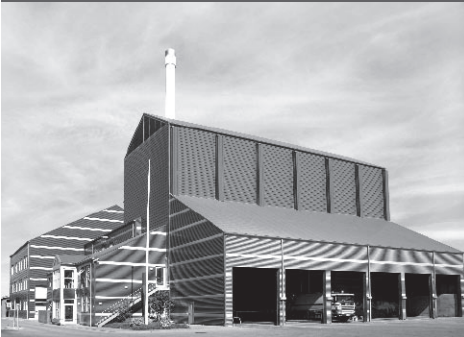




-power in control



QUICK START GUIDE



AGC 200 Advanced Gen-set Controller

- What's in the delivery?
- Getting started
- The first steps
- Using the AGC 200



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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 Multi-line 2 unit, the company responsible for the installation or the operation of the set must be contacted.



The Multi-line 2 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 Multi-line 2 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 Multi-line 2 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, mounting instructions and wiring descriptions.

The general purpose of this document is to help the user with the first steps of installing and using the Multi-line 2 system.



Please make sure that you also read the Installation Instructions before starting to work with the Multi-line 2 unit 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

2.1.1 Standard delivery

Main unit



Installation Instructions




2.2 Optional delivery

PC cable for utility software (option J4 or J7)



Additional Operator Panel, AOP-2 (option X4)



 For description of how to connect the optional deliveries, please refer to the option X manual.

