

AC Touch Alarm System User Manual



Manufacturer: SKOV A/S
Address: Hedelund 4, DK-7870 Roslev, Denmark
Telephone: +45 72 17 55 55

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

| | | |
|------------|---|-----------|
| 1 | Product description | 6 |
| 2 | User guide..... | 8 |
| 2.1 | Handling alarms | 9 |
| 2.1.1 | Stop alarm with phone call..... | 10 |
| 2.1.2 | Stop alarm with SMS message..... | 10 |
| 2.1.3 | Video streaming via mobile in the event of an alarm | 10 |
| 2.2 | Pages | 10 |
| 2.2.1 | The page Overview..... | 11 |
| 2.2.2 | The page Outputs | 12 |
| 2.2.3 | The page Activity log..... | 13 |
| 2.2.4 | Select display language..... | 14 |
| 2.2.5 | Editing and creating pages | 14 |
| 2.3 | Settings..... | 17 |
| 2.4 | Remote control..... | 19 |
| 2.4.1 | Entering phone numbers..... | 19 |
| 2.4.2 | SMS commands..... | 19 |
| 2.5 | Voice messages from the alarm unit | 21 |
| 2.6 | Surveillance..... | 21 |
| 2.6.1 | Activation of surveillance | 22 |
| 2.6.2 | Deactivation of surveillance alarm | 22 |
| 2.7 | Details menu..... | 22 |
| 2.7.1 | Overview | 22 |
| 2.7.2 | Temperature alarms | 24 |
| 2.7.2.1 | Setting temperatur alarm limits | 24 |
| 2.7.2.2 | Temperature setpoint..... | 25 |
| 2.7.2.3 | Summer rise..... | 26 |
| 2.7.3 | Log..... | 27 |
| 2.7.4 | Function test | 27 |
| 2.7.4.1 | Manual test - with reminder..... | 28 |
| 2.7.4.2 | Automatic testing | 28 |
| 2.7.5 | Sound..... | 29 |
| 2.7.6 | System status | 29 |
| 2.7.7 | Supervision of the alarm unit's input terminals | 30 |
| 2.7.7.1 | Stop input supervision..... | 30 |
| 2.7.8 | Service break | 31 |
| 2.8 | Phone | 31 |
| 2.9 | User login | 33 |
| 3 | Maintenance instructions | 35 |
| 3.1 | Recycling/Disposal..... | 35 |
| 4 | Utility table for finished tests | 36 |

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

- All rights belong to Big Dutchman. No part of this manual may be reproduced in any manner whatsoever without the expressed written permission of Big Dutchman in each case.
- All reasonable efforts have been made to ensure the accuracy of the information contained in this manual. Should any mistakes or imprecise information occur in spite of this, Big Dutchman would appreciate being notified thereof.
- Irrespective of the above, Big Dutchman shall not accept any liability with regard to loss or damage caused or alleged to be caused by reliance on any information contained herein.
- Copyright by Big Dutchman.

1 Product description

The AC Touch alarm system is primarily used for monitoring ventilation in livestock houses and can monitor the temperature in up to 20 house sections. The system can also be used for triggering alarms for equipment errors and other alarm situations such as fire. It is also possible to set the system with surveillance to prevent unauthorized visitors from entering livestock houses. The alarm AC Touch collects all incidents such as alarms and operation in a joint log, which can be used for analysis and statistics.

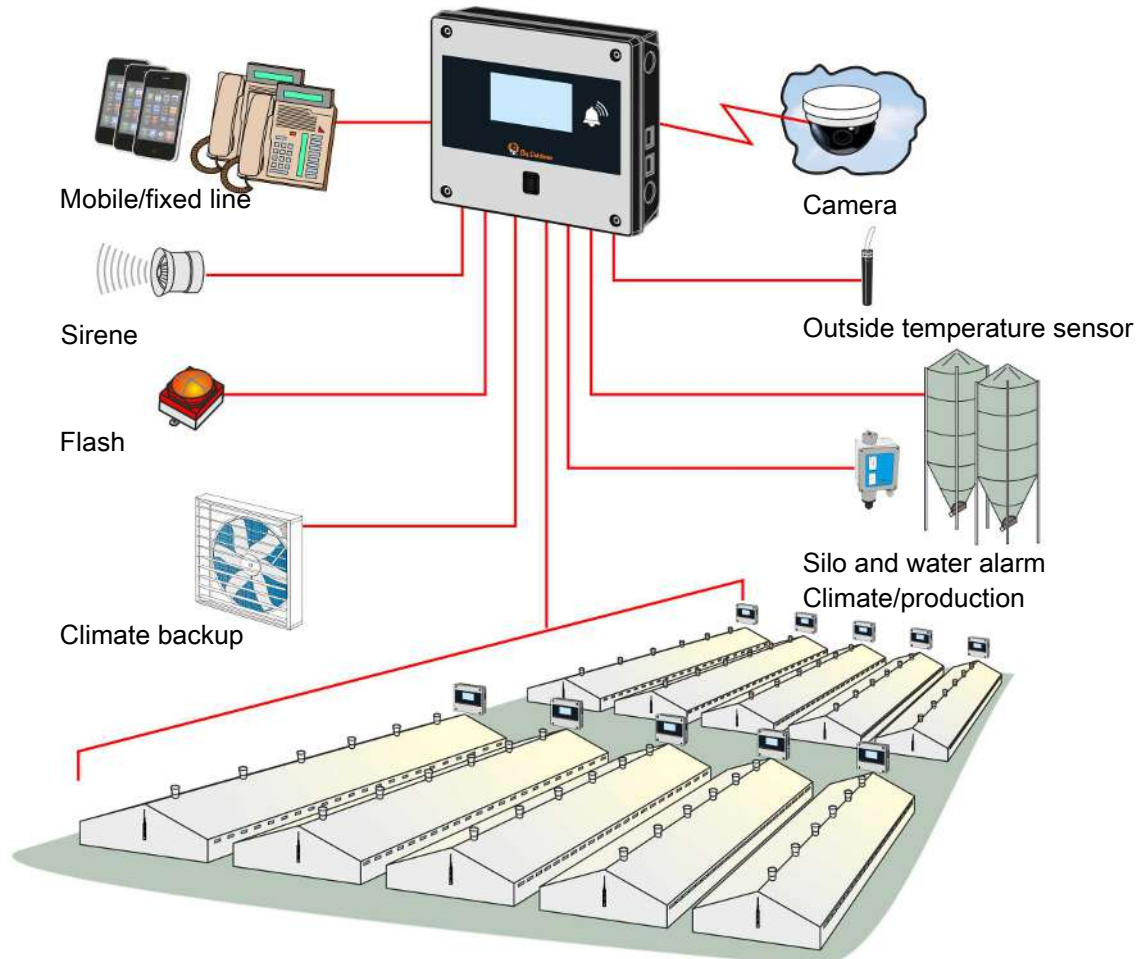


Figure 1: AC Touch alarm system

The alarm system consists of the AC Touch alarm unit, input providers such as sensors and house controllers, and alarm indicators such as horns or text messages.

The alarm unit is available in two variants - with and without fingerprint scanner. AC Touch can notify alarms in a clear voice and send warnings via SMS, while the user can call or send an SMS to the unit to get alarm status or to acknowledge alarms. The SMS message option is available in variants that have a built-in GSM modem. As an accessory, there is also a fixed-line modem for areas with inadequate mobile coverage.

Accessories

As an accessory, an extension box comes with a further ten terminal 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 an AC 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 temperature, humidity, empty silo, water, and fire, etc.
- Advanced temperature monitoring with outside temperature adjustment.
- Of building access via a login.
- 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, speakers.
- External: A phone call and SMS message.

