XL 5
XL 5 pediatric
XL RF

PHYSIPRO

Owner's Manual

This booklet contains important information about this product.
Please give to owner upon delivery.

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Owner's Manual: XL5 and XL RF

Folding manual wheelchair

Physipro Inc. is proud to count you among its customers and would like to thank you for the confidence you have shown by purchasing our product.

This owner's manual was created to provide you with all the information needed to allow you to use our product in a safe and optimal way. For all adjustments and settings, we strongly recommend you contact your distributor.

Physipro Inc relieves itself of all liability should physical injury or property damage occur due to the lack of maintenance or misuse of our product, or from modifications made to the product without the prior written consent of Physipro Inc.

For Physipro Inc. your satisfaction is our highest priority.

Product information:
Purchase date:
Serial number:
Distributor:
Address:
Telephone:

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1. Device Plan

XL5

The XL5 folding manual wheelchair with a lightweight aluminum frame provides remarkable versatility and adaptability. The numerous adjustments ensure a personalized postural support throughout the occupant's changing needs and clinical conditions. Also known for its legendary sturdiness, the XL5 optimizes manual propulsion and facilitates daily transfers to ensure the occupant's autonomy.

Designed to meet the specific needs of each individual, the XL5 stands out with its various optional components and adjustments. With a low seat-to-floor height of 11½" (280 mm), the lowest in the industry, the XL5 facilitates foot propulsion and is an excellent choice for shorter individuals.

Developed for individuals weighing 265 lbs or less, the XL5 can be used by adults or elderly clients, who are experiencing a loss in mobility or have a medical condition.

It is primarily meant for use in long-term care facilities, public or private retirement homes or wheelchair accessible private housing. Use in a controlled outdoor environment is also possible.

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Standard Components– XL5

The standard components provided with the XL5 wheelchair are shown in the picture below.

XL5 - Standard Components	
A	Sling seat with tension adjustment
B	Sling backrest
C	Straight back post, with angle and height adjustment
D	Push-handles with grip covers
E	Multi-layered or injected foam seat, flat or contoured, with a minimum thickness of 5.1 cm (2"), including a removable, water-repellant and machine washable outer cover.
F	"T" type armrest, desk length
G	Armrest foam pad, desk length, flat
H	Swivelling legrest bracket, inward or outward
I	Folding footplate, standard dimension, without angle adjustment
J	Propulsion wheel, any diameter

K	Fixed-mounted wheel axle
L	Semi-solid propulsion wheel tire, any diameter
M	Caster wheel with semi-solid tire, any diameter
N	Caster fork with height-adjustment
O	Wheel lock, push-to-lock
P	Handrims
Q	Pelvic positioning belt
R	Anti-tip device
S	Tie-down strap securement points for adapted transport

Optional Components – XL5

Physipro Inc. offers a vast selection of accessories and options to ensure that each wheelchair can be customized to the specific needs of the occupant. For more information, please contact Physipro Inc. or consult the order form.

XL5 – Substitutional Components
Sling backrest with tension adjustment
Back post, 8º bend, with angle and height adjustment
Dynamic backrest
"T" type armrest, full length, removable
"U" type armrest, desk length, flip-back and removable
"U" type armrest, full length, flip-back and removable
Armrest foam pad, full length, flat
Armrest foam pad, shaped
Armrest gel pad, waterfall style
Elevating and articulating legrest
Folding footplate, without angle and depth adjustment, oversized
Folding footplate, with angle and depth adjustment, standard size
Folding footplate, with angle and depth adjustment, oversized
Quick-release propulsion wheel axle
Pneumatic propulsion wheel tire, standard pressure, any diameter
Wheel lock, pull-to-lock
Plastic coated handrims

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XL5 - Add-on Components
Clothing guard
Calf support with flat or profiled padding, with angle, depth, and height adjustments
Calf strap with padding, single
Calf strap with padding, double
Adjustable heel support strap
Folding tension bar
Headrest mounting fixture for tension bar
Headrest support, with angle, depth, and height adjustment
Padded headrest, curved, any size
Front bumper
Reflective safety stickers
Extension plates for amputee
Spoke-guard
Wheel lock handle extension, telescopic or fixed
Mag wheel

XL5 – Other Optional Components
One-arm propulsion mechanism
Cane holder, single or double
Oxygen tank holder

XL RF

Le The XL RF folding manual wheelchair features a reinforced lightweight aluminum frame and double crossbar and provides remarkable versatility with its numerous adjustments. The XL RF guarantees a personalized postural support throughout the occupant's changing needs and clinical conditions. Also known for its legendary sturdiness, the XL RF optimizes manual propulsion and facilitates daily transfers to ensure the occupant's autonomy.

Designed to meet the specific needs of each individual, the XL RF stands out with its various optional components and adjustments. With a low seat-to-floor height of 11½" (280 mm), the lowest in the industry, the XL RF facilitates foot propulsion and is an excellent choice for shorter individuals.

Developed for individuals weighing 350 lbs or less, the XL RF can be used by adults or elderly clients, who are experiencing a loss in mobility, episodes of spasticity or have a medical condition.

It is primarily meant for use in long-term care facilities, public or private retirement homes or wheelchair accessible private housing. Use in a controlled outdoor environment is also possible.

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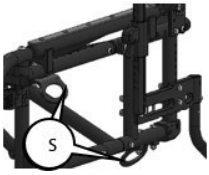
Standard Components– XL RF

The standard components provided with the XL RF wheelchair are shown in the picture below.



XL RF - Standard Components	
A	Sling seat with tension adjustment
B	Sling backrest
C	Straight back post, with angle and height adjustment
D	Push-handles with grip covers
E	Multi-layered or injected foam seat, flat or contoured, with a minimum thickness of 5.1 cm (2''), including a removable, water-repellant and machine washable outer cover.
F	"T" type armrest, desk length
G	Armrest foam pad, desk length, flat
H	Swivelling legrest bracket, inward or outward
I	Folding footplate, standard dimension, without angle adjustment
J	Propulsion wheel, any diameter
K	Fixed-mounted wheel axle
L	Semi-solid propulsion wheel tire, any diameter
M	Caster wheel with semi-solid tire, any diameter
N	Caster fork with height-adjustment
O	Wheel lock, push-to-lock
P	Handrims
Q	Pelvic positioning belt
R	Anti-tip device
S	Tie-down strap securement points for adapted transport

Optional Components– XL RF

Physipro Inc. offers a vast selection of accessories and options to ensure that each wheelchair can be customized to the specific needs of the occupant. For more information, please contact Physipro Inc. or consult the order form.

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XL RF – Substitutional Components
Rigid seat
Sling backrest with tension adjustment
Back post, 8º bend, with angle and height adjustment
"T" type armrest, full length, removable
"U" type armrest, desk length, flip-back and removable
"U" type armrest, full length, flip-back and removable
Flip-back "L" type armrest
Armrest foam pad, full length, flat
Tubular armrest foam pad
Armrest foam pad, shaped
Armrest gel pad, waterfall style
Elevating and articulating legrest
Folding footplate, without angle and depth adjustment, oversized
Folding footplate, with angle and depth adjustment, standard size
Folding footplate, with angle and depth adjustment, oversized
Full width folding footplate
Quick-release propulsion wheel axle
Propulsion wheel with anti-puncture device
Pneumatic propulsion wheel tire, standard pressure, any diameter
Pneumatic propulsion wheel tire, high pressure, any diameter
Pneumatic caster wheel tire, standard pressure, any diameter
Wheel lock, pull-to-lock
One-arm wheel lock
Plastic coated handrims
Vertical or oblique projection handrim
Anti-skid handrim
Ergonomic handrim (Natural fit)
One-arm propulsion mechanism

XL RF - Add-on Components
Clothing guard
Calf support with flat or profiled padding, with angle, depth, and height adjustments
Calf strap with padding, single
Calf strap with padding, double
Adjustable heel support strap
Folding tension bar
Headrest mounting fixture for tension bar
Headrest support, with angle, depth, and height adjustment
Padded headrest, curved, any size
Front bumper
Reflective safety stickers
Multiadjustable amputee support
Spoke-guard
Wheel lock handle extension, telescopic or fixed
Mag wheel

XL RF– Other Optional Components
Dynamic backrest
Folding tension bar with headrest mounting fixture
Cane holder, single or double
Oxygen tank holder

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2. Technical Specifications

XL5

TECHNICAL SPECIFICATIONS	
Manufacturer	Physipro Inc.
Model	XL5 -Folding manual wheelchair
Maximum load capacity	265 lbs (120 kg)

MEASUREMENT OF SEATING AND WHEEL DIMENSIONS	
Seat Plane angle **Method of measurement:** **Part 1: ISO 7176-7, section 7.3.2**	0° to 10°
Effective seat depth **Method of measurement:** **Part 2: ISO 7176-7, section 7.3.3**	14'' to 22'' (355 mm to 560 mm)
Effective seat width **Method of measurement:** **Part 4: ISO 7176-7, section 7.3.5**	14'' to 20'' (355 mm to 505 mm)
Seat surface height at front edge **Method of measurement:** **Part 5: ISO 7176-7, section 7.3.6**	Front height: 11 ½'' to 21'' (292 mm to 530 mm) Rear height: 11 ½'' to 19 ½'' (292 mm to 492 mm) Adjustable in increments of ½''
Backrest angle **Method of measurement:** **Part 6: ISO 7176-7, section 7.3.7**	Standard Back Post (Straight or 8º Bend): 85º to 120º Adjustable in increments of 5º
Backrest height **Method of measurement:** **Part 7: ISO 7176-7, section 7.3.8**	Standard Back Post: 16'' to 25'' (405 mm to 635 mm) Adjustable in increments of 1''
Footrest to seat distance **Method of measurement:** **Part 11: ISO 7176-7, section 7.3.12**	60º Footrest: 11 ¼'' to 21'' (280 mm to 530 mm) 70º Footrest: 10 ¾'' to 20 ½'' (255 mm to 508 mm) 90º Footrest: 10 ½'' to 20 ½'' (254 mm to 508 mm) Adjustable in increments of ½''
Leg to seat surface angle **Method of measurement:** **Part 15: ISO 7176-7, section 7.3.16**	60°, 70°, 90°
Armrest height **Method of measurement:** **Part 16: ISO 7176-7, section 7.3.17**	T-type Armrest: 7'' to 14'' (178 mm to 355 mm) U-type Armrest: 7'' to 16 ½'' (178 mm to 406 mm) Adjustable in increments of ½''
Caster/front wheel diameter **Method of measurement:** **Part 27: ISO 7176-7, section 7.3.28**	5'' (127 mm), 6'' (152 mm), 7'' (178 mm) and 8'' (203 mm)
Handrim diameter **Method of measurement:** **Part 23: ISO 7176-7, section 7.3.24**	Wheel: 20'' (508 mm) : Handrim: 17 ⅞'' (432 mm) Wheel: 22'' (559 mm) : Handrim: 19 ⅛'' (483 mm) Wheel: 24'' (610 mm) : Handrim: 21 ¼'' (533 mm)
Horizontal displacement of wheel axle **Method of measurement:** **Part 25: ISO 7176-7, section 7.3.26**	Adjustment range: 3'' (76 mm), Adjustable in increments of ¼''

DETERMINATION OF DIMENSIONS AND MANOEUVRING	
Overall length **Method of measurement:** **ISO 7176-5, section 8.2**	Effective seat depth + 23'' (585 mm)*
Overall width **Method of measurement:** **ISO 7176-5, section 8.3**	Effective seat width + 8 ½'' (203 mm)*
Stowage length (folded) **Method of measurement:** **ISO 7176-5, section 8.5**	Overall length – 10 ¼'' (255 mm)**
Stowage width (folded) **Method of measurement:** **ISO 7176-5, section 8.6**	Overall width – 14'' (355 mm)**
Ground clearance **Method of measurement:** **ISO 7176-5, section 8.14**	1'' (25 mm)**
Turning diameter **Method of measurement:** **ISO 7176-5, section 8.13**	58 ¾'' (1473 mm)
Reversing width **Method of measurement:** **ISO 7176-5, section 8.12**	N/A
Pivot width **Method of measurement:** **ISO 7176-5, section 8.11**	46 ½'' (1168 mm)
Push handle height	37'' (940 mm)
Required width of angled corridor	38 3/16'' (970 mm)
Required doorway entry depth	49 ¼'' (1251 mm)
Required corridor width for side opening	32 11/16'' (830 mm)
Anti-tip lift height (Rising)	2'' (50 mm)

* May vary depending on the selected options - footrest included.

** Legrest not included for stowage or ease of transportation.

*** Based on the lowest setting of the anti-tip devices.

WHEELCHAIR MASS	
Wheelchair total mass **Method of measurement:** **BNQ 6645-001, table 10, line 10**	37,7 lbs (17,14 kg)

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DETERMINATION OF FORWARD STATIC STABILITY	
Tipping angle of wheelchair in the least stable configuration, with caster wheels unlocked **Method of measurement: ISO 7176-1, section 8.2**	18,3°
Tipping angle of wheelchair in the least stable configuration, with caster wheels locked **Method of measurement: ISO 7176-1, section 8.3**	N/A

DETERMINATION OF REARWARD STATIC STABILITY	
Tipping angle of wheelchair in the least stable configuration, with propulsion wheels unlocked **Method of measurement: ISO 7176-1, section 9.2**	18,6°
Tipping angle of wheelchair in the least stable configuration, with propulsion wheels locked **Method of measurement: ISO 7176-1, section 9.3**	14,4°

DETERMINATION OF SIDEWAYS STATIC STABILITY	
Tipping angle of wheelchair in the least stable configuration, left side **Method of measurement: ISO 7176-1, section 10.2**	20°
Tipping angle of wheelchair in the least stable configuration, right side **Method of measurement: ISO 7176-1, section 10.2**	20°

DETERMINATION OF STATIC STABILITY OF ANTI-TIP DEVICES	
Rearward tipping angle of wheelchair in the least stable configuration **Method of measurement: ISO 7176-1, section 11.2**	21,1°
Forward tipping angle of wheelchair in the least stable configuration **Method of measurement: ISO 7176-1, section 11.2**	N/A
Do anti-tip devices prevent rearward tipping? **Méthode de mesure : ISO 7176-1, article 11.4**	Yes
Do anti-tip devices prevent forward tipping? **Method of measurement: ISO 7176-1, section 11.4**	N/A
Active stability control system	N/A

DETERMINATION OF EFFECTIVENESS OF WHEEL LOCKS	
Maximum slope angle, uphill **Method of measurement: ISO 7176-3, section 7.2**	12,3°
Maximum slope angle, downhill **Method of measurement: ISO 7176-3, section 7.2**	10,1°

REQUIREMENTS AND TEST METHODS FOR STATIC, IMPACT AND FATIGUE STRENGHTS
The XL5 wheelchair has successfully passed all ISO certifications and test related to Static, Impact and Fatigue strengths requirements. The XL5 wheelchair complies with the requirements of ISO-7176-8.

RESISTANCE TO IGNITION OF POSTURAL SUPPORT DEVICES (SEAT, BACKREST, ARMREST, FOOTREST KIT)
The XL5 wheelchair is equipped with postural support devices (seat, backrest, armrest, footrest kit) that are composed with a combination of fabrics and foams that comply to the test requirements of CAL-117, except for the « Mercury » fabric, that has not received CAL- 117 certification. However, the « Mercury » fabric has passed the match test (FR test Match lighting) and cigarette test (FR test EN 1021-1 cigarette test).

WHEELCHAIR FOR USE AS A SEAT IN A MOTOR VEHICLE	
Declaration that this wheelchair model conforms with the requirements of ISO 7176-19 andis designed to be used in a forward-facing position when used as a seat in a motor vehicle.	
Types of tie-downs that are suitable for the wheelchair (four-point strap type tie-downs, wheel clamps, other types of docking systems, etc.)	Four-point strap type tie-downs. For more information, please consult theTransport section of this manual.
Declaration that this wheelchair comes equipped with securement points that are fixed to the frame and has successfully passed the testing requirements of ISO 7176-19.	The XL5 wheelchair is equipped with securement points that are fixed to the frame, meeting the requirements of ISO/DIS 7176-19:2019 and has successfully passes a frontal impact crash test with a medium sized, 76.3 kg (170 lbs) crash test dummy. For more information, please consult the Transport section of this manual.
Rating of the ease of use of the motor vehicle's three-point seat belt as required by ISO 7176-19, section 5.5.a.	Excellent
Rating to the degree to which the use of the motor vehicle's three-point seat belt adequately secures the occupant as required by ISO 7176-19, section 5.5.b.	Excellent
Never remove the tie-down strap securement points that secure your wheelchair to a motor vehicle. If the tie-down strap securement points are removed, they cannot be replaced, andyour wheelchair will no longer comply with ISO/DIS 7176-19:19. For more information, please consult the Transport section of this manual.	
Note that ease of access and maneuverability in a motor vehicle can be greatly diminished by the size of the wheelchair, and a smaller turning diameter generally facilitate access to the vehicle and maneuverability in a forward-facing position. For more information, please consult the Transport section of this manual.	
Use as a seat in a motor vehicle	Yes. For more information, please consult the Transport section of this manual.

