

SAFER AUTOMATIC WHEEL LOCK CLEANING PROCEDURES

The material used in Safer 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 metals without the use of lubricants.

Even when exposed to water, Zytel will not corrode or degrade.

Safer Locks use only stainless steel and zinc hardware which allow the locks to be washed by any cleaning method without the risk of rust or corrosion.

SAFER AUTOMATIC WHEEL LOCK WARRANTY

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 cost.

This warranty does not cover failure due to abuse, misuse, alterations or improper installation performed outside of the Safer Automatic Wheelchair Wheel Lock facility.

Keep this manual and sales slip together for future reference. Proof of purchase or installation date must be provided for warranty service.

Write down the following information about your Safer Automatic Wheelchair Wheel Lock Kit to better help you obtain assistance or service in the event it should ever be needed.

You will need to know your complete wheelchair model and serial number, and the complete Safer Lock Kit part and serial number. The Safer Lock Kit part number is located on the box that the kit was received in. The serial number is on the back of the Lock Pin Assembly.

Dealer Name: _____

Date of Purchase: _____

Lock Kit Part Number: _____

Lock Kit Serial Number: _____

Wheelchair Model: _____

Wheelchair Serial Number: _____



Manufactured By; United Plastic Molders, Inc.
105 East Rankin Street • Jackson, MS 39201

Direct: 601-353-3193 ext. 215 | Toll Free: 800-890-5113 | Fax: 601-353-0411
www.SaferWheelchairs.com

INSTALLATION/USER MANUAL

KIT ID:

SAFER-IVC

FITS INVACARE WHEELCHAIR MODELS:

Tracer EX2 & SX5

9000 Series: SL/XDT/XT Dual Axle



IMPORTANT!

Please read the *entire* installation manual and review all pictures before starting installation

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



Installation & Maintenance Manual

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 your Safer Automatic Wheel Lock Kit, these instructions must be followed.

FOR INSTALLATION OR TECHNICAL ASSISTANCE PLEASE CALL 601-353-3193 x 215

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 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 optional equipment without first completely reading and understanding these instructions and any additional instructional material such as owner's and service manuals 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 that all attaching hardware is tightened securely; otherwise injury or damage may result.



WARNING

Sloped Surfaces: Always engage the wheelchairs manual wheel 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 Locks is to safeguard the user from unintended wheelchair roll while transferring to and from the wheelchair in the event that the manual wheel locks are not used.

CONTINUE TO USE MANUAL WHEEL LOCKS AS NORMAL

SAFER WHEELCHAIR SERVICE STAND

A MUST HAVE FOR MANUAL WHEELCHAIR SERVICE, REPAIR & CLEANING

- Solid, secure platform for all types of wheelchair service and repairs
- Unparalleled access for disinfecting wheels and other hard to reach areas
- Lightweight, portable design allows for easy and efficient use while on the road
- Durably built for everyday warehouse use



ITEM: SAFER-STAND-TP




www.SaferWheelchairs.com




6. SAFER LOCK KIT BY WHEELCHAIR MAKE AND MODEL

INVACARE	Kit Model	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	16"-24"	16"
9000 XT **Super Hemi/Single Axle**	SAFER-IVC-SL	16"-18"	ADJ
MEDLINE			
Excel Narrow	SAFER-MED	16"	16"
Excel 2000	SAFER-MED	18"	16"
Excel Wide (300 LB Capacity)	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-GT-U4	16"-20"	ADJ
Breezy 600	SAFER-BR-600	16"-20"	ADJ
* WILL NOT FIT ULTRA HEMI			
DRIVE			
Cruiser III	SAFER-DRV-C3	16"-20"	16"
Silver Sport 1 & 2*	SAFER-SS2-NVA	16"-20"	16"
Viper Plus GT	SAFER-GT-U4	16"-22"	ADJ
Sentra EC	SAFER-DRV	20"-22"	16"
* ALSO FITS NOVA 5000 SERIES			

2. GENERAL OVERVIEW

 Tools Required: Flathead Screwdriver, Phillips Screwdriver, Socket Wrench Set, Level, Rubber Hammer, (Allen Wrench Included)

