

Commercial Security Intercom

MASTER 4 64
SUB 64 1,024

AI-900

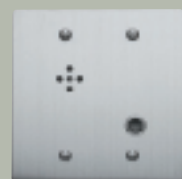
NEW

Station capacity: 4 masters+64 substations (1 Exchange). 64 masters+1,024 substations (16 Exchanges, tie-line connected) conversation plus full range of exchange functions, including:

- Flexible All-modular construction. Expansion options using Interface and function cards.
- Sub-to-master communication by voice switch or PTT-activated talk-back. Master-to-master by full-duplex handsets.
- Four different substations for specific installation conditions. Provides a speaker and call button.
- Call forwarding, Scan monitoring, Emergency conference, Conversation recording by way of external equipment, and Paging by way of an external amplifier.
- Emergency calls from any substation at a central security control room.
- Efficient voice recording at ea. master station.
- Used in combination with CCTV, access control, emergency broadcast systems or other security equipment.



AI-MS900
Master station



AI-RS150
Substation (indoor)



AI-RS170
Substation (outdoor
vandal-resistant)



AI-RS160
Substation (indoor
vandal-resistant)



AI-RS180
Substation (outdoor
vandal-resistant
with control output)



AI-900MF
Main Frame



AI-PU200
Power transformer unit

• Mounting accessories

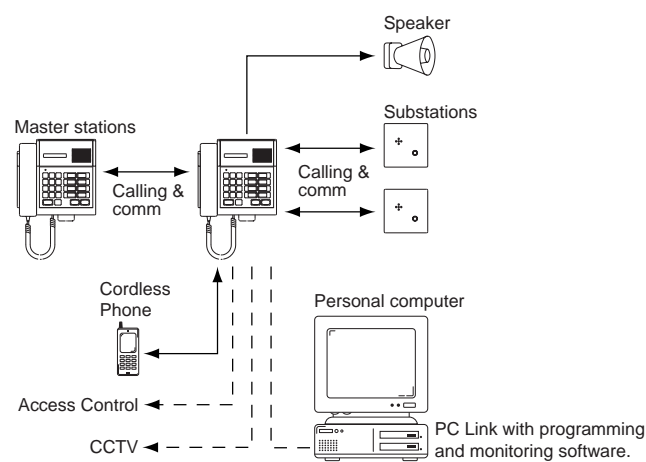


AI-YC303
Wall-mounting bracket
for AI-900MF



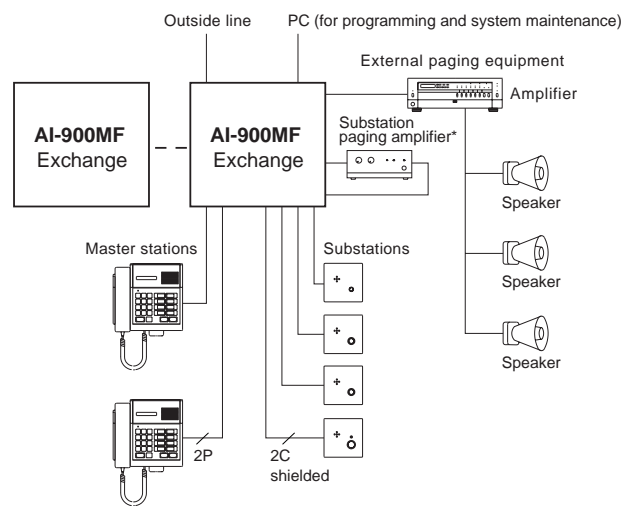
AI-PN100B
Rack mount panel
for AI-PU200

Calling & Communication network

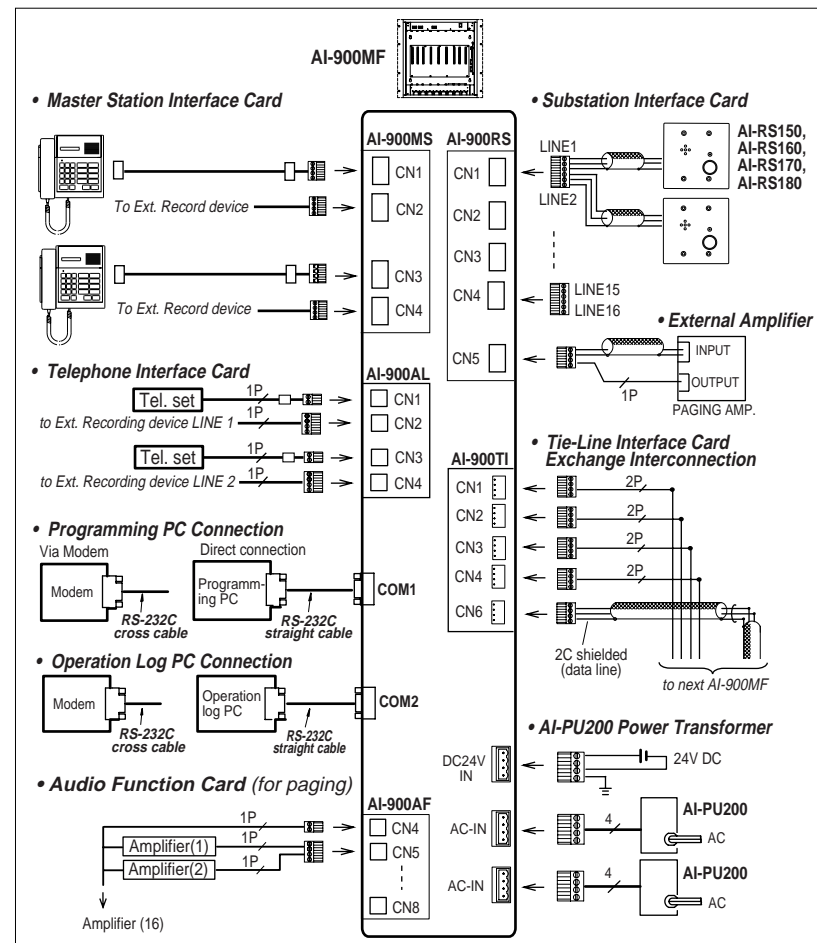


Cabling

