

**BRAUN**



**CONSUMER**

**InFloor Ramp**

**RAMPVAN®**

**Wheelchair-Accessible  
Lowered Floor Conversion  
featuring 2005**

**DaimlerChrysler Minivans**

**THE BRAUN  
CORPORATION®**

**"Providing Access to the World"®**

International Corporate Hdqrs: P.O. Box 310 Winamac, IN 46996 USA  
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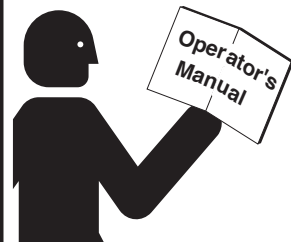


**32287 Rev B  
January 2008**

**Patent #6,825,628 B2**

# Operator's Manual

**! WARNING**



**Read manual  
before operating.  
Failure to do  
so may result in  
serious bodily  
injury and/or  
property damage.  
Keep manual in  
Rampvan.**

**InFloor Rampvan® featuring  
DaimlerChrysler Minivans**

## **Congratulations**

We at The Braun Corporation wish to express our fullest appreciation on your new purchase. With you in mind, our skilled craftsmen have designed and assembled the finest lowered floor vehicle available.

This manual includes safety precautions, operating instructions, manual operating instructions, and instructions for maintenance and lubrication procedures.

Your Rampvan® is built for dependability, and will bring you years of pleasure and independence, as long as the maintenance is performed regularly and the Rampvan® is operated by an instructed person.

Sincerely,

THE BRAUN CORPORATION

A handwritten signature in black ink that reads "Ralph W. Braun". The signature is written in a cursive, flowing style.

Ralph W. Braun  
Chief Executive Officer

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## WARRANTY AND REGISTRATION INSTRUCTIONS

Examine your Rampvan® for any damage. Should any damage have occurred during delivery, notify the carrier at once with any claims.

The warranty/registration card shown here is supplied with each Rampvan®. Review the delivery checklist and fill out the warranty registration information with your sales representative and mail it to The Braun Corporation.

A detailed Warranty section is provided within this manual. The **warranty card must be processed to activate the warranty.**

Record the last eight digits of the vehicle identification number (VIN) in the space provided for future reference. **This information must be provided when filing a warranty claim or ordering parts.**



**Note:** Attached to glove box door.

Two forms are shown. The top form is the 'DELIVERY CHECKLIST' with fields for Customer Name, VIN, Delivery Date, Dealer Name, and Dealer Sales Consultant. It contains several sections of checkboxes for pre-delivery, delivery, exhibit, and installation checks. The bottom form is the 'WARRANTY REGISTRATION' form, which includes Dealer Information (Name, City, State, Date of Purchase) and Owner Information (Name, Address, City, State, Zip, Telephone, Email). It also has a section for VIN and a note about returning the registration card to activate the warranty.

Vehicle Identification (VIN) Number \_\_\_\_\_

The Braun Rampvan® InFloor conversion is designed to provide years of pleasure and mobility independence. Familiarity with proper operation and maintenance procedures will help ensure safe, trouble free operation.

The Braun Corporation encourages wheelchair passengers and their attendant(s) to review the material contained in this manual with your Braun sales representative, **before attempting operation**. Any questions or concerns can be answered by your sales representative at that time.

This manual addresses Rampvan® standard features and options. Refer to the instructions applicable for your package, and disregard the information that does not apply. Contact The Braun Corporation at 1-800-THE LIFT® if any of this information is not understood.

Store this manual in the vehicle along with your DaimlerChrysler owner's manual.

If you experience an operation problem or there is any sign of wear, damage, or other abnormal condition, contact your sales repre-

sentative or call The Braun Corporation at 1-800-THE LIFT®. One of our national Product Support representatives will direct you to a Braun authorized service center.

## RAMPVAN OPERATION QUICK REFERENCE GUIDE

### Rampvan Operation Overview

This overview provides a simplified explanation of Rampvan operation. Read the entire owner's (operator's) manual for complete details. Contact The Braun Corporation at 1-800-THE LIFT® if any of this information is not understood.

### Power Operation

Rampvan power functions are managed by the One-Touch electronic control system. The control system can be activated using the Chrysler remote keyless entry transmitter located on the key, any one of the interior-mounted control switches or the magnetic entry.



Chrysler  
Remote  
Keyless  
Entry  
Transmitter

Press and  
release this  
switch two  
(2) times.

Control switches display the slide door graphic.



### One-Touch Control Activation

Rampvan power door, ramp and kneel functions are activated by **pressing and releasing** any control switch (press and release remote entry transmitter button twice).

**Open Functions:** When activating the Open functions, the power door opens, the kneel system lowers the rear of the vehicle and the ramp deploys.

**Close Functions:** When activating the Close functions, the ramp stows, the kneel system raises the rear of the vehicle and the power door closes.

### Manual Operation

In event of power or equipment failure, the door, ramp and kneel system can be manually operated. Read this manual for further details.

**Operating Your New Rampvan Couldn't Be Simpler . . .**

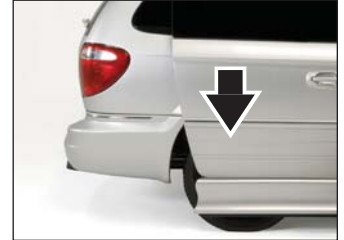


**1** Just press any one of the buttons like the one pictured above (press the key transmitter twice). . .

**2** And the sliding door opens



**3** The rear suspension lowers



**4** The ramp deploys



Allowing easy entrance!

## FEATURES

### **One-Touch Electronic Control System:**

The Rampvan One-Touch electronic control system provides simple one-touch activation of all Rampvan power features. For your convenience, the control system can be activated using the Chrysler remote keyless entry transmitter located on the key, interior-mounted control switches or the magnetic entry.

### **Power Passenger Side Sliding Door:**

The One-Touch electronic control system activates the passenger side power slide door for ramp access. The slide door and lowered floor configuration provides a 52 3/4" clear vertical passageway. **Note:** The driver side sliding door is lowered to provide a clear passage also.

**Ramp:** A fully automatic power in-floor 30" wide ramp provides an unobstructed doorway, maximum visibility and increased interior space (with manual override capability).

**Lowered Floor:** To put wheelchair passengers at a comfortable level, the Rampvan floor is lowered 9-3/4". The lowered floor reduces the ramp angle when deployed. Color coordinated interior carpeting and accents are featured throughout the lowered floor area. **Ground Clearance:** The lowered floor results in reduced ground clearance. Be aware of limited ground clearance.

**Power Kneel System:** Lowering the floor can only decrease the ramp angle so much. To further re-

duce the slope of the ramp, making access easier and safer, the power kneel system compresses the passenger-side suspension of the vehicle to shave precious degrees from the ramp angle.

**Ground Effects:** Exterior color-matched ground effect panels conceal the lowered floor and lowered sliding doors.

**Floor Track for Wheelchair and Occupant Securement in Midpoint Lowered Floor Area:** Floor track provided in the midpoint lowered floor area (Position **C**) can be utilized for restraint of wheelchair passenger(s). Wheelchair capacity at midpoint may have limitations based on the dimensions of specific wheelchairs.

**Forward-Facing Wheelchair and Occupant Belt/Track System:**

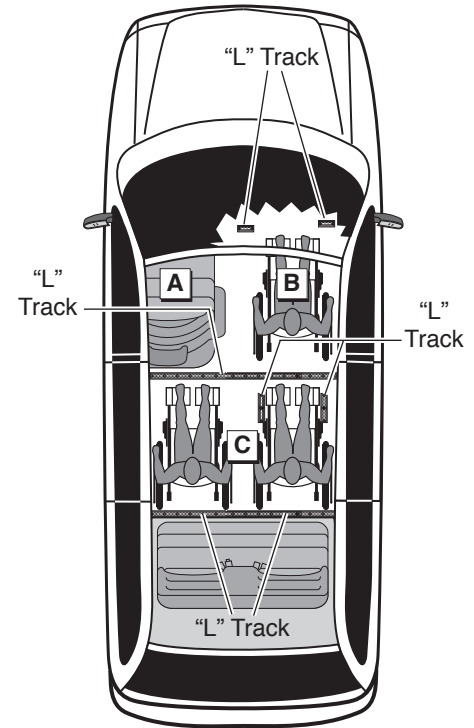
One Forward-Facing Wheelchair and Occupant Belt Kit is supplied for the restraint of one wheelchair and occupant. The belt kit is used in conjunction with the floor track.

**Note:** Additional belt kits can be purchased (option).

**Quick-Release Front Passenger Seat with Floor Track for Wheelchair and Occupant**

**Securement:** The passenger seat (Position **B**) is equipped with “step & roll” quick-release seat base attachments (making seat removal and installation procedures simple). The seat can be removed and the seat location can be utilized by a wheelchair occupant (floor track provided).

**Driver Seat:** For the wheelchair occupant who chooses to drive the Rampvan<sup>®</sup>, this seat (Position **A**) can be removed and adaptive driving systems custom tailored for the individual can be purchased from and installed by your local mobility dealer. The driver’s seat is equipped with “step & roll” quick-release seat base attachments. 56-1/4" floor-to-ceiling headroom is provided at both front seating positions.



Available Wheelchair Positions

## SAFETY PRECAUTIONS

### Safety Symbols

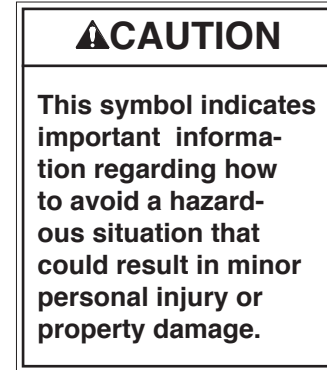
#### SAFETY FIRST! Know That....

**A** All information contained in this manual and supplements (if included), is provided for your safety. Familiarity with proper operation instructions as well as proper maintenance procedures are necessary to ensure safe, trouble free operation. Safety precautions are provided to identify potentially hazardous situations and provide instruction on how to avoid them.

**B**



**C**



**D** **Note:** Additional information provided to help clarify or detail a specific subject.

These symbols will appear throughout this manual and may appear on labels posted on your Rampvan.  
**Recognize the seriousness of this information.**

Whenever parking your Rampvan and before utilizing Rampvan features, always engage the vehicle transmission in Park “P” and engage the vehicle parking brake. The vehicle transmission **must** be engaged in Park “P,” before operating the Rampvan automatic features. Rampvan power function control switches cannot be activated if the vehicle transmission is not in Park.

### Terminology

“Kneeling” is the lowering motion of the Rampvan electromechanical rear suspension. The term “Deploy” indicates the extending (outward) motion of the ramp to the deployed position. “Stow” is the retracting (inward) motion of the ramp to the (stowed) infloor position.

The terms “Open” and “Close” refer to sequences of power functions that will occur when activated by the One-Touch electronic control system. When activating the Open functions, the power door opens, the kneel system lowers the rear of the vehicle and the ramp deploys. When activating Close functions, the ramp stows, the kneel system raises the rear of the vehicle and the power door closes.

