

Operating instructions

Tubular motor: GEIGER-MODULARline

**Motor control: GEIGER-VariousWireless (GR45..F01)
for all rolling shutter systems**

DE Bedienungsanleitung

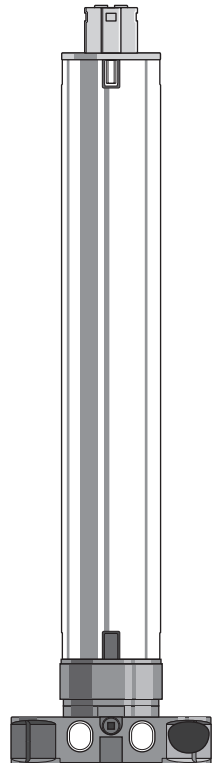
EN **Operating Instructions**

FR Manuel d'utilisation

ES Manual de instrucciones

IT Istruzioni per l'uso

EN



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1. General information

Dear customer,

By purchasing a GEIGER tubular motor you have decided on a quality product from GEIGER.

Thank you very much for your decision and the confidence placed in us.

Before you put this drive into operation please observe the following safety information. It serves for the prevention of danger and for the avoidance of personal injury and damage to property.

Please retain this information for future reference.

- ▶ **Suitable for all rolling shutter systems**
- ▶ **Installation without stops possible**
- ▶ **Automatic detection of the end positions when using stop systems**
- ▶ **Changes in hangings are automatically compensated by electronics when using stop systems**
- ▶ **Drives are switchable in parallel**
- ▶ **Suitable for all GEIGER radio products**
- ▶ **Automatic detection of right/left installation**
- ▶ **Automatic hanging strain relief and thus prolongation of the service life**

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2. Guarantee

In the case of incorrect installation contrary to the operating instructions and/or constructional modification, the legal and contractual guarantee for property damage and product liability lapses.



3. Safety information



ATTENTION: Important safety information. For personal safety, it is important to follow these instructions. The instructions should be kept.

- ▶ **This appliance is not to be used by persons (including children) whose physical, sensorial or mental capacities are impaired, or who have no experience or know-how, unless they have been supervised or been given instructions on the use of the appliance by someone who is responsible for their safety.**
- ▶ **Children must be supervised to make sure they do not play with the appliance.**
- ▶ **The installation is to be checked regularly for defective balance, wear and damage.**
- ▶ **Damaged connecting leads must be replaced by the GEIGER connecting lead of the same wire type.**
- ▶ **During operation observe the danger zone.**

- ▶ If people or objects are in the danger zone, do not use the installation.
- ▶ Urgently shut down damaged installations until repair.
- ▶ Unconditionally shut down the unit during maintenance and cleaning operations.
- ▶ Pinching and shearing sites are to be avoided and to be safeguarded against.
- ▶ When operating the manual actuator with the open sun protection system, exercise caution as it can fall down quickly if springs expand or are broken.
- ▶ Do not operate the device if operations such as, for example, window cleaning are to be carried out in the vicinity.
- ▶ Disconnect the device from the mains power supply if operations such as, for example, window cleaning are being carried out in the vicinity.



ATTENTION: Important safety information. Follow all installation instructions, as incorrect installation can lead to serious injuries.

- ▶ Connection must be carried out by a skilled electrician according to the regulations in force locally.
- ▶ The mains plug of the tubular motor must be accessible after installation.
- ▶ On the installation of the tubular motor without mechanical protection of the driven parts, the tubular motor must be installed at a height of at least 2.5 m above the ground or of another level which provides access to the drive.
- ▶ Before the tubular motor is installed, all leads which are not needed are to be removed and all equipment which is not needed for actuation is to be put out of operation.
- ▶ If the tubular motor is controlled by a switch or pushbutton, the switch or pushbutton must be mounted within eyeshot of the tubular motor. The switch or pushbutton must not be located in the vicinity of moving parts. The height of installation must be at least 1.5 m above the floor.
If the apparatus is equipped without a pin and a socket connector (STAS3K) in the connecting lead, or other means for disconnecting from the mains with at least a 3 mm contact opening on each pole, a disconnecting device of this type must be incorporated into the permanently installed electrical installation according to the wiring rules.
- ▶ Permanently installed control devices must be attached visibly.
- ▶ The correct dimensioning of the drive is to be observed.

