# AquiTron

## AT-G-ALERT-C

Refrigerant Leak Monitor



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## 1 Introduction

## 1.1 About this Manual

Thank you for investing in an AquiTron AT-G-ALERT-C Refrigerant Leak Monitor. To ensure operator safety and the proper use of the system, please read the contents of this manual for important information on the operation and maintenance of the instrument.

## 1.2 Iconography

Alert	Icon	Description				
Danger		An imminently hazardous situation which, if not avoided, will result in death or serious injury.				
Warning		A potentially hazardous situation which, if not avoided, could result in death or serious injury.				
Warning	4	Potential electrical shock hazard which, if not avoided, could result in death or serious injury.				
Caution		A potentially hazardous situation which, if not avoided, could result in physical injury or damage to the product or environment. It may also be used to alert against unsafe				
Important	i	Additional information on how to use the product.				

## 1.3 General Safety Statements

	<b>DANGER:</b> This product <b>HAS NOT</b> been designed for use in hazardous locations. Failure to comply may result in personal injury or death.
	WARNING: NEVER connect the product's 24V DC inputs directly to AC power supply.
	WARNING: DO NOT apply power until all wiring has been completed.
	<b>CAUTION</b> : The protection provided by this product may become impaired if it is used in a manner not specified by the manufacturer. Modifications to this instrument, not expressly approved, will void the warranty.
	<b>CAUTION: DO NOT</b> continue to use this equipment if there are any symptoms of malfunction or failure. In the case of such occurrence, de-energize the power supply and contact Aquilar Ltd.
i	<b>IMPORTANT</b> : Before using this product, carefully read and strictly follow the instructions in the manual. Ensure that all product documentation is retained and available to anyone operating the instrument.
i	<b>IMPORTANT</b> : The AT-G-ALERT-C must be installed by a suitably qualified technician who will install this unit in accordance with these instructions and the standards in their industry / country. This document is only intended as a guide, and the manufacturer bears no responsibility for the installation or operation of this unit.
i	<b>IMPORTANT</b> : Comply with all local and national laws, rules, and regulations associated with this equipment. Operators should be aware of the regulations and standards in their industry / locality for the operation of the AT-G-ALERT-C.

## 2 Product Description

The AT-G-ALERT-C Refrigerant Leak Monitor provides centralised monitoring and alarming for multi-occupant applications utilising the AT-G-ALERT Refrigerant Leak Detectors. The AT-G-ALERT-C continuously monitors all connected devices for alarm and fault conditions and will provide alerts via the integrated colour touchscreen, audible buzzer, and built-in relays.

## 2.1 AT-G-ALERT-C Core Functions

Monitor a network of connected AT-G-ALERT refrigerant leak detectors for the following:

- High or low PPM alarm events
- Hardware faults
- Network connectivity

The AT-G-ALERT-C controller will respond to these events as follows:

- Alarm activates the alarm relay, flashes the screen to RED, activates the audible buzzer
- Fault activates the fault relay, flashes the screen to AMBER, activates the audible buzzer
- Communication Error flashes the screen to BLUE, indicates warning on screen with the specific unit(s)

#### 2.1.1 Home

After inactivity on the touchscreen, the system will always revert to the **Home** screen. When no alarms or warnings are active, this screen resumes a **System Normal** state.

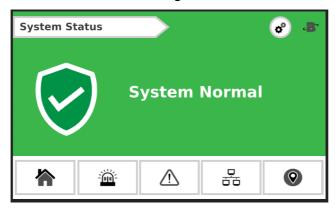


Figure 1 - Home Screen

#### 2.1.2 Navigation Buttons

Most screens have the following navigation buttons:

lcon	Icon Name
	Home
	Alarm list
	Fault list
	Comm error
	Floor list

#### 2.1.3 Status Icons

Each floor and room will use the following status icons:

lcon	Icon Name
ä	Alarm
	Fault
윪	Comm error
$\bigcirc$	Normal
	Not yet commissioned

#### 2.1.4 Floor List

Each floor will designate the highest severity status from all devices on that floor.

Floor Li	st		Total Dev	ices 25	ø	ĝ
6	<u> </u>	7	8	器	9	$\Theta$
10						
		١		몲	Q	
				00		

Figure 2 - Floor List

2.1.5 Room/Device list (each floor)

Detailed view for each AT-G-ALERT / room in the system grouped on a given floor.

