



Operating Instructions

## FUTURESAFE



[www.amf-bruns.de](http://www.amf-bruns.de)



## **Foreword**

Dear reader,

these Operating Instructions serve to provide all information required for the safe use of the FutureSafe head- and backrest.

The FutureSafe is designed and constructed in accordance with state of the art technology and recognised safety standards. Persons and materials can however be endangered, as not all danger areas can be eliminated if the functional capability is to be maintained. Accidents caused by these dangers can however be prevented by strictly observing these Operating Instructions. Over and above this, the operational efficiency of your FutureSafe can be used to the full and unnecessary faults can be prevented.

After reading these Operating Instructions for the first time, keep them in a safe place for future reference over the entire lifetime of the FutureSafe. If you sell the FutureSafe, hand these Operating Instructions over to the new owner.

All details, figures and dimensions contained in these Operating Instructions are without obligation. No claims in any form can be derived from these.

This document must not be reproduced or duplicated, in full or in part, without the prior, written permission of the manufacturer.

The FutureSafe must be converted or modified in any way, without seeking the prior, written permission of the manufacturer. The manufacturer will not be held responsible in any way whatsoever if conversions or modifications are carried out without authorisation.

Use only original spare parts or spare parts which have been approved of by the manufacturer. If spare parts other than these are used, this can have a negative effect on the specified characteristics, the functionality and safety of the FutureSafe. Using non-original or unauthorised spare parts will render the guarantee null and void.

Contact our customer services department to order spare parts or accessories (see Chapter 10, page 30).

### Explanation of symbols and signs

To improve understanding, the following conventions should be met for these Operating Instructions:

1.

The following types of special note are used to highlight text passages of an important nature.



**DANGER!**

- warns of a situation of immediate danger, which will lead to serious or fatal injuries, if not avoided.



**WARNING!**

- warns of a potentially dangerous situation, which will lead to serious or fatal injuries, if not avoided.



**CAUTION!**

- warns of a potentially dangerous situation, which will lead to slight or minor injuries, or material damage if not avoided.



**CAUTION!**

...warns of a potentially dangerous situation, which can cause material damage, if not avoided.



...contains general notes and useful information.



...gives a reference to important information in other sections and documents.

2.

Some texts serve a particular purpose. These are identified as follows:

- Lists

⇒ Instructional text, e.g. a sequence of activities.

3.

Meaning of directions:

If directions are given in the text (in front of, front, behind, rear, right, left), these directions relate to the normal direction of travel of the vehicle.

# Contents

<b>Foreword.....</b>	<b>3</b>
<b>Contents.....</b>	<b>6</b>
<b>1 Safety .....</b>	<b>8</b>
1.1 Proper Use .....	9
1.2 Improper Use.....	9
1.3 Personnel Requirements.....	10
1.4 Product Monitoring .....	10
1.5 Safety and Accident Prevention Regulations .....	11
1.6 Disposal .....	11
<b>2 Description .....</b>	<b>12</b>
2.1 Layout and Function .....	12
2.1.1 Floor or side anchorage plate.....	13
2.1.2 Frame.....	14
2.1.3 Head- and backrest .....	14
2.1.4 Diagonal shoulder safety belt.....	14
2.1.5 Rating Plate .....	15
2.2 Technical Data .....	15
<b>3 Transportation.....</b>	<b>16</b>
<b>4 Installation / Commissioning.....</b>	<b>16</b>
<b>5 Operation .....</b>	<b>17</b>
5.1 Safety Regulations for Operation .....	17
5.2 Adjustment Options .....	18
5.2.1 Pivoting the swivel arms .....	18
5.2.2 Lengthening and shortening the swivel arms .....	19
5.2.3 Adjusting the height of the head- and backrest .....	20
5.2.4 Adjusting the FutureSafe forwards or backwards.....	21
5.3 Adjusting the FutureSafe for a Wheelchair-Bound Passenger .....	22
5.3.1 Adjusting the backrest.....	22
5.3.2 Adjusting the headrest.....	23
5.4 Safety Belts.....	24

<b>6</b>	<b>Maintenance and Repair .....</b>	<b>25</b>
6.1	Safety Regulations for Maintenance and Repair ...	25
6.2	Routine Maintenance Work .....	26
6.2.1	Maintenance schedule .....	26
6.2.2	Maintenance record .....	26
6.3	Maintenance and Inspection Record .....	26
<b>7</b>	<b>De-Commissioning and Conservation .....</b>	<b>27</b>
<b>8</b>	<b>Faults and Troubleshooting .....</b>	<b>27</b>
<b>9</b>	<b>Spare parts .....</b>	<b>28</b>
<b>10</b>	<b>Customer Service .....</b>	<b>30</b>

# 1 Safety

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## CAUTION!

Risk of injury if the FutureSafe is not operated correctly.

Therefore:



- It is imperative, that these Operating Instructions are read thoroughly before operating the FutureSafe. Always observe the notes and information contained therein, in particular the safety instructions.
  - If these Operating Instructions or parts thereof are lost or become illegible, please request a new copy from the manufacturer.
- 

Prerequisite to the safe handling and trouble-free operation of the FutureSafe is a thorough knowledge of the applicable safety information and the safety regulations.

It is therefore imperative that this Chapter is read thoroughly before operating the FutureSafe and that the instructions and warnings herein are strictly observed. The safety information and warnings, given at the appropriate places in the following Chapters, must also be strictly observed. The manufacturer will not be held responsible if safety information and warnings are not observed.

In addition to the information given in these Operating Instructions, local legislative regulations must be taken into consideration, in particular those regarding safety and accident prevention.



## 1.1 Proper Use

The FutureSafe is designed solely for use in a vehicle as a head- and backrest for persons seated in a wheelchair.

Whereby the diagonal shoulder safety belt provided on the FutureSafe must be worn in addition to the lap belt that is fitted to the vehicle. The wheelchair must be secured by the restraining systems fitted to the vehicle.

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### **WARNING!**

If the FutureSafe is used for any other purpose than that described above, this may result in dangerous situations for persons or material damage being caused.

