

# INSTRUCTION MANUAL



## STANDING WHEELCHAIR

**KARMAN HEALTHCARE INC.**  
**City of Industry, CA 91748**

\*\*Karman Healthcare Inc. Recommends Patient Seek Physicians Counsel Before Purchase

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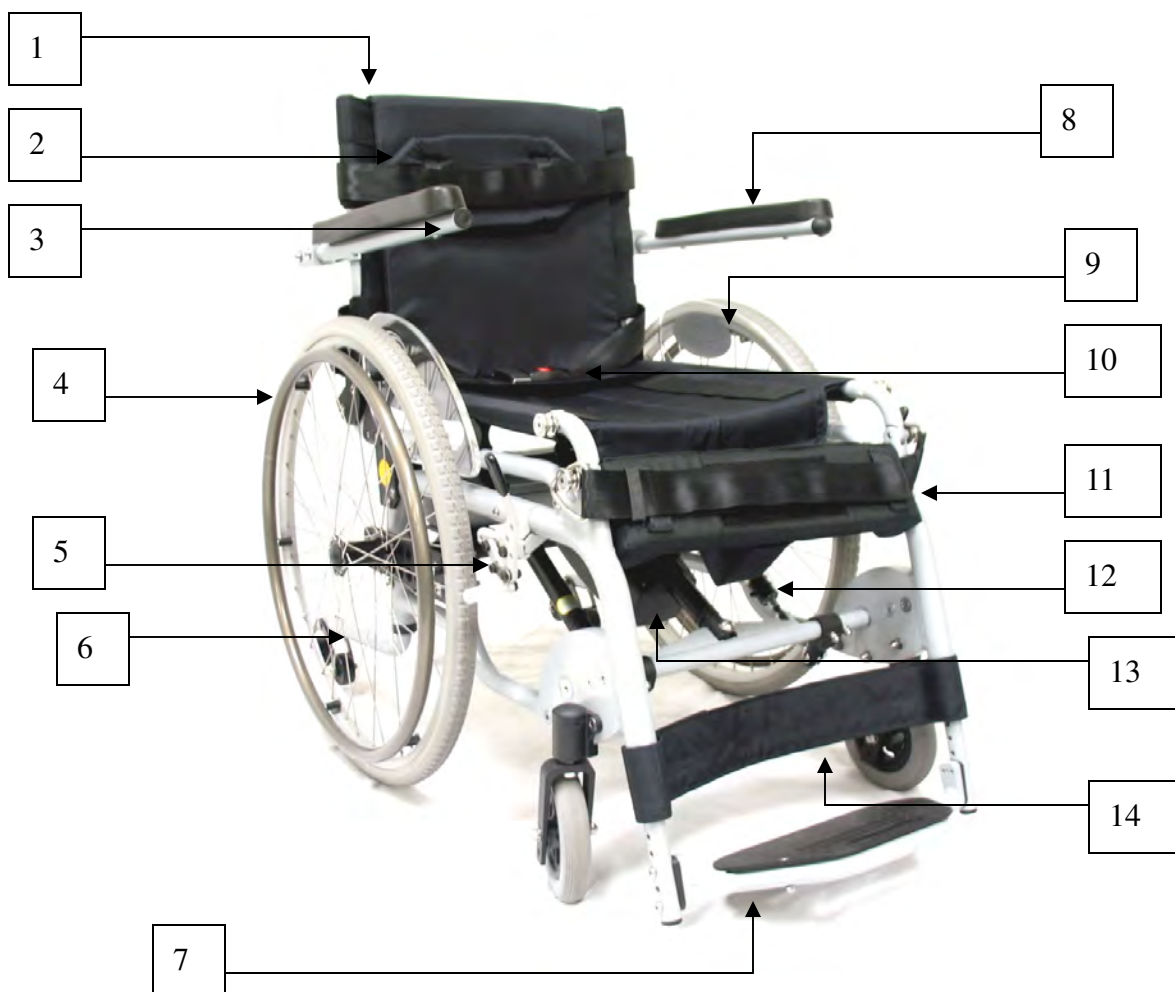
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## XO Series



01	Back-rest	08	Arm-rest
02	Chest Strap	09	Side Panel
03	Controller	10	Seat Belt
04	Hand Rim & Rear Wheel	11	Leg Straps
05	Wheel Lock	12	Gas Spring
06	Anti-Tippers	13	Control Box
07	Footrest	14	Heel Strap

## **Chapter 1. SAFETY TIPS**

### **1-1. STANDING**

#### **Attention :**

- Before using the standing wheelchair you should be familiar with the operation and the functions of the XO units' parts.
- When using the standing function, use only in standard household and/or hard even ground conditions. Not use when ground is wet or slippery.
- In case of staircase, the standing wheelchair must be carried by 2 persons on the left and right hand side not in-front and behind.
- When the user leaves the standing wheelchair, he/she should not use their feet to push off from the footplate, to avoid the dangers.

**Warning: Maximum weight limit should not exceed**

**Any XO Unit - 250 lbs**

**1-1.1. Standing up stresses your body in ways you may not be used to. Therefore we recommend you consult your doctor or physical therapist before using the stand-up wheelchair.**

**1-1.2. Before standing up it is absolutely vital that the knee support, safety belt and chest belt are fixed correctly.**

### **1-2. WHEELS & LOCKS**

Wheel locks are not designed to slow the wheelchair down when it is moving. Wheel locks hold the wheelchair in place when it is at a complete stop. Always set both wheel locks when entering or stand-up or leaving the wheelchair.

## **1-3. REAR WHEEL**

### **1-3.1. QUICK RELEASE AXLES**

Make sure the wheels axle is all the way through before mounting the XO unit. If the release button is inside the frame, the wheels will release and the user will be in danger.