Floor	6 Devic	es 5		<b>o B</b>
Room: Gateway: Modbus ID: Status:	602 192.168.0.6 # 2	603 192.168.0.6 # 3	604 192.168.0.6 # 4	605 192.168.0.6 # 5

Figure 3 - Room/Device List

#### 2.1.6 Settings

Use the settings screen for system configuration changes.

To access the **Settings** screen, tap the gear icon.

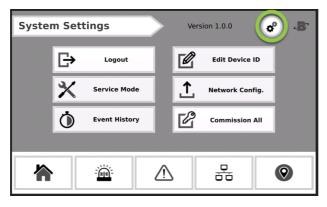


Figure 4 - System Settings

This screen is passcode protected to avoid unintentional changes. If not already logged in, the **Passcode** prompt will appear.

Passcode		8° B
	Enter Passcode	
	Version 1.0.0	
	<u>ش</u> ۸. н	0

Figure 5 - Passcode

Enter the passcode for the AT-G-ALERT-C controller to unlock and allow changes.



The default system passcode for the AT-G-ALERT-C is 6388.

## 2.2 System Components

2.2.1 AT-G-ALERT-C Refrigerant Leak Monitor

The AT-G-ALERT-C Refrigerant Leak Monitor (AT-G-ALERT-C) provides centra alarming and monitoring for all connected AT-G-ALERT Leak Detectors.

#### 2.2.2 AT-G-ALERT Refrigerant Leak Detector

The AT-G-ALERT Refrigerant Leak Detector provides refrigerant leak detection for occupied rooms in applications.

#### 2.2.3 Ethernet Network Switch

An Ethernet network switch is used to provide connectivity between the AT-G-ALERT-C Controller and individual gateways.

#### 2.2.4 Gateway

A gateway is used to create small networks of AT-G-ALERT Refrigerant Leak Detectors (up to 15 per gateway) to ease installation and troubleshooting.

#### 2.2.5 Modbus EZ-Wire Kit

Perfectly sized and stripped, pre-bonded wire provides faster, more consistent installation to the AT-G-ALERT Modbus port.

## 2.3 Hardware Overview

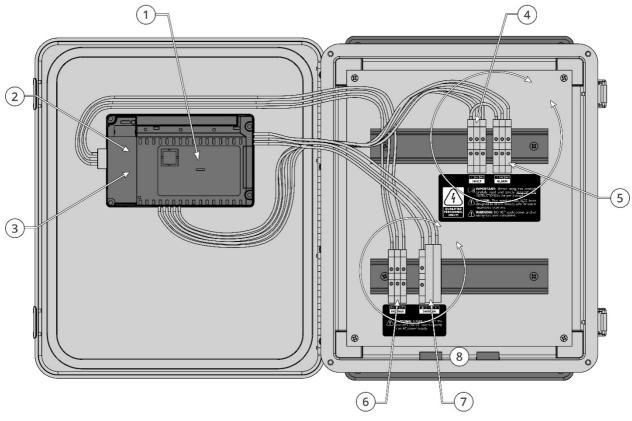
AT-G-ALERT-C Refrigerant Leak Monitor











The AT-G-ALERT-C provides centralised alarming and monitoring for all connected AT-G-ALERT devices.

Figure 6 - AT-G-ALERT-C Overview

#	Component Description
1	PLC / Touch Screen
2	USB Port
3	Ethernet Port
4	Fault Relay
5	Alarm Relay
6	Modbus Terminal Block
7	Power (24V DC IN)
8	Cable Entries (x4)

## 3 Installation

#### 3.1 Network Overview



**IMPORTANT:** Prior to installation, download the AT-G-ALERT-C floorplan spreadsheet available from **Aquilar.co.uk** or on the USB stick supplied with the controller. This spreadsheet has editable fields for Floor / Room and non-editable fields for Modbus ID and Gateway IP address. The floor and room fields are to be completed prior to installation in order to ensure correct wiring and function.

Up to 100 AT-G-ALERT devices can be connected to the AT-G-ALERT-C. These are to be grouped as Modbus RTU daisy-chain segments of up to 15 devices, terminating at a Gateway. Up to seven gateways can be used in a fully populated network.

Gateways connect via an Ethernet TCP network, through an Ethernet switch, to the AT-G-ALERT-C. The AT-G-ALERT-C provides centralized monitoring of all devices in the network, with a 15-second scan rate.

