

Trailer-Drawer installation manual



The trailer drawer is designed for installation to any common sailplane trailer, which is at least 105cm wide and has clearance from the ground at least 35cm. The aluminium frame of the drawer with wide profiles ensures good compatibility with different structures, additional attachment holes can be drilled in a proper place when necessary.

The trailer drawer is ideal for storing and transport of equipment as **One man rigging system, Wing supports, Tow bar or similar**. The weight of the stored equipment should never exceed 32kg.



Common instructions:

- The drawer is designed to be installed to the left side of the trailer and behind the trailer axle with wheels.
- The drawer frame and the counterpiece for the lock should be attached in one plane, the simplest installation is to the cobra trailer with aluminium sandwich floor which is flat.
- The drawer frame should be attached through the spacer profiles into the plywood/plate floor in case of cantilever steel construction of the trailer floor. The spacers should be made from aluminium profiles of the same thickness as thickness of the cantilever construction.

Preparing the trailer and drawer for installation:

- 1) Check the low side of the floor, remove spare wheel holder if installed, shorten or remove all unnecessary bolts which might be an obstacle for the drawer or its frame. The bolts which must remain have to be grinded to maximum height of 10-15mm in the area of the drawer.



- 2) The installation is much easier when the trailer is lifted and supported safely in a levelled position (for example supported by wooden blocks or another safe supports).



- 3) **Use of a pallet mover is a big advantage.** You can use it for lifting and supporting the trailer and also for lifting of the drawer with frame during the installation.

- 4) Clean the lower surface of the trailer in the area of drawer installation by water and petrol cleaner. **Belt the drawer together with the frame by ratchet belt** to push the seals between the drawer and frame together. It also ensures that the **sides of the frame are perpendicular to each other.**



Installation to the common Cobra trailer with aluminium sandwich floor:

1) Position the drawer with frame below the trailer, the best option is to use a pallet mover for manipulation and lifting (any low trolley is better than nothing).

2) The front (left) end of the drawer plate cover should be 5-10cm behind the wheel to be able to open the drawer easily. It is not practical to install the drawer far from the axle due to the center of gravity position change and lower clearance below the trailer.



3) By most of cobra trailers the frame of the drawer should be positioned in such place, that it touches 2 existing attachment bolts of the inner trailer rail (rail for fuselage dolly inside of the trailer) by its inner side of the rear frame profile. You can use them as an endstop for positioning of the drawer below the trailer (when pulling the drawer for handles towards you).

4) Position the drawer with frame below the trailer in a proper place behind the axle and check the positions of the holes for attachment bolts. **The frame should be attached by 3pcs M10/70 round head bolts at each side (Portland bolts), check whether the bolt heads are not an obstacle for wing or fuselage dolly wheels in the trailer.** If so, choose and mark another position of the attachment bolts and drill new holes into the frame.

5) Position the drawer with frame to the trailer again and mark the positions of the holes for drilling (or draw the whole frame contour to the trailer floor). Use permanent marker or steel needle for example. Mark the inner edge of the rear „L“ profile of the frame to be able to measure precise distance to install the lock counterpiece plate. **Mark the positions of both spring-latch and lock latch at the drawer for the intallation of the lock counterpiece plate.**

6) Remove the drawer with frame and install the lock counterpiece plate to the proper position, so it works for both spring-latch and lock-latch. **The plate should be rivetted by 6 blind rivets 4,8/12mm or 4,8/15mm so its outer (left in the axis of the trailer) face is 868mm far from the inner side of the rear frame profile.**



7) Drill 9 holes with diameter 10 or 10,5mm for the attachment bolts. Then drill the lower plate of the sandwich to 16 or 16,5mm diameter by all holes and drill away also the polyuretane foam of the sandwich. Be carefull and don't drill through the upper plate of the aluminium sandwich floor, which is quite thin and easy to damage.

8) Take the aluminium tube-spacers (26mm long for the Cobra trailers with 30mm thick sandwich floor, attached), put some Mammut glue on them and insert them into the drilled holes in the floor from bellow. The tubes don't fall off due to the glue. Insert the M10/70mm bolts with round head (Portland bolts) from above, use the big washers with 13mm hole bellow the round heads of the bolts.



9) Apply the black Mammut glue to the contact area of the drawer-frame (clean it with petrol cleaner first), the glue will seal the gap and attachment holes against moisture.



10) Position the drawer with frame bellow the trailer and apply the Mammut glue around the bolts in the frame attachment holes. Use washers with 10,5mm hole and normal nuts for attachment. Try to push the drawer with frame against the lock-latch counterplate and fasten the nuts until you feel the nuts tensing against the aluminium tube spacers in the sandwich floor. The sandwich floor should squeeze about 2-3mm together. When nuts tightened well, secure them by safety nuts with nylon inserts and tighten well again (part of delivery).



11) Try to move the drawer completely out and in. **Pressing by the handles will close the drawer and the spring-latch should lock it automatically in the closed position. The rubber seal at the rear profile should be pressed against the drawer rear wall if lock-latch counterplate is installed in the correct position.** Try to lock the drawer by the key. To open the drawer, simply unlock the lock by key and pull the spring-latch down by the ring and pull for one or both handles. The drawer comes 75cm out at the ball-bearing rails.



12) Maintenance:

- The sealing rubbers (Pirelli rubber profiles, similar to those at door of a modern car) should be sprayed once per year by car plastics/rubber renewer spray or cockpit spray. **Never lubricate them with grease or oil, it can damage the rubber surface and make it sticky what increases the force necessary for opening and closing of the drawer.**
- Lubricate the lock and spring-latch by WD-40 or any other lubricant at least once per year.
- Do not drive with damaged drawer, it can be dangerous for other people on the road.

13) Disclaimer:

- The IMI Trailer Drawer was tested intensively being installed to the 2012 Cobra trailer in different conditions (speed up to 140kmh) and proved to be solid and safe for use.
- The installation to the trailer and use on the public roads is at own risk of the owner of the trailer and we don't take any response for potential damage or injuries caused by use of the device. Use of damaged, unlocked, overloaded or improperly installed drawer could be dangerous. Always check whether the drawer is locked and not damaged before the drive with the trailer.
- Do not drive with the trailer with damaged or unlockable drawer (in such case please contact us for delivery of spare parts or remove the drawer from the aluminium frame).



IMI-Gliding Equipment, 2015