AquiTron | AT-SD-LTE
Speech Dialler

INSTALLATION & OPERATION INSTRUCTIONS

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Introduction

The SD-LTE Speech Dialler provides a means of communicating information to telephones via the mobile networks. You can either connect the SD-LTE to an alarm control panel (taking advantage of its power supply and battery backup) or use the SD-LTE in a standalone role.

The SD-LTE requires a power input of between 12V and 28V, with a supply capability of 200mA or greater.

The SD-LTE has eight trigger inputs, and you can assign a voice message and/or a text message to each input. The unit can also send a voice message and/or a text message when the triggers have been restored.

For most applications you would normally connect the trigger inputs to the communicator outputs (or bell output) of an alarm control panel. However, you can also connect other devices, such as smoke detectors or temperature sensors directly to the trigger inputs. The unit allows you to program the polarity of the trigger inputs as either positive or negative applied/removed.

Installation

Siting the SD-LTE and antenna - Before installing the unit, you must decide on a suitable location. The SD-LTE itself should be in a place that is convenient for the end user as well as any wiring. In addition, you must site the antenna so that it can receive a good signal from the phone network.

SIM card - The SIM card must only be fitted/or removed when the SD-LTE is powered down. The SIM card needs to be a micro-SIM and registered to the required network.

Registration of SIM card - You must register your SIM with your chosen service provider. Each provider has their own methods. Example methods:

- Register without SIM in any product - quoting SIM Auth code on providers website.
- Register with SIM in a Mobile phone - website or call.
- Register with SIM in SD-LTE.

If registering the SIM card in the SD-LTE, ensure the SIM is correctly installed in the SD-LTE. Depending on the mobile network provider you may need to access:

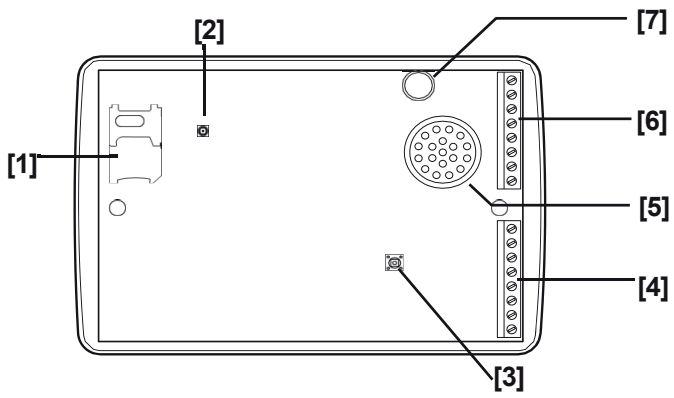
- an authentication code via SMS (see Menu 2.3 Inbox).
- SIM information (see Menu 0.5 - Mobile Phone Utilities).

Using Pay As You Go Accounts - Your SD-LTE may not send calls very frequently. If you decide to use a Pay As You Go account, then check with the provider how they deal with accounts that are quiet for several weeks or months. (Some providers close down accounts that do not make any calls within a set period.) If necessary, you can program the unit to make a test call at fixed periods. In addition, the SD-LTE can also forward incoming text messages it receives warning of low credit.

Technical Specifications

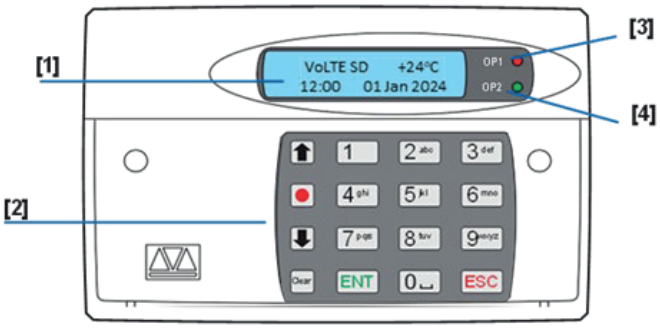
Supply voltage:	10.5 - 28VDC
Current consumption @12VDC):	25mA (Standby), 170mA (Active)
Trigger Inputs:	Eight: positive/negative applied or positive/negative removed (5 - 24VDC)
Outputs:	Four open collector switched @100mA max
Dimensions:	140mm x 115mm x 30mm Weight: 360g (approximately)
Operating environment:	-10°C to +55°C
SIM card size:	Micro-SIM

