AIPHONE®
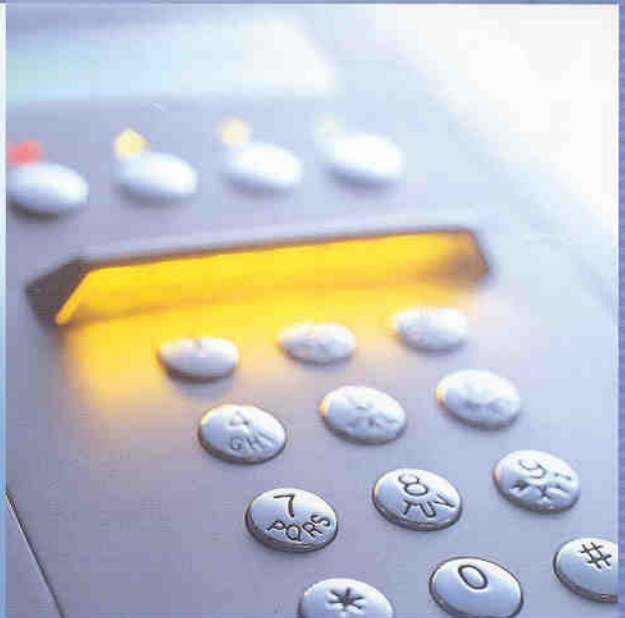
GF Audio & Video Series

Audio/Video entry security for multi-unit buildings.

In today's changing world, security is a top concern for many residents living in apartment or multi-tenant buildings. Aiphone's GF Audio/Video Series enables residents to view and speak with visitors, then unlock the lobby door allowing them access. This ideal system adds security, convenience and peace of mind for all tenants of the building.

Audio & Video Security

Total security provided by the audio and video monitors allow residents to see and respond to visitors.

Variety of System Configurations

The entrance station incorporates a sleek semi-flush design for mounting on most wall surfaces.

Easy installation & Maintenance

The audio system uses two-wire connection while the video system uses a four-wire connection, achieving high functionality with minimal installation time. Either system incorporates simple system set up via supplied PC software.
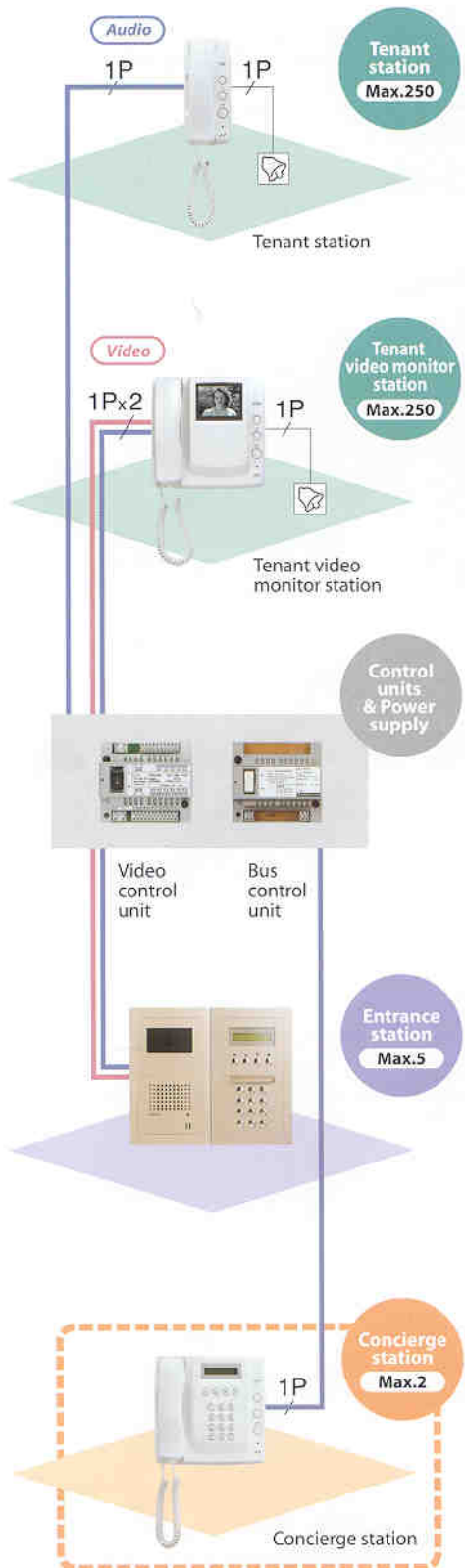
WELCOME
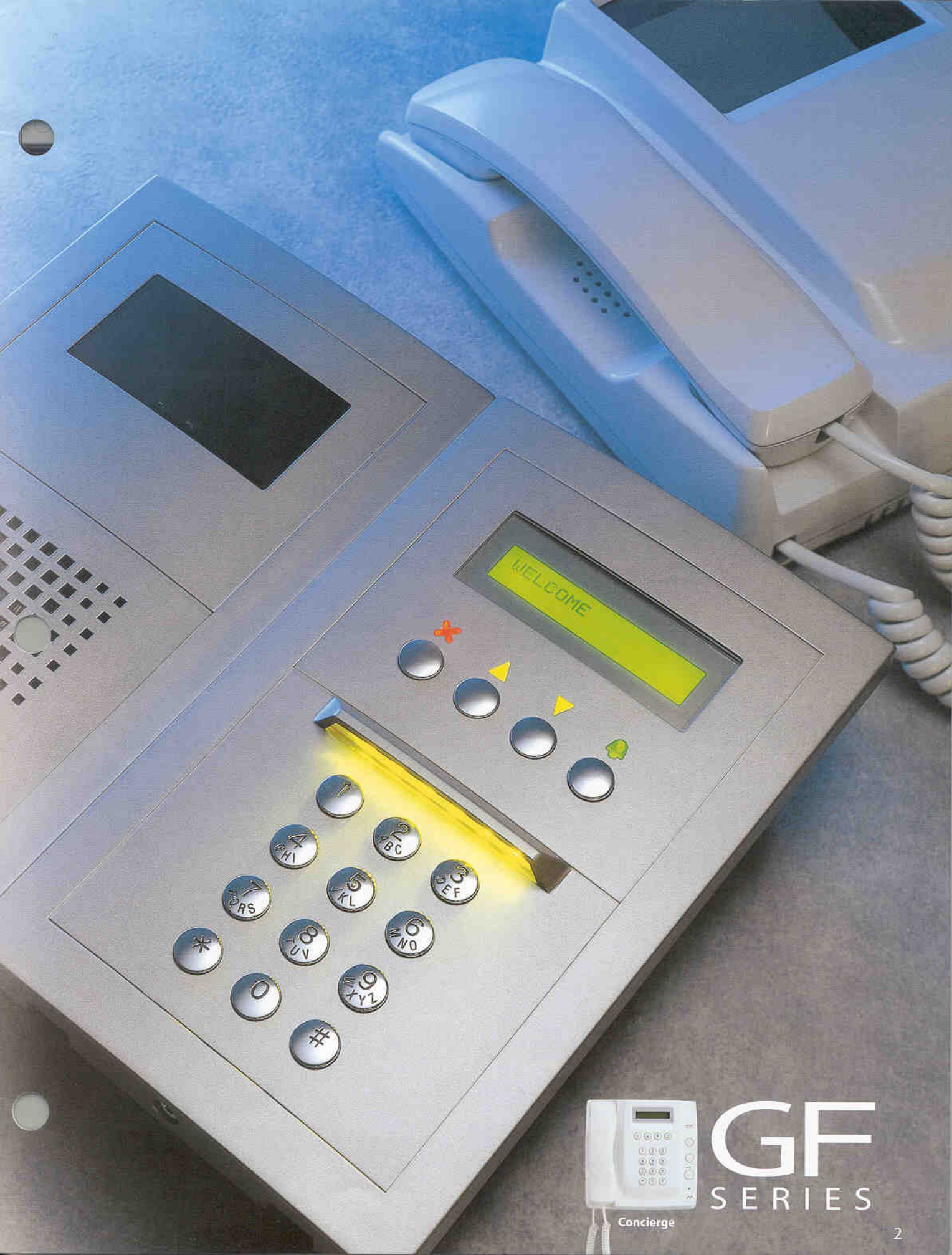
A highly functional and advanced audio/video entry security system provides peace of mind for residents.

