

Direct Choice® BASIC WHEELCHAIR

Owner's Manual

Please keep and refer to this Owner's Manual.

Thank you for purchasing a Direct Choice® Basic Wheelchair from Direct Supply Equipment & Furnishings® distributed by Direct Supply Manufacturing, Inc. Please read this entire guide carefully and keep it for future reference. This guide will provide you with instructions, warnings, warranty information and other important information about your wheelchair. Share this information with your housekeeping, nursing and maintenance staff to help ensure the wheelchair is cared for properly.

1-800-634-7328 DirectSupply.com

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1 General

1.1 Symbols

- △ **WARNINGS**: Signal words are used in this manual and apply to hazards or unsafe practices which could result in personal injury or property damage. See the information below for definitions of the signal words.
- **DANGER:** Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- **WARNING:** Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- △ CAUTION: Caution indicates a potentially hazardous situation which, if not avoided, may result in property damage or minor injury or both.
- ! IMPORTANT: Indicates a hazardous situation that could result in damage to property if it is not avoided.
- **DIMPORTANT:** Gives useful tips, recommendations and information for efficient, trouble-free use.

General (cont)

1.2 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.

Direct Supply warrants this product to be free from defects in materials and workmanship for a period of one year from date of purchase. If within such warranty period any such product shall be proven to be defective, such product shall be repaired or replaced, at Direct Supply's option. This warranty does not include any labor or shipping charges incurred in replacement part installation or repair of any such product. Direct Supply'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 Direct Supply product. In the event you do not receive satisfactory warranty service, please write directly to Direct Supply 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 APPLYTO 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 DIRECT SUPPLY'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 DIRECT SUPPLY, OR TO A PRODUCT DAMAGED BY CIRCUMSTANCES BEYOND DIRECT SUPPLY'S CONTROL, AND SUCH EVALUATION WILL BE SOLELY DETERMINED BY DIRECT SUPPLY. THE WARRANTY SHALL NOT APPLYTO PROBLEMS ARISING FROM NORMAL WEAR OR FAILURE TO ADHERE TO THESE INSTRUCTIONS.

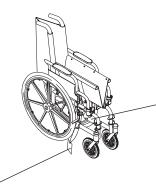
THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES WHATSOEVER, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND THE SOLE REMEDY FOR VIOLATIONS OF ANY WARRANTY WHATSOEVER, SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT PURSUANTTO THE TERMS CONTAINED HEREIN. THE APPLICATION OF ANY IMPLIED WARRANTY WHATSOEVER SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER.

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



2 Overview

2.1 Label Locations



Serial Number Label
Location is on crossbraces

O 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.

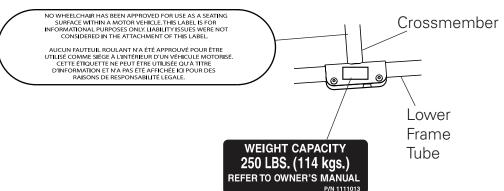
A CAUTION

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

- Loosen wheel lock mounting fastener, which runs through mounting bracket and
- 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).
- Tighten mounting fastener to secure mounting bracket in desired location and recheck lock shoe embedding.
- Inspect for correct locking action BEFORE

00078X021-0394



2 Overview Typical Product Parameters

2.2 Typical Product Parameters

DIRECT CHOICE BASIC	V16RFR	V16RLR	V18PFR	V18RLR	V18RFR	V18RLR	V20RLR	V10RFR
OVERALL WIDTH	23 ′	1/2"		2	5"		27 1/2"	
OVERALL DEPTH (W/O FRONT RIGGINGS)	31 1/2"							
SEAT WIDTH	16"	16"		18"			20"	20"
SEAT DEPTH				16	5"			
SEAT-TO-FLOOR HEIGHT		17 1/2" & 19 1/2						
BACK STYLE		Fixed						
BACK HEIGHT	15 1/2"		16 1/2"		15 1	15 1/2"		1/2"
ARM STYLES	Removable I	Desk Length	Permanent	Full Length	Removable Desk Length		Removable Desk Length	
FRONT RIGGINGS	Hemi swingaway footrest	Hemi swingaway elevating legrests	Hemi swingaway footrest	Hemi swingaway elevating legrests	Hemi swingaway footrest	Hemi swingaway elevating legrests	Hemi swingaway elevating legrests	Hemi swingaway Footrest
REAR AXLE		Dual Axle						
REAR WHEELS	24" composite wheel/solid rubber tire							
HANDRIMS	Composite							
WHEEL LOCKS	Push to lock							
CASTER SIZE	8x1-inch solid rubber							
UPHOLSTERY	Black nylon							
FRAME FINISH	Black							



