



Direct Supply®

ANTI-ROLLBACK DEVICE

Patent Pending

Owner's Manual

Please keep and refer to this Owner's Manual.

Thank you for purchasing this Direct Supply Anti-rollback Device. In this owner's manual, you'll find important information that you should read before assembling and using this device. If at any time you do not understand how to use this product, or you suspect it may be damaged, DO NOT USE and immediately contact the distributor that sold this product to you. This owner's manual is compiled from the latest specifications and product information available at the time of publication. Changes may be made to this manual at any time. Contact your distributor for a current copy of this owner's manual.

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Definitions and Symbols

NOTE: Indicates a tip.

CAUTION: Means correct operating or maintenance procedures must be followed in order to prevent damage to or destruction of the product or other property.

WARNING: Calls attention to a potential danger that requires correct procedures or practices in order to prevent personal injury.

⚠ Attention! Read the instructions.

PRODUCT OR DEVICE: Your Direct Supply Anti-rollback Device, distributed by Direct Supply Manufacturing, Inc. (“We,” “Us” or “Our”).

“You”: Means the user, caregiver and any other individuals who will be using or servicing the product.

“Distributor”: Means the reseller or other entity from whom you purchased this product.

“Medical Professional”: The physician or other healthcare professional who is familiar with the user’s medical history and current medical condition, and is responsible for determining if this product is medically appropriate for the user.

Caregiver: The individual(s) responsible for the care and needs of the user, such as a spouse, adult family member or home health aide. The caregiver must be available at all times to provide the user with physical and cognitive assistance and provide supervision as needed.

User: The individual who uses the device.

Safety Information

Warnings

Read carefully all directions and warnings before using this device. Do not operate this device without first reading and understanding the contents of this manual. Death or injury may result from the improper use of this device or failure to follow all directions and warnings. This device is intended for use in normal, indoor conditions. This product may not be appropriate for all individuals.

⚠ WARNING: This anti-rollback device is intended only for use with standard folding wheelchairs. Use with reclining wheelchairs, powered wheelchairs, some wheelchairs with drop arms or tilt-back arms, etc., may result in user injury or damage to the device.

⚠ WARNING: This anti-rollback device is intended only for use with solid rubber wheelchair tires. Use with pneumatic (inflatable) tires may result in user injury or damage to the device.

⚠ WARNING: This product is designed to be compatible with many standard folding wheelchairs but may not be usable in every application. It is the responsibility of the user to ensure final fit, function and compatibility for each unique application before putting device into use.

⚠ WARNING: This device is not designed for use with wheelchairs with solid seat pans, solid inserts, or which have installed accessories which prevent the wheelchair's flexible sling seat from flexing when the wheelchair user is seated.

⚠ WARNING: Routinely inspect anti-rollback device for proper installation and function. Discontinue use if product is damaged or is not functioning as intended.

⚠ WARNING: Hard, worn, brittle, or otherwise compromised wheelchair wheels may negatively impact the performance of this device. Routinely check this device for proper function.

⚠ WARNING: Do not attempt to operate on inclines 10° or greater without proper assistance.

⚠ WARNING: Be sure to completely engage wheel locks when getting in and out of wheelchair or when in elevator or wheelchair lift.

⚠ WARNING: This device is not a substitute for caregiver supervision. Take appropriate precautions when users who are deemed to be a fall risk are using a wheelchair with this anti-rollback device.

⚠ WARNING: This device is not intended to replace the wheelchair's standard wheel locks. Do not remove or disable manual hand brakes on the wheelchair.

⚠ WARNING: Wheelchair should be on a smooth, stable and level area with wheel locks engaged before transferring user in or out of wheelchair.

⚠ WARNING: When getting in or out of wheelchair, do not stand on or apply weight to footrests.

⚠ WARNING: Do not make any modifications to this device or use non-Direct Supply parts. Doing so may void the warranty and pose a risk to the user.

⚠ WARNING: This device may not be suitable for all individuals. Always assess the appropriateness of this device for a user on a case-by-case basis. Consult the user's medical professional for assistance if you are unsure whether this device is appropriate for the user.

Compatibility

This device is compatible with most standard folding wheelchairs. Prior to use, You must assess the installed device on the wheelchair to ensure proper installation, fit, and function. Review this manual in its entirety prior to installation and/or use.

