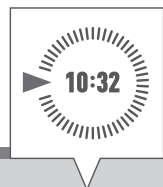
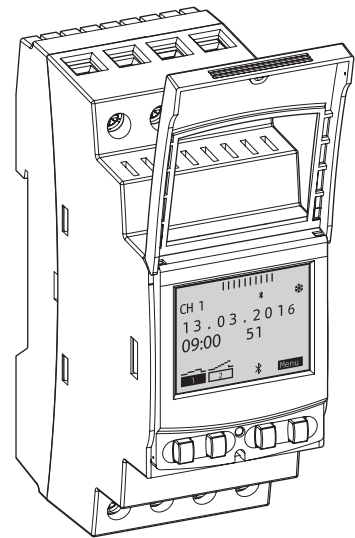


EN

Operating instructions

57



talento smart

B15 / B25 / C15 / C25 / S25



This manual ensures safe and efficient use of the DIN-rail timer (referred to as “device” in the following). This manual is a component of the device and must remain accessible at all times for everyone who uses the device.

Everyone who uses the device must have read and understood this manual before commencing any work. The basic prerequisite for working safely is compliance with all safety instructions and usage instructions specified in this manual. Furthermore, the local accident prevention regulations and the general safety regulations in the area in which the device is operated apply.

Copyright

This manual is copyright protected.

Handover of this manual to third parties, reproductions of any type and form – including excerpts – and use and/or disclosure of the content without the written permission of the manufacturer, except for internal purposes, is not permitted. Violations will result in liability for compensation. The manufacturer reserves the right to assert additional claims.

The copyright is held by the manufacturer.

Download






You can find the following information at www.graesslin.de:

- Download instructions
- Technical data

Declaration of conformity

Grässlin GmbH hereby declares that the radio system type “talento smart” conforms to Directive 2014/53/EU. The complete text of the EU declaration of conformity is available from the following Internet address: <http://qrc.graesslin.de/talento-smart-conformity>



-  **Overview** 60
 - Design and function..... 60
-  **Safety**..... 65
-  **Installation** 68
-  **Configuration**..... 70
 - Initial commissioning 70
 - Setting the language 71
 - Setting the date and time 72
 - Selecting summer/winter time 74
 - Setting the location information 75
 - Setting astro correction 76
 - Setting the backlight..... 77
 - Reading the hour counter..... 78
 - Resetting the hour counter 79
 - Setting the service counter 80
 - Setting the PIN 81
 - Selecting the mode..... 82
 - Selecting the operating mode 83
 - Reading the Bluetooth settings 85
 - Connect DIN-rail timer to channel extension 86
 - Disconnecting channel extensions from the DIN-rail timer..... 89
 - Operating and programming the DIN-rail timer via mobile devices..... 90
-  **Programming**..... 92
 - Information relating to programming 92
 - Date-dependent/date-independent programming 93
 - Using wildcards 94
 - Prioritising programmes..... 95
 - Creating a new switching programme 96
 - Programming an ON command 96
 - Programming an OFF command 98
 - Programming pulse switching 100
 - Programming cycle switching 102
 - Programming random switching 105



Viewing, editing or deleting elements 107

 Viewing, editing or deleting a programme 107

 Viewing, editing or deleting switching times 108

 Viewing, editing or deleting a date list 109

 Deleting all programmes 110



Disposal 111



Overview

Design and function

EN

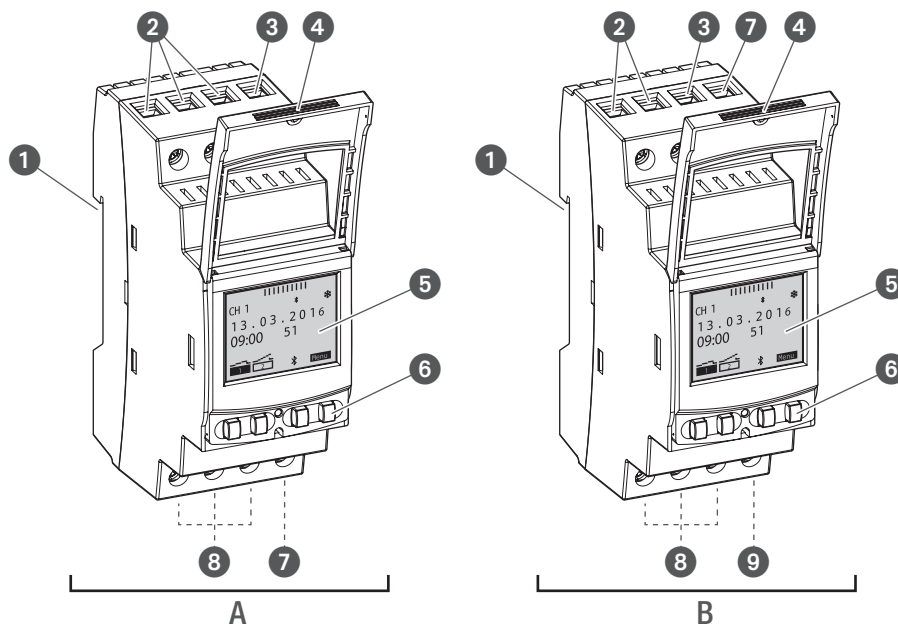


Fig. 1: DIN-rail timer

- A 110 – 230 V 1 or 2-channel DIN-rail timer
- B 12/24 V DIN-rail timer
- ① Click system for installation on a DIN rail
- ② Terminals for channel 2 (only for 2-channel variant)
- ③ Terminal for phase
- ④ Sealable housing
- ⑤ Display
- ⑥ Control buttons
- ⑦ Terminal for neutral conductor
- ⑧ Terminals for channel 1
- ⑨ Potential-free empty terminal

Description of function

The DIN-rail timer is a timer that is installed on a DIN rail (Fig. 1/①) by means of a click system; the timer activates the connected device. The DIN-rail timer has one or two channels and can be operated via a display (Fig. 1/⑤) with four control buttons (Fig. 1/⑥). The DIN-rail timer can be programmed manually or via a mobile device. The radio signal frequency is 2.4 GHz and the maximum transmission power is 1.8 mW.



Technical data (DIN EN 60730-1)

Mode of operation	1.B
Pollution degree	2
Rated impulse voltage	4000 V

The technical data for the devices described in this manual can be found at:
<http://qrc.graesslin.de/talento-smart-specs>.

Possible uses

These functions can be programmed on the DIN-rail timer:

- Date-independent programming
- Date-specific programming
- On, off programming
- * Pulse, cycle and random programming
- * Sunrise and sunset-specific programming
- Creating programmes via mobile devices

* These functions depend on the variant.



Display and control elements

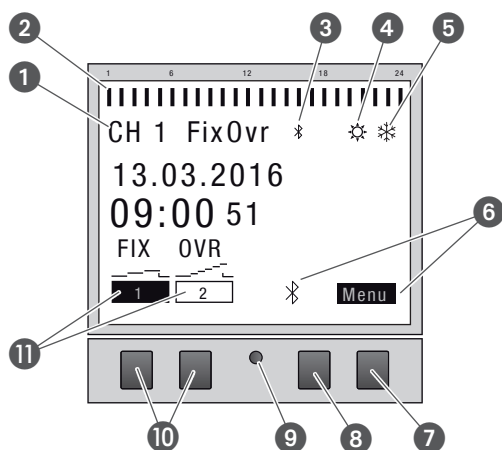


Fig. 2: Display layout






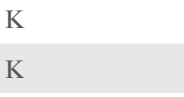
- ① Channel
- ② Programmed switching times
- ③ Bluetooth
- ④ Summer time
- ⑤ Winter time
- ⑥ Function displays of the buttons on the right
- ⑦ Menu button
- ⑧ Bluetooth button
- ⑨ Reset button
- ⑩ Buttons on the left
- ⑪ Function displays of the buttons on the left

Function of the two buttons on the right (Fig. 2/⑦ + ⑧)

Display	Function
Menu	Enter programming mode.
Bluetooth	Pressing this button activates the Bluetooth function and enables a connection to be established.
ESC	Press briefly = goes back one step. Press and hold (2 seconds) = back to automatic mode.
OK	Make the selection and apply it.
<	Undo the last input, e.g. when entering the time.



Function of the two buttons on the left (Fig. 2/10)

Display	Function
	Operating mode ON (FIX) – the channel is switched on permanently.
	Operating mode OFF (FIX) – the channel is switched off permanently.
	Override mode – the current programme is overwritten up to the next automatic command.
	Automatic mode ON – the channel is switched on on the basis of the programmed switching time.
	Automatic mode OFF – the channel is switched off on the basis of the programmed switching time.
	Display of an unconnected channel extension
K	Page up in the menu
K	Page down in the menu.
-	Press briefly = reduce the displayed value (hour, minute, second) by 1. Press and hold (2 seconds) = fast cycling. Reduce or deselect in the case of channel and day selection.
+	Press briefly = increase the displayed value (hour, minute, second) by 1. Press and hold (2 seconds) = fast cycling. Increase or select in the case of channel and day selection.



