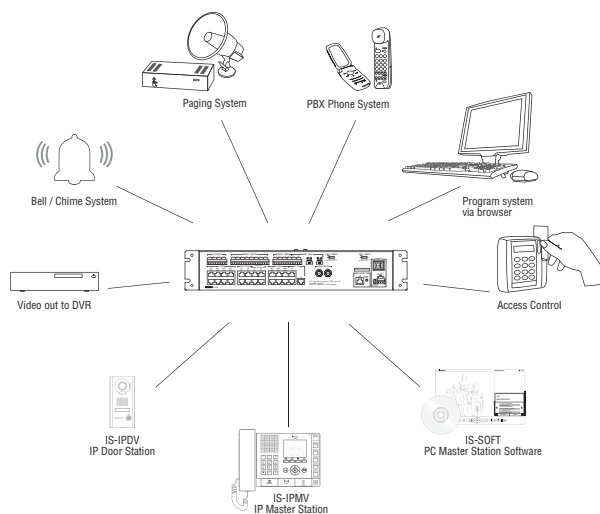
Specifications

Power Source	IS-CCU/IS-SCU/IS-RCU/IS-IPC: 48V DC - Use IS-PU-UL IS-IPDV/IS-DVF/IS-IPMV: 24V DC - Use PS-2420UL or Power Over Ethernet (802.3af)
Network Interface	10 BASE-T / 100 BASE-TX Ethernet
Hardware Protocols	TCP, UDP, SIP
Bandwidth	320Kbps to 8Mbps
Software	Processor 1GHz or faster, 256MB of RAM, Windows® XP, Windows® Vista (32/64 bit), Windows® 7
Connections	RJ45 (10/100Mbit Ethernet), RS-232 compliant
Calling	Chime, image and audio approx. 45 sec.
Communication	AUTOMATIC (hands-free) - to activate, momentarily push TALK button MANUAL (push-to-talk / release-to-listen) - to activate, push TALK button for at least 1 sec. or until talk LED turns on / a beep sounds
Video Monitor	3-1/2" direct-view TFT color LCD
Min. Illumination	5 Lux at 1' distance
Night Viewing	Up to 1' from camera, with white LED projected
Door Release	Contact rating: 24V AC/DC, 500mA Use RY-24L for larger contact rating
Wiring	CAT 5e / 6
Distance	See "Wiring" on previous page

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **25**

Preliminary Information - subject to change

Exchange Units

IS-CCU
Central Control Unit

IS-SCU
Add-on Control Unit

IS-RCU
Room Sub Control Unit

IS-IPC
IP Control Unit

Central Control Unit – IS-CCU

The IS-CCU allows a connection of four door / sub stations and four master stations. It features inputs for up to two IS-SCU, four IS-RCU, and one IS-IPC to expand the system using CAT-5e/6 cable. The IS-CCU has four public address outputs, eight contact outputs, two video BNC outputs, four contact inputs and two chime inputs each with individual volume control. Requires a PC to set up the system. Set up via browser. The unit can be rack mounted in an EIA standard rack (2U required) or wall mount using brackets. It is powered using an external 48V DC power supply, IS-PU-UL.

Add-on Control Unit – IS-SCU

The IS-SCU homeruns to the IS-CCU to add eight door / sub stations and eight master stations to the system. Up to two IS-SCU's may be connected to the IS-CCU using three CAT-5e/6 cables. The unit can be rack mounted in an EIA standard rack (2U required) or wall mount using brackets. It is powered using an external 48V DC power supply, IS-PU-UL.

Room Sub Control Unit – IS-RCU

The IS-RCU homeruns to the IS-CCU to add thirty room stations to the system. Up to four IS-RCU's may be connected to the IS-CCU using two CAT-5e/6 cables. The unit can be rack mounted in an EIA standard rack (2U required) or wall mount using brackets. It is powered using an external 48V DC power supply, IS-PU-UL.

IP Control Unit – IS-IPC

The IS-IPC connects the IS-CCU and all of its wired components to a network. One IS-IPC is required for every IS-CCU and is wired using three CAT-5e/6 cables. Up to eight IS-IPC's may be used in a fully networked system. The unit can be rack mounted in an EIA standard rack (2U required) or wall mount using brackets. It is powered using an external 48V DC power supply, IS-PU-UL. IS-IPC is required for a PBX connection.

IS-CCU, IS-SCU, IS-RCU, IS-IPC
16-3/4" 11-1/16" 18-15/16" 3-3/8"
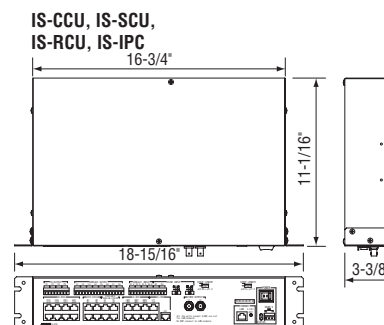
Video Door Stations

IS-DV
Wide Angle Digital PanTilt and Zoom Video Door Station, zinc die cast, surface mount

IS-DVF
Wide Angle Digital PanTilt and Zoom Video Door Station, stainless steel, flush mount

IS-IPDV
IP Addressable Wide Angle Digital PanTilt and Zoom Video Door Station, zinc die cast, surface mount

IS-IPDVF
IP Addressable Wide Angle Digital PanTilt and Zoom Video Door Station, stainless steel, flush mount

Video Door Station – IS-DV

The IS-DV is a zinc die cast, surface mount video door station and is both vandal and weather resistant. It connects to the IS-CCU or IS-SCU using CAT-5e/6 cable. There is a programmable dry contact for door release. The IS-DV is powered by the system.
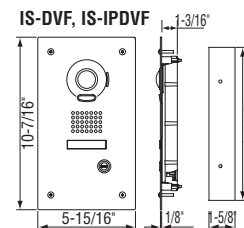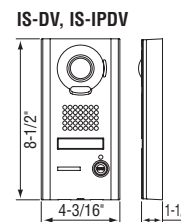
Video Door Station – IS-DVF

The IS-DVF is a stainless steel, flush mount video door station and is both vandal and weather resistant. It connects to the IS-CCU or IS-SCU using CAT-5e/6 cable. There is a programmable dry contact for door release. The IS-DVF is powered by the system.

Video Door Station – IS-IPDV

The IS-IPDV is an IP addressable zinc die cast, surface mount video door station and is both vandal and weather resistant. It connects directly to a network using CAT-5e/6 cable and can communicate with any master station connected to an IS-IPC, IS-IPMV or any IS-SOFT on a network. There is a programmable dry contact for door release. This station utilizes 802.3af-compliant power-over-ethernet, or an external 24V DC power supply, PS-2420UL.

Video Door Station – IS-IPDVF

The IS-IPDVF is an IP addressable stainless steel, flush mount video door station and is both vandal and weather resistant. It connects directly to a network using CAT-5e / 6 cable and can communicate with any master station connected to an IS-IPC or any IS-SOFT on a network. There is a programmable dry contact for door release. This station utilizes 802.3af-compliant power-over-ethernet, or an external 24V DC power supply, PS-2420UL.

IS-DV, IS-IPDV
8-1/2" 4-3/16" 1-1/8"

IS-DVF, IS-IPDVF
1-3/16" 10-7/16" 9-5/16" 5-15/16" 1/8" 1-5/8"
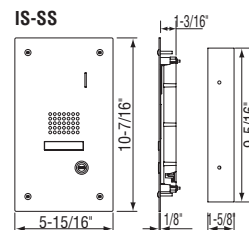
Audio Only Door / Sub Stations

IS-SS
Audio only Door
Station, stainless
steel, flush mount

IS-RS
Audio only
Sub Station

Door / Sub Station – IS-SS
The IS-SS is a stainless steel, flush mount audio only door station and is both vandal and weather resistant. It connects to the IS-CCU, IS-SCU, or IS-RCU using CAT-5e/6 cable. There is a programmable dry contact for door release. The IS-SS is powered by the system.

Room / Sub Station – IS-RS
The IS-RS is a handset style, wall mount, audio only sub station. It connects to the IS-CCU, IS-SCU, or IS-RCU using CAT-5e/6 cable. It can be used with the handset, hands-free with the internal speaker, or can be tied to an external 8Ω speaker. The IS-RS is powered by the system.

IS-SS
10-7/16" 1-3/16" 9-5/16"
5-15/16" 1/8" 1-5/8"

IS-RS
2-9/16" 1-5/8"
7-7/8"
4-5/8"
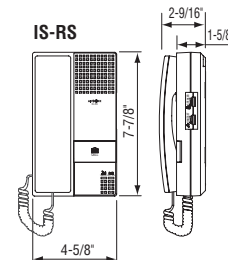
Master Stations

IS-MV
Video Master Station

IS-IPMV
IP Addressable
Video Master Station

Master Station – IS-MV
The IS-MV is a video master station with a 3.5" color LCD monitor. It can be wall or desk mounted (desk stand included). The IS-MV offers handset (duplex) and hands-free (VOX/PTT) communication and can page up to 5 zones simultaneously. It connects to the IS-CCU or IS-SCU using CAT-5e/6 cable and is powered by the system.

IS-MV, IS-IPMV
9-7/8" 2-3/8" 1-1/2"
7-1/2" 6-7/16"
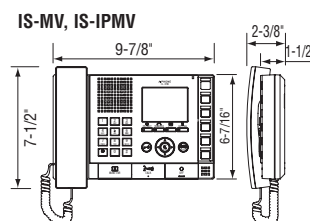
Master Station – IS-IPMV
The IS-IPMV is an IP addressable video master station with a 3.5" color LCD monitor. It can be wall or desk mounted (desk stand included). The IS-IPMV offers handset (duplex) and hands-free (VOX/PTT) communication and can page up to 5 zones simultaneously. It connects directly to a network using CAT-5e/6 cable and can communicate with any IS-IPDV / IS-IPDVF / IS-SOFT or any station connected to an IS-IPC on a network. This station utilizes 802.3af-compliant power-over-ethernet, or an external 24V DC power supply, PS-2420UL.

PC Software

IS-SOFT
PC Master
Station Software

Master Station – IS-SOFT
The IS-SOFT is proprietary Aiphone software that can be installed on a PC running Windows® XP, Windows® Vista or Windows® 7. The PC with the installed IS-SOFT software may connect directly to a network allowing for communication with any IS-IPDV / IS-IPDVF / IS-IPMV or any station connected to an IS-IPC on a network.
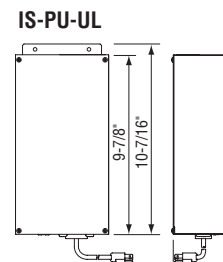
Power Supply

IS-PU-UL
Power Transformer
48V DC, 2A

Power Supply – IS-PU-UL
The IS-PU-UL is a 48V DC, 2A, UL listed power supply. One IS-PU-UL is required for every one IS-CCU, IS-SCU, IS-RCU, or IS-IPC.

IS-PU-UL
9-7/8" 10-7/16"

Preliminary Information - subject to change

JKW-IP NEW
IP Video Intercom Adaptor

Video Intercoms

Door Stations - Select 1 unit

DOOR
1

JK-DA
Wide Angle Digital PanTilt and Zoom Video Door Station, plastic cover, surface mount
→ p.100

JK-DV
Wide Angle Digital PanTilt and Zoom Video Door Station, zinc die cast, surface mount
→ p.100

JK-DVF
Wide Angle Digital PanTilt and Zoom Video Door Station, stainless steel, flush mount
→ p.100

JK-DVF-HID
Wide Angle Digital PanTilt and Zoom Video Door Station with an embedded HID® ProxPoint® Plus Proximity Card Reader, stainless steel, flush mount
→ p.100

JK-DVF-XP
Wide Angle Digital PanTilt and Zoom Video Door Station with an embedded Stand-Alone Card Reader and host controller, stainless steel, flush mount
→ p.100

JK-DVF-AC
Wide Angle Digital PanTilt and Zoom Video Door Station with an embedded access keypad, stainless steel, flush mount
→ p.100

2 wires
Aiphone #871802
(Max. 330' between door station and each JKW-IP)

2 wires

EL-12S
Door Strike

2 wires

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

Inside Stations - Select 1 unit
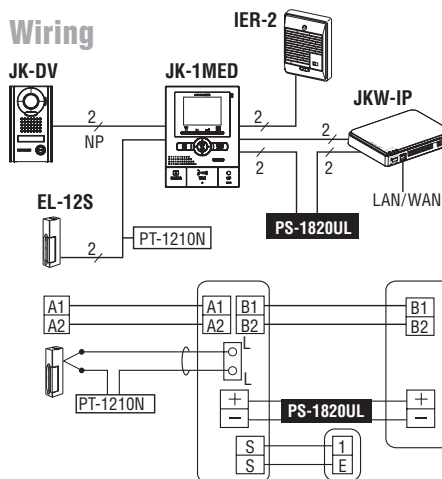
INSIDE
1

JK-1MD
Master Station with video monitor

JK-1MED
Master Station with video monitor and Picture Memory

4 wires
Aiphone #871804
(Max. 330' between door station and each JKW-IP)

2 wires
Aiphone #871802
(Max. 33')

PS-1820UL
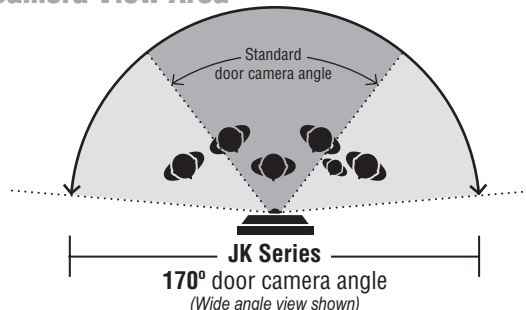Power Supply, 18V DC, 2A
→ p.116

Features

- Up to 20 JK Systems can be controlled by up to 10 PCs
- Photo e-mail alerts when visitors are at the door
- Remote door release from a PC
- Notification e-mail when an alarm is triggered
- Easy install! Free software included!
- Use PC to control door station camera
- 4 inputs to notify PC of events such as fire, alarm, motion detection
- 1 output to control a secondary device like a light, gate or additional door
- Compact, attractive master station design complements most interiors
- Hands-free (VOX) or push-to-talk (PTT) communication
- High resolution color TFT LCD monitor
- Includes single N/O door release contact
- Wide angle camera allows user to view up to 170° of the entire entry
- Camera view features digital PanTilt and zoom
- Entry can be monitored without alerting visitors they are being viewed, even at night
- Camera position and zoom can be set for call-in
- Camera can be manually adjusted to compensate for bright illumination

Wiring

IER-2

JK-DV   **JK-1MED**   **JKW-IP**

2 NP   2   2

EL-12S   2   2

PT-1210N   **PS-1820UL**   LAN/WAN

A1 / A2   A1 / A2   B1 / B2   B1 / B2

PT-1210N   L   L

PS-1820UL   +/−   +/−

S / S   1/E

Camera View Area

Standard door camera angle

JK Series
170° door camera angle
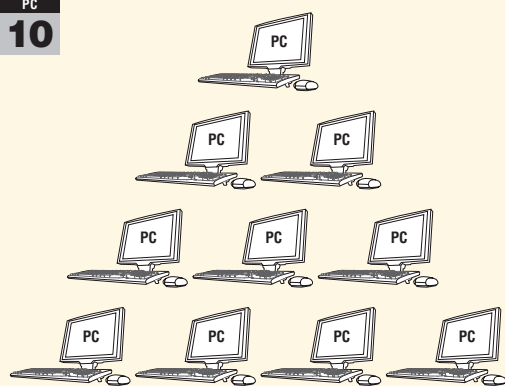*(Wide angle view shown)*

Network Adaptor* *(Required)*

JKW-IP*
Network Adaptor
(Includes computer software)

NEW

*One JKW-IP per Master Station
Up to 20 JKW-IPs may be used per system*

LAN/WAN

PC 10

PC

PC   PC

PC   PC   PC

PC   PC   PC
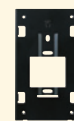
Options & Accessories

XP-KIT
Includes keypad *(XRP3)*, programming cards, and 10 blank entry cards *(XC4/9)*
→ p.109

AC-10S
Access Control Keypad, die cast to match JK-DV
→ p.110

KAW-D
30° Angle Box for JK-DA
→ p.107

MKW-P
1-Gang Mounting Plate for JK-DV
→ p.118

KMB-45
Mullion Mounting Bracket for JK-DA
→ p.107

SBX-LSE
Security Lock Box for JK-DV and JK-DVF *(Lock not included)*
→ p.107

SBX-LSP
Security Lock Box for JK-DVF-HID and JK-DVF-XP
→ p.107

SBX-DV30
30° Angle Box for JK-DV
→ p.107

SBX-DVF
Surface Mount Box for JK-DVF
→ p.106

SBX-DVF-P
Surface Mount Box for JK-DVF-HID and JK-DVF-XP
→ p.106

SBX-ACE
Surface Mount Box for intercom and access control device
→ p.105

JKW-BA
Long Distance Door Station Adaptor
→ p.110

EL-12S
Electric Door Strike, 12V AC/DC, 200mA *(Requires PT-1210N)*
→ p.108

RY-ES
External Signaling Relay
→ p.110

NEW

RY-18L
Form C Door Release Relay
→ p.109

IER-2
Call Extension Speaker
→ p.108

MCW-S/A
Monitor Desk Stand
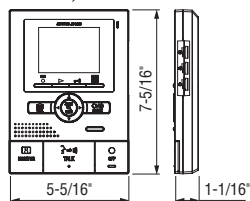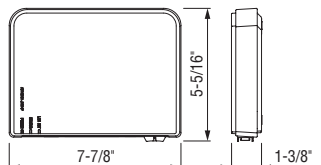→ p.118

Boxed Sets

IP Video Intercom   NEW

JKS-IPED: JK-1MED, JK-DA, JKW-IP, software, and power supply
JKS-IPEV: JK-1MED, JK-DV, JKW-IP, software, and power supply
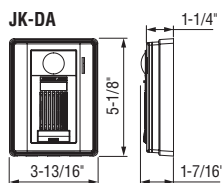**JKS-IPEF:** JK-1MED, JK-DVF, JKW-IP, software, and power supply
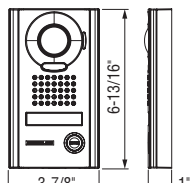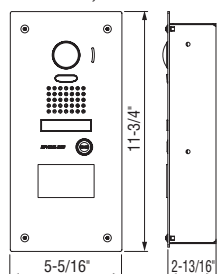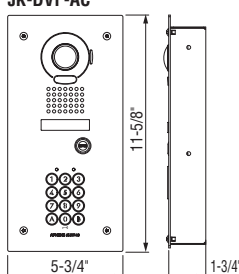
Unit Dimensions

JK-1MD, JK-1MED
7-5/16"
5-5/16"
1-1/16"

JKW-IP
5-5/16"
7-7/8"
1-3/8"

JK-DA
1-1/4"
5-1/8"
3-13/16"
1-7/16"

JK-DV
6-13/16"
3-7/8"
1"

JK-DVF
8-1/4"
5-5/16"
1-7/8"

JK-DVF-XP, JK-DVF-HID
11-3/4"
5-5/16"
2-13/16"

JK-DVF-AC
11-5/8"
5-3/4"
1-3/4"
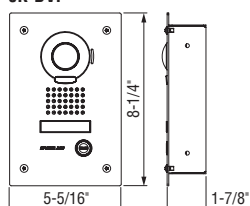
Specifications

Power Source	18V DC - Use PS-1820UL
Network	Interface: 10 BASE-T / 100 BASE-TX Ethernet Protocol: TCP, UDP, SIP
Bandwidth	320K to 8Mbps (per JKW-IP)
Software	Processor 1GHz or faster, 256MB of RAM, Windows® XP or Windows® Vista (32/64 bit)
Connections	RJ45 (10/100Mbit Ethernet)
Calling	Chime, image and audio approx. 45 sec.
Communication	AUTOMATIC (hands-free) - to activate, push TALK button MANUAL (push-to-talk / release-to-listen) - to activate, push TALK button for at least 1 sec. or until talk LED turns on / a beep sounds
Video Monitor	3-1/2" direct-view TFT color LCD
Min. Illumination	5 Lux at 1' distance
Night Viewing	Up to 1' from camera, with white LED projected
Door Release	Contact rating: 24V AC/DC, 500mA Use RY-18L for larger contact rating
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded Master to JKW-IP: 4-cond., mid cap, solid, non-shielded
Distance	Door to each JKW-IP: 165'(22AWG) 330'(18AWG)
Wire Type	Door to Master: Aiphone #871802 Master to JKW-IP: Aiphone #871804

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **29**

Video Door Station to PC Security

IP Intercoms

IP Addressable Door Stations: MIX & MATCH up to 32 TOTAL Components

STATIONS 32

IS-IPDV*
IP Addressable Wide Angle Digital
PanTilt and Zoom Video Door Station,
zinc die cast, surface mount
→ p.26

IS-IPDVF*
IP Addressable Wide Angle Digital
PanTilt and Zoom Video Door
Station, stainless steel, flush mount
→ p.26

2 wires
Aiphone
#871802
(Max. 33')

PS-2420UL
Power Supply,
24V DC, 2A
→ p.116

or Power over ethernet

One PS-2420UL is required for every IS-IPDV or IS-IPDVF

PC Master Station: MIX & MATCH up to 32 TOTAL Components
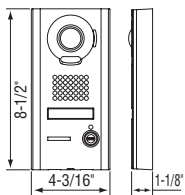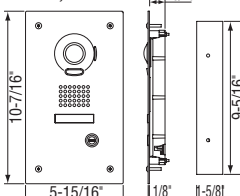
STATIONS 32

IS-SOFT‡
PC Master
Station Software
→ p.27

‡NOTE: *System must include 1 IS-SOFT PC Master Station*

LAN/WAN

Features

- IP addressable stations for easy network communication
- All-in-one communication system to control video entry, public address, access control, and scheduled bell systems
- Uses new or existing CAT-5e / 6 network infrastructure
- PC programmable for customizable control (free set-up software included)
- Basic conversation plus full range of exchange functions: Call forwarding, scan monitoring, emergency call, priority call, video audio recording, paging, and scheduled zone paging
- Transfer calls to outside phone lines
- PC master station records audio/ video directly to PC or NVR

Unit Dimensions

IS-DV, IS-IPDV
8-1/2"
4-3/16"
1-1/8"

IS-DVF, IS-IPDVF
10-7/16"
5-15/16"
1-3/16"
1/8"
1-5/8"
9-5/16"

Specifications

Power Source	24V DC - Use PS-2420UL or PoE (802.3af)
Network Interface	10 BASE-T / 100 BASE-TX Ethernet
Hardware Protocols	TCP, UDP, SIP
Bandwidth	320Kbps to 8Mbps
Software	Processor 1GHz or faster, 256MB of RAM, Windows® XP, Windows® Vista (32/64 bit), Windows® 7
Connections	RJ45 (10/100Mbit Ethernet), RS-232 compliant
Calling	Chime, image and audio approx. 45 sec.
Communication	AUTOMATIC (hands-free) - to activate, momentarily push TALK button MANUAL (push-to-talk / release-to-listen) - to activate, push TALK button for at least 1 sec. or until talk LED turns on / a beep sounds
Min. Illumination	5 Lux at 1' distance
Night Viewing	Up to 1' from camera, with white LED projected
Door Release	Contact rating: 24V AC/DC, 500mA Use RY-24L for larger contact rating
Wiring	CAT 5e / 6
Distance	Device to network node: 330'

Preliminary Information - subject to change

IPW-1A
IP Intercom Adaptor

Door Stations - Select 1 unit

AX-DM
Door Station, plastic cover, mullion surface mount
→ p.96

IF-DA
Door Station, plastic cover, surface mount
→ p.102

IE-DC
Door Station, plastic and aluminum cover, surface mount
→ p.102

IE-JA
Door Station, stainless steel faceplate, flush mount
→ p.102

IE-SS
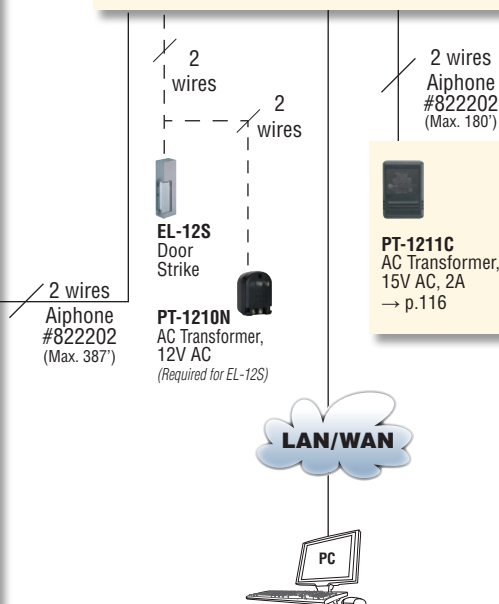Door Station, vandal resistant, stainless steel, flush mount
→ p.102

IE-SSR
Door Station, vandal resistant, stainless steel, red mushroom call button, flush mount
→ p.102

IP Network Adaptor

IPW-1A*
IP Intercom Adaptor. Includes power supply and computer software

One IPW-1A per door station

2 wires
Aiphone #822202
(Max. 387')

2 wires

2 wires

EL-12S
Door Strike

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

2 wires
Aiphone #822202
(Max. 180')

PT-1211C
AC Transformer, 15V AC, 2A
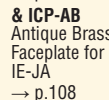→ p.116

LAN/WAN

PC

Options & Accessories

NEW

XP-SS
Accessory Station with an Embedded Stand-Alone Card Reader and host controller
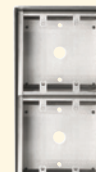→ p.109

HID-SS
Accessory Station with an Embedded HID® Proximity Card Reader
→ p.109
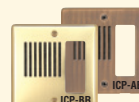
ICP-BR
Brass Faceplate for IE-JA
→ p.108

& ICP-AB
Antique Brass Faceplate for IE-JA
→ p.108

SBX-2BV
Vertical Mount Box for HID-SS and IE-JA, IE-SS, or IE-SSR
(Horizontal mount also available - SBX-2BH)
→ p.105

SBX-2G
Surface Mount Box for IE-JA, IE-SS, or IE-SSR
→ p.105

EL-12S
Electric Door Strike, 12V AC/DC, 200mA
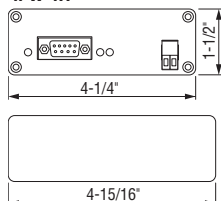*(Requires PT-1210N)*
→ p.108

Features

- Allows an IE Series / AX-DM door station to remotely communicate with any amount of PC's within a LAN/WAN network
- Cost-effective multi-PC based communication
- Works with standard wired and wireless TCP/IP networks (LAN/WAN)
- Digital audio recording and playback capability
- Relay output for remote release (N/O or N/C)
- May be used for public announcements and emergency notifications
- PC Software included*

Recommended: Microsoft Windows® XP(SP2), Windows® Vista, 1GHz or faster processor, 256MB of RAM, 50MB available hard drive, Windows® supported sound card

Wiring

IPW-1A

RESET RS-232 STATUS SUB

POWER LAN PT-1211C

1
2

IE Series door station
Audio only

Note: Contact rated at 30V, 2.5A.

PT

Specifications

Power Source	16-30V DC/15-24V AC - Use Aiphone PT-1211C (included)
Network Interface	10/100 Base-T Ethernet (Auto detection) RJ-45
IP Assignment	Static or Dynamic
Hardware Protocols	TCP, UDP, DHCP, SNMP, AutoIP, SonicIP, Ipzator
Transport Bandwidth	≈128Kbps per active session (normal mode) ≈64Kbps per active session (low bandwidth mode)
Relay Contact Rating	30V DC / 2.5A (resistive)
Operating Temperature	32°F to 104°F (0°C to 40°C)

Unit Dimensions

NOTE: For unit dimensions of the **IE Series** door stations see **p.102 ~ p.102**

IPW-1A

4-1/4"
1-1/2"
4-15/16"

AX-DM

6-5/16"
1-11/16" 7/8"

AN-8000 Series
IP Network Intercom

Door / Master Stations: MIX & MATCH up to 1,280 TOTAL AN Components

STATIONS
1,280

AN-8000MS
Master Station with handset and display
→ p.34

AN-8010MS
Master Station with handset
→ p.34

AN-8011MS
Hands-free Master Station
→ p.35

AN-8020MS
Industrial Master Station with handset
→ p.34

AN-8031MS
Hands-free Master Station, flush mount
→ p.35

AN-8050DS
Door Station, flush mount
→ p.35

AN-8050DSW
Door Station, weather resistant, flush mount
→ p.35

IP Addressable Door/Master Stations:
MIX & MATCH up to 80 TOTAL IP Addressable units

STATIONS
80

AN-8500MS*
IP Addressable Master Station with handset and display
→ p.34

AN-8540DS*
IP Addressable Door Station, flush mount
→ p.35

*Each IP station counts as 1 unit toward the 80 capacity total for IP addressable devices

AD-1210P
Power Supply, 12V DC, 1A
→ p.116

or Power over Ethernet

Door / Master Stations: MIX & MATCH up to 1,280 TOTAL AN Components

STATIONS
1,280

AN-8000MS
Master Station with handset and display
→ p.34

AN-8010MS
Master Station with handset
→ p.34

AN-8011MS
Hands-free Master Station
→ p.35

AN-8020MS
Industrial Master Station with handset
→ p.34

AN-8031MS
Hands-free Master Station, flush mount
→ p.35

AN-8050DS
Door Station, flush mount
→ p.35

AN-8050DSW
Door Station, weather resistant, flush mount
→ p.35

Features

- Exchanges, masters and subs can be distributed over a data communications network
- Can be connected to an existing local area network (LAN) or wide area network (WAN)
- Dedicated software program for setting up system configuration and features
- System maintenance can be performed with a personal computer and Internet browser
- Each exchange connects 16 units (80 IP devices max.)
- Offers hands-free and handset capabilities
- Superior sound quality utilizing full duplex acoustic echo canceling technology
- Allows the calling party to communicate with the called individual without hesitation or delay
- A variety of intercom stations to meet the specific environment (e.g. office, warehouse, outside, parking garage, etc.)
- 4,921' from station to AN-8000EX on 22AWG

Unit Dimensions & Descriptions

NOTE: For unit dimensions and descriptions of the **AN Series** see **p.34**

Exchange Unit - Max. 80 IP Addressable units per system

AN-8000EX
Network Intercom
Exchange Unit
*(Max. 16 doors/masters
per exchange unit)*
→ p.34

(AC powered)

1P

CAT-5e wire
N/A from
Aiphone

CAT-5e wire
N/A from
Aiphone

LAN/WAN

CAT-5e wire
N/A from
Aiphone

Exchange Unit - Max. 80 IP Addressable units per system

AN-8000EX
Network Intercom
Exchange Unit
*(Max. 16 doors/masters
per exchange unit)*
→ p.34

(AC powered)

1P

Options & Accessories

AN-8000MI
Network Intercom
Multi-Interface Unit
→ p.34

RS-191
Handset for use
with AN-8031MS,
wall mount
→ p.35

YC-280
Wall Bracket for
AN-8000MS,
AN-8010MS, and
AN-8020MS
→ p.35
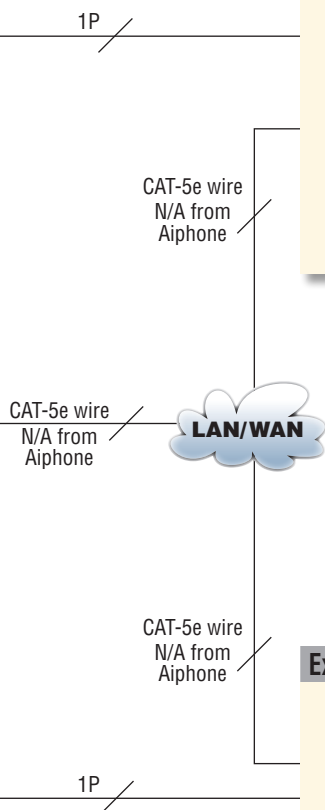
YC-290
Wall Bracket for
AN-8011MS
→ p.35

SBX-3G
3-gang Surface
Mount Box for
outdoor surface
mounting
AN-8050DS,
AN-8050DSW,
and AN-8540DS
→ p.106

YS-13A
3-gang Back
Box for indoor
surface mounting
AN-8050DS, and
AN-8540DS
→ p.35

YC-150
3-gang Back Box
for flush mounting
AN-8050DS,
AN-8050DSW, and
AN-8540DS
→ p.35

YC-241
5-gang Back Box
for flush mounting
AN-8031MS
→ p.35

YC-251
5-gang Back Box for
surface mounting
AN-8031MS
→ p.35

Wiring

AN-8000MS   AN-8010MS   AN-8011MS   AN-8020MS   RS-191 AN-8031MS   AN-8050DS

AN-8000EX   Amplifier   Speaker   AN-8500MS

LAN/WAN   AN-8540DS

AN-8000EX   Amplifier   Speaker

AN-8000MS   AN-8010MS   AN-8011MS   AN-8020MS   RS-191 AN-8031MS   AN-8050DS

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **33**

AN-8000 - Components
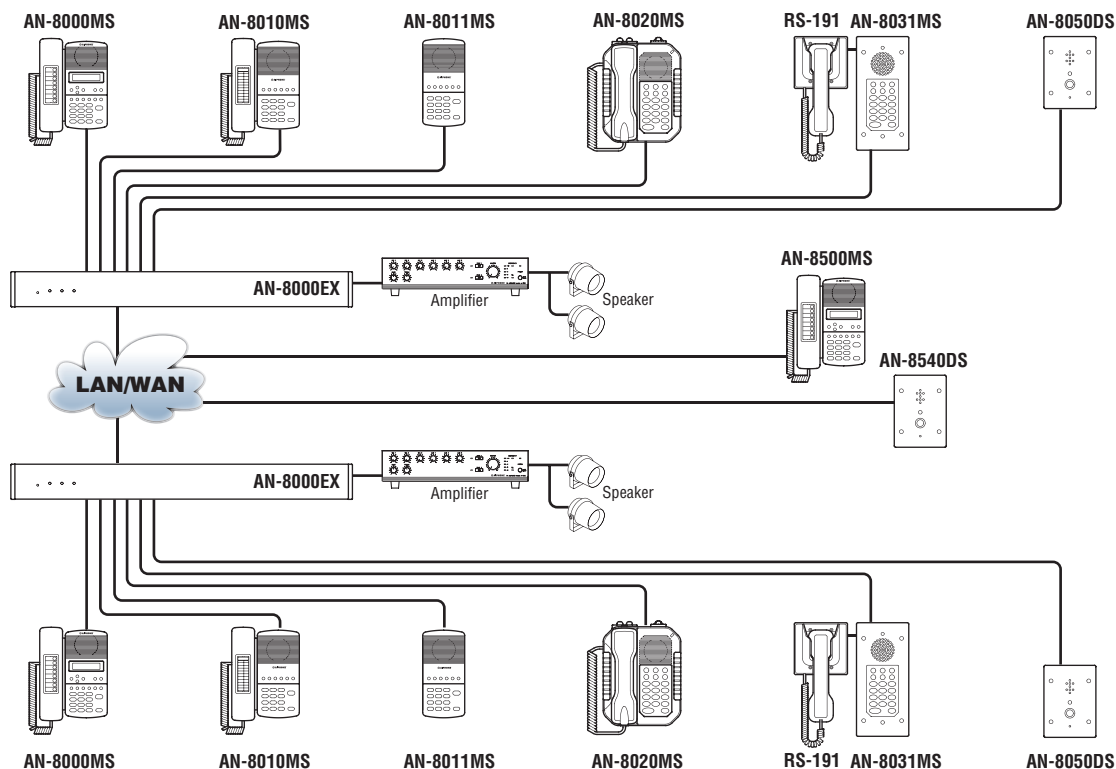
Exchange Units

AN-8000EX
Network Intercom
Exchange Unit

AN-8000MI
Network Intercom
Multi-Interface Unit

Exchange Unit – AN-8000EX

The IP Network Intercom Exchange allows a connection of up to sixteen AN-8000 Series stations and features two outputs for public address paging. Simultaneous hands-free conversation is possible between stations. The exchange is equipped with network interface allowing up to 80 total IP devices to be connected over a network. The exchange can be mounted in an EIA standard rack (1U required) or to a wall using the supplied brackets.

AN-8000EX, AN-8000MI

1-3/4"
16-1/2"
13-3/4"
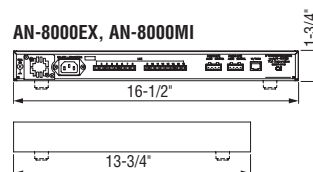
Multi-Interface Unit – AN-8000MI

The AN-8000MI is a multi-interface unit designed for use with Aiphone's AN-8000 intercom system. This unit adds centralized input/output contacts (door release, CCTV call-up, external device control, etc.), as well as two audio links (each programmable for use as paging line output, external background music input, or PBX E&M interface). The AN-8000MI can be intermixed with up to 80 total IP devices, IP intercom exchanges, or IP masters and door stations. The unit can be mounted in a standard 19" EIA rack (1U required) or wall mount using the supplied brackets.

Master Stations - Handset Communication

AN-8000MS
Master Station with
handset and display

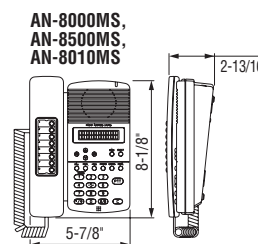**AN-8500MS**
IP Addressable
Master Station with
handset and display

AN-8010MS
Master Station
with handset

AN-8020MS
Industrial Master
Station with handset

Master Station – AN-8000MS

The AN-8000MS is designed to connect to the AN-8000EX and provides hands-free or handset conversation. The AN-8500MS is designed to connect directly to a LAN/WAN. In addition to the features of the standard master station (AN-8010MS), this multi-functional station provides LCD display, auto-dialer (enables one-touch dialing), headset terminal and an external speaker terminal. This station can be desk or wall mounted using the optional YC-280 wall mounting bracket.

**AN-8000MS,
AN-8500MS,
AN-8010MS**

2-13/16"
8-1/8"
5-7/8"

IP Addressable Master Station – AN-8500MS

The AN-8500MS connects directly to a LAN/WAN and provides hands-free or handset conversation. In addition to the features of the standard master station (AN-8010MS), this multi-functional station provides LCD display, auto-dialer (enables one-touch dialing), a headset terminal and an external speaker terminal. This station can be desk or wall mounted using the optional YC-280 wall mounting bracket. Also, the AN-8500MS utilizes 802.3af-compliant power-over-ethernet, or external 12V DC, power supply, AD-1210P.

Master Station – AN-8010MS

The AN-8010MS is designed to connect to the AN-8000EX. It provides hands-free or handset conversation. This station can be desk or wall mounted using the optional YC-280 wall mounting bracket.

Master Station – AN-8020MS

The AN-8020MS is designed to connect to the AN-8000EX and provides hands-free or handset conversation. It features dust and water-resistant construction and can be used in locations exposed to ambient temperatures ranging from -10°C to 50°C. In addition to the functions of the standard master station (AN-8010MS), the industrial-use station permits connection of an external speaker and provides an open-collector output for triggering external signalling devices. This station can be desk or wall mounted using the optional YC-280 wall mounting bracket.

AN-8020MS

3-7/8"
8-11/16"
6-1/4"
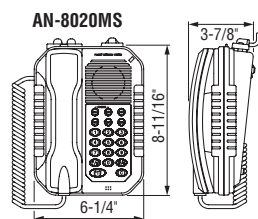
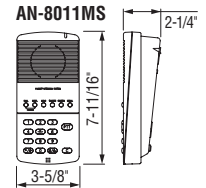## Master Stations - Hands-free Communication

AN-8011MS
Hands-free
Master Station

AN-8031MS
Hands-free
Master Station,
flush mount

Master Station – AN-8011MS

The AN-8011MS is designed to connect to the AN-8000EX and provides hands-free conversation. With its space-saving design, this station features the same functions as the standard (AN-8010MS). This master station can be desk or wall mounted using the optional YC-290 wall mounting bracket.

Master Station – AN-8031MS

The AN-8031MS is a flush mount master station designed to operate in conjunction with the AN-8000EX and features high quality hands-free conversation. Connecting a foot switch or other external switch to the external dial input terminal permits one-touch dialing operation by way of such switches. Handset conversation can be established in conjunction with the optional AN-RS191 handset device. This master station mounts in a standard 5-gang electrical box (2" min. depth) or mud ring.

AN-8011MS
2-1/4"
7-11/16"
3-5/8"

AN-8031MS
2"
10"
4-1/2"
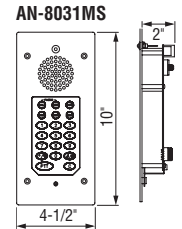
Door Stations

AN-8050DS
Door Station,
flush mount

AN-8050DSW
Door Station, weather
resistant, flush mount

AN-8540DS
IP Addressable
Door Station,
flush mount

Door Stations – AN-8050DS, AN-8050DSW, & AN-8540DS

The AN-8050DS, AN-8050DSW, and AN-8540DS are flush mount door stations designed to operate in conjunction with Aiphone's IP Intercom Exchange Unit and features high quality hands-free conversation. The AN-8050DSW is weather resistant for outdoor use. The AN-8540DS is designed to connect directly to a LAN/WAN and utilizes 802.3af-compliant power-over-ethernet, or external 12V DC, power supply, AD-1210P. All three can be used in locations where the ambient temperatures range from -10℃ to 50℃. An open-collector output is provided for controlling an electronic lock. These door stations mount in a standard 3-gang electrical box (2" min. depth) or mud ring.
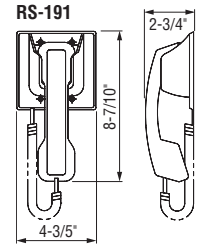
AN-8050DS,
AN-8050DSW,
AN-8540DS
2"
6-2/5"
4-1/2"
1/10"
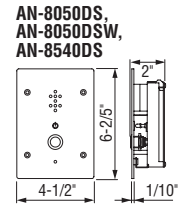
Handset

RS-191
Handset for use
with AN-8031MS,
wall mount

Handset – RS-191

The RS-191 is a handset designed to operate in conjunction with the AN-8031MS. This station provides handset conversation and privacy to a master with high sound quality. The RS-191 mounts in a standard 2-gang electrical box or mud ring.

RS-191
2-3/4"
8-7/10"
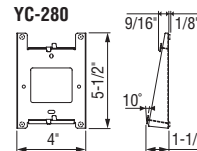4-3/5"

Wall Brackets & Back Boxes

YC-280
Wall Bracket

YC-290
Wall Bracket

YS-13A
3-gang Surface
Mount Box

YC-150
3-gang
Back Box

YC-251
5-gang Surface
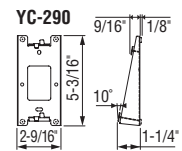Mount Box

YC-241
5-gang
Back Box

Wall Bracket – YC-280

The YC-280 is a wall bracket designed to mount the AN-8000MS, AN-8010MS, AN-8500MS and AN-8020MS.

Wall Bracket – YC-290

The YC-290 is a wall bracket designed to mount the AN-8011MS.

Surface Mount Boxes – YS-13A & YC-251

The YS-13A is a surface mount box designed to mount the AN-8050DS, AN-8050DSW, and AN-8540DS onto a wall or other flat surface. The YC-251 surface mounts the AN-8031.
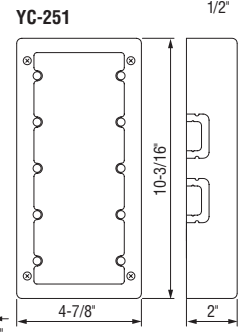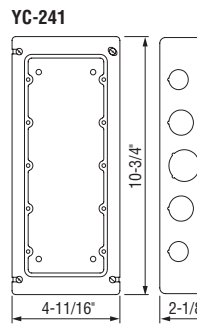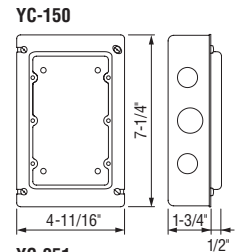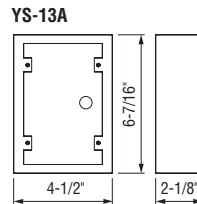
Back Boxes – YC-150 & YC-241

The YC-150 is a back box for flush mount installation for the AN-8050DS, AN-8050DSW, and AN-8540DS. The YC-241 is the back box for the AN-8031.

YC-280
9/16" 1/8"
5-1/2"
10°
4"
1-1/4"

YC-290
9/16" 1/8"
5-3/16"
10°
2-9/16"
1-1/4"

YS-13A
6-7/16"
4-1/2"
2-1/8"

YC-150
7-1/4"
4-11/16"
1-3/4"
1/2"

YC-241
10-3/4"
4-11/16"
2-1/8"
1/2"

YC-251
10-3/16"
4-7/8"
2"

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **35**

Video Intercoms

See & hear who's there

Since the introduction of the industry's first video intercom, Aiphone has been ahead of the curve in video entry security. Now exclusively color video, Aiphone units provide crystal clear video, crisp audio, and the peace of mind of knowing who's at the door before it's opened.

