

Operating Instructions

CG-Controller for
CG 2000/ZB-S

Target group: Skilled Electricians



300 80 001 458 (B)




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2 Safety instructions

- In accordance with specifications, the CG-Controller must be operated in an undamaged and fault-free state!*
- When performing tasks on the emergency lighting system, make certain that the system is disconnected from electrical power! Note the various power supplies for normal and emergency mode in this regard.*
- Before placing the device in service, the emergency lighting system must be tested according to the instructions listed in the "Installation" section of the operating instructions!*
- Please note for all tasks on the device applicable national safety and accident prevention requirements and the following safety instructions in the operating instructions that are identified by a  !*

- significant hazards to persons
- significant damage to plant and machinery
- faults and interruptions in the production process.

Once the system has been assembled, connected up and commissioned, the following additional operations must be carried out for normal operation:

- Monitoring and maintaining a record of system functions**
- Safety measures during faults and shutdowns**
- Carrying out the safety inspections as required by statutes and directives**

Notes:

- You must comply with the national statutes and directives governing the construction and control of a system for main and emergency lighting.
- You must comply with the national statutes and directives governing inspection and safety tests (e.g. for function and duration tests).

2.1 Important information about safety at work and the safe operation of an emergency lighting system



Warning!

This system is part of the emergency and main lighting system and therefore part of the safety equipment of a building or company. Unauthorised and unskilled work on the equipment can lead to the failure of the main and/or emergency lighting system and hence to

The operator of the emergency lighting system is responsible for organising and supervising this work.

The following information must be specified in writing and made available at all times:

- The nature and extent of the work
- Recording of work results
- Responsibilities and permits for carrying out the work
 - Which persons may carry out which operations?
 - Which persons are responsible for supervising the work?
- Duties of reporting (e.g. in the case of faults or function tests)
- Organisational measures when working on the emergency lighting system.

This may include:

- Duties of information and reporting on the start, duration and end of the work
- Safety measures while the work is being carried out: e.g. standby lighting, power supply isolation and lock-out (e.g. removing the fuses, key-operated switch, safety signage)
- Safety equipment for the personnel carrying out the work on the plant (e.g. suitable work clothing and personal protection equipment)
- Safety equipment

providing protection from hazards caused by adjacent plant (e.g. safety grilles, barriers, making safe of roads)

Refer to the sections dealing with target groups and the use of these operating instructions under «2 Safety instructions» and under «4.2 Use as prescribed».

In particular, inspections and safety checks and their documentation must be carried out by specially authorised engineering personnel (in accordance with the national statutes and directives).



Note:

For modifications to the emergency lighting system and the programming, and for safety inspections, please contact your local CEAG office or experts of authorised organisations.

3 Conformity to standards

In conformity with: VDE 0108/10.89, DIN/VDE 0805/11.93, IEC 950.

Developed, manufactured and tested in accordance with DIN EN ISO 9001.

4 Specifications

4.1 Specifications

Power supply voltage: 230 V AC \pm 10 %
or 24 V DC

Power consumption (230 V): 80 mA max.
(24 V): 450 mA max.

Alarm contact: 1 x UM, 24 V
0.5 A; freely programmable

Signal inputs BUS

LON FTT 10A interface card for connecting to CG 2000 / ZB-S systems

Display pad

Lighted display, alphanumeric 4 x 20 characters

Mechanical data

Safety class: II
Safety class as per EN 60527: IP 65
Ambient temperature: -5 °C ... +40 °C

relative humidity: 0 - 95 %, non-condensing

Connection terminals: max. 2.5 mm²
Weight: About 1.8 kg

Dimensions (L x W x D)/mm: 184 x 240 x 112

4.2 Use as prescribed

The CG-Controller is designed for monitoring and controlling CEAG safety lighting systems of Type CG 2000 or ZB-S.

Up to 32 systems of one type can be operated in the same simple manner on one controller.

Their operation is program controlled. They must be programmed and set up by engineers with specialist knowledge of the legal and technical requirements governing the assembly and operation of lighting systems.

The system is built to the latest state of the art and according to the recognised codes of practice in safety engineering.

The number of electronic devices in use in recent years has increased sharply, as of course has radio interference, for every electronic device, machine or system emits different types of radiation. Interference can occur especially in today's highly automated industries. It can lead to malfunctions and even to the failure of entire plants. The overlaying of different types of interference increases the overall level of radiated noise, hence the need to protect all devices from electromagnetic interference (EMI). In industrial process engineering in particular, a high level of immunity is required for electrical instrumentation and control (I&C) equipment. This is why all electronic devices are subject to mandatory CE marking.

CEAG products comply with the requirements of EC Directives 89/336/EEC (EMC directive) and 73/23/EEC as amended by Directive 93/68/EEC (low voltage directive) and are entitled to carry the CE marking. If luminaires with electronic ballast comply with the EMC directives, then the interference produced by the high frequency operation of the electronic ballast is within the legal limits.

Nevertheless, electronic devices may cause interference in individual cases. As a rule only HF paging systems (in the MHz range) should be used. Reliable



CEAG Notlichtsysteme GmbH can accept no liability and/or give no warranty in respect of any defects that may occur with the supply and installation of CEAG emergency lighting systems and luminaires on the basis of other standards and regulations which are mandatory in complete installation packages in conjunction with CEAG products.



Caution!
You must also comply with all statutes, standards and directives of the country in which the system is installed and operated.



Warning!
When planning a lighting system with a CG 2000/ ZB-S system you first establish whether the proposed electrical installations satisfy local environmental conditions. Special environmental conditions (e.g. areas subject to explosion hazards or areas with an aggressive atmosphere) call for special equipment and installations.



Note:
Only (switchable) CG-S luminaires/ballasts supplied by CEAG Sicherheitstechnik GmbH can guarantee full functional scope when operated in a system with Star technology!
When using other ballasts you should check whether they meet the requirements for an emergency lighting system and operation on a CG 2000/ZB-S!

operation cannot be guaranteed with the use of inductive paging systems (25-40 kHz).
However hazards can still occur during operation

- Hazards to personnel when safety regulations are not complied with,
- Hazards due to improper use of the device.

Only operate the system and parts connected to it when they are in a technically perfect condition, and comply with

- the safety and hazard information given in these assembly and operating instructions,
- the work and safety instructions issued by the operator of the system,
- the installation and operating data given in „4 Specifications“ and in the CEAG Catalogue „Emergency Luminaires and Emergency Lighting Systems“.

Faults that can affect the operation or safety of the system must be reported immediately to the company officers and remedied.

The applicable work and safety regulations are set out in these assembly and operating instructions, and in

- the management's internal organisational measures as described in
 - «2 Safety instructions »,
 - «5 Important Information about Safety at Work and the Safe Operation of an Emergency Lighting System»
- and the general and specialist technical guidelines and accident prevention regulations.

CEAG can give no warranty or accept any liability for damage or consequential damage caused as a result of

- improper use,

- failure to comply with regulations and codes of conduct for the safe operation of the system,
- unauthorised or inexperienced modifications
 - to the connections and settings of the system,
 - or for programming the system,
- operating proscribed or unsuitable devices or groups of devices.

5. Installation



You must observe the applicable safety requirements for setting up and operating electrical equipment as well as the Device Safety Law and all generally recognised codes of practice!

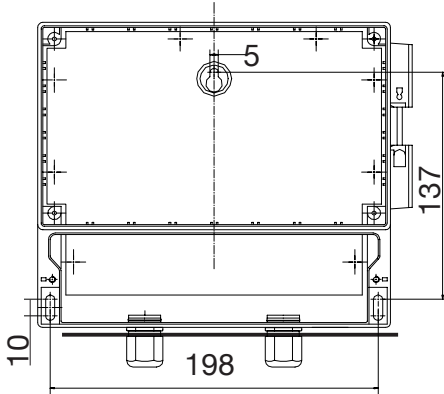


Figure 1: Fastening points

5.1 Assembly

Apply bore holes as shown in Figure 1. Fasten the device in place with suitable screws.

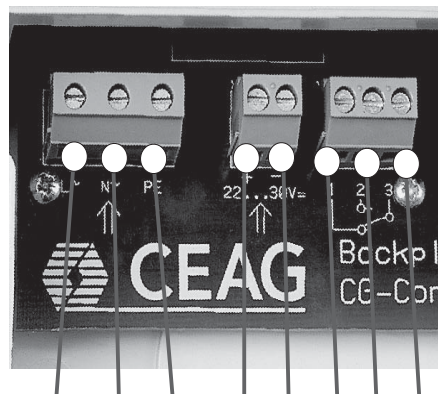
Tighten the screws only to finger tightness!