User Management/Safety

- Fingerprint reader.
- 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.
- Viewing data with a ten minute time lag.
- Sound recording during an alarm.
- Access to camera streaming during an alarm.

Technical

- User-friendly touch screen with easily accessible overview menus.
- Voice controller reporting alarms.
- SMS message activation of the output for, for example, the fan for emergency ventilation.
- Up to nine extension boxes.
- Setup of the unit as master/client.
- Can activate backup ventilation or other equipment in case of an alarm.
- 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.

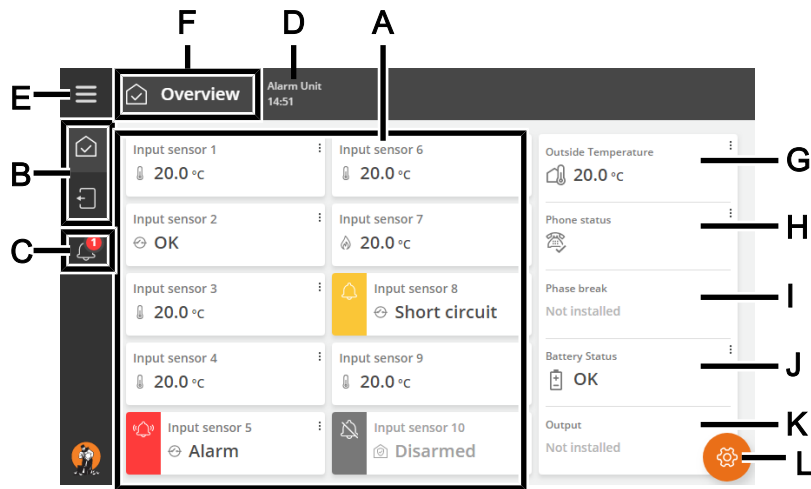


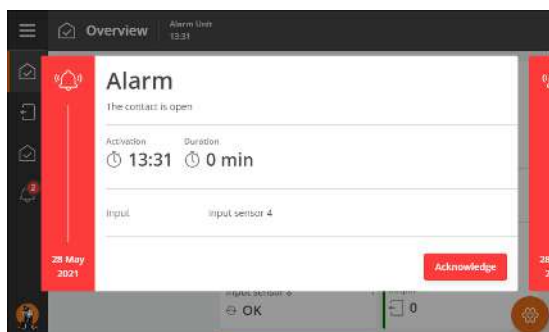
Figure 2: 7" display.

- 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 \[▶ 14\]](#).
- 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 \[▶ 19\]](#).
- I** Display of the phase break status. See also the [Technical Manual](#).
- J** Display of the battery status. See also [Maintenance instructions \[▶ 35\]](#).
- K** Display of the output status.
- L** Access to page setup. See also [Editing and creating pages \[▶ 14\]](#).

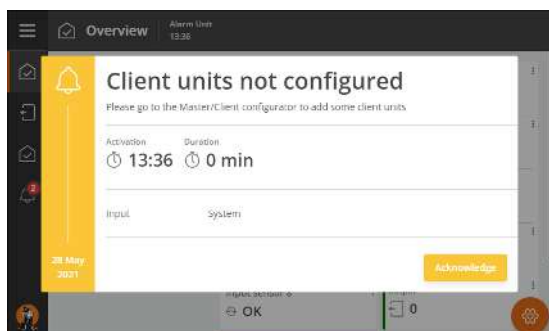
The colors of the icons, the text and lines on the pages show the current status of the function.

- 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:

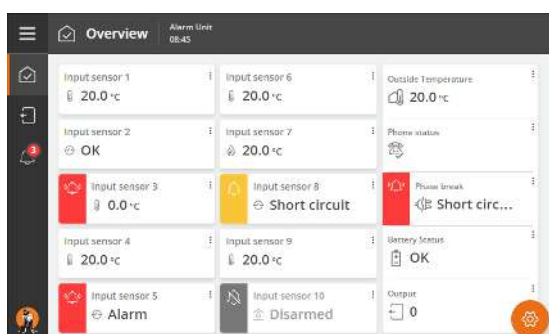
Red alarm pop-up on the alarm unit. At the same time local alarms such as horns and flashes are triggered, and alarms are also sent by phone calls and SMS message.

Silent alarm (soft):

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

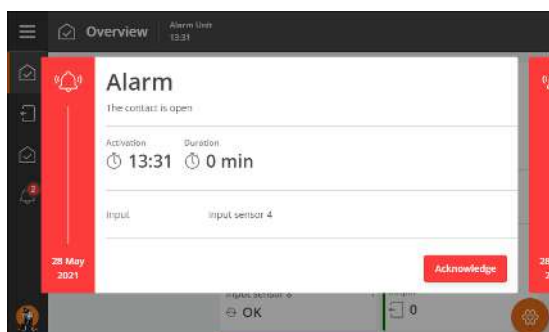
See the Technical Manual about setting up inputs.

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.

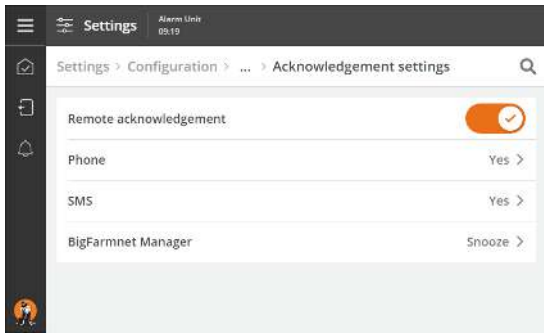
Alarms can also be acknowledged by:

- 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 [▶ 33].



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.

2.1.3 Video streaming via mobile in the event of an alarm

- DOL 2400 can connect up to 20 cameras, which can display what is happening in the livestock house during an alarm.
- DOL 2400's alarm SMS message can include a link to a web camera in the alarm location. As such, it is possible to gain access to the live streaming from the camera.

2.2 Pages

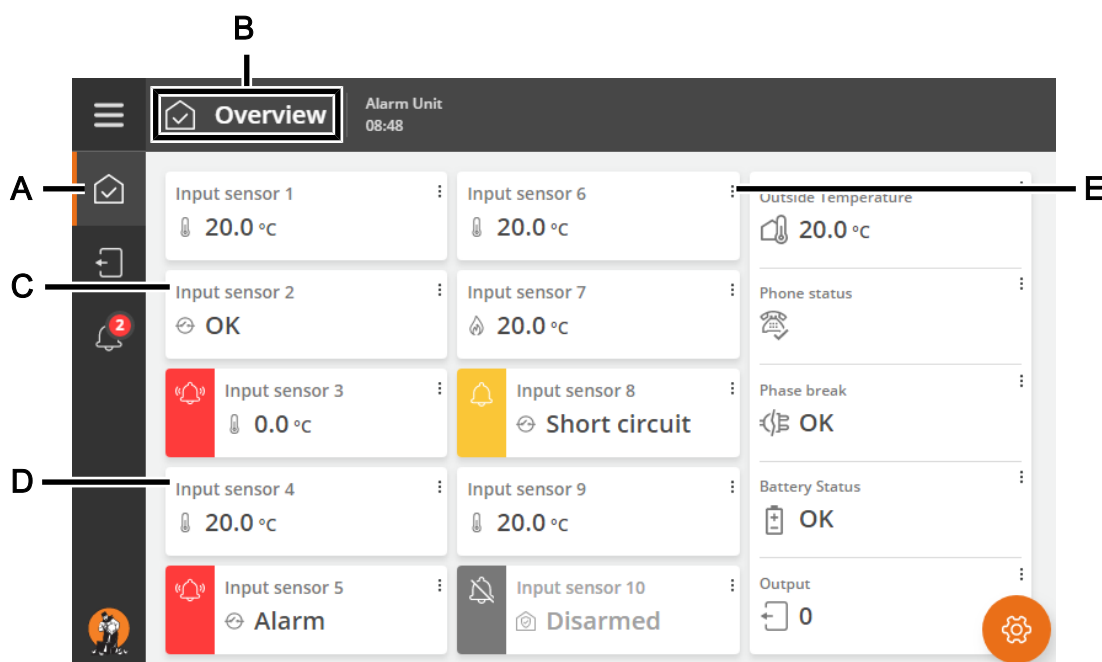
We recommend that you create a number of pages to show exactly the necessary functions and values and cover the needs of the daily user. See also Editing and creating pages [▶ 14].

