

# **INSTALLATION AND OPERATING INSTRUCTION**

Emergency lighting power supply units


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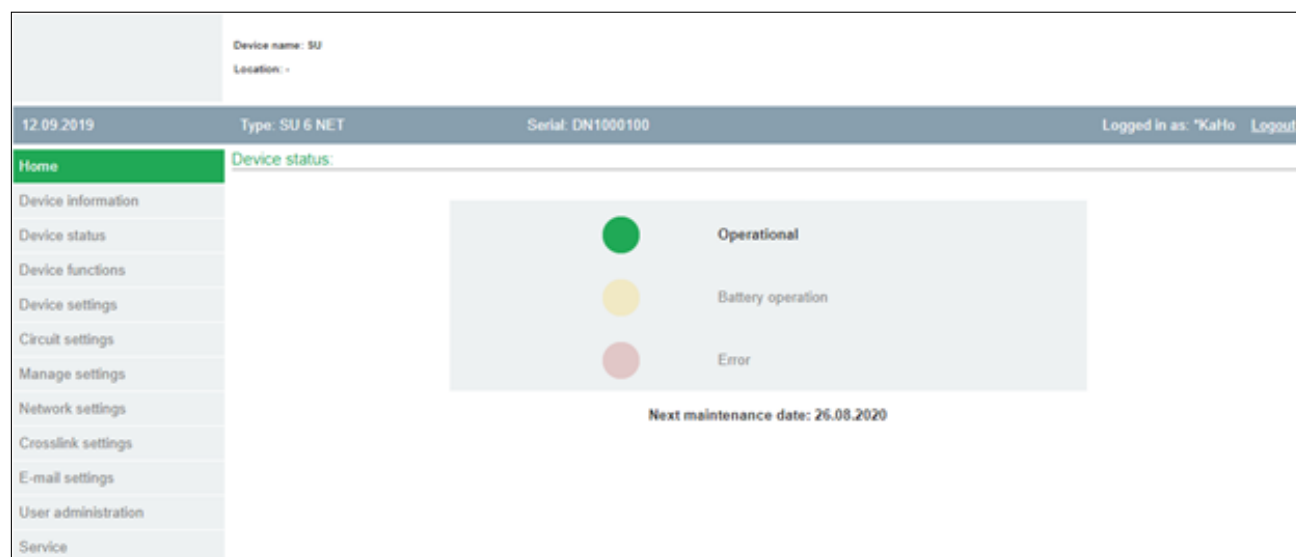
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# 1. WEB USER INTERFACE

## 1.1. Home

On the Home page of the Web user interface, you will have access to the following information (see **Figure 1.1**)



**Figure 1.1**

The Home page shows important operating information. This includes operational status, different notifications and next maintenance date.

In addition, from any page on the Web user interface you will have access to the following information: device name, location, date, type of device, device serial number and the name of the account you are log on to. You can navigate by using the menu on the left side of the screen and you can disconnect by clicking on Logout in the upper right corner.

## 1.2. Device information

On this page, you will be able to see all the information regarding the software version, software options and license (see **Figure 1.2**).



**Figure 1.2**

# 1.3. Device status

On the device status [see **Figure 1.3**], you will have access to a lot of different status information concerning the device:

- Device messages
- Device warnings
- Device errors
- Luminaire failures
- Status of inputs
- Status of relays
- Active users
- Logbook

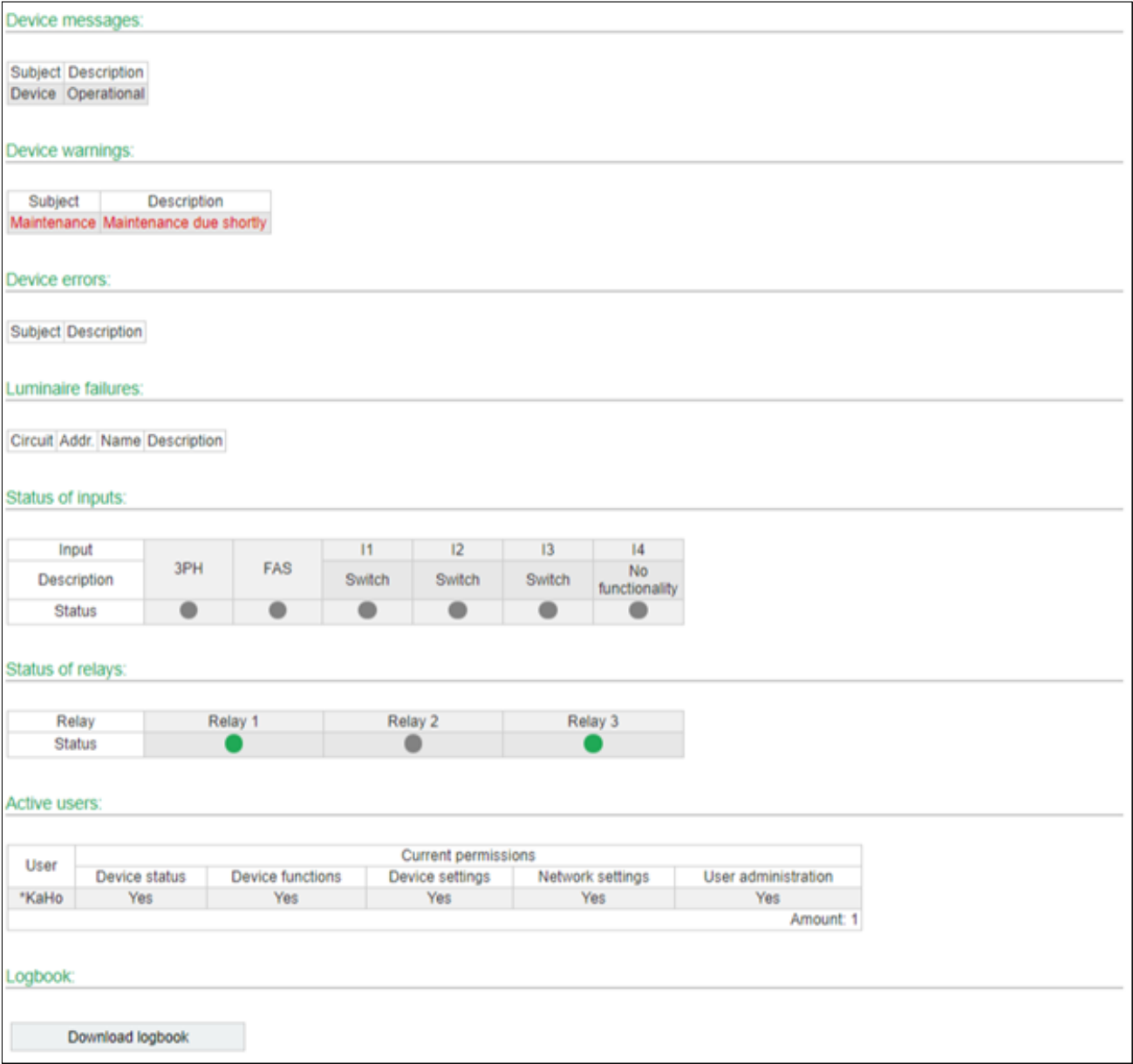


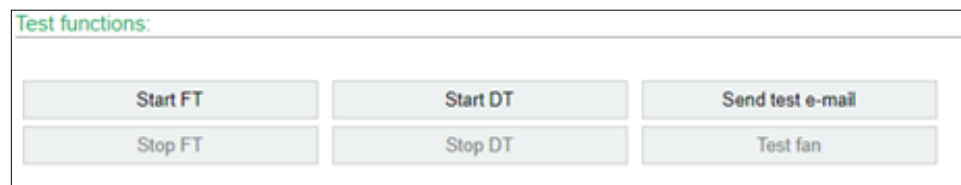
Figure 1.3

## 1.4. Device functions

### 1.4.1. Test functions

The test functions [see **Figure 1.4.1**] allow you to do the following tests:

- **Function test (FT)**
- **Deep discharge test (DT)**
- **Test email server**
- **Test fan (if available)**



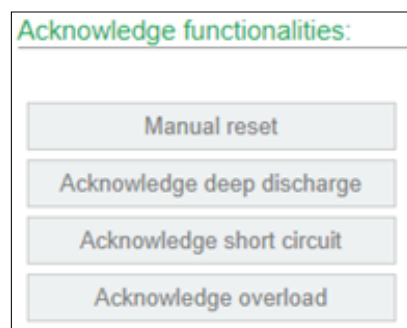
Test functions:		
Start FT	Start DT	Send test e-mail
Stop FT	Stop DT	Test fan