Therefore:



- Only use the FutureSafe for the purpose for which it was intended.
- Always adhere to information given in these Operating Instructions.
- Do not use the FutureSafe for any other purposes, particularly those given in Section 1.2. These are deemed to be improper use.

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## 1.2 Improper Use

Any type of use, other than that mentioned in section 1.1 is deemed to be improper use.

The FutureSafe is deemed to be improperly used if for example:

- it is used in a faulty state or with safety-relevant malfunctions,
- a wheelchair, that can not be secured by the restraining systems available in the vehicle, is transported,
- the wheelchair is not secured in the vehicle,
- the passenger in the wheelchair is not wearing the diagonal shoulder safety belt and lap belt or
- it is used by incompetent persons.

### 1.3 Personnel Requirements

The FutureSafe must only be handled by persons who:

- have read and understood these Operating Instructions,
- have proven their ability to operate the FutureSafe to the vehicle's owner,
- have been expressly assigned by the vehicle's owner to operate the FutureSafe,
- are in a position to adapt themselves to the particular behaviour and needs of disabled persons.

Transportation, installation, commissioning, maintenance, repair, fault finding and disposal of the FutureSafe must only be carried out by persons with the corresponding technical training and experience.

### 1.4 Product Monitoring

Please contact AMF-Brunns GmbH & Co. KG immediately if faults or problems are encountered when operating the FutureSafe or if accidents or "near-misses" occur.

AMF-Brunns will effect a solution to the problem with your help and the knowledge gained will flow into future projects.



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#### NOTE

Guarantee work on the FutureSafe must only be carried out with the prior agreement of AMF-Brunns GmbH & Co. KG.

The costs of such work will not be accepted by AMF-Brunns without prior agreement.

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## **1.5 Safety and Accident Prevention Regulations**

Adhere to the following notes in order to prevent personal injuries and material damage. Adhere also to the relevant safety and accident prevention regulations laid down by the trade associations for commercial use.

- The FutureSafe must only be used for the purpose for which it is intended, otherwise dangerous situations, with resultant injuries, may occur (Proper use: see Section 1.1, page 9).
- The owner is responsible for ensuring that proper use is adhered to, in particular that the FutureSafe is only operated by authorised persons.
- If the FutureSafe is used commercially or as a public utility, the owner must ensure that operating personnel are familiar with the operation of the FutureSafe under all operating conditions by providing instruction courses.
- Proper use of the FutureSafe also includes adherence to the specified maintenance and repair work, in particular strict adherence to the maintenance intervals. If such work is not carried out, trouble-free operation can not be guaranteed. Risks of personal injury and material damage can occur.
- The FutureSafe must not be operated in a faulty condition, as serious injuries may be caused by this. If faults occur, do not use the FutureSafe until repairs have been effected.
- Use only original spare parts or spare parts which have been approved of by the manufacturer. If non-original or unauthorised replacement parts are used, this will render the guarantee null and void.

## **1.6 Disposal**

When the FutureSafe's useful life has expired, it must only be disposed of by qualified specialists. The manufacturer will accept no liability for damage caused by incorrect disposal.

## 2 Description

By supporting the head and back, the FutureSafe offers additional safety to passengers, who are seated in a wheelchair, if an accident occurs.

The main components of the FutureSafe are:

- floor or side anchorage,
- the frame with pillar and swivel arms,
- the head- and backrest,
- The diagonal shoulder safety belt.

The aim of this chapter is to illustrate the construction and function of the FutureSafe. To this end, the individual assemblies and components are described in the following sections.