DO NOT USE THIS DEVICE with wheelchairs which use one or more of the following features: pneumatic (inflatable) tires, reclining backrests, solid seat pans, solid inserts, and/or accessories which prevent the flexible sling seat from flexing when the wheelchair user is seated.

DO NOT USE THIS DEVICE if your wheelchair has obstructions or accessories which prevent the device from being installed according to the instructions below.

Installation Instructions

Installation Instructions

NOTE: It may be easier to install the anti-rollback device if the wheelchair is tipped onto its front or armrests during installation. The final settings and adjustments must be made with the chair in the upright position and with the wheelchair's user available for test fitting. (figure 1)

Tools required:

- 10mm wrench or socket wrench for tightening installation hardware
- Small pliers for detailed adjustment of pins and springs



Figure 1

STEP 1 – Position Left Brake Assembly on Chair

- Locate left side brake assembly, two U-bolts, and two locking nuts (figure 2)
- Align the brake assembly's center slot with the wheel's axle (figure 3)

⚠ CAUTION: If mounting this device to a wheelchair with multiple axles, the device must be aligned with the axle that is in use. If adjusting a wheelchair with an anti rollback device installed, the device must be repositioned when the wheel is repositioned.

- Gently rest the hook of the brake bar on the wheelchair's left rear wheel (figure 4)

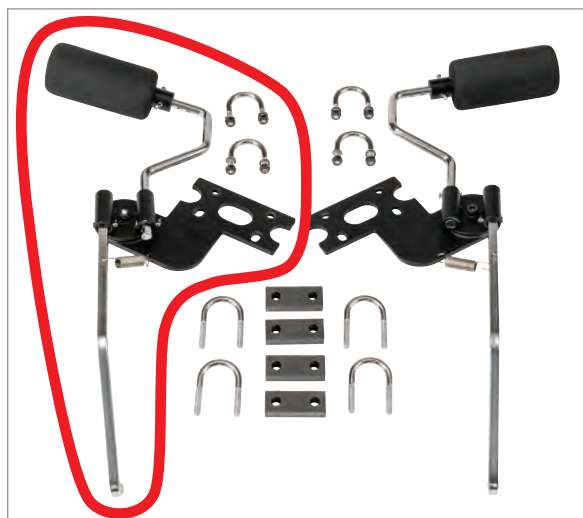


Figure 2

NOTE: If the brake bar does not comfortably fit over the rear wheel as shown, you may need to adjust the brake bar inward or outward in order to continue this step.

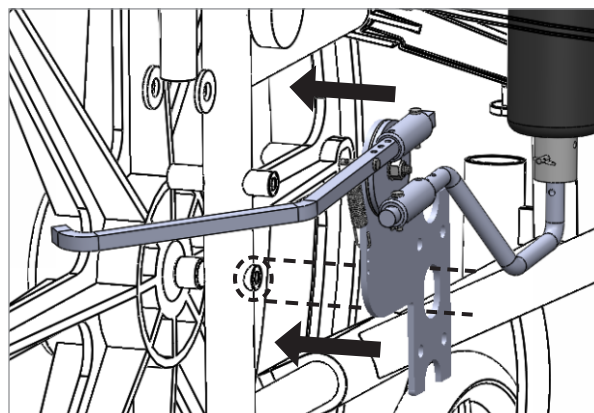


Figure 3

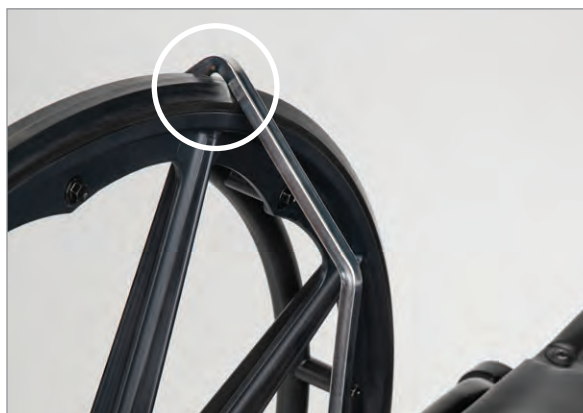


Figure 4

STEP 2 – Install U-bolts to Fasten Left Brake Assembly to Wheelchair

- a. Position two U-bolts around the wheelchair's vertical frame tube and through two sets of holes in the mounting plate (*figure 5*)

NOTE: Use the shorter set of U-bolts (included) for most installations

- b. Thread one lock nut onto each U-bolt stud (four total per side) (*figure 6*)