- **Basic system consists of:** 4 Master stations, 64 Substations and AI-900MF Main Frame with Interface Cards: Master (1), Telephone (1), Substation (4), Outside line (1), Audio function (1), and Power unit (2).
- **To size up system to double for example;** Two Tie-line I/F cards are required (after that, add one I/F card for each sizeup).
- (*) Substation paging needs an external amplifier



Wiring diagram



Communication functions

- Station calling**
 - Sub to Master
 - Call designated Master
 - Group call
 - Emergency call.
- Conference**
 - Three-party
 - Emergency (up to 4)
- Call forwarding**
 - Call forwarding
 - Time-based
 - No-Answer
 - Busy
 - Outside Line
- Paging**
 - Zone paging (19)
 - All-zone
 - Emergency
 - External source distribution
 - Paging time-out
 - Paging redial
- Telephone**
 - Outgoing telephone calls
 - Incoming calls (direct-in line)
 - Incoming calls (direct-in dialing)
 - Connection time-out
 - Conversation recording
- Scan Monitor** Up to 16 subs for 99 sec.

System components

- AI-900MF:** Main Frame
- AI-PU200:** Power transformer unit
- Intercom stations**
 - AI-MS900:** Master station
 - AI-RS150:** Substation (indoor)
 - AI-RS160:** Substation (indoor vandal-resistant)
 - AI-RS170:** Substation (outdoor vandal-resistant)
 - AI-RS180:** Substation (outdoor vandal-resistant with control output)
- Interface Cards**
 - AI-900MS:** Master station interface card
 - AI-900AL:** Telephone interface card
 - AI-900CO:** Outside line interface card
 - AI-900AF:** Audio function card
 - AI-900TI:** Tie-line interface card
 - AI-900RS:** Substation interface card
 - AI-900DI:** Direct select control card
 - AI-910DI:** Direct select I/O card

