APC Connect 4V



4G/VoLTE Compatible

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This manual has been designed as a guide to the installation and operation of APC Connect 4V.

Statements contained in the handbook are general guidelines only and in no way are designed to supersede the instructions contained with other products.

We recommend that the advice of a registered electrician be sought before any installation work commences.

Caution!

Please read this manual carefully before installation!

1. Product details

The APC Connect 4V is a powerful remote relay controller which can be used for authorized door access, controlling gates, switching on/off remote equipment, car parking systems etc. The device can be used in places which require to turn ON/OFF your system, machines and other equipment remotely with a FREE call or SMS from your mobile phone.

Just dial from an Authorized User number (if in secure mode) or any number (if in public mode) and the device will reject your call and operate. There are no call costs. Furthermore, users can be authorized at the specified time to operate and after timeout the user will automatically change to an unauthorized type.

1.1 Features:

- 4G / VOLTE compatible.
- No call charges. the GSM Relay Switch rejects the call then carries out the turn ON/OFF action on the first 'ring'.
- Multiple applications (gates, bollards, barriers, garage doors, shutters and access doors or machines).
- Secure - Using caller-ID for identification, unknown callers are ignored.
- Can be operated from anywhere, no distance limit.
- Add or remove users by SMS Text command.
- No need to provide a remote control or keys for different users.
- Up to 200 authorized phone numbers can be configured at the specified time.
- One output with relay rating 3A/240VAC for connecting the switch of the door or machines.
- The relay action will return a SMS confirmation to the owner or authorized call in number, this function is editable by user.
- The relay close or open time is programmable.
- All settings are performed by SMS commands.

1.2 Specifications

Operating Frequency	B1/B2/B3/B4/B5/B7/B8/B28/B40 850/900/1800/1900MHZ (4G/VoLTE)
Relay Output	NC/NO dry contact, 3A/240VAC
DC Power supply	9~24VDC/2A
Power consumption	12V input Max. 50mA/Average 25mA
SIM Card	Support 3V SIM Card
Antenna	50Ω SMA Antenna interface
Temperature range	-20~+60 °C
Humidity range	Relative humidity 90%
Dimensions	W82mm*D76mm*H27mm



1.3 Packing List

- Connect 4V * 1
- Antenna * 1
- User Manual *1

1.4 Applications

- Remote open/close swing/sliding gates, doors, shutters, garage doors, locks with a free call!
- Intrusion security alarm, remote ON/OFF motors, lights, pumps, generators, valves and machines.
- **Residential**: Door, gate, garage access control, electric fans
- **Industrial:** Remote switch equipment, for example: street lights, solar power, motor, inverter, PLC, pumps, fans, etc.
- **Agriculture:** Remote control pumps, etc.
- **Business:** Remote control electronic boxes, bright billboards, LED signs, etc.

2. Safety Directions



Safe Startup

Do not use Gate Opener when using GSM equipment is prohibited or might create danger.



Interference

All electrical equipment might interfere with network signals and influence its performance.



Avoid Use at Fuel Station

Do not use APC Connect at a fuel station.



