

Operating instructions

Tubular motor: GEIGER-Solid Line

**Motor control: GEIGER-Easy (GU45..E01)
for rolling shutters and screens**



Bedienungsanleitung



Operating Instructions



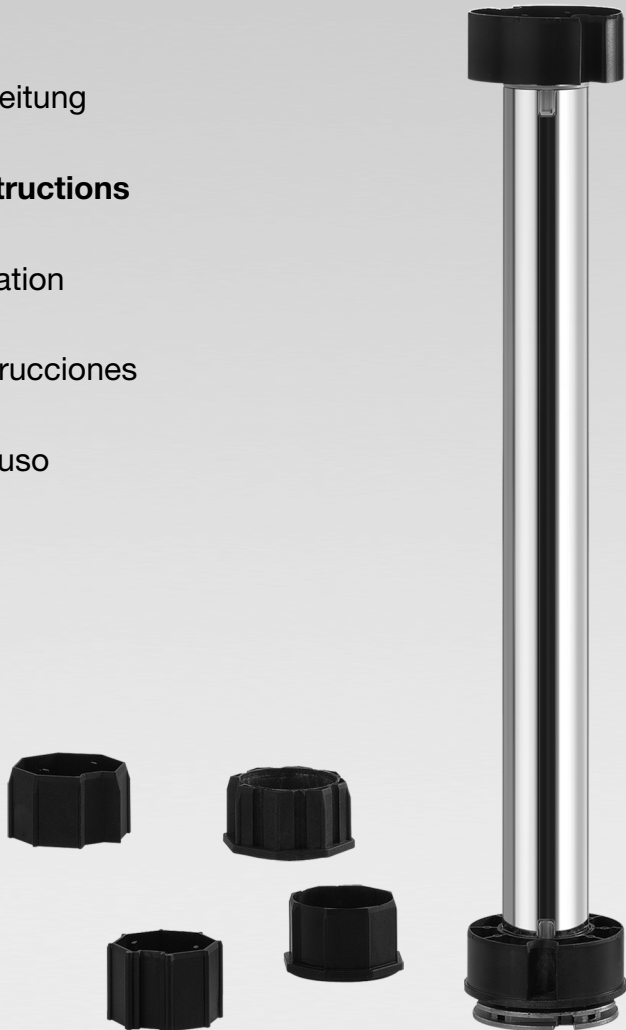
Manuel d'utilisation



Manual de instrucciones



Istruzioni per l'uso



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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 and screens**
- ▶ **Suitable for all folding arm awnings**
- ▶ **Installation without stops possible**
- ▶ **Drives are switchable in parallel**



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.



4. Intended use

The tubular motors of the model range **Solid Line (GU45..E01)** with the **Easy** system are designed exclusively for the operation of rolling shutters, awnings 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.



CAUTION: 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.

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.

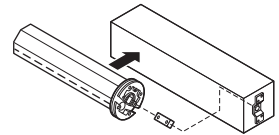
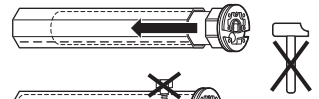
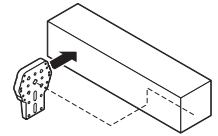
Put shaft with motor on motor support or on pivoting engine bearer. On the opposite side pull out roller capsule until bolt fits into ball bearing.

Screw together roller capsule with shaft.

Screw together shaft with tubular carrier.

Fix rolling shutter casing to shaft.

Alternative: use fixation plates for external aluminium shutters in order to fix the motor. The bearer locks into place. For removal, turn spring ring.



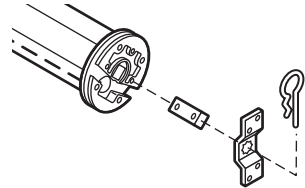
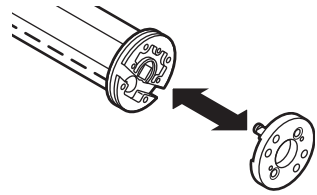
Installation into the awning:

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

Fix the motor support on the awning. Fix the motor together with the shaft on the motor support. The bearer locks into place. For removal, turn spring ring.

