

# **9000 Jymni™ Pediatric Series**

**9000 Jymni Standard Weight**

**9000 Jymni Light Weight**

**9000 Jymni Light Weight  
Recliner**

**DEALER:** This manual **MUST** be given to the user of the wheelchair.

**USER:** **BEFORE** using this wheelchair, read this manual and save for future reference.

For more information regarding  
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please visit [www.invacare.com](http://www.invacare.com)



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## **⚠ WARNING**

**A QUALIFIED TECHNICIAN MUST PERFORM THE INITIAL SET UP OF THIS WHEELCHAIR. ALSO, A QUALIFIED TECHNICIAN MUST PERFORM ALL PROCEDURES SPECIFICALLY INDICATED IN THE MANUAL.**

**WHEELCHAIR USERS: DO NOT SERVICE OR OPERATE THIS EQUIPMENT WITHOUT FIRST READING AND UNDERSTANDING (1) THE OWNER'S OPERATOR AND MAINTENANCE MANUAL AND (2) THE SEATING SYSTEM'S MANUAL (IF APPLICABLE). IF YOU ARE UNABLE TO UNDERSTAND THE WARNINGS, CAUTIONS, AND INSTRUCTIONS, CONTACT INVACARE TECHNICAL SUPPORT BEFORE ATTEMPTING TO SERVICE OR OPERATE THIS EQUIPMENT - OTHERWISE INJURY OR DAMAGE MAY RESULT.**

**DEALERS AND QUALIFIED TECHNICIANS: DO NOT SERVICE OR OPERATE THIS EQUIPMENT WITHOUT FIRST READING AND UNDERSTANDING (1) THE OWNER'S OPERATOR AND MAINTENANCE MANUAL, (2) THE SERVICE MANUAL (IF APPLICABLE) AND (3) THE SEATING SYSTEM'S MANUAL (IF APPLICABLE). IF YOU ARE UNABLE TO UNDERSTAND THE WARNINGS, CAUTIONS AND INSTRUCTIONS, CONTACT INVACARE TECHNICAL SUPPORT BEFORE ATTEMPTING TO SERVICE OR OPERATE THIS EQUIPMENT - OTHERWISE, INJURY OR DAMAGE MAY RESULT.**

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*NOTE: Updated versions of this manual are available on [www.invacare.com](http://www.invacare.com).*

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## REGISTER YOUR PRODUCT

The benefits of registering:

1. Safeguard your investment.
2. Ensure long term maintenance and servicing of your purchase.
3. Receive updates with product information, maintenance tips, and industry news.
4. Invacare can contact you or your provider, if servicing is needed on your product.
5. It will enable Invacare to improve product designs based on your input and needs.

**Register ONLINE at [www.invacare.com](http://www.invacare.com)**

**- or -**

**Complete and mail the form on the next page**

Any registration information you submit will be used by Invacare Corporation only, and protected as required by applicable laws and regulations.



# PRODUCT REGISTRATION FORM

Register ONLINE at [www.invacare.com](http://www.invacare.com) - or -  
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Purchased From \_\_\_\_\_ Date of Purchase: \_\_\_\_\_

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2. This product was purchased for use by: (check one)

Self  Parent  Spouse  Other

3. Product was purchased for use at:

Home  Facility  Other

4. I purchased an Invacare product because:

Price  Features (list features) \_\_\_\_\_

5. Who referred you to Invacare products? (check all that apply)

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Advertisement (circle one): TV, Radio, Magazine, Newspaper  No Referral \_\_\_\_\_

6. What additional features, if any, would you like to see on this product?

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7. Would you like information sent to you about Invacare products that may be available for a particular medical condition?  Yes  No

If yes, please list any condition(s) here and we will send you information by email and/or mail about any available Invacare products that may help treat, care for or manage such condition(s):

\_\_\_\_\_

8. Would you like to receive updated information via email or regular mail about the Invacare home medical products sold by Invacare's dealers?  Yes  No

9. What would you like to see on the Invacare website?

\_\_\_\_\_

10. Would you like to be part of future online surveys for Invacare products?  Yes  No

11. User's Year of birth: \_\_\_\_\_

If at any time you wish not to receive future mailings from us, please contact us at Invacare Corporation, CRM Department, 39400 Taylor Parkway, Elyria, OH 44035, or fax to 877-619-7996 and we will remove you from our mailing list.

To find more information about our products, visit [www.invacare.com](http://www.invacare.com).

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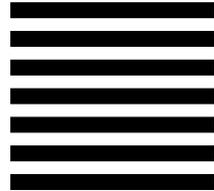
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# SPECIAL NOTES

Signal words are used in this manual and apply to hazards or unsafe practices which could result in personal injury or property damage. Refer to the following table for definitions of the signal words.

SIGNAL WORD	MEANING
DANGER	Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	Caution indicates a potentially hazardous situation which, if not avoided, may result in property damage.

## NOTICE

**THE INFORMATION CONTAINED IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.**

### WHEELCHAIR USER

As a manufacturer of wheelchairs, Invacare endeavors to supply a wide variety of wheelchairs to meet many needs of the end user. However, final selection of the type of wheelchair to be used by an individual rests solely with the user and his/her healthcare professional capable of making such a selection.

### WHEELCHAIR TIE-DOWN RESTRAINTS AND SEAT RESTRAINTS

Wheelchair users should **NOT** be transported in vehicles of any kind while in wheelchairs. As of this date, the Department of Transportation has not approved any tie-down systems for transportation of a user while in a wheelchair, in a moving vehicle of any type.

It is Invacare's position that users of wheelchairs should be transferred into appropriate seating in vehicles for transportation and use be made of the restraints made available by the auto industry. Invacare cannot and does not recommend any wheelchair transportation systems.

**⚠ WARNING**

Invacare products are specifically designed and manufactured for use in conjunction with Invacare accessories. Accessories designed by other manufacturers have not been tested by Invacare and are not recommended for use with Invacare products.

**SEAT POSITIONING STRAP**

**ALWAYS** wear your seat positioning strap. Inasmuch as the **SEAT POSITIONING STRAP** is an option on this wheelchair (you may order with or without the seat positioning strap), Invacare strongly recommends ordering the seat positioning strap as an additional safeguard for the wheelchair user. The seat positioning strap is a positioning belt only. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, belt **MUST** be replaced immediately.

As regards restraints - seat/chest positioning straps - it is the obligation of the DME dealer, therapists and other healthcare professionals to determine if a seat/chest positioning strap is required to ensure the safe operation of this equipment by the user. **SERIOUS INJURY CAN OCCUR IN THE EVENT OF A FALL FROM A WHEELCHAIR.**

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# TYPICAL PRODUCT PARAMETERS

	STANDARD WEIGHT	LIGHT WEIGHT	JYMNİ RECLINER
<b>OVERALL WIDTH</b>	18 or 23inches		19 or 23inches
<b>OVERALL DEPTH (WITH RIGGINGS):</b>	32 to 34½ inches		35½ to 39¼ inches
<b>SEAT WIDTH:</b>	10, 12 and 14 inches		
<b>SEAT DEPTH:</b>	10, 12 and 14 inches		
<b>**SEAT-TO-FLOOR</b> 14-INCH DEEP: 10 AND 12-INCH DEEP:	15, 16 and 17 inches 15, and 16 inches		15, 16 and 17 inches 15, 16 and 17 inches
<b>BACK STYLE:</b>	Adjustable* - 1 inch increments; adjustable angle - 5° to 20° in 5° increments		Reclining 95° to 160°
<b>BACK HEIGHT:</b>	14 or 15 inches		16 inches or 27 inches with headrest
<b>ARM STYLES (FLIP BACK):</b>	Space Saver - Desk* or full length, fixed* or adjustable height Conventional - Desk or full length, fixed or adjustable height		Conventional - Desk* or full length, fixed* or adjustable height
<b>FRONT RIGGINGS:</b>	Swingaway footrests and elevating legrests		
<b>REAR AXLE:</b>	Permanent* and quick-release	Permanent*	
<b>REAR WHEELS:</b>	20 and 22-inch composite; Urethane*, pneumatic or pneumatic-flat free insert		
<b>HANDRIMS:</b>	Chrome* or aluminum	Aluminum*	
<b>WHEEL LOCKS:</b>	Toggle lock - push or pull*		
<b>CASTER SIZE:</b>	6 x 1-inch Urethane in light or dark gray*		
<b>UPHOLSTERY:</b>	Black vinyl*, midnight blue vinyl or black nylon	Black nylon*	
<b>FRAME COLORS:</b>	Chrome	Chrome, Silver Vein, Wet Black, Red, Deep Purple, Sunny Yellow, Electric Red, Electric Red, Electric Purple, Royal Blue w/Grape, Lavender, Electric Teal, Midnight Blue	
<b>WEIGHT***:</b>	31 lbs	30 lbs	40 lbs
<b>SHIPPING WEIGHT (APPROX.)***:</b>	40 lbs	39 lbs	49 lbs
<b>WEIGHT LIMIT:</b>	150 lbs (68 kg)		

\*NOTE: These options are standard for this model.

\*\*NOTE: The seat-to-floor heights are based on urethane tires. If wheelchair is equipped with pneumatic (properly inflated) or solid rubber tires, add ¼-inch to the measurements listed above. These heights can vary +/- ¼-inch due to tire wear and manufacturing tolerances.

\*\*\*NOTE: 12x12-inch Seat Frame with standard armrest and 90° footrest. Jymni Recliner includes headrest extension and pillow.

# SECTION I—GENERAL GUIDELINES

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## **⚠ WARNING**

**SECTION I - GENERAL GUIDELINES** contains important information for the safe operation and use of this product. **DO NOT** use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as owner's manuals, service manuals or instruction sheets supplied with this product or optional equipment. If you are unable to understand the **Warnings, Cautions or Instructions**, contact a healthcare professional, dealer or technical personnel before attempting to use this equipment. Otherwise, injury or damage may occur.

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## **Information for Healthcare Professionals/Assistants**

Make sure the patient is properly positioned in the wheelchair before reclining or inclining (sitting up) to maintain maximum stability and safety. Refer to Safety/Handling of wheelchairs on page 17.

Make sure occupant's hands and body are clear of all pinch points before reclining back. Pinch Points exist between spreader bar and recliner mechanism. Use caution, otherwise injury may occur.

ALWAYS engage both wheel locks while reclining or inclining (sitting up) the wheelchair.

Before using the recliner option, make sure the anti-tipper wheel assemblies are in the lowest adjustment hole (adjustment hole closest to the ground/floor).

When returning the occupant of the reclining back wheelchair to the full upright position, more body strength will be required for approximately the last twenty (20) degrees of incline (sitting up). Make sure to use proper body mechanics (use your legs) or seek assistance if necessary to avoid injury.

DO NOT attempt to recline or incline the wheelchair back without occupant. Back will raise abruptly and cause injury. Keep clear when reclining or inclining chair back to avoid injury.

## **Stability - All Models**

The seat depth, back height/angle, seat angle, size/position of the front casters, size/position of the rear wheels, anti-tipper model, as well as the user condition directly relate to the stability of the wheelchair.

The back height, front caster position, seat-to-floor angle, position of the rear wheels, correct anti-tipper as well as the end user's disability or user's physical condition and capabilities directly relate to the stability of the wheelchair.

Any change to one or any combination of the ten may cause the wheelchair to decrease in stability. These adjustments must be performed by a qualified technician.

<i>NOTE: When changes to the left hand column occur, follow across the chart and refer to the X procedure to maintain the proper stability, safety and handling of the wheelchair.</i>	BACK HEIGHT	SEAT DEPTH	BACK ANGLE	SEATING SYSTEM	TILT ANGLE	CASTER SIZE	CASTER POSITION	WHEEL SIZE	WHEEL POSITION	USER CONDITION	WHEEL LOCKS	ANTI-TIPPERS
<b>BACK HEIGHT</b>	•	X	X	X	X	X	X	X	X	N/A	N/A	N/A
<b>SEAT DEPTH</b>	X	•	X	X	N/A	X	X	X	X	N/A	N/A	N/A
<b>BACK ANGLE</b>	X	X	•	X	X	X	X	X	X	N/A	N/A	N/A
<b>SEATING SYSTEM</b>	X	X	X	•	X	X	X	X	X	X	N/A	N/A
<b>TILT ANGLE</b>	N/A	N/A	X	N/A	•	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>CASTER SIZE</b>	X	N/A	X	N/A	N/A	•	X	X	X	N/A	X	X
<b>CASTER POSITION</b>	X	N/A	X	N/A	N/A	X	•	X	X	N/A	X	X
<b>WHEEL SIZE</b>	X	N/A	X	N/A	N/A	X	X	•	X	N/A	X	X
<b>WHEEL POSITION</b>	X	N/A	X	N/A	N/A	X	X	X	•	N/A	X	X
<b>USER CONDITION</b>	X	X	X	X	X	X	X	X	X	•	N/A	N/A
<b>SEAT HEIGHT</b>	X	N/A	X	X	X	X	X	X	X	N/A	X	X

### Stability - Recliner Models Only

ALWAYS use anti-tippers. When outdoors on wet, soft ground or on gravel surfaces, anti-tippers may not provide the same level of protection against tipover. Extra caution must be observed when traversing such surfaces.

ALWAYS make sure that the wheelchair is stable before using the recliner option.

Ensure the spreader bar is attached and secured before using the Jymni Recliner.

ALWAYS engage both wheel locks while reclining or inclining (sitting up) the wheelchair.

ALWAYS return the back to the upright position before lifting the wheelchair.

### Anti-Tippers

Anti-tippers are specific to the different seat-to-floor angles and/or seat-to-floor heights. Refer to the charts in Installing/Adjusting the Anti-Tippers on page 51 for correct usage and adjustment. If these requirements cannot be achieved, DO NOT use the wheelchair. Contact a qualified technician. If changing the seat-to-floor height with or without a change to seat-to-floor angle, the correct anti-tippers MUST be used to maintain a 1½ to 2-inch ground clearance.

Non-recliners Only - Inasmuch as anti-tippers are an option on this wheelchair (You may order non-recliners with or without the anti-tippers), Invacare strongly recommends ordering anti-tippers as an additional safeguard for the wheelchair user. If so equipped, anti-tippers MUST be attached and pointing down towards ground/floor at all times.

Recliners and Wheelchairs with 1-Inch Forward Rear Wheel Positioner Only - Anti-tippers MUST be attached at all times.

Anti-tippers **MUST** be fully engaged. Ensure that the release buttons of the anti-tipper fully protrudes out of the hole on the bottom of the wheelchair frame and out of hole in the adjustment tube.

Ensure both anti-tippers are adjusted to the same height.

Seat-to-floor angle of 0° or 3°: If so equipped, anti-tippers must be attached at all times. Inasmuch as the anti-tippers are an option for 0° or 3° on this wheelchair (you may order with or without the anti-tippers), Invacare strongly recommends ordering the anti-tippers as a safeguard for the wheelchair user.

Seat-to-floor angle of 6°: If changing the seat-to-floor angle to 6°, anti-tippers must be installed.

**ALWAYS** use anti-tippers. When outdoors on wet, soft ground or on gravel surfaces, anti tippers may not provide the same level of protection against tipover. Extra caution must be observed when traversing such surfaces.

## Operating Information

Unless otherwise noted, all service and adjustment should be performed while the wheelchair is unoccupied.

