# Getting started with SIA2MQTT4HA

Last updated: 19 December 2022

## Introduction

SIA2MQTT4HA is a Home Assistant addon that functions as an SIA alarm monitor that creates and updates Home Assistant entities with the status of a Honeywell alarm panel. This page describes how to get this add-on running on Home Assistant. It doesn't detail advanced use through Home Assistant automations etc.

I'll run through these steps, some will not be necessary if you are already using Home Assistant:

- 1. Install Home Assistant
- 2. Install and configure Samba file sharing addon
- 3. Install and configure Mosquitto MQTT broker addon
- 4. Download, build and configure SIA2MQTT4HA addon
- 5. Configure Honeywell alarm panel

#### Install Home Assistant

Follow instructions that start here: <u>https://www.home-assistant.io/installation/</u> I have tested with both Home Assistant Operating System for Raspberry Pi as an SD card image on a Raspberry Pi 3 and Home Assistant Operating System for Linux as a virtual machine image under Hyper-V on a Windows desktop.

#### Install Samba

Using the Home Assistant web interface, go to Settings, then Add-ons, then click ADD-ON STORE. Click Samba Share from the Official add-ons section and install. When installed, click Start and then click edit Edit Config.

Configure the Samba add-on by adding a username and password that you will use later. Click Save to store the configuration.

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<sup>Usernam</sup> homeas	e* sistant	
The usern	me you would like to use to authenticate with the Samba server.	
Passwor	ja	
The passw	ord that goes with the username configured for authentication.	
Workgro WORKG	<sup>ID*</sup> ROUP	
Change W	ORKGROUP to reflect your network needs.	

WORKGROUP	
Change WORKGROUP to reflect your network needs.	
Enable Compatibility Mode	
Enable this to use old legacy Samba protocols on the Samba add-on.	
_* X .DS_Store X Thumbs.db X icon? X .Trashes X	
10.0.0.0/8 X 172.16.0.0/12 X 192.168.0.0/16 X fe80::/10 X	
	SAVE

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Click the Info tab for the Samba add-on and then click Start again.

# Install Mosquitto Broker

Using the Home Assistant web interface, go to Settings, then Add-ons, then click ADD-ON STORE. Click Mosquitto Broker from the Official add-ons section and install. There is no need to change any configuration in the Mosquitto Configuration tab, but you do need to create a username and password, do this by going to Settings, then People then click the Users tab, click ADD USER and enter something like the following (remember the username and password you enter):



Now start the Mosquitto addon from Settings->Add-ons->Mosquitto broker screen. Finally for this step, Home Assistant needs to be configured to use the Mosquitto MQTT broker. Go to Settings->Devices & Services and click on the MQTT Configure button as show here:

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The S	0	GCP Console	😕 Firebase consol	e 🧕 Amazon	C OctoPrint
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		<b>Q</b> Searci	h integrations		
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Accept the next screen:



## Install SIA2MQTT4HA

Download a ZIP file for SIA2MQTT4HA from https://github.com/666djb/SIA2MQTT4HA/archive/refs/heads/master.zip Using Windows File Explorer or equivalent, browse to your Home Assistant's Samba file share by entering the address using the following form \\a.b.c.d (where a.b.c.d is replaced by your Home Assistant IP address) in the address bar, this will show the folders shared by Home Assistant as follows:



Open the addons folder and unzip the contents of the ZIP file into here so that you have the structure "addons\SIA2MQTT4HA-master\" as shown here:

File     Home     Share     View       Image: to Quick     Copy     Paste     Image: Copy path       Image: to Quick     Copy     Paste     Paste shortcut	Move Copy to v to v Organise	New item New folder	s • Properties Open • Den • De	Select all Select none Invert selection Select
· · ·	T4HA-master	v 8 0 s	earch SIA2MOTT4HA-master	Sector
Jame	Date modified	Type Size		
src CHANGELOG	24/06/2022 06:14 24/06/2022 06:14	MD File	1 KB 2 KB	
Dockerfile	24/06/2022 06:14 24/06/2022 06:14	File	1 KB 2 KB	
¥ options ¥ package	24/06/2022 06:14 24/06/2022 06:14	JSON File JSON File	1 KB 1 KB	
≧ package-lock ⊇ README	24/06/2022 06:14 24/06/2022 06:14	JSON File MD File	14 KB 3 KB	
				_

To enable Home Assistant to recognise this folder as a new Add-ons repository, restart by going to Settings, System and then clicking Restart in the top right corner using the Home Assistant web interface.

When Home Assistant has restarted, go back into Settings, Add-ons, Add-ons Store and you will see a new Local Add-ons section with the SIA2MQTT4HA add-on available. Click this and install it.

Configure SIA2MQTT4HA by clicking the Configuration tab, click the three dots in the top right corner of the Options dialog box and select Edit in YAML. Now, replace the words "null" with your MQTT username and password, and remove all text after the word "Zones:" and replace with a space and two square brackets "[]" as shown here:

Options	
<pre>1 mqtt: 2 brokerUrl: mqtt://core-mosquitto 3 discoveryTopic: homeassistant 4 baseTopic: sia2mqtt4ha 5 username: mqtt 6 password: password 7 sia: 8 port: 10002 9 zones: [] 10</pre>	
	SAVE
Jetwork	
hange the ports on your host that are exposed by the add-on	
10002	10002/tcp
SIA Receiver port as set in alarm panel	

Save the configuration by clicking SAVE.