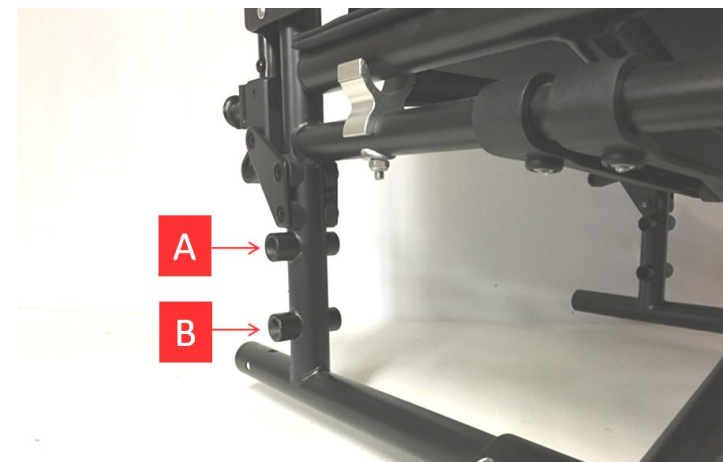
 If not using a Safer Wheelchair Service Stand during installation, see below:
IF AT ALL POSSIBLE, install your Safer Lock Kit with the wheelchair **right-side up**. **SECURELY** block up the wheelchair frame 1-3 feet from the floor, allowing for better access and enabling the wheels to rotate freely.

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



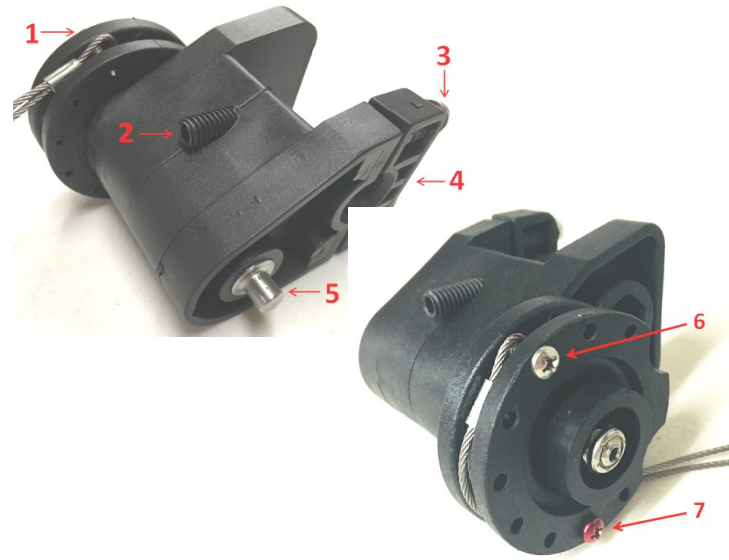
2.2 Wheelchair Height Settings



A: Hemi Height: Generally 2" lower than Adult/Standard Height, giving a seat to floor height of 17.5", allowing the user to easily propel the wheelchair with their feet.

B: Adult/Standard Height: Typically sets seat to floor height at 19.5".

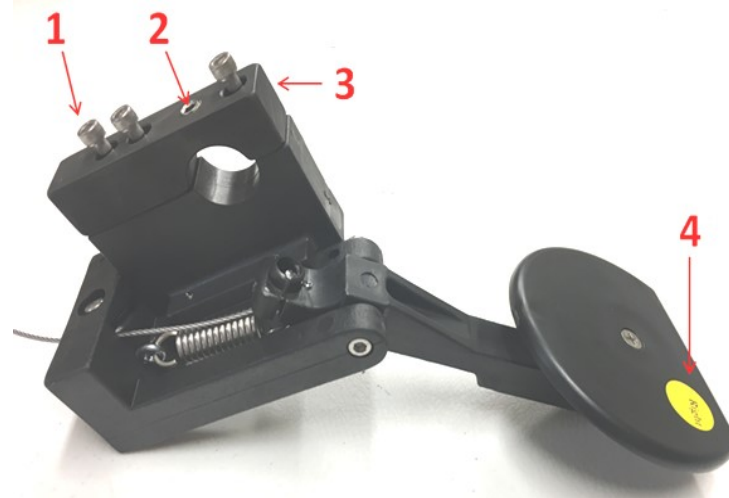
2.3 Lock Pin Assembly Breakdown (Lock Assembly)



