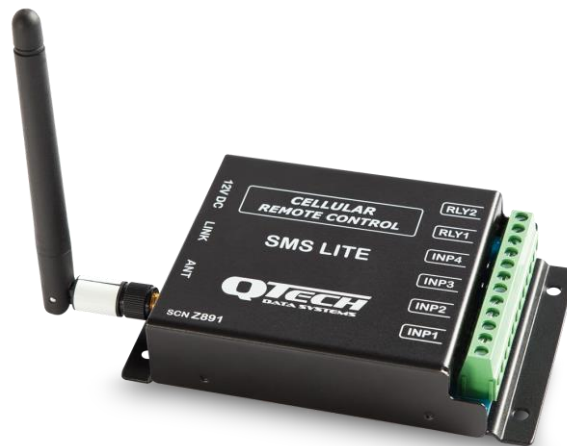

QTech SMS Lite

Quick Start Guide



Version Control

Document Name:	QTech SMS Lite Quick Start Guide V1.10
Product:	PD8640-4G SMS Lite

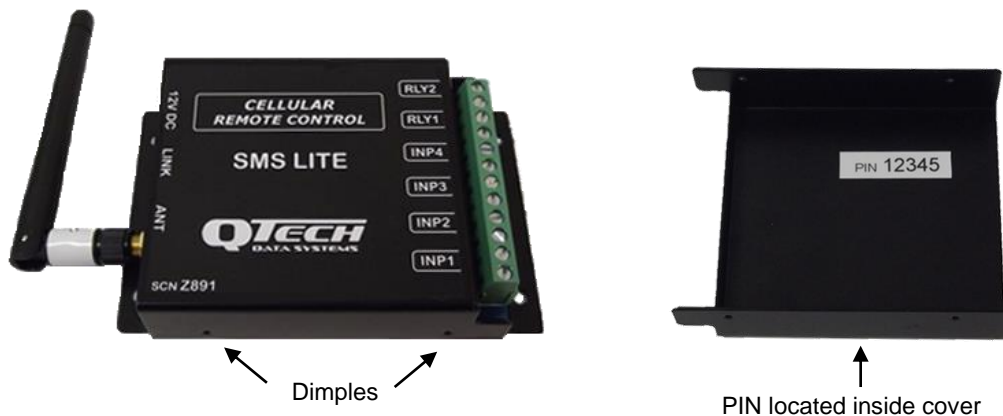
Document Owner:	QTech Data Systems Ltd
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Current Firmware:	Firmware V4.04
Date Updated:	12/9/2019

Version	Date	Author	Change Description
V1.0	10/11/14	IH	Original Format
V1.1	23/02/15	RH, FA	Addition of 'debounce' option for inputs Formatting update
V1.2	13/03/15	FA	Reword escalation sentence pg10. Edit diagram pg11 Input / Output
V1.3	22/08/16	RH	Minor alterations to suit V3.00 Firmware.
V1.4	20/09/16	RH	Added SIM Busy error code.
V1.5	23/2/18	GP	Added notices marked important to clarify security conditions required for messages to be processed. Added additional information on LED error codes and how to deal with them
V1.6	11/02/19	RH	Added variable length pulse command.
V1.7	12/07/19	GP	Added troubleshooting section
V1.8	1/08/19	AM	Added LE910 modem specifications. Amended text for legibility and naming consistency.
V1.9	15/04/20	PW	Add product number to "Version Control".
V1.10	18/02/21	PW	Add programming tip to avoid spaces in naming conventions.

Introduction

The SMS Lite is a powerful cellular remote control unit that uses text messages to provide up to four people with status conditions, notifications and control options for its four switched inputs and two relay outputs. It is operational within minutes with the minimum configuration requirement being the registering of a single cellular number to the SMS Lite. No external software is required.



The SMS Lite supports connection to current New Zealand telecommunications companies (Spark/Vodafone/2Degrees) and selected Australian Networks including Telstra and Optus but not all frequency band classes. Contact QTech for advice on supported networks if necessary.

