



ECGO-GKP Cellular Telephone Entry

4G Technology

Read Prior to Installing

***For Professional Install Only

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Site Assessment

It is essential that you have a good 4G signal at the installation site!

Before installing the ECGO, ensure that the provider of the SIM Card offers a consistent 4G signal at the installation site. **If a 4G signal is not available, the system will not work.**



Important Safety Instructions

When installing and using the unit, the following basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.

- Unplug all the connections to the product before cleaning. Use a damp cloth for cleaning. Do not use liquid cleaners or aerosol cleaners.
- Do not use this product around sprinkler outlets.
- Do not use this product near an area where there is a potential of a gas leak or fume that can be explosive.
- Do not place the unit near or over a radiator or any other heat source.
- Do not overload the wall outlet or power cord where the power adapter is installed. This can result in fire or electric shock.
- Avoid spilling liquid on this equipment and do not insert any objects through the ventilation slots.
- Avoid using the equipment during an electrical storm. While unlikely, there is a remote risk of electrical shock from lightning.
- Follow the instructions on the product.

Introduction

The ECGO-GKP 4G is a telephone entry system installed at the entrance of a building or outside of a gated area. It is an ideal product to consider as a replacement for a traditional phone entry for the following reasons:

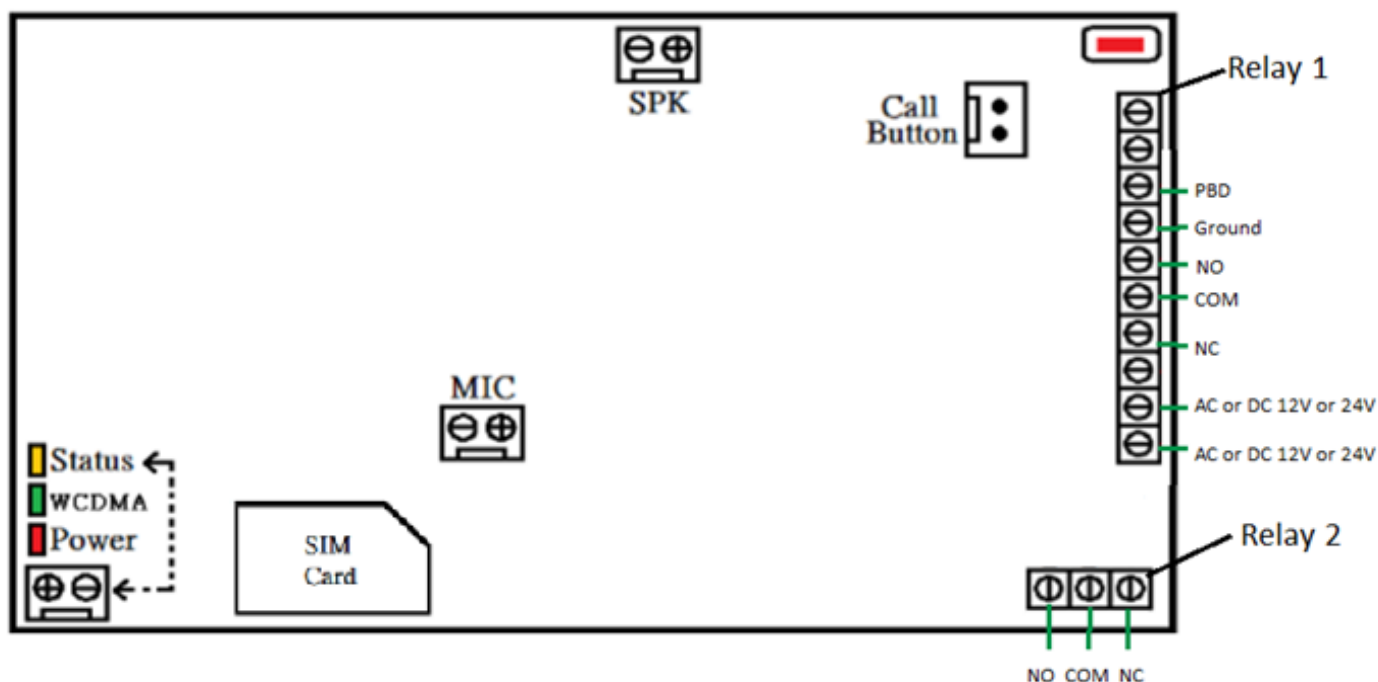
- very easy to install and works well with all gate operators
- allows the owner to save up to 1,150 phone numbers and/or 400 pin codes for family and visitors
- provides the ability to contact up to 3 owners on a cell or landline and will “roll-over” from the first, to second to third when the “CALL” button is pressed
- sends report phone numbers and pin codes that enter the gate via text message to a specified number
- no trench required for phone line!

