

- Saves energy
- Guarantees an even room temperature
- Suitable for central water heating systems
- Many types of measurements and alarm functions
- GSM remote use



OUMAN® EH-800

Intelligent heating controller for your home



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Your level of comfort increases when room temperatures stay at an even level even though outdoor temperatures change. You conserve energy when water entering the heating network is just the right temperature to maintain an optimal room temperature. The smart controller now takes even better account of differences in heating modes and structures.

OUMAN OY has over 20 years of experience as a leading domestic manufacturer of heating controllers. Ouman is easy to use and dependable, and from the beginning, main reasons for its success. The Ouman EH-80 heating controller was a marketing success, and is used in over 100 000 Finnish homes. Now we are displaying a new-generation controller, EH-800, which meets today's demands. Its remote use and ability to expand also make it a safe choice for the future.



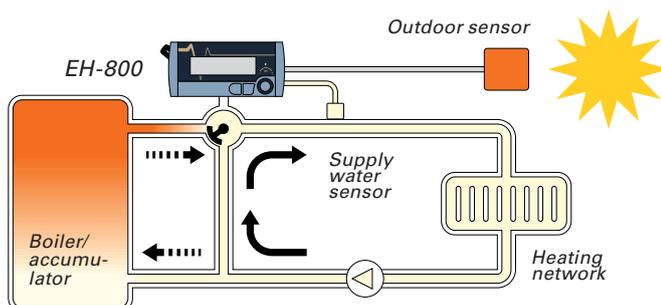
EH-800 controls and monitors for you. It is also environment friendly because it consumes less energy.



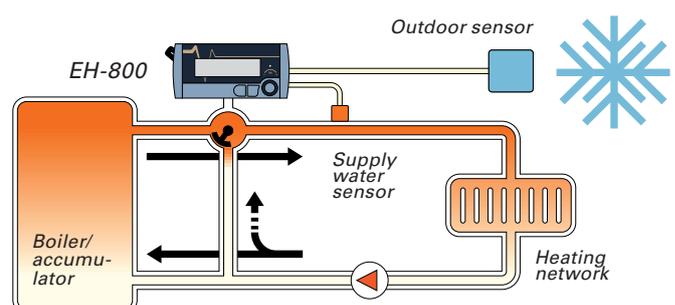
Conserve energy!

An even room temperature lessens energy consumption. One degree in room temperature is equivalent to 5% in energy consumption.

EH-800 automatically controls the temperature



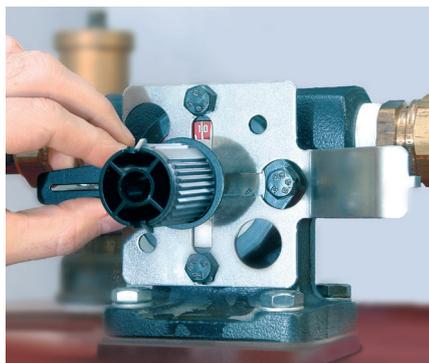
EH-800 automatically controls the temperature of the water entering the heating network. The heating need changes according to the outdoor temperature.



As the outdoor temperature gets colder, the controller lets just enough heat into the network to keep the room temperature at an even level.

Easily and quickly installed

EH-800 is compatible with the most commonly used boiler and accumulator valves. Installation sets for Esbe VRG and VRB valves can be obtained as optional equipment. You can install it yourself without any special tools.



Detach the control knob from the valve and put the mounting kit into place. Press EH-800 into place, connect the sensors, plug it in and the unit is ready to use!

Easy to take into use

EH-800 contains preset basic settings for different types of heating. The first time you turn on the controller just select from the display the control mode of your house and it is ready to use.

The controller has settings for the following heating modes:

- **Floor heating**
 - normal rooms
 - damp rooms (also summertime heating)
- **Radiator heating**
 - normal curve
 - steeper curve (homes that need warmer water in the heating network)
- **Concrete floor drying function during construction** (controlled increase in temperature)
- **Constant temperature** (e.g., accumulator start-up/charging or boiler circulating temperature control)

Diverse time programs

Use the controller's week/24 hour clock to program energy conserving temperature drops coinciding with your own weekly rhythm.

Dynamic curve

The ratio between the outdoor temperature and the temperature of the water entering the heating system is determined and displayed using the curve. When the outdoor temperature drops, warmer water is let into the heating system and the opposite happens when the outdoor temperature rises. After adjusting settings on the curve, the change immediately appears on the curve on the controller's display.



A large and clear display

The easy-to-use display is large and distinct and all necessary information can be seen at a glance.

