

## GE 800



## Digital IP-Intercom Server GE 800

Both the hardware and the software concept of the GE 800 Intercom Servers incorporates state-of-the-art technology. All digital and with distributed intelligence the GE 800 Intercom Server administers up to 112 IP-subscribers (or 56 digital or 56 analog). Interaction of all the peripheral devices and cards is controlled by a central processing unit. Each plug-in card or interface has its own front-end processor for

controlling its particular features and facilities.

The operating system of the GE 800 is programmed using the latest, object-orientated software. This means that all present and future requirements in the fields of Intercom systems, security systems, facilities management, etc. can be met - fully digitally and on a IP-basis.

### GE 800

Basic central unit including transformer for power supply (depending on version), with bus pcb for 17 plug-in slots: processor card, connection card, power supply card, slot 1 to 14 available for subscriber cards (up to 112 subscribers) and/or interface cards, slot A and B for interface cards only. The basic central unit includes an AF input for music/alarm, 2 inputs for floating contacts, 2 relay outputs and two ethernet sockets and one RS232 socket for (remote) programming or maintenance.



# Technical Data – Benefits

## TECHNICAL DATA

AC power supply:	24 V +/- 5% / 80 VA
DC power supply:	24 - 35 V / 80 W
Emergency power consumption:	200 mAh/h for G8-GEN, G8-NET, G8-GEP, G8-GEB other cards see corresponding data sheet
Frequency range:	200 – 16,000 Hz
Distortion:	less than 0.9%
Operating temperature range:	0° C to +50° C (32° F to 122° F)
Storage temperature range:	-30° C to +60° C (-22° F to 140° F)
Relative humidity:	20% to 80%
Measurements of the housing:	483 x 133 x 229 mm (19.03 x 5.24 x 9.02 inch)
Weight including package:	5,840 g (12.87 lbs)
Mounting:	19" , 3 HU
Relay outputs:	max. switching capacity: 60 W / 125 VA, max. switching current: 2A max. switching voltage: 60 VDC / 40 VAC
Music input:	max. 800 mV at 600 Ohm
Inputs IN1, IN2:	for floating contacts, max. line resistance: 1.5 kOhm

## EXPANSION

	Subscriber:	Outputs:	Inputs:
Basic expansion:	0	2	2
Maximum expansion per central housing:	112	226	226
Maximum expansion (120 housings)	26,768	30,000	30,000

## BENEFITS

- Digital IP-Intercom Server (voice, video, indication and control).
- Integration of other systems via Ethernet and V24 interfaces with own protocol converter.
- The central housing and connecting technology is specially designed to the requirements of 19" racks.
- More than 150 standard features (a detailed list is available separately)
- Latest intercom technology: microprocessor-controlled, high density design, SMD production, object-orientated programming.
- For all kinds of intercom stations (IP, 2-wire and 4-wire).
- Digital networking over IP, 2 or 4-wire lines, E1 or ISDN.
- Non-blocking
- Integrated functions for door/gate control, alarms, conferences and central control desks.
- Plug&Play video integration.
- Expandable from 2 to max. 5,760 subscribers without restrictions (up to 30,000 subscribers with restrictions).
- User-friendly configuration with included PC software.

## EXTENT OF SUPPLY

- 1 Intercom Server GE 800 in basic expansion, including:
- 19" housing (3 height units)
  - G8-GEN power supply card (incl. installation board G8A-GEN)
  - G8-GEP processor card
  - G8-NET connection card (incl. installation board G8A-NET, 1m / 3.3ft cable)
  - Depending on Variant: PA 700 transformer incl. mounting set for DIN rail TS 35
  - Tool for removing of installation boards
  - CD "Software & Manuals"



