

Catalogue

# AMF-BRUNS PRODUCTS 2016/17



[www.amfbrunsamerica.com](http://www.amfbrunsamerica.com)

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The products and conversions shown are representatives of those available.  
However they may not suit all markets.

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# WELCOME TO AMF-BRUNS

## Introduction

The market for wheelchair and standard passenger transportation is always on the move. Multi-functionality is key to delivering increased profits in the van and bus industry. Suppliers must offer flexible configurations and quick conversions. Custom coachbuilders know this better than anybody else. AMF-Bruns sets the pace in this market with FMVSS, RDW, TÜV and VCA approved modular products and accessories.

## The Leading Supplier

Since 1962, AMF-Bruns has been a leading global supplier of innovative and durable lightweight components & accessories for vans and buses. We service customers in more than 50 countries throughout North and South America, Europe, Australia and Asia. AMF-Bruns offers safe and flexible solutions for all makes and models of minibuses. Ingenious attachment technologies allow minibus taxis to be quickly switched over from a standard multi-passenger format to a wheelchair transportation configuration – and it's just as easy to fit comfortable VIP seats.

## Innovation

The basis of AMF-Bruns solutions is formed by an innovative and modular product range. Through strong relationships with importers and manufacturers, AMF-Bruns enjoys on-going access to the most up-to-date accurate technical data for almost all minibuses. Our range of products and accessories include lifts, lightweight floors, seats and, of course, wheelchair occupant restraint systems. All products fit properly and can be easily installed.

## Safety First!

AMF-Bruns considers the safety of wheelchair users of paramount importance. Safety is key in all products and system innovations. In Germany we have a state-of-the-art, in-house, accredited, test center for research and approval tests. Our Smartfloor floors are certified. AMF-Bruns wheelchair fastening systems comply with all national and international standards, including RESNA WC18, FMVSS and ISO 10542. The key starting point is to make sure the installation is done in line with AMF-Bruns instructions, which are sent with all of our products.

## Easy To Install

Our manuals clearly demonstrate how to quickly and safely install AMF-Bruns products and accessories. For your free manuals, contact us at [info@amfbrunsamerica.com](mailto:info@amfbrunsamerica.com) or call 877-506-3770 and we will send them to you free of charge.





## NEW

### AMF-Bruns iPad app for Smartfloor floor systems

The correct design of a passenger and wheelchair vehicle is always the outcome of a consultation between converters, dealers and end consumers. In order to facilitate these consultations in a customer-friendly manner, Smartfloor developed an iPad app for Smartfloor floor systems.

This free app shows how to organize the various types of Smartseats, wheelchairs and Euroramps on the floor of a vehicle. The iPad app offers you the possibility to design your own floor plan and meet the requirements of your customers. Once all involved parties agree on the suitable floor plan the design can be sent directly to Smartfloor.

#### Additional advantages

The iPad app offers additional advantages. For example, it reduces the number of licenses required for expensive technical drawing programs. Summarized, the iPad app offers a unique easy to use design facility, delivering the best possible service for converters and dealers.

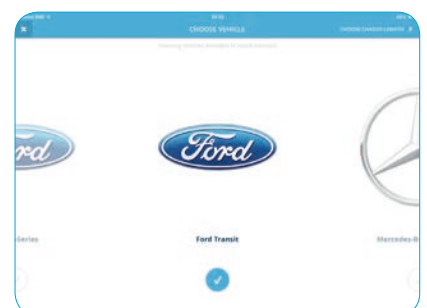
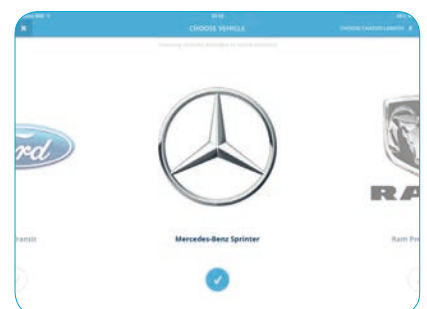
#### Download your free iPad app now!

So download the free universal app and start designing your own vehicle lay-out on your iPad. Easily view the vehicle lay-out as designed by yourself with top, side and front views. And simply forward your designed lay-outs by e-mail to Smartfloor.

**The AMF-Bruns Smartfloor app is available in the Apple App Store.**

#### Details

- Floor plan editor shows wheelchairs, seats and other components applicable for the selected area.
- Support for Future Safe, Child wheelchair and Electrical/Oversized wheelchair.
- If applicable, a seat can be placed over a wheel arch area (seat legs will adjust automatically).
- If applicable, support for airbag zones for the selected vehicle.
- iOS 8 compatible.



## PROTEKTOR System Wheelchair & occupant restraints

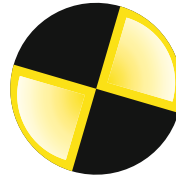
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## PROTEKTOR System Wheelchair & Occupant Restraints

AMF-Bruns has been a leader in the development and manufacturing of retractor systems since the introduction of the first 4 point system for wheelchairs and occupants in the 1970's. At that time we invented a wheelchair retractor to tighten the wheelchair. It wasn't until 20 years later that others followed the AMF-Bruns idea.

The PROTEKTOR® system provides critical stabilization for passengers in the event of a collision. The design rules out any possibility of the wheelchair being improperly secured. The pelvic and shoulder belt ensures that the passenger is always secure. New enhancements, like the Smart Fitting, are compatible with our original system.



Production follows the strict rules of the ISO 9001 standard. In Germany we have a state-of-the art, accredited, in-house, test center for research and approval tests. We also test our products independently through organizations such as TÜV, BAST, VCA, DTC and UTAC. Additionally we participate in national and international safety meetings, trade shows and exhibitions.

### STANDARDS

The AMF-Bruns PROTEKTOR® System meets the following requirements: ISO 10542-1 + 2, DIN 75078-2, CSA Z 605, FMVSS/CMVSS, AS 2596, SAE J 49, 2001/85/EC. The Platinum Series has been RESNA WC18 approved.

### SAFE DIVERSITY

The PROTEKTOR® occupant and wheelchair restraint system offers a number of variations.

For installation to the vehicle floor the PROTEKTOR® System offers 4 stud fitting and Smart Fitting.

For fortification on the wheelchair, the system offers loops, hooks or carabiners.

Whether you use the manual **BLACKSERIES**, the automatic **SILVERSERIES** or the heavy duty **PLATINUMSERIES**, the PROTEKTOR® System offers proven safety according to ISO 10542, regardless of what variations you choose.

Simply choose the system that best suits your needs.





# BLACKSERIES

- manual pull-out and semi automatic self-tensioning system



## PROTEKTOR System BLACKSERIES

1

### Wheelchair restraint system

2

GENERAL NOTE!

Static belt only for front attachment.

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### RETRACTOR SYSTEM WITH LOOP

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#### 4 STUD FITTING AT 40°, FLEXIBLE



PROTEKTOR® System  
Pro 2 B LV with **loop**  
and **4 stud fitting at 40°, flexible**

- 2 x retractor belt LV
- 2 x static belt LV

Item no. H 370 502 LV

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PROTEKTOR® System  
Pro 4 B LV with **loop**  
and **4 stud fitting at 40°, flexible**

- 4 x retractor belt LV

Item no. H 370 504 LV

#### 4 STUD FITTING TWISTED AT 40/90°, FLEXIBLE



PROTEKTOR® System  
Pro 2 B LG with **loop**  
and **4 stud fitting twisted 40/90°, flexible**

- 2 x retractor belt LG
- 2 x static belt LV

Item no. H 370 502 LG



PROTEKTOR® System  
Pro 4 B LG with **loop**  
and **4 stud fitting twisted 40/90°, flexible**

- 4 x retractor belt LG

Item no. H 370 504 LG

## 4 STUD FITTING FLAT FLEXIBLE



PROTEKTOR® System  
Pro 2 B LF with **loop**  
and **4 stud fitting**,  
**flat flexible**

- 2 x retractor belt LF
- 2 x static belt LV

Item no. H 370 502 LF

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PROTEKTOR® System  
Pro 4 B LF with **loop**  
and **4 stud fitting**,  
**flat flexible**

- 4 x retractor belt LF

Item no. H 370 504 LF

## SMART FITTING AT 40°



PROTEKTOR® System  
Pro 2 B LM with **loop**  
and **Smart Fitting at 40°**

- 2 x retractor belt LM
- 2 x static belt LM

Item no. H 370 502 LM



PROTEKTOR® System  
Pro 4 B LM with **loop**  
and **Smart Fitting at 40°**

- 4 x retractor belt LM

Item no. H 370 504 LM

## RETRACTOR SYSTEM WITH HOOK

### 4 STUD FITTING AT 40°, FLEXIBLE



PROTEKTOR® System  
Pro 2 B HV with **hook**  
and **4 stud fitting at 40°**,  
**flexible**

- 2 x retractor belt HV
- 2 x static belt HV

Item no. H 370 522 HV



#### 4 STUD FITTING AT 40°, FLEXIBLE



PROTEKTOR® System  
Pro 4 B HV with **hook**  
and **4 stud fitting at 40°, flexible**

- 4 x retractor belt HV

Item no. H 370 524 HV

#### 4 STUD FITTING TWISTED AT 40/90°, FLEXIBLE



PROTEKTOR® System  
Pro 2 B HG with **hook** and  
**4 stud fitting twisted 40/90°, flexible**

- 2 x retractor belt HG
- 2 x static belt HV

Item no. H 370 522 HG



PROTEKTOR® System  
Pro 4 B HG with **hook** and  
**4 stud fitting twisted 40/90°, flexible**

- 4 x retractor belt HG

Item no. H 370 524 HG

#### 4 STUD FITTING FLAT FLEXIBLE



PROTEKTOR® System  
Pro 2 B HF with **hook**  
and **4 stud fitting, flat flexible**

- 2 x retractor belt HF
- 2 x static belt HV

Item no. H 370 522 HF



PROTEKTOR® System  
Pro 4 B HF with **hook**  
and **4 stud fitting, flat flexible**

- 4 x retractor belt HF

Item no. H 370 524 HF

## SMART FITTING AT 40°



PROTEKTOR® System  
Pro 2 B HM with **hook**  
and **Smart Fitting at 40°**

- 2 x retractor belt HM
- 2 x static belt HM

Item no. H 370 522 HM



PROTEKTOR® System  
Pro 4 B HM with **hook**  
and **Smart Fitting at 40°**

- 4 x retractor belt HM

Item no. H 370 524 HM

## RETRACTOR SYSTEM WITH CARABINER

### 4 STUD FITTING AT 40°, FLEXIBLE



PROTEKTOR® System  
Pro 2 B CV with **carabiner**  
and **4 stud fitting at 40°, flexible**

- 2 x retractor belt CV
- 2 x static belt CV

Item no. H 370 552 CV



PROTEKTOR® System  
Pro 4 B CV with **carabiner**  
and **4 stud fitting at 40°, flexible**

- 4 x retractor belt CV

Item no. H 370 554 CV

### 4 STUD FITTING AT 40/90°, FLEXIBLE



PROTEKTOR® System  
Pro 2 B CG with **carabiner**  
and **4 stud fitting twisted at 40/90°, flexible**

- 2 x retractor belt CG
- 2 x static belt CV

Item no. H 370 552 CG

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#### 4 STUD FITTING TWISTED AT 40/90°, FLEXIBLE



