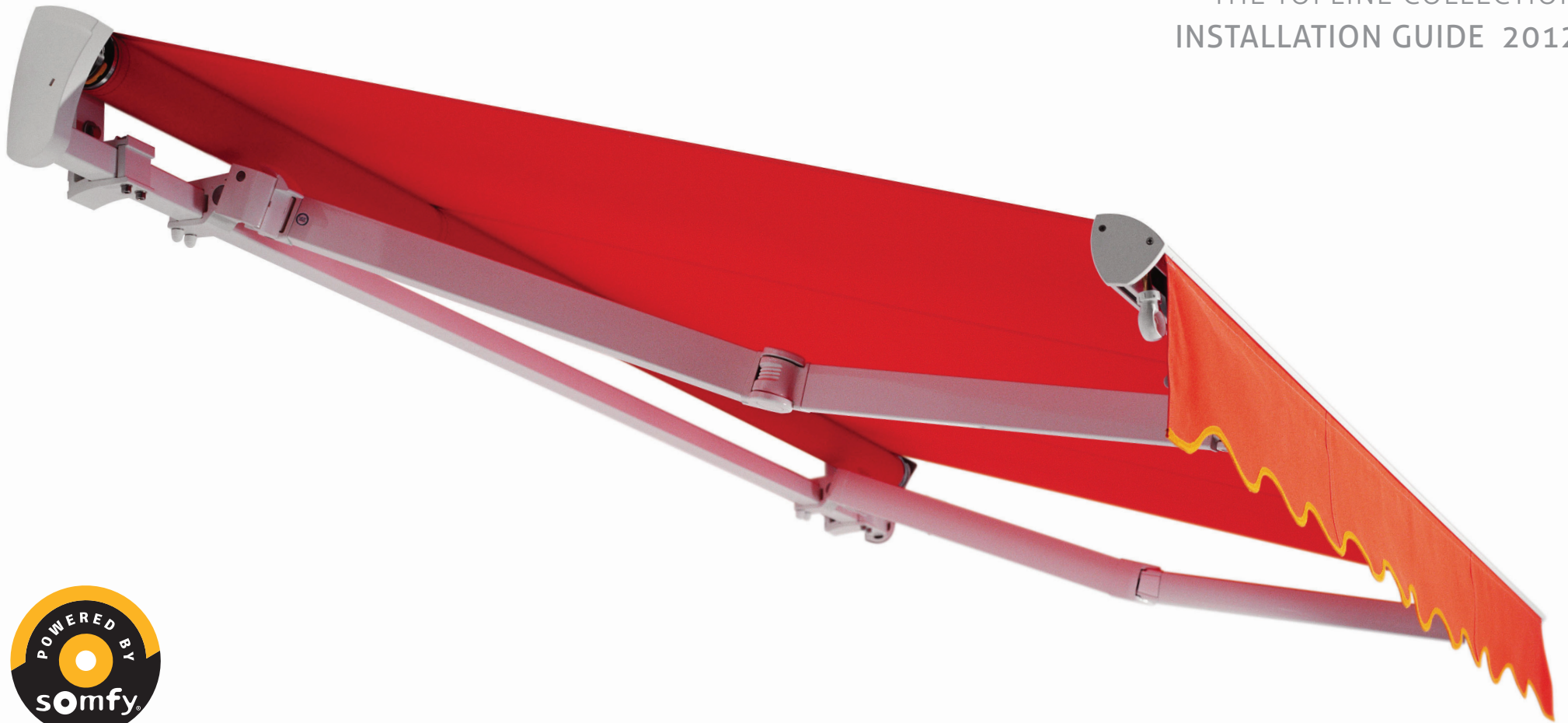


JAMES ROBERTSHAW
SUPERIOR SOLAR SHADING SINCE 1860

JAGUAR

THE TOPLINE COLLECTION
INSTALLATION GUIDE 2012




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1. SAFETY NOTES, WARNINGS & INSTALLATION INFORMATION:


1.1. EXPLANATION OF THE SAFETY NOTES:

Safety notes and important information are integrated in the text as appropriate. The following symbols are used to alert the reader/user of the instructions.

 This symbol means that the relevant note is important for the safety of persons or for the function of the awning.


 This symbol highlights important product information for the installation engineer.

