# Wisotronic 1-channel

Operating instructions

warema

Der SonnenLichtManager

General information

General information

The publication of this document supersedes all previous corresponding documentation. We reserve the right to make changes in the interest of technical progress. Particular care was taken in producing the text and graphics in this document. In spite of this, we cannot accept liability for any existing errors or the consequences thereof.

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The Wisotronic is a multifunctional sun shading control system that can control the various sun shading products (slat products, fabric products, roller shutters, window drives, etc.) in an intelligent manner and according to the current weather conditions.

You can either operate your sun shading products manually or leave operation entirely in automatic control mode. The Wisotronic shields your sun shading against damaging weather conditions and offers a comprehensive range of comfort and safety functions. In addition, the Wisotronic can be operated via EWFS transmitters; the radio receiver was integrated in the control panel.

The Wisotronic evaluates data regarding:

▶ Wind,

▶ Precipitation,

▶ Brightness,

▶ Inside and outside temperature,

▶ Time

And, based on these results, controls the connected Sun City products such as slack products (external and internal venetian blinds), fabric product (awnings, pleated blinds), vertical louvre blinds, black-out systems, roller shutters and window drives.

1 Legal notes

Operating instructions, manuals and software are protected by copyright.

2   Safety instructions

We have developed and tested the Wisotronic in compliance with the basic safety requirements.
Nonetheless, some risks remain.

■ For this reason, please read these instructions before commissioning and operating the control.

■ **It is very important to adhere to the safety information listed here and the warning information in these instructions. Otherwise, any warranty claims against the manufacturer become void.**

■ Keep these instructions for future use.

2.1   Meanings of symbols and pictographs

The safety information in these instructions is marked with warning symbols. It is categorised into different warning types depending on the level of potential danger:

DANGER
warns of an **imminently dangerous situation.**
Possible consequences **may include serious injuries and even death (personal injury), property or environmental** damage.

WARNING
warns of a **potentially dangerous situation.**
Possible consequences **may include light or serious injuries and even death (personal injury), property or environmental** damage.

CAUTION
Reminder to be careful. Possible consequences of the failure to do so may include **property damage**.

The following pictograms and symbols may be affixed to the control unit itself or to the connected devices, alerting you to potential danger:

WARNING
Warning against dangerous electrical voltage.

The i symbol designates important **information** and helpful **tips**.

Example The term **Example** marks an **example**.

■ The **square** marks an **instruction** or a **prompt for action**. Perform this step.

▷ The **triangle** marks an **event** or the **result** of a preceding action.

► The **black triangle** is a **bullet point** for lists or selections.

2.2 Intended use

For each channel, the Wisotronic enables the connection of one conventional sun shade drive with a single-phase AC motor. Alternatively, multiple sun shade drives can be connected via motor control units.

WARNING
Please obtain the approval of the manufacturer if you have questions regarding the connection of devices not listed in these instructions.

All control devices are intended to be installed **indoors** unless otherwise specified.

CAUTION
When using window drives, the installer of the system must ensure that the safety regulations and precautions of DIN EN 60335-2-103 "Special requirements on drives for gates, doors and windows" as well as ZH 1/494 "(German) guidelines for power-operated doors, windows and gates" are observed.

WARNING
The Wisotronic may only be used to control such window drives where the movement of the window cannot cause any injuries!

These windows include (partial list), according to DIN EN 60335-2-103:

► Windows with moving parts located at least 2.5 m above the floor or other access levels.

► Windows with drives equipped with an external or internal entrapment protection system.

► Windows with an opening speed that does not exceed 50 mm/s when moving between 15 mm and 50 mm away from the closed position, with a maximum opening width of 200 mm and with a closing speed that does not exceed 15 mm/s.

WARNING
The approval of the manufacturer must be obtained for uses outside of the purposes listed here. The consequences of unintended use may include personal injuries of the user or of third parties as well as property damage to the control itself, to connected devices or moveable mechanical parts of the entire system.

■ Therefore, use our product only as intended.

2.3 Target group

These instructions are addressed to persons operating, adjusting or commissioning the control unit. The installation instructions (art. no. 890424) are available for persons installing, wiring or establishing a mains connection for the Wisotronic, including all necessary parts.

WARNING
Operation by persons who are not sufficiently qualified and informed can cause severe damage to the system or may even cause personal injury.

- Commissioning may therefore only be performed by properly trained and qualified specialists. These technicians must be able to recognize sources of danger that may be caused by the mechanical, electrical or electronic equipment.

- These qualified technicians must know and understand the content of these instructions.

2.4 General safety instructions

The control system controls your sun shading product automatically. You must therefore observe the following safety instructions:

WARNING
An automatically controlled mechanism can start moving unexpectedly.

- Therefore, never place any objects in the area of movement of an automatically controlled mechanism.

- If measuring or test work needs to be carried out on the active system, make sure that applicable accident prevention regulations are observed under all circumstances.

CAUTION
An automatically controlled sun shading system (e.g., roller shutter on a balcony door) can move down automatically and lock you out. If the Wisotronic of these types of roller shutters has an automatic control, you should always "play it safe" and switch it off temporarily before going outside.

CAUTION
The entire system becomes non-functional if power fails. Therefore, move your sun shading system to a safe position ahead of time if a storm is pending.

WARNING
Children must not play with this product – remote controls or EWFS transmitters must not get into the hands of children.

2.5 Working safely

WARNING
The electrical installation must be performed by a certified electrician in accordance with the electrical installation regulations published by the Association of German Electrical Engineers (VDE 0100) or the standards and regulations of the country in which the device is being installed. The electrician must observe the installation instructions included with the electrical device.

If you want to perform work on motor-operated windows or building façades where motor-operated sun shading products are installed, then

- Switch the system to a de-energised state.
- Make sure that the unit has been sufficiently secured against unauthorised or unintentional reactivation.
- In any case, use suitable safety devices for personal protection.
- Never place or store any items in the motion area of automatically operated mechanisms (e.g. ladder against a house wall with an articulated arm awning).

WARNING
Dangerous situations, malfunctions and property damage to the unit may result from improperly executed mounting, connection, repair or maintenance work.

- Such work may only be carried out by the service department or by authorised qualified personnel.
- Only use such spare/replacement parts for maintenance or repair work as have been approved by the manufacturer of the unit.

WARNING
Dangerous situations, malfunctions and property damage to the unit may result if connections are disconnected during operation! All connections are required for proper operation of the control.

- Therefore, switch off the entire system before attaching or detaching connecting lines.

WARNING
Danger to life and property damage through sudden movement of the mechanism!

2.6 Retrofitting and modifications

We have designed and built the Wisotronic with reliability and safety in mind. All required settings are made when the unit is first commissioned. Modification of the unit parameters is therefore only required when the characteristics of the control need to be adjusted, changes are made to the sensor equipment or the control itself is replaced.

WARNING
Retrofitting and modifications may impact the safety of the system or reduce its effectiveness. Possible consequences may include death, serious or light injuries, and property or environmental damage.

■ Therefore, contact us or your specialist dealer before retrofitting or changing the system or the unit parameters if you cannot find information on the corresponding topic in the control unit documentation. This is the only way to ensure trouble-free retrofitting/modification.

■ Exercise special care when components of different versions are combined or when existing components are replaced by older/newer products with a different scope of functions or a different software version.

2.7 Additional documents

The following documents are available in addition to these instructions:

Document	Number
Wisotronic 1-channel installation instructions	890558
Wiring diagrams for MSE, power supply unit and floor distribution control	816345
Operating and installation instructions of the connected components (e.g. weather station)	-

2.8 Basic software versions

These instructions were created on the basis of the software versions:

Product	Version
Wisotronic control panel	39402108
Wisotronic actuator	39413107

Chapter 7.5.8 Software versions of these operating instructions contains information on how you can determine the software version of your control.

3 Introduction

The Wisotronic stands out by its elegant design as well as an especially user-friendly user interface. The presentation of all setting steps and measuring values is provided in plain text in a clearly arranged display window, simply referred to as **"Display"** in this document. The resolution is 240 x 320 pixels in 256 colours and the illumination ensures easy readability by a high-contrast display.

The equipment features of the Wisotronic:

► flat and elegant design housing with noble acrylic glass front cover, 4 sensor function buttons and a touch wheel

► graphic display

► integrated EWFS receiver

► integrated temperature sensor

3.1 Operating elements
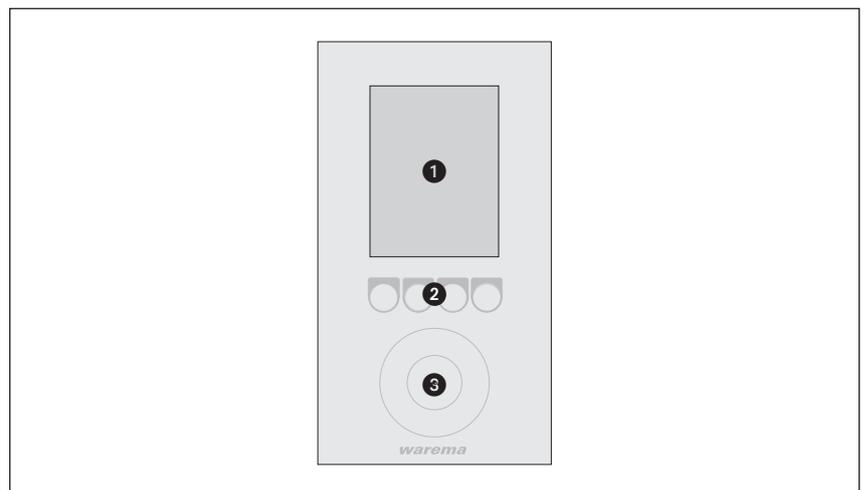
Fig. 1   The Wisotronic operating elements

❶ Display

The illuminated display informs you on everything you can view and set on the Wisotronic. For example, you can view the current measured values of the outside brightness and outside temperature, the current time and much more. The various elements of the display are explained in *Chapter 3.2 on page 14*.

❷ Function buttons

Depending on the information on the display, different processes can be triggered with the function buttons. For example, you may jump to the main menu, restore a preset value, cancel an input, and more.

❸ Touch wheel

The touch wheel can be used to select and open menus, channels, groups and scenes or current weather data and measuring values in the display. Simply move a finger along the circular depression (clockwise or anticlockwise). When you press the middle of the touch wheel, a preselected menu item opens, for example, or a modified value is accepted.

Introduction

3.2 Menu elements

An overview of the menu elements is provided below. The menus are generally structured as shown in the following example.

```
2010-09-13            10:38
Basic functions
Channel 1
Trigger: Automatic off
Sun control
ON/OFF                ☑
                 35 klx
Brightness       3▮▭▭▭▭100
                  2 min
Movements        0▭▭▭▭▭99
Dawn/dusk
control ON/OFF        ☐
                 30 lx
Dawn/dusk        0▭▭▭▭500
Temperature
control ON/OFF        ☑
 Main              Back
```
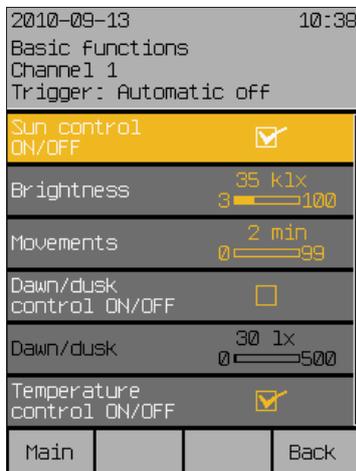
► The **header** on the very top shows you the menu in which you are located.

► This is followed by six **menu lines** whereby each line represents a value. The **designation** of the setting value is shown on the left side, and the **current value** is shown on the right. The selected menu line is highlighted in colour.

► If the text is shown in a black line (or if the colour scheme is bright white), this setting cannot be selected because it does not apply to the selected product or this function was switched off in another menu item.

► A narrow scroll bar on the right edge of the screen indicates the section of the menu in which you are located and whether further menu items exist. Turning the touch wheel clockwise moves the selection bar downward and turning it anticlockwise moves the bar up. If the menu has more than six lines (indicated by the scroll bar at the right of the screen), all lines move down or up and additional settings values become visible.

► When the middle of the touch wheel is touched, the colour of the setting in the selected line changes. This means that the value can now be set by turning the touch wheel.

► In the **footer** on the bottom you will see four fields with functions. They are located above the four function buttons and can be activated by touch. The commands change depending on the menu and menu item shown. In the example shown, you can use the [Main] function button to open the main menu. Press the [Back] function button to return to the higher level menu.

▶ After you have set a desired value, you must press the touch wheel. This causes this value to be adopted and the setting changes to the original colour. Another turn of the touch wheel does not cause the value to change but moves the selection bar up or down once more.
Apart from setting numeric values, a selection of presettings as well as the following operating elements can also be shown at the right side:

```
2010-09-13                10:38
Basic functions
Channel 1
Trigger: Automatic off

                      50 klx
Brightness          3▬▭100

Dawn/dusk
control ON/OFF        □

Temperature
control ON/OFF        ☑
```
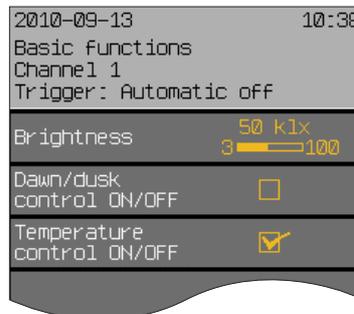
▶ In the first line you will see a bar graph at the right. The current value and the units are shown above the bar; the extreme values that can be set are shown at the left and right of the bar graph. By turning the touch wheel, the bar moves to the right or left; the value changes accordingly.

▶ You will see a box in each of the two lines below. This value is deactivated if it is empty. By selecting the line and turning the touch wheel, a checkmark can be set in the bottom row of the illustration; this value is then activated.

Tilting products (External Venetian Blinds and Louvre Blinds)
The movement behaviour of these tilting or slat products when controlled manually (on site or centrally via control panel) is as follows:

▶ A brief push of the button (shorter than approx. 0.6 seconds) triggers a tilting impulse of the slats.

▶ A longer push of the button (longer than approx. 0.6 seconds) triggers a movement.

3.2.1 Display of the products

The various product types you control with the Wisotronic are assigned to the channel during installation. When you select a channel in the main menu by pressing the touch wheel, the operating menu appears. In the operating menu the channel type is displayed graphically as follows:

Articulated arm awning	Drop-arm awning	External venetian blind
Conservatory awning	Markisolette	Roller shutters
Vertical awning	Inside roller blind	Pleated blind
Facade awning	Window	Venetian blind
Fault alarm contact		
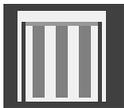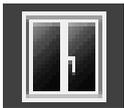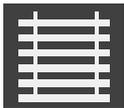
Fig. 2

3.3 Principal structure of a Wisotronic system
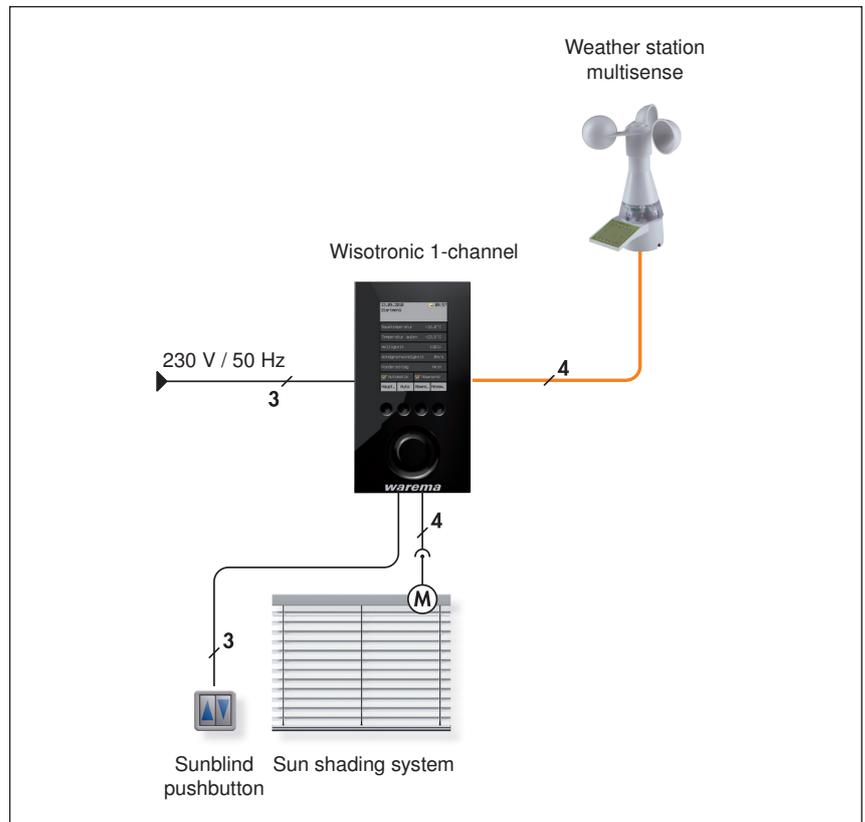
Fig. 3   Overview of the structure of a Wisotronic system

The Wisotronic is a complete solution for controlling your sun shading product.

Whatever the season, Wisotronic will lower your energy consumption and provide for a pleasant climate. The multisense weather station delivers all information necessary to respond properly to the weather to the Wisotronic.

To make it possible for you to operate the sun shading product in the conventional manner, Wisotronic makes additional inputs available for connecting a conventional sunblind push button.

3.4 Concept

Before you install and start the Wisotronic, this chapter will explain the basic concept of the system and familiarise you with the many options and the complex projects it can be used to realise.

3.4.1 Channels, facades and products

Because misunderstandings have already occurred regarding the term "Facade" in the area of sun shading control systems, this point shall be explained here in more detail:
The Wisotronic has 1, 2, 3 or 4 channels, depending on the model. Each channel can access either a single product (e.g. an awning) or several products of the same type (e.g. roller shutters).

> **i** To actuate multiple products through a single channel of the Wisotronic, additional components may be required (such as motor control units).
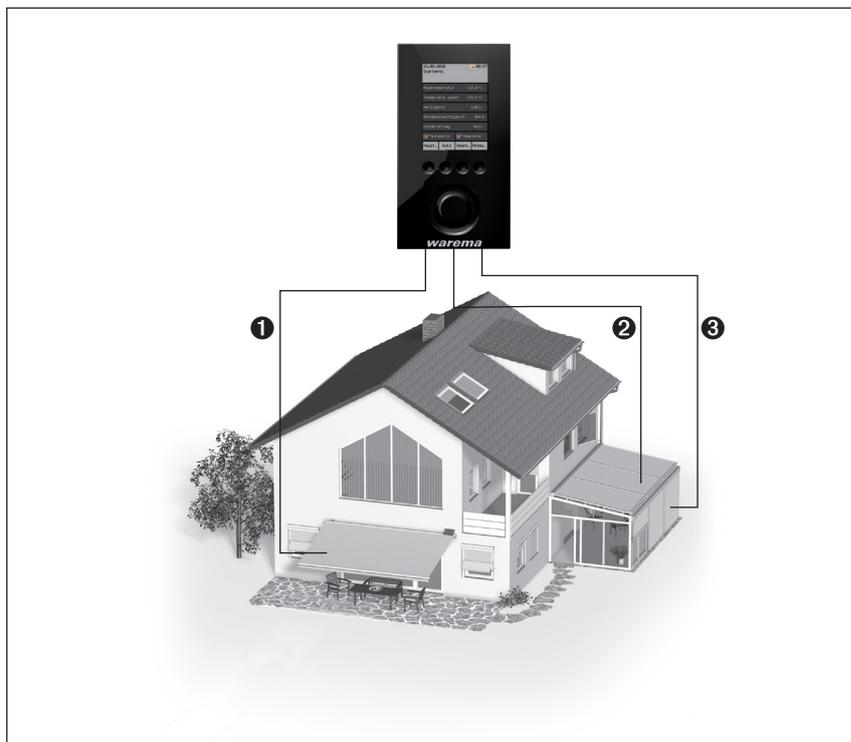
Fig. 4   Example: channels of the Wisotronic

Example   In the example illustrated above, channel ❶ controls the awning on facade 1, channel ❷ the conservatory awning on facade 2 and channel ❸ the external venetian blinds of the conservatory on facade 2. This demonstrates that a distinction according to building facades cannot be made in this example since the individual channels are of importance here.

Example   Another example: The Wisotronic controls all roller shutters on the west facade with channel 1, all roller shutters on the south facade with channel 2 and all roller shutters on the east facade with channel 3. Because the control is divided here according to the facades, the term "facade" instead of "channel" could be used in this example.

NOTE In these instructions we only use the term "Channel".

