

AC Touch Pig Alarm System User Manual



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This declaration of conformity is issued under the sole responsibility of the manufacturer.

Product: AC Touch
Type, model: Alarm system

EU directives: 2011/65/EU RoHS directive
2014/30/EU Electromagnetic Compatibility (EMC)
2014/35/EU Low Voltage Directive (LVD)

Standards: EN 63000:2018
EN 61000-6-2:2019
EN 61000-6-4:2019
EN 62368-1:2019

We declare as manufacturer that the products meet the requirements of the listed directives and standards.

Location: Hedelund 4, DK 7870 Roslev

Date: 2021.04.09



Tommy Bak
CTO

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Product and Documentation Changes

Big Dutchman reserves the right to change this document and the product herein described without further notice. In case of doubt, please contact Big Dutchman.

The date of change appears from the front and back pages.



In case of an operating error or improper use, alarm systems can cause production losses or the loss of lives among animals.

Big Dutchman recommends that alarm systems be mounted, operated and serviced only by trained staff and that the emergency opening and alarm system be maintained and tested at regular intervals, in accordance with Big Dutchman's terms and conditions of sales and delivery.

The installation must be carried out by an authorized electrician and according to current national regulations and in the EU also applicable EU regulations.



Big Dutchman recommends that prepaid mobile service cards are not used for alarm units with mobile modem.



Big Dutchman recommends that the alarm unit is connected to its own separate telephone line to ensure optimum use and safety. It is therefore important to avoid connecting the alarm unit together with, e.g. a fax machine.

Note

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1 Product description

The AC Touch alarm system is primarily used for monitoring pig houses. The system can also be used for triggering alarms at equipment errors. The alarm AC Touch collects all incidents such as alarms and operation in a joint log, which can be used for analysis and statistics.

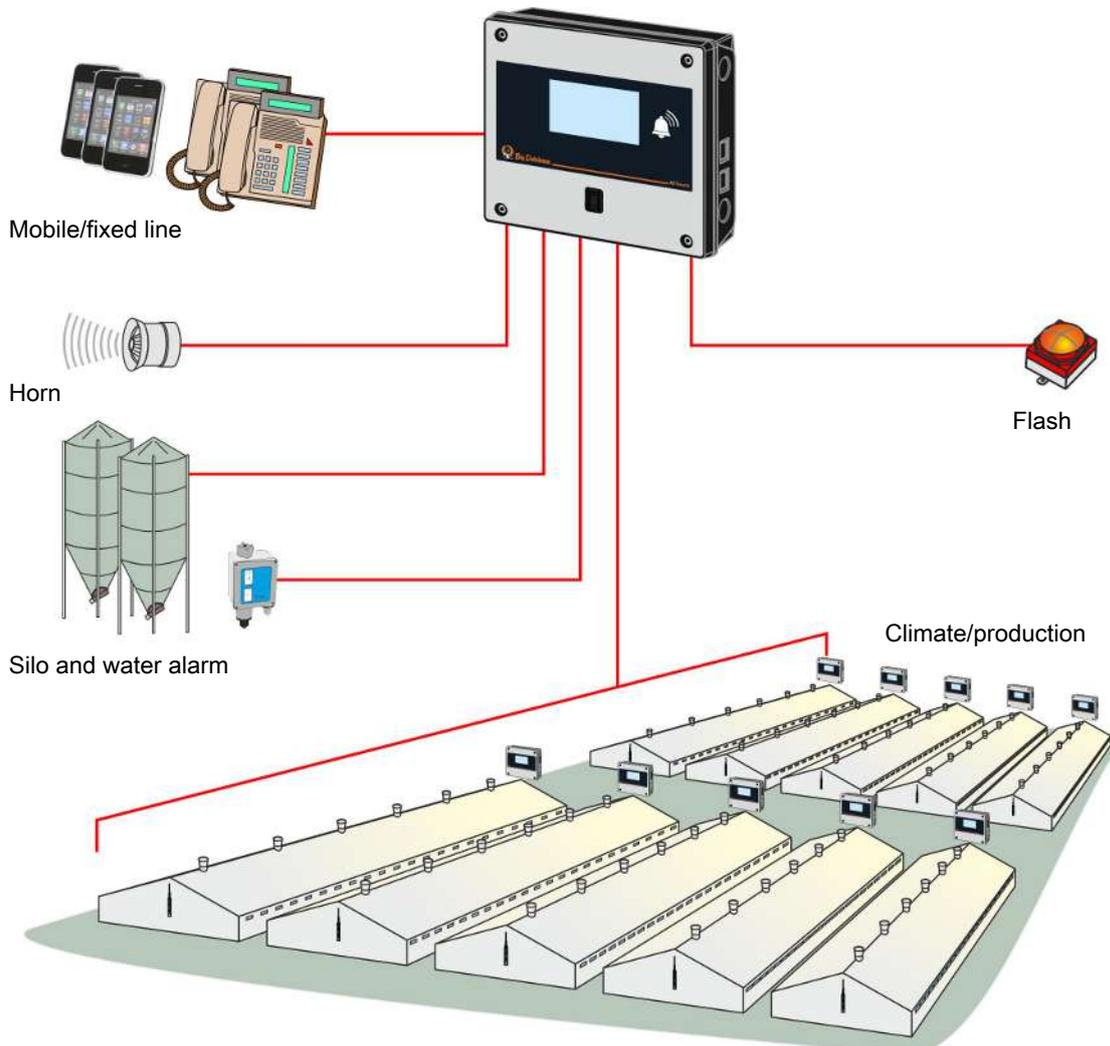


Figure 1: AC Touch alarm system

Accessories

Telephone modem (GSM and fixed-line) is available as accessory for retrofitting in the AC Touch cabinet. With a modem, AC Touch can call up and describe alarms in a clear voice or send an SMS to the unit for information regarding alarm status as well as acknowledge active alarms. The SMS message option is available in variants that have a retrofit GSM modem. As an accessory, there is also a fixed-line modem for areas with poor mobile coverage.

As an accessory, an extension box comes with a further 10 inputs. Up to nine extension boxes can be connected to a alarm unit alarm unit. Place the extension boxes immediately next to the alarm unit. Another extension option is to use a DOL Touch as a client unit. It can be done in a LAN network, mainly where the alarm system covers a geographically large area. You can use up to nine client units in the same system.

The alarm unit has the following characteristics:**Supervision**

- Of digital ON/OFF outputs.
- Of its power supply and backup battery.
- Of its connection to external alarms.

Alarms

- Selecting alarm type: General alarms, silent alarms, and silent alarms at night.
- Alarm profiles.
- Local: horn, flash.
- External: A phone call and SMS message.

User Management/Safety

- 6-digit PIN.
- Safe user identification.
- Operation log.
- Central user management.

Overview and History

- One year log for all events.
- 30-day graphical log display of measurements.

Technical

- User-friendly touch screen with easily accessible overview menus.
- Up to nine extension boxes.
- Setup of the unit as master/client.
- Battery, supervised by the alarm unit.

2 User guide

The alarm unit is operated by means of the touch display.

The view in the display is called a page. One page can contain more information than what you can immediately see, and you can scroll up and down on the page.

