

# AIPHONE

Hands-free Color Audio & Video  
Entry Security System



MULTI-UNIT ENTRY SECURITY SYSTEM

## GH SERIES

Reliable Security

Variety of System Configurations

Easy Installation & Setup





# GH Apartment Building Entry Security System

Provides Simple Security Solutions for All Types of Apartment Complexes.

MULTI-UNIT ENTRY SECURITY SYSTEM

**GH**  
SERIES

In today's society, an increasing demand is placed on features of a home. To meet a person's lifestyle, convenience and reliable security are essential features. The GH series offers both within a single system.

Aiphone's GH Series offers convenience, provides high performance security and can adapt to almost any type of building. Our standard system accommodates up to 48 residents and the expanded up to 500. Operating on just two to four wires and programmed with intuitive software installation is always quick and easy.

Choosing AIPHONE gives peace of mind to all residents.





Residential Station



Entrance Station



Security Guard Station



# RESIDENTIAL STATION



# Color Monitor Means More Security!

Aiphone's Video Entry Security System is now available with Hands-free full color monitors. Residents can screen visitors in high resolution color.

## > Select from five unit styles



GH-1KD  
Hands-free Color Monitor  
(white)



GH-1KDS  
Hands-free Color Monitor  
(silver)



GH-1MD  
Hands-free B&W Monitor



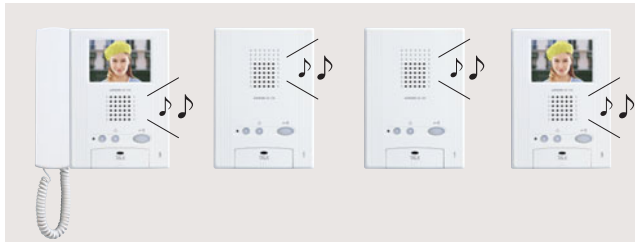
GH-1AD  
Hands-free Audio Station



GH-1KD with GH-HS  
Hands-free Color Monitor  
with Optional Handset (white)

## > 4 Residential Stations Per Residence

One station may not be enough for a large residence. Four will do it!



Up to two monitor stations. Two more audio stations can be added.

## > Entrance Monitoring

With the Residential Monitor Station, the resident can monitor the entrance.

## > Simple & Compact

High performance is realized in its simple panel design and amazing slimness (the hands-free color monitor station is only 32 mm thick).

## > More Sensational Features Available!

### • Press-to-talk function

Talk mode can be switched to conventional Press-to-talk mode, if desired. It helps the smooth conversation at noisy environment.

### • An external signaling device, as a buzzer or a strobe light, can be added with GH-RY relay. \* Requires additional connector cable (not included).

### • Service button

Performs a user-optional function: elevator-way light control, elevator control. Not available for GH-1MD (B&W monitor). \* Requires additional connector cable (not included).

### • Panic call transfer to the Security Guard Station

Emergency call to the Security Guard Station

### • Automatic entry (Doctor call) function

Setting this function automatically unlocks the entrance when a visitor calls a resident. \* Requires additional connector cable (not included). \* Not available to use together with the entrance light function.

### • Doorbell at every residence (optional)

### • Call tone off LED

Call tone off LED blinks while call tone is muted.



## Installer-Friendly Terminal Block

The terminal block can be removed from the station unit. It makes the installation easier and protects the station against theft during the installation. - Available with GH-1KD, GH-1KDS, GH-1AD, and GH-MK.





# ENTRANCE STATION



## > 2 Styles to Choose From

Select from the Digital Name Scrolling or Direct-Select Call Button styles. Both designs are compact & modern. Their zinc die-cast panels are vandal-resistant. An entry panel can be configured to an exact number of residents using the wide selection of components available. (See "SYSTEM COMPONENT".)



Direct-select call button

Digital name scrolling

## > Sends Clear Color Images Even at Night!

With the white LED illuminator, the camera sends color images to Residential Station monitors at any time. Clear color image is always available with GH-1KD and GH-1KDS color monitor!