### 2.1 Layout and Function

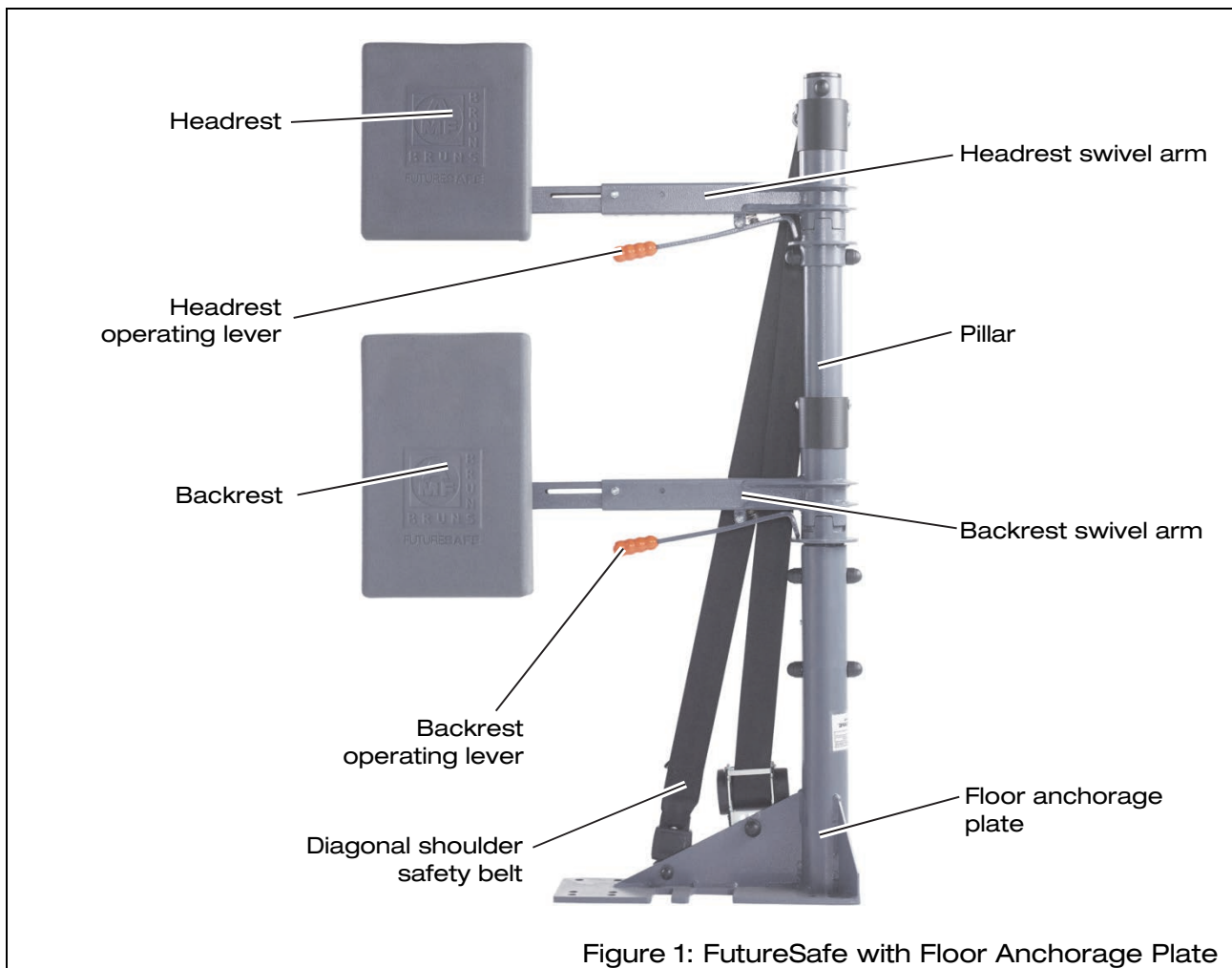


Figure 1: FutureSafe with Floor Anchorage Plate

### 2.1.1 Floor or side anchorage plate

The FutureSafe is available with either a floor or side anchorage plate, by which it is firmly fixed to the vehicle.

A floor anchorage plate is firmly fixed to the floor of the vehicle using special assembly components (see Figure 1, page 12).

A side anchorage plate is particularly suitable for minibuses (see Figure 2). The FutureSafe can be moved to the forwards or backwards in the vehicle by mounting it on Smartfloor rails. The FutureSafe can also be easily removed from the vehicle.

Both versions of the FutureSafe are available for installation on the right- or left-hand side of the vehicle.

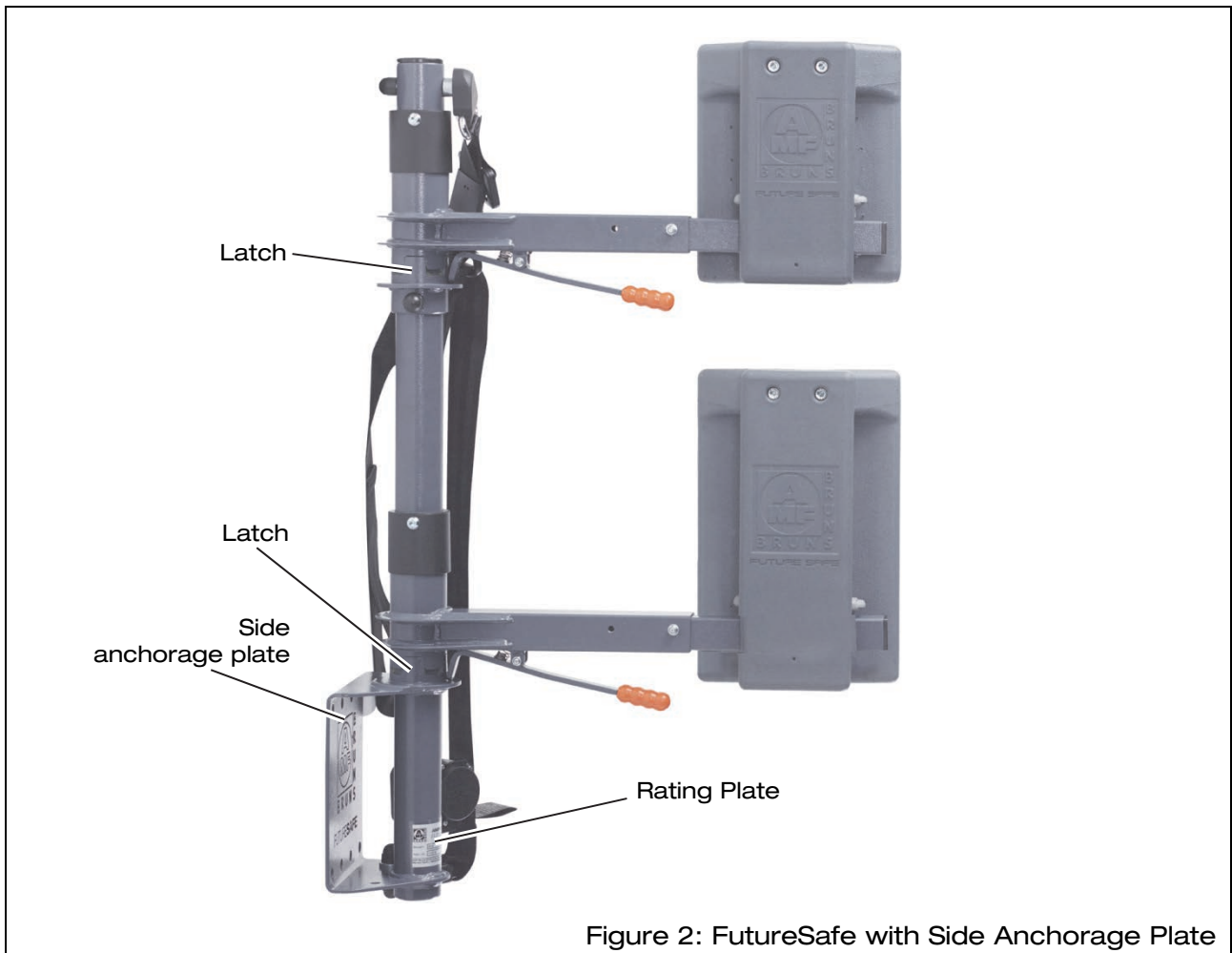


Figure 2: FutureSafe with Side Anchorage Plate

### 2.1.2 Frame

The main components of the frame are the pillar with floor or side anchorage plate and the swivel arms. The pillar has latches, on which the swivel arms are hung.