IS Series* - Structured Wire & Networked System
IP Intercom

NEW

IP Intercoms

Door/Sub Stations: MIX & MATCH up to 4 TOTAL Stations per IS-CCU

DOOR/SUB 4

IS-RS
Audio only Room Sub Station
→ p.27

IS-DV
Wide Angle Digital PanTilt and Zoom Video Door Station, zinc die cast, surface mount
→ p.26

IS-DVF
Wide Angle Digital PanTilt and Zoom Video Door Station, stainless steel, flush mount
→ p.26

IS-SS
Audio only Door Station, stainless steel, flush mount
→ p.27

SP-2570N
Ceiling speaker, 25/70V, 4W, flush mount
→ p.114

2 wires — 2 wires

EL-12S*
Door Strike
→ p.108
*May also be wired to IS-CCU

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

Central Control Unit

IS-CCU+
Central Control Unit

+**NOTE:** Maximum 4 Door/Sub Stations and 4 Master Stations per IS-CCU

CAT-5e/6 wire N/A from Aiphone (Max. 980')

IS-PU-UL
Power Supply, 48V DC, 2A
→ p.27

2 wires Aiphone #871802 (Max. 50')

CAT-5e/6 wire x 3 N/A from Aiphone (Max. 650')

Door/Sub Stations: MIX & MATCH up to 8 TOTAL Stations per IS-SCU

DOOR/SUB 16

IS-RS
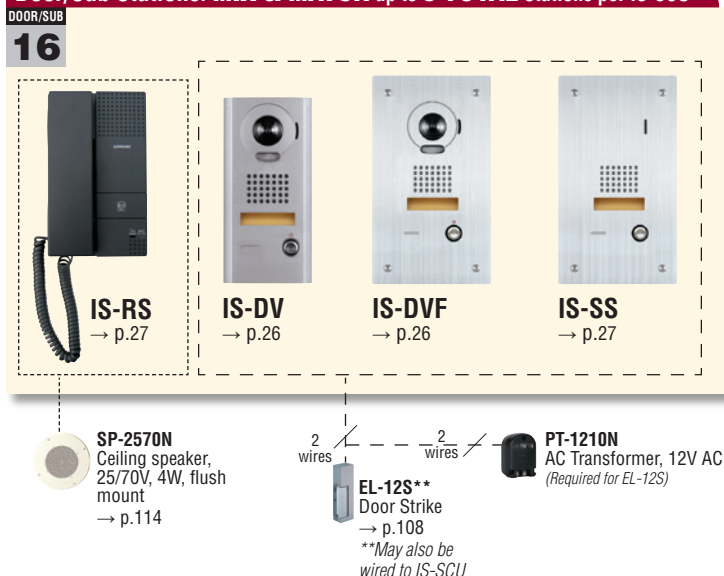→ p.27

IS-DV
→ p.26

IS-DVF
→ p.26

IS-SS
→ p.27

SP-2570N
Ceiling speaker, 25/70V, 4W, flush mount
→ p.114

2 wires — 2 wires

EL-12S**
Door Strike
→ p.108
**May also be wired to IS-SCU

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

Add-on Control Unit: Max. 2 per IS-CCU

CAT-5e/6 wire N/A from Aiphone (Max. 980')

IS-SCU‡
Add-on Central Control Unit

‡**NOTE:** Maximum 8 Door/Sub Stations and 8 Master Stations per IS-SCU

2 wires Aiphone #871802 (Max. 50')

IS-PU-UL
→ p.27

CAT-5e/6 wire x 2 N/A from Aiphone (Max. 650')

Features

NOTE: For features of the **IS Series** see **p.24**

Unit Dimensions & Descriptions

NOTE: For unit dimensions and descriptions of the **IS Series** see **p.26 ~ p.27**

Specifications

NOTE: For specifications of the **IS Series** see **p.25**

Room Station Control Unit: Max. 4 per IS-CCU

IS-RCU*
Room Station Control Unit

***NOTE:** Maximum 30 Room Stations per IS-RCU

2 wires Aiphone #871802 (Max. 50')

IS-PU-UL
→ p.27

***To learn how to expand the IS Series over a network, see p.24**

Master Station: Up to **4 TOTAL** Stations per IS-CCU

MASTER
4

CAT-5e/6 wire
N/A from
Aiphone
(Max. 980')

IS-MV
Video Master Station
→ p.27

Master Station: Up to **8 TOTAL** Stations per IS-SCU

MASTER
16

CAT-5e/6 wire
N/A from
Aiphone
(Max. 980')

IS-MV
Video Master Station
→ p.27

Room Stations: **MIX & MATCH** up to **30 TOTAL** Stations per IS-RCU

ROOM
120

CAT-5e/6 wire
N/A from
Aiphone
(Max. 980')

IS-RS
→ p.27

IS-SS
→ p.27

2 wires

EL-12S
Door
Strike
→ p.108

2 wires

PT-1210N

SP-2570N
Ceiling speaker,
25/70V, 4W, flush
mount
→ p.114

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **39**

Preliminary Information - subject to change

AX Series
Integratable Audio/Video Security

Video Intercoms

Door Stations: MIX & MATCH up to 120 TOTAL AX Door/Sub Stations

DOOR/SUB **120**

Audio & Video

AX-DV
Fixed Video Door Station, aluminum die cast, surface mount → p.96

AX-DVF
Fixed Video Door Station, stainless steel, flush mount → p.96

AX-DV-P*
Fixed Video Door Station with an embedded HID® ProxPoint® Plus Proximity Card Reader, aluminum die cast, surface mount → p.96

AX-DV-XP*
Fixed Video Door Station with an embedded Stand-Alone Card Reader and host controller, aluminum die cast, surface mount → p.96

AX-DVF-P*
Fixed Video Door Station with an embedded HID® ProxPoint® Plus Proximity Card Reader, stainless steel, flush mount → p.96

AX-DVF-XP*
Fixed Video Door Station with an embedded Stand-Alone Card Reader and host controller, stainless steel, flush mount → p.96

Audio Only

AX-DM
Door Station, plastic cover, mullion surface mount → p.96

AX-SS NEW
Amplified Door Station, stainless steel, flush mount → p.97

IF-DA
Door Station, plastic cover, surface mount → p.102

IE-DC
Door Station, plastic and aluminum cover, surface mount → p.102

IE-JA
Door Station, stainless steel, flush mount → p.102

IE-SS
Door Station, stainless steel, flush mount → p.102

IE-SSR
Door Station, stainless steel, red mushroom call button, flush mount → p.102

IE-SSV*
Door Station with a built-in CCTV camera, stainless steel, flush mount *(Requires AXW-AZ)* → p.102

Additional wiring and/or equipment required

Central Exchange Units (required)

AX-084C
Central Exchange Unit for 8 doors/subs and 4 masters

AX-248C
Central Exchange Unit for 24 doors/subs and 8 masters

CAT-5e wire N/A from Aiphone (Max. 980')

CAT-5e wire N/A from Aiphone (Max. 16')

2x2 wires Aiphone #822202 (Max. 33')

x2

PS-2420UL
Power Supply 24V DC, 2A → p.116

2x2 wires Aiphone #822202 (Max. 33')

Central Exchange Add-on Unit (optional)

AX-320C
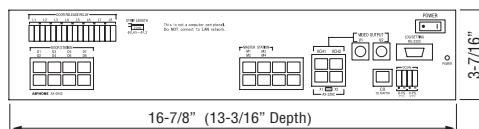Add-on Exchange Unit for 32 doors/subs

Features

- CAT-5e wiring homerun from each station
- Up to 8 masters and 120 door stations
- Two talk channels
- Hands-free (VOX) or push-to-talk (PTT) communication
- Selective calling between masters, and from masters to door/sub stations
- Masters available with 3.5" color TFT LCD monitor
- Composite video output from CEU and video masters
- Normal or priority call levels
- Data output on CEU provides custom integration capability with CCTV and access control systems*
- PC programmable with a large variety of settings
- All Call or Group Call to master stations only
- Compatible with IE and IF Series door stations
- Transfer calls to an outside phone line (requires Viking Model K-1900-5 programmable dialer)
- Scan monitoring
- Optional Features: Headset, footswitch, call transfer to telephone, and PC remote control*

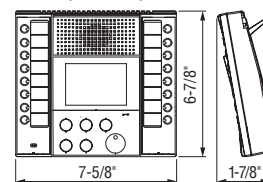** Interface requires custom program (not supplied by Aiphone)*

Unit Dimensions

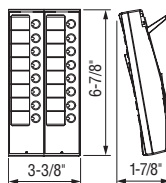**NOTE:** For unit dimensions of the **IE Series** door stations see **p.102**

AX-084C, AX-248C, AX-320C
16-7/8" (13-3/16" Depth)
3-7/16"

AX-8M, AX-8MV, AX-8MV-W
6-7/8"
7-5/8"
1-7/8"

AX-16SW
6-7/8"
3-3/8"
1-7/8"

AX-DM
6-5/16"
1-11/16"
7/8"

AX-DV
7-11/16"
3-15/16"
1"

AX-DVF
9-11/16"
5-3/4"
1-7/8"

AX-DV-P, AX-DV-XP
9-5/8"
3-15/16"
1"

AX-DVF-P, AX-DVF-XP
11-5/8"
5-3/4"
1-7/8"
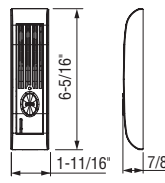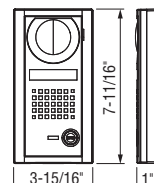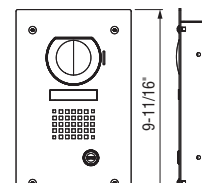
AX-A, AX-AN
7-1/16"
5-5/8"
2-3/16"
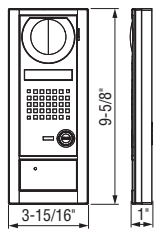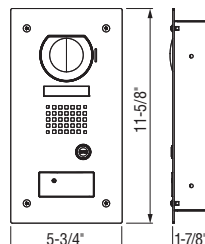
AX-B, AX-BN
8-3/16"
6"
5/8"
9/16"
3/4"
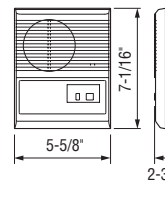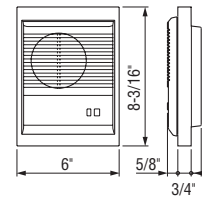
AX-SS
4-3/4"
3-5/16"
4-3/4"
2"

Inside Stations: Select up to 8 Master Stations

INSIDE 8

AX-8MV
Video Master Station, wall or desk mount

AX-8M
Audio Only Master Station, wall or desk mount
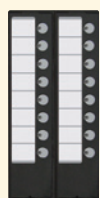
AX-16SW
16-Call Add-on Selector

AX-8MV-W
WHITE Video Master Station, wall or desk mount *(Up to max. of 8 door stations and 8 master stations)*

CAT-5e wire
N/A from Aiphone
(Max. 980')

CAT-5e wire
N/A from Aiphone
(Max. 980')

Sub Stations: MIX & MATCH
Up to **120 TOTAL** AX Door/Sub Stations

DOOR/SUB 120

AX-A
Sub Station, surface mount → p.97

AX-AN
Privacy Sub Station, surface mount → p.97

AX-B
Sub Station, semi-flush mount → p.97

AX-BN
Privacy Sub Station, semi-flush mount → p.97

Options & Accessories

XP-KIT
Includes keypad *(XRP3)*, programming cards, and 10 blank entry cards *(XC4/9)* → p.109

XP-SS *NEW*
Accessory Station with an embedded Stand-Alone Card Reader with host controller → p.109

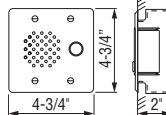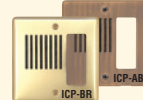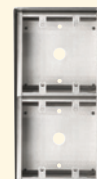**HID-SS**
Accessory Station with an embedded HID® Proximity Card Reader → p.109

ICP-BR
Brass Faceplate for IE-JA → p.108
& ICP-AB
Antique Brass Faceplate for IE-JA → p.108

SBX-2G
Surface Mount Box for AX-SS, IE-JA, IE-SS, IE-SSR, and IE-SSV → p.105

SBX-2BV
Vertical Mount Box for HID-SS, IE-SS, IE-SSR, and IE-SSV *(Horizontal mount also available - SBX-2BH)* → p.105

SBX-AXDVF
Surface Mount Box for AX-DVF → p.106

SBX-AXDV30
30° Angle Box for AX-DV → p.107

SBX-DVF-P
Surface Mount Box for AX-DVF-P/XP → p.106

SBX-LSP
Security Lock Box for AX-DVF-P/XP *(Lock not included)* → p.107

AXW-AZ
CCTV Camera Input Module → p.111

AXW-AVT
Door Station IP or Fiber Optic Transmission Interface Unit → p.111

AXW-AVR
Door Station Fiber Optic Reception Interface Unit → p.111

EL-12S
Electric Door Strike, 12V AC/DC, 200mA *(Requires PT-1210N)* → p.108

IER-2
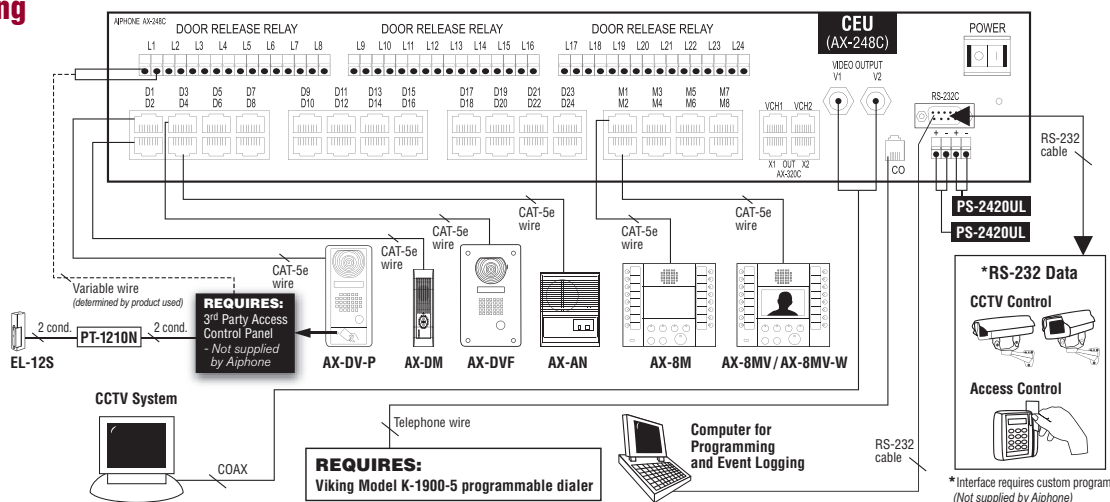Call Extension Speaker → p.108

AXW-PA1
Paging Adaptor → p.113

RY-ES *NEW*
External Signaling Relay → p.110

RY-24L
Form C Door Release Relay *(1 per door)* → p.109

Wiring

AIPHONE AX-248C

DOOR RELEASE RELAY
L1 L2 L3 L4 L5 L6 L7 L8

DOOR RELEASE RELAY
L9 L10 L11 L12 L13 L14 L15 L16

DOOR RELEASE RELAY
L17 L18 L19 L20 L21 L22 L23 L24

CEU (AX-248C)

POWER

VIDEO OUTPUT V1 V2

RS-232C

D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D20 D21 D22 D23 D24 M1 M2 M3 M4 M5 M6 M7 M8

VCH1 VCH2

X1 OUT X2
AX-320C

CO

RS-232 cable

PS-2420UL
PS-2420UL

CAT-5e wire (multiple)

Variable wire (determined by product used)

REQUIRES: 3rd Party Access Control Panel - Not supplied by Aiphone

2 cond. **PT-1210N** 2 cond.

EL-12S

AX-DV-P **AX-DM** **AX-DVF** **AX-AN** **AX-8M** **AX-8MV / AX-8MV-W**

***RS-232 Data**

CCTV Control

Access Control

RS-232 cable

CCTV System

COAX

Telephone wire

REQUIRES: Viking Model K-1900-5 programmable dialer

Computer for Programming and Event Logging

*Interface requires custom program (Not supplied by Aiphone)

Specifications

Power source	24V DC - Use two PS-2420UL
Calling	Tremolo and LED 10~600 secs. (programmable) or infinite
Communication	Push TALK button to reply, communication times out in 30~600 secs. (programmable)
Video Monitor	3-1/2" direct view TFT color LCD
Scanning Line	525 lines
Camera	1/4" color CCD camera - 250,000 pixels
Night Viewing	5 Lux at 1' distance with LED projected
Door Release	Programmable N/O or N/C dry contact, 24V AC/DC, 500mA max. Use RY-24L for larger contact rating
Wiring	Homerun CAT-5e wire to CEU
Distance	Door stations to CEU: 980' CEU to master stations: 980'
Wire type	CEU to master stations: CAT-5e
Video Door stations to CEU: CAT-5e   IE door stations to CEU: CAT-5e

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions.

JK Series
Hands-free Video with PanTilt & Zoom

Door Stations - Select 1 unit

DOOR 1

JK-DA
Wide Angle Digital PanTilt and Zoom Video Door Station, plastic cover, surface mount
→ p.100

JK-DV
Wide Angle Digital PanTilt and Zoom Video Door Station, zinc die cast, surface mount
→ p.100

JK-DVF
Wide Angle Digital PanTilt and Zoom Video Door Station, stainless steel, flush mount
→ p.100

JK-DVF-HID
Wide Angle Digital PanTilt and Zoom Video Door Station with an embedded HID® ProxPoint® Plus Proximity Card Reader, stainless steel, flush mount
→ p.100

JK-DVF-XP
Wide Angle Digital PanTilt and Zoom Video Door Station with an embedded Stand-Alone Card Reader and host controller, stainless steel, flush mount
→ p.100

JK-DVF-AC
Wide Angle Digital PanTilt and Zoom Video Door Station with an embedded access keypad, stainless steel, flush mount
→ p.100

Inside Stations - Select 1 unit

INSIDE 1

JK-1MD
Master Station with video monitor

JK-1MED
Master Station with video monitor and Picture Memory

2 wires
Aiphone
#871802
(Max. 330')

2 wires

EL-12S
Door Strike

2 wires

2 wires

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)
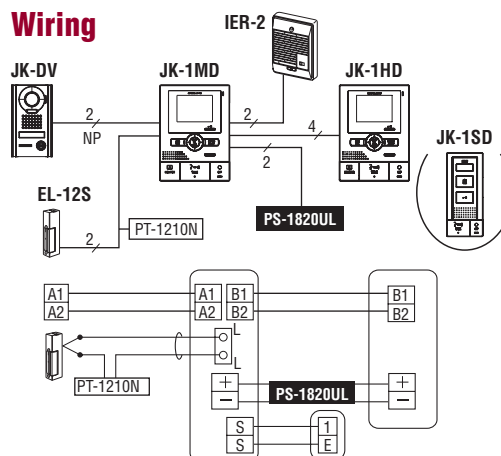
2 wires
Aiphone #871802
(Max. 33')

PS-1820UL
Power Supply, 18V DC, 2A
→ p.116

4 wires
Aiphone #871804
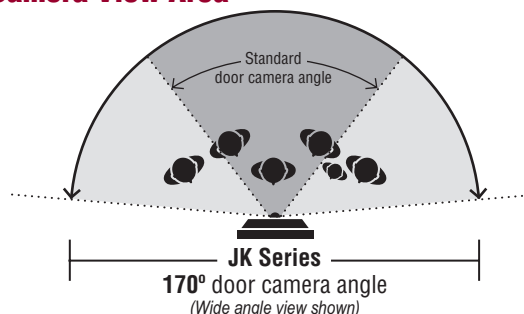(Max. 330' between door station and farthest sub)

Features

- Quick and easy to install - Only 2 wires!
- No handset to pick up
- Compact, attractive design complements most interiors
- Hands-free (VOX) or push-to-talk (PTT) communication
- High resolution color TFT LCD monitor
- Includes single N/O door release contact
- Camera station can be monitored from inside
- All monitors turn on when camera station calls in
- Wide angle camera allows user to view up to 170° of the entire entry
- Camera view features digital PanTilt and zoom
- Entry can be monitored without alerting visitors they are being viewed, even at night
- Camera position and zoom can be set for call-in
- Camera can be manually adjusted to compensate for bright illumination
- Picture memory records up to 240 images in both wide angle or preset zoom view (JK-1MED only)
- Video out to DVR via supplied connector
- Can go online using the JKW-IP Video Intercom Adaptor

Wiring

JK-DV   JK-1MD   IER-2   JK-1HD   JK-1SD

2 / NP   2   4   2

EL-12S   PT-1210N   PS-1820UL

A1   A1   B1   B1
A2   A2   B2   B2
          L
PT-1210N   PS-1820UL   +   −
          S   1
          S   E

Camera View Area

Standard door camera angle

JK Series
170° door camera angle
(Wide angle view shown)

Video Intercoms

Inside Stations - Select 1 unit *(optional)*

JK-1HD
Sub Master Station with video monitor

JK-1SD
Audio Only Sub Master Station

Options & Accessories

XP-KIT
Includes keypad *(XRP3)*, programming cards, and 10 blank entry cards *(XC4/9)*
→ p.109

AC-10S
Access Control Keypad, die cast to match JK-DV
→ p.110

KAW-D
30° Angle Box for JK-DA
→ p.107

MKW-P
1-Gang Mounting Plate for JK-DV
→ p.118

KMB-45
Mullion Mounting Bracket for JK-DA
→ p.107

SBX-LSE
Security Lock Box for JK-DV and JK-DVF *(Lock not included)*
→ p.107

SBX-LSP
Security Lock Box for JK-DVF-HID and JK-DVF-XP
→ p.107

SBX-DV30
30° Angle Box for JK-DV
→ p.107

SBX-DVF
Surface Mount Box for JK-DVF
→ p.106

SBX-DVF-P
Surface Mount Box for JK-DVF-HID and JK-DVF-XP
→ p.106

SBX-ACE
Surface Mount Box for intercom and access control device
→ p.105

JKW-IP
IP Video Intercom Adaptor
→ p.28

JKW-BA
Long Distance Door Station Adaptor
→ p.110

EL-12S
Electric Door Strike, 12V AC/DC, 200mA *(Requires PT-1210N)*
→ p.108

RY-18L
Form C Door Release Relay
→ p.109

IER-2
Call Extension Speaker
→ p.108

RY-ES NEW
External Signaling Relay
→ p.110
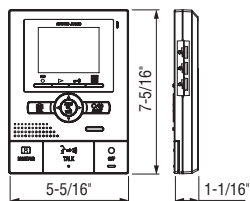
MCW-S/A
Monitor Desk Stand
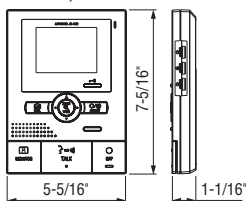→ p.118

Boxed Sets

JKS-1AD: JK-1MD, JK-DA, and power supply
JKS-1ADV: JK-1MD, JK-DV, and power supply
JKS-1ADF: JK-1MD, JK-DVF, and power supply
JKS-1AED: JK-1MED, JK-DA, and power supply
JKS-1AEDV: JK-1MED, JK-DV, and power supply
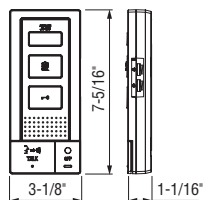**JKS-1AEDF:** JK-1MED, JK-DVF, and power supply
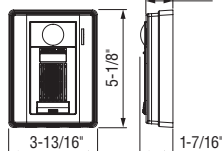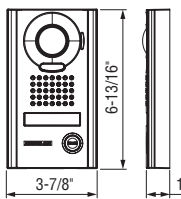
Unit Dimensions

JK-1MED

7-5/16"
5-5/16" 1-1/16"

JK-1MD, JK-1HD

7-5/16"
5-5/16" 1-1/16"

JK-1SD

7-5/16"
3-1/8" 1-1/16"

JK-DA

1-1/4"
5-1/8"
3-13/16" 1-7/16"

JK-DV

6-13/16"
3-7/8" 1"

JK-DVF

8-1/4"
5-5/16" 1-7/8"

JK-DVF-XP, JK-DVF-HID

11-5/8"
5-3/4" 1-3/4"

JK-DVF-AC

11-5/8"
5-3/4" 1-3/4"

Specifications

Power Source	18V DC - Use PS-1820UL
Calling	Chime, image and audio approx. 45 sec.
Communication	AUTOMATIC (hands-free) - to activate, momentarily push TALK button MANUAL (push-to-talk / release-to-listen) - to activate, push TALK button for at least 1 sec. or until talk LED turns on / a beep sounds
Video Monitor	3-1/2" direct-view TFT color LCD
Scanning Line	525 lines
Min. Illumination	5 Lux at 1' distance
Night Viewing	5 Lux at 1' with LED projected
Picture Memory	Record max. 240 images (40 image sequences at 6 frames per sequence), save max. 10 recorded pictures
Door Release	Contact rating: 24V AC/DC, 500mA Use RY-18L for larger contact rating
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded Master to sub: 4-cond., mid cap, solid, non-shielded
Distance	Door to farthest master/sub master: 165'(22AWG) 330'(18AWG) Master to IER-2: 245'(22AWG) 490'(18AWG)
Wire Type	Master to door: Aiphone #871802 Between masters/subs: Aiphone #871804

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **43**

Video Intercoms

JF Series
Hands-free Video

Door Stations - Select 1 unit

DOOR 1

JF-DA
Fixed Video Door Station, plastic cover, surface mount
→ p.99

JF-DV
Fixed Video Door Station, zinc die cast, surface mount
→ p.99

JF-DVF
Fixed Video Door Station, stainless steel, flush mount
→ p.99

JF-DVF-XP
Fixed Video Door Station with an embedded Stand-Alone Card Reader and host controller, stainless steel, flush mount
→ p.99

JF-DVF-HID-I
Fixed Video Door Station with an embedded HID® iCLASS® Smart Card Reader, stainless steel, flush mount
→ p.99

JF-DVF-HID
Fixed Video Door Station with an embedded HID® ProxPoint® Plus Proximity Card Reader, stainless steel, flush mount
→ p.99

Door Stations - Select 1 unit *(optional)*

DOOR 2

JF-DA
→ p.99

JF-DV
→ p.99

JF-DVF
→ p.99

JF-DVF-XP
→ p.99

JF-DVF-HID
→ p.99
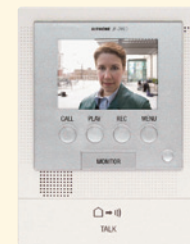
JF-DVF-HID-I
→ p.99

JF-D
Audio Only Door Station, plastic cover, surface mount
→ p.101

JBW-M
CCTV Input Module
→ p.111

Inside Station

INSIDE 1

JF-2MED
Master Station with video monitor and Picture Memory

2 wires
Aiphone #871802
(Max. 330')

EL-12S Door Strike

PT-1210N AC Transformer, 12V AC
(Required for EL-12S)

2 wires

2 wires

RY-3DL Selective Door Release Adaptor

6 wires

2 wires

EL-12S Door Strike

PT-1210N AC Transformer, 12V AC
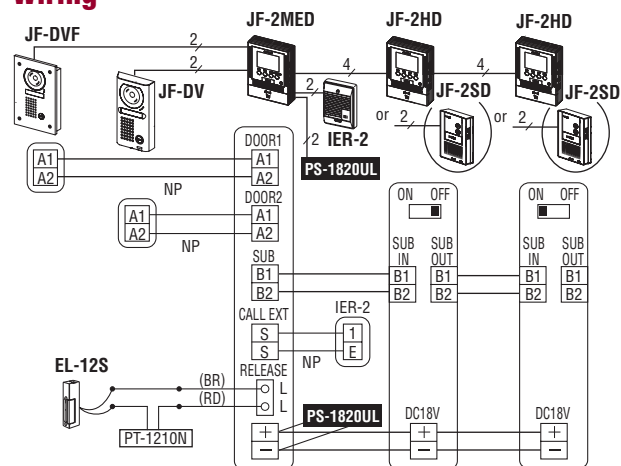*(Required for EL-12S)*

2 wires

2 wires
Aiphone #871802
(Max. 33')

4 wires
Aiphone #871804
(Max. 330' between master and farthest sub)

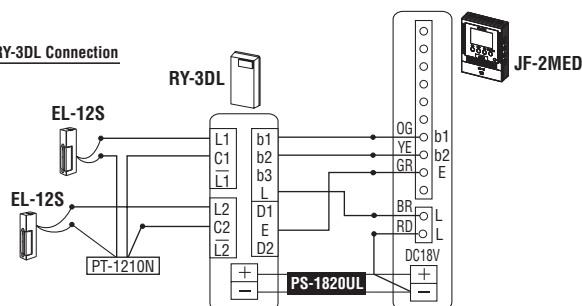**PS-1820UL** Power Supply, 18V DC, 2A
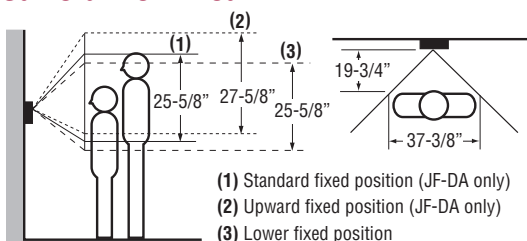→ p.116

2 wires
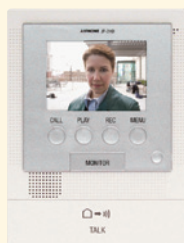Aiphone #871802
(Max. 330')

Features

- Quick and easy to install - Only 2 wires!
- No handset to pick up
- Compact, attractive design complements most interiors
- Hands-free (VOX) or push-to-talk (PTT) communication
- Expandable to three inside and two door stations
- Leave a voice memo to replay at inside stations
- Pre-record entrance messages (manually controlled from master)
- Single or selective door release with RY-3DL
- Camera station can be monitored from inside
- All monitors turn on when camera station calls in
- Embedded card readers
- All Call to inside master and sub stations
- Video out to DVR via supplied connector

Camera View Area

(1) Standard fixed position (JF-DA only)
(2) Upward fixed position (JF-DA only)
(3) Lower fixed position

25-5/8" 27-5/8" 25-5/8"
19-3/4"
37-3/8"

Wiring

JF-DVF
JF-DV
JF-2MED
JF-2HD
JF-2HD
JF-2SD
JF-2SD

IER-2
PS-1820UL

A1 A2
A1 A2 DOOR1
A1 A2 DOOR2 NP
NP
SUB B1 B2
CALL EXT S S
IER-2 1 E
RELEASE NP
EL-12S
(BR) (RD) L L
PS-1820UL
PT-1210N

ON OFF
SUB IN B1 B2
SUB OUT B1 B2
DC18V + −

ON OFF
SUB IN B1 B2
SUB OUT B1 B2
DC18V + −

RY-3DL Connection

RY-3DL
JF-2MED
EL-12S
L1 C1 L1
EL-12S
L2 C2 L2
PT-1210N
b1 b2 b3 L D1 E D2
PS-1820UL
OG YE GR
b1 b2 E
BR RD L L
DC18V + −

Video Intercoms

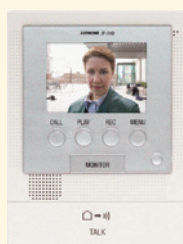## Inside Stations - Select 1 unit *(optional)*

INSIDE 2

JF-2HD
Sub Master Station with video monitor

JF-2SD
Audio Only Sub Master Station

Inside Stations - Select 1 unit *(optional)*

INSIDE 3

4 wires
Aiphone #871804
(Max. 330' between master and farthest sub)

JF-2HD
Sub Master Station with video monitor

JF-2SD
Audio Only Sub Master Station

Options & Accessories

XP-KIT
Includes keypad *(XRP3)*, programming cards, and 10 blank entry cards *(XC4/9)*
→ p.109

AC-10S
Access Control Keypad, die cast to match JF-DV
→ p.110

KAW-D
30° Angle Box for JF-DA
→ p.107

MKW-P
1-Gang Mounting Plate for JF-DV
→ p.118

KMB-45
Mullion Mounting Bracket for JF-DA
→ p.107

SBX-LSE
Security Lock Box for JF-DV and JF-DVF
(Lock not included)
→ p.107

SBX-LSP
Security Lock Box for JF-DVF-XP, JF-DVF-HID, and JF-DVF-HID-I
(Lock not included)
→ p.107

SBX-DV30
30° Angle Box for JF-DV
→ p.107

SBX-DVF
Surface Mount Box for JF-DVF
→ p.106

SBX-DVF-P
Surface Mount Box for JF-DVF-XP, JF-DVF-HID, and JF-DVF-HID-I
→ p.106

SBX-ACE
Surface Mount Box for intercom and access control device
→ p.105

MKW-DK/A
Motion Detector Adaptor for video door station
→ p.117

JBW-BA
Long Distance Door Station Adaptor
→ p.110

IER-2
Call Extension Speaker
→ p.108

EL-12S
Electric Door Strike, 12V AC/DC, 200mA
(Requires PT-1210N)
→ p.108

RY-3DL
Selective Door Release Adaptor
→ p.108

RY-18L
Form C Door Release Relay
(1 per door)
→ p.109

RY-ES
External Signaling Relay
→ p.110

MCW-S/A
Monitor Desk Stand
→ p.118

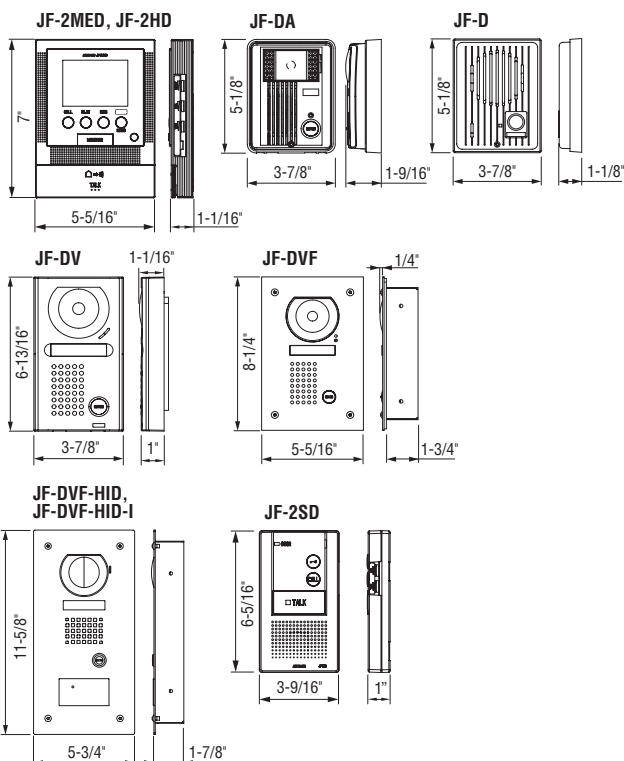## Boxed Sets

JFS-2AED: JF-2MED, JF-DA, and power supply
JFS-2AEDV: JF-2MED, JF-DV, and power supply
JFS-2AEDF: JF-2MED, JF-DVF, and power supply

Unit Dimensions

JF-2MED, JF-2HD
7"
5-5/16"
1-1/16"

JF-DA
5-1/8"
3-7/8"
1-9/16"

JF-D
5-1/8"
3-7/8"
1-1/8"

JF-DV
6-13/16"
3-7/8"
1-1/16"
1"

JF-DVF
8-1/4"
5-5/16"
1/4"
1-3/4"

JF-DVF-HID, JF-DVF-HID-I
11-5/8"
5-3/4"
1-7/8"

JF-2SD
6-5/16"
3-9/16"
1"

Specifications

Power Source	18V DC - Use PS-1820UL
Calling	Chime, image and audio approx. 45 sec.
Communication	AUTOMATIC (hands-free) - to activate, momentarily push TALK button MANUAL (push-to-talk / release-to-listen) - to activate, push TALK button for 2 sec. or until talk LED turns on
Video Monitor	3-1/2" direct-view TFT color LCD
Scanning Line	525 lines
Night Viewing	5 Lux at 1' distance with LED projected
Picture Memory	Record max. 50 images (8 pictures/image, 1 shot for each sec.) Save max. 10 recorded pictures
Voice Memo	Record max. 3 voice memos (max. approx. 15 sec. /memo)
Msg. for Entrance	Record max. 2 messages (max. approx. 10 sec. /message)
Door Release	Contact rating: 24V AC/DC, 500mA Use RY-18L for larger contact rating or RY-3DL for 2 doors
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded Master to sub: 4-cond., mid cap, solid, non-shielded
Distance	Door to master: 165'(22AWG) 330'(18AWG) Master to farthest sub master: 165'(22AWG) 330'(18AWG) Master to IER-2: 245'(22AWG) 490'(18AWG)
Wire Type	Master to door: Aiphone #871802 Between masters/subs: Aiphone #871804

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **45**

JA Series
Hands-free Video with PanTilt

Video Intercoms

Door Stations - Select 1 unit
DOOR 1

JA-DAC
PanTilt Video
Door Station,
plastic cover,
surface mount
→ p.98

JA-DGC
PanTilt Video
Door Station,
aluminum panel,
semi-flush mount
→ p.98

JA-DGV
PanTilt Video
Door Station,
stainless steel,
flush mount
→ p.98

Door Stations - Select 1 unit *(optional)*
DOOR 2

JA-DAC
→ p.98

JA-DGC
→ p.98

JA-DGV
→ p.98

JA-D
Audio Only Door Station,
plastic cover, surface mount
→ p.101

JAW-AZ
CCTV Input Module
→ p.111

CCTV - Install up to 2 additional cameras *(optional)*
CCTV 1 & CCTV 2

JAW-AZ
CCTV Input
Module
→ p.111

2 wires
Aiphone
#871802
(Max. 330')

2 wires

2 wires

EL-12S
Door
Strike

PT-1210N
AC Transformer,
12V AC
(Required for EL-12S)

2 wires
Aiphone
#871802
(Max. 330')

2 wires

EL-12S
Door
Strike

2 wires

PT-1210N
AC Transformer,
12V AC
(Required for EL-12S)

2 wires
Aiphone
#871802
(Max. 330')

Inside Stations - Select 1 unit
INSIDE 1

JA-2MCD
Master Station with
PanTilt video monitor

JA-2MECD
Master Station with
PanTilt video monitor
and Picture Memory

4 wires
Aiphone
#871804
(Max. 330'
between master
and farthest sub)

2 wires
Aiphone
#871802
(Max. 33')

PS-2420UL
Power Supply,
24V DC, 2A
→ p.116

Features

- Hands-free (VOX) or push-to-talk (PTT) communication
- Instant voice call-in with image
- Built-in video output (RCA out)
- All Call to inside stations
- Visual monitoring with audio
- Two door release contacts for selective control
- Built-in picture memory (JA-2MECD only)
- Transfer of door station call to other inside stations
- Video out to DVR via supplied connector

Wiring

JA-DAC

JA-2MECD,
JA-2MCD

JA-2HCD

JA-2HCD

Motion sensor — JAW
CCTV camera —

EL-12S
PT-1210N

4

4

JA-2SD

JA-2SD

or 2

or 2

JA-DAC
| A1 | NP | A1 |
| A2 | | A2 | DOOR1

JA-D

or

JA-DAC
| A1 | NP | A1 |
| A2 | | A2 | DOOR2

| B1 | B1 | B1 | B1 | B1 |
| B2 | B2 | B2 | B2 | B2 |

DC24V
+

PS-2420UL

+

+

A
OFF

A
ON

JAW-AZ
Motion sensor — NP
CCTV camera —
| C1 |
| C2 | ADAPTER-1

JAW-AZ
Motion sensor — NP
CCTV camera —
| C1 |
| C2 | ADAPTER-2

IER-2

CALL EXT
| S | NP | 1 |
| S | | E |

EL-12S
PT-1210N
EL-12S
| L1 | L1 |
| L2 | L2 |

NOTE: Wiring for JA-2SD;
two wires only,
+ / - wires are
not necessary, B1, B2
is marked with
SUB IN, SUB OUT

Camera View Area

87"
36"
51"
60"
20"

20"
70"

Video Intercoms

Inside Stations - Select 1 unit (optional)

INSIDE **2**

JA-2HCD
Sub Master
Station with
PanTilt video
monitor

JA-2SD
Audio Only
Sub Master
Station

Inside Stations - Select 1 unit (optional)

INSIDE **3**

4 wires
Aiphone
#871804
(Max. 330'
between
master and
farthest sub)

JA-2HCD
Sub Master
Station with
PanTilt video
monitor

JA-2SD
Audio Only
Sub Master
Station

Options & Accessories

KAW-D
30° Angle Box
for JA-DAC
→ p.107

KMB-45
Mullion Mounting
Bracket for JA-DAC
and JA-D
→ p.107

SBX-ACE
Surface Mount
Box for intercom
and access
control device
→ p.105

SBX-DGV
Surface Mount
Box for JA-DGV
→ p.106

MKW-DK/A
Motion Detector
Adaptor for video
door station
→ p.117

JBW-BA
Long Distance
Door Station
Adaptor
→ p.110

EL-12S
Electric Door Strike,
12V AC/DC, 200mA
(Requires PT-1210N)
→ p.108

RY-24L
Form C Door
Release Relay
(1 per door)
→ p.109

RY-ES
External
Signaling
Relay
→ p.110

IER-2
Call Extension
Speaker
→ p.108

MCW-S/A
Monitor
Desk Stand
→ p.118

Boxed Sets

JA Series Box Set

JAS-2MCD: JA-2MCD, JA-DAC, and power supply
JAS-2MECD: JA-2MECD, JA-DAC, and power supply

Unit Dimensions

JA-2MECD   8-1/4"   6-1/4"   1-5/8"

JA-2MCD, JA-2HCD   8-1/4"   6-1/4"   1-5/8"

JA-DAC   5-1/8"   3-7/8"   1-3/4"   1-7/8"

JA-DGC   6-11/16"   4-1/2"   3-5/8"   1-1/2"   1/2"   3/4"

JA-D   5-1/8"   3-7/8"   1-1/8"

JA-DGV   2-11/16"   10-3/16"   7-5/16"   7/16"   5/8"

JA-2SD   8-1/4"   3-1/4"   1-9/16"

Specifications

Power Source	24V DC - Use PS-2420UL
Calling	Chime, image and audio approx. 30 sec.
Communication	AUTOMATIC (hands-free) - to activate, momentarily push TALK button MANUAL (push-to-talk / release-to-listen) - to activate, push TALK button for 2 sec. or until talk LED turns on
Video Monitor	4" direct-view TFT color LCD
Scanning Line	525 lines
Image View Area	Approx. 2' horizontal, 3'8"~7'9" vertical at 4'3" high and at 20" in front of camera Night Viewing 5 Lux at 1' distance with LED projected
Picture Memory	Record max. 16 sets of 4 pictures in quad mode, 32, or 60 individual pictures
Door Release	Contact rating: 24V AC/DC 500mA Use RY-24L for larger contact rating, one per door
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded Master to subs: 4-cond., mid cap, solid, non-shielded
Distance	Master to door: 165'(22AWG) 330'(18AWG) Master to farthest sub: 165'(22AWG) 330'(18AWG) Master to IER-2: 245'(22AWG) 490'(18AWG)
Wire Type	Master to door: Aiphone #871802 Between masters/subs: Aiphone #871804

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **47**

KB Series
Video Entry with Tilt

Door Stations - Select 1 unit

DOOR 1

KB-DAR
Tilt Video Door Station, plastic cover, surface mount
→ p.101

KB-DAR-M
Tilt Video Door Station, motion detector interface, plastic cover, surface mount
→ p.101

Inside Station

INSIDE 1

KB-3MRD
Master Station with video monitor

2 wires
Aiphone #871802
(Max. 650')

2 wires
Aiphone #871802
(Max. 330' between master and farthest sub)

Door Stations - Select 1 unit *(optional)*

DOOR 2

KB-DAR
→ p.101

KB-DAR-M
→ p.101

KBW-M
CCTV Input Module
→ p.112

2 wires
Aiphone #871802
(Max. 650')

2 wires
Aiphone #871802
(Max. 33')

Door Stations - Select 1 unit *(optional)*

DOOR 3

KB-DAR & KB-DAR-M
→ p.101

KBW-M
→ p.112

AX-DM
Door Station, plastic cover, mullion surface mount
→ p.96

IF-DA
Door Station, plastic cover, surface mount
→ p.102

IE-DC
Door Station, plastic and aluminum cover, surface mount
→ p.102

IE-JA
Door Station, stainless steel, flush mount
→ p.102

IE-SS
Door Station, stainless steel, flush mount
→ p.102

IE-SSR
Door Station, stainless steel, red mushroom call button, flush mount
→ p.102

EL-12S Door Strike

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

RY-3DL
Selective Door Release Adaptor

2 wires
6 wires
2 wires

EL-12S Door Strike

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

2 wires

PS-2420UL
Power Supply, 24V DC, 2A
→ p.116

2 wires
Aiphone #871802
(Max. 650')

Features

- Clear and bright image with color TFT LCD monitor and color video door station
- Instant voice call-in with image
- Selective Call or All Call
- Chime or receiver volume control
- Optional selective door release with RY-3DL
- 330' total distance looped between monitors
- TILT camera control
- Video out to DVR via supplied connector

Wiring

KB-DAR

IER-2

KB-3MRD

KB-3HRD x 4

KB-3SD

EL-12S **PT-1210N**

PS-2420UL
PS-2420UL
PS-2420UL

Station #1
Station #2
Station #3
Station #4
Station #5

External light control/RY-3DL

PT-1210N
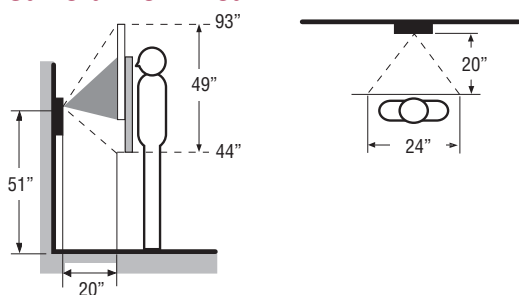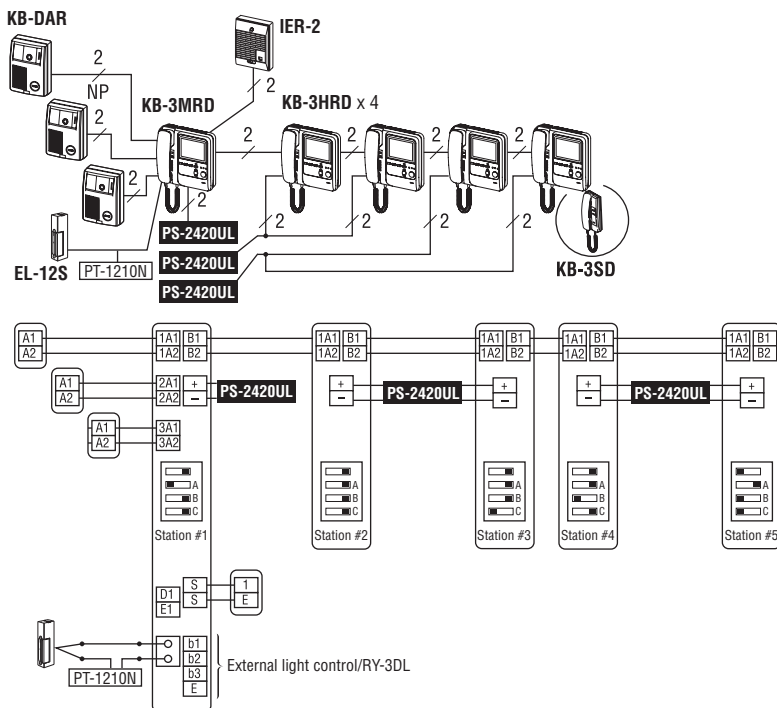
NOTES:
1. D1 and E1 for IE Series door stations (audio only) instead of third KB-DAR
2. Run audio/video wires in a separate jacketed cable from door release wires
3. Wiring for KB-3SD; two wires only, + / - wires are not necessary

Camera View Area

93"
49"
44"
51"
20"
20"
24"

Video Intercoms

Inside Stations - Select up to 2 units (optional)

INSIDE 2 & **INSIDE 3**

KB-3HRD
Sub Master Station with video monitor

KB-3SD
Audio only Sub Master Station
(Only 2 KB-3SD's per system)

2 wires
Aiphone #871802
(Max. 33')

2 wires
Aiphone #871802
(Max. 330' between master and farthest sub)

PS-2420UL
Power Supply, 24V DC, 2A *(One PS-2420UL per two video monitors)*
→ p.116

Inside Stations - Select up to 2 units (optional)

INSIDE 4 & **INSIDE 5**

KB-3HRD
Sub Master Station with video monitor

KB-3SD
Audio only Sub Master Station
(Only 2 KB-3SD's per system)

2 wires
Aiphone #871802
(Max. 33')

PS-2420UL
Power Supply, 24V DC, 2A *(One PS-2420UL per two video monitors)*
→ p.116

Options & Accessories

XP-SS *NEW*
Accessory Station with an embedded Stand-Alone Card Reader with host controller
→ p.109

HID-SS
Accessory Station with an embedded HID® Proximity Card Reader
→ p.109

ICP-BR
Brass Faceplate for IE-JA
→ p.108

ICP-AB
Antique Brass Faceplate for IE-JA
→ p.108

SBX-2G
Surface Mount Box for IE-JA, IE-SS, and IE-SSR
→ p.105

SBX-2BH
Horizontal Mount Box for HID-SS and IE-SS or IE-SSR *(Vertical mount also available - SBX-2BV)*
→ p.105

