



DuoFern HomeTimer 9498-UW / 9498-AL

Instruction manual for the electrical connection and for commissioning

Item no.:

3250 13 71 (ultra-white)

3250 13 81 (aluminium)



With your purchase of a **DuoFern HomeTimer**, you have chosen a quality product manufactured by RADEMACHER. Thank you for the trust you have placed in us.

The **DuoFern HomeTimer** has been designed in order to provide optimal convenience and operability as well as to ensure solidity and durability. Having applied uncompromising quality standards and thorough testing, we are proud to be able to present this innovative product to you.

It's brought to you by all the highly-qualified personnel here at RADEMACHER



These instructions...

...describe how to install and operate your **DuoFern HomeTimer**.



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Before you begin, please read these instructions through completely and follow all the safety instructions.

This manual is a component of the product. Please store it in an easily accessible place. When passing the DuoFern HomeTimer on to a third party, this manual must be passed on as well.

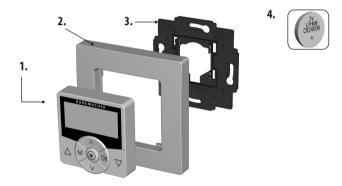
Damage resulting from non-compliance with these instructions and safety instructions will void the guarantee. We assume no liability for any consequential damage.

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i 1. Included in delivery



Legend

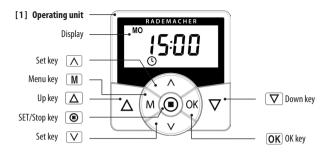
- 1. Control unit (50 x 50 mm)
- 2. Frame
- 3. Wall bracket
- **4.** 1 x battery (type CR2450)

1 x double-sided adhesive strip (not illustrated)

Operating instructions (not illustrated)

Installation, see page 16

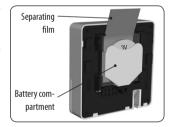
2. General view - operating unit



i 2.1 General view - back / exchanging the battery

Initial commissioning

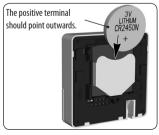
The battery is factory-fitted in the battery compartment together with a separating film. Carefully pull out the separating film. Subsequently the operational demonstrator starts up automatically, see page 20.



Battery replacement

Carefully slide the battery out of the battery compartment using a flat, non-conductive object (e.g. a plastic rod).

Pay attention to the correct polarity when inserting a new battery.



Δ

Operating keys [Up / Down]



Manual operation [Up △/ Down ▽] or [On / Off].

SET/Stop key, [■]

- Manual roller shutter stop or manual [Off].
- Key lock on/off (press for 4 seconds, only if key lock is active).

M Menu key, [M]

- Open / close the main menu.
- Go back one step (e.g. to close a menu)
- Back to standard display (press for 1 second).

$[\Lambda]$



- Select actuators (devices) (individually or group control).
- Select the desired menu item.
- Setting the parameters (increase / decrease) / pressing and holding a key for an extended period causes the digits to change more quickly.

OK [OK] key

- Toggle auto/manual mode (press for 1 second).
- Confirms and opens the selected menu.
- Confirm entry.
- Continue to next entry.

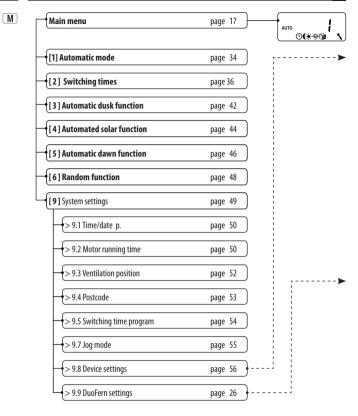
i

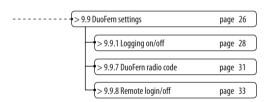




Setting display illumination, see page 57.

[MOSO]	Week days (MONSUN)			
88:88	Time / setting parameters			
*	DuoFern icon			
i	Information			
	Switching time programme			
[OFFSET]	OFFSET (for Astro time)			
[SET]	Setting			
[AUTO]	Automatic operation			
[PLZ]	Postcode			
[IST]	ACTUAL value			
	Direction of travel - up / down			
O	Automatic mode off			
(1)	Timer periods			
(Automatic dusk function			
` *	Automated solar function			
秦	Automatic dawn function			
()	Random function			
4	System settings			
[T]	Jog mode			
[NORMAL] [ASTRO]	Switching modes			





6. Key to symbols





Risk of fatal electric shock.

This sign warns of danger when working on electrical connections, components, etc. It requires that safety precautions be taken to protect the life and health of the person concerned.



This concerns your safety.

Please pay particular attention and carefully follow all instructions marked with this symbol.



NOTE / IMPORTANT / CAUTION

This is to draw your attention to information that is important for trouble-free operation.



Please read the operating instructions for external actuators described at this point, (e.g. a tubular motor).

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7. General safety information



The use of defective equipment can lead to personal injury and damage to property (malfunction).

Never use defective or damaged equipment. Please contact our Customer Service department in the event of faults, see page 68.



Incorrect use leads to an increased risk of injury.

- Children may not be permitted to play with the DuoFern HomeTimer.
- Train all personnel to use the DuoFern HomeTimer safely.
- Avoid allowing persons with limited abilities to operate the equipment and prevent children from playing with fixed controllers.

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Only use the **DuoFern HomeTimer** for controlling DuoFern actuators (e.g. DuoFern tubular motor actuators / universal actuators, etc.) for:

- Roller shutters
- Venetian blinds and slats
- Awnings
 - or
- lamps and other electrical appliances

Operating conditions:

- The associated tubular motor must be fitted with a mechanical or electronic end position switch.
- Only use the DuoFern HomeTimer in dry rooms.
- ◆ The DuoFern HomeTimer is battery-operated. It is not possible to connect it to the mains.
- The installation and operation of the DuoFern HomeTimer is only permitted for those systems and devices where a malfunction in the transmitter or receiver would not cause a danger to personnel or property or where this risk is already covered by other safety equipment.

IMPORTANT

Radio systems which transmit on the same frequency can cause interference.

i 9. Improper use

Using the DuoFern HomeTimer for purposes other than previously mentioned is impermissible and is regarded as improper use.

- Never use the DuoFern radio system and its components (e.g. DuoFern HomeTimer) for remote control of devices and systems with heightened safety-relevant requirements or where there is a heightened risk of accidents. This shall require additional safety equipment. Observe the respective statutory regulations for the installation of such systems.
- Do not install the DuoFern HomeTimer outside.