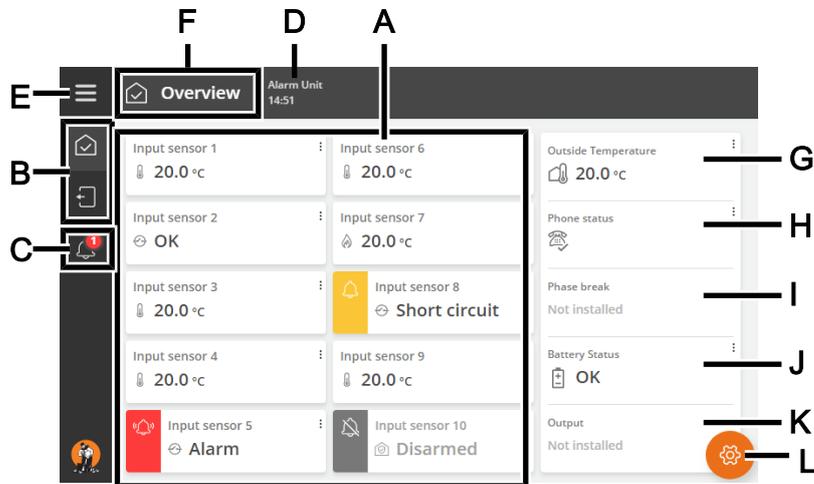


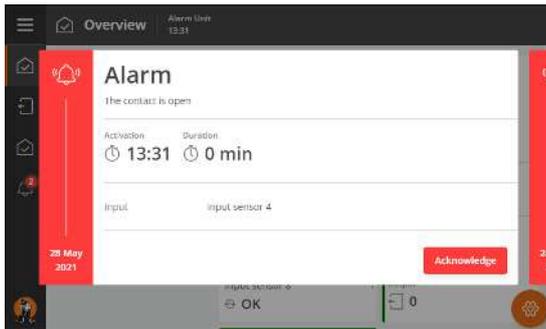
Figure 2: 7" display.

- A** The page content.
- B** Shortcuts to available pages.
- C** Shortcut to activity log.
- D** The name of the alarm unit and the time of day.
- E** The icon and name of the displayed page.
- F** Access to Settings and language selection. See also [Select display language \[▶ 13\]](#).
- G** Display of outside temperature, if outside temperature sensor is connected. Not possible for all variants.
- H** Display of telephone status. See also [Remote control \[▶ 18\]](#).
- I** Display of the phase break status. See also the [Technical Manual](#).
- J** Display of the battery status. See also [Maintenance instructions \[▶ 30\]](#).
- K** Display of the output status.
- L** Access to page setup. See also [Editing and creating pages \[▶ 13\]](#).

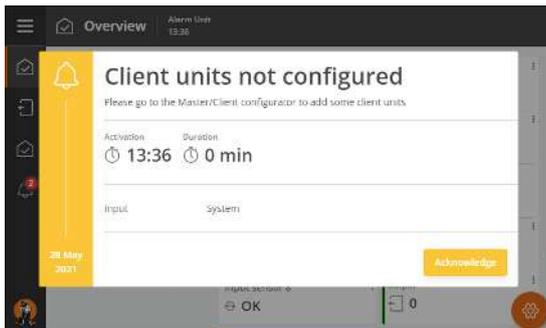
The colors of the icons, the text and lines on the pages show the current status of the function.

- Green: All is OK
- Red: Alarm
- Yellow: Supervision of the function is disabled
- Orange: The livestock house is set for service break / warning
- Empty: Nothing is installed on this input

2.1 Handling alarms



The alarm units displays the alarms as a pop-up.



There are two types of alarm:

Hard alarm:

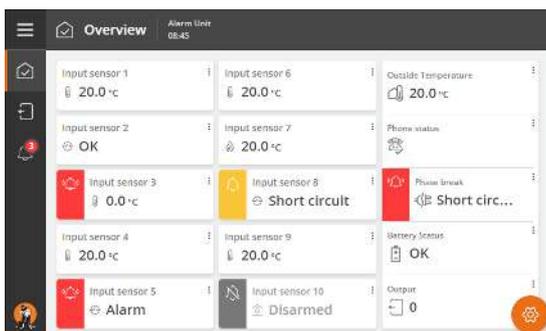
Red alarm pop-up on the alarm unit. At the same time local alarms such as horns and flashes are triggered, and alarms are also sent by phone calls and SMS message.

Silent alarm (soft):

Yellow warning pop-up on the alarm unit and registration in the activity log.

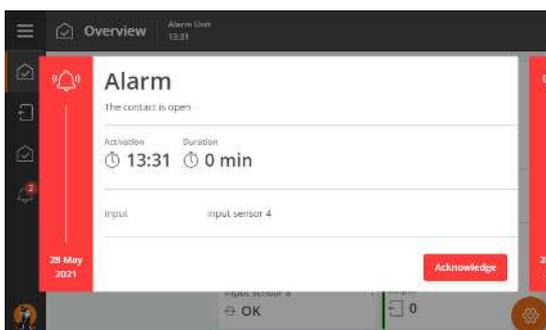
See the Technical Manual about setting up inputs.

In the event of a power failure, local alarms with horns and flashes will change from constant to pulsing.



The icon for the activity log indicates the number of active alarms, as long as an alarm situation has not ended.

The icon for the inputs with alarm is also red/yellow on the page **Overview**.



Acknowledging alarms

Press **Acknowledge** to stop the alarm and calls.

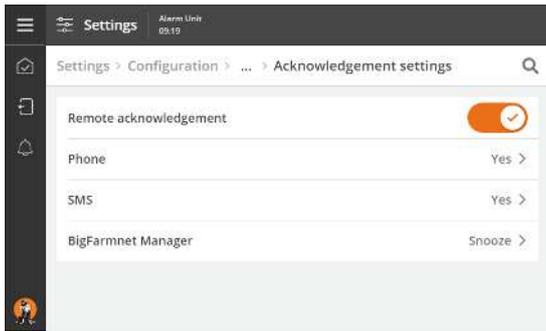
Alarms can also be acknowledged by:

- sending an SMS message to the alarm unit. See Stop alarm with phone call [▶ 10].
- calling the alarm unit. See Stop alarm with phone call [▶ 10].
- acknowledging the alarm via the management programme BigFarmNet Manager.

The alarm unit cannot be operated before alarms have been acknowledged.

Login

The alarm unit can be set up so that the user must log in - with code or fingerprint (applies only to alarm units with fingerprint scanner) - to be able to acknowledge alarms. See User login [▶ 28].



Temporary remote acknowledgment - snooze

The alarm unit can be set up for temporary alarm acknowledgment via phone, SMS message or BigFarmNet Manager. If the alarm situation continues, the alarm unit activates the alarm again after 15 minutes (setting).

See the Technical Manual.

2.1.1 Stop alarm with phone call

In case of alarm the alarm unit makes a call (only with mobile ((GSM)) or fixed-line modem).

- Stop the alarm by answering the call and pressing **1** on the phone to acknowledge the alarm. Press **2** for the next alarm. Press **9** to repeat the alarm.
- The alarm unit acknowledges the alarm.

2.1.2 Stop alarm with SMS message

In case of alarm the alarm unit sends an SMS message (only with mobile modem).

- Stop the alarm by responding to the SMS alarm and sending the text **ACK**.
- The alarm unit acknowledges the alarm and sends an SMS confirmation stating that the alarm has been acknowledged.

