

# **AM Deactivator XAMD-2**

## **Product Manual**

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## 1 Introduction

The AM Deactivator XAMD-2 is a combined label detector and label deactivator, designed for high speed & long-distance detection and deactivation of AM labels. The deactivator consists of the controller unit and one or two external antennas. The controller unit itself doesn't contain a deactivation antenna.

This deactivator is suited for fashion stores as well as for supermarkets, because it supports external antennas which can be integrated in barcode scanners or mounted under a conveyor belt. Deactivation speed is up to 3 times per second.

The deactivator can be used as a stand-alone unit or can be connected with Cross Point's Xperience platform, allowing reports on deactivation statistics to be generated as well as easy local and remote service.

## **1.1** Important incompatibility information

The Xperience platform is a completely new platform, where all devices are based on ethernet connections. Our CrossCONNECT platform, based on a fieldbus structure, is **NOT COMPATIBLE** with the Xperience platform in any way. All fieldbus-based devices cannot be used on the Xperience platform.

Do not connect CrossCONNECT devices to the Xperience platform, nor should you connect Xperience-based devices to the CrossCONNECT Access Point!

Please consult with us in case of any doubts or questions.



Xperience series devices are <u>NOT COMPATIBLE</u> with previous fieldbus-based products!

## **1.2 Restrictions and limitations**

The following restrictions and limitations must be considered:

#### **1.2.1** Usage in metal environments

The deactivator **cannot** be installed in environments where metal surfaces are within **15 cm** distance of the deactivator's antenna. Metal has a negative effect on the performance of the deactivator because it de-tunes the antenna of the deactivator, which decreases the detection and deactivation power. Always test the deactivator first at the position where it is going to be installed before mounting it!

#### **1.2.2 Software restrictions**

The deactivator must be tuned with Cross Point's Xperience App or Portal.

In order to be able to do this, a valid and active Cross Point user account is required. Contact your company administrator or support@crosspoint.nl to obtain login credentials.

#### **1.2.3 Detection/deactivation distances**

The specified detection and deactivation distances are maximum values. Dependent of environmental noise these maximum values might not be achieved. See chapter 1.3 for more details on potential noise sources and installation guidelines.

## **1.3** Technical and mechanical specifications

Table 1 shows the mechanical and technical specifications of the deactivator controller unit.

Specifications	
Dimensions controller unit (L x W x H)	300 x 213 x 76 mm
Power supply	100 – 240 VAC, 50 - 60 Hz
Temperature range	0 – 50 °C
Frequency	58 kHz
Technology	Pulse-listening Acousto Magnetic (AM)
External antennas	Max. 2
Detection range	Up to 18cm* (with DR label)
Deactivation range	Up to 18cm* (with DR label)
Deactivation speed	3 times per second

#### Table 1: Deactivator controller unit specifications

\*Differs for different brands and depends on environment



Figure 1: Deactivator controller unit dimensions

## 2 General AM and EAS issues

This chapter covers the various issues related to Acoustic Magnetic systems, deactivators and Electronic Article Surveillance systems in general, like:

- Noise sources
- Installation guidelines

#### 2.1 Noise sources

Listed below are various noise sources that might affect the performance of any EAS system and deactivator. It is strongly advised to either eliminate these noise sources (as far as possible) or maintain the largest possible distance to these noise sources.

The following devices can create noise signals or absorb AM signals which can reduce the performance of an EAS system and AM deactivator:

- AM systems installed in the same or other shops.
- Any electronic device that operates around 58kHz or produces harmonic frequencies around 58kHz.
- An active laptop. The converter for the backlight in the screen can create a lot of noise which is detected by the EAS system or deactivator and can reduce the performance dramatically. Make sure to keep laptop computers at least 3 meters away from the antennas.
- (Moving) Objects containing metal, like checkouts, sliding and revolving doors, elevators, escalators, roller shutters, frames, etc.
- Electronic devices, like computers, laptop screens, LCD screens, cash registers, engines, transformers, etc.
- Vertically positioned power cables, both low voltage and high voltage.
- Lights (flashing, fluorescent, halogen, gas-discharge, etc.)
- External metal scan systems installed in close vicinity.

## 2.2 Installation guidelines

Listed below are EAS installation guidelines to ensure a proper installed and functioning system. Not following these guidelines might result in less performance of the AM Deactivator XAMD-2.