- 1) Cable Guide
- 2) Set Screw
- 3) Mounting Screw (two per side)
- 4) Cam Clamp
- 5) Lock Pin
- 6) Cable Adjustment Screw
- 7) Guide Screw*

*Do not remove. Not on all kits

2.4 Paddle Assembly Breakdown



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

2.5 Override Assembly Breakdown

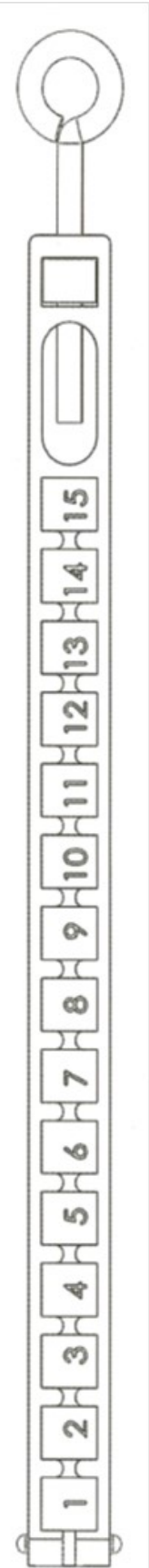


- 1) Override Handle
- 2) Fine Tune Adjuster
- 3) Override Assembly Adjuster
- 4) Safer Lock Kit ID (Not on all kits)
- 5) Adjuster Cover
- 6) Clamp Screw
- 7) Handle Clamp

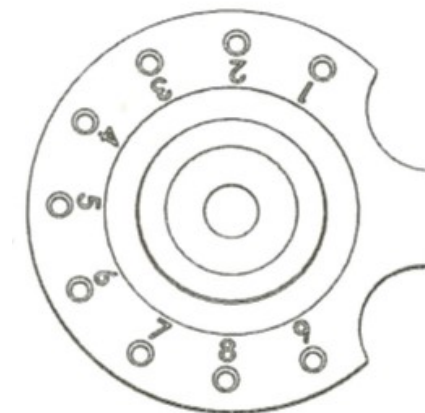
5. CABLE SETTINGS

Lock Pin & Override Assembly Cable Adjustment Guide

SAFER-IVC		HEMI HEIGHT SETTINGS		ADULT HEIGHT SETTINGS	
CHAIR MODEL	BACK HEIGHT	CABLE GUIDE	ADJUSTER SLOT	CABLE GUIDE	ADJUSTER SLOT
EX2	16"	2	15	3	11
SX5	16"	2	15	2	11
SX5	18"	2	9	5	8
9000 SL	15"	2	15	5	14
9000 SL	16"	2	15	5	13
9000 SL	17"	3	12	5	10
9000 XT	15"	2	15	5	14
9000 XT	16"	2	13	5	12
9000 XT	17"	2	11	5	10
9000 XT	18"	2	9	5	8
9000 XDT	15"	2	15	5	14
9000 XDT	16"	2	13	5	12
9000 XDT	17"	2	11	5	10
9000 XDT	18"	2	9	5	8
9000 XDT	19"	2	7	5	6



LOCK PIN CABLE GUIDE
The bottom hole is # 9



OVERRIDE ADJUSTER

4. TESTING

4.1 Testing the Lock Pin Assemblies and Wheels

1. Before removing the wheelchair from the stand the following safety checks **must** be performed on both sides:
 - a) Pull the Override Handle and release while turning the wheel. Each time the wheel locks you will hear a “pop”.
 - b) Repeat the process until you have heard sixteen pops. (One for each hole on the Hub)



If the Lock Pin does not lock into all sixteen holes, check the following:

- 1) Turn wheel until the Pin is in line with one of the holes on the Hub. With the Handle released, check that the shoulder of the Lock Pin is flush with the Lock Assembly as seen on Page 7.

If the Pin is drawn into the Lock Assembly, the Paddles are mounted too far forward on the frame causing excessive tension on the cable.

Slide Paddle Assembly rearward to relieve tension,(3.1-11)

If the Lock Pin shoulder is flush and still will not engage in all holes, move to next step.

- 2) Loosen the Lock Assembly Set Screw (2.4-2) one quarter turn at a time until the Lock Pin engages in all holes. LOCK ASSEMBLY SHOULD NOT BE ABLE TO ROCK UP OR DOWN.