PROTEKTOR® System  
Pro 4 B CG with **carabiner**  
and **4 stud fitting twisted**  
**at 40/90°, flexible**

- 4 x retractor belt CG

Item no. H 370 554 CG

#### 4 STUD FITTING FLAT FLEXIBLE



PROTEKTOR® System  
Pro 2 B CF with **carabiner**  
and **4 stud fitting,**  
**flat flexible**

- 2 x retractor belt CF
- 2 x static belt CV

Item no. H 370 552 CF



PROTEKTOR® System  
Pro 4 B CF with **carabiner**  
and **4 stud fitting,**  
**flat flexible**

- 4 x retractor belt CF

Item no. H 370 554 CF

#### SMART FITTING AT 40°



PROTEKTOR® System  
Pro 2 B CM with **carabiner**  
and **Smart Fitting at 40°**

- 2 x retractor belt CM
- 2 x static belt CM

Item no. H 370 552 CM



PROTEKTOR® System  
Pro 4 B CM with **carabiner**  
and **Smart Fitting at 40°**

- 4 x retractor belt CM

Item no. H 370 554 CM



RETRACTORS

RETRACTOR WITH LOOP



**Retractor B LV**  
with **loop** and  
**4 stud fitting at 40°**,  
**flexible**

Item no.  
H 350 509 LV



**Retractor B LG**  
with **loop** and  
**4 stud fitting**  
**twisted 40/90°**,  
**flexible**

Item no.  
H 350 509 LG



**Retractor B LF**  
with **loop** and  
**4 stud fitting**,  
**flat flexible**


Item no.  
H 350 509 LF



**Retractor B LM**  
with **loop** and  
**Smart Fitting at 40°**


Item no.  
H 350 509 LM

RETRACTOR WITH HOOK



**Retractor B HV**  
with **hook** and  
**4 stud fitting at 40°**,  
**flexible**

Item no.  
H 350 534 HV



**Retractor B HG**  
with **hook** and  
**4 stud fitting**  
**twisted 40/90°**,  
**flexible**

Item no.  
H 350 534 HG



**Retractor B HF**  
with **hook** and  
**4 stud fitting**  
**flat flexible**

Item no.  
H 350 534 HF



**Retractor B HM**  
with **hook** and  
**Smart Fitting at 40°**

Item no.  
H 350 534 HM

RETRACTOR WITH CARABINER



**Retractor B CV**  
with **carabiner** and  
**4 stud fitting at 40°**,  
**flexible**

Item no.  
H 350 564 CV



**Retractor B CG**  
with **carabiner** and  
**4 stud fitting**  
**twisted 40/90°**, **flexible**

Item no.  
H 350 564 CG

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## RETRACTOR WITH CARABINER



**Retractor B CF**  
with **carabiner** and  
**4 stud fitting**,  
flat flexible

Item no.  
H 350 564 CF



**Retractor B CM**  
with **carabiner** and  
**Smart Fitting at 40°**

Item no.  
H 350 564 CM

## STATIC BELTS

### STATIC BELT WITH 4 STUD FITTING



**Static belt LV**  
with **loop**  
and **4 stud fitting**  
(front attachment)

Item no.  
H 350 510 LV



**Static belt HV**  
with **hook**  
and **4 stud fitting**  
(front attachment)

Item no.  
H 350 535 HV



**Static belt CV**  
with **carabiner**  
and **4 stud fitting**  
(front attachment)

Item no.  
H 350 565 CV

### STATIC BELT WITH SMART FITTING



**Static belt LM**  
with **loop**  
and **Smart Fitting**  
(front attachment)

Item no.  
H 350 510 LM



**Static belt HM**  
with **hook**  
and **Smart Fitting**  
(front attachment)

Item no.  
H 350 535 HM



**Static belt CM**  
with **carabiner**  
and **Smart Fitting**  
(front attachment)

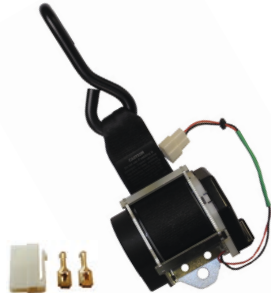
Item no.  
H 350 565 CM

ELECTRIC BELT



**Electric belt L**  
with loop,  
length 11.8 ft  
(front attachment)

Item no.  
H 350 240 L



**Electric belt H**  
with hook,  
length 11.8 ft  
(front attachment)

Item no.  
H 350 240 H



**Electric belt C**  
with carabiner,  
length 11.8 ft  
(front attachment)

Item no.  
H 350 240 C



**Cover**  
for electric belt  
(front attachment)



Item no.  
H 350 634

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# SILVERSERIES

- fully automatic pull-out and self-tensioning system
- zinc diecasting cover



## PROTEKTOR System SILVERSERIES

1

### Wheelchair restraint system

2

#### GENERAL NOTE!

Static belt only for front attachment.

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### RETRACTOR SYSTEM WITH LOOP

#### 4 STUD FITTING AT 40°, FLEXIBLE



PROTEKTOR® System  
Pro 2 S LV with **loop**  
and **4 stud fitting at 40°, flexible**

- 2 x retractor belt LV
- 2 x static belt LV

Item no. H 370 501 LV

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PROTEKTOR® System  
Pro 4 S LV with **loop**  
and **4 stud fitting at 40°, flexible**

- 4 x retractor belt LV

Item no. H 370 503 LV

#### 4 STUD FITTING TWISTED AT 40/90°, FLEXIBLE



PROTEKTOR® System  
Pro 2 S LG with **loop** and  
**4 stud fitting twisted 40/90°, flexible**

- 2 x retractor belt LG
- 2 x static belt LV

Item no. H 370 501 LG



PROTEKTOR® System  
Pro 4 S LG with **loop** and  
**4 stud fitting twisted 40/90°, flexible**

- 4 x retractor belt LG

Item no. H 370 503 LG

## 4 STUD FITTING, FLAT FLEXIBLE



**PROTEKTOR® System**  
Pro 2 S LF with **loop**  
and **4 stud fitting**,  
**flat flexible**

- 2 x retractor belt LF
- 2 x static belt LV

Item no. H 370 501 LF

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**PROTEKTOR® System**  
Pro 4 S LF with **loop**  
and **4 stud fitting**,  
**flat flexible**

- 4 x retractor belt LF

Item no. H 370 503 LF

## SMART FITTING AT 40°



**PROTEKTOR® System**  
Pro 2 S LM with **loop**  
and **Smart Fitting at 40°**

- 2 x retractor belt LM
- 2 x static belt LM

Item no. H 370 501 LM



**PROTEKTOR® System**  
Pro 4 S LM with **loop**  
and **Smart Fitting at 40°**

- 4 x retractor belt LM

Item no. H 370 503 LM

## RETRACTOR SYSTEM WITH HOOK

### 4 STUD FITTING AT 40°, FLEXIBLE



**PROTEKTOR® System**  
Pro 2 S HV with **hook**  
and **4 stud fitting at 40°**,  
**flexible**

- 2 x retractor belt HV
- 2 x static belt HV

Item no. H 370 520 HV



#### 4 STUD FITTING AT 40°, FLEXIBLE



PROTEKTOR® System  
Pro 4 S HV with **hook**  
and **4 stud fitting at 40°, flexible**

- 4 x retractor belt HV

Item no. H 370 525 HV

#### 4 STUD FITTING TWISTED AT 40/90°, FLEXIBLE



PROTEKTOR® System  
Pro 2 S HG with **hook**  
and **4 stud fitting twisted 40/90°, flexible**

- 2 x retractor belt HG
- 2 x static belt HV

Item no. H 370 520 HG



PROTEKTOR® System  
Pro 4 S HG with **hook**  
and **4 stud fitting twisted 40/90°, flexible**

- 4 x retractor belt HG

Item no. H 370 525 HG

#### 4 STUD FITTING, FLAT FLEXIBLE



PROTEKTOR® System  
Pro 2 S HF with **hook**  
and **4 stud fitting, flat flexible**

- 2 x retractor belt HF
- 2 x static belt HV

Item no. H 370 520 HF



PROTEKTOR® System  
Pro 4 S HF with **hook**  
and **4 stud fitting, flat flexible**

- 4 x retractor belt

Item no. H 370 525 HF

## SMART FITTING AT 40°



PROTEKTOR® System  
Pro 2 S HM with **hook**  
and **Smart Fitting at 40°**

- 2 x retractor belt HM
- 2 x static belt HM

Item no. H 370 520 HM



PROTEKTOR® System  
Pro 4 S HM with **hook**  
and **Smart Fitting at 40°**

- 4 x retractor belt HM

Item no. H 370 525 HM

## RETRACTOR SYSTEM WITH CARABINER

### 4 STUD FITTING AT 40°, FLEXIBLE



PROTEKTOR® System  
Pro 2 S CV with **carabiner**  
and **4 stud fitting at 40°, flexible**

- 2 x retractor belt CV
- 2 x static belt CV

Item no. H 370 550 CV



PROTEKTOR® System  
Pro 4 S CV with **carabiner**  
and **4 stud fitting at 40°, flexible**

- 4 x retractor belt CV

Item no. H370 555 CV

### 4 STUD FITTING TWISTED AT 40/90°, FLEXIBLE



PROTEKTOR® System  
Pro 2 S CG with **carabiner**  
and **4 stud fitting twisted 40/90°, flexible**

- 2 x retractor belt CG
- 2 x static belt CV

Item no. H 370 550 CG

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#### 4 STUD FITTING TWISTED AT 40/90°, FLEXIBLE



PROTEKTOR® System  
Pro 4 S CG with **carabiner**  
and **4 stud fitting twisted**  
**40/90°, flexible**

- 4 x retractor belt CG

Item no. H 370 555 CG

#### 4 STUD FITTING, FLAT FLEXIBLE



PROTEKTOR® System  
Pro 2 S CF with **carabiner**  
and **4 stud fitting,**  
**flat flexible**

- 2 x retractor belt CF
- 2 x static belt CV

Item no. H 370 550 CF



PROTEKTOR® System  
Pro 4 S CF with **carabiner**  
and **4 stud fitting,**  
**flat flexible**