Each SMS Lite is supplied with the following:
 Qty 1x SMS Lite Module (P/N PD8640-4G)
 Qty 1x Aerial (stub type), 2dBi gain (P/N PD9230)

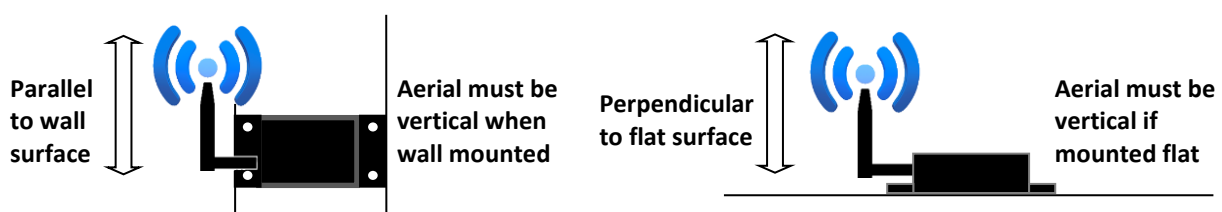
The power supply plug pack is not included - please order P/N PD5412 as required.

Please read this guide before using the SMS Lite. Please ensure you read the technical details on Page 15 of this guide prior to connecting ANY external device to the SMS Lite.


This version of the SMS Lite is configured for NZ and AU cellular networks only.
(For use in other countries, please contact QTech)

Aerial Connection

Carefully connect the aerial. Do not operate the SMS Lite without an aerial connected. Refer to Technical Details section on Page 15 for alternatives. The aerial must be vertically orientated.



Install the SIM Card

 **Note** – The SIM card must be a “full size” card, not a micro/nano SIM.

Before installing the SIM card, ensure that it is registered and activated on the Telco’s network. We recommend you insert the SIM into a regular cell phone and check that you can send and receive messages to do this. Carefully remove the SMS Lite cover by prising the side panels close to the retaining dimples.

Locate the SIM card holder adjacent to the aerial. Push the top of the holder in the direction of the “Open” arrows to “Unlock” (toward aerial), then flip open (away from the aerial).

Carefully insert the SIM card from your chosen Telco. Be careful to orientate the card correctly, once in place carefully slide the plastic retainer towards the aerial to “Lock”.



Unlock Holder

Lift & Insert SIM

Close Holder

Lock Holder

Inputs & Outputs

The basic connection details are shown in the diagram below. More detailed information can be found in the Technical Details section on Page 15.

Default Setting <input name>: INP1 INP2 INP3 INP4

These can be labelled – refer to Configuration Instructions on Page 7.



Close switch contact to turn “INP1” “ON”



Send “ON” command to “RLY1” closes operating light

Getting Started

In order to operate the SMS Lite, the device must have a mobile number registered as 'Phone 1' referred to as Ph1. You must register this number before you can configure any of the inputs or outputs.

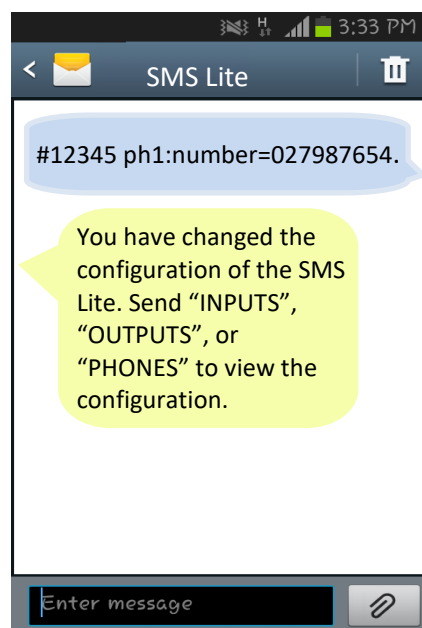
The device can have up to 4 numbers registered; it is recommended that Ph1 is the main contact as any alarm escalations programmed will step in numerical order Ph1, Ph2, Ph3, and Ph4. If there is no response the next number in the list is sent a notification after 10 minutes **or** if a busy message is received from the previous phone the next person is also notified.

To Register Phone 1 (Ph1) – Master User

1. Locate the PIN (Personal Identification Number) printed inside your SMS Lite case.
2. Compose text message to the SMS Lite mobile number in the following format:

#[PIN][space]Ph1:number=0123456789[dot]
 . e.g. **#12345 Ph1:number=027987654.**

3. A confirmation text will be sent to you acknowledging a configuration change.



Use the above format to programme up to 4 individual phone numbers.

 **Note – Each configuration command must be finished with a full stop.**

i.e. #[PIN][space]Ph2:number=0123456789[dot]

 **Note – The PIN is used each time a configuration change is made.**

If you make a mistake in any configuration message, you can override the current setting by sending a new configuration message. You can also clear a configured input, output, or phone number by sending a configuration message with a blank value: #[PIN][space]Ph2:number=. e.g. **#12345 Ph2:number=.**

You can now connect the SMS Lite to the required INPUTS and OUTPUTS and configure them.