SYSTEM OVERVIEW

Audio

1P 1P

Tenant station Max.250

Tenant station

Video

1P×2 1P

Tenant video monitor station Max.250

Tenant video monitor station

Control units & Power supply

Video control unit Bus control unit

Entrance station Max.5

Concierge station Max.2

1P

Concierge station

Entrance Station | Max.5 |

The entrance station allows residents to identify visitors both visually and audibly before granting access. The system's ease-of-use and sleek design makes it the right choice for any multi-unit building.

Audio system

Simple call-up and voice communication

Using the audio module at the entrance station allows visitor to talk with the resident directly with clear sound. The directory button panels back-lit display illuminates tenant's name or unit number (Max.100-call direct select buttons)

Audio module

In-use LED

Call button

Directory card & cover

1 LCD Display
2 Directory scroll/Cancel/Call buttons
3 Keypad illumination
4 Access control/room number dialing keypad

Digital name scrolling

1
2
3
4

This system allows searches of tenant's names and room numbers using the keypad. Customer programmable messages can also be shown in 5 different languages.

Video system

Camera module

Visitors are viewed via the built-in black/white camera.

Visitors can be visually identified by the video monitor at each tenant station.

Option

Address panel

17

Displaying the address of the tenant in detail including the street number, allows quick viewing for visitors.

Blank panel

Only those panels which are needed can be utilized, without sacrificing the systems elegant design.

Concierge Station   Max.2

At Concierge station, it is simple to program residents' information. With this centralized control unit, an entire building security will be enhanced.

Audio system

Concierge control is indispensable for tenant administration.

Concierge can communicate with all tenants and entrance stations as well as reply to panic call situations.

1 Service button
2 Light button
3 Door release button
4 Call tone off LED
5 LCD display

Inside an Apartment, Emergency switch is pushed. Panic call turns on with the Alarm at both Apartment and Concierge's. See a call originator on LCD. Pick up and press call (RING) button for answer-back.

GF-MK can be placed on desktop with attached GFW-S.

Components required

The GF-MK unit is compatible with;
GF-1DK, Tenant station,
GF-1MDK, Tenant video monitor station,
GF-DA/B, Audio module, and
GF-NS/A, Digital name scrolling module.

Tenant Station   Max.250

On the new GF system, tenant can verify a caller either by audio and/or visually. Two-wire Bus and 2-Pair common has proven to reduce cost in wiring and installation.

Audio system

Confirm a caller by audio on your answering

When a caller has called in, simply lift handset. Communicate for a specified amount of time.

1 *Service button*
for a user-optional function
2 *Light button*
Turn on external entrance light during communication. OR Program 'Auto-Entry' (Doctor call).
3 *Door release button*
Activates door strike, controllable only during communication.
4 *Call tone off LED*

Video system

Prior image recognition

On the CRT monitor, verify a caller only viewable when called from entrance station.

1 *Service button*
for a user-optional function
2 *Light button*
Turn on external entrance light during communication. OR Program 'Auto-Entry' (Doctor call).
3 *Door release button*
4 *Call tone off LED*
5 *Video-monitor*
4"B/W CRT screen for easy viewing.

* The image on the monitor is simulated.

Option

Doorbell Button (option)

The caller, once permitted entry inside, presses a doorbell at the tenant's door, ringing the tenant station with a different call tone than the one from entrance station.

