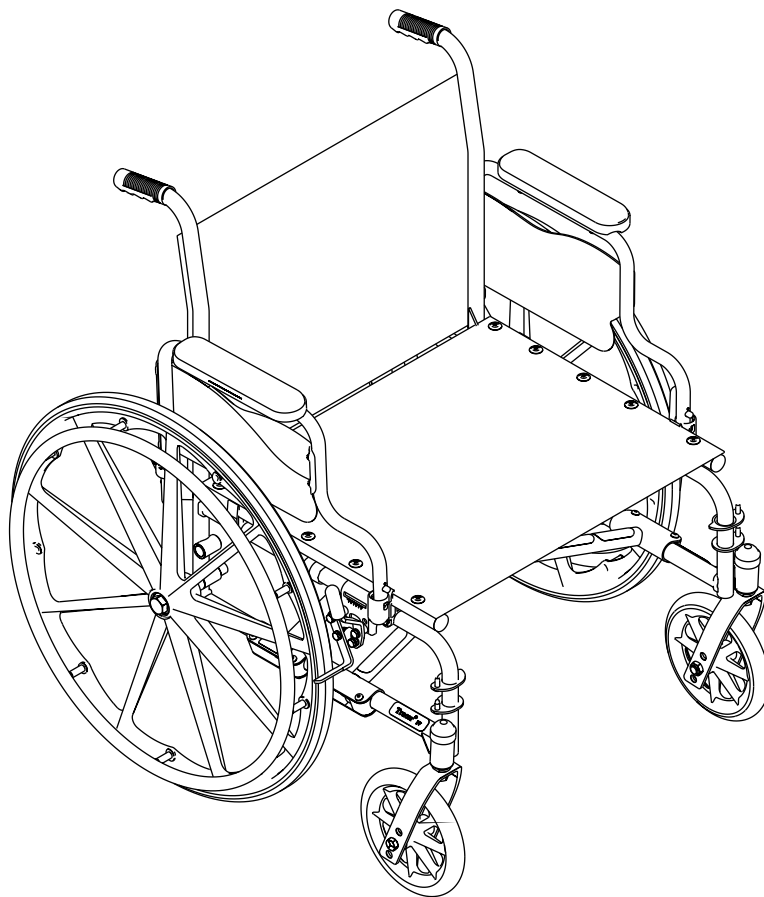


# Owner's Operator And Maintenance Manual

## **Tracer<sup>®</sup> IV**

### **HEAVY DUTY/EXTRA WIDE**



**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  
Invacare products, parts, and services,  
please visit: [www.invacare.com](http://www.invacare.com)



**Yes, you can.™**

**WARNING**

**DO NOT OPERATE THIS EQUIPMENT WITHOUT FIRST READING AND UNDERSTANDING THIS MANUAL. IF YOU ARE UNABLE TO UNDERSTAND THE WARNINGS, CAUTIONS, AND INSTRUCTIONS, CONTACT A HEALTHCARE PROFESSIONAL, DEALER OR A QUALIFIED TECHNICIAN BEFORE ATTEMPTING TO USE THIS EQUIPMENT - OTHERWISE INJURY OR DAMAGE MAY RESULT.**

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WARNING

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### **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

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Complete and mail this form

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Invacare Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Purchased From \_\_\_\_\_

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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)

Doctor  Therapist  Friend  Relative  Other \_\_\_\_\_

No referral  Advertisement (circle one): TV, Radio, Magazine, Newspaper

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

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

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

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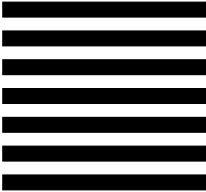
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## SPECIAL NOTES

**WARNING/CAUTION** notices as used in this manual apply to hazards or unsafe practices which could result in personal injury or 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

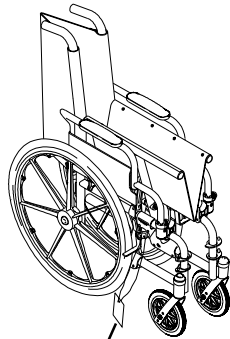
Invacare recommends that wheelchair users **NOT** be transported in vehicles of any kind while in wheelchairs. As of this date, the Department of Transportation has not approved any tie-down systems for transportation of a user while in a wheelchair, in a moving vehicle of any type.

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.

**AS REGARDS RESTRAINTS - SEAT POSITIONING STRAPS - IT IS THE OBLIGATION OF THE DME DEALER, THERAPISTS AND OTHER HEALTHCARE PROFESSIONALS TO DETERMINE IF A SEATING RESTRAINT 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.**

# LABEL LOCATIONS

LABEL LOCATIONS



**IMPORTANT NOTICE**

The wheel locks on this wheelchair have been pre-set at the factory to comply with the Veterans Administration functional Standard 8320.01 of the Federal Register, paragraph 3.2.4.5.3. If these wheel locks do not meet your needs, follow instructions below.

**CAUTION**

Any wheel lock adjustments should embed wheel lock shoe at least 1/8" into tire when locked (3/16" on pneumatic tires).

**INSTRUCTIONS FOR WHEEL LOCK ADJUSTMENTS**

1. Loosen wheel lock mounting fastener, which runs through mounting bracket and frame.
2. Slide clamp toward rear wheel until wheel lock shoe is embedded into tire material at least 1/8" when handle is engaged to the lock position (3/16" for pneumatic tires).
3. Tighten mounting fastener to secure mounting bracket in desired location and recheck lock shoe embedding.
4. Inspect for correct locking action BEFORE actual use.

00078X021-0394

**⚠ WARNING**

DO NOT OPERATE WITHOUT  
THE ANTI-TIP TUBES  
INSTALLED.

REV. 5/98 P/N 60106X144

**WHEELCHAIRS WITH  
STANDARD WHEEL  
PACKAGE**

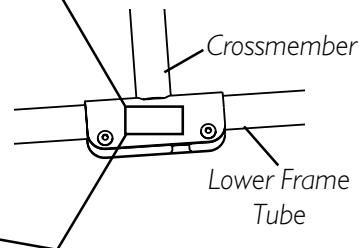
**WEIGHT CAPACITY**  
**350 LBS. (159 kgs.)**  
**REFER TO OWNER'S MANUAL**

P/N 1111017

**WHEELCHAIRS WITH  
HEAVY DUTY WHEEL  
PACKAGE**

**WEIGHT CAPACITY**  
**450 LBS. (205 kgs.)**  
**REFER TO OWNER'S MANUAL**

P/N 1111018





**SPECIFICATIONS**

**SPECIFICATIONS**

<b>TRACER IV</b>	
<b>Overall Width:</b>	26-1/4 to 32-1/4-inches
<b>Overall Depth:</b> (Without Front Riggings)	33-1/2-inches
<b>Seat Width:</b>	18, 20, 22 or 24-inches
<b>Seat Depth:</b>	18 and 20-inches
<b>Seat-to-Floor**:</b>	19-1/2-inches (Adult), 17-1/2-inches (Hemi)
<b>Back Height:</b>	16-inches
<b>Back Style:</b>	Fixed
<b>Arm Styles:</b>	Fixed or Adjustable Height, Desk or Full Length, Removable
<b>Front Riggings:</b>	Swingaway Removable Footrests, Elevating Legrests and Articulating Elevating Legrests
<b>Rear Axle:</b>	Permanent
<b>Rear Wheels:</b>	24-inch Composite Corded Urethane*, 24-inch Pneumatic-Flat Free Insert (Heavy Duty Wheel Option)
<b>Handrims:</b>	Chrome Plated Steel*, Black Painted Steel
<b>Wheel Locks:</b>	Push to Lock (Adult), Pull to Lock (Hemi)
<b>Caster Size:</b>	8x1-1/4-inch Urethane* 8x1-3/4-inch Semi Pneumatic (Heavy Duty Wheel Option)
<b>Upholstery:</b>	Vinyl: Midnight Blue*, Ruby, Black, Camel, Dove Grey Nylon: Black
<b>Weight*** (approx.):</b>	42 pounds
<b>Shipping Weight*** (approx.):</b>	52 pounds

*\*NOTE: Heights can vary +/- 1/4-inch due to wheel options, tire wear, and manufacturing tolerances.*

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

*\*\*\*NOTE: Weights based on 22-inch wide chair without front rigging. All weights are approximate and will vary depending on how the wheelchair is equipped.*

*Section I - General Guidelines includes the following:*

*Stability*

*Operating Information*

*Weight Training*

*Weight Limitation*

*Safety/Handling of Wheelchairs*

## STABILITY

### WARNING

Anti-tippers **MUST** be fully engaged. Ensure that the release button of the anti-tipper fully protrudes out of the hole on the bottom of the wheelchair frame.

Anti-tippers **MUST BE** attached at all times. 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.

## OPERATING INFORMATION

### WARNING

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

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

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

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.

**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.

**ALWAYS** verify that hand grips on the rear cane are secure prior to use when an assistant is used to propel the chair.

Keep hands and fingers clear of moving parts to avoid injury.

**DO NOT** sit or transfer into the wheelchair unless the wheelchair is fully open.

**DO NOT TRAVERSE, CLIMB or GO DOWN** ramps or slopes greater than 9°.

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

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

**OPERATING INFORMATION (CONTINUED)****WARNING**

**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. This will change your center of gravity and may cause you to tip over.

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

**WHEEL LOCKS ARE NOT BRAKES. DO NOT** attempt to stop a moving wheelchair with the wheel locks.

**DO NOT** tilt 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** use parts, accessories, or adapters other than those authorized by Invacare - otherwise the warranty is void.