### **1-3.2. PNEUMATIC TIRES**

Check pneumatic tires weekly for proper inflation level, listed on tire sidewall.

### **1-3-3. CURBS, INCLINES AND RAMPS**

Always practice with a healthcare professional or attendant.

Before attempting to negotiate curbs, inclines or ramps alone.

It is important for you to develop a safe technique that is suitable to your abilities.

#### **WARNING:**

**Doing a "wheelie" (tilting the wheelchair backward to its balance point) can be dangerous and it is not recommended you perform this maneuver under any circumstances.**

## **1-4. ARMRESTS**

### **Flip-back Armrests**

Never lift the wheelchair by the armrests. These parts are detachable and lifting the wheelchair by them may cause damage to the chair or injury to the user.

## **1-5. POWER DRIVE ATTACHMENTS**

Karman Healthcare Inc. standing wheelchair does not advocate the use of power drive attachments on any XO series wheelchair. Use of a power drive attachment on a XO series wheelchair alters its intended use. Installation of a power drive attachment is considered an alteration to the frame and voids the warranty.

## **1-6. MODIFICATIONS**

Making any unauthorized modifications or using parts not supplied by Karman Healthcare Inc., or any change to the wheelchair structure might make it an unsafe and will void the warranty.

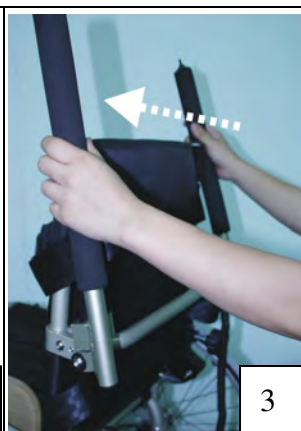
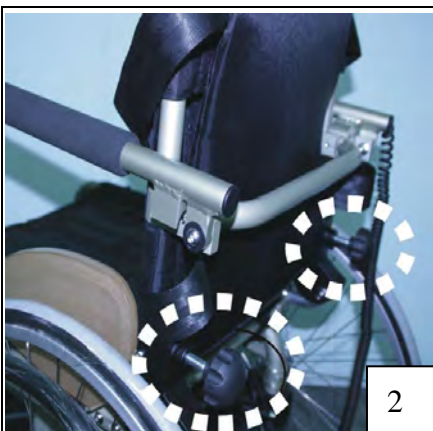
## Chapter 2. UNPACKING AND PREPARING THE STANDING WHEELCHAIR XO SERIES FOR USE

### 2-1. THE ORIGINAL PACKAGE CONTAINS THE FOLLOWING COMPONENTS.

- Standing wheelchair W/ Heel strap & chest belt
- Knee Support
- Charger
- Pump
- Oil pot
- User manual and tool for adjustments
- Option as ordered

### 2-2. UNFOLDING THE STANDING WHEELCHAIR, PLEASE PROCEED AS FOLLOWS:

- Remove any transport straps or transport guards.
- Grasp the wheelchair at the backrest and pull backward and push downward up to stop. ( Fig-1 )
- Tighten the knob of left and right. ( Fig-2 )
- Press the flip-back Armrest forward. ( Fig-3 )
- Connect the DC power cord to power socket of battery. ( Fig-4 )



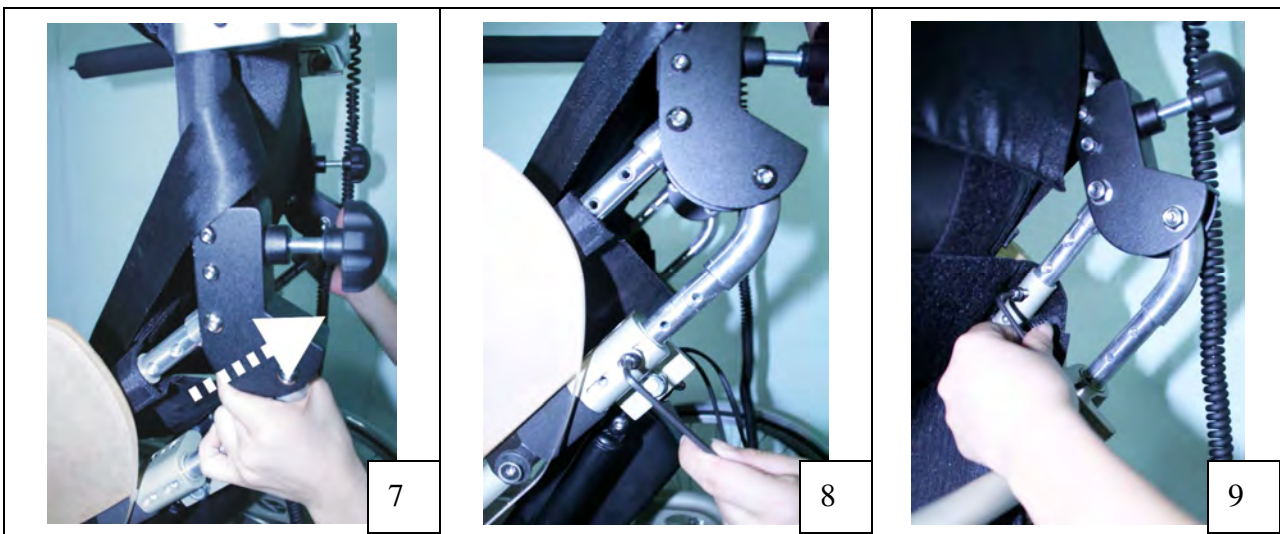
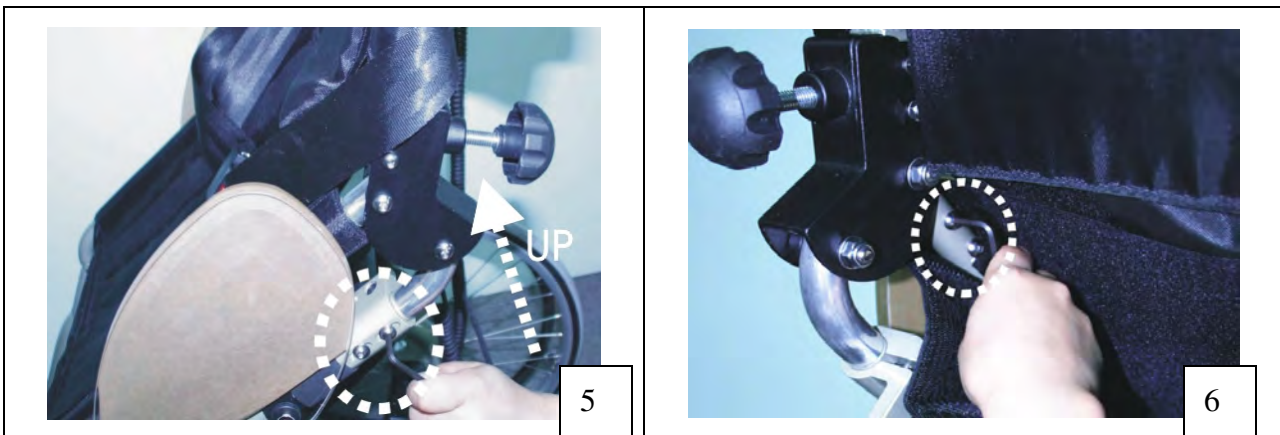
Power Socket

