



Practical instructions for the installation of

# System ALUCA

**In-vehicle racking systems  
Made from 100% aluminium**

# Introduction

You have made a very good choice by selecting an aluminium in-vehicle racking system from ALUCA. Because we are the professional load securing specialists. Thank you for demonstrating your confidence in our modern, safe product.

Our products are usually delivered by a shipping company. Please see our instructions concerning unpacking under point 1.0 and also our terms and conditions. You can find these on the Internet at [www.aluca.de](http://www.aluca.de).

These installation instructions enable you to assemble your in-vehicle racking system in line with good engineering practice.

**Note: Installation instructions for accessories and/or special parts will be supplied separately with the respective product.**

Please note: ALUCA assumes no liability for damage to the vehicle or to persons caused by the use of different installation materials than the original ALUCA installation materials or if the equipment is not installed according to this installation manual.

We therefore recommend having ALUCA in-vehicle racking systems installed by ALUCA or by one of our trained and certified partners. This will ensure the equipment is installed according to our current standards.

Your in-vehicle racking system has been individually designed for your application. Therefore you may not need all of the supplied fastening components.

To avoid subsequent corrosion damage, all filings must be removed by a suction system following drilling work.

Please note that only professional installation will ensure a long service life for the equipment as well as high levels of safety. You should therefore read these installation instructions carefully before installing the equipment.

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## 1.0 ALUCA guidelines for goods acceptance

ALUCA takes all necessary measures to ensure your orders are delivered to you free of defects. Despite the utmost care, there may be damage or missing parts at the time of delivery.

In the following guidelines ALUCA would like to show you the correct steps for acceptance of damaged goods, missing parts or incorrect deliveries.

### 1.1 Goods acceptance

- Is the correct delivery address specified on the shipping documents and packages?



- Does the number of delivered packages (e.g. one-way pallet, cardboard boxes) match the information on the transport documents?
- External evaluation of packages for any recognisable damage to the packaging in the presence of the carrier.



### 1.2 Incoming goods inspection

- You must completely unpack the goods within three days and check them for damage.

If any defects are detected during the inspection of incoming goods, please notify the ALUCA internal sales team immediately by email (according to our general terms and conditions and in accordance with Section 377 HGB - German Commercial Code)- see also 1.3.2

### 1.3 Measures in the event of recognizable damages in transit

- Document any evident damages in transit 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, box torn open. A damage report is vital for later settlement of any issues ...

21/03 2012 10:57 FAX KEIN ZUSTELLBELEG  
Tour: 58 38 von 137

Beladeschein  
V H U S H G B S  
FRITZ GMBH & CO. KG 223147 Urspr.: ALUCA GMBH 12 / 000234724  
74530 ROSENKARTEN Seide / QF Hfver 16.03.2012  
Kassepartner / Durchwahl 09:48:40 H  
Frem. Lohn 087

WAGN-RECHTIG-STR. 2 04g.-Hf.-Vb.: 949800045895 Position: 000/000/03/2012  
D 74078 METLAACH Platz 34

Palldesalle  
ALUCA CAR EQUIPMENT GMBH  
KREUZLAUFUNG BRUNNENWEG 160000000  
D 38114 RUSCHENWEG  
Liefer-/Palldesalle

Rechnung  
Terminat 11. Auslieferung spätestens am 19.03.12  
Zustellung unbedingt mit Hebezeugen-LKW.

Zeichen / Nummer	Anzahl	Verpackung	Inhalt	Gewicht kg	Lademaße m
211591	1	Box-Pallett	FAHRZEUGTEILUNG	149,000	
211591	1	Box-Pallett	FAHRZEUGTEILUNG	149,000	
211591	2			149,000	

Frankatur: Frei Haus  
Lademaßeangaben: davon  
Anzahl Lademaße: getauscht

Für 1 von 2 Barcodes Einladungsnummer vorhanden LKW Eingangszeit: 04:10 h ScanDatum 16.03  
u. lfd. beim Einlegen 19.03.12 10:50 h  
S. 112, Termin erhalten für ..... bis spätestens 19.03.12 7:55 h

Ware Defekt  
H C J 6339  
1 EW 6 Palette (Einrichtung  
Kreuzlaufung  
verbaut)  
HESKE

- Please insist the driver provides you with a **copy or a carbon copy of the documents**, because unfortunately these documents are frequently amended later, for example, by adding the comment "Hidden damage".

Never confirm "Hidden damage" or "defective packaging", as damages declared in this way are not recognized by the carrier's insurance company.

- It is not a hidden transport damage if the damage is to the equipment but the packaging is undamaged. Real hidden transport damage is when the in-vehicle racking system appears outwardly undamaged when it is unpacked, but, for example, the drawer slides are defective because the palette may have been dropped.
- Note: If the transport company driver only provides acknowledgement of the damage on a mobile electronic device, please insist on additional handwritten acknowledgement of the damage on the consignment/delivery note.
- If the driver refuses to carry out the damage report [e.g. insists on a signature without comments], please refuse to accept the goods and notify us immediately.