1.2. GENERAL SAFETY INFORMATION:

 The Jaguar folding-arm awning has been designed and manufactured in conformity with DIN EN 13561. However, when the awning system is installed or operated, the persons involved in the respective activity maybe at risk if the relevant instructions are not observed. Only qualified companies or trained personnel maybe permitted to install James Robertshaw folding-arm awning systems.

Always observe the information and notes within this Installation Guide.

A failure to observe the relevant information and to forward to the end user the supplied User Guide booklet will render the manufacturer's liability null and void.

 The safety-at-work and accident prevention regulations specific to each country must be complied with. In particular, a person performing special work at height must be suitably secured. The notes within the product and its packaging must be observed.

2. INSTALLATION:

2.1. TOOLS, RESOURCES AND MATERIALS:

- Drill.
- Drill bits, suitable for the drilling substrate and the mounting pieces.
- Ratchet with extension, SW 13 and SW 17 sockets (if M12: SW 19).
- SW 4, SW 5 and SW 10 Allen keys.
- SW 13 fork spanner.
- Flat SW 17 ring spanner (if with tilting device).

- Slotted screwdriver.
- Crosshead screwdriver.
- Spirit level and string for alignment.
- String to align the brackets.
- Blind rivet pliers (for coupled systems).
- Adjustment set (for initial operation).

2.2. INSTALLATION PREPARATIONS:

i Transport the awning to the site of installation, ensuring that the orientation is correct. The location of the drive side is indicated in the notes provided.

! Secure the installation zone (the secured zone must be at least equivalent to the size of the fully deployed awning). If the awning is hoisted to higher awning positions with ropes, the awning must be removed from the packaging. When attaching the hoisting ropes, ensure that the awning is properly fastened, but not damaged. Hoist the awning exclusively in horizontal position and evenly.

Before commencing the installation, please verify whether the type and number of brackets is in conformity with the order and whether the mounting substrate is the same as that stated on your order. If significant differences make the safe installation of the awning seem doubtful, please contact the manufacturer of the system and an installation specialist. If the information above is not observed, the awning system may fall down and put the health and safety of persons at risk!

2.3. WIND RESISTANCE CLASSES:

DEFINITION:

DIN EN 13561 Item 4.3. defines different wind resistance classes for awnings. The classification depends on the quality of the product. The higher the class, the better the quality of the product.

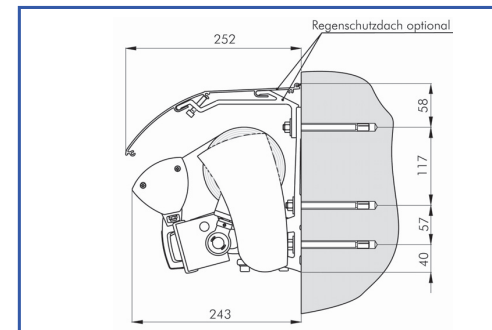
WIND RESISTANCE CLASS	DESCRIPTION	BEAUFORT SCALE WIND FORCE	WIND SPEED
CLASS 0	UNDEFINED; PRODUCT UNTESTED OR UNSUITABLE		
CLASS 1	GENTLE BREEZE	4	20 - 27 km/h
CLASS 2	FRESH BREEZE	5	28 - 37 km/h
CLASS 3	STRONG WIND	6	38 - 48 km/h

CLASSIFICATION OF JAGUAR FOLDING-ARM AWNING

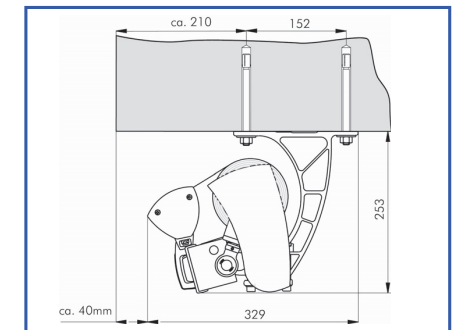
VERSION/EXTENDED LENGTH	1500mm	2000mm	2500mm	3000mm	3500mm	4000mm
WIND CLASS WITHOUT VARIABLE VALANCE	3	3	3	3	3	3
WIND CLASS WITH VARIABLE VALANCE	3	3	3	2	2	2