INPUTS Once the SMS Lite is configured, Phone 1 will be sent a message each time any of the inputs turn on or off. They must acknowledge receipt of the notification. Up to 3 other phones can be programmed to receive a notification. If Phone 1 replies 'busy' or if there is no response after 10 minutes, the SMS Lite will send a text to the next programmed number.

OUTPUTS Once the SMS Lite is configured, Phone 1 can control the outputs by sending the following commands:

Turn the specified output on

ON <output name> e.g. **ON RLY1**

Turn the specified output off

OFF <output name> e.g. **OFF RLY1**

To pulse an output on for one second then off again

PULSE <output name> e.g. **PULSE RLY1**

To pulse an output for a defined period of time

PULSE <output name> <duration> <units> e.g. **PULSE RLY1 10 mins**

Where the units can be ms, sec, min, or hr, and the maximum duration is 1 day.

To allow control permissions to more than one phone, each output will need to be configured.

If you do not rename the inputs and outputs they will operate under their default names which are: <input name> INP1 → INP4 and <output name>: RLY1 and RLY2


This is all that is required for your configured phone number to receive notifications from the SMS Lite Inputs and control the outputs. While it is not strictly necessary, we highly recommend programming the Site Name and the Input and Output names, especially where you have multiple connections as these names are used in the text messages and can save confusion.



Tip – A configuration worksheet can be found on Pages 17 & 18 of this booklet. We recommend you use this to record the Site, Input, and Output names and the phone numbers and their escalation order. You can also download this worksheet from our website or [click this link](#).

Configuration Overview

Further configuration is possible to allow personalisation of your SMS Lite. You can assign a site name to the SMS Lite, as well as naming each of the inputs and outputs, and assigning particular phone(s) to these. The SMS Lite can be configured with up to 4 phone numbers allowing multiple user notifications and control options.

 **Tip –** Do not use a space in the naming convention for the Site Name, Inputs or Outputs i.e. Back Gate should read BackGate. Or High Lvl should read HighLvl. Remember to keep the names less than 8 characters long.

All configuration text messages sent to the SMS Lite must in the form of:

#[PIN][space]<object>:<item>=<value>[dot]

e.g. **#12345 Site:Name=Shed1.** or **#12345 INP1:Name=Pump.**

Configuration options are shown in the following table:

Object	Item	Value
Site	Name	The name of the site where the SMS Lite is installed. (8 character limit, no spaces)
INP1, INP2, INP3, INP4 These are the 4 individually configurable inputs	Name	An identifying name for the input. (8 character limit, no spaces)
	Phones	Ph1→Ph4 Which configured phone number(s) will receive notifications from this input.
RLY1, RLY2 These are the 2 outputs which allow you to turn on / off or pulse	Name	An identifying name for the output. (8 character limit, no spaces)
	Phones	Ph1→Ph4 Which configured phone number(s) have permission to control this output.
Ph1, Ph2, Ph3, Ph4 Phone numbers of people who receive alarm escalations or can control inputs	Number	Local or International format (e.g. 021.... or +6421....) The phone number(s) that will receive notifications and/or have control. Up to 4 people.

Configuration messages can be sent individually with one text message per configuration instruction or in a combined text message:

Example:

To programme the Site name to Shed1, name Input 1 as Pump and set notification escalations to phones 1, 2 and 3.

You can either send the SMS Lite 3 individual configuration text messages:

- e.g. **#12345 Site:Name=Shed1.**
- #12345 INP1:Name=Pump.**
- #12345 INP1:Phones=Ph1,Ph3.**

Or you can send 1 combined message:

- e.g. **#12345 Site:Name=Shed1. INP1:Name=Pump. INP1:Phones=Ph1,Ph2, Ph3.**



Note – When programming the alarm escalations to phone numbers it is important to note that the numbers step in numerical order.

E.g. Ph1→Ph2→Ph4 and Ph1→Ph2→Ph3 will work, however if you were to attempt to programme Ph4→Ph2→Ph3, the configuration text would be accepted but the escalation order would be Ph2→Ph3→Ph4.

After any configuration change you will receive either a confirmation message or an error message. If you receive an error message, double check the configuration format and check that there is a full stop at the end. Correct the error and resend.

Text commands can be in upper or lower case; however any capitalisation when naming the Site, Input or Outputs will be retained.

- e.g. **#12345 Site:Name=Shed1.** is valid as is **#12345 site:name=shed1.**

Note: Each Input and Output must have a unique name.



Important. The security for these messages is based on the PIN number being correct. Any phone can be used for these commands as long as the PIN in the message matches that printed on the SMS Lite. If the PIN is not correct messages will not be processed.