**1.3.1 If there is recognizable total damage to the equipment, please refuse to accept the goods**

**1.3.2 Inform ALUCA sales service within 3 working days**

Within 3 working days of the damage assessment you must provide detailed information to the ALUCA internal sales team. Please send ALUCA, via fax or email, copies of the delivery note and transport documents with a record of the damage, number plate of the transport company vehicle, and also the driver's signature and date of delivery. Please be sure to retain your copies as evidence. If possible, also send us digital photos.

**1.3.3 Inform ALUCA sales service within 3 working days**

Please take photos of the damaged packaging and goods and email them together with a list of the damaged parts to the ALUCA internal sales team.  
The ALUCA internal sales team or sales representatives will determine the subsequent procedure with you [return, replacement, repair, mutually arranged date].

**1.3.4 Subsequent complaints**

As a rule, no subsequent complaints will be accepted.

Any necessary subsequent deliveries will therefore be at the expense of the recipient. We refer to Section 425/438 HGB [German Commercial Code] in connection with paragraph 25/28 ADSp [German Freight Forwarders' Standard Terms and Conditions].

**2.0 Installation material**

You will need the following tools to install an ALUCA standard in-vehicle racking system.



- 10 mm open spanner
- Ratchet
  - 10 mm bolt
  - 13 mm bolt [with extension]
- Drill
  - Steel drill 6.5 mm diameter
  - Steel drill 9.0 mm diameter
  - Steel drill 11.0 mm diameter
  - Wood drill 11.0 mm diameter
- Hammers
- Rubber mallet

### 3.0 Preparatory measures

All drawers and shelves must be removed before installing the in-vehicle racking system.

#### Procedure:

- Remove the case and loose parts.
- Open drawers and pull out shelves as far as they will go.
  - On the right and left of the pulled out shelves you will find a drawer lock [see Figure 1].
  - Push the drawer lock inwards on the left and right sides.
  - The lock will disengage.
- Pull out the drawer and remove it [see Figure 2].
- Slide the drawer runner slide into the fitting by pressing the white plastic lock. This avoids any damage [see Figure 3].

Installation is performed in reverse order.

Please make sure that you insert the metal slides on the left and right of the drawers into the plastic guides correctly [see Figure 4]!



Figure 1



Figure 2



Figure 3

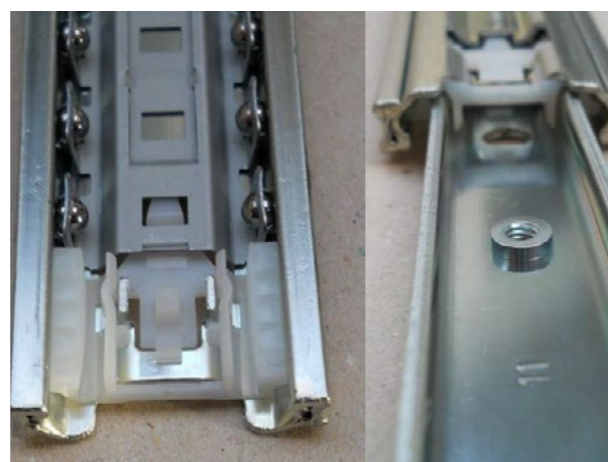


Figure 4

### 4.0 Installing side wall coverings

The side walls are supplied as a perfect fit for your vehicle. We recommend that you glue felt strips or apply silicone to the back of the side panels in order to avoid intermittent rattling.

The side wall coverings are attached to the vehicle rails using self-tapping screws.

### 5.0 Assembling ALUCA floor panels

ALUCA floor panels are fixed via the original load lashing points. It is important to note that we have developed plastic components for the lashing points (pot and lid), which are used for all types of vehicles.

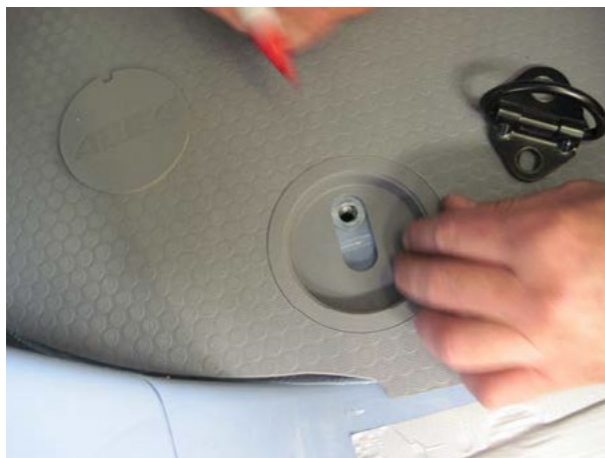
Structural issues may mean the pot is not joined to the car body by a form-fitting connection. In these cases, the clearances must be filled with large diameter washers [not included] for the transmission of force when loading the lashing point.

The floor panel can also be glued or attached with self-tapping body screws. Make sure that there is sideways clearance between the panel and the bodywork.

For soundproof insulation, we recommend a partial underlay for the plate with pieces of non-slip mats. This will avoid noise when driving.

Example: T6 [this is a special case because fastening the lashing points is now done via 2 points]; large washers refer to several vehicle types!