- 1. Check the shop carefully for potential noise sources prior to installation. If potential noise sources are found, then try to eliminate these sources or pick the best position for the deactivator where the influence of these noise sources will be minimized.
- 2. Avoid unnecessary long cables. If the deactivator is connected to the SENSUS AM system, run the UTP cables in a direct line to the antennas.
- 3. The AM Deactivator XAMD-2 is powered by 230 VAC or 115 VAC mains power. The mains power frequency is 50/60Hz.
- 4. Make sure to properly insert the cables in the connectors.

### 2.3 Safety instructions

This chapter contains information on safe usage of the AM Deactivator XAMD-2. Read this section carefully as it contains important safety guidelines.



The deactivator generates high inducted voltage signals up to 400VDC. If the housing is opened without disconnecting the mains power first, a high risk of electric shock is introduced.

Therefore, always disconnect the mains power first and wait at least 30 seconds before opening the housing.

- 1. The deactivator must be mounted in such a way that it's always possible to disconnect it from the mains power.
- 2. Always disconnect the mains power prior to opening the housing.
- 3. After the mains power has been disconnected, wait at least 30 seconds to allow the high voltage to discharge.
- 4. Only open the housing in case:
  - a. The device is not working and the internal fuse needs to be checked or replaced.
- 5. Do not place magnetic data holders, like bank cards, credit cards, tapes, etc., close to the deactivator, because the magnetic field will destroy the information that is stored on the magnetic data holder. Keep these objects at least 50 cm away from the deactivator's antenna while deactivation is active.

## 3 Connections

This section explains the various connections of the deactivator controller unit.



#### Deactivator controller unit connections

1	Mains power inlet: 100–240VAC 25W 50-60Hz
2	BUS-A: Ethernet connection
3	BUS-B: Ethernet connection
4	XAMD Notification Box 1 connection for use with Antenna 1. See paragraph 3.2 for details.
5	XAMD Notification Box 2 connection for use with Antenna 2. See paragraph 3.2 for details.
6	Input for externally triggered deactivation. See paragraph 3.3 for details.
7	LED indicators for device status
8	Relay connections, potential free. Can be triggered during deactivation. Nominal switching capacity: 2A, 30VDC Normally Open (NO), Common (COM) and Normally Closed (NC)
9	Antenna 1 connection. See paragraph 3.1 for details.
10	Antenna 2 connection. See paragraph 3.1 for details.

Table 2: Connections

## **3.1 Deactivation antennas**

The deactivator supports various antennas.

#### 3.1.1 Antenna plate

The antenna plate can be used in normal cash desk environments where the plate can be mounted on top or under a cash desk. The antenna plate is supplied with a 2-meter cable, making it flexible to mount and connect to the deactivator controller unit.

#### 3.1.2 2D and 3D scanner antenna coils

2D and 3D antenna coils are available for integration into barcode scanners. Supported scanners are

- 2D Magellan 9800i (Datalogic)
- 3D Magellan 9300i / 9400i (Datalogic)



## 3.2 XAMD Notification Box

The optional XAMD Notification Box, which contains status LEDs, a buzzer and a key switch, makes it possible to visualize the deactivation result.

The XAMD Notification Box has the following functions:

- 1. Key switch OFF: detection only, no deactivation
  - a. Tag detected: the notification depends on the selected trigger set for the group where the deactivator is part of.
- 2. Key switch ON: **detection and deactivation** LED GREEN lights up continuously on notification box
  - a. Deactivation successful: the notification depends on the selected trigger set for the group where the deactivator is part of.
  - b. Deactivation failed: the notification depends on the selected trigger set for the group where the deactivator is part of.

See paragraph 5.5.4 for more details on how to select and set triggers for the tag detected, successful deactivation and failed deactivation events.

When an XAMD Notification Box is connected, make sure to activate it in the Settings page of the deactivator, see paragraph 5.4.6.

### 3.3 Externally triggered deactivation

The deactivator supports deactivation triggered by an external device like a barcode scanner or foot switch.

## 4 Usage

The deactivator can be used as stand-alone unit or integrated in the Xperience based network together with other devices. Adjustment for synchronization, sensitivity and notifications can be made through the Xperience App or Portal.

## 4.1 Stand-alone usage

The deactivator can be configured and used as a fully functional stand-alone unit. Some limited adjustments can be made through the command line interface of a computer with a direct connection to the deactivator.

#### 4.1.1 Adjustment through the command line interface

Figure 2 shows the Ethernet connection between the laptop and deactivator when using the command line interface to make adjustments to the deactivator.