To determine and establish your particular safety limits, practice bending, reaching and transferring activities in several combinations in the presence of a qualified healthcare professional before attempting active use of the wheelchair.

When cleaning rear cane or hand grip areas use only a clean towel lightly dampened with cool water. Verify that grips are dry prior to use. Use of soap or ammonia based cleaning solutions will result in the hand grips sliding off the cane assembly. Failure to observe this warning may result in injury to the user or bystanders.

If the wheelchair is exposed to extreme temperature (above 100°F or below 32°F), high humidity and/or becomes wet, prior to use, ensure that the handgrips do not twist on the handle. Otherwise, damage or injury may occur.

**DO NOT** sit or transfer into the wheelchair unless it is fully open and the seat frame rails are fully seated into the side frame H-blocks.

Avoid storing or using the wheelchair near open flame or combustible products. Serious injury or damage to property may result.

**DO NOT** traverse, climb or go down ramps or slopes greater than 9°.

**DO NOT** attempt to move up or down an incline with a water, ice or oil film.

**DO NOT** operate on roads, streets or highways.

**DO NOT** attempt to ride over curbs or obstacles. Doing so may cause your wheelchair to tip over and cause bodily harm to you or damage to the wheelchair.

**DO NOT** attempt to reach objects if you have to move forward in the seat.

**DO NOT** attempt to reach objects if you have to pick them up from the floor by reaching down between your knees.

DO NOT lean over the top of the back upholstery to reach objects behind you, as this may cause the wheelchair to tip over.

DO NOT shift your weight or sitting position toward direction you are reaching as the wheelchair may tip over.

DO NOT attempt to stop a moving wheelchair with wheel locks. Wheel locks are not brakes.

DO NOT tip the wheelchair without assistance.

DO NOT use an escalator to move a wheelchair between floors. Serious bodily injury may occur.

Before attempting to transfer in or out of the wheelchair, every precaution should be taken to reduce the gap distance. Turn both casters parallel to the object you are transferring onto. When transferring to and from the wheelchair, ALWAYS engage both wheel locks.

DO NOT attempt to lift the wheelchair by any removable (detachable) parts. Lifting by means of any removable (detachable) parts of the wheelchair may result in injury to the user or damage to the wheelchair.

Jymni Recliner Only - DO NOT use the spreader bar to lift the wheelchair. Refer to [Storing/Replacing the Spreader Bar](#) on page 59.

DO NOT stand on the frame of the wheelchair.

DO NOT use the footplate as a platform. When getting in or out of the wheelchair, make sure that the footplates are in the upward position.

NEVER use quick-release axles on the Jymni Recliner.

ALWAYS use the handrims for self-propulsion. Inasmuch as the handrims are an option on this wheelchair (you may order with or without the handrims), Invacare strongly recommends ordering the handrims as an additional safeguard for the wheelchair user.

## **Tire Pressure**

DO NOT use your wheelchair unless it has the proper tire pressure (p.s.i.). DO NOT overinflate the tires. Failure to follow these suggestions may cause the tire to explode and cause bodily harm. The recommended tire pressure is listed on the side wall of the tire.

Replacement of a pneumatic tire or tube MUST be performed by a qualified technician.

## **Weight Training**

Invacare does not recommend the use of its wheelchairs as a weight training apparatus. Invacare wheelchairs have not been designed or tested as a seat for any kind of weight training. If occupant uses said wheelchair as a weight training apparatus, Invacare shall not be liable for bodily injury or damage to the wheelchair and the warranty is void.

## **Weight Limitation**

The 9000 Jymni wheelchairs have a weight limitation of 125 lbs.

# SECTION 2—SAFETY/HANDLING OF WHEELCHAIRS

## Safety/Handling of Wheelchairs

Safety and handling of the wheelchair require the close attention of the wheelchair user as well as the assistant. This manual points out the most common procedures and techniques involved in the safe operation and maintenance of the wheelchair. It is important to practice and master these safe techniques until you are comfortable in maneuvering around the frequently encountered architectural barriers.

Use this information only as a basic guide. The techniques that are discussed on the following pages have been used successfully by many.

Individual wheelchair users often develop skills to deal with daily living activities that may differ from those described in this manual. Invacare recognizes and encourages each individual to try what works best for him/her in overcoming architectural obstacles that they may encounter. However, all warnings and cautions given in this manual **MUST** be heeded. Techniques in this manual are a starting point for the new wheelchair user and assistant with “safety” as the most important consideration for all.

## Stability and Balance

**ALWAYS** wear your seat positioning strap. Inasmuch as the seat positioning strap is an option on this wheelchair (you may order with or without the seat positioning strap), Invacare strongly recommends ordering the seat positioning strap as an additional safeguard for the wheelchair user. The seat positioning strap is a positioning belt only. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, belt **MUST** be replaced immediately.

To assure stability and proper operation of your wheelchair, you **MUST** maintain proper balance at all times. Your wheelchair has been designed to remain upright and stable during normal daily activities as long as you do not move beyond the center of gravity.

Virtually all activities which involve movement in the wheelchair have an effect on the center of gravity. Invacare recommends using seat/chest positioning straps for additional safety while involved in activities that shift your weight.

**DO NOT** lean forward out of the wheelchair any further than the length of the armrests. Make sure the casters are pointing in the forward position whenever you lean forward. This can be achieved by advancing the wheelchair and then reversing it in a straight line.

## Coping With Everyday Obstacles

Coping with the irritation of everyday obstacles can be alleviated somewhat by learning how to manage your wheelchair. Keep in mind your center of gravity to maintain stability and balance.

## A Note to Wheelchair Assistants

When assistance to the wheelchair user is required, remember to use good body mechanics. Keep your back straight and bend your knees whenever tipping the wheelchair or traversing curbs, or other impediments.

DO NOT attempt to lift the wheelchair by any removable (detachable) parts. Lifting by means of any removable (detachable) parts of the wheelchair may result in injury to the user or damage to the wheelchair.

ALWAYS check hand grips for looseness before using the wheelchair. If loose and/or worn, replace immediately.

Jymni Recliner Only - DO NOT use the spreader bar to lift the wheelchair.

Also, be aware of detachable parts such as the spreader bar (Jymni Recliner Only), armrests or legrests. These must NEVER be used to move the wheelchair or as lifting supports, as they may be inadvertently released, resulting in possible injury to the user and/or assistant(s).

When learning a new assistance technique, have an experienced assistant help you before attempting it alone.

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### **⚠ WARNING**

**DO NOT attempt to reach objects if you have to move forward in the seat or pick them up from the floor by reaching down between your knees.**

**The seat depth, back height/angle, seat angle, size/position of the front casters, size/position of the rear wheels, anti-tipper model, as well as the user condition directly relate to the stability of the wheelchair. Any change to one or any combination of the ten may cause the wheelchair to decrease in stability. These adjustments MUST be performed by a qualified technician.**

---

Many activities require the wheelchair owner to reach, bend and transfer in and out of the wheelchair. These movements will cause a change to the normal balance, the center of gravity, and the weight distribution of the wheelchair. To determine and establish your particular safety limits, practice bending, reaching and transferring activities in several combinations in the presence of a qualified healthcare professional before attempting active use of the wheelchair.

Proper positioning is essential for your safety. When reaching, leaning, or bending forward, it is important to use the front casters as a tool to maintain stability and balance.

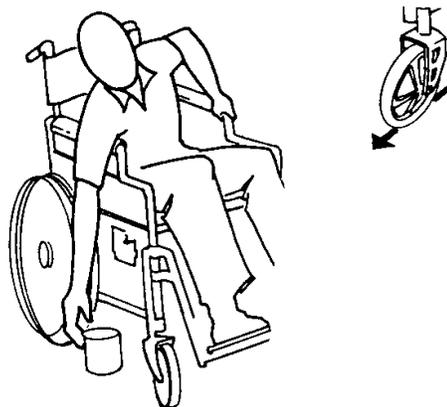
## Reaching, Leaning and Bending Forward

### **⚠ WARNING**

**DO NOT** attempt to reach objects if you have to move forward in the seat or pick them up from the floor by reaching down between your knees.

*NOTE: For this procedure, refer to FIGURE 2.1.*

Position the front casters so that they are extended as far forward as possible and engage wheel locks.



**FIGURE 2.1** Reaching, Leaning and Bending Forward

## Reaching, Leaning Backwards

### **⚠ WARNING**

**DO NOT** lean over the top of the back upholstery to reach objects behind you, as this may cause the wheelchair to tip over.

*NOTE: For this procedure, refer to FIGURE 2.2.*

Position wheelchair as close as possible to the desired object. Point front casters forward to create the longest possible wheelbase. Reach back only as far as your arm will extend without changing your sitting position.



**FIGURE 2.2** Reaching, Leaning Backwards

## Tipping

### **⚠ WARNING**

**DO NOT tip the wheelchair without assistance.**

When tipping the wheelchair, an assistant should grasp the back of the wheelchair on a non-removable (non-detachable) part. Inform the wheelchair occupant before tipping the wheelchair and remind him/her to lean back. Be sure the occupant's feet and hands are clear of all wheels and/or pinch points.

After mastering the techniques of tipping the wheelchair, use one of the following methods to tackle curbs, short stairs, etc.

### **Method I - Wheelchair With Step Tubes**

*NOTE: For this procedure, refer to FIGURE 2.3.*

Place foot on the step tube and begin to tilt the wheelchair toward you. Apply a continuous downward motion until the balance point is achieved and the front casters clear the curb. At this point, the assistant will feel a difference in the weight distribution.

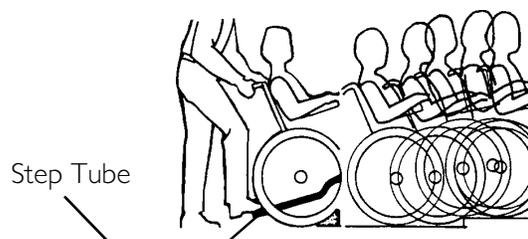
### **⚠ WARNING**

**When lowering the front casters of the wheelchair, DO NOT let the wheelchair drop the last few inches to the ground. This could result in injury to the occupant and/or damage to the wheelchair.**

**Make sure that the anti-tipper wheels are pointing down towards the ground/floor BEFORE using the wheelchair.**

Roll the wheelchair forward and slowly lower the front of the wheelchair in one continuous movement onto the sidewalk. Push the wheelchair forward until the rear wheels roll up and over the curb.

Turn the anti-tippers wheels down towards the ground/floor.



**FIGURE 2.3** Method I - Wheelchair With Step Tubes

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## Method 2 - Wheelchair Without Step Tubes

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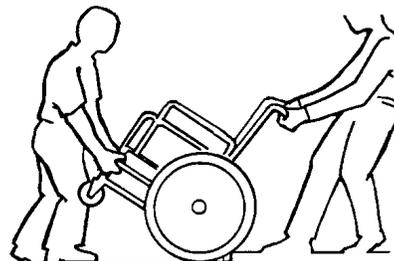
### **⚠ WARNING**

**ALWAYS** check hand grips for looseness before using the wheelchair. If loose and/or worn, replace immediately.

---

*NOTE: For this procedure, refer to FIGURE 2.4.*

This method requires two assistants. The second assistant should be positioned at the front of the wheelchair lifting upward on a non-removable (non-detachable) part of the wheelchair frame when lifting the wheelchair and stabilizing the wheelchair when the wheelchair is being lowered to the ground.



**FIGURE 2.4** Method 2 - Wheelchair Without Step Tubes

The first assistant should stand on the sidewalk and turn the wheelchair so that the rear wheels are against the curb. Turn the anti-tippers so the anti-tip wheels are pointing up. The wheelchair should be tilted back to the balance point and, in one continuous upward movement, the rear wheels should be pulled up and over the curb. **DO NOT** return the front casters to the ground until the wheelchair has been pulled backward far enough for the front casters to clear the edge of the curb.

---

### **⚠ WARNING**

**When lowering the front casters of the wheelchair, DO NOT let the wheelchair drop the last few inches to the ground. This could result in injury to the occupant and/or damage to the wheelchair.**

---

Roll the wheelchair backward and slowly lower the wheelchair in one continuous movement. Turn the anti-tippers so the anti-tip wheels are facing down.

---

### **⚠ WARNING**

**Make sure that the anti-tipper wheels are pointing down towards the ground/floor BEFORE using the wheelchair.**

---

Turn the anti-tippers wheels down towards the ground/floor.

## Stairways

### ⚠ WARNING

**ALWAYS** wear your seat positioning strap. Inasmuch as the seat positioning strap is an option on this wheelchair (you may order with or without the seat positioning strap), Invacare strongly recommends ordering the seat positioning strap as an additional safeguard for the wheelchair user. The seat positioning strap is a positioning belt only. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, belt **MUST** be replaced immediately.

**DO NOT** attempt to lift a wheelchair by lifting on any removable (detachable) parts. Lifting by means of any removable (detachable) parts of the wheelchair may result in injury to the user or damage to the wheelchair.

**ALWAYS** check hand grips for looseness before using the wheelchair. If loose and/or worn, replace immediately.

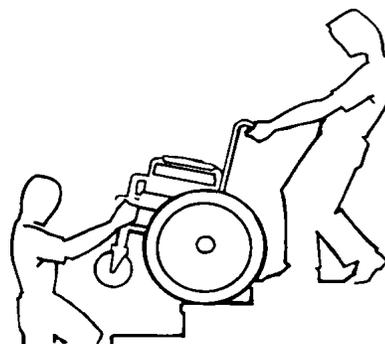
Extreme caution is advised when it is necessary to move an occupied wheelchair up or down the stairs. Invacare recommends that, if possible, the user be removed from the wheelchair prior to moving. Invacare recommends using two assistants and making thorough preparations. Make sure to use only secure, non-detachable parts for hand-held supports.

**Jymni Recliner Only - ALWAYS** return the back to the upright position before lifting the wheelchair.

*NOTE: For this procedure, refer to FIGURE 2.5.*

Follow this procedure for moving the wheelchair between floors when an elevator is not available:

1. If necessary, rotate the anti-tippers so the wheels are facing up.
2. If necessary, disengage the wheel locks. Refer to [Using Patient Operated Wheel Locks](#) on page 53.
3. After the wheelchair has been tilted back to the balance point, one assistant (in the rear) backs the wheelchair up against the first step, while securely grasping a non-removable (non-detachable) part of the wheelchair for leverage.
4. The second assistant, with a firm hold on a non-detachable part of the framework, lifts the wheelchair up and over the stair and steadies the wheelchair as the first assistant places one foot on the next stair and repeats STEP 1.
5. The wheelchair should not be lowered until the last stair has been negotiated and the wheelchair has been rolled away from the stairway.
6. If necessary, rotate the anti-tippers so the wheels are facing down.



**FIGURE 2.5** Stairways

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## Escalators

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### **⚠ WARNING**

**DO NOT** use an escalator to move a wheelchair between floors. Serious bodily injury may occur.

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## Transferring To and From Other Seats

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### **⚠ WARNING**

Before attempting to transfer in or out of the wheelchair, every precaution should be taken to reduce the gap distance. Turn both casters parallel to the object you are transferring onto. Also be certain the wheel locks are engaged to help prevent the wheels from moving.

---

### **CAUTION**

When transferring, position yourself as far back as possible in the seat. This will help prevent damaged upholstery and the possibility of the wheelchair tipping forward.

