ASSEMBLY INSTRUCTIONS

MULTI ZERO
locking hook for
zero barrier threshold systems
Key

- Sash rebate height
- Sash rebate width
- Sash rebate width and height
- Maximum sash weight

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRW</td>
<td>sash rebate width</td>
<td>MM</td>
<td>MULTI-MATIC</td>
</tr>
<tr>
<td>SRH</td>
<td>sash rebate height</td>
<td>MM-KS</td>
<td>MULTI-MATIC with tilt lock bolt</td>
</tr>
<tr>
<td>FL</td>
<td>air gap</td>
<td>TO</td>
<td>Pot (hinge-side)</td>
</tr>
<tr>
<td>Ü</td>
<td>rebate leg (hardware axis)</td>
<td>DT</td>
<td>dual-drill holes</td>
</tr>
<tr>
<td>FT</td>
<td>rebate depth</td>
<td>AS</td>
<td>surface mounted (hinge-side)</td>
</tr>
</tbody>
</table>

Instructions: If not otherwise specified, the dimensions are stated in millimetres and packing units in items per box.

All illustrations are purely symbolic.

Further technical documents can be found in our online catalogue (TOM) at extranet.maco.eu

This print document is continuously revised and the current version can be downloaded from www.maco.eu.

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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Assembly instructions for timber or PVC central locking system and the hinge-side used (PVC, AS, DT, etc.) are also binding and must be followed.
General processing information

Intended purpose

These assembly instructions are binding for the “MULTI ZERO” hardware components.

Use and assembly of the components is only permitted in the manner described below. This locking hook for zero barrier threshold systems is not intended for any other use and therefore any other such use does not correspond to the intended purpose. The following points must also be observed:

- The application ranges, sash weights and processing guidelines of the system supplier and threshold manufacturer are binding and must be observed.
- The centre of gravity and the position of the glass pane can affect the application range and max. weights and must be requested where required.

1 Application materials

<table>
<thead>
<tr>
<th>PVC</th>
<th>Timber</th>
</tr>
</thead>
<tbody>
<tr>
<td>![PVC Image]</td>
<td>![Timber Image]</td>
</tr>
</tbody>
</table>

2 Application types and sash versions

![Application Types and Sash Versions Diagram]
3 Window manufacture types

4 Opening modes

5 Hardware range

6 Hinge-side
7 Hardware version (security)

8 Maximum sash weight

The maximum sash weight can be found in the assembly instructions for the relevant hinge-side.

9 Application ranges

CAUTION!
Use of a rebated corner support reduces the application range by 115 mm.
**CAUTION!**
Use of a rebated corner support reduces the application range by 115 mm.

<table>
<thead>
<tr>
<th>Application ranges for window sash</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>600 - 1310 mm</strong></td>
</tr>
<tr>
<td><strong>360 - 2800 mm</strong></td>
</tr>
</tbody>
</table>

- **FFB 600 - 960 mm =**
- **FFB 961 - 1060 mm =**
- **FFB 1061 - 1210 mm =**
- **FFB 1121 - 1310 mm =**
Sash profile - air gap, rebate leg and offset

12/18-13

12/18-9

12/20-13

12/20-9

Locking hook required space

CAUTION!
The profile must offer a minimum of 42 mm of space from the window rebate for the locking hook, without damaging the glass rebate.
Fitting groove
The fitting groove must be created according to the specifications in our print and online catalogues.

Frame rebate

Sash-threshold air gap

7.5 / 10 mm
See assembly instructions for the hinge-side used.

All notes regarding the use of application diagrams in our print and online catalogues must be taken into account.
Item list

Item no. 228710 = horizontal locking hook extension MM 350 silver for 7.5 mm air gap
Item no. 229814 = horizontal locking hook extension MM 350 silver for 10 mm air gap

Item no. 228711 = flush striker plate for horizontal locking hook MM FT22 adjustable Silver
Item no. 229518 = flush striker plate for horizontal locking hook MM FT28 adjustable Silver
Item no. 229946 = flush striker plate for horizontal locking hook MM FT24 adjustable Silver
Item no. 229945 = flush striker plate for horizontal locking hook MM FT30 adjustable Silver

<table>
<thead>
<tr>
<th>profile system</th>
<th>threshold</th>
<th>locking hook</th>
<th>striker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veka</td>
<td>Veka</td>
<td>228710</td>
<td>229518</td>
</tr>
<tr>
<td>Profine</td>
<td>Profine</td>
<td>229814</td>
<td>228711</td>
</tr>
<tr>
<td>Inoutic</td>
<td>GKG Combi Plan 0.0 rebate depth 22 mm</td>
<td>228710</td>
<td>228711</td>
</tr>
<tr>
<td>Rehau Synego / Geneo</td>
<td>GKG Combi Plan 0.0 rebate depth 22 mm</td>
<td>228710</td>
<td>228711</td>
</tr>
<tr>
<td>Rehau Synego / Geneo</td>
<td>GKG Combi Plan 0.0 rebate depth 24 mm</td>
<td>228710</td>
<td>229946</td>
</tr>
<tr>
<td>Schüco</td>
<td>Schüco</td>
<td>228710</td>
<td>250210</td>
</tr>
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<td>PVC Systems *</td>
<td>GKG Combi Plan 0.0 rebate depth 22 mm</td>
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<td>228711</td>
</tr>
<tr>
<td>PVC Systems *</td>
<td>GKG Combi Plan 0.0 rebate depth 24 mm</td>
<td>228710</td>
<td>229946</td>
</tr>
<tr>
<td>Timber Systems *</td>
<td>GS-Stemeseder rebate depth 30 mm</td>
<td>228710</td>
<td>229945</td>
</tr>
<tr>
<td>Timber Systems *</td>
<td>4-5 mm air gap, mill-in</td>
<td>228710</td>
<td>228874</td>
</tr>
</tbody>
</table>

