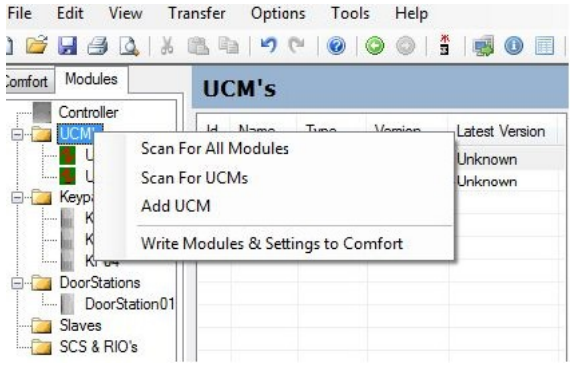
UCMA/G5

The UCMA/G5 provides a LTE cellular network connection to Comfort for the purpose of sending and receiving SMS messages and dialing out and receving calls. This manual is to be read in conjunction with the UCMA/G5 Quick Start Guide which can be downloaded from http://www.cytech.biz/ucmg5.html

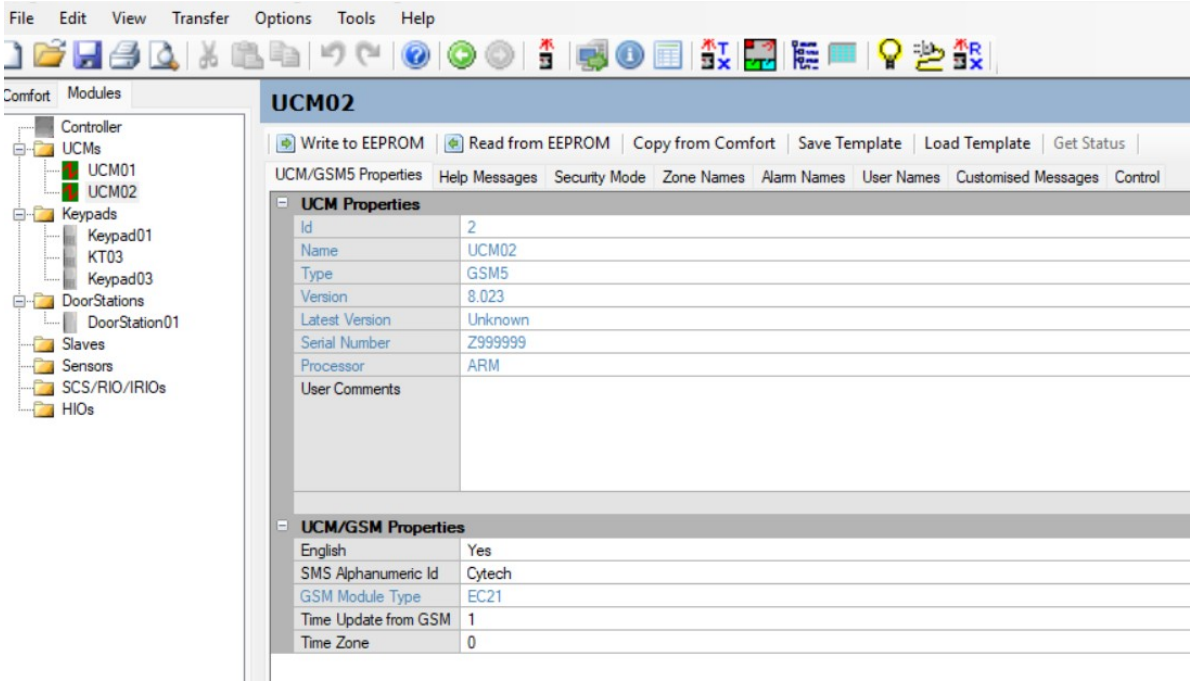
The Quick Start Guide has Installation and Setup instructions while this manual contains programming and configuration instructions

Configuration

Use Comfigurator 4.0.2 and above to configure the UCMA/G5. Click on Modules tab ->UCMs. Right Click on UCMs and select Scan for UCMs or Scan for All Modules as shown below. If you are not connected to Comfort at this time, select Add UCM and select the type of UCM as GSM4.



Click on UCM2 on the left pane. The Properties screen below is seen.

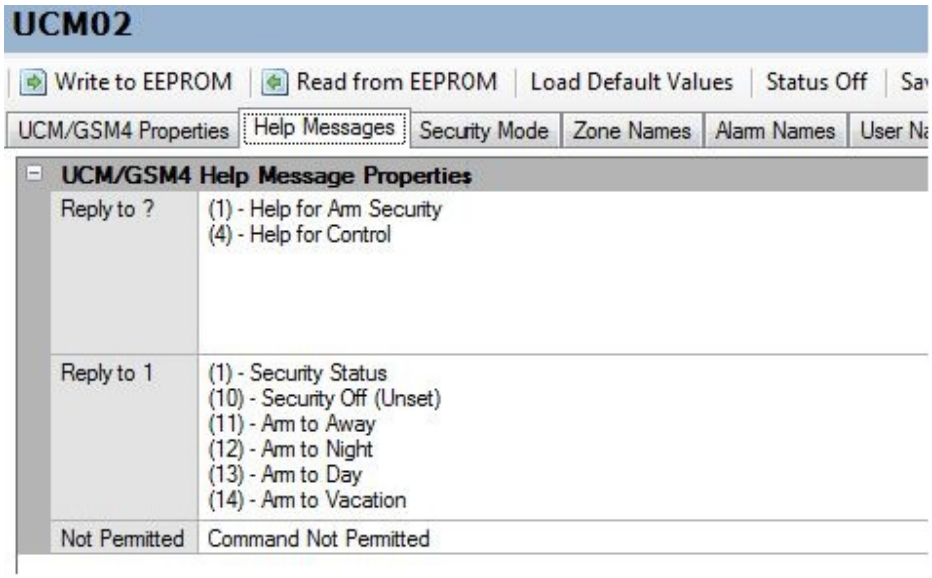


- ID is the UCM/GSM ID (1 to 8) determined by SW7 DIP switch
- Type is GSM5
- The Version field shows the current UCMA/G5 firmware
- The Latest Version field shows the current released firmware if you are

connected to the Internet. Right click on the UCM number for UCM/GSM in the left pane and select "Check for Updates" to upgrade to the latest firmware.

