



## AKCP SP2+ sensorProbe2 Remote Monitoring Device Instruction Manual

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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.

### What is the SP2+ and Thermal Map?

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.

The thermal map combines 4 sensors into one sensor port on the SP2+, specially designed to monitor the air entering and leaving a computer rack. The Thermal Rack Map is performed from the AKCess Pro Server using the Thermal Sensor connected to the SP2+. The Thermal Map Sensors monitor the temperature and humidity at different points of the rack.

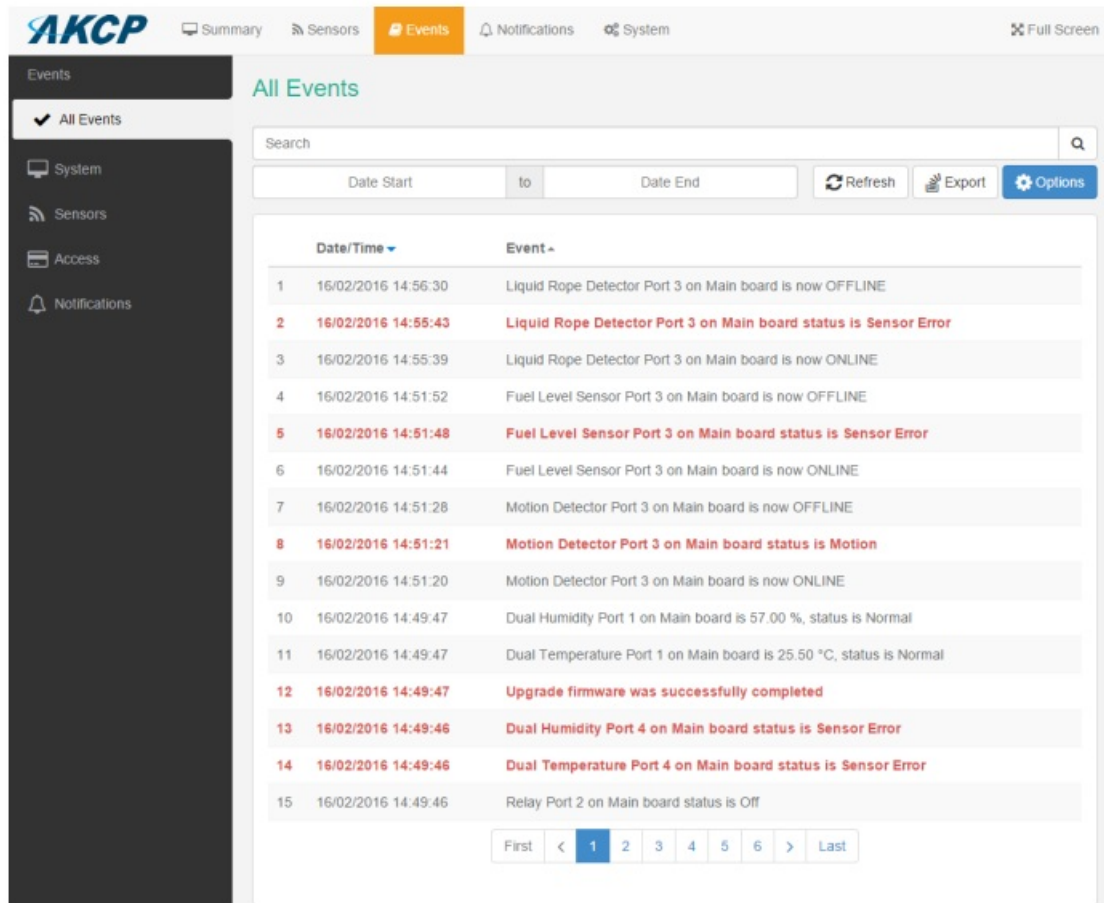
### SP2 + Features:

- IP based, including SNMPv3, HTTPS, VPN
- Send encrypted SNMP Trap and Email Notifications
- Supports 4 Intelligent Sensors or up to 20 Dry Contacts
- Optional cellular modem with external antenna
- Notification Wizards
- Front and Rear Thermal Mapping for any server cabinet
- Low Cost Daisy Chained Temperature sensors
- Optional Expansion Module connectivity
- Virtual Sensors
- Patented Fire Suppression feature
- AKCP Swing Handle Lock support