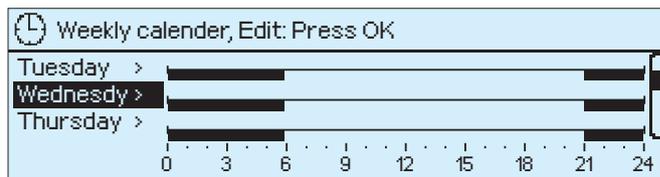
Recent measurement history can also be seen as a graphic display; in the morning you can check how a temperature drop occurred or how cold it got outdoors during the night.

Central water heating houses

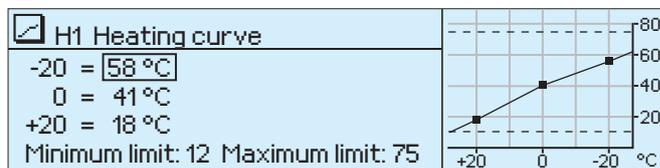
Ouman EH-800 is suitable for every house with central water heating whatever the source of heat; oil, the sun, wood, pellets, district heat, electricity or thermal heat.

Ingenuously simple

The too warm/cold function is a truly simple way to finely adjust heating. Turn the control knob in the desired direction to either increase or decrease heat. The controller makes the necessary setting changes taking into account the room sensor if it is connected.



Use the exception calendar to program temperature drops ahead of time for holidays or other exceptional days.



The controller automatically corrects the curve if the user sets an unusual curve. It is also possible to select a 5 point curve that is freely adjustable.

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Put your boiler room on the network!

The controller can be used either with a home network or an internet web browser (not EH-800B).



Connecting to an intranet or internet

All you need is an ethernet cable to connect to an intranet. You can easily enter network settings and user names in the controller's menu.

We recommend using information secure Ouman 3G or Ouman Access internet packages when con-

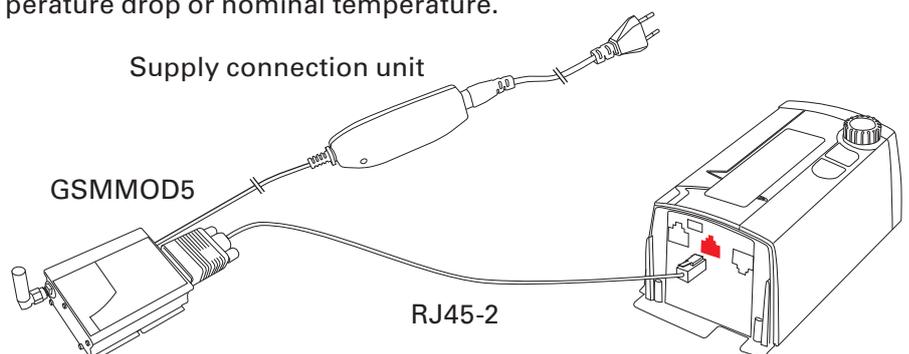
necting the controller to a public network. This ensures that traffic is shielded and gives you the option of a name service for administration of a changing IP-address. We recommend to use Internet Explorer, Mozilla Firefox or Google Chrome.



Communication via a mobile phone

It is possible to communicate with the controller via a GSM phone if a GSM modem has been connected to the controller. (optional equipment).

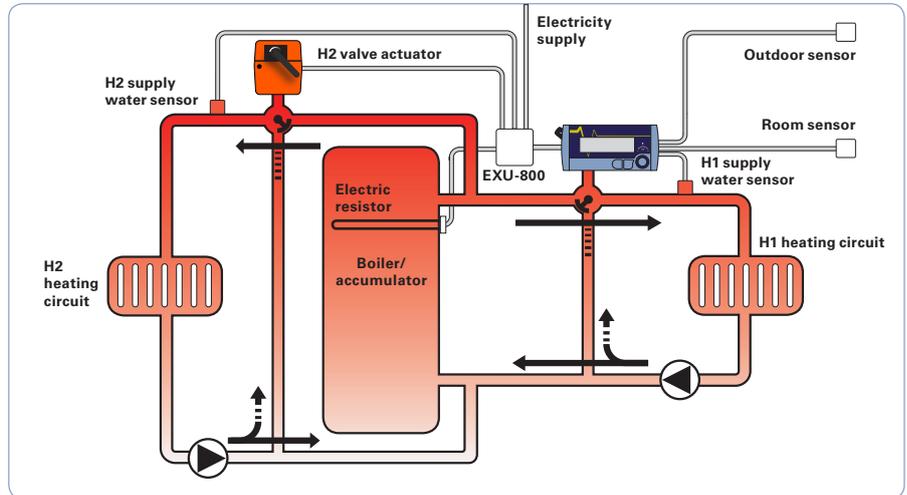
Communication occurs by using key words. Your mobile phone can receive information about the controller's measurements, active alarms, supply water or room temperature. You can also read and change the controller's settings or control mode or switch the controller to a temperature drop or nominal temperature.