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

**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.

**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.

**WEIGHT TRAINING****WARNING**

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 and the warranty is void.

**WEIGHT LIMITATION****WARNING**

The Tracer IV wheelchair with standard wheel package has a weight limitation of 350 lbs. (159 kg.). The Tracer IV wheelchair with the heavy duty wheel package has a weight limitation of 450 lbs. (205 kg.).

## SAFETY/HANDLING OF WHEELCHAIRS

“Safety and Handling” of the wheelchair requires 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 followed. 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

### 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.**

To assure stability and proper operation of your wheelchair, you must at all times maintain proper balance. 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.

**WARNING**

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

Always verify that hand grips on the rear cane are secure **PRIOR** to use when an assistant is used to propel or lift the chair. Check for any signs of looseness or deterioration and if found, contact a qualified technician. **DO NOT** attempt to move the wheelchair by pulling on the hand grips if they are found to be unsecure or have deteriorated.

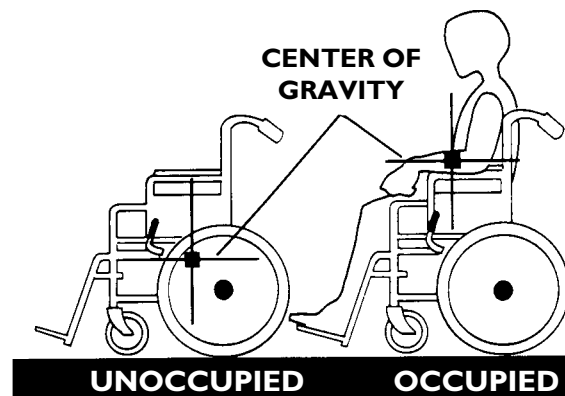
Also, be aware of detachable parts such as armrests or legrests. These must **NEVER** be used to move the wheelchair or as lifting supports, as they may be inadvertently released, resulting in possible injury to the user and/or assistant(s).

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

**PERCENTAGE OF WEIGHT DISTRIBUTION****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, 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 seven (7) 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**

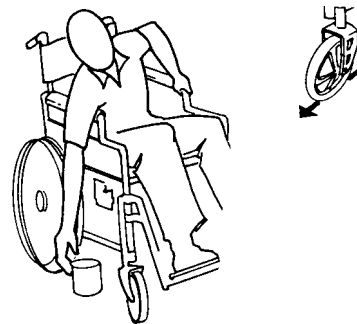
**DO NOT** attempt to reach objects if you have to move forward in the seat or pick them up from the floor by reaching down between your knees.

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

**Reaching, Leaning - Backwards.****WARNING**

**DO NOT** lean over the top of the back upholstery. This will change your center of gravity and may cause you to tip over.

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.

**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 (1) of the following methods to tackle curbs, short stairs, etc.

**TIPPING - CURBS: METHOD I - WHEELCHAIR WITH STEP TUBES:**

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.

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.

### **TIPPING - CURBS: METHOD 2 - WHEELCHAIR WITHOUT STEP TUBE**

This method requires two (2) 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.

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.**

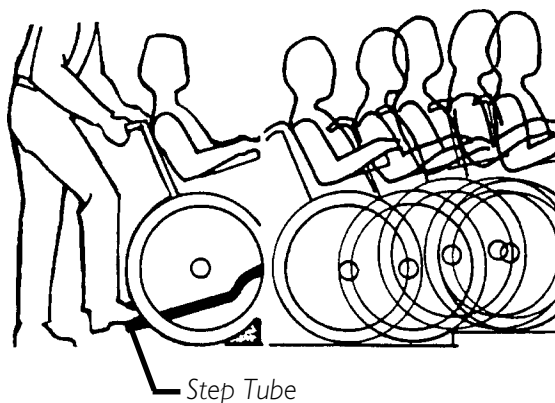
Roll the wheelchair backward and **SLOWLY** lower the wheelchair in one continuous movement. Turn the anti-tippers so the anti-tip wheels are facing down.

### **STAIRWAYS**

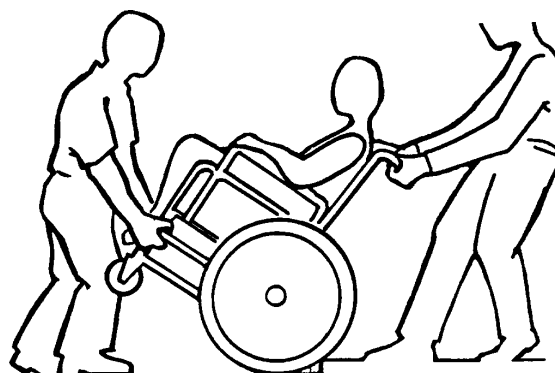
### **WARNING**

**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.

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



Step Tube  
**METHOD 1 - WHEELCHAIR WITH STEP TUBES**



**METHOD 2 - WHEELCHAIR WITHOUT STEP TUBE**



**WARNING (CONTINUED)**

Always verify that hand grips on the rear cane are secure **PRIOR** to use when an assistant is used to propel or lift the chair. Check for any signs of looseness or deterioration and if found, contact a qualified technician. **DO NOT** attempt to move the wheelchair by pulling on the hand grips if they are found to be unsecure or have deteriorated.

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 (2) assistants and making thorough preparations. Make sure to use **ONLY** secure, non-detachable parts for hand-held supports.

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

1. If so equipped, rotate the anti-tippers so the wheels are facing up.
2. 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.
3. 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 (1) foot on the next stair and repeats STEP 1.
4. The wheelchair should not be lowered until the last stair has been negotiated and the wheelchair has been rolled away from the stairway.
5. If so equipped, rotate the anti-tippers so the wheels are facing down.

**ESCALATORS? SORRY!**

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

**TRANSFERRING TO AND FROM OTHER SEATS****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.

Wheelchairs with adjustable height Armrests **ONLY**: Adjust armrests to lowest position prior to transferring into or out of wheelchair - otherwise injury or damage may occur.

**CAUTION**

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

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

Position the wheelchair as close as possible along side the seat to which you are transferring, with the front casters pointing parallel to it. Remove or flip up the armrest. Engage wheel locks. 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.



## UNFOLDING AND FOLDING THE WHEELCHAIR

### WARNING

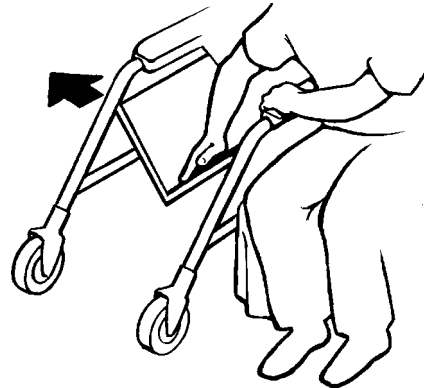
**Keep hands and fingers clear of moving parts to avoid injury.**

**DO NOT sit or transfer into the wheelchair unless it is fully open.**

#### Unfolding.

1. Open the wheelchair by grasping the back cane of the wheelchair closest to you.
2. Tilt the wheelchair towards you (raising the opposite wheel and caster off the ground/floor).
3. Push downward on the TOP of the seat rail closest to you where the seat upholstery is attached until the wheelchair is fully open.
4. Engage both wheel locks, open the footrest/legrest for clearance and transfer into the wheelchair. Refer to TRANSFERRING TO AND FROM OTHER SEATS in this section of the manual.

#### UNFOLDING



#### FOLDING



#### Folding.

1. Swing footrest/legrest in locked position to the front of the wheelchair.
2. Pivot footplates upward to vertical position.
3. With both hands, grasp the middle of the seat upholstery at the front and back edge and lift up.
4. Continue to close the wheelchair by grasping the back cane furthest from you and pulling the armrest towards you.

*NOTE: If wheelchair is equipped with carry straps, the wheelchair may be closed by pulling up on the straps.*

**Section 2 - Safety Inspection includes the following:****Safety Inspection Checklist****Maintenance**

NOTE: Every six (6) 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 needs and preference. Thereafter follow these maintenance procedures:

ITEM	Initially	Weekly	Monthly	Periodically
<b>GENERAL (TROUBLESHOOTING)</b> • Wheelchair rolls straight (no excessive drag or pull to one side).	X			X
<b>FRAME AND CROSSBRACES</b> • Inspect for loose or missing hardware. • Inspect for bent frame or crossbraces. • Inspect for rough/sharp edges.	X X X			X X X
<b>WHEEL LOCKS</b> • Do not interfere with tires when rolling. • Pivot points free of wear and looseness. • Wheel locks easy to engage.	X X X		X X	X
<b>SEAT AND BACK</b> • Inspect upholstery for rips or sagging. • Inspect for loose or broken hardware. • Inspect cane hand grips for wear/looseness.	X X X		X X	X
<b>TIRES (FRONT AND REAR)</b> • Inspect for flat spots, cracks and wear. <b>CAUTION: As with any vehicle, the wheels and tires should be checked periodically for cracks and wear, and should be replaced.</b>	X	X		
<b>REAR WHEELS</b> • No excessive side movement or binding when lifted and spun. • Inspect, hub, rim and spokes For cracks and wear. • Adjust bearing system if wheel wobbles noticeably or binds to a stop. Ensure wheel bearings are clean and free of moisture.	X X X	X		X
<b>HANDRIMS</b> • Inspect for signs of rough edges or peeling. • Inspect for loose or missing hardware.	X X			X X
<b>FRONT CASTERS/FORKS</b> • Inspect wheel/fork assembly for proper tension by spinning caster; caster should come to a gradual stop. • Adjust 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. • Check headtube bearings for wear. • Inspect hub, rim, and spokes for cracks and wear. <b>CAUTION: As with any vehicle, the wheels and tires should be checked periodically for cracks and wear, and should be replaced.</b>	X X X X	X X X	X	
<b>CLEANING</b> • Clean upholstery and armrests.	X			X

## MAINTENANCE

### MAINTENANCE SAFETY PRECAUTIONS

#### WARNING

After ANY adjustments, repair or service and BEFORE use, make sure all attachment 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 Tracer IV wheelchair, make sure all nuts and bolts are tight. Check all parts for damage or wear and replace. Check all parts for proper adjustment.