Digital Name Scrolling System

Entrance Station

Audio Module

Tenant intercom station

Tenant Station

Concierge Station

AUDIO MODULE + DIGITAL NAME SCROLLING

Digital name scrolling feature to protect Resident privacy and Ease of Use at Entrance
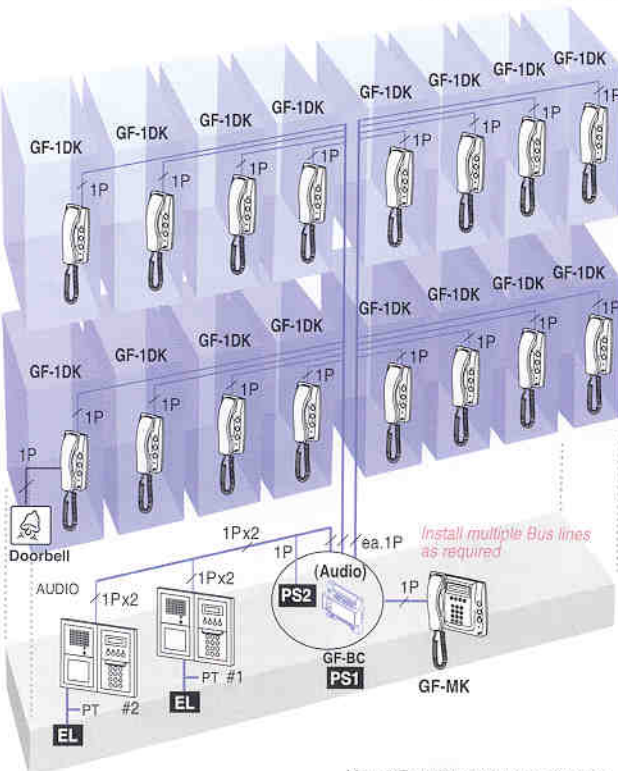
FEATURES

- Calls a tenant by three methods:
  - Search name by scrolling (or consecutively by fast scrolling)
  - Search name alphabetically, - Dial tenant by keypad directly
- Access code 4-digit, programmable. Max. 20 access codes allowed
- Repeatable standby message. Max. 160 characters including spaces
- Compact design entrance panels to fit most lobby entrances
- Selectable five languages: English, French, German, Spanish & Dutch

Example: 16-call Audio Name Scrolling System

Tenant stations Max. 250-call

Max. 50 stations on a Bus line

Doorbell

AUDIO

1P×2

1P×2

1P×2

PS2 (Audio)

ea.1P

Install multiple Bus lines as required

GF-BC PS1

GF-MK

PT #1

PT #2

EL

EL

Max. 5 Entrance stations

Max. 3 Entrance stations per Bus line
PS-2410: Power supply for GF-NS

PANEL COMPOSITIONS

1.

2. <blank>

3. <address>

17

COMPONENTS

GF-1DK	Tenant handset station	250
GF-BC	Bus control unit	1 pce
Power supply PS-2410LC		2 pcs

Entrance station modules

GF-DA	Audio module	1 / Ent.
GF-DP	Audio panel	1 / Ent.
GF-NS	Name scroll module	1 / Ent.
GF-NSP	Name scroll panel	1 / Ent.
GF-10K	Digital keypad module	1 / Ent.
GF-10KP	Keypad panel	1 / Ent.
GF-AD	Address module	
GF-AP	Address panel	
GF-BP	Blank panel	Varies
GF-2F/3F	Front frame	
GF-2B/3B	Back box	
GF-MK	Concierge station	1 or 2
GFW-S	Desktop stand	1

Notes;

1. **Tenant station:** GF-1DK or GF-1D, if GF-MK Concierge station is not included.
2. **GF-NS & GF-10K:** Install a power supply for each GF-NS.
3. **Doorbell button:** Connect Doorbell button to either tenant station, but not both if installed.
4. **Electric door release(EL):** rated less than 4A (resistance load), AC/DC 24V (at each Entrance). Requires a separate transformer.

