

# ***HTR Tilt/Recline***

**3000/3500**

**5000/5500**

DEALER: THIS MANUAL MUST BE GIVEN TO THE USER OF THE HTR.

USER: BEFORE USING THE HTR, READ THIS MANUAL AND SAVE FOR FUTURE REFERENCE.



**Yes, you can.™**

**W A R N I N G**

**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 QUALIFIED TECHNICIAN IF APPLICABLE BEFORE ATTEMPTING TO USE THIS EQUIPMENT - OTHERWISE INJURY OR DAMAGE MAY RESULT.**

**PROCEDURES OTHER THAN THOSE DESCRIBED IN THIS MANUAL MUST BE PERFORMED BY A QUALIFIED TECHNICIAN.**

**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.

**HTR USER**

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

**HTR TIE-DOWN RESTRAINTS AND SEAT POSITIONING STRAPS**

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

It is Invacare's position that users of the HTR 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 HTR transportation systems.

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

**TO HEALTHCARE PROFESSIONALS/ASSISTANTS:**

The HTR Tilt/Recline **MUST** be operated by a HEALTHCARE professional or assistant when in ANY tilt or recline position.

**DO NOT** maneuver the HTR when the user has been tilted or reclined from the upright back position.

Make sure the occupant of the chair is properly positioned.

When using wheel locks, **ALWAYS** engage **ALL** wheel locks.

**SAVE THESE INSTRUCTIONS**

# TABLE OF CONTENTS

<b>SPECIAL NOTES .....</b>	<b>2</b>
<b>PROCEDURE 1 - GENERAL GUIDELINES .....</b>	<b>4</b>
OPERATING INFORMATION .....	4
WEIGHT TRAINING .....	4
WEIGHT LIMITATION .....	5
SAFETY/HANDLING OF THE HTR .....	5
<b>PROCEDURE 2 - SAFETY INSPECTION .....</b>	<b>8</b>
SAFETY INSPECTION CHECKLIST .....	8
TROUBLESHOOTING .....	9
MAINTENANCE/TRANSPORTING .....	9
<b>PROCEDURE 3 - OPERATION .....</b>	<b>10</b>
TILT OPERATION .....	10
RECLINE OPERATION .....	10
FLIPDOWN BACK OPERATION .....	10
CASTER, WHEEL AND WHEEL LOCK OPERATION .....	11
<b>PROCEDURE 4 - ADJUSTMENTS .....</b>	<b>12</b>
HEADWING ADJUSTMENT .....	12
HEADREST ADJUSTMENT .....	12
ARM ADJUSTMENT .....	12
SEAT DEPTH ADJUSTMENT .....	12
LEGREST ADJUSTMENT .....	13
SWINGAWAY FOOTREST .....	13
WHEEL LOCK ADJUSTMENT .....	13
TRAY ADJUSTMENT AND STORAGE .....	14
<b>LIMITED WARRANTY .....</b>	<b>15</b>

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GENERAL GUIDELINES

This Procedure includes the following:
Operating Information
Weight Training
Weight Limitation
Safety/Handling of the HTR

**OPERATING INFORMATION**

**GENERAL WARNINGS**

The HTR is to be operated by an assistant only. The HTR was not intended for self-propelling.

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 HTR.

**ALWAYS** make sure that the chair is stable BEFORE using the tilt or recline. **TEST** chair BEFORE it is occupied by the end user to ensure safety.

The gas cylinder **MUST** be operational before using the chair. **DO NOT** operate the tilt or recline if the gas cylinder is not operational.

**DO NOT** operate the tilt or recline if the trigger release lever and cable are not properly adjusted to ensure the gas cylinder locks in place when being engaged.

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

**NEVER** leave the user in a tilted or reclined position unattended at any time, especially on an incline.

**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** shift your weight or sitting position toward the direction you are reaching as the HTR may tip over.