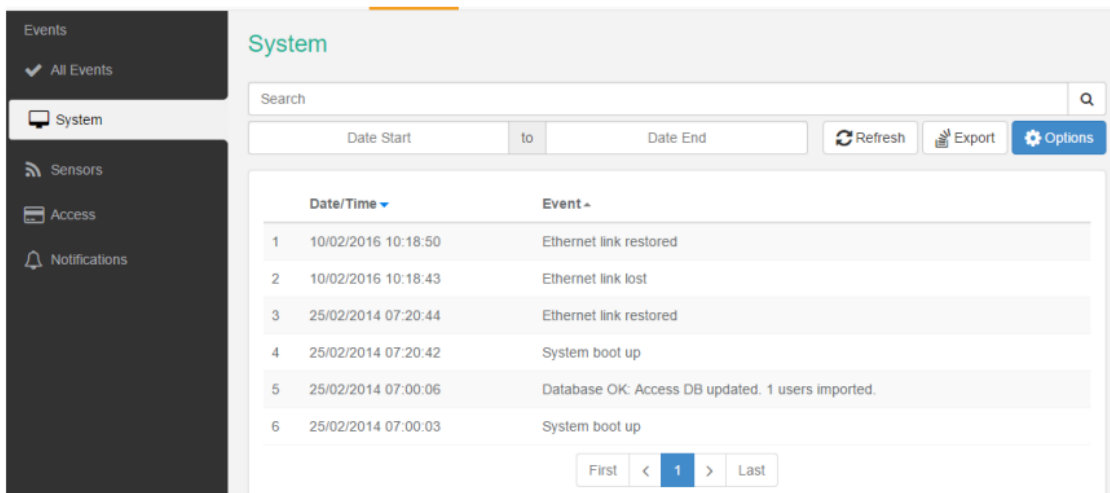
**Important note:** Some of the pictures shown in this manual might not represent the actual Web UI of the unit; this is because we are constantly working on improving the firmware. Please provide us with feedback if you have any issues configuring your unit.

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



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:

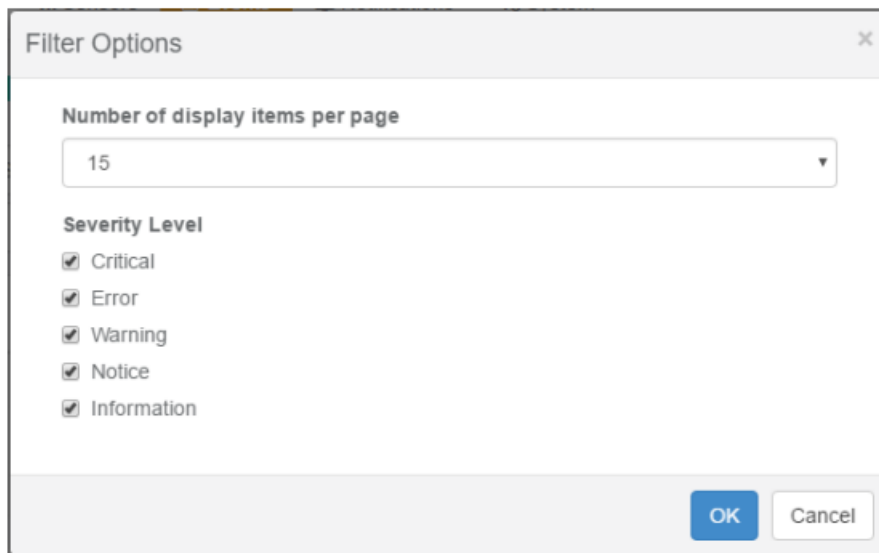
**All Events** – contains all logs from the device, sorted by date and time; you can specify the start- and end dates to narrow the list, or choose a specific log category.