If the Lock Pin shoulder is flush and the Set Screw is not over tightened:

- 3) Loosen the Axle Nut one quarter turn at a time until the Lock Pin engages.

4.2 Test by USING

1. Remove the wheelchair from the stand and place on the floor.
Make sure that the manual wheel locks are not engaged
 - 1) **Push** the chair without squeezing the Override Handles. The wheels should be locked
 - 2) **Push** the chair while squeezing the Override Handles. The wheels should be unlocked allowing the wheelchair to roll as normal
 - 3) **Sit** into the chair to ensure that the wheels unlock once seated
 - 4) **Stand** from the chair while pushing back on the arms to ensure that the wheels lock as soon as weight is removed from the seat

REPEAT THIS PROCESS SEVERAL TIMES.



Use caution when sitting and standing from the chair while testing. If your Safer Lock Kit fails, it is designed to fail in the LOCKED position. However, if not installed properly, the Lock Pin Assembly may not lock into the Hub.

Follow all Safety Guidelines in your Wheelchairs Owners Manual

Contact UPM if your Kit does not work properly after troubleshooting

3. INSTALLATION

3.1 Mounting the Assemblies



If not using a Safer Wheelchair Service Stand (Pg. 15) during installation, see below:

IF AT ALL POSSIBLE, install your Safer Lock Kit with the wheelchair right-side up.

SECURELY block up the wheelchair frame 1-3 feet from the floor, allowing for better access and enabling the wheels to rotate freely.



Your Safer Lock Kit is labeled LEFT or RIGHT as if you were sitting in the wheelchair, (2.4) and is preset for installation at Adult/Standard Height. (2.2)

See Page 13 for Hemi Height Cable Settings

1. Remove the rear wheels. Refer to the wheelchair owner's manual.
 - a) **Discard the Axle Bolt, Nut, and Spacer supplied on the wheelchair.**
 - b) **Replacements are supplied with your kit.**
2. Unpack each side of your Safer Wheel Lock Kit and perform the following:
 - a) Loosen Mounting Screws enough to remove Clamps from the Lock and the Paddle Assemblies. (2.3 & 2.4)
 - b) Loosen the Clamp Screw on the Override Assembly enough for the Clamp to spread. (2.5-6)
3. Hold the Clamp Screw and spread the Override Handle Clamp enough to slide over the hand grip.
4. Position the Clamp flush with the end of the hand grip and tighten the Clamp Screw.



5. If slack is needed in the cable for the Lock Assembly to reach the axle you are intending to use:
 - a) Open the Adjuster Cover from the top and move the cable end into a lower block
 - b) Close the Adjuster Cover



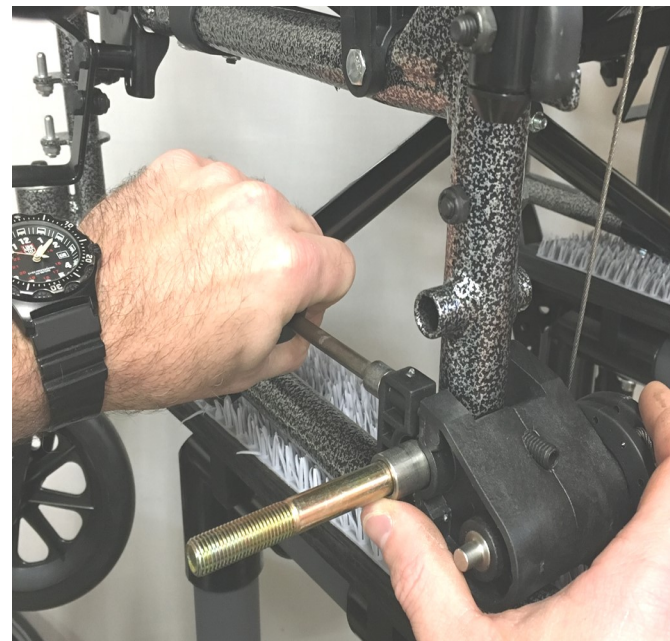
6. Cable must be looped around the Cam Wheel as shown before moving on to next step.
(Refer to Step 5 for adding and removing cable slack)



7. With the Clamp removed, position the Lock Assembly onto the frame and align with the desired axle height. (Adult or Hemi Height, see 2.2)
Holding the assembly in line, place the Clamp around the axle and thread the two Mounting Screws into the holes just enough to keep the Clamp in place.