PCB connectors and switches



1. SIM card holder
2. Antenna connector
3. Back tamper switch
4. Trigger inputs G-H, power & outputs
5. Sounder/loudspeaker
6. Trigger inputs A-F & tamper wiring
7. Microphone

Keys and displays



1. Two-line backlit LCD display
2. Keypad
3. Red indicator shows the status of Output 1
4. Green indicator shows the status of Output 2

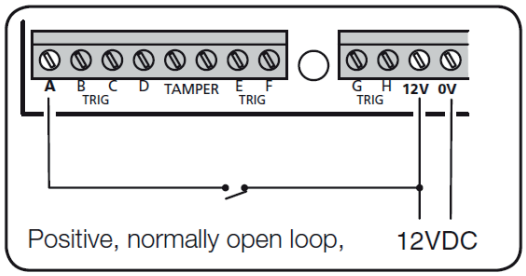
Keypad function keys

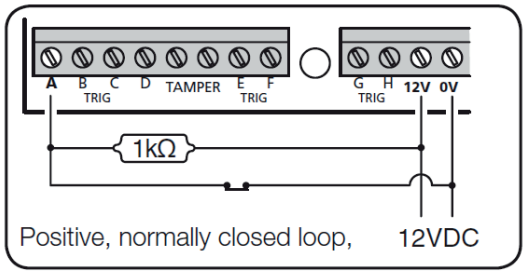
- Scroll up
- Record/special character
- Scroll down
- Clear display

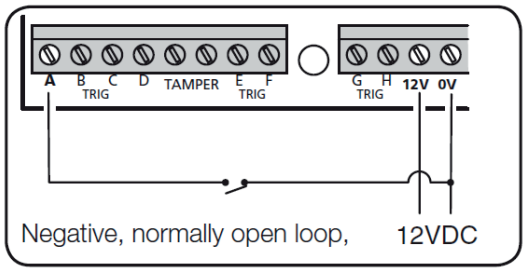
Connections - Before making any connection to the SD-LTE isolate ALL power from the control panel (mains and battery). Do not continue if there is power still present on the control panel.

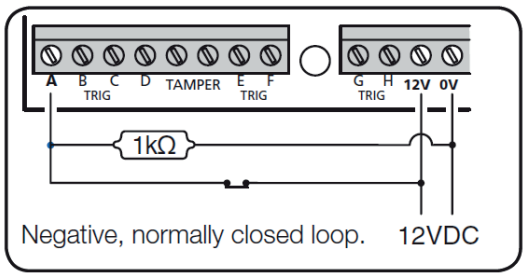
0V & 12V - Connect these terminals to the 12V auxiliary power supply of the alarm control panel or to a stand-alone power supply, if necessary.

Trigger inputs (A to H) - Connect these terminals to the relevant outputs on the alarm control panel. When an alarm panel triggers an input, the SD-LTE initiates the calling sequence and delivers the relevant speech and/or text message. The diagrams (below) show the various wiring options for the trigger inputs. *Note: All inputs must use the same trigger input polarity. To choose polarity select System Options > Trigger Polarity*









Tamper - These terminals provide tamper protection for the SD-LTE and should be connected to the auxiliary tamper circuit on the alarm control panel.

OP1 - OP4 - These terminals provide four programmable switched negative outputs, connect them to any equipment you wish to control.