SBX-ACE
Surface Mount Box for intercom and access control device
→ p.105

KAW-D
30° Angle Box for KB-DAR/ KB-DAR-M
→ p.107

KMB-45
Mullion Mounting Bracket for KB-DAR, KB-DAR-M, IF-DA and IE-DC
→ p.107

KA-DGR Panel
Housing Panel for KB-DAR and KB-DAR-M, stainless steel, surface mount
→ p.101

KA-FSH
Housing Panel for KB-DAR and KB-DAR-M, stainless steel, flush mount
→ p.101

EL-12S
Electric Door Strike, 12V AC/DC, 200mA *(Requires PT-1210N)*
→ p.108

RY-3DL
Selective Door Release Adaptor
→ p.108

RY-24L
Form C Door Release Relay *(When releasing one door)*
→ p.109

IER-2
Call Extension Speaker
→ p.108

RY-ES *NEW*
External Signaling Relay
→ p.110

MCW-S/A
Monitor Desk Stand
→ p.118

MCW-2S
Monitor/Picture Memory Unit Desk Stand
→ p.118

Unit Dimensions

KB-3MRD, KB-3HRD
7-3/4"
3-5/16"
7-1/4"
3-1/2"

KB-3SD
8-1/4"
3-5/16"
4"
3"

KB-DAR
5-1/2"
3-5/16"
4-1/8"
1-3/4"

IF-DA
5-1/8"
3-7/8"
1-1/8"

IE-DC
5-5/16"
3-5/16"
4"
1-11/16"

IE-JA
4-1/2"
3-5/16"
4-9/16"
1-3/16"

IE-SS, IE-SSR, IE-SSV
4-3/4"
3-5/16"
4-3/4"
2"

Specifications

Power Source	24V DC - Use PS-2420UL
Calling	Chime, image and audio approx. 30 sec., hear and see door instantly
Communication	Pick up at any station to reply, 2-1/2 min. timed, recycle with MONITOR, monitor audio and image of door, hands-free with MONITOR, push a station selector and call by voice, the called station replies hands-free, lift handset, push All Call button to call the other stations with pre-tone and voice
Video Monitor	4" direct-view TFT color LCD
Scanning Line	525 lines
Image View Area	Approx. 2' horizontal, 3'8"~7'9" vertical at 4'3" high and at 20" in front of camera
Night Viewing	5 Lux at 1' distance with LED projected
Door Release	Contact rating: 12V AC, 400mA Use RY-24L for larger contact rating or RY-3DL for 2~3 doors
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded Master to subs: 2 x 2-cond., mid cap, solid, non-shielded
Distance	Master to door: 330'(22AWG) 650'(18AWG) Master to farthest sub: 165'(22AWG) 330'(18AWG) Master to IER-2: 165'(22AWG) 330'(18AWG)
Wire Type	Aiphone #871802

KCS-1ARD
Video Entry with Tilt Set

QuikSpec PLUS QuikDraw

Door Station

DOOR 1

KC-DAR
Tilt Video Door Station, plastic cover, surface mount
→ p.101

2 wires
Aiphone #871802
(Max. 330')

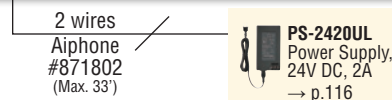**EL-12S** Door Strike
2 wires
2 wires

PT-1210N AC Transformer, 12V AC *(Required for EL-12S)*

Inside Station

INSIDE 1

KC-1MRD
Master Station with video monitor
(Not sold separately)

2 wires
Aiphone #871802
(Max. 33')

PS-2420UL Power Supply, 24V DC, 2A → p.116

Boxed Set

KCS-1ARD Box Set

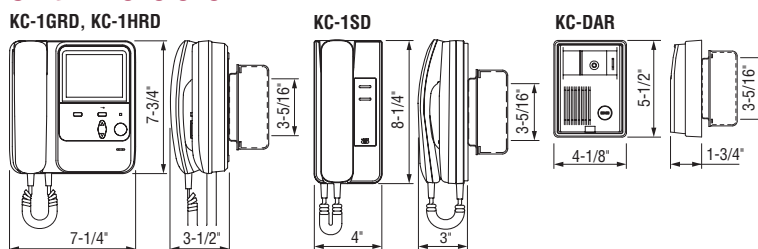**KCS-1ARD:** KC-1MRD, KC-DAR, and power supply

Options & Accessories

KA-DGR Panel Housing Panel for KC-DAR, stainless steel, surface mount → p.101

KA-FSH Housing Panel for KC-DAR, stainless steel, flush mount → p.101

KAW-D 30° Angle Box for KC-DAR → p.107

KMB-45 Mullion Mounting Bracket for KC-DAR → p.107

SBX-ACE Surface Mount Box for intercom and access control device → p.105

EL-12S Electric Door Strike, 12V AC/DC, 200mA *(Requires PT-1210N)* → p.108

RY-24L Form C Door Release Relay → p.109

KCW-D/B Video output converter to CCTV/DVR → p.112

MKW-DK/A Motion Detector Adaptor for video door station → p.117

JBW-BA Long Distance Door Station Adaptor → p.110

IER-2 Call Extension Speaker → p.108

MCW-S/A Monitor Desk Stand → p.118

MCW-2S Monitor/Picture Memory Unit Desk Stand → p.118

Features

- Clear and bright image with color TFT LCD monitor and color video door station
- Instant voice call-in with image
- Hands-free audio and video monitoring
- White LED illuminator
- TILT camera control

Unit Dimensions

KC-1MRD
7-3/4"
7-1/4"
3-1/2"
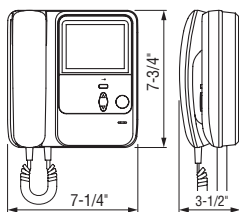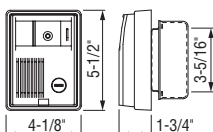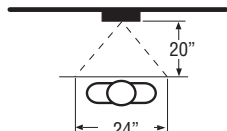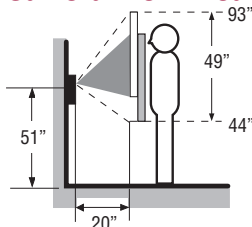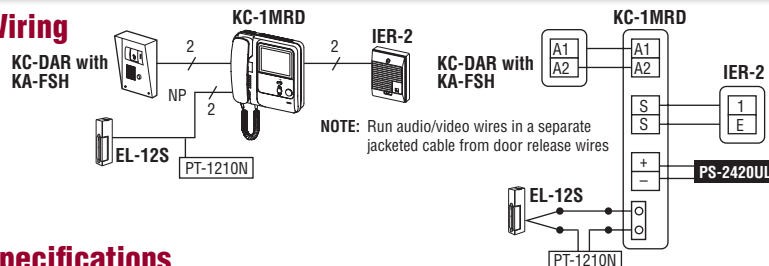
KC-DAR
3-5/16"
5-1/2"
3-5/16"
4-1/8"
1-3/4"

Camera View Area

93"
49"
44"
51"
20"

20"
24"

Wiring

KC-DAR with KA-FSH

KC-1MRD

2

IER-2

KC-DAR with KA-FSH

KC-1MRD

A1 / A2 — A1 / A2

IER-2
1 / E

NP
2
2

S / S

+ / −

PS-2420UL

EL-12S
PT-1210N

EL-12S
PT-1210N

NOTE: Run audio/video wires in a separate jacketed cable from door release wires
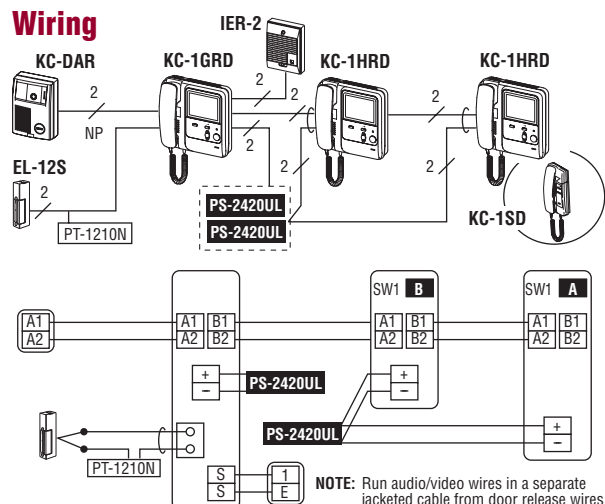
Specifications

Power Source	24V DC - Use PS-2420UL
Calling	Chime, image and audio approx. 30 sec., hear and see door instantly
Communication	Pick up to reply - 2 1/2 min. time, be aware of hands-free audio and image of door with monitor
Video Monitor	4" direct-view TFT color LCD
Scanning Line	525 lines
Image View Area	Approximately 2' horizontal, 3'8"~7'9" vertical at 20" in front of camera at 4'3" high and 20" from camera
Night Viewing	5 Lux at 1' distance with LED projected
Door Release	Contact rating: 12V AC, 400mA Use RY-24L for larger contact rating
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded
Distance	Master to door: 165'(22AWG) 330'(18AWG) Master to IER-2: 165'(22AWG) 330'(18AWG)
Wire Type	Aiphone #871802

Video Intercoms

KC Series
Video Entry with Tilt

QuikSpec *PLUS* *QuikDraw*

Video Intercoms

Door Stations - Select 1 unit

DOOR 1

KC-DAR
Tilt Video Door Station, plastic cover, surface mount
→ p.101

2 wires
Aiphone #871802
(Max. 330')

EL-12S Door Strike

2 wires / 2 wires

PT-1210N AC Transformer, 12V AC *(Required for EL-12S)*

Inside Station

INSIDE 1

KC-1GRD
Master Station with video monitor

2 wires
Aiphone #871802
(Max. 330' between master and farthest sub)

2 wires
Aiphone #871802
(Max. 33')

PS-2420UL Power Supply, 24V DC, 2A → p.116

Inside Stations - Select up to 2 units *(optional)*

INSIDE 2 & INSIDE 3
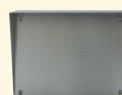
KC-1HRD
Sub Station with video monitor

KC-1SD
Audio Only Sub Master Station

2 wires
Aiphone #871802
(Max. 33')

PS-2420UL Power Supply, 24V DC, 2A → p.116

Options & Accessories

KA-DGR Panel
Housing Panel for KC-DAR, stainless steel, surface mount → p.101

KA-FSH
Housing Panel for KC-DAR, stainless steel, flush mount → p.101

KAW-D
30° Angle Box for KC-DAR → p.107

KMB-45
Mullion Mounting Bracket for KC-DAR → p.107

SBX-ACE
Surface Mount Box for intercom and access control device → p.105

EL-12S
Electric Door Strike, 12V AC/DC, 200mA *(Requires PT-1210N)* → p.108

RY-24L
Form C Door Release Relay → p.109

KCW-D/B
Video output converter to CCTV/DVR → p.112

MKW-DK/A
Motion Detector Adaptor for video door station → p.117

IER-2
Call Extension Speaker → p.108

RY-ES
External Signaling Relay → p.110

MCW-S/A
Monitor Desk Stand → p.118

MCW-2S
Monitor/Picture Memory Unit Desk Stand → p.118

Features

- Clear and bright image with color TFT LCD monitor and color video door station
- TILT camera control
- Instant voice call-in with image
- White LED illuminator
- All Call type room calling
- Hands-free audio and video monitoring
- 330' total distance looped between monitors

Unit Dimensions

KC-1GRD, KC-1HRD — 7-3/4", 7-1/4", 3-1/2", 3-5/16"
KC-1SD — 8-1/4", 4", 3"
KC-DAR — 5-1/2", 3-5/16", 4-1/8", 1-3/4"

Specifications

Power Source	24V DC - Use PS-2420UL
Calling	Chime, image and audio approx. 30 sec., hear and see door instantly
Communication	Pick up at any station to reply, 2-1/2 min. timed, recycle with MONITOR, monitor hands-free audio and image of door with MONITOR, push All Call to call the other monitors with pre-tone and voice, lift either handset to reply
Video Monitor	4" direct-view TFT color LCD
Scanning Line	525 lines
Image View Area	Approx. 2' horiz., 3'8"~7'9" vert. at 20" in front of camera at 4'3" high
Night Viewing	5 Lux at 1' distance with LED projected
Door Release	Contact rating: 12V AC, 400mA. Use RY-24L for larger contact rating
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded
Master to subs: 2 x 2-cond., mid cap, solid, non-shielded
Distance	Master to door: 165'(22AWG) 330'(18AWG)
Master to farthest sub: 165'(22AWG) 330'(18AWG)
Master to IER-2: 165'(22AWG) 330'(18AWG)
Wire Type	Aiphone #871802

Camera View Area (See line drawing for **KCS-1ARD, p. 48**)
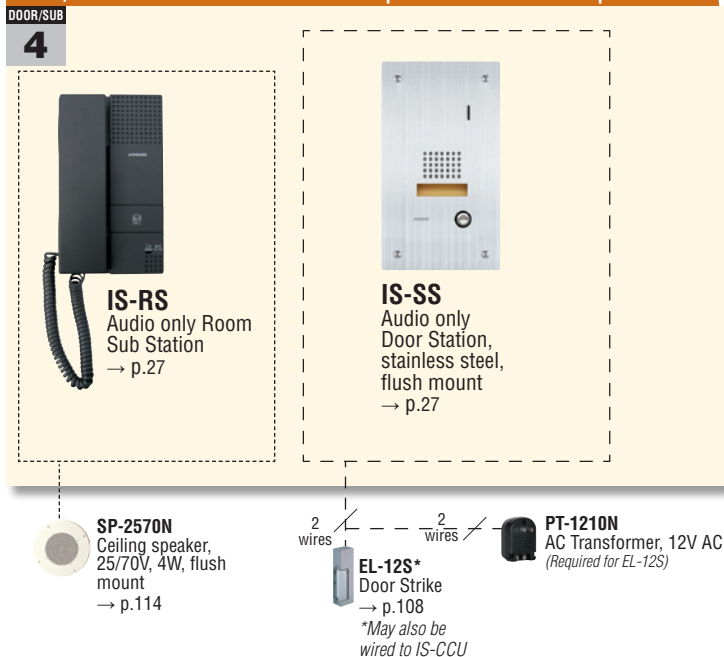
Wiring

KC-DAR, EL-12S, KC-1GRD, IER-2, KC-1HRD, KC-1HRD, KC-1SD, PT-1210N, PS-2420UL, PS-2420UL

SW1 B, SW1 A

A1/A2, A1/B1, A2/B2, PS-2420UL, PS-2420UL, PT-1210N, S/S, 1/E

NOTE: Run audio/video wires in a separate jacketed cable from door release wires

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions.

AIPHONE®

Audio Only Intercoms

Providing communication between key points

Our audio only intercoms have been providing point to point communication in offices, retail buildings, hospitals, and other applications worldwide for over sixty years. Any time clear and reliable communication is required, the installation of an Aiphone audio only intercom will get the job done!
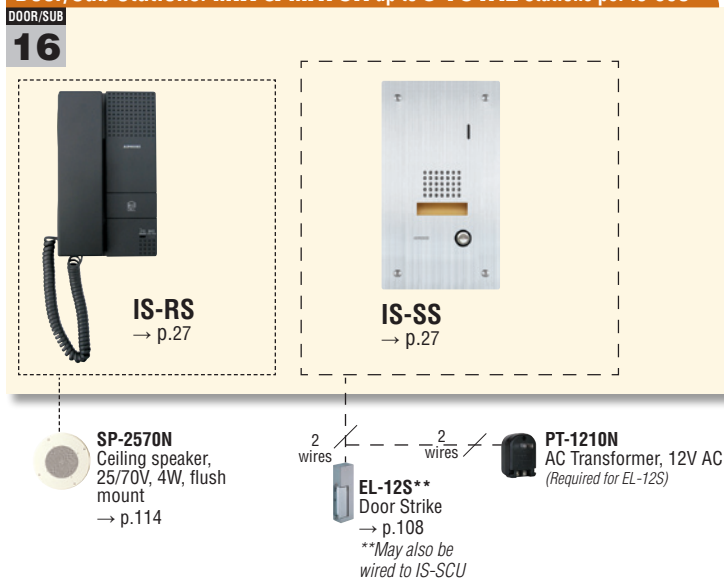
IS Series* - Structured Wire & Networked System
IP Intercom

NEW

Audio Only Intercoms

Door/Sub Stations: MIX & MATCH up to 4 TOTAL Stations per IS-CCU

DOOR/SUB 4

IS-RS
Audio only Room Sub Station
→ p.27

IS-SS
Audio only Door Station, stainless steel, flush mount
→ p.27

SP-2570N
Ceiling speaker, 25/70V, 4W, flush mount
→ p.114

2 wires — 2 wires

EL-12S*
Door Strike
→ p.108
*May also be wired to IS-CCU

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

Central Control Unit

IS-CCU+
Central Control Unit

+NOTE: *Maximum 4 Door/Sub Stations and 4 Master Stations per IS-CCU*

CAT-5e/6 wire
N/A from Aiphone
(Max. 980')

2 wires
Aiphone #871802
(Max. 50')

IS-PU-UL
Power Supply, 48V DC, 2A
→ p.27

CAT-5e/6 wire x 3
N/A from Aiphone
(Max. 650')

Door/Sub Stations: MIX & MATCH up to 8 TOTAL Stations per IS-SCU

DOOR/SUB 16

IS-RS
→ p.27

IS-SS
→ p.27

SP-2570N
Ceiling speaker, 25/70V, 4W, flush mount
→ p.114

2 wires — 2 wires

EL-12S**
Door Strike
→ p.108
**May also be wired to IS-SCU

PT-1210N
AC Transformer, 12V AC
(Required for EL-12S)

Add-on Control Unit: Max. 2 per IS-CCU

IS-SCU‡
Add-on Central Control Unit

‡NOTE: *Maximum 8 Door/Sub Stations and 8 Master Stations per IS-SCU*

CAT-5e/6 wire
N/A from Aiphone
(Max. 980')

2 wires
Aiphone #871802
(Max. 50')

IS-PU-UL
→ p.27

CAT-5e/6 wire x 2
N/A from Aiphone
(Max. 650')

Room Station Control Unit: Max. 4 per IS-CCU

IS-RCU*
Room Station Control Unit

*NOTE: *Maximum 30 Room Stations per IS-RCU*

2 wires
Aiphone #871802
(Max. 50')

IS-PU-UL
→ p.27

Features

NOTE: For features of the **IS Series** see **p.24**

Unit Dimensions & Descriptions

NOTE: For unit dimensions and descriptions of the **IS Series** see **p.26 ~ p.27**

Specifications

NOTE: For specifications of the **IS Series** see **p.25**

*To learn how to expand the IS Series over a network, see p.24

Master Station: Up to **4 TOTAL** Stations per IS-CCU

MASTER
4

CAT-5e/6 wire
N/A from
Aiphone
(Max. 980')

IS-MV
Master Station
→ p.27

Master Station: Up to **8 TOTAL** Stations per IS-SCU

MASTER
16

CAT-5e/6 wire
N/A from
Aiphone
(Max. 980')

IS-MV
Master Station
→ p.27

Audio Only Intercoms

Room Stations: **MIX & MATCH** up to **30 TOTAL** Stations per IS-RCU

ROOM
120

CAT-5e/6 wire
N/A from
Aiphone
(Max. 980')

IS-RS
→ p.27

IS-SS
→ p.27

2
wires

EL-12S
Door
Strike
→ p.108

2
wires

PT-1210N

SP-2570N
Ceiling speaker,
25/70V, 4W, flush
mount
→ p.114

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **55**

Preliminary Information - subject to change

LEF Series
Open Voice Selective Call Systems

Door Stations: MIX & MATCH up to 11 TOTAL LEF components

LE-D
Door Station, plastic cover, surface mount
→ p.103

LE-SS-1G
Door Station, vandal resistant, stainless steel, flush mount
→ p.103

LE-DA
Door Station, stainless steel faceplate, flush mount
→ p.103

LE-SS
Door Station, vandal resistant, stainless steel, flush mount
→ p.103

LE-SSR
Door Station, vandal resistant, stainless steel, red mushroom call button, flush mount
→ p.103

LE-SSV
Door Station with built-in CCTV camera, stainless steel, flush mount
→ p.103

LS-NVP/C
Door Station, vandal resistant, powder-coated steel, flush mount
→ p.103

Speaker Stations: MIX & MATCH Up to 11 TOTAL LEF components

AH-108
8Ω, 10W Horn Speaker
→ p.115

SP-20N
Ceiling Speaker, flush mount
(Requires NP-25V)
→ p.59 & p.114

Paging Adaptor: MIX & MATCH Up to 11 TOTAL LEF components

BA-1
Paging Adaptor
→ p.113

Master Stations: MIX & MATCH up to 11 TOTAL LEF components

Surface Mount Designs

LEF-3
3-Call Master Station
→ p.58

LEF-3L
3-Call Master Station with selective door release
→ p.58

LEF-5
5-Call Master Station with selective door release
→ p.58

LEF-10
10-Call Master Station with selective door release
→ p.58

LEF-10S
10-Call Master Station with All Call button and selective door release
→ p.58

Semi-flush Designs

LEF-3C
3-Call Master Station with All Call button
→ p.58

LEF-5C
5-Call Master Station with All Call button and selective door release
→ p.58

LEF-10C
10-Call Master Station with All Call button and selective door release
→ p.58

Features

- Intermix masters and subs to create desired communication (up to 11 total components)
- Selective Call and monitoring
- 3, 5, and 10-call masters
- Wide variety of master and sub stations available
- Push-to-talk at master, hands-free reply at called station
- Call tone and LED annunciation at master
- Selective door release (w/ RY-PA per door) on LEF 3L/5/10-call masters
- All Call with LEF-10S and all LEF-C masters (requires BG-10C)

Communication Network

LE-D

LE-D

EL-12S

EL-12S

LEF-5

Selective Call

LEF-5

LEF-5

NOTE: Answer and release door from any inside station
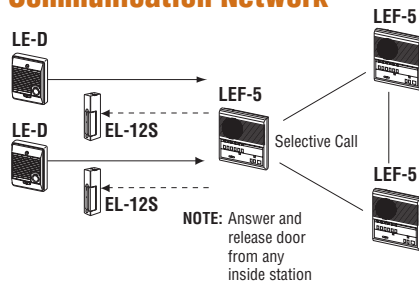
Wiring

COMPONENT	WIRE #	DESCRIPTION
LEF: *Standard wiring*		
LEF-3	822210	22 AWG, 10 conductor, overall shield
LEF-5	822212	22 AWG, 12 conductor, overall shield
LEF-10, LEF-10S	822220	22 AWG, 20 conductor, overall shield
LEF-1C		
Homerun to BG-10C	822212	22 AWG, 12 conductor, overall shield
Looped (max. 9 stns)	822220	22 AWG, 20 conductor, overall shield
LEF-3C	822212	22 AWG, 12 conductor, overall shield
LEF-5C	822215	22 AWG, 15 conductor, overall shield
LEF-10C	822220	22 AWG, 20 conductor, overall shield
BG-10C to Master	822220	22 AWG, 20 conductor, overall shield
LE Series: *Single call sub and door stations (except LE-C & LE-CN)*		
Homerun (22AWG)	822203	22 AWG, 3 conductor, overall shield
Homerun (18AWG)	821803	18 AWG, 3 conductor, overall shield
Looped (max. 4 stns)	822206	22 AWG, 6 conductor, overall shield
Looped (max. 8 stns)	822210	22 AWG, 10 conductor, overall shield
LE-A3, LE-AN3	822206	22 AWG, 6 conductor, overall shield
LE-C, LE-CN		
Homerun to BG-10C	822206	22 AWG, 6 conductor, overall shield
Looped (max. 3 stns)	822210	22 AWG, 10 conductor, overall shield
LEF: *Using selective contacts for door release (K terminals)*		
LEF-3L	822212	22 AWG, 12 conductor, overall shield
LEF-5, 5C	822220	22 AWG, 20 conductor, overall shield
LEF-10, 10S, 10C	822220	22 AWG, 20 conductor, overall shield
	plus 822210	22 AWG, 10 conductor, overall shield

MIX & MATCH Up to 11 TOTAL different LEF components

Sub Stations: Communication to Master

STATIONS 11

Surface Mount Designs

LE-A
Sub Station
→ p.58

LE-AN
Privacy Sub Station
→ p.58

LE-A3 *(Shown)*
3-Call Sub Station
→ p.58

LE-AN3
3-Call Privacy Sub Station
→ p.58

Semi-flush Designs

LE-B
Sub Station
→ p.59

LE-BN
Privacy Sub Station
→ p.59

LE-C
Sub Station with music volume control
(Requires BG-10C)
→ p.59

LE-CN
Privacy Sub Station with music volume control
(Requires BG-10C)
→ p.59

LEF-1C
Sub Master Station with All Call button
(Requires BG-10C)
→ p.59

Options & Accessories

XP-SS *NEW*
Accessory Station with an embedded Stand-Alone Card Reader with host controller
→ p.109

HID-SS
Accessory Station with Embedded HID® Proximity Card Reader
→ p.109
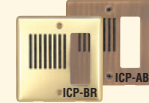
ICP-BR
Brass Faceplate for LE-DA
→ p.108

& ICP-AB
Antique Brass Faceplate for LE-DA
→ p.108

SBX-1G
Surface Mount Box for LE-SS-1G
→ p.105

SBX-2G
Surface Mount Box for LE-SS, LE-SSR, and LE-SSV
→ p.105

SBX-2BV
Vertical Mount Box for HID-SS and LE-SS, LE-SSR, or LE-SSV
(Horizontal mount also available - SBX-2BH)
→ p.105

SBX-NVP
Surface Mount Box for LS-NVP/C
→ p.106

EL-12S
Electric Door Strike, 12V AC/DC, 200mA
(Requires PT-1210N)
→ p.108

RY-PA
Door Release Relay
→ p.108

LT-1
20Ω-to-8Ω Matching Transformer

LEW-5, LEW-10, LEW-10S
Terminal Box

BG-10C
All Call, Chime and Music Adaptor
→ p.117

NP-25V
Non-polarized capacitor, 33µF, 25V

NP-B
Indoor Call Button, flush mount
(Use NP-W surface mount box when needed)

RY-AC/A
External Signaling Relay
→ p.110

PS-1225UL
Power Supply, 12V DC
→ p.116

Audio Only Intercoms

Unit Dimensions

LEF-3, LEF-3L
7-1/16"
5-5/8"
2-3/16"
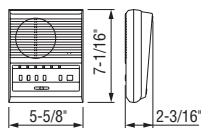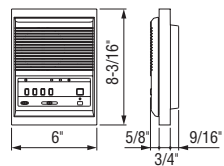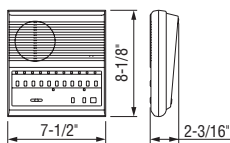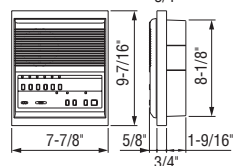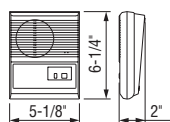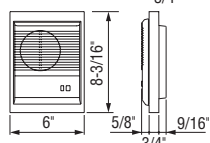
LEF-1C, LEF-3C
8-3/16"
6"
5/8"
9/16"
3/4"

LEF-5, LEF-10, LEF-10S
8-1/8"
7-1/2"
2-3/16"

LEF-5C, LEF-10C
9-7/16"
8-1/8"
7-7/8"
5/8"
1-9/16"
3/4"

LE-A, LE-AN
6-1/4"
5-1/8"
2"

LE-B, LE-BN, LE-C, LE-CN
8-3/16"
6"
5/8"
9/16"
3/4"

LE-A3, LE-AN3
7-1/16"
5-5/8"
2-3/16"

LE-D
4-3/4"
3-5/16"
3-1/2"
1-1/8"

LE-SS-1G
4-11/16"
3-5/16"
2-3/4"
2-11/16"

LE-DA
4-1/2"
3-5/16"
4-9/16"
1-3/16"
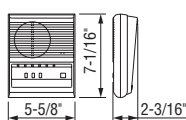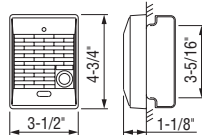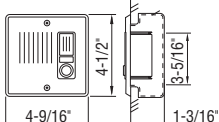
LE-SS, LE-SSR, LE-SSV
4-3/4"
3-5/16"
4-3/4"
2"
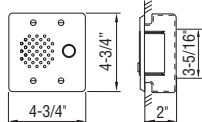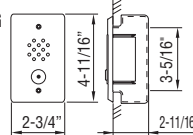
LS-NVP/C
7-1/2"
6-5/16"
5-1/2"
2"
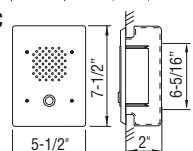
Specifications

Power Source	12V DC - Use PS-1225UL
Communication	Sub calls in with call-tone and LED, 20 sec. Push the LED selector button, use TALK/LISTEN switch. Master calls in with tone or voice (no LED lit), reply hands-free. To call, push a selector, and call by voice or tone. Door chime available with BG-10C.
Communication Output	500mW
Door Release	RY-PA Contact rating: 24V DC, 1A Use 1 RY-PA per door being released
Wiring	See **"Wiring"** on previous page
Distance	Door/Sub to farthest master: 650'(22AWG) 1,600'(18AWG)
Wire Type	See **"Wiring"** on previous page

Audio Only Intercoms

Master Stations - surface mount

LEF-3
3-Call Master Station

LEF-3L
3-Call Master Station
with selective door release

LEF-5
5-Call Master Station
with selective door release

LEF-10
10-Call Master Station
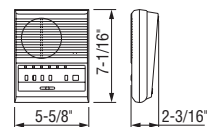with selective door
release, surface mount

LEF-10S
10-Call Master Station with
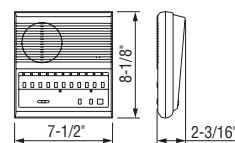All Call button and selective
door release, surface mount

Features
• Selective calling to masters and subs
• Hands-free communication
  at receiving master
• Surface or desk mount design
• LEF-3L, LEF-5, LEF-10, and LEF-10S
  provide outputs for selective door
  release (relay required per door)

**LEF-3,
LEF-3L**
7-1/16"
5-5/8"
2-3/16"

**LEF-5,
LEF-10,
LEF-10S**
8-1/8"
7-1/2"
2-3/16"

Specifications
Speaker	20Ω
Material	ABS Plastic
Color	White with gray nameplate
Distance	650'(22AWG), 1,600'(18AWG)

Master Stations - semi-flush mount

LEF-3C
3-Call Master
Station with
All Call button

LEF-5C
5-Call Master
Station with All Call
button and selective
door release

LEF-10C
10-Call Master
Station with All Call
button and selective
door release

Features
• Selective calling to masters and subs
• Hands-free communication
  at receiving master
• Semi-flush mount design
• LEF-5C and LEF-10C provide
  outputs for selective door release
  (relay required per door)

LEF-3C
8-3/16"
6"
5/8"
9/16"
3/4"
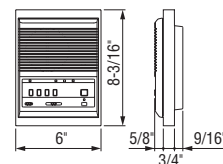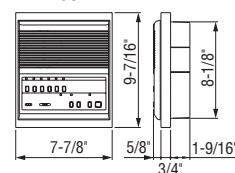
**LEF-5C,
LEF-10C**
9-7/16"
8-1/8"
7-7/8"
5/8"
1-9/16"
3/4"

Specifications
Speaker	20Ω
Material	ABS Plastic
Color	White with gray nameplate
Distance	650'(22AWG), 1,600'(18AWG)

Sub Stations - surface mount

LE-A
Sub Station

LE-AN
Privacy Sub Station

LE-A3
3-Call Sub Station

LE-AN3
3-Call Privacy Sub Station

Features
• Push button to call master station(s)
• Hands-free communication
  when master answers
• Desk or wall mount
• Mounts to 1-gang box or
  ring (wall mount)
• Privacy feature blocks unwanted
  monitoring from master
  (LE-AN and LE-AN3)
• Selectively call three individual or
  groups of masters (LE-A3 or LE-AN3)

**LE-A,
LE-AN**
6-1/4"
5-1/8"
2"
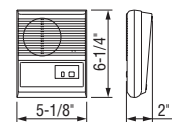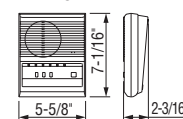
**LE-A3,
LE-AN3**
7-1/16"
5-5/8"
2-3/16"

Specifications
Speaker	20Ω
Material	ABS Plastic
Color	White with gray nameplate
Distance	650'(22AWG), 1,600'(18AWG)

Used for:
LEF and LEM

Sub Stations - semi-flush mount

LEF-1C
Sub Master Station
with All Call button
(Requires BG-10C)

LE-B
Sub Station

LE-BN
Privacy Sub
Station

LE-C
Sub Station with
music volume control
(Requires BG-10C)

LE-CN
Privacy Sub Station with
music volume control
(Requires BG-10C)

Features
• Push button to call master station(s)
• LEF-1C provides output for door release
• Hands-free communication
  when master answers
• Semi-flush mount design
• Optional rough-in box for new
  construction (BBX-1E, p.106)
• Privacy feature blocks unwanted
  monitoring from master (LE-BN, LE-CN)
• Music volume control (LEF-1C LE-C, LE-CN)

**LEF-1C,
LE-B, LE-BN,
LE-C, LE-CN**
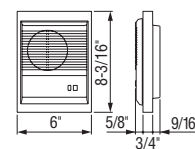
8-3/16"
6" 5/8" 9/16"
3/4"

Specifications
Speaker	20Ω
Material	ABS Plastic
Color	White with gray nameplate
Distance	650'(22AWG), 1,600'(18AWG)

Used for:
LEF and LEM

Speaker Station - flush mount

SP-20N
Ceiling Speaker,
*(Requires NP-25V or
NP-B call button)*

Features
• 20Ω speaker station for
  2-way communication
• Mounting bracket for drop
  tile ceilings (SSB-2, p.114)
• 8" diameter speaker with a
  12-7/8" diameter white baffle

SP-20N

12-7/8"
8"
12-7/8"
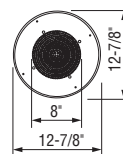
Specifications
Speaker Size	8" diameter
Magnet Weight	5 oz.
Voice Coil Impedance	20Ω
Power Handling	4W RMS, LEF puts out 800mW
Frequency Response	65Hz. to 17kHz.
Depth & Weight	2-3/4" deep and 1.75lbs.
Cone	Dual

Used for:
LEF and LEM

LEF Specification Tips

• Sub stations only communicate with master stations and cannot communicate to other subs or door stations.
• The All Call feature on the LEF-10S and LEF-C master stations will be operable only in a system with the BG-10C included.
• The BG-10C is required in a system that includes LEF-1C sub master stations.
• The standard LEF-3 does not have a door release button. If a door release is required, use an LEF-3L.
• A relay is required for every door that is to be released.
• For standard indoor sub stations (LE-A/AN, LE-B/BN) to receive All Call,
  one NP-25V capacitor is required per sub station. (Installed at BG-10C)
• Use one PS-1225UL per system. Do not substitute another brand power supply for this system.
• Using Aiphone wire adds a full year to the product warranty and helps ensure proper system function.
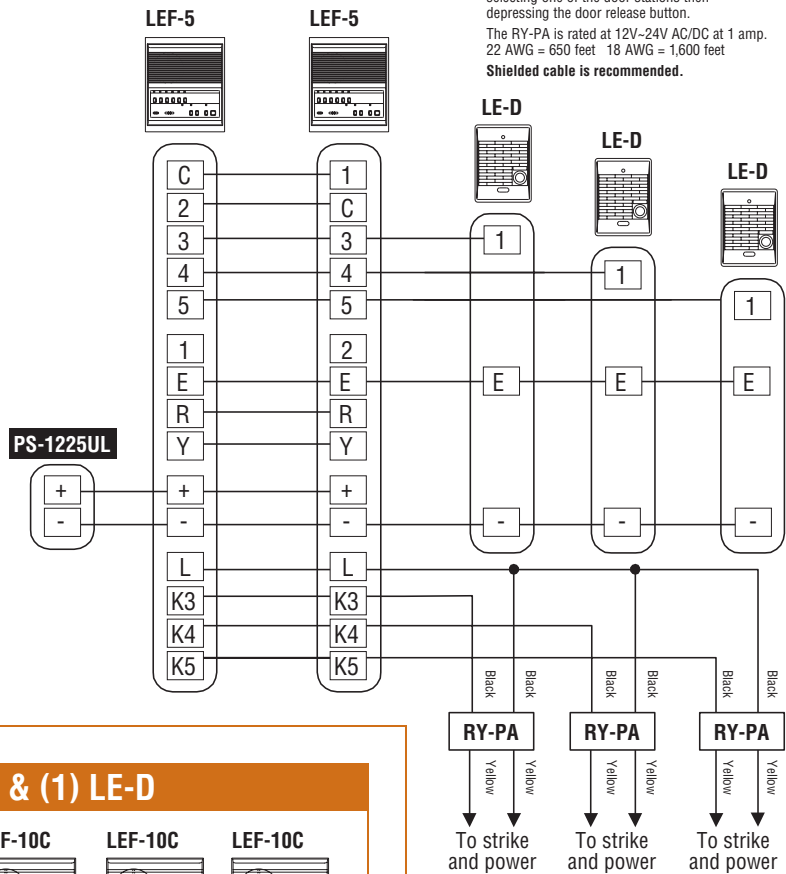
LEF Installation Tips

• Always separate LEF wire from AC cabling by at least one stud space. If it is
  necessary to cross AC lines, always cross at a 90˚ angle.
• Never install LEF equipment near dimmer switches, alarm panels, fluorescent lights, or other sources of RFI interference.
• Always use shielded cable to connect audio lines. Tie all shields together and ground one end of the shield to an earth ground.
• If a single cable cannot be used to connect audio lines, ensure that all cables with a "#" or "C"
  connection also have an "E" connection. This will prevent buzzing on the system.
• If a system has more than one master, remove the brass E/- jumper and run three wires to all
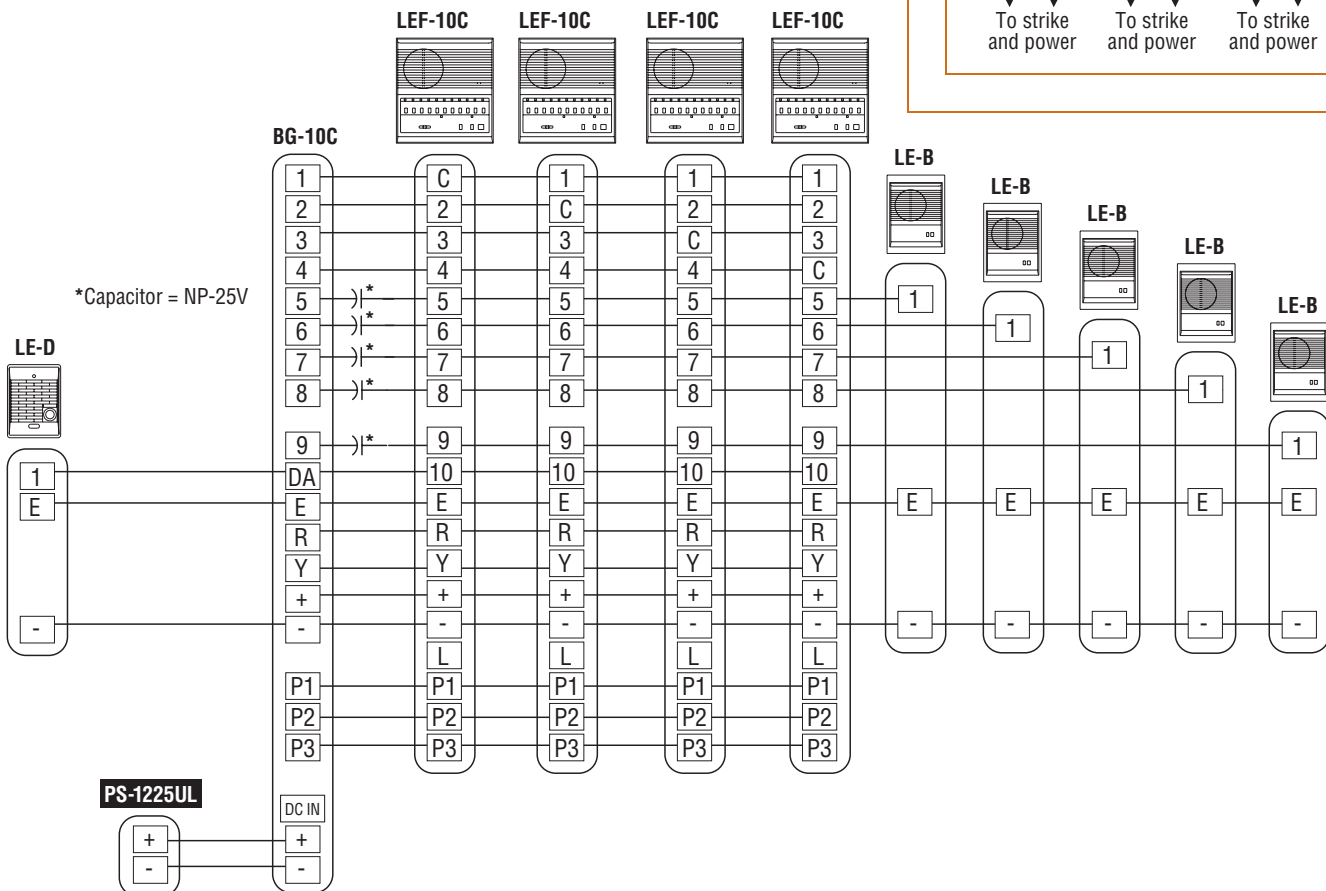 door and sub stations (except LE-C/CN and LE-A3/AN3, which requires six wires).