#### 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.

2. The rear wheels, casters and tires should be checked periodically for cracks and wear, and should be replaced by a qualified technician if damaged.
3. Periodically check handrims to ensure they are secured to the rear wheels. If loose, have them tightened by a qualified technician.
4. Periodically adjust wheel locks as tire wears. Refer to ADJUSTING THE DISK WHEEL LOCKS in SECTION 8 of this manual.
5. Periodically check caster and rear wheel bearings to make sure they are clean and free from moisture. Use a Teflon 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.

6. Hand grips should be checked monthly for wear/looseness. Clean if desired.
7. Check upholstery for sagging, rips or tears.

**Section 3 - Front Riggings includes the following:**

**Installing/Removing/Using the Footrest/Legrest**

**Footplate Height Adjustment**

**Raising/Lowering the Elevating Legrest Assembly**

**Installing calf Strap/H-Strap**

**Heel Loop Replacement**

### 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/REMOVING THE FRONT RIGGINGS (FIGURE 1)

*NOTE: This procedure applies to the swingaway footrests and the elevating legrest.*

### INSTALLING

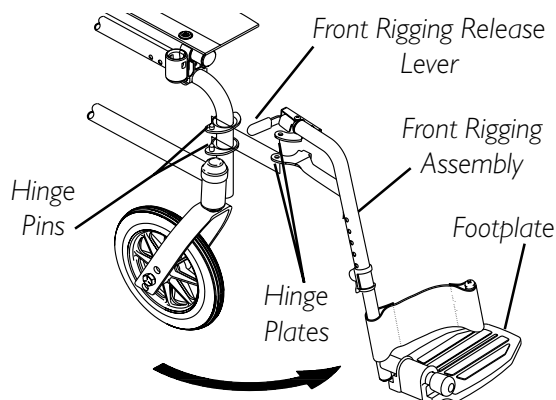
1. Turn the front rigging assembly to the side (open front rigging is perpendicular to wheelchair).
2. Install the hinge plates on the front rigging assembly onto the hinge pins on the wheelchair frame.
3. Push the front rigging assembly towards the inside of the wheelchair until it locks into place.

*NOTE: The footplate will be on the inside of the wheelchair when locked in place.*

4. Repeat this procedure for the other front rigging assembly.
5. To release the front rigging, push the front rigging release lever inward, rotate front rigging outward.

### REMOVING

1. Push the front rigging release lever inward
2. Rotate swingaway front rigging assembly outward.
3. Lift the swingaway front rigging assembly off of the hinge pins.



*NOTE: Swingaway footrests shown.*

**FIGURE 1 - INSTALLING/  
REMOVING THE SWINGAWAY  
FRONT RIGGING**

## FOOTPLATE HEIGHT ADJUSTMENT

### SPRING BUTTON HEIGHT ADJUSTMENT (FIGURE 2)

*NOTE: This procedure applies to the swingaway front riggings and swingaway elevating legrest.*

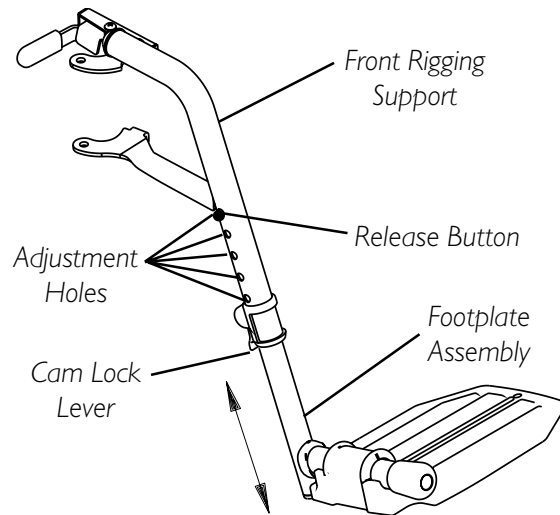
1. Remove the front rigging assembly. Refer to INSTALLING/REMOVING THE FRONT RIGGING in this section of the manual.

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

2. Pull the cam lock lever UP to UNLOCKED position.

*NOTE: The elevating legrest has two (2) sets of release buttons, one (1) set above the other. Each set will be visible one at a time allowing finer footplate height adjustment.*

3. Push IN the release buttons and reposition the footplate assembly to the desired height.
4. Ensure that the release buttons fully protrude from holes on both sides of the front rigging support.
5. Rotate cam lock lever DOWN to LOCKED position.
6. Repeat this procedure for the other footplate, if necessary.
7. Reinstall the swingaway front rigging assembly. Refer to INSTALLING/REMOVING THE FRONT RIGGING in this section of the manual.



*NOTE: Swingaway footrest shown.*

**FIGURE 2 - FOOTPLATE HEIGHT ADJUSTMENT - SPRING BUTTON HEIGHT ADJUSTMENT**

### BOLT-IN-PLACE HEIGHT ADJUSTMENT (FIGURE 3)

*NOTE: This procedure applies to the swingaway footrests and swingaway elevating legrest.*

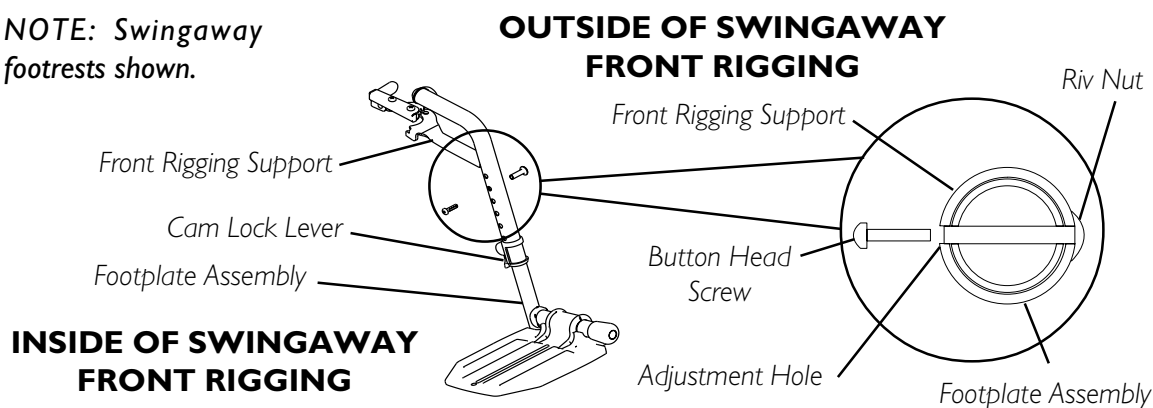
1. Remove the swingaway front rigging. Refer to INSTALLING/REMOVING THE FRONT RIGGINGS in this section of the manual.

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

2. Pull the cam lock lever UP to UNLOCKED position.
3. Using a screw driver to hold the riv nut in position, remove the button head screw from the riv nut.
4. Remove the riv nut and button head screw securing the footplate assembly to the front rigging support.
5. Adjust the footplate assembly height by aligning the desired adjustment holes in the upper front rigging support and lower footplate assembly.

6. From the outside of the swingaway front rigging, insert the riv nut through both the front rigging support and the footplate assembly.
7. From the inside of the swingaway front rigging, insert the button head screw through the appropriate adjustment hole and thread into the riv nut.
8. Using a screwdriver to hold the riv nut in position, securely tighten the button head screw. Torque to 32 in-lbs.
9. Rotate cam lock lever DOWN to LOCKED position.
10. Repeat STEPS 1-8 to adjust the remaining footrest.

*NOTE: Swingaway footrests shown.*



**FIGURE 3 - FOOTPLATE HEIGHT ADJUSTMENT - BOLT-IN-PLACE HEIGHT ADJUSTMENT**

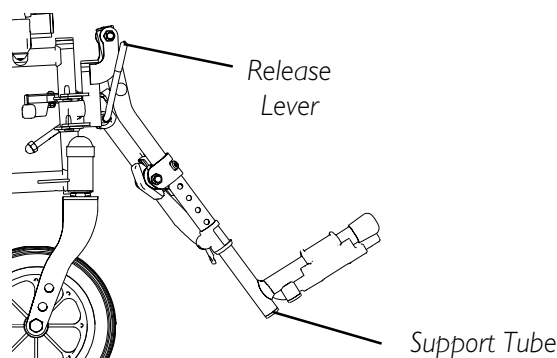
## RAISING/LOWERING THE ELEVATING LEGREST ASSEMBLY (FIGURE 4)

### WARNING

Ensure hands and fingers are clear of elevating legrest mechanism **BEFORE** pushing release lever to lower the elevating legrest. Otherwise injury may occur due to pinch points.

The wheelchair user's leg **MUST** be supported by an assistant **BEFORE** attempting to lower legrest.

1. To raise the elevating legrest, the assistant should grab hold of the support tube and raise elevating legrests until the desired height is obtained.
2. To lower the elevating legrest, perform the following:
  - A. Support user leg with one (1) hand.
  - B. Push release lever downward with other hand.
  - C. Gently, lower user leg down and rest against the legrest.