## > Convenient Resident Search

With the Digital Name Scrolling station, visitors can find the residents easily by their names or room number using the digital keypad. Directory search is also available.

\* With alpha and numeric characters, Room numbers can be entered (max. 6 characters). Scandinavian added for showing Resident names (max. 16 characters).



## > Customizable Visitor Welcome Message

Residents enter their own welcome messages\*, and they are displayed on the VFD panel of the Digital Name Scrolling station. \* Max. 160 characters including spaces



## > 20 Access Codes

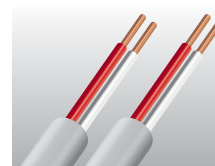
Up to 20 four-digit access codes can be set.

## INSTALLATION ADVANTAGE

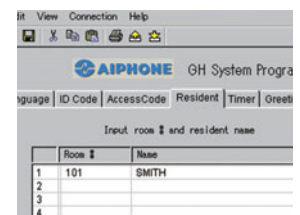
### > Installation and Setup is Quick and Easy

- Employs 1 pair for audio & 1 pair for video connections
- Easy link to Residential Station from Entrance and Security Guard Stations
- Programmed data can be transferred to other GH-NS and GH-MK's
- For GH-NS and GH-MK, system setup data is programmable on your PC

Setup tool software is supported in 5 different languages (English, French, German, Spanish and Dutch).



1 pair for audio & 1 pair for video



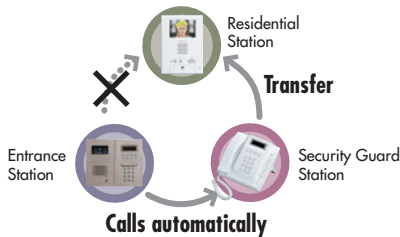
Programmable on your PC

# SECURITY GUARD STATION



## > Answer for High Security Needs: Reception Mode

Using this function, all Entrance Station calls are automatically transferred to the Security Guard Station, giving the Security guard the ability to screen visitors.



## > Up to 20 Missed Calls are Recorded.

Records missed calls made from Residential Stations. To callback, display the resident's name and room number recorded, and then press the Call button. It's quick and easy.



## > Call Another Security Guard Station

The Security Guard Station can make a call not only to Residential Stations and Entrance Stations, but also to another Security Guard Station. Up to two Security Guard Stations can be linked per common line.

## > Other Features

- Receives panic call from Residential Stations
- Optional doorbell at security/reception room available
- Service button  
Performs a user-optional function (elevator-way light control, etc.)  
\* Requires additional connector cable (not included).
- An external signaling device, such as Buzzer, can be added with GH-RY relay. \* Requires additional connector cable (not included).
- Both wall and desk-top installations available

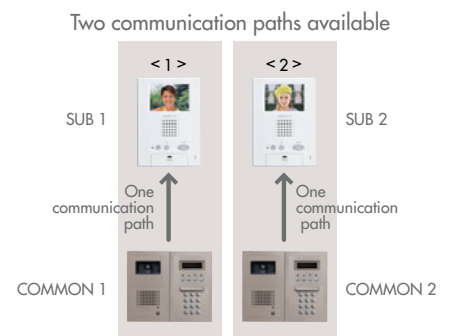


## EXPANDED SYSTEM ADVANTAGE

### > Operates Up to 16 Entrance Stations, 4 Security Guard Stations, and 500 Residential Stations: Ideal for Large Apartment Complexes!

The GH series can accommodate large complexes with underground parking, complex building layouts, and many residents. It provides two Communication (talk and video) paths\*, one per Common-Sub trunk. Choose the installation configuration that best suits your application. The design flexibility and capacity of the GH makes it suitable for all multi-unit applications, large and small.

\* Communication paths are subject to installation requirements. See page 10 for more details.