Audio Only Intercoms

(2) LEF-3L's with (2) LE-D's

LEF-3L LEF-3L LE-D LE-D

		LE-D	LE-D
1	1	1	
2	2		1
C	3		
3	C		
E	E	E	E
R	R		
Y	Y		
+	+		
-	-	-	-

PS-1225UL
+
-

White	White
Brown	Brown
Red	Red
Orange	Orange

RY-PA RY-PA
To strike and power To strike and power

(2) LEF-5's with (3) LE-D's

LEF-5 LEF-5 LE-D LE-D LE-D

		LE-D	LE-D	LE-D
C	1			
2	C			
3	3	1		
4	4		1	
5	5			
1	2			1
E	E	E	E	E
R	R			
Y	Y			
+	+			
-	-	-	-	-
L	L			
K3	K3			
K4	K4			
K5	K5			

PS-1225UL
+
-

Black Black Black Black Black Black

RY-PA RY-PA RY-PA
Yellow Yellow Yellow Yellow Yellow Yellow

To strike and power To strike and power To strike and power

(4) LEF-10C's with BG-10C, (5) LE-B's, & (1) LE-D

LEF-10C LEF-10C LEF-10C LEF-10C

BG-10C

*Capacitor = NP-25V

LE-D

LE-B LE-B LE-B LE-B LE-B

BG-10C					LE-B	LE-B	LE-B	LE-B	LE-B
1	C	1	1	1					
2	2	C	2	2					
3	3	3	C	3					
4	4	4	4	C					
5	5	5	5	5	1				
6	6	6	6	6		1			
7	7	7	7	7			1		
8	8	8	8	8				1	
9	9	9	9	9					1
DA	10	10	10	10					
E	E	E	E	E	E	E	E	E	E
R	R	R	R	R					
Y	Y	Y	Y	Y					
+	+	+	+	+					
-	-	-	-	-	-	-	-	-	-
	L	L	L	L					
P1	P1	P1	P1	P1					
P2	P2	P2	P2	P2					
P3	P3	P3	P3	P3					

LE-D
| 1 |
E

PS-1225UL
+
-

DC IN
+
-

DB Series
Hands-free Single Entry Security

Entrance Station
DOOR 1

2 wires
Aiphone
#871802
(Max. 1020')

DA-1DS
Door Station,
Silver

2 wires

EL-12S
Door
Strike

4 wires
Aiphone
#871804
(Max. 330'
between
master and
farthest sub)

PT-1211C
AC Transformer,
15V AC
→ p.116

2 wires
Aiphone
#871802
(Max. 180')

4 wires
Aiphone
#871804
(Max. 330'
between master
and farthest sub)

PT-1211C
AC Transformer,
15V AC
→ p.116

2 wires
Aiphone
#871802
(Max. 180')

Inside Station
INSIDE 1

DB-1MD
Hands-free
Master Station

2 wires
Aiphone
#871802
(Max. 1020')

PT-1211C
AC Transformer,
15V AC
→ p.116

Inside Station *(optional)*
INSIDE 2 & INSIDE 3

DB-1SD
Hands-free
Sub Station

Inside Station *(optional)*
INSIDE 4 & INSIDE 5

DB-1SD
Hands-free
Sub Station

Options & Accessories

EL-12S
Electric Door Strike,
12V AC/DC, 200mA
→ p.108

RY-ES
External
Signaling
Relay
→ p.110

NEW

IER-2
Call Extension
Speaker
→ p.108

MCW-S/A
Desk Stand
→ p.118

Boxed Set

NEW

DBS-1A:
DB-1MD, DA-1DS, and power supply

Audio Only Intercoms

Features

- Door strike powered by door station without the need of an additional transformer or wiring
- Hands-free tenant station
- Service button to control an external device
- Call tone volume control with mute indicator
- All Call between tenant stations with room to room hands-free communication
- Backlit directory on door station

Wiring

DA-1DS DB-1MD DB-1SD x 4 IER-2 EL-12S PT-1211C External device Relay/ Controller Request to exit/entry button PT-1211C PT-1211C
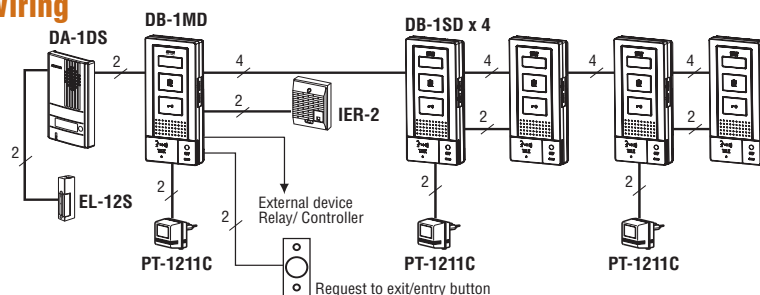
Specifications

Power Source	15V AC - Use AC transformer PT-1211C, 120V (1 required per master station and 1 required per 2 sub stations)
Communication	Hands-free or PTT
Door Release	Voltage available: 9.5 ~ 20V AC, 70Ω or more - Use EL-12S
Wiring	Door to master: 2-conductor Master to sub: 4-conductor Between subs: 4-conductor + 2-conductor when sharing power
Distance	Door to master: 360'(22AWG) 1020'(18AWG) Master to farthest sub: 330'(22AWG) 330'(18AWG)
Wire Type	Door to master: Aiphone #822202 or Aiphone #871802 Between masters/subs: Aiphone #812205 or Aiphone #871804

Unit Dimensions

DA-1DS
6-7/8"
4"
7/8"

DB-1MD, DB-1SD
7-1/4"
3-1/8"
1-1/16"

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **61**
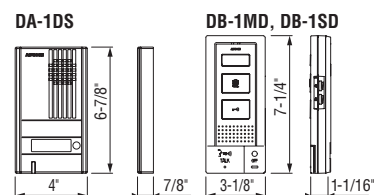
LEM-1DL & LEM-1DLC
Access Sentry

Audio Only Intercoms

Door Stations - Select 1 unit

DOOR 1

LE-D
Door Station, plastic cover, surface mount
→ p.103

LE-SS-1G
Door Station, stainless steel, flush mount
→ p.103

LE-DA
Door Station, stainless steel faceplate, flush mount
→ p.103

LE-SS
Door Station, vandal resistant, stainless steel, flush mount
→ p.103

LE-SSR
Door Station, vandal resistant, stainless steel, red mushroom call button, flush mount
→ p.103

LE-SSV
Door Station with a built-in CCTV camera, stainless steel, flush mount
→ p.103

LS-NVP/C
Door Station, vandal resistant, powder-coated steel, flush mount
→ p.103

EL-12S
Door Strike

PT-1210N
AC Transformer, 12V AC (Required for EL-12S)

2 wires
Aiphone #822202
(Max. 650' between master and farthest sub)

2 wires

2 wires

Inside Stations - Select 1 unit

INSIDE 1

LEM-1DL
Master Station with door release button

LEM-1DLC
Master Station, multi-master system, max. 4

2 wires

PT-1210N*
AC Transformer, 12V AC
→ p.108

* One PT-1210N is required for every master station

2 x 2 wires
Aiphone #822202
(Max. 650' between door and farthest master)

3 + 2 wires
Aiphone #822203 & #822202
(Max. 650' between door and farthest master)

Inside Stations: Select 1 unit (optional)

INSIDE 2 ~ INSIDE 4

2 wires

PT-1210N*
AC Transformer, 12V AC
→ p.108

* One PT-1210N is required for every master station

LEM-1DL
Master Station with door release button
(Requires DAK-2S with each additional master)

LEM-1DLC
Master Station, multi-master system, max. 4

Options & Accessories

XP-SS NEW
Accessory Station with an embedded Stand-Alone Card Reader with host controller
→ p.109

HID-SS
Accessory Station with Embedded HID® Proximity Card Reader
→ p.109

ICP-BR
Brass Faceplate for LE-DA
→ p.108
& ICP-AB
Antique Brass Faceplate for LE-DA
→ p.108

SBX-2G
Surface Mount Box for LE-DA, LE-SS, LE-SSR, and LE-SSV
→ p.105

SBX-2BH
Horizontal Mount Box for HID-SS and LE-SS, LE-SSR, or LE-SSV
(Vertical mount also available - **SBX-2BV**)
→ p.105

SBX-NVP
Surface Mount Box for LS-NVP/C
→ p.106

EL-12S
Electric Door Strike, 12V AC/DC, 200mA (Requires PT-1210N)
→ p.108

RY-18L
Form C Door Release Relay
→ p.109

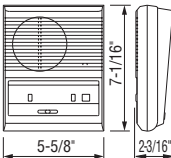**DAK-2S**
Dual Master Adaptor Kit
→ p.118

Boxed Set

LEM-1DLS: LEM-1DL, LE-D, and power supply

Features

- Door release (N/O contact)
- Calling and 2-way communication
- Call tone and voice volume control
- AC 12~16V or DC 12~24V powered
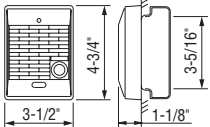- Any LE or LS series door station is compatible

Wiring

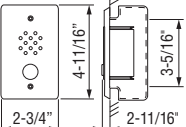**LE-D** — 2 — **EL-12S** — 2 → **LEM-1DL**

1 E / EL EL / + PT-1210N / **EL-12S**

NOTE: Do not remove shorting link

Unit Dimensions

LEM-1DL, LEM-1DLC
7-1/16"
5-5/8" 2-3/16"
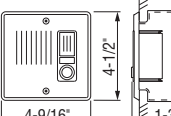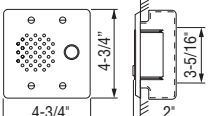
LE-D
4-3/4"
3-5/16"
3-1/2" 1-1/8"

LE-SS-1G
4-11/16"
3-5/16"
2-3/4" 2-11/16"

LE-DA
4-1/2"
3-5/16"
4-9/16" 1-3/16"
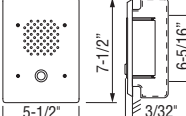
LE-SS, LE-SSR, LE-SSV
4-3/4"
3-5/16"
4-3/4" 2"

LS-NVP/C
7-1/2"
6-5/16"
5-1/2" 3/32"
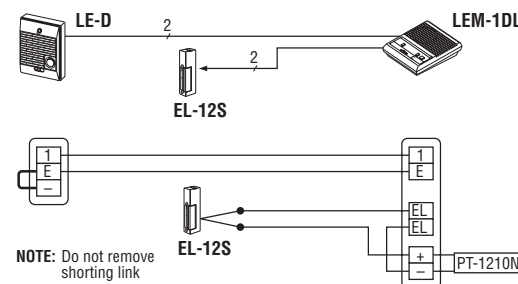
Specifications

Power Source	12~16V AC - Use PT-1210N 12~24V DC, 200mA
Communication	When called by tone, push TALK to reply, push door release button to release door and push OFF for standby
Door Release	Contact rating: 30V AC or DC, 1A
Wiring	Door/Sub to master: 2-cond., overall shield
Distance	Door/Sub to farthest master: 650'(22AWG) 1,600'(18AWG)
Wire Type	Aiphone #822202

LEM Audio
Open Voice Intercom

QuikSpec PLUS

Door/Sub Stations: MIX & MATCH up to 3 TOTAL LEM units

DOOR/SUB 3

LE-D
Door Station, plastic cover, surface mount
→ p.103

LE-SS-1G
Door Station, stainless steel, flush mount
→ p.103

LE-DA
Door Station, stainless steel faceplate, flush mount
→ p.103

LE-SS
Door Station, vandal resistant, stainless steel, flush mount
→ p.103

LE-SSR
Door Station, vandal resistant, stainless steel, red mushroom call button, flush mount
→ p.103

LE-SSV
Door Station with a built-in CCTV camera, stainless steel, flush mount
→ p.103

LS-NVP/C
Door Station, vandal resistant, powder-coated steel, flush mount
→ p.103

Interior Use Only

LE-A *(Shown)*
Sub Station, surface mount
→ p. 58
LE-AN
Privacy Sub Station, surface mount
→ p. 58

LE-B *(Shown)*
Sub Station, semi-flush mount
→ p. 59
LE-BN
Privacy Sub Station, semi-flush mount
→ p.59

LE-A3 *(Shown)*
3-Call Sub Station, surface mount
→ p.58
LE-AN3
3-Call Privacy Sub Station, surface mount
→ p.58

BA-1
Paging Adaptor
→ p.113

Inside Stations - Select 1 unit

INSIDE 1

LEM-1*
1-Call Master Station, surface mount

LEM-3**
3-Call Master Station, surface mount

* *Use LEM-1 when 1 Door or Sub Station is used*

** *Use LEM-3 when 2 or 3 Door or Sub Stations are used*

Options & Accessories

XP-SS NEW
Accessory Station with an embedded Stand-Alone Card Reader with host controller
→ p.109

HID-SS
Accessory Station with Embedded HID® Proximity Card Reader
→ p.109

ICP-BR
Brass Faceplate for LE-DA
→ p.108

ICP-AB
Antique Brass Faceplate for LE-DA
→ p.108

SBX-1G
Surface Mount Box for LE-SS-1G
→ p.105

SBX-2G
Surface Mount Box for LE-DA, LE-SS, LE-SSR, and LE-SSV
→ p.105

SBX-2BH
Horizontal Mount Box for HID-SS and LE-DA, LE-SS, LE-SSR or LE-SSV *(Vertical mount also available - SBX-2BV)*
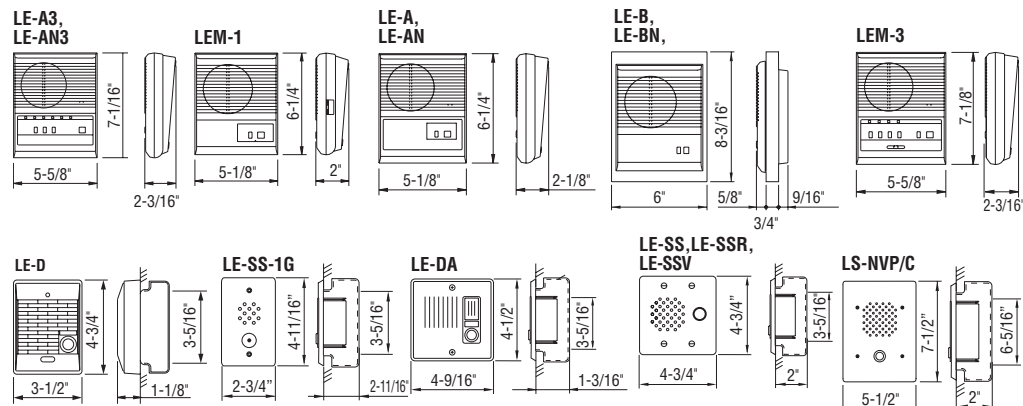→ p.105

SBX-NVP
Surface Mount Box for LS-NVP/C
→ p.106

2 wires
Aiphone #822202
(Max. 650' between master and farthest sub)

2 wires

SKK-620B
Power Supply, 6V DC
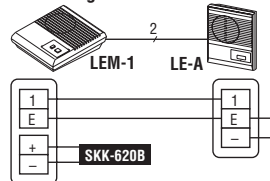→ p.116

Audio Only Intercoms

Features

- Open voice communication
- Push-to-talk at master and hands-free at remote
- LE Sub stations - either door or room sub units
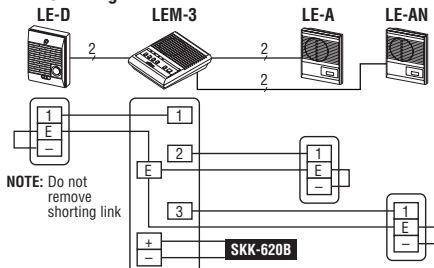- Voice volume control

Unit Dimensions

LE-A3, LE-AN3
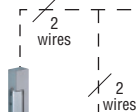7-1/16"
5-5/8"
2-3/16"

LEM-1
6-1/4"
5-1/8"
2"

LE-A, LE-AN
6-1/4"
5-1/8"
2-1/8"

LE-B, LE-BN,
8-3/16"
6"
5/8"
9/16"
3/4"

LEM-3
7-1/8"
5-5/8"
2-3/16"

LE-D
4-3/4"
3-1/2"
1-1/8"

LE-SS-1G
3-5/16"
4-11/16"
2-3/4"

LE-DA
3-5/16"
4-1/2"
2-11/16"
4-9/16"
1-3/16"

LE-SS,LE-SSR, LE-SSV
3-5/16"
4-3/4"
4-3/4"
2"

LS-NVP/C
3-5/16"
7-1/2"
6-5/16"
5-1/2"
2"

Wiring

LEM-1 Wiring

LEM-1   LE-A

1
E
+
−
SKK-620B

1
E
−

LEM-3 Wiring

LE-D   LEM-3   LE-A   LE-AN

2
2
2

1
E
−

1
E
2

1
E
−

NOTE: Do not remove shorting link
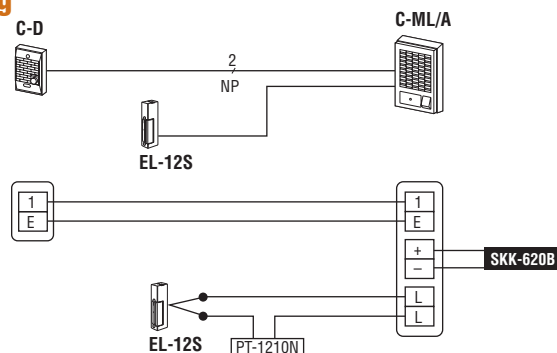
3

1
E
−

+
−
SKK-620B

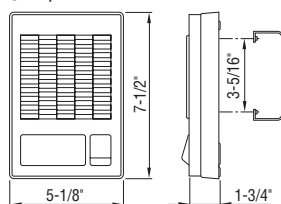## Specifications

Power Source	6V DC, 200mA - use SKK-620B
Communication	Sub calls in with tone, push TALK button to reply, sub called by tone or voice, hands-free at sub (with LEM-3: LED, 20 sec., push selector button)
Communication Output	350mW output
Wiring	Door/Sub to master: 2-cond., overall shield
Distance	Door/Sub to farthest master: 650'(22AWG) 1,600'(18AWG)
Wire Type	Aiphone #822202 or Aiphone #821802

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **63**

C-123L/A & C-123LW
Chime Com

QuikSpec PLUS *QuikDraw*

Door Station

DOOR 1

C-D
Door Station, plastic,
surface mount
(Not available separately)

2 wires
Aiphone
#822202
(Max. 245'
between door and
farthest master)

2 wires

2 wires

EL-12S
Door
Strike

PT-1210N
AC Transformer,
12V AC *(Required
for EL-12S)*

Inside Station

INSIDE 1

C-ML/A
Master Station,
plastic, surface mount

2 wires
Aiphone
#822202

SKK-620B
Power Supply,
6V DC
→ p.116
or
4 "C" Batteries

2 x 2 wires
Aiphone
#822202
(Max. 245'
between door and
farthest master)

Inside Station *(optional)*

INSIDE 2

C-ML/A
Master Station,
plastic, surface mount
(Includes DAK-2S)

2 wires
Aiphone
#822202

SKK-620B
Power Supply,
6V DC
→ p.116
or
4 "C" Batteries

Options & Accessories

EL-12S
Electric Door Strike,
12V AC/DC, 200mA
(Requires PT-1210N)
→ p.108

Boxed Sets

C-123L/A - Single Master Set:
C-D, C-ML/A

C-123LW - Dual Master Set:
C-D, (2) C-ML/A's, DAK-2S

Audio Only Intercoms

Features

- Open voice door answering with door release
- Adjustable communication volume
- Automatically turns off in 20 seconds
- Batteries or 6V DC power supply (1 per master)
- Any LE or LS Series door station can be used to replace the C-D
- LE-D is physically identical to C-D
- Second inside room station (separate power supply required)

Wiring

C-D   **C-ML/A**

2
NP

EL-12S

1 E		1 E
+ −		**SKK-620B**
L		L

EL-12S PT-1210N

Unit Dimensions

C-ML/A

7-1/2"
3-5/16"
5-1/8"
1-3/4"

C-D

4-3/4"
3-5/16"
3-1/2"
1-1/8"
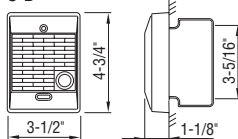
Specifications

Power Source	6V DC - Use SKK-620B or 4 "C" Batteries
Communication	Door calls in with 2-tone chime, not adjustable, push TALK button to reply, release-to-listen, power automatically shuts off circuit
Door Release	Contact rating: 50V AC @ 1A
Wiring	Door to master: 2-cond., overall shield Between masters: 2-cond., overall shield
Distance	Door to farthest master: 245'(22AWG) 490'(18AWG)
Wire Type	Aiphone #822202 or Aiphone #821802

CCS-1A Set
Chime Com2

QuikSpec PLUS QuikDraw

Door Station

DOOR 1

CC-DA
Door Station
(*Not sold separately*)

2 wires
Aiphone
#822202
(Max. 245'
between door and
farthest master)

Inside Station

INSIDE 1

CC-1M
Master Station
(*Not sold separately*)

2 wires
Aiphone
#822202

PT-1210N
AC Transformer,
12V AC
→ p.108
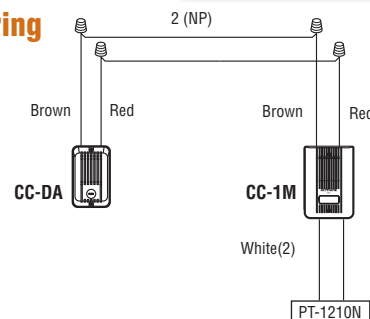
Boxed Set

CCS-1A - Single Master Set:
CC-DA, CC-1M

Audio Only Intercoms

Features

- Push-to-talk door answering with automatic shut-off
- Backlit CALL button
- CHIME and VOICE volume controls
- Powered by AC transformer PT-1210N

Wiring

2 (NP)

Brown   Red   Brown   Red

CC-DA   **CC-1M**

White(2)

PT-1210N

Unit Dimensions

CC-1M
7"
AIPHONE TALK
4-3/4"   1-5/16"

CC-DA
4-1/2"
2-3/4"   1-3/16"
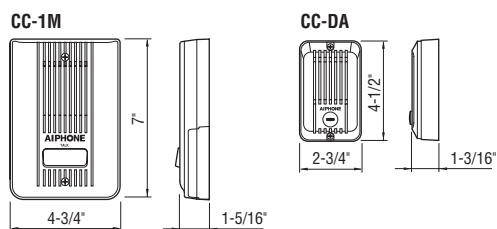
Specifications

Power Source	12~16V AC - Use AC transformer PT-1210N (with no-load voltage rating: 20V or less)
Communication	2-tone chime, push TALK to reply, hands-free at door, times out in 15 sec. after TALK is pushed
Wiring	Door to master: 2-cond., overall shield
Distance	Door to master: 245'(22AWG) 590'(18AWG)
Wire Type	Aiphone #822202 or Aiphone #821802

IM Series
Security Window System Set

Audio Only Intercoms

Window Station
WINDOW 1

IAI-100
Acoustic Kit Includes:
1 DR-100 Driver Unit and
1 AI-100 Acoustic I/O Tube with noise cancelling microphone

2 wires
Aiphone #822202
(Max. 66')

2 wires
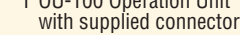Aiphone #821802
(Max. 66')

Inside Station
INSIDE 1

IME-100
Gooseneck Microphone
(Sold separately)
→ p.118

IMU-100
Master Kit Includes:
1 MU-100 Main Unit and
1 OU-100 Operation Unit with supplied connector

2 wires
Aiphone #821802
(Max. 66')

PS-2420UL
Power Supply, 24V DC, 2A
→ p.116

Options & Accessories

IAX-100
Acoustic Tube Extension, 39-3/8"
→ p.118

ISE-100
Proximity Sensor
→ p.118

IME-150
Optional Microphone
→ p.118

Boxed Set

IM Series Box Set

IM-1: IMU-100, IAI-100, IAX-100, IME-100, ISE-100, and power supply

Features

- Inconspicuous units do not obscure faces of those approaching a ticket/customer window for added visibility and security
- Flexible gooseneck microphone can be adjusted to virtually any position
- Computer style headset can be used (not supplied by Aiphone)
- Uses voice-actuated communication (VOX) system, requiring no additional operations during conversation
- When the TALK switch is off, the Operation Unit is put on standby, but sound from public side is still heard at reduced volume
- By linking the system to a motion sensor, communication mode is automatically activated when a customer is present

Wiring

Unit Dimensions

MU-100, OU-100, IME-100, IME-150, ISE-100, AI-100, DR-100, IAX-100
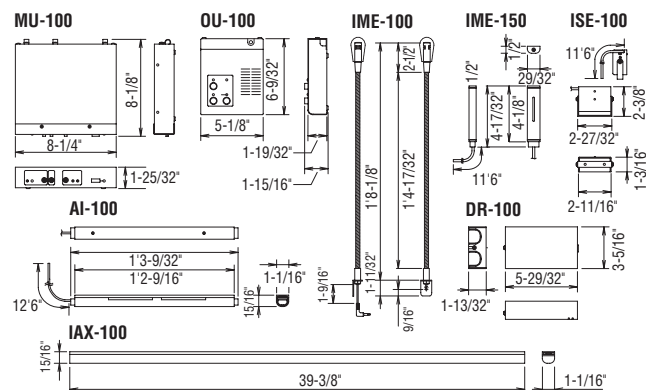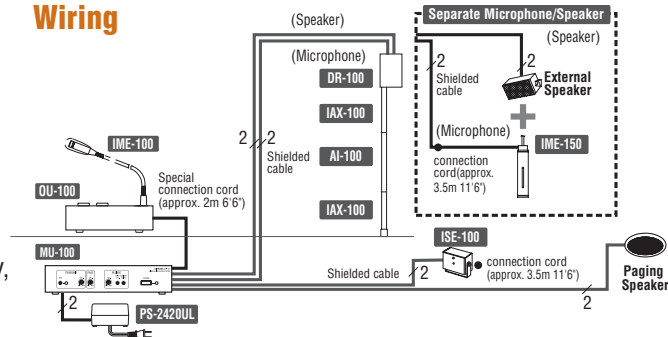
Specifications

Power Source	24V DC, 120mA standby, 780mA max. Use PS-2420UL
Communication	Voice-actuated communication (VOX) or simplex Transmit output: 3W 4Ω Receive output: 1.5W 16Ω Impedance: 32Ω
Headset	Φ3.5mm plug - Impedance: 32Ω Rated input: 40mW or more Max. input: 100mW or more
External & Paging Speaker	Impedance: 4 to 8Ω, Rated input: 3W or more Max. input: 6W or more
Wiring	DR-100 to MU-100: 2 x 2-cond., overall shield
Wire Type	Aiphone #822202 or Aiphone #821802

An Industry First! - Acoustic Tube System for Security Ticket Windows

- Movie Theaters
- Arenas/Amphitheaters
- Sport Stadiums
- Theme Parks
- Payday Loan Centers
- Train/Transportation Stations
- Courthouses & City Halls
- Banks & Credit Unions
- Parking Garages
- Police Stations
- Embassies & Consulates
- Pharmacies

1 - Acoustic Kit (IAI-100)

Covers a wide frequency band -
The use of an acoustic tube system ensures clear sound quality at an optimum volume

Designed with security in mind -
Slender tube prevents the field of vision from being obstructed

No ambient noise means more clarity -
Noise cancellation greatly reduces unwanted background noise, enabling crisp conversation

No visual obstruction -
Holes in the barrier glass are not necessary, allowing for easier installation, improved safety, and a direct view of customers

2 - Gooseneck Microphone (IME-100)

Completely flexible and practical -
This gooseneck type microphone is adjustable and can be set to accommodate any preference
(Headset can be used - not supplied by Aiphone)

3 - Operation Unit (OU-100)

Operator-friendly and easy to use -
Uses voice-actuated communication system (VOX), providing hands-free conversation

Standby mode keeps user aware -
When the TALK switch is off, this unit is put on standby, allowing sound from the public side to be heard at a reduced volume so users will know when someone is present

4 - Main Unit (MU-100)

It all goes back to the "brain" -
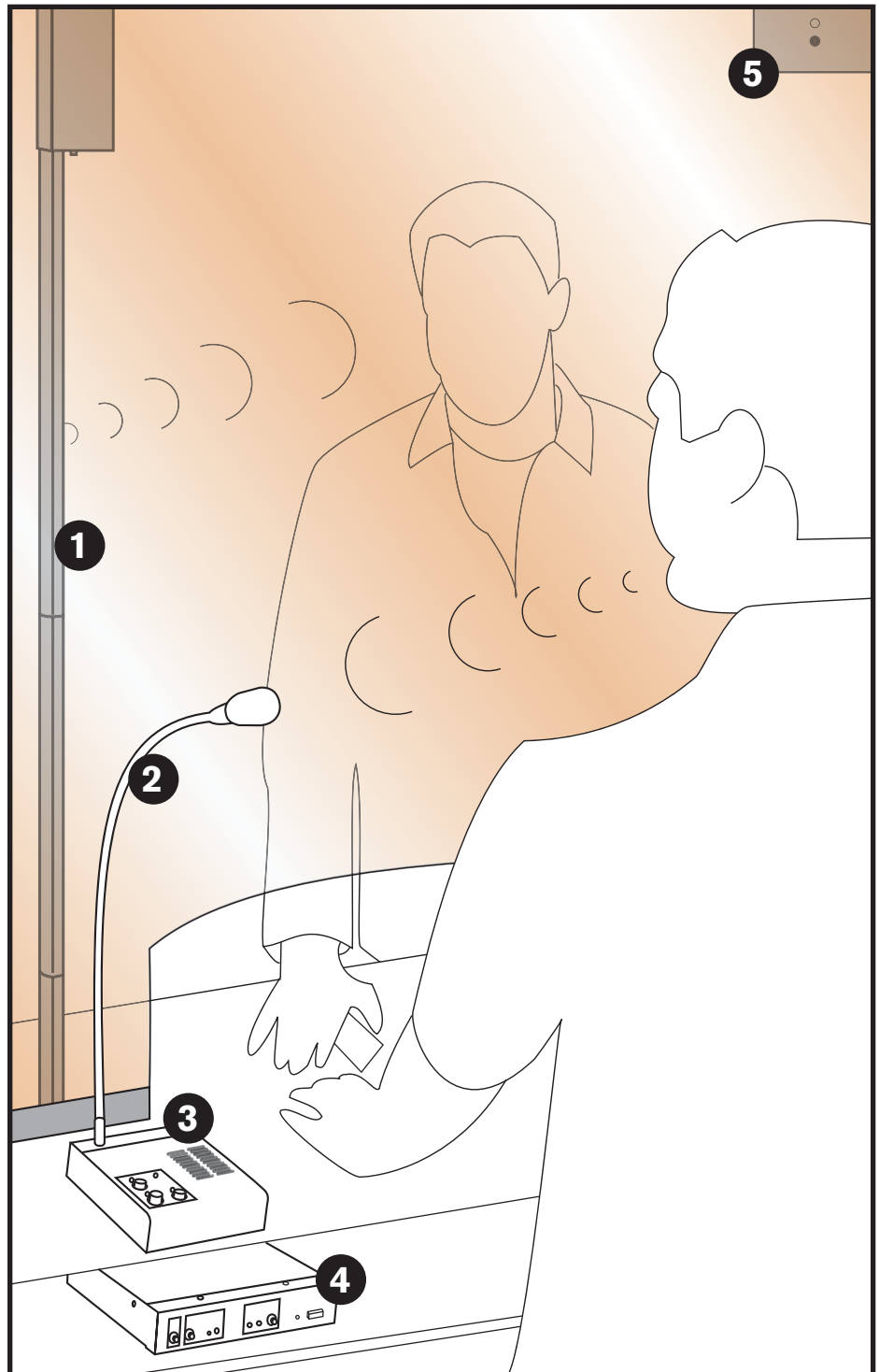The main unit is the source of functionality for all the other devices in the IM Series

Power and volume attenuation controls are also located on this device

Where applicable, a paging system can be wired back to the main unit
(Paging system is separate, additional equipment required)

5 - Proximity Sensor (ISE-100)

Instantly activate communication -
An optional proximity sensor (ISE-100) automatically prompts communication when a customer approaches

Audio Only Intercoms

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **67**

IE-8 Series
Chime Tone Intercom System

Door Stations - Select 1 unit

DOOR 1

IF-DA
Door Station, plastic cover, surface mount → p.102

AX-DM
Door Station, plastic cover, mullion surface mount → p.96

IE-DC
Door Station, plastic and aluminum cover, surface mount → p.102

IE-JA
Door Station, stainless steel faceplate, flush mount → p.102

IE-SS
Door Station, vandal resistant, stainless steel, flush mount → p.102

IE-SSR
Door Station, vandal resistant, stainless steel, red mushroom call button, flush mount → p.102

IE-SSV
Door Station with a built-in CCTV camera, stainless steel, flush mount → p.102

Door Stations - Select 1 unit (optional)

DOOR 2

IF-DA → p.102

AX-DM → p.96

IE-DC → p.102

IE-JA → p.102

IE-SS → p.102

IE-SSR → p.102

IE-SSV → p.102

2 wires Aiphone #822202 (Max. 500')

2 wires
EL-12S Door Strike

2 wires
PT-1210N AC Transformer, 12V AC (Required for EL-12S)

2 wires Aiphone #822202 (Max. 500')

2 wires
EL-12S Door Strike

2 wires
PT-1210N AC Transformer, 12V AC (Required for EL-12S)

Inside Station

INSIDE 1

IE-8MD 6-Call Master Station

2 wires Aiphone #822202 (Max. 33')

PT-1210N AC Transformer, 12V AC → p.108

4 wires Aiphone #812205 (Max. 245' between master and farthest sub)

Inside Station - Select up to 5 units (optional)

INSIDE 2 ~ INSIDE 6

IE-8HD 6-Call Sub Master Station

Options & Accessories

XP-SS NEW
Accessory Station with an embedded Stand-Alone Card Reader with host controller → p.109

HID-SS
Accessory Station with Embedded HID® Proximity Card Reader → p.109

ICP-BR
Brass Faceplate for IE-JA → p.108

ICP-AB
Antique Brass Faceplate for IE-JA → p.108

SBX-2G
Surface Mount Box for IE-JA, IE-SS, IE-SSR, and IE-SSV → p.105

SBX-2BH
Horizontal Mount Box for HID-SS and IE-SS, IE-SSR, or IE-SSV (Vertical mount also available - SBX-2BV) → p.105

EL-12S
Electric Door Strike, 12V AC/DC, 200mA (Requires PT-1210N) → p.108
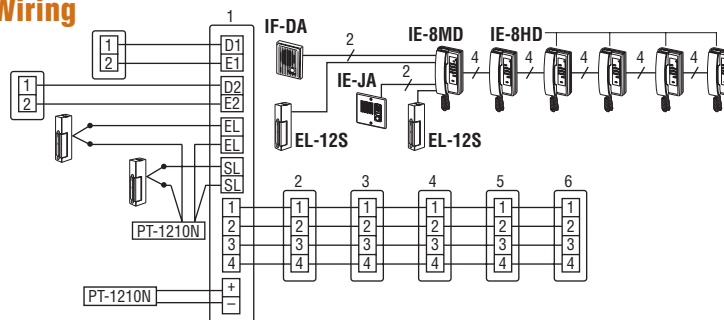
RY-ES NEW
External Signaling Relay → p.110

RY-AC/A
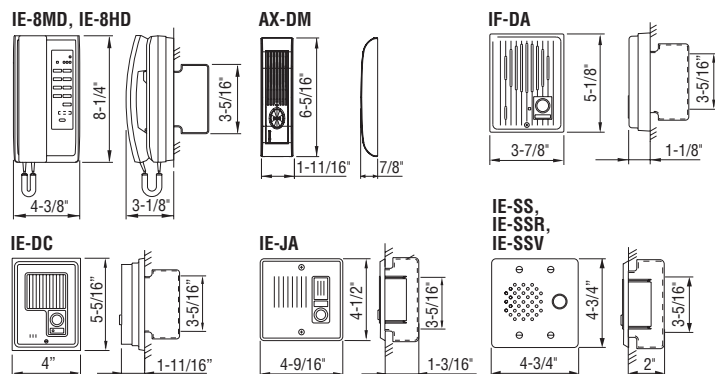External Signaling Relay → p.110

Features

- Two doors with Selective Door Release
- Room to room calling or All Call
- Easy 4 conductor wiring between handsets
- 2 wires to door stations, same as doorbell
- External doorbell can be added
- AC or DC powered (12 ~ 16V AC or 12 ~ 18V DC)

Wiring

Unit Dimensions

IE-8MD, IE-8HD 8-1/4" 3-5/16" 4-3/8" 3-1/8"

AX-DM 6-5/16" 1-11/16" 7/8"

IF-DA 5-1/8" 3-5/16" 3-7/8" 1-1/8"

IE-DC 5-5/16" 3-5/16" 4" 1-11/16"

IE-JA 4-1/2" 3-5/16" 4-9/16" 1-3/16"

IE-SS, IE-SSR, IE-SSV 4-3/4" 3-5/16" 4-3/4" 2"

Specifications

Power Source
12~16V AC - Use AC transformer PT-1210N
12~18V DC, 500mA

Communication
Door calls in with 4 or 2-tone chime and LED, pick up any handset to reply, push 1- 6 to call other station with pre-tone and voice or All Call, single channel, common talk system

Door Release
Contact rating: 24V AC/DC, 350mA

Wiring
Door to master: 2-cond.
Master to subs: 4-cond.

Distance
Door to master: 500'(22AWG) 1,180'(18AWG)
Master to farthest sub: 245'(22AWG) 580'(18AWG)

Wire Type
Door to master: Aiphone #822202
Master to farthest sub: Aiphone #812205

AT-406 Series
Handset to Handset

Master Station

MASTER 1

2 wires
Aiphone
#822202
(Max. 2,300')

AT-206
Master Station,
white *(Not sold separately)*

(Max. 12')

SKK-620B
Power Supply,
6V DC
→ p.116 or
4 "AA" Batteries

Sub Station - Select up to 3 units

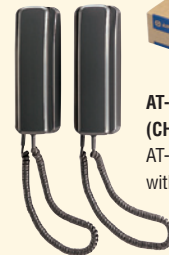**SUB 1** ~ **SUB 3**

AT-306
Sub Station,
white

Options & Accessories

TAR-3
External
Signaling Relay
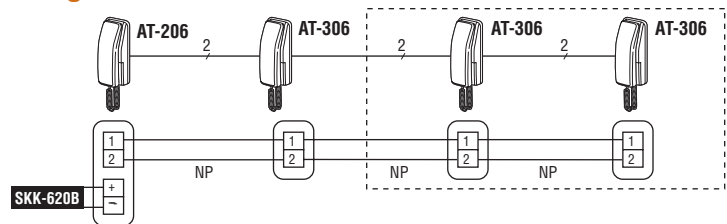*(Requires SKK-620B)*
→ p.117

Boxed Sets

AT-406 (WHITE):
AT-206, AT-306

**AT-406B/A
(CHARCOAL GRAY):**
AT-206B, AT-306B,
with 4' coil cord

Audio Only Intercoms

Features

- Call button (master) rings all the subs
- Up to 2 additional subs can be added (AT-306)
- Power supply or battery powered
- Sub(s) ring master only

Wiring

AT-206 — 2 — **AT-306** — 2 — **AT-306** — 2 — **AT-306**

| 1 | 2 | NP | 1 | 2 | NP | 1 | 2 | NP | 1 | 2 |

SKK-620B + −

Unit Dimensions

**AT-206,
AT-306**

8-1/4"
3-1/8"
3-5/16"
2"
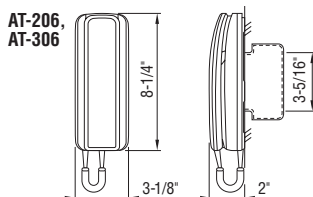
Specifications

Power Source	Use SKK-620B or 4 "AA" Batteries, 6V DC, 120mA
Communication	Push CALL button to ring all subs, pick up any phone, sub rings master only, common talk
Wiring	Master to sub: 2-cond., overall shield
Distance	2-station set: 2,300'(22AWG) 5,250'(18AWG) Master to 3rd sub: 1,350'(22AWG) 3,100'(18AWG)
Wire Type	Aiphone #822202

TD-H Series
Selective Call Intercom

Door Stations: Select up to 2 Door Stations

DOOR 2

AX-DM
Door Station, plastic cover, mullion surface mount
→ p.96

IF-DA
Door Station, plastic cover, surface mount
→ p.102

IE-DC
Door Station, plastic and aluminum cover, surface mount
→ p.102

IE-JA
Door Station, stainless steel faceplate, flush mount
→ p.102

IE-SS
Door Station, vandal resistant, stainless steel, flush mount
→ p.102

IE-SSR
Door Station, vandal resistant, stainless steel, red mushroom call button, flush mount
→ p.102

IE-SSV
Door Station with a built-in CCTV camera, stainless steel, flush mount
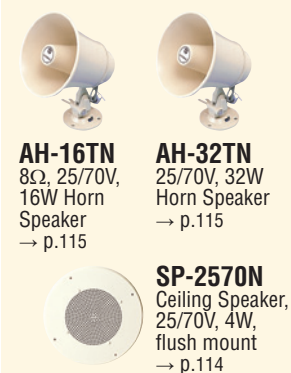→ p.102

Door Station Adaptor

DE-UR
Door Station Adaptor
(One per door)

2 wires
Aiphone #822202
(Max. 500')

4 wires
Aiphone #812205

Paging Speakers

AH-16TN
8Ω, 25/70V, 16W Horn Speaker
→ p.115

AH-32TN
25/70V, 32W Horn Speaker
→ p.115

SP-2570N
Ceiling Speaker, 25/70V, 4W, flush mount
→ p.114

Paging Amplifiers: One Paging Amplifier required for each PD-1 / PD-2

T3115BGM
15W Paging Amplifier
→ p.114

DMA2060
60W Paging Amplifier
→ p.114

T3130BGM
30W Paging Amplifier
→ p.114

DMA2120 *(Shown)*
120W Paging Amplifier
→ p.114

2 wires
Aiphone #822202

2 wires
Aiphone #822202

Paging Adaptors: MIX & MATCH up to 25 TOTAL TD-H units & paging components

CHANNELS 25
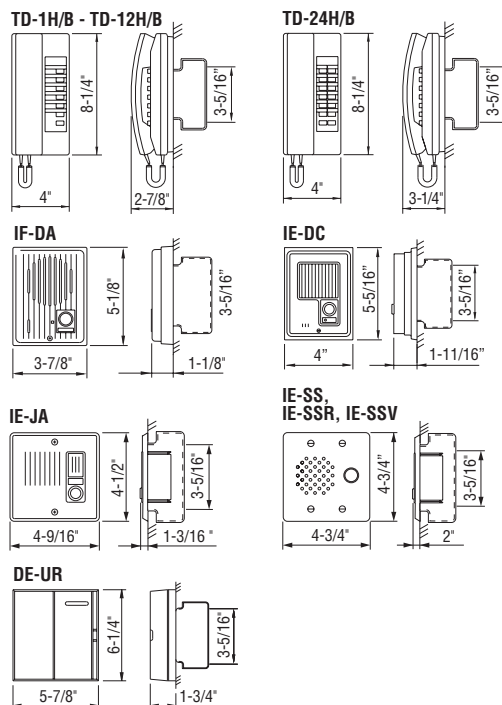
PD-1*
Zone Paging Adaptor
→ p.113

PD-2*
Zone Paging / Talkback Adaptor
→ p.113

*** One Paging Amplifier required for each PD-1 / PD-2.
Use T3115BGM / T3130BGM / DMA2060 / DMA2120**

3 wires
Aiphone #822203

Features

- Handsets available in 1, 3, 6, 12 and 24-station sizes
- Audio door stations can be added (1 or 2 doors)
- Max. of 23 inside stations when 2 door stations are installed
- Paging zone with optional talkback
- External signaling device when calling a handset (RY-AC/A required)

Unit Dimensions

TD-1H/B - TD-12H/B
8-1/4" 3-5/16" 4" 2-7/8"

TD-24H/B
8-1/4" 3-5/16" 4" 3-1/4"

IF-DA
5-1/8" 3-5/16" 3-7/8" 1-1/8"

IE-DC
5-5/16" 3-5/16" 4" 1-11/16"

IE-JA
4-1/2" 3-5/16" 4-9/16" 1-3/16"

IE-SS, IE-SSR, IE-SSV
4-3/4" 3-5/16" 4-3/4" 2"

DE-UR
6-1/4" 3-5/16" 5-7/8" 1-3/4"

Audio Only Intercoms

Inside Stations: MIX & MATCH up to 25 TOTAL TD-H units & paging components

CHANNELS 25

TD-3H/B
3-Call Master
Station

Other Master Stations

TD-1HL*
1-Call Master Station
with call LED and
tone-off switch

TD-3HL
3-Call Master Station
with call LED and
tone-off switch

TD-6HL
6-Call Master Station
with call LED and
tone-off switch

TD-12HL
12-Call Master Station
with call LED and
tone-off switch

* *TD-1H/B and TD-1HL cannot be used for door answering*

TD-1H/B*
1-Call Master Station

TD-6H/B *(Shown)*
6-Call Master Station

TD-12H/B
12-Call Master
Station

TD-24H/B
24-Call Master
Station

2 wires
Aiphone
#822202

PS-1225UL
Power Supply,
12V DC
→ p.116

Options & Accessories

XP-SS *NEW*
Accessory Station
with an embedded
Stand-Alone Card
Reader with host
controller
→ p.109

HID-SS
Accessory Station
with Embedded
HID® Proximity
Card Reader
→ p.109

ICP-BR
Brass
Faceplate
for IE-JA
→ p.108

ICP-AB
Antique Brass
Faceplate for
IE-JA
→ p.108

SBX-2G
Surface Mount
Box for IE-JA,
IE-SS, IE-SSR,
and IE-SSV
→ p.105
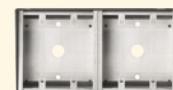
SBX-2BH
Horizontal Mount
Box for HID-SS
and IE-SS, IE-SSR
or IE-SSV
→ p.105
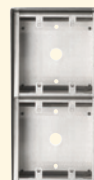
SBX-2BV
Vertical Mount Box
for HID-SS and IE-SS,
IE-SSR, or IE-SSV
→ p.105

TDW-nA
Terminal Box
for master
station TD-nH/B
(n=1, 3, 6, 12 or 24)

RY-AC/A
External
Signaling
Relay
→ p.110

Wiring

COMPONENT	WIRE #	DESCRIPTION
IE Door Stations to DE-UR	822202	22 AWG, 2 conductor, overall shield
DE-UR to TD-H	812205	22 AWG, 5 conductor, non-shielded
TD-1H/B	812205	22 AWG, 5 conductor, non-shielded
TD-1HL	812205	22 AWG, 5 conductor, non-shielded
TD-3H/B	812210	22 AWG, 10 conductor, non-shielded
TD-3HL	812210	22 AWG, 10 conductor, non-shielded
TD-6H/B	812210	22 AWG, 10 conductor, non-shielded
TD-6HL	812210	22 AWG, 10 conductor, non-shielded
TD-12H/B	812216	22 AWG, 16 conductor, non-shielded
TD-12HL	812216	22 AWG, 16 conductor, non-shielded
TD-24H/B*	812216	22 AWG, 16 conductor, non-shielded

*Two runs of 812216 are required for full TD-24H/B functionality

Specifications

Power Source	12V DC, 70mA - Use PS-1225UL
Communication	Simultaneous through handset
Door Release	Contact rating: 30V AC/DC, 1A
Wiring	2 or 3 + number of TD-H/B in loop, non-shielded
Distance	IE Doors to DE-UR: 500'(22AWG) 1,200'(18AWG) Between masters: 2,000'(22AWG) 4,800'(18AWG)
Wire Type	See **"Wiring"** for details

Audio Only Intercoms

MP-S Series
Mid-Power Intercom

QuikSpec PLUS

Door / Sub Stations: MIX & MATCH
up to **3 TOTAL** MP-S Components

DOOR/SUB 3

LE-SS-1G
Door Station, stainless steel, flush mount
→ p.103

LE-SS
Door Station, vandal resistant, stainless steel, flush mount
→ p.103

LE-SSR
Door Station, vandal resistant, stainless steel, red mushroom call button, flush mount
→ p.103

LE-SSV
Door Station with built-in CCTV camera, stainless steel, flush mount
→ p.103

LS-NVP/C
Door Station, vandal resistant, powder-coated steel, flush mount
→ p.103

AS-3A
Desk / Wall Sub Station

AH-108
8Ω, 10W Horn Speaker
→ p.115

AS-3N
Ceiling Speaker Station
→ p.115

BA-1P
Paging Adaptor
→ p.113

Master Stations - Select 1 unit

MASTER 1

MP-1S
1-Call Master Station

MP-3S
3-Call Master Station

Options & Accessories

XP-SS NEW
Accessory Station with an embedded Stand-Alone Card Reader with host controller
→ p.109

HID-SS
Accessory Station with Embedded HID® Proximity Card Reader
→ p.109

SBX-1G
Surface Mount Box for LE-SS-1G
→ p.105

SBX-2G
Surface Mount Box for LE-SS, LE-SSR, or LE-SSV
→ p.105

SBX-2BH
Horizontal Mount Box for HID-SS and LE-SS, LE-SSR or LE-SSV *(Vertical mount also available - SBX-2BV)*
→ p.105

SBX-NVP
Surface Mount Box for LS-NVP/C
→ p.106

N-EA
Round Frame for AS-3N, surface mount
→ p.115

NBZ-M
Square Frame for AS-3N, flush mount
→ p.115

PS-1225UL
Power Supply, 12V DC
→ p.116

NP-B
Indoor Call Button, flush mount

NP-W
Surface Mount Box for NP-B

NP-25V
Non-polarized capacitor, 33μF, 25V

2 wires Aiphone #822202 (Max. 330')

2 wires Aiphone #822202
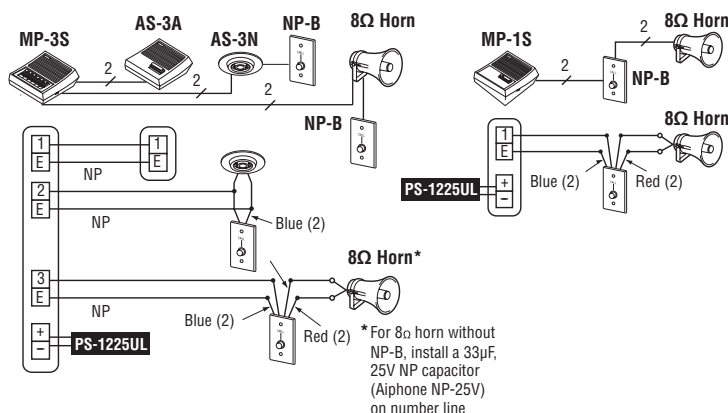
Features

- Single master system with 1 or 3-call master station
- 2.5W output power for higher noise areas
- Hands-free reply from remote station
- 8Ω horn or speaker can be used as a sub
- Optional call button at sub station (NP-B)

Wiring

MP-3S AS-3A AS-3N NP-B 8Ω Horn NP-B

MP-1S 8Ω Horn NP-B 8Ω Horn Blue (2) Red (2) PS-1225UL

Blue (2) PS-1225UL Blue (2) 8Ω Horn* Red (2)

*For 8Ω horn without NP-B, install a 33μF, 25V NP capacitor (Aiphone NP-25V) on number line

Unit Dimensions

NOTE: For unit dimensions **and details** of the **MP-S** door stations see **p.103**
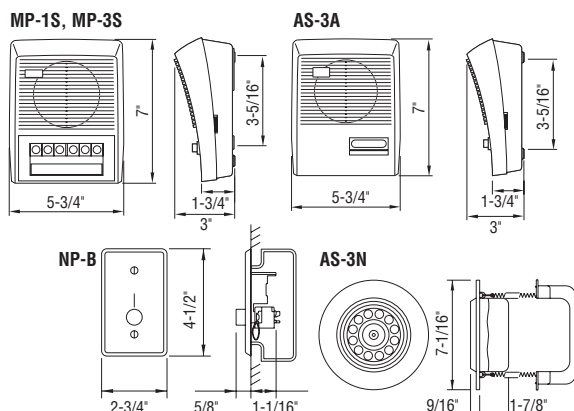
MP-1S, MP-3S
7" 5-3/4" 3-5/16" 1-3/4" 3"

AS-3A
7" 5-3/4" 3-5/16" 1-3/4" 3"

NP-B
4-1/2" 2-3/4" 5/8" 1-1/16"

AS-3N
7-1/16" 9/16" 1-7/8"

