

EN Electronic Roller Shutter Belt Winder RolloTron Swivel Winder Standard DuoFern Translation of the Operating and Assembly Manual



Item No.:

RolloTron Swivel Winder Standard DuoFern 2510	1423 30 11
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RolloTron Swivel Winder Standard DuoFern 2550 *	1415 30 11
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* Mini belt

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

This roller shutter belt winder has been designed to provide optimal convenience and operability as well as in terms of ensuring 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.



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1. These instructions...

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...describes how to install, connect the electrical system and operate your roller shutter belt winder RolloTron Swivel Winder Standard DuoFern.



1.1 Application of this manual

- ◆ Before you begin, please read this manual through completely and follow all the safety instructions.
- ◆ Please also read the instruction manuals of the accessories (e.g. of the SmartHome Box), if available.
- ◆ This manual is a component of the product. Please store it in an easily accessible place.
- ◆ When passing the RolloTron Swivel Winder Standard DuoFern 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 shall assume no liability for any consequential damage.



2. Hazard symbols

The following hazard symbols are used in this instruction manual:



Danger of fatal electric shock



Danger area / dangerous situation

2.1 Levels of danger and signal words



DANGER!

This hazard will result in serious injury or death if not avoided.



WARNING!

This hazard may result in serious injury or death if not avoided.



CAUTION!

This hazard may result in minor or moderate injury if not avoided.



ATTENTION!

This hazard may lead to property damage.

2.2 Symbols and depictions used

Depiction

Description

1.

Steps to be taken

2.



Itemisation

(1) or a)

List



Please read the
respective manual



further useful information



The use of defective equipment can lead to personal injury and damage to property (electric shocks, short circuiting).

- ◆ Never use defective or damaged equipment.
- ◆ Check the RolloTron Swivel Winder Standard DuoFern and the provided mains cable beforehand for damage.
- ◆ Should you discover damage to the equipment, please consult our customer service department.



Incorrect use leads to an increased risk of injury.

- ◆ Train all personnel to use the RolloTron Swivel Winder Standard DuoFern safely.
- ◆ This device may be used by children from 8 years of age upwards as well as by persons with reduced physical, sensory or mental capacities or with lack of experience and knowledge if they are supervised or have been instructed on how to use the device safely and if they understand what dangers may result from this.
- ◆ Children must not play with the device or with remote controls. Cleaning and user maintenance may not be carried out by children without supervision.

- ◆ Watch the moving roller shutters whilst carrying out the settings and during normal operation, and keep other people away from the area to avoid injury in the event the shutters suddenly slip.
- ◆ Carry out all cleaning work on the roller shutters whilst the device is disconnected from the mains power.

The mains socket and plug must be easily accessible at all times.



Exceeding the maximum permissible running time (KB) may overload and damage the RolloTron Swivel Winder Standard DuoFern.

- ◆ The maximum permissible running time for a cycle may not be exceeded when the equipment is in operation. For this reason, the RolloTron Swivel Winder Standard DuoFern has an automatic **running time limit (KB)** of four minutes.
- ◆ If the running time limit is triggered, then the RolloTron Swivel Winder Standard DuoFern must be left for at least 12 minutes to cool down. During this period, the indicator light flashes rapidly. Full operational availability is re-established after approx. one hour.

According to DIN EN 13659, it is necessary to determine that the movement conditions for the shutters are maintained in accordance with EN 12045.

- ◆ The displacement must be of at least 40 mm on the lower edge in the rolled-out position with a force of 150 N in the upwards direction.
- ◆ In doing so, it must be ensured that the extending speed of the shutters for the final 0.4 m is less than 0.15 m/s.

Only use the RolloTron Swivel Winder Standard DuoFern for opening and closing roller shutters with a permissible belt.



Mechanical locks of any kind are not suitable for automated operation with this device.

Only use original spare parts from RADEMACHER.

- ◆ By doing so, you avoid risk of malfunctions and damage to your RolloTron Swivel Winder Standard DuoFern.
- ◆ As the manufacturer, we provide no guarantee for the use of third-party components and accept no liability for consequential damage resulting from such.
- ◆ All repairs to the RolloTron Swivel Winder Standard DuoFern must be undertaken by authorised customer service personnel.

Operating conditions

- ◆ Only operate the RolloTron Swivel Winder Standard DuoFern in dry rooms.
- ◆ An easily accessible 230 V/50 Hz mains socket must be available at the installation site.
- ◆ The roller shutters must run up and down smoothly and should not stick.
- ◆ The mounting surface for the RolloTron Swivel Winder Standard DuoFern must be flat.
- ◆ The installation and operation of the RolloTron Swivel Winder Standard DuoFern 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.



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

Using the RolloTron Swivel Winder Standard DuoFern for purposes other than previously mentioned is impermissible.



There is a risk to life caused through short circuiting and electric shocks if the RolloTron Swivel Winder Standard DuoFern is used outside.

- ◆ Never install or operate the RolloTron Swivel Winder Standard DuoFern outside.



Improper use can lead to serious injuries or property damage.

Never use the radio system (e.g. DuoFern radio system) and its components for the remote control of appliances and systems with increased safety-relevant requirements or where there is an accident risk. Such applications require additional safety equipment. Observe the respective statutory regulations for the installation of such systems.

DuoFern

- ◆ RADEMACHER radio technology for controlling compatible products.

WR Config-Tool

- ◆ RADEMACHER software for programming the DuoFern system incl. automatic software update for the DuoFern manual central operating unit.

SmartHome Box

- ◆ The SmartHome Box is a central controller unit for RADEMACHER radio products.

DIN EN 13659

"Shutters and external Venetian blinds - Performance requirements including safety."

- ◆ This standard determines the performance requirements that externally attached shutters and blinds must fulfil. It also contains significant hazards with regard to the design, transportation, installation, operation and maintenance of these shutters and blinds.

Blinds

- ◆ Roller shutters

Obstacle detection

- ◆ If the roller shutters hit an obstacle in the DOWN (▽) direction, the RolloTron Swivel Winder Standard DuoFern is switched off, see page 15.