Advanced Commands

Debouncing Inputs

The purpose of this feature is to prevent the SMS Lite from sending multiple messages when connected to devices such as float switches, which can switch on and off several times before settling (due to wave action in the tank). You need to programme a delay before the text message is sent by the SMS Lite.

The trigger point / device that is connected to the SMS Lite must stay in that state for the 'debounce' time that is set, before the SMS Lite will send a text message alerting you of a status change.

The delay is configurable, and you can select one of the following options: 0, 5, 10, or 30 seconds, or 1, 5, 10, or 15 minutes.

Note that the debounce value is "global" to all inputs and you cannot specify different values for each input.

Configuration

Programme the 'debounce' option and value using the following instruction:

#[PIN][space]<object>:<item>=<value>[dot]

#12345 site:debounce=value. e.g #12345 site:debounce=1min

The value must be written in the following format "0 sec", "5 secs", "10 secs", "30 secs", "1 min", "5 mins", "10 mins", "15 mins"

For example "#12345 site:debounce=10 secs."

Clearing all of the SMS Lite configuration settings

Use the message:

#[PIN][space]Defaults[dot]

Note: This command will also clear all the programmed telephone numbers

Supply Voltage Alarm

If the SMS Lite is connected to an external battery or the mains, and the supply voltage drops below 10.5V, Ph1 will receive a notification message:

The supply voltage at <site> has gone low.

When the voltage increases above 11.5 volts a supply voltage message will sent:

The supply voltage at <site> has returned to normal.



Note – Supply voltage alarms do not escalate like input alarms. Supply voltage can be queried at any time using the STATUS command.

Operational Commands

Inputs

To acknowledge an alarm:

OK <input name> e.g. Text: **OK Pump**

This will stop any further escalation of the alarm to the numbers in the phone list for that input status change. It will begin at the top of the list the next time the input is activated.

To force the SMS Lite to send the alarm message to the next phone number in the list.

BUSY <input name> e.g. Text: **BUSY Pump**

Not available to the last phone number in the list of that input.

Alarm message for one person:

<Site> <Input> has turned ON. e.g. Text: **Shed1 Pump has turned ON**

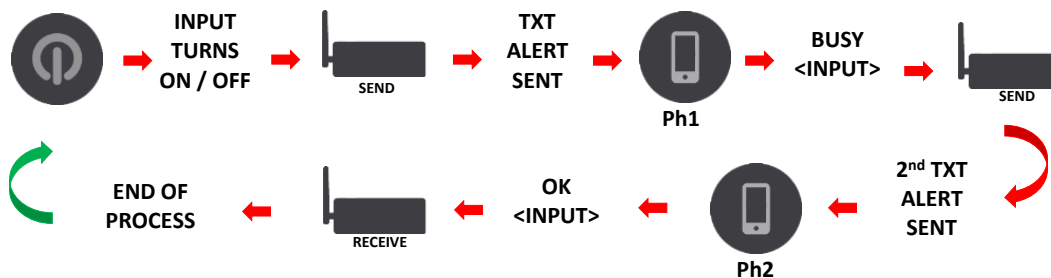
Message Paths

The following diagrams are examples of the message flows for the SMS Lite. They show the basic message flow, an example of a busy response, no response and also the escalation flow to multiple phones.