When creating the floorplan, follow these conditions:

- Keep daisy-chain segments of AT-G-ALERT devices as near as possible to the gateway to which they connect.
- We recommend keeping this distance under 152M if possible, for Modbus daisy-chain segments. As wire length increases, noise sources can accumulate, and a greater degree of attention to shielding and grounding is required.
- It is important that the designations in the floorplan spreadsheet "data.csv" exactly match the actual installed network. Any changes in the physical wiring must be reflected in the spreadsheet for the system to function.

The following diagram shows an example network using all seven Gateways.



Figure 7 - Connection Diagram

#### Network Creating Notes:

- To mark devices to be on the same floor, those devices must have the same floor name (capitalisation matters). The AT-G-ALERT-C will display a new "floor" tile for each unique name appearing in the floorplan spreadsheet, up to 16 distinct values.
- The floor and room cells can be named with any combination of up to eight digits of letters and/or numbers.
- It is possible to hardwire up to 15 devices to the controller's Modbus RTU port. To indicate these in the floorplan, fill in the cells at the bottom of the spreadsheet (rows with IP marked "Direct").
- Each Gateway's IP Address must be unique. If only one gateway is used, its IP address should be 192.168.0.1. The IP address for subsequent gateways would be 192.168.0.2, 192.168.0.3, etc.
- The 7th gateway, if used, has a limit of 10 devices. All other gateways have a limit of 15 devices.



Figure 8 – Example of a Small Network

## 3.2 Floorplan Spreadsheet (CSV)

When editing the AT-G-ALERT-C floorplan spreadsheet (data.csv) on a PC, it contains placeholder entries for all possible devices in the network.

Insert the USB stick into a computer that has Excel software installed.

1. Open the flash drive and click the example CSV file titled "data.csv."

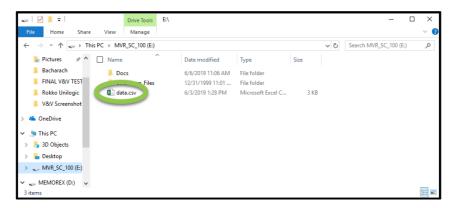


Figure 10 - Open the data.csv File

In this file, there are columns labeled: Index, Floor, Room, Gateway, ModbusID, and IpAddress. Of those six columns ONLY the entries for **Floor**, **Room**, and **Gateway** should be modified by the user.

		⇒ - <b>€</b> -	÷				
F	ile Hor	me Inser	t Page La	ayout Fo	rmulas D	ata Revie	w View
Pas	Copy	at Painter	Calibri B <i>I</i> U		• A A •		≫ - P E → P Alignment
02	26	- I 2	$< \checkmark$	fx			
	Δ	R	C	D	F	F	G
1	Index	Floor	Room	Gateway	ModbusID	IpAddress	
2	0				2	192.168.0.	1
3	1				3	192.168.0.	1
4	2				4	192.168.0.	1
5	3				5	192.168.0.	1
6	4				6	192.168.0.	1
7	5				7	192.168.0.	1
8	6				8	2021200101	-
9	7				9		
10	8				10		-
11	9				11	192.168.0.	1
12	10				12	192.168.0.	1

#### Figure 9 - The AT-G-ALERT-C Floorplan Spreadsheet

2. Add the floors and rooms to match the floorplan that has been designed for this specific building layout.

- 3. Save the floorplan spreadsheet as a .csv format and upload it onto the USB stick at the device root folder. The filename must be named as "data.csv" or the AT-G-ALERT-C will not be able to find the file when importing.
- 4. Upload the spreadsheet into the controller from the USB stick using the steps outlined in **Section 3.9** of this manual.

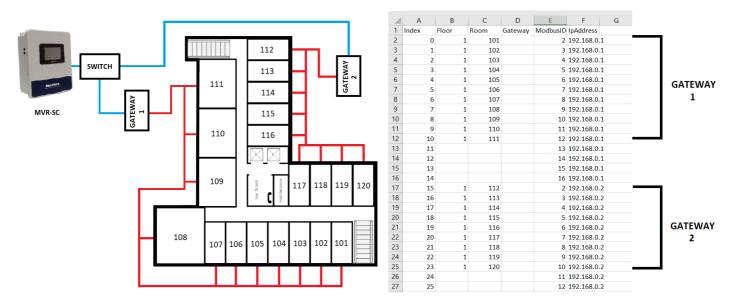


Figure 11 - Example Layout

#### Special Notes:

- There can be multiple gateways on a given floor. Or a single gateway can bridge across floors. However, pay attention long wire lengths which can be susceptible to electrical noise.
- The AT-G-ALERT-C will display floors listed in the order they are encountered in the spreadsheet rather than alphabetical or numeric order.
- Every assigned room in the "data.csv" file must have a Modbus ID populated. Do not change these Modbus ID numbers from the defaults.
- The column titled "Gateway" is optional the value from that column will not be displayed on the AT-G-ALERT-C.
- Do not add text into any text boxes to the right of Column F and/or below row 114, or the AT-G-ALERT-C will not be able to read the file.