6

AUDIO

Lower Cost & Higher Performance, Basic Module Composition

AUDIO MODULE

Audio Module

Tenant intercom station

Entrance Station

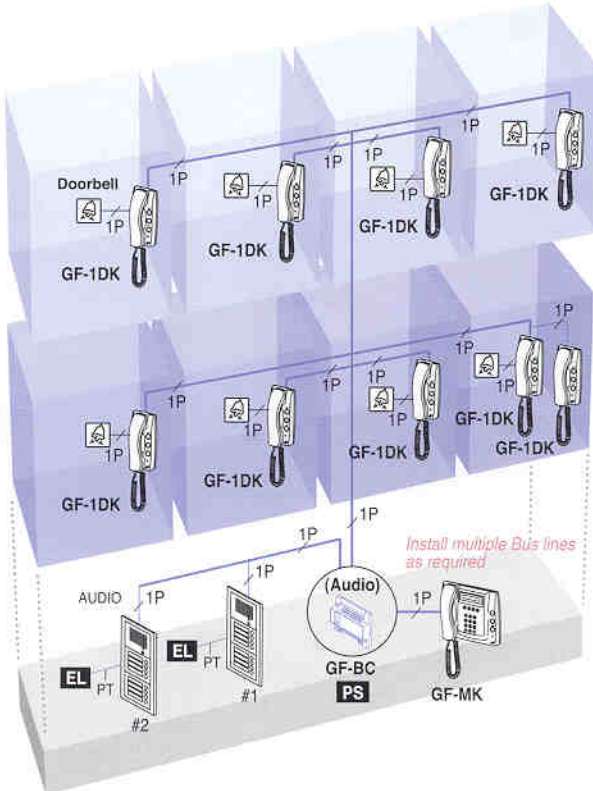Tenant Station

Concierge Station
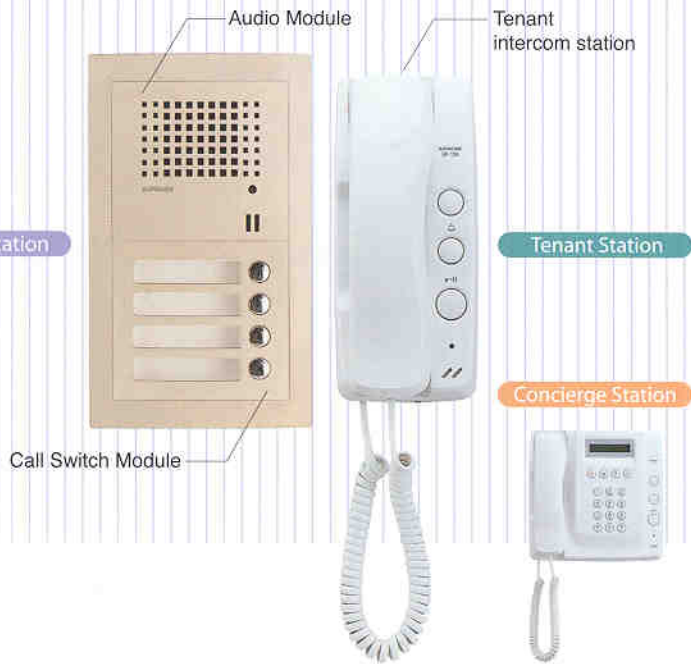
Call Switch Module

FEATURES

- Tenant's station communicate with a visitor without being overheard
- Electric door release control while in communication
- Turns on Entrance light
- Auto-Entry ("Doctor call") upon calling from Entrance (setting required)
- Doorbell button with a distinguishable tone
- Equipped with LIGHT and User-optional FUNCTION buttons

Example: 8-call Audio System

PANEL COMPOSITIONS

1-call   2-call

3-call   4-call

20-call

8-call <blank>

16-call <address>

17

Max. 250 tenant stations

Max. 50 Stations per Bus line

Doorbell

1P

GF-1DK

GF-1DK

GF-1DK

GF-1DK

GF-1DK

GF-1DK

GF-1DK

GF-1DK

GF-1DK

1P

Install multiple Bus lines as required

AUDIO

EL PT

#2

EL PT

#1

(Audio)

GF-BC
PS

GF-MK

Max. 5 Entrance stations

Max. 3 Entrance stations per Bus line

COMPONENTS

GF-1DK	Tenant handset station	250 max.
GF-BC	Bus control unit	1 pce
Power supply PS-2410LC		1 pce

Entrance station modules

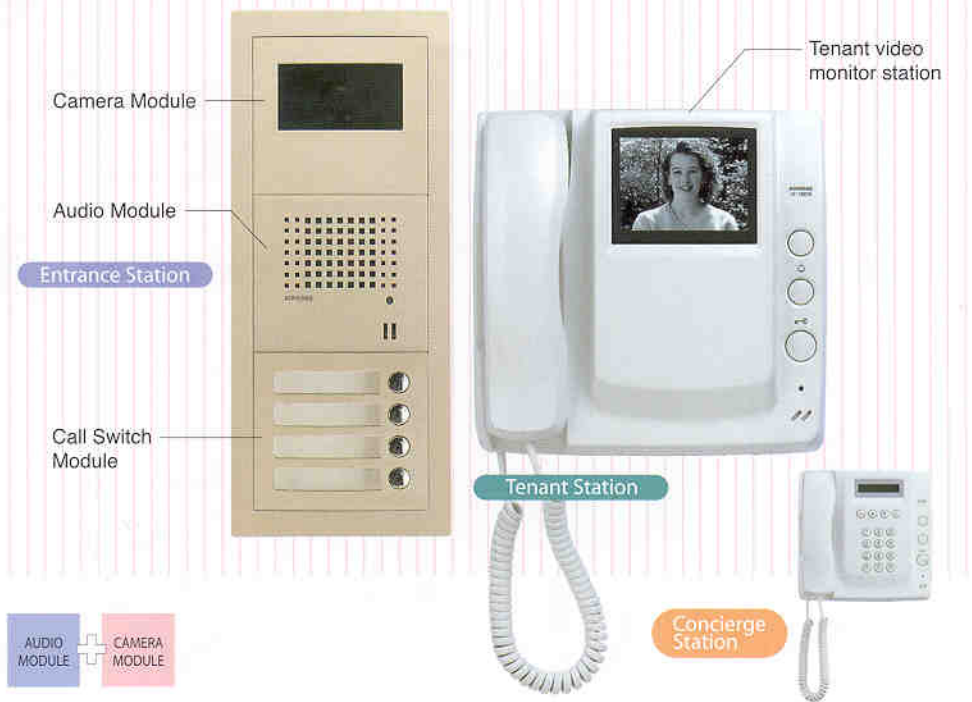|		
GF-DA	Audio module	1 / Ent.
GF-DP	Audio panel	1 / Ent.
GF-SW	Call switch module	
GF-1P~4P	1~4-call panel	
GF-AD	Address module	
GF-AP	Address panel	Varies
GF-BP	Blank panel	
GF-2F/3F	Front frame	
GF-2B/3B	Back box	
GF-MK	Concierge station	1 or 2
GFW-S	Desktop stand	1

Notes;

1. **Tenant station:** GF-1DK or GF-1D, if GF-MK Concierge station is not included.
2. **Doorbell button;** Connect to either Tenant station but not both.
3. **Electric door release(EL):** rated less than 4A (resistance load), AC/DC 24V (at each Entrance). Requires a separate transformer.