---

*NOTE: For this procedure, refer to FIGURE 2.6.*

*NOTE: This activity may be performed independently provided you have adequate mobility and upper body strength.*

Position the wheelchair as close as possible alongside the seat to which you are transferring, with the front casters pointing parallel to it. Remove or flip up the armrest. Engage wheel locks. Swing away or remove front rigging. Shift body weight into seat with transfer.

During independent transfer, little or no seat platform will be beneath you. Use a transfer board if at all possible.



**FIGURE 2.6** Transferring To and From Other Seats

## Unfolding and Folding Wheelchair

---

### **⚠ WARNING**

**ALWAYS** keep hands and fingers clear of moving parts to avoid injury.

**DO NOT** place hand or fingers on the underside of the seat frame rail when opening or closing the wheelchair.

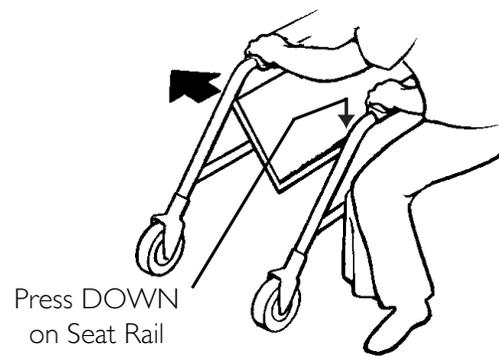
**DO NOT** sit or transfer into the wheelchair unless it is fully open and the seat frame rails are fully seated into the side frame H-blocks.

---

*NOTE: For this procedure, refer to FIGURE 2.7.*

### **Unfolding**

1. Tilt the wheelchair toward you (raising the opposite wheel and caster off the ground/floor).
2. Place your hand on the top of the seat rail closest to you where the seat upholstery is attached.
3. Point your fingers and thumb to the inside of the wheelchair.
4. Press downward on the top of the seat rail until the wheelchair is fully open and the seat rails are fully seated in the H-blocks.
5. Jymni Recliners Only - Secure the detached end of the spreader bar to the side frame. Refer to [Storing/Replacing the Spreader Bar](#) on page 59.
6. Engage both wheel locks, open the footrest/legrest for clearance and transfer into the wheelchair. Refer to [Transferring To and From Other Seats](#) on page 23.



**FIGURE 2.7** Unfolding and Folding Wheelchair

## Folding Hammock or Sling Seat Models

*NOTE: For this procedure, refer to FIGURE 2.8.*

1. Jymni Recliners Only - Detach one end of the spreader bar from the side frame. Refer to Storing/Replacing the Spreader Bar on page 59.
2. Swing footrest/legrest in locked position to the front of the wheelchair.
3. Pivot footplates upward to vertical position.
4. With both hands, grasp the middle of the seat upholstery at the front and back edge and lift up.
5. Continue to close the wheelchair by grasping the armrest furthest from you and pulling the armrest towards you.

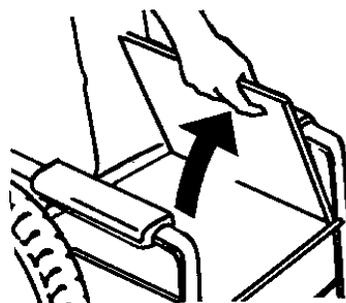


**FIGURE 2.8** Folding Hammock or Sling Seat Models

## Folding Solid-Seat Models

*NOTE: For this procedure, refer to FIGURE 2.9*

1. Jymni Recliners Only - Detach one end of the spreader bar from the side frame. Refer to Storing/Replacing the Spreader Bar on page 59.
2. Swing footrest/legrest in locked position to the front of the wheelchair.
3. Pivot footplates upward to vertical position.
4. From behind the wheelchair, grasp the right hand edge of the solid seat.
5. Raise the seat to the hinged side.
6. With both hands, grasp the middle of the front and back edges of the solid folding seat and lift up until the wheelchair begins to close.
7. Continue to close the wheelchair by grasping the armrest furthest from you and pulling the armrest towards you.



**FIGURE 2.9** Folding Solid-Seat Models

# SECTION 3—SAFETY INSPECTION/TROUBLESHOOTING

*NOTE: Every six months or as necessary, take your wheelchair to a qualified technician for a thorough inspection and servicing. Regular cleaning will reveal loose or worn parts and enhance the smooth operation of your wheelchair. To operate properly and safely, your wheelchair must be cared for just like any other vehicle. Routine maintenance will extend the life and efficiency of your wheelchair.*

## Safety Inspection Checklist

Initial adjustments should be made to suit your personal body structure and preference. Thereafter follow these maintenance procedures:

### Inspect/Adjust Initially

- Ensure that the wheelchair rolls straight (no excessive drag or pull to one side).
- Inspect for loose or missing hardware on frame and crossbraces.
- Inspect for bent frame or crossbraces.
- Check that the wheel locks do not interfere with tires when rolling.
- Check that the wheel lock pivot points are free of wear and looseness.
- Check that the wheel locks are easy to engage.
- Ensure that the wheel locks prevent the wheelchair from moving when engaged.
- Inspect the seat and back for rips and sagging.
- Inspect the seat and back for loose or broken hardware.
- Inspect the back cane hand grips for wear/looseness/deterioration.
- Inspect seat positioning strap for any signs of wear. Ensure buckle latches. Verify hardware that attaches strap to frame is secure and undamaged. Replace if necessary.
- Inspect tires for flat spots and wear.
- Check pneumatic tires for proper inflation.

---

### CAUTION

**As with any vehicle, check the wheels and tires periodically for cracks and wear. Replace if damaged.**

---

- If equipped, check that quick-release axles lock properly. Lubricate if necessary.
- Check that there is no excessive side movement or binding in the rear wheels when lifted and spun.
- Inspect rear wheels for cracked, bent or broken spokes.

- Ensure all spokes are uniformly tight.
- Inspect handrims for signs of rough edges or peeling.
- Inspect axle assembly for proper tension by spinning caster. Caster should come to a gradual stop.
- Adjust front casters/forks bearing system if wheel wobbles noticeably or binds to a stop.
- Ensure wheel bearings are clean and free of moisture.
- Check headtube locknuts for tightness.
- Inspect casters for cracks and wear.
- Inspect front casters for cracked, bent or broken spokes.
- Clean upholstery and armrests.
- Check that all labels are present and legible. Replace if necessary.

**Inspect/Adjust Weekly**

- Ensure that the wheel locks prevent the wheelchair from moving when engaged.
- Inspect tires for flat spots and wear.
- Check pneumatic tires for proper inflation.
- If equipped, check that quick-release axles lock properly. Lubricate if necessary.
- Inspect rear wheels for cracked, bent or broken spokes.
- Ensure all spokes are uniformly tight.
- Inspect axle assembly for proper tension by spinning caster. Caster should come to a gradual stop.
- Inspect front caster for cracked, bent or broken spokes.

**Inspect/Adjust Monthly**

- Ensure that the wheelchair rolls straight (no excessive drag or pull to one side).
- Check that the wheel locks do not interfere with tires when rolling.
- Check that the wheel lock pivot points are free of wear and looseness.
- Inspect seat and back for loose or broken hardware.
- Inspect seat positioning strap for any signs of wear. Ensure buckle latches. Verify hardware that attaches strap to frame is secure and undamaged. Replace if necessary.
- Inspect back cane hand grips for wear/looseness/deterioration.
- Adjust front casters/forks bearing system if wheel wobbles noticeably or binds to a stop.
- Ensure wheel bearings are clean and free of moisture.
- Check headtube locknuts for tightness.

**Inspect/Adjust Periodically**

- Inspect frame and crossbraces for loose or missing hardware.
- Inspect for bent frame or crossbraces.
- Check that wheel locks are easy to engage.
- Inspect seat and backs for rips and sagging.
- Check that there is no excessive side movement or binding in the rear wheels when lifted and spun.
- Inspect handrims for signs of rough edges or peeling.
- Adjust front casters/forks bearing system if wheel wobbles noticeably or binds to a stop.
- Ensure wheel bearings are clean and free of moisture.
- Ensure that casters are free of debris.
- Inspect casters for cracks and wear.
- Clean upholstery and armrests.
- Check that all labels are present and legible. Replace if necessary.

**Troubleshooting**

Chair Veers Right/Left	Chair 3 Wheels	Sluggish Turn or Performance	Casters Flutter	Squeaks and Rattles	Looseness in Chair	Solutions
X	X	X	X			Check tires for correct and equal pressure
		X	X	X	X	Check for loose nuts and bolts.
X	X		X			Check that both casters contact the ground at the same time.
X	X					Check that rear wheels are equally spaced away from seat frame.

## Maintenance

### Maintenance Safety Precautions

#### **⚠ WARNING**

**After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may result.**

#### **CAUTION**

**DO NOT overtighten hardware attaching to the frame. This could cause damage to the frame tubing.**

### Suggested Maintenance Procedures

1. Before using your wheelchair, make sure all nuts and bolts are tight. Check all parts for damage or wear and replace. Check all parts for proper adjustment.
2. Standard and Light Wight ONLY - Keep quick-release axles free of dirt and lint to ensure positive locking and proper operation. Refer to Adjusting the Quick-Release Axle on page 48.
3. Oil quick-release axles at least once a month (3-in-1 oil<sup>®</sup> or equivalent).

#### **⚠ WARNING**

**DO NOT use the wheelchair unless it has the proper tire pressure (p.s.i.). DO NOT overinflate the tires. Failure to follow these suggestions may cause the tire to explode and cause bodily harm.**

4. If tires are pneumatic, recommended tire pressure is listed on the sidewall of the tire.

#### **CAUTION**

**As with any vehicle, the rear wheels, casters and tires should be checked periodically for cracks and wear, and should be replaced if damaged.**

5. The rear wheels, casters and tires should be checked periodically for cracks and wear, and should be replaced by a qualified technician if damaged.

*NOTE: Tire wear is excessive if:*

- *Pneumatic Tires - there is missing tread or the tires are bald.*
- *Urethane Tires - there are cuts, surface defects or the tires are loose on the rims.*
- *Rubber Tires - 30% or more of the tire has worn away.*

*NOTE: Invacare recommends that tires and casters be replaced every five years.*

6. Periodically adjust wheel locks in correlation to tire wear. Refer to Adjusting Patient-Operated Wheel Lock on page 54.

7. Periodically check handrims to ensure they are secured to the rear wheels. If loose, have them tightened by a qualified technician.
8. Periodically check caster wheel bearings to make sure they are clean and free from moisture. Use a Teflon<sup>®</sup> lubricant if necessary.

---

**⚠ WARNING**

**When cleaning rear cane or hand grip areas use only a clean towel lightly dampened with cool water. Verify that grips are dry prior to use. Use of soap or ammonia based cleaning solutions will result in the hand grips sliding off the cane assembly. Failure to observe this warning may result in injury to the user or bystanders.**

---

9. Hand grips should be checked monthly for wear/looseness/deterioration. Clean if desired. Replace if looseness or deterioration is found.
10. Check upholstery for sagging, rips or tears.

# SECTION 4—FRONT RIGGINGS

## ⚠ WARNING

After ANY adjustments, repair or service and BEFORE use, make sure all attaching hardware is tightened securely - otherwise injury or damage may result.

NOTE: For this procedure, refer to FIGURE 4.1.

NOTE: Refer to General Guidelines on page 12.

## Installing/Removing the Swingaway Footrest Assembly

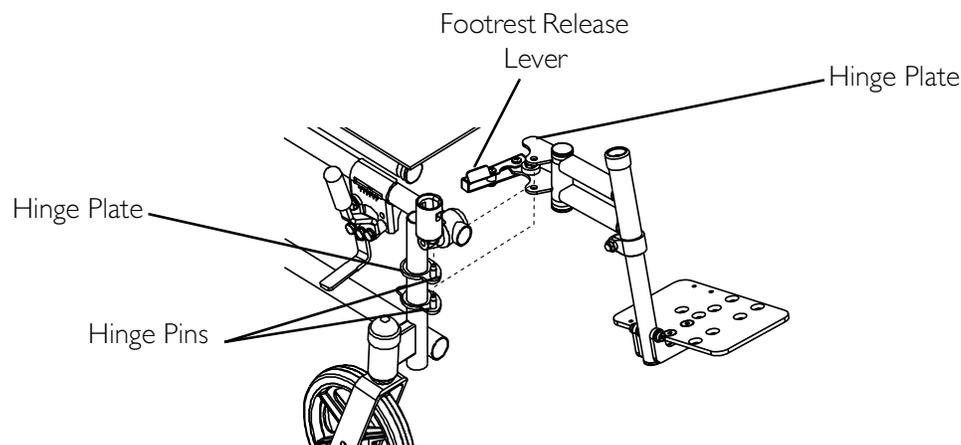
### Installing

1. Turn the swingaway footrest assembly to the side (so that the footplate is perpendicular to wheelchair).
2. Install the hinge plates on the swingaway footrest assembly onto the hinge pins on the wheelchair frame.
3. Push the swingaway footrest assembly towards the inside of the wheelchair until it locks into place.
4. Repeat this procedure for the other footrest assembly.

NOTE: The footplates will be facing each other when locked in place.

### Removing

1. Push the footrest release lever toward rear of chair.
2. Rotate swingaway footrest assembly outward.
3. Lift the swingaway footrest assembly off of the hinge pins.



**FIGURE 4.1** Installing/Removing the Swingaway Footrest Assembly

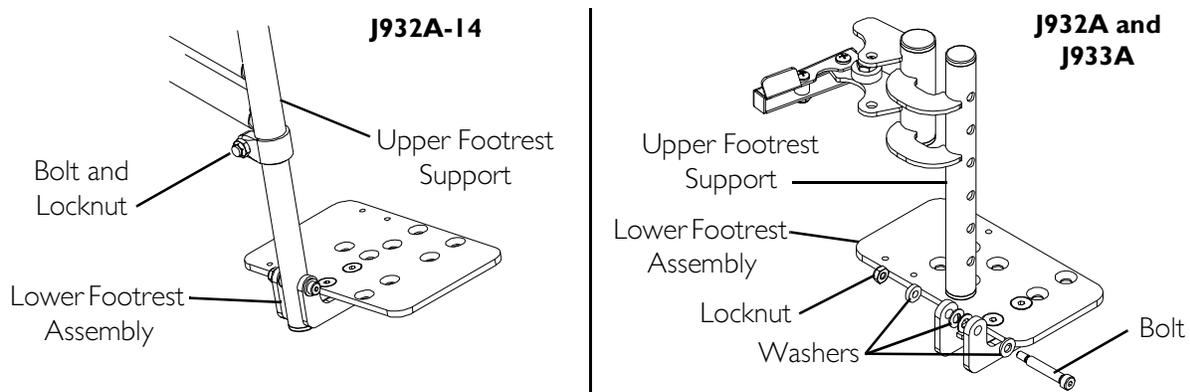
## Swingaway Footrest Height Adjustment

*NOTE: For this procedure, refer to FIGURE 4.2.*

1. Remove the swingaway footrest assembly. Refer to [Installing/Removing the Swingaway Footrest Assembly](#) on page 31.

*NOTE: Lay the assembly on a flat surface to simplify this procedure.*

2. Remove impact guards and/or calf strap, if necessary.
3. Perform one of the following:
  - A. Wheelchairs equipped with 80° swingaway footrest (Model Number J932A-14):
    - Loosen, but do not remove the bolt and lock nut that secure the lower footrest assembly to the upper footrest support.
    - Reposition the lower footrest assembly to the desired height.
    - Securely tighten the bolt and locknut.
  - B. Wheelchairs equipped with 70° swingaway footrest (Model Number J932A) OR 90° swingaway foot-rest (Model Number J933A):
    - Remove the bolt, locknut and four washers that secure the lower footrest assembly to the upper footrest support.
    - Align the mounting hole of the lower footrest assembly with desired height adjustment hole in the lower footrest support.
    - Reinstall the bolt through the desired height adjustment hole in the lower footrest assembly and through the mounting hole in the lower foot-rest support. Securely tighten with the locknut and four washers.
4. Repeat this procedure for the other footrest, if necessary.
5. Replace impact guards and/or calf strap, if necessary.
6. Reinstall the swingaway footrest assembly. Refer to [Installing/Removing the Swingaway Footrest Assembly](#) on page 31.



