

INSTALLATION INSTRUCTIONS

SAFER-IVC-TR4

TO FIT INVACARE WHEELCHAIR MODEL:
TRACER IV



IMPORTANT! Please read the *entire* installation packet and review *all* pictures before starting installation.

INSTALLATION VIDEOS ARE AVAILABLE ON OUR WEBSITE AT
www.saferwheelchairs.com

Safer Automatic Wheel Lock Kit

1 General

Check all parts for shipping damage. In case of damage, DO NOT use. Contact Carrier/UPM for further instructions. To ensure the safe installation of the Safer Automatic Wheel Lock Kits, these instructions must be followed.

For Installation/Technical assistance please call 601-353-3193 ext. 215, Monday - Friday 8:00 AM-5:00 PM CST

1.1 Symbols

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.



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.



Gives useful tips, recommendations and information for efficient, trouble-free use.

1.2 Overview



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.

This procedure **MUST** be performed by a qualified technician.

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



WARNING

Sloped Surfaces: Always engage the wheelchairs manual locks while seated on any type of sloped surface. Safer Locks are not designed to engage while the wheelchair is occupied.



WARNING

The intended use of Safer Automatic Wheelchair Wheel Locks is to safe guard against unintended wheelchair roll while transferring to and from the wheelchair in the event that the manual locks are not engaged. Safer Locks are not a manual lock replacement.

CONTINUE TO USE YOU WHEELCHAIRS MANUAL LOCKS AS NORMAL.