**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.



**Filter Options**

Number of display items per page

15

Severity Level

- ☒ Critical
- ☒ Error
- ☒ Warning
- ☒ Notice
- ☒ Information

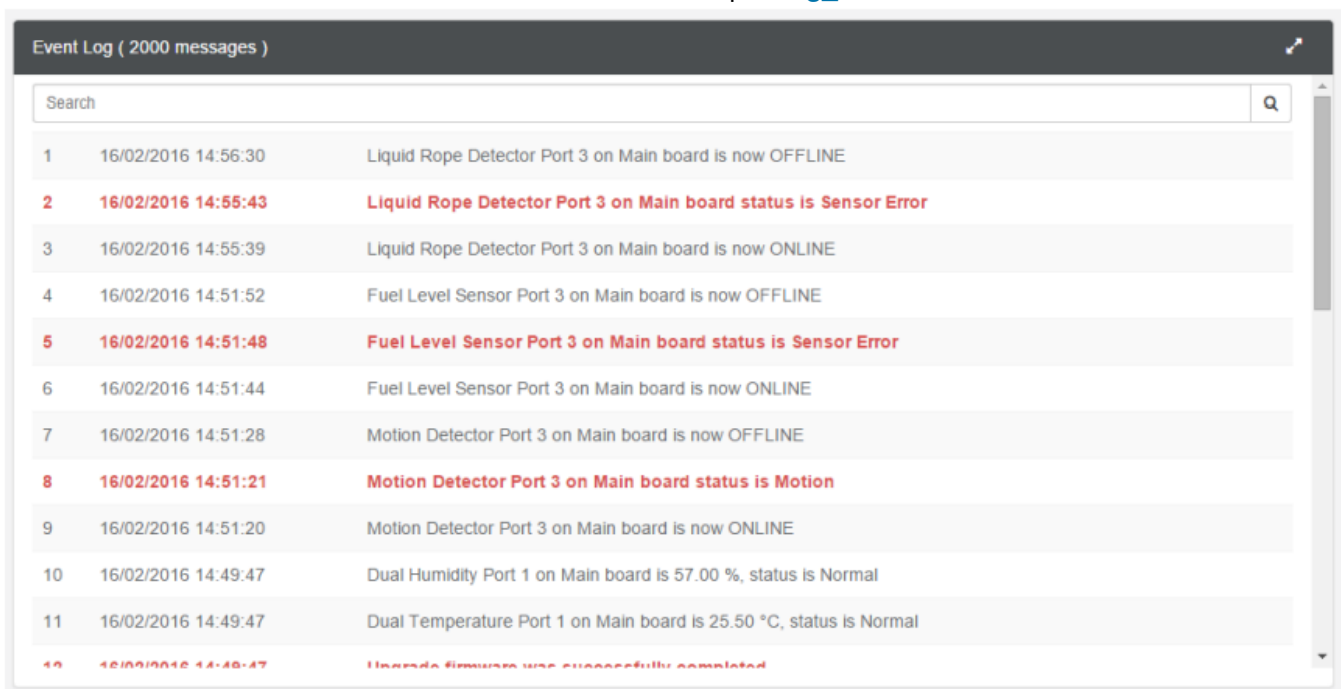
OK Cancel

In the Options, you can change the number of log entries displayed per page. The default is 15, it's possible to specify up to 100. Also you can filter by Severity Level.

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](#)



Event Log ( 2000 messages )		
Search		
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

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.

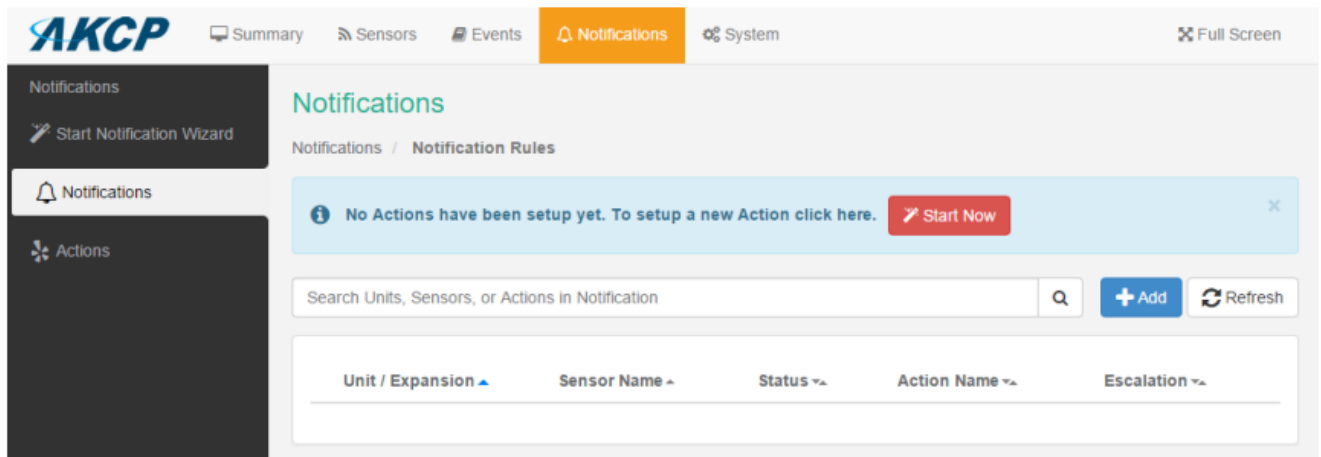
SMS: This sends an SMS message to your mobile phone.