The Wisotronic always activates products through logic channels. The following product types can presently be activated using the Wisotronic:

► Articulated arm awning	► Inside roller blind
► Conservatory awning	► Vertical awning
► External venetian blind	► Facade awning
► Roller shutters	► Drop-arm awning
► Pleated blind	► Markisolette
► Venetian blind	► Fault alarm contact
► Window	

A product is connected directly to the outputs of a switch actuator of the Wisotronic. It requires one or two switching outputs; for example, sun shading products require two switching outputs for raising and lowering.

3.4.2 Groups

If you want to drive several channels together, they can be combined into a group. You can then, for example, raise or lower the conservatory awning and the external venetian blind of a conservatory together.

The group "inherits" the product properties of the **first** assigned channel; if this is a roller shutter, for example, then the operating behaviour of the group corresponds to that of a roller shutter even if other slat products or windows belong to this group.

Of course, channels with identical products can also be combined to a group. For example, if you have created a channel for the roller shutters of each room, then all roller shutters of the building can be combined in a group and moved together.

A maximum of 4 groups can be created.

This function is not available for Wisotronic 1-channel since is does not have more than one channel.

3.4.3 Scenes

A scenario (e.g. "roller shutter DOWN, articulated arm awning UP, window CLOSED" when leaving the flat) can be stored ("learned") in a scene and be called at a later time.
For this, one or more channels are associated with the scene and the positions and states are set as desired. After the scene is stored, this scenario can be recalled at any time by selecting the scene.

A maximum of 4 scenes can be created.

3.4.4 Safety, comfort and basic functions

With the many different functions of the Wisotronic, a distinction is made between safety, comfort and basic functions:

Safety functions

► Wind monitoring

► Ice monitor

Comfort functions:

► Sun control

► Dawn/Dusk control

► Temperature control

► Diff. temp. control

► Precipitation monitoring (this is a safety function which the operator can activate and deactivate)

► Intermittent ventil.

► Time switch

► Cold protection

► Manual operation

► Hand-held transmitter allocation

Basic functions:

► The key comfort functions with basic settings

► Display of the safety functions

4 Menu structure

4.1 Main menus
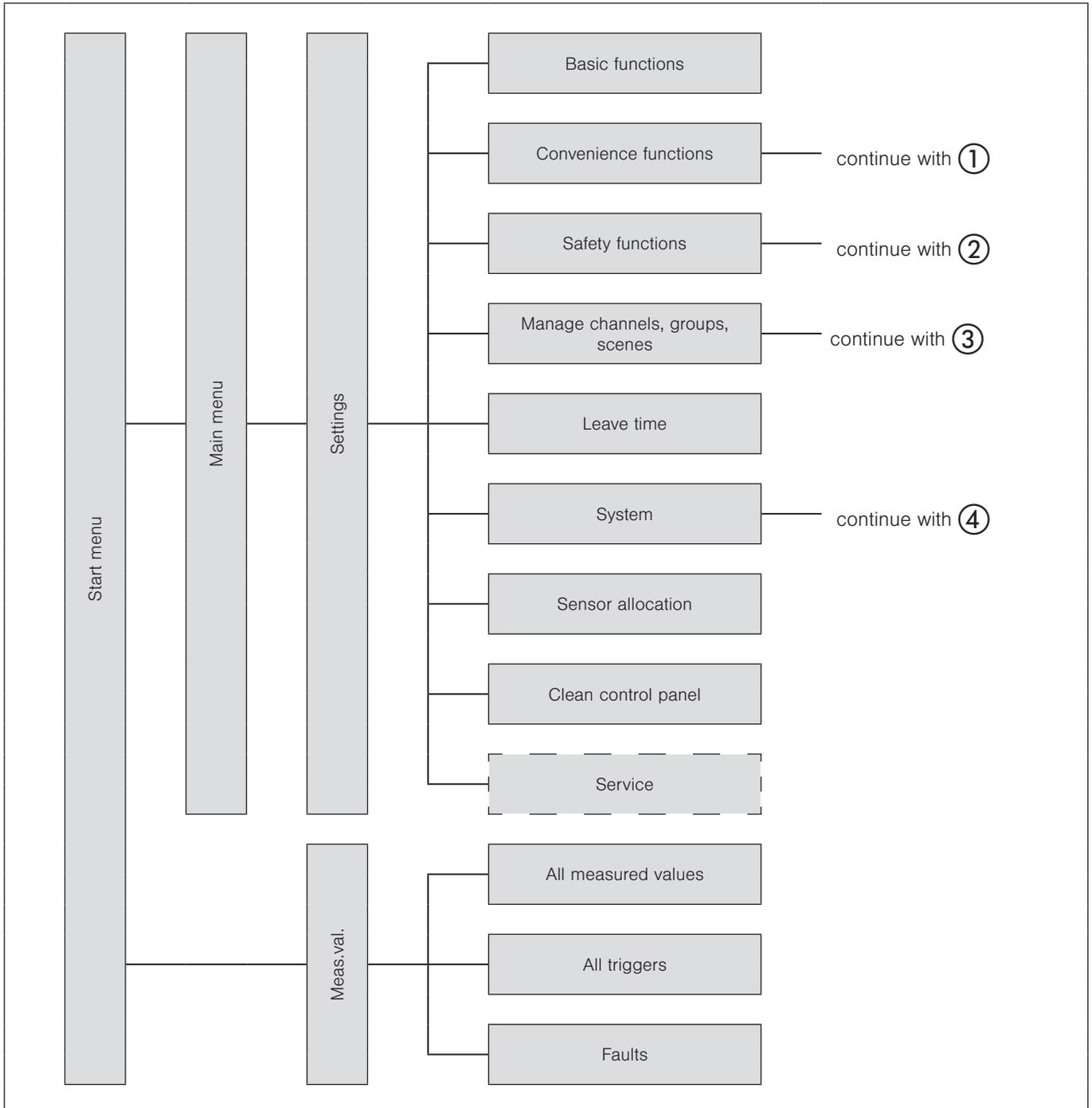
Fig. 5   Start menu level

4.2 Convenience functions
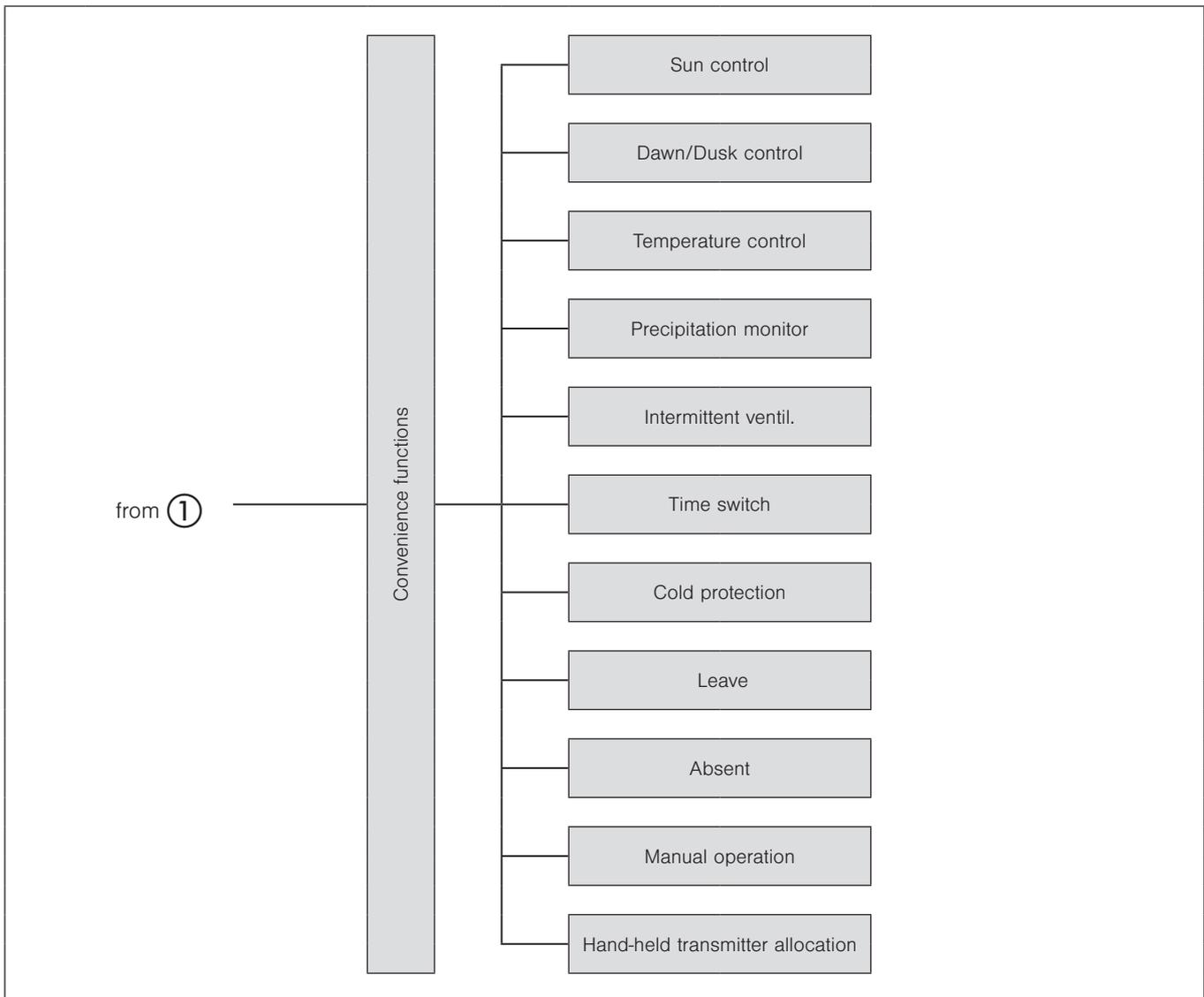
Fig. 6   Comfort function menus

4.3 Safety functions
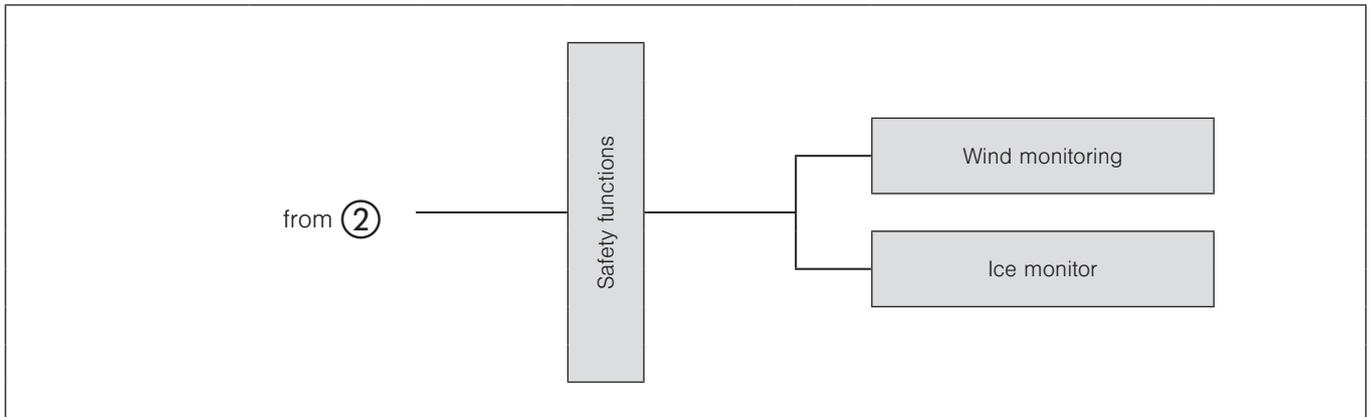
Fig. 7   Safety functions menus

4.4 Manage channels, groups, scenes
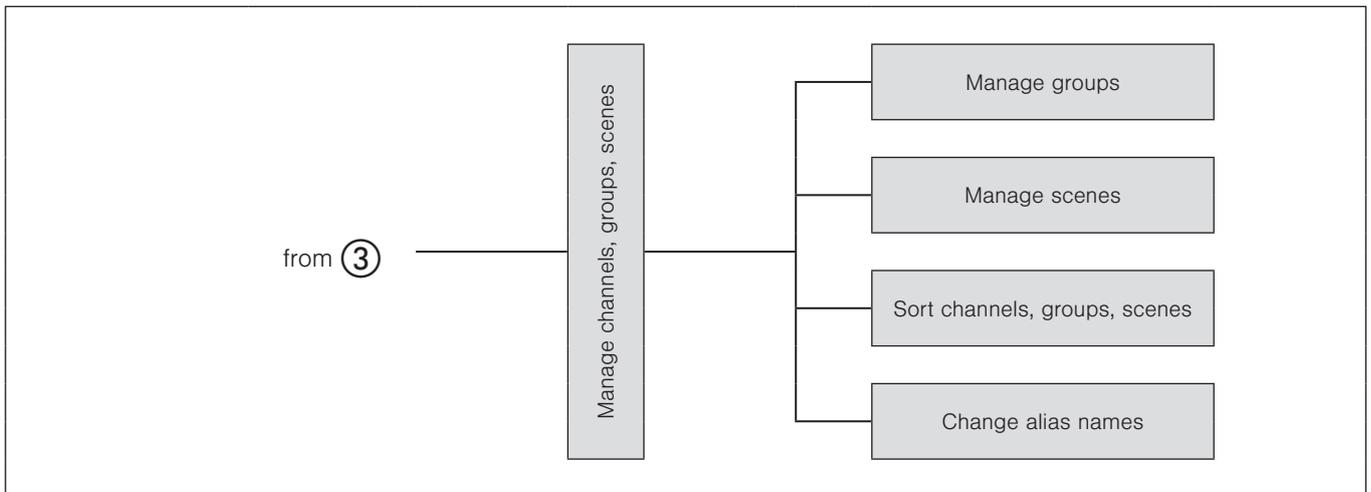
Fig. 8   Manage channels, groups, scenes menus

4.5 System

```
from ④ ─── System ─┬─ Date / time
                    ├─ Display
                    ├─ Measured values start menu
                    ├─ Language
                    ├─ Sensor compensation
                    ├─ Wind test
                    ├─ Restore settings
                    └─ Software versions
```
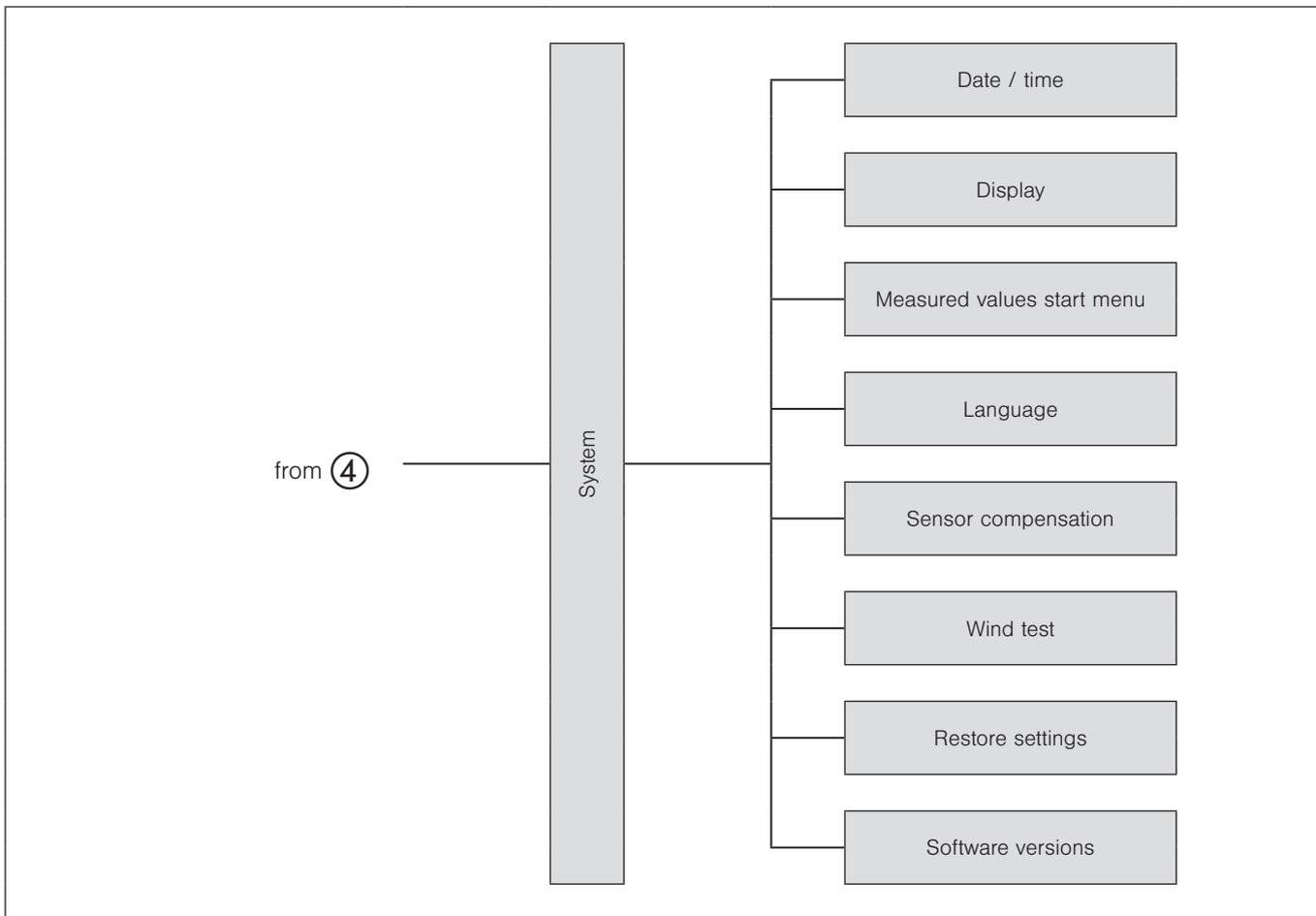
Fig. 9   System menus

5 Getting started

First menu level
↳Second menu level
  ↳Third menu level
    ↳...

5.1 Start menu

In these instructions, miniature menu structures are presented at all important locations (see the example here). They will help you navigate to the functions described there without having to leaf through an excessive number of menus.

When the supply voltage of the Wisotronic has been switched on and you have selected English as language, then you are automatically in the main menu.
The following figure shows the Wisotronic start menu:
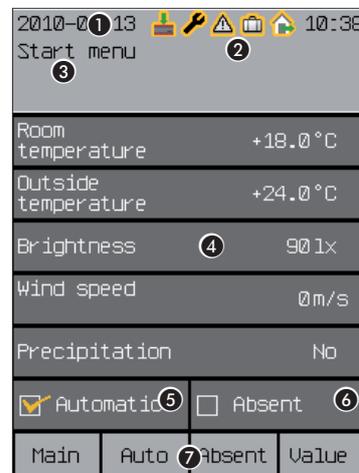
Fig. 10   Wisotronic start menu

The start menu elements:

❶ Display of date and time
The **header** is fully visible in all menu levels.

❷ Status display
These symbols are only displayed when a status is active.

❸ Display of the menu name

❹ Display of the current weather data

❺ Indicator of whether the control functions are active

❻ Indicator of whether "Absent" is active

❼ Display of the button functions in the current menu
The **footer** is fully visible in all menu levels.

The **header** is visible in all menu levels. The date and time are shown at the top (❶). Various symbols are shown between the date and time, depending on the state of the Wisotronic (❷, *Chapter 5.1.1 Status display*). Below this, the menu in which you are currently located (❸) is identified.

The currently measured weather data of the sensors (❹) appear in the **display field** below this. In addition, you will see whether you have activated the Automatic features (❺) and whether the "Absent" switch has been pushed on the control panel (❻).

The **footer** (❼) always shows which functions the four buttons below it currently have.
The following functions are assigned to the buttons in the start menu:
The [Main] function button leads to the main menu, where you can access scenes, channels and groups. With the [Auto] button, you can switch the automatic modes of the Wisotronic on and off. The [Absent] button is used to activate the Absent function. The [Meas. val.] function button takes you back to the start menu, where the measurement values, causes, malfunctions and histories are displayed. Histories are graphic presentations of the chronological sequences of measured values that can be conveniently traced with the cursor (*see Chapter 8.2 on page 100*).

5.1.1 Status display

The symbols in the header indicate the following states of the Wisotronic:

Data must be loaded into the devices

Service mode

A fault occurred. Fault messages are displayed in the fault menu ([Start menu] > [Measured values] > [Faults]).

"Leave" function is activate

"Absent" function is active

5.2 Main menu

Start menu
 ↳ Main menu

Pressing the [Main] function button in the start menu (all the way to the left) takes you to the main menu. From most menus, you can return here with the [Main] function button.
The typical display may look as follows:

```
2010-09-13              10:38
Main menu


   ▤   Channel 1        ❯
   ▥   Scene 1          ❯
   ▥   Scene 2          ❯




 Sett.                Start
```

In the centre you see the table of the **menu lines** (consisting of the channels, groups and scenes created) which you can select with the touch wheel. A clockwise rotation increment moves the coloured cursor line one line down, a counterclockwise rotation increment moves the line one line up.