Inspect wheel locks for correct locking action before actual use. **WHEEL LOCKS ARE NOT BRAKES.** **DO NOT** attempt to stop a moving HTR with the wheel locks. When transferring to and from the HTR, **ALWAYS ENGAGE ALL WHEEL LOCKS.**

**MODELS 5000/5500 ONLY - DO NOT TIP THE HTR ONTO THE REAR WHEELS WITHOUT ASSISTANCE.**

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

Before attempting to transfer in or out of the HTR, 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 HTR, **ALWAYS ENGAGE ALL WHEEL LOCKS.**

**DO NOT** use parts, accessories, or adapters other than those authorized by Invacare.

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

**DO NOT** stand on the frame of the HTR.

**ALWAYS** wear your seat positioning strap. Inasmuch as the **SEAT POSITIONING STRAP** is an option on the HTR (You may order with or without the seat positioning strap), Invacare strongly recommends ordering the seat positioning strap as an additional safeguard for the HTR user.

**5000/5500 MODELS ONLY - Anti-tippers MUST BE** attached at all times. Inasmuch as the **ANTI-TIPPERS** are an option on the HTR (You may order with or without the anti-tippers), Invacare strongly recommends ordering the anti-tippers as an additional safeguard for the HTR user.

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

**WEIGHT TRAINING**  
 If occupant uses the HTR as a weight training chair, Invacare shall not be liable for bodily injury and the warranty will be voided immediately. The Invacare HTR has not been designed or tested as a seat for any kind of weight training.

**GENERAL WARNINGS (CONTINUED)****WEIGHT LIMITATION**

The HTR Tilt/Recline has a weight limitation of 250 lbs.

**SAFETY/HANDLING OF THE HTR**

"Safety and Handling" of the HTR requires the close attention of the HTR 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 HTR. 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 HTR 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 HTR 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 the HTR (You may order with or without the seat positioning strap), Invacare strongly recommends ordering the seat positioning strap as an additional safeguard for the HTR user.

**5000/5500 MODELS ONLY - Anti-tippers MUST BE attached at all times.** Inasmuch as the ANTI-TIPPERS are an option on the HTR (You may order with or without the anti-tippers), Invacare strongly recommends ordering the anti-tippers as an additional safeguard for the HTR user.

To assure stability and proper operation of your HTR, you must at all times wear your seat positioning strap and maintain proper balance. Your HTR 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 HTR 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 HTR 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 HTR and then reversing it in a straight line.

The HTR Tilt/Recline MUST be operated by an attendant when the chair is in any tilted or reclined position.

**Coping With Everyday Obstacles**

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

**A Note To HTR Assistants**

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

**WARNING**

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

Also, be aware of any removable (detachable) parts. These must NEVER be used for hand-hold or 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.

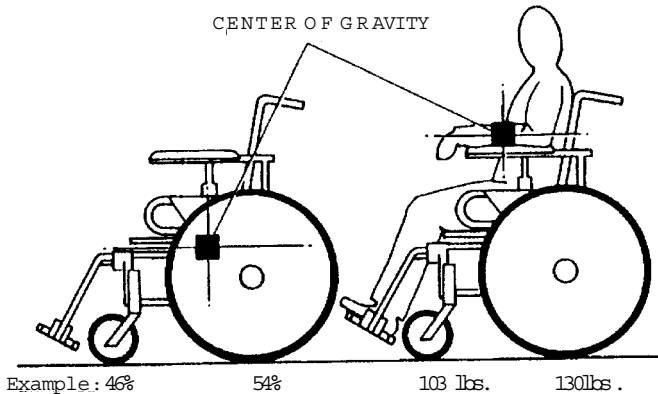
**Percentage of Weight Distribution****WARNING**

**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.**

**Changing the seat depth of the chair changes the stability of the HTR. To maintain stability, safety limits for bending, reaching and transferring activities MUST be re-evaluated by a qualified healthcare professional BEFORE using the HTR.**