Figure 2: Connection when using the command line interface

#### 4.1.1.1 Installing PuTTY

To be able to use the command line interface, the software tool "**PuTTY**" must be installed on your laptop, which can be downloaded from **https://www.putty.org/** 

After downloading and installing PuTTY, open it and enter the following information to setup the connection with the deactivator:

Host name	: <b>192.168.55.1</b>
Port	: 25
Connection type	: Telnet

Click the button **Open** to connect with the deactivator.

🕵 PuTTY Configuration		×			
Category:	Basic options for your PuTTY session Specify the destination you want to connect to Host Name (or IP address) Port				
⊷ Keyboard ⊷ Bell ⊷ Features ⊡∙ Window	192.168.55.1         25           Connection type:         ○ Raw ● Ielnet ○ Rlogin ○ SSH ○ Serial				
Appearance Behaviour Translation Selection	Load, save or delete a stored session Sav <u>e</u> d Sessions				
Colours	Default Settings				
⊕- SSH Serial	Close window on e <u>xi</u> t: Always Never Only on clean exit				
About	<u>O</u> pen <u>C</u> ancel				

Figure 3: PuTTY session

#### 4.1.1.2 Help

Show the list of all available commands. Command: **help** Parameters: -

#### 4.1.1.3 Show network parameters

Show all network parameters, like IP address, netmask and gateway. Command: **ifconfig** Parameters: -

#### 4.1.1.4 Burst frequency

Set the transmitter burst frequency. Default value is 50. Command: **detectionBurst** 

Parameters: 50 or 75

#### 4.1.1.5 Deactivation trigger method

Set which method should be used to trigger a deactivation pulse. Default value is DET, which will trigger a deactivation pulse as soon as an AM tag or label is detected. When set to SCAN, a barcode scanner or foot switch, connected to the scanner/foot switch input, will trigger the deactivation pulse.

Command: method

Parameters: SCAN or DET

#### 4.1.1.6 Transmitter offset

Set the transmitter burst offset value. This allows the deactivator to be synchronized with other AM deactivators or EAS systems in the vicinity.

Command: offset

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Parameters: Any value between **0** and **20000** in 50Hz mains frequency mode Any value between **0** and **16666** in 60Hz mains frequency mode

#### 4.1.1.7 Number of antennas

Set the number of antennas that are connected to the deactivator. Command: **ant** Parameters: **1** or **2** Example: **ant 2** 

#### 4.1.1.8 Reset

Reset (reboot) the deactivator unit. All settings will remain the same after the device reboots. Command: **reset** Parameters: -

#### 4.1.1.9 Show device status

Show device status and settings. Command: **status** Parameters: -

#### 4.1.1.10 Reset to defaults

Restore all settings to their factory defaults values. Command: **resetToDefaults** Parameters: -

#### 4.1.1.11 Automatic synchronization

Enable or disable automatic synchronization. When enabled, at startup the deactivator will look for AM burst signals from other devices. When found, the deactivator will set its burst offset to the detected value. When disabled, the manually set value, set with the **offset** command, will be used.

Command: autoSync

Parameters: ON or OFF

Example: autoSync ON

#### 4.1.1.12 Get capacitor voltage

Show the voltage of the high voltage capacitors in Volt. This voltage is used during the deactivation pulse to deactivate an AM label.

Command: capVoltage

Parameters: -

#### 4.1.1.13 Set capacitor voltage

Set the minimal amount of voltage at which the deactivator is allowed to discharge. Default value is 350V.

Command: capVoltageSet

Parameters: Any value between **150** and **400** 

#### 4.1.1.14 Tweak capacitor voltage

Set the value of the digital potentiometer to limit the maximum capacitor voltage. Increase this value case the discharge voltage needs to be reduced due to specific regulations.

Command: potSet

Parameters: Any value between 0 and 255

Example: potSet 50

#### 4.1.1.15 Show detection sensitivity

Show the high and low values for the detection circuit.

Command: sens

Parameters: -

#### 4.1.1.16 Set detection sensitivity

Set the high and low values for the detection circuit. Default values are high 97% and low 3%. Changing these values will affect the detection height of an AM tag/label.

Command: sensSet

Three parameters are mandatory, each parameter should be divided by a space character:

Parameter 1 – select the antenna: 1 or 2

Parameter 2 - set high percentage: Any value between 0 and 100

Parameter 3 – set low percentage: Any value between  ${\bf 0}$  and  ${\bf 100}$ 

Example: sensSet 1 90 10

#### 4.1.1.17 Antenna tuning

Tune the antenna(s) for best performance. Command: **tune** Parameters: -

#### 4.1.1.18 Set tuning capacitors switches

Set the tuning capacitors switches for TuneSelect 1 ... TuneSelect4.