## Chapter 3. ADJUSTMENT

Should you require adjustments and alterations to the mechanism of the wheelchair, or any maintenance work, please contact qualified technicians.

### 3-1. ADJUSTING THE SEAT DEPTH

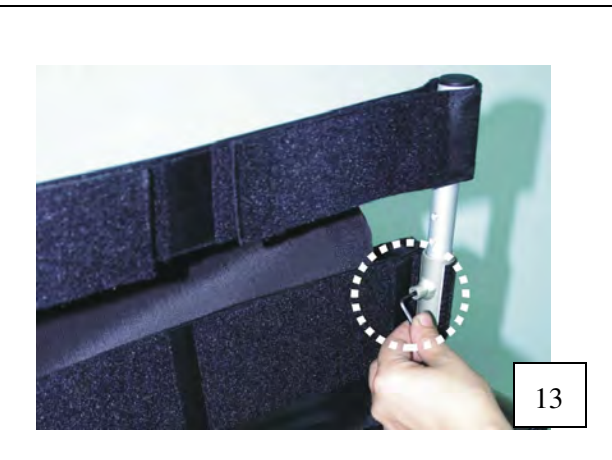
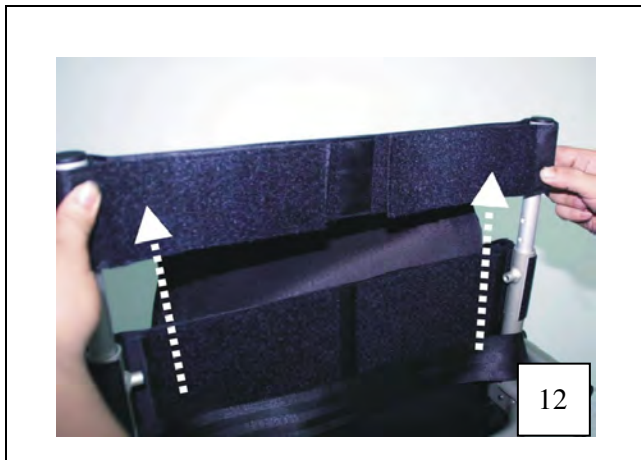
- (1) Pull upward or push forward on the handle controller, let the wheelchair frame rise over the rear wheel.
- (2) After loosening the screws on both sides the seat depth can be adjusted using the various holes at 1" increments. (Fig-5~7)
- (3) Retighten the screws on both sides. (Fig-8&9)