2.2 Pages

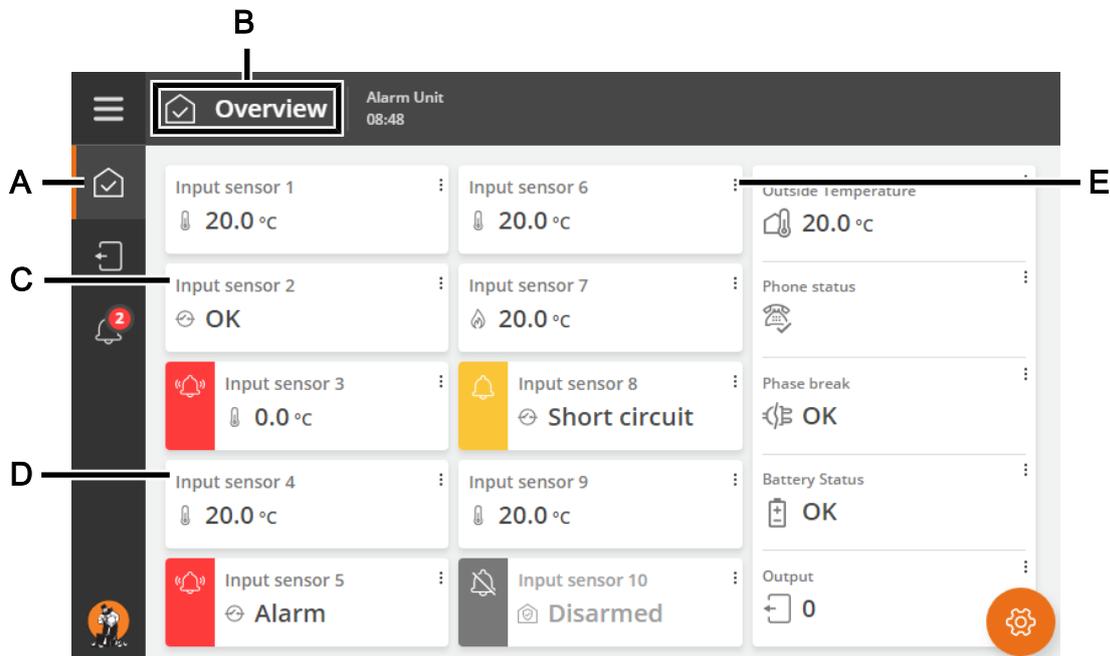
We recommend that you create a number of pages to show exactly the necessary functions and values and cover the needs of the daily user. See also Editing and creating pages [▶ 13].

The pages work as shortcuts to the key values and settings and therefore gives you quick access to reading values and changing some settings.

The individual key values shown on the pages are also called cards.

2.2.1 The page Overview

Gives an overview of the installed alarm inputs and their status and provides a shortcut to the setup of the inputs. Each input appears as a card on the page.



- A** The icon for the **Overview** page.
- B** The icon and name of the displayed page.
- C** Card for the each input.
- D** The color of the card shows the current status of the input.
 - No color: OK
 - Red: Alarm
 - Yellow: Warning
 - Grey: Supervision of the input is paused
- E** The 3 dots indicate that pressing the card will display additional information and give access to reading current values and settings and to enable or disable supervision of the input.

Depending on the type of input pressed, the card will display additional information such as:

Supervision	Enabling and disabling supervision of the input. See the section Stop input supervision [▶ 25].
Setpoint	The set value for the input.
Alarm limit	The value that will trigger the alarm if exceeded.
Info	Information about the input, such as, name, status, current value, type, settings, etc.
History	History curve for the input.

2.2.2 The page Activity log

The alarm unit registers operation, events and alarms with the information of when they took place and when they were deactivated.

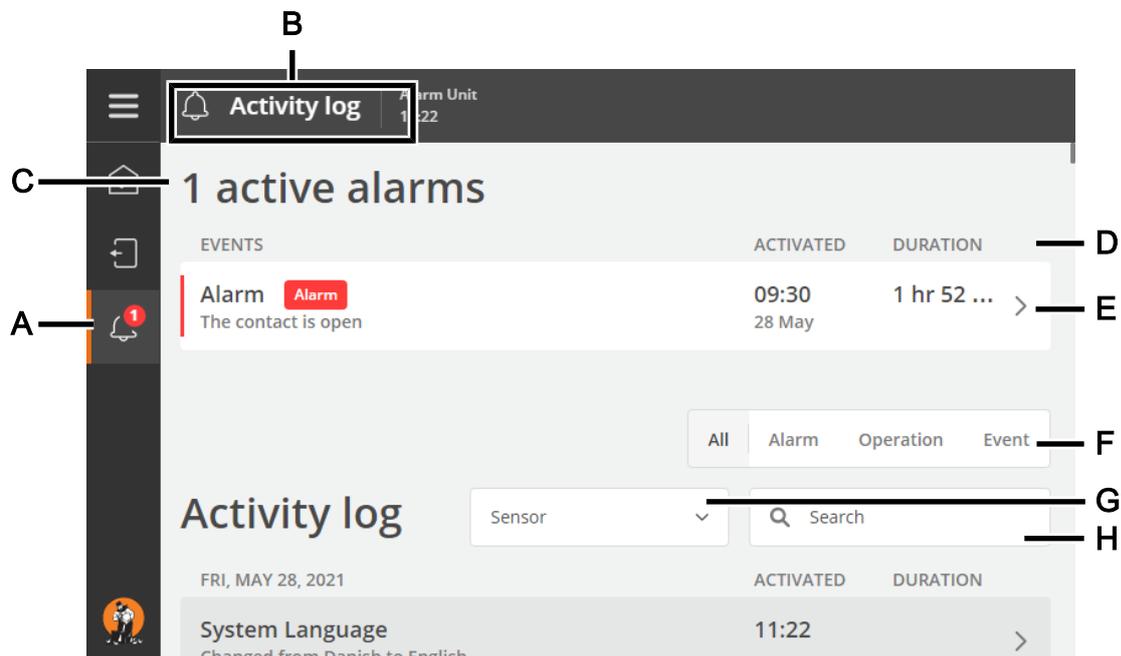
The activity log contains information about alarms:

- When the alarm occurred.
- When the alarm ended.
- The value that triggered the alarm.

Active alarms are marked in the list.

- Hard alarms are marked in red.
- Soft alarms are marked in yellow.
- Deactivated alarms are gray.

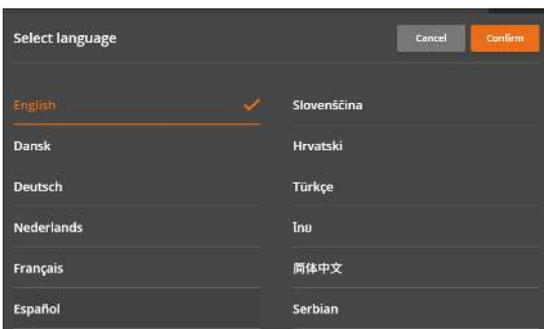
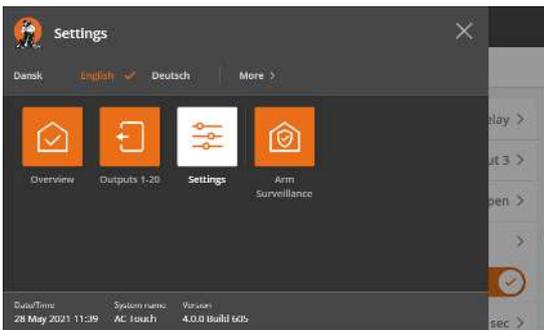
The icon for the activity log indicates the number of active alarms, as long as an alarm situation has not ended.