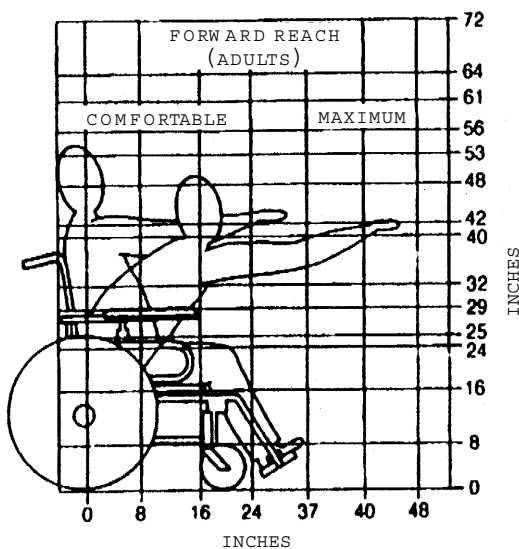
Many activities require the HIR user to reach, bend and transfer in and out of the HIR. These movements will cause a change to the normal balance, the center of gravity, and the weight distribution of the HIR. To determine and establish your particular safety limits, practice bending, reaching and transferring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

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.



**Functional Reach From the HTR**

The approximate reach-limit values shown in the accompanying graphs were derived on the basis of a sample of 91 male and 36 female subject users. Note the difference between the maximum and the comfortable reach limits, a subjective but important consideration in design.

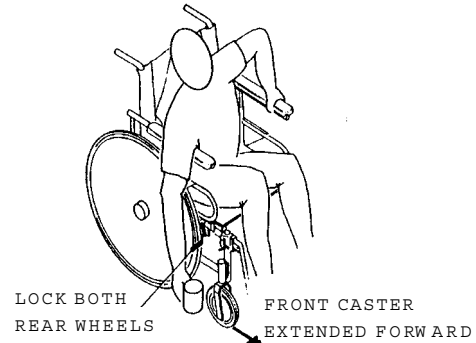


**Reaching, Leaning and Bending Forward**

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

**WARNING**

**DO NOT** lean forward of the armrests.  
**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.

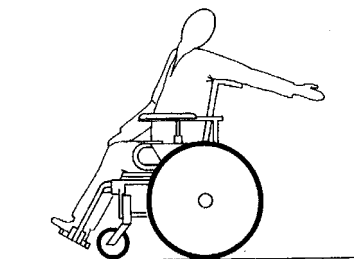


**Reaching, Leaning - Backwards**

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



**Tilting - Curbs**

**WARNING**

**DO NOT** tilt the HTR without assistance.  
 When lowering the front casters of the HTR, do not let the HTR drop the last few inches to the ground. This could result in injury to the occupant and/or damage to the HTR.  
 The following procedure applies ONLY to HTR MODELS 5000/5500 with rear wheels larger than 8-inches.

**WARNING**

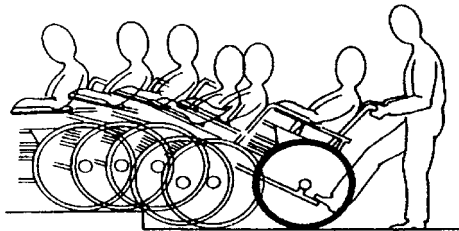
Invacare does not recommend traversing curbs with the HTR. However, extreme caution is advised when it is necessary to move an occupied HTR up or down a curb. Make sure to use ONLY secure, non-detachable parts for hand-hold supports.

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

After mastering the techniques of tilting the HTR, use this procedure to tackle curbs, short stairs, etc.

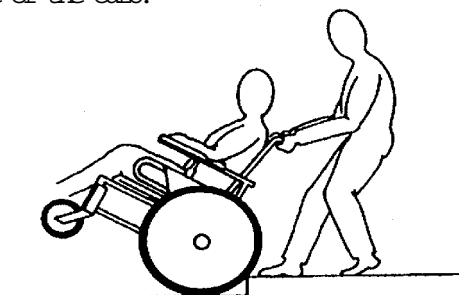
**METHOD 1** - Apply a continuous downward motion until the balance point is achieved and the front casters clear the curb. At this point, the assistant will feel a difference in the weight distribution.

Roll the HTR forward and slowly lower the front casters onto the sidewalk. Do not let the HTR drop the last few inches to the ground. This could result in injury to the occupant. Push the HTR forward until the rear wheels roll up and over the curb.



**METHOD 2** - This method requires two (2) assistants. The second assistant should be positioned at the front of the HTR lifting upward on a non-removable (non-detachable) part of the HTR frame when lifting the HTR and stabilizing the HTR when the HTR is being lowered to the ground.