### 3.3 Gateway IP Address

Each gateway in the system requires a unique IP address.

The AT-G-ALERT-C connects to up to seven gateways, using the following default IP address scheme.

Order	IP for Gateway	AT-G-ALERT device count
1	192.168.0.1	15
2	192.168.0.2	15
3	192.168.0.3	15
4	192.168.0.4	15
5	192.168.0.5	15
6	192.168.0.6	15
7	192.168.0.7	10

The IP address for each Gateway may need to be changed by the user, since gateways ship with default IP 192.168.0.1. This can be done using a windows PC and the free Moxa utility.

Steps to change Gateway IP addresses:

- 1. Connect the first Gateway to be changed to a PC using its Ethernet port. Power the gateway with 24VDC.
- 2. Download MGate Manager utility for windows from:
  - a. <u>https://moxa.com/en/products/industrial-edge-connectivity/protocol-gateways/modbus-tcp-gateways/mgate-mb3170-mb3270-series#resources</u>
  - b. Direct Zip download link
- 3. Open the MGate Manager utility. Press the "Search" Button.

No.	Name	Model		MAC Address	IP/COM	Status	Firmware Version	
De	vice Identification		Device Function					
	Search		Configuration	Load Mo	nitor Log	ProCOM Mapping	Import	
	Locate		Load Default	Diag	nose	Upgrade Firmware	Export	
	Language		GSD Managemen		nfiguration		Exit	

Figure 12 – Mgate Manager utility for Windows

4. Choose Broadcast Search to search for any connected gateways.

Search	×
Broadcast Search	
Specify IP Search	0.0.0.0
Connect through COM Port	COM3 v
	OK Cancel
	Cancer

Figure 13 – Broadcast Search

- 5. When discovered, the Gateway should show up in the table. Select its row and press **Configuration**.
  - a. Note: if this step requires a password it is "moxa"

÷	Name	Model		MAC Address	IP/COM		Status	Firmware Version	
	MGate_Floor1	MGate MB3	3170	00:90:E8:71:F1	5A 192.168.	0.1		Ver.3.0 Build 170307	13
De	vice Identification		Device Function						
	Search		Configuration		Ionitor	Pn	oCOM Mapping	Import	
	Locate		Load Default	E	iagnose	Up	grade Firmware	Export	
	Language		GSD Managemer	nt Off-Line	Configuration			Exit	

Figure 14 – Gateway Configuration

6. Navigate to the **Network** tab (the second tab).



Figure 15 - Network tab

7. In the Network tab, the IP can be set to a new value. Change the IP from "192.168.0.1" to the IP that corresponds with the Gateway index (1 - 7) from the chart above.

8. If this gateway is the first in the network, its IP address is already correct – 192.168.0.1. If it is the second, change the last digit to be 192.168.0.2, etc.

_	-		OK
Ether	1	3	
		-	
ode Network Serial	Modbus Routing Modbus Pr	iority Control Accessible IP	SNMP Miscellaneous
Name	MGate_Floor1	Password	
Network Configure	Static 🗸	Confirm Password	
IP Address	192 . 168 . 0 . 1		
Netmask	255 . 255 . 254 . 0		
Gateway	192 . 168 . 0 . 1		
	0.0.0.0		
DNS1			

Figure 16 - Network Setting OK screen

9. Repeat this process for the remaining gateways in the system.



The gateways contain powerful built-in troubleshooting features. If system troubleshooting is required, please contact our technical team.

### 3.4 Hardware Installation

Mount the AT-G-ALERT-C in an accessible location for viewing alerts and responding to alarm conditions.



Environment: place the AT-G-ALERT-C in an indoor setting free from the risk of exposure to water, high humidity or any hazardous conditions.



Accessibility: ensure that the AT-G-ALERT-C's touch screen is readily accessible for viewing alerts and responding to alarm conditions.