The battery-operated **DuoFern HomeTimer** serves for controlling and configuring up to 20 DuoFern actuators. The **DuoFern HomeTimer** offers the option of manually controlling and setting **a pair of switching times** for all registered DuoFern actuators.

The DuoFern receivers (actuators) and transmitters must be connected to the DuoFern network.

NOTE

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You can find a detailed description of the various functions, configuration options and possible combinations for the DuoFern system at:

http://www.rademacher.de/duofern.

The following DuoFern devices cannot be registered, configured or controlled with the DuoFern HomeTimer:

- DuoFern sensors
- DuoFern transmitters

Mounting with existing switches

The DuoFern HomeTimer can be integrated into many commercially available switch ranges. Suitable switch ranges are detailed in the following section.

Manufacturer	Switch range
BERKER	Arsys / K1 / S1
BUSCH-JAEGER	Busch-Duro 2000 Si / Reflex Si / alpha exclusive / alpha nea / solo / impuls
GIRA	Standard-System / S-Color-System / stainless steel range / Standard 55
JUNG	CD 500 / ST 550 / LS 990 / CDplus as per CD but with coloured rings
MERTEN	M1 / Atelier / Artec / Trancent / Antik Neu
PEHA	Standard / Dialog / Aura
LEGRAND	Creo / Tenara
VEDDER	Alessa (plus)

NOTE

 It may be necessary to use an adapter frame 50 x 50 * (DIN 49075), depending on the respective switch range used.

^{*} not included

- Display background illumination
- Installation wizard for easy commissioning.
- Manual operation on site
- ◆ Group or single control possible
- ◆ Switching automatic mode on/off
- ◆ Easy configuration with menu-driven operation
- Timer periods

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- Configurable opening [\(\big) \) and closing times [\(\big) \)
- Switching time programme:
 - [1] Weekly switching times
 - One switching time pair [▲/▼] for [MO...SO] (MON...SUN)
 - [2] Weekday and weekend switching times
 - One switching time pair [▲ / ▼] for [MO...FR] (MON...FRI)
 - One switching time pair [▲/▼] for [SA + SO] (SAT...SUN)
 - [3] Individual day switching times
 - One switching time pair [▲/▼] for every day of the week
 IMO/DI/MI/DO/FR/SA/SO1(MON/TUE/WED/THU/FRI/SAT/SUN)
- Automatic dusk function with "Astro" programme
- Switch the automated solar function on/off
 - Setting the sunshine position for the selected actuator
- Automatic dawn function with the "Astro" programme
- Random function (random delay of 0 to 30 minutes)
- Setting the motor running time
- Ventilation position
- End point setting
- ◆ Key lock
- Jog mode for Venetian blinds
- Switching reversal of rotation direction on/off
- Automatic summer / winter changeover
- Permanent storage of the settings

Description and configuration of the individual functions.

A precise description of the individual functions and settings is included starting on page 17.

DuoFern settings

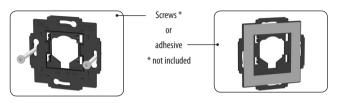
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The settings required for operating the equipment in a DuoFern network are specified starting on page 26.

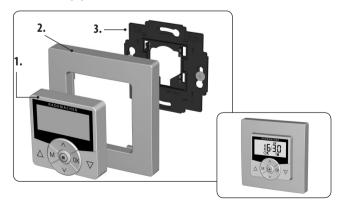
The DuoFern HomeTimer is intended for surface-mounting. The supplied wall bracket [3] can be screwed in place or bonded to the wall.

Installation procedure:

1. Mount the wall bracket in the desired mounting position.



- Carefully remove the separating film from the battery compartment, see page 5.
 Please ensure that none of the buttons are pressed during the mounting process.
- Finally, apply slight pressure to insert the operating unit [1] and covering frame [2] into the wall bracket [3].



12. Important information prior to initial commissioning

IMPORTANT

- Prior to initial commissioning of the DuoFern HomeTimer, it must be ensured that the
 end points are configured for all connected tubular motors and belt winders if they are
 being used for controlling roller shutters / Venetian blinds.
- If the end points have not yet been configured, it is vital that both end points are configured for all tubular motors and belt winders, as failure to do so can lead to malfunctions.



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- In order to do so, follow the information provided in the operating manual for the respective tubular motor or belt winder.
- For electronic RADEMACHER tubular motors from year of manufacture 2000 onwards, the end points can be configured with the help of the DuoFern HomeTimer, see page 60.

13. Brief description of the standard display and main menu

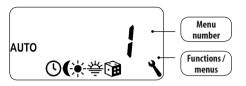
The standard display (example)



- Displays the current day of the week and time.
- Displays the activated functions.
- Manual operation of the DuoFern HomeTimer is only possible from the standard display.

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The main menu



- Enables display and selection of the individual functions and menus.
- ◆ Manual operation is **not** possible from the main menu.
- No automatic control commands will be executed during the configuration process.
- If no key is pressed within 120 seconds, the display automatically changes from the active menu back to the standard display. Changes to settings are nevertheless saved.

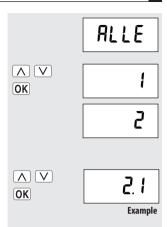
Calling up the **main menu**. 1. М By pressing the [M] key in the standard AUTO ()**(**★普倫 display. Select the desired **menu** or menu number. 2. Λ The selected menu is indicated by a flash-AUTO $\overline{\mathsf{V}}$ ()(** ing icon. 3. Open the menu by pressing the [OK] OK Ω FF button. Select the desired setting and confirm with 4. Ωn [OK]. OK Subsequently the main menu will be 5. displayed again. AUTO (************** M NOTE Pressing the [M] key from any of the menus approx. will return you to the standard display. 1 sec.

The DuoFern HomeTimer offers the option of simultaneously controlling [ALLE] (ALL) registered DuoFern actuators.

Alternatively, it is also possible to select individual actuators to be controlled

Adjustment and control of multichannel DuoFern actuators.

Multi-channel actuators enable you to select and control each channel independently from the others.





i

Please read the respective operating manual for the registered DuoFern actuator to find out which control signals and functions are supported.

i 14. Initial commissioning with the help of the installation wizard

An installation wizard is available in order to help you configure the DuoFern HomeTimer quickly and easily. The wizard automatically guides you through the configuration process for **initial commissioning** or after a **software reset** (see page 62).