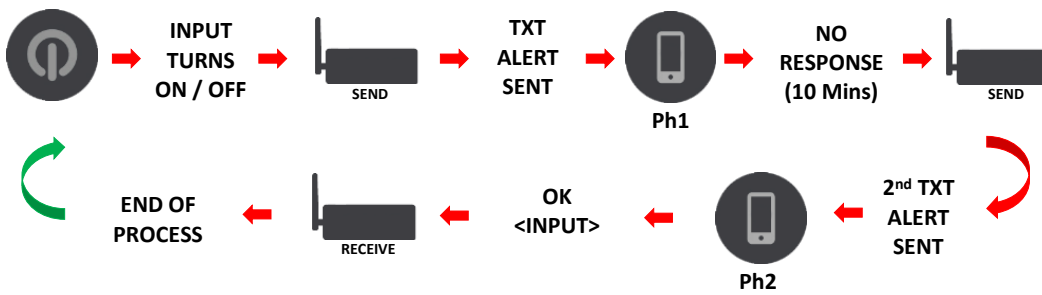
Phone 1 Alerted – Alarm Acknowledged



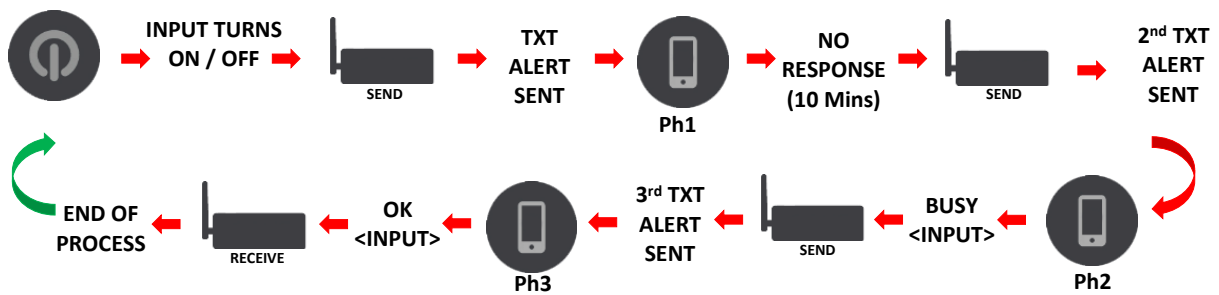
Phone 1 Alerted, Busy – Escalate to Phone 2



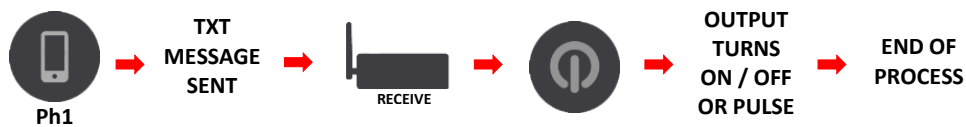
Phone 1 Alerted, No Response – Escalate to Phone 2 After 10 Mins



Phone 1 No Response, Escalate to Phone 2 After 10 Mins, Busy– Escalate to Phone 3



Output – Control Output with Phone 1



Alarms

Alarm message for multi-person escalations:

<Site> <Input> has turned ON. Reply OK <Input> or BUSY <Input>. You are the <nth> of <N> to be sent this.

e.g. **Shed1 Pump has turned ON. Reply OK Pump or BUSY Pump. You are the 2nd person of 3 to be sent this message**

The last person in the escalation list receives a different message as they aren't given the option to reply BUSY:

<Site><Input> has turned ON. Reply OK <Input>. You are the <nth> of <N> to be sent this.

e.g. **Shed1 Pump has turned ON. Reply OK Pump. You are the 3rd person of 3 to be sent this message**

Other alarm messages always have the following form:

Alarm has been acknowledged message:

<Site><Input> alarm has been acknowledged.

Alarm has not been acknowledged message:

<Site> <Input> alarm was NOT acknowledged.

SMS Lite returns to normal (Idle) state:

<Site><Input> has turned OFF.

Output Control

Control outputs by sending a text message containing on/off or pulse and the output name. In this example Output 1 has been renamed 'Fan'

Turn the specified output on

ON <output name> e.g. **ON Fan**

Turn the specified output off

OFF <output name> e.g. **OFF Fan**

To pulse an output on for one second then off again

PULSE <output name> e.g. **"PULSE Fan", or "PULSE fan 1 sec"**



Important. The security for these commands above, is based on whether the phone number that sent the message is in the SMS Lite's phone list. If it is not in the list the command will not be processed.

Information Commands

INPUTS *e.g. Text: INPUTS*

The SMS Lite will respond with a description of how the inputs are configured.

This includes the input names, and the phone number list for each input.

OUTPUTS *e.g. Text: OUTPUTS*

The SMS Lite will respond with a description of how the outputs are configured.

This includes the output names, and the list of phone numbers that are allowed to control each output.

PHONES *e.g. Text: PHONES*

The SMS Lite will respond with a description of the phone number list it has configured.

STATUS *e.g. Text: STATUS*

The SMS Lite will respond with the current values of all inputs and outputs as well as current supply voltage.

BAL *e.g. Text: BAL*

The SMS Lite will request the prepay account balance information from the cellular operator then forward that message (or messages) to the phone number that requested it. (Not available from 2 Degrees).



Important. The security for the five commands above is based on whether the phone number that sent the message is in the SMS Lite's phone list. If it is not in the list the command will not be processed.

STATS *e.g. Text: STATS*

The SMS Lite will respond with information about the Radio Signal Strength.

This will range from -50dBm to -110dBm and is reported as *Strong, Medium* or *Weak*.

INFO *e.g. Text: INFO*

The SMS Lite will inform you of the version of firmware it is running.



Important. The two commands above do not care about the phone number - any phone can be used for these commands.