2 Safer Automatic Wheel Lock General Overview

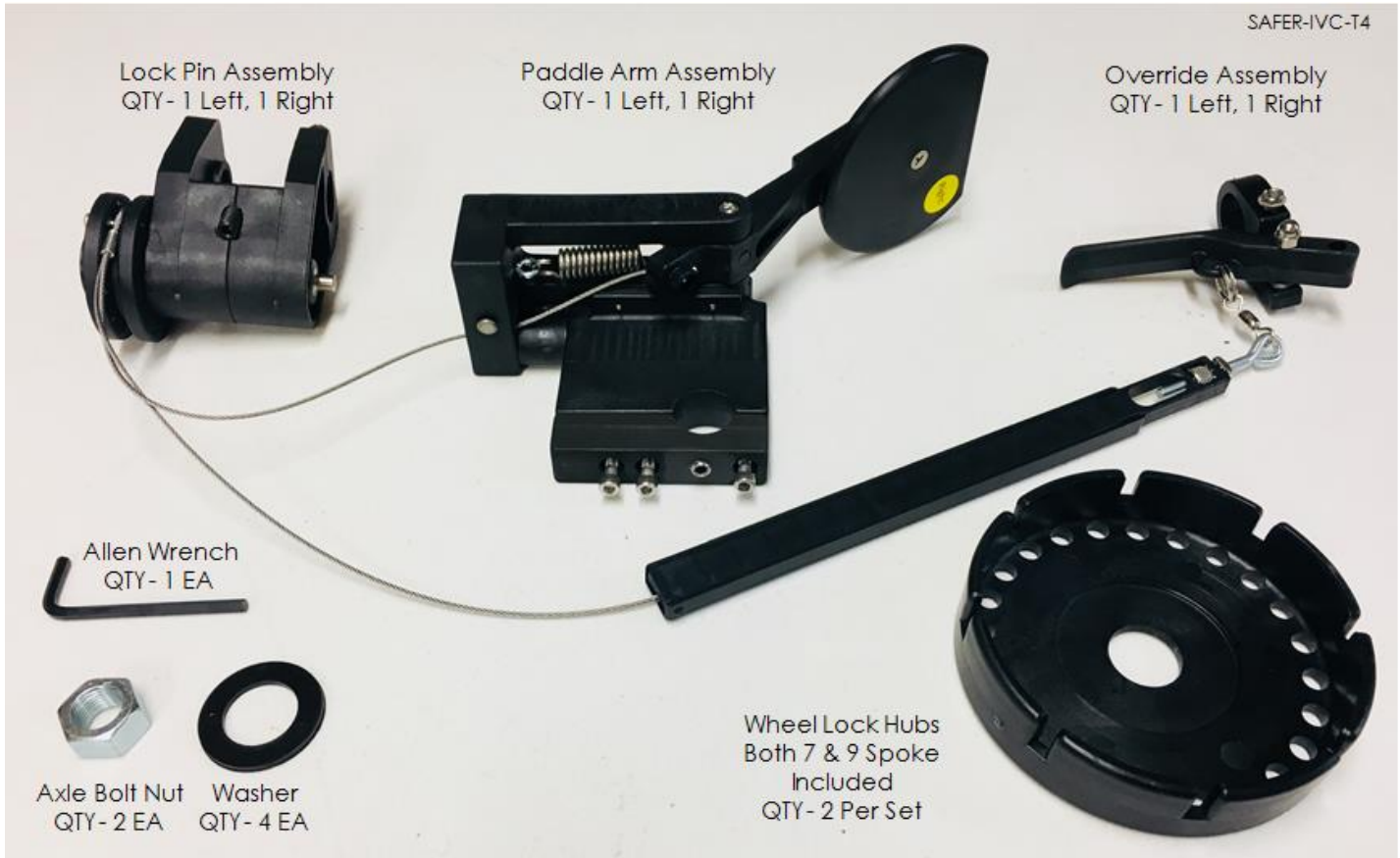


Tools Required - Flat Head Screwdriver, Phillips Screwdriver, Socket Wrench Set, Rubber Hammer
(Allen Wrench included).

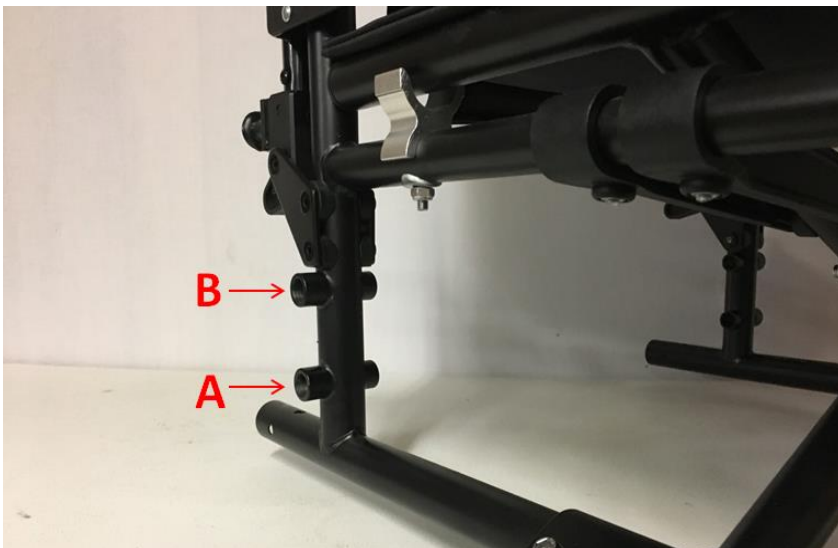
2.1 Parts Supplied



Check that you receive all parts listed and for any damage to parts during shipping.
In case of damage, DO NOT USE. Contact Carrier/UPM for further instructions