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XL RF

TECHNICAL SPECIFICATIONS	
Manufacturer	Physipro Inc.
Model	XL RF -Folding manual wheelchair
Maximum load capacity	350 lbs (159 kg)
MEASUREMENT OF SEATING AND WHEEL DIMENSIONS	
Seat Plane angle **Method of measurement:** **Part 1: ISO 7176-7, section 7.3.2**	0° to 10°
Effective seat depth **Method of measurement:** **Part 2: ISO 7176-7, section 7.3.3**	14'' to 22'' (355 mm to 560 mm)
Effective seat width **Method of measurement:** **Part 4: ISO 7176-7, section 7.3.5**	16'' to 24'' (405 mm to 610 mm)
Seat surface height at front edge **Method of measurement:** **Part 5: ISO 7176-7, section 7.3.6**	Front height: 11 ½'' to 21'' (292 mm to 530 mm) Rear height: 11 ½'' to 20 ½'' (292 mm to 508 mm) Adjustable in increments of ½''
Backrest angle **Method of measurement:** **Part 6: ISO 7176-7, section 7.3.7**	Standard Back Post (Straight or 8º Bend): 85º to 120º Dynamic Back Post (Straight or 8º Bend): 85 º à 110 º Adjustable in increments of 5 º
Backrest height **Method of measurement:** **Part 7: ISO 7176-7, section 7.3.8**	Standard Back Post: 12'' to 25'' (305 mm to 635 mm) Dynamic Back Post: 14 ¾'' to 27 ¾'' (356 mm to 686 mm) Adjustable in increments of 1''
Footrest to seat distance **Method of measurement:** **Part 11: ISO 7176-7, section 7.3.12**	60º Footrest: 11 ¼'' to 21'' (280 mm to 530 mm) 70º Footrest: 10 ¾'' to 20 ½'' (255 mm to 508 mm) 90º Footrest: 10 ½'' to 20 ½'' (254 mm to 508 mm) Adjustable in increments of ½''
Leg to seat surface angle **Method of measurement:** **Part 15: ISO 7176-7, section 7.3.16**	60°, 70°, 90°
Armrest height **Method of measurement:** **Part 16: ISO 7176-7, section 7.3.17**	T-type Armrest: 7'' to 14'' (178 mm to 355 mm) U-type Armrest: 7'' to 16 ½'' (178 mm to 406 mm) L-type Armrest: 8'' to 14'' (200 mm to 330 mm) Adjustable in increments of ½''
Caster/front wheel diameter **Method of measurement:** **Part 27: ISO 7176-7, section 7.3.28**	5'' (127 mm), 6'' (152 mm), 7'' (178 mm) and 8'' (203 mm)
Handrim diameter **Method of measurement:** **Part 23: ISO 7176-7, section 7.3.24**	Wheel: 20'' (508 mm) : Handrim: 17 ⅞'' (432 mm) Wheel: 22'' (559 mm) : Handrim: 19 ⅛'' (483 mm) Wheel: 24'' (610 mm) : Handrim: 21 ¼'' (533 mm) Wheel: 26'' (660 mm) : Handrim: 23 ⅜'' (584 mm)
Horizontal displacement of wheel axle **Method of measurement:** **Part 25: ISO 7176-7, section 7.3.26**	Adjustment range: 3'' (76 mm), Adjustable in increments of ¼''

DETERMINATION OF DIMENSIONS AND MANOEUVRING	
Overall length **Method of measurement:** **ISO 7176-5, section 8.2**	Effective seat depth + 23'' (585 mm)*
Overall width **Method of measurement:** **ISO 7176-5, section 8.3**	Effective seat width + 8 ½'' (203 mm)*
Stowage length (folded) **Method of measurement:** **ISO 7176-5, section 8.5**	Overall length – 10 ¼'' (255 mm)**
Stowage width (folded) **Method of measurement:** **ISO 7176-5, section 8.6**	Overall width – 15 ¾'' (381 mm)**
Ground clearance **Method of measurement:** **ISO 7176-5, section 8.14**	1'' (25 mm)**
Turning diameter **Method of measurement:** **ISO 7176-5, section 8.13**	65 ¼'' (1651 mm)
Reversing width **Method of measurement:** **ISO 7176-5, section 8.12**	N/A
Pivot width **Method of measurement:** **ISO 7176-5, section 8.11**	51 ½'' (1295 mm)
Push handle height	37'' (940 mm)
Required width of angled corridor	37 ⅜'' (949 mm)
Required doorway entry depth	57 ⅞'' (1470 mm)
Required corridor width for side opening	32 ¼'' (819 mm)
Anti-tip lift height (Rising)	1 ½'' (38 mm)

* May vary depending on the selected options - footrest included. Wheelchair configured with an effective seat dimension of 20'' x 18'', a seat-to-floor height of 18'' and a backrest height of 18''.

** Legrest not included for stowage or ease of transportation.

*** Based on the lowest setting of the anti-tip devices.

WHEELCHAIR MASS	
Wheelchair total mass **Method of measurement:** **BNQ 6645-001, table 10, line 10**	39 lbs (17,73 kg)

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DETERMINATION OF FORWARD STATIC STABILITY	
Tipping angle of wheelchair in the least stable configuration, with caster wheels unlocked **Method of measurement: ISO 7176-1, section 8.2**	17,9°
Tipping angle of wheelchair in the least stable configuration, with caster wheels locked **Method of measurement: ISO 7176-1, section 8.3**	N/A

DETERMINATION OF REARWARD STATIC STABILITY	
Tipping angle of wheelchair in the least stable configuration, with propulsion wheels unlocked **Method of measurement: ISO 7176-1, section 9.2**	19,4°
Tipping angle of wheelchair in the least stable configuration, with propulsion wheels locked **Method of measurement: ISO 7176-1, section 9.3**	13,2°

DETERMINATION OF SIDEWAYS STATIC STABILITY	
Tipping angle of wheelchair in the least stable configuration, left side **Method of measurement: ISO 7176-1, section 10.2**	17°
Tipping angle of wheelchair in the least stable configuration, right side **Method of measurement: ISO 7176-1, section 10.2**	17°

DETERMINATION OF STATIC STABILITY OF ANTI-TIP DEVICES	
Rearward tipping angle of wheelchair in the least stable configuration **Method of measurement: ISO 7176-1, section 11.2**	19,2°
Forward tipping angle of wheelchair in the least stable configuration **Method of measurement: ISO 7176-1, section 11.2**	N/A
Do anti-tip devices prevent rearward tipping? **Méthode de mesure : ISO 7176-1, article 11.4**	Yes
Do anti-tip devices prevent forward tipping? **Method of measurement: ISO 7176-1, section 11.4**	N/A
Active stability control system	N/A

DETERMINATION OF EFFECTIVENESS OF WHEEL LOCKS	
Maximum slope angle, uphill **Method of measurement: ISO 7176-3, section 7.2**	13,7°
Maximum slope angle, downhill **Method of measurement: ISO 7176-3, section 7.2**	10,1°

REQUIREMENTS AND TEST METHODS FOR STATIC, IMPACT AND FATIGUE STRENGHTS
The XL RF wheelchair has successfully passed all ISO certifications and test related to Static, Impact and Fatigue strengths requirements. The XL RF wheelchair complies with the requirements of ISO-7176-8.

RESISTANCE TO IGNITION OF POSTURAL SUPPORT DEVICES (SEAT, BACKREST, ARMREST, FOOTREST KIT)
The XL RF wheelchair is equipped with postural support devices (seat, backrest, armrest, footrest kit) that are composed with a combination of fabrics and foams that comply to the test requirements of CAL-117, except for the « Mercury » fabric, that has not received CAL- 117 certification. However, the « Mercury » fabric has passed the match test (FR test Match lighting) and cigarette test (FR test EN 1021-1 cigarette test).

WHEELCHAIR FOR USE AS A SEAT IN A MOTOR VEHICLE	
Declaration that this wheelchair model conforms with the requirements of ISO 7176-19 andis designed to be used in a forward-facing position when used as a seat in a motor vehicle.	
Types of tie-downs that are suitable for the wheelchair (four-point strap type tie-downs, wheel clamps, other types of docking systems, etc.)	Four-point strap type tie-downs. For more information, please consult theTransport section of this manual.
Declaration that this wheelchair comes equipped with securement points that are fixed to the frame and has successfully passed the testing requirements of ISO 7176-19.	The XL RF wheelchair is equipped with securement points that are fixed to the frame, meeting the requirements of ISO/DIS 7176-19:2019 and has successfully passes a frontal impact crash test with a large sized, 100 kg (220 lbs) crash test dummy. For more information, please consult the Transport section of this manual.
Rating of the ease of use of the motor vehicle's three-point seat belt as required by ISO 7176-19, section 5.5.a.	Excellent
Rating to the degree to which the use of the motor vehicle's three-point seat belt adequately secures the occupant as required by ISO 7176-19, section 5.5.b.	Excellent
Never remove the tie-down strap securement points that secure your wheelchair to a motor vehicle. If the tie-down strap securement points are removed, they cannot be replaced, andyour wheelchair will no longer comply with ISO/DIS 7176-19:19. For more information, please consult the Transport section of this manual.	
Note that ease of access and maneuverability in a motor vehicle can be greatly diminished by the size of the wheelchair, and a smaller turning diameter generally facilitate access to the vehicle and maneuverability in a forward-facing position. For more information, please consult the Transport section of this manual.	
Use as a seat in a motor vehicle	Yes. For more information, please consult the Transport section of this manual.

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3. Recommendations

WARNING
Do not use this equipment without having read and understood this owner's manual in its entirety. This booklet contains essential information and instructions to ensure the safety of the occupant and any other individual who is near the wheelchair.

Safety Inspection Checks

A thorough inspection of the wheelchair should be completed upon delivery, as well as, at the intervals indicated in the Maintenance Checklist, to ensure the wheelchair occupant's safety.

- ✓ Verify upon delivery, that the wheelchair is assembled with all the components selected in the order form and that no parts are missing or damaged.
- ✓ Verify that the wheelchair rolls smoothly and functions normally.
- ✓ Make sure all parts operate without abnormal noises, vibrations, or irregular movements. The presence of one of these conditions may indicate that the propulsion wheels are deflated, that a part is not adequately fastened or that the wheelchair has sustained damage.
- ✓ Make sure the propulsion wheels and caster wheels are firmly attached and that no object interferes with their functional performance.
- ✓ Make sure tire pressure is adequate (with pneumatic tire option).
- ✓ Verify that wheel locks function effectively.
- ✓ Make sure anti-tips are securely attached and function as intended.
- ✓ Verify that both the seat and the backrest are stable and securely attached to the frame.
- ✓ Make sure armrests are securely fastened and locked in place.
- ✓ Make sure footrests are adequately adjusted and securely fastened.
- ✓ Make sure the belt is firmly fixed to the frame and are adjusted to properly fit the occupant.
- ✓ Ensure that no heavy object is attached to the backrest.

Safety Guidelines

Several safety measures must be taken to ensure the safety of the occupant and the individuals who are near the wheelchair. The following list is not exhaustive. It is the responsibility of every individual to remain cautious in all actions undertaken.

- ✓ Never use a wheelchair without adequate tire pressure (with pneumatic tire option).
- ✓ Do not attempt to reach for an object, if you must lean forward, sideways, or backwards.
- ✓ Never attempt to surmount a tall obstacle, changes in height will affect the stability of the wheelchair.
- ✓ Never transport more than one person in a wheelchair.
- ✓ Never attach objects to the backrest, except those provided with the wheelchair.
- ✓ Never attempt to tilt the wheelchair without assistance.
- ✓ Never use the footrest as a platform, during a transfer or when attempting to lift oneself.
- ✓ Never use detachable or removable parts to lift wheelchair. Always use the rigid parts of the frame when lifting the wheelchair.
- ✓ Be careful not to pinch your fingers when installing a wheelchair component or using a removable part.
- ✓ To ensure your safety onboard adapted transport, it is essential to use the wheelchair's identified securement points along with the vehicle's Transport Canada approved restraint system.
- ✓ Always be aware of your environment. Taking a few moments to familiarize yourself with your surroundings, before using your wheelchair in a new environment, will allow you to avoid obstacles and potential dangers.
- ✓ When attempting a new manoeuvre, if you are uncertain about the safest way to proceed, it is important to ask for assistance to ensure your safety.
- ✓ Physipro Inc. strongly recommends the use of anti-tips. Anti-tips improve safety by helping to prevent the wheelchair from accidentally tipping over, therefore reducing the risk of falling and sustaining injuries.

WARNINGS WHEN ASSISTING A WHEELCHAIR OCCUPANT

- ✓ Always communicate your intentions to the occupant before moving their wheelchair.
- ✓ Never move a wheelchair occupant without ensuring they are well seated and secured in their wheelchair to prevent falls.
- ✓ Never move a wheelchair occupant without ensuring that their feet are correctly positioned on the footplates. This will keep the occupant's feet out of the way of the wheels, and from inadvertently getting caught under the wheelchair when it is pushed, which could result in injuries or falls.

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General Warnings

Getting to know your wheelchair

- Each wheelchair is unique and thereby requires an initial period of adaptation. To ensure the safe use of your wheelchair, we recommend that you follow the instructions provided by your occupational therapist and allow yourself the necessary time to become familiar with the different features and characteristics of your wheelchair.
- Start with simple movements, such as leaning forward, grasping an object, and performing a transfer. Do not hesitate to ask for assistance, especially during the adaption period. Once you have determined the limits of your wheelchair, you will be able to develop your own techniques.

Maximum load capacity

- Never exceed the maximum load capacity. The maximum load capacity is for the combined weight of the occupant and the items being carried. Exceeding the maximum load capacity increases the risk of losing control of your wheelchair, tipping over, or falling and may result in serious injury to the occupant or other individuals and may damage the wheelchair. (The maximum load capacity of your wheelchair is indicated in the Technical Specifications section).
- Never transport more than one person in a wheelchair. The wheelchair was designed for one person only.

Surrounding environment

- This wheelchair was designed for use on smooth surfaces such as asphalt, concrete, or interior flooring. Do not use your wheelchair on rough terrain or unstable surfaces like sand, mud, snow, or ice. Manoeuvring the wheelchair in these conditions, increases the risk of losing control, tipping over, or falling and may result in serious injury to the occupant or other individuals and may damage the wheelchair.
- Be extremely cautious when you must move on a wet or icy surface. If in doubt of the safest way to proceed, do not hesitate to ask for assistance.
- Never use your wheelchair in a swimming pool, a shower or other watery area.
- Avoid exposing your wheelchair to excess moisture. For example, do not leave your wheelchair in the bathroom while taking a shower or a bath.
- Always dry your wheelchair if wet or after cleaning.
- Avoid exposing your wheelchair to extreme temperatures to prevent hypothermia (frostbite) or burns. The surfaces of the wheelchair can become frigid when exposed to cold temperatures or burning hot if left in excessive heat or direct sunlight.

Sports and weight training

- Our wheelchairs are not designed for use during the practice of sports or weight training. Weightlifting may damage the wheelchair by exceeding the maximum load capacity and will void the warranty.

Street use

Physipro Inc. wheelchairs are designed primarily for residential use. Use on public roads is strongly discouraged. If you must use your wheelchair on a public road, the following warnings and precautions must be observed.

- Be aware that because of the low position of your wheelchair, motorists may have difficulty seeing you. It is therefore important to always establish eye contact with the driver before moving in a parking lot or on a public road. Always yield to the motorist if you are not sure of their intentions.
- Reflective safety stickers are available as an option. These stickers must be affixed to the wheelchair by the occupant or an attendant if you plan to use your wheelchair at night or in poor lighting conditions. Wearing reflective clothing is also advised.
- When moving on a public road, be extremely careful and pay close attention to the dangers and obstacles on the road, such as potholes and uneven or cracked surfaces.
- Never engage on roads with heavy traffic.

Assisting a wheelchair occupant

- Check with a qualified professional on the best methods and techniques to adopt to safely assist a wheelchair occupant.
- Ensure that the push handles are well-adjusted and securely fastened. Inspect the handle grip covers, the grip covers should not slide on the push handles and must not show signs of wear and tear.
- Always engage wheel locks when occupant is left alone.
- Never use detachable or removable parts to lift the wheelchair, these parts may detach and cause injury to the occupant or yourself. Always use the rigid parts of the frame to lift the wheelchair.
- Always maintain a good posture when lifting or tilting the wheelchair. Remember to keep your back straight and to bend your knees when lifting.
- Always communicate your intentions to the occupant before moving their wheelchair.
- Never move a wheelchair occupant without ensuring they are well seated and secured in their wheelchair to prevent falls.
- Never move a wheelchair occupant without ensuring that their feet are correctly positioned on the footplates. This will keep the occupant's feet out of the way of the wheels, and from inadvertently getting caught under the wheelchair when it is pushed, which could result in injuries or falls.

WARNING
Failure to observe these warnings and precautions increases the risk of losing control of the wheelchair, tipping over, or falling and may result in serious injury to the occupant or other individuals and may damage the wheelchair.

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Warnings: Falls and Tips

This section contains essential information to prevent the risk of falling and/or tipping. It is important to observe all the precautions and follow the instructions listed. We strongly recommend that you always fasten your pelvic positioning belt for added protection.

Changing clothes

When getting dressed, make sure that the front caster wheels are pointing forward and that the wheel locks are engaged. If the wheelchair is not equipped with anti-tips, place the back of your wheelchair against a wall.

Grabbing an item, bending over, or leaning

Be aware that the center of balance of your wheelchair will be affected when you shift your body position. Bending or leaning over to grab an item modifies your wheelchair's center of balance and decreases stability.

Certain precautions must be taken to proceed securely.

- Place your wheelchair parallel and as near as possible to the desired item, with the front caster wheels pointed forward. To correctly position the wheelchair, move your wheelchair forward, slightly beyond the item you want to obtain than move your wheelchair backwards along the item, the front caster wheels will point forward and the distance between you and the item will be reduced. Never block the propulsion wheels, doing so will create a tipping point and increase the risk of tipping over and/or falling.
- Make sure you are seated as far back as possible on your seat, with your back leaning into the backrest.
- Reach your arm out to the side to grasp the item with one hand, while keeping the opposite hand on the handrim or armrest.
- Ask for help if the item is out of reach or use a reaching aid.

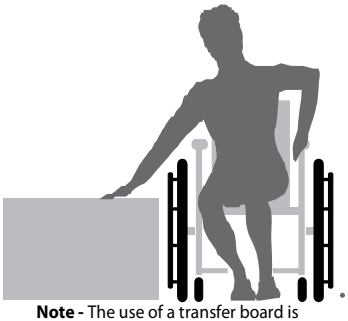
WARNING

Never attempt to grab an item that is out of reach, if you must lift yourself up, move forward on your seat, bend or lean sideways, forwards, or backwards, you will modify the center of balance of your wheelchair and increase the risk of tipping over and/or falling, which may lead to serious injury to yourself or damage the wheelchair.