8. From the inside of the wheelchair, push the supplied bolt through the axle and Lock Assembly,
 - a) Slide the metal spacer onto the bolt until it is touching the axle.
 - b) Holding the spacer against the axle, tighten the Clamp Screws firmly.



20. Pull the wheel rearward allowing the Cam to bottom out on the frame.
 - a) Turn Set Screw until it is lightly touching the frame.
Do not overtighten
21. Open the Adjuster Cover and place the Cable End into the appropriate slot of the Adjuster. Close the Cover
See CABLE SETTINGS on Page 13



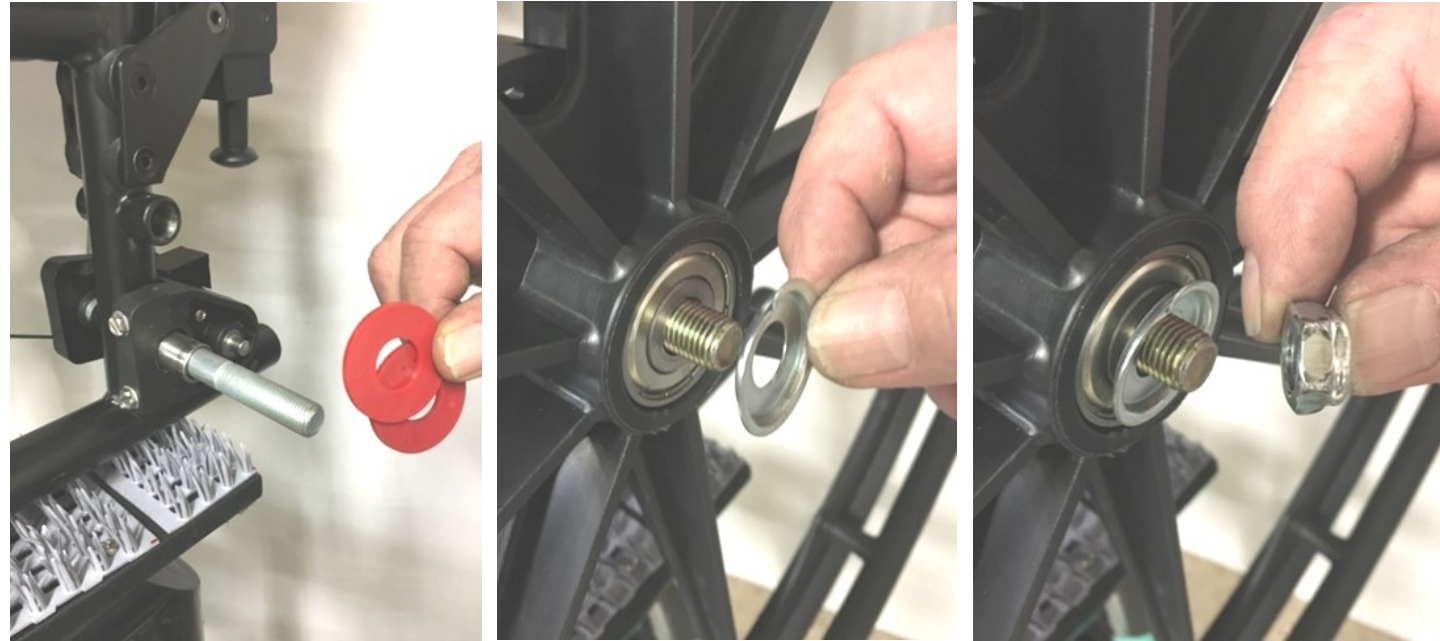
22. Fine Tune the Adjuster to the point that when the handle is squeezed, the Lock Pin is fully retracted into the Lock Assembly and the handle is just touching the bottom of the hand grip.
 - a) Loosen the Square Nut at the top of the Adjuster
 - b) Turn the Knurled Nut until the Handle is in the correct position
 - c) Firmly re-tighten Square Nut to lock in place