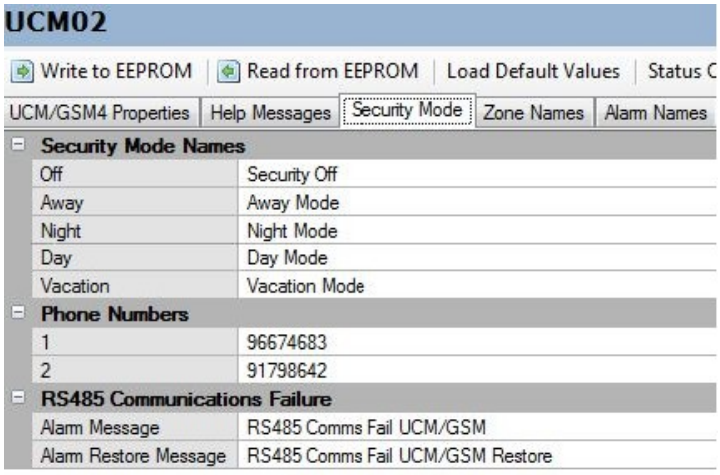
- Serial Number: Not applicable
- Select English =Yes, or No for Non-english languages
- SMS Alphanumeric Id is a 32 character text field that is shown on the SMS Text message sent to phones assigned as SMS Phone Type to identify the location of the Comfort system.
  e.g: 20:45 100 ABC Road - Intruder Alarm - Kitchen Movement
- GSM Module Type identifies the GSM Module hardware; eg A7608 or EC21
- Time Update from GSM: This is the interval between Time Updates from the Internet Time server (SNTP). The initial time update occurs about 1 minute after initialisation, and subsequently according to the Time Interval. Set to 0 for No Time Sync.
- Time Zone: enter the GMT Time offset in Hours according to your location

Help Messages



The Help Messages Screen shows the Help Messages that are available by SMS. This is the text that is received when you send "?" and "1" to UCM/GSM. The text can be changed for other languages.

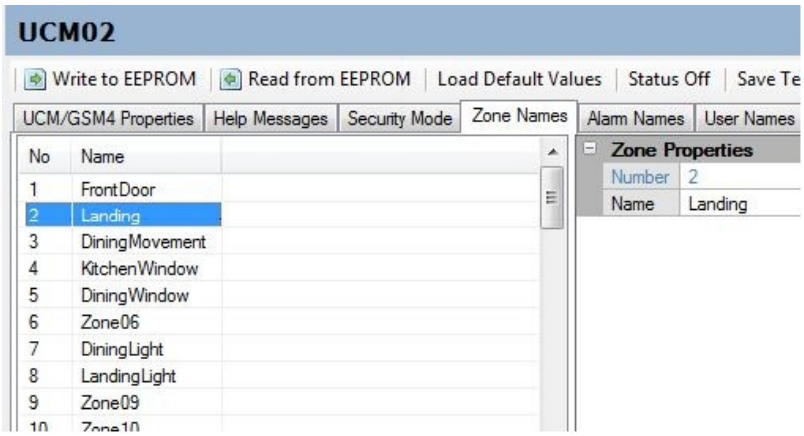
Security Mode



The "Security Mode Names" field shows the text for the security mode SMS Messages. This can be changed for other languages.

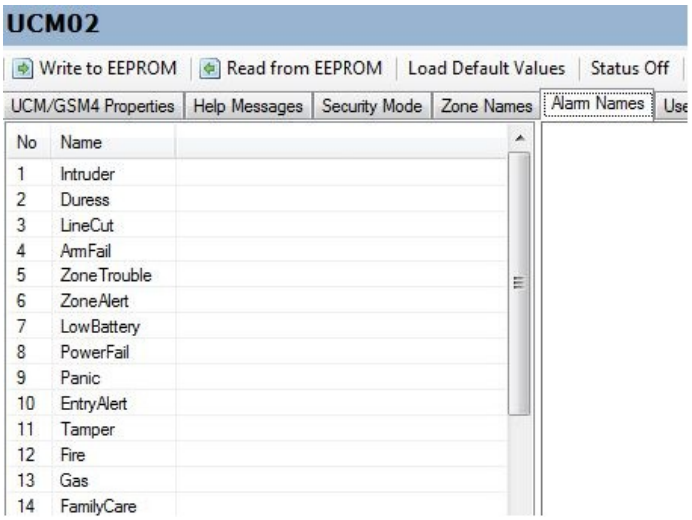
The Phone Numbers field is to enter 2 Mobile phone numbers that will be notified when there is a GSM RS485 Communication Failure i.e. no bus communications with Comfort.

Zone Names



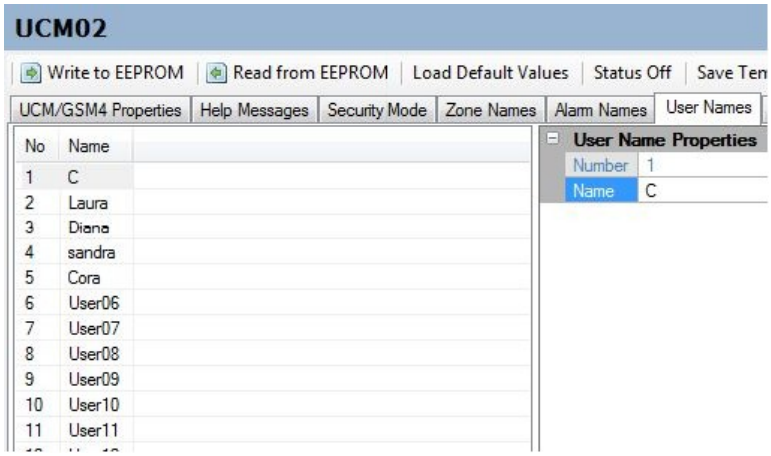
This shows the zone text which is initially copied from Comfort Zone assignments. It allows different text to be assigned to the zone names as well as support for other languages. The zone names are extended to 32 characters and allows different languages to be supported.