# Installation

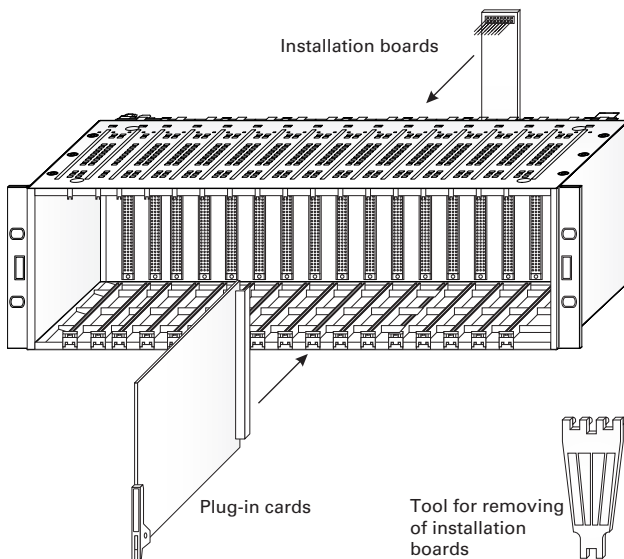
## PRECAUTIONS

- With regard to the CE mark, the central is suitable for the following types of application: residential buildings, office and commercial premises, small businesses and industrial premises with public low-voltage mains supply.
- Defective power cables of the transformer PA 700 must not be repaired or changed. In case of defective power cables, the whole transformer has to be changed.
- Mounting and installation of the central GE 700 and of the equipment may be carried out only by authorised service personnel.
- Cards may be inserted and removed only with voltage switched off.
- Before exchanging of cards, ESD precautions must be observed. The Earth terminal of the installation board G8A-GEN (see "Connection Diagram G8A-GEN") is used as grounding point for Wrist Strap Grounding.

## MOUNTING INSTRUCTIONS

- One central housing GE 800 requires 3 height units
- The plug-in cards are inserted into the 19" housing from the front and fixed with the attachment-clips. The corresponding installation boards are mounted at the rear of the central (see "Mounting of Cards and Installation Boards").

## MOUNTING OF CARDS AND INSTALLATION BOARDS



## CONFIGURATON WITH IP

The IP-Addresses of the Intercom Server are defined with the DIP-switches of the G8-GEP. As soon as the Intercom Servers are connected with the network they can be configured via IP.

## CONFIGURATION WITH RS 232

For programming of the GE 700 a 9-way D-Submin connection cable is required (1:1, plug on central side, socket on PC side). This cable is connected to the 9-way D-Submin socket on the front of the power supply card G7-GEN or on the installation board GEAN 700R.

NC	1	_____	1
TXD	2	_____	2
RXD	3	_____	3
NC	4	_____	4
GND	5	_____	5
NC	6	_____	6
NC	7	_____	7
NC	8	_____	8
NC	9	_____	9

GE 800 (9-way D-Submin plug)

(9-way D-submin jack) PC

NC = not connected

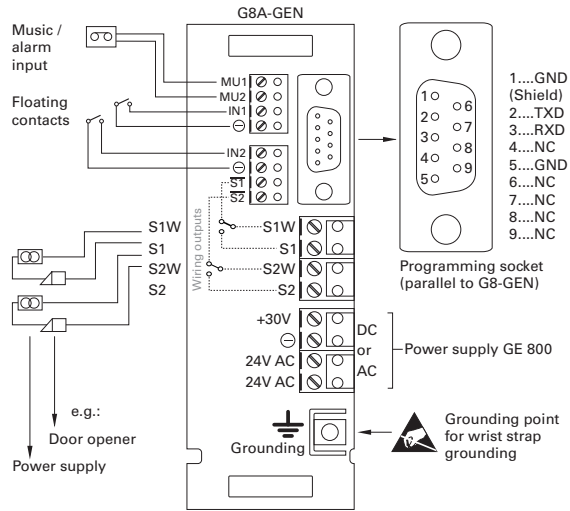
This cable can be purchased at an electric outfitter or ordered under the type "X-KAB-CCT".



# Installation

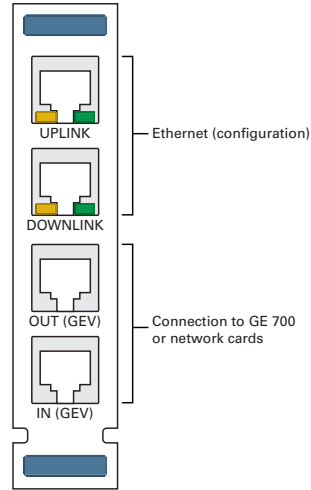
## CONNECTION DIAGRAM G8A-GEN

The G8A-GEN is the installation board for the card power supply card G8-GEN and the processor card G8-GEP.



## CONNECTION DIAGRAM G8A-NET

G8A-NET is the installation board for the card G8-NET.



# Installation

## PLUG-IN CARDS FOR GE 800

### Subscriber cards:

- G8-IP-4B, C, D, V: for four IP-stations
- G8-IP-8B, C, D, V: for eight IP-stations
- G8-GED-4B, C, D: for four digital intercom stations
- G8-GET-4B, C, D: for four analogue intercom stations
- G8-TEL-4C, D: for four analogue telephones

### Input/output cards:

- G8-8E8A: 8 inputs for floating (volt-free) contacts and 8 floating (volt-free) relay contacts
- G8-16A: 16 outputs (floating (volt-free) relay contacts)
- G8-16E: 16 inputs for floating (volt-free) contacts