SEE NEXT PAGE FOR SAFETY TESTING BEFORE REMOVING WHEELCHAIR FROM STAND

16. Slide two of the four Red Washers over the Metal Spacer on the bolt

17. Slide the wheel onto the bolt followed by the Retainer Washer then the Nut

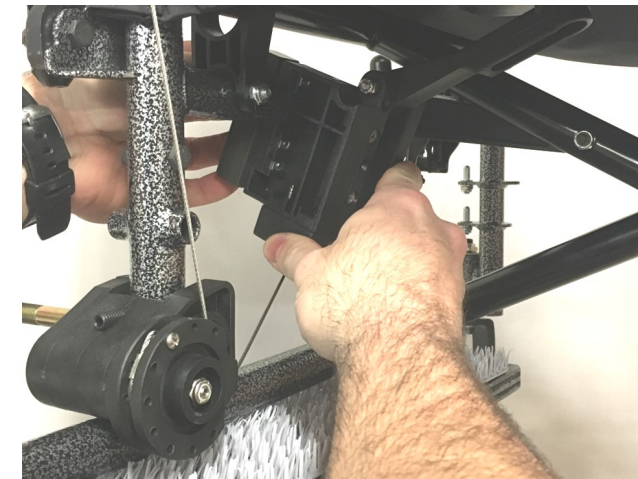


18. Tighten the Axle Nut until fully onto the bolt with threads showing, **Once tight, you may need to back off the Nut using 1/4 turns until the wheel spins freely**

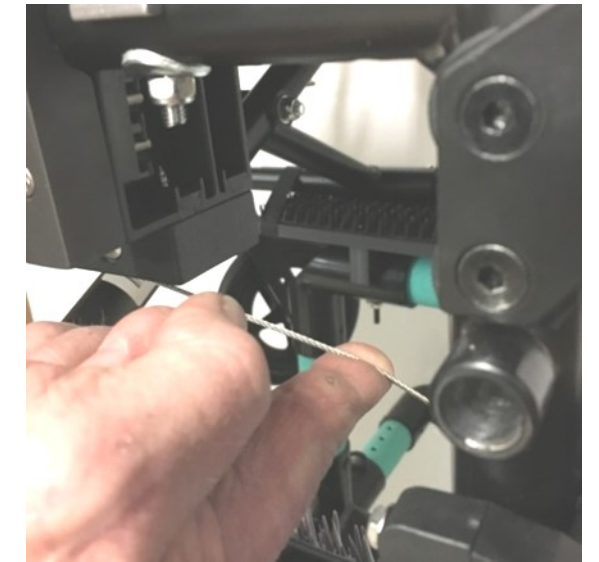
19. Snap the supplied Hub Cap onto the Retainer Washer



