



SP2+ Notifications Manual



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Introduction

This manual covers all of the built in notifications on the SP2+ and how to configure them. Please see the SP2+ Introduction and other separate manuals as needed.

What is the SP2+?

The SP2+ is a high speed, accurate, intelligent monitoring device, featuring a completely embedded host and operating system. The SP2+ is a complete redesign of the world's best-selling environmental monitoring platform, 3 years in the making with all new hardware and software. We've combined the low cost and simplicity of use of the SP2, along with many advanced features of our securityProbe platform.

Find out more information from this link to our web site:

<http://www.akcp.com/products/sensorprobe-series/sp2-plus/>

Important note: Some of the pictures shown in this manual might not represent the actual Web UI of the unit; this is because we are constantly working on improving the firmware. Please provide us with feedback if you have any issues configuring your unit.

Events

The **Events** page contains all logged events that the unit stores. It's functioning like a categorized syslog, where you can search for a specific event, and also export the logged entries to a file.

The screenshot shows the AKCP web interface with the 'Events' tab selected. The page title is 'All Events'. There is a search bar and a date range filter (Date Start to Date End) with buttons for Refresh, Export, and Options. The main content is a table of events:

	Date/Time	Event
1	16/02/2016 14:56:30	Liquid Rope Detector Port 3 on Main board is now OFFLINE
2	16/02/2016 14:55:43	Liquid Rope Detector Port 3 on Main board status is Sensor Error
3	16/02/2016 14:55:39	Liquid Rope Detector Port 3 on Main board is now ONLINE
4	16/02/2016 14:51:52	Fuel Level Sensor Port 3 on Main board is now OFFLINE
5	16/02/2016 14:51:48	Fuel Level Sensor Port 3 on Main board status is Sensor Error
6	16/02/2016 14:51:44	Fuel Level Sensor Port 3 on Main board is now ONLINE
7	16/02/2016 14:51:28	Motion Detector Port 3 on Main board is now OFFLINE
8	16/02/2016 14:51:21	Motion Detector Port 3 on Main board status is Motion
9	16/02/2016 14:51:20	Motion Detector Port 3 on Main board is now ONLINE
10	16/02/2016 14:49:47	Dual Humidity Port 1 on Main board is 57.00 %, status is Normal
11	16/02/2016 14:49:47	Dual Temperature Port 1 on Main board is 25.50 °C, status is Normal
12	16/02/2016 14:49:47	Upgrade firmware was successfully completed
13	16/02/2016 14:49:46	Dual Humidity Port 4 on Main board status is Sensor Error
14	16/02/2016 14:49:46	Dual Temperature Port 4 on Main board status is Sensor Error
15	16/02/2016 14:49:46	Relay Port 2 on Main board status is Off

At the bottom of the table, there is a pagination control showing 'First', '<', '1', '2', '3', '4', '5', '6', '>', and 'Last'. The number '1' is highlighted, indicating the current page.

The default view is the **All Events** which contains all logs in one view. We'll explain all of the categories below.

The screenshot shows the 'System' events page. The left sidebar has tabs for 'All Events', 'System', 'Sensors', 'Access', and 'Notifications'. The 'System' tab is selected. The main area has a search bar and filters for 'Date Start' and 'Date End'. Below these are 'Refresh', 'Export', and 'Options' buttons. A table lists events with columns for 'Date/Time' and 'Event'. The table contains 6 rows of data. At the bottom of the table are navigation buttons: 'First', '<', '1', '>', and 'Last'.

	Date/Time	Event
1	10/02/2016 10:18:50	Ethernet link restored
2	10/02/2016 10:18:43	Ethernet link lost
3	25/02/2014 07:20:44	Ethernet link restored
4	25/02/2014 07:20:42	System boot up
5	25/02/2014 07:00:06	Database OK. Access DB updated. 1 users imported.
6	25/02/2014 07:00:03	System boot up

You can filter the events by type, by clicking on the tabs.
In this picture we've chosen to display only the **System** events.

Events by category:

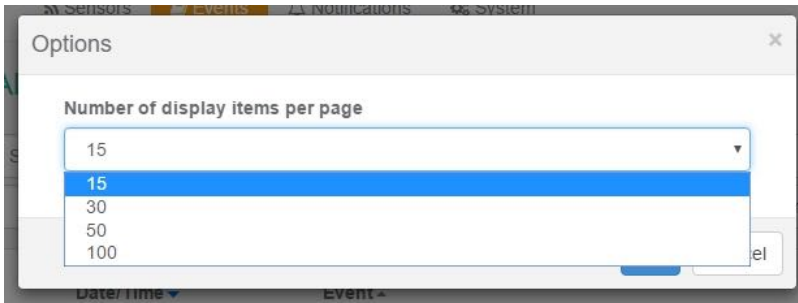
All Events - contains all logs from the device, sorted by date and time; you can specify the start- and end dates to narrow the list, or choose a specific log category.

System - contains the logs for the device's system events, such as reboot, firmware update etc.

Sensors - contains logs for all sensor related events, such as status changes, online/offline etc. and the port number where the sensor is attached.

Access - contains logs for all user authentication-related events, such as access granted/denied.

Notifications - contains logs for the active notifications on the device, for example the result of an email notification, heartbeat message or an SNMP Trap.

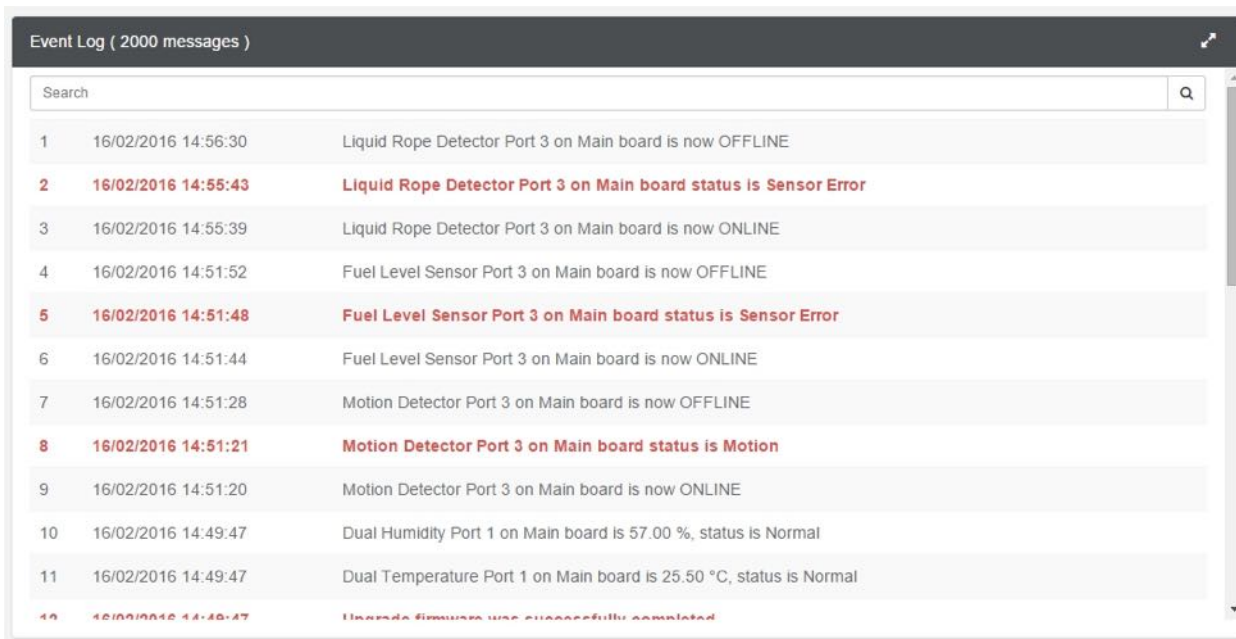


In the **Options**, you can change the number of log entries displayed per page. The default is 15.