### One-Touch Control System

Rampvan power functions are managed by the One-Touch electronic control system. The control system can be activated using any of the controls addressed on pages 10-12.

**Do not** attempt to interface after-market control systems.

### Braun Corporation Aftermarket Control Systems Policy:

The Braun Corporation manufactures dedicated control systems for its products. These control systems have been designed and tested for use in conjunction with specific Braun products. Braun control systems are the **only** control systems authorized for use with Braun products.

**Do not** attempt to interface after-market control systems without authorization from The Braun Corporation. **To do so may result in serious bodily injury and/or property damage.**

### Control Switches

For your convenience, the Rampvan One-Touch electronic control system can be activated using the Chrysler remote keyless entry transmitter, any of the interior-mounted control switches or the magnetic entry (details on pages 10 through 12).

### One-Touch Control Activation

Rampvan power door, ramp and kneel functions are activated by **pressing and releasing** any interior mounted control switch displaying the slide door graphic. To activate functions using the remote keyless entry transmitter, **press and release** the button **twice** (within five seconds).

### Remote Keyless Entry Transmitter

Using the Chrysler remote entry transmitter eliminates the need for an additional remote control.



Chrysler  
Remote  
Keyless  
Entry  
Transmitter

**Press and release** this switch two (2) times.

**Remote and Console Switches:** Press switch displaying this



slide door graphic.

**Center Console Switches**

For front seat passengers, switches are located on both sides of the center console.



Press and release either switch.

**Center Console Switches:** Press and release switch displaying slide door graphic.



**Overhead Console Switches**

For front seat passengers, a control switch is located in the overhead console.

Overhead Console

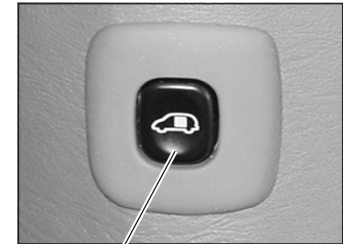


Press and release this switch.



**B-Pillar Switch**

A switch is located on the wall panel ahead of the passenger side slide door (B-pillar).



Press and release this switch.

**B-Pillar Switch:** Press and release switch displaying slide door graphic.



## OPERATION

### Magnetic Entry

A magnetic switch is built into the rear passenger side taillight assembly. The switch is labeled Open/Close. A keychain-style magnet is supplied for switch activation, see photo below. Simply align the magnet tip with the switch target (identified with decal 28013), and Rampvan power door, ramp and kneel functions will be activated.

Align Tip with  
Magnetic Switch



Passenger Side Taillight Assembly

Keychain Magnet



Magnet Tip

### Kneel On/Off Switch

The Kneel On/Off switch is located on the driver side of the center console. The Kneel On/Off switch turns the kneel system on and off **only**. The kneel switch must be in the ON position in order for the kneeling system to be activated.

**ON:** Press this switch to ON to activate kneel feature.



**OFF:** Press this switch to OFF to disable kneel feature.

## Ramp Access Power Sliding Door

The passenger side power sliding door may be opened using the Rampvan One-Touch Control System or it may be opened manually. Press and release the remote keyless entry transmitter or any one of the interior-mounted control switches to activate the door. When a control switch is pressed, the door will open and the Open sequence of functions will continue.

If a control switch is pressed and released while the door is opening, the door will open fully and stop, but the ramp will not deploy. Press the switch again and the door will close.

Once the Open sequence of functions is complete (door is

fully open and ramp is deployed), press and release a control switch to close the door. The door will close after the ramp stows (retracts) and the vehicle raises, completing the Close sequence of functions.

If a control switch is pressed while the door is closing, the door will reverse direction. The door opens fully and stops. Press a switch and the door closes. Press a control switch again to start Open functions.

If the slide door outside handle is pulled or the interior handle latch button is pushed while the door is opening or closing, the door stops. Press a control switch again and the door opens fully and stops. Press a switch again and door closes.

**Power Door Safety Sensor:** If the power door is obstructed while opening or closing, the door will reverse direction, provided it meets sufficient resistance. If the door encounters an obstruction while opening, the door reverses direction (closes). Ten beeps will sound to indicate an obstruction. If an obstruction is encountered while the door is closing, the door opens fully and stops. Press a switch again and the door closes.

Keep clear of the area in which the power door operates. Ensure door travel path is clear. Personal injury or property damage may occur during power door operation. Be sure the door is fully closed and latched before driving.

### **WARNING**

**Keep clear of area in which power door operates. Failure to do so may result in bodily injury and/or property damage.**

### **Power Door Manual Operation**

In event of power or equipment failure, unlock the passenger side sliding door. Open the slide door from inside or outside using the OEM door handles.

**Note:** Using excessive force or speed when opening or closing the door may cause damage to the vehicle and may cause the door to dislodge from its roller tracks.

### **Ramp Access Non-Power Sliding Door**

A non-powered passenger side slide door is available as an option.

#### **Opening the Non-Power Slide Door:**

Unlock the slide door. Grip the exterior or interior door handle and pull at a moderate speed toward the rear of the vehicle.

**Note:** When the door is fully open, a built-in holding mechanism will prevent the door from rolling forward.

#### **Closing the Non-Power Slide Door:**

Grip the exterior or interior door handle and pull the door forward at a moder-

ate speed. The door will be fully closed when its rear edge is flush with the vehicle body panel. Lock the door to prevent accidental opening.

**Note:** When using a non-power door in conjunction with a powered ramp, the door must be fully open before the ramp will operate.

**Note:** Using excessive force or speed when opening or closing the door may cause damage to the vehicle and may cause the door to dislodge from its roller tracks.

## Automatic Kneel System

Kneeling is the lowering motion of the Rampvan electromechanical rear suspension. The kneel system lowers the rear of the vehicle. Lowering the rear of the vehicle reduces the slope of the ramp.

**ON:** Press this switch to ON to activate kneel feature.



**OFF:** Press this switch to OFF to disable kneel feature.

**Kneel On/Off Feature:** A Kneel On/Off feature is incorporated into the One-Touch electronic control system. This feature provides the **option** of kneeling the vehicle when operating the power door and power ramp. The kneel On/Off switch must be in the ON position in order for the kneeling system to be activated (switch photo at left).

The kneel system is automatically activated by the One-Touch electronic control system. When a control switch is pressed to start the Open functions, the power door opens, the kneel system lowers the rear of the vehicle and the ramp deploys.

When the Close functions are activated, the vehicle starts to raise at the same time the ramp starts to stow (retract).

**Note:** If the Rampvan is in the kneeled position and the vehicle is shifted out of Park, the vehicle will raise.

**Note:** If the Rampvan is in the kneeled position and the Close functions are activated, the vehicle will raise whether the Kneel On/Off switch is On or Off.

### Kneel Mechanical Override Feature

In the event the Rampvan is in the kneeled position and you experience power or equipment failure, a mechanical override is available to raise the rear of the vehicle. The vehicle cannot be lowered using the override feature.

**Do not** drive your Rampvan with the rear of the vehicle in the lowered position. Attempting to do so will result in an extremely rough and unstable ride.

In the event of a kneel system failure, have the kneel system repaired immediately. Contact your sales representative or call The Braun Corporation at 1-800-THE LIFT®. One of our national Product Support representatives will direct you to an authorized service center.

In the event the Rampvan is in the kneeled position and you experience a kneel system failure follow the Kneel Mechanical Override procedures outlined here.

**Note:** Although the Mechanical Override feature is available to raise the rear vehicle, mechanical (manual) procedures **cannot be accomplished rapidly**. Avoid driving the Rampvan and have the kneel system repaired immediately.

The kneel actuator assembly is located under the third row seat (driver side). A metal cover protects the kneel assembly. The motor end of the electric actuator is visible in the access hole provided in the floor-mounted cover. Use the wrench stored under the seat to turn the release nut (release kneel system). Turn the wrench as shown (toward front of vehicle). See page 17.

Ensure the Kneel On/Off switch is Off until a service technician checks the suspension system.

**Kneel Override Operation**

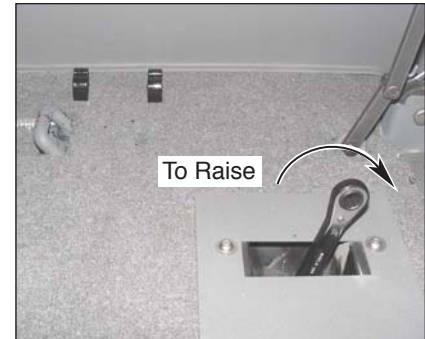
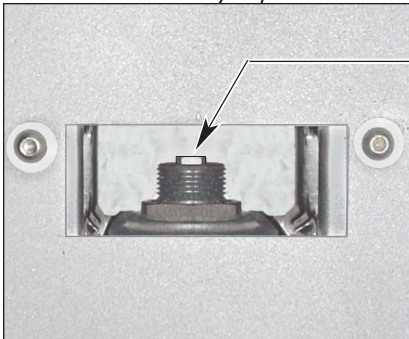
Kneel System  
Ratcheting Wrench ▶

◀ Under Driver Side  
Third Row Seat



Actuator Motor  
Release Nut

Override  
Operation ▶



### Power Ramp

**Power Ramp Operation:** The power ramp is activated by the One-Touch electronic control system. When a control switch is pressed to start the Open functions, the power door opens. Once the door reaches the fully open position, there is a slight delay before the ramp begins to extend (deploy).

When the Close functions are activated, the ramp stows (retracts) immediately.

If a control switch is pressed and released while the ramp is deploying, the ramp motor will stop running. Press a switch again and the ramp will stow and the door will close.

Once the Open sequence of functions is complete (door is fully open

and ramp is deployed), press and release a control switch to stow the ramp. If a control switch is pressed while the ramp is stowing, the ramp will reverse direction (extends fully and stops). Press a control switch again and the ramp will stow and the door will close.

**Note:** If the center console Kneel On/Off switch is in the ON position, the rear of the vehicle will descend as the ramp is extending. Inversely, the vehicle will raise when the ramp is retracting.

**Obstruction Sensing:** If the power ramp is obstructed while deploying (extending), the ramp will reverse direction and retract fully (provided the ramp meets sufficient resistance). Twenty

half second beeps will sound to indicate an obstruction. Press a control switch again and the door closes.

Allow the power ramp to extend and lower fully before boarding the ramp. Forcing the ramp out or down during the deploy/stow functions, or boarding onto the ramp before it is fully deployed **may result in damage** to the ramp, the electronic controller and/or motor assembly.

### **CAUTION**

**Allow ramp to deploy fully before boarding. Failure to do so may result in damage.**

**Curb Loading:** Do not attempt to deploy (extend) the ramp into the face of a curb (raised surface).

**Power Ramp Safety:** Be certain there is adequate clearance outside the Rampvan before deploying the power ramp.

Keep clear of area in which the ramp operates. Be certain no person or obstruction is within the path of the ramp when deploying or stowing the ramp. Keep clear of all power ramp moving parts. Do not attempt to grip or hold the ramp during operation. Be certain the ramp passenger is off the ramp before attempting to stow the ramp.