Quitting the installation wizard

Pressing the [M] key for one second causes the installation wizard to be cancelled prematurely.

Readiness for operation

The DuoFern HomeTimer is ready for use as soon as the installation wizard has finished. In addition, you can individually customise your settings and make changes at any time from the main menu and the system settings menu.

Configuration sequence for the installation wizard:

Time [12:00] >

i

- Date [Day.Month] >
- Year [2013] >
- Postcode [46] >
- Assign actuator [01 nn]
- Select switching time mode for opening time / [NORMAL / ASTRO / OFF] >
- Opening time [] >
- Select switching time mode for closing time / [NORMAL / ASTRO / OFF]
- Closing time [▼]
- DONE >

1.	Set and confirm the time.	V	15:00
	NOTE	OK	(c.nn /
	Pressing a setting key for an extended period causes the numbers to progress more quickly.		
2.	Set and confirm the date .	OK OK	① I Day.Month])
			[Day.Month]
3.	Set and confirm the year .	OK V	<u>\$</u> 0 13 ′
4.	Set and confirm the first two digits of your German postcode [PLZ] or the desired international time zone.	OK V	₁₂ 46
			Time zone table,
			see page 65

i 14. Initial commissioning with the help of the installation wizard EN



- 5. Registering mode starts automatically.
 - The number of assigned DuoFern actuators is displayed.
 - Registering mode remains active for maximum 120 seconds.
 - It can be activated again by pressing the set key [\(\Lambda\)].



The rotating bar indicates that registering mode is still active

Switch all DuoFern actuators that you wish to control with the DuoFern HomeTimer one after the other to registering mode.





To do this read the operating instructions for the actuator in auestion.

Confirm the registering process as soon as all 7. desired DuoFern actuators are successfully assigned.





Configure the switching time mode for the 8.



- ASTRO
- OFF





NORMAI

At the configured time, an [Up]-signal will be sent to the assigned DuoFern actuators.

Example:

The roller shutters open at the configured opening time.

ASTRO

The control command is sent at the daily recalculated dawn time.

The previously configured opening time is interpreted as earliest at xx:xx hours.

OFF

No automatic control function is executed for [Up].

Example:

The roller shutters open at the daily re-calculated dawn time.

Switch time mode, see page 36.

i 14. Initial commissioning with the help of the installation wizard EN

- The configured switching time mode will be 8.1. sent to all registered DuoFern actuators.
 - By way of confirmation, for example, the motors briefly start up and the display counts all registered actuators.
 - In the event of a fault (for example, if an actuator cannot be reached), then the following message is shown:



Set and confirm the **opening time** [A]. 9.

Pre-setting:

This closing time mode applies to the entire week (MON...SUN) [MO...SO].

OK



- If [ASTRO] is selected, then the calculated a) opening time for the current day is displayed.
- Configure the switching time mode for the h) closing time [▼].



OK



10. Configure the switching time mode for the closing time [♥].

- NORMAL
- **ASTRO**
- OFF

NORMAL

At the configured time, an [Down]-signal will be sent to the assigned DuoFern actuators.





Example:

The roller shutters close at the configured closing time.

ASTRO

i

The control command is sent at the daily re-calculated dusk time

The previously configured closing time is interpreted as latest at xx:xx hours.

OFF

No automatic control function is executed for [Down].

Example:

The roller shutters close at the daily calculated dusk time

Switch time mode, see page 36.

- 10.1. The configured switching time mode will be sent to all registered DuoFern actuators. Confirmation, see point 8.1
 - Set and confirm the **closing time** [V]. 11.

Pre-setting:

This closing time mode applies to the entire week (MON...SUN) [MO...SO].

- If [ASTRO] is selected, then the calculated a) closing time for the current day is displayed.
- Confirm the setting. b)



OK





12. The **standard display** is shown as soon as the final setting is confirmed. The DuoFern HomeTimer is now ready for operation.



Example

NOTE

You have the option of deactivating individual switching times as required. In order to do so, the value [OFF] can be selected after the value [23:59].

Manual operation is possible from the standard display at any time and has priority over the programmed automatic functions.

Group or single control

You can control [ALLE] (ALL) registered DuoFern actuators simultaneously or select individual actuators to be controlled, see page 20.

NOTE

i

If nothing is selected, then the previously selected actuator will always be controlled.



Example for manual control of a roller shutter

1. \(\sum / \(\nabla > \) OK Select and confirm the desired DuoFern actuator or [ALLE] (ALL).

2

- Open the roller shutters.

 Briefly pressing the button causes the roller shutters to move to the upper end point.
 - Causes the roller shutters to stop in the interim.
 - The roller shutters move to the configured **ventilation position** or to the lower end point.

Close the roller shutters.

Ventilation position, see page 52

If the ventilation position is configured, the roller shutters will first roll down to this position. Pressing the [**Down**] key once more causes the roller shutters to continue downwards.

As soon as jog mode is activated, it is possible to manually operate the DuoFern HomeTimer in jog mode. Jog mode provides a convenient way to configure Venetian blinds.

NOTE

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Pressing the respective operating key [up/down] for an extended period causes the DuoFern HomeTimer to automatically move the Venetian blinds to the corresponding end position.

Example for manual control of Venetian blinds in jog mode.

1.	$[V] \setminus [OK]$	or [ALLE] (ALL).
2.	A Press briefly	The Venetian blinds move upwards briefly.
	or	
2.1.	△ Press	The Venetian blinds open.
		The Venetian blinds move up to the upper end point.
3.	0	The Venetian blinds to stop in the interim.
4.	Press briefly	The Venetian blinds move downwards briefly.
	or	
4.1.	Press	The Venetian blinds close.
		The Venetian blinds move to the configured ventilation position or to the lower end point.

Ventilation position, see page 52

If the ventilation position is configured, the roller shutters will first roll down to this position. Pressing the [Down] key once more causes the roller shutters to continue downwards.



16. DuoFern settings

In order for your DuoFern HomeTimer to send and receive control signals to/from the DuoFern network, it is necessary to assign **each DuoFern actuator** (e.g. DuoFern tubular motor, etc.) onto the DuoFern HomeTimer



To do so, please read the operating instructions for the respective DuoFern actuator.

Maximum number of connected devices

You can assign a maximum of **20 DuoFern actuators** to a single DuoFern HomeTimer.