Status LED's

The SMS Lite has an LED, labelled 'Link' situated next to the aerial connection.

The LED will indicate various events that have occurred:

- When the SMS Lite powers on the LED will toggle on and off 5 times slowly.
- While the SMS Lite is has connected to the network the LED will indicate 1 short pulse every two seconds. This is called the "Heartbeat" indication.
- Each time the SMS Lite sends an SMS OK the LED will indicate a burst of 5 short pulses. This is called the "Transmit" indication.
- If the SMS Lite tried to send an SMS but there was a problem the LED will indicate 3 long pulses. This is called the "Transmit fault" indication.

The LED also indicates an error code that can be used to identify particular issues:

- 2 pulses indicate that the Modem won't power on.
- 3 pulses indicate that the Modem won't respond to commands.
- 4 pulses indicate that the SIM card is not inserted.
- 5 pulses indicate that the SMS Lite is not registered to the cellular network.
- 6 pulses mean that the cellular operator is not supported by the device.
- 7 pulses indicate that the SIM card is currently busy. Note, this can occur briefly during the initialisation phase after it is powered on.

The first two errors (2 and 3 pulses) require the SMS Lite be returned to QTech for service.

Error 4 may be fixed by checking the SIM card inside the SMS Lite.

Error 5 is normally caused by a weak signal to the cell tower.

Error 6 may occur in some overseas locations.

Error 7 may occur if the SIM card is not compatible with the SMS Lite.

There is one other type of error indication, and that is when the SMS Lite tries to send a message but gets an error code back from the phone network, it will blink 3 times slowly. If the message was sent successfully it will blink 5 times quickly. The most frequent reason for this error is that there is no credit on the SIM card but could also be something like the cell tower being busy.

Troubleshooting

If you experience difficulties getting the unit working in your area it may be for a number of reasons including (but not limited to):

1. The account balance on the SIM is zero.
2. The device is out of mobile network coverage, which may also depend on the antenna being used.
3. The SIM is from an unrecognised Mobile Network Operator (MNO).
4. The device is operating in an area where the mobile infrastructure (such as frequency band or protocol) is not supported by the SMS Lite device hardware.
5. The SIM is from a virtual mobile network operator and may be using a different SMS SCA (Service Center Address, sometimes referred to as service centre number) or the SCA has not been programmed or provisioned on the SIM correctly.
6. The device is running on older firmware which can result in issue number 3 above.

There are some actions that can be taken to assist QTech with diagnosing the issue. These involve carefully noting the actions of the indicator LED as it powers up and also counting the number of pulses in an error code when it is displayed.


The typical boot sequence when the device starts is as follows:

- The device will turn the indicator status LED on then flash briefly with a number of flashes (potentially flash code 7 indicating the device is busy).
- Then it turns the indicator off and if there is another error code this will be displayed (e.g. flash code 5 indicating not yet registered on the network)
- If this error code is repeatedly displayed then this is the code that should be reported to QTech.
- If the error code is replaced by the heartbeat indication (very short flash every few seconds) then the device is in its normally operating mode and is registered on the mobile network.

You can quickly check the unit is running by performing a verification test if your device is running version 4.04 of the firmware or later.

Running a verification test

Step	Description	Note
1	Remove the top cover of the unit	Power down the device. The top cover is held in place using dimpled locators. The cover is “sprung” open by gently prising the lid corners up. A flat bladed screwdriver can be used to assist but ensure that you avoid touching the electronics unnecessarily or scratching the device metalwork.

Step	Description	Note
		 <p data-bbox="1098 253 1278 286">daughterboard</p> <p data-bbox="1098 383 1230 416">mainboard</p>
2	Insert a valid SIM card	<p>Ensure the SIM you are using has a valid SCA number and phone number and is known to be working (test in a phone beforehand if necessary). Insert the SIM card into the SIM socket, noting the correct orientation is observed. Bear in mind that not all SIMs can be used in all localities.</p>
3	Power up the device to check operation	<p>Connect the power adaptor to the unit and turn on the power. Do not touch the electronics. The device will indicate a burst of LED flashes on boot up then settle into a heartbeat flash (very short) every few seconds. During boot up the device may indicate an error code. If so, please note it down. As an added indication that it is working the LED on the modem daughterboard itself will slowly flash on and off (on for 1sec off for 1sec each approx..) indicating that the device has registered on a network.</p>
4	Send a test message	<p>Send a test message to the device from a phone by creating a new text message addressed to the device's phone number: Test (Note that no pin number is needed).</p>
5	Verify operation	<p>If the device is operating the LED will be flashing will indicate 1 short pulse every two seconds. This is called the "Heartbeat" indication. When it receives the test message the LED will display a test pattern on the LED for a few seconds consisting of alternating long and short flashes (i.e., short flash – longer flash – gap – short flash-longer flash – gap). You will see this pattern a few times. If the SIM is working properly the device will send a response text message "SMS Lite comms test succeeded" to the phone. When it sends this message there will also be a short burst of LED flashes to indicate that it is transmitting. If the device fails to do either or both of these things, then there is a fault. If a fault error code is being flashed, see the previous section on Status LEDs to diagnose the fault, or contact QTech for assistance after working through the troubleshooting tips below.</p>
6	End of test	Power down and carefully replace the top lid.