Commissioning

When beginning a new installation, it is advisable to perform a factory reset of the SD-LTE unit to ensure that any existing settings are removed. *Note: the initial power up sequence may take a few minutes, the SD-LTE will display "Starting…"*

To perform a factory reset

1. Disconnect power from the unit.
2. Press and hold 9 and reconnect the power to the speech dialler. The SD-LTE will display the factory-reset menu.
3. Press ENT to perform a factory reset (ESC to cancel). The SD-LTE will display "Change language?".
    a. Press ENT to change the language. If changing the language using the scroll keys to locate the required language and press ENT to confirm.
    b. or ESC to retain current language settings (default English).
4. The SD-LTE will enter standby mode.

Accessing the programming menu - When the SD-LTE is in standby mode the display shows the temperature, time, and date. Enter the user code (the default code is 1234). When the correct code is entered, the bottom line of the display will show the first item from a menu of ten programming options.

For more information on programming refer to the SD-LTE Speech Dialler – Programming guide.

Leaving the programming - From within the programming menu, press ESC repeatedly until the display shows "Press ENT to Leave Menus", press ENT to leave (ESC to remain in the menus).

Programming menu options list

Menu		Submenus			
1	Contact details	1	Contact 1		
		2	Contact 2		
		3	Contact 3		
		4	Contact 4		
		5	Contact 5		
		6	Contact 6		
		7	Contact 7		
		8	Contact 8		
		9	Contact 9		
		0	Contact 10		
2	Messages	1	Voice messages	1	Message A
				2	Message B
				3	Message C
				4	Message D
				5	Message E
				6	Message F
				7	Message G
				8	Message H
		2	Text messages	1	Message A
				2	Message B
				3	Message C
				4	Message D
				5	Message E
				6	Message F
				7	Message G
				8	Message H
		3	Inbox	1	View messages
				2	Delete inbox
3	System options	1	Trigger Polarity	1	Negative
				2	Positive

		2	Remote Options	1	Remote access
				2	Rings to answer
		3	Display options	1	Flash on message
				2	Beep on message
				3	Temp display
		4	Alarm levels	1	Temperature high
				2	Temperature low
				3	Supply low
				4	Signal low
		5	Record options	1	Long play
				2	Auto record
		6	Report options	1	Auto reporting
				2	Report time
		7	Change language		
4	Access codes	1	Edit user codes		
		2	Edit remote code		
5	Ack & Abort	1	Abort options		
		2	Clear by options		
6	Outputs	1	Output 1		
		2	Output 2		
		3	Output 3		
		4	Output 4		
7	Call routing	1	Trigger alarm		
			Trigger restore		
			Auto report		
			Text forward		
8	Date and time				
9	View log				
0	Test options	1	Test messages		
		2	Test outputs		
		3	Test triggers		
		4	Test supply		
		5	Mobile phone utils	1	Make call

				2	Signal strength
				3	Mob number
				4	IMEI number
				5	IMSI number
				6	Module type
				7	Module Revision
				8	Call Provider
		6	Software version		

Operation

Voice message acknowledgement - The SD-LTE requires a call acknowledgement in order to confirm that the recipient has accepted the call. If a called contact does not acknowledge an alarm call, the SD-LTE will proceed to contact the next programmed number.

To acknowledge a voice message

1. When the telephone rings, answer the call as normal and listen to the voice message (repeated several times).
2. When you have understood the message, acknowledge it at any time by pressing the number 8 key on your telephone.
3. You will hear an acknowledgement tone from the SD-LTE and then the unit will hang up.

Aborting an alarm call If the SD-LTE is accidentally triggered or you want to stop the calling sequence, then one of the following methods can be used:

ENTER THE USER CODE	**RESTORE THE TRIGGER INPUT**
To abort the call sequence, enter your four- digit user code. *Note: You must program the SD-LTE to be able use this method, see Acknowledgement and Abort Options.*	To abort the call sequence, restore the trigger input back to its normal condition. Normally this is a simple matter of resetting the alarm control panel. The abort methods that can be used depend on whether the SD-LTE is programmed to allow you to abort calls in this way. See Acknowledgement and Abort Options.

Note: If the SD-LTE is programmed to report alarms using text messages, then the unit sends the first part of the text (the site message almost immediately. A user will be unlikely to respond quickly enough to abort this message. If a user does abort a text message, then the second part of the text (the alarm specific message) not be transmitted.