2.4. INSTALLATION SITUATIONS:

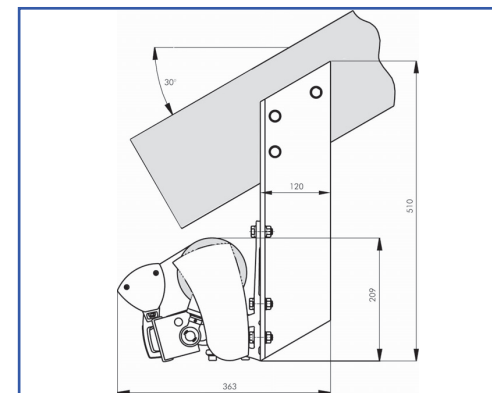
Face-Fix (Wall) Installation



Top-Fix (Roof) Installation



Top-Fix (Gutter Bracket) Installation



If you plan to install the awning on a ceiling or rafter, ensure that the front edge of the awning will be located at least 50mm behind the edge of the balcony or eaves gutter when you choose the position of the brackets (see installation detail – top fix). This protects the awning more effectively against the weather.

2.5. INSTALLATION HEIGHT AND POSITION OF THE BRACKETS:

! The awning can produce crushing forces and shear stresses. For instance between the drop profile and the housing, on the articulated arms and at the point where different profiles meet. In the interest of safety, the installation height must be at least 2.50m. If the situation requires an installation height less than the stated minimum height, it is necessary to operate the awning manually or with a switch mounted at a location from where the moving parts can be observed.

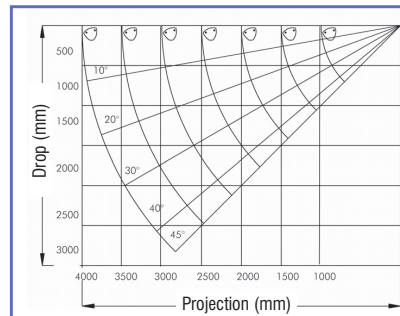
DETERMINATION OF THE INSTALLATION HEIGHT FOR WALL INSTALLED AWNINGS:

The installation height depends on the extended length and pitch of the awning.

Please refer to the drawing on the right for basic orientation.

! Always ensure that there is sufficient headroom.

The use of the awning as a means of protection against rain is limited. In any event, the minimum inclination for such applications must be 15° - this is factory set on every folding-arm awning. The limitations of usage are defined in the relevant operating instructions.



REQUIRED NUMBER (MIN) OF BRACKETS FOR JAGUAR :

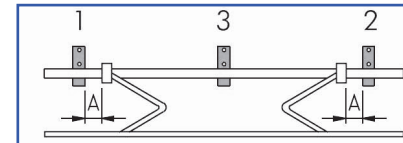
The following table specifies the minimum number of brackets if the Jaguar awning is installed in concrete.

EXTENDED LENGTH (mm)	WIDTH (mm)													
	1250-3500	2001-2250	2251-2500	2501-3000	3001-3750	3751-4000	4001-4250	4251-5000	5001-6000	6001-6500	6501-7000	7001-7250	7251-8000	
1500	2	2	2	2	2	2	2	3	3	3	3	3	3	
2000	2	2	2	2	2	3	3	3	3	3	5	5	5	
2500	2	2	2	2	2	3	3	5	5	5	5	5	5	
3000	2	2	2	2	4	4	4	5	5	5	6	6	6	
3500	-	4	2	4	4	4	4	7	7	7	6	6	6	
4000	-	-	4	4	4	4	5	7	7	7	6	6	6	

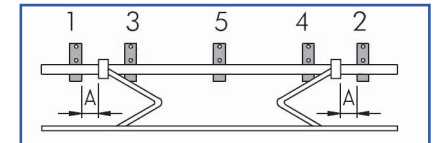
! POSITION OF THE BRACKETS:

The brackets should be located as closely as possible to the arm connection points. The following drawings show the ideal distribution of the brackets. Dimension >A< should be maximum 300mm.