Transfers

To safely transfer from one surface to another, the following procedure should be followed.

1. Position the wheelchair as close as possible to the transfer surface, with the front caster wheels pointed forward.
2. Immobilize the wheelchair by engaging wheel locks.
3. Remove the footrest or legrest.
4. Place your feet on the ground.
5. Remove or swing away the armrest and clothing guard, located on the side of the intended transfer.
6. Perform transfer.



Note - The use of a transfer board is recommended to ensure your safety.

WARNING

- It is not recommended to attempt a transfer without the help of an attendant; transferring from one surface to another requires good balance and agility. Be aware that during a transfer, there is a moment when the wheelchair is no longerunderneath you.
- Never use the footrest to lift oneself or to perform a transfer, too much pressure on the footrest may cause the wheelchair to tip forward, which may result in serious injury to the occupant or damage to the wheelchair.

Obstacles

- When in a new environment, always take a few moments to familiarize yourself with your surroundings and locate any potential obstacles that may hinder your movements. This will allow you to determine the best way to move forward safely and avoid obstacles.
- If possible, rethink your living and workspace to improve wheelchair access. Choose flooring materials that are smooth, uniform and obstacle-free. Make sure that hallways and doorways are large enough to accommodate the wheelchair and that there is enough space between furniture to easily maneuver around.
- Never use furniture, door handles or frames or any other object to pull or propel yourself.
- Never attempt to surmount a tall obstacle whose height might jeopardize the stability of the wheelchair.
- When negotiating an obstacle, always keep both hands on the handrims, with your body slightly bent forward when going up, and slightly bent backwards when going down. Doing this will help compensate for the shift in the wheelchair's center of balance.
- If your wheelchair is equipped with anti-tips, make sure to disengage them by turning them inwards, towards the center of the frame, before clearing an obstacle.

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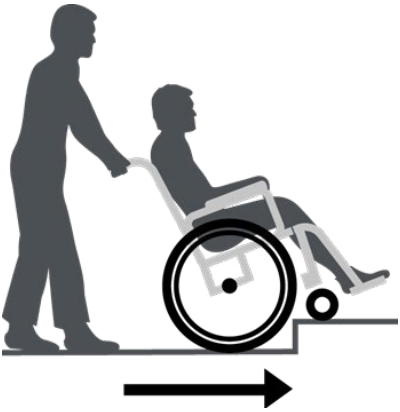
Going up a sidewalk or step

To safely go up a sidewalk or step, the help of an attendant is required, and the following procedure should be followed.

1. The attendant must disengage and rotate the anti-tips inwards, to ensure enough clearance is between the anti-tips and the raised platform.
2. The attendant must than place the wheelchair as near as possible to the platform.
3. The occupant must ensure that their belt is securely fastened, then lean back into the backrest and hold the armrests.
4. The attendant will then incline the wheelchair backwards, to lift the front caster wheels from the ground and place them onto the platform.
5. The attendant must push the wheelchair forward until the propulsion wheels are in contact with the raised platform and continue to push forward to surmount the obstacle.
6. Replace the anti-tips in their initial position.



Note - Never go up a sidewalk or step without assistance.

Going down a sidewalk or step

To safely descend a sidewalk or a step, the help of an attendant is required, and the following procedure should be followed.

1. The attendant must disengage and rotate the anti-tips inwards, to ensure enough clearance is between the anti-tips and the platform. The attendant must than place the back of the wheelchair at the edge of the platform.

2. The occupant must ensure that their belt is securely fastened, then lean back into the backrest and hold the armrests.
3. The attendant must go down the step first and then gently roll the wheelchair down the step, towards themselves, until the propulsion wheels are on lower ground.
4. The attendant must raise the front caster wheels and roll backwards until they are no longer above the raised platform and then gently place them on the lower ground.
5. Replace the anti-tips in their initial position.

Note – Never go down a sidewalk or step without assistance.

Going up or down stairs

To safely go up or down stairs, the help of two attendants is required and the following procedure should be followed.

1. Place the back of the wheelchair towards the stairs. The first attendant must stand behind the wheelchair and firmly grip the push handles, the second attendant must take hold of a fixed part of the front frame to prevent the wheelchair from rolling forward.
2. Once both attendants are in position, tilt the wheelchair back, so that the front caster wheels are raised above ground.
3. Roll the wheelchair so that the propulsion wheels are positioned at the edge of the first step and lift the wheelchair.
4. Go up or down the stairs and then gently lower the wheelchair, so that all four wheels are on the ground.

Note - The attendants must not forget to keep their backs straight and to bend their knees when lifting the wheelchair to avoid injury.

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Escalators

Never attempt to use your wheelchair on an escalator, not even with an attendant. There is a high probability that doing so will result in the loss control of your wheelchair, increasing the risk of tipping over and/or falling and may result in serious injury to the occupant or other individuals. The wheelchair may also sustain damage.

Center of balance

The center of balance can be modified by several factors. Proceed with caution in the following situations:

- When wheelchair is on an inclined surface or when surmounting an obstacle, such as sidewalk or stairs, the wheelchair will be in a tilted position and the center of balance will be affected.
- A change in posture and/or weight distribution will modify the center of balance.
- Fixing objects to the backrest will also affect the center of balance.

Moving backwards

Caution is in order when moving backwards with a wheelchair. The wheelchair is designed to offer greater stability when moving forward. Before backing up with your wheelchair, make sure the way is clear and then slowly roll the wheelchair backwards, without any abrupt movements.

Wheelies

Wheelchair wheelies are a dangerous maneuver that increases the risk of losing control of your wheelchair, tipping over and/or falling, this may also damage your wheelchair and can result in serious injury to the occupant and other individuals.

- Consult your doctor or occupational therapist to find out if you have the physical skills to safely perform a wheelie.
- Never attempt to tilt the wheelchair without assistance.

Going up or down a slope or a ramp

Certain precautions must be followed to safely go up or down a slope or a ramp.

- Do not descent or move up a slope that is steeper than 10 % (a 10% slope equals one foot in elevation for every 10 feet of horizontal distance).
- Always check your surroundings to identify any obstacles or changes in surface inclination to avoid danger.
- Be extremely cautious on wet or slippery surfaces.
- Always have an attendant behind your wheelchair when moving onto a long slope.
- Always keep your hands on the handrims when moving on a slope or a ramp, to ensure a controlled descend speed.
- Never turn or change direction on a slope or a ramp.
- An inclined surface will impact the wheelchair's center of balance and increases the risk of tipping over. You must always adjust your body position to keep a steady balance and maintain stability.
- Never stop in the middle of a steep slope.
- Never use wheel locks to slow down or stop.
- Before moving onto a ramp, make sure the wheelchair is in the center of the ramp and that the ramp is wide enough so that the wheels to not fall over the edge.

WARNING

- Always verify that the ramps used are compliant with the legal standards of your region.
- A change in surface inclination affects the effectiveness of anti-tips. Anti-tips may not be able to prevent the wheelchair from tipping over and/or falling. The occupant must adapt their body position to counteract the change in the wheelchair's center of balance.

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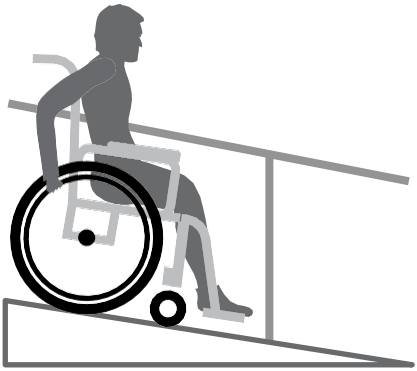
Going down a slope or a ramp

1. Lean your back into the backrest, this will help counter the shift in the center of balance caused by an inclined surface.
2. To efficiently control the speed of descent, always apply a steady pressure to the handrims by letting them slowly slip through your hands.
3. Always control the direction of your wheelchair and move in a straight line when descending slope.



Go down a slope or ramp

Going up a slope or a ramp

1. Bend your body forward, this will help counter the shift in the center of balance caused by an inclined surface.
2. The occupant must perform firm and vigorous propulsion stokes to the handrims, when moving uphill.

Go up a slope or a ramp

4. Instructions

Required tools

Our wheelchairs are designed to be easily adjusted and maintained with standard hand tools.

The following tools are required:

- Metric wrenches: two 10 mm wrenches, 12 mm and two 13mm wrenches
- Metric Allen keys: 1,5mm, 2,5mm, 3mm, 4mm and 5 mm
- Imperial wrenches: 7/16", 3/4" et 1-1/8"
- Imperial Allen keys: 1/4"
- Two 3/4" socket wrenches
- 3/4" deep socket wrench
- Phillips screwdriver

WARNING

- Never use pneumatic or electric tools, these may damage your wheelchair.

WARNING

- All modifications made to your wheelchair must be performed by a qualified technician. Failure to observe this warning may lead to serious injury to the occupant or any other individual who is near the wheelchair.
- Be careful not to pinch your fingers when installing a wheelchair component or using a removable part.

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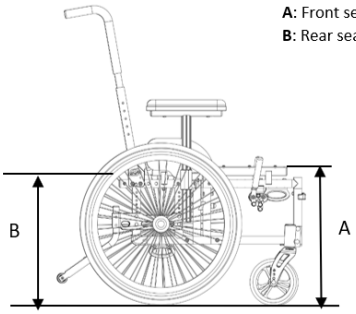
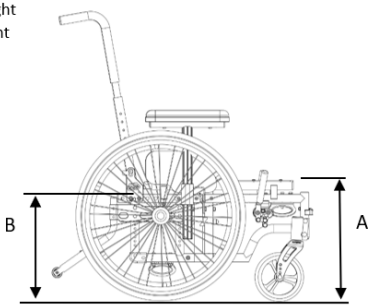
Seat-to-Floor Height

The seat-to floor height of the RAMQ approved XL5 and XL RFL wheelchairs varies depending on the seat angle, the position of the axle mounting plate, and the position and diameter of the propulsion wheels. The seat-to-floor height of the non-RAMQ approved XL5 and XL RF wheelchairs varies according to the same criteria and the type of frame selected. The seat-to-floor height should be adjusted by following the instructions below.

A: Front seat-to-floor height
B: Rear seat-to-floor height



Standard frame



HEMI frame

Determining the seat angle

The difference between the front seat-to-floor height **A** and the rear seat-to-floor height **B** will determine the seat angle.

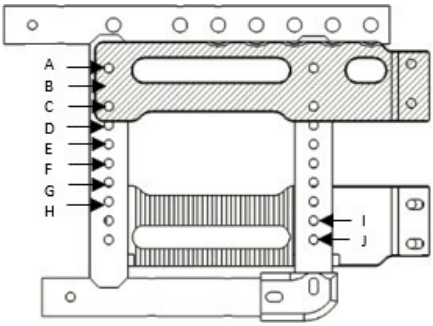
WARNING

- The seat angle should not exceed 10°. If this angle is exceeded, the stability of thewheelchair may be compromised.
- The front seat-to-floor height must be greater than or equal to the rear seat-to-floor height.

Rear seat-to-floor height

The XL5 and XL RF offers 10 seat-to-floor height adjustment positions by increments of ½".

The tables below indicate the position needed to obtain the desired seat-to-floor height, according to the chosen propulsion wheel diameter.



XL5 XLRF	Standard Frame Propulsion Wheel Diameter			
	20"	22"	24"	26"*
A	13"	14"	15"	16
B	13 ½"	14 ½"	15 ½"	16 ½"
C	14"	15"	16"	17"
D	14 ½"	15 ½"	16 ½"	17 ½"
E	15"	16"	17"	18"
F	15 ½"	16 ½"	17 ½"	18 ½"
G	16"	17"	18"	19"
H	16 ½"	17 ½"	18 ½"	19 ½"
I	17"	18"	19"	20"
J	17 ½"	18 ½"	19 ½"	20 ½"

XL5 XLRF	HEMI Frame Propulsion Wheel Diameter			
	20"	22"	24"	26"*
A	11 ½"	12 ½"	13 ½"	14 ½"
B	12"	13"	14"	15"
C	12 ½"	13 ½"	14 ½"	15 ½"
D	13"	14"	15"	16
E	13 ½"	14½"	15 ½"	16 ½"
F	14"	15"	16"	17"
G	14 ½"	15 ½"	16 ½"	17 ½"
H	15"	16"	17"	18"
I	15 ½"	16 ½"	17 ½"	18 ½"
J	16"	17"	18"	19"

*26" propulsion wheels are available with the XL RF only.

Note - These measurements are for reference only. They may vary depending on the propulsion wheel diameter, seat angle and position of the axle mounting plate.

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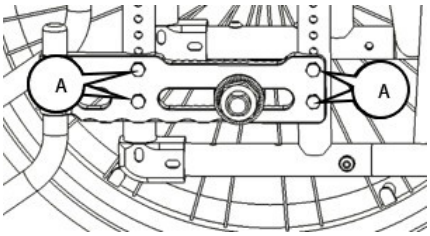
Modifying the position of the axle mounting plate

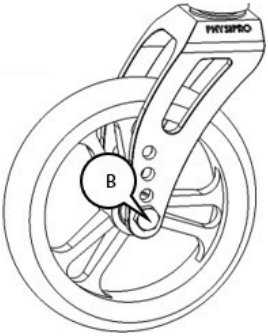
1. Remove propulsion wheels by referring to section *Removing propulsion wheels - Threaded axle* or *Removing propulsion wheels - Quick-Release axle*, depending on the type of axle installed.
2. With two 10mm wrenches, unfasten screws **A**.
3. Position the axle mounting plate and insert screws **A** into the appropriate adjustment holes to obtain the desired seat -to-floor height.
4. Tighten screws **A** firmly.
5. Reinstall propulsion wheel.



Front seat-to-floor height

Modifying the position of the caster wheel

1. With two 13 mm wrenches, unfasten bolt **B** and remove spacers if necessary.
2. Refer to the *Front Seat-to-Floor Height Configuration Table* of your frame type to determine the correct caster wheel position to obtain the desired front seat-to-floor height.
3. Position the caster wheel and insert bolt **B** with spacers into the appropriate adjustment hole.
4. Tighten bolt **B** firmly.



Note - Make sure the wheel rotates easily once the bolt has been installed.

Front Seat-to-Floor Height Configuration Tables

XL5 - XL RF
Standard Crossbar

Hemi Frame—Short Fork

	CASTER WHEEL DIAMETER			
POSITION	5"	6"	7"	8"
A				
B	13	13½		
C	13½	14	14½	
D	14	14½	15	15½

Standard Frame—Short Fork

	CASTER WHEEL DIAMETER			
POSITION	5"	6"	7"	8"
A	15½			
B	16	16½		
C	16½	17	17½	
D	17	17½	18	18½

Standard Frame—Long Fork

	CASTER WHEEL DIAMETER			
POSITION	5"	6"	7"	8"
A	18	18½	19	19½
B	18½	19	19½	20
C	19	19½	20	20½
D	19½	20	20½	21

XL5 - XL RF
Integrated Crossbar

Hemi Frame—Short Fork

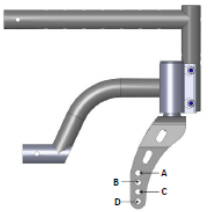
	CASTER WHEEL DIAMETER			
POSITION	5"	6"	7"	8"
A				
B	11 ½	12		
C	12	12 ½	13	
D	12 ½	13	13 ½	14

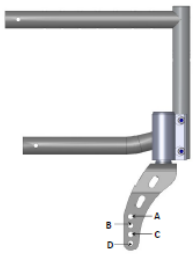
Standard Frame—Short Fork

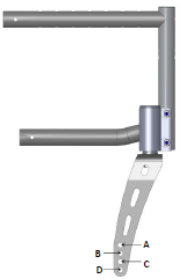
	CASTER WHEEL DIAMETER			
POSITION	5"	6"	7"	8"
A	14			
B	14 ½	15		
C	15	15 ½	16	
D	15 ½	16	16 ½	17

Standard Frame—Long Fork

	CASTER WHEEEL DIAMETER			
POSITION	5"	6"	7"	8"
A	16 ½	17	17 ½	18
B	17	17 ½	18	18 ½
C	17 ½	18	18 ½	19
D	18	18 ½	19	19 ½







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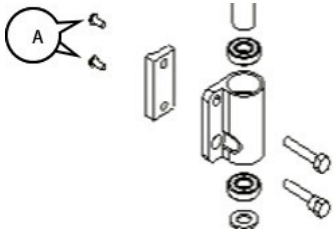
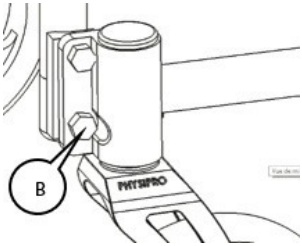
Levelling caster stem housing

This adjustment is necessary following a change in position of the caster wheel, to ensure the wheelchair moves in a linear trajectory and to facilitate manual propulsion.





1. With a 5mm Allen key, unfasten screws **A** located inside the frame.
2. Orient the eccentric hexagonal bushing **B** so that the fork is at 90° to the ground.
3. Tighten screws **A** while holding the eccentric hexagonal bushing **B** with a ½" deep socket wrench.

WARNING

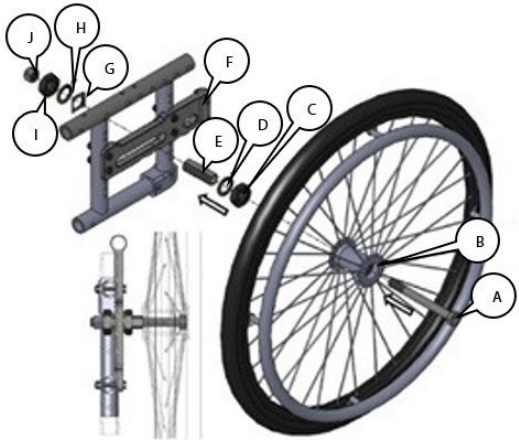
- Make sure all assembly hardware is securely tightened. Improper fastening of the assembly hardware may result in serious injury to the wheelchair occupant and may damage the wheelchair.
- Make sure both caster forks are positioned at the same height before using your wheelchair. Improper positioning of the caster forks may result in serious injury to the wheelchair occupant and may damage the wheelchair.