**FIGURE 4.2** Swingaway Footrest Height Adjustment

## Heel Loop Replacement

*NOTE: For this procedure, refer to FIGURE 4.3.*

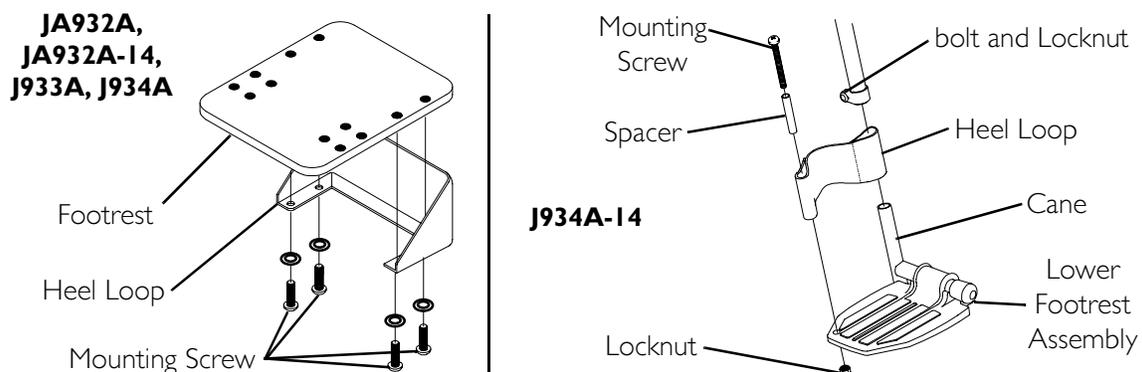
### Swingaway Footrests/Elevating Legrest (J932A, J932A-I4, J933A and J934A)

1. Remove the four mounting screws and washers that secure the heel loop to the **BOTTOM** of the footrest.
2. Remove the heel loop from the footrest.
3. Position the new heel loop as shown in FIGURE 4.3 and reverse STEPS 1-2 to reassemble.

### Elevating Legrest (J934A-I4 ONLY)

1. Loosen, but do not remove the bolt and locknut that secure the lower half of the footrest to the swingaway footrest assembly.
2. Remove the lower footrest assembly.
3. Remove the mounting screw and locknut that secure the heel loop to the footrest.
4. Slide heel loop over cane of the footrest assembly.
5. Replace heel loop.
6. Reverse STEPS 1-4 to reassemble.

*NOTE: When securing the heel loop to the footrest assembly, tighten the mounting screw and locknut until the spacer is secure.*



**FIGURE 4.3** Heel Loop Replacement

## Installing/Removing Elevating Legrest Assembly

*NOTE: For this procedure, refer to FIGURE 4.4.*

### Installing

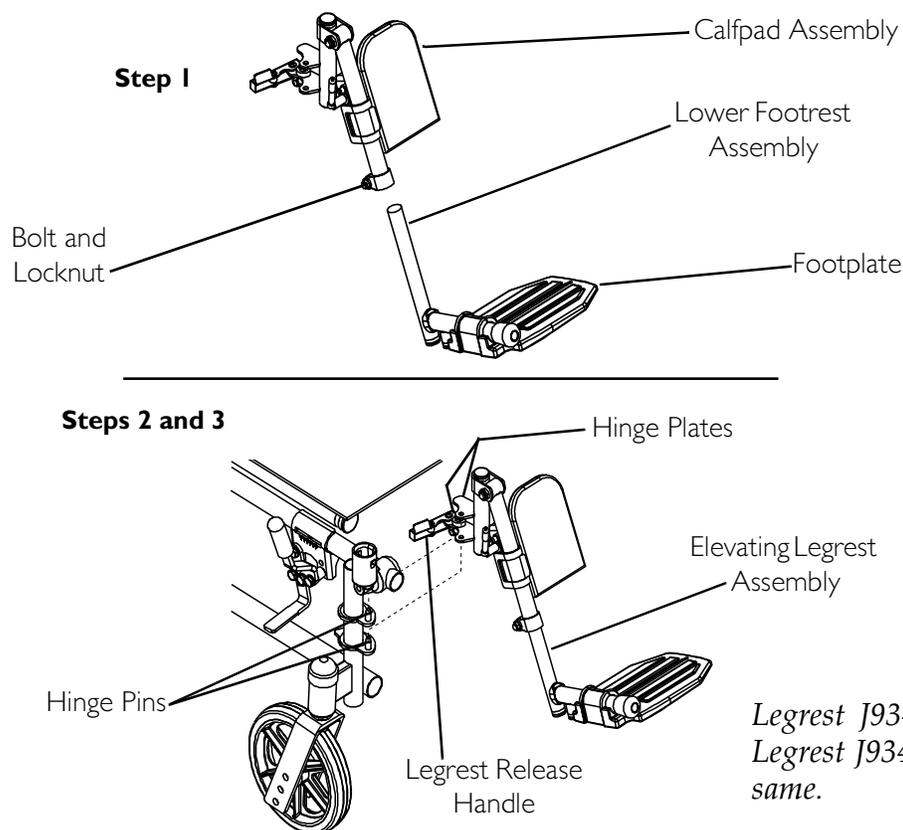
1. Place elevating legrest assembly on the outside of the wheelchair and install the hinge plates onto the hinge pins on the wheelchair frame.
2. Rotate elevating legrest assembly toward the inside of the wheelchair until it locks in place.
3. Repeat this procedure for other legrest assembly.

*NOTE: The footplates will be facing each other when locked in place.*

4. After seated in wheelchair, adjust the legrest to correct height. Refer to [Adjusting the Elevating Legrest Assembly](#) on page 35.

### Removing

1. To release the elevating legrest assembly push the legrest release handle toward the inside of the wheelchair (facing the front of the wheelchair) and swing the legrest assembly to the outside of the wheelchair.
2. Lift the elevating legrest assembly off of the hinge pins.



**FIGURE 4.4** Installing/Removing Elevating Legrest Assembly

## Adjusting the Elevating Legrest Assembly

*NOTE: For this procedure, refer to FIGURE 4.5.*

### Raising Legrest Assembly

1. Assistant should grab hold of the lower legrest assembly and raise elevating legrests until the desired height is obtained.

### Lowering Legrest Assembly

1. Support user leg with one hand.
2. Perform one of the following:
  - Model J934A Elevating Legrest - Push release lever down with other hand.
  - Model J934A-14 Elevating Legrest - Push release lever forward with other hand.
3. Gently, lower user leg down and rest against the legrest.

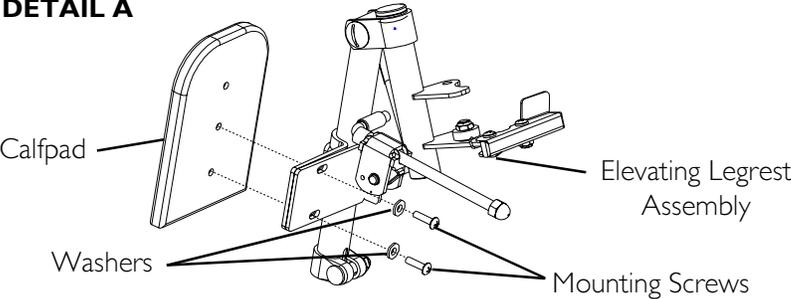
### Adjusting Calfpad

1. Remove the elevating legrest assembly from the wheelchair. Refer to [Installing/Removing Elevating Legrest Assembly](#) on page 34.
2. Remove the two mounting screws and washers securing the calfpad to the elevating legrest as shown in Detail “A”.
3. Position the calfpad in one of the two height positions.
4. Reinstall the two mounting screws and washers securing the calfpad to the elevating legrest. Securely tighten.

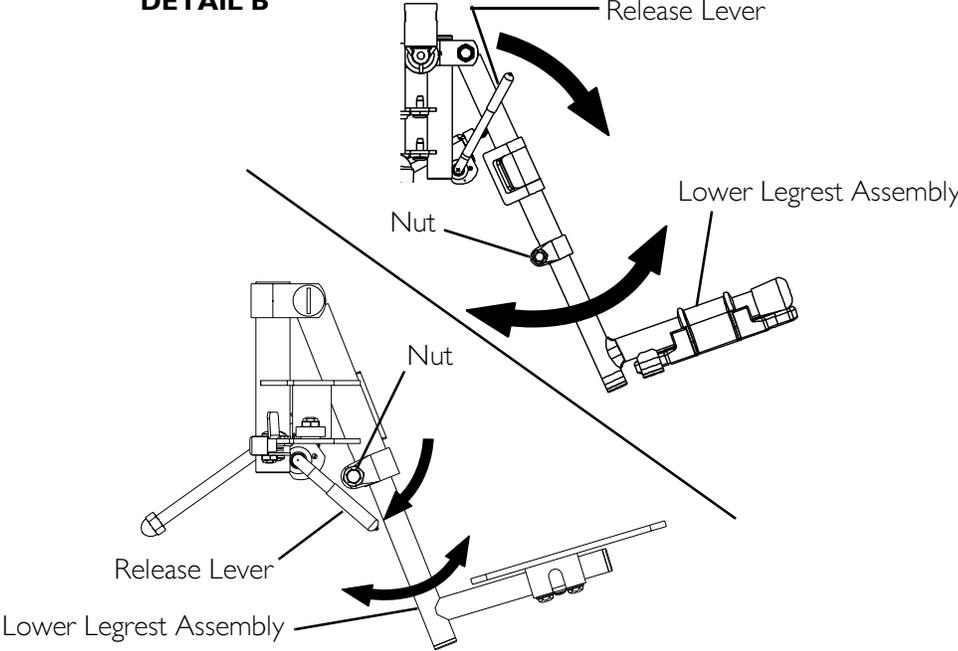
### Adjusting Height

1. Adjust footrest to correct height by loosening the nut and sliding the lower legrest assembly up or down until desired height is achieved as shown in Detail “B”.
2. Securely tighten nut.

**DETAIL A**



**DETAIL B**



**FIGURE 4.5** Adjusting the Elevating Legrest Assembly

# SECTION 5—ARMS

## ⚠ WARNING

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur.

## Adjusting Armrest Height

## ⚠ WARNING

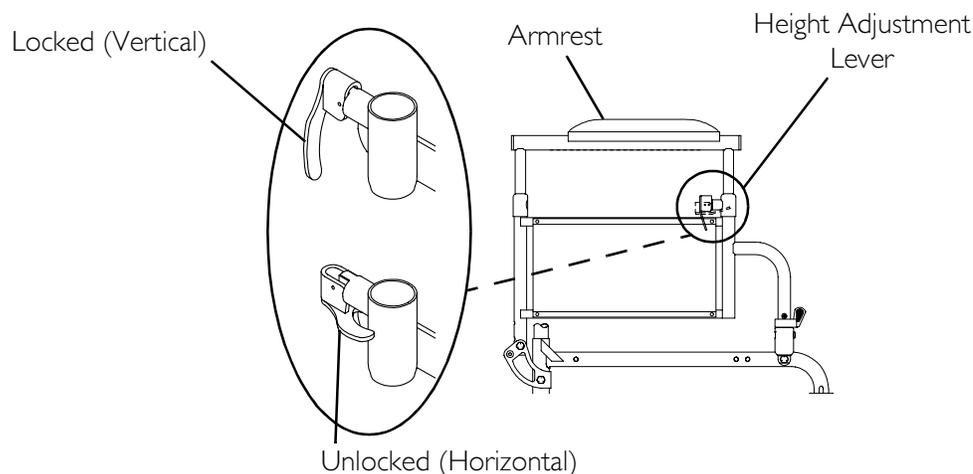
Make sure the height adjustment lever is in the locked position before using the wheelchair.

*NOTE: For this procedure, refer to FIGURE 5.1.*

1. Unlock the armrest by flipping the height adjustment lever on the top front of the armrest to the up (horizontal) position.
2. Adjust armrest to one of five positions.

*NOTE: Height adjustment lever MUST be in the unlocked position when placing armrest into the arm assembly.*

3. Lock the armrest by pressing the height adjustment lever into the down (vertical) position when the desired armrest height is achieved.
4. Repeat STEPS 1-3 for other armrest.



**FIGURE 5.1** Adjusting Armrest Height

## Using Swing-Back Arms

### **⚠ WARNING**

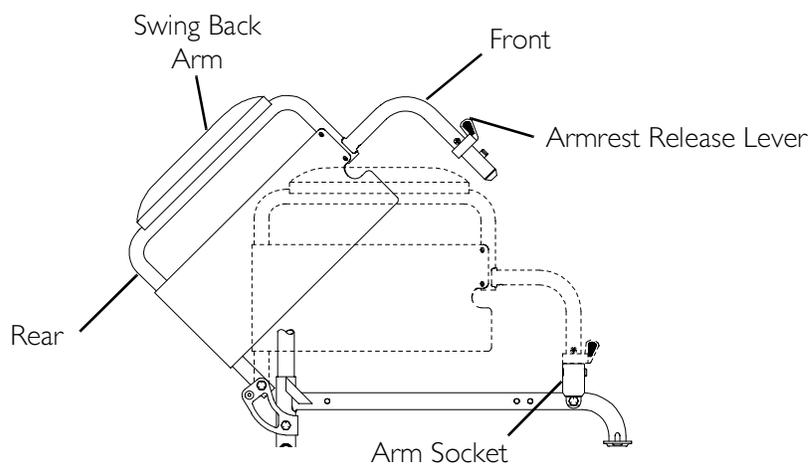
**Make sure the armrest release lever is in the locked position before using the wheelchair.**

*NOTE: For this procedure, refer to FIGURE 5.2.*

1. Unlock the swing-back arms by rotating the armrest release lever toward the outside of the wheelchair.
2. Pull the front of the swing-back arm straight up/out of the arm socket and towards the rear of the wheelchair.
3. To use the swing-back arm, push the swing-back arm towards the front of the wheelchair and then downward into the arm socket.