### 3-2. ADJUSTING THE BACKREST HEIGHT ( Fig-10~13 )

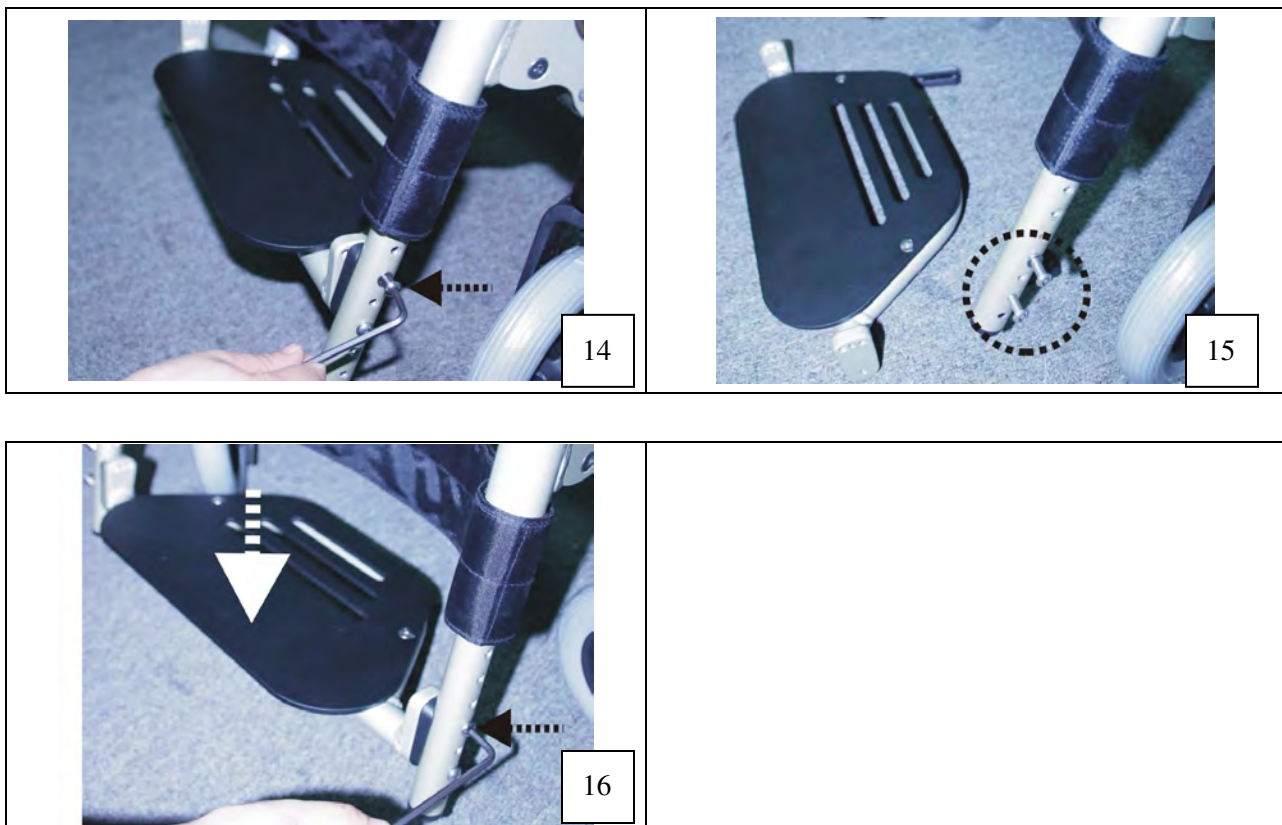
- (1) Remove the padded backrest.
- (2) After opening the screws, the backrest height can be adjusted in 2 cm increments.
- (3) Retighten the screws.





### 3-3. ADJUSTING THE FOOTREST HEIGHT

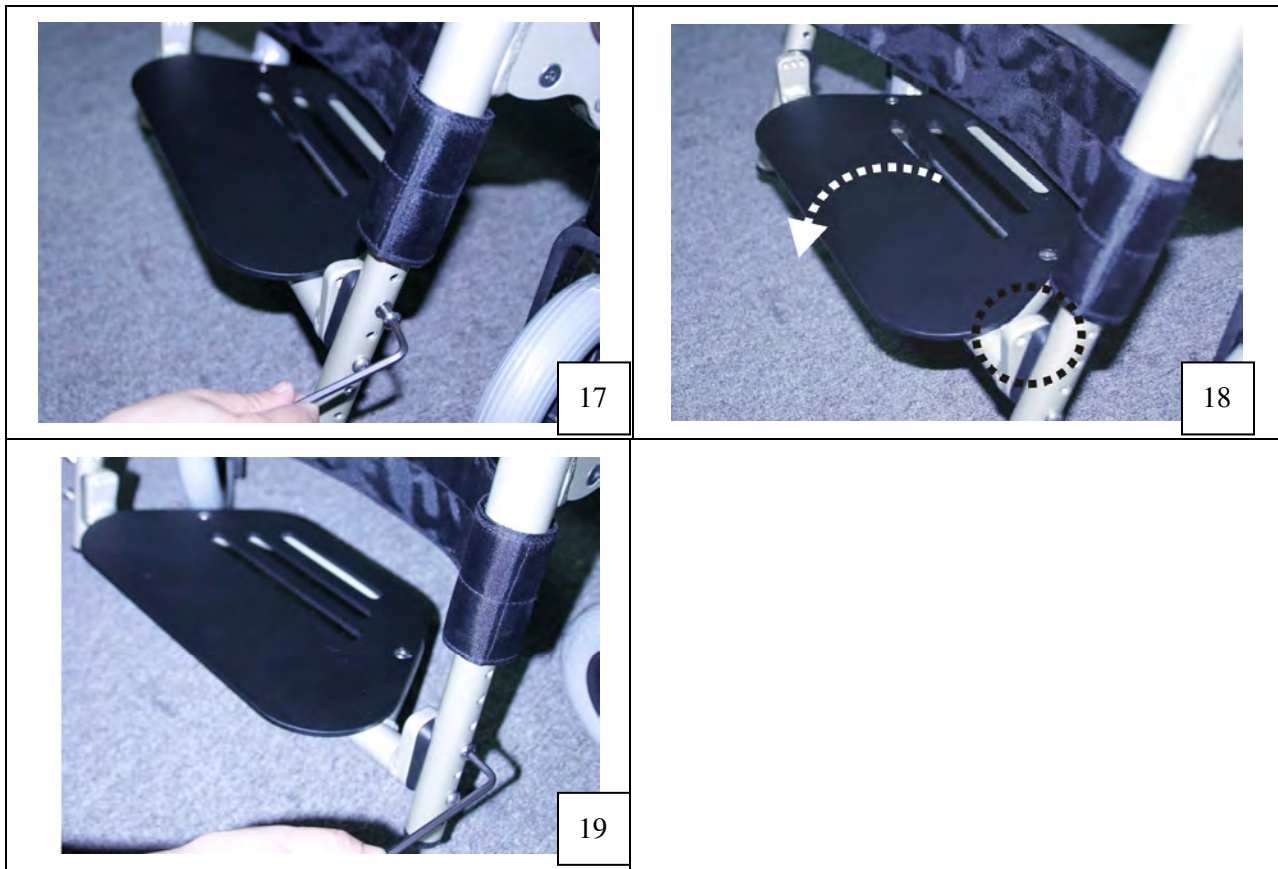
The height of the footrest is adjustable and should be altered in line with your body proportions to guarantee the best standing position possible. Footrest adjustment should also take account of your choice of seat cushion. ( Fig-14~16 )



- After loosening the screws the footrest height can be adjusted using the various holes at ~3/4” increments.
- Retighten the screws.

