



GT Series

Multi-Tenant Security Intercom

Architectural and Engineering Specifications

November 2011

13702-1

SECTION 13711

MULTI-TENANT ENTRY SECURITY SYSTEM

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Display hidden notes to specifier by using "Tools"/"Options"/"View"/"Hidden Text".

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Multi-tenant color-video entry security system.

1.2 RELATED SECTIONS

- A. Section 16050 – Basic Electrical Materials and Methods.

1.3 REFERENCES

- A. American National Standards Institute (ANSI/TIA/EIA) 568 – Commercial Building Telecommunications Cabling Standard.

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- B. International Organization for Standards (ISO) 9001:2008 – Quality Management Systems – Requirements.

1.4 SYSTEM DESCRIPTION

- A. The system shall be hard wired and constructed with a 2-line communication system and a 2-line video system. The system is designed with video trunk lines from the video bus control unit and communication trunk lines that use a distribution point from a bus control unit. System shall be ADA compliant. System shall allow for CCTV integration. Systems with audio only components shall be configurable.
- B. Functional Components:
 - 1. Entrance stations.
 - 2. Tenant stations.
 - 3. Interior tenant stations (sub-stations).
 - 4. Manager's station.
 - 5. Concierge stations.
 - 6. Tenant entry door stations.
 - 7. Tenant suite security system.
 - 8. CCTV system.
 - 9. Access control system.
- C. System Requirement: Unless noted otherwise on drawings provide system size as follows.
 - 1. Entrance stations:
 - 2. Tenant stations (master):
 - 1. Interior tenant stations (sub-stations):
 - 2. Manager's station:

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3. Concierge stations:
4. Tenant entry door stations: Refer to drawing schedule for units requiring suite entry door stations.
5. Tenant suite security system. Refer to drawing schedule for units requiring suite security.
6. CCTV system Inputs:

D. Operation:

1. Calling Tenant Station from Entry Station and Communicating.
2. Calling Tenant Station from Sub-master Tenant Station and Communicating.
3. Calling Tenant Station from Manager/Concierge Station and Communicating.
4. Activating Door Release from Entry, Tenant Station and Manager/Concierge Stations.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
- C. Shop Drawings: Submit the following:
1. Wiring Diagrams: Indicate wiring for each item of equipment and interconnections between items of equipment.

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2. Include manufacturer's names, model numbers, ratings, power requirements, equipment layout, device arrangement, complete wiring point-to-point diagrams, and conduit layouts.
- D. Installation and Operation Manuals:
1. Submit manufacturer's installation and operation manual, including operation instructions and component wiring diagrams.
 2. Provide detailed information required for Owner to properly operate equipment.
- E. Warranty: Submit manufacturer's standard warranty.
- F. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- G. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: ISO 9001:2008 certified company.
- B. Installer Qualifications: Factory trained and experienced with system installations of scope and size required for the Project.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
1. Finish areas designated by Architect.

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2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
3. Refinish mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
- C. Handling: Protect materials during handling and installation to prevent damage.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Aiphone Corp.; 1700 130th Ave. N. E., Bellevue, WA 98005. ASD. Toll Free Tel: (800) 692-0200. Tel: (425) 455-0510. Fax: (425) 455-0071. Email: tech@aiphone.com. Web: <http://www.aiphone.com>.

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- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 MULTI-TENANT ENTRY SECURITY SYSTEM

- A. Multi-Tenant Color Video Entry Security System: Aiphone "GT Series" as manufactured by Aiphone Corporation.
- B. Entrance Stations:
 - 1. Provide 170 degree Pan Tilt & Zoom video camera, built-in access code keypads for keyless entry, CCTV system integration and concierge visitor screening.
 - 2. Entrance Panel: "All-in-one" Model GT-DM (Guidance-enabled type).
 - a. Audio & Video.
 - b. Access Control.
 - c. Directory Scroll.
 - d. LCD may be set to Energy Saver mode.
 - e. Motion Sensor auto activates LCD when in Energy Saver mode.
 - f. Voice Annunciation.
 - 3. Entrance Panel: Model GT. Provide modular units with the following functional modules, corresponding panels, hardware and fittings.
 - a. Type: Audio/video + 10 key type.
 - b. Type: Audio/video + direct select type.
 - c. Type: Audio + direct select type.

