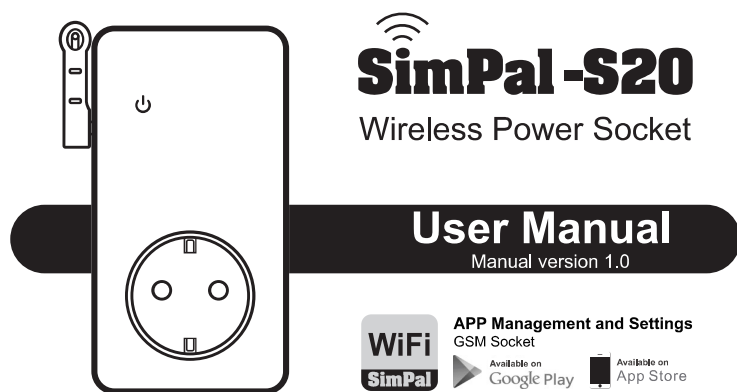
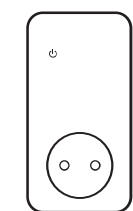
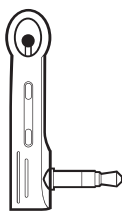




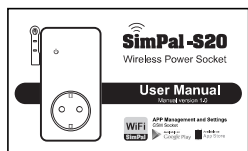
• 1.1 Package contents



Power socket
(1 unit)

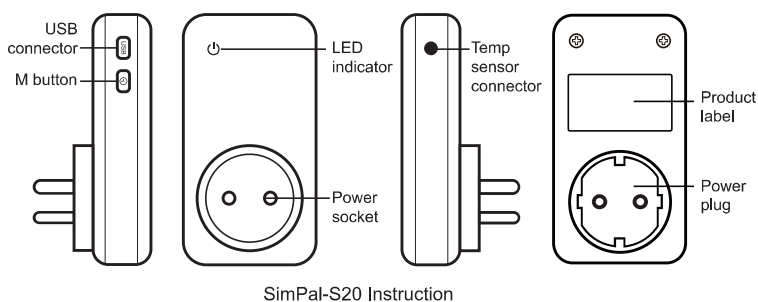


Temperature sensor
(1 PC)



User manual
(1 PC)

• 1.2 Sockets instructions



SimPal-S20 Instruction

• 1.3 Light indicator

Color	Power Status	Action	Status
Blue	Power OFF	Breathing flash	Power OFF and work in standby mode
		Flash slowly	Power OFF and lost connection with Main Unit
Red	Power ON	Breathing flash	Power ON and work in standby mode
		Flash slowly	Power ON and lost connection with Main Unit

• 2.1 Pair with Main Unit

SimPal-S20 working as slave socket of Main Unit, it needs to pair with Main Unit and control the SimPal-S20 through Main Unit. Main unit can be SimPal-S460, SimPal-S260, SimPal-T40 V2, SimPal-T420 V2 etc models. It needs to send SMS to Main Unit to pair SimPal-S20, the command as following:

Pair with Main Unit: #60#name# (1)

After receive SMS reply "Power on "name" socket now! ", plug the SimPal-S20 socket to 230V AC power, the LED flash fast for some seconds and go to slowly breath status after connected with Main Unit

* Note

- If SimPal-S20 already paired with other Main Unit, needs to keep press socket button for 10 seconds to reset factory setting.
- "Name" is the ID of this socket, only can be English letter or digital number.
- Max allow 7 characters for SimPal-S20 socket name.

• 2.2 Turn on/off power

▪ Method

Method 1: Press M button for one second.

Method 2: Master or Users send following SMS to Main Unit in order to:

Turn slave socket power - ON: #61#name# (2)

Turn slave socket power - OFF: #62#name# (3)

• 2.3 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 Schedule control or Temperature control will also stop the delay control function.

• When the "delayed switch on the socket" command is received and if the socket output is ON, the socket output will be switched off immediately and be switch on again when the setting delayed time is reaching. Contrarily, if the socket output is OFF, the output will remain switching off and turn ON when setting delay time is reach.

▪ Method

Master or Users send following SMS message in order to:

Delay turn on after a certain minutes: #63#name#Minutes#1# (4)

Delay turn off after a certain minutes: #63#name#Minutes#0# (5)

Minutes are time parameters, range is 1-720.

• 2.4 Schedule control

▪ Description

• The socket can be set three group schedule to auto turn on off according time schedule.

• Schedule control function will temporary deactivate if user manually change the socket status by SMS or press M button, it will process schedule control when time reach next action point.

▪ Method

Master or Users send following SMS message in order to:

Set time period to turn on power:

#65#name#ID#WorkDay#StartTime#EndTime# (6)

• ID means schedule control serial number, max allow 3 group schedule control. ID range is 1-3.

• **WorkDay:** Schedule control day parameter, it can be number 0-7. If want to set several single days, it needs to combined day number. Such as 1234, means from Monday-Thursday; 15 means Monday and Friday.

