# G4000

4G receiver with relay output for opening sliding, swing gates, doors or switching devices

## Features

- Up to 2000 users
- Universal Compatibility
- Easy setup with ELSEMA App
- Proudly Australian designed & owned
- Switches relay with free call from mobile phone
- Digital input for sensor or switch
- Secure password protected
- Only authorised numbers can operate the G4000
- Operates from anywhere if 4G network is available
- 12 Volts DC power pack included

## Application

- Open / close gates, doors, shutters, garage doors with a free call!
- Security alarm, On/Off lights, pumps and machines.

*Note: SIM Card is not included with this product.*

## Description

Our G4000 is the perfect solution for remotely controlling access to your property. Designed with cutting-edge technology and compatibility with 4G cellular networks, this device ensures seamless connectivity and enhanced security for your home or business.

The G4000 is designed by Elsema in Australia and uses high quality Canadian designed Telstra approved 4G module. All you need is to insert an active SIM card (Nano SIM) and program the phone numbers of all users.

Easy Remote Access: With the Elsema App, available for both iOS and Android devices, you can conveniently setup from anywhere using your smartphone. Grant or revoke access to visitors, monitor usage, and receive real-time notifications for added security.

Comprehensive User Management: Effortlessly manage multiple users with the app, creating custom access schedules and assigning unique access codes. Ideal for managing family members, employees, or guests.

| Mobile App | Desktop App |
|---|---|
| Setup the unit | View history |
| View history | Export user list to excel file |
| Edit settings remotely | Import user list from excel file |

## Technical Data

| | |
|---|---|
| **Power Source** | 12 Volts DC |
| **Network** | Telstra, Vodafone. Optus (Nano SIM) |
| **Output** | Common (C) and Normally Open (NO) relay outputs rated at 2A, 30 VDC. |
| **Input** | Normally open. User can change to Normally Closed via SMS. |
| **Shipping Weight** | 280 grams |
| **Dimensions** | 136 x 85 x 35 mm. |

## Safety Instruction

**Unattended Operation**
The G4000 enables gate control through a phone without the need for visual observation. Ensure that no one attempts to pass and avoid placing any obstacles in the path of the moving gate. Keep children, individuals, animals, and vehicles at a safe distance until the gate comes to a complete halt.

**Safe startup**
Do not use in places where phone equipment is prohibited.

**Interference**
Wireless equipment might interfere with the 4G network signals of the G4000 and influence its performance.

**Avoid using at Petrol / Gas Stations**

Do not use G4000 at a petrol / gas station. Power off the 4G receiver when near fuels or chemicals.

**Avoid using near blasting areas!**

Please follow relevant restrictive regulations. Avoid using the device in blasting places.

**Reasonable Use**

Please install the product at a suitable place as described in this manual. Avoid signal shielding by covering the mainframe.

**Maintenance**

Setup and wiring should be performed exclusively by skilled technical professionals.

## Important Instructions

- **Before attempting to set up the G4000, ensure that you have thoroughly read and understood the provided instructions.**
- The G4000 receiver can be setup in 2 ways. Using Bluetooth or using SMS (*SMS charges will apply*).
- Ensure that Caller ID is enabled on the phones of all authorised users, allowing the 4G receiver to identify the caller.
- Following the initial setup, only users listed as authorised will be able to make any modifications.
- There can be up to 10 administrators. Password recovery will be exclusively sent to the 1st administrator. It is crucial to ensure that the correct phone number has been designated as the 1st administrator.
- In the absence of an administrator, the unit must be returned to Elsema for password recovery *(Charges will apply).*
- Performing a factory reset will erase all data, including the list of authorised users.
- When utilizing Bluetooth setup, the user must be in close proximity to the G4000 receiver, ensuring that Bluetooth functionality is activated.

## Before setup

***The Elsema App is solely required for the initial setup process. Once the G4000 is configured, you can operate it without the App by simply calling the G4000's phone number.***