- 4 x retractor belt CF

Item no. H 370 555 CF

#### SMART FITTING AT 40°



PROTEKTOR® System  
Pro 2 S CM with **carabiner**  
and **Smart Fitting at 40°**

- 2 x retractor belt CM
- 2 x static belt CM

Item no. H 370 550 CM



PROTEKTOR® System  
Pro 4 CM with **carabiner**  
and **Smart Fitting at 40°**

- 4 x retractor belt CM

Item no. H 370 555 CM

## RETRACTORS

### RETRACTOR WITH LOOP



**Retractor S LV**  
with **loop** and  
**4 stud fitting at 40°**,  
**flexible**

Item no.  
H 350 505 LV



**Retractor S LG**  
with **loop** and  
**4 stud fitting**  
**twisted 40/90°**,  
**flexible**

Item no.  
H 350 505 LG



**Retractor S LF**  
with **loop** and  
**4 stud fitting**,  
**flat flexible**

Item no.  
H 350 505 LF



**Retractor S LM**  
with **loop** and  
**Smart Fitting at 40°**

Item no.  
H 350 505 LM

### RETRACTOR WITH HOOK



**Retractor S HV**  
with **hook** and  
**4 stud fitting at 40°**,  
**flexible**

Item no.  
H 350 530 HV



**Retractor S HG**  
with **hook** and  
**4 stud fitting**  
**twisted 40/90°**,  
**flexible**

Item no.  
H 350 530 HG



**Retractor S HF**  
with **hook** and  
**4 stud fitting**,  
**flat flexible**

Item no.  
H 350 530 HF



**Retractor S HM**  
with **hook** and  
**Smart Fitting at 40°**

Item no.  
H 350 530 HM

### RETRACTOR WITH CARABINER



**Retractor S CV**  
with **carabiner** and  
**4 stud fitting**  
**flexible at 40°**

Item no.  
H 350 560 CV



**Retractor S CG**  
with **carabiner** and  
**4 stud fitting**  
**twisted 40/90°**,  
**flexible**

Item no.  
H 350 560 CG

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## RETRACTOR WITH CARABINER



**Retractor S CF**  
with **carabiner** and  
**4 stud fitting**,  
**flat flexible**

Item no.  
H 350 560 CF



**Retractor S CM**  
with **carabiner** and  
**Smart Fitting at 40°**

Item no.  
H 350 560 CM

## STATIC BELTS

### STATIC BELT WITH 4 STUD FITTING



**Static belt LV**  
with **loop**  
and **4 stud fitting**  
(front attachment)

Item no.  
H 350 510 LV



**Static belt HV**  
with **hook**  
and **4 stud fitting**  
(front attachment)

Item no.  
H 350 535 HV



**Static belt CV**  
with **carabiner**  
and **4 stud fitting**  
(front attachment)

Item no.  
H 350 565 CV

### STATIC BELT WITH SMART FITTING



**Static belt LM**  
with **loop**  
and **Smart Fitting**  
(front attachment)

Item no.  
H 350 510 LM



**Static belt HM**  
with **hook**  
and **Smart Fitting**  
(front attachment)

Item no.  
H 350 535 HM



**Static belt CM**  
with **carabiner**  
and **Smart Fitting**  
(front attachment)

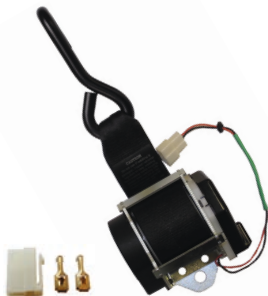
Item no.  
H 350 565 CM

ELECTRIC BELT



**Electric belt L**  
with loop,  
length 11.8 ft  
(front attachment)

Item no.  
H 350 240 L



**Electric belt H**  
with hook,  
length 11.8 ft  
(front attachment)

Item no.  
H 350 240 H



**Electric belt C**  
with carabiner,  
length 11.8 ft  
(front attachment)

Item no.  
H 350 240 C



**Cover**  
for electric belt  
(front attachment)



Item no.  
H 350 634

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# PLATINUM **HEAVY DUTY**





## PROTEKTOR System PLATINUMSERIES

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### Wheelchair restraint system

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Increased weight requirements for electric wheelchairs and wheelchair users have created the need for a new wheelchair restraint system for heavier loads. AMF-Bruns developed the new Protektor Platinum Series after intensive crash tests indicated the need for more durable retractors. The Platinum Series is a heavy duty 4 point wheelchair retractor system for wheelchairs and occupants and is RESNA WC18 approved. This wheelchair restraint system can support loads up to 160 kgs (350 lbs) – creating a new level of security!



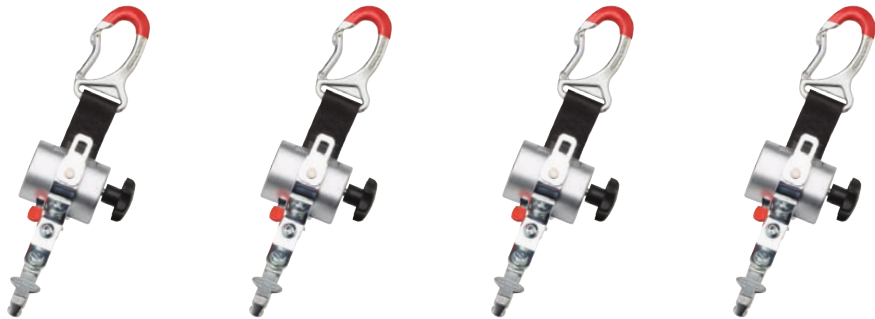
### RESNA WC18 APPROVED

RESNA WC18 is a revised and updated version of SAE J2249, Wheelchair Tiedown and Occupant Restraint Systems (WTORS) for use in motor vehicles. WC18 requires crash-worthiness evaluations of all WTORS by conducting a nominally worst-case 48 kph (30 mph) frontal sled-impact test using an 85 kgs (185 lbs) surrogate wheelchair (SWC). WC18 requires that a WTORS vehicle-anchored lap and shoulder belt occupant restraint undergo a second crash test. This second crash test is to be performed with a surrogate wheelchair-anchored lap belt to ensure that the securement systems of the WTORS can withstand the additional occupant restraint loads of WC19 wheelchairs using wheelchair-anchored lap belts.



RETRACTOR SYSTEM WITH CARABINER

4 STUD FITTING AT 40°, FLEXIBLE

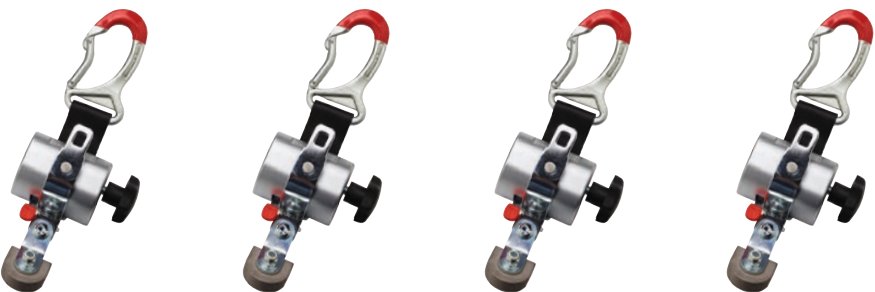


PROTEKTOR® System  
Pro 4 P CV with **carabiner**  
and **4 stud fitting at 40°, flexible**

- 4 x retractor belt CV

Item no. H 350 815 CV

SMART FITTING AT 40°



PROTEKTOR® System  
Pro 4 P CM with **carabiner**  
and **Smart Fitting at 40°**

- 4 x retractor belt CM

Item no. H 350 815 CM

RETRACTORS

RETRACTOR WITH CARABINER



**Retractor P CV**  
with **carabiner** and  
**4 stud fitting at 40°, flexible**

Item no.  
H 350 800 CV



**Retractor P CM**  
with **carabiner** and  
**Smart Fitting at 40°**

Item no.  
H 350 800 CM

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## PROTEKTOR System Accessories



## OCCUPANT RESTRAINT SYSTEM

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**Pelvis belt**

Item no.  
H 350 200



**Automatic  
pelvis belt with  
flexible buckle**

Item no.  
H 350 205



**Automatic  
pelvis belt**

Item no.  
H 350 207



**Flexible buckle  
length 11.8 in.**

Item no.  
H 350 210



**Automatic  
shoulder belt  
without height  
adjustment**

Item no.  
H 350 225



**Automatic  
shoulder belt  
(height adjustable)**

Item no.  
H 350 235



**Automatic shoulder  
belt without height  
adjustment incl.  
two 4 stud fittings**

Item no.  
H 350 250



**Automatic shoulder  
belt with height  
adjustment incl.  
two 4 stud fittings**

Item no.  
H 350 239



**Static  
shoulder belt**





Item no.  
H 350 226



**Static  
shoulder belt  
with buckle,  
two part**

Item no.  
H 350 227

| OCCUPANT RESTRAINT SYSTEM  |  |   |   |
|--|--|---|---|
|   | <p><b>Automatic<br/>3 point belt<br/>with height<br/>adjustment<br/>incl. tongue</b></p> <p>Item no.<br/>H 350 231</p>                               |   | <p><b>Automatic<br/>3 point belt<br/>without height<br/>adjustment</b></p> <p>Item no.<br/>H 350 230</p>  |
|   | <p><b>Automatic<br/>3 point belt<br/>without height<br/>adjustment incl.<br/>two 4 stud fittings</b></p> <p>Item no.<br/>H 350 251</p>               |   | <p><b>Automatic<br/>3 point belt<br/>with height<br/>adjustment incl.<br/>two 4 stud fittings</b></p> <p>Item no.<br/>H 350 252</p>                     |
|  | <p><b>WAV automatic<br/>3 point belt<br/>with height<br/>adjustment and<br/>two flexible<br/>buckles, 11.8 in.</b></p> <p>Item no.<br/>H 350 233</p> |  | <p><b>WAV automatic<br/>3 point belt<br/>without height<br/>adjustment and<br/>two flexible<br/>buckles, 11.8 in.</b></p> <p>Item no.<br/>H 350 232</p> |

| ACCESSORIES   |  |  |  |
|---|--|--|--|
|  | <p><b>Harnessbelt</b><br/>(only in combination<br/>with shoulder belt)</p> <p>Item no.<br/>350 222</p>                         |  | <p><b>Easy-Bag</b><br/>for restraint system</p> <p>Item no.<br/>10019363</p> |
|  | <p><b>Headrest</b></p> <p>W 12.9 - 16.1 in.<br/>Item no.<br/>H 150 259</p> <p>W 15.7 - 18.9 in.<br/>Item no.<br/>H 150 258</p> |  | <p><b>Secure belt</b><br/>11.8 in.</p> <p>Item no.<br/>H 350 238</p>         |



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ACCESSORIES




**Floor pocket**

Item no.  
200269390



**Emergency web cutter**


Item no.  
10020724



**Breast belt**

|                 |                    |
|-----------------|--------------------|
| 70.9 in. length | Item no. H 150 222 |
| 63.0 in. length | Item no. H 150 223 |
| 43.3 in. length | Item no. H 150 224 |

FLOOR SYSTEMS



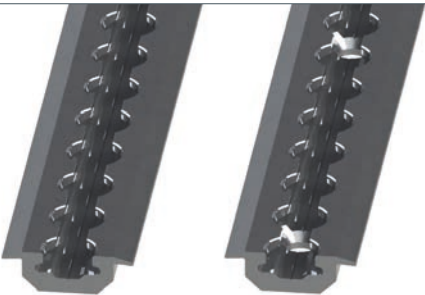
**PROTEKTOR® Surface track**

**not predrilled**

|                |                    |
|----------------|--------------------|
| 69 in. length  | Item no. H 150 135 |
| 118 in. length | Item no. H 150 136 |

**predrilled**

|                |                      |
|----------------|----------------------|
| 69 in. length  | Item no. 2002 57 617 |
| 118 in. length | Item no. 2002 57 618 |



**PROTEKTOR® Insert track**

**not predrilled**

|                |                    |
|----------------|--------------------|
| 69 in. length  | Item no. H 150 120 |
| 138 in. length | Item no. H 150 130 |

**predrilled**

|               |                      |
|---------------|----------------------|
| 48 in. length | Item no. 2002 57 615 |
| 74 in. length | Item no. 2002 57 616 |



**Smart Fitting  
(complete)**

Item no.  
H 150 915  
with Bolt M12  
1.94 in.



**Smart Fitting  
(head piece)**

Item no.  
H 150 916  
with Bolt M12  
1.94 in.

FLOOR SYSTEMS



**Smartdisc**  
(floor)

Item no.  
H 150 917  
with Bolt M12  
1.94 in.