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.



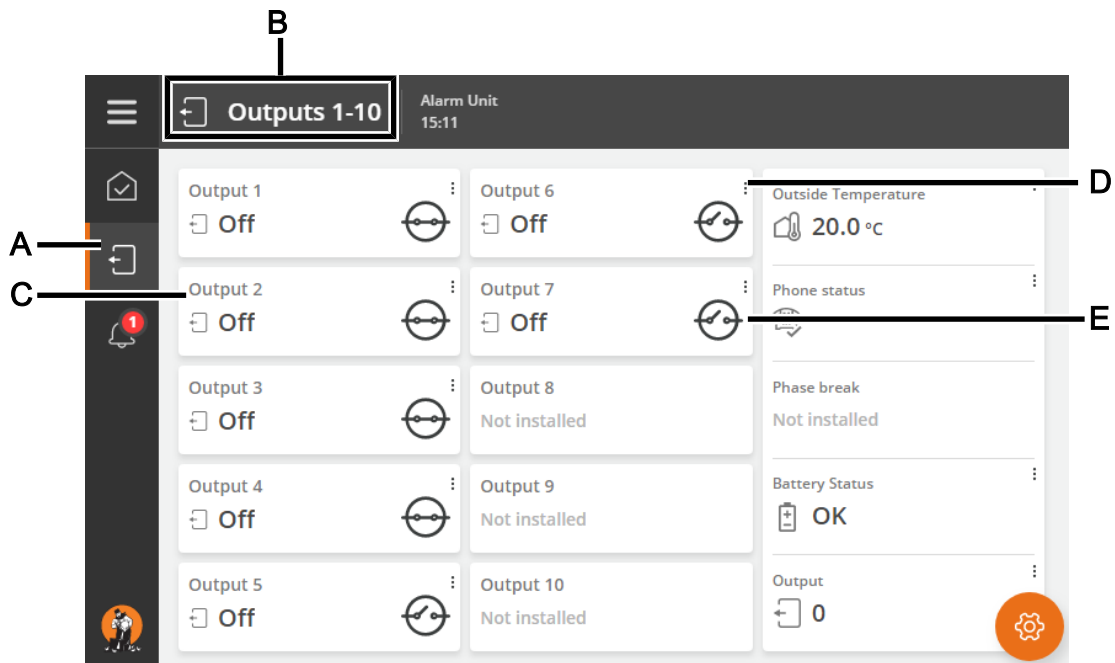
- A** The icon for the **Overview** page.
- B** The icon and name of the displayed page.
- C** Card for the each input.
- D** The color of the card shows the current status of the input.
 - No color: OK
 - Red: Alarm
 - Yellow: Warning
 - Grey: Supervision of the input is paused
- E** The 3 dots indicate 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 [▶ 30]. |
| 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 *Outputs*

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



- A** The icon for the **Outputs** page.
- B** The icon and name of the displayed page.
- C** Card for the individual output.
The color of the card shows the current status of the output.
Green: Everything is OK
Red: Alarm
- D** The three dots indicate that pressing the card will display additional information about the output and give access to reading current values and settings.
- E** The symbol shows if the output type is **Normally open** or **Normally closed**. See also the Technical Manual.

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

| | |
|---------------------|---|
| Relay status | Information whether the function is active or not. |
| Output type | Information about the selected type of output. |
| Relay type | Information about the selected type of relay. |
| Input | Information about which input may be connected to the output. |

For information about the function Climate Backup, see .

2.2.3 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.

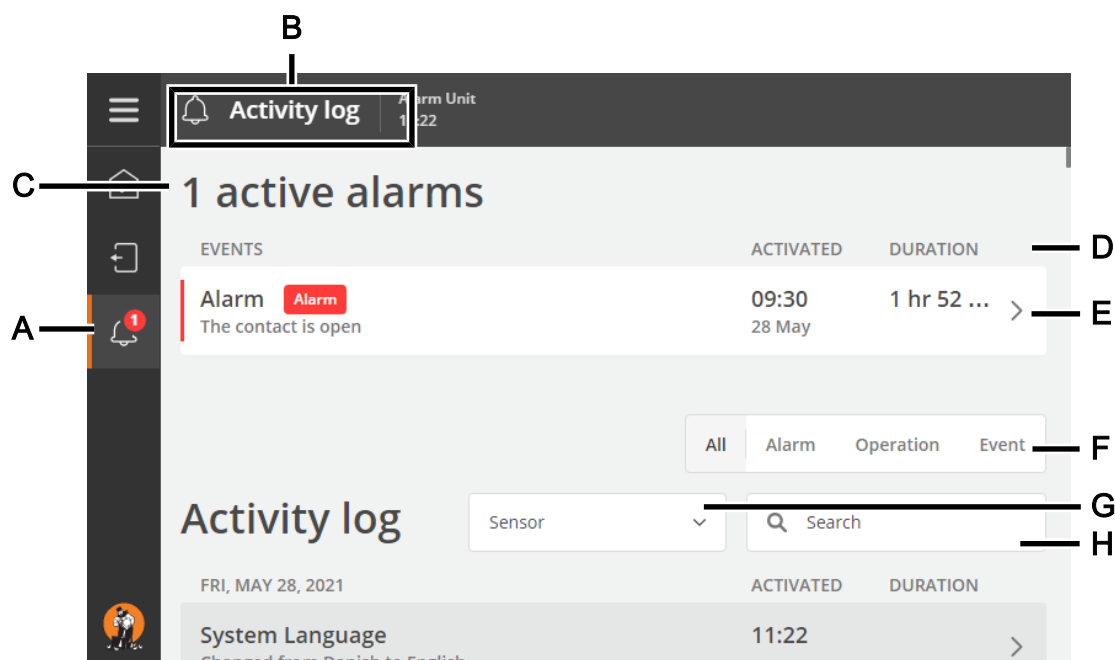
The activity log contains information about alarms:

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

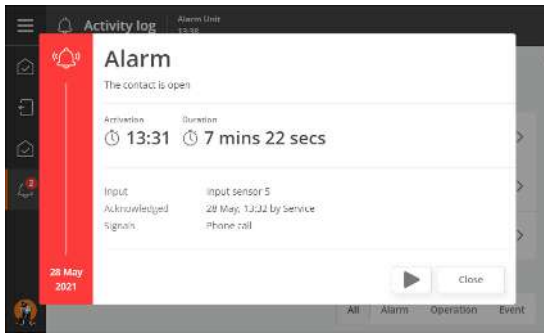
Active alarms are marked in the list.

- 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.