1. Download the Elsema App from your device's app store. Simply search for "Elsema" to download and install the App.

GET IT ON Google play

Download on the App Store

Elsema

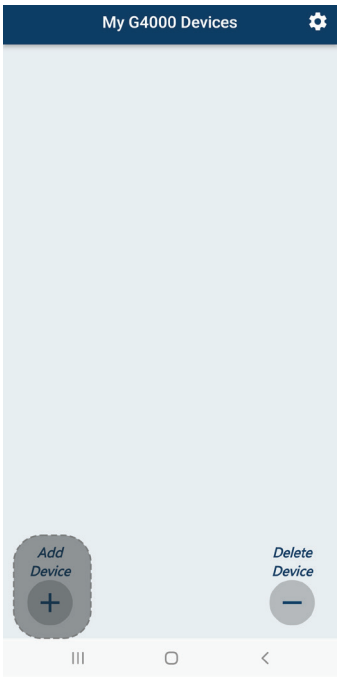
2. Ensure that the SIM is activated. Connect the SIM into a phone and it should be able to call out and receive calls and SMS messages.
3. Get in touch with your service provider and get them to turn OFF the voicemail service.
4. Carefully remove the cover of the 4G receiver and insert the SIM card into the designated SIM holder. The G4000 will only accept Nano SIM. (*Refrain from inserting or changing the SIM card while power is connected or any LED indicators are lit).*
5. Connect the power supply to 4G receiver.
6. Once the LED turns green from white flashing, it has successfully registered to the network.
7. The device is now ready for setup.

## Setup

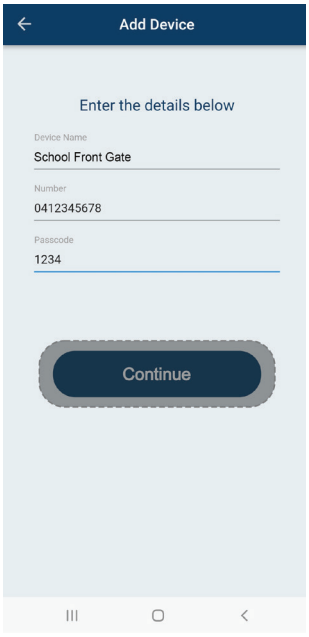
***The Elsema App is solely required for the initial setup process. Once the G4000 is configured, you can operate it without the App by simply calling the G4000's phone number.***

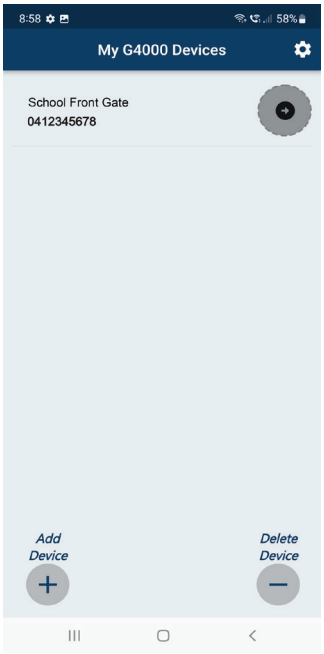
Open the Elsema App, tap on 4G products and add the device to the App. Once the device has been added, you can set it up or edit all settings. You will need to know the passcode to do any changes. Factory default passcode is 1234.

Tap 4G PRODUCTS




Tap Add Device




Once the device is added, tap on the device name for setup or to make any changes.

You can have multiple devices in this list.

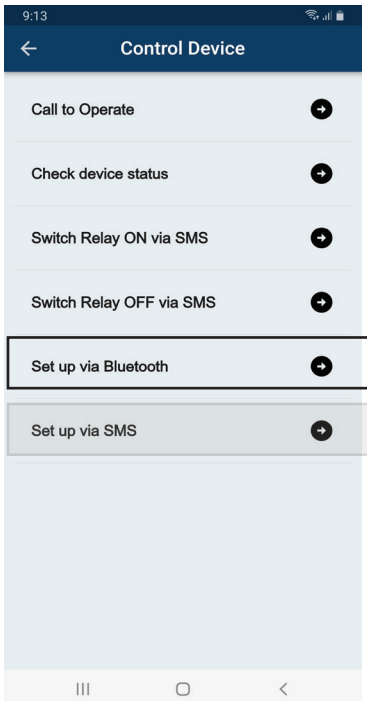
**Device name:** Name the device so it can be easily identified.

**Device Number:** Enter the phone number of the G4000

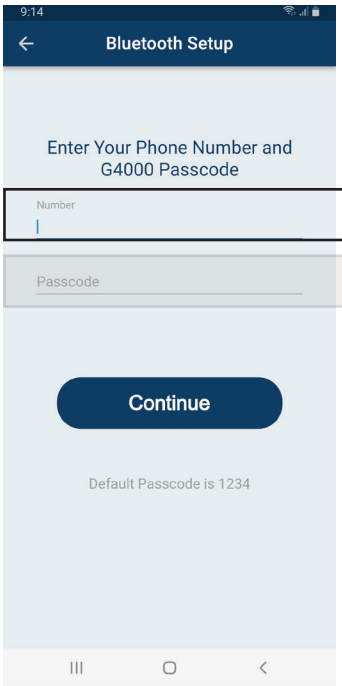
**Passcode:** Enter the passcode. Default passcode is 1234.