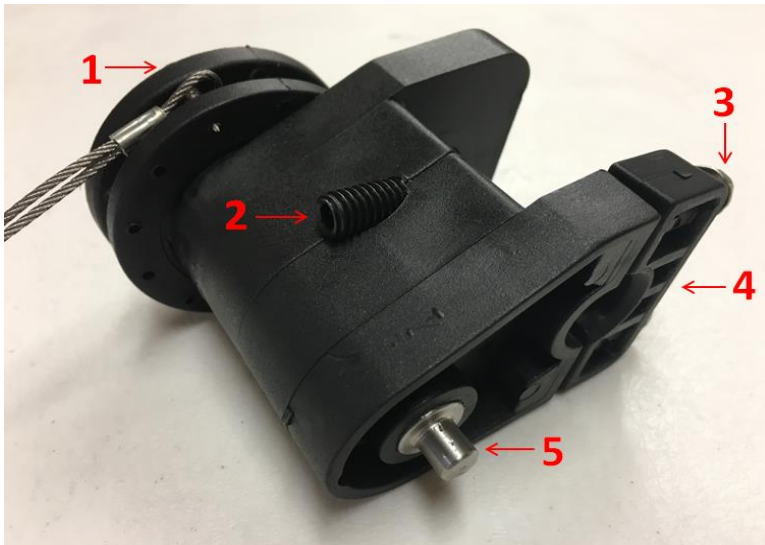
2.2 Wheelchair Height Settings



A: Standard/Adult Height: Typically sets seat 19.5" from floor.

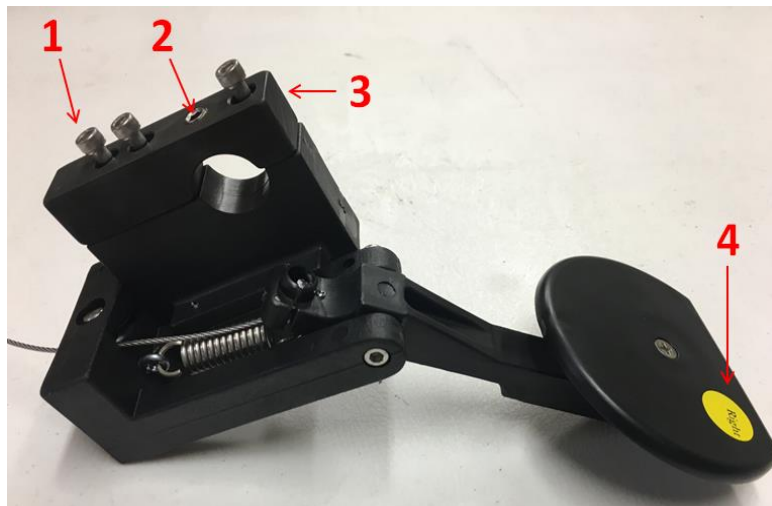
B: Hemi Height: Generally two to three inches lower than Standard/Adult Height, allows the seated user to easily propel their wheelchair with their feet.

2.3 Lock Pin Assembly Breakdown



- 1: Lock Pin Assembly Cable Guide
- 2: Set Screw
- 3: Mounting Screw (2 per side)
- 4: Clamp
- 5: Lock Pin

2.4 Paddle Assembly Breakdown



- 1: Mounting Screws (3 per side)
- 2: Set Screw
- 3: Clamp
- 4: Left/Right Label

2.5 Override Assembly Breakdown



- 1: Override Handle
- 2: Override Fine Tune Adjuster
- 3: Override Assembly Adjuster
- 4: Kit Model
- 5: Adjuster Cover
- 6: Clamp Screw
- 7: Override Handle Clamp

3 Installation



CAUTION

If not using a **Safer Wheelchair Service Stand**, securely block up the wheelchair frame so that the rear wheels do not touch work surface and the wheels rotate freely.



As Pre-Assembled - Locks are labeled Left & Right as if you were sitting in the chair. (2.4-4)
Your Safer Automatic Wheel Lock Kit is preset for installation at the Adult Height. (2.2)

Refer to Lock Pin/Override Assembly Adjustment Guide for Hemi Height Settings. (pg. 12)

1. **Remove the rear wheels. Refer to the wheelchair or seating system owner's manual.**

- 1a **KEEP BOTH AXLE BOLTS AND SPACERS THAT ARE ON THE WHEELCHAIR**
- 1b **REPLACEMENT LOCK NUTS ARE SUPPLIED IN YOUR KIT. DISCARD THE OLD ONES**

2. **Install the Wheel Lock Hubs**

Supplied in your Kit are both 7 and 9 Spoke Wheel Lock Hubs. Use the appropriate pair.