3. Getting started

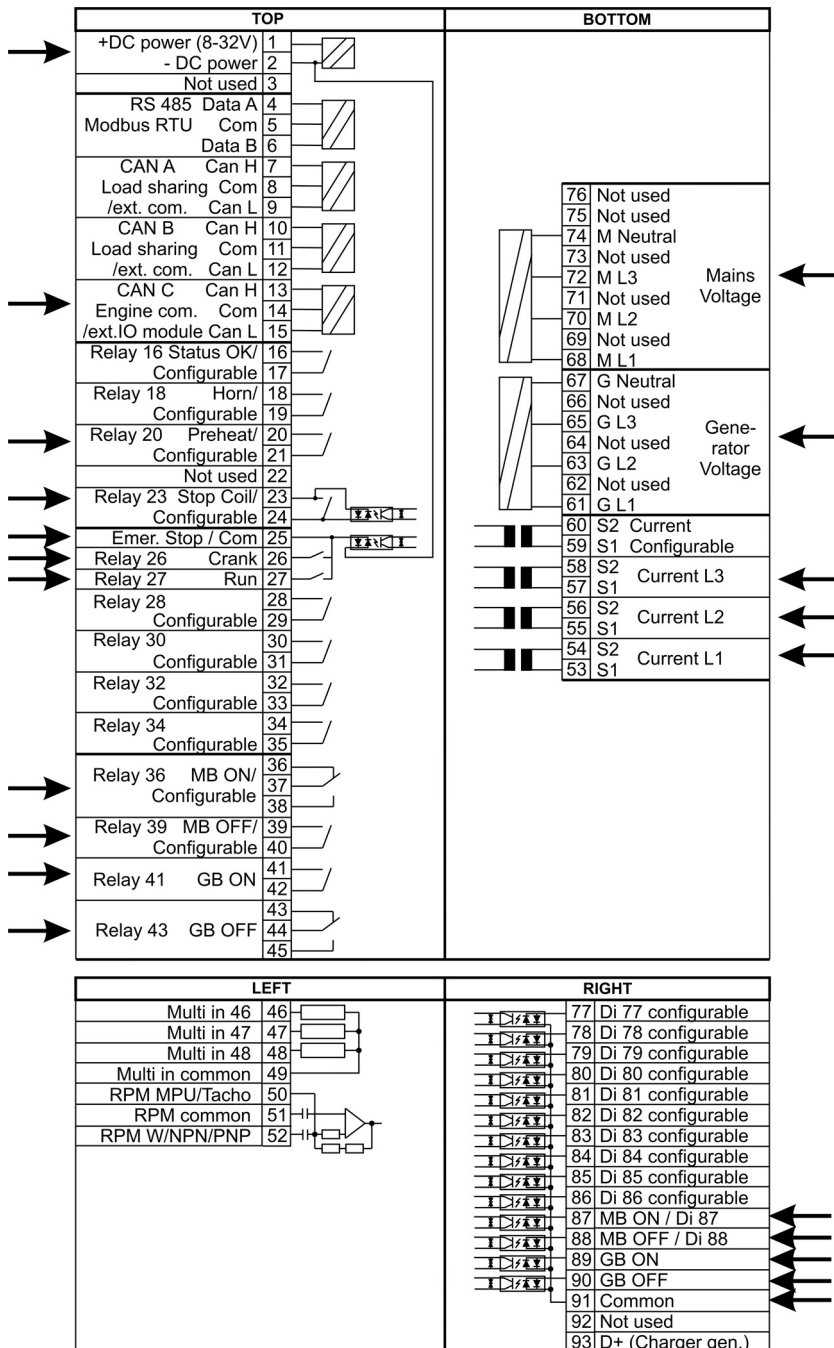
3.1 Switching on the first time

The below drawings show the wiring of the most important signals. Once all connections to the unit are made, the unit is ready to be switched on.