Command: tuneSet

Four parameters are mandatory, each parameter should be divided by a space character:

Parameter 1: 0 or 1

Parameter 2: 0 or 1

Parameter 3: 0 or 1

Parameter 4: 0 or 1

Example: tuneSet 1 0 0 1

#### 4.1.1.19 Version

Show the name and firmware version of the deactivator. Command: **version** Parameters: -

#### 4.1.1.20 Notifications

Show the current volume and duration settings for the Tag detected, Deactivation successful, Deactivation failed and Tag too long in field notifications.

Command: notifications

Parameters: -

#### 4.1.1.21 Buzzer volume

Set the buzzer volume for a specific event. The available events are; Tag detected, Deactivation successful, Deactivation failed and Tag too long in field.

Command: volumeSet

Two parameters are mandatory, each parameter should be divided by a space character:

Parameter 1 - which event: DETECTED, SUCCESS, FAILED or LONG

Parameter 2: Any value between 0 and 100

Example: volumeSet SUCCESS 50

#### 4.1.1.22 **Duration**

Set the duration of the notification in 100 milliseconds intervals. Default value is 10 (10 x 100 mS = 1000ms = 1 second).

Command: durationSet

Two parameters are mandatory, each parameter should be divided by a space character:

Parameter 1 – which event: DETECTED, SUCCESS or FAILED

Parameter 2: Any value between **0** and **100** 

Example: durationSet SUCCESS 50

#### 4.1.1.23 Expert

Switch to Expert mode. For Cross Point users only.

Command: expert

Parameters: [passwd]

### 4.1.2 Adjustment through Xperience App / Portal

The deactivator can also be temporarily connected to the transceiver antenna which contains the XPAC or to any other device that is already connected to the ethernet network of the XPAC. A connection to the AM Deactivator can then be established by using the Xperience App or Portal and the deactivator settings can be adjusted.



Figure 4: Available methods to connect through the XPAC software

Please refer to paragraph 4 for further configuration info and to the **Cross Point Advanced Controller (XPAC) product manual** for more details about the XPAC.

After the deactivator has been properly configured, it can be disconnected from the Xperience network again and fully operate as a stand-alone unit.

## 4.2 Connected usage

The deactivator can be combined with other Xperience based devices by connecting all devices in the same network.



Figure 5: Example of the deactivator connected to an Xperience AM System

In the above example, the transceiver antenna contains the XPAC, which enables local and remote service through the Xperience Portal of all connected devices and the generation of reports which contain system info, visitor counting numbers and deactivation results.

## 5 Configuration

This paragraph contains all information for configuration of the deactivator using the Xperience App and/or the Xperience Portal.

## 5.1 Xperience App

The Xperience app for mobile devices can be downloaded from the App Store (for iOS users) and Play Store (for Android users). It must be used for local installation and servicing in the store where the actual devices are installed. It can also be used to connect to the Xperience Portal and perform remote service.

## 5.2 Xperience Portal

The Xperience Portal can be reached using any browser by entering the following URL:

https://portal-dev01.crosspoint-cloud-dev.com/

#### 5.2.1 Login

When accessing the portal, a login is required. Your Cross Point credentials must be used to enter the portal.

<b>CROSS POINT</b> Xperience	
Login	
Login	



Please contact support@crosspoint.nl in case you require login credentials.

#### 5.2.2 Service

After a successful login, the Service page is shown, which contains a list of stores that have been installed by your company. The XPACs in these stores have successfully established an internet connection to the Cross Point Portal.

<	PORTAL freddy.elzinga@crosspoint.nl	
Filte	и	
CLO	auc	
~	00142D72FC7D 00142D72FC7D - 2022-01-19T11:00:38.3965263Z	
~	Freddy's Food For Thought 00142D79573F - 2022-01-18T16:24:40.7161533Z - Emmen - Waanderweg - 12 - 123	
×	Jack & Jones 00142D795702 - 2022-01-18T14:49:02.0362708Z - Emmen - Picassopassage - 44 - 12345	
×	PC Stephan 6BCD4FA15BBF - 2021-11-17T16:40:53.411305Z - Emmen - Waanderweg - 12 - Development	
×	<b>00155D22C727</b> 00155D22C727 - 2021-11-09T11:01:44.1273869Z	
×	<b>00142D71A456</b> 00142D71A456 - 2021-10-08T13:37:42.9277715Z	
×	F8F02A423215 F8F02A423215 - 2021-09-22T09:43:08:5412861Z	
×	CE775B82B829 CE775B82B829 - 2021-09-10T10:34:48.6911652Z	
	Yes     Observation       Service     More	

#### Figure 7: Service

The store list shows details for each store on

- The current connection status of the store. A checkmark in front of the store indicates that the store is connected. Stores that are currently disconnected are marked with a cross (X).
- The store name, XPAC ID, installation date, address details and the store ID.