2 Overview

DIRECT CHOICE BASIC	V16RFR	V16RLR	V18PFR	V18PLR	V18RFR	V18RLR	V20RLR	V20RFR
WEIGHT** (APPROX.)	20.05 kg	21.70 kg	38.6 lbs	42.5 lbs	40.2 lbs	36.4 lbs	22.00 kg	20.35 kg
SHIPPING WEIGHT** (APPROX.)	22.45 kg	24.10 kg	43.5 lbs	47.3 lbs	45.1 lbs	41.2 lbs	24.40 kg	22.75 kg
WEIGHT LIMITATION	250 lbs (114 kg)							

① These heights can vary + or − ¼ inch due to tire wear and manufacturing tolerances.

3 Safety

The safety section contains important information for the safe operation and use of this product.

3.1 General Guidelines

△ WARNING: DO NOT use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as owner's manuals, service manuals or instruction sheets supplied with this product or optional equipment. If you are unable to understand the warnings, cautions or instructions, contact a healthcare professional, dealer or technical personnel before attempting to use this equipment - otherwise, injury or damage may occur.

A qualified technician **MUST** perform the initial set up of this wheelchair. Also, a qualified technician must perform all procedures specifically indicated in the manual

△ ACCESSORIES WARNINGS: Direct Supply products are specifically designed and manufactured for use in conjunction with Direct Supply accessories. Accessories designed by other manufacturers have not been tested by Invacare and are not recommended for use with Direct Supply products.

! NOTICE: THE INFORMATION CONTAINED IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. Check all parts for shipping damage and test before using. In case of damage, DO NOT use. Contact Direct Supply/Carrier for further instruction.



3 Safety (Cont)

⚠ WARNING:

Wheelchair User

As a manufacturer of wheelchairs, Direct Supply 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 Positioning Strap

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

It is Direct Supply'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. Direct Supply cannot and does not recommend any wheelchair transportation systems.

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), Direct Supply strongly recommends ordering the seat positioning strap as an additional safeguard for the wheelchair user. The seat positioning strap is a positioning strap only. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, strap MUST be replaced **IMMEDIATELY**.

With regards to seat/chest positioning straps - it is the obligation of the DME dealer, therapists and other healthcare professionals to determine if a seat/chest positioning strap is required to ensure the safe operation of this equipment by the user. Serious injury can occur in the event of a fall from a wheelchair.

3 Safety (cont)

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

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), Direct Supply strongly recommends ordering the anti-tippers as an additional safeguard for the wheelchair user.

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

Operating Information

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

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

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

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

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

DO NOT sit or transfer into the wheelchair unless it is fully open and the seat frame rails are in lowest position.

Avoid storing or using the wheelchair near open flame or combustible products. Serious injury or damage to property may result. If equipped, **ALWAYS** use anti-tippers. When outdoors on wet, soft ground or on gravel surfaces, anti-tippers may not provide the same level of protection against tipover. Extra caution must be observed when traversing such surfaces.

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

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



3 Safety (cont)

△ WARNING: NEVER leave an unoccupied wheelchair on an incline. DO NOT operate on roads, streets or highways.

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

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

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

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

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

DO NOT attempt to stop a moving wheelchair with wheel locks. Wheel locks are not brakes. **DO NOT** tip the wheelchair without assistance.

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

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

DO NOT stand on the frame of the wheelchair.

DO NOT stand on the footplates. When getting in or out of the wheelchair, make sure that the footplates are in the upward position or swing footrests towards the outside of the wheelchair.

ALWAYS use the handrims for self-propulsion. **DO NOT** grip the rear wheels themselves. **ALWAYS** keep hands and fingers clear of moving parts to avoid injury.

Weight Training

Direct Supply does not recommend the use of its wheelchairs as a weight training apparatus. Direct Supply 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, Direct Supply shall not be liable for bodily injury or damage to the wheelchair and the warranty is void.

Weight Limitation

The Direct Choice Basic wheelchair has a weight limitation of 250 lbs (114 kg).

4 Safety/Handling of Wheelchairs

4.1 Safety/Handling of Wheelchairs

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

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

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

4.2 Stability and Balance

△ WARNING:

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

ALWAYS check hand grips for looseness before using the wheelchair. If loose and/or worn, replace IMMEDIATELY. DO NOT climb, go up, or down ramps or traverse slopes greater than 9°.