**Figure 1.4.1**

### 1.4.2. Acknowledge functionalities

The following events can be acknowledged in **Acknowledge functionalities** [see **Figure 1.4.2**]:

- **Manual reset:** The Manual reset function can be stored for freely-programmable function buttons F1 and F2, as well as for inputs I3 to I4, and is active due to this assignment. Activating this functions results in lights that are in standby mode having to be acknowledged using the manual reset function in order to return to standby mode after they are switched on
- **Acknowledge deep discharge**
- **Acknowledge short circuit**
- **Acknowledge overload**

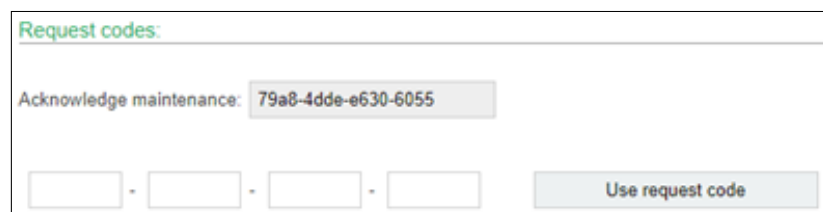


Acknowledge functionalities:
Manual reset
Acknowledge deep discharge
Acknowledge short circuit
Acknowledge overload

**Figure 1.4.2**

### 1.4.3. Acknowledge maintenance

From **Request codes** section [see **Figure 1.4.3**], you can enter the maintenance code to select a maintenance interval for the statutory mandatory maintenance that is a maximum of 15 months later or earlier. If maintenance is due, the maintenance message is displayed in the home page. Once maintenance is complete, enter the maintenance code provided as a response in the row provided and confirm the entry by clicking on “Use request code”. Maintenance and the maintenance message are reset and the new date is stored.



Request codes:	
Acknowledge maintenance:	79a8-4dde-e630-6055
<input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/>	Use request code

**Figure 1.4.3**

## 1.5. Device settings

In the Device settings, you can change multiple standard setting regarding the device and its functionality.

### 1.5.1. General

The general settings include the following (see **Figure 1.5.1**):

- **Assigning a device name**
- **Assigning an owner**
- **Assigning the location**
- **Setting a time delay (caster) time:** A value can be entered for the SL caster time in Caster in the Device parameters. This means that, if there is a mains failure and the mains then returns, the lights with standby lighting (SL) operating mode do not return to the initial SL status until the specified overrun time has elapsed. A time specification of 0 to 20 min can be set.
- **Activating the manual reset:** The Manual reset application is coupled to the time delay function. If the option is not selected, the safety lights that have standby mode assigned will be changed from switched on to switched off if there is a mains failure, the mains then returns and an overrun time is set. If the option is selected, the manual reset must be activated if the mains fails and then returns, in order to switch the lights that have standby mode assigned off again.
- **Duration time:** The system's nominal operating hours can be entered in Duration time (0.5h, 1h, 1.5h, 2h, 3h or 8h).
- **Setting the flash delay:** The flash time for flash lights can be changed by specifying a time in Flash delay. The flash delay is used in conjunction with flash lights (lights with an adaptive flashing function). You can specify a value to change the flash time for the flash lights and implement a continuous light for example. It is important that all flash lights that are used to implement the continuous light are located on an electric circuit and that the flash interval of 1 second is not exceeded.
- **Networking status for the remote display:** You can view whether the remote display that is connected is networked in Networking the RD. The inactive status means that the remote display is not activated. The active status means that the remote display is activated.
- **Lock control panel**

The screenshot shows the 'General' settings form. It includes fields for 'Device name' (SU), 'Owner' (-), 'Location' (-), 'Delay on mains return for non-maintained light' (2 min), 'Manual reset' (checkbox), 'Duration time' (3 h), 'Powerpack available' (checkbox), 'Flash interval' (1 s), 'Flash delay (0..500 ms)' (0 ms), 'Activate networking of remote indication' (checkbox), and 'Lock control panel' (checkbox). A 'Submit' button is located at the top right of the form.

**Figure 1.5.1**

### 1.5.2. System time

The date and time can be set, and you have access to an option to automatically change the time for daylight saving (see **Figure 1.5.2**).

The screenshot shows the 'Request codes' form. It includes a field for 'Acknowledge maintenance' (79a8-4dde-e630-6055) and a 'Use request code' button. Below the button are four empty input fields for a code.

**Figure 1.5.2**

### 1.5.3. Language

The language of the Web interface can be set here. You have the option of French, English & Deutsch (see **Figure 1.5.3**).

The screenshot shows the 'Language' settings form. It includes radio buttons for 'English' (selected), 'Francais', and 'Deutsch'. A 'Submit' button is located at the top right of the form.

**Figure 1.5.3**

### 1.5.4. Function test

You can define the day of the week and time for the function test in this section (see **Figure 1.5.4**).

Function test:

Weekday of the function test: Daily Submit

Time of FT: 17 : 00

hour:minute

**Figure 1.5.4**

### 1.5.5. Freely programmable function keys

Functions can be stored for buttons [F1] and [F2] of the HMI navigation panel. You can choose between the following options (see **Figure 1.5.5**):

- No functionality
- Switch
- Block emergency lighting
- Simulation phase monitoring
- Manual reset
- Acknowledge deep discharge
- Maintained light off
- Non-maintained light on

Freely programmable function keys:

F1: F2: Submit

☒ No functionality ☒ No functionality

☐ Switch ☐ Switch

☐ Block emergency lighting ☐ Block emergency lighting

☐ Simulation phase monitoring ☐ Simulation phase monitoring

☐ Manual reset ☐ Manual reset

☐ Acknowledge deep discharge ☐ Acknowledge deep discharge

☐ Maintained light off ☐ Maintained light off

☐ Non-maintained light on ☐ Non-maintained light on

**Figure 1.5.5**

## 1.5.6. Outputs configurations

Events can be set for the Relay 1, Relay 2, Relay 3 and DC-01 outputs in the Outputs sub-menu. Output DC-01 must be used as the switching output for this. The following events are available (see **Figure 1.5.6**):

- Operational
- Mains failure
- Mains failure SubDB
- FAS input active
- Charging failure
- Circuit failure
- Luminaire failure
- Sum Failure
- Deep discharge protection active
- Function test
- Duration test
- Emergency light block
- Invert relay contact

Outputs:

	potential-free Relay 1	potential-free Relay 2	potential-free Relay 3
Operational	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mains failure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mains failure SubDB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FAS input active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Charging failure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Circuit failure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Luminaire failure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sum failure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Deep discharge protection active	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Function test	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Duration test	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Invert relay contact	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Submit

**Figure 1.5.6**

## 1.5.7. Programmable option inputs

Functions can be stored for switch that can be wired to [I3] and [I4] of the Battery unit. You can choose between the following options (see **Figure 1.5.7**):

- No functionality
- Switch
- Block emergency lighting
- Simulation phase monitoring
- Manual reset
- Acknowledge deep discharge
- Maintained light off
- Non-maintained light on

Programmable option inputs:

I3:	I4:
<input type="radio"/> No functionality	<input checked="" type="radio"/> No functionality
<input checked="" type="radio"/> Switch	<input type="radio"/> Switch
<input type="radio"/> Block emergency lighting	<input type="radio"/> Block emergency lighting
<input type="radio"/> Simulation phase monitoring	<input type="radio"/> Simulation phase monitoring
<input type="radio"/> Manual reset	<input type="radio"/> Manual reset
<input type="radio"/> Acknowledge deep discharge	<input type="radio"/> Acknowledge deep discharge
<input type="radio"/> Maintained light off	<input type="radio"/> Maintained light off
<input type="radio"/> Non-maintained light on	<input type="radio"/> Non-maintained light on

Submit

**Figure 1.5.7**

## 1.5.8. DC outputs

The system has 2 individual DC output available for some specific configurations or needs. Contact manufacturer if you need more information on the use of those DC output. [See **Figure 1.5.8**]

### DC outputs:

#### DC-01:

Charge current: 0 mA

Minimum current:  mA

☒ DC supply voltage  
☐ Switching output

#### DC-02:

Charge current: 0 mA

Minimum current:  mA

☒ DC supply voltage  
☐ Fan control

Internal temperature: 25 °C

Switch-on temperature:  °C

Switch-off temperature:  °C

Shut-down in case of fire:  °C

Switch on during FT: ☒

Submit

Figure 1.5.8

## 1.5.9. Internal timer

The internal timer allows you to program NM luminaire to light on at specific time of the day. You can program it either for specific days of the week or for the whole week at a time. Once programmed you must select the active case next to it and activate it for each affected luminaire in the circuit settings [see **Figure 1.5.9**].