**Do not** exceed the maximum weight capacity of the ramp - 750 pounds.



## OPERATION

### Power Ramp Manual Operation

If you experience power or equipment failure, the power ramp can be manually deployed and stowed. Manual operation procedures **should be performed by an assistant**. A power ramp can be deployed (extended) from inside or outside the Rampvan (**manual**

**deployment from outside the vehicle is recommended**). A power ramp can only be stowed (retracted) from outside.

When manually deploying or retracting a power ramp, the yellow Manual Release Lever must

be in the Disengaged position. The Manual Release Lever is located on the passenger side C-pillar (rear of slide door). See photo below. The Manual Release Lever must be returned to the Engaged position following manual operation procedures. The ramp cannot be activated with the electronic control system if the lever is not in the Engaged position.

**Note:** The power ramp can be manually deployed and stowed without disengaging the Manual Release Lever, but increased resistance from the ramp motor makes it extremely difficult.



Manual Release Lever



Passenger Side C-pillar



Manual Ramp Operation



Keep body parts and obstructions clear of the area in which the ramp operates.

### **Manually Extending a Power Ramp from Outside:**

Open the slide door fully. Move the yellow Manual Release Lever to the Disengaged position.

**Carefully** grip the end of the ramp and pull the ramp straight out (raise the ramp so that it is parallel to the vehicle floor). Grip the center of the ramp (hand hold slot) or use both hands (grip ramp equal distance from center), to avoid binding the ramp.

### **Manually Retracting a Power Ramp from Outside:**

Open the slide door fully. Move the yellow Manual Release Lever to the Disengaged position.

**Carefully** grip the end of the ramp and lift the ramp so that it is parallel to the vehicle floor. **Carefully** push the ramp straight into the cassette. Grip the center of the ramp (hand hold slot) or use both hands (grip ramp equal distance from center), to avoid binding the ramp.

**Caution:** Keep hands clear of the ramp enclosure when manually stowing (retracting) the ramp.

Move the yellow Manual Release Lever to the Engaged position.

## OPERATION

### Manually Extending a Power Ramp from Inside:

**Note:** A power ramp can be deployed (extended) from inside the Rampvan but **manual deployment from outside the vehicle is recommended**. Have an assistant deploy the ramp from outside the vehicle if possible (refer to

**Manually Extending a Power Ramp from Outside** on page 21). Follow the procedures outlined here if deploying the ramp from inside the van is necessary.

Open the slide door fully. Move the yellow Manual Release Lever to the Disengaged position. The Manual Release Lever is located

on the passenger side C-pillar (rear of slide door).

Remove the cap from the manual deploy crank handle stud (see Photo F). Locate the manual crank handle on the floor next to the passenger side rear seat. Slide the crank handle onto the crank handle stud. Turn the crank handle clockwise to deploy the ramp. Extend the ramp fully (until ramp is resting on ground). Remove the crank handle.

**Note:** Do not attempt to stow (retract) the ramp by turning the handle counterclockwise. The ramp can only be retracted from outside the vehicle. See **Manually Retracting a Power Ramp from Outside** on page 21).

Crank Handle Stud



Passenger Side C-pillar



Manual Crank Handle

## Non-Power Ramp

### Extending a Manual Ramp:

Open the slide door fully.

**Carefully** grip the end of the ramp and pull the ramp straight out

(raise the ramp so that it is parallel to the vehicle floor). Grip the center of the ramp (hand hold slot) or use both hands (grip ramp equal distance from center), to avoid binding the ramp.

### Retracting a Manual Ramp:

Open the slide door fully.

**Carefully** grip the end of the ramp and lift the ramp so that it is parallel to the vehicle floor. **Carefully** push the ramp straight into the cassette. Grip the center of the ramp (hand hold slot) or use both hands (grip ramp equal distance from center), to avoid binding the ramp.

**Caution:** Keep hands clear of the ramp enclosure when manually stowing (retracting) the ramp.



Keep body parts and obstructions clear of the area in which the ramp operates.



Manual Ramp Operation

### Ramp Safety

Wheelchair passengers and attendants (when applicable), must use basic common sense and good judgment regarding ramp safety. Each wheelchair passenger has a unique set of physical abilities combined with the physical characteristics of his or her wheelchair that dictate the method in which he or she will enter and exit the Rampvan. Consequently, the procedures for safe operation outlined in this manual are general in nature. Wheelchair attendants should be instructed on any special needs and/or procedures required for safe transport of wheelchair passengers.

Follow all safety instructions regarding torso restraints, stability, balance, weight distribution and use of attendants as specified in the owner's manual supplied with **your** wheelchair. Determine, establish and practice ramp boarding and exiting procedures under the direction of your health care professional, your wheelchair representative, and your Rampvan sales representative to **ensure your ability to do so safely.**

Never board a Rampvan ramp if you or your attendant are intoxicated. The wheelchair should be positioned in the center of the ramp at all times. You must be able to clearly view the ramp whenever boarding and exiting the vehicle. The wheelchair passenger and/or attendant must ensure the ramp is fully deployed before exiting the vehicle.

**It is the responsibility of the wheelchair operator to enter and exit the Rampvan on the ramp in the safest manner.**

**Wheelchair-Equipped Occupant Seat Belts:** Wheelchair passengers should position and buckle their wheel-

#### **WARNING**

**Position and fasten the wheelchair-equipped occupant seat belt before loading onto the wheelchair ramp. Failure to do so may result in serious bodily injury and/or property damage.**

chair-equipped seat belt (torso restraint), as specified by the manufacturer, **before** loading onto a wheelchair ramp.

Different types of disabilities require different types of wheelchairs and different types of wheelchair-equipped occupant restraint belt systems (torso restraint). It is the responsibility of the wheelchair passenger to have his or her wheelchair equipped with an occupant restraint (seat belt) under the direction of their health care professional.

**Stabilizing Wheelchairs:** Powered and manual wheelchairs are designed to remain upright and stable during normal operation. All activities which involve movement in a wheelchair have an effect on the combined center of gravity of the occupant and wheelchair. Be aware of the Rampvan ramp slope



(angle). The slope of the ramp has a direct effect on the center of gravity. Keep in mind your center of gravity and your ability to maintain stability and balance.

Do not operate your wheelchair on the Rampvan ramp without assistance if you are unable to maintain stability and balance. Counterbalance devices (anti-tippers) may be available from your wheelchair representative to enhance stability and balance.

## OPERATION

Do not tilt your wheelchair without assistance. Operate the wheelchair at a slow and constant speed when on the ramp. Do not accelerate suddenly when on the ramp. Do not raise the front wheelchair wheels (pull wheelie) when on the Rampvan ramp.

The aid of an attendant stabilizing the wheelchair is recommended for **optimum safety**. Wheelchair passengers who intend to enter and exit their Rampvan without the assistance of an attendant must determine the safest and most practical method and orientation of entering and exiting the Rampvan based on the physical characteristics of their personal wheelchair and his or her physical capabilities to maintain stability while the wheelchair is in motion on the Rampvan ramp.

**Wheelchair Attendants:** When assisting a wheelchair occupant, remember to use good body mechanics. When the wheelchair is on the ramp, the attendant must grasp the push handles (or other) securely. Detachable wheelchair parts such as arms or leg rests must never be used for hand holds or lifting supports. Doing so could result in the detachable parts being inadvertently detached from the wheelchair **resulting in possible injury to the wheelchair occupant and/or the attendant**.

**Wheelchair Orientation and Securement During Transport:** The wheelchair and occupant **must** face the front of the vehicle and **must** be secured using the Forward-Facing Wheelchair and Occupant Belt and Track System when riding in the Rampvan. See pages 27-36 for details.

## WHEELCHAIR AND OCCUPANT RESTRAINT

One Forward-Facing Wheelchair and Occupant Belt Kit is supplied for the restraint of one wheelchair and occupant (details follow). “L” track is mounted in four locations in the vehicle for belt securement (shown in Figure 1).

**Note:** Wheelchair passengers shown in Figure 1 depict the available seating positions. Wheelchair capacity at Midpoint (Position C) may have limitations based on the physical dimensions of specific wheelchairs. Additional Forward-Facing Wheelchair and Occupant Belt Kits must be purchased for the restraint of each additional wheelchair passenger.

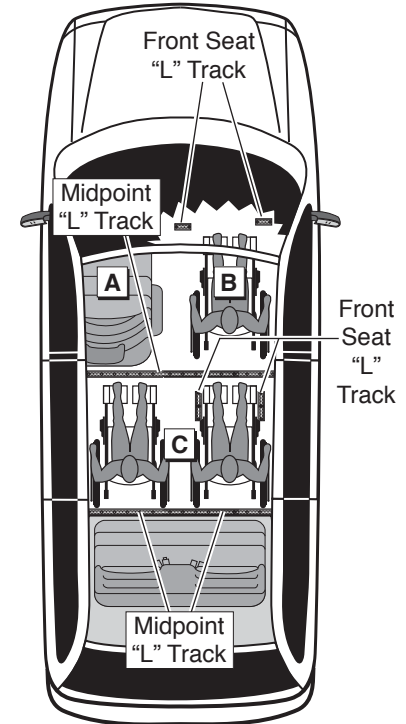
The Rampvan offers the following options for placement and securement of wheelchair passengers.

**Driver Seat:** This seat (Position A) can be removed and adaptive driving systems custom tailored for the driving wheelchair occupant can be purchased from and installed by your local sales representative.

**Front Passenger Seat with Floor Track:** The passenger seat (Position B) can be removed and the seat location can be utilized by a wheelchair occupant.

**Midpoint Lowered Floor Area with Floor Track:** The Midpoint lowered floor area (Position C) can be utilized by wheelchair occupants (capacity limitations apply).

Refer to the following guidelines, illustrations, photos and instructions for proper use of the belt and track restraint system.



**Figure 1**

## WHEELCHAIR AND OCCUPANT RESTRAINT

### **⚠️ WARNING**

No product developed to date can guarantee successful securement of the wheelchair, even at low speeds, in the event of an accident. The Braun Wheelchair and Occupant Belt/Track System does meet the most widely referenced Federal Motor Vehicle Safety Standards used for contemporary restraint equipment. However, this equipment does not ensure stability of the wheelchair in the event of an accident at any speed.

**Wheelchair Securement:** Two adjustable over-center buckle belts are provided for securement of the rear of the wheelchair. Two adjustable cam buckle belts are provided for securement of the front of the wheelchair.

The belts are equipped with one keeper fitting (attachment) which installs in the vehicle-mounted “L” track (details on page 31). A hook or a lobster claw-style hook (varies with belt system) is positioned on the opposite end of the belts for attachment to the wheelchair. The hook style belt is shown here. Do not attach belts to detachable wheelchair components such as armrests or leg rests. Front and rear belt tension is required.

Refer to the illustrations, photos and instructions on pages 30-36 for belt operation procedures.



**Wheelchair Passenger Securement:** One adjustable lap belt extension is supplied for securement of the wheelchair occupant. The extension belt is equipped with one keeper fitting (attachment) which installs in the vehicle-mounted “L” track. A female receptacle is positioned on the opposite end of the extension belt for attachment to a Chrysler factory-installed upper torso lap and shoulder belt. See the illustrations on pages 32 and 33 and photos on page 36.

