TECHNOLOGY IN MOTION

ONLY FOR
CERTIFIED SPECIALISTS!
NOT FOR END USERS!

MACO MULTI

TURN-ONLY AND
TURN&TILT HARDWARE





Maintenance and adjustment instructions for turn-only, turn&tilt, tilt-first and tilt hardware

CERTIFIED
SPECIALIST

MACO MULTI

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These maintenance instructions are only intended for certified specialists and their trained employees.
In addition to these maintenance instructions, the operation and maintenance instructions for the end user must always be observed.

These instructions can also be downloaded from www.maco.eu, order number 757071.

Safety and maintenance information

WARNING! **Risk of injury due to improper maintenance operations.**

Improper maintenance can lead to serious personal injury or material damage.

For this reason:

- Before starting work, ensure there is sufficient room for carrying out assembly work.
- Ensure that the assembly site is kept clean and tidy. Loose components and tools lying around or on top of each other can cause an accident. Only use intact tools.
- Work, such as the adjustment of hardware – particularly near to the pivot post and the scissor stay – as well as the replacement of parts and the hinging and unhinging of the sash must only be carried out by trained, skilled personnel.

WARNING! **Risk of injury due to heavy sashes.**

Non-compliance can result in serious personal injury or material damage.

For this reason:

- Correctly assess the weight of the sash before starting work.
- Large and/or heavy sashes should always be hinged and unhinged by several people. Overloading can result in serious long-term effects (back problems).

WARNING! Windows with damaged or defective hardware components must be secured to prevent any kind of use.

Damaged or defective hardware components must be replaced immediately.

NOTE When replacing hardware components, you must observe the relevant assembly instructions and/or the package leaflet.

Once hardware components have been replaced, the plastic drive track retaining clip must be, ‘snapped‘ on first operation. You must always check that the repaired sash functions correctly.

NOTE Warranty claims can only be accepted if all maintenance operations have been carried out in full and according to the maintenance intervals (specified in the end user operating instructions), and this can be verified.

NOTE Warranty claims can only be accepted if the unit has been installed correctly and by a certified specialist.

Measures to preserve the surface-finish

Protection against soiling:

- The hardware should be kept free of debris and soiling. Immediately remove soiling during the building stage caused by plaster, mortar or similar with water.
- Protect hardware components from contamination (dust, dirt, paint, etc.).

Protection against corrosion:

- Ventilate the hardware and or the rebate areas so that they are not exposed to direct moisture or condensation (important during the building stage).
- Aggressive vapours in conjunction with small formations of condensation can lead to fast corrosion of the hardware components.
- Timber frames and sashes with a high concentration of (tannic) acid must be treated with suitable surface coatings to ensure that these contents do not evaporate from the timber.
- No acetic acid or cross-linked acidic sealing compounds or those with the above mentioned contents may be used.
- The hardware must not be damaged with sharp edged tools.
- Clean the fittings with a moist cloth, avoid permanent wetness!

Protection against corrosive, acidiferous cleaning agents:

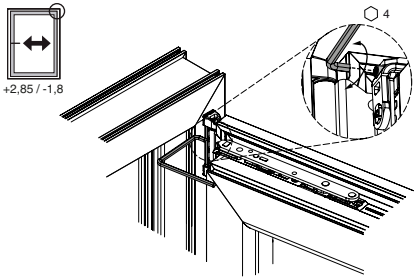
- Clean the fittings with a soft, lint-free cloth and a mild, pH-neutral cleaning agent in diluted form only. Never use aggressive, acidic, solvent-based or abrasive cleaners (scouring pads, steel wool, etc.). This can result in damage to the hardware!
- If hardware is damaged in this manner, it may impair the function and the safety characteristics. This can result in personal injury.
  Defective or damaged points must be repaired and restored immediately.
- We recommend re-treating the cropped edges of TRICOAT-PLUS fittings with the TRICOAT-PLUS touch-up paint.

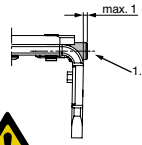
Adjustment values are always specified in regard to the hinge-side air gap and/or the bottom horizontal air gap.