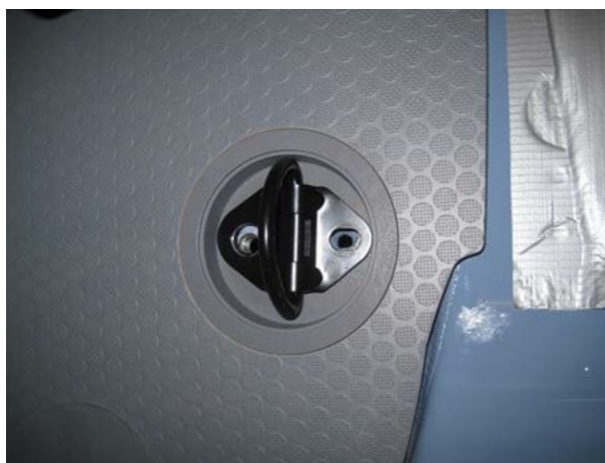




After the floor has been inserted, the second hole is marked.



Drill hole using a step drill; make it even using a large washer (not included in delivery)



Reattach the lashing point using original screws



If necessary, place the lid on the pot, using a plastic hammer (work carefully to avoid damaging the plastic!)

## 6.0 Pre-assembly/Positioning

The pre-assembled unit is positioned in the vehicle. When doing so, it is important to make sure there is always some clearance between the unit and the car bodywork (max. 5 mm), because otherwise there may be unpleasant rattling noises and/or the bodywork may be damaged.

If you plan to have gas cylinder brackets, you should now clarify and define the space requirements.

If the unit is appropriately aligned, define the drilling holes by drawing them on the floor of the vehicle. Then remove the unit from the vehicle.

Now drill the holes for the fixing points according to the selected mounting type:

- Secure connection to the bodywork (see 6.1)
- Fixed 'floating' over the floor panels using drive-in nuts (see 6.2).

Floating installation should only be performed on a suitable panel!

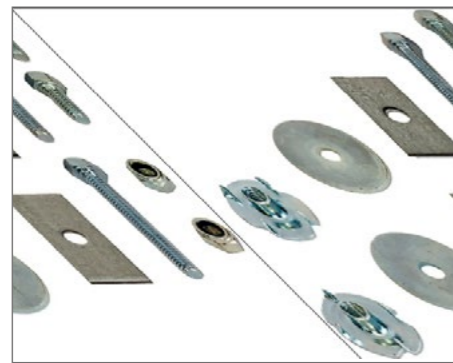
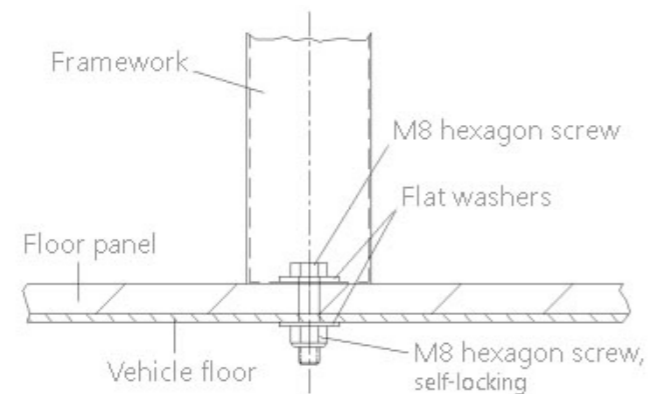
### 6.1 Secure connection to the bodywork

Once the position of the unit is marked on the floor panel, and the unit has been removed from the vehicle, use the 11 mm steel drill to drill through the floor panel and the vehicle floor at the points marked. When all the holes are drilled, the unit is brought back into the vehicle and screwed to the floor panel and vehicle floor with a 25 Nm torque. Seal holes that run to the outside through the floor of the vehicle with underbody coating (e.g. Teroson or similar products).

Be careful when drilling through the floor panel and the vehicle floor to avoid running parts of the frame, electric or hydraulic lines, fuel lines or fuel tanks, etc.!

If it is not possible to drill through the floor of the vehicle at the intended place because of obstacles, choose the next possible fastening point.

### 6.1.1 Directly through the floor panel and vehicle floor

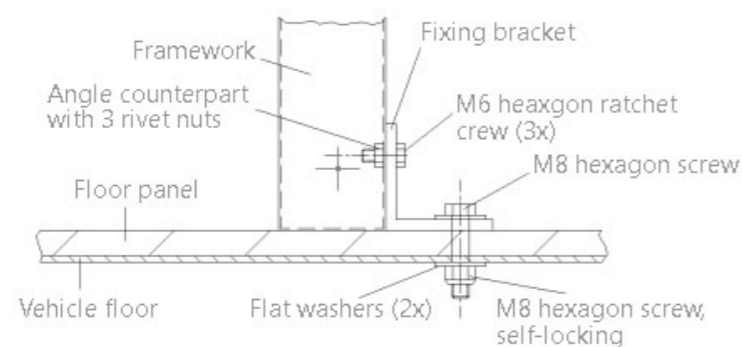


#### MSB1 assembly kit [Item no. 102713]

- 2x M8 x 50 hexagon screws
- 2x M8 x 16 hexagon screws\*
- 2x flat washers, 25 x 45 x 3 mm
- 2x flat washers, round
- 2x M8 self-locking top nuts
- 2x M8 x 11mm drive-in nuts\*