Direct Supply strongly recommends proceeding down ramps or slopes slowly to avoid hard braking or sudden stops.

Be aware that carrying heavy objects on your lap while occupying the wheelchair may adversely affect the stability of the wheelchair, resulting in serious bodily injury to the user, damage to the wheelchair and surrounding property

This wheelchair has been designed to accommodate one individual. If more than one individual occupies the wheelchair this may adversely affect the stability of the wheelchair, resulting in serious bodily injury to the user and passenger and damage the wheelchair and surrounding property.

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

Virtually all activities which involve movement in the wheelchair have an effect on the center of gravity. Direct Supply 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

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 MARNING:

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.

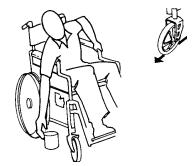


FIGURE 1 Unfolding and Folding Wheelchair

Reaching, Leaning Backwards

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

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.

4.3 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.

4.4 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.

Also, be aware of detachable parts such as arms 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.

4.5 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.



FIGURE 2
Unfolding and Folding
Wheelchair Reaching,
Leaning Backwards



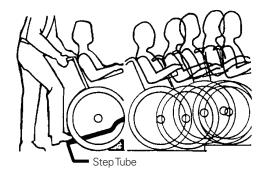
After mastering the techniques of tipping the wheelchair, use the following method to tackle curbs, short stairs, etc.

Tipping – Curbs

Place foot on 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 wheelchair in one continuous movement onto the sidewalk.

Push the wheelchair forward until the rear wheels roll up and over the curb.



1-800-634-7328

FIGURE 3 Tipping - Curbs

4.6 Stairways

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

ALWAYS check hand grips for looseness before using the wheelchair. If loose and/or worn, replace IMMEDIATELY. Extreme caution is advised when it is necessary to move an occupied or unoccupied wheelchair up or down the stairs. Direct Supply recommends that, if possible, the user be removed from the wheelchair prior to moving. Direct Supply recommends using two 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:

Moving Up Stairs

- 1. If necessary, rotate the anti-tippers so the wheels are facing up.
- 2. One assistant (positioned behind the wheelchair), securely grasps a non-removable (non-detachable) part of the wheelchair for leverage and tilts the wheelchair back to the balance point.
- 3. After the wheelchair has been tilted back to the balance point, the assistant behind the wheelchair backs the wheelchair up against the first step.
- 4. The second assistant (positioned in the front of the wheelchair), with a firm hold on a non-detachable part of the framework, lifts the wheelchair up and on to the next stair above and steadies the wheelchair as the assistant behind the wheelchair places one foot on the next stair above and repeats process.
- 5. The wheelchair should not be lowered until the last stair has been negotiated and the wheelchair has been rolled away from the stairway.
- 6. If necessary, rotate the anti-tippers so the wheels are facing down.

Moving Down Stairs

- 1. If necessary, rotate the anti-tippers so the wheels are facing up.
- One assistant (positioned behind the wheelchair), securely grasps a non-removable (non-detachable) part of the wheelchair for leverage and tilts the wheelchair back to the balance point.
- After the wheelchair has been tilted back to the balance point, the assistant behind the wheelchair rolls the wheelchair up to the edge of the first step.
- 4. The second assistant (positioned in the front of the wheelchair), with a firm hold on a non-detachable part of the framework, lowers the wheelchair down and on to the next stair below and steadies the wheelchair as the assistant in the rear places one foot on the next stair below and repeats process.
- The wheelchair should not be lowered until the last stair has been negotiated and the wheelchair has been rolled away from the stairway.
- 6. If necessary, rotate the anti-tippers so the wheels are facing down.

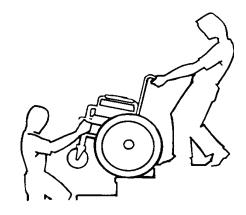


FIGURE 4 Unfolding and Folding Wheelchair



4.7 Escalators

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

4.8 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.

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

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

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

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



FIGURE 5 Unfolding and Folding Wheelchair

4.9 Unfolding and Folding Wheelchair

△ WARNING:

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

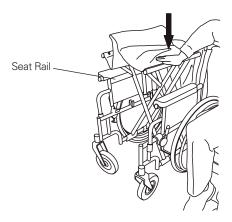
DO NOT place hand or fingers on the underside of the seat rail when opening or closing the wheelchair.

DO NOT sit or transfer into the wheelchair unless it is fully open and the seat frame rails are in lowest position.