The first assistant should stand on the sidewalk and turn the HTR so that the rear wheels are against the curb. The HTR 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 HTR has been pulled backward far enough for the front casters to clear the edge of the curb.



**Stairways**

**WARNING**

DO NOT move an occupied HTR up or down a stairway. Otherwise, injury may occur.

**ESCALATORS? SORRY!**

DO NOT use an escalator to move the HTR between floors. Serious bodily injury may occur.

**Transferring to and From Other Seats**

**NOTE:** This activity may be performed independently provided the user has access to the wheellocks and has adequate mobility and upper body strength.

**WARNING**

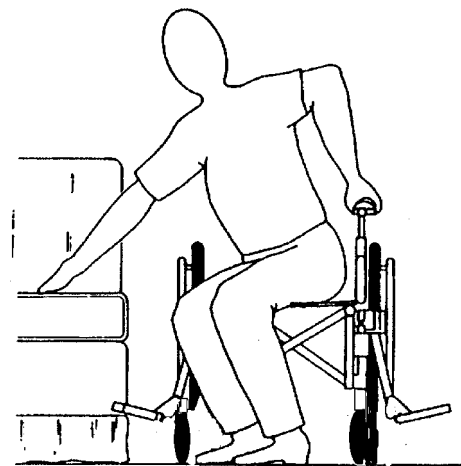
BEFORE attempting to transfer in or out of the HTR, every precaution should be taken to reduce the gap distance. Turn both casters parallel to the object you are transferring onto. Also be certain the wheel locks are engaged to help prevent the wheels from moving.

**CAUTION**

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

Position the HTR as close as possible along side the seat to which you are transferring, with the front casters pointing parallel to it. 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.



INSPECTION

This Procedure includes the following:
Safety Inspection Checklist
Troubleshooting
Maintenance
Transporting

NOTE: Every six (6) months, take your HIR 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 HIR. To operate properly and safely, your HIR must be cared for just like any other vehicle. Routine maintenance will extend the life and efficiency of your HIR. Clean upholstery with mild soap and water or spray disinfectant using a sponge. DO NOT use bleach or wash in a washing machine.

### SAFETY INSPECTION CHECKLIST

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

ITEM	INITIALLY	INSPECT/ ADJUST WEEKLY	INSPECT/ ADJUST MONTHLY	INSPECT/ ADJUST PERIODICALLY
<b>GENERAL</b> HIR rolls straight (no excessive drag or pull to one side).	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 UPHOLSTERY</b> Inspect for rips or sagging.	X			X
<b>12, 20, and 24-INCH WHEELS</b> Axle nut tension correct. No excessive side movement or binding when lifted and spun.	X X		X X	X
<b>HANDRIMS (if equipped)</b> Inspect for signs of rough edges or peeling.	X			X
<b>GAS CYLINDERS</b> Inspect for leaking oil.	X		X	
<b>CASTERS</b> Inspect wheel/fork assembly for proper tension by spinning caster; caster should come to a gradual stop. Loosen/tighten locknut if wheel wobbles noticeably or binds to a stop. Wheel bearings are clean and free of moisture. CAUTION: As with any vehicle, the wheels and tires should be checked periodically for cracks and wear, and should be replaced.	X X X	X	X X	X
<b>TIRES</b> Inspect for flat spots and wear. CAUTION: As with any vehicle, the wheels and tires should be checked periodically for cracks and wear, and should be replaced.	X	X		
<b>ARMS</b> Secure, but easy to release.	X			X
<b>TRIGGER RELEASE LEVER AND CABLE</b> Cables completely release and handles return when released.	X	X		
<b>CLOTHING GUARDS</b> Inspect for bent or protruding metal. Ensure all fasteners are secure.	X X			X X
<b>ARMRESTS</b> Inspect for rips in the upholstery. Base sits flush against arm tube.	X X			X X
<b>CLEANING</b> Clean upholstery and armrests.	X			X



**TROUBLESHOOTING**

CHAIR VEERS RIGHT	CHAIR VEERS LEFT	SLUGGISH TURN OR PERFORMANCE	CASTER FLUTTERS	SQUEAKS AND RATTLES	LOOSENESS IN CHAIR	SOLUTIONS
X	X	X				3000/3500 Models: Check that directional lock caster is engaged
		X	X	X	X	Check casters for loose nuts and bolts.
X	X		X			Check that both casters contact the ground at the same time.