- c. Using a 10mm wrench or socket wrench, tighten each nut until slightly snug – **DO NOT FULLY TIGHTEN YET** (*figure 7*)

NOTE: If your wheelchair has obstructions near the wheel axle which prevent installation of the mounting plate, you may be able to use the optional spacers and longer U-bolts (included) to offset the mounting plate. See instructions for use of the spacers at the end of the installation section. (Alternate Method page 14)

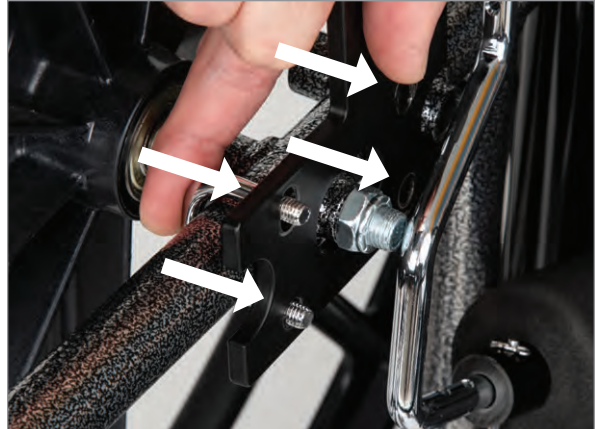


Figure 5



Figure 6

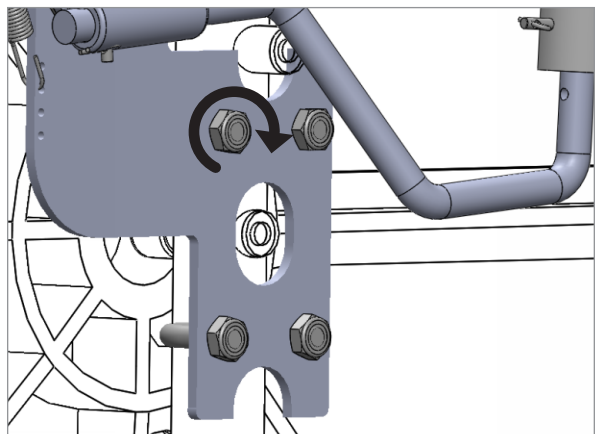


Figure 7

Installation Instructions *(cont.)*

STEP 3 – Adjust Brake Bar Right/Left Position Before Fully Tightening Nuts



Figure 8

- a. Gently twist the device into place – the alignment is correct when the hook of the brake bar is centered on the wheelchair's left rear wheel (figure 8)
- b. When the correct alignment has been achieved, **FULLY TIGHTEN** all four lock nuts (figure 9)

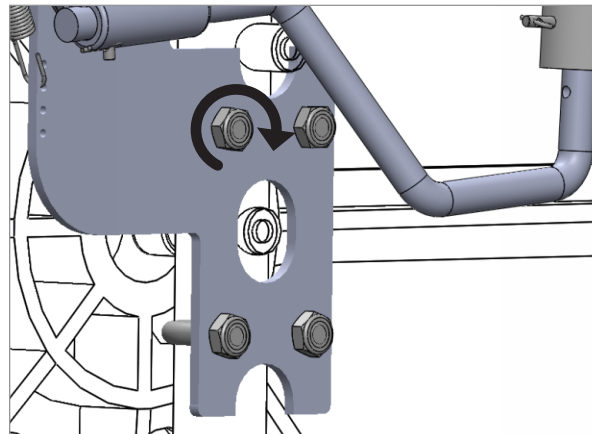


Figure 9



NOTICE: Steps 4 through (end) require the chair to be PLACED UPRIGHT, resting on its four wheels

STEP 4 – Adjust Brake Bar Position

- a. Remove hairpin from brake bar adjustment pin (figure 10)

NOTE: A small pliers is helpful for removing and inserting the hairpins



Figure 10

- b. Remove adjustment pin to allow brake bar to slide forward and backward (*figure 11*)
- c. Adjust the depth of the brake bar so that the bar is level with the floor, or slightly below level (*figure 12*)
- d. Insert the adjustment pin to lock the brake bar into place

NOTE: There are two holes in the brake bar's receiver tube; either hole may be used to retain the brake bar (*figure 13*)

- e. Reinsert the hairpin retainer into the hole in the adjustment pin (*figure 14*)

