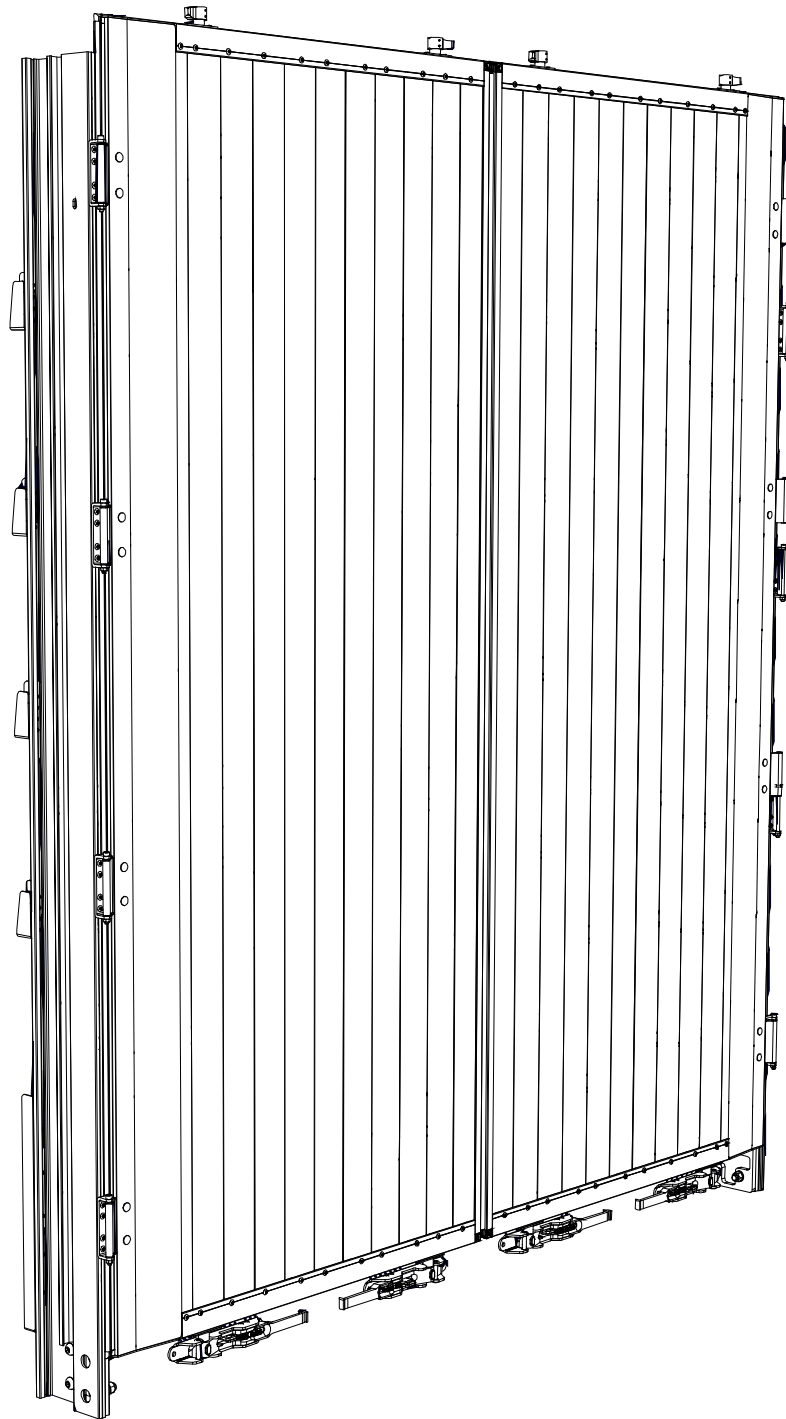


# Mounting and repair instruction for sealing installation at rear door and double winged door



Translation of the original mounting instruction

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## GENERAL REMARKS

### Introduction to Mounting Instruction

Alteration service: Yes

Staff: According to curriculum for apprenticeship as  
a body and vehicle mechanic and  
a body and vehicle construction mechanic.