### 3-4. ADJUSTING THE FOOTREST ANGLE

- After release the screws the footplate angle can be adjusted using the different hole at 10° incline angle. ( Fig-17&18 )
- Retighten the screws. ( Fig-19 )

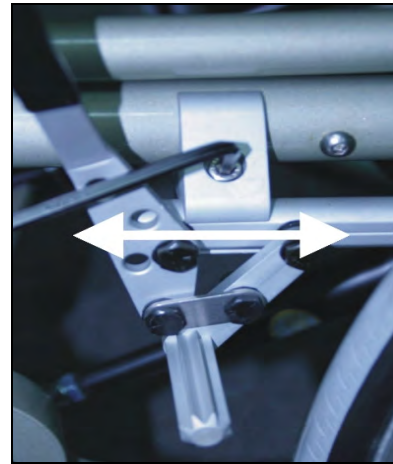


### 3-5. ADJUSTING THE WHEEL LOCK

#### Note:

Make sure pneumatic tires are properly inflated ( level listed on tire side wall ) before adjusting the wheel locks.

- Loosen the socket head cap screw on the top of the clamp. Slide the mounting bar forward or backward and rotate it to the correct angle position. The knurl should be embed into the tire approximately 5/16” when in the locked position. ( Fig-20 )
- Make sure to retighten the socket head cap screw.



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### 3-6. THE KNEE SUPPORT AND SAFETY BELT AND CHEST BELT

**The most important safety features of the stand-up wheelchairs are the knee support & safety belt and chest belt. It is absolutely essential that these be correctly in place before you attempt to stand up.**

#### 3-6-1. THE KNEE SUPPORT

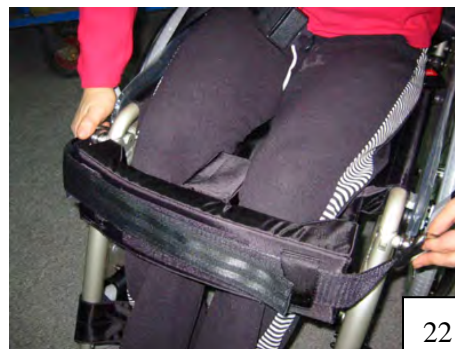
The knee support holds the knees in an extended posture and prevents you slipping out the wheelchair while standing up.

Attach the two triangular form of the knee lock support to the double-head screws on either side of the wheelchair. ( Fig-21 )



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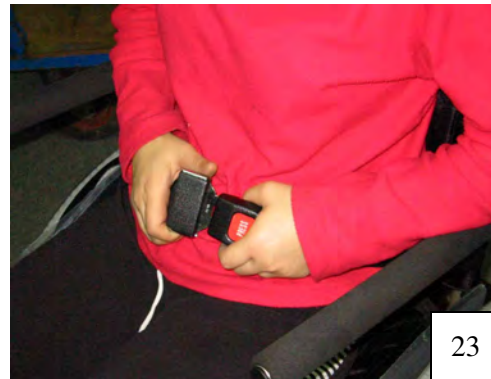
Center the knee support in front of each knee using the Velcro fasteners, then pull it until it is sitting firmly in place, just below the knee cap. ( Fig-22 )



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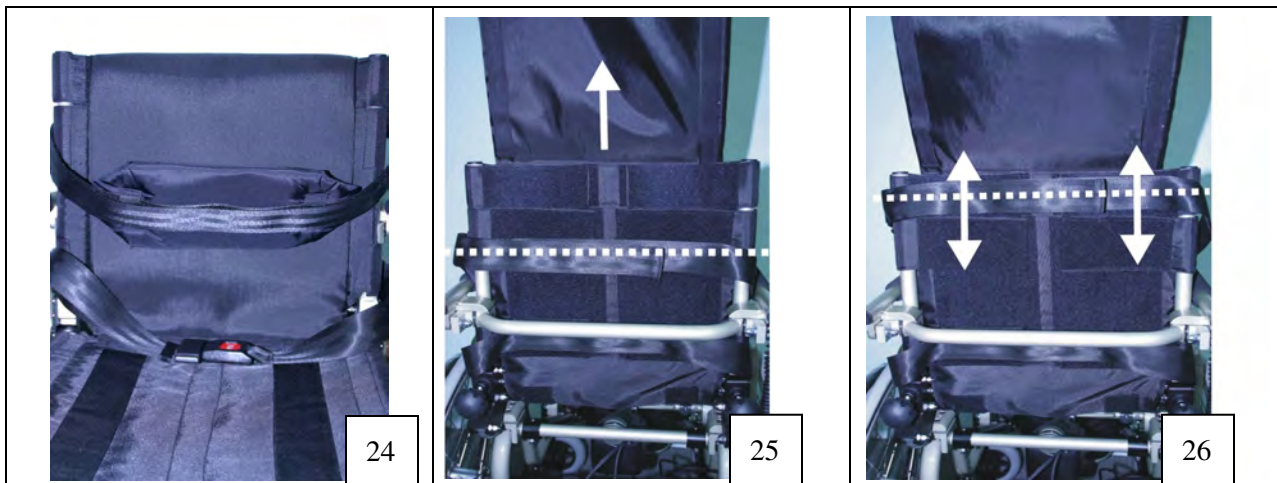
### 3-6-2. THE SAFETY BELT ( Fig-23 )

- The safety belt holds the waist in place.
- Make sure that the safety belt is secure on the backrest of Velcro fasteners.
- To release the safety belt. Simply press the red button in the center of the catch.
- To slacken, hold the catch at a right angle to the belt and pull.