The ECGO-GKP gives you the opportunity not only to know who is waiting at the entrance from a remote location but to also control the access point. Use of ECGO-GKP at your company or house does not require any special installation and wiring. Simply install the unit and connect the output to gate operator and power supply.

ECGO-GKP Specifications	
Operating Voltage	12 to 24 Volt DC/AC ONLY””
Operating Current	Maximum 250mA, Typically 55mA
Frequency	850/900/1800/1900 or 900/1800 MHz
Humidity	Less than 80% RH
Operating Temperature	-20°C to 50°C

Installation Instructions

ECGO-GKP Control Board / Wiring Diagram



4G SIM card Standard Size Only

While there is an AT&T SIM Card provided in the unit, the following should be noted if the end user would prefer using T-Mobile and/or purchasing a SIM card:

- Request a **standard size** 4G SIM card (illustration above represents actual size of card).
- If you have an AT&T or T-Mobile account, you may add this line to your existing account.
- If you do not have an AT&T or T-Mobile account, you can use the card provided for AT&T service or purchase a T-Mobile 4G SIM Card. Our recommendation is to activate the card with a pre-paid plan and add \$100 to your card. On average, \$100 will sustain the use of your ECGO for approximately 1 yr.
- **NO DATA IS REQUIRED ON YOUR CARD OR PLAN.** Only Voice and Text Messaging is required.
- Be certain to capture the phone number and PIN Code associated to the SIM Card

Once a SIM card has been acquired and activated, insert the card into the SIM card holder shown in the illustration above and close it by carefully sliding the cover down and to the left. After the SIM card is inserted and the power is connected, power the unit up. The unit will beep until it connects to the cell tower.

Five wires are recommended for the ECGO:

- 2 wires for power
- 2 wires for command wires to gate operator
- 1 wire for grounding

Grounding the Unit

Overvoltage and lightening are the most common cause of board damage, it is imperative that your installer connect the ground wire from the stud on the inside back of the cabinet to the main incoming power ground on the gate operator.

Power Supply

The ECGO-GKP is designed to work with power supplies 12V~24V AC/DC. *The power supply should be capable of supplying a constant current of no less than 1 amp.* A transformer is supplied for your assistance. **Should you need to extend the power wire, our recommendation is to use 14-gauge stranded wire for a distance 25' or less from the power source.** Connect a 12~24volt DC power supply to terminals marked "12V~24V AC/DC". See the illustration above.

Antenna

Be very careful to not damage antenna wire and use the supplied gasket for the unit to remain watertight. Note that seal damage to antenna will cause failure and void warranty.

Hard Reset (to reset to factory settings)

After placing a jumper between the Ground and PBD (see illustration above), press and hold the red RESET button until you hear "do" tone, then release all at once. Remove the jumper and power back up.