Menu structure

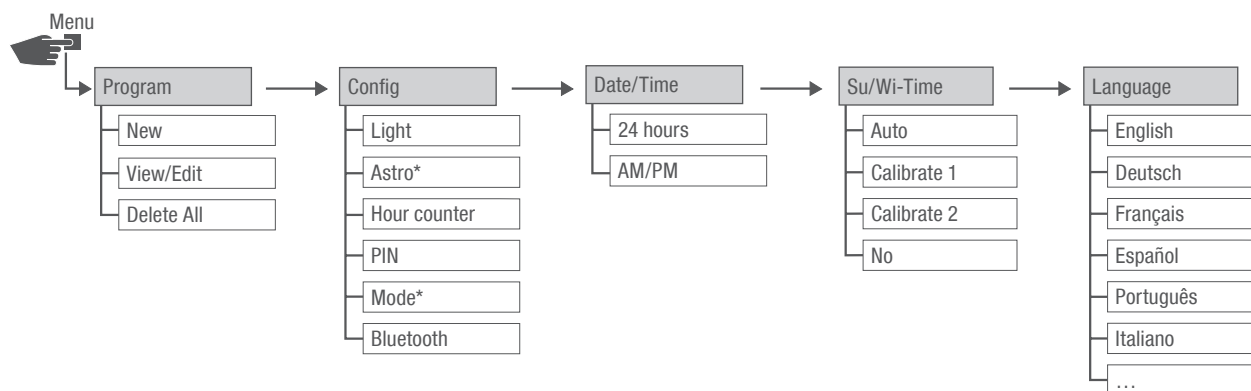


Fig. 3: Menu structure

* These functions depend on the variant.

The menu structure appears on the display when you press the menu button (Fig. 2/7).

Downloading the app



The DIN-rail timer can be programmed using a mobile device.

The mobile app is available for Android or for iOS devices; alternatively, scan the QR code shown here and install the app.



Safety

EN

Safety instructions

Safety instructions are indicated in this manual by symbols. The safety instructions are introduced by signal words that express the extent of the danger.



WARNING!

This combination of symbol and signal word indicates a potentially dangerous situation that may result in death or severe injuries if the situation is not avoided.



CAUTION!

This combination of symbol and signal word indicates a potentially dangerous situation that may result in minor or slight injuries if the situation is not avoided.



NOTE!

This combination of symbol and signal word indicates a potentially dangerous situation that may result in material damage if the situation is not avoided.



**ENVIRON-
MENTAL
PROTECTION!**

This combination of symbol and signal word indicates potential dangers for the environment.

Tips and recommendations



This symbol highlights useful tips and recommendations, as well as information for efficient and fault-free operation.

Intended use

- The DIN-rail timer is intended solely for switching electric devices in private and commercial areas, provided this does not infringe on the intended use of these devices.
- The DIN-rail timer may only be installed on DIN rails.

The intended use also includes compliance with all information specified in this manual.



Any use other than the intended use is considered incorrect use. The legal warranty is voided by any interference with, or modifications to, the device.



WARNING!

Danger due to insufficient wire cross-section!

If wires with an insufficiently large cross-section are used, short circuits or fires may occur.

- Only use terminals with a cross-section between 1 mm² and 2.5 mm² for wires.



NOTE!

Damage to the DIN-rail timer due to incorrect installation location!

If installed in an unsuitable location, the DIN-rail timer may be damaged.

- Only use the DIN-rail timer in dry rooms and do not install close to devices with inductive discharge (motors, transformers, etc.).
- Only install the DIN-rail timer on DIN rails.

Residual risks

The device is state-of-the art and designed in accordance with current safety requirements.

However, residual risks remain that require caution when using the device. The residual risks, and the conduct and measures they require, are listed in the following.

FCC Certification

FCC ID: 2AHH/-DG

This device complies with Section 15 of the FCC Regulations. Operation is only permitted under the following conditions: (1) This device must not cause any disruptive interferences and (2) the device must be able to receive interferences, also such interferences which could result in undesired operations.

Electric current



WARNING!

Risk of fatal electric shock!

Improper assembly and installation of the device can lead to life-threatening electrical voltages.

- Only allow a qualified electrician to install and connect the device.



Personnel requirements

Qualified electrician

Professional training, knowledge and experience, and knowledge of the relevant standards and regulations allows the qualified electrician to perform work on electrical systems and to identify, and avoid, potential dangers of their own accord.

A qualified electrician is specifically trained for the work environment in which they work, and are familiar with the relevant standards and regulations.

Installation

Connecting the electricity

EN



WARNING!

Risk of fatal electric shock!

Improper assembly and installation of the device can lead to life-threatening electrical voltages.

- Only allow a qualified electrician to install and connect the device.

Personnel:

- Qualified electrician

Material:

- DIN rail (15 mm x 7.5 mm)
- DIN rail (15 mm x 12.5 mm)

Prerequisite:

- The terminals for the wires must have a cross-section between 1 mm² and 2.5 mm².

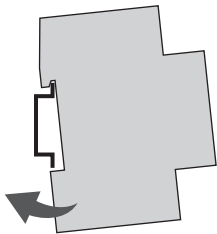


Fig. 4: Installation on a DIN rail

1. Place the DIN-rail timer on the DIN rail (Fig. 4) from above and press it back until it locks into place.

Connecting the electricity

2. Strip the insulation from the wires.
 - Stripping length: 8 mm



NOTE!

Tightening torques

To avoid damage and faulty contacts, tighten the terminals using a torque of 1.2 – 1.4 Nm.

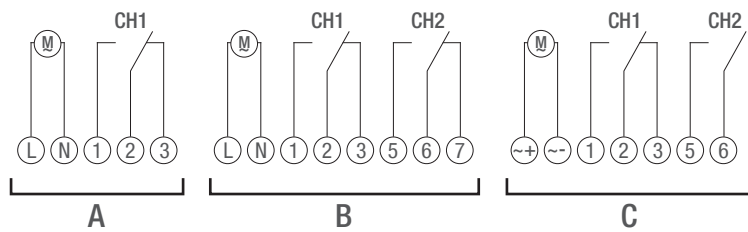


Fig. 5: Circuit diagram

- A 110 – 230 V 1-channel DIN-rail timer
- B 110 – 230 V 2-channel DIN-rail timer
- C 12/24 V DIN-rail timer

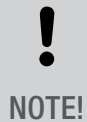
3. Connect the DIN-rail timer in accordance with the circuit diagram (Fig. 5/A), (Fig. 5/B) or (Fig. 5/C).



Configuration

EN

Back-up battery



NOTE!

Reduced power reserve in the back-up battery!

When operated without being connected to the mains, the power reserve in the back-up battery is reduced.

After eight years of storage without being connected to the mains, the back-up battery will be fully discharged.

Connection to mobile devices



Manual operation and programming are only possible if there is no active connection to mobile devices.

Initial commissioning

Condition on delivery

When delivered, the device is in automatic mode with default settings for time, date and language (English).



Commissioning wizard

The first time you press the menu button, a wizard takes you through the basic settings, which you can check and adjust as necessary during initial commissioning.

EN

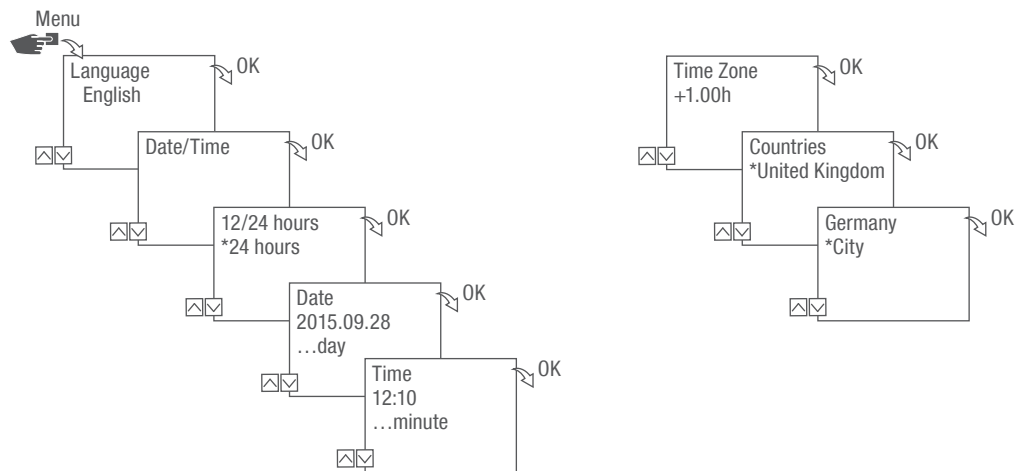


Fig. 6: Initial commissioning

Setting the language

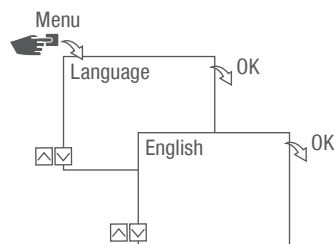


Fig. 7: Setting the language

1. Press the Menu button.
2. Select Language and confirm with OK.



During initial commissioning, this will always read Language (in English).

3. Select the language and confirm with OK.



Setting the date and time

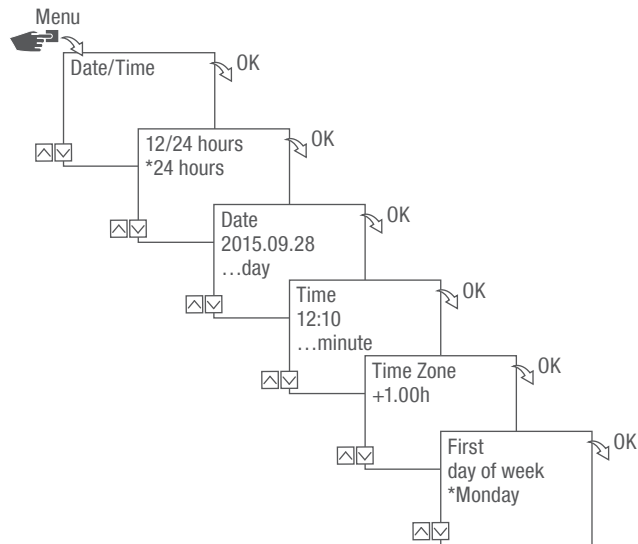


Fig. 8: Setting the date and time

1. Press the Menu button.
2. Select **Date/Time** and confirm with **OK**.
3. Select the desired time display (☞ „Possible time displays“ on page 73) and confirm with **OK**.
4. Enter the date and confirm with **OK**.
5. Enter the time and confirm with **OK**.
6. Enter the time zone and confirm with **OK**.
7. Enter the first day of the week and confirm with **OK**.