### Internal timer:

	from	to	active
Sunday	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
Monday	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
Tuesday	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
Wednesday	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
Thursday	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
Friday	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
Saturday	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>

Submit

	from	to	active
Daily	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>
	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="text" value="00"/> : <input type="text" value="00"/>	<input type="checkbox"/>

Submit for all

Figure 1.5.9

### 1.5.10. Blocking timer

The blocking timer allows shutting down all fixtures during the specified time (see **Figure 1.5.10**).

Blocking timer:

Daily

from

00 : 00

to

00 : 00

active

☐

Submit

Figure 1.5.10

## 1.6. Circuit settings

The **Circuit settings** tab allow adjusting and programming all the devices on this specific battery unit.

- **Circuit selection section** (See **Figure 1.6.1**) allows you to select a specific circuit and assign it a name. To do so, simply select the circuit number you want to modify and click on load. Then, you can input the desired circuit name and click on **Submit**. **Note:** To work on any of the circuit, you need to first load the circuit in this section.

Circuit 1:

1

Load

Circuit name: SK1

Submit



Figure 1.6.1

- **Function for addressing section** is for first time commissioning or add new devices on the selected circuit. To add new devices, you will have to select **Activate address mode** (see **Figure 1.6.2**). Note that this setting will stay active even when you switch between circuits. Then select **Search luminaires**. Then you will get the following screen (see **Figure 1.6.3**) with the number of units the system found for this circuit. Make sure the amount displayed matches the amount link to this circuit or added to it. You can then click on the **Auto address mode** and the system will add the units in the Luminaire in the circuit X section. Simulation phase monitoring.

Functions for addressing:

Activate address mode

Search luminaires

Change addresses

Start blink mode

Figure 1.6.2

Luminaire search in circuit 1:

Result:

New luminaires:

4

Total found luminaires:

4

Luminaires without feedback:

0

Auto address mode

Manual address mode

Cancel

Figure 1.6.3

- **Luminaires in the circuit X section** [see **Figure 1.6.6**] allows you to modify a number of settings for each device on the currently selected circuit. To edit a specific device, click on the pen icon next to the entry [see **Figure 1.6.4**]. From the next screen [see **Figure 1.6.5**] you can select or modify the following setting:
  - **Name** – Name of the device, location and description is useful for maintenance.
  - **ML/NM** – Respectively Normally DN and Normally Off
  - **Input x** – Can be used to set a condition to turn on or off based on a specific input.
  - **Timer** – Select if you want a Normally Off fixture to turn on base on the timer you set in **Device settings**.
  - **Dim** – Can set a Dim value, this setting does not affect fixture in emergency mode. The value in emergency mode is always 100%.
  - **INV** – If selected it will reverse the current setting.
  - **Submit** – Save all modifications.
  - **Luminaire: start blinking** – This will make the selected unit blink and allow you to locate it.  
[Only available when address mode is active]
  - **Back to the circuit overview** – Return to previous page.

Luminaires in the circuit 1:

Addr.	Type	ID	Name	ML NM	Switch on when										dim value	Status		
					Input 1	INV	Conj.	Input 2	INV	inp. 3	INV	inp. 4	INV	Timer INV	Other			
1		03e52f	-		-	<input type="checkbox"/>	OR	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		100 %		

Figure 1.6.4

Change luminaire data to circuit 1:

Addr.	Type	ID	Name	ML NM	Blink
1		03e52f	-		

Switch on when						dim value
Input 1 INV	Conjunction	Input 2 INV	Input 3 INV	Input 4 INV	Timer INV	
-	OR	-	-	-	<input type="checkbox"/> <input type="checkbox"/>	100 %

...LCU-String

Figure 1.6.5

In the **Luminaire in the circuit X section**, you can also change or apply most of the setting mentioned previously on multiple devices at once. [see **Figure 1.6.6**]:

- **ML/NM** – Respectively Normally DN and Normally Off
- **Input x** – Can be used to set a condition to turn on or off based on a specific input.
- **Timer** – Select if you want a Normally Off fixture to turn on base on the timer you set in **Device settings**.
- **Dim** – Can set a Dim value, this setting does not affect fixture in emergency mode. The value in emergency mode is always 100%.
- **INV** – If selected it will reverse the current setting.
- **Trash can icon**: Select to delete a specific luminaire.

Click on **Submit** when your settings are complete.

Luminaires in the circuit 1:

Addr.	Type	ID	Name	ML NM	Switch on when												dim value	Status			
					Input 1	INV	Conj.	Input 2	INV	inp. 3	INV	inp. 4	INV	Timer	INV	Other					
1		03e52f	-RM plastic	<input checked="" type="radio"/> <input type="radio"/>	-	<input type="checkbox"/>	OR	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	100 %			
2		03e550	-RM rainstorm	<input checked="" type="radio"/> <input type="radio"/>	-	<input type="checkbox"/>	OR	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	100 %			
3		03e55d	-RM Extruded	<input checked="" type="radio"/> <input type="radio"/>	-	<input type="checkbox"/>	OR	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	100 %			
4		03e569	-RM Steel	<input checked="" type="radio"/> <input type="radio"/>	-	<input type="checkbox"/>	OR	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	100 %			
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					

Submit Delete all luminaires

Figure 1.6.6

## 1.7. Manage settings

Manage settings allows three different features [see **Figure 1.7**]:

- Saving the current device configuration by downloading a copy of your current settings.
- Replace the device configuration with another configuration by uploading the desired settings.
- Restore to manufacturer default settings.

Save device configuration:

Download device configuration

Replace device configuration:

Choose File No file chosen Replace device configuration

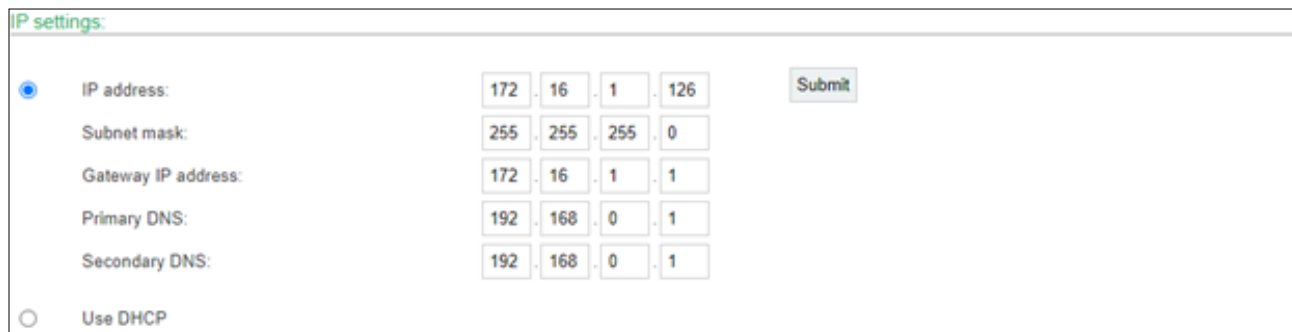
Restore default settings:

Restore

Figure 1.7

## 1.8. Network settings

- **IP settings:** Either you can select to input the device IP address manually or you can let your current network (DHCP) assign the address. [See **Figure 1.8.1**]



IP settings:

☒ IP address:

Subnet mask:

Gateway IP address:

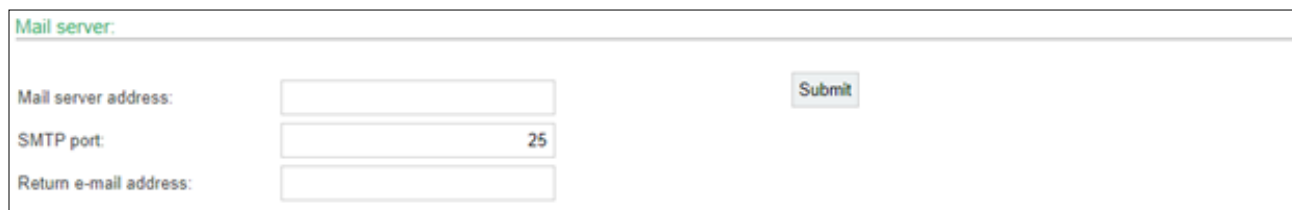
Primary DNS:

Secondary DNS:

☐ Use DHCP

**Figure 1.8.1**

- **Mail server:** You can fill in your mail server information in this section. [See **Figure 1.8.1.2**]



Mail server:

Mail server address:

SMTP port:

Return e-mail address:

**Figure 1.8.2**

- **Mail server authentication:** You can fill this section if your mail server require specific authentication. [See **Figure 1.8.1.3**]



Mail server authentication (optional depending on mail server):

User name:

Password:

**Figure 1.8.3**

## 1.9. E-mail settings

This section allows you to associate an email address to each user and define what events will send an email to users. To add an email address to an account you have click on the pen icon next to the account you want to add the email address in the E-mail address section (see **Figure 1.9**). From the newly open page, you can input the email address and click on submit to apply the change. To select the event that trigger an email for each account, you can check or uncheck the event in E-mail events section (see **Figure 1.9**) and click on submit to apply the changes.

