

# ALUCA

Installation Instructions  
**System ALUCA**

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# Preface

You have made a good choice and decided for a vehicle racking from ALUCA. We are your partner for professional load securing. We are grateful to you for your confidence in our safe and modern product.

A carrier usually delivers our product. For this, it is essential that you observe our notes on goods acceptance under heading 1.0 and our general terms and conditions. These are on the Internet at [www.aluca.de](http://www.aluca.de).

**Note:** You will receive installation instructions for accessories and/or special parts separately with the product in question.

These installation instructions will enable you to install your vehicle device in accordance with the rules of best engineering practice.

Please note: ALUCA does not assume any warranty for damage to the vehicle or to persons that is occasioned by the use of assembly material other than the original ALUCA assembly material or the device not being installed in accordance with these installation instructions.

We therefore recommend that ALUCA vehicle devices be installed by ALUCA or by one of our trained and certified partners. This guarantees that the device is installed in accordance with our current standards.

Your vehicle device has been planned individually for the purpose of your application. Consequently, you may not need all the fixing components included in the deliverables.

Please note that the device will only have a long working life and a high degree of safety if it is installed correctly. Before assembling the device, you should therefore read these installation instructions carefully.

In every case, the vehicle manufacturer's bodybuilder guidelines must be observed.

**Note:** To avoid later corrosion damage, all swarf must be vacuumed up after drilling work.

# 1. ALUCA goods acceptance guidelines

ALUCA adheres to numerous measures in order that your orders are delivered to you in perfect condition. Despite the greatest possible care, there may be damage or items missing on delivery.

With the following guidelines, ALUCA would like to point out to you the correct steps for goods acceptance if there is any damage, items are missing or there is an incorrect delivery.

## 1.1 Goods acceptance



Please check that the shipping documents are complete.



Is the number of packages delivered (e.g. disposable pallets, cardboard boxes) the same as that shown in the shipping documents?



External appraisal of the packages for visible damage to the outer packaging in the presence of the carrier.

## 1.2 Goods inwards inspection

Within 3 days, you must unpack the goods completely and check them for damage.



Find defects with the goods inwards inspection; please inform ALUCA Internal Sales immediately by email (in accordance with our general terms and conditions of purchase and in accordance with § 377 HGB [the Trading Code]) – see also 1.3.2

### 1.3 Actions on obvious damage during transport

- Record obvious transport damage immediately on the shipping documents or the delivery note as a damage report. Please describe the damage as precisely as possible, e.g. pallet dented on the side, cardboard torn. No settlement can be made later without a damage report.
- To avoid later changes to the document, insist on a photocopy or a carbon copy for the supplier of the shipping documents.