Unfolding

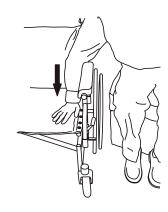
- 1. Tilt the wheelchair toward you (raising the opposite wheel and caster off the ground/floor).
- 2. Place your hand on the top of the seat rail closest to you where the seat upholstery is attached.
- 3. Point your fingers and thumb to the inside of the wheelchair.
- 4. Press downward on the top of the seat rail until the wheelchair is fully open and the seat rails are in lowest position.
- 5. Engage both wheel locks, refer to <u>Using The Wheel Locks</u> on page 40.
- 6. Open the footrest/legrest for clearance and transfer into the wheelchair. Refer to <u>Transferring To and From Other Seats</u> on page 19.





DO NOT wrap thumb or fingers under the seat rail. Point fingers and thumb to the inside of the wheelchair.

FIGURE 6 Unfolding



Press down on the seat rail and the seat upholstery with the entire hand. **DO NOT** place any part of the hand under the seat rail.

Folding Wheelchair

- 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.

△ CAUTION: DO NOT allow upholstery to hang between the cross braces.

4. Place excess seat upholstery over the armrest.

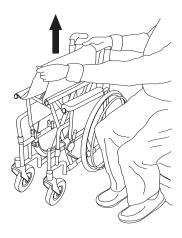


FIGURE 7 Folding Wheelchair

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

5.1 Safety Inspection Checklist

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

	Ensure that the wheelchair rolls straight (no excessive drag or pull to one side).
	Inspect for loose or missing hardware on frame and crossbraces.
	Inspect for bent frame or crossbraces.
	Check that the wheel locks do not interfere with tires when rolling.
	Check that the wheel lock pivot points are free of wear and looseness.
	Check that the wheel locks are easy to engage.
	Ensure that the wheel locks prevent the wheelchair from moving when engaged.
	Inspect the seat and back for rips and sagging.
	Inspect the seat and back for loose or broken hardware.
	Inspect the back cane hand grips for wear/looseness/deterioration.
	Inspect tires for flat spots and wear.
⚠	CAUTION: As with any vehicle, check the wheels and tires periodically for cracks and wear. Replace if damaged.

	Check that there is no excessive side movement or binding in the rear wheels when lifted and spun.
	Inspect rear wheels for cracks and wear (hub and rim).
	Inspect rear wheels for cracked, bent or broken spokes.
	Ensure all spokes are uniformly tight.
	Inspect handrims for signs of rough edges or peeling.
	Inspect axle assembly for proper tension by spinning caster. Caster should come to a gradual stop.
	Adjust front casters/forks bearing system if wheel wobbles noticeably or binds to a stop.
	Ensure wheel bearings are clean and free of moisture.
	Check headtube locknuts for tightness.
	Inspect casters for cracks and wear (hub and rim).
	Inspect front casters for cracked, bent or broken spokes.
	Clean upholstery and armrests.
	Check that all labels are present and legible. Replace if necessary.
	Ensure the casters are free of debris.
In	spect/Adjust Weekly
	Ensure that the wheel locks prevent the wheelchair from moving when engaged.
	Inspect tires for flat spots and wear.
	Inspect the for mat open and weath. Inspect rear wheels for cracked, bent or broken spokes.
	Inspect axle assembly for proper tension by spinning caster. Caster should come to a gradual stop.
	Inspect front caster for cracked, bent or broken spokes.
	Ensure the casters are free of debris.
_	Enough the dusters are not of dubins.
Ins	spect/Adjust Monthly
	Ensure that the wheelchair rolls straight (no excessive drag or pull to one side).



	Check that the wheel locks do not interfere with tires when rolling.
	Check that the wheel lock pivot points are free of wear and looseness.
	Inspect seat and back for loose or broken hardware.
	Inspect back cane hand grips for wear/looseness/deterioration.
	Adjust front casters/forks bearing system if wheel wobbles noticeably or binds to a stop.
	Ensure wheel bearings are clean and free of moisture.
	Check headtube locknuts for tightness.
	Ensure the casters are free of debris.
ln	spect/Adjust Periodically
	Ensure that the wheelchair rolls straight (no excessive drag or pull to one side).
	Inspect frame and crossbraces for loose or missing hardware.
	Inspect for bent frame or crossbraces.
	Check that wheel locks are easy to engage.
	Inspect seat and backs for rips and sagging.
	Check that there is no excessive side movement or binding in the rear wheels when lifted and spun.
	Inspect rear wheels for cracks and wear (hub and rim).
	Inspect handrims for signs of rough edges or peeling.
	Adjust front casters/forks bearing system if wheel wobbles noticeably or binds to a stop.
	Ensure wheel bearings are clean and free of moisture.
	Inspect casters for cracks and wear (hub and rim).
	Clean upholstery and armrests.
	Check that all labels are present and legible. Replace if necessary.
	Ensure the casters are free of debris.