Propulsion Wheels

The XL5 manual wheelchair can be equipped with propulsion wheels of 20'' (500 mm), 22'' (560 mm) or 24" (610 mm).
The XL RF manual wheelchair can be equipped with propulsion wheels of 20'' (500 mm), 22'' (560 mm), 24" (610 mm) or 26" (660 mm).

Installing propulsion wheels – Threaded axle

1. Make sure the mounting plate **F** is properly positioned and securely fastened, if not, please refer to section *Modifying the position of the axle mounting plate*.
2. Insert the axle bushing **E** into the mounting plate **F** in the desired position and place the lock washer **G** on axle bushing **E**.
3. With a 1⅛" wrench, secure the axle bushing **E** in place with lock washers **D** and **H** and nuts **C** and **I**.
4. Insert axle **A** through wheel hub **B** and axle bushing **E**.
5. Tighten nut **J** with a ¾" socket wrench while holding axle **A** in place with another ¾" socket wrench.



Note – To ensure ease-of-installation and adjustment, we recommend that you place your wheelchair on a flat surface, such as a table or workbench.

Removing propulsion wheels – Threaded axle

1. Loosen nut **J** with a ¾" socket wrench while holding axle **A** with a ¾" another socket wrench.
2. With a 1⅛" wrench, unfasten nut **I** and remove lock washer **H** and lock washer **G**.
3. With a 1⅛" wrench, unfasten nut **C** and remove lock washer **D**.
4. Remove axle **A** from axle bushing **E** and wheel hub **B**.

WARNING
After all adjustments or the reinstallation of the propulsion wheels, it is essential that the stability of the wheelchair be verified. Adjustments to the front caster wheels, the wheel locks and the anti-tips may be necessary. Horizontal repositioning of the propulsion wheels as well as, repositioning of the seat and backrest may also be required. These adjustments must be performed by a qualified technician.

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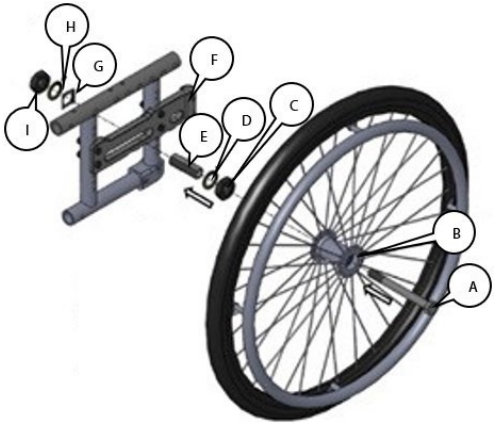
Installing propulsion wheels – Quick-Release axle

1. Make sure the mounting plate **F** is properly positioned and securely fastened, if not, please refer to section *Modifying the position of the axle mounting plate*.
2. Insert the axle bushing **E** into the mounting plate **F** in the desired position and place the lock washer **G** on axle bushing **E**.
3. With a 1⅛" wrench, secure the axle bushing **E** in place with lock washers **D** and **H** and nuts **C** and **I**.
4. Insert axle **A** through wheel hub **B** and axle bushing **E**.

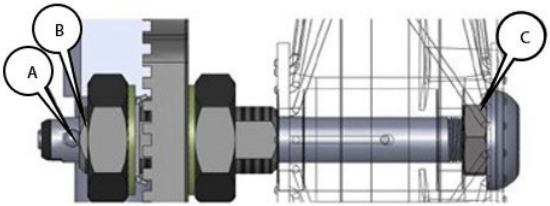


Note - Before using your wheelchair, it is important to adjust the Quick-release axle.

Adjusting the Quick-Release axle

Adjusting the quick-release axle is necessary if the propulsion wheels do not rotate easily or if irregular movement is observed.

To adjust the quick-release axle, tighten or loosen nut **C** with a 3/4" wrench while holding the tip of the axle in place with a 7/16" wrench. Make sure retaining balls **A** project completely out from the axle bushing **B**.



WARNING

- After all adjustments or reinstallation of the propulsion wheels, always make sure the retaining balls of the quick release axle project completely out from the axle bushing and that the tip of the ball lock pin is perfectly aligned with the tip of the axle before using your wheelchair.

WARNING

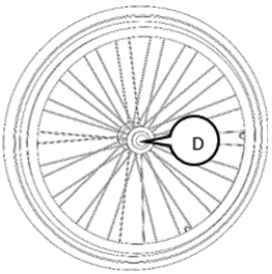
- Keep quick-release axles clean and free of dust or lint to ensure its proper operation. Lubricate if necessary.
- Always make sure the wheels are securely locked before using your wheelchair, an unlocked wheel may detach during use if not properly secured and can result in a fall.

Using the Quick-Release axle

Available as an option with the XL5 and XL RF wheelchairs, the Quick-Release Axle can be installed to facilitate the removal and installation of the propulsion wheels.

Removal of the wheels can be done in three easy steps.

1. Disengage wheel locks. Depending on the type of wheel lock installed, either push or pull the handle to disengage wheel locks.
2. Press down on the quick-release button **D** at the center of the wheel.
3. Hold button **D** down and remove the wheel by pulling outwards.

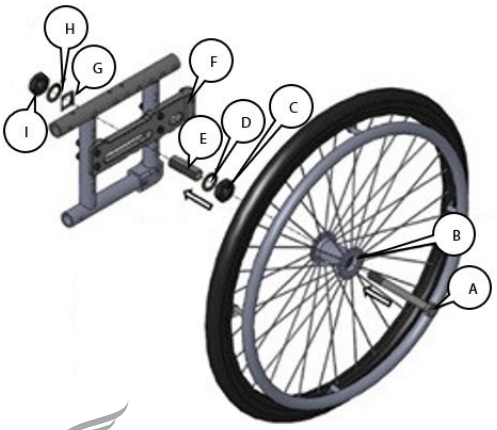


To reinsert wheel, hold button **D** down and reinsert axle.

Note - Make sure retaining balls project completely out from the axle bushing and the tip of the ball lock pin is aligned with the tip of the axle before using your wheelchair.

Removing propulsion wheels – Quick-Release axle

1. With a 1⅛" wrench, unfasten nut **I** and remove lock washer **H** and lock washer **G**.
2. With a 1⅛" wrench, unfasten nut **C** and remove lock washer **D**.
3. Remove axle **A** from axle bushing **E** and wheel hub **B**.



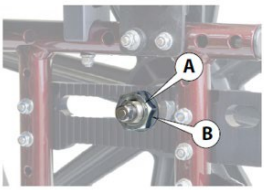
WARNING
After all adjustments or the reinstallation of the propulsion wheels, it is essential that the stability of the wheelchair be verified. Adjustments to the front caster wheels, the wheel locks, the anti-tips and the propulsion wheel's mounting block may be necessary. Repositioning of the seat and backrest may also be required. These adjustments must be performed by a qualified technician.

Propulsion wheel horizontal positioning

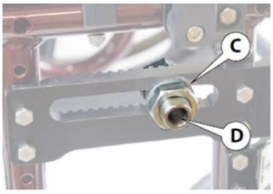
The horizontal position of the propulsion wheel directly affects the wheelchair's stability. Placing the propulsion wheel toward the front, has the disadvantage of reducing wheelchair stability but has the advantage of facilitating propulsion. Finding the right position to maximize stability and ease of use is essential. To accommodate the needs of each individual, both the XL5 and XL RF wheelchairs provide 13 horizontal positions.

Follow these steps to adjust the horizontal position of the propulsion wheel.

1. Remove the propulsion wheel. Depending on the type of axle installed, refer to section *Removing Propulsion Wheels – Threaded Axle* or *Removing Propulsion Wheels – Quick-Release Axle*.
2. With a 1⅛" wrench, untighten nut **A** to loosen washer **B** and lock washer **C**.
3. Move axle bushing **D** along the mounting plate slot until correctly positioned and place lock washer **C** and washer **B**.
4. With a 1⅛" wrench, tighten nut **A** firmly.
5. Reinstall propulsion wheel.



Interior View



Exterior View


Foremost Wheel Position

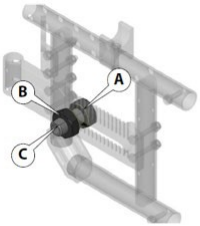

Rearmost Wheel Position

Propulsion wheel lateral positioning

This modification is used to move the propulsion wheels closer or further from the frame.

Follow these steps to adjust the lateral position of the propulsion wheel.

1. Remove the propulsion wheel. Depending on the type of axle installed, refer to section *Removing Propulsion Wheels – Threaded Axle* or *Removing Propulsion Wheels – Quick-Release Axle*.
2. With a 1⅛" wrench, loosen or tighten nuts **A** and **B** to move axle bushing **C** inwards or outwards.
3. Once axle bushing **C** is correctly positioned, tighten nuts **A** and **B** firmly.
4. Reinstall propulsion wheel.



Propulsion Wheel
Lateral Positioning


Wheel Position
Closer to the frame


Wheel Position
Furthest from the frame

WARNING
After adjustments are made, make sure all assembly hardware is firmly tightened, otherwise injury or damage may occur.

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Pneumatic tires (option)

If your wheelchair is equipped with pneumatic tires the following steps should be followed to install the inner tube and inflate the tires securely.

Installing the inner tube

1. Before installing an inner tube, make sure the rim and the inside of the tire are clean.
2. Inflate the inner tube slightly.
3. Position the inner tube valve through the hole in the rim.
4. Insert the inner tube inside the tire.

Note - Make sure to properly position the inner tube on the rim and inside the tire. The inner tube must not be twisted or stick out of the tire.

Inflating the tire

1. Look on the outer tire for the recommended pressure.
2. Connect pump to inner tube valve.
3. Inflate tire, using a pressure gauge to regularly check tire pressure. Do not exceed the recommended tire pressure.

Note - Tire pressure can vary from one manufacturer to another, always check the recommended air pressure indicated on the outer tire.

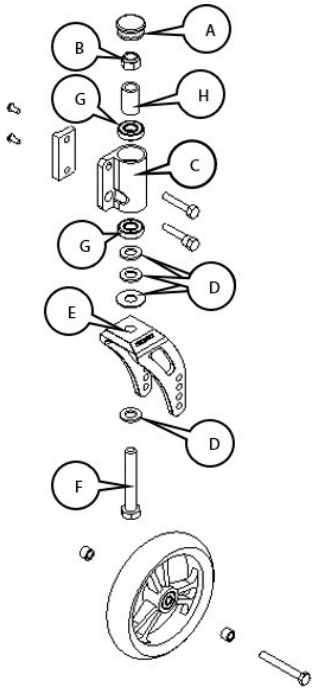
WARNING

- Never use a wheelchair without properly inflate tires, the recommended tire pressure is indicated on the outer tire.
- Check tire pressure weekly, as recommended in the *Maintenance Checklist*.
- Overinflated tires can burst, while under inflated tires can deform. Tire deformation can cause the wheel locks to slip and allow the wheel to spin unexpectedly, this can potentially lead to a loss of control of your wheelchair.
- Proper inflation will extend the lifespan of your tires and improve ease-of-use.

Front Casters

The XL5 and XL RF wheelchairs can be equipped with polyurethane caster wheels and are available in diameters of 5" (127 mm), 6" (152 mm), 7" (178 mm) or 8" (203 mm) with a width of 1" (25 mm), 1¼" (32 mm) or 1 ½" (38 mm). Pneumatic caster wheels are also available in diameters of 6"or 8" (150 or 200 mm) with a width of 1¼" (32 mm).

Assembling and installing the front caster fork



1. Insert ball bearings **G** and sleeve **H** inside the caster stem housing **C**.
2. Place one washer **D** on bolt **F**.
3. Slide bolt **F** through fork **E** and place the remaining washers **D** on bolt **F**.
4. Insert fork assembly (**F**, **E** and **D**) inside the caster stem housing **C**.
5. With a ¾" wrench and a ¾" socket wrench fasten nut **B**.
6. Replace cap **A** on the caster stem housing **C**.

Note - Make sure the casters forks are securely attached and that they swivel easily. If not, loosen nut **B** slightly.

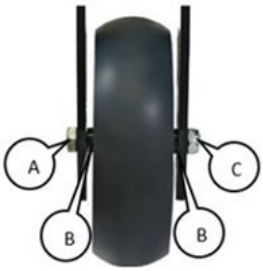
ENGLISH

Installing caster wheels

1. Determine the correct position of the caster wheel (see section *Front Seat-to-Floor Height*).

2. Insert screw **A** in the appropriate adjustment hole with spacers **B** placed in between the caster wheel and the fork.

3. Install nut **C** onto screw **A** and tighten with two 13mm wrenches.



Note - Once tightened, make sure the wheel rotates easily.

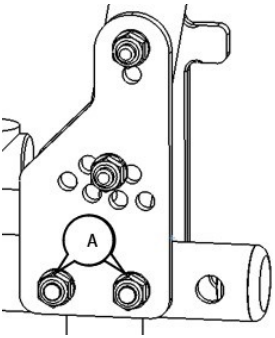
WARNING

- Changing a front caster wheel for a wheel with a different width may require replacing the fork.
- After changing the position of the caster wheels, it is important to reposition the caster stem housings to ensure they are level with the ground. This will facilitate manual propulsion and ensure the wheelchair moves in a linear trajectory.
- If your wheelchair is equipped with pneumatic caster wheels, check tire pressure weekly, as recommended in the *Maintenance Checklist*. Never use your wheelchair without properly inflate tires, the recommended tire pressure is indicated on the outer tire. Overinflated tires can burst, while under inflated tires can deform. Tire deformation can cause the wheel to spin unexpectedly, this can potentially lead to a loss of control of your wheelchair. Proper inflation will extend the lifespan of your tires and improve ease-of-use.

Seat

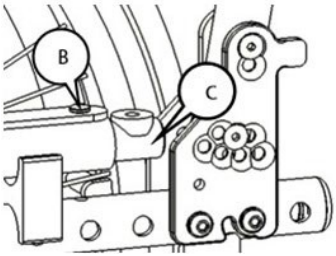
Modifying seat depth

The following steps explain how to adjust seat depth.



1. With a 5mm Allen key and a 10mm wrench, unfasten screws **A** and remove alignment sleeves.
2. Move backrest positioning plates forward or backwards to obtain the desired seat depth.
3. Reinsert alignment sleeves and screws **A** in the appropriate adjustment holes and firmly tighten screws **A**.

If needed, you can increase or decrease the length of the seat rail by moving the inner seat rail extensions.



1. With a Philips screwdriver, unfasten screw **B**.
2. Move the inner seat rail extension forward or backwards to adjust the seat rail length.
3. Reinsert screw **B** and firmly tighten.

XL5 and XL RF - Seat depth

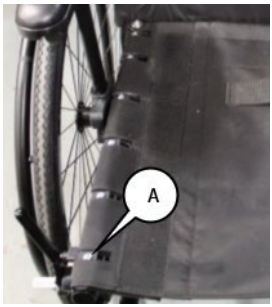
Frame	Seat Depth	Seat Depth Width
X-MINI	12" (305 mm)	13", 14", 15"* (330, 356, 381* mm)
MINI	14" (356 mm)	15", 16", 17"* (381, 406,432* mm)
SMALL	15" (381 mm)	16"-17"-18"*(406, 432, 457*mm)
MEDIUM	17" (432 mm)	18", 19", 20"* (457, 483, 508*mm)
LONG	19" (483 mm)	20", 21", 22"*(508, 533, 559* mm)

* Please note that by extending the length of the inner seat rail extension to obtain maximum depth may reduce solidity.

Inner seat rail extension depths

ENGLISH

Modifying sling seat tension



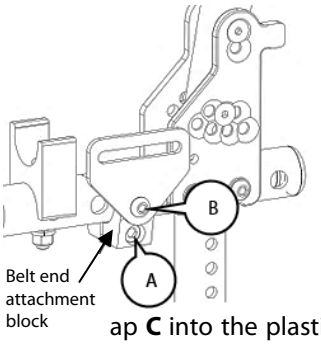
1. With a Philips screwdriver, loosen all screws **A** on the left side of the wheelchair.
2. Unfasten the sling seat flap and adjust the tension of the sling seat.
3. Fasten the sling seat flap when the desired tension is obtained.
4. Tighten all of screws **A** firmly.

WARNING
When tightening the sling seat, it is important that the wheelchair is fully opened and that the sling seat tension does not prevent the wheelchair from unfolding completely.

Pelvic Positioning Belt

The primary function of the pelvic positioning belt is to help the occupant maintain a proper posture and to secure the occupant in the wheelchair

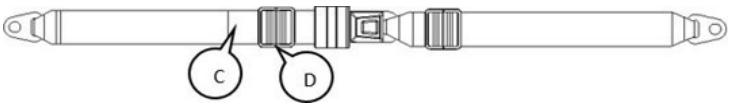
Installing the pelvic positioning belt



1. Position both parts of the belt end attachment block to the seat rail.
2. With a 5mm Allen key, tighten screw **A** firmly.
3. With a 4mm Allen key, secure the belt end to the attachment block by fastening screw **B**.

Adjusting the pelvic positioning belt

To adjust the length of the positioning belt, slide tap **C** into the plastic slide buckle **D** and tighten or loosen until the belt fits snugly without causing any discomfort.



WARNING
- When using your wheelchair, it is important to always fasten your positioning belt for added protection.
- It is important to adjust your positioning belt to maximize comfort and safety.
- Improper use can result in serious injury or death.

Backrest

Adjustable back posts are offered in two models: Straight 0 º or Bend 8 º and are available for each type of backrest: Standard or Dynamic.