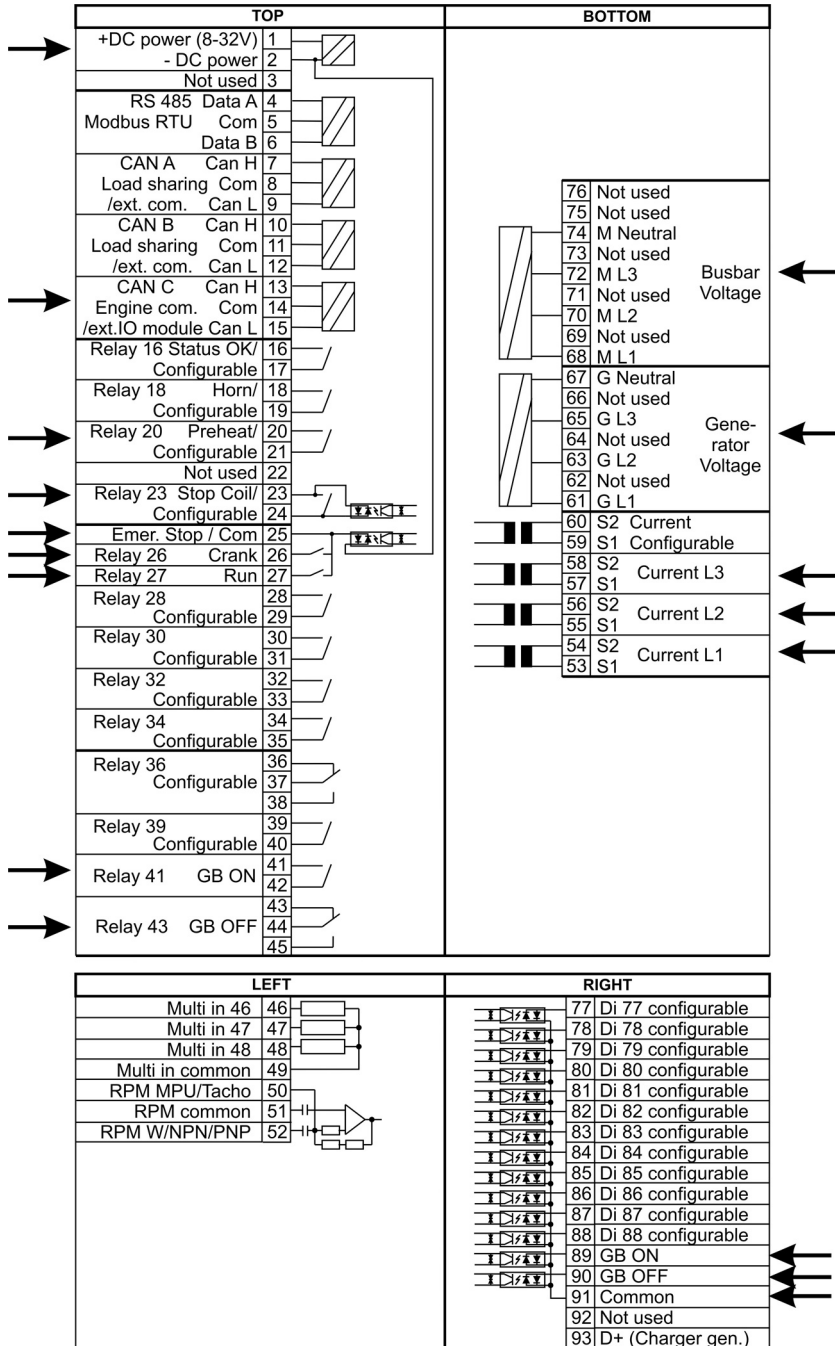
3.1.1 AGC 200 single application



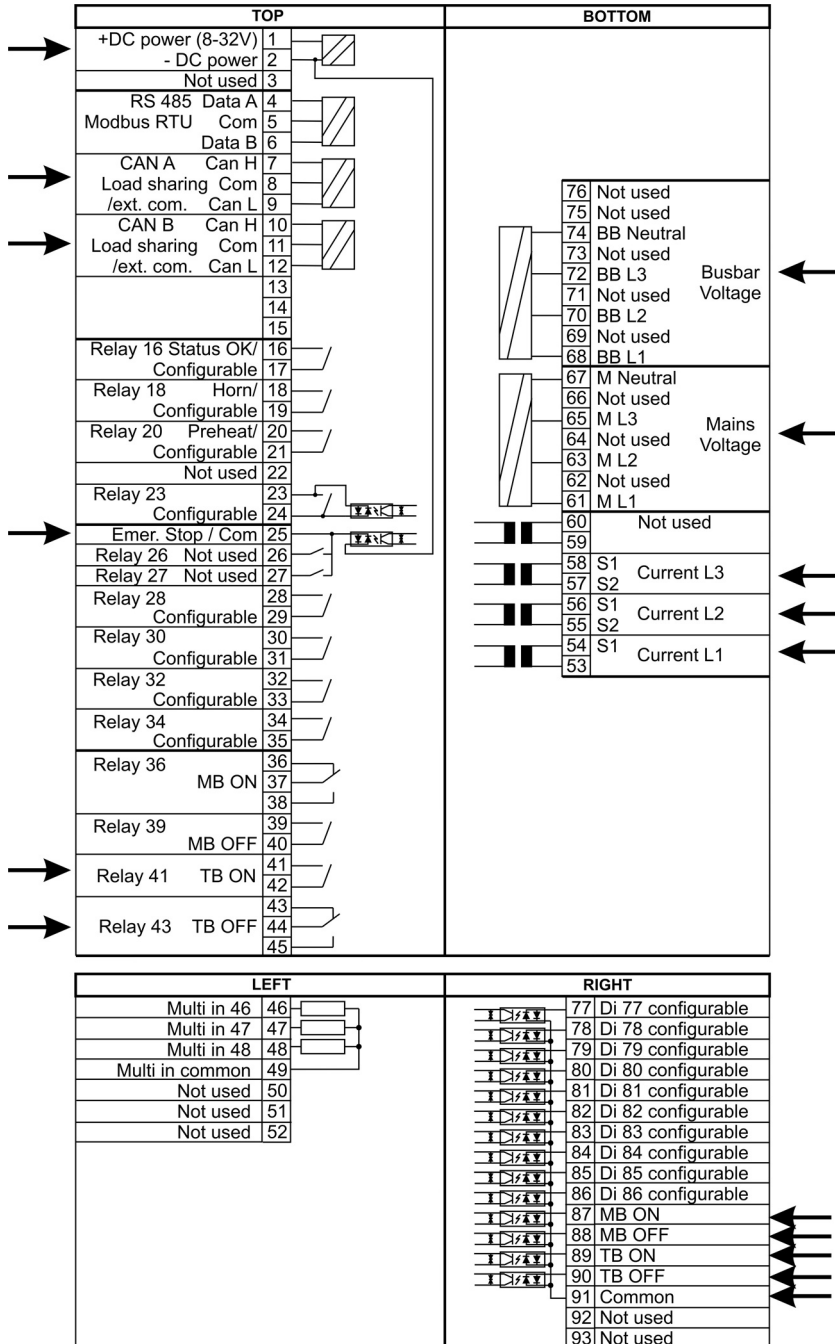
The most important connections are marked with an arrow.