5.2 Troubleshooting

Chair Veers Right/Left	Chair 3 Wheels	Sluggish Turn or Performance	Casters Flutter	Squeaks and Rattles	Looseness in Chair	Solutions
		×	×	×	Х	Check for loose nuts and bolts.
X	×					Check that rear wheels are equally spaced away from seat frame.

5.3 Maintenance

Maintenance Safety Precautions

A WARNING: After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely.

Otherwise injury or damage may result.

Replace any labels that are missing, worn, or torn. Refer to Label Locations on page 7 for a listing of the labels and their locations.

△ CAUTION: DO NOT overtighten hardware attaching to the frame. This could cause damage to the frame tubing.

Suggested Maintenance Procedures

- 1. Before using your wheelchair, make sure all nuts and bolts are tight.
- 2. Check all parts for damage or wear and replace.
- 3. Check all parts for proper adjustment.

- △ CAUTION: As with any vehicle, check the wheels and tires periodically for cracks and wear. Replace if damaged.
- 4. Periodically adjust wheel locks in correlation to tire wear. Refer to Adjusting Wheel Locks on page 41.
- Tire wear is excessive if:
 - Pneumatic Tires there is missing tread or the tires are bald.
 - Urethane Tires there are cuts, surface defects or the tires are loose on the rims.
 - Rubber Tires 30% or more of the tire has worn away.

 Direct Supply recommende that rear wheel tire the and greater tire to
 - Direct Supply recommends that rear wheel tire/tube and caster tire/tube be replaced every five years.
- 5. Periodically check handrims to ensure they are secured to the rear wheels. If loose, have them tightened by a qualified technician.
- 6. Periodically check caster 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.
- 7. Hand grips should be checked monthly for wear/looseness/deterioration. Clean if desired. Replace if looseness or deterioration is found.
- 8. Check upholstery for sagging, rips or tears.

Replacing/Repairing Rear Wheel Tire/Tube

△ WARNING: Replacement of solid rubber tires is not recommended. If the solid rubber tire needs repaired, Direct Supply recommends replacing the complete wheel assembly.

Replacing/Repairing Caster Tire/Tube

△ WARNING: Replacement of solid rubber tires is not recommended. If the solid rubber tires need replaced, Direct Supply recommends replacing complete caster assembly.

6 Front Rigging

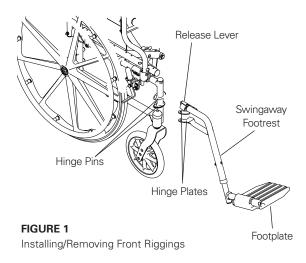
⚠ WARNING: After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur.

6.1 Installing/Removing Front Riggings Installing

- 1. Turn the front rigging to the side (open footplate is perpendicular to wheelchair).
- 2. Install the front rigging hinge plates onto the hinge pins on the wheelchair frame.
- 3. Push the front rigging toward the inside of the wheelchair until it locks into place.
- The footplate will be on the inside of the wheelchair when locked in place.
- 4. Repeat STEPS 1-3 for the opposite side of the wheelchair.
- To release the front rigging, push the footrest release lever inward, rotate footrest outward.

Removing

- 1. Push the release lever inward and rotate the front rigging outward.
- 2. Lift up on front rigging and remove from the wheelchair.
- 3. Repeat STEPS 1-2 for the opposite side of the wheelchair.



6 Front Rigging (Cont)

6.2 Adjusting Footrest Height

- Loosen, but **DO NOT** remove, the screw and locknut that secures the lower footrest assembly to the upper footrest support.
- 2. Reposition the lower footrest assembly to the desired height.
- 3. Securely tighten the screw and locknut that secures the lower footrest assembly to the upper footrest support.
- 4. If necessary, repeat STEP 1-3 for the opposite side of the wheelchair.