ℹ️ If the scroll bar on the right display edge has two colours, you can use the touch wheel to scroll the table up or down.

The first line, for example, contains a so-called "scene", which you can change.

The following functions are assigned to the buttons in the main menu:
The [Sett.] function button opens the settings menus and the [Start] function button takes you back to the start menu.

If the Wisotronic has been commissioned by one of our authorised dealers and has been optimally adjusted to your sun shading products, no product-specific settings are required after switching on the supply voltage.

ℹ️ Please contact your specialist dealer if you want to make changes to the safety functions.

5.3 Example for operation: Set time and date

The example of setting date and time shall be used here to demonstrate how the values of the Wisotronic can be set and changed with the touch wheel and the function buttons (the following date and time displays are examples and may differ from the display on your Wisotronic):

Start menu
↳ Main menu
  ↳ Settings
    ↳ System
      ↳ Date/Time

■ In the main menu, press the [Sett.] function button to get to the [Settings] menu.

■ Turn the touch wheel clockwise until the selection cursor moves down to the [System] line.

■ Press the touch wheel.

▶ The upper line [Datum/time] of the [System] menu is highlighted in colour.

■ Press the touch wheel once more.

▶ You will get to the menu [Date / time]:

```
2010-09-13                10:38
Date/time

Time
hh:mm              15:48
Day                  13
Month                 9
Year               2010
Weekday           Monday
Standard time/
daylight sav.  Standard time

Main              Back
```

▶ The time set will be shown in the first line at the right.

■ Press the touch wheel.

▶ The time (hours) changes colour. The value can now be set.

▶ The hours are initially shown in a different colour, indicating that they can now be set by turning the touch wheel. Pressing the touch wheel sets the hours and switches to setting the minutes. After the minutes have been set, pressing the touch wheel ends the input of the time; the new value is accepted and the coloured highlighting of the value disappears again.

■ Now select the [Day] line by turning the touch wheel and enter the day in the same manner. Proceed in the same manner with month, year and weekday.

■ After you have activated the [Standard time/daylight sav.] menu line, one rotation increment of the touch wheel to the left sets the standard time; one rotation increment to the right sets the daylight saving time.

■ If you scroll the right table further down with the touch wheel, (a two-colour scroll bar on the right edge of the display indicates that the menu has more than six lines), the [Standard time/daylight auto] and [Use DCF77] lines now become visible. They can be activated or deactivated by setting or deleting the checkmark.

ℹ The DCF-77 time signal is only available if you are using a suitable sensor. This function is not available at this time. Ensure that the "Use DCF77" function is deactivated.

▶ The new settings for date and time have now been set.

■ By pressing the [Main menu] function button, you will return once more to the main menu; the [Back] function button leads you to the [System] menu; pressing [Back] once more leads you to the [Settings] menu.

5.4 Example for operation: Set display

Proceed as follows if you want to adjust the appearance of the display or change the behaviour of the control elements:

Start menu
↳ Main menu
  ↳ Settings
    ↳ System
      ↳ Display

■ Switch to the [Sett.] > [System] > [Display] menu:

```
2010-09-13                    10:38
Display


Brightness at        20 %
standby            0 ▭▬▬▭ 100
Brightness at        30 %
operation         10 ▭▬▬▭ 100
Button tone            ☑
Standby
duration             10 min
Colour scheme         Dark



   Main              Back
```
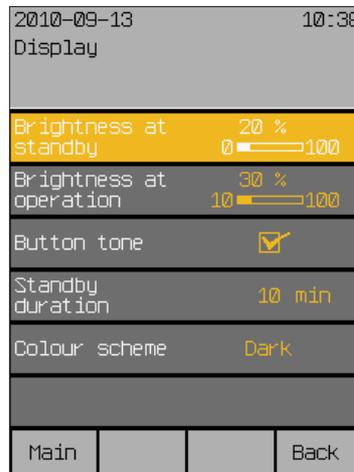
The display is normally set by the factory for easy readability. However, you can adjust it here to your personal needs and to the light incidence at the installation location.

Brightness at standby

If the Wisotronic is not operated for longer than 3 minutes, the display is set to a freely adjustable brightness value (e.g. darkened).

Set this [Brightness at standby] in the first menu line:

- Press the touch wheel; the value on the right becomes editable and the display is dimmed to the indicated value.

- By turning the touch wheel to the right or left, the bar moves and the brightness is increased or reduced.

▶ You will see the effects by the change of the display. If you select a setting below 10% (OFF is displayed), the display will go completely dark after 3 minutes. The brightness is increased by turning the touch wheel in a clockwise direction.

The [Stand.] function button sets the factory setting of 20%.

Brightness at operation

Set the [Brightness at operation] in the same manner in the next menu line.
The brightness during operation can be reduced to a minimum level of 10%. Darkening the display completely during operation is counterproductive.

The factory setting ([Stand.] function button) is 30%.

Button tone

You change the behaviour of the function buttons in the line [Button tone].

- Turning the touch wheel sets or deletes the checkmark at the right, thereby activating or deactivating the actuation tone of the function buttons.

The [Stand.] function button sets the factory setting.

Additional functions

The other functions in this menu are described in detail in *Chapter 7.5.2 on page 87*.

- Pushing the function button [Back] returns you to the menu [System].

6 Manual operation

Products connected to the Wisotronic can be operated directly via optional external push buttons (if connected) or on the Wisotronic control panel.

i If a safety function is active (e.g. wind alarm or ice alarm), Wisotronic locks manual operation so that the sun shading product cannot be damaged.

This is how to operate a product on the Wisotronic control panel:
(The following displays are examples and may differ from the display on your Wisotronic):

Start menu
↳ Main menu
  ↳ "Channel name"
    ↳ Manual operation

■ Press on the [Main] function button in the start menu.

▶ The main menu is displayed. It shows all created channels and scenes (scenes only appear if they were first created).

```
2010-09-13                10:38
Main menu

▤  Channel 1              ›
🗗  Scene 1                ›
🗗  Scene 2                ›


Sett.              Start
```

■ Turn the touch wheel clockwise until the selection cursor moves to the line with the desired channel ([Channel 1] here).

■ Press the touch wheel.

▶ The [Manual Operation] menu opens:

```
2010-09-13                10:38
Manual operation
Channel 1
Trigger: Automatic off

Position              100%

0% [====        ] 100%

Slat angle            +38°

-80° [======     ] +80°



UP    STOP   DOWN   Back
```
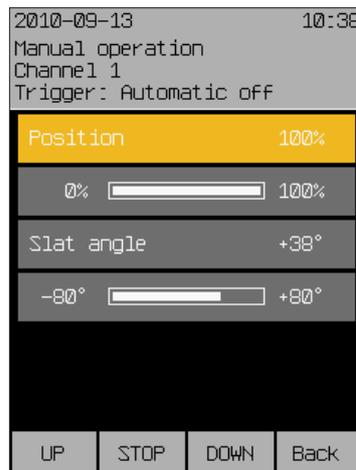
The push buttons and position parameters for the product type in question (an external venetian blind in this case) are displayed.

■ Operate the product directly using the function buttons.

Product type	Functionality
Slat products such as external/internal venetian blinds	UP short: The slats tilt up UP long: The product moves up STOP Product stops DOWN short: The slats tilt down DOWN long: The product moves down
Other sun shading products such as awnings or roller shutters	UP The product moves up STOP The product stops DOWN Product moves down

OR

■ Select a menu line with the touch wheel.

■ Press the touch wheel.

▶ The bar display of this parameter changes colour.


```
2010-09-13                10:38
Manual operation
Channel 1
Trigger: Automatic off

Position                  100%

0%  [=========]          100%

Slat angle                +38°

-80°  [=========]         +80°



UP    STOP    DOWN    Back
```
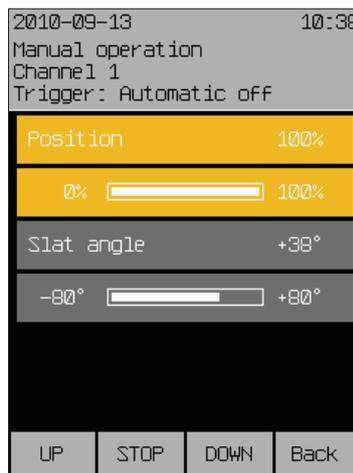
■ Turn the touch wheel to select the right position and confirm the value by pressing the wheel.

▶ The blind automatically moves to the selected position.

7 Set functions

7.1 Basic functions

The basic functions are for new users and designed for quick operation. This will allow you to perform the key settings on your Wisotronic. Once you are more familiar with the control, you can make more specific settings in the [Comfort functions] menu (*see Chapter 7.2 on page 37*).

Start menu
 ↳Main menu
  ↳Settings
   ↳Basic functions

■ Press [Sett.] in the main menu and go to the [Basic functions] menu.

▶ The following view appears in the display (the header may show the channel name you selected instead of Channel 1 and the setting values may be different. An external venetian blind was chosen as product in this example.):

```
2010-09-13              10:38
Basic functions
Channel 1
Trigger: Automatic off

Sun control
ON/OFF                   ☑

                  35 klx
Brightness      3▭▭▭▭100

                  2 min
Movements       0▭▭▭▭▭99

Dawn/dusk
control ON/OFF           ☑

                  30 lx
Dawn/dusk       0▭▭▭▭▭500

Temperature
control ON/OFF           ☑

                  26 °C
Temperature    -10▭▭▭▭50

Precipitation
monitor ON/OFF           ☑

Intermittent
ventilation              ☐

Time switch              ☑

Wind monitor             ☐

Ice monitor              ☐

 Main             Back
```

7.1.1 Sun control ON/OFF

■ Set or delete the checkmark in the line [Sun control ON/OFF] to activate or deactivate the automatic sun control.
The [Stand.] function button switches the sun control on or off, depending on the channel type (factory setting).

7.1.2 Brightness

The "Brightness" value specifies the brightness at which the sun shading product is to be lowered by the sun control. The setting range is 3...100 klx.

■ Adjust the value for the brightness by turning the touch wheel (the bar at the right moves accordingly).
The [Stand.] function button sets the value to the factory setting.

i At the same time, the limit values SUN, CLEAR (e.g. moving to a medium position or tilting up of the slats) and CLOUD (e.g. raising the sun shading) are automatically adjusted.

7.1.3 Movements

A delay time can be assigned to the sun control to prevent the sun shading product from being lowered immediately as soon as the brightness changes. This quiets the motion behaviour of the sun shading product, thereby increasing the level of comfort. When the limit values are reached or exceeded for the duration of this delay time, a command is triggered and the sun shading product is lowered. The setting range is 0...99 minutes.

■ Adjust the value for the (delay) of the movements by turning the touch wheel (the bar graphic at the right changes accordingly).
The value 0 min. deactivates the delay, the [Stand.] function button sets the value to the factory setting.

i At the same time, the delay times CLEAR (e.g. moving to a medium position or tilting of the slats) and CLOUD (e.g. raising the sun shading) are automatically adjusted.

7.1.4 Dawn/dusk control ON/OFF

Set or delete the checkmark in the [Dawn/dusk control ON/OFF] line to activate or deactivate the dawn/dusk control.

The [Stand.] function button switches the dawn/dusk control on or off, depending on the channel type.

i The delay time for a move command is fixed for the dawn/dusk control and cannot be changed. It is 5 minutes.

7.1.5 Dawn/dusk

The "Dawn/dusk" value specifies at which brightness the sun shading product should be lowered or raised by the dawn/dusk control. The setting range is 0...500 lx.

■ Set the "Dawn/dusk" value by turning the touch wheel.

The [Stand.] function button sets the value to the factory setting.

i At the same time, the limit value for raising the sun hading product is set to the same value.

7.1.6 Temperature control ON/OFF

■ To activate or deactivate the temperature control, set or delete the checkmark in the [Temperature control ON/OFF] line.

The [Stand.] function button switches the temperature control on or off, depending on the channel type.

7.1.7 Temperature

The "Temperature" value specifies at which temperature a sun shading product is lowered by the temperature control. The setting range is −10...+50 °C.

■ To set the value for the temperature, turn the touch wheel to the desired position.

The [Stand.] function button sets the value to the factory setting.

▶ At the same time, the limit value for raising the sun shading is set 5 °C lower to ensure flawless functioning of the automatic feature.

7.1.8 Precipitation monitor ON/OFF

■ To activate or deactivate the precipitation monitor for the selected channel, set or delete the checkmark in the [Precipitation monitor ON/OFF] line.

The [Stand.] function button sets the precipitation monitor to the standard setting typical for the channel type.

CAUTION
The precipitation monitor is an adjustable safety function and was therefore assigned to the comfort functions. If you have deactivated the function and retract an awning wet from the rain, you must take care yourself to extend it again in a timely manner to let it dry off during dry weather to prevent mould from forming! An extended awning can also be damaged during rain by the formation of water pockets!

7.1.9 Intermittent ventilation

Intermittent ventilation opens and closes motor-operated windows at adjustable intervals. This ensures sufficient fresh air supply in your rooms and prevents mould formation through excessive air humidity.

■ Set or delete the checkmark in the line [Intermittent ventilation] to activate or deactivate the intermittent ventilation mode.

The [Stand.] function button sets the channel-dependent factory setting.

7.1.10 Time switch

The timer of the Wisotronic is equipped with 4 programmable switching times per day and channel allowing you to automatically drive and switch the connected products.

■ Set or delete the checkmark in the [Time switch] line to activate or deactivate the time switch.

The [Stand.] function button sets the channel-dependent factory setting.

i Please contact your WAREMA dealer if you prefer a different setting of the following safety functions.

7.1.11 Wind monitoring

This menu line shows you whether the "Wind monitoring" safety function is activated for the selected channel (indicated by the checkmark set at the left). The display is for information only and cannot be changed.

7.1.12 Ice monitor

This menu line shows you whether the "Ice monitoring" safety function is activated for the selected channel. The display is for information only and cannot be changed.

7.2 Convenience functions

The comfort functions are used for the automatic control of your sun shading product. Experienced users can adjust the control here to suit their particular preferences.

CAUTION

Changing operator settings may impact the safety of the unit or reduce its effectiveness. Please consult a specialist if you are not sure about the effects of a modification.

7.2.1 Sun control

The sun control is one of the chief comfort functions of the Wisotronic, as controlling the sun shading products on the basis of brightness is a fundamental requirement. A weather station can be employed to measure brightness. When the measuring value "PHOTO" exceeds the set limit value "SUN", a move command is triggered and the sun shading products are lowered. When the "PHOTO" measured value falls below the set "CLOUD" limit value, the sun shading product is raised again.

Start menu
  ↳ Main menu
    ↳ Settings
      ↳ Comfort functions
        ↳ Sun control

■ Press the [Sett.] function button in the main menu and select the following menu: [Comfort functions] > [Sun control ON/OFF]
The following view appears in the display (the header may show the channel name you selected instead of Channel 1 and the setting values may be different):

2010-09-13	10:38
Sun control	
Channel 1	
Trigger: Automatic off	
Sun control ON/OFF	☑
Limit value SUN	50 klx
Delay SUN	2 min
Position SUN	100 %
Slat angle SUN	+38 °
Limit value CLEAR	--- klx
Delay CLEAR	0 min
Position CLEAR	100 %
Slat angle CLEAR	+0 °
Limit value CLOUD	15 klx
Delay CLOUD	20 min
Position CLOUD	0 %
Slat angle CLOUD	-80 °
Active during leave?	☑
Active during absence?	☑
Measured value photo	0 klx
Main			Back

7.2.1.1 Sun control ON/OFF

◼ Set or delete the checkmark in the [Sun control ON/OFF] line to activate or deactivate the sun control.

The [Stand.] function button sets the channel-dependent factory setting.

7.2.1.2 Limit value SUN

The value "SUN" specifies from which brightness the sun shading product of this channel shall be lowered. The setting range is 3...100 klx.

◼ Turn the touch wheel to set the "SUN" limit value.

7.2.1.3 Delay SUN

To prevent the sun shading product from being immediately lowered at each brightness change (e.g. when the sun temporarily shines through an otherwise thick cloud cover), a delay time can be assigned to the "SUN" limit value. This quiets the motion behaviour of the sun shading product, thereby increasing the level of comfort.
When the limit values are reached or exceeded for the duration of this delay time, a move command is triggered and the sun shading product is moved to the set position and slat angle. The setting range is 0...99 minutes.

◼ Turn the touch wheel to set the value for the "SUN" delay.

A setting of "0 min." deactivates the delay, the function button [Stand.] sets the factory setting).

7.2.1.4 Position SUN

The "SUN" position value specifies the position to which a sun shading product is to be lowered in case of sunshine. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

◼ Turn the touch wheel to set the "SUN" limit value.

The function button [---] leaves the position unchanged; function button [Stand.] sets the value to the factory setting.

7.2.1.5 Slat angle SUN

This setting is required when you have chosen a slat product (external or internal venetian blinds) for the channel type. If you have connected a slat product (such as external venetian blinds), you can specify the position of the slats after they are lowered. This is especially useful if you prefer a specific setting. In addition, you do not have to tilt the slats up after the product descended automatically. The sun control automatically tilts up the slats if programmed accordingly.
The factory setting for the slat position with automatic operation is 38°.

The following drawing is meant to explain the setting of the slat angle:

Positive value: Slats are tilted outward

Negative value: Slats are tilted inward

Setting 0°:   The slats remain in a horizontal position
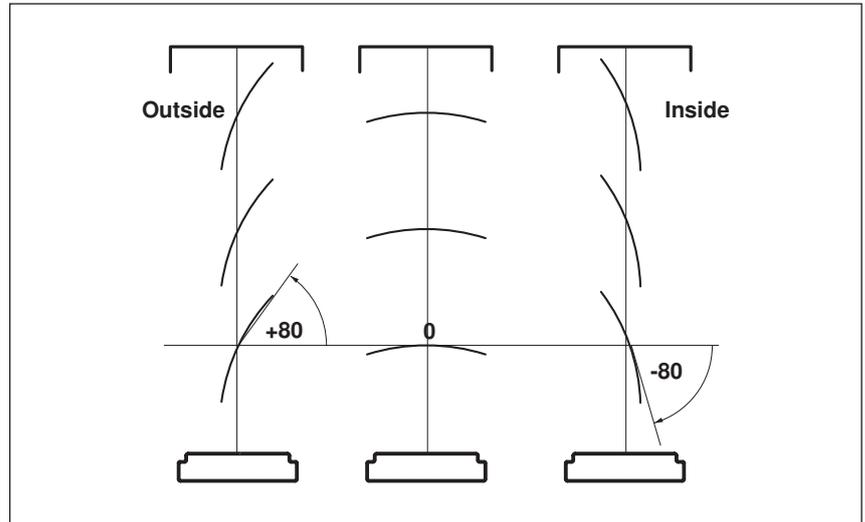
Fig. 11   Slat angle for external and internal venetian blinds

The setting range in ° depends on the first product set for this channel.

▪ Turn the touch wheel to set the "SUN" limit value.

The [Stand.] function button sets the value to the factory setting.

7.2.1.6 Limit value CLEAR

This limit value specifies the brightness at which a sun shading product is to move to a medium position and, in the case of external or internal venetian blinds, the slats are to be tilted up, for example, to allow more light to enter the room during a covered but otherwise bright sky. The setting range is 2...100 klx.

ℹ The limit value "CLEAR" is only assessed when the sun shading product was first lowered automatically via "SUN" and not if the previous condition was "CLOUD"!

▪ Turn the touch wheel to set the "CLEAR" limit value.

The [Stand.] function button sets the limit "CLEAR" to the factory setting).

The function wheel [---] deactivates the limit value.

7.2.1.7 Delay CLEAR

To prevent a sun shading product from being lowered or the slats from being tilted up immediately at each brightness change (e.g. when the cloud cover temporarily increases), a delay time can be assigned to the "Clear" limit value. This quiets the motion behaviour of the sun shading product, thereby increasing the level of comfort. If the values reach or drop below the limit values for the duration of this delay time, the sun shading product moves and the slats are tilted up. The setting range is 0...99 minutes.

■ Turn the touch wheel to set the "CLEAR" limit value.
The [Stand.] function button sets the "CLEAR" delay to the factory setting.

i Simply set the delay time to "0 min." to deactivate the delay.

7.2.1.8 Position CLEAR

The "CLEAR" position value specifies the position to which the sun shading product is to move when the sky is clear. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.
If you do not want to trigger any movement during a clear sky,
the function button [---] leaves the "Position CLEAR" unchanged.

■ Turn the touch wheel to set the limit value "Position CLEAR".
The function button [Stand.] sets the product-specific factory setting.

7.2.1.9 Slat angle CLEAR

This setting is required when you have chosen a slat product as channel type (external or internal venetian blinds). If you have connected a slat product (such as an external venetian blind), you can specify how the slats are to be set after the movement to the "CLEAR" position has been completed. This is especially useful if you prefer a specific setting. In addition, you do not have to tilt the slats up after automatic movement. The sun control automatically tilts up the slats if programmed accordingly. The factory setting for the slat position with automatic operation is +0° (= horizontal, see *Chapter 7.2.1.5 on page 38*).

