



• • ● **adhoco** ● • •

adaptive home control

Intelligence for your home.

Light where you want it.
Warmth where you need it.
Fresh air all the time.
Security you can depend on.
And much more!

All automatically. All according to your preferences. All with one system.

An ingenious and versatile helper...

The Adhoco automation system controls the technology in your home. Because it is an adaptive control system, the devices connected to it function according to your needs, automatically, in response to what it learns from your own interactions with those devices.

The cost of planning and installing an Adhoco system is exceptionally low.

Its wide range of functional capabilities, simple operation, and attractive design will

Comfort

- Light regulation (switching, dimming, scene setting)
- Temperature regulation (heating, ventilation, air conditioning)
- Blind control (shading, glare protection)
- Ventilation control (windows, ventilation)

Security

- Presence simulation when no one is home
- Monitoring of doors and windows
- Intrusion detection and alarm

Energy saving

- Efficient regulation of heating and ventilation
- Passive use of solar energy
- Presence-dependent lighting regulation
- Energy-saving mode while you are away

Help for senior citizens

- Warnings of hazardous or threatening situations (possible fire sources, falls, unusual behaviour)

Remote access

- Secure access via the Internet
- Remote control and monitoring of the home
- Alarming via SMS, e-mail or fax



The adhoco.H1 central control unit:

the heart of your home auto-

Presenting the adhoco.H1:

presenting the

adhoco.H1 control unit. This unit receives information wirelessly from remote sensors and the various switches it controls, analyzes conditions in the living environment, and issues commands to enhance comfort, increase security, and reduce energy consumption.

It comes with an integrated Internet connection.

Powerful intelligence



adhoco.H1: the intelligent central control unit
130 mm in diameter, 25 mm thick



A high-quality colour display provides information on connected devices, their operating modes, connection quality, etc.. But it displays much other useful information besides, such as the time and room temperature. It also tracks readings over time.

The **adhoco.H1** control unit is operated through its three buttons. It provides menus for navigation similar to those on a mobile telephone, allowing the user to check settings, operate individual devices (such as lamps), and adjust the behaviour of the Adhoco system itself.

You may continue to operate any of the connected devices as you normally would, using their own switches. That will seldom be necessary, however, as the control unit automatically adjusts settings to your preferences.

The sensors: small but highly effective helpers

In form and function Adhoco sensors are an ideal fit for the **adhoco.H1** control unit. They collect essential information that the control unit requires for optimum control.

Since they do not require cables, they are exceptionally easy to install. They transmit their data wirelessly.

Whenever you add another sensor, the system's functional range is increased automatically. And no configuration is necessary.

The sensors are powered by batteries or by a solar module that snaps onto indoor sensors.



adhoco.P1: Presence detector with brightness sensor.
Elegant disc shape, 88 mm in diameter



adhoco.C1: Temperature and humidity sensor
of the same size and design as the adhoco.P1

What they measure:

- **adhoco.P1: Presence and brightness sensor**
This sensor tells the **adhoco.H1** control unit how bright the room is and whether there is anyone present - important information for a user-oriented control system. It can be mounted on the wall, or you may position it anywhere you like on a simple stand.
- **adhoco.C1: temperature and humidity sensor.**
This sensor measures the air temperature and humidity in your living space. You may also enter the temperature or humidity setting you prefer. The control unit uses this information to adjust radiator valves, floor heating, ventilation systems, etc.
- **adhoco.M1: Mini weather station**
Measures outdoor air temperature, humidity, and solar radiation. Wind speed measuring is optional. The **adhoco.M1** has built-in solar cells and requires neither batteries nor a cable connection.
- **adhoco.I1/I2: Current measuring sensors**
These sensors measure how much electricity is being consumed by connected devices. **adhoco.I1** alerts the user to devices that are in operation. **adhoco.I2** activates scenarios, depending on the devices that are being controlled, and shuts down



adhoco.M1: Mini weather station
Wireless sensor designed to withstand outdoor conditions



adhoco.I2: Current sensor with integrated cut-off relay
(standby current relay)

The actuators: clever switching agents

Adhoco actuators respond to coordinated instructions from the central control unit to control lighting, shading, heating, ventilation, and other devices for optimum conditions

At the same time, the actuators transmit the user's preferences to the central control unit.