If you click on the **Export** button, a confirmation popup window will appear, asking if you'd like to export the log entries.

If you answer yes, then the full event log will be downloaded as a text file.

The file name will contain the IP address of the unit, for example: log_10.1.1.146.txt



The unit's **Summary page** also shows the **Event Log**, which contains all entries from the "All Events" category. The last 30 entries are shown, but if you're scrolling down the list, more events (30 more) will be loaded automatically. You can view the full log if you keep scrolling down.

Notifications

If you setup a notification you can define the action to take when a sensor gives a reading beyond your previously set thresholds. This allows you to determine how you will be notified that a sensors reading has reached the specified thresholds (high warning, critical etc).

What function do the different types of notifications provide?

The notifications are used to notify you when a sensor reading has hit a certain preset “critical” threshold. There are many ways you can be notified. They are as follows :

SNMP Trap: This form of notification sends out a signal to your SNMP trap receiver server.

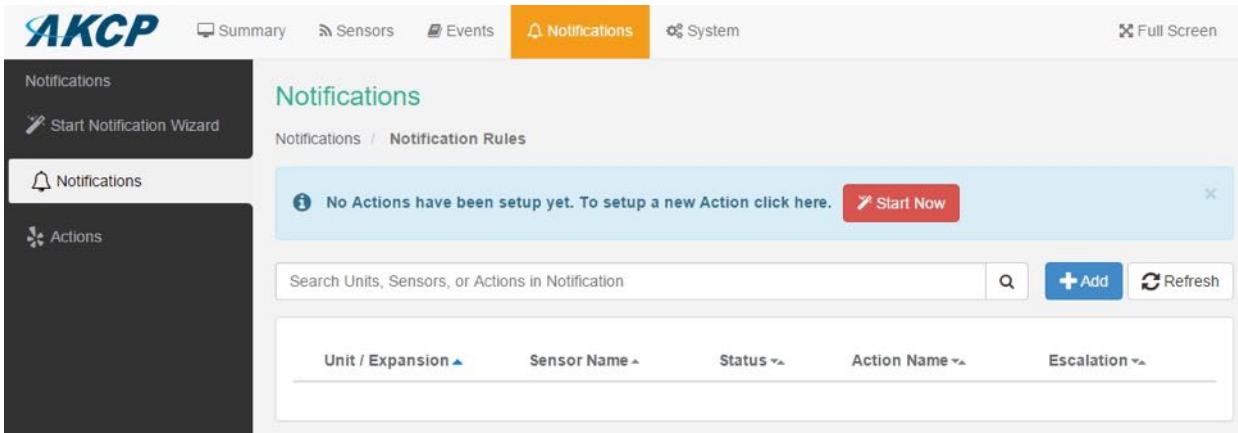
E-Mail: This sends a notification via e-mail.

SMS: This sends an SMS message to your mobile phone.

Relay: The relay is used as a switch, for example it could switch on an air con unit if the temperature reading of a temperature sensor reaches a certain threshold.

Telephone call: Will call you and play a customizable text to speech message.

Notifications page

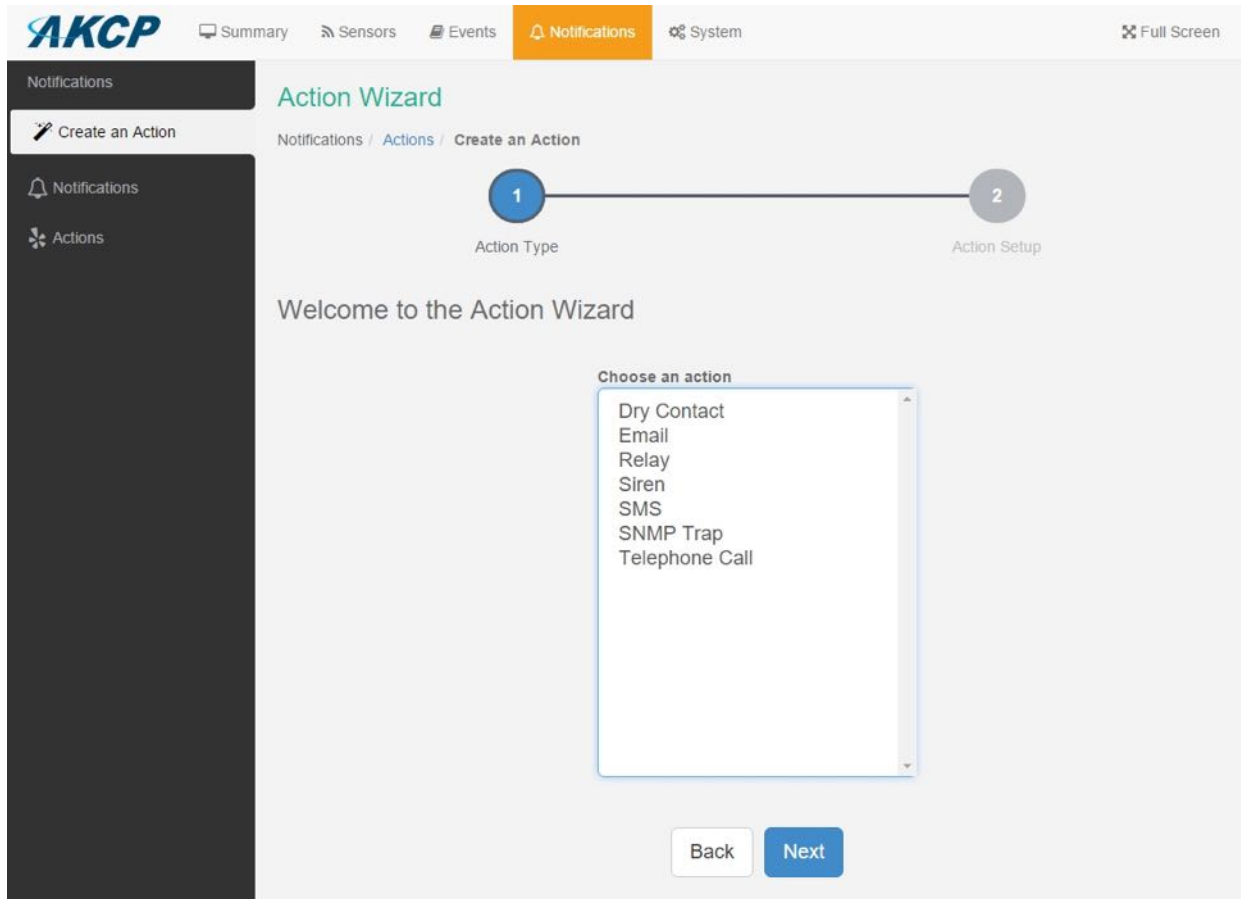


This is the **Notifications** page. If you have notifications set up, they will appear in the list and you can edit or remove them.