<b>weiß</b> = Exemplar für Auftraggeber <b>rosa</b> = Exemplar für Absender <b>blau</b> = Exemplar für Empfänger <b>grün</b> = Exemplar für Frachtführer		<b>blanc</b> = Exemple pour commettant <b>rose</b> = Exemple de l'expéditeur <b>bleu</b> = Exemple du destinataire <b>vert</b> = Exemple du transporteur		<b>wit</b> = Exemplaar voor klantgever <b>roze</b> = Exemplaar voor afzender <b>blau</b> = Exemplaar voor geadresseerde <b>groen</b> = Exemplaar voor vervoerder		<b>blanco</b> = Essai pour commettente <b>rosa</b> = Essai pour expéditeur <b>bleu</b> = Essai pour destinataire <b>vert</b> = Essai pour transporteur		<b>white</b> = Copy for orderer <b>pink</b> = Copy for sender <b>blue</b> = Copy for consignee <b>green</b> = Copy for carrier		<b>hvid</b> = Exemplar for ordergiver <b>rosa</b> = Exemplar for absender <b>blau</b> = Exemplar for endtager <b>grøn</b> = Exemplar for beløstger			
<b>1</b> Absender (Name, Anschrift, Land) Expéditeur (nom, adresse, pays)		<b>16</b> Frachtführer (Name, Anschrift, Land) Transporteur (nom, adresse, pays)		<b>INTERNATIONALER FRACHTBRIEF LETTRE DE VOITURE INTERNATIONAL</b> Dieses Befrachtungsurkunde unterliegt trotz seiner gegenseitigen Abmachung den Bestimmungen des Übereinkommens über den Befrachtungsvertrag im internationalen Straßengüterverkehr (CMR). Ce transport est soumis, nonobstant toute clause contraire, à la Convention relative au contrat de transport international de marchandises par route (CMR).									
<b>2</b> Empfänger (Name, Anschrift, Land) Destinataire (nom, adresse, pays)		<b>3</b> Auslieferungsart des Gutes Modé prévu pour la livraison de la marchandise: Ort/Lieu Land/Pays		<b>17</b> Nachfolgende Frachtführer (Name, Anschrift, Land) Transporteurs successifs (nom, adresse, pays)									
<b>4</b> Ort und Tag der Übernahme des Gutes Lieu et date de la prise en charge de la marchandise Ort/Lieu Land/Pays Datum/Date		<b>5</b> Beigefügte Dokumente Documents annexés		<b>18</b> Notizen und Bemerkungen der Frachtführer Réseaux et observations des transporteurs									
<b>6</b> Kennzeichen u. Nummern Marques et numéros		<b>7</b> Anzahl der Packstücke Nombre des colis		<b>8</b> Art der Verpackung Mode d'emballage		<b>9</b> Offiz. Benennung d. Befrachtung Désignation officielle de transport		<b>10</b> Ballastnummer No. statistique		<b>11</b> Bruttogewicht in kg Poids brut, kg			
<b>12</b> Umfang in m <sup>3</sup> Contage m <sup>3</sup>													
<b>13</b> Anweisungen des Absenders und sonstige amtliche Behandlung, Sondervorschriften Instructions de l'expéditeur (formelles, douaniers et autres) Prescriptions particulières		<b>14</b> Rückerstattung Remboursement		<b>15</b> Frachtführerangewiesungen Prescriptions d'affranchissement		<b>19</b> Zu zahlen vom: A payer par: Fracht Frais de transport Ermäßigungen Réductions Zuschläge Suppléments Hilfsgebühren Frais accessoires Sondages Quers Zu zahlende Besondere Remise, Frais à payer		Absender L'expéditeur		Wohnung Munster		Empfänger Le Destinataire	
<b>14</b> Rückzahlung Remboursement		<b>15</b> Frachtführerangewiesungen Prescriptions d'affranchissement		<b>20</b> Besondere Vereinbarungen Conventions particulières									
<b>21</b> Ausgestellt in Etabli à		<b>22</b>		<b>23</b>		<b>24</b> Gut empfangen Réception des marchandises am le		Datum Date					
<b>25</b> Angaben zur Ermittlung der Entlohnung mit Gebührensätzen vom bis km		<b>26</b> Vertragspartner des Frachtführers		<b>27</b>		<b>28</b>		<b>29</b>		<b>30</b>			
Unterschrift und Stempel des Absenders Signature et timbre de l'expéditeur		Unterschrift und Stempel des Frachtführers Signature et timbre du transporteur		Unterschrift und Stempel des Empfängers Signature et timbre du destinataire		<b>Paletten-Absender - Expéditeur des palettes</b>		<b>Paletten-Empfänger - Destinataire des palettes</b>					
						Art Anzahl Kein Tausch Tausch		Art Anzahl Kein Tausch Tausch					
						Euro-Palette		Euro-Palette					
						Gitterbox-Palette		Gitterbox-Palette					
						Einfach-Palette		Einfach-Palette					
<b>26</b> Vertragspartner des Frachtführers		Bestätigung des Empfängers - Datum/Unterschrift		Bestätigung des Fahrers - Datum/Unterschrift									
<b>27</b>		Benutzte Gen.-Nr.		<input type="checkbox"/> National		<input type="checkbox"/> Bilateral		<input type="checkbox"/> EG		<input type="checkbox"/> CEMT			

Consignment note

Never confirm "Hidden damage" or "Defective packaging", as damage declared in this way will not be recognised by the carrier's insurers.

- It is not hidden transport damage if the device has sustained damage, but its packaging is undamaged. On the contrary, it is genuine hidden transport damage if the vehicle device appears undamaged on the outside, but the drawer slides are, for example, damaged because the pallet was perhaps dropped.
- **Note:** If the carrier's driver offers a damage acknowledgement only on a mobile electronic device, insist on it being reprinted on the additional manuscript damage acknowledgement on the shipping documents/delivery note.
- If the carrier's driver denies you the opportunity to accept the goods with a damage report (e.g. he insists on a signature without a report), refuse to accept the goods and inform us immediately.

In the event that the device is an obvious write-off, please refuse to accept the goods.

### 1.3.1 Damage report within 3 working days

- Within 3 working days of establishing the damage, you must inform ALUCA Internal Sales in detail. Please send copies of the delivery note and the shipping documents with the damage report, registration number of the carrier's truck, as well as the driver's signature and the delivery date to ALUCA by fax or email. It is essential that you keep your copies as evidence.
- Please photograph the damaged packaging and the goods, and send the photographs with a listing of the damaged parts by email to ALUCA Internal Sales. ALUCA Internal Sales or Field Service will determine the way forward (return, replace, repair, an arranged date) jointly with you.

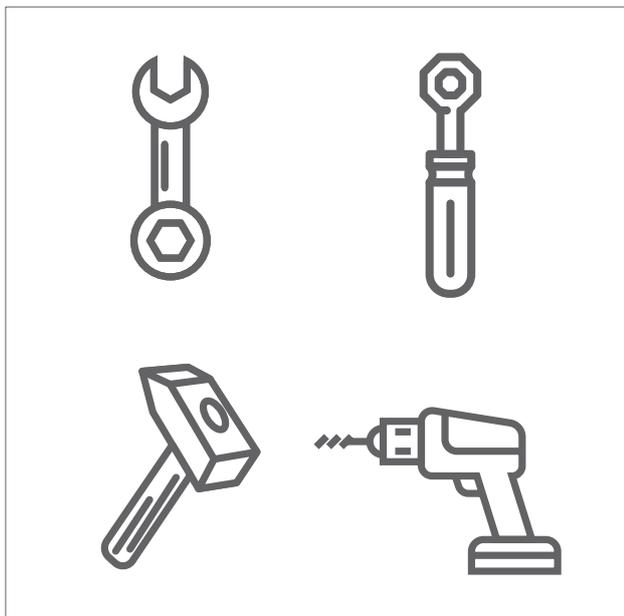
### 1.3.2 Subsequent complaints

In principle, we will not entertain subsequent complaints.