- AI-YC303:** Wall mounting bracket for AI-900MF
- AI-PN100B:** Rack mount panel for AI-PU200

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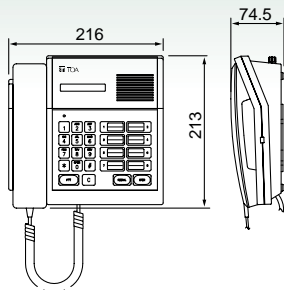
AI-900 Components



AI-MS900

AI-900MS Master Station

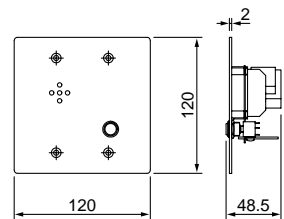
The AI-900MS can initiate or receive calls from programmed substations. Equipped with Push-to-Talk button for simplex communication, vox operated handset, redial and transfer keys, and eight auto-dial keys. Alphanumeric display for caller ID. Two-twisted pair wiring to Main Frame.



AI-RS150

AI-RS150 Standard Indoor Substation

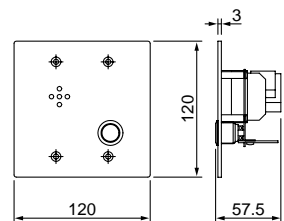
The AI-RS150 is built with a black resin call button and 14-gauge stainless steel. It can call and converse with the programmed master stations. All substation models are wired with a shielded pair to the Main Frame.



AI-RS160

AI-RS160 Indoor Vandal Resistant Substation

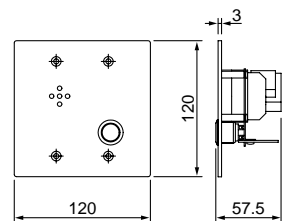
The AI-RS160 is made with heavy 11-gauge stainless steel and a vandal resistant stainless steel call button. Calls and communicates with programmed master stations or telephones.



AI-RS170

AI-RS170 Outdoor Vandal Resistant Substation

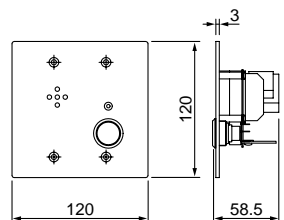
The AI-RS170 is equipped like the AI-RS160, but with the internal components protected with a synthetic rubber sealant, making it weather resistant. Calls and communicates with programmed master stations or telephones.



AI-RS180

AI-RS180 Outdoor Emergency Substation

The AI-RS180 is vandal and weather resistant with a red aluminum call button, call assurance LED, and an output to control an external relay. Used for ADA compliance or emergency call applications.



SBX-2G Surface Mount 2-Gang Stainless Steel Enclosure

The SBX-2G is used for surface mounting the RS substations where flush mounting these substations is not possible.



AI-900MF



AI-PU200



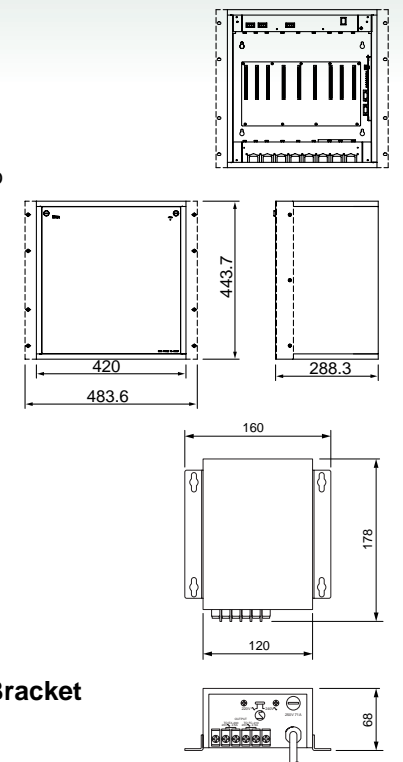
AI-PN100B



AI-YC303

AI-900MF Main Frame

The AI-900MF Main Frame can accommodate the following features with the installation of the corresponding circuit cards. Up to 4 master stations or single line phones (2 masters per AI-900MS card; 2 phones per AI-900AL card); up to 64 substations; up to 2 CO lines; paging to 19 zones; tie line connection to additional Main Frame, RS-232 input/output for system programming and event logging.