## Setup

***The Elsema App is solely required for the initial setup process. Once the G4000 is configured, you can operate it without the App by simply calling the G4000's phone number.***



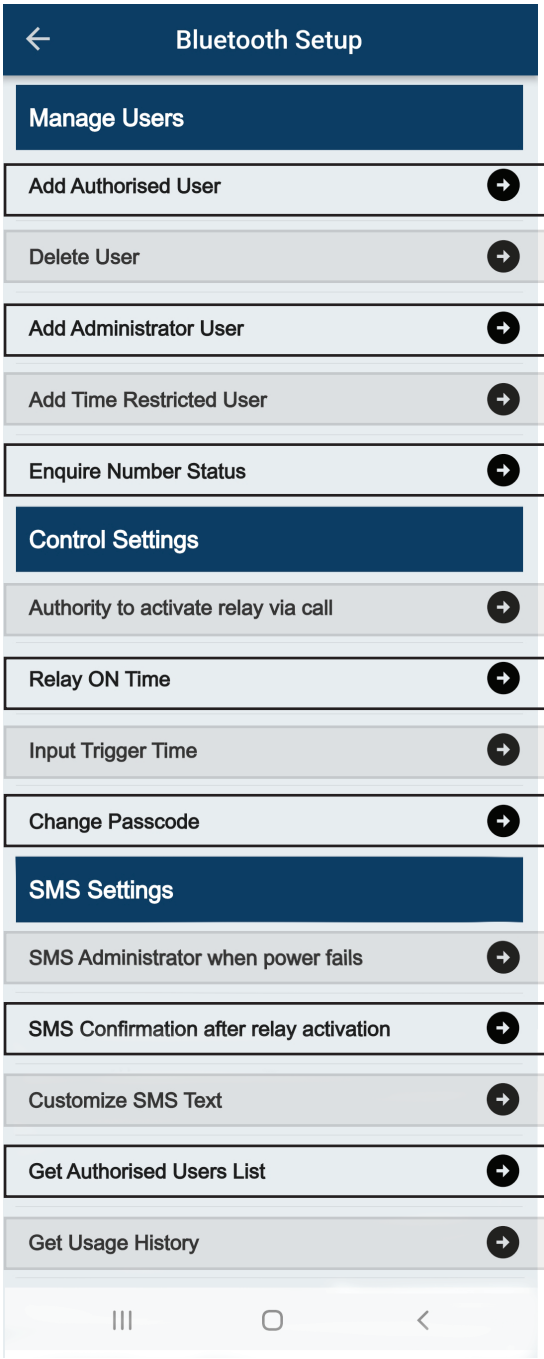

| | |
|---|---|
| Set up via Bluetooth | To setup the unit using Bluetooth. (You need access to the G4000) |
| Set up via SMS | To setup the unit using SMS. (Changes can be made remotely) |




| | |
|---|---|
| Number | Enter **your** phone number |
| Passcode | Default passcode is 1234. |

## Setup via Bluetooth

This is the recommended method of setup. You will need to have physical access to the G4000 and must be in close proximity to the unit. Ensure that the Bluetooth functionality is activated. Press and hold the program button on the G4000 until the LED starts flashing blue.