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- d. Type: Audio + 10 key type.
- e. Type: Custom with the following functions.
 - 1) Audio Access Control.
 - 2) Video Access Control.
 - 3) Voice Annunciation.
 - 4) Digital Display Keypad.
 - 5) Name Panels.
 - 6) Address Panels.

C. Tenant Station:

- 1. Station Panel: Model GT-2C.
 - a. Record visitor images automatically.
 - b. Communicate internally between stations.
 - c. Up to 4 units per tenant using only one power supply (1 GT-2C & 3 GT-2H).
 - d. May be used with Tenant Door Stations to replace peephole identification.
 - e. Pan Tilt & Zoom camera control.
 - f. Video identification.
 - g. Talk with visitors.
 - h. Unlock doors.
 - i. Instant communication with concierge stations.
 - j. Provide Suite Security:
 - 1) Dual zone alarm inputs for security devices, such as window and door contacts or personal wireless pendants.
 - 2) Auto-alert to concierge station when alarm is triggered.
 - 3) Disarm and arm suite security from tenant station panel.

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- 4) Loud siren to alert tenants and scare away potential threats.
 - k. Decorative Panel Cover: Stainless steel.
 - l. Decorative Panel Cover: Silver.
 - m. Decorative Panel Cover: Black.
 - n. Provide handset.
 - o. Provide sub-master(s) as scheduled. Model GT-2H.
2. Station Panel: Model GT-1C.
- a. Pan Tilt & Zoom camera control.
 - b. Video identification.
 - c. Talk with visitors.
 - d. Unlock doors.
 - e. Instant communication with concierge stations.
 - f. Decorative Panel Cover: Stainless steel.
 - g. Decorative Panel Cover: Silver.
 - h. Decorative Panel Cover: Black.
 - i. Provide handset.
3. Station Panel: Model GT-1M-L.
- a. Video identification.
 - b. Talk with visitors.
 - c. Unlock doors.
 - d. Instant communication with concierge stations.
4. Station Panel: Model GT-1D.
- a. Talk with visitors.
 - b. Unlock doors.
 - c. Instant communication with concierge stations.

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5. Station Panel: Model GT-1A.
 - a. Hands-free control.
 - b. Talk with visitors.
 - c. Unlock doors.
 - d. Instant communication with concierge stations.

D. Concierge/Manager's Station:

1. Provide visitor screening.
2. Provide tenants with ability to easily call Concierge/Manager's Station from units for emergency assistance.
3. Station Panel: Model GT-MK.
4. Mount: Wall mount.
5. Mount: Desk mount.

E. Tenant Door Station:

1. Provide visitor screening with 170 degree camera.
2. Station Panel: Model JK-DA.
3. Station Panel: Model JK-DVF.
4. Station Panel: Model JK-DV.
5. Station Panel: Model GT-D (Audio Only).

F. Bus Controller Components and Mounting Hardware:

1. Bus Control Unit: Model GT-BC.
2. Video Bus Control Unit: Model GT-VBC.
3. Expanded Bus Control Unit: Model GT-BCX.
4. Expanded Video Bus Control Unit: Model GT-VBX.

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5. 4-Way Video Junction Unit: Model GT-4Z.
6. Power Supply: Model PS-2420UL.
7. External Signal relay: Model GT-RY.
8. Frames and back boxes for surface and flush mount as required.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive integrated security and communication system.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 PREPARATION

- A. Verify the following compliance before starting installation.
 1. All units, except for the entrance station and tenant door station, are designed for indoor use only. Do not use outdoors.
 2. The unit turns inoperative during power failure.
 3. In areas where broadcasting station antennas are close by, intercom system may be affected by radio frequency interference.

