



# SimPal-T4

## GSM Power Socket

# User Manual

Manual version 2.0



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## **SimPal-T4 GSM Power Socket**

Thank you for purchasing the SimPal-T4.

SimPal-T4 GSM power socket is a remote controlled socket consisting of a GSM module.

The power supply output can be turned on or off remotely by the SMS command or local controlled by pressing button.

All services and functions need to be supported by the GSM network and a SIM card.

This brochure suits for **SimPal-T4** model.

Details of the functioning and advanced operation of this socket are described in this instruction manual.

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- 1. Purchase a GSM SIM card (mobile phone card) from GSM network service provider and install it in the socket. This SIM card number is referred as SimPal-T4 number on this brochure.**
- 2. The user needs to activate the Caller ID Presentation function of SIM card, and deactivate PIN code of the SIM. Contact with GSM network service provider for support.**
- 3. Change the original password at the beginning use. Be sure to keep the password and SIM card number secret. Do not disclose**



**this information to anyone other than the authorized users in order to ensure your safety.**

## For your safety

- This socket was designed for home or office use. Do not use it on the electrical appliance which is for industry or business operation, for example, industrial appliances, large heaters and refrigerators.
- Before using this socket, make sure that the mobile phones can be used well in the area, otherwise, do not put this socket into operation.
- The power consumption of the appliances connected with the socket cannot exceed 3600W and the current cannot exceed 16A.
- The electrical appliance which power consumption is higher than 1500W must be

grounded.

- Do not make two plugs of socket short circuit.
- Do not touch the socket jack by any metal objects or hand.
- This socket was designed for indoor use. Don't use it in wet, chemically aggressive or dusty environment.
- Do not open the case unless maintenance needed.
- Do not keep shaking or fall down this socket, otherwise it can be damaged.
- This socket is a wireless signal transmission socket. Keep it away from electronic equipment likely to interfere with the wireless signals, in order to avoid signals interference.
- Switch off this socket and mobile phone when entering areas marked "Explosive", "Might

explode", "Closed wireless transceiver sockets" etc.

- Do not cast this socket in a fire, as this may cause explosion.
- This socket should only be operated from power approved by the socket manufacturer. The use of any other types of power may damage the socket.
- Keep the socket and its accessories out of the children reach.

## Exception clause

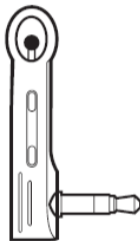
1. We operate on a policy of continuous development. We reserve the right to make changes and improvements to any of the sockets described in this document without prior notice.
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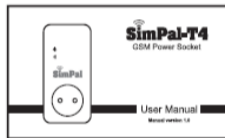
## 1.1 Package contents



GSM power socket  
(1 unit)



Temperature sensor  
(1 PC )



User manual  
(1 PC )

## 1.2 Sockets instructions

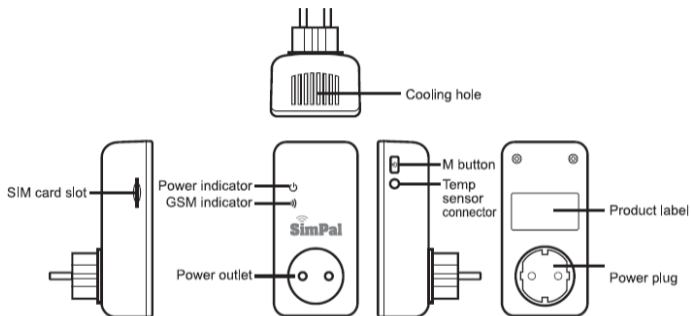


Figure 1: SimPal-T4 instructions

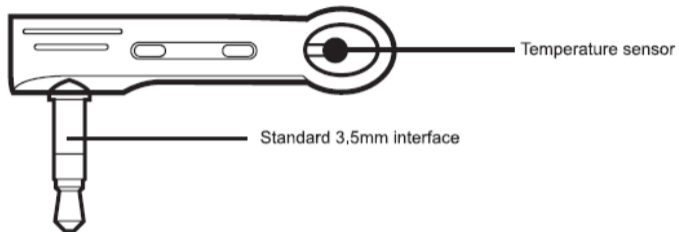


Figure 2: Temperature sensor Instruction

## 1.3 Light indicator

Model	Indicator	Action	Status
SimPal-T4	Power icon indicator	Turning off	Socket power output OFF
		Constant light	Socket power output ON
	Wireless icon indicator	Flash slowly	Searching GSM network
		Slowly breath	Working in standby mode.
		Continues light in 3 seconds	Rest to factory setting
		Flash fast	Process SMS command

## 2.1 User authorization level

Socket settings can be set or adjusted via a SMS command.