**Smart Fitting**  
with 40°

Item no.  
H 150 619



**4 stud fitting**

Item no.  
2002 11247



**4 stud fitting**  
with bolt

Item no.  
H 150 615



**4 stud fitting**  
40° bracket

Item no.  
H 150 616



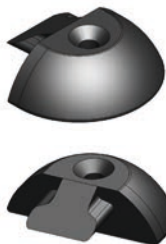
**4 stud fitting**  
twisted 40°/90°

Item no.  
H 150 617



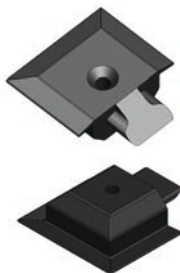
**4 stud fitting**  
flat

Item no.  
H 150 618



**End cap for**  
surface track

Item no.  
200 261 878



**End cap for**  
insert track

Item no.  
200 261 840

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## PROTEKTOR System

### Head and backrest / seat belt anchorage

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## PROTEKTOR System Head and backrest / seat belt anchorage

### Back and head support

AMF-Bruns includes two special back and head support constructions to provide the best possible protection of the back and head of a wheelchair occupant in the event of an accident during transport. Both constructions are suitable for mounting to the floor in an airline rail and flexible in their application at any desired location in the vehicle.



### Fixed third belt point

AMF-Bruns delivers a special 3-point shoulder belt for vehicles that are fitted with an airline guide rail mounted in the top side of the vehicle. By means of this rail, a third belt point can be easily created throughout the interior of the vehicle. The advantage is that the vehicle, in combination with a Smartfloor, meets ISO 10542 standards. Delivery options include either a fixed belt or an auto-retractable belt.

### Standard sets

AMF-Bruns supplies the Protektor in standard sets inclusive of a red, static hip belt. Depending on the options selected, the sets are fitted with either 2 or 4 retractors, safety belt lock or stainless steel open hooks for attachment to the wheelchair. Options further include a static 3-point shoulder belt or a 3-point auto-retractable shoulder belt. For a complete list of all available sets, see the table on the next page.



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# PROTEKTOR System Head and backrest / seat belt anchorage

Rail solution

## SAFETY COMES FIRST!

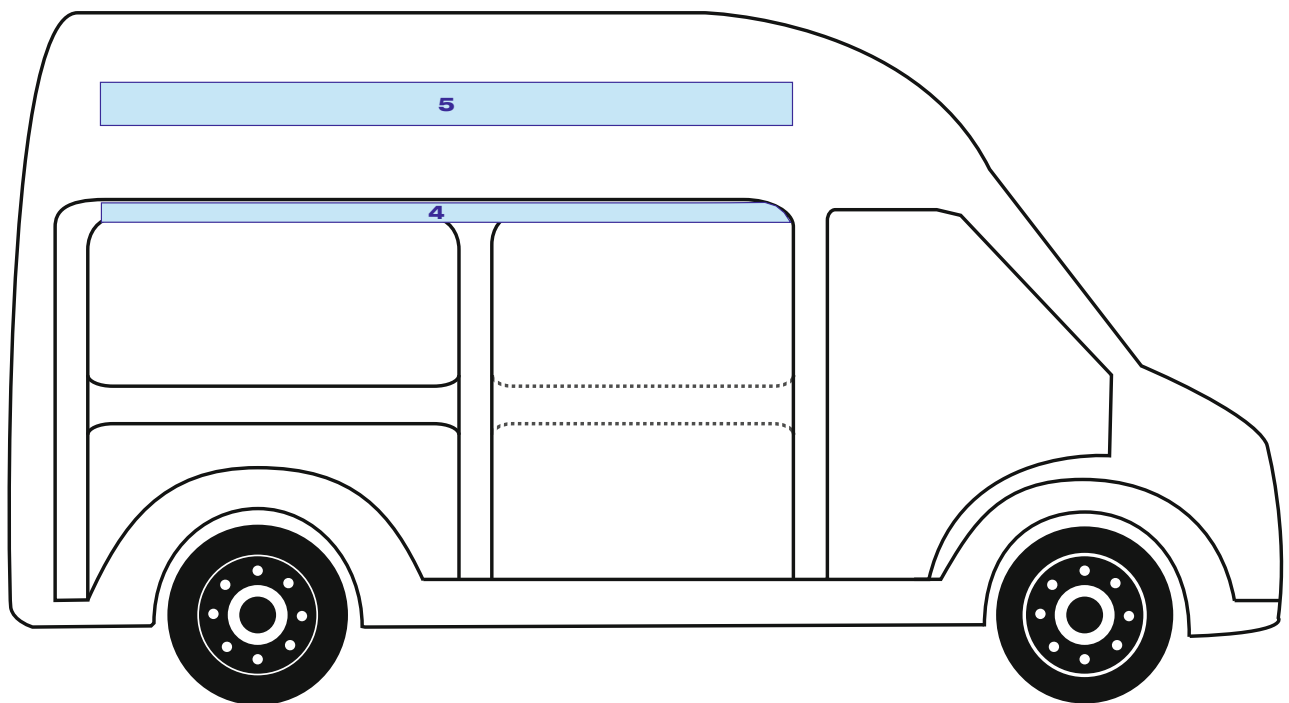
Meets safety requirements of EU directive 2007/46/EG (214/2014 Annex XI, 3), which went into effect November 1st, 2014; and FMVSS/CMVSS 210. Both standards are mandatory in some European countries.

## UPPER ANCHORAGE POINTS

All AMF-Bruns occupant restraint systems – whether static or automatic shoulder belts used in combination with a separate pelvis belt or integrated 3 point belt – have been tested with 24.5 kN forwards and 8.2 kN backwards. The pull tests are carried out in our own test center in cooperation with TÜV. AMF-Bruns provides special assembly kits for each vehicle. All assembly kits are compatible with all AMF-Bruns restraint systems.

## ATTENTION!

The vehicle manufacturer’s body fitting guidelines must be adhered to and AMF-Bruns original parts need to be used for the installation!



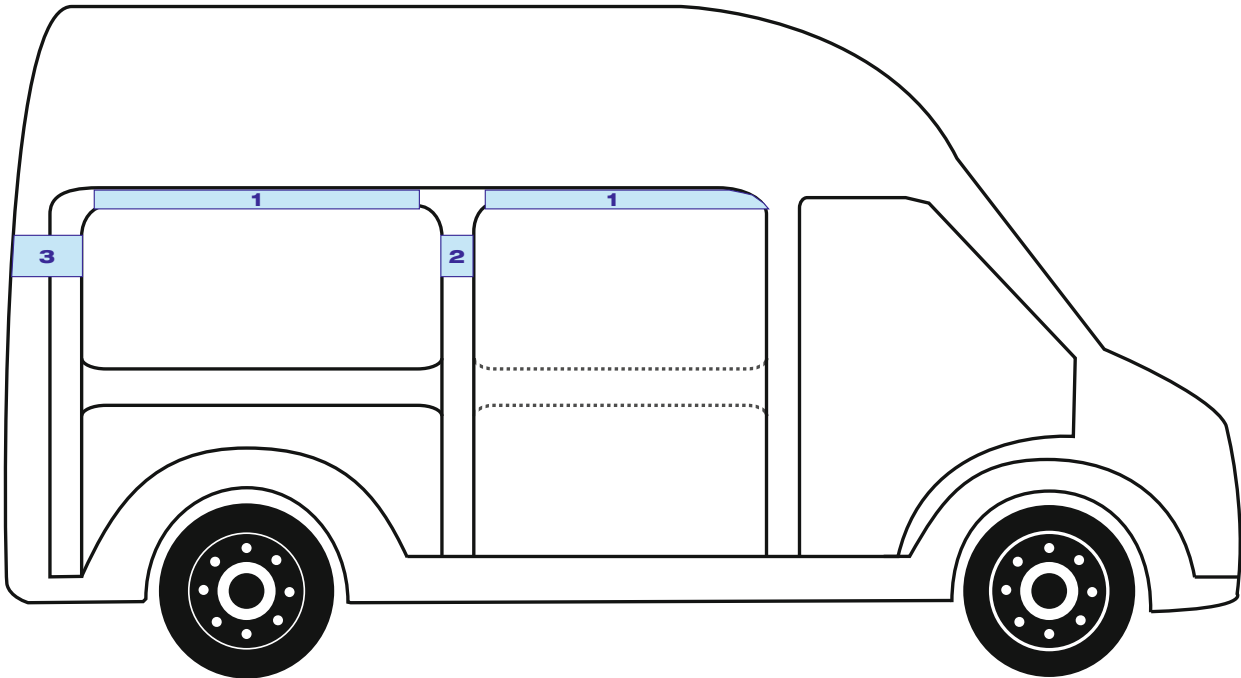
| Vehicle Model without Trim | Area | Assembly material mounting rail 1 m | Assembly material mounting rail 3 m | Mounting rail 1 m | Mounting rail 3 m |
|----------------------------|------|-------------------------------------|-------------------------------------|-------------------|-------------------|
| RAM ProMaster              | 4    | 1001 9571                           | 1001 9572                           | H150 132          | H150 136          |
| Ford Transit               | 4    | 1001 9578                           | 1001 9579                           | H150 132          | H150 136          |
| Mercedes-Benz Sprinter     | 4    | 1001 9680                           | 1001 9681                           | H150 132          | H150 136          |

PROTEKTOR **System**

Head and backrest / seat belt anchorage

Single point solution

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| Vehicle Model          | Area | Part No. with Trim | Part No. without Trim |
|------------------------|------|--------------------|-----------------------|
| RAM ProMaster          | 1    | -                  | 1001 9564             |
|                        | 2    | -                  | 1001 9564             |
|                        | 3    | -                  | 1001 9562             |
| Ford Transit           | 1    | 1001 9665          | 1001 9665             |
|                        | 2    | -                  | 1001 9574             |
|                        | 3    | -                  | 1001 9564             |
| Mercedes-Benz Sprinter | 1    | 1001 9676          | -                     |
|                        | 2    | -                  | -                     |
|                        | 3    | -                  | -                     |

## FutureSafe Head and backrest

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With the easy to use head- and backrest **FUTURESAFE®**, AMF-Bruns is setting a new standard of safety.

Various crashtests show clearly:

**FUTURESAFE®** ensures the highest level of safety in case of a rear impact.

On the top of this the integrated Shoulderbelt ensures the essential safety in case of a front impact.

**FUTURESAFE®** - The only incorporated safety system with head- and backrest.

Available as floor and sidewall mounted solution.

FutureSafe  
Head and backrest



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| Item code | Item name  |  |
|-----------|------------|--|
| 10019544  | FutureSafe | Floor mounted left, Shoulder belt without height adjustable  |
| 10019543  | FutureSafe | Floor mounted left, Shoulder belt with height adjustable     |
| 10019546  | FutureSafe | Floor mounted right, Shoulder belt without height adjustable |
| 10019545  | FutureSafe | Floor mounted right, Shoulder belt with height adjustable    |
| 10011173  | FutureSafe | Quick lock AMF lockable for Smartfloor application           |





## Steps

### Electric side step

#### Electric side step

Operation via switch in the B-pillar of the sliding door. The switch cannot be reached while driving.

Design: perforated aluminum sheet (slip resistance R15) with stainless steel guide, absolutely weatherproof.

