Manuals+ — User Manuals Simplified.

APC Connect 4 Automation Systems Installation Guide

Contents

APC Connect 4 Automation Systems

Product Details

The APC Connect 4 is a powerful remote relay controller that can be used for authorized door access, controlling gates, switching on/off remote equipment, car parking systems, and more. It allows you to turn ON/OFF your system, machines, and other equipment remotely with a FREE call from your mobile phone.

Features:

- Authorized door access control
- Remote control of gates, doors, shutters, garage doors, locks, motors, lights, pumps, generators, valves, and machines
- Supports residential, industrial, agriculture, and business applications

Specifications:

- **GSM Frequency**: B1, B3, B4, B5, B7, B8, B28, B40
- **Relay Output**: NC/NO dry contact, 3A/240VAC
- **DC Power Supply**: 9~24VDC/2A
- **Power Consumption**: 12V input Max. 50mA/Average 25mA

Dimensions:
The dimensions of the APC Connect 4 are not provided in the user manual. Please refer to the product packaging or contact the manufacturer for detailed dimensions.

Standard Packing List:

- Gate Opener – 1
- Antenna – 1
- User Manual – 1

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.

This manual has been designed as a guide to the installation and operation of APC Connect 4. 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 installing the GSM ,basic electronic knowledge is required.

Product details

The APC Connect 4 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 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.

Features

Advantages

- Quad-band, can work in the worldwide GSM Networks;
- 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
- Operate from anywhere anytime, no distance limitation;

Specifications

GSM Frequency	B1 B3 B4 B5 B7 B8 B28 B40
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

Standard Packing List

- Gate Opener * 1
- Antenna * 1
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Dimensions

Safety Directions

- **Safe Startup**

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

- **Interference**

  All wireless equipment might interfere network signals of Gate Opener and influence its performance.

- **Avoid Use at Fuel Station**

  Do not use APC Connect at a fuel station.
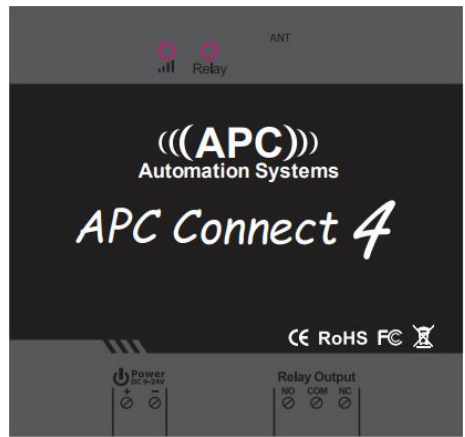
- **DO NOT USE at Blasting Sites**

  Please follow relevant restrictive regulations. Avoid using the device in blasting sites.
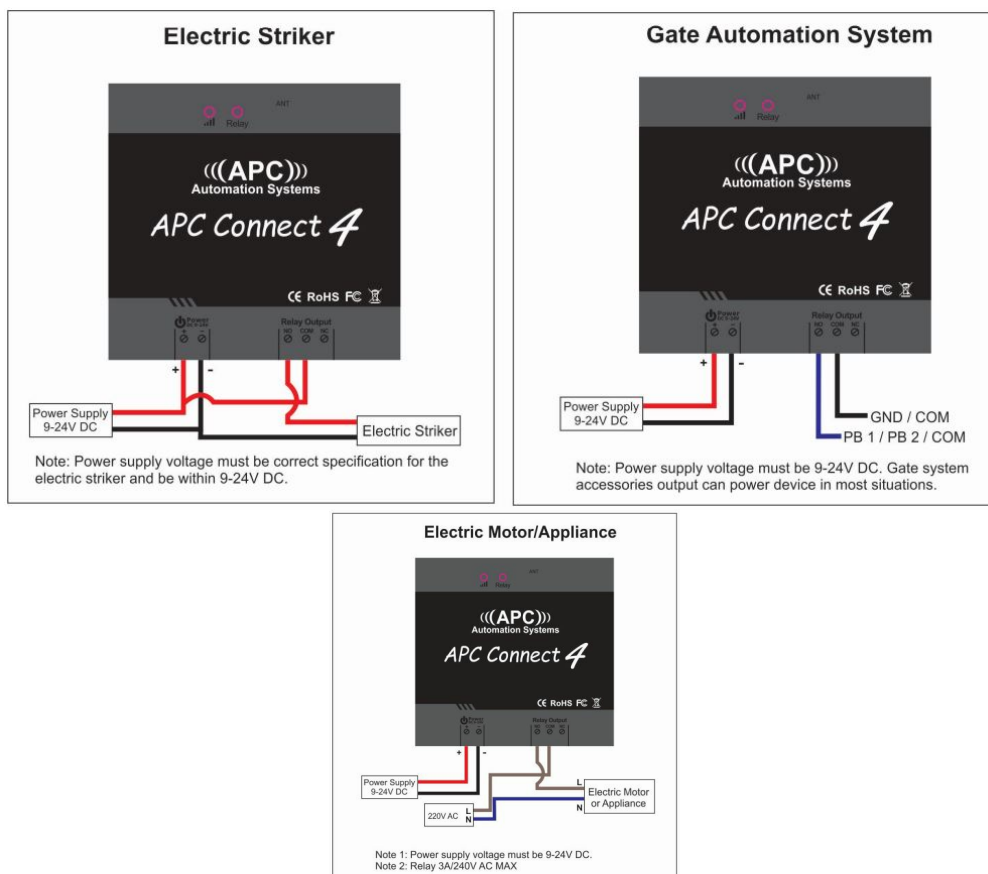
- **Reasonable Use**