If you don't have any actions set up, you'll need to create them first before making notifications. The notice to run the **Action Wizard** is displayed on the top for easy action setup. Click on the **Start Now** button or the **Start Notification Wizard** tab to start the wizard. In the next section we'll show you how to set up the actions.

After you have actions set up, you can link the actions to a sensor with the **Add** button. All notifications are following the same setup steps with the **Link Notification Wizard**. We'll show you how to use this wizard with an example notification below in the manual with an SMS action, you'll then be able to configure other notifications similarly.

Create an Action with the Action Wizard



This is the Action Wizard's welcome page; the supported Web UI configurable actions are shown. Select one to configure and click **Next**.

We'll show you each action's configuration in the following sections.

Note: APS (AKCess Pro Server) allows more types of actions to be set up.

Dry Contact Action setup

You can use the Dry Contact Action to control a dry contact when a sensor reaches a certain threshold.

The screenshot shows the AKCP web interface. The top navigation bar includes 'Summary', 'Sensors', 'Events', 'Notifications' (highlighted), and 'System'. A 'Full Screen' button is in the top right. The left sidebar has 'Notifications' and 'Actions' sections. The main content area is titled 'Action Wizard' and shows a progress bar with two steps: '1 Dry Contact Information' and '2 Complete'. Below the progress bar, the 'Step 1 - Dry Contact Information' form is displayed with the following fields:

- Action Name: Dry Contact Action
- Unit / Expansion: Main board
- Dry Contact: Dry Contact Port 3
- Action: Turn Low
- Delay Before Action: 0 0s

A note below the form states: "Note: Controlled dry contact must be set to notification control mode." At the bottom of the form are three buttons: 'Back', 'Finish', and 'Cancel'. A large green button labeled 'Finish and Setup Notification' is positioned below these.

Note: The dry contact needs to be connected to the unit before it can be configured, and it needs to be set to **Notification Control** mode. This mode is only selectable with the **Output direction** (see below).

If you click on the **Finish and Setup Notification** button, this will launch the **Link Notification Wizard** where you can use the new action for making a notification.

You'll have the following options for controlling the dry contact with the action:

Action	Turn Low
Delay Before Action	Turn Low Turn High Turn Low Until Sensor Normal Turn High Until Sensor Normal Turn Low Until Acknowledge Turn High Until Acknowledge Cycle the Dry Contact

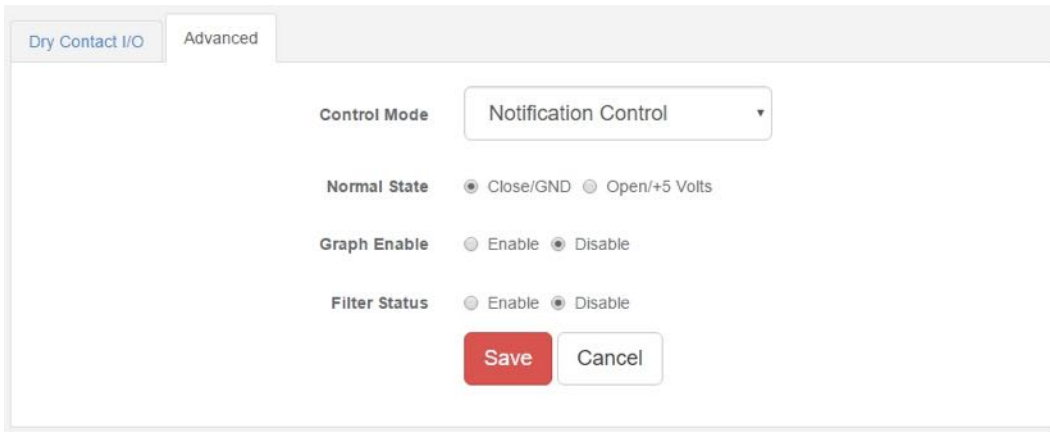
Cycle Time	5	5s
------------	---	----

If you choose to cycle the dry contact, you can specify the cycle time.

You'll need to change the Dry Contact sensor to **Output direction** mode from the **Sensors** page as shown below:

The screenshot shows the Sensors page with four sensors: 1. Dual Humidity (Auto Sense), 2. Relay (Auto Sense), 3. Dry Contact I/O (Auto Sense), and 4. Dual Humidity (Auto Sense). The 'Dry Contact I/O' sensor is selected. Below the sensor list, the configuration for 'Dry Contact I/O' is shown. The 'Sensor Name' is 'Dry Contact Port 3', 'Sensor Status' is 'Critical', and 'Sensor Currently' is 'Online'. The 'Direction' is set to 'Output' (radio button selected). The 'Description of Status When High' is 'High', 'Description of Status When Low' is 'Low', and 'Description of Status When Sensor Error' is 'Sensor Error'. There are 'Save' and 'Cancel' buttons at the bottom.

Change the **Direction** from Input to **Output** and click **Save**.



Dry Contact I/O Advanced

Control Mode Notification Control

Normal State Close/GND Open/+5 Volts

Graph Enable Enable Disable

Filter Status Enable Disable

Save Cancel

Then you'll be able to choose the **Notification Control** mode in the **Advanced** tab.

Email Action setup

You can use the Email Action to send a notification by email when a sensor reaches a certain threshold.

The screenshot shows the AKCP web interface with the 'Action Wizard' for creating an email action. The breadcrumb trail is 'Notifications / Actions / Create an Action'. A progress bar at the top shows three steps: 1. Email Information (active), 2. Email Message, and 3. Retry. The 'Step 1 - Email Information' section contains the following fields:

- Action Name:** Email Action
- From:** user@akcp.com
- To:** to@address.com, to@address.com, to@address.com, ...

A yellow notification box at the bottom of the form states: 'Click here to setup SMTP Server.' Below the form are three buttons: 'Back', 'Next', and 'Cancel'.

Note: The SMTP server settings needed to be configured on the unit, before this action works.

All email actions will use this SMTP server for sending emails.

You can find more information in the Introduction manual about how to set up the SMTP server on the System page although it's very straight-forward.

Either click on the link on the notice, or go to the **System/SMTP** page for the configuration.

Action Wizard

Notifications / Actions / Create an Action

1 — 2 — 3
Email Information — Email Message — Retry

Step 2 - Email Message

Subject

Body

After clicking **“Next”** you will get a page where you can input the e-mail name and message. Press the **“Customize”** button and the fields will re-write in a format that will allow for an automated e-mail that will display the sensor information.

Step 2 - Email Message

Subject

Body

For all possible macro values (dynamic text values starting with \$) you can see a detailed list at the end of this manual.

Action Wizard

Notifications / Actions / Create an Action

1 — 2 — 3

Email Information Email Message Retry

Step 3 - Retry

Maximum Times to Retry:

Retry Interval: 15s

These parameters set the maximum number of times to send the email notification and the time interval between each notification.

If you click on the **Finish and Setup Notification** button, this will launch the **Link Notification Wizard** where you can use the new action for making a notification.