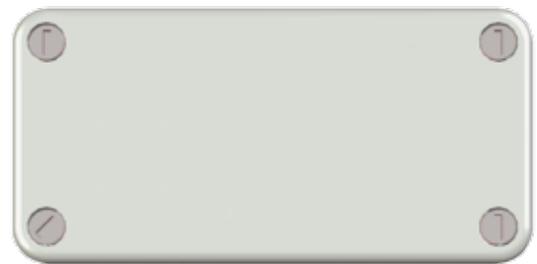
For most actuators the installation is invisible. Fixtures already in place can be integrated into the Adhoco system in many cases.



adhoco.S1: Radio-controlled switch. Switches light sources and other electrical devices (up to 13 A) on and off.
Left: built-in device. Right: mobile (plug-in) variant.

adhoco.S2 (in same housing type): radio-controlled universal dimmer for any light source up to 300 W.

adhoco.W1 (in same housing type): Remote control for opening and closing motorized windows



adhoco.B1: Controls roller shutters, blinds, and awnings with a motor drive. Also adjusts the slat angles in blinds.

adhoco.V1: Servo valve for radiators. Takes commands from the adhoco.H1 control unit for optimum valve position.

Wireless.
Battery operation.



How it works:

- Each energy-consuming device is connected as usual.
- An Adhoco actuator is added to the power circuit. It fits behind a normal switch or is installed in a junction box or duct. It fits behind a normal switch or is installed in a junction box or duct. Portable actuators may be plugged into any socket.
- For each different energy-consuming device there is a different actuator:
 - **adhoco.S1** for switching any light source
 - **adhoco.S2** for dimming any light source
 - **adhoco.B1** for roller shutters and blinds
 - **adhoco.W1** for motorized windows
- Also connected to the actuator is the usual switch or button for manual operation.
- For heat regulation we offer:
 - **adhoco.V1** for radiator valves
 - **adhoco.V2** for valve groups (floor heating)

System integration couldn't be simpler:

- Each actuator independently registers with the **adhoco.H1** control unit.
- The system's functionality automatically expands according to the capabilities of each actuator.
- Other actuators are under development. Thanks to its update capability, the **adhoco.H1** control unit can be retrofitted with them as they become



adhoco.V2: Six-channel floor heating control. Controls two 230 V electro-thermal servo valves per channel.

This is how the system adapts to your requirements:

It is understandable that people have reservations about automated processes in their homes. Who wants to be restricted by predefined commands and processes?

The Adhoco system provides an ingenious solution to this problem. Using a patented method, it independently learns from the behaviour of the home's occupants, their interactions with the devices it controls, and the physical behaviour of the building. It then adapts, according to what it learns, the commands by which it controls each device.

We call this adaptive home control.



Learning from the building

The Adhoco system independently calculates the thermal inertia of the living space and its solar heat input. This allows time for preheating after a drop in temperature. Or it may detect that the sun will be warming up a room over the course of a day, in which case it reduces the heat output of the radiators. Similarly, it can detect the shading effect of installed blinds and admit as much natural light as it can without allowing the room to become overheated or too bright. Living comfort is enhanced even while energy is saved.

Learning from people

On the basis of the daily routines of a home's occupants, the Adhoco system detects presence patterns and adapts its commands accordingly.

Even with such automation, however, the standard control features (such as wall switches in the case of lights) or the **adhoco.R1** remote control may be used to override at will any of the commands the system follows. The actuator connected to the switch or button collects the information you input and sends it on to the **adhoco.H1** control unit. If similar feedback is received multiple times, the central control unit adapts the respective commands. Wall switches and other buttons thus become a natural programming device for the control system!