Alarm Names



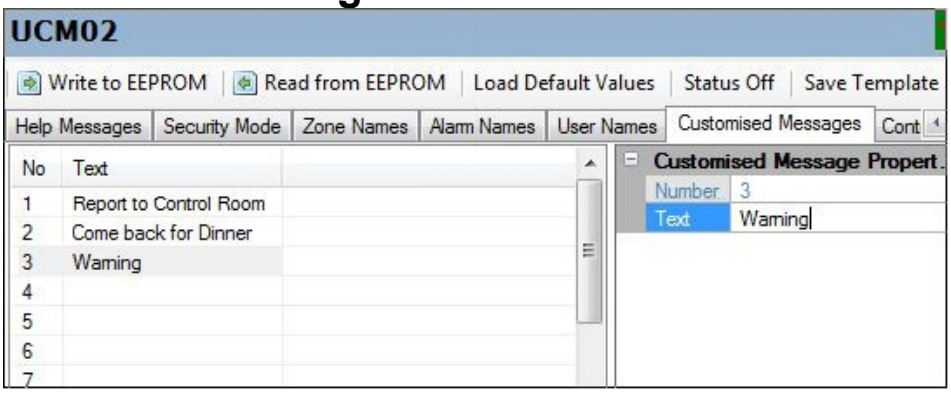
These are the Alarm Names which is initially copied from Comfort Alarm Types. The alarm names are extended to 32 characters and allows different languages to be supported.

User Names

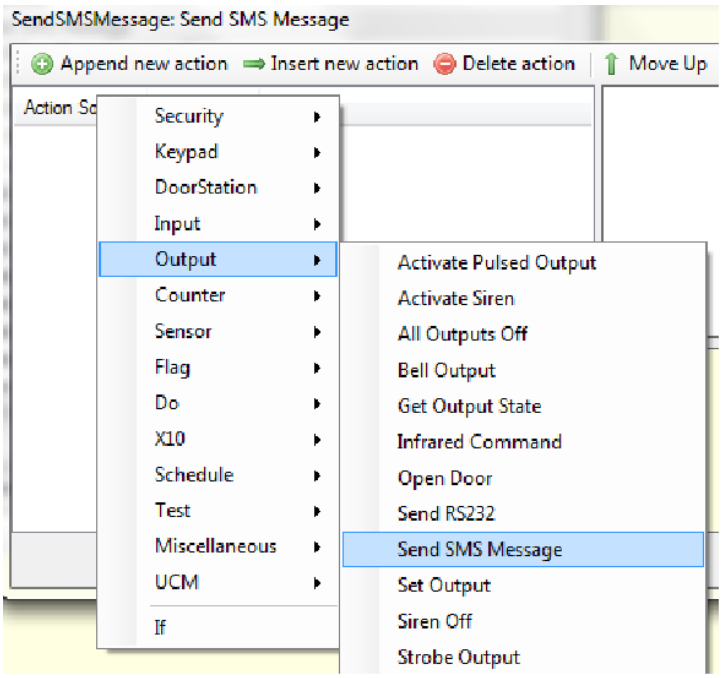


User names are copied from Comfort. The User names are 16 characters.

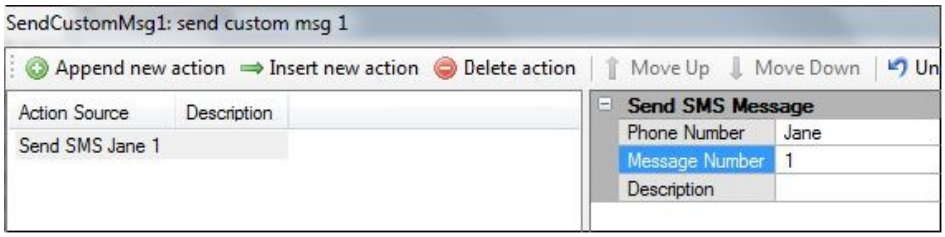
Customised Messages



64 customised messages can be programmed to be sent by SMS to users phones.

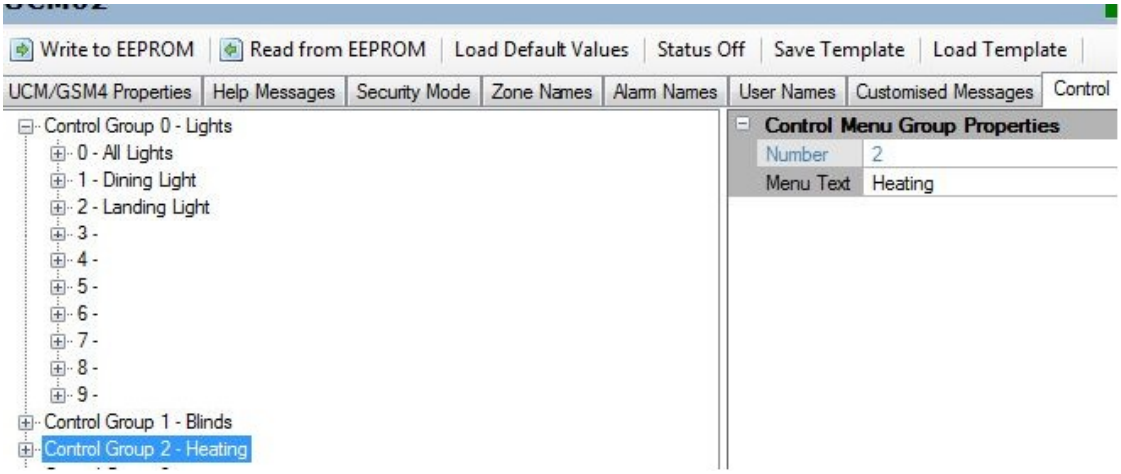


The action "Send SMS Message" causes a customised SMS message to be sent to a users mobile phone.Select Users Phone and Message number.



