DEIF

-power in control

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QUICK START GUIDE

Compact Genset Controller, CGC 400

- What's in the delivery?
- The first steps
- Push-buttons and LEDs

1. General information

2. What's in the delivery?

3. The first steps

4. Display push-buttons and LEDs

1. General information

1.1 Warnings, legal information and safety

1.1.1 Warnings and notes

Throughout this document, a number of warnings and notes with helpful user information will be presented. To ensure that these are noticed, they will be highlighted as follows in order to separate them from the general text.

Warnings

⚠ **Warnings indicate a potentially dangerous situation, which could result in death, personal injury or damaged equipment, if certain guidelines are not followed.**

Notes

ⓘ **Notes provide general information, which will be helpful for the reader to bear in mind.**

1.1.2 Legal information and disclaimer

DEIF takes no responsibility for installation or operation of the generator set. If there is any doubt about how to install or operate the engine/generator controlled by the unit, the company responsible for the installation or the operation of the set must be contacted.

⚠ **The unit is not to be opened by unauthorised personnel. If opened anyway, the warranty will be lost.**

Disclaimer

DEIF A/S reserves the right to change any of the contents of this document without prior notice.

1.1.3 Safety issues

Installing and operating the unit may imply work with dangerous currents and voltages. Therefore, the installation should only be carried out by authorised personnel who understand the risks involved in working with live electrical equipment.

⚠ **Be aware of the hazardous live currents and voltages. Do not touch any AC measurement inputs as this could lead to injury or death.**

1.1.4 Electrostatic discharge awareness

Sufficient care must be taken to protect the terminal against static discharges during the installation. Once the unit is installed and connected, these precautions are no longer necessary.

1.1.5 Factory settings

The unit is delivered from factory with certain factory settings. These are based on average values and are not necessarily the correct settings for matching the engine/generator set in question. Precautions must be taken to check the settings before running the engine/generator set.

1.2 About the Quick Start Guide

1.2.1 General purpose

This Quick Start Guide mainly includes general product information and descriptions of terminals, push-button functions and LED functions.

The general purpose of this document is to help the user with the first steps of installing and using the CGC 400.

⚠️ **Please make sure that you also read the Installation Instructions before starting to work with the controller and the genset to be controlled. Failure to do this could result in human injury or damage to the equipment.**

1.2.2 Intended users

This Quick Start Guide is mainly intended for the panel builder in charge. On the basis of this document, the panel builder designer will give the electrician the information he needs in order to get started with the installation. For detailed electrical drawings, please see the Installation Instructions.
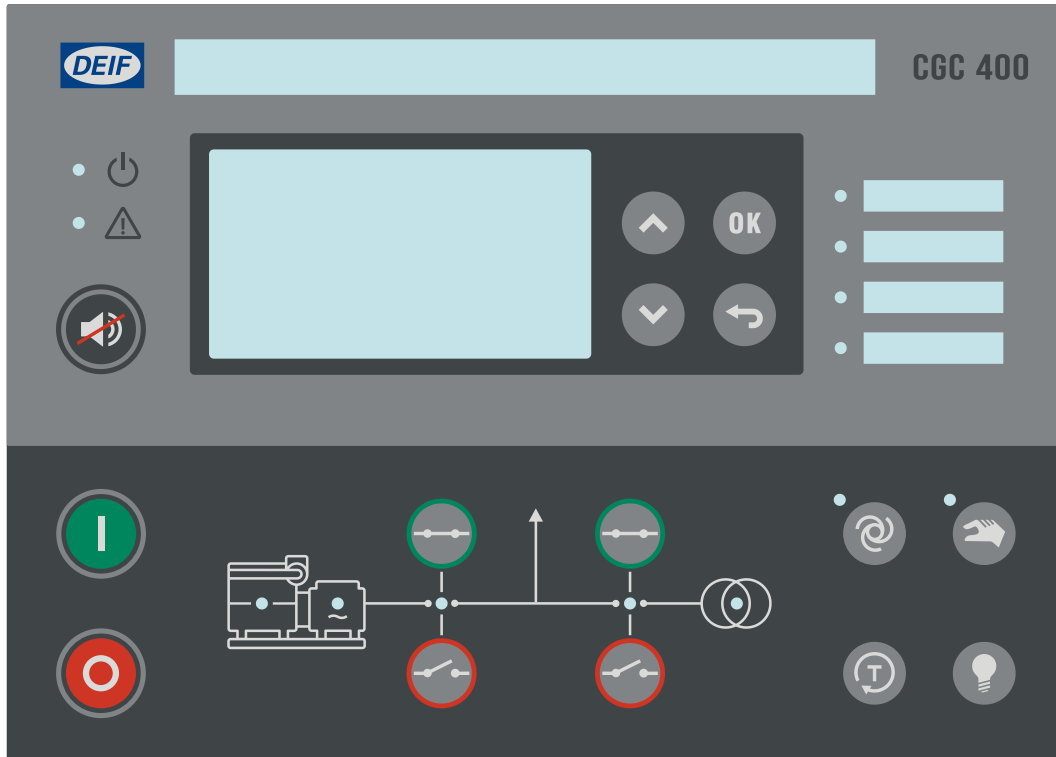
1.2.3 Contents and overall structure