The back posts are adjustable in 1" increments, the following table indicates the range of height adjustment of the back post, depending on the type of backrest installed.

Straight - 0º Available sizes	Standard Back Post Height Range	Dynamic Back Post Height Range
12" to 15" (305 to 381 mm)	12" to 15" (305 to 381 mm)	14" to 17" (356 to 432 mm)
16" to 20" (406 to 508 mm)	16" to 20" (406 to 508 mm)	18" to 22" (457 to 559 mm)
21" to 25" (533 to 635 mm)	21" to 25" (533 to 635 mm)	23" to 27" (584 to 686 mm)

Bend - 8º Available sizes	Standard Back Post Height Range	Dynamic Back Post Height Range
16" to 20" (406 to 508 mm)	16" to 20" (406 to 508 mm)	18" to 22" (457 to 559 mm)
21" to 25" (533 to 635 mm)	21" to 25" (533 to 635 mm)	23" to 27" (584 to 686 mm)

Modifying back post height

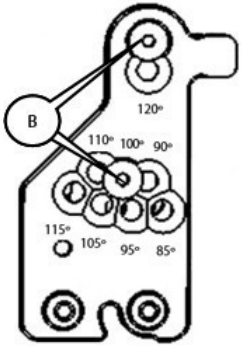
The following steps explain how to adjust the height or replace back posts.

1. Remove screw **A** and lock washer **B** with a 10mm wrench.
2. Raise or lower the adjustable upper section of the back post to obtain the desired height or replace the upper section with a new back post.
3. Reinsert screw **A** and lock washer **B**, tighten screw **A** firmly.

ENGLISH

Modifying the standard backrest angle

The angle of the backrest can be adjusted to accommodate the needs of the occupant.

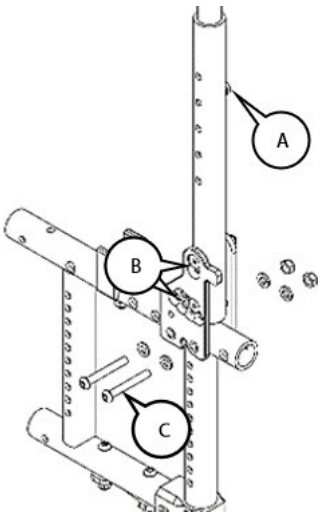


1. With a 4mm Allen key and a 10mm wrench, remove bolts **B**.
2. Once the bolts are removed, reposition the back post at the desired angle.
3. Reinsert bolts **B** in the adjustment holes corresponding to the desired angle and tighten firmly.

Note - The interval between two consecutive adjustment holes is 5^0. For a 120^0 backrest angle, use the 115^0 position in combination with the upper 120^0 adjustment hole. The 120^0 backrest angle is achievable with standard back post only.

Installing the dynamic backrest

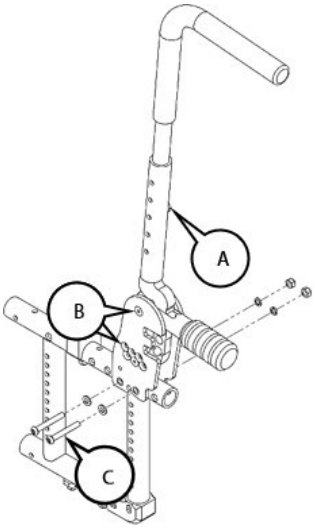
The Standard backrest can be replaced by a Dynamic backrest to better accommodate the occupants needs, by following these steps.



1. Remove armrests and propulsion wheels.
2. Remove backrest, tension bar and stroller bar, if applicable.
3. With a 10mm wrench, remove screw **A** and lock washer and pull out the upper back post.
4. With a 4mm Allen key and a 10mm wrench, unfasten bolts **B** and remove the lower back post.
5. With a 4mm Allen key and a 10mm wrench, unfasten bolts **C** to remove the positioning plates.

Note - If positioning plates cannot be dislodged easily, remove the alignment sleeves, located in the seat rail, with a flat punch, this will facilitate the removal of the positioning plates. Reinsert the alignment sleeves in the seat rail before installing dynamic positioning plates.

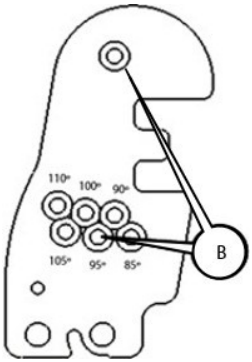
6. Position the dynamic backrest's positioning plates and fasten bolts **C**.
7. Position the lower back post at the desired angle and insert bolts **B** in the appropriate adjustment holes.
   Note – To adjust the backrest angle, you must decrease the tension of the dynamic backrest by turning the handle counterclockwise.
8. With a 4mm Allen key and a 10mm wrench, fasten bolts **B**.
9. Reinstall and adjust the height of the upper back post.
10. Reinstall the backrest, the tension bar and stroller bar, if applicable.
11. Reinstall armrests and propulsion wheels.



Modifying the dynamic backrest angle

The angle of the backrest can be adjusted to accommodate the needs of the occupant.

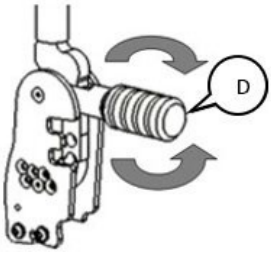
1. Turn the tension handle counterclockwise, to decrease the backrest tension.
2. With a 4mm Allen key and a 10mm wrench, remove bolts **B**.
3. Once the bolts are removed, reposition the back post at the desired angle.
4. Reinsert bolts **B** in the adjustment holes corresponding to the desired angle and tighten firmly.
5. Readjust the backrest tension.



Adjusting the dynamic backrest tension

The dynamic backrest allows you to adjust the tension of the back post to better accommodate the occupant's changing needs.

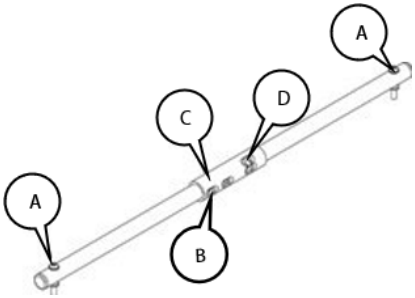
- To decrease tension, turn handle **D** counterclockwise (to the left).
- To increase tension, turn the handle **D** clockwise (to the right).



ENGLISH

Installing the folding tension bar

1. With a precision knife, cut the rubber grip covers at the ends of the handles.
2. Attach tension bar to the ends of the handles by fastening screws **A** with a 4 mm Allen key.

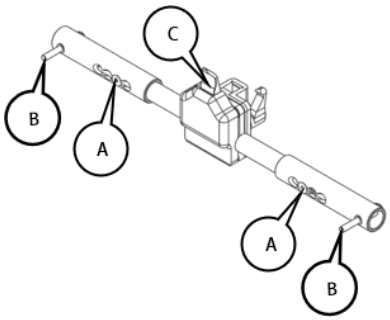


Folding the tension bar

1. Press push buttons **B** and **D**.
2. Slide the locking tube **C** onto the inner tube.
3. Fold tension bar.

Installing the folding tension bar with headrest mounting fixture

1. With a precision knife, cut the rubber grip covers at the ends of the handles.
2. With a 4mm Allen key, loosen screws **A**.
3. Adjust the width of the tension bar.
4. Attach tension bar to the ends of the handles by fastening screws **B** with a 4 mm Allen key.
5. Tighten screws **A** firmly.



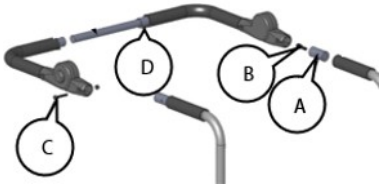
Folding the tension bar with headrest mounting fixture

Press lever **C** and fold tension bar.

WARNING
Never push or pull wheelchair with the tension bar.
Always use the back post handles to move the wheelchair.

Installing the stroller bar (option)

1. With a precision knife, cut the rubber grip covers at the ends of the handles.
2. With a 3mm Allen key, unfasten and remove screws **D**.
3. Adjust the width of the stroller bar.
4. Fasten screws **D**.
5. Insert adapters **A** into the ends of the back posts and fasten bolts **B** with a 5mm Allen key.
6. Insert the stroller bar into the ends of the back post and insert the safety lock **C** to secure the stroller bar.



Adjusting the stroller bar angle

To adjust the stroller bar angle, simply press both push buttons **E** simultaneously. This will allow the stroller bar to move freely. Once the desired angle is obtained, release both push buttons **E** and the stroller bar will automatically lock into place.

WARNING

Never lift or pull your wheelchair with the stroller bar. The stroller bar was designed to push and steer the wheelchair only. Improper use may damage or break the stroller bar and can result in injury.

ENGLISH

Armrest

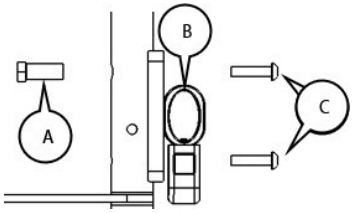
"T" Type Armrest

The "T" type armrest is made with a foam padding to improve comfort and can be removed to facilitate transfers. The "T" type armrest offers a height adjustment range between 7" and 14" (178 mm and 355 mm). Adjustable in increments of ½" for both the XL5 and XL RF.

Installing the "T" type armrest receiver

1. Position receiver **B** on the seat rail and insert threaded sleeve A through the seat rail and receiver **B**.
2. Fasten screws **C** with a 4mm Allen key, while holding threaded sleeve A with a 12mm wrench.

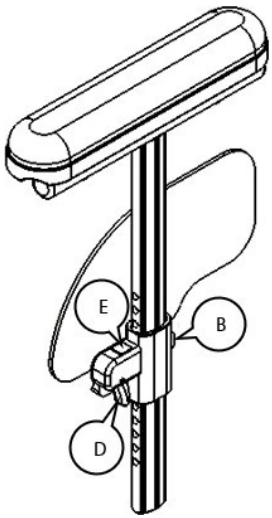
   Note - The clothing guard is attached to the receiver.



Installing the "T" type armrest

1. Press and hold lever **D**.

   Note – Make sure push button **E** is not released, if so, push it back down.
2. Insert armrest into receiver **B**.
3. Release lever **D** to lock armrest in place.



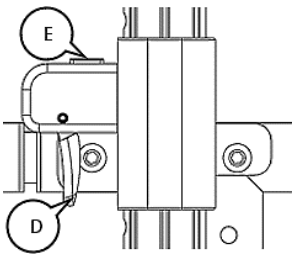
Adjusting the "T" type armrest height

1. Press and hold lever **D**.
2. Raise or lower armrest.
3. Release lever **D** once the desired height is obtained.

   Note - Make sure the armrest is fully engaged in the adjustment holes.

Removing the "T" type armrest

1. Press and hold lever **D**.
2. Lift up and remove armrest.



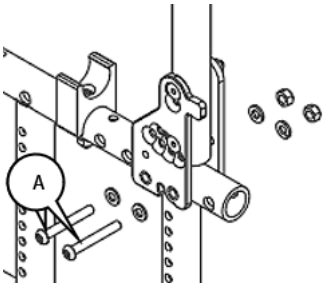
"U" Type Armrest

The "U" type armrest is made with a foam padding to improve comfort and can be flipped back to facilitate transfers.

The "U" type armrest offers a height adjustment range between 7" and 16 ½" (178 mm and 406 mm). Adjustable in increments of ½".

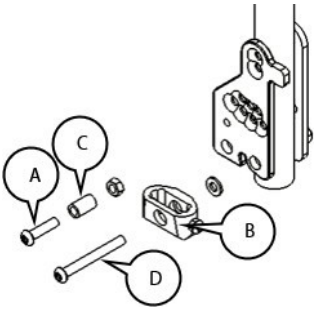
Installing the "U" type armrest

1. With a 4mm Allen key, unfasten bolts **A** while holding nuts in place with a 10mm wrench.
2. Insert alignment sleeve **C** and position receiver **B** on positioning plate.
3. Insert screw **A** and screw **D** and firmly tighten with a 4mm Allen key and a 10mm wrench.
4. With a 4mm Allen key and a 10mm wrench, fasten receiver **E** at the front of the seat rail.



Flipping back the "U" type armrest

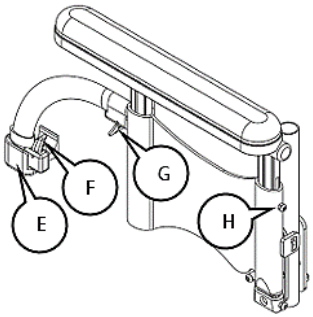
1. Press lever **F**.
2. Flip back armrest.



Adjusting the "U" type armrest height

1. Press lever **G**.
2. Raise or lower the armrest.
3. Release lever **G** to lock armrest in place once the desired height is obtained.

Note - Make sure armrest is fully engaged in the adjustment holes and that set screw **H** is firmly tightened.



ENGLISH

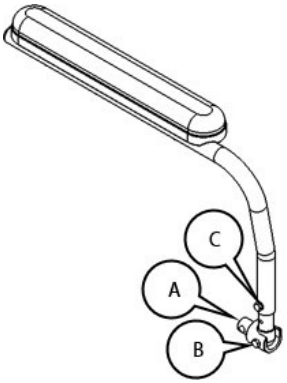
"L" Type Armrest (XL RF only)

The "L" type armrest is made with a foam padding to improve comfort and can be flipped back to facilitate transfers.

The "L" type armrest offers a height adjustment range between 8" and 14" (200 mm and 330 mm). Adjustable in increments of ½".

Installing the "L" type armrest

1. Remove cap at the end of seat rail.
2. Insert the connector tip **A** at the endof seat rail.
3. Insert alignment sleeve and secure connector to the seat rail by fastening bolt **B** with two 10mm wrenches.

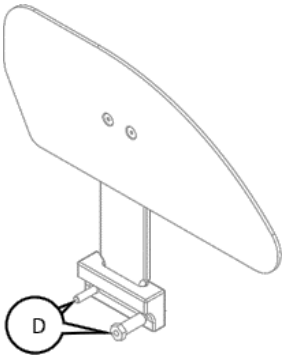


Adjusting the "L" type armrest height

1. With a 10mm wrench, remove screw **C**.
2. Raise or lower armrest.
3. Insert screw **C** in the appropriate height adjustment hole.
4. Tighten screw **C** firmly.

Flipping back the "L" type armrest

1. Flip back armrest.



Installing the clothing guard

1. Position clothing guard on seat rail.
2. With a 4mm Allen key, fasten bolts **D**.

WARNING

- Always check that armrests are well adjusted and locked in place.
- Never lift the wheelchair by the armrest. Damage or injury may occur.
- Always use the rigid parts of the frame when lifting the wheelchair Never lift yourself up by pushing down on the "L" type armrest. (push-up).
- Improper use may result in injury to the occupant or wheelchair damage.

Footrest

The footrest is removable and can swivel inwards or outwards and can be equipped with a standard flip-up footplate or a flip-up footplate with angle and depth adjustments.

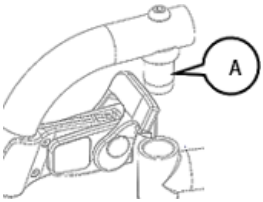
Three models of footrest are available: 60º, 70º et 90º.

Each model features an extensive range of adjustments to ensure optimal support of the lower limbs.

Footrest 60º: 11 ¼'' to 21'' (280 mm to 530 mm)
Footrest 70º: 10 ¾'' to 20 ½'' (255 mm to 508 mm)
Footrest 90º: 10 ½'' to 20 ½'' (254 mm to 508 mm)
Adjustable in increments of ½''.

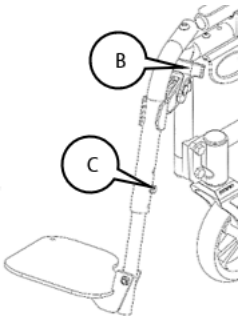
Installing the footrest

1. Insert pivot saddle **A** into the receiver on the front frame tube.
2. Turn the footrest inwards until the footrest locks in place.



Removing the footrest

1. Press and hold lever **B** while turning the footrest outwards.
2. Lift the footrest upwards until it is completely removed from the receiver.



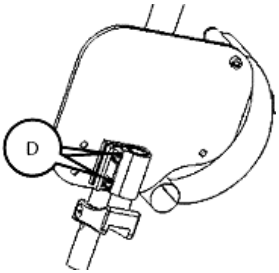
Adjusting footrest length

1. With a 10mm wrench, remove screw **C**.
2. Raise or lower the inner adjustment tube until the desired length is obtained.
3. Reinstall screw **C** in the appropriate adjustment hole and tighten firmly.

ENGLISH

Folding the flip-up footplate

To fold the footplate, simply flip the footplate upwards.



Adjusting footplate depth

1. With a 4mm Allen key, unfasten and remove both screws **D**.
2. Position the footplate and insert both screws **D** in the appropriate adjustment holes and tighten screws firmly.

Adjusting the horizontal angle of the footplate

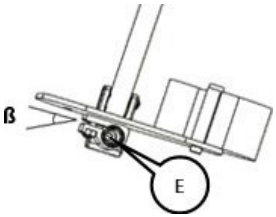
1. With a 4mm Allen key, loosen both screws **D**, without removing them.
2. Pivot the footplate until the desired horizontal angle **ß** is obtained.
3. Firmly tighten both screws **D**.

Adjusting the vertical angle of the footplate

With a ¼" Allen key, turn plastic screw **E** to obtain the desired vertical angle.

- Turning screw **E** clockwise will increase the angle.

- Turning screw **E** counterclockwise will decrease the angle.