Overload cut-off

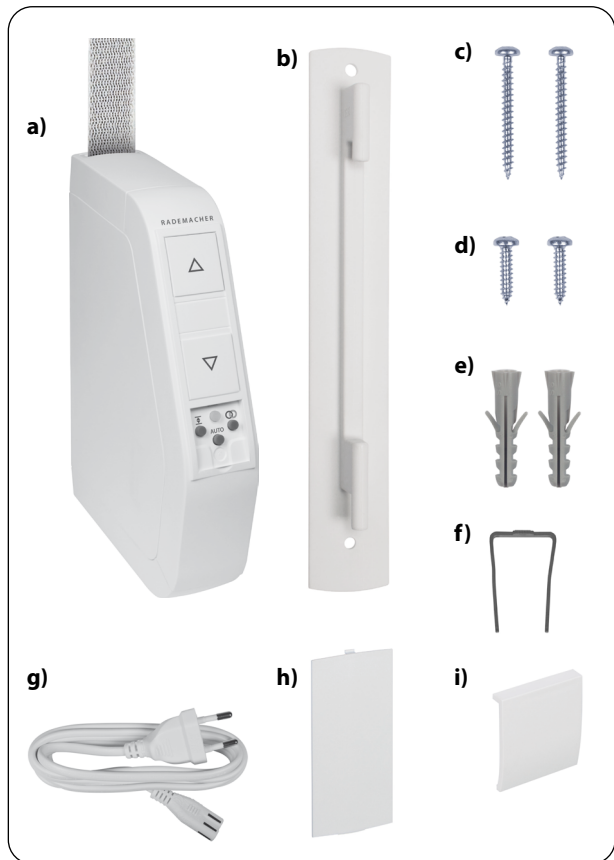
- ◆ If the drive jams in the UP (△) direction (for example, due to ice), the RolloTron Swivel Winder Standard DuoFern is switched off, see page 15.

End points

- ◆ An end point is defined and set for each running direction of the roller shutter. Once this point has been reached, the RolloTron Swivel Winder Standard DuoFern switches off and the roller shutter stops.

Running Time Limit - Transient Operation (KB)

- ◆ The RolloTron Swivel Winder Standard DuoFern is not designed for continuous operation. Transient operation defined the maximum permissible running time, see page 7 / 17.



Included in delivery

- a) 1 x RolloTron Swivel Winder Standard DuoFern
- b) 1 x Wall bracket
- c) 2 x Assembly screws (4 x 40 mm)
- d) 2 x Assembly screws (4.2 x 19 mm)
- e) 2 x Wall plugs (S6 x 30 mm)
- f) 1 x Disengaging bracket
- g) 1 x Connecting cable with Euro plug
- h) 1 x Reel compartment cover
- i) 1 x Cover plate
- j) 1 x Instruction manual (not illustrated)

After unpacking please check and compare...

the contents of the package with the above specified.

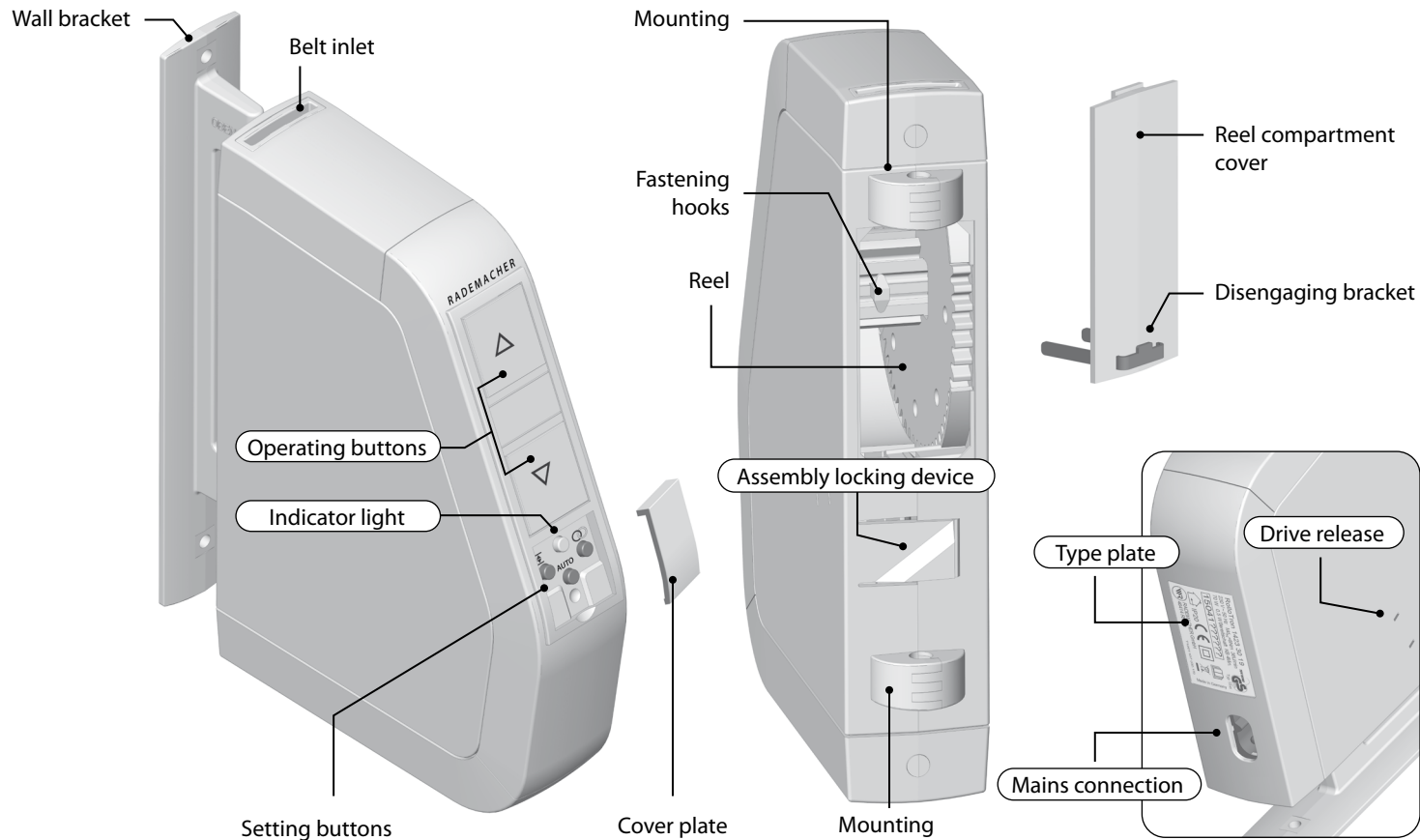
Check the details on the type plate

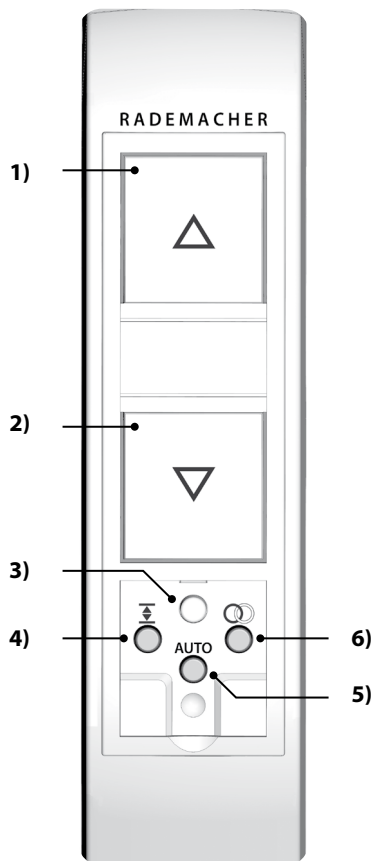
Check that the voltage / frequency on the type plate corresponds to the local mains conditions.