There are two mobile phone user controlling levels:

**Master**-user ("Master"):

Only one **Master** has authorization to use all features of SimPal-T4.

In order to enable all the functions on the socket, the **Master** must store his/ her mobile number in the socket's memory. Only one **Master's** mobile number is allowed for a socket.

**Family** users ("Family"):

There are four families have authorization to use commands of switch on or cut off the socket output, check socket temperature value or receive power status change alert.

**The other mobile phone users** have no authorization to control the socket.

## 2.2 About the SMS Command

- **SMS command format:** #code#content#.
- The maximum digits that are allows for the phone number is sixteen.
- SimPal-T4 will reply to the user after it receives the SMS command.

 **Note**

- The “#” symbol must not be ignored when typing an SMS command.
- No allow any space within the commands.

### 3.1 Start to use

- Installed SIM card to SimPal-T4 GSM power socket: you will see a SIM card slot at the side, make the SIM card metal contact upside and hardly push the SIM card until SIM card fixed.
- Insert the temperature sensor into the I/O port until it is seized.

#### **Power on:**

1. Plug the SimPal-T4 in 230V wall socket.

The GSM LED will be flashing slowly for about 15 seconds, and turn to slowly breathe status, breathe LED means the socket already register GSM network, its ready to working.

The socket default power output is OFF.

2. Insert the plug of electronic appliance in the SimPal-T4 electrical outlet.
3. **M button** (See 5 on Figure1) can be pressed for about one second to switch on or off the socket output.

After adding user numbers to the socket, users can send SMS command to control the power supply output.

 **Note:**

- If the GSM indicator light is flash slowly all the time, which imply the SIM card working

abnormally, all functions of this socket are invalid.

Check GSM network signal of the using place:

- GSM network's signal strength may affect the socket feature. Therefore, before using, the user should ensure that socket is used in an area with a strong GSM network signal.
- For the first time use, the user should perform a test-run by sending SMS to the socket. This allows the user to check the GSM network connection of the socket.

### **3.2.1 Register Master-number.**

Sending following SMS to socket SIM card number from your mobile phone (the phone number

will be the **Master** number):

Register Master-number on the socket:                    #00#                    (1)

### 3.2.2 Change Master number

**Master** sends following SMS message in order to:

Change master-number:    #14#*NewMasterNumber*                    (2)

- *NewMasterNumber* should be the new Master mobile phone number.

### 3.3.1 Register Family-number

Up to 4 Family-number can be stored on GSM socket.

**Family-number** has the authority to send SMS command to switch on or cut off the socket power output.



#### Method

**Master** sends following SMS message in order to:

**Register a Family:** #06#*Family-Number*# (3)

- ***Family-Number*** should be the User's mobile phone number.

### 3.3.2 Check Family number

Master sending SMS to check Family number: #06# (4)

### 3.3.3 Delete Family



#### Method

**Master** sends following SMS message in order to:

**Delete a Family:** #15#*Family-Number*# (5)

**Delete all Families:** #15# (6)



## Method

**Method 1 :** To press **M** button one second (See 5 on Figure1).

### Method 2 :

**Master** sends following SMS message to socket in order to:

Turn ON socket power output: #01#0# (7)

Turn OFF socket output: #02#0# (8)

## 3.5 Delay control the socket output

### Description

- The socket output can be set to delay switch ON/OFF for a period time.
- Delay control function will auto deactivate once manual change socket status by sending SMS or M button, activate calendar control or thermostat control will also deactivate the delay control function.
- When the “delayed switch on the socket” command is received and if the socket output is switched on, the socket output will be switched off immediately and be switch on again as the setting delayed time is reaching. Contrarily, if the socket output is switched off,

the output will remain switching off until the setting delayed time is reaching.



### Method

**Master** sends following SMS message in order to:

**Delay switching ON output after a certain minutes:** #12#0#Minutes#1# (9)

**Delay switching OFF output after a certain minutes:** #12#0#Minutes#0# (10)

- **Minutes** are time parameters, its range is 1-720,

Press M button or send other SMS command to change the socket power, it will automatically

closed delay control function

## 3.6 Calendar control

### 3.6.1 Activate calendar control

#### Description

- The socket output can be set to switch on for duration and then be switch off after the duration.
- Calendar control function will auto deactivate if user manually change the socket status by SMS or M button, Delay control or Thermostat control will also deactivate calendar control function.