	\$*Hersteller	\$+Partner	Admin
Operational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not operational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance due	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Charging failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Circuit failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Luminaire failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Result FT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Submit	Submit	Submit

Figure 1.9

## 1.10. User administration

This section allows control over the following feature:

- **User rights:** You can define for each individual user what right do they have when accessing the web user interface. [See **Figure 1.10.1**]

User	Device status	Device functions	General settings	Network settings	User administration
Admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Figure 1.10.1

- **New user:** You can create new account in this section. Note: User name and password should be 4-12 characters. [See **Figure 1.10.2**]

Name:

Password:

Repeat password:

Figure 1.10.2

- **Password change:** Change the password of the active user. [See **Figure 1.10.3**]

Do you want to change to password of the user "Admin":

Old password:

New password:

Repeat password:

Figure 1.10.3

- **Control panel password:** This password is used to access a number of settings by using the HMI navigation panel. [See **Figure 1.10.4**]

Control panel password:

Password:

**Figure 1.10.4**

- **User data:** You can delete all users, download a copy of the user data or replace it with another users data file. [See **Figure 1.10.5**]

User data:

No file chosen

**Figure 1.10.5**

## 1.11. Service (Administrator User only)

This tab allows some additional features limited to Administrator account only.

- **Status:** Display the load on the system. [See **Figure 1.11.1**]

Status:

	Actual value	Value last FT	Threshold	Status
System utilisation:	18 W	73 W	190 W	
Battery utilisation:	-	73 W	146 W	
Circuit 1 output power:	5 W	26 W	57 W	Luminous flux correction active
Circuit 2 output power:	2 W	15 W	57 W	Luminous flux correction active
Circuit 3 output power:	6 W	15 W	57 W	Luminous flux correction active
Circuit 4 output power:	3 W	15 W	57 W	Luminous flux correction active
Circuit 5 output power:	0 W	0 W	57 W	
Circuit 6 output power:	1 W	1 W	57 W	
Charge current output DC-O1:	0 mA	0 mA	330 mA	
Charge current output DC-O2:	0 mA	0 mA	330 mA	
Power supply voltage:	29.0 V			
Battery voltage:	27.6 V			
Battery current:	30 mA			
UPS output voltage:	29.0 V			
UPS output current:	650 mA			
UPS status:	0x7f			
Mainboard charge current:	561 mA			
Mainboard input voltage:	28.9 V			
Mainboard undervoltage detection threshold:	18.0 V			
Internal temperature:	27 °C			

**Figure 1.11.1**

- **UPS Charger:** Allow to reset UPS charger. This might be required after certain error or failure. [See **Figure 1.11.2**]

UPS Charger functions:

**Figure 1.11.2**

- **Functions:** [See **Figure 1.11.3**]
  - **Reboot:** force the system to reset.
  - **Delete logbook:** Only use if refurbished system.
  - **Delete TempLog:** Only use if refurbished system.
  - **Acknowledge failed DT:** Only acknowledge after maintenance.

Functions:

**Figure 1.11.3**

- **Data backup:** Allow to back up the service data, configuration data, log data and status data. [See **Figure 1.11.4**]

Data backup:

Service data

Configuration data

Log data

Status data

**Figure 1.11.4**

- **Maintenance:** Force to acknowledge maintenance and allow setting a specific date. This function is not available on first setup. [See **Figure 1.11.5**]

Maintenance:

Next maintenance date: 25.07.2023  
 Sum failure: active

Acknowledge maintenance: 08 - 2023

**Figure 1.11.5**

- **Battery settings:** Use to specify the battery used and DT information. [Should always be set to Canada (FCC)] [See **Figure 1.11.6**]

Battery settings:

Deep discharge limit:

Deep discharge indicator acknowledgeable greater than or equal to: 24.0 V

Deep discharge pre-warning less than or equal to: 22.1 V

Deep discharge pre-warning activated: ☐

Deep discharge active less than or equal to: 21.6 V

Mains return delay: 15 s

Mode of duration test: Canada (FCC)

Attention: Please configure the duration test within "Device settings" at section "Duration test"

**Figure 1.11.6**

- **Restore mainboard firmware:** Allow returning to previous firmware version. [See **Figure 1.11.7**]

Restore mainboard firmware

Active firmware: V01.52

Previous firmware: -

**Figure 1.11.7**

- **System update:** Use to push a new firmware update. [See **Figure 1.11.8**]

System update

No file chosen

**Figure 1.11.8**

- **Device history:** Add note for maintenance purposes. [See **Figure 1.11.9**]

Device history:

Date	Time	User	Note
Amount: 0			

**Figure 1.11.9**

## 2. HMI navigation & configuration

### 2.1. Display



Figure 2.1

A. **Illuminated LC display.** The display can be used to change the device configuration easily and clearly. Furthermore, technical system parameters, fault messages and results are shown in plain text.

B. The **[ESC]** button can...

- be used to navigate backwards in the menu levels.
- be used to navigate backwards by one light in the light illustrations.
- be used to cancel the changes to settings without saving.

C. The **[OK]** button can...

- be used to navigate forwards in the menu levels.
- be used to navigate forwards by one light in the light illustrations.
- be used to complete and save the changes to settings.

D. The **[↓→]** button can...

- be used to increase or change a currently selected value.
- be used to navigate upwards in the menu levels.

E. The **[↓→]** button can...

- be used to decrease or change a currently selected value.
- be used to navigate downwards in the menu levels.

F. **Ready for operation**< **LED** The LED illuminates green when the system is ready for operation. This means that the system is not blocked, and that deep discharge protection is not active.