6.3 Raising/Lowering Elevating Legrest Assembly

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

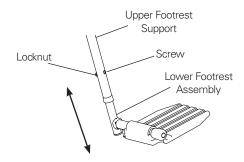


FIGURE 2 Adjusting Footrest Height

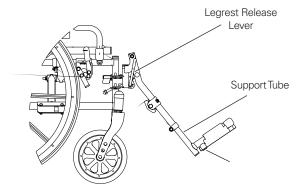


FIGURE 3 Raising/Lowering Elevating Legrest Assembly



7 Arms

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

7.1 Removing/Installing Armrests (Removable Armrests Only) Removing

- 1. Press and hold the armrest release button at the front of the armrest.
- 2. Remove armrest from armrest sockets by pulling straight up on the armrest.
- 3. Repeat STEPS 1 and 2 for the other armrest.

Installing

- 1. Position armrest over front and rear armrest sockets.
- 2. Push the armrest down and evenly at both ends until the front release button snaps into arm socket hole.
- 3. Repeat STEPS 1 and 2 for the other armrest.

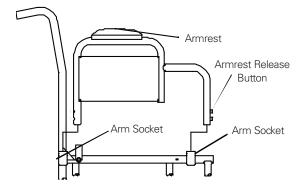


FIGURE 1
Removing/Installing Armrests
(Removable Armrests Only)

8 Back

△ WARNING: After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may occur. Remove the back for unoccupied transportation purposes only. Securely install the back onto the wheelchair before use.

8.1 Replacing Standard Back Upholstery

- 1. Remove the two mounting screws and washers that secure the existing back upholstery to the back canes.
- Remove the hex screw and locknut that secure one back cane to the wheelchair frame.
- (1) It is necessary to remove only one back cane to replace the back upholstery.
- 3. Pull the loose back cane out of the existing back upholstery.
- 4. Pull the existing back upholstery up and over the mounted back cane.
- 5. Install the new back upholstery over the mounted back cane.
- 6. Slide the loose back cane through the new back upholstery.
- 7. Secure the back cane to the wheelchair frame with the hex screw and locknut.
- 8. Secure the new back upholstery to the back canes with the existing mounting screws and washers.

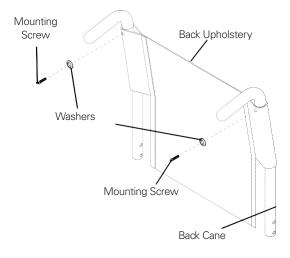


FIGURE 1
Replacing Standard Back Upholstery

9 SEAT TO FLOOR

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

Remove the back for unoccupied transportation purposes only. Securely install the back onto the wheelchair before use.

9.1 Changing Seat-to-Floor Height

WARNING: The size/position of the front casters, size/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 or any combination of the six 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 size, rear wheel position, front caster size and front caster position. These adjustments must be performed by a qualified technician.

If changing the seat-to-floor height, a 1 1/2 to 2 inch ground clearance must be maintained. Refer to <u>Adjusting the Anti-Tippers</u>. on page 39.

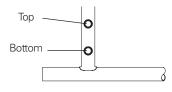
- 1. Refer to the following chart in FIGURE 1 to determine mounting positions for front casters/forks and rear wheels for the desired obtainable seat-to-floor height:
- 2. Remove the rear wheels from the wheelchair. Refer to Removing/Installing Rear Wheels on page 35.
- 3. If necessary, replace the front casters and forks with the casters and forks indicated in the chart. Refer to Removing/Installing Front Casters on page 37 and Removing/Installing Eight Inch Forks on page 36.
- 4. Reinstall the rear wheels onto the wheelchair in the mounting position indicated in the chart. Refer to Removing/Installing Rear Wheels on page 35.
- 5. Adjust anti-tippers according to new seat-to-floor height. Refer to Installing/Adjusting Anti-tippers on page 38.

9 Seat to Floor (Cont)

Caster and Rear Wheel Mounting Locations for Desired Seat to Floor Height

SEAT-TO-FLOOR HEIGHT	CASTER MOUNTING POSITION	REAR WHEEL SIZE	REAR WHEEL MOUNTING POSITION
17 1/2"	Top mounting hole on fork	24"	Top mounting hole on frame
19 1/2"	Bottom mounting hole on fork	24"	Bottom mounting hole on frame

DETAIL "A" - REAR WHEEL MOUNTING POSITIONS- ADULT/HEMI FRAME STYLE



DETAIL "B" - 8 INCH CASTER MOUNTING POSITIONS

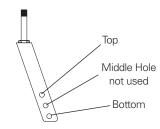


FIGURE 1 Changing Seat-to-Floor Height

10 Rear Wheels

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

Removing/Installing Rear Wheels

△ **WARNING:** Only a qualified technician may change the size of the rear wheel or the seat-to-floor height. Make sure both rear wheels are the same size and are installed into the same respective mounting hole before using the wheelchair. Otherwise, injury may occur.