5. Overview RolloTron Swivel Winder Standard DuoFern

EN





Pos.	Symbol	Description
1)	 + 	Up/Stop button + Down/Stop button
2)		<i>The roller shutters travel up / down or stop</i>
3)		Indicator Light - Status Display
	green	<i>flashes briefly</i> ◆ Connection is active ◆ When configuring the sunshine position <i>continuous light</i> ◆ 5 sec = connection / disconnection was successful ◆ 5 sec = clearing was successful
	red	<i>flashes briefly</i> ◆ Return signal when pressing the setting buttons <i>flashes briefly</i> ◆ Disconnect or clearing is active ◆ When configuring the end points ◆ Resetting is carried out ◆ The running time limit is triggered <i>continuous light</i> ◆ 5 sec = connection / disconnection failed ◆ 10 sec = automatic functions = ON
4)		Set button <i>Setting both end points</i>
5)		AUTO button <i>Switching the automatic functions on/off</i>
6)		DuoFern button (connect / disconnect) <i>Logging on/off in the DuoFern radio network</i>

The RolloTron Swivel Winder Standard DuoFern is an electric roller shutter belt winder designed for use inside. The unit is installed as a surface-mounted device. The power supply is provided via the enclosed connecting cable with a mains plug and a small appliances plug.

Use in the DuoFern network

As soon as you integrate your RolloTron Swivel Winder Standard DuoFern into a DuoFern network, you can make use of many functions of the DuoFern sensors and of controllers such as the SmartHome Box.

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

The automatic functions such as automatic timer, dawn and dusk control, solar functions, etc. are only available if the RolloTron Swivel Winder Standard DuoFern is operated with a respective controller (e.g. DuoFern manual central operating unit, SmartHome Box, etc.), see page 31.

Features and control options:

- ◆ Manual operation
- ◆ Switching automatic mode on/off
- ◆ End point setting
- ◆ Permanent storage of the settings
- ◆ Obstacle detection
- ◆ Overload cut-off
- ◆ Resetting to the default factory settings (Reset)

Obstacle detection

The movement of the belt is monitored. If the roller shutters hit an obstacle in the DOWN (▽) direction, the belt will stop moving and the RolloTron Swivel Winder Standard DuoFern is switched off.



Once the system has switched off, it is not possible to directly operate the drive in the same direction.

- ◆ First, run the belt winder back in the opposite direction and remove any possible obstacle.
- ◆ Then it is possible to operate the drive in the original direction again.



There is a risk of injury if the obstacle detection is not working.

- ◆ The belt must be wound on as evenly as possible to ensure safe and correct functioning of the obstacle detection function.
- ◆ Please ensure that the belt winds as straight and evenly as possible into the device during its subsequent cycle after the obstacle detection system has triggered.

Overload cut-off

The RolloTron Swivel Winder Standard DuoFern is equipped with an overload cut-off system.

If the drive jams in the UP (△) direction (for example, due to ice), the RolloTron Swivel Winder Standard DuoFern is switched off.

- ◆ First, remove the cause of the overload.
- ◆ Once the cause has been rectified, the RolloTron Swivel Winder Standard DuoFern is fully operational again in both directions.

DuoFern SmartHome Box														
DuoFern Environmental Sensor														
DuoFern Manual Central Operating Unit														
* WR ConfigTool with DuoFern central operating unit														
RolloTron Comfort DuoFern / Troll Comfort DuoFern														
DuoFern Manual Transmitter Standard														
DuoFern Wall Controller														
DuoFern Window/Door Contact														
Function	Value range	Factory setting												
1. Manual operation	Up / Stop / Down	-		●	●					●			●	
2. Direct drive to a %-position	0 - 100 %	-												●
3. Manual mode on / off	on / off	Off								●	●		●	
4. Automatic timer on / off	on / off	On	●							●	●		●	
5. Random function	-	-							●		●		●	
6. Automatic dawn function	-	-							●		●	●	●	●
7. Automatic dawn function on / off	on / off	Off	●							●	●		●	
8. Automatic dusk function	-	-							●		●	●	●	●
9. Automatic dusk function on / off	on / off	Off	●							●	●		●	
10. Sun function	-	-							●				●	
11. Automated solar function on / off	on / off	Off	●							●	●		●	
12. Sunshine position	0 - 100 %	50 %								●	●		●	
13. Ventilation position on / off	on / off	Off								●	●		●	
14. Ventilation position	1 - 99 %	80 %								●	●		●	
15. Connectivity test	-	-											●	●

* The "WR ConfigTool" software can be downloaded from our website at www.rademacher.de.

Power supply

Supply voltage:	230 V ~ / 50 Hz
Nominal power:	70 W
Consumption:	Standby: < 0.7 W

Mechanical capacity:

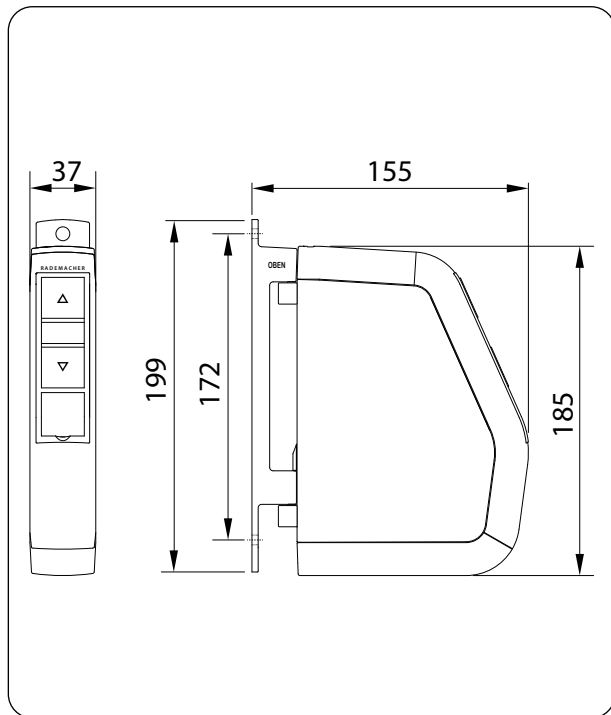
Nominal torque:	8 Nm
Maximum speed:	36 rpm
Maximum tractive force:	30 kg; see page 46 / Tractive force diagram
End tractive force:	13 kg

DuoFern radio technology

Transmission frequency:	434.5 MHz
Transmission power:	max. 10 mW
Range:	<ul style="list-style-type: none"> ◆ indoors: approx. 30 m * ◆ outdoors: approx. 100 m <i>* depending on the building structure</i>
Max. number of DuoFern devices:	20

Operating conditions

Transient operation (KB):	4 minutes (maximum running time)
Protection class:	II
Protection type:	IP20 (only for use in dry rooms)
Mains connecting cable:	2 x 0.75 mm ² (H03VVH2-F)
Permissible ambient temperature:	0 °C to +40°C
Noise pressure level (LpA):	< 70 dB(A)



All dimensions in mm

RolloTron Swivel Winder Standard DuoFern
Item no.: 1423 30 11 / 1415 30 11

**ATTENTION!**

The RolloTron Swivel Winder Standard DuoFern may be damaged if excessively long belts are used.