- 2a Line the spoke grooves on the Wheel Lock Hub with the spokes on the wheel. Using a **rubber hammer**, **TAP** the Wheel Lock Hub onto the wheel **making sure that it is flush with the wheel.** (Fig. 1 & Fig. 2)
- 2b Repeat Step 3 to install the other Wheel Lock Hub

Fig. 1



Fig. 2



3. **Unpack each side of your Safer Lock Assembly and perform the following:**

- 3a Remove the Mounting Screws (2.4-1) and Clamp (2.4-3) from the Paddle Assembly and loosen the Set Screw (2.4-2) in the center of the Paddle Clamp.
- 3b Loosen the Mounting Screws (2.3-3) and Clamp (2.3-4) from the Lock Pin Assembly, then loosen the Set Screw (2.3-2) in the center of the assembly so that it is not protruding from the back.

4. Install the Override Assembly onto the wheelchair handle

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The Override Assembly Adjuster Cover opens for adjusting

4a

Open the Override Assembly Adjuster and give enough slack in the cable to mount the Override Bracket onto the handle of the wheelchair. (Fig. 3)

4b

Using the screw in the Override Assembly Bracket, spread the bracket and position over the wheelchair handle and secure with the screw. (Fig. 4)

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Adjustments will be made later in the installation

Fig. 3



Fig. 4



5. Install the Paddle Assembly (DO NOT TIGHTEN AT THIS POINT)

5a

With the Clamp removed, place the Paddle Assembly on the upper bar of the wheelchair frame behind the crossbrace. (Fig. 5)

5b

Thread the Mounting Screws through the Clamp into the Paddle Assembly fingertight. (Fig. 6)

Fig. 5



Fig. 6



6. Install the Lock Pin Assembly

MAKE SURE THAT THE SET SCREW IN THE LOCK PIN ASSEMBLY IS NOT TOUCHING THE FRAME

- 6a With the Clamp loosened place the Lock Pin Assembly at the desired height (Standard or Hemi/Page 3)
- 6b Slide the Axle Bolt that was removed from the wheelchair all of the way through the Lock Pin Assembly (Fig. 7)
- 6c Slide the metal axle spacer that was removed from the wheelchair onto the axle bolt, followed by the plastic washers included with your Safer Lock Kit. (Fig. 8 & Fig. 9)
- 6d Reinstall the wheel and tighten the supplied Axle Nut onto the bolt firmly. (Fig. 10)
- 6e Tighten the Lock Pin Assembly Clamp. (Fig. 11) WHEEL IS NOT SHOWN IN PICTURE
- 6f Slowly tighten the Set Screw (2.3-2) on the Lock Pin Assembly until it just touches the frame of the wheelchair. DO NOT OVERTIGHTEN (Fig. 12)

If the wheel does not easily turn, loosen the Axle Nut slightly until the wheel spins freely