Troubleshooting tips

- A) Make sure you have reception bars on your phone in the same place as the device in case there is a network coverage issue.
- B) Check the account balance for the SIM card (phone number) is not \$0.
- C) Make sure when you power up the device you see the heartbeat indication. If you see nothing on the LED after the initial boot sequence of flashes then inspect the LED on the modem board. If there is no indication on the modem board then the device has not registered on the network. If you see a periodic slow on-off of the LED then it appears to have registered but if the main board LED is solid on or off then there is a fault on the device and it may need reprogramming with firmware. Also see troubleshooting tip (I).
- D) If the **test** message results in the LED test pattern displayed this means that the device is successfully registered on the mobile network and is receiving messages.
- E) If the **test** message displays the test pattern but a test response message is not received by the phone this means there is a problem with the device on the network. It could be an incorrect SCA service number, incorrectly provisioned SIM, issue with account balance or other error. The user should contact the SIM provider to check that the SIM is correctly provisioned. Alternatively, the SIM can be checked in a phone by sending a message from the phone. Also, double check that the LED in the modem daughterboard is flashing on and off slowly.
- F) If the **test** pattern is not displayed this means that the device may not be registered on the network or there is a lack of coverage or network unavailability or that the network does not offer coverage in the frequency band classes supported by the device hardware. If the SIM works correctly in a phone then the issue may be one of frequency band operation. Contact QTech for assistance.
- G) If the device appears to be operating normally and you have programmed it with a valid phone number in the address book to receive alarm notifications then ensure that you do not receive the transmit fault indication (three long flashes). This usually indicates that the programmed phone number in the address book is incorrect. It can also indicate that there is a problem with network availability.
- H) If the device appears to be operating normally but inserting a SIM from a new provider has caused it to stop, then using the old SIM, send the INFO command to obtain the firmware version number and note the response. The firmware may require updating in order to support the new SIM. Contact QTech for assistance.
- I) If the device apparently suddenly stops working or does not work properly after the device has been powered up after a sustained period of being off, or if it has been used extensively in a phone before use in an SMS Lite, then it may have received network generated txt messages that it is unable to process. Try removing the SIM and placing it in a phone then clear all new messages and also clear any old messages that may be stored on the SIM then replace the SIM into the SMS Lite and power it up. This issue might also be resolved by upgrading to the latest version of firmware.

Technical Details

Operating Voltage ¹ :	12 – 24 Volts DC
Power Connector:	2.1mm DC Socket, centre pin positive
Operating Current:	~13mA @ 12V ~9mA @ 24V
Aerial ² :	50 Ohms, SMA connector
Inputs ³ :	Electrically isolated, normally open inputs
Outputs ⁴ :	Normally open relay contacts (2Amps @ 32V max)
Operating Conditions:	0 - 70°C 90% humidity, non-condensing
Case Size:	112 x 75 x 25mm (Overall)
Weight:	255 grams (with supplied aerial)
Mounting Holes:	4x M4 mounting holes at ~102 x 50mm centres
RSM SCN:	R-NZ
Modem specifications ⁵ :	3G bands (MHz): B1(2100), B5(850), B8(900) 4G bands (MHz): B1(2100), B3(1800), B5(850), B8(900) B28(700)

To comply with the New Zealand and Australian wiring regulations the SMS Lite cannot be connected to any external voltages exceeding 32 volts AC or DC. To connect to or control higher voltage equipment please consult a Registered Electrician.

1. The SMS Lite is over voltage protected by a 30 volt Zenner diode. Voltages greater than this will blow the internal 2Amp fast blow fuse. The supply voltage should be clean, continuous and transient free.