*NOTE: Armrest release lever MUST be in the unlocked position when placing armrest into the arm sockets.*

4. Lock the swing-back arms by rotating the armrest release lever towards the inside of the wheelchair.



**FIGURE 5.2** Using Swing-Back Arms

## Removing or Replacing Armrest

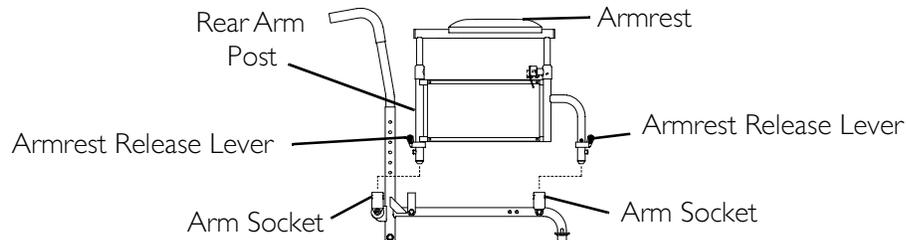
### **⚠ WARNING**

**Make sure the armrest release lever is in the locked position before using the wheelchair.**

*NOTE: For this procedure, refer to FIGURE 5.3.*

## Removing Armrests

1. Unlock the armrest by turning the armrest release levers towards the outside of the wheelchair.
2. Lift armrest completely out of arm sockets from the wheelchair.



**FIGURE 5.3** Removing or Replacing Armrest

## Replacing Armrests

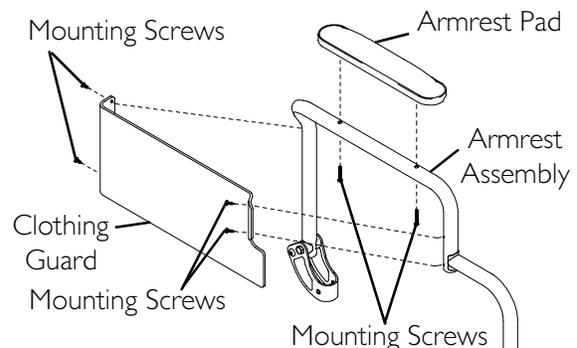
*NOTE: Armrest release levers MUST be in the unlocked position when placing armrest into the arm sockets.*

1. Place armrest into arm sockets located on the side of the wheelchair.
2. Lock the armrest by turning the armrest release levers towards the inside of the wheelchair.

## Replacing Desk/Full Length Armrest Pad (Fixed Height Arms Only)

*NOTE: For this procedure, refer to FIGURE 5.4.*

1. Remove the mounting screws that secure the armrest pad to the armrest assembly.
2. Replace armrest pad and securely tighten with the existing mounting screws.



**FIGURE 5.4** Replacing Desk/Full Length Armrest Pad (Fixed Height Arms Only)

## Replacing Clothing Guards (Fixed Height Arms Only)

NOTE: For this procedure, refer to FIGURE 5.4.

1. Remove the four mounting screws that secure the existing clothing guard to the armrest assembly.
2. Install new clothing guard and securely tighten with the existing mounting screws.

## Converting Between Space Saver and Conventional Arms

NOTE: For this procedure, refer to FIGURE 5.5.

NOTE: Space Saver arms do not work with the following:

- Adjustable angle back option.
  - Jymni Recliner.
1. Remove the arms from the wheelchair. Refer to [Removing or Replacing Armrest](#) on page 38.
  2. Remove the locknut and hex screw that secure the arm socket to the wheelchair frame.
  3. Repeat STEP 2 for the opposite side of the wheelchair.
  4. Reposition the arm socket to one of two positions:

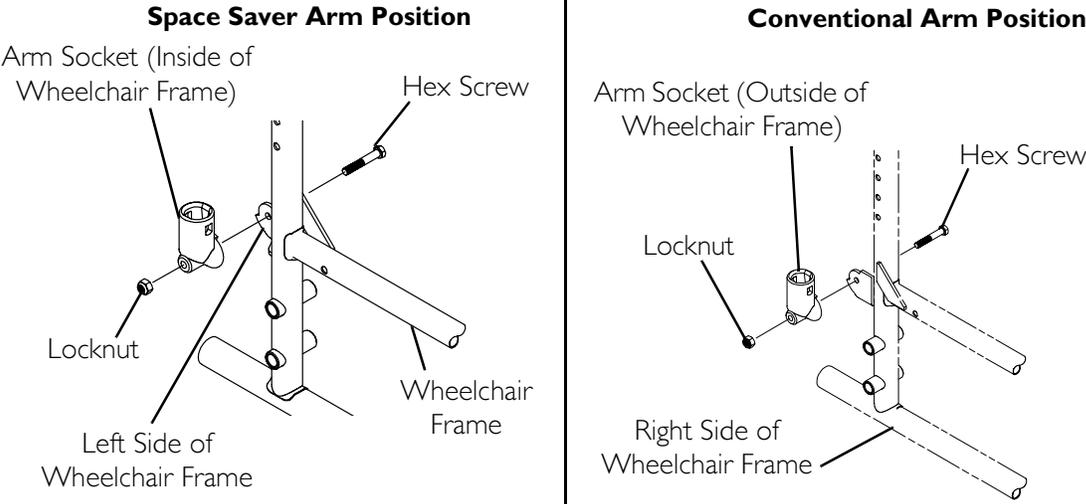
ARM TYPE	ARM SOCKET POSITION (ON WHEELCHAIR FRAME)
<b>CONVENTIONAL</b> <b>SPACE SAVER</b>	Outside Inside

NOTE: Make sure arm sockets sit flush against the wheelchair frame.

5. Reinstall the hex screw and locknut that secure the arm socket to the wheelchair frame and securely tighten.
6. Repeat STEP 5 for the opposite side of the wheelchair.
7. Refer to the following chart to determine the rear wheel axle spacer needed:

ARM TYPE	AXLE SPACER NEEDED?
<b>CONVENTIONAL</b> <b>SPACE SAVER</b>	5/8-inch 1/8 -inch

8. To install the rear wheel axle spacer, refer to [Removing/Installing the Rear Wheels](#) on page 45.
9. Install the new arms onto the wheelchair. Refer to [Removing or Replacing Armrest](#) on page 38.



**FIGURE 5.5** Converting Between Space Saver and Conventional Arms

# SECTION 6—SEAT AND BACK

## ⚠ WARNING

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur.

*NOTE: The procedures in this section apply to non-recliner models only. For recliner models, refer to recliner on page 55.*

## Replacing Seat Upholstery

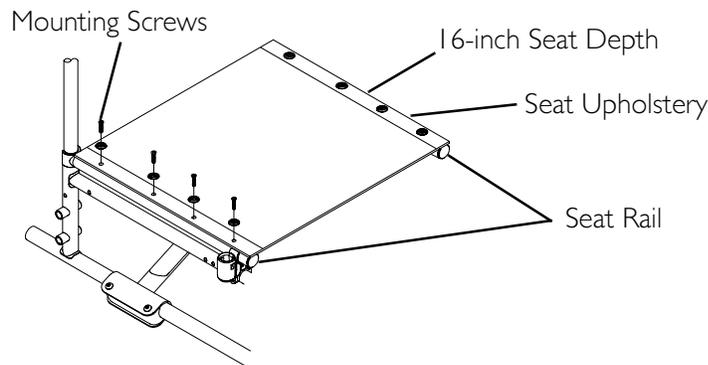
*NOTE: For this procedure, refer to FIGURE 6.1.*

1. Remove the mounting screws that secure the existing seat upholstery to the seat rails.

*NOTE: The following chart determines the number of mounting screws for each seat depth.*

SEAT DEPTH	NUMBER OF SCREWS
10 AND 12 INCH	8
14 INCH	10

2. Remove the existing seat upholstery from the seat rails.
3. Install new seat upholstery by reversing STEPS 1-2.



**FIGURE 6.1** Replacing Seat Upholstery

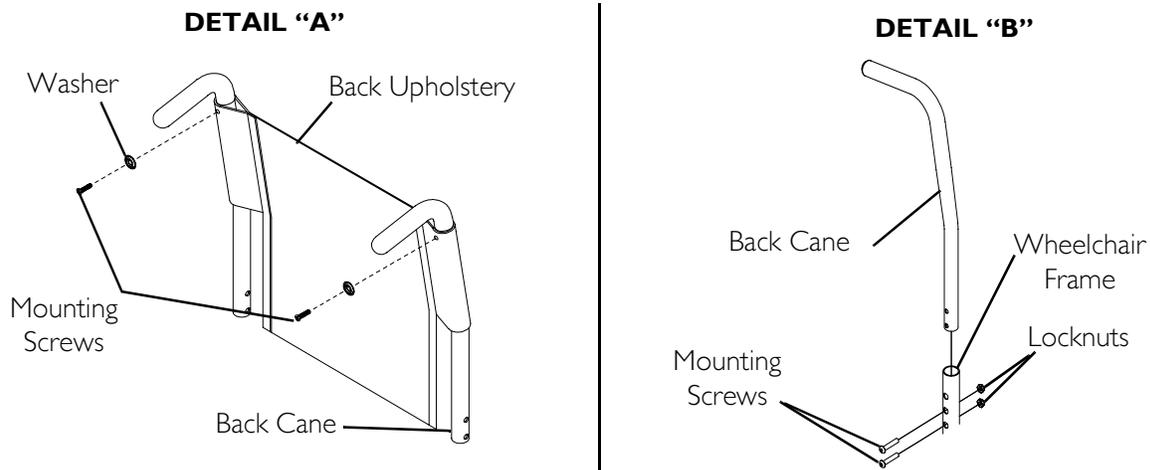
## Replacing Back Upholstery

*NOTE: For this procedure, refer to FIGURE 6.2.*

1. Remove the two mounting screws and washers that secure the existing back upholstery to the back canes (Detail "A").
2. Remove the two mounting screws and locknuts that secure one back cane to the wheelchair frame (Detail "B").

*NOTE: It is necessary to remove only one back cane to replace the back upholstery.*

3. Pull the loose back cane out of the existing back upholstery.
4. Pull the existing back upholstery up and over the mounted back cane.
5. Install the new back upholstery over the mounted back cane.
6. Slide the loose back cane through the new back upholstery.
7. Secure the back cane to the wheelchair frame with the two allen screws and locknuts.
8. Secure the new back upholstery to the back canes with the existing mounting screws and washers.



**FIGURE 6.2** Replacing Back Upholstery

## Adjusting the Back Height

### **⚠ WARNING**

The seat depth, back height/angle, seat angle, size/position of the front casters, size/position of the rear wheels, anti-tipper model, as well as the user condition directly relate to the stability of the wheelchair. Any change to one (1) or any combination of the ten (10) may cause the wheelchair to decrease in stability. These adjustments **MUST** be performed by a qualified technician.

*NOTE: For this procedure, refer to FIGURE 6.3.*

*NOTE: Back canes must be adjusted to the same height.*

1. Remove the two mounting screws and locknuts that secure the two back canes to the wheelchair frame.

2. Reposition the back canes to one of two height adjustment mounting holes:

#### BACK HEIGHT

BACK HEIGHT	MOUNTING HOLES*
14 INCH	1 and 2
15 INCH	2 and 3

\*NOTE: Mounting holes numbered from bottom to top for reference only. (There are no numbers on the back canes or wheelchair frame.)

3. Reinstall the two allen screws and locknuts that secure the back canes to the wheelchair frame and securely tighten.

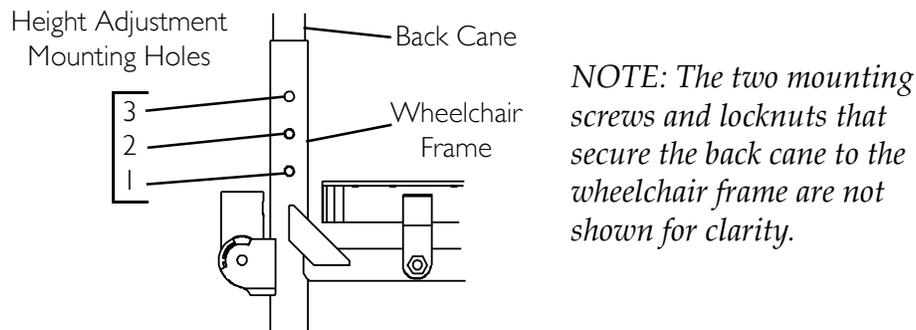


FIGURE 6.3 Adjusting the Back Height

## Adjusting Angle Back - Standard/Light Weight Adjustable Angle Back Model Only

### ⚠ WARNING

The back angle directly relates to the stability of the wheelchair. Any change may cause the wheelchair to decrease in stability. The following procedure **MUST** be performed by a qualified technician.

## Adjusting the Seat Width and Depth

### ⚠ WARNING

The back seat depth directly relates to the stability of the wheelchair. Any change may cause the wheelchair to decrease instability. The following procedure **MUST** be performed by a qualified technician.

# SECTION 7—REAR WHEELS

## ⚠ WARNING

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur.

## Removing/Installing the Rear Wheels

## ⚠ WARNING

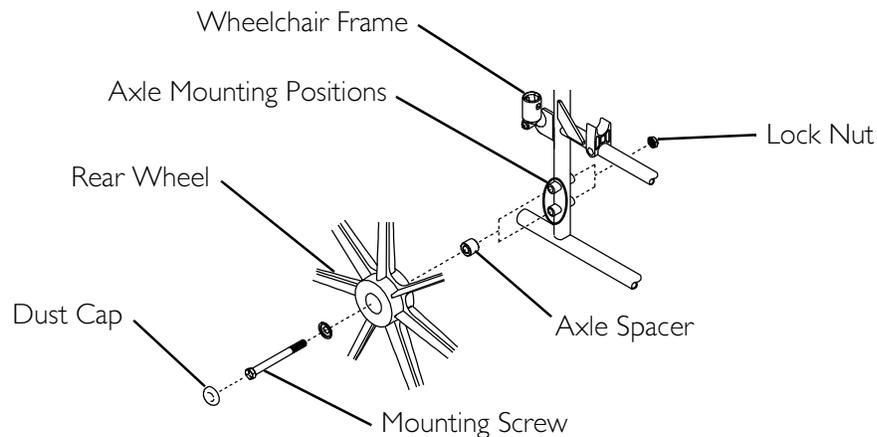
If changing the size of the rear wheel or a change in the seat-to-floor height is desired, this procedure must be performed by a qualified technician.

### Permanent Axles

*NOTE: For this procedure, refer to FIGURE 7.1.*

*NOTE: If replacing the same size rear wheel, note the mounting position on the wheelchair frame for proper reinstallation of the new rear wheel.*

1. Remove the dust cap (if applicable), mounting screw and locknut that secure the rear wheel and axle spacer to the wheelchair.
2. Repeat STEP 1 for the opposite rear wheel.
3. To reinstall the rear wheel onto the wheelchair, reverse STEPS 1-2.



**FIGURE 7.1** Removing/Installing the Rear Wheels - Permanent Axles

## Quick-Release Axles

### ⚠ WARNING

**NEVER** use quick-release axles on the recliner.

*NOTE: For this procedure, refer to FIGURE 7.2.*

*NOTE: If replacing the same size rear wheel, note the mounting position on the wheelchair frame for proper reinstallation of the new rear wheel.*

1. Push the detent pin in the tip of the quick-release axle (with wheel) and pull the axle out through the opening in the center of the rear wheel and axle spacer.
2. Push the detent pin in the tip of the quick-release axle again and pull the axle out of the rear wheel.
3. Repeat STEPS 1-2 for the opposite rear wheel.
4. To reinstall the rear wheel onto the wheelchair, reverse STEPS 1-3.