#### Method

**Master** sends following SMS message in order to:

**Activate calendar control function: #19#0#1# (11)**

Socket will auto switching on or off the output according to the schedule settings.

### 3.6.2 Set calendar



#### Description

After successful setting of time duration to switch on the socket output, the schedule parameter will be saved on the socket until socket reset to factory settings.



#### Method

**Master** sends following SMS message in order to:

**Set time period to switch on the socket output:**

**#20#0#WorkDay#StartTime#EndTime#** (12)

- **WorkDay:** one digit, the values lie in the range of “0” to “8”.

The following table contains the descriptions of each value:

Value	Corresponding day
0	Everyday
1	Monday

2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday
8	Monday to Friday
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.

- The socket output will switch on at the **StartTime** and cut off at the **EndTime**.
- For example: #20#0#1#0000#2130# , 0 means the SimPal-T4, 0000 means time 00:00(hh:mm)AM, 2130 means time 9:30PM.

### 3.6.3 Deactivate calendar control



#### Method

**Master** sends following SMS message in order to:

**Deactivate calendar control:** #19#0#0#

(13)

## 3.7 Thermostat control

### 3.7.1 Activate thermostat function

#### Description

- The external temperature sensor must be inserted into the **I/O** port of socket. The socket power output can be auto controlled according environment temperature change.
- Thermostat function will auto deactivate if user manually change the socket status by SMS or M button, Delay control or Calendar control will also deactivate calendar control function.

- There are warming mode and cooling mode for thermostat control function. In warming mode, socket will auto turn on when temperature lower than smaller temperature value, and turn off when higher than bigger temperature value; Cooling mode, socket will auto turn on when temperature higher than bigger temperature value and turn off when temperature lower than smaller value.



### Method

The **Master** sends following SMS message in order to:

**Activate Thermostat control:** #23#0#1#

(14)

### 3.7.2 Set thermostat control parameters



#### Method

**Master** sends following SMS message in order to:

**Set thermostat control parameters:** #24#0#mode#low-temp#high-temp# (15)

Mode parameter can be 1 or 2, Warming mode is 1, cooling mode is 2;

Temp range should be within -10 to 50 degree.

For example #24#0#1#15#25#, it means set SimPa-T4 thermostat control parameter, work with warming mode, and turn on socket when temperature lower than 15 degree, turn off socket

when temperature higher than 25 degree.

After successful setting of temperature range, the temperature parameter will be saved on the socket until socket reset to factory settings.

### 3.7.3 Deactivate thermostat control function



#### Method

**Master** sends following SMS message in order to:

**Deactivate thermostat control:** #23#0#0#

(16)

## 3.8 Temperature alarm

### Description

A range of temperature can be pre-set onto socket. In this case, if the surroundings temperature is detected out of the pre-set temperature range, SimPal-T4 socket will auto-send the SMS alarm message to your mobile phone.

This feature depends on the temperature sensor.



### Method

**Master** sends following SMS message in order to:

**Activate over-temperature alarm:** #21#0#1#

(17)

**Set temperature range:** #22#0#MinTemp#MaxTemp# (18)

- **MinTemp** and **MaxTemp**: The values can be set within the range of -10 to 50 centigrade degree.

**Deactivate temperature alarm:** #21#0#0# (19)

### 3.9 SMS when on/off button pressed

#### Description

SimPal-T4 socket will default sending SMS notify Master and Family when on/off button pressed. The Master can enable/disable this SMS notification.

#### Method

### Description

SimPal-T4 socket will default sending SMS notify when main power supply lost or restore.

**Master** can enable/disable this SMS notification.

## Method

SimPal-T4 socket will sending SMS alert when mains power lost/restore, temperature alert or other information. Default sending SMS to Master and family. Master can change the setting to cancel SMS to family number.



## Method

**Master** sends following SMS message in order to:

**Activate SMS alert to User (Default)**                      #16#1#                      (24)

**Deactivate SMS alert to User**                      #16#0#                      (25)

## 3.12 Check status



### Method

**Master or Family** sends following SMS message in order to:

**Check socket operating status:**                      #07#0#                      (26)

**Check “delayed control” parameters:** #34#                      (27)

**Check “Calendar control” parameters:** #33#                      (28)

**Check “Thermostat control” parameters:**                      #32#                      (29)

Check “over-temperature alarm limits” parameters: #35# (30)

### 3.13 Weak GSM signal notification

The socket can send a SMS notification when the GSM signal strength is too weak. The Master user can enable/disable this SMS notification.