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**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 HIR, 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 wheels and tires should be checked periodically for cracks and wear, and should be replaced.

2. Check the wheels and tires periodically for cracks and wear. If damaged, have them replaced by a qualified technician.

3. Periodically check handrims to ensure they are secured to the rear wheels.
4. Periodically adjust wheel locks in correlation to tire wear.
5. Periodically check caster wheel bearings to make sure they are clean and free from moisture.
6. Check upholstery for sagging, rips or tears.
7. Periodically check gas cylinders for oil leaks. If oil leak is detected, replace the cylinders.

**TRANSPORTING**

1. Remove the footrests.
2. Remove the rear wheels.
3. Remove the armrests.
4. Pull the release pins and fold the back towards the rear of the chair (optional).
5. Turn the anti-tippers so they are facing UP.

OPERATION

This Procedure includes the following:  
 Tilt Operation  
 Recline Operation  
 Flipdown Back Operation  
 Caster, Wheel and Wheel Lock Operation

**WARNING**

The HTR is to be operated by an assistant only. The HTR was not intended for self-propelling.

**ALWAYS** make sure that the chair is stable **BEFORE** using the tilt or recline. **TEST** chair **BEFORE** it is occupied by the end user to ensure safety.

The gas cylinder **MUST** be operational before using the chair. **DO NOT** operate the tilt or recline if the gas cylinder is not operational.

**DO NOT** operate the tilt or recline if the trigger release lever and cable is not properly adjusted to ensure the gas cylinder locks in place when being engaged.

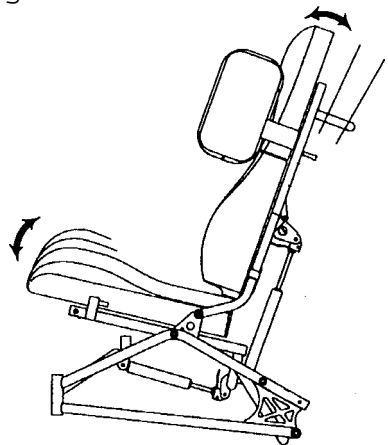
**NEVER** leave the user in a tilted or reclined position unattended at any time, especially on an incline.

**TILT OPERATION (FIGURE 1)**

The proper trigger to tilt the chair is clearly marked with the following label:



Infinite tilt positions are controlled by the trigger cable mechanism located behind the chair on the right push handle. Squeeze the trigger and the lock is released, allowing the chair to be pulled back or eased forward to the desired degree of tilt. Release the trigger and the unit will lock into the chosen degree of tilt. To assist in this function, there is a descent/ascent footbar so your arms are not doing all the work.



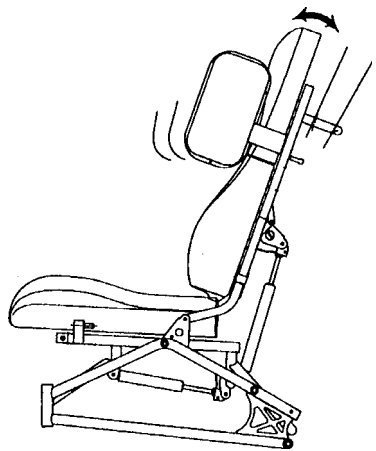
**FIGURE 1 - TILT OPERATION**

**RECLINE OPERATION (FIGURE 2)**

The proper trigger to recline the back is clearly marked with the following label:



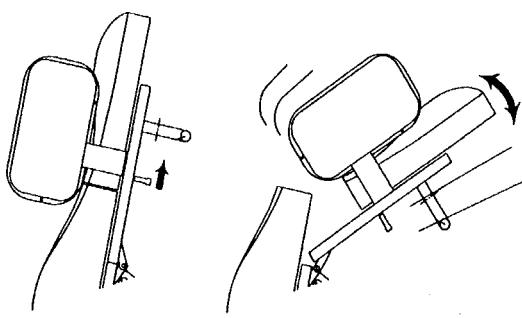
Infinite recline positions are also controlled by a single trigger cable mechanism located behind the chair. The recline control mechanism is located on the left push handle 90 degrees to the back. Squeeze the trigger and the back is released, allowing the seat to back angle to be adjusted accordingly. Release the trigger and the back will be locked at the chosen degree of recline.