This Mounting Instruction is part of the delivery and an important help for successful mounting. Therefore, it must be available to the mechanic during the mounting works.

Furthermore, the assembly guidelines of the applicable vehicle producers must be obeyed.

### Copyright:

The copyright for this mounting instruction is reserved by TSE Trailer System Engineering GmbH & Co. KG

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### Instruction and training support

As an employer, you are obliged to inform and instruct your personnel about existing legal and accident prevention regulations.

The personnel must have understood these instructions, and it must be safeguarded that the instructions are obeyed.

Only in this way you will reach safety and danger awareness of your personnel at work.

### Example for training topics

#### 1. About safety

- Accident prevention regulations
- General legislation
- General safety hints
- Measures in emergency cases
- Personal protective equipment

#### 2. Maintenance and repair regulations

- Correct use of cleaning agents and lubricants
- Special experience of the mechanic in maintenance, repair, cleaning and upkeep of the product

## Hints

### Attention:

The surfaces of the TSE modules must not be contaminated with caustic cleaning fluids. Cleaning fluids with the appropriate labeling are aggressive and can cause damage to all component surfaces. These should expressly not be used for gentle cleaning.

Nummer	Symbol
GHS05	corrosivity



### ATTENTION!

Texts with this symbol will warn you against possible mistakes in mounting and, therefore, against potential material damages.



### HINT!

Texts with this symbol will give you tips or additional information.



### TIGHTENING TORQUE!

Texts with this symbol will give you necessary tightening torques.



### You need holes!

Texts with this symbol indicate the setting of holes.

# Safety

## General

Although our products are in accordance with the state of the art, they may pose a risk if:

- they are mounted by unskilled personnel
- they are maintained improperly.

## Safety hints

This safety instruction informs you about the products of TSE Trailer System Engineering GmbH & Co. KG. It contains information about maintenance and repair of the parts and their components. The service instruction has only been written for skilled personnel of qualified and authorized specialized companies in motor vehicle crafts. The service instruction is not applicable for other target groups.

We want to support specialized companies with the present mounting instruction during the mounting works with our products.

TSE Trailer System Engineering GmbH & Co. KG accepts no liability for the installation of inapplicable or unreleased parts in their products.

Defects due to wrong handling, aggressive cleaning agents, use of force or subsequent changes of the delivered product or single components of it, as well as non-observance of the safety hints and consequential damages caused thereby, are not covered by our warranty.

Only use unchanged original parts and accessories supplied by the manufacturer.

We do not accept any warranty for the correctness, completeness or currency of the given information. The contents and information of this mounting instruction are neither a warranty or warranted characteristics within the meaning of German legislation, respectively the German Civil Code (Bürgerliches Gesetzbuch (BGB)), nor can they be interpreted as such.

No claims can be derived from provision of information, recommendation or consulting. Liability for damages is generally excluded as far as we are not responsible in the sense of intent or gross

negligence, or as far as this does not contradict mandatory legal provisions.

Texts and graphics are subject to our rights of use; copy rights or right of distribution in any form require our agreement.

Mentioned brand names, even if they are not marked as such in every case, are still subject to the regulations of the trade mark law.

If any disputes of legal nature occur from applying information found in this mounting instruction, they shall solely be subject to the regulations of German law.

The Amtsgericht Stuttgart (Local Court in Stuttgart) is deemed to be agreed on as place of jurisdiction. If some clauses of this declaration about limitation of liability do not or no longer comply with the applicable legal provisions, the validity of the other clauses shall remain unaffected thereof. Read the information in this mounting instruction carefully. Especially, obey the hints for your own safety.

All technical information, descriptions and pictures shall be valid from the day of their printing - respectively the day of any supplements hereto - on.

We reserve the right to make changes due to steady further development.

No claims can be derived from applications and explanations of this publication.

### **Safety hints for the technician:**

Unauthorized people are not allowed to enter the vehicle and the area around it.

Your working area should be in good order.

Only works which you are commissioned and acquainted with have to be executed.

Increased caution is advisable in dangerous areas.