- A** The icon for the **Activity log** page.
- B** The icon and name of the displayed page.
- C** The number of active alarms.
- D** When the activity occurred and the duration.
- E** Press an activity to see additional information, for example, who acknowledged the alarm.
- F** Display of the various types of activities
- All: shows all types
- Alarm: shows only alarms
- Operation: shows operation of the alarm unit
- Event: shows, for example, restart of the alarm unit
- G** It is possible to filter the activity log to see only activities for specific inputs or alarms.
- H** Search the activity log by entering a search word.

2.2.3 Select display language

Press  to open the menu. The selected language is shown with a tick mark.



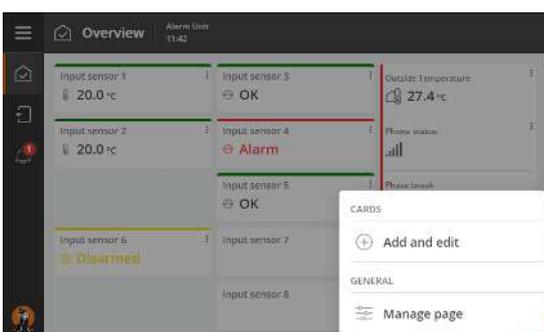
If the requested language is not shown. Press **More** and select the language from the list. Press **Confirm**.

Note that names of, for example, pages, inputs and outputs which can be named by the user are not translated into the selected language. They have English names from the factory until they are changed by the user.

Once user management is active, the display language will adapt according to the user who is logged in. See User login [▶ 28] and the Technical Manual for activation of user management.

2.2.4 Editing and creating pages

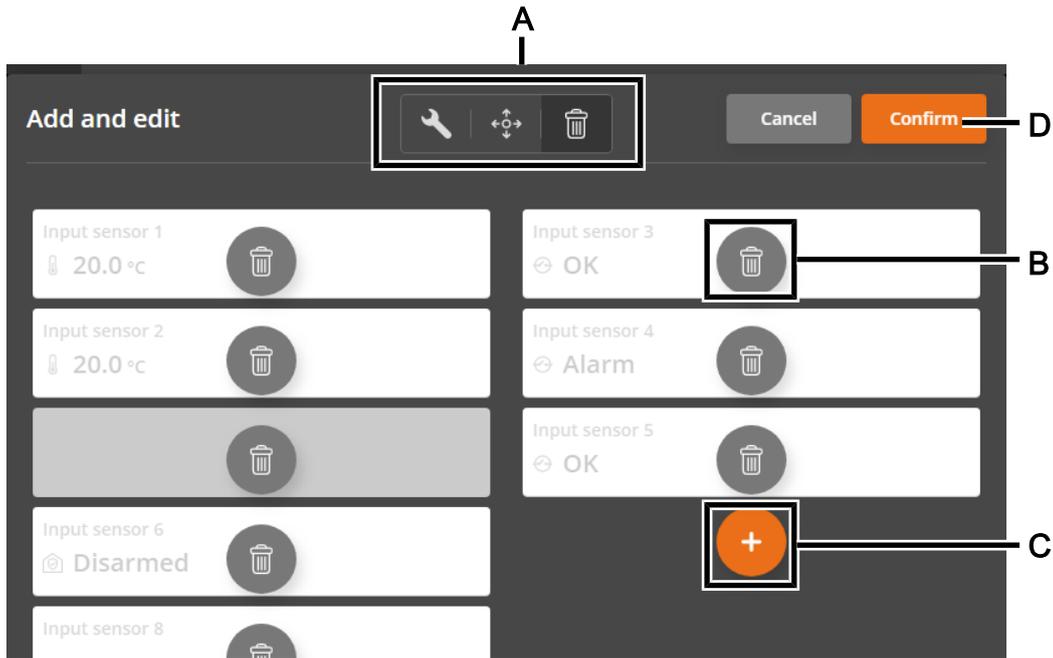
The alarm unit comes with 3 default pages. The pages can be edited by the user and additional pages can be added.



Press the gear wheel icon in the bottom right corner.

Select **Add and edit**.

Select the requested content for the page (cards). Inputs and outputs can be shown on the same page.



A Press the one of the tools to select card display, edit their content, to move or delete the cards.



Show cards in 2 columns (only applies to some variants)



Show cards in 4 columns (only applies to some variants)



Edit



Move

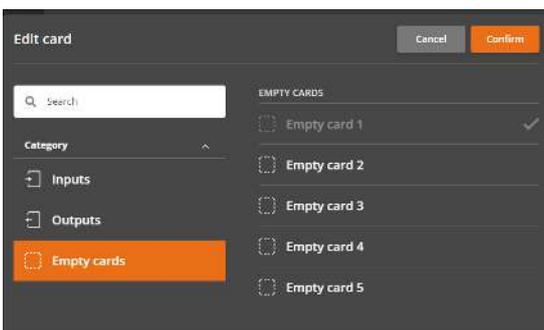


Delete

B When a tool is selected, the icons on the cards change to reflect the tool.

C Add more cards.

D Finish the setup by pressing **Confirm**.

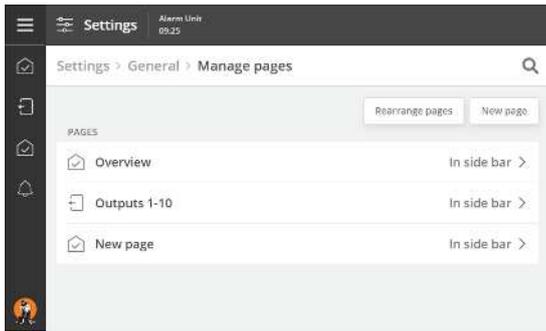


To layout the columns as you want or to group cards, you can also insert **Empty cards**.

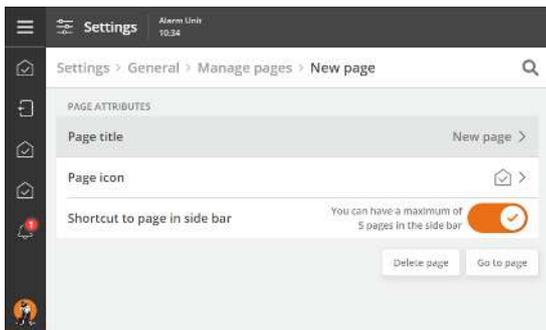
Create new page

When a new page is created, you can select if a shortcut to that page should always be shown in the display. A maximum of 5 shortcuts can be shown here. Pages without shortcuts are shown when you press the **Overview**

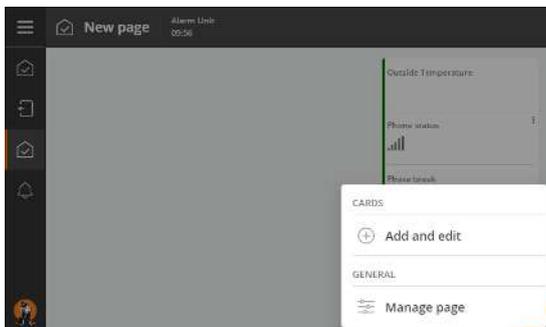




Press   **General | Manage pages.**
Press **New page.**



Name the page.
Select a suitable icon for the page content to easily recognize it.
Press **Go to page** to be able to select the content on the page.