The **Filter** field enables you to search for one or more specific stores.

Click on a connected store to login to that store.

## 5.3 Dashboard

Whether you are using the Xperience App or the Xperience Portal, once you have selected a store to login, the Dashboard of that store will be shown.

DASHBOARD Freddy's Food For Thought - Emmen								
STORE INFORMATION								
Freddy's Food For Thought Waanderweg 12, Emmen, NL								
store id 123	GRO	oups 2				ECHNOLOG AM		
XPAC DETAILS								
UPTIME 1 days, 21 hours								
VERSION 0.25.0					vices 5			
STATUS OVERVIEW								
System operational		s	s	м	T	w	т	F
Devices connected								
Reports send								
COUNTING								
	TUC				ARMS			
Dashboard	Groups De	vices		lssues			*** More	

Figure 8: Dashboard

The Dashboard provides information about the store, status, settings and configurations and active issues. Please refer to the **Cross Point Advanced Controller (XPAC) product manual** for more details about the information on the dashboard.

## 5.4 Devices

All Xperience deactivators that are connected to the XPAC network will appear on this page.

< DEVICES							
ALL DEVICES							
Filter							
LOCATE	<b>●</b> ) MUTE	Ç RESTART	REMOVE				
AM DEACTIVATOR							
Food deactivator     86F64C714644 - 1 active problem							
AM RECEIVER							
Food Rx     86F64C3CDA52 - 2 active problems	. <b></b>						
AM TRANSCEIVER							
Food TRX     86F64CDC21A5 - 1 active problem	**	_					
X TRX 2 with a long name 86F64C03C218 - 1 active problem							
X TRX 3 86F64CB4DBAC - 1 active problem							
Dashboard	Groups	i≡ () <sup>C</sup> Devices Issues	••• More				

Figure 9: Devices

Please refer to the **Cross Point Advanced Controller (XPAC) product manual** for more information about the features of this page.

Click on a device to view device specific details and configuration pages.

#### 5.4.1 Device – Info

When a deactivator is selected, various device related pages become available. The first page is the Info page.

NR 6 Das Boot V - Emmen								
INFO	SIGNAL	SYNC	DEACTIVATIONS	TUNING	SETTINGS			
	<b>O</b> LOCATE		■) Mute	R	Ç estart			
DEVICE INFO								
Device name NR 6								
Device type AM Deactivator								
Model type Unknown								
Device ID 84F64C000FF8								
Firmware version 0.10.376								
IP address 172.16.0.3								
State Initialized								
Dashboard	Groups		i≡ Devices	() <sup>2</sup> Issues	*** More			

Figure 10: Device – Info

This page contains the following sections:

#### Action buttons

- **Locate** Click this button to activate the locate notification (buzzer and lights) on the selected device. Click the button again to stop the locating notification.
- **Mute** Click this button to temporarily mute the selected device. You will be prompted to specify the mute duration in hours. When muted, this device will not sound its buzzer on any configured trigger event. The device will automatically unmute again after the specified mute duration has elapsed or when this button is clicked before the specified mute duration has elapsed.
- Restart Click this button to force a restart of the selected device. The connection to the
  restarting device will be temporarily lost during the restart, but it will reconnect again within
  30 seconds after triggering the restart.

#### **Device info**

- **Device name** Specify a name for this device. This name will be used throughout the application to identify the devices.
- **Device type** The type of the selected device, like AM Deactivator.
- **Model type** The model type of the selected device.
- **Device ID** The unique ID of the selected device.
- **Firmware version** The firmware version of the selected device.
- **IP address** The IP address of the selected device.
- **State** The current state of the device (disconnected, initializing or initialized). The state must be 'initialized' for the device to operate properly.

#### System data

• **Board number – Hardware version – BoM number** – The number and version of the electronic board combined with the Bill-of-Material (BoM) number.

#### **Active issues**

Shows all active issues for the selected device. Click on an active issue to reveal more information about the issue and probable cause(s) and solution(s).

