

COMMUNICATOR GSM WIRELESS INTERCOM

Installation Manual

With **NO RANGE LIMIT**

Model: GSM18V9

1. **Important!** It is a **must** to read the instructions before installing and programming the unit.

2. **The SIM card**

You would need the MINI sized SIM which is not locked, including Next-G. Insert the SIM card you want to use into your phone and make sure that you can make a call. You **MUST** call the mobile phone network of the SIM card that it is registered with, **and cancel the Message Bank and all the other services on this SIM card.**

Make sure the power is OFF, and insert the SIM card with the gold pads facing down to the PCB.

Note ! Make sure that you insert or remove the SIM card only when the unit is disconnected from the Power.

3. **Antenna**

First run the Antenna's cable via the back hole of the door station and connect it to the GSM socket in the unit. (See page 2)

Make sure to install the antenna as high as possible for better reception and **do not cut or solder its cable.**

Note ! Do not install or attach the antenna on any metal surface.

4. **Power**

The unit can operate within **12V - 24V DC or AC/ 2Amp**. The unit is not polarity conscious. A long beep will be heard to indicate power connection. Please wait **30 seconds** for the unit to log to the GSM network and announce:

"The unit is connected to the network".

If the unit could not log to the GSM network, then the unit will announce: *"The unit could not connect to the network"*.

In that case, please check the SIM card with your mobile phone and make sure that you have reception on site.

5. **Access Control**

The unit can be programmed with **1000 phone numbers** to become *authorized users* that are able to open the gate with their mobile phone with no cost of a call or range limit. The system will respond to incoming calls and trigger the relay of the unit according to the setting chosen (See section 6). The unit will trigger its output each time an authorized user calls the SIM number of the unit and hang-up without answering the call. The unit will hang up to any unauthorized calls.

In addition, the system can be programmed with 999 four-digit pin-codes to open the gate via the front keypad.

6. **Outputs**

The unit has two relay outputs, Relay-1 is related to the GSM access control and intercom and relay-2 is related to the front keypad access control system. The relay-1 connections COM1 & N.O.1 can be used to activate the electric latch of the pedestrian gate, and relay-2 connections COM2 & N.O.2 can be used to activate the driveway gate.

7. **Relays' Function**

You can select one out of the two functions (Pulse or Latch) for the each one of the internal relays of the unit. The relays will trigger or be activated each time an authorized user calls the unit or keys in the correct 4-digit pin-code, according to the function selected (Latch or Pulse) which was selected for each relay.

Steps of installation:

1. Insert the SIM card.
2. Connect the GSM antenna. Do not cut or shorten the antenna's cable.
3. Do not install or stick the antenna on to any metal surface or posts. Stick the antenna as high as possible to any brick wall or wooden fence or post.
4. Use 12V-24V Dc or Ac to power supply (Min 2Amp) on terminals PWN1 and PWN2 – no polarity required.
5. Use the relay-1 outputs Com.1 and N.O.1 for any electric lock/latch to open the pedestrian gate. Use the relay-2 outputs Com.2 and N.O.2 to trigger any control panel's Push Button input to open the driveway gate.
6. Program the system as required according to the owner's manual.