Specifications

Power Source	12V DC - Use PS-1225UL
Communication	Sub calls in with tone and LED, 20 sec., on MP-3S, push sub selector and TALK to transmit, and release-to-listen
Communication Output	2.5W at 1KHz
Wiring	Doors/Subs/Horns to master: 2-cond., overall shield
Distance	Doors/Subs/Horns to master: 330'(22AWG) 720'(18AWG)
Wire Type	Doors/Subs/Horns to master: Aiphone #822202 or Aiphone #821802

Audio Only Intercoms

AP-M Series
High-Power Intercom

QuikSpec PLUS

Door / Sub Stations: MIX & MATCH
up to **10 TOTAL** AP-M Components

DOOR/SUB **10**

LE-SS-1G
Door Station, stainless steel, flush mount
→ p.103

LE-SS
Door Station, vandal resistant, stainless steel, flush mount
→ p.103

LE-SSR
Door Station, vandal resistant, stainless steel, red mushroom call button, flush mount
→ p.103

LE-SSV
Door Station with built-in CCTV camera, stainless steel, flush mount
→ p.103

LS-NVP/C
Door Station, vandal resistant, powder-coated steel, flush mount
→ p.103

AS-3A
Desk / Wall Sub Station

AH-16TN
8Ω, 25/70V, 16W Horn Speaker
→ p.115

AS-3N
Ceiling Speaker Station
→ p.115

BA-1P
Paging Adaptor
→ p.113

Master Stations - Select 1 unit

MASTER **1**

AP-1M *(Shown)*
1-Call Master Station
AP-5M
5-Call Master Station

AP-10M
10-Call Master Station

2 wires
Aiphone #822202
(Max. 330')

2 wires
Aiphone #822202
(Max. 330' per sub)

Master Stations - Select 1 unit *(optional)*

MASTER **2**

AP-1M *(Shown)*
1-Call Master Station
AP-5M
5-Call Master Station

AP-10M
10-Call Master Station

Options & Accessories

XP-SS NEW
Accessory Station with an embedded Stand-Alone Card Reader with host controller
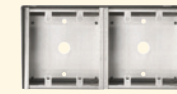→ p.109

HID-SS
Accessory Station with Embedded HID® Proximity Card Reader
→ p.109

SBX-1G
Surface Mount Box for LE-SS-1G
→ p.105

SBX-2G
Surface Mount Box for LE-SS, LE-SSR, or LE-SSV
→ p.105

SBX-2BH
Horizontal Mount Box for HID-SS and LE-SS, LE-SSR or LE-SSV *(Vertical mount also available - **SBX-2BV**)*
→ p.105

SBX-NVP
Surface Mount Box for LS-NVP/C
→ p.106

N-EA
Round Frame for AS-3N, surface mount
→ p.115

NBZ-M
Square Frame for AS-3N, flush mount
→ p.115

NP-B
Indoor Call Button, flush mount

NP-W
Surface Mount Box for NP-B

NP-25V
Non-polarized capacitor, 33µF, 25V
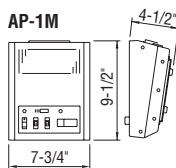
Audio Only Intercoms

Features

- High output power for large or noisy areas
- 1, 5, and 10-call masters available
- Separate TRANSMIT and RECEIVE volume controls
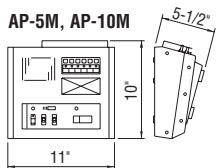- Variety of subs, or use 8Ω horn speaker with NP-25V capacitor

Wiring

Unit Dimensions
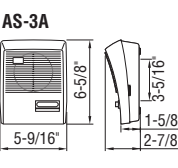
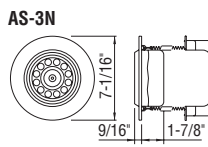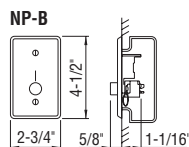**NOTE:** For unit dimensions of the **LE Series** door stations see **p.103**

AP-1M — 9-1/2", 7-3/4", 4-1/2"
AP-5M, AP-10M — 10", 11", 5-1/2"
AS-3A — 6-5/8", 5-9/16", 1-5/8", 2-7/8", 3-5/16"
AS-3N — 7-1/16", 9/16", 1-7/8"
NP-B — 4-1/2", 2-3/4", 5/8", 1-1/16"

Specifications

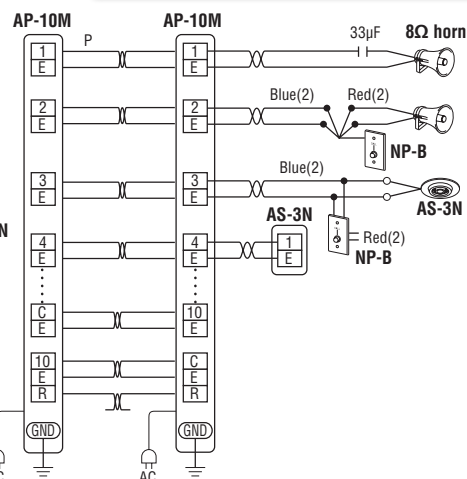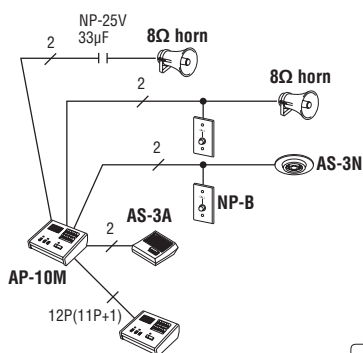|	
Power Source	110~125V AC, 50/60Hz
Communication	Sub calls in with tone and LED, 15 sec., push selector and use TALK/LISTEN switch, All Call selectively to max. 5 subs, max. 10W transmit (adjustable), 300mW receive (adjustable)
Communication Output	10W
Wiring	Doors/Subs/Horns to master: 2-cond., overall shield
Distance	Doors/Subs/Horns to master: 490'(22AWG) 1,200'(18AWG)
Wire Type	Aiphone #822202 or Aiphone #821802

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **73**

NEM Series
Lamp Memory Intercom

Audio Only Intercoms

Door Stations: MIX & MATCH up to 40 TOTAL NEM components

DOOR/SUB **40**

NE-DA
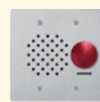Door Station, plastic cover, surface mount
→ p.104

NE-SS-1G
Door Station, stainless steel, flush mount
→ p.104

NE-JA
Door Station, stainless steel faceplate, flush mount
→ p.104

NE-SS
Door Station, vandal resistant, stainless steel, flush mount
→ p.104

NE-SSR
Door Station, vandal resistant, stainless steel, red mushroom call button, flush mount
→ p.104

NE-NVP/C
Door Station, vandal resistant, powder-coated steel, flush mount
→ p.104

2 wires
Aiphone #822202
(Max. 420' NE-JA Max. 360')

4 wires
Aiphone #822206
(Max. 420')

NE-NVP-RA
ADA Compliant Door Station, vandal resistant, powder-coated steel, red mushroom call button, braille signage, flush mount
→ p.104

Sub Stations: MIX & MATCH up to 40 TOTAL NEM Doors/Subs

DOOR/SUB **40**

NB-L
Ceiling Sub Speaker Station
→ p.115

NA-NE
Sub Station, aluminum, flush mount

NA-A
Wall / Desk Sub Station

NA-AN
Wall / Desk Sub Station with privacy

NA-T/A
Handset Sub Station

NBR-7AS
Bathroom Pullcord, moisture resistant

2 wires
Aiphone #822202
(Max. 420')

Healthcare Options: Unlimited

NBR-8A
Bedside Call Switch
(Requires NBY-1A)

NBY-1A
Plug-in Wall Jack *(For NBR-8A)*

NAR-6A
Call Button

NBY-4A
Corridor Call Light

NAR-2A
Call Reset Button

2 wires
Aiphone #822202

## Paging Adaptor: MIX & MATCH Up to 40 TOTAL NEM Doors/Subs

DOOR/SUB **40**

BA-1
Paging Adaptor
→ p.113

Features

- Master in 10, 20, 30, and 40-station sizes (with or without handset)
- Built-in All Call
- Push-to-talk at master or use handset, hands-free at sub
- Group call up to 10 subs at a time
- Optional background music - requires NB-U (max. 40 stations) and 10W, 25V or 8Ω PA amp (T3115BGM)
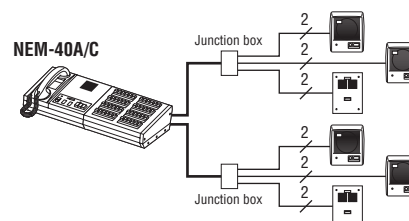
Wiring

Run parallel cables to each NA sub station (in the same conduit):

NEM-40A/C — 2 — NA-A
2
2
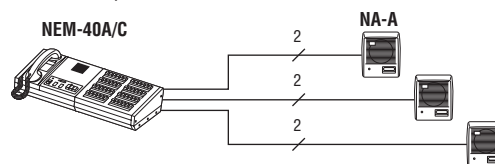
Run multi-conductor cable throughout system:

Multi-conductor cable

NEM-40A/C — 2 — 2 — 2 — 2
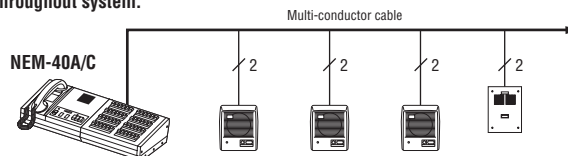
Run multi-conductor cables up to junction box, then run parallel cables to each NA sub station:

NEM-40A/C — Junction box — 2 / 2 / 2
Junction box — 2 / 2 / 2

Master Stations: MIX & MATCH up to **2 TOTAL** NEM Master Stations

INSIDE **2**

NEM-10/C
10-Call Master Station

NEM-20/C *(Shown)*
20-Call Master Station

NEM-30/C
30-Call Master Station

NEM-40/C *(Shown)*
40-Call Master Station

NEM-10A/C
10-Call Handset
Master Station

NEM-20A/C *(Shown)*
20-Call Handset
Master Station

NEM-30A/C
30-Call Handset
Master Station

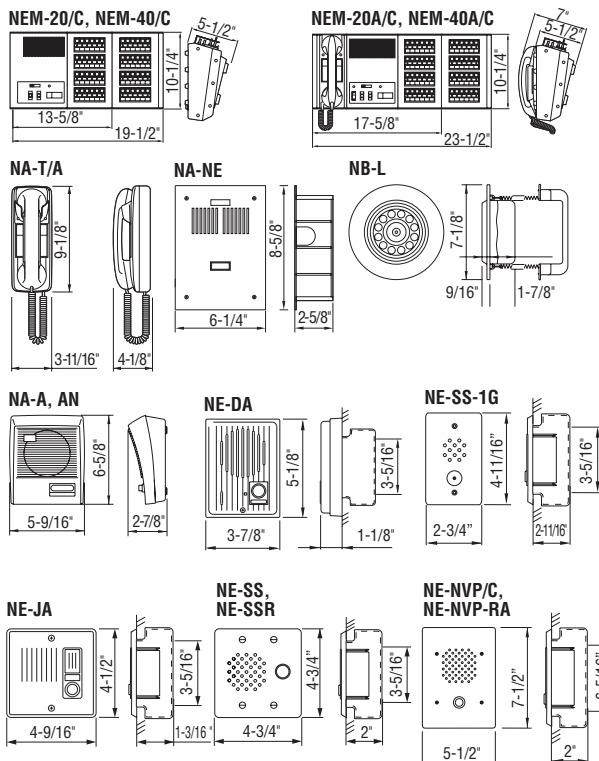**NEM-40A/C** *(Shown)*
40-Call Handset
Master Station

NOTE: When installing 2 masters, 1 NEW-5
required for every 5 door/sub stations

2 wires
Aiphone
#822202
(Max. 420')

2 wires
Aiphone
#822202

PS-2420UL
Power Supply,
24V DC, 2A
→ p.116

Options & Accessories

XP-SS NEW
Accessory Station
with an embedded
Stand-Alone Card
Reader with host
controller
→ p.109

HID-SS
Accessory
Station with
Embedded HID®
Proximity Card
Reader
→ p.109

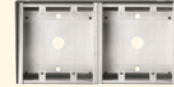**ICP-BR**
Brass
Faceplate
for NE-JA
→ p.108

ICP-AB
Antique Brass
Faceplate for
NE-JA
→ p.108

SBX-1G
Surface
Mount
Box for
NE-SS-1G
→ p.105

SBX-2G
Surface Mount
Box for NE-JA,
NE-SS, and
NE-SSR
→ p.105

SBX-2BH
Horizontal Mount Box
for HID-SS and NE-SS
or NE-SSR *(Vertical mount
also available - SBX-2BV)*
→ p.105

SBX-NVP
Surface
Mount Box
for NE-NVP/C,
NE-NVP-RA
→ p.106

NBX-2
Surface Mount
Box for NA-NE
→ p.106

IER-2
Call
Extension
Speaker
→ p.108

RY-ES NEW
External
Signaling
Relay
→ p.110

NEW-5
Dual Master
Call Adaptor
for NEM
*(1 per 5 shared
stations - requires
PS-1225UL)*
→ p.112

NB-U
Background
Music Adaptor
*(When NEM includes
NEW-5 adaptor, NB-U
cannot be used)*
→ p.112

Audio Only Intercoms

Unit Dimensions

NEM-20/C, NEM-40/C
5-1/2" 10-1/4" 5-1/2"
13-5/8" 19-1/2" 7"

NEM-20A/C, NEM-40A/C
5-1/2" 10-1/4" 5-1/2"
17-5/8" 23-1/2"

NA-T/A
9-1/8"
3-11/16"

NA-NE
8-5/8"
6-1/4"

NB-L
7-1/8"
9/16" 1-7/8" 2-5/8"
4-1/8"

NA-A, AN
6-5/8"
5-9/16" 2-7/8"

NE-DA
5-1/8"
3-7/8" 1-1/8"

NE-SS-1G
4-11/16" 3-5/16" 3-5/16"
2-3/4" 2-11/16"

NE-JA
4-1/2"
4-9/16" 1-3/16"

NE-SS, NE-SSR
3-5/16" 4-3/4"
4-3/4" 2"

NE-NVP/C, NE-NVP-RA
3-5/16" 7-1/2" 6-5/16"
5-1/2" 2"

NBY-4A
4-3/4"
2-3/4"

NAR-6A, NAR-2A
3-1/4" 4-1/2"
2-3/4" 1-11/16"

NBY-1A
4-3/4" 3-5/16"
2-3/4" 15/16" 1/8"

Specifications

Power Source	24V DC, 2A - Use PS-2420UL
Calling	Master to sub: By voice only after pre-tone Sub to master: Call tone and LED, remaining lit until call is answered
Communication	Push-to-talk, release-to-listen or VOX with handset Hands-free at sub station
Communication Output	500mW max., adjustable All Call: 6W (10~20), 12W (30~40) Selectively up to 10 subs with TALK: 3W
Wiring	Doors/Subs to masters: 2-cond., overall shield NEW-5 to master: 10-cond., overall shield
Distance	Doors/Subs to masters: 420'(22AWG) 1,000'(18AWG) NE-JA to master: 360' (22AWG)
Wire Type	Doors/Subs to masters: Aiphone #822202 or Aiphone #821802

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **75**

NHX Series
Nurse Call System (UL 1069 Listed)

Sub Stations: MIX & MATCH up to 10 PER TRUNK with up to 8 TRUNKS

Central Control Unit

NH-1SA/A *(Shown)*
Single-jack Bedside
Sub Station
→ p. 78

NH-1SA-ACB*
Sub Station with
built-in call button

NH-2SA/A
Dual-jack Bedside
Sub Station
→ p. 78

* *Not UL 1069 Listed*

NHX-80X
Central Control Unit
→ p. 78

NHR-30K
30-Call Add-on
Truck Card
→ p. 78

5P
Aiphone
#862210
(Max. 65')

4P
Aiphone
#862208
(Max. 330' per
trunk line)

(One call cord or dummy plug is required per jack on sub station)

NHR-8B *(Shown)*
Bedside Call Switch
→ p. 78

NHR-8A-L*
Bedside Call Cord
with latching call
button, gray

NHR-DP*
Dummy Plug
→ p. 78

* *Not UL 1069 Listed*

4P
Aiphone
#862208
(Max. 165')

2 wires
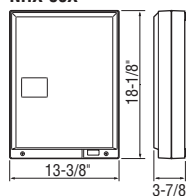Aiphone
#821802

2 wires
Aiphone
#821802

x2
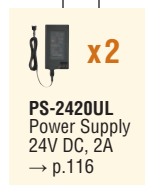
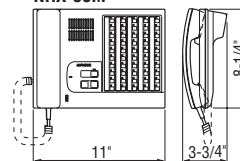**PS-2420UL**
Power Supply
24V DC, 2A
→ p.116

Features

- One master and up to 80 patient stations
- Single and dual patient stations
- Multi-station capability per patient room
- Three types of call-ins from patient stations: routine call, bathroom call and cord-out trouble call, identified by tone and a blinking LED (with priority according to urgency and time of call)
- NHR-3TS common area call station is used for common areas
- Duty station for call annunciation in separate area
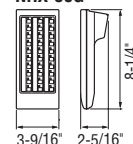- Optional zone light (max. 4)
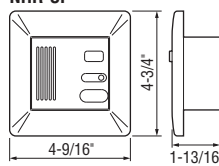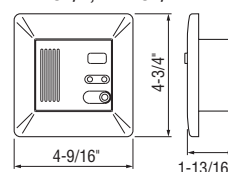
Unit Dimensions

NHX-80X
18-1/8"
13-3/8"
3-7/8"

NHX-50M
8-1/4"
11"
3-3/4"

NHX-30G
8-1/4"
3-9/16"   2-5/16"

NHR-SP
4-3/4"
4-9/16"
1-13/16"

NH-1SA/A, NH-2SA/A
4-3/4"
4-9/16"
1-13/16"

Audio Only Intercoms

Master Station

NHX-50M
50-Call Master Station
→ p. 78

NHX-30G *
30-Call Add-on Selector *(Plugs into NHX-50M)*
→ p. 78

* *In order to function, requires NHR-30K to be installed into NHX-80X*

Duty Station

NHR-SP
Duty Station
→ p. 78

Options & Accessories

NHR-7A
Bathroom/Staff Pullcord
→ p. 78

NHR-4A
Corridor Lamp with red and white lamps
→ p. 78

NH-1PA *
Paging Adaptor

NHR-3A-4
4-Zone Call Light
(Requires 1 PS-2420UL per 2 NHR-3A-4: Max. 4 lights)
→ p. 78

NHR-3TS
Common Area Call Station with lights
→ p. 78

NH-50AC *
All Call Adaptor
(Requires PS-1225UL, NH-1SA-AC patient station/s or NH-2SA-AC patient station/s)

* *Not UL 1069 Listed*

Wiring

NHR-4A
NH-1SA/A   NH-1SA/A   NH-1SA/A

Sub trunk line (max. 10 subs)   3P

165' up to farthest sub, max. 330' per block

NHR-4A   3   NH-2SA/A   3   NHR-7A
3P

NHR-7A

NHR-4A   3   65'   NH-1SA/A   3   65'   NHR-7A
3P

NHR-3TS   65'   NHR-7A   3
3P   3

NHR-7A   3   65'
3

NHR-7A
3P   3

① 5   5   5   5   165'   (max.4)

NHX-80X (CCU)

PS-2420UL   3P   PS-2420UL   65'

5P   65'   NHR-SP

16'   PS-2420UL
PS-2420UL

NHX-50M with NHX-30G

NOTE: Sub trunk line: 6 wires (3P). 4P with NHR-3A-4, light included, each zone requires an additional common wire from NHX-80X

Specifications

NOTE: For specifications of the **NHX Series** see **p. 78**

Audio Only Intercoms

Central Control Unit

NHX-80X
Central Control Unit

NHR-30K
30-Call Add-on Trunk Card

Features
- Compact slimline design
- Microprocessor control of all system functions
- 30 stations can be added with the NHX-30G (requires NHR-30K)
- All wire terminations are made inside with easy "screwless" wire connections

Specifications

Power Source	Use PS-2420UL x 2
Calling	Routine call, urgent bathroom call and cord-out trouble call (up to 5 calls can be displayed on the NHX-50M)
Communication	Single and private talk channel, push-to-talk or handset voice actuation
Call-In Priority	1) Cord-out trouble call, 2) urgent bathroom call and NHR-3TS common area bathroom or staff call, 3) routine call, sub station call-ins on standby connected according to urgency level and time of call
Warning Tones	1) Line-off trouble at bedside or NHR-3TS and duty station (to stop tone on duty station, plug in 2-pin jumper to CN104 in CCU), 2) 90 sec. elapse timer: call tone goes up to HIGH level, 3) 90 sec. off-hook timer: steady tone will notify that handset is off-hook
Distance	Subs to CCU: 165'(22AWG) - Duty station to CCU: 65'(22AWG) - CCU to master: 65'(22AWG)
Wire Type	Sub/Duty station to CCU: Aiphone #862208 - CCU to master: Aiphone #862210
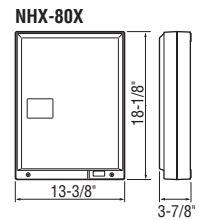
NHX-80X
18-1/8" 13-3/8" 3-7/8"

Master Station

NHX-30G*
30-Call Add-on Selector *(Plugs into NHX-50M)*

NHX-50M
50-Call Master Station

* In order to function, requires NHR-30K to be installed into NHX-80X

Features
- Compact slimline design
- Routine call and bathroom call annunciated by slow or fast flashing LED and tone
- Auto-connect to next call-in priority (no need to select station)
- Alert tone sound when: call cord is pulled out of patient station, wires are disconnected at patient station, or handset is off-hook for more than 90 sec.
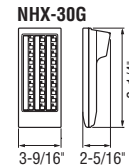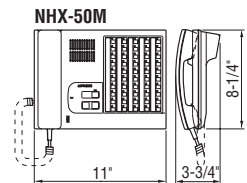- Handset or push-to-talk communication, tone OFF button and desk mount

Specifications

Power Source	Powered by CCU (NHX-80X)
Wiring	10-pin plug-in connector (to NHX-80X), provided with preset volume controls, can verify connection of all sub stations
Distance	CCU to master: 65'(22AWG)
Wire Type	CCU to master: Aiphone #862210

NHX-50M
8-1/4" 11" 3-3/4"

NHX-30G
8-1/4" 3-9/16" 2-5/16"

Sub & Duty Stations

NH-1SA/A
Single-jack Bedside Sub Station

NH-2SA/A
Dual-jack Bedside Sub Station

NHR-SP
Duty Station

(One call cord or dummy plug is required per jack on sub station)

NHR-8B
Bedside Call Switch

NHR-DP
Dummy Plug

Features
- Bedside station for calling and communication
- Used with NHR-8B call cord
- When call button is pushed, CALL LED is lit red, when master replies TALK LED is lit green, push CANCEL to reset the call, when NHX-50M calls in, pre-tone sounds and TALK LED is lit green
- Dummy Plug (NHR-DP) plugs into unused jack on bedside sub stations
- Duty Station (NHR-SP) acknowledges any station call with tone and blinking LED (use the NHX-50M to identify the caller or to answer the call)

Specifications

Power Source	Powered by CCU (NHX-80X)
Wiring	NH-1SA/A and NH-2SA/A: Subs 1~10 setting on SW1, CN1 (6 pin) to sub trunk line, CN2 (8 pin) for NHR-7A, NHR-4A and zone light, NHR-SP: CN1 (6 pin) to NHX-80X (when NHR-SP is installed, unplug connector from CN104 on NHX-80X)
Distance	Subs to CCU: 165'(22AWG) - Duty station to CCU: 65'(22AWG)
Wire Type	Sub/Duty station to CCU: Aiphone #862208

NH-1SA/A, NH-2SA/A, NHR-SP
4-3/4" 4-9/16" 1-13/16"
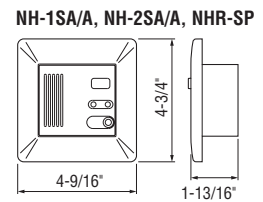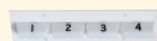
Options & Accessories

NHR-7A
Bathroom/Staff Pullcord

NHR-4A
Corridor Lamp with red and white lamps

NHR-3TS
Common Area Call Station with lights

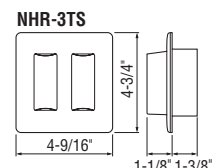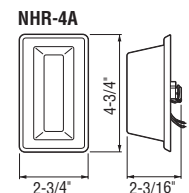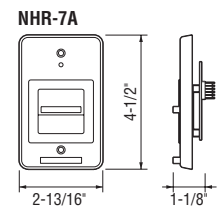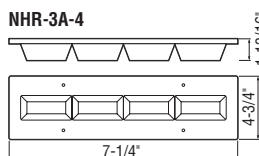**NHR-3A-4**
4-Zone Call Light

Features (NHR-7A)
- Latching call switch
- Waterproof for bathroom areas
- Durable and strong nylon pullcord with pendant
- Can be used without cord as urgent call station (with NHR-3TS)
- LED "call placed" indicator
- Single-gang mounting

Features (NHR-4A)
- White lamp for bedside call, red lamp for bathroom call
- Easy wiring to patient station
- Single-gang mounting

Features (NHR-3A-4)
- 4 individual lamps
- Lamps indicate which zone or area has an unanswered call
- Easy 5 cond. wiring from NHX-80X
- Wall or ceiling mount

Features (NHR-3TS)
- Provides call annunciation from common area, restrooms or staff call location
- Two corridor lamps (indicates call location)
- Wires the same as a patient station
- 2-gang mounting with stainless steel faceplate

NHR-7A
4-1/2" 2-13/16" 1-1/8"

NHR-4A
4-3/4" 2-3/4" 2-3/16"

NHR-3A-4
1-13/16" 4-3/4" 7-1/4"

NHR-3TS
4-3/4" 4-9/16" 1-1/8" 1-3/8"

MC Series
Market Com

QuikSpec PLUS

Inside Stations - Select 1 unit

STATIONS **1**

MC-60/4A
Market Com
Master Station,
wall mount

MC-60/4B
Market Com
Master Desk
Station

Inside Stations: MIX & MATCH up to 60 TOTAL units

STATIONS **2** ~ STATIONS **60**

MC-60/4A
Market Com
Master Station,
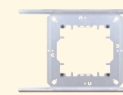wall mount

MC-60/4B
Market Com
Master Desk
Station

Options & Accessories

MC-S12
12" Checkstand
Pedestal for
MC-60/4A

MC-S23
23" Checkstand
Pedestal for
MC-60/4A

SSB-2
Ceiling Support
Bracket for
SP-2570N
→ p.114

7 wires
Aiphone #852207
(See wire distance in
specifications below)

7 wires
Aiphone #852207
(See wire distance in
specifications below)

Paging Speakers

AH-16TN
8Ω, 25/70V, 16W
Horn Speaker
→ p.115

AH-32TN
25/70V, 32W
Horn Speaker
→ p.115

SP-2570N
Ceiling Speaker,
25/70V, 4W,
flush mount
→ p.114

Paging Adaptor

MC-A/A
Zone Paging
Adaptor
→ p.113

Paging Amplifiers - Select 1 unit

T3115BGM
15W Paging
Amplifier
→ p.114

T3130BGM
30W Paging
Amplifier
→ p.114

DMA2060
60W Paging
Amplifier
→ p.114

DMA2120 *(Shown)*
120W Paging
Amplifier
→ p.114
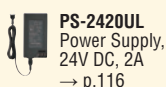
PS-2420UL
Power Supply,
24V DC, 2A
→ p.116

2 wires
Aiphone
#822202
(Max. 16')

2 wires
Aiphone
#822202
(Max. 500')

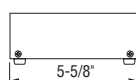2 wires
Aiphone
#821802

Features

- Maximum 60 station paging and communication system
- Selective 4 talk channels with in-use LED's
- Conference call among 3 stations
- Music cutout during paging
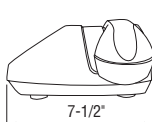- Reinforced modular coil cord on MC-60/4A

Wiring

Unit Dimensions
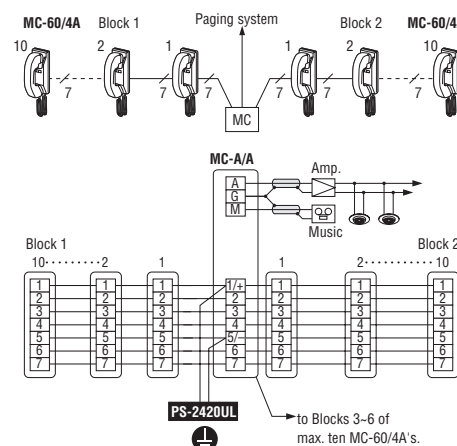
MC-60/4A

9-1/4"
3-5/16"
3-1/2"
3-3/4"

MC-A/A

2"
3-5/8"
5-5/8"

MC-60/4B

4"
8-7/8"
7-1/2"
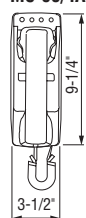
Specifications

Power Source	24V DC - Use PS-2420UL
Communication	Pick-up and push channel selector 1~4 and page with PAGE button. Called party picks up and pushes lit LED channel button
Wiring	7 wires in loop, non-twisted, low capacitance (PE insulation)
Distance	MC-A/A to farthest MC-60/4A or MC-60/4B* on block: 1,700'(22AWG) 4,000'(18AWG) *Total cumulative wiring distance between MC-60/4A or MC-60/4B: 5,000'(22AWG)
Wire Type	Aiphone #852207

AIPHONE®

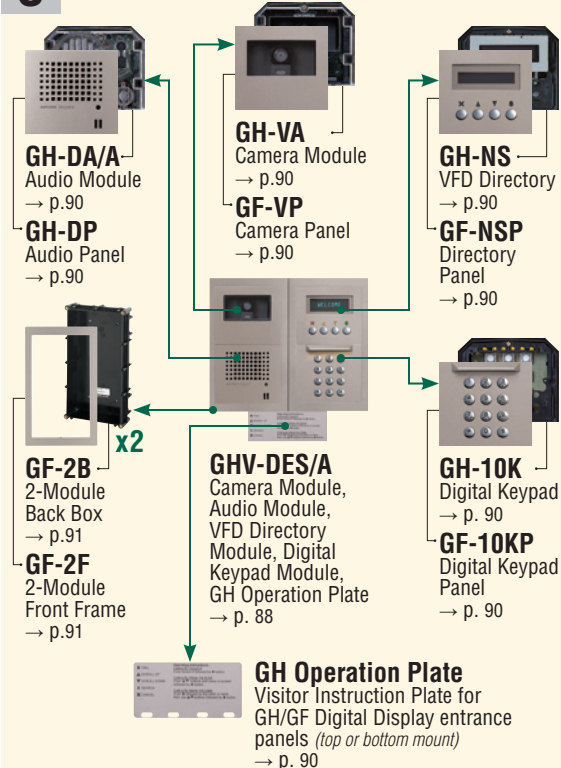# Multi-Tenant Intercoms

Identify building visitors

From 2 unit townhouses to 4 unit medical buildings to 500 unit high rise condominiums, our multi-unit systems can handle them all. Providing an alternative to complex telephone based, hard to program systems, these dedicated intercom units allow safe visitor entry in both audio only and audio video configurations.

GH Series - Standard System
Multi-Tenant Video Entry Security

Entrance Station: MIX & MATCH up to 5 TOTAL GH entrance stations

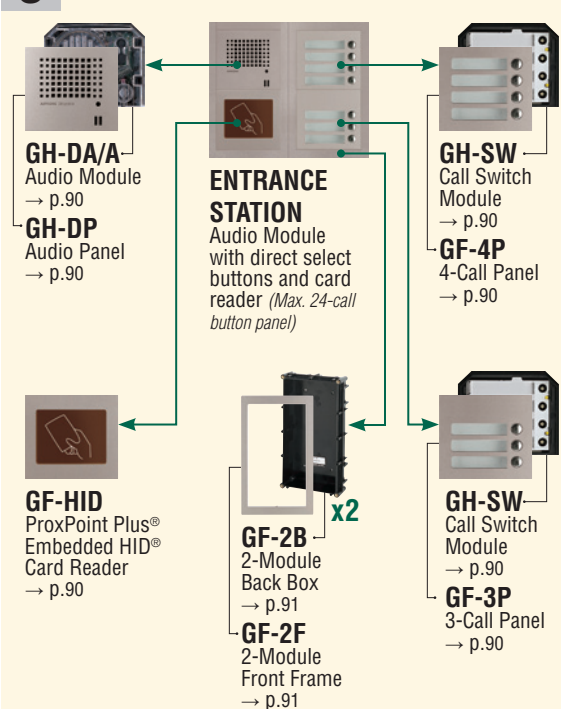ENTRANCE **5**

Audio/Video Digital Display - Sample Configuration

GH-DA/A
Audio Module
→ p.90

GH-DP
Audio Panel
→ p.90

GH-VA
Camera Module
→ p.90

GF-VP
Camera Panel
→ p.90

GH-NS
VFD Directory
→ p.90

GF-NSP
Directory Panel
→ p.90

GF-2B
2-Module Back Box
→ p.91

x2

GF-2F
2-Module Front Frame
→ p.91

GHV-DES/A
Camera Module, Audio Module, VFD Directory Module, Digital Keypad Module, GH Operation Plate
→ p. 88

GH-10K
Digital Keypad
→ p. 90

GF-10KP
Digital Keypad Panel
→ p. 90

GH Operation Plate
Visitor Instruction Plate for GH/GF Digital Display entrance panels *(top or bottom mount)*
→ p. 90

NEW Stainless Steel Entrance Panels Available! See **p.88** NEW

2

PS-2420UL
Power Supply 24V DC, 2A
→ p.116

Video Aiphone #871802 **1P**

Video Aiphone #871802 **1P**

GH-VBC
Video Control Unit
→ p.90

PS-2420UL
Power Supply 24V DC, 2A
→ p.116

1P

Audio Aiphone #872002 **1P**

Audio Aiphone #872002 **1P**

GH-BC
Audio Control Unit
→ p.90

PS-2420UL
Power Supply 24V DC, 2A
→ p.116

1P Audio Aiphone #872002

Entrance Station: MIX & MATCH up to 5 TOTAL GH entrance stations

ENTRANCE **5**

Audio Direct Select - Sample Configuration

GH-DA/A
Audio Module
→ p.90

GH-DP
Audio Panel
→ p.90

ENTRANCE STATION
Audio Module with direct select buttons and card reader *(Max. 24-call button panel)*

GH-SW
Call Switch Module
→ p.90

GF-4P
4-Call Panel
→ p.90

GF-HID
ProxPoint Plus® Embedded HID® Card Reader
→ p.90

GF-2B
2-Module Back Box
→ p.91

x2

GF-2F
2-Module Front Frame
→ p.91

GH-SW
Call Switch Module
→ p.90

GF-3P
3-Call Panel
→ p.90

Tenant Stations - Up to 48 tenant stations

TENANT **48**

Max. 2 video & 2 audio only per tenant

GH-1KD
Hands-free Video Monitor Tenant Station
→ p.88

GH-1KD-SW
Hands-free Video Monitor Tenant Station with service button
→ p.88

GH-1AD
Hands-free Audio Only Tenant Station
→ p.88

GH-1AD-SW
Hands-free Audio Only Tenant Station with service button
→ p.88

Guard/Concierge - Up to 2 units

GUARD **2**

1P 2 wires
Aiphone #872002
(Audio)

1P 2 wires
Aiphone #871802
(Power)

GH-MK
Concierge Station
→ p.88

GH-MK
Concierge Station
(Shown with desk stand GFW-S)
→ p.88

PS-2420UL
Power Supply 24V DC, 2A
→ p.116

NOTE: Maximum cumulative audio wire distance = 8,200 ft. If exceeded, contact Technical Support for system configuration assistance.

Unit Dimensions
See **p.88** & **p.90 ~ p.91**

Multi-Tenant Intercoms

Tenant Stations - Up to 48 tenant stations

TENANT 48 **Max. 2 video & 2 audio only per tenant**

Video Aiphone #871802
1P

Audio Aiphone #872002
1P

GH-1KD
Hands-free Video Monitor Tenant Station
→ p.88

GH-1KD-SW
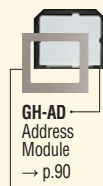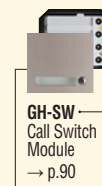Hands-free Video Monitor Tenant Station with service button
→ p.88

GH-1AD
Hands-free Audio Only Tenant Station
→ p.88

GH-1AD-SW
Hands-free Audio Only Tenant Station with service button
→ p.88

Options & Accessories

GH-HS
Optional Handset
(Only used with GH-1KD)
→ p.88

GH-AD
Address Module
→ p.90
GF-AP
Address Panel
→ p.90

GH-SW
Call Switch Module
→ p.90
GF-1P
1-Call Panel
→ p.90

GH-VAX
CCTV Interface Module
→ p.90
GF-BP
Blank Panel
→ p.90

GF-HID-I
iCLASS™ Embedded HID® Card Reader
→ p.90
GF-HID
ProxPoint Plus® Embedded HID® Card Reader
→ p.90

GF-AC
Access Control Keypad Module
→ p.90

NEW

GH-10VS-2
Camera Module, Audio Module, VFD Directory Module, Digital Keypad Module, Stainless Steel Cover
→ p.88

NEW

GH-10AS
Audio Module, VFD Directory Module, Digital Keypad Module, Stainless Steel Cover
→ p.88

GF-nHBA
Hooded Box for surface mounting
→ p.91

GF-nHA
Rain Hood
→ p.91

GF-OP2
2 Module Postal Lock
→ p.91
GF-OP3
3 Module Postal Lock
→ p.91
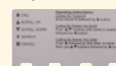
GH Operation Plate
Visitor Instruction Plate for GH/GF Digital Display entrance panels *(Included with GHV-DES/A and GHA-DES/A)*
→ p.90

GH-CCTV
CCTV Input Module for GH-MK
→ p.88

GH-RY
External Activation Relay

KCW-D/B
Video output converter to CCTV/DVR
→ p.112

GFK-PS
Panic Switch with pullcord

GFW-S
Desk Stand for GH-MK
→ p.118

MCW-S/A
Monitor Desk Stand for GH-1KD/AD
→ p.118

GH-4Z
4-Way Video Distribution Adaptor
→ p.90

W-DIN11
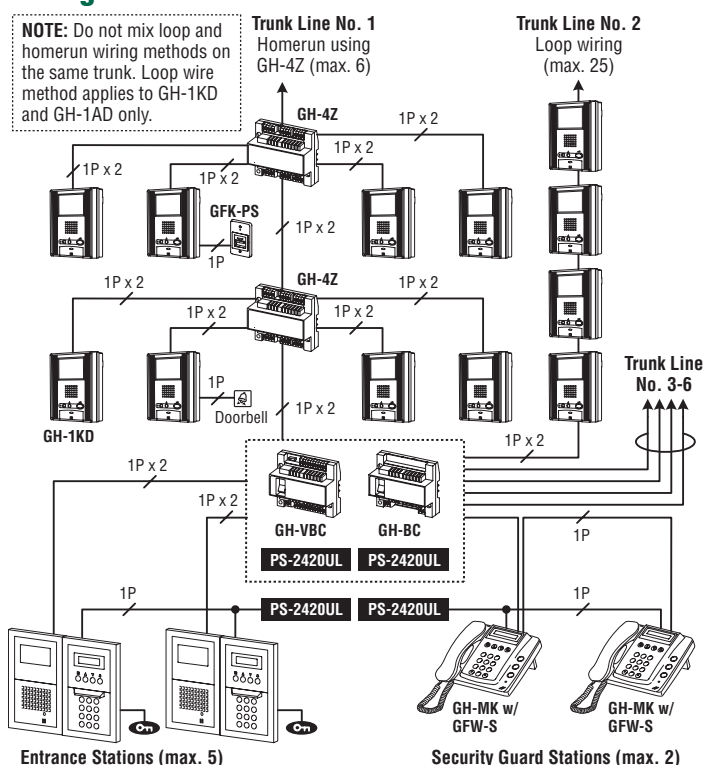DIN Mounting Rail for control units
→ p.91

Features

- Link data allows for easy programming of multiple entrances/guard stations
- Up to 5 entrance panels, 2 guard stations and 48 tenant stations
- Up to 2 video and 2 audio only stations per tenant (each counts toward total capacity)
- Simple wiring with only 2 common wires for audio
- Access control from inside station to calling entrance (door release)
- Optional individual doorbell to ring tenant stations
- Door release timer (momentary ~ 20 seconds)
- Security guard station can be included to provide communication between office/lobby and tenants
- Optional panic call switch for emergency calling to guard/concierge
- Optional postal lock module, allowing easy entry for postal and delivery workers
- Security guard can screen calls from visitors (Reception Mode)

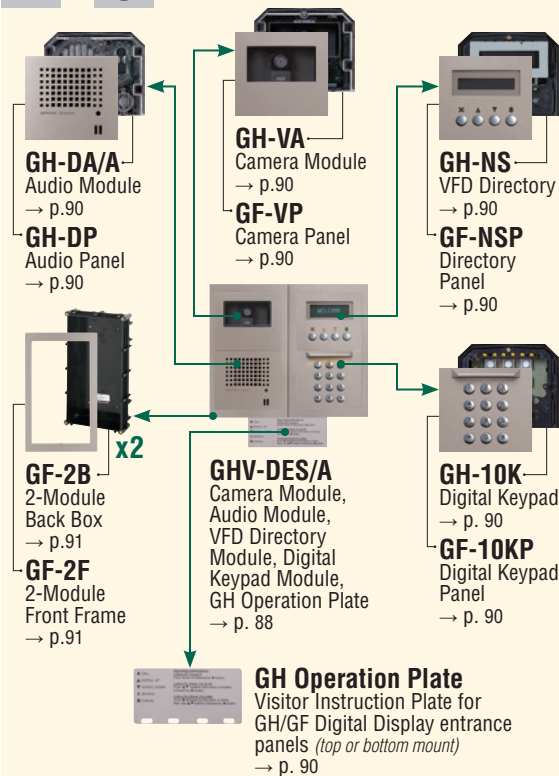### Features (Audio/Video) - Includes all audio features plus:

- Both audio/video and audio-only entrance panels can be combined in the same system
- LED's at door allow use in low light conditions
- Only 2 additional wires are required to add video
- Tenant can view entrance panel by pushing "key" button

Wiring   GH Standard Configuration Sample

NOTE: Do not mix loop and homerun wiring methods on the same trunk. Loop wire method applies to GH-1KD and GH-1AD only.