Relay Action setup

You can use the Relay Action to control a relay when a sensor reaches a certain threshold.

The screenshot shows the AKCP web interface with the 'Notifications' menu selected. The 'Action Wizard' is open, showing a progress bar with two steps: '1 Relay Information' (active) and '2 Complete'. The 'Step 1 - Relay Information' form contains the following fields:

- Action Name:** Relay Action
- Unit / Expansion:** Main board
- Relay:** Relay Port 2
- Action:** Turn On
- Delay Before Action:** 0 0s

A note below the form states: **Note: Controlled relay must be set to notification control mode.**

At the bottom of the form are three buttons: 'Back', 'Finish', and 'Cancel'. Below these is a large green button labeled 'Finish and Setup Notification'.

Note: The relay needs to be connected to the unit before it can be configured, and it needs to be set to **Notification Control** mode.

If you click on the **Finish and Setup Notification** button, this will launch the **Link Notification Wizard** where you can use the new action for making a notification.

You'll have the following options for controlling the relay with the action:

Action: Turn On

Delay Before Action:

- Turn On
- Turn Off
- Turn On Until Sensor Normal
- Turn Off Until Sensor Normal
- Turn On Until Acknowledge
- Turn Off Until Acknowledge
- Cycle the Relay

If you click on the **Finish and Setup Notification** button, this will launch the **Link Notification Wizard** where you can use the new action for making a notification.

Cycle Time: 5 5s

If you choose to cycle the relay, you can specify the cycle time.

You'll need to have the Relay sensor in **Notification Control** mode from the **Sensors page** as shown below:

1 Auto Sense Dual Humidity

2 Auto Sense Relay

3 Auto Sense Siren Strobe

4 Auto Sense Dual Humidity

Relay Advanced

Control Mode: Notification Control

Normal State: On Off

Graph Enable: Enable Disable

Filter Status: Enable Disable

Save Cancel

You'll be able to choose the **Notification Control** mode in the **Advanced** tab.

Siren Action setup

The screenshot shows the 'Action Wizard' interface in the AKCP software. The navigation bar includes 'Summary', 'Sensors', 'Events', 'Notifications' (highlighted), and 'System'. A 'Full Screen' button is in the top right. The left sidebar has 'Notifications' and 'Actions' (selected). The main area is titled 'Action Wizard' and shows a progress bar with two steps: '1 Siren Information' and '2 Complete'. Below the progress bar, the 'Step 1 - Siren Information' form is displayed with the following fields:

- Action Name: Siren Action
- Unit / Expansion: Main board
- Siren: Siren Port 3
- Action: Turn Off
- Delay Before Turn On: 0 0s

A note below the fields states: "Note: Controlled siren must be set to notification control mode." At the bottom of the form are buttons for 'Back', 'Finish', 'Cancel', and a large green 'Finish and Setup Notification' button.

Note: The siren needs to be connected to the unit before it can be configured, and it needs to be set to **Notification Control** mode.

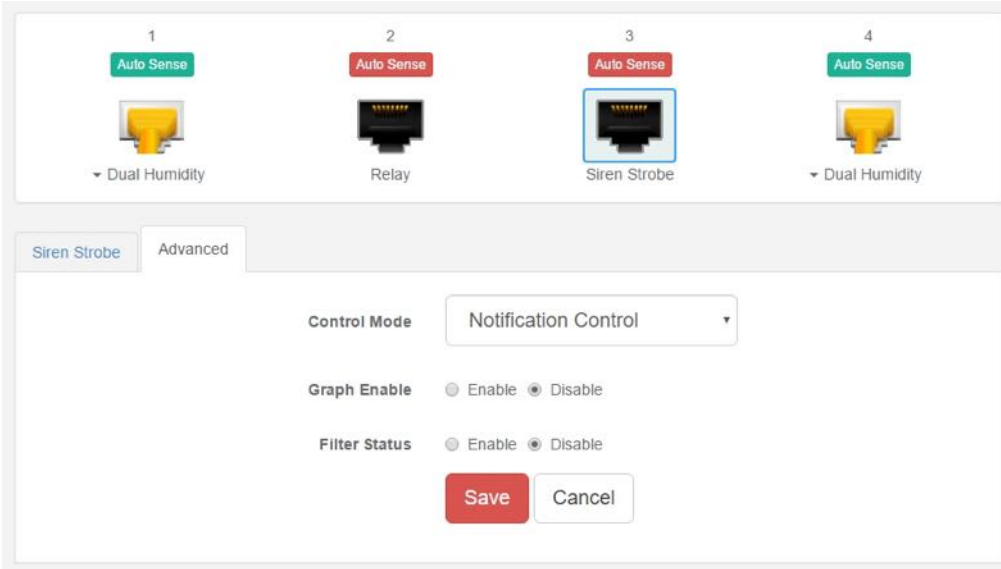
You'll have the following options for controlling the siren with the action:

The screenshot shows a close-up of the 'Action' dropdown menu. The 'Action' label is on the left, and the dropdown is on the right. The current selection is 'Turn Off'. The dropdown menu is open, showing the following options:

- Turn Off (highlighted)
- Turn On
- Until Sensor Normal
- Until Acknowledge
- Defined Time

If you choose Defined Time, you can specify the time in seconds for how long the siren should be turned on.

You'll need to have the Siren sensor in **Notification Control** mode from the **Sensors page** as shown below:



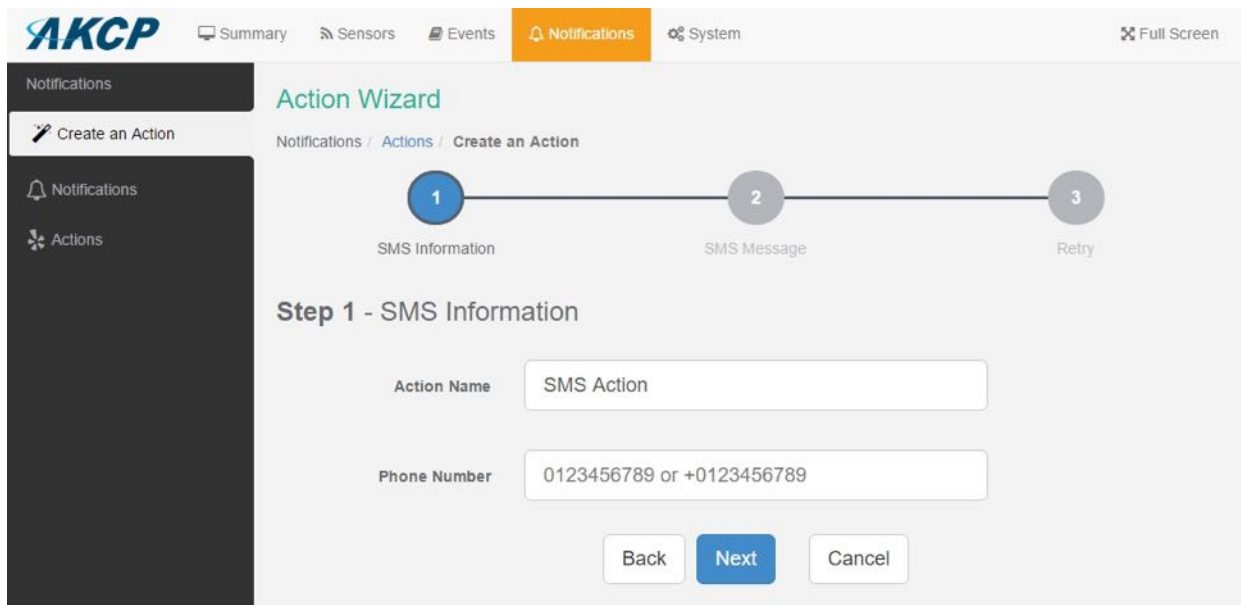
You'll be able to choose the **Notification Control** mode in the **Advanced** tab.