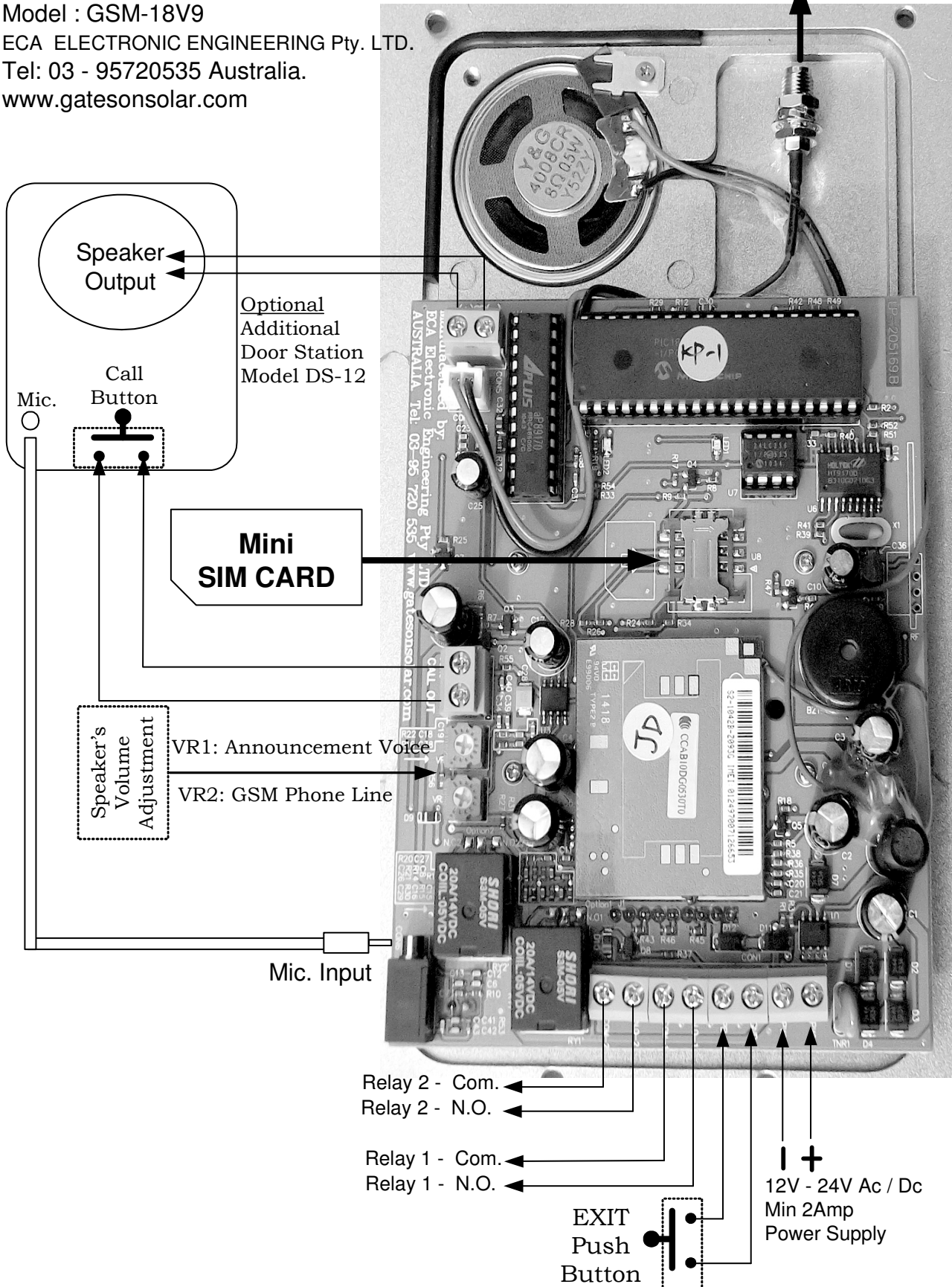
Important!

IT IS A MUST TO SEAL WITH SLICON THE BACK HOLES OF THE DOOR STATION TO PROTECT THE UNIT.

Connection Diagram

GSM Intercom & Access Control System
 Model : GSM-18V9
 ECA ELECTRONIC ENGINEERING Pty. LTD.
 Tel: 03 - 95720535 Australia.
 www.gatesonsolar.com

GSM Antenna



General information:

- On standby, when the hash key (#) is pressed, the system will announce: *“Please wait and your call will be answered shortly”*. Then, the system will dial the first phone number of the house which was entered, and for the number of rings as was programmed in the system. If there was no answer or in case the line was busy, the system will hang-up and dial the second and third number accordingly. If there was no answer to any of the three numbers in the system, then the unit will announce: *“Your call was not answered, please try later”* and then the system will go to standby mode.
- The unit can be programmed with all the phone numbers and features via the front keypad without the need of a SIM card. The system can also be programmed by SMS commands (from far) if the SIM card of the unit is active.
- In program mode, the unit will automatically hang up and exit program mode if there was no response within 1 minute during programming.
- In program mode, an invalid command will be indicated by two short beeps or by the announcement *“Wrong command”*.
- There is no need to press the # key after entering the 4-digit pin code to open the gate.
- Pressing the * button twice will cancel the last command or the call made and enter the system to stand by mode.
- The owner can open the pedestrian gate or the driveway gate by pressing the HASH (#) or the STAR (*) key on his phone while he talks to the visitor.
- The system then will announce: *“The gate is open. Please come in”* when the command to open is given.

1. PROGRAMMING THE SYSTEM

The system can be programmed in two ways;

1. Through the unit's front keypad by entering programmed mode.
2. Or by SMS messages from anywhere by any mobile phone.

Entering Program Mode (PM)

Use the keypad to enter **PM** as follows:

- Press and hold the # button for three seconds till you hear a long beep.
- Enter the 4-digit PASSWORD. The factory default PASSWORD is 9 9 9 9.
- Then you will hear: *“You have entered program mode”*.
- Or you will hear: *“Wrong command”*, in case of a false attempt.
- You would need to **repeat** the steps for entering program mode once again from start.

Exiting Program Mode

The system will exit program mode automatically if no command was received within 1 minute, or by the following command:

***0#**

In Program Mode you can do the following:

(A) Setting the GSM intercom and Access Control

1. Programming phone numbers into the system.

The following format sequence presents the programming for users' phone numbers

U U U * N N N . . . N N N #

- The first three digits (U U U) represent the user's location number in the memory from 001 to 999
- (* N N N ... N N N *) the letters “ N ” represent the phone Number entered.
- (#) End of command. The unit will announce the phone number to confirm by saying: *“The number is ...”*

The examples below show the programming of the first, second and three phone numbers:

Example for user (1) :

0	0	1	*	0	3	9	5	7	2	0	5	3	5	#
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Example for user (2) :

0	0	2	*	0	4	1	7	5	7	3	2	1	8	#
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Example for user (3) :

0	0	3	*	#
---	---	---	---	---

Explanation for:

- Example (1)

0 0 1 => user number one.
*0395720535 => the phone number stored as a first number is: 0395720535
=> end of command.

Then the system will confirm by announcing: *“The number is: zero three nine five seven two zero five three five”*

- Example (2)

0 0 2 => user number two.
*0417573218 => the phone number stored as a first number is: 0417573218
=> end of command.

The system will confirm by announcing: *“The number is: zero four one seven five seven three two one eight”*

- Example (3)

0 0 3 => user number three.
* # => no number is stored as a 3rd phone number and this memory position is DELETED.

The system will confirm this command by announcing: *“The phone number was deleted”*.

ADDING USER'S PHONE NUMBERS BY SMS COMMAND

You can also send SMS COMAND to add or change user's phone number by a special **format** of SMS message as follows:

P P P P A U U U * N N N . . . N N N #

- The first four letters represent the **P**assword (P P P P).The factory default Password is 9 9 9 9
- Followed by the letter “ A ” that represent **A**dding (or changing) the user's phone number.
- Then (U U U) represent the user's memory location number, **from 001 to 999** followed by “ * ” the star symbol.
- And then (N N N N N N) represent the phone number followed by the hash (#) symbol.

Example of SMS message programming the first user's phone number which is 0395720535

9999A001*0395720535#

=> **Please Note:** The system is sensitive to **cases** and **space** between the letters.

2. Deleting users' phone numbers in the system.

You can reprogram a new phone number to be instead of an old one, by simply reprogramming a new number for the same memory location, and the system will automatically delete the old number and replace it with the new user's phone number that you have entered.

You can also DELETE the user's phone numbers in the system in two ways; via the keypad or by SMS command.