Control of a second heating circuit

An EXU-800 external unit can be connected to the controller making it possible to control a second heating circuit. As a result, e.g., heating of damp rooms can be controlled separately. For this to be possible, the facility's heating system must be divided into two circuits.

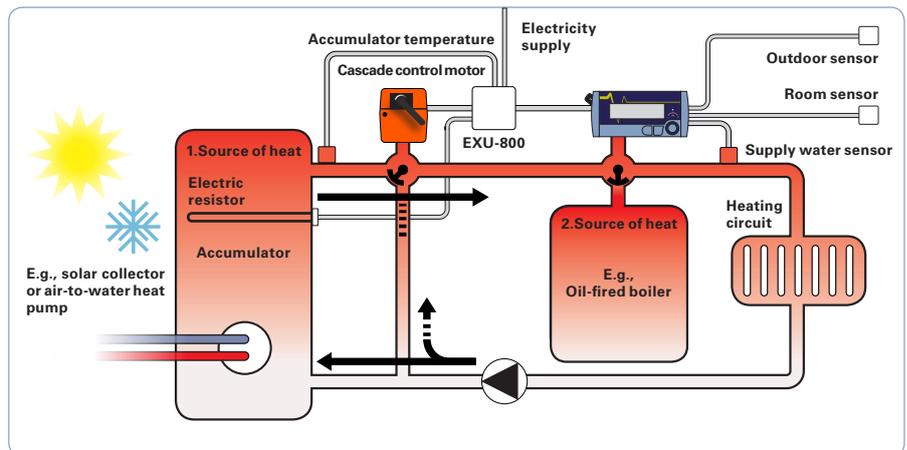


A basic diagram for connecting two heating circuits. The controller controls both heating circuits on the basis of the same outdoor temperature measurement but different supply water temperature measurements. Each heating circuit has its own curve and other settings that effect control.

Control of hybrid heating

With the help of the EXU-800 external unit, the controller can expand to control two heating sources simultaneously. An older heating source and a newer, more environment-friendly heating source can be smartly controlled so that you always have enough heat.

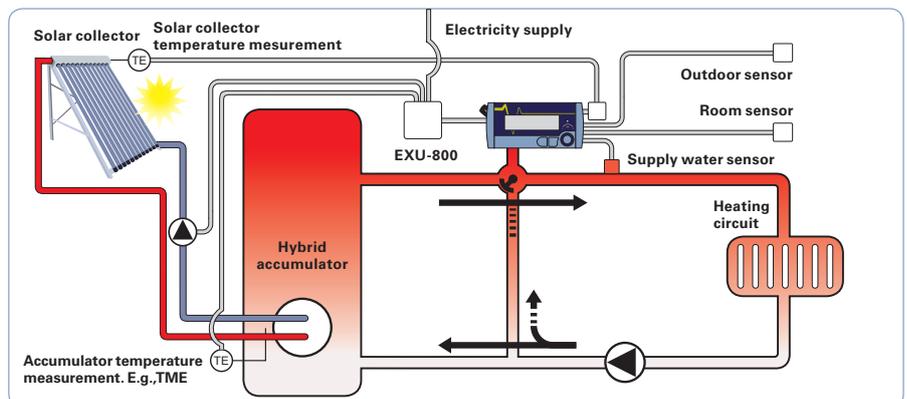
In addition, you can, e.g., use a thermostat controlled relay to control the pump that charges the solar collectors' accumulator. This means that the controller always starts the pump when solar heat is available.



A basic diagram for hybrid heating, with the cascade control actuator getting its power from the first source of heat. When the power is depleted from first source of heat, the controller begins taking additional power from the second source of heat. The surface temperature sensor measures the temperature of the accumulator (1. heat source)



EXP-800 product package content: Pre-connected expansion unit, connecting cable, Belimo HTC24-SR -valve engine, adapter for the most common mixing valve, TMS-3M -surface temperature sensor and the introduction of the necessary instructions.



Basic diagram of hybrid heating, with the heating controller controlling the charging pump between the solar collector and accumulator and controlling the heating system according to the outdoor temperature and supply water temperature.

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EH-800 is a heating controller for private homes and business facilities having heating systems with circulating water. An external unit can be obtained as optional equipment making it possible to take a second control circuit into use. If a second control circuit has been taken into use, numbers 1 or 2 will appear on the main display indicating which control circuit is in use.

The EH-800 model has an intra/ internet connection (the EH-800 B model does not have it).

Control mode:

- Automatic
- Forced control
- Stand-by
- Manual control

Temperature level:

- Nominal temperature
- Temperature drop
- Big temperature drop
- Pre-increase

Control command: indicates what determines the temperature level

- Time program
- Home/away

- Alarm indicator
- Valve control information
- Outdoor temperature
- Room temperature
- Temp. of water entering the heating circuit
- Symbols for heating mode:
 = floor heating
 = radiator heating

Hand-operated lever

Main menu symbols

Cancel button

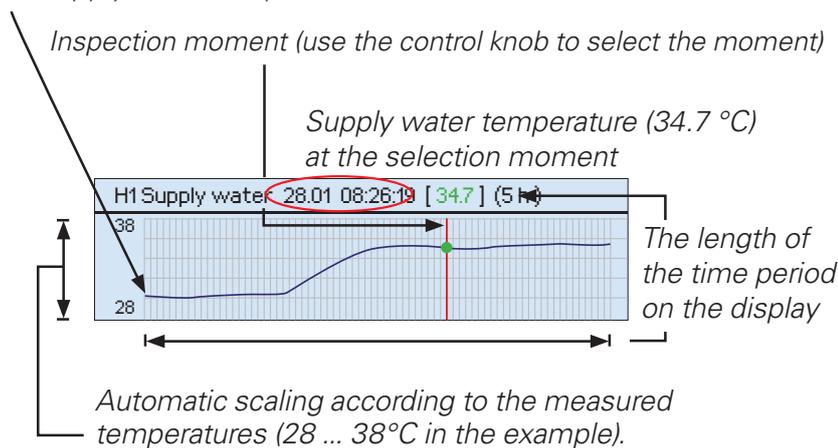
Control knob (also the OK button)

Hand-operated control knob

Graphic measurement history!

Recent measurement history (7h / 44 h) can also be seen as a graphic display; in the morning you can check how a temperature drop occurred or how cold it got outdoors during the night.

H1 Supply water temperature curve



Home/Away control

The "Home" and "Away" control command can be given from the controller's menu, from the home/away switch connected to the controller or from a mobile phone*.



Relay control

Relay control is in use if an external unit is connected to the controller. Relay control can be used to stop the pump for the summer, or the relay can be controlled according to the temperature, temperature difference, position of the valve or the time program.

*GSM-modem connected, optional equipment.

The product package includes all the necessary installation equipment and instructions.



Technical information

Controller

- Controller and actuator in one

Actuator

- Actuator's torque is 10 Nm
- Swing angle 90°
- Speed 150 s

Operating voltage

- 24 VDC, 3.5 W cord with plug (included)

Casing

- PC / ABS, IP 42

Mounting

- Mounting kit for commonly used boiler and 3 way control valves

Measurements (mm)

- Width 172, height 91, depth 73

Weight

- 900 g

Operating temperature

- 0...50 °C (storing -20...+70 °C)

Supply water sensor

- Preconnected surface sensor, fixed cord with plug (1,5 m)

Outdoor temperature sensor

- Cord with plug 15 m (included)

Measurement 3 and 4

- Use connecting cable (included)

USB-device:

- PC:s connection e.g., program updating

Ethernet 10/100 (not EH-800B):

- Intranet or internet

RJ45-1 (not EH-800B)

- Battery back-up (connection via the external unit –optional equipment)

RJ45-2:

- RS-232 connector for a GSM modem Connection occurs using the EXU-800 (optional equipment):
- 1 pc Universal input
- 1 pc Digital input
- 1 pc Digital output
- 1 pc Analog output
- GSM modem connection

Warranty 3 years



Equipment

EXP-800

Another heating circuit / for parallel control of another source of heat



External pack for the EH-800 controllers. Product package content: Pre-connected expansion unit, connecting cable, Belimo HTC24-SR -valve engine, adapter for the most common mixing valve, TMS-3M -surface temperature sensor and the introduction of the necessary instructions.

External unit



The **EXU-800** external unit makes it possible to control a second valve actuator, another relay and also add two measurement information to the EH-800 heating controller.

Wireless 3G internet package



OUMAN 3G package include a modem, a network device having a firewall, and a ready-to-use 3G service. Always use a shielded, high-quality network connection (3G, Edge, GPRS).

GSM-modem



The **OUMAN GSMMOD5** makes it possible for you to receive an alarm on your mobile phone informing you about deviating situations. You can read measurements and change settings and time programs on your mobile phone. You can also give Home/Away commands on your phone.

Room sensor units



- **TMR/SP:** Measurement sensor with a room temperature fine adjustment knob.
- **TMR:** room temperature measurement sensor. The temperature is set from the controller.
- The **TMR/P** used in EH-80 can also be connected to the controller.

Home/Away switch



- Surface model (electric number: 71 655 48)
- Flush model (electric number: 71 655 50)

Surface thermostat



C01A is a thermostat for the supply water pipe that stops the circulation pump in the event of overheating. The surface sensor (optional equipment) is important for houses with floor heating.

Valve kits

- **SOV-ESBE2**, mounting kit for the Esbe VRG and VRB valves

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We reserve the right to make changes to our products without special notice.