Recording and playing a memo locally

To record a memo message	**To playback a memo message**
1. Ensure the unit is in normal mode and displaying the standby screen. 2. Press the record button to record the memo. Speak clearly into the unit. The display will show how much time has elapsed: 3. Press record button to stop recording. The display will now indicate that there is a memo waiting.	1. The display will normally indicate that you have a message waiting. 2. Press ENT to playback the message. Press ESC to stop playback at any time. 3. To play the memo again press ENT or press Clear to delete the memo. Once deleted, the display will return to standby.

Using the remote access feature

Remote access by dialling in:	**Remote access via an alarm call -**
This method requires you to call into the SD- LTE in order to select the remote access menu. You will need to enter the remote code (by default: 5678***).***	If an alarm has been triggered, when the SD-LTE makes its alarm calls, it is possible for a called contact to acknowledge the call and then select the 'Remote Access' mode in order to perform tasks.
1. Dial the SD-LTE using a touch-tone telephone. 2. The SD-LTE will answer your call after the programmed number of rings (see 'Programming menu > System Options > Remote Options > Rings to Answer'). You will hear a series of high-pitched beeps. 3. At this point enter the four-digit remote code on your telephone; if the code is correct, you will hear an acceptance tone. The remote access menu is now selected, see below for menu options.	1. When the telephone rings, answer the call as normal. 2. Listen to the voice message which is repeated a number of times. 3. When you have understood the message, you can either: a. Press the * key to both accept the call and enter remote access, or b. Press the 8 key, as usual, to merely accept and end the call. 4. You will hear a series of high-pitched beeps. Enter the remote code on your telephone, you will

	hear an acceptance tone. The remote access menu is now selected, see below for menu options.

The remote access menu - The following commands can be selected from the remote access menu using the keypad of your touch-tone phone:

Function	Phone key sequence	Comments
Toggle output - remote control 1	*11	This feature toggles outputs that are programmed with the output type of remote control 1-4. High pitched beep = output off Low pitched beep = output on
Toggle output - remote control 2	*12	
Toggle output - remote control 3	*13	
Toggle output - remote control 4	*14	
Listen-in/talk-back mode	*3	starts in Talk-back mode use 3 to change between listen-in and talkback modes. 0 to quit listen-in/talk back modes.
Play alarm voice messages 1 to 8	4	followed by 1 to 8 to select the message, press 0 to stop playback.
Record alarm voice messages 1 to 8	*4	followed by 1 to 8 to select the message, you will hear a short beep. Talk clearly into your telephone handset. Press 0 to stop recording.
Play restore messages 1 to 8	*5	followed by 1 to 8 to select the restore message, press 0 to stop playback.
Record restore messages 1 to 8	*5	followed by 1 to 8 to select the restore message, you will hear a short beep. Talk clearly into your telephone handset. Press 0 to stop recording.
Enter contact phone numbers 1 to 10	*7	followed by 1 to 0 (0=10) and then enter the appropriate phone number twice, each time followed by #. Example: Enter the phone number 01235891745 and assign it to contact

		3 = *73 01235891745#01235891745# Note: If number is entered correctly a high-pitched tone will be heard, if it is incorrect, a low pitch error tone will be heard. If adding a new contact this will be set to a Voice contact.
Test alarm messages 1 to 10	*8	followed by 1 to 0 (0=10). When a message is selected the unit will terminate your remote access call and dial the selected trigger number.
Playback memo	0	press 0 to stop playback.
Record memo	*0	you will hear a short beep. Talk clearly into your telephone handset. Press 0 to stop recording.
Quit remote access menu and hang-up	#	

Notes: The 'Remote Access' option must be set to ON. See 'Programming menu > System Options > Remote Options > Remote Access'.

If after 60 seconds no command has been selected, then SD-LTE will hang-up the call. Once a command has been selected, the unit remains online for 5 minutes or until the quit remote access command is used #.

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