⇒ Deleting the users' phone numbers via the keypad.

1. Enter program mode.

2. Use the following format message to delete a user's phone number: **U U U * #**

The (U U U) represent the user's memory location number, **from 001 to 999** followed by star and hash symbols “ * # ”

The following is an example of how to delete the 3rd users' phone member. **003 * #**

003 => user number three.

* # => end of command. Memory position 3 is cleared.

The system will confirm this command by announcing: *“The phone number was deleted”*.

⇒ Deleting the users' phone numbers by SMS command.

You can also send SMS COMAND to DELETE user's phone numbers as follows:

The configuration of the SMS message below would Delete the user's phone number:

P P P P D U U U #

- The first four letters represent the **P**assword (P P P P). The factory default Password is 9 9 9 9
- Followed by the latter “ D ” that represent **D**eleting a user phone number.
- Then (U U U) represent the user's memory location number, **from 001 to 999** followed by hash # symbol.

Example of SMS message DELETING the first phone number in the memory which is 0395720535

9999D001#

=> **Please Note:** The system is sensitive to **cases** and **space** between the letters.

⇒ How to Delete ALL the users' phone numbers

You can delete all the users' phone numbers **via the keypad ONLY** (and not by SMS command) as follows:

1. Enter program mode.
2. In program mode use the following command to delete ALL the users' phone numbers ****07#**
After which, you will hear a long BEEP.
Press and hold the # key for 5 seconds till you hear "**Deleted**" as a confirmation of the command, otherwise, the command will be canceled and you will have to start once again.

Please Note!

You can send one SMS message that includes more than one command to add or delete numbers by using the COMMA mark ",", between the commands. See examples of SMS messages below:

The following SMS message is an example of reprogramming (adding) the 1st number (which is 0417 358 532) and adding the 14th new user number (which is 0418 565 578) and deleting the 3rd phone number in the system.

9999A001*0417358532#,A014*0418 565 578#,D003#

3. SMS confirmation service by the unit

The unit will reply to any SMS message only if the password was correct. The unit will reply with the same SMS message send to inform the **sender** if the command was valid and **confirmed** or **failed**.

The factory default setting is that the unit does send a confirmation SMS messages.

The SMS **reply to the sender** would be repeating the same SMS message with the word **CONFIRMED** or **FAILED** at the end of the message.

The following is an example of SMS message that send by the unit which **confirms** the above example of SMS command:

9999A001*0417358532#,A014*0418 565 578#,D003# CONFIRMED.

The following is an example of SMS message that was send by the unit to inform that the SMS command has **failed**:

9999A001 0417358532# FAILED

⇒ How to Cancel or Activate the SMS service in the unit

You can **Cancel** or **Activate** the SMS service of the unit via the keypad or by SMS command as follows:

Via the keypad

1. Use the keypad and enter program mode.
2. Use the following command to cancel the **SMS service**;

****08#** The unit will confirm the command by a Long Beep.

Or

3. Use the following command to activate the **SMS service**;

****09#** The unit will confirm the command by Long Beep.

By SMS Command

You can **Cancel** or **Activate** the SMS service of the unit by sending SMS command to the unit as follows:

To cancel; send SMS

P P P P **08#

To Activate; send SMS

P P P P **09#

PPPP represent the four digit password.

4. How to choose the number of Rings for the first three phone numbers

In program mode you can select the number of rings (from 1 to 9 rings) that the unit would wait for an answer, before it hangs up and dailies the second and the third phone numbers.

The factory default is 5 Rings (about 15 seconds) for each one of the first three phone numbers.

⇒ How to change the number of Rings

You can change the number of Rings **via the keypad ONLY** for each individual first three phone number as follows:
Enter program mode and use the following format to change the number of Rings:

****10*N R #**

The letter “ N “ represent the number 1, 2, or 3 for the first, second and third phone number in the memory.

The letter “ R “ represent the numbers of Rings from 1 to 9. The factory default is 5.