SMS Action setup

You can use the SMS Action to send a notification by SMS when a sensor reaches a certain threshold.

The unit can send an SMS, or Voice alert to many different phone numbers, but you can specify only one phone number per action when setting it up. However, please keep in mind that both the SMS and the dial up actions such as Voice will call to the first number, then after sending to this number, it will call to the second number and so on. So, if you have many numbers in the call list, it will take that much more time to finish sending the SMS or dial up Voice call alerts.

Note: The internal modem module is needed to be connected and set up for this action.



The screenshot shows the AKCP web interface. The top navigation bar includes 'Summary', 'Sensors', 'Events', 'Notifications' (highlighted), and 'System'. A 'Full Screen' button is in the top right. The left sidebar has 'Notifications' and 'Actions' sections. The main content area is titled 'Action Wizard' and shows a progress bar with three steps: 1. SMS Information, 2. SMS Message, and 3. Retry. The current step is 'Step 1 - SMS Information'. It contains two input fields: 'Action Name' with the value 'SMS Action' and 'Phone Number' with the value '0123456789 or +0123456789'. At the bottom are three buttons: 'Back', 'Next' (highlighted in blue), and 'Cancel'.

After typing in your phone number, click **Next**.
You can specify only one phone number per action.

Action Wizard

Notifications / Actions / Create an Action

1 — 2 — 3
SMS Information — SMS Message — Retry

Step 2 - SMS Message

From:

SMS Message:

After clicking “**Next**” you will get a page where you can input the SMS message. Press the “**Customize**” button and the fields will re-write in a format that will allow for an automated SMS that will display the sensor information.

Step 2 - SMS Message

From:

SMS Message:

For all possible macro values (dynamic text values starting with \$) you can see a detailed list at the end of this manual.

Action Wizard

Notifications / Actions / Create an Action

1 — 2 — 3

SMS Information SMS Message Retry

Step 3 - Retry

Maximum Times to Retry:

Retry Interval: 10s

These parameters set the maximum number of times to send the SMS notification and the time interval between each notification.

If you click on the **Finish and Setup Notification** button, this will launch the **Link Notification Wizard** where you can use the new action for making a notification.

Troubleshooting the SMS Action

If you are having trouble sending the SMS alerts, please go through the check list below. Also, try moving the modem's antenna to a slightly different location.

Test the SIM card on mobile phone: verify the account is active, has adequate credit for making phone calls and that the PIN code is disabled.

Ensure the SIM card is properly inserted in the modem's slot. Inserting and removing the SIM is only possible while the unit is powered off; otherwise you can damage the SIM or the unit.

Provided by <http://www.didactum-security.com>

SNMP Trap Action setup

You can use the SNMP Trap Action to send a notification (Trap message) to your SNMP Trap Receiver server when a sensor reaches a certain threshold.

SNMP v1 action

The screenshot shows the 'Action Wizard' interface in the AKCP web application. The navigation bar includes 'Summary', 'Sensors', 'Events', 'Notifications', and 'System'. The left sidebar has 'Notifications' and 'Actions' sections. The main content area is titled 'Action Wizard' and shows a progress bar with three steps: 1. SNMP Information, 2. SNMP Trap Type, and 3. Retry. The current step is 'Step 1 - SNMP Information', which contains the following form fields:

- Action Name:** SNMP Trap Action
- Trap Version:** v1 (selected), v2c, v3 (No License)
- Port:** 162
- Destination IP Address:** 192.168.0.XXX
- Community:** Community

At the bottom of the form are three buttons: 'Back', 'Next', and 'Cancel'.

Enter your Destination IP Address and Community; the default SNMP port is automatically selected.

Notifications / Actions / Create an Action

1 — 2 — 3

SNMP Information SNMP Trap Type Retry

Step 2 - SNMP Trap Type

SNMP Trap Type:

VarBind:

- specificTypeTraps
- generalTypeTraps
- specific & generalTypeTraps
- statusTypeTraps
- customTypeTraps

Sensor Name

Sensor Description

Sensor Type

Sensor Sub Index

Sensor Status Name

Board ID

Board Description

Event Time Stamp

Event Class Number:

Event Class Name:

Sensor Decimal Value

Sensor ID

A different trap message is sent for each sensor type such as temperature, humidity, and switch. The trap messages include *VarBind* fields that include the current sensor status (Normal, Critical High, Warning High, Critical Low, Warning Low, and sensorError), the current sensor value, the level exceeded, the sensor index, the sensor name, and the sensor description.

You can enable or disable specific fields if you choose the *customTypeTraps* from the drop-down list.

Action Wizard

Notifications / Actions / Create an Action

1 — 2 — 3

SNMP Information SNMP Trap Type Retry

Step 3 - Retry

Maximum Time to Retry:

Retry Intervals: 10s

These parameters set the maximum number of times to send the trap notification and the time interval between each notification.

If you click on the **Finish and Setup Notification** button, this will launch the **Link Notification Wizard** where you can use the new action for making a notification.

SNMP v2c action

Action Wizard

Notifications / Actions / Create an Action

1 — 2 — 3 — 4
SNMP Information — SNMP Details — SNMP Trap Type — Retry

Step 1 - SNMP Information

Action Name:

Trap Version: v1 v2c v3 (No License)

Port:

Destination IP Address:

Community:
This field is required.

Enter your Destination IP Address and Community; the default SNMP port is automatically selected.

Action Wizard

Notifications / Actions / Create an Action

1 — 2 — 3 — 4
SNMP Information — SNMP Details — SNMP Trap Type — Retry

Step 2 - SNMP Details

SNMP Trap or SNMP Inform: SNMP Trap SNMP Inform

You can choose the packet to be sent between SNMP Trap or Inform packet.

Notifications / Actions / Create an Action

1 — 2 — 3 — 4

SNMP Information SNMP Details SNMP Trap Type Retry

Step 3 - SNMP Trap Type

SNMP Trap Type:

VarBind

- Sensor Status
- Sensor Value
- Sensor Level Exceeded
- Sensor Index
- Sensor Name
- Sensor Description
- Sensor Type
- Sensor Sub Index
- Sensor Status Name
- Board ID
- Board Description
- Event Time Stamp
- Event Class Number:
- Event Class Name:
- Sensor Decimal Value
- Sensor ID

Back Next Cancel

A different trap message is sent for each sensor type such as temperature, humidity, and switch. The trap messages include *VarBind* fields that include the current sensor status (Normal, Critical High, Warning High, Critical Low, Warning Low, and sensorError), the current sensor value, the level exceeded, the sensor index, the sensor name, and the sensor description.