AI-PU200 Power Transformer Unit

The AI-PU200 has two 20V, 2.5A AC outputs. One unit is required for every two AI-900RS cards installed in the Main Frame.

AI-PN100B Rack Mount Panel

The AI-PN100B is used to rack mount two AI-PU200 power transformers side-by-side.

AI-YC303 Main Frame Wall Mounting Bracket

The AI-YC303 is used to wall mount the AI-900MF Main Frame.

Interface Cards

AI-900MS Master Station Interface Card

One or two cards per Main Frame. The AI-900MS card provides connection and audio recording outputs for one or two master stations. With two cards installed, four master stations can be connected to one Main Frame.

AI-900AL Telephone Master Station Card

One or two cards per Main Frame, used in lieu of AI-900MS card. The AI-900AL allows a standard telephone with caller-ID capabilities to be used in place of a master station for communication functions. One or two phones per card, taking the place of an AI-900MS card supporting two master stations. Equipped with audio recording outputs for each telephone connected.

AI-900RS, Substation Interface Card

Up to four cards per Main Frame. Each AI-900RS card supports up to 16 substations, and up to 64 substations per Main Frame with four cards installed. Connect subs with simple two conductor shielded wire homerun to the Main Frame.

AI-900CO C/O Telephone Line Interface Card

One card per Main Frame. The AI-900CO allows the connection of up to two outside phone lines, with audio recording outputs for each line. Integration with outside lines allows communication between sub or master stations and standard telephones, cell phones, or pagers.

AI-900AF Audio Function Card

Connection of external PA amplifier for paging. Up to four inputs from audio sources and 16 outputs to external paging zones. Multiple zones or all zones can be selected and paged simultaneously.

AI-900TI Tie Line Interface Card

One card per Main Frame in multi-exchange system. The AI-900TI card is used to interconnect multiple Main Frames, expanding the capacity and functionality of the system. Up to four voice paths between Main Frames.

AI-900DI Direct-Select/Master Station Interface Board

Used to create a direct-select style master station in place of a digital master. Used with AI-910DI for individual selector buttons and call-in LEDs. Also allows integration with external security systems via AI-910DI board.

AI-910DI Direct-Select Input/Output Relay Board

The AI-910DI is used in conjunction with the AI-900DI board to provide relay outputs to control external devices or systems. Each board contains 32 programmable relays, and multiple boards can be used for up to 1024 relays. Use for integration with access control and/or video surveillance systems.

Specifications (AI-900)

Power Source	20V AC, 2.5A, provided by AI-PU200; 24V DC provided by external 5A power supply not supplied Aiphone
Current Consumption	7A
Communication Modes	Duplex, half-duplex, and Push-to-Talk
Serial Ports	RS-232 compliant, D-sub connector (9-pin female) 2 ports
Operating Temperature:	
- Indoor Units	0°C-40°C
- Outdoor Units	-10°C-55°C
System Capacity	4 master stations; 64 substations per Main Frame
Master Station Mounting	Wall or desk mount
Master Station Wiring	2 twisted pairs, homerun to Main Frame
Substation Mounting	Flush mount in 2-gang box
Substation Wiring	2 conductor shielded, homerun to Main Frame
Wiring Distance:	
- Master to AI-900MS	900m w/0.5mm; 1,500m w/0.65mm
- Subs to AI-900RS	500m w/0.5mm; 800m w/0.65mm
- Between Main Frames	600m w/0.5mm; 1,000m w/0.65mm
Dimensions:	(WxHxD)
- AI-900MF	420 x 443.7 x 288.3
- AI-900MS	216 x 74.5 x 213
- AI-RS150/160/170/180	120 x 120 x 60