Setting scissor stay or turn-only hinge

1. Lift/lower

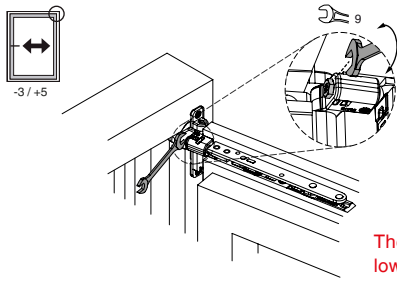
■ **MULTI-MATIC / MULTI-TREND corner hinge version**

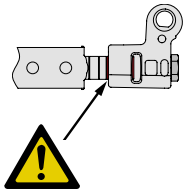




The adjusting screw must not protrude more than a maximum of 1 mm!

■ **MULTI-MATIC / MULTI-TREND stay and hinge**



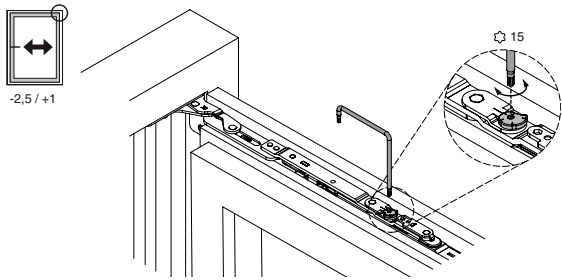


The sash may only be lowered to the third notch and/or to the red mark, otherwise the sash can fall out!

■ **MULTI MAMMUT**

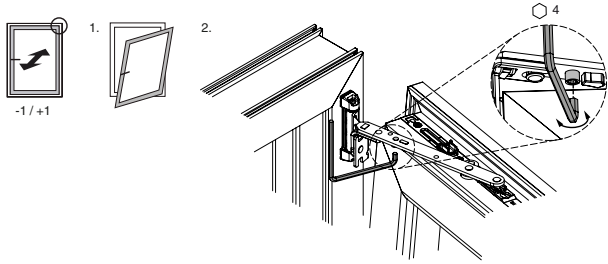
The side adjustment of the scissor stays up to version 2 requires the mandatory use of feeler gauge item no. 468684 to ensure that the minimum adjustment measurement is not underrun!

■ **MULTI POWER**

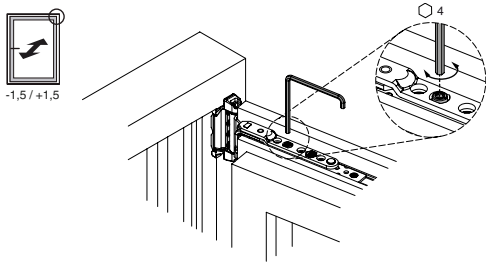


2. Gasket compression

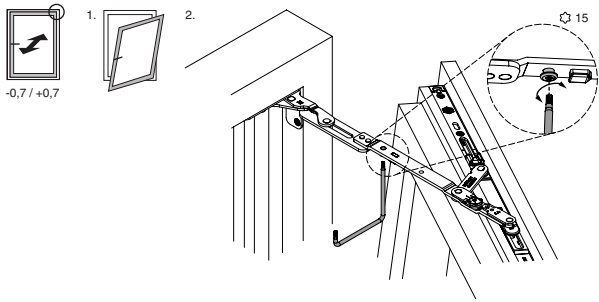
■ **MULTI-MATIC scissor stay**



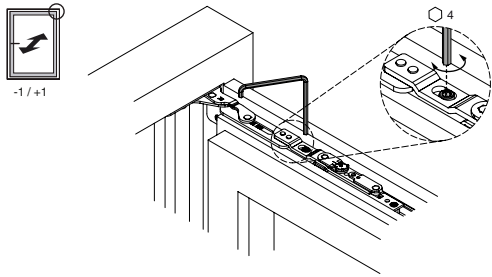
■ **MULTI-MATIC turn-only hinge - sash part**



■ MULTI POWER scissor stay

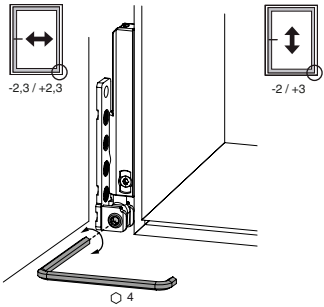


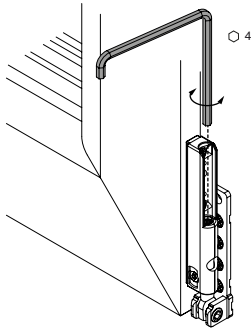
■ MULTI POWER turn-only hinge - sash part

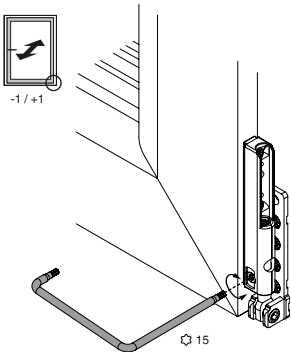


Pivot post setting

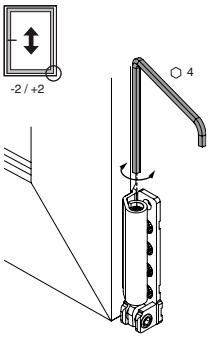
■ **PVC / DT / TO / AS pivot post**

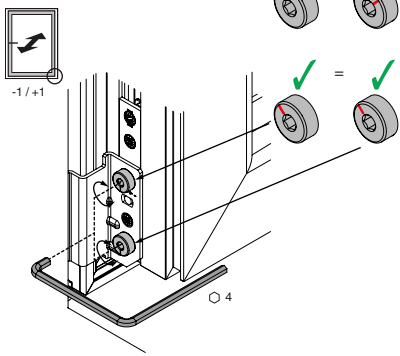




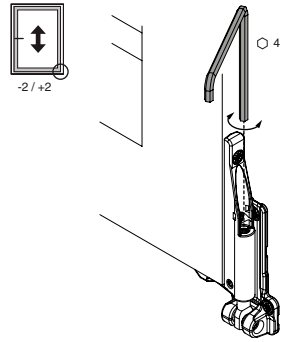


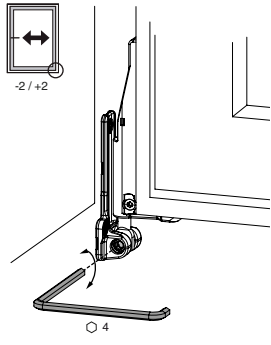
■ **PVC / AS rebated corner support**

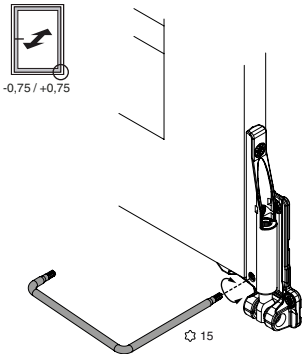




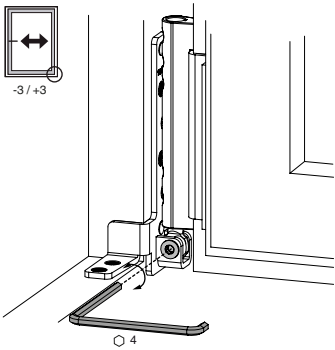
■ Drill-in pivot post

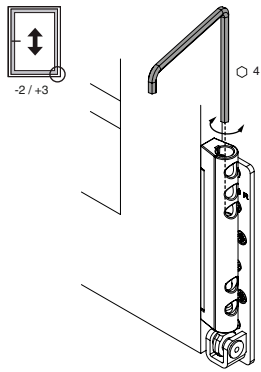




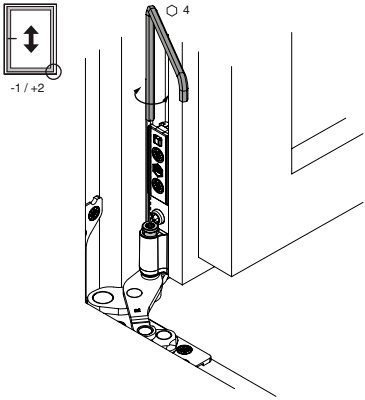


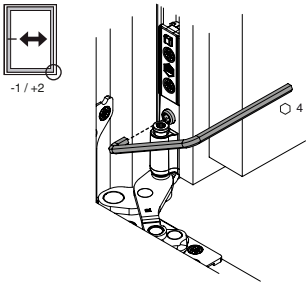
■ MULTI MAMMUT pivot post

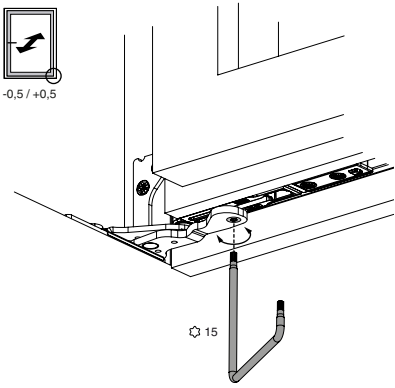




■ MULTI POWER pivot post



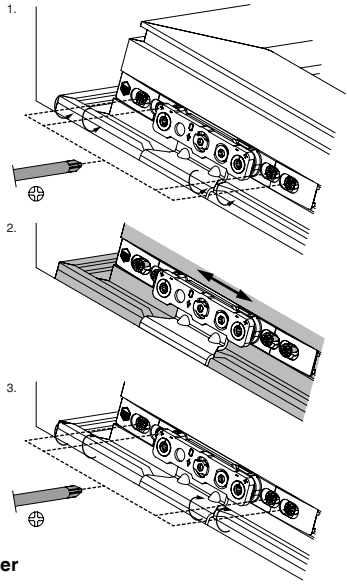




Tilt-only sash setting

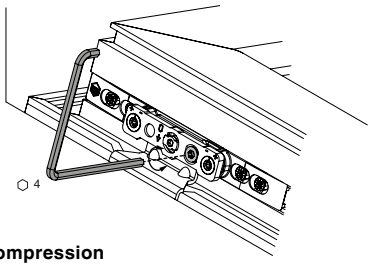
■ Side adjustment





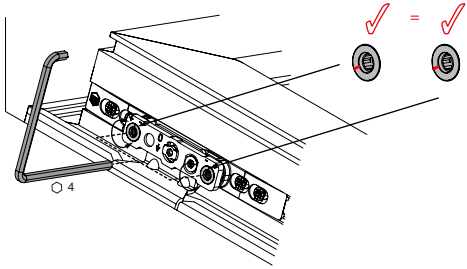
■ Lift/lower





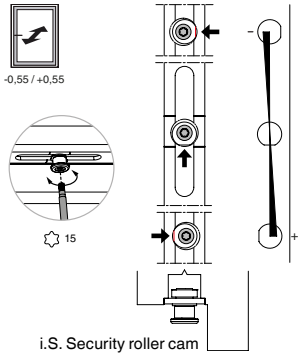
■ Gasket compression



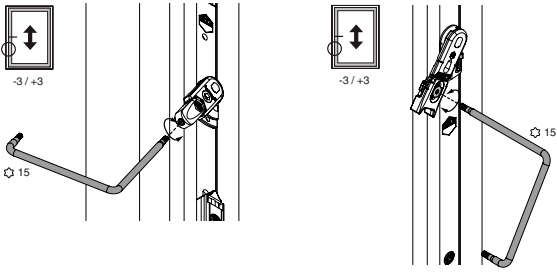


Setting the closing element, the bullet catch and the sash lifter

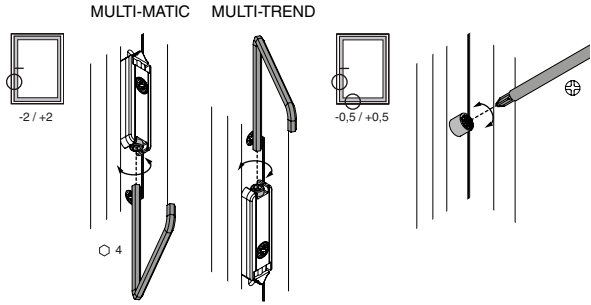
■ Setting the gasket compression on the cam



■ Setting the sash lifter

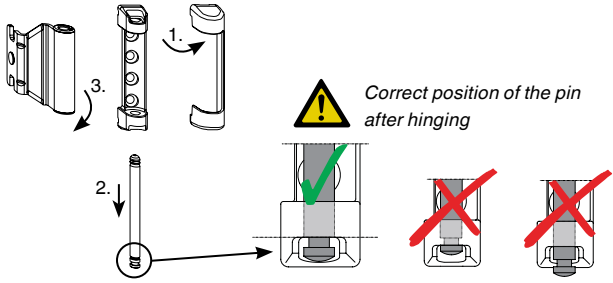


■ Setting the door catch and/or the bullet catch roll



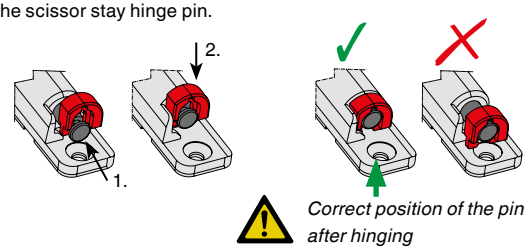
Hinging and unhinging the sash

■ **MULTI-MATIC / MULTI-TREND scissor stay hinge – PVC / DT / AS**

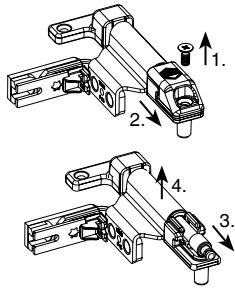


1. Remove the cover, if there is one.
2. Pull the scissor stay-hinge pin downwards with a suitable tool. The scissor stay hinge pin can only be withdrawn when the window is closed.
3. Open the sash 90° (secure against tilting on the espagnolette side), move the rebated scissor stay support arm out of the scissor stay hinge and lift the sash out of the pivot post. For hinging, carry out the above steps in reverse order.

■ **MULTI-MATIC / MULTI-TREND scissor stay hinge – stay and hinge**
As above, with the exception that a catch must be also clipped into the scissor stay hinge pin.



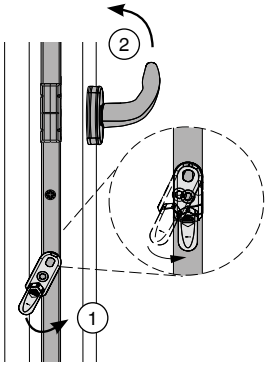
■ **MULTI MAMMUT scissor stay hinge**



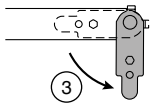
1. Remove the locking screw.
2. Remove the scissor stay hinge pin.
3. Pull the scissor stay hinge pin downwards and open the sash 90°.
4. Move the rebated scissor stay support arm out of the scissor stay hinge and lift the sash out of the pivot post.
   For hinging, carry out the above steps in reverse order.

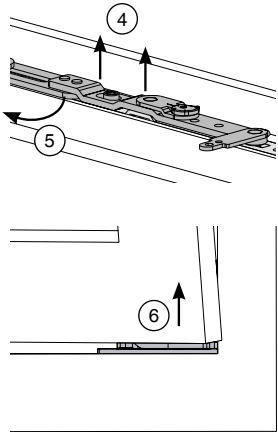
It is essential that the scissor stay hinge pin is installed.

■ **MULTI POWER (see also video at www.maco.eu):**



1. Open the sash 90°.
2. Trigger the mishandling device ① (only on turn&tilt windows), turn the handle to the tilt position ②.
3. Open the scissor stay arm safety device/turn-only hinge arm safety device ③.





4. Lift the scissor stay and/or turn-only hinge arm until it is completely free ④, then move it into the frame ⑤.
5. Close the sash.
6. Tilt the sash slightly and lift it up and out ⑥.

For hinging, carry out the above steps in reverse order.

Disposal:
Disposal of hardware and hinge components must comply with local regulations or laws.

Dear customer,
if you have any ideas or suggestions for improving our instructions, please send them by e-mail to:
feedback@maco.eu.

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