### Interface cards:

- G8-V24-PROIP: IP interface card with programmable protocol converter and additional RS232 (not programmable). The card works with separately available driver software only!
- G8-V24-PRO: Programmable V24-card with two RS 232-interfaces, of which one can be configured as RS 422. Attention: The card works with separately available driver software only!
- G8-V24: V24 interface card with two RS 232, of which one can be configured as RS 422
- G8-AUD-2B, C, D: Digital Audio-Recording-Card with two audio channels (IN/OUT) and four relay contacts.
- G8-AUD-4B, C, D: Digital Audio-Recording-Card with four audio channels (IN/OUT) and four relay contacts.
- G8-TEL: Analogue telephone interface for connection to a PABX or the public telephone network.
- G8-SELCALL: Radio interface (Two slots of the GE 800 are occupied by the G8-SELCALL and the enclosed G8-V24-PRO!)
- G8-IAX: Interface card for integration of various VoIP-Standards via a IAX-capable Asterisk® server.
- G8-VOIPSERV: Server card on Linux and Asterisk® basis allows integration of various VoIP-Standards such as SIP, H.323 oder SCCP directly in the Intercom Server.
- G8-IF: Ethernet Interface card with standard ICX-protocol

### Connection cards:

- G8-LAN: IP network card for connection of up to 100 centrals GE 800, GE 700, GE 300 and GE 200 via Ethernet (corresponding to IP protocol).
- G8-CNET-E1: E1 network card for connection of up to 100 centrals GE 800, GE 700, GE 300 and GE 200 over multiplexer connections or media converter, like e.g. fibre optic.
- G8-CNET-W: Network card for connection of up to 100 centrals GE 800, GE 700, GE 300 and GE 200 over 2 wires up to 4 km (2.48 miles).
- G8-S0: Network card for connection of up to 16 centrals GE 800, GE 700, GE 300 and GE 200 over ISDN dial up connections (two ISDN-basic rate interfaces).



# Installation

## INSTALLATION BOARDS FOR THE PLUG-IN CARDS

The plug-in cards can be used with the following installation boards:

- ...included in extent of supply
- ...available separately

	G8A-C	G8A-I	G8A-K	G8A-T	G8A-V	G8A-GEN	G8A-NET	G8A-TEL	G8A-PRO	G8A-EW
G8-16A	-	○	○	-	-	-	-	-	-	-
G8-16E	-	○	○	-	-	-	-	-	-	-
G8-8E8A	-	○	○	-	-	-	-	-	-	-
G8-CNET-E1	-	-	-	-	-	-	-	-	-	●
G8-LAN	-	-	-	-	-	-	X	-	-	-
G8-CNETW	-	-	-	-	-	-	-	-	-	●
G8-AUD	○*	○	○	○*	-	-	-	-	-	-
G8-IF	-	-	-	-	-	-	X	-	-	-
G8-IP	-	-	-	-	-	-	X	-	-	-
G8-TEL-4	-	○	○	-	-	-	-	-	-	-
G8-GED	○	○	○	○	-	-	-	-	-	-
G8-GEN	-	-	-	-	-	●	-	-	-	-
G8-GEP	-	-	-	-	-	-	X	-	-	-
G8-GET	○	○	○	○	-	-	-	-	-	-
G8-NET	-	-	-	-	-	-	●	-	-	-
G8-S0	●	-	-	-	-	-	-	-	-	-
G8-SELCALL	-	-	●	-	-	-	-	-	-	-
G8-TEL	-	-	-	-	-	-	-	●	-	-
G8-V24	-	-	-	-	●	-	-	-	-	-
G8-V24-PRO	-	-	-	-	●	-	-	-	-	-
G8-V24-PROIP	-	-	-	-	-	-	-	-	●	-
G8-VOIPSERV	-	-	-	-	-	-	-	-	●	-

\* When using the installation boards G8A-C or G8A-T the 4 relay contacts of the G8-AUD can not be connected!



# Installation

## PLUG-IN POSITIONS OF THE CARDS

The plug-in cards can be inserted in the following slots:

Kartentype	GEN	GEP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	NET	max. per Server
G8-16A	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14 <sup>3</sup>
G8-16E	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-8E8A	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14 <sup>3</sup>
G8-CNET-E1	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	5
G8-LAN	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	5
G8-CNET-W	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	5
G8-AUD	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-IAX	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-IF	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-IP	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-TEL4 <sup>1</sup>	-	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	-	2 <sup>1</sup>
G8-GED	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-GEN	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
G8-GEP	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
G8-GET	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-NET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	1
G8-S0	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-SELCALL <sup>2</sup>	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	4 <sup>2</sup>
G8-TEL	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-V24	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-V24-PRO	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14
G8-V24-PROIP	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	14

<sup>1</sup> Details see datasheet G8-TEL4

<sup>2</sup> A second slot of the GE 800 is occupied by the G8-V24-PRO delivered with the G8-SELCALL.

<sup>3</sup> A maximum of 100 outputs may be activated at once.