Only use belts of the permissible lengths.



The specifications are intended for guidance only and apply to an ideal installation situation.

The actual values may vary due to local conditions.

Table 1: Permissible roller shutter belts

RolloTron swivel winder: Item no.:		Standard DuoFern (Mini-belt) 1415 30 11	Standard DuoFern 1423 30 11
Belt width:	Belt thickness:	Maximum belt length	
15 mm (Mini-belt)	1.0 mm	5 m	
23 mm (Standard belt)	1.0 mm		5 m
	1.3 mm		4 m
	1.5 mm		3.4 m

Table 2: Permissible shutter surface area (m²)

Roller shutter type:	Weight/m ²	Permissible shutter surface area (m ²)	
Plastic roller shutters	(4.5 kg/m ²)	Approx. 5 m ²	Approx. 5 m ²
Aluminium and wooden roller shutters	(10.0 kg/m ²)	Approx. 2.5 m ²	Approx. 2.5 m ²

8. Safety instructions for the installation



Poor routing of the belt can cause the belt to fail and leads to unnecessary loads on the RolloTron Swivel Winder Standard DuoFern.

- ◆ Install the belt winder so that the belt runs as straight as possible into the device, in order to avoid unnecessary friction and wear.



Incorrect installation can lead to property damage.

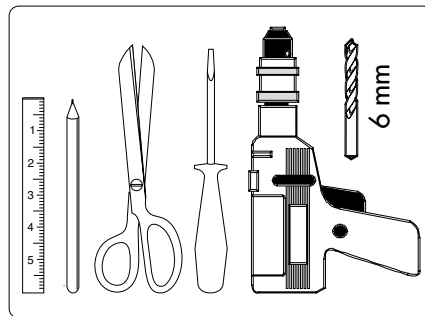
- ◆ Strong forces are exerted during operation of the system which require secure installation on a firm base.

Further assembly instructions

- ◆ In order to ensure optimal operation, the RolloTron Swivel Winder Standard DuoFern should not be installed on a metallic base or near metal objects.

8.1 You will require the following tools

- ◆ Screwdriver (cross recessed head)
- ◆ Scissors
- ◆ Carpenter's gauge or measuring tape
- ◆ Pen
- ◆ A drilling machine and a 6 mm masonry drill, if new mounting holes need to be drilled.

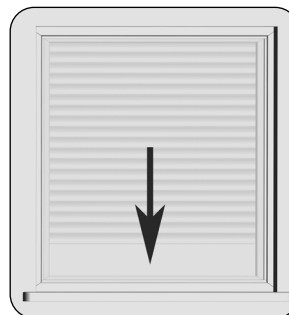


1. Take measurements Check that there is sufficient space for the RolloTron Swivel Winder Standard DuoFern.
 2. Remove the old belt winder, if you are carrying out a conversion to an existing roller shutter system.
- 2.1 Let the roller shutter move fully down, until the slats are completely closed.
 - 2.2 Remove the old belt winder and unreel the belt.

**CAUTION!**

There is a risk of injury from the pre-tensioned springs on the old belt winder.

- ◆ The spring unit of the old belt winder may suddenly recoil when it is removed.
- ◆ Hold the spring unit firmly when loosening the belt and allow it to recoil slowly until the spring unit has completely unwound.



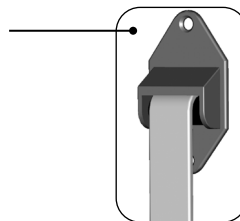
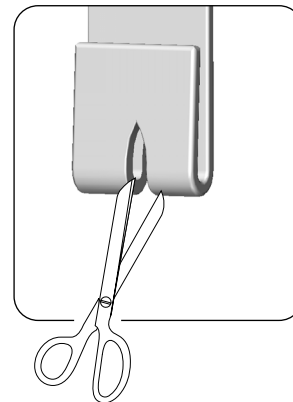
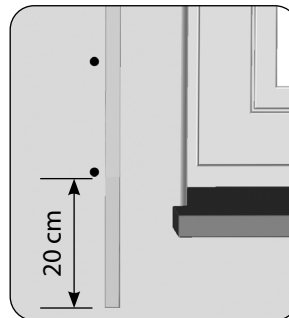
3. Prepare the belt.

3.1 Cut the belt off approx. 20 cm under the mounting position.

3.2 Fold the end of the belt over by approx. 2 cm and cut a short slit in the centre. This enables you to subsequently hook the belt onto the reel.

Recommendation

The belt must run as straight and freely as possible. For stiff roller shutters, mount a deflection roller on the belt box. This helps to prevent unnecessary friction and wear to the belt.



Accessories, see page 46.

Note for mounting on window frames, etc.



Weak window frames may break.

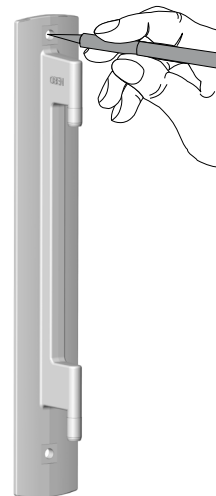
- ◆ When mounting on window frames, please check their structure and load capacity. Especially when mounting onto designs made of synthetic materials, the fastening screws must be screwed tight and must not loosen during operation.
- ◆ If required, ask your window manufacturer before fastening the belt winder onto a window frame made of synthetic materials.

1. Use the provided mounting holes.

Two mounting holes are required to fasten the belt winder. Generally, it is possible to use the existing mounting holes of the old belt winder to screw the wall brackets in place.

2. Draw on the new mounting holes.

Hold the wall bracket onto the desired installation position and draw on both mounting holes if new mounting holes need to be drilled.



3. Drill mounting holes (only required for wall mounting).

Drill the mounting holes with a 6 mm masonry drilling machine and place the provided wall plugs into the drilled holes.

10. Mounting the wall bracket



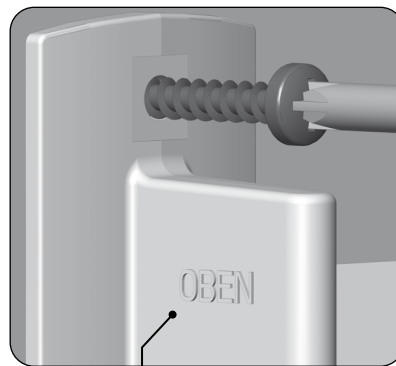
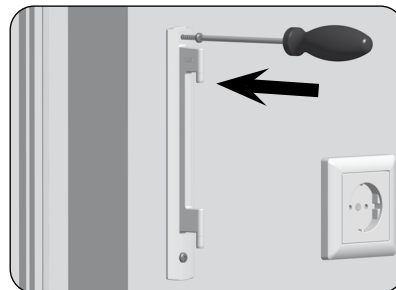
The letterings "TOP and OBEN" on the wall bracket indicates the correct mounting position.

