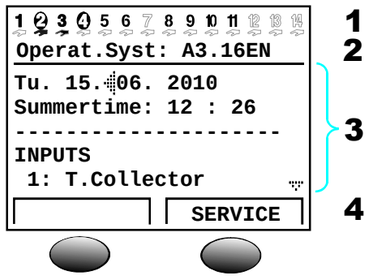
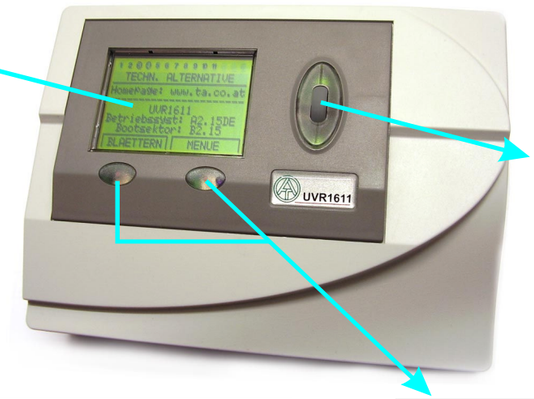
Operation UVR1611

This brief guide is aimed at the final user of the control.
The diversity of the programming means it is not possible to create a brief guide for all application cases. Therefore this manual relates to a standard system, which is saved as the "factory setting" in every controller.

The display:





The scroll-wheel

By means of the scroll-wheel, the selected menu can be gone through by the right pointer in the display . Small upward or downward showing arrows symbolize the possibility of further menu lines above or below the visible display range.
If a parameter is to be changed, the pointer must be put in the desired position. By pressing the wheel, the arrow cursor changes from to and the background lighting of the scroll-wheel frame from green to orange to indicate programming. Now the value can be adjusted using the wheel (possibly also with "* 10"). You may cancel at any time by pressing CANCEL. Press the wheel again to turn the screen light green and take over the parameter.

1 **The top line** constantly provides information about the actual output states.

Blank field instead of number 5 = output five has not yet been parameterized

- 5 Output five is active, runs in automatic mode and is temporarily **switched off**
- 5 Output five is active, runs in automatic mode and is temporarily **switched on**
- 5 Output five is active, runs in **manual mode** and is temporarily **switched off**
- 5 Output five is active, runs in **manual mode** and is **switched on** at the moment

2 **The second line** is the headline for the following menu and/or parameter lines

3 **The middle display area** is the operative range. Within this range the programming, parameterizing and indicating takes place.

4 **The lowest line** exclusively serves to mark the two keys below in order to be able to assign different functions to it.

The keys

The control unit has two keys below the display. They are constantly assigned with the required functions via the display:

SERVICE - To switch from the function overview (the most important menu for the user) into all other menus

BACK - The PC switches immediately into the next-higher menu level

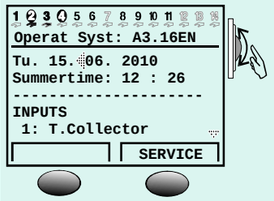
SCROLLING - This function allows the direct “switch" from one menu level to the same level of the next menu by means of the scroll wheel

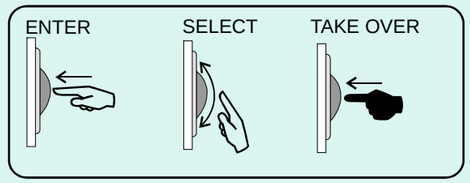
x10 - The changeable value changes for 10 steps each per increment of the scroll wheel

MENU - To switch from the opening image (after starting-up) to the menu

CANCEL - The current entry or change of a value is stopped

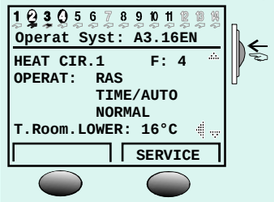
Example: changing of the lowering temperature of heating circuit 1 von 16°C to 14°C:



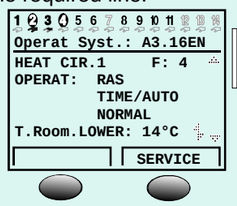


1 Position the cursor arrow by scrolling

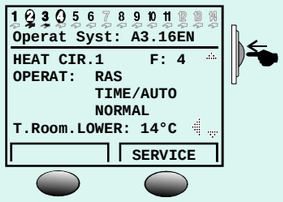
Scroll until the cursor is in the required line:



2 Select value



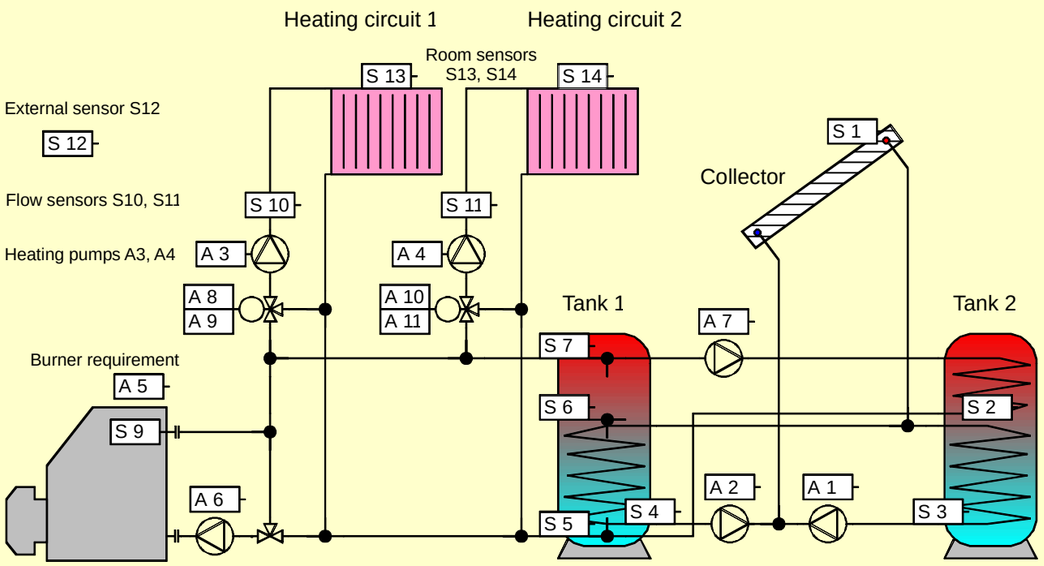
3 Set value



4 Accept value

Factory Settings

In each UVR 1611, this standard system is saved as the "factory setting". As individual programming is created for each system, this manual relates to this factory setting.
The sensors (temperature sensors) have the designations S1 .... S14.
The outputs (pumps, mixers, burner requirements) are designated A1 …. A11.
The system comprises a solar thermal system, which fills a buffer tank SP1 and a service water tank (domestic hot water tank) SP 2 via pumps A1 and A2.
The hot water tank has priority for filling. Some systems use one pump and a changeover valve rather than two pumps.
In the temperature of the hot water tank falls, the hot water tank can be filled both from the buffer tank and from the boiler via the load pump A7.
Two heating circuits with motor-driven mixers (A8/9, A10/11) are actuated, they are regulated via an external sensor (S12) and two room sensors (S13, S14).
If the buffer temperature falls below the requested nominal temperatures of the heating circuits or the hot water tank, a boiler requirement is made (A5).
Simultaneously, a load pump A6 is also provided between the boiler and buffer tank, in the event that the boiler is a solid fuel-fired boiler.



The function overview

Essentially, it is unimportant for the user, how the programming of the controller appears in detail. The important factor is optimum control of the system.
However as a user, you must be able to adjust important controller settings so that it fulfils your requirements and also be aware of important system sensor values. The function overview, which is produced by the programmer, was created to meet this adjustment possibility.
The possibility exists that your controller always displays the function overview as the basic display. However, the controller can also be programmed so that you must enter the function overview via the main menu:

The function overview of the factory setting is described on page 2.

Function overview of the factory setting

```
Operat Syst:  A3.16EN
Tu. 15.06. 2010
Summertime: 12 : 03
-----------------------
INPUTS
1: T.Collector
    37.0 °C
2: T.Warm Water
    46.9 °C
7: T.ST.Upper
    77.1 °C
9: T.Boiler Pre
    78.8 °C
12: T.Outdoor
     2.2 °C
-----------------------
HEAT CIR.1      F: 4
OPERAT:  RAS
         TIME/AUTO
         NORMAL
T.Room.LOWER: 16 °C
T.Room.NORMAL: 20 °C
         TIME PROG:
         HEAT CURVE:
-----------------------
HEAT CIR.2      F: 5
OPERAT:  RAS
         TIME/AUTO
         NORMAL
T.Room.LOWER: 16 °C
T.Room.NORMAL: 20 °C
          TIME PROG:
          HEAT CURVE:
-----------------------
WW REQ          F: 7
WARM WATER TEMP.:
T.WW.ACT:    46.9 °C
T.WW.NOM:      50 °C
          TIME PROG:
T.WW.MIN:      40 °C
```

1st line: Display of the operating system (version)

Date and time (changeable)

Sensor values searched for inputs

If this line is selected: The function parameters can be checked, but not changed by the user.