NOTE

- The DuoFern HomeTimer cannot be connected to another DuoFern HomeTimer.
- The DuoFern HomeTimer is identified within the DuoFern network as a battery-operated sensor. For this reason, no other DuoFern sensors can be assigned to the DuoFern Home-Timer.
- Additional information about logging on can be obtained from the login matrix on our website under: www.rademacher.de

The following section serves to describe all required **DuoFern settings** for the DuoFern HomeTimer.

Menu 9.9 - DuoFern Settings

The DuoFern settings are undertaken in **Menu 9.9**. You can find an overview of all menus and sub-menus for the DuoFern HomeTimer on pages 8 and 9.



Menu 9 - System settings				
lcon	Menu Page			
E	9.9 DuoFern settings27			
E	9.9.1 Logging on and off 28			
_	9.9.7 DuoFern radio code 31			
E	9.9.8 Remote log-on/off 33			





Select and open menu 9.9.1 Log-on/off. 1. V 991 OK 2. The number of assigned DuoFern actuators is displayed. e.g. one actuator. Assign a DuoFern actuator. 3. Switch the desired DuoFern actuator to a) registering mode. Start the login procedure on the DuoFern b) Ūπ HomeTimer. The display flashes [On]. c) The **new number** of registered devices is d) displayed after successful login. e.g. two actuators Subsequently registering mode is automatie) Ûη cally re-activated. Login the next DuoFern actuator. f) Repeat 3. a) or Back to menu selection. M q) 99 (



4. Log-off a registered DuoFern actuator.

- a) Switch the respective DuoFern actuator to log-off mode.
- b) Start the log-off procedure on the DuoFern



- **d)** The **new number** of registered devices is displayed after successful logout.
- Subsequently registering mode is automatically re-activated.
- f) Log-out the next DuoFern actuator.

or

g) Back to menu selection.









e.g. one actuator.



Repeat 3. a)



М



Delete all of the registered DuoFern actuators.

 a) If you want to delete all connections to all assigned DuoFern actuators, press and hold the set key [v] in menu 9.9.1 for four seconds.

 Subsequently all of the connections will be deleted.











Clearing the DuoFern network.

This function enables you to log off all DuoFern actuators from the DuoFern HomeTimer that are no longer accessible via radio.

NOTE

In order to prevent unintentional log-out, ensure that all DuoFern actuators are in range and operational before executing the clearing function.

1.	Select and open menu 9.9.1 Log-on/off .	OK V	99 (
a)	The number of assigned DuoFern actuators is displayed.		05
2.	Activate the clear function.	Λ	
	In order to do so, press and hold the key for approx. four seconds.	4 sec.	
a)	The current number of registered DuoFern actuators flashes in the display.		□ □ □ S _{SOLL}
b)	All currently registered DuoFern actuators will be displayed after successful clearance.		Example
3.	Back to menu selection.	M	991



16.2 DuoFern radio code

The radio code enables DuoFern actuators to be set to registering mode. This is especially useful for commissioning flush-mounted devices, as it is not necessary to dismantle them.

- The DuoFern actuator radio code is only active for a maximum period of 2 hours after connecting to the power for security reasons.
- The radio code is located on the bottom of the respective DuoFern actuator and on a label attached to the packaging.
- For DuoFern radio tubular motors you will find the radio code on the motor and on a label fitted to the connecting cable.



Please read the operating instructions for the relevant DuoFern actuator in order to activate the registering procedure.

Registering a DuoFern actuator per radio code to the DuoFern HomeTimer

1. Select and open menu 9.9.7 - Radio code.

OK

9.9.7

Successively enter the six digit radio code (e.g. 70460A) and confirm.

Only the flashing digit can be entered in each case.

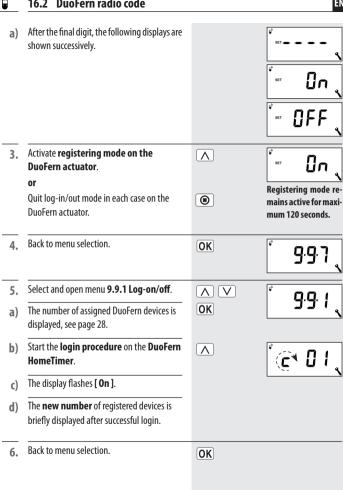
ok

ser 704

ser 7046

ser 70460

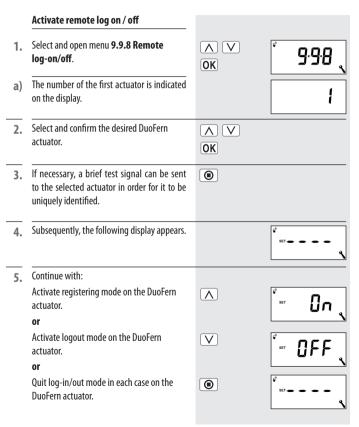
ser 70460





This function also enables DuoFern devices to be set to log-in/off mode, e.g. in order to register a DuoFern actuator to additional DuoFern transmitters.

 This function can only be used if the desired DuoFern actuator has previously been registered to the DuoFern HomeTimer.



M

M

Main menu				
lcon	Me	nu Page		
AUTO	1	Automatic mode 34		
(1)	2	Switching times		
(3	Automatic dusk control 42		
- -	Ч	Automated solar function 44		
秦	5	Automatic dawn control 46		
	5	Random function 48		
4	9	System settings 49		

i 17.1 [AUTO] Automatic mode

Automatic mode on

All of the activated automatic functions will be executed if the automatic mode is switched on. The corresponding icon is then shown in the standard display.

NOTE

◆ Manual operation is also possible in automatic mode.

Automatic mode off



Icon in standard display

- All automatic functions are deactivated; only manual operation is possible.
- All automatic icons are switched off in the standard display.

OK Toggling directly to the standard display

 To do so, press and hold [OK] for approx. one second.

Toggling is carried out for all registered actuators.

OK approx. 2 sec. M° 15:00

Automatic mode on

[™] 15:00

Automatic mode off

	Switch on/off in menu 1		
1.	Call up the main menu.	M	
2.	Select and open menu 1 [AUTO]	OK OK	AUTO ①(**学()a) 、
3.	Select and confirm the desired actuator or [ALLE] (ALL).	OK V	ALLE
4.	Select and confirm the desired setting.	OK V	аито 🗓 п
0n	= Automatic mode on	The respective icon flas	hes if configuration is
0FF	= Automatic mode off	successful.	
5.	Subsequently the main menu will be		
	displayed again.		AUTO (V. ***********************************



You can configure various **opening** [**\(\) \)** and **closing times** [**\(\) \)** for the DuoFern HomeTimer in order to open or close your roller shutters at your preferred times.