- Audible alarm with extended side step
- Also available as a fully automatic side step. Side step runs automatically when opening or closing the side door.
- Load capacity 330 lbs



## Steps Electric side step

| Electric side step  |           |                                 |                          |     |     |       |     |            |            |             |        |
|---|-----------|---------------------------------|--------------------------|-----|-----|-------|-----|------------|------------|-------------|--------|
| Model   | Item Code | Vehicle type                    | Wheelbase                |     |     | Drive |     | Step depth | Step width | Total width | Weight |
|   |           |                                 | LWB                      | MWB | SWB | RWD   | FWD |            |            |             |        |
|   |           |                                 |                          |     |     |       |     |            |            |             |        |
| FS  | H20070    | Ford Transit new                | x                        | x   |     | x     | x   | 11.4 inch  | 41.7 inch  | 45.3 inch   | 57 lbs |
| FS  | H20075    | Mercedes-Benz Sprinter          | x                        | x   |     | x     |     | 11.4 inch  | 41.7 inch  | 45.3 inch   | 57 lbs |
| F3  | H20069    | Ford Transit new                |                          |     | x   | x     | x   | 11.4 inch  | 31.9 inch  | 35.4 inch   | 50 lbs |
| F3  | H20074    | Mercedes-Benz Sprinter          |                          |     | x   | x     |     | 11.4 inch  | 31.9 inch  | 35.4 inch   | 50 lbs |
| B   | H20068    | Ram ProMaster                   | x                        | x   |     |       | x   | 11.4 inch  | 31.9 inch  | 35.4 inch   | 48 lbs |
| U   | H20058    | Universal                       | Fitting kit not included |     |     |       |     | 11.4 inch  | 31.9 inch  | 35.4 inch   | 46 lbs |
| M2  | H20060    | Sprinter (Front Passenger door) | x                        | x   | x   | x     | x   | 11.4 inch  | 17.3 inch  | 20.7 inch   | 33 lbs |
| <b>ATTENTION!</b> Electric step for Ford Transit with auxiliary heater is not available!<br>Electric step for Mercedes-Benz Sprinter 4x4 ist not available! |           |                                 |                          |     |     |       |     |            |            |             |        |

### Optional

H 20065

Automatic operation for electric step

## Steps

### Rigid side step for sliding door

Step with general operating permit (ABE).

- Easy to install
- Robust steel construction, slip resistance R15
- Weatherproof
- Easy entry process
- No electrical connection required
- Load capacity 330 lbs

#### Fixed step for side loading door

| Item code | Vehicle type      | Wheelbase |     |     | Drive |     | Step depth | Step width | Total width | Weight |
|-----------|-------------------|-----------|-----|-----|-------|-----|------------|------------|-------------|--------|
|           |                   | LWB       | MWB | SWB | RWD   | FWD |            |            |             |        |
| 200312836 | Ford Transit      |           |     | x   | x     | x   | 7.5 inch   | 45.7 inch  | 46.46 inch  | 38 lbs |
| 200167018 | RAM ProMaster     | x         | x   | x   |       | x   | 7.5 inch   | 45.7 inch  | 46.46 inch  | 33 lbs |
| 200167159 | Mercedes Sprinter |           |     | x   | x     |     | 7.5 inch   | 45.7 inch  | 46.46 inch  | 42 lbs |
| 200167109 | Mercedes Sprinter | x         | x   |     | x     |     | 7.5 inch   | 57.1 inch  | 58.27 inch  | 46 lbs |



Lowering Suspension Systems

Rear lowering suspension for accessible vehicles



Vehicle ready for departure (standard height).



Lowered vehicle.

Technical data

- |                                |  |
|--------------------------------|--|
| » Raising / lowering mechanism | Powerful, low noise 12V hydraulic power unit |
| » Drive                        | Electro-hydraulic from the vehicle battery   |
| » Lowering control             | Rocker switch in the rear of the vehicle     |
| » Raising control              | Automatically when rear door is being closed |

Optional

Ramps in different sizes (see ramps)

| Item code | Vehicle model          | Including   |
|-----------|------------------------|---|
| H4146     | Ram ProMaster          | Hydraulic kit for lowerings suspension - without Ramp                                       |
| H4036     | Mercedes-Benz Sprinter | Hydraulic kit for lowerings suspension - without Ramp without towers inside the compartment |



## Channel Ramps

### AMF-Bruns Telescopic Ramp

Multiple ramps are positioned side-by-side on the edge of the vehicle door. The wheelchair rolls over the ramps into the vehicle. The wheelchair can be empty or with an occupant. When not needed, the telescopic aluminum ramps can be conveniently stored in the vehicle. The ramps are extremely light and can be carried into the vehicle by the side handles.

- Load capacity: up to 330 lbs
- Total length: 78.7 inches
- Unladen weight: approx. 26.4 lbs
- Easy to handle, easy to operate
- Stable construction
- Extremely lightweight due to special aluminum profiles
- Foldable to manageable dimensions
- Easy carrying with the provision of a grab handle
- Applicable for all estate vehicles
- Suitable for all combi-vehicles
- Can be mounted on the rear or side doors
- Slip resistance class R11

| Item code | Item name    | Length    |
|-----------|--------------|-----------|
| H 20090   | channel ramp | 78.7 inch |



## Ramps Euroramp



- Aluminum
- Center-folding
- Fitted with quick locking system
- Robust: 20G collision-tested
- Weight ranging from 77 lbs to 101 lbs, depending on type
- Easy operation with two handles and pneumatic absorber
- Extreme no slippery service
- Single hand operation
- Options:   \* 90° opening

\* extra support 400 lbs  
capacity increase



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# Ramps Euroramp

| Item number | description   | dimension         | load    |
|-------------|---|-------------------|---------|
| H20115      | Standard Ramp   | 78,7 x 31,5 inch  | 660 lbs |
| H20101      | Standard Ramp   | 94,5 x 23,6 inch  | 660 lbs |
| H20104      | Standard Ramp   | 94,5 x 27,2 inch  | 660 lbs |
| H20110      | Standard Ramp   | 94,5 x 31,5 inch  | 660 lbs |
| H20107      | Standard Ramp   | 94,5 x 35,4 inch  | 660 lbs |
| H20114      | Standard Ramp   | 110,2 x 35,4 inch | 660 lbs |
| On request  | Standard Ramp with 90° opening facility   |                   |         |
| On request  | Standard Ramp with extra support (441 lbs capacity increase, 1102 lbs total load) |                   |         |



90° opening facility

Extra support

Short ramp  
78,7 x 31,5 inch  
code r.H20115  
SWL 661 lbs

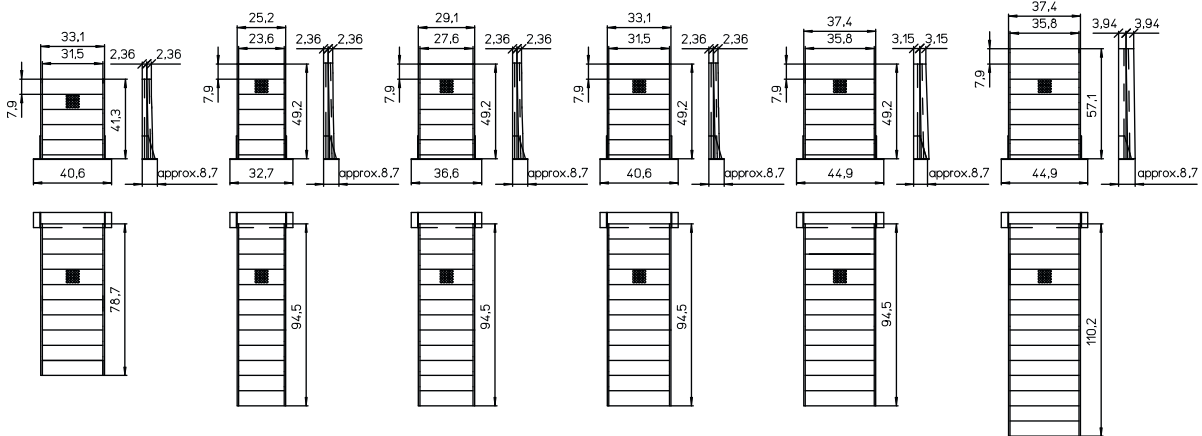
Standard ramp  
94,5 x 23,6 inch  
code r.H20101  
SWL 661 lbs

Standard ramp  
94,5 x 27,2 inch  
code r.H20104  
SWL 661 lbs

Standard ramp  
94,5 x 31,5 inch  
code r.H20110  
SWL 661 lbs

Standard ramp  
94,5 x 35,4 inch  
code r.H20107  
SWL 661 lbs

Standard ramp  
110,2 x 35,4 inch  
code r.H20114  
SWL 661 lbs



## Smartseats

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## Smartseats Smartleg



The Smartleg is especially designed for intensive use in passenger transport vehicles. Thanks to various spacers, the lightweight Smartleg can be suited to fit all rail widths in Smartfloors.

Smartlegs are easy to install underneath the Smartseat. All seat legs can be delivered with a wheel at the back as an option to provide the highest possible convenience when having to change position or remove seats in wheelchair transport on a regular basis.

- Various spacers to suit every desired rail distance.
- Tested according to FMVSS / CMVSS 207/210 / 49.38
- Tested on Smartfloor
- Optional wheel at the back for easy maneuvering in and out of the vehicle
- Robust lightweight construction



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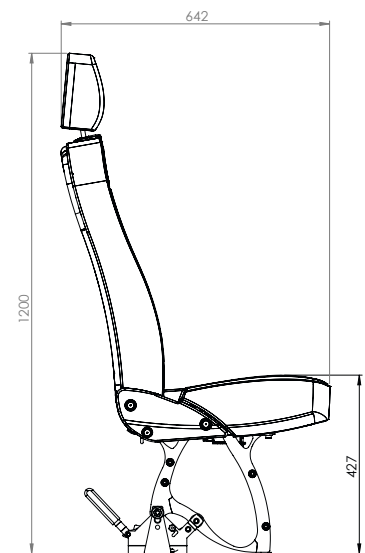
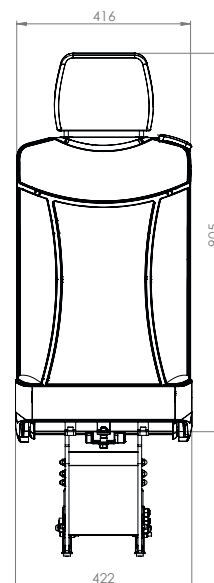
## Smartseats

### Smartseat Easy M1



The Smartseat Easy is designed for maximum passenger comfort and maximum commercial flexibility.

