

A-Comfort Starter Kit

Quickstart Guide

We thank you warmly for purchasing this SMS-operated remote control system, which will bring you more comfort, pleasure, security and new energy saving opportunities!



With your new equipment, you will be able to perform the following actions remotely, by SMS:

- ✓ Turn electrical appliances on and off (see page 4).
- ✓ Check ambient temperatures (see page 5).
- ✓ Set the desired temperature when an electric heater is plugged into the wireless 230V socket, and thus save energy by ensuring that the ambient temperature always is adapted to the situation (see page 6).
- ✓ Set the temperature limits beyond which an alarm shall be sent by SMS (see page 7).

You can also add wireless extensions to control additional electrical appliances, or detectors (fire, gas, flooding, burglary, etc.) which will trigger the sending of alarms by SMS (see page 8).

Discover soon the advantages of a simplified operation by Internet, from your PC or mobile phone www.EcoStarter.com

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Starter Kit Contents



Central unit

- Receives and sends SMS messages.
- Manages all wireless peripherals (e.g. Nodes).
- Handles up to 64 wireless peripherals.



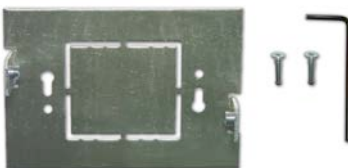
'Node'

- Wireless 230V plug-in socket.
- Turns your electrical appliances on and off.
- Reads, monitors and regulates temperatures.
- Transmits alarms from any connected



Temperature sensor

- For measuring temperatures.
- Connect it to input #1 of your Node.



Wall bracket for the central unit

- Fix the central unit to the wall where and if you want.
- The central unit shall not be mounted inside the fuse box (or any other metal locker).



User manual

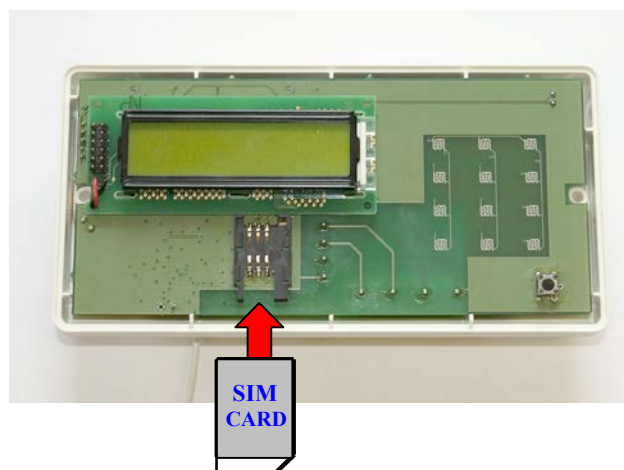
- For discovering the finer points of your system.
- Reference for all SMS commands and for local operation and configuration via the input panel of the central unit.

Preparations and first use



The *Node* (wireless 230V socket) included in the kit is already registered with the central unit as peripheral #01. Remaining manipulations:

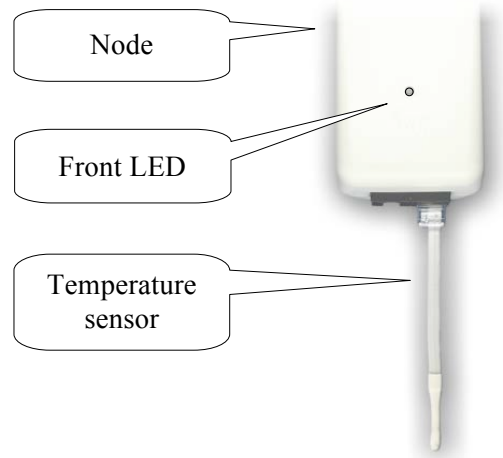
1. **Install a SIM card** inside the central unit (unless your Sikom dealer already did it for you). This SIM card determines the phone number of your A-Comfort.
 - 1.1. **Deactivate the PIN code of the SIM card** before you install it inside the central unit. To this end, insert the SIM card into a standard GSM mobile phone and use the “Security” menu of the phone to deactivate the PIN code of the card. The exact procedure for doing this is described in the user manual of the phone. The mobile phone will have to be either independent of any operator (network provider) or else locked to the very operator that provided the SIM card.
 - 1.2. **Check the validity of the SIM card:** still having the SIM card installed in the mobile phone, ensure that you are able to (1) turn on the phone without having to enter the PIN code of the SIM card, and (2) to send and receive SMS messages, to verify that the SIM card really is activated and loaded with communication credits.
 - 1.3. **Insert the SIM card** into the central unit. NB! A-Comfort must not be powered when the housing is opened and the SIM card manipulated. Unscrew the 2 screws near the left and right edges of the rear cover, and gently lift off the top cover. Slide the SIM card into the dedicated holder, with the gold contacts facing down and the notch in the lower right corner, as shown in the following picture. Put the top cover back and screw it on.