For this purpose, there are three switching time programmes available in menu 9.5 [$\boxed{0}_{1}$] see page 54:

[1] Weekly switching times (factory setting)

◆ One switching time pair [▲/▼] for [MO...SO] (MON...SUN)

[2] Working day and weekend switching times

- ◆ One switching time pair [▲ / ▼] for [MO...FR] (MON...FRI)
- ◆ One switching time pair [▲/▼] for [SA + SO] (SAT...SUN)

[3] Individual day switching times

◆ One switching time pair [▲/▼] for every day of the week [MO/DI/MI/DO/FR/SA/SO](MON/TUE/WED/THU/FRI/SAT/SUN)

Selecting a switching time mode.

Various **switching time modes** can be selected when configuring the opening and closing times.

The following switching time modes are possible:

- NORMAL
- ASTRO
- **♦** OFF



ASTRO

Calculation of the respective switching time by means of an "Astro" programme.

The opening and closing times are calculated in relation to the date and postcode. Subsequently they are linked to the previously configured switching times.

■ Link to the opening time [\(\bar{\Lambda} \)]

The roller shutters open at the daily calculated dawn time. The configured **opening time** is interpreted as "earliest at xx:xx hours".

Example a:

- Dawn begins at 5:00 a.m.
- The opening time has been set to 7:00 a.m.
- Your roller shutters will open at 7:00 a.m.

Example b:

- Dawn begins at 08:00 a.m.
- The opening time has been set to 7:00 a.m.
- Your roller shutters will open at 08:00 a.m.

■ Link to the closing time [▼]

The roller shutters close at the daily calculated dusk time. The configured **closing time** is interpreted as "**latest at xx:xx hours**".

Example a:

- Dusk begins at 17:00 hours.
- The closing time has been set to 20:00 hours.
- Your roller shutters will close at 17:00 hours.

Example b:

- Dusk begins at 22:00 hours.
- The closing time has been set to 20:00 hours.
- Your roller shutters will close at 20:00 hours.

NOTE

You have the option of deactivating individual switching times as required. In order to do so, the value **[OFF]** can be selected after the value **[23:59]**.

Subsequently the switching time will not be executed (even in ASTRO mode).

1.

2.

17.4 Menu 2 - Configuration of opening and closing times [▲/▼] EN

The following example shows how to configure an opening and closing time for Monday to Sunday. If you want to configure the opening and On. 95 closing times for another switching time OK programme, first open menu 9.5 and select the desired switching time programme, see page 54. Call up the main menu. M Select and open menu 2[4]1 switching times AUTO OK

- 3. Select [Alle] (All) DuoFern actuators.
- OK V
- ALLE

- 4. Configure the switching time mode for the opening time [▲]:
- OK V
- MO DI MI DO FR SA SO

- **♦ NORMAL**
- ASTRO
- ◆ OFF

NORMAL

At the configured time, an [**Up**]-signal will be sent to the assigned DuoFern actuators.

ASTRO

The control command is sent at the daily re-calculated dawn time. The previously configured opening time is interpreted as "earliest at xxxx hours"

Example:

The roller shutters open at the configured opening time.

Example:

The roller shutters open at the daily recalculated dawn time.



OFF

No automatic control function is executed for [Up].

4.1. If the switching time mode was changed, a control signal will be sent automatically to all DuoFern actuators logged in.

E 02.

Weekly switching times

Weekday / weekend switching times MO DI MI DO FR

Individual day switching times

Set and confirm the **opening time** [1.

The header of the display indicates which switching time programme is currently active (see example to the right).

Factory setting = weekly switching time [MO - SO1 (MON - SUN)

- If [ASTRO] is selected, then the calculated a) opening time for the current day is displayed.
- Continue at point 6. h)

OK

- Configure the switching time mode for 6. the closing time [♥]:
 - NORMAL
 - **ASTRO**
 - **OFF**



 Λ

OK



NORMAI

At the configured time, a [Down]-signal will be sent to the registered DuoFern actuators.

Example:

The roller shutters close at the configured closing time.

ASTRO

The control command is sent at the daily re-calculated dusk time. The previously configured closing time is interpreted as "latest at xx:xx hours".

Example:

The roller shutters close at the daily recalculated dusk time.

OFF

No automatic control function is executed for [Down].

6.1. If the switching time mode was changed, a control signal will be sent automatically to all DuoFern actuators logged in.



Set and confirm a **closing time** [▼]. 7.

> The header of the display indicates which switching time programme is currently active (see point 5.).

Factory setting = weekly switching time [MO - SO 1 (MON - SUN)





If [ASTRO] is selected, then the calculated a) closing time for the current day is displayed.



Return to main menu. h)

OK

8. Return to standard display after making the final setting.

M



17.4 Menu 2 - Configuration of opening and closing times [▲/▼] EN

INFORMATION ABOUT THE [ASTRO] SWITCHING TIME MODE

- If [ASTRO] is selected as the switching time mode, the calculated darkness time can be individually customised by means of an offset between -60 and +60 minutes.
 - Dusk can be configured in **menu 3**, see page 42.
 - Dawn can be configured in **menu 5**, see page 46.

(D)

17.5 Switch the automatic timer on/off for individual **DuoFern actuators**

1.	Call up the main menu.	M	
2.	Select and open menu 2[②] switching times.	OK V	AUTO O(**** € \$\frac{1}{2} \frac{1}{2}
3.	Select a DuoFern actuator.	OK V	[2
a)	Switch the automatic timer on or off for the selected DuoFern actuator.	V	_⊙ On
0n	=automatic timer on		
0FF	= automatic timer off		
b)	Return to main menu.	OK	AUTO OTW

(

The automatic dusk function causes the roller shutters to close automatically to the lower end point or configured ventilation position. The twilight time is recalculated every day based on the geographical location and the current date (defined by the configured postcode).

M	
OK V	OTUA B *
OK V	ALLE
OK V	© 0 n
	A V OK OK OK

17.7 Menu 3 - Customising the automatic dusk function [()

17.7 Menu 3 - Customising the automatic dusk function [(]

 The offset function can be used to modify the calculated Astro time by +/- 60 minutes.