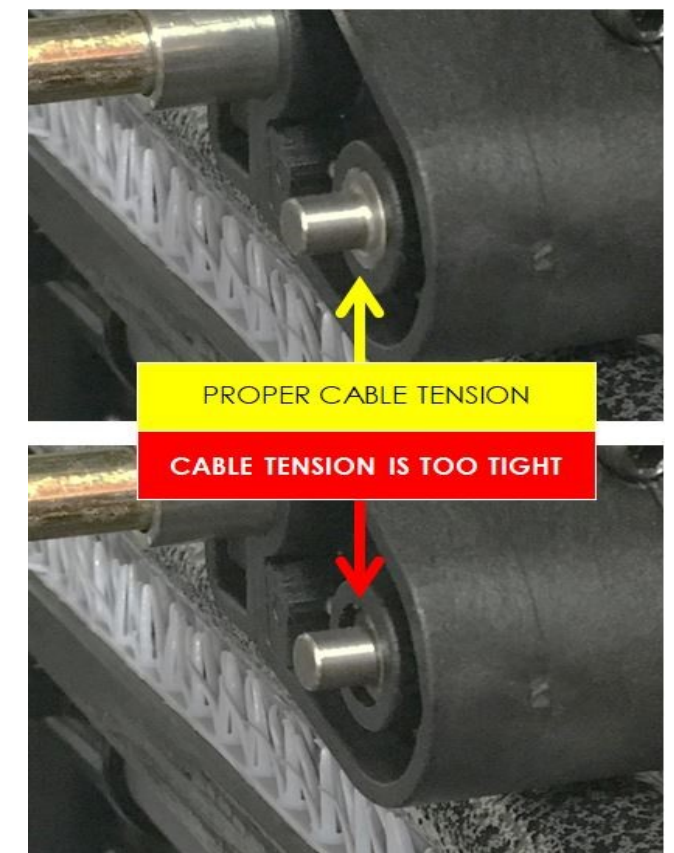
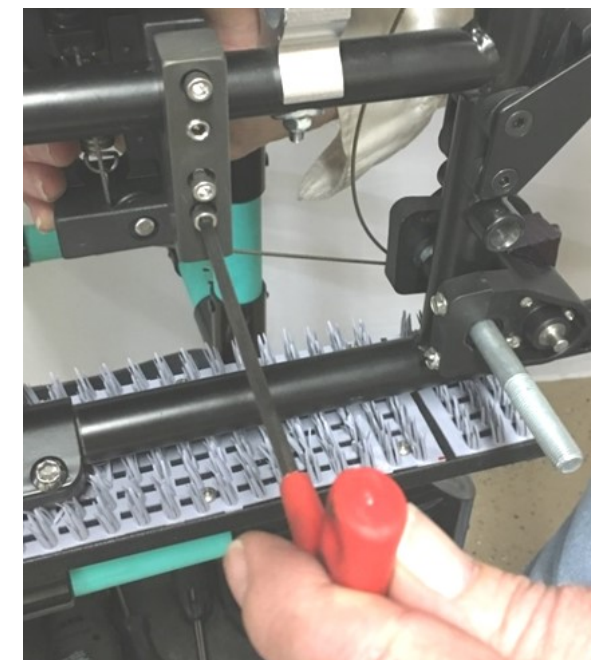
9. Make sure that the Cable is as shown in Step 6.
a) With the Paddle Clamp removed, place the Paddle Assembly onto the frame as shown.
b) Place the Clamp onto the Paddle Assembly.
c) Using your fingers, thread the three Mounting Screws equally into the Assembly. (DO NOT FULLY TIGHTEN)



10. Slide the Paddle Assembly forward until you have about 1" slack in the cable



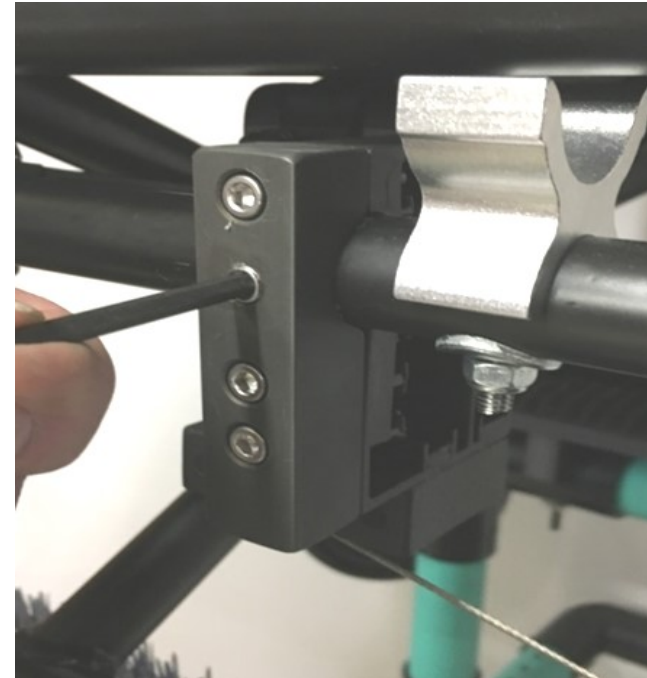
11. While holding the Assembly in place, tighten the three Mounting Screws. Watch the Lock Pin as you tighten the screws. Bump the Paddle rearward if the shoulder on the Pin begins to draw in.



12. Paddle Assemblies must be vertically level.
- Tap the bottom of the assembly with Rubber Hammer until level if needed
 - Refer to Step 11 if Lock Pin begins to pull back as you are leveling



13. Once Cable Tension is correct and the Assembly has been leveled:
- Re-tighten all three Mounting Screws
 - Firmly tighten the Set Screw



14. Line up the slots on the Hub with the wheel grooves.



15. Tap with Rubber Hammer until the Hub is flush and level with the wheel.



BEFORE MOVING TO THE NEXT STEP:

At this point, this is how your Assemblies should look. (Showing Left Side)
Do a quick review noting the highlights .
Once done, you are ready to install the wheels.

