

NEO™

WHEELBASE

USER MANUAL



Please read these instructions carefully before setting up and using the NEO Wheelbase

Introduction

The NEO wheelbase is specially designed to accept a suitable seating system.

Please read these instructions carefully before setting up and using the Wheelbase.

Intended Use

The NEO wheelbase is designed specifically for use with a seating system for people with limited mobility or who are unable to walk.

The NEO wheelbase, combined with a suitable seating system, can be specified to give a wide range of adjustment and is designed for the purpose of transporting and providing mobility for disabled persons. Please refer to the seat manufacturer's user instructions.

Using the wheelbase in a motor vehicle

The NEO wheelbase must only be used in a motor vehicle fitted with a suitable wheelchair restraint system that has been tested and approved to meet regulatory standards for passenger safety and used in conjunction with the manufacturer's instructions.



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Contents

Unpacking & Main Features	3
Setting up before use	4
Using the wheelbase	5
Fitting accessories.	6
Using the wheelbase in a motor vehicle	7
Cleaning & maintenance	8
Spare parts list	8
NEO wheel variations	9
Accessories	10
Technical Specification	12

Safety Information

- Please read these instructions for use and ensure you familiarise yourself with the features of the wheelbase and seat, especially the brakes.
- Ensure all adjustment levers and fixings are securely tightened.
- Please ensure you familiarise yourself with the handling and movement on level ground to avoid potentially hazardous situations which may cause tipping.
- Park the wheelbase on level ground, if parked on a slope ensure the brake is firmly on. Make sure that the brakes are applied when stationary, on uneven ground or when transferring (e.g. to a car).
- Do not go up or down stairs without assistance from a second person, use ramps or lifts/elevators if possible.
- Take care when approaching curbs and steps. Do not 'jump' the wheel base from a higher to a lower position.
- When lifting the wheel base always hold it firmly by the frame not by loose or moving parts.
- When reaching for objects in front, to the side or behind the wheelbase with seating system, ensure that the seat occupant does not lean too far out of the seating system as the shift in the centre of gravity might cause the wheelbase to tilt or tip over.
- Ensure that the seat occupant is secured with a suitable safety system such as belts and straps at all times in accordance with seat manufacturer's instructions.
- Do not stand on the footrests when getting in or out of the seat as this could cause the seat to tip over and could damage the footrests.

Unpacking

Getting started and preparing the Wheelbase for use:

1. We strongly recommend that 2 people lift the wheelbase and accessories from the box, taking care when lifting.



2. Check that the accessories are complete and the wheelbase is the correct size as ordered.
3. Check the width & seat depth is correct.

Note:

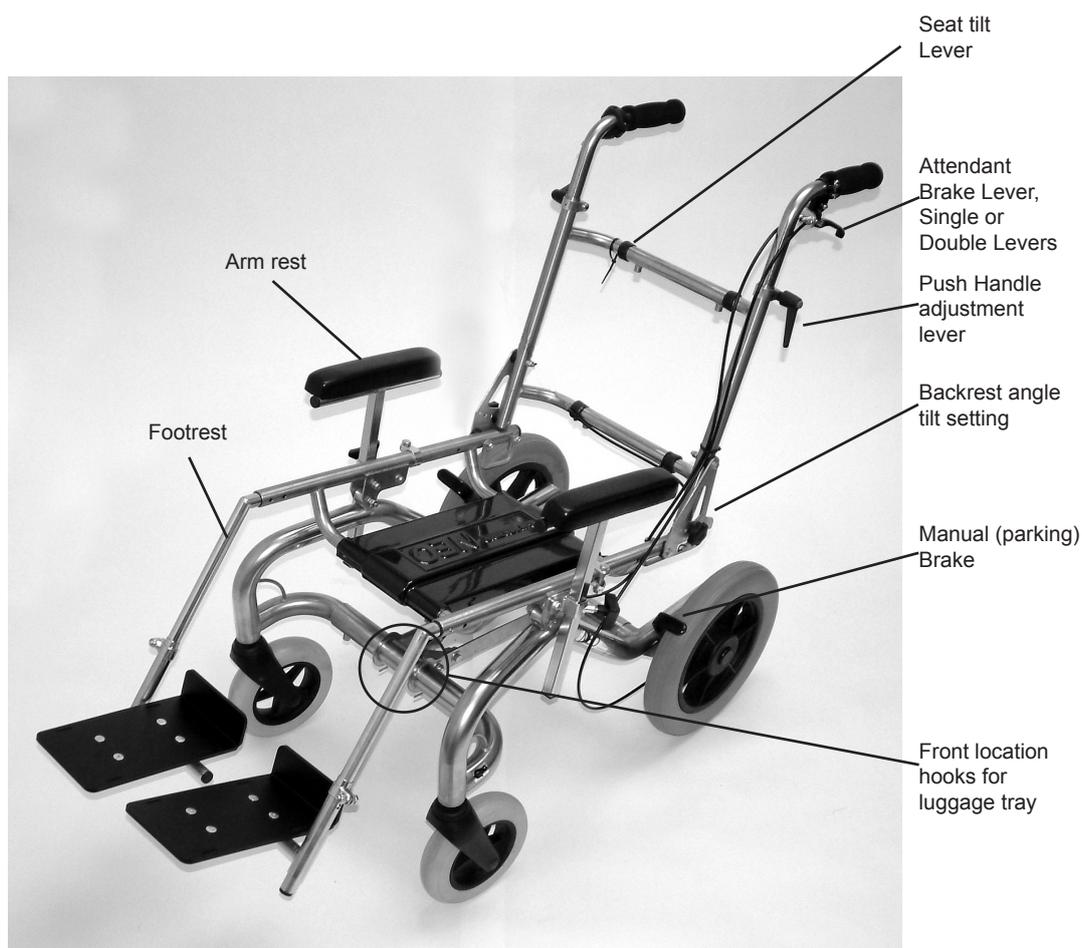
The width and depth of the wheelchair is set at the factory. These settings must only be altered by a trained Rehabilitation Engineer as this could compromise the mechanical strength of the wheelbase frame.



WARNING:

Take care when operating the **Seat tilt adjustment lever** as it will cause the seat and backrest to spring up very suddenly and could cause injury.

Main Features



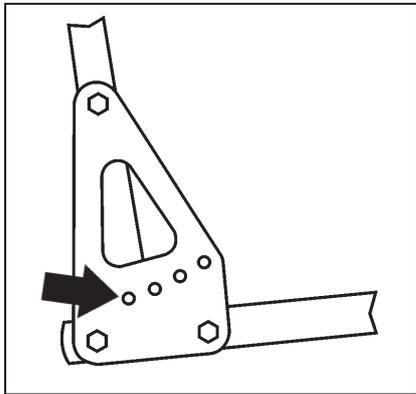
Note:

The maximum load capacity, including the seat and accessories, is 120kg.

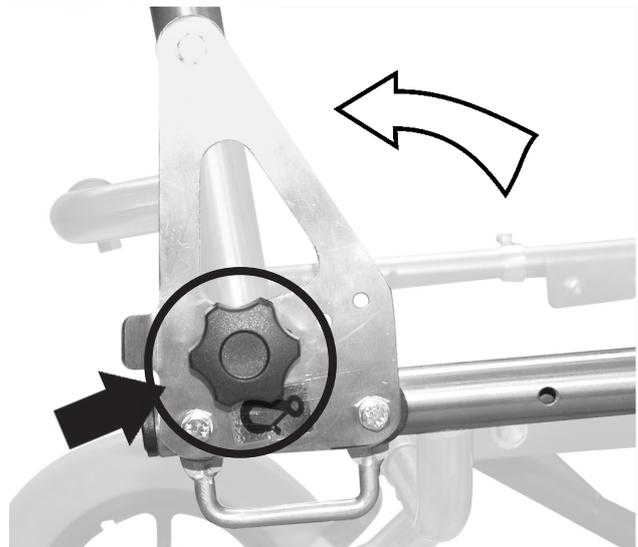
Setting up before use

1. Unfold the push handles to the upright position

Undo the large black handwheel completely on each side of the wheelbase. Raise the back rest to the most upright position, then align the holes in the bracket (see diagram) and replace the hand wheel on each side. Ensure both handwheels are tightened up securely.