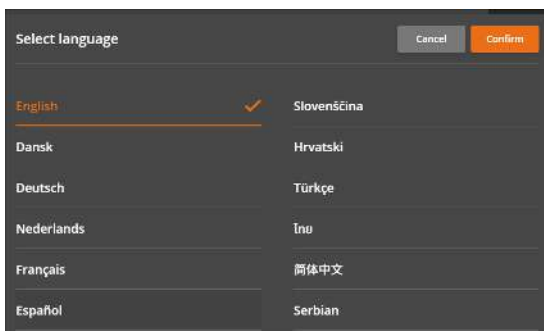
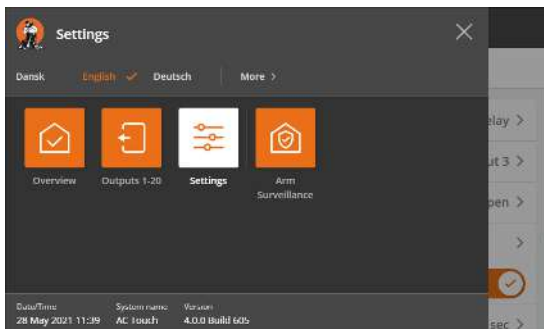
- A** The icon for the **Activity log** page.
- B** The icon and name of the displayed page.
- C** The number of active alarms.
- D** When the activity occurred and the duration.
- E** Press an activity to see additional information, for example, who acknowledged the alarm.
- F** Display of the various 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.



Press > to hear the one minute audio file recorded by the alarm unit when the alarm occurred.

2.2.4 Select display language

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



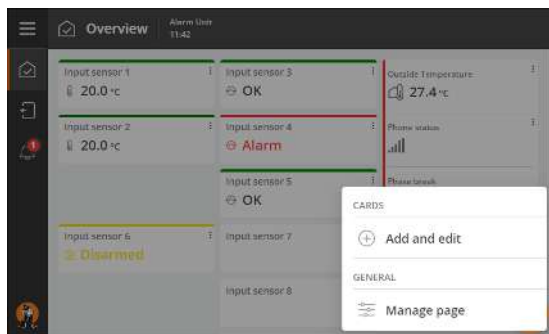
If the requested language is not shown. Press **More** and select the language from the list. Press **Confirm**.

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 [▶ 33] and the Technical Manual for activation of user management.

2.2.5 Editing and creating pages

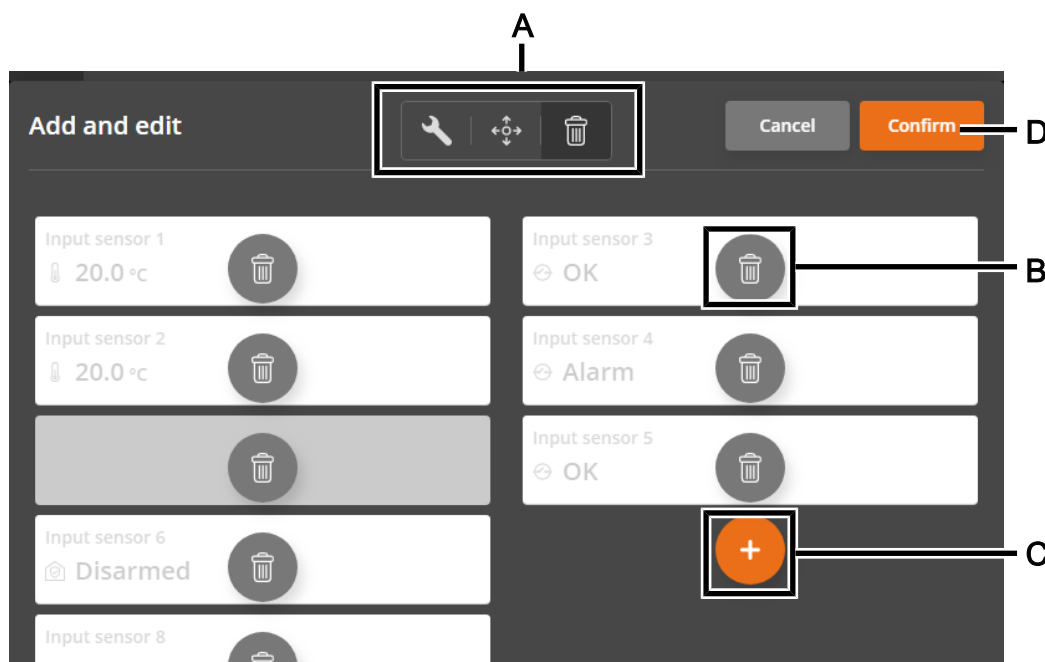
The alarm unit comes with 3 default pages. The pages can be edited by the user and additional pages can be added.








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.



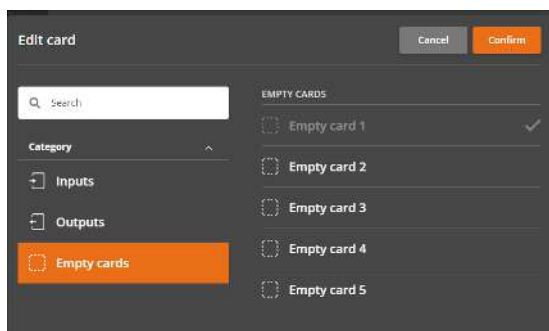
A Press the one of the tools to select card display, edit their content, to move or delete the cards.

-  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.

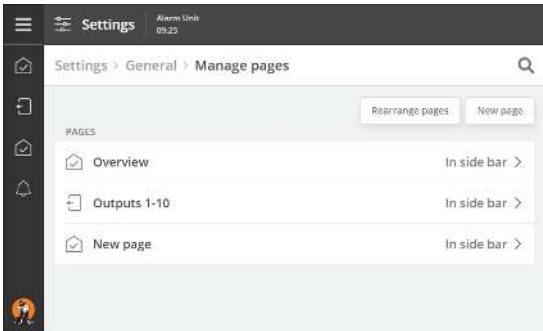
D Finish the setup by pressing **Confirm**.



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

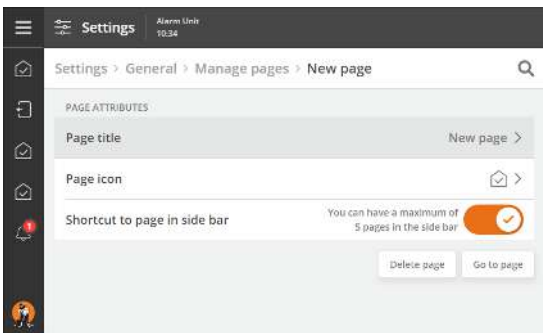
Create new page

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.**

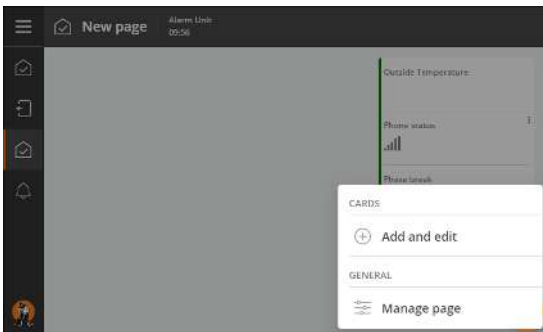
Press **New page.**



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.



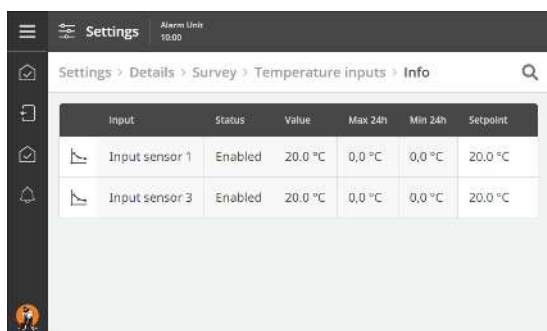
The new page is displayed.