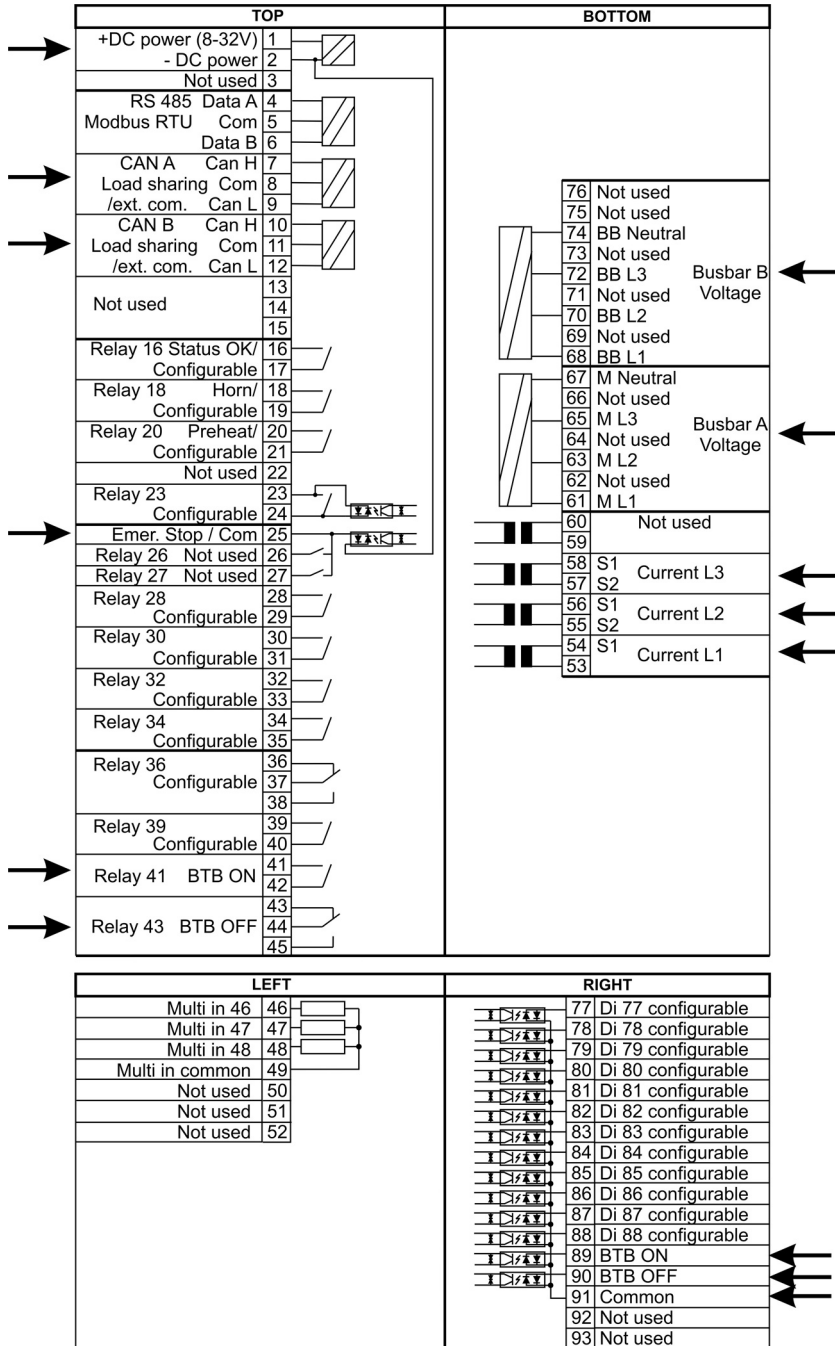
3.1.2 AGC 200 island



3.1.3 AGC 200 mains



3.1.4 AGC 200 BTB



3.2 Getting started with the DEIF utility software (USW)

3.2.1 Downloading the software

1. Go to www.deif.com
2. Select Documentation & Software
3. Select Software download
4. In the dropdown menu, select Multi-line 2 utility software v.3.x
5. Fill in your e-mail address and click "Submit"

You will now receive an e-mail containing a link. Click the link and follow the instructions.

The USW is now installed on your computer.

3.2.2 Installation of USB drivers

On Windows Vista machines, the USB drivers are installed automatically.

This is the procedure on Windows XP machines:

When you connect the DEIF product, Windows XP will launch two "Hardware Wizards". Two drivers are installed, so please let Windows execute both "Found new Hardware Wizard"s.

We recommend letting the Hardware Wizard install the software automatically by choosing the "Recommended" option. If the "Advanced" option is chosen, the needed files are available from the USW3 installation folder (default: C:\Program Files\DEIF\USW3\) in the "USB driver files/source Preinstaller" folder.

Please select "Continue Anyway" if a "Hardware Installation" warning (see screenshot below) appears during the installation.



3.2.3 Getting connected

Connect the service port to the USB on the computer (option J7 or option J3).

Click the Utility Software 3 icon on the desktop or in the Windows Start menu.