Above figure: how to insert a SIM card into the central unit (top cover unscrewed).

2. **Power on the central unit** by plugging its power plug into a socket. After initialization, the screen should display « GSM Online ».

3. **Plug the temperature sensor** into input #1 on the underside of the Node. It will then be seen on the bottom right side when the Node is plugged into a wall socket, as shown in the opposite figure.



4. **Power on the Node** by plugging it into a wall socket, and then plug into it the heater or other electrical appliance that you want to remote control.

5. **Send an SMS to A-Comfort to turn on the 230V socket of your Node.**

The Node is registered as peripheral #01 (there can be up to 64 of them!). Text of the SMS message (the colours are here only to facilitate your understanding):

1234 R011

This message is made up of two parts separated by a space character (no spaces elsewhere):

1. A compulsory access code (password), which is **1234**
2. The command for turning on Node #01 : **R011**



The command for **turning off Node #01** is **R010**

Convention: **1** (one) for *on* and **0** (zero) for *off*.

The front LED of your Node should then change from red to green. This indicates that the 230V socket output is turned on; in other words, the Node will now admit power to the heater (or any other appliance) plugged into its socket.



All SMS messages that you send remain stored in the history of your mobile phone for you to reuse. It is therefore not necessary to learn the commands by heart!

6. Send an SMS to A-Comfort to check the current status of your Node.

The following SMS will return the current status of **Node #01**, including the current temperature (the colours are here to facilitate your understanding):

1234 S01

This message is made up of two parts separated by a space character (no spaces elsewhere):

1. A compulsory access code (password), which is **1234**
2. The request for a reply by SMS giving you the current status of **Node #01**: **S01**

Your A-Comfort will then send you an SMS with the current status of that Node. This message will contain, among other information:

- **The on/off state of the 230V socket.** E.g., from the text « Out .On », you learn that the 230V output (shortened « Out ») is turned on; hence it admits power to the heater (or any other appliance) plugged into it.
- **The current ambient temperature** measured by the Node, e.g. « Input 1.+22c » (the sensor plugged into input #1 reads +22°C).



You can turn on and request the new status in a single SMS. The reply will then serve as an acknowledgement that the commands have really been received and processed. Moreover, you will make a saving by sending just one SMS instead of two:

1234 R011 S01

Multiple commands like these are simply executed sequentially in the textual order, from left to right. The status returned is therefore the state resulting from the preceding commands. If the central unit is unable to communicate with the Node (e.g., if the Node has been unplugged by mistake, or moved to a place out of reach of the central unit, i.e. outside of the local radio coverage), then the returned status will say « No answer ».

7. Register your mobile phone number to enable your A-Comfort to address temperature surveillance alarms to you. To this end, send the following SMS to your A-Comfort (the colours are here to facilitate your understanding):

1234 N10791234567#

Command **N1** stores the given phone number (here: **0791234567**) at the **1st position** in the list of alarm message addressees (there can be up to 9 numbers). Do not forget the final sharp character (**#**). There are no space characters inside the command. Recall that **1234** is the compulsory access code (password) of your A-Comfort.

8. Mount the central unit onto the wall (this is optional) according to Fig. 2 and 3, chapter 1.3 of the user manual. Choose preferably a place near the centre of your premises in order to maximize the coverage of the local radio frequency (RF) communication that connects the wireless peripherals to the central unit. Do not install the central unit inside the fuse box or any other metal locker, as this will block the RF communication!