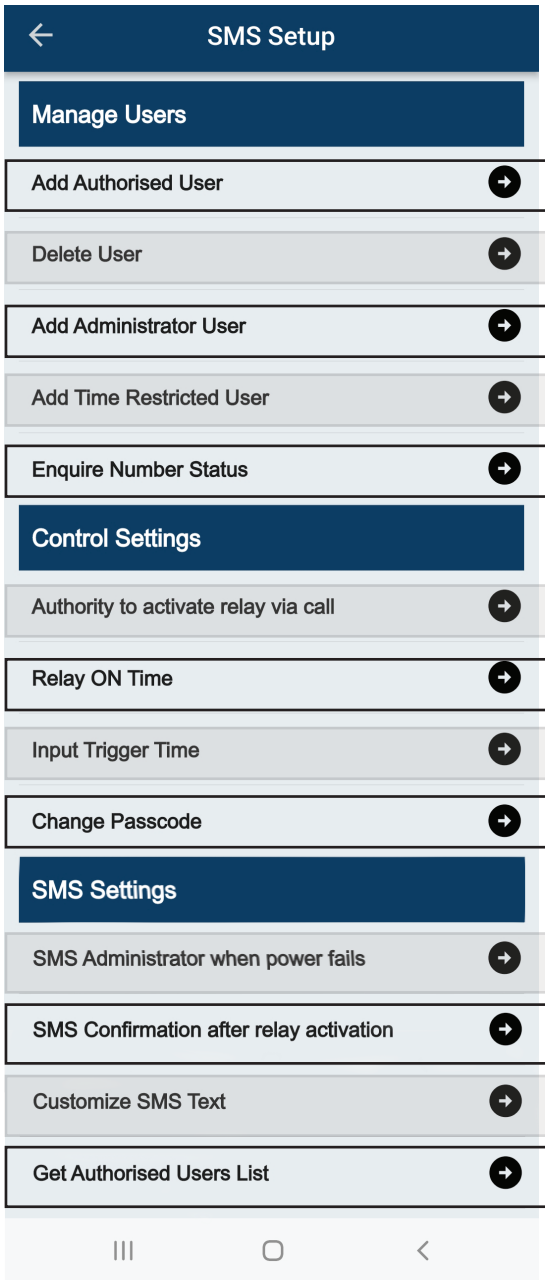



| | |
|---|---|
| Add Authorised User | To add an authorised user. |
| Delete User | To delete an authorised user. |
| Add Administrator User | To add an administrator[1]. |
| Add Time Restricted User | Provide access for only a certain date & time. |
| Enquire Number Status | Check if a particular number is in the list. |
| **Control Settings** | |
| Authority to activate relay via call | Provide access to authorised users only or to any number calling. |
| Relay ON Time | Relay ON time. Enter the time is seconds. 9999 means latching. |
| Input Trigger Time | Sets the time for the input to stay ON before sending an SMS. |
| Change Passcode | Change to a new Passcode[1] |
| **SMS Settings** | |
| SMS Administrator when power fails | Send SMS in a event of power failure |
| SMS Confirmation after relay activation | Sends SMS every time the relay is activated. |
| Customize SMS Text | Type the SMS text, to be sent. |
| Get Authorised Users List | Generates a list of users stored in G4000. |
| Get Usage History | Provides history of all the events. |

[1] Only the 1st administrator will receive forgotten passcode request. All other administrators will receive an SMS when input is activated.

## Setup via SMS *(SMS charges will apply)*

The G4000 can be configured remotely via SMS. Ensure that the SIM card is inserted and the unit is connected to the network. Each command will be sent as an SMS and the user will receive a response indicating that the setting has been accepted. All numbers on the authorised user list are able to do changes using SMS.




| | |
|---|---|
| Add Authorised User | To add an authorised user. |
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| **SMS Settings** | |
| SMS Administrator when power fails | Send SMS in a event of power failure |
| SMS Confirmation after relay activation | Sends SMS every time the relay is activated. |
| Customize SMS Text | Type the SMS text, to be sent. |
| Get Authorised Users List | Generates a list of users stored in G4000. |

[1] Only the 1st administrator will receive forgotten passcode request. All other administrators will receive an SMS when input is activated.

## Administrator Rights

It is recommended that the 1st administrator is the property owner or the property manager.

1. The SMS for passcode recovery will exclusively be sent to the 1st administrator. In the absence of any administrators, the device must either be returned to Elsema or undergo a factory reset. Be aware that a factory reset will delete all configurations, including the list of numbers.
2. The relay activation SMS, when enabled, will be sent to the user and the 1st administrator only.
3. Up to ten administrators may be designated in total.
4. Only an administrator has the authority to remove another administrator. However, any user from the list can grant administrative privileges to another individual.
5. When an administrator is removed, the subsequent administrator will assume their position.
6. Upon activation of the input, an SMS will be sent to 1st administrator by default. The user can configure how many administrators will receive SMS and phone call by sending SMS commands.

## Authorised User Rights

Only authorised users with the correct passcode can make changes to G4000.

1. The relay activation SMS, when enabled, will be sent to the user when they call the unit.
2. Authorised users can add an administrator.
3. Change all other setting on the G4000.
4. Authorised users can only operate the unit with a phone call.