- **Take note that currently the number of customised messages sent at one time is limited to 3. If more than 3 customised messages are needed at one time, use a Timer Delay between groups of messages.**

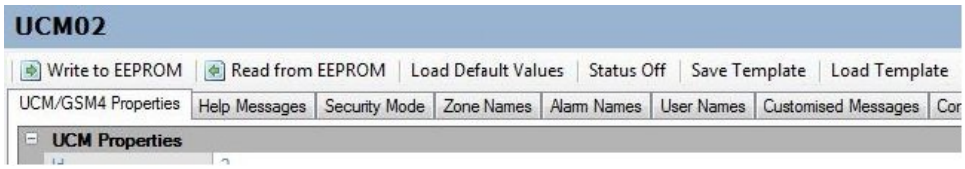
Control



This shows the text for the control groups, initially copied from Comfort. You can edit the names as needed for example to shorten the description so as to fit into an SMS message which has a limitation of 160 characters.

- **The main purpose of having the Zones, Alarms, User Names and Control names in the UCMA/G5 is to allow SMS messages to include this information in help messages and status**
- **Even if there is only 1 Group ie Group 0, the group must have a name assigned in order for the Control menu commands to work**

Menu Bar



Write to EEPROM

After configuration as described above, Write to EEPROM to save the settings into the U2 EEPROM of UCMA/G5. A progress bar will appear. This should take several minutes. **Insert a SIM Card into the SIM Holder before write to Comfort.**

Read from EEPROM

This reads the GSM4 configuration from EEPROM and populates the UCMA/G5 configuration pages.

Load Default Values

This copies the default values from Comfort and clears the current GSM4

configuration. It is the same as starting a new UCMA/G5 configuration.

Save Template

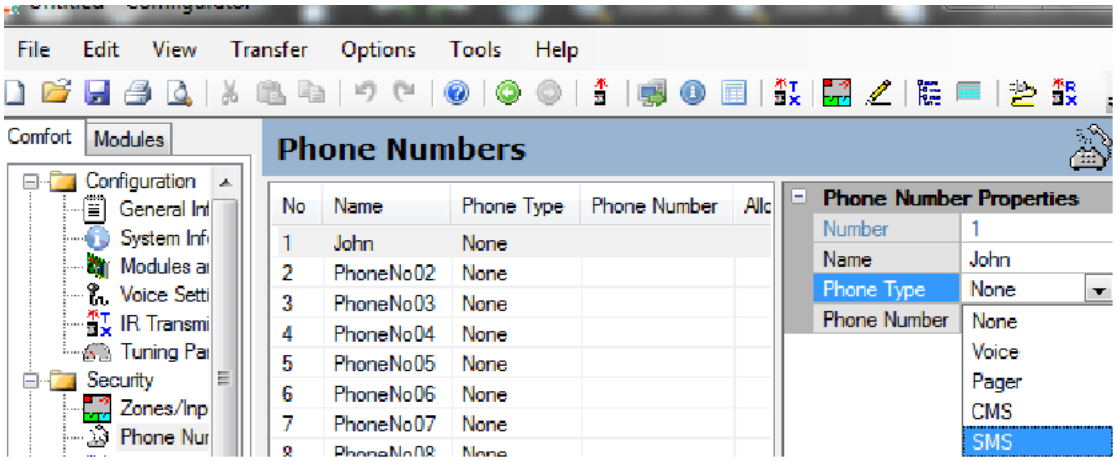
This saves the GSM4 configuration as a .ugtx file to be used again.

Load Template

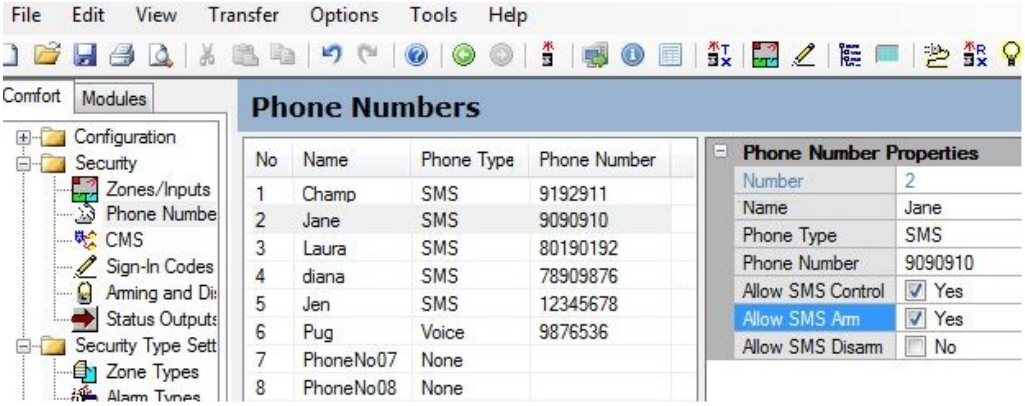
This loads a saved GSM4 configuration from a .ugtx file

Sending SMS

To program the phone number(s) for SMS dialout, go to Security > Phone Numbers.