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

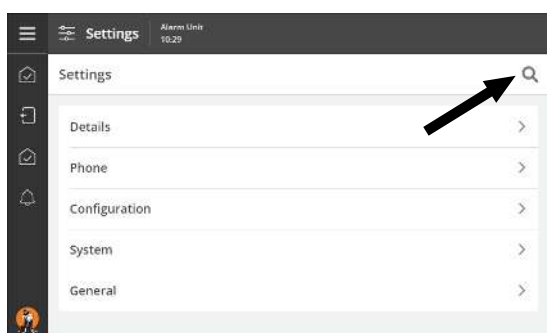
2.3 Settings

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

The display will show the menu that was last opened.

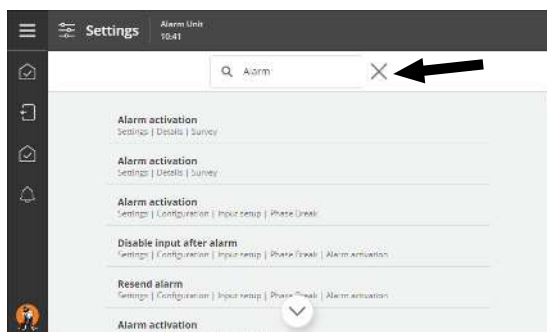


Values in white fields can be edited. Press the field to access the value change dialog.



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.

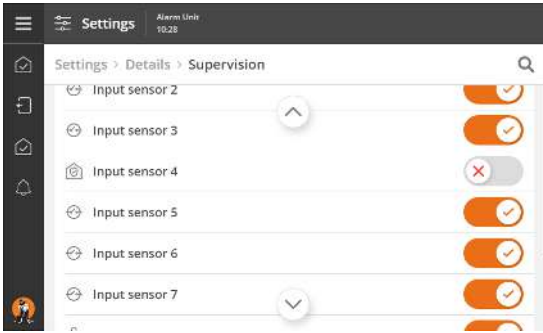


Changing the settings

Use the number keys to enter a value.

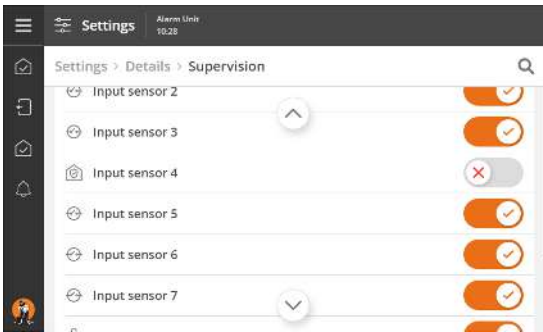
The current value, minimum and maximum available setting is shown below the line.

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.

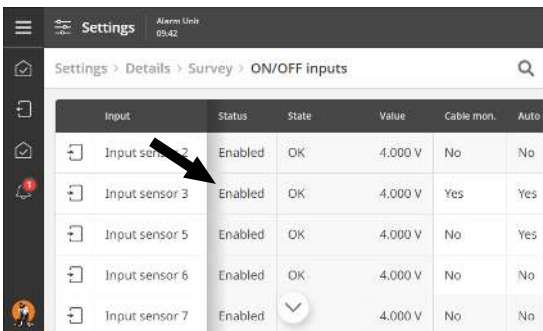


Scroll up/down

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.

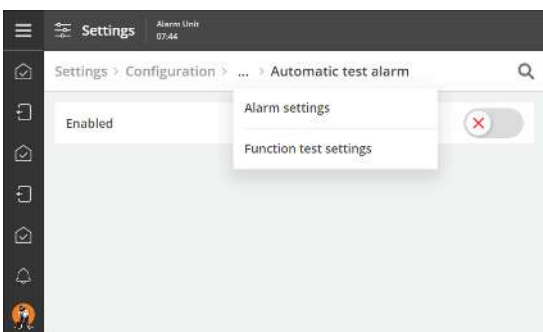


Scroll right/left

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.

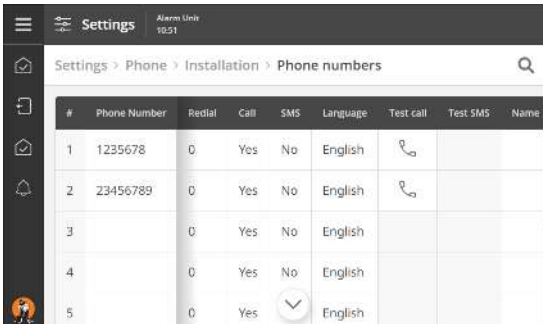
| | |
|----------------------------|---|
| Call sequence | The alarm unit sends the alarm to the first number in the list by means of a call and/or SMS message. If the first number in the list does not respond or acknowledge, the alarm unit contacts the next number in the list. |
| GSM | (mobile): Information 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. Outside temperature active -8 C, Status: Alarm. Phase break on, Status: Alarm. Battery, 13,374 V, 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. Broiler 1, Activated, OK, Status: OK |

| Operation | Standard command, send SMS message | The alarm unit responds (examples) |
|--|-------------------------------------|--|
| See system or input settings | SETUP SETUP 4 | System settings, e.g. Outside temperature Installed: No Signal output: Horn, Flash, Relay, call, SMS Sensor: DOL 12 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) |
| User management must be active for the following | | |
| Activate surveillance | ARM | Start surveillance |
| Deactivate surveillance | DISARM | Stop surveillance |

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. **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 Surveillance

The alarm unit can be set up with surveillance. This function has a timer that counts down (factory setting: 1 minute) when the surveillance equipment is activated – e.g. via a door contact or a motion sensor. The user then has one minute in which to disconnect the surveillance or leave the livestock house.

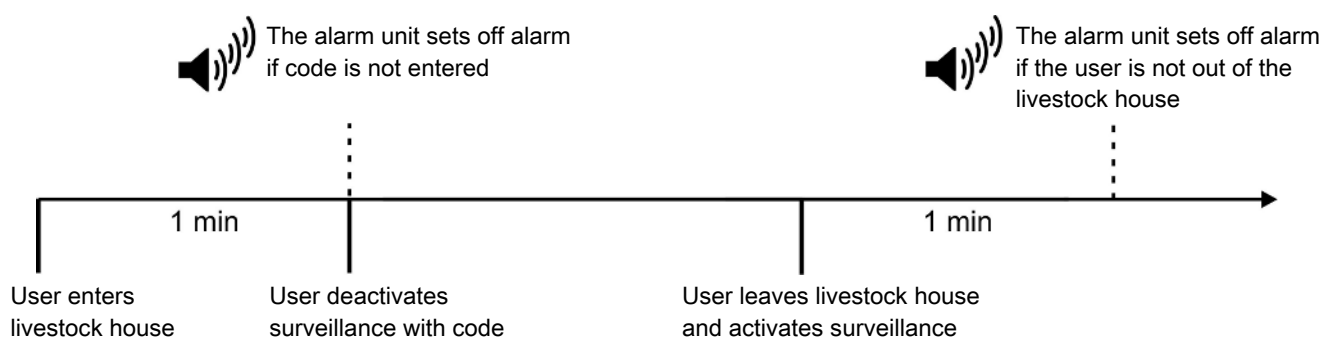


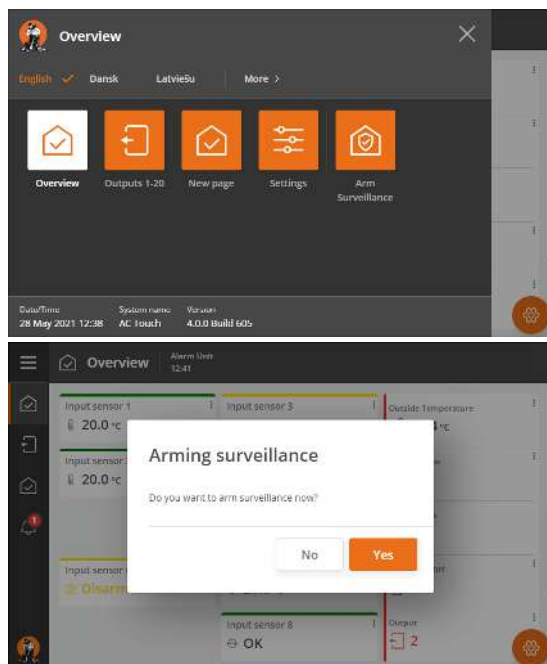
Figure 3: Time limit during activation and deactivation of surveillance

