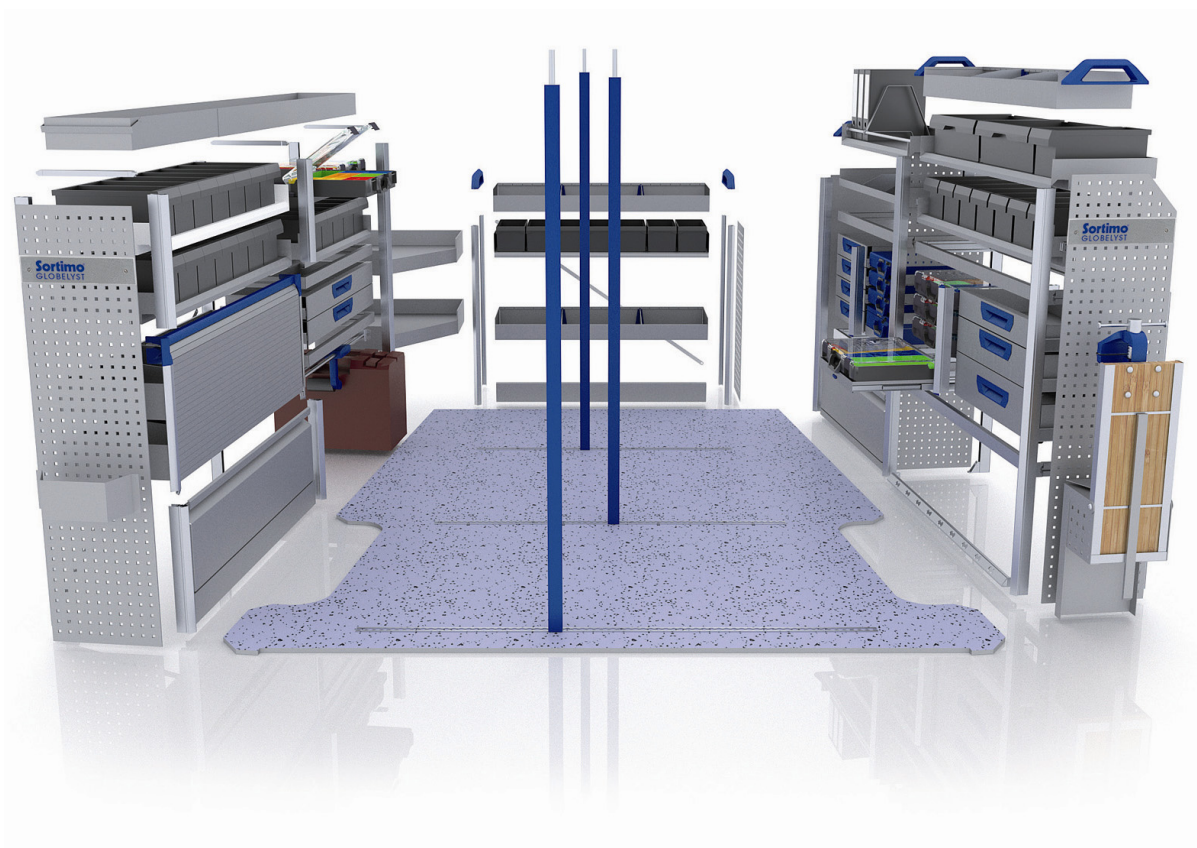


Fitting instructions In-vehicle equipment fitting



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Installation and fitting of Sortimo in-vehicle equipment



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„Easy fitting“

The following fitting instructions describe how to fit your Sortimo equipment into your vehicle. Please ensure to always fit the equipment on a Sortimo safety floor (in the following it is called floor insert) otherwise the equipment needs to be screwed to the floor.

These instructions are for the fitting of a pre-assembled block. Other fitting instructions are available for individual products. Please ask your Sortimo partner.

Separate fitting instructions are also available for the MaxxiSpaceFrame where the standardized equipment and prefabricated fixing brackets save time and money.

Please use these instructions when fitting the vehicle equipment yourself. Please follow the indicated sequence of working steps. On page 3 you will find the tools you need.
















Maximum safety is only guaranteed when following these fitting instructions.

Please note that the 3 year Sortimo warranty only applies when fitting is carried out by one of our authorized dealers or partners.

Required tools

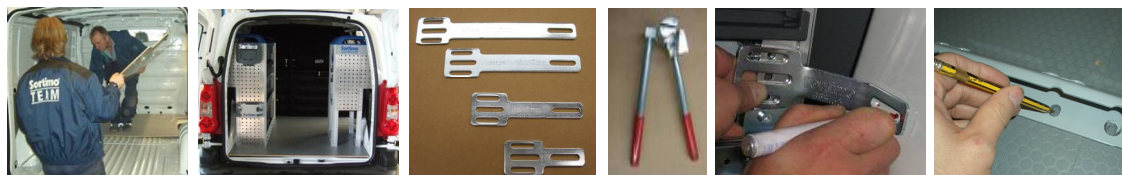
The following tools are required for the fitting. Depending on the type of fastening, some tools will not be necessary.

However In the case of some vehicles, it may be necessary to use tools not listed here to drill the original lashing points.

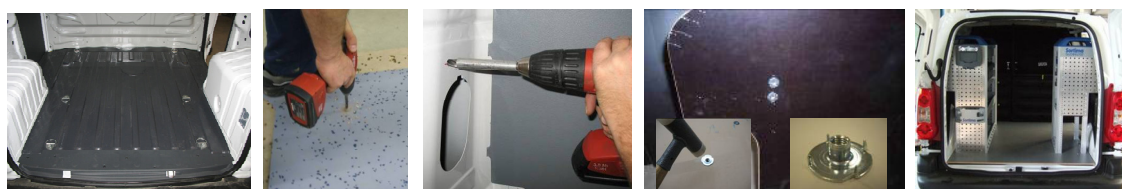
Electrical drill with speed control.		
Rivet gun or tongs For steel rivet nuts M8		
Bending pliers, alternatively vice (with aluminium jaws and rounded edges)		
Twist drill D=2,5 mm; D=5,5 mm; D=9 mm; D=7 mm; D=11 mm; D=11,2 mm		
Countersink D=15 mm		
Forstner bit D=25 mm; D=30mm		
Hexagon bit or Allen screw Gr. 3 mm, 4 mm, 6 mm		
Hand ratchet with socket or fork wrench SW 8 mm; 10 mm; 13 mm		
Phillips-tip screwdriver PZ Gr. 2		
Hammer		

Brief summary of the fitting steps

For a better understanding please see the fitting steps below. A detailed description of these steps is available from page 5.



1. Please put the Sortimo floor inserts and the blocks into the vehicle.
2. Bend the fastening bracket for the side wall fastening.
3. Mark the floor and wall fastenings.



4. Remove the equipment blocks and the Sortimo floor inserts from the vehicle.
5. Drill all marks on the floor inserts and the vehicle spars.
6. Insert the insert nut on the underside of the floor.
7. Put blocks and floor inserts back into the vehicle.



8. Align blocks according to floor and wall lashing points.
9. First screw the blocks to the floor, then screw on fastening brackets.
10. Attach protective caps.
11. Final check.

General preparation

Please check that your order is complete and contains the quantity and models you ordered. Please compare our General Terms of Business and Delivery.

Assembly and fastening materials are not included in the delivery of the equipment blocks. Please contact your sales representative for any questions you may have.

In order to meet the high safety requirements you should only use original Sortimo materials. Please ensure that the screws you'll be using for the equipment are pawl screws and flanged nuts.

The corresponding torques of the unions are shown in the following table.

Torques for screw fastenings:

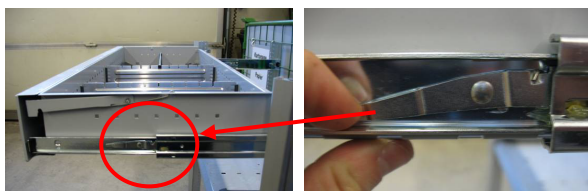
M6 with 7-8 Nm

M8 with 20-25 Nm



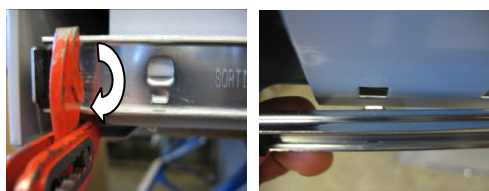
Before starting to fit the equipment into the vehicle please remove all drawers, cases and boxes from the equipment block.

Telescopic rails depth 4/depth 5
Drawer depth : ~382 mm/ ~486 mm)



1. Completely pull out the drawer. Unlock telescopic guides on the left and right side. Remove drawers.

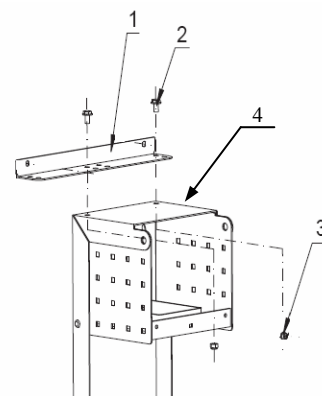
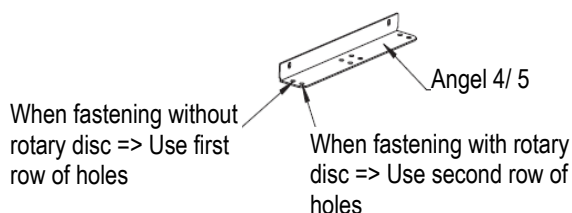
Telescopic rails depth 7 /depth 10
(Drawer depth : ~694 mm/ ~1006 mm)



1. Completely pull out the drawer.
2. Remove drawer on the left and right side from the bayonet fitting of the telescopic rails (by slightly turning the rail).

If you are planning to include a long components tray, a workbench or other additional parts with your equipment please ensure that these parts are included inside the block. Please mount the long components tray after the block has been fitted in your vehicle. The folding workbench will be mounted to the block right at the start of in-vehicle fitting.

To do so please fasten angle 4/5 (1) with two flanged screws M8x14 (2) (Art.-No. 71003826) and two flanged nuts M8 (3) (Art.-No. 71007879) to the bracket (4).



General preparation

Screw angle 4/5 to the uprights with two pawl screws M6x10 (Art.-No. 71003824) to one upright nut (Art.-No. 71002919) each using a raster of 26 (equivalent to 442 mm; 1 raster = 1 bore on the upright profile = 17 mm).

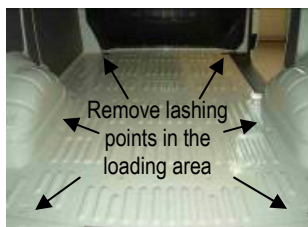
If the block has a plastic-panel, then a bore will be at raster 26 (D=20 mm). A dome headed screw M6x16 (Art.-No. 71003916) with a washer is attached to this bore. When screwing the angle, the washer (Art.-No. 71003836) should be put between the upright and angle.

In addition, the bracket should be screwed to the lower part of the upright with a dome headed screw M6x16 (Art.-No. 71003916) and a nut insert (Art.-No. 71003716).

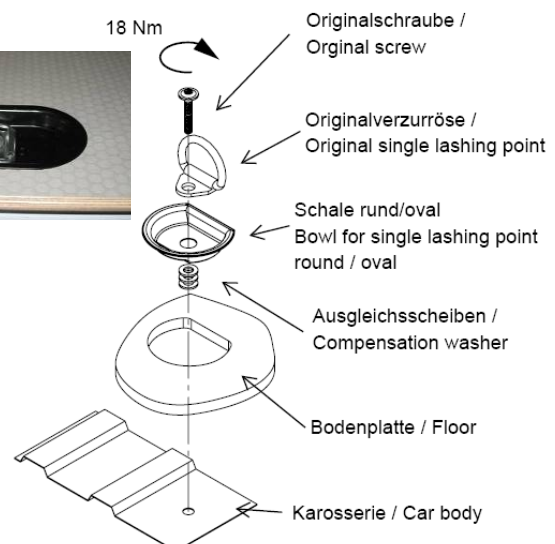


Alignment of floor and equipment

Any lashing points in the loading area must be removed. If the floor is laid floating in the vehicle, the screws without lashing points are re-screwed into the threads in the body floor (if necessary, protect against corrosion with underseal).



Put floor into the vehicle. Align multi-part floor inserts with the edges and the pre-drilled screwing points, then fix them towards each other with the standard Euro screws 6.3x10.5 (included with the safety floor delivery) and push floor inserts forward as much as possible.



If the floor has recesses for the lashing point receivers please follow the „fitting instructions for floor inserts“ (EABP) for individual vehicle models.

Any further fitting requires at least two lashing receivers that need to be installed and screwed on lightly so that the floor inserts are fixed with the vehicle floor.

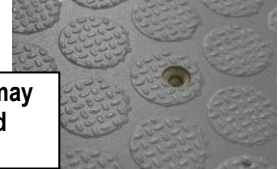
Alignment of floor inserts and equipment

If there are no recesses but the floor inserts are supposed to be connected with the vehicle floor, please mark the necessary locations on the floor inserts (you can use the pointed setscrews DIN 914 or similar) and depending on the size of the lashing point screws, drill them in accordance with the following table.

Size of thread	Drill diameter
M8	D=9 mm
M10	D=11 mm
M12	D=13,5 mm



Necessary borings may already be marked



The screws need to be screwed firmly into the lashing points to fasten the floor to the vehicle.

If the vehicle has wall cladding covering most of the spars and columns or obscuring existing borings, the side wall cladding must be removed.



If there are longitudinal lashing tracks on the side wall, you can also fasten the equipment to them. The corresponding procedure is not included in this description. Please ask your sales representative.



Put the block in the vehicle – as near as possible to the vehicle wall (due to any possible vibrational noise please avoid direct contact) and align parallel to the vehicle's major axis.



When positioning the block in the vehicle please make sure to fasten it in suitable positions (columns, sturdy spars, etc.). For more information please see page 9.

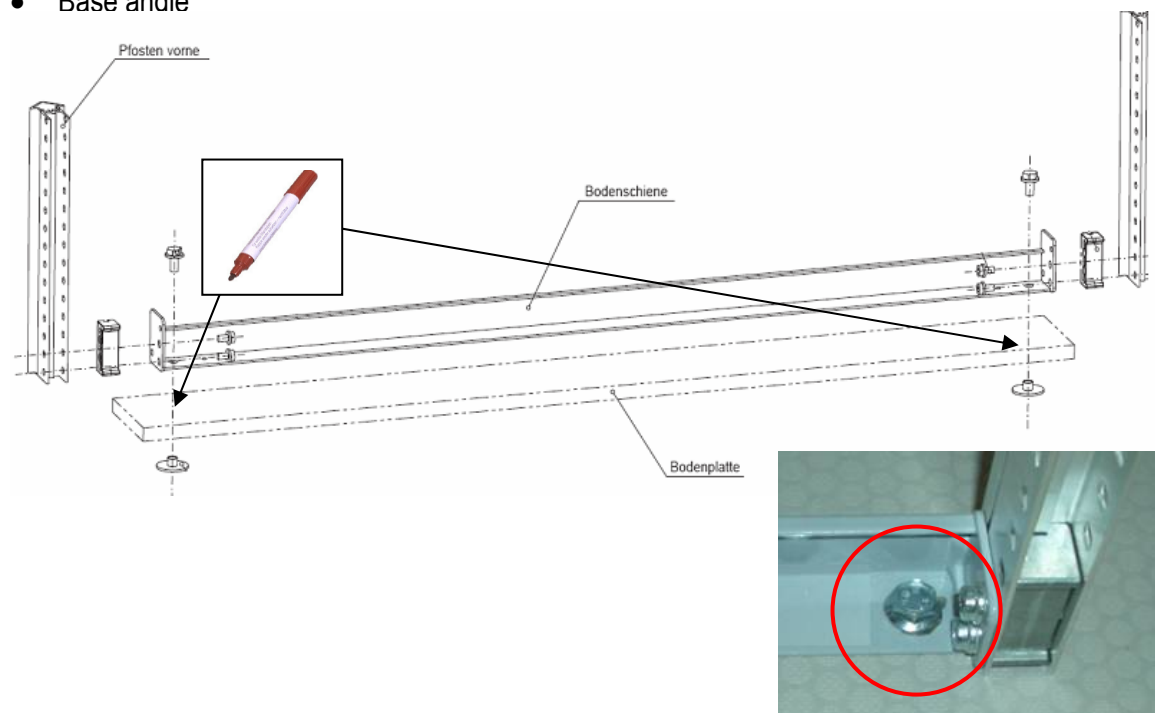


Preparation/ fastening to the floor inserts

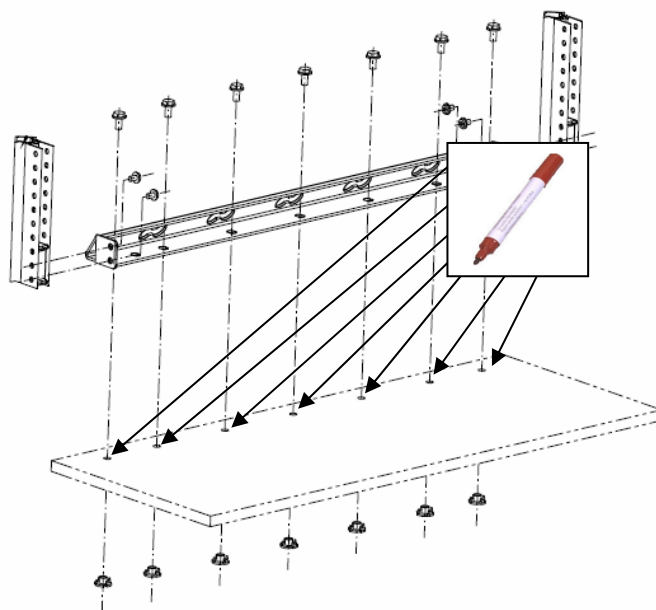
Please mark the positions where the block is to be fastened and later on follow with the borings for the floor anchor nuts.

Possible products for fastening the block to the floor inserts are shown on the following pages. To fasten the floor lashing track, markings, followed by borings, should be spaced every 120 mm. Regarding all other products there has to be at least one union per upright.

- Base angle

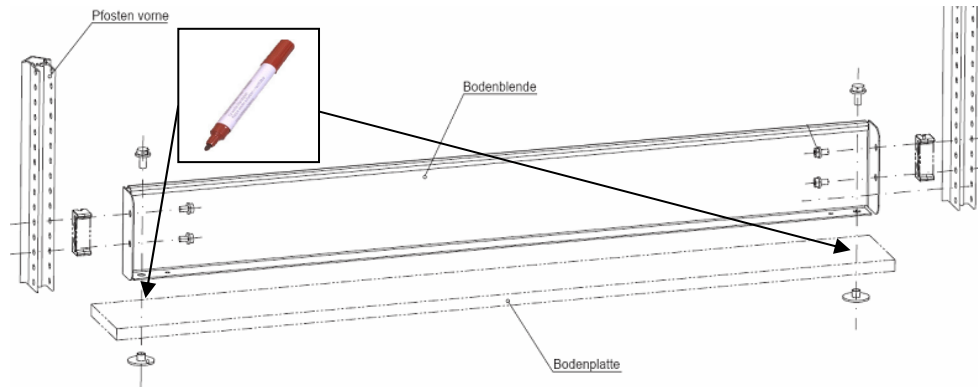


- Floor lashing track

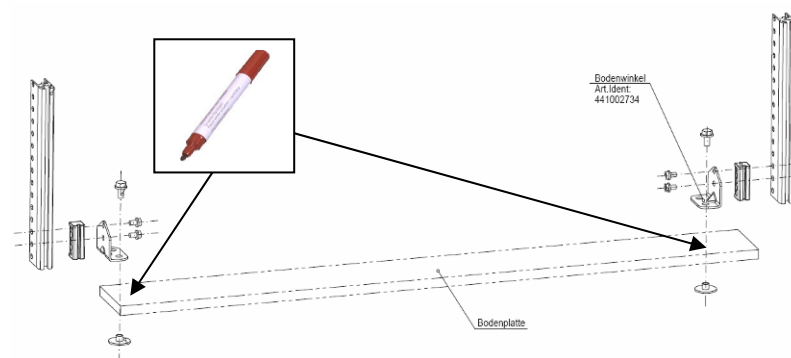


Preparation/ fastening to the floor inserts

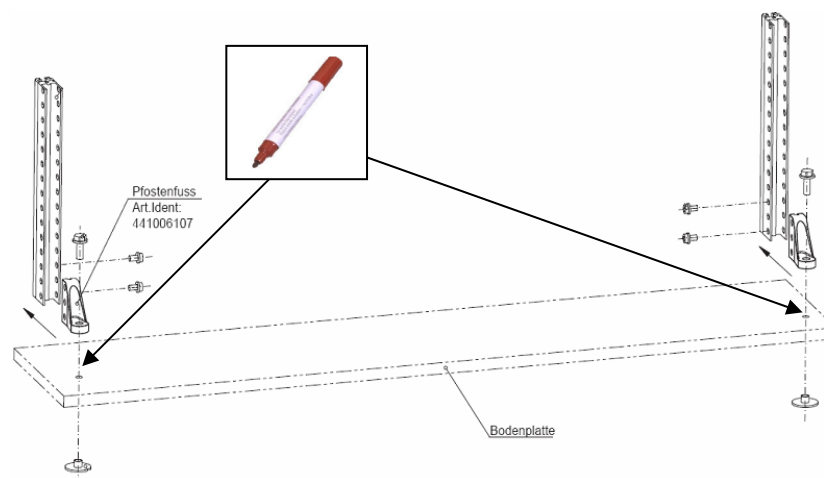
- Base plinth



- Floor bracket

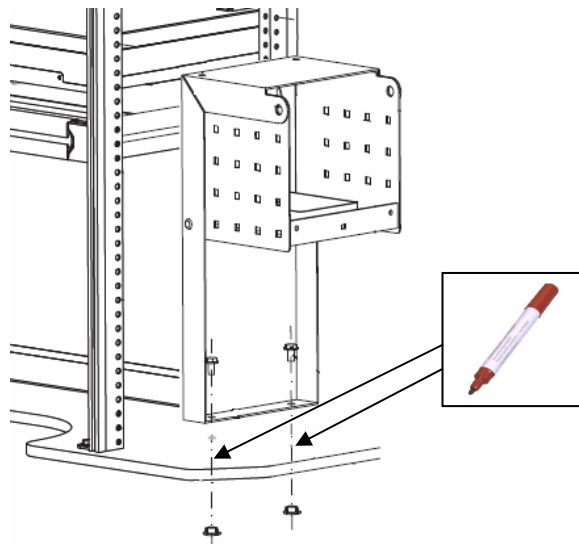


- Upright leg



Preparation/ fastening to the floor inserts

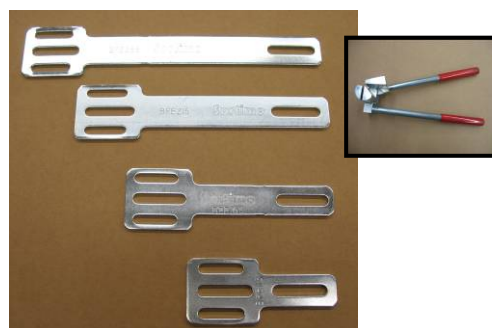
If the block has a folding workbench, please mark the corresponding borings for it...



Preparation/fastening to the side wall

Fastenings to the side walls is done with a universal fastening bracket. Fastening brackets are available in different sizes and have to be bent according to the fastening possibility.

- Fastening bracket 115 (115 mm, option)
- Fastening bracket 165 (165 mm, part of delivery)
- Fastening bracket 215 (215 mm, option)
- Fastening bracket 265 (265 mm, option)

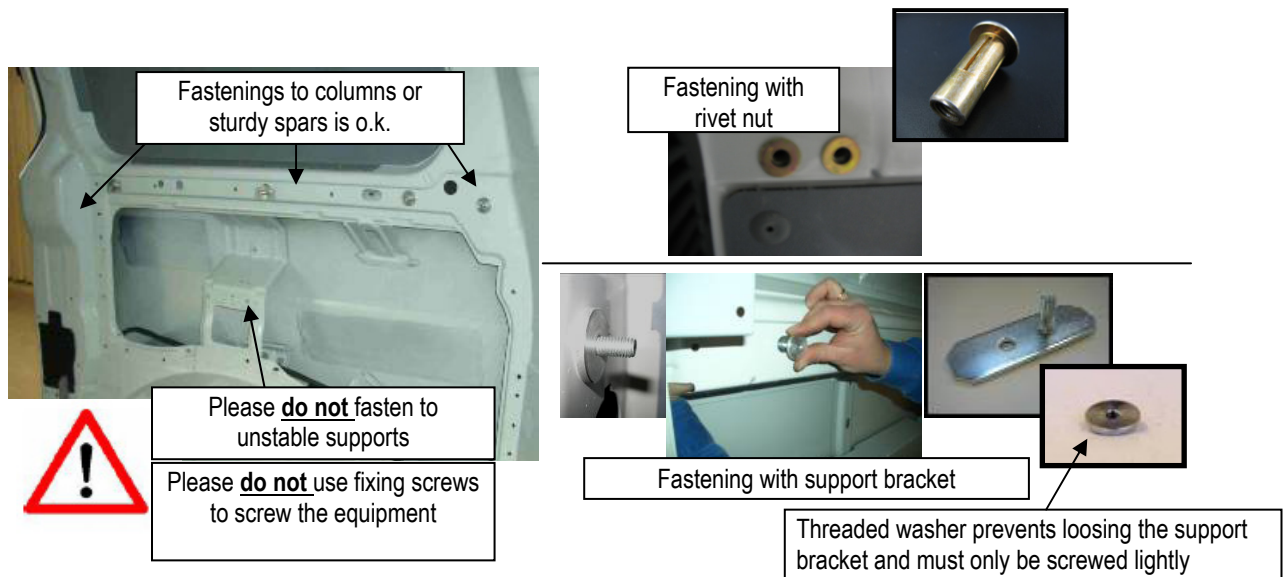


Before bending the bracket please read the information on the following pages.

Fastening to the vehicle body can be done with support brackets (BFP) or rivet nuts. When using the support brackets for fastening, the support bracket must be inserted in the boring from behind, i.e. it must be possible to grip behind the boring (for more details please see pages 10 and 13).

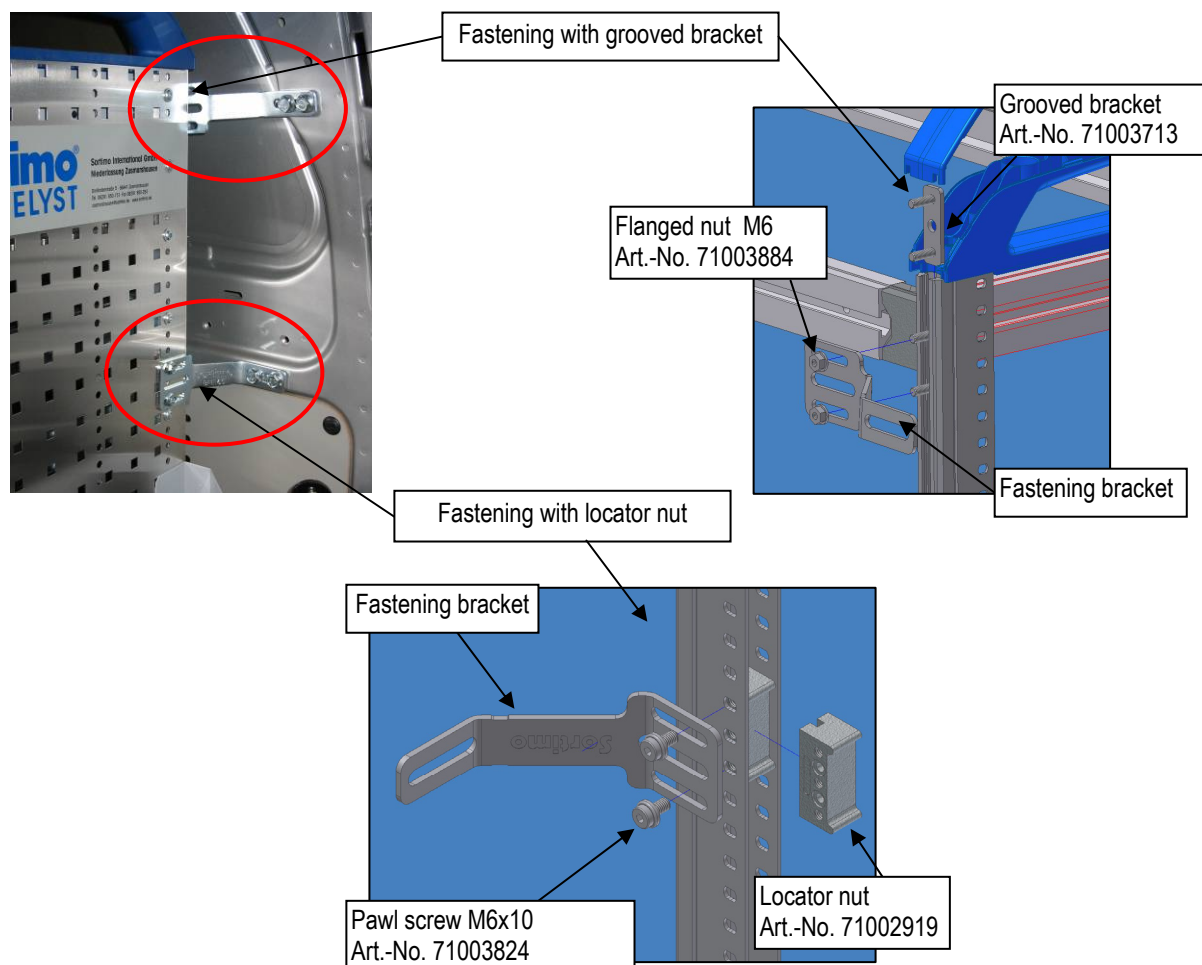
The rivet nuts can be placed at every suitable place (compare page 11).

Preparation/ fastening to the side wall



When using support brackets: They are available in different sizes and types. Please ask your sales representative.

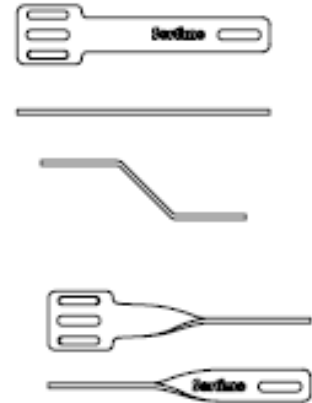
To fasten the fastening brackets to the block please use a grooved bracket or a locator nut.



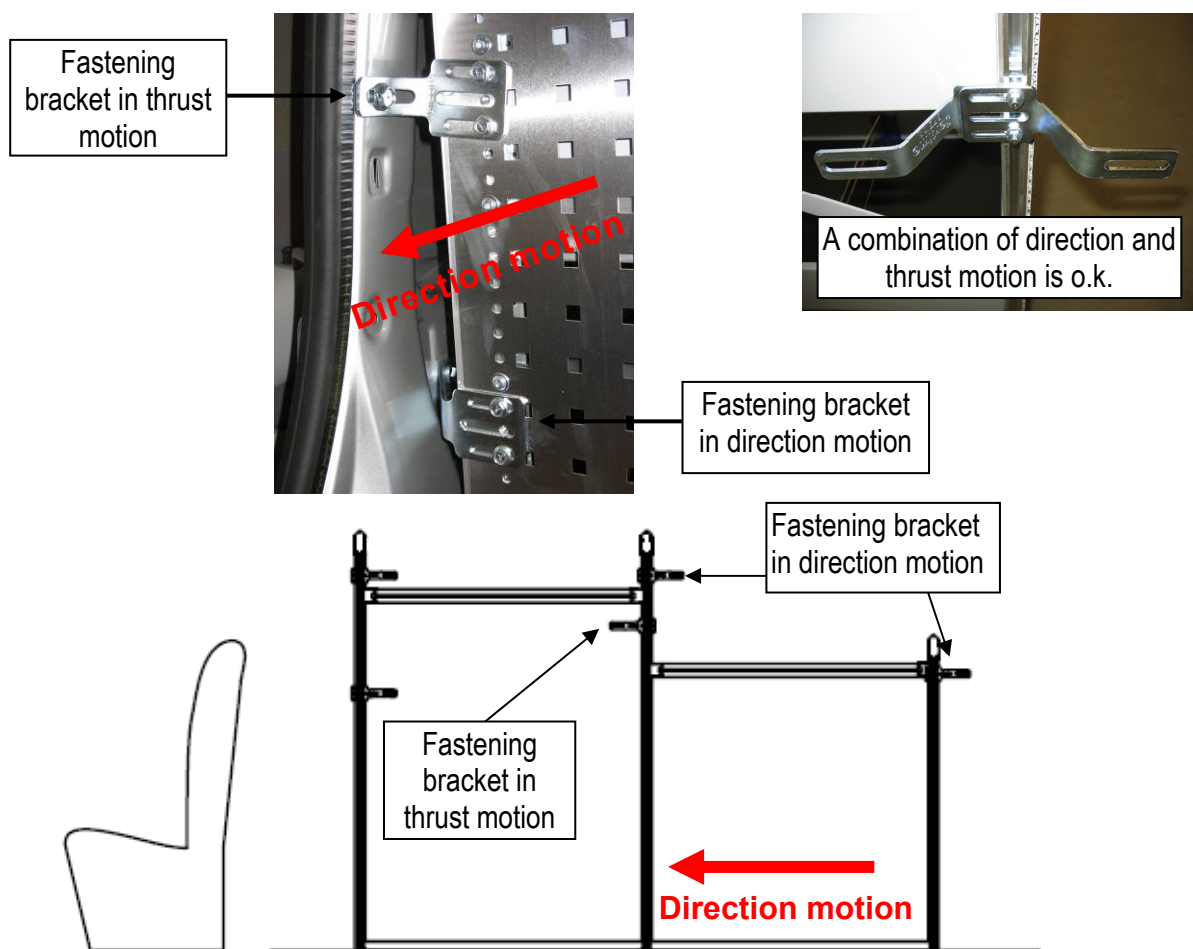
Preparation/ fastening to the side wall

You can now adjust the fastening brackets. When bending the brackets please follow the guide lines below:

- No 90°-bendings (instead: 2x45°)
- Bend fastening bracket only once (embrittlement)
- Please observe bending radius (notch effect! Smallest permissible bending radius is 4mm)
- If necessary, the brackets can be twisted (max. 90°)



Please observe the difference between the fastening bracket in direction motion and the fastening bracket in thrust motion:



As many as possible fastening brackets should be fastened in direction motion. However, at least one fastening bracket should be fastened in thrust motion.

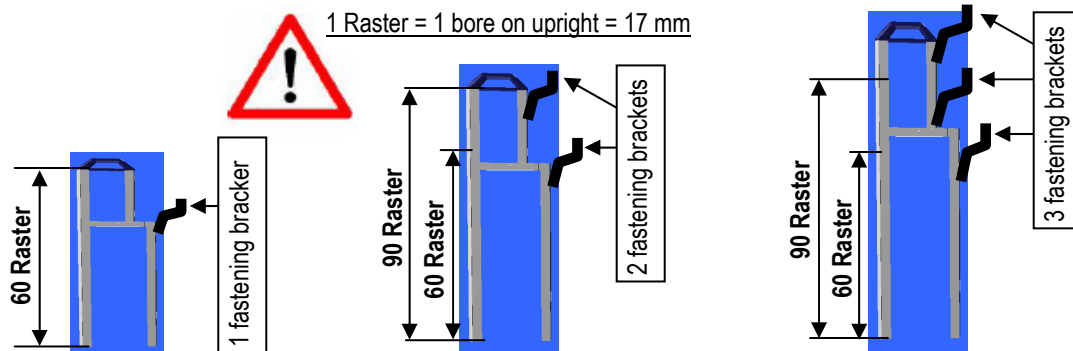
Preparation/Fastening to the side wall

The following applies to all rear uprights:

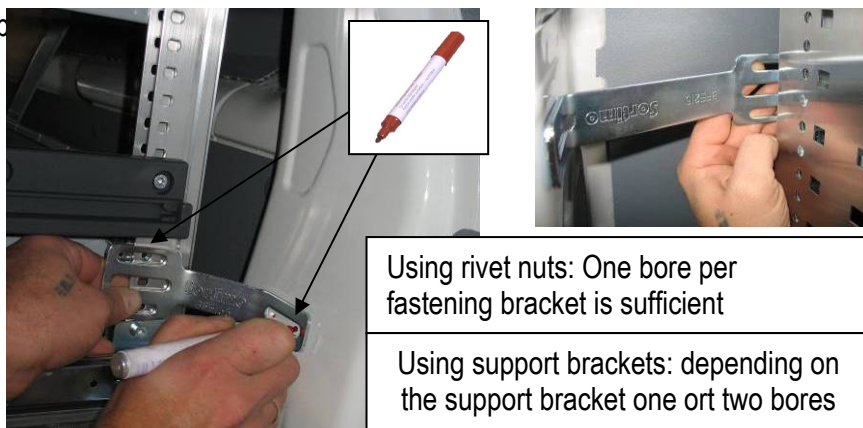
At least one fastening bracket per upright up to a total height of 60 notches (1000mm).
Please mount bracket as high as possible

At least 2 fastening brackets per upright up to a total height of 90 notches (1500 mm).
Mount one fastening bracket below 60 notches, the second one as high as possible.

At least 3 fastening brackets per upright at a total height of more than 90 notches (1500 mm).
Mount one fastening bracket below 60 notches (raster?), the second one between 60 and 90 notches and the third fastening bracket as high as possible.



After the brackets have been adjusted, please mark necessary locations on vehicle body and uprights.



Removal of the block and the safety floor(s) from the vehicle.

Preparation of the vehicle body

Drill the body where marked.



Please make sure to only drill through the inside sheet – do not damage the outside body of the vehicle.

To ensure this please use a taper sleeve.

Please pre-drill with a drill to diameter of 2.5 mm.

- When using support brackets please drill bore to a diameter of 9 mm.
- In case of rivet nuts to a diameter of 11.2 mm.

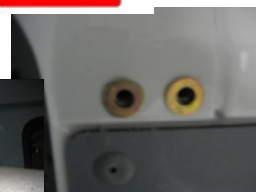
Preparation of the vehicle body

If necessary, remove the burrs from the bores and vacuum shavings before fitting the rivet nuts or support brackets.

Please ensure not to damage any cables in the spars during fitting.



Insert support bracket in the bore from behind and screw on with threaded washer.



Fasten M8 rivet nuts with rivet tongs or rivet gun

If the side wall cladding was removed, it should be re-fitted and new side wall cladding should be installed now. Please see separate fitting instructions for the side wall claddings. Please note that the cladding needs to be adjusted before fitting.

Mark locations of rivet nuts or support brackets on the side wall cladding and drill bores with suitable Forstner drill.

- **Rivet nut:** D=25 mm
- **Support bracket:** D=35 mm

Side wall cladding

Front upright

Washer 8.4
Art.-No. 71004867

Rivet M8x29
Art.-No. 71003987

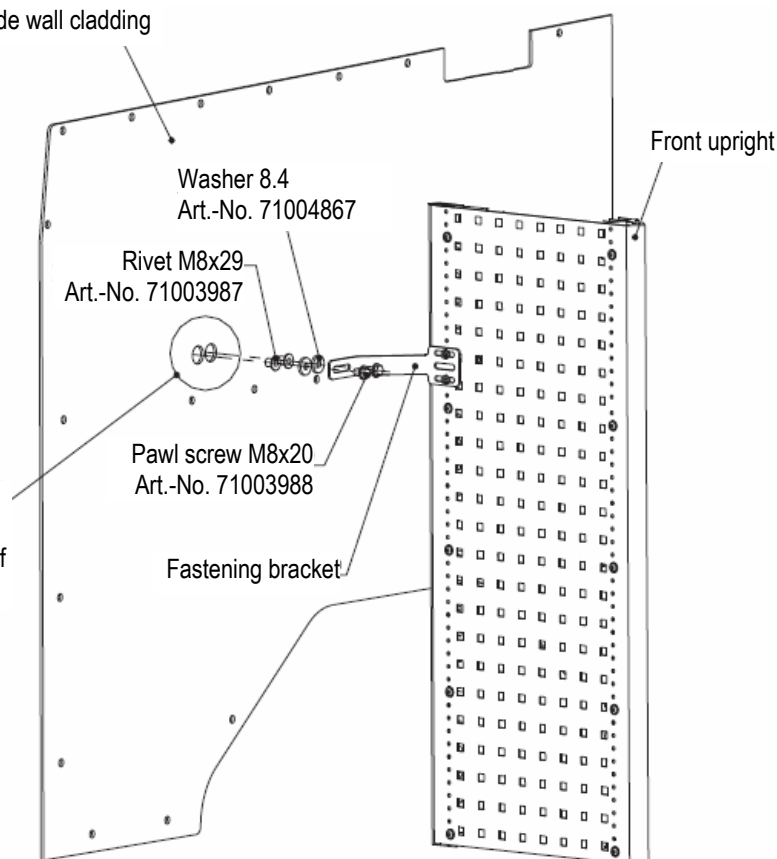
Pawl screw M8x20
Art.-No. 71003988

Fastening bracket

Mark out the bores and drill with a diameter of 25 mm



Using rivet nuts please insert washer 8.4 (8.4x22x2/ Art.-No. 71004867) between the nut and the fastening bracket (see illustration on the right).



Preparation of the floor inserts

Please drill the marked drilling points on the Sortimo floor inserts with a twist drill D= 11 mm.



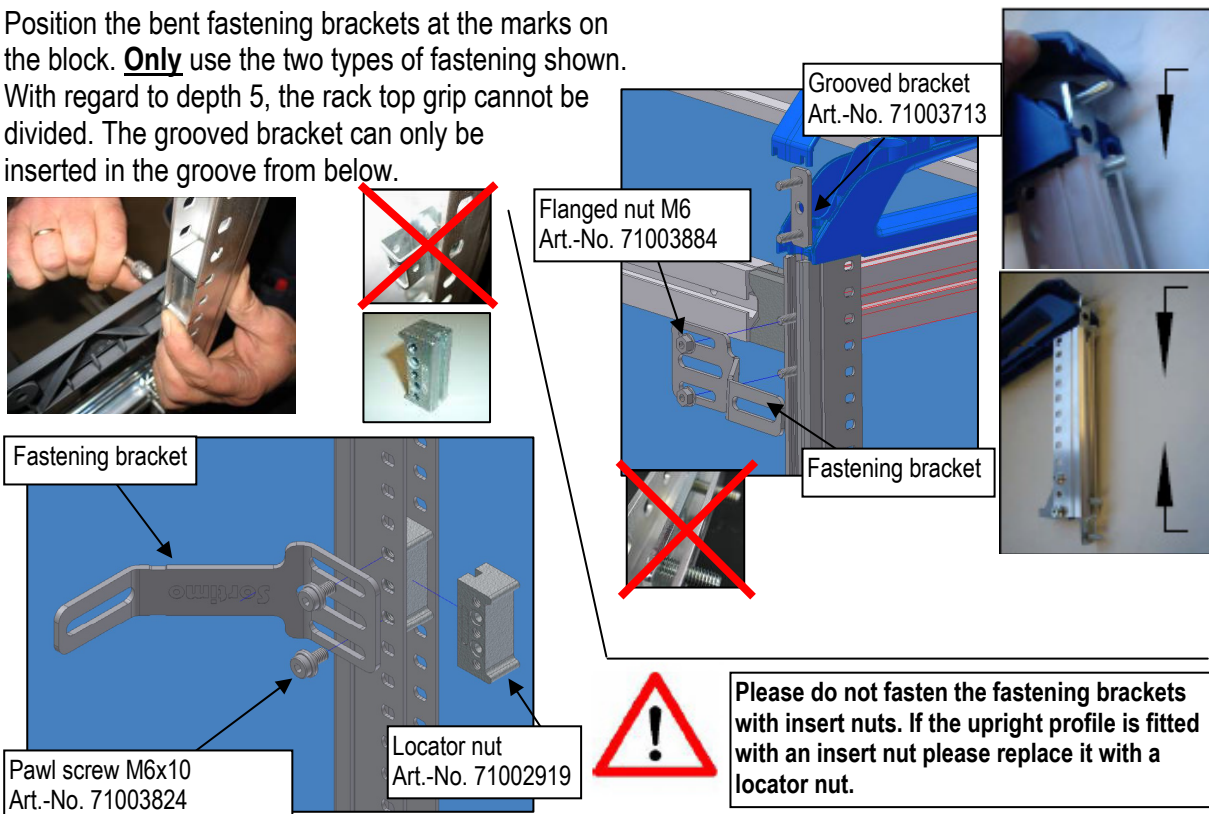
Turn the floor inserts over and slightly countersink the bores, D=15 mm.

Using a hammer please drive in the insert nuts (D=32 mm) from the underside of the floor.



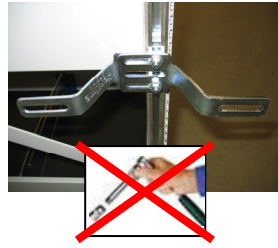
Preparation of the block

Position the bent fastening brackets at the marks on the block. **Only** use the two types of fastening shown. With regard to depth 5, the rack top grip cannot be divided. The grooved bracket can only be inserted in the groove from below.



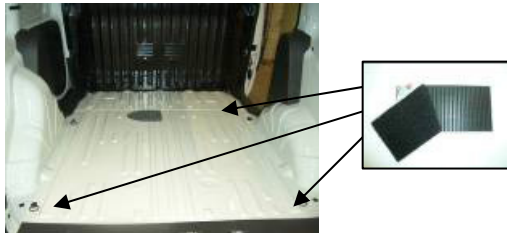
Preparation of the block

Screws and nuts should only be screwed on lightly.



In-vehicle fitting of the floor inserts and the equipment

If the floor inserts are to be glued on, please attach Velcro strips to the floor inserts (not included with the floor delivery, please ask your sales representative).



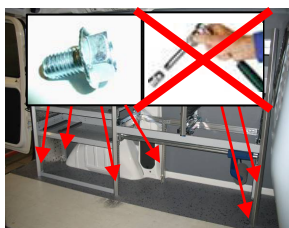
How to proceed:

- Remove one side of foil from Velcro strip and glue to the safety floor where appropriate.
- Then remove other side of the Velcro strip foil and attach the Velcro strip to the safety floor.

Put front and rear floor insert into the vehicle. Push the floor inserts forwards as far as possible, then screw floor inserts to the buffer edge at the pre-drilled points with standard Euro screws. If the floor inserts are screwed to the vehicle floor please attach screws/ lashing points as described on page 5.



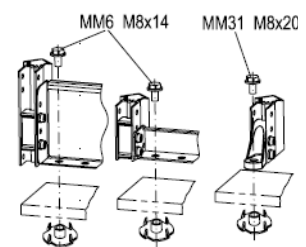
Put FE-3 block in the vehicle and align according to the lashing points on the floor. If o.k., please use the screws described below for fastening.



Floor bracket	
Base plinth	
Base angle	
Floor lashing track	
Folding workbench	
Upright leg	

Pawl screw M8x14
Art.-No. 71003826 (MM6)

Pawl screw M8x20
Art.-No. 71003988 (MM31)



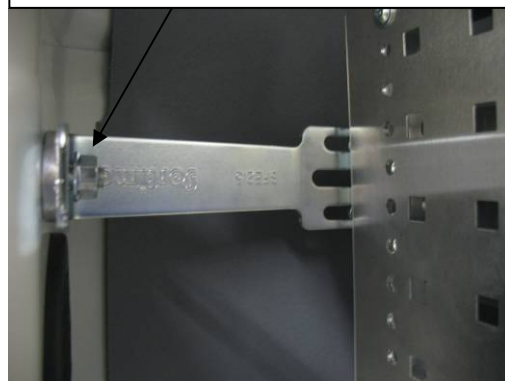
In-vehicle fitting of the floor inserts and the equipment

Please screw the fastening brackets mounted to the block at the rivet nuts or support brackets to the body (torque = 20-25 Nm).

Rivet nut: screw with pawl screw M8x20
(Art.-No. 71003988)



Support bracket: screw with pawl screw
M8
(Art.-No. 71007879)



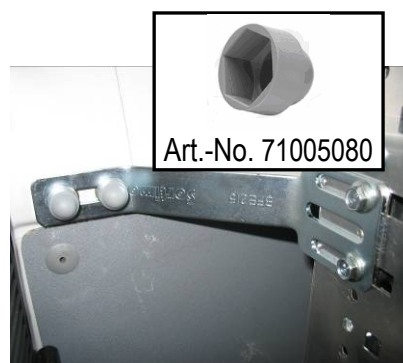
After the fastening bracket has been screwed to the body, please tighten M6 screws/nuts on the block. (torque 7-8 Nm).

Then screw the M8 screws on floor inserts (torque 20-25 Nm).



Please re-check all unions and if necessary, re-tighten them as indicated.

Lastly, please put protective caps on the M8 screws or M8 nuts.

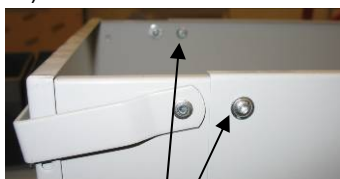


If a long components tray is to be included with the block, it should be installed now. Otherwise you can start to put in the drawers, boxes and cases.

How to proceed:

- Set the length of the long components tray.

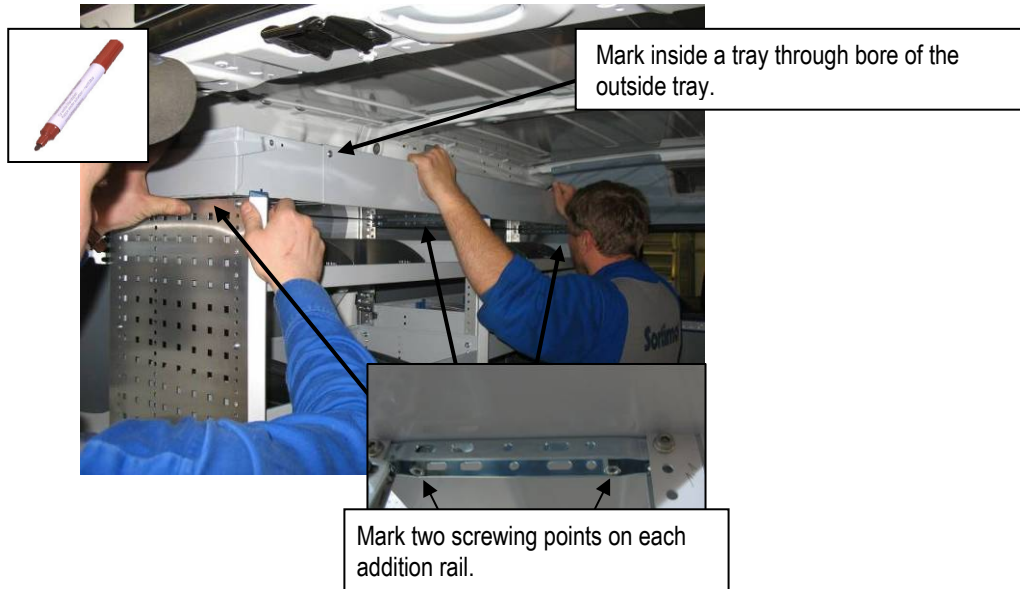
Unscrew dome headed screw M5x8 (please keep screw and nut, they will be needed again), position tray on the equipment in the vehicle and adjust length as required. (Please ensure that the drop front function works o.k.)



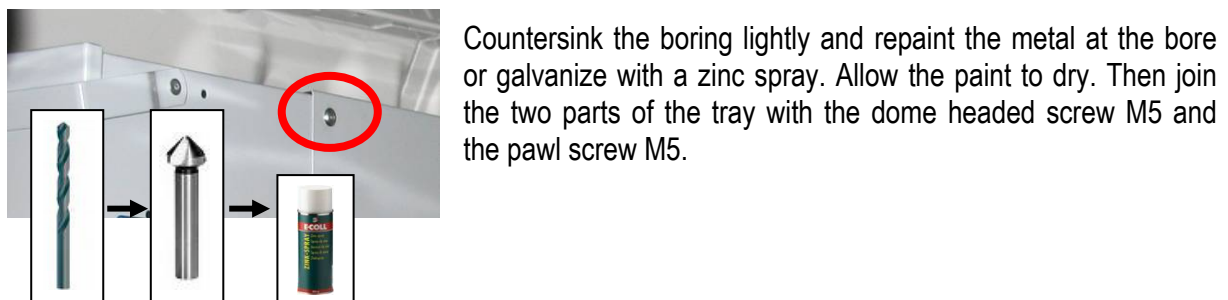
Unscrew dome headed screw M5x8/
flanged nut M5.

In-vehicle fitting of the floor inserts and the equipment

- Mark drilling points.



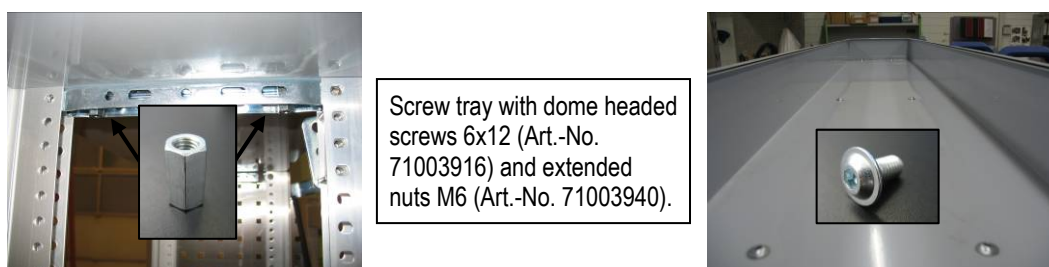
- Remove tray and drill at marked locations with twist drill D=5.5 mm.



Using the twist drill D=7 mm, drill the borings for screwing the long components tray to the addition rails (ABS). To remove burrs and repaint the trays, the two parts have to be disassembled. Using a twist drill D = 7 mm, you can now drill the bores needed to connect the long components tray to the addition rails (ABS). To remove burrs and re-paint the trays, they have to be disassembled before being connected.

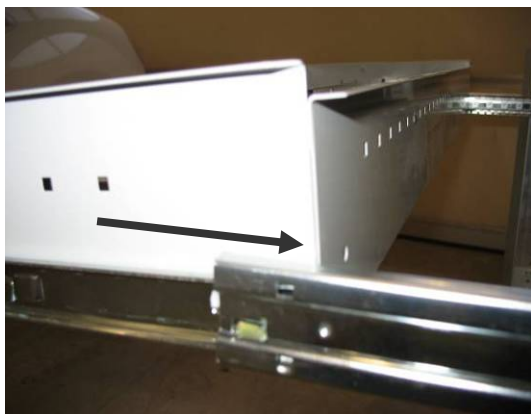
We recommend you put an anti-rattle mat into the tray and adjust it to the length of the tray.

- Screw tray to addition rails and put in anti-rattle mat.



In-vehicle fitting of the floor inserts and the equipment

Finally, please put drawers back into the block. To do so, put the drawers on the telescopic rails and close them. Closing the drawer may be a little hard at first.



Your Sortimo in-vehicle equipment is now ready to be used. Please note the following safety information before starting to use the equipment:

Operating and safety information

To ensure maximum safety please follow the information below:



1. Please check screwings, vehicle body, safety floor and equipment block at regular intervals (at least every 5,000 km, after tough assignments or after slamming on the brakes).
2. Max. surface loading per shelf or tray is 80 kg. Drawers are available with 45 kg or 60 kg load capacity. When loading the vehicle please ensure not to exceed the permissible total weight of the vehicle and the axle weight.
3. Please ensure safe storage of the load inside the equipment. If necessary, add dividers. Also plan on inserting anti-rattle mats in the drawers and shelves.
4. Please ensure secure lashing for all additional loads and include a sufficient number of lashing points and lashing equipment (lashing straps, load security net, etc.).
5. When transporting gas bottles please make sure that your vehicle is equipped with suitable ventilation, (floor, roof, side ventilator).

For any questions you may have please contact your sales representative or the Sortimo partner near you.