Connect the controller to a 24VDC supply capable of at least 1 Amp output.

WARNING: Do not apply power until all wiring is in place.

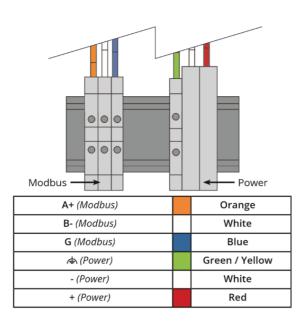


Figure 17 - Modbus Wiring

Near to the 24V DC is a terminal block for direct Modbus RTU connections.

This is to be used for troubleshooting or very small direct-connected networks with less than 15 units. A typical large floorplan should be divided into segments connecting via Gateways, as described earlier.

### 3.5 Connecting Relays: Alarm, Fault

If used, connect the relay output(s) to equipment that will be triggered by each relay.

**Note:** Take care to ensure proper wiring for intended function: normally open and / or normally closed.

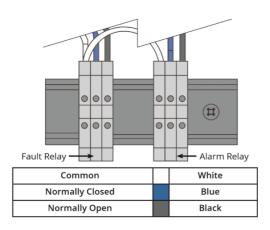


Figure 18 - Wiring Relays

#### 3.6 Battery for Persistent Memory

When 24V DC power is lost to the AT-G-ALERT-C, a backup battery is used to save the current state of the system, including the event history and the date and time settings.

This **MUST** be activated by pulling out the plastic spacer separating the battery from its contacts. This plastic spacer is labelled with "**Pull out to activate battery**".





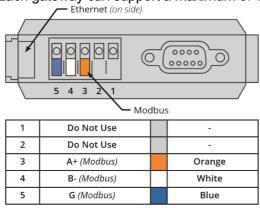
If this step was skipped, and a system state loss occurs after fully commissioning, re-upload the floorplan from the USB and select **Commission All** from the settings menu to reconnect all devices.

## 3.7 Connecting Ethernet Gateways

Connect the Ethernet output from the controller to the gateway(s).

**Note:** If multiple gateways are in use, their Ethernet ports may be daisy chained or an optional Ethernet switch can be used to connect all gateways and the controller onto the same local subnetwork.

Connect the Modbus cable to the gateway output as depicted below.



Each gateway can support a maximum of 15 AT-G-ALERT devices connected in a

#### Figure 19 - Wiring Gateways

daisy chain fashion using the Modbus network cable.

Leave no more than 30 cm for the wire tie-off to each AT-G-ALERT.

The shield cable may be left floating or tied to electrical GND at the controller only.

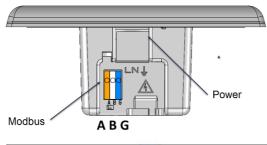
## 3.8 Connecting the AT-G-ALERT

Connect the first AT-G-ALERT device's Modbus port (3-wire) to the gateway. The unique location on the network for each device will be a combination of its Modbus ID (number 2 through 16), and the unique IP address of the gateway to which they are connected.

Additional resources for the AT-G-ALERT are available online. To download these resources, visit **aquilar.co.uk** or use the direct link: <u>Here</u>.

#### Wiring Notes:

- The gateway provides the link between the AT-G-ALERT-C and small groups of AT-G-ALERT devices, up to 15 per gateway.
- Cable type recommended: Belden 3106, 1.5 twisted-pair/shielded.
- Daisy-chain only, minimizing the total Modbus run length for best performance.
- The best practice is to leave no more than 30.5 cm for the wire tie-off to each device in order to keep the Modbus wiring as close to a true daisy-chain as possible.



A+ (Modbus)	Orange
B- (Modbus)	White
<b>G</b> (Modbus)	Blue

Figure 20 - Wiring the AT-G-ALERT

**Tip:** An EZ-wire connection is available, and perfectly matched to the Modbus wiring terminal on the AT-G-ALERT, which can ensure faster, more consistent wiring.



### 3.9 Upload Floorplan Spreadsheet

1. Power up the AT-G-ALERT-C. When the System Startup (Home) screen appears, access **System Settings** (gear icon).

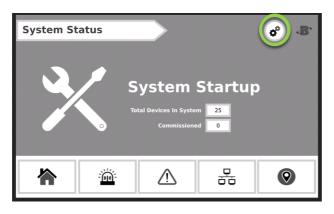


Figure 21 - System Status screen

2. After the System Setting screen appears, insert the USB stick containing the floorplan spreadsheet into the USB slot of the controller.