Any necessary redeliveries will therefore be made at the recipient's expense. We refer you to § 425/438 HGB in conjunction with paragraphs 25/28 ADSp.

## 2. Assembly material

For installation of an ALUCA system standard vehicle device, you will need:



- 10 mm combination wrench
- Ratchet handle
  - 10 mm socket wrench
  - 13 mm socket wrench (with extension)
- Power drill
  - Steel drill, Ø 6.5 mm
  - Steel drill, Ø 9.0 mm
  - Steel drill, Ø 11.0 mm
  - Wood drill, Ø 11.0 mm
- Hammer
- Plastic hammer
- Torque wrench

### 3. Preparatory actions

All drawers and trays are removed for assembling the vehicle device.

#### Procedure:

- Remove cases and loose parts.
- Open pull-out drawers and tables fully.
- There is a drawer lock on each side, right and left, at the pull-out (see fig. 1).
- Press the right and left drawer locks inwards.
- This releases the lock.
- Take the drawer out frontwards. (See fig. 2).
- Press the white plastic lock to push the drawer slide into the device. This will avoid damage (see fig. 3).

Installation takes place in reverse order. For this, ensure that you insert the metal rails on the right and left of the drawers correctly into the plastic guides (see fig. 4)!



Fig. 1



Fig. 2



Fig. 3



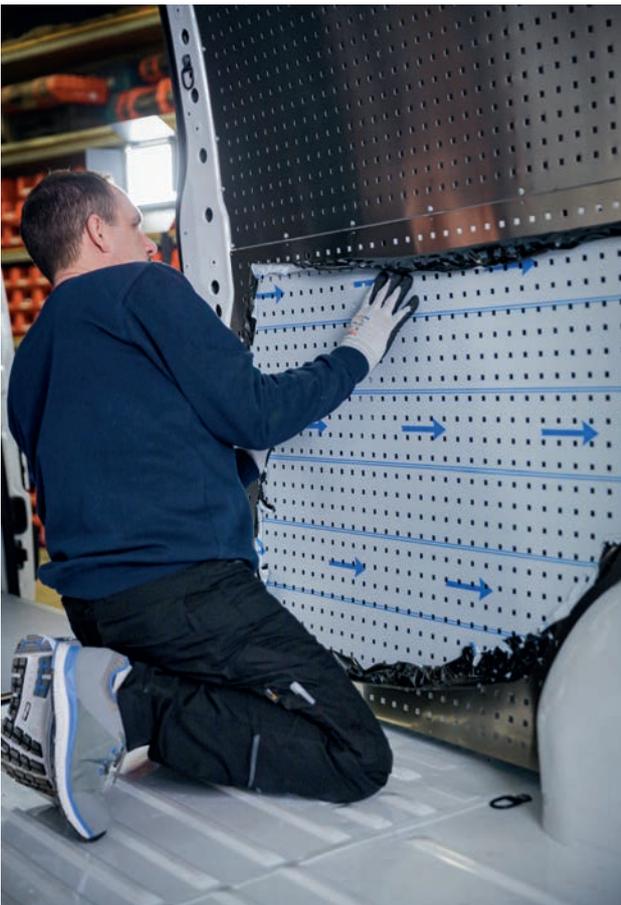
Fig. 4

## 4. Side wall cladding installation



The side walls are delivered customised for your vehicle. We recommend that you stick felt strips to the rear of the side wall cladding or apply silicone, in order to avoid noises caused by vibrations occurring occasionally.

They are fastened with self-tapping metal screws to the vehicle struts.



## 5. ALUCA floorplate assembly



ALUCA floorplates are fixed via the original lashing points. With this, you should consider that we have developed plastic components for lashing points (pot and lid) which are used for all vehicle types.

Structurally, it can happen that the pot does not sit on the vehicle bodywork. In these cases, the unoccupied spaces must be packed with bodywork spacers (not included in the deliverables), in order to enable force to be exercised when loading the lashing point.

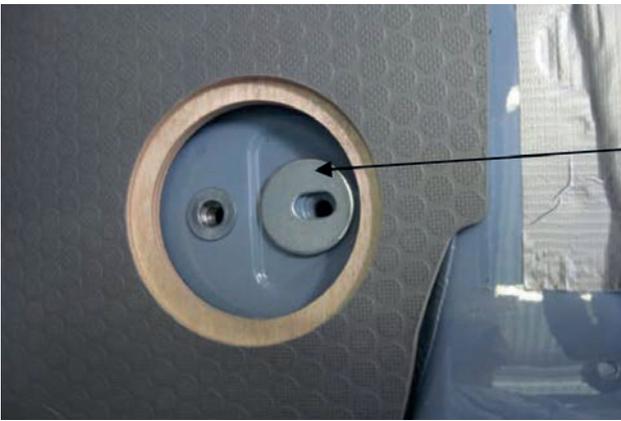
The floorplate can also be glued or fastened with self-tapping bodywork screws. Ensure that the plate has a clearance of at least 4 mm with the bodywork.