Selecting the day of the week

Example:

- 1st day = Sunday... 1 – 5 = Sun – Thu
- 1st day = Monday... 1 – 5 = Mon – Fri

EN

Possible time displays

Setting	Effect
24 hours	The time is displayed in 24 hour format.
AM/PM	The time is displayed in 12 hour format. <ul style="list-style-type: none">• AM = morning• PM = afternoon



Selecting summer/winter time

You can activate automatic calculation of summer and winter time with the relevant settings (☞ „Possible settings“ on page 74) or you can deactivate it.

EN

Possible settings

Setting	Effect
EU (factory setting)	The time changes on the last Sunday in March and the last Sunday in October. It is recalculated every year.
USA	The time changes on the second Sunday in March and the first Sunday in November. It is recalculated every year.
Calibrate 1	Summer/winter time is automatically recalculated for each year. The changeover takes place on the respective Sunday from 2 to 3 am (summer time) or from 3 to 2 am (winter time). <ul style="list-style-type: none">• If the date entered is between the 1st and 15th of the selected month, the changeover always takes place on the first Sunday.• If the date entered is between the 16th and 31st of the selected month, the changeover always takes place on the last Sunday.
Calibrate 2	The changeover always takes place on the same entered date each year.
No	No changeover.

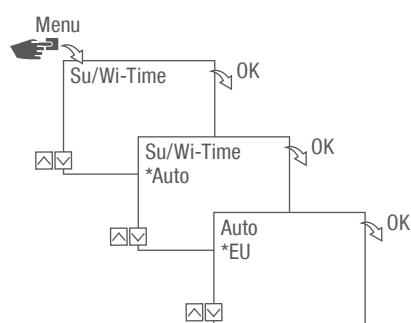


Fig. 9: Selecting summer and winter time

1. Press the Menu button.
2. Select Su/Wi-Time.
3. Select the desired setting (☞ „Possible settings“ on page 74) and confirm with OK.
4. After entering the setting Calibrate 1 or Calibrate 2, enter the month and day and confirm with OK.



Setting the location information

The location information is specified in the **Astro** menu.

Once the location has been defined, the programmes can adjust to sunrise and sunset at the location in question.

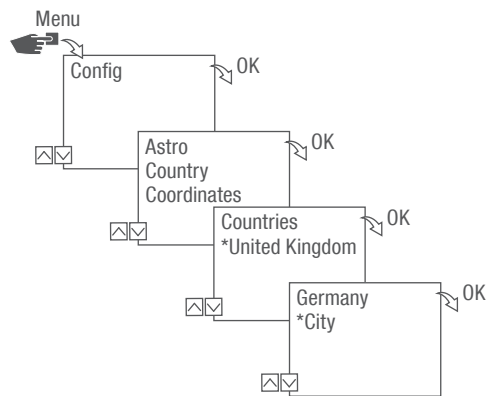


Fig. 10: Setting the location information



The astro function depends on the variant.

1. Press the **Menu** button.
2. Select **Config** and confirm with **OK**.
3. Select the desired setting (☞ „Possible settings“ on page 75) and confirm with **OK**.
4. Select the specification of the desired setting and confirm with **OK**.
⇒ The programmes are adjusted to sunrise or sunset at the selected city.

Possible settings

Setting	Selection	Specification
Country	Country code for the location.	A selection of cities is displayed.
Coordinates	Latitude and longitude of the location.	–



Setting astro correction

In the **Correction** menu, you can correct the sunrise and sunset-specific programming in reference to the actual programming.

EN

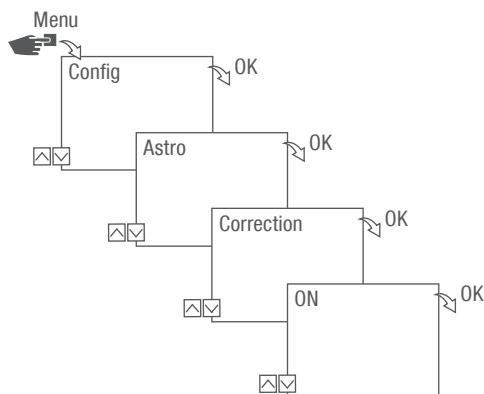


Fig. 11: Setting astro correction



The correction function depends on the variant.

If multiple sunrise and sunset-specific programmes are set, only the first sunrise and the last sunset are taken into consideration.

Pulse, cycle and random switching cannot be corrected.

1. Press the **Menu** button.
2. Select **Config** and confirm with **OK**.
3. Select **Astro** and confirm with **OK**.
4. Select **Correction** and confirm with **OK**.
5. Select **ON** and confirm with **OK**.
⇒ Astro connection is activated and is set individually for each programme.



Setting the backlight

In the Light menu, you can set how long the backlight stays on after the last key press.

EN

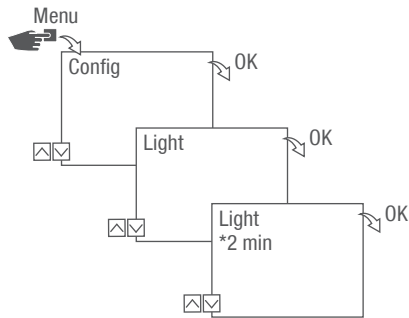


Fig. 12: Setting the backlight

1. Press the Menu button.
2. Select Config and confirm with OK.
3. Select Light and confirm with OK.
4. Select the desired setting (☞ „Possible settings“ on page 77) and confirm with OK.

Possible settings

Setting	Effect
Fix ON	The backlight of the display remains on continuously.
2 min	The backlight of the display remains on for two minutes after the last key press.



Reading the hour counter

The device's operating hours are displayed in the Read hour counter menu.

EN

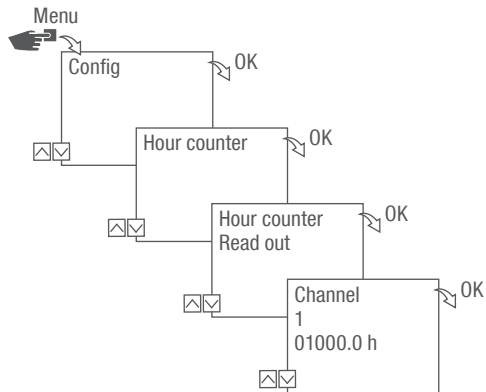


Fig. 13: Reading the hour counter

1. Press the Menu button.
2. Select **Config** and confirm with OK.
3. Select **Hour counter** and confirm with OK.
4. Select **Read** and confirm with OK.
5. Select the desired channel and confirm with OK.
6. Press **ESC** to return to the channel selection to read the hour counter for another channel.



Resetting the hour counter

In the Reset menu, you can set the hour counter to 0.

EN

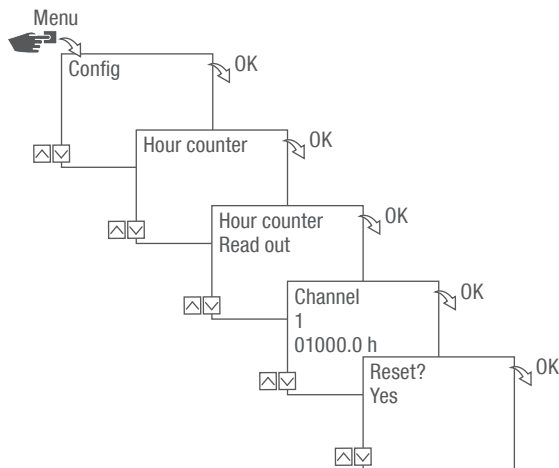


Fig. 14: Resetting the hour counter

1. Press the Menu button.
2. Select **Config** and confirm with **OK**.
3. Select **Hour counter** and confirm with **OK**.
4. Select **Read** and confirm with **OK**.
5. Select the channel and confirm with **OK**.
6. Select the desired setting (↵ „Possible settings“ on page 79) and confirm with **OK**.

Possible settings

Setting	Effect
Yes	The hour counter is reset.
No	The hour counter continues to count.



Setting the service counter

In the **Service hour counter** menu, you can set the number of operating hours that pass before a service message is displayed for a channel. The **Service CHX** display appears in automatic mode, alternating with the time.

EN

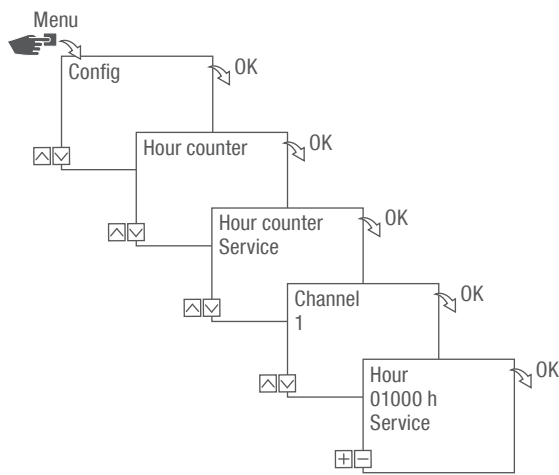


Fig. 15: Setting the service counter

1. Press the **Menu** button.
2. Select **Config** and confirm with **OK**.
3. Select **Hour counter** and confirm with **OK**.
4. Select **Service** and confirm with **OK**.
5. Select the desired channel and confirm with **OK**.
6. Set the interval (+/-) and confirm with **OK**.
7. Press **ESC** to return to the channel selection to set the service counter for another channel.



