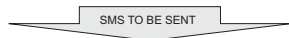## LINK OUTPUT TIMER

The Link Output Timer is a new feature which, when activated, will link Input 4 to Output Relay 4. There are 2 options for the link output timer.
Immediate Link which will cause output relay 4 to remain on for as long as input 4 is triggered
Timed link, which will cause output relay 4 to remain on for a set amount of time (up to 99minutes) when input 4 is triggered

Immediate Link	***1234 SYS LINK 0***
Timed Link	***1234 SYS LINK X*** Where 'X' is the length of time in minutes
Remove Link	***1234 SYS LINK***
Example: Activate Relay 4 for 10minutes after input 4 is activated	***1234 SYS LINK 10***

GET STATUS COMMAND

To retrieve the current status' of the input and outputs send the following SMS: ***1234 GET STATUS***

INPUT NAMES AND DESCRIPTIONS

The Input names and the activation messages can be set in the following manor:
All descriptions may be up to 15 characters

Set description for input 1:   ***1234 SYS INP1 FRONT_DOOR***
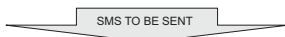To change the descriptions of other inputs substitute INP1 with either INP2, INP3 or INP4.

All inputs have either a HIGH or LOW condition and both messages for each input may be changed.
By default the INPUT HIGH message is "HIGH" and the low message is "LOW"

Set "INPUT HIGH" description for input 1:   ***1234 SYS INH1 OPENED***
Set "INPUT LOW" description for input 1:   ***1234 SYS INL1 CLOSED***
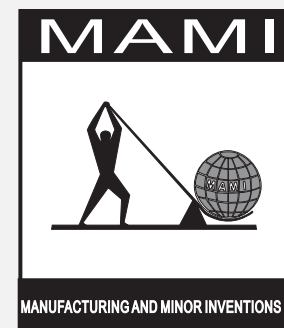
> Other input descriptions may be changed by substituting INH1 with either INH2,INH3,INH4 for <u>HIGH</u> messages, or INL1 with either INL2,INL3,INL4 for the <u>LOW</u> messages

Activating Input 1 will sms the following Message to the user:
SYSTEM NAME
FRONT DOOR OPENED
Restoring Input 1 to low will sms the following Message to the user:
SYSTEM NAME
FRONT DOOR CLOSED

SYSTEM SETTINGS

System name Change the system name that is reported at the beginning of an SMS from the unit **(up to 15 chars)** The default setting for this is "GSM AIO <VER>" where <VER> is the software version	***1234 SYS NAME MY HOUSE***
Change System password W = alphanumerical character (4 characters). 1234 is the default system password	***1234 SYS PASS WWWW***
Retried forgotten password: This will SMS the status number the password (Only if the status number is set)	***1234 FOR***
Adding Air-time W = Numeric recharge voucher number given by service provider.	***1234 SYS AIRT WWWWWWWW***
Retrieve air-time	***1234 SYS AIRT***
Output Pulse Time W = seconds (up to 99) - Applies to all outputs	***1234 SYS PULS W***

Examples:
Change the system password from 1234 to 7788:   ***1234 SYS PASS 7788***
Add airtime: ***1234 SYS AIRT 1234123412341234***
Change pulse time to 2 seconds: ***1234 SYS PULS 2***
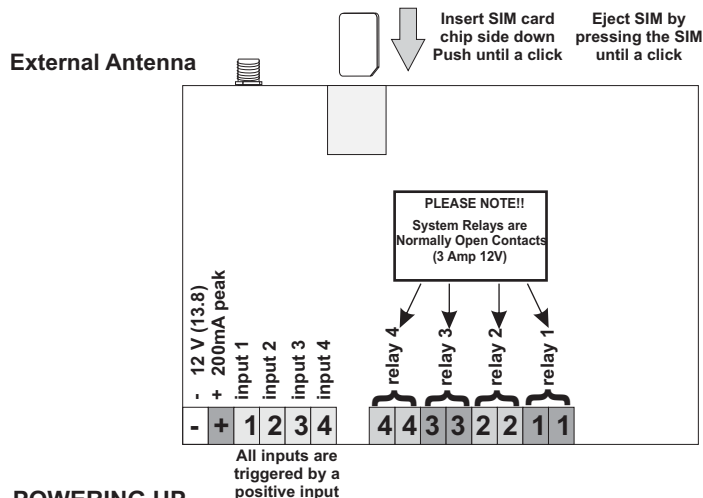

GSM AIO
ALL-IN-ONE

GSM AIO ALL-IN-ONE

- This all purpose unit may be used in any application where there is a need to control and monitor 4 inputs and 4 outputs.
- Once the input has been enabled and is triggered, the telephone number(s) programmed for that input will be notified by SMS.
  This will occur for both activation and restoral of inputs. Each input may be assigned a name to make notifications more understandable.
- Calling the unit from a programmed number will pulse relay 1 at no charge to the caller (up to 250 numbers) typically used for opening a gate
- Mimic all inputs on the outputs of another unit through the use of the COPY CAT

CONNECTING THE GSM UNIT

External Antenna

Insert SIM card chip side down Push until a click

Eject SIM by pressing the SIM until a click

PLEASE NOTE!!
System Relays are Normally Open Contacts (3 Amp 12V)