It is also possible to mount the device on a 35-mm DIN rail.

5.2 Electrical connection

Power connection

The device is designed for operation at 230 V AC or 24 V DC. Lines must be connected as shown in Figure 2.



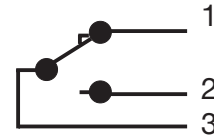
L N PE + - 1 2 3
230 V AC 24 V DC relay

Figure 2: Power connection

Floating contact

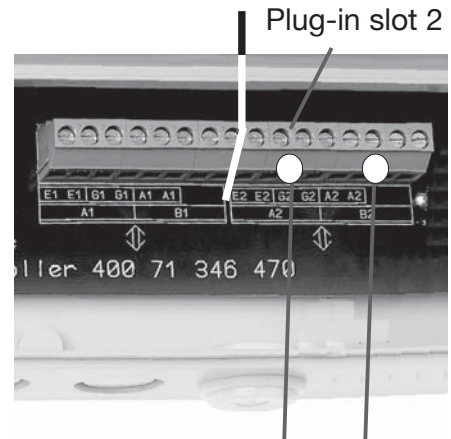
The controller provides a freely programmable circuit contact (1 - 2 - 3, Figure 2).

Energising of the relay can be assigned to various events. See the «Relay settings» menu



Bus cables

The bus line from the connected CEAG systems must be connected to Terminals A(2) B(2) (Figure 3). 4 terminals are present for each input.



A(2) B(2)
CG-S-Bus (2)

Figure 3: Bus connection

5.3 Necessary Entries and first steps

To ensure that all logbook entries are correctly recorded in the emergency lighting system, all system clocks must be calibrated under the “Synchronize clocks” menus after the CG-Controller is placed in service.

After you have turned on the power supply, please enter the current time and date and confirm your entry with the menu key or ↵key.

To register one or more emergency lighting systems please do the following:
Menu⇒ Setup Device⇒ Find device autom.

6 CG-Controller in the emergency lighting system

The “Emergency lighting system” means the corresponding CG 2000 or ZB-S controller systems for the respective controller type.

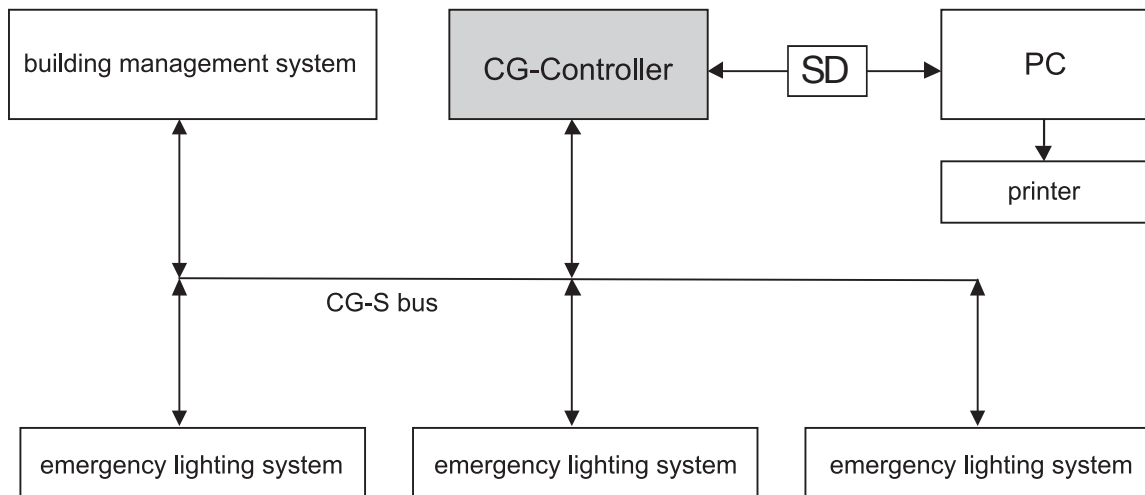


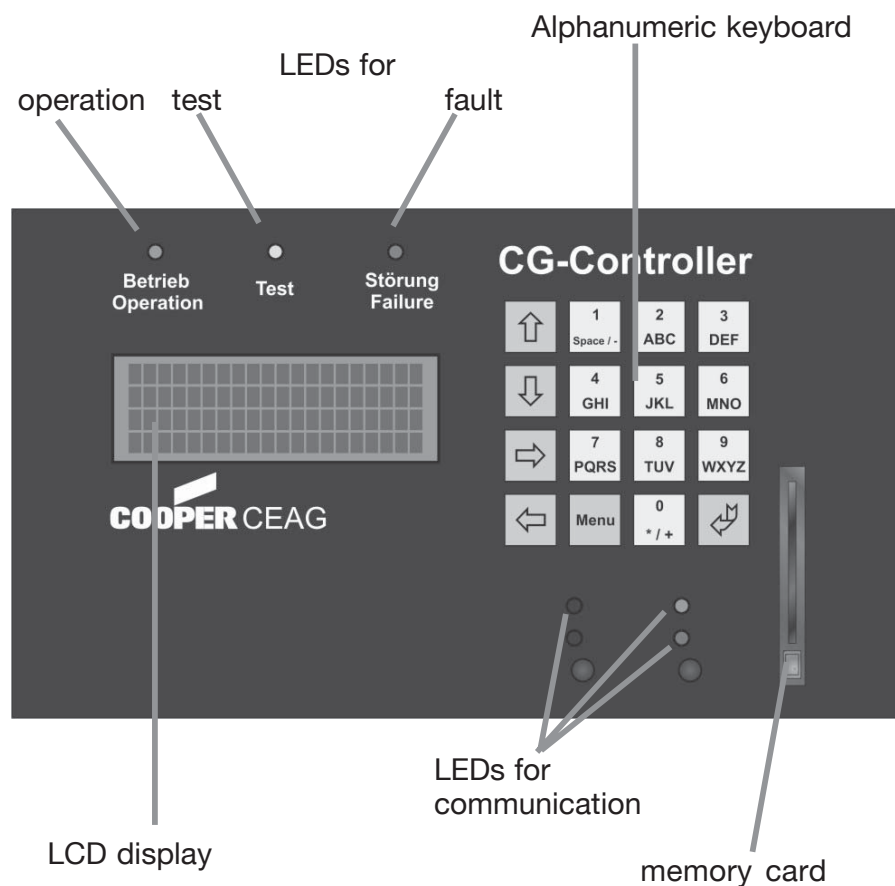
Figure 4: CG-Controller in the emergency lighting system

7 Definitions of keys

Table 1: Definitions of keys

Key	Main meaning
Menu	<ul style="list-style-type: none"> <input type="checkbox"/> If main screen, switch to the main menu selection <input type="checkbox"/> Switch to the menu one level higher and accept the changes
ENTER ↵	<ul style="list-style-type: none"> <input type="checkbox"/> Confirm <input type="checkbox"/> Select menu item=open <input type="checkbox"/> Exit input and accept the changes
↑	<ul style="list-style-type: none"> <input type="checkbox"/> Select the menu item above
↓	<ul style="list-style-type: none"> <input type="checkbox"/> Select the menu item below
←	<ul style="list-style-type: none"> <input type="checkbox"/> Back <input type="checkbox"/> Previous cursor position <input type="checkbox"/> Reduce value <input type="checkbox"/> De-activate
→	<ul style="list-style-type: none"> <input type="checkbox"/> Forward <input type="checkbox"/> Next cursor position <input type="checkbox"/> Increase value <input type="checkbox"/> Activate

Figure 5: Control panel



8 Status display and fault display

8.1 Status display

The status display is located on Line 2 in the main screen (see Table 2).

If a status with a lower priority is being displayed and a status with a higher priority occurs, the newer status with the higher priority will be displayed.

If this new higher status drops out again, the old, lower status will be displayed.

By default, the status with the highest priority will be displayed. If there are additional status messages, you can display them in the submenu by pressing the ENTER key. As soon as no more status messages are pending, "Operation" is displayed.

The status of a previously selected device is displayed in Line 2 of the Device info menu according to the same priority.

8.2 Fault display

The fault is located on Line 3 in the main screen (see Table 3).

The fault of a previously selected device is displayed in Line 3 of the Device info menu according to the same priority.

8.2.1 Sum failure

A sum failure is present if more than one fault error is present at the same time.