Setting the PIN

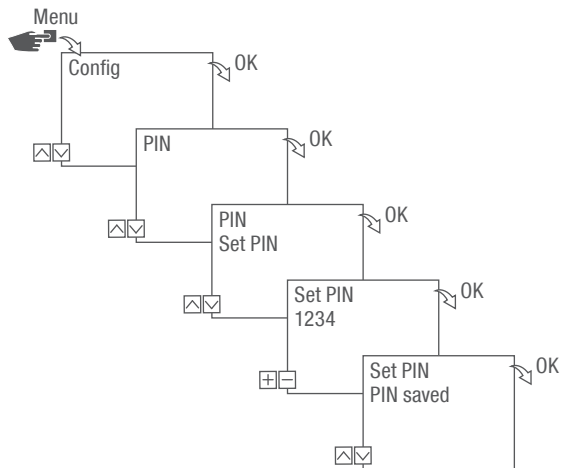


Fig. 16: Setting the PIN

1. Press the **Menu** button.
2. Select **Config** and confirm with **OK**.
3. Select **PIN** and confirm with **OK**.
4. Select **Enter PIN** and confirm with **OK**.
5. Enter the PIN and confirm with **OK**.
 - ⇒ All configurations, manual operations and programming are protected by PIN and cannot be changed without entering the PIN.



Selecting the mode

In the **Mode** menu, you specify whether the standard functions or the advanced functions are available.

EN

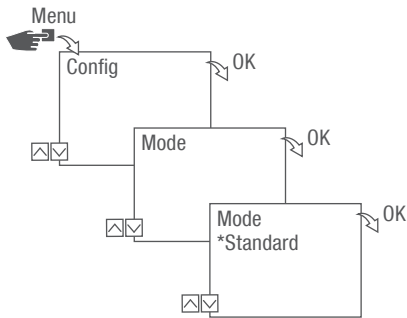


Fig. 17: Selecting the mode

1. Press the **Menu** button.
2. Select **Config** and confirm with **OK**.
3. Select **Mode** and confirm with **OK**.
4. Select the desired setting (↵ „Possible settings“ on page 82) and confirm with **OK**.

Possible settings

Standard	Advanced
<ul style="list-style-type: none">• ON/OFF command	<ul style="list-style-type: none">• ON/OFF command• Programme prioritisation (↵ Chapter „Prioritising programmes“ on page 95)• Sunrise and sunset-specific programming• Pulse programming (↵ Chapter „Programming pulse switching“ on page 100)• Cycle programming (↵ Chapter „Programming cycle switching“ on page 102)• Random programming (↵ Chapter „Programming random switching“ on page 105)



Selecting the operating mode

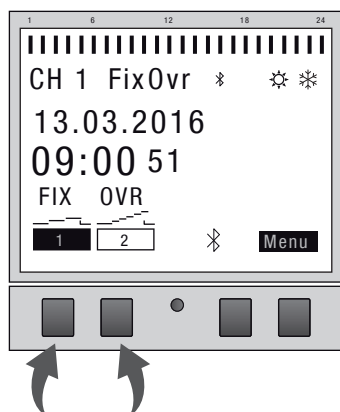





Fig. 18: Operating mode

Use the function keys on the left to select the operating mode for the device.

Possible settings

FIX 	Permanently ON (FIX)	Channel is permanently switched on.
---	----------------------	-------------------------------------

FIX 	Permanently OFF (FIX)	Channel is permanently switched off.
---	-----------------------	--------------------------------------

OVR 	Override mode ON (OVR)	<p>In override mode, the current programme is temporarily overwritten.</p> <ul style="list-style-type: none">Start a programme early that is set to start later with “Override mode ON”. <p>The override function only applies to the current programme and remains active until the next automatic command. Then the device returns to automatic mode.</p>
---	------------------------	---

Example:

A daily programme switches the device on every day from 8:00 a.m. to 5:00 p.m. If, however, you want the device to already be on at 6:00 a.m. one day, use the override mode.



Possible settings

OVR



Override mode OFF (OVR)

In override mode, the current programme is temporarily overwritten.

- End the current programme with “Override mode OFF”.

The override function only applies to the current programme and remains active until the next automatic command. Then the device returns to automatic mode.

Example:

A daily programme switches the device on every day from 8:00 a.m. to 5:00 p.m. If, however, you want the device to switch off at 4:00 p.m. one day, use the override mode.



Automatic mode ON

Channel switches on on the basis of the programmed switching times.



Automatic mode OFF

Channel switches off on the basis of the programmed switching times.

EN



Reading the Bluetooth settings

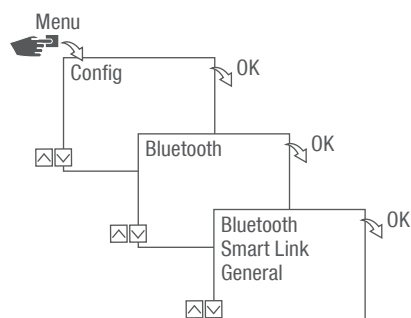


Fig. 19: Bluetooth settings

1. Press the Menu button.
 2. Select Config and confirm with OK.
 3. Select Bluetooth and confirm with OK.
 4. Select Smart Link or General and confirm with OK.
- ⇒ You can read the settings (👉 „Bluetooth settings“ on page 85).



You can change the device name via mobile devices.

Bluetooth settings

Menu	Settings
Smart Link	MAC address
	Device names
General	Version number of software
	Serial number of device



Connect DIN-rail timer to channel extension

The possible uses listed here can be programmed on the DIN-rail timer and executed on the channel extension on the desired channel. To do this, the DIN-rail timer must be connected to the channel extension.

EN

Possible uses

- Date-independent programming
- Date-specific programming
- Pulse, cycle and random programming
- Sunrise and sunset-specific programming
- Creating programmes via mobile devices
- Bluetooth low energy interface for accessories and mobile devices for programming



The extension is only possible for certain variants.

Preparing for the connection

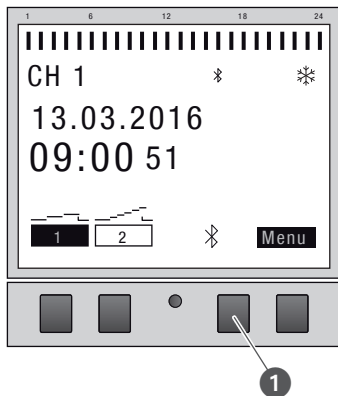


Fig. 20: Establishing a Bluetooth connection to the DIN-rail timer

1. Press the Bluetooth button (Fig. 20/①) on the DIN-rail timer.

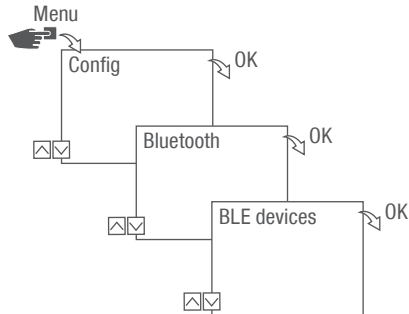


Fig. 21: Bluetooth settings

2. Press the Menu button.
3. Select Config and confirm with OK.
4. Select Bluetooth and confirm with OK.
5. Select BLE devices and confirm with OK.

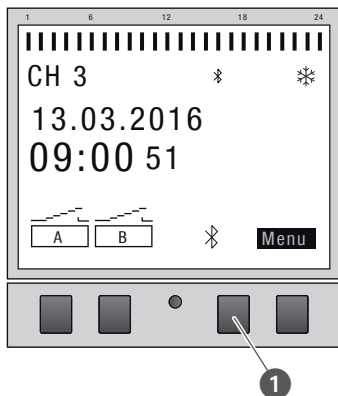


Fig. 22: Establishing a Bluetooth connection to the channel extension

6. Press the Bluetooth button (Fig. 22/①) on the channel extension.
 - ⇒ The Bluetooth symbol flashes for two minutes. A list of all available devices in the vicinity is shown on the DIN-rail timer display.



The operation must be completed within two minutes, otherwise the operation has to be repeated.

After a connection has been established once, the DIN-rail timer automatically connects to the mobile device when it is in the vicinity.

The Bluetooth connection is maintained for two minutes in the event of a power failure.



Establishing the connection

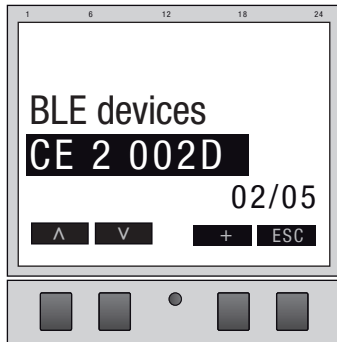


Fig. 23: Selecting the channel extension

7. On the DIN-rail timer, use the keys on the left (\wedge / \vee) to select from the list the channel extension to be connected, and confirm with +.



The connected channel extension is indicated by #.