■ Turn the touch wheel to set the value "Slat angle CLEAR".

The function button [---] leaves the slat angle unchanged, function button [Stand.] sets the value for position "Clear" to 0° (factory setting).

7.2.1.10 Limit value CLOUD

The "CLOUD" limit value specifies the brightness at which the sun shading products of a channel is to be raised. The setting range is 1-100 klx.

■ To set the limit value "CLOUD", turn the touch wheel (the value increases or reduces depending on the direction of rotation).

The function button [---] deactivates assessment; the function button [Stand.] sets the limit value "CLOUD" depending on the product (factory setting).

7.2.1.11 Delay CLOUD

To prevent the sun shading product from being raised immediately at each brightness change (e.g. when the sun is temporarily covered by a cloud), a delay time can be assigned to the "CLOUD" limit value. This quiets the motion behaviour of the sun shading product, thereby increasing the level of comfort. If the values reach or drop below the limit values for the duration of this delay time, an "Up" command is triggered and the sun shading product is raised. The setting range is 0...99 minutes.

◼ Turn the touch wheel to set the value "Delay CLOUD".

A setting of "0 Min." deactivates the delay, the [Stand.] function button sets the "Delay CLOUD" value to the factory setting.

7.2.1.12 Position CLOUD

The "CLOUD" position value specifies the position to which a sun shading product is to be moved in case of sunshine. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

◼ Turn the touch wheel to set the value "Position CLOUD".

The [---] function button leaves the position unchanged; the [Stand.] function button sets the "CLOUD Position" value to the factory setting.

7.2.1.13 Slat angle CLOUD

This setting is required when you have chosen a slat product as channel type (external or internal venetian blinds). If you have connected a slat product (such as an external venetian blind), you can specify how the slats are to be set after the movement to the "CLOUD" position has been completed. This is especially useful if you prefer a specific setting. In addition, you must no longer tilt the slats manually after automatic movement. The sun control tilts the slats automatically if programmed accordingly.
The factory setting for the slat position with automatic operation is -80°.

◼ To set the "Slat angle CLOUD" value, turn the touch wheel (the value increases or reduces depending on the direction of rotation).

The function button [---] leaves the slat angle unchanged; the function button [Stand.] sets the value for the "Slat angle CLOUD" to -80° (factory settings).

7.2.1.14 Limit values of the sun control

To ensure proper functioning of the automatic sun control in conjunction with the limit value "CLEAR", the following comments must be observed when setting the limit values "SUN", "CLEAR" and "CLOUD":

The value for "CLOUD" must always be the smallest value, e.g. 5 klx. The value for "SUN" must always be the greatest value, e.g. 30 klx. If used, the value for "CLEAR" must be set in between, e. g. 10 klx.

To find the optimal setting for your sun shading product, you should test different values on a bright day with changing cloud cover. This is the only way to achieve the optimal result.

7.2.1.15 Active during leave?

Here you can activate or deactivate the sun control during your leave.

■ To change this setting, set or delete the checkmark in the line
[Active during leave?] by turning the touch wheel.

The [---] function button deletes the checkmark; the [Stand.] function button sets the factory setting.

7.2.1.16 Active during absence?

Here you can activate or deactivate the sun control during your absence.

■ To change this setting, set or delete the checkmark in the line
[Active during absence?] by turning the touch wheel.

The [---] function button deletes the checkmark; the [Stand.] function button sets the factory setting.

7.2.1.17 Measured value photo

The line "Measured value Photo" indicates the outdoor brightness currently measured and is for information only.

7.2.1.18 Correct use of the sun control

The setting values for the sun control described above are addressed below in more detail. Using an example, the following graphic demonstrates schematically how the outdoor brightness can change in the course of a certain time period:
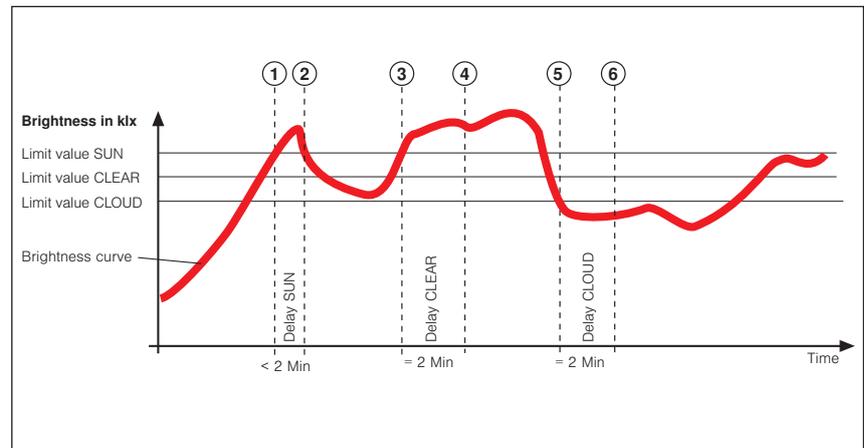
Fig. 12   Brightness curve and movement behaviour

The bold black curve represents the course of brightness; the three horizontal lines are the limit values you have set for raising or lowering the sun shading product. The vertical dashed lines mark the activation or deactivation delay times. Assuming you have set 2 minutes for these
delay times, the following reaction of the sun shading will occur:

The outdoor brightness increases until point ① of the curve is reached; the "SUN" limit value is reached at that point. Although the "SUN" delay now begins running, your sun shading product is not lowered yet. At point ② of the curve, the brightness drops below the "SUN" limit value once more before the "SUN" delay time has elapsed. Your sun shading product stays up.

The brightness level increases later on and at point ③ exceeds the "SUN" limit value again. Although the "SUN" delay now begins running, the sun shading product is not lowered yet. The "SUN" delay time has elapsed at Point ④ and the limit value is still exceeded - the sun shading product is now lowered.

A cloud now moves in front of the sun and it gradually becomes too dark in your rooms; the limit value "CLOUD" is undercut at Point ④. Nothing happens initially because the "CLOUD" delay is started first - the sun shading product is therefore not raised yet. The "UP" delay has finally elapsed at Point ④ and the limit value "UP" is still undercut; the sun shading product is now raised again.

Thus, when your delay times are set correctly, they enable the sun shading product to be controlled in a manner that provides a high level of comfort. They "quiet" the response of the control. As a consequence, the sun shading product is not moved immediately whenever there is a change in the outdoor brightness.

It also becomes apparent from the graphic that the limit value "SUN" must always be set above the limit value "CLOUD" or the sun control will not work.

7.2.1.19 The sun control during a wind, precipitation or ice alarm

The sun control is not effective during a wind, precipitation or ice alarm. After the alarm has been cancelled, the automatic sun control becomes active again and resumes evaluating the brightness.

Dawn/Dusk control

7.2.2 Dawn/dusk control

The dawn/dusk control is another comfort function of the Wisotronic. It allows control of the sun shading products as a function of the lighting conditions at dawn or dusk, especially to ensure visual privacy. The "Dawn/dusk" sensor of a weather station is used to register the brightness. When the measuring value "Dawn/dusk" exceeds the set limit value "DAWN" for the duration of 5 minutes, a move command is triggered and the sun shading product moves to the "DAWN" position. When the measuring value "Dawn/dusk" falls below the set limit value "DUSK" for the duration of 5 minutes, the sun shading product moves to the "DUSK" position.

ℹ Dawn/dusk control and time switch: Please use the automatic control for these functions if you want to use other automatic features!

■ Press the [Sett.] function button in the main menu and switch to the [Comfort functions] > [Dawn/dusk control] menu.

▶ The following view appears in the display:

2010-09-13	10:38
Dawn/dusk control	
Channel 1	
Trigger: Automatic off	
Dawn/dusk control ON/OFF	☑
Limit value DAWN	30 lx
Position DAWN	0 %
Slat angle DAWN	-80 °
Auto control DAWN	Enable comfort funct.
Limit value DUSK	80 lx
Position DUSK	100 %
Slat angle DUSK	+80 °
Auto control DUSK	Enable comfort funct.
Active during leave?	☑
Active during absence?	☑
Measured value dawn/dusk	60 lx
State control	☐
State auto control	☑
Main			Back

7.2.2.1 Dawn/dusk control ON/OFF

In this menu line you set whether or not to activate the dawn/dusk control for this channel.

■ Set or delete the checkmark in the [Dawn/dusk control ON/OFF] line to activate or deactivate the dawn/dusk control.

The function button [Stand.] selects the factory setting.

7.2.2.2 Limit value DAWN

The "DAWN" value specifies the brightness at which a sun shading product is to be moved in the morning. The setting range is 0...500 lx.

■ Turn the touch wheel to set the limit value "DAWN".

The function button [---] deactivates the evaluation; the function button [Stand.] sets the limit value "DAWN" to the product-specific factory setting.

7.2.2.3 Position DAWN

The "DAWN" position value specifies the position to which the sun shading product is to move at dawn. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ To set the value "Position DAWN", turn the touch wheel (the value increases or reduces depending on the direction of rotation).

The function button [---] leaves the position unchanged; the function button [Stand.] sets the value for the "Position DAWN" to the product-specific factory setting.

7.2.2.4 Slat angle DAWN

This setting is only useful when you have chosen a slat product (external or internal venetian blinds). If you have connected a slat product (such as a venetian blind), you can specify how the slats are to be set after lowering to the "WARM" position is completed. This is especially useful if you prefer a specific setting. In addition, you do not have to tilt the slats up after automatic movement. The automatic dawn/dusk mode tilts the slats automatically if programmed accordingly.

■ Turn the touch wheel to set the value "Slat angle DAWN".

The function button [---] leaves the slat angle unchanged; the function button [Stand.] sets the value for the "Slat angle DAWN" to the product-specific factory setting.

7.2.2.5 Auto control DAWN

All automatic comfort features except for the dawn/dusk control and the timer switch can be disabled and enabled at any time. For this purpose, select [Disable] or [Enable] under "Auto control DAWN".

If you select [unchanged] here, the release setting of the last switching time of the dawn/dusk control or the timer applies. If the automatic comfort features were disabled before, the move commands "Position DAWN" and "Slat angle DAWN" (see above) are carried out (otherwise always!).

■ To set whether the automatic comfort features should be enabled, disabled or left unchanged at the value "Auto control DAWN", turn the touch wheel (the current setting is shown on the left in the menu line).

The function button [−−−] leaves the automatic release unchanged; function button [Stand.] sets the product-specific factory setting.

7.2.2.6 Limit value DUSK

The "DUSK" value specifies the brightness at which a sun shading product is to be moved to the "DUSK" position. The setting range is 0...500 lx.

■ Turn the touch wheel to set the value "Slat angle DUSK".

The function button [−−−] deactivates assessment; the function button [Stand.] sets the limit value "DUSK" to the product-specific factory setting.

7.2.2.7 Position DUSK

The "Position DUSK" value specifies the position to which the sun shading product is to move at dusk. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ Turn the touch wheel to set the value "Position DUSK".

The function button [−−−] leaves the position unchanged; the function button [Stand.] sets the value for the "Position DUSK" to the product-specific factory setting.

7.2.2.8 Slat angle DUSK

This setting is only useful if you have chosen a slat product (external or internal venetian blinds) as the channel type. If you have connected a slat product (such as a venetian blind), you can specify how the slats are to be set after the movement to the "DUSK" position has been completed. This is especially useful if you prefer a specific setting. In addition, you must no longer tilt the slats manually after automatic movement. The dawn/dusk control tilts the slats automatically if programmed accordingly. The factory setting for the slat position with automatic operation is +80°.

■ Turn the touch wheel to set the value "Slat angle DUSK".

The function button [−−−] leaves the slat angle unchanged; the function button [Stand.] sets the value for the "Slat angle DUSK" to the product-specific factory setting.

7.2.2.9 Auto control DUSK

All automatic comfort features except for the dawn/dusk control and the timer switch can be disabled and enabled at any time. For this purpose, select [Disable] or [Enable] under "Auto control DUSK".

i If you select [unchanged] here, the release setting of the last switching time of the dawn/dusk control or the timer applies. If the automatic comfort features were disabled before, the "Position DUSK" and "Slat angle DUSK" move commands (see above) are not carried out (otherwise always!).

■ To set whether the automatic comfort features should be enabled, disabled or left unchanged at the value "Auto control DUSK", turn the touch wheel (the current setting is displayed on the left in the menu line).

The [---] function button leaves the automatic features unchanged; the [Stand.] function button sets the product-specific factory setting.

7.2.2.10 Active during leave?

In this menu line, you can activate or switch off the dawn/dusk control during your leave.

■ Set or delete the checkmark in the line [Active during leave?] to activate or deactivate the dawn/dusk control during your leave.

The function button [---] deletes the checkmark, the function button [Stand.] sets it (factory setting).

7.2.2.11 Active during absence?

In this menu line, you can activate or deactivate the dawn/dusk control during your absence.

■ Set or delete the checkmark in the line [Active during absence?] to activate or deactivate the dawn/dusk control during your absence.

The [Stand.] function button sets the factory setting.

7.2.2.12 Measured value dawn/dusk

The line "Measured value dawn/dusk" indicates the outdoor brightness currently measured and is for information only.

7.2.2.13 Automatic status

The "State control" line shows the current status of the control mode and is for informational purposes only.

7.2.2.14 Auto control status

The "State auto control" line shows the current status of the automatic control and is for informational purposes only.

7.2.2.15 Using dawn/dusk control correctly

The following example illustrates the effects of the setting values for the dawn/dusk control described above.

Example   Using an example, the following graphic demonstrates schematically how the outdoor brightness can change in the course of dawn/dusk:
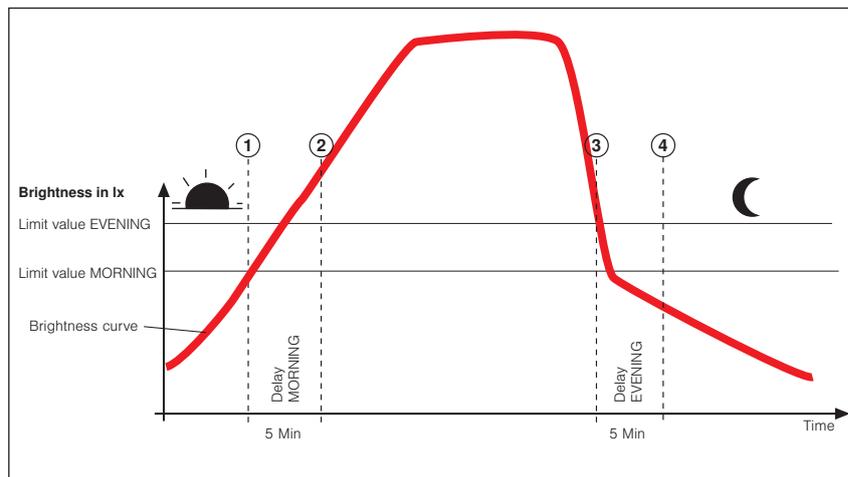
Fig. 13   Brightness curve and movement behaviour

The bold black curve represents the brightness in the course of the day; the three horizontal lines are the limit values you have set for raising or lowering the sun shading product.

The brightness increases at dawn until Point ① of the curve is reached; the limit value "DAWN" is reached there and then exceeded. The activation delay of 5 minutes (this cannot be changed) now begins to run. At Point ② of the curve this time has elapsed and the limit value is still exceeded – the sun shading product now moves to the set position "DAWN".

The brightness decreases at dusk until Point ③ of the curve is reached; the limit value "DUSK" is reached there and is then undercut. The deactivation delay of 5 minutes (this cannot be changed) now begins to run. At Point ③ of the curve this time has elapsed and the limit value is still undercut – the sun shading product now moves to the set position "DUSK".

i   If the limit value "DAWN" is undercut again within the delay time, the sun shading product does not move to the set position "DAWN" at Point ② of the example. If the limit value "DUSK" is exceeded again within the delay time, the sun shading product does not move to the set position "DUSK" at Point ④ of the example.

7.2.2.16 The dawn/dusk control during a wind or ice alarm

The dawn/dusk control is not effective during a wind, precipitation or ice alarm. The dawn/dusk control continues after the alarm has been cleared.

7.2.3 Temperature control

The automatic temperature mode of the Wisotronic permits, in conjunction with temperature sensors (in the control unit, weather station), enables the temperature-dependent control of your sun shading product. A sensor for the room temperature is already integrated in the device itself (internal device sensor). In addition, the Wisotronic can measure the "Outside temperature" value via a weather station.

i The temperature control can assess either the internal device sensor OR an external sensor (weather station) but not several at the same time.

Example Sample application:
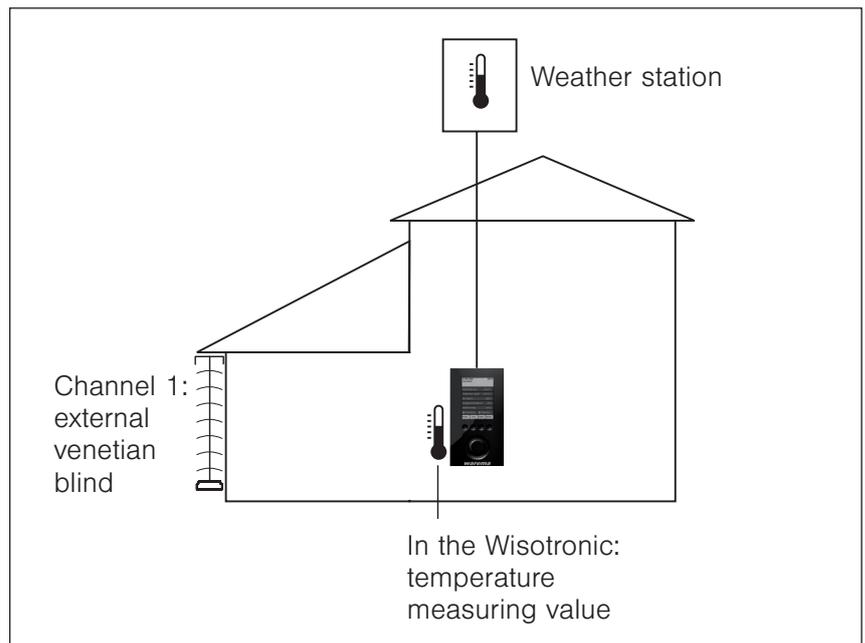
Fig. 14   Temperature control application example

The Wisotronic is installed in the living room.

Channel 1 controls the external venetian blind in the conservatory depending on the temperature in the conservatory, measured internally in the Wisotronic (the value "Temperature inside" from channel 1).

The outside temperature is measured with a weather station. The external venetian blind is subject to ice monitoring and is raised in time before freezing.

7.2.3.1 Basic functions

The temperature control permits the comfortable control of your sun shading depending on the inside and outside temperature.

The temperature control can be completely activated or deactivated per channel.

The Wisotronic controls your unit by constantly comparing the temperature limit values you have set with the local prevailing temperatures. Move commands are triggered when measured values exceed or fall below limit values. Requirement: The necessary sensors must have been connected and assigned correctly.

Five operating modes are available for the temperature control:

▶ The operating mode "Move directly" only triggers move commands when a limit value is exceeded or fallen below.

▶ The "Enable/disable sun" operating mode is also called "Temperature-controlled sun control" and can be used to enable/disable the sun control (it must have first been activated by setting the checkmark in the [Sun control] menu).

▶ The "Enable/disable differential temperature" operating mode controls window drives depending on the inside and outside temperature (cooling function) by activating the differential temperature control.

▶ The operating mode "Direct control with steps" triggers move commands when a limit value is exceeded or fallen below. According to adjustable step times, additional move commands are triggered if limit values continue to be exceeded or fallen below.

▶ The operating mode "Difference temperature with steps" can control window drives depending on the inside and outside temperature. According to adjustable step durations, additional move commands are triggered if limit values continue to be exceeded.

Limit values must be specified to allow the Wisotronic to fulfil all these control tasks. The temperature control can thereby be optimally adjusted to your preferences.

■ To set the temperature control of your Wisotronic, press the function button [Sett.] in the main menu and switch to the [Comfort functions] > [Temperature control ON/OFF] menu.

▶ The following view appears in the display:

```
2010-09-13                10:38
Temperature control
Channel 1
Trigger: Automatic off

Temperature            ☑
control ON/OFF

Limit value
WARM              +26.0 °C

Position
WARM               100 %

Slat angle
WARM               +38 °

Limit value
COLD              +22.0 °C

Position
COLD                 0 %

Slat angle
COLD               -80 °

Operating mode Direct control

No. of levels        3

Maximum level      100 %

Step duration      1 min

Differential
temp. control

Active during          ☐
leave?

Active during          ☐
absence?

Measured value
Temperature       +20.5 °C

Measured value
Outside temp.     +26.0 °C

  Main               Back
```

7.2.3.2 Temperature control ON/OFF

In this menu line, activate or deactivate the temperature control.