Note: Instructions on filling out this spreadsheet are described earlier in this manual in **Sections 3.1 and 3.2**.

3. Press **Network Config**, and then press "**Upload CSV**" to upload the floorplan spreadsheet **data.csv** from the root folder of the USB stick.

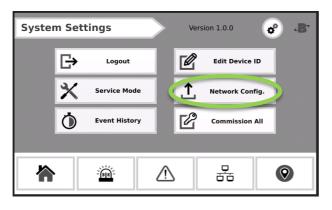


Figure 22 - System Settings screen

A success message will indicate that the upload is complete.

#### 3.10 Commissioning

Each AT-G-ALERT ships with default Modbus ID set to 1. These can be set in either of two methods:

#### 1. Modbus ID Auto-assign:

Automatically connect and set IDs using the integrated Magnetic Switch to pair each AT-G-ALERT to its install location.

#### 2. Set Modbus ID Manually:

Use the RS485 port on the controller to manually set the Modbus IDs, and then install according to the floorplan, while keeping track of assigned Modbus IDs.

#### 3.11 Method 1: Modbus ID Auto-assign

- AT-G-ALERT devices can be auto-assigned their Modbus ID using a 2-person verification technique. This process gives the added advantage of physically verifying that each connected
- 2. Open the **Settings Screen** (gear icon) and then enter the passcode. (If the passcode has not been entered, the **Device Modbus Pairing** Screen will not be accessible).
- 3. On the AT-G-ALERT-C touch screen, tap the pin icon in the bottom right of the screen to advance to the "Floors" screen and then tap the floor that is to be commissioned.



device is correctly installed in the assigned room location.

Figure 23 - Floor List screen

4. Tap the tile with the first room that is to be commissioned.

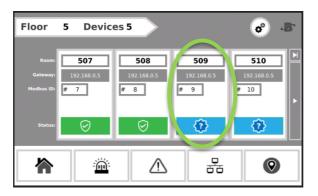


Figure 24 – Tap the tile of room to commission

This should open the Device Modbus Pairing Screen.

5. At the physical AT-G-ALERT device, have a co-worker tap the Magnetic Switch A (marked with a single dot "•") with the magnetic wand for less than a second, and then pull the magnetic wand away.

This action will put the AT-G-ALERT into Commissioning Mode" and it should beep when the wand is being pulled away (releasing Magnetic Switch A).

**Note**: Optionally, the AT-G-ALERT may be taken out of this mode by doing the same tap and pull-away action on the lower Magnetic Switch B location (marked with a double dot "••").

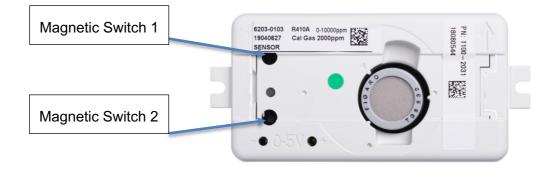


Figure 25 – The AT-G-ALERT

 Back at the AT-G-ALERT-C touchscreen, after the device has been put into the "Commissioning Mode", tap Commission Device. When the device has successfully commissioned, a "Success" message will appear. If the commission was unsuccessful, an "Unable to Contact Device" message should appear and the network wiring should be checked.

Selected Device Floor 5 Room 509 Back		ng		mmission Device
	ì		윰	$\odot$

Figure 26 - Device Pairing

7. After the commission is successful, tap the "Back" button to go back to the devices screen.



Figure 27 - Once commission is successful, tap Back 8. On the **Devices Screen** there should be a green checkmark on the device that was just commissioned signaling that the commission was successful.

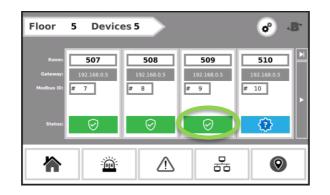


Figure 28 - Green checkmark appears

9. Repeat these steps for each room on a floor and each floor in the building until all AT-G-ALERT devices have been commissioned. When all devices have been commissioned the green "System Normal" splash will display on the Home Screen.



Figure 29 - System Normal screen

## 3.12 Method 2: Set Modbus ID Manually

Modbus IDs can be manually assigned to the AT-G-ALERT devices prior to wiring.