\* not required for this installation variant

### 6.1.2 Angled through the base panel and the vehicle floor



#### MSB2 assembly kit [Item no. 102714]

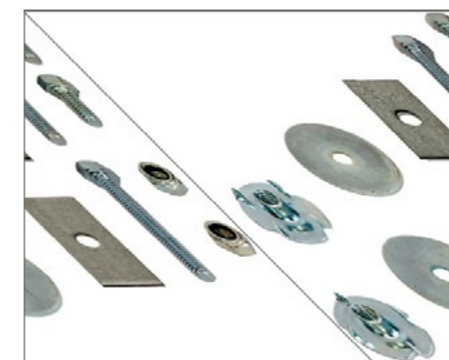
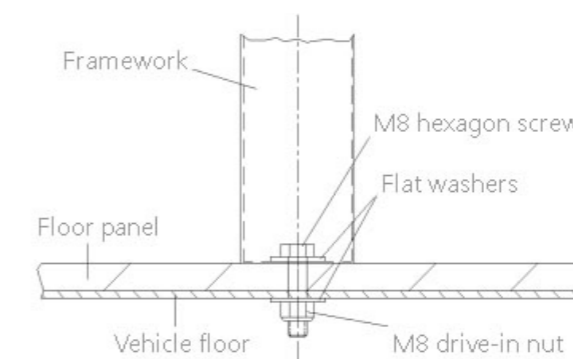
- 3x flat washers, round [large]
- 6x flat washers, round [small]
- 3x M8 x 50 hexagon screws
- 3x M8 self-locking top nuts
- 3x M6 x 12 filister head screws
- 1x external angle floor mounting 180 mm
- 1x internal angle floor mounting 180 mm

Kit can be used with M8 x 11 mm drive-in nuts & M8 x 16 mm hex screws for mounting only on the floor.

### 6.2 Attaching the unit to the floor panel using drive-in nuts

Once the position of the unit is marked on the floor panel, and the unit has been removed from the vehicle, remove the floor panel from the vehicle and drill through it at the points marked using the 11 mm wood drill.

Turn the floor panels bottom [smooth side] up and hammer in the drive-in nuts supplied. To protect the car body, cover the drive-in nuts on the bottom with a strip of adhesive tape. Put the floor panels back into the vehicle [smooth side down] and align them. The unit can also be inserted in the vehicle and aligned. Now screw the unit to the floor panel with a 25 Nm torque.



#### MSB1 assembly kit [Item no.102713]

- 2x M8 x 50 hexagon screws\*
- 2x M8 x 16 hexagon screws
- 2x flat washers, 25 x 45 x 3 mm
- 2x flat washers, round\*
- 2x M8 self-locking top nuts\*
- 2x M8 x 11 mm drive-in nuts\*

\* not required for this installation variant

7.0 Wall-mounting the equipment

Strong forces arise during acceleration, turning and braking. The side mounting of the unit to the vehicle wall is therefore essential.

For this purpose, the ALUCA wall mounting kit is mandatory:



MSW [Item no. 102712]:

- 2x fixing straps
- 4x M6 x 16 filister head screws
- 4x M6 x 25 filister head screws
- 12x 6.4 flat washers
- 8x M6 locking nuts
- 8x M6 expansion rivet nuts with flange

As an alternative, the following fixing straps may also be used:

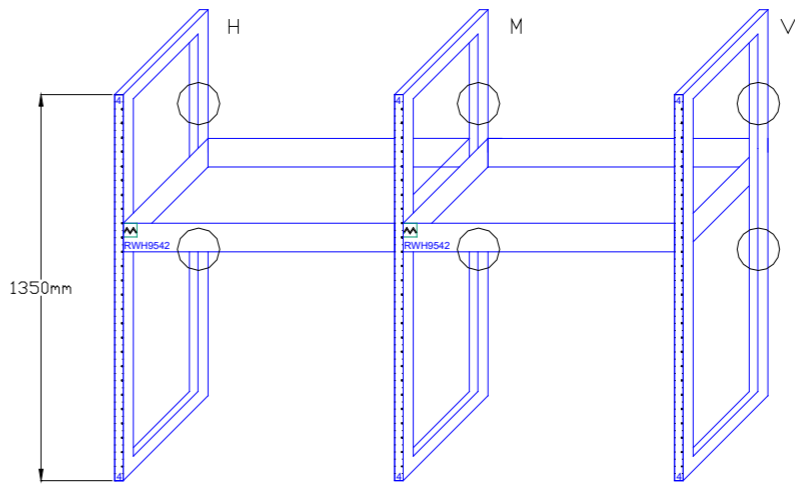


MWHK [type no. 104883]  
MWH250 [type no. 104884]

If approved wall fixtures are not used, ALUCA cannot guarantee that the unit will withstand the load in the event of an accident.

The wall fixtures should never be attached to the side wall of the ALUCA support frame! They must be fastened directly to the ALUCA mounting frame.