■ To activate or deactivate the temperature control, set or delete the checkmark in the line [Temperature control].

The function button [Stand.] selects the factory setting.

7.2.3.3 Limit value WARM

The "WARM" limit value specifies the temperature at which a sun shading product is to be lowered.

Example   For example, you may want the inside temperature of your conservatory to kept at a bearable level on hot summer days. Therefore, you can tell the Wisotronic at which temperature value the sun shading product is to be lowered to give shade to the conservatory.

■   Turn the touch wheel to set the limit value "WARM".

The function button [−−−] deactivates the assessment; the function button [Stand.] sets the factory setting.

7.2.3.4 Position WARM

The "Position WARM" value specifies the position to which a sun shading product is to be moved. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■   Turn the touch wheel to set the value "Position WARM".

The function button [−−−] leaves the position unchanged; function button [Stand.] sets the factory setting.

7.2.3.5 Slat angle WARM

This setting is only useful when you have chosen a slat product (external or internal venetian blinds). If you have connected a slat product (such as an external venetian blind), you can specify how the slats are to be set after lowering to the "WARM" position is completed. This is especially useful if you prefer a specific setting. In addition, you do not have to tilt the slats up after automatic movement. The temperature control tilts up the slats automatically if programmed accordingly.

■   Turn the touch wheel to set the value "Slat angle WARM".

The function button [−−−] leaves the slat angle unchanged; function button [Stand.] sets the factory setting.

7.2.3.6 Limit value COLD

The value "COLD" specifies at which temperature a sun shading product shall be raised.

Example   For example, you may want the sun to help heat your conservatory on cold clear winter days. Therefore, you can tell the control at which temperature the sun shading product is to be raised to allow sunlight into the conservatory. The setting range is -10...+50 °C.

■   Turn the touch wheel to set the limit value "COLD".

The function button [−−−] deactivates the assessment; the function button [Stand.] sets the factory setting.

7.2.3.7 Position COLD

The "Position COLD" value specifies the position at which the sun shading product is to be raised. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ Turn the touch wheel to set the value "Position COLD".

The function button [---] leaves the position unchanged; function button [Stand.] sets the factory setting.

7.2.3.8 Slat angle COLD

This setting is only useful when you have chosen a slat product (external or internal venetian blinds). If you have connected a slat product (such as an external venetian blind), you can specify how the slats are to be set after movement to the "COLD" position is completed. This is especially useful if you prefer a specific setting. In addition, you must no longer tilt the slats manually after automatic movement. The temperature control tilts the slats automatically if programmed accordingly.

■ Turn the touch wheel to set the value "Slat angle COLD".

The function button [---] leaves the slat angle unchanged; function button [Stand.] sets the factory setting.

7.2.3.9 Operating mode, selecting

Five operating modes are available for the temperature control:

▶ Direct control

▶ Enable/disable sun

▶ Enable/disable difference temperature

▶ Direct control with steps

▶ Difference temperature with steps

Direct control

This operating mode simply triggers move commands only, when the limit value is exceeded of fallen below.

Enable/disable sun

This operating mode is called "Temperature-controlled sun control" and can be used to enable/disable the sun control.
(It must first have been activated by setting the checkmark in the [Sun control] menu).

Example For example, on a cold clear winter day the sun should first heat up your conservatory before the sun shading product becomes active, after all, the sun is the most economic source of heating. You can therefore program the Wisotronic so that the automatic sun control is only released at a specific inside or outside temperature. Here you will use the "Enable/disable sun" operating mode (=temperature-controlled sun control).

Enable/disable diff. temp.

In this operating mode, the control constantly compares the inside and outside temperature (*see Section 7.2.3.13 for a description*). Move commands are triggered when limit values are exceeded or fallen below.

Example

For example, you would like to maintain your preferred temperature in a living area with attached conservatory. You connected a window drive to the control for this purpose. You can now determine an area that represents your "comfort temperature", e.g. 22–26 °C. When the sun shines into the conservatory in the morning, the room temperature also rises until it reaches your max. value of 26 °C at some point. When the value is exceeded, the control opens the window, allowing cool outside air into the room. When the outside temperature also rises in the course of the day and is only 2 °C below the inside temperature, cooling only by venting is no longer possible. The window is therefore automatically closed again. Only after the outside temperature later falls by 5 °C below the inside temperature will the window be opened again for cooling.The window closes again when the room temperature has reached the minimum value of 22 °C.

Direct control with steps

This operating mode triggers move commands when the measured value exceeds or falls below the limit value. Additional move commands are triggered according to adjustable step durations if measured values continue to exceed or fall below limit values.

Example

For example, you are controlling a conservatory awning with the temperature control. You have specified 5 steps, a max. step of 100% (fully extended) and a step duration of 5 minutes. When the max. temperature exceeds the limit value "WARM", the awning is extended by one step (here 20%). After the stage duration of 5 minutes, the awning is extended further to 40%, etc. until the awning is either fully extended or the temperature once more drops below the limit value "COLD". In this case, the awning is immediately moved again to the "COLD" position.

Diff. temp. with steps

In this operating mode the control constantly compares the inside and outside temperature. Move commands are triggered when limit values are exceeded or fallen below. In addition to the normal difference temperature control, additional move commands are triggered according to adjustable step times, where the limit value is continuously exceeded or fallen below, e.g. a window is opened farther incrementally.

7.2.3.10 Number of levels

This setting is required for the "Direct control with steps" and "Differential temperature with steps" operating modes. It specifies the number of stages used to open the window. The value range is 1...6 steps.

- ■ Turn the touch wheel to set the value "Number of levels".

The function button [Stand.] sets the value "Number of levels" to the product-specific factory setting.

7.2.3.11 Maximum level

This setting is required for the "Direct control with steps" and "Differential temperature with steps" operating modes. It specifies, for example, how far a window should be opened at the maximum stage. The value range is 0...100%.

■ Turn the touch wheel to set the value "Maximum level".

The function button [Stand.] sets the value "Maximum level" to the product-specific factory setting.

7.2.3.12 Step duration

This setting is required for the "Direct control with steps" and "Differential temperature with steps" operating modes. It specifies the period after which switching to the next stage occurs. The value range is 1...100 minutes.

■ Turn the touch wheel to set the value "Step duration".

The function button [Stand.] sets the value "Step duration" to the product-specific factory setting.

7.2.3.13 Difference temperature control

These settings are needed for the operating modes "Enable/disable difference temperature" and "Difference temperature with steps" of the temperature control. You can use it to cool and ventilate a room, activating your window depending on the inside and outside temperature.

The difference temperature control works with four adjustable limit values:

▶ Limit value "WARM" (Max. comfort temperature): It is too warm inside when the inside temperature exceeds this value. The difference temperature control is activated to vent and cool the room.

▶ Limit value "COLD" (Min. comfort temperature): It is too cold inside when the inside temperature falls below this value. The difference temperature control is deactivated again and the window is closed.

▶ "D-temp COOLER" limit value (cooler outside than inside): If the outside temperature is lower than the inside temperature by at least the set difference temperature, the window is opened for venting and cooling the room.

▶ "D-temp WARMER" limit value (too hot outside): When the outside temperature is below the inside temperature by no more than the set difference temperature, the room can no longer be cooled by the warm outside air. The window is closed again to prevent the room from being heated further by outside air that is becoming warmer.

Example   The following example shall illustrate this function:
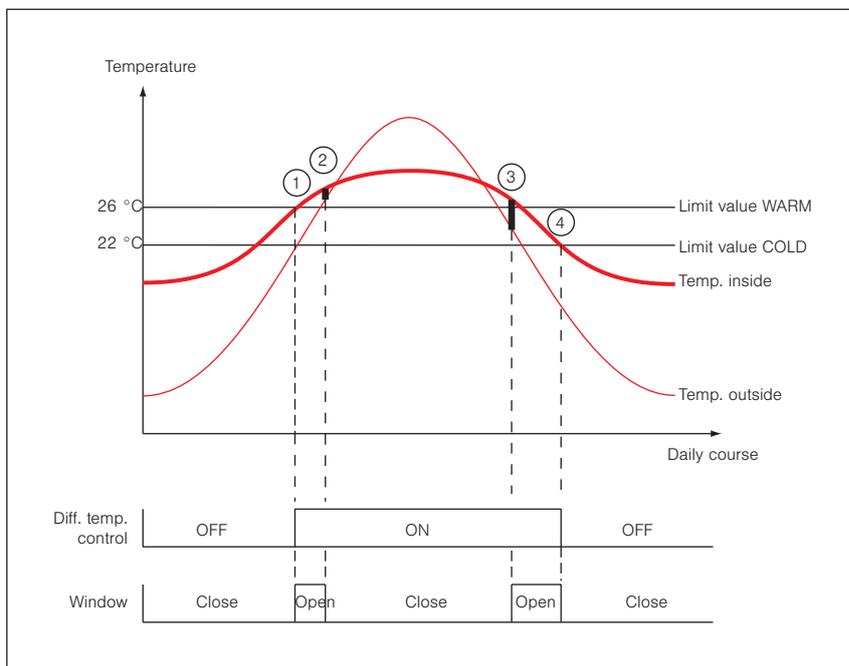
Fig. 15   Difference temperature control

Set values: Limit value WARM: +26 °C
                  Limit value COLD: +22 °C
                  D-temp COOLER: 5 °C
                  D-temp WARMER: 2 °C

In the morning, it is initially too cool in the room. The sun shines through windows into the room and warms it. When the inside temperature exceeds the max. comfort temperature of 26 °C, the difference temperature control is automatically activated ①. The windows are opened because it is still cooler outside than inside.
The room is cooled by venting it. In the course of the day, the outside temperature continues to rise because of the solar radiation. If it becomes too hot outside to cool the room by venting (the current outside temperature lies less than 2 °C under the currently measured inside temperature ②), the windows are closed again.
In the evening, the outside temperature drops again and at some point it is cooler again outside than inside. When the currently measured outside temperature lies at least 5 °C below the inside temperature, the windows are opened again for venting and cooling ③).
When the min. comfort temperature of 22 °C has been reached in the room, the windows are closed again to protect the room from becoming too cool ④).

> The correct setting of the limit values "D-temp COOLER" and "D-temp WARMER" (limit value "D-temp COOLER" is clearly higher than limit value "D-temp WARMER") quiets the motion behaviour of the window drive and as a consequence, the windows are not immediately opened and closed at each temperature change.

■ In the menu [Temperature control], select the menu line [Diff. temp. control] with the touch wheel.

▶ You will see the following submenu [Difference temperature control] with all setting values:

```
2010-09-13              10:38
Diff. temp. control
Channel 1
Trigger: Automatic off
┌─────────────────────────────┐
│ Limit value                 │
│ D-temp COOLER      5.0 °C    │
├─────────────────────────────┤
│ Position                    │
│ D-temp COOLER      100 %     │
├─────────────────────────────┤
│ Slat angle                  │
│ D-temp COOLER      +38 °     │
├─────────────────────────────┤
│ Limit value                 │
│ D-temp WARMER      2.0 °C    │
├─────────────────────────────┤
│ Position                    │
│ D-temp WARMER        0 %     │
├─────────────────────────────┤
│ Slat angle                  │
│ D-temp WARMER      -80 °     │
├─────────────────────────────┤
│ Measured value              │
│ Temperature      +20.5 °C    │
├─────────────────────────────┤
│ Measured value              │
│ Outside temp.    +26.0 °C    │
├──────┬──────┬───────┬────────┤
│ Main │      │       │ Back   │
└──────┴──────┴───────┴────────┘
```

**Limit value
D-temp COOLER**

The "D-temp COOLER" limit value specifies by how many degree the outside temperature must be lower than the inside temperature for the window to open.
If the difference between outside and inside temperature becomes greater than this value, the window is opened.

Example Your max. comfort temperature is, for example, 26 °C and it has already been reached. If the outside temperature is lower than the inside temperature of the set difference temperature "D-temp COOLER", the window is opened for venting and cooling. If you set 5 °C here, the window is only opened again when the outside temperature 26 °C - 5 °C = 21 °C is fallen below. The setting range is 0...25 °C.

■ Turn the touch wheel to set the limit value "D-temp COOLER".

The function button [---] sets the value to [---] (deactivated); the function button [Stand.] sets the limit value "D-temp. COOLER" to 5 °C (factory setting).

Position D-temp COOLER

The "Position D-temp COOLER" value specifies the position or max. position (for step settings) to which a window is to be moved. The setting range is 0...100%.

■ Turn the touch wheel to set the limit value "Position D-temp COOLER".

The function button [−−−] leaves the position unchanged; the function button [Stand.] sets the value for the "Position D-temp COOLER" to 100% (factory settings).

Slat angle D-temp COOLER

This setting is only useful when you have chosen a slat product (external or internal venetian blinds). If you have connected a slat product (such as an external venetian blind), you can specify how the slats are to be set after movement to the "D-temp COOLER" position is completed.

■ Turn the touch wheel to set the value "Slat angle D-temp COOLER".

The function button [−−−] leaves the slat angle unchanged; the function button [Stand.] sets the value for the "Slat angle D-temp COOLER" to the product-specific factory setting.

Limit value D-temp WARMER

The "D-temp WARMER" limit value specifies by how many degrees the outside temperature must be lower than the inside temperature for the window to stay open. If the differential temperature falls below the "D-temp WARMER" limit value, the window is closed.

Example   Your max. comfort temperature is, for example, 26 °C and it has already been reached. The window was already opened automatically. The outside temperature rises and the difference temperature between outside and inside sinks below the limit value "diff temp WARMER". The window is now closed. Assuming you set 2 °C as "Limit value WARMER" and the rising outside temperature is only 2 °C or less below the inside temperature; the window will be closed then. The setting range is 1...25 °C.

■ Turn the touch wheel to set the limit value "D-temp WARMER".

The function button [−−−] deactivates the evaluation of the limit value "D-temp WARMER"; the function button [Stand.] sets the value to 2 °C (factory setting).

Position D-temp WARMER

The "Position D-temp WARMER" value specifies the position or max. position (for step settings) to which a window is to be moved. The setting range is 0...100%.

■ Turn the touch wheel to set the limit value "Position D-temp WARMER".

The function button [−−−] sets the value to [−−−] (position unchanged); the function button [Stand.] sets the value "Position D-temp WARMER" to 0% (factory setting).

Slat angle D-temp WARMER

This setting is only useful when you have chosen a slat product (external or internal venetian blinds). If you have connected a slat product (such as an external venetian blind), you can specify how the slats are to be set after movement to the "D-temp WARMER" position is completed.

■ Turn the touch wheel to set the value "Slat angle D-temp WARMER".

The function button [−−−] leaves the slat angle unchanged; the function button [Stand.] sets the value for the "Slat angle D-temp WARMER" to the product-specific factory setting.

Measured value temperature

The "Measured value temperature" line indicates the inside temperature currently measured at the control panel and is for information only.

Measured value outside temp.

The "Measured value outside temp." line indicates the outside temperature currently measured and is for information only.

■ Push the [Back] function button to return to the higher level menu of the temperature control.

7.2.3.14 Active during leave?

In this menu line, you can activate or deactivate the temperature control during your leave.

■ Set or delete the checkmark in the line [Active during leave?] to activate or deactivate the temperature control during your leave.

The function button [Stand.] sets the product-specific factory setting.

7.2.3.15 Active during absence?

Here you can enable or disable the temperature control during your absence.

■ To activate or deactivate the temperature control, set or delete the checkmark in the line [Active during absence?].

The function button [Stand.] sets the product-specific factory setting.

7.2.3.16 Measured value temperature

The "Measured value temperature" line indicates the inside temperature currently measured at the control panel and is for information only.

7.2.3.17 Measured value outside temp.

The "Measured value outside temp." line indicates the outside temperature currently measured and is for information only.

7.2.4 Precipitation monitor

While external venetian blinds and roller shutters are relatively resistant to precipitation, all fabric products such as articulated arm awnings and conservatory awnings must be protected against precipitation. If you have set one of these fabric products in your Wisotronic as a channel, the precipitation monitor is automatically activated for these as a safety function. A weather station must be connected as a prerequisite for this safety function. When precipitation (rain or snow) falls on the sensor surface of the weather station, the product is raised. The selected comfort functions and manual operation are locked. Once the weather station has dried again and the delay time set in the control has elapsed, the comfort functions and the manual operation are released again.

■ Press the function button [Sett.] in the main menu and go to the [Comfort functions] > [Precipitation monitor] menu.

▶ The following view appears in the display:

```
2010-09-13              10:38
Precipitation monitor
Channel 1
Trigger: Automatic off
Precipitation          ☐
monitor ON/OFF
Switch-off           10 min
delay
Position              0 %
PRECIPITATION
Slat angle            --- °
PRECIPITATION
Active during         ☑
leave?
Active during         ☑
absence?
Measured value        No
Precipitation
  Main              Back
```

7.2.4.1 Precipitation monitor ON/OFF

In this menu line, you can activate or deactivate the precipitation monitor for the selected channel.

■ Set or delete the checkmark in the line [Precipitation monitor ON/OFF] to activate or deactivate the precipitation monitor.

The function button [Stand.] sets the product-specific factory setting.

CAUTION
The precipitation monitor is an adjustable safety function and was therefore assigned to the comfort functions. If you have deactivated the function, for example, and retract an awning wet from the rain, you must take care yourself to extend it again in a timely manner to let it dry off during dry weather to prevent mould from forming on the fabric!

When the precipitation monitor detects precipitation, all comfort functions and manual operation are disabled.

7.2.4.2 Off delay

In this menu line, you can set the delay time after which the comfort functions and the manual operation are released again after the end of the measured precipitation. This delay time helps to "quiet" the motion behaviour of your sun shading, thereby increasing the level of comfort. For example, move commands are not executed every time rainfall stops briefly. The setting range is 0-99 minutes.

■ Turn the touch wheel to set the value "Off delay".

The value [0 Min.] deactivates the delay, the function button [Stand.] sets the value for the product-specific factory setting.

7.2.4.3 Position PRECIPITATION

The "Position PRECIPITATION" value specifies the position to which the sun shading product is to move during precipitation. The setting range is 0...100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ Turn the touch wheel to set the value "Position precipitation".

The [---] function button sets the value to [---] (Position unchanged); the [Stand.]function button sets the "Position precipitation" value to the factory setting.

7.2.4.4 Slat angle PRECIPITATION

This setting is only useful when you have chosen a slat product (external or internal venetian blinds). If you have connected a slat product (such as an external venetian blind), you can specify how the slats are to be set after movement to the "PRECIPITATION" position is completed. This is especially useful if you prefer a specific setting. In addition, you must no longer tilt the slats manually after automatic movement. The precipitation monitor tilts the slats automatically if programmed accordingly.

■ Turn the touch wheel to set the value "Slat angle PRECIPITATION".

The function button [---] leaves the slat angle unchanged; function button [Stand.] sets the product-specific factory setting.

7.2.4.5 Active during leave?

In this menu line, you can activate or deactivate the precipitation monitor during your leave.

■ Set or delete the checkmark in the line [Active during leave?] to activate or deactivate the precipitation monitor during your leave.

The [Stand.] function button sets the factory setting.

7.2.4.6 Active during absence?

In this menu line, you can activate or deactivate the precipitation monitor during your absence.

■ Set or delete the checkmark in the line [Active during absence?] to activate or deactivate the precipitation monitor during your absence.

The [Stand.] function button sets the factory setting.

7.2.4.7 Meas.value precipitation

The menu line "Measured value precipitation" indicates, whether precipitation is currently measured (a checkmark appears in the box at the left) and is for information only.

7.2.5 Intermittent ventilation

Start menu
↳ Main menu
  ↳ Settings
    ↳ Comfort functions
      ↳ Intermittent ventilation

Intermittent ventilation is another comfort function of the Wisotronic that allows windows to be switched on a channel via a timer. It serves, on the one hand, to prevent mould formation from humidity or condensation and, on the other hand, to ensure a pleasant climate in your rooms and conservatories through an adequate supply of fresh air.

ℹ It is useful to also activate cold protection in addition to intermittent ventilation (*see Chapter 7.2.7 on page 71*) to prevent excessive cooling down of your conservatory/rooms.

◼ In the main menu, press the function button [Sett.]. Now proceed to the [Comfort functions] > [Intermittent ventilation] menu.