8. Select a new channel extension with the keys on the left (\wedge / \vee) and confirm with +.

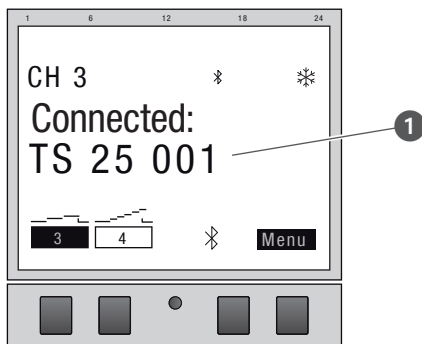


Fig. 24: Channel extension is connected to the DIN-rail timer

9. The channel extension displays the name of the connected device if there is an active connection (Fig. 24/1).
⇒ The display switches between the name of the connected device and the current date and time.



After a connection is established, the channel name switches from “A” and “B” to “3” and “4”, “5” and “6” or “7” and “8”.

10. If the DIN-rail timer or the channel extension is protected by PIN, enter the PIN on the DIN-rail timer.



Disconnecting channel extensions from the DIN-rail timer

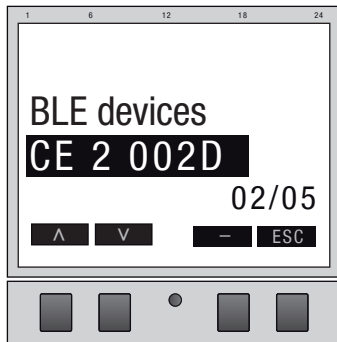


Fig. 25: Selecting the channel extension

1. On the DIN-rail timer, use the keys on the left (^/v) to select from the list the channel extension to be disconnected, and confirm with -.



The connected channel extensions are indicated by #.

2. Select another channel extension to be disconnected with the keys on the left (^/v) and confirm with -.



After a connection is established, the channel name switches from “3” and “4”, “5” and “6” or “7” and “8” to “A” and “B”.



Operating and programming the DIN-rail timer via mobile devices

Connection to mobile devices

The functions “FIX ON/OFF” and “Override mode (OVR)” for the DIN-rail timer can be controlled directly via a Bluetooth connection.

EN

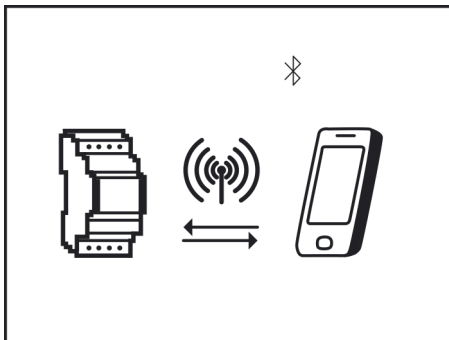


Fig. 26: Display during data transmission

The settings and programming can be defined via the mobile device and executed on the desired channel of the DIN-rail timer. The settings and programmes created on the mobile app have to be transferred to the DIN-rail timer (Fig. 26).



To program the DIN-rail timer using a mobile device, you require the corresponding mobile app. The mobile app is available for Android or for iOS devices; alternatively, scan the QR code shown here and install the app.





Preparing for the connection

1. Switch on Bluetooth on the mobile device.

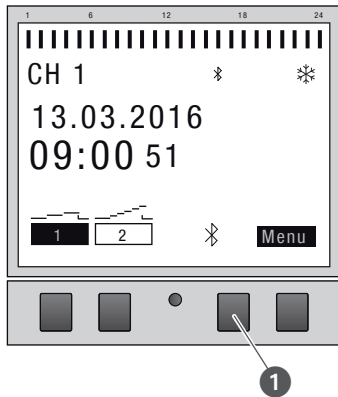


Fig. 27: Establishing a Bluetooth connection to the DIN-rail timer

1. Press the Bluetooth button (Fig. 27/①) on the DIN-rail timer.
 - ⇒ The Bluetooth symbol flashes for two minutes. A list of all available DIN-rail timers in the vicinity is displayed on the mobile device.



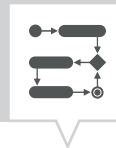
The operation must be completed within two minutes, otherwise the operation has to be repeated.

After a connection has been established once, the DIN-rail timer automatically connects to the mobile device when it is in the vicinity.

The Bluetooth connection is maintained for two minutes in the event of a power failure.

Establishing the connection

2. The DIN-rail timer has to be selected on the mobile device.
 - ⇒ If there is an active connection, the DIN-rail timer displays the Bluetooth symbol (FIX).



Programming

Information relating to programming

EN



Reduced power reserve in the back-up battery!

When operated without being connected to the mains, the power reserve in the back-up battery is reduced.



Prioritisation

Switch-off commands have priority over switch-on commands.

Programming steps

Prerequisite:

- There is no active connection to mobile devices.

1. Define the date or date ranges.

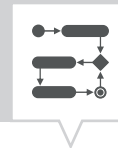
In this menu, you can specify the day or period (date from...to) in which the device is switched on or off.

2. Define the function and switching time.

In this menu, you can specify which switching command is carried out at what time. These variants are available in the following versions:

- The ON/OFF function is available in all versions.
- The pulse, cycle and random functions depend on the variant.

The functions and switching times can be defined for each channel, independently of the date, or for different date ranges (↪ Chapter „Date-dependent/date-independent programming“ on page 93).



DATE-DEPENDENT/DATE-INDEPENDENT PROGRAMMING

The DIN-rail timer can be programmed with or without a date range.

EN

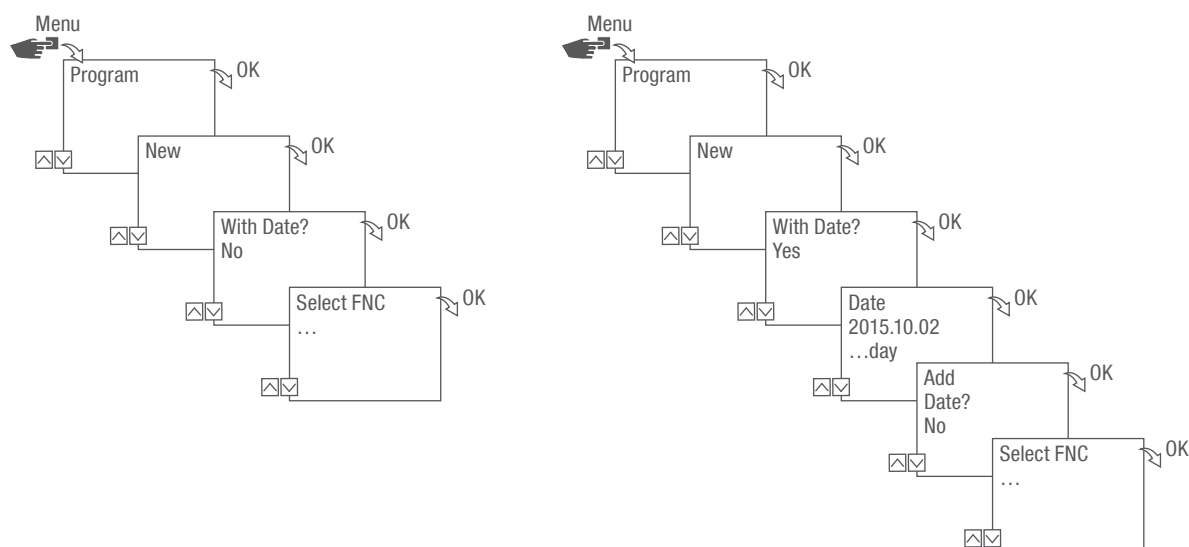
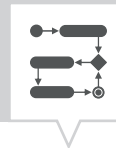


Fig. 28: Programming without or with date

Option	Entry	Result
Programme the DIN-rail timer without a date range.	With Date? Select No and confirm with OK.	The switching commands are valid independently of the date.
Programme the DIN-rail timer with a date range.	With Date? Select Yes and confirm with OK. You can define multiple date ranges. After defining the last date range, select No and confirm with OK.	The switching commands are valid for the dates or periods that are defined in the programming.



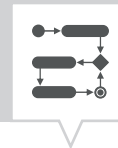
USING WILDCARDS

You can use wildcards when entering the date. This allows you to programme recurring switching times to be carried out; for example, always on the first of the month. Instead of the year or month figures, you can use the wildcards **** for the year and ** for the month.

To select the wildcard, first enter the year; further options are then suggested. Flashing buttons indicate where you are, and you can use (+/-) to enter the year or month.

Examples of entering the date with wildcards

Date entry	Action
2016.**.13 – 2016.**.13	The switching command is executed on the 13th of every month in 2016.
****.**.01 – ****.**.01	The switching command is always executed on the first day of each month.



PRIORITISING PROGRAMMES

You can use prioritisation to specify the order that the programmes on the device run in. For example, a daily switching command can be executed but a higher priority can be defined so that on certain days or periods, other switching times apply.

Example

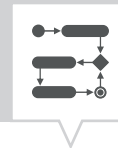
A daily programme switches the device on every day from 8:00 a.m. to 5:00 p.m. If, for example, you do not want the device to switch on at the weekend or on a holiday, create a programme with a higher priority for these days. This programme takes precedence over the other settings.