You can enable or disable specific fields if you choose the *customTypeTraps* from the drop-down list.

Action Wizard

Notifications / Actions / Create an Action

1 — 2 — 3 — 4

SNMP Information SNMP Details SNMP Trap Type **Retry**

Step 4 - Retry

Maximum Time to Retry:

Retry Intervals: 10s

These parameters set the maximum number of times to send the trap notification and the time interval between each notification.

If you click on the **Finish and Setup Notification** button, this will launch the **Link Notification Wizard** where you can use the new action for making a notification.

SNMP v3 action

Only SNMPv3 provides secure SNMP communication. The previous versions are considered unsecure and unencrypted.

This feature requires a separate license. You can read more details about the licensing in the Introduction manual.

The screenshot shows the 'Action Wizard' interface for creating an SNMP action. It features a progress bar with four steps: 1. SNMP Information (active), 2. SNMP Details, 3. SNMP Trap Type, and 4. Retry. Below the progress bar, the 'Step 1 - SNMP Information' section contains the following fields:

- Action Name:** A text input field containing 'SNMP Trap Action'.
- Trap Version:** A selection field with three options: 'v1', 'v2c', and 'v3'. The 'v3' option is selected and highlighted in blue.
- Port:** A text input field containing '162'.
- Destination IP Address:** A text input field containing '192.168.0.XXX'.
- Community:** A text input field containing 'Community'.

At the bottom of the form, there are three buttons: 'Back', 'Next' (highlighted in blue), and 'Cancel'.

Enter your Destination IP Address and Community; the default SNMP port is automatically selected.

Action Wizard

Notifications / Actions / Create an Action

1
SNMP Information

2

3
SNMP Trap Type

4
Retry

Step 2 - SNMP Details

SNMP Trap or SNMP Inform **SNMP Trap** SNMP Inform

SNMPv3 User Name

SNMPv3 engineID

Security Level

Authentication Protocol

Authentication Protocol Pass Phrase

Privacy Protocol

Privacy Protocol Pass Phrase

Back
Next
Cancel

You can choose the packet to be sent between SNMP Trap or Inform packet. Configure the settings for authentication, and access privileges. Below we'll give a quick description of each setting:

<u>Level</u>	<u>Authentication</u>	<u>Encryption</u>	<u>Description</u>
noAuthNoPriv	Username	No	Match Username (same as SNMP v1/v2c)
authNoPriv	MD5 or SHA	No	Auth Based on Algorithms (check password)
authPriv	MD5 or SHA	Yes - DES	Auth Algorithms and Encryption

Basically if you select **noAuthNoPriv** then the setup will be the same as with SNMP v1 and v2c versions: authentication is only checked by unencrypted username.

authNoPriv will provide password protection but no encryption.

authPriv provides encrypted username and password protection.

Notifications / Actions / Create an Action

1 — 2 — 3 — 4
SNMP Information SNMP Details SNMP Trap Type Retry

Step 3 - SNMP Trap Type

SNMP Trap Type:

VarBind

- Sensor Status
- Sensor Value
- Sensor Level Exceeded
- Sensor Index
- Sensor Name
- Sensor Description
- Sensor Type
- Sensor Sub Index
- Sensor Status Name
- Board ID
- Board Description
- Event Time Stamp
- Event Class Number:
- Event Class Name:
- Sensor Decimal Value
- Sensor ID

A different trap message is sent for each sensor type such as temperature, humidity, and switch. The trap messages include *VarBind* fields that include the current sensor status (Normal, Critical High, Warning High, Critical Low, Warning Low, and sensorError), the current sensor value, the level exceeded, the sensor index, the sensor name, and the sensor description.

You can enable or disable specific fields if you choose the *customTypeTraps* from the drop-down list.

Action Wizard

Notifications / Actions / Create an Action

1 — 2 — 3 — 4

SNMP Information SNMP Details SNMP Trap Type Retry

Step 4 - Retry

Maximum Time to Retry:

Retry Intervals: 10s

These parameters set the maximum number of times to send the trap notification and the time interval between each notification.

If you click on the **Finish and Setup Notification** button, this will launch the **Link Notification Wizard** where you can use the new action for making a notification.

Telephone Call Action setup

You can use the Telephone Call Action to send custom voice call alerts to your phone when a sensor reaches a certain threshold.

The unit can send an SMS, or Voice alert to many different phone numbers, but you can specify only one phone number per action when setting it up. However, please keep in mind that both the SMS and the dial up actions such as Voice will call to the first number, then after sending to this number, it will call to the second number and so on. So, if you have many numbers in the call list, it will take that much more time to finish sending the SMS or dial up Voice call alerts.

Note: The internal modem module is needed to be connected and set up for this action.

The screenshot shows the AKCP web interface. The top navigation bar includes 'Summary', 'Sensors', 'Events', 'Notifications' (highlighted), and 'System'. A 'Full Screen' button is in the top right. The left sidebar has 'Notifications' and 'Actions' sections. The main content area is titled 'Action Wizard' and shows a progress bar with three steps: 1. Telephone Call Information, 2. Message, and 3. Retry. Step 1 is active. Below the progress bar, the 'Step 1 - Telephone Call Information' section contains two input fields: 'Action Name' with the value 'Telephone Call Action' and 'Phone Number' with the value '0123456789 or +0123456789'. At the bottom of the form are three buttons: 'Back', 'Next' (highlighted in blue), and 'Cancel'.

After typing in your phone number, click **Next**.
You can specify only one phone number per action.

Action Wizard

Notifications / Actions / Create an Action

1 Telephone Call Information 2 Message 3 Retry

Step 2 - Speech Output and Message

Speech Volume: Min Avg Max

Speech Speed: Min Avg Max

Speech Acknowledge:

Message:

Now you can select the **volume** and **playback speed** for your phone call. The call will be made by using a Text to Speech module.

You can also specify to have the call acknowledged:

Speech Acknowledge:

Message:

If Speech Acknowledgement is selected the user will be requested to dial 1 on their phone when prompted in the call to confirm their acknowledgement.

Message

[\$DESCRIPTION] is now \$[VALUE] \$[UNIT],
status is now \$[STATUS]

Preview Restore Default Macro Description

A preview of the message that will be read is displayed, which you may customize further. The sent message will include the details relevant to your sensor.

For all possible macro values (dynamic text values starting with \$) you can see a detailed list at the end of this manual.

Action Wizard

Notifications / Actions / Create an Action

1 Telephone Call Information — 2 Message — 3 Retry

Step 3 - Retry

Maximum Times to Retry:

Retry Interval: 10s

These parameters set the maximum number of times to send the call notification and the time interval between each notification.

If you click on the **Finish and Setup Notification** button, this will launch the **Link Notification Wizard** where you can use the new action for making a notification.

Example notification setup: SMS Notification

The screenshot shows the AKCP interface with the 'Notifications' menu selected. The 'Actions' page is displayed, showing a search bar and a table of actions. The table has two columns: 'Action Type' and 'Action Name'. A single row is visible with 'SMS' as the Action Type and 'SMS Action' as the Action Name. There are icons for edit, delete, and test next to the row.

Action Type	Action Name
SMS	SMS Action

In our example we've set up an SMS action and we'll link that to notify us by SMS when the *Humidity sensor's* value reaches *High Critical*.