Main Functions

Controlling the 230V output of your Node

The 230V output (called «Out» in status messages) of a Node is always in either of the two following modes, illustrated in the figure below with the corresponding SMS commands:

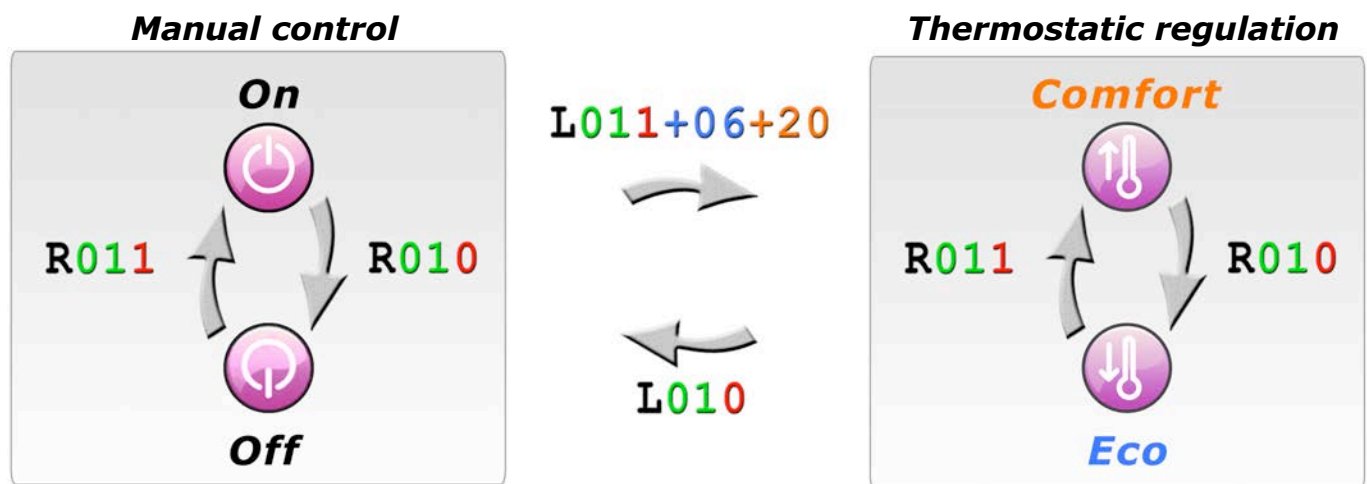
- **Manual on/off control** for turning on and off lamps, pumps, computers, etc. If a heater is turned on this way, it's the heater's own thermostat that determines the scheduled temperature.
- **Thermostatic regulation** consists in managing precisely the ambient temperature produced by a heating appliance such as a convector heater. The Node is then a substitute to the heater's own thermostat (which should be left on the highest available position), enabling you to set the scheduled temperature by SMS. E.g., send this SMS to **activate** thermostatic regulation on **Node #01** with a lower « **eco-temperature** » at **+6°C** (for when you are away) and a higher « **comfort temperature** » at **+20°C** (for when you are on the premises):

1234 L011+06+20

Once a Node is in thermostatic regulation mode, you will simply switch between the lower and the higher scheduled temperature by means of the on/off command **R**. Command **L010** will **deactivate** thermostatic regulation and revert to the manual control mode (on **Node #01**).

NB: temperatures are always written with a '+' or '-' sign followed by two digits (e.g., +06 for +6°C).

NB: a temperature sensor must be plugged into input #1 of the Node to enable thermostatic regulation.



Above: SMS commands for manual on/off and for switching between comfort/eco temperatures (e.g. +20°C resp. +6°C).

How does thermostatic regulation work?

The Node arranges for the desired ambient temperature by turning the heater on until that temperature is attained. When this is achieved, the Node cuts off the power, thus turning off the heater. As soon as the ambient temperature falls by at least one degree Celsius, the Node will admit power to the heater again, until the temperature reaches the desired value on more time. This cycle repeats ad infinitum. Concretely, during this automated activity, the Node will spontaneously toggle its 230V socket between *on* (green front LED and status « Out . On ») and *off* (red front LED and status « Out . Off ») and vice-versa.