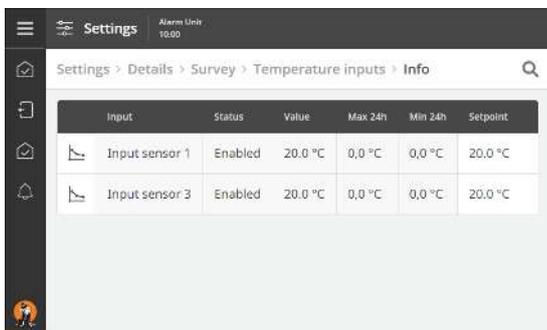


The new page is displayed.
Press the gear wheel icon in the bottom right corner and select **Add and edit** to set up the page as described earlier.

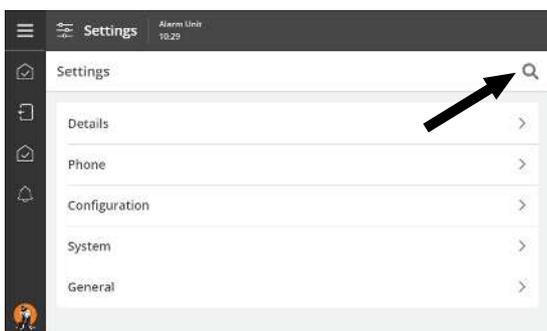
2.3 Settings

The settings menu is opened by pressing **Overview**  and then **Settings** .

The display will show the menu that was last opened.

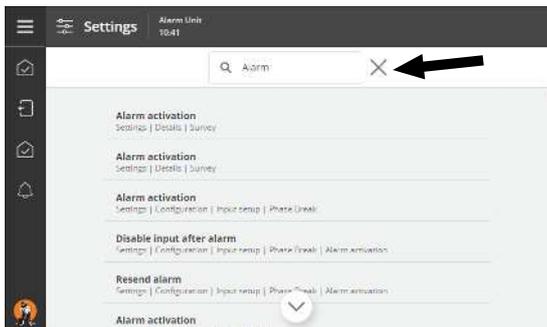


Values in white fields can be edited. Press the field to access the value change dialog.



Search in menus

Use the search field to search in menus. Enter at least 3 characters to search.



The result is shown below the search field. The path for the individual menu is also shown.

Press a search result to go directly to that menu.

Press the X at the search field to remove the search results again.

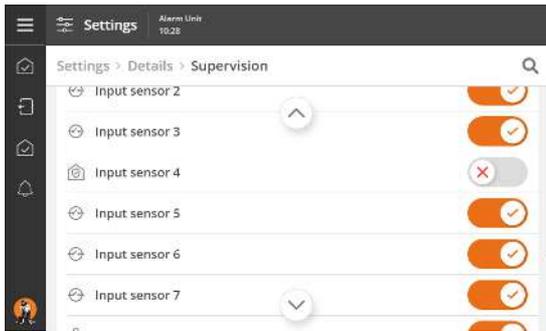


Changing the settings

Use the number keys to enter a value.

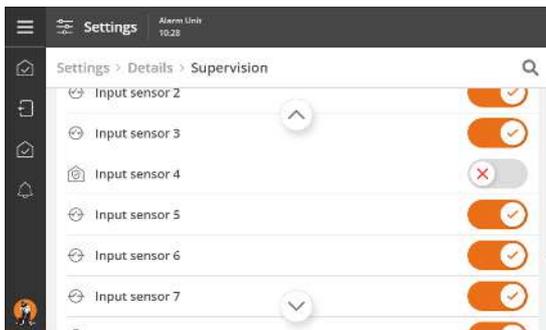
The current value, minimum and maximum available setting is shown below the line.

Press the x to delete the value, press **Cancel** to discard the setting or **Confirm** to confirm the new setting.



Activating/deactivating functions

Functions can be activated and deactivated by means of the toggle button.

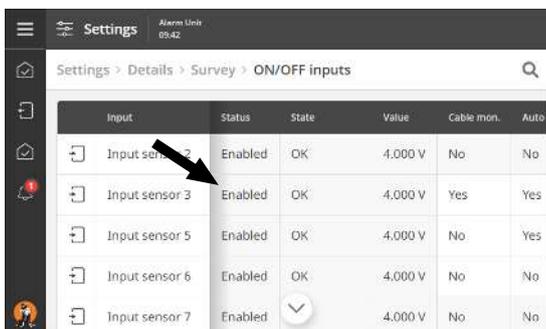


Scroll up/down

If the page or menu is higher than the display, you can scroll up/down.

The possibility to scroll is shown by the arrows in the display.

You can scroll by pressing the arrows or letting your finger slide across the display.

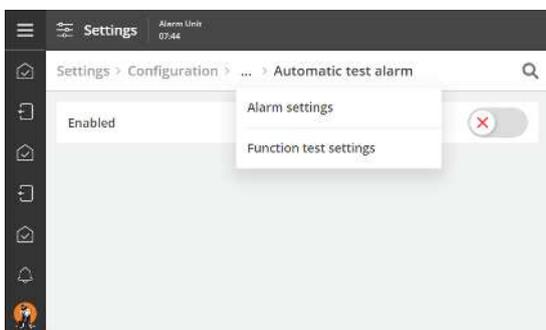


Scroll right/left

If the page or menu is wider than the display, you can scroll right/left.

The option of scrolling right/left can be seen by the shadow in the first column in the menu.

You can scroll by letting your finger slide across the display.



You can press the menu headlines at the top of the display to go back step-by-step in the menus.

If more steps are available than what can be shown, you can press the 3 dots and select a menu from the appearing list.

2.4 Remote control

As accessories for the alarm unit, a GSM telephone modem and a fixed-line (PSTN) telephone modem are also available. This allows for remote control through phone calls or SMS messages.

Only the nine phone numbers included in the alarm unit call list have access to calling and sending SMS messages to the alarm unit.

Press the shortcut for telephone in the display to see the status of the telephone.

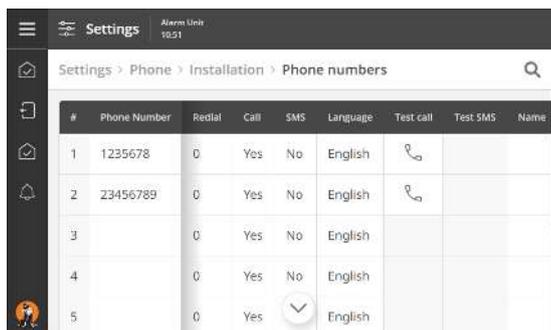
Call sequence	The alarm unit sends the alarm to the first number in the list by means of a call and/or SMS message. If the first number in the list does not respond or acknowledge, the alarm unit contacts the next number in the list.
GSM	(mobile): Information if the mobile modem is activated.
GSM signal strength	Display of the current GSM (mobile) signal strength.
GSM signal history	Trend curve of the GSM signal.
Fixed line	Information if the fixed-line modem is activated.
Delay before call	Display of the delay from start of alarm until the alarm unit calls out in case of alarm.
Call attempt time	Display of the time the alarm unit leaves the call active if no response is given. If the user does not respond to the call, the alarm unit calls the next number in the call list.
Delay between SMS	(mobile): Display of the time before the alarm unit sends a new SMS message.

2.4.1 Entering phone numbers

Enter up to 9 phone numbers the alarm unit should contact in case of alarm. The alarm unit uses the list as a sequence for contacts. If the first number in the list does not respond and acknowledge, the alarm unit contacts the next number in the list.

If you have different contact to handle specific alarms, it is also possible to connect specific inputs to a specific telephone number. The alarm unit will in that case always contact this number first and then use the list, if this phone number does not respond. See also the Technical Manual for setup of alarm inputs.