By pressing the operating lever, the top part of the latch, complete with swivel arm, is raised, allowing the arm to be swivelled.

The swivel arms can be pulled out (lengthened) and pushed in (shortened) without further preparation. They perceptibly latch in certain positions. This allows the head- and backrest to be laterally positioned, so that they are exactly behind the passenger in the wheelchair.

### 2.1.3 Head- and backrest

The head- and backrest are hung on the swivel arms. They are each provided with mechanics for adjusting the height.

The backrest has a slanting profile. This makes it possible to adjust the distance of the backrest to the back of the passenger in the wheelchair by adjusting the height of the backrest.

### 2.1.4 Diagonal shoulder safety belt

The FutureSafe is equipped with shoulder safety belt, with retractor reel and upper attachment point. When travelling in the vehicle, the passenger in the wheelchair is protected by this shoulder safety belt and the vehicle's lap belt.

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#### NOTE



For safe use of the FutureSafe, the restraint systems for wheelchair and passenger must conform with the applicable local standards.

If in doubt, contact AMF-Bruns GmbH, to find out whether the restraint systems fitted to your vehicle are the correct systems (see Chapter 10, page 30).

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### 2.1.5 Rating Plate

A rating plate, which contains the fundamental data, is attached to the FutureSafe (see Figure 3). The rating plate is attached to the pillar, in the vicinity of the floor or side anchorage plate.

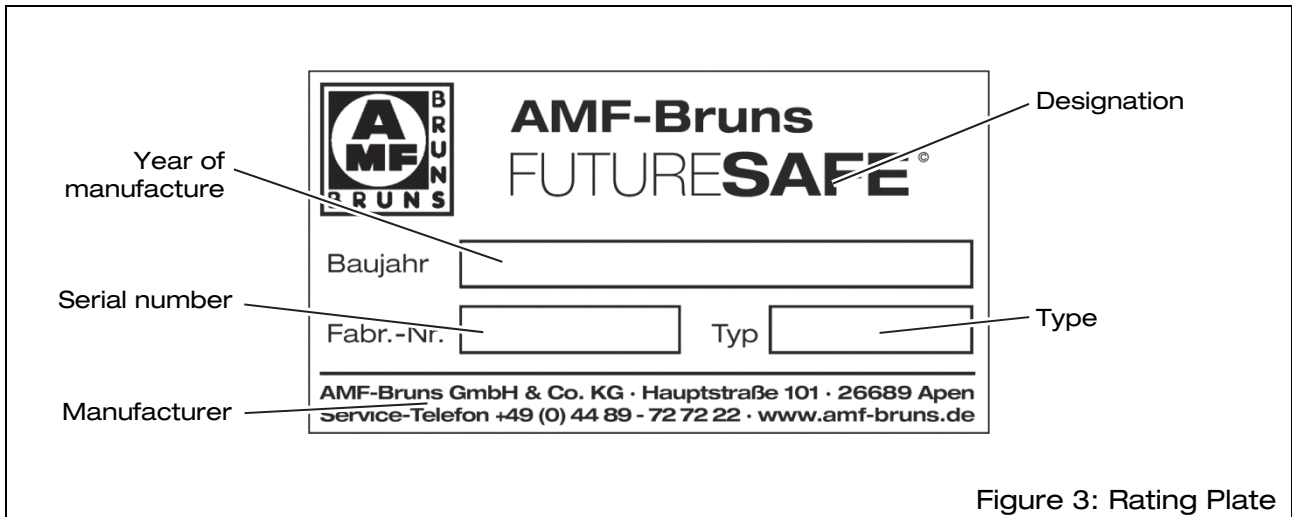


Figure 3: Rating Plate

### 2.2 Technical Data

Designation	FutureSafe
Weight with anchorage plate	23 kg
Weight with side anchorage plate	19 kg



#### NOTE

Remember to take the weight of the installation materials (e. g. floor anchorage plate or Smartfloor rails) into consideration for the max. permissible gross weight of the vehicle.

### 3 Transportation

Transportation of the FutureSafe is carried out by the manufacturer or by trained, experienced personnel.

### 4 Installation / Commissioning



The FutureSafe must be installed in accordance with the AMF-Brunns Installation Instructions applicable to the vehicle in question.

The Installation Instructions can be downloaded from our Website [www.amf-bruns.de](http://www.amf-bruns.de).



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#### **DANGER!**

Risk of danger through incorrect installation.

A number of risks of personal injury and material damage can be caused if the FutureSafe is incorrectly installed in the vehicle.

Such risks of danger can not only occur during installation but also as a result of installation not being carried out correctly.

Therefore:

- The FutureSafe must only be installed by trained, specialist personnel.
- The vehicle manufacturer's body fitting guidelines must be adhered to.



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#### **NOTE**

To ensure that the FutureSafe has been installed correctly, it must be inspected by a technical expert.

The FutureSafe must not be used until this has been done.

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## 5 Operation

### 5.1 Safety Regulations for Operation

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Before operating the FutureSafe, the safety information must have been read (see Chapter 1, page 8).

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#### **WARNING!**

Risk of injury and material damage if the FutureSafe is operated in a faulty condition.

Therefore:

- Always visually inspect the FutureSafe for signs of damage before use.
- 
- 



#### **WARNING!**

Risk of injury if the wheelchair and/or passenger are not restrained correctly.

If the wheelchair and/or passenger is/are not correctly restrained in the vehicle, the passenger in the wheelchair can suffer serious injury in an emergency braking situation or light road traffic collision.

Therefore:

- Always restrain the wheelchair with the restraint systems provided in the vehicle.
  - Always restrain the passenger with both the diagonal shoulder and lap belts (see Section 5.4, page 24).
- 
- 



#### **NOTE**

For safe use of the FutureSafe, the restraint systems for wheelchair and passenger must conform with the applicable local standards.

If in doubt, contact AMF-Bruns GmbH, to find out whether the restraint systems fitted to your vehicle are the correct systems (see Chapter 10, page 30).