- Fixed or reclining backrest
- Integral 3-point seat belt
- Available in left-hand and right-hand models
- Tested and approved by RDW, according to the newest regulation UN/ECE R14, R16, R17, FMVSS / CMVSS 207, 209 210
- Optional armrest
- Various upholstery options available (including leather)
- Equipped with quick-release Smartleg supports
- Easy to clean
- Lightweight
- Also available with reclining backrest
- Optional: ISOfix / LATCH (Lower Anchors and Tethers for Children) compliant
- Optional: FMVSS/CMVSS 49.38 compliant



\* Units of Measurement in mm

## Smartseats Smartseat Easy M1

| ITEM CODE | ITEM NAME                              | SHOULDER BELT   |
|-----------|--|-----------------|
| 10018981  | Smartseat Easy Mercedes-Benz Tunja     | left            |
| 10018982  | Smartseat Easy Mercedes-Benz Tunja     | right           |
| 10020952  | Smartseat Easy Ford Trend              | left            |
| 10020953  | Smartseat Easy Ford Trend              | right           |
| 10018987  | Smartseat Easy Grey artificial leather | left            |
| 10018988  | Smartseat Easy Grey artificial leather | right           |
| 10018989  | Smartseat Easy Carmat Code*            | left            |
| 10018990  | Smartseat Easy Carmat Code *           | right           |
|           |  |                 |
| 10018991  | Smartseat Easy Mercedes-Benz Tunja     | reclining left  |
| 10018992  | Smartseat Easy Mercedes-Benz Tunja     | reclining right |
| 10020954  | Smartseat Easy Ford Trend              | reclining left  |
| 10020955  | Smartseat Easy Ford Trend              | reclining right |
| 10018996  | Smartseat Easy Grey artificial leather | reclining left  |
| 10018997  | Smartseat Easy Grey artificial leather | reclining right |
| 10018998  | Smartseat Easy Carmat Code*            | reclining left  |
| 10018999  | Smartseat Easy Carmat Code*            | reclining right |

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| OPTIONS  |                                |       |
|----------|--------------------------------|-------|
| 10019046 | Armrest for Smartseat          | left  |
| 10019047 | Armrest for Smartseat          | right |
| 10019048 | Grab handle rear for Smartseat |       |
| 10019049 | Grab handle side (black)       |       |
| 10019050 | Grab handle side (yellow)      |       |

\* See [www.smartfloor.eu](http://www.smartfloor.eu) for Carmat codes

## Smartseats Smartseat Easy ISOfix M1

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## Smartseats Smartseat Easy ISOfix M1

| ITEM CODE | ITEM NAME                              | SHOULDER BELT    |       |
|-----------|--|------------------|-------|
| 10019000  | Smartseat Easy Mercedes-Benz Tunja     | ISOFix           | left  |
| 10019001  | Smartseat Easy Mercedes-Benz Tunja     | ISOFix           | right |
| 10020956  | Smartseat Easy Ford Trend              | ISOFix           | left  |
| 10020957  | Smartseat Easy Ford Trend              | ISOFix           | right |
| 10019006  | Smartseat Easy Grey artificial leather | ISOFix           | left  |
| 10019007  | Smartseat Easy Grey artificial leather | ISOFix           | right |
| 10019008  | Smartseat Easy Carmat Code*            | ISOFix           | left  |
| 10019009  | Smartseat Easy Carmat Code *           | ISOFix           | right |
| 10019010  | Smartseat Easy Mercedes-Benz Tunja     | reclining ISOFix | left  |
| 10019011  | Smartseat Easy Mercedes-Benz Tunja     | reclining ISOFix | right |
| 10020958  | Smartseat Easy Ford Trend              | reclining ISOFix | left  |
| 10020959  | Smartseat Easy Ford Trend              | reclining ISOFix | right |
| 10019016  | Smartseat Easy Grey artificial leather | reclining ISOFix | left  |
| 10019017  | Smartseat Easy Grey artificial leather | reclining ISOFix | right |
| 10019018  | Smartseat Easy Carmat Code*            | reclining ISOFix | left  |
| 10019019  | Smartseat Easy Carmat Code *           | reclining ISOFix |       |

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### OPTIONS

|          |  |       |
|----------|--|-------|
| 10019046 | Armrest for Smartseat, non-fitted          | left  |
| 10019047 | Armrest for Smartseat, non-fitted          | right |
| 10019048 | Grab handle rear for Smartseat, non-fitted |       |
| 10019049 | Grab handle side (black)                   |       |
| 10019050 | Grab handle side (yellow)                  |       |

## Smartseats

### Smartseat Tip & Fold M1

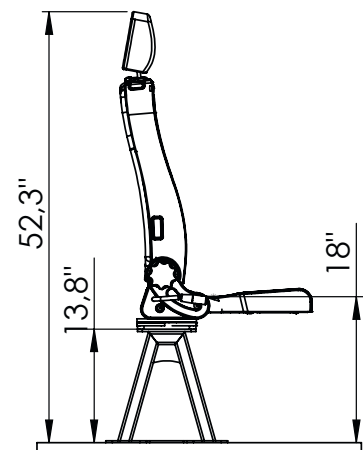
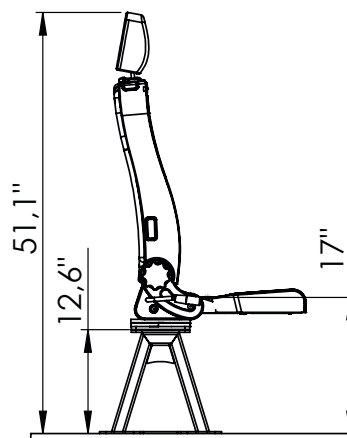
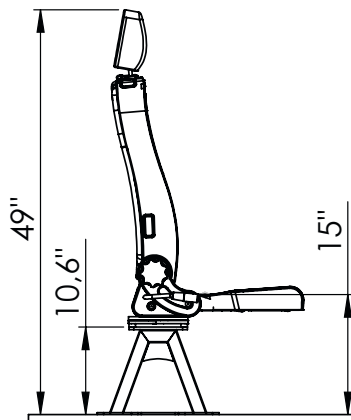


New foldable Smartseat Turny seat with maximum comfort and minimum use of space when folded.

- Extremely small thickness when seat is folded
- Maximum resting possibility
- Very small height from the cushion edge including the entire rotator
- Seat cushion remains blocked after passenger leaves.
- Tested and approved by RDW, according to the newest regulation UN/ECE R14, R16, R17, FMVSS/CMVSS 207, 210
- Easy to clean
- Lightweight
- Also available with reclining backrest
- optional with ISOfix FMVSS/CMVSS 49.38



Single legs Tip&Fold



## Smartseats

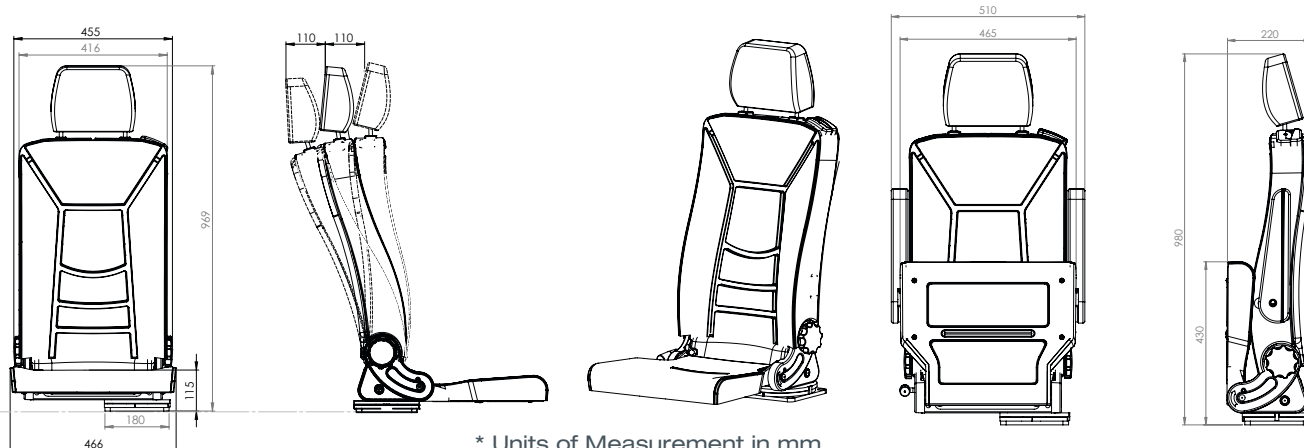
### Smartseat Tip & Fold M1

| ITEM CODE | ITEM NAME                                    | SHOULDER BELT |
|-----------|--|---------------|
| 10019026  | Smartseat Tip & Fold Mercedes-Benz Tunja     | left          |
| 10019027  | Smartseat Tip & Fold Mercedes-Benz Tunja     | right         |
| 10020960  | Smartseat Tip & Fold Ford Trend              | left          |
| 10020961  | Smartseat Tip & Fold Ford Trend              | right         |
| 10019032  | Smartseat Tip & Fold Grey artificial leather | left          |
| 10019033  | Smartseat Tip & Fold Grey artificial leather | right         |
| 10019034  | Smartseat Tip & Fold Carmat Code*            | left          |
| 10019035  | Smartseat Tip & Fold Carmat Code*            | right         |
| 10019036  | Smartseat Tip & Fold Mercedes-Benz Tunja     | left          |
| 10019037  | Smartseat Tip & Fold Mercedes-Benz Tunja     | ISOFix right  |
| 10020962  | Smartseat Tip & Fold Ford Trend              | ISOFix left   |
| 10020963  | Smartseat Tip & Fold Ford Trend              | ISOFix right  |
| 10019042  | Smartseat Tip & Fold Grey artificial leather | ISOFix left   |
| 10019043  | Smartseat Tip & Fold Grey artificial leather | ISOFix right  |
| 10019044  | Smartseat Tip & Fold Carmat Code*            | ISOFix left   |
| 10019045  | Smartseat Tip & Fold Carmat Code*            | ISOFix right  |

#### OPTIONS

|          |                       |       |
|----------|-----------------------|-------|
| 10019046 | Armrest for Smartseat | left  |
| 10019047 | Armrest for Smartseat | right |

| ITEM CODE | ITEM NAME                                   |
|-----------|---|
| 10019153  | Single wheel arch frame 280 mm L/R          |
| 10019154  | Single wheel arch frame 329 mm L/R          |
| 10019156  | Single wheel arch frame 370 mm 125 L/R      |
| 10019157  | Double wheel arch frame 280 mm left         |
| 10019158  | Double wheel arch frame 280 mm right        |
| 10019159  | Double wheel arch frame 329 mm left         |
| 10019160  | Double wheel arch frame 329 mm right        |
| 10020754  | Seat leg 270 mm for Smartseat Tip & Fold M1 |
| 10020967  | Seat leg 320 mm for Smartseat Tip & Fold M1 |
| 10019152  | Seat leg 350 mm for Smartseat Tip & Fold M1 |



\* Units of Measurement in mm

## Smartseats

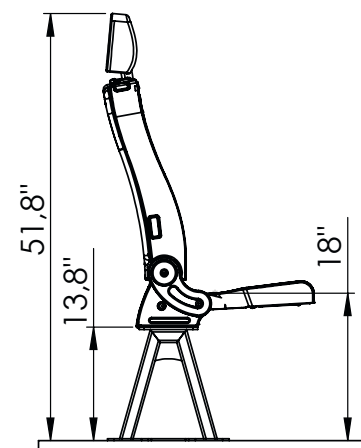
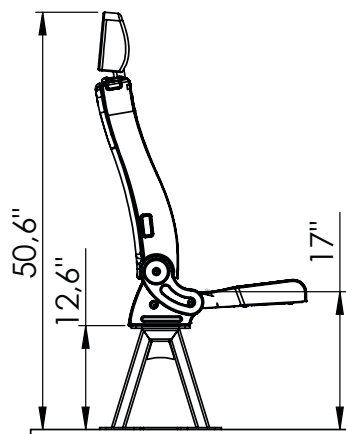
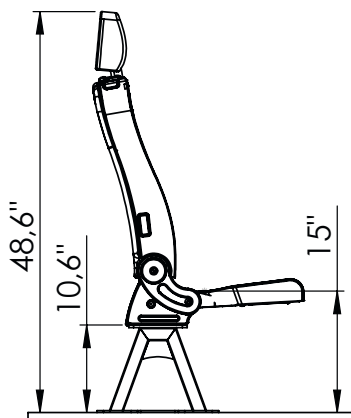
### Smartseat Flip-Up M1



New foldable Smartseat Flip-Up M1 seat with maximum comfort and minimum use of space when folded.