AUDIO + VIDEO

Visually identify a vistior before you answer

Camera Module

Audio Module

Entrance Station

Call Switch Module

AUDIO MODULE + CAMERA MODULE

Tenant video monitor station

Tenant Station

Concierge Station

FEATURES

- Provides higher level of security with visual identification of a caller
- 4" B/W screen for clear image
- Equipped with Door Release, Light & User-optional FUNCTION buttons
- Optional second Residential station

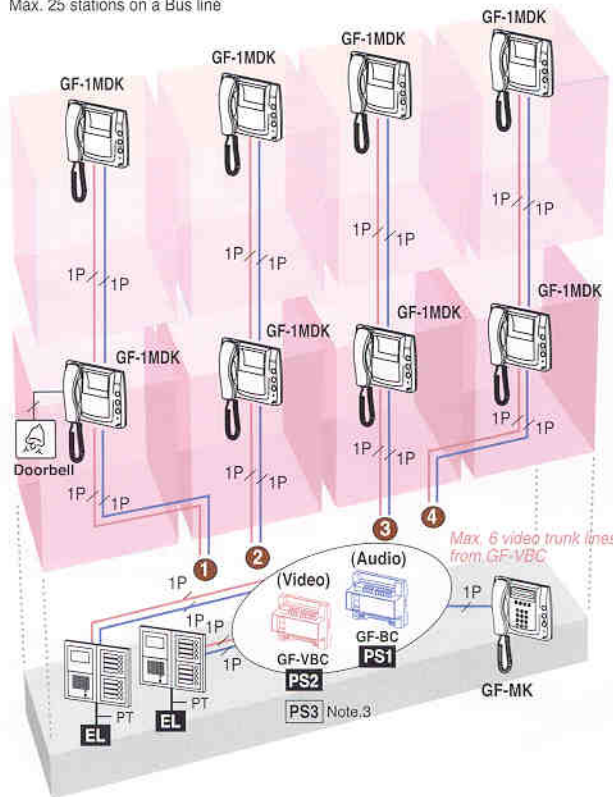## PANEL COMPOSITIONS

1-call 2-call

3-call 4-call

16-call

4-call <address>

17

Example: 8-call Video System

Max. 150 tenant monitor stations
Max. 25 stations on a Bus line

GF-1MDK

GF-1MDK

GF-1MDK

GF-1MDK

GF-1MDK

GF-1MDK

GF-1MDK

GF-1MDK

1P//1P

1P//1P

1P//1P

1P//1P

1P//1P

1P//1P

1P//1P

1P//1P

1P//1P

Doorbell

1P

1P 1P

1P

1P

(Video)

(Audio)

GF-VBC GF-BC
PS2 PS1

PS3 Note.3

EL PT EL PT

GF-MK

Max. 6 video trunk lines from GF-VBC

1 2 3 4

Entrance stations Max. 5

Max. 3 Entrance stations per Bus line

COMPONENTS		
GF-1MDK	Tenant video monitor station	150 max.
GF-BC	Bus control unit	1 pce
GF-VBC	Video control unit	1 pce
Power supply(PS) PS-2410LC		3 pcs

Entrance station modules		
GF-DA	Audio module	1 / Ent.
GF-DP	Audio panel	1 / Ent.
GF-VA	Camera module	1 / Ent.
GF-VP	Camera panel	1 / Ent.
GF-SW	Call switch module	
GF-1P~4P	1 ~ 4-call panel	
GF-AD	Address module	
GF-AP	Address panel	Varies
GF-BP	Blank panel	
GF-2F/3F	Front frame	
GF-2B/3B	Back box	
GF-MK	Concierge station	1 or 2
GFW-S	Desktop stand	1

Notes;

1. **Video distribution:** 6 (Video) from GF-VBC. Max. 25 GF-1MDK's wired in in/out from GF-1MD to GF-1MD or via GF-4Z's (shown on Page 8). Do not mix BOTH methods on the same video trunk line.

2. **Tenant station:** Use GF-1MD if GF-MK Concierge station is not used.

3. **When a second GF-1MD monitor station is to be used within an apartment(s);** Install a second Power supply to GF-VBC.

4. **Doorbell button;** Connect to either Apartment station of two, if included (NOT BOTH).

5. **Electric door release(EL):** rated less than 4A (resistance load), AC/DC 24V (at each Entrance). Requires a separate transformer (PT).