**FIGURE 2 - RECLINE OPERATION**

**FLIPDOWN BACK OPERATION (FIGURE 3)**

To flip down the back, pull simultaneously on the two pins located in the vertical members of the back. Allow the upper portion of the back to swing down behind the lower portion. To return the back to its upright position, swing the back up and it will automatically lock in position.



**FIGURE 3 - FLIPDOWN BACK OPERATION**

## **CASTER, WHEEL AND WHEELLOCK OPERATION**

### **5-inch Casters with Wheel Locks**

Push your foot down on the lower of the two caster toggles. To disengage, push down on the top toggle.

### **5-inch Caster with Directional Lock**

Ensure the caster is positioned directly forward. Push your foot down on the lower of the two caster toggles. To disengage, push down on the top toggle.

### **24-inch, 20-inch, and 12-inch Rear Wheels with Wheel Locks**

To engage, push the wheel lock handle forward. Reverse to disengage.

This Procedure includes the following:
Headwing Adjustment
Headrest Adjustment
Arm Adjustment
Seat Depth Adjustment
Legrest Adjustment
Swingaway Footrest
Wheel Lock Adjustment
Tray Adjustment and Storage

**HEADWING ADJUSTMENT (FIGURE 1)**

All HIR headwings are width adjustable. To adjust, loosen the tension knob on the back of the chair, slide the headwing to the desired position and securely tighten the tension knob. All HIR headwings can also be reversed to change their height. To do this, take the left headwing and install it on the right side, and vice-versa.

**CAUTION**  
Be careful not to damage the headwings when flipping the back down.

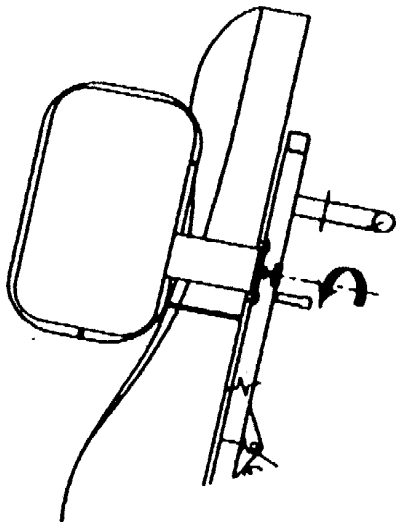


FIGURE 1 - HEADWING ADJUSTMENT

**HEADREST ADJUSTMENT**

The headrest can be moved vertically to meet varying needs. Simply pull the headrest up or down to achieve the desired position. The fastening straps can be loosened or tightened accordingly.

**ARM ADJUSTMENT (FIGURE 2)**

All HIR arms are adjustable height flip back arms. Height adjustment is achieved by pulling back the release pin (located at front beneath the ampad) and lifting up the upper arm section to its desired height. Release the pin to lock it in place. To flip back the arm, pull the front arm release pin back.