This method of learning from a home's occupants is applied to all home technology components, such as lights, blinds, ventilation systems, awnings, etc. A patently brilliant solution, patented by Adhoco!

No matter how far away you are,

Perhaps you are often away, but would like to know what is going on at home?

This is no longer a problem. The cable that supplies the **adhoco.H1** control unit with power doubles as a broadband Internet connection. And there is no need to connect or operate a PC.

We call this networked living!

Access via the Internet

The **adhoco.H1** control unit can be accessed from anywhere in the world through a secure connection via the Internet: From your office, from a vacation destination, or by an authorized person. You can monitor readings, change settings, or remotely operate energy-consuming devices. The central control unit can transmit information via the Internet in the form of SMS, e-mail, or fax messages.

Your privacy is secure

You may use any browser to access the system. Simply log into the Adhoco portal (www.adhoco.com) using your user name and password. A secure connection (VPN) will then be established to your own home. Your data remain confidential, and you are protected from unauthorized access.

Additional information

The user-friendly browser interface lets you to see your entire system at a glance. It can also display statistics and time series data. In addition, it provides lots of useful information on how to install and operate your home automation system, as well as links to installers and system providers and the services they offer.



Save energy - increase comfort

A lot of energy is wasted when unused rooms are overheated, windows are left open, roller shutters are left up overnight, or lights are left on unnecessarily. This is true even if your home's construction is energy-efficient.

This is where the Adhoco adaptive home control system comes in. It makes sure that energy is used wisely and at the right times. Energy-consuming devices are switched off or adjusted to their optimum positions throughout your home and whenever possible.

At the same time, the control system makes sure that comfort is enhanced. Overheating, overcooling, glare, and drafts are avoided.

You save up to 40 percent of the energy that heating and illumination would otherwise require. And this also means much lower CO₂ emissions and a substantial reduction in your utility bills.

Resulting savings

Less need for heating

- Presence-sensitive and need-based heat regulation: With the presence detector and feedback from the home's occupants, room temperature stays at the optimum level.
- Taking into account the building's characteristics: Thanks to the predictive capabilities of the software, overheating and excessive cooling are prevented.
- Ventilation as required: Automated opening of windows briefly provides fresh air without cooling the living space
- Solar energy use: Thanks to an intelligent blind control system, windows help to warm the living space without compromising comfort.

Lower power consumption

- Presence-dependent lighting regulation Presence detectors ensure that lights are turned on only where they are needed.
- Optimum use of natural light sources: An intelligent blind control system ensures that room illumination is always energy-efficient.
- Night cooling in the summer: Thanks to intelligent control of motorized windows, rooms can be aired at night for effective cooling. And air conditioners



More security - more support

Security is an essential need. The home is where one should feel safest and most secure. That is certainly true for young people, but even more so for the elderly. Senior citizens are staying healthy and remaining active longer than ever before, and they prefer to live independently within their own four walls as long as they can.

Our system has been expanded to include some smart additions intended specifically to meet these needs. They are very easy to activate or add, thanks to the networking of all sensors and switch boxes in one unified system.

In other words: security and support in addition to comfort and energy savings. All in a single system.

Security features

Presence simulation

- Because the Adhoco system knows the behaviour of a home's occupants, it can realistically simulate their presence when they are away through its control of lights and blinds.

Warding off intrusion

- As an option, roller shutters can be put in the closed position overnight or during an absence. The same is true of motorized windows.

Break-in alarm

- When in "absence" mode, the central control unit is able to detect an intrusion through the information it receives from the sensors and react by activating panic lighting, opening the shutter blinds, or transmitting an alarm by SMS, e-mail, or fax.

Alerts

- Power consumption sensors trigger alerts to hazardous power-consuming devices (such as irons).
- The system detects and reports departures from normal behaviour patterns (for example, if no one gets up in the morning).
- Third parties can be given password-protected access to the system to allow them to monitor



Lower costs from A to Z

The Adhoco home automation system is inexpensive to buy, simple to install, easy to operate, ex-tensible in manifold ways, and equally suited to new and renovated buildings.