Main Functions (cont'd)

Temperature surveillance



By means of command **S01** (requesting the status by SMS), you may at any moment read the temperature measured by your **Node (#01)**. But you can also assign to it the task of monitoring the temperature for you. This means that it will send you a notification by SMS if the ambient temperature exceeds either of the lower or upper limits chosen by you. This is a security mechanism, which may also be used in parallel to thermostatic regulation in order to protect against a malfunction of the heating device. The following SMS command will **activate** temperature surveillance on your **Node (#01)**, with a **lower limit** at **+4°C** and an **upper limit** at **+22°C**:

1234 T011+04+22

NB: temperatures are always written with a '+' or '-' sign followed by two digits (e.g., +06 for +6°C).

Command **T010** will **deactivate** temperature surveillance on that **Node (#01)**.

Temperature alarms by SMS take one of the following forms:

- 01 Alarm. Name 1.TempLo (the lower limit is attained), or
- 01 Alarm. Name 1.TempHi (the upper limit is attained).

Detailed explanation of message contents:

- 01: relevant Node number; this tells you where (in which room) the issue occurred.
- Alarm: an alarm has been triggered.
- Name: name of the Node (cf. user manual for giving a name to your Node).
- TempLo: low temperature alarm.
- TempHi: high temperature alarm.

NB: Once a temperature alarm has been sent off, temperature surveillance is automatically deactivated. As soon as the cause of the temperature issue has been corrected, remember to reactivate the surveillance.

Prerequisites:

- A temperature sensor must be plugged into input #1 of the Node to enable temperature surveillance. Temperature limits must be in the range from -29°C to +49°C.
- You have to register the phone number(s) to which temperature alarms are to be addressed. Please refer to the preparations on page 5 of this document.
- The « master alarm » switch must be active to enable the sending of temperature alarms by SMS. It is in principle always active and must only be temporarily deactivated during the installation of additional detectors such as fire, burglary, etc. Please refer to the user manual for the details.

Some optional extensions and accessories



Additional wireless 230V ‘Node’ sockets. For turning on/off any electrical appliance that starts as soon as it receives power. Two inputs are available for connecting temperature sensors or detectors (fire, flooding, burglary, etc). Wireless communication (433MHz) with the central unit. Available as Swiss socket (supporting up to 2300W) and “Schuko” socket (supporting up to 3600W, for Germany, Austria, Spain and many other countries).



Wireless relays ‘GR-1’ and ‘GR-3’. Modules providing one, respectively three remote-controlled switches (“potential-free relays” in the technical language), each one standing up to 3600W, centralized in your fuse-box or any other electrically insulated locker. Same functionality as a “Node”: temperature surveillance, thermostatic regulation, alarm transmission, etc. May replace an existing thermostat for target temperatures in the range from -29°C to $+49^{\circ}\text{C}$ (standard hysteresis: 1°C).



230V wall-mount thermostats ‘SI-2’. Ideally suited to regulating electric heatings, including electric floor heating systems. Two-pole switch standing loads up to 16A (3600W). Physical dimensions compatible with 50x50mm systems (DIN 49075). May replace an existing thermostat for target temperatures in the range from -29°C to $+49^{\circ}\text{C}$ (standard hysteresis: 1°C).



Temperature sensors for ‘Nodes’ and ‘GR-1’ and ‘GR-3’ modules. Various lengths are available. Required for measuring and monitoring temperatures, as well as for thermostatic regulation.



Wireless (RF) remote control for on-site steering of alarms, “Nodes” and other wireless peripherals. A-Comfort admits several remote controls in parallel.



Wireless and cabled detectors: movement, burglary, fire, gas, water, etc. The movement detector (PIR) and the fire detector are available either as battery-driven wireless units, or as wired detectors to be plugged into a “Node” or a “GR-1” module. The other detectors are only available as cabled items.



Backup battery, which enables the central unit to cope with power outages. The battery is automatically recharged once power is restored. This equipment enables A-Comfort to emit alarms by SMS in case of power outage and power restoration. Moreover, the other alarm functions will continue to work for many hours in conjunction with any wireless, batter-driven detectors.



Siren: resounds automatically as soon as a detector triggers an alarm in the system. Available in two variants: either as a special version of the “Node” (for ease of installation) or of “GR-1” (as a fixed installation for enhanced security).

These accessories and many other (e.g., GSM antennas) may be purchased from your Sikom dealer.