**FIGURE 4 - ADJUSTING THE ELEVATING LEGREST ASSEMBLY**

## INSTALLING CALF STRAP/H-STRAP (FIGURE 5)

1. Remove calf strap/H-strap from packaged container if not already secured to the footrest.
2. Secure one (1) side of the calf strap/H-strap around the each footrest.

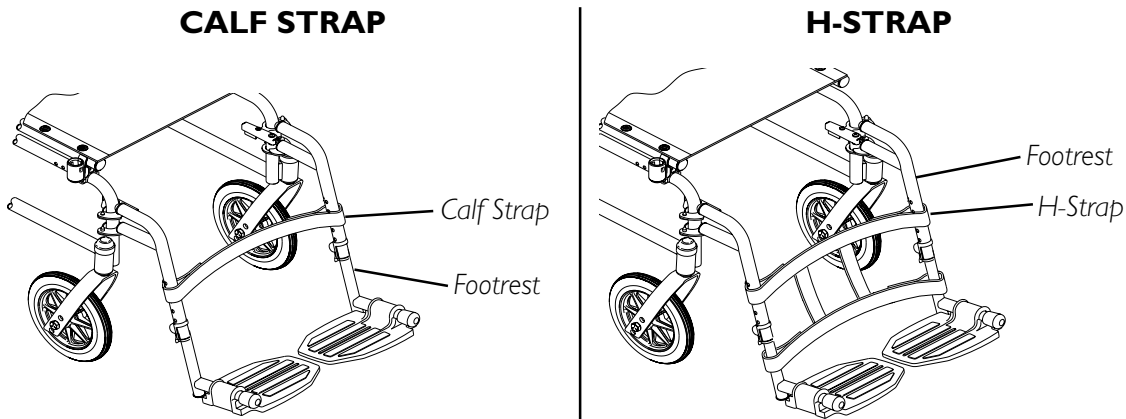


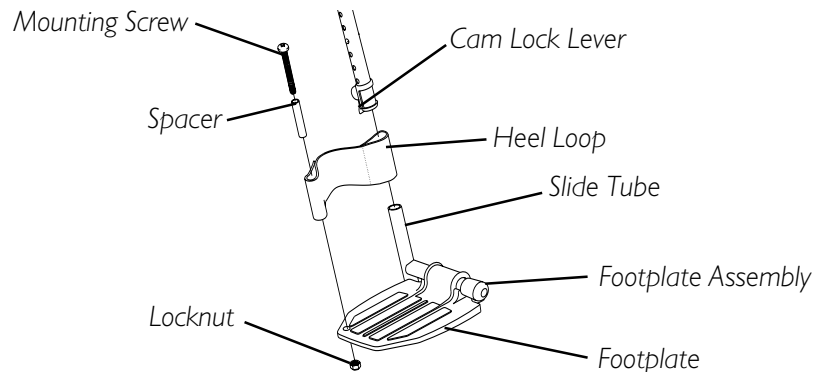
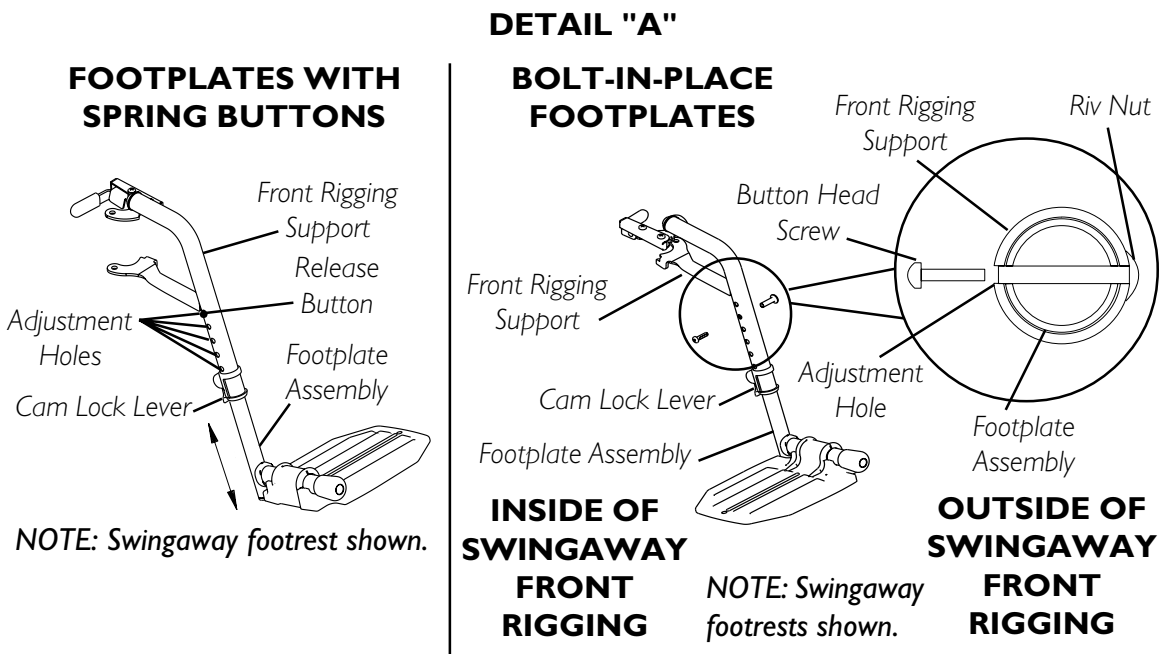
FIGURE 5 - INSTALLING CALF STRAP/H-STRAP

## HEEL LOOP REPLACEMENT (FIGURE 6)

1. Pull the cam lock lever UP to UNLOCKED position.
2. Perform one (1) of the following as shown in DETAIL "A" of FIGURE 6:
  - A. FOOTPLATES WITH SPRING BUTTONS: Push IN the release buttons and remove the footplate assembly from the front rigging support.
  - B. BOLT-IN-PLACE FOOTPLATES:
    - Using a screw driver to hold the riv nut in position, remove the button head screw from the riv nut.
    - Remove the riv nut and button head screw securing the footplate assembly to the front rigging support.
3. Remove the mounting screw, spacer and locknut that secure the heel loop to the footplate.
4. Remove EXISTING heel loop from slide tube.
5. Install NEW heel loop onto slide tube.
6. Install the mounting screw, spacer and locknut to secure the heel loop to the footplate. Tighten until the spacer is secure.
7. Insert the lower footrest assembly into the upper footrest assembly to desired height.



8. Perform one (1) of the following as shown in DETAIL "A" of FIGURE 6:
  - A. FOOTPLATES WITH SPRING BUTTONS: Ensure that the release buttons fully protrude from holes on both sides of the upper footrest support.
  - B. BOLT-IN-PLACE FOOTPLATES:
    - From the outside of the swingaway front rigging, insert the riv nut through both the front rigging support and the footplate assembly.
    - From the inside of the swingaway front rigging, insert the button head screw through the appropriate adjustment hole and thread into the riv nut.
    - Using a screwdriver to hold the riv nut in position, securely tighten the button head screw. Torque to 32 in-lbs.
9. Rotate cam lock lever DOWN to LOCKED position.



**FIGURE 6 - HEEL LOOP REPLACEMENT**

**Section 4 - Arms includes the following:**

**Removing/Installing Armrest**

**Adjusting Armrest Height**

**Fixed height Armrests**

### 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 ARMREST (FIGURE 1)

### WARNING

Make sure the armrest is securely locked BEFORE using the wheelchair.

*NOTE: This procedure applies to removable arm wheelchairs only.*

### REMOVING ARMREST

1. Push down on armrest to ensure it is fully seated in front and rear sockets.

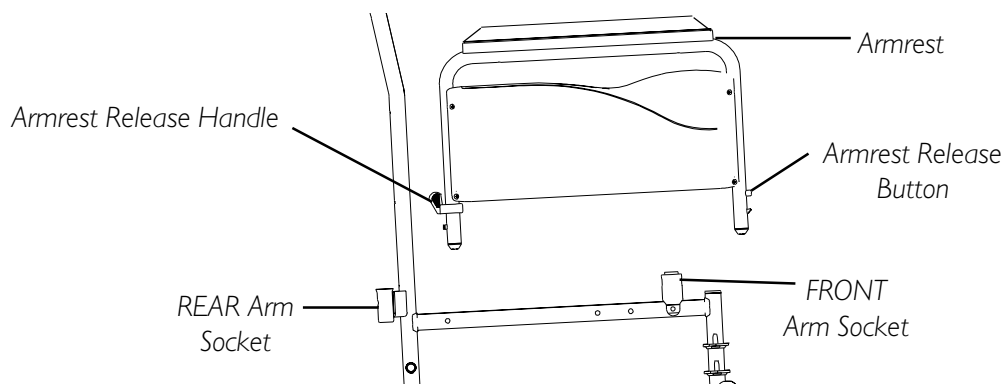
*NOTE: STEP 1 prevents the release buttons from hanging up on the sockets during removal.*

2. Unlock the rear armrest by rotating the armrest release lever towards the inside of the wheelchair.
3. Press IN the armrest release button at the front of the armrest.
4. While pressing in the armrest release button, remove the armrest from the arm sockets by pulling straight up.

### INSTALLING ARMREST

*NOTE: Rear armrest release lever must be in the unlocked position when installing the armrest.*

1. Position the armrest just above the front and rear arm sockets.
2. Push arm down evenly at the front and rear until the front armrest release button snaps into the front arm socket.
3. Lock rear armrest by turning the armrest release lever towards the outside of the wheelchair.
4. Ensure armrest is locked securely in the arm sockets by gently lifting up. If not locked, repeat STEPS 1-3.