When surveillance is active, the alarm unit emits a beep sound, indicating the countdown to the alarm.

Use of access surveillance is only possible together with user administration, because you need to log in with a personalised code (or finger print) in order to activate/deactivate the surveillance.

See the Technical manual for how to change the time limit.

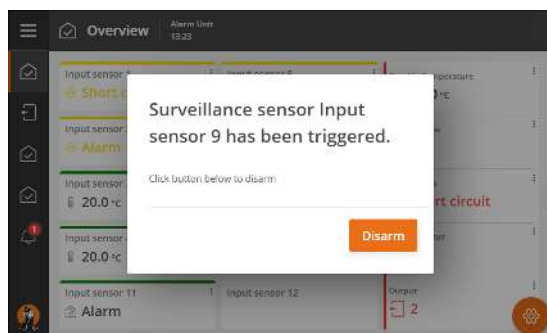
2.6.1 Activation of surveillance



Press  and select **Arm surveillance** to be able to activate it.



2.6.2 Deactivation of surveillance alarm

To stop a surveillance alarm, a user must log in.



Press **Deactivate** and enter code/scan fingerprint to stop the alarm. This disconnects the surveillance.

2.7 Details menu

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

2.7.1 Overview

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.

| | | |
|--------------------|--|---|
| Temperature inputs | Info | Input (name) Status Value Max. 24 t Min. 24 t Setpoint |
| | Settings | Input (name) Max temp. Min temp High temp. limit Low temp. limit Summer rise Settings profile |
| ON/OFF inputs | Input (name) | See the Technical Manual |
| | Status Status Value Cable monitoring Auto acknowledge Settings profile | |
| Fire inputs | Input (name) | See the Technical Manual |
| | Status Value Temperature limit Temperature increase (1 min) Settings profile | |
| Other inputs | Input (name) | See the Technical Manual |
| | Status Sensor Value Low limit High limit | |
| Alarm activation | Input (name) | See the Technical Manual |
| | Silent Outputs Delay Disable after alarm Resend Silent night | |

| | | |
|---------|----------------|--|
| Outputs | Backup climate | Output Terminal Status Input Temp. |
| | Relay | Output Terminal Status Inputs |

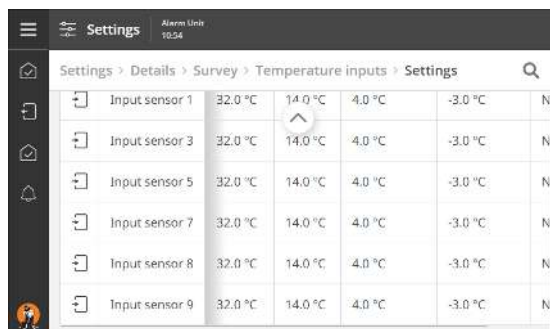
2.7.2 Temperature alarms

AC Touch has two types of temperature alarms - absolute ones, having a fixed limit, and relative ones, that are adapted to the current inside and outside temperature.

| Alarm Notification | Setting | AC Touch alarms: |
|---|--|--|
| Absolute high temp. alarm | Maximum temperature | - when the inside temperature exceeds the set Maximum temperature |
| Absolute low temp. alarm | Minimum temperature | - when the inside temperature falls below the set Minimum temperature |
| High temperature alarm | Temperature setpoint and High temperature limit | - when the inside temperature exceeds the Temperature setpoint + High temperature limit |
| Low temperature alarm | Temperature setpoint and Low temperature limit | - when the inside temperature falls below the Temperature setpoint - Low temperature limit |
| High temperature summer | Summer rise Temperature setpoint and Summer rise | If using Summer rise - when the inside temperature exceeds the outside temperature + the set Summer rise If using Summer rise Limited - when the inside temperature exceeds the Temperature setpoint + the Summer rise |
| High temperature (yesterday) Low temperature (yesterday) | Minimum temperature or Maximum temperature and Deviation from yesterday | - with a warning (soft alarm shown with a yellow alarm icon), when the temperature deviates from the yesterday minimum and maximum temperatures with a set number of degrees (factory setting 8 °C). Such a deviation indicates that something is wrong and that the alarm system should be checked or tested. |

2.7.2.1 Setting temperatur alarm limits

Select the menu   **Details | Survey | Temperature inputs | Settings**



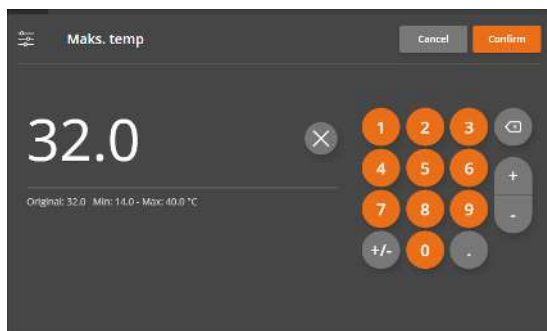
Press the field where you want to change the value.

2.7.2.2 Temperature setpoint

The **Temperature setpoint** is the same as the house controller temperature setpoint, and is used for triggering alarms at relative temperature deviations (**High temperature limit/Low temperature limit**).

AC Touch can calculate a **Temperature setpoint** based on the average temperature measured during an hours (factory setting between kl. 06 and 07 o'clock). It is also possible to set a value for **Temperature setpoint** in situations where the current inside temperature is very different from the desired normal temperature, or if the AC Touch has not measured an average value, for example at batch start.

Select the menu   **Details | Survey | Temperature inputs | Info** and press the field for the Temperature setpoint you want to change.



Enter the required value.

AC Touch uses this value until the next time an average value is calculated for **Temperature setpoint**.

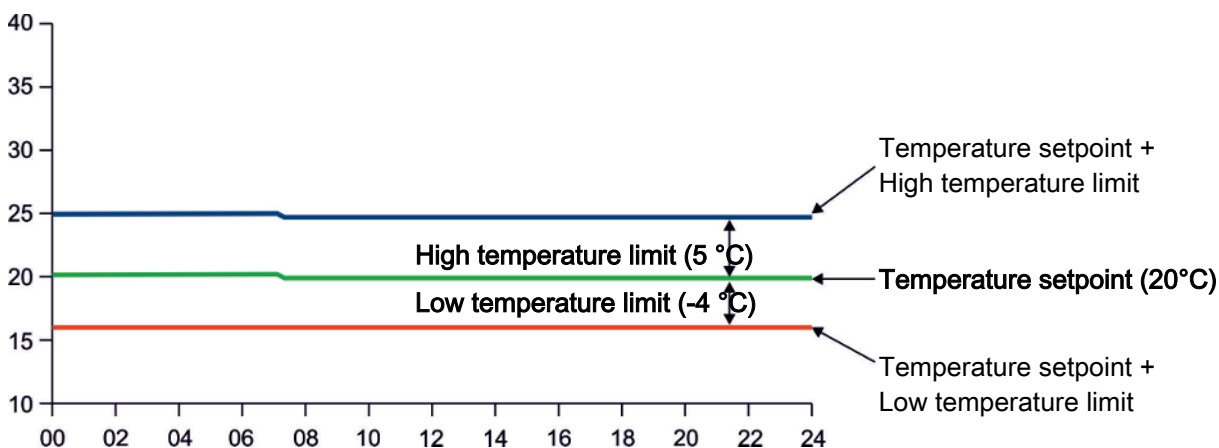


Figure 4: Example of temperature alarm limits in relation to **Temperature setpoint**.