As a noise suppressor, we recommend that you underlay the plate partially with non-slip mats. This will minimise running noises.





After the floor has been laid, mark the second hole.



Set the hole with a stepped drill; compensate for unevenness with bodywork spacers (ø 20 mm) (not in the deliverables)



Refix the lashing point with original screws

If necessary, use a plastic hammer to fit the lid (please work carefully, to avoid damaging the plastic!)

## 6. Pre-assembly/Positioning

The pre-assembled device is placed in the vehicle; at the same time, care must always be taken to have clearance from the bodywork (max. 5 mm), as otherwise unpleasant noises can arise and/or the bodywork be damaged.

If you have stipulated gas cylinder mountings, then you should now consider and establish the space needed.

If the device is aligned, determine the holes by marking them on the vehicle floor. Then take the device out of the vehicle again.

Drill the holes marked on the vehicle and floor with a  $\varnothing$  9 mm drill.

- Firm connection with the bodywork (see 6.1)
- Fastened floating on the floorplate with drive-in nuts (see 6.2).

A floating placement may be made only on a plate that is suitable for this!

### 6.1 Fixing of the racking with the bodywork

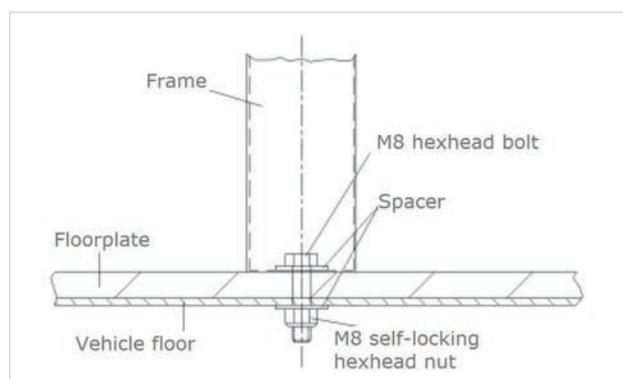
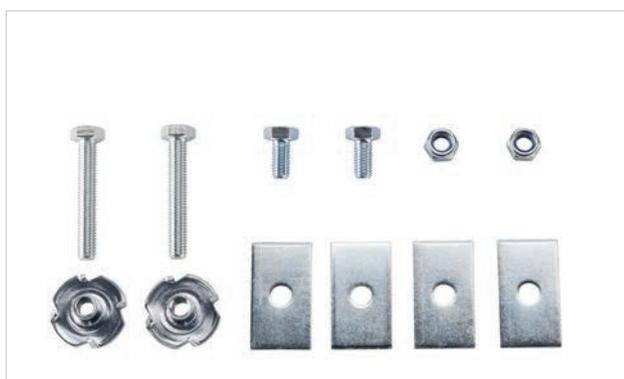
If the position of the device on the floorplate is marked and the device is removed from the vehicle again, drill through the floorplate and the vehicle floor at the marked points with an 11 mm metal drill. When all the holes are drilled, the device is replaced in the vehicle. All screwed points (on the vehicle/floorplate) are to be tightened in accordance with the torque table (see p. 21).

Seal holes that lead through the vehicle floor into the open air with underseal (e.g. with Teroson underseal or equivalent products).

It is essential to take care when drilling through the floorplate and the vehicle floor, as well as parts of the frame running underneath, electrical and/or hydraulic lines, fuel lines or fuel tanks etc.!

If drilling through the vehicle floor at the stipulated point is impossible due to obstacles, the nearest possible fastening point must be selected.

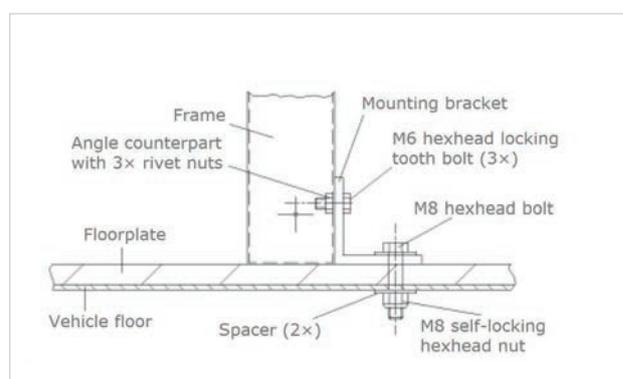
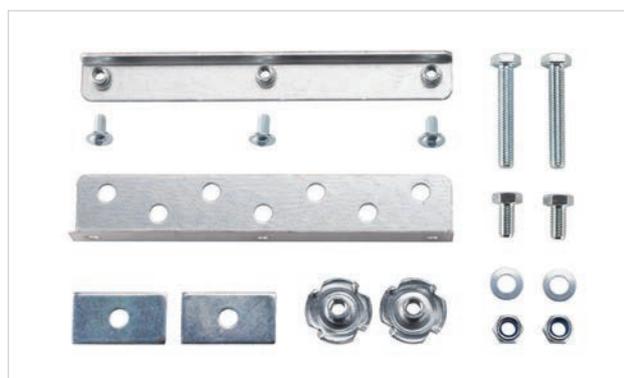
### 6.1.1 Directly through the floorplate and vehicle floor