We recommend the following procedure:

1.Installation of the motor (**Section 5**) page E5
2.Bringing into operation (**Section 6**) page E6
3.Teaching the radio code (**Section 7**) page E7
4.Teaching the end positions (**Section 8**) page E8



4. Intended use

The tubular motors of the model range **MODULARline** with the **VariousWireless** system are designed exclusively for the operation of rolling shutters and screens. If the tubular motors are used for other applications and/or modifications are performed to the tubular motors, which have not been discussed with GEIGER Antriebstechnik, then the manufacturer is **not** liable for personal injury and/or damage to property and for consequential damage.



5. Installation instructions

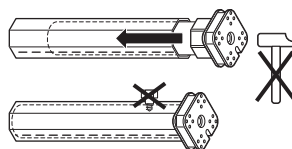
Before fixing, the strength of the masonry or of the subsurface is to be checked.



ATTENTION: Before the tubular motor is installed in the shaft, the measurement from the roller end up to the centre of the carrier is to be measured and marked on the roller.

Before the tubular motor is installed in the shaft, the measurement from the roller end up to the centre of the carrier is to be measured and marked on the roller. When drilling the winding shaft **never** drill into the area of the tubular motor!

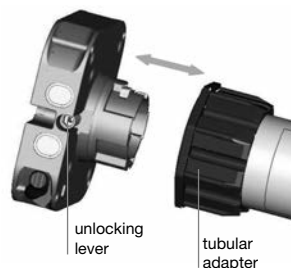
When inserting into the shaft, the tubular motor must not be struck and must not be allowed to fall into the shaft.



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Connection of limit stop and short motor:

1. Snap suitable tubular adapter onto the short motor.
2. In the case of an electronic limit stop **MODULARline VariousWireless* (GR45..E03)**, the magnetic shaft M45B033 must additionally be inserted into the short motor (see figure).



Disconnection of limit stop and short motor:

1. The drive **must** first be disconnected from the mains.
2. Twist the unlocking lever with a 5 mm hexagon socket key.
3. The short motor can then be removed simply from the limit stop.



* The magnetic shaft M45B033 must be installed into the motor with all electronic and radio controlled limit stops such as GEIGER Easy (GR45..E01), GEIGER SoftPerfection (GR45..E03), GEIGER SoftPerfection-S (GR45..E04) and GEIGER VariousWireless (GR45..F01).

Installation into the rolling shutter:

Fix motor support to available stud bolts or in the side frame.

Insert motor into the shaft with a suitable adapter up to the stop of the shaft adapter.

Insert roller capsule on the opposite side.

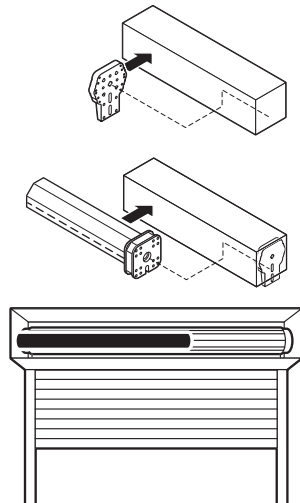
Clip shaft with motor in motor support.

On the opposite side pull out roller capsule until bolt fits into ball bearing.

Screw together roller capsule with shaft.

Screw together shaft with tubular carrier.

Fix rolling shutter casing to shaft.