Sum failure = more than one fault

Faults for generating the group fault:

- Battery interrupted
- Battery voltage too high
- Isol., charging module or booster failure 1
- Isol., charging module or booster failure 2
- Isol. failure
- Communication failure
- Luminaire failure
- Minimum duration

8.2.1.1 Example of a sum fault message

A sum fault is displayed if a fault is present, for example "Battery voltage too high" and an "Isol., charging module or booster failure 1" is present.

8.2.1.2 Example of no sum failure message

If a "Battery voltage too high" fault is present, no group fault is displayed.

8.2.2 Display of additional faults in the "Info device" menu

By default, the fault with the highest priority is displayed. If there are additional fault messages, you can display them in the submenu by pressing the ENTER key.

Table 2: Status display

Priority	Line 2 (main screen)
High ↑	1 DT running
	2 FT running
	3 Blocked
	4 Battery operation
	5 Mains failure of UV-A ¹⁾
↓ Low	6 Deep discharge protection
	7 Manual reset
	8 DLS/TLS failure

¹⁾ Displayed if the mains failure affects the RS485 substation.

Table 3: Fault display

Priority	Line 3 (main screen)	Fault message	
		Single fault message	Group fault message
High ↑	1 Com. fault device xx ²⁾	yes	no
	2 Mains failure of device	yes	no
	3 Mains failure of UV S3/S4	yes	no
	4 Mains failure of UV RS485	yes	no
	5 Sum failure	yes	yes
	6 Transmission failure	yes	yes
	7 Battery failure	yes	yes
	8 Converter failure	yes	yes
	9 Charge/isol. failure	yes	yes
	10 Luminaire failure	yes	yes
↓ Low	11 Minimum duration	yes	yes

²⁾ If a communication fault is detected on the CG-S bus with one or more devices, the device with the highest device address is always displayed as the fault.

9 Menu

9.1 Menu overview

You can use the «Menu» key to bring up the **main menu**.

The table on the following page gives an overview of the overall menu structure.

9.2 Main screen

Line *LCD display:*

1	Software CG 2000/ZB-S
2	Status display
3	Fault display
4	13:29:17 26.10.2002

Operation: You can use the **Menu** key to switch to the main menu.

Variable displays can be set to *italic* in the LCD displays. If no device fault is present, Line 3 is empty.

Status and fault messages (Lines 2 and 3) are shown with the same priority as described in Section 6.1 and 6.2. The message will be displayed if at least one system has this fault/status. “Operation” is only displayed when all systems are reporting “Operation”. “Logbook active” or “Logbook saving” can also be displayed in Line 4.

9.2.1 Jump back to the main screen automatically

If no key is activated in a submenu for about 3 minutes, the system automatically switches to the main screen.

9.2.2 Cyclic data reception of emergency lighting systems

The information from the emergency lighting systems is read cyclically. This information is required for the status and fault display, the relay and the logbook.

9.2.2.1 Conditions for switching off cyclic data reception

If one or more of the following conditions are met, the polling machine will be switched off.

- The Search for devices process is active
- The Battery voltage menu is active
- Read network configuration
- Write network configuration
- Read/write network device luminaire text
- The Circuit status menu is active
- DLS_TLS_3PHW menu is active
- The Luminaire status menu is active
- Device selection menu in Info device
- Add devices menu
- Read CG-Controller configuration
- Write CG-Controller configuration
- Info menu active
- Read new CG-Controller configuration from PC -> CG-Controller
- New network device configuration from PC -> Device update

9.2.3 LCD back lighting

When a key is pressed, the display is lit up for about 3 minutes.

9.3 Main menu

1	test menu
2	Block, reset
3	Info device
4	Setup CG-Controller ↓



etc.



Menu Back to main screen

■ = current cursor position

Table 4: Menu overview

Main menu		1. Submenu	2. Submenu
Test menu		Functiontest all dev Functiontest one dev ———— Durationtest all dev Durationtest one dev ———— Cancel durationtest	Select device Select device
Block, reset		Block all Release all 1) Manual reset 1) ————	Select device
Info device 1)		Select device ————	Device status Fault messages Circuit-status Luminaire-status DLS/TLS/3PhW-status Charging-/bat.stat.
Setup CG-Controller		Select language Setup time and date Next functiontest Next durationtest Relay settings Serial number Customer Service information Password NID receive Network Master	1) Not password-protected.
Setup device		Find devices autom. Manually add/delete Synchronize clocks	
Memory card		Display logbook Delete logbook All devices -> SD Contr.config.-> SD Contr.config.<- SD Dev. config. -> SD Dev. config. <- SD Text -> SD Text <- SD	

 Cursor position lower
 Cursor position higher

 Select menu item (Enter)
 One menu level higher

9.4 «Test» menu

Line Selection (main menu)

1	Test menu
2	Block, reset
3	Info device
4	Setup CG-Controller ↓
5	Setup device

Operation:

- Flashing cursor = current cursor position/selection
- [Menu] Back to the main screen
- ↓ Cursor position lower
- ↑ Cursor position higher
- [Enter] Select menu item (Enter)

The menu displays in the «Test» menu and its submenus are described below. Submenus that work in a similar manner are combined into a single description.

9.4.1 Starting the functiontest FT or durationtest DT for individual devices

Line Selection (submenu)

1	Functiontest all dev
2	Functiontest one dev ■
3	Durationtest all dev
4	Durationtest one dev ↓
5	Cancel durationtest

Line Display:

1	Device address 1 ↔
2	Functiontest
3	start n/y
4	Device name

Operation:

- [Menu] One menu level higher
- ↓ Cursor position Line 1 → 3
- ↑ Cursor position Line 3 → 1
- [Enter] / [Left] Selection in Line 1: Next/previous device 3: Switch backing forth between “no/yes”
- [Enter] Starts the functiontest or durationtest

9.4.2 Starting the functiontest FT or durationtest DT for all devices

Line Selection (submenu)

1	Functiontest all dev
2	Functiontest one dev
3	Durationtest all dev ■
4	Durationtest one dev ↓
5	Cancel durationtest

Line Display:

1	Functiontest
2	All devices
3	Start n/y
4	

Operation:

- [Menu] One menu level higher
- [Enter] / [Left] Selection in Line 3: Switch backing forth between “no/yes”
- [Enter] Starts the functiontest or durationtest

9.4.3 Cancelling the operating duration test

Line Selection (submenu)

1	Functiontest all dev
2	Functiontest one dev
3	Durationtest all dev
4	Durationtest one dev
5	Cancel durationtest ■

Line Display:

1	Durationtest
2	Cancel
3	All devices n/y
4	

Operation:

- [Menu] One menu level higher
- [Enter] / [Left] Selection in Line 3: Cancel „no/yes“
- [Enter] Exits the durationtest that is currently running

9.5 «Block/reset» menu

Line Selection (main menu)

1	Test menu
2	Block, reset ■
3	Info device
4	Setup CG-Controller ↓
5	Setup device

Operation:

- Flashing cursor = current cursor position/selection
- Menu** Back to the main screen
- ↓ Cursor position lower
- ↑ Cursor position higher
- ↵ Select menu item (Enter)

Line Selection (submenu)

1	Block all ■
2	Release all
3	Manual reset
4	

9.5.1 Block / reset

If the menu items in Lines 1 or 2 are selected in the «Block, reset» menu and accepted with Enter, the function in question will be performed immediately!

9.5.2 Manual reset

If this menu item is identified with a * in cursor position 20, one or more devices are affected.

Line Selection (submenu)

1	Block all
2	Release all
3	Manual reset ■
4	

Line Display:

1	Device address XX↔
2	Manual reset
3	↵ reset
4	Device name

Operation:

- Menu** One menu level higher
- ↵ / ↵ Selection in Line 1: Next/previous device
- ↵ Reset and switch to the main screen

If a device has been affected, it can be reset with manual reset. After it has been reset, the next device is displayed with manual reset.

If no other device with manual reset is present, the manual reset menu closes.



Note:

The manual reset is for backspace the system by hand (or at CGVision) into general operation-mode after a mains failure. This is needed at operational dimmed locations (f.e. cinemas, etc.) so that the system is not reset automatically.