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.

Door: Controls the door with the Handle Lock sensor.

## 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.

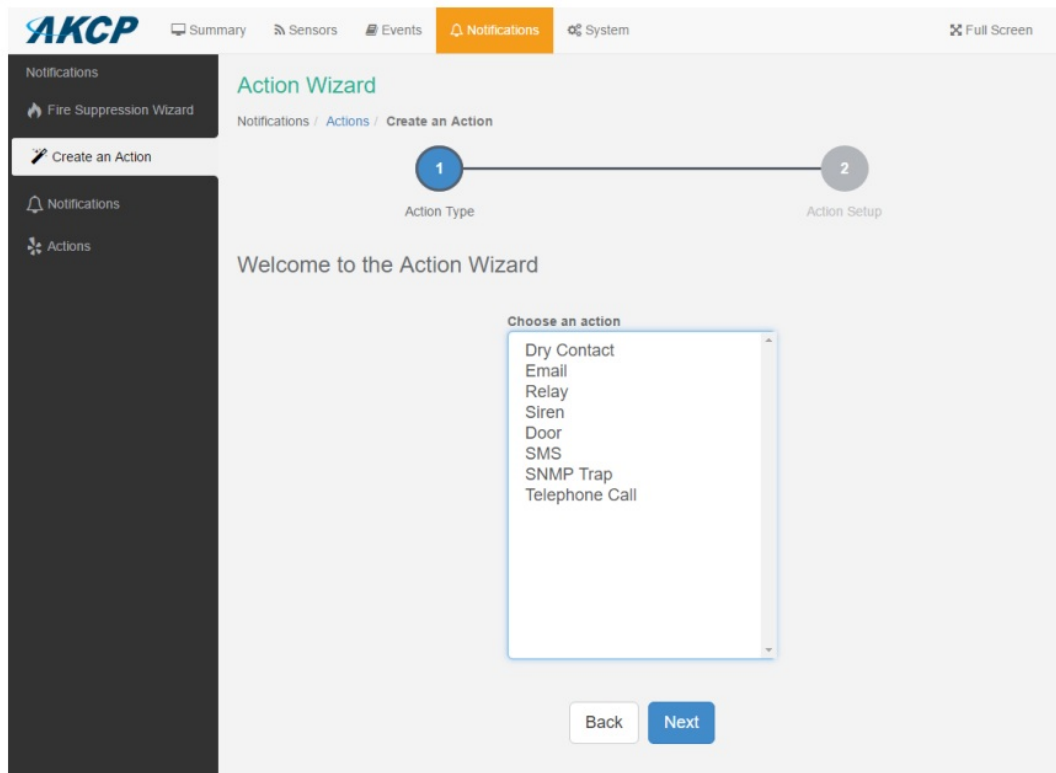
Click on the Start Now button or the Start Notification Wizard tab to start the wizard.

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 'Step 1 - Dry Contact Information' configuration page in the AKCP Action Wizard. The top navigation and sidebar are the same as the previous screenshot. The progress bar shows '1 Dry Contact Information' (active) and '2 Complete'. The main area is titled 'Step 1 - Dry Contact Information'. It contains several form fields: 'Action Name' (text input with 'Dry Contact Action'), 'Unit / Expansion' (dropdown menu with 'Main board'), 'Dry Contact' (dropdown menu with 'Dry Contact Port 3'), 'Action' (dropdown menu with 'Turn Low'), and 'Delay Before Action' (text input with '0' and a '0s' unit). Below these fields is a note: 'Note: Controlled dry contact must be set to notification control mode.' At the bottom are 'Back', 'Finish', and 'Cancel' buttons, and a large green 'Finish and Setup Notification' button.