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## 5.2 Adjustment Options

The FutureSafe offers the following options to adjust it correctly to suit every situation:

- Pivoting the swivel arms (see Section 5.2.1, page 18),
- Lengthening and shortening the swivel arms (see Section 5.2.2, page 19),
- Adjusting the height of the head- and backrest (see Section 5.2.3, page 20) and
- Moving the FutureSafe forwards or backwards (only applies to FutureSafe with side anchorage plate, see Section 5.2.4, page 21).

### 5.2.1 Pivoting the swivel arms

The interior of the vehicle can be put to optimum use, to transport goods or passengers who are not in a wheelchair, when the swivel arms are pivoted away to the side of the vehicle. The swivel arms are pivoted out of the vehicle in order to load a wheelchair-bound passenger. When driving the vehicle with a wheelchair-bound passenger on board, the swivel arms are adjusted such that the head- and backrest are located directly behind the passenger.

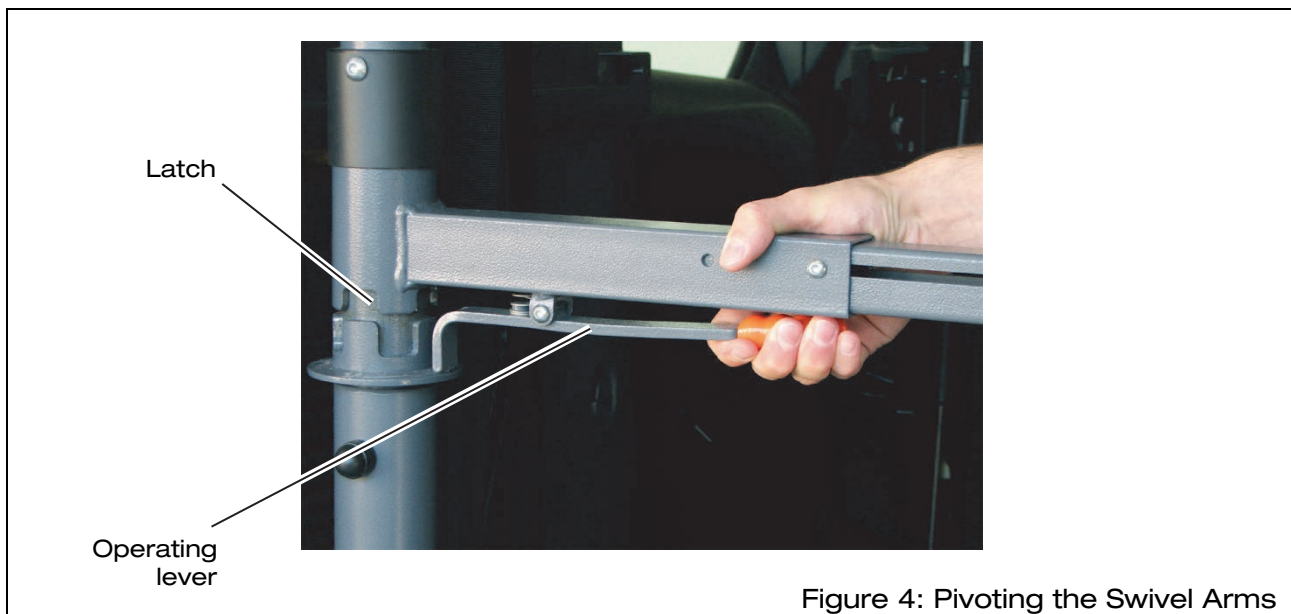


Figure 4: Pivoting the Swivel Arms

- ⇒ Pull the operating lever of a swivel arm upwards, so that it lifts out of the latch (see Figure 4).
- ⇒ Pivot the swivel arm by 90° or 180° to the desired position.

- ⇒ Release the operating lever, so that the latch engages in this position.

### **5.2.2 Lengthening and shortening the swivel arms**

The swivel arms have perceptible latches that hold the head- and backrest in certain positions when pulled out or pushed in. The swivel arms can be pushed in or pulled out without further preparations, in order to adjust the head- and backrest to the desired lateral position.

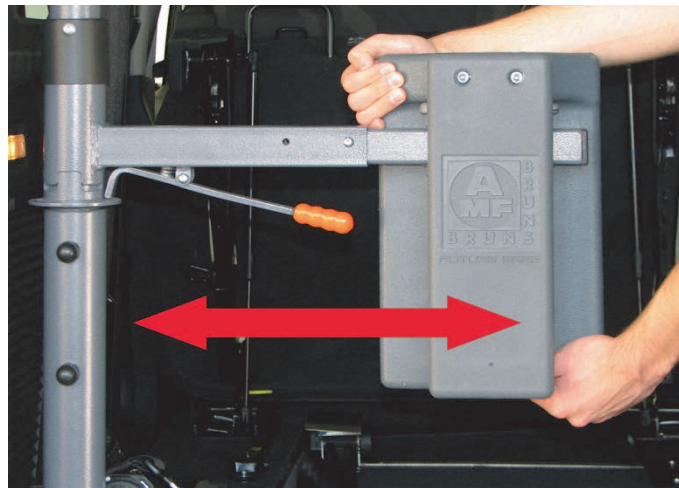


Figure 5: Adjusting the Swivel Arms Laterally

- ⇒ Take hold of the head- or backrest with both hands (see Figure 5).
- ⇒ Push or pull the swivel arm to the desired position.

### 5.2.3 Adjusting the height of the head- and backrest

The passenger in the wheelchair is afforded the maximum possible safety by adjusting them to the correct height.