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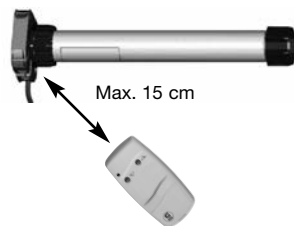
6. Bringing into service

Definition of "near range":

Distance of the hand-held transmitter to the motor control: max. 15 cm,

or

hold at the hand-held transmitter directly on to the motor-connecting cable. The motor-connecting cable thus serves up to a length of 3 metres as an "antenna".

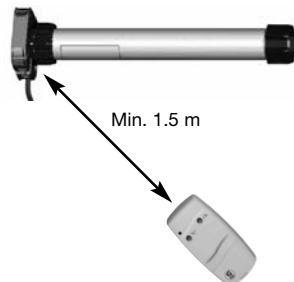


Definition of "far range":

Distance of the hand-held transmitter to the motor control: min. 1.5 metres,

or

distance of the hand-held transmitter to the motor connecting cable min. 0.5 metres.

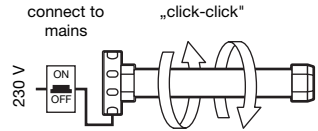


Activate learning mode:

Connect the motor to the power grid.
Switch on the mains.

The motor makes a short back and forth movement (1 x „click-click“).

After each interruption of the voltage supply, the learning mode **can** be activated for 30 min.



! The learning mode is necessary in order to transmit radio codes, or in order to be able to adjust the end positions again.

In the near range press UP or DOWN key and keep it pressed for about 3 seconds until the motor actuates (1 x “click-click”).

! If no action takes place within 60 seconds, the learning mode is deactivated! The motor returns to normal operation (3 x „click-click“).



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7. Learning/deleting the radio code

! The learning mode must be activated first in order to teach/delete the radio codes

In the near range press UP or DOWN key for about 1 second. The motor actuates (1 x “click-click“).

The wireless code is taught to the motor!

! If no action takes place within 60 seconds, the learning mode is deactivated! The motor returns to normal operation (3 x „click-click“).



Deleting the radio code



The learning mode must be activated first in order to teach/delete the radio codes

At close range, press the UP or DOWN key and hold approx. 5 seconds. The motor reacts immediately (1 x 'Click-Click'). Keep the key pressed about 5 sec. until the motor confirms the deleting of the radio codes with 1 x "click-click".



Please note:

You can only delete all remote codes and sensor remote codes together. It is not possible to delete individual remote codes.

8. Learning the end positions/ intermediate position

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The following installation types are possible:		The rolling shutter is equipped with:
A	Upper and lower end position with stop	End bar with stopper/ with anti-lift device
B	Upper end position freely adjustable/ lower end position with stop	End bar without stopper/ with anti-lift device
C	Upper end position with stop/ lower end position freely adjustable	End bar with stopper/ no anti-lift device
D	Upper and lower end positions freely adjustable	End bar without stopper/ no anti-lift device

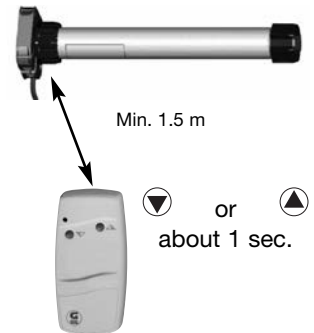


The learning mode must be activated first in order to adjust the end positions (see page 7)

In the far range press the ON or OFF key for about 1 second. The motor actuates (1 x "click-click").

Please note!

The correct key assignment for **UP** or **OFF** takes place automatically **after** the finish of the end position programming. The **upper end position must always** be programmed **first**.



Change / delete the end positions

In order to change or delete the end positions, a new programming must be started (see «learning the end positions»).