- 12 V (13.8) + 200mA peak
input 1 input 2 input 3 input 4
relay 4 relay 3 relay 2 relay 1

| - | + | 1 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 1 | 1 |

All inputs are triggered by a positive input

POWERING UP

- On applying power to the unit all LEDs will be illuminated whilst the blue LED flashes once ever second.
- At this point system diagnostics takes place and the unit attempts to go on air
- As each test is passed the LEDs will proceed to turn off in the order Orange, Red, Green
- Once the unit is on air and tests have been passed the ORANGE LED will flash once every second and the blue LED once every 3
- seconds
- At this point the unit is operational and may be configured

TROUBLE SHOOTING:

If all 3 LEDS flash at the same time this may be one of two reasons:
  1 - The SIM card is not inserted correctly
  2 - There is a PIN number on the SIM card and it must be removed, this may be done by inserting the SIM card into a phone and removing the pin through the security menu

If green LED stays illuminated please check that the antenna is correctly connected and that your SIM card is activated

PROGRAMMING FORMAT:

- The AIO is programmed either via SMS or via the USB port (newer versions)
- All messages must start and end with a * (asterisk)
- All telephone numbers must include the country code and exclude leading 0's and +'s, for example: 27821234567 is correct
- All commands may be sent in either lower or uppercase

The default system password is 1234 and should be changed to avoid any security risks

NOTE Service can only be guaranteed on network availability and uptime

RESETTING THE UNIT

To reset the unit, apply power while pressing the two buttons found in the centre of the board. This will reset the password to 1234. This will be acknowledged by the RED, GREEN and ORANGE LEDS flashing.
Thereafter, turn off and turn on the unit and send the following SMS: *1234 TEL CLRN YES*TEL MAST* This will clear all the numbers and the status number

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IMPORTANT!
All numbers need to contain the international dialing code
(27 for South Africa) without a leading + or 0 eg: 27821234567 is correct

SMS TO BE SENT

INPUT MONITORING

Notify a number when an input is triggered
- This will notify the specified number if input 1,2,3 or 4 changes in state
  1 2 3 4 represents which input will be monitored for that telephone number.

1234 TEL ADDN 27821234567,1234

Other Examples:
Monitor input 1 for number: ***1234 TEL ADDN 27821234123,1***
Monitor input 2 & 3 for number: ***1234 TEL ADDN 27821234123,23***
Monitor input 3 for number: ***1234 TEL ADDN 27821234123,3***

Combined example:
Monitor input 1 for number 1 and input 2 for number 2 in one SMS   ***1234 TEL ADDN 27821234123,1*TEL ADDN 27821234432,2***
(up to 160 characters in one SMS)
Please note the password is only included once at the beginning of the SMS

COPY CAT

The copy cat function allows the inputs of an AIO unit to be mimicked on the outputs of another AIO unit. One or 'mimic' AIO unit may be programmed into the AIO. ON, OFF and PULSE instructions are sent from the unit being mimicked depending on the status of the inputs. Below you will see the format of the SMS to be sent. The letter 'C' is added onto the input monitoring number permissions (see above) signifying that the number is a copy cat number

Mimic all 4 inputs to AIO unit with mobile number +27123456789 :   ***1234 TEL ADDN 27123456789,C1234***
Mimic inputs 1 & 2 to AIO unit with mobile number +27123456789 :   ***1234 TEL ADDN 27123456789,C12***

NB: note "C"

MISSED CALL

Missed call functionality is included into the AIO and allows a user to phone the unit to trigger OUTPUT1 at no charge. The unit will recognise the number calling, hang up and only trigger the output if that number has the missed call permission assigned to it. The same number may also have input monitoring permissions. (see INPUT MONITORING). The letter 'D' is added to the input monitoring permissions (*see above*)

Pulse relay 1 on missed call and monitor inputs 1,3 & 4:   ***1234 TEL ADDN 27123456789,D134***
Pulse relay 1 on missed call and monitor no inputs: ***1234 TEL ADDN 27123456789,D***

TELEPHONE NUMBER MANAGEMENT

NB: note "D"

Remove a number from telephone list   ***1234 TEL DELN 27821234567***

Clear all telephone numbers (excluding status number)   ***1234 TEL CLRN YES***

STATUS NUMBER

- The status number is a separate number to the input monitoring and missed call number list. The status number is only used for the following:
- To report in periodically
- To report in when the unit has been rebooted and is on air
- To send a forgotten password to

Set the status number to 27821234567:   ***1234 TEL MAST 27821234567***

Clear the status number   ***1234 TEL MAST***

RELAY ACTIVATION

OUT1 OUT2 OUT3 OUT4   ON OFF PUL

All Outputs may be set ON, OFF or PULSED

Activate output 1:   ***1234 SET OUT1 ON***
Deactivate output 3:   ***1234 SET OUT3 OFF***
Pulse output 4:   ***1234 SET OUT4 PUL***

OUT1, OUT2, OUT3 and OUT4 relate to the relay to be activated
Combined example:
Activate Ouput 1 & 3 and pulse output 4 in one SMS   ***1234 SET OUT1 ON*SET OUT3 ON*SET OUT4 PUL***
(up to 160 characters in an SMS): please note the password is only included at the beginning