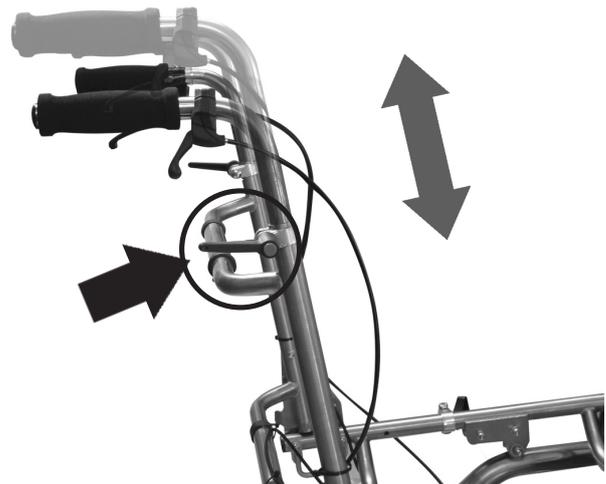
Note: on some models the handwheel is replaced with a bolt.



2. Position Push Handles

Release and undo the push handle locking lever slightly then lift both handles to a comfortable position for handling the wheelbase and seat. Tighten up and secure the lever on each side.

alternative position
for the push handles



3. Tilting the seat

The seat can be tilted backwards and forwards.

CAUTION

Take care when operating the **tilt lever** it will spring up quickly without the counter balance weight of the seat occupant.

To adjust the seat position:
apply both brakes then operate the tilt lever and use the push handles to achieve the required seat angle.



Brakes

The NEO wheelbase is fitted with two types of brake.

1. Attendant Brake

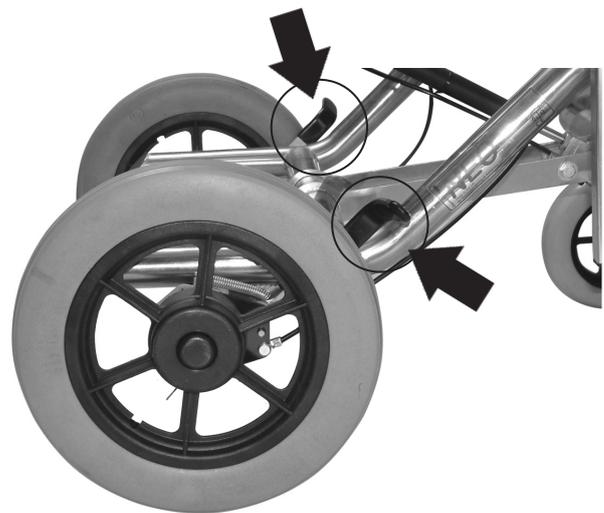
There is a hub-lock brake in each rear wheel which is operated via a cable from the lever on the push handle. This can either be one double lever or two single levers, one on each handle.



2. Manual (Parking) Brake

This brake is operated by the lever on the inside of each rear wheel.

To apply the brake push the lever by hand to engage in the on position.



Using the wheelbase

Going up and down a kerb

The pusher should take the front of the wheelbase to the edge of the kerb, approaching head on and not at an angle.

Taking all necessary precautions tilt the chair back a little to lift the front castors from the ground and move the rear wheels to the edge of the kerb.

Lower the wheelbase gently down the kerb to the ground on its rear wheels and then gently lower front castors to the ground and proceed.

Going up a kerb

The pusher should take the front of the wheelbase to the edge of the kerb, approaching head on and not at an angle.

Taking all necessary precautions tilt the chair back a little to lift the front castors from the ground.

The wheelbase is moved forward at a brisk pace, so that the front castors are on the pavement and your momentum can be used to assist you in pushing the rear wheels up the kerb.

Slopes and stairs

Care should be taken when moving up and down slopes that are not level to prevent tipping to the side. Care must be taken with loose ramps on kerbs or steps.

These ramps should be used in accordance with the manufacturer's instructions.

Stairs should be avoided if at all possible and the use of alternative route via ramps and lifts is strongly recommended.

When using stairs:

A minimum of two attendants is required.
Handles must be checked and secured and locks engaged.

Getting in and out of the seat

For details on seating and positioning occupants within the seating system, please refer to the individual seating system manufacturer's user instructions.

When transferring occupant ensure brakes are on and seat tilt is optimised.