⚠ WARNING! Failure to correctly adjust and secure the brake bar may prevent the device from functioning correctly



Figure 11

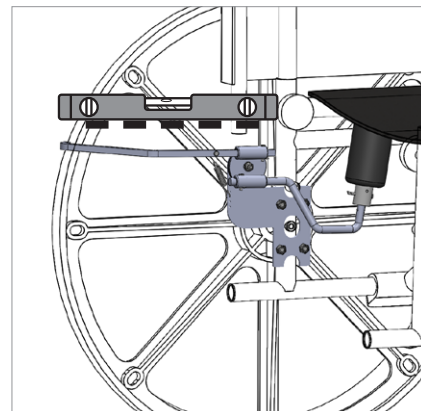


Figure 12



Figure 13



Figure 14

Installation Instructions *(cont.)*

STEP 5 – Adjust Counterbalance Bar Depth

- a. Remove hairpin from counterbalance bar adjustment pin (*figure 15*)



Figure 15

- b. Remove adjustment pin to allow counterbalance bar to slide forward and backward (*figure 16*)



Figure 16

- c. Slide counterbalance bar to desired position. The foam bumper should be as far forward (toward the front of the wheelchair seat) as possible without hitting any obstructions (*figure 17*)

CORRECT

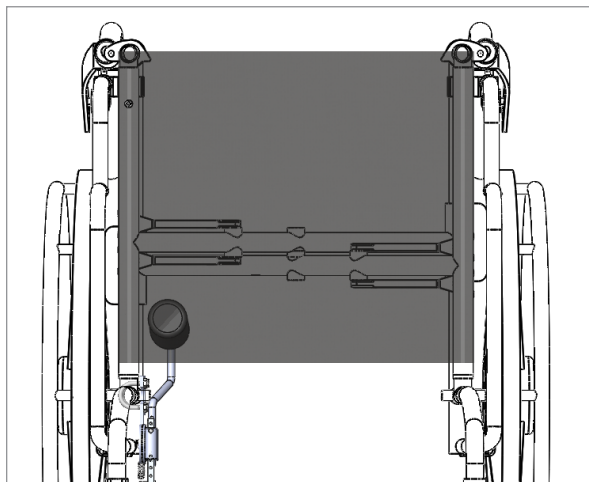
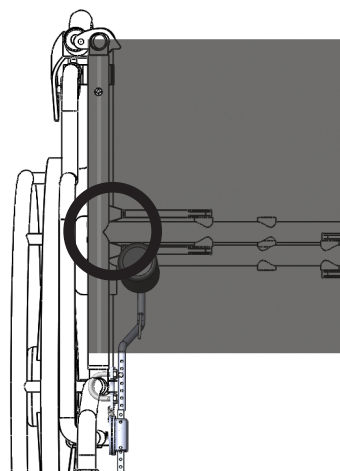


Figure 17

INCORRECT

Bumper too close to crossbar

Bumper must swing freely past crossbars or unit may not provide braking



- d. Insert the adjustment pin to lock the counterbalance bar into place (*figure 18*)

NOTE: There are two holes in the counterbalance bar's receiver tube; either hole may be used to retain the brake bar



Figure 18

- e. Reinsert the hairpin retainer into the hole in the adjustment pin (*figure 19*)



Figure 19

Installation Instructions *(cont.)*

STEP 6 – Adjust Seat Bumper Height

- a. Remove hairpin from seat bumper adjustment pin (*figure 20*)



Figure 20

- b. Remove adjustment pin to allow seat bumper to slide up and down (*figure 21*)



Figure 21

- c. Adjust bumper height until seat bumper is pushing into the wheelchair's sling seat. Bumper must be positioned high enough to disengage the brake when the user sits in the chair (*figure 22*)