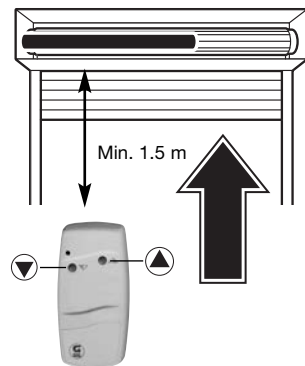
The learning mode must be activated first in order to adjust the end positions (see page 7)

Learning the end positions

Variant A: Upper and lower end position with stop

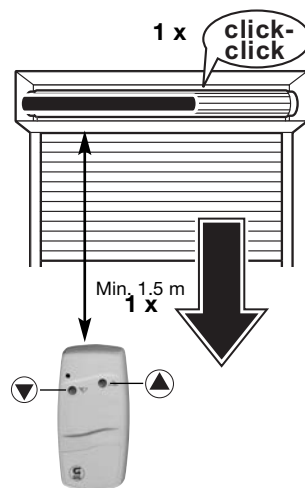
Upper end position:

In the far range, press the UP or OFF key and keep it pressed until the hangings have reached the upper stop and the motor switches off automatically. The upper end position is now stored.



Lower end position:

In the far range press the OFF key and keep it pressed until the hangings have reached the lower stop and the motor turns off automatically. The motor actuates (1 x “click-click”). The lower end position is now stored



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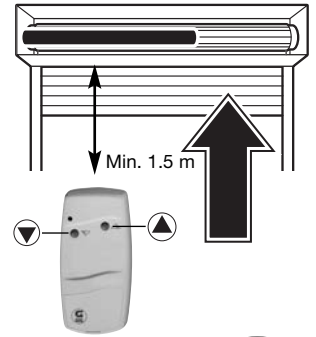


Programming is finished and the motor has changed to normal operation.

Variant B: Upper end position freely adjustable/ lower end position with stop

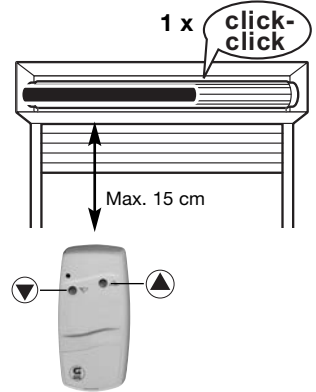
Upper end position:

In the far range press the UP or OFF key and keep it pressed until the hangings have reached the desired upper end position. Corrections with UP or OFF key are possible.



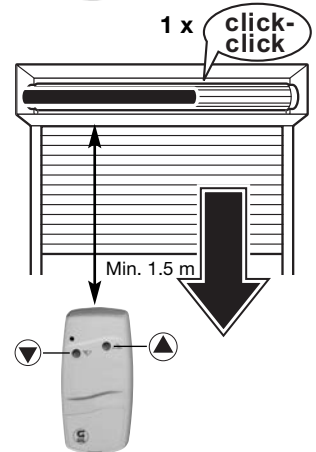
Store upper end position:

In the near range press the UP or OFF key for about 1 second. The motor actuates (1 x “click-click”).



Lower end position:

In the far range press the OFF key and keep it pressed until the hangings have reached the lower stop and the motor turns off automatically. The motor actuates (1 x “click-click”). The lower end position is now stored



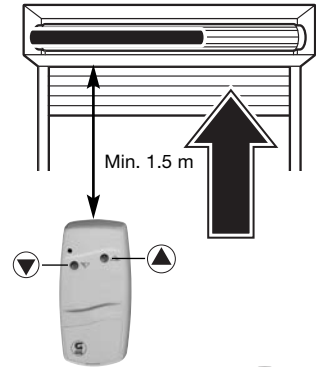
Programming is finished and the motor has changed to normal operation.

Variant C: Upper end position with stop/ lower end position freely adjustable

Upper end position:

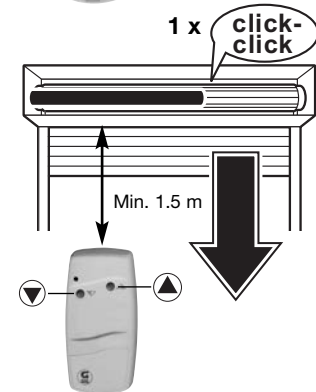
In the far range press the ON or OFF key and keep it pressed until the hangings have reached the upper stop and the motor switches off automatically.