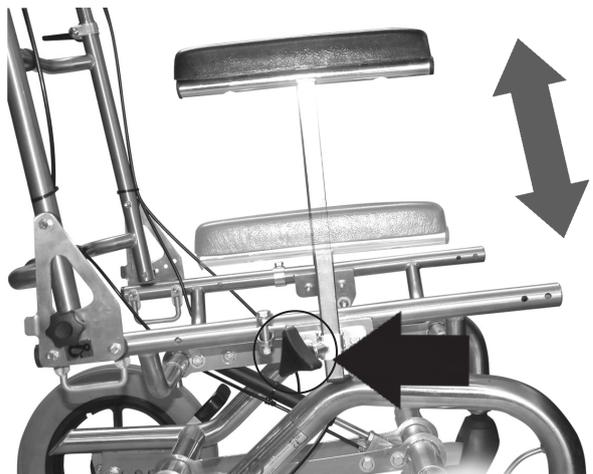
Fitting accessories

1. Armrest

To fit the armrest, partly undo the Tri-wheel on the armrest fitting on the seat frame and slide the armrest tube into the collar and adjust up or down. Ensure the Tri-wheel is tightened securely on completion.

Caution:

Do not manoeuvre wheel base with either armrest lower than 15 cm (6") above the armrest socket.



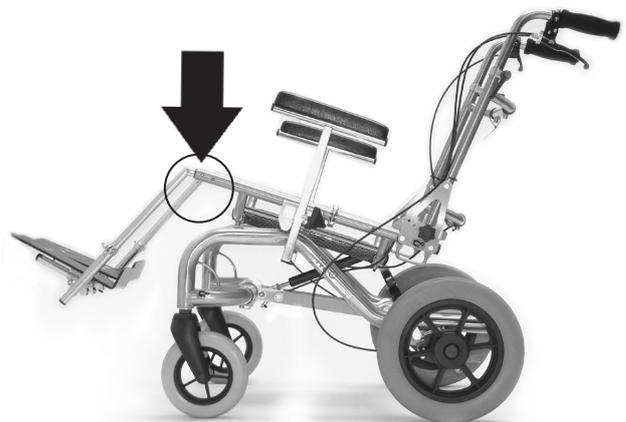
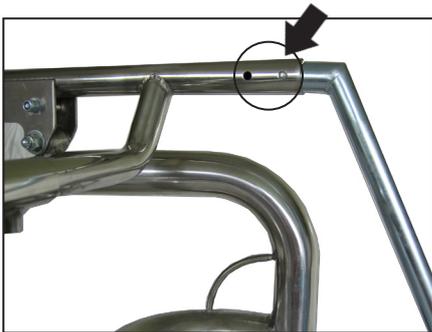
2. Footrests

These locate into seat frame tube ends. Ensure the spring locking pin engages with the hole in the seat tube.

After the seating system is fitted these can be adjusted to suit the user.

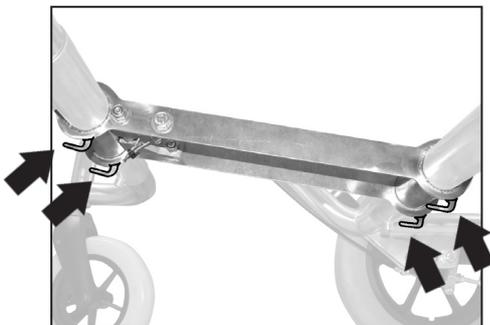
Note:

The footrest plates should face inwards towards each other.



3. Luggage carrier accessory

The luggage tray locates onto the 4 hooks on the underside of wheelbase chassis.



Using the wheelbase in a motor vehicle

The NEO wheelbase must only be used in a motor vehicle fitted with a suitable wheelchair restraint system that has been approved to meet regulatory standards for passenger safety. The NEO wheelbase was crash tested using the Unwins four point webbing system as shown below.

The NEO wheelbase and shell seat system must **ONLY** be secured at the 4 points marked with the attachment symbol shown and in accordance with the restraint system manufacturer's instructions.