### 3-6-3. ADJUSTING THE CHEST BELT ( Fig-24~26 )

- Make sure that the chest belt is secure on the backrest of Velcro fasteners.
- The chest belt is to hold the upper body (chest) in place.

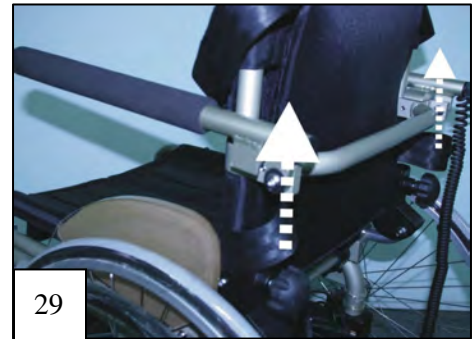
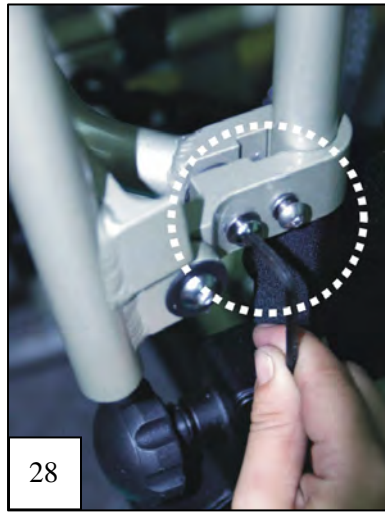
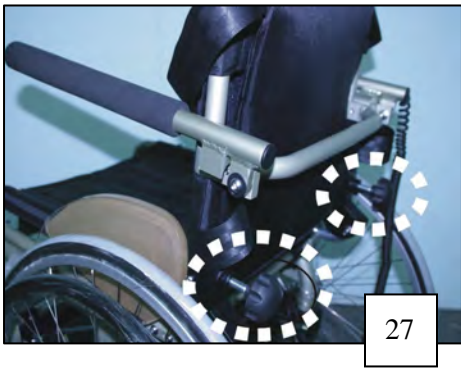


### 3-7. ADJUSTING THE ARMREST HEIGHT

- (1) Release the knobs ( left& right ) ( Fig-27 )
- (2) Release the left & right screws on the clamp, adjusting the clamp to suit position(height 7''~10'')(Fig-28&29)



(3) Retighten the screws of clamp.



## FOLDING THE BACKREST

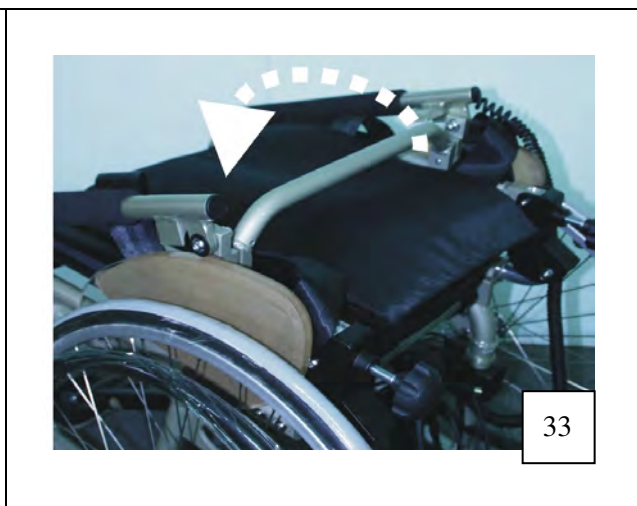
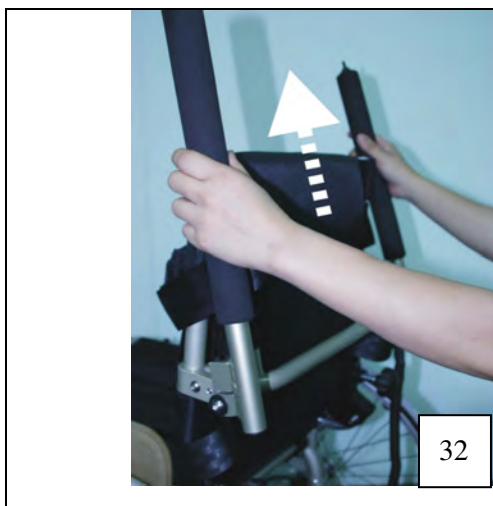
● Release the knobs. (Fig-30)



● Pull the flip-back armrest upward (Fig-31)

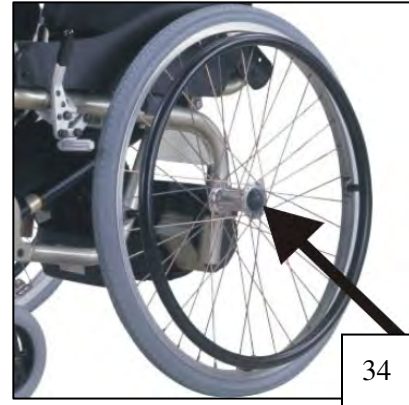


● Grasp the wheelchair at the backrest and pull upward and then push forward up to stop (Fig-32&33)