CORRECT

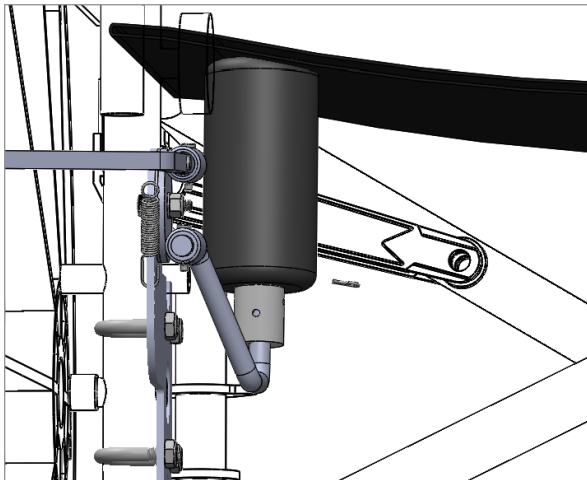
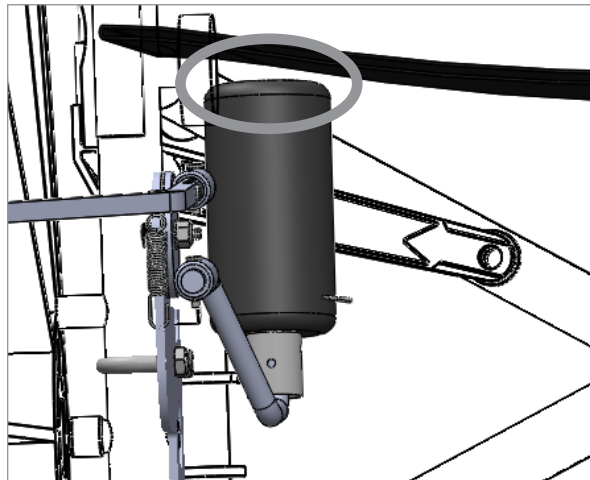


Figure 22

INCORRECT



- d. Insert the adjustment pin to lock the seat bumper into place (*figure 23*)

NOTE: There are two holes in the seat bumper's plastic adjustment tube; either hole may be used to retain the seat bumper.



Figure 23

- e. Reinsert the hairpin retainer into the hole in the adjustment pin (*figure 24*)

WARNING! Failure to correctly adjust and secure the counterbalance bar and seat bumper may prevent the device from functioning correctly.



Figure 24

NOTE: If your installation requires additional bumper height, you may use the included wooden spacers to increase the height of your anti-rollback bumpers. Remove the foam bumpers, insert the wooden spacers into the bumper cavities, and replace the bumpers before continuing installation.

Installation Instructions *(cont.)*

STEP 7 – Adjust Spring Tension

- a. If necessary, adjust the system's spring force by moving the spring to one of the available adjustment holes on the mounting plate (*figure 25*)
- b. Test system to ensure adequate braking force. The system should brake the wheelchair's rear wheel within 1-2 inches of rearward movement when the chair is unoccupied. Readjust spring force, brake bar position, counterbalance bar position, and/or seat bumper height to achieve desired performance

⚠ WARNING! Do not use the device or the wheelchair if the system is functioning as intended