9.6 «Info device» menu (submenu 1)

First, select a device in the first submenu. The device cannot be selected until all the information has been read. After this, “Continue with ↵” appears in Line 4

Line Selection (main menu)

1	Test menu
2	Block, reset
3	Info device <input type="checkbox"/>
4	Setup CG-Controller ↓
5	Setup device

Line Selection (device)

1	Device address XX↔
2	Device status
3	Device failure
4	Device name

Operation:

- [Menu] One menu level higher
- ↔ / ↔ Selection in Line 1: Next/previous device
- ↵ Select device

Operation (main menu):

- Flashing cursor = current cursor position/selection

[Menu] Back to the main screen

↓ Cursor position lower

↑ Cursor position higher

↵ Select menu item (Enter)

9.7 Info device (submenu 2)

This is a list menu. You can scroll through it.

If a * is displayed in the last cursor position, this means that there are faults in this menu. The device status and error messages appear under 6.1 and 6.2 according to the lists as soon as there is a corresponding message from the current device. A maximum of 4 states or faults are displayed.

Line Selection (status display)

1	Device status <input type="checkbox"/>
2	Failure reports *
3	Circuit-status *
4	Luminaire-status *
5	DLS/TLS/3PHW-status *
6	Charging- /bat.stat.

Operation:

- [Menu] One menu level higher
- ↓ / ↑ Select the line
- ↵ Select the status display

9.7.1 Circuit status (device type=CG2000)

Possible status displays:

- OFF
- Mains operation
- Battery operation
- Normal operation

During communication with the system, «Please wait...» is displayed. If there is an error, the faulty communication process is automatically repeated. The read process then lasts somewhat longer.

Line Selection (status display)

1	Device status
2	Failure reports
3	Circuit-status <input type="checkbox"/>
4	Luminaire-status

Line Selection / display:

1	Circuit XX ↔
2	Status:
3	Status display
4	Circuit name

Operation:

- [Menu] One menu level higher
- ↔ / ↔ Selection in Line 1: Next/previous circuit

etc.

9.7.2 Circuit status (device type=ZB-S)

Line Selection (status display)

1	Device status
2	Failure reports
3	Circuit-status <input type="checkbox"/>
4	Luminaire-status

Line Selection / display:

1	Read
2	Current assignment
3	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4	Please wait

Operation:

- [Menu] One menu level higher

etc.

Line Selection / display:

1	SKU 1 / / circuit:1 ↔
2	Circuit-status:
3	Circuit failure
4	Circuit name

Operation:

- [Menu] One menu level higher
- ↔ / ↔ Selection in Line 1: Next/ previous SKU or circuit

9.7.2.1 Circuit status of ZB-S in line 2

Priority

high	1	Luminaire-search mode AC
↑	2	Luminaire-search mode DC
	3	Circuit-learn mode AC
	4	Circuit-learn mode DC
	5	Durationtest mode
	6	Functiontest mode AC
	7	Functiontest mode DC
	8	Battery mode (Battery emergency light)
	9	Mains mode
↓	10	Normal operation mode
low	11	block

9.7.2.2 Circuit failure of ZB-S in line 3

Priority

high	1	DC fuse
↑	2	AC fuse
	3	Luminaire failure DC
	4	if the measured current of last DC functiontest differs more than the permitted difference of learned DC measured current, which is set up at the device (list < Isoll)
	5	ISO Failure Plus
	6	ISO Failure Minus
	7	Luminaire failure AC
	8	if the measured current of last AC functiontest differs more than the permitted difference of learned AC measured current, which is set up at the device (list < Isoll)
↓	9	if battery voltage of the circuit is under deep discharge sill
the low		

During communication with the system, «Please wait...» is displayed. If there is an error, the faulty communication process is automatically repeated. The read process then lasts somewhat longer.

9.7.3 Luminaire status (device type=CG2000)

During communication with the system, «Please wait...» is displayed. If there is an error, the faulty communication process is automatically repeated. The read process then lasts somewhat longer. Directly after a functiontest it takes 100s until all datas are on the LON-bus.

Line Selection (status display)

1	Device status *
2	Failure reports *
3	Circuit-status *
4	Luminaire-status ■
5	DLS/TLS/3PHW-status *
6	Charging-/bat.stat.*

Line Selection / display:

1	Circuit XX ←→
2	...5...10...15...20
3	□ ■ □ -----
4	Name

For additional information on the content of Lines 2 and 3: See the info box below.

Operation:

- [Menu] One menu level higher
- [←] / [→] Selection in Line
 - 1: Next/previous circuit
 - 3: Next/previous luminaire (if luminaire overview mode is activated; i.e. if the cursor is in Line 2)
- [↓] Selection: Luminaire name
- [↑] Selection: Luminaire overview

9.7.4 Luminaire status (device type=ZB-S)

During communication with the system, «Please wait...» is displayed. If there is an error, the faulty communication process is automatically repeated. The read process then lasts somewhat longer.

Line Selection (status display)

1	Device status *
2	Failure reports *
3	Circuit-status *
4	Luminaire-status ■
5	DLS/TLS/3PHW-status *
6	Charging-/bat.stat.*

Line Display:

1	Read
2	Current assignment
3	
4	Please wait...

Line Selection / display:

1	Circuit XX ←→
2	...5...10...15...20
3	Luminaire information
4	Name

If no luminaire is present in the selected circuit, „No luminaire info“ is displayed.

For additional information on the content of Lines 2 and 3: See the info box below.

Operation:

- [Menu] One menu level higher
- [←] / [→] Selection in Line
 - 1: Next/previous circuit
 - 3: Next/previous luminaire (if luminaire overview mode is activated; i.e. if the cursor is in Line 2)
- [↓] Selection: Luminaire name
- [↑] Selection: Luminaire overview

Line 2 shows luminaire numbers from 1 to 20	<i>Name</i> = current name if the cursor is in Line 1.
Line 3 shows luminaire information:	
□ ■ □ -----	<i>Name</i> = luminaire name if the cursor is in Line 2. An arrow points to the selected luminaire.
Meanings of the icons:	
□ lum. is turned off	
■ lum. is turned on	
□ lum. is defective	
— no lum. present (not programmed in the luminaire setup)	

9.7.5 DLS/TLS/3PhW-status (device type=CG2000)

During communication with the system, «Please wait...» is displayed.

If no communication with the CG 2000 is possible, the message «Transmission fault» appears in Line 2.

You can refresh the display by switching to another circuit/input.

Line	Selection (status display)
1	Device status *
2	Failure reports *
3	Circuit-status *
4	Luminaire-status *
5	DLS/TLS/3PhW-status <input type="checkbox"/>
6	Charging-/bat.stat. *

Line	Display (DLS/3PhW module)
1	DLS:XX input: YY↔
2	Operating status
3	Phase failure:L1L2L3
4	DLS name

Operation:
 [Menu] One menu level higher
 [↔] Selection in Line 1:
 Next/previous input

9.7.6 DLS/TLS/3PhW-status (device type=ZB-S)

During communication with the system, «Please wait...» is displayed.

Line	Selection (status display)
1	Device status *
2	Failure reports *
3	Circuit-status *
4	Luminaire-status *
5	DLS/TLS/3PhW-status <input type="checkbox"/>
6	Charging-/bat.stat. *

Line	Display (DLS/3PhW module)
1	Read
2	DLS/TLS3Ph assignment
3	
4	Please wait...

Operation:
 [Menu] One menu level higher

Line	Display (no modules present)
1	No DLS/TLS3PhW
2	
3	
4	Continue with ↵

Operation:
 [↵] One menu level higher

Line	Display (for DLS modules)
1	DLS module external XX ↔
2	1 2 3 4 5 6 7 8
3	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4	DLS name

Operation:
 [Menu] One menu level higher
 [↔] / [↔] Selection in Line 1:
 Next/previous module
 Line 3: /■ (turned on/off)

Line	Display (for TLS modules)
1	TLS module external XX ↔
2	1 2
3	<input type="checkbox"/> <input type="checkbox"/>
4	TLS name

Operation:
 [Menu] One menu level higher
 [↔] / [↔] Selection in Line 1:
 Next/previous module
 Line 3: /■ (turned on/off)

Line	Display (for 3PhW modules)
1	3Ph module external XX ↔
2	1 2 3 4 5 L1 L2 L3
3	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4	3PhW name

Operation:
 [Menu] One menu level higher
 [↔] / [↔] Selection in Line 1:
 Next/previous module
 Line 3: /■ (turned off/on)

9.7.7 Charging-/bat.status

If no communication with the CG 2000 is possible, the message «Communication failure» appears in Line 4.