**FIGURE 1 - REMOVING/INSTALLING ARMREST**

## ADJUSTING ARMREST HEIGHT (FIGURE 2)

### WARNING

Make sure the armrest is securely locked **BEFORE** using the wheelchair.

1. Unlock the armrest by flipping the height adjustment lever on the top front of the armrest base to the **UP (HORIZONTAL)** position.

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

2. Adjust armrest to desired height.
3. Lock the armrest by pressing the height adjustment lever into the **DOWN (VERTICAL)** position when the desired armrest height is achieved.
4. Check that the armrest is locked into position by gently lifting up. If not locked, repeat STEP 3.

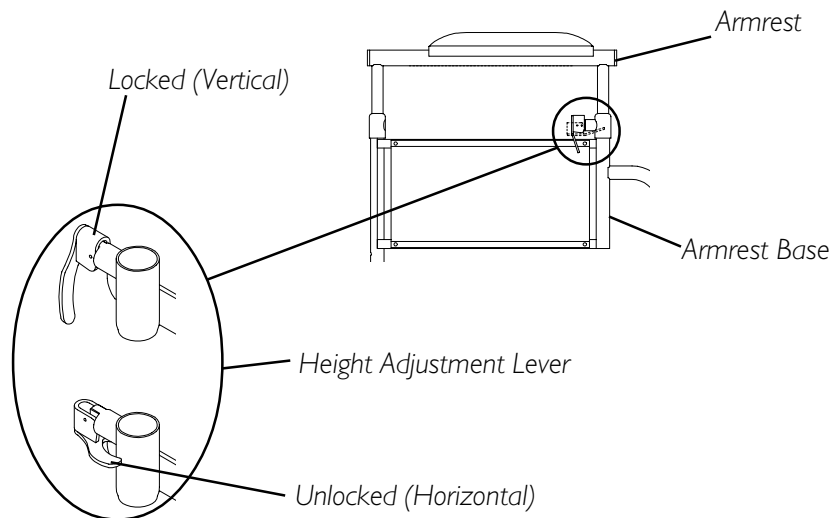


FIGURE 2 - ADJUSTING ARMREST HEIGHT

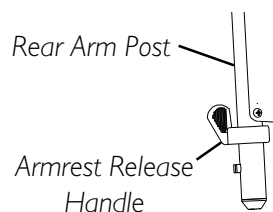
## FIXED HEIGHT ARMRESTS

### WARNING

Make sure the armrest is securely locked **BEFORE** using the wheelchair.

**ONLY** use heavy duty, fixed height armrests on Tracer IV wheelchairs - otherwise injury or damage may occur

Heavy duty, fixed height armrests are identified by a circular or "X" mark on the rear arm post above or below the the armrest release handle.



*NOTE: Identifying circular or "X" mark located on the rear arm post above or below the the release lever.*

**Section 5 - Seat and Back includes the following:**

**Adjusting Seat Width**

**Replacing Back Upholstery**

**Replacing Seat Upholstery**

### 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 THE SEAT WIDTH (FIGURE 3)

*NOTE: When adjusting the seat width of the wheelchair, the back and seat upholstery MUST be changed. If applicable, the headrest pillow and headrest upholstery MUST be changed as well.*

1. Remove the existing back and seat upholstery from the wheelchair. Refer to REPLACING BACK UPHOLSTERY and REPLACING THE SEAT UPHOLSTERY in this section of the manual.
2. Remove the two (2) button screws and locknuts that secure the two (2) pivot links to the crossbraces.
3. Remove the four (4) button screws, locknuts and two (2) crossbrace saddles that secure the bottom of the crossbrace to the wheelchair frame. Repeat for other crossbrace.
4. Remove the two (2) hex screws and locknuts that secure the two (2) crossbraces together.

*NOTE: Note the orientation of the two (2) hex screws and locknuts for assembling the **NEW** crossbraces.*

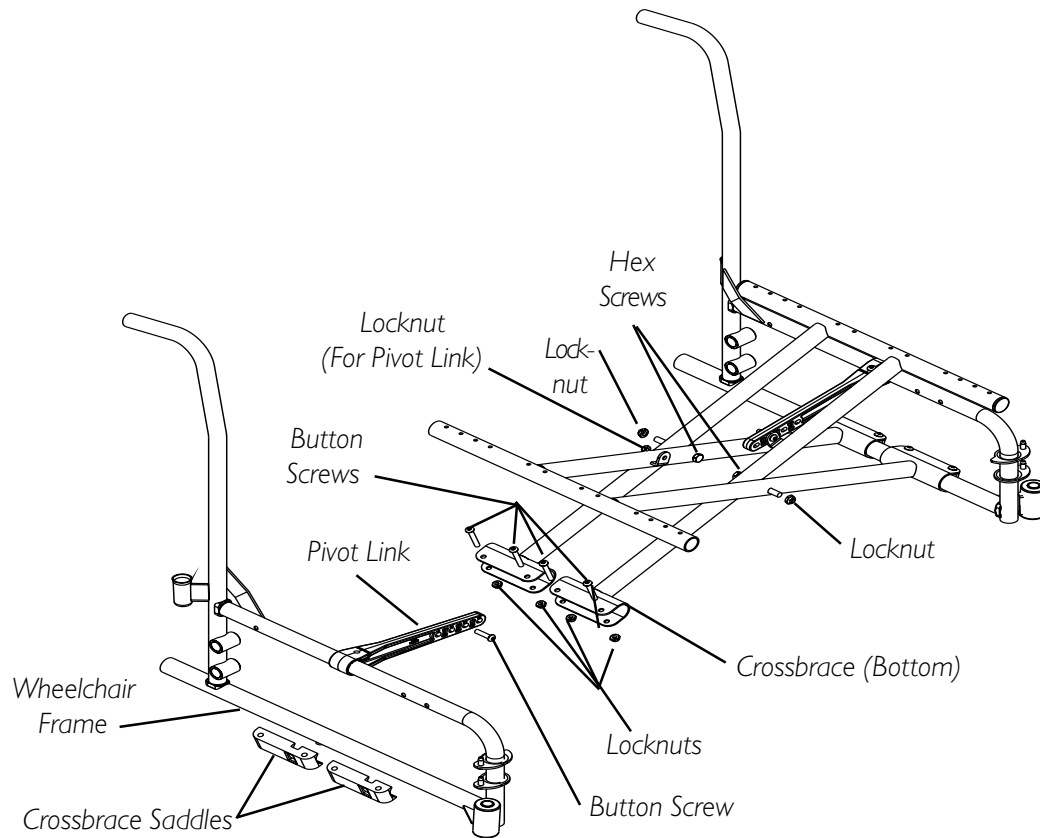
5. Assemble the two (2) **NEW** crossbraces together with the existing two (2) hex screws and locknuts. Securely tighten. Refer to FIGURE I for hardware orientation.
6. Determine the correct pivot link mounting hole to use with the desired seat width. See chart below.

SEAT WIDTH	PIVOT LINK
18-INCH	
20-INCH	
22-INCH	
24-INCH	

7. Secure the pivot links to the crossbraces with the two (2) button screws and locknuts. Securely tighten.

*NOTE: Position the rear crossbrace saddles on wheelchair frame using the washer on the underside of the wheelchair frame as a reference. See FIGURE 3 for proper positioning of the crossbrace saddle.*

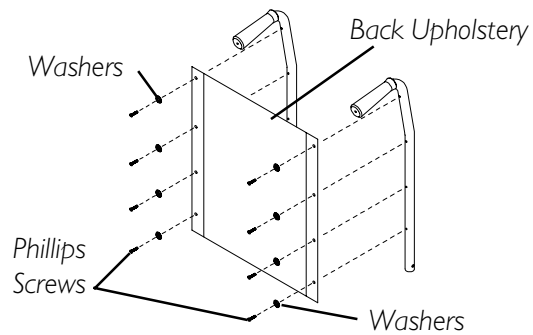
8. Reinstall the four (4) button screws, locknuts and two (2) crossbrace saddles that secure the bottom of the NEW crossbrace to the wheelchair frame. Repeat for opposite crossbrace. Securely tighten.
9. Install the NEW back and seat upholstery onto the wheelchair. Refer to REPLACING BACK UPHOLSTERY and REPLACING SEAT UPHOLSTERY in this section of the manual.



**FIGURE 3 - ADJUSTING SEAT WIDTH**

## REPLACING BACK UPHOLSTERY (FIGURE 1)

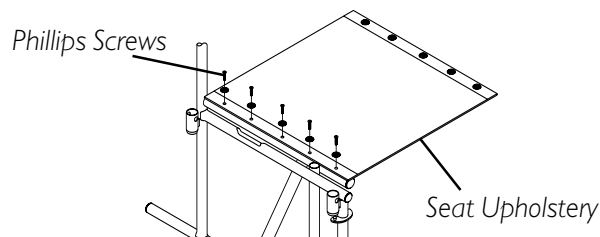
1. Remove the phillips screws and washers that secure the existing back upholstery to the back canes.
2. Securely tighten the new back upholstery to the back canes with the phillips screws and washers.