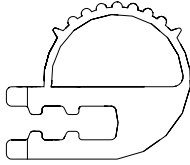
Obey the producer's information and safety hints for the applicable product when you deal with operation materials (oils, grease etc.).

Only applicable lifting devices may be used.

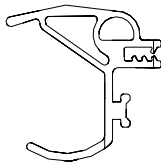
## Dichtungsarten und Arbeitsmittel

1

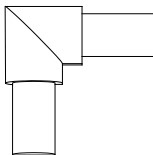
**Sealing outside**



**Sealing door middle**



**Sealing brackets**



**Sealing outside**

TSE-no.: 1214932

**Sealing door middle**

TSE-no.: 1215018

**Sealing brackets**

TSE-no.: 250-53.004

2



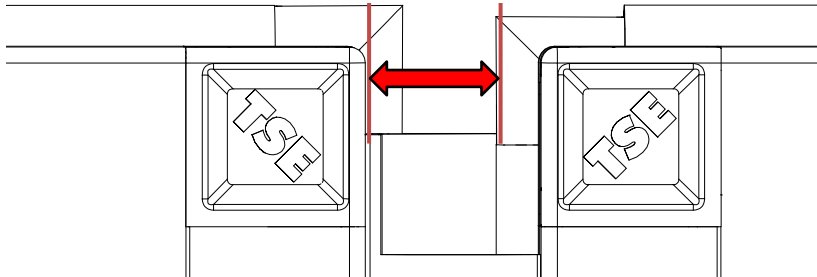
**Optional:**

- **Superglue**  
TSE-no.: 1270913
- **Primer**  
TSE-no.: 1270914
- **Cleaner**  
TSE-no.: 1270915

## Door crack set point

**1**

Door crack set point: 22-24mm

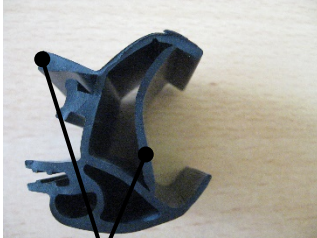


A correctly set door crack between the door wings is an important precondition so that the door sealing will not be damaged during the daily use.

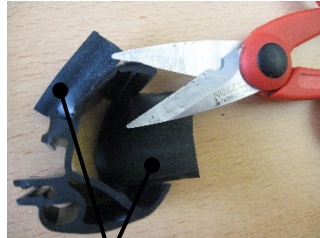
The door crack **must be at least 22mm** in the upper area.

## Sealing installation

# 1



Middle sealing with auxiliary bars



Remove auxiliary bars



Middle sealing without middle into the T-slot

Prepare the sealing door middle (TSE-no.: 1215018) for the installation at the left door wing and at the double wing door in the middle. Remove both auxiliary bars if this has not already been done in the factory.

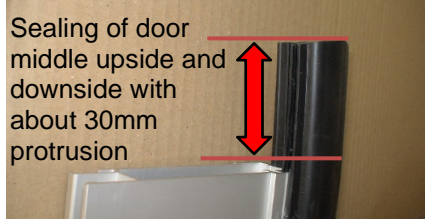
Now the auxiliary bars must be cut at the beginning of the sealing for about 5mm. Then they can easily be removed manually. They are only needed for making the sealing.

# 2

Insert the sealing of door middle into the T-slot



Use lubricant in the T-slot



Sealing of door middle upside and downside with about 30mm protrusion

Mount the sealing door middle (TSE-no.: 1215018) into the aluminium profile. For easier mounting it is recommended to moisten the T-slots in the aluminium profile with a lubricant.

Silicone spray or soap solution are very suitable for this purpose.

Let the sealing upside and downside protrude for about 30mm.