Line	Selection (status display)
1	Device status *
2	Failure reports *
3	Circuit-status *
4	Luminaire-status *
5	DLS/TLS/3PhW-status *
6	Charging-/bat.stat. <input type="checkbox"/>

Line	Sample display
1	U=54 V I2=+0.1A
2	T=21.8°C BT:00:00h
3	
4	

Operation:
 [Menu] One menu level higher

9.8 «Setup CG-Controller» menu

Line Selection (main menu)

1	Test menu
2	Block, reset
3	Info device
4	Setup CG-Controller <input type="checkbox"/>
5	Setup device

Operation:

- Flashing cursor = current cursor position/selection
- [Menu] Back to the main screen
- ↓ Cursor position lower
- ↑ Cursor position higher
- ↵ Select menu item (Enter)

9.8.1 Select language

Line Selection (submenu)

1	Select language <input type="checkbox"/>
2	Setup time and date
3	Next functiontest
4	Next durationtest
5	Relay settings
6	Serial number
7	Password
8	Contr. config.→SD
9	Contr. config.←SD
10	Logbook
11	NID receive
12	Network Master

Line Display

1	Sprache: deutsch ■
2	Language: English
3	
4	

Operation:

- [Menu] Accept language
- ↓ / ↑ Language selection (by selecting the line)
- ↵ Accept language

9.8.2 Time and date

Line Selection (submenu)

1	Select language
2	Setup time and date <input type="checkbox"/>
3	Next functiontest
4	Next durationtest
5	Relay settings
6	etc.

Line Display

1	Time and date
2	14:15 13.09.2002
3	Change ↓ ↑ ⇐ ⇨
4	↵ = Accept

Operation:

- [Menu] Accept settings and one menu level higher
- ⇐ / ⇨ Insertion pointer (cursor) left/right
- ↓ / ↑ Reduce/increase value
- ↵ Accept and one menu level higher

9.8.2.1 Switching to daylight savings time

You can switch to daylight savings time by pressing the 7 key in the «Time and date» submenu item.
The hour is increased by 1. 7 key = PQRS **S** = Daylight savings time.

9.8.2.2 Switching back to standard time

You can switch back to standard time by pressing the 9 key in the «Time and date» submenu item.
The hour is decreased by 1. 9 key = **WXYZ W** = Standard time.

9.8.3 Next FT

Line Selection (submenu)

```

1 Select language
2 Setup time and date
3 Next functiontest
4 Next durationtest
5 Relay settings
6 etc.
```

Line Display:

```

1 Next FT
2 14:15 13.09.2002
3 Change ↓ ↑ ⇌ ⇐
4 Interval in days:007

1 Start all devices
2 Prg. next FT
3 Device =01
4 Please wait
```

Operation:

[Menu] Accept and one menu level higher
 ⇌ / ⇐ Insertion pointer (cursor) left/right
 ↓ / ↑ Reduce/increase value
 Setting range 1 ... 365
 Default value: 7 days
 ⇓ Accept and one menu level higher

If you exit the menu item with [Menu] or ⇓ the new data (time and date, for example 14:15 13.09.2002) of the next functiontest will be transferred to the emergency lighting system in the next step.

9.8.3.1 Next FT safety function

The new time for the next function test will be sent to all devices that are present. You can use this safety function, however, to transfer time “Next FT” + 1 hour. After that, 15:15 20.09.2002 will appear in the menu item «Basic settings → Functiontest» in the connected devices.

However, the CG -Controller will perform the next function test on all devices on 20.09.2002 at 14:15. If the CG-Controller happens to be out of operation, the emergency lighting systems will automatically perform the next function test on 20.09.2002 at 15:15 as a safety function.

9.8.4 Next BT

Line Selection (submenu)

```

1 Select language
2 Setup time and date
3 Next functiontest
4 Next durationtest
5 Relay settings
6 etc.
```

Line Display:

```

1 Next BT
2 14:15 13.09.2002
3 Change ↓ ↑ ⇌ ⇐
4 Interval in mon.: 11

1 Start all devices
2 Prg. next BT
3 Device =01
4 Please wait
```

Operation:

[Menu] Accept and one menu level higher
 ⇌ / ⇐ Insertion pointer (cursor) left/right
 ↓ / ↑ Reduce/increase value
 Setting range 1 ... 12
 Default value: 12 months
 ⇓ Accept and one menu level higher

If you exit the menu item with [Menu] or ⇓ the new data (time and date, for example 14:15 13.09.2002) of the next function test will be transferred to the emergency lighting system in the next step.

9.8.4.1 Next DT safety function

The new time for the next durationtest will be sent to all devices that are present. You can use this safety function, however, to transfer time “Next DT” + 1 hour. After that, 15:15 13.08.02 will appear in the menu item «Basic settings → Durationtest» in the connected devices.

However, the CG-Controller will perform the next durationtest on all devices on 13.08.02 at 14:15. If the CG-Controller happens to be out of operation, the emergency lighting systems will automatically perform the next durationtest on 13.08.02 at 15:15 as a safety function.

9.8.5 Relay settings

The relay is only activated if at least one emergency lighting system has reported.

An asterisk at the end of a line indicates that the relay will switch for this status or fault display.

Line	Selection (submenu)
1	Select language
2	Setup time and date
3	Next functiontest
4	Next durationtest
5	Relay settings <input type="checkbox"/>
6	Serial number
7	Password
8	Contr. config.→SD
9	Contr. config.←SD
10	Logbook
11	NID receive
12	Network Master

Line	Display:
1	-----
2	Relay
3	Status: OFF
4	continue with ↵

Operation:
 [Menu] back to the menu level
 [↵] to the menu relay settings

Line	Display: (ex. CG 2000)	Fault Priority
1	Manual reset	
2	DT running	
3	FT running	
4	Deep discharge protection *	
5	Blocked ↓	
6	Operation	
7	Battery operation	
8	DLS/TLS/3PhW failure	
9	Com. Device fault	1
10	Mains failure of UV S3/S4	3
11	Mains failure of UV RS485	4
12	Mains failure of device	2
13	Sum failure *	5
14	Transmission failure	6
15	Battery failure *	7
16	Converter failure *	8
17	Charge/isol.failure *	9
18	Luminaire failure *	10
19	Capacity to low	11
20	Relay completely off	12
21	Default setting	

Operation:
 [Menu] Accept and one menu level higher
 [↓] / [↑] Line selection (lower/higher)
 [↵] Activation/deactivation of the relay:
 Relay switches = *
 Relay does not switch = none *

For the system ZB-S there are the following differences:

- line 15: Charge-/battery failure
- line 16: Circuit failure

9.8.5.1 Activation time of relay

The relay only gets activated at the end of one polling round, that means after request of all status information.

Because of that there could occur delays according to activation. The more systems are registered the longer takes one polling round.

9.8.5.2 Default relay setting

If the default setting in Line 20 is activated, the relay settings indicated in the sample display with an asterisk will become active

No	Status message	Fault message
1	Deep discharge protection	
2		Sum failure
3		Battery failure
4		Circuit failure
5		Charge/isol. failure
6		Luminaire failure

9.8.6 Serial number

Line	Selection (submenu)
2	Setup time and date
3	Next functiontest
4	Next durationtest
5	Relay settings
6	Serial number
7	Customer Service info.

Line	Display:
1	Serial No: 123456/78
2	
3	
4	

Operation:
 [Menu] One menu level higher
 [Left Arrow] one menu level higher

The serial number only gets displayed and is not changeable.

9.8.7 Customer Service Information

Line	Selection (submenu)
2	Setup time and date
3	Next functiontest
4	Next durationtest
5	Relay settings
6	Serial number
7	Customer Service info.

Line	Display:
1	Z721.A 02 may 2007
2	Z771.0 08 dec 2006
3	Z710.D 18 jul 2003
4	

Operation:
 [Menu] One menu level higher
 [Left Arrow] one menu level higher

Displays the software versions:
 1: control unit
 2: memory card
 3: LON-card

9.8.8 Password

9.8.8.1 Activate password

Line	Selection (submenu)
3	Next functiontest
4	Next durationtest
5	Relay settings
6	Serial number
7	Customer Service info.
8	Password

Line	Display:
1	Password:
2	De-activated
3	
4	Activate n/y

Operation:
 [Menu] changes one menu
 [Up Arrow] higher
 [Right Arrow] right
 [Left Arrow] left

9.8.8.2 Deactivate password

Line	Display:
1	Password:
2	Activated
3	
4	De-activated n/y

Operation:
 [Menu] changes one menu
 [Up Arrow] higher
 [Right Arrow] right
 [Left Arrow] left

9.8.8.3 Activate submenu password

Line	Display:	Operation:
1	Enter password	<input type="text" value="0"/> ... <input type="text" value="9"/> Password entry
2	Activated	<input type="checkbox"/> Accept
3	Password (6 digits)	
4	Password █23456	

To enter numbers, use the numeric keypad.