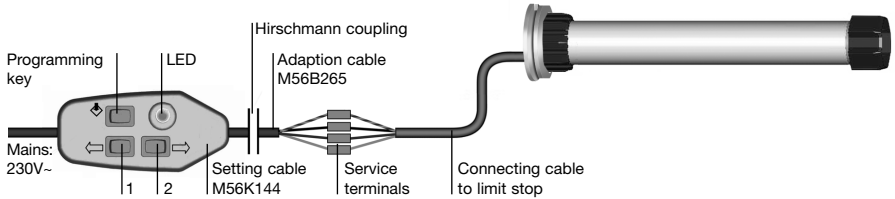
Alternative:

- Fix motor with the suitable screws (M6 or M8), depending on the size of the divided circle, to the awning support
- Put motor into awning support using a square box wrench and secure with split pin.





6. Adjustment of the end positions



1. Install drive as described.

2. Connect adjusting cable to the connecting leader of the **Solid Line Easy**; always connect cores of identical colour here. The assignment of the direction keys 1 and 2 to the direction of rotation is dependent on the installation situation of the drive. Then connect the adjusting cable to the 230V mains.

3. Adjustment of the upper end position:

Press programming key until the LED blinks, (1 x blink, pause, 1 x blink, pause,...), then release the programming key. Run **Solid Line Easy** with the direction keys to the desired upper end position. Press programming key until the LED blinks, (2 x blinks, pause, 2 x blinks, pause,...), then release the programming key. The upper end position is now adjusted and the programming mode for the lower end position is active.

4. Adjustment of the lower end position:

Run **Solid Line Easy** with the direction keys to the desired lower end position. Then press the programming key until the LED lights permanently, then release the programming key. The lower end position is adjusted here und the adjustment process is finished.

5. The drive can now be connected to the 230V mains.



7. 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 readjusted. Slow changes in the installation due to ageing, soiling, cold or heat are thus automatically taken into consideration.

This process takes place for both running directions independently of one another. If a travel movement in up direction is blocked by an obstacle, the motor switches off. 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.





8. Technical data

Technical data of short motor Solid Line (GU45..)

	GU4510	GU4520	GU4530	GU4540
Voltage	230V~/50Hz	230V~/50Hz	230V~/50Hz	230V~/50Hz
Current	0,47 A	0,63 A	0,8 A	1,0 A
Cos Phi (cosφ)	>0,95	>0,95	>0,95	>0,95
Inrush current (factor)	x 1,2	x 1,2	x 1,2	x 1,2
Power	105 W	140 W	180 W	220 W
Torque	10 Nm	20 Nm	30 Nm	40 Nm
Speed of rotation	16 1/min	16 1/min	16 1/min	16 1/min
Protection type	IP44	IP44	IP44	IP44
Total length	514,5 mm	544,5 mm	564,5 mm	584,5 mm
Operating type	S2 4 min	S2 5 min	S2 4 min	S2 4 min
Diameter	45 mm	45 mm	45 mm	45 mm
Weight	1,920 kg	2,200 kg	2,410 kg	2,750 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.



9. Information for the specialist electrician

Caution:

Wrong installation and wrong connection can lead to serious injuries.

The adjusting cable M56K144 must be used for the adjustment processes.

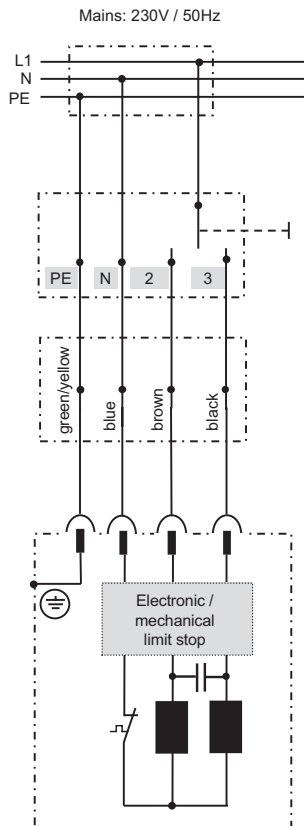
If required, use the adapter cable with service clamps M56B265.

The operations with the service clamps must only be carried out by a skilled electrician.

The parallel operation of the several **Solid Line Easy** is possible. Please observe the rating of the control switch used.

No installation switches must be employed that make possible a simultaneous ON und OFF order.

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.



10. What to do if...

Problem	Solution
Motor does not run.	<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">• The control leads are interchanged. Exchange black/brown control leads.
Motor only runs in one direction.	<ul style="list-style-type: none">• Motor in the end position. Run motor in the opposite direction. Readjust end positions if necessary.
After running several times, the motor breaks down and no longer responds.	<ul style="list-style-type: none">• The motor became too hot and has switched off. Try it again after a cooling time of about 15 min.

**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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