The installation can be easily extended or adapted to new requirements at any time. Your investment will continue to provide benefits for a long time to come.

The system saves up to 40 percent of the energy normally required to heat and light a home, while requiring hardly any energy for its own operation.

Low costs of materials

- Inexpensive components
- The system uses the electrical installation already in place.
- You can continue to use the components after a conversion or move

Low planning costs

- No special electrical planning is necessary.
- No bus system or network infrastructure is needed
- No configuration of the desired automation functions is necessary

Low installation costs

- Wireless installation of the sensors
- Conventional electrical installation using conventional switches and buttons
- With remote control you may also dispense with wired wall switches entirely
- The system detects components automatically.
- Automatically adapts to user preferences

Low operating costs

- Simple adaptation and extension through self-learning and self-configuration capabilities
- Low energy consumption by components

Lower energy consumption

- Up to 40% lower energy consumption for heating and illumination with no loss of comfort
- Lower heating expenses and electricity bills



How your home is made intelligent

Wireless communication, self-detection and self-configuration of components make this system easy to install.

In new buildings, electrical installation can be planned and carried out in the usual way. Existing electrical fittings can usually be used in upgrades or retrofits.

Although installation is easy, we recommend that you seek assistance from an Adhoco installation partner, who can provide you with the best advice and put a system together for you according to your own specifications.

How it works:

Chose a suitable central location for the control unit.

Specify up to 16 rooms or living zones that you would like to automate.
Then install components in each room.

Sensors:

- At least one presence detector is required. The central control unit has to know whether anyone is present.
- You can add as many other sensors to the room as you wish.
- To collect weather data, a mini weather station is mounted on the building's main façade.

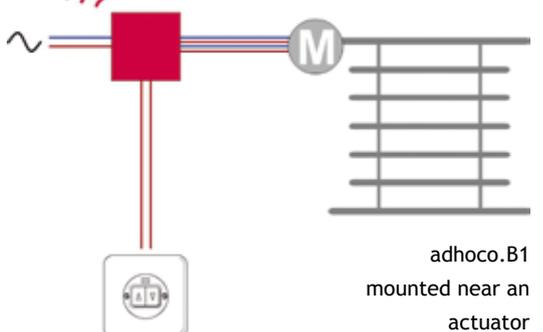
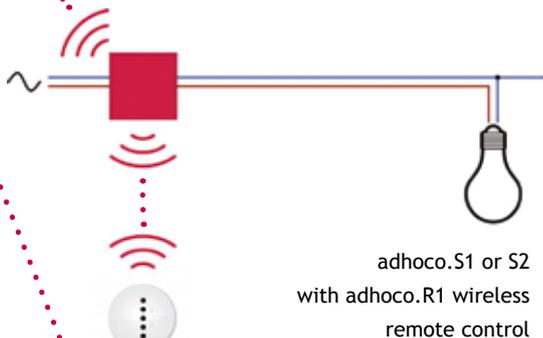
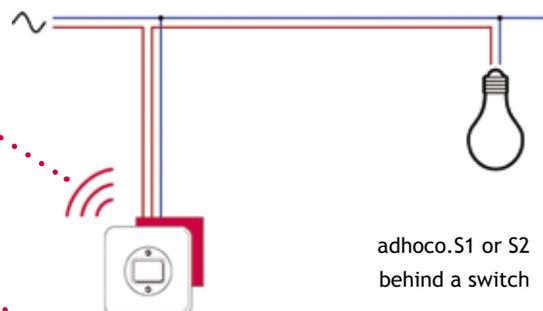
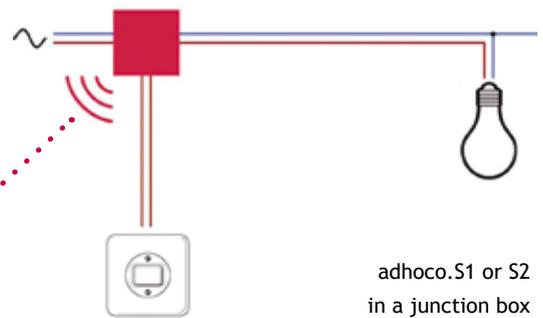
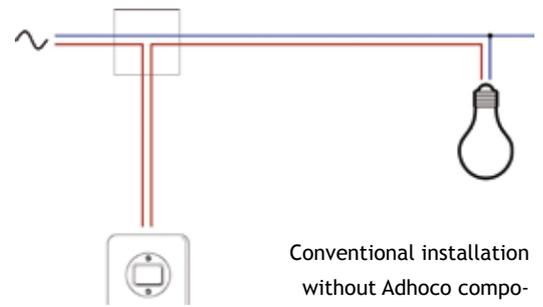
Actuators