- In the Phone Number Properties, click on the Phone Type field to reveal the pulldown menu and select SMS. "SMS" is only seen if a UCMA/G5 (or UCM/GSM) is selected as one of the UCMs.
- Enter the phone number of the mobile phone for SMS reporting. The same mobile phone number can be programmed in 2 phone indexes as Voice Phone and SMS.



- The fields "Allow SMS Control", "Allow SMS Arm", "Allow SMS Disarm" determine the permissions for this mobile phone when sending SMS to Comfort. Each Phone in the dialout list has its own set of permissions
- This is repeated for each phone.

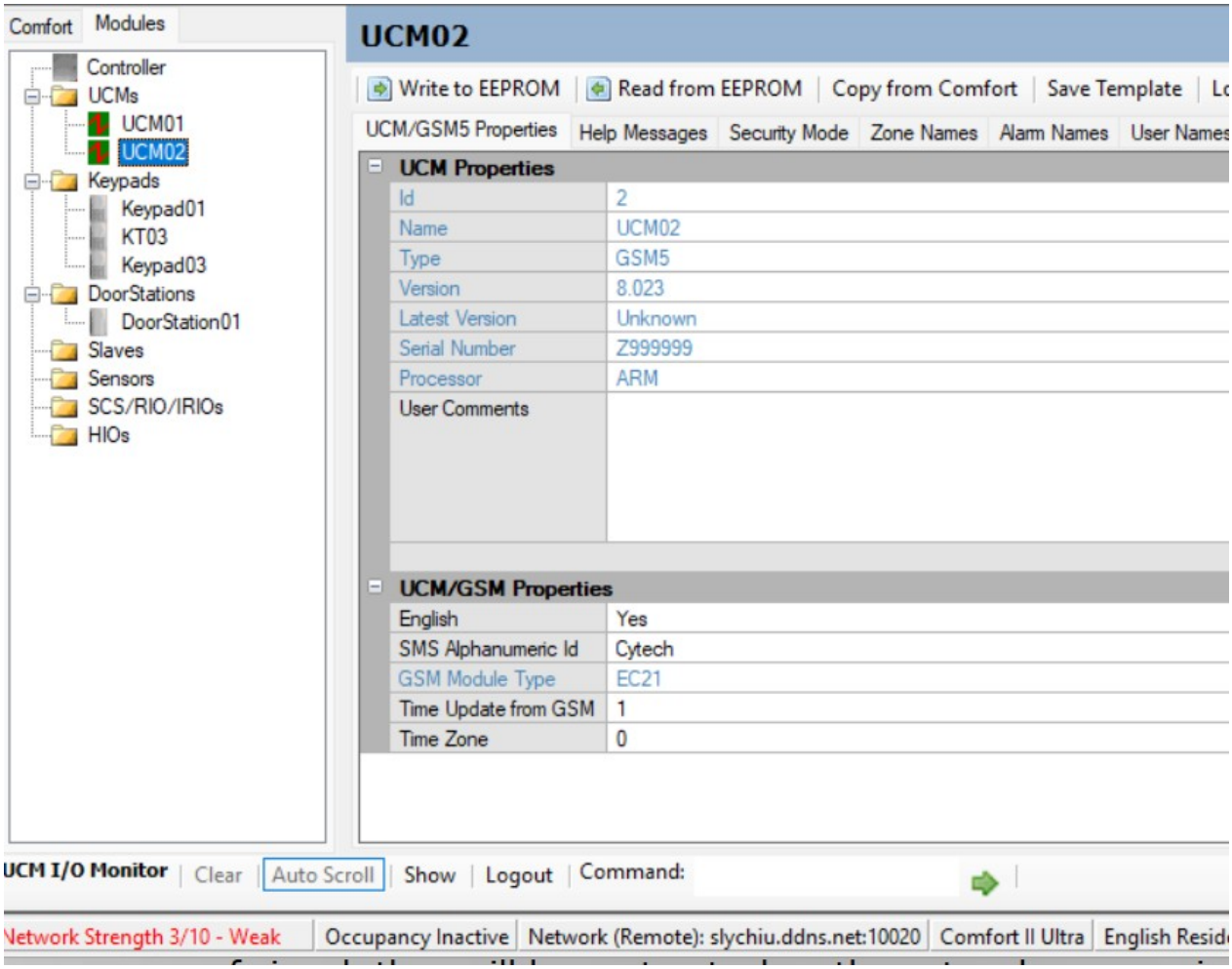
Comfort has a buffer of 16 events for SMS reporting to cater for multiple alarms occurring around the same time. If there is a backlog of 16 SMS events which have not been sent because of network or other problems, new events will not be reported. If SMS messages are not sent because of a temporary loss of signal, they will be sent out when the network communication is restored. However, if there is a communications failure for the UCMA/G5 on the RS485

network, SMS messages will be lost and will not be sent out when the communications is restored.

Operation

Status Bar

The status bar can be found at the lower lefdt corner of the GSM Module screen.



The Network Strength (0 to 10) shows the network strength at this location. This alternates with Network Quality (0 to 10) which is an indication of the quaility of the signal eg quality is low if the noise level is high. Positioning of the antennas may affect these indicators. SIM cards from different Mobile providers will also affect the indicators. It is recommended that the SIM card be tested at the location because different mobile providers may have stronger or weaker signals at the location.

Other status indicators available:

- *Normal/No error*
- *EEPROM missing/faulty*
- *EEPROM insufficent capacity*
- *EEPROM data invalid*
- *Communication error between UCM baseboard and sub-module*
- *Unknown error*
- *Connecting to GSM Network*
- *Call in progress*
- *No GSM network*

- *No SIM card or SIM error*
- *SIM card requires PIN code.*
- *Unknown GSM module.*
- *SMS Send queue full*
- *Sync Time Error*
- *SIM Card does not support SMS*
- *3D-WDCMA Network*
- *Sending SMS*
- *Dialing*
- *Enabling VoLTE*

SMS Messages from Comfort

The format of the SMS Text message is as follows

HH:MM XXXXXXXXXX - AlarmName - ZZ ZoneName

where HH:MM is the time of sending the message in 24 hour format, XXXXXXX is either a 32-character text (SMS Alphanumeric Id) or a 4-digit identification number (SMS Numeric Id) to identify the source of the message. AlarmName is the Alarm Name field in GSM4 Configurator Alarm Names page (max 32 characters)

The name is a single word without any spaces. The default Alarm names can be changed if desired, although it is best to leave them unchanged to maintain consistency with other systems.