Wire a single AT-G-ALERT Modbus port to the controller's Modbus terminal block. It is recommended to use the EZ-wire kit available with the AT-G-ALERT-C controller for ease.

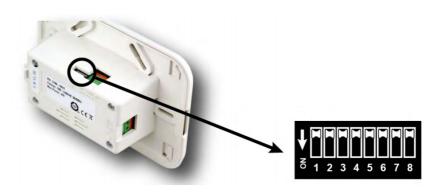
- 1. From **Settings**, open the **Set Modbus ID** screen to select and apply a specific Modbus ID.
- 2. Tap **Search** to connect to the device. If the unit does not have factory Modbus ID #1, this can be restored by doing a factory reset.

Edit D	evice ID	a a
	Search for device with factory Modbus ID 1	
		Search
	New ID: 1	
		Set Unit ID
榆	· 🛍 🛆	

Figure 30 - Set Modus ID

In case the AT-G-ALERT has had its Modbus ID changed to some ID other than the default address 1, do the following to reset to factory settings:

- a. Power OFF the AT-G-ALERT. Set dipswitch-8 to the ON position.
- b. Power ON the AT-G-ALERT (buzzer should sound). Reset dipswitch-8 to the OFF position (buzzer should turn off).



- c. Hold the magnet wand to Magnetic Switch A (marked with a single dot "•" on the AT-G-ALERT) for 60 seconds. The device should beep at the end of 60 seconds to indicate reset.
- d. Remove the magnet wand and cycle power. The AT-G-ALERT will have reverted to default settings including default Modbus ID 1.
- e. Specify a unique ID for the AT-G-ALERT– this can a number 2 through 16, inclusive.
- f. Tap **Set Unit ID** to apply this ID.

Edit Devic	e ID		0° B
Searc Foun New I Succ	D: 1	Search Search Set Unit	
	ñ	뀸	0

Figure 31 - Set Unit ID

g. Repeat the above steps for each device. Keep track of the assigned IDs and install according to the floorplan spreadsheet.

## 4 Operation

#### 4.1 Overview of Normal Operation

The AT-G-ALERT-C provides centralised monitoring of all segments in the network with a 15-second scan rate.

#### 4.2 Alarm Detection

The AT-G-ALERT-C controller will provide instantaneous details for any AT-G-ALERT in the network experiencing an alarm condition.

To respond to an alarm event:

- 1. Tap **Mute** to silence the alarm. This will mute the buzzer at the controller for 30-minutes.
- 2. Tap Details to open the Devices in Alarm screen to view the device(s) impacted.



Figure 32 - Alarm Detected screen

The **Devices in Alarm** screen will list a single Device/Room tile for each AT-G-ALERT in active alarm. Each tile will also indicate the severity status and network details for the AT-G-ALERT.

Devices	s in Alarm:	2		3
Floor:	1	2		
Room:	104	209		
Gateway:	172.20.20.202	172.20.20.202		
Modbus ID:	# 4	# 9		
Status:	Low Alarm	Low Alarm		
	Ĩ		튭	0

Figure 33 - Devices in Alarm screen

### 4.3 Fault Detection

The AT-G-ALERT-C controller will provide instantaneous details for any AT-G-ALERT in the network experiencing a hardware fault condition.

To respond to a Fault event:

- 1. Tap **Mute** to silence the alert. This will mute the buzzer at the controller for 30-minutes.
- 2. Tap Details to open the Devices in Fault screen to view the device(s) impacted.

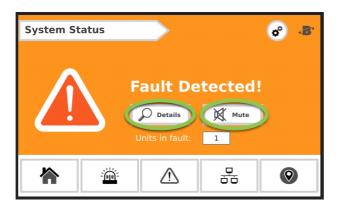


Figure 34 - Fault Detected screen

The **Devices in Fault** screen will list the Floor/Room location, status, and network details for each AT-G-ALERT found to be in fault.

Devices	s in Fault:	3	View Fault Codes	<b>o</b> B
Floor: Room:	1 102	3 314	5	
Gateway: Modbus ID:	172.20.20.202 # 2	172.20.20.202 # 14	172.20.20.204 # 11	
Status:	Fault Code: 0x0202	Fault Code: 0x0602	Fault Code: 0x0202	
	Ĩ			0

Figure 35 - Devices in Fault screen

### 4.4 Communication (Comm.) Error

After several unsuccessful attempts to communicate with a commissioned AT-G-ALERT device, the AT-G-ALERT-C will change the device status to Comm. Error and this condition will be indicated with an alert.