### ⚠ WARNING

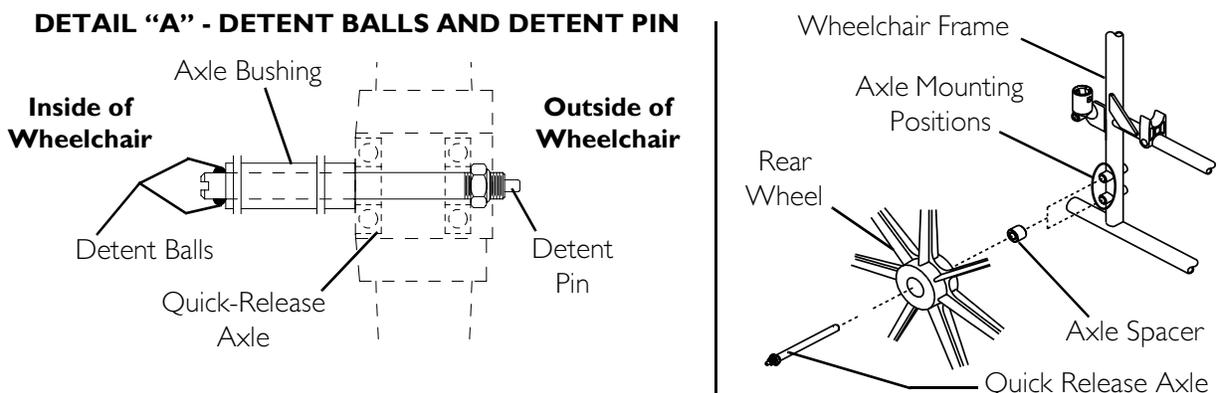
**Make sure the detent pin and detent balls of the quick-release axle are fully released before operating the wheelchair.**

**The detent balls **MUST** be protruding past the inside of the rear wheel axle bushing for a positive lock (Detail “A”).**

**Keep detent balls clean.**

**Invacare recommends inserting quick-release axles with the detent pin to the inside of the wheelchair to prevent accidental release during contact activities.**

5. If the detent balls are not protruding past the inside of the axle bushing or there is too much side-to-side movement of the rear wheel assembly, refer to [Adjusting the Quick-Release Axle](#) on page 48.

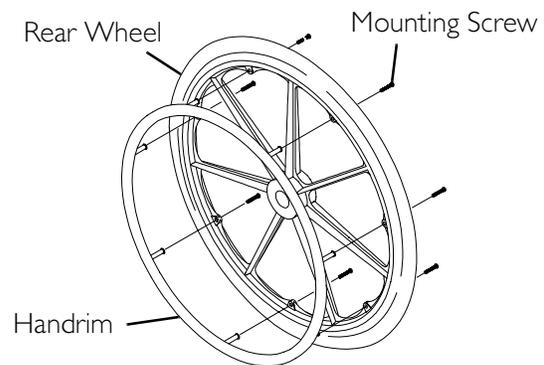


**FIGURE 7.2** Removing/Installing the Rear Wheels: Quick-Release Axles

## Replacing Rear Wheel Handrim

*NOTE: For this procedure, refer to FIGURE 7.3.*

1. Remove the rear wheel from the wheelchair. For non-recliner models, refer to [Removing/Installing the Rear Wheels](#) on page 45.
2. Remove the mounting screws that secure the handrim to the rear wheel.
3. Remove the existing handrim.
4. Install the new handrim by reversing the preceding steps.



**FIGURE 7.3** Replacing Rear Wheel Handrim

### **⚠ WARNING**

**Make sure detent pin and detent balls of the quick-release axles are fully released before operating the wheelchair.**

5. Reinstall rear wheel to the wheelchair. Refer to [Removing/Installing the Rear Wheels](#) on page 45.
6. If the detent balls of the quick-release axles (if applicable) are not protruding past the inside of the axle bushing or there is too much movement of the rear wheel assembly in a back and forth position, refer to [Adjusting the Quick-Release Axle](#) on page 48.
7. Repeat STEPS 1-6 for the opposite rear wheel if necessary.

## Adjusting the Quick-Release Axle

### ⚠ WARNING

**NEVER** use quick-release axles on the recliner wheelchairs.

*NOTE:* For this procedure, refer to FIGURE 7.4.

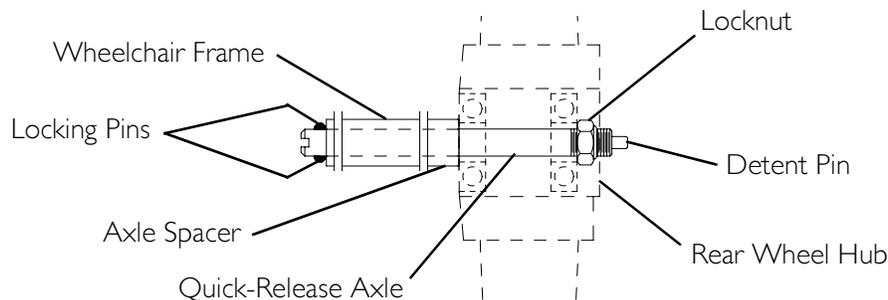
1. Remove rear wheel and quick-release axle from the wheelchair. Refer to [Removing/Installing the Rear Wheels](#) on page 45.
2. Depress detent pin in the quick-release axle and slide axle through the rear wheel hub.
3. Release detent pin ensuring that the detent balls are fully released.
4. Increase or decrease end play by adjusting the locknut on the end of the quick-release axle.

### ⚠ WARNING

**Make sure detent pin and detent balls of the quick-release axles are fully released before operating the wheelchair.**

**Keep detent balls clean.**

5. Reinstall rear wheel onto the wheelchair. Refer to [Removing/Installing the Rear Wheels](#) on page 45.



**FIGURE 7.4** Adjusting the Quick-Release Axle

## Replacing/Repairing Rear Wheel Tire/Tube

### ⚠ WARNING

Replacement of rear wheel tire or tube **MUST** be performed by a qualified technician.

### CAUTION

As with any vehicle, the wheels and tires should be checked periodically for cracks and wear, and should be replaced.

# SECTION 8—FRONT CASTERS

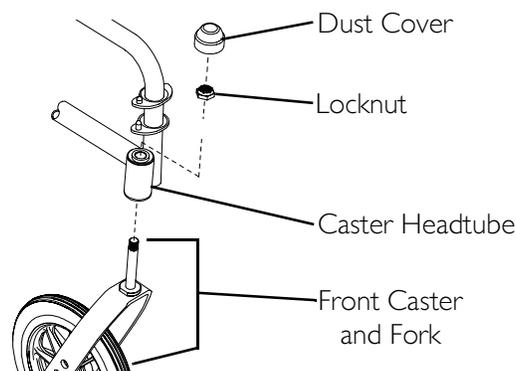
## ⚠ WARNING

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur.

## Installing/Replacing Front Casters and Forks

*NOTE: For this procedure, refer to FIGURE 8.1.*

1. Remove the dust cover.
2. Remove the locknut that secures the fork to the caster headtube.
3. Drop the front caster and fork out of the caster headtube.
4. Slide in the new front caster and fork.
5. Reassemble by reversing STEPS 1-3.
6. Repeat STEPS 1-5 for the opposite front caster.
7. To properly tighten caster journal system and guard against flutter, perform the following check:
  - A. Tip back of wheelchair to floor.
  - B. Pivot both forks and casters to top of their arc simultaneously.
  - C. Let casters drop to bottom of arc (wheels should swing once to one-side, then immediately rest in a straight downward position).
  - D. Adjust locknuts according to freedom of caster swing.
8. Test wheelchair for maneuverability.
9. Readjust locknuts if necessary, and repeat STEPS 7-8 until correct.
10. Snap dust cover over the locknut and stem.



**FIGURE 8.1** Installing/Replacing Front Casters and Forks

## Replacing/Repairing Front Caster Tire/Tube

---

### **⚠ WARNING**

Replacement of front caster tire or tube **MUST** be performed by a qualified technician.

---

### **CAUTION**

As with any vehicle, the wheels and tires should be checked periodically for cracks and wear, and should be replaced when necessary.

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## Adjusting Front Caster Mounting

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### **⚠ WARNING**

Front caster mounting adjustments **MUST** be performed by a qualified technician.

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# SECTION 9—ANTI-TIPPERS

## ⚠ WARNING

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur.

## Installing/Adjusting the Anti-Tippers

## ⚠ WARNING

Anti-tippers are specific to the different rear wheels and/or seat-to-floor heights. Refer to the chart in Installing/Adjusting the Anti-Tippers on page 51 for correct usage and adjustment. If these requirements **CANNOT** be achieved, **DO NOT** use the wheelchair. Contact an Invacare dealer or qualified technician. Any changes to the seat-to-floor angle or seat-to-floor height may require different anti-tippers.

**Seat-to-floor height (which includes changing rear wheel size):** If changing the seat-to-floor height with or without changing the rear wheel size, the correct anti-tippers **MUST** be ordered to maintain a 1½ to 2-inch ground clearance.

**Non-recliners Only** - Inasmuch as the anti-tippers are an option on this wheelchair (You may order with or without the anti-tippers), Invacare strongly recommends ordering the anti-tippers as an additional safeguard for the wheelchair user.

**Recliners and Wheelchairs with 1-Inch Forward Rear Wheel Positioners Only** - Anti-tippers **MUST BE** attached at all times.

Anti-tippers **MUST** be fully engaged. Ensure that the release buttons of the anti-tipper fully protrudes out of the hole on the bottom of the wheelchair frame and out of hole in the adjustment tube.

Ensure both anti-tippers are adjusted to the same height.

## Installing the Anti-Tippers

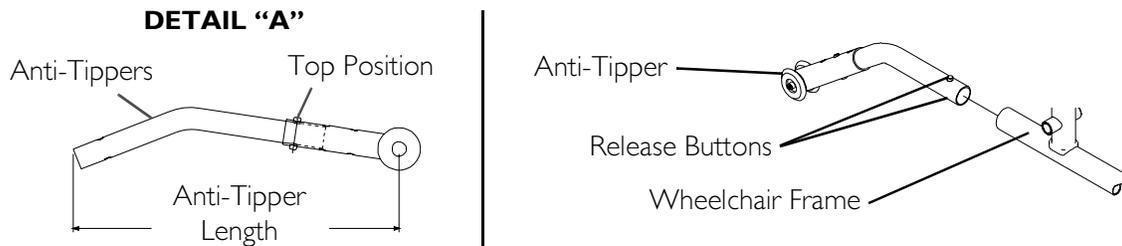
*NOTE: For this procedure, refer to FIGURE 9.1.*

*NOTE: To ensure the correct model anti-tipper is used refer to the Anti-tipper Identification Chart bellow. Measurements for anti-tippers are approximate and are taken with extension tube in top hole position (Detail "A").*

**ANTI-TIPPER IDENTIFICATION CHART**

REAR WHEEL SIZE	ANTI-TIPPER LENGTH	ANTI-TIPPER PART NUMBER
20 inch Rear Wheels	9 inches	1101959
22 inch Rear Wheels	9-5/8 inches	1058752

1. Depress the release buttons and insert the anti-tippers with the anti-tipper wheels pointing toward the ground/floor into the wheelchair frame tubing as shown in FIGURE 2.
2. Ensure that the release button of the anti-tipper fully protrudes out of the hole in the bottom of the wheelchair frame tubing.
3. Adjust anti-tippers as necessary. Refer to Adjusting the Anti-Tippers on page 52.
4. If necessary, reverse STEPS 1-2 to remove the anti-tippers



**FIGURE 9.1** Installing the Anti-Tippers

## Adjusting the Anti-Tippers

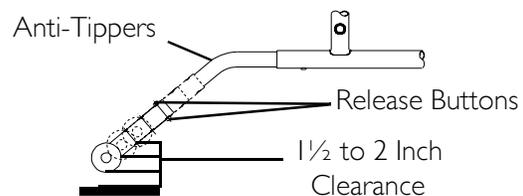
*NOTE: For this procedure, refer to FIGURE 9.2.*

*NOTE: A 1½ to 2-inch clearance between the bottom of the anti-tipper wheels and the ground/floor MUST be maintained at all times.*

1. Place wheelchair on a flat, level surface.

*NOTE: On recliner models, ensure back canes are in the upright position before determining 1½ to 2-inch Clearance.*

2. Press the release buttons near the wheeled portion of the anti-tipper and slide it up or down to achieve the 1½ to 2-inch clearance (FIGURE 9.2).
3. Check to make sure that the release buttons are fully engaged in adjustment holes, and ensure both anti-tippers are adjusted to the same height.
4. Check to make sure that a 1½ to 2-inch clearance between the bottom of the anti-tipper wheels and the ground/floor has been achieved before using the wheelchair.
5. Repeat STEPS 1-3 until 1½-2-inch clearance is achieved.



**FIGURE 9.2** Adjusting the Anti-Tippers

# SECTION 10—WHEEL LOCKS

## ⚠ WARNING

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur

## Using Patient Operated Wheel Locks

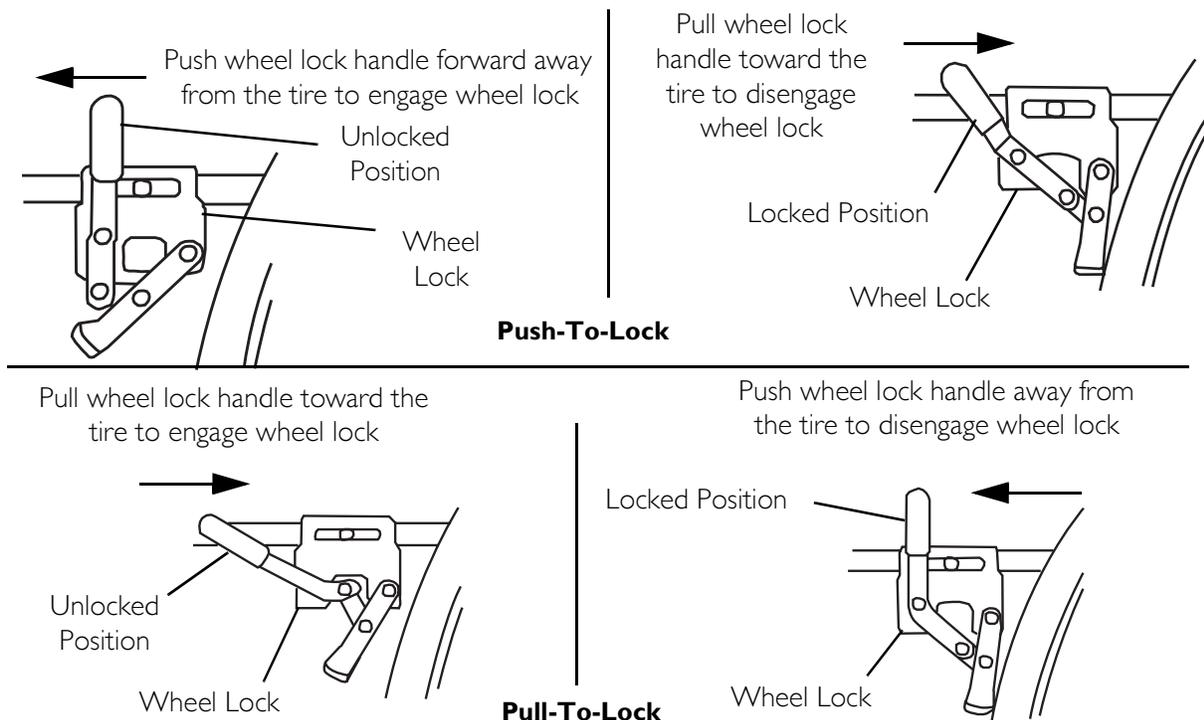
## ⚠ WARNING

**DO NOT** attempt to stop a moving wheelchair with wheel locks. Wheel locks are not brakes.

*NOTE: For this procedure, refer to FIGURE 10.1.*

*NOTE: Position wheelchair on a flat, level surface to perform this procedure.*

1. Ensure the wheelchair is not moving before engaging the wheel locks.
2. Depending on the model of wheel lock installed on the wheelchair, perform one of the following:
  - Push-to-Lock - To engage, push the wheel lock handle forward.
  - Pull-to-Lock - To engage, pull the wheel lock handle backward.
3. Disengage the wheel locks by reversing STEP 2.