The unit will confirm the change by long Beep.

Example: The following example shows the programming of 7 Ring tones for the third phone number in the memory:

****10*37 #**

5. How to select the Relay for the PUSH BUTTON input.

The *Push Button Input* can activate Relay-1 or Relay-2 according to the function that was chosen for the relay.

The factory default setting for the Push Button Input is to activate RELAY-1 according to the function chosen.

(The factory default is a 4 second PULSE). You can change this setting via the keypad **ONLY** (and not by SMS command).

You can choose the RELAY that the PUSH BUTTON INPUT activates as follows:

1. Enter program mode.

2. Use the following format to make your selection ****01*N #**

The letter “ N “ represents the numbers 1 or 2 for the Relay-1 or Relay-2 accordingly.

6. How to choose the Relays' function

For each one of the relays 1 and 2 you can choose one of the following two functions;
MOMENTARY (PULSE) or LATCH function.

The factory default setting for both the relays is a **MOMENTARY** function (with a 4 second PULSE).

You can change this setting **via the keypad ONLY** (and not by SMS command).

In program mode you can select and choose the relay's function as follows:

****02*N F #**

The letter “ N “ represent the Number 1 or 2 for Relay-1 or Relay-2.

The letter “ F “ represent FUNCTION, 1 for Momentary or 2 for Latch.

7. How to set the Relays' PULSE time interval

For each one of the relays 1 or 2 you can choose the time interval of the pulse if a momentary function was selected.

The factory default setting for both the relays is a 4 second PULSE.

You can change this setting **via the keypad ONLY** (and not by SMS command).

For setting the pulse time enter the program mode.

In program mode you can choose the TIME interval for each one of the relays as follows:

****05*N T #**

The letter “ N “ represent the Number 1 or 2 for Relay-1 or Relay-2.

The letter “ T “ represent the PULSE time:

Enter: **0** => for ½ second pulse time.

Enter: **1** => for 1 second pulse time.

Enter: **2** => for 2 second pulse time.

Enter: **3** => for 3 second pulse time.

Enter: **4** => for 4 second pulse time. **Default.**

Enter: **5** => for 5 second pulse time.

Enter: **6** => for 6 second pulse time.

Enter: **7** => for 7 second pulse time.

Enter: **8** => for **10** second pulse time.

Enter: **9** => for **15** second pulse time.

⇒ The system will confirm the chosen interval time by a Beep sound as long as the chosen Time.
i.e., if the time selected was 7 seconds, then the buzzer will sound for a long “Beep” of 7 seconds.

7. HOLD Command

The user can send SMS command or use the keypad and overtake control of the relays and keep them active (ON) until cancelation command is received by SMS or via the front keypad. When the unit is programmed to Overtake Control of the relay, the relay would not function to any other commands by mobile phones or by the keypad until cancelation command is received.

=> In program mode you can activate the HOLD COMMAND to any one of the relays as follows:

Using the keypad, in program mode press as follows:

To activate press *** * 0 3 * N 1 #** while “ N “ represent relay “ 1 ” or relay “ 2 ”

To cancel press *** * 0 3 * N 2 #** while “ N “ represent relay “ 1 ” or relay “ 2 ”

The unit will confirm by a long Beep.

Please Note! While hold command is active, the unit will announce ““Hold Command is Active”” to any attempt of activation of the relays by the keypad or a phone call.

By SMS Command

To activate / cancel the “HOLD Command” by SMS you would need to send SMS message as follows:

To Activate the HOLD command by SMS **P P P P * * 0 3 * N 1 #**

To Cancel the HOLD command by SMS **P P P P * * 0 3 * N 2 #**

- **PPPP** represent the 4 digit PASSWORD.
- The letter “ N ” represent relay 1 or relay 2.