#### 5.4.2 Device – Signal

In order for the deactivator to function properly, various device settings can be configured. On this page the received signal can be viewed and detection related settings can be adjusted.



#### Figure 11: Device – Signal

The deactivator transmits and detects AM signals on each connected antenna plate. The received signals are visualized in a separate graph section for each connected antenna plate.

Each graph section consists of the following components:

- **Received signal** The received signal from the antenna plate.
- Threshold level When the received signal rises above the threshold level, a deactivation burst will be activated. The minimum position of the threshold level (sensitivity) can be adjusted manually.
- **Noise level indicator** Indicates the amount of received noise. A high noise level will result in a less sensitive system.
- **Button group** –Indicate the configured value for each specific setting. Click these buttons to change one or more of the available settings:
  - **Detection threshold** Lets you change the minimum threshold level. It should be set higher than the received signal level. A low minimum threshold will result in a sensitive system, where a high minimum threshold will result in a less sensitive system.
  - o Blowup check threshold –
  - Low analog sensitivity –
  - High analog sensitivity –



Never adjust the deactivator too sensitive, as this can result in spontaneous deactivations! Remove any noise sources that interfere with the deactivator or install the deactivator antenna plates as far as possible away from noise sources.

#### 5.4.3 Device – Sync

Each deactivator will transmit a 58 kHz burst and detect any responses to this signal. In order for all AM based devices in the vicinity to function properly, each deactivator needs to be synchronized with other deactivators and/or transceivers. This means that each deactivator burst window should be overlapping with all other transmitter burst windows and each receiver window should be free of transmitter burst signals.

This page shows a graph of the signals that are detected by the selected deactivator, combined with the position of its own transmitter burst and receiver windows.



Figure 12: Device – Sync

The position of the transmitter burst and receiver windows can be changed by moving the slider or by drag-and-drop of the actual window in the graph itself. Click the plus and minus buttons to increase or decrease the offset value for fine-tuning purposes.

The new value is not applied automatically, so make sure to click the **Apply button** to save the new value.

#### 5.4.4 Device – Deactivations

Hourly successful and failed deactivation values are stored on the XPAC.

This page shows these deactivations with their associated result in various charts.



Figure 13: Device – Deactivations

The available charts are

- Daily Shows all deactivations of the current day per hour.
- Weekly Shows all deactivations of the current week per weekday.
- Monthly Shows all deactivations of the current month per day.
- Yearly Shows all deactivation of the current year per month.

#### 5.4.5 Device – Tuning

For maximum performance, the deactivator transmitter burst signal must be tuned to maximum output at 58 kHz.

This page contains the tuning graphs for each connected deactivator antenna.



Antenna 1

#### Figure 14: Device – Tuning

The actual loop voltages at 58 kHz are shown in the graphs, together with a percentage of the maximum achievable value. The best performance of each deactivator antenna is reached when the signal at the 58 kHz crossing is the highest value possible.

Antenna 1 can be tuned manually by clicking the buttons below the graph, which enables you to enabled or disable the available capacitor banks until the highest value is reached. The result of changes to the capacitor banks will be immediately visible when the capacitor bank switches are toggled.

Maximum achievable tuning values depend on the amount of metal in the immediate environment of the deactivator antenna.

Antenna 2 has a fixed tuning and cannot be changed manually.

#### 5.4.6 Device – Settings

NR 6 Das Bo Emmen INFO SIGNAL SYNC DEACTIVATIONS TUNING SETTINGS Is standalone A standalone device does not require an XPAC connection and will not provide counting data Two antennas, deactivate on tag Use notification box 1 Use notification box 2 vinimum deactivation voltage ation voltage potentiometer + neter value will adjust deactivation voltage. Triggering a deactivation may be required to see the change 363 -Devices () 

This page contains some device specific settings and information.

Figure 15: Device – Settings

The following settings are available:

- Is standalone Enable if you want to use the deactivator as a stand-alone unit, which means even though it might still be connected to the XPAC, the XPAC will not store any deactivations of this unit.
- Operation mode Select how this deactivator should operate. Available selections are
  - **One antenna, deactivation on tag** Only one antenna is connected and a deactivation is triggered when a tag is detected.
  - **Two antennas, deactivate on tag** Two antennas are connected and a deactivation is triggered when a tag is detected.
  - **One antenna, deactivate on external trigger** One antenna is connected and a deactivation is triggered by an external trigger on the input of the deactivator.
- Use notification box 1 Enable when an XAMD Notification Box is connected to input 1.
- Use notification box 2 Enable when a XAMD Notification Box is connected to input 2.
- Minimum deactivation voltage Specify the minimum required voltage for a deactivation burst (150 400 V). After a deactivation burst has been transmitted, the capacitors need to reload to the specified value before another deactivation burst can be triggered. Reducing this value will enable more deactivations per second, but will reduce the deactivation height as well. Increasing this value will decrease the deactivation speed, but it will increase the deactivation height. Make sure not to set this value too high, because that will result in no deactivation bursts at all because the value cannot be reached by the specific deactivator. Always check the Current deactivation capacitor value for the maximum available voltage.
- Deactivation voltage potentiometer The deactivation burst voltage can be reduced by increasing the value of this digital potentiometer. A higher value of this potentiometer will limit the maximum amount of deactivation burst voltage, where a lower vale will increase it. Make sure to apply the value to see the changes in the Current deactivation capacitor

**voltage**. Make sure to check and correct, if required, the **Minimum deactivation voltage** setting in case the current voltage lies below the deactivation voltage value, else a deactivation burst will never be triggered.

• Current deactivation capacitor voltage – the current deactivation capacitor voltage available for the deactivation burst. This value also depends on the **Deactivation voltage** potentiometer setting.

## 5.5 Groups

Groups are defined to create entrances and exits or just groups of devices, like for example deactivators.

<	GROUPS Freddy's Food For Thought - Emmen				
ALL GROUPS					
			+ New group		
Deactivators Entrance, 1 device(s)					
Main entrance Entrance, 4 device(s)					
Dashboard	Croups De	ewices Issu	les	•••• More	

Figure 16: Groups

Each group can contain one or more devices and even a combination of different devices like for example deactivators combined with transceiver and receiver antennas.

#### 5.5.1 Automatic arrangement

Once all devices have been installed in their desired locations inside the store, they can be automatically arranged into groups. Deactivators will always be placed in one group if they are not already part of another group.

#### 5.5.2 Manual arrangement

Automatically arranged groups can be modified manually if required.

To manually create a new group, click the **New group** button. This will create a new group and lets you add devices to this group.

#### 5.5.3 Groups – Devices

This page shows the arrangement of the devices as well as other related information.

<	NEW GROUP 1 Freddy's Food For Thought - Emmen	
DEVICES	TRIGGERS	SETTINGS
ARRANGEMENT The arrangement is displayed as viewed from inside the store		
	â	
	REMOVE	
		<u>_</u>
Dashboard Groups	I Devices	Issues More

#### Figure 17: New group

When opening a group, the arrangement is locked by default, to prevent unwanted changes in the arrangement due to clicks or swipes on a mobile device.

Clicking the Lock button will unlock the arrangement and show the Add device(s) button.

Click the **Add device(s) button** to view a list of all available devices and select one or more devices that should be added to this group.

Click the **Remove button** in case you want to completely remove the group.

<	Layout Devices
AM TRANSCEIVER	
TRX 2 with a long name	
□ TRX 3	
Food TRX	
AM RECEIVER	
Food Rx	
AM DEACTIVATOR	
Food deactivator	

Figure 18: Select device(s) for new group

Click the Lock icon to disable editing and the selected devices will appear in the Arrangement section.



Figure 19: Devices in Arrangement section

In case you want to change anything to the arrangement of the antennas, make sure to unlock the arrangement and then deactivators can be manually dragged and dropped to their required positions within the arrangement.

Once you have finished arranging the deactivators, click the Lock icon again to save the changes and to lock the arrangement again.

The **Counting section** on this page shows today's total number of deactivations, detected by the devices in this group up to the current moment. When new deactivations are detected, the counters will increase real-time.

#### 5.5.3.1 View / change device info

It is possible to view and change some device related information by selecting the device in the arrangement section. A rectangle will appear around the selected device and device related info is shown at the bottom of the page.

- Locate button Click this button to activate the lights and buzzer on the selected device, to determine the position of this device locally. When one or more devices are locating, the information bar will appear at the top of the screen. Click the Locate button again to stop locating the device.
- Mute button Click this button to temporarily mute the buzzer of the selected device. The
  mute duration can be selected and the information bar at the top of the screen will indicate
  that one or more devices are muted. Click the Mute button again to stop muting the device.
- **Restart button** Click this button to restart the selected device.
- Remove button Click this button in case you want to remove the selected device from the arrangement. It will not remove the device completely from the XPAC, only from this arrangement.
- **Name** The name of the device can be changed if required.
- **Device type** Shows the actual device type of the selected device.
- **MAC address** Show the MAC address (ID) of the selected device.
- **Open device settings button** Click this button to go directly to the device page of the selected device, which enables changes to the configuration of this device.