Operating mode selection

When using a room sensor "**RAS**" is displayed in the 1st line and then "**TIME/AUTO**" and the actual operating mode ("**NORMAL**" or "**LOWERED**"). If a subsequent operating mode is switched to, "**RAS**" is no longer visible.
If no room sensor is used, then only one of the operating modes described below is displayed here. You can also switch to the following heating functions regardless of whether a room sensor exists:

TIME/AUTO	The system is automatically switched between normal and lowering mode dependent on set heating time. The current operating mode is shown in the next line by either "**NORMAL**" or "**LOWERED**".
NORMAL	The controller is switched to **manual** mode - heating (normal), lowering mode is never activated.
LOWERED	The controller is switched to **manual mode - lowered**, heating mode at normal temperature is never activated.
STANDBY	The control function is switched off (frost protection remains active)
HOLIDAY	The day for this entry is treated like a Saturday (i.e. all Saturday switching times apply), all following days are treated like a Sunday, until the indicated date is reached. The following line indicates from which date, 0.00 h, automatic mode should again apply.
LEAVE	The heating circuit is switched to lowering mode, until the date specified in the next line, 0.00 h, is reached.
PARTY	Party mode prevents changeover to lowering mode at the end of the programmed heating time. In the next line, an entry must be made specifying when automatic mode will again apply.

Dependent on the linking with the maintenance function or the external input, the following can also appear: **MAINTENANCE, FROST PROTECTION, EXT/STANDBY, EXT/FROST P**. For the operating modes **HOLIDAY, LEAVE** and **PARTY** the controller switches back to automatic operation after the time indicated has expired.

Room temperature in lowering mode

Room temperature in normal mode

Option, to set or change the **time program** for this heating circuit. Up to 5 time programs, which can contain up to 3 time windows, can be programmed. A change to the number of programs and time windows is only possible under expert mode.

If for example, the first time program applies for Monday to Friday, then these five symbols must be sequentially reverse-highlighted. Then the time windows for the heating times can be set for the selected days. Then by further scrolling, the 2nd time program, e.g. for the heating times at the weekend can be selected.
Example:

TIME PROG

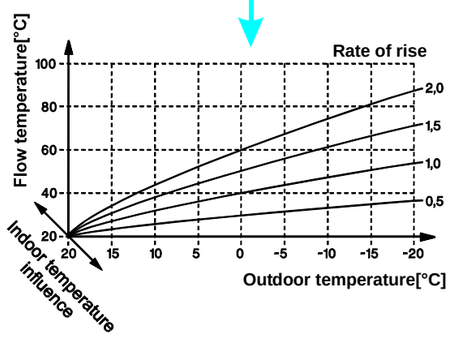
Mo Tu We Th Fr Sa Su The days Monday to Friday are reverse-highlighted and therfore selected
06.00 - 08.00 h 3 time windows are unused.
12.00 - 14.00 h
17.30 - 22.00 h

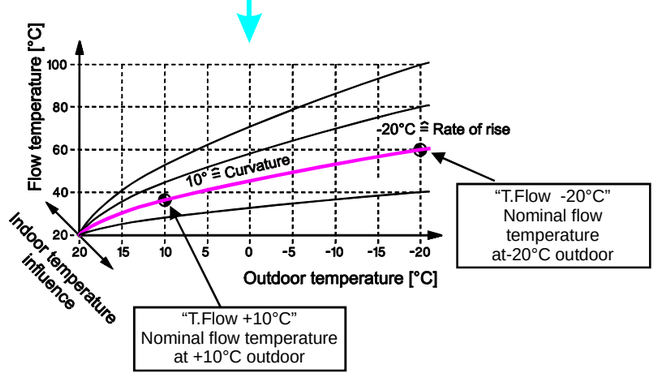
Mo Tu We Th Fr Sa Su At the weekend, continuous heating from 7 am until 10 pm is required.
07.00 - 22.00 h The remaining 2 time windows are unused.
00.00 - 00.00 h
00.00 - 00.00 h

Mo Tu We Th Fr Sa Su The 3rd time program is not used, as no days are selected.
00.00 - 00.00 h
00.00 - 00.00 h
00.00 - 00.00 h

After completition of the settings press “BACK” to return to the function overview..

The flow temperature is usually calculated from the **external temperature** and the heating curve.
2 Adjustment methods:
♦**Slope**
♦**Curve** (dependence of the external temperature at +10°C and -20°C to the flow temperature).
Additional settings:
Room influence - The room temperature is taken into consideration for the calculation of the flow at xx%
Increase in switch on power - The specified lowering time leads to a (decreasing over time) raising of the flow temperature.
Maximum and **minimum** permitted **flow temperature**





Current hot water temperature

Nominal temperature of the hot water tank

Time program (adjustment as for heating circuit)

Minimum value of the hot water tank temperature (outside the time window of the time program)