9.8.8.4 Menu password inquiry

If the password is activated, functions on the CG-Controller are not possible unless the password has been previously entered.

Line	Display:	Operation:
1	Password:	<input type="text" value="0"/> ... <input type="text" value="9"/> Password entry
2	Activated	<input type="checkbox"/> Accept
3	Password (6 digits)	
4	Password: █23456	



For emergency cases: If you have forgotten your password, your dealer can ask for a general password for you from the manufacturer/customer service.

Line	Selection (submenu)
6	Serial number
7	Customer service info.
8	Password
9	NID receive <input type="checkbox"/>
10	Network Master

9.8.9 NID receive

9.8.9.1 Waiting for a service request message

Line	Sample display:	Operation:
1	Receive	<input type="text" value="Menu"/> One menu level higher
2	Service Request MSG	
3		
4	Please wait...	

9.8.9.2 Service Request Message received

Line	Sample display:	Operation:
1	Receive	<input type="text" value="Menu"/> One menu level higher
2	Service Request MSG	
3	ID=00 00 33 98 68 00	
4	<input type="checkbox"/> Back	

9.8.10 Network Master

The CG-Controller is in Master mode by default. This mode is selected if the emergency lighting system does not have any additional control monitoring system available. If the CG-Controller is being operated in parallel with other control monitoring units, it must work in Observer mode.

The following items are not supported in Observer mode:

- CG-Controller logbook
- Next functiontest in the «Setup CG-Controller» menu
- Next durationtest in the «Setup CG-Controller» menu

Line	Selection (submenu)
8	Serial number
9	Customer service info.
10	Password
11	NID receive
12	Network Master <input type="checkbox"/>

Line	Sample display:	Operation:
1	CG-Controller Z/20.A	<input type="text" value="Menu"/> One menu level higher
2	Operate as master?	<input type="checkbox"/> / <input type="checkbox"/> Select no/yes
3		<input type="checkbox"/> Confirm selection
4		

9.9 «Setup device» menu

Line Selection (main menu)

1	Test menu
2	Block, reset
3	Info device
4	Setup CG-Controller
5	Setup device █

Operation:

- █ Flashing cursor = current cursor position/selection
- [Menu] Back to the main screen
- ↓ Cursor position deeper
- ↑ Cursor position higher
- ↵ Select menu item (Enter)

9.9.1 Find devices autom.

After you have selected the menu, a search is performed for the devices.

Note: The search deletes all existing devices!
If any devices are present, they will be found.

Line Selection (submenu)

1	Find devices autom. █
2	Manually add/delete
3	Synchronize clock

Line Display:

1	Automatic search
2	Deletes man. devices!
3	Start n/y
4	

Operation:

- [Menu] Stop search

9.9.1.1 «Searching for device» message (CG-Controller type=CG2000)

Line Display:

1	CG 2000 address= 01
2	
3	Please wait...
4	Menu = cancel surching

Operation:

- [Menu] Stop search

9.9.1.2 «Searching for device» message (CG-Controller type=ZB-S)

Line Display:

1	ZB-S address= 01
2	
3	Please wait...
4	Menu = cancel surching

Operation:

- [Menu] Stop search

9.9.1.3 «Device found» message

Line Display:

1	Adr.=01 found
2	ID=01 02 03 04 05 06
3	Please wait...
4	Menu = cancel surching

Operation:

- [Menu] Stop search

9.9.1.4 «Device not found» message

Line Display:

1	Adr.=01 not found
2	
3	Please wait...
4	Menu = cancel surching

Operation:

- [Menu] Stop search

A precondition for searching for emergency lighting systems is that on the emergency lighting system in the menu item «Basic settings» -> «Connection to the » a device address must have been set to greater than zero and must be unique. A device address may only be assigned once on the network of all emergency lighting systems.

9.9.1.5 Error analysis for Finding device autom.

If you are working on the emergency lighting system with the Lonmaker, for example, the domain may be out of adjustment in some cases.

For the CG-Controller to search for emergency lighting systems, the domain length must be equal to zero (standard delivery configuration of CG 2000 emergency systems). If the domain of your emergency lighting system needs to be reinitialised, please contact the GEAG plant customer service department.

9.9.2 Adding/deleting manually (device type=CG2000/ZB-S)

9.9.2.1 Device already present

Line	Selection (submenu)	Line	Display:	Operation:
1	Find devices autom.	1	Device address: 01↔	Menu One menu level higher
2	Manually add/delete <input type="checkbox"/>	2	Address is assigned ↔	↔ / ↔ Change
3	Synchronize clock	3	ID=12 34 56 78 12 34	↑ Previous input field
		4	Device name	↓ Next input field

9.9.2.2 Device not yet present

Line	Display:	Operation:
1	Device address: 01↔	Menu One menu level higher
2	Address is free ↔	↔ / ↔ Change
3	ID=00 00 00 00 00 00	↑ Previous input field
4	Device name	↓ Next input field

First, in Line 1, in the "No.:" input box, select the system number. After that, select "Add manually = yes" in Line 2.

Line	Display:	Operation:
1	Device address: 01↔	Menu One menu level higher
2	Add manually. n/y	↔ / ↔ Change type
3	ID=00 00 00 00 00 00	↑ Previous input field
4		↓ Switch to ID input

This follows by input of the NID.

Line	Display:	Operation:
1	Device address: 01↔	Menu One menu level higher
2		↔ / ↔ Select byte
3	ID= 01 00 00 00 00 00	↓ / ↑ Change byte
4	Device name	↵ Confirm selection

After entering the NID and ENTER the device name is displayed in line 4. If the wrong NID has been entered, communication failure is displayed in line 4.

9.9.3 Synchronising clocks

A precondition for synchronising the clocks of all emergency lighting systems is that at least one emergency lighting system must be logged in on the CG-Controller.

Line Selection (submenu)

1	Find device autom.
2	Manually add/delete
3	Synchronize clock?

9.9.3.1 Initiating synchronisation manually

Line Line

1	Synchronize all devices
2	with the CG
3	controller clock n/y
4	16:06:112 29.10.2002

Operation:

	One menu level higher
/	Selection in Line 3: yes / no
	Confirm selection

9.9.3.2 Automatic synchronisation of all clocks

The clocks of all devices will automatically be synchronized to each other for the following events:

1. After an automatic search for devices
2. After manually adding devices
3. After changing the time on the CG-Controller
4. After switching between standard and daylight savings time
5. After starting a functiontest automatically
6. After starting an durationtest automatically
7. After programming a functiontest
8. After programming a durationtest

This synchronisation takes place automatically in the background so that no actions are required on the CG-Controller.

9.10 Memory Card

9.10.1 Display logbook

Line Selection (submenu)

1	Display logbook
2	Delete logbook
3	All devices -> SD
4	Contr.config.->SD
5	Contr.config.<-SD
6	Dev.config. -> SD
7	Dev.config.<- SD
8	Text -> SD
9	Text <- SD

Line Sample display:

1	13.08.2002 17:15:26
2	No.:12345 dev.: XX
3	Event
4	Selection

Operation:

	One menu higher
	previous event
	vorheriges Ereignis
	last event
	first event
	detailed event-display

9.10.1.1 Detailed logbook-event display

Line Sample display:

1	Luminaire failure DC
2	Circuit: 06
3	1...5...0...5...2
4	

Operation:

	One menu higher
	Back

9.10.2 Delete logbook

```

Line Selection (submenu)
1 Display logbook
2 Delete logbook
3 All devices -> SD
4 Contr. config.->SD
5 Contr. config.<-SD
6 Dev.config.-> SD
  
```

```

Line Sample display:
1: Delete logbook
2:
3: n/y
4:
  
```

Operation:
 [Menu] One menu level higher
 [↔] / [←] yes / no
 [↵] Confirm selection

! Attention:
 After this action the logbook has been deleted irrevocable!

9.10.3 All devices -> SD

Save all systems and controller configurations.

```

Line Selection (submenu)
1 Display logbook
2 Delete logbook
3 All devices->SD
4 Contr. config.->SD
5 Contr. config.<-SD
6 Dev.config.-> SD
  
```

```

Line Display:
1:
2: Contr.config.->SD
3: ██████████
4:
  
```

Operation:
 [Menu] One menu level higher
 [↵] Confirm selection

The more numbers of systems are installed the more time for memory is needed!