G. **Battery operation**< **LED** The LED illuminates yellow when the system is in battery operation.

H. **Sum of failures**< **LED** The LED illuminates red when there is a fault in the system.

I. **Charging failure**< **LED** The LED illuminates red when the charging or battery monitor reports a fault.

## 2.2. Menu navigation chart

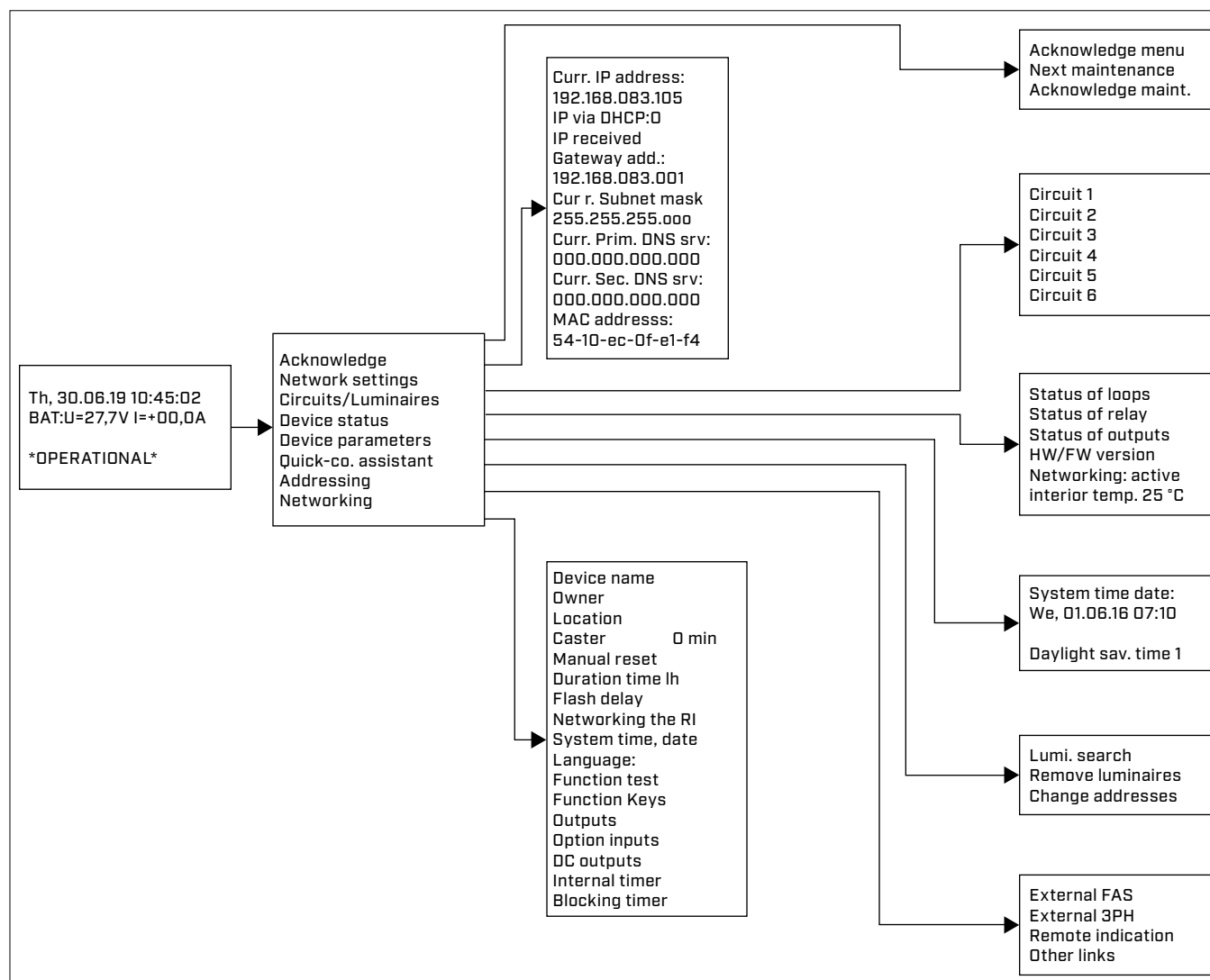


Figure 2.2

## 2.3. Main menu

The main menu of the SU interface will display the following information [see **Figure 2.3**].

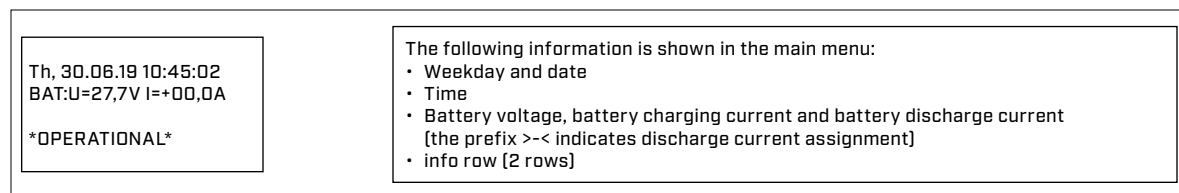


Figure 2.3

The info rows in the main menu show important operating information. The following is a list of the possible information (see Figure 2.3.1) and faults (see Figure 2.3.2). Note that if there are multiple messages at the same time, the information alternates on the display.

### 2.3.1. Information description in the info row:

1. Info row	2. Info row
	* READY FOR OPERATION *
* NOT *	* READY FOR OPERATION *
* BLOCKED! *	BY REMOTE BLOCKING
* BLOCKED! *	* BY INT. TIMER *
* BLOCKED! *	* BY MENU! *
	SYSTEM MAINS FAILURE
FIRE ALARM INPUT	* ACTIVE *
PHASE MONITOR	* ACTIVE *
MAIN DISTRIBUTOR OVERRUN ACTIVE!	REMAINING DURATION: #####
SUB-DISTRIBUTOR OVERRUN ACTIVE!	REMAINING DURATION: #####
	* CONTINUOUS LIGHTING OFF *
STANDBY LIGHTING	* ON *
SIMULATION PHASE	MONITOR ACTIVE
FUNCTION TEST RUNNING	FT DURATION: #####
OPERATIONAL ENDURANCE TEST	OT DURATION: #####
ANNUAL MAINTENANCE	DUE SHORTLY
STATUTORY ANNUAL	* MAINTENANCE DUE *
APPOINTMENT SCHEDULING	+43-732-770811-35
ADDRESSING MODE ACTIVE	LIMITED FUNCTION!
* SETUP PROTECTION FOR THE *	SYSTEM ACTIVATED!
FAS ACTIVATED BY	NETWORK PARTICIPANT
3PH ACTIVATED BY	NETWORK PARTICIPANT
NETWORK PARTICIPANT	CANNOT BE REACHED
FSU SW OPTION NOT	DE-ENERGISED!
* NT-TEMP. SENSOR *	* MISSING! *
* NT-TEMPERATURE *	* TOO HIGH *
* FT MUST BE *	* PERFORMED! *
* PCB IS NOT *	* COATED! *
EXTERNAL SAFETY	POWER SOURCE ACTIVE

Figure 2.3.1

### 2.3.2. Fault description in the info row:

1. Info row	2. Info row
* ELECTRIC CIRCUIT OR *	* LIGHT FAULT *
* FUSE FAULTY *	* ELECTRIC CIRCUIT: 1 *
* FUSE FAULTY *	* ELECTRIC CIRCUIT: 2 *
* FUSE FAULTY *	* ELECTRIC CIRCUIT: 3 *
* FUSE FAULTY *	* ELECTRIC CIRCUIT: 4 *
* FUSE FAULTY *	* ELECTRIC CIRCUIT: 5 *
* FUSE FAULTY *	* ELECTRIC CIRCUIT: 6 *
* SHORT CIRCUIT *	* DC-01 *
* SHORT CIRCUIT *	* DC-02 *

* INTERNAL *	* HARDWARE ERROR *
* WARNING *	* OVERLOAD *
* OVERLOAD *	* SHUT-DOWN *
* COMM. FAULT *	WITH DISPLAY UNIT!
* TOTAL DISCHARGE *	* NOT ACKNOWLEDGED! *
AUTONOMY TIME TOO SHORT!	REPLACE BATTERY!
* CHARGING FAULT *	* CURRENT TOO HIGH *
* CHARGING FAULT *	* CURRENT TOO LOW *
* COMM. FAULT *	* CHARGING UNIT! *
* CHARGING FAULT *	* POWER PACK FAULTY *
* CHARGING FAULT *	* UNDERVOLTAGE *
* CHARGING FAULT *	* OVERVOLTAGE *
* CHARGING FAULT *	* INTERRUPTION *
MAXIMUM CHARGING DURATION	* EXCEEDED! *
* CHARGING FAULT *	* FLOW FAULT 1 *
* CHARGING FAULT *	* FLOW FAULT 2 *
* FAULT WHEN *	* SENDING E-MAIL *
* SWITCH ALLOCATION *	* INCORRECT! *
* CHARGING FAULT *	* MAINS RELAY FAULTY*
* FUNCTION TEST *	* FAILED *
* FT FAILED*	* OVERLOAD *
* CALIBRATION *	* FAILED *
INVALID FLASH	DELAY TIME!
DC-01: MINIMUM CURRENT	NOT REACHED!
DC-02: MINIMUM CURRENT	NOT REACHED!
INTERIOR TEMPERATURE	CRITICAL!
* OVERLOAD *	* ELECTRIC CIRCUIT: 1 *
* OVERLOAD *	* ELECTRIC CIRCUIT: 2 *
* OVERLOAD *	* ELECTRIC CIRCUIT: 3 *
* OVERLOAD *	* ELECTRIC CIRCUIT: 4 *
* OVERLOAD *	* ELECTRIC CIRCUIT: 5 *
* OVERLOAD *	* ELECTRIC CIRCUIT: 6 *
* WARNING *	* TOTAL DISCHARGE *
* LIGHT FAULT *	* UNDERVOLTAGE *

**Figure 2.3.2**

## 2.4. Main overview

From the main menu, you can press the [Menu/OK] button to access the menu overview:

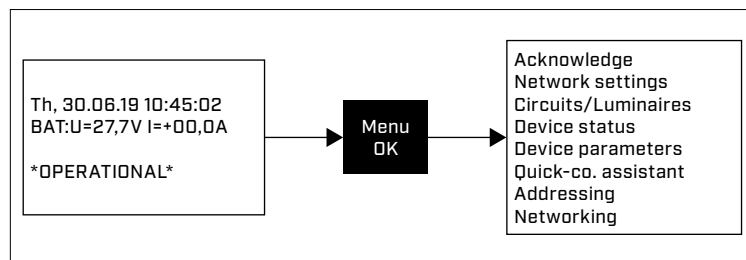


Figure 2.4

## 2.5. Acknowledgement functions and information on maintenance

From the overview menu, you can press the [Menu/OK] button on Acknowledge to access the Acknowledgment function.