- Extremely thin thickness when seat is folded
- Maximum resting possibility
- Seat cushion remains locked after passenger leaves.
- M1 tested and approved by RDW, according to the newest regulation UN/ECE R14, R16, R17, FMVSS/CMVSS 207, 209, 210
- Easy to clean
- LATCH (Lower Anchors and Tethers for Children) compliant

Single legs Flip-up





## Smartseats Smartseat Flip-Up M1

| ITEM CODE | ITEM NAME                                 | SHOULDER BELT    |       |
|-----------|---|------------------|-------|
| 10020783  | Smartseat Flip-Up Mercedes-Benz Tunja     |                  | left  |
| 10020784  | Smartseat Flip-Up Mercedes-Benz Tunja     |                  | right |
| 10020787  | Smartseat Flip-Up Ford Trend              |                  | left  |
| 10020788  | Smartseat Flip-Up Ford Trend              |                  | right |
| 10020789  | Smartseat Flip-Up Grey artificial leather |                  | left  |
| 10020790  | Smartseat Flip-Up Grey artificial leather |                  | right |
| 10020791  | Smartseat Flip-Up Carmat Code*            |                  | left  |
| 10020792  | Smartseat Flip-Up Carmat Code*            |                  | right |
|           |   |                  |       |
| 10020793  | Smartseat Flip-Up Mercedes-Benz Tunja     | reclining        | left  |
| 10020794  | Smartseat Flip-Up Mercedes-Benz Tunja     | reclining        | right |
| 10020797  | Smartseat Flip-Up Ford Trend              | reclining        | left  |
| 10020798  | Smartseat Flip-Up Ford Trend              | reclining        | right |
| 10020799  | Smartseat Flip-Up Grey artificial leather | reclining        | left  |
| 10020800  | Smartseat Flip-Up Grey artificial leather | reclining        | right |
| 10020801  | Smartseat Flip-Up Carmat Code*            | reclining        | left  |
| 10020802  | Smartseat Flip-Up Carmat Code*            | reclining        | right |
|           |   |                  |       |
| 10020840  | Smartseat Flip-Up Mercedes-Benz Tunja     | ISOFix           | left  |
| 10020841  | Smartseat Flip-Up Mercedes-Benz Tunja     | ISOFix           | right |
| 10021046  | Smartseat Flip-Up Ford Trend              | ISOFix           | left  |
| 10021047  | Smartseat Flip-Up Ford Trend              | ISOFix           | right |
| 10020844  | Smartseat Flip-Up Grey artificial leather | ISOFix           | left  |
| 10020845  | Smartseat Flip-Up Grey artificial leather | ISOFix           | right |
| 10020846  | Smartseat Flip-Up Carmat Code*            | ISOFix           | left  |
| 10020847  | Smartseat Flip-Up Carmat Code*            | ISOFix           | right |
|           |   |                  |       |
| 10020848  | Smartseat Flip-Up Tunja                   | ISOFix reclining | left  |
| 10020849  | Smartseat Flip-Up Tunja                   | ISOFix reclining | right |
| 10021048  | Smartseat Flip-Up Ford Trend              | ISOFix reclining | left  |
| 10021049  | Smartseat Flip-Up Ford Trend              | ISOFix reclining | right |
| 10020852  | Smartseat Flip-Up Grey artificial leather | ISOFix reclining | left  |
| 10020853  | Smartseat Flip-Up Grey artificial leather | ISOFix reclining | right |
| 10020854  | Smartseat Flip-Up Carmat Code*            | ISOFix reclining | left  |
| 10020855  | Smartseat Flip-Up Carmat Code             | ISOFix reclining | right |

| ITEM CODE | ITEM NAME                             |
|-----------|---------------------------------------|
| 10020754  | Seat leg 270 mm for Smartseat Flip-Up |
| 10020967  | Seat leg 320 mm for Smartseat Flip-Up |
| 10020932  | Seat leg 350 mm for Smartseat Flip-Up |

\* See [www.smartfloor.eu](http://www.smartfloor.eu) for Carmat codes

## Smartseats

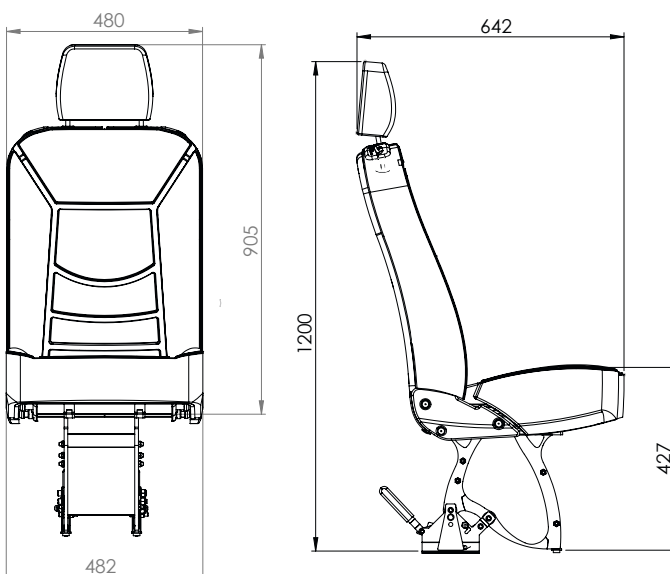
### Smartseat Easy XL M1

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The Smartseat Easy M1 is XL designed for maximum passenger comfort and maximum commercial flexibility.

- Fixed or reclining backrest
- Integral 3-point seat belt
- Available in left-hand belt and right-hand belt models
- M1 tested and approved by RDW, according to the newest regulation UN/ECE R14, R16, R17, FMVSS/CMVSS 207, 209, 210
- Optional armrest
- Various upholstery options available (including real leather)
- Equipped with quick-release Smartleg supports
- Easy to clean
- ABS back panel
- LATCH (Lower Anchors and Tethers for Children) compliant



Optional:

- Extra foam seat cushion
- Piping
- Upholstered armrest

## Smartseats Smartseat Easy XL M1

| ITEM CODE | ITEM NAME                                 | SHOULDER BELT    |       |
|-----------|---|------------------|-------|
| 10020856  | Smartseat Easy XL Mercedes-Benz Tunja     |                  | left  |
| 10020857  | Smartseat Easy XL Mercedes-Benz Tunja     |                  | right |
| 10020997  | Smartseat Easy XL Ford Trend              |                  | left  |
| 10020998  | Smartseat Easy XL Ford Trend              |                  | right |
| 10020860  | Smartseat Easy XL Grey artificial leather |                  | left  |
| 10020861  | Smartseat Easy XL Grey artificial leather |                  | right |
| 10020862  | Smartseat Easy XL Carmat Code*            |                  | left  |
| 10020863  | Smartseat Easy XL Carmat Code*            |                  | right |
|           |   |                  |       |
| 10020864  | Smartseat Easy XL Mercedes-Benz Tunja     | reclining        | left  |
| 10020865  | Smartseat Easy XL Mercedes-Benz Tunja     | reclining        | right |
| 10020999  | Smartseat Easy XL Ford Trend              | reclining        | left  |
| 10021000  | Smartseat Easy XL Ford Trend              | reclining        | right |
| 10020868  | Smartseat Easy XL Grey artificial leather | reclining        | left  |
| 10020869  | Smartseat Easy XL Grey artificial leather | reclining        | right |
| 10020870  | Smartseat Easy XL Carmat Code*            | reclining        | left  |
| 10020871  | Smartseat Easy XL Carmat Code*            | reclining        | right |
|           |   |                  |       |
| 10020872  | Smartseat Easy XL Mercedes-Benz Tunja     | ISOfix           | left  |
| 10020873  | Smartseat Easy XL Mercedes-Benz Tunja     | ISOfix           | right |
| 10021001  | Smartseat Easy XL Ford Trend              | ISOfix           | left  |
| 10021002  | Smartseat Easy XL Ford Trend              | ISOfix           | right |
| 10020876  | Smartseat Easy XL Grey artificial leather | ISOfix           | left  |
| 10020877  | Smartseat Easy XL Grey artificial leather | ISOfix           | right |
| 10020878  | Smartseat Easy XL Carmat Code*            | ISOfix           | left  |
| 10020879  | Smartseat Easy XL Carmat Code*            | ISOfix           | right |
|           |   |                  |       |
| 10020880  | Smartseat Easy XL Mercedes-Benz Tunja     | reclining ISOfix | left  |
| 10020881  | Smartseat Easy XL Mercedes-Benz Tunja     | reclining ISOfix | right |
| 10021003  | Smartseat Easy XL Ford Trend              | reclining ISOfix | left  |
| 10021004  | Smartseat Easy XL Ford Trend              | reclining ISOfix | right |
| 10020884  | Smartseat Easy XL Grey artificial leather | reclining ISOfix | left  |
| 10020885  | Smartseat Easy XL Grey artificial leather | reclining ISOfix | right |
| 10020886  | Smartseat Easy XL Carmat Code*            | reclining ISOfix | left  |
| 10020887  | Smartseat Easy XL Carmat Code*            | reclining ISOfix | right |

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### OPTIONS

|          |                                |       |
|----------|--------------------------------|-------|
| 10019046 | Armrest for Smartseat          | left  |
| 10019047 | Armrest for Smartseat          | right |
| 10019048 | Grab handle rear for Smartseat |       |
| 10019049 | Grab handle side (black)       |       |
| 10019050 | Grab handle side (yellow)      |       |

\* See [www.smartfloor.eu](http://www.smartfloor.eu) for Carmat codes

## Smartseats Smartleg

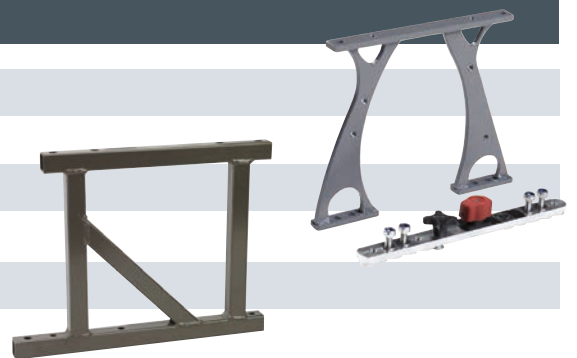
### Quick locking systems

|          |   |
|----------|---|
| 10021024 | Smartleg Smartseat Easy 290 mm incl. Wheelie Wheel US |
| 10021025 | Smartleg Smartseat Easy 330 mm incl. Wheelie Wheel US |
| 10021026 | Smartleg Smartseat Easy 360 mm incl. Wheelie Wheel US |
| 10021027 | Smartleg Smartseat Easy 390 mm incl. Wheelie Wheel US |
| 20001202 | Smartleg Freedman 290 mm incl. Wheelie Wheel US       |
| 20001250 | Smartleg Freedman 390 mm incl. Wheelie Wheel US       |
| 10011974 | Spacer plate 156 mm                                   |
| 10013476 | Spacer plate 164.5 mm                                 |
| 10013477 | Spacer plate 173 mm                                   |
| 10013478 | Spacer plate 181.5 mm                                 |
| 10013479 | Spacer plate 190 mm                                   |
| 10013480 | Spacer plate 234 mm                                   |
| 10013482 | Spacer plate 251 mm                                   |
| 10013484 | Spacer plate 268 mm                                   |
| 10013485 | Spacer plate 276,5 mm                                 |
| 10013486 | Spacer plate 285 mm                                   |