LED Indicators

LED "Intercom Status" Indicator	
Keypad LED	Status
Yellow (standby)	Flashes once per 5 seconds
Yellow (using)	Solid

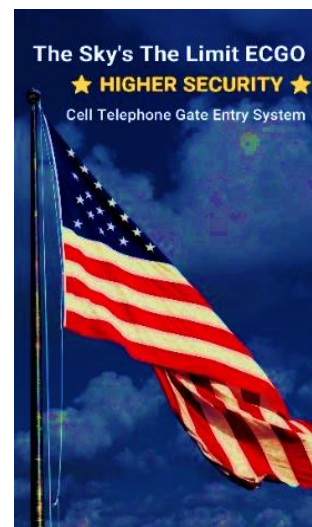
LED " Power " Indicator	
LED	Status
Red (power on)	Solid
Red (power off)	Off

LED " Network "Indicator	
LED	Status
Green -(ready)	Flashes once per 3 seconds
Green (searching)	Flashes once per second
Green (busy)	Solid

Programming via the ECGO App (*Recommended*)

If you have an android or Apple device, the owner can download the ECGO app to easily configure their entry system by going to the App Store, and searching for ECGO.

Please note that the commands entered using the app will generate a text message on your device that you will need to send to the unit (phone # of the SIM Card) to complete the command.



The following options are available from the main menu:

Home Page

Relay 1 – This is the relay to which the primary gate should be configured. The homeowner has the following options from this page:

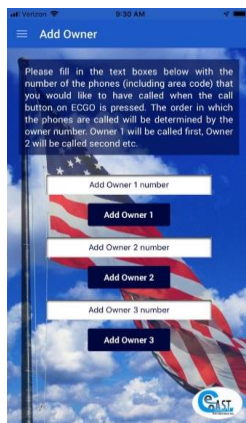
- ✓ Open Gate
- ✓ Hold Gate
- ✓ Release Gate

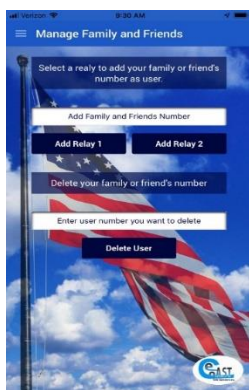
Relay 2 – The ECGO-GKP can be wired to communicate to two devices. Typically, when used, Relay 2 is configured to control a secondary gate, lights or garage door. Consult with your installer or dealer to determine if and how Relay 2 is needed.



Add Owners

The primary owner number must be added prior to adding “family and friends”. Up to three owners may be added. The order (owner 1,2,3) that the owners are specified is the same order that the unit will attempt to reach when the CALL button on the unit is pressed.





Manage Friends and Family

Add up to 1,150 phone numbers of the guests that you would like to be recognized when the unit is called. The primary gate should always be configured to use Relay 1.

Relay 2 is characteristically used for a walk gate, garage door or possibly lights.

This is also where you would go to delete the number/s should you want to remove access.



Set 5 digit PIN Code

Enter/delete up to 400 5-Digit PIN codes that will be recognized when accessing the gate.



Other Options

Select here for the following:

- ✓ Signal Strength (0-30) Note that the unit requires a minimum service level of 14 to consistently support the ECGO
- ✓ Retrieve a list of numbers that have accessed the gate
- ✓ Get Status



Settings

Navigate here to enter the phone number of the SIM Card inserted into the unit. The homeowner also has the options to reset the programming code and/or access code on this page. Please be aware that when the programming or access code is reset, all programming messages sent to the units' SIM card and referenced later in this manual **will need to reflect the new passcode.**

Checking the Signal Strength

To check the ECGO-GKP signal strength (0~30 levels):

Send text ***20#** to the SIM Card # in the unit to receive a response back stating signal strength.

When a request for ECGO-GKP signal strength message is sent to the ECGO-GKP, a response will be sent with a value that represents the signal strength. The code will be between 0-30. **Signal strength lower than level 14 may cause operational problems such as loss of speech quality, and possible missing DTMF tones and network loss.**

Programming via Text Messaging

Entering the command directly to your text stream is an alternative to using the app to configure the text. Keep in mind that there are some features described below that may be useful to you that the unit can support but are not available by using the app.

You can text the message from your cell phone, computer, etc. Additional options that work well are Google Voice or www.onlinetextmessage.com.