3

Press the lateral sealing lips into the slot



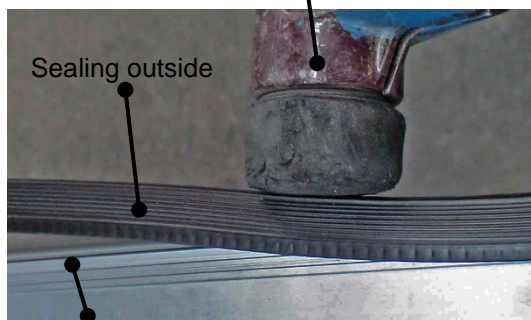
Auxiliary tools



As you can see in the pictures, press the door sealing middle into the lateral slot. Please check that the sealing lip has been pressed in evenly and along the entire depth. To facilitate the insertion of the sealing lip into the lateral slot, auxiliary tools can be used.

4

Auxiliary tools



Slot aluminium profile

Auxiliary tools



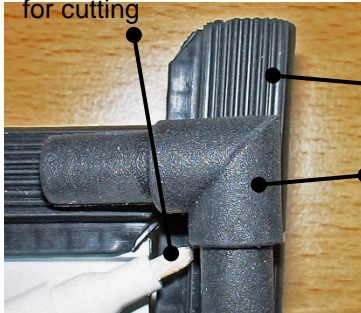
Press the sealing outside (TSE-no.: 1214932) into the slot of the aluminium profiles of the door manually. Let the sealing protrude for about 30mm for the later exact adjustment of the length.

To guarantee the correct fitting of the sealing, you can support pressing the sealing into the aluminium profile slot by using a rubber hammer as an auxiliary tool.

In the area of the locking cams upside and the manual locking lever downside, the correct fit of the sealing must be safeguarded with a piece of wood or a similar auxiliary tool which is not sharp-edged.

5

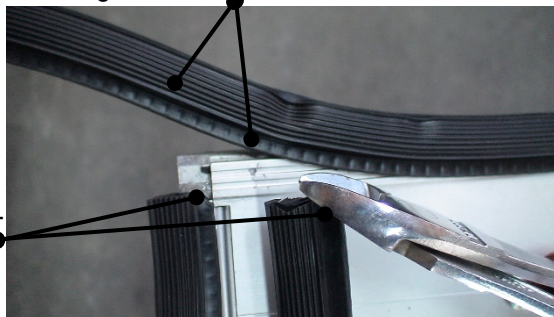
Mark the sealing outside  
for cutting



Protrusion

Sealing bracket  
TSE-no.: 250-53.004

Remove the protrusion for cutting from the  
slot again.



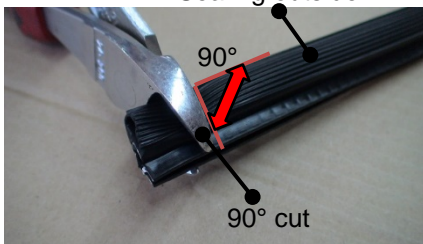
Cut the edge for  
about 3x45°

Mark the cutting length of the s  
sealing outside by means of a  
sealing bracket.

Pull out the sealing a little from  
the aluminium profile to cut it.

6

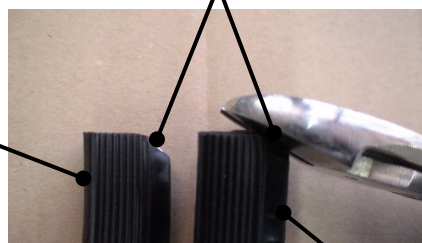
Sealing outside



90°

90° cut

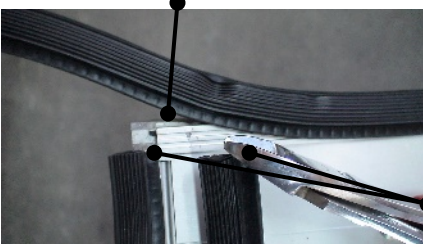
Cut the edge  
for about 3x45°



Inner side,  
slot side

Outside

Pull the protrusion out of  
the slot for cutting.



Cut the edge  
for about 3x45°

Cut the outer sealing in an  
angle of 90° by means of a  
side cutter.

The edge must be cut for  
about 3x45° at the inside of the  
sealing by means of a side  
cutter so that the cutting ends  
of the outer sealings do not  
collide in the edge area.

After cutting, press the  
sealings back into the  
aluminium profile slot entirely.