Fig. 7

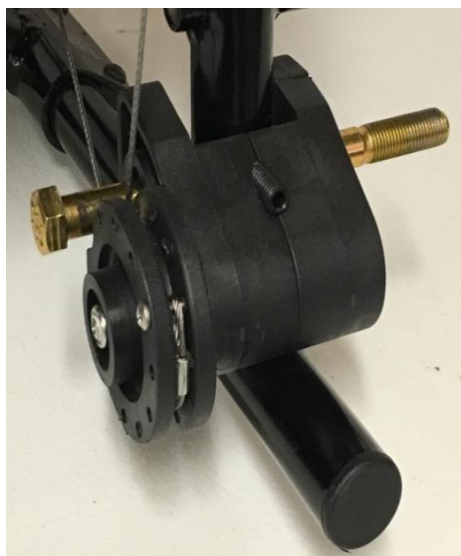


Fig. 8



Fig. 9



Fig. 10



Fig. 11

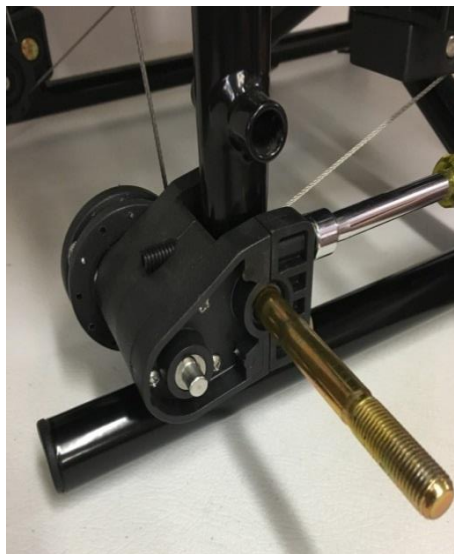


Fig. 12



7. Adjusting the Override Assembly

- 7a Open the Override Adjuster Cover to give slack in the cable. Ensure that the Override Cable is running as shown in Fig. 13 below.
- 7b Once the cable is correctly aligned, insert the cable end into the appropriate slot in the Override Adjuster and close the cover. (Fig. 14)
- 7c Using the the Fine Tune Adjuster (2.5-2), adjust to the point that when the handle is squeezed and just touching the bottom of the wheelchair grip, the Lock Pin (2.3-5) is fully pulled into the Lock Pin Assembly. (Fig. 15)

Fig. 13

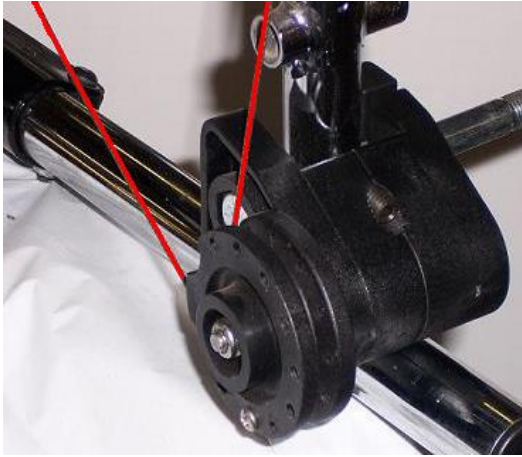


Fig. 14



Fig. 15



8. Adjusting the Paddle Assembly

Ensure that the cable is aligned as shown in Fig. 13 to the Paddle Assembly

- 8a Slide the Paddle Arm Assembly back and forth until the cable is at the correct tension- which is roughly 1" of slack in the cable. (Fig. 16)
- 8b Paddle Arm Assembly MUST be vertically level to get the proper cable tension and for the Lock Pin Assembly to work properly. (Fig. 17)
- 8c Once the Paddle Arm Assembly is vertically level and the cable is at the proper tension, secure the Clamp by tightening the three Mounting Screws. (Fig. 18)



While tightening the Clamp, watch the Lock Pin. If the shoulder of the Lock Pin is drawn into the Assembly at all- THE CABLE HAS TOO MUCH TENSION.

Loosen the Clamp screws slowly until you are able to bump the Paddle Assembly slightly back until the Lock Pin shoulder is flush. (Fig. 19)

- 8d After the Clamp has been mounted tightly to the Paddle Assembly in the correct position, tighten the Set Screw to lock the Assembly to the frame. (Fig. 20)