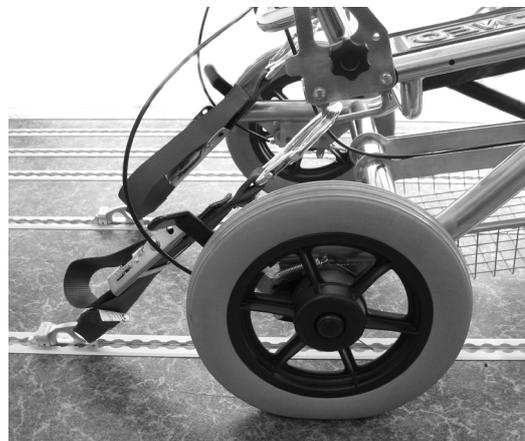
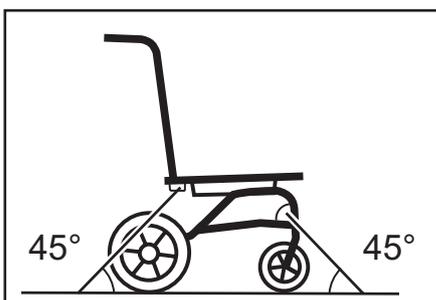


The following Safety points should be observed:

- The wheelbase and seat should face forward in the vehicle.
- Only use a tested and approved restraint system.
- All unsecured wheelchair accessories and loose items should be removed and stowed securely to avoid risk of injury.
- The seat should be as upright as possible to ensure that passenger safety belts work as effectively as possible. If this is not possible a full risk assessment should be carried out on the occupant's safety.
- It is important that the driver of the vehicle and/or the attendant be familiar with the restraint system and ensure that the wheelbase/seat and occupant are secured safely and in accordance with the restraint system manufacturer's instructions.

The NEO wheelbase should be positioned forwards in the vehicle and centrally over the metal securing rails in the floor.

Attach the restraining straps to the NEO wheelbase frame at the 4 points marked with the attachment symbol and secure the straps in accordance with the restraint system manufacturer's instructions. The straps should typically form an angle of 45 degrees with the floor.



A strap can be fitted, as shown, in order that a Carabiner fixing may be used, Unwins Part No. DR120.

Cleaning and maintenance

Regularly, and at least once a week, inspect the wheelbase paying particular attention to the brakes and check that they are in good working order. Check that all adjustment points are tightly fastened and secure. Ensure that the hand grips are firmly attached.

The frame and wheels should be cleaned with warm water and mild detergent.

Hub brakes

The hub brakes will bed-in over the first 6-8 weeks of use.

Do not attempt to adjust the brake by altering the tension adjuster on the cables. Brake adjustment should only be carried out by a suitably qualified wheelchair technician or wheelchair repair service.

Spare Parts List

Part No	Type	Description
1001	Grub screw	M8 x 12
1002	Bolt	M6 x 45
1004	Screw	M8 x 25
1005	Bolt	M8 x 45
1006	Bolt	M8 x 100
1007	Screw	M6 x 25
1008	Screw	M6 x 50
1009	Nyloc Cap Nut	M6 x 8
1010	Nyloc Cap Nut	M8x9.25
1003	Nyloc nut	M8
1011	Washer	M6
1012	Washer	M8
1013	Nut	M6
1014	Cable Ties	4x 160 long
1016	Handwheel	M6 x 20 stud
1017	Strut Cover	
1019	Strut Cable	
1020	Stut & fittings	
1021/5	Rear wheels with hub, Five spoke from 2012 onwards	Excludes Brake Kit BK100
1021/6	Rear wheels with hub, Six spoke pre 2012	Excludes Brake Kit BK100
1022	Brake Cable	
1024	Brake Lever	
1025	Tilt Lever	
1026	Castor	
1027	Karabiner Label	
1028	Retaining cable	Push handles
1029	Brake lever cap	
1030	Saddle washer	Black nylon
1031	Clamp handle	

Part No	Type	Description
1032	Tube plug	
1033	Tube clamp & Bolt	For push handles
1034	Rattle proof collars	
1034	Rattle proof collars	
1035	Bar Grips per pair	
1037	Hangers	
MF026	Welded Main Frame(s)	Left Hand
MF027	Welded Main Frame(s)	Right Hand
MF005	Brace assembly	Main Frame
SF010	Seat Rail Welded assy.	Left Hand
SF011	Seat Rail Welded assy.	Right Hand
SF031	Brace assembly	Seat Frame
SF048	Arm rest bracket spacer.	25 mm long tube
PH014	Handle Post Assembly	Right Hand
PH017	Handle Post Assembly	Left Hand
PH015	Push Handle	
PH036	Handle Post Bracket	Triangular plate
PH049	Post handle spacer tube	30 mm long tube
BK072	Wheel Spacer	
BK073	Wheel spacer Washer	
BK100L	Brake Kit complete <i>Left hand</i>	Includes parts listed below
BK100R	Brake Kit complete <i>Right hand</i>	Includes parts listed below
BK070	Location Plate	NB: Included in BK100
BK060	Operating Arm (<i>Handed</i>)	NB: Included in BK100
BK061	Slave Arm (<i>Handed</i>)	NB: Included in BK100
BK062	Roller (Stainless Steel)	NB: Included in BK100
BK063	Bush	NB: Included in BK100
BK065	Shouldered Nut	NB: Included in BK100
LE045D	Return Spring	NB: Included in BK100
BK066	Brake Lever (<i>Handed</i>)	NB: Included in BK100