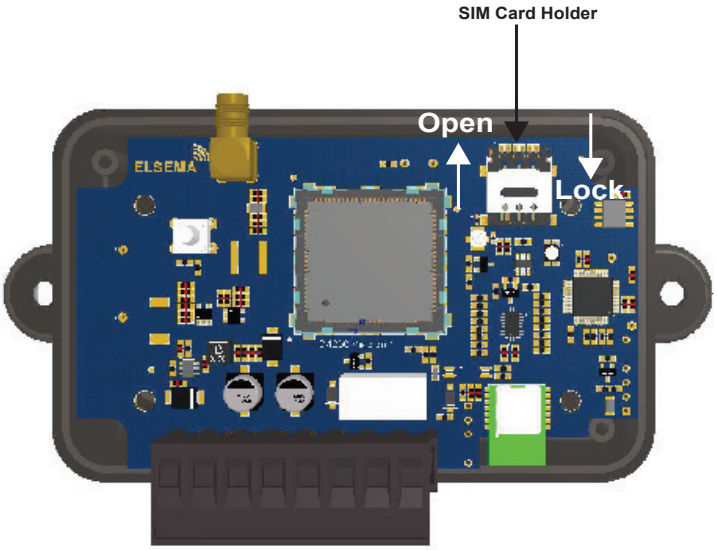
| | 1st administrator | 2-10 administrator | Authorised user |
|---|---|---|---|
| SMS for passcode recovery | ✓ | **x** | **x** |
| AC power fail SMS | ✓ | **x** | **x** |
| Relay activation SMS[2] | ✓ | **x** | ✓ |
| Input activation SMS[2] | ✓ | ✓ | **x** |
| Delete administrator | ✓ | ✓ | **x** |
| Add administrator | ✓ | ✓ | ✓ |
| Change setting with SMS[3] | ✓ | ✓ | ✓ |
| Call to activate the output | ✓ | ✓ | ✓ |

[2] These features will only work when they are enabled. They are disabled by default.

[3]User needs to know the passcode to do any changes.

## SIM Card

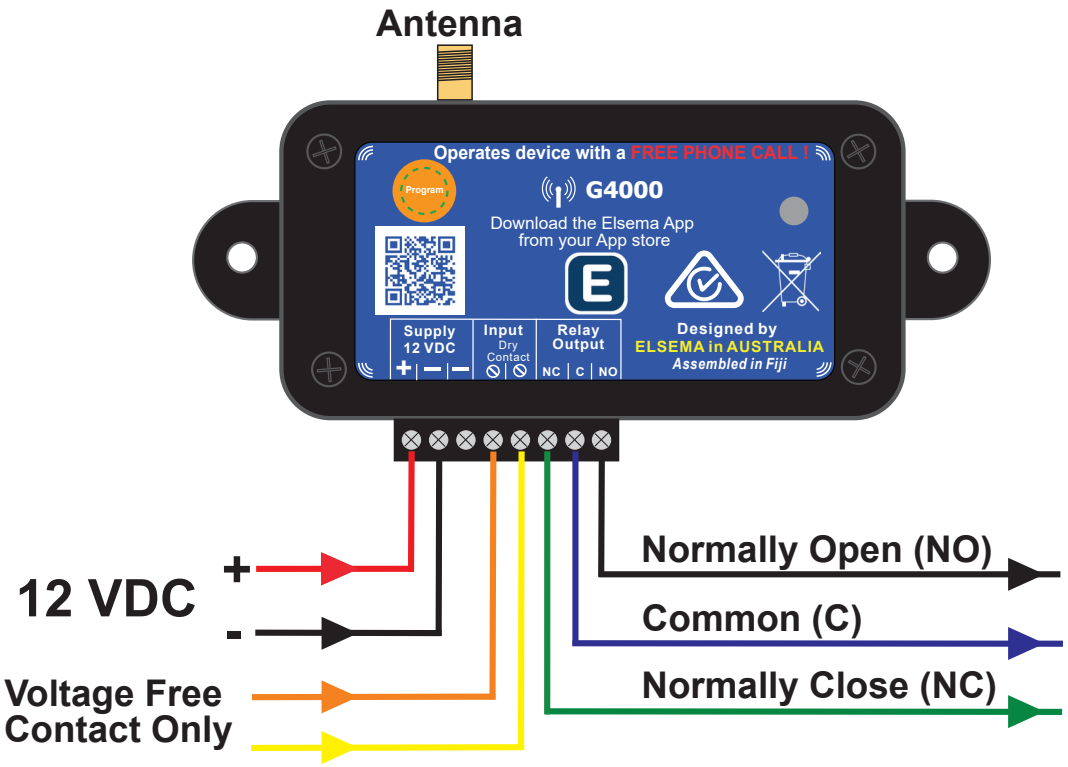
Open the G4000 cover to locate the SIM card connector. Once the SIM card is inserted ensure that the connector is locked.
*(Do not attempt to change SIM while the LED is lit up)*