The ZoneName following the Zone Number ZZ is taken from GSM4 configurator > Zone Names page

For example, if zone 2 - Kitchen Window causes an intruder alarm, the SMS message may be

10:25 100 ABC Road - *Intruder* - 02 KitchenWindow

A power failure may be reported as

18:32 100 ABC Road - PowerFail - 01

In this case, there is no zone/input associated with Power Failure.

If a Communications Failure from keypad 2 occurs, the message may be

20:46 100 ABC Road - RS485Comms - Keypad 2

For a Low Battery on Slave 1,

11:19 100 ABC Road - LowBattery - SEM 1

When Trouble alarms are restored, "Restore" is appended after the message e.g.

04:03 100 ABC Road - PowerFail Restore

04:03 100 ABC Road - LowBattery Restore

04:03 100 ABC Road - RS485Comms Restore

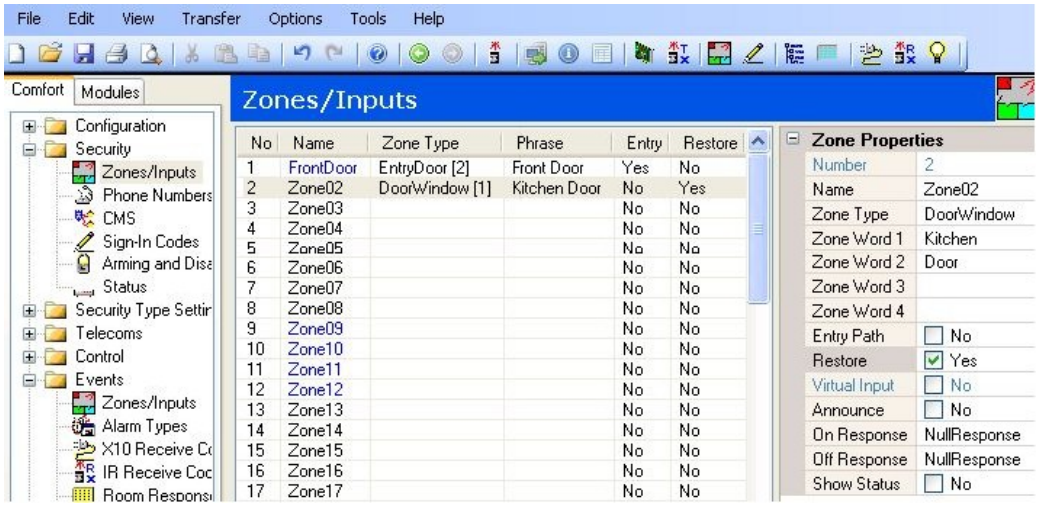
Note that the ID when restored is not reported

- "Restore" is automatically appended for when Trouble alarms like Power Failure, Low Battery, Phone Trouble, RS485 Comms alarms are restored. Reporting of Trouble alarm restore is automatically enabled and does not need to be programmed.
- "Restore" is appended after the message if a zone (input) has been restored after a zone-related alarm, if the Zone Restore field is enabled in Security >

Zones/Inputs. For example if zone 2 (window) which caused an intruder alarm has been closed, the SMS message will be

09:10 100 ABC Road - Intruder - 02 KitchenWindow Restore

The Zone Restore report is enabled in Security > Zone Settings screen. The "Restore" field should be set to "Yes" for each zone which should report to SMS when restored.



The Zone Restore feature for SMS reporting is useful for monitoring inputs from industrial equipment or machinery, or from smoke and gas sensors where it is important to know whether the monitored sensor has been restored to its normal state after the alarm. It should not be used for alarm sensors like magnetic contacts and Motion detectors where reporting of zone restore would increase the amount of SMS messages transmitted without any useful purpose. For example, a motion detector or PIR (Passive Infrared sensor) would restore after each activation, so reporting of restore would double the SMS traffic.

Zone Restore can be also programmed by Engineer Menu 1,4.

When the system is armed or disarmed, SMS messages are sent if the Alarm Types System Armed (alarm type 19) and Disarmed (alarm type 17) have dialout enabled for the SMS phone numbers. E.g.

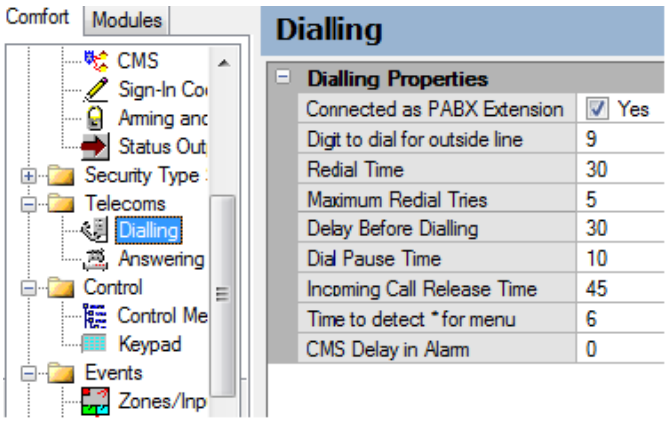
The above SMS messages show the system armed and disarmed by user name "Mr Big" at 8:56 PM. User names are found on the User Names Tab in the GSM4 configurator. "Cytech Technology " in the example is the SMS Alphanumeric ID in the Properties Tab

Dialling out via GSM

Normally, Comfort will not dial to the programmed numbers (maximum 8) by GSM if there is a fixed telephone line connected. It will only do so if it detects

that the telephone line is faulty, i.e. has a low voltage on it causing a "Phone Trouble" alarm or is not connected. It also dials out by GSM if the telephone line is working, but a dial tone is not obtained, perhaps by an incoming caller holding on to the connection. Thus, it acts as a backup telephone line to the fixed line for high security installations.