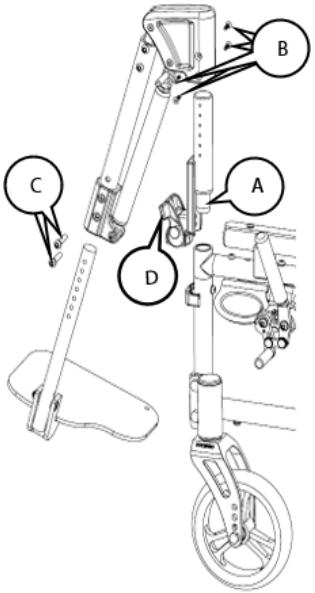


WARNING
Never lift the wheelchair by the footrest. Damage or injury may occur. Always use the rigid parts of the frame when lifting the wheelchair.

Elevating and Articulating Legrest

Installing the legrest

1. Install tube end **A** into the receiver on the front frame tube.
2. Turn the legrest inwards until the legrest locks in place.



Adjusting legrest height at knee level

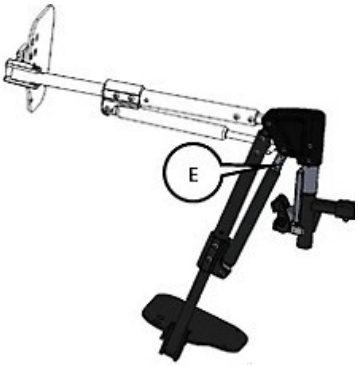
1. With a 2.5mm Allen key, unfasten all 4 bolts **B**.
2. Place the upper part of the legrest onto tube.
3. Position the legrest at the desired height and insert bolts **B** in the appropriate adjustment holes.
4. Tighten all 4 bolts **B** firmly.

Adjusting legrest length

1. With a 4mm Allen key, unfasten screws **C**.
2. Raise or lower the inner adjustment tube until the desired length is obtained.
3. Reinstall screws **C** in the appropriate adjustment holes and tighten firmly.

Removing legrest

1. Pull lever **D** towards you and turn legrest inwards or outwards.
2. Lift the legrest upwards until it is completely removed from the receiver.



Adjusting legrest angle

- To increase angle, lift the legrest upwards.
- To decrease the angle, press and hold lever **E** and push the legrest downwards.

Wheel Locks

The installation of wheel locks must be done after the installation and adjustment of the propulsion wheels is completed. Be aware that the size of the propulsion wheels will affect the position of wheel lock brackets. If the propulsion wheel installation has not been completed, consult section *Installing propulsion wheels – Threaded axle* or *Installing propulsion wheels – Quick-Release axle*, depending on your type of axle.

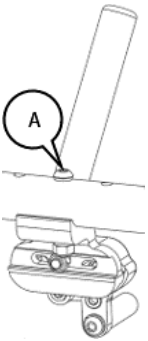
WARNING

- If your wheelchair is equipped with pneumatic tires, always make sure tire pressure is adequate before adjusting wheel locks.
- Ensure that all bolts and nuts are securely fastened when modifications have been made.
- It is important that wheel locks are readjusted if modifications have been made to the propulsion wheels or if propulsion wheels appear worn.

Standard Wheel Locks

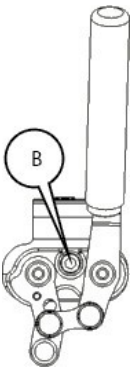
Installing wheel locks

1. Position the wheel lock bracket on the side frame rail.
2. Insert bolts **A** in the appropriate adjustment holes.
3. Move wheel lock bracket forward or backward in the adjustment slot until the desired position is obtained.
4. With a 4mm Allen key and a 10mm wrench, secure wheel lock bracket by tightening screw **A** firmly.



Adjusting the brake force

1. With a 5mm Allen key, loosen bolt **B**.
2. Move wheel lock in the wheel lock bracket's slot to obtain the required brake force.
   - To increase brake force, move wheel lock closer to the propulsion wheel.
   - To reduce brake force, move wheel lock further from propulsion wheel.



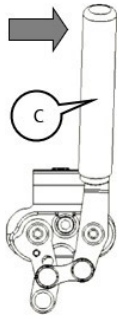
3. Firmly tighten bolt **B**.
4. Test and readjust wheel lock position until the required brake force is obtained, and wheel locks effectively immobilize the wheelchair.
5. If necessary, move the wheel lock bracket on the side frame rail.
6. Once the required brake force is obtained, make sure all bolts are securely fastened.

Note – When engaged, the wheel lock pressure bar should embed ⅛" to ¼" into thetire.

Using wheel locks

Push-to-lock

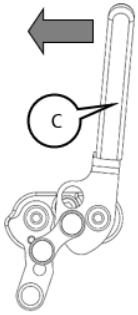
- To lock wheels, push handle **C** forward.
- To unlock wheels, pull handle **C** backwards



Push-to-lock

Pull-to-lock

- To lock wheels, pull handle **C** backwards.
- To unlock wheels, push handle **C** forward.



Pull-to-lock

WARNING

- Never stop a moving wheelchair with wheel locks. Wheel locks are used to lock the propulsion wheels and immobilize the wheelchair. Wheel locks are not designed to slow down or stop a moving wheelchair.
- When engaged, the wheel lock pressure bar should embed ⅛" to ¼" into the tire.

ENGLISH

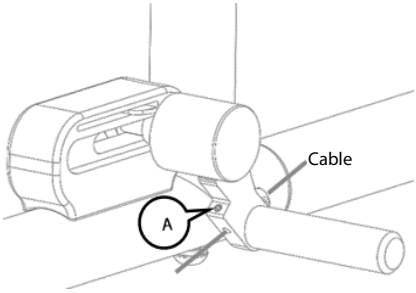
One-Arm Wheel Lock

The one-arm wheel lock allows the occupant to engage both wheel locks simultaneously with a single wheel lock handle installed on either the left or right hand side. The one-arm wheel lock system can be installed in our factory if selected in the order form.

Adjusting the brake force

If necessary, you can increase or decrease the brake force.

1. With a 1,5mm Allen key, slightly loosen the set screw **A**.
2. Adjust the cable tension:
3. Pull the cable forward to increase brake force.
4. Push the cable backwards to decrease brake force.
5. Once the desired brake force is obtained, tighten set screw **A** firmly.

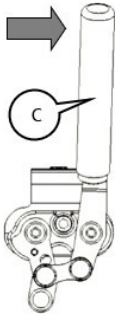


Note-When engaged, the wheel lock pressure bar should embed ⅛" to ¼" into the tire.

Using wheel locks

Push-to-lock

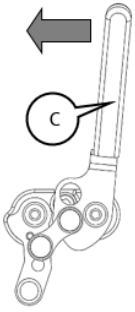
- To lock wheels, push handle **C** forward.
- To unlock wheels, pull handle **C** backwards



Push-to-lock

Pull-to-lock

- To lock wheels, pull handle **C** backwards.
- To unlock wheels, push handle **C** forward.



Pull-to-lock

WARNING

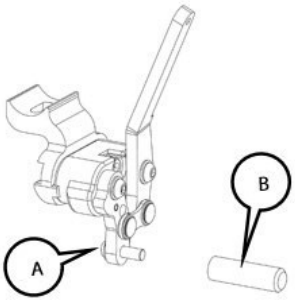
Never stop a moving wheelchair with wheel locks. Wheel locks are used to lock the propulsion wheels and immobilize the wheelchair. Wheel locks are not designed to slow down or stop a moving wheelchair.

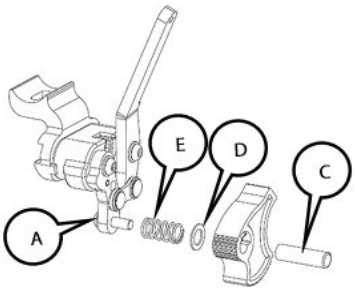
Anti-Rollback Wheel Locks

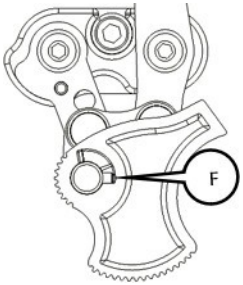
The anti-rollback wheel lock provides added safety when moving up a slope or ramp, if the wheelchair begins to move backwards, the wheel lock mechanism will engage and immobilize the propulsion wheels. The anti-rollback wheel lock system can be installed in our factory if selected in the order form or can be added on a standard wheel lock.

Installing the anti-rollback wheel lock

1. With a 4mm Allen key, hold screw **A** in place while turning the standard wheel lock's pressure bar **B** to remove completely.
2. Insert camshaft **C** in hole of the anti-rollback block.
3. Place washer **D** and spring **E** on camshaft **C**.
4. Position camshaft **C** on the wheel lock and tighten screw **A** firmly. Make sure the dowel pin **F** remains in a horizontal position.





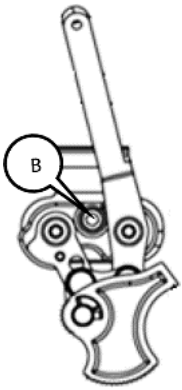


Adjusting the brake force

1. With a 5mm Allen key, loosen bolt **B**.
2. Move wheel lock in the wheel lock bracket's slot to obtain the required brake force.

   - To increase brake force, move wheel lock closer to the propulsion wheel.
   - To reduce brake force, move wheel lock further from propulsion wheel.

3. Firmly tighten bolt **B**.
4. Test and readjust wheel lock position until the required brake force is obtained, and wheel locks effectively immobilize the wheelchair.
5. If necessary, move the wheel lock bracket on the side frame rail.
6. Once the required brake force is obtained, make sure all bolts are securely fastened.



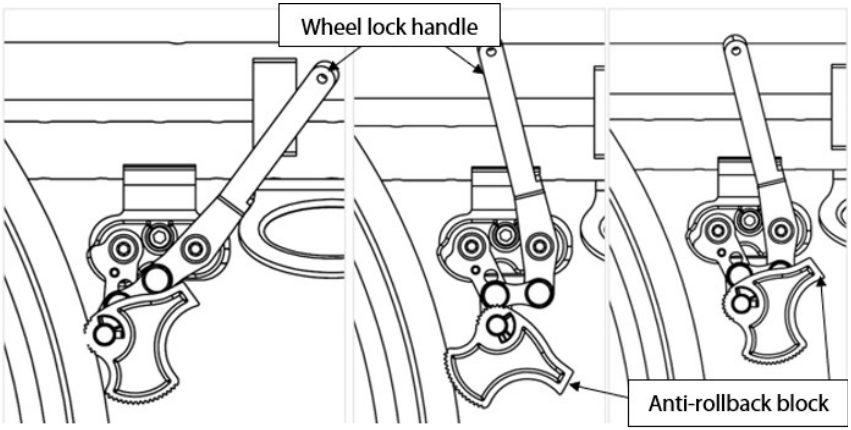
WARNING

- Never stop a moving wheelchair with wheel locks. Wheel locks are used to lock the propulsion wheels and immobilize the wheelchair. Wheel locks are not designed to slow down or stop a moving wheelchair.
- When engaged, the wheel lock pressure bar should embed ⅛" to ¼" into the tire.

Using the anti-rollback wheel locks

To engage the anti-rollback wheel locks, push the anti-roll back block downwards and slightly turn the propulsion wheels backwards.

To disengage the anti-rollback wheel locks, pull the anti-rollback block upwards.



One-Arm Drvie Mechanism

The one-arm drive mechanism allows the occupant to operate their wheelchair manually without assistance. Two handrims are installed on either the left or right hand side and allow the occupant to control both the speed and direction of their wheelchair.

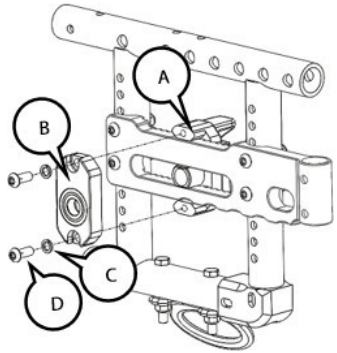
Installing the one-arm drive mechanism

If an axle is already installed on the wheelchair, it must be removed to install the one-arm drive mechanism (see section *Removing propulsion wheels – Threaded axle* or *Removing propulsion wheels – Quick-Release axle*, depending on the type of axle installed.)

Note - Before beginning the installation of the one-arm drive mechanism, make sure the axle mounting plate is correctly positioned. See section *Modifying the position of the axle mounting plate.*

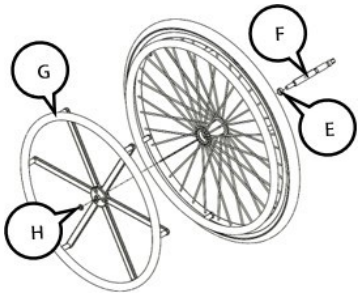
1. Install the axle retention device on the axle mounting plate:

   a. Position part **A** on the axle mounting plate.
   b. Fasten part **B** to part **A** by inserting screws **D** with lock washers **C** and firmly tightening screws with a 5mm Allen key.
   c. Repeat these steps for the opposite side.



2. Assemble axle and propulsion wheel with two handrims:

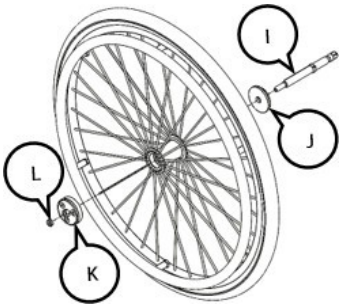
   a. Place spacer **E** on axle **F**.
   b. Insert axle through wheel hub.
   c. Fasten the small inner handrim **G** to the axle with a 13mm wrench while holding the axle flats with another 13mm wrench.
   d. Make sure there is not rotation between the small inner handrim **G** and the axle **F**.
   e. Secure the axle **F** by tightening locknut **H** with a 13mm wrench.



ENGLISH

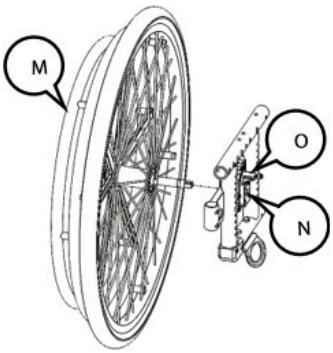
3. Assemble axle and propulsion wheel with one handrim:

   a. Place inner locking shaft coupling **I** on axle **J**.
   b. Insert axle **J** through wheel hub.
   c. Fasten the outer locking shaft coupling **K** on axle **J** with a 13mm wrench while holding the axle flats with another 13mm wrench.
   d. Make sure there is not rotation between propulsion wheel and axle.
   e. Secure the axle **J** by tightening locknut **L** with a 13mm wrench.



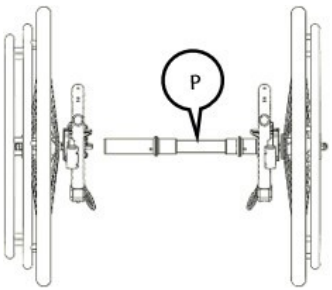
4. Install propulsion wheel assemblies:

   a. Insert the axle of the propulsion wheel assembly **M** into the axle retention device **N** while keeping the lever **O** engaged.
   b. Release lever **O** and make sure propulsion wheel assembly **M** cannot be removed.
   c. Repeat these steps for the opposite side.



5. Install spring loaded shaft on axles:

   a. Place spring loaded shaft **P** on the end of an axle.
   b. Compress the spring-loaded shaft and position the other end on the opposite axle.
   c. Make sure the spring-loaded shaft is properly installed by turning the small inner handrim and checking that movement is transmitted to the opposite propulsion wheel.



Using the one-arm drive mechanism

Knowing how the one-arm drive mechanism functions will help you operate your wheelchair optimally. It is important to read the operating techniques listed below and take the necessary time to familiarize yourself with the use of the inner and outer handrims.

Each handrim controls one propulsion wheel.

Operating techniques

1. To propel the wheelchair in a straight line, forward or backwards, the occupant must push or pull both handrims simultaneously.
2. To slow down the wheelchair, the occupant must press simultaneously on both handrims to create friction.
3. To turn the wheelchair towards the side of the double handrims, the occupant must exert more force on the small inner handrim or slow down the rotation of the large outer handrim.
4. To turn the wheelchair towards the opposite side of the double handrims, the occupant must exert more force on the large outer handrim or slow down the rotation of the small inner handrim.

WARNING

- After all adjustments or the reinstallation of the propulsion wheels, it is essential that the stability of the wheelchair be verified. Adjustments to the front caster wheels, the wheel locks and the anti-tips may be necessary. Horizontal repositioning of the propulsion wheels as well as, repositioning of the seat and backrest may also be required. These adjustments must be performed by a qualified technician.
- Make sure the propulsion wheels are securely fastened, that the spring-loaded shaft is properly installed and that the small inner handrim transmits motion to the opposite propulsion wheel.

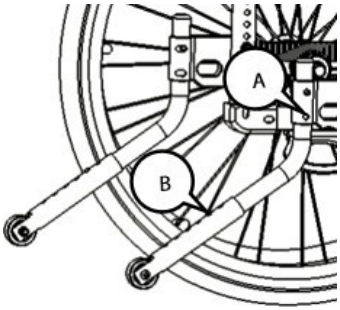
ENGLISH

Anti-Tips

Physipro Inc. recommends the installation of anti-tips on all wheelchairs.

Installing anti-tips

1. Press button pin **A**, so that the lock pin is drawn inside the tube.
2. Insert anti-tip into the receiver.
3. Slide and turn the anti-tip tube until the button pin **A** and lock pin are positioned through the receiver's mounting hole.
4. Repeat the process for the second anti-tip.



Adjusting anti-tips

Once anti-tips are installed, it is important to adjust their height.

1. Press button pin **B** and raise or lower the anti-tip's adjustment tube until button pin **B** is positioned in the adjustment hole corresponding to desired height.
2. Repeat the process for the second anti-tip.

Note - For maximum safety, it is recommended that anti-tips be installed no higher than 2" above the ground.

Removing anti-tips

To remove the anti-tips, simply press on button pin **A** and pull anti-tip downwards until completely extracted from the receiver.

Disengaging anti-tips

When being pushed by an attendant or when clearing an obstacle, anti-tips should be disengaged.