**FIGURE 1 - REPLACING BACK UPHOLSTERY**

## REPLACING SEAT UPHOLSTERY (FIGURE 2)

1. Perform one (1) of the following:
  - A. 18-INCH DEEP SEATS: Remove the ten (10) phillips screws and washers that secure the existing seat upholstery to the crossbraces.
  - B. 20-INCH DEEP SEATS: Remove the twelve (12) phillips screws and washers that secure the existing seat upholstery to the crossbraces.
2. Remove the existing seat upholstery from the crossbraces.
3. Ensure positioning of seat positioning strap (if used). Refer to INSTALLING THE SEAT POSITIONING STRAP in SECTION 10 of this manual.
4. Install new seat upholstery by reversing STEPS 1-2.



**FIGURE 2 - REPLACING SEAT UPHOLSTERY**

**Section 6 - Rear Wheels includes the following:**

**Removing/Installing the Rear Wheels**

**Replacing Rear Wheel Handrim**

**Replacing/Repairing Rear Wheel Tire/Tube**

### 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 SEAT-TO-FLOOR HEIGHT is desired, this procedure MUST be performed by a qualified technician.

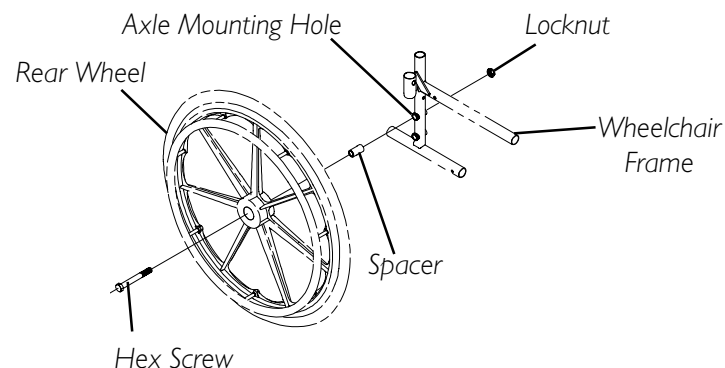
ONLY install 24-inch rear wheels on the Tracer IV wheelchair. Otherwise, the wheelchair will become unstable and injury or damage may occur.

FOR HEAVY DUTY WHEEL OPTION (450 lb weight limit): 24-inch pneumatic-flat free insert rear wheel MUST be used.

1. Remove the locknut, hex screw and axle spacer that secure the rear wheel to the wheelchair frame.
2. Repeat STEP 1 for the opposite rear wheel, if necessary.
3. To reinstall the rear wheel(s) onto the wheelchair, reverse STEPS 1-2. Torque locknut to 40 ft.-lbs.

*NOTE: Ensure the axle spacer is installed between the rear wheel and the wheelchair frame as shown in FIGURE 1.*

5. Adjust wheel locks. Refer to ADJUSTING THE DISK WHEEL LOCKS in SECTION 8 of this manual.

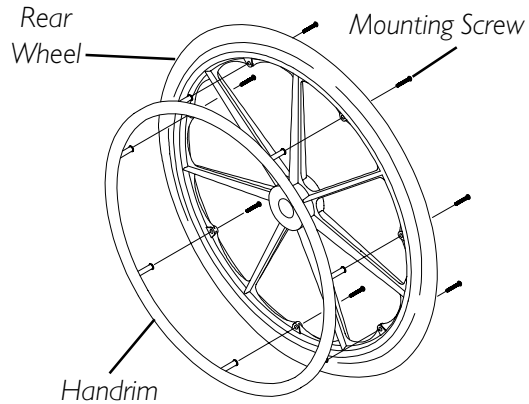


**FIGURE 1 - REMOVING/INSTALLING THE REAR WHEELS**

**REPLACING REAR WHEEL HANDRIM (FIGURE 2)****WARNING**

**DO NOT** use composite handrims on the Tracer IV wheelchair - otherwise injury or damage may occur.

1. Remove the rear wheel from the wheelchair. Refer to REMOVING/INSTALLING THE REAR WHEELS in this section of the manual.
2. Remove the mounting screws and washers (not shown) that secure the handrim to the rear wheel.
3. Remove the existing handrim.
4. Install the NEW handrim by reversing the STEPS 1-3.
5. Reinstall rear wheel to the wheelchair. Refer to REMOVING/INSTALLING THE REAR WHEELS in this section of the manual.
6. Repeat the procedure for the opposite rear wheel if necessary.



**FIGURE 2 - REPLACING REAR WHEEL HANDRIM**

**REPLACING/REPAIRING REAR WHEEL TIRE****WARNING**

Replacement of rear wheel tire **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 7 - Front Casters includes the following:**

**Installing/Replacing Fork Assemblies**

**Replacing Front Casters**

**Adjusting Forks**

**Replacing/Repairing Front Caster Tire**

### 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 FORK ASSEMBLIES (FIGURE 1)

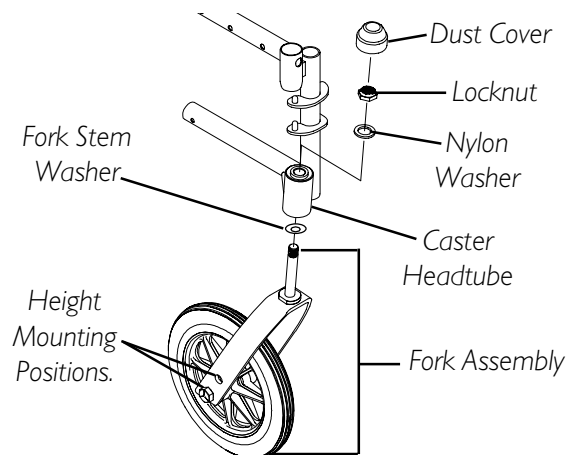
1. Remove the dust cover.
2. Remove the EXISTING locknut and nylon washer that secures the fork to the caster headtube.
3. Drop the fork assembly out of the caster headtube.
4. Remove the EXISTING fork stem washer from the EXISTING fork assembly.

*NOTE: If caster replacement is desired, refer to REPLACING FRONT CASTERS in this section of the manual.*

5. Install EXISTING fork stem washer onto NEW fork assembly.
6. Slide NEW fork assembly into the caster head tube.

*NOTE: Ensure caster is mounted in the same height position as the EXISTING fork/caster assembly before installing.*

7. Reassemble by reversing STEPS 1-2.
8. Repeat STEPS 1-7 for the opposite fork assembly.
9. Adjust the forks. Refer to ADJUSTING FORKS in this section of the manual.



**FIGURE 1 - INSTALLING/  
REPLACING FORK ASSEMBLIES**

## ADJUSTING FORKS (FIGURE 1)

1. 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.
  - E. Repeat STEPS C-D until wheels swing once to one-side, then immediately rest in a downward position.

2. Test wheelchair for maneuverability.
3. Readjust locknuts if necessary, and repeat STEPS 1-2 until correct.
4. Snap dust cover over the locknut and stem.

## REPLACING FRONT CASTERS (FIGURE 2)

### WARNING

Only 8-inch casters should be installed on the Tracer IV wheelchair. Otherwise, the wheelchair may become unstable and injury or damage may occur.

**FOR HEAVY DUTY WHEEL OPTION (450 lb weight limit): 8 x 1-3/4-inch sEmi-pneumatic front caster MUST be used.**

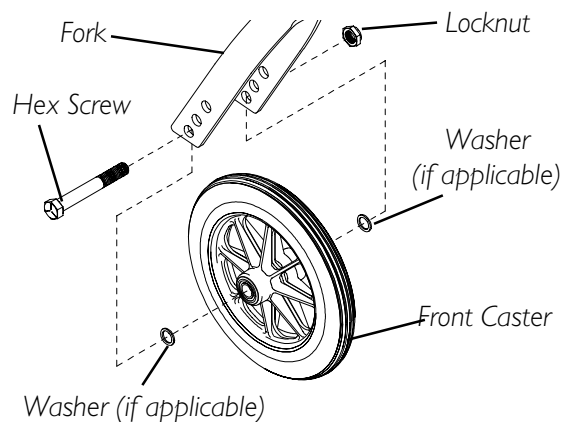
If changing the front caster mounting position or a change in the **SEAT-TO-FLOOR HEIGHT** is desired, this procedure **MUST** be performed by a qualified technician.

*NOTE: Take note of the caster mounting position on the fork assembly for proper installation of the NEW front caster.*

1. Remove the hex screw, washers and locknut that secure the front caster to the fork.

*NOTE: Washers are only used with 6 and 8-inch casters with precision bearings.*

2. To reinstall the new front caster onto the fork, reverse STEP 1.



**FIGURE 2 - REPLACING FRONT CASTERS**

## REPLACING/REPAIRING FRONT CASTER TIRE

### WARNING

Replacement of front caster tire **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 - Anti-tippers/Wheel Locks includes the following:
Installing/Adjusting the Anti-Tippers
Using/Adjusting the Disk 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.

**INSTALLING/ADJUSTING THE ANTI-TIPPERS**

**WARNING**

Anti-tippers are specific to the different seat-to-floor angles and/or seat-to-floor heights. Refer to the chart in this section of the manual for correct usage and adjustment. If these requirements **CANNOT** be achieved, **DO NOT** use the wheelchair. Contact a qualified technician. Any changes to the seat-to-floor angle or seat-to-floor height may require different anti-tippers.

If so equipped, anti-tippers **MUST** be attached at all times. Inasmuch as the anti-tippers are an option for 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.