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4. Keep the intercom wires at least 1 foot (30 cm) away from strong electrical wiring (AC 100-240 V) including, in particular, wiring for inverter electrical appliances. Noise and malfunction could result.
5. Keep the unit more than 3.3 feet (1 m) away from radio or TV set.
6. If a strong light shines on the main unit screen, the picture will turn white or only silhouettes will be visible.
7. Other manufacturer's devices (such as sensor, detectors, door releases) used with this system, comply with the manufacturer's installation requirements.
8. The LCD panel is manufactured with very high precision techniques, inevitably will have a very small portion of its picture elements always lit or not lit at all. This is not considered a unit malfunction. Please be aware of this in advance.
9. The sensor of an entrance station (Integrated type) may activate due to moving shadows or moving tree branches, etc. and cause a message to display.

3.3 INSTALLATION

- A. Install integrated security and communication system in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Mount equipment plumb, level, square, and secure. For video entrance stations and video door stations, comply with manufacturer's design requirements to provide optimum picture quality of station monitoring.

3.4 SET-UP AND ADJUSTING

- A. Adjust integrated security and communication system for proper operation in accordance with manufacturer's instructions.

3.5 DEMONSTRATION AND TRAINING

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A. Demonstration:

1. Demonstrate that integrated security and communication system functions properly.
2. Perform demonstration at final system inspection by qualified representative of manufacturer.

B. Instruction and Training:

1. Provide instruction and training of Owner's personnel as required for operation of integrated security and communication system.
2. Provide hands-on demonstration of operation of system components and complete system, including user-level program changes and functions.
3. Provide instruction and training by qualified representative of manufacturer.

3.6 PROTECTION

- A. Protect installed integrated security and communication system from damage during construction.

END OF SECTION

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2. Include manufacturer's names, model numbers, ratings, power requirements, equipment layout, device arrangement, complete wiring point-to-point diagrams, and conduit layouts.
- D. Installation and Operation Manuals:
1. Submit manufacturer's installation and operation manual, including operation instructions and component wiring diagrams.
 2. Provide detailed information required for Owner to properly operate equipment.
- E. Warranty: Submit manufacturer's standard warranty.
- F. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
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2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
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 - a. Audio & Video.
 - b. Access Control.
 - c. Directory Scroll.
 - d. LCD may be set to Energy Saver mode.
 - e. Motion Sensor auto activates LCD when in Energy Saver mode.
 - f. Voice Annunciation.
 - 3. Entrance Panel: Model GT. Provide modular units with the following functional modules, corresponding panels, hardware and fittings.
 - a. Type: Audio/video + 10 key type.
 - b. Type: Audio/video + direct select type.
 - c. Type: Audio + direct select type.
 - d. Type: Audio + 10 key type.

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e. Type: Custom with the following functions.

- 1) Audio Access Control.
- 2) Video Access Control.
- 3) Voice Annunciation.
- 4) Digital Display Keypad.
- 5) Name Panels.
- 6) Address Panels.

C. Tenant Station:

1. Station Panel: Model GT-2C.

- a. Record visitor images automatically.
- b. Communicate internally between stations.
- c. Up to 4 units per tenant using only one power supply (1 GT-2C & 3 GT-2H).
- d. May be used with Tenant Door Stations to replace peephole identification.
- e. Pan Tilt & Zoom camera control.
- f. Video identification.
- g. Talk with visitors.
- h. Unlock doors.
- i. Instant communication with concierge stations.
- j. Provide Suite Security:
 - 1) Dual zone alarm inputs for security devices, such as window and door contacts or personal wireless pendants.
 - 2) Auto-alert to concierge station when alarm is triggered.
 - 3) Disarm and arm suite security from tenant station panel.
 - 4) Loud siren to alert tenants and scare away potential threats.