Configuration is only possible if the following functions have been previously configured:

Point 3. = ALLE (ALL) Switching time mode [\P] = ASTRO

a) Set the offset.



Example:

With a negative offset e.g. "- 20", the calculated Astro time is triggered 20 minutes earlier.

b) Return to main menu.







-**.**

The automated solar function enables brightness-dependent control of your roller shutters. An external light sensor is required for this function (e.g. a DuoFern sun sensor).

17.9 Menu 4 - Switching the automated solar function on/off [☀]

Call up the main menu. 1. M Select and open menu 4 [★] Automated NV 2. solar function AUTO OK Select and confirm the desired DuoFern 3. Λ ALLE actuator or [ALLE] (ALL). OK Activate / deactivate and confirm automated Λ 4. On solar functions. OK = automated solar functions on 0n OFF = automated solar functions off Subsequently the main menu will be a) displayed. AUTO ()(******\$6



Notes on sunshine position

 The running time must be configured prior to setting the sunshine position (see page 50).

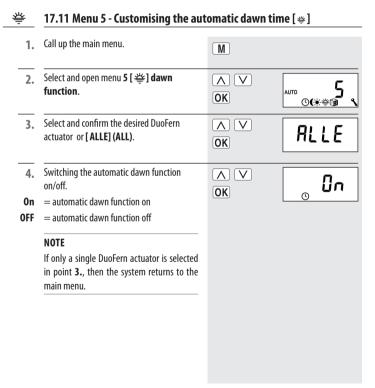
The sunshine position can only be configured individually for each DuoFern actuator.

- The locally mounted light sensor may not be covered by the roller shutters when they
 are moving downwards.
- Set the sunshine position in a way that the roller shutters remain above the light sensor.
 Otherwise the light sensor cannot correctly measure the brightness level.

1.	Call up the main menu.	M	
2.	Select and open menu 4 [※] Automated solar function.	OK V	AUTO U N
3.	Select a DuoFern actuator.	OK V	[2
a)	Switch the automated solar functions on and confirm for the selected DuoFern actuator.	OK V	_On
On OFF	= automated solar functions on= automated solar functions off	<u>UK</u>	*
4.	Subsequently the local sunshine position can be configured.		SET SEE
a)	Move the roller shutters to the desired position.		
b)	Store the position of the sun on the DuoFern actuator and return to the main menu.	OK	AUTO ①(**学馆 \



The automatic dawn function causes the roller shutters to open automatically to the upper end point. The calculated dawn time can be customised by linking the opening times with the [ASTRO] switch time mode.





17.11 Menu 5 - Customising the automatic dawn time [*]

 The offset function can be used to modify the calculated Astro time by +/-60 minutes.

Configuration is only possible if the following functions have been previously configured:

Point 3. = ALLE (ALL) Switching time mode [▲] = ASTRO

a) Set the offset.



Example:

With a negative offset e.g. "- **20**", the calculated Astro time is triggered 20 minutes earlier.

b) Return to main menu.







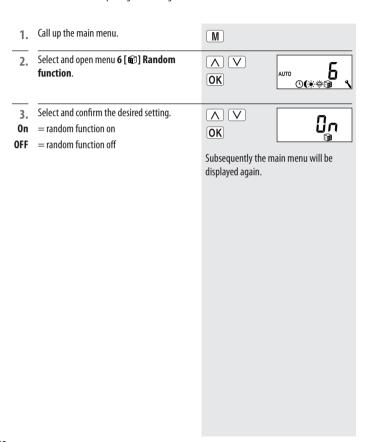
17.12 Menu 6 - Configuring the random function [@]



The random function enables a random delay of the set timer periods ranging between 0 and 30 minutes.

The random function is executed for:

all automatic opening and closing times.

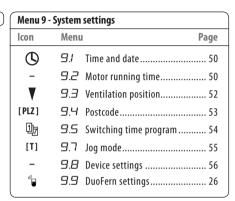


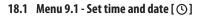


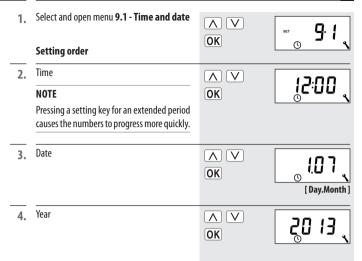
This menu enables you to configure additional devices and system settings to customise your DuoFern HomeTimer to your individual preferences.

The DuoFern settings are introduced and described from page 26 onwards. The DuoFern settings are shown in menu order in menu 9.9 as shown below.











18.2 Menu 9.2 - Configure motor running time

The run time setting must be configured if:

- you intend to use the ventilation position function, see page 52.
- you intend to use the position of the sun, see page 44.

The running time can be detected directly by the DuoFern HomeTimer or you may, for example, measure and configure it with the help of a stopwatch.



NOTE

- Tubular motor running times can vary depending on temperature. For this reason, targeted movement to a specific position is subject to certain tolerances.
- The running time must be configured as precisely as possible in order for the desired position to be reliably assumed.
- The running time must be reconfigured if the end points are changed.
- If the running time is configured, for example, with the help of a stopwatch, then the speed should be measured in the up direction and approx. 10% should be added.

1.	Select and open menu 9.2 Motor running time .	OK 35,
2.	Select a DuoFern actuator.	OK Z
3.	Press the [Down] button and wait until the roller shutters have travelled to the lower end point.	$\overline{\nabla}$
4.	Press the [Up] button and wait until the roller shutters have travelled to the upper end point.	Δ
5.	Release the [Up] key.	The running time will be timed and stored during the up cycle.
6.	Back to system menu.	OK

e.g. 15 sec.





a)

b)

Manually setting the running time Fully close the roller shutters. Subsequently move the roller shutters to the upper end point and make a note of the time required. Enter and confirm the measured running

OK

c) Enter and confirm the measured running time in menu **9.2**.



18.3 Menu 9.3 - Configure ventilation position [▼]

If you do not want the roller shutters to close fully to the lower end point, you can use this function to configure an arbitrary position (e.g. as ventilation position).

When closing automatically, the roller shutters will stop at the ventilation position, however, they can subsequently be closed completely via manual operation.

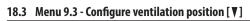
NOTE

The running time must be configured prior to setting the ventilation position, see page 50.

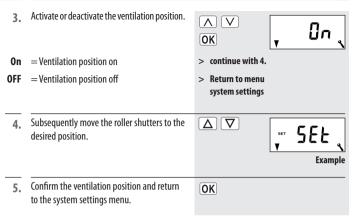
1. Select and open menu 9.3 - Ventilation position.