#### Method

The **Master** user sends following SMS message in order to set:

Check GSM signal: #27# (31)

Activate SMS notification upon weak GSM signal: #27#1# (32)

Deactivate SMS notification upon weak GSM signal (Default): #27#0# (33)

- **Successful SMS reply**

Weak GSM signal strength alert function ON/OFF.

The alerter will send SMS message when it alarms:

Weak GSM signal alert, the CSQ is \*\*.

### 3.14 Change password



#### Method

**Master** sends following SMS message in order to:

Change the password: #04#*Oldpassword*#*Newpassword*#

(34)

- The **password** is a four digit number.
- The original **password** is 1234.

## 3.15 Resetting the socket

### Description

- This function resets all programmed settings to their original values, including cleaning all user number, timing parameter and temperature parameter.
- If the setting status is wrong or the malfunctions can't be corrected, users can restore the socket to its original status to make it work normally.

**Method 1:** Press the side **M** button of the device for 10 seconds.

**Method 2: Master** sends following SMS message in order to:

**Reset SimPal-T4 socket:** #08#password# (35)

## 4 Main Technical Parameters

Input power plug	110~230V/50HZ, CEE 7/7 hybrid Schuko/French/American/Australia plug
Output power outlet	110~ 230V/50HZ, 230V/30A(30s), 16A long-duration, CEE7/4 German "Schuko"/ French/ American/Australia
Operating temperature	-10°C~+50°C
Store temperature	-20°C~+60°C
Relative humidity	10-90% , without condensation
Communication protocols	GSM PHASE 2/2+ (including data operation)
Data interface	GSM SIM 1.8V/3.0V socket
Temperature sensor range	-10°C~50°C
GSM working band	850/900/1800/1900Mhz

## Appendix: SMS commands list

Category	Function	Command
Define the users	Register Master-number	(1) <u>#00#</u>
	Change Master-number	(2) <u>#14#<b>NewMasterNumber#</b></u>
	Add Family-number	(3) <u>#06#<b>Family-Number#</b></u>
	Check Family-number	(4) <u>#06#</u>
	Delete Family-number	(5) <u>#15#<b>Family-Number#</b></u>
	Delete all Family-number	(6) <u>#15#</u>
Change socket power status	Connect socket power	(7) <u>#01#0#</u>
	Disconnect socket power	(8) <u>#02#0#</u>
Delay control	Delay switching ON after a certain minutes	(9) <u>#12#0#<b>Minutes#1#</b></u>

Category	Function	Command
	Delay switching OFF after a certain minutes	(10) <u>#12#0#<b>Minutes</b>#0#</u>
Calendar control	Activate calendar control	(11) <u>#19#0#1#</u>
	Set calendar control parameters	(12) <u>#20#0#<b>WorkDay</b># <b>StartTime</b>#<b>EndTime</b>#</u>
	Deactivate calendar control	(13) <u>#19#0#0#</u>
Thermostat control	Activate thermostat control	(14) <u>#23#0#1#</u>
	Set thermostat control parameters	(15) <u>#24#0#mode#low-temp#high-temp#</u>
	Deactivate thermostat control	(16) <u>#23#0#0#</u>
Temperature alarm	Activate temp-alarm	(17) <u>#21#0#1#</u>
	Set temp range	(18) <u>#22#0#<b>MinTemp</b>#<b>MaxTemp</b>#</u>
	Deactivate temp-alarm	(19) <u>#21#0#0#</u>

Category	Function	Command
	SMS when on/off button pressed (Default)	(20) <u>#03#1#</u>
	SMS when on/off button pressed function OFF	(21) <u>#03#0#</u>
	SMS when power lost or restore (Default)	(22) <u>#05#1#</u>
	SMS when power lost or restore function OFF	(23) <u>#05#0#</u>
SMS notifications	SMS alert to User	(24) <u>#16#1#</u>
	SMS alert to User function OFF	(25) <u>#16#0#</u>
Check status	Check status	(26) <u>#07#0#</u>
	Check "Delayed Control"	(27) <u>#34#</u>

Category	Function	Command
	status	
	Check "Calendar control" status	(28) <u>#33#</u>
	Check "Thermostat control" status	(29) <u>#32#</u>
	Check "temp-alarm" status	(30) <u>#35#</u>
	Check GSM signal	(31) <u>#27#</u>
	Weak GSM signal alert	(32) <u>#27#1#</u>
	Disable weak GSM signal alert	(33) <u>#27#0#</u>
Change password	Change password	(34) <u>#04#old-password#new-password#</u>
Reset socket	Reset to factory setting	(35) <u>#08#Password#</u>