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- k. Decorative Panel Cover: Stainless steel.
 - l. Decorative Panel Cover: Silver.
 - m. Decorative Panel Cover: Black.
 - n. Provide handset.
 - o. Provide sub-master(s) as scheduled. Model GT-2H.
2. Station Panel: Model GT-1C.
- a. Pan Tilt & Zoom camera control.
 - b. Video identification.
 - c. Talk with visitors.
 - d. Unlock doors.
 - e. Instant communication with concierge stations.
 - f. Decorative Panel Cover: Stainless steel.
 - g. Decorative Panel Cover: Silver.
 - h. Decorative Panel Cover: Black.
 - i. Provide handset.
3. Station Panel: Model GT-1M-L.
- a. Video identification.
 - b. Talk with visitors.
 - c. Unlock doors.
 - d. Instant communication with concierge stations.
4. Station Panel: Model GT-1D.
- a. Talk with visitors.
 - b. Unlock doors.
 - c. Instant communication with concierge stations.
5. Station Panel: Model GT-1A.
- a. Hands-free control.

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- b. Talk with visitors.
- c. Unlock doors.
- d. Instant communication with concierge stations.

D. Concierge/Manager's Station:

- 1. Provide visitor screening.
- 2. Provide tenants with ability to easily call Concierge/Manager's Station from units for emergency assistance.
- 3. Station Panel: Model GT-MK.
- 4. Mount: Wall mount.
- 5. Mount: Desk mount.

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- 4. Station Panel: Model JK-DV.
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- 1. Bus Control Unit: Model GT-BC.
- 2. Video Bus Control Unit: Model GT-VBC.
- 3. Expanded Bus Control Unit: Model GT-BCX.
- 4. Expanded Video Bus Control Unit: Model GT-VBX.
- 5. 4-Way Video Junction Unit: Model GT-4Z.
- 6. Power Supply: Model PS-2420UL.

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7. External Signal relay: Model GT-RY.
8. Frames and back boxes for surface and flush mount as required.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive integrated security and communication system.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 PREPARATION

- A. Verify the following compliance before starting installation.
 1. All units, except for the entrance station and tenant door station, are designed for indoor use only. Do not use outdoors.
 2. The unit turns inoperative during power failure.
 3. In areas where broadcasting station antennas are close by, intercom system may be affected by radio frequency interference.
 4. Keep the intercom wires at least 1 foot (30 cm) away from strong electrical wiring (AC 100-240 V) including, in particular, wiring for inverter electrical appliances. Noise and malfunction could result.
 5. Keep the unit more than 3.3 feet (1 m) away from radio or TV set.

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6. If a strong light shines on the main unit screen, the picture will turn white or only silhouettes will be visible.
7. Other manufacturer's devices (such as sensor, detectors, door releases) used with this system, comply with the manufacturer's installation requirements.
8. The LCD panel is manufactured with very high precision techniques, inevitably will have a very small portion of its picture elements always lit or not lit at all. This is not considered a unit malfunction. Please be aware of this in advance.
9. The sensor of an entrance station (Integrated type) may activate due to moving shadows or moving tree branches, etc. and cause a message to display.

3.3 INSTALLATION

- A. Install integrated security and communication system in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Mount equipment plumb, level, square, and secure. For video entrance stations and video door stations, comply with manufacturer's design requirements to provide optimum picture quality of station monitoring.

3.4 SET-UP AND ADJUSTING

- A. Adjust integrated security and communication system for proper operation in accordance with manufacturer's instructions.

3.5 DEMONSTRATION AND TRAINING

- A. Demonstration:

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1. Demonstrate that integrated security and communication system functions properly.
2. Perform demonstration at final system inspection by qualified representative of manufacturer.

B. Instruction and Training:

1. Provide instruction and training of Owner's personnel as required for operation of integrated security and communication system.
2. Provide hands-on demonstration of operation of system components and complete system, including user-level program changes and functions.
3. Provide instruction and training by qualified representative of manufacturer.

3.6 PROTECTION

- A. Protect installed integrated security and communication system from damage during construction.

END OF SECTION

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