The upper end position is now stored!



Lower end position:

In the far range press the OFF key and keep it pressed until the hangings have reached the desired lower end position. Corrections with ON or OFF key are possible.

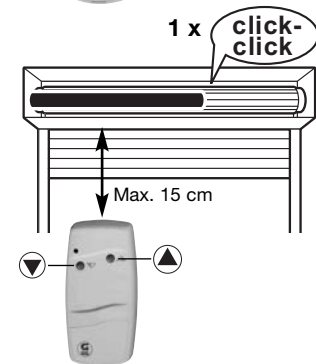


Store lower end position:

In the near range press ON or OFF key for about 1 second. The motor actuates (1 x "click-click").



Programming is finished and the motor has changed to normal operation.



Variant D: Upper and lower end positions freely adjustable

Upper end position:

In the far range press ON or OFF key and keep it pressed until the hangings have reached the desired upper end position. Corrections without ON or OFF key are possible.

Store upper end position:

In the near range press ON or OFF key for about 1 second. The motor actuates (1 x "click-click").

Lower end position:

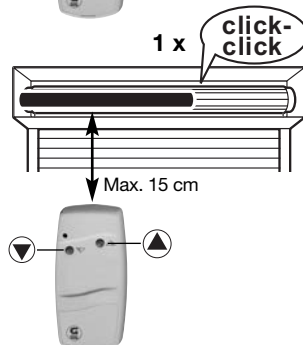
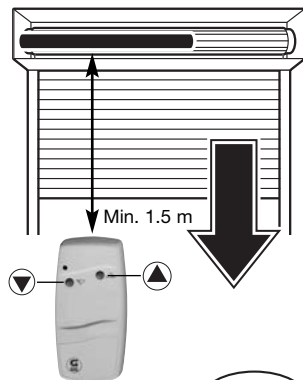
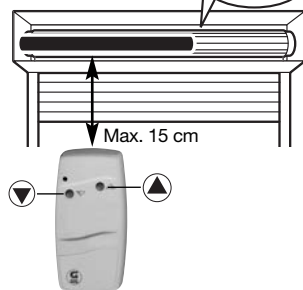
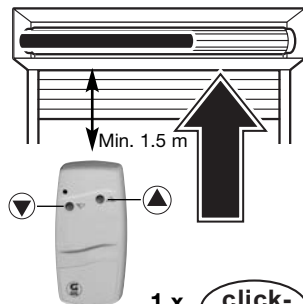
In the far range press ON or OFF key and keep pressed until the hangings have reached the desired lower end position. Corrections with ON or OFF key are possible.

Store lower end position:

In the near range press ON or OFF key for about 1 second. The motor actuates (1 x "click-click").



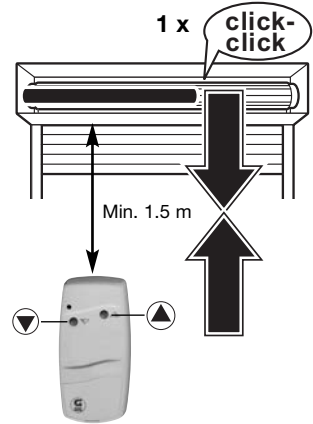
Programming is finished and the motor has changed to normal operation.



Teach intermediate position

Travel from any desired position to the desired end position, stop with the opposite key and hold key pressed for ca. 3 sec. until the motor responds (1 x "click-click").

Then release the key!
The intermediate position is now stored.

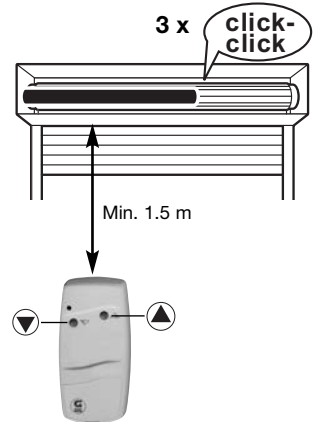


Change intermediate position

See "teach intermediate position", but in a new desired position.