Desktop icon: Utility Software 3.lnk

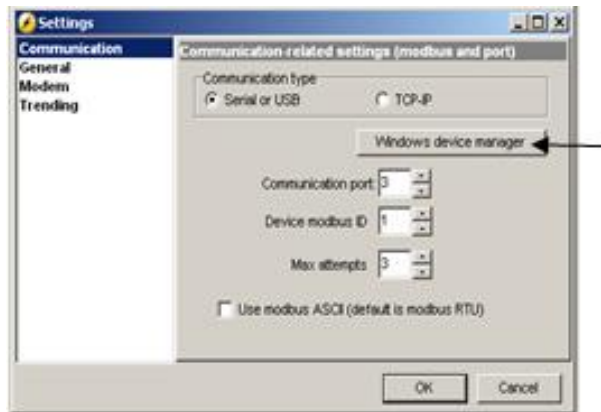


Quick launch and Start menu icon:

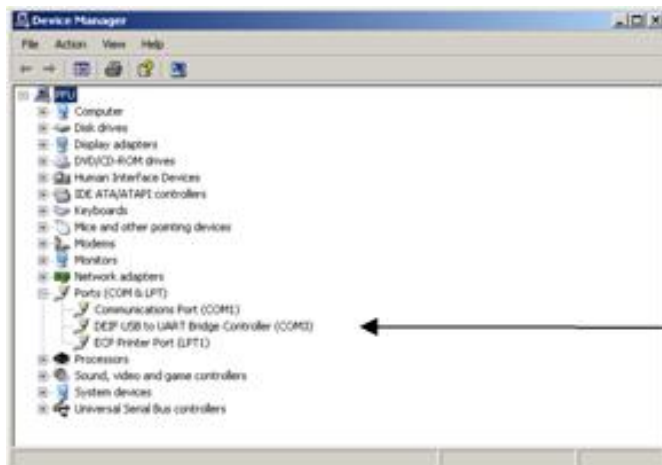
The below window appears.



Open the application settings by clicking this icon.



Open "Windows device manager".



Check the COM port used for communication, and make sure the settings correspond to the application settings.



Click the "Connect" icon.



You are now online with the unit.

3.2.4 Read parameters from the device



Open the "Parameters" list.



Click the "Read parameters from the device" icon.



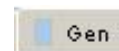
After retrieving all the parameters, the device is ready to be configured.

3.2.5 Basic configuration of a device using the utility software

When the parameters have been uploaded, the options below will be available.



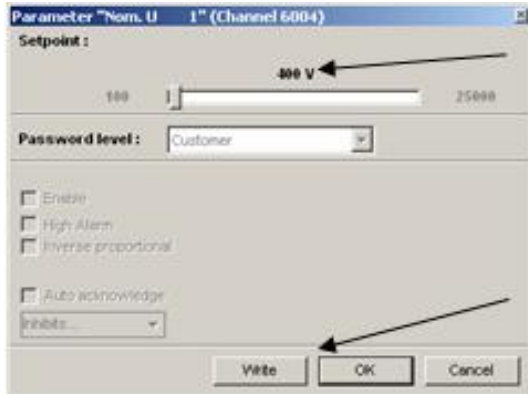
Click the "Gen" tab.



Category	Channel	Text	Address	Value	Unit	Timer	OutputA	OutputB	Enabled	High alarm	Level
Gen	6001	Nom. f	1	407	50 Hz		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6002	Nom. P	1	408	480 W		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6003	Nom. I	1	420	887 A		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6004	Nom. U	1	410	400 V		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6005	Nom. rpm	1	411	1500 RPM		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6006	Enable nom. set		412	0		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6011	Nom. f	2	413	50 Hz		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6012	Nom. P	2	414	230 W		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6013	Nom. I	2	415	345 A		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6014	Nom. U	2	416	480 V		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6015	Nom. rpm	2	417	1500 RPM		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6021	Nom. f	3	418	60 Hz		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6022	Nom. P	3	419	230 W		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6023	Nom. I	3	420	345 A		N/A	N/A	<input type="checkbox"/>		Customer
Gen	6024	Nom. U	3	421	480 V		N/A	N/A	<input type="checkbox"/>		Customer

The parameters can be configured as follows:

Click a parameter and the dialogue box below will appear.



Click this or use the bar to adjust the setpoint, then click "Write" and "OK".

The parameter setpoint has now been changed and downloaded to the device.