First, the CG Controller configuration is saved on SD. Then the device configuration and the texts are read and saved. With the help of this the following information gets read and saved from all devices:

- CG-Controller configuration on memory card
- Luminaire texts
- Circuit names
- DLS, TLS, 3PhW-names
- Device configuration

9.10.4 Saving the controller configuration (Contr. config.->SD)

```

Line Selection (submenu)
1 Display logbook
2 Delete logbook
3 All devices->SD
4 Contr. config.->SD
5 Contr. config.<-SD
6 Dev.config.-> SD
  
```

```

Line Display:
1: Contr. config.->SD
2:
3: n/y
4:
  
```

Operation:
 [Menu] One menu level higher
 [↔] / [←] Select yes/no
 [↵] Confirm selection

9.10.5 Loading the controller configuration (Contr. config.<-SD)

```

Line Selection (submenu)
1 Display logbook
2 Delete logbook
3 All devices->SD
4 Contr. config.->SD
5 Contr. config.<-SD
6 Dev.config.-> SD
  
```

```

Line Display:
1: Contr. config.<-SD
2:
3: n/y
4:
  
```

Operation:
 [Menu] One menu level higher
 [↔] / [←] Select yes/no
 [↵] Confirm selection

9.10.6 Saving the device configuration in the CG-Controller to SD (dev. config. → SD)

Line	Selection (submenu)
3	All devices→SD
4	Contr.config.→SD
5	Contr.config.←SD
6	Dev. config.→SD
7	Dev. config.←SD
8	Text←SD
9	Text→SD

Line	Display
1	Device address
2	Dev. config.→SD
3	Start n/y
4	Device name

Operation:
[Menu] One menu level higher
 Line 1:
[→] Next device
[←] Previous device
 Line 3:
[→] Yes
[←] No
[↵] Confirm selection

The following message appears while the configuration of the device is being read and saved to the SD:

Line	Display
1	
2	Dev. config.→SD
3	Percentage: 01%
4	Est. duration 33 min.

Operation:
[Menu] Cancel
 (you may need to hold the key down for longer)

If a fault is detected while writing to the SD, the following message appears:

Line	Display
1	
2	Dev. config.→SD
3	SD write fault
4	Continue with [↵]

Operation:
[Menu] One menu level higher
[↵] Confirm fault

Line	Selection (submenu)
3	All devices→SD
4	Contr.config.→SD
5	Contr.config.←SD
6	Dev. config.→SD
7	Dev. config.←SD
8	Text←SD
9	Text→SD

9.10.7 Sending a device configuration from the CG-Controller to the device (dev. config. ←SD)

Line	Display
1	Device address
2	Dev. config.←SD
3	Start n/y
4	Device name

Operation:
[Menu] One menu level higher
 Line 1:
[→] Next device
[←] Previous device
 Line 3:
[→] Yes
[←] No
[↵] Confirm selection

The following message appears while the configuration of the device is being read and saved to the SD:

Line	Display
1	
2	Dev. config.←SD
3	Percentage: 01%
4	Est. duration 11 min.

Operation:
[Menu] Cancel
 (you may need to hold the key down for longer)

If a fault is detected while reading from the SD, the following message appears:

Line	Display
1	
2	Dev. config.←SD
3	SD read fault
4	Continue with [↵]

Operation:
[Menu] One menu level higher
[↵] Confirm fault



Note:
 Cancelling the device configuration by pressing the Menu key will result in an incomplete data transfer!

9.10.8 Reading texts from the device and saving to SD (Text → SD)

Line	Selection (submenu)
3	All devices→SD
4	Contr.config.→SD
5	Contr.config.←SD
6	Dev. config.→SD
7	Dev. config.←SD
8	Text←SD
9	Text→SD

Line	Display
1	Device address
2	Text→SD
3	Start n/y
4	Device name

- Operation:**
- [Menu] One menu level higher
 - Line 1:
 - [→] Next device
 - [←] Previous device
 - Line 3:
 - [Y] Yes
 - [N] No
 - [↵] Confirm selection

The following message appears while the texts from the device are being read and saved to the SD:

Line	Display
1	Luminaire name
2	Text→SD
3	Percentage: 01%
4	Est. duration 220 min.

- Operation:**
- [Menu] Cancel (you may need to hold the key down for longer)

If a fault is detected while writing to the SD, the following message appears:

Line	Display
1	Text→SD
2	SD write fault
3	Continue with
4	

- Operation:**
- [Menu] One menu level higher
 - [↵] Confirm fault

9.10.9 Sending texts from the CG-Controller to the device (Text ← SD)

Line	Selection (submenu)
2	Delete logbook
3	All devices→SD
4	Contr.config.→SD
5	Contr.config.←SD
6	Dev. config.→SD
7	Dev. config.←SD
8	Text←SD
9	Text→SD

Line	Display
1	Device address
2	Text←SD
3	Start n/y
4	Device name

- Operation:**
- [Menu] One menu level higher
 - Line 1:
 - [→] Next device
 - [←] Previous device
 - Line 3:
 - [Y] Yes
 - [N] No
 - [↵] Confirm selection

The following message appears while the texts from the device are being read and saved to the SD:

Line	Display
1	Text←SD
2	Percentage: 58%
3	Est. duration 55 min.
4	

- Operation:**
- [Menu] Cancel (you may need to hold the key down for longer)

If a fault is detected while reading from the SD, the following message appears:

Line	Display
1	Text←SD
2	SD read fault
3	Continue with
4	

- Operation:**
- [Menu] One menu level higher
 - [↵] Confirm fault

The following message appears when no memory card is inserted in the **CG 2000**:

Line	Display
1	Text←SD
2	No SD in the device
3	Continue with
4	

- Operation:**
- [Menu] One menu level higher
 - [↵] Confirm fault

10 CG-Controller configuration created from PC software

After a SD is inserted, the address 0x060 inconfigcg.dat is tested. If the CG-Controller detects a new CG-Controller configuration for the PC software, the place is 0x01.

Line	Display:	Operation:
1	New CG controller	[Menu] One menu level higher
2	Accept configuration of	[→] / [←] Select yes/no
3	SD n/y	[↵] Confirm selection
4		

If confirmed with yes, the new configuration will be accepted as follows:

10.1 Read new configcg.dat from SD automatically

Line	Display:
1	New configuration
2	Load ...
3	Read configcg.dat..
4	Please wait...

10.2 Find devices automatically

Line	Display:
1	
2	Automatic search
3	□ □ □ □ □
4	Please wait...

10.3 Save Configcg.dat to SD

Line	Display:
1	New configuration
2	Save....
3	Save configcg.dat
4	Please wait...

At the end Byte EE_NewConfigCG at 0x060 is set to 0xFF.

10.3.1 Network device configuration created from PC software

First the system performs the steps described under «10 CG-Controller configuration created from PC software». The PC software sets the address 0x060 in configcg.dat on 0x01 if devices have been deleted or added.

After that the device status of all network systems is tested. If the device status of a system = 0x02, configxx.dat and textxx.dat will automatically be downloaded to this system. All systems marked with 0x02 on the SD will be updated. Finally the CG-Controller sets 0x060 on 0xFF and the particular device status on 0x01.

Line	Display:	Operation:
1	New network devices	Menu One menu level higher
2	Accept configuration of	/ Select yes/no
3	SD	Confirm selection
4		

If confirmed with „Yes“, the new network configuration and texts will be accepted as follows:

10.3.1.1 Transfer text to the device

Line	Display:	Operation:
1	Update dev. 01	Menu Cancel
2	Luminaire text ← SD	Cancel
3	Percentage: 36 %	
4	Est. duration 04 min.	

After the texts have been transferred, the network configuration will be transferred.

10.3.1.2 Transfer network configuration to the device

Line	Display:	Operation:
1	Update dev. 01	Menu Cancel
2	Luminaire text ← SD	Cancel
3	Percentage: 48 %	
4	Est. duration 01 min.	

10.3.1.3 Cancel the download process (configXX, texteXX/CG 2000)

Line	Display:	Operation:
1		
2	Process cancelled	confirm
3		
4	Continue with	

10.3.1.4 Ending the download (configXX, texteXX/CG 2000)

Line	Display:	Operation:
1		
2	Process terminated	confirm
3		
4	Continue with	

11 LED displays

11.1 LED indicators „Ready for operation“ “Test mode” and „Failure“

11.1.1 Control module (LED displays)

11.1.1.1 Ready for operation

The front plate of the CG-Controller shows the “Ready for operation” state with a green LED.