1. Press and hold button pin **A**.
2. Turn the anti-tips inward, towards the center of the frame.
3. Repeat the process for the second anti-tip.
4. After an obstacle is cleared or if the occupant is left unattended, replace the anti-tips in their initial position. Make sure anti-tips are locked in place.

WARNING

- Make sure anti-tips are locked in place and that the button pins and lock pin protrude from the receiver mounting holes.
- Anti-tips may be less efficient on wet surfaces, on clay or sandy soils, in snow or gravel or uneven surfaces.
- For maximum safety, it is recommended that anti-tips be installed no higher than 2" above the ground. Adjusting anti-tips too low can make it difficult to clear common obstacles, while adjusting anti-tips to high increases the risk of tipping backwards.
- Make sure both anti-tips are positioned at the same height.
- Physipro Inc. recommends the installation of anti-tips on all wheelchairs.
- Never tilt the wheelchair by pushing down on anti-tips.

ENGLISH

5. Transport

The XL5 and XL RF were designed to facilitate access to adapted transport and come equipped with factory-installed securement points.

It is important to carefully read the *Technical sheet - Use as a seat in a motor vehicle*, in its entirety before using your wheelchair in an adapted transport vehicle to familiarize yourself with your wheelchair's technical specifications and requirements.

Technical sheet – Use as a seat in a motor vehicle: XL5: p. 73
Technical sheet – Use as a seat in a motor vehicle: XL RF: p. 83

Please take note that if you want to travel onboard a motor vehicle that is not approved by Transport Canada as an adapted transport vehicle, it is important to read the following warnings.

- Never use the wheelchair as a seat onboard a standard motor vehicle. In the event of a collision or a sudden stop, the occupant may be ejected from the wheelchair and may sustain serious injuries. The wheelchair's belts and harnesses are not designed to secure the occupant in these circumstances and may increase the risk of injury.

- During vehicle transportation, an unoccupied wheelchair should be placed inside the vehicle's cargo compartment or secured with straps inside the vehicle for the duration of travel.

- Never leave the wheelchair on the front or back seat. In the event of an accident or sudden stop, the wheelchair could move or be thrown forward and distract or even injure the driver or passengers.

- The wheelchair occupant should always use the vehicle's approved seat and safety belt.

- Never use a wheelchair that has been implicated in a traffic accident without having had conducted a thorough inspection by a qualified technician. Cease all use of the wheelchair if it shows any signs of damage.

XL5

TECHNICAL SHEET – USE AS A SEAT IN A MOTOR VEHICLE

Read this entire manual before using your wheelchair in an adapted vehicle. Be sure to use the wheelchair tie-down and occupant restraint systems that meets ISO/DIS 7176-19:2019 standards or risk serious physical injury or death.

If you have any questions regarding the use of this wheelchair as a seat in adapted transport, contact Physipro Inc. at the following number: 1 800 668-2252.

INTRODUCTION

The XL5 wheelchair complies with the ISO/DIS 7176-19:2019 standard and was designed to be placed in a forward-facing position while used as a seat in a motor vehicle.

Note: Compliance with this standard does prohibit using the wheelchair in a rear-facing position in larger adapted vehicles, that are equipped with rear-facing wheelchair passenger stations.

The XL5 wheelchair is equipped with belt restraint devices in accordance with the requirements of the ISO/DIS 7176-19:2019 standard and has successfully passed a frontal impact crash test with a 76.3 kg (170 lbs) dummy.

The XL5 wheelchair is equipped with factory-installed securement points and uses a four-point strap tie-down restraint system.

Only use wheelchair tie-down and occupant restraint systems which meet the ISO/DIS 7176-19:2019 standard, failure to do so may lead to serious or even fatal injury.

ENGLISH

WARNINGS

Limitations:

- The performance analysis, required by ISO/DIS 7176-19:2019, was conducted with the wheelchair in a forward-facing position in a frontal-impact collisions test of 48 kph (30 mph).
- This wheelchair meets the testing standard required by ISO/DIS 7176-19:2019 with the configurations defined at page 82 of the current manual. Wheelchairs configured differently or with seating system provided by another manufacturer have not been tested, therefore, Physipro Inc. cannot guarantee the performance of these wheelchairs.
- Compliance with the ISO/DIS 7176-19:2019 standard does not prevent injury or death of the wheelchair occupant, if implicated in a vehicle collision.

In the event of an accident:

- If the wheelchair is implicated in an accident, cease all use of the wheelchair immediately. Structural damage may have occurred even if there are no visible signs of damage.
- After being involved in a vehicle collision, an inspection of the wheelchair by a qualified representative of the manufacturer must be done before use.
- **WARNING:** The warranty is void if a wheelchair is implicated in a vehicle collision.

Travel onboard a motor vehicle

- When a transfer is possible, a wheelchair occupant should always use the vehicle's seat and safety belt. The unoccupied wheelchair should then be placed inside the vehicle's cargo compartment or secured inside the vehicle for the duration of travel.
- When adapted transport is required, the motor vehicle must be equipped with a wheelchair tie-down and occupant restraint systems which meet the ISO/DIS 7176-19:2019 standard.
- Physipro Inc. wheelchairs were dynamically tested in a forward-facing position with the occupant restrained with a pelvic belt and a shoulder belt. Both the pelvic belt and shoulder belt must be used to reduce the risk of head or chest injuries that may be sustained by impact with components of the vehicle.
- Please note that the size of the wheelchair may reduce manoeuvrability and accessibility inside a motor vehicle and that a smaller turning diameter facilitates access and mobility inside the vehicle when placed in a forward-facing position.

Wheelchair modifications:

- Never remove the tie-down securement points that are used to secure the wheelchair in a motor vehicle. If the securement points are removed, they may not be reinstalled correctly, and the wheelchair will no longer meet the requirements of ISO/DIS 7176-19:2019.
- Never modify or substitute the wheelchair's tie-down securement points or any of the structural parts and components of the wheelchair, including the frame, without prior authorization by Physipro Inc.

ENGLISH

Weight limitations:

- The weight limit (for the occupant and accessories that are fixed to the wheelchair) is 120 kg (265 lbs) for use onboard an adapted vehicle. Never use a wheelchair on adapted transport if the weight limit is exceeded.

Inspection:

- A regular visual inspection of the complete restraint system for adapted transport is required.

SECURING THE WHEELCHAIR ONBOARD A VEHICLE

- Install tie-down straps to the wheelchair's identified securement point locations. (see Figure 1). Securement points for adapted transport are indicated by securement point symbols on the wheelchair. (see Figure 2)

Figure 1

Figure 2

- Never install tie-down hooks on any other part of the wheelchair, if not indicated by a securement point symbol.

- Make sure the tie-down straps are properly tightened.

- To secure the wheelchair to the vehicle, install the rear tie-down straps to the rear securement points of the wheelchair. Install the front tie-down straps to the front secururement points, make se the vehicle's front anchor points are spaced slightly wider than the wheelchair, this ensures better lateral stability. (see Figure 3)

Figure 3

WARNING

- The XL5 was tested with and must be used with the wheelchair's complete tie-down securement system and the vehicle's occupant restraint system to ensure compliance with the ISO 10542-1 requirements.

SECUREMENT POINT EXAMPLE

Figure 4

WHEELCHAIR CLEARANCE INSIDE A MOTOR VEHICLE

The wheelchair must be placed in a forward-facing position onboard a motor vehicle. The clear zones required to ensure the proper use of the vehicle's pelvic and shoulder belts are as follows:

Front clear zone (FCZ): The front clear zone is measured from the frontmost point of the occupant's head and must measure 26 inches (66 cm) minimum. **Note**: The front clear zone may not be achievable for wheelchair-seated drivers.

Rear clear zone (RCZ): The rear clear zone is measured from the rearmost point of the occupant's head and must measure 16 inches (40.64 cm) minimum. There must be no obstruction inside this zone.

Seated head height (HHT): This measurement from the floor to the top of the occupant's head ranges from about 47 inches (120 cm) for a shorter adult and 61 inches (155 cm) for a taller adult.

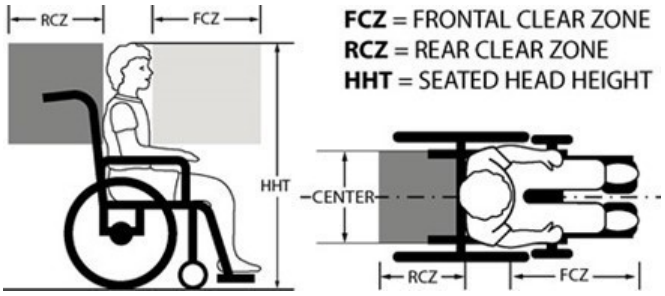


Figure 5

WARNINGS:
Securing wheelchair accessories:

- To reduce the risk of injury to passengers, remove lap trays that have not been specifically designed for transport safety and secure separately inside the vehicle or affix lap tray securely to the wheelchair, as far away as possible from the occupant, with a shock-absorbing material placed in between the lap tray and the occupant.
- All auxiliary equipment must be firmly secured to the wheelchair or removed and stowed in a secure location during transport to reduce the risk of injury.
- If auxiliary equipment cannot be removed (such as with respirators and IV supports), the equipment must be placed as far away as possible from the occupant and wrapped in a shock-absorbing material. Make sure the protective packaging material conforms to the FMVSS201 requirements.

POSITIONING THE OCCUPANT

Adjusting the wheelchair:

- During transportation, ensure the back angle is adjusted at no more than 30 degrees to the vertical to reduce the risk of injury to the occupant.
- If wheelchair is equipped with angle-adjustable seating, the seat angle must be set at 10-degrees.

Neck and head protection:

- Make sure the occupant is properly positioned in the wheelchair to protect their neck and their head in the event of a collision.
- The use of a headrest is recommended onboard adapted transport to reduce the risk of neck and head injuries in the event of a collision.

THREE-POINT SEAT BELT

Positioning:

1- Position the pelvic belt across the front of the lower pelvis. The pelvic belt should be in direct contact with the occupant's pelvis and hip bones. The pelvic belt should be positioned at an angle between 45 and 75 degrees to the horizontal. If these requirements cannot be reached, the pelvic belt can be positioned securely in the optional zone, at an angle between 30 and 45 degrees to the horizontal. (see Figure 6)

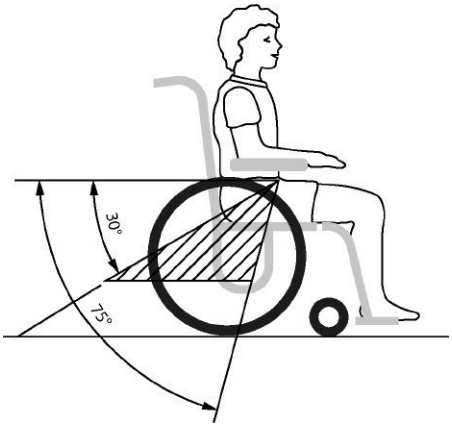


Figure 6

2- A steeper pelvic belt positioning angle in the preferred zone is recommended. A sharper angle will help minimize the formation of a vertical gap between the occupant and the pelvic belt and will considerably diminish the risk of the occupant sliding under their belt.

3- The shoulder belt should lie across the center of the chest, directly over the sternum and the middle of the anterior shoulder. The upper anchor point must be located above and behind the occupant to ensure the occupant remains in place during transportation. (see Figure 7)

Figure 7

4- The pelvic and shoulder belts should fit snugly against the occupant's body and should never be held away from the body by any of the wheelchair's components or parts (such as the armrest or wheels). For optimal positioning of the pelvic and shoulder belts, it may be necessary to insert the strap of the pelvic belt between the armrest and the backrest or in the opening between the seat and the backrest to avoid placing the strap directly over the armrest. (see Figure 8 and Figure 9)

Figure 8

Figure 9

5- The straps of safety belt should be positioned in a straight a line, with no more than 5-degree deviation between the occupant and both the left and right anchor points.

6- Make sure the straps of the safety belt are not twisted.

7- Adjust the safety belts as firmly as possible, without impeding the occupant's normal breathing cycle or blood circulation.

WARNING:

- Postural supports should not be used to restrain the occupant in a moving vehicle, except if the product is labeled as being in accordance with the requirements specified in ISO/DIS 7176-19:2019.
- Always ensure the safety belt is properly positioned and that wheelchair components cannot interfere with the buckle and activate the opening mechanism in the event of a collision.

Wheelchair rating in accordance with the ISO/DIS 7176-19:2019 standard:

- Rating for ease of use of the motor vehicle's three-point safety belt as required by the ISO/DIS 7176-19:2019 standard:
  - **XL5 –** "Excellent"
- Rating of the degree to which the use of the vehicle's three-point safety belt adequately secures the occupant as required by the ISO/DIS 7176-19:2019 standard:
  - **XL5** – "Excellent"

CRASH TEST CONFIGURATION	
ISO 7176-7 WHEELCHAIR CONFIGURATION MEASUREMENTS	
XL5	18" (width) x 18" (depth) x 18" (STF*), 18" backrest height
ISO 7176-5 WHEELCHAIR MASS MEASUREMENT	
XL5	17,14 kg (37,7 lbs)
ISO 7176-11 RECOMMENDED MAXIMUM OCCUPANT MASS MEASUREMENT	
XL5	120 kg (265 lb)

*STF: Seat-to-Floor Height

XL RF

TECHNICAL SHEET – USE AS A SEAT IN A MOTOR VEHICLE

Read this entire manual before using your wheelchair in an adapted vehicle. Be sure to use the wheelchair tie-down and occupant restraint systems that meets ISO/DIS 7176-19:2019 standards or risk serious physical injury or death.

If you have any questions regarding the use of this wheelchair as a seat in adapted transport, contact Physipro Inc. at the following number: 1 800 668-2252.

INTRODUCTION

The XL RF wheelchair complies with the ISO/DIS 7176-19:2019 standard and was designed to be placed in a forward-facing position while used as a seat in a motor vehicle.

Note: Compliance with this standard does prohibit using the wheelchair in a rear-facing position in larger adapted vehicles, that are equipped with rear-facing wheelchair passenger stations.

The XL RF wheelchair is equipped with belt restraint devices in accordance with the requirements of the ISO/DIS 7176-19:2019 standard and has successfully passed a frontal impact crash test with a 100 kg (220 lbs) dummy.

The XL RF wheelchair is equipped with factory-installed securement points and uses a four-point strap tie-down restraint system.

Only use wheelchair tie-down and occupant restraint systems which meet the ISO/DIS 7176-19:2019 standard, failure to do so may lead to serious or even fatal injury.

ENGLISH

WARNINGS

Limitations:

- The performance analysis, required by ISO/DIS 7176-19:2019, was conducted with the wheelchair in a forward-facing position in a frontal-impact collisions test of 48 kph (30 mph).
- This wheelchair meets the testing standard required by ISO/DIS 7176-19:2019 with the configurations defined at page 92 of the current manual. Wheelchairs configured differently or with seating system provided by another manufacturer have not been tested, therefore, Physipro Inc. cannot guarantee the performance of these wheelchairs.
- Compliance with the ISO/DIS 7176-19:2019 standard does not prevent injury or death of the wheelchair occupant, if implicated in a vehicle collision.

In the event of an accident:

- If the wheelchair is implicated in an accident, cease all use of the wheelchair immediately. Structural damage may have occurred even if there are no visible signs of damage.
- After being involved in a vehicle collision, an inspection of the wheelchair by a qualified representative of the manufacturer must be done before use.
- **WARNING:** The warranty is void if a wheelchair is implicated in a vehicle collision.

Travel onboard a motor vehicle

- When a transfer is possible, a wheelchair occupant should always use the vehicle's seat and safety belt. The unoccupied wheelchair should then be placed inside the vehicle's cargo compartment or secured inside the vehicle for the duration of travel.
- When adapted transport is required, the motor vehicle must be equipped with a wheelchair tie-down and occupant restraint systems which meet the ISO/DIS 7176-19:2019 standard.
- Physipro Inc. wheelchairs were dynamically tested in a forward-facing position with the occupant restrained with a pelvic belt and a shoulder belt. Both the pelvic belt and shoulder belt must be used to reduce the risk of head or chest injuries that may be sustained by impact with components of the vehicle.
- Please note that the size of the wheelchair may reduce manoeuvrability and accessibility inside a motor vehicle and that a smaller turning diameter facilitates access and mobility inside the vehicle when placed in a forward-facing position.

Wheelchair modifications:

- Never remove the tie-down securement points that are used to secure the wheelchair in a motor vehicle. If the securement points are removed, they may not be reinstalled correctly, and the wheelchair will no longer meet the requirements of ISO/DIS 7176-19:2019.
- Never modify or substitute the wheelchair's tie-down securement points or any of the structural parts and components of the wheelchair, including the frame, without prior authorization by Physipro Inc.

ENGLISH

Weight limitations:

- The weight limit (for the occupant and accessories that are fixed to the wheelchair) is 159 kg (350 lbs) for use onboard an adapted vehicle. Never use a wheelchair on adapted transport if the weight limit is exceeded.

Inspection:

- A regular visual inspection of the complete restraint system for adapted transport is required.

SECURING THE WHEELCHAIR ONBOARD A VEHICLE

- Install tie-down straps to the wheelchair's identified securement point locations. (see Figure 1). Securement points for adapted transport are indicated by securement point symbols on the wheelchair. (see Figure 2)

Figure 1

Figure 2

- Never install tie-down hooks on any other part of the wheelchair, if not indicated by a securement point symbol.

- Make sure the tie-down straps are properly tightened.

- To secure the wheelchair to the vehicle, install the rear tie-down straps to the rear securement points of the wheelchair. Install the front tie-down straps to the front securement points, make se the vehicle's front anchor points are spaced slightly wider than the wheelchair, this ensures better lateral stability. (see Figure 3)

Figure 3

WARNING

- The XL RF was tested with and must be used with the wheelchair's complete tie-down securement system and the vehicle's occupant restraint system to ensure compliance with the ISO 10542-1 requirements.