▶ The following view appears in the display (the header may show the channel name you selected instead of Channel 1 and the setting values may be different):

```
2010-09-13                    10:38
Intermittent ventilation
Channel 3
Trigger: ---
┌─────────────────┬─────────────┐
│ Intermittent    │      ☑      │
│ ventil. ON/OFF  │             │
├─────────────────┼─────────────┤
│ Ventilation     │    00:10    │
│ duration hh:mm  │             │
├─────────────────┼─────────────┤
│ Break duration  │    00:10    │
│ hh:mm           │             │
├─────────────────┼─────────────┤
│ Ventilation     │    100 %    │
│ step            │             │
├─────────────────┼─────────────┤
│ Active during   │      ☐      │
│ leave?          │             │
├─────────────────┼─────────────┤
│ Active during   │      ☐      │
│ absence?        │             │
├──────┬──────┬───┴──┬──────────┤
│ Main │      │      │   Back   │
└──────┴──────┴──────┴──────────┘
```

7.2.5.1 Intermittent ventil. ON/OFF

In this menu line, you can activate or deactivate intermittent ventilation.

◼ Set or delete the checkmark in the line [Intermittent ventil. ON/OFF] to activate or deactivate the intermittent ventilation.

The function button [Stand.] sets the product-specific factory setting.

7.2.5.2 Ventilation duration hh:mm

In this menu line, you can set the duration in hours and minutes for which ventilation should be performed by opening a window.

◼ Turn the touch wheel to set the "Ventilation duration hh:mm" value. Pressing on the wheel causes the display to jump to minutes. Set the minutes in the same manner.

The function button [Stand.] selects the factory setting.

7.2.5.3 Break duration hh:mm

In this menu line, you can set the duration in hours and minutes for which intermittent ventilation is interrupted.

■ Turn the touch wheel to set the "Break duration hh:mm" value. Pressing on the wheel causes the display to jump to minutes. Set the minutes in the same manner.

The function button [Stand.] sets the pause duration to the factory setting.

7.2.5.4 Ventilation step

In this menu line, you can set the level of the intermittent ventilation in percent. The setting range is 0...100%.

■ Turn the touch wheel to set the value "Ventilation step".

The function button [Stand.] sets the product-specific factory setting.

7.2.5.5 Active during leave?

In this menu line, you can activate or deactivate intermittent ventilation during your leave.

■ Set or delete the checkmark in the line [Active during leave?] to activate or deactivate intermittent ventilation during your leave.

The function button [Stand.] sets the product-specific factory setting.

7.2.5.6 Active during absence?

In this menu line, you can activate or deactivate intermittent ventilation during your absence.

■ Set or delete the checkmark in the line [Active during absence?] to activate or deactivate intermittent ventilation during your absence.

The function button [Stand.] sets the product-specific factory setting.

7.2.6 Time switch

The time switch is another comfort function of the Wisotronic that allows the sun shading product to be raised or lowered at a specific time. Move commands can be programmed

▶ for each individual day of the week

▶ for a complete work week together (Monday till Friday)

▶ for the weekend (Saturday and Sunday)

▶ for a complete week together (Monday till Sunday)

x. Four programmable switch times are available for each day. Furthermore, the position and subsequent tilting of the slats of a slat product can be programmed with different slat angles.

ⓘ Dawn/dusk control and timer: Please use the automatic control (*see 7.2.6.5*) for these functions if you want to use other automatic features.

■ Press the function button [Sett.] in the main menu and go to the [Comfort functions] > [Time switch] menu.

▶ The following view appears in the display (the header may show the channel name you selected instead of Channel 1 and the setting values may be different):

```
2010-09-13              10:38
Time switch
Channel 1
Trigger: Automatic off

 Time switch             ☑
 ON/OFF

 Monday

 Tuesday

 Wednesday

 Thursday

 Friday

 Saturday

 Sunday

 Monday -
 Friday
 Saturday -
 Sunday
 Monday -
 Sunday
 Active during           ☑
 leave?
 Active during           ☑
 absence?

  Main              Back
```

7.2.6.1 Time switch ON/OFF

In this menu line, you can activate or deactivate the timer switch for the selected channel.

■ Set or delete the checkmark in the line [Time switch ON/OFF] to activate or deactivate the time switch.

The function button [Stand.] sets the product-specific factory setting.

Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Monday - Friday
Saturday - Sunday
Monday - Sunday

Selecting this menu line leads you to the respective submenu where you can set the switching times for the respective day or together for the selected days. An example is provided here showing the settings for Monday; the submenus of the other days are identical.

■ Select the menu line [Monday] with the touch wheel and press the touch wheel.

► The following view appears in the display (the header may show the channel name you selected instead of Channel 1 and the setting values may be different):

2010-09-13	10:38
Timer Monday	
Channel 1	
Trigger: Automatic off	
ST1: Switch time hh:mm	08:00
SP1: Position	0 %
ST1: Slat angle	-80 °
ST1: Control mode	Enable comfort funct.
ST2: Switch time hh:mm	22:00
SP2: Position	100 %
ST2: Slat angle	+38 °
ST2: Control mode	Enable comfort funct.
ST3: Switch time hh:mm	---
SP3: Position	0 %
ST3: Slat angle	-80 °
ST3: Control mode	Enable comfort funct.
ST4: Switch time hh:mm	---
SP4: Position	0 %
ST4: Slat angle	-80 °
ST4: Control mode	Enable comfort funct.
State control	☐
State auto control	☑
Main			Back

7.2.6.2 ST1: switch time hh:mm

If the sun shading product or another product are to move at the same time every Monday, you can set this switch time here. The setting range is 00:00 h to 23:59 h. If you do not want to move/switch the product on Monday, you can also deactivate the switching time [---].

■ Turn the touch wheel to set the hours of the "ST1: switch time hh:mm". Pressing on the wheel causes the display to jump to minutes. Set the minutes in the same manner.

The [---] function button leaves the switch time unchanged; the [Stand.] function button sets the product-specific factory setting.

7.2.6.3 ST1: position

The "ST1: Position" value specifies the position to which the sun shading product is to move at switch time 1. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ Turn the touch wheel to set the value "ST1: Position".

The function button [---] leaves the position unchanged; the function button [Stand.] sets the value for the "ST1: Position" to factory setting.

7.2.6.4 ST1: Slat angle

This setting is only useful when you have chosen a slat product (external or internal venetian blinds). If you have connected a slat product (such as an external venetian blind), you can specify how the slats are to be set after movement to the "ST1" position is completed. This is especially useful if you prefer a specific setting. In addition, you no longer need to tilt the slats manually after a time-controlled movement. The timer switch tilts the slats for you if programmed accordingly. The factory setting for the slat position for timed operation is -80° (*see Chapter 7.2.1.5 on page 38*).

■ Turn the touch wheel to set the value "ST1: Slat angle".

The function button [---] leaves the slat angle unchanged; the function button [Stand.] sets the value "ST1: Slat angle" to the factory setting.

7.2.6.5 ST1: Auto control

All comfort functions except for the dawn/dusk control and the timer switch can be disabled and enabled at switch time 1. For this purpose, select [Disable] or [Enable] under "ST1: Auto control".
If you select [unchanged] here, then the release settings ([Disable], [Enable] or [Unchanged]) apply, that have previously been set by the last switch time of the dawn/dusk control or the timer switch.

■ To set the desired automatic control, turn the touch wheel (the operating modes change when the wheel is turned and are displayed on the left in the menu line).

The function button [---] leaves the automatic control unchanged; function button [Stand.] sets the factory setting.

7.2.6.6 ST2: switch time hh:mm

If the sun shading product or another product are to move at the same time every Monday, you can set this switch time here. The setting range is 00:00 h to 23:59 h. If you do not want to move/switch the product on Monday, you can also deactivate the switch time [−−−].

■ Turn the touch wheel to set the hours of the "ST2: switch time hh:mm". Pressing on the wheel causes the display to jump to minutes. Set the minutes in the same manner.

The [−−−] function button leaves the switch time unchanged; the [Stand.] function button sets the product-specific factory setting.

7.2.6.7 ST2: position

The value "ST2: Position" specifies to which position the sun shading product shall move at switching time 2. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ Turn the touch wheel to set the value "ST1: Position".

The [−−−] function button deactivates the move command (position unchanged); the [Stand.] function button sets the value for the "ST2: Position" to 0% (factory setting).

7.2.6.8 ST2: Slat angle

This setting is only useful when you have chosen a slat product (external or internal venetian blinds). If you have connected a slat product (such as an external venetian blind), you can specify how the slats are to be set after movement to the "ST2" position is completed. This is especially useful if you prefer a specific setting. In addition, you no longer need to tilt the slats manually after a time-controlled movement. The timer switch tilts the slats for you if programmed accordingly. The factory setting for the slat position for timed operation is -80° (*see Chapter 7.2.1.5 on page 38*).

■ Turn the touch wheel to set the value "ST2: Slat angle".

The function button [−−−] leaves the slat angle unchanged; the function button [Stand.] sets the value "ST2: Slat angle" to -80° (factory setting).

7.2.6.9 ST2: Auto control

All automatic comfort features except for the dawn/dusk control and the timer can be locked and released at switch time 2. For this purpose, select [Disable] or [Enable] under "ST2: Auto control".
If you select [unchanged] here, the release setting of the last switching time of the dawn/dusk control or the timer applies.

■ To set the desired automatic control, turn the touch wheel (the operating modes change when the wheel is turned and are displayed on the left in the menu line).

The function button [−−−] leaves the automatic features unchanged; function button [Stand.] leaves them unchanged (factory settings).

7.2.6.10 ST3 and ST4

If the sun shading product or another product shall be moved every Monday at the same time, then you can set to additional switching times (ST3 and ST4) with position, slat angle and auto control. The setting range is 00:00 h to 23:59 h. If you do not want to move/switch the product on Monday, you can also deactivate the switching times [---]. To change these values, proceed as described above for the switching times ST1 and ST2.

7.2.6.11 Automatic status

The "State control" line shows the current status of the control mode and is for informational purposes only.

7.2.6.12 Auto control status

The "State auto control" line shows the current status of the automatic control and is for informational purposes only.

■ Press the [Back] function button to return to the higher level menu of the time switch.

7.2.6.13 Active during leave?

In this menu line, you can activate or deactivate the timer switch for this channel during your leave.

■ Set or delete the checkmark in the line [Active during leave?] to activate or deactivate the timer during your leave.

The function button [Stand.] sets the product-specific factory setting.

7.2.6.14 Active during absence?

In this menu line, you can activate or deactivate the timer switch for the selected channel during your absence.

■ Set or delete the checkmark in the line [Active during absence?] to activate or deactivate the precipitation monitor during your absence.

The function button [Stand.] sets the product-specific factory setting.

7.2.7 Cold protection

Cold protection is another comfort function of the Wisotronic. It serves to prevent an conservatory or inside room from cooling down too much by applying intermittent ventilation or to keep a product, e.g. a window, from becoming damaged. The automatic controls are locked below an adjustable locking temperature. The automatic controls are released again after the locking temperature is exceeded once more by 2 °C.

ℹ️ Cold protection can supplement intermittent ventilation
(*see Chapter 7.2.5 on page 64*), for example, in a useful manner.

■ Press the function button [Sett.] in the main menu and go to the menu [Comfort functions] > [Cold protection].

▶ The following view appears in the display:

```
2010-09-13              10:38
Cold protection
Channel 3
Trigger: Automatic off
┌─────────────────────────────┐
│Cold protect.          ☑      │
│ON/OFF                        │
├─────────────────────────────┤
│Lock temp.          +5.0 °C   │
├─────────────────────────────┤
│Position               0 %    │
│COLD                          │
├─────────────────────────────┤
│                              │
├─────────────────────────────┤
│                              │
├─────────────────────────────┤
│                              │
├─────────────────────────────┤
│ Main  │       │      │ Back  │
└─────────────────────────────┘
```
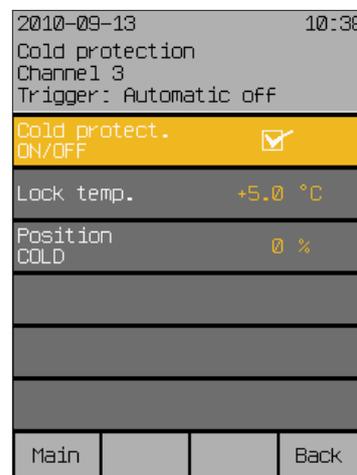
7.2.7.1 Cold protection ON/OFF

In this menu line, you can activate or deactivate the cold protection.

■ Set or delete the checkmark in the line [Cold protection ON/OFF] to activate or deactivate the cold protection.

The function button [Stand.] sets the product-specific factory setting.

7.2.7.2 Blocking temperature

The "Blocking temperature" limit value specifies the outside temperature at which a sun shading product is to be raised, a window closed or another product switched off. The setting range is -10...+50 °C.

■ Turn the touch wheel to set the value "Blocking temperature".

The function button [Stand.] sets the value for the blocking temperature to +5 °C (factory setting).

7.2.7.3 Position COLD

The "Position COLD" value specifies the position to which the sun shading product of the channel should be moved when the temperature falls below the locking temperature. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ Turn the touch wheel to set the value "Position COLD".

The function button [---] leaves the position unchanged when falling below the locking temperature; function button [Stand.] sets the product-specific factory setting).

7.2.8 Leave

This menu allows you to set the position of the sun shading product and, if applicable, the inclination (angle) of the slats during your leave. The move command is executed once at the beginning of your leave.

■ Press the function button [Sett.] in the main menu and go to the [Comfort functions] > [Leave] menu.

▶ The following view appears in the display:

```
┌─────────────────────────────┐
│ 2010-09-13          10:38   │
│ Leave                        │
│ Channel 1                    │
│ Trigger: Automatic off       │
├─────────────────────────────┤
│ Position          --- %    ▓ │
├─────────────────────────────┤
│ Slat angle        --- °      │
├─────────────────────────────┤
│                              │
├─────────────────────────────┤
│                              │
├─────────────────────────────┤
│                              │
├─────────────────────────────┤
│                              │
├─────────────────────────────┤
│ Main          │    │ Back   │
└─────────────────────────────┘
```
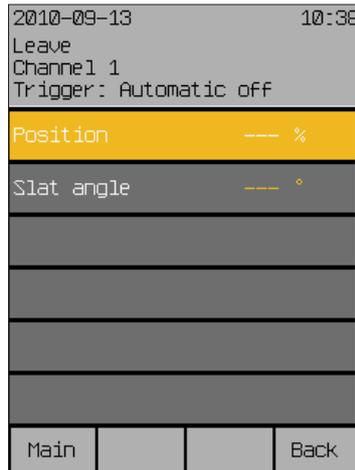
7.2.8.1 Position

The "Position" value specifies the position to which a sun shading product is to move at the beginning of your leave. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ Turn the touch wheel to set the value "Position".

The function button [---] sets the value for the position to [---]; the function button [Stand.] sets the value also to [---], i.e. the position of the sun shading product remains unchanged (factory setting).

7.2.8.2 Slat angle

In this menu line, you specify how the angle of the slats are to be set at the beginning of your leave. The setting range is from -360° to +360°. External venetian blinds normally have a setting range from -80° to +80°.

■ Turn the touch wheel to set the value "Slat angle".

The function button [---] leaves the slat angle unchanged; function button [Stand.] sets the factory setting.

7.2.9 Absent

This menu allows you to set the position of the sun shading product and, if applicable, the inclination (angle) of the slats during your absence. The move command is executed once at the beginning of your absence.

■ Press the function button [Sett.] in the main menu and go to the [Comfort functions] > [Absent] menu.

▶ The following view appears in the display:

```
2010-09-13                10:38
Absent
Channel 1
Trigger: Automatic off

Position             --- %

Slat angle           --- °

Current state      Absent
absent




Main              Back
```
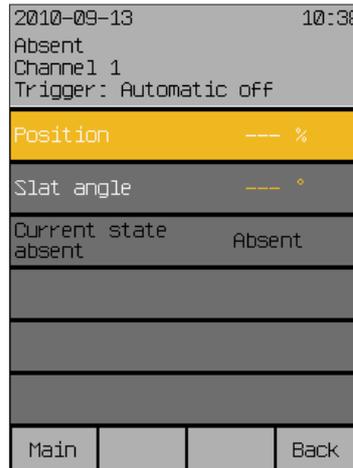
7.2.9.1 Position

The "Position" value specifies the position to which a sun shading product is to move at the beginning of your absence. The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ Turn the touch wheel to set the value "Position".

The function button [---] sets the value for the position to [---]; the function button [Stand.] sets the value also to [---], i.e. the position of the sun shading product remains unchanged (factory setting).

7.2.9.2 Slat angle

In this menu line, you specify how the angle of the slats are to be set at the beginning of your absence. The setting range is from -360° to +360°. External venetian blinds normally have a setting range from -80° to +80°.

■ Turn the touch wheel to set the value "Slat angle".

The function button [---] leaves the slat angle unchanged; function button [Stand.] sets the factory setting.

7.2.9.3 Current state absent

The "Current state absent" line shows the current status of the absent parameter and is for informational purposes only.

7.2.10 Manual operation

In this menu you can perform settings affecting the manual operation when you jump from the main menu to the operating menu for the channel by pressing the touch wheel.

■ In the main menu, press the function button [Sett.]. Now proceed to the menu [Comfort functions] > [Manual operation].

▶ The following view appears in the display:

```
2010-09-13                10:38
Manual operation
Channel 1
Trigger: Automatic off

Position                 100 %
DOWN

Slat angle                +38 °
DOWN

Holding time             00:00
hh:mm




Main              Back
```

7.2.10.1 Position DOWN

The value "Position DOWN" specifies to which position the sun shading product should move with manual operation through the function button "Down". The setting range is 0-100%; a value of 0% corresponds to the upper limit position and a value of 100% to the lower limit position.

■ Turn the touch wheel to set the value "Position DOWN".
The function button [---] leaves the position unchanged; the function button [Stand.] sets the value for the "Position DOWN" to the factory setting.

i When the function button "DOWN" is pressed again while the sun shading product is lowered, it always moves to 100% (lower limit position).

7.2.10.2 Slat angle DOWN

This setting is only useful when you have chosen a slat product (external or internal venetian blinds). If you have connected a slat product, such as external venetian blinds, to a channel, you can specify how the slats are to be set to the "DOWN" position after the movement has been completed. This is especially useful if you prefer a specific setting. In addition, you must no longer tilt the slats manually after a move. The Wisotronic tilts the slats if programmed accordingly.

■ Turn the touch wheel to set the value "Slat angle DOWN".

The function button [---] leaves the slat angle unchanged; the function button [Stand.] sets the value "Slat angle DOWN" to the factory setting.

7.2.10.3 Holding time hh:mm

The holding time is used to set how long the comfort functions are to be disabled after manual operation. The setting range is 00:00 to 24:00 hours. Manual operation can thereby be performed on the control panel by channel or group as well as by product or for a local group on the local pushbutton.

■ Turn the touch wheel to set the value "Holding time hh:mm". Pressing on the wheel causes the display to jump to minutes. Set the minutes in the same manner.

The function button [Stand.] sets the holding time to the factory setting.

ℹ️ A timer command deletes the manual holding time.

7.2.10.4 The manual operation options

Function buttons, touch wheel

With the function buttons and the touch wheel

▶ When a comfort function has triggered a move command, counter-control or stopping is possible.

▶ When a safety function has been triggered, neither counter-controlling nor stopping is possible.

Hand-held transmitter

Operation is possible at an time (as long as no safety function has triggered an alarm), regardless of the view in the display of the control

▶ When a comfort function has triggered a move command, counter-control or stopping is possible.

▶ When a safety function has been triggered, neither counter-controlling nor stopping is possible.

▶ Use the arrow buttons and the stop button of the hand-held transmitter to control sun shading products. Slat products operate based on the radio time logic (a more detailed explanation of the function principle of the radio time logic can be found in the instructions on the hand-held transmitter).

▶ The the hand-held transmitter is assigned to a scene, the scene can be opened by pressing the **C** button.

External pushbutton device

When external push button devices are connected to the control, the product can be operated with these push buttons, independent of the view in the control display.

▶ When a comfort function has triggered a move command, counter-control or stopping is possible.

▶ When a safety function has been triggered, neither counter-controlling nor stopping is possible.

ℹ️ The function of the external push button devices is parameterisable; it can be parameterized in such a way that it differs from the operation on the control panel or is more restricted.

7.2.11 Hand-held transmitter allocation

The WAREMA EWFS Hand-held transmitters can be used to manually operate the sun shading products connected to Wisotronic.

■ Read the operating instructions of the EWFS Hand-held transmitter prior to its first use.
You can use several EWFS Hand-held transmitters (1-channel or 8-channel), assign one of the 4 hand-held transmitter channels or delete hand-held transmitters already assigned.

i The WAREMA range includes transmitters in an enclosure for wall mounting. These EWFS Wall-mounted transmitters have exactly the same functions as the EWFS Hand-held transmitters described here and can be used as an alternative or in addition.

i Each hand-held transmitter channel can only be assigned once in the Wisotronic.

■ Press the function button [Sett.] in the main menu and go to the menu [Comfort functions] > [Hand-held transmitter allocation].

