

Instruction manual

The new programmable energy-saving radiator thermostat



Set up your heating and saving times manually or use the comfortable USB memory stick! Available as accessory!

Please read the user manual before you place the thermostat. Keep the documents for later questions and provide them if you pass the thermostat on to other persons.

Scope of delivery

- 1 Calex radiator thermostat
- 1 user manual
- 3 adapters

Application as directed

By purchasing the Calex radiator thermostat you own a programmable radiator thermostat which can be used for temperature regulation in enclosed rooms. It fits to all common thermostat valves (possibly with an adapter) and can contribute to a reduction of heating energy. Please use the thermostat only for this purpose.

You can programme all your Calex radiator thermostats easily, quickly and comfortably by PC with our USB memory stick for programming!

Fittings are available at www.calex.de



1 – Function Calex radiator thermostat

Calex radiator thermostat features two temperatures:

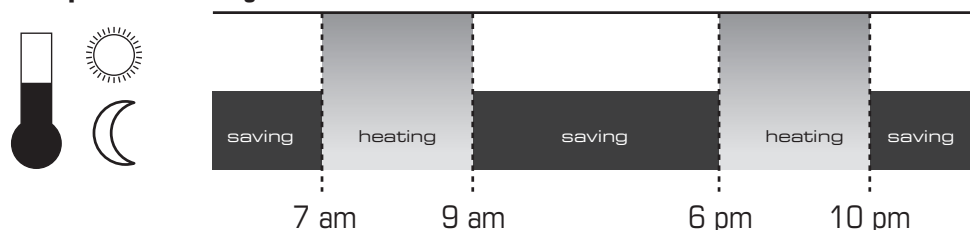
- ☀ **comfort temperature** (factory setting 21°C)
- ☾ **economy temperature** (factory setting 16°C)

In automatic mode Calex radiator thermostat changes between these two temperatures according to the time programme that has been set:

heating time: Heizen auf Komforttemperatur

economy time: reduction to economy temperature

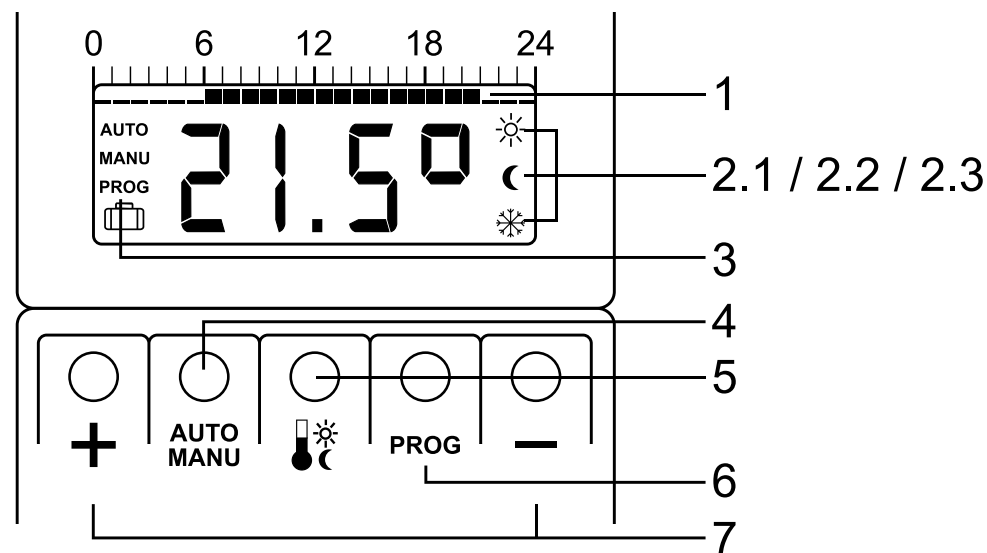
example for 2 heating times:



Heating and economy times are specified via the adjustable time programme. It is possible to set 8 switch points (4 heating and 4 economy times) per day at the most. Calex radiator thermostat has the following factory preset:

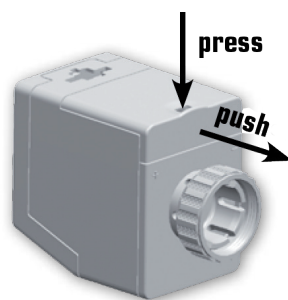
- ☀ 1st heating time starts at 07:00
- ☾ 1st economy time starts at 22:00

2 – Display and control elements



- 1 heating or economy time in hours
- 2.1 comfort temperature
- 2.2 economy temperature
- 2.3 window function
- 3 mode AUTO, MANU, PROG or
- 4 button - change between AUTO and MANU-mode
- 5 button - set comfort and economy temperature
- 6 button - set the time programme
- 7 button or - adjust temperature and time

3 – Inserting / replacing batteries



When opening the battery compartment, please proceed as shown in the illustration. The compartment is difficult to open and therefore not accessible to children.

Attention:

Never recharge batteries, danger of explosion! Do not short-circuit batteries! Do not disassemble batteries.

Keep them away from children. Immediately call the doctor if a battery is swallowed. If needed clean the battery and the contacts before using them. Dispose empty batteries directly because of a higher danger of leakage! Keep batteries away from extreme warming - danger of leakage! Avoid contact with skin, eyes and mucosa. When getting in touch with battery acid instantly irrigate the affected parts with clear water and call the doctor. Use only batteries of the same kind. Do not apply used and new batteries together. Dispose the batteries if you will not use the thermostat for a longer period. **Don't use accumulators! Ensure that the polarity is correct!**

4 – Setting date and time

After inserting the battery, Calex radiator thermostat automatically requests entry of date and time.

Set the year with the buttons **+** and **−**

Confirm with the button **PROG**

Set the month with the buttons **+** and **−**

Confirm with the button **PROG**

Set the day with the buttons **+** and **−**

Confirm with the button **PROG**

Set the hour with the buttons **+** and **−**

Confirm with the button **PROG**

Set the minute with the buttons **+** and **−**

Confirm with the button **PROG** - That's it.

The motor will move to the ON position to facilitate installation. The instruction **INST** is shown on the display (only for the first installation).

Changing date and time




Calex radiator thermostat automatically switches from daylight saving time to winter time. Nevertheless, if you want to correct time and date in running operation: Press the button **PROG** for 2 seconds. Then adjust as described above.

5 – Installation

Select an adapter if necessary:


Adapters are required for some valve types. Prior to mounting, select the appropriate adapter as shown in the adapter table. If you require an adapter: Push the adapter onto the valve and turn it until it noticeably clicks into place. If the adapter is fitted with a screw, tighten the adapter with the screw.

Adapter table

Heimeier, Junkers Landys+Gyr, MNG, Honeywell, Braukmann thread-measure dimension of M 30x1,5	no adapter required
Danfoss RAV (accompanying pin must be plugged on the valve tapped)	
Danfoss RA	
Danfoss RAVL	


Calex radiator thermostat can be easily mounted on all common valve bodies. It can be installed without grime and water spots, because the heating water circuit is not interrupted.




Loosen the fastening of the old thermostat head, pull the thermostat head off of the valve. The instruction **INST** is shown on the display. Since Calex radiator thermostat has already moved into the ON position while date and time were programmed it can be quickly and easily mounted without any trouble. Screw the union nut until the device is firmly fixed on the valve body. For possible **later installations** move the valve to ON with the button . This facilitates the installation.



6 – Mounting

Press the button , until **ADAP** appears on the display. Calex radiator thermostat will then start to adapt. The device will adapt itself to the stroke of your valve body. To do this the valve will now be opened and closed several times to store the end points.

In some cases this process **ADAP** can take a few minutes. During this adaptation process will be shown on the display. After successful adaptation it returns to normal mode. Should adaptation become necessary again, e.g. if your radiator does not cool down in OFF Position, please press the button  > 2 seconds until adaptation begins.

7 – Setting the time programme

With Calex radiator thermostat you can set 4 heating times and 4 economy times for each day or for 3 different weekly programmes. In the time programme the week days are numbered from 1– 7.

The week programmes are defined as:

- 1–5 = same programme from Monday to Friday
- 1–6 = same programme from Monday to Saturday
- 1–7 = same programme from Monday to Sunday
(1 = Monday to 7 = Sunday)

Programme settings:

Press the button 

Select the day/block of days with the buttons  and 

Confirm with the button 

Set the beginning of the 1st heat time with the buttons  and 

Confirm with the button 

Set the beginning of the 1st economy time with the buttons  and 

Confirm with the button 

Set the beginning of the 2nd heat time¹ with the buttons  and 

Confirm with the button 

Set the beginning of the 2nd economy time¹ with the buttons  and 

Confirm with the button 

You can adjust the 3rd and 4th heating and saving time as described above.

Finish the setting with the button 

Non-programmed days = factory setting is active.

¹ If you don't want to programme these days, confirm with „-- --“.

8 – Changing comfort and economy temperature

Press the button . Set the comfort temperature with the buttons and . Press the button .

Set the economy temperature with the buttons and .
Press the button .

Area OFF: 8°C, freeze-protection is active

Area ON: valve is completely open

Tip: You obtain maximum energy efficiency with an economy temperature that is approximately 5°C below the comfort temperature.

9 – Lost in the programme?

Push the button . Calex radiator thermostat will then ignore the last entry and will return to AUTO mode.

10 – Additional setting possibilities **Window function**

If you open a window and consequently the temperature drops significantly, Calex radiator thermostat will automatically close the heating valve in order to save energy. In this case the display will show . After 10 minutes Calex radiator thermostat will resume normal operation.

Freeze protection function

If the temperature drops below 6°C, then Calex radiator thermostat will open the valve until the temperature again rises above 8°C. This prevents the radiators from freezing.

Going back to factory settings / All reset

Push the button until the indication **ADRP** appears on the display.

Calcification-protection function

To prevent radiator valves from calcifying, Calex radiator thermostat is submitted to a calcification protection programme once a week on Friday mornings.

Heating pause / summer pause – Closing the Calex radiator thermostat

Use the button to switch to MANU mode. Use the button until **OFF** appears on the display. The valve is now closed and will work without a time programme. The calcification-protection function stays active once a week.

Child lock

You can lock Calex radiator thermostat to protect the device from unauthorized activation. To do this press the buttons + at the same time for more than 2 seconds until **BLOC** appears on the display; use this button combination to release the block.

Travel function

Pushing the buttons and simultaneously activates this function (suitcase appears on the display). With the buttons and respectively you can choose the end of the travel function (= date of the recommencement of the regular heating times). Confirm with button . Set the time and confirm with the button . **OFF** is flashing on the display. Now set the temperature and confirm with button . The signal appears on the display. A renewed pushing of the button PROG deactivates the function.

Adjusting temperature to local conditions / temperature-setup

Often the perceived temperature significantly differs from the set thermostat temperature, for example due to spatial distance to the radiator. For this reason you should execute a temperature set up that is specifically adapted to your room situation. To do this press the button **PROG** for 5 seconds. The degree setting $\square, \square^{\circ}\text{C}$ will flash on the display. Now set up the desired temperature increase using the buttons **+** and **-**. Confirm your entry with the button **PROG**. The temperature shown on the display does not change!

11 – Cleaning and used devices

Cleaning

To clean the thermostat use only a dry or lightly wet cloth. Avoid chemical solvent – it can probably damage the device.

Used devices

Do not throw old devices and packaging into the household waste. They can be recycled. You receive further information at your local government.

12 – Help

Problem	Cause	Solution
BATT	Batteries do not have enough power.	Replace batteries.
Heating element does not cool down.	Valve does not close completely. It may be that the closing point of your valve seat has shifted.	Adapt again (see "Adapting") Move the valve stem several times by hand, it may be that adaptation is impossible because your valve is calcified or the seat no longer performs its function.
Heating element does not warm up.	Is the boiler water temperature O.K.? Valve does not open, is it calcified after the summer pause / heating pause?	Adjust the temperature of the boiler water. Remove the Calex radiator thermostat, move the valve stem back and forth per hand or with a tool.
E1	No adaptation possible.	Is the installation OK?
E2	Valve stroke is too short.	Open and close the valve several times manually or replace the batteries.
E3	Motor movement is not possible.	Does the valve stem move freely?

Konformitätserklärung Declaration of Conformity

Wir **Calex Energiesparteknik GmbH,**
We Industriestr. 12, 89081 Ulm

erklären, dass das Produkt
declare that the product

Calex programmierbarer Energiespar-Regler
Calex programmable Energy-Saving Control

auf das sich diese Erklärung bezieht,
to which this declaration relates

mit folgenden Normen übereinstimmt
is in conformity with the following standard

International

EN 55014-1: 2006, EN 55022: 2006

EN 55024: 1998 + A1: 2001 + A2: 2003

EN 60730-1 (2000) + A1, A16

EN 60730-1: 2000, A1 2004, A16 : 2007

EN 60950-1: 2006

EN 61000-4-2, EN 61000-4-2 / 01

EN 61000-4-3, EN 61000-4-3 / 06 + A1

Calex Energiesparregler erfüllt die verbindlichen Anforderungen aus
EMV Gesetz 2004/108/EG. Sie sind mit dem CE Kennzeichen
gekennzeichnet.

Ulm/Donau, den 16.10.2009

Dieter Luther,

Calex Energiesparteknik GmbH

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinien,
beinhaltet jedoch keine Zusicherung von Eigenschaften.

Guarantee

The three-year warranty begins on the day of purchase. Please keep the receipt as evidence of purchase in the future. During the guarantee period, defective radiator thermostats may be sent to the service address below. Please ensure sufficient postage is paid. A new or repaired device will then be sent to you free of charge. Following expiry of the guarantee, you may still send the defective device to the address below for repairs. Please ensure sufficient postage is paid. Repairs carried out after the guarantee period are subject to a charge. Your legal rights are not affected by this guarantee.

CALEX

Energiesparteknik GmbH

Industriestr. 12 • 89081 Ulm

Fon: 0049 -(0)-731-88018-301

Fax: 0049- (0)-731-88018-302

Email: info@calex.de