7.1 Number of wall fixtures



Attachable wall mounts			
Height	F Front	C Centre	R Rear
<=850	1	1	1
850-1350	2	2	2
1350	3	3	3

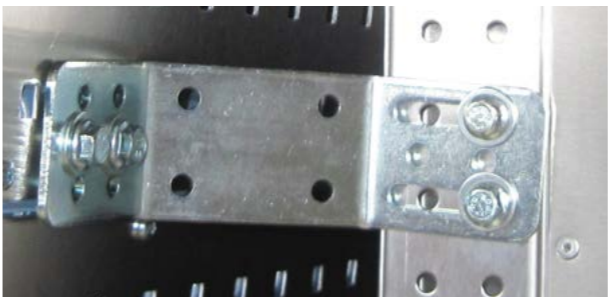
The wall fixtures must be attached in such a way that they will be loaded equally by tension and compression.

If the unit has more than 2 support frames, the middle frame must also be fixed.

Use the M6 expanding rivets with flange. Two screws must always be attached to the support frame and two screws connected to the car body.

The wall bracket must always be 2 x 45° curved, never 1 x 90°, because otherwise the energy on impact cannot be absorbed and the bracket will break. The bracket must never be bent back or bent several times and should be bent in a bending device, not a vice.

The bending radius should be approx. R5.



Please follow the instructions for attaching the wall-mounting bracket precisely, because this is of fundamental importance for fastening the unit in the vehicle!

## 8.0 Replacement of defective drawer slides

Partition and disassembly of the drawer body: see Sections 2.0 and 3.0

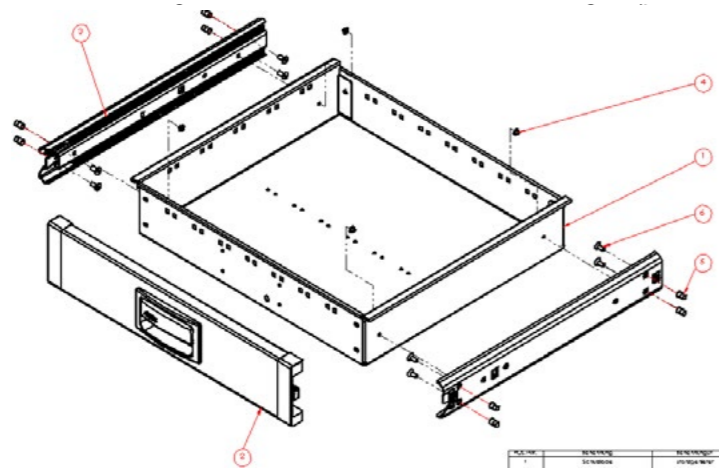
### Changing the drawer slides:

Drill the head of the countersunk rivets using a 9mm drill.

4x per telescopic rail [Caution: do not drill through]

The slides can be re-installed in two ways:

- Fastening countersunk rivets as in delivery condition (4x per slide)
- Drill the support frame to make a 7mm-diameter hole. Fasten the rivet nuts in the support frame, then attach the drawer slides with countersunk screws (4 per slide)



## 9.0 Transporting gas bottles

When installing a gas cylinder holder, in accordance with Data Sheet DVS 0211 of the German Association for Welding Technology, the following points must be considered:

- At least 2 ventilation openings  
Arranged as diagonally as possible; one near the floor – and one close to the ceiling
- The ventilation openings must be unrestricted and open
- The unrestricted cross-sectional area of the ventilation openings must be at least 100 cm².

When installing ventilation grilles, be careful of frame sections, electric or hydraulic lines, fuel lines or fuel tanks, other floor openings etc.!

If it is not possible to install at the intended location because of obstacles, another location should be chosen.

## 10.0 Attaching aluminium lashing rails

Attaching the lashing rails is performed at ALUCA using M6 countersunk screws (DIN 7991), 8.8 resistance and M6 locknuts (DIN 985) or M6 expanding nuts: At a distance of approx. 150 mm we can ensure pull-out values of 200 daN. We demonstrated this by pull-out tests in cooperation with the manufacturer of the lashing rails.



## 11.0 Attaching lengthy goods trays without fittings

Installation can be performed using adjustable angle brackets. The span between the brackets and/or other support points should not exceed 80 cm.



LGWH [type no. 102509]

## 12.0 Connecting electrical appliances

All electrical installations must be performed with care.

All work on 12/24 V must be performed by qualified personnel.

Observe the installation guidelines of the vehicle manufacturer.

### CAN bus:

Increased networking and the exchange of data in computer readable form have also had an impact on vehicle technology.

Nearly all car manufacturers nowadays control the entire vehicle using special data bus systems, such as the so-called CAN bus (Computer Area Network).

The connection possibilities known to us are usually

- a suitable interface (available as an option, e.g. VW T6)
- an auxiliary battery
- an appropriate connector (e.g. VW T6)

If the options are not available, you will need to contact a specialist dealer!

Installation of lamps/power sockets [using our standard cable set, Item no. 105750]. Determine the position of the lamp/power socket and mount with connecting cables!

Route the cables correctly.

Fit protection to sharp edges.

Edge protection/cable grommets or corrugated pipe [in accessories, available on request]



ALUCA has carefully designed and manufactured this cable set based on a model vehicle and data provided by the vehicle manufacturer.