4. Screw on the wall bracket with the screws provided and ensure that the right side is facing upwards (TOP/OBEN).

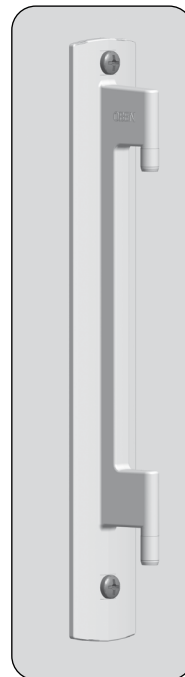


Use the correct type of screw depending on the mounting surface, see the 'included in delivery' section on page 11.

- ◆ Wall mounting = 4 x 40 mm
- ◆ Mounting onto window frame = 4.2 x 19 mm




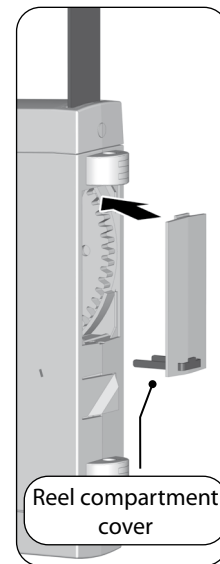
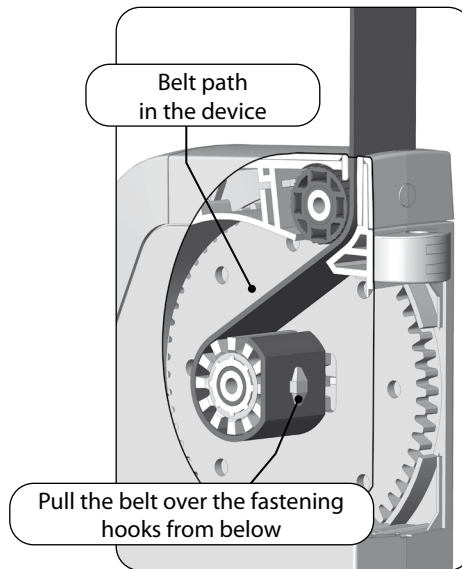
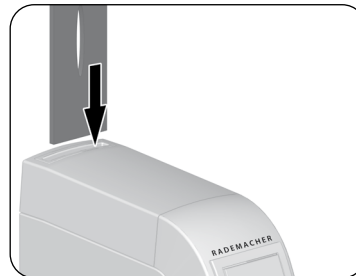
Indication of the correct mounting position on the wall bracket.



Correct mounting of the wall bracket.

11. Drawing in and fastening the belt

4. Next, draw-in the belt into the RolloTron Swivel Winder Standard DuoFern from the top.
Feed the belt into the device, as shown in the image, and slide it over the fastening hooks from below.
5. Re-insert the mains plug into the socket.
6.  Press the up button until the belt has fully wound once around the reel.
7. Pull the belt tight when winding, so that the deflection roller turns at the same time.
8. Remove the mains plug again from the socket.
9. Finally, place the provided reel compartment cover onto the reel compartment.



1. Slide the RolloTron Swivel Winder Standard DuoFern onto the wall bracket from below until it engages.
The RolloTron Swivel Winder Standard DuoFern may fall off again otherwise.

**WARNING!**

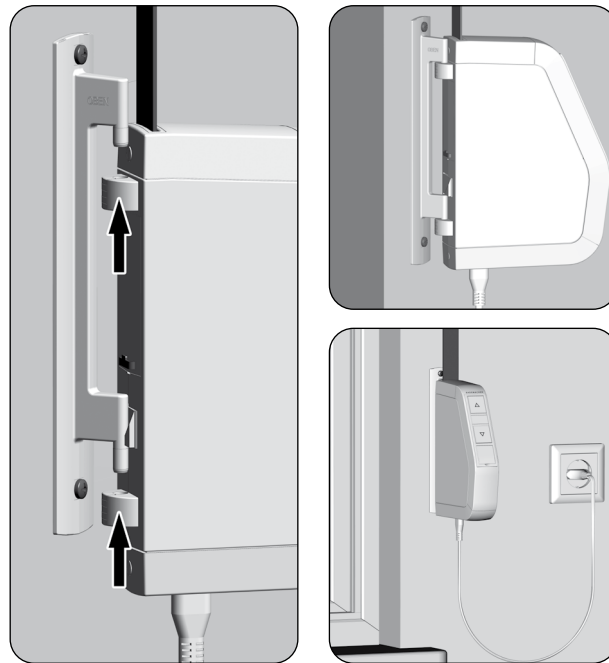
A damaged connecting cable may cause a short circuit.

Ensure that the connecting cable is not pinched or damaged during the mounting process.

2. Re-insert the mains plug into the 230 V / 50 Hz socket.



Leave the bottom cover plate of the setting buttons open until all settings have been carried out.





13. End point adjustment

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Additional information about configuring the end points

The end points must be configured for the roller shutters to stop at the desired upper and lower positions.






It is imperative that both end points are configured, otherwise malfunctions may occur.



If the RolloTron Swivel Winder Standard DuoFern is operated without an end point setting, the drive will continue to run as long as one of the two control buttons is actuated.

The automatic functions remain blocked until the end point setting is configured.

Set the upper end point

1.  +  Simultaneously press and hold the buttons.
 (red) The roller shutter travels upwards and the indicator light flashes red.
- 1.1 Tighten the belt slightly, until it is tensioned by the weight of the roller shutters.
2.  +  Release the buttons, as soon as the roller shutter reaches the desired position for the upper end point.
The roller shutters stop and the upper end point is stored.

ATTENTION!

Setting the wrong upper end point may lead to overload or damage the RolloTron Swivel Winder Standard DuoFern or the drive.






- ◆ Do not set the upper end point right up to the limit stop.
- ◆ Release the button promptly and never allow it to extend beyond the respective end point.



13. End point adjustment

EN

Set the lower end point

3.  +  Simultaneously press and hold the buttons.
 (red) The roller shutter travels downwards and the indicator light flashes red.
4.  +  Release the buttons, as soon as the roller shutter reaches the desired position for the lower end point.
The roller shutters stop and the lower end point is stored.



Please ensure that the belt is not excessively slack when reaching the lower end point.

Changing or correcting the end points

5. Move the roller shutters to the centre position and configure the respective end point again.







After a period of time it may be necessary to reconfigure the end points as the belt may elongate during the process of operation.