Trunk Line No. 1
Homerun using GH-4Z (max. 6)

Trunk Line No. 2
Loop wiring (max. 25)

GH-4Z

1P x 2

1P x 2

1P x 2

GFK-PS

1P

1P x 2

1P x 2

GH-4Z

1P x 2

1P x 2

1P x 2

GH-1KD

1P
Doorbell

1P x 2

Trunk Line No. 3-6

1P x 2

1P x 2

GH-VBC   **GH-BC**
PS-2420UL   **PS-2420UL**

1P x 2

1P

PS-2420UL   **PS-2420UL**

1P

1P

Entrance Stations (max. 5)

GH-MK w/ GFW-S   **GH-MK w/ GFW-S**

Security Guard Stations (max. 2)

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **83**

Multi-Tenant Intercoms

GH Series - Expanded System
Multi-Tenant Video Entry Security

Video Wire - Aiphone #871802
Audio Wire - Aiphone #872002
Power Wire - Aiphone #871802

Entrance Stations - Max. 8 entrances (Common Line 1)

ENTRANCE 1 ~ ENTRANCE 8
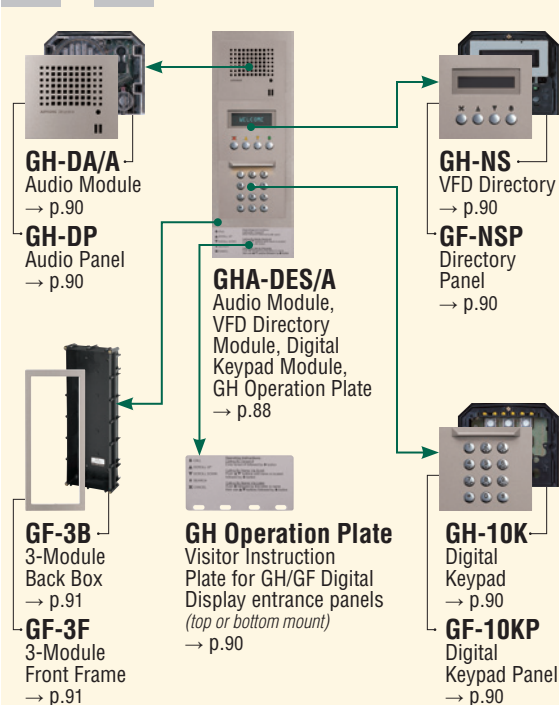
Audio/Video Digital Display - Sample Configuration
Audio Only or Audio/Video Entrance Stations can be used

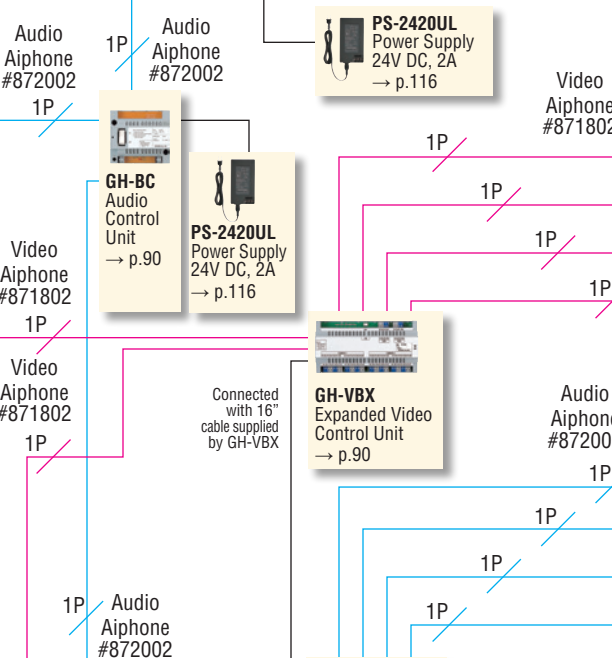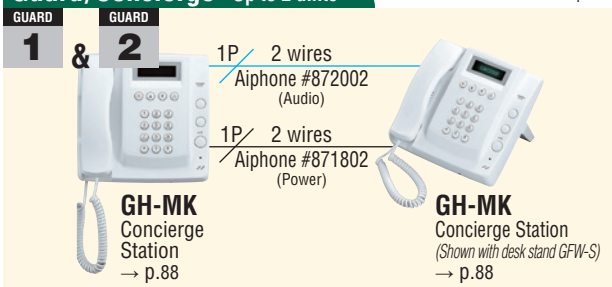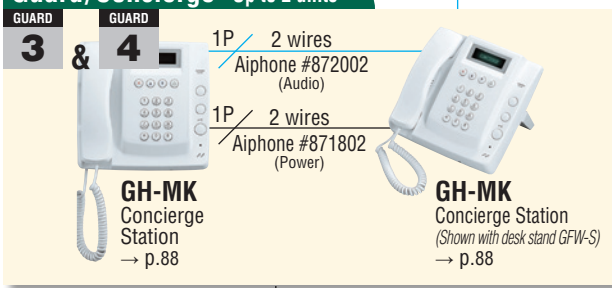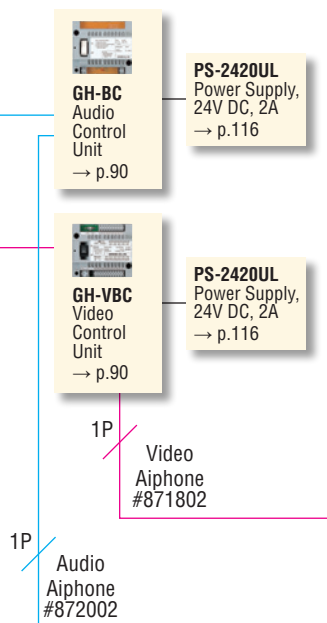**GH-DA/A** Audio Module → p.90
GH-DP Audio Panel → p.90

GH-VA Camera Module → p.90
GF-VP Camera Panel → p.90

GH-NS VFD Directory → p.90
GF-NSP Directory Panel → p.90

GF-2B 2-Module Back Box → p.91
GF-2F 2-Module Front Frame → p.91

x2

GHV-DES/A Camera Module, Audio Module, VFD Directory Module, Digital Keypad Module, GH Operation Plate → p. 88

GH-10K Digital Keypad → p. 90
GF-10KP Digital Keypad Panel → p. 90

GH Operation Plate Visitor Instruction Plate for GH/GF Digital Display entrance panels *(top or bottom mount)* → p. 90

NEW Stainless Steel Entrance Panels Available! See **p.88**

PS-2420UL Power Supply 24V DC, 2A → p.116

Guard/Concierge - Up to 2 units

GUARD 1 & GUARD 2

1P / 2 wires Aiphone #872002 (Audio)
1P / 2 wires Aiphone #871802 (Power)

GH-MK Concierge Station → p.88
GH-MK Concierge Station *(Shown with desk stand GFW-S)* → p.88

PS-2420UL Power Supply 24V DC, 2A → p.116

Audio Aiphone #872002
1P
Audio Aiphone #872002
1P

GH-BC Audio Control Unit → p.90
PS-2420UL Power Supply 24V DC, 2A → p.116

Video Aiphone #871802
1P
Video Aiphone #871802
1P

Video Aiphone #871802
1P

Connected with 16" cable supplied by GH-VBX

GH-VBX Expanded Video Control Unit → p.90

Video Aiphone #871802
1P
1P
1P
1P

Audio Aiphone #872002
1P
1P
1P
1P

GH-BCX/A Expanded Audio Control Unit → p.90
PS-2420UL Power Supply 24V DC, 2A → p.116

1P / Audio Aiphone #872002

Entrance Stations - Max. 8 entrances (Common Line 2)

ENTRANCE 9 ~ ENTRANCE 16

Audio Digital Display - Sample Configuration
Audio Only or Audio/Video Entrance Stations can be used

GH-DA/A Audio Module → p.90
GH-DP Audio Panel → p.90

GH-NS VFD Directory → p.90
GF-NSP Directory Panel → p.90

GHA-DES/A Audio Module, VFD Directory Module, Digital Keypad Module, GH Operation Plate → p.88

GF-3B 3-Module Back Box → p.91
GF-3F 3-Module Front Frame → p.91

GH Operation Plate Visitor Instruction Plate for GH/GF Digital Display entrance panels *(top or bottom mount)* → p.90

GH-10K Digital Keypad → p.90
GF-10KP Digital Keypad Panel → p.90

Common Line 2 Entrance Stations for VIDEO

Audio Aiphone #872002
1P

Audio Aiphone #872002
1P

GH-BC Audio Control Unit → p.90
PS-2420UL Power Supply 24V DC, 2A → p.116

1P / Audio Aiphone #872002

Guard/Concierge - Up to 2 units

GUARD 3 & GUARD 4

1P / 2 wires Aiphone #872002 (Audio)
1P / 2 wires Aiphone #871802 (Power)

GH-MK Concierge Station → p.88
GH-MK Concierge Station *(Shown with desk stand GFW-S)* → p.88

PS-2420UL Power Supply 24V DC, 2A → p.116
PS-2420UL Power Supply 24V DC, 2A → p.116

Multi-Tenant Intercoms

Tenant Stations - Up to 125 stations (Sub Trunk 1a)

TENANT 1 ~ **TENANT 125**

GH-1KD
Hands-free Video Monitor Tenant Station
→ p.88

GH-1KD-SW
Hands-free Video Monitor Tenant Station with service button
→ p.88

GH-1AD
Hands-free Audio Only Tenant Station
→ p.88

GH-1AD-SW
Hands-free Audio Only Tenant Station with service button
→ p.88

GH-BC
Audio Control Unit
→ p.90

PS-2420UL
Power Supply, 24V DC, 2A
→ p.116

GH-VBC
Video Control Unit
→ p.90

PS-2420UL
Power Supply, 24V DC, 2A
→ p.116

1P
Video Aiphone #871802

1P
Audio Aiphone #872002

Options & Accessories

GH-HS
Optional Handset
(Only used with GH-1KD)
→ p.88

GH-AD
Address Module
→ p.90

GF-AP
Address Panel
→ p.90

GH-SW
Call Switch Module
→ p.90

GF-1P
1-Call Panel
→ p.90

GH-VAX
CCTV Interface Module
→ p.90

GF-BP
Blank Panel
→ p.90

GF-HID-I
iCLASS™ Embedded HID® Card Reader
→ p.90

GF-HID
ProxPoint Plus® Embedded HID® Card Reader
→ p.90

GF-AC
Access Control Keypad Module
→ p.90

GH-10VS-2
Camera Module, Audio Module, VFD Directory Module, Digital Keypad Module, Stainless Steel Cover
→ p.88

NEW

GH-10AS
Audio Module, VFD Directory Module, Digital Keypad Module, Stainless Steel Cover
→ p.88

NEW

GF-nHBA
Hooded Box for surface mounting
→ p.91

GF-nHA
Rain Hood
→ p.91

GF-OP3
3 Module Postal Lock
→ p.91

GF-OP2
2 Module Postal Lock
→ p.91

GH Operation Plate
Visitor Instruction Plate for GH/GF Digital Display entrance panels *(Included with GHV-DES/A and GHA-DES/A)*
→ p.90

GH-CCTV
CCTV Input Module for GH-MK
→ p.88

GH-RY
External Activation Relay

KCW-D/B
Video output converter to CCTV/DVR
→ p.112

GFK-PS
Panic Switch with pullcord

GFW-S
Desk Stand for GH-MK
→ p.118

MCW-S/A
Monitor Desk Stand for GH-1KD/AD
→ p.118

GH-4Z
4-Way Video Distribution Adaptor
→ p.90

GHW-LC
Multi-Relay Control Unit *(For use with GH Expanded System only - Requires GH-BCX/A)*
→ p.90

W-DIN11
DIN Mounting Rail for control units
→ p.91

Tenant Stations
Up to 125 stations (Sub Trunk 1b)

See Sub Trunk 1a above for details

PS

TENANT 126 ~ **TENANT 250**
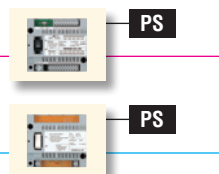
Tenant Stations
Up to 125 stations (Sub Trunk 2a)
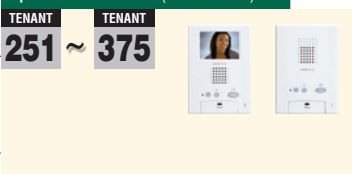
See Sub Trunk 1a above for details

PS

TENANT 251 ~ **TENANT 375**

Tenant Stations
Up to 125 stations (Sub Trunk 2b)

See Sub Trunk 1a above for details

PS

TENANT 376 ~ **TENANT 500**
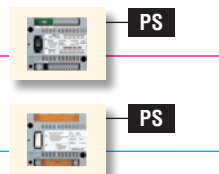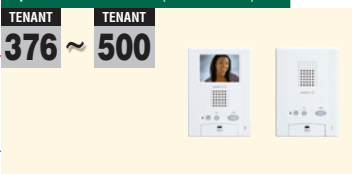
Unit Dimensions
See **p.88** & **p.90 ~ p.91**

Features - Includes same as Standard System plus:
• Up to 16 entrance panels, 4 guard/concierge stations and 500 tenant stations
• 2 talkpaths when using Sub Trunk 1 & 2

Wiring
GH Expanded Configuration Sample

Trunk No. 1 Trunk No. 2 **Sub Trunk 1A**   **Sub Trunk 1B**   **Sub Trunk 2A**   Trunk No. 1 Trunk No. 2 **Sub Trunk 2B**

Trunk Line No. 3 - 6

NOTE: Max. 25 tenant stations per GH-VBC trunk line.
Max. 125 tenant stations per sub trunk line.
Homerun (with GH-4Z) or Loop wiring method may be used. Do not mix wiring methods on same trunk.

Trunk Line No. 3 - 6

2 x 1P

GH-VBC **GH-BC**
PS x 2

Sub Trunk 1B Tenant wiring
Sub Trunk 2A Tenant wiring

2 x 1P   2 x 1P

GH-VBC **GH-BC**
PS x 2

Common Line 1

1P   PS

2 x 1P

Entrance stations (Max. 8 / Common Line)

GH-BC (Common 1)   **GH-BC (Common 2)**

Common Line 2

1P   PS

2 x 1P

Entrance stations (Max. 8 / Common Line)

1P 1P   PS

GH-VBX   **GH-BCX**
PS x 3

GH-MK w/ GFW-S

Security Guard Stations (Max 2 / Common Line)

PS = PS-2420UL

1P 1P   PS

GH-MK w/ GFW-S

Security Guard Stations (Max 2 / Common Line)

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **85**

Multi-Tenant Intercoms

GF Series

Multi-Tenant Entry Security (Direct Select and Digital Display)

Entrance Station: MIX & MATCH up to 5 TOTAL GF entrance stations

Audio Direct Select - Sample Configuration

GF-DA/B
Audio Module
→ p.90

GF-DP
Audio Panel
→ p.90

ENTRANCE STATION
Audio Module with direct select buttons and card reader *(Max. 24-call button panel)*

GH-SW
Call Switch Module
→ p.90

GF-4P
4-Call Panel
→ p.90

GF-HID
ProxPoint Plus® Embedded HID® Card Reader
→ p.90

GF-2B x2
2-Module Back Box
→ p.91

GF-2F
2-Module Front Frame
→ p.91

GH-SW
Call Switch Module
→ p.90

GF-3P
3-Call Panel
→ p.90

Guard/Concierge - Up to 2 units

GUARD 1 & GUARD 2

1P / 2 wires Aiphone #872002 *(Audio)*

GF-MK
Concierge Station
→ p.89

GF-MK
Concierge Station *(Shown with desk stand GFW-S)*
→ p.89

1P / Aiphone #872002

1P / Aiphone #872002

GF-BC
Audio Control Unit
→ p.90

1P / Aiphone #872002

PS-2420UL
Power Supply 24V DC, 2A
→ p.116

Entrance Station: MIX & MATCH up to 5 TOTAL GF entrance stations

Audio Digital Display - Sample Configuration

GF-DA/B
Audio Module
→ p.90

GF-DP
Audio Panel
→ p.90

GFA-DES
Audio Module, LCD Directory Module, Digital Keypad Module, GH Operation Plate
→ p.89

GF-NS/A
LCD Directory
→ p.90

GF-NSP
Directory Panel
→ p.90

1P / Aiphone #872002

GF-3B
3-Module Back Box
→ p.91

GF-3F
3-Module Front Frame
→ p.91

GH Operation Plate
Visitor Instruction Plate for GH/GF Digital Display entrance panels *(top or bottom mount)*
→ p.90

GF-10K
Digital Keypad
→ p.90

GF-10KP
Digital Keypad Panel
→ p.90

PS-2420UL
Power Supply 24V DC, 2A
→ p.116

NOTE: Maximum cumulative audio wire distance = 8,200 ft. If exceeded, add GFW-LD. Contact Technical Support for system configuration assistance.

Multi-Tenant Intercoms

Tenant Stations - Up to 100 (Direct Select) / up to 250 stations (Digital Display)

Options & Accessories

(Max. 2 per tenant)

GF-1DK
Tenant Station
with concierge call
*(Panic call option available
when used with GFK-PS)*
→ p.89

GF-1DKS
Tenant Station with
concierge call and
service button
→ p.89

GH-AD
Address
Module
→ p.90
GF-AP
Address
Panel
→ p.90

GH-SW
Call Switch
Module
→ p.90
GF-1P
1-Call
Panel
→ p.90

GF-HID
ProxPoint
Plus®
Embedded
HID® Card
Reader
→ p.90

GF-HID-I
iCLASS™
Embedded
HID® Card
Reader
→ p.90

GF-AC
Access
Control
Keypad
Module
→ p.90

GF-BP
Blank
Panel
→ p.90

GF-nHBA
Hooded Box
for surface
mounting
→ p.91

GF-nHA
Rain Hood
→ p.91

GF-OP2
2 Frame
Postal
Lock
Module
→ p.91

GF-OP3
3 Frame
Postal
Lock
Module
→ p.91

GH Operation Plate
Visitor Instruction Plate
for GH/GF Digital Display
entrance panels *(Included
with GHV-DES/A and GHA-DES/A)*
→ p.90

GF-C
30" Internal Connector
for expanded direct
select panels
→ p.91

MAW-B
Auxiliary Light
Control Relay
→ p.117

GFK-PS
Panic Switch
with pullcord

GFW-S
Desk Stand
for GH-MK
→ p.118

GFW-LD
Long Distance
Audio Adaptor
→ p.90

W-DIN11
DIN Mounting Rail
for control units
→ p.91

Features

- Up to 5 entrance panels and 100 (Direct Select) or 250 (Digital Display) tenant locations
- Simple wiring with only 2 common wires
- Entrance panels with individual call buttons are modular, allowing panel to be configured with the appropriate number of buttons
- Up to two inside stations per tenant for easy communication with visitor
- Access control from inside station to calling entrance (door release)
- Optional individual doorbell to ring handset stations
- Door release timer (momentary ~ 20 seconds)
- Security guard or concierge station can be included to provide communication between office/lobby and tenants
- Optional panic call switch for emergency calling to guard/concierge
- Optional postal lock module, allowing easy entry for postal and delivery workers

Unit Dimensions
See **p.89 ~ p.91**

Wiring

1 separate pair common line (Max.) 25 units per trunk line

Tenant stations

1P x 2 **GF-1DK** (x 2)

GFK-PS
Panic call switch

1P x 2

2

2

Doorbell

1P x 2 **GF-1DK**

2

1P x 2 **GF-1DK**

2

Up to 6 trunk lines

Entrance station, Direct-Select

1P x 2 (each)

Up to 6 trunk lines

1P

Concierge Station

(Audio)

GF-MK

1P

GF-MK

AUDIO 1P

1P

1P

GF-BC
PS-2420UL

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **87**

Multi-Tenant Intercoms

GH Series - Entrance Stations

NEW

NEW

GH-10VS-2
Camera Module, Audio Module, VFD Directory Module, Digital Keypad Module, Stainless Steel Cover

GH-10AS
Audio Module, VFD Directory Module, Digital Keypad Module, Stainless Steel Cover

GHV-DES/A
Camera Module, Audio Module, VFD Directory Module, Digital Keypad Module, GH Operation Plate

GHA-DES/A
Audio Module, VFD Directory Module, Digital Keypad Module, GH Operation Plate

NOTE: *To build a customized system see modular components p.90 ~ 91*

Features (See p.83)

GH-10VS-2
17-7/8"
5-7/8"
6/8" 1"

GH-10AS
13-7/8"
5-7/8"
6/8" 1"

GHV-DES/A
8-7/8"
10-5/8"
9/16" 1-3/4"
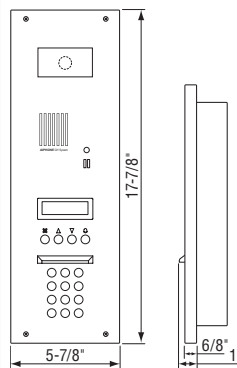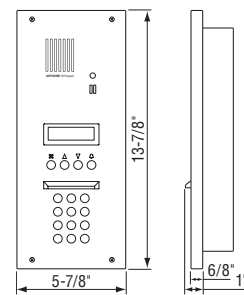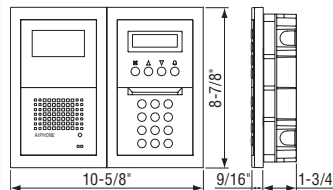
GHA-DES/A
12-5/8"
5-5/16"
9/16" 1-3/4"
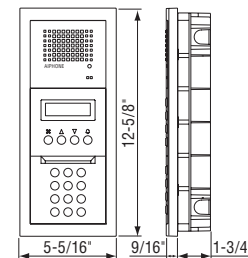
GH Series - Tenant Stations

GH-HS
Optional Handset
(Shown with GH-1KD)

GH-1KD
Hands-free Video Monitor Tenant Station

GH-1KD-SW
Hands-free Video Monitor Tenant Station with service button

GH-1AD
Hands-free Audio Only Tenant Station

GH-1AD-SW
Hands-free Audio Only Tenant Station with service button

Features
- Hands-free or Push-to-Talk
- Call tone from entrance and doorbell are differentiated
- Monitor entry by pushing key button
- Call button to call Guard/Concierge
- Door release to calling entrance

Specifications
|	
Power Source	24V DC, 9mA - Supplied by GH-BC (GH-1AD) 24V DC, 9mA - Supplied by GH-BC, GH-VBC (GH-1KD/1KD-SW)
Housing	Fire-retardant ABS plastic
Ambient Temp.	32°F ~ 104°F
Video Monitor	3.5" Color LCD (GH-1KD/1KD-SW)
Mounting	Wall mounting or desk mount with MCW-S/A
Electrical Box	2-3/8" or 3-5/16" guided, 1-gang box
Wiring	2-cond., solid, non-shielded, PE insulation
Distance	See table
Wire Type	**Audio signal:** Aiphone #872002 **Video signal:** Aiphone #871802

GH-1KD/KD-SW
6-7/8"
4-15/16" 1-1/4"

GH-1AD/AD-SW
6-7/8"
4-15/16" 1-1/4"
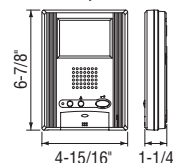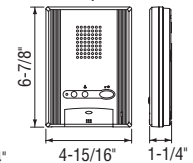
GH-HS
7"
5-1/2"
1-3/4" 1-13/16"
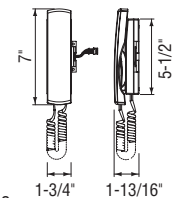
GH Series - Concierge Station

GH-MK
Concierge Station

Features
- For either audio or audio/video systems
- Call entrance or tenant stations
- Reception Mode intercepts visitor calls for screening by guard/concierge
- Door release

Specifications
Power Source	24V DC, 200mA - Use PS-2420UL
Housing	Fire-retardant ABS plastic
VFD Display	Max. 16 letters for names
Mounting	Wall or desk mount (for desk mount use GFW-S)
Wiring	2-cond., solid, non-shielded, PE insulation
Wire Type	Audio signal: Aiphone #872002

GH-MK
8-1/4"
8-1/2"
2-3/8"
3-5/16"
2-3/4"
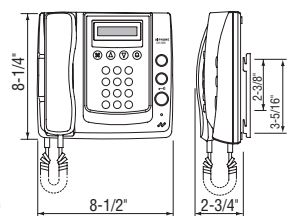
GH Series - CCTV Input Module

GH-CCTV
CCTV Input Module for GH-MK

Features
- Interfaces with a CCTV camera
- Tenants can visually identify visitors from calls originated at the concierge/guard station (GH-MK)

Specifications
Power Source	24V DC, 9mA - Supplied by GH-BC and GH-VBC
Video Signal	NTSC 1V peak-to-peak, 75Ω
Mounting	Wall or desk mount

GH-CCTV
3-11/16"
13-7/16" (Depth is 8-1/8")
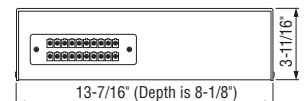
GF Series - Entrance Stations

Direct Display
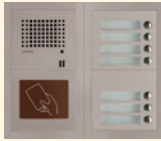
ENTRANCE STATION
Audio Module with direct select buttons and card reader

Digital Display

GFA-DES
Audio Module, LCD Directory Module, Digital Keypad Module, GH Operation Plate

Features
- Up to 5 entrance panels and 100 (Direct Select) or 250 (Digital Display) tenant locations
- Simple wiring with only 2 common wires for audio
- Entrance panels with individual call buttons are modular, allowing panel to be configured with the appropriate number of buttons
- Up to two inside stations per tenant for easy communication with visitor
- Access control from inside station to calling entrance (door release)
- Optional individual doorbell to ring handset stations
- Door release timer (momentary ~ 20 seconds)
- Security guard or concierge station can be included to provide communication between office/lobby and tenants
- Optional panic call switch for emergency calling to guard / concierge
- Optional postal lock module, allowing easy entry for postal and delivery workers

ENTRANCE STATION CONFIGURATION

8-7/8"
10-5/8"   9/16"   1-3/4"

GFA-DES

12-5/8"
5-5/16"   9/16"   1-3/4"
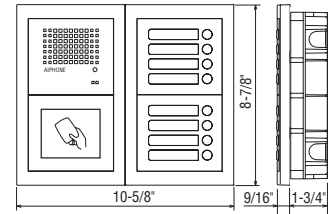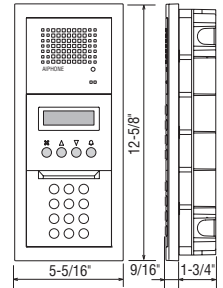
GF Series - Tenant Stations

GF-1DK
Audio Only Tenant Station with concierge call

GF-1DKS
Audio Only Tenant Station with concierge call and service button

Features
- Door release to calling entrance station
- Call guard/concierge station
- Optional service button for elevator call-up
- Panic call option available when used with GFK-PS

Specifications

Power Source	24V DC, 16mA - Supplied by GF-BC (GF-1DK, GF-1DKS)
Housing	Fire-retardant ABS plastic
Ambient Temp.	2°F ~ 104°F
Mounting	Wall mounting only
Electrical Box	2-3/8" or 3-5/16" guided, 1-gang box (GF-1DK, GF-1DKS)
Wiring	2-cond., solid, non-shielded, PE insulation
Distance	See **Components Table on p.91**
Wire Type	Audio signal: Aiphone #872002

GF-1DK, GF-1DKS

7-7/8"   2-3/8"
3-5/16"
3-1/2"   2-1/2"
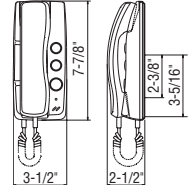
GF Series - Concierge Station

GF-MK
Concierge Station

Features
- Call entrance or tenant stations
- Door release

Specifications

Power Source	Supplied by system
Housing	Fire-retardant ABS plastic
Ambient Temp.	32°F ~ 104°F
LCD Display	Max. 16 letters for names
Mounting	Wall or desk mount (for desk mount use GFW-S)
Electrical Box	2-3/8" or 3-5/16" guided
Wiring	2-cond., solid, non-shielded, PE insulation
Wire	Type Audio signal: Aiphone #872002

GF-MK

8-1/4"   2-3/8"
3-5/16"
8-1/2"   2-3/4"

Multi-Tenant Intercoms

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **89**
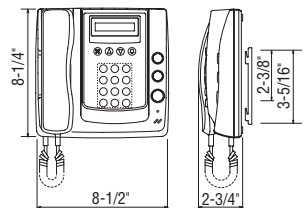
GH & GF Series - Shared Components

Entrance Station Modules

■ - for use with **GH Series**   ■ - for use with **GF Series**   ■ - Interchangeable

GH-VA Color Camera Module
GF-VP Camera Panel

GH-DA/A
GF-DA/B Audio Module
GH-DP
GF-DP Audio Panel

GH-NS LCD Directory
GF-NSP Directory Panel

GF-NS/A LCD Directory
GF-NSP Directory Panel

GH-10K
GF-10K Digital Keypad
GF-10KP Digital Keypad Panel

GH-VAX CCTV Interface Module
GF-BP Blank Panel

GF-HID ProxPoint Plus® Embedded HID® Card Reader

GF-HID-I i-Class™ Embedded HID® Card Reader

GF-AC Access Control Keypad Module

GH-SW
GF-SW Call Switch Module
GF-1P 1-Call Panel

GH-SW
GF-SW Call Switch Module
GF-2P 2-Call Panel

GH-SW
GF-SW Call Switch Module
GF-3P 3-Call Panel

GH-SW
GF-SW Call Switch Module
GF-4P 4-Call Panel

GH-AD
GF-AD Address Module
GF-AP Address Panel

GF-BP Blank Panel

GH Operation Plate
Visitor Instruction Plate for GH/GF Digital Display entrance panels - top or bottom mount *(Included with GHV-DES/A, GHA-DES/A, GFV-DES, and GFA-DES)*

Specifications

Power Source   GH(GF)-DA, GH(GF)-VA, GH-VAX, GH(GF)-10K., GH(GF)-SW, and GH(GF)-AD: Supplied by system
GH(GF)-NS: PS-2420UL
GF-AC: PS-2420UL

Housing   Fire-retardant ABS plastic

Wiring   2-cond., solid, non-shielded, PE insulation

Wire Type   Audio signal: Aiphone #872002 Video signal: Aiphone #871802

Temp. Rating   GH-VA, GH(GF)-DA/A, GH-NS, GF-NS/A, GH(GF)-10K, GF-HID(I), GF-AC, GH(GF)-SW, and GH(GF)-AD: 14° - 140°F
GH-VAX: 32° - 104°F

All GH & GF Panels

Camera View Area

Bus & Video Control Units

GH Only

GH-BC Audio Control Unit

GH-VBC Video Control Unit

GH-4Z 4-Way Video Distribution Adaptor

GH-BCX/A Expanded Audio Control Unit

GH-VBX Expanded Video Control Unit

GHW-LC Multi-Relay Control Unit
(For use with GH Expanded System only - Requires GH-BCX/A)

GF Only

GF-BC Audio Control Unit

GFW-LD Long Distance Audio Adaptor
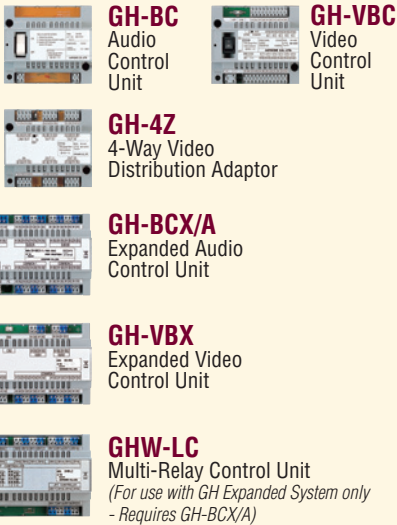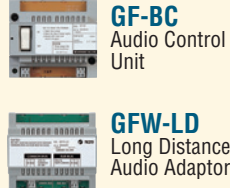
Specifications

Power Source   GH-BC/GF-BC: 24V DC, 900mA - Use PS-2420UL
GH-VBC: 24V DC, 1.1A - Use PS-2420UL
GFW-LD: Supplied by system

Mounting   DIN rail

Wiring   2-cond., solid, non-shielded, PE insulation

Distance   See table

Wire Type   Audio signal: Aiphone #872002 Video signal: Aiphone #871802

GH-BC, GH-4Z, GH-VBC, GFW-LD
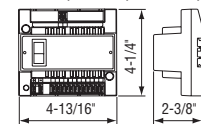
GH-BCX/A, GH-VBX, GHW-LC
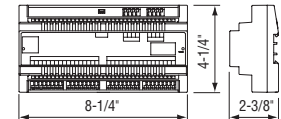
GH Wiring Distance	22AWG	20AWG	18AWG
GH-BC to distribution point	8'	16'	16'
Distribution point to Entrance Station	980'	980'	980'
Distribution point to GH-MK	-	980'	-
Distribution point to farthest GH-1AD (Audio line)	980'	980'	980'
GH-VBC to farthest monitor (Video line) 1 monitor/tenant	330'	500'	500'
GH-VBC to farthest monitor (Video line) 2 monitors/tenant	165'	330'	500'
GH-VBC (STD) to GH-VBC (EXP)	330'	500'	500'
GH-BC, GH-VBC to each power supply	8'	16'	16'
GF-NS / GF-AC to power supply	500'	980'	980'
GH-MK to Power Supply	500'	980'	980'
Total cumulated wiring per audio trunk line (max. 4)	8,200'	8,200'	8,200'

GF Wiring Distance	22AWG	20AWG	18AWG
GF-BC to distribution point	-	16'	-
Distribution point to entrance station	-	980'	-
Distribution point to GF-1DK (farthest)	-	980'	-
GF-NS / GF-AC to power supply	-	980'	980'
MAW-B to entrance station	-	980'	-
Total cumulative wire distance	-	8,200'	-
GF-BC to power supply	-	16'	16'

Multi-Tenant Intercoms

GH & GF Series - Shared Components (Continued)

Postal Lock Modules

GF-OP2
2 Module
Postal Lock

GF-OP3
3 Module
Postal Lock
(1 open module position)

Specifications *(GF-OP2 & GF-OP3)*

Power Source	24V DC - Use PS-2420UL
N/O Output Rating	5A at 30V DC 10A at 125V DC 3A at 250V DC
N/C Output Rating	3A at 30V DC or 125V AC
Wiring	2-cond., non-shielded from 24V DC power supply to GF-OP panel, 2-cond., non-shielded from GF-OP panel to strike, with power
Wire Type	Aiphone #872002

GF-OP3

GF-OP2

8-7/8" 12-5/8"

5-5/16" 5/8" 1-3/4"   5-5/16" 5/8" 1-3/4"
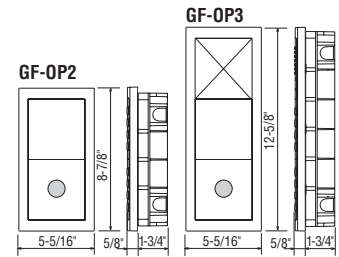
Mounting Accessories

GF-2F
2-Module
Front Frame
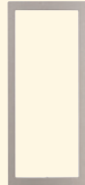
GF-3F
3-Module
Front Frame

GF-2B
2-Module
Back Box

GF-3B
3-Module
Back Box

GF-nHA
Rain Hood
(GF-203HA shown)

GF-nHBA
Hooded Box for surface mounting
(GF-203HBA shown)

GF-C
30" Internal Connector for expanded direct select panels

W-DIN11
DIN Mounting Rail for GH/GF control units

Mounting

Audio module panel GH(GF)--DP

Front frame GF-3F

Audio module GH(GF)-DA

Back boxes GF-3B

Joint plate

Joint plate

Connector

4-call panel GF-4P

Call SW. module GH/GF-SW

Cut out holes in advance.

Screw

Special screwdriver (supplied with GH/GF-BC)

Bracket (supplied with GF-3F)

Back box

Two-module back boxes (x2)
Joint pipe (2)

7-7/8"

1" 1-3/4"

Do not recess back box more than 9/16".

Three-module back boxes (x3)
Joint pipe (2)

11-5/8"

1" 1" 1-3/4"

Do not recess back box more than 9/16".

Back box total width

Back boxes	W (inch)
1 row	4-1/2"
2 rows	9-3/4"
3 rows	15"
4 rows	20-1/2"
5 rows	25-5/8"
6 rows	31"
7 rows	36-1/2"
8 rows	42"
9 rows	47"

Rain hood & Hooded box

GF-nHA

W 1-5/8"

H

7/8"

GF-nHBA

W 3-3/8"

H

2-9/16"

GF-102HA / HBA	H : 9-9/16" W : 6-1/8"
GF-202HA / HBA	H : 9-9/16" W : 11-7/16"
GF-103HA / HBA	H : 13-5/16" W : 6-1/8"
GF-203HA / HBA	H : 13-5/16" W : 11-7/16"
GF-2F	H : 8-7/8" W : 5-5/16"
GF-3F	H : 12-5/8" W : 5-5/16"

Components Table

Audio systems

	4-Call Direct Select	8-Call Direct Select	12-Call Direct Select	16-Call Direct Select
Audio Section	GH(GF)-DA GH(GF)-DP	GH(GF)-DA GH(GF)-DP	GH-DA/GF-DA GH(GF)-DP	GH-DA/GF-DA GH(GF)-DP
Call Switch Section	GH(GF)-SW GF-4P	GH(GF)-SW x 2 GF-4P x 2	GH(GF)-SW x 3 GF-4P x 3	GH(GF)-SW x 4 GF-4P x 4
Front Frame & Back Box	GF-2F GF-2B	GF-3F GF-3B	GF-2F x 2 GF-2B x 2	GF-3F x 2 GF-3B x 2
Option				GF-BP, GH(GF)-AD, GF-AP, GF-HID or GF-HID-I

	20-Call Direct Select	30-Call Direct Select	40-Call Direct Select	Digital Display
Audio Section	GH(GF)-DA, GH(GF)-DP	GH(GF)-DA, GH(GF)-DP	GH(GF)-DA, GH(GF)-DP	GH(GF)-DA, GH(GF)-DP
Call Switch Section	GH(GF)-SW x 5 GF-4P x 5	GH(GF)-SW x 8* GF-4P x 7 GF-2P x 1	GH(GF)-SW x 10* GF-4P x 10	GH(GF)-NS, GF-NSP, GH(GF)-10K, GF-10KP
Front Frame & Back Box	GF-3F x 2 GF-3B x 2	GF-3F x 3 GF-3B x 3	GF-3F x 4 GF-3B x 4	GF-3F x 1 GF-3B x 1
Option			GF-BP, GH(GF)-AD, GF-AP, GF-HID or GF-HID-I	

GHA(GFA)-DES

Video systems

	4-Call Direct Select	8-Call Direct Select	12-Call Direct Select	16-Call Direct Select
Audio/Camera Section	GH-VA, GF-VP, GH-DA, GH-DP	GH-VA, GF-VP, GH-DA, GH-DP	GH-VA, GF-VP, GH-DA, GH-DP	GH-VA, GF-VP, GH-DA, GH-DP
Call Switch Section	GH-SW/GF-SW	GH-SW/GF-SW x 2 GF-4P x 2	GH-SW/GF-SW x 3 GF-4P x 3	GH-SW/GF-SW x 4 GF-4P x 4
Front Frame & Back Box	GF-3F GF-3B	GF-2F x 2 GF-2B x 2	GF-3F x 2 GF-3B x 2	GF-3F x 2 GF-3B x 2
Option				GF-BP, GH-AD, GF-AP, GF-HID or GF-HID-I

	20-Call Direct Select	30-Call Direct Select	40-Call Direct Select	Digital Display
Audio/Camera Section	GH-VA, GF-VP, GH-DA, GH-DP	GH-VA, GF-VP, GH-DA, GH-DP	GH-VA, GF-VP, GH-DA, GH-DP	GH-VA, GF-VP, GH-DA, GH-DP
Call Switch Section	GF-SW x 5 GF-4P x 5	GH-SW x 8* GF-4P x 7	GF-SW x 10* GF-4P x 4	GH-NS/GF-NS, GF-NSP, GH-10K/GF-10K, GF-10KP
Front Frame & Back Box	GF-3F x 3 GF-3B x 3	GF-3F x 4 GF-3B x 4	GF-3F x 4 GF-3B x 4	GF-2F x 2 GF-2B x 2
Option		GF-BP, GH-AD, GF-AP, GF-HID or GF-HID-I	GF-BP, GF-AP, GF-HID or GF-HID-I	

GHV-DES/A

*GH Series cannot support more than 6 GH-SW in an entry panel without modification.

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **91**

DA-1DS
Single Tenant Entry Security

Entrance Station
DOOR 1

DA-1DS
Entrance Station

2 wires
Aiphone
#871802
(Max. 1,020')

2 wires

EL-12S
Door Strike

Tenant Station
TENANT 1

DA-1MD
Master Station

2 wires
Aiphone
#871802
(Max. 510')

PT-1211C
AC Transformer,
15V AC
→ p.116

Options & Accessories

EL-12S
Electric Door Strike,
12V AC/DC, 200mA
→ p.108

DAR-1
Call Extension
Sounder
→ p.108

Features (DA-1DS / DA-2DS / DA-4DS)

- Door release powered by door station without the need of an additional transformer or wiring
- Service button to control an external device
- Call tone volume control with mute indicator
- Optional call extension sounder
- Backlit directory

Unit Dimensions

DA-1DS

4"
6-7/8"
7/8"

DA-1MD 3-1/2" 2-3/8"
7-7/8"

Wiring

NOTE: For door release use EL-12S or AC 9.5V ~ 20V, 70Ω

DA-1DS
DA-1MD
PT-1211C
DAR-1
EL-12S
NP
External device Relay/ Controller
PT-1211C

L
D
E
S
SE

S
SE

SW
SW

User-optional function (AC18V, 40mA)

OTHER NOTES: 1. Do not use PT-1211C for any other equipment
2. Terminals SW, SW: Dry-closure contact less than 18V AC, 40mA to connect user - optional function Gate, Light, Garage, Proximity Access Control, etc.

Boxed Set

DA-1AS:
DA-1MD, DA-1DS,
and power supply

Specifications (see DA-2DS / DA-4DS specs below)

DA-4DS
Multi-Tenant Entry Security

Entrance Stations - Select 1 unit
DOOR 1

DA-2DS
2-Call Entrance Station

DA-4DS
4-Call Entrance Station

Tenant Station - Up to 4
TENANT 1 ~ TENANT 4

DA-1MD
Master Station

2 wires
Aiphone
#871802
(Max. 1,020')

2 wires

EL-12S
Door Strike

2 wires
Aiphone
#871802
(Max. 510')

PT-1211C
AC Transformer,
15V AC
→ p.116

Options & Accessories

EL-12S
Electric Door Strike,
12V AC/DC, 200mA
→ p.108

DAR-1
Call Extension
Sounder
→ p.108

Features (see DA-1DS features above)

Unit Dimensions

DA-2DS, DA-4DS
4"
6-7/8"
7/8"

DA-1MD 3-1/2" 2-3/8"
7-7/8"

Wiring

EL-12S DA-4DS DA-1MD DA-1MD DA-1MD DA-1MD DAR-1
PS
Ext. device Relay/Controller
PT-1211C

NOTE: For door release use EL-12S or AC 16V, 70Ω

L
L

1 D E
2 D E
3 D E
4 D E

DAR-1
NP
S
SE
User-optional function (AC18V, 40mA)
SW
SW

When a single power supply is used:

DA-1MD DA-1MD DA-1MD DA-1MD

DA-4DS
EL-12S 2 x 2 2 x 2 2 x 2 2 x 2 **PT-1211C**

(360' with 22AWG / 1020' with 18AWG)

Specifications (DA-1DS / DA-2DS / DA-4DS)

Power Source	15V AC - Use AC transformer PT-1211C, 120V
Communication	Push and hold down button to call
Door Release	Contact rating: AC -9.5V~20V, 70Ω resistance, or use EL-12S
Wiring	Door to master: 2-cond., overall shield
Distance	Door to master: 360'(22AWG) 1020'(18AWG) Door strike to power supply: 360'(22AWG) 1020'(18AWG)
Wire Type	Aiphone #822202 or Aiphone #871802

DB Series
Multi-Tenant Hands-free Entry Security

Entrance Station

DOOR 1

DA-2DS
2-Call Entrance Station

DA-4DS
4-Call Entrance Station

2 wires
Aiphone #871802
(Max. 1020')

2 wires

EL-12S
Door Strike

Tenant Station

TENANT 1

DB-1MD
Hands-free Tenant Station

2 wires
Aiphone #871802
(Max. 180')

PT-1211C
AC Transformer, 15V AC
→ p.116

4 wires
Aiphone #871804
(Max. 330' between master and farthest sub)

Sub Station (optional)

Sub stations 2~5

DB-1SD
Hands-free Sub Station

2 wires
Aiphone #871802
(Max. 180')

PT-1211C*
AC Transformer, 15V AC *(1 PT-1211C per 2 subs)*
→ p.116

Tenant Station

TENANT 2 ~ TENANT 4

DB-1MD
Hands-free Tenant Station

2 wires
Aiphone #871802
(Max. 180')

PT-1211C
AC Transformer, 15V AC
→ p.116

4 wires
Aiphone #871804
(Max. 330' between master and farthest sub)

Sub Station (optional)

Sub stations 2~5

DB-1SD
Hands-free Sub Station

2 wires
Aiphone #871802
(Max. 180')

PT-1211C*
AC Transformer, 15V AC *(1 PT-1211C per 2 subs)*
→ p.116

Options & Accessories

EL-12S
Electric Door Strike, 12V AC/DC, 200mA
→ p.108

NEW
RY-ES
External Signaling Relay
→ p.110

IER-2
Call Extension Speaker
→ p.108

MCW-S/A
Desk Stand
→ p.118

Features

- Door strike powered by door station without the need of an additional transformer or wiring
- Hands-free tenant station
- Service button to control an external device
- Call tone volume control with mute indicator
- All Call between tenant stations with room to room hands-free communication
- Backlit directory on door station

Wiring

DA-4DS | DB-1MD | DB-1SD x 4 | IER-2 | EL-12S | PT-1211C | External device Relay/ Controller | Request to exit/entry button

Specifications

Power Source	15V AC - Use AC transformer PT-1211C, 120V (1 required per master station and 1 required per 2 sub stations)
Communication	Hands-free or PTT
Door Release	Voltage available: 9.5~20V AC, 70Ω or more resistance use EL-12S
Wiring	Door to master: 2-conductor Master to Sub: 4-conductor Between subs: 4-conductor + 2-conductor when sharing power
Distance	Door to master: 360'(22AWG) 1,020'(18AWG) Door strike to power supply: 360'(22AWG) 1020'(18AWG) Master to farthest sub: 330' maximum
Wire	Type Door to master: Aiphone #822202 or Aiphone #871802 Between masters/subs: Aiphone #812205 or Aiphone #871804

Unit Dimensions

DA-2DS, DA-4DS
6-7/8"
4"
7/8"

DB-1MD/SD
7-1/4"
3-1/8"
1-1/16

Multi-Tenant Intercoms

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions. **93**
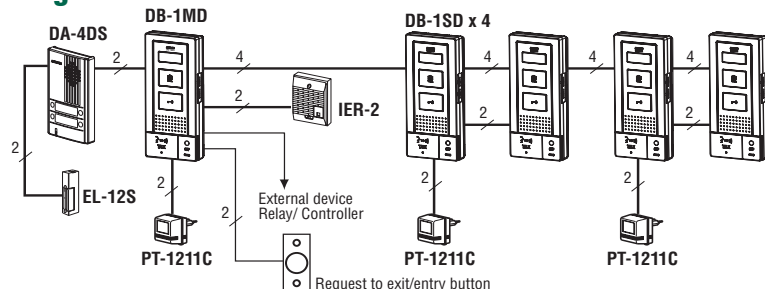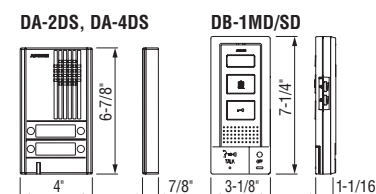
TABLE OF CONTENTS

Options & Accessories

AX Series Fixed Video Door Stations

Weather & Vandal Resistant Video Door Stations – surface mount

AX-DV
Fixed Video Door Station, aluminum die cast, surface mount

AX-DV-P
Fixed Video Door Station with an embedded HID® ProxPoint® Plus Proximity Card Reader, aluminum die cast, surface mount

AX-DV-XP
Fixed Video Door Station with an embedded Stand-Alone Proximity Card Reader and host controller, aluminum die cast, surface mount
(Requires XP-KIT for programming - See p.109)

Features
- CAT-5e wired to CEU (980' Max)
- Lexan lens cover
- Embedded stand-alone card reader (AX-DV-XP)
- Embedded HID® ProxPoint® Plus card reader (AX-DV-P)
- Fixed angle color video camera
- Employs 1/4" color CCD camera
- LED illumination automatically turns on in low light conditions

Specifications
Power Source	Supplied by CEU
Communication	Hands-free when answered
Camera	CCD camera with white LED's 250,000 Pixels
Camera View Area	2'1" vert. x 3'1" horiz. at 20"
Programming	AX-DV-XP: Requires XP-KIT (See p.109)
Faceplate	Aluminum die cast
Mounting	Direct to wall surface
Wiring	Door to CEU: CAT-5e
Distance	Door to CEU: 980'
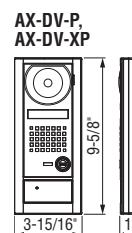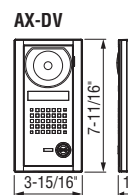
AX-DV

**AX-DV-P, AX-DV-XP**

7-11/16"
3-15/16"   1"

9-5/8"
3-15/16"   1"

NOTES:
1) HID® stations require a 3rd party host
2) Card reader and door strike power require additional wire
3) AX-DV-XP requires XP-KIT for programming - See p.109

Used for:
AX Series

Weather & Vandal Resistant Video Door Stations – flush mount
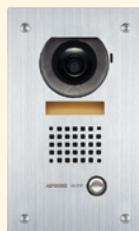
AX-DVF
Fixed Video Door Station, stainless steel, flush mount

AX-DVF-P
Fixed Video Door Station with an embedded HID® ProxPoint® Plus Proximity Card Reader, stainless steel, flush mount

AX-DVF-XP
Fixed Video Door Station with an embedded Stand-Alone Proximity Card Reader and host controller, stainless steel, flush mount
(Requires XP-KIT for programming - See p.109)

Features
- CAT-5e wired to CEU (980' Max)
- Lexan lens cover
- Embedded stand-alone card reader (AX-DVF-XP)
- Embedded HID® ProxPoint® Plus card reader (AX-DVF-P)
- Fixed angle color video camera
- Employs 1/4" color CCD camera
- LED illumination automatically turns on in low light conditions

Specifications
Power Source	Supplied by CEU
Communication	Hands-free when answered
Camera	CCD camera with white LED's 250, 000 Pixels
Camera View Area	2'1" vert. x 3'1" horiz. at 20"
Programming	AX-DVF-XP: Requires XP-KIT (See p.109)
Faceplate	Stainless Steel
Mounting	Supplied back box
Wiring	Door to CEU: CAT-5e
Distance	Door to CEU: 980'
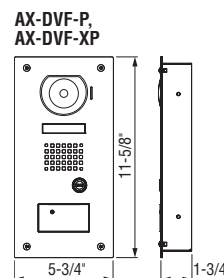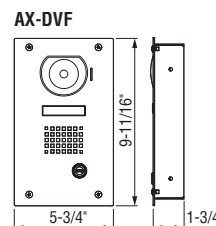
AX-DVF

AX-DVF-P, AX-DVF-XP

9-11/16"
5-3/4"   1-3/4"

11-5/8"
5-3/4"   1-3/4"

NOTES:
1) HID® stations require a 3rd party host
2) Card reader and door strike power require additional wire
3) AX-DVF-XP requires XP-KIT for programming - See p.109

Used for:
AX Series

AX Series Audio Only Door Stations

Audio Only Door Station – mullion surface mount

AX-DM
Audio Door Station, plastic cover, mullion surface mount

Features
- Mullion mounted door station
- Connected using CAT-5e wiring
- Constructed of sturdy ABS Plastic
- Weather resistant