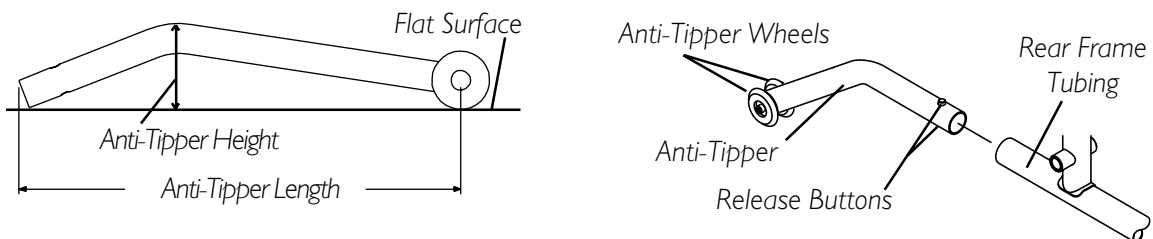
Anti-tippers **MUST** be fully engaged and release buttons fully protruding out of adjustment holes.

Ensure both anti-tippers are adjusted to the same mounting hole.

**INSTALLING THE ANTI-TIPPERS (FIGURES 1 AND 2)**

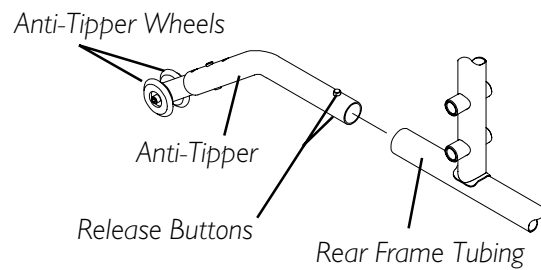
NOTE: To ensure the correct model anti-tipper is used refer to FIGURE 1. Measurements for anti-tippers are approximate and are taken with extension tube in **BOTTOM** hole position.

Wheelchair Model	Seat-to-Floor Height in inches	Anti-tipper (measurements in inches)			
		Length	Height	Model	Part Number
Tracer IV	17-1/2 to 19-1/2	13-1/2	3-1/4	1360	1058836



**FIGURE 1 - INSTALLING THE ANTI-TIPPERS**

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. Place the wheelchair on a flat surface.
4. Measure the distance between the bottom of the anti-tipper wheels and the ground/floor.



**FIGURE 2 - INSTALLING THE ANTI-TIPPERS**

*NOTE: A 1-1/2 to 2-inch clearance between the bottom of the anti-tipper wheels and the ground/floor MUST be maintained at all times.*

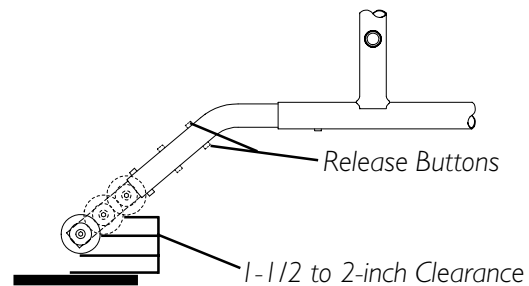
5. If the distance between the bottom of anti-tipper wheels and the ground/floor is not 1-1/2 to 2-inches, adjust anti-tippers. Refer to [ADJUSTING THE ANTI-TIPPERS](#) in this section of the manual.

### ADJUSTING THE ANTI-TIPPERS (FIGURE 3)

*NOTE: A 1-1/2 to 2-inch clearance between the bottom of the anti-tipper wheels and the ground/floor MUST be maintained at all times.*

1. Place the wheelchair on a flat surface.

*NOTE: If adjusting anti-tippers on recliner models, ensure back canes are in the upright position BEFORE making adjustments.*



**FIGURE 3 - ADJUSTING THE ANTI-TIPPERS**

2. Press the release buttons on the wheeled portion of the anti-tipper and slide it up or down to the desired adjustment hole.
3. Check to make sure that the release buttons are fully engaged in adjustment holes.
4. Ensure both anti-tippers are adjusted to the same height.
5. Measure the distance between the bottom of the anti-tipper wheels and the ground/floor.
6. If the distance between the bottom of anti-tipper wheels and the ground/floor is not 1-1/2 to 2-inches, repeat STEPS 2-5 until the distance is 1-1/2 to 2-inches.
7. If the 1-1/2 to 2-inch distance cannot be achieved with the anti-tippers, a different model may be required. Contact an Invacare dealer or qualified technician.

## USING/ADJUSTING THE DISK WHEEL LOCKS

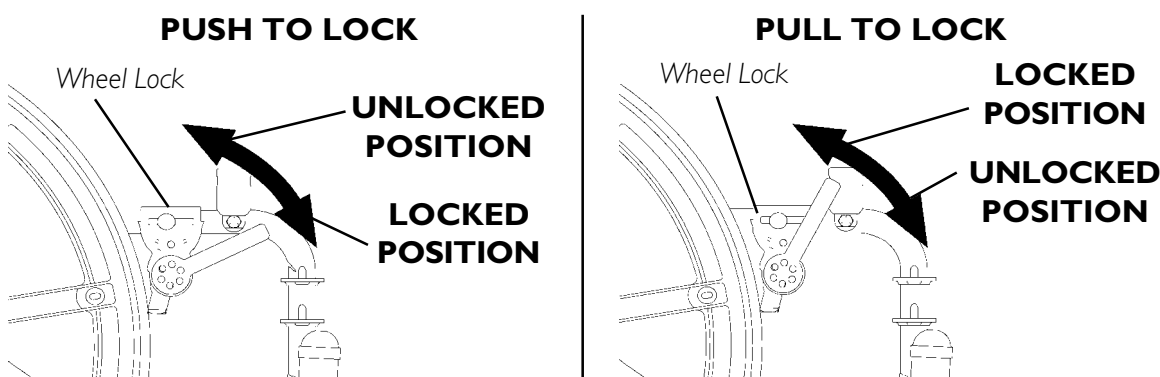
### USING THE PATIENT OPERATED DISK WHEEL LOCKS (FIGURE 3)

#### WARNING

**DO NOT attempt to stop a moving wheelchair with the wheel locks. WHEEL LOCKS ARE NOT BRAKES.**

*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. Perform one (1) of the following:
  - A. **Push-to-Lock** - To engage, push the wheel lock handle forward.
  - B. **Pull-to-Lock** - To engage, pull the wheel lock handle backward.
3. Disengage the wheel locks by reversing STEP 2.



**FIGURE 3 - USING THE DISK WHEEL LOCKS**

### ADJUSTING THE DISK WHEEL LOCKS (FIGURE 4)

*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.*

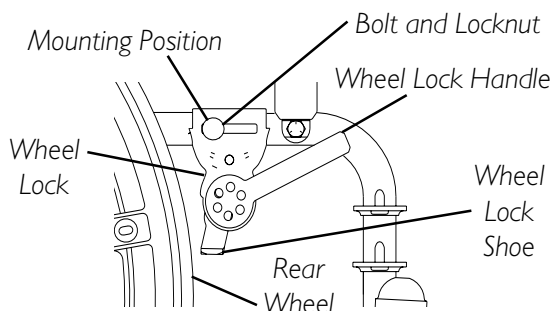
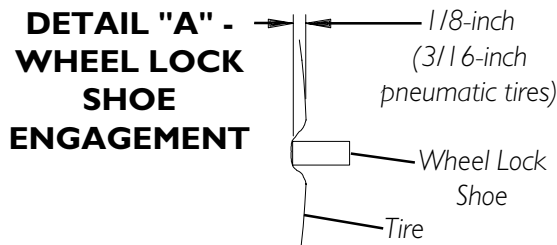
1. Disengage the wheel locks.
2. Loosen the bolt and locknut that secure the wheel lock to the wheelchair frame.
3. Reposition the wheel lock so that when engaged, the wheel lock shoe embeds the tire 1/8-inch (3/16-inch for pneumatic tires) and **HOLDS** the occupied wheelchair in place when pushed.
4. Securely tighten the bolt and locknut attaching 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" of FIGURE 4.

*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 other tires) and **HOLDS** the wheelchair in place when pushed.
8. If the measurement of 1/8-inch (3/16-inch for other tires) can not be achieved, it may be necessary to install wheel lock shoe extensions. Refer to INSTALLING WHEEL LOCK SHOE EXTENSIONS in this section of the manual.
9. Repeat STEPS 1-7
10. Repeat STEPS 1-9 for the opposite wheel lock.
11. 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. - other wise injury or damage may occur.**



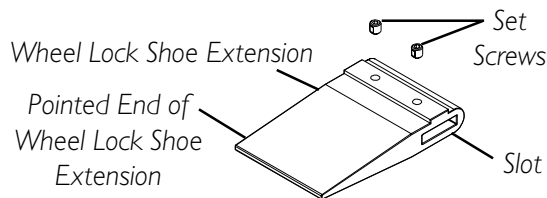
**FIGURE 4 - ADJUSTING THE PATIENT OPERATED WHEEL LOCKS**

## INSTALLING WHEEL LOCK SHOE EXTENSIONS (FIGURE 5)

1. Loosen the two (2) set screws on the wheel lock shoe extension until the set screws do not protrude into the slot.
2. Insert the disk wheel lock shoe into the slot in the shoe extension.

*NOTE: Ensure the pointed end of the wheel lock shoe extension is facing toward the rear wheel.*

3. Position the wheel lock shoe extension so the outside edge is flush with the end of the wheel lock shoe.
4. Securely tighten the two (2) set screws to secure the wheel lock shoe extension to the wheel lock shoes.



**FIGURE 5 - INSTALLING WHEEL LOCK SHOE EXTENSION**

Section 9 - Seat-to-Floor Height includes the following:
Changing Seat-To-Floor Height

### WARNING

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

## CHANGING SEAT-TO-FLOOR HEIGHT (FIGURE 1)

### WARNING

The position of the front casters, position of the rear wheels, use of 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 four (4) may cause the wheelchair to decrease in stability. These adjustments **MUST** be performed by a qualified technician.