Select the menu   **Phone | Installation | Phone numbers**



#	Phone Number	Redial	Call	SMS	Language	Test call	Test SMS	Name
1	1235678	0	Yes	No	English			
2	23456789	0	Yes	No	English			
3		0	Yes	No	English			
4		0	Yes	No	English			
5		0	Yes		English			

Enter telephone numbers.

Select the wanted number of redials for each phone number before a call is made / an SMS message is sent to the next phone number.

Select whether the contact should receive a call, an SMS message, or both.

Select the language the alarm unit should provide the alarm message in.

Enter name of the contact.

Carry out a test to confirm that the alarm unit can call and send SMS messages to the number entered. This way the users also get the number to the alarm unit so that they can send SMS messages to the alarm unit.

See also the Technical Manual for more about telephone setup and to gain an overview of the calling process during an alarm.

2.4.2 SMS Commands

Send an SMS message with a standard command to the alarm unit. The alarm unit primarily responds with status information, but it is also possible to acknowledge alarms and change the order of the call sequence list.

Operation	Standard command, send SMS message	The alarm unit responds (examples)
See a list of commands	HELP	ALARM ACK CALL STATUS SETUP OUTPUT ARM DISARM
See current alarm status	ALARM ALARM 3	Alarms from all inputs. ALARM (input number) Alarm from input
Acknowledge alarm (If user management is active)	ACK ACK 176 ACK 487298 ACK 176 487298	Acknowledge all alarms. ACK (ID) Acknowledge alarm with ID. ACK (PIN) Acknowledge all alarms. ACK (ID) (PIN CODE) Acknowledge alarm with ID.
See call list	CALL	1 20304050 2 30405060 3 40506070 -
Enter which number the alarm unit should contact first	CALL (1-10)	1 30405060 2 20304050 3 40506070 4 50607080 -
See current system status	STATUS STATUS 1 ALL STATUS 1 STATUS 1 2 STATUS OUTPUT 1 ALL STATUS OUTPUT 1 STATUS OUTPUT 1 2	Retrieve system status, e.g. Input sensor 2, Activated, OK, Status: OK Retrieve the status of all inputs in the master/client system Retrieve the status of a specific input Retrieve the status of a specific input in the master/client system Retrieve the status of all outputs in the master/client system Retrieve the status of a specific output Retrieve the status of a specific output in the master/client system
See current input status	STATUS 1	Input status e.g. Battery, 13,500 V, Status: OK
See system or input settings	SETUP	System settings, e.g. Phase break Installed: No Signal output: Horn, Flash, Relay, call, SMS Cable Monitoring: No

Operation	Standard command, send SMS message	The alarm unit responds (examples)
	SETUP 4	Alarm delay: 20 sec Disable input after alarm: No Resend alarm: Never SETUP (input number) Input settings
Activate/deactivate output	OUTPUT OUTPUT ON 1	Output status OUTPUT (status) (unit)

For systems with client units, the user can also receive and send the above SMS commands to the individual client unit. The client unit's number is added after the command – e.g. **HELP STATUS 2**.

2.5 Voice messages from the alarm unit

The alarm unit can call and tell the alarm reason in a clear voice, and the user can call it and ask for status as well as acknowledging alarms.

in case of alarm. Call the alarm unit and

- press **1** to acknowledge the alarm. press **2** to hear the next alarm. Press **9** to repeat the alarm.

During operation. Call the alarm unit and

- press **1** to hear the latest alarm.
- press **2** to change the call sequence.
- press **3** to hear the input value.
- press **9** to repeat the menu.

2.6 Details menu

The **Details** menu shows the setup of the alarm unit. Select the menu   **Settings | Details**.

2.6.1 Survey

Select the menu   **Details | Survey**

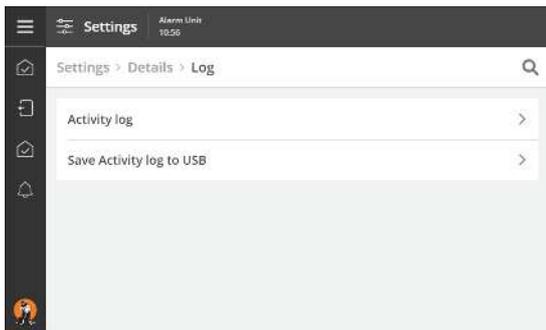
The menus under Survey shows status of the items connected to the alarm unit, as well as the items that the unit activates in case of alarm.

Setup of these functions is done in the menu   **Configuration**. See the Technical Manual for a description of the same.

ON/OFF inputs	Input (name) Status Status Value Cable monitoring Auto acknowledge Settings profile	See the Technical Manual
Alarm activation	Input (name) Silent Outputs Delay Disable after alarm Send again Silent night	See the Technical Manual

2.6.2 Log

Select the menu   **Details | Log**



It is possible to save a copy of the activity log on a USB stick.

Press **Add log** to save and name the log file. Note that the Alarm unit will overwrite previously saved log files, if they are saved using the same name.

The alarm unit saves the file on a USB stick as a txt file. This can be opened with a text editor.

See the section Activity log for a description of the activity log and the Technical Manual for how to mount a USB stick into the alarm unit.

2.6.3 Function test

Select the menu   **Details | Function test.**

Function test	Next small test
	Next large test
	Time of day for test
	Next automatic alarm
	Time of day for alarm
	Manual test
	Activate horn
	Activate flash
	Activate phone call
	Activate SMS

Big Dutchman recommends a weekly test. Sign for performed tests in the table in the back of the manual [▶ 31].



It is important to make sure that the battery is in good condition.

- During testing the voltage should not fall below 11.5 V. If that is the case the battery needs to be replaced. See Maintenance instructions [▶ 30].

2.6.3.1 Manual test - with reminder

The alarm unit can send a reminder when it is time to carry out a manual system test. There are two types of reminders - one for small tests and one for large tests. The number of days between tests can be set (see the Technical Manual), but Big Dutchman recommends that the alarm system is tested each week.

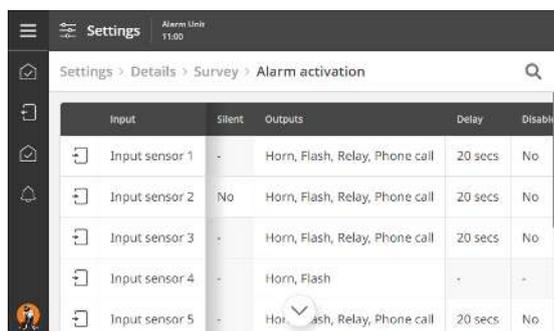
Big Dutchman has the following recommendations for test contents:

Small test	What	How
Check at least:	that the horn works	Select Activate horn in the menu Details Function test Manual test
	that the flash works	Select Activate flash in the menu Details Function test Manual test
	that the alarm unit can call and send SMS messages for alarms	Select Activate phone call Activate SMS in the menu Details Function test Manual test
	that the alarms are active for the inputs that should be monitored	Check supervision from the page Overview See in the menu Details Survey Alarm activation which alarm signal the input activates

Sign for performed tests in the table in the back of the manual.

Large test	What	How
Carry out a complete test and check the following:	that the horn works	See above
	that the flash works	See above
	that the alarm unit can call and send SMS messages for alarms	See above
	that phone calls are made to the entered numbers	Select Call sequence in the menu Phone Installation
	that the sensors are working	See below
	that phase break supervision is working	Switch off the mains supply

Sign for performed tests in the table in the back of the manual.