To add the gate owner/s (Up to three phone numbers are allowed)

The messages should be sent to the number associated to the SIM card that was purchased for the unit. Type the code (see examples below) into the message box and send. Once this has been done, the device from which the message was sent will receive a response from the unit stating that the message was received. Note that a response may take up to 40 seconds. "OK" indicates success. If "OK" was not received, please verify the signal strength and resend the text once the level is adequate. Also note that the order in which the numbers are specified (1,2,3) is the order that the number will be called when the "call" button on the unit is selected.

The owner number must be added to the unit before "family and friends" can be entered.

The following example illustrates the message that should be used to **program the owner/s**:

You may program up to three owners as follows:

- Add Owner 1: *12*1234#11 owners' area code & phone number
- Add Owner 2: *12*1234#12 owners' area code & phone number
- Add Owner 3: *12*1234#13 owners' area code & phone number

EXAMPLE:

If owner 1 # is 8038316013, your message should appear as follows:

*12*1234#118038316013#

Select SEND and within 40 seconds, you should receive an "OK" message in response.

Then proceed with owner 2 and 3, if applicable.

To add friends and family members that you wish to access the gate

Keep in mind that the ECGO-GKP has two Relays. As mentioned previously, the primary gate should always be configured to use Relay 1. Therefore, when the owner is ready to grant access to the primary gate, Relay 1 should be specified when configuring the system via text messaging.

The following example illustrates the message that should be used to **grant access for friends and family**. The owner can program up to 1,150 friends and family numbers by sending the following text message:

Add friend 1: *12*1234#721 friends' area code and phone number #

Add friend 2: *12*1234#721 friends' area code and phone number #

EXAMPLE:

If the friends' number is 8038316013, your message should appear as follows:

*12*1234#7218038316013#

Select SEND and within 40 seconds, you should receive an "OK" message in response. Then proceed adding additional family and friends.

To delete a number from the system, your message should appear as follows:

*12*1234#73 (area code Phone) Number #

Note that the relay number (1, in the example above) is not needed

EXAMPLE:

*12*1234#738038316013#

One Time Access or Day Time Constrained Access

The following commands will allow you to enter a **ONE TIME** Pin Code or Phone Nbr or a **DATE/TIME RESTRICTED** PIN code or Phone Nbr that can be used on specific dates/times only.

#	Function	Code	Note	Default
1	Enable or disable time restriction	*12*1234#942**[X]#	X: 0,1 0=enable 1=disable	1
2	Setup Valid day and time (for caller ID and PIN code access control)	*12*1234#948[Plan][Day]*[Time]#	plan:01~30 DAY: 0~6 0(Sun),1(Mon),2(Tue),3(Wed),4(Thu),5(Fri),6(Sat) Time: 4 digit format enter start and end time in 24hr e.g. 09:00am=09, 05:00pm=17	N/A
3	Store one-time available caller ID	*12*1234#728[phone number] #		N/A
4	Store time restricted caller ID access numbers	*12*1234#729[plan][phone number] #	Plan:01~30 Stores numbers which will only work during pre-set time and days of the week (relay 1 only)	N/A
5	Check stored timeframe	*12*1234#*27*1234#Plan#	Plan:01~30	N/A
6	Store one-time valid Pin code	*12*1234#*878[pin code]#		N/A
7	Store time restricted PIN code	*12*1234#*879[plan][pin code]#	Plan:01~30	N/A

Shutdown Command

The ability to temporarily prevent phone #'s and/or pin codes with access to trigger the opening of the gate is now possible. This feature can be used to prevent access to a business during holiday closings or, for residential use, when the homeowner is away or would like to prevent access to their property for a period of time.

Note that the owners' ability to open the gate using the app will continue to function as normal while the system is in "shutdown" mode.

No.	Feature	Command	Description
1	Setup a valid plan to use with the shutdown command	942[Plan]*0#	Plan:01~30 Plan #s must range from 01-30 and must be unique. Consider the plan created for shutting the system down as simply a placeholder.
2	Caller ID plan control	950[Plan]#	Plan:01~30 The same command using 00 as the plan # will reverse the shutdown command and restore the ability for telephone #'s with access to open the gate again.
3	Keypad plan control	951[Plan]#	Plan:01~30 The same command using 00 as the plan # will reverse the shutdown command and restore the ability for Pin Codes with access to open the gate again.