► The following view appears in the display:

```
2010-09-13              10:38
Hand-held transmitter alloc.
Channel 1
Trigger: Automatic off

Hand-held     Channel :  ---
transmitter 1 ID      :  ---
Hand-held     Channel :  ---
transmitter 2 ID      :  ---
Hand-held     Channel :  ---
transmitter 3 ID      :  ---
Hand-held     Channel :  ---
transmitter 4 ID      :  ---
Hand-held     Channel :  ---
transmitter ID ID     :  ---


Main              Back
```
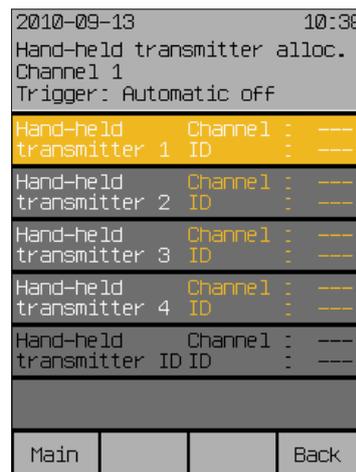
7.2.11.1 Hand-held transmitter 1

In this menu line, you can assign the first radio transmitter to the channel of the Wisotronic or delete a radio transmitter already assigned again.

■ Use the touch wheel to select the [Hand-held transmitter 1] menu line by turning and pressing it. (The terms "Channel: --- and ID: --- change their colour).

■ Select the desired channel (1...8) on the hand-held transmitter if you want to allocate the 8-channel version of the EWFS Hand-held transmitter.

■ If you have not yet done so, open the battery compartment of your EWFS Hand-held transmitter and press the **L** learn button in the battery compartment.

▶ The channel and the ID (serial number) of the EWFS Hand-held transmitter is now shown on the right in the display.
The [Delete] function button deletes this assignment again; the [Cancel] function button cancels the change.

7.2.11.2 Hand-held transmitter 2,3,4

Proceed as follows to learn in additional EWFS Hand-held transmitters:

■ Move the selection curve and selection bar with the touch wheel to the corresponding line and proceed as described in *7.2.11.1*.

### 7.2.11.3 Hand-held transmitter identifier

This menu line is for display purposes only. When you press a button on a hand-held transmitter, the channel and the ID are displayed there at the right for approx. 1 second to confirm the reception. After you have activated one of the four upper lines by pressing the touch wheel, these values are accepted for that location.

7.3 Manage channels, groups, scenes

The menus are used to combine channels to groups that can be operated together, to define valid scenes for a specific time and to adapt the names of channels, groups and scenes to your preferences and needs. Furthermore, you can sort the order of the channels, groups and scenes in the main menu according to your preferences.

■ Press the function button [Sett.] in the main menu and then go to the menu [Manage channels, groups, scenes].

▶ The following view appears in the display:

```
2010-09-13              10:38
Manage channels, grp., scene


Manage groups

Manage scene

Sort channels,
groups, scenes
Change alias
name




Main              |  Back
```

Making a selection with the touch wheel guides you to the following sub-menus:

7.3.1 Manage groups

The collection of channels to groups is only possible in Wisotronic models with multiple channels. Therefore, the [Manage groups] menu is not available for the Wisotronic 1-channel.

7.3.2 Manage scenes

Any states can be stored in a scene and retrieved at any time. For a set holding time you access positions previously learned. However, during the holding time of the scene, the set positions can be by-passed manually or through safety functions; after the holding time has expired the set automatic modes assume the control of the connected products again.
Up to four scenes can be created.

ℹ Once you have created a scene as described below, you must still learn them in the main menu. Proceed as follows for this purpose:

■ Move/switch manually to the desired position.

■ In the main menu, select the line [Scene 1] (or the name of the scene you specified).

■ Select the menu item [Learn scene] by pressing the touch wheel; pressing starts the learning process.
You can now select the [Scene 1] scene (or the name of the scene you specified) from the main menu by turning and pressing the touch wheel and call up the corresponding scene in the [Scene 1] menu.

The following options are available to managing the scenes:

```
2010-09-13              10:38
Manage scenes
Scene 1

Scene
selection          Scene 1

Change
scene name

Hand-held
transm. alloc.

Delete scene

Holding time
hh:mm              01:00

Scene
participant 1      Channel 1

Scene
participant 2         ---

Scene
participant 3         ---

Scene
participant 4         ---

  Main    <<     >>    Back
```

ℹ The [<<] and [>>] buttons can be used to change between the four scenes, regardless of the menu line in which you are currently located. The currently selected scene is always shown in the header.

7.3.2.1 Scene selection

Select scene 1 to 4 in this menu line.

■ Turn the touch wheel to select the desired scene (the scenes change when turning and are displayed at the right in the menu line).

ℹ The [<<] and [>>] buttons can also be used to change between the four scenes.

7.3.2.2 Change scene name

In this menu line you change the scene name (also called "alias") for the selected scene.

■ With the touch wheel select the menu line [Change scene name].

▶ The following view appears in the display:

```
2010-09-13                    10:38
Change alias name


        Enter scene name

      ┌─────────────────┐
      │ Scene 1         │
      └─────────────────┘


ABCDEFGHIJKLMNOPQRSTUVWXYZ
ÄÖÜ



        A/a/1      ←      Back
```

You will see the current scene name in the white input field and the blinking cursor at the right. The available characters are shown in the selection field below it. The so-called "Alias name" of the scene may consist of upper case letters, lower case letters, numbers and symbols.

You can change the alias names of a scene:

■ Turn the touch wheel to select a symbol from the lower frame.

■ Press the touch wheel to enter the selected symbol in the input field.

■ Push the function button [←] to delete a symbol in the input field (to the left of the blinking cursor).

■ Press the touch button [A/a/1] to switch between upper and lower case or numbers and special characters.

■ Enter the desired name in this manner and then push the [Back] function button.

▶ This returns you to the window [Manage scenes].

ℹ You can enter a maximum of 28 characters (2 lines of 14 characters each). If there are more than 14 characters, the name is displayed in two parts. To avoid a line break in the middle of a word, you can fill the end of the first line with spaces, if necessary.

7.3.2.3 Hand-held transmitter allocation

In this menu line you can assign radio transmitters to a scene. Proceed as described in *Chapter 7.2.11 on page 76* for a channel.

You can call up the scene by pressing button **C** on the assigned transmitter.

7.3.2.4 Delete scene

In this menu line you delete a scene you have created again.

■ With the touch wheel select the menu line [Delete scene].

► The following warning appears on the right: [Delete scene?].

■ Press the touch wheel once more for deletion.

7.3.2.5 Holding time hh:mm

In this menu line you set the so-called "Holding time" where a called scene is held for the holding time duration. During this holding time, no comfort functions are carried out on the affected channels. However, manual operation and safety functions can by-pass this scene.
The setting range is 00:00 to 24:00 hours.

i If switching time commands are received while the holding time runs down, they are executed after the holding time has expired.

i The following applies to a disabled product: If the global automatic control has been deselected in the main menu, the last move command is not repeated when the lock is cancelled (after a scene, leave or absence).

■ Turn the touch wheel to set the hours of the "Holding time hh:mm" value. Pressing on the wheel causes the display to jump to minutes. Set the minutes in the same manner.
The function button [Stand.] sets the holding time to the factory setting.

7.3.2.6 Scene member 1

In this menu line, assign one channel to the current scene, allowing you to call it up later with the scene.

■ Select the [Scene member 1] menu line with the touch wheel and press the touch wheel.

■ Select the desired channel now by turning the touch wheel. The channel is assigned to the scene by subsequently pressing the touch wheel.

The function button [Delete] removes the channel assignment.

i Because Wisotronic 1-channel has only one channel, only channel 1 or — can be selected here.

7.3.2.7 Scene member 2 to 4

■ These functions are not enabled since Wisotronic 1-channel has only one channel.

7.3.3 Sort channels, groups, scenes

In this menu you will see the same list of all channels and scenes as in the main menu:

```
2010-09-13              10:38
Sort channels, grps., scenes


Channel 1

Scene 1

Scene 2




Main  Lower  Higher  Back
```

Here you can sort the sequence of the lines as follows and as desired:

■ Select the menu line you want to move with the touch wheel.

The function button [Lower] sorts the current channel or scene one line down; the line originally below it moves up.

The function button [Upper] sorts the current channel or scene one line up; the line originally above it moves down.

■ Select the next menu line you want to move with the touch wheel and proceed as above.

After all lines are in the desired sequence, you return to the menu [Manage channels, groups, scenes] with the function button [Back].

7.3.4 Change alias names

In this menu you can change the so-called "Alias names" for all channels and scenes. These are either the factory defaults "Channel 1", "Scene 1", etc., or the names assigned by you.
In this menu you will see the same list of all channels and scenes as in the main menu:

```
2010-09-13              10:38
Change alias name


   Channel 1        >

   Scene 1          >

   Scene 2          >




Main             Back
```
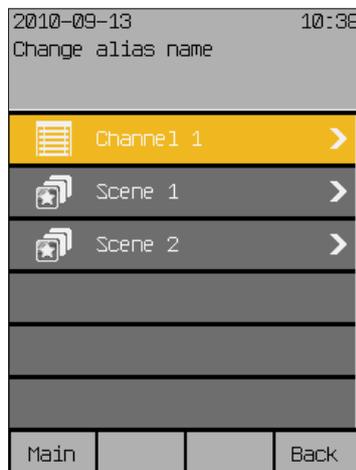
■ Select the menu line you want to rename with the touch wheel.

▶ The following view appears in the display:

```
2010-09-13                  10:38
Change alias name


       Enter channel name

         Channel 1


   ABCDEFGHIJKLMNOPQRSTUVWXYZ
   ÄÖÜ



            A/a/1     ←     Back
```

The heading indicates whether this is a channel or a scene. You will see the current name in the white input field and the blinking cursor at the right. The available characters are shown in the selection field below it. The so-called "Alias name" may consist of upper case letters, lower case letters, numbers and symbols.

How to change a name:

■ Turn the touch wheel to select a symbol from the lower frame.

■ Press the touch wheel to enter the selected symbol in the input field.

■ Push the function button [←] to delete a symbol in the input field (to the left of the blinking cursor).

■ Press the touch button [A/a/1] to switch between upper and lower case or numbers and special characters.

■ Enter the desired name in this manner and then push the [Back] function button.

▶ This returns you to the window [Change alias names].

ℹ You can enter a maximum of 28 characters (2 lines of 14 characters each). If there are more than 14 characters, the name is displayed in two parts. To avoid a line break in the middle of a word, you can fill the end of the first line with spaces, if necessary.

7.4 Leave time

Enter the beginning and end of your leave in this menu. The automatic controls set at the comfort functions for the leave are then active during this time. The products drive to a specific position (and possible slat angle) at the beginning of your leave if you have activated this settings in the comfort functions of the respected channels.

■ In the main menu, press the [Sett.] function button. Now go to the [Leave] menu.

▶ The following view appears in the display:

```
2010-09-13              10:38
Leave time



Leave begin          -- --
dd.mm
Leave end            -- --
dd.mm






Main              Back
```
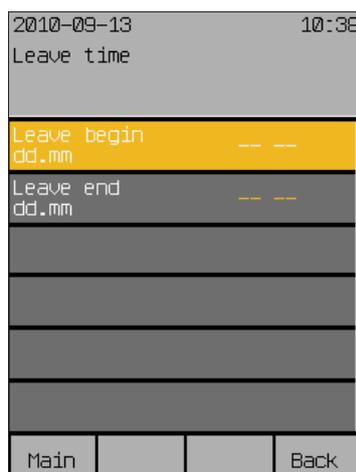
7.4.1 Leave begin dd.mm

In this menu line, you set the day and month of the beginning of your leave. The setting range reaches from 01.01. to 31.12.

■ Turn the touch wheel to set the day of the "Leave begin hh:mm" value. A push on the touch wheel causes the display to jump to the month. Set the month in the same manner.

■ Accept the value by pressing the touch wheel.

The function button [Delete] removes the setting [--.--].

i The leave time is only taken into account by the Wisotronic when you have entered a date for the beginning and the end of the leave.

7.4.2 Leave end dd.mm

In this menu line, you set the day and month of the end of your leave. The setting range reaches from 01.01. to 31.12.

■ Turn the touch wheel to set the day of the "Leave end hh:mm" value. A push on the touch wheel causes the display to jump to the month. Set the month in the same manner.

■ Accept the value by pressing the touch wheel.

The function button [Delete] removes the setting [--.--].

7.5 System settings

In this menu you perform basic settings for the control and the sensors.

■ Press the [Sett.] function button in the main menu and then go to the [System] menu.

▶ The following view appears in the display:

```
2010-09-13              10:38
System

┌─────────────────────────┐
│ Date/time               │
├─────────────────────────┤
│ Display                 │
├─────────────────────────┤
│ Meas. values            │
│ Start menu              │
├─────────────────────────┤
│ Language                │
├─────────────────────────┤
│ Sensor                  │
│ compensation            │
├─────────────────────────┤
│ Wind test               │
├─────────────────────────┤
│ Repeat                  │
│ settings                │
├─────────────────────────┤
│ Software                │
│ versions                │
├──────┬──────┬──────┬─────┤
│ Main │      │      │Back │
└──────┴──────┴──────┴─────┘
```

System settings

7.5.1 Date / time

Start menu
↳ Main menu
  ↳ Settings
    ↳ System
      ↳ Date/Time

Set the date and time of the Wisotronic in this menu:

■ Press the function button [Sett.] in the main menu and then go to the [System] > [Date / time] menu.

▶ The following view appears in the display:

```
2010-09-13                    10:38
Date/time


Time
hh:mm                      15:48

Day                          13

Month                         9

Year                        2010

Weekday                   Monday

Standard time/
daylight sav.        Standard time

Standard time/
daylight auto               ☑

Use DCF77                   ☐

  Main              |      Back
```

Set the time in 24-hour format in the first menu line.

■ Turn the touch wheel to set the hours of the "Time hh:mm" value. Pressing on the wheel causes the display to jump to minutes. Set the minutes in the same manner.

■ Accept the value by pressing the touch wheel.

■ The function button [Stand.] sets the hours to 12, the minutes to 30 (factory setting).

■ Now select the line [Day] by turning the touch wheel and enter the day in the same manner. Proceed in the same manner with month, year and weekday.

■ After you have selected the [Standard time/daylight sav.] menu line, one rotation increment of the touch wheel to the left sets the standard time; one rotation increment to the right sets the daylight saving time.

■ The [Standard time/daylight auto] and [Use DCF77] functions can be activated or deactivated by setting or deleting the checkmark.

ℹ The DCF-77 time signal is only available if you are using a suitable sensor. This function is not available at this time. Ensure that the "Use DCF77" function is deactivated.

▶ The new settings for date and time have now been set.

■ Pushing the function button [Back] returns you to the menu [System].

7.5.2.3 Button tone

You change the behaviour of the function buttons in the line [Button tone].

■ Turning the touch wheel sets or deletes the checkmark at the right, thereby activating or deactivating the actuation tone of the function buttons.

The [Stand.] function button sets the factory setting.

7.5.2.4 Standbyduration

After 15 minutes without manual operation in the operator mode, the display changes to standby mode.

■ The duration of standby mode is selected in the [Standby duration] menu item. The time can be set in the range of 1 to 240 min.

7.5.2.5 Display behaviour of Wisotronic
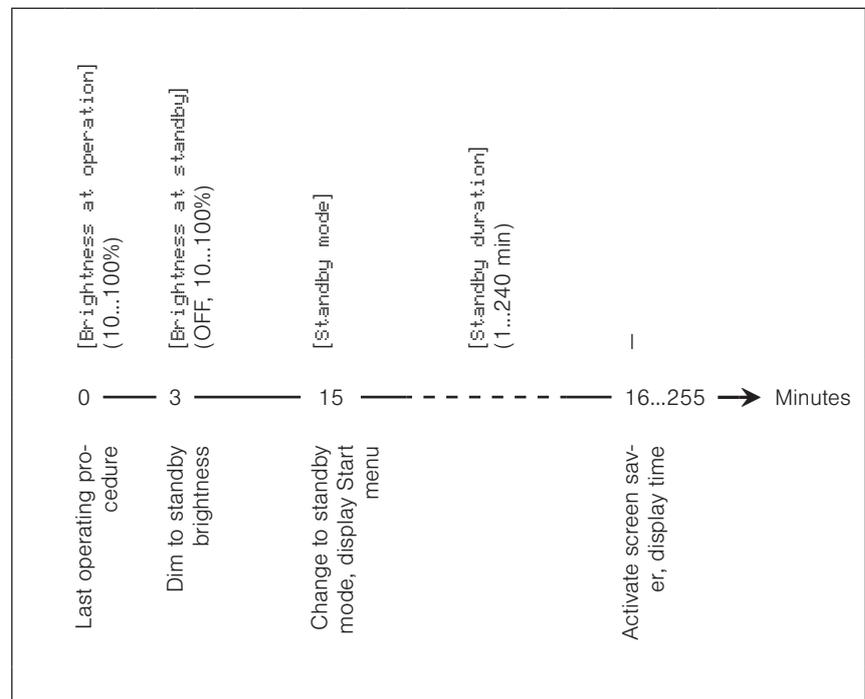
Fig. 16   Display behaviour

7.5.2.6 Colour scheme

With [Colour scheme], you can change the colours of the display. Two colour schemes are available: "dark" and "light".

Dark colour scheme
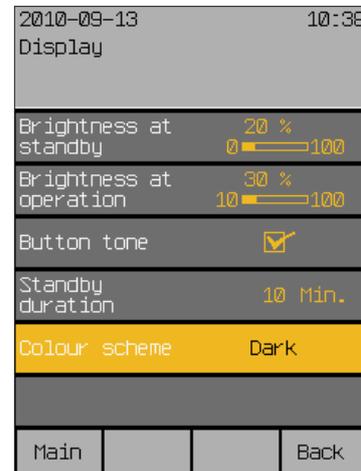
Light colour scheme
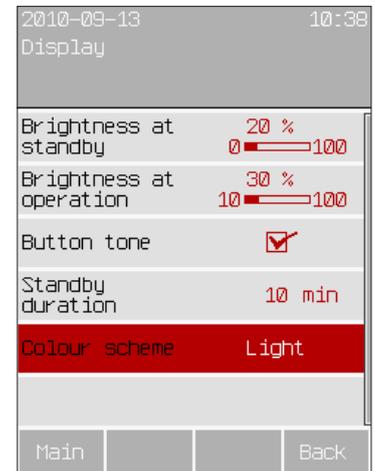
■ Select the desired scheme in the [Colour scheme] menu line by turning and pressing the touch wheel.

■ Pushing the function button [Back] returns you to the menu [System].

System settings

7.5.3 Measured values start menu

Start menu
↳ Main menu
  ↳ Settings
    ↳ System
      ↳ Measured values start menu

In this menu you can define which measured values are displayed in the Start menu. You can select which sensors are to be evaluated.

■ Press the [Sett.] function button in the main menu and then go to the [System] > [Measured values start menu].

▶ The following menu is displayed:

```
2010-09-13              10:38
Measured values start menu


Outside          Multisense 1
temperature      Outside temp.
Brightness       Multisense 1
                   Photo 1-4
Wind speed       Multisense 1
                 Wind speed 1
Precipitation    Multisense 1
                 Precipitation




 Main                    Back
```
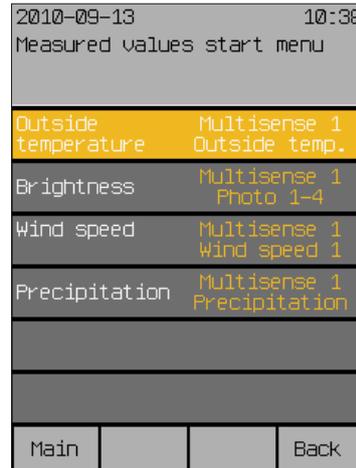
Here you can assign the desired sensors to the four measured values that appears in the Start menu. For each measured value, only the sensors that are actually available are offered for selection.

■ Using the touch wheel, select a measured value and assign a sensor from the displayed selection.

The [Delete] function button removes the currently assigned sensor and [---] is displayed. This measured value no longer appears in the Start menu.

The [Stand.] function button resets the selection to the default assignment.

The [Canc.] function button is used to leave the selection menu without making a change.

■ Pushing the function button [Back] returns you to the menu [System].

7.5.4 Language

Set the operating language of the Wisotronic in this menu.

■ Press the function button [Sett.] in the main menu and then go to the menu [System] > [Language].

▶ The following view appears in the display:

```
2010-09-13              10:38
Language


Language        English




Main            Back
```

At the time of printing of these instructions, the following languages were implemented as operating languages.
▶ German
▶ English
▶ French
▶ Spanish
▶ Italian
▶ Norwegian

■ To set the operating language, toggle between the available languages by turning the touch wheel.

■ Press the touch wheel to confirm your selection.

ℹ When the power supply returns after an interruption, the Start menu appears in the display in the language last selected.