**FIGURE 10.1** Using Patient Operated Wheel Locks

## Adjusting Patient-Operated Wheel Lock

*NOTE: For this procedure, refer to FIGURE 10.2.*

*NOTE: If wheels are pneumatic, before adjusting or replacing the wheel lock assemblies, ensure that the tires are inflated to the recommended psi on the side wall of tire. The recommended tire pressure is located on the side wall of the tire.*

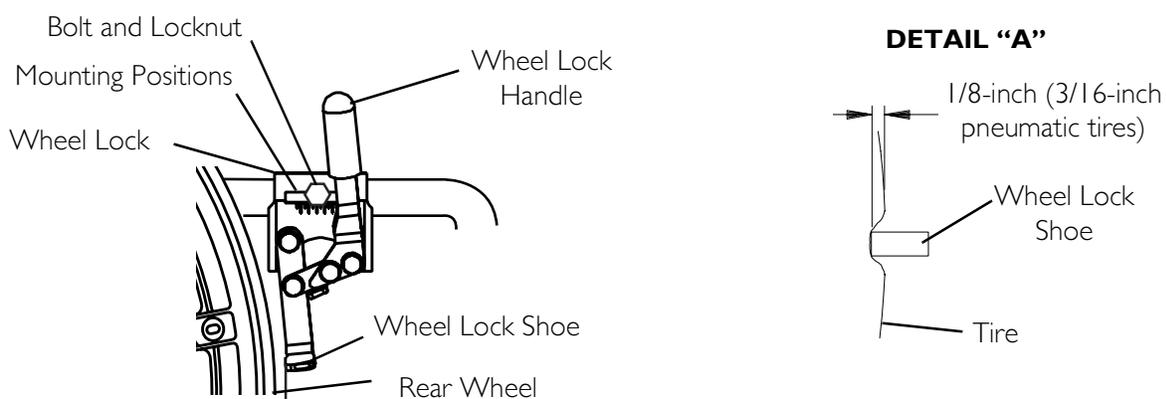
1. Disengage the wheel locks.
2. Loosen the bolt and locknut that secure the wheel lock to the wheelchair frame.
3. Reposition the wheel lock so that when engaged, the wheel lock shoe embeds the tire 1/8-inch (3/16-inch for pneumatic tires) and holds the occupied wheelchair in place when pushed.
4. Securely tighten the bolt and locknut or socket screws securing the wheel lock to the wheelchair frame.
5. Engage the wheel lock.
6. Measure the distance the wheel lock is embedded into the tire as shown in Detail "A".

*NOTE: Any wheel lock adjustment should embed the wheel lock shoe at least 1/8-inch (3/16-inch if pneumatic tire) into the tire when engaged.*

7. Repeat STEPS 1-6 until the wheel lock shoe embeds the tire 1/8-inch (3/16-inch for pneumatic tires) and holds the occupied wheelchair in place when pushed.
8. Repeat STEPS 1-7 for the opposite wheel lock.
9. Engage both wheel locks and ensure the occupied wheelchair is held in place when pushed.

### **⚠ WARNING**

**If wheel locks do not hold the occupied wheelchair in place, contact a qualified technician. Otherwise injury or damage may occur.**



**FIGURE 10.2** Adjusting Patient-Operated Wheel Lock

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# SECTION 11—RECLINER

---

## **⚠ WARNING**

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur.

---

## Recliner Operation

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### **⚠ WARNING**

**ALWAYS** make sure that the wheelchair is stable before using the recliner option. **ALWAYS** engage both wheel locks while reclining or inclining (sitting up) the wheelchair.

**ALWAYS** wear your seat positioning strap. Inasmuch as the **SEAT POSITIONING STRAP** is an option on this wheelchair (you may order with or without the seat positioning strap), Invacare strongly recommends ordering the seat positioning strap as an additional safeguard for the wheelchair user. The seat positioning strap is a positioning belt only. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, belt **MUST** be replaced immediately.

Ensure the spreader bar is attached and secured before using the Jymni Recliner.

#### **TO HEALTHCARE PROFESSIONALS/ASSISTANTS:**

Make sure occupant's hands and body are clear of all pinch points before reclining back. Pinch Points exist between spreader bar and recliner mechanism. Use caution, otherwise injury may occur.

Keep clear when reclining or inclining chair back to avoid injury.

Make sure the patient is properly positioned in the wheelchair before reclining or inclining (sitting up) to maintain maximum stability and safety. Refer to **Safety/Handling of wheelchairs** on page 17.

When returning the occupant of the wheelchair to the full upright position, more body strength will be required for approximately the last twenty degrees (20°) of incline (sitting up). Make sure to use proper body mechanics (use your legs) or seek assistance if necessary to avoid injury.

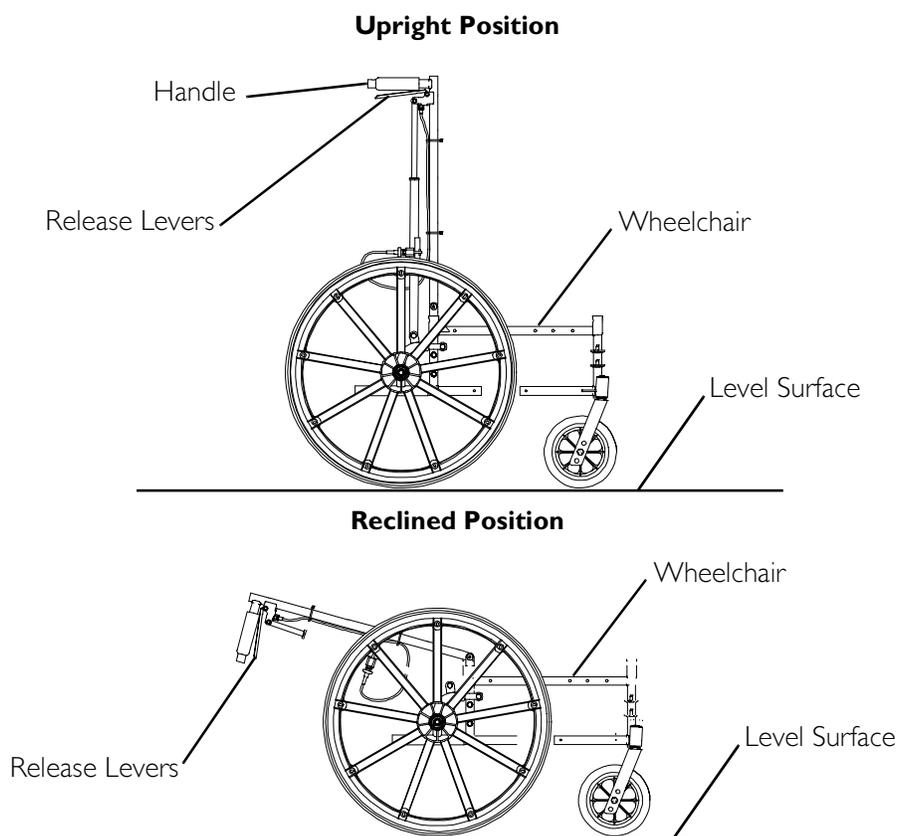
Before using the recliner option, make sure the anti-tipper wheel assemblies are in the lowest adjustment hole (adjustment hole closest to the ground/floor.)

---

*NOTE: For this procedure, refer to FIGURE 11.1 on page 56.*

1. Unfold wheelchair. Refer to Safety/Handling of wheelchairs on page 17.
2. Attach spreader bar. Refer to Storing/Replacing the Spreader Bar on page 59.
3. Adjust the tightness of the headrest/back upholstery. Refer to Adjusting Headrest/Back Upholstery Tension on page 59.

4. Make sure wheelchair is occupied and on a level surface before reclining.
5. Engage the wheel locks. Refer to [Using Patient Operated Wheel Locks](#) on page 53.
6. Inform the occupant of the wheelchair that the wheelchair is about to be reclined.
7. Make sure occupant's hands and body are clear of all pinch points
8. Stand behind the wheelchair and grasp both handles firmly.
9. Squeeze release handles.
10. Slowly, pull back on the back assembly while squeezing the release handles.
11. When the back reaches the desired angle, slowly let go of the release handles.
12. To return the back to the full upright position, reverse the STEPS 8-11 keeping in mind proper body mechanics.



**FIGURE 11.1** Recliner Operation

## Installing/Removing Headrest Extension

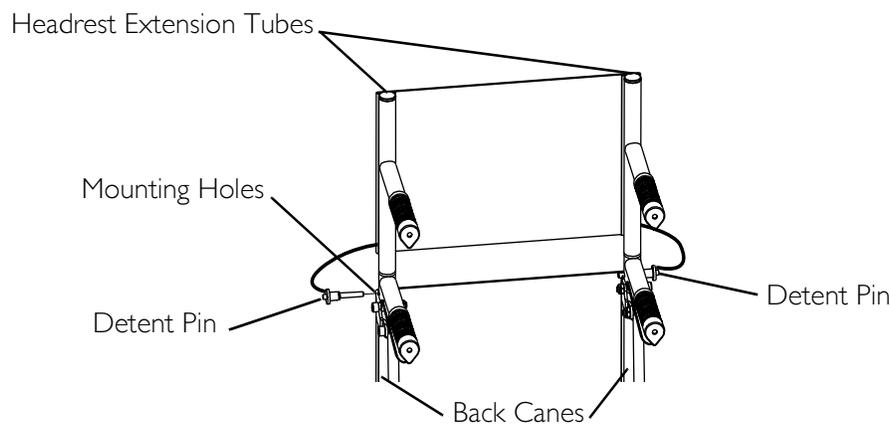
*NOTE: For this procedure, refer to FIGURE 11.2 on page 57.*

### Installing

1. Insert headrest extension tubes into back canes.
2. Position the two headrest extension tubes so that the mounting holes in the back canes align with the mounting holes in both headrest extensions and secure with two detent pins.
3. Ensure the two detent pins pass completely through the mounting holes in the two back canes and the headrest extension tubes.

### Removing

1. Remove the detent pins that secure the headrest extension tubes.
2. Remove the headrest extension tubes.

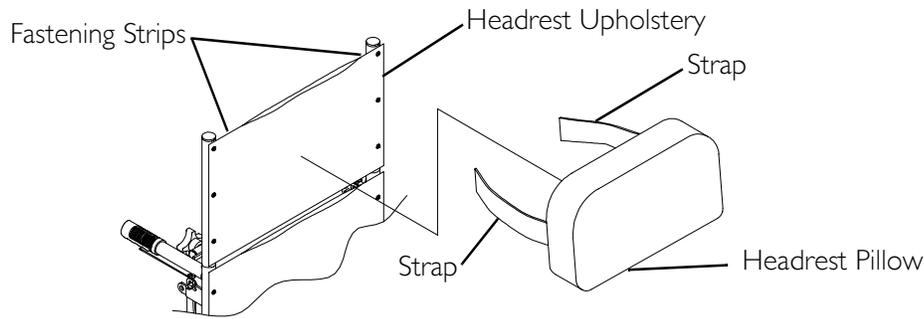


**FIGURE 11.2** Installing/Removing Headrest Extension

## Replacing the Headrest Pillow

*NOTE: For this procedure, refer to FIGURE 11.3.*

1. Unfasten straps of headrest pillow from behind headrest upholstery.
2. Secure straps of new headrest pillow onto fastening strips located on back of headrest upholstery.



**FIGURE 11.3** Replacing the Headrest Pillow

## Replacing the Headrest/Back Upholstery

### Headrest Upholstery

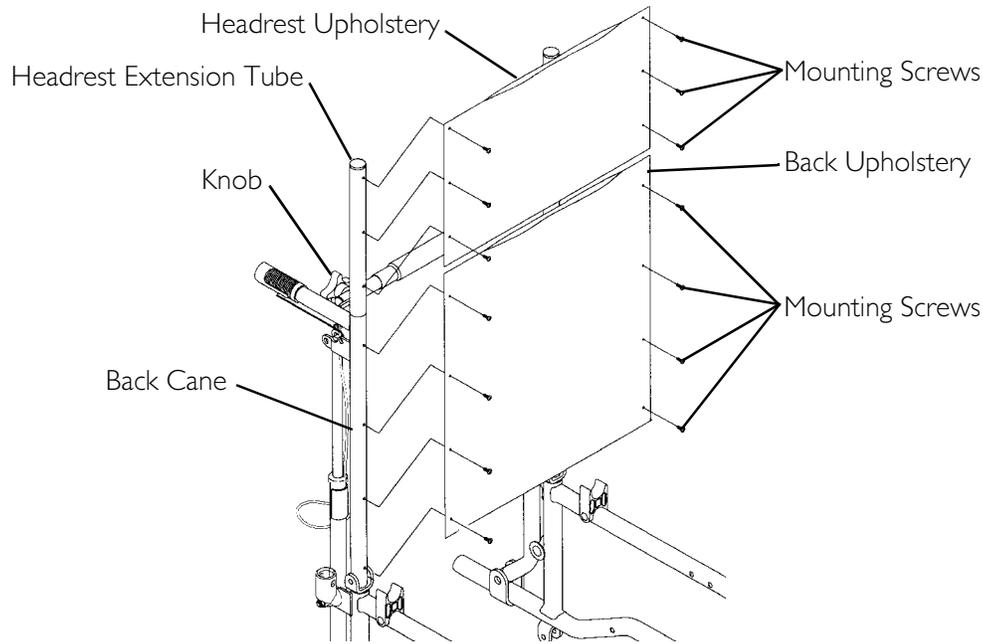
*NOTE: For this procedure, refer to FIGURE 11.4 on page 59.*

1. Remove the headrest pillow. Refer to [Replacing the Headrest Pillow](#) on page 57.
2. Remove the six mounting screws that secure the headrest upholstery to the headrest extension tubes.
3. Secure new headrest upholstery onto headrest extension tubes with the existing six mounting screws.
4. Install headrest pillow. Refer to [Replacing the Headrest Pillow](#) on page 57.

### Back Upholstery

*NOTE: For this procedure, refer to FIGURE 11.4 on page 59.*

1. Unthread one knob on either side of the spreader bar and loosen the opposite knob.
2. Remove the eight mounting screws that secure the back upholstery to the back canes.
3. Secure new back upholstery to back canes with the existing eight mounting screws. Securely tighten.
4. Secure knob of spreader bar to side frame. Securely tighten both knobs.