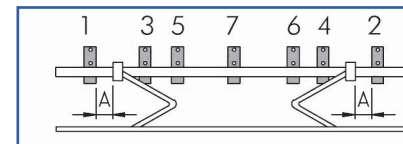
System with 2 arms & 2 or 3 brackets



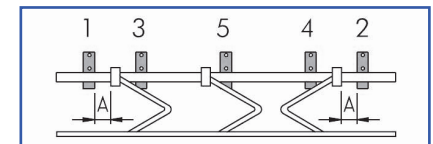
System with 2 arms & 4 or 5 brackets



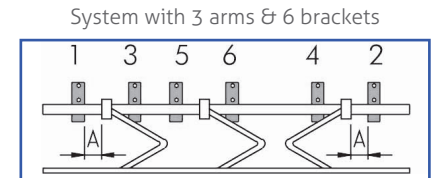
System with 2 arms & 7 brackets



System with 3 arms & 4 or 5 brackets



i If the system width is 6501mm - 6700mm and the extended length 4000mm, the outermost brackets (1 and 2) must also be positioned inside the arms (next to 3 and 4, respectively).

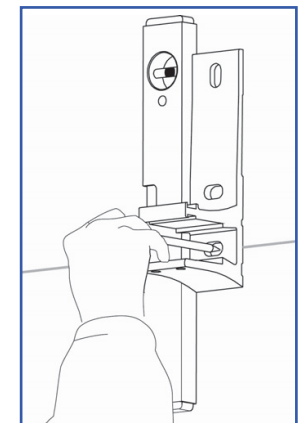


If the system is a coupled system, bear in mind that the systems must be moved towards each other by approximately 7cm after they have been hooked into the brackets. If the system is a coupled system with gap cover, the brackets in the coupling zone (1 and 2) must be mounted at least 300mm from the dividing line between the systems to leave enough space for the spring roller.

DRILLING HOLES FOR THE BRACKETS:

Transfer the drilling outlines of the brackets to the determined bracket positions.

i For static reasons, insert attaching elements (e.g. bolts) in each bracket bore hole. Select the appropriate drill bit for the respective base material and mounting method.



2.6. INSTALLATION TECHNIQUE:

Due to its own weight of the awning and the maximum wind load of the corresponding wind class, the dowels can be subjected to pulling forces up to 3.900N (approximately 400 kg) in the case of face fix installations, respectively up to 5.120N (approximately 520kg) in the case of top fix installation.

The following table defines the maximum dowel forces depending on the size of the awning, the type of bracket, the number of brackets and the wind class (according to Table 2.3).

JAGUAR MAXIMUM PULLING FORCES DEPENDING ON THE SYSTEM WIDTH [N]								
INSTALLATION	WIDTH	VARIABLE VALANCE	EXTENDED LENGTH [MM]					
			1500	2000	2500	3000	3500	4000
WALL	4500mm	WITHOUT	1.490	2.390	1.770	2.450	3.290	2.800
		WITH	1.840	2.860	2.070	2.800	3.700	2.130
	5500mm	WITHOUT	1.770	2.860	2.120	2.930	2.620	3.350
		WITH	2.200	3.430	2.480	3.360	2.960	2.520
	6500mm	WITHOUT	2.060	3.320	2.460	3.410	3.050	3.900
		WITH	2.570	4.000	2.890	3.920	3.450	2.920
CEILING	4500mm	WITHOUT	1.900	3.060	2.270	3.130	4.210	3.580
		WITH	2.360	3.670	2.650	3.590	4.740	2.720
	5500mm	WITHOUT	2.270	3.650	2.710	3.750	3.750	4.280
		WITH	2.820	4.390	3.170	4.300	3.790	3.230
	6500mm	WITHOUT	2.630	4.250	3.150	4.370	3.900	4.990
		WITH	3.280	5.120	3.700	5.020	4.410	3.740

Grey cells: only Wind Class 2 is available.

i The standard number of supplied brackets (see Table, Item 2.5) is appropriate for these values if installed in concrete. If the supporting capacity of the base material is less than that of concrete and if injection anchors are used, please consult a qualified installation engineer.

A reduction of the dowel forces can be achieved by increasing the number of brackets in the vicinity of the arm and by using appropriate (larger) mounting plates. For dimensioning information in dependence on the mounting base, please consult any qualified installation engineer or contact the system manufacturer.

Downgrading of the wind class on the grounds of bad installation conditions is permissible only in limit cases and subject to the agreement of the final user.

