

Important safety instruction!

To ensure the safety of persons it is important to read these instructions carefully prior to installation and to follow them. The installation instructions should be kept in a safe place and if the awning is sold they must be passed on to the new owner.

Installation instructions for “Toskana-Grande”[®] awning

1.1. Scope of supply

- ◆ 1x awning type: Toskana-Grande
- ◆ * x brackets
- ◆ * x ceiling angle (only if ordered as an extra)
- ◆ * x rafter bracket (only if ordered as an extra)
- ◆ * x mounting plate (only if ordered as an extra)
- ◆ 2x covering cap casing section (incl. screws +sticker)
- ◆ * x covering cap casing support
- ◆ 1 x installation instructions
- ◆ 1 x operating instructions
- ◆ 1 x electrical connection cable and adjusting instructions (only if motor drive included)
- ◆ 1 x awning crank handle incl. gear eye and steel spring clip (only for crank operation)
- ◆ 1 x test or programming cable (only if ordered as an extra)

* Number depends on: width, extension, mounting base and plug pull-out forces

1.2. General

The awning system should be installed by a specialist firm. To ensure that the awning can be installed safely and held securely in place, the nature and condition of the fixing location must be checked. The choice of fixing materials must be based on the surface on which the awning is to be mounted. The awning is supplied **without installation materials**. The components of this awning comply with the currently applicable technical requirements and standards. Design modifications are only permitted with the consent of Lewens Sonnenschutz Systeme GmbH & Co. KG.

1.3. Competence required of the installation company:

- Adherence to occupational health and safety regulations and operational safety requirements
- Handling of ladders and scaffolding
- Safe transportation and storage of the awning
- Handling of tools and machinery
- Assessment and installation of fasteners in the existing building fabric
- Operation of the awning and instruction of the user

1.4. Attachment of ropes and lifting

If the awning has to be lifted to a higher level with the aid of ropes, the system should be

- Removed from the packaging,
- Attached to the transporting ropes so that the awning cannot slip out,
- Subject to uniform load distribution (horizontal position) when lifting

1.5. Protection against falling

- When working at a great height, suitable personal safety measures should be taken to guard against the danger of falling.
- Ladders or scaffolding must be on a firm base and offer a secure foothold.

2.0. Tools required

- Ladder/scaffolding
- Spirit level
- Guide line
- Tape measure
- Hammer drill and drill bits (selection depends on mounting base and means of attachment)
- 6 mm Allen key
- Jaw wrench/ring spanner SW17 and fastener size
- Philips head screwdriver PH2

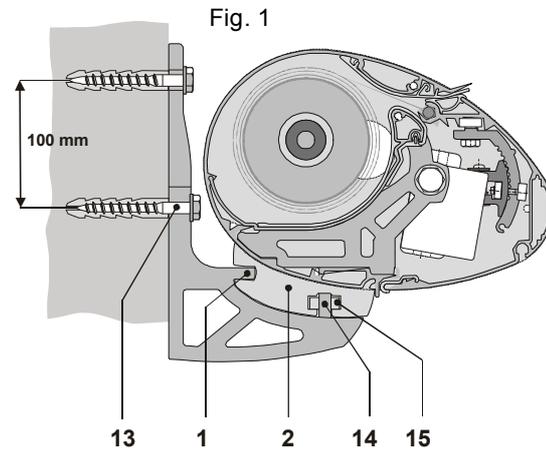
3.0. Installation steps

- 3.1. Check that the scope of supply is correct
- 3.2. Mark the position of the brackets and fit them
- 3.3. Drill feedthrough for electric cable (only if installing a motor drive)
- 3.4. Hang awning in the brackets and secure
- 3.5. Set awning pitch
- 3.6. Adjust front profile
- 3.7. Carry out electrical installation (only if installing a motor drive)
- 3.8. Gear eye and awning crank handle (only for crank operation)
- 3.9. Fit covering caps, casing section

3.1. Checking the scope of supply

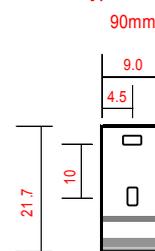
Prior to installation, it must be checked

- whether the information given when ordering regarding awning type, colour, type of drive (crank/motor) and drive side matches the delivery
- that the right parts have been supplied in the correct quantity, see scope of supply (1.1)



3.2. Marking the position of the brackets and fitting them (Fig. 1)

Bracket types: Toskana Grande



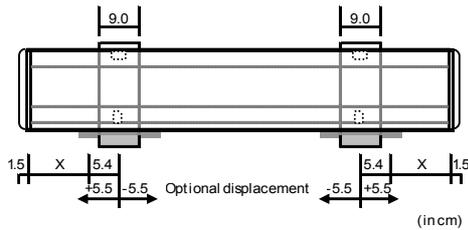
Note: The awning is supplied with:

Table 1		Number of brackets for: Wall mounting concrete B25 C20/25 (Plug:FAZ II M12)							
		Awning width							
(cm)	0-350	351-400	401-450	451-500	501-550	551-600	601-650	651-700	
Bracket	90mm	90mm	90mm	90mm	90mm	90mm	90mm	90mm	
Extension up to:	150cm	2	2	2	2	2	2	3	
	200cm	2	2	2	2	2	2	3	
	250cm	2	2	2	2	2	2	3	
	300cm	2	2	2	2	2	2	3	
	350cm	---	2	2	2	2	2	3	
400cm	---	---	2	2	2	2	3		

brackets.

Table:2 Arm holder seating (cm)	Awning width									
	250	300	350	400	450	500	550	600	650	700
	x	x	x	x	x	x	x	x	x	gy
150	20	40	60	80	80	80	80	80	80	50/central
200	5	30	50	70	80	80	80	80	80	50/central
250	---	5	20	50	70	80	80	80	80	20/central
300	---	---	5	20	50	70	80	80	80	12/350
350	---	---	---	5	20	50	70	80	80	12/395
400	---	---	---	---	5	20	50	70	80	---

★third arm (always right arm, measurement given from left side, see y-dimension)
 in the case of intermediate sizes take the next awning width down (e.g.4.38=4.00).
 in the case of special arms: take the next arm size up as the dimension (e.g.3.02=3.50).
 ●for motor drive only



Prior to commencing installation, it should be checked whether the information given when ordering regarding the mounting surface corresponds to the mounting surface actually found to exist. If differences should be found that would adversely affect secure and safe installation, then installation should not be carried out. The awning only satisfies the wind resistance classification if the number and type of brackets recommended by the manufacturer are used, also taking the correct choice of plug and plug pull-out forces into consideration.

- Mark the position of the brackets (Fig. 1 no. 1) on the mounting base and drill. The brackets must be fitted under each casing support (Fig. 1 no. 2). On awnings with a third hinged arm (central arm) a bracket is fitted at the third arm.
- Fit each bracket using the pertinent fixtures (bear in mind the guidelines for use and pull-out forces specified by the plug manufacturer as well as the edge distances of the mounting base).
- Adjust brackets on wall using a spirit level so that they are correctly aligned vertically and horizontally.

3.3. Drill wall feedthrough for cable (only if installing a motor drive)

3.4.

- Drill a roughly 10 mm hole for the electric supply cable through the wall on the side on which the electric cable emerges by the awning. The supply for the motor drive should be prepared in conformity with VDE (German Electrical Engineering Association) regulations!

3.4. Hang the awning (Fig. 1)

- The cassette should be lifted onto the wall mounting in the area of the casing supports and pressed fully onto the brackets. The pressure plates (no. 15) for the awning mounting should be aligned underneath the brackets and both screws (M8x25) no. 14 and washers (8.4) tightened using an Allen key (size 6) to secure the awning.

3.5. Adjust the pitch (Fig. 3)

Caution! The arms are under high spring tension. Risk of injury! The following adjustments need to be carried out on both sides of the awning:

- Extend the awning.
- The front profile (no. 12) is raised and lowered at the arm holder (AH).
- Remove plastic covering cap (no. 5).
- Undo the attachment screw (no. 6) and the anchor screw (no. 7).
- Relieve the load on the awning arm by lifting it slightly.

- Turn the supporting screw (no. 8) to the left to change the arm position upwards and to the right to lower the arm.
- Using a spirit level, check that the front profile (no. 12) is horizontal.
- Tighten the anchor screw (no. 7) and attachment screws (no. 6).
- Put plastic covering cap (no. 5) back on.

+ **Note:** To prevent water from collecting on the awning fabric (pooling) when it rains, a gradient of more than 14° or 25% pitch must be set when the awning is fully extended. Pooling could damage the awning and cause the risk of injury to persons.

3.6. Adjust front profile no. 12 (Fig. 2 and 3)

+ **Note:** If the pitch of the awning arm (Fig. 3 no. 9) has been

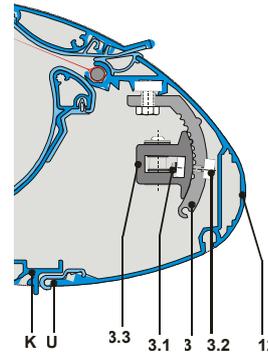


Figure 2

changed, the front profile (Fig. 2 no. 12) must be reset if necessary to ensure that the cassette closes properly.