NEO Wheel Variations

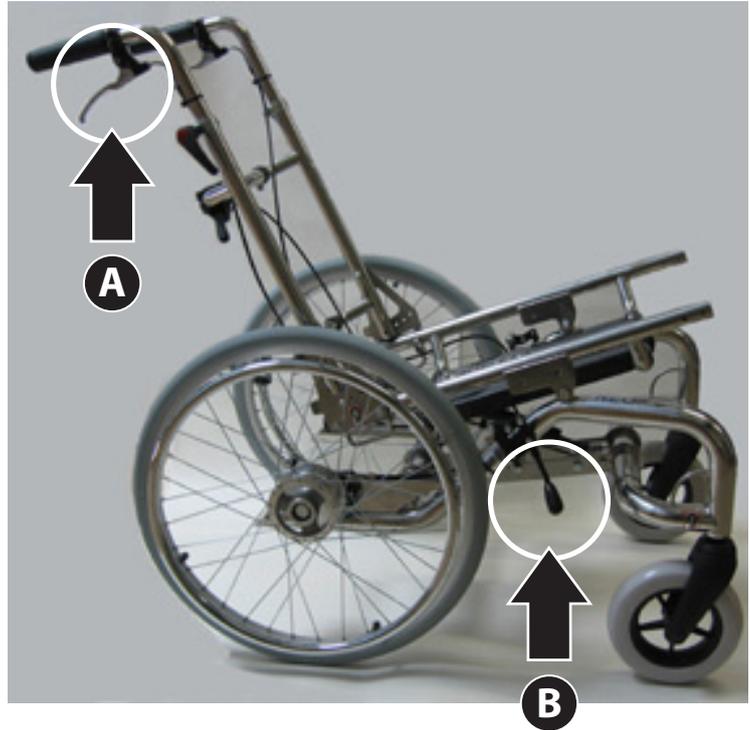
NEO wheelbase with 20" wheels, attendant brakes and parking brakes

Attendant Brake [A]

There is a hub brake in each rear wheel which is operated via a cable from a lever on the push handle.

Manual Parking Brake [B]

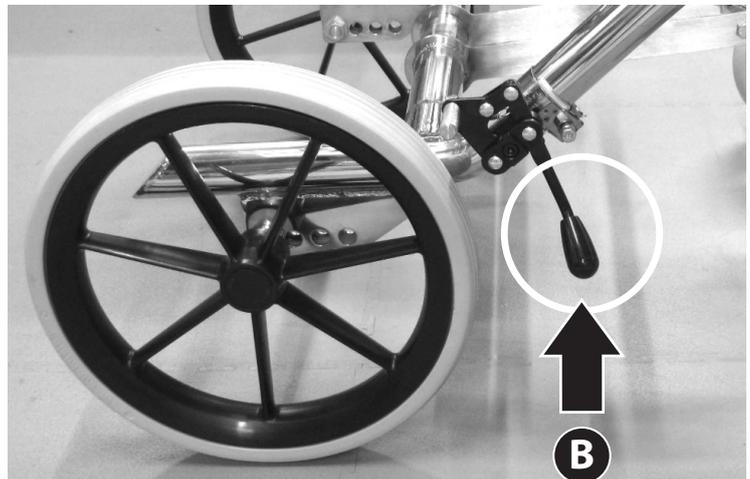
This brake is operated by the lever in front of the rear wheels. To apply the brake pull the lever upwards, by hand, to engage the on position.



Budget NEO with parking brake only

Manual Parking Brake Only [B