* Observe the instructions of the system supplier!

Other items needed (all without supporting-pins)

Item no. 222214 MM vertical, extendable corner element without i.S. cam
Item no. 206630 MM extendable faceplate extension MM 140
Item no. 206197 MM extendable faceplate extension MM 235

Other items needed french window sash

Item no. 229745 center lock 125 without i.S. cam
Item no. 229658 french casement drive gear for hook closure SRH 1701 - 1950
Item no. 229659 french casement drive gear for hook closure SRH 1951 - 2200
Hardware combination

S.R.W. 540 - 900

S.R.W. 901 - 1000

S.R.W. 1001 - 1150
Hardware combination

S.R.W. 1151 - 1250

S.R.W. 1251 - 1300

S.R.W. 1301 - 1450
Hardware combination

S.R.W. 1451 - 1550

S.R.W. 1551 - 1650

S.R.W 1651 - 1800
Hardware combination french window sash

S.R.W. 600 - 960

S.R.W. 961 - 1060

S.R.W. 1061 - 1210

S.R.W. 1211 - 1310
Installing the fittings on the sash

Routing-hole pattern

<table>
<thead>
<tr>
<th>Width</th>
<th>X1 / X2 / X3</th>
<th>Y1 / Y2 / Y3</th>
</tr>
</thead>
<tbody>
<tr>
<td>540 - 900</td>
<td>219.5</td>
<td>300</td>
</tr>
<tr>
<td>901 - 1000</td>
<td>219.5 / 569.5</td>
<td>300 / 650</td>
</tr>
<tr>
<td>1001 - 1150</td>
<td>219.5 / 709.5</td>
<td>300 / 790</td>
</tr>
<tr>
<td>1151 - 1250</td>
<td>219.5 / 604.5</td>
<td>300 / 885</td>
</tr>
<tr>
<td>1251 - 1300</td>
<td>219.5 / 944.5</td>
<td>300 / 1025</td>
</tr>
<tr>
<td>1301 - 1450</td>
<td>219.5 / 569.5 / 919.5</td>
<td>300 / 650 / 1000</td>
</tr>
<tr>
<td>1451 - 1550</td>
<td>219.5 / 709.5 / 1059.5</td>
<td>300 / 790 / 1140</td>
</tr>
<tr>
<td>1551 - 1650</td>
<td>219.5 / 604.5 / 1154.5</td>
<td>300 / 885 / 1235</td>
</tr>
<tr>
<td>1651 - 1800</td>
<td>219.5 / 944.5 / 1294.5</td>
<td>300 / 1025 / 1375</td>
</tr>
</tbody>
</table>

*Routing with milling cutter Ø 16 at least 42 mm in sash (fitting groove centre)
Installing the fittings on the french window sash

Routing-hole pattern french window sash

<table>
<thead>
<tr>
<th>Width Range</th>
<th>X1 / X2 (mm)</th>
<th>Y1 / Y2 (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 - 960</td>
<td>279.5</td>
<td>360</td>
</tr>
<tr>
<td>961 - 1060</td>
<td>279.5 / 633.5</td>
<td>360 / 710</td>
</tr>
<tr>
<td>1061 - 1210</td>
<td>279.5 / 773.5</td>
<td>360 / 850</td>
</tr>
<tr>
<td>1211 - 1310</td>
<td>279.5 / 868.5</td>
<td>360 / 945</td>
</tr>
</tbody>
</table>

* Routing with milling cutter Ø 16 at least 42 mm in sash (fitting groove centre)
Installing the fittings on the sash / french window sash

**Locking hook installation**

- Slide VCI-wrappet item no. 371808 over hook lock housing (see note).

- Insert locking hook 1 in routing and screw in place. Screw dimension 2, in PVC the screw must protrude through both fitting grooves. Screw diameter min. 4 x 35 mm.

**NOTE!**
By using a VCI protective wrappe for the housing, the corrosion protection and thus the functionality is significantly increased!

**NOTE!**
The joint and driving rain values are improved through additional sealing with silicone.

**Locking hook screw fixing**

**CAUTION!**
Screw only the outermost screw on the end of the faceplate. The second screw hole is reserved for later use.
Installing the fittings in the threshold

Routing for hook

Routing for French window sash

<table>
<thead>
<tr>
<th>Range</th>
<th>X1 / X2 / X3</th>
<th>Y1 / Y2 / Y3</th>
</tr>
</thead>
<tbody>
<tr>
<td>540 - 900</td>
<td>277</td>
<td>312</td>
</tr>
<tr>
<td>901 - 1000</td>
<td>277 / 627</td>
<td>312 / 662</td>
</tr>
<tr>
<td>1001 - 1150</td>
<td>277 / 767</td>
<td>312 / 802</td>
</tr>
<tr>
<td>1151 - 1250</td>
<td>277 / 862</td>
<td>312 / 904</td>
</tr>
<tr>
<td>1251 - 1300</td>
<td>277 / 1002</td>
<td>312 / 1037</td>
</tr>
<tr>
<td>1301 - 1450</td>
<td>277 / 627 / 977</td>
<td>312 / 662 / 1012</td>
</tr>
<tr>
<td>1451 - 1550</td>
<td>277 / 767 / 1117</td>
<td>312 / 802 / 1152</td>
</tr>
<tr>
<td>1551 - 1650</td>
<td>277 / 862 / 1212</td>
<td>312 / 894 / 1247</td>
</tr>
<tr>
<td>1651 - 1800</td>
<td>277 / 1002 / 1352</td>
<td>312 / 1037 / 1387</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Range</th>
<th>X1 / X2 / X3</th>
<th>Y1 / Y2 / Y3</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 - 960</td>
<td>337</td>
<td>372</td>
</tr>
<tr>
<td>961 - 1060</td>
<td>337 / 687</td>
<td>372 / 722</td>
</tr>
<tr>
<td>1061 - 1210</td>
<td>337 / 827</td>
<td>372 / 862</td>
</tr>
<tr>
<td>1211 - 1310</td>
<td>337 / 922</td>
<td>372 / 954</td>
</tr>
<tr>
<td>1251 - 1300</td>
<td>337 / 1062</td>
<td>372 / 1097</td>
</tr>
</tbody>
</table>

* Milling depth 3 mm
** Front edge of threshold
Installing the fittings in the threshold

Installing the striker plates for the locking hook

**CAUTION!**
Solid screw fixing in the lining profile incl. reinforcement profile 30 x 30 x 1.5 mm / in the substructure must be guaranteed. Screw dimension at least Ø 4.2 x 50 mm!

Threshold with frame must be fully lined. The load must be borne in the lining profile / substructure. Country-specific specifications and guidelines for the floor structure must be taken into account.
Installing the PVC pivot post

Drill hole with jig 21694

To ensure correct positioning of the drilling jig, a 23 mm shim must be used between the jig’s stop-block and the threshold (without cover profile).

CAUTION!

<table>
<thead>
<tr>
<th>X</th>
<th>Y (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18Ü</td>
<td>17.5</td>
</tr>
<tr>
<td>20Ü</td>
<td>19.5</td>
</tr>
<tr>
<td>22Ü</td>
<td>21.5</td>
</tr>
</tbody>
</table>

Y = 17 mm (with VEKA)
Y = 23 mm (with GKG COMBI PLAN 0.0, Rehau, Inoutic)
Y = 26 mm (with Profine)

Drilling-hole pattern 7.5L

Y = 13.5 mm (with VEKA)
Y = 19 mm (with GKG, Rehau, Inoutic)
Y = 21.5 mm (with Profine)
Installing the PVC corner support

Drill hole with jig 228776

**CAUTION!**
To ensure correct positioning of the drilling jig, the drill template 2 must be in position 3.

**CAUTION!**
Place drilling jig at the bottom on the doubling profile.

Drilling-hole pattern

- Y = 22 mm (with GKG, Rehau, Innotic)
- Y = 23 mm (with VEKA)
- Y = 24.5 mm (with Profine)

* = top edge fitting groove (doubling profile)
Installing the MULTI MAMMUT pivot post

Drill hole with jig 213096

CAUTION!
To ensure correct positioning of the drilling jig, a 23 mm shim must be used between the jig’s angled stop and the threshold (without cover profile).

Drilling-hole pattern 7.5L

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>18Ü</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>20Ü</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>22Ü</td>
<td>27</td>
<td>23</td>
</tr>
</tbody>
</table>

Y = 23 mm (with VEKA)
Y = 27.5 mm (with GKG, Rehau, Inoutic)
Y = 40 mm (with Profine)
Installing the MULTI MAMMUT corner support

Drill hole with jig 228043

**CAUTION!**
To ensure correct positioning of the drilling jig, the drill template 2 must be in position a.

**CAUTION!**
Place drilling jig at the bottom on the doubling profile.

Drilling-hole pattern

Y = 22 mm (with GKG, Rehau, Inoutic)  
Y = 23 mm (with VEKA)  
Y = 24.5 mm (with Profine)  
* = top edge fitting groove (doubling profile)
Hinging the sash in the frame

The casement door sash is hinged in the frame according to the assembly instructions of the hinge-side used.
Locking hook settings

Gasket compression setting

Set both screws equally.

Lateral, gasket compression and height adjustments

See assembly instructions for the hinge-side used.