OK

Select a DuoFern actuator.









18.4 Menu 9.4 - Set postcode [PLZ]

NOTE:

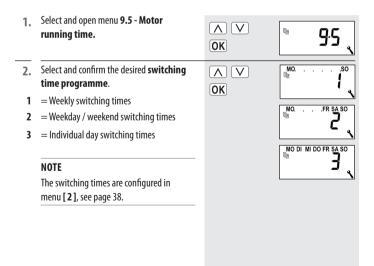
- Only the first two digits of the code are entered for German cities.
- Please refer to the time zone table on page 65 for various European cities.
- If the DuoFern HomeTimer is not being used in Germany, it may be necessary to switch off the automatic summer/winter clock change function. In order to do so, please refer to page 57 "Activate/deactivate automatic summer/winter time change".



The number of opening and closing times that can be configured depends on the desired **switching time programme** selected in this menu.

There are three switching time programs available:

- [1] Weekly switching times (factory setting)
- ◆ One switching time pair [▲/▼] for [MO...SO] (MON...SUN)
- [2] Working day and weekend switching times
- ◆ One switching time pair [▲ / ▼] for [MO...FR] (MON...FRI)
- ◆ One switching time pair [▲ / ▼] for [SA + SO] (SAT + SUN)
- [3] Individual day switching times
- One switching time pair [▲/▼] for every day of the week
 [MO/DI/MI/DO/FR/SA/SO](MON/TUE/WED/THU/FRI/SAT/SUN)





This function enables you to use the DuoFern HomeTimer to control Venetian blinds. Briefly tapping the operating buttons enables Venetian blinds slats to be conveniently configured. In order to conveniently move the Venetian blinds to the end points, actuate the control key **[Up/Down]** for at least 1 second.

1.	Select and open menu 9.7 - Jog mode .	OK V	97
2.	Activate or deactivate jog mode .	ΛV	On ,
0n	= on		י חנו
OFF	= off		
3.	Confirm the previous setting and return to the "System settings" menu.	OK)	



Menu 9.8 - Device settings					
Menu	Page				
9.8.1	Automatic summer / winter changeover 57				
9.8.3	Display backlighting 57				
9.8.5	Key lock 58				
9.8.7	Reversal of rotation direction 59				
9.8.9	End points 60				
9.8.0	Software version 61				
	Menu 9.8.1 9.8.3 9.8.5 9.8.7 9.8.9				



The DuoFern HomeTimer features an automatic summer/winter changeover function.

NOTE

If the controller is not being used in Germany, it may be necessary to switch off the automatic summer / winter clock change function.

Select and open menu 9.8.1 Summer/ Λ 9:8: 1 winter changeover. OK Activate/deactivate summer/winter 2. V changeover and confirm. OK On = Function on OFF = Function off

Menu 9.8.3 - Set display backlighting 18.7.2

Pressing one of the operating keys causes the backlighting in the display to switch on.

1.	Select and open menu 9.8.3 - Display backlighting	OK V	9.8.3
2.	Configure and confirm the desired brightness.	OK)	5 (
0FF	= off	Ų.	,
1 - 3	= brightness level		
	NOTE		
	The intensity of the display backlighting can vary for a number of functions because, for example, automatic changes can cause more current to be drawn from the battery.		



When pressing the menu key.



You can activate the key lock to protect against unintentional input.

Automatic activation after approx. two minutes.

If the key lock is activated and no keys are pressed within a period of two minutes, the key lock is activated automatically.

Select and open menu 9.8.5 - Key lock. NV 9.8.5 OK Activate or deactivate the key lock. 2. V 0n = onOK OFF = offPress and hold the [SET/Stop] key for four ◉ seconds in order to remove or activate the key approx. 4 lock in the standard display. sec. Display: NOTE The roller shutters can be moved manually, even with the key lock activated. Display for active key lock.



18.7.4 Menu 9.8.7 - Switch reversal of rotation direction on/off

4

The **reversal of rotation direction** function can be used to change the direction of rotation if the direction of a DuoFern actuator is incorrect.

1.	Select and open menu 9.8.7 - Reversal of rotation direction .	OK V	N	987,
2.	Select a DuoFern actuator.	OK V	g [*]	2 (
3.	Test the current direction.			
4.	Activate or deactivate reversal of rotation direction.	ΛV	N	SEŁ
5.	Test the new direction.	△ ▽ OK		

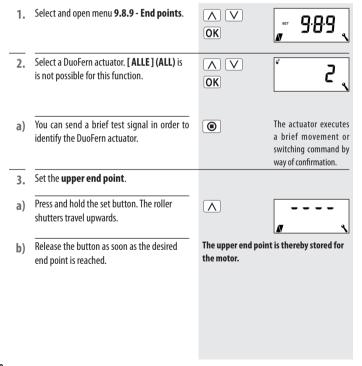


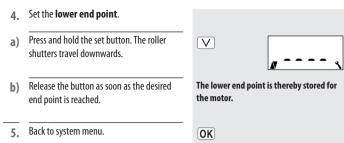
18.7.5 Menu 9.8.9 - Configuration of end points for the tubular motor

You can use your DuoFern HomeTimer to configure the end points for an electronic RADEMACHER tubular motor

NOTE

- The end point setting function is only available for RADEMACHER electronic tubular motors from 2000 onwards
- The end point setting can not be adjusted for tubular motors connected in parallel.





The end points will only be stored if:

- the tubular motor is allowed to run for at least four seconds before an end point is reached.
- $\blacklozenge \quad \text{the configuration process is undertaken starting from the end point that is to be changed.}$

Check the correct setting of the end points directly after completing the configuration process with the help of the operating keys.

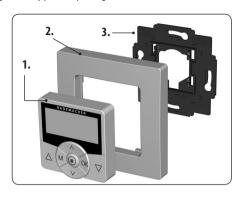
This menu enables the current software version This menu enables the current software version for the DuoFern HomeTimer to be displayed. 1. Select and open menu 9.8.0 - Software version. 2. Subsequently the current software version will be displayed. 3. Back to system menu.



If necessary, you can erase all of your settings and return the DuoFern HomeTimer to its original factory settings. 1. Simultaneously press and hold all four keys \mathbf{M}_{\perp} for 5 seconds, until all of the icons are shown OK V on the display. approx. 5 sec. Next, the software version will be displayed 2. 10 for a few seconds. All settings will be erased and reset to the default factory settings. The system returns to the installation wizard 15:0<u>0</u> 3. Λ automatically after resetting. Carry out the OK initial settings, see page 20.