If more extensive changes are required or the function does not exist, please contact ALUCA!

An increased load on the battery by additional power consumers cannot be excluded.

Please make sure your customers are aware of the following points:

- Only switch on interior lights if recharging is ensured.
- Only use additional socket if recharging is ensured.
- Only operate auxiliary consumers when the vehicle engine is running.  
[If not fused by special modules or ignition switch].
- Secure socket against damage and disconnection when a plug is inserted.

### Getting Started

Please check the completeness of the supplied cable kit against the parts list before starting work.  
Read this manual carefully before starting work.

### Note

All electrical installations must be performed with care. Isolate all cables carefully and use the supplied cable connector for mounting. At any sharp edges, the cable must be protected [edge protection etc.]. We recommend corrugated tubes.

Only use the supplied fuses. These are tailored to the application.

If necessary, replace only with fuses of the same capacity.

The following tools are required:

- Screwdriver, size 2
- Hillpress crimping tool
- Wire cutter

### General installation instructions

The installation of the interior light [not included] is usually carried out in the middle or rear of the vehicle on the vehicle roof. Make sure that, even in the case of an equipped vehicle, no obstacles can collide with the light and other vehicle facilities cannot affect its functioning. A socket is generally installed in the middle or rear of the vehicle.

Installation of the auxiliary power outlet [not included] is usually carried out on the rear of the vehicle on a worktop or vertically on a support frame.

Make sure that even when power consumers are plugged in, the socket is unrestricted and easy to access and does not affect other facilities of the vehicle.

The auxiliary power outlet socket is suitable for operating 12 V devices such as laptops and notebooks, mobile phone chargers or hand-held lamps. The maximum power rating should not be exceeded [see information on the socket]. Protection from overload by a short circuit is provided by a 15A fuse [supplied].

Please take care when choosing the installation location that the socket is protected against water and moisture after installation.

The electrical connection can be made either to the auxiliary battery of the vehicle or the starter battery. When connected to the starter battery, to protect against starting difficulties caused by deep discharge, the interior light must be switched via a switched positive lead [terminal 15 or similar]. Operation is then only possible when the ignition key is in position 1 or the engine is running. This will prevent accidental discharge of the starter battery. On certain vehicles, terminal 15 is not readily accessible as they are equipped with a so-called CAN bus.

### CAN bus

Increased networking and the exchange of data in computer readable form have also had an impact on vehicle electrics. Almost all vehicle manufacturers are gradually moving towards control via sub-areas [e.g. Mercedes-Benz Sprinter: engine control] or the entire vehicle [VW T6, new MB Vito] via special data bus systems, such as the CAN bus [Computer Area Network]. While it creates savings for maintenance and service due to faster and more targeted diagnosis, it makes it difficult for vehicle fitters to install additional electrical consumers because not all signals can be wired arbitrarily. The CAN bus computer or controller checks the connected equipment and lines for the correct load and displays an error message if this is too high [or too low].

Therefore, in vehicles with an interior CAN bus, special measures must be taken to connect additional consumers, such as the interior light or an auxiliary power outlet. Please refer to the electrical connection detailed according to the vehicle-specific interface descriptions on the following pages. If a vehicle is fitted with an interior CAN bus system, please refer to the vehicle manual or the guidelines for installation.

### Important information

When retrofitting electrical consumers, please note the following:

- When the engine is running, the battery terminals must not be loosened or removed.
- When working on electrical cables, these must be de-energised beforehand [e.g. by removing the fuse or disconnecting the battery].
- For safety reasons, the negative pole of the battery must be disconnected from the vehicle earth. For vehicles equipped with an auxiliary battery, both earth connections must be disconnected.
- No additional cables should be connected to assigned fuses.
- No additional cables may be connected to existing cables in vehicles equipped with CAN bus.
- Consumers must be adequately protected with additional fuses. The fuses are designed for the intended consumers and cable cross-sections and must not be replaced by more powerful ones.
- As the utilisation intensity of the consumer is not known, the installer is responsible for balanced electricity consumption. Inform the users of any relevant operating restrictions.
- If a cable extension is needed, the existing cross-section [2 x 1.5 mm<sup>2</sup>] must not be undershot.
- When fitting electronically controlled interior lights [energy-saving lamps, transistor lamps, fluorescent lamps, etc.] you must comply with the EMC guidelines. Only use lights approved for vehicle installation with CE marking.
- All wires, in particular on sheet ducts, must be protected against friction. Use the supplied cable supports.
- Secure all the cables against loosening and hanging and ensure there is no tension so that the plug connections cannot come loose when driving.
- Improper interference with the vehicle electrical system can compromise operational safety!

When you hand over the vehicle, show your customers how to correctly use your installed additional electrical equipment and inform them of any restrictions.

### Connection options

#### Vehicles without interior CAN bus

##### General interior light installation instructions

For vehicles where CAN bus is not installed to monitor the current conditions in the on-board power supply system, the interior light can in principle be connected to the following points:

- Permanent positive terminal 30 in the fuse box [interior lamp lights up constantly, in addition, a contact from the door contact switch can be used to switch on the light when the door is opened/closed].
- Switched positive e.g. terminal 15 in the fuse box [Interior light comes on only when ignition is switched on].
- Permanent positive directly from the auxiliary battery [as per the method described in item 1].
- Take-up on the existing roof or interior light [This is particularly important to ensure the existing lines are not overloaded and a proper connection is established].