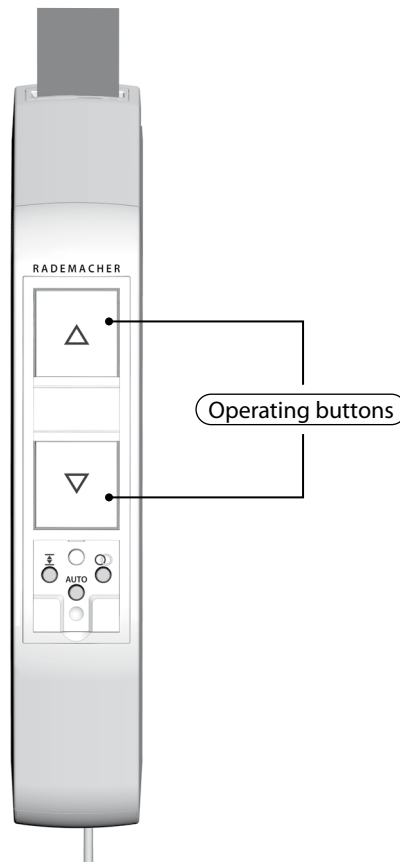


14. Manual operation

EN

Manual operation is possible in any of the modes and has priority over the programmed automatic functions.

1.  Open the roller shutters.
By briefly pressing the button, the roller shutters will move to the upper end point.
2.  or  Stop the shutters in the interim.
3.  Close the roller shutters.
By briefly pressing the button, the roller shutters will move to the lower end point.





15. Instructions for logging DuoFern transmitters on / off

EN

In order for your RolloTron Swivel Winder Standard DuoFern to react to control signals from the DuoFern network, it is necessary to log each DuoFern transmitter (e.g. DuoFern manual central operating unit or SmartHome Box) on to the RolloTron Swivel Winder

Standard DuoFern.



To do so, please read the instruction manual for the respective DuoFern transmitter.

Maximum number of connected devices

You can assign a maximum of 20 DuoFern transmitters to a single RolloTron Swivel Winder Standard DuoFern.



A RolloTron Swivel Winder Standard DuoFern cannot be connected to another RolloTron Swivel Winder Standard DuoFern device.



Additional information about logging on can be obtained from the login matrix on our website under:


www.rademacher.de




15.1 Login for DuoFern transmitters

EN


1.  +  Activate registering mode.
Simultaneously press and hold the buttons for 4 seconds.


 (green) The indicator light flashes rapidly.


 Registering mode remains active for approx. 60 seconds.

2. Switch the DuoFern transmitter to registering mode (please refer to the relevant instruction manual).

3. Pay attention to the indicator light.

 **Flashes green**
Registering mode is active.

 **green light (5 seconds)**
Login was successful.

 **red light (5 seconds)**
Login failed if:
 - ◆ 20 DuoFern transmitters have already been registered
 - ◆ An attempt was made to register an unsuitable device (e.g. another RolloTron Swivel Winder Standard DuoFern)

4. Registering the next DuoFern transmitter.
For this, repeat points 1 to 2 or terminate the registration.

Cancelling the registering process





You can cancel the registering process at any time by briefly pressing the DuoFern button.



15.2 Logging off DuoFern transmitters

EN

1.  +  Activate the logout mode.
Simultaneously press and hold the buttons for 4 seconds.



(red) The indicator light flashes red.



The logout mode remains active for approx. 60 seconds.

2. Switch the DuoFern transmitter to the logout mode (please refer to the relevant instruction manual).

3. Pay attention to the indicator light.



flashes red

Logout mode is active.



green light (5 seconds)

Log off was successful.



red light (5 seconds)

Registration failed if:

- ◆ An attempt was made to log-off a DuoFern transmitter that is not logged-on.

4. Log off the next DuoFern transmitter.
For this, repeat points 1 to 2 or terminate the log-off.

Cancelling the logging off process



You can cancel the logging off process at any time by briefly pressing the DuoFern button.



15.3 Clearing the DuoFern network



EN


This function enables you to clear all DuoFern transmitters from the RolloTron Swivel Winder Standard DuoFern which are no longer accessible via radio.




Not all battery-operated DuoFern transmitters (e.g. the DuoFern manual central operating unit) can be logged off in this way.

A software reset must be carried out in order to logout and delete all DuoFern transmitters, see page 39.

1.  +  Activate the clear function.
Simultaneously press and hold the buttons for 4 seconds.

-  (red) The indicator light flashes red.

2.  (green) The indicator light will light up green for 5 seconds as soon as the clearing process has completed.

Cancelling the clear function



You can cancel the clearing process at any time by briefly pressing the DuoFern button.

16. Automatic operation

The RolloTron Swivel Winder Standard DuoFern supports the following automatic functions:

- ◆ Automatic timer
- ◆ Automatic dusk function
- ◆ Automatic dawn function
- ◆ Automatic solar function

The automatic functions must be activated first in the DuoFern controller

The automatic functions are only available if the RolloTron Swivel Winder Standard DuoFern is operated with a DuoFern controller (e.g. DuoFern central operating unit, HomePilot, etc.), see page 32, and the functions were activated in said DuoFern controller.

Note for switching the automatic functions on/off

All of the automatic functions can be switched on and off together on the RolloTron Swivel Winder Standard DuoFern, see page 37.



Once automatic functions are deactivated, it is only possible to operate the system manually.

Automatic timer

Execution of control signals from the DuoFern network

If the automatic timer is activated, control signals for opening and closing times will be received from the DuoFern network and executed by the system.

Executing a closing command

The DOWN command in the DuoFern network causes the roller shutters to close to their lower end point or to the configured ventilation position, see page 36.

Executing a random function

If the RolloTron Swivel Winder Standard DuoFern receives a control signal from a DuoFern transmitter with activated random function (e.g. from a SmartHome Box), then it is also able to execute the random function. The random function enables a random delay of up to 30 minutes.



The random function cannot be switched on/off on site.

16. Automatic operation

Automatic dawn function

The automatic dawn function causes the roller shutters to open automatically to the upper end point.

The control signals for this function are provided by a DuoFern transmitter on the DuoFern network.

Automatic dusk function

The automatic dusk function causes the roller shutters to close automatically to the lower end point or configured ventilation position.

Automated solar function

The automated solar function enables brightness-dependent control of your roller shutters. The control signals for this function are provided by a light sensor on the DuoFern network.

When the automated solar function is triggered, your roller shutters will lower to the configured sunshine position, see page 38.

The 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).

The ventilation position must be set in the DuoFern network

The ventilation position cannot be set via the device but instead must be set via the DuoFern controller (SmartHome Box or DuoFern manual central operating unit).




To set the ventilation position, please read the manual of the respective device.

Function with an automatic closing command

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

16.1 Switch all automatic functions on / off simultaneously

1.  Press and hold the AUTO button for one second.

2. Pay attention to the indicator light:



flashes red

Return signal when pressing the button.



red light (10 seconds)

The automatic functions are switched on.



OFF

The automatic functions are switched off.

Switch-over the automatic status



Press and hold the AUTO button longer than one second.