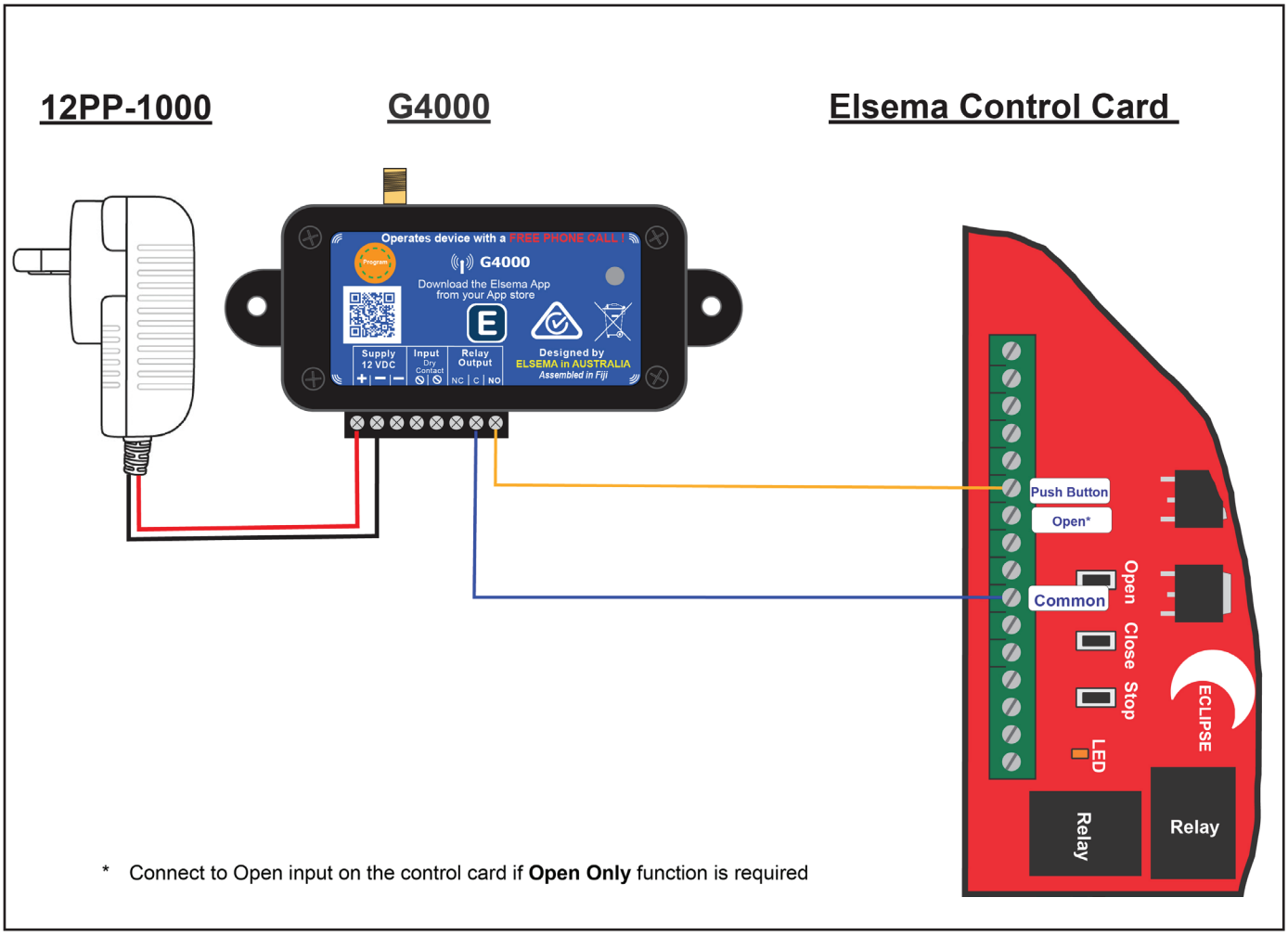

## Connection Diagram

***Output*** is a voltage free relay output with common, normally open and normally closed contacts.

***Input*** should be voltage free contact closure only. Input is Normally Open by default. User can change to it to Normally Closed via SMS command.