To respond to a **Comm. Error** event:

1. Tap **Details** to open the **Comm. Error** screen to view the device(s) impacted.



Figure 36 – System Status screen

The **Comm. Error** screen will list the Floor/Room location, status, and network details for each affected AT-G-ALERT.

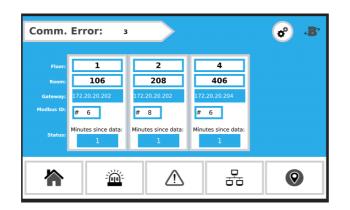


Figure 37 - Comm. Error screen

### 4.5 Event History

The AT-G-ALERT-C will save new **Alarm** or **Fault** events to the **Event History**. This can be accessed from the **Setting** screen. The event history is a rolling list of 100 entries. In addition, entries tagged as neither alarm nor fault are created when a device status clears to normal.

**Note**: The Fault Code is stored as a decimal value and should be converted back to a hex or binary value for easier interpretation of the specific fault codes.

Ev	ent Histor	у					ø 4		
Event History									
#	Timestamp	Floor	Room	GasLowAlarm	GasHighAlarm	Faulted	Fault Code		
0	06/03/19 15:50:06	6	602				1538		
1	06/03/19 15:49:55	6	602				0		
2	06/03/19 15:49:10	7	710				514		
3	06/03/19 15:49:09	6	605				0		
4	06/03/19 15:49:09	6	602				1538		

#### Figure 38 - Event History screen

The Time and Date can be set using the UniApps utility.

1. Press and hold the "B" icon in the upper right corner for 3 seconds.

Ev	ent Histor					ø 🖉			
Event History									
#	Timestamp	Floor	Room	GasLowAlarm	GasHighAlarm	Faulted	Fault Code		
0	06/03/19 15:50:06	6	602				1538		
1	06/03/19 15:49:55	6	602				0		
2	06/03/19 15:49:10	7	710				514		
3	06/03/19 15:49:09	6	605				0		
4	06/03/19 15:49:09	6	602				1538		
-					_	_			

Figure 39 - Press and hold the "B" icon

2. Tap **UniApps** from the pop-up menu that appears.

Εv	ent Histor	у					UniApps
Event History							Screenshot
#	Timestamp	Floor	Room	GasLowAlarm	GasHighAlarm	Faulted	Fault Code
0	01/01/00 00:11:37	8	814				Cancel
1	01/01/00 00:11:26	8	814				512
2	01/01/00 00:11:14	8	814				0
3	01/01/00 00:10:51	8	814				512
4	01/01/00 00:10:40	8	814				0

Figure 40 - Tap UniApps

3. Select the **System** tab, and then **Time & Date**. Choose the date from the calendar tool on the left side of the screen and the time from the right side of the screen.



Figure 41 - Choosing the time and date

4. To return to the home page, press and hold the upper right corner again for 3 seconds. From the dropdown menu, choose UserApp.



### 4.6 Service Mode Screen

This utility will disable the audible buzzer and set the relays to their default (normal) position for 30 minutes in order to facilitate maintenance on the network or AT-G-ALERT devices. To access the Service Mode Screen:

- 1. Open the Settings screen (gear icon in upper right) and tap the Service Mode button.
- 2. Tap **Apply** to begin a 30-minute countdown. A timer appears once activated. Tapping **Apply** a second time will restart the countdown again to 30 minutes.

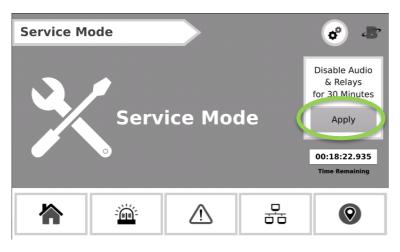


Figure 42 - Service Mode screen

## 5 Additional Information

## 5.1 Disposing of the Instrument

EU-wide regulations governing the disposal of electrical and electronic appliances which have been defined in the EU Directive 2012/19/EU and in national laws have been effective since August 2012 and apply to this device.

Common household appliances can be disposed of using special collecting and recycling facilities. However, this device has not been registered for household usage. Therefore, it must not be disposed of through these channels. Please do not hesitate to contact Aquilar Ltd if you have any further questions on this issue.

### 5.2 Service Center Locations

All returned goods must be accompanied by an RMA #. Please contact Aquilar Ltd prior to sending your equipment.