**Note:** The dry contact needs to be connected to the unit before it can be configured, and it needs to be in 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:

The screenshot shows a configuration window with two main sections. The top section is labeled 'Action' and contains a dropdown menu. The bottom section is labeled 'Delay Before Action' and contains a text input field for 'Cycle Time' set to '5' and a unit selector set to '5s'.

Action	Delay Before Action
Turn Low	5s
Turn High	
Turn Low Until Sensor Normal	
Turn High Until Sensor Normal	
Turn Low Until Acknowledge	
Turn High Until Acknowledge	
Cycle the Dry Contact	

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 'Dry Contact I/O' configuration page. At the top, there are four sensor slots labeled 1, 2, 3, and 4. Slot 3 is selected and labeled 'Dry Contact I/O'. Below the slots, there are tabs for 'Dry Contact I/O' and 'Advanced'. The 'Dry Contact I/O' tab is active, showing the following configuration:

- Sensor Name: Dry Contact Port 3
- Sensor Status: Normal
- Sensor Currently: Online
- Direction: ☒ Input ☐ Output (The 'Output' option is highlighted with a red box in the original image)
- Boot Up State: ☒ Low ☐ High
- Description of Status When High: High
- Description of Status When Low: Low
- Description of Status When Sensor Error: Sensor Error
- Buttons: Save, Cancel

Change the Direction from Input to Output and click Save.

The screenshot shows a configuration window with two tabs: 'Dry Contact I/O' and 'Advanced'. The 'Advanced' tab is active. It contains the following settings:

- Sensor Control:** A button labeled 'Action' with a downward arrow.
- Toggle:** A text input field containing '5' and a unit box containing '5s'.
- Enable Calendar:** Radio buttons for 'On' and 'Off', with 'Off' selected.
- Graph Enable:** Radio buttons for 'Enable' and 'Disable', with 'Disable' selected.
- Filter Status:** Radio buttons for 'Enable' and 'Disable', with 'Disable' selected.
- Buttons:** A red 'Save' button and a white 'Cancel' button.

You can choose to manually control the sensor from the Advanced tab using the Sensor Control button:

This image shows the 'Sensor Control' button from the previous screenshot with its dropdown menu open. The menu contains the following options:

- Low
- High
- Toggle High-Low
- Toggle Low-High

## Email Action setup

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



AKCP

SummarySensorsEventsNotificationsSystem

Full Screen

Notifications

Create an Action

Notifications

Actions

Action Wizard

Notifications / Actions / Create an Action

123

Email InformationEmail MessageRetry

Step 1 - Email Information

Action Name

Email Action

From

user@akcp.com

To

to@address.com, to@address.com, to@address.com, ...

Click [here](#) to setup SMTP Server.

Back

Next

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

123

Email InformationEmail MessageRetry

Step 2 - Email Message

Subject

Testing Sensor Port 1 is now 80 Unit, status is n

Body

From: System Name (127.0.0.1)  
Time: 11:12:10  
Testing Sensor Port 1 is now 80 Unit, status is now Normal

Customize

Back

Next

Cancel

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	<code>\${DESCRIPTION} is now \${VALUE} \${UNIT}, sta</code>
Body	<code>From: \${SYSNAME} (\${IP}) Time: \${TIME} \${DESCRIPTION} is now \${VALUE} \${UNIT}, status is now \${STATUS}</code>

PreviewRestore DefaultMacro Description

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 InformationEmail MessageRetry

### Step 3 - Retry

Maximum Times to Retry	5
Retry Interval	1515s

BackFinishCancel

Finish and Setup Notification

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' tab selected. The 'Action Wizard' is open, showing a progress bar with two steps: '1 Relay Information' and '2 Complete'. The current step is 'Step 1 - Relay Information'. The 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 fields states: "Note: Controlled relay must be set to notification control mode." At the bottom, there are three buttons: 'Back', 'Finish', and 'Cancel'. A green button labeled 'Finish and Setup Notification' is positioned below the 'Finish' button.

**Note:** The relay needs to be connected to the unit before it can be configured.

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:

The screenshot shows a dropdown menu for the 'Action' field. The menu is open, displaying the following options:

- Turn On
- 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.

The screenshot shows the 'Cycle Time' input field. The value '5' is entered in the text box, and the unit '5s' is displayed to the right of the box.