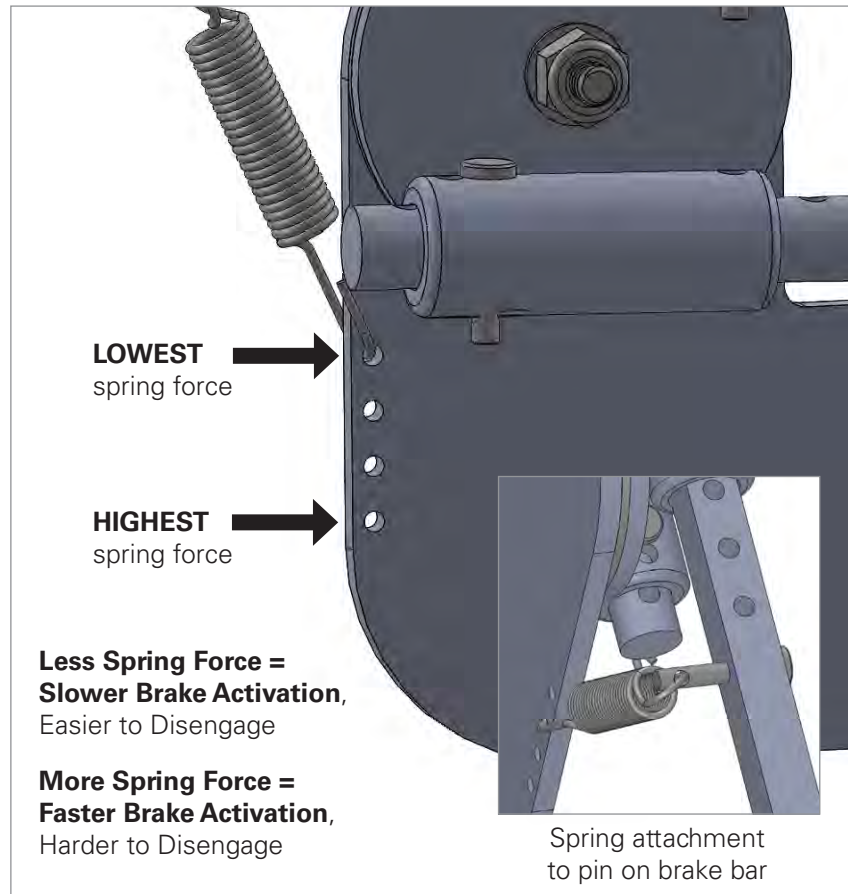


Figure 25

STEP 8 – Install Right Side

- a. Repeat steps 1-7 to install the anti-rollback assembly on the opposite side of the chair (*figure 26*)

NOTE: You might use a different hole setting when adjusting the right side's counterbalance bar depth (step 5) due to the positioning of the wheelchair's crossbars. This may also impact the ideal bumper height (step 6) and/or spring force setting (step 7) on the right side.



Figure 26

STEP 9 – Test System Before Use

- a. With the wheelchair empty, confirm that both brake bars are level and resting on the wheelchair's rear wheels
- b. Push the chair firmly backwards to verify the system is preventing rearward movement
- c. Sit in the wheelchair in a natural seating position and verify that the chair can roll freely forward and backward (*figure 27*)
- d. Stand up from the chair while pushing backwards on the chair, verify that the anti-rollback system engages
- e. Re-test the system with the primary user of the wheelchair. You may need to adjust the counterbalance bar depth, seat bumper height, and/or the spring force to accommodate individual users' weight and/or seating position

⚠ WARNING! Do not use the device or the wheelchair if the system is not functioning as intended

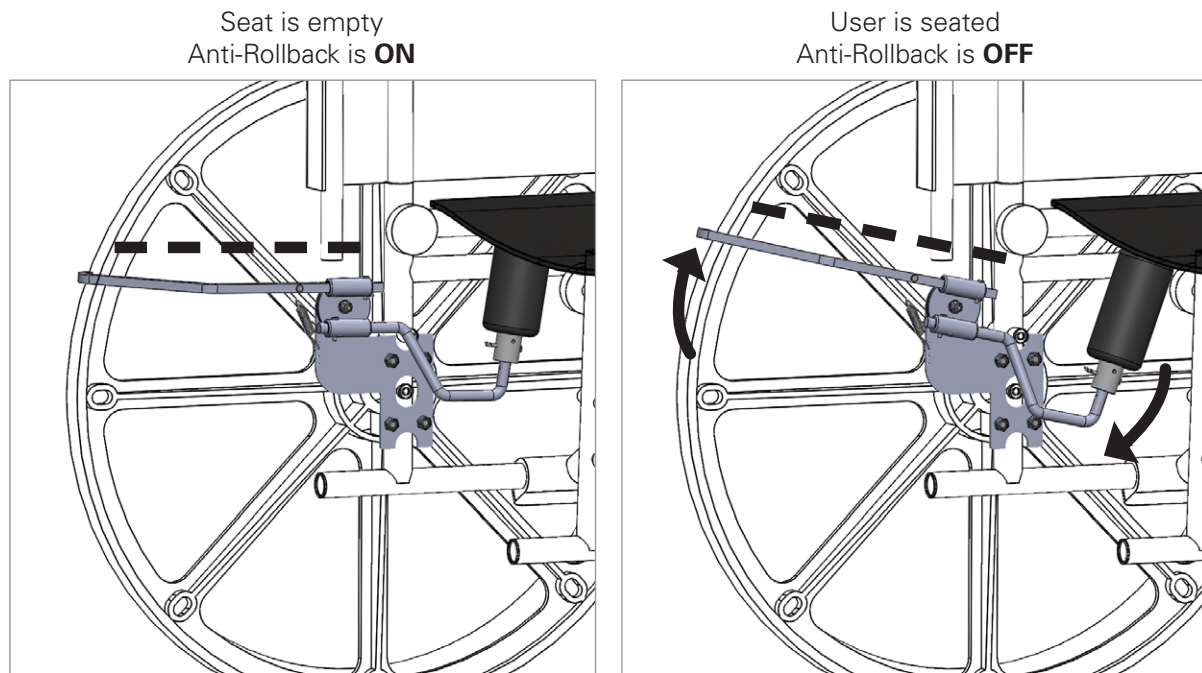


Figure 27

Installation Instructions *(cont.)*

Alternate Method for STEP 2 – Use of Spacers and Longer U-bolts

If your wheelchair has obstructions near the wheel axle which prevent installation of the mounting plate, you may be able to use the optional spacers and longer U-bolts (included) to offset the mounting plate.