Fig. 16



Fig. 17

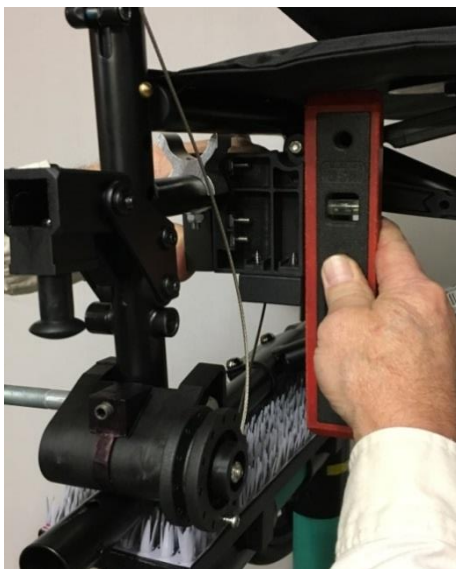


Fig. 18

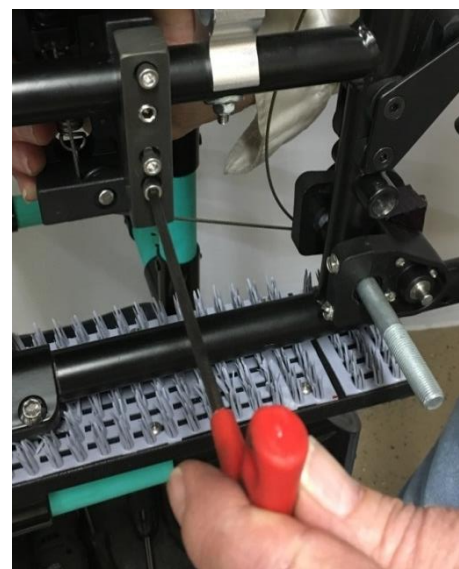


Fig. 19



Fig. 20



4 TESTING

4.1 Testing to ensure Safer Automatic Wheel Lock Kits are installed correctly

1. Before removing chair from work stand, press the Override Assembly Handle (2.5-1) and release while turning the wheel. You will need to do this to ensure the Lock Pin Assembly Pin pops into all 16 holes in the Wheel Locking Hub. **Do this on both sides of chair.**



If Lock Pin Assembly Pin (2.3-5) does not pop into ALL 16 holes of the Wheel Locking Hub, loosen or tighten the Lock Pin Assembly Set Screw (2.3-2). If the Set Screw is too tight, this can cause the Lock Pin Assembly to become out of line.



To adjust the Lock Pin Assembly Pin: While holding pressure on pin with wheel, using a 7/16 wrench, adjust nut to increase or decrease pin clearance. (Fig. 24)

Fig. 21



Fig. 22

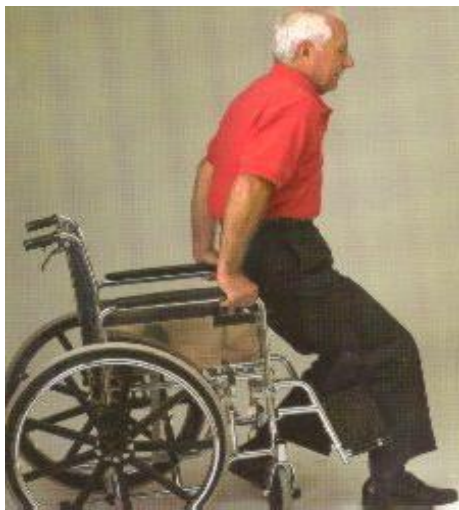


2. When pressing the Override Assembly Handle, make sure the Lock Pin Assembly Pin is retracted enough so the pin will not touch the Wheel Locking Hub. You can make fine adjustments by adjusting the eye bolt on top of the Override Assembly Adjuster. (2.5-2 and Fig. 22)

4.2 Testing by USING the Safer Automatic Wheel Lock Kits.

1. Remove chair from work stand. Sit in and stand out of chair multiple times to ensure the Safer Automatic Wheel Locking system is working properly.

Fig. 23



CAUTION

Use caution when sitting and standing from wheelchair while testing. If the Safer Automatic Wheel Lock system fails, it has been designed to fail in the LOCKED position. However if the Safer Automatic Wheel Lock Kit is not installed properly, the Lock Pin Assembly may not lock into the Wheel Locking Hub. Follow all the Safety Guidelines in the Wheelchairs Owners Manual.



If The Safer Automatic Wheel Lock system does not work properly after troubleshooting, Contact UPM/Manufacture for further instructions.

5 KIT FIT LIST


INVACARE	Kit Number	Seat Width	Back Height
Tracer EX2	SAFER-IVC	16"-20"	16"
Tracer SX5	SAFER-IVC	16"-22"	16"-18"
9000 SL	SAFER-IVC	16"-20"	ADJ
9000 XT (Dual Axle Frame) *	SAFER-IVC	16"-22"	ADJ
9000 XDT	SAFER-IVC	16"-22"	ADJ
Tracer SX5 Recliner	SAFER-IVC-RC	16"-22"	34"
Tracer IV	SAFER-IVC-T4	18"-24"	16"
9000 XT (Super Hemi Single Axle) **	SAFER-IVC-SL	16"-18"	ADJ