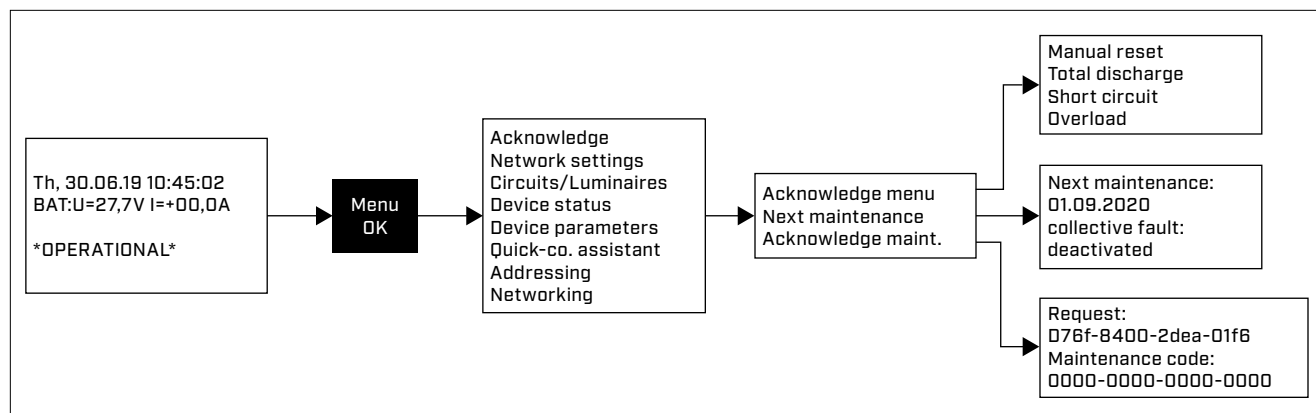


Figure 2.5

From the acknowledgment functions, you can access the following submenus:

- **Acknowledge menu**
- **Next maintenance**
- **Acknowledge maint.**

The following events can be acknowledged in **Acknowledge** submenu:

- **Manual reset** (if activated) The Manual reset function can be stored for freely programmable function buttons F1 and F2, as well as for inputs I3 to I4, and is active due to this assignment. Activating this function results in lights that are in standby mode having to be acknowledged using the manual reset function in order to return to standby mode after they are switched on (e.g. due to a mains failure).
- **Total discharge** (if triggered)
- **Short circuit** (if triggered)
- **Overload** (if triggered)

The time of the next statutory maintenance and the activated or deactivated status for the collective fault can be viewed from **Next maintenance** submenu.

From **Acknowledge maint.** submenu, you can enter the maintenance code to select a maintenance interval for the statutory mandatory maintenance that is a maximum of 15 months later or earlier. If maintenance is due, the maintenance message is displayed in the main menu's info row. Enter the maintenance code provided as a response in the row provided [0000-0000-0000-0000] and confirm the entry by pressing the [OK] function button. Maintenance and the maintenance message are reset, and the new date is stored.

## 2.6. Information on the device status

From the overview menu, you can press the [Menu/OK] button on Device Status to access the Status Menu.

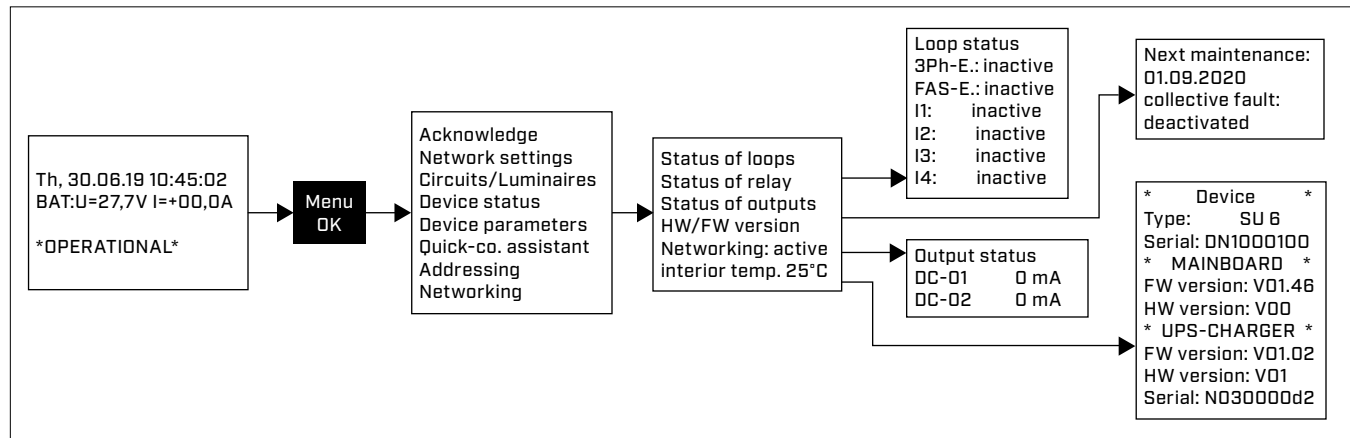


Figure 2.6

From the Status Menu, you can access the following submenus:

- **Loops status:** Shows the statuses of current loops for 3Ph-E., BMA-E., I1, I2, I3 & I4 with active or inactive.
- **Relay status:** Shows the contact statuses for relay 1, relay 2 & relay 3 with closed or open.
- **Outputs status:** Displays the measured current values on the devices connected to outputs DC-01 and DC-02.
- **HW/FW version:** Use to query the system type, the firmware version, the hardware version, and the mainboard serial number.

## 2.7. Networking information

From the overview menu, you can press the [Menu/OK] button on Networking to access the Networking Menu.

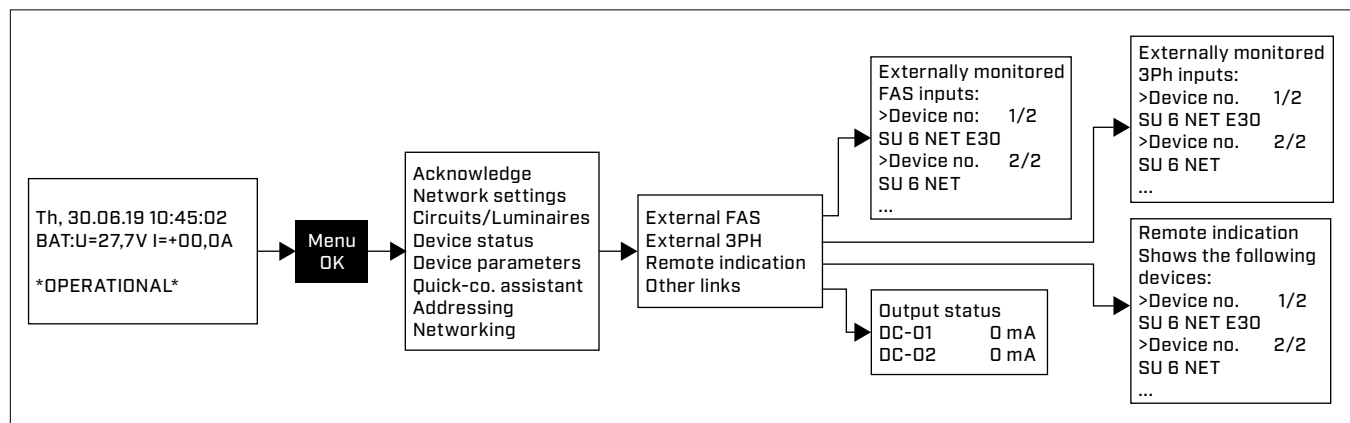


Figure 2.7

In Networking Menu, you can access the following submenus:

- **External FAS:** Displays Battery units monitored via the FAS input that is wired. You can press the [OK] button to view the name and the IP address for the relevant Battery unit. The required networking for the FAS function is carried out on the SU control user interface. When implementing this networking design, all Battery units are switched on when the input from the fire alarm system is active.
- **External 3Ph:** Displays Battery units that monitored via the 3PH input that is wired. You can press the [OK] button to view the name and the IP address for the relevant Battery unit. The required networking for the 3PH function is carried out on the SU CONTROL user interface. When implementing this networking design, all Battery units are switched on when the input from the emergency lighting 3PH monitor is active.
- **Remote indication:** Displays Battery units monitored via the SU remote display that is wired. You can press the [OK] button to view the name and the IP address for the relevant Battery unit. The required networking for the Battery units to the SU remote display that is used is carried out on the SU CONTROL user interface. When implementing this networking design, the system statuses of all applicable Battery units are shown on the SU remote display and controlled via the key switch due to the stored function.
- **Other link:** Displays Battery units in which the lights monitored via control inputs I1 to I4 that are wired. You can press the [OK] button to view the name and the IP address for the relevant Battery unit, as well as the link [e.g. I1 linked to EC1-electric circuit 1, ADDR 1-address 1]. The required networking for control inputs I1 to I4 to lights in other Battery units is carried out on the SU CONTROL user interface. When implementing this networking design, all applicable lights are switched according to the input statuses of the assigned contacts I1 to I4.



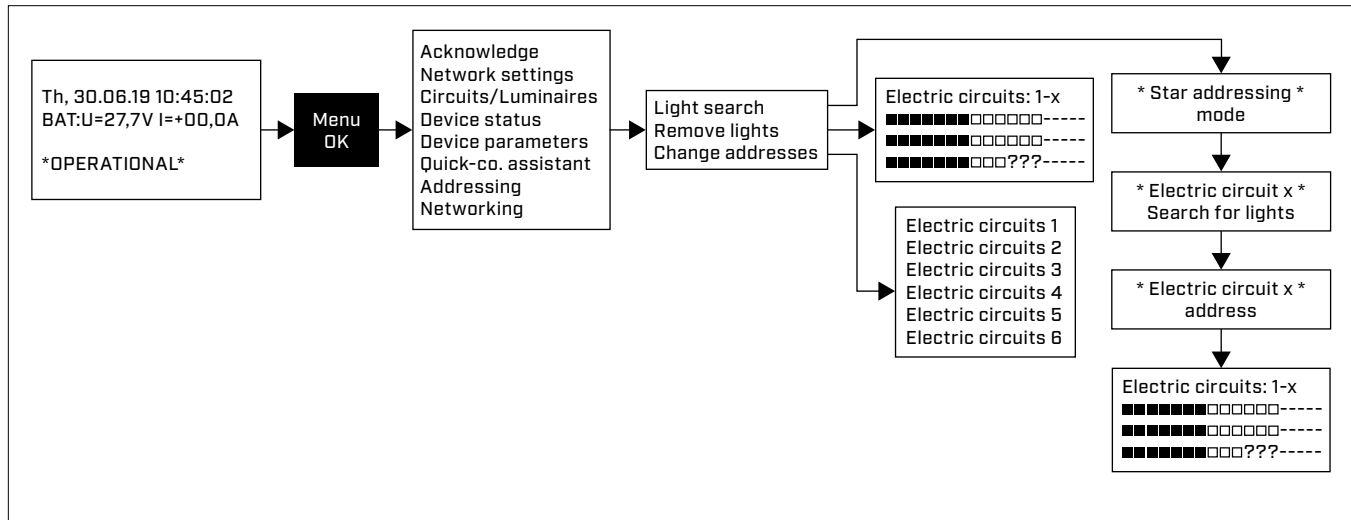
- Light not yet configured
- Light not present

- Light with continuous lighting [CL] switching mode assigned
- Light with standby lighting [SL] switching mode assigned

After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

### 2.8.2.2. Addressing

From the overview menu, you can press the [Menu/OK] button on Addressing to access the Addressing Menu.



**Figure 2.8.2.2**

From the Status Menu, you can access the following submenus:

- **Light search:** This option allows to configure the light and setting the switching mode for each light. The setup is the same as in Quick configuration. Please see 3.8.2.1 for more information.
- **Remove light:** Press the [OK] button to navigate forwards by one light and the [ESC] button to navigate backwards by one light. The symbol for the relevant light to which the configuration applies flashes. The [←↑] or [↓→] buttons can be used to remove the relevant light from the lighting menu.
- **Change addresses:** Use the cursor to navigate to the required electric circuit number and press [OK] to start addressing mode. The display shows a change menu with the old address, the new address, and the corresponding light identification number as entries. The new address for the first light flashes and can be changed using the [←↑] and [↓→] buttons. Press the [OK] button to navigate forwards by one number or light and the [ESC] button to navigate backwards by one number or light. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration. As additional information, the display shows >To complete the changes, please start the function test. If the same address is assigned multiple times, the system displays the Entry invalid! error message when you try to save, and the system returns to the change menu.

## 2.8.3. Configuring the lights and electric circuit info

From the overview menu, you can press the [Menu/OK] button on Circuits/Luminaires to access the Electric circuit menu.

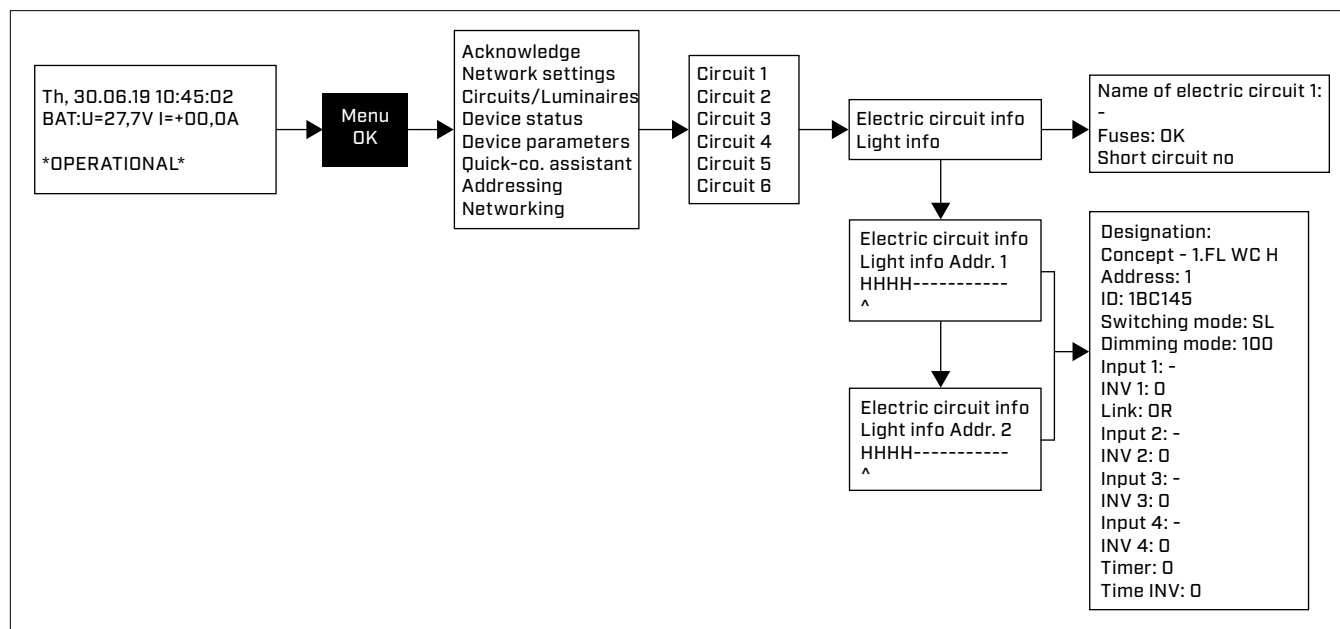


Figure 2.8.3

### 3.8.2.1. Designation assignment and status info for the electric circuits

If you select Electric circuit info in menu and press [OK] to access the assigned change overview. In this menu, you can assign a name to the electric circuit and view the status of the electric circuit. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

### 3.8.2.2. Configuring the lights

If you go down in the menu, you can select light info for the individual addresses. Pressing the [OK] button opens the configuration menu for the selected light address. The following options are available in the configuration menu:

- Assigning a designation to the light
- View the light address
- View the ID number
- Assign switching mode >SL< for standby lighting or >CL< for continuous lighting
- The dimming value can be set between 30 and 100 %, this setting is reset to 100% during emergency situation
- Assigning control inputs [I1, I2, I3, I4, F1, F2] and storing an AND or an OR link. The control inputs can be inverted using INV 1 to INV 4
- Activate the timer function
- Invert the timer function

After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

## 2.8.4. Network settings

From the overview menu, you can press the [Menu/OK] button on Network settings to access the Network settings menu.