The following table contains the descriptions of each value:

Value	Corresponding day
0	Everyday
1	Monday
2	Tuesday
3	Wednesday

Value	Corresponding day
4	Thursday
5	Friday
6	Saturday
7	Sunday

• **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: #65#Heater#2#13#0800#1800#, set slave socket name "Heater" group 2 schedule control, Monday and Wednesday, turn on power from 08:00 and turn off at 18:00.

Set schedule control - OFF: #64#name#0# (7)

• 2.5 Temperature control

▪ 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.

·Temperature control function will always process even manual change power status. It will check temperature value and process temperature control every one minute.

·There are warming mode and cooling mode for temperature 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 or Users send following SMS message in order to:

Set temperature control parameters: #67#name#mode#low-temp#high-temp# (8)

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 #67#Heater#1#15#25#, it means set slave socket name "Heater" temperature control parameter, work in Warming mode, turn on power when temperature lower than 15 degree, turn off power 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.

Set temperature control - ON: #66#name#1# (9)

Set temperature control - OFF: #66#name#0# (10)

• 2.6 Temperature alarm

▪ Description

A range of temperature can be pre-set onto socket. When the surroundings temperature is detected out of the pre-set temperature range, It will auto send SMS alarm message to your mobile phone.

This feature depends on the temperature sensor.

▪ Method

Master or Users send following SMS message in order to:

Set temperature range: #69#name#MinTemp#MaxTemp# (11)

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

Set temperature alarm - ON: #68#name#1# (12)

Set temperature alarm - OFF (Default): #68#name#0# (13)

• 2.7 Power load alarm

▪ Description

The socket support power load alarm function. It can monitoring connected appliances power consumption and report power consumption daily, weekly or monthly. Also can set power load alarm, it will send SMS when power load out or back setting range.

▪ Method

Master or Users send following SMS message in order to:

Check power voltage and load: #51# (14)

Check yesterday power consumption: #52#1# (15)

Check this week power consumption: #52#2# (16)

Check this month power consumption: #52#3# (17)

Set power load range: #53#name#MinValue#MaxValue# (18)

·**MinValue** and **MaxValue**: The values can be set within the range of 0 to 3500, means 0-3500W. Default value is 5-3500.

·The power alarm is executed only when the power is turned on. When the power is turned off, the power is always zero, it does not send alarm message.

·After the power is turned on, it will compare the power before the power is turned off. If the two powers are in the same range, no SMS alarm will be sent.

Set power load alarm - ON: #53#name#1# (19)

Set power load alarm - OFF(default): #53#name#0# (20)

* Note:

The power consumption data will lost when device reboot, it will new calculate from beginning when socket power restore.

• 2.8 Reset factory settings

▪ Description

If the slave socket failed to pair with Main Unit or want to pair slave socket with new Main Units, it needs to reset socket factory settings. If old Main Units working nearby, needs to send SMS to remove slave socket from old Main Units. Master send following SMS to:

Remove single socket from Main Unit: #71#name# (21)

Remove all slave socket: #71# (22)

If old Main Units do not work nearby, then no need to remove it from old Main Units. Only needs keep press the M button for 10 seconds, LED will constant light for 5 seconds, then it reset factory setting success.

• 3 Technical Specification

Product size: 120*60*40 mm (No included plug)

Wireless protocol: 433.92 FSK

Power input: AC 110~250V

Temperature sensor range: -10℃~50℃

Max power loading: 16A or 3500W

Standby power consumption: 5mA

• 4 SMS commands list

Category	Function	Command
Pair with Main Unit	Pair with Main Unit	(1) #60#name#
Power ON / OFF	Turn power - ON	(2) #61#name#
	Turn power - OFF	(3) #62#name#
Delay Control	Turn ON after some minutes	(4) #63#name#Minutes#1#
	Turn OFF after some minutes	(5) #63#name#Minutes#0#
Schedule control	Set time period to power on	(6) #65#name#ID#WorkDay#StartTime#EndTime#
	Schedule control - OFF	(7) #64#name#0#
Temperature control	Set temp control parameters	(8) #67#name#mode#low-temp#high-temp#
	Temperature control function - ON	(9) #66#name#1#
	Temperature control function - OFF	(10) #66#name#0#
Temperature alarm	Set temp alarm range	(11) #69#name#MinTemp#MaxTemp#
	Temperature alarm function - ON	(12) #68#name#1#
	Temperature alarm function - OFF	(13) #68#name#0#
Power monitoring	Check voltage and power load	(14) #51#
	Check yesterday power consumption	(15) #52#1#
	Check this week power consumption	(16) #52#2#
	Check this month power consumption	(17) #52#3#
	Set power load range	(18) #53#name#MinValue#MaxValue#
	Power loading alarm - ON	(19) #53#name#1#
Remove slave socket	Power loading alarm - OFF	(20) #53#name#0#
	Remove single slave socket	(21) #71#name#
	Remove all slave socket	(22) #71#