DO NOT USE at Blasting Sites

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



Reasonable Use

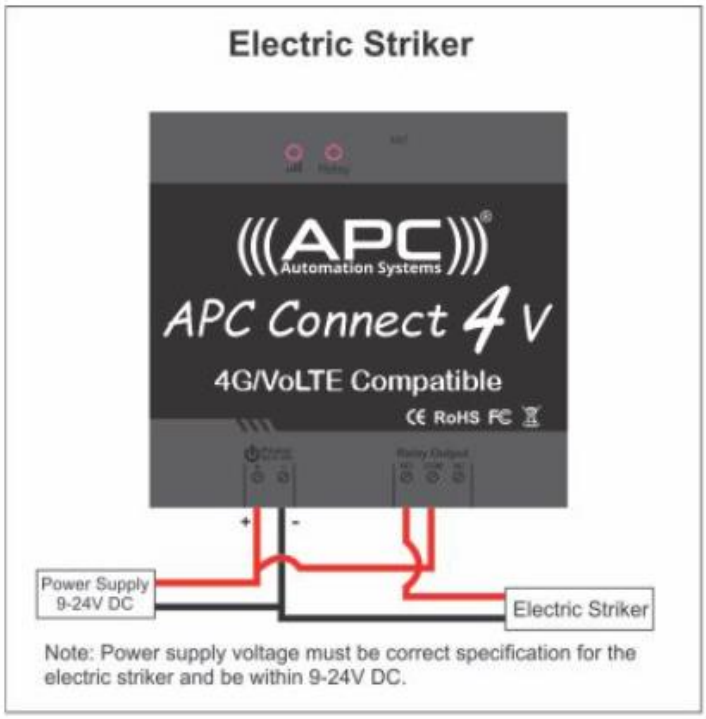
Please install the product in a suitable location as described in the product documentation. Avoid signal shielding by covering the mainframe.