This document is divided into chapters, and in order to make the structure simple and easy to use, each chapter will begin from the top of a new page.

2. What's in the delivery?

2.1 Standard delivery

The main unit

- 6 mounting clamps
- Terminal connectors

2.2 Optional delivery

PC cable for utility software (option J7)

3. The first steps

3.1 Switching on the first time

3.1.1 Terminals

The dashed lines in the diagram below show the most important terminals to use in order to get started. Once all connections to the unit are made, the unit is ready to be switched on.
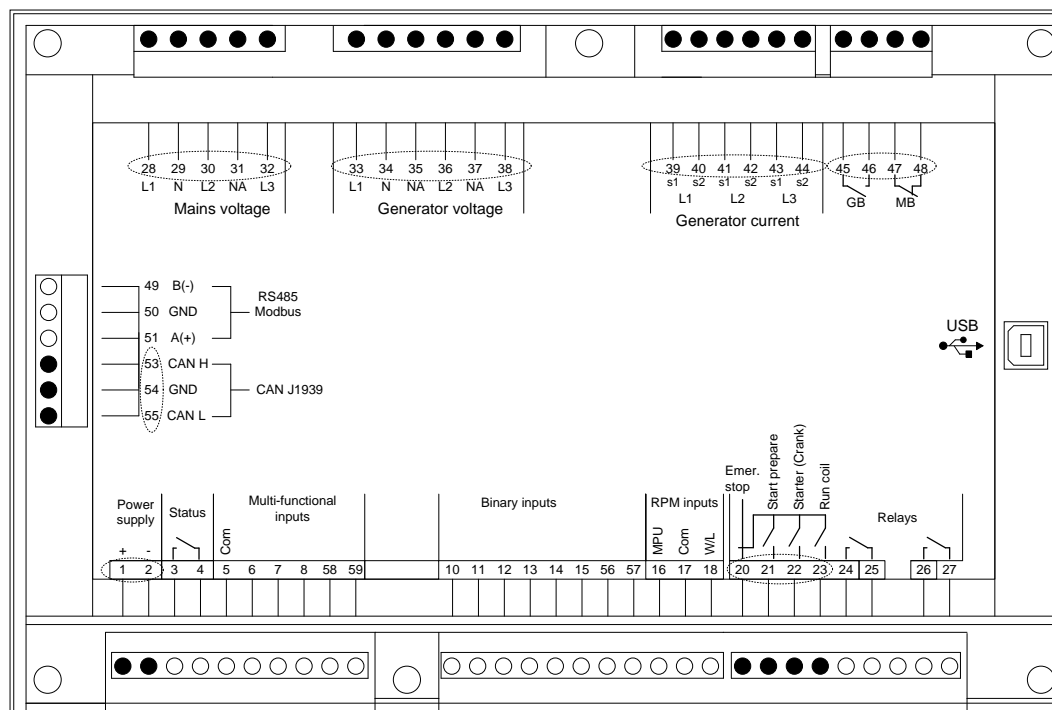
ⓘ **For further wiring information, please refer to the Installation Instructions.**

3.2 Configuration and connection

3.2.1 Configuration

Many parameters in the controller can be configured from the display, but when changing inputs, outputs, M-Logic, etc., it is necessary to use the PC utility software 3. This can be downloaded free of charge from www.deif.com.