Operate the Chrysler lap and shoulder belt as instructed in your Chrysler owner’s manual. Follow all safety precautions. Connect the Chrysler lap and shoulder belt to the lap belt extension. Position the upper torso (shoulder) belt across the center of the shoulder. Position the lap belt low across the front of the pelvis (near hip). See the illustrations on pages 32 and 33 and photos on page 36.

Position of the lap belt buckle, after adjustment, is to be located near hip position. The belt is to be worn low and snugly. Adjustment of the lap belt extension is to be made at adjuster buckle. Wheelchair oc-

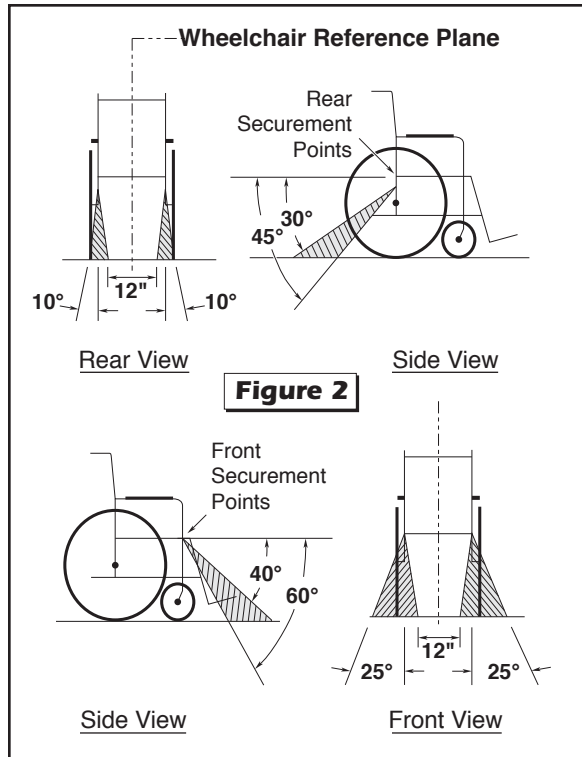
cupant restraints should not be held away from the body by wheelchair components such as armrests or wheels.

Keep belts clear of sharp objects. Do not alter belts. Do not interchange belts from one position to another. Keep the supplied belts together as a complete set.

**Belt and Track Maintenance:** Inspect belt assemblies frequently. Any defects such as belt cuts, fraying or malfunctioning call for replacement of the entire belt assembly. “L” track must be clean and not worn, bent or otherwise damaged (prohibiting proper belt attachment). If there is any sign of damage, wear, abnormal condition or improper operation of belts, belt hardware (hooks, keepers, latch plate, receptacle), or track, discontinue use and replace components immediately.

Severe conditions (weather, environment, heavy usage, etc.) may require more frequent inspections. Exposure to severe conditions will dramatically reduce the life of the system.

## WHEELCHAIR AND OCCUPANT RESTRAINT

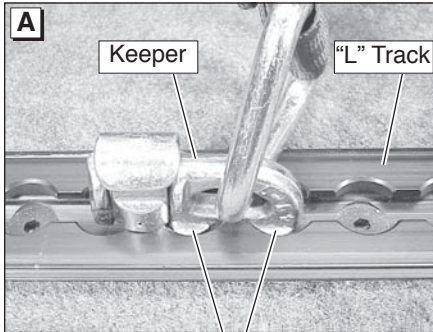


### Restraint Belt Angles:

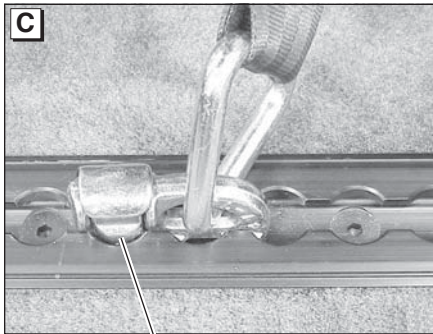
Locate wheelchair in forward-facing position centering wheelchair squarely within “L” track. The front and rear belts, when attached, should create angles approximately as shown in Figure 2. Preferred angles and locations of belts from wheelchair securement points to vehicle anchor points are shown. Front tie-downs should be angled out far for lateral stability when possible. **Note:** These are optimum angles and cannot be achieved in some cases.

### Keeper Fitting and “L” Track Attachment Instructions:

The belts supplied in the Forward-Facing Wheelchair and Occupant Belt/Track System are equipped with keeper fittings (attachments) which engage the “L” track. Engage and release the keeper fittings as detailed and shown on page 31. **Note:** Lift to remove the “L” track plastic covers. Refer to pages 32-36 for belt attachment and release procedures.



Align engagement feet with holes.



Fully-engaged Keeper

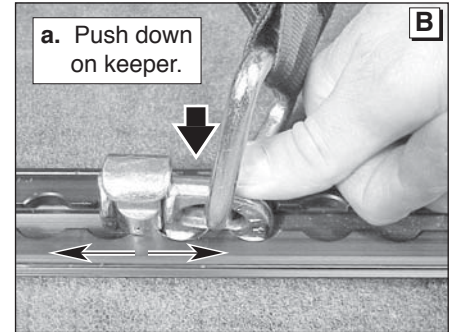
**Keeper Fitting and "L" Track Attachment Instructions:**

**To Engage Keeper Fitting:**

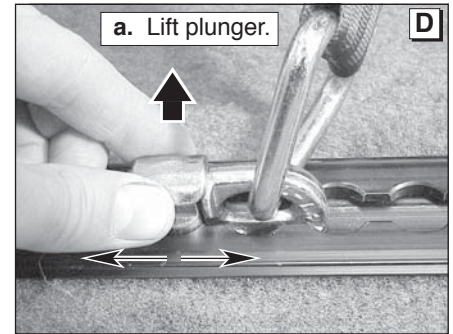
- ▶ 1. Insert keeper fitting into track (align two engagement feet with holes in track). See Photo A.
- ▶ 2. Push down on fitting and slide fitting 1/2 slot in either direction until it clicks and locks in position (see Photos B and C). Pull firmly on belt to ensure fitting is locked in track.

**To Release Keeper Fitting:**

- ▶ Lift plunger and slide fitting 1/2 slot in either direction and lift fitting out of track.



b. Slide keeper 1/2 slot in either direction.

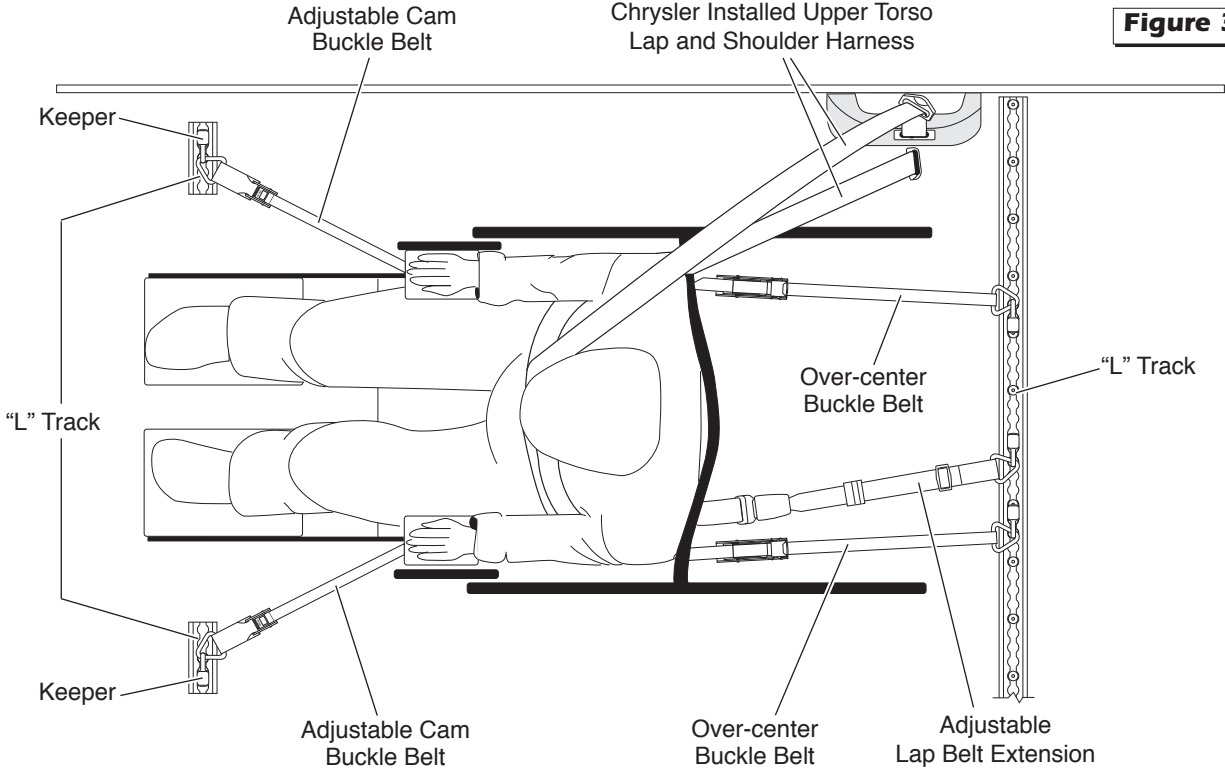


b. Slide keeper and lift.