Warning – Do NOT use Switch Mode Power Supplies (SMPS) with this product. The DC power supply used for this product MUST have a grounded negative or be a “linear” transformer based plug pack. The reason is that the aerial, programming port and external connections can provide exposed earth points and the SMPS can impose an AC voltage on the DC ground, which can lead to damage. Suitable cost effective plug packs are available from QTech P/N PD5412, PD5413 & PD5414.

2. The reliability of all cellular products is dependent on good signal strength. Before deciding on the Telco to choose, please check coverage. We suggest that a cellular phone is taken to site, to check the signal strength, i.e. how many “bars” are displayed.
3. The supplied stub aerial (P/N PD9230) should be suitable for locations with good cellular coverage (full bars) and where the SMS Lite is in a non-conductive enclosure (e.g., plastic etc). Other external mounting aerial options are also available; contact your equipment supplier or QTech Data Systems Ltd for more details.



Warning – Do NOT operate the SMS Lite without an aerial connection.

4. Inputs are connected to suitable mechanical switches, contacts and other closure devices. An input is active or ON when the input switch is closed and inactive or OFF when the input switch is open.



Warning – Only mechanical switches or mechanical closure devices should be connected to the inputs. No external voltage or other electrical source is to be connected to the inputs.

5. The relays are internally protected by solid state snubbers for operating with inductive loads. Provides connectivity with current New Zealand telecommunications companies Spark, Vodafone and 2 Degrees.

Programming Tips

- **PIN Required for any Configuration Text**

The PIN is used each time a configuration change needs to be made. Each configuration command must be finished with a full stop.

i.e. #[PIN][space]Ph1:number=0123456789[dot]

- **Clear An Individual Phone Number**

i.e. #[PIN][space] Ph2:number=.

We recommend that you do this if a staff member leaves and you don't need to replace that person in the list.

- **Replace An Individual Phone Number**

i.e. #[PIN][space] Ph2:number=027456789[dot]

If you wish to replace a number, simply send a new configuration message containing the position in the list i.e. Ph2 and the new number. This number will now have all the previous persons escalations and control permissions. You can send a text containing 'Inputs' or 'Outputs' to check which escalations or control permissions are assigned to this number.

- **Clear All Settings**

To clear all configuration settings and restore factory defaults, send the text: #[PIN][space] Defaults - *Use this to clear all programming.*

- **OUTPUT Permissions Default**

If you do not programme the phone numbers for a **output** then each person (Ph1 – Ph4) will automatically have permission to send control commands to the output.

- **Empty Configuration Values**

As per the example above to clear an individual phone number, it is valid to specify an empty value - this might be useful if you want to prevent all phones from being able to control an output. e.g. **#12345 RLY1:phones = .**

- **Active Alarm Interruption**

After any configuration changes the SMS Lite will reinitialise all active alarm state information – check there are no active alarms before reconfiguration as the process will be halted. *By sending 'Status' to the SMS Lite you can see the status of any of the inputs or outputs, this can help identify if the alarm escalation has been interrupted by a configuration change.*

- **Error Message**

If you get an error message from the SMS Lite, check the previous message you have sent. Key things to check are the PIN, object or item spelling or the full stop may be missing. Correct the error and re-send.

- **Case Sensitivity & Naming Conventions**

The text messages are not case sensitive, but the capitalisation of any names you configure will be retained. Do not use spaces in the names of site/inputs/outputs and keep all names less than 8 characters long.

Configuration Worksheet #1

	e.g.	SMS Lite
Phone:	021234567	
Site:	Shed1	
Pin:	#12345	

Phone	Number	Contact Person
Ph1:		
Ph2:		
Ph3:		
Ph4:		

	e.g.	Input 1	Input 2	Input 3	Input 4
Name:	Pump				
Phones:	Ph1,Ph2,Ph3				

Programme the phones which will be included in each input escalation, if required.

	e.g.	Output 1	Output 2
Name:	Fan		
Phones:	Ph1,Ph2,Ph4		

Programme the phones which will have permission to control outputs.

Additional sheets can be downloaded from our website: www.qtech.co.nz

Configuration Worksheet #2

	e.g.	SMS Lite
Phone:	021234567	
Site:	Shed1	
Pin:	#12345	

Phone	Number	Contact Person
Ph1:		
Ph2:		
Ph3:		
Ph4:		

	e.g.	Input 1	Input 2	Input 3	Input 4
Name:	Pump				
Phones:	Ph1,Ph2,Ph3				

Programme the phones which will be included in each input escalation, if required.

	e.g.	Output 1	Output 2
Name:	Fan		
Phones:	Ph1,Ph2,Ph4		

Programme the phones which will have permission to control outputs.

Additional sheets can be downloaded from our website: www.qtech.co.nz



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