Cancel intermediate position

Stop hangings from "ON" or "OFF"-movement and keep key pressed for about 5 sec. until the motor responds (3x "click-click").



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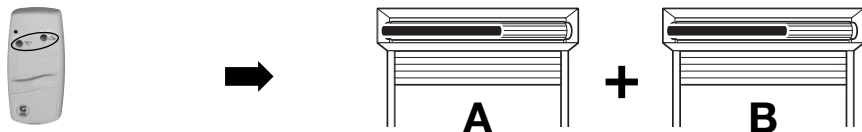
9. Grouped control

(see also 6. Bringing into service and chapter 7. Teach/delete radio code)

1. Target: Operate together rolling shutter A and rolling shutter B with a hand-held transmitter one channel

Rolling shutters: A + B

1. Actuate key 3 sec. at close range to activate the learning mode of rolling shutter A
2. Actuate key 1 sec. at close range to program the radio code of rolling shutter A
3. Actuate key 3 sec. at close range to activate the learning mode of rolling shutter B
4. Actuate key 1 sec. at close range to program the radio code of rolling shutter B

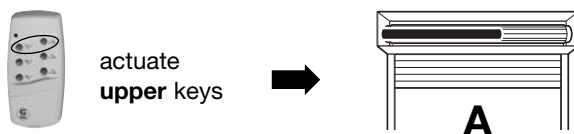


Same operation for three or more rolling shutters

2. Target: Individual or grouped control of rolling shutter A + rolling shutter B with a hand-held transmitter 3 channels

Rolling shutters : A

1. Actuate key 3 sec. at close range to activate the learning mode of rolling shutter A
2. Actuate key 1 sec. at close range to program the radio code of rolling shutter A



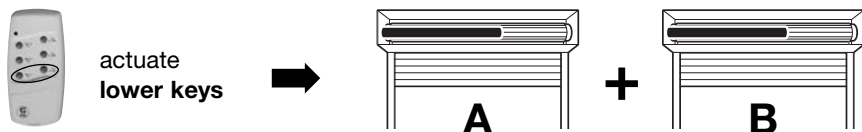
Rolling shutters : B

1. Actuate key 3 sec. at close range to activate the learning mode of rolling shutter B
2. Actuate key 1 sec. at close range to program the radio code of rolling shutter B



Rolling shutters: A + B

1. Actuate key 3 sec. at close range to activate the learning mode of rolling shutter A
2. Actuate key 1 sec. at close range to program the radio code of rolling shutter A
3. Actuate key 3 sec. at close range to activate the learning mode of rolling shutter B
4. Actuate key 1 sec. at close range to program the radio code of rolling shutter B





10. Function description of radio motor

In the delivery state, each GEIGER radio receiver and radio transmitter is equipped with the "GEIGER-Code" + + + + - + - so that the motor can be operated immediately, in order, for example, to facilitate the installation of hangings on the winding shaft.

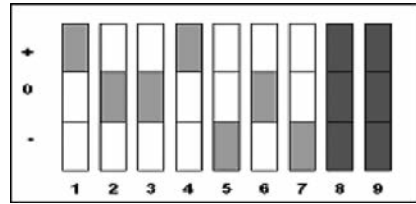
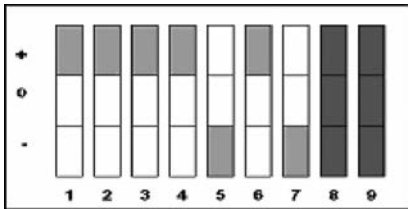


For security reasons, the "GEIGER-Code" must be overwritten by an individual code!

This takes place automatically in the teaching for the first time of an individual code (see page 7 learn / delete radio codes).