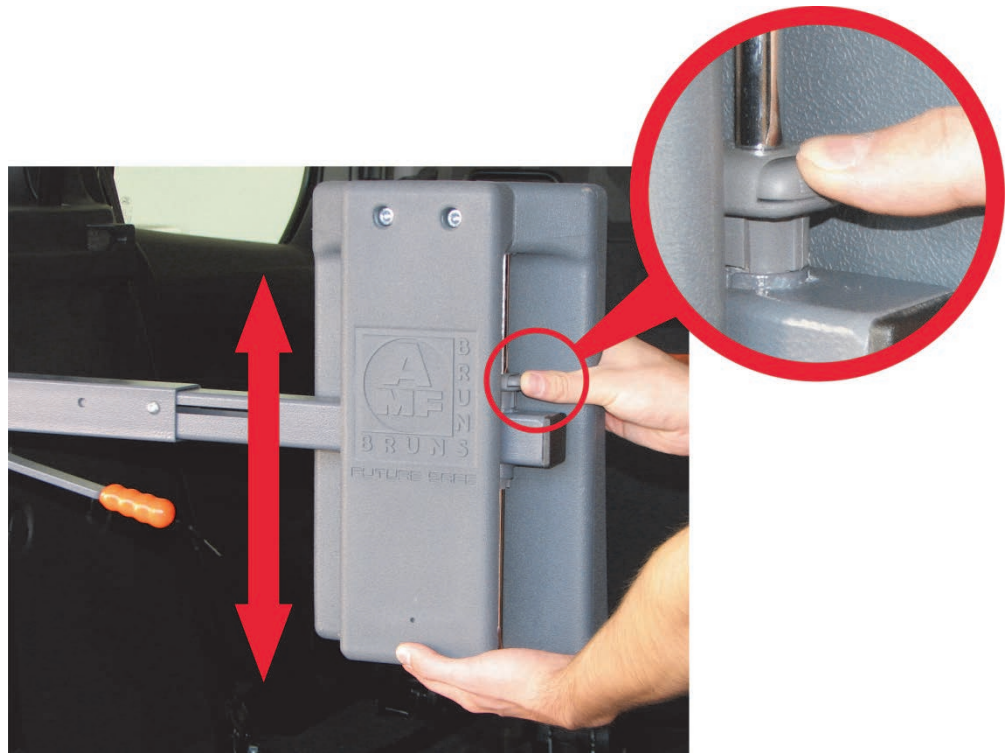


Figure 6: Adjusting the Height

- ⇒ Press the latch button on the head- or backrest and hold it pressed (see Figure 6).
- ⇒ Adjust the head- or backrest up or down to the desired height.
- ⇒ Release the latch button.



Refer to Section 5.3, page 22, to adjust the FutureSafe correctly for a passenger in a wheelchair.

### 5.2.4 Adjusting the FutureSafe forwards or backwards

It is only possible to adjust the FutureSafe with side anchorage plate forwards or backwards.

- ⇒ Turn the red locking levers to the vertical position (see Figure 7).
- ⇒ Loosen the securing screws by turning the black star grips.

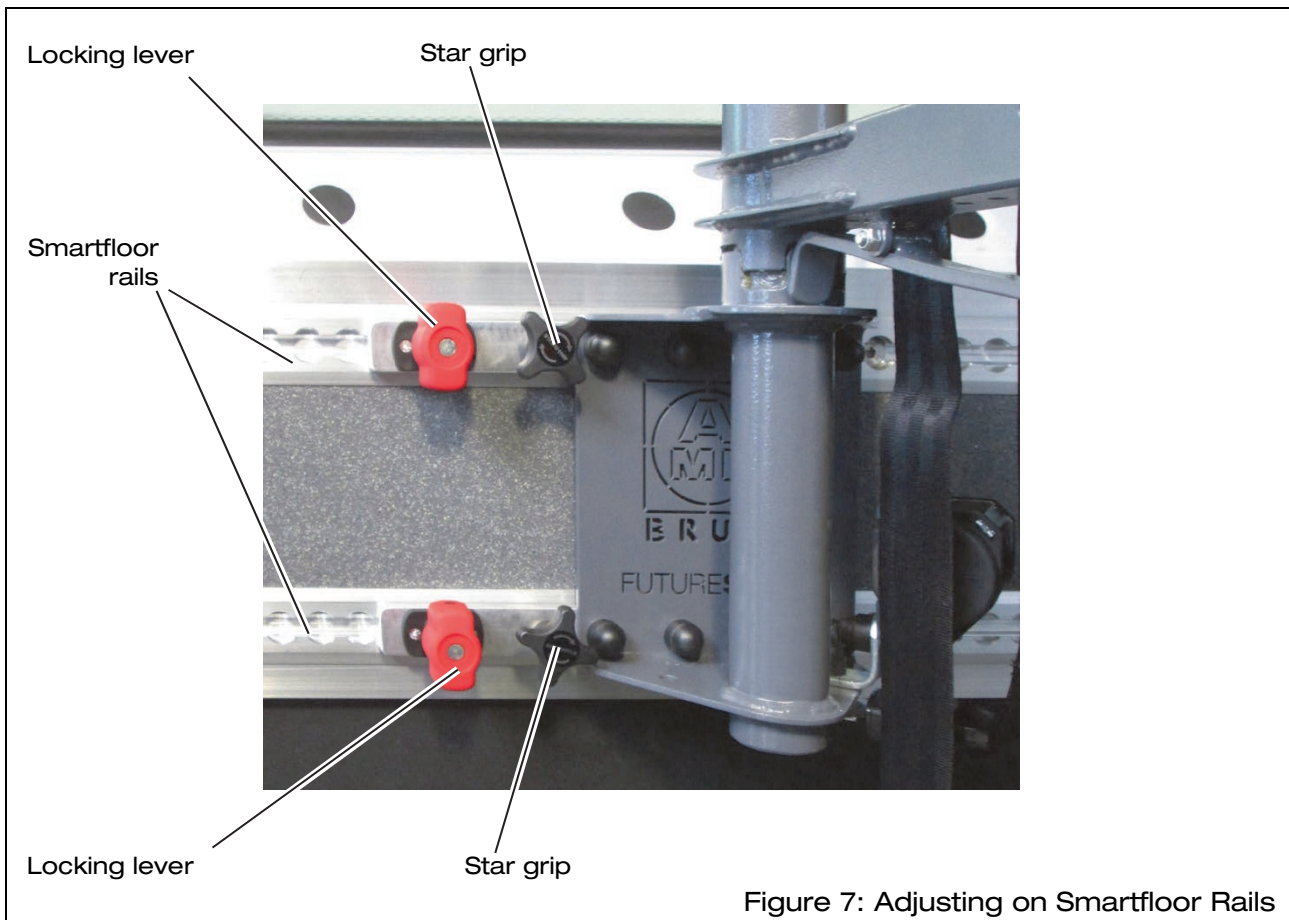


Figure 7: Adjusting on Smartfloor Rails

- ⇒ Push the FutureSafe forwards or backwards to the desired position.
- ⇒ Turn the red locking levers back to the horizontal position.
- ⇒ Push or pull the FutureSafe gently forwards and backwards until it latches in position in the Smartfloor rails.
- ⇒ Tighten the securing screws once again by turning the star grips.