#### 5.5.4 Groups – Triggers

When a tagged item is detected by the deactivator, the deactivation burst is activated to try and deactivate the label. Immediately after the deactivation burst, the deactivator checks for the presence of the label in order to notify the user of the deactivation result. The deactivation result will be notified to the user through a visual and audible alarm indication. This page enables the selection of a defined trigger set, which contains the actual buzzer melodies and light patterns that indicate the deactivation result.

<	NEW GROUP 1 Freddy's Food For Thought - Emmen	
DEVICES	TRIGGERS	SETTINGS
TRIGGERS		
Trigger Set Default (CP preset)		>
Triggers in the selected set will trigger for this group		
GROUP SPECIFIC TRIGGERS		
	+ NEW TRIGGER	
*	:=	0 <sup>°</sup>
Dashboard Groups	Devices	Issues More

Figure 20: Groups – Triggers

By default, the Default (CP preset) is automatically selected when a new group is created. The settings for this preset cannot be changed. In case you require other notification settings, then go to **More > System > Trigger sets** and create your custom trigger sets. Once you have created your custom trigger sets, return to this Groups – Triggers page to select your custom trigger set for this group.

The following settings can be configured on this page:

- **Triggers** When custom trigger sets have been created, the required trigger set can be selected here.
- **Group specific triggers** In case you want to define triggers especially for this group only, these group specific triggers can be created here. Click the **New trigger button** to create a new group device specific trigger or select one, if already created, to modify its settings if required.

<	NEW TRIGGER Freddy's Food For Thought - Emmen				
SETTINGS					
<sub>Name</sub> New trigger					
<sub>Event</sub> Tag unknown			>		
Select on which event this trigger will be activated DEVICE ACTIONS					
Target None			>		
Select on which device(s) the actions will run					
REMOTE ACTIONS					
HTTP POST					
REMOVE TRIGGER					
Dashboard Groups	:== Devices	lssues M	lore		

Figure 21: Group specific trigger(s)

The new group specific trigger can be created by defining the following settings and actions. In case you want to remove the trigger, click the **Remove trigger button**.

#### 5.5.4.1 Settings – Name

Enter the name for this trigger. For example, "Outgoing tag alarm".

#### 5.5.4.2 Settings – Event

Select an event from the list of available events on which this trigger will be activated, for example, "Tag outgoing".

#### 5.5.4.3 Device actions – Target

Select from the list of actions on which device(s) the actions will run. Available actions are:

- None trigger will not activate any actions on any device.
- Device trigger will be activated on the device that detected the event.
- Aisle trigger will be activated on the device that detected the event and the device opposite of it.
- Entire group trigger will be activated on each device that is part of the group.
- Specific device trigger will be activated on the selected device.

After selecting one of the available targets, the following device related actions are shown and can be configured:

- **Buzzer** when enabled, will play the selected melody at the selected volume and duration.
- Lights when enabled, will activate the selected light type, color and blinking pattern for the selected duration.

• **Relay** – when enabled, will activate the onboard relay (if available) of the selected device(s).

#### 5.5.4.4 Remote actions

Besides triggering local actions on the selected device(s), it is also possible to trigger a remote action. When enabled, a webhook HTTP POST is available. By specifying the URL of a third party webhook provider, a message (in JSON format) is sent to the specified URL of the provider every time the specified event occurs.

This JSON message contains the timestamp, information about the event and the device(s) that triggered the event. This message can then be processed by actions that are defined in the software of the provider. This part is not done by Cross Point, so you should create a webhook service yourself or use a third-party provider.

#### 5.5.5 Groups – Settings

Various general group related settings can be configured on this page.



Figure 22: Groups – Settings

The following settings can be configured:

- **Name** Specify the name of the group as it should appear in the list of groups as well as in the counting report(s).
- Type Select the group type. Available options are
  - **Entrance** The default value. All visitor and alarm counting totals of this group are added to the daily totals in the charts and reports.
  - **Passage** Use this option if the visitor and alarm counting totals of this group should be excluded from the daily totals in the charts and reports.
- **Buzzer volume** By changing this value to another value than 100 (default), the buzzer volume, as set in the selected trigger set, will be decreased (setting lower than 100) or increased (setting higher than 100). In this way the volume, as configured in the selected trigger set, doesn't have to be changed when it is also used for other groups. This change only applies to the currently selected group.

## 6 FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

NOTE 2: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.