7



Insert the sealing brackets

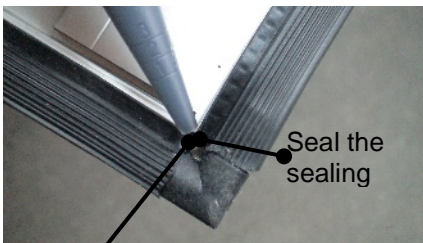
(TSE-no.: 250-53.004) entirely into the sealing door outside (TSE-no.: 1214932) and – at the left door wing - also into the sealing door middle. **NO** gap may occur between the sealing and the sealing bracket.



The glue (TSE-no.: 1270913) not be used to fix the sealings in the aluminium profile slots. It may only be used to glue the sealing brackets.

To glue the sealing brackets, we recommend to apply the superglue ERGO 5880 (TSE-no.: 1270913).

8



Smoothen the glue with soapy water

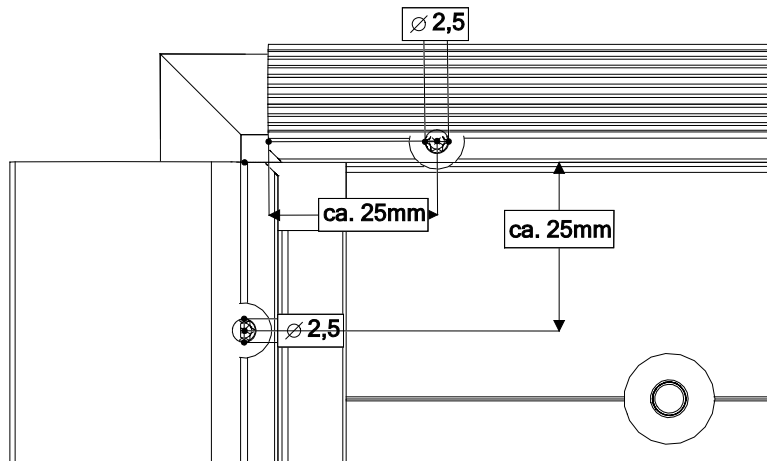


Smoothen the glue with soapy water

Seal the sealing brackets with the black glue (TSE-Nr.: 000-06.101), as you can see on the pictures.

The glue can be smoothened by means of soapy water.

9



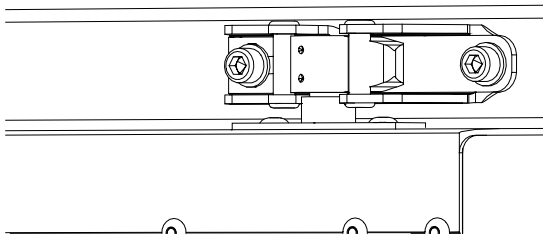
Flat-head tapping screw  
3.5x9.5mm

**TSE-no.: 1287332**

After gluing the sealing brackets, the boreholes are made (Ø2.5mm) and the screws are placed.

10

**Counter bearing of locking upside**

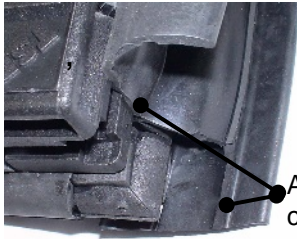


At the upper top crossbar, the counter bearings of locking are screwed with the sealings and the clamping plates.

Screw the counter bearing of locking downside.

**Counter bearing of locking downside**



**12****View on middle sealing of door wing left downside**Adjust the sealing by  
cutting**View on middle sealing of door wing left upside**Adjust the sealing by  
cutting

Cut the fixed sealing at the middle of the door and downside.

[illegible]

## Revision levels

Revision level	Kind of change	Date	Name
00	New creation of mounting instruction	26 March 2019	Laib / Maier
01	Page 4 changed	23.11.2020	Boll

Erstellt	Geprüft und Freigegeben
Datum:	Datum: 29.09.2020
Name/Abt.	Name/Abt. U.Boll
Unterschrift	
Dokument: FB45120A	