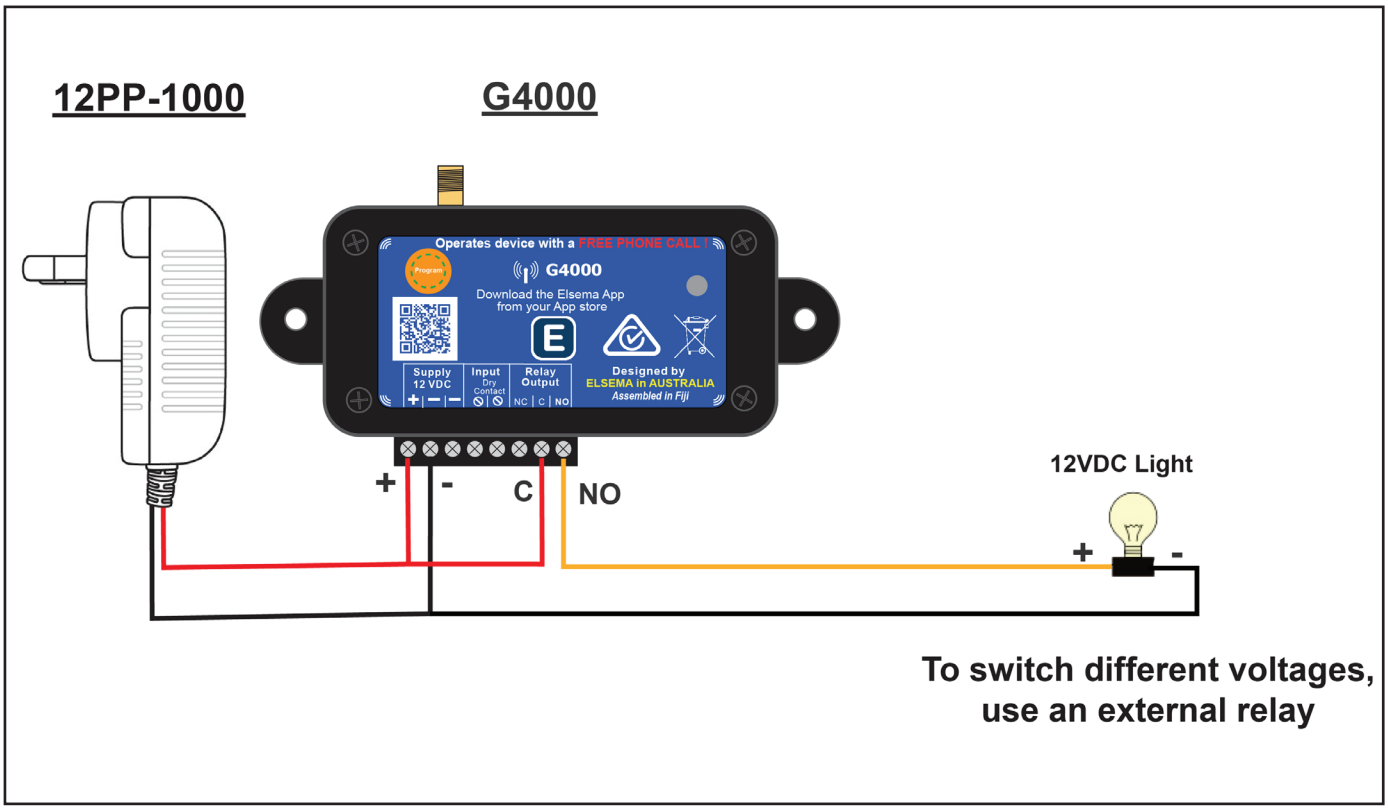


## Connecting the G4000 - 4G GSM Dialler to Elsema control cards




* Connect to Open input on the control card if **Open Only** function is required

## Connecting the G4000- 4G GSM Dialler to control any device




**To switch different voltages, use an external relay**

## SMS Commands *(SMS charges will apply)*

Below are the SMS commands which can be used to modify settings remotely. However, to make changes, one must possess the passcode and be included in the authorised user list. The user should get a return SMS indicating that the change has been accepted. Please ensure that the SIM card has enough credit for return SMS.