2.7.2.3 Summer rise

The function is only available on systems with an outdoor temperature sensor (accessory), and is used during heat waves. Summer rise sets a high alarm limit that follows the changes in the outside temperature. When the outside temperature rises, the alarm limit rises as well, and in this way the point where a high temperature alarm is triggered is delayed. When the outside temperature falls again, the increased alarm limit falls as well.

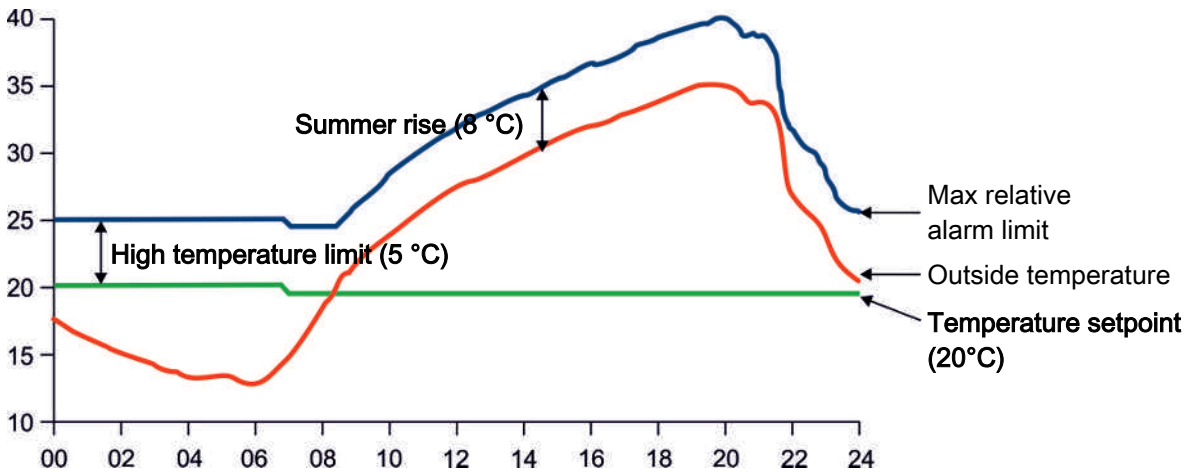


Figure 5: Alarm limit at **Summer rise**.

The alarm limit for **High outside limit** is increased by the outside temperature + **Summer rise**.

The Summer rise is usually used in livestock houses **without** cooling.

Summer rise can also be used with a set limit for how much the alarm limit can be raised.

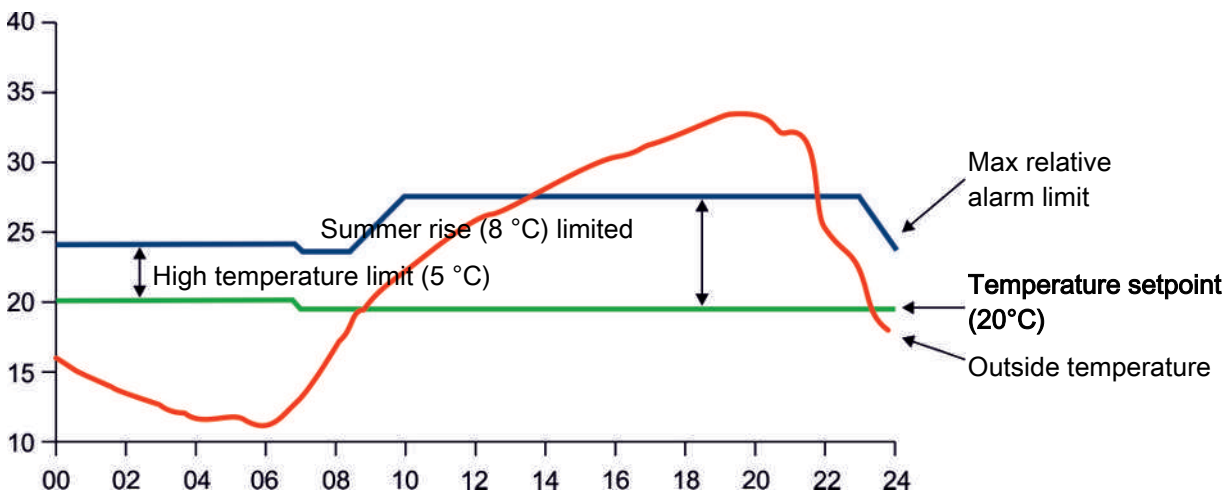


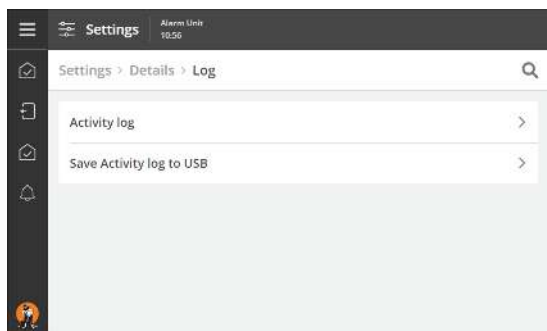
Figure 6: Alarm limit at **Summer rise (Limited)**.

The alarm limit for **High outside limit** is increased by the outside temperature + **Summer rise** – although at most to **Temperature setpoint** + **Summer rise**.

Limited summer rise is usually used in livestock houses with cooling, where the housing temperature can be kept at a desired level.

2.7.3 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.

2.7.4 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 [▶ 36].



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 [▶ 35].

2.7.4.1 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.

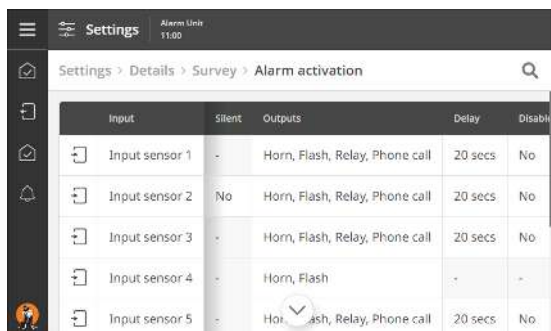
Big Dutchman has the following recommendations for test contents:

| 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.



The screenshot shows the 'Alarm activation' settings page. It features a table with columns for 'Input', 'Silent', 'Outputs', 'Delay', and 'Disab'. The table lists five input sensors with their respective settings for silent mode, outputs (Horn, Flash, Relay, Phone call), delay (20 secs), and disabled status (No).

| Input | Silent | Outputs | Delay | Disab |
|----------------|--------|--------------------------------|---------|-------|
| 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.

2.7.4.2 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.

2.7.5 Sound

To set the volume level for the speaker and microphone, respectively, select the menu   **Details | Sound**.