Call up the automatic status





Briefly press the AUTO button.
Subsequently pay attention to the indicator light.





16.2 Setting the sunshine position

EN

1.  +  Move the roller shutters to the desired position.

2. Save the sunshine position.

2.1  +  Press and hold both buttons for approx. 4 seconds.

2.2 Release the buttons again after 4 seconds and pay attention to the indicator light:



flashes green

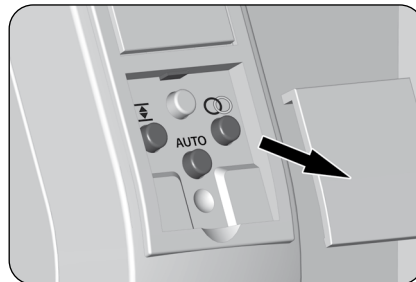
The sunshine position was saved.




It is also possible to set the sunshine position via the DuoFern network, e.g. with the SmartHome Box.

If necessary, you can erase all of your settings and return the RolloTron Swivel Winder Standard DuoFern system to its original factory settings.

1. Remove the cover plate from the setting buttons.



2.  +  +  Simultaneously press and hold the buttons for 4 seconds.

3.  (red) In this process, the indicator light rapidly flashes red.





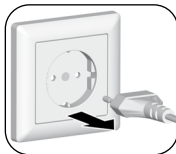
4. Release the buttons, subsequently the following settings will be deleted:

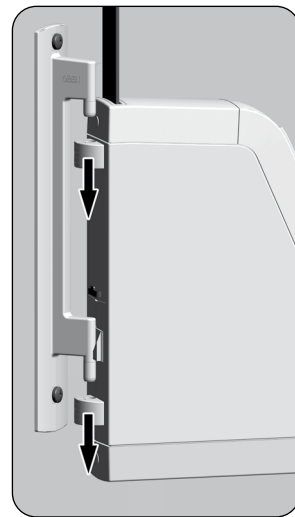
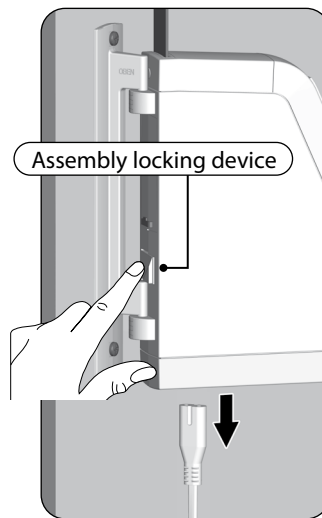
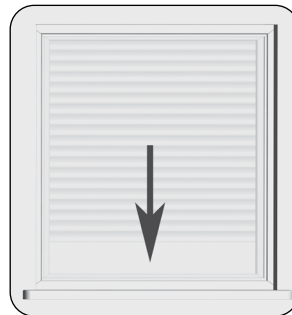
- ◆ End points
- ◆ All of the registered DuoFern devices

In addition:

- ◆ The automatic functions are switched on

18. Removing the RolloTron Swivel Winder Standard DuoFern (e.g. in the event of a move) **EN**

1. Remove the cover plate from the setting buttons.
2.  + **AUTO** +  Erase all settings.
Simultaneously press and hold the buttons for 4 seconds.
3.  Fully close the roller shutters.
4.  Continue to press and hold the down button.
5. In doing so, pull out the belt as far as possible from the top of the RolloTron Swivel Winder Standard DuoFern.
6.  Remove the mains plug from the socket and the small appliances plug from the RolloTron Swivel Winder Standard DuoFern.
7. Press the assembly locking device on the back part and remove the RolloTron Swivel Winder Standard DuoFern from the wall bracket by pulling it downwards.

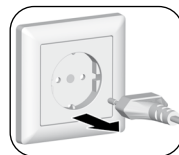
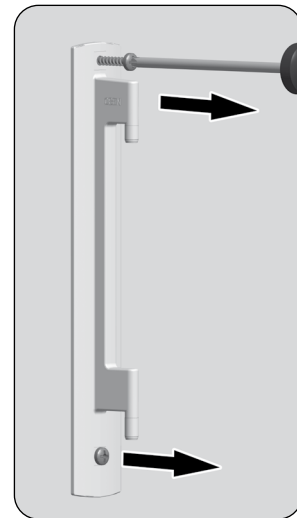
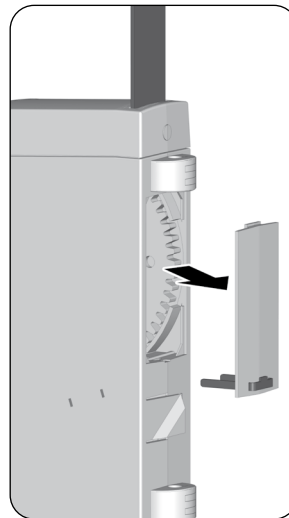


8. Remove the reel compartment cover and check the position of the fastening hook.
9. If necessary, move the fastening hook into an easily accessible position.
- 9.1 For this, plug the mains cable into the RolloTron Swivel Winder Standard DuoFern and into the socket.

⚠ CAUTION!

There is a risk of injury from the reel.

- ◆ Never reach into the reel compartment when the motor is running.
- ◆ Always remove the mains plug before touching the reel compartment.



10. Finally, remove the mains plug again from the socket.
11. Release the belt from the fastening hook and pull it out of the RolloTron Swivel Winder Standard DuoFern from above.
12. Finally, unscrew the wall bracket.

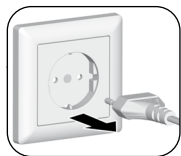
In the event that the RolloTron Swivel Winder Standard DuoFern unit fails and the motor no longer runs, you can use the disengaging bracket provided in order to fully remove the belt from the belt winder unit, without the need for cutting it.

⚠ WARNING!

There is a risk of injury as the roller shutters may slam shut or fall in an uncontrolled manner.

- ◆ Secure the roller shutters from falling, for example, by laying something underneath it.
- ◆ Hold on to the belt tightly to stop the roller shutters from slamming shut or falling in an uncontrolled manner.
- ◆ Get a second person to help you unlatch the unit.

1.



Remove the mains plug from the socket.

2.

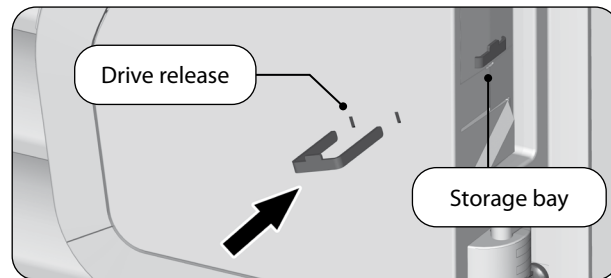
Turn the RolloTron Swivel Winder Standard DuoFern completely to the side.

3.

Release the drive with the help of the supplied disengaging bracket. A small amount of resistance must be overcome when pressing.

4.