**WHEELCHAIR AND OCCUPANT RESTRAINT**



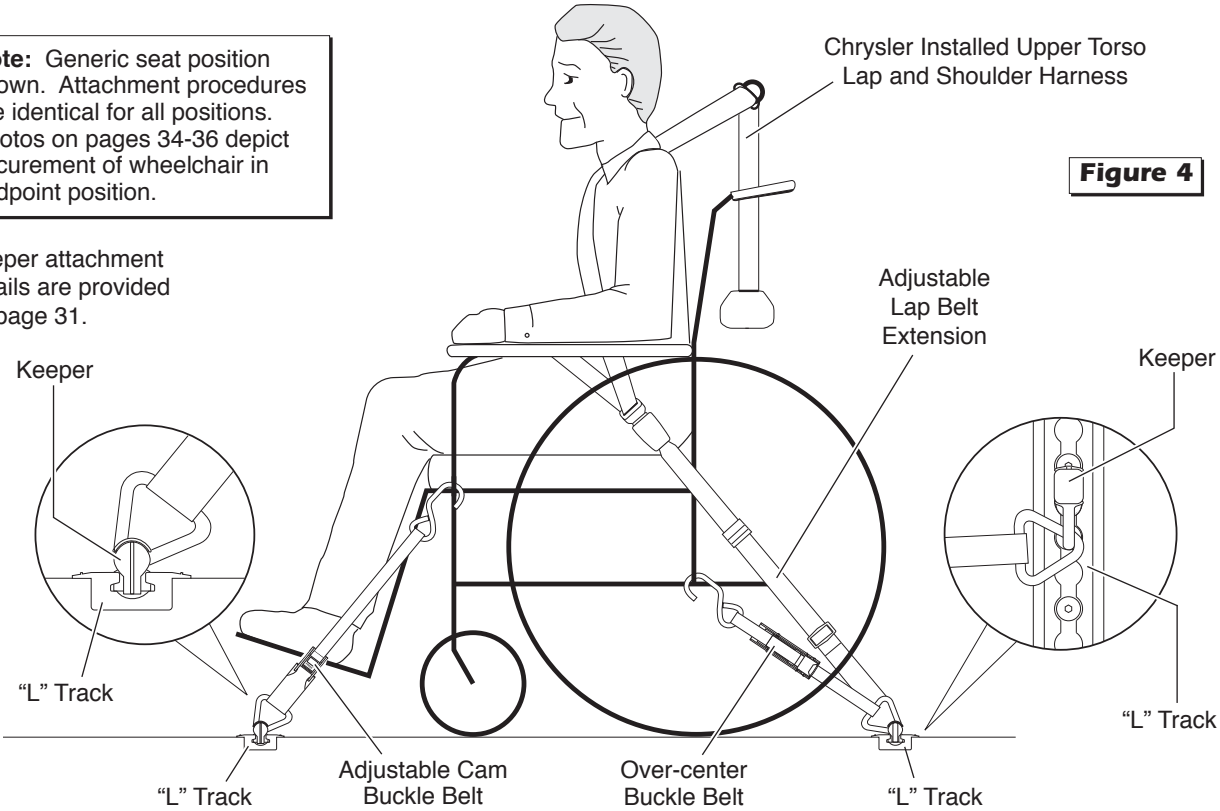
**Figure 3**



**WHEELCHAIR AND OCCUPANT RESTRAINT**

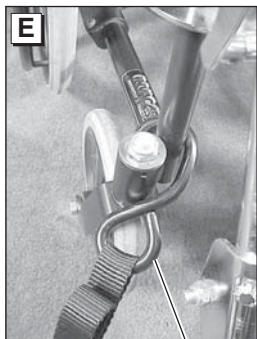
**Note:** Generic seat position shown. Attachment procedures are identical for all positions. Photos on pages 34-36 depict securement of wheelchair in midpoint position.

Keeper attachment details are provided on page 31.



**Figure 4**

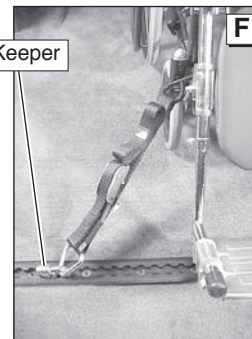
## WHEELCHAIR AND OCCUPANT RESTRAINT



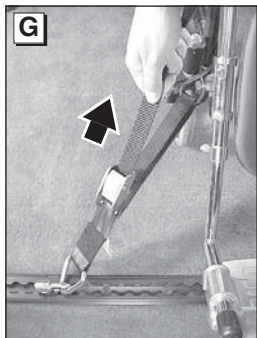
Hook

### Front Cam Buckle Belt Attachments

1. Connect chair hook to a solid frame member of the chair as shown in Photo E.
2. Position and connect belt keeper fitting (attachment) to appropriate track anchorage point (slots). Attach keeper as detailed on page 31. Pull firmly on belt to ensure fitting is locked in track. **Note:** Belt angles should be as shown in Figure 2 on page 30.
3. Pull loose end of belt until tight (see Photo G).
4. Connect Velcro™ tabs to keep excess belt off floor. See Photo H).

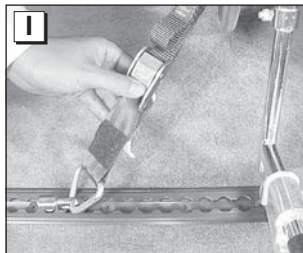


Keeper

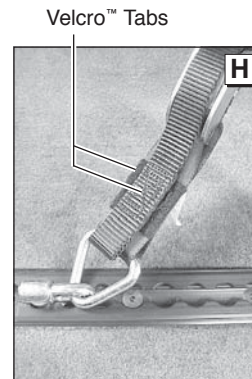


Repeat procedures for opposite side belt.

**Belt Release:** To release tension on belt, press the buckle cam as shown in Photo I.



**Note:** Midpoint seat position shown. Attachment procedures are identical for all positions.



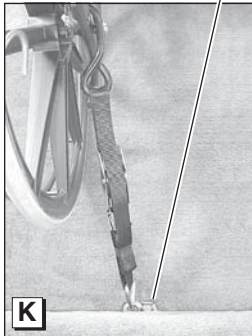
Velcro™ Tabs



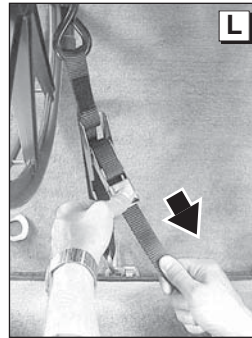
### Rear Over-Center Belt Attachments

◀ 1. Connect chair hook to a solid frame member of the chair close to the point where the chair back and cushion meet (as shown in Photo J).

Hook  
Keeper

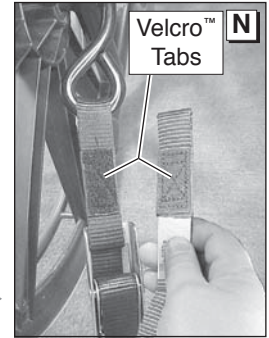


◀ 2. Position and connect belt keeper fitting (attachment) to appropriate track anchorage point (slots). Attach keeper as detailed on page 29. Pull firmly on belt to ensure fitting is locked in track. **Note:** Belt angles should be as shown in Figure 2.

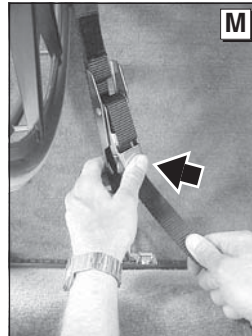


3. With buckle open, pull loose end of belt until tight (see Photo L). While holding the loose end with one hand, close the lever of the clamp (buckle) down until it locks. See Photo M.

4. Connect Velcro™ ▶

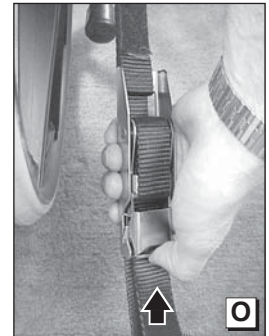


**Belt Release:** Press lever clamp (lock) to release tension on belt.

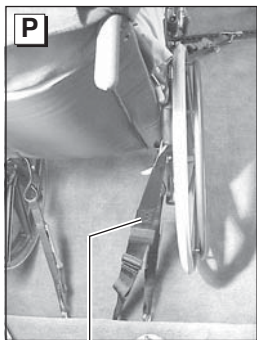


Repeat procedures for opposite side belt.

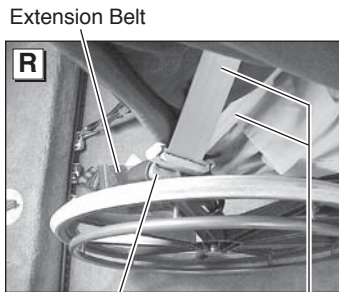
**Note:** Check to see that front and rear belts are tight and the chair is secure enough that it does not have any movement. Lock wheelchair brakes.



## WHEELCHAIR AND OCCUPANT RESTRAINT



Extension Belt



Extension Belt

Receptacle

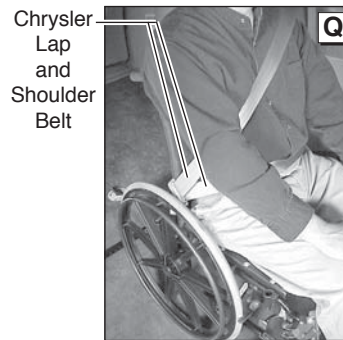
Chrysler Lap and Shoulder Belt

### Lap and Shoulder Belt Attachments

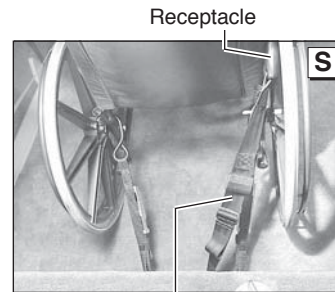
Refer to Photos P-S.

1. Position and connect the adjustable lap belt extension keeper fitting (attachment) to appropriate track anchorage point (slots). Attach keeper as detailed on page 31. Pull firmly on belt to ensure fitting is locked in track.
2. Connect the lap and shoulder belt to the lap belt extension (insert latch plate in female receptacle). Position the upper torso (shoulder) belt across the center of the shoulder. Position the lap belt low across the front of the pelvis (near hip). See Photos P-S.

Wheelchair occupant restraints should not be held away from the body by wheelchair components such as wheelchair armrests or wheels.



Chrysler Lap and Shoulder Belt



Receptacle

Extension Belt



## SEAT REMOVAL AND INSTALLATION

**Front Seats:** In an effort to produce vehicles that can be configured to meet a variety of customer needs, the driver and passenger seat bases have been designed so they may be removed. This feature allows the owner and sales representative to determine the appropriate seating arrangement to accommodate owner needs.

### **WARNING**

**Park vehicle and turn engine off before removing or installing seats. Failure to do so may result in serious bodily injury and/or property damage.**

Once the desired seat arrangement is determined, all power seat electrical harnesses must be reconnected to the appropriate fixed seat positions.

Driver's and passenger's side front seats are equipped with "step & roll" quick-release seat base attachments that engage recessed floor strikers (supports). The "step & roll" quick-release front seat is installed and removed as detailed on pages 44-47 of this manual.

**Power Seats:** Rampvan® front seats are equipped with electrical wiring harnesses to accommodate optional equipment such as heated seats, air bags, etc. **Before removing seats, be certain all seat electrical harnesses are disconnected.**

When seats are removed, the seat electrical harness **plug must be connected to the receptacle** provided at the top of the seat base. See Photos A-D on page 40 of this manual.

### **CAUTION**

**Disconnect seat wiring harness before removing seat. Failure to do so may result in property damage.**

When positioning seats, it is **your responsibility** to reconnect all seat electrical harnesses. Failure to properly connect power seat electrical harnesses may result in power seat functions being disabled and/or the air bag light illuminating.

Rampvan® front seats are equipped with an exclusive “step & roll” quick-release system. Refer to the seat removal and installation instructions provided in this manual. **Note:** Driver and passenger side front seats **are not interchangeable**.

Contact your sales representative or call The Braun Corporation at 1-800-THE LIFT® if any of this information is not understood.

### Seat Base Rear Covers

Rampvan® front seats are equipped with easy to remove rear seat base covers. The covers must be removed when removing and installing seats. Refer to photo at right. Simply pull back on the covers to remove them (Velcro® secured). Align and push covers into position when reinstalling seats.

**Caution: Do not contact and damage** the seat base electrical harness when removing and installing the rear seat base covers.



Seat Base Cover

## SEAT REMOVAL AND INSTALLATION



Seat Wiring Harness

Turn this knurled grip.