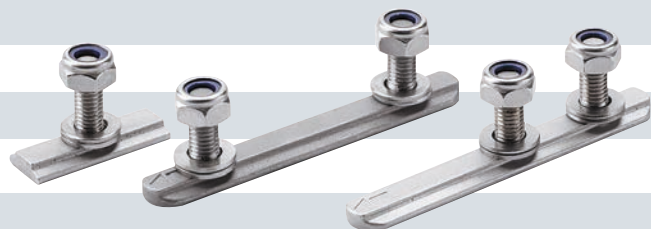
### Fixed mounting

|          |                                      |
|----------|--------------------------------------|
| 20001251 | Fixed leg Freedman 290 mm            |
| 10020891 | Fixed leg Freedman 390 mm            |
| 10011886 | Fixed leg Smartseat Easy 290 mm      |
| 10011887 | Fixed leg Smartseat Easy 390 mm      |
| 10014361 | Smartleg Smartseat Easy 290 mm fixed |
| 10021113 | Smartleg Smartseat Easy 330 mm fixed |



### T-bolts



|          |                         |
|----------|-------------------------|
| 10013488 | T-Bolt single M8        |
| 10013489 | T-Bolt double 95 mm M8  |
| 10011522 | T-Bolt single M10       |
| 10011523 | T-Bolt double 25 mm M10 |
| 10011524 | T-Bolt double 35 mm M10 |
| 10011525 | T-Bolt double 76 mm M10 |



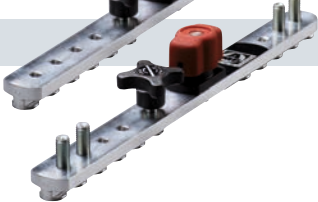


Smartseats  
Smartleg

Mounting brackets

|          |  |   |
|----------|--|---|
| 10020102 | Mounting kit Smartseat Easy (30x30) smartleg/smartfold |  |
| 10020103 | Mounting kit Smartseat Easy (30x30) Fixed leg          |   |
| 20001252 | Mounting kit Freedman 3PT (Smartleg/Smartfold)         |   |
| 20001253 | Mounting kit Freedman 3PT (Fixed leg)                  |   |
| 20001397 | Mounting kit Freedman Go-Seat (Smartleg/Smartfold)     |   |
| 20001398 | Mounting kit Freedman Go-Seat (Fixed leg)              |  |

Aluminum guide rails

|          |              |  |
|----------|--------------|--|
| 10011173 | AMF Lockable |  |
|----------|--------------|--|

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\* Units of Measurement in mm

Accessories

| Item number | Description | Dimensions           |
|-------------|-------------|----------------------|
| 10012744    | Storage box | 6,6 x 27,1 x 15 inch |
| 10012270    | Storage box | 7 x 33 x 17,7 inch   |



10008016

Yellow grab handle



10008015

Black grab handle



H150351

Cover strip rubber black

50 mtr

H150352

Cover strip rubber grey

50 mtr



Cover strip rubber black



Cover strip rubber grey

## Test Center

### Product Safety and Testing

Safety is key in all AMF Bruns of America products and system innovations. Since 1962, we have been the leading supplier of lifts, wheelchair and occupant restraint system, system floors and related products for the conversion of accessible vehicles. We service customers in more than 50 countries throughout North and South America, Europe, Australia and Asia.

This leading position is both a responsibility and a motivation for AMF-Bruns to ensure that all aspects of its products, which have quality and safety implications, are subject to the strictest of controls. All production work is completed in accordance with the ISO 2001 standard. In addition, all lifts and ramps which the company delivers are TÜV-tested in 20 G front-on vehicle crashes.

All AMF Bruns products offer a high level of safety. Vehicle floors equipped with the Smartfloor meet all safety requirements of the stringent FMVSS as well as the UN/ECE directives as ISO 10542 and DIN standard 75078. All surfaces which may present a slip hazard in the vehicle comply with slip resistance class R11. Lifts and electric steps are subjected to thorough EMV tests and then approved by the German Federal Office for Motor Vehicles (KBA).

In order to further improve safety and protection for people with mobility restrictions, AMF Bruns has successfully worked in cooperation with competent partners such as TÜV Nord, TÜV Rheinland, BAST, UTAC (France), AIB Vinçotte (Belgium), Status (United Kingdom), Volkswagen, Mercedes Benz, RDW Holland and the German Federal Office for Motor Vehicles (KBA).

AMF-Bruns' commitment to safety was recently demonstrated through its new German-based, state-of-the-art, in-house, accredited, test center for research and approval tests. AMF-Bruns now tests and examines safety-relevant components, products and retrofitting in house. Other conversion companies are also taking the opportunity to have testing done by the AMF-Bruns Test Center.



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1. A vehicle body is fixed to the stable test system frame ready for the tension trials.



2. Special pulling cylinders ensure that a force equivalent of up to 20 G front-on vehicle crash is built up within milliseconds.



3. This shows a test with 3 dummy seats, aimed at testing Smartfloor's seat fixings, the so-called "Smartlegs" on the Smartfloor system floor.



## Vehicle Tests

The following vehicles have been tested by RDW, TÜV and AMF-Bruns with regards to anchorage points. Test certification and installation manuals are available at [www.amfbrunsamerica.com](http://www.amfbrunsamerica.com)

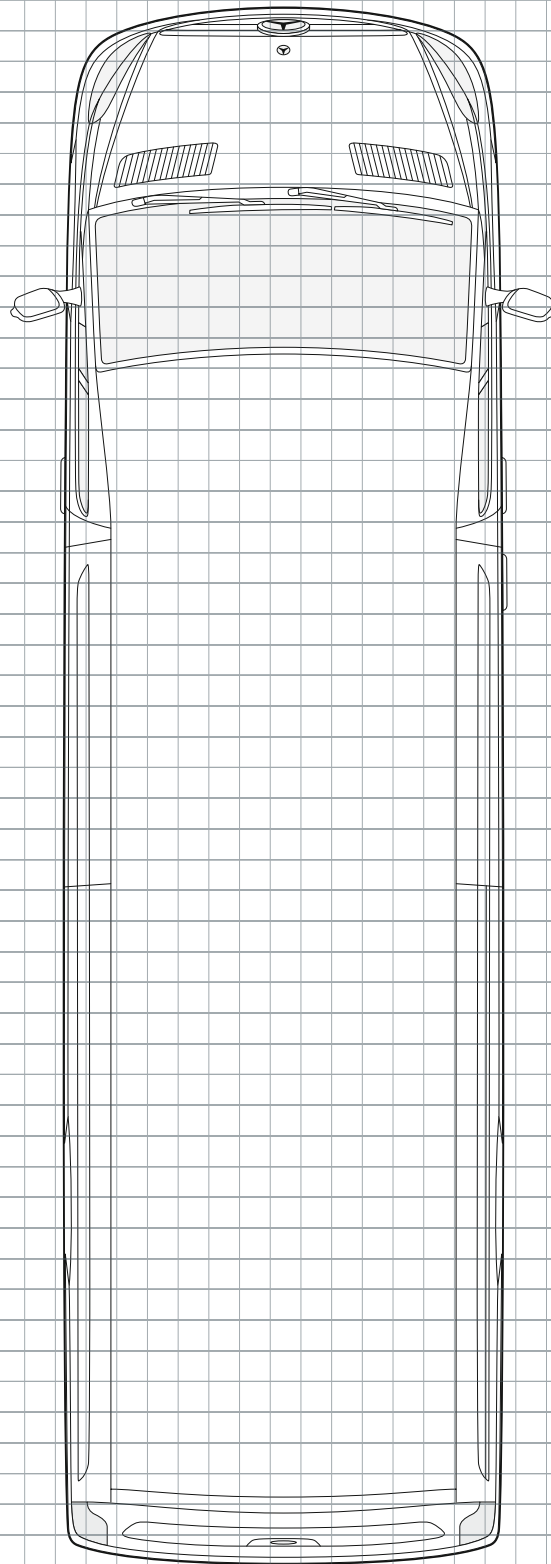
- » RAM ProMaster
- » Ford Transit
- » Mercedes Benz Sprinter



## Notes

Your vehicle plan

### Mercedes Benz Long



## Notes

## Your vehicle plan

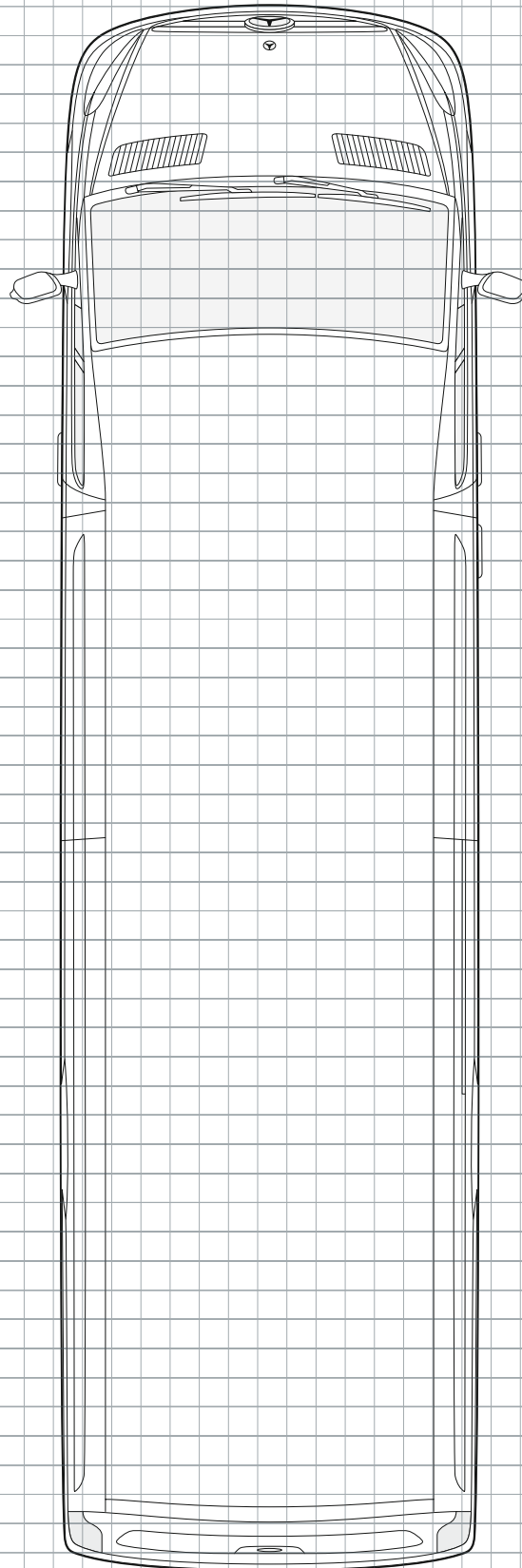
This image shows a full page of blank graph paper. The grid consists of small, uniform squares formed by thin, light gray lines. There are no margins, text, or other markings on the page.

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## Notes

Your vehicle plan

### Mercedes Benz Extra Long





## Notes

## Your vehicle plan

This image shows a full page of blank graph paper. The grid consists of thin, light gray horizontal and vertical lines that intersect to form small squares across the entire surface. There are no margins, text, or other markings on the paper.

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