Camera Module — Digital Name Scrolling System — Tenant video monitor station

Audio Module — **Entrance Station**

Tenant Station

Concierge Station

AUDIO MODULE + CAMERA MODULE + DIGITAL NAME SCROLLING

AUDIO +
VIDEO +
DIGITAL
NAME
SCROLLING

Two-Pair COMMON

Highest security with Video and Digital Name Scrolling

PANEL COMPOSITIONS

1.<blank+address>
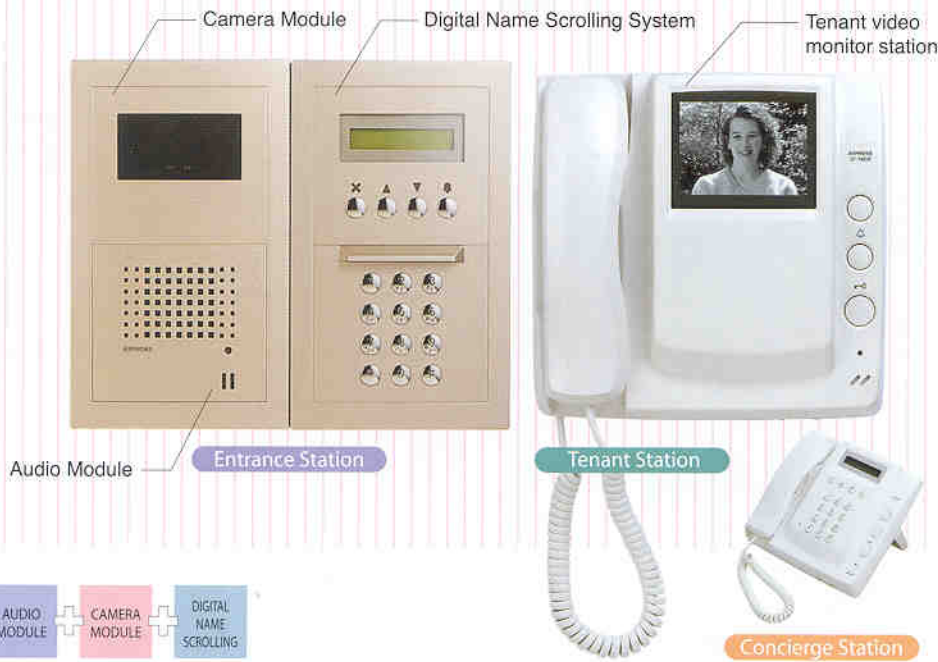
FEATURES

· Provides highest entry security with visual identification of a caller & Digital Name Scrolling
· 4" B/W screen for clear image
· Equipped with Door Release, Light & User-optional FUNCTION buttons.
· Tenant video monitor or handset station
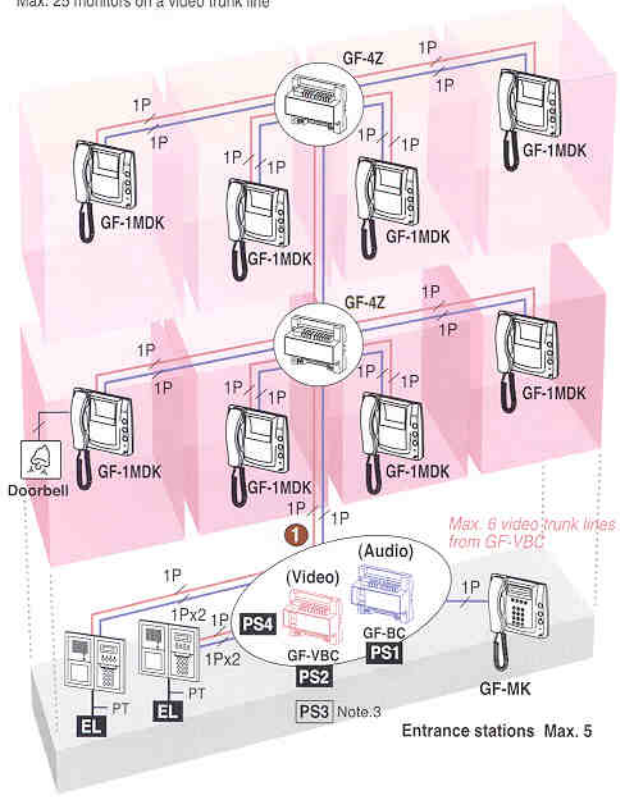
Example: 8-call Video Name Scrolling System

Max. 150 tenant monitor stations
Max. 25 monitors on a video trunk line

Max. 6 video trunk lines from GF-VBC

Entrance stations Max. 5

COMPONENTS

GF-1MDK	Tenant video monitor station	150 max.
GF-BC	Bus control unit	1pce
GF-VBC	Video control unit	1pce
GF-4Z	4-way Bus Junction unit	Varies
Power supply(PS) PS-2410LC		4 pcs

Entrance station modules

GF-DA	Audio module	1 / Ent.
GF-DP	Audio panel	1 / Ent.
GF-NS	Name scroll module	1 / Ent.
GF-NSP	Name scroll panel	1 / Ent.
GF-10K	Digital keypad module	1 / Ent.
GF-10KP	Keypad panel	1 / Ent.
GF-AD	Address module	
GF-AP	Address panel	
GF-BP	Blank panel	Varies
GF-2F/3F	Front frame	
GF-2B/3B	Back box	
GF-MK	Concierge station	1 or 2
GFW-S	Desktop stand	1

Notes;

1. **Video distribution:** 6 (Video) from GF-VBC. Max.25 GF-1MD's wired via 6 x GF-4Z's. Two wiring methods: in/out from GF-1MDK to GF-1MDK utilizing GF-4Z's may be used within a system, but not mixed on a same trunk line.
2. **Tenant station:** Use GF-1MD if GF-MK Concierge station is not used.
3. **When a second GF-1MDK is to be used within a tenant's unit,** install a second Power supply to GF-VBC.
4. **Doorbell button;** Connect to either tenant station, but not both if installed.
5. **GF-NS, GF-10K;** Install a power supply for each GF-NS.
6. **Electric door release (EL):** rated less than 4A (resistance load), AC/DC 24V (at each Entrance). Requires a separate transformer (PT).

Utilizing Two-Wire Bus or Two-Pair Common wiring method system can be designed to meet a variety of installations

GF system features two-wire Bus for audio only system and two-pair common for audio/video system. For audio/video systems, there are two methods of running trunk lines;
(1) Run two single-pair cables from one tenant video monitor station to next, and
(2) Connect 4-way video junction units (GF-4Z's) on trunk lines on each floor, which can accommodate up to four tenant video monitor stations.

Audio system

Max. 250 tenant stations

Audio + Digital name scrolling

Max. 5 Name scroll modules

When Concierge Station is not required

Use GF-1D handset stations when Concierge station is not included.

Video system

Max. 150 tenant monitor stations

- Wiring with GF-4Z's
- GF-1MDK to GF-1MDK wiring

Do not mix both wiring methods on a same trunk line.

Expanded video system

Employ GFW-VBC Expander video unit when increasing residential trunk lines, or locating the farthest monitor stations more than 500' away. From GF-VBC video control unit, up to two GFW-VBC Expander units may be connected in series.

Video + Digital Name Scrolling

Max. 5 Name scroll modules

Up to 3 stations on Audio Bus line

When Concierge Station is not required

Use GF-1MD tenant monitor stations instead of GF-1MDK.

System components

Front frame & back box
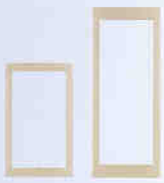
GF-2F(3F)
2/3-module front frame
·Mounting bracket
·Hardware
·Weather stripping
(for reinforcement)

GF-2B(3B)

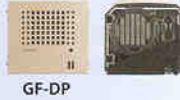**GF-nH** Rain hood
GF-nHB Hooded surface mount box
·Available for either 2 or 3-module panels in horizontal or vertical configurations.