Example:

The following string creates a plan (30), disables the ability for phone #'s with access to open the gate and disables the ability for Pin Codes to access the gate.

*12*1234#94230*0#95030#95130#

To re-enable the system, the following command should be used:

*12*1234#95000#95100#

The following are additional commands that can be entered and sent directly to the SIM card in the unit to achieve the function described below.

#	Function	Code	Note
1	Momentary trigger gate open	*33*5678#	Relay 1
2	Latch or Hold Relay	*34*5678#	Relay 1
3	Release Relay	*35*5678#	Relay 1
4	Momentary trigger gate open	*36*5678#	Relay 2
5	Latch or Hold Relay	*37*5678#	Relay 2
6	Release Relay	*38*5678#	Relay 2
7	Retrieve Phone Numbers with access	*21#	
8	Check Relay Status Note: Relay=off means gate is closed, Relay =on means gate is open or in Latch Mode	*22#	
9	Retrieve Pin Codes with access	*24*1234#	
10	Change password of Programming Mode	*12*1234#01 9999 # 9999 =new password Note: 1234 is the password NOT RECOMMENDED <i>***If you change the programming password, the prefix of each function will need to be changed to reflect the updated 4-digit code that you've chosen!</i>	Default = 1234
11	Change password of Access control Mode	*12*1234#02 9999 # 9999 =new password Note: 5678 is the password NOT RECOMMENDED	Default = 5678
12	Change password of Monitoring Mode	*12*1234#03 9999 # 9999 =new password	Default = 1212
13	Store phone numbers of Owners (Max:3 numbers)	*12*1234# 1 + n + #+phone number#	n=1st to call 2 = second to call 3 third to call + phone number of that owner
14	Delete a call button Phone number	*12*1234#1[Y]*#	Y= phone number 1,2 or 3
15	Speaker Volume	*12*1234# 3 + speaker volume#	volume:0~4 levels 4 = High, 0 = Low
16	Microphone Volume	*12*1234# 4 + microphone volume#	volume:0~4 levels 0 = High, 4 = Low

#	Function	Code	Note
17	Relay Time	*12*1234#51 + relay time# Note: 51 for relay 1 50 for relay 2	relay time= n *0.5sec n:1~9 default = 1
18	Divert Time	*12*1234#52 +divert time#	divert time :10~99 sec (2 digit codes) Default = 20 seconds
19	Call Time	*12*1234#53+call time#	call time:005~999 sec (3 digit codes) Must enter 3 digits Default = 60 seconds
20	Ring in to open the door (Max: 1152 numbers)	(country code) 72+Relay #Add phone number# 73+Delete phone number# 73*#Delete all numbers	Add number: 3~15 digit codes Del number: 3~15 digit codes Default = USA
20	Add administrator phone number for SMS programming	74+ TEL #, 3~15 digits see note below	To add administrator phone number
Note: When an administrator number is programmed, <u>THAT IS THE ONLY</u> phone number that can be used to configure or send commands to the unit. <i>Be aware that setting an admin number will require you to reset the entire unit if you lose that phone or no longer have access to delete the admin (see #21) from that number.</i>			
21	Delete administrator phone number for SMS programming	74*#	To delete administrator phone number
22	Relay Trigger	61 + N#	X=0~9 / * / # Default = *
23	Relay Hold	63+ N#	X=0~9 / * / # Default = #
24	Relay Release	64+ N#	X=0~9 / * / # Default = 1
25	Reset	999#	reset default
26	Change relay 2 trigger code	67 [X] #	X=0~9 / * / # Default = 7