- Install the appropriate actuator component for each device that you wish to control.
- You may also include sockets in the automation system (for floor lamps, for example).
- A switch or button is also connected to the actuator so that it can be operated manually.

Installation is even easier if wireless remote control is used.

Sensors and actuators independently report to the central control unit.

The system's functionality automatically expands according to the capabilities of each actuator.



More about Adhoco

Adhoco AG is a young, innovative company that specializes in home automation systems. We develop and market an intelligent control system for comfort, security, and energy efficiency that is outstanding for its

- integration of a wide range of functions in a unified system
- easy installation and simple operation
- optimum adaptation to the needs and desires of occupants
- versatile extensibility
- optimum cost/benefit ratio

The guiding principles of our work are:

- the intelligent use of technology for human needs
- economical use of resources
- improvement of home security
- protection of privacy despite digitalization of the home
- making our products affordable for broad sections of the population

Radio

Our systems use frequencies in the 2.4 GHz range for wireless communication. Both the transmitting power (max. 1 mW) and the transmission period (max. 1 ms) are extremely low. Exposure to electromagnetic radiation is therefore more than a thousand times less than that encountered through the use of a mobile telephone.

Conformity:

CE This device complies with the relevant EU directives and standards.

Manufacturer:

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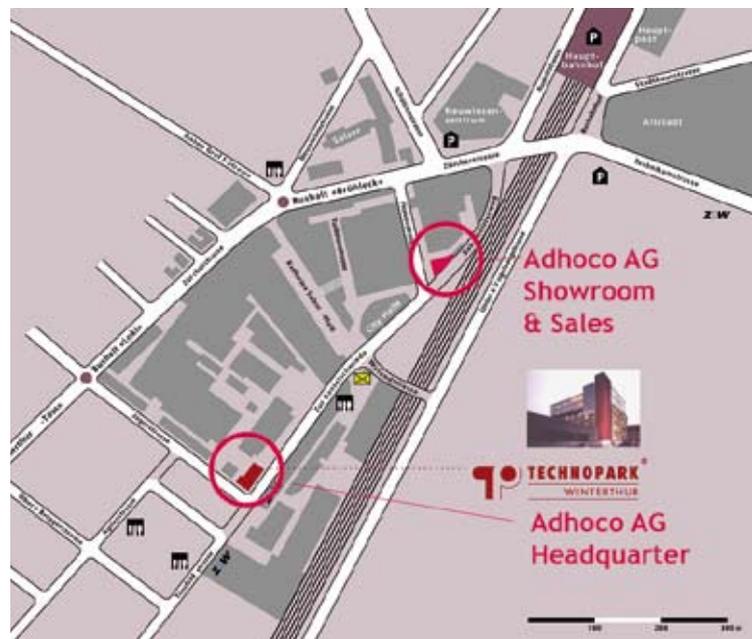
Member of:



How to find us

Adhoco AG is located in the Technopark Winterthur. This central location in immediate proximity to the central railway station is easy to find and reach.

Even closer to the railway station, on Pionierstrasse, we have a showroom where the system, its installation, and various applications are on display. And our display installations at various locations in Switzerland allow you to become more familiar with our solutions.



Your contact:

