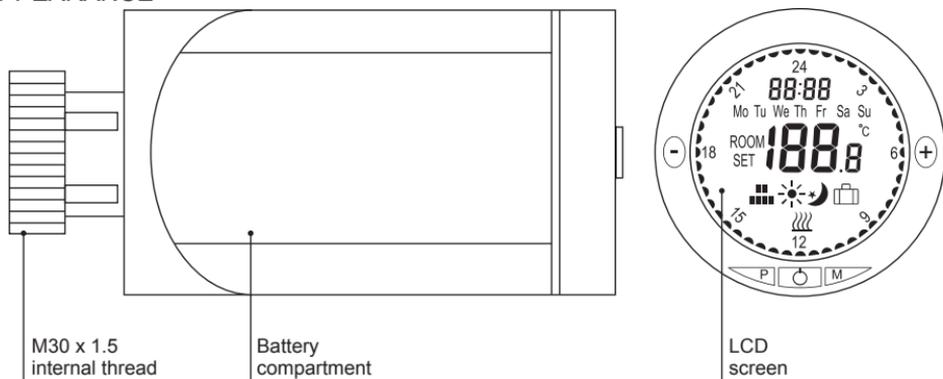


## APPEARANCE

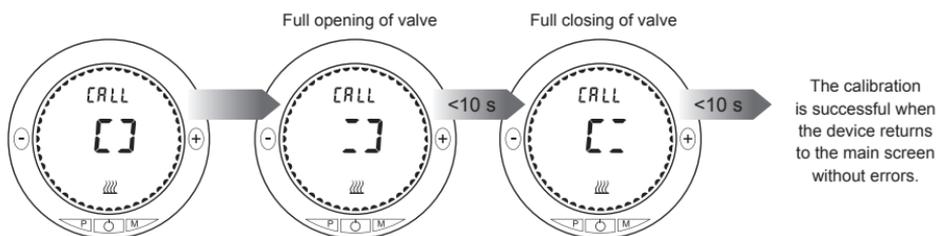


## BUTTON FUNCTIONS

-	<p>Short press:</p> <ul style="list-style-type: none"> <li>- decreasing the value of the parameter</li> <li>- navigation in menu.</li> </ul> <p>Longer press: decreasing the value of a parameter automatically.</p>
+	<p>Short press:</p> <ul style="list-style-type: none"> <li>- increasing the value of the parameter</li> <li>- menu navigation.</li> </ul> <p>Longer press: increasing the value of a parameter automatically.</p>
P	<p>Short press:</p> <ul style="list-style-type: none"> <li>- Switching between the current temperature (Room) and the temperature setpoint (Set).</li> <li>- Accepting the setpoints.</li> <li>- Opening submenus.</li> </ul> <p>Long press (&gt;5 s) – entering configuration menu for RGT-01 radiator controller.</p>
M	<p>Short press:</p> <ul style="list-style-type: none"> <li>- Back to home screen</li> <li>- Going back to settings by leaving a submenu without saving</li> </ul>
	<p>Short press: activating the controller (leaving the standby mode)/deleting a calibration error. Long press (&gt;5 s): switching off the controller.</p>

## INITIAL START-UP OF THE CONTROLLER

1. Remove the old radiator valve.
2. Install the RGT-01 radiator controller on the radiator's valve. During installation, be careful to screw in the ring on the controller correctly.
  - This controller is designed only for horizontal installation.
  - The installation location for the controller should ensure free air flow.
  - When using the controller with an adapter, make sure after installation that the adapter fits snugly on the valve and does not rotate – the same applies to the RGT-01 controller.
    - adapter is not required with M30 x 1.5 valves
    - use the correct adapter with Danfoss RTD-N and RA-N.
3. Install the batteries (2 x 1.5V LR6 AA) in the controller.
4. The controller will begin the calibration process for the specific valve automatically – after 5 s “CALL” will be shown in the display. The calibration process takes approx. 15-20 s. During this time the valve is closed and opened successively.



- After successful calibration, the controller goes back to normal operation. If there are errors during calibration, the "Er" message is shown on the display which means error. Possible error codes: 00 51 – calibration error, 00 52 – motor error. If errors occur, repeat calibration. To do that, remove the batteries, press any button on the front panel and then insert batteries or reset the calibration error on the controller by pressing the "ON/OFF" button), and then from the controller's menu, go to "CALL" screen and perform manual calibration.
- If the controller reports calibration errors after several attempts, then modify the force exerted by the controller's shaft on the valve (this is particularly important with older valves). You can change the force from the menu available on "Forc" screen. Six settings are available from 0 to 5, where 0 refers to approx. 70N and 5 refers to approx. 140N. Increase this parameter gradually and repeat the calibration process until the calibration process is successful.



**NOTE: It is not recommended to set the highest pressure force right away because it leads to higher battery consumption during normal operation of the controller because the control motor for bolt movement uses more power). With most new valves, the controller should calibrate successfully after setting 0 or 1.**

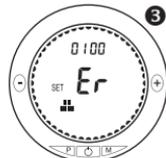
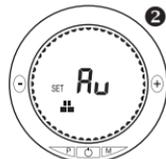
- After successful calibration, the controller is ready for use and you can proceed with configuration of parameters, such as global temperature setpoints / selecting operating mode / setpoints for schedule / adding to EXTA LIFE, etc.).

## ADDING THE CONTROLLER TO EXTA LIFE SYSTEM

To add an RGT-01 controller to EXTA LIFE system:

- Connect an EFC-01 control unit.
- Install the mobile app.
- Insert batteries to the controller you want to pair with the control unit.

- Activate the controller by pressing any button.
- Long press (>5 s) the "P" button, enter the controller menu.
- Using the "+/-" buttons, go to Pairing screen ❶.
- Press "P" to start sensor on the controller. The system will start counting down from 30 to 0 s which is the period for pairing the controller to the control unit.
- When the sensor on the controller is active, in the app go to Devices > Sensors and press "+" button.
- The system will search for the controller. After pressing "Stop", select the controller you want to add to the system. The "Test" button is available for quick verification of the correct operation of the controller, press this button on the controller to illuminate the display screen for a few seconds.
- You can also change the controller's name before adding the controller to the system.
- The pairing process is finished by pressing the "Pair" button. After the successful pairing, the controller will be available on the sensors list and the controller's display will show ❷.
- In case of pairing error the controller will not be shown on the Sensors list and the sensor's screen will show ❸.



**NOTE: The controller pairing process must be completed within 30 s, i.e. during the period of activation of the sensor on the controller.**

PAIRING	PAIRING	PAIRING	DEVICES
<p>Q search, remains 50 sec...</p> <p>RGT-01 ID: 1048660 [Test] [P]</p> <p>SRM-22 ID: 1638579 [Test] [P]</p> <p>ROM-22 ID: 1507476 [Test] [P]</p> <p>SRM-22 ID: 1638549 [Test] [P]</p> <p>[STOP]</p>	<p>RGT-01 ID: 1048660 [Test] [P]</p> <p>SRM-22 ID: 1638579 [Test] [P]</p> <p>ROM-22 ID: 1507476 [Test] [P]</p> <p>SRM-22 ID: 1638549 [Test] [P]</p> <p>ROM-22 ID: 1507532 [Test] [P]</p> <p>[PAIRING]</p>	<p>RGT-01 ID: 1048660 [Test] [P] ✓</p> <p>SRM-22 ID: 1638579 [Test] [P]</p> <p>ROM-22 ID: 1507476 [Test] [P]</p> <p>SRM-22 ID: 1638549 [Test] [P]</p> <p>ROM-22 ID: 1507532 [Test] [P]</p> <p>[PAIRING]</p>	<p>Receivers Transmitters Sensors Estafetas</p> <p>ROP-22 ID: 4 Channel 2 [On] [P]</p> <p>ROP-22 ID: 5 Channel 1 [On] [P]</p> <p>ROP-22 ID: 5 Channel 2 [On] [P]</p> <p>ROP-22 ID: 6 Channel 1 [On] [P]</p> <p>RGT-01 ID: 1048660 [Test] [P] [App]</p> <p>Current: 23.0 V (Chosen: 23.0 V)</p>

- If the controller has been already paired with the control unit, then it will not be shown again during the search (as it not possible to pair it with another control unit).
- After pairing the controller with the control unit, press "P" in the pairing menu to show the following screen ❷.
- In the pairing menu, you can manually unpair the controller by long pressing (>5s) the "P" button; the successful unpairing is confirmed by blinking of the symbol 📡.

## CONTROLLER OPERATION

The RGT-01 controller is battery-operated. To optimize energy use, the controller uses special valve control method and communication between the controller and the control unit.

### VALVE CONTROL

Four parameters are used for controlling the device operation:

$t_P$  – measurement time

$h_{MIN}$  – minimum hysteresis [°C]

$h_{MAX}$  – maximum hysteresis [°C]

- The  $t_P$  measurement time is the period until the controller activates to change the valve position. The time can be set within the range from 60 s to 30 minutes. The default period is  $t_P = 10$  min.
- Valve control is directly associated with the hysteresis values (minimum and maximum). The hysteresis values define temperature range for the set temperature, i.e. the range where the controller does not activate the valve. This is defined as follows:

$$(T_{set} - h_{MIN}) \leq T_{set} \leq (T_{set} + h_{MAX})$$

- The hysteresis values range is from 0°C to 5°C, with resolution of 0.5°C. By default  $h_{MIN} = h_{MAX} = 1^\circ\text{C}$  Example:  
 $T_{set} = 22^\circ\text{C}$   
 $h_{MIN} = h_{MAX} = 1^\circ\text{C}$   
 $t_P = 10$  min
- In the example shown, RGT-01 controller is activated every 10 min and the valve is controlled only when measured temperature is  $< 21^\circ\text{C}$  or  $> 23^\circ\text{C}$ . From  $21^\circ\text{C}$  to  $22^\circ\text{C}$  no valve activation occurs.
- Battery energy consumption is lower when the  $t_P$  time is higher or with higher values of  $h_{MIN}$  and  $h_{MAX}$  hysteresis.
- The valve is controlled using a special algorithm which involves matching the movement of valve shaft with the temperature differential between the temperature at particular moment and the set temperature. This enables a better matched temperature adjustment. So, the control does not involve full opening/full closing depending on the fact whether the temperature at the particular moment is lower or higher than the setpoint.
- The values for hysteresis may be set from the controller's menu or using the configuration screen in the mobile app. The measurement time can be set only in the mobile app.

## COMMUNICATION BETWEEN THE CONTROLLER AND CONTROL UNIT

- To minimise battery consumption, the RGT-01 controller operates in standby most of the time. The data from the controller to the control unit and vice versa are sent only after activation of the controller. Activation can be manual: by pressing any button on the controller's panel or automatically – using synchronization time  $t_S$  as set by the user.
- Synchronization time  $t_S$  can be set from 60 seconds to 6 hours as a multiplier for  $t_P$  measurement time:

$$t_S = M \times t_P$$

where:

$t_S$  – synchronization time,  $t_P$  – measurement time,  $M$  – multiplier

- By default, the synchronization time is set to 15 minutes.
- The data from the controller to the control unit and vice versa are sent after the controller is activated. This should be taken into account especially when configuring the controller using the mobile app.
- Any changes made in the app (changing operating mode / changing the temperature setpoint / changing the schedule / changing configuration parameters) force synchronization of the control unit with the selected controller. The changes will be sent to the controller only after activation of the controller, i.e. in standard mode, after synchronization time  $t_S$ .
- Waiting for synchronization is marked with an icon



### Example:

$t_P = 10$  min

$t_S = 20$  min

- Using the mobile app, operating mode was changed from automatic to manual and the user set temperature setpoint to  $21.5^\circ\text{C}$ .
- The configuration data will be sent automatically to the controller only after  $t_S=20$  minutes or after manual activation of the controller.
- The  $t_S$  value may be changed only using the app by entering multiplier for the  $t_P$  time set.
- Lower  $t_S$  value means activation of controller and synchronization with the control unit more frequently. This leads to shorter battery life.



# REMOVING THE CONTROLLER FROM EXTA LIFE SYSTEM

## REMOVING IN THE APP

- To remove an RGT-01 controller from the EXTA LIFE system, select “Delete” from context menu. If the controller is active at the moment, then it will be removed immediately from the list.
- If the controller is in standby, then it will not be removed from the list after selecting “Delete”. In such a situation, a synchronization icon appears and the device will be deleted only during the synchronization between controller and control unit.

## REMOVING USING THE CONTROLLER'S MENU

**NOTE:** This operation only deletes the marker for the controller as paired with specific EXTA LIFE control unit. This will enable the user to pair the controller with another control unit again but the controller will not be deleted from the controlled devices list for the control unit it was paired with before. From the context menu for the controller, select “Delete” twice and refresh the list of connected devices. Only then, the controller will be removed from the list and you will be able to pair it with the control unit again. Otherwise, you will get “Incorrect data” message during a pairing attempt.

To unpair a controller from a menu:

1. Activate the controller.
2. Long press (> 5s) the “P” button to enter the controller’s menu.
3. Using the “+/-” buttons, go to the following screen ①.
4. Press and hold (>5 s) the “P” button until the symbol starts blinking.
5. The pairing procedure has been completed successfully.



## STANDBY MODE

To optimize energy consumption, a RGT-01 controller stays in standby mode most of the time. In the standby mode, the LCD display is turned off and valve control functions are not performed.

The controller leaves the standby mode in the following situations:

- manually – by short pressing any button on the controller’s front panel,
- automatically – after a predefined synchronization time  $t_S$  (including activation of the controller), after a predefined measurement time  $t_P$  (to set the valve in a particular position, if necessary).

A controller must be activated in order to perform the following actions:

- add/remove the controller from EXTA LIFE system
- transmit data between a controller and control unit and vice versa
- configure setpoints
- software upgrade
- setting the valve position.

## OPERATING MODES

There are two temperature control modes available:

- manual
- automatic (using a weekly schedule).

## MANUAL MODE

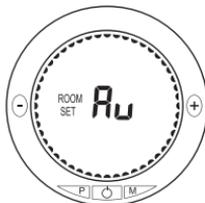
- The manual mode is based on a single temperature setpoint. The setpoint value can be defined using “+/-” buttons on the controller’s panel or using a slider in the app. Available temperature setting range is from 5°C to 50°C.
- In manual mode, the controller uses the temperature setpoint, measurement time  $t_P$  and hysteresis setpoints (min/max) to set the radiator valve’s closure level so to reach the temperature setpoint in a shortest possible time.

To select manual mode:

1. Activate the controller.
2. Long press (> 5 s) the button to enter the controller’s menu.
3. On the mode selection screen, short press the button and then use “+/-” buttons to select manual or auto mode.



MANUAL mode



AUTO mode

4. Confirm your selection by pressing the "P" button.
5. Press "M" to go to home screen.

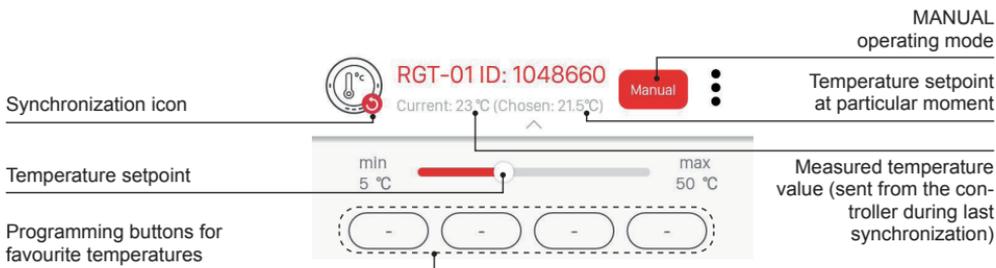
Home screen in the manual mode ①:

- Use "P" to switch between the Room temperature, i.e. measured temperature value and the Set temperature, i.e. temperature setpoint.
- On the Set temperature screen, you can set the temperature using "+/-" buttons. **Confirm the value set by pressing shortly "P"**.



### MANUAL MODE IN THE MOBILE APP

- Select value for temperature setpoint from 5°C to 50°C using the slider.
- When you change temperature using the slider, you will automatically modify the operating mode from AUTO to MANUAL.
- The user can set up to four favourite temperatures. When you change the operating mode or temperature setpoint, you must synchronize the control unit with the controller; the synchronization process is shown with an icon.
- Synchronization is performed after activating the controller manually or automatically after expiration of synchronization time  $t_s$  – only then the information is sent from the control unit to the controller.



### AUTO MODE

- In automatic mode, temperature control is carried out in a weekly cycle based on a schedule.
- The schedule is set for a specific day of the week with resolution of 0.5 h based on four global temperature values: Comfort, Economy, Out of home and User.
- Available temperature setting range is from 5°C to 50°C with resolution of 0.5°C. The relationships between temperatures is following:

$$5^{\circ}\text{C} \leq \text{Out of home} < \text{Economy} < \text{Comfort} \leq 50^{\circ}\text{C}$$

$$5^{\circ}\text{C} \leq \text{User} \leq 50^{\circ}\text{C}$$

- You can set global temperatures from the controller's menu (Global temperature setpoint screen) or from mobile app.
- Global temperatures are presented using the following icons:
  - ☀ - comfort temperature
  - 🌙 - economy temperature
  - 🏠 - out of home temperature
  - 👤 - user temperature.
- With RGT-01 controller, when editing the schedule for a specific weekday, you assign one of the four global temperatures to specific time periods (with resolution of 0.5 h). You can edit the schedule on the controller or from the app.
- By default, the same schedule is assigned to each day of the week (Mon to Sun).

00:00 ÷ 06:00	Economy
06:00 ÷ 08:00	Comfort
08:00 ÷ 10:00	Out of home
10:00 ÷ 12:00	Comfort
12:00 ÷ 16:00	Out of home
16:00 ÷ 23:00	Comfort
23:00 ÷ 00:00	Economy

*Default schedule for RGT-01 controller*

## EDITING A SCHEDULE ON A CONTROLLER

### Setting temperature for a specific day of the week

1. Long press (> 5s) the "P" button to enter the controller's menu.
2. Use the "+/-" buttons to enter schedule editing screen. Confirm with "P" button.
3. Use "+/-" buttons to select day of the week to edit. Confirm selection by pressing "P"
4. Use "+/-" buttons to select temperature you want to assign for the specific time period. Confirm your selection by pressing the "P" button.
5. Press "P" shortly to switch between time periods.
6. Press "M" to confirm the settings for the complete day and exit to selection menu.

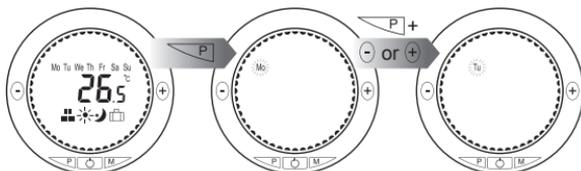


### Restoring the default schedule for a specific day of the week

1. Long press (> 5s) the "P" button to enter the controller's menu.
2. Use the "+/-" buttons to enter schedule editing screen. Confirm with "P" button.
3. Use the "+/-" buttons to select day of the week for which you want to restore the default schedule.
4. Press and long hold (>5 s) "P". The temperature values will be deleted and default schedule for the specific day of the week will be restored.

### Copying the schedules between days

1. Long press (> 5s) the "P" button to enter the controller's menu.
2. Use the "+/-" buttons to enter schedule editing screen. Confirm with "P" button.
3. Use the "+/-" buttons to select day of the week for which you want to copy the schedule.
4. Use the "+/-" buttons while pressing "P" to select day of the week for which you want to copy the schedule.
5. Release the "P" button to copy the schedule.



## EDITING A SCHEDULE IN THE MOBILE APP

In the mobile app, you can set global temperatures for RGT-01 controller on the "Configure" screen. To change global temperatures, you must save those temperatures and save the complete configuration. Save the data by pressing "Save". This will force synchronization between the control unit and controller.



Use "Schedule" screen to edit a schedule for specific controller.

To edit a schedule:

1. Select day of the week
2. Enter schedule editing mode by pressing "Edit"
3. To edit the time period, click it. Set the start hour, finish hour and temperature assigned to the specific period. The time is set in 0.5h increments.
4. Press "Save" to save changes.
5. Press "+" to add new range to the existing schedule.

Time Period	Mode	Temperature
00:00 - 09:00	Economic	20.0°
09:00 - 15:00	Comfort	25.0°
15:00 - 19:00	Outside house	18.0°
19:00 - 23:00	Comfort	25.0°
23:00 - 00:00	Economic	20.0°

## COPYING THE SCHEDULE FROM THE LEVEL OF THE MOBILE APPLICATION

In addition to editing the schedule for each day separately, it is also possible to quickly copy the schedule developed for the selected day for the remaining days of the week.

Procedure:

1. Create a schedule for the selected day of the week.
2. When you are on the selected day of the week for which the schedule was created, select 'Edit' and then 'Copy schedule'.
3. Select the days of the week to which you want to copy the previously created schedule.
4. After pressing the 'Save' button, the schedule will be copied.

## COPYING THE TEMPERATURE WITHIN THE SELECTED DAY OF THE WEEK

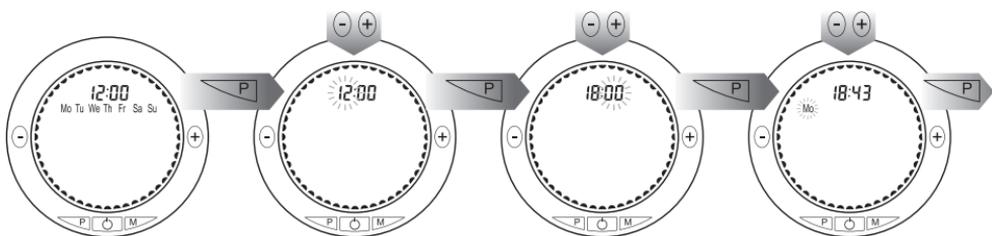
This function makes it possible to copy the selected global temperature to individual hours of the schedule within one day in a quick and convenient way.

1. After you activate the head, enter the device menu by pressing by pressing the "P" button longer (>5s).
2. Use the "+" button to go to the schedule editing screen.
3. Select the day of the week and use the "P" button to enter the schedule editing screen.
4. Use the "+"/"- buttons to select one of the four global temperatures
5. Press the "P" button.
6. By pressing the "+"/"- buttons with the "P" button pressed, the selected temperature is copied to the individual hours within the edited day.

## SETPOINT FOR SPECIFIC HOUR AND DAY OF THE WEEK

The current time and day of the week are set on the controller's menu. Procedure:

1. Long press (> 5s) the "P" button to enter the controller's menu.
2. Use "+/-" buttons to go to the screen for setting time and day of the week. Confirm with "P" button.
3. The parameter setting sequence is: hour (hh), minutes (mm) and day of the week (Mo – Su) using "+/-". Accept the setpoint by pressing "P".
4. Press "M" to go back to the main menu without saving the active part of the settings.

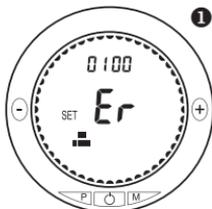


## CALIBRATING THE CONTROLLER USING MENU

To calibrate a controller from the menu:

1. Long press (> 5s) the "P" button to enter the controller's menu.
2. Press "+/-" to go to controller calibration screen. Confirm with "P" button.
3. The controller performs the calibration process by opening and closing the valve. The complete process takes approx. 20 s. After calibrating correctly, the device goes back to the menu. If any errors occur during the calibration, then the following screen will be shown ❶.

4. Short press the "ON/OFF" button to delete the calibration error.



## LOCKING THE KEYBOARD – "PARENTAL CONTROL" MODE

The key lock function disables the functionality of the buttons available on the front panel of the RGT-01 head. Such a function protects against accidental change of device settings, for example by children.

In order to lock the buttons:

1. Activate the RGT-01 head.
2. At the same time, press "P" and "M" buttons and hold them for about 5s.
3. LOC message will appear on the display - it means the buttons are locked.

By pressing any key in the keyboard lock mode, you can only activate the device. The display shows the current room temperature (Room).

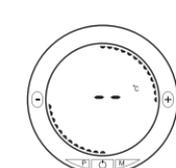
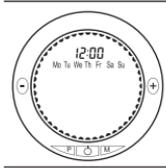
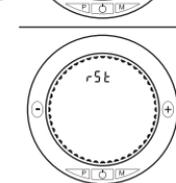
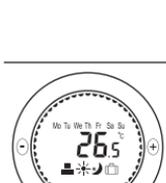
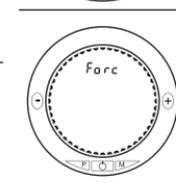
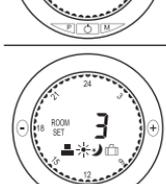
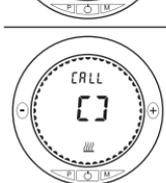
In order to unlock the buttons:

1. Activate the RGT-01 head.
2. At the same time, press "P" and "M" buttons and hold them for about 5s.
3. Instead of the LOC message, the current time will be displayed - it means that the buttons are unlocked.

The key lock function is also available in the head configuration screen in the mobile application - the 'Key lock' option.

# FULL MENU FOR A RGT-01 CONTROLLER

- An RGT-01 controller may operate as an independent device (outside the EXTA LIFE system) so that operating and configuring basic parameters is possible from user menu using control buttons and an LCD screen.
- To enter the controller's menu long press (>5s) the "P" button. To switch between menu screens, press "+/-" buttons. Short press "M" to leave menu.

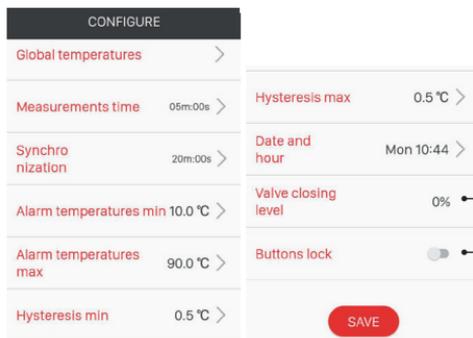
	<p><b>Selecting the operating mode</b></p> <p>M – MANUAL mode            Au – AUTOMATIC mode (AUTO)</p> <p><b>Default mode: M (manual)</b></p>		<p><b>Hysteresis setpoints (insensitivity zones)</b></p> <p>Minimum hysteresis <math>T_{hmin}</math> and maximum hysteresis <math>T_{hmax}</math></p> <p>The parameters are set from 0 to 5°C</p> <p><b>Default value:</b>  <math>T_{hmin} = T_{hmax} = 1^{\circ}\text{C}</math></p>
	<p><b>Setpoint for specific hour and day of the week</b></p>		<p><b>Turn on the controller to pair a RGT-01 controller with an EXTA LIFE control unit Controller</b></p> <p>Activation time: maximum 30 s</p>
	<p><b>Global temperature setpoint</b></p> <p>Comfort / Economy / Out of home / User</p> <p>Temperature set from 5 to 50°C with increment 0.5°C</p> <p><b>Default values:</b></p> <ul style="list-style-type: none"> <li>• Comfort 25°C</li> <li>• Economy 20°C</li> <li>• Out of home 18°C</li> <li>• User 25°C</li> </ul>		<p><b>Reset to default factory settings</b></p>
	<p><b>Schedule setpoint</b></p>		<p><b>Setpoint for pressure on valve stem</b></p> <p>The value for this parameter may be set from 0 to 5</p> <p>0 – pressure force approx. 70N            5 – pressure force approx. 140N</p> <p><b>Default value: 0</b></p>
	<p><b>LCD screen contrast setpoint</b></p> <p>This parameter may be set from 0 to 7 where 0 – minimum contrast level, 7 – maximum contrast level</p> <p><b>Default value: 4</b></p>		
	<p><b>Calibrating the controller and a valve</b></p>		
	<p><b>Alarm temperature setpoint (minimum and maximum)</b></p> <p>Maximum temperature alarm <math>50^{\circ}\text{C} \leq T_{max} \leq 90^{\circ}\text{C}</math></p> <p><b>Default value: 90°C</b></p> <p>Minimum temperature alarm <math>3^{\circ}\text{C} \leq T_{min} \leq 15^{\circ}\text{C}</math></p> <p><b>Default value: 10°C</b></p>		

## SETTING BASIC CONFIGURATION PARAMETERS FOR THE CONTROLLER

You can configure most parameters on the controller's menu and from configuration screen in mobile app.

Parameter name	Menu setpoint	App setpoint	Setpoint range
Global temperatures (comfort TK / economy TE / out of home TW / user TU)	+	+	+5 ÷ +50°C in 0.5°C increments 5°C ≤ T <sub>W</sub> < T <sub>E</sub> < T <sub>K</sub> ≤ 50°C
Measurement time t <sub>P</sub>	-	+	60 s ÷ 30 min in 1 s increments <b>Default value: 10 min.</b>
Synchronization time t <sub>s</sub>	-	+	60 s ÷ 6 h 1 s increment is set as multiplier for t <sub>P</sub> <b>Default value: 20 min.</b>
Display contrast	+	-	From 0 to 7 <b>Default value: 4</b>
Minimum alarm temperature T <sub>min</sub>	+	+	+3 ÷ +15°C in 0.5°C increments <b>Default value: 10°C</b>
Maximum alarm temperature T <sub>max</sub>	+	+	+50 ÷ +90°C in 0.5°C increments <b>Default value: 90°C</b>
Minimum hysteresis T <sub>hmin</sub>	+	+	0 ÷ +5°C in 0.5°C increments <b>Default value: 1°C</b>
Maximum hysteresis T <sub>hmax</sub>	+	+	
Pressure force on valve stem	+	-	0 ÷ 5
Time and day of the week	+	+	

Configuration screen for RGT-01 controller in the mobile app:



Closing of the valve  
- parameter showing current status  
of valve  
0% - valve completely open  
100% - valve completely closed

Blockage of the buttons  
- switch enables blocking/unblocking  
of keyboard (buttons on the front  
panel of heating head)

## COPYING CONFIGURATION BETWEEN CONTROLLERS IN EXTA LIFE SYSTEM

This feature is particularly useful when several controllers operate in the system and you want to use similar or the same configuration on multiple controllers.

**Note: When using configuration copying function, a copy of all the configuration parameters for a controller is made, including all the parameters set in the app and the complete schedule.**

To copy the configuration to the controller:

1. From the controller's context menu, select "Assign configuration".
2. A list of all remaining controllers in the system will be displayed.
3. From the list, select the controller you want to copy configuration and schedule from, i.e. the source controller.
4. After selecting the controller, a copy will be made and confirmed with a message.
5. The settings will be saved to the controller during the next synchronization.

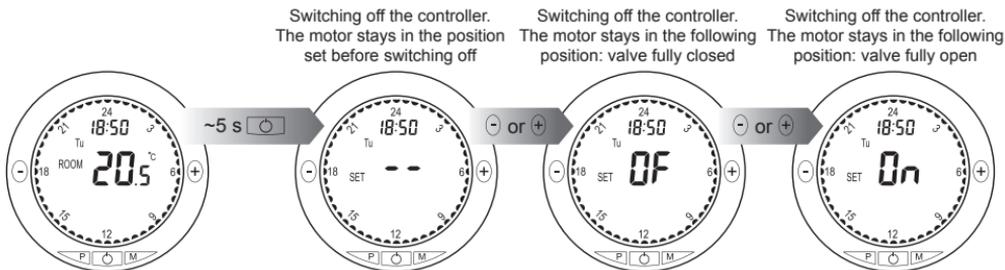
## RGT-01 CONTROLLER OUTSIDE HEATING SEASON

You can set the RGT-01 outside the heating season to one of the three modes:

- the controller's motor stays in the position set before switching off
- the controller's motor stays in the position for full closure of the valve (OF)
- the controller's motor stays in the position for full opening of the valve (On)

To set the motor's position outside the heating season:

1. On the main screen press and hold the "ON/OFF" button for approx. 5 s.
2. Use "+/-" buttons to select the motor's status:
  - the controller's motor stays in the position set before switching off
  - OF — the motor stays in the valve fully closed position
  - On — the motor stays in the valve fully open position
3. Confirm selection by short pressing of "ON/OFF" button.
4. To exit menu without saving, short press "M".



## SWITCHING THE CONTROLLER TO 'WINDOW OPEN MODE'

In this mode, the RGT-01 controller fully closes the valve. This is done for quick switching off of the radiator during the periods of opening windows in a room. The controller will go to normal operation after pressing any button or automatically after 30 minutes from entering the "open window mode".

Switching the controller to 'window open mode':

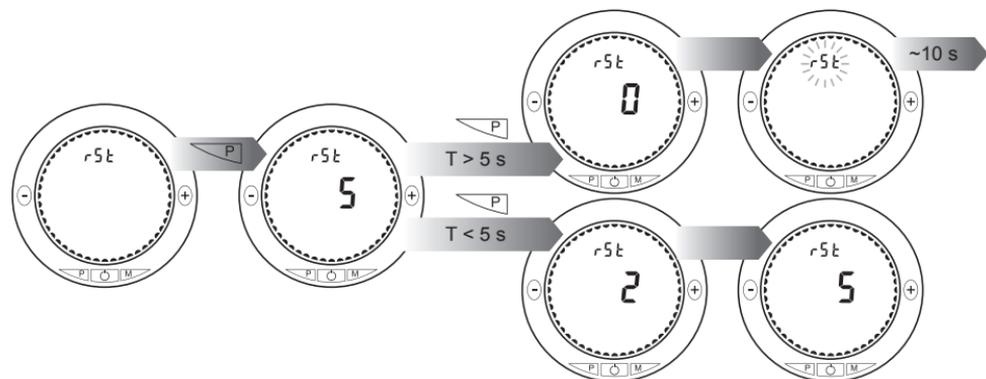
1. On the main screen, press and hold "+" and "-" for more than 5 s.
2. "OF" symbol will be displayed on the screen and the valve will be fully closed.
3. To exit "window opening mode", press any button or the system will leave this mode automatically after 30 minutes without any action.

## RESET CONTROLLER TO FACTORY DEFAULT SETTINGS

1. Long press (> 5s) the "P" button to enter the controller's menu.
2. Press "+/-" to go to screen for resetting the controller to factory default settings. Confirm with "P" button.
3. Press and hold "P" longer than 5 s, after reaching 0 the controller will be reset to factory default settings.
4. If you release the "P" button before countdown ends, the reset will not be performed.

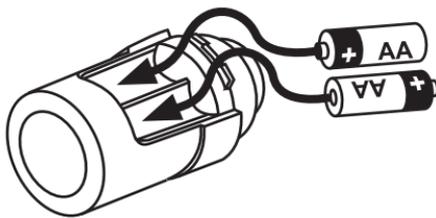
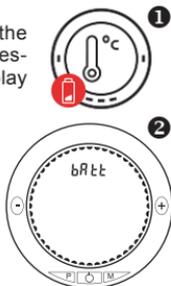
**Note: After resetting to factory default, all parameters return to default values and the controller is removed (unpaired) from EXTA LIFE system.**

5. After resetting to factory settings, the controller will be recalibrated.



## REPLACING THE BATTERY

- The power to RGT-01 controller is supplied from two 1.5V LR6 AA batteries. The battery consumption speed depends on several factors:
  - dynamics and frequency of temperature change which is directly associated with the frequency of operation of the motor controlling the valve closing level
  - the controller's setpoint parameters, such as measurement time  $t_P$ , synchronization time  $t_S$  and minimum and maximum hysteresis.
- For default parameters such as  $t_P = 10 \text{ min.}$ ,  $t_S = 20 \text{ min.}$  oraz  $T_{\text{hmin}} = T_{\text{hmax}} = 1^\circ\text{C}$ , the expected battery life is approx. 6-8 months (i.e. one heating season). The low battery message is shown in the mobile app using the following icon ❶ and on the controller's display as "Batt" ❷.
- After low battery warning is shown, replace the battery as soon as possible. The controller may work incorrectly when batteries are low (applies mainly to control motor for valve bolt).
- It is recommended to use alkaline batteries supplied by proven manufacturers.
- To replace batteries:
  1. Use a screwdriver to remove battery compartment cover.
  2. Remove old batteries.
  3. Press any button on the controller's front panel to unload and install new batteries as shown in the figure.
  4. After inserting batteries, the controller will perform calibration (the calibration process is described in detail in chapter "Initial start-up of the controller").
  5. After finishing the calibration process, install the battery compartment cover.



## REMOTE SOFTWARE UPDATE

- The RGT-01 controller receiver has a built-in bootloader for remote updating of software from Exta Life app. Updating is possible only for controllers paired with controller unit and can be carried out by the user with administrator's rights. To perform an update, you must download the latest version of software from extalife.pl and move it to an SD card in the control unit; read the manual "Updating software in EXTA LIFE controllers and control unit". The manual can be download from extalife.pl.
- The current software version for the RGT-01 controller is shown on "Version information" screen.

**Note: To carry out an update RGT-01 controller must be active.**

- After pressing the "Update" button, you are sending an information to the control unit which switches the controller to software update mode. The latest version of software is sent to the controller from control unit. Update progress is shown on the screen of the controller subject to update. During the update, the controller and control unit are switched to service frequency and cannot be controlled. After successful update, the applicable information about is sent from controller to the control unit and signalled in mobile app.
- If the update on the controller is unsuccessful, then the controller will lose its original functionality. Then, selecting "Version information" in the controller again, you will be able to repeat the update process.

**NOTE: Do not delete the controller with an update error from the controller's resources.**