7.5.5 Sensor compensation

Start menu
↳ Main menu
  ↳ Settings
    ↳ System
      ↳ Sensor compensation

This menu serves to compare the internal and external temperature measuring values of your Wisotronic with the temperature prevailing at the installation locations. This may become necessary if a sensor was mounted in an unfavourable location (such as in the vicinity of a heat source or in direct sunlight).

■ Press the function button [Sett.] in the main menu and then go to the menu [System] > [Sensor compensation] menu.

▶ The following menu appears where the max. possible number of sensors for temperature is indicated:

```
2010-09-13                    10:38
Sensor compensation


Control panel
temperature        +0.0 °C
Multisense 1
Outside temp.      +0.0 °C
Power unit 2
Outside temp.      +0.0 °C
Sens. Interf.3
Outside temp.      +0.0 °C




Main                     Back
```
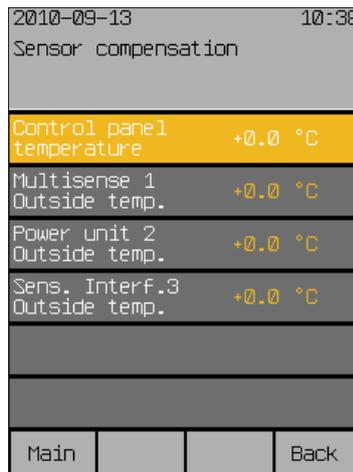
7.5.5.1 Control panel temperature

The [Control panel temperature] value specifies by how many degrees Celsius the measured value of the internal sensor of the Wisotronic is corrected up or down. The setting range is –10 °C to +10 °C.

■ Turn the touch wheel to set the value [Control panel temperature].

The [Stand.] function button sets the value to the factory setting.

7.5.5.2 Weather station 1 (2,3) outside temperature

The [Multisense 1 Outside temperature] value specifies by how many degrees Celsius the measured value of weather station 1 is corrected up or down. The setting range is –30...+10 °C.

■ Turn the touch wheel to set the value [Multisense 1 Outside temp.].

The [Stand.] function button sets the value to the factory setting.

ℹ Weather stations 2 and 3 are not available for Wisotronic 1-channel.

ℹ When commissioning, note that the multisense weather station has an internal temperature correction feature that improves measurement accuracy. The device follows temperature changes at a rate of approx. 10 min per °C.
When the Wisotronic is first switched on, the first temperature measurement is taken at the multisense weather station. If the weather station was previously stored at a considerably lower or higher temperature, it may take several hours before the correct temperature is displayed.
If the weather station is already at the temperature of its environment when the Wisotronic is first switched on, the actual temperature measurement value will be displayed from the start.

7.5.6 Wind test

This function is actually a repetitive check of the wind sensors connected to the Wisotronic. A description can be found in the installation instructions, Chapter 8.1.5.

7.5.7 Restore settings

Start menu
↳ Main menu
  ↳ Settings
    ↳ System
      ↳ Restore settings

This menu line serves to restore the settings made by the specialist dealer during commissioning.

To be able for you to restore the service settings, it is necessary that the specialist dealer saves the settings made during commissioning.

CAUTION

When you restore the service settings, your individual settings are lost.

■ Press the [Sett.] function button in the main menu and then go to the [System] > [Restore settings] menu.

► The following questions appears on the left in the menu line: [From service setting?]

■ Pressing on the [YES] button or on the touch wheel adopts the service settings. [Please wait...] appears briefly on the right for several seconds and then disappears. The service settings have been restored.

If the special dealer did not save the settings, the following message appears on the right in the menu line: [Service settings not stored.]

► After the service settings are restored, the [Load data in actuator] menu appears.

■ Press the touch wheel to finish adoption of the service settings.

► After the loading process is completed, the [System] menu appears again.

7.5.8 Software versions

Start menu
↳ Main menu
  ↳ Settings
    ↳ System
      ↳ Software versions

The software versions of all device components and the connected devices are displayed in this menu. This information is helpful, for example, if you want to expand your sun shading control system or if a problem has occurred with your control. You can then provide this data to your dealer on the phone.

```
2010-09-13              10:38
Software versions

Control panel    39402102

Input module     39511101

Multisense 1     40501100

Weather stat.2

Weather stat.3

Actuator         39413102
 Main              │     Back
```

The software versions are only displayed; they cannot be edited.

7.6 Sensor allocation

Start menu
↳ Main menu
　↳ Settings
　　↳ Sensor allocation

In this menu, you can view the assignments of the sensors to the measuring variables. The dealer performs these settings for you during commissioning. Changes can only be made after entering the service password.

Please contact your specialist dealer if you wish to make changes to this item.

7.7 Clean control panel

Start menu
↳ Main menu
　↳ Settings
　　↳ Clean control panel

This menu facilitates cleaning of the control panel. The display is thereby largely cleared to be able to better see dirt contamination. The function buttons are deactivated.

■ In the main menu, press the [Sett.] function button. Then select [Clean control panel].

▶ The following view appears in the display:

```
2010-09-13                    10:38
Clean control panel




        Clean control panel

   To end keep function wheel
        pressed for 5s.
```

CAUTION
When cleaning, it is imperative that you follow the instructions in *Chapter 9 on page 104*!

7.8 Service

Start menu
  ↳ Main menu
    ↳ Settings
      ↳ Service

This menu is reserved for service or the specialist dealer who will commission the Wisotronic for you or with you. An access password must be entered here permitting the specialist dealer to set up the project (creation and parameterisation of channels and safety functions).

i If you would like to have changes made to the configuration of your Wisotronic, please contact your specialist dealer.

7.9 Safety functions

7.9.1 Wind monitoring

Start menu
  ↳ Main menu
    ↳ Settings
      ↳ Safety functions
        ↳ Wind monitor

The wind monitor safety function prevents destruction of your sun shading products by wind by moving them early enough to a safe position. Your dealer will set the required limit values and delay times for you during installation. You can view these settings as follows:

■ Press the function button [Sett.] in the main menu and go to the [Safety functions] > [Wind monitor] menu.

▶ The following view appears in the display:

```
2010-09-13                10:38
Wind monitor
Channel 1
Trigger: Automatic off
┌─────────────────────────────┐
│ Wind monitor                 │
│ ON/OFF              ☑        │
├─────────────────────────────┤
│ Limit value                  │
│ WIND              12 m/s     │
├─────────────────────────────┤
│ Delay WIND          5 s      │
├─────────────────────────────┤
│ Delay WIND OFF                │
│                   10 min     │
├─────────────────────────────┤
│ Position                     │
│ WIND               0 %       │
├─────────────────────────────┤
│ Slat angle                   │
│ WIND              -80 °      │
├─────────────────────────────┤
│ Main              Back       │
└─────────────────────────────┘
```

The settings of the wind control are only displayed; they cannot be edited.

7.9.2 Ice monitor

The ice monitoring safety function prevents destruction of your sun shading products through movements when, for example, the guide rails are frozen. An ice alarm can be reset automatically and/or manually.

■ Press the function button [Sett.] in the main menu and go to the [Safety functions] > [Ice monitor] menu.

► The following view appears in the display (the header may show the channel name you selected instead of Channel 1 and the setting values in the right column may be different:

```
2010-09-13                   10:38
Ice monitor
Channel 1
Trigger: Automatic off

Ice monitor           ☑
ON/OFF

Limit value          +3.0 °C
ICE

Position              0 %
ICE

Slat angle ICE       -80 °

Reset ice             ☑
alarm automat?

Reset ice
alarm manually

Measured value       +23.5 °C
outside temp.

Measured value        No
precipitation

 Main              Back
```

7.9.2.1 Automatic reset ice alarm?

In this menu line, you specify whether the ice monitor is to reset an ice alarm automatically. The automatic comfort controls and the manual operation are enabled again when the conditions for an ice alarm no longer exist.

■ Set or delete the checkmark in the line [Reset ice alarm automatically] to activate or deactivate the automatic reset of an ice alarm.

To ensure that the product is not damaged, the ice alarm is not reset until the outside temperature is 2 °C above the preset [Limit value ICE].

7.9.2.2 Manual reset ice alarm?

In this menu line you can reset an ice alarm manually.

CAUTION
Ensure that your sun shading product cannot be damaged when you move it: external venetian blinds, roller shutters and articulated arm and conservatory awnings may be frozen. These products could be damaged if you operate them nonetheless! If the sun shading product is operated when iced over, any warranty and liability claims become void.

Proceed as follows to manually reset an ice alarm:

■ Use the touch wheel to select the [Reset ice alarm manually] line and press the touch wheel.

▶ The message [Ice alarm is being reset] appears briefly on the right.

7.9.2.3 Measured value outside temp.

The "Measured value outside temp." line indicates the outside temperature currently measured and is for information only.

7.9.2.4 Meas.value precipitation

The "Measured value precipitation" line indicates whether the currently measured status for precipitation and is for information only.

8 Measured values, triggers and faults

The Wisotronic has an internal memory for all measured values with the associated histories, triggers and faults. It aids with troubleshooting and is described in the following sections.

8.1 Current measured values

In this menu you see the current measuring values of the connected sensors.

■ Press the function button [Meas.val.] in the main menu and then go to the [Measuring values and histories] > [All measured values] menu.

▶ The following information appears in the display (the measuring values in the right column may be different; [–––] means that the sensor does not exist):

2010-09-13	10:38
Current measuring values	
Control panel temperature	+17.5 °C
Multisense 1 Photo 1	0 klx
Multisense 1 Photo 2	0 klx
Multisense 1 Photo 3	0 klx
Multisense 1 Photo 4	0 klx
Multisense 1 Dawn/dusk	480 lx
Multisense 1 Precipitation	No
Multisense 1 Outside temp.	+23.0 °C
Multisense 1 Wind speed 1	3 m/s
Multisense 1 Wind direction	––– °
Weather stat.2 Photo 1	––– klx
Main			Back

8.2 Measured values history

Start menu
↳Measured values
  ↳All measured values
    ↳"Name of measured value"

For each measured value, you can call up the measurement data as a curve.

■ In the main menu, select [Meas.val.] > [All measured values] > [Control panel temperature] and press the touch wheel.

▶ The history associated with the temperature reading is displayed.

■ Pressing the touch wheel again activates the cursor (a reticle) in the normal mode.

▶ Below the history, the measured value, the associated time and the date are now displayed.

■ Turning the touch wheel moves the cursor moves back and forth (in steps of 30 minutes).
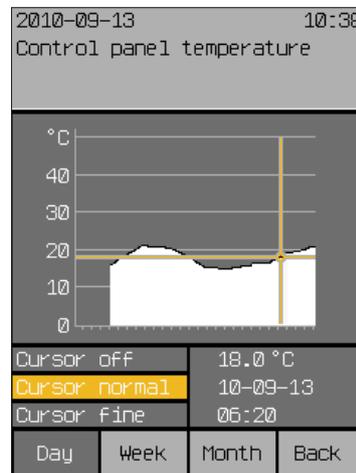
■ Pressing the touch wheel again switches the cursor to "fine" (steps of 10 minutes) and pressing it again deactivates the cursor again.

You can use the [Week] and [Month] function buttons to also view the associated long-term temperature progressions.

■ When using the function button [Back] to switch to the menu [Current measured values], you can view the histories of the other measuring values in the lines below in the same manner.

ℹ Curves and measurement data are not displayed for periods in which measured values were not recorded.

8.3 Current triggers

In this menu you see the current triggers of the channels created.

■ Push the [Measured value] function button in the start menu and then go to the [All triggers] menu.

▶ The following view appears in the display (the entries in the left column may be different):

```
2010-09-13              10:38
Current trigger


Channel 1       Automatic off






  Main              Back
```
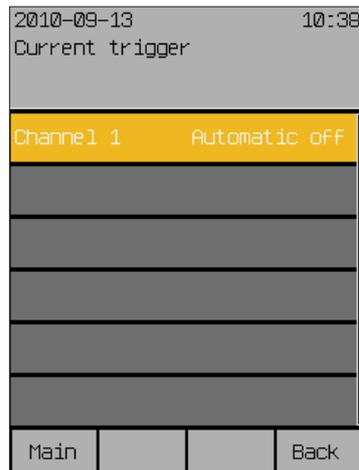
You can see a list of the channels that may also have freely selectable names. At the right, the last, i.e. the current trigger is shown in each case. This can be a manual move command or a comfort, safety or control function.

ℹ Move commands triggered via local operating elements are not shown!

8.4 Trigger history

Start menu
↳ Measured values
 ↳ All triggers
  ↳ "Name of trigger"

In the main menu, select [Measured values] > [All measured values]. In this menu you see the history associated with the triggers for the selected channel.

■ Pressing the touch wheel opens a menu [Channel # Trigger history] (or the channel name assigned by you) in which you will see a list of the triggers in chronological descending sequence.

▶ The triggers are now shown at the left, while their trigger conditions, the associated time and the date can be seen at the right.

```
2010-09-13                    10:38
Trigger history
Channel 1
Trigger: Automatic off

Automatic off    Automatic off
                 10-01-01 12:30

---              SafetyFct. end
                 10-01-01 12:30

---              ---

---              ---

---              ---

---              ---

Main                          Back
```

■ The selection line move up or down by turning the touch wheel.

Example   The list displayed shows the triggers in chronologically descending order so that the last one is always on top.

8.5 Faults

■ Push the [Measured value] function button in the start menu and then go to the [Faults] menu.

► The following view appears in the display (the entries in the left table are different):

```
2010-09-13              10:38
Faults

  1  RS485 bus weath.st. 1
     10-09-13 16:13
  2  Wind value channel 1
     10-09-13 16:13
  3  RS485 bus weath.st. 3
     10-09-13 16:15




  Read   Delete  FC off   Back
```
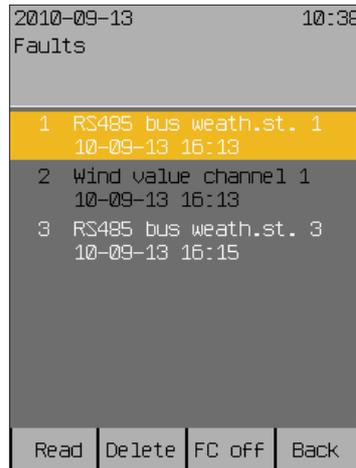
Example   You will see a numbered list of faults in chronologically ascending order. Each line contains:

► Fault number
► Fault type
► Affected device
► Date and time

Turning the touch wheel navigates up and down in the list.

When an entry is marked with the [Read] function button, it changes its colour (see figure, fault number 2).

The [Delete] function button is used to delete an entry.

9 Maintenance

There are no parts within the device that require maintenance.

■ In the event of a fault, the cabling and power supply must only be checked by a certified electrician.

■ Also follow the specifications in the operating instructions of your sun shading product and the other controlled devices.

9.1 Cleaning

■ Clean the acrylic glass front panel occasionally with a soft damp cloth.

■ **Steam or high-pressure cleaners, abrasive sponges, abrasive agents, and solvents such as alcohol or benzine may not be used.**

CAUTION
When performing cleaning activities are necessary on the Wisotronic, on the sun shading product itself or in the immediate vicinity of the sun shading product, first de-energise the unit and secure it against reactivation.

10 Liability

■ Failure to comply with the product information in these instructions and use of the unit in a manner that contravenes its intended use and purpose may result in the manufacture refusing to honour warranty claims for product damage. In this case, liability for consequential harm to persons or damage to property will also be excluded.

■ Follow the instructions in the operating instructions of your sun shading product. Liability is also excluded for damage to the sun shading system resulting from operation under icy conditions.

The device meets the requirements on interference resistance and interference emission for use in residential and commercial areas.

11 Obligations for the disposal of electrical devices

A marking with this symbol indicates the following obligations under the scope of legal regulations:

■ The owner of this electrical device must dispose of it separately from unsorted municipal waste for further recycling.

■ Used batteries and accumulators that are not enclosed in the old device, as well as lamps/bulbs that can be removed from the old device without breaking, must be disposed of separately.

■ Distributors of electrical devices and disposal companies are obliged to take back the equipment free of charge.

■ The owner must take it upon themselves to delete any personal data contained in the electrical device prior to disposal.

12 Information for the user

Receiver for the control of sun shading units

When used as intended, the device meets the basic requirements stipulated in the following EU guidelines and harmonised standards:

▶ Directive on radio and telecommunications terminal equipment and the mutual recognition of their conformity 1999/5/EC(R&TTE)

▶ EMC directive 2004/108/EEC

▶ Low voltage directive 2006/95/EEC

▶ $C \epsilon$

The declaration of conformity can be reviewed at: http://www.warema.de/ce

13 Troubleshooting

Problem	Possible cause	Remedy
No information in display	No operating voltage	Insert fuse, check power supply
"Fault" display in heading. Additional details in fault table	Open fault table and read out cause	Inform specialist dealer if necessary
Uncontrolled movements of the connected products	Temporary power failure	A power failure must be followed by a calibration
Product cannot be operated with the control panel	Fine-wire fuse in actuator faulty (local operation not working either)	Examine fault causes and remedy them
	Safety function active (local operation is not working either)	Wait until the cause (precipitation, wind, ice) is no longer present
	Wind test identified fault	Reset wind test
Wisotronic does not respond to an EWFS Hand-held transmitter	Transmitter has not been learned in	Lean in sensor
	Wrong channel was selected for 8-channel EWFS transmitter	Select the right channel and repeat the move command
	Button press too short	Repeat command
	Interfering ambient influences	Reduce distance to Wisotronic
	Safety function active	Wait until the cause (precipitation, wind, ice) is no longer present
	Wind test identified fault	Reset wind test
Wisotronic responds only sporadically to an EWFS Hand-held transmitter	Interfering ambient influences	Reduce distance to Wisotronic
	Interference through external transmitter	Switch off external transmitter (e.g. Baby-phone)
	Batteries of EWFS transmitter are weak	Change the batteries
Control functions do not respond	Control functions are deactivated on the control panel	Activate control functions in the main menu and in the comfort functions
	Control functions is disabled through absence function or leave	
	Safety function active (local operation is not working either)	
Control functions do not respond as required	Incorrect sensor allocation	Check settings
A wind alarm is triggered even in a gentle wind	The wind speed limit is set too low	Increase wind limit value, observe safety instructions
No wind alarm is triggered even in a strong wind	The wind speed limit is set too high	Decrease wind limit value, observe safety instructions
	Wind monitoring is switched off	Switch on wind monitoring

Problem	Possible cause	Remedy
Precipitation alarm is not triggered	Sensor is not connected, faulty or dirty	Check and clean sensor
	Precipitation monitoring is switched off	Switch on function
Ice alarm is not triggered	Ice monitoring is switched off	Switch on the ice alarm
	Temperature limit value set too low	Change limit value, note safety instructions
	Sensor is not connected, faulty or dirty	Check and clean sensor
Comfort functions for dawn/dusk, sun and temperature control are not functioning as desired	Control timer is switched off	Switch on control timer or change programming
	Control timer not correctly programmed	Change programming of control timer
Sun shading is lowered too late in the sunshine	"Delay LOW" limit value is set too high (sun control)	Change the limit value
Sun shading is lowered when there is little sunshine	"Delay DOWN" limit value is set too low (sun control)	Change the limit value
Sun shading system moves up to late in cloudy weather	HIGH limit value set too high (sun control)	Change the limit value
Sun shading system does not move with the sunlight level	Sun control is switched off	Switch on the sun control:
Sun shading system does not move at dawn/dusk	Dawn/dusk control is switched off	Switching on the dawn/dusk control
	Limit values of dawn/dusk control are not correctly programmed	Changing the limit values
	Sensor not installed correctly	Check the installation location

Problems that primarily occur during commissioning are described in the Wisotronic installation instructions.

14 Technical data

Wisotronic 1-channel	Min.	Typ.	Max.	Unit
Supply				
Operating voltage	85	230	265	V AC
Frequency	50		60	Hz
Power consumption	< 1		5	W
Floating output				
Switching capacity per channel at 230 V AC/cos φ 0.6			500	VA
Switching capacity per channel at 24 V DC			72	W
Fuse protection per channel		3.15		AT
Internal temperature sensor				
Measuring range	0		50	°C
HF receiver				
Receiving frequency ASK (OOK)		433.92		MHz
Range (environment without interference)		30		m
Enclosure				
Dimensions H×W×D			177 × 97 × 5	
Degree of protection			IP40	
Safety class			II	
This device complies with the EMC directives for use in residential and commercial areas.				
Connection				
Control panel			Plug-and-socket connection	
Power unit			Spring terminals	
Miscellaneous				
Display			Graphic display, 240 x 320 pixels	
Program user guidance			Menu-guided text display	
Program entry			4 capacitive buttons/touch wheel	
Conformity			Available at http://www.warema.de/ce CE	
Ambient conditions				
Operating temperature	0	20	40	°C
Storage temperature	0	20	50	°C
Rel. humidity (non-condensing)	10	40	85	%RH
Degree of soiling			2	

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