If Comfort is connected to an extension of a PABX as programmed in Telecoms > Dialling, Comfort will not dial the PABX access digit (when Connected by PABX Extension is checked in screenshot below) when dialling via the GSM Module.



When dialling to a Voice Phone, Comfort knows when the called party has answered, so unlike a normal dialout, it will not wait for a "hello" from the line before giving the alarm message

When the telephone line is restored, dial-outs will once again be by the fixed telephone line.

Dialling In via GSM

To access Comfort using the UCMA/G5, dial the number which comes with the SIM card. Comfort will answer immediately, instead of waiting for the programmed number of rings, and will say "Please Sign In" or the Greeting message if any. Enter the user code to access the system as usual.

Comfort knows when the calling party has ended the call via GSM, and will clear the line immediately and attend to its other tasks. With a fixed line, Comfort needs to detect busy tone to know that the caller has hung up.

Sending SMS Commands to Comfort CM9001

SMS messages can be sent to Comfort from a cellular phone to perform any programmed action on the Home Control Menu, to arm and disarm the security system, to query status of Security Mode or status of the Home Control menu.

The sending mobile phone number must be programmed as one of the 8 telephone numbers for dialout in Security > Phone Numbers, as a Voice Phone or SMS phone type. SMS messages from other phone numbers not programmed in the Phone number list will not be accepted.

Each Phone number in the dialout list has settings for "Allow SMS Control", "Allow SMS Arm", "Allow SMS Disarm" For example. if "Allow SMS Disarm" is disabled, then that phone will not be allowed to disarm the security system by SMS

Help

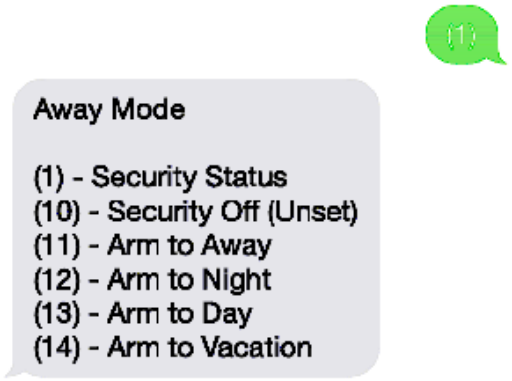
Sending ? Or any unknown command by SMS to the UCM/GSM will cause a reply which shows the appropriate command menu e.g.

All valid commands must be sent within brackets (...)

The Help text above shows what commands can be sent

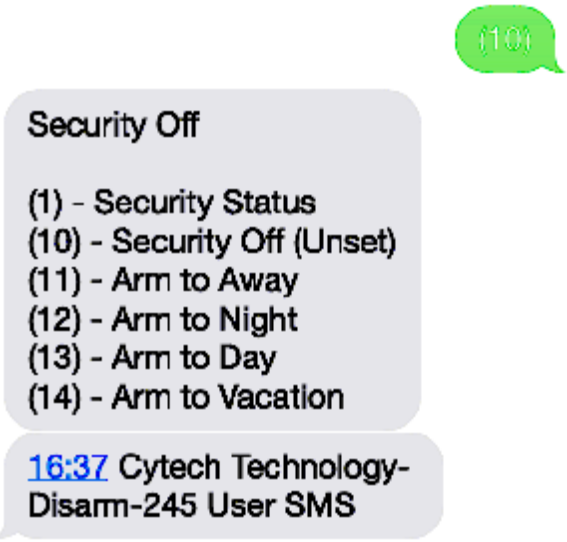
Security Mode Command/Query

Sending SMS (1) will reply with the current security mode status and will show the commands to arm and disarm the security system, e.g..

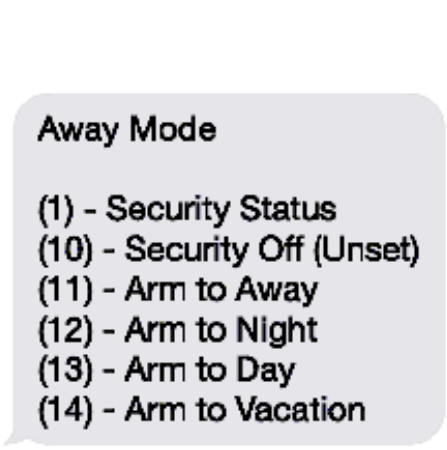


The current Mode is Away, (10) command will disarm the system. The arming commands are shown.

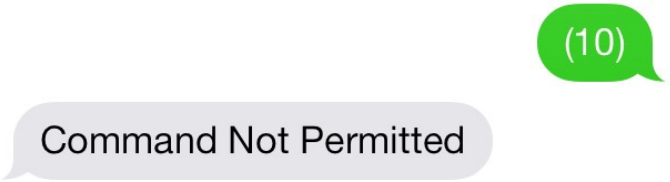
(10) command will disarm the system to Security Off. If the Alarm Type 17 (System Disarmed) is enabled for dialout to this mobile phone as SMS Type, a System Disarmed alarm report will be also be sent as shown below.



If the system is armed using SMS the UCMA/G5 will reply with the security mode shown. Note that if the Alarm Type 19 (System Armed) is enabled for dialout to this mobile phone as SMS Type, a further System Armed alarm report will be sent as shown below.