2.7.6 System status

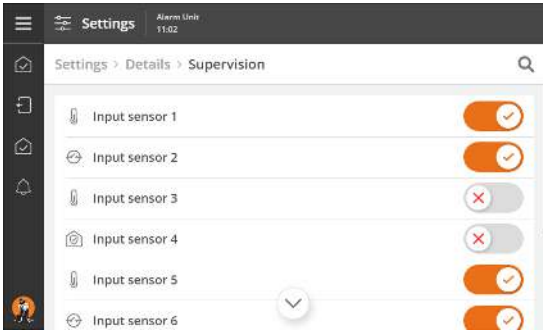
Under **System status** the alarm unit shows information regarding the current system status for hardware, software and network settings.

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 | |

2.7.7 Supervision of the alarm unit's input terminals

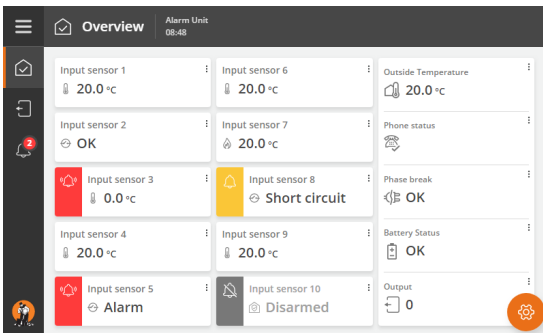
Select the menu  **Details | Supervision** to disconnect several inputs at once. The alarm unit will remind you that supervision is disabled after 1 hour (factory setting).



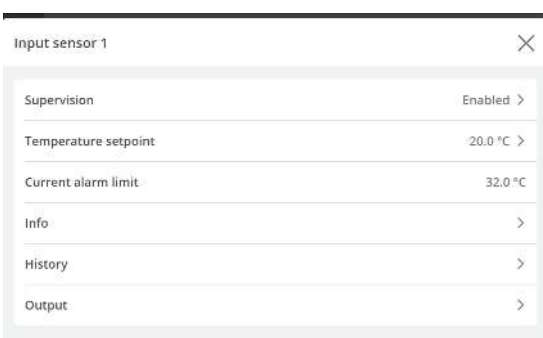
Enable or disable supervision for the individual inputs.

2.7.7.1 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.



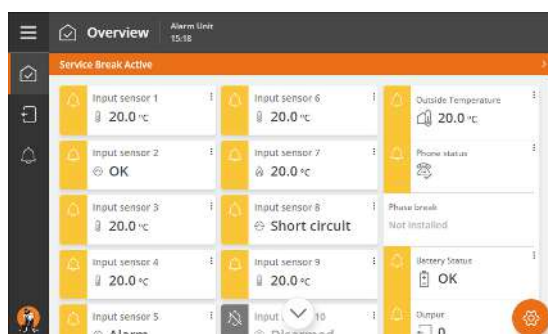
REMEMBER to enable supervision again.

See also the Technical Manual about inputs.

2.7.8 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 [▶ 30] for permanent stop of supervision for an individual input, e.g. when changing batch.

2.8 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.

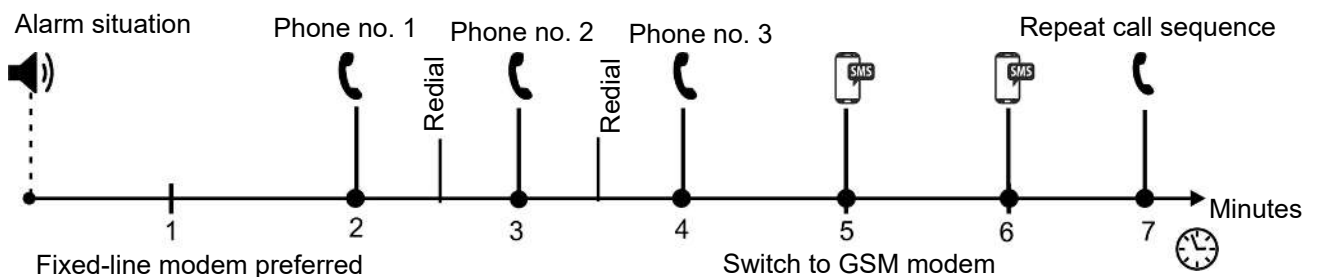


Figure 7: Example of call sequence in alarm unit with both fixed-line modem and GSM modem.

| | |
|----------------------------|--|
| 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> |

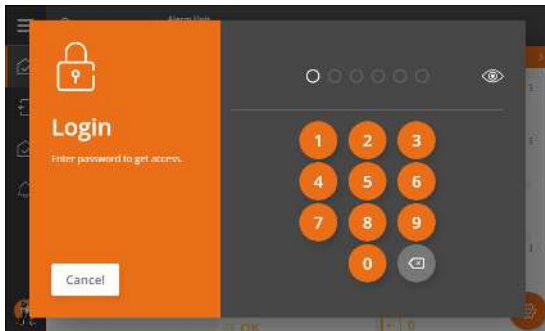
2.9 User login

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.

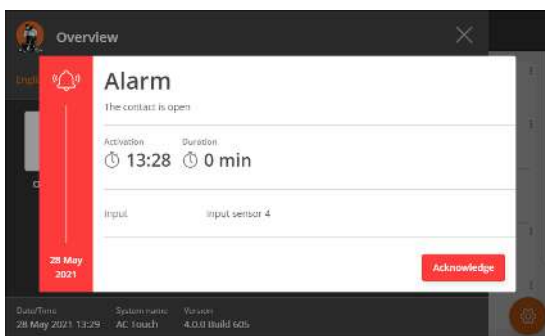
User management allows for two types of users: Normal and Service


| 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.

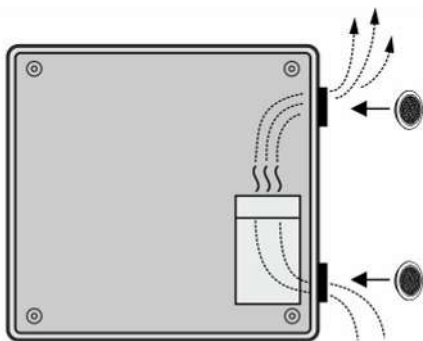
3 Maintenance instructions



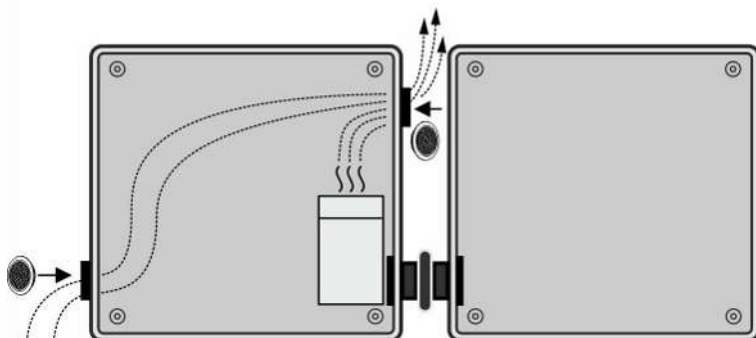
It is important to maintain and test the alarm system in accordance with the rules of the insurance company.

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.

4 Utility table for finished tests

| Signing for finished tests | | | | |
|----------------------------|----------|-------------------------------|---------|----|
| Date | Initials | The following has been tested | Remarks | OK |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Big Dutchman International GmbH • Calveslage • Auf der lage 2 • 49377 Vechta; Germany
Tel. +49(0)4447/801-0 • Fax +49(0)4447/801-237 • big@bigdutchman.com