# SYSTEM COMPONENT

## ENTRANCE STATION

< Direct-select call button >

< Digital name scrolling >

**Speech Module**

**GH-DP**  
Speech Module Panel

**GH-DA**  
Speech Module

**Digital name scrolling Module**

**GF-NSP**  
Display Module Panel

**GH-NS**  
Digital name scroll Display Module

**Front Frame & Back Box**

**GF-2F**  
2-module Front Frame

**GF-3F**  
3-module Front Frame

**GF-nH**  
Rain Hood

**Camera Module**

**GF-VP**  
Camera Module Panel

**GH-VA**  
Camera Module

**Call Switch Module**

**GF-1P**  
1-call Panel

**GF-2P**  
2-call Panel

**GF-3P**  
3-call Panel

**GF-4P**  
4-call Panel

**GH-SW**  
Call Switch Module

**Option**

**GF-10KP**  
10-key Module Panel

**GH-10K**  
10-key Module

**GF-AP**  
Address Module Panel

**GH-AD**  
Address Module

**GF-BP**  
Blank Panel

**GF-2B**  
2-module Back Box

**GF-3B**  
3-module Back Box

**GF-nHB**  
Hooded Surface-mount Box

**GF-C**  
80cm Long Connector

## ENTRANCE STATION COMPONENTS

Number of calling button		4.	8.	12.	16.	20.	24.	25.-48.	GH-NS, GF-10K
(1)	GH-VA / GF-VP	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	For more than 7 x GH-SW, install additional Power Supply & special device required. Contact local AIPHONE distributor.	1 / 1
(2)	GH-DA / GH-DP	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1		1 / 1
(3)	GH-SW / GF-4P	1 / 1	2 / 2	3 / 3	4 / 4	5 / 5	6 / 6		—
(4)	GF-2 F / GF-2B	—	2 / 2	—	—	—	—		2 / 2
(5)	GF-3F / GF-3B	1 / 1	—	2 / 2	2 / 2	3 / 3	3 / 3		—
(6)	GF-BP	—	—	—	—	1	1		—
	GH-AD / GF-AP	—	—	1 / 1	—	1 / 1	—		—
(7)	GH-NS / GF-NSP	—	—	—	—	—	—	1 / 1	
	GH-10K / GF-10KP	—	—	—	—	—	—	1 / 1	

(1) Camera (2) Speech (3) Call Switch (4) 2-module Front Frame (5) 3-module Front Frame (6) Option (7) Digital name scroll