"GEIGER code"

individual code (example)



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The DIP switches No. 8 and No. 9 have no function!

Please take the description and adjustments from the operating instructions of the appropriate hand-held/wall transmitter.






Radio codes

A maximum of three different functional codes can be taught. The motor can thus be a member in three groups that are independent of one another.

Additionally, a further two radio sensor codes can be taught.

If three radio codes have already been taught and it is attempted to teach a fourth code, the radio code learnt as the third code is cancelled and replaced by the new code. If two radio sensor codes have already been taught and it is attempted to teach a third code, the radio sensor code learnt as the second code is cancelled and replaced by the new code.

Example:

Wireless receiver in the motor				
Group 1 code	Group 2 code	Group 3 code	Sensor 1 code	Sensor 2 code
+ 0 0 + - 0 -	+ + + 0 0 + +	+ - + + - + +	+ - + + - + +	+ + + - - + +
				

For your documentation record any hand-held remote/sensor codes taught into the motor here:

Group 1	Group 2	Group 3	Sensor 1	Sensor 2
_ _ _ _ _	_ _ _ _ _	_ _ _ _ _	_ _ _ _ _	_ _ _ _ _

Programming in the far range/near range

In the radio receiver of the motor is integrated an approach detector that recognizes whether a radio transmitter is operated from some distance = **far range**, (at least 1.5 metres distance to the motor control or 0.5 metres to the motor cable), or it is operated close to the antenna = **near range**, (at most 15 cm removed or directly on the motor connecting cable).



CAUTION:

If radio receivers or motor connecting cables lie near to one another, unintentional codes can be transmitted to other radio receivers.

Recommendation:

When starting the motor for the first time, disconnect motors that are intended to be operated by another pair of keys, or by another code, from the mains.

Starting from end positions

For starting from end positions, a short key pressure in the appropriate travel direction is sufficient.

For stopping the travel movement a short key pressure in the opposite direction is sufficient.

If a sun/wind sensor is integrated in the system, in the automatic mode (sun in) the end positions are travelled to.

An intermediate position is programmed:

For starting from the **end positions** the appropriate travel direction key must be pressed for at least **1.5 seconds**.

With a short key press of **under 1.5 seconds**, the **intermediate position** is travelled to. For stopping the travel movement a **short** key press in the opposite direction is sufficient.

If a sun/wind sensor is integrated in the sensor system, in the automatic mode (sun in) the intermediate position is **always** travelled to.

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Obstacle recognition

When, after the teaching of the first complete, uninterrupted travel from one end position to the other end position is carried out, the torque needed is learnt. In any following complete, uninterrupted travel from end position to end position, the torque needed is automatically reset. Slow changes in the installation due to ageing, soiling, cold or heat are thus automatically taken into consideration.

If a travel movement in UP direction is blocked by an obstacle, the motor switches off and a small return motion takes place.

The running direction in which the obstacle was recognized is blocked.

The block is removed if the motor has been operated in the opposite direction for a certain time. An obstacle must thus first be released before the motor can be operated again in the direction of the obstacle.

End position correction

If an end position with an end stop (Variant **A** or **C**) is taught, the motor in future stops **before** reaching the stop in order to avoid a mechanical loading of the hangings.

Checking of the end position, and if appropriate an end position correction, takes place after 5, 20, and then every 50 cycles.

Should a **hangings elongation** have resulted, due to temperature changes, this is corrected at the next end position correction.

If, due to temperature changes, **modified winding behaviour** should arise and the hangings should run against the stop, an immediate end position correction takes place. In addition, the counter for the end position correction is started afresh.



11. Technical data

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Technical data of short motor MODULARline (GR45..)