Input	Silent	Outputs	Delay	Disabled
Input sensor 1	-	Horn, Flash, Relay, Phone call	20 secs	No
Input sensor 2	No	Horn, Flash, Relay, Phone call	20 secs	No
Input sensor 3	-	Horn, Flash, Relay, Phone call	20 secs	No
Input sensor 4	-	Horn, Flash	-	-
Input sensor 5	-	Horn, Flash, Relay, Phone call	20 secs	No

1. Select the input you wish to test.
2. See in the menu **Details | Survey | Alarm activation** which alarm signal the input activates.
3. Trigger the alarm:
 - If it is an input with temperature sensor – heat it up by using warm water.
 - If it is an ON/ OFF- input – activate the function.
4. Check that the outputs are activated as expected.
5. Stop the alarm.
6. Sign for performed tests in the table in the back of the manual.

2.6.3.2 Automatic testing

The alarm unit can also carry out an automatic test of alarm outputs, e.g. so that the flash and horn is activated during a period at a set time (see the Technical Manual).

The date for the next automatic test can be seen in the menu.

2.6.4 System status

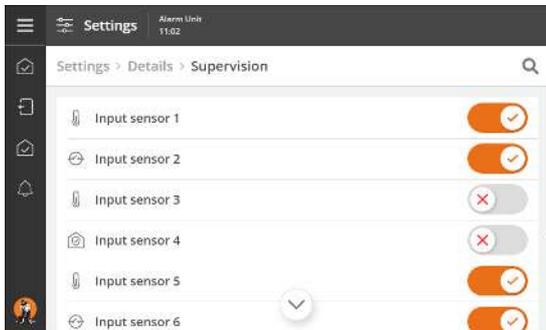
Under **System status** the alarm unit shows information regarding the current system status for hardware, software and network settings.

Select the menu   **Details | System status.**

System status		
Phase break		
Voltage mains/battery	Battery	
	Internal 5V	
	Internal 12V	
	Internal 24V	
	Internal temperature	
CPU module	Software version	
	MAC address	
I/O modules	Basic Module	Type
		Software version
		Serial number
	Additional I/O modules	Type
		Software version
		Serial number
LAN status	MAC address	
	IP address	
	Netmask	
	Gateway	
	IP configuration mode	

2.6.5 Supervision of the alarm unit's input terminals

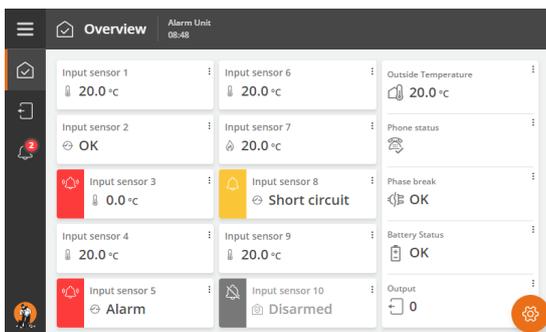
Select the menu  **Details | Supervision** to disconnect several inputs at once. The alarm unit will remind you that supervision is disabled after 1 hour (factory setting).



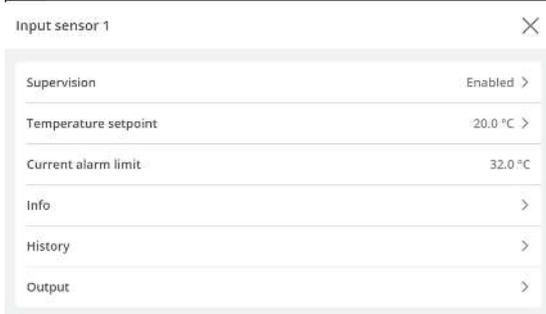
Enable or disable supervision for the individual inputs.

2.6.5.1 Stop input supervision

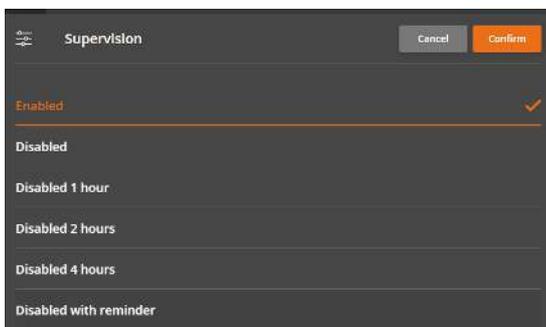
In connection with batch change in the individual house, it is possible to interrupt the supervision in order to avoid unnecessary alarms. The page **Overview** provides direct access to disabling the supervision for each input.



Press a card for an input to open the menu.



Select **Supervision** to disable the supervision.



REMEMBER to enable supervision again.

See also the Technical Manual about inputs.

2.6.6 Service break

When a temporary disconnection of supervision is needed the alarm system can be set to service break for up to 4 hours.

Select the menu   **Details | Service break.**



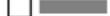
As long as the break lasts the icons in the **Overview** page are yellow, and a warning pop-up is shown in the display.

Alarms are disconnected for all inputs.

In the menu **Service break** a timer counts down and shows how long time is remaining of the break. When the break is over the supervision starts again automatically.

See Supervision of the alarm unit's input terminals [▶ 25] for permanent stop of supervision for an individual input, e.g. when changing batch.

2.7 Phone

 This section is relevant only to alarm units with with phone modems (accessory).
 
 

This menu is only accessible on the master unit in systems with a master/client set-up. See the Technical Manual.

Phone	
Installation	GSM
	Fixed line
	First priority phone for alarms
	Phone numbers
	Phone number
	Redial
	Call
	SMS
	Language
	Test call
	Test SMS
	Name
	Call sequence
	GSM settings
	Signal strength
	Telecom operator
	Telecom operator requires IP security
	Telecom operator requires SMS via IP
	SIM card PIN code
	Enable/Disable SIM PIN
	Type
	Remaining PIN attempt

	Change SIM PIN	
	Phone number	
	Service center	
	Preferred Network Type	
	Type	
Fixed line Settings	Line status	
	Type	
Time settings	Delay before call	2 min
	Call attempt time	30 sec
	Delay between SMS	2 min
	Delay before answer	5 sec

In case of alarm the alarm unit can make calls via mobile and fixed line connections.

The alarm unit will make the first call by means of the connection selected in the menu   **Phone | Installation | First priority phone for alarms**. The standard setting is GSM. If the call is not answered, the alarm unit will call via the other type of modem.

The alarm unit will continue/repeat the calls until the alarm is acknowledged.

Phone numbers

Enter the phone numbers the alarm unit should contact in case of alarm. The alarm unit uses the list as a sequence for contacts. If the first number in the list does not respond and acknowledge, the alarm unit contacts the next number in the list.

If the alarm unit is connected to a fixed-line telephone switchboard, outgoing calls can be made by adding a pause to the number being called. In the display the pause is shown as a comma.

For example 11,22334455.

Direct line: 11. Phone number: 22334455

Select the wanted number of redials for each phone number.

The call sequence can be changed under **Call sequence**.

Select whether the contact should receive a call, an SMS message, or both.

Select the language the alarm unit should provide the alarm message in.

Carry out a test to confirm that the alarm unit can call and send SMS messages to the number entered.