#### MSB1 assembly set

- 2 × M8 × 50 hexhead bolts
- 2 × M8 × 16 hexhead bolts\*
- 2 × ring washers 25 × 45 × 3 mm
- 2 × circular ring washers
- 2 × M8 self-locking locknuts
- 2 × M8 × 11 mm drive-in nuts\*

### 6.1.2 With bracket through the floorplate and vehicle floor



#### MSB2 assembly set

- 2 × ring washers 8.4 × 16 × 1.5 mm
- 2 × ring washers 25 × 45 × 3 mm
- 2 × M8 × 50 hexhead bolts
- 2 × M8 × 16 hexhead bolts
- 3 × M6 × 12 panhead screws
- 1 × outside floor fixing bracket 180 mm
- 1 × inside floor fixing bracket 180 mm
- 2 × M8 × 11 drive-in nuts d= 32 mm\*

Set can also be used with M8 × 11 mm & M8 × 16 mm hexhead bolts for assembly on the floor only.

\* is not required with this installation variant

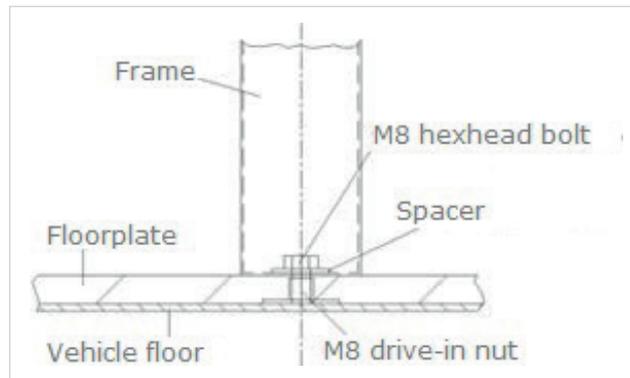
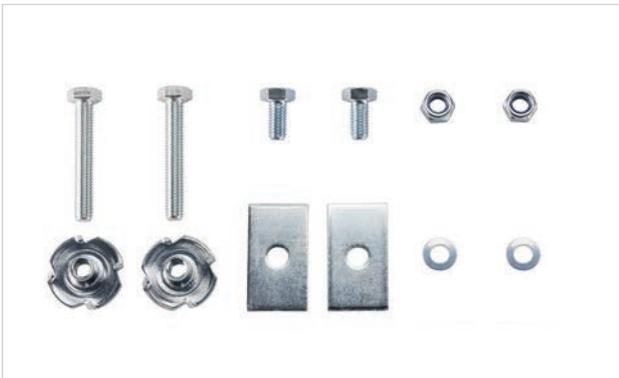
## 6.2 Fixing of the device on the floorplate

If the position of the device on the floorplate is marked and the device is removed from the vehicle again, take the floorplate out of the vehicle and drill through it at the marked points with an 11 mm wood drill.

Turn the floorplate with the underside (smooth side) facing upwards and hit the drive-in nuts supplied with the hammer.

In order to protect the bodywork, cover the drive-in nuts on the underside with a strip of adhesive tape. Replace the floorplate in the vehicle (smooth side facing downwards) and align it. The device can then be fitted into the vehicle again and aligned.

Now bolt the device with the floorplate. Here, observe the torques according to the torque table (see p. 21).



### MSB1 assembly set

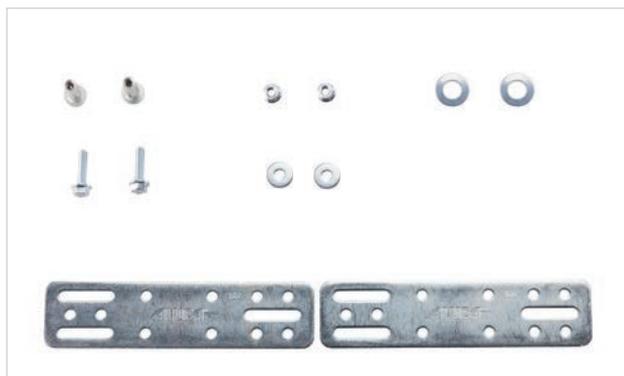
- 2 × M8 × 50 hexhead bolts\*
- 2 × M8 × 16 hexhead bolts
- 2 × washers 25 × 45 × 3 mm
- 2 × circular ring washers\*
- 2 × M8 self-locking locknuts\*
- 2 × M8 × 11 mm drive-in nuts\*

\* is not required with this installation variant

## 7. Wall fastening of the device

Strong forces act when accelerating, driving round bends and braking. It is therefore essential to fasten the device at the side to the vehicle wall.

**For this, the ALUCA wall fastening kit is prescribed:**



### MSB1 assembly set

- 2 × M8 × 50 hexhead bolts
- 2 × M8 × 16 hexhead bolts\*
- 2 × ring washers 25 × 45 × 3 mm
- 2 × circular ring washers
- 2 × M8 self-locking locknuts
- 2 × M8 × 11 mm drive-in nuts\*

**Alternatively, the following wall fastenings can also be used:**



MWHK



MWH250

- MWHK
- MWH250

- If no original ALUCA wall fastenings are used, ALUCA cannot guarantee that the device will withstand the stresses in the event of an accident.

- Under no circumstances may the wall fastening be fixed to the side wall of the ALUCA supporting frame! It must be fastened directly to the ALUCA supporting frame!

\* is not required with this installation variant

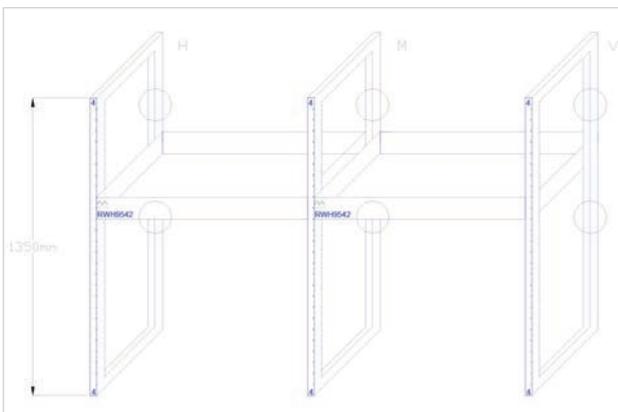
## 7.1 Number of wall fastenings to be fixed



The wall fastenings must be fixed so that they are evenly loaded in tension and pressure. If the device has more than 2 supporting frames, the central fastening frame must also be fixed. Use M6 expanding rivet nuts with collar. In each case, two screws must always be fixed to the supporting frame and to the bodywork.



Please adhere precisely to the instructions for fixing the wall fastening brackets, as these are important for fastening the device securely in the vehicle! Tighten screwed connections with a torque according to the torque table (see p. 21). Mark screwed connections with a permanent marker according to the torque.



The wall fastening brackets must always be bent  $2 \times 45^\circ$ , **never  $1 \times 90^\circ$** , as in the event of a crash, the energy cannot be absorbed and the bracket could break. The brackets must never be bent back or more than once and should be canted in a bending device – and not in a vice. The bending radius should be approx. 5 mm.

### Wall fastenings to be fixed

Structural height	V = Front	M = Centre	H = Rear
≤ 850	1	1	1
850-1350	2	2	2
>1350	3	3	3

## 7.2. Alternative wall fastening

Alternatively, the wall fastening can also be made by bonding, with the use of lashing rails and screwed fittings. It is a prerequisite that the lashing rails and the bodywork are clean, dry and free from grease. First of all, the bodywork surfaces to be used are treated with a primer. After the prescribed drying time, the construction adhesive can be applied to the lashing rail in the form of a triangular bead with a manual, battery-powered or compressed air pistol. It should be noted that, for a secure bond, the minimum adhesive thickness prescribed by the manufacturer must be observed.

Please take processing temperatures, hardening times, technical data and protective measures/PPE for using the adhesive from the manufacturer's data sheet.

The lashing rail will then be fastened to the vehicle bodywork by means of the adhesive.

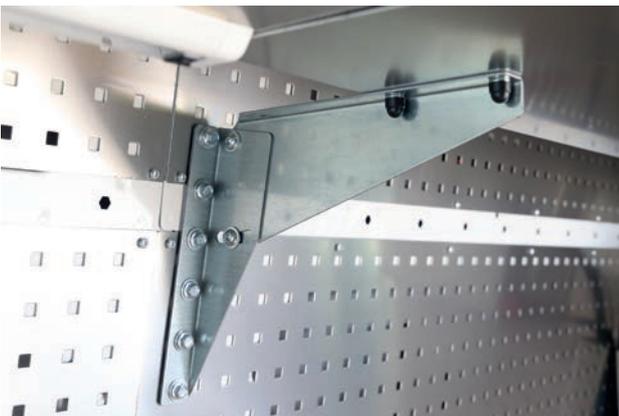
Subsequently, the screwed fittings can be screwed into the lashing rail. With this, the vehicle device can then be fastened in the prescribed manner.

## 8. Fastening of aluminium lashing rails



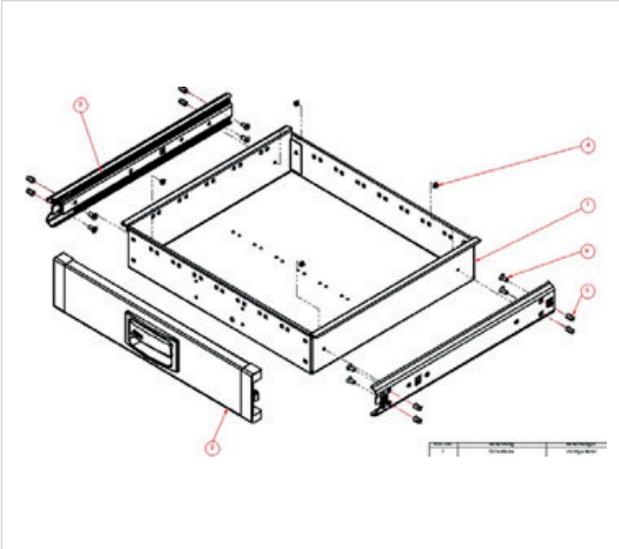
ALUCA fastens the lashing rails with M6 countersunk screws (DIN 7991) of strength 8.8 and M6 locknuts (DIN 985) or M6 expansion nuts. With a spacing of approx. 150 mm, we can guarantee pull-out force of 200 daN. We have demonstrated this by means of pull-out trials of the lashing rails in collaboration with the manufacturer.

## 9. Alternative fastening of long goods trays without rack



The assembly can be done using adjustable angle brackets. The span between brackets and/or other support points should not exceed 800 mm.

## 10. Replacing defective drawer slides



Splitting and removing the body of the drawer: see sections 2.0 and 3.0

Changing the pull-out rails:

Drill the heads of the countersunk rivets with a  $\varnothing 9$  mm drill. 4x per pull-out rail (Danger: do not drill through)

The pull-out rail can be refitted in two ways:

- Riveting with countersunk rivets as in the ex works state (4x per pull-out rail)
- Screw using countersunk screws M6 x 12 120° T20 (4x per pull-out rail), 4x per pull-out rail

## 11. Gas cylinder transport



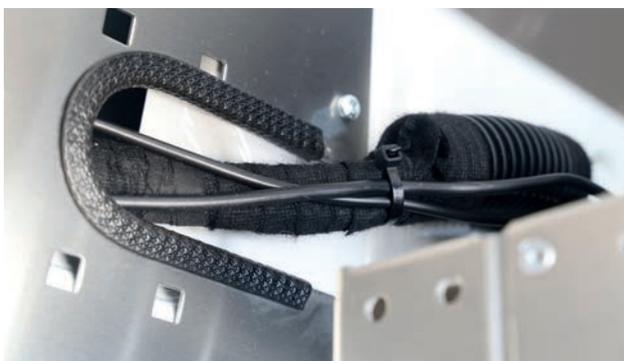
It is essential to take care when installing ventilation and venting grids on parts of the frame, electrical and/or hydraulic lines, fuel lines or fuel tanks, other floor openings etc.!

When installing a gas cylinder mounting, it is essential to observe the following points in accordance with Leaflet DVS 0211, issued by the *Deutschen Verbandes für Schweißtechnik* [German Association for Welding Technology]:

- At least 2 ventilation openings arranged diagonally as far as possible; one close to the floor and one close to the ceiling
- The ventilation openings must be unobstructed and opened.
- The free cross-section of the ventilation openings must be at least 100 cm<sup>2</sup>.

If an installation at the stipulated point is impossible owing to obstacles, a different point must be selected!

## 12. Connecting electrical loads



All electrical installations must be completed carefully. All work above 12/24 V must be carried out by qualified specialists. Note the vehicle manufacturer's guidelines for the bodybuilder.

Installation of lamps/sockets (using our standard cable set). Determine the position of the lamp/socket and assemble with the cable plugged in! Lay leads correctly.

It is essential to affix edge protection at sharp edges. Edge protection/cable grommets or corrugated tube (in the accessories, available on request)



### Note

All electrical installations must be completed carefully. Insulate all cables carefully and use the cable ties supplied for fastening. The cable must be protected at all sharp edges (edge protection or the like). We recommend corrugated tube.

Use only the fuses supplied. These are approved for use. If need be, replace only with fuses of an identical rating.

## Installation overview

The interior lights (not in the deliverables) are usually installed in the centre or tailgate area of the vehicle on its roof. Ensure that, even when the vehicle is fitted, no obstacles can come into contact with the lights and other vehicle equipment cannot impair their functioning. A socket is usually installed in the centre or tailgate area of the vehicle.

An additional socket (not in the deliverables) is usually installed in the tailgate area of the vehicle on a worktop or vertically on a supporting frame.

Take care that, even with a load plugged in, the socket is accessible freely and unobstructed and no other equipment in the vehicle is impaired.

The additional socket is suitable for operating 12V devices, such as laptops and notebooks, mobile charging devices or mobile hand lamps. The maximum installed load must not be exceeded (see information on the socket). A 15A safety fuse is to be provided (included in the deliverables) against overload caused by a short circuit.

Please ensure that, when selecting the installation site that the socket is protected after installation against water and damp.

Optionally, the electrical connection can be made at the vehicle's auxiliary battery or at the starter battery. If connected to the starter battery, to protect against starting difficulties caused by deep discharge the interior lighting is to be connected via a switched positive line (terminal 15 or the like). Operation is then possible only with the ignition key in step 1 or with the engine running. This will prevent an accidental discharge of the starter battery. In certain vehicles, terminal 15 is not easily accessible, as it is equipped with a so-called CAN bus.

- No further lines may be connected to occupied fuses.
- With vehicles fitted with CAN bus, no additional loads may be connected to existing lines.
- Loads are to be adequately protected by additional fuses. Occupied fuses are rated for the stipulated loads and cable cross-sections and may not be replaced by fuses with a higher rating.
- As we are unaware of the currents used by the load, the installer is responsible for a regulated power supply. Inform the user of restrictions in operation.
- Should a cable extension be necessary, the cross-section must not be smaller than that extant ( $2 \times 1.5 \text{ mm}^2$ ).
- When installing electronically controlled interior lighting (energy-saving lights, transistor lights, tube lighting or the like) ensure that the EMC directives are observed. Install only approved lights with the CE marking for the vehicle installation.
- In particular at sheet metal feedthroughs, all lines are to be protected against wearing through.
- Secure all cables against loosening and drooping and, if need be, ensure that they are fitted with strain relief, so that the connections cannot work loose while driving.
- Improper interventions in the vehicle electrics can endanger operating safety!

Inform your customers when handing over the vehicle of the correct handling of the auxiliary electrical equipment you have installed and any potential restrictions.



### Important information

If electrical loads are installed subsequently, note:

- If the engine is running, the battery terminals must not be loosened or disconnected.
- Before any work on live lines, these are to be isolated from the power supply (e.g. by removing the fuse or disconnecting the battery).
- As a precaution, the negative pole of the battery must be isolated from the vehicle earth. In vehicles with an auxiliary battery, both earth connections must be broken.



**Further information**

For the positioning of and options for connections, it is strongly recommended that you obtain additional information from the vehicle handbook or from workshop instructions available from the manufacturer. For connecting the negative line to the interior lighting, use the central earthing point stipulated by the vehicle manufacturer.

When retrofitting an auxiliary battery, you must comply with the following:

- Use only cycling-resistant and leakproof batteries
- Connection to the vehicle battery is possible only via an isolating relay; in our accessories, we have a complete cable set for connecting two batteries, including an isolating relay

## 13. Technical notes



Our load stickers are included with each fully assembled device. Affix this to the device or to the vehicle in a clearly visible position.

The stickers give information on how our products and lashing points, fitted by ourselves retrospectively, may be loaded.

ALUCA®	
LADEGEWICHTE bei flächiger Beladung	LOAD WEIGHT with flat loads
80 kg	Schublade - ALUCA dimension2 / Drawer - ALUCA dimension2
40 kg	Schublade - System ALUCA mit Aluminium-Vollauszug / Drawer - System ALUCA with aluminium full extension
80 kg	Schublade - System ALUCA mit Stahl-Vollauszug bis Breite 950 mm / Drawer - System ALUCA with steal full extension width up to 950 mm
60 kg	Schublade - System ALUCA mit Stahl-Vollauszug ab Breite 950 mm / Drawer - System ALUCA with steal full extension width from 950 mm
20 kg	Koffertablar / Case pullout
40 kg	Fachboden ohne Verstärkung / Shelf without reinforcement
60 kg	Regalfachboden / Fachboden mit Verstärkung bis Breite 950 mm / Shelf compartment base with reinforcement width up to 950 mm
45 kg	Regalfachboden / Fachboden mit Verstärkung ab Breite 950 mm / Shelf compartment base with reinforcement width from 950 mm
70 kg	Regalwanne N und H bis Breite 950 mm / Shelf trough tray N and H width up to 950 mm
55 kg	Regalwanne N und H ab Breite 950 mm / Shelf trough tray N and H width from 950 mm
250 kg	max. Feldlast / Max. bay load

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**Permissible torque for screwed connections:**

Thread size	Tightening torque for standard thread		
Strength class	8.8	10.9	12.9
M5	6.03	8.48	10.18
M6	10.25	14.41	17.29
M8	24.93	35.06	42.07

All vehicle equipment fastening points are to be checked at regular intervals (approx. every 5,000 km). This is applicable for floor and wall connections, as well as lashing points.

Use only original ALUCA spare parts for any repairs.

- Before starting the vehicle, check the permitted payload.
- Be aware that the vehicle equipment is a part of the payload.
- Note the axle loads prescribed by the manufacturer.
- Avoid a one-sided weight distribution in the vehicle.

Fixtures in private cars and transporters that are fixed force-locking and form-fit in the load space are to be deemed loads. For loads, there are no regulations in traffic law which stipulate an acceptance by a recognised expert or demand an entry in the vehicle logbook. Official bodies are exceptions if need be.

ALUCA GmbH recommends separating the passenger area from the load space by means of isolating bulkheads or grids approved by the vehicle manufacturer. If viewing windows are installed in bulkheads, then it should be essential for the manufacturer to supply a clearance certificate. ALUCA recommends that these windows always be fitted with a protective grid, in order to increase passive safety in the passenger compartment.

Loose parts in the load space are in principle to be secured with suitable and approved load securing means.

ALUCA GmbH recommends that all employees who use a vehicle device be informed by means of a suitable and documented course of instruction of the relevant load securing regulations and of the optimal use of the product. Therefore, for example, you should ensure that a heavy load is always transported in the lower part of the vehicle equipment. However, light loads are always to be stowed in the upper area of the vehicle equipment.

## Usable internal drawer dimensions\*



- System width minus 40 mm
- System depth minus 45 mm
- System height minus 12 mm\*\*

\* the internal dimensions given here are nominal dimensions and deviations related to tolerances can occur.

\*\* for widths of 1195 mm and 1440 mm, 33 mm are deducted from the front height of the drawer.

## 14. Cleaning/Care

Vehicle devices by ALUCA are made from high quality aluminium. It is unnecessary to paint this material. Cleaning is consequently extremely simple and can

be done in the vehicle. To do this, use a high quality product for cleaning metal surfaces.



Do not under any circumstances use steel wool, steel brushes or similar means, as rust will form owing to the steel abrasion of the cleaning equipment used. After every cleaning, all surfaces should be treated with a high quality product for the care of metal surfaces.

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