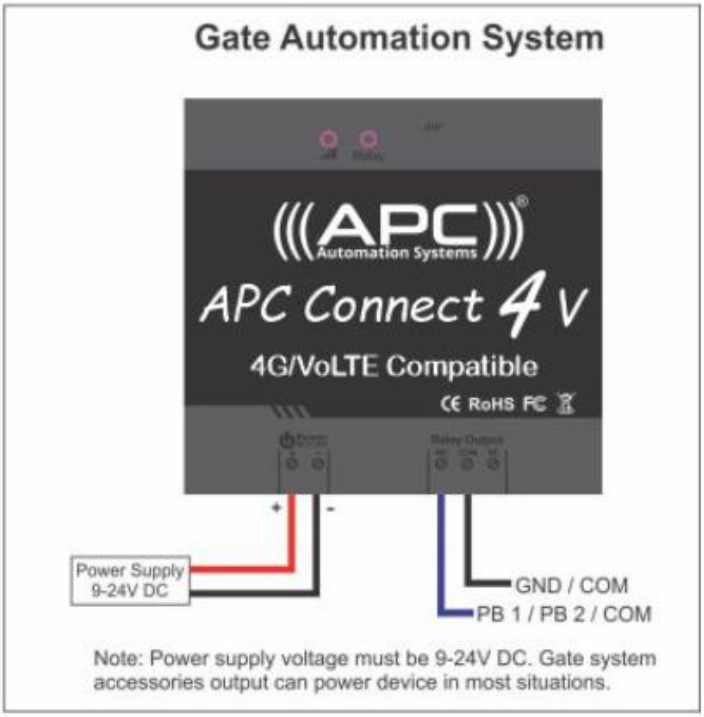
3. Device Overview

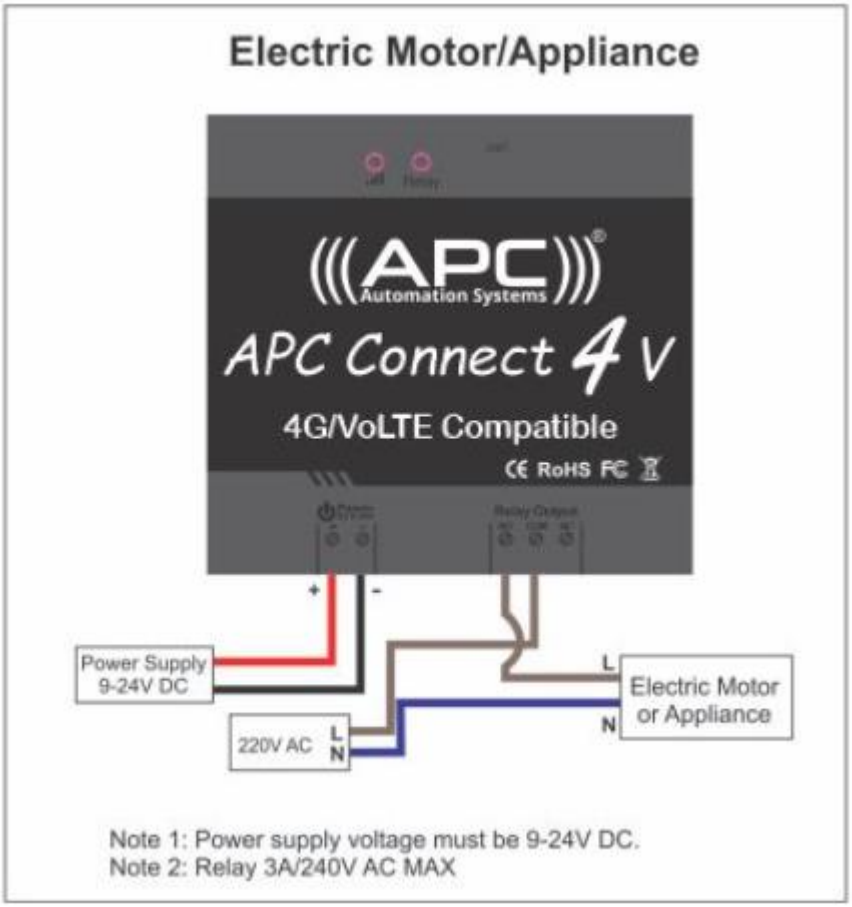
INDICATORS		
Relay	**ON:** Relay closed (ON). **OFF:** Relay open (OFF)	
	Flash per 0.8 second(quickly): registering to cellular network **Flash per 2 seconds:** Normal status **OFF:** can't connect to SIM card or unregistered to the cellular network	
Connection Terminals		
Power	**+**	Power supply input, Positive wire (Red)
	_	Power supply input, Negative wire (Black)
Relay Output	**NO**	Normally Open port
	COM	Common port
	NC	Normally Close port
ANT		Connect to GSM antenna



4. Typical Wiring Connections







5. Installation and Settings

1. **APC Connect for Gate openers and electric strikers:**
   Power up the device on the same DC power source (**9-24V DC**) that powers the lock/striker or gate systems accessories output.

2. **APC Connect for remote switching:**
   Use a separate power supply (**9-24V DC**) to power the APC connect device.

Notice:

1. The default Password is **1234**.
2. You can program the APC Connect 4 with SMS commands using your phone. It is safe to do so because in addition to the fact that other people may not know the number of the SIM inserted in it, we also use a Password that makes it impossible for others who doesn't know it, to access the system by chance, and all the action will be recorded.
3. The relay output will change the close or open status by every call in, please note the first time call it, it will close the relay to switch on the lock, if the second call in is in the setting time, then the unit will ignore the setting time, and open the relay, to switch off the lock.
4. Remember that commands must be **CAPITAL LETTERS**. It is AA not aa, EE not Ee etc. Don't add spaces or any other character in the SMS commands.
5. The **pwd** in the command means the password, like 1234 or if you changed it then it will be the new password.
6. If it is used for gate access only, all you need to do is to change the default password and add the authorized numbers.
7. If you cannot call to control the device or cannot send or receive any SMS message from it. please try to add + in front of the country code or the phone numbers (ex. +61).

For example:

In Australia, the country code is **+61** The user phone number is **0404xxxxxx** and has been assigned as the SMS Alert number, the SIM Card number in the panel is **0419xxxxxx**.

Problem 1: Alarm but the user hasn't received the SMS Alert.

Solution: Please use the country code while you setup the 0404xxxxxx as SMS Alert number this means setup **+61404xxxxxx** instead of the **0404xxxxxx**.

Problem 2: The user number can receive the SMS Alert message from the device, but the device cannot receive the commands from the user number.

Solution: Please add country code to the SIM Card number on the device. This means it will send SMS commands to **+61419000000** instead of **0419xxxxxx**.