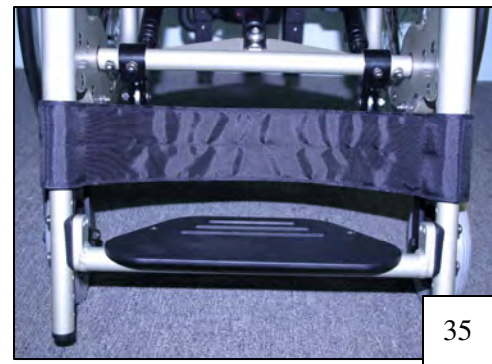
### 3-8. THE QUICK RELEASE REAR WHEELS

- The quick-release axles, the rear wheels can be easily removed and set back on place ( Fig-34 )
- Depress the release button in the center of the wheel, then pull outward or re-mount the wheel.
- Having mounted the wheel, push and pull it several times to ensure the quick-release axle has definitely locked in.



### 3-9. THE HEEL STRAP ( Fig-35 )

The purpose of the heel strap is to prevent the legs and/or feet slipping backwards. It is fitted behind the heels or higher. By making use of the Velour fastening it is possible to alter the length of the strap and thus to ensure the ideal position for the feet on the footrest. Ideal positioning of the feet is vital in ensuring a good standing position.



### 3-10. GAS SPRING

The gas springs are specially designed to help hold your body weight in the balance.

**Note: Contents under pressure. Do not take apart puncture apply heat or fire.**

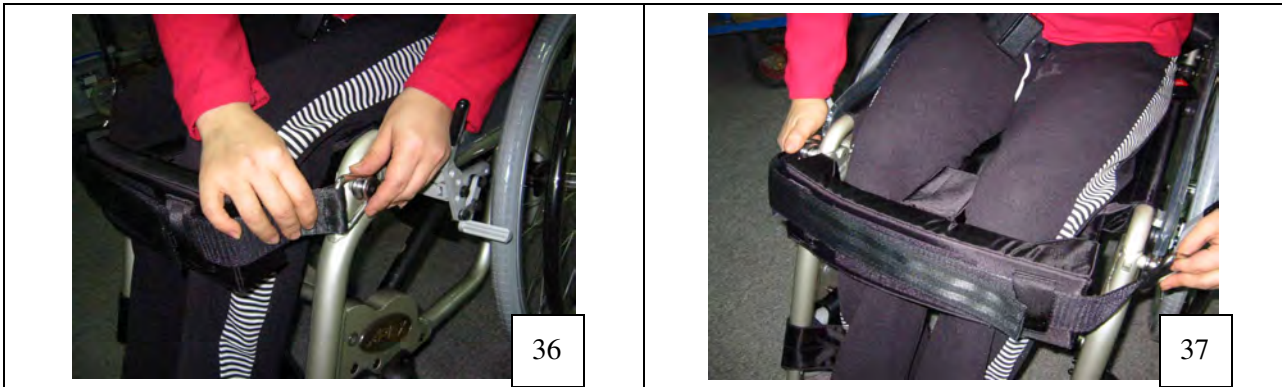
### 3-11. THE SEAT CUSHION

The Velcro fasteners fitted to the surface of your seat should allow you to attach the majority of set cushions securely. The Velcro fasteners prevent the cushion from slipping out of place even when you are standing up. The height of the footrest should be adjusted to take into account the height of a given seat cushion.

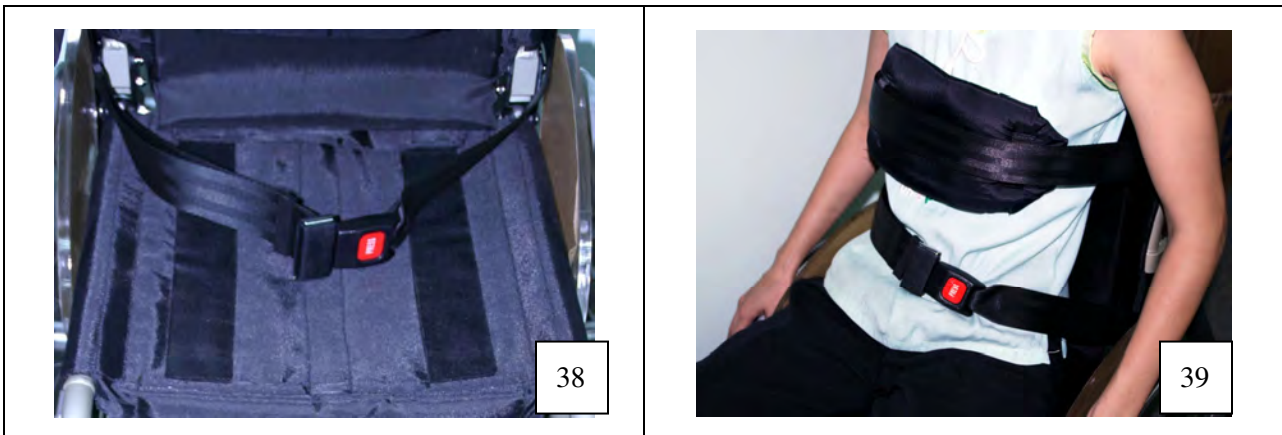
**\*\*Once you are certain these are complete your ready to stand up!**

## Chapter4. OPERATING THE STANDING AND SITTING FUNCTIONS

1. First, adjust and fix the knee support to suit position and make sure the two triangular form of knee support lock to the double-head screws of frame. ( Fig-36&37 )



2. Fix and lock in the safety belt. ( Fig-38 )
3. Fix and strap on the chest belt. ( Fig-39 )



4. Pull upward on the joystick button of the wheelchair controller to operate the standing up function.
5. Push downward the joystick button of the wheelchair controller to operate the sitting down function.