In the below example the default passcode is used (1234). Please replace this with your own passcode, if you have changed it.

| *Function* | *SMS Command* | *Description* |
|---|---|---|
| **Add Administrator** | 1234 ADD ADMN 04xxxxxxxx | Adds administrator to the list.<br>Replace 04xxxxxxxx with the user's phone number. |
| **Check Administrators** | 1234 GETADMIN | Sends a list of administrators in the device. |
| **Add a user** | 1234 ADD USER 04xxxxxxxx | Adds user to authorised number list.<br>Replace 04xxxxxxxx with the user's phone number. |
| **Delete a user** | 1234 DEL USER 04xxxxxxxx | Deletes user from authorised number list.<br>Replace 04xxxxxxxx with the user's phone number. |
| **Inquire number status** | 1234 STATUS 04xxxxxxxx | Checks if 04xxxxxxxx is in the user list or not. |
| **Allow access to turn ON output** | 1234 ENB AUT<br>1234 ENB ALL | Only authorised users can call to activate the relay.<br>Anyone can call to activate the relay. |
| **Relay ON time** | 1234 OFF DEL 0010 | Sets the delay time of the relay. Default is 1sec<br>0000 = 0.5sec<br>9999 = Latching |
| **Input trigger time** | 1234 IP TRIG 00 | Set the time for the input to stay ON, after which an SMS will be sent. Default is 1sec.<br>00 = 0.5sec<br>99 = 99 sec |
| **Change input from NO to NC** | 1234 INPUT NC | Changes the input from Normally Open (NO) to Normally Closed (NC). Default is NO. |
| **SMS administrators on input activation** | 1234 INPUTSMS X | Replace "X" with 0-10 (number of administrators) who will get SMS when input is triggered. Default is 1st administrator. |
| **Call administrators on input activation** | 1234 INPUTCALL X | Replace "X" with 0-10 (number of administrators) who will get phone call when input is triggered. Default is 0 (None). |
| **SMS Alert on Power fail** | 1234 PWR FAIL ON<br>1234 PWR FAIL OFF | SMS will be sent only to the 1st administrator in an event of power failure. |
| **Get authorised user list** | 1234 GETUSER XXXX | Replacing XXXX with 0150 will show you user's listed in location 150-160 . SMS reply will show 10 numbers at a time. |
| **Check network signal strength** | 1234 DSTATUS | If the signal strength is "Weak", move the unit to a location with better signal strength. |
| **Turn Relay ON with SMS** | 1234 R1ON | Turns output relay ON |
| **Turn Relay OFF with SMS** | 1234 R1OFF | Turns output relay OFF |

## LED Indication

| LED Color | Mode |
|---|---|
| White | Boot-up |
| Magenta Flashing | SIM not detected |
| Magenta | SIM detected, connecting to network |
| Green | Connected to 4G Network |
| Blue Flashing | Bluetooth ON but not connected |
| Blue | Bluetooth connected |
| Yellow | SMS received |
| Red | Power failed |
| Cyan | Passcode sent via SMS to the 1st Administrator |

## Troubleshooting guide

| Fault | Solution |
|---|---|
| No light on the unit | Check the power supply. There should be 12VDC connected to the supply terminal. Check for correct polarity. |
| Unit does not respond to the phone call | 1. Ensure that the caller is in the user list.<br>2. Ensure that caller ID is enabled on the users phone.<br>3. Insert the SIM into a phone and it should be able to make and receive calls.<br>4. Ensure that the SIM is active and registered with the service provider. |
| Led is Magenta | SIM is not connected to the network.<br>1. Insert the SIM into a phone and it should be able to make and receive calls.<br>2. Ensure that the SIM is active and registered with the service provider. |
| No return SMS when SMS command is sent | 1. Ensure that the correct passcode is used.<br>2. Ensure there is credit in the SIM account and the device is connected to the network. |
| Unit stops responding to phones calls randomly | Check network signal strength by sending SMS command.<br>Move the unit to a location with better signal strength. |
| Unit stopped responding to phone calls completely and LED is Magenta flashing. | SIM is not connected to the network.<br>1. Insert the SIM into a phone and it should be able to make and receive calls.<br>2. Ensure that the SIM is active and registered with the service provider. |

## Recover Passcode

Turn off the power supply to the G4000, making sure that the LED light goes off. Then, restore power to the device. As soon as the LED light becomes a steady white, press the program button five times within a 10-second timeframe. The LED will change to a cyan (light blue) color. The passcode will be sent via SMS to the 1st administrator with-in 60sec.

## Reset to Factory Default *(This will erase all settings including the number list)*

Disconnect power to the G4000 and wait until the LED is off. Press and hold the program button and apply power to the unit. Release the program button when the LED turns Red. Reset is complete when the LED turns White.