The unit will send SMS to the sender to confirm the “Hold Command” as follows:

“**Confirming Relay 1 is Active ON**”

The unit will send SMS to the sender to confirm Cancellation of Hold Command as follows:

“ **Confirming Relay 2 is no longer Hold Active** ”

⇒ You can send one SMS to cancel both Hold commands for both the relays as follows:

999903*12#,**03*22#**

8. How to limit the Talking Time

In program mode you can select and limit the talking time of the visitor.

The factory default limit time is 59 second.

The system will end each call (after the chosen “Talking Time”) by an announcement: “ **END OF CALL** ” .

Use the keypad in program mode and set the required time interval required as follows:

*** * 0 4 * T T #**

The letters “T T “ represent the time in seconds according to the table below:

Enter: **0 0** => for Zero talking time.

Enter: **5 9** => for 59 seconds talking time (**Default**)

Enter: **6 1** => for 1 Minute talking time

Enter: **6 2** => for 2 Minutes talking time

Enter: **6 3** => for 3 Minutes talking time

Enter: **6 9** => for 9 Minutes talking time

Enter: **7 0** => for 10 Minutes talking time

Enter: **9 9** => for unlimited talking time.

The unit will confirm by Long Beep.

By SMS Command

⇒ To change the talking time by SMS command, send the SMS as follows:

P P P P * * 0 4 * T T #

The unit will confirm by SMS message to the sender as follows: “Confirming the talking time was changed”

9. How to LOCK and UNLOCK the unit

The unit will not operate the outputs of the relays in LOCKED mode and the system will announce “wrong command” for any attempt to make a call or activate the relay output by a pin code via the keypad.

To lock & unlock the unit;

In program mode you can lock and unlock the system with the following command:

*** * 0 6 * N #**

The letter “N” represents “1” for LOCKING and “2” for UNLOCKING.
A long Beep will be heard to confirm.

By SMS Command

=> To LOCK and UNLOCK the unit by SMS command, send the SMS as follows:

P P P P * * 0 6 * N #

The letter “N” represent “1” for LOCK and “2” for UNLOCK.

PPPP represent the 4 digit PASSWORD.

The unit will confirm by SMS to the sender that says:

“The system is locked” or “The system is unlocked” accordingly.

10. How to check the next available empty memory in the system

⇒ Via the keypad, in program mode, press *** * 1 1 * #**

The unit will announce the next empty memory position by saying individual numbers;
i.e. If the next empty memory cell is “0 2 6” the system will say: Zero, Two, Six

⇒ In order to get the next available empty memory position in the system by SMS command, send SMS as follows:

P P P P * * 1 1 * #

PPPP represent the 4 digit PASSWORD.

The unit will send SMS reply to the sender that says: “The next available position is X X X”

The letters X X X represent three digit number (such as 055) to indicate the empty memory position.

11. How to TEST and CHECK the reception level of the GSM signal

The unit is able to check and provide the reception level in the area by the following command;

In program mode, press:

*** * 1 2 * #**

The level will be announced by the unit announcing a number from 0 to 5.

When there is no reception, the system will announce: “ZERO”

When the reception is the highest, it will announce: “FIVE”

By SMS Command

The unit will send SMS reply with the GSM reception level when the following SMS command is sent:

P P P P * * 1 2 * #

The unit will reply to the sender with SMS message: “The reception level is X”

The letter “X” represents a number from “0” to “5”.

12. OPEN TO ALL command

The unit can be programmed so that it will open the gate to ANY phone call received without checking the phone numbers calling. You can activate or cancel this feature as follows:

Enter program mode Via the keypad and press: *** * 1 3 * N #**

“ N “ represents the numbers “1” or “2”

The number “1” to activate “OPEN TO ALL” feature.

The number “2” to cancel this feature.

The unit will confirm by long BEEP.

By SMS Command

You can also send SMS to activate or cancel this feature as follows:

P P P P * * 1 3 * N #

The unit will replay by the following SMS to the sender:

When the OPEN TO ALL is activated, the system will send SMS saying: [Open to all is activated.](#)

When the OPEN TO ALL is canceled, the system will send SMS saying: [Open to all is canceled.](#)

13. How to change the PASSWORD

[The factory default password is 9999.](#)

You can change the password in program mode as follows:

P P P P * * 1 4 * W W W W #

The letters P P P P represent the old password and the letters W W W W represent the new password.