By default, the priority is specified as follows:

- Without date
 - Very low
- A period
 - Medium
- With a defined date (e.g. 01.01.2016)
 - High

The following priorities can be set:

- Very low
- Low
- Medium
- High
- Very high



Creating a new switching programme

PROGRAMMING AN ON COMMAND

EN

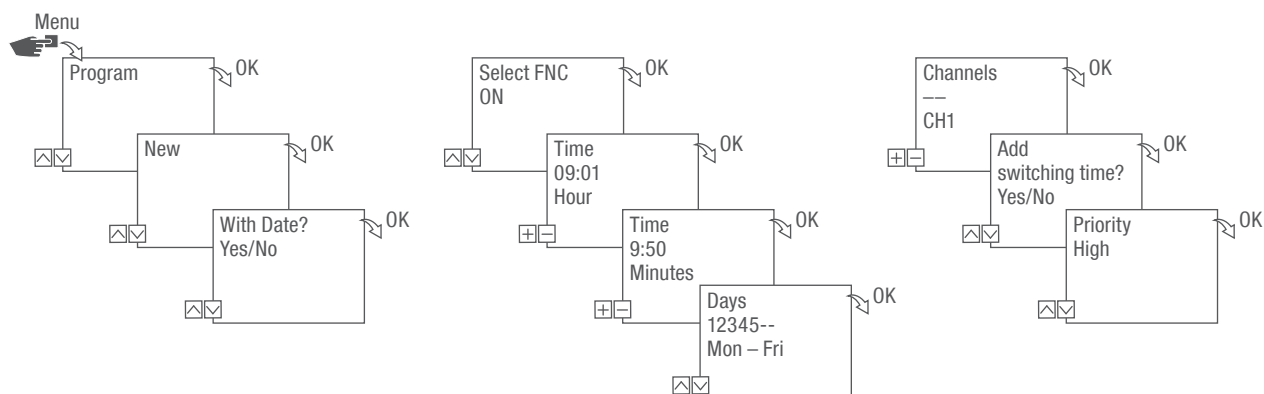
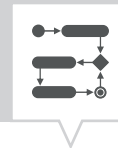


Fig. 29: Programming command ON

1. Press the **Menu** button.
2. Select **Program** and confirm with **OK**.
3. Select **New** and confirm with **OK**.
 - ⇒ The number of available programme memory slots is displayed briefly (PXXX).
The number of available switching programme memory slots is displayed briefly (dXXX).
4. In menu item **With Date?**, specify whether the switching programme is to be programmed with a date (→ Chapter „Date-dependent/date-independent programming“ on page 93).
5. Select function **ON** and confirm with **OK**.
6. Enter the hours and minutes for the switch-on time (+/-) and confirm with **OK**.



Variant-dependent: Instead of hours and minutes, you can also select sunrise (**Sunrise**) or sunset (**Sunset**). Sunrise and sunset is displayed as an additional alternative to the hours and minutes.



- If astro correction is activated, select the desired setting and confirm with **OK**.

Possible settings for astro correction

EN

Setting	Effect
hh:mm --	Correction is deactivated.
hh:mm	The switching command is only executed if sunrise takes place after the set time.
hh:mm	The switching command is only executed if sunrise takes place before the set time.
hh:mm	The switching command is only executed if sunset takes place after the set time.
hh:mm	The switching command is only executed if sunset takes place before the set time.

- Select the specification of the desired astro correction setting and confirm with **OK**.
- Set the day(s) of the week (\wedge/\vee) on which the switching time should apply, and confirm with **OK**.



The days of the week 1 – 5, 6 – 7 and 1 – 7 are set by default. Individual days of the week can be set (+/-) under menu item “Select days”.

- Select channel (+/-) for which the switching time is to be set, and confirm with **OK**.



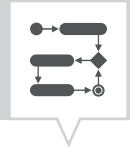
The channel selection is only displayed if there are two or more channels.

- + Active channel
- Inactive channel

- To create a new switching time, select **YES** and confirm with **OK**.
- Adopt the automatically suggested priority and confirm with **OK** or adjust the priority.



You can only select a priority in advanced mode (↪ Chapter „Prioritising programmes“ on page 95).



PROGRAMMING AN OFF COMMAND

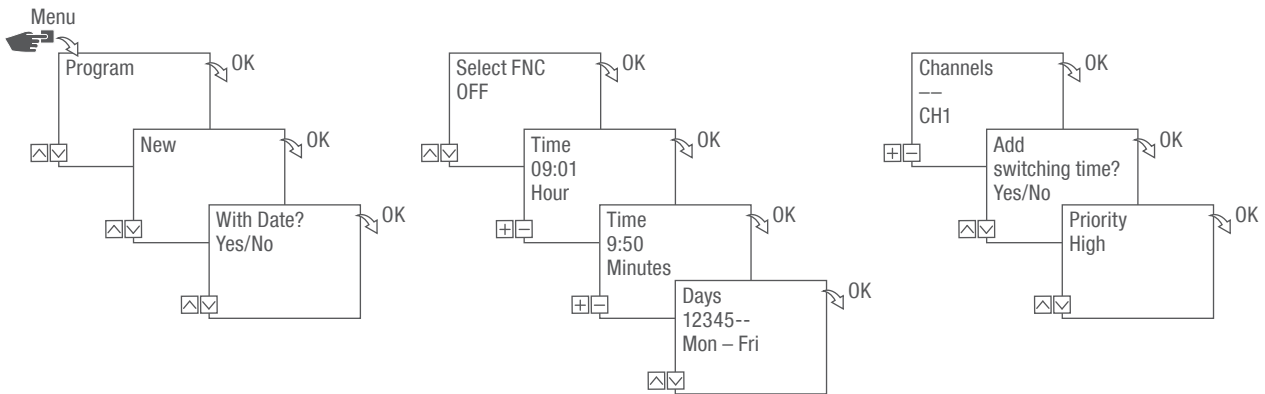
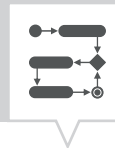


Fig. 30: Programming command OFF


1. Press the **Menu** button.
2. Select **Program** and confirm with **OK**.
3. Select **New** and confirm with **OK**.
 - ⇒ The number of available programme memory slots is displayed briefly (PXXX).
The number of available switching programme memory slots is displayed briefly (dXXX).
4. In menu item **With Date?**, specify whether the switching programme is to be programmed with a date (↪ Chapter „Date-dependent/date-independent programming“ on page 93).
5. Select the **OFF** function and confirm with **OK**.
6. Enter the hours and minutes for the switch-on time (+/-) and confirm with **OK**.




Variant-dependent: Instead of hours and minutes, you can also select sunrise (**Sunrise**) or sunset (**Sunset**). Sunrise and sunset is displayed as an additional alternative to the hours and minutes.



7. If astro correction is activated, select the desired setting and confirm with **OK**.
8. Select the specification of the desired astro correction setting (↩ Chapter „Programming an ON command“ on page 96) and confirm with **OK**.
9. Set the day(s) of the week (∧/∨) on which the switching time should apply, and confirm with **OK**.


 The days of the week 1 – 5, 6 – 7 and 1 – 7 are set by default. Individual days of the week can be set (+/-) under menu item “Select days”.

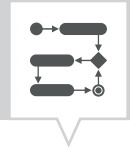
10. Select channel (+/-) for which the switching time is to be set, and confirm with **OK**.

 The channel selection is only displayed if there are two or more channels.

- + Active channel
- Inactive channel

11. To create a new switching time, select **YES** and confirm with **OK**.
12. Adopt the automatically suggested priority and confirm with **OK** or adjust the priority.

 You can only select a priority in advanced mode (↩ Chapter „Prioritising programmes“ on page 95).



PROGRAMMING PULSE SWITCHING



Pulse switching is only possible for certain variants.

EN

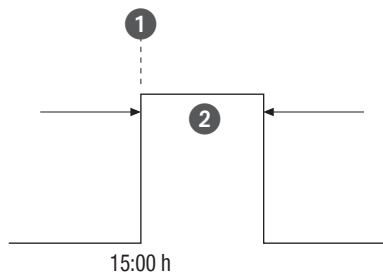


Fig. 31: Pulse switching

Components of a pulse switching command:

- (Fig. 31/①) Start time
- (Fig. 31/②) Duration = switching ON
 - Shortest ON switching duration: 1 second
 - Longest ON switching duration: 2 hours

Example

Channel 1 will be switched daily from Monday to Friday at 3:00 p.m. for a duration of 30 seconds.

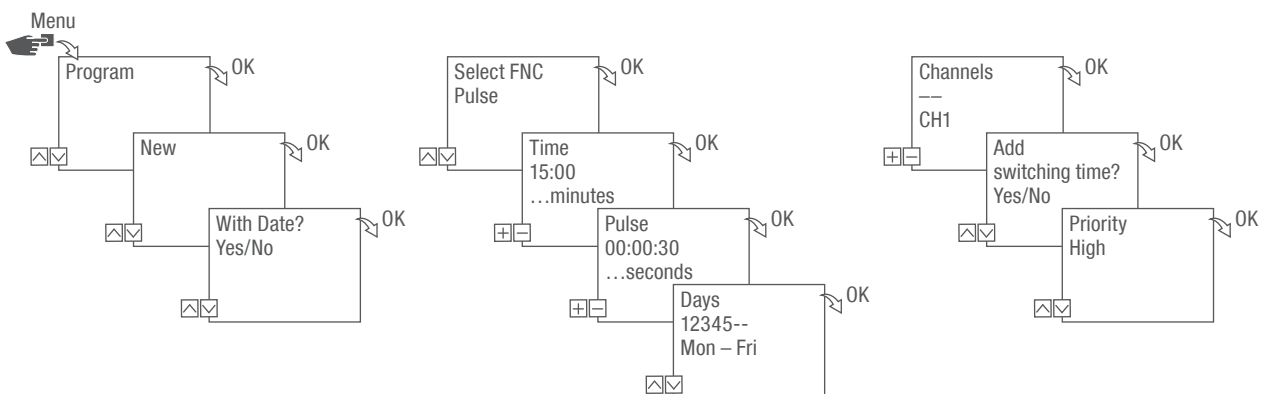
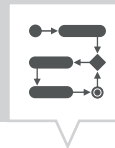


Fig. 32: Programming pulse switching



1. Press the **Menu** button.
2. Select **Program** and confirm with **OK**.
3. Select **New** and confirm with **OK**.
 - ⇒ The number of available programme memory slots is displayed briefly (PXXX).
The number of available switching programme memory slots is displayed briefly (dXXX).
4. In menu item **With Date?**, specify whether the switching programme is to be programmed with a date (↪ Chapter „Date-dependent/date-independent programming“ on page 93).
5. Select the **Pulse** function and confirm with **OK**.
6. Enter the hours and minutes for the switching time (+/-) and confirm with **OK**.
7. Enter hour(s), minute(s) and second(s) of the pulse duration (+/-) and confirm with **OK**.
8. Set the day(s) of the week (Λ/√) on which the switching time should apply, and confirm with **OK**.