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

On the Sensors page you can specify additional settings for the relay as shown below:

1 Auto Sense  
Thermal Map

2 Auto Sense  
Thermal Map

3 Auto Sense  
Relay

4 Auto Sense  
Handle Lock

Relay Advanced

Sensor Control Action

Toggle 5 5s

Enable Calendar ☐ On ☒ Off

Graph Enable ☐ Enable ☒ Disable

Filter Status ☐ Enable ☒ Disable

Save Cancel

## Siren Action setup

You can use the Siren Action to turn on the siren and strobe light when a sensor reaches a certain threshold.

AKCP Summary Sensors Events Notifications System Full Screen

Notifications

Create an Action

Notifications

Actions

Action Wizard

Notifications / Actions / Create an Action

1 Siren Information 2 Complete

Step 1 - Siren Information

Action Name Siren Action

Unit / Expansion Main board

Siren Siren Port 3

Action Turn Off

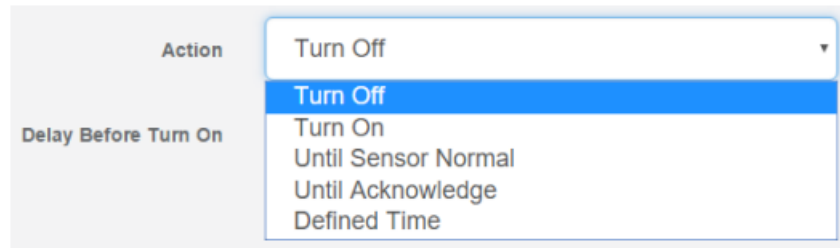
Delay Before Turn On 0 0s

Note: Controlled siren must be set to notification control mode.

Back Finish Cancel

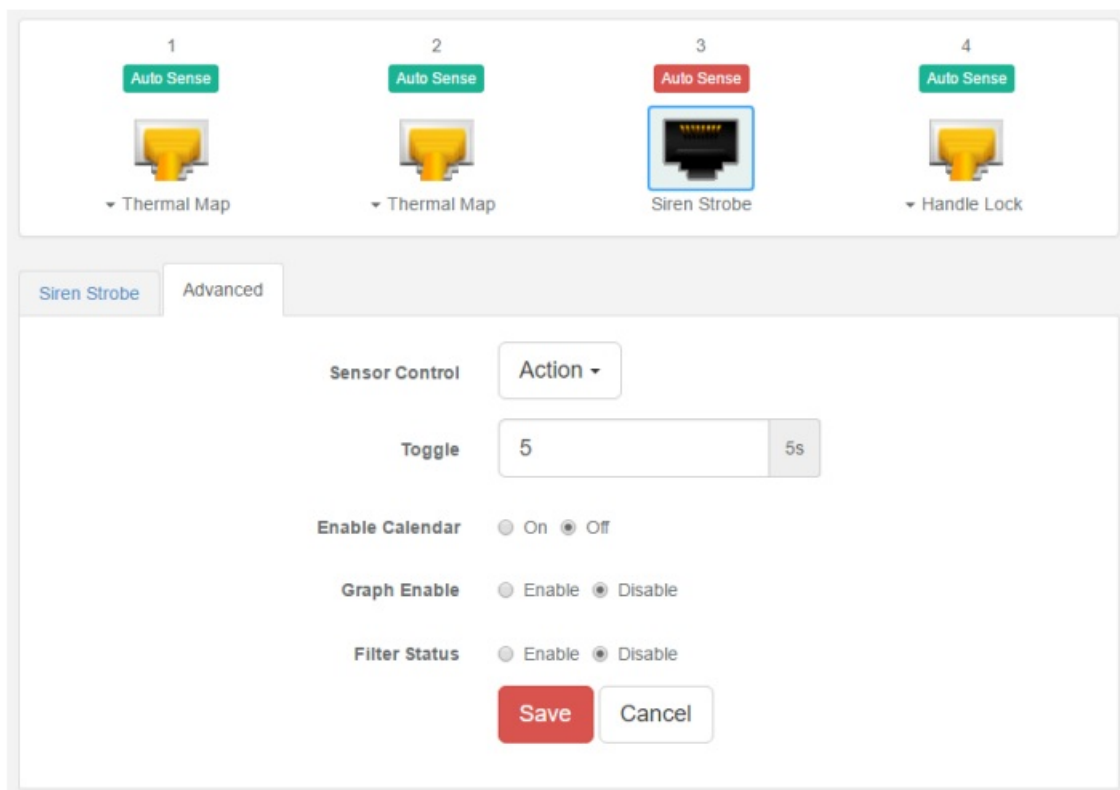
Finish and Setup Notification

**Note:** The siren needs to be connected to the unit before it can be configured.  
You'll have the following options for controlling the siren with the action:



The image shows a configuration interface with a dropdown menu. The dropdown is open, showing the following options: 'Turn Off' (selected), 'Turn On', 'Until Sensor Normal', 'Until Acknowledge', and 'Defined Time'. The dropdown is labeled 'Action' and 'Delay Before Turn On'.