3.2.2 Connection

Connect the CGC 400 port to a USB port on the computer using a standard USB type A to type B (option J7).
Open the utility software on the computer and enter the "Application settings" (F3). Choose the COM port
named as shown below.
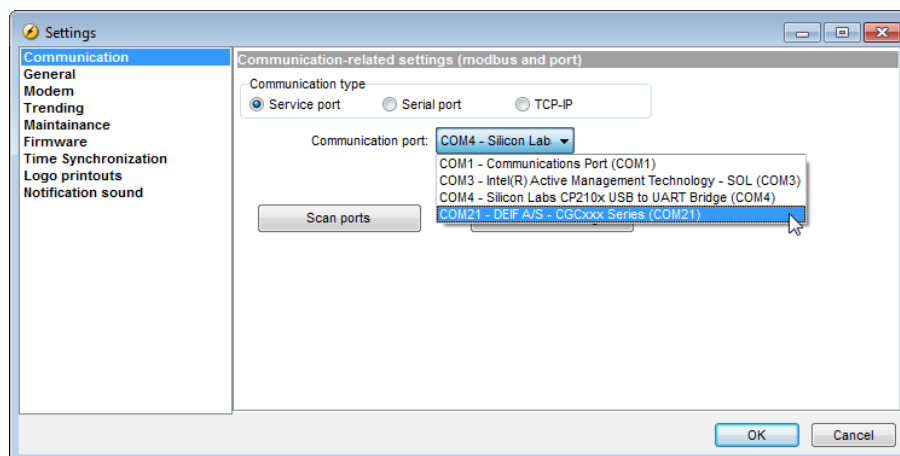
Now the connection to the CGC 400 is established, and the controller can be configured.

(i) **For further information about the utility software, please refer to the help function in the utility
software (F1).**

4. Display push-buttons and LEDs

4.1 Push-button functions

The push-buttons on the unit have the following functions:

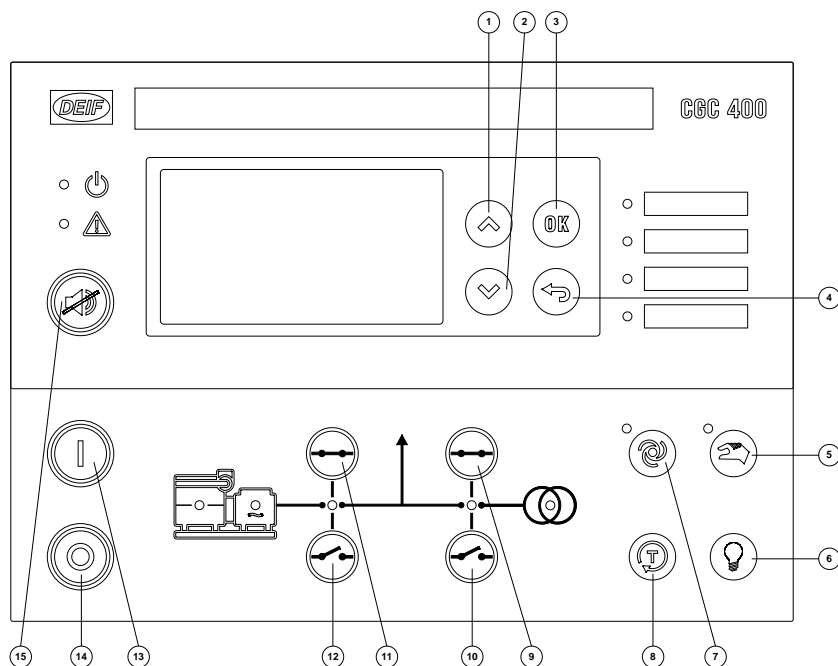| No.	Function	No.	Secondary functionality
1:	Scroll the display up once	**1:**	Programming: Increase setpoint value
2:	Scroll the display down once	**2:**	Programming: Decrease setpoint value
3:	Enter menus/enter value/acknowledges alarm		
4:	Back button	**4:**	Remove pop-up messages
5:	Manual/Block running mode selector	**5:**	Press MAN twice to activate Block mode
6:	Lamp test		
7:	AUTO running mode selector		
8:	Test running mode selector		
9:	Close mains breaker		
10:	Open mains breaker		
11:	Close generator breaker		
12:	Open generator breaker		
13:	Start engine (manual running mode)		
14:	Stop engine (manual running mode)		
15:	Reset horn relay	**15:**	Press and hold for 2 seconds to see alarm list