- Remove the dust cap, hex screw, spacer and locknut that secure the rear wheel to the wheelchair frame.
- 2. Repeat STEP 1 for the opposite rear wheel.
- 3. To reinstall the rear wheel(s) onto the wheelchair, reverse STEPS 1-2.
- 4. Torque the locknut to 40 ft-lbs.
- Adjust the wheel locks. Refer to <u>Adjusting the Anti-Tippers</u>. on page 39.

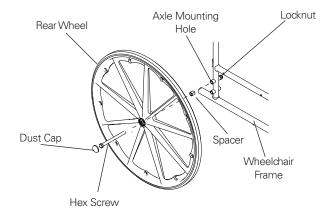


FIGURE 1 Removing/Installing Rear Wheels

11 Front Casters/Forks

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

Make sure both fork/caster assemblies are the same size before using the wheelchair, otherwise injury may occur.

Removing/Installing Eight Inch Forks Removing

- 1 Remove the dust cover
- Remove the locknut and nylon washer that secures the fork to the caster headtube.
- 3. Drop the fork assembly out of the caster headtube.

Installing

- 1. Slide the new fork assembly into the caster headtube.
- Secure the fork to the caster headtube with the locknut and nylon washer. Tighten securely.
- 3. Adjust the forks. Refer to Adjusting Forks on page 36.

11. 1 Adjusting Forks

- 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.

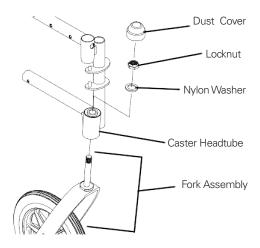


FIGURE 1 Removing/Installing Eight Inch Forks



11 Front Casters/Forks (Cont)

11.2 Removing/Installing Front Casters

A WARNING: Make sure both front casters are the same size and are installed into the same respective mounting hole before using the wheelchair, otherwise injury may occur.

Removing

- Remove the hex screw, washers and locknut that secure the front caster to the fork
- 2. Remove the front caster from the fork.
- Washers are only used with 8 inch casters with precision bearings.

Installing

- Refer to the chart in Seat to floor height for proper installation of new caster. Refer to <u>Caster And Rear Wheel Mounting</u> <u>Locations For Desired Seat To Floor Height</u> on page 34.
- Secure the front caster to the fork in the mounting position determined in STEP 1 with hex screw, washers and locknut. Tighten securely.

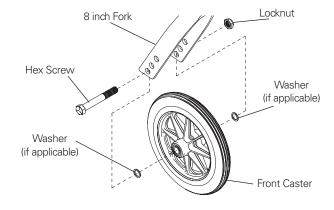


FIGURE 2 Removing/Installing Front Casters

12 Anti-Tippers/Wheel Locks

12.1 Installing/Adjusting Anti-tippers

△ WARNING: If so equipped, 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), Direct Supply 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.

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

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

If changing the seat-to-floor height, a 1 1/2 to 2 inch ground clearance must be maintained.

Installing Anti-Tipper

- 1. Press the release buttons and insert the anti-tippers with the anti-tipper wheels pointing toward the ground/floor into the wheelchair frame tubing.
- 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.
- (1) 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.
- 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 <u>Adjusting the Anti-Tippers</u>. on page 39.

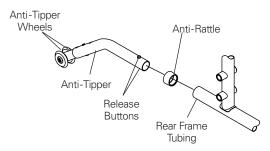


FIGURE 1 Installing Anti-Tipper

Adjusting the Anti-Tippers

- 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.
- 2. Press the release buttons on the wheeled portion of the anti-tipper and slide it up or down to the desired adjustment hole.
- 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.
- Measure the distance between the bottom of the anti-tipper wheels and the ground/floor.
- 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.
- If the 1 1/2 to 2 inch distance cannot be achieved with the antitippers, a different model may be required. Contact Direct Supply or a qualified technician.

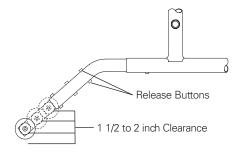


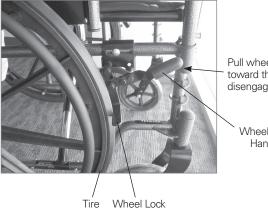
FIGURE 2 Adjusting the Anti-Tippers

12.2 Using/Adjusting The Wheel Locks

Using The Wheel Locks

- ▲ WARNING: DO NOT attempt to stop a moving wheelchair with wheel locks. Wheel locks are not brakes.
- 1 Position wheelchair on a flat, level surface to perform this procedure. Ensure the wheelchair is not moving before engaging the wheel locks.
- 1. See **FIGURE 1** for instructions on using the wheel locks.