If you choose Defined Time, you can specify the time in seconds for how long the siren should be turned on.  
On the Sensors page you can specify additional settings for the siren as shown below:



The image shows a configuration page for the Siren Strobe. At the top, there are four sensor slots, each with an 'Auto Sense' button and a sensor icon. The third slot is labeled 'Siren Strobe' and has a blue border. Below the sensors, there are two tabs: 'Siren Strobe' and 'Advanced'. The 'Advanced' tab is selected. Under the 'Advanced' tab, there are several settings: 'Sensor Control' with a dropdown menu labeled 'Action', 'Toggle' with a value of '5' and a '5s' unit, 'Enable Calendar' with radio buttons for 'On' and 'Off' (selected), 'Graph Enable' with radio buttons for 'Enable' and 'Disable' (selected), and 'Filter Status' with radio buttons for 'Enable' and 'Disable' (selected). At the bottom, there are 'Save' and 'Cancel' buttons.

You can choose to manually control the sensor from the Advanced tab using the Sensor Control button.

## Troubleshooting

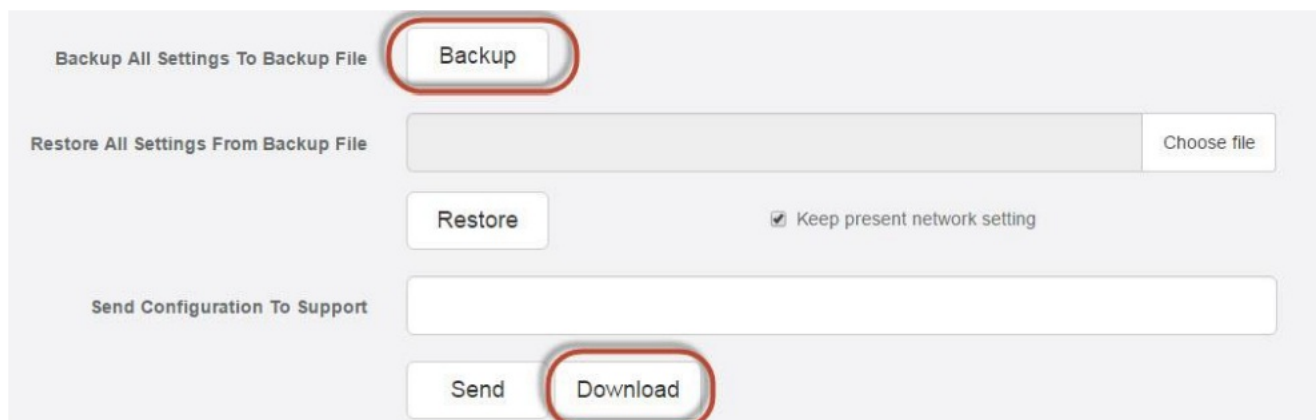
I am having problems with the unit but not sure what to do next?

Please email [support@akcp.com](mailto: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 settings and backup configuration files to support (both files, see below).
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?



Backup All Settings To Backup File **Backup**

Restore All Settings From Backup File  Choose file



**Restore** ☒ Keep present network setting

Send Configuration To Support

**Send** **Download**

Please contact [support@akcp.com](mailto:support@akcp.com) if you have any further technical questions or problems.  
Thanks for Choosing AKCP!

## Documents / Resources

 SP2+ Notifications Manual 	<a href="#">AKCP SP2+ sensorProbe2 Remote Monitoring Device</a> [pdf] Instruction Manual SP2 sensorProbe2 Remote Monitoring Device, SP2, sensorProbe2 Remote Monitoring Device, Remote Monitoring Device, Monitoring Device
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## References

- [AKCP - AKCP Remote Sensor Monitoring | Data Center Monitoring](#)

[Manuals+](#).