SECUREMENT POINT EXAMPLE

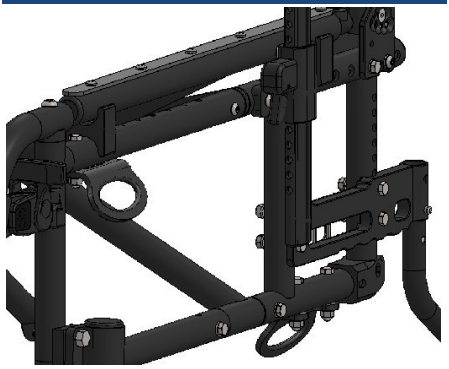


Figure 4

WHEELCHAIR CLEARANCE INSIDE A MOTOR VEHICLE

The wheelchair must be placed in a forward-facing position onboard a motor vehicle. The clear zones required to ensure the proper use of the vehicle's pelvic and shoulder belts are as follows:

Front clear zone (FCZ): The front clear zone is measured from the frontmost point of the occupant's head and must measure 26 inches (66 cm) minimum. **Note**: The front clear zone may not be achievable for wheelchair-seated drivers.

Rear clear zone (RCZ): The rear clear zone is measured from the rearmost point of the occupant's head and must measure 16 inches (40.64 cm) minimum. There must be no obstruction inside this zone.

Seated head height (HHT): This measurement from the floor to the top of the occupant's head ranges from about 47 inches (120 cm) for a shorter adult and 61 inches (155 cm) for a taller adult.

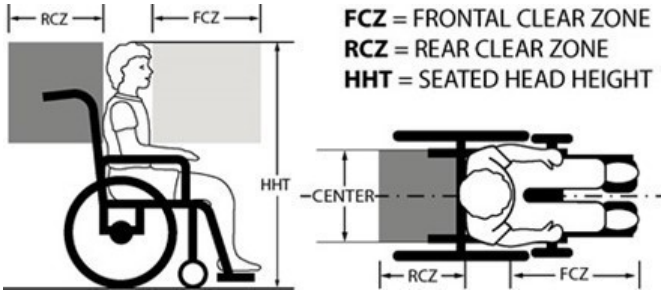


Figure 5

WARNINGS:
Securing wheelchair accessories:

- To reduce the risk of injury to passengers, remove lap trays that have not been specifically designed for transport safety and secure separately inside the vehicle or affix lap tray securely to the wheelchair, as far away as possible from the occupant, with a shock-absorbing material placed in between the lap tray and the occupant.
- All auxiliary equipment must be firmly secured to the wheelchair or removed and stowed in a secure location during transport to reduce the risk of injury.
- If auxiliary equipment cannot be removed (such as with respirators and IV supports), the equipment must be placed as far away as possible from the occupant and wrapped in a shock-absorbing material. Make sure the protective packaging material conforms to the FMVSS201 requirements.

POSITIONING THE OCCUPANT

Adjusting the wheelchair:

- During transportation, ensure the back angle is adjusted at no more than 30 degrees to the vertical to reduce the risk of injury to the occupant.
- If wheelchair is equipped with angle-adjustable seating, the seat angle must be set at 10-degrees.

Neck and head protection:

- Make sure the occupant is properly positioned in the wheelchair to protect their neck and their head in the event of a collision.
- The use of a headrest is recommended onboard adapted transport to reduce the risk of neck and head injuries in the event of a collision.

THREE-POINT SEAT BELT

Positioning:

1- Position the pelvic belt across the front of the lower pelvis. The pelvic belt should be in direct contact with the occupant's pelvis and hip bones. The pelvic belt should be positioned at an angle between 45 and 75 degrees to the horizontal. If these requirements cannot be reached, the pelvic belt can be positioned securely in the optional zone, at an angle between 30 and 45 degrees to the horizontal. (see Figure 6)

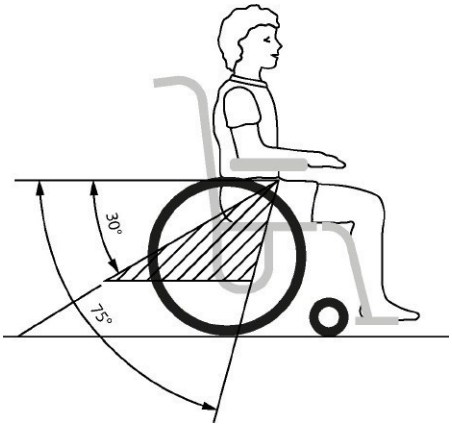


Figure 6

2- A steeper pelvic belt positioning angle in the preferred zone is recommended. A sharper angle will help minimize the formation of a vertical gap between the occupant and the pelvic belt and will considerably diminish the risk of the occupant sliding under their belt.

3- The shoulder belt should lie across the center of the chest, directly over the sternum and the middle of the anterior shoulder. The upper anchor point must be located above and behind the occupant to ensure the occupant remains in place during transportation. (see Figure 7)

Figure 7

4- The pelvic and shoulder belts should fit snugly against the occupant's body and should never be held away from the body by any of the wheelchair's components or parts (such as the armrest or wheels). For optimal positioning of the pelvic and shoulder belts, it may be necessary to insert the strap of the pelvic belt between the armrest and the backrest or in the opening between the seat and the backrest to avoid placing the strap directly over the armrest. (see Figure 8 and Figure 9)

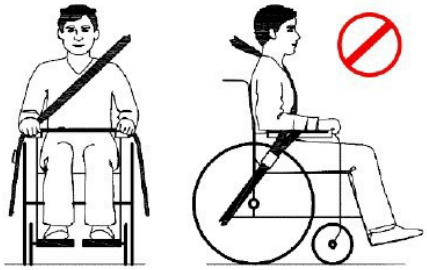


Figure 8

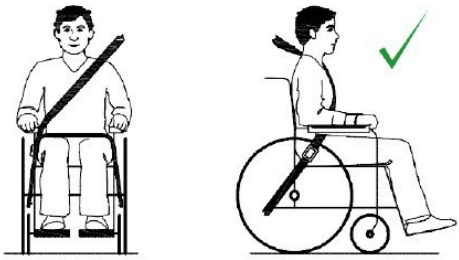


Figure 9

5- The straps of safety belt should be positioned in a straight a line, with no more than 5-degree deviation between the occupant and both the left and right anchor points.

6- Make sure the straps of the safety belt are not twisted.

7- Adjust the safety belts as firmly as possible, without impeding the occupant's normal breathing cycle or blood circulation.

WARNING:

- Postural supports should not be used to restrain the occupant in a moving vehicle, except if the product is labeled as being in accordance with the requirements specified in ISO/DIS 7176-19:2019.
- Always ensure the safety belt is properly positioned and that wheelchair components cannot interfere with the buckle and activate the opening mechanism in the event of a collision.

Wheelchair rating in accordance with the ISO/DIS 7176-19:2019 standard:

- Rating for ease of use of the motor vehicle's three-point safety belt as required by the ISO/DIS 7176-19:2019 standard:
  - **XL5 RF –** "Excellent"
- Rating of the degree to which the use of the vehicle's three-point safety belt adequately secures the occupant as required by the ISO/DIS 7176-19:2019 standard:
  - **XL RF** – "Excellent"

CRASH TEST CONFIGURATION	
ISO 7176-7 WHEELCHAIR CONFIGURATION MEASUREMENTS	
XL RF	20" (width) x 18" (depth) x 18" (STF*), 25" backrest height
ISO 7176-5 WHEELCHAIR MASS MEASUREMENT	
XL RF	17,73 kg (39 lbs)
ISO 7176-11 RECOMMENDED MAXIMUM OCCUPANT MASS MEASUREMENT	
XL RF	159 kg (350 lbs)

*STF: Seat-to-Floor Height

6. Cleaning and Maintenance

Regular cleaning and maintenance will extend the lifespan and performance of your wheelchair. We strongly recommend that when cleaning your wheelchair, you inspect all the parts and components to ensure they are in good condition.

General Recommendations

- Immediately remove all contaminates (food and/or organic).
- If a person has a contagious infection, disinfect the seat cushion, armrests, backrest, and any other surface daily with a disinfectant spray.

Cleaning your wheelchair

Painted surfaces

A weekly cleaning is recommended.

1- Clean painted surfaces with a mild soap or a neutral based detergent and water (2 ounces (6 cl) for 8L of water) and rinse thoroughly.
2- Dry with a clean cloth to absorb excess moisture.

Treating the painted surfaces with a coat of non-abrasive car wax every three (3) months will protect the painted finishes.

1- The painted surfaces must be clean and completely dry before applying car wax.
2- Apply car wax by following the instructions listed on the product label.
3- Use a microfiber cloth to polish.

WARNING
- Never use an abrasive cleaner.
- Never use a pressure washer.

Axle and Moving Parts

A weekly cleaning is recommended.

1. Remove all dirt and dust from the axles and moving parts.
2. Clean the axles and moving parts with a damp cloth and dry with a clean cloth.

ENGLISH

Sling Seat and Backrest

A weekly cleaning is recommended.

1. Gently wipe with a cloth dampened with a mild soap or neutral detergent.
2. Remove excess moisture by lightly patting the surfaces with a clean cloth.
3. Allow to air dry completely.

WARNING
Never machine wash or dry a sling seat or backrest, doing so will damage the fabric.

Comfort Accessories

A weekly cleaning is recommended.

1. Gently wipe with a cloth dampened with a mild soap or neutral detergent.
2. Remove excess moisture by lightly patting the surfaces with a clean cloth.
3. Allow to air dry completely.

Disinfection

Disinfection helps destroy infectious agents and eliminate pathogenic micro-organisms with the use of bactericidal or virucidal cleaning products.

1. Wipe surfaces with disinfecting wipes containing at least 70% alcohol.
2. Let product react for 15 minutes.
3. Rinse with a clean, water-dampened cloth.
4. Remove excess moisture by lightly patting the surfaces with a clean cloth.
5. Allow to air dry completely.

We strongly recommend that frequently touched surfaces, such as handles, armrests, handrims, propulsion wheels, wheel locks and footrest, be disinfected regularly, even daily.

WARNING
Never use a bleaching agent on fabrics or straps.

Maintenance

Performing regular maintenance will extend your wheelchair's lifespan and ensure your safety during use.

WARNING

- Upon receiving your wheelchair, a thorough inspection of all components and parts should be completed to ensure their proper function and the occupant's safety.
- A regular inspection of the wheelchair components and parts, at the intervals indicated in the *Maintenance Checklist*, is necessary to keep your wheelchair in good condition.
- The inspection by a qualified technician is recommended twice a year to ensure your wheelchair's proper operation.

Maintenance Checklist

	Weekly	Monthly	Every 6 months
General			
Clean all wheelchair parts	✓		
Make sure wheelchair rolls in a straight line	✓		
Make sure all parts operate without abnormal noises, vibrations, or irregular movements.	✓		
Wheels and Tires			
Make sure tire pressure is adequate (if applicable)	✓		
Check tires for wear or deformation		✓	
Make sure wheels roll smoothly		✓	
Check wheel alignment			✓
Check the camber angles of the wheel			✓
Make sure caster forks are securely attached			✓
Make sure caster forks rotate properly		✓	
Make sure handrims are firmly attached			✓
Make sure handrims are in good condition		✓	
Make sure spoke guards are firmly attached			✓
Make sure Quick-release axle is clean and well-oiled (if applicable)		✓	

Wheel locks			
Check the effectiveness and condition of wheel locks		✓	
Make sure wheel locks do not interfere with the rotation of the propulsion wheels		✓	
Check condition of wheel lock handles		✓	
Check the effectiveness and condition of anti-rollback wheel locks (if applicable)		✓	
Check the effectiveness and condition of One-arm wheel lock (if applicable)		✓	
One-arm propulsion mechanism (if applicable)			
Check the effectiveness and condition of One-arm propulsion mechanism (if applicable)		✓	
Armrest			
Make sure armrest are well-adjusted and securely attached			✓
Make sure height-adjustment and removable mechanism function properly			✓
Check the condition of clothing guard			✓
Check the condition of armrest pads		✓	
Footrest			
Make sure footrest are well-adjusted and securely attached		✓	
Make sure the removable footrest mechanism function properly			✓
Check the condition of footplates			✓
Elevating and Articulating Legrest (if applicable)			
Make sure the elevating legrest is securely attached and functions properly			✓
Pelvic positioning belt			
Check the condition and make sure the positioning belt is securely attached		✓	
Check the proper functioning of belt buckle	✓		

Seat and Backrest			
Make sure the seat, backrest and tension bar are securely attached			✓
Make sure the stroller bar functions properly (if applicable)			✓
Make sure the Dynamic backrest functions properly (if applicable)		✓	
Check the condition of seat and backrest covers			✓
Anti-tips			
Check the condition and adjustment of anti-tips to ensure proper functioning	✓		
Transport			
Check the condition of securement points and make sure they are securely attached	✓		

Replacement Parts

Please refer to our website to consult our parts catalog. For more information, you can contact us by phone at 1 800-668-2252, by email at order@physipro.com or visit us in person. Physipro Inc. is located at 370, 10th Avenue South, Sherbrooke (Quebec) Canada J1G 2R7.

Repair Services

All parts and components, except for pneumatic tires and inner tubes, must be repaired by the manufacturer or an authorized repair facility.

If your wheelchair presents any of the following problems: abnormal noises or vibrations, frame deviation, misaligned wheels, loose bolts, misaligned caster forks, broken or loose spokes, broken bearings, or if replacement parts are needed, please contact our customer service at 1 800 823-2252 or at order@physipro.com for the complete list of authorized repair facilities and the repair procedure.

Certain parts and components, such as the wheels, armrests, footrests, seat sling and cushion can be removed and sent directly to a repair facility, after receiving a written approval by Physipro Inc.

Certain distributors may provide replacement units during the repair process. For more information, contact your representative.

Physipro Inc. will provide repair parts for a minimum of 5 years or will provide a compatible replacement option.

7. Storage and Shipping

Storage

General Recommendations

- Your wheelchair must be stored in a clean and dry area. Do not store near any pointed objects that may damage the wheelchair.
- If your wheelchair is stored for several weeks, please consult the Maintenance Checklist, and proceed to a thorough inspection before use. It is important to verify the proper functioning of each component. If necessary, perform the recommended maintenance.
- If your wheelchair has been stored for over two (2) months, an inspection by a qualified technician is required.
- To avoid damaging your wheelchair, never store your wheelchair in an excessively humid area or leave your wheelchair outside for long periods of time in bad weather, such as rain, snow, or extreme cold temperatures.

Unfolding the wheelchair

To facilitate storage as well as transport and shipping, the wheelchair can be folded to reduce its width.

1. Position both hands over the seat rails.
2. Make sure your fingers and thumbs are placed inside the seat.
3. Press down on both seat rails simultaneously, until the wheelchair is completely unfolded, and the seat rails are locked in place.
4. Reinstall all components that have been removed.

Note - Make sure the footrest or legrest is locked in place before using your wheelchair.

WARNING

- Be careful not to pinch your fingers between the seat rails and the frame when unfolding your wheelchair.
- Make sure the wheelchair is completely unfolded and the seat rails are securely locked in place before using your wheelchair.

Folding your wheelchair

1. If your wheelchair is equipped with a One-arm propulsion mechanism, remove the spring-loaded shaft by compressing it.
2. Remove footrest or elevating and articulating legrest, if applicable.
3. If a rigid backrest is installed, you must remove it.
4. Fold the tension bar.
5. Remove seat cushion.
6. Pull up the sling seat handle to fold wheelchair.

Shipping

To safely ship your wheelchair, please follow these recommendations.

- Place the wheelchair in a sturdy cardboard box, that is large enough to accommodate the wrapped wheelchair. We recommend that the box be at least 5" (130 mm) larger and taller than the wheelchair.
- Wrap the wheelchair in a protective packaging material.
- Fill all empty space inside the box with a packaging material to prevent the wheelchair from moving around inside the box.

WARNING
Before using your wheelchair, inspect all components. Please refer to the *Maintenance Checklist*.

8. Warranty

Physipro Inc. is committed to maintain all devices, components, and parts in good working condition, and to repair all design or manufacturing defects, that may impede on the proper functioning or breakdown of the product, at its expense.

This warranty applies to all devices, components and parts and covers all materials and workmanship required for the complete execution of repair. This warranty also includes administrative and transport costs incurred for repair services.

Physipro inc. offers the following warranty periods:

5 years

- Frame and cross-brace against defects in materials and workmanship.

2 years

- Parts and labor for original defects in material and workmanship of the wheelchair components and optional components.
- New parts that have been replaced by the supplier or by an authorized dealer, with effect from the delivery date or, if applicable, from the date of replacement, with a copy of the seller's invoice required for coverage under this warranty.

30 days

- Tires, inner tubes, comfort upholsteries, armrests, seat covers, backrest covers and ball bearings.

Physipro inc. agrees to repair or replace any inoperative or defective part for the duration of the warranty period.

Devices and components that are replaced or repaired under one of these warranties will remain subject to the warranty for the remaining warranty period.

Warranty Limitation:

The warranty does not cover damages:

- Attributed to the installation of a component or part, provided by a third party or a manufacturer, without the supplier's authorization.

- Caused by a third party or a manufacturer, that does not have the supplier's authorization.

- Arising from improper use or failure to comply to the operation and maintenance instructions and the recommendations provided in the user manual.

- Damage that occurs to the product during transportation.

Replacement and repairs carried out during the warranty period must be made with the original parts and components.

To obtain warranty service, please contact Physipro Inc. or an authorized dealer.

Do not return this product without prior approval by Physipro Inc. If you are dissatisfied with this product, send us your comments by email at order@physipro.com or at the following address:

Physipro Inc.
370, 10th Avenue South,
Sherbrooke (Quebec)
Canada J1G 2R7

Physipro Inc. is responsible for ensuring that the guarantees and terms of this warranty are implemented.

ENGLISH

Notes:

Notes:

PHYSIPRO

www.physipro.com

Aides techniques à la posture et à la mobilité

Canada

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