The screenshot shows the AKCP interface with the 'Notifications' menu selected. The 'Notifications' page is displayed, showing a search bar and a table of notification rules. The table has five columns: 'Unit / Expansion', 'Sensor Name', 'Status', 'Action Name', and 'Escalation'. The 'Add' button is highlighted in blue.

Unit / Expansion	Sensor Name	Status	Action Name	Escalation
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On the **Notifications** menu we click on **Add**. This will start the **Link Notification Wizard**.

Notifications

Summary Sensors Events Notifications System Full Screen

Link Notification

Notifications

Actions

Notifications

Notifications / Link Notification

- 1 Sensors
- 2 Status and Action
- 3 Continuous Time
- 4 Minimum Time
- 5 Escalation

Step 1 - Select Sensors

Unit / Expansion

Main board

Sensor

Dual Humidity Port 1

Dual Temperature Port 1

Relay Port 2

Dry Contact Port 3

Back Next Cancel

The first step is to select the sensor that we'll link the notification to. You could also select multiple sensors for a single notification.

The screenshot shows the AKCP web interface for configuring notifications. The top navigation bar includes 'Summary', 'Sensors', 'Events', 'Notifications' (highlighted), and 'System'. A 'Full Screen' button is in the top right. The left sidebar has 'Notifications' and 'Actions' sections. The main content area is titled 'Notifications' and 'Link Notification'. A progress bar at the top shows five steps: 1. Sensors, 2. Status and Action (current), 3. Continuous Time, 4. Minimum Time, and 5. Escalation. Below the progress bar, the heading 'Step 2 - Select Status and Action' is displayed. Two selection boxes are shown: 'Status' and 'Action'. The 'Status' box contains a list of options: 'High Critical' (highlighted), 'High Warning', 'Normal', 'Low Warning', 'Low Critical', and 'Sensor Error'. The 'Action' box contains a list with 'SMS Action' (highlighted). An arrow points from the 'Status' box to the 'Action' box. At the bottom, there are three buttons: 'Back', 'Next' (highlighted), and 'Cancel'.

Next we choose the status *High Critical* for the sensor, and use the previously created SMS Action. You could also select multiple statuses for a sensor.

Notifications

Summary Sensors Events Notifications System Full Screen

Notifications

Link Notification

Notifications

Actions

Notifications

Link Notification

1 Sensors 2 Status and Action 3 Continuous Time 4 Minimum Time 5 Escalation

Step 3 - Continuous Time for Sensor to be in Status listed below before Notification

High Critical 2 2s

Back Next Cancel

We set the continuous time as 2 seconds - this means the sensor's state has to remain at least 2 seconds in the chosen state before the notification runs.

Notifications

Summary Sensors Events Notifications System Full Screen

Notifications

Link Notification

Notifications

Actions

Notifications

Link Notification

1 Sensors 2 Status and Action 3 Continuous Time 4 Minimum Time 5 Escalation

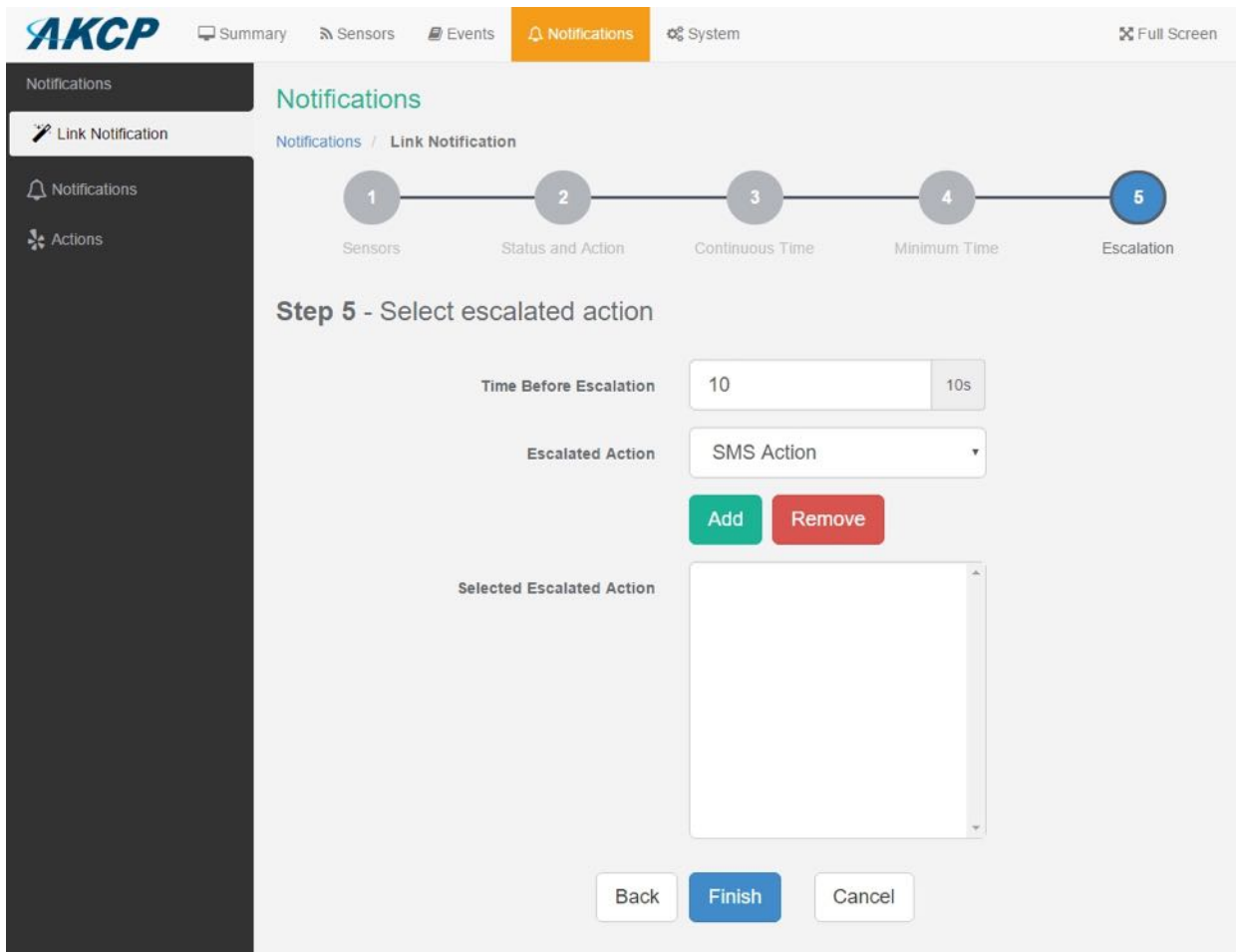
Step 4 - Minimum Time between each Notification

High Critical 0 0s

Back Next Cancel

We don't use a minimum time between notifications (default value).

If you get multiple notifications of the same type, this option could help to reduce the frequency of them.



All actions have an option **Escalation**. With this you could specify additional actions to run after the initial action, with the specified time.

Use the **Add** and **Remove** buttons to add or remove escalated actions.

The maximum number of escalated actions is 10.

Note that the additional actions need to be created before you could select them.