4.2 LED functions

The display unit holds 10 LED functions. Dependent on the situation, the colour of the LEDs is green, red or a combination. The table below describes the functionality of the LEDs on the CGC 400:
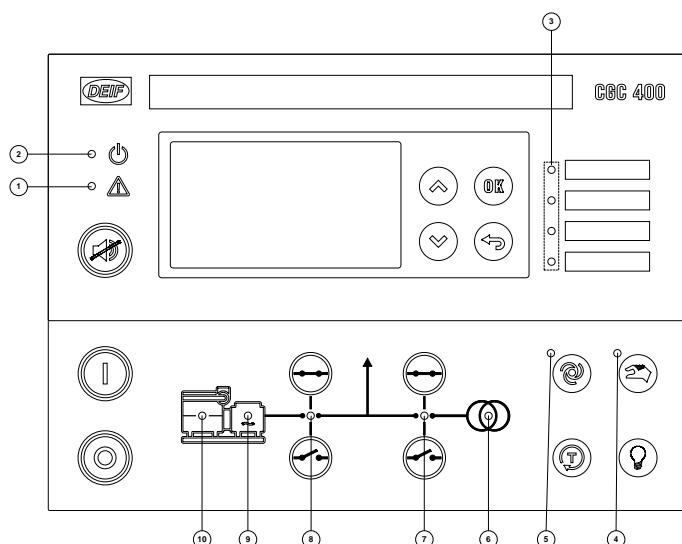
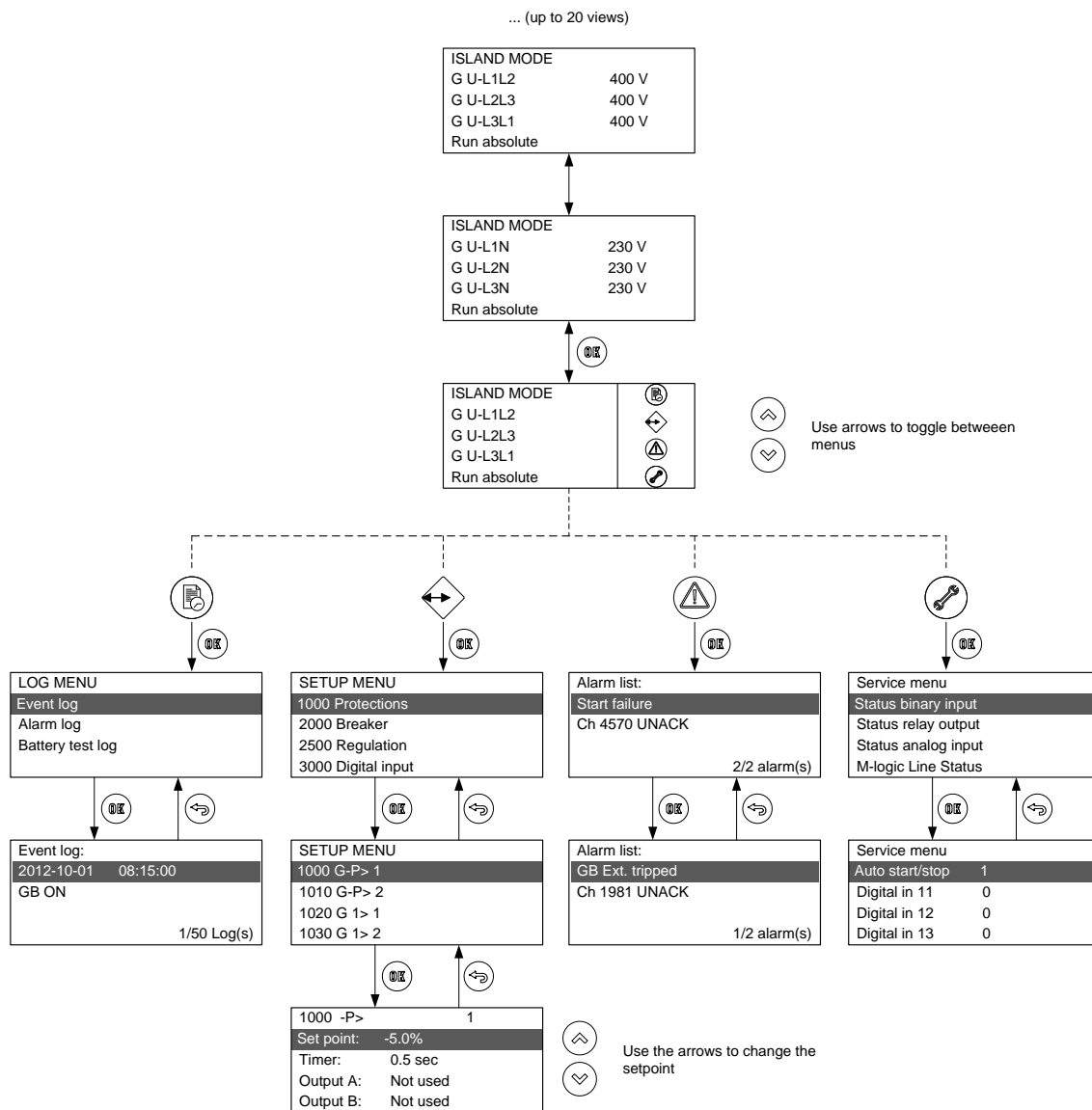| LED no.	LED name	LED function
1:	Alarm	LED steady light indicates that all alarms are acknowledged, but some are still present.
2 :	Power	LED indicates that the auxiliary supply is switched on. If it is green, the controller is operational. If it is red, the self-check has failed.
		LED flashing indicates that unacknowledged alarms are present.
3:	4 x LED	4 x LEDs with selectable indication function. Selection is made in M-Logic.
4:	MAN	LED steady light indicates that Manual mode is active.
		LED flashing green indicates that Block mode is active.
5:	AUT	LED indicates that Auto mode is active.
6:	Mains OK	LED is green if the mains is present and OK.
		LED is red at a mains failure.
		LED is flashing green when the mains returns during the "mains OK delay" time.
7:	MB on	LED indicates that the mains breaker is closed.
8:	GB on	LED indicates that the generator breaker is closed.
9:	Hz/V ok	LED indicates that voltage and frequency is present and OK.
10:	Run	LED indicates that running feedback is present.