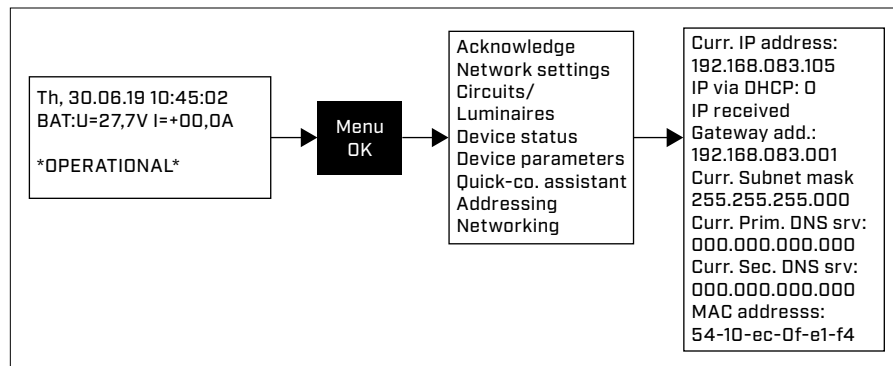


Figure 2.8.4

In network settings, you can choose between a static setting for the IP address and obtaining the IP address via DHCP [automatic assignment of an IP address via the DHCP server]. You can choose by selecting "IP via DHCP". A value of 0 means that the IP address, Gateway

Addr., Subnet mask, Prim. DNS srv. and Sec. DNS srv. must be entered manually. A value of 1 means that the network settings listed are obtained automatically via a DHCP server. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

## 2.8.5. Setting the system parameters

From the overview menu, you can press the [Menu/OK] button on Device parameters to access the Device parameters menu.

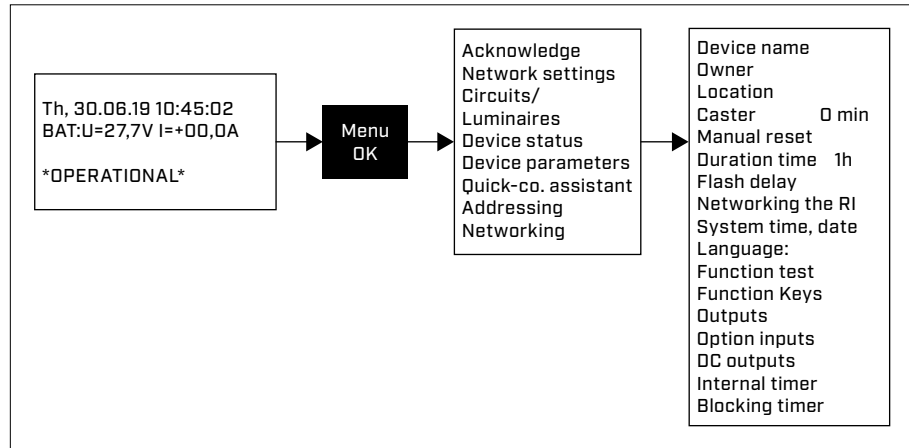


Figure 2.8.5

### 5.8.2.1. Assigning a device name

A system designation can be entered in Device name in the Device parameters. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

### 5.8.2.2. Assigning a proprietor

A system proprietor can be entered in Owner in the Device parameters. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

### 5.8.2.3. Assigning the location

A system location can be entered in Location in the Device parameters. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

### 5.8.2.4. Setting a time delay [caster] time

A value can be entered for the SL caster time in Caster in the Device parameters. This means that, if there is a mains failure and the mains then returns, the lights with standby lighting (SL) operating mode do not return to the initial SL status until the specified overrun time has elapsed. A time specification of 0 to 20 min can be set. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

### 5.8.2.5. Activating the manual reset

The Manual reset application is coupled to the time delay function. If a value of 0 is specified, the safety lights that have standby mode assigned will be changed from switched on to switched off if there is a mains failure, the mains then returns and an overrun time is set.

If a value of 1 is set, the manual reset must be activated if the mains fails and then returns, in order to switch the lights that have standby mode assigned off again. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

### 5.8.2.6. Setting the nominal operating hours

The system's nominal operating hours can be entered in Duration time [1h, 2h, 3h or 8h]. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

### 5.8.2.7. Setting the flash delay

The flash time for flash lights can be changed by specifying a time in Flash delay. The flash delay is used in conjunction with flash lights (lights with an adaptive flashing function). You can specify a value to change the flash time for the flash lights and implement a continuous light for example. It is important that all flash lights that are used to implement the continuous light are located on an electric circuit and that the flash interval of 1 second is not exceeded. Flash delay = 0 ms means that all flash lights that are connected and programmed flash simultaneously. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

#### **5.8.2.8. Networking status for the remote display**

You can view whether the remote display that is connected is networked in Networking the RD. The inactive status means that the remote display is not activated. The active status means that the remote display is activated.

#### **5.8.2.9. Setting the date and time**

The date and time can be set, and the automatic clock change activated in System time, date. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

#### **5.8.2.10. Setting the language**

The desired language can be set in the Language sub-menu. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

#### **5.8.2.11. Settings for the automatic function test**

You can define the day and time for the function test in Function test. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

#### **5.8.2.12. Configuring function buttons F1 and F2**

Functions can be stored for buttons [F1] and [F2] in Function buttons. You can choose between the following options:

- No function
- Switch
- Block system
- Phase monitoring simulation active
- Manual reset
- Acknowledge total discharge
- Switch off continuous lighting
- Switch on standby lighting

After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

#### **5.8.2.13. Configuring the outputs for relay 1 / relay 2 / relay 3 / DC-01**

Events can be set for the Relay 1, Relay 2, Relay 3 and DC-01 outputs in the Outputs sub-menu. Output DC-01 must be used as the switching output for this. The following events are available:

- Ready for operation
- Mains failure
- SD mains failure
- Fire alarm input
- Charging fault
- Electric circuit fault
- Light fault
- Total discharge protection
- Function test
- Operational endurance test

You can use Relay inverted to invert the relay's function. If a value of 0 is set, this means that the event or Relay inverted function is inactive. If a value of 1 is set, this means that the event or Relay inverted function is active. After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

#### **5.8.2.14. Configuring optional inputs I3 and I4**

Functions can be stored for inputs I3 and I4 in Optional inputs. The options available are:

- No function
- Switch function
- Block function
- Simul. for phase relay
- Manual reset
- Reset total discharge
- Continuous lighting off
- Standby lighting on
- External safety power source active
- FSU release

After setting is complete, press and hold the [OK] button for longer than 2 seconds to save the configuration.

## 3. Maintenance

### 3.1. Annual maintenance

All systems as a yearly maintenance program in the system and will automatically renew 12 months following the last maintenance. This date can be adjusted in a range of 15 months depending on the user needs during the original commissioning.

This yearly maintenance is mainly to have a technician validate the integrity of the system and validate if new firmware update can be push on the system.

If you are near the yearly maintenance schedule date or your system push a notification to this effect, please contact your representative as soon as possible. [See 6.3]

### 3.2. Device replacement

If a device is defective and need replacement, please contact your representative. [See 6.3]

If the whole units need to be replaced, note that the unique driver ID# will be different. For this reason, the removal of the previous device and commissioning of the new one is required.

#### 3.2.1. Commissioning a replacement device

- Please go in the Circuit Setting tab and click on the trash can icon next to the device address.
- Then follow the steps specified in section 2.7 of this documents.

### 3.3. Contact information

Service@aimlite.com

Toll Free: 1-866-348-2374 (ex 1101)

Tel: 514-227-1288 (ex 1101)

Fax: 514-227-1285