- a. Position two of the longer U-bolts around the chair's vertical frame tube (*figure 28*)



Figure 28

- b. Insert one plastic spacer over each of the two U-bolts (*figure 29*)
- c. Install the mounting plate onto the U-bolts and fasten with four locknuts. Using a 10mm wrench or socket wrench, tighten each nut until slightly snug – **DO NOT FULLY TIGHTEN YET** (*figure 30*)
- d. Continue with Step 3 on page 6.



Figure 29



Figure 30

Directions for Use

Directions for Use

Your Direct Supply Anti-rollback device is designed for use as a secondary protection against undesirable rearward movement of the wheelchair during egress and ingress. When installed and adjusted correctly on a compatible chair, the wheelchair will roll forward whether or not a user is seated in the chair while preventing rearward rolling when the chair is unoccupied. The wheelchair will roll backward when a user is seated in the chair, overriding the braking mechanism (*figure 31*).

Your Direct Supply Anti-rollback device is designed to allow a wheelchair to fold even when the device is installed. Your wheelchair's collapsed width may be slightly wider when using this device.

CAUTION! Do not force a wheelchair to a narrower collapsed position when this device is installed. Doing so may damage your device and prevent it from functioning correctly.

Your Direct Supply Anti-rollback device must be configured specifically for each individual combination of wheelchair, user, and any accessories such as cushions or positioning aids. The system must be checked for correct operation whenever the wheelchair height is adjusted, when there is a change to cushions or positioners, or if a new user is using the wheelchair.

Seat is EMPTY - Anti-Rollback is **ON**



User is SEATED - Anti-Rollback is **OFF**



Figure 31

Cleaning & Periodic Inspection

Cleaning Instructions

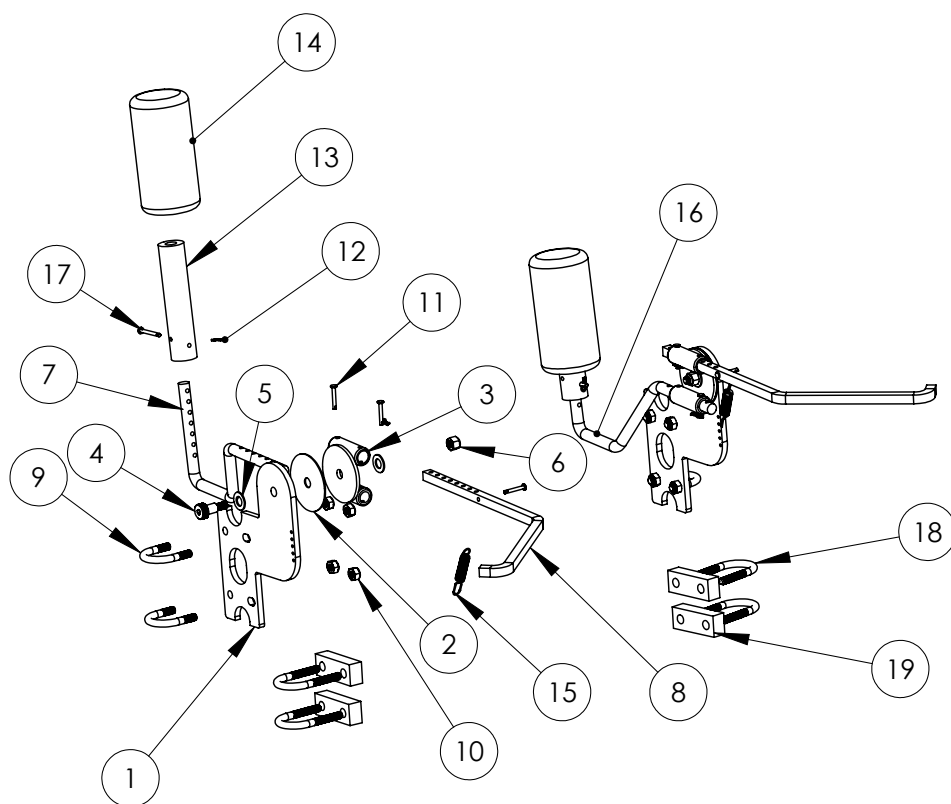
⚠ WARNING: Ensure the chair is unoccupied before performing any cleaning or service