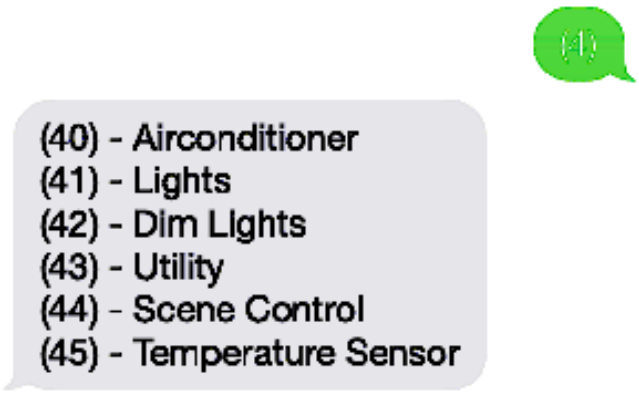


The permissions setting for each Phone will determine if the Arm and Disarm SMS commands are allowed. For example if "Allow SMS Disarm" in unchecked, the phone willl not be able to send SMS to disarm eg.



Control Menu

Sending (4) to UCMA/G5 will reply with the programmed Home Control Menu commands. Each phone has a setting for "Allow SMS Control " which determmines if the phone can be allowed to control by SMS.

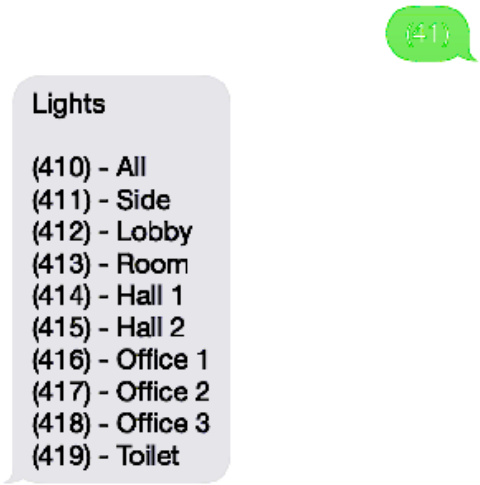


These show how the Home Control menu has been structured in this example..

Group 0 = Airconditioner, Group 1 = Lights, Group 2 = Dim Lights, Group 3 = Utility, Group 4 = Scene Control, Group 5 = Temperature sensor. Note that each Control Group MUST have a Name assigned in order for the Control menu commands and queries to work

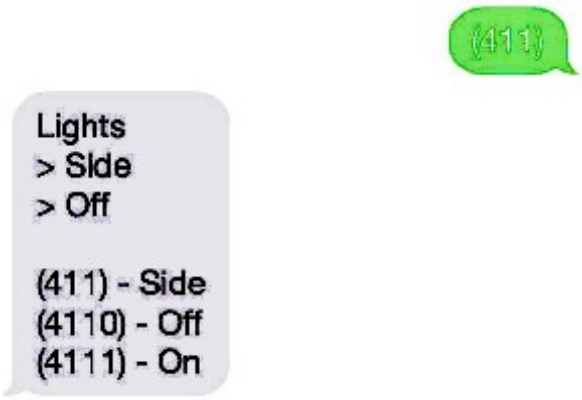
The SMS command must be placed between the "(" and ")" characters. Any characters outside (...) are ignored by UCMA/G5 and can be used as reminder text.

In the above example, the help menu shows the valid commands for the Home Control menu. Sending (40) will show the commands in the Airconditioner Group, (41) will show the commands in the Lights group etc.

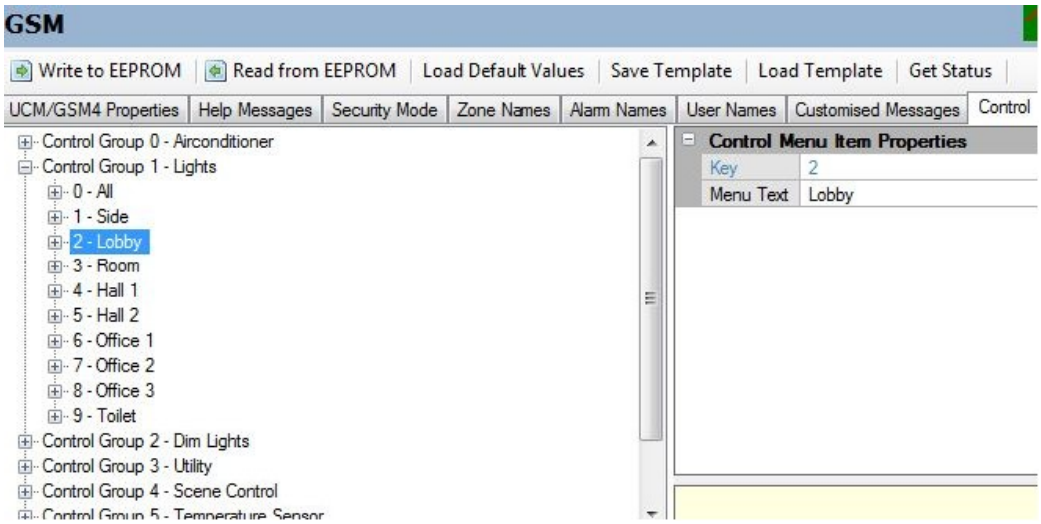


Sending (411) in this example will first show the status of the Side Lights (device 1) as well as the commands to operate it.

Sending (4110) will turn off the Side Lights while (4111) will turn it on. UCM/GSM will reply with the status of the device, e.g.



- **The SMS messages are limited to 160 characters. If the Help message exceeds 160 characters, the message will be truncated. This may affect the Control Menu Help reply. To get around this limitation, edit the text in the Control Tab in GSM4 Properties, see below as an example.**



Document History

- 5 October 2025 - initial release

Firmware Version History

- GSM5A 8.023 - initial release

Important Note

The printed manual may not always be the most current version. The latest manual can be downloaded from http://cytech.biz/ucmag5.html

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