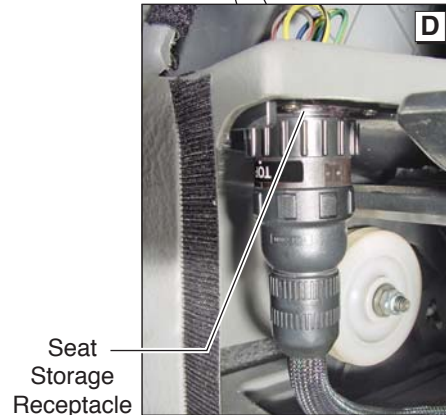
Receptacle

### Front Seat Wiring Harnesses and Receptacles:

An electrical harness receptacle is located to the rear of each seat base in the wall (at “B” pillar). The seat wiring harness plug connects to the receptacle socket (screw-on connector details on pages 41 and 42 of this manual).

**Before removing seats, be certain seat wiring harnesses are disconnected.**

When seats are removed, the **seat electrical harness plug must be connected to the receptacle** provided in the seat base. See Photos B and D.



Seat Storage Receptacle

### **⚠ CAUTION**

**Disconnect seat wiring harness before removing seat. Failure to do so may result in property damage.**

### **⚠ WARNING**

**Connect front seat wiring harness plug to socket provided at top of seat base before removing front seat. Failure to do so may result in serious bodily injury and/or property damage.**

When installing seats, **be certain seat wiring harnesses are reconnected.** Failure to do so may result in power seat functions being disabled and/or the air bag light illuminating.

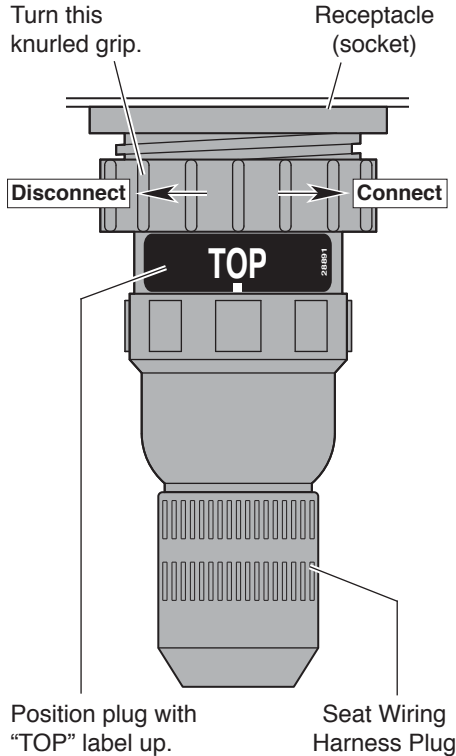
#### **Screw-on Connectors:**

Front seat wiring harnesses are equipped with a screw-on connector (plug). Operate connectors as detailed here and on page 42.

A label is posted on the seat wiring harness plug which identifies the top of the connector (“TOP” decal 28891). Position the plug with the “TOP” label facing up when connecting the plug to either receptacle socket. Use this feature as an alignment guide.

**Note:** Alignment grooves (slots) are provided in receptacle sockets. Receptacle sockets have a single wider alignment groove that is positioned at 12 o'clock (shown on page 42). Seat wiring harness plugs are equipped with mating alignment guides (ears).

## SEAT REMOVAL AND INSTALLATION



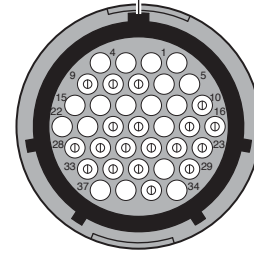
### Screw-on Connectors:

**To Connect:** Align the seat harness connector by positioning the plug with the "TOP" label facing up. Align the seat harness connector alignment guides with the receptacle socket alignment grooves (will only connect one way).

**Carefully** insert the seat harness plug in the receptacle socket. Turn seat harness connector large diameter knurled grip clockwise fully (turn gripper nearest to socket).

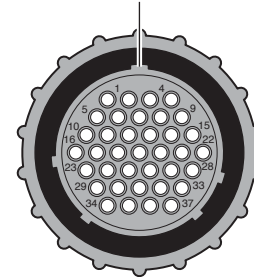
**To Disconnect:** Turn seat harness connector large diameter knurled grip counterclockwise and disengage connectors.

Alignment Groove  
(at 12 o'clock)



Receptacle Socket

Alignment Guide



Seat Harness Plug

### Occupant Classification System (OCS)

**Seat Storage:** When seats are removed, **do not** place anything on the seats. Setting objects on

the seats can affect the occupant classification system's ability to properly classify a passenger and deploy the appropriate safety measure after reinstallation.

### Re-Initialize OCS (Occupant Classification System)

When front seats are reinstalled, the occupant classification system must be re-initialized.

Install the seat and start the vehicle. Let the vehicle idle one minute. Turn the vehicle off and repeat the start/idle sequence three more times. This procedure will ensure the OEM safety systems have been re-initialized.

#### **WARNING**

**Do not place anything on seats removed from the vehicle. Doing so can disable the occupant classification system (OCS) safety feature. A disabled OCS may result in serious bodily injury and/or property damage.**

#### **WARNING**

**Install seat and start vehicle. Let vehicle idle one minute. Turn vehicle off and repeat start/idle sequence three more times. Failure to do so may result in serious bodily injury and/or property damage.**

## SEAT REMOVAL AND INSTALLATION

### Front Seat Bases

“Step & roll” quick-release seat base attachments engage recessed floor strikers (supports). A foot-activated release pedal is located at the rear of the seat base. Stepping on the pedal disengages the attachments and deploys the seat base rear wheels.



**Note:** For ease of disengagement, grip seat back hand hold and lift when stepping on foot pedal (ensures full deployment of rear wheels).

Lift seat up when stepping on pedal for ease of deployment.



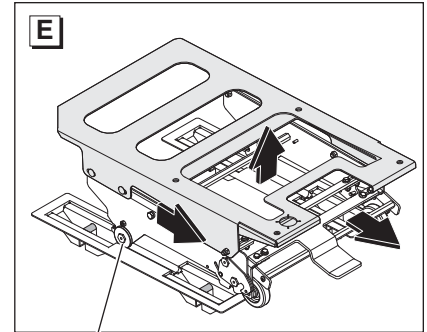
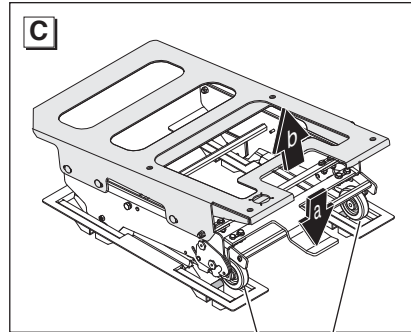
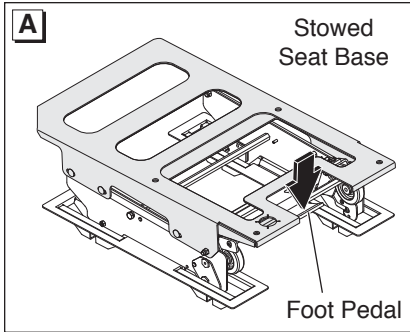
### Front Seat Removal Instructions

1. **Caution! Disconnect seat wiring harness before removing a front seat base.**

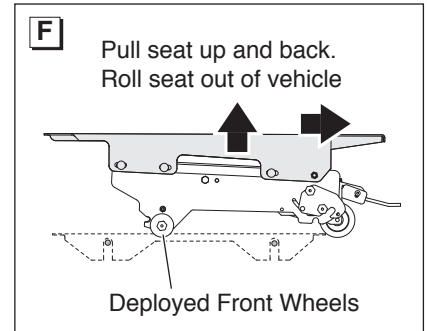
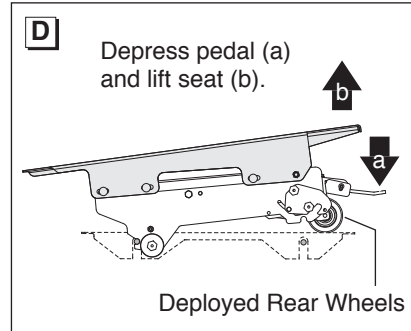
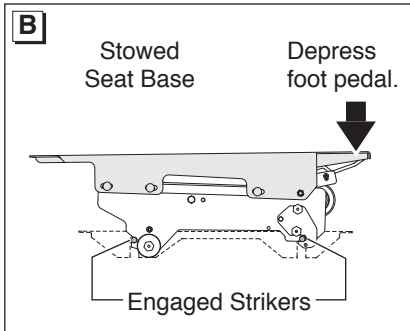
Connect harness to seat base socket. See page 40 for wiring harness details.

2. Depress foot pedal (push down). **Note:** Grip seat back hand hold and lift seat when stepping on foot pedal. See Figures A-D.
3. Pull up and back on the rear of seat (deploy front wheels). See Figures E and F.
4. Roll seat base out of vehicle as shown.

## SEAT REMOVAL AND INSTALLATION



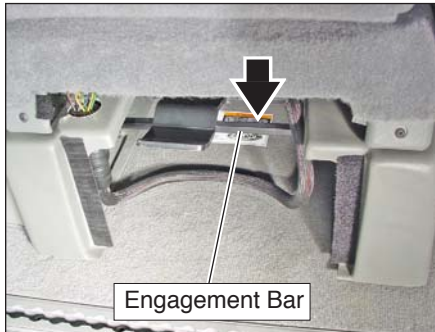
Illustrations depict seat base only.



## SEAT REMOVAL AND INSTALLATION

### Front Seat Bases

“Step & roll” quick-release seat base attachments engage recessed floor strikers (supports). A foot-activated release pedal is located at the rear of the seat base. A cross bar is positioned directly under the pedal. Stepping on the bar engages the rear seat base attachments to lock the seat base.



### Front Seat Installation Instructions

1. Roll seat base into position, just behind the floor mounted strikers. See Figures A and B. Move seat base forward to engage front strikers. See Figures C and D.
3. Connect (plug) seat electrical harness to B-pillar receptacle. See page 40.

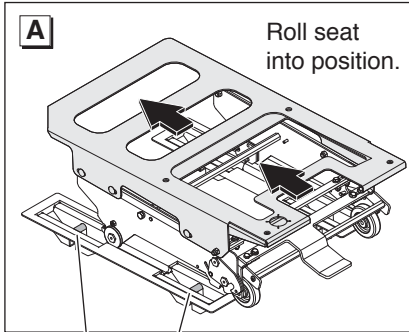
**Note:** Position outside of seat base alongside wall panel for easy alignment.

2. Depress rear cross bar (push down) to stow rear wheels and engage rear seat attachments with floor strikers. See Figures C-F. Lift seat to **ensure** floor strikers are **locked** in seat attachments.