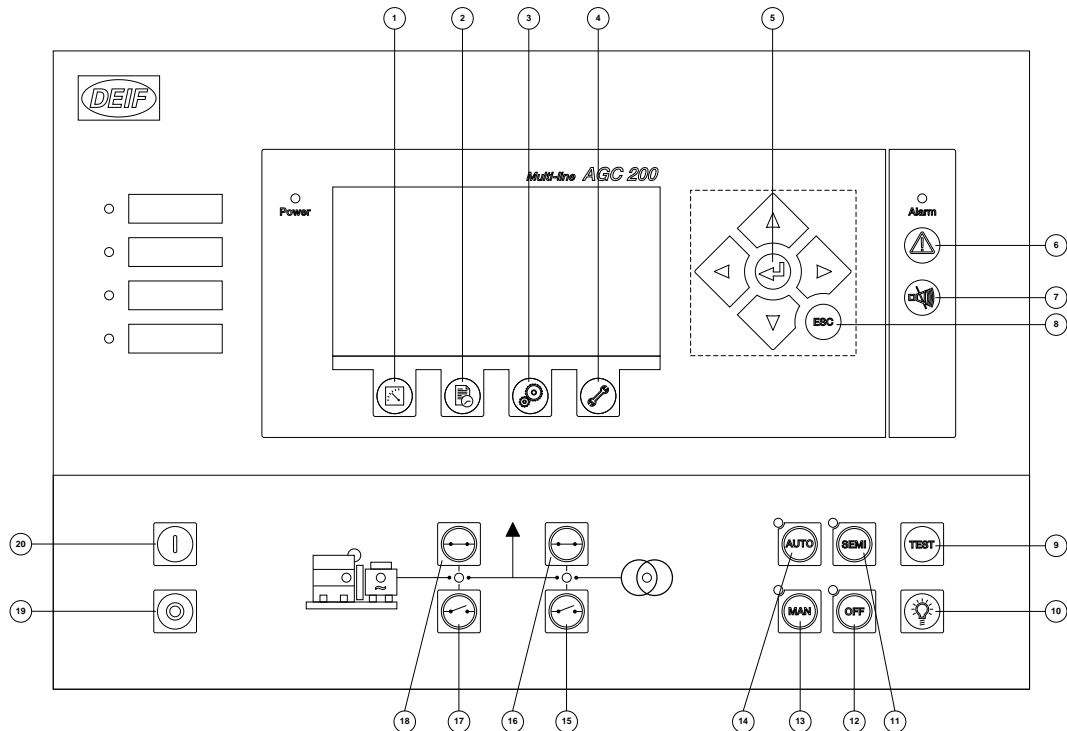


For further information, please refer to the General Guidelines for Commissioning.

4. Display push-buttons and LEDs

4.1 Push-button functions

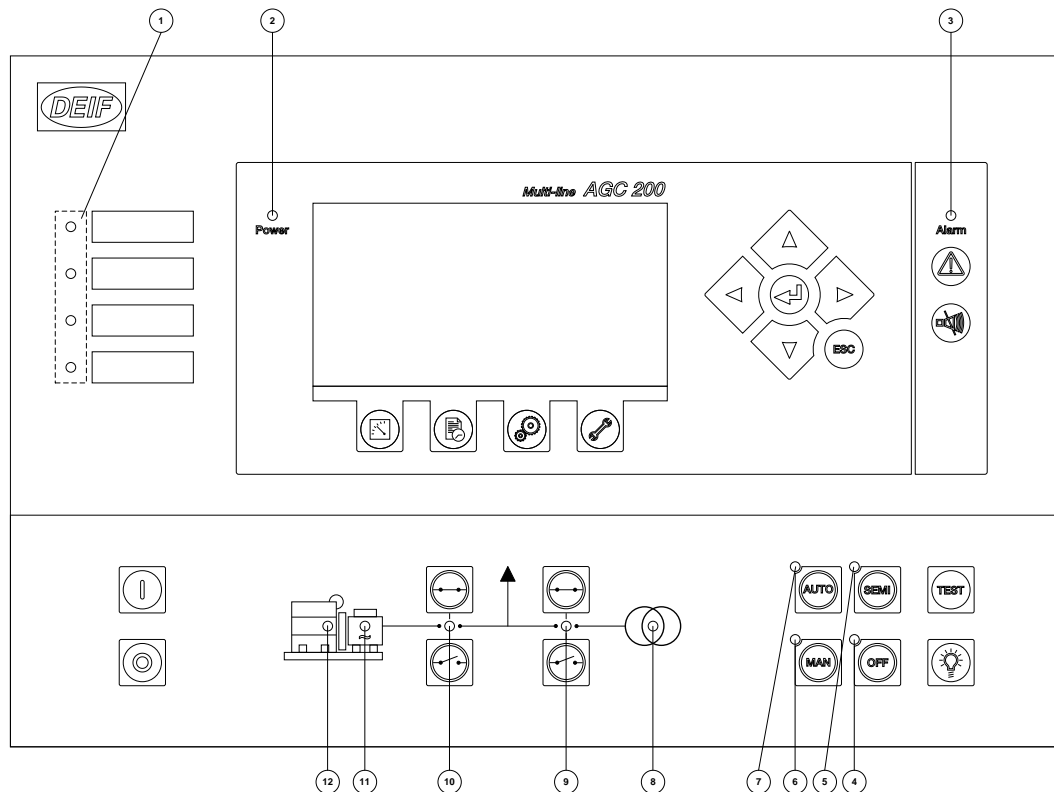
The display unit holds a number of push-button functions which are described below:



1. View of measured values.
2. Log lists. The list holds 150 events. These events are deleted when the AGC is switched off.
3. Parameter settings.
4. Service menu.
5. Navigation buttons.
6. Alarm list.
7. Silence horn.
8. Escape/step backwards.
9. Test mode.
10. Lamp test.
11. Semi-auto mode.
12. Off mode.
13. Manual mode.
14. Auto mode.
15. MB open.
16. MB close.
17. GB open.
18. GB close.
19. Stop: stop of the genset if semi-auto or manual is selected.
20. Start: start of the genset if semi-auto or manual is selected.

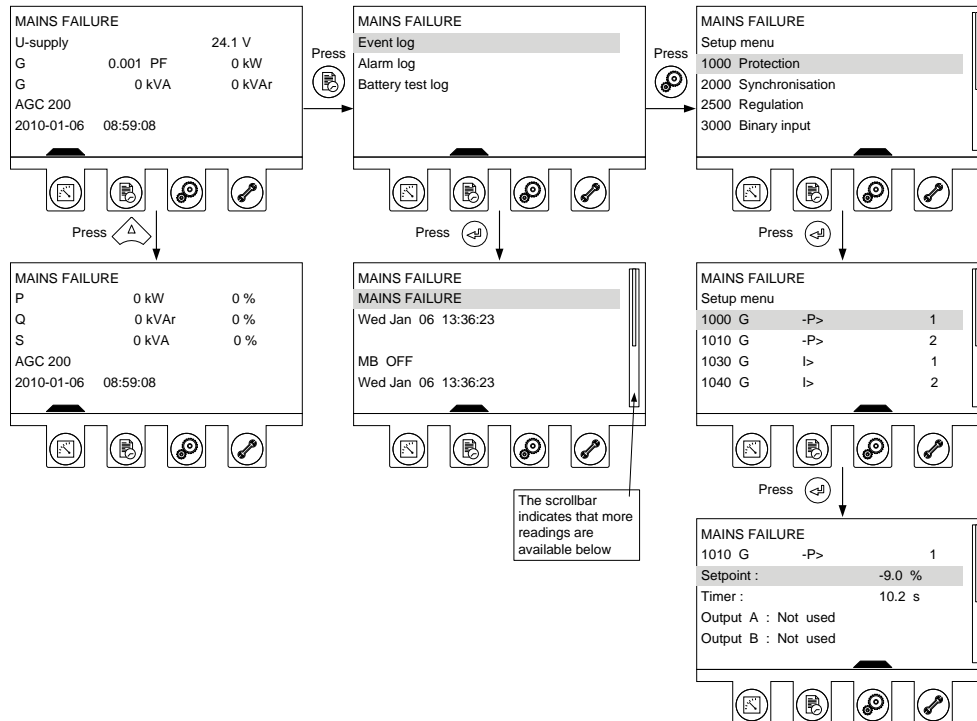
4.2 LED functions

The display unit holds 10 LED functions. The colour is green or red or a combination in different situations. The display LEDs are indicating as follows:



1. User-configurable LED.
2. LED indicates that the auxiliary supply is switched on.
3. LED flashing indicates that unacknowledged alarms are present. LED fixed light indicates that ALL alarms are acknowledged, but some are still present.
4. Off mode.
5. Semi-auto mode.
6. Manual mode.
7. Auto mode.
8. 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.
9. LED indicates that the mains breaker is closed.
10. LED indicates that the generator breaker is closed.
11. LED green light indicates that the voltage/frequency is present and OK.
12. LED indicates that the generator is running.

4.2.1 Display navigation



4.3 Controller setup

4.3.1 Controllers available

Governor (std.)

1. Synchronisation (static and dynamic sync.)
2. Phase angle (static sync.)
3. Frequency
4. Power
5. Load sharing

AVR (std.)