In this example we won't use escalated action.

Notifications / Notification Rules

Search Units, Sensors, or Actions in Notification

Unit / Expansion	Sensor Name	Status	Action Name	Escalation
<input checked="" type="checkbox"/> Main board	Dual Humidity Port 1	→ High Critical	→ SMS Action	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

After the wizard has finished, you can view, edit or remove the completed notification in the **Notifications** menu.

Heartbeat Messages

This feature allows you to set up periodical “keep alive” notifications task by email, SMS or SNMP Trap to indicate the unit is still working properly.

The screenshot displays the AKCP web interface for managing Heartbeat Messages. The top navigation bar includes Summary, Sensors, Events, Notifications, and System (highlighted). The left sidebar lists various system settings, with Heartbeat Messages selected. The main content area shows the 'Heartbeat Messages' configuration page, featuring a search bar, an 'Add' button, and a 'Refresh' button. Below these controls is a table with the following columns: Name, Task, Next Run Time, Last Run Time, Result, and Success.

Navigate to **System/Heartbeat Messages** and click on the **Add** button to begin the wizard.

System / Heartbeat Messages / Add Heartbeat Task

1 Heartbeat Information 2 Action Information 3 Sensors 4 Schedule

Step 1 - Heartbeat Information

Name: Heartbeat Task

Send Action: **Email** SMS SNMP Trap

Back Next Cancel

In the first step you can choose the type of the heartbeat notification, which can be Email, SMS or SNMP Trap. In our example we'll use **Email notification**.

System / Heartbeat Messages / Add Heartbeat Task

1 Heartbeat Information 2 Action Information 3 Sensors 4 Schedule

Step 2 - Action Information

Email From: sp2plus@akcp.com

Email To: to@address.com, to@address.com, to@address:

Back Next Cancel

Choose the recipients of the action. If you haven't yet set up the SMTP server options, you'll be asked to do so.

If you choose SMS action in the previous step, then you'll need to fill in a phone number here.

For the SNMP Trap you'll need to specify the SNMP options; see the SNMP Trap Action configuration in this manual for more help.

Heartbeat Messages

System / Heartbeat Messages / Add Heartbeat Task

- Heartbeat Information
- Action Information
- Sensors**
- Schedule

Step 3 - Sensors in Heartbeat Message

Unit / Expansion

Main board

Sensor

- Dual Humidity Port 1
- Dual Temperature Port 1
- Relay Port 2
- Siren Port 3
- Dual Humidity Port 4
- Dual Temperature Port 4

Back Next Cancel

In this step you can choose one or more sensor's status and reading to include in the heartbeat message.

Note: select at least one sensor.

Heartbeat Messages

System / Heartbeat Messages / Add Heartbeat Task

1 — 2 — 3 — 4
Heartbeat Information — Action Information — Sensors — Schedule

Step 4 - Schedule to perform this task

Perform this Task by Minute Day Week Month

Every min(s)

Finally, choose a schedule for the heartbeat message. This picture shows the by-minute schedule. You can choose between Minute, Day, Week, Month. We'll also show the configuration for all of them below.

Heartbeat Messages

System / Heartbeat Messages / Add Heartbeat Task

1 — 2 — 3 — 4
Heartbeat Information — Action Information — Sensors — Schedule

Step 4 - Schedule to perform this task

Perform this Task by Minute Day Week Month

Every day(s)

Start Time hh:mm

This is the by-daily schedule.

Heartbeat Messages

System / Heartbeat Messages / Add Heartbeat Task



Step 4 - Schedule to perform this task

Perform this Task by

Minute Day **Week** Month

Every

1

week(s)

Start Time

22:00

hh:mm

Select days of the week

Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday

This is the by-weekly schedule.

Heartbeat Messages

System / Heartbeat Messages / Add Heartbeat Task



Step 4 - Schedule to perform this task

Perform this Task by

Every

month(s)

Start Time

hh:mm

Select dates of the month

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

This is the by-monthly schedule.

Heartbeat Messages

System / Heartbeat Messages

Search Heartbeat Tasks

Name ▲	Task ▲	Next Run Time ▼	Last Run Time ▼	Result ▼	Success ▼	
<input checked="" type="checkbox"/>	Heartbeat Task	Start at 22:00, Every 1 month(s)	01/03/2016, 22:00	-	OK	0 <input type="button" value="reset"/> <input type="button" value="edit"/> <input type="button" value="delete"/>

When you've finished the wizard, it will appear in the list. You could edit or remove the task, and reset the success counter.

Note that you can define multiple heartbeat notification tasks with different schedule or notification methods.

AKCP Summary Sensors **Events** Notifications System Full Screen

Notifications

Search

Date Start to Date End

Date/Time ▼	Event ▲
1 29/02/2016 12:53:36	Email ok: Good mail sent to "jane.doe@akcp.com"

First < 1 > Last

You can view the result of the notification at the Events page's Notifications section.

Macro Description for actions

Macro Name	Description
[\$SYSNAME]	System name.
[\$SYSLOCATION]	System location.
[\$SYSCONTACT]	System contact.
[\$SYSURL]	System URL.
[\$IP]	The IP address of this system.
[\$IP_ETH]	The IP address of ethernet interface.
[\$IP_VPN]	The IP address of VPN interface.
[\$TIME]	The time when a sensor transmits the notification in the format of HH:MM:SS Ex: 18:45:10.
[\$DATE]	The date when the sensor transmits the notification in the format of YYYY/MM/DD Ex: 2005/01/31.
[\$DAY_OF_WEEK]	The day of the week when the sensor transmits the notification. Ex: Monday, Tuesday, etc.
[\$DAY]	The date of the month when the sensor transmits the notification. Ex: 1,2,3,...
[\$MONTH]	The month when the sensor transmits the notification. Ex: January, February, etc.
[\$YEAR]	The year when the sensor transmits the notification. Ex: 2014.
[\$PORT]	The port number when the sensor transmits the notification. Ex: 2.
[\$DESCRIPTION]	The description to identify the reporting sensor transmitting the notification. Ex: Temperature of computer room.
[\$STATUS]	The status of the sensor transmitting the notification. Ex: High Critical.
[\$VALUE]	The current reading of the sensor when a notification occurs. Ex: 40 Percent, 20 Volts, etc.
[\$UNIT]	The unit of the sensor. Ex: Percent, Volts, etc.

Note: This macro help window is also available from the Web UI when you click on the **Macro Description** button.

Troubleshooting

I am having problems with the unit but not sure what to do next?

Please email support@akcp.com and include the following detailed information in your email;

Note: The more details you can provide the easier and faster we can provide you with a resolution, so please be as detailed as possible.

1. The details of the problem, condition of the LEDs etc.
2. What you did to determine the unit has this problem?
3. Was there anything done to the unit prior to having the problem?
4. Did the unit always have this problem, if not when did this start?
5. Do you have more than one unit having the same problem?
6. What did you do to try and fix the problem?
7. What version of firmware is running on the unit? Did you try and upgrade it?
8. Include the backup configuration file from the unit.
9. If you can put the unit online this would be the fastest way for us to solve the problem.
10. What is the MAC ID of the unit?



Please contact support@akcp.com if you have any further technical questions or problems.

Thanks for Choosing AKCP!