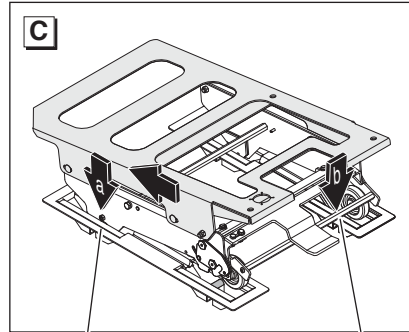
### **⚠️ WARNING**

**Seat attachments must be fully latched in floor supports before occupying seats or operating vehicle. Failure to do so will result in serious bodily injury.**

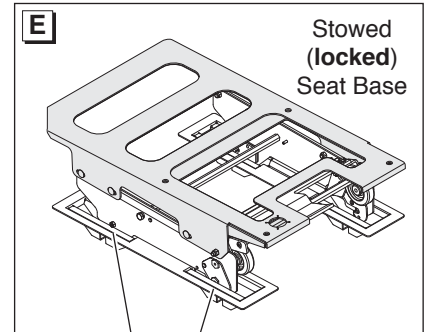
## SEAT REMOVAL AND INSTALLATION



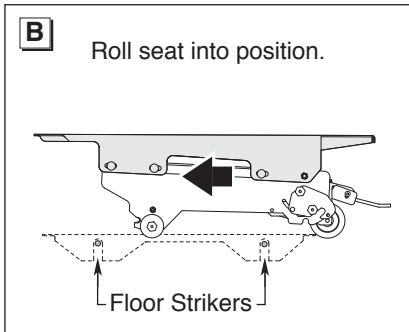
Floor Strikers



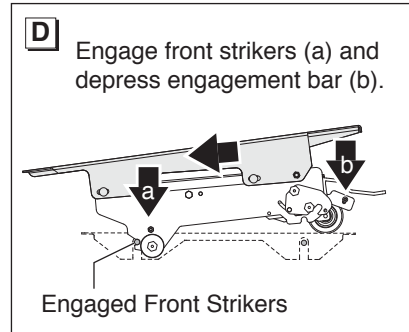
Engaged Front Strikers      Engagement Bar



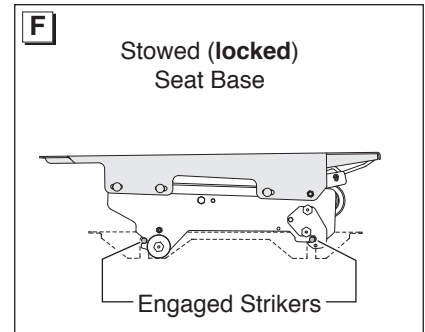
Engaged Strikers



Floor Strikers



Engaged Front Strikers



Engaged Strikers

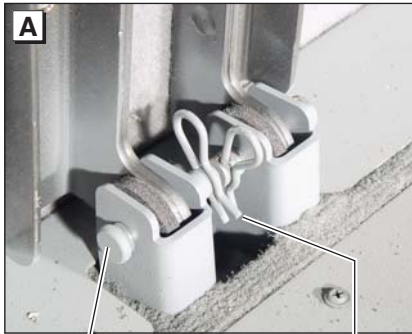
## SEAT REMOVAL AND INSTALLATION

### Third Row Seat

#### Third Row Seat Removal:

1. From the rear of the vehicle, fold down the back of the bench seat (pull release strap #1).
2. Pull the release strap at the rear of the seat (between seat base and floor) and lift and fold (tip) the seat forward.
3. Remove the bolt securing the linkage arm to the floor-mounted bracket.
4. Remove hairpin cotters from the pivot pins securing the front floor mounts.
5. Remove the pivot pins.
6. **Carefully** remove seat.

**Note:** Rear bench seat removal and installation procedures typical for both sections of third row 60/40 split seats.

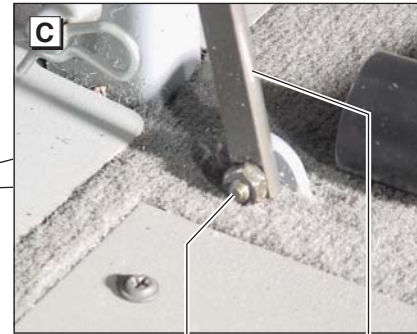


Pivot Pin

Hairpin Cotter



Rear Seat Undercarriage



Securement Bolt

Linkage Arm

### Third Row Seat

#### Third Row Seat Installation:

Refer to photos on page 48.

1. Fold down the seat back (pull release strap #1) **before** moving the seat into the vehicle.

#### **WARNING**

**Install seats as specified before occupying seats or operating vehicle. Failure to do so may result in serious bodily injury and/or property damage.**

2. **Carefully** move the seat into the vehicle and position it so that the underside of the seat is vertical and facing rearward.
3. Align the seat base front mounting tabs with the floor mounted brackets (align mounting holes).
4. Insert the pivot pins and hairpin cotters.
5. Align the linkage arm with the floor mounted bracket (align mounting holes).
6. Insert the 1/4" bolt through the linkage arm and mounting bracket. Place the hex lock nut on the bolt. Tighten fully and back off 1/8 turn (pivot point).
7. Fold down (lower) the seat base to engage the rear spring-loaded attachments with the floor strikers. Ensure the

attachments are engaged with the strikers (raise seat back and attempt to move seat back and forth).

**Note:** Rear bench seat removal and installation procedures typical for both sections of third row 60/40 split seats

## TOWING

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### Towing with a Rampvan

Use of this lowered floor conversion vehicle for towing is **prohibited**.

### If your Rampvan Needs Towed

If case of service, The Braun Corporation recommends that this lowered floor conversion vehicle be transported on a trailer rather than towed with one set of wheels suspended and the other set of wheels remaining in road contact.



### Jacking Instructions

**Interior Spare Tire Mount:** The spare tire is mounted in the passenger side floor storage compartment (behind the rear bench seat). The jack is stored with the spare tire.

**Jacking and Tire Changing Procedures:** Jacking and tire changing procedures have not

been affected by the conversion. If the rear of the vehicle is in the kneeled position, raise the rear of the vehicle to normal position before jacking and turn the Kneel On/Off Switch to OFF.

Because of the lower body panels, the jack points (or locator tabs) have been relocated (see photos

below for jacking points).

Detailed tire changing instructions are provided in the DaimlerChrysler-supplied owner's manual. **Refer to the Chrysler-supplied manual for tire changing instructions and safety precautions, as well as instructions regarding other roadside emergencies.**



Jack Point Tab



Rear Jack Point Location



Front Jack Point Location

## **ALERT TONES AND SYSTEM SAFETY SENSORS**

### **Alert Tones and System Safety Sensors**

Your Rampvan is equipped with a state-of-the-art safety system unmatched by any other lowered floor minivan converter. At the heart of this system is a PCB (printed circuit board) with an onboard micro-processor that controls the electrical functions of Rampvan systems. This system recognizes certain potential problems and knows how to react to prevent injury and still allow electrical operation of the ramp, door and kneel system if a problem does occur.

There are a few tones you may hear if the PCB detects something out of the ordinary. The tones you may hear do not necessarily indicate a problem with the system. These tones are designed as an aid to the owner to check for certain criteria. If you hear any of the following tones and the following criteria are met, contact your nearest Braun dealer for assistance.

### **Abort Feature**

#### **Continuous tone with no ramp or door motion:**

You will hear a continuous tone for approximately a 5 second duration if the following occurs:

Activation of any control switch when the vehicle gear selector is in Neutral.

### Safety Override Feature

#### Very rapid pulsing tone:

You will hear a very rapid pulsing tone (cricket tone) and the ramp will retract into the vehicle if the following occurs:

The passenger sliding door is open, the ramp is extended and you attempt to move the gear selector from Park into any Drive gear or Reverse.

You will hear a very rapid pulsing tone (cricket tone), the ramp will retract into the vehicle and the door will close if the following occurs:

The passenger sliding door is open, the ramp is extended and you attempt to move the gear selector from Park into Neutral.

### Suspension System / Carrying Capacity

Your Infloor Rampvan uses a state-of-the-art lightweight, high strength floor design as well as a lightweight plastic fuel tank which results in the lightest lowered floor minivan conversion available. However, your vehicle carrying capacity is affected by the conversion. The following information is provided as a guide to the amount of weight your vehicle can safely carry.

The **maximum** carrying capacity for your vehicle is listed on a tag affixed to either the driver's door or the driver's door jam. The value listed reflects a standard vehicle conversion including a full tank of fuel, third row seat and two quick release, removable front seats.

The addition of optional equipment reduces the carrying capacity of your vehicle. Also, any **equipment added by your Dealer further reduces the capacity.**

The Braun Corporation recommends that you have your vehicle weighed on a certified scale **after all work has been completed** by your Dealer and the fuel tank is completely filled. This will allow you to accurately determine your vehicle's remaining carrying capacity. See example on next page.

### Example:

1. Completely fill the fuel tank and have **all** of the equipment and/or seating installed that would normally be used in the vehicle.
2. Have the vehicle weighed, **without** any passengers, at a certified scale location. Most household moving companies have such scales and charge a nominal fee.
3. Locate the OEM (Chrysler/Dodge) Certification Label on the driver's door.
4. Locate the GVWR (Gross Vehicle Weight Rating) on the label.
5. Subtract the Gross weight taken on the scale from the label's rating.
6. Your vehicle's **safe** carrying capacity is the difference between the two numbers.

**Important:** Modification(s) of the suspension system, i.e. kneeling devices, air shocks, etc., **does not** increase the vehicle's rated total carrying capacity or each axle's ability to carry more weight.

## WARRANTY

□ In accordance with the Chrysler 5 year/100,000 mile corrosion warranty, The Braun Corporation warrants to the purchaser of its Rampvan conversion that the metal fabrication on or of the frame, floor and lowered door extension are free from defects in material and factory workmanship for a period of 5 years or 100,000 miles on the odometer, whichever occurs first. The Braun Corporation further warrants to the purchaser that the remainder of the modifica-

tions and alterations for associated parts are free from defects in material and workmanship for a period of 36 months or 36,000 miles, whichever occurs first. For clarification purposes, the following chart outlines The Braun Corporation Rampvan warranty coverage. Refer to your Chrysler warranty information booklet for all Chrysler OEM (factory) limited warranty details.

Years/Miles in Service	Specific Area Covered
<p style="text-align: center;"><b>36 Months</b> or <b>36,000 Miles</b> (whichever comes first)</p>	<p>Rampvan frame and floor structural components</p> <p>Rampvan ramp, door and associated structural components</p> <p>Rampvan electrical components including but not limited to switches, wires, connectors and the controller</p> <p>Rampvan electromechanical kneel systems including but not limited to electric actuator, chain, pulleys and associated hardware</p>

<b>Years/Miles in Service</b>	<b>Specific Area Covered</b>
<p><b>36 Months</b>  <b>or</b>  <b>36,000 Miles</b>                      (whichever comes first)</p>	<p>Rampvan appearance items including but not limited to interior floor covering and slide door lowered extension assemblies.</p>
<p><b>Corrosion Warranty</b></p> <p><b>Outer Panels</b></p> <p><b>5 Year or</b>  <b>100,000 Miles</b>                      (whichever comes first)</p> <p><b>All Panels</b>                      (Exceptions)</p> <p><b>3 Years/Unlimited Miles</b></p>	<p><b>Corrosion Warranty:</b></p> <p><b>Outer Panels:</b> Rampvan frame, floor and lower door modification metal fabrication corrosion applies to perforation only. Rampvan lower slide door modification corrosion applies to outer-body sheet metal and paint. Perforation is a rust-through condition such as an actual hole in the metal.</p> <p><b>All Panels (Exceptions):</b> Cosmetic or surface corrosion (resulting from stone chips for example) would not be covered or repaired under this coverage. If corrosion does not cause holes, and is not the result of usage and/or environmental conditions, repair coverage lasts for 3 years/unlimited miles.</p>

## WARRANTY

Both the 5 year/100,000 mile corrosion and the 3 year/36,000 mile warranties described on previous page commence on the date the conversion is put into service, providing the warranty registration card is completed and received by The Braun Corporation within thirty days of the purchase.