## RESIDENTIAL STATION

**GH-1KD**  
Hands-free  
Color Monitor  
(white)

**GH-1KDS**  
Hands-free  
Color Monitor  
(silver)

**GH-1MD**  
Hands-free  
B&W monitor

**GH-1AD**  
Hands-free  
Audio Station

**GH-HS**  
Option Handset  
for GH-1KD

## SECURITY GUARD STATION

**GH-MK**  
Security Guard  
Station

**GFW-S**  
Desk-top Stand

## CONTROL UNITS

**GH-BC**  
Bus Control Unit

**GH-VBC**  
Video Bus Control Unit,  
expander video control

**GH-4Z**  
4-way Video Junction Unit

## EXPANDED CONTROL UNITS

Available 2<sup>nd</sup> Quarter 2006

**GH-BCX**  
Expanded Bus Control Unit

**GH-VBX**  
Expanded Video Bus Control Unit

## POWER SUPPLY

**PS-2410LD**  
Power Supply  
220 - 240V AC

**PS-2410DIN**  
Power Supply  
230V AC

**PS-2410LC**  
Power Supply  
120V AC

## OPTION

**GH-RY**  
External Signaling Relay  
entrance light,  
external buzzer

**W-DIN11**  
DIN Mounting Rail  
for GH-BC, GH-VBC, GH-4Z

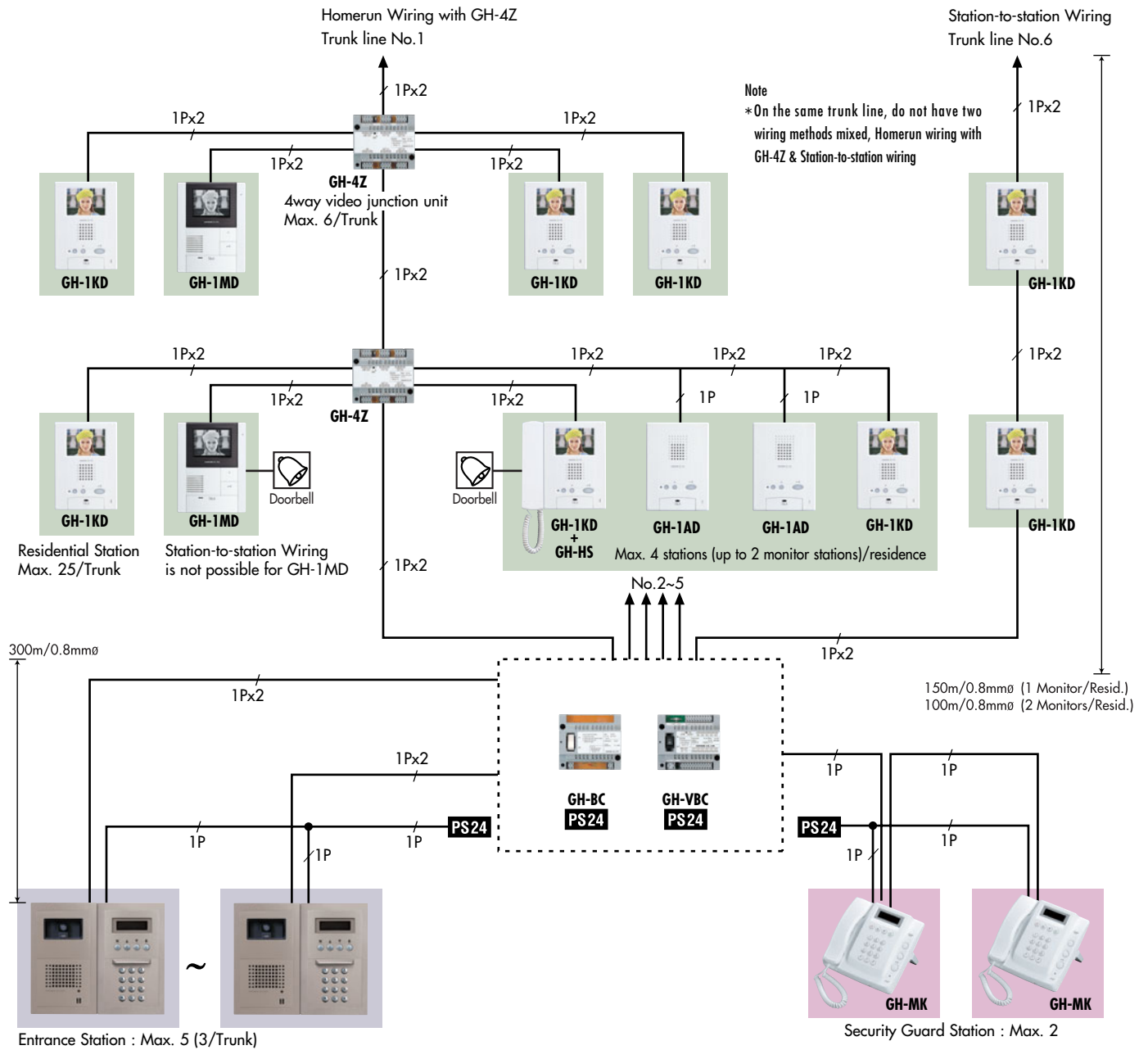
# SYSTEM CONFIGURATION

## STANDARD SYSTEM

5  
Entrance Stations

2  
Security Guard Stations

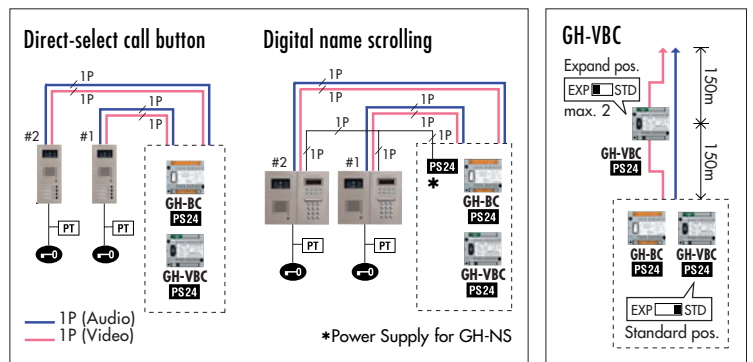
48  
Residential Stations



### Wiring distance

	0.65mmø	0.8mmø	1.0mmø
GH-BC to Distribution point	-	5m	-
Distribution point to Entrance Station	-	300m	-
Distribution point to GH-MK	-	300m	-
Distribution point to farthest GH-1AD(Audio line)	-	300m	-
GH-VBC to farthest Monitor (Video line) 1 Monitor/Resid.	100m	150m	-
GH-VBC to farthest Monitor (Video line) 2 Monitors/Resid.	50m	100m	150m
GH-VBC (STD) to GH-VBC (EXP)	100m	150m	-
GH-BC/VBC to each Power Supply	-	5m	5m
GH-NS to Power Supply	-	300m	300m
GH-MK to Power Supply	-	300m	300m
Accumulated total wiring, all stations	-	2,500m	-