- Sanitize and wash all components. **DO NOT** submerge the anti-rollback device.
- Use standard water pressure. **DO NOT** power wash or steam clean any parts.
- Rinse completely with water (maximum temperature 110°F or 43°C). Solvents, alcohol or petroleum should not be used on the device.
- You may remove the foam bumpers prior to cleaning to avoid getting the foam wet.
- Make sure all parts are dry before using or storing the device.
- Use of a wheelchair washer or other automated device washer may reduce the lifespan of this device.

Periodic Inspection

1. Check for proper system function by following the steps outlined in step 9 of the installation section of this manual.
2. Review all adjustment points to ensure adjustment pins are correctly seated and hairpin retainers are in place on all adjustment pins.
3. Review and inspect for compliance to the “**WARNINGS**” listed in this manual.
4. Check tension springs to ensure that springs are not excessively stretched and that they are providing sufficient braking force to the brake bars.
5. Inspect all components for damage or excessive wear.
6. Visually examine all welds for cracks.
7. Inspect foam bumpers for wear, tearing, or deformation. Foam may lose some height or firmness over time. Adjustments may be made to the bumper height or the bumpers may be replaced as needed.
8. Inspect all bolts and fasteners for loosening (Do not over tighten bolts at pivot points).

Parts List



The Direct Supply® Anti-rollback Device consists of the following components:

Part Number	QTY Included	Part Name
1	2	Mounting Plate
2	2	2in Washer
3	2	Turning Plate Weldment
4	2	Shoulder Bolt
5	4	8.5mm ID Washer
6	2	M6 Nylock Nut (installed)
7	1	Counterbalance Bar – Left
8	2	Brake Bar
9	4	U-bolt – Standard
10	8	M6 Nylock Nut (for mounting)
11	6	Adjustment Pin – Standard
12	6	Hairpin Retention Pin
13	2	Plastic Adjustment Tube
14	2	Foam Seat Bumper
15	2	Tension Spring
16	1	Counterbalance Bar – Right
17	2	Adjustment Pin – Long
18	4	U-bolt – Long
19	4	Plastic Spacer

Limited Warranty

We, Direct Supply Manufacturing, Inc. offer to you, as the original purchaser, a warranty for the Direct Supply® Anti-rollback Device. Our warranty applies for the limited warranty period stated below. If any product or product part listed below is defective in material or workmanship during the applicable limited warranty period, we will repair or replace it at our cost. 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, 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.

Product	Limited Warranty	Anticipated Usable Product Life
Direct Supply® Anti-rollback Device	18 months	18 months

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.

DIRECT SUPPLY MANUFACTURING, INC. MAKES NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE; THESE AND ALL OTHER IMPLIED WARRANTIES ARE SPECIFICALLY DISCLAIMED. TO THE FULLEST EXTENT ALLOWED BY LAW, DIRECT SUPPLY MANUFACTURING, INC. WILL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, OR LOST PROFITS THAT MAY RESULT FROM THE PRODUCT OR YOUR USE OF OR INABILITY TO USE THE PRODUCT EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. OUR TOTAL LIABILITY TO YOU, IF ANY, IS LIMITED TO THE PRICE OF THE PRODUCT OR SERVICE GIVING RISE TO YOUR CLAIM. Some states do not allow an exclusion or limitation of incidental or consequential damages, or how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. If implied warranties are not excluded, and to the extent allowed by law, we limit any and all implied warranties to the applicable warranty period identified above. Except for rights under any applicable state law, the remedies provided under this warranty are your sole and exclusive remedy for any breach of our warranty and state the entire limit of our responsibilities.

Customer Service

Our promise to you is that you will have a convenient and easy ordering experience, receive a quality Direct Supply® Anti-rollback Device and enjoy outrageous customer service. If you have any questions about the Anti-rollback Device you have purchased or would like to request warranty service, please contact: **Direct Supply Equipment & Furnishings** at 1-800-634-7328, 6767 W. Champions Way, Milwaukee, WI 53223, SalesSupport@DirectSupply.com.



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