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

Device Overview

INDICATORS	
Relay	**ON:** Relay closed (ON). **OFF:** Relay open (OFF)
IIII	**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.	

Typical wiring connection:

Electric Striker

Gate Automation System

Note: Power supply voltage must be correct specification for the electric striker and be within 9-24V DC.

Note: Power supply voltage must be 9-24V DC. Gate system accessories output can power device in most situations.

Electric Motor/Appliance

Note 1: Power supply voltage must be 9-24V DC.
Note 2: Relay 3A/240V AC MAX

Installation and Settings

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.

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.

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.
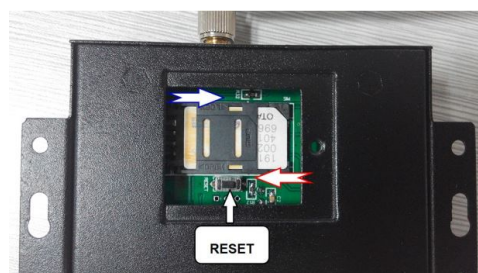
Installation Instructions

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/activated.
2. Restart the device.
3. If you are still having problems, please contact customer support.

Start (This step is a MUST):

Send `pwdTELphone number of the SIM CARD#` This is so that the device can adjust its time.

E.g.: 1234TEL0061419xxxxxx# "0061419xxxxxx" is the SIM card number which inside of the APC Connect.

Return: Set Success!
Notice: If the APC Connect 4 is not working correctly time, then send the SMS command to adjust time manually as below:

Send `pwd Tcurrent time` to the device for adjust the time manually.

E.g.: **1234T 1905111300# (1pm 11th of May 2019)**

T:Command Code.

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

Change Password

`1234Pnew password`

E.g.: 1234P6666 for change the new password to 6666.
Return: "Password changed to 6666, please remember it carefully." if password changed successfully.

Authorized User number managerment

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).the start time of this number can call in to control.

end time: yy(year)mm(month)dd(day)hh(hour)mm(minute).the end time of this number can call in to control.

Without start time and end time means: Always can call in to control.

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

E.g.: **1234A016#123456#1502050800#1502051000#** to set the phone number 123456 at the 16th position, this number can call in to control during Feb 5th 8:00a.m.(1502050800) to Feb 5th 10:00a.m.(1502051000).

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.

Inquire the Authorized user's position(serial):

pwdA_serial number_**#**

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

Inquire batch users number

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).

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.

Relay Control setting

Allow all numbers can call in to control:

pwdALL#

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

pwdAUT#

How long to latch the relay (ON) after phone call in (unit: second)

pwdGOT_close time_**#**

- close time=000~999. Unit: Second
- close time=000: relay close 0.5 second then open (use the relay as momentry).

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.

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 receive 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)..

No need confirmation SMS when the relay is ON/OFF.

pwdGON##   **pwdGOFF##**

Control the relay ON/OFF by SMS command

- **pwdCC** **Return SMS:** Relay ON (or the SMS confirmation content which you modified before)
- **pwdDD** **Return SMS:** Relay OFF(or the SMS confirmation content which you modified before)

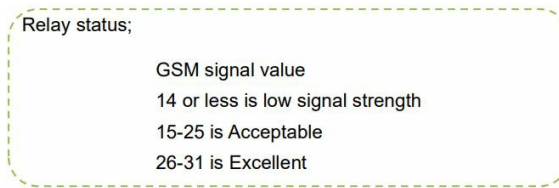The relay latching time is according to the setting made in 5.3.3:

Others:
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#`

Inquire current status

`pwdEE`

Inquire the GSM modules' IMEI code and firmware version

`pwdIMEI#`

RESET

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

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.

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 after one minute then allow a few minutes to initialize then test again. Also or ensure and check the settings are correct and the signal strength is acceptable at minimum.

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

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

Position	User Phone number	User Name	Always	Specific time access

Documents / Resources

((APC)) Automation Systems APC Connect *4*	**APC Connect 4 Automation Systems** [pdf] Installation Guide Connect 4 Automation Systems, Connect 4, Automation Systems

Manuals+,