The unit will confirm the new password by announcing: “*The number is*”

By SMS Command

For changing the password by SMS command, send the following message:

P P P P * * 1 4 * W W W W #

The unit will replay by SMS: [The new password is X X X X](#)

(B) Setting the Keypad Access Control

The keypad can store up to 999 different pin codes for up to 999 users.

The pin codes can be set for each user in **Program Mode (PM)**.

1. How to set the pin code for each user

You can program the pin codes via the keypad or by sending SMS command.

Via the keypad

a. Enter program mode.

b. The following letters and configuration represent the sequence for programming the pin code numbers:

U U U * N * C C C C #

- The first three digits (U U U) represent the user number. From 001 to 999.

- (N) represents (1, or 2) relay 1 or relay 2 to be linked to this user.

- (* C C C C) the pin code number entered for this specific user.

- (#) Enter the information into the system.

The system will announce the pin code as a confirmation: “ *The pin code is ...*”

Note: The system allows the same pin code for many users.

i.e., user No.1 and user No.8 can have the same pin code.

By SMS message:

P P P P * U U U * N * C C C C #

- The first four letters (P P P P) represent password.

- (* U U U *) represent the user number (from 001 to 999)

- (N) represent Relay 1 or relay 2 to be linked to this user.

- (* C C C C #) the pin code number entered for this specific user.

The unit will send confirmation SMS to the sender

P P P P * U U U * N * C C C C # CONFIRMED

Or FAILED message as the [example](#) below:

P P P P * U U U * * C C C C # FAILED

2. How to DELETE the pin code of a certain user

There are three ways to delete the user's pin code from the system:

- I . By entering a new pin code for the same user.
- II . By deleting the pin code using the user's location number in the memory.
- III. Or using the user's pin code to delete it from the system.

Note: Since the system allows the same pin code for many users, all users' that had the same pin code will have their pin code deleted in case this pin code was deleted from the system.

(I) Deleting the Pin Code by entering a new pin code for a user;
That can be done as in the instructions above. In this case the system will announce the new pin code that was entered instead of the old one.

(II) Deleting the Pin Code of a [certain known user](#);

In program mode;

Enter the user's number (from 001 to 999) followed by the RELAY number that this user is linked to and then the star key followed by hash.

U U U * N * #

In this case the system will announce: *"The pin code was deleted"*

The following example shows how the pin code of the 875th user in system was deleted.

8 7 5 * 2 * #

The system will announce: *"The pin code was deleted"*

By SMS message:

P P P P * U U U * N * #

- The first four letters (P P P P) represent password.
- (* UUU*) represent the user number (from 001 to 999)
- (N) represents Relay 1 or relay 2 to be linked to this user.
- (* #) to confirm this command.

The unit will reply and send a confirmation SMS to the sender as follows:

P P P P * U U U * N * # CONFIRMED

(III) Deleting a certain Pin Code from the system;

In program mode,

You can delete a certain **known pin code** from the system without the need of the users' numbers.

*** * C C C C * #** The system will announce: *"The pin code was deleted"*

Note! The system will delete this pin code for all the users that had the same pin code.

By SMS message:

P P P P * * C C C C * #

C C C C : represents the pin code number entered.

The unit will send a confirmation SMS to the sender as follows:

P P P P * * C C C C * # CONFIRMED

3. How to DELETE all pin codes of all the users

In program mode, press

P P P P * * 1 5 * #

The letters P P P P represent the password,

You must press and hold the hash key # at the end of the command for three seconds until you hear the system say:

“The pin code was deleted “

By SMS message:

To DELETE all pin codes of all the users by SMS command, send the following message:

P P P P * * 1 5 * # , P P P P * * 1 5 * #

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