### ENTRANCE STATION



# EXPANDED SYSTEM

16

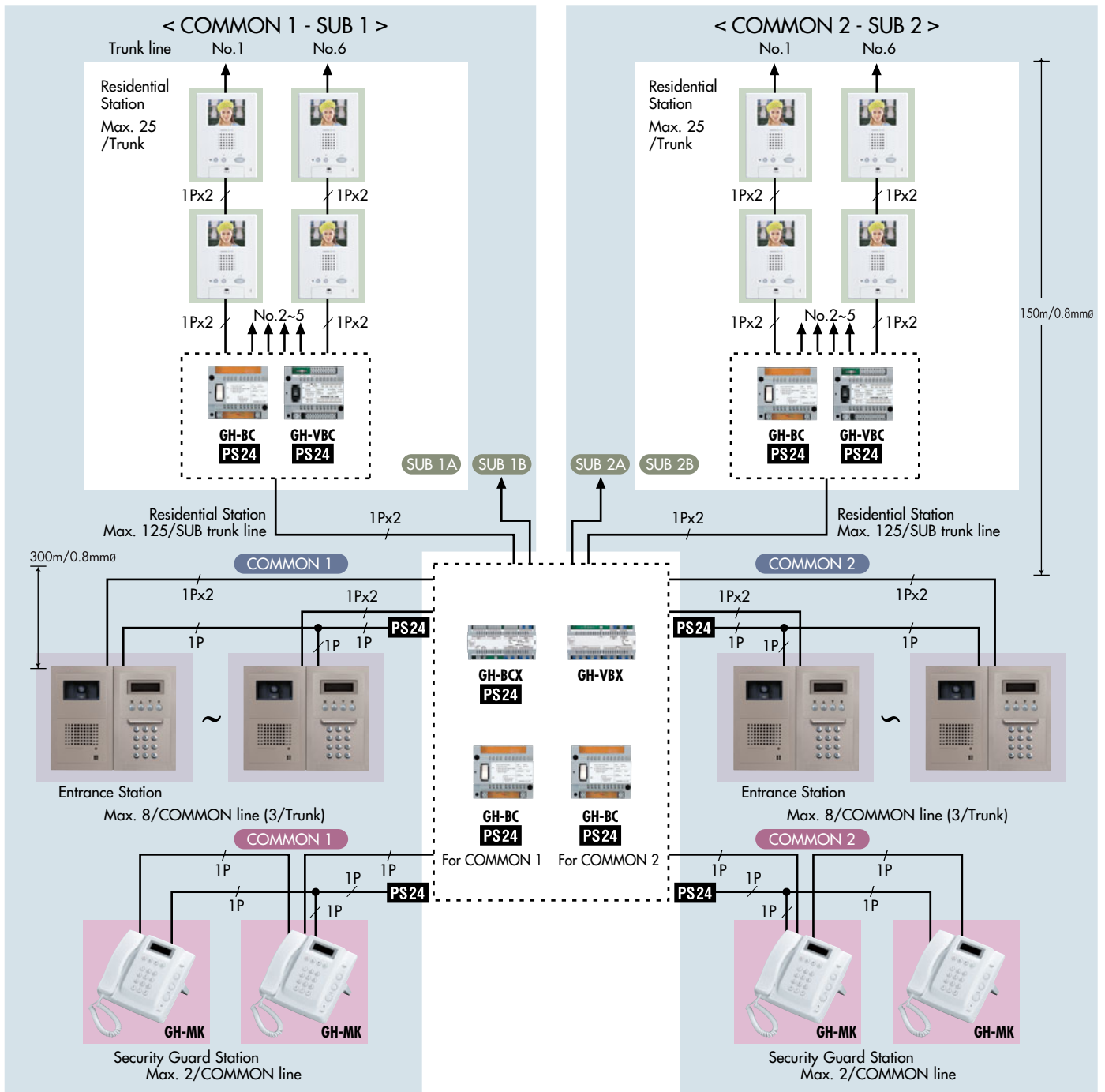
Entrance Stations

4

Security Guard Stations

500

Residential Stations

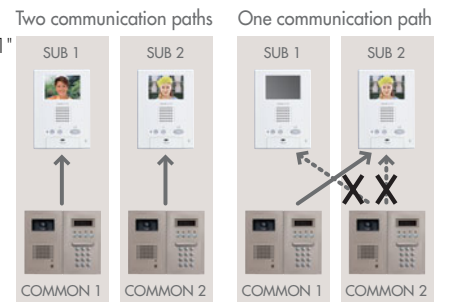


## Wiring distance

	0.65mmø	0.8mmø	1.0mmø
GH-BCX to GH-BC	-	300m	-
GH-VBX to GH-VBC	-	150m	-
GH-BCX/VBX to Entrance Station	-	300m	-
GH-BCX to farthest GH-1AD(Audio line)	-	300m	-
GH-VBX to farthest Monitor (Video line) 1 Monitor/Resid.	100m	150m	-
GH-VBC to farthest Monitor (Video line) 2 Monitors/Resid.	50m	100m	150m