Solution 3: Use mobile phone A to call mobile phone B, the number displayed on B is which you should set as the dial number; Use mobile phone A send SMS to mobile phone B, the number displayed on B is which you should set as the SMS alert number; sometimes you may need to use the 0061 to replace the +61 or use the +61 to replace the 0061 in front of the country code.

8. For security reasons the APC Connect will NOT return any SMS if there is a command error, so please make sure you check the SMS Commands, add the country code before the telephone number and check the input is all in CAPITALS and no spaces on the command content.

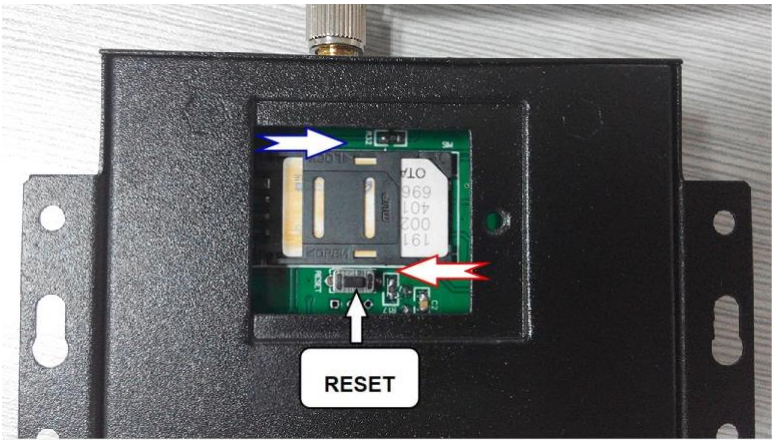
Installation Instructions:

1. Open the SIM card cover on the back side of the unit.
2. Insert your pre-activated SIM card.
3. Power on the device.
4. Press and hold the RESET button for 6 seconds (close to the SIM card holder), then the device restarts.
5. Make sure you are getting the quick flashes (0.8 seconds) from the signal LED.
6. Then start from 5.0 on the manual.

Troubleshooting:

If you are not getting the quick flashes from the signal LED after 10 minutes, please try the following:

1. Check to make sure your SIM card is properly inserted and activated.
2. Restart the device.
3. If you are still having problems, please contact customer support.



5.1 Time Setup (This step is a MUST)

Send **pwdTEL***phone number of the SIM CARD#*

The device will sync its time Automatically with the Network.

E.g.: **1234TEL0061419xxxxxx#** “0061419xxxxxx” is the SIM card number which is inside the APC Connect. 1234 is the default password.

Return: Set Success!

Send ***pwd*T *current date & time*** **to the device for adjusting the time manually.**

E.g.: **1234T 2408201300# (1pm 20th of August 2024)**

Current Time: yy(year)mm(month)dd(day)hh(hour)mm(minute).

Return: Set Time OK!

5.2 Change Admin Password

1234P*new password*

E.g.: **1234P6666** for change the new password to 6666.

Return: “Password changed to 6666, please remember it carefully.”

5.3 Authorized User number management

5.3.0 Add authorized user

pwdA *serial number* **#** *phone number* **#** *start time* **#** *end time* **#**

A: command code.

serial number: the authorized user's position, from 001~200.

start time: yy(year)mm(month)dd(day)hh(hour)mm(minute). Start time when this number can call-in to control. **end time:** yy(year)mm(month)dd(day)hh(hour)mm(minute). End time when this number can call-in to control. **Without start time and end time: User can ALWAYS call-in to control.**

E.g.: **1234A003#123456#** to set the phone no.123456 at the 3rd position and can always call-in to control.

E.g.: **1234A016#123456#2408050800#2409051000#** to set the phone number 123456 at the 16th position, this number can call-in to control during AUG 5th 8:00AM(2408050800) till SEP 5th 10:00AM(2409051000).

Note: 1. The Authorized Number means the one who can dial the device to control the relay.

2. The Serial Number is the position to store the authorized users, from 001~200.

5.3.1 Inquire the saved authorized user on a position (serial number)

pwdA*serial number***#**

E.g.: **1234A002#** to check the number stored on the 2nd position (serial number2).