#	Function	Code	Note
27	Change relay 2 hold code	68 [X] #	X=0~9 / * / # Default = 8
28	Change relay 2 release code	69 [X] #	X=0~9 / * / # Default = 9
29	Change the number of digits for the pin codes described below	*12*1234#899 1-14 digits #	Default = 5 digits <i>Note that this is the same number of digits that would be expected when configuring keypad pin codes described in the grid directly below.</i>
30	If owner wants to receive an adhoc report via text of phone numbers and/or pin codes used to access the gate Step 1: Text the code here to the SIM Card #	*12*1234#841#	Should receive "OK" back (this may take up to 40 secs)
	Step 2: Specify the mobile # that should receive the report	*12*1234#85 <i>mobile number</i> #	Should receive "OK" back
	Step 3: Specify the number of the SIM Card unit for which the report should be created	*12*1234#86 <i>SIM card phone number</i> #	
31	Delete the request for the report described above	*12*1234#85*#	
32	One-time request to retrieve log Note: The tasks described in 30 must be completed before the one-time request is accepted.	*44*1234#	<i>l=the phone number that was used to access the gate</i> <i>P=the pin code that was used to access the gate</i>
33	Delete the SIM card number in the unit	*12*1234#86*#	

Configuring Automatic Open/Close

A new feature has been added to the firmware of the ECGO to support the ability to open the gate and hold it open until the specified “end” or release time. To configure this behavior, follow the instructions shown here.

#	Function	Code	Note
1	Set-up the day and time for open/close	<p>*12*1234#948[Plan][Day]*[Time]</p> <p>For example, the complete command to create a plan (01) to open the gate M,T,W,Th,F at 8am and close each night at 5pm would appear as follows:</p> <p>*12*1234#9480112345*0917#</p>	<p>Plan: You can create up to 30 plans to accommodate a time restricted PIN Code/Phone #, or the time in which the gate will auto open and close. Plan ID must be two digits. (01~30)</p> <p>DAY: 0~6 0(Sun),1(Mon),2(Tue),3(Wed),4(Thu),5(Fri),6(Sat)</p> <p>Time: 4 digit format enter start and end time in 24hr e.g. 09:00am=09, 05:00pm=17 (1/2 hour is not supported at this time)</p>
2	Check stored timeframe	<p>*27*1234#Plan#</p> <p>To verify the plan that was created above:</p> <p>*27*1234#01#</p>	Plan:01~30
3	Enter the command to activate the plan created in Step 1 on the relay wired to your gate (there are two relays in the unit)	<p>*12*1234#952[relay][mode][plan]#</p> <p>Assuming your gate is on relay 1, and you want to hold open the gate, your command should be entered as follows:</p> <p>*12*1234#9521201#</p>	<p>Relay= 1 or 2</p> <p>Mode: 1=trigger (open and close when the gate times out) 2=hold/release</p> <p>Plan=01~30</p>
4	Delete auto open/close command	*12*1234#9520#	

Keypad Functions

The homeowner can send a text to the unit to configure pin codes that can be entered at the keypad. For example, if the homeowner would like to enter a pin code at the keypad to hold the gate open while mowing the lawn and re-enter the same pin code to close the gate, you can do that by following the instructions (See Function 2) shown below.

#	Function	Code *12*1234#87(Function number) pin code)#	Note
1	Momentary trigger gate open on Relay 1 Note: Primary gate should be configured to use Relay 1	*12*1234#87 1 54321# 1=Function 54321= pin code	Once "OK" response is received from the unit, the homeowner can enter 54321 at the keypad to trigger the gate to open
2	Latch or Hold Open on Relay 1	*12*1234#87 2 12345# 2=Function 12345= pin code	Once "OK" response is received from the unit, the homeowner can enter 12345 at the keypad to cause the gate to open and stay open. When the homeowner is ready to close the gate, they simply need to enter 12345 on the keypad again to cause the gate to close and function normally.
3	Momentary trigger gate open on Relay 2	*12*1234#87 3 65432# 3=Function 65432= pin code	
4	Latch or Hold on Relay 2	*12*1234#87 4 23456# 4=Function 23456= pin code	
5	Delete one code	*12*1234#88 1 12345# 1=Relay 12345= pin code	This message would delete the ability to enter 12345 at the keypad that was previously entered to trigger the gate to open
6	Delete all codes	*12*1234#88*#	
7	Retrieve all pin codes	*24*1234#	