Accumulated total per COMMON	-	2,500m	-
Accumulated total per SUB	-	2,500m	-

## Communication (talk and video) paths:

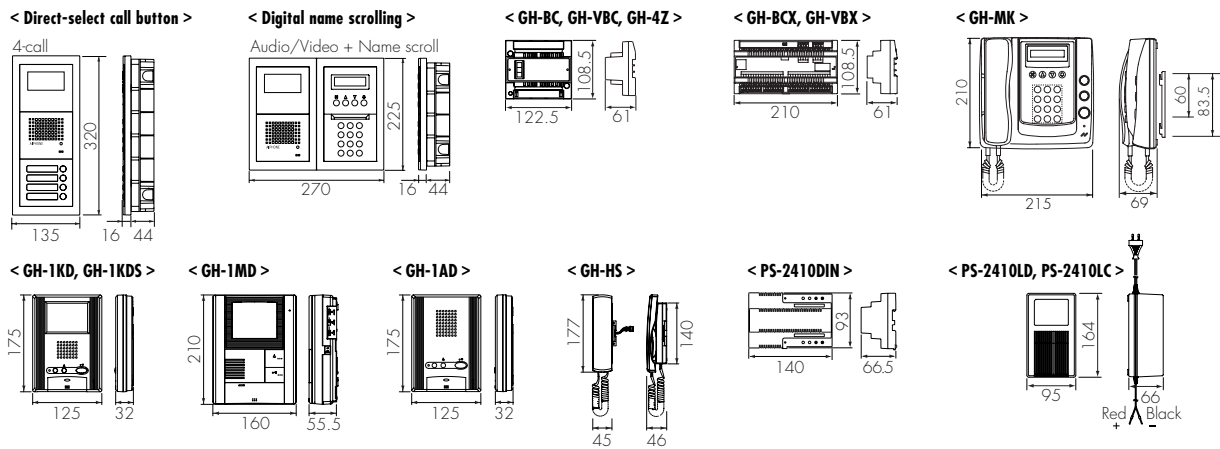
Communication paths on GH-BCX and GH-VBX are identified as "COMMON 1" and "COMMON 2". Each related COMMON-SUB trunk has its own communication path that can be used within itself for communication between Entrance and Resident. Crossover to the other trunk is possible, but this will occupy both talk and video paths. Also Security Guard communication occupies an entire system.