- Extend the awning until the awning fabric sags slightly. Undo the Allen screw (no. 3.1) on both front profile holders (no. 3), but do not twist out completely.
- Spread the clamping yoke (no. 3.2) slightly with the aid of a screwdriver.
- The notches permit steep or flat positioning of the front profile. Adjust the holder (no. 3.3) on the curve (no. 3) by the appropriate number of notches. Both front profile holders (no. 3) must be adjusted by the same number of notches. When the awning is retracted, the lower edge (U) of the front profile should lie tightly against the cassette (K) for the awning to close properly.
- Once the adjustment has been carried out, tighten the Allen screw (no. 3.1) once more.

3.7. Carry out electrical installation (only if installing a motor drive)

Caution! The electrical supply must be connected by an approved electrician in conformity with VDE (German Electrical Engineering Association) regulations. Connect electrical cables according to the enclosed circuit diagram. The awning may only be connected up if the data on the rating plate correspond to the data of the current source. The rating plate is on the right-hand side of the casing. When laying the cable for the motor, care should be taken to ensure the connection cable is not damaged by kinking or sharp edges.

Long-term operation of an awning with an electric motor drive via a wall socket is not permissible! The awning switch used should be fitted at a height of 125 cm and must be locked reciprocally in the extension and retraction direction, as otherwise the programming of the end positions is lost. The extension and retraction limit is set at the factory. In the event of changes, a precise programming mode must be followed in accordance with the instructions (see enclosed motor description). The awning can be supplied with an electric drive (operated via a permanent push-button) or a radio drive.

- **Adjustment of the electric drive**

To modify the programming of the end positions, the enclosed motor description and a flat-head screwdriver are required. The adjustment is made underneath the awning on the drive side and is carried out via the gear hole (cable exit) using the flat-head screwdriver. The programming can be released by pressing the upper or lower setting key. The retraction and extension direction can now be readjusted. Once the work is completed, the setting key should be pressed again to conclude the programming.

Note: On closing the awning using the electric drive, the motor should hum for 5 up to a **max.** of 10 seconds following closure and then switch off.

- **Adjustment of the radio drive**

When using the radio drive, adjustment is carried out via the hand-held transmitter of the motor. The motor description enclosed with the system is required for this.

If the cable should become worn or damaged, do not use the awning until it has been repaired by an approved specialist.

3.8. Fitting the gear eye, use of the awning crank handle

- Insert the crank eye into the gear unit and extend the awning approx. 0.5 m. Fasten the steel spring clip supplied on the gear unit to secure the eye.
- Insert the crank handle into the gear eye. The awning can be retracted or extended by turning the crank. The gear is provided with a limit stop in the extension direction. This prevents incorrect operation. Forceful operation should be avoided, as this could result in damage to the gear unit.

3.9. Fitting the covering cap for the casing section and casing support (Fig. 3)

- Extend the awning approx. 0.5 m
- Position covering cap for the casing section (no. 15) from the side and attach to the awning using two screws (1 x from outside and 1 x from inside) with the aid of a Philips head screwdriver (PH2).
- Stick on sticker
- Attach covering caps (no. 3) on the left- and right-hand side of each casing support (no. 2) and use a screwdriver to secure by means of the prefitted screw.

4.0. Repair of the awning

Repairs should only be carried out by a specialist firm. Only spare parts from Lewens Sonnenschutz GmbH may be used.

Caution! The arms are under high spring tension and could cause injury if not handled properly.

4.1. Replacing a drive

- To repair a faulty drive, the awning must be dismantled. To do this, suitable installation aids and knowledge are required that only a specialist installation firm can provide. When changing the drive, the hinged arms must be secured. The drive to be fitted must be of the same type series and from the same manufacturer.

4.2. Replacing the fabric

- To do this, the awning must be disassembled. The fabric must be replaced by a specialist firm or the awning returned to the manufacturer for the fabric to be replaced.

4.3. Replacement of the hinged arms

- Extend the awning fully and if the awning has a motor drive cancel the lower end position of the motor.
- Mark and remove the front profile holder on the front profile (Fig. 3 no. 12) as described in Section 3.6.
- Remove plastic covering cap (no. 5).
- Remove the anchor screw (no. 7) and then the attachment screw (no. 6), holding hinged arm firmly while dismantling it.
- Fit new arm
- Adjust as described in Sections 3.5 and 3.6.

5.0. Commissioning

Persons should not stand in the area of the awning while it is being tested. All objects located under the awning should be removed.