Seat-to-floor heights have specific positions depending on rear wheel position and front caster position. These adjustments **MUST** be performed by a qualified technician.

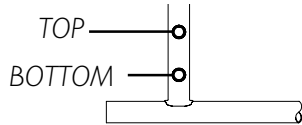
If changing the seat-to-floor height, the anti-tippers **MUST** be adjusted to maintain a 1-1/2 to 2-inch ground clearance.

1. Refer to the following chart in FIGURE 1 to determine mounting positions for front casters/forks and rear wheels for the desired obtainable seat-to-floor height.
2. Remove the rear wheels from the wheelchair. Refer to REMOVING/INSTALLING THE REAR WHEELS in SECTION 6 of this manual.
3. Remove the front casters from the forks. Refer to REPLACING FRONT CASTERS and INSTALLING/REPLACING FORK ASSEMBLIES in SECTION 7 of this manual.
4. Reinstall the caster in the mounting position indicated in the chart.
4. Reinstall the rear wheels onto the wheelchair in the mounting position indicated in the chart. Refer to REMOVING/INSTALLING THE REAR WHEELS in SECTION 6 of this manual.
5. Adjust anti-tippers according to **NEW** seat-to-floor height. Refer to ADJUSTING THE ANTI-TIPPERS in SECTION 8 of this manual.

8-INCH FRONT CASTERS

SEAT-TO-FLOOR HEIGHT (in inches)	FRONT CASTER MOUNTING POSITION	REAR WHEEL SIZE	REAR WHEEL MOUNTING POSITION
17-1/2	TOP	24-inch	TOP
19-1/2	BOTTOM	24-inch	BOTTOM

REAR WHEEL MOUNTING POSITIONS - ADULT/HEMI FRAME STYLE



8-INCH FORK MOUNTING POSITIONS

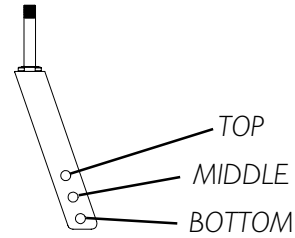


FIGURE 1 - CHANGING SEAT-TO-FLOOR HEIGHT

SEAT-TO-FLOOR HEIGHT



<p><b>Section 10 - Options includes the following:</b></p> <p><b>Installing the Carrying Pocket</b></p> <p><b>Installing the Seat Positioning Strap</b></p>
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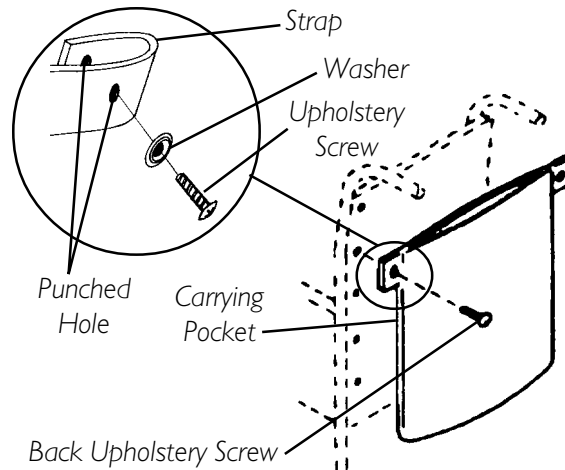
**WARNING**

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

OPTIONS

**INSTALLING THE CARRYING POCKET (FIGURE 1)**

1. Determine the height required for the carrying pocket.
2. Remove the two (2) back upholstery screws and two (2) washers that correspond to the desired height.
3. Center pouch against back canes, determine and mark location for mounting holes on carrying pouch straps.
4. Punch holes in straps.
5. Fold excess strap ends under, mark mounting holes in second thickness of strap and punch mounting holes.
6. Fold strap ends under so the upholstery screw can be inserted through two (2) thicknesses of strap.
7. Position the carrying pocket on the wheelchair frame.
8. Secure the carrying pocket to the wheelchair frame with the two (2) washers and two (2) back upholstery screws.



**FIGURE 1 - INSTALLING THE CARRYING POCKET**

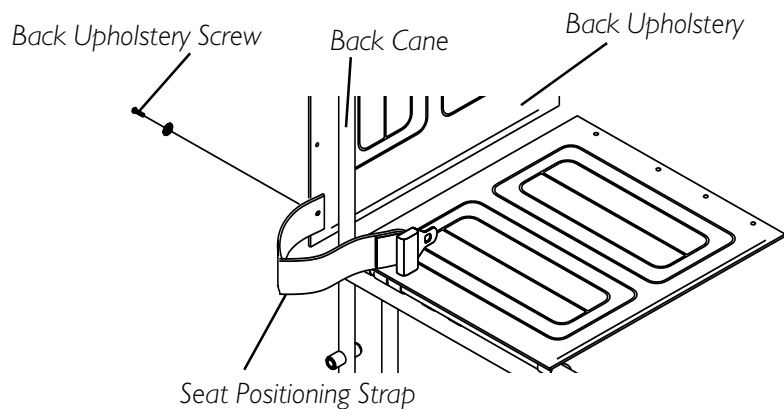
**INSTALLING THE SEAT POSITIONING STRAP (FIGURE 2)****WARNING**

**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.

1. Remove the bottom back upholstery screw from the wheelchair.
2. Position the seat positioning strap between the back cane and back upholstery.
3. Secure the back upholstery and seat positioning strap to the wheelchair with the existing back upholstery screw.

*NOTE: Screw must go through grommet in seat positioning strap.*

4. Repeat STEPS 1-3 for the opposite side of the wheelchair.



**FIGURE 2 - INSTALLING THE SEAT POSITIONING STRAP**

**INSTALLING THE CRUTCH AND CANE CARRIER (FIGURE 3)**

**WARNING**

**Check base weekly to secure proper placement.**

**Strap must be securely fastened while carrying items.**

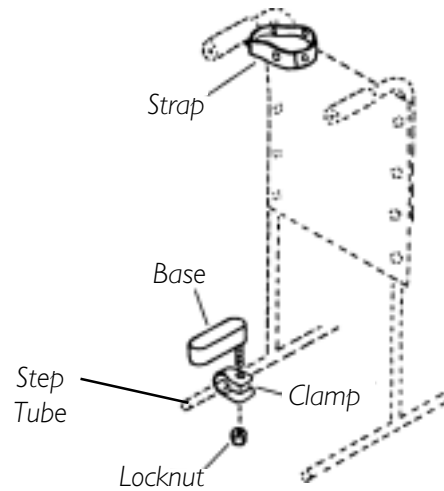
**Never insert or remove items while wheelchair is moving.**

1. Slide the clamp with the base attached over the end of the step tube of the wheelchair.
2. Position the base parallel to the step tube.

**CAUTION**

**Base should be parallel to step tube to avoid bending spokes when folding the wheelchair.**

3. Securely tighten the locknut that secures the base to the step tube of the wheelchair.
4. Remove the upper back upholstery screw and washer.
5. Align the strap with the back upholstery screw mounting hole.
6. Reinstall the back upholstery screw and washer and secure the strap to the wheelchair.
7. The base cleans easily with any chrome or glass cleaner. The strap can be cleaned with mild soap and water.



**FIGURE 3 - INSTALLING THE CRUTCH AND CANE CARRIER**

OPTIONS

## LIMITED WARRANTY

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

This warranty is extended only to the original purchaser/user of our products.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

Invacare warrants its product to be free from defects in materials and workmanship for a period of one (1) year from date of purchase. The side frames and crossmembers are warranted for the lifetime of the original purchaser/users. If within such warranty period any such product shall be proven to be defective, such product shall be repaired or replaced, at Invacare's option. This warranty does not include any labor or shipping charges incurred in replacement part installation or repair of any such product. Invacare's sole obligation and your exclusive remedy under this warranty shall be limited to such repair and/or replacement.

For warranty service, please contact the dealer from whom you purchased your Invacare product. In the event you do not receive satisfactory warranty service, please write directly to Invacare at the address at the bottom of this page. Provide dealer's name, address, the product model number, date of purchase, indicate nature of the defect and, if the product is serialized, indicate the serial number. Do not return products to our factory without our prior consent.

**LIMITATIONS AND EXCLUSIONS: THE FOREGOING WARRANTY SHALL NOT APPLY TO SERIAL NUMBERED PRODUCTS IF THE SERIAL NUMBER HAS BEEN REMOVED OR DEFACED, PRODUCTS SUBJECTED TO NEGLIGENCE, ACCIDENT, IMPROPER OPERATION, MAINTENANCE OR STORAGE, PRODUCTS MODIFIED WITHOUT INVACARE'S EXPRESS WRITTEN CONSENT INCLUDING, BUT NOT LIMITED TO, MODIFICATION THROUGH THE USE OF UNAUTHORIZED PARTS OR ATTACHMENTS; PRODUCTS DAMAGED BY REASON OF REPAIRS MADE TO ANY COMPONENT WITHOUT THE SPECIFIC CONSENT OF INVACARE, OR TO A PRODUCT DAMAGED BY CIRCUMSTANCES BEYOND INVACARE'S CONTROL, AND SUCH EVALUATION WILL BE SOLELY DETERMINED BY INVACARE. THE WARRANTY SHALL NOT APPLY TO PROBLEMS ARISING FROM NORMAL WEAR OR FAILURE TO ADHERE TO THESE INSTRUCTIONS.**

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**THIS WARRANTY SHALL BE EXTENDED TO COMPLY WITH STATE/PROVINCIAL LAWS AND REQUIREMENTS.**

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