## ■ COMPARISON BETWEEN GH SYSTEM AND GF SYSTEM

	GH system	GF system
Total Residential Station	Standard: 48 stations. Expanded: 500 stations	250 stations
Number of Residential Stations within a Residence	Up to 4 stations (up to 2 monitors)	Up to 2 stations
Total Entrance Station	Standard: 5 stations. Expanded: 16 stations	5 stations
Total Security Guard Station	Standard: 2 stations. Expanded: 4 stations	2 stations
Wiring distance Entrance Station - Video Bus Control	300m	100m
Talk & Video path	Standard: Single channel, non-open. Expanded: Single channel in the same common-sub line	Single channel, non-open
Video Monitor	GH-1KD, GH-1KDS: 3.5 inch Color LCD. GH-1MD: 4 inch B&W CRT	4 inch B&W CRT
Type of Communication	Hands-free, auto voice actuation (via Optional handset) or press-to-talk communication	Full-duplex with handset
Back light for GH-NS & GH-MK	Vacuum Fluorescence Display	LCD with LED backlight
Reception mode	Available	Not available
Monitoring Entrance	Available from Residential Station & *Security Guard Station *(requires modification)	Not available
Absence call memory	Available, stored up to 20 calls	Not available
Additional call signaling device at Residential Station	Available w/GH-RY relay	Not available
Link programming	Program either one Entrance Station or Security Guard Station, and transfers link data to other	Program each Entrance Station/Security Guard Station one by one
Save Link information to PC	Available. Upload & download together with Resident information	Not available
Programmable room number displaying on GH-NS & GH-MK	From 1 to 6 digit. Numeral & Alphabet	3 or 4 digit. Numeral only

## ■ UNIT DIMENSIONS



## ■ SPECIFICATIONS

- Power supply** : DC 24V supplied by PS-2410LC, PS-2410LD, PS-2410DIN (for GH-BC, GH-VBC, GH-NS/10K, GH-MK, GH-BCX)
- Current consumption** : GH-BC: 0.9 A, GH-VBC: 0.9 A, GH-NS: 0.13 A, GH-MK: 0.18 A, GH-BCX: 0.35 A
- Call tone** : There are three different types of call tones from Entrance Station, Security Guard Station and Doorbell.
- Talk & Video path** : Single channel, non-open
- Communication** : Hands-free, voice-actuated communication (or press-to-talk communication)
- Door release** : Connecting terminals: Between ELM - ELC (N/O) and ELB - ELC (N/C)  
Specifications: less than 4A (resistance load), AC/DC 24V, dry closure contact
- Wiring** : Two single-pair cables
- Type of cables** : Pair cable (solid wire not stranded), polyethylene insulated, diameter 0.65 to 1.0 mm

## ■ BACK BOX DIMENSIONS

**Two 2-module back boxes**

**Three 3-module back boxes**

**Back box total width**

GF-2B/3B	W(mm)
x 1	110
x 2	245
x 3	380
x 4	515
x 5	650
x 6	785
x 7	920
x 8	1055
x 9	1190

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