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Chrysler Pacifica/Voyager

Driverge Long Cut Rear-Entry Conversion

Operating Instructions



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VEHICLE INNOVATIONS

.....
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Foreword

Dear Reader,

These Operating Instructions provide all information necessary to safely operate the long cut version (two wheelchair positions) of the Easy and EasyFlex wheelchair access ramps.

The access ramp is designed and constructed in accordance with state-of-the-art technology and recognized safety standards. Persons and material assets can however still be at risk, as not all danger areas can be eliminated if the functional capability is to be maintained. Accidents caused by these risks can however be prevented by strictly observing these Operating Instructions. Over and above this, the operational efficiency of the access ramp can be used to the full extent 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 vehicle. If you sell the vehicle, hand these Operating Instructions over to the new owner.

All details, figures and dimensions given in these Operating Instructions are non-binding. They cannot be used as the basis for any claims whatsoever.

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

The access ramp must never be converted or modified in any way, without seeking the prior, written permission of the manufacturer. Unauthorized modifications will render the manufacturer's liability and guarantee null and void.

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 access ramp. The manufacturer will not accept liability for consequential damage if other spare parts are used.

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

Explanation of symbols and signs

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

1. The following conventions are used to highlight important information:



DANGER!

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



WARNING!

- warns of a potentially dangerous situation, which will lead to severe 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.
-
-



ATTENTION!

...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 contained in other sections and documents.

2. Some text passages serve a special 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.



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1 Safety



CAUTION!

There are a number of risks of suffering personal injury and material damage involved in the operation and maintenance of the access ramp.

Therefore:

- It is imperative, that these Operating Instructions are read thoroughly before operating your access ramp. Always follow the instructions and information herein, particularly 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 access ramp 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 access ramp and that the instructions and warnings herein are strictly observed. Safety instructions and warnings that are given at the corresponding places in the text in the following chapter must also be strictly observed. The manufacturer will not be held responsible if safety information and warnings are not strictly adhered to.

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.

Observe the information given in these Operating Instructions even when there are no disabled persons or wheelchairs being transported.



For safety information regarding the basic vehicle, refer to the vehicle operating instructions.

1.1 Proper Use

The access ramp must only be used for transporting a disabled person in a wheelchair or an empty wheelchair. By using the access ramp, persons can be loaded into or disembarked from the vehicle to which it is fitted. When doing so, the access ramp will be operated by an accompanying person.

Use of the ramp requires sufficient space behind the vehicle to deploy, access and drive a wheelchair up or down the ramp. When the ramp is deployed, the entire width of the ramp must rest on a level and firm surface.

The long cut version of the access ramp offers space for a maximum of two wheelchairs, one behind the other, in the rear of the vehicle.

If neither of the wheelchair spaces are used, all optional Driverge tip and fold seats can be used, even when the EasyFlex ramp is fully stowed (see Section 2.1.2).

Wheelchairs must be equipped with the fittings necessary to secure it by means of the belt restraint systems provided.

Proper use also includes strictly adhering to the information given in these Operating Instructions.



WARNING!

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

1.2 Improper Use

Any use other than that described in Section 1.1 is deemed to be improper use.

The access ramp is deemed to be improperly used if for example:

- it is used to transport goods,
- it is used in a faulty state or with safety-relevant malfunctions,
- it is used to transport wheelchairs that cannot be secured by means of the belt restraint systems provided, or
- it is used by incompetent persons.

1.3 Personnel Requirements

The access ramp must only be handled by persons who:

- have been instructed in how to operate the access ramp,
- have read and understood these Operating Instructions,
- have proven their ability to operate the access ramp to the vehicle's owner,
- have been expressly assigned by the vehicle's owner to operate the access ramp,
- have the technical knowledge to operate the wheelchair's brakes and switch the motors of electrically driven wheelchairs ON and OFF and
- are in a position to adapt themselves to the particular behavior and needs of disabled persons.

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

1.4 Product Monitoring

Please contact Drivege immediately if faults or problems are encountered when operating your access ramp or if accidents or "near-misses" occur.

Drivege will determine a solution to the problem with your help and the knowledge gained will flow into future projects.



NOTE

Warranty work on the access ramp must only be carried out with the prior agreement of Drivege.

The costs of such work will not be accepted by Drivege without prior agreement.

1.5 Danger Zone

The danger zone is the area in which the access ramp moves at the rear of the vehicle when being deployed and the area in which the access ramp moves inside the vehicle when being stowed. Persons within this area can suffer injuries through movements of the access ramp and the person operating the access ramp is at risk of being crushed.



CAUTION!

Risk of injury and material damage when deploying and stowing the access ramp.

When deploying or stowing there is a risk of injury to the feet and legs of persons that are present at the rear of or inside the vehicle. The person operating the access ramp is at risk of being crushed. The access ramp can be damaged.

Therefore:

- Make certain that there are no persons present within the danger zone when operating the access ramp.
- Use the grips and straps provided to operate the access ramp.
- Keep a firm hold of the access ramp until it is in its final position when deploying or stowing it.
- Deploy and stow the access ramp slowly.

1.6 Safety Devices

Electrically Operated Belts

Electrically operated belts, with which the wheelchair is secured when the vehicle is in motion, are attached to the front area of the vehicle's floor. These electrically operated belts can only be pulled out when the ramp has been fully deployed and the indicator lamp in the rocker switch is lit (refer to Section 2.1.3). The electrically operated belts retract automatically when the rocker switch is in either position.

Before the wheelchair can be pushed or driven up the ramp, the electrically operated belts must be attached to the wheelchair and the rocker switch must be operated such that the indicator lamp goes out. This will prevent the wheelchair from rolling back out of control.

1.7 Vehicle Characteristics

The driving characteristics can vary slightly from those of the basic vehicle because of the conversion. You should therefore familiarize yourself with the vehicle during your first trips.

In addition to the increase in curb weight, the ground clearance can also differ from that of the basic vehicle.

The fuel tank capacity and range indicator of the vehicle can differ from that of the basic vehicle. Make use of the trip meter in order to estimate contents of the tank when driving.

The function of the rear parking assistant can be restricted.

See also the relevant instructions in Chapter 5 "Operation".

Before purchasing optional equipment and accessories, we recommend that these are checked for compatibility with the conversion.

Depending upon the vehicle, use of the ISO-Fix connectors on the tip and fold seats can be restricted.

1.8 Safety and Accident Prevention Regulations

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

- The access ramp must only be operated if all safety devices are correctly fitted (see Section 1.6). Such devices must only be removed in order to enable maintenance and repair work to be carried out. All safety devices must be replaced immediately after such work has been completed. Otherwise, there is a high risk of injury.
- The access ramp 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).
- The owner is responsible for ensuring that proper use is adhered to, in particular that the access ramp is only operated by authorized persons.
- If the access ramp is used commercially or as a public utility, the owner must ensure that operating personnel are familiar with the operation of the access ramp under all operating conditions by giving training and familiarization courses.



- Proper use of the access ramp 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 cannot be guaranteed. There is a risk of personal injury and material damage being caused. We recommend that maintenance records are kept.
- If the access ramp is used commercially or as a public utility, it must be inspected by a technical expert at intervals of not more than 1 year after commissioning. During inspection, faults affecting the safety should be systematically identified and remedial action taken (see "Inspection Log").
- The access ramp must not be operated in a faulty condition, as serious injuries may be caused by this. If faults occur, do not use the access ramp until repairs have been effected.
- Before carrying out maintenance or repair work, this includes cleaning work, switch the vehicle's engine OFF and prevent the vehicle from rolling away by applying the handbrake. Make certain that no other person can start the vehicle (e.g. by removing the ignition key). If this is not done, there is a risk of injury.
- Use only original spare parts or spare parts which have been approved of by the manufacturer. If other parts are used, the manufacturer will not accept liability for the consequences.

2 Description

Persons who are wheelchair-bound can be loaded into or disembarked from a vehicle via the access ramp.

The main components of the access ramp are:

- the floor section,
- the ramp,
- the belts and retractors for securing the wheelchair.

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



For information regarding the basic functions of the base vehicle, refer to the vehicle user manual.

2.1 Layout and Function



2.1.1 Floor section

The floor section (see Figure 1) offers sufficient space for the passengers in their wheelchairs. The surface of the floor section is lower than the floor of the vehicle. This ensures that the passengers have sufficient headroom.



2.1.2 Ramp

The Easy ramp is used in two positions.

In the completely deployed position, the ramp provides a slope, via which the wheelchair can be easily pushed or driven into the vehicle (see Figure 1).

The rear doors can be closed when the access ramp is in the vertical position and both wheelchair spaces can be used. In this position, the frame of the access ramp fills the gap in the vehicle's rear bumper (see Figure 2).



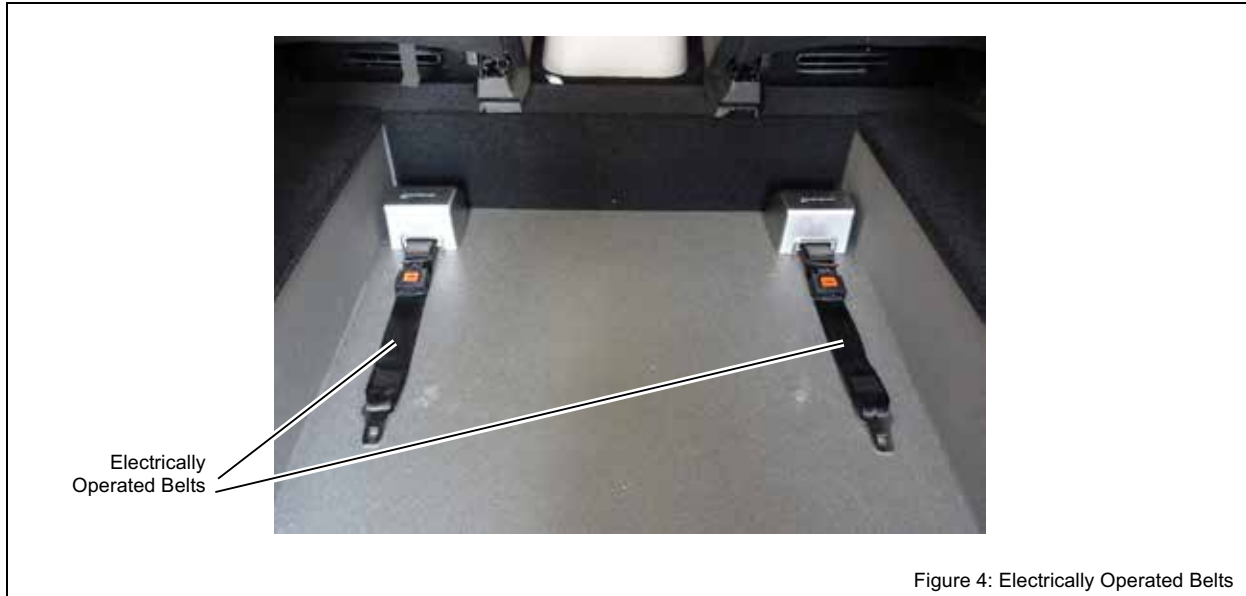
A third position is available for the EasyFlex ramp. The ramp can be folded down into the vehicle, so that it is at the same level as the floor of the vehicle (see Figure 3).

The floor section is almost completely covered. This creates a level luggage compartment floor. When fully stowed, the ramp can support a maximum load of 250 lbs. The rear wheelchair space can then no longer be used.



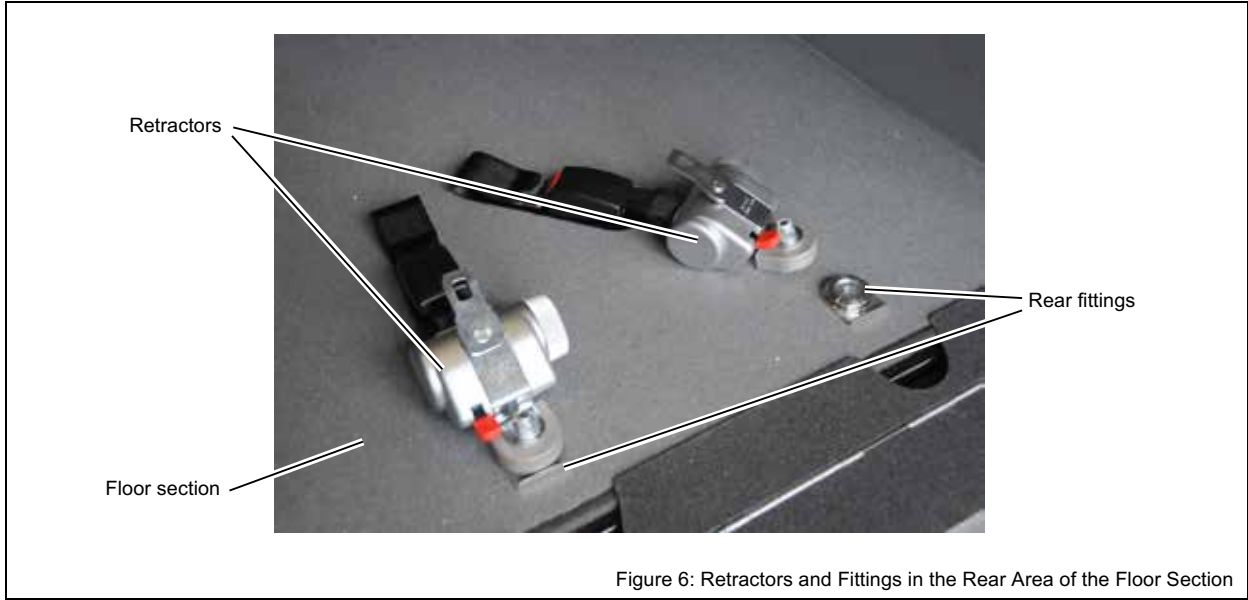
2.1.3 Belts and belt anchorages

Two electrically-operated belts, for securing a wheelchair, are fitted to the front area of the floor section (see Figure 4). The electrically operated belts can be pulled out when the ramp is fully deployed and the indicator lamp in the rocker switch is lit (see Figure 7).



Four fittings (two inner and two outer), to which the retractor belts can be attached, are provided in the mid area of the floor section (see Figure 5). The rear end of the front wheelchair is fastened to the inner retractors. When transporting a second wheelchair, the front end of the rear wheelchair is fastened to the outer retractors. Two further fittings, to which retractor belts can be attached, are provided at the rear end of the floor section (see Figure 6). The rear retractors are used to fasten the rear end of the rear wheelchair.





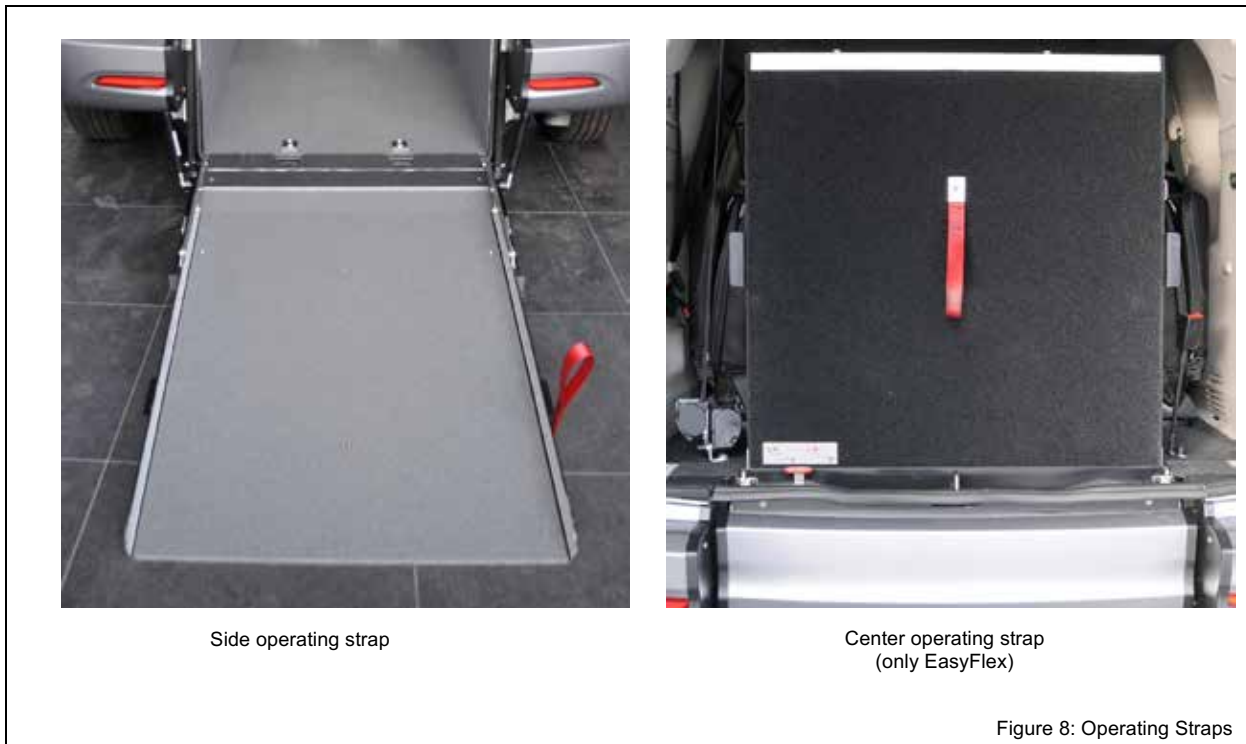
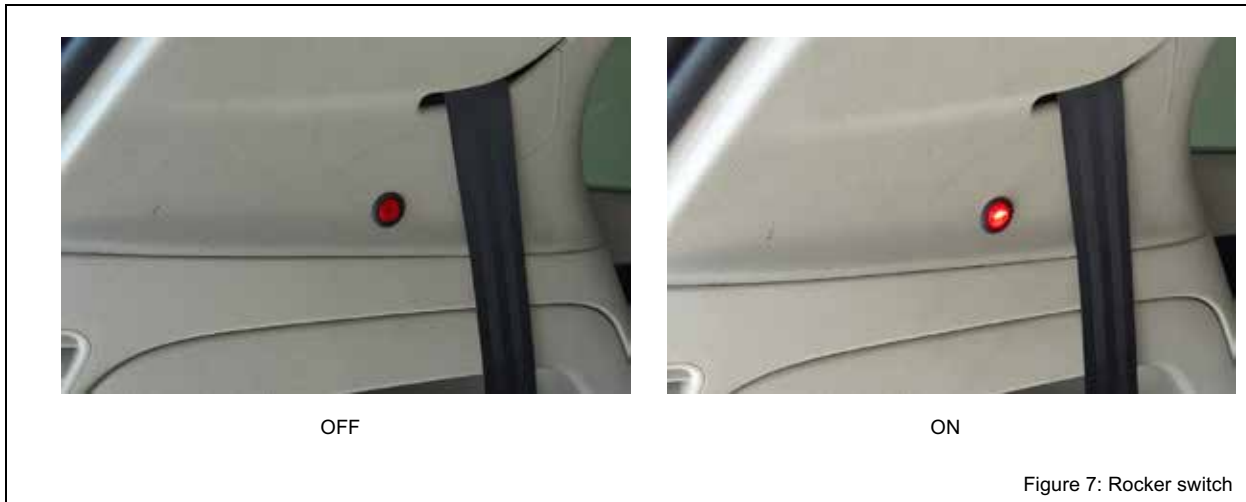
The electrically-operated belts and retractors are available in various designs due to the differing wheelchair connections. They can therefore look different to those shown here.

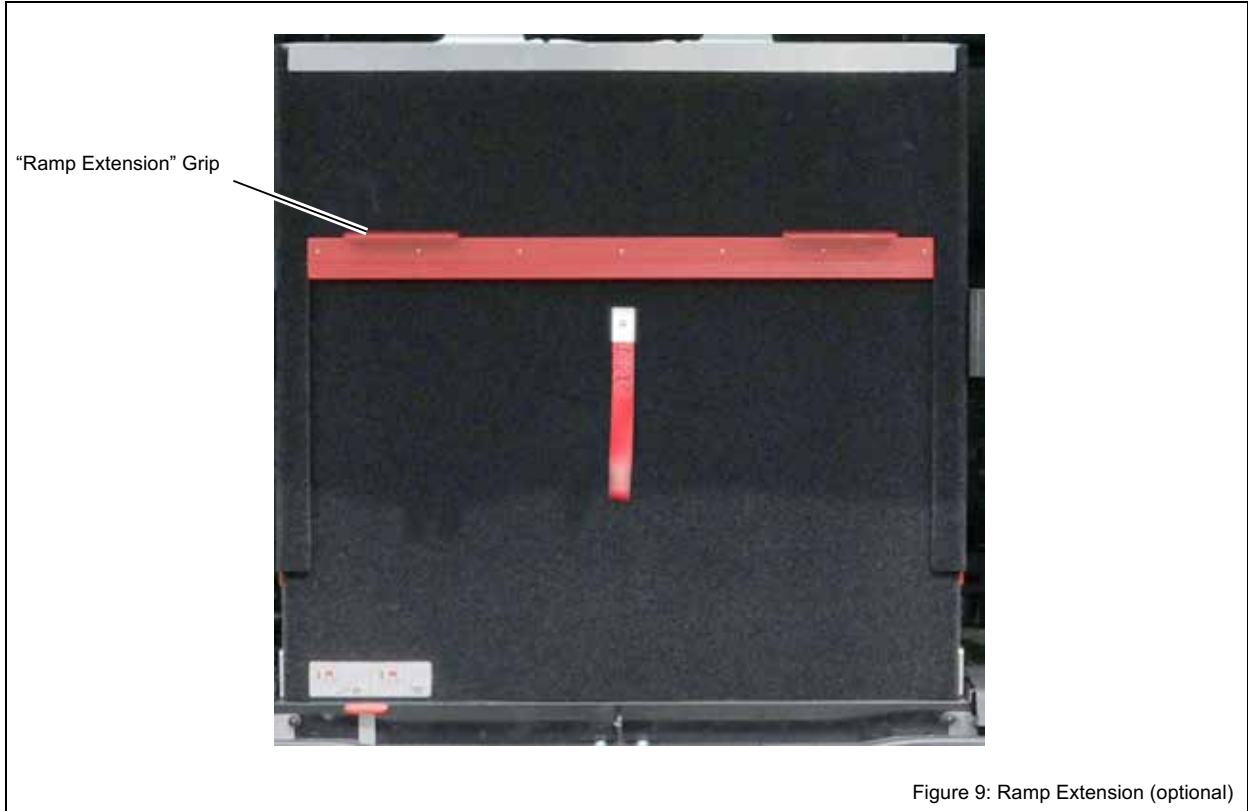


For information on the description of the retractors, refer to their operating instructions.



2.2 Operating Controls







Designation	Position	Function
Rocker switch	On the rear left-hand side cladding (C-pillar) in the interior of the vehicle	Allows the electrically operated belts to be pulled out.
Side operating strap	On the side of the ramp (left- or right-hand side depending upon country in which used)	Allows the ramp to be deployed and stowed from the outside of the vehicle.
Center operating strap	Only for an EasyFlex ramp: At the rear, center of the ramp.	Only for an EasyFlex ramp: Allows the ramp to be pulled up and let down inside the vehicle.
"Ramp" operating lever	In the interior, directly above the bumper at the left-hand side.	Easy ramp: To unlatch the ramp so that it can be deployed. EasyFlex ramp: To unlatch the ramp so that it can be deployed or to unlatch the ramp so that it can be folded down and fully stowed.

2.3 Technical Data

Designation	Easy ramp EasyFlex ramp
Maximum load (wheelchair use)	800 lbs.
Maximum load (EasyFlex ramp stowed position, luggage compartment)	250 lbs.

3 Transportation

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

4 Installation / Commissioning



The access ramp must be installed in accordance with the Driverge Installation Instructions applicable to the vehicle in question.



DANGER!

Danger through incorrect installation work.

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

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

Therefore:

- the access ramp must only be installed by specialist personnel, who have been trained for this job by the manufacturer. This also applies to the electrical connections.
- The vehicle manufacturer's body fitting guidelines must be adhered to.
- A technical expert must be called in to inspect the access ramp for correct installation and the effectiveness of the safety devices.
- The technical expert must confirm the fact that operational safety of the access ramp has been established by making a corresponding entry in the inspection log book (see Chapter 8).
- The access ramp must not be used until this has been done.



5 Operation

If optional extras are fitted, also read the Operating Instructions provided for them.

Optional extras can be, amongst others

- seating solutions,
- occupant and wheelchair restraint systems,
- the EasyPull winch and front restraint system.



For information regarding the basic functions of the base vehicle, refer to the vehicle user manual.



5.1 Safety Regulations for Operation

The safety information given in the Safety chapter must have been read prior to operation (see Chapter 1).



WARNING!

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

Therefore:

- Always carry out inspections/checks in accordance with the maintenance schedule before use (see Chapter 6).
- For communal or commercial use: Have the access ramp inspected at intervals of not more than one year by a technical expert.





WARNING!

Risk of injury and material damage if the access ramp is operated by unauthorized persons.

Dangerous operating conditions may be caused if the access ramp is operated by unauthorized persons.

Therefore:

- The access ramp must only be operated by persons who are familiar with operating the access ramp.
 - The access ramp must never be operated by the passengers.
 - Lock the vehicle's doors when the access ramp is not in use.
-



WARNING!

Risk of injury if safety devices are removed or are defective.

If safety devices are modified, bypassed or removed, they will no longer fulfil their function.

Therefore:

- Never modify, bypass or remove safety devices.
 - Always make certain that safety devices are refitted if they have been removed (e.g. for maintenance or repair purposes).
-



WARNING!

Danger through road traffic collisions.

A number of risks are involved for the passenger operator when using the access ramp on public highways.

Therefore:

- When the parking the vehicle ensure that other road traffic is affected as little as possible.
 - Park the vehicle such that as little danger as possible is presented to passenger and operator by other road traffic.
 - Switch the vehicle's engine OFF and apply the handbrake before operating the access ramp.
-



CAUTION!

Risk of crushing or falling because of insufficient space to operate the access ramp safely or through unsuitable ground conditions.

If there is insufficient space to leave or to get onto the access ramp, there is a risk of being injured by the access ramp or other objects (e. g. walls, posts or poles). If the ramp is deployed onto uneven or soft ground or if the full width of the ramp is not in contact with the ground, there is a risk of injury through the ramp subsiding when subject to load.

This risk applies to both the passengers and accompanying person.

Therefore:

- When parking the vehicle, make certain that there is sufficient space behind the access ramp.
 - Only use the deployed ramp when its full width is in contact with a firm surface.
-



CAUTION!

Risk of personal injury and material damage.

The warning characteristic of the rear parking assistant is changed by the installation of the ramp. The parking assistant then warns at a reduced distance to an obstacle than normal.

Therefore:

- Take the changed warning characteristic into consideration when reversing.
-

**WARNING!**

Risk of injury through getting caught on the side operating strap.

When the ramp is deployed, the side operating strap points upwards. When stepping onto or off the ramp, the operator can for example get a foot caught in the operating strap causing them to fall.

Therefore:

- Only step onto or leave the ramp in a fore and aft direction.
 - Keep an eye on the side operating strap when standing on the ramp.
-

**WARNING!**

General risk of injury and material damage through loose items in the interior of the vehicle when travelling.

Loose items in the interior of the vehicle can potentially transform into projectiles when abrupt manoeuvres are carried out or if an accident occurs. These can cause injury to the passengers or damage the interior of the vehicle. Safety-relevant operating mechanisms (e.g. the unlocking levers on the retractors) can also be inadvertently operated by falling or flying loose items

Therefore:

- Stow all small and lightweight items in the vehicle storage compartments before starting a journey.
 - Use lashing straps to secure larger or heavier objects to the lashing eyes provided in the vehicle for this purpose before starting a journey.
 - Make sure that passengers are not holding or carrying any loose items during a journey.
-

5.2 Deploying the Ramp

- ⇒ Switch the vehicle's engine OFF.
- ⇒ Remove the ignition key.
- ⇒ Apply the vehicle's handbrake.
- ⇒ Open the tailgate.

CAUTION!

Risk of crushing when pulling the ramp to the vertical position.

When pulling the ramp to the vertical position, there is a risk of being crushed between the ramp and the frame (rear bumper).

Therefore:

- Use the operating straps.
- Do not reach into the gap between the ramp and frame.



-
- ⇒ For an EasyFlex ramp: Use the center operating strap (see Figure 8) to pull the ramp to the vertical position, until it audibly engages (see Figure 16).



Figure 16: Pulling the Ramp to the Vertical Position (only for EasyFlex)

- ⇒ Check that the ramp is securely engaged in the vertical position by gently shaking it.
- ⇒ Keep a firm hold on the ramp.
- ⇒ Push the operating lever downwards (see Figure 17).



Figure17: Unlocking the Frame

- ⇒ For the ramp extension option: Fold the ramp out a little way.
- ⇒ For the ramp extension option: Pull the ramp extension out as far as possible by pulling on the “ramp extension” grip.

CAUTION!

Risk of injury and danger of material damage when deploying the ramp.

There is a risk of injuries to the legs and feet if the ramp is allowed to fall to the ground out of control. The ramp can be damaged.

Therefore:

- Use the operating straps.
- Keep a firm hold of the ramp until it is fully in contact with the ground.
- Allow the ramp to deploy slowly.



- ⇒ Fold the ramp out with the aid of the operating straps (see Figure 8) until it makes contact with the ground (see Figure 18).



Figure 18: Deploying the Ramp

5.3 Loading a Passenger / Wheelchair

WARNING!

General risk of injury through improper use of the safety systems.

If a road traffic accident occurs, there is a risk of severe injury for all occupants in the vehicle if the safety systems for securing the wheelchairs and restraining the persons in the wheelchairs are used improperly.

Therefore:

- Only fasten the front and rear wheelchairs in the vehicle using the fastening points provided for this purpose on the wheelchairs and in the vehicle. To do this, only use the fastening systems foreseen for this purpose (see Section 5.3.1 and Section 5.3.2).
- Refuse to transport if the fastening systems are not compatible with the fastening points on the wheelchair or in the vehicle.
- Only ever secure the persons in the wheelchairs using the safety systems provided for this purpose.
- Always secure the persons in the wheelchairs using all of the safety systems foreseen for this purpose (e.g. lap belt and optional three-point shoulder belt).
- Do not use the safety systems foreseen for wheelchairs and persons for any other purpose (e.g. for securing loads).
- Only use the electrically-operated belts to fasten the front of the wheelchair in the front wheelchair space.
- Always use the safety systems, even for short journeys.



⇒ Deploy the ramp (see Section 5.2).

⇒ Lock the optional tip and fold seats in their folded position.



Refer to the relevant Operating Instructions for information regarding operation of the retractors and optional seats.

5.3.1 Loading the front passenger / the front wheelchair

- ⇒ Accompany the passenger in their wheelchair to a position in front of the deployed ramp.
- ⇒ Operate the rocker switch such that the indicator lamp in the rocker switch lights up (see Figure 7).
- ⇒ Pull both electrically-operated belts out to the front wheelchair.



- ⇒ Attach both electrically-operated belts to the front wheelchair (see Figure 19).



Figure 19: Attaching the Electrically Operated Belts to the Wheelchair

- ⇒ Operate the rocker switch such that the indicator lamp in the rocker switch goes out.

WARNING!

Risk of injury through the wheelchair rolling backwards.

The floor section and the ramp form a slope via which the wheelchair can roll back out of control. The passenger in the wheelchair can be severely injured. Material damage can be caused.



Therefore:

- Attach the electrically operated belts to the wheelchair.
- Operate the rocker switch such that the indicator lamp in the rocker switch goes out.
- Push or drive the wheelchair up the access ramp only when this has been done.

WARNING!

Risk of injury if the electrically operated belts loosen when the vehicle is in motion.

If the electrically operated belts are unevenly tensioned, they can become loose when the vehicle is in motion. There is a risk of the passenger in the wheelchair and of the other occupants in the vehicle being injured



Therefore:

- Push the wheelchair into the center of the vehicle.
- Make sure that the electrically operated belts leave the belt reels at the same angle as one another.
- If this is not the case, re-position the wheelchair.

- ⇒ Push or drive the front wheelchair to the center of the front area of the floor section in the vehicle.
- ⇒ Switch the motor of an electrically-driven wheelchair OFF.
- ⇒ Attach two retractors to fasten the rear of the front wheelchair. Use the inner pair of fittings in the center area of the floor section to do this (see Figure 20).
- ⇒ Check that the retractors are firmly attached by pulling them sharply.
- ⇒ Attach the belts from both retractors to the front wheelchair (see Figure 20).



Figure 20: Attaching the Retractors to the Front Wheelchair

- ⇒ Tension both retractors evenly by turning the side tensioners (see Figure 21).



Retractors for the front wheelchair

Figure 21: Tensioning the Retractors for the Front Wheelchair

⇒ Apply the wheelchair parking brake (see example in Figure 22).



Wheelchair parking brake

Figure 22: Applying the Wheelchair Parking Brake (example)

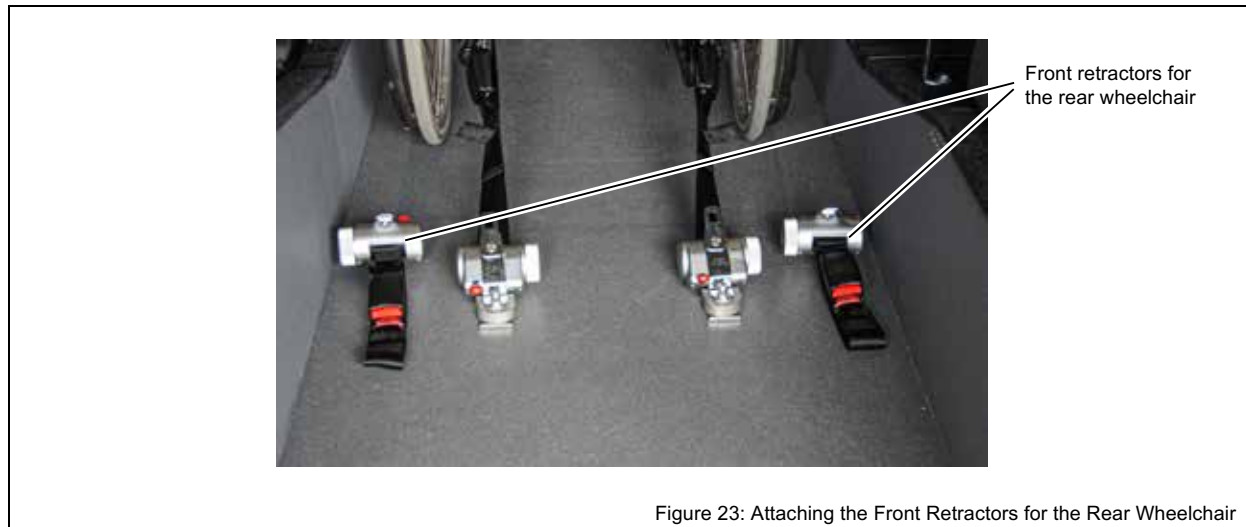
⇒ Secure the passenger in the front wheelchair with the lap belt and the automatic diagonal shoulder belt (optional).

If no other passenger / wheelchair is to be loaded:

- ⇒ Pull the ramp up to the vertical position (see Section 5.5).
- ⇒ Close the tailgate.

5.3.2 Loading the rear passenger / the rear wheelchair

- ⇒ Attach two retractors to fasten the front of the rear wheelchair.
Use the outer pair of fittings in the center area of the floor section to do this (see Figure 23).
- ⇒ Check that the retractors are firmly attached by pulling them sharply.



- ⇒ Accompany the rear passenger in their wheelchair to a position in front of the deployed ramp.

WARNING!

Risk of injury through the wheelchair rolling backwards.

The floor section and the ramp form a slope via which the wheelchair can roll back out of control. The passenger in the wheelchair can be severely injured. Material damage can be caused.

Therefore:

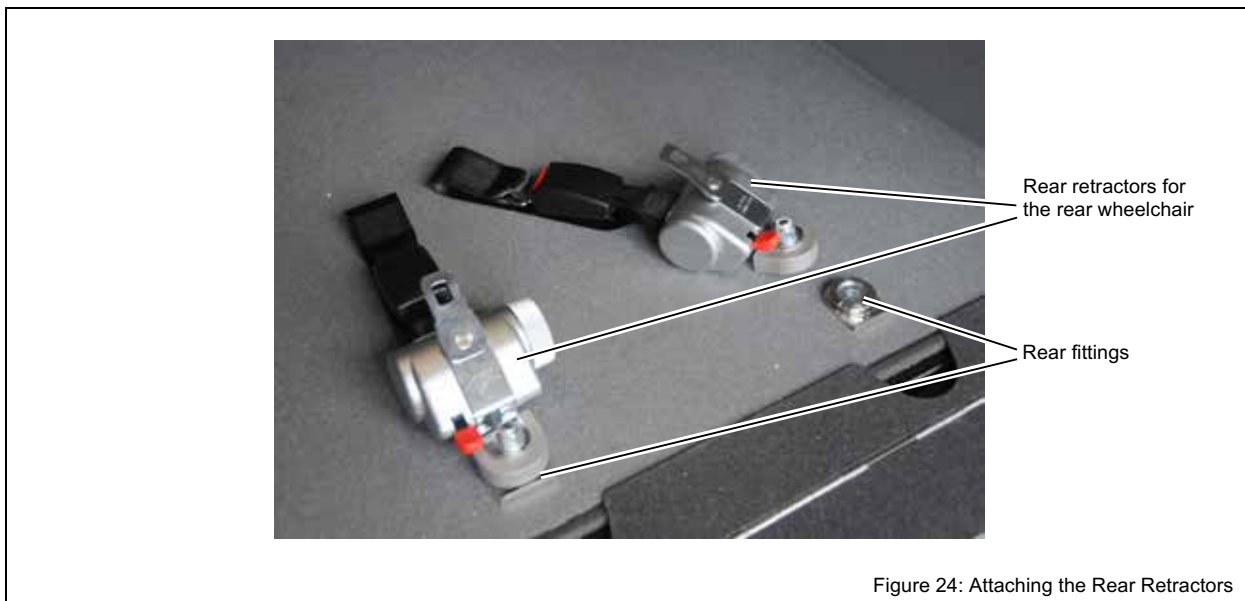
- Push or drive the rear wheelchair up the ramp with great care.
- Remember that the rear wheelchair is not secured by electrically-operated belts to prevent it from rolling backwards inadvertently.
- Apply the parking brake on the rear wheelchair as soon as it has reached its target position.



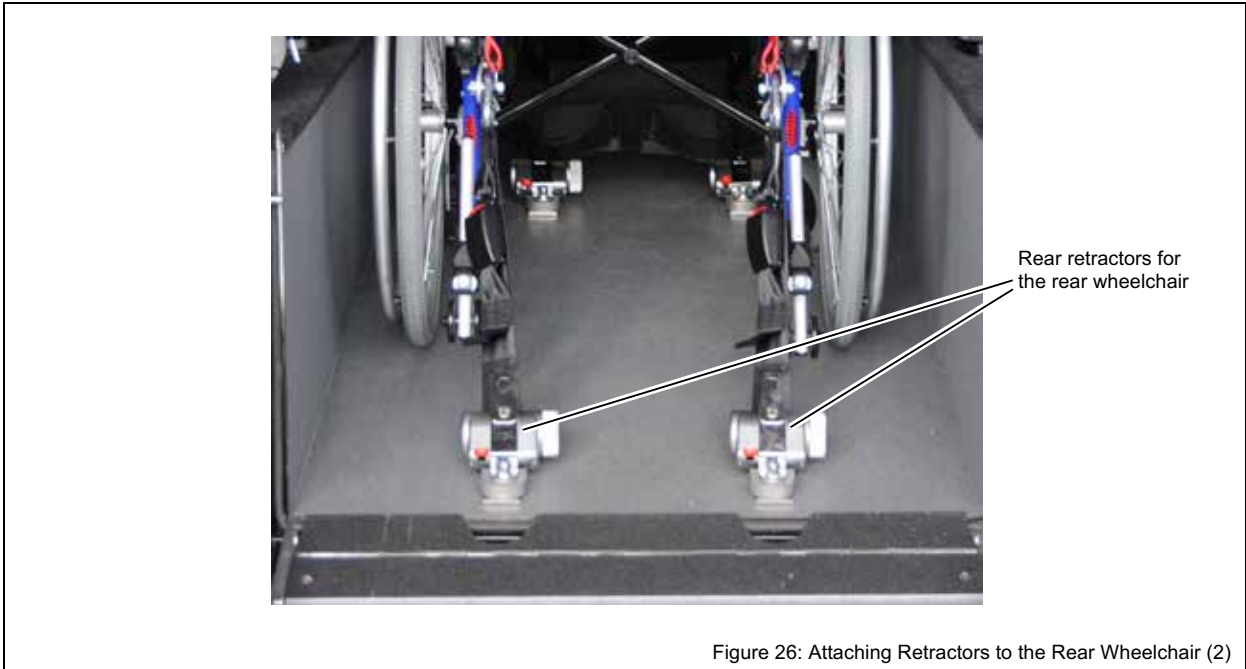
-
- ⇒ Push or drive the rear wheelchair to a position behind the front wheelchair in the vehicle.
 - ⇒ Position the rear wheelchair as centrally as possible between the retractors in front of the rear wheelchair and the fittings in the rear area of the floor section.
 - ⇒ Switch the motor of an electrically-driven wheelchair OFF.
 - ⇒ Apply the rear wheelchair parking brake.



- ⇒ If tip and fold seats are fitted next to the rear wheelchair, these can be swivelled slightly to achieve better access to the wheelchair fastenings.
- ⇒ Attach the belts from both front, outer retractors to the rear wheelchair.
- ⇒ Lightly pre-tension both front, outside retractors for the rear wheelchair to an even tension. Do this by turning the side tensioners (see Figure 27). Tension the retractors so far that the retractor belts no longer sag but not so far that the wheelchair moves forwards.
- ⇒ Attach two further retractors to fasten the rear of the rear wheelchair. Use the pair of fittings in the rear area of the floor section to do this (see Figure 24).
- ⇒ Check that the retractors are firmly attached by pulling them sharply.



⇒ Attach the belts from both rear retractors to the rear wheelchair (see Figure 25 and Figure 26).





- ⇒ Tension both retractors for the rear wheelchair evenly by turning the side tensioners (see Figure 27).
- ⇒ Temporarily release the rear wheelchair parking brake.
- ⇒ Fully tension both rear retractors for the rear wheelchair.



Figure 27: Tensioning the Retractors for the Rear Wheelchair

- ⇒ Apply the rear wheelchair parking brake once again.
- ⇒ Check the tension of the four retractor belts for the rear wheelchair.
- ⇒ Re-tension if necessary.
- ⇒ Lock the tip and fold seats (if fitted) in their stowed position.



Figure 28: Two Wheelchairs Loaded and Secured

- ⇒ Secure the passenger in the rear wheelchair with the lap belt and the automatic diagonal shoulder belt (optional).
- ⇒ Pull the ramp up to the vertical position (see Section 5.5).
- ⇒ Close the tailgate.



5.4 Disembarking the Passengers / Unloading the Wheelchairs

- ⇒ Deploy the ramp (see Section 5.2).
- ⇒ Lock the optional tip and fold seats in their stowed position if necessary.



Refer to the relevant Operating Instructions for information regarding operation of the retractors and optional seats.

5.4.1 Disembarking the rear passenger / unloading the rear wheelchair

- ⇒ Release the lap belt and the shoulder belt with which the rear passenger is secured.

WARNING!

Risk of injury through a wheelchair rolling backwards out of control.

The floor section and the ramp form a slope via which the wheelchair can roll down out of control. The passenger in the wheelchair can be severely injured. Material damage can be caused.

Therefore:

- Make certain that the rear wheelchair parking brake is applied.
- Only slacken the belt reels for the rear wheelchair once this has been done.



-
- ⇒ Check that the wheelchair parking brake is still applied.
 - ⇒ Slacken both of the rear retractor belt reels for the rear wheelchair (see Figure 26).
 - ⇒ Detach both of the rear retractor belts from the rear wheelchair.
 - ⇒ Detach the retractors from the fittings and remove them.
 - ⇒ If tip and fold seats are fitted next to the rear wheelchair, these can be swivelled slightly to achieve better access to the wheelchair fastenings.
 - ⇒ Slacken both of the front retractor belt reels for the rear wheelchair.
 - ⇒ Detach both of the front retractor belts from the rear wheelchair.
 - ⇒ Switch the motor of an electrically driven wheelchair ON.



WARNING!

Risk of injury through a wheelchair rolling backwards out of control.

The floor section and the ramp form a slope via which the wheelchair can roll down out of control. The passenger in the wheelchair can be severely injured. Material damage can be caused.

Therefore:

- Stand behind the rear wheelchair to prevent it from rolling backwards.
 - Only release the rear wheelchair parking brake once this has been done.
 - Roll or drive the rear wheelchair down the ramp with great care.
-

- ⇒ Take up a position behind the rear wheelchair so that you can stop the wheelchair safely if it rolls backwards.
- ⇒ Release the rear wheelchair parking brake.
- ⇒ Accompany the rear passenger out of the vehicle.
- ⇒ Detach the slackened front retractors for the rear wheelchair from the outer fittings and remove them (see Figure 23).
- ⇒ Lock the tip and fold seats (if fitted) in their stowed position.

If only the rear passenger is to be disembarked / only the rear wheelchair is to be unloaded:

- ⇒ Pull the ramp up to the vertical position (see Section 5.5).
- ⇒ Close the tailgate.

5.4.2 Disembarking the front passenger / unloading the front wheelchair

- ⇒ Release the lap belt and the shoulder belt with which the front passenger is secured.
 - ⇒ Slacken both of the retractor belt reels for the front wheelchair (see Figure 23).
 - ⇒ Detach both of the front retractor belts from the front wheelchair.
 - ⇒ Detach the retractors from the inner fittings and remove them.
 - ⇒ Switch the motor of an electrically driven wheelchair ON.
-

WARNING!

Risk of injury through a wheelchair rolling backwards out of control.

The floor section and the ramp form a slope via which the wheelchair can roll down out of control. The passenger in the wheelchair can be severely injured. Material damage can be caused.

Therefore:

- Stand behind the front wheelchair to prevent it from rolling backwards.
 - Only then operate the rocker switch such that the indicator lamp in the rocker switch lights up.
-



- ⇒ Take up a position behind the front wheelchair so that you can stop the wheelchair safely if it rolls backwards.
- ⇒ Release the front wheelchair parking brake.
- ⇒ Operate the rocker switch such that the indicator lamp in the rocker switch lights up (see Figure 7).
- ⇒ Accompany the front passenger out of the vehicle.
- ⇒ Detach the electrically-operated belts from the front wheelchair.
- ⇒ Allow the electrically operated belts to retract.
- ⇒ Operate the rocker switch such that the indicator lamp in the rocker switch goes out.
- ⇒ Pull the ramp up to the vertical position (see Section 5.5).
- ⇒ Close the tailgate.

5.5 Folding the Ramp Up

CAUTION!

Risk of crushing when lifting the ramp to the vertical position.

When lifting the ramp to the vertical position, there is a risk of hands or fingers being crushed between the ramp and the frame (rear bumper).

Therefore:

- Use the operating straps.
- Do not reach into the gap between the ramp and the frame.



- ⇒ Raise the ramp with the aid of the side operating strap (see Figure 29).
- ⇒ For the ramp extension option: Push the ramp extension fully in using the “ramp extension” grip.
- ⇒ Fold the access ramp up until it audibly engages in the vertical position.



Figure 29: Folding the Ramp Up



5.6 EasyFlex: Fully Stowing the Ramp

With the access ramp fully folded away and the rear seats in their original position, the vehicle can be used as a standard vehicle (see Figure 30).



Figure 30: Ramp Fully Stowed (only EasyFlex)

- ⇒ Take hold of the ramp's center operating strap.
- ⇒ Pull operating lever upwards (see Figure 31).



Figure 31: Unlatching the Ramp

CAUTION!

Risk of injury and danger of material damage when stowing the ramp fully in the vehicle.

When folding the ramp to the horizontal position, there is a risk of being crushed between the access ramp and the floor section. The access ramp can be damaged.

Therefore:

- Use the operating straps.
- Keep a firm hold of the ramp until it is fully in contact with the floor section.
- Do not reach into the gap between access ramp and floor section.



⇒ Use the center operating strap to fold the ramp down slowly, until it comes to rest on the stoppers at the sides of the floor section (see Figure 32).



Figure 32: Stowing the Ramp

The ramp rests on both sides of the floor section and can be used as a normal luggage compartment floor (see Figure 30).

ATTENTION!

The ramp can suffer damage if it is overloaded.

Therefore:

- Do not stand on the stowed access ramp.
 - Do not place a load of more than 250 lbs. on the stowed access ramp.
-



5.7 Deploying the Seat

Open the side door fully.

Position yourself outside of the vehicle adjacent to the seat (Figure 33).



Figure 33

Support seat with one hand and grasp release strap at the base of the seat (Figure 34) with the other. Alternatively, support the seat with one hand and grasp the lever at the top of the seat (Figure 35) with the other. Either method can be used to release the seat.



Figure 34



Figure 35

Pull release strap at the base of the seat (or lift the lever at the top of the seat) and slowly lower seat. Push seat down until it locks in place (Figure 36).

Grasp seat back and lift until seat back locks in its upright position. Adjust recline using the lever on the side of the seat base (Figure 37).



Figure 36



Figure 37

5.8 Stowing the Seat

- ⇒ Open the side door fully.
- ⇒ Position yourself outside of the vehicle adjacent to the seat.
- ⇒ Support seat back with one hand and grasp recliner lever (Figure 37) on the side of the seat base.
- ⇒ Lower the seat back slowly until it rests on the seat base.
- ⇒ Grasp release strap at the base of the seat with one hand and the far side of the seat base with the other hand. Alternatively, grasp the lever at the top of the seat (Figure 36) with one hand and the far side of the seat with the other. Either method can be used to release the seat.
- ⇒ Pull release strap at the base of the seat (or lift the lever at the top of the seat) and slowly lift seat. Pull seat toward you until the seat locks in place.



TROUBLESHOOTING!

If strap or lever do not release seat, press down on deployed seat or pull stowed seat toward you to release pressure and try again.



5.9 Vehicle Fuel Gauge



NOTE

During installation of the Easy or EasyFlex ramp, the original fuel tank has been replaced by an aftermarket fuel tank. The position of the original fuel tank has been changed.

A precise indication of the fuel level is no longer possible and will vary from OEM fuel systems.

Therefore:

- Make use of the trip meter in order to estimate the contents of the tank when driving and refuel prior to gauge reaching 1/8 of a tank (2–3 gallons remaining).
-

6 Maintenance and Repair



Refer to the manufacturer's Operating Instructions and service documents for information regarding the fundamental maintenance of the basic vehicle.

Deviations from these are described in Section 6.2.3.



6.1 Safety Regulations for Maintenance and Repair

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



WARNING!

Risk of injury through missing safety devices.

If safety devices are removed, they can no longer fulfil their function.

Therefore:

- Always make certain that safety devices are refitted if they have been removed (e.g. for maintenance or repair purposes).
-



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.
 - If repair work has been carried out on load bearing parts, this must be inspected by a technical expert.
-



WARNING!

Personal injury and material damage can be caused by using inferior quality spare parts.

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 only be carried out by a specialist (see Chapter 10).

6.2.1 Maintenance schedule

Interval	Activity	Refer to
Daily	Functionally test the electrically operated belts.	Section 6.3
	Carry out a visual inspection for damage and deficiencies. Initiate repairs if necessary.	
Yearly	For communal or commercial use: Have the access ramp inspected by a technical expert.	Section 6.4
As required	Clean the access ramp.	

6.2.2 Maintenance records

Enter maintenance and repair work that has been carried out into the maintenance record provided for this purpose (see Section 6.5).

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.

6.2.3 Maintenance and repair

Some maintenance and repair work may be carried out differently than specified by the manufacturer due to the wheelchair accessibility conversion.

Follow OEM maintenance and repair recommendations and contact Drivege customer service for support.



6.3 Functionally Testing the Electrically-Operated Belts

- ⇒ Fold the access ramp up to the vertical position, until the spring-loaded locking bolts audibly engage.
- ⇒ Operate the rocker switch several times (see Figure 7). Observe whether the indicator lamp in the red rocker switch lights up when doing so.
- ⇒ Fold the access ramp out until it rests on the ground.

CAUTION!

Risk of injury and danger of material damage when deploying the ramp.

There is a risk of injuries to the legs and feet if the ramp is allowed to fall to the ground out of control. The ramp can be damaged.

Therefore:

- Use the operating straps.
- keep hold of the ramp until it is fully in contact with the ground.
- Allow the ramp to deploy slowly.



-
- ⇒ Operate the rocker switch such that the indicator lamp in the rocker switch goes out.
 - ⇒ Try to pull the electrically-operated belts out.
 - ⇒ Operate the rocker switch again such that the indicator lamp lights up.
 - ⇒ Try again to pull the electrically-operated belts out.

The indicator lamp in the rocker switch must only light up when the ramp is deployed. The electrically operated belts must only be able to be pulled out when the access ramp is deployed and the indicator lamp in the rocker switch is lit.

If this is not the case:

- ⇒ Do not use the access ramp and have the access ramp's electrical system checked.



6.4 Yearly Inspection

The yearly inspection by a technical expert is basically a visual inspection and functional test. It extends to:

- the condition of all components and devices,
- an inspection for modifications that have been made to the access ramp,
- the completeness and effectiveness of protective and safety devices and
- the completeness of the inspection log.



For detailed information regarding the yearly inspection by a technical expert: see Chapter 8, "Inspection Log Book".



7 Faults and Troubleshooting



WARNING!

Risk of severe 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 access ramp, 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.



For fundamental information regarding faults on the basic vehicle, refer to the vehicle operating instructions.

7.1 Troubleshooting Table

Fault	Possible Cause	Remedial measures
The ramp does not deploy or stow correctly.	Foreign objects blocking the latching mechanisms.	Inspect the latching mechanisms and remove foreign objects, clean the latching mechanisms if necessary.
	A spring-loaded latch is defective.	Check the spring-loaded latches and replace if necessary.
	One or more of the gas-operated struts is defective.	Check the gas-operated struts and replace if necessary.
	The access ramp mechanism is misaligned.	Have the access ramp mechanism re-aligned.
The access ramp rattles when the vehicle is in motion.	The access ramp has excessive play.	Adjust the access ramp's play.
The electrically operated belts cannot be pulled out.	The rocker switch is defective.	Have a new rocker switch fitted.
	The fuse has blown.	Replace the fuse in the vicinity of the battery.
	The electrically operated belts are defective.	Have the electrically operated belts replaced.



7.2 Adjusting the Access Ramp's Play

Driveerge recommends having the ramp's play adjusted by a specialist company.

The access ramp can show signs of play when in the vertical position. This causes the access ramp to rattle when the vehicle is in motion. Adjusting screws are provided at both sides of the access ramp for adjusting the play.

Figure shows the adjusting screws with which the access ramp's play can be adjusted. Adjuster screws are available both sides of the access ramp.



Figure 38: Adjusting Screws (1)

The inner screws (on the left in Figure 38) are used to adjust the play of the ramp that can be folded down inside the vehicle. The inner screws are only available on an EasyFlex ramp.

If the locking bolt is difficult to close, there is too little play. If the access ramp is loose when in the vertical position or rattles when the vehicle is in motion, there is too much play.

To adjust the access ramp's play:

- ⇒ Remove the black protective caps from the adjuster screws.
- ⇒ Loosen the locking nuts (see Figure 39).



Figure 39: Adjusting Screws (2)

⇒ Turn the adjuster screw in to reduce the amount of play.

Or:

⇒ Turn the adjuster screw out to increase the amount of play.

⇒ Tighten the locking nut once again.

⇒ Check the access ramp's play once again.

⇒ Repeat the procedure as often as necessary.

⇒ Replace the black protective caps.

8 Inspection Log

Before using the access ramp for the first time, it must be inspected by a technical expert.

If the access ramp is used commercially or as a public utility, this inspection must be repeated at intervals of not more than one year.

During inspection, faults affecting the safety should be systematically identified and remedial action taken.

The items to be inspected are listed in the inspection list (see Section 8.2).



A technical expert is someone who, by virtue of their technical training and experience, has sufficient knowledge in the field of access ramps for vehicles equipped for disabled persons and is sufficiently familiar with the relevant national occupational health and safety regulations, accident prevention regulations and recognized rules of sound engineering that they are able to assess the safe working condition of such access ramps for disabled vehicles.



8.1 Inspection Log Master Data Sheet

Master Data Sheet for Easy Ramp and EasyFlex Ramp

Serial No. /Type*

Owner

.....

.....

Year built

Commissioned on

* see rating plate

8.2 Inspection List

For a routine, yearly inspection by a technical expert (see information on previous page).

Mechanical parts	
Fixtures on the vehicle	All securing points in / on the vehicle are in a perfect, tight condition
Connecting elements	All bolts and screwed connections are in a perfect, tight condition
General	Functional test and visual inspection of the condition of the entire access ramp
Electrical system	
Rocker switch	Functional check



Electrically Operated Belts	Functional check
-----------------------------	------------------

8.3 Inspection Results

Results of the inspection prior to commissioning

To be observed if installed by a third-party company

Installation inspection for

Serial No. /Type*

Installation has been carried out correctly!

Place, date

.....
Installation company / Company stamp

.....
Technical expert / Signature

* see rating plate



Inspection result of a yearly inspection

Serial No. /Type*

Sheet No.

The access ramp was subject to a routine inspection on

No / the following defects were found:

.....
.....
.....

There are no issues to preclude continued operation.

Place, date

.....
Company / Company stamp

.....
Signature (technical expert)

All defects have been remedied.

Confirmation by the owner or his representative with date and signature

.....
Place / date

.....
Signature (owner)

* see rating plate



Inspection result of a yearly inspection

Serial No. /Type*

Sheet No.

The access ramp was subject to a routine inspection on

No / the following defects were found:

.....
.....
.....
.....

There are no issues to preclude continued operation.

Place, date

.....
Company / Company stamp

.....
Signature (technical expert)

All defects have been remedied.

Confirmation by the owner or his representative with date and signature

.....
Place / date

.....
Signature (owner)

* see rating plate



Inspection result of a yearly inspection

Serial No. /Type*

Sheet No.

The access ramp was subject to a routine inspection on

No / the following defects were found:

.....
.....
.....
.....

There are no issues to preclude continued operation.

Place, date

.....
Company / Company stamp

.....
Signature (technical expert)

All defects have been remedied.

Confirmation by the owner or his representative with date and signature

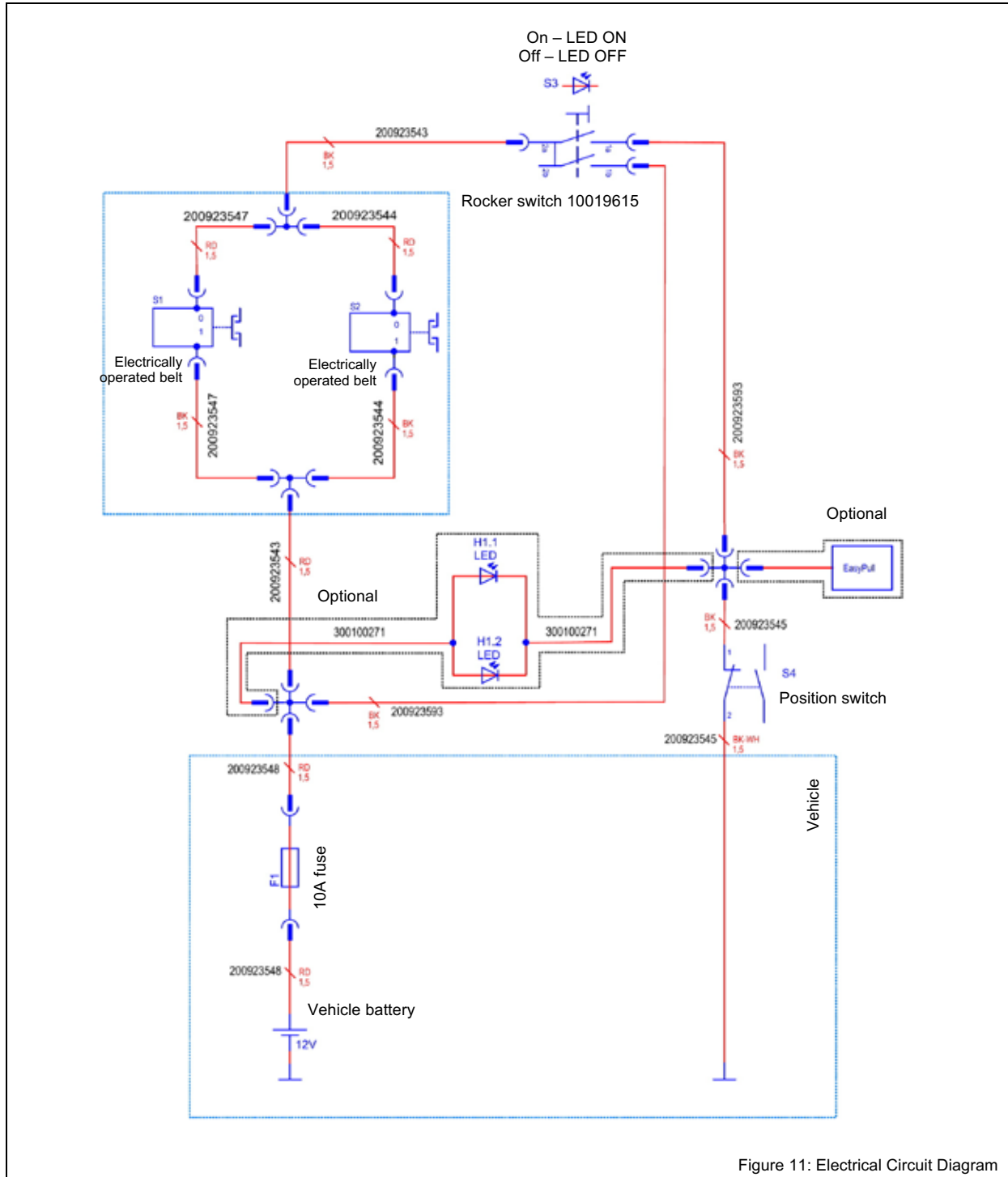
.....
Place / date

.....
Signature (owner)

* see rating plate



9 Electrical Circuit Diagram



Colour	Abbreviation (acc. to IEC 60757)
Black	BK
Black-White	BK-WH
Red	RD



10 Customer Service

The Drivege 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.

Drivege Vehicle Innovations
4199 Kinross Lakes Parkway, Suite 300
Richfield, OH 44286
www.drivege.com/contact/
855-337-9543



NOTE

Warranty work on the access ramp must only be carried out with the prior agreement of Drivege.

The costs of such work will not be accepted by Drivege without prior agreement.



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