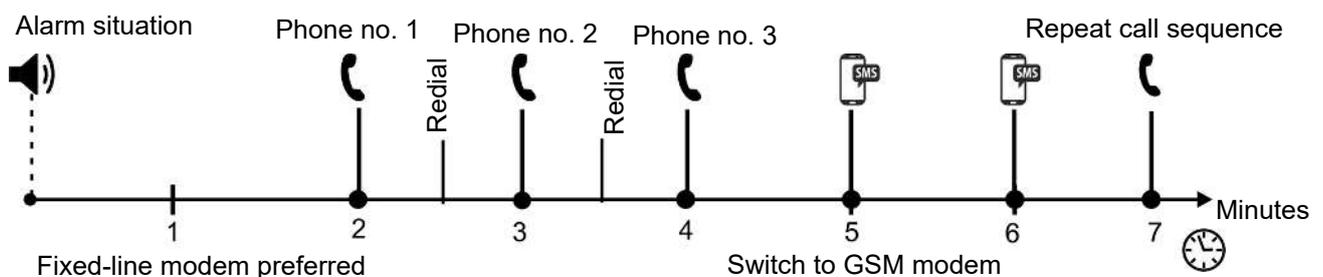


Figure 3: Example of call sequence in alarm unit with both fixed-line modem and GSM modem.

Call sequence	Drag the phone number up/down to change the sequence the alarm unit will use for contact in case of alarm.
GSM settings	<p>Phone information.</p> <p>Signal strength: Information about current signal strength. To have a stable connection to the GSM network, at least -95 dbm is required. The signal may be improved by means of external aerial. At signal strength lower than -95 dbm (e.g. -100 dbm) you should consider an external aerial or a different placement of the external aerial. Signal strength of e.g. -110 dbm is the same as no signal.</p> <p>Telecom operator: Information about the mobile service provider.</p> <p>Telecom operator requires IP security: Connection and disconnection of IP security may be a demand from some operators for 4G networks.</p> <p>Telecom operator requires SMS via IP: Connection and disconnection of the option of sending SMS messages. This may be a demand from some operators for 4G networks in order to use the SIM card for SMS.</p> <p>SIM card PIN code: Information about SIM card and PIN code.</p> <p>Enable/Disable SIM PIN: Enables or disables use of PIN code for SIM card.</p> <p>Remaining PIN attempt: Information on how many attempts are left to enter the correct PIN code before it is locked.</p> <p>Change SIM PIN: Enter a new PIN code to change the current one.</p> <p>Phone number: Enter the telephone number belonging to the SIM card.</p> <p>Service center: Enter the service center phone number.</p> <p>Preferred Network Type: Factory setting is Auto.</p> <p>If you have problems maintaining a stable network connection, you can use a preferred network type instead. Select the type with the best local signal.</p> <p>If the connection to the preferred network is lost, the alarm unit will switch to Auto. When the preferred network is available again, connection is automatically restored.</p> <p>Type: Mobile modem information.</p>
Fixed line Settings	<p>Fixed line: The line status shows if the fixed line modem has been correctly connected or not.</p> <p>Type: Fixed line modem information.</p>
Time settings	<p>Delay before call: Setting of the time delay before the alarm unit calls out in case of alarm.</p> <p>Call attempt time: Setting of the time the alarm unit leaves the call active if no response is given.</p> <p>Delay between SMS: Setting of the time delay before the alarm unit sends the next SMS message. If the time is set for 0 sec., all users will receive an SMS at the same time.</p> <p>Delay before answer: Setting of how long time should pass before the alarm unit answers when being called. At a normal call, a person is used to at least one ringing tone before an answer.</p>

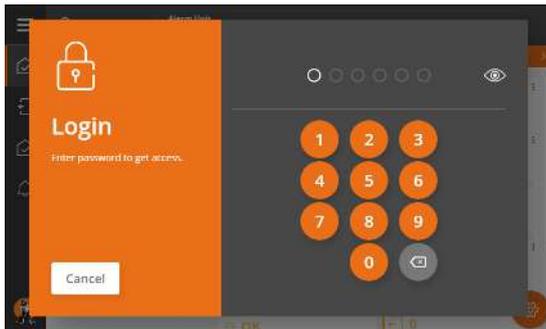
2.8 User login

The alarm unit makes it possible to restrict access to using the system with user management.

When users are created and log in, the alarm unit records all actions in the activity log, making it possible to see which people has used the system.

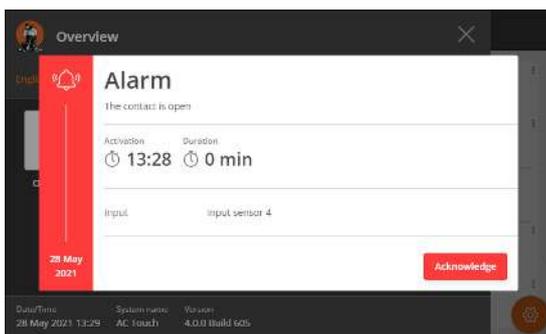
User management allows for two types of users: Normal and Service

User	Type	Access
Normal	Daily user	Read access Daily operation Acknowledging alarms Changing call sequence Login for disconnecting supervision
Service	Technical knowl- edgeable	The above Technical settings and setup



The alarm unit only requires login when the user tries to access a menu item that is access protected.

Login is done using a fingerprint scanner or an automatically generated PIN code.



After use it is possible to log out under .

The alarm unit will automatically log out the user after a set period with no usage (3-15 minutes).

See the Technical Manual for user creation.

User management is common for alarm units in one master/client system, however it is performed centrally at the master unit.

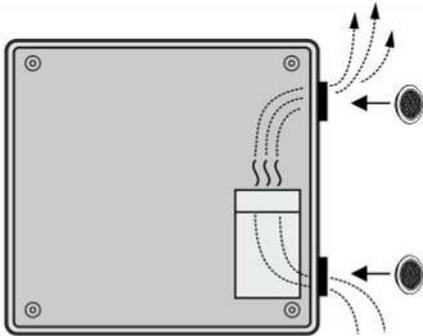
3 Maintenance instructions



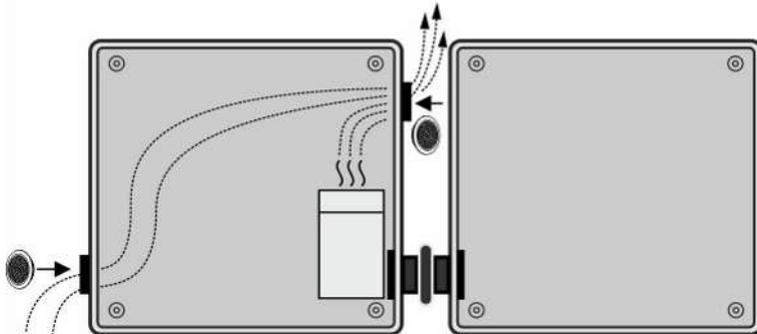
It is important to maintain and test the alarm system in accordance with the rules of the insurance company.

Big Dutchman recommends a weekly test. Sign for performed tests in the table in the back of the manual.

The alarm unit is maintenance-free; however, the battery deteriorates in the course of time and must therefore be replaced at least every three years. Check the date label on or at the battery.



Replace the two ventilation plugs at the same time as the battery.



When using the extension box.

As for all electronic equipment, it is best for the alarm unit to be connected to a power supply at all times as this will keep it dry and free from condensation.



Clean the product with a cloth that has been wrung out almost dry in water and avoid using:

- high-pressure cleaner
- solvents
- corrosive/caustic agents

3.1 Recycling/Disposal



Products suitable for recycling are marked with a pictogram.

It must be possible for customers to deliver the products to local collection sites/recycling stations in accordance with local instructions. The recycling station will then arrange for further transport to a certified plant for reuse, recovery and recycling.

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