### Note:

- Please make sure your hand is not under the stand up mechanism.

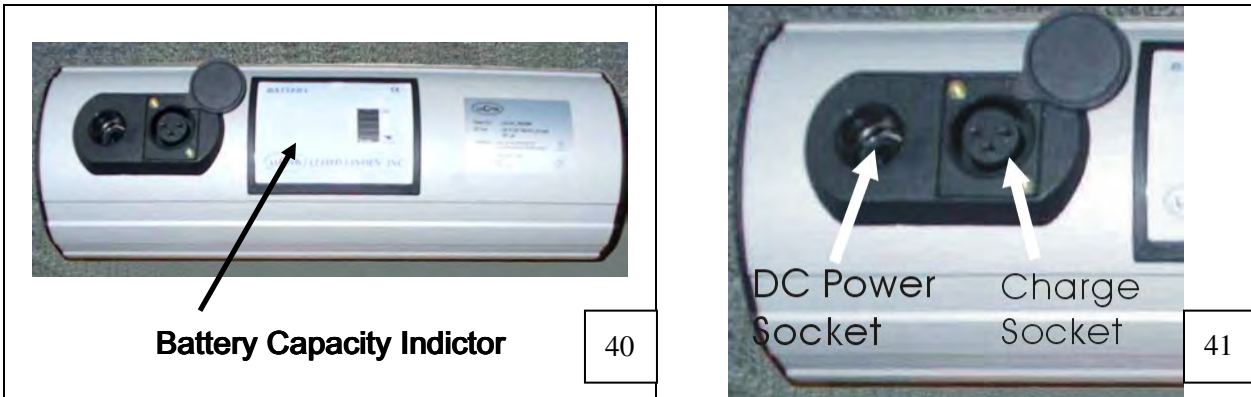


## Chapter 5. CONTROL SYSTEM

### 5-1. BATTERY AND CONTROL BOX CONNECTION

The main electrical control system is composed of motor, control box, battery and controller.

Connect the power cord of control box to the battery. ( Fig-40&41 )



### 5-2. BATTERY CHARGE ( Fig-42 )

1. First, connect the battery charge cords to the battery DC power socket and make sure the cord is securely connected.
2. Connect the AC power cord to the AC socket. ( 100~240V )
3. Make sure to fully charge your battery every time, not charging it completely will cause the lifespan of this battery to diminish faster.

Battery capacity indicator color	Power condition
Green	Full power
Yellow	Low power
Red	Empty power

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### The buzzers for Battery Capacity & Controller

<b>Battery</b>				
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<b>power indicator color</b>	<b>Battery Capacity</b>	<b>Controller</b>	<b>Sound of buzzer</b>
<b>Green</b>	Full power	Switch ON	Sound short 1 times
	Full power	Switch OFF ( Not using over 30 min )	Sound short 1 times
<b>Yellow</b>	Low power	⊙Switch ON	Sound short 1 times
	Low power	⊙ Switch OFF ( Not using over 30 min )	Sound short 1 times
	Empty power	⊙Control mode ⊙Switch can only Push downward (Safety mode)	Sound short continue for control time
<b>Red</b>	Empty power	Shut down ( Must charge immediately )	Sound long 1 time and continuous sound short 5 times

**Note :**

If the energy indicator is yellow consider charging the battery immediately. If for any reason you happen to be standing up without any power left, charge for approximately 5 minutes to be able to operate the sit down function.

**Attention:**

- 1. Battery can complete ~250 cycles (depending on weight and condition of the battery)**
- 2. New battery must be charged over 8 hours.**
- 3. Used battery must be charged up to 8 hours (depending on use)**
- 4. Charge your battery from the battery charger provided by manufacturer only.**

**Chap**

- When cleaning your **XO series** use a dry or slightly moistened cloth to wipe the wheelchair down. For stubborn or oily stains, apply a mild detergent to the cloth. Do not hose down your **XO series** with water.
- According to frequency of use, check tire pressure between once a week and once a month. If necessary, pump up the tires in line with manufacturer’s recommendations.
- Check the state of the tread on the tires every one to six months. If a tire is heavily or unevenly worn, it should be replaced.
- Every one to six months, check that the brakes still work smoothly. Having applied the brakes, the

wheels should stop turning completely. If the brakes are ineffective, they should be tightened up.

- According to frequency of use, lubricate the joint between one a week and once a month.  
( Fig-43~45 )



- Lower limbs joint contracture (absolute contra-indication)
- Instability on lower extremity joints
- Severe abnormal reflex (Lower extremities withdraw reflex)
- Severe abnormal reflex (Lower extremities withdraw reflex)
- Total hip replacement (THR) and total knee replacement(TKR)
- Severe osteoporosis on lower extremities
- Severe postural hypotension

## Warranty

<u>Frame</u>	<u>Electrical</u>	<u>Parts</u>
3 Years	1 Year	6 Months

1. Structural frame components including platform, fork, seat post and frame welds are warranted, to the original owner
2. To present a claim, Customer shall deliver the defective part for exchange or repair if possible to an Authorized Karman provider.
3. This warranty is for the replacement or repair, at the option of Karman Healthcare Inc., of defective parts only and does not cover any labor charges including, but not limited to, charges incurred for installation of replacement parts or additional fees, which may be imposed by Karman Healthcare Inc.
4. All warranty replacement parts are under warranty from the date of purchase of the original “product” and not from the date of part replacement.
5. This warranty is valid and enforceable only on “products” purchased in the United States and from a Karman provider.
6. This warranty is applicable only to the customer as an original purchaser of the “product” from an Authorized Karman