The days of the week 1 – 5, 6 – 7 and 1 – 7 are set by default. Individual days of the week can be set (+/-) under menu item “Select days”.

9. Select the channel (+/-) for which the pulse is to be set, and confirm with **OK**.



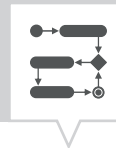
The channel selection is only displayed if there are two or more channels.

- + Active channel
- Inactive channel

10. To create a new switching time, select **YES** and confirm with **OK**.
11. Adopt the automatically suggested priority and confirm with **OK** or adjust the priority.



You can only select a priority in advanced mode (↪ Chapter „Prioritising programmes“ on page 95).



PROGRAMMING CYCLE SWITCHING



Cycle switching is only possible for certain variants.

EN

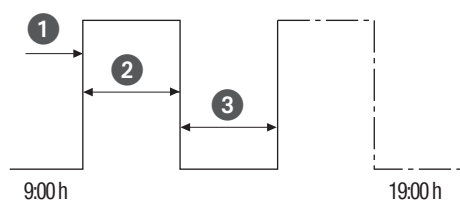


Fig. 33: Cycle switching

Components of a cycle switching command:

- (Fig. 33/①) Start time
- (Fig. 33/②) Period ON = switching ON
- (Fig. 33/③) Period OFF = switching OFF



To end the cycle, an independent “OFF” command must be set. Nesting of cycle programmes is not permitted.

Example

Channel 1 is switched on every 30 minutes for 10 minutes, Monday to Friday, from 9:00 a.m. to 7:00 p.m.

Switching	Cycle
Start time	9:00 a.m.
Period ON	10 minutes
Period OFF	20 minutes
Separate OFF command	7:00 p.m.

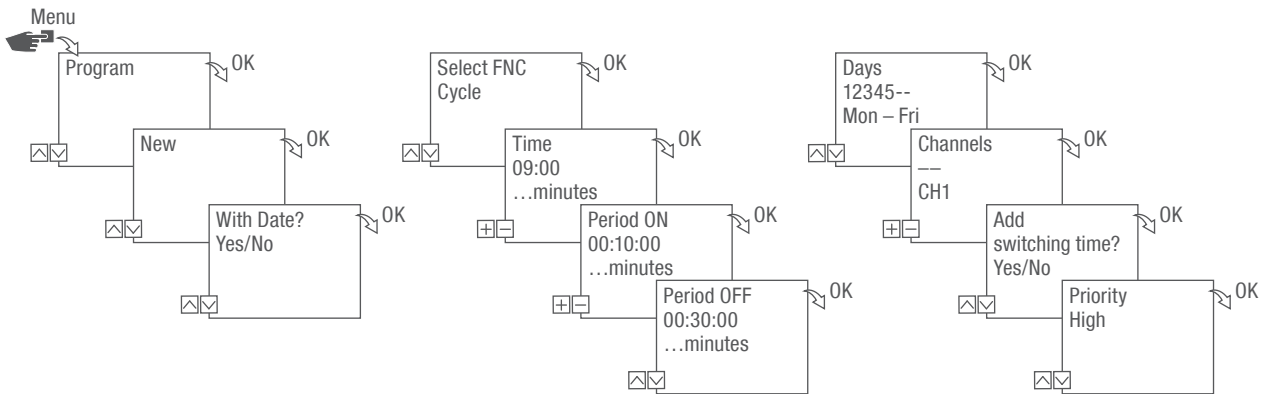
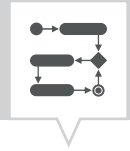


Fig. 34: Programming cycle switching

1. Press the **Menu** button.
2. Select **Program** and confirm with **OK**.
3. Select **New** and confirm with **OK**.
 - ⇒ The number of available programme memory slots is displayed briefly (PXXX).
The number of available switching programme memory slots is displayed briefly (dXXX).
4. In menu item **With Date?**, specify whether the switching programme is to be programmed with a date (↪ Chapter „Date-dependent/date-independent programming“ on page 93).
5. Select the **Cycle** function and confirm with **OK**.
6. Enter the hours and minutes for the switching time (+/-) and confirm with **OK**.
7. Enter period ON (+/-) and confirm with **OK**.
8. Enter period OFF (+/-) and confirm with **OK**.
9. Select day of the week (Λ/V) on which the cycle is to start and confirm with **OK**.



The days of the week 1 – 5, 6 – 7 and 1 – 7 are set by default. Individual days of the week can be set (+/-) under menu item “Select days”.

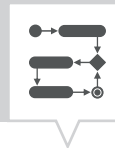
10. Select channel (+/-) for which the cycle is to be set, and confirm with **OK**.



The channel selection is only displayed if there are two or more channels.

- + Active channel
- Inactive channel

11. To create a new switching time, select **YES** and confirm with **OK**.

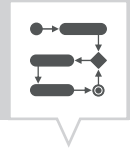


To end the cycle, you have to set an **OFF** command.

12. Execute the commands for a switch-off time for cycle switching ↪ Chapter „Programming an OFF command“ on page 98.
13. To create a new switching time, select **NO**.
14. Adopt the automatically suggested priority and confirm with **OK** or adjust the priority.



You can only select a priority in advanced mode (↪ Chapter „Prioritising programmes“ on page 95).



PROGRAMMING RANDOM SWITCHING



Random switching is only possible for certain variants.

EN

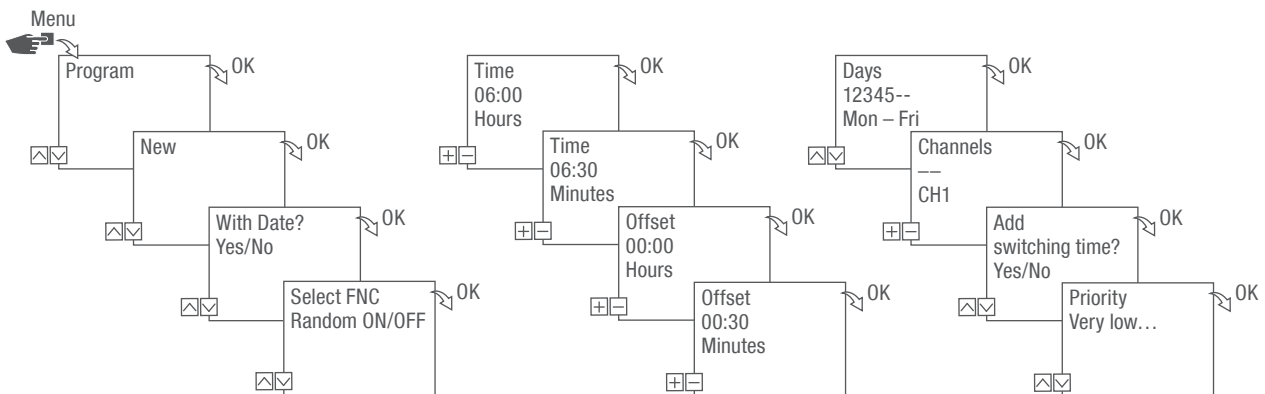


Fig. 35: Programming random switching

Random programming is only possible in advanced mode (↪ Chapter „Selecting the mode“ on page 82).

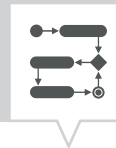
Example

Channel 1 is switched on at random at 6:30 a.m. with an offset of ± 30 minutes, Monday to Friday.

1. Press the Menu button.
2. Select **Program** and confirm with **OK**.
3. Select **New** and confirm with **OK**.
 - ⇒ The number of available programme memory slots is displayed briefly (PXXX).
The number of available switching programme memory slots is displayed briefly (dXXX).
4. In menu item **With Date?**, specify whether the switching programme is to be programmed with a date (↪ Chapter „Date-dependent/date-independent programming“ on page 93).
5. Select the **Random ON** or **Random OFF** function and confirm with **OK**.



You can define an offset of up to ± 2 hours.



6. Enter the hours and minutes for the switching time (+/-) and confirm with **OK**.
7. Enter hour and minute of the period for the random programming (+/-) and confirm each with **OK**.
8. Set day of the week (Λ/∨) on which the device should randomly switch, and confirm with **OK**.



The days of the week 1 – 5, 6 – 7 and 1 – 7 are set by default. Individual days of the week can be set (+/-) under menu item “Select days”.

9. Select channel (+/-) for which the cycle is to be set, and confirm with **OK**.



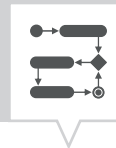
The channel selection is only displayed if there are two or more channels.