INSTALLATION ON THERMALLY INSULATED FACADES:

Insulating plaster and full multi-layer thermal insulation are not pressure stable. Therefore, it is necessary to use backing for the entire surface, or at least spacers for the area around the bolts.

The picture on the right illustrates one possible variant:

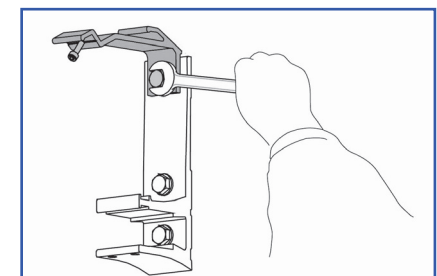
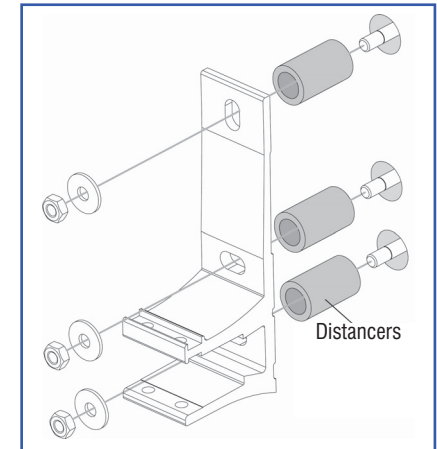
BRACKET INSTALLATION:

Fasten and align the two outermost brackets first. With the aid of a string, bring all other brackets in true alignment with the outer brackets.

Even out irregularities of the base by using suitable spacers. Then tighten all nuts & bolts and check that the brackets are firmly attached.

Applications with Rain Pelmet:

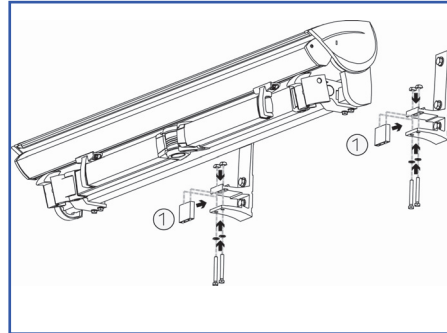
Pre-mount the holders on the wall brackets and align vertically before firmly tightening the bolts. (Final installation of the rain pelmet, see item 3.4.)



2.7. INSTALLATION OF THE AWNING:

i • Ensure that sufficient personnel are available to lift the awning. The awning weighs up to 110kg; the weights are defined on the packaging.

- Lift awning with the mounting tube into the brackets (from the front) and insert the clamping parts at the side.
- Slightly grease the thread of the screws and insert into the bores from below. Secure screws with square nuts.
- Perform lateral alignment of the awning.
- Firmly tighten all bracket screws.



! Failure to observe this could lead to damages or malfunctions, or the awning could fall off the wall.

2.8. COUPLED SYSTEMS:

! Factory part-mounted awnings (coupled systems without drive): the spring-loaded parts must be secured against unintentional opening.

Do not remove this securing element until both systems have been coupled successfully (risk of injuries).

- At first fasten the system with the driving gear (as described in Item 2.7).
- Using the test cable, extend system approximately 50mm.
- Hook passive coupled system (without driving gear) into the brackets first and secure (clamping parts, screws).
- Turn square pin of the passive coupled system with SW 13 fork spanner in the direction of the arrow (i.e. against extension direction) until it is possible to engage it in the square hole of the system with driving gear.

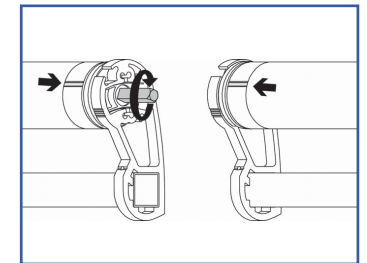
i Ensure that the positions of the insert grooves of the two cloth rollers coincide. Push systems fully together and tighten bracket screws. When the Jaguar is pushed together, ensure that the roof inclination of the two awnings is identical (pins at the side end engage)

DROP PROFILE COUPLING:

If no cloth gap covering is to be used, extend the coupled system at least 100cm.

Connect both drop profiles with the coupling profile (pre-mounted in one of the two drop profiles) and tighten the nuts with SW 13 fork spanner.

Ensure that no gap remains between the two drop profiles.