Note: you can add individual Zones if you are using them later, but for basic functionality you do not need them.

Start the SIA2MQTT4HA add-on by going to the Info tab and clicking Start.

Check the Log tab to confirm that the add-on has started and that your configuration is good, the output should look something like the following if all is good:

s6-rc: info: service s6rc-or	eshot-runner: starting			
s6-rc: info: service s6rc-or	eshot-runner successfull	ly started		
s6-rc: info: service fix-att	rs: starting			
s6-rc: info: service fix-att	rs successfully started			
s6-rc: info: service legacy-	cont-init: starting			
s6-rc: info: service legacy-	cont-init successfully s	started		
s6-rc: info: service legacy-	services: starting			
s6-rc: info: service legacy-	services successfully st	arted		
> sia2mqtt4ha@0.1.22 start				
> node ./dist/server.js				
Mon Dec 19 2022 10:37:46 GMT	+0000 (Coordinated Unive	ersal Time) Starting S	IA2MQTT4HA	
SIA server listening				
Mon Dec 19 2022 10:37:46 GMT	+0000 (Coordinated Unive	ersal Time) Connected	to MQTT broker	

Browse to Settings, Devices & Services, Devices tab and you should see the AlarmPanel device like:

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e Times & The S	💿 GCP Console 👌 Firebase console 🚨 Amazon 🌑 OctoPrint 🧣	Maps  R b4 hex to decimal c 🚵 Persist Firebase use 📀	Epoch Converter 📌 Photos		
Assistant	<del>~</del>	Integrations Devi	ces Entities Helpers	5	
	Q Search devices				
	↑ Device	Manufacturer	Model	Area	Integration
	AlarmPanel	SIA2MQTT4HA	SIA2MQTT4HA App	-	MQTT
	Big Room speaker	Google Inc.	Google Home Mini	-	Google Cast
	0				

Click on AlarmPanel and you will see the entities that have been created as a set of sensors:

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÷ -	C 🛆 🔺 Not secure	192.168.0.106:8123/config/devices/device/3abbb481dda6b10	Dc853eccdf4e7ad0c1				🖻 🖈 🔃 🗯 🖬 🌏 🗄
G Go	ogle T The Times & The S	🗿 GCP Console 👌 Firebase console 🧕 Amazon 🌑 OctoPrint	t 💡 Maps 🦹 b4 hex to decimal c 🔌 Pers	ist Firebase use 🕥 Epoch Converter	📌 Photos		Cther bookmarks
≕	Home Assistant	← AlarmPanel					i
==	Overview					MQTT	
* ₽	Energy Map	De	evice info	Sensors		Logbook	
≣	Logbook	SIA	2MQTT4HA App SIA2MOTT4HA	Alarm Status	Unknown	1 December 2022	
11.	History	Firr	nware: 0.1	Armed	Unknown	Event became unavailable 13:46:01 - 5 minutes ago	
	Media	м	QTT INFO	🛃 Comms Status	Unknown	Comms Status became unavailable 13:46:01 - 5 minutes ago	
				Event	Unknown	Alarm Status became unavailable 13:46:01 - 5 minutes ago	
		AL NO	automations have been added using this	Part Armed	Unknown	Set Status became unavailable 13:46:01 - 5 minutes ago	
		dev but	ice yet. You can add one by clicking the + ton above.	Triggered	Unknown	Triggered became unavailable 13:46:01 - 5 minutes ago	
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		No yet. abc	scenes have been added using this device . You can add one by clicking the + button we.				
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These sensor entities can be shown in a Lovelace dashboard and used in Automations.

# Configure Alarm Panel

You now need to configure your Honeywell Alarm panel to send SIA messages to the add-on in Home Assistant. This is done by first adding an ARC Receiver and configuring the panel to send messages to it:

- Menu 56.1.1.1.4.1 here you enter the IP address and port number of the Home Assistant add-on (e.g. 192.168.0.106 and 10002)
- Menu 56.1.1.1.4.2 select SIA as the Format
- Menu 56.1.1.1.4.2.1 select SIA level 3
- Menu 56.1.1.1.4.3.1 specify your Autotest Interval (e.g. 01:00 for once per hour)
- Menu 56.1.1.1.4.3.2 specify an Account Number (any numeric value)
- Menu 56.1.2.1 and submenus specify the same Account Number, the triggers to report to the add-on and "1" for the RX Sequence to report these triggers to SIA2MQTT4HA. Triggers include e.g. INTRUDER, FIRE, SETTING, PA/DISTRESS, FAULT etc.

When the Alarm Panel is configured correctly, it will send messages to the add-on in response to triggers and the sensor entities will update in response. You can test this by setting/unsetting the alarm for example.