	GR4510	GR4520
Voltage:	230V~/50Hz	230V~/50Hz
Current:	0.47 A	0.63 A
Cos Phi (cosφ)	>0,95	>0,95
Inrush current (factor)	x 1,2	x 1,2
Power:	105 W	140 W
Torque:	10 Nm	20 Nm
Speed of rotation:	16 1/min	16 1/min
Protection type:	IP 44	IP 44
Total length:	400 mm	430 mm
Operating type:	S2 4 min	S2 5 min
Diameter:	45 mm	45 mm
Weight	1,520 kg	1,670 kg

Subject to technical modifications



Declaration of conformity

This product complies with the essential requirements of the directives 2006/95/EC and 2004/108/EC. It is authorised for use in all EC member states and in Switzerland without any need of prior registration. The Declaration of Conformity concerning this product is available on our website: www.geiger-antriebstechnik.de.



12. Information for the skilled electrician

Caution:

Wrong installation and wrong connection can lead to serious injuries.

The parallel operation of the several **MODULARline VariousWireless** is possible.

Connecting cables with plug connectors of the Hirschmann Company, type STAS 3K or the Phoenix Mecano Company, type GLS/3+PE may only be used in connection with the Hirschmann cable socket STAK 3K.

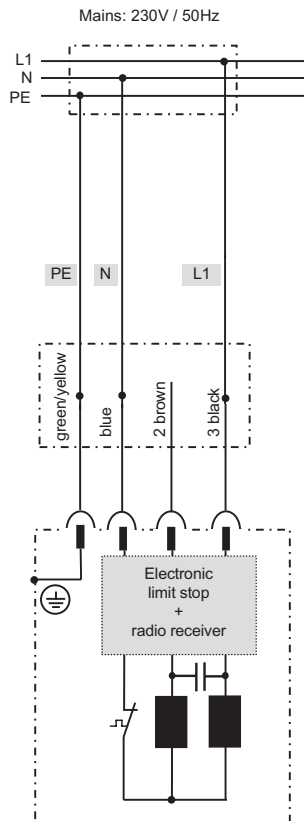
Notes on waste disposal

Recycling of packaging materials

In the interest of environmental protection, please contact your local government's recycling or solid waste management department to learn more about the services it provides.

Waste disposal of electric and electronic equipment

Electronic equipment or batteries cannot be discarded along with the normal household waste. Keep for more information on the recycling and disposal methods envisaged by the local regulations in your area.





13. What to do if...

Problem	Solution
No short "click-click" on switching on the motor.	<ul style="list-style-type: none">• Motor not plugged in. Please check the plug connection.• Check connecting cable for possible damage.• Check the mains voltage and allow the cause of the voltage breakdown to be tested by a specialist electrician.
Instead of in the upwards direction, motor runs downwards.	<ul style="list-style-type: none">• End positions are set wrongly. First set the upper, then the lower end position.
Hand-held transmitter does not work.	<ul style="list-style-type: none">• Check the battery.• The wind sensor has triggered.• Try it again after the expiry of the wind cut-off time.• Inadvertent deletion of the radio code. Start learning radio code again (see page E7).
After running several times, the motor breaks down and no longer responds. The motor no longer runs automatically.	<ul style="list-style-type: none">• The motor became too hot and has switched off. Try it again after a cooling time of about 15min.• The sun automatic control mechanism was switched off.• The wind sensor has triggered. Try it again after the expiry of the wind cut-off time.
The motor does not react to the near range	<ul style="list-style-type: none">• Move as close as possible to the motor head with the hand-held transmitter.• Exchange the batteries in the hand-held transmitter.• Inadvertent deletion of the radio code. Start learning radio code again (see page E7).
When turning on the power a 2 x Click-Click occurs and the motor does not react to the hand-held remote control.	<ul style="list-style-type: none">• Press the Up or Down key with a suitable transmitter in the near range for at least 3 seconds. The motor confirms. (1 x "click-click"). For resetting the motor to the learning mode, the voltage must be switched off and then on again (e.g. OFF – ON safety device). Continue with Chapter VI, "Bringing into operation"!

**For technical questions, please call our service team at: +49 (0) 7142 938-300
They will be happy to assist you.**

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