Operating the ECGO-GKP

Once configured either thru the ECGO app or text messaging described above, when a visitor pushes the call button to activate the ECGO-GKP, a ring tone will be heard from the unit. If the primary owner number is busy or does not answer, the call will “roll” to the second, then the third. Once the owner is reached, the conversation can begin from the units’ intercom. By default, calls can be “active” for one minute. The call is “active” from the time that the call is attempted. **When on the call**, the owner can activate the gate configured to use Relay 1 by selecting the options here:

- to open gate, press *
- to hold gate open, press #
- to release the “hold”, press 1

To release the hold after the conversation has ended, text *35*5678#

If Relay 2 is used, the following applies:

- to open gate, press 7
- to hold gate open, press 8
- to release the “hold”, press 9

To release the hold after the conversation has ended, text *35*5678#

ECGO-GKP Warranty

ECGO Inc warrants that the hardware portion of the ECGO Product will be free from material defects in workmanship and materials under normal use from the date of the original retail purchase of the product and for one year thereafter. ECGO Inc is not responsible for misuse, issues as a result of wiring incorrectly, surge, lightning strikes, an incorrect power supply, water damage, or vandalism.

The customer’s sole and exclusive remedy and the entire liability of ECGO and its suppliers under this warranty will be, at ECGO Inc’s option, to repair or replace the defective hardware parts during the warranty period at no charge to the original owner. Any repair or replacement will be rendered by ECGO Inc and replacement hardware need not be new or have an identical make or part.

Repaired or replaced hardware will be warranted for the remainder of the original warranty period or 90 days, whichever is longer, and is subject to the same limitations and exclusions.

For technical help please call your gate installer or ECGO, Inc. at 704-588-4399.

Trouble Shooting Tips for the ECGO-GKP

Q: Why is my unit is beeping?

A: When the unit is powered up but is unable to connect to the service provider with the SIM Card, the unit will beep continuously. The root cause is very likely one of the following:

- If it is a new installation or the card is new, verify that the SIM card is active! Attempting to use a card that has not been activated properly is THE MOST common issue when installing the ECGO.
- If it is a unit that has been working properly for a period of time but quits working and is now beeping, check the following for the root of the issue:
 - o The money on the card has been depleted. Verify the remaining amount and if required, add money to the card
 - o The signal has been lost. Try the following:
 1. Power off the system. Let it rest for 10 seconds and power it back up.If the beeping continues, try the following:
 2. Remove the card and ensure that there is no residue on the bottom side of the SIM Card.
 3. Changes to the cell towers in your area can impact the signal strength that your unit is getting. Check with your provider to see if the tower can be tuned to improve the service in your area if your signal is less than 14 (See page 10 for more information on signal strength). In some cases, a long range antenna that is mounted as high as possible will help improve the signal strength.

Q: I'm sending messages to the unit, but do not get a response.

A: Ensure that your sent messages are displayed in a green color in your text to the unit. If they're highlighted in blue, that indicates that you're attempting to send an iMessage from an iPhone and the unit only accepts SMS texts.

Q: The unit calls the first number, but there is not enough time to answer before it diverts to the next number.

A: Increase the call time as per programming instructions (#19 on page 14).

Q: The unit calls the first owner number but voicemail answers before "rolling" to the second owner number.

A: Decrease the call time as per programming instructions (#19 on page 14).

Q: The * or # key does not work when the intercom calls a phone.

A: Check if you can hear the relay clicking at the gate when the * or # key is pressed during a call. If it can be heard, then the system is working, check wiring between the relay and the lock or gate panel. If the relays do not make a clicking sound, then check this feature on a different mobile cell phone or landline. If it works on a different phone, check the settings on the phone in question under DTMF tones. Failure of DTMF tones to operate correctly is also a symptom of low reception. Check steps above on improving reception. Try pressing the buttons longer when attempting to activate the gates or door.

SIM Card Phone #

PIN Codes/Phone #'s with Access

<u>Name</u>	<u>Phone #/Pin Code</u>	<u>Date/Time Constraint</u> <i>(if applicable)</i>