Maintain pressure on the disengaging bracket and pull the belt out of the RolloTron Swivel Winder Standard DuoFern as far as possible.



5.

Remove the reel compartment cover. Release the belt from the fastening hook and pull it out completely from the RolloTron Swivel Winder Standard DuoFern.

6.

Press the assembly locking device on the back part and pull remove the RolloTron Swivel Winder Standard DuoFern from the wall bracket by pulling it downwards.

7.

Place the disengaging bracket back into the storage compartment.

Fault	Possible cause / solution
... the RolloTron Swivel Winder Standard DuoFern indicates no functions?	Check the power supply incl. connecting cable and plug.
... the RolloTron Swivel Winder Standard DuoFern no longer reacts at the configured switching time?	The end points may not be configured. Configure the end points, see page 28.
... the roller shutters no longer stop at the configured end points?	The end points may be displaced due to elongation of the belt. Re-adjust the end points, see page 28.
... the roller shutters stop as soon as the operating button is released?	The end points are not configured. Configure the end points, see page 28.
... an automated function does not work?	The automatic function may not be configured or automatic functions are not activated yet, see page 37.
... the RolloTron Swivel Winder Standard DuoFern rotates in the wrong direction?	Possibly the belt is wrapped around the reel incorrectly, see page 25.
... the roller shutters stop suddenly during upward travel?	a) The drive may be jammed, for example, due to the roller shutters freezing up or other obstacles.
	b) The roller shutters may not be running sufficiently smoothly. Check the roller shutters and roller shutter guides.
	c) The roller shutters may be too heavy. The maximum tractive force of the belt winder has been exceeded, see page 46.

Fault	Possible cause / solution
... the roller shutters stop during downward travel?	a) The roller shutters may have hit an obstacle. Move the roller shutters back up and remove the obstacle.
	b) Slats have shifted out of alignment. If possible, move the roller shutters back up and realign the slats.
	c) The roller shutters scrape against the window frame inside the roller shutter box due to the lack of a pinch roller or insulation material may have come free and is jamming the roller shutters. Open the roller shutter box and rectify the fault. Lubricate any stiff areas with gliding wax if necessary.
	d) The roller shutters are too light. Increase the weight of the roller shutters by, for example, adding a piece of flat steel to the bottom slat.
... the indicator light flashes and the RolloTron Swivel Winder Standard DuoFern fails to operate in either direction?	The maximum running time of the drive has been exceeded, see page 7/17. The motor is too hot. The belt winder will be fully operational again in approx. 1 hour.
... the RolloTron Swivel Winder Standard DuoFern fails to react properly either manually or automatically?	The RolloTron Swivel Winder Standard DuoFern is no longer operational. Carry out a software reset in accordance with the instructions on page 39 and test the RolloTron Swivel Winder Standard DuoFern using the default factory settings.

Maintenance



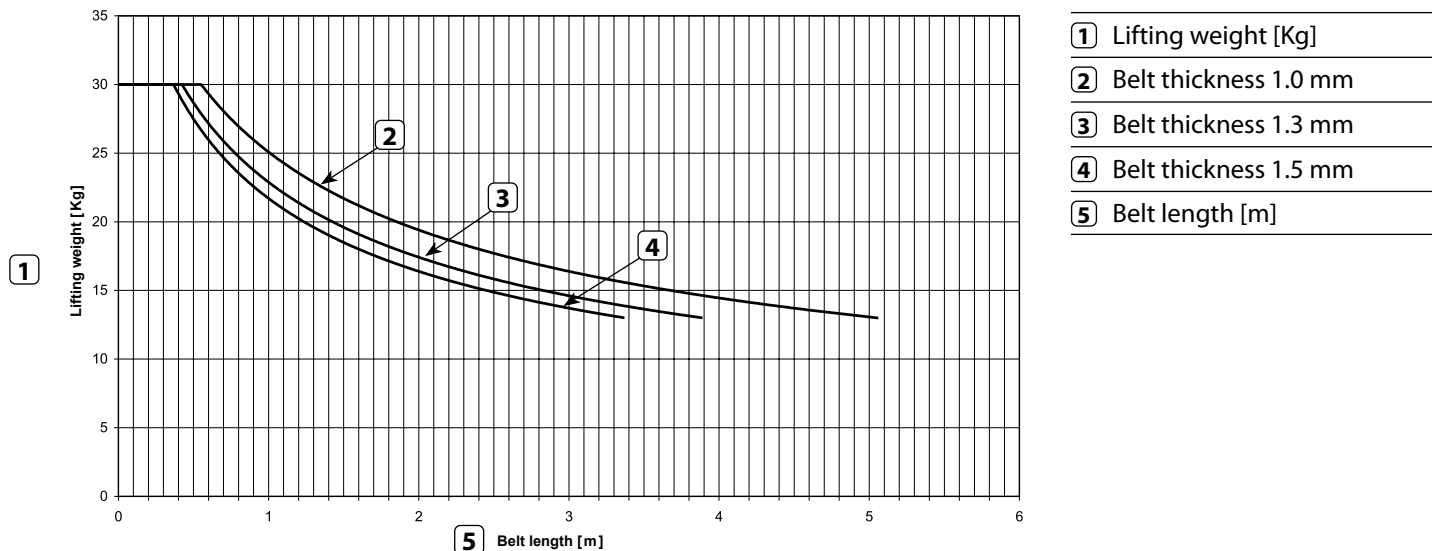
A lack of maintenance can lead to personal injury through damage to your RolloTron Swivel Winder Standard DuoFern and the roller shutter system.

- ◆ Please check the RolloTron Swivel Winder Standard DuoFern and all of your roller shutter components regularly for damage.
 - Regularly check the RolloTron Swivel Winder Standard DuoFern for correct functioning.
 - The blinds must not be damaged.
 - The belt may not be frayed.
 - The deflection roller on the roller shutter box must move freely.
 - The reel plate in the roller shutter box must be fastened and stable. It may become less stable when used over a longer period of time.
- ◆ Damaged components should be exchanged by a specialist roller shutter firm.

Care

You can clean the RolloTron Swivel Winder Standard DuoFern using a damp cloth. Please do not use aggressive or abrasive cleaning agents.

22. Tractive force diagram



23. Accessories

A comprehensive range of accessories is available for customising your RolloTron Swivel Winder Standard DuoFern to local conditions.

Further information about our accessories is available at the following website:

www.rademacher.de/zubehoer



DELTA DORE RADEMACHER GmbH hereby declares that the RolloTron Swivel Winder Standard DuoFern complies with the Directives **2006/42/EC (Machinery directive)** and **2014/53/EU (Radio Equipment Directive)**.

The full text of the EU declaration of conformity is included with the product and is kept on file by the manufacturers.

DELTA DORE RADEMACHER GmbH
Buschkamp 7
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Warranty terms and conditions

Information about the warranty conditions of our products can be found on our homepage.

DELTA DORE RADEMACHER GmbH

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