GF-C 2' 7-1/2" connecting wire

Audio Module
< Audio >

GF-DA
Audio module
·Connnector

GF-DP

Camera Module
< Video >

GF-VA
Camera module
·Connnector

GF-VP

Call switch Module

< Direct select >
GF-1P~4P
1~4-call
button panel

< Digital name scrolling module >

GF-NSP

GF-10KP

GF-SW
Call switch module
·Directory card (plate & paper)

GF-NS
Digital name scroll module
·OPERATION MANUAL

GF-10K
Digital keypad
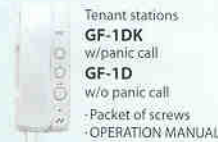module

OPTION

GF-BP
Blank panel

GF-AP
Address panel
17

GF-AD
Address module
·Directory card
(plate & paper)
·Connnector

Tenant station

Tenant stations
GF-1DK
w/panic call
GF-1D
w/o panic call
·Packet of screws
·OPERATION MANUAL

Tenant video
monitor station
GF-1MDK
w/panic call
GF-1MD
·Hardware
·OPERATION MANUAL

**DOORBELL
BUTTON**
(option)

Concerge

GF-MK
utilizing
GFW-S

GF-MK
·Hardware
·OPERATION MANUAL
·See page 4 for compatible
components

GFW-S
Desktop stand

Control units

GF-BC
Two-wire Bus
control unit
·INSTALLATION
MANUAL
·Special screwdriver

GF-VBC
Video
control unit

GF-4Z
4-way bus
junction unit

GFW-VBC Expanded Video control unit
use w/**GF-VBC/A**

Power supply

PS-2410LC
(AC 120V)
Power supply

MAW-B
Relay for
entrance light
(option)

W-DIN11
Mounting rail for
GF-BC, VBC & 4Z
(option)

Audio system < Entrance station >

	2-CALL	3-CALL	4-CALL	6-CALL
Audio section	GF-DA GF-DP	GF-DA GF-DP	GF-DA GF-DP	GF-DA GF-DP
Call switch section	GF-SW GF-2P	GF-SW GF-3P	GF-SW GF-4P	GF-SWx2 GF-2P, GF-4P
Front frame & Back box	GF-2F GF-2B	GF-2F GF-2B	GF-2F GF-2B	GF-3F GF-3B
Option				

	8-CALL	10-CALL	30-CALL	Digital name scrolling system
Audio section	GF-DA GF-DP	GF-DA GF-DP	GF-DA GF-DP	GF-DA GF-DP
Call switch section	GF-SWx2 GF-4Px2	GF-SWx3 GF-4Px2, GF-2P	GF-SWx8 GF-4Px7, GF-2P	GF-NS, GF-NSP GF-10K, GF-10KP
Front frame & Back box	GF-3F GF-3B	GF-2Fx2 GF-2Bx2	GF-3Fx3 GF-3Bx3	GF-3F GF-3B
Option				GF-AD, GF-AP GF-BP

Video system < Entrance station >

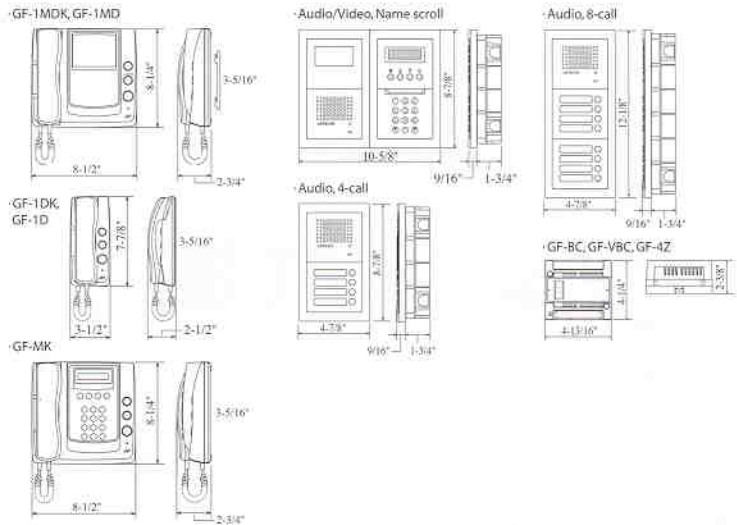|	2-CALL	3-CALL	4-CALL	6-CALL
Audio/ Camera section	GF-VA, GF-VP GF-DA, GF-DP	GF-VA, GF-VP GF-DA, GF-DP	GF-VA, GF-VP GF-DA, GF-DP	GF-VA, GF-VP GF-DA, GF-DP
Call switch section	GF-SW GF-2P	GF-SW GF-3P	GF-SW GF-4P	GF-SWx2 GF-2P, GF-4P
Front frame & Back box	GF-3F GF-3B	GF-3F GF-3B	GF-3F GF-3B	GF-2Fx2 GF-2Bx2
Option				

	8-CALL	10-CALL	30-CALL	Digital name scrolling system
Audio/ Camera section	GF-VA, GF-VP GF-DA, GF-DP	GF-VA, GF-VP GF-DA, GF-DP	GF-VA, GF-VP GF-DA, GF-DP	GF-VA, GF-VP GF-DA, GF-DP
Call switch section	GF-SWx2 GF-4Px2	GF-SWx3 GF-4Px2, GF-2P	GF-SWx8 GF-4Px7, GF-2P	GF-NS, GF-NSP GF-10K, GF-10KP
Front frame & Back box	GF-2Fx2 GF-2Bx2	GF-3Fx2 GF-3Bx2	GF-3Fx4 GF-3Bx4	GF-2Fx2 GF-2Bx2
Option		GF-AD, GF-AP GF-BP		

■ CAPACITY

· Total station:	250 tenant stations
· Total monitor station:	150 GF-1MDK's. 250 GF-1MDK's w/GFW-VBC, Expander video control units
· Entrance station:	5 (audio or video)
· Per tenant:	2 stations (GF-1MDK and/or GF-1DK)
· Max. station per trunk line:	50 GF-1DK's. 25 GF-1MDK's. (i.e. via 6 GF-4Z's or monitor-to-monitor wiring).
· Video trunk line:	6 (Video) from GF-VBC.
· Audio trunk line:	Any number (Audio) from distribution point.
· Max. Entrance station per trunk line:	Max. 3 Entrance stations (Audio)
· Call button:	100-call, i.e. 25 pcs GF-SW.
· Concierge station:	Max. 2 stations.

