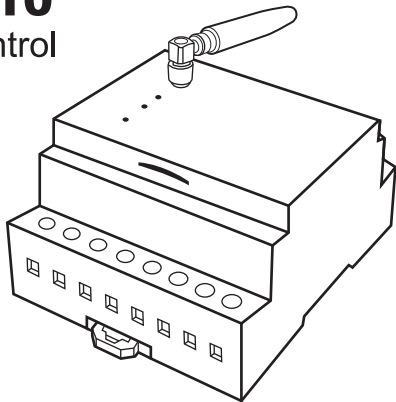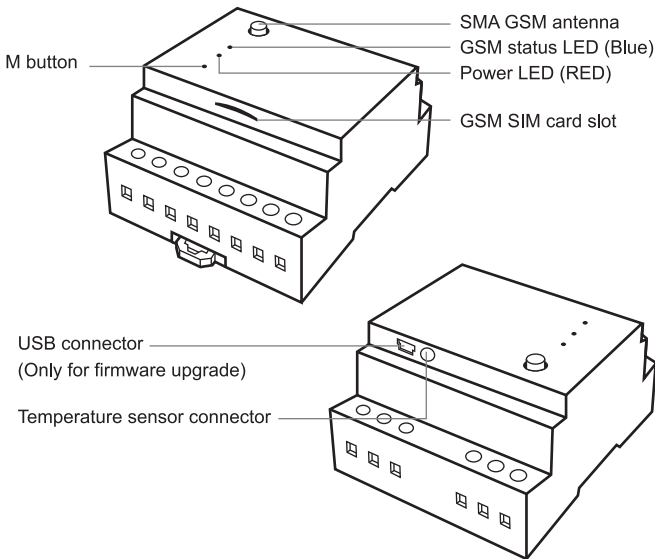# SimPal-D210
GSM Power Control

> ! **Important notes:**
> Max allow 16A,3500W loading,
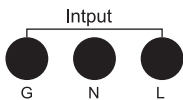> 110-230V AC power input

• Product Instruction:

SimPal-D210 DIN-Rail GSM Power Control: working with GSM SIM card, calling to turn on/off power. Built-in power adaptor,110-230V power input, both 12V and 110-230V power output. Support two lines wired sensor and one temperature sensor.

• Product Structure:

SMA GSM antenna
GSM status LED (Blue)
Power LED (RED)

M button

GSM SIM card slot

USB connector
(Only for firmware upgrade)

Temperature sensor connector

• Power Control connector:

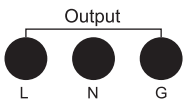

Intput

G   N   L

Output

L   N   G

Input: (110-230V AC)
L: Live line input
N: Negative line input
G: Ground line intput

Output: (110-230V AC)
L: Live line output
N: Negative line output
G: Ground line output

12V   S1   S2   12V(C)

−   +   −   +   −   +   −   +
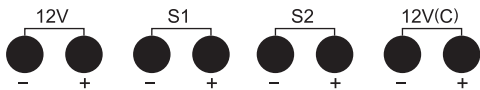
12V output and alarm sensor input:
12V: Constant 12V DC output (Max 200mA)
S1: Wired sensor-1 input
S2: Wired sensor-2 input
12V(C): Controllable 12V DC output (Max 200mA)

• Start to use:

(Important notes: Cut off power supply when wiring cables)
1. Connnecting the GSM antenna onto connector.
2. Install SIM card, put the SIM card metal contact downside and cut corner at the left. Hardly push the SIM card until it locked inside the SIM card slot.
3. Connecting wired sensor, temperature sensor. (If necessary)
4. Connecting 110-230V AC power input and output, make sure power supply is cut off when wiring the cable.
5. Connect the 110-230V AC power, then device start to working. The LED will light on within 3-5 seconds after power connected.

• Register mobile phone number:

Max allow 5 numbers to control the device, one Master number and four Users. Master have full authorization to configure the devices, User number only can be added by Master number. All configurations are process by sending SMS to device SIM card. The SMS format is #code-1#code-2#.

Register Master number: #00#
Add User number: #06#User-number#
Deleted User number: #15#User-number#

If device replied "Master number already exist", then it need to manual reset the device to clean old Master settings. Keep press M button for 10 seconds, it will reset the device factory setting.

• Power on/off

There are two methods to on/off the 110-230V power output from your mobile phone:
· Method 1: Calling to on/off power, call the device SIM card number, it will auto hand up your calling, turn on/off power.

If you need SMS reply, Master send SMS #49#1# to set calling with SMS reply.

· Method 2: Send SMS to turn on/off power:

Turn on 110-230V power: #01#0#
Turn off 110-230V power: #02#0#

• DC 12V output

Constant 12V DC output can not be turn off, it will always 12V DC output when device power on, this can work as power supply for wired sensors or other devices.

Controllable 12V DC output can be working for siren, when wired sensor alarm, it will auto trigger the 12V DC output for 60 seconds. Master send following SMS:

Stop 12V DC output: #42#
Trigger 12V DC output for some seconds: #42#time#
Time range is 1-600, it means turn on 12V power from 1-600 seconds.

• Delay control

Set the 110-230V power auto turn on/off for some minutes. Master send following SMS to:

Turn on power for some mintues: #12#0#time#0#

Turn off power for some minutes: #12#0#time#1#
(Time range is 1-720, it means 1-720 minutes)

Delay control function will auto stop when manually on/off power.

• Schedule control

Set the 110-230V power auto on/off according setting schedule, Master send following SMS to:

Set turn on power schedule parameters: #20#0#day#start-time#end-time#
It will turn on power when it reaches the setting time.