6.0. Handover

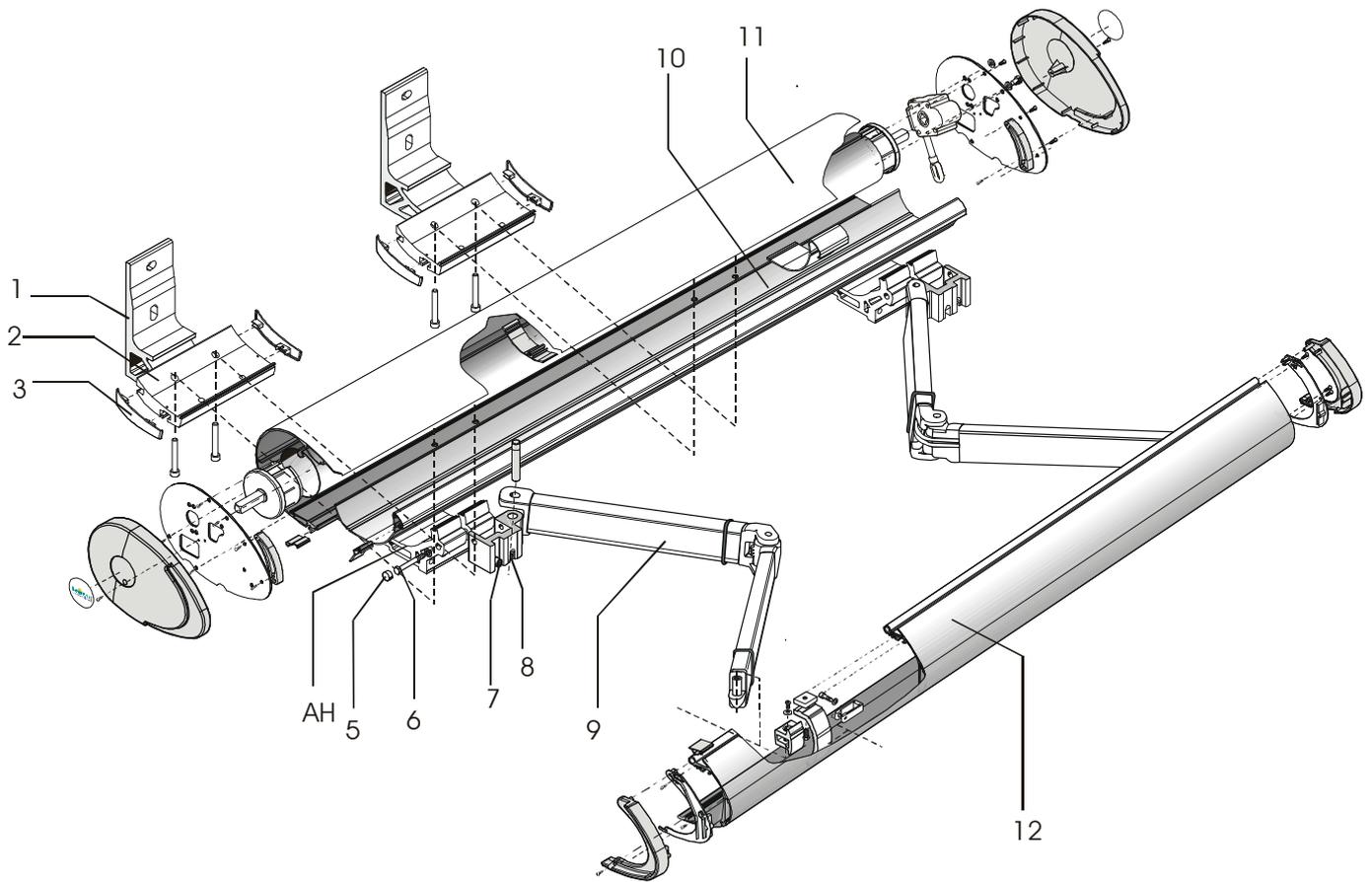
On completion of the installation, the following instructions should be given to the user:

- Installation instructions
- Operating instructions
- Adjusting instructions (motor drive)
- Completion certificate

The installation company should instruct the user extensively on how to operate the awning and explain the instructions on safety and use. The actual wind resistance classification achieved following installation should be documented for the customer on the completion certificate. The resistance classification can be 0, 1 or 2 and depends on the local installation conditions. The automatic sun and wind control facility should be set according to this value. The pitch set for the awning should be specified on the certificate.

The completion certificate should be countersigned by the user and specialist dealer. If the certificate is incomplete or has not been filled in, the awning shall be classed as having a wind resistance classification of 0.

Figure 3



Subject to technical alterations without notice. Date 10.2006 Installation
Tosk. Grand

Lewens
 SONNENSCHUTZ-SYSTEME
GmbH & Co. KG


Lewens Sonnenschutz Systeme GmbH & Co. KG 06
EN 13561 Markise für die Verwendung im Außenbereich Windwiderstand: Klasse 2