The device will return SMS with the number.

5.3.2 Inquire batch users' numbers

pwdAL*serial number start***#***serial number end***#**

E.g.: **1234AL002#050#** to inquire the authorized numbers from the 2nd to the 50th.

The device will return several SMS with the numbers list (10 numbers on each SMS).

5.3.3 Delete the Authorized User's Number

(or you can overwrite this position with another number)

pwdA*serial number*##

E.g.: **1234A002##** to delete the 2nd authorized number.

5.4 Relay Control Setting

5.4.1 Allow all numbers can call-in to control

pwdALL#

5.4.2 Allow only the authorized numbers can call-in to control (Caller-ID for security, default)

pwdAUT#

5.4.3 Relay (ON) latch time after call-in (in seconds)

pwdGOT*close time*#

close time=000~999. Unit: Second

close time=000: relay close 0.5 second then open (use the relay as momentary). USE THIS FOR AUTOMATIC GATES

close time=999: relay will always keep close (ON) after call-in until the next call-in.

E.g.: **1234GOT030#** to set relay close 30 seconds (ON) and then open (OFF) after call-in.

5.4.4 Who will receive the confirmation SMS when the relay is ON / OFF

pwdGONab#*content#* for relay **ON**, **pwdGOFFab#***content#* for relay **OFF**.

ab: the ID code of the 1st number(a) and the caller number(b), =0 means disable, =1 means enable.

content: confirmation SMS content.

ID code		**APC Connect 4 sends a notification SMS to**	
a	b	The 1st number	Caller number
0	0		
0	1		√
1	0	√	
1	1	√	√

E.g.: **1234GON11#Door Open#**

The 1st number & the caller number receives confirmation SMS when relay is ON (door opened).

E.g.: **1234GOFF00#Door Close#**

The 1st number & the caller number will not receive confirmation SMS when relay is OFF (door closed).

5.4.5 No confirmation SMS when the relay is ON / OFF

pwdGON## **pwdGOFF##**

5.4.6 Control the relay ON / OFF by SMS command

pwdCC Return SMS: Relay ON (or the SMS confirmation content that you modified above)

pwdDD Return SMS: Relay OFF (or the SMS confirmation content that you modified above)

The relay latching time is according to the setting made in 5.4.3.

5.4.7 Stop random SMS

pwdGTEL#

5.5 Others

5.5.1 Self-check auto report SMS to the 1st number. (unit: hour)

pwdT#*xxx*#

xxx=000~999

xxx=000, default, no self-check auto report.

Auto report SMS including:

Relay status;

GSM signal value
14 or less is low signal strength
15-25 is Acceptable
26-31 is Excellent

Inquire the self-check and auto-report time

pwdT#

5.5.2 Inquire current status

pwdEE

5.5.3 Inquire the GSM modules' IMEI code and firmware version

pwdIMEI#

5.6 RESET

Press and hold the RESET button for 6 seconds (close to the SIM card holder), the device restarts.

This operation will reset the password to default 1234 and other parameters, but the authorized user's numbers will remain on the memory.

6. Important information

1) Please read the User Manual carefully before you install and control the device.
2) Install the device in a hidden place.
3) Install in a place where the unit will not get wet.
4) Have a secure connection to the main power supply.

7. Maintenance

1) In case of failure, please contact APC Automation Systems.
2) If the device works but fails to send SMS texts, switch the power OFF and ON again. Allow a few minutes to initialize then test again. Also, ensure the settings are correct and the signal strength is acceptable at minimum.

8. Warranty

1) The device is warranted to be free of defects in material and workmanship for one year from the date of purchase.
2) This warranty does not extend to any defect, malfunction or failure caused by abuse or misuse by the Operating Instructions

9. Authorized users list (print this page and fill in for record)

Position	User Phone number	User Name	Always	Specific time access
1				
2				
3				
4				
…				