* Will not fit 9000 XT Recliner ** 9000 XT Super Hemi must have Space Saver Arms

MEDLINE


Excel Narrow	SAFER-MED	16"	16"
Excel 2000	SAFER-MED	18"	16"
Excel Wide (300lb. Cap)	SAFER-MED	20"	16"
Excel K3 Lightweight	SAFER-MED	16"-18"	16"
Excel K4 Lightweight 	SAFER-MED-K4	16"-20"	ADJ

BREEZY




Breezy Ultra 4 * 	SAFER-BR-U4	16"-20"	ADJ
Breezy 600 *	SAFER-BR-600	16"-20"	ADJ

* Will not fit Breezy Ultra 4 or Breezy 600 Ultra Hemi

NOVA

5000 Series 	SAFER-NOVA	16"-20"	16"
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DRIVE

Viper Plus GT 	SAFER-DRV-GT	16"-22"	16"
Cruiser III 	SAFER-DRV-C3	16"-20"	16"
Silver Sport 2 	SAFER-DRV-SS2	16"-20"	16"
Sentra EC	SAFER-DRV	20"-22"	16"

LOCK PIN ASSEMBLY AND OVERRIDE ASSEMBLY CABLE ADJUSTMENT GUIDE

CHAIR MODEL	CABLE GUIDE HOLE	OVER-RIDE ADJUSTMENT SLOT	CHAIR BACK HEIGHT
Tracer EX-2 Adult	3	11	16"
Tracer EX-2 Hemi	2	15	16"
Tracer SX-5 Adult	2	11	16"
Tracer SX-5 Adult	5	8	18"
Tracer SX-5 Hemi	2	15	16"
Tracer SX-5 Hemi	2	9	18"
Tracer SX-5 Recliner	5	9	24"
9000 SL Hemi	2	16	15"
9000 SL Hemi	2	15	16"
9000 SL Hemi	3	12	17"
9000 SL Adult	5	14	15"
9000 SL Adult	5	13	16"
9000 SL Adult	5	10	17"
9000 XT Adult	5	14	15"
9000 XT Adult	5	12	16"
9000 XT Adult	5	10	17"
9000 XT Adult	5	8	18"
9000 XT Adult	5	6	19"
9000 XT Adult	5	4	20"
9000 XT Hemi	2	15	15"
9000 XT Hemi	2	13	16"
9000 XT Hemi	2	11	17"
9000 XT Hemi	2	9	18"
9000 XT Hemi	2	7	19"
9000 XT Hemi	2	5	20"

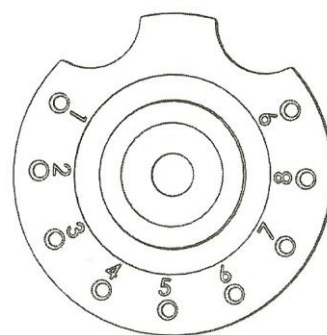
DRIVE & MEDLINE WHEELCHAIRS

Drive Adult	5	8	16"
Drive Hemi	4	11	16"
Medline Adult	5	8	16"
Medline Hemi	4	11	16"

INVACARE WHEELCHAIRS

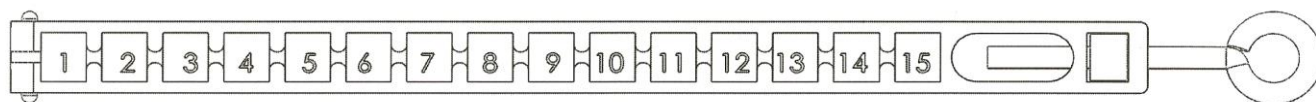
CHAIR MODEL	CABLE GUIDE HOLE	OVER-RIDE ADJUSTMENT SLOT	CHAIR BACK HEIGHT
XDT Tall	6	11	15"
XDT Tall	6	9	16"
XDT Tall	6	7	17"
XDT Tall	6	5	18"
XDT Tall	6	3	19"
XDT Tall	6	2	20"
XDT Adult	5	14	15"
XDT Adult	5	12	16"
XDT Adult	5	10	17"
XDT Adult	5	8	18"
XDT Adult	5	6	19"
XDT Adult	5	4	20"
XDT Hemi	2	15	15"
XDT Hemi	2	13	16"
XDT Hemi	2	11	17"
XDT Hemi	2	9	18"
XDT Hemi	2	7	19"
XDT Hemi	2	5	20"