Specifications
Power Source	Supplied by CEU	Material	ABS Plastic
Communication	Hands-free when answered	Mounting	Surface mount
Terminations	Color-coded pre-wired pigtails	Wiring	Door to CEU: CAT-5e
Temp. Rating	14° to 140°F	Distance	Door to CEU: 980'

AX-DM

6-5/16"
1-11/16"   7/8"
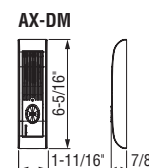
Used for:
AX, IE Series, and IPW-1A

Accessories

Weather & Vandal Resistant
Audio Only Door Station – flush mount

AX-SS
Amplified
Door Station,
stainless steel,
flush mount

Features
• Greater volume for noisy areas/street locations
• Weather and vandal resistant
• Stainless steel, mechanical call button
• Moisture and puncture resistant speaker
• 3-layer steel baffle protects speaker from tampering
• Hands-free communication when master answers
• Screw terminals wires for connection to master station

Specifications
Power Source	Supplied by AX-084C, AX-248C or master
Communication	Hands-free when answered
Speaker	20Ω, 2-1/2" diameter, water and puncture resistant, 2.5 oz. ceramic magnet
Call Button	Mechanical SPST switch, stainless steel
Faceplate	12AWG stainless steel
Mounting	2-gang or SBX-2G for surface mount
Mounting Hardware	Tamper proof screws
Terminations	Unlabeled wire connector
Temp. Rating	14° to 140°F
Wiring	Door to CEU: CAT-5e
Distance	Door to CEU: 980'

AX-SS

4-3/4"
4-3/4"
3-5/16"
2"
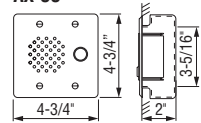
Used for:
AX Series

AX Series Sub Stations

Sub Stations – surface mount

AX-A
Sub Station,
surface mount

AX-AN
Privacy Sub Station,
surface mount

Features
• Connected using CAT-5e wiring
• Hands-free communication when master answers
• Desk or wall mount
• Mounts to 1-gang box or ring (wall mount)
• Privacy feature blocks unwanted monitoring from master (AX-AN)
• Constructed of sturdy ABS Plastic

Specifications
Power Source	Supplied by CEU
Communication	Hands-free at sub
Material	ABS Plastic
Color	White with gray nameplate
Mounting	Surface mount
Wiring	Subs to CEU: CAT-5e
Distance	Subs to CEU: 980'

**AX-A,
AX-AN**

7-1/16"
5-5/8"
2-3/16"
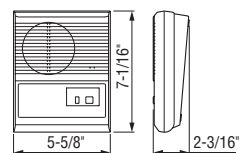
Used for:
AX Series

Sub Stations – semi-flush mount

AX-B
Sub Station,
semi-flush
mount

AX-BN
Privacy Sub
Station, semi-
flush mount

Features
• Connected using CAT-5e wiring
• Hands-free communication when master answers
• Semi-flush mount design
• Optional rough-in box for new construction (BBX-1E)
• Privacy feature blocks unwanted monitoring from master (AX-BN)
• Constructed of sturdy ABS Plastic

Specifications
Power Source	Supplied by CEU
Communication	Hands-free at sub
Mounting	Semi-Flush Mount
Material	ABS Plastic
Color	White with gray nameplate
Mounting	Semi-flush mount
Wiring	Subs to CEU: CAT-5e
Distance	Subs to CEU: 980'

**AX-B,
AX-BN**

8-3/16"
6"
5/8"
9/16"
3/4"
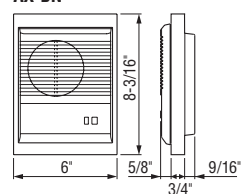
Used for:
AX Series

Accessories

JA Series PanTilt Video Door Stations

Weather Resistant Video Door Station – surface mount

JA-DAC
PanTilt Video
Door Station,
plastic cover,
surface mount,
1-gang

Features
- Color CCD camera
- Mounts to 1-gang box or ring
- PanTilt control from inside station allows a viewing range of 2'11"H x 5'10"W at 20"
- LED illumination automatically turns on in low light conditions

Specifications
Power Source	Supplied by master station
Communication	Hands-free when answered
Camera	CCD camera with white LED's
Scanning Lines	525 lines
Min. Illumination	5 Lux at 1' from camera
Camera View Area	2'11" vert. x 5'10" horiz. at 20"
Wiring	Door to master: 2-cond., mid cap, non-shielded
Distance	Door to master: 165'(22AWG) 330'(18AWG)
Wire Type	Door to master: Aiphone #871802

JA-DAC

Used for:
JA Series

Weather & Vandal Resistant Video Door Station – semi-flush mount

JA-DGC
PanTilt Video
Door Station,
aluminum panel,
semi-flush
mount, 3-gang

Features
- Color CCD camera
- Mounts to 3-gang box or ring
- PanTilt control from inside station allowing a viewing range of 2'11"H x 5'10"W at 20"

Specifications
Power Source	Supplied by master station
Communication	Hands-free when answered
Camera	CCD camera with white LED's
Scanning Lines	525 lines
Min. Illumination	5 Lux at 1' from camera
Camera View Area	2'11" vert. x 5'10" horiz. at 20"
Wiring	Door to master: 2-cond., mid cap, non-shielded
Distance	Door to master: 165'(22AWG) 330'(18AWG)
Wire Type	Door to master: Aiphone #871802

JA-DGC

Used for:
JA Series

Weather & Vandal Resistant Video Door Station – flush mount

JA-DGV
PanTilt Video Door
Station, stainless
steel faceplate,
flush mount

Features
- Color CCD camera
- PanTilt control from inside station allowing a viewing range of 2'11"H x 5'10"W at 20"

Specifications
Power Source	Supplied by master station
Communication	Hands-free when answered
Camera	CCD camera
Scanning Lines	525 lines
Min. Illumination	5 Lux at 1' from camera
Camera View Area	2'11" vert. x 5'10" horiz. at 20"
Wiring	Door to master: 2-cond., mid cap, non-shielded
Distance	Door to master: 165'(22AWG) 330'(18AWG)
Wire Type	Door to master: Aiphone #871802

JA-DGV
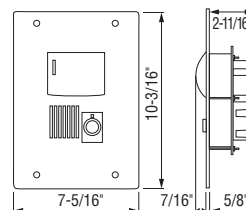
Used for:
JA Series

Accessories

JF Series Fixed Video Door Stations

Weather Resistant Video Door Station – surface mount

JF-DA
Fixed Video Door Station, plastic cover, surface mount

Features
- Fixed angle color video camera
- Employs 1/4" color CCD camera
- Mounts to 1-gang box or ring
- LED illumination automatically turns on in low light conditions

Specifications

Power Source	Supplied by master in use	Wiring	Door to master: 2-cond., mid cap, non-shielded
Communication	Hands-free when answered		
Camera	CCD camera with white LED's	Distance	Door to master: 165'(22AWG) 330'(18AWG)
Scanning Lines	525 lines		
Min. Illumination	5 Lux at 1' from camera	Wire Type	Door to master: Aiphone #871802
Camera View Area	2'1" vert. x 3'1" horiz. at 20"		

JF-DA
5-1/8" · 3-7/8" · 1-9/16"

Used for:
JF Series

Weather & Vandal Resistant Video Door Station – surface mount

JF-DV
Fixed Video Door Station, zinc die cast, surface mount

Features
- Fixed angle color video camera
- Employs 1/4" color CCD camera
- Locator LED backlit on CALL button
- LED illumination automatically turns on in low light conditions

Specifications

Power Source	Supplied by master in use	Wiring	Door to master: 2-cond., mid cap, non-shielded
Communication	Hands-free when answered		
Camera	CCD camera with white LED's	Distance	Door to master: 165'(22AWG) 330'(18AWG)
Scanning Lines	525 lines		
Min. Illumination	5 Lux at 1' from camera	Wire Type	Door to master: Aiphone #871802
Camera View Area	2'1" vert. x 3'1" horiz. at 20"		

JF-DV
1-1/16" · 6-13/16" · 3-7/8" · 1"

Used for:
JF Series

Weather & Vandal Resistant Video Door Stations – flush mount

JF-DVF
Fixed Video Door Station, stainless steel, flush mount

JF-DVF-XP
Fixed Video Door Station with an embedded Stand-Alone Proximity Card Reader and host controller, stainless steel, flush mount
(Requires XP-KIT for programming - See p.109)

JF-DVF-HID
Fixed Video Door Station with an embedded HID® ProxPoint® Plus Proximity Card Reader, stainless steel, flush mount

JF-DVF-HID-I
Fixed Video Door Station with an embedded HID® iCLASS™ Smart Card Reader, stainless steel, flush mount

Features
- Fixed angle color video camera
- Employs 1/4" color CCD camera
- LED illumination automatically turns on in low light conditions

NOTES:
1) HID® stations require a 3rd party host
2) Card reader and door strike power require additional wire
3) JF-DVF-XP requires XP-KIT for programming - See p.109

Specifications

Power Source	Supplied by master station
Communication	Hands-free when answered
Camera	CCD camera with white LED's
Scanning Lines	525 lines
Min. Illumination	5 Lux at 1' from camera
Camera View Area	2'1" vert. x 3'1" horiz. at 20"
Programming	JF-DVF-XP: Requires XP-KIT (See p.109)
Wiring	Door to master: 2-cond., mid cap, non-shielded
Distance	Door to master: 165'(22AWG) 330'(18AWG)
Wire Type	Door to master: Aiphone #871802

JF-DVF
1/4" · 8-1/4" · 5-5/16" · 1-3/4"
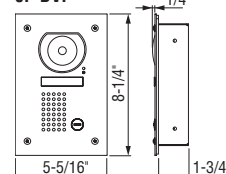
JF-DVF-HID, JF-DVF-HID-I, JF-DVF-XP
1/4" · 11-5/8" · 5-3/4" · 1-3/4"
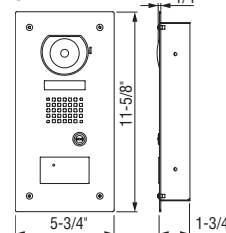
Used for:
JF Series

JK Series Digital PanTilt & Zoom Video Door Stations

Weather Resistant Video Door Station – surface mount

JK-DA
Wide Angle Digital PanTilt and Zoom Video Door Station, plastic cover, surface mount

Features
- Employs 1/4" color CMOS camera
- Locator LED backlit on CALL button
- LED illumination automatically turns on in low light conditions
- Wide angle camera allows user to view up to 170° of the entire entry
- Entry can be monitored without alerting visitors they are being viewed, even at night
- Camera position and zoom can be set for call-in
- Camera can be manually adjusted to compensate for bright illumination
- Mounts to 1-gang box or ring

Specifications
*See specifications for JK-DV (below)

JK-DA
1-1/4"
5-1/8"
3-13/16"
1-7/8"
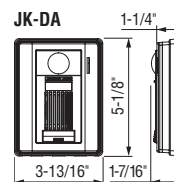
Used for:
JK Series

Weather & Vandal Resistant Video Door Station – surface mount

JK-DV
Wide Angle Digital PanTilt and Zoom Video Door Station, zinc die cast, surface mount

Features
- Employs 1/4" color CMOS camera
- LED illumination automatically turns on in low light conditions
- Wide angle camera allows user to view up to 170° of the entire entry
- Entry can be monitored without alerting visitors they are being viewed, even at night
- Camera position and zoom can be set for call-in
- Camera can be manually adjusted to compensate for bright illumination

Specifications

Power Source	Supplied by master station
Communication	Hands-free when answered
Camera	Complementary metal oxide semiconductor (CMOS)
Scanning Lines	525 lines
Min. Illumination	5 Lux at 1' from camera
Camera View Area	170° horizontal
Temp. Rating	14° to 140° F
Wiring	Door to master: 2-cond., mid cap, non-shielded
Distance	Door to master: 165'(22AWG) 330'(18AWG)
Wire Type	Door to master: Aiphone #871802

JK-DV
6-13/16"
3-7/8"
1"

Used for:
JK Series

Weather & Vandal Resistant Video Door Stations – flush mount

JK-DVF
Wide Angle Digital PanTilt and Zoom Video Door Station, stainless steel, flush mount

JK-DVF-XP
Wide Angle Digital PanTilt and Zoom Video Door Station with an embedded Stand-Alone Proximity Card Reader and host controller, stainless steel, flush mount
(Requires XP-KIT for programming - See p.109)

JK-DVF-HID
Wide Angle Digital PanTilt and Zoom Video Door Station with an embedded HID® ProxPoint® Plus Proximity Card Reader, stainless steel, flush mount

JK-DVF-AC
Wide Angle Digital PanTilt and Zoom Video Door Station with an embedded access keypad, stainless steel, flush mount

Features
- Employs 1/4" color CMOS camera
- Locator LED backlit on CALL button
- LED illumination automatically turns on in low light conditions
- Wide angle camera allows user to view up to 170° of the entire entry
- Entry can be monitored without alerting visitors they are being viewed, even at night
- Camera position and zoom can be set for call-in
- Camera can be manually adjusted to compensate for bright illumination

NOTES:
1) HID® stations require a 3rd party host
2) Card reader and door strike power require additional wire
3) JK-DVF-XP requires XP-KIT for programming - See p.109

Specifications

Power Source	Supplied by master station
Communication	Hands-free when answered
Camera	Complementary metal oxide semiconductor (CMOS)
Scanning Lines	525 lines
Min. Illumination	5 Lux at 1' from camera
Camera View Area	170° horizontal
Temp. Rating	14° to 140°F
Programming	JK-DVF-XP: Requires XP-KIT (See p.109)
Wiring	Door to master: 2-cond., mid cap, non-shielded
Distance	Door to master: 165'(22AWG) 330'(18AWG)
Wire Type	Door to master: Aiphone #871802

JK-DVF
8-1/4"
5-5/16"
1-7/8"

JK-DVF-XP, JK-DVF-HID
11-3/4"
5-3/4"
1-3/4"

JK-DVF-AC
11-5/8"
5-3/4"
1-3/4"

Used for:
JK Series

Accessories

KB & KC Tilt Video Door Stations

Weather Resistant Video Door Stations – surface mount

KB-DAR
Tilt Video Door Station, plastic cover, surface mount, 1-gang

KB-DAR-M
Tilt Video Door Station, motion detector interface, plastic cover, surface mount, 1-gang

KC-DAR
Tilt Video Door Station, plastic cover, surface mount, 1-gang

Features
- Tilt controlled camera
- Mounts to 1-gang box or ring
- Employs 1/4" color CCD camera
- Locator LED backlit on CALL button
- LED illumination automatically turns on in low light conditions

Specifications

Power Source	Supplied by master station
Communication	Hands-free when answered
Camera View Area	Approx. 2' horizontal, 3'8"~7'1" vertical at 4'3" high at 20" from camera
Night Viewing	Up to 20" from camera, with white LED projected, background scene beyond 20" cannot be seen
Wiring	Door to master: 2-cond., mid cap, non-shielded
Distance	Door to master (KB): 330'(22AWG) 650'(18AWG) Door to master (KC): 165'(22AWG) 330'(18AWG)
Wire Type	Door to master: Aiphone #871802

KB-DAR, KB-DAR-M, KC-DAR

5-1/2" / 3-5/16" / 4-1/8" / 1-3/4"
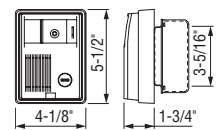
Used for:
-KB door stations are only compatible with the KB Series
-KC door stations are only compatible with the KC Series

Stainless Steel Housings
for KB-DAR, KB-DAR-M, and KC-DAR

KA-FSH
Housing Panel, stainless steel, flush mount
(Camera not included)

KA-DGR Panel
Housing Panel for KB-DAR, KB-DAR-M and KC-DAR, stainless steel, surface mount
(Camera not included)

Features
- Stainless steel construction
- Weather resistant for outdoor use
- KA-FSH includes hood for greater protection from weather
- KA-FSH can be mounted without hood in order to be flush mounted (recommended for indoor installations only)
- Can be added to any existing KB-DAR, KB-DAR-M or KC-DAR color video door station

KA-FSH

3" / 8-11/16" / 6-1/4" / 3/4"

KA-DGR Panel

6" / 3-5/16" / 4-5/16" / 1-5/8"
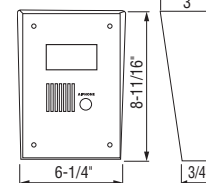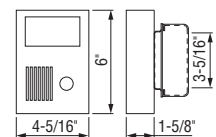
Used for:
KB-DAR, KB-DAR-M, and KC-DAR

Audio Door Stations Compatible with Video Systems

Weather Resistant Audio Door Stations – surface mount

JF-D
Door Station, plastic cover, surface mount, 1-gang

JA-D
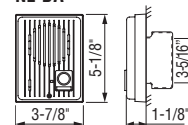Door Station, plastic cover, surface mount, 1-gang

### Features
- Weather resistant for outdoor use
- Push button to call master station(s)
- Hands-free communication when master answers
- Compact surface mount design
- Mounts to 1-gang box or ring
- Call button rings chime or tone at inside station

Specifications

Power Source	Supplied by master station
Communication	Hands-free when answered
Temp. Rating	14° to 140°F
Wiring	Door to master: 2-cond., overall shield
Distance	Door to master: 330'(18AWG)
Wire Type	Door to master: Aiphone #822202 or #821802

JA-D, JF-D

5-1/8" / 3-5/16" / 3-7/8" / 1-1/8"
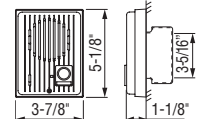
Used for:
JF-D – JF-2MED
JA-D – JA Series, JAW-AZ, and JBW-M

Weather Resistant Audio Door Stations – surface mount

IF-DA
Door Station, plastic cover, surface mount, 1-gang

IE-DC
Door Station, plastic and aluminum cover, surface mount, 1-gang

Features
- Weather resistant for outdoor use
- Push button to call master station(s)
- Hands-free communication when master answers
- Compact surface mount design
- Mounts to 1-gang box or ring
- Call button rings chime or tone at inside station

Specifications
Power Source	Supplied by master station
Communication	Hands-free when answered
Temp. Rating	14˚ to 140˚ F
Wiring	Door to master: 2-cond., overall shield
Distance	Door to master: 500'(22AWG) 1,200'(18AWG)
Wire Type	Door to master: Aiphone #822202 or #821802

IF-DA
5-1/8" 3-7/8" 3-5/16" 1-1/8"
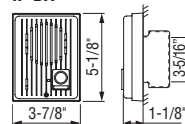
IE-DC
5-5/16" 4" 3-5/16" 1-11/16"
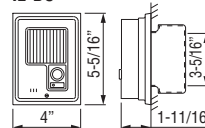
Used for:
AX Series, IE-8MD, IPW-1A, KB Series, and TD-H/B

Weather Resistant Audio Door Station – flush mount

IE-JA
Door Station, stainless steel faceplate, flush mount, 2-gang

Features
- Weather resistant for outdoor use
- Push button to call master station(s)
- Hands-free communication when master answers
- Slim flush mount design with stainless steel faceplate
- Mounts to 2-gang box or ring

Specifications
Communication	Hands-free when answered
Speaker	20Ω
Material	Plastic case, stainless steel faceplate
Color	Stainless steel with black plastic
Temp. Rating	14˚ to 140˚F
Wiring	Door to master: 2-cond., overall shield
Distance	Door to master: 500'(22AWG) 1,180'(18AWG)
Wire Type	Door to master: Aiphone #822202 or #821802

IE-JA
4-1/2" 4-9/16" 3-5/16" 1-3/16"

Used for:
AX Series, IE-8MD, IPW-1A, KB Series, and TD-H/B

Weather & Vandal Resistant Audio Door Stations – flush mount

IE-SS
Door Station, stainless steel, flush mount, 2-gang

IE-SSR
Door Station, stainless steel, red mushroom call button, flush mount, 2-gang

IE-SSV
Door Station with built-in CCTV camera, stainless steel, flush mount, 2-gang

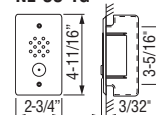### Features
- Vandal and weather resistant
- Stainless steel, mechanical call button (IE-SS)
- Red mushroom call button (IE-SSR)
- Stainless steel, mechanical call button with backlit LED (IE-SSV)
- Moisture and puncture resistant speaker
- 3-layer steel baffle protects speaker from tampering
- Hands-free communication when master answers
- Pigtail wires for connection to master station
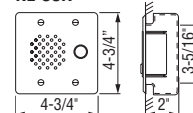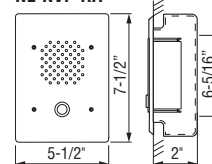
Specifications
Power Source	Supplied by master station
Communication	Hands-free when answered
Speaker	20Ω, 2-1/2" diameter, water and puncture resistant, 2.5 oz. ceramic magnet
Call Button	Mechanical SPST switch, stainless steel (IE-SS and IE-SSV), red mushroom SPST switch (IE-SSR)
Faceplate	12AWG stainless steel
Mounting	2-gang or SBX-2G for surface mount
Mounting Hardware	Tamper proof screws
Terminations	Color-coded pre-wired pigtails
Temp. Rating	14˚ to 140˚F
Wiring	Door to master: 2-cond., overall shield
Distance	Door to master: 500'(22AWG) 1,180'(18AWG)
Wire Type	Door to master: Aiphone #822202 or #821802

Specifications (IE-SSV Only)
Camera Power Source	12V DC, 100mA
Video Output	75Ω / 1Vp-p composite video
Iris Control	Auto
Min. Illumination	1 Lux
Video Wiring	BNC connection to destination video device

IE-SS, IE-SSR, IE-SSV
4-3/4" 4-3/4" 3-5/16" 2"
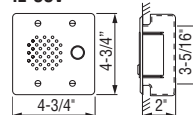
Used for:
AX Series, IE-8MD, IPW-1A, KB Series (not IE-SSV), and TD-H/B Series

Accessories

LE Audio Door Stations

Weather Resistant Audio Door Station – surface mount

LE-D
Door Station, plastic cover, surface mount, 1-gang

Features
- Weather resistant for outdoor use
- Push button to call master station(s)
- Hands-free communication when master answers
- Compact surface mount design
- Mounts to 1-gang box or ring

Specifications
Communication	Hands-free when answered
Speaker	20Ω
Material	ABS Plastic
Color	Black with white trim border
Temp. Rating	14° to 140°F
Distance	Doors to master: 650'(22AWG) 1,600'(18AWG)

LE-D

4-3/4" 3-5/16"
3-1/2" 1-1/8"
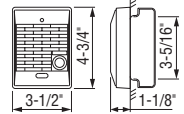
Used for:
LEF and LEM

Weather Resistant Audio Door Station – flush mount

LE-DA
Door Station, stainless steel faceplate, flush mount, 2-gang

Features
- Weather resistant for outdoor use
- Push button to call master station(s)
- Hands-free communication when master answers
- Slim flush mount design with stainless steel faceplate
- Mounts to 2-gang box or ring

Specifications
Speaker	20Ω
Material	Plastic case, stainless steel faceplate
Color	Stainless steel with black plastic
Temp. Rating	14° to 140°F
Distance	Doors to master: 650'(22AWG) 1,600'(18AWG)

LE-DA

4-1/2" 3-5/16"
4-9/16" 1-

Used for:
LEF and LEM

Weather & Vandal Resistant Audio Door Stations – flush mount

LE-SS-1G
Door Station, stainless steel, flush mount, 1-gang

LE-SS
Door Station, stainless steel, flush mount, 2-gang
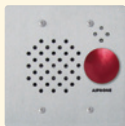
LE-SSR
Door Station, stainless steel, red mushroom call button, flush mount, 2-gang

LE-SSV
Door Station with built-in CCTV camera, stainless steel, flush mount, 2-gang

LS-NVP/C
Door Station, powder-coated steel, flush mount, 3-gang

Features
- Vandal and weather resistant
- Stainless steel, mechanical call button (LE-SS, LE-SSV, and LS-NVP/C)
- Red mushroom call button (LE-SSR)
- Moisture and puncture resistant speaker
- 3-layer steel baffle protects speaker from tampering
- Hands-free communication when master answers
- Pigtail wires for connection to master station

Specifications
Power Source	Supplied by master station
Communication	Hands-free when answered
Speaker	20Ω, 2-1/2" diameter, water and puncture resistant, 2.5 oz. ceramic magnet
Call Button	Mechanical SPST switch, stainless steel (LE-SS, LE-SSV, LS-NVP/C), red mushroom SPST switch (LE-SSR)
Faceplate	12AWG stainless steel (LE-SS-1G, LE-SS, LE-SSR, LE-SSV), 11AWG carbon steel with powder-coated white baked epoxy finish (LS-NVP/C)
Mounting	1-gang box or SBX-1G (LE-SS-1G) for surface mount 2-gang box or SBX-2G (LE-SS, LE-SSR, LE-SSV) for surface mount, 3-gang box or SBX-NVP (LS-NVP/C) for surface mount
Mounting Hardware	Tamper proof screws
Terminations	Color-coded pre-wired pigtails
Wiring	**LEM, AP-M and MP-S (homerun):** 2-cond., overall shield LEF (homerun): 3-cond., overall shield
Distance	**LEF, LEM, LAF-C, AP-M and MP-S:** 650'(22AWG) 1,600'(18AWG) **AP-M:** 490'(22AWG) 1,200'(18AWG) **MP-S:** 330'(22AWG) 720'(18AWG)
Wire Type	**LEF, LEM, LAF-C, AP-M and MP-S (homerun):** Aiphone #822202 or #821802 **LEF (homerun):** Aiphone #821803

LE-SS-1G

4-11/16" 3-5/16"
2-3/4" 1-

LE-SS, LE-SSR, LE-SSV

4-3/4" 3-5/16"
4-3/4" 2"

LS-NVP/C

7-1/2" 6-5/16"
5-1/2" 2"

Specifications (LE-SSV Only)
Camera Power Source	12V DC, 100mA (included)
Video Output	75Ω / 1Vp-p composite video
Iris Control	Auto
Min. Illumination	1 Lux
Video Wiring	BNC connection to destination video device
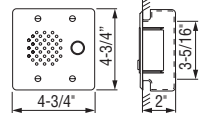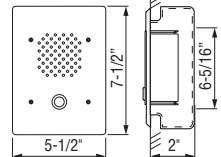
Used for:
LEF, LEM, AP-M, and MP-S

NEM Door Stations

Weather Resistant Audio Door Station – surface mount

NE-DA
Door Station,
plastic cover,
surface mount,
1-gang

Features

- Weather resistant for outdoor use
- Push button to call master station(s)
- Hands-free communication when master answers
- Compact surface mount design and mounts to 1-gang box or ring
- Equipped with extra contact capability (RY-PA) to activate a remote device at the sub location from the time the call is placed until it's answered
- Corridor lamp (NBY-4A) can be included at each sub station location

Specifications

Power Source	Supplied by master station
Communication	Hands-free when answered
Temp. Rating	14° to 140°F
Wiring	Doors to master: 2-cond., overall shield
Distance	Doors to master: 420'(22AWG) 1,000'(18AWG)
Wire Type	Doors to master: Aiphone #822202 or #821802

NE-DA

5-1/8"
3-7/8"
3-5/16"
1-1/8"

Used for:
NEM Series

Weather Resistant Audio Door Station – flush mount

NE-JA
Door Station,
stainless steel
faceplate, flush
mount, 2-gang

Features

- Weather resistant for outdoor use
- Push button to call master station(s)
- Hands-free communication when master answers
- Slim flush mount design and mounts to 2-gang box or ring
- Equipped with extra contact capability (RY-PA) to activate a remote device at the sub location from the time the call is placed until it's answered

Specifications

Power Source	Supplied by master station
Communication	Hands-free when answered
Temp. Rating	14° to 140°F
Wiring	Doors to master: 2-cond., overall shield
Distance	Doors to master: 360'(22AWG) 880'(18AWG)
Wire Type	Doors to master: Aiphone #822202 or #821802

NE-JA

4-1/2"
4-9/16"
3-5/16"
1-3/16"
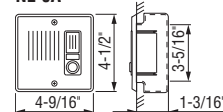
Used for:
NEM Series

Weather & Vandal Resistant Audio Door Stations – flush mount

NE-SS-1G
Door Station,
stainless steel,
flush mount,
1-gang

NE-SS
Door Station,
stainless steel,
flush mount,
2-gang
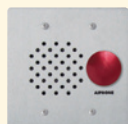
NE-SSR
Door Station, stainless
steel, red mushroom
call button, flush
mount, 2-gang

NE-NVP/C
Door Station,
powder-coated
steel, flush
mount, 3-gang

NE-NVP-RA
Door Station, powder-coated
steel, red mushroom call button,
call status indicators, braille
signage, flush mount, 3-gang

Features

- Vandal and weather resistant
- Stainless steel, mechanical call button (NE-SS, NE-NVP/C, and NE-NVP-RA)
- Red mushroom call button (NE-SSR)
- Moisture and puncture resistant speaker
- 3-layer steel baffle protects speaker from tampering
- Hands-free communication when master answers
- Call-in activates light and tone on master, remaining lit until call is answered at master
- Pigtail wires for connection to master station

Specifications

Power Source	Supplied by master station
Communication	Hands-free when answered
Speaker	20Ω, 2-1/2" diameter, water and puncture resistant, 2.5 oz. magnet
Call Button	Mechanical SPST switch, stainless steel (NE-SS, NE-NVP/C, and NE-NVP-RA), Red mushroom SPST switch (NE-SSR)
Faceplate	12AWG stainless steel (NE-SS-1G, NE-SS, and NE-SSR), 11AWG carbon steel with powder-coated white baked epoxy finish (NE-NVP/C and NE-NVP-RA)
Mounting	1-gang box or SBX-1G for surface mount 2-gang box or SBX-2G for surface mount 3-gang box or SBX-NVP for surface mount
Mounting Hardware	Tamper proof screws
Terminations	Color-coded pre-wired pigtails
Wiring	Doors to master: 2-cond., overall shield
Distance	Doors to master: 420'(22AWG) 1,000'(18AWG)
Wire Type	Doors to master: Aiphone #822202 or #821802

NE-SS-1G

4-11/16"
2-3/4"
3-5/16"
3/32"

NE-SS, NE-SSR

4-3/4"
4-3/4"
3-5/16"
2"

NE-NVP/C, NE-NVP-RA

7-1/2"
5-1/2"
6-5/16"
2"

Used for:
NEM Series

Accessories

Door Station Components: *Surface Mount Boxes*

Surface Mount Box
for flush mount 1-gang door stations

SBX-1G
Surface Mount Box

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

Specifications

Material	18AWG stainless steel
Color	Polished stainless steel
Mounting Hardware	8 x 32 with T-15 Torx head
Dimensions	4-9/16"H x 2-7/8"W x 2-15/16"D (top), 2"D (bottom)
Interior Depth	2-3/16"

SBX-1G
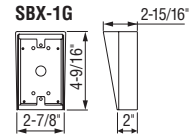
Used for:
LE-SS-1G and NE-SS-1G

Surface Mount Box
for 1-gang door stations

SBX-ACE
Surface Mount
Box for intercom
and access
control device

Features
- Vandal resistant
- Hood provides weather resistance
- Includes blank stainless steel faceplate for wide range of mounting options
- Openings at bottom allow for moisture drainage

Specifications

Material	18AWG stainless steel
Color	Brushed stainless steel
Mounting Hardware	8 x 32 with T-15 Torx head
Dimensions	7"H x 9-1/4"W x 4-1/4"D (top), 1-5/8"D (bottom)
Interior Depth	1-5/8"

SBX-ACE
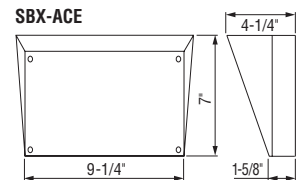
Used for:
Any Aiphone 1-gang audio only door station or audio/video door station with an access control device

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Surface Mount Box
for 2-gang door stations

SBX-2G
Surface
Mount Box
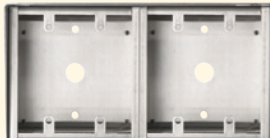
SBX-2BH
Horizontal
Mount Box

SBX-2BV
Vertical
Mount Box

Features
- 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

SBX-2G

SBX-2BH

SBX-2BV

Specifications

Material	18AWG stainless steel
Color	Polished stainless steel (SBX-2G, SBX-2BH and SBX-2BV)
Mounting Hardware	8 x 32 with T-15 Torx head
Dimensions	SBX-2G: 4-13/16"H x 4-7/8"W x 3-5/16"D (top), 2-3/8"D (bottom)
	SBX-2BH: 4-13/16"H x 9-3/4"W x 3-5/16"D (top), 2-3/8"D (bottom)
	SBX-2BV: 9-5/8"H x 4-7/8"W x 3-5/16"D (top), 2-3/8"D (bottom)
Interior Depth	2-3/16"
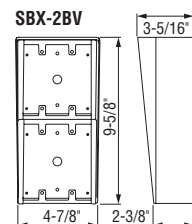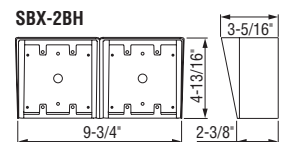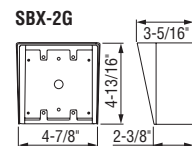
Used for:
SBX-2G – AX-SS, IE-JA, IE-SS, IE-SSR, IE-SSV, LE-DA, LE-SS, LE-SSR, LE-SSV, NE-JA, NE-SS, and NE-SSR
SBX-2BH, SBX-2BV – HID-SS with one IE-SS, IE-SSR, IE-SSV, LE-SS, LE-SSR, IE-SSV, NE-SS, or NE-SSR

Accessories

Surface Mount Box
for 3-gang door stations

SBX-NVP
Surface Mount Box

SBX-3G
Surface Mount Box

Features
- Weather resistant
- Includes space inside for wiring
- Mounts to 1-gang box or ring
- Can mount directly to wall surface
- Powder-coated white baked epoxy finish (SBX-NVP)

Specifications
Material	1/8" rolled steel (SBX-NVP) 18AWG stainless steel (SBX-3G)
Color	White, baked epoxy (SBX-NVP) Polished stainless steel (SBX-3G)
Mounting Hardware	8 x 32 with T-15 Torx head
Dimensions	**SBX-NVP:** 8-5/8"H x 6-5/8"W x 2-1/4"D **SBX-3G:** 6-1/2"H x 4-11/16"W 3-3/8"D (top), 2-1/2"D (bottom)
Interior Depth	2" (SBX-NVP) 2-1/8" (SBX-3G)

SBX-NVP   **SBX-3G**

3-3/8"
8-5/8"   6-1/2"
6-5/8"   4-11/16"   2-1/2"
2-1/4"
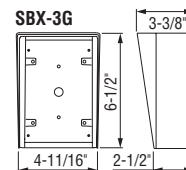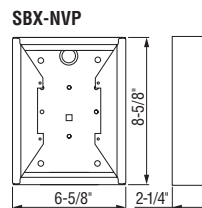
Used for:
SBX-NVP – LS-NVP/C,
NE-NVP/C, and NE-NVP-RA
SBX-3G – AN-8050DS
AN-8050DSW, AN-8540DS

Back Boxes
for flush mounting LEF-C Units

BBX-1E *(Shown)*
BBX-3E Back
Box for flush mounting LEF-C units

Features
- Provides easy installation of LEF-C

Specifications
Dimensions   **BBX-1E:** 6-3/8"H x 4-3/4"W x 2-5/8"D
BBX-3E: 8-1/4"H x 6-3/4"W x 2-5/8"D

Used for:
BBX-1E – LE-B, LE-BN, LE-C, LE-CN, LEF-1C and LEF-3C
BBX-3E – LEF-5C and LEF-10C

BBX-1E, BBX-3E

6-3/8" (1E)
8-1/4" (3E)
4-3/4" (1E)
6-3/4" (3E)   2-5/8"
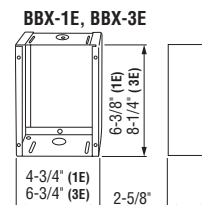
Surface Mount Box
for flush mount door stations

SBX-DGV
Surface Mount Box

SBX-DVF
Surface Mount Box

SBX-AXDVF
Surface Mount Box

SBX-DVF-P
Surface Mount Box
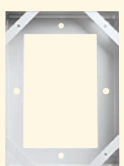
NBX-2
Surface Mount Box

Features
- Hood provides weather resistance
- Includes space inside for wiring
- Can mount directly to wall surface
- Openings at bottom allow for moisture drainage

SBX-DGV
3-1/4"
10-3/8"
7-7/16"   2-1/2"

SBX-DVF
3-3/16"
8-5/16"
5-1/2"   2-1/2"

SBX-AXDVF
2-13/16"
9-3/4"
5-7/8"   1-15/16"

SBX-DVF-P
2-13/16"
11-3/4"
5-15/16"   1-15/16"

NBX-2
8-5/8"
6-3/8"   2-1/2"

Specifications
Material	SBX-DGV, SBX-DVF, SBX-AXDVF: 16AWG stainless steel (outer layer) 18AWG stainless steel (inner layer) SBX-DVF-P: 18AWG stainless steel NBX-2: 18AWG steel
Color	Brushed stainless steel
Mounting Hardware	8 x 32 with T-15 Torx head
Dimensions	SBX-DGV: 10-3/8"H x 7-7/16"W x 3-1/4"D (top), 2-1/2"D (bottom) SBX-DVF: 8-5/16"H x 5-1/2"W x 3-3/16"D (top), 2-1/2"D (bottom) SBX-AXDVF: 9-3/4"H x 5-7/8"W x 2-13/16"D (top), 1-15/16"D (bottom) SBX-DVF-P: 11-3/4"H x 5-5/16"W x 2-3/16"D (top), 1-15/16"D (bottom) NBX-2: 8-5/8"H x 6-3/8"W x 2-1/2"D
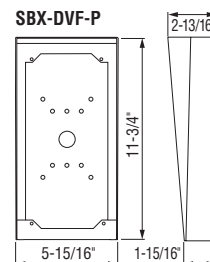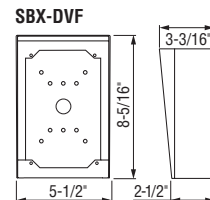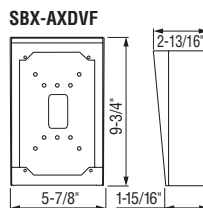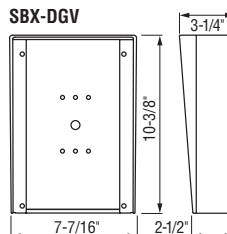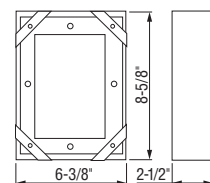
Used for:
SBX-DGV – JA-DGV
SBX-DVF – JF-DVF, JK-DVF
SBX-AXDVF – AX-DVF
SBX-DVF-P –
AX-DVF-P, AX-DVF-XP,
JF-DVF-XP/HID/HID-I,
and JK-DVF-XP/HID
NBX-2 – NA-NE

Accessories

Door Station Components: *Security Lock Boxes*

Security Lock Box
for video door stations

Features
• Lockable enclosure that gives added protection to video door stations after business hours
• Includes a mounting plate for JF-DV/JK-DV
• Able to secure in open position with included "L" bracket

SBX-LSE

SBX-LSP

Specifications
Material	18AWG stainless steel
Color	Polished stainless steel
Mounting	1-gang box or mount directly to wall surface
Dimensions	SBX-LSE Closed: 11-1/4"H x 5-7/8"W x 1-9/16"D Open: 20-3/8"H x 5-7/8"W x 1-9/16"D SBX-LSP Closed: 13-7/8"H x 6/3/16"W x 15/16"D Open: 25-3/4"H x 6/3/16"W x 13/16"D
Interior Depth	SBX-LSE: 1-1/2" SBX-LSP: 3/4"
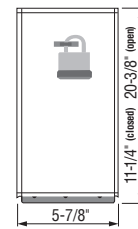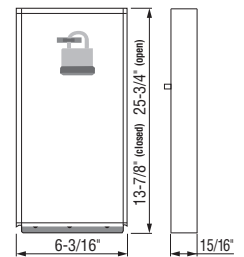
Used for:
SBX-LSE – JF-DV, JF-DVF, JK-DV, and JK-DVF
SBX-LSP – AX-DVF-P, AX-DVF-XP, JF-DVF-XP/HID/HID-I, and JK-DVF-XP/HID

Door Station Components: *Angle Boxes*

Angle Boxes
for surface mount door stations

KAW-D
30° Angle Box

KMB-45
45° Mullion Mounting Bracket

SBX-DV30
30° Angle Box

SBX-AXDV30
30° Angle Box

Features (KAW-D)
• Can be installed with any Aiphone 1-gang surface mount door station
• Angles 1-gang door stations outward by 30°
• Can mount to either right or left of door
• Hinged faceplate for mounting door station
• Provides a better viewing angle for the camera

Features (KMB-45)
• Can be installed with any Aiphone 1-gang surface mount door station
• Mullion mounts door stations outward by 45°
• Can mount to either right or left of door
• Provides a better viewing angle for the camera

Features (SBX-DV30)
• Designed for angle mounting the JF-DV and JK-DV outward by 30°
• Applicable for wide or double door entrances
• Provides a better viewing angle for the camera

Features (SBX-AXDV30)
• Designed for angle mounting the AX-DV outwards by 30°
• Applicable for wide or double door entrances
• Provides a better viewing angle for the camera

Specifications (KAW-D)
Material	ABS Plastic
Color	Charcoal gray
Mounting	1-gang box or mount directly to wall surface
Dimensions	5-5/8"H x 4-1/4"W

Specifications (SBX-DV30 & SBX-AXDV30)
Material	18AWG stainless steel
Color	Polished stainless steel
Mounting	1-gang box or mount directly to wall surface
Dimensions	SBX-DV30: 6-13/16"H x 3-5/8"W x 2-3/4"D (top) 3/4"D (bottom) SBX-AXDV30: 7-5/8"H x 3-7/8"W x 2-3/4"D (top) 5/8"D (bottom)

KAW-D
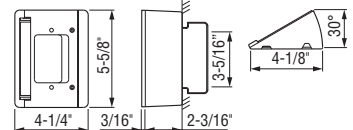
KMB-45
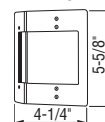
SBX-DV30
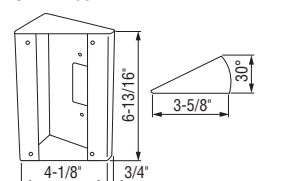
SBX-AXDV30
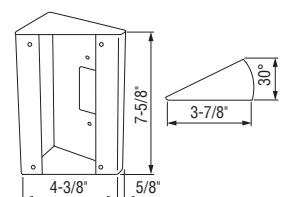
Used for:
KAW-D, KMB-45 – 1-gang audio and 1-gang audio/video door stations
SBX-DV30 – JF-DV and JK-DV
SBX-AXDV30 – AX-DV

Door Station Components: *Decorative Faceplates*

Decorative Faceplates

ICP-BR
Brass Faceplate

ICP-AB
Antique Brass Faceplate

Features
- Stainless steel brass plated (ICP-BR) or antique brass plated (ICP-AB)
- Replaces stainless steel cover on IE-JA, LE-DA and NE-JA

ICP-BR, ICP-AB

4-1/2"
4-9/16"
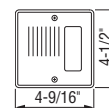
Used for:
IE-JA, LE-DA, and NE-JA

Call Extension

Call Extension Speakers

IER-2
Call Extension Speaker

DAR-1
Call Extension Sounder

Features
- Announces chime tone only
- Adjustable volume (3 positions)
- Indoor mounting

Specifications
Wiring	Single pair of wires, non-polarized
Dimensions	4-3/4"H x 3-1/2"W x 1-1/8"D

IER-2, DAR-1

4-3/4"
3-5/16"
3-1/2"
1-1/8"
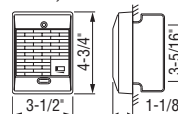
Used for:
IER-2 – DB Series, JA Series, JF Series, JK Series, KB Series, KC Series, and NEM Series
DAR-1 – DA-1MD

Door Release Components

Electric Door Strike

PT-1210N
AC Transformer, 12V AC

EL-12S
Electric Door Strike, 12V AC/DC, 200mA
(Requires PT-1210N)*

* PT-1210N not required with DA & DB Series

Features
- Door release activation, momentary or talk line-controlled
- Controlled by N/O contact

Specifications
Power Source	12V AC/DC, 200mA - Use PT-1210N

EL-12S

1-1/8"
3-9/16"
13/16"
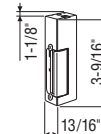
Used for:
C-123L/A, C-123LW, DA-1DS, DA-2DS/4DS, IE-8MD, JA Series, JF Series, JK Series, KB Series, KC Series, LEF Audio, LEM-1DL, and LEM-1DLC

Door Release Relays

RY-PA
Door Release Relay

Features
- Door release activation, momentary or talk line controlled
- Controlled by N/O contact

Specifications
Power Source	12V DC
Relay Contact Rating	24V DC, 1A

RY-PA

1-3/8"
7/8"
2-1/8"
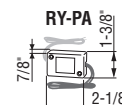
Used for:
LEF Series

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 (N/O) contacts for electric strike
- Normally closed (N/C) contacts for magnetic locks

Specifications
Power Source	12~24V DC, 30mA, 12~16V AC, 60mA - Use PS-2420UL or PS-1820UL
Relay Contact Rating	N/O or N/C output: 1A @ 50V AC, 1A @ 30V DC (for other types use matching relay)
Distance	Master to RY-3DL: 165'(22AWG) 330'(18AWG)

RY-3DL

5-1/2"
3"
1-1/2"
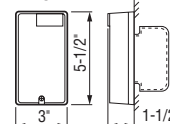
Used for:
JA Series, JF Series and KB Series

Accessories

Door Release Components (continued)

Form C Door Release Relay

RY-18L
Form C Door
Release Relay

RY-24L
Form C Door
Release Relay

Features
- Normally open (N/O) contact with high current rating for door strikes
- Normally closed (N/C) contact with high current for mag lock
- Use RY-18L in place of RY-PA if N/C contact is required

Specifications
Power Source	Supplied by master station
Terminations	Color-coded pre-wired pigtails
Relay Input	**RY-18L:** 12~18V DC, red and gray wires, 22AWG **RY-24L:** 24~36V DC, red and black wires, 22AWG
Relay Output	Brown, orange and yellow wires, 18AWG
N/O Output Rating	5A @ 30V DC, 10A @ 125V AC, 3A @ 250V AC
N/C Output Rating	3A @ 30V DC or 125V AC
Wiring	2-cond. to door release, 2-cond. to strike with power for strike wired in series
Dimensions	1-3/4"H x 7/8"W x 7/16"D with wires extending approx. 7-1/2"

RY-18L, RY-24L

7/16" 7/8" 3/4"
Wire extends approx. 7-1/2"
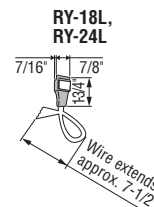
Used for:
RY-18L – JF Series, JK Series, LEM Series, and LEF Series
RY-24L – AX Series, JA Series, KB Series, and KC Series

Access Control Devices

HID® Proximity Card Reader
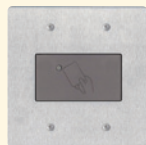
HID-SS
Accessory Station
with an embedded
HID® Proximity
Card Reader