**WARNING**  
Ensure the armrest is locked in position before moving the HTR.

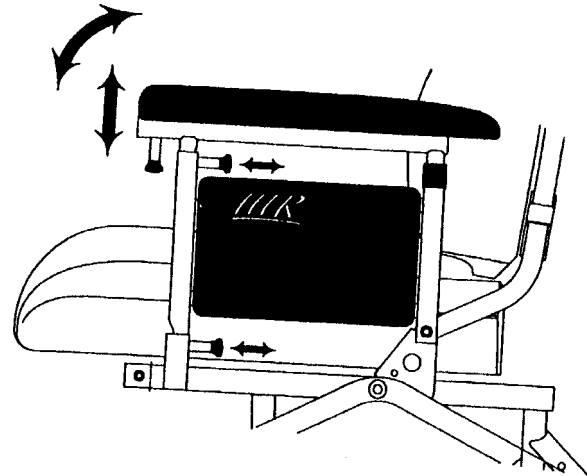


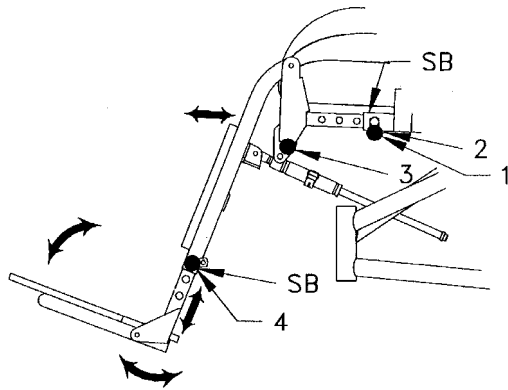
FIGURE 2 - ARM ADJUSTMENT

**SEAT DEPTH ADJUSTMENT**

Seat depth can be adjusted in a range from 15"-19" in 1" increments. To adjust the depth, pull the lever under the left side of the seat, slide the seat to the desired location and release, making sure the pin has locked into the hole.

**LEGREST ADJUSTMENT (FIGURE 3)**

- A. To adjust for thigh length, move knob (see 1 in FIGURE 3) on left side to the left and slide whole legrest in or out. If pulled too far out, the safety pins will lock in place -- to release, squeeze pins (see 2 in FIGURE 3) in.
- B. To adjust angle, pull knob (see 3 in FIGURE 3), lift footboard to desired position. To lower footboard, pull knob (see 3 in FIGURE 3), push footboard to desired position.
- C. To adjust calf length, move knob (see 4 in FIGURE 3) on left side, to the left and adjust footboard up or down.
- D. Footboard can be hinged up out of the way by lifting up.
- E. SB= Safety Button, depress completely to remove assembly.



**FIGURE 3 - LEGREST ADJUSTMENT**

**SWINGAWAY FOOTREST**

- A. Turn the footrest to the side (open footrest plate is perpendicular to the HIR).
- B. Insert the footrest mounting pins.
- C. Rotate the footrest towards the inside of the wheelchair until it locks in place.

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

- D. Repeat this procedure for the other footrest assembly.
- E. To release the footrest, push the footrest release lever inward while rotating the footrest outward.

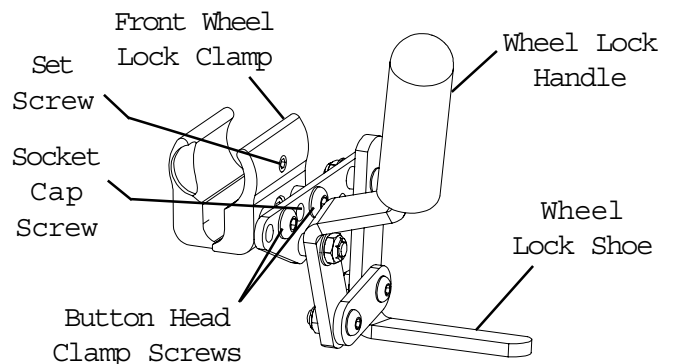
**WHEEL LOCK ADJUSTMENT (FIGURE 4)**

NOTE: This procedure does not apply to 5" caster wheel locks.

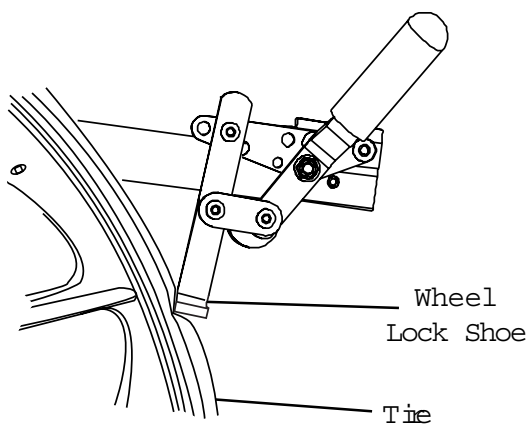
- 1. Remove set screw from wheel lock clamp half using a 1/8-inch hex key. Refer to FIGURE 4 for set screw location.
- 2. Loosen, but do not remove the socket cap screw (using a 3/16-inch hex key) and two (2) button head clamp screws (using a 5/32-inch hex key) that secure the wheel lock assembly to the wheelchair frame.
- 3. Using a 3/16-inch hex key, tighten the middle socket cap screw until the wheel lock clamp firmly grasps the frame tube, but still rotates and moves on the tube.
- 4. Using a 5/32-inch hex key, tighten the two (2) button head clamp screws until the clamp firmly grasps the frame tube, but still rotates and moves on the tube.
- 5. Position the wheel lock so, at a minimum, the wheel lock shoe embeds into the tire (refer to FIGURE 5) according to the following table:

Wheel Size	Minimum Measurements
12-INCH WHEELS	3/16-INCH
20-INCH WHEELS	1/4-INCH
24-INCH WHEELS	1/8-INCH

- 6. Securely tighten the socket cap screw to 120 in-lbs. (approximately an additional 1/4 turn).
- 7. Securely tighten the button head clamp screws to 70 in-lbs. (approximately an additional 1/8 turn).
- 8. Engage wheel lock and push the HIR wheelchair to check that wheel lock engages the tire enough to hold the HTR wheelchair during patient use/transfers.
- 9. Repeat the above STEPS 2-8 until the wheel locks hold the HIR wheelchair.
- 10. Tighten set screw with a 1/8-inch hex key to 30 in-lbs. (approximately 1/4-1/2 turn after the screw bottoms out on the tube).



**FIGURE 4 - INSTALLING NEW WHEEL LOCK (LEFT WHEEL LOCK FOR 20" REAR WHEEL IS SHOWN)**



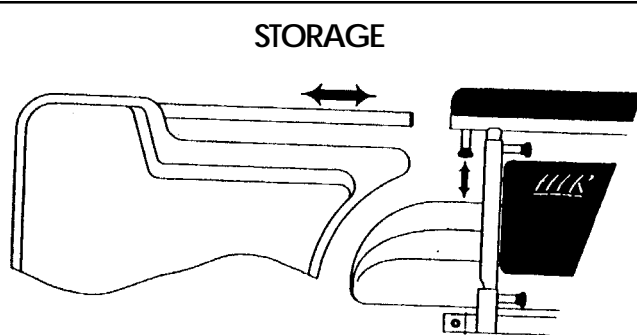
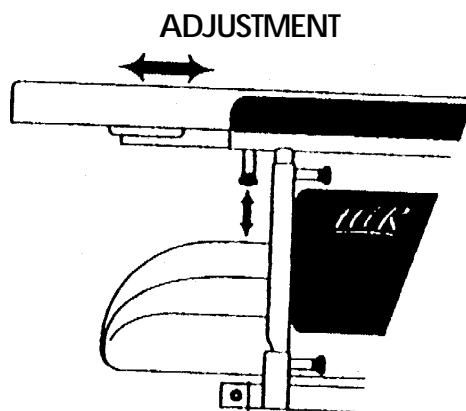
**FIGURE 5 - WHEEL LOCK SHOE EMBEDS INTO TIRE (RIGHT WHEEL LOCK FOR 24" WHEEL SHOWN)**

**TRAY ADJUSTMENT AND STORAGE (FIGURE 4)**

The tray can be adjusted by pulling down the release pin (rotating the pin will lock it open) located under the arm tube. The adjustment is in 1" increments.

Ensure the tray is securely locked in place before using.

To store the tray place one of the tray rods in the arm tube with the top surface of the tray facing away from the chair.



**FIGURE 4 - TRAY ADJUSTMENT AND STORAGE**

## **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 three (3) years; lifetime on the frame; and one (1) year on the upholstery and Gas Spring Cylinders from the date of original purchaser/user. If within such warranty period any 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 on the back page. Provide dealer's name address and the 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 SUBJECT TO NEGLIGENCE, ACCIDENT, IMPROPER OPERATION, MAINTENANCE OR STORAGE, COMMERCIAL USE, 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 THE THESE INSTRUCTIONS.**

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, IF ANY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE DURATION OF THE EXPRESS WARRANTY PROVIDED HEREIN AND THE REMEDY FOR VIOLATIONS OF ANY IMPLIED WARRANTY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT PURSUANT TO THE TERMS CONTAINED HEREIN. INVACARE SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER.

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