## 5.3 Adjusting the FutureSafe for a Wheelchair-Bound Passenger

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### WARNING!

Risk of injury if the FutureSafe is incorrectly adjusted.

If the FutureSafe is incorrectly adjusted, it can not provide the passenger with maximum safety if an accident occurs.

Therefore:

- Read the following Section thoroughly in order to be in a position to adjust the FutureSafe correctly.
- 

### 5.3.1 Adjusting the backrest

- ⇒ Wheel the wheelchair into position in the vehicle.
  - ⇒ For a wheelchair with a backpack: Empty the backpack or remove it from the wheelchair.
  - ⇒ Pivot the backrest to a position behind the passenger and allow the latch to engage (see Section 5.2.1, page 18).
  - ⇒ Adjust the length of the swivel arm, such that the backrest is positioned in the centre of the passenger's back (see Section 5.2.2, page 19).
  - ⇒ Adjust the backrest forwards or backwards as follows, so that it rests against the passenger's back:
    - ⇒ For FutureSafe with floor anchorage plate: Move the wheelchair forwards or backwards accordingly.
    - ⇒ For FutureSafe with side anchorage plate: Move the FutureSafe on the Smartfloor rails accordingly (see Section 5.2.4, page 21).
  - ⇒ Adjust the height of the backrest, such that the upper edge is positioned in the shoulder region of the passenger (see Section 5.2.3, page 20).
- 



### NOTE

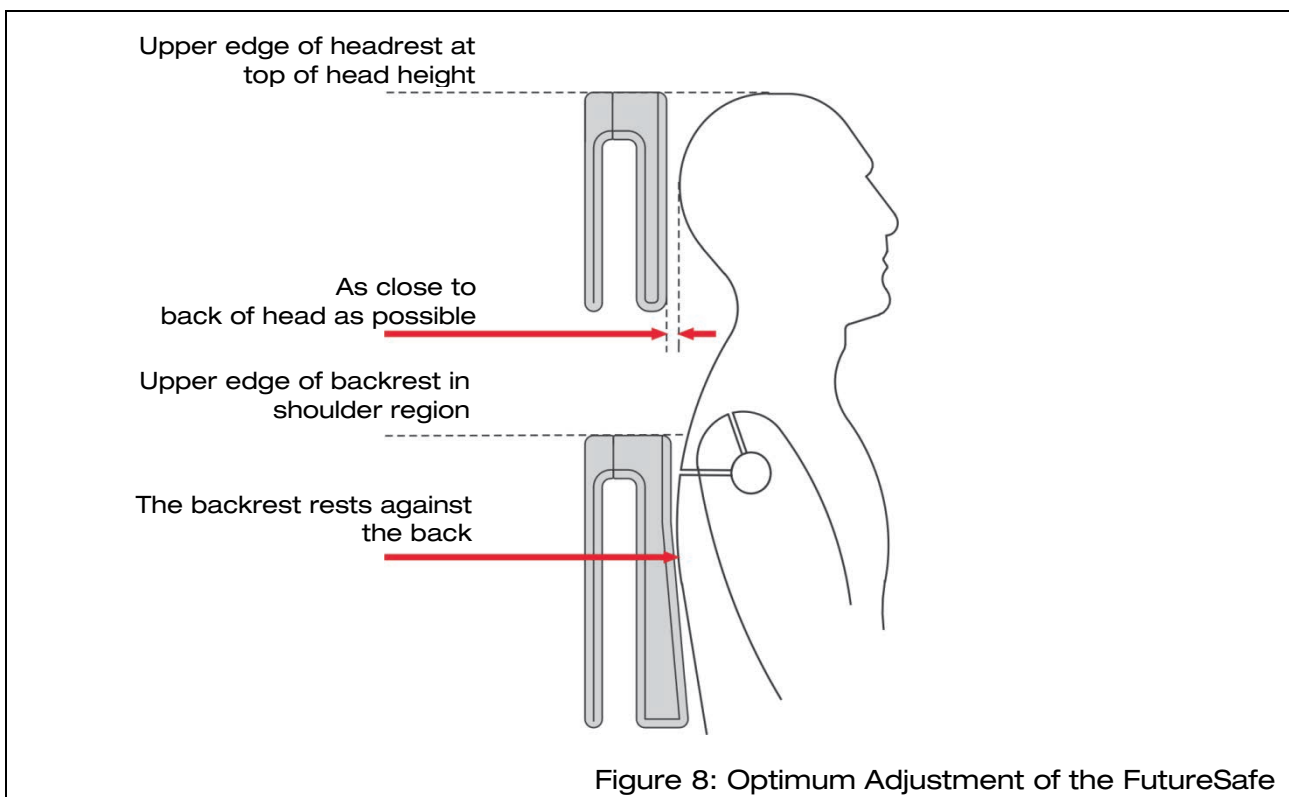
Remember that the front of the backrest has a slanting profile (see Figure 8, page 23).

This profile allows the backrest to be finely adjusted forwards or backwards by adjusting it's height.

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### 5.3.2 Adjusting the headrest

- ⇒ Pivot the headrest to a position behind the passenger and allow the latch to engage (see Section 5.2.1, page 18).
- ⇒ Adjust the length of the swivel arm, such that the headrest is positioned in the centre of the passenger's head (see Section 5.2.2, page 19).
- ⇒ Adjust the height of the headrest, such that the upper edge is at the same height as the top of the passenger's head (see Section 5.2.3, page 20).