■ DIMENSIONS

·GF-1MDK, GF-1MD
·GF-1DK, GF-1D
·GF-MK
·Audio/Video, Name scroll
·Audio, 4-call
·Audio, 8-call
·GF-BC, GF-VBC, GF-4Z

■ SPECIFICATIONS

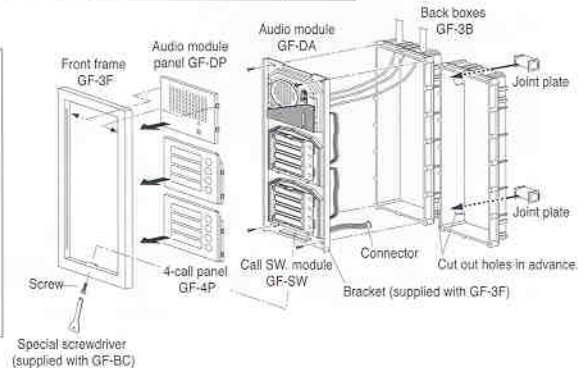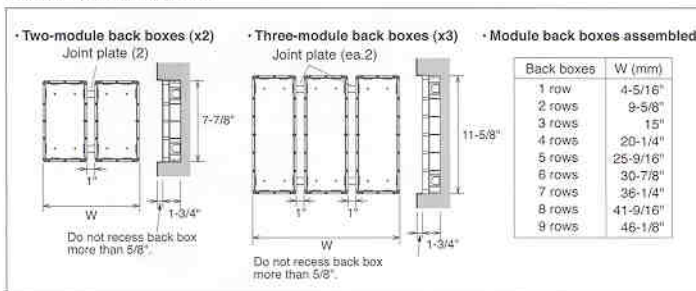|	
Power source	: DC 24V (each GF-BC, GF-VBC & GF-NS), supplied by a power supply PS-2410LC.
Current consumption	: GF-BC : 0.9A. GF-VBC : 1.1A. GF-NS : 0.07A.
Call-in tone	: Two types of call tones, one from entrance station, the other from doorbell button, distinguishable.
Talk path	: Single channel, non-open.
Communication	: Simultaneous with handset (no calling or communication between apartment stations).
Door release terminals	: EL, EL rated less than 4A (resistance load), AC/DC 24V, for dry closure contact for door release.
Wiring	: Two single-pair cables common.
Type of Cable	: 2-conductor cable solid copper & non-braided, polyethylene insulation, 0.65mm dia.~ 1.0mm dia.

Wiring distance

Diameter of wires	22AWG	20AWG	18AWG
· GF-BC to Distribution point	–	16'	–
· Distrib. point to Entrance station	–	980'	–
· Distrib. point to GF-1DK (farthest)	–	980'	–
· GF-VBC to farthest GF-1MDK 1 per unit	330'	500'	–
· GF-VBC to farthest GF-1MDK 2 per unit	165'	330'	500'
· GF-VBC to Entrance station (GF-VA, Video)	165'	330'	–
· GF-BC/VBC to ea. Power supply	–	16'	16'
· GF-NS to Power supply	–	980'	980'
· MAW-B to Entrance station	–	980'	–
· Total wiring distance (R1, R2)	–	1.5miles	–

Dimensions & weight

Models	H x W x D (mm)	Weight (approx.)
· GF-1MDK	8-1/4" x 8-1/2" x 2-3/4"	2.65 lbs.
· GF-1DK	7-7/8" x 3-1/2" x 2-1/2"	0.82 lbs.
· GF-MK	8-1/4" x 8-1/2" x 2-3/4"	1.98 lbs.
· GF-BC	4-1/4" x 4-13/16" x 2-3/8"	1 lb.
· GF-VBC	4-1/4" x 4-13/16" x 2-3/8"	0.57 lbs.
· GF-4Z	4-1/4" x 4-13/16" x 2-3/8"	0.42 lbs.
Entrance station		
· 2-module, 2-row panel	8-7/8" x 10-5/8" x 9/16"	–
· 3-module, 1-row panel	12-1/8" x 4-7/8" x 9/16"	–

BACK BOX DIMENSIONS

· Two-module back boxes (x2)
Joint plate (2)
7-7/8"
W
1-3/4"
Do not recess back box more than 5/8".

· Three-module back boxes (x3)
Joint plate (ea.2)
11-5/8"
W
1-3/4"
Do not recess back box more than 5/8".

· Module back boxes assembled

Back boxes	W (mm)
1 row	4-5/16"
2 rows	9-5/8"
3 rows	15"
4 rows	20-1/4"
5 rows	25-9/16"
6 rows	30-7/8"
7 rows	36-1/4"
8 rows	41-9/16"
9 rows	46-1/8"

Front frame GF-3F
Audio module panel GF-DP
Audio module GF-DA
Back boxes GF-3B
Joint plate
Joint plate
Screw
4-call panel GF-4P
Call SW. module GF-SW
Connector
Bracket (supplied with GF-3F)
Cut out holes in advance.
Special screwdriver (supplied with GF-BC)