- + Active channel
- Inactive channel

10. To create a new switching time, select **YES** and confirm with **OK**.
11. Adopt the automatically suggested priority and confirm with **OK** or adjust the priority.



You can only select a priority in advanced mode (↪ Chapter „Prioritising programmes“ on page 95).



Viewing, editing or deleting elements

VIEWING, EDITING OR DELETING A PROGRAMME

EN

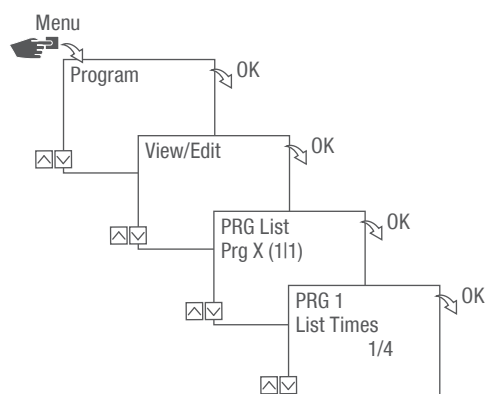
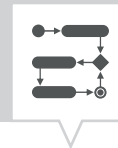


Fig. 36: Viewing, editing, deleting a programme

1. Press the Menu button.
2. Select Program and confirm with OK.
3. Select View/Edit and confirm with OK.
4. Select the programme and confirm with OK.
5. To view or edit a list (date list, switching times, priority), select the desired list.
To delete the selected programme, select Delete.



VIEWING, EDITING OR DELETING SWITCHING TIMES

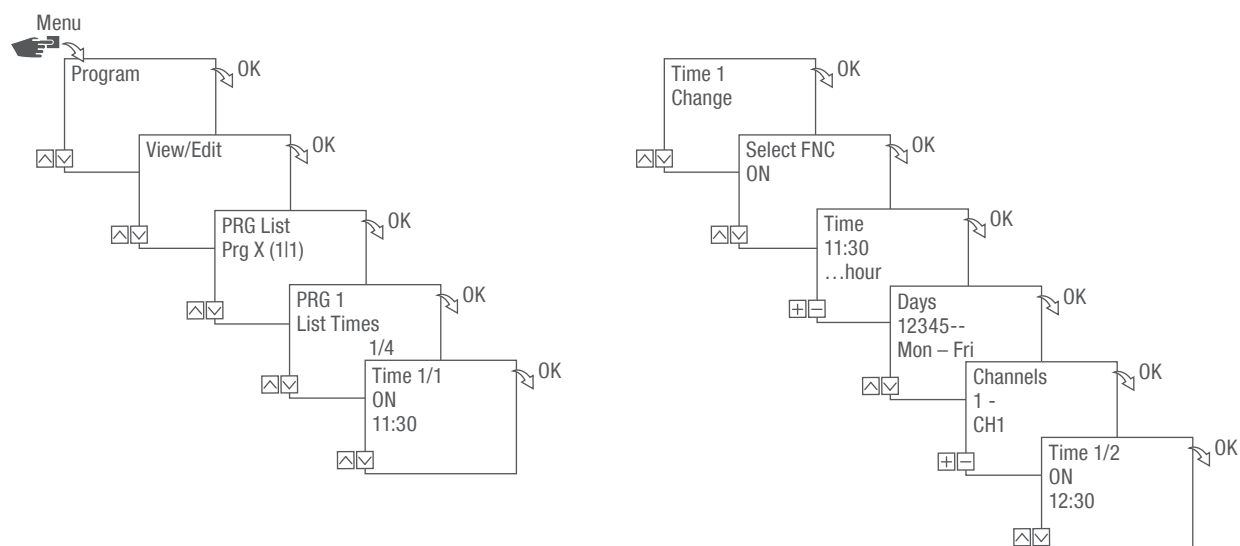


Fig. 37: Viewing, editing, deleting switching times

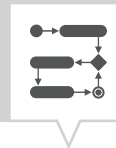
1. Press the Menu button.
2. Select Program and confirm with OK.
3. Select View/Edit and confirm with OK.
4. Select the programme and confirm with OK.
5. Select List Times and confirm with OK.



Delete: The selected switching time (e.g., ON/OFF, time, days, channels, pulse or cycle) is deleted.

Delete all: All switching times are deleted.

6. Select Amend, Advanced, Delete or Delete all and confirm with OK.



VIEWING, EDITING OR DELETING A DATE LIST

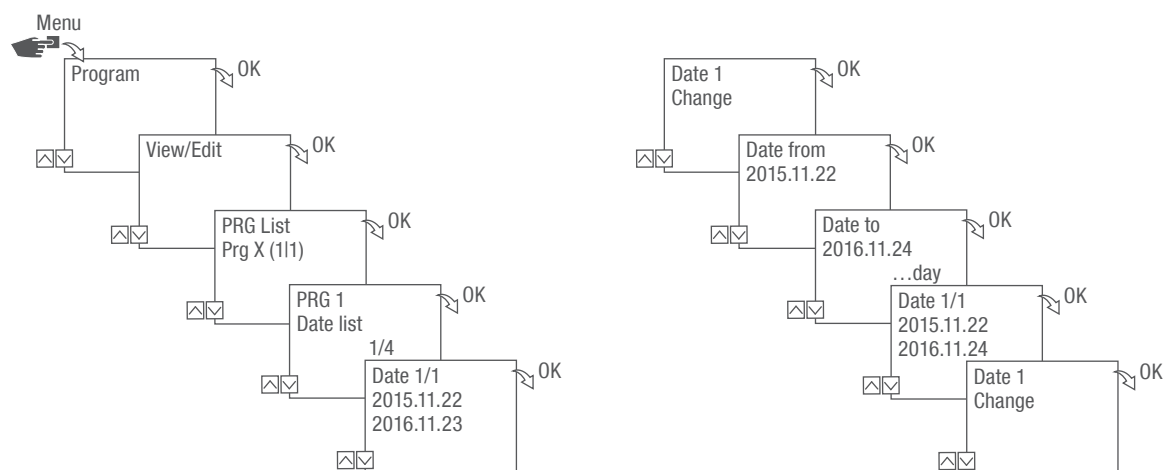


Fig. 38: Editing a date list

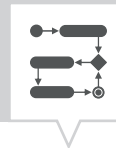
1. Press the Menu button.
2. Select Program and confirm with OK.
3. Select View/Edit and confirm with OK.
4. Select List Dates and confirm with OK.
5. Select Date and confirm with OK.



Delete: The selected date (from...to) is deleted.

Delete all: All the dates in the date list are deleted.

6. Select Advanced, Delete or Delete all and confirm with OK.



DELETING ALL PROGRAMMES

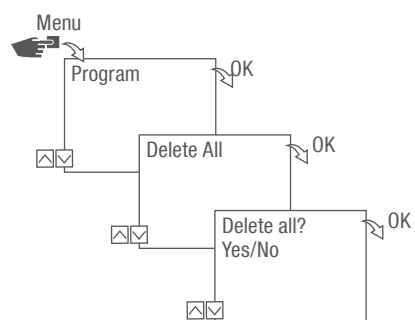


Fig. 39: Deleting all programmes

1. Press the Menu button.
2. Select Program and confirm with OK.
3. Select Delete all and confirm with OK.
4. Select Yes and confirm with OK.



Disposal

Improper disposal

EN



ENVIRONMENTAL PROTECTION!

Incorrect disposal presents an environmental danger.

Incorrect disposal could result in environmental dangers.

- Electric scrap and electronic components must be disposed of correctly, i.e. the parts for disposal must be sorted into material groups.
- Disposal must be environmentally responsible and must employ state-of-the-art environmental protection, recycling and disposal technology.

Recycling

If no agreement has been made covering return or disposal, ensure that the dismantled components are recycled:

- Scrap metals.
- Ensure plastic elements are recycled.
- Dispose of other components after sorting them according to material properties.

Registration numbers

110 – 230 V versions

Canada / USA

FCC-Zertifizierung

FCC ID: 2AHH/-DG

This device complies with Section 15 of the FCC Regulations. Operation is only permitted under the following conditions: (1) This device must not cause any disruptive interferences and (2) the device must be able to receive interferences, also such interferences which could result in undesired operations.

India

Radio Frequency Compliance Information (India) The Carrier Board LCD-BLE, 2.4GHz has been certified by the Government of India's WPC (Wireless Planning and Coordination Wing) with Equipment Type Approval Number: ETA-/4573.

Thailand

อุปกรณ์ วิทยุคมนาคมนี้เป็ นไปตามข้อกำหนดของคณะกรรมการ การกิจการวิทยุคมนาคมแห่งชาติ

Singapore

Complies with
IDA Standards
DB106380

Israel

מספר אישור אלחוטי של משרד התקשורת 64-04560
אסור להחליף את האנטנה המקורית של המכשיר לעשות וב כל שינוי טכני אחר

Low voltage versions

Canada / USA

FCC-Zertifizierung

FCC ID: 2AHH/-DG

This device complies with Section 15 of the FCC Regulations. Operation is only permitted under the following conditions: (1) This device must not cause any disruptive interferences and (2) the device must be able to receive interferences, also such interferences which could result in undesired operations.

GRÄSSLIN
by **INTERMATIC**

Grässlin GmbH
Bundesstraße 36
78112 St. Georgen
Germany
☎ +49 7724 933-0
📠 +49 7724 933-240
✉ info@graesslin.de
🌐 www.graesslin.de