The Braun Corporation agrees to repair or replace any of its Rampvan factory-installed parts found to be defective within the appropriate warranty period or mileage. This warranty also covers the cost of labor for the repair or replacement of said parts for three years provided that the repair is authorized by The Braun Corporation and carried out by an authorized service establishment (a Braun labor schedule determines the cost allowance for repairs). The Braun Corporation will not honor any warranty claim for repairs or replacement of parts unless the claim is submitted with the appropriate factory warranty authorization data and the repairs or replacement of the parts are completed by a factory-authorized repairman. The factory authorization data, together with the name and location of the fac-

tory-authorized repairman, can be obtained by either written or telephone contact with The Braun Corporation at the addresses appearing in this manual.

The return authorization procedure must be adhered to in order to process any warranty and repair claims (details on following page).

The Braun Corporation reserves the right to designate where any warranty work is to be performed.

The Braun Corporation also reserves the right to examine any defective workmanship or part prior to any authorization of necessary repairs. This Rampvan warranty is not intended to replace or substitute any other warranties issued by the original manufacturer of the vehicle or other suppliers of components. This warranty shall not apply to any part or workmanship that may become defective due to misuse, neglect, accident or other casualty, modifications or alterations or unauthorized repairs. Further, this warranty shall not extend to parts or workmanship that may become defective because of the failure of

anyone to operate the same in accordance with the printed instructions of The Braun Corporation or because of operation of the same beyond its capacity.

This warranty does not cover normal maintenance, service, or periodic adjustments necessitated by use or wear.

Second buyers of a Braun Rampvan conversion may transfer the remaining warranty, if any, by obtaining a transfer of warranty application from The Braun Corporation. This application must be returned to The Braun Corporation within thirty days from the date you purchase the vehicle and proof of the date of purchasing must be supplied with the transfer of warranty application. There will be a minimum warranty transfer fee.

The Braun Corporation shall not be liable for any incidental or consequential damages resulting from any breach of warranty.

The Braun Corporation shall not be liable for towing charges, travel and lodging, or any other expense incurred due to the loss of use of vehicle or other reason.

### **Return Authorization Procedure**

When processing any warranty claims (parts, repairs, ect.), all requests must be processed through the Braun Corporation Product Support Department. Call 1-800-THE LIFT® during working hours. Product Support will issue a Return Material Authorization (RMA) number and detail the procedures required for processing returns and/or authorizing credit.

The last eight digits of the vehicle identification number (VIN) **must be provided when filing a warranty claim or ordering parts.**

## PREVENTIVE MAINTENANCE

Maintenance is necessary to ensure safe and trouble free Rampvan operation. General preventive maintenance consisting of inspections of your Rampvan systems along with cleaning and lubricating procedures should be a part of your routine (lubrication requirements are minimal). Regular preventive maintenance procedures will increase the service life of the Rampvan, as well as enhancing safety.

Keeping the infloor ramp and ramp cassette area clean is the most effective preventive maintenance practice to exercise. Dirt, mud, snow, ice and other foreign objects entering the cassette could result in potential ramp problems. Similarly, keeping the passenger side slide door lower track pan free of debris is the

best method of preventing slide door problems.

During routine inspections, operate all Rampvan systems and note the following (as equipped):

- Is the power source adequate or weak?
- Does the electronic control system function properly?
- Do the control switches function properly?
- Does the kneel feature function properly?
- Does the power door function properly?
- Does the ramp deploy and stow properly?
- Inspect wheelchair and occupant restraint belts, buckles and hardware for damage, wear, abnormal condition or improper operation.

Rampvan infloor ramps are equipped with maintenance-free self-lubricating bearings to decrease wear, provide smooth operation and extend the service life of the ramp. These components do not require lubrication under normal conditions (although the ramp should be inspected and cleaned routinely).

A “dri-film” style of light oil should be applied to the inboard ramp hinge and floor transition hinge (goes on wet then dries). Lubricants of this type are available that do not attract dust or debris. Clean the components and the surrounding area before applying lubricants. Use of improper lubricants can attract dirt or other contaminants which could result in wear or damage to components.

Light oil such as LPS2 General Purpose Penetrating Oil (recommended and available from the Braun Corporation) should be applied to internal bearing blocks.

Clean often and lubricate approximately every four weeks or 100 cycles. These intervals are a general guideline and will vary according to frequency of use and conditions. Exposure to severe conditions (weather, environment, heavy usage, etc.) may require inspection and maintenance procedures to be performed more often.

Preventive maintenance visual inspections, cleaning and lubrication procedures **do not** take the place of the procedures specified in the Maintenance and Lubrication Schedule provided in the Rampvan service manual. The

procedures outlined in the Maintenance and Lubrication Schedule must be performed at the recommended scheduled intervals by an authorized Braun Corporation service representative who has attended and been certified by The Braun Corporation Sales and Service School.

If there is any sign of damage, wear, abnormal condition or improper operation, **discontinue Rampvan use immediately.** Contact your sales representative or call The Braun Corporation at 1-800-THE LIFT®. One of our Product Support representatives will direct you to an authorized service technician who will inspect your Rampvan.

**⚠ WARNING**

**Maintenance and lubrication procedures must be performed by authorized service personnel as specified in the applicable Rampvan service manual. Failure to do so may result in serious bodily injury and/or property damage.**

## BELOW FLOOR OBSTRUCTIONS

### Below-Floor Obstructions

When installing an electrical tie-down, power seat or other auxiliary electrical device in an Rampvan, obstructions below the floor must

be avoided. Obstructions include wiring, fuel system, brake lines, etc. Installers must be aware of these obstructions.

Refer to the illustration on the following page when installing aftermarket equipment to avoid contacting or damaging vital components under the floor. **Drilling or cutting into such obstructions may result in potential hazards as well as property damage.**

**Note:** Some wiring harnesses shown may not be present. Avoid all harness locations.

#### **WARNING**

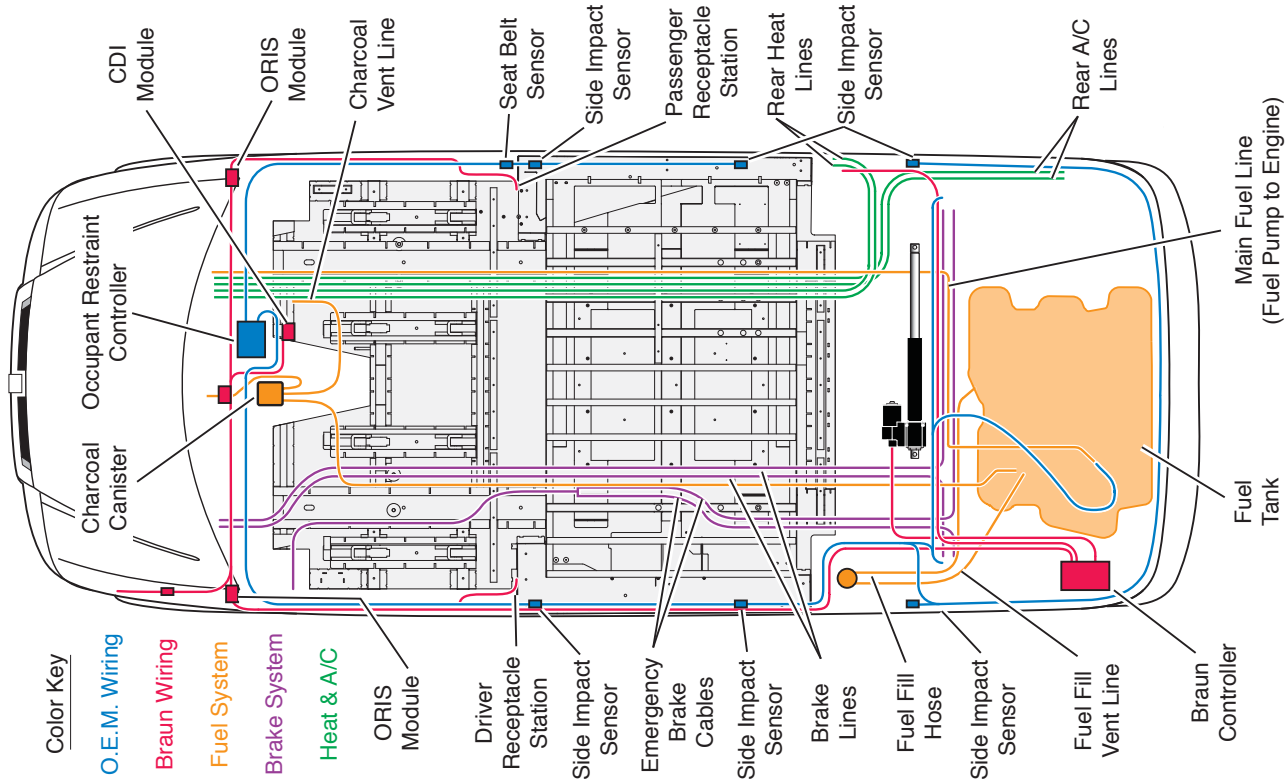
**Check for obstructions such as wires, gas lines, exhaust, etc. before drilling or cutting through floor. Failure to do so may result in serious bodily injury and/or property damage.**

#### **WARNING**



**Risk of electrical fire!  
Install and electrically terminate auxiliary electrical device as specified by device manufacturer.**

## BELOW FLOOR OBSTRUCTIONS



## REPORTING SAFETY DEFECTS

### Reporting Safety Defects to the United States Government

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying the Braun Corporation.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer or the Braun Corporation.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to:

NHTSA, U.S. Department of Transportation  
Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from the Hotline.

### Reporting Safety Defects to The Braun Corporation

In addition to notifying NHTSA we certainly hope you will notify us. Please call us at 1-800-THE-LIFT®, or write:

The Braun Corporation  
631 West 11th Street  
P.O. Box 310  
Winamac, IN 46996 USA

**"Providing Access to the World"®**



**Over 300 Braun  
Dealers Worldwide**

**InFloor Rampvan® featuring  
DaimlerChrysler Minivans**

# Operator's Manual

Patent #6,825,628 B2

32287 Rev B  
January 2008

*All illustrations, descriptions and specifications in this manual are based on the latest product information available at the time of publication. The Braun Corporation reserves the right to make changes at any time without notice.*

**BRAUN**



**CONSUMER**

**InFloor Ramp**

# RAMPVAN®

**Wheelchair-Accessible**

**Lowered Floor Conversion**

**featuring 2005**

**DaimlerChrysler Minivans**



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