- LED green on =
The entire „Emergency lighting“ system is ready for operation.

11.1.1.2 Test mode

The front plate of the CG-Controller shows the “Test mode” state with a yellow LED.

- LED yellow on =
One or more emergency lighting systems are in test mode.

11.1.1.3 Failure

The “Failure” status is indicated by a red LED.

- LED red on = One or more emergency lighting systems are reporting a failure.

Table 5: LED indicators

No:	One or more emergency lighting systems	Ready for operation LED green on	Test mode LED yellow on	Failure LED red on
1	Manual reset	X		X
2	Functiontest		X	
3	Durationtest		X	
4	Deep discharge protection			X
5	Block			X
6	Operation	X		
7	Mains failure of UV S3/S4	X		X
8	Mains failure of UV RS485	X		X
9	Mains failure of device			X
10	RS485 transmission fault	X		X
11	Battery failure			X
12	Converter failure			X
13	Charge-/isol. failure			X
14	Luminaire failure	X		X
15	Not enough capacity			X
16	Battery operation			X
17	CG-S bus communication failure			X

12 Secure-Digital-Memory Card SD

12.1 Device configurations

12.1.1 Configuring devices with SD

You can use the «Setup device» / «Dev. config. ← SD» menu item to configure devices. This configuration can then be transferred to the devices with the Secure-Digital-Memory Card SD (see Figure 2).

12.1.2 Reading the device configuration and saving to SD

You can use the «Setup device» / «Dev. config. → SD» menu item to save the device configuration to the Secure-Digital-Memory Card (see Figure 3).

12.2 Logbook

Logbook entries are retrieved by the system on a regular basis. Entries that are read are saved on the SD of the CG controller.

If no SD is plugged in, the logbook is located in EPROM.

12.2.1 Layout of the logbook

The logbook of the CG-Controller is located on an SECURE-DIGITAL-MEMORY CARD (SD).

The CG-Controller logbook is compatible with the logbook of the CG 2000, i.e. the two have the same structure.

By default, the SD holds 66 or 130 files:

- ❑ configcg.dat = CG controller configuration
- ❑ logbook.dat = CG controller logbook and (CG 2000):
- ❑ config01.dat – config32.dat = configurations of network systems device XX
- ❑ texte01.dat – texte32.dat = text of network systems device XX or (ZB-S):
- ❑ zbscfg01.dat – zbscfg32.dat = configurations of network systems device
- ❑ zbstxt01.dat – zbstxt32.dat = Text of network systems device XX

Content of files:

- ❑ configcg.dat: This file contains the configuration of the CG-Controller and is located on the SD.
- ❑ logbook.dat: This file contains the logbook of the CG-Controller and is also located on the SD.

Depending on the controller type (CG 2000 or ZB-S), additional files are saved on the SD:

- ❑ configxx.dat and textexx.dat for controller type = CG 2000
- ❑ zbscfgxx.dat and zbstxtxx.dat for controller type = ZB-S

Figure 6:

Data flow from a PC via SD and CG-Controller to the devices of network systems
 The "Emergency lighting system" means the corresponding CG 2000 or ZB-S controller systems for the respective controller type.

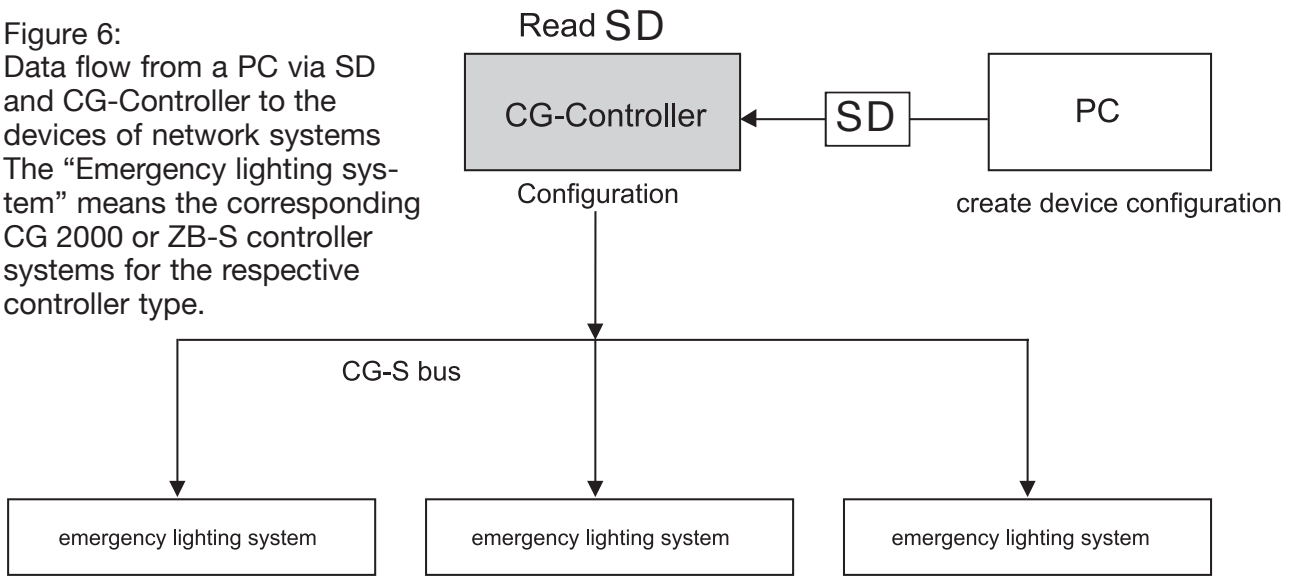
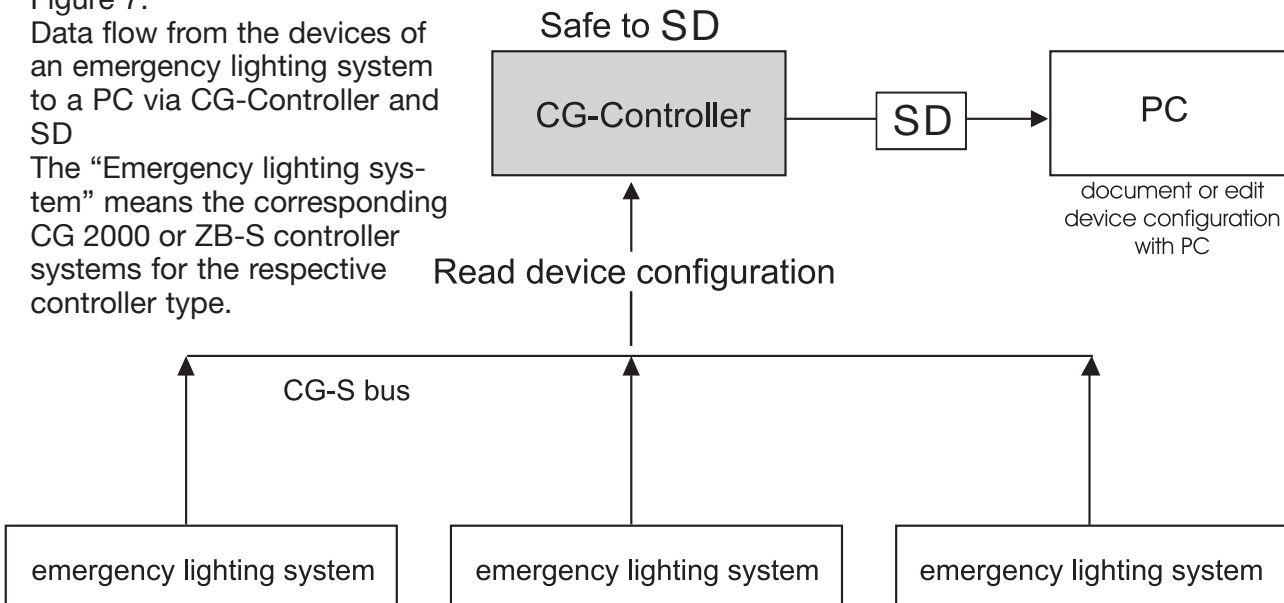


Figure 7:

Data flow from the devices of an emergency lighting system to a PC via CG-Controller and SD
 The "Emergency lighting system" means the corresponding CG 2000 or ZB-S controller systems for the respective controller type.



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