1. Carefully pull the operating unit [1] and cover frame [2] off of the wall bracket [3].



i 21. Simplified EU Declaration of Conformity

((

RADEMACHER Geräte-Elektronik GmbH hereby declares that the DuoFern HomeTimer complies with the Directive 2014/53/EU (Radio Equipment Directive).

The full text of the declaration of conformity is available at the following website: www.rademacher.de/ce

22. Technical Specifications

External dimensions control unit [1]:	50 x 50 mm x 12 (according to DIN 49075)
Colour:	ultra-white / aluminium
Nominal voltage:	3 V (DC)
Battery type:	1 x CR2450
Battery life:	1.5 years with display backlighting* 3 years without display backlighting*
	* at five switching processes per day
Permissible ambient temperature:	5 to 40°C
Protection class:	II (only for use in dry areas)
Transmission frequency:	434.5 MHz
Transmission power:	max. 10 mW
Range:	indoors approx. 30 m * / outdoors approx. 100 m * depending on the building structure

i 23. Factory settings

Automatic:	On			
Timer periods:	0n			
Up-time and mode:	7:00 hours / NORMAL			
Down-time and mode:	20:00 hours / NORMAL			
Random function:	OFF			
Postcode:	46			
Switching programme:	1			
Jog mode:	OFF			
Automatic summer/winter changeover	0n			

	Tillie Zulle t	avie					
Belo	jium	134	Lyon	165	Utrecht	199	Andermatt
101	Antwerp	135	Montpellier			200	Chur
102	Bruges	136	Nantes	Norv 166	•	201	Lausanne
103	Brussels	137	Nice	167		202	Lucerne
104	Liege	138	Paris	168	Stavanger Bergen	203	Zurich
105	Mechelen	139	Reims	169	Trondheim	Swe	dan
106	Mons	140	Strasbourg			204	Boras
107	Ostend	141	Toulon	Aust		205	Gavle
Don	mark	Italy	,	170	Amstetten	206	Göteborg
108	Aalborg	142	Bologna	171	Baden	207	Helsingborg
109	Ringsted	143	Bolzano	172	Braunau	208	Jönköping
110	Esbjerg	144	Florence	173	Brixen	209	Östersund
111	Horsens	145	Genoa	174	Bruck/Mur	210	Malmö
112	Koldina	146	Milan	175	Eisenstadt	211	Stockholm
113	Copenhagen	147	Naples	176	Graz	212	Sundsvall
114	Svendborg	148	Palermo	177	Innsbruck	213	Umea
115	Randers	149	Rome	178 179	Klagenfurt Landeck		_
Fm.el	land	150	Turin	180	Langeck Linz	Spai 214	
Eng l	Aberdeen	151	Venice	181	Nenzing	214	Allicante
117	Birmingham	Irela		182	Salzburg	215	Barcelona
117	Bristol	152	Cork	183	Vienna	210	Bilbao
110	Glasgow	153	Dublin			217	Badajoz
120	London	154	Relfast	Pola		219	Burgos
120	Manchester		Demase	184	Wroclaw	219	Cáceres
121	Newcastle	Latv		185	Bromberg	220	Castellón
		155	Riga	186	Gdansk	221	Granada
Esto		Lied	htenstein	187	Kattowitz	223	Guadalajara
123	Tallinn	156	Vaduz	188	Cracow	223	La Coruña
Finla	and	Lith	uania	189	Lodz	225	Lérida
124	Helsinki	157	Vilnius	190	Lublin	225	León
125	Jyyäskylä			191	Posen	227	Madrid
126	Oulu		embourg	192	Stettin	228	Murcia
127	Tampere	158	Luxembourg	193	Warsaw	229	Oviedo
128	Turku	The	Netherlands	Port	ugal	230	Palma
129	Vasa	159	Amsterdam	194	Faro	231	Pamplona
Fran	ıce	160	Eindhoven	195	Lisbon	232	San
130	Bordeaux	161	Enschede	196	Porto	232	Sebastián
100	Dorucuux	163	Croningon				Jebustian

162 Groningen

163 Maastricht

164 Rotterdam

Switzerland

197 Basle

198 Bern

131 Brest

132 Dijon

133 Le Havre

- 233 Seville
- 234 Santander
- 235 Valencia
- 236 Valladolid
- 237 Vitoria
- 238 Zaragoza
- 239 La Palma
- 240 Tenerife
- 241 Grand Canaria
- 242 Fuerteventura

South-east Europe

- 243 Athens
- 244 Belgrade
- 245 Bratislava
- 246 Bucharest
- 247 Budapest
- 248 Istanbul
- 249 Maribor
- 250 Prague
- 251 Sarajevo
- 252 Sofia
- 253 Skopje
- 254 Thessaloniki
- 255 Zagreb

RADEMACHER Geräte-Elektronik GmbH provides a 24-month warranty for new systems that have been installed in compliance with the installation instructions. All construction faults, material defects and manufacturing defects are covered by the warranty.

Your statutory warranty claims shall remain unaffected by this warranty.

The following are not covered by the warranty:

- Incorrect fitting or installation
- ◆ Non-observance of the installation and operating instructions
- Improper operation or wear and tear
- External influences, such as impacts, knocks or weathering
- Repairs and modifications by third parties, unauthorised persons
- Use of unsuitable accessories
- Damage caused by unacceptable excess voltage (e.g. lightning)
- Operational malfunctions caused by radio frequency overlapping and other such radio interference

A prerequisite for the warrant is that the new device must have been purchased from one of our approved specialist retailers. Proof of this must be provided by presenting a copy of the bill.

RADEMACHER shall remedy any defects, which occur within the warranty period free of charge either by repair or by replacement of the affected parts or by supply of a new replacement unit or one to the same value. There is no general extension of the original warranty period by delivery of a replacement or by repair as per the terms of the warranty.

RADEMACHER

Geräte-Elektronik GmbH Buschkamp 7 46414 Rhede (Germany)

info@rademacher.de www.rademacher.de

Service:

Hotline 01807 933-171* Fax +49 2872 933-253 service@rademacher.de 30 seconds free of charge, subsequently 14 cents / minute from German fixed line networks and max. 42 cents / minute from German cellular networks.