4.3 Display structure

... (up to 20 views)

ISLAND MODE	
G U-L1L2	400 V
G U-L2L3	400 V
G U-L3L1	400 V
Run absolute	

ISLAND MODE	
G U-L1N	230 V
G U-L2N	230 V
G U-L3N	230 V
Run absolute	

ISLAND MODE	
G U-L1L2	
G U-L2L3	
G U-L3L1	
Run absolute	

Use arrows to toggle betweeen menus

LOG MENU
Event log
Alarm log
Battery test log

SETUP MENU	
1000 Protections	
2000 Breaker	
2500 Regulation	
3000 Digital input	

Alarm list:	
Start failure	
Ch 4570 UNACK	
	2/2 alarm(s)

Service menu	
Status binary input	
Status relay output	
Status analog input	
M-logic Line Status	

Event log:	
2012-10-01	08:15:00
GB ON	
	1/50 Log(s)

SETUP MENU	
1000 G-P> 1	
1010 G-P> 2	
1020 G 1> 1	
1030 G 1> 2	

Alarm list:	
GB Ext. tripped	
Ch 1981 UNACK	
	1/2 alarm(s)

Service menu	
Auto start/stop	1
Digital in 11	0
Digital in 12	0
Digital in 13	0

1000 -P>	1
Set point:	-5.0%
Timer:	0.5 sec
Output A:	Not used
Output B:	Not used

Use the arrows to change the setpoint

For further information, please refer to the following documents:

CGC 400 Designer's Reference Handbook, document no. 4189340786.
CGC 400 Installation Instructions, document no. 4189340785.
CGC 400 Operator's Manual, document no. 4189340787.