Features
- 2-gang stainless steel unit containing an HID ProxPoint® Plus Card Reader
- Installs next to any one of Aiphone's 2-gang stainless steel door stations, creating a unified look
- Horizontal (SBX-2BH) and vertical (SBX-2BV) boxes are available for mounting the HID-SS with a 2-gang stainless steel door station
- Provides electronic access to a building through the standard Access Control system (not supplied by Aiphone)

Specifications
Power Source	5~16V DC
Terminations	Pigtail cable, 18" (45cm)
Requirements	20mA avg., 75mA peak @ 12V DC

NOTE: HID® stations require a 3rd party host

HID-SS

4-3/4" 3-5/16"
4-3/4" 9/32"
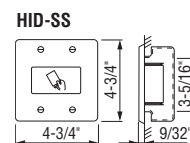
Used for:
IE-JA, IE-SS, IE-SSR, IE-SSV, LE-DA, LE-SS, LE-SSR, LE-SSV, NE-JA, NE-SS, and NE-SSR

Stand-Alone Proximity Card Reader

NEW

XP-SS
Accessory Station
with an embedded Stand-Alone
Proximity Card Reader
(Requires XP-KIT for programming - See below)

Features
- 2-gang stainless steel unit containing a stand-alone proximity card reader with host controller
- Installs next to any one of Aiphone's 2-gang stainless steel door stations, creating a unified look
- Horizontal (SBX-2BH) and vertical (SBX-2BV) boxes are available for mounting the XP-SS with a 2-gang stainless steel door station
- Provides electronic access to a building without the need for a 3rd party host controller or PC

Specifications
Power Source	12V DC
Terminations	Pigtail cable, 18" (45cm)
Programming	Requires XP-KIT (see below)

XP-SS

4-3/4" 3-5/16"
4-3/4" 9/32"
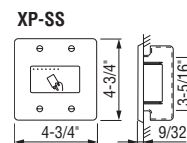
Used for:
IE-JA, IE-SS, IE-SSR, IE-SSV, LE-DA, LE-SS, LE-SSR, LE-SSV, NE-JA, NE-SS, and NE-SSR

XP Door Station Kit

XP-KIT*
Includes
keypad *(XRP3)*,
programming
cards, and 10
blank entry
cards *(XC4/9)*

* *(1) XP-KIT is required per system*

Features
- One XP-KIT may be used to program multiple XP Card Readers
- Required for any station with an XP Card Reader
- Wireless programming allows user to easily add and remove credentials
- Different security levels can be assigned so individuals have appropriate access
- All credentials have a unique 9-digit ID number for organization and logging
- A blank log sheet template is included to document card ID numbers, authorized users, access level, as well as additional notes
- Additional proximity cards can be ordered (P/N 289950)

Used for:
AX-DV-XP, AX-DVF-XP, JF-DVF-XP, JK-DVF-XP, and XP-SS Embedded Stand-Alone Card Reader Door Stations

Access Control Keypads

AC-10S
Access Control Keypad, zinc die cast to match JF-DV and JK-DV, surface mount

AC-10F
Access Control Keypad, stainless steel, flush mount

Features
- Access control with up to 100 unique user codes
- Can be used as a stand-alone access control device
- Compact size in a stylized design
- 12-digit backlit keypad
- Matches JF-DV and JK-DV (AC-10S)
- Easy to install

Specifications
Power Source	12~24V AC/DC
Output Rating	2 relays, N/O and N/C 3A (resistive), 1A (inductive) @ 24V
Dimensions	**AC-10S:** 4-15/16"H x 3-7/8"W x 1-5/16"D **AC-10F:** 3-15/16"H x 3-1/3"W x 1-3/4"D

AC-10S
4-15/16"
3-7/8" 1-5/16"

AC-10F
5-3/16" 3-15/16"
4-5/8" 3/16" 1-3/4"
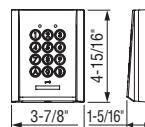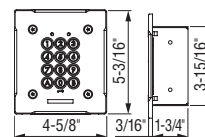
Used for:
JF and JK Series or as a stand-alone unit

External Relays

External Signaling Relays

RY-AC/A
External Signaling Relay

NEW

RY-ES
External Signaling Relay

Features (RY-AC/A)
- RY-AC/A allows external device to be triggered when intercom is called
- External device will be activated momentarily as long as the call button on the door station is activated
- DAK-2S required when used with C-123LA/LW and LEM/LEM-1DL

Specifications (RY-AC/A)
Power Source	12V DC
Relay Contact Rating	240V AC, 0.3A 24V DC, 1A (bell, buzzer, chime, etc. must be AC operated or DC mechanical type only)

Features (RY-ES)
- RY-ES allows external device to be triggered when intercom is called
- External device will be activated when the door station calls in

Specifications (RY-ES)
Power Source	12~24V DC, 12~16V AC
Relay Contact Rating	125V AC, 1.0A 30V DC, 1.0A

RY-AC/A, RY-ES
2-7/16"
4-1/8" 1-5/8"

Used for:
RY-AC/A – C-123L/A, C-123LW, IE-8, LEF, LEM, LEM-1DL, and TD-H/B Series
RY-ES – AX, JK, JF, JA, KB, KC, NEM, DB and IE-8 Series

Long Distance Adaptors

Long Distance Adaptors
for color video door stations

JBW-BA
Long Distance Door Station Adaptor

JKW-BA
Long Distance Door Station Adaptor

Features
- Extends wiring distance to video monitors up to 980' max (820' max. when used with JF Series)
- Functions with JA, JF, JK, and KC video door stations
- Requires low capacitance Aiphone cable #851602 or #851602DB

Specifications
Power Source	**JBW-BA:** 18~24V DC **JKW-BA:** 18V DC
Capacity	One adaptor unit for each video door station located beyond the standard specified wire distance
Mounting	Use W-DIN11
Dimensions	4-1/4"H x 4-3/16"W x 2-3/8"D (JBW-BA) 2-3/16"D (JKW-BA)
Distance	**JBW-BA:** 820' (JF Series), 980' (JA & KC Series) **JKW-BA to Door:** 650' (JK Series) **JKW-BA to last monitor:** 330' (JK Series)
Wire Type	Aiphone #851602 or #851602DB (direct burial)

JBW-BA
4-1/4"
4-3/16" 2-3/8"
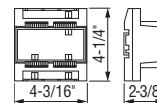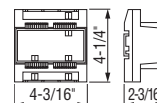
JKW-BA
4-1/4"
4-3/16" 2-3/16"

Used for:
JBW-BA – JA Series, JF Series, and KC Series
JKW-BA – JK Series

Accessories

Transmission and Reception Interface Units

Transmission & Reception Interface Units for AX Series

AXW-AVT
Door Station IP
or Fiber Optic
Transmission
Interface Unit

AXW-AVR
Door Station
Fiber Optic Reception
Interface Unit

Features

- Interfaces AX video door station with 3rd party alternate transmission methods for longer distances
- Fiber optic or IP connectivity

NOTE: For a list of approved devices visit our website at
www.aiphone.com/products/alpha-list/detail/ax
to download the AXW-AVT(R) Instructions or contact Aiphone
Technical Support at **(800) 692-0200/tech@aiphone.com**
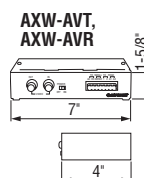
Specifications

Power Source	**AXW-AVT:** 24V DC, 500mA - Use Aiphone PS-2420UL
	AXW-AVR: Supplied by AX CEU
Video In & Out	Composite 1V Peak-to-Peak, NTSC
Video Connectors	BNC
Relay	N/O contact output, 30V DC, 1A
Sensor	N/C contact input
Dimensions:	**AXW-AVT, AXW-AVR:** 1-5/8"H x 7"W x 4"D
Distance	**AXW-AVT to Door, AXW-AVR to CEU:**
	Max. 980' (cumulative)
	AXW-AVT and AXW-AVR to 3rd party devices:
	Do not exceed 16'
Wire Type	CAT-5e, 24AWG UTP-4

AXW-AVT, AXW-AVR
1-5/8"
7"
4"

Used for:
AX Series

Video Input Modulators

CCTV Input Module for AX, JA, and JF Series

AXW-AZ
CCTV Input
Module

JAW-AZ
CCTV Input
Module

JBW-M
CCTV Input
Module

Features

- Allows CCTV camera to be viewed on Aiphone monitor
- Standard motion detector used to auto-activate camera
- Audio door station can be used for communication to camera location
- Relay output to trigger external device when CCTV camera is activated
- Video output for connection to standard CCTV monitor or recorder for full time video signal
- Sensor input to trigger CCTV automatically
- Video Output allows constant viewing of CCTV Camera

AXW-AZ
1-5/8"
7"
4"
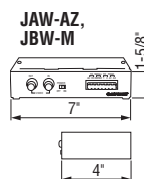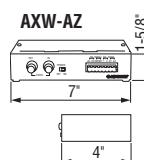
JAW-AZ, JBW-M
1-5/8"
7"
4"

Specifications

Power Source	**JAW-AZ & JBW-M:** Supplied by master station
	AXW-AZ: Supplied by CEU
Video In/Out	75Ω composite video, 1V p-p
Video Connector	BNC
Video Monitoring	30 sec., controlled by master
Camera Activation	N/C sensor input, or by master
Dimensions	1-5/8"H x 7"W x 4"D
Distance	**JAW-AZ/JBW-M to JA/JF Series master:**
	165'(22AWG) 330'(18AWG)
	AXW-AZ to AX Series CEU: 980' (CAT-5e)
Wire Type	**JA/JF Series:** Aiphone #871802
	AX Series: CAT-5e

Used for:
AXW-AZ – AX Series
JAW-AZ – JA-2MCD
and JA-2MECD
JBW-M – JF Series

Video Input Modulators (continued)

CCTV Input Module for KB Series

KBW-M
CCTV Input
Module

Features
- Allows CCTV camera to be viewed on Aiphone monitor
- Can be installed up to 650' away from KB-3MRD and wired with Aiphone #871802 (2-cond. mid cap wire)
- Motion detector with normally open (N/O) contact used to auto-activate the camera
- Small, easily installed and concealed
- BNC connector for CCTV camera

Specifications
Power Source	Supplied by KB-3MRD
Video Input	75Ω composite video, 1V p-p
Video Connector	BNC
Video Monitoring	30 sec., controlled by KB-3MRD
Camera Activation	N/O sensor input, or by master
Dimensions	5-1/2"H x 3-"W x 1-1/2"D
Wire Type	Aiphone #871802

KBW-M
3"
1-1/2"
5-1/2"
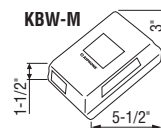
Used for:
KB-3MRD

Demodulator

CCTV Demodulator for Aiphone's Video Series

KCW-D/B
Video output
converter to
CCTV/DVR

Features
- Composite (1V peak-to-peak) video signal compatible with CCTV monitor or RF modulator to tie into cable distribution system
- Use to record video from entry system for security purposes
- Video out for the KC, GF, and GH Series
- Video signal present when Aiphone monitor is on
- Compact design, easy to install

Specifications
Power Source	Supplied by master station
Video Input	2-cond. for video and 2-cond. for power
Video Output	75Ω composite video, 1V p-p
Video Monitoring	30 sec., controlled by master
Camera Activation	Activated by master or door station call button
Dimensions	5-1/2"H x 3"W x 1-1/2"D
Distance	Master to KCW-D/B: 30'(18AWG)
Wire Type	Aiphone #871802

KCW-D/B
5-1/2"
3"
1-1/2"
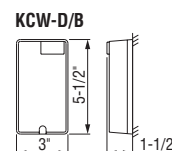
Used for:
KC Series, GF Series, and GH Series

Adaptors

Dual Master Call Adaptor

NEW-5
Dual Master
Call Adaptor

Features
- Parallel-call adaptor for use with Aiphone's NEM system
- Calls from sub stations (max. 5) connected to NEW-5 signal two master stations simultaneously
- One adaptor per 5 subs in a system

Specifications
Power Source	12V DC - Use PS-1225UL
Talk Channel	Separate communication channel for each master, but with the possibility of cross-talk
Wiring	2 cond., shielded between NEW-5 and subs 10 cond., homerun from NEW-5 to each NEM master
Dimensions	9-1/16"H x 6-1/8"W x 1-11/16"D

NEW-5
9-1/16"
6-1/8"
1-11/16"
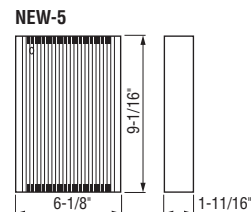
Used for:
NEM Series

Background Music Adaptor

NB-U
Background
Music Adaptor

Features
- Background music interface for the NEM system (requires T3115BGM)
- Background music will automatically mute throughout the entire system during calling and communication
- Background music can not be switched off at sub station

Specifications
Power Source	Supplied by master station
Input	30W @ 25V (PA Amp)
Dimensions	2-5/16"H x 6-1/32"W x 6-1/4"D

NB-U
2-5/16"
6-1/32"
6-1/4"
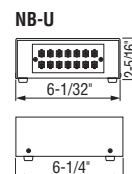
Used for:
NEM Series

Accessories

Paging Accessories

Paging Adaptors for AP-M, AX, LEF, LEM, MC, MP-S, and NEM Series

AXW-PA1
Paging Adaptor
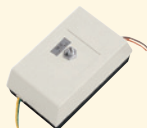
BA-1
Paging Adaptor

BA-1P
Paging Adaptor

MC-A/A
Zone Paging Adaptor

Features (AXW-PA1, BA-1 and BA-1P)

- Page from an intercom master station out to a PA system to make announcements or to locate a person
- Takes the place of a separate microphone for paging where there is an intercom
- School uses: page hallways, playground areas, cafeteria, etc.
- Medical facilities and/or office uses: Page waiting areas, hallways, break rooms, etc.
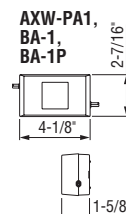
Specifications (AXW-PA1, BA-1 and BA-1P)

Power Source	Supplied by master station/CEU
Input	BA-1: 20Ω BA-1P: 8Ω AXW-PA1: Direct CEU connection
Output	BA-1, BA-1P: 10KΩ AXW-PA1: 600Ω
Output to Adaptor	0dB and -20dB, selectable
Requirements	AUX input (10KΩ) or 100mV for rated output
Dimensions	2-7/16"H x 4-1/8"W x 1-5/8"D
Wiring	2-cond. from master
Wire Type	Aiphone #822202

AXW-PA1, BA-1, BA-1P
2-7/16"
4-1/8"
1-5/8"

Used for:
AXW-PA1 – AX Series
BA-1 – LEF Series, LEM Series, and NEM Series
BA-1P – AP-M Series and MP-S Series

Features (MC-A/A)

- Separate music and paging controls: bass, treble and volume
- Paging pre-tone volume control
- Connects to standard paging amplifier
- Background music can be included and automatically mutes during page
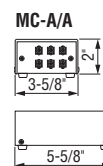
MC-A/A
2"
3-5/8"
5-5/8"

Specifications (MC-A/A)

Power Source	24V DC - PS-2420UL
Input	AUX 10KΩ, 0.3V~0.5V
Music Output	Range 100mV-1.2V, 10KΩ or less
Dimensions	5-5/8"H x 3-5/8"W x 2"D

Used for (MC-A/A):
MC-60/4A

Paging Adaptors for TD-H Series

PD-1
Zone Paging Adaptor

PD-2
Zone Paging/ Talkback Adaptor

Features

- Provides paging from TD-H handsets to an overhead PA system
- Single or multi-zones, one station capacity per zone
- PAGE button located in TD-H handsets
- Music source connection, automatically mutes when paging

PD-1, PD-2
2"
3-5/8"
5-7/16"
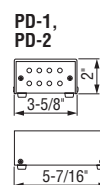
Specifications

Power Source	PD-1: 12V DC, 300mA
	PD-2: 12V DC, 48mA (talkback)
	Use PS-1225UL of TD-H system
Output	5KΩ, 1.5V max.
Paging & Music Ctrls.	Treble 12dB at 10KHz, Bass 12dB at 100KHz
Amp. Input	AUX or PHONO 100K~500KΩ, 0.12V~0.5V
Music Input	17KΩ, 0.3V, 1KHz for full output
Tuner Output	Audio output range: 100mV~1.2V, 10KΩ or less
Talkback Gain	40dB, 1KHz at max. volume
Environmental Noise	Less than 80dB (phono)
Paging	Select an assigned selector number and page by pushing PAGE button and release to receive response
Dimensions	2"H x 3-5/8"W x 5-7/16"D
Wiring	3-cond. to TD-H/B via power supply

Used for:
TD-H Series

Accessories

Paging Accessories (continued)

Paging Amplifiers

T3115BGM
15W Paging
Amplifier

T3130BGM
30W Paging
Amplifier

DMA2060
60W Paging
Amplifier

DMA2120
120W Paging
Amplifier

Features (T3115BGM and T3130BGM)
- 4 channel inputs, 2 zone outputs
- Wide frequency response - very low distortion
- Independent input controls (bass and treble)
- Direct muting or unmuting
- AC accessory outlet
- 8Ω, 25V and 70V output impedance
- UL 6500 listed (US and Canada)

Specifications (T3115BGM and T3130BGM)

Power Source	120V AC, 60Hz
Output	**T3115BGM:** 15W RMS **T3130BGM:** 30W RMS
Input	Microphone: 250Ω balanced Telephone: 600Ω balanced, Auxiliary: 47KΩ Program: 10KΩ balanced
Distortion	Less than 0.5% THD
Dimensions	3-1/2"H x 10-1/2"W x 9-1/2"D

T3115BGM, T3130BGM

3-1/2"
10-1/2"
9-1/2"
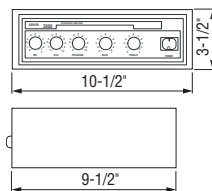
Used for:
MC-604/A, TD-H,
and paging systems

Features (DMA2060 and DMA2120)
- 4 channel inputs, 2 zone outputs
- High performance - high reliability design
- Wide frequency response - very low distortion
- Independent input controls (bass and treble)
- Direct muting or unmuting
- AC accessory outlet
- 8Ω, 25V and 70V output impedance
- 24V DC, 250mA regulated power supply output
- UL 6500 listed (US and Canada)

Specifications (DMA2060 and DMA2120)

Power Source	120V AC, 60Hz
Output	**DMA2060:** 60W RMS **DMA2120:** 120W RMS
Input	Microphone: 1.5M 250Ω Telephone: 100M 600Ω balanced, Auxiliary 1: 100M 47KΩ Auxiliary 2: 100M 47KΩ
Distortion	Less than 0.01% THD at 1kHz rated output
Dimensions	4"H x 10-3/4"W x 11"D

DMA2060, DMA2120

4"
10-3/4"
11"
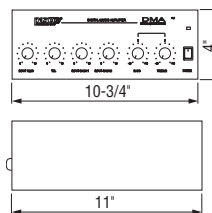
Used for:
MC-604/A, TD-H,
and paging systems

Speaker Stations

Indoor Ceiling Speaker Stations – flush mount

SP-20N
Ceiling Speaker,
20Ω, 4W, flush
mount *(Requires
NP-25V capacitor)*

NP-25V
Non-polarized
capacitor, 33µF, 25V

SP-2570N
Ceiling Speaker,
25/70V, 4W,
flush mount
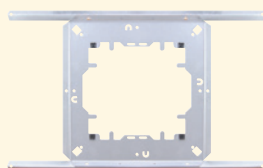
SSB-2
Ceiling Support
Bracket for SP-20N
and SP-2570N

Features
- Ceiling flush mount
- 8" dual cone speaker with 12-7/8" white baffle
- Provides two-way communication (SP-20N only)
- Call button can be added to call master station
  (additional components required - SP-20N only)
- Excellent sound and voice reproduction
- Easy installation in a drop tile ceiling using the SSB-2

Specifications

Power Capacity	4 watts RMS
Impedance	**SP-20N:** 20Ω direct **SP-2570N:** 8Ω direct or 25/70V transformer
Frequency Response	65~17KHz
Wattage taps	**SP-2570N:** **25V** - 0.325, 0.625, 1.25, 2.5, and 5 **70V** - 0.312, 0.625, 1.25, 2.5, and 5
Dimensions	8" diameter speaker with a 12-7/8" diameter white baffle

SP-20N, SP-2570N

12-7/8"
8"
12-7/8"
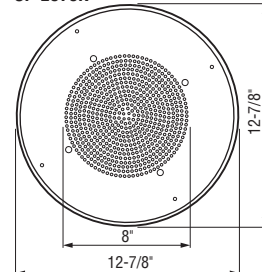
Used for:
SP-20N – LEM Series and LEF Series
SP-2570N – Any Aiphone intercom system with paging ability

Indoor Ceiling Sub Speaker Stations
– flush mount with surface mount options

AS-3N
Ceiling Sub
Speaker
Station

NB-L
Ceiling Sub
Speaker
Station

NBZ-M
Square Frame for
AS-3N and NB-L,
flush mount

N-EA
Round Frame for
AS-3N and NB-L,
surface mount

Features (AS-3N)
- Overhead hands free communication with master station
- Remote push button to call master station (optional)
- Call-in activates tone and light at master
- Call-in LED remains activated for 20 seconds after call button is released (MP-3S, AP-5M, and AP-10M only)
- Flush mounts in ceiling with provided equipment

Specifications (AS-3N)
Call button	Optional NP-B (with NP-W surface box if required)
Mounting	Flush mount in ceiling
Dimensions	7-1/16" x 1-7/8" (Diameter x Depth)

Features (NB-L)
- Overhead hands free communication with master station
- Remote push button to call master station (optional)
- Call-in activates tone and light at master
- Call tone and LED remain until call is answered
- Flush mounts in ceiling with provided equipment

Specifications (NB-L)
Call button	Optional NAR-6A (with NP-W surface box if required)
Mounting	Flush mount in ceiling
Dimensions	7-1/16" x 1-7/8" (Diameter x Depth)

AS-3N, NB-L

7-1/16"
7-1/16"
9/16"
1-7/8"
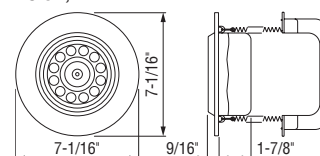
Used for:
AS-3N – MP-S Series and AP-M Series
NB-L – NEM Series

Indoor & Outdoor Horn Speaker Stations – surface mount

AH-108
8Ω, 10W
Horn Speaker

AH-16TN
8Ω, 25/70V, 16W
Horn Speaker

AH-32TN
25/70V, 32W
Horn Speaker

Features (AH-108)
- All metal weather proof construction for indoor or outdoor use
- Universal swivel mount base
- Beige baked enamel finish
- 8Ω, 10W horn speaker with built-in, non-polarized capacitor

Features (AH-16TN)
- Built-in 25/70V transformer provides 1, 2, 4, 8 and 16 watt taps, plus 8Ω direct
- High intelligibility, used for paging into large or high noise areas
- All metal weather proof construction for indoor or outdoor use
- Screwdriver selectable wattage taps
- Universal swivel mount base
- Beige baked enamel finish

Features (AH-32TN)
- Built-in 25/70V transformer which provides 2, 4, 8, 16 and 32 watt taps
- High intelligibility, used for paging into large or high noise areas
- All metal weather proof construction for indoor or outdoor use
- Screwdriver selectable wattage taps
- Universal swivel mount base
- Beige baked enamel finish

Specifications
Power Capacity	10/16/32 watts (continuous)
Impedance	Varies by model
Frequency Response	350~15,000KHz
Wattage Taps	**AH-16TN:** 8Ω direct or 25V - 0.5, 1, 2, 4 and 8 70V - 1, 2, 4, 8 and 16 **AH-32TN:** 25V - 1, 2, 4, 8 and 16 70V - 2, 4, 8, 16 and 32
Dispersion Angle	Varies by model
Sound Pressure	**AH-108:** 110dB at rated output measured on a 4' axis **AH-16TN:** 119dB at rated output measured on a 4' axis **AH-32TN:** 124dB at rated output measured on a 4' axis
Sensitivity (Mic.)	-28dBM (Re: 10 dynes/cm2)
Dimensions	**AH-108:** 6-1/8" bell x 6-1/2" deep **AH-16TN & AH-32TN:** 8-1/8" bell x 9" deep

AH-108

6-1/8" (bell)
6-1/2" (depth)

AH-16TN, AH-32TN

8-1/4" (bell)
9" (depth)
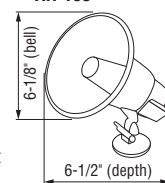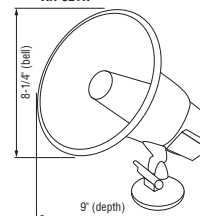
Used for (AH-108):
Mid-power (MP-S) system for two-way communication, can also be used with LEF and NEM systems with LT-1 (NEM requires additional equipment)

Used for (AH-16TN):
High-power (AP-M) system, set on 8Ω tap for two-way communication (add NP-25V capacitor or NP-B call button when using with MP-S or AP-M systems) and Aiphone systems with a 70V paging ability

Used for (AH-32TN):
Aiphone systems with a 70V paging ability

Accessories

115

UL Listed Class 2 **Power Supplies and Transformers**

AC Transformer – 12V AC

PT-1210N
AC Transformer,
12V AC

Specifications

Model	PT-1210N
Input Voltage	120V AC, 60Hz
Output Voltage	12V AC, 10VA, 830mA

PT-1210N

1-11/16"
2-7/8" 1-15/16"
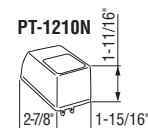
Used for:
CCS-1A, EL-12S,
IE-8MD, and LEM-1DL

AC Transformer – 15V AC

PT-1211C
AC Transformer,
15V AC

Specifications

Model	PT-1211C
Input Voltage	120V AC, 60Hz
Output Voltage	15V AC

PT-1211C

3"
2-3/8" 1-7/8"
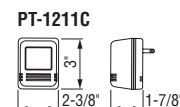
Used for:
DA-1DS, DA-4DS,
DB-1MD, DB-1SD,
and IPW-1A

Power Supply – 6V DC

SKK-620B
Power Supply,
6V DC

Specifications

Model	SKK-620B
Input Voltage	120V AC, 60Hz
Output Voltage	6V DC, 200mA

SKK-620B

1-1/4"
2-1/2"
1-15/16"
1' (ground wire)
12' (output wire)
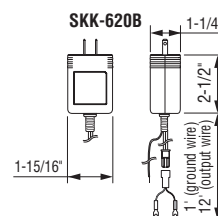
Used for:
AT-406, C-123L/A,
C-123LW, LEM,
and TAR-3

Power Supplies – 12V DC

AD-1210P
Power Supply,
12V DC, 1A

PS-1225UL
Power Supply,
12V DC, 2.5A

Specifications (PS-1225UL)

Model	PS-1225UL
Input Voltage	100~240V AC, 50/60Hz, 37W, 65~82VA
Output Voltage	12V DC, 2.5A
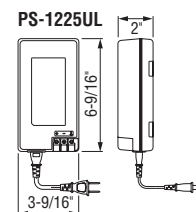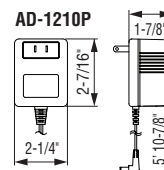
Specifications (AD-1210P)

Model	AD-1210P
Input Voltage	120V AC, 60Hz
Output Voltage	12V DC, 1A

AD-1210P

1-7/8"
2-7/16"
2-1/4"
5' 10-7/8"

PS-1225UL

2"
6-9/16"
3-9/16"

Used for:
AD-1210P – AN Series
PS-1225UL – LEF and
LEF-C, MP-S, TB-AD10,
TD-H/B, and NEW-5

Power Supply – 18V DC

PS-1820UL
Power Supply,
18V DC, 2A

Specifications

Model	PS-1820UL
Input Voltage	100~240V AC, 50/60Hz, 45W, 75~95VA
Output Voltage	18V DC, 2A

PS-1820UL

2"
6-9/16"
3-9/16"
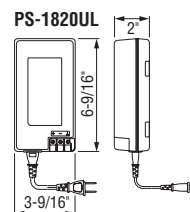
Used for:
JF Series and JK Series

Power Supply – 24V DC

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

Specifications

Model	PS-2420UL
Input Voltage	100~240V AC, 50/60Hz, 60W, 100~125VA
Output Voltage	24V DC, 2A

PS-2420UL

2"
6-9/16"
3-9/16"
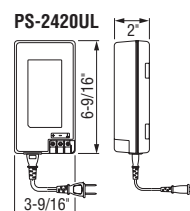
Used for:
AX Series, GF Series,
GH Series, IM Series,
JA Series KB Series,
KC Series, MC-60/4A Series,
NEM Series, and NHX Series

Accessories

Surge Arrestor

Surge Arrestor

SA-1
Surge
Arrestor

Features
- A surge arrestor designed to protect Aiphone intercom systems from damage due to power surges and lightning strikes
- Can be used to protect power inputs to all Aiphone DC powered systems and intercom circuits by dispersing surges on the station wires
- Each SA-1 will protect two intercom station wires and discharge up to 180V of surge voltage

SA-1

6-7/16"
1-3/8"   7/8"
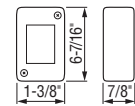
Used for:
AP-M, C-123L/A, CCS-1A, GF Series, IE Series, KB Series, KC Series, LEF, LEM, MC-60/4A, MP-S, NEM, and Power Supplies

Miscellaneous Accessories

All Call, Music & Chime Adaptor

BG-10C
All Call, Music and
Chime Adaptor
(1 BG-10C is required for every 11 stations)

Features
- Music ON/OFF switch plus music and chime selector switch for each station
- Chime volume control plus music, bass and treble controls
- All Call pre-tone volume and speech volume controls
- Terminals for power supply, music and door station connection and LEF-C network (All Call and music receiving)
- Provides All Call and door chime for LEF-C and LEF-10S systems
- Background music input

BG-10C

3"
9-7/8"

6-1/2"
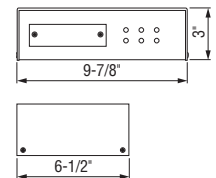
Specifications
Power Source	12V DC, 2.5A (music max. output), 1.5A (All Call, music and chime), 0.1A (standby)
All Call Transmit	From LEF-1C, LEF-3C, LEF-5C, LEF-10C, and LEF-10S
All Call Receive	All LEF master stations plus LE-C and LE-CN
BGM Input	AUX R, E and AUX L, E
Controls	Music ON/OFF, 11 selector switches of music and chime (chime only or off)
Wiring	BG-10C to LEF-10C: 19 wires max. To each LE-D or LE-DA: 3 wires
Wire Type	Aiphone #822220

Used for:
LEF Series

Motion Detector Adaptor for video door stations

MKW-DK/A
Motion Detector
Adaptor for video
door station*(s)*

Features
- For enhanced security with Aiphone video entry systems, a standard motion detector (with N/O contacts) can be used to activate the camera automatically
- The MKW-DK/A can be used with JA, JF, and KC Series
- Connects to motion detector or remote activation device
- Small enough to be concealed behind the video door station (with the KB system use the KB-DAR-M)
- Only wiring needed is from the motion detector to the camera location

Used for:
JA, JF, and KC Series

Auxiliary Light Control Relays

MAW-B
Auxiliary Light
Control Relay

TAR-3
External
Signaling Relay
(Requires SKK-620B)

SKK-620B
Power Supply, 6V DC

Features (MAW-B)
- Used for turning on an auxiliary light to spotlight a caller at the entrance
- Light is illuminated when the door call button is pushed and during visual monitoring mode

Specifications (MAW-B)
Power Source	24V DC - Use PS-2420UL of system
Contact Rating	Dry closure contact for incandescent light for general lighting of less than 100W

Features (TAR-3)
- Allows integration of a doorbell to intercom
- Device will be activated as long as chime is ringing

Specifications (TAR-3)
Power Source	6V DC - Use SKK-620B
Relay Contact Rating	240V AC, 0.3A, 24V DC, 1A (bell, buzzer, chime, etc. must be AC operated or DC mechanical type only)

MAW-B, TAR-3

2-7/16"
4-1/8"   1-5/8"
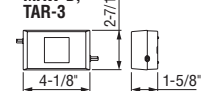
Used for:
MAW-B – KB-3MRD and GF-DA
TAR-3 – AT-406 and GH Series

Accessories

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Desk Stands

MCW-S/A
Monitor Desk Stand
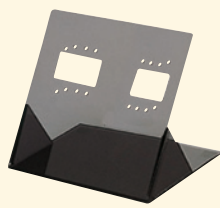
MCW-2S
Monitor/Picture Memory Unit Desk Stand
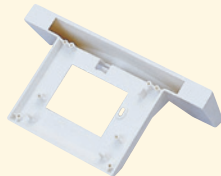
GFW-S
Desk Stand

Features
- Allows desk mounting of monitor and/or handset
- Monitor and/or handset is propped up for easier viewing
- Pre-drilled mounting holes
- MCW-S/A is made of ABS plastic
- MCW-2S is made of plexiglass
- Adjustable to 45° or 60° angles (MCW-S/A)

MCW-S/A
6"
4-6/16"
6-1/2"
60°

MCW-2S
9-3/8"
5" (Depth)
10-5/16"
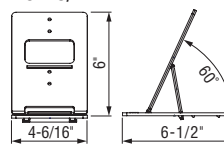
GFW-S
2-3/4" (Depth)
5-1/2" (Depth)
8-1/2"
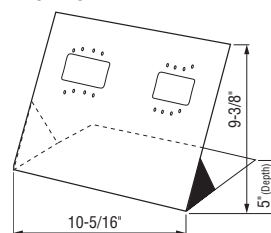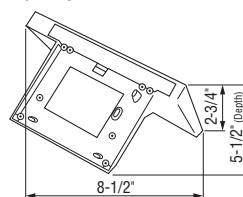
Used for:
MCW-S/A – AX-8M, AX-8MV, AX-8MV-W, DB-1MD, DB-1SD, GH-1KD, JA-2MCD, JA-2MECD, JF-2MED, JF-2HD, JK-1MD, JK-1HD, JK-1MED, KB-3MRD, KB-3HRD, KC-1GRD, KC-1HRD, KC-1MRD
MCW-2S – KB and KC monitors with KC-32EU
GFW-S – GF-MK and GH-MK

Mounting Plates
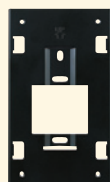
MKW-P
Mounting Plate, 1-gang

Features
- Hardware included
- Adapts surface mount door stations to standard 1-gang box or ring
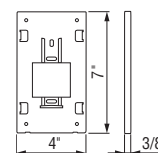
Used for: JF-DV and JK-DV

MKW-P
7"
4"
3/8"

Dual Master Adaptor Kit

DAK-2S
Dual Master Adaptor Kit

Features
- Allows second master station to be used in C-123L/A, LEM and MP-S systems
- Allows RY-AC/A to be used for external signaling in C-123L/A, LEM and MP-S systems
- Two component modules per kit
- Included with the C-123LW and C-ML/A

Used for:
C-ML/A, LEM-1DL, MP-1S, and MP-3S

Gooseneck Microphone & Acoustic Tube

IME-100
Gooseneck Microphone

IAX-100
Acoustic Tube Extension, 33"
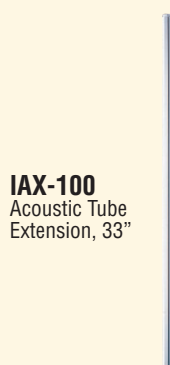
Specifications (IME-100)
Microphone	Condenser microphone, omni-directional
Input Sensitivity	-46dB
Weight	Approx. 190g (0.42lbs.)

IME-100
1-9/16"
20-1/8"

IAX-100
15/16"
39-3/8"
1-1/16"
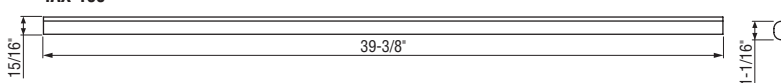
Specifications (IAX-100)
Housing	Aluminum
Weight	Approx. 650g (1.43lbs.)

Used for:
IM Series

Optional Microphone & Sensor

IME-150
Optional Microphone

ISE-100
Proximity Sensor

Specifications (IME-150)
Microphone	Condenser microphone, omni-directional
Housing	Aluminum
Weight	Approx. 150g (0.31lbs.)
Wire	Aiphone #821802

Specifications (ISE-100)
Power Source	24V DC - supplied by IMU-100
Housing	Aluminum
Weight	Approx. 120g (0.26lbs.)
Wire	Aiphone #821802

ISE-100
2-3/8"
2-27/32"
1-3/16"
Cord extends approx. 138"

IME-150
4-17/32"
29/32"
1/5"
Cord extends approx. 138"
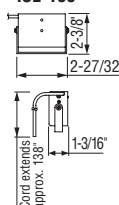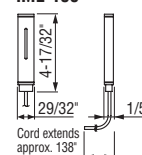
Used for:
IM Series

Accessories

TERMINOLOGY

10/100Base-T: Most commonly used for the Ethernet/Fast Ethernet standards with cables based on two twisted wire pairs. The number "10/100" indicates the carrying capacity of 10/100 Mbit/sec.

All Call: On systems with this feature, by pushing the All Call button, then the Talk button, the announcement will be transmitted throughout inside intercom stations in the system. Some systems have this feature built in. All Call is provided through additional equipment on the LEF systems.

Call Tone: Mono electronic tone heard when a sub calls a master station. This tone can also be heard when a master calls a sub by pushing the designated buttons for calling by tone.

CCD: Charged Couple Device.

Chime Extension: Hearing the chime when a person calls from a door at a remote inside location.

Chime Tone (Door Chime): A multi-stroke chime heard through the system as it is designed. This feature is standard on some systems, and an option on other systems.

Composite Video Output: Standard 75Ω, 1volt peak-to-peak video signal. Compatible with CCTV systems.

Daisy-chained Wiring: The wiring method where the wire path is in and out of each station from the first to the last location. Many Aiphone systems are designed to be wired in a daisy-chained fashion, unless otherwise specified.

Door Release: Activating an electric door strike or a magnetic lock from the inside intercom system.

Dry Contact Closure: A closure where no voltage is present. Commonly used for door release contacts, either directly out of a unit or the relay being used for interface between the intercom and door strike.

Ethernet: De-facto standard for local networks, developed by Xerox and advanced together by Xerox, Intel and DEC. Ethernet uses a bandwidth of 10 Mbit/sec. and can be used in multiple access with conflict detecting.

External Signaling: Activating a supplemental sounding device tied in with an intercom system for remote or louder indication of a call being received.

Hands-free Reply: Respond without touching the intercom station when called by a master station.

Instant-On: When a call is placed from a door station, the inside stations will automatically turn on and allow both audio and video monitoring.

IP (Internet Protocol): Network layer protocol used on the Internet and other computer networks. Provides transmission packets without the organization of connections and delivery guarantees.

LAN/WAN: Local Area Network / Wide Area Network. A local area network (LAN) supplies networking capability to a group of computers in close proximity to each other such as in an office building, a school, or a home. A WAN spans a large geographic area, such as a state, province or country.

LED Call Indicator: When a call is placed from a door or sub station, the corresponding LED station light will light up on the master(s) for approximately 20 seconds.

Master-to-Master Communication: When one master station calls another. Initiating master pushes TALK button, and responding station speaks hands-free.

Normally Closed Contact: A contact for door release that is in the closed position when not activated, and opens when the door release button is pushed. This type of contact is typically required to activate a magnetic lock device.

Normally Open Contact: A contact for door release that is in the open position when not activated, and closes when the door release button is pushed. This type of contact is typically required to activate an electric door strike.

Open Voice Communication: Speaker type communication without having to pick up a handset. One person pushes the TALK button on their intercom while the other person speaks hands-free.

PanTilt: The term used to describe Aiphone's video door stations with a movable camera built in. Pan indicates horizontal movement, and Tilt indicates vertical movement.

Power-Over-Ethernet: Power over Ethernet or PoE technology describes any system to transmit electrical power, along with data, to remote devices over standard twisted-pair cable in an Ethernet network. This technology is useful for powering IP telephones, wireless LAN access points, webcams, Ethernet hubs, computers, and other appliances where it would be inconvenient or infeasible to supply power separately.

Privacy: With the privacy feature engaged, a station can receive communication, but the response back to the calling station is blocked. Privacy is used to prevent eavesdropping.

Remote Control: Remote activation or deactivation of devices from an intercom station. Lights can be turned on, alarm contacts disarmed, surveillance cameras activated, video monitors turned on, and door releases activated.

Selective Calling: Calling a specific station in the system by pushing that station's selector button at a master station. Responding party speaks hands-free.

Talkpath: Circuits on which communication takes place. The number of talkpaths is generally one unless otherwise specified.

TCP/IP: Transmission Control Protocol (TCP) and Internet Protocol (IP) are two distinct network protocols, technically speaking. TCP and IP are so commonly used together, however, that TCP/IP has become standard terminology to refer to either or both of the protocols.

TFT LCD: Thin Film Transistor Liquid Crystal Display. Used in Aiphone's color video monitors.

Vandal Resistant: A unit made from steel or metal, able to withstand harsher environments and rough treatment than standard units.

VOX Communication: Communication over an intercom using a voice actuation circuit. This creates a hands-free 2-way communication system where each person talks without pushing buttons or using a handset.

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Username (email):
Password:
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☐ Remember me on this computer

Log In »

www.aiphone.com/quikspecplus.htm

Available Sales Tools

Market Brochures
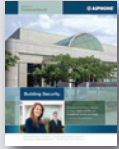
Commercial
Brochure
#99586

Correctional
Brochure
#99272

Healthcare
Brochure
#95211

School
Brochure
#99579

Product Brochures

Access Control
Brochure
#95212

AN Series
Brochure
#96205

AX Series
Brochure
#98202

AX (WHITE)
Brochure
#98204

AX POP
Brochure
#98203

Color Video
Brochure
#91204

GH Series
Brochure
#94214

GLC on CD 2011
#99574
*(In English, French,
and Spanish)*

IM Series
Brochure
#96204

IPW-1A
Brochure
#98225

IS Series
Brochure
#95220

JF Series
Brochure
#91260

JK Series
Brochure
#91263

JK POP
Brochure
#91262

JKW-IP
Brochure
#91265

Product Demonstration Kits – available for purchase or loan

Technical Specifications & Instructions
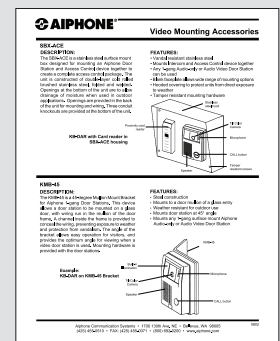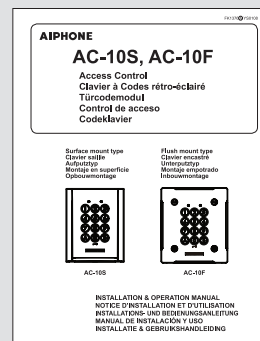
QuikSpec PLUS, QuikSpec, QuikDraw, & QuikChat

QuikSpec PLUS
Save and download a
specified system

QuikSpec
Determine which system
suits the application

QuikDraw
Instant custom
wiring diagrams

Quik Chat...
Instant message with a
live Technical Support or
Customer Service Rep

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(Continued)

AIPHONE® WIRE BY STOCK NUMBER

STOCK #	LENGTH	AWG	DESCRIPTION	INSULATION	CAPACITANCE	LOOP RES.
81220550C	500'	22	5 conductor, non-shielded	PVC	23.60 pf/ft	17.50 ohm
81221050C	500'	22	10 conductor, non-shielded	PVC	23.60 pf/ft	17.50 ohm
81221650C	500'	22	16 conductor, non-shielded	PVC	23.60 pf/ft	17.50 ohm
82180210C	1000'	18	2 conductor, overall shield	PVC	47.00 pf/ft	6.92 ohm
82180310C	1000'	18	3 conductor, overall shield	PVC	47.00 pf/ft	6.92 ohm
82220250C	500'	22	2 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82220210C	1000'	22	2 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82220350C	500'	22	3 conductor, overall shield	PVC	44.62 pf/ft	17.50 ohm
82220650C	500'	22	6 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82221050C	500'	22	10 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82221250C	500'	22	12 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82221550C	500'	22	15 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82222050C	500'	22	20 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
83220410C	1000'	22	2 twisted pair, non-shielded	PVC	23.60 pf/ft	17.50 ohm
85160210C	1000'	16	2 conductor, low cap, PE, solid, non-shielded	PE	12.50 pf/ft	4.02 ohm
851602DB10C	1000'	16	2 conductor, low cap, PE, solid, non-shielded, direct burial	PE	12.50 pf/ft	4.00 ohm
85220710C	1000'	22	7 conductor, low cap, PE, non-shielded	PE	16.50 pf/ft	17.50 ohm
86220810C	1000'	22	4 twisted pair, low cap, PE, overall shield	PE	15.28 pf/ft	10.15 ohm
86221025C	250'	22	5 twisted pair, low cap, PE, overall shield	PE	15.28 pf/ft	10.15 ohm
87180250C	500'	18	2 conductor, low cap, PE, solid, non-shielded	PE	11.05 pf/ft	6.39 ohm
87180210C	1000'	18	2 conductor, low cap, PE, solid, non-shielded	PE	11.05 pf/ft	6.39 ohm
871802P10C	1000'	18	2 conductor, low cap, PVC, solid, non-shielded, plenum rated	FEP	13.00 pf/ft	6.52 ohm
87180450C	500'	18	4 conductor, low cap, PE, solid, non-shielded	PE	13.60 pf/ft	6.39 ohm
871804P50C	500'	18	4 conductor, low cap, PE, solid, non-shielded, plenum rated	FEP	23.60 pf/ft	6.80 ohm
87200250C	500'	20	2 conductor, mid cap, PE, solid, non-shielded	PE	20.96 pf/ft	10.15 ohm
87200210C	1000'	20	2 conductor, mid cap, PE, solid, non-shielded	PE	20.96 pf/ft	10.15 ohm
872002P10C	1000'	20	2 conductor, mid cap, PE, solid, non-shielded, plenum rated	FEP	18 pf/ft	10.15 ohm

WIRE NUMBER CODING:

1st digit: **8** = Aiphone approved wire

2nd digit: Type of Wire → **1** = non-shielded   **5** = low capacitance
   2 = shielded   **6** = twisted pair/shielded
   3 = twisted pair   **7** = solid PE, low/mid capacitance

3rd & 4th digits: Gauge → **22** = 22 AWG   **20** = 20 AWG   **18** = 18 AWG   **16** = 16 AWG

5th & 6th digits: Number of conductors → **02** = 2 conductors   **12** = 12 conductors

7th & 8th digits: Length of wire → **10** = 1,000' box   **50** = 500' box   **25** = 250' box

9th digit: "C" indicates new wire

DB = Direct Burial

P = Plenum

WIRE NUMBER CODING EXAMPLE:

1st: Aiphone Approved	2nd: TYPE - Shielded	3rd & 4th: GAUGE - 22 AWG	5th & 6th: CONDUCTORS 02=2 Conductors	7th & 8th: WIRE LENGTH 10=1,000' Box	9th: "C" is New Wire
8	2	22	02	10	C

WIRE INFORMATION

All wire is stranded unless otherwise indicated.

Non-plenum wires have a gray jacket. Plenum wires have natural jacket.

All wire meets the following standards: UL, C(UL), UL 444, CA Fire Marshal

Contact Aiphone for current pricing.

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

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GSA Schedule

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