##### Electrical socket

For vehicles where CAN bus is not installed to monitor the current conditions in the on-board power supply system, the auxiliary power socket can in principle be connected to the following points:

- Permanent positive terminal 30 in the fuse box [Socket is always ready for operation. In unattended operation, connected consumers can discharge the vehicle battery for so long that starting is no longer possible].
- Switched positive e.g. terminal 15 in the fuse box [Socket has power only when ignition is switched on]
- Permanent positive directly from the auxiliary battery [as per the method described in item 1].

A tap from existing consumers is not recommended as the power load can exceed the capacity of the cables and fuses.

### Notes:

Please refer to the vehicle manual or the manufacturer workshop instructions for the position of connections and the options.

To connect the negative cable to the interior light, use the central earth point specified by the vehicle manufacturer.

Mercedes-Benz Vito manufactured in or after 2004

General installation instructions

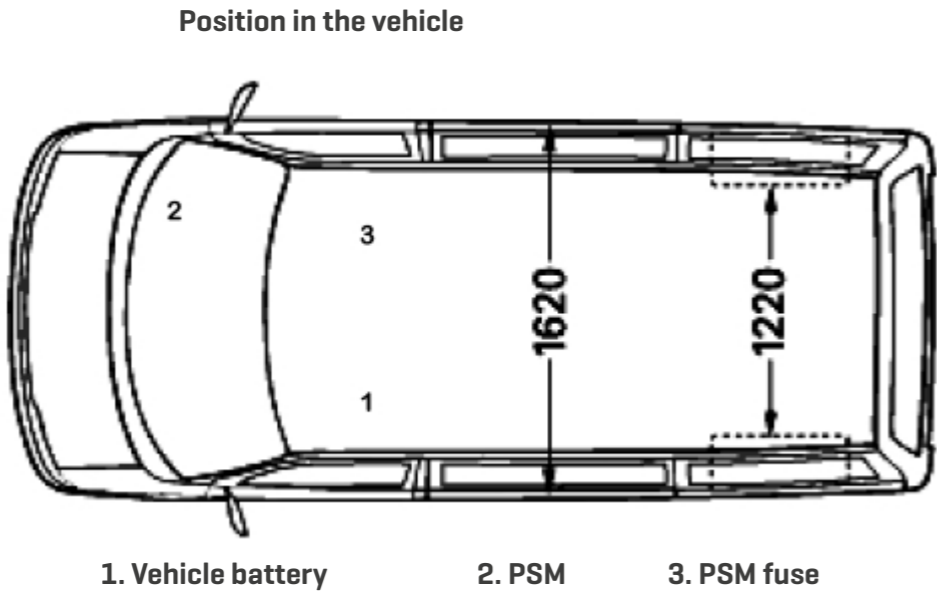
The Mercedes Benz Vito is equipped among other things with an interior CAN bus. Certain information from the on-board electronics can therefore only be made available via the parametrisable PSM special module [MB code ED5, which can also be upgraded].

Notes

The installation location of the PSM and the earth connection is in the front passenger footwell and the two 25A fuses are located in the seat box. The signals are only suitable for controlling, not to supply power loads.

Installation

The connection of additional consumers must be performed according to the manufacturer's specifications by means of the factory-mounted battery + terminal. Additional cables can be attached to the 6 mm screw terminal with additional fuse protection. Use the enclosed cable lugs and the fuse holder with a cartridge fuse.



Additional information

When retrofitting an auxiliary battery, it is important to note the following:

- Use only deep-cycle and leak-proof batteries
- Connection is only possible via a cut-off relay to the vehicle battery. Our accessories include a complete set of cables for connecting two batteries, including cut-off relay

Volkswagen Caddy built in or after 2004

General installation instructions

Like the T5, the VW Caddy from 2004 onwards has an interior CAN bus. An additional battery is not offered as standard and a special E-interface for connecting additional consumers is currently unavailable.

ALUCA therefore recommends either direct connection to the terminal of the vehicle battery or to a free terminal [depending on the vehicle equipment] in the fuse box. It is essential that the connecting cable is protected with the fuse included. Please advise customers that with this circuit, the battery can be discharged overnight if the interior light is switched on accidentally.

Additional information

When retrofitting an auxiliary battery, it is important to note the following:

- Use only deep-cycle and leak-proof batteries
- Connection is only possible via a cut-off relay to the vehicle battery. Our accessories include a complete set of cables for connecting two batteries, including cut-off relay

Volkswagen T6

General installation instructions

The T6 has an interior CAN bus, which does not allow the connection of additional consumers. An optional E-interface is available from the factory, which makes several fused terminals available. The interior light can be connected to this.

Whenever possible, this option must be requested when ordering a new car. Vehicles with a heater are equipped with a secondary battery [available for all as an optional extra]. If the vehicle is equipped with this feature, it should be used to connect the interior light. Of course there is also the option of disconnecting the power supply directly on the vehicle battery. In this case, it is essential that the connecting cable is protected with the fuse supplied.