1. Voltage
2. Reactive power
3. Reactive load sharing
4. PF (CAP or IND)

4.3.2 Controller output types

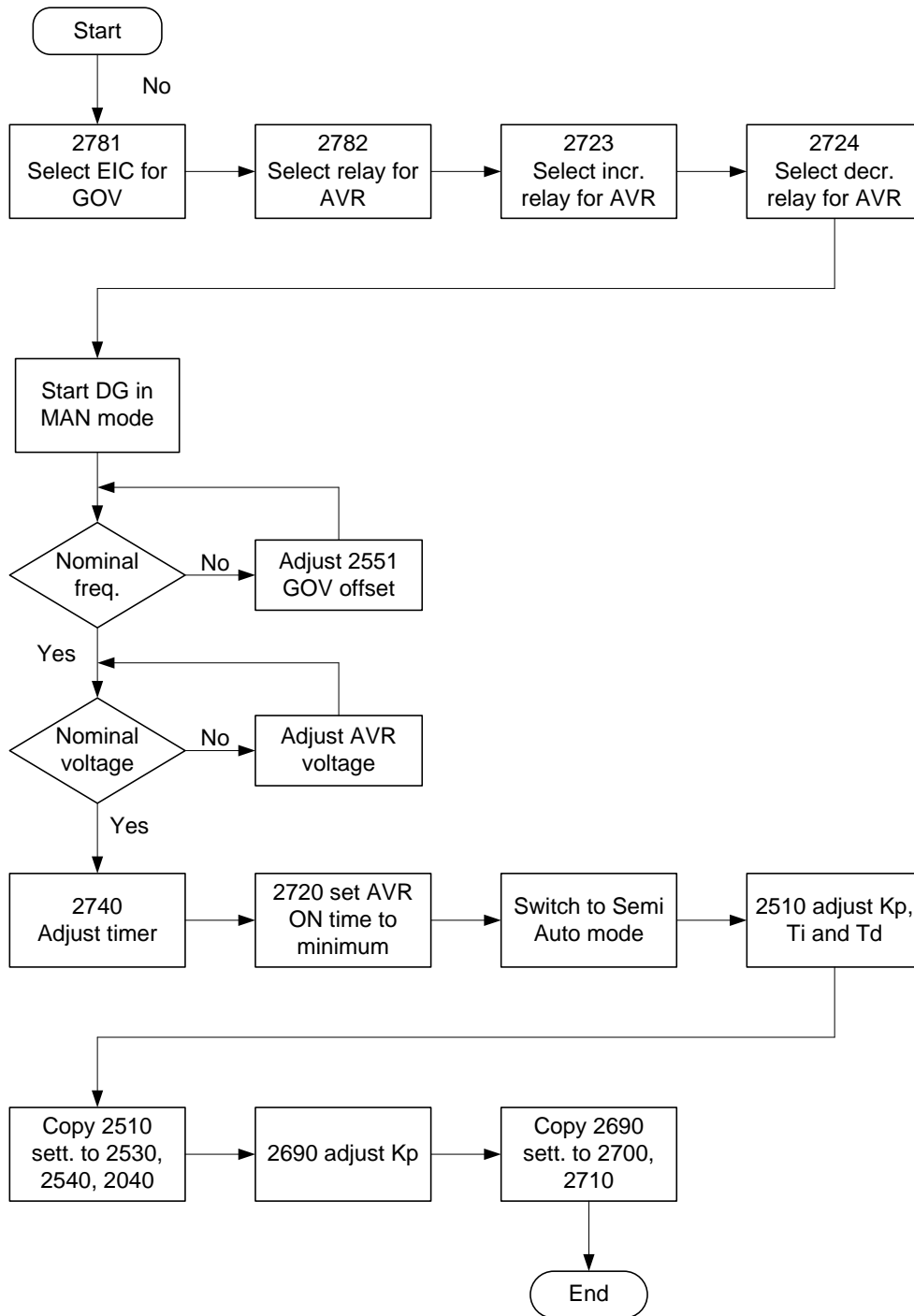
CANbus engine communication (J1939/MTU MDEC or ADEC)

Analogue outputs require external I/O module IOM 200 series or option H8

Relays (std.)

Normally relays 28 to 34, but any configurable relay can be used

Setup of a controller with engine communication and AVR option



For further information, please refer to the General Guidelines for Commissioning.

For further information, please refer to the following documents:

AGC 200 Designer's Reference Handbook, document no. 4189340609.

AGC 200 Installation Instructions, document no. 4189340610.

AGC 200 Operator's Manual, document no. 4189340607.