*Lock Pin Assembly Cable Guide



The bottom hole is number 9

OVER-RIDE ASSEMBLY ADJUSTMENT GUIDE

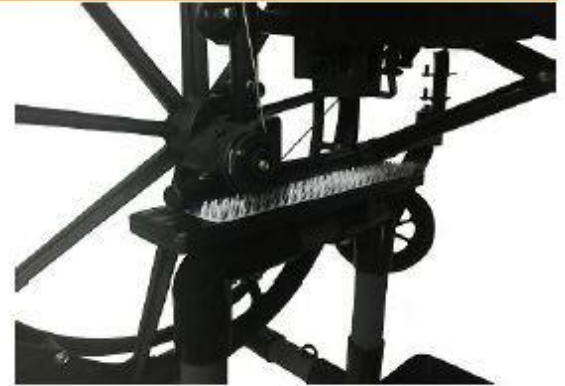


Safer Wheelchair Service Stand

EASIER & SAFER: DESIGNED TO SAFELY HOLD WHEELCHAIRS AT THE PERFECT HEIGHT FOR ALL MANUAL WHEELCHAIR SERVICE AND REPAIR, INCLUDING SAFER LOCK INSTALLATIONS

SIMPLE, FUNCTIONAL, LIGHTWEIGHT, PORTABLE & DURABLE

- Adjustable Width fits Wheelchairs from 16"-24" wide
- Sets Wheelchair Axles 37" from floor
- Overall Footprint of 36" x 35" with Leg Extensions
- Overall Footprint of 36" x 14" without Leg Extensions
- Weighs Only 20 LBS.
- Optional Tool Tray
- Nest Pads keep wheelchairs level regardless of frame design and eliminates rocking
- Durable enough for everyday use by DME companies, Nursing Facilities and Hospitals
- Portable Design allows the Safer Stand to easily be carried in delivery vehicles for field service



SAFER AUTOMATIC WHEEL LOCK CLEANING PROCEDURES

The material used in your Safer Automatic Wheelchair Wheel Locks is developed by one of America's top corporations, DuPont. The plastic materials used in the locks include Zytel nylon, a component that is strong, durable and slides easily against itself and metal without lubrication. Even when exposed to water, Zytel will not corrode. Safer Locks also have stainless steel and zinc hardware which allows the locks to be washed by any cleaning method without the risk of rust or corrosion.

SAFER AUTOMATIC WHEEL LOCK WARRANTY

Your Safer Automatic Wheelchair Wheel Locks are warranted to be free from defects in material and workmanship under normal operating conditions for a period of **TWO YEARS** from the date of purchase. Safer Automatic Wheelchair Wheel Locks sole obligation under this warranty will be replacement of the Automatic Wheel Locking device and shipping. This warranty does not cover failure due to abuse, misuse, alterations or improper installation performed by facilities outside of the Safer Automatic Wheelchair Wheel Lock facility.

Keep this book and your sales slip together for future reference. You must provide proof of purchase or installation date for warranty service.

Write down the following information about your Safer Automatic Wheel Lock Kit to better help you obtain assistance or service if you should ever need it. You will need to know your complete wheelchair model and serial number, and the complete locking kit part and serial number. The locking kit part number is located on the box that the kit was shipped in, and the locking kit serial number is on the back of the Lock Pin Assembly.

Dealer Name:

Date of Purchase:

Wheelchair Model Locking Kit Installed on:

Wheelchair Serial Number Locking Kit installed on:

Locking Kit Part Number:

Locking Kit Serial Number:



Manufactured By: United Plastic Molders, Inc.

105 East Rankin Street - Jackson, MS 39201

800-890-5113

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www.saferwheelchairs.com

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