#### NOTE

Remember that the FutureSafe adjustment described here represents the ideal case.

Persons who are dependent upon a wheelchair are not always in a position to assume a posture as shown in Figure 8.

Always try to find a balance between maximum protection and maximum comfort of the passenger.





## 5.4 Safety Belts

- ⇒ Restrain the wheelchair with the restraint systems provided in the vehicle.
- ⇒ Restrain the passenger in the wheelchair with the diagonal shoulder safety belt and the lap belt provided in the vehicle.

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### WARNING!

Risk of injury if the seat belts are incorrectly adjusted.

If the seat belts are incorrectly adjusted, they will not provide the passenger with maximum safety in case of an accident or can present a source of danger in themselves.

Therefore:

- Do not lay the lap belt over the armrests of the wheelchair.
- Make sure that the lap belt lies across the lap of the passenger.
- If the belt does not lie across the lap of the passenger but lies across the stomach, it is too high.



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### NOTE

For safe use of the FutureSafe, the restraint systems for wheelchair and passenger must conform with the applicable local standards.

If in doubt, contact AMF-Brunns GmbH, to find out whether the restraint systems fitted to your vehicle are the correct systems (see Chapter 10, page 30).



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Adhere to the operating instructions provided with your safety belt system.

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## 6 Maintenance and Repair

### 6.1 Safety Regulations for Maintenance and Repair



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Read the safety information before carrying out maintenance and repair work (see Chapter 1, page 8).

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#### **WARNING!**

There is a risk of injury if the FutureSafe is used after it has been involved in an accident.

The FutureSafe can suffer damage, which is not immediately evident, if involved in an accident. This can adversely affect the safety of the passenger in the wheelchair.

Therefore:

- The FutureSafe must be replaced if it is involved in an accident.
  - If in doubt, contact the customer service department for advice on whether it is safe to use the FutureSafe if it was only involved in a minor accident (see Chapter 10, page 30).
- 



#### **WARNING!**

Risk of injury and material damage if maintenance and repair work is not carried out correctly.

Therefore:

- Only allow specialist personnel to carry out maintenance and repair work.
- 



#### **WARNING!**

Risk of personal injury or material damage if inferior quality spare parts are used.

The manufacturer will accept no liability whatsoever for damage or injury caused by the use of non-original spare parts or spare parts that have not been approved of by the manufacturer.

Therefore:

- Use only original spare parts or spare parts that have been approved of by the manufacturer.
- 





## 6.2 Routine Maintenance Work

The maintenance schedule below lists the maintenance work that must be carried out at regular intervals.

Contact the customer service department for maintenance work that must be carried out by a specialist (see Chapter 10, page 30).

### 6.2.1 Maintenance schedule

Interval	Activity
Before use	Carry out a visual inspection for damage or faults. Initiate repairs if necessary.

### 6.2.2 Maintenance record

Enter maintenance and repair work that has been carried out into the maintenance record provided for this purpose (see Section 6.3, page 26). This provides a traceable record of maintenance work.

For records of maintenance work over and above this, it is recommended that you keep your own lists.

## 6.3 Maintenance and Inspection Record

Maintenance work carried out		
Date	Signature	Remarks / work carried out

## 7 De-Commissioning and Conservation

For queries regarding de-commissioning and conservation, contact our customer services department (see Chapter 10, page 30).

## 8 Faults and Troubleshooting



### WARNING!

Risk of injury and material damage if repair work is carried out incorrectly.

Therefore:

- Only allow specialist personnel to carry out repair work.

If faults occur when operating the FutureSafe, proceed as described in the following troubleshooting table. Contact the customer service department if faults are encountered which cannot be remedied using the information and measures given in the table.

<b>Fault</b>	<b>(possible) Cause</b>	<b>Remedial Measures</b>
The latches do not engage correctly.	Foreign objects have found their way into the latches.	Inspect the latches and remove any foreign objects, clean the latches if necessary.
The FutureSafe makes noises when driving.	The FutureSafe anchorage has become loose.	Check tighten all anchorage bolts.
The head- and backrest height can not be adjusted.	The guide or latch bushing is dirty or defective.	Inspect the guide and latch bushings. Clean or replace as necessary.

## 9 Spare parts


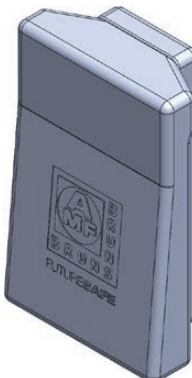

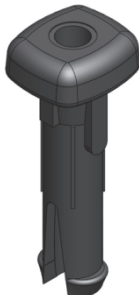
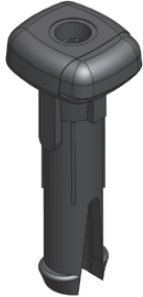
Figure	Designation	Article No.
	Headrest	200235904
	Backrest	200235889
	Belt	H350225
	Guide bushing	200249429

Figure	Designation	Article No.
	<p>Latch bushing</p>	<p>200249725</p>
	<p>Protective cap SW17</p>	<p>10008439</p>
	<p>Plastic grip, orange</p>	<p>10010646</p>

## 10 Customer Service

The AMF-Brunns customer service department will be more than pleased to assist in ordering spare parts, maintenance and repair work and help with general problems or queries.

The address is:

AMF-Brunns GmbH & Co. KG  
Hauptstraße 101  
D - 26689 Apen

Tel.: +49 (0) 44 89 / 72 72-30

Fax: +49 (0) 44 89 / 62 45

[service.hubmatik@amf-bruns.de](mailto:service.hubmatik@amf-bruns.de)

[www.amf-bruns.de](http://www.amf-bruns.de)



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### NOTE

Guarantee work on the FutureSafe must only be carried out with the prior agreement of AMF-Brunns GmbH & Co. KG.

The costs of such work will not be accepted by AMF-Brunns without prior agreement.

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