2.9. CLOTH GAP COVERING:

• In identically extended state, mount the left holder (1) of the cloth gap covering (part without bearing bush) 200mm away from the dividing line between the systems.

• Hook in cloth shaft (4) and mount right holder (2).

• Hook in guide bracket (3) so that it rests on the screw heads.

• Turn spring roller (4) up to 10 revolutions in the direction of the arrow.

• Pull end of the cloth forward over the guide bracket to the drop profile.

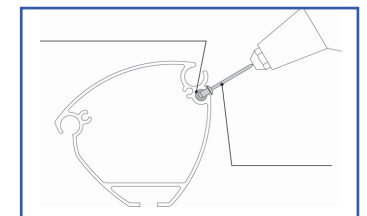
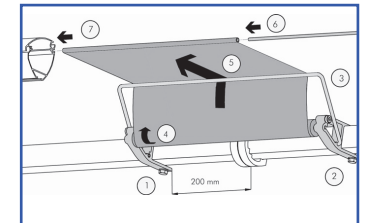
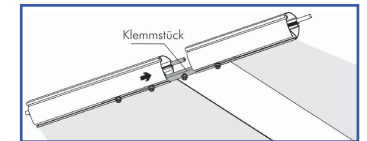
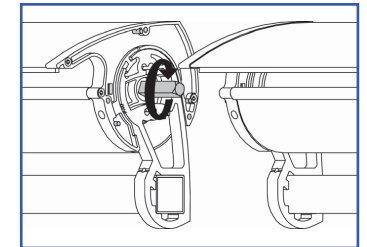
• Push insert (6) into the loop of the fabric (7).

• Push drop profiles apart and insert the loop of the fabric including insert into the small channel of the drop profile.

• Connect both drop profiles with the clamping piece (pre-mounted in one of the two drop profiles) and tighten the nuts with SW 13 fork spanner.

• Bring channel fabric into parallel alignment with covering.

• Secure insert in the channel on both sides with blind rivets (blind rivet with flat head 3x6mm).



3. INITIAL OPERATION:



Before the initial operation of the awning, remove all objects (e.g. ladders, tools etc.) from the full travel range (in/out) of the awning and from underneath the awning. During the trial operation, ensure that nobody is in this area – there is a risk of injury in case of a malfunction.

3.1. WITH HAND CRANK:

Insert the hook of the hand crank in the eye of the driving gear and extend the awning until the cloth becomes slack. Turn back briefly to achieve the optimum cloth tension.

When winding up the awning for the first time, check that the covering is wound up properly and that the articulated arms fold correctly (parallel). The covering (cloth) must always be wound up on the upper side of the cloth roller. When the end positions (in and out) are reached, do not force hand crank further. Otherwise the gearing may be damaged.

3.2 WITH ELECTRIC MOTOR:

The limits of the motor are factory set. If corrections are necessary on location, please contact the manufacturer for advice.

Fully extend the awning and check switch-off point.

In the maximum projection, the awning fabric is fully taut.

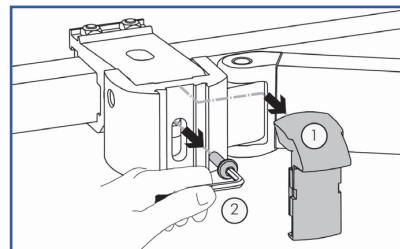
When retracting the awning, check that the fabric is rolled up correctly and that the articulated folding-arms retract correctly (parallel).

Electrical installation work and connections to the mains must be carried out exclusively by a licensed electrical company.

3.3. SETTING THE PITCH / INCLINATION OF THE AWNING:

ADJUSTMENT OF THE ARM PITCH:

- Extend the awning.
- Remove cover (1) from the arm holder with a slotted screwdriver.
- Remove securing screw (2) with SW 5 Allen key.
- Lift arm slightly to relieve the load on the arm and adjust the inclination by turning the screw with SW 10 Allen key (3).



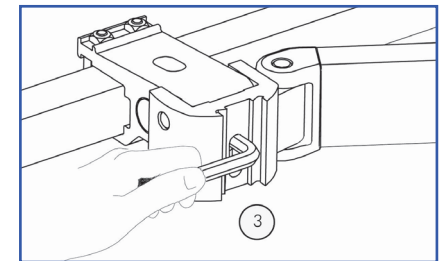
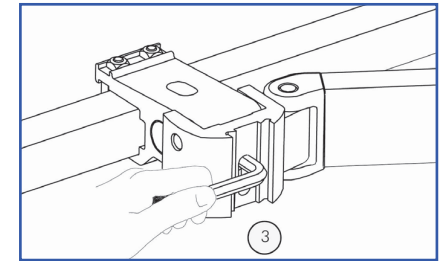
To raise the awning, turn counter-clockwise
To lower the awning, turn clockwise

In the event of a significant change of the inclination setting (more than 10°), the arms must be adjusted alternately. With the securing screw (2), secure the arm inclination and refit the cover(s) (1).

Check the closing behaviour.

ADJUSTMENT OF THE ROOF INCLINATION:

- Extend the awning.
- Press a narrow slotted screwdriver into the opening of the side covers and push backwards (towards the wall) to loosen the side covers.
- Loosen the threaded pin with Allen key SW 4.
- Adjust roof inclination to the retracted drop profile.
- Slightly fix threaded pin. Ensure that the same setting (mesh pattern) is chosen on either side.
- Apply side covers.



ALIGNMENT OF THE ARM INCLINATION IN SYSTEMS WITH TILTING DEVICE:

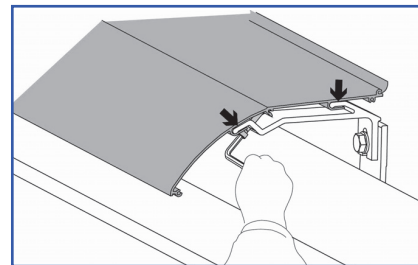
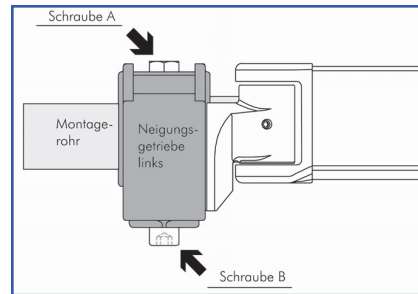
- Fully extend the awning.
- With SW 17 ring spanner, loosen screw A on the left tilting gear (holding screw B).
- Turn screw B with SW 10 Allen key to bring the articulated arm into parallel alignment with right arm.
- Now retighten screw A (holding screw B).



Jaguar with tilting gear: the roof inclination must remain in the topmost position.

3.4. INSTALLING THE RAIN PELMET:

- The holders for the rain pelmet are already aligned vertically when the brackets are installed and fixed in their position with the upper screw. (Item 2.6.).
- After the installation of the system, push the rain pelmet with both grooves onto the holders from the front (the flexible sealing lip that rests against the wall must point upwards so that the rain water cannot get behind the awning) and align sides.
- Tighten the Allen screws with SW 5 Allen key.
- Fasten the side parts of the rain pelmet in the screw channels of the profile with the crosshead screws (from the side).



Follow the same method to install the coupling of coupled rain pelmets. One half of the coupling is in engagement with each of the two profiles.

3.5. COMPLETING THE INSTALLATION / TRANSFER TO THE CLIENT:

- Clear site. Remove packaging materials from site and dispose according to local regulations.
- The installation engineer is requested to enter the JAMES ROBERTSHAW order/reference number and the product name in the "Product Identification" item of the User Guide so that future questions can be answered more efficiently.
- Hand over to client all instructions concerning the installation and operation of the awning as well as the instructions for the electrical connections of control units and switches.

! Give client comprehensive instructions about the operation of the awning. Failure to observe the instructions and incorrect operation can result in damages to the awning and accidents. Notify client of the wind resistance class of the awning.

4. DISMOUNTING OF THE AWNING:

Ensure that the area around the folding-arm awning is free of unauthorised personnel. De-activate the awning system with driving gear and secure against accidental switch-on.

- Dismount the awning exclusively in retracted condition.
- Dismounting of the awning is the reverse of the mounting procedure.

! *CAUTION: In coupled systems, the passively driven system (without driving gear) must be secured to prevent accidental extension before the systems are uncoupled.*

5. TROUBLESHOOTING:

TYPE OF DEFECT	CAUSE	REMEDY
DRIVING GEAR DOES NOT WORK.	No power.	Check connection (specialised company).
	Driving gear not correctly connected.	Check connection (specialist company).
	Thermal protection of the driving gear activated.	Wait for 15-20 mins, then operate again.
	Remote control batteries empty.	Check light signal on sending unit, replace batteries.
	Higher-level control unit prevents manual operation.	Wait until higher-level signal is not activated any more.
SYSTEM DOES NOT EXTEND OR RETRACT FULLY.	End positions of the driving gear changed, or incorrect end position setting.	Reset or re-program end positions (see instructions about driving gear adjustment).
AWNING MAKES GRATING NOISES.	Insufficient lubrication.	Spray arm articulation bearing with a suitable lubricant. (e.g. Teflon spray)
SYSTEM DOES NOT CLOSE ON ONE SIDE.	Fabric unevenly sewn.	Line covering on this side by applying fabric tape to cloth roller.



CHEETAH

THE ATTRACTIVE STANDARD AWNING

The classic CHEETAH awning is characterised by advanced technology, with an extremely attractive price performance ratio. A small number of system parts and their easy handling reduce the production time and therefore also the production costs for the awning manufacturer. The CHEETAH awning is highly resistant to corrosion.



CARACAL

THE FLEXIBLE SEMI-CASSETTE

The CARACAL is extremely compact, can be installed very quickly and offers perfect protection of the awning fabric. The maximum projection is 3000mm with a maximum width of 6000mm. Ideally suited for the shading of balconies and terraces.



PUMA

THE SLENDER CASSETTE AWNING

The PUMA is the top-of-the-range product within The SwingLine Collection. The fabric and mechanics are completely and permanently protected from the effects of the weather. The maximum projection is 3000mm with a maximum width of 5000mm with two folding-arms.



JAGUAR

THE AWNING FOR ALL OCCASIONS

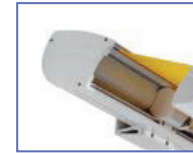
The standard TopLine model is a quality designed non-cassette folding-arm awning. The maximum projection is 4000mm with a maximum width of 6500mm with two folding-arms. Upto 7000mm width can be achieved in a single width with three folding-arms. With a few additional components, the JAGUAR can be equipped with additional cross-over arms and a variable valance option. The strongest non-cassette awning manufactured in the UK.



PANTHER

THE SUPERIOR AWNING

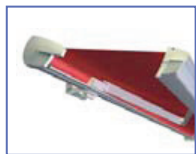
The all purpose semi-cassette awning for large area sun screening solutions enable projections of upto 4000mm and widths of upto 7000mm with three folding-arms. The elegant and compact awning offers protection of the fabric against dirt and water and can be easily installed on its square bar installation base. The PANTHER is the all purpose sun folding-arm awning thanks to its numerous options such as the option of additional cross-over arms and a variable valance option. The strongest semi-cassette awning manufactured in the UK.



COUGAR

THE NEXT GENERATION

The top-of-the-range product within The TopLine Collection. Both the awning fabric and the components are protected completely against the weather. The maximum projection is 4000mm with a maximum width of 6500mm with two folding-arms. Upto 7000mm width can be achieved in a single width with three folding-arms. The COUGAR can also be equipped with a variable valance option. The strongest full-cassette awning manufactured in the UK.



ZEPHYR

THE LATEST EDITION TO OUR FOLDING-ARM AWNING COLLECTION

The ZEPHYR is a modern designed full cassette folding-arm awning, bridging the gap perfectly between the Puma and Cougar models. With its contemporary design and futuristic appearance, the ZEPHYR is designed with Italian innovation, German engineering and British manufacturing experience. Its clean lines, corners and edges replace the rounded shapes of earlier years, and conforms with contemporary architecture, accommodating the design trends of the future.

Other Products Within The James Robertshaw External Blind Collection:

- Café / Promo Barriers
- Drop-Arm Awnings
- Umbrellas & Parasols
- Side Awnings
- Canopies, Walkways & Market Stalls
- External Roller Blinds
- Pergola Awnings
- Terrace Awnings
- Butterfly Awnings
- External Venetian Blinds
- Roof Awnings
- Traditional Victorian Box Jobs
- Freestanding Awnings
- Shade Sails
- Vertical Awnings



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