Detail "A" Locked Position



Push wheel lock handle forward away from the tire to engage wheel lock

Pull wheel lock handle toward the tire to disengage wheel lock

> Wheel Lock Handle

Detail "B" Unlocked Position

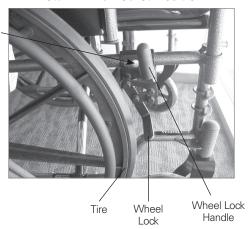


FIGURE 3 Using The Wheel Locks

Adjusting 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.

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

- Ensure the wheel lock is in the open (unlocked position).
- 2. Loosen the bolt and locknut that secure the wheel lock assembly to the wheelchair frame.
- 3. Reposition the wheel lock so that when engaged, the wheel lock shoe embeds the tire 1/8-inch and holds the wheelchair.
- 4. Securely tighten the bolt and locknut securing the wheel lock to the wheelchair frame.
- 5. Engage the wheel lock.
- 6. Measure the distance the wheel lock is embedded into the tire as shown in detail "A" of FIGURE 4.
 - (1) Any wheel lock adjustment should embed the wheel lock shoe at least 1/8-inch into the tire when engaged.
- 7. Repeat the STEPS 1-6 until the wheel lock shoe embeds the tire 1/8-inch and holds the wheelchair.
- 8 Repeat STEPS 1-7 for the opposite wheel lock.
- 9. If the measurement of 1/8-inch cannot be achieved, remove the bolt and locknut that secure the wheel lock to the wheelchair frame and mount the wheel lock in one of two mounting positions.
- 10. Repeat STEPS 1-9 until the wheel lock holds the wheelchair. If the correct measurement still cannot be achieved, contact a qualified technician.

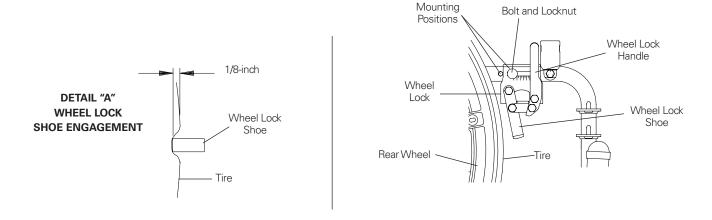


FIGURE 4 Adjusting the Anti-Tippers

Warranty

We offer you, as the original purchaser of the product, a limited warranty for the structure and cushion of the product, (This warranty does not include the casters or damage to the product resulting from the product's casters.) Our warranty applies for the limited warranty period stated below. We will repair or replace any product or product part listed below if defective in material or workmanship. Please note that the decision to repair or replace a product or product part will be at our discretion. Our warranty applies only if the product is properly maintained by the original purchaser for normal, indoor use and does not cover normal wear and tear, modification of the product, or damage caused by abuse, improper use, failure to maintain, use which exceeds the published product limitations, or the combination of any product with another product. In addition, our warranty does not cover fading, characteristics or natural variations in wood grain or fabric, texture, colorfastness, stains, spills, or exposure to chemicals, odors, heat or light. In certain cases, we may provide you repair or adjustment instructions and/or replacement parts, and ask you to perform a repair or adjustment or replace a defective part.

Our warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state. Please note that our limited warranty period begins when we ship the product to you. The limited warranty period and our obligations under the warranty end once you transfer the product to someone else, or at the end of the applicable limited warranty period identified below, whichever is earlier.

Anticipated Usable Product Life is based on normal use with proper maintenance, cleaning, and storage. You should still inspect, monitor, and care for the product as described in this guide, as the product may need to be replaced sooner than anticipated in particular situations.

	Warranty Period (Parts)	Anticipated Usable Product Life	
Basic Wheelchair	1 year	1 year	

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Customer Service

Our promise to you is that you will have a convenient and easy ordering experience, receive a quality wheelchair, and enjoy outrageous customer service. If you have any questions about the wheelchair you have purchased or would like to request warranty service, please contact **Direct Supply Equipment & Furnishings** at 1-800-634-7328, 6767 North Industrial Road, Milwaukee, WI 53223, DearDirect@DirectSupply.net.



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