- Day: one digit, value range is "0" to "8".
- The following table contains the descriptions of each value:

Value	Corresponding day	Value	Corresponding day
0	Everyday	5	Friday
1	Monday	6	Saturday
2	Tuesday	7	Sunday
3	Wednesday	8	Monday to Friday
4	Thursday	9	Weekend

- StartTime and EndTime: Be consists of 4 digits (hh:mm) and works on a 24 hour clock. If StartTime bigger than EndTime, it will operate until next day EndTime.

For example: #20#0#0#2000#0800#, it means "everyday", it will turn on power from 20:00 and turn off at 08:00 next day.

Activate schedule control function: #19#0#1#

Schedule control function will auto stop when manually on/off power.

Temperature control

This functions need to buy DS18B20 temperature sensor separately, when temperature sensor installed, it will display temperature value in SMS reply.

Temperature control function mostly use when output power connected with heating or cooling device, it will auto turn on/off power according the temperature change. Master sends SMS to:

Set temp control parameters: #24#0#mode#low-temp#high-temp#

- Mode parameter can be 1 or 2, Warming mode is 1, cooling mode is 2;
- Temp range should be within -30 to 100 degree.

For example #24#0#1#15#25#, it means set thermostat control parameter, work with warming mode (Connected with heating device) and turn on power when temperature lower than 15 degree, turn off when temperature higher than 25 degree.

Activate temp control: #23#0#1#

Temp control function will auto stop when manually on/off power.

Temperature alarm

This functions need to buy DS18B20 temperature sensor separately. Master set temperature range for device, when temperature out of range, it will send SMS to notify user of temperature change. Master send SMS to:

Set temperature alarm range: #22#0#low-temp#high-temp#
Temperature range is -30 to 100 degree.

Activate temperature alarm: #21#0#1#
Deactivate temperature alrm: #21#0#0#

Wired sensor alarm

There are two wired sensor input, one constant 12V DC output, one controllable 12V DC output, Constant 12V DC can be work as power supply for wired sensors, Controllable 12V DC can work for siren, when sensor alarm, it will trigger 12V DC for 60 seconds and send SMS alarm. Master send SMS to:

Turn on sensor alarm: #40#1#
Turn off sensor alarm: #40#0#

Change sensor name: #43#sensor1#Sensor2#
Default sensor name is "Sensor-1" and "Sensor-2", Master can define own sensor name, such as #43#Door#Window#, then it will name sensor-1 "Door", name sensor-2 "Window". The name will included in alarm SMS.

Advanced settings

SMS when on/off button pressed
Send SMS when M button pressed, Master send SMS to set:
SMS when on/off button pressed - ON (Default): #03#1#
SMS when on/off button pressed - OFF (Default): #03#0#

SMS when power lost or restore
Default sending SMS notify when main power supply lost or restore. Master send SMS to set:
Power lost or restore SMS - ON (Default): #05#1#
Power lost or restore SMS - OFF: #05#0#

SMS when calling operation
Default send SMS when calling on/off power, it can set to stop SMS reply when calling operation. Master send SMS to set:
SMS when calling operation- ON (Default): #41#1#
SMS when calling operation- OFF: #41#0#

Reset factory settings
Reset factory settings if you want to change or forgot Master number. There are two methods to reset factory setting:
- Method 1: Master send following SMS to:
  Reset factory setting: #08#1234#

- Method 2: Keep pressing the M button for 10 seconds, it will long beep and reset factory setting.

SMS command list

Category	Function	Command
Define the users	Register Master-number	#00#
	Add Family-number	#06#Family-Number#
	Check Family-number	#06#
	Delete Family-number	#15#Family-Number#
	Delete all Family-number	#15#
Power Control	Power - ON	#01#0#
	Power - OFF	#02#0#
	Stop 12V output	#42#
	Power on 12V for some seconds	#42#seconds#
	Calling to on/off AC power (Default)	#09#0#
	Calling to trigger 12V DC	#09#1#
Delay control	Turn off power for some minutes	#12#0#Minutes#1#
	Turn on power for some minutes	#12#0#Minutes#0#
Schedule control	Schedule control - ON	#19#0#1#
	Set schedule control parameters	#20#0#WorkDay#StartTime#EndTime#
Temp control	Temp control - ON	#23#0#1#
	Set temp control parameters	#24#0#mode#low-temp#high-temp#
Temperature alarm	Temp alarm - ON	#21#0#1#
	Set temp range	#22#0#MinTemp#MaxTemp#
	Temp alarm - OFF (Default)	#21#0#0#
Sensor alarm	Wired sensor alarm - ON	#40#1#
	Wired sensor alarm - OFF (Default)	#40#0#
	Change sensor name	#43#sensor1#Sensor2#
SMS notifications	SMS when on/off button pressed – ON (Default)	#03#1#
	SMS when on/off button pressed function - OFF	#03#0#
	SMS when power lost or restore – ON (Default)	#05#1#
	SMS when power lost or restore function - OFF	#05#0#
	SMS when calling - ON	#41#1#
	SMS when calling - OFF (Default)	#41#0#
	SMS to Users - ON (Default)	#16#1#
	SMS to Users - OFF	#16#0#
Check status	Check status	#07#
	Check "Delay Control" status	#34#
	Check "Schedule control" status	#33#
	Check "Temp control" status	#32#
	Check "temp alarm" status	#35#
	Check GSM signal	#27#
	GSM signal alert - ON	#27#1#
	GSM signal alert - OFF (Default)	#27#0#
	Check SMS command	SMS
Reset socket	Reset to factory setting	#08#1234#