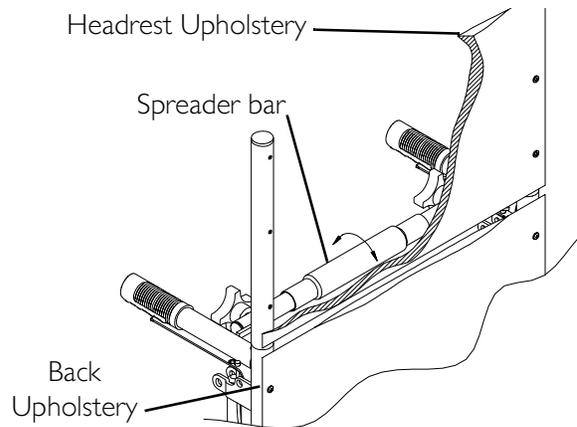


**FIGURE 11.4** Replacing the Headrest/Back Upholstery

## Adjusting Headrest/Back Upholstery Tension

*NOTE: For this procedure, refer to FIGURE 11.5.*

1. Rotate the spreader bar to perform one of the following:
  - Counterclockwise (away from back upholstery) to loosen back/headrest upholstery.
  - Clockwise (towards back upholstery) to tighten back/headrest upholstery.



**FIGURE 11.5** Adjusting Headrest/Back Upholstery Tension

## Storing/Replacing the Spreader Bar

### Storing

*NOTE: For this procedure, refer to FIGURE 11.6 on page 60.*

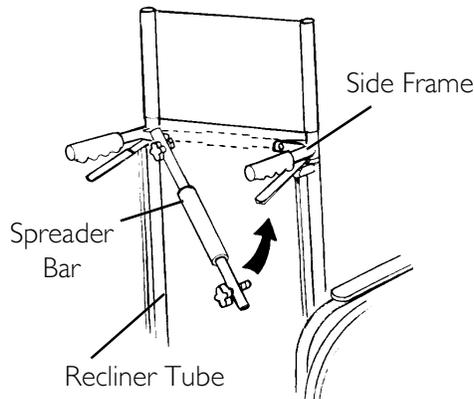
*NOTE: When folding the Jymni Recliner for either storage or transporting. One side of the spreader bar must be removed and placed in a vertical position along side the recliner tube.*

## Removing From the Stored Position

1. Rotate the end of the spreader bar 90° toward the opposite side frame.
2. Install threaded end of locking knob into locknut located on the opposite side frame. Securely tighten both knobs.

## Placing In the Stored Position

1. Unthread one locking knob from the side frame.
2. Rotate detached end of the spreader bar 90° down toward floor.

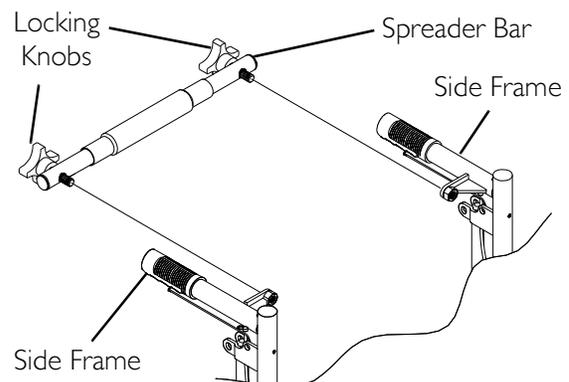


**FIGURE 11.6** Storing/Replacing the Spreader Bar: Storing

## Replacing

*NOTE: For this procedure, refer to FIGURE 11.7.*

1. Unthread both locking knobs that secure the spreader bar to the side frames.
2. Remove existing spreader bar.
3. Secure new spreader bar to the side frames with the existing locking knobs. Securely tighten.



**FIGURE 11.7** Storing/Replacing the Spreader Bar: Replacing

## Adjusting the Seat Width and Depth

### **⚠ WARNING**

The seat depth and width directly relates to the stability of the recliner. Any change may cause the recliner to decrease in stability. This procedure **MUST** be performed by a qualified technician.

# SECTION 12—OPTIONS

## ⚠ WARNING

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur.

## Installing the Telescoping I.V. Rod/O<sub>2</sub> Holders

## ⚠ WARNING

Make sure the telescoping I.V. rod is tightly locked before placing I.V. medication on the rod.

The telescoping I.V. rod is designed for the specific purpose of supporting I.V. medication only. **DO NOT** use it to support objects other than I.V. medication.

Check weekly to make sure the telescoping I.V. rod/O<sub>2</sub> holder is tightly secured to the wheelchair frame. If there is any looseness whatsoever, **DO NOT** use until the corrective adjustments have been made.

The telescoping I.V. rod/O<sub>2</sub> holders clean easily with any household glass type cleaner.

*NOTE: For this procedure, refer to FIGURE 12.1 on page 62.*

## Mounting Instructions

1. Slide telescoping I.V. rod/O<sub>2</sub> holder over the step tube of the wheelchair.

*NOTE: Mounting bracket of telescoping I.V. rod/O<sub>2</sub> holder should be positioned below the two axle mounting positions on wheelchair frame.*

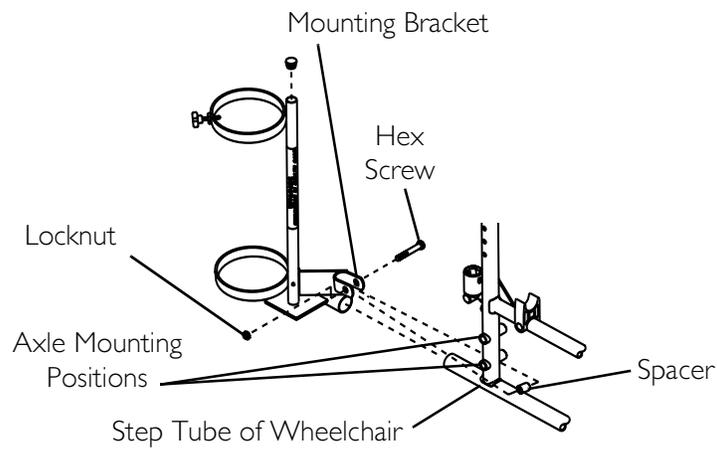
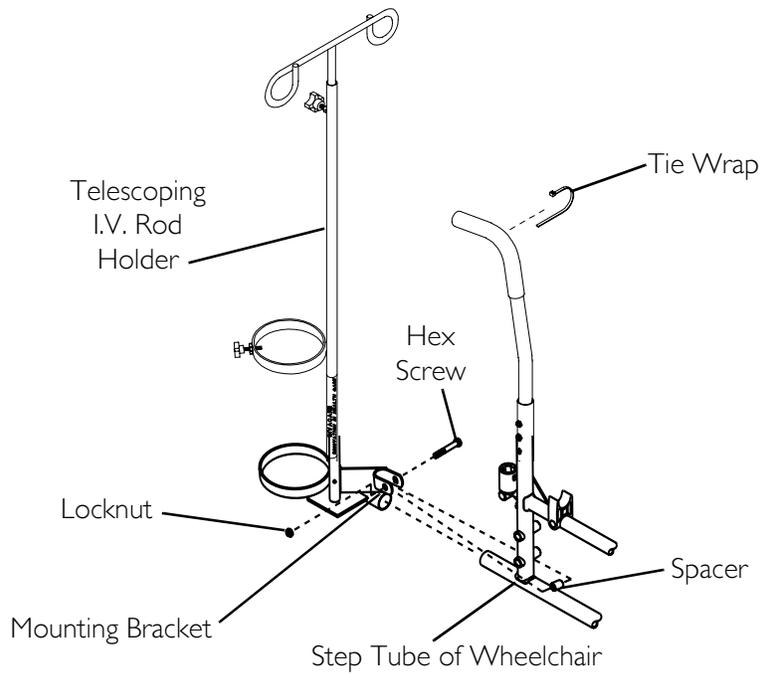
2. Secure telescoping I.V. rod/O<sub>2</sub> holder to the wheelchair frame with hex screw, spacer and locknut.
3. Telescoping I.V./O<sub>2</sub> Rod Holder Only: Secure the top of the telescoping I.V. rod holder to the wheelchair frame with a tie wrap.

## Cleaning

## ⚠ WARNING

The user and O<sub>2</sub> cylinder must be removed from the wheelchair when cleaning the O<sub>2</sub> holder. Otherwise, injury or damage may occur if cleaning agents come in contact with the O<sub>2</sub> regulator.

1. Remove the user, any I.V. medication and the O<sub>2</sub> cylinder from the wheelchair.
2. The telescoping I.V. rod/O<sub>2</sub> holders clean easily with any household glass type cleaner.
3. After the cleaning solution has dried, it is safe for the user to re-occupy the wheelchair.



**FIGURE 12.1** Installing the Telescoping I.V. Rod/O2 Holders

## Installing the 1-inch Forward Rear Wheel Positioner

### **⚠ WARNING**

**DO NOT** use the 1-inch forward bracket on recliner wheelchairs **OR** adjustable angle back wheelchair. Otherwise injury or damage may occur.

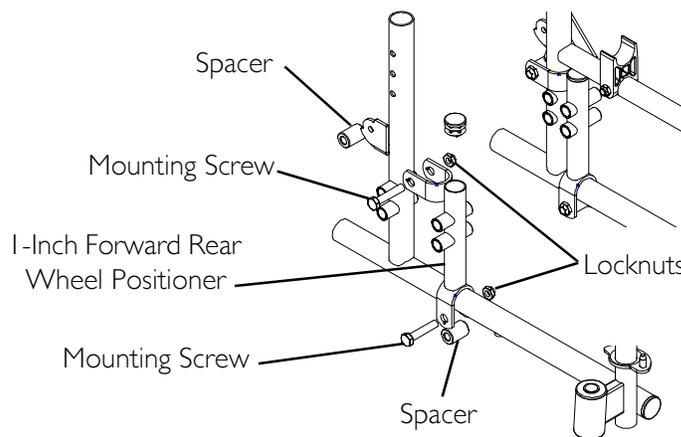
**Recliners and Wheelchairs with 1-Inch Forward Rear Wheel Positioner Only: Anti-tippers MUST BE attached at all times.**

*NOTE: For this procedure, refer to FIGURE 12.2.*

1. Remove both rear wheels from the wheelchair. Refer to Removing/Installing the Rear Wheels on page 45.
2. Position the right hand 1-inch forward rear wheel positioner onto the right hand side of the wheelchair frame (FIGURE 2).

*NOTE: Right and left hand sides of the wheelchair are determined from the users position.*

3. Secure the 1-inch forward rear wheel positioner to the wheelchair frame using the two mounting screws, spacers and locknuts.
4. Repeat STEPS 2-3 to Install the left hand 1-inch forward wheel positioner.
5. Reinstall the rear wheels onto the 1-inch forward brackets. Refer to Removing/Installing the Rear Wheels on page 45.
6. If necessary, install the anti-tippers. Refer to Installing/Adjusting the Anti-Tippers on page 51.



**FIGURE 12.2** Installing the 1-inch Forward Rear Wheel Positioner

## Installing/Adjusting Stroller Handles

*NOTE: For this procedure, refer to FIGURE 12.3 on page 65.*

### Removing

1. Remove the detent pin that secures one stroller handle to one of the back cane.
2. Remove the stroller handle
3. If necessary, repeat STEPS 1-2 for the opposite stroller handle.

### Installing

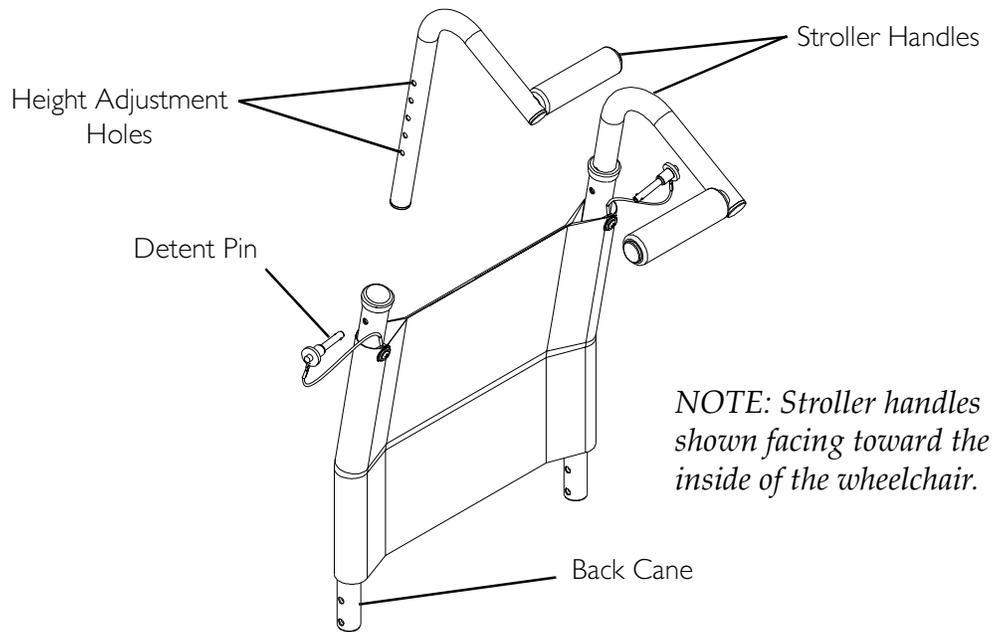
*NOTE: Wheelchair MUST be OPEN before installing stroller handles.*

1. Perform one of the following:
  - 12-14-Inch Wide Wheelchairs - Insert one of the stroller handles into one of the back canes so that it is facing either toward or away from the inside of the wheelchair (FIGURE 12.3).
  - 10-Inch Wide Wheelchairs - Insert one stroller handle into one of the back canes so that it is facing away from the inside of the wheelchair (FIGURE 12.3).
2. Position the stroller handle so that the mounting hole in the back cane aligns with the desired height mounting hole in the stroller handle and secure with detent pin.
3. Ensure the detent pin passes through the mounting hole in the back cane and the desired height mounting hole in the stroller handle.
4. Repeat STEPS 1-3 for the opposite stroller handle.

### Height Adjustment

1. Remove the detent pin that secures one stroller handle to one of the back cane.
2. Slide the stroller handle up or down until the desired height is reached, making sure the mounting hole in the back cane aligns with the desired height mounting hole in the stroller handle.
3. Reinstall the detent pin so that it passes through the mounting hole in the back cane AND the desired height mounting hole in the stroller handle.
4. Repeat STEPS 1 - 3 for the opposite stroller handle.

*NOTE: When closing a wheelchair with stroller handles, raise or lower one of the stroller handles two hole heights.*



**FIGURE 12.3** Installing/Adjusting Stroller Handles

## Installing/Removing the Solid Seat Insert

### Installing

1. Position the solid seat insert so that it is fully supported by the seat rails and the back edge of the solid seat insert is touching the back canes.

### Removing

1. Firmly grasp the solid seat insert and lift it away from the seat upholstery.

## Installing/Removing the Solid Back Insert

### Installing

1. Position the solid back insert between the back canes.
2. Wrap the two fastening straps around the back canes. Securely fasten with the two snaps.

### Removing

1. Release the two snaps securing the two fastening straps around the back canes and remove the solid back insert.

# NOTES

# LIMITED WARRANTY

**PLEASE NOTE: THE WARRANTY BELOW HAS BEEN DRAFTED TO COMPLY WITH FEDERAL LAW APPLICABLE TO PRODUCTS MANUFACTURED AFTER JULY 4, 1975.**

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***Yes, you can.***

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**Invacare Corporation**    [www.invacare.com](http://www.invacare.com)

**USA**  
One Invacare Way  
Elyria, Ohio USA  
44036-2125  
800-333-6900

**Canada**  
570 Matheson Blvd E Unit 8  
Mississauga Ontario  
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