Note

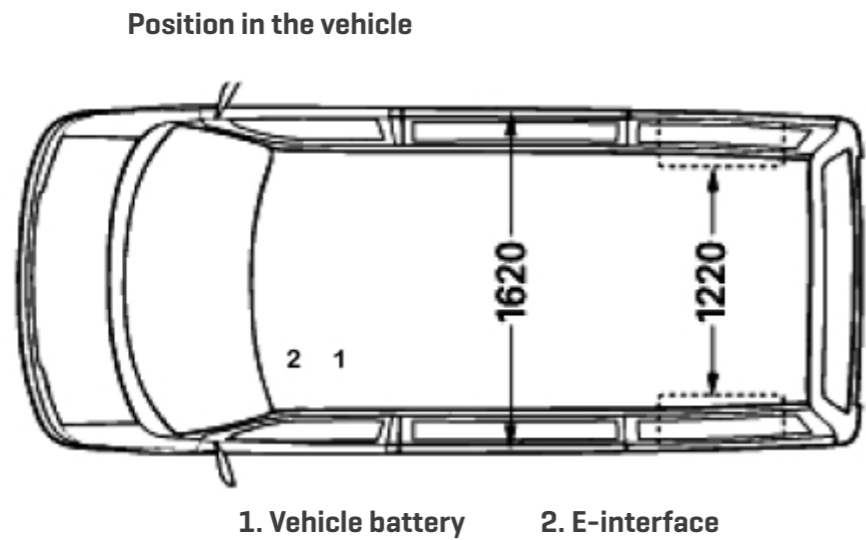
Please advise customers that with this circuit, the battery can be discharged overnight if the interior light is switched on accidentally.

Table for cable assignment VW T6 E-interface

Terminal	Function	Plug	VW no.*	PIN	VW-Nr.*	Cross-section	max. current
15	Ignition on	Purple	.937.73.K	9	N.103.358.01	0,5 qmm	2A
30	Permanent positive	Grey	1J0.937.731.G	4	N.906.966.01	4 qmm	32A
XRA	Relay X contact	Purple	J0.937.733.K	1	N.906.854.01	1,5 qmm	12A

\* Delivery of these parts is currently not possible for this kit.

The interface connectors of the E-interface are located in the driver's seat box on the front wall and are colour coded. When connected to Terminal 30, the supplied 5A fuse must always be used.



13.0 Technical notes

A load sticker [Item no. 109404] is enclosed with each pre-assembled device. Attach these so that they are clearly visible on the equipment or the vehicle.

The labels provide information on how our products, as well as lashing points retrofitted by us, should 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 steel full extension width up to 950 mm
60 kg Schublade - System ALUCA mit Stahl-Vollauszug ab Breite 950 mm	Drawer - System ALUCA with steel 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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At regular intervals [about every 5000 km] as well as after an emergency stop and/or an accident, check the points at which the in-vehicle racking system is attached to the floor and the walls and side connections [rails] and also to lashing points.

For repairs, only use original spare parts from ALUCA.

- Before driving the vehicle, check the permissible payload.
- Keep in mind that the in-vehicle racking system is part of the payload.
- Pay attention to the axle loads stipulated by the manufacturer.
- Avoid one-sided weight distribution in the vehicle.

Installations in passenger cars and vans, which are securely fastened in the load space, are regarded as cargo. For loads, there are no traffic rules that require acceptance by recognised experts or require an entry in the log book. The exception may be the responsible authorities.

ALUCA GmbH recommends separating the passenger area from the load compartment using partitions or separator grids approved by the vehicle manufacturer. If a window is installed in partition walls, it must have a safety certificate from the manufacturer. ALUCA recommends that the windows always be fitted with a protective grille to increase passive safety in the passenger compartment.

Loose parts in the cargo area must be secured with the appropriate and approved load-securing equipment.

ALUCA GmbH recommends that all employees who use an in-vehicle racking system should undergo appropriate, documented training to inform themselves about the relevant load securing rules and optimal use of the product. For example, care must be taken to ensure that heavy loads are always transported in the lower part of the in-vehicle racking system. Light loads, on the other hand, should always be stored in the upper area of the in-vehicle racking system.

## 14.0 Cleaning/Maintenance

ALUCA in-vehicle racking systems are manufactured from high-quality aluminium. This material does not need painting. It is therefore very easy to clean and this can be done inside the vehicle. Use dirt-repellent ALUCA care spray, or a comparable product for the care of metal surfaces.

When replacing or installing ALUCA in-vehicle racking systems in other vehicles, the disassembled racking block can be cleaned with a high pressure steam cleaner. The drawer runners must be greased afterwards. Use ALUCA maintenance oil.

Do not use steel wool, a steel brush or similar because rust is formed through abrasion of the steel by the cleaning equipment. All surfaces should be treated with our dirt-repellent ALUCA care spray after each cleaning.



**For more information and accessories, please  
consult our main catalogue, our website or contact  
the ALUCA consultant in your area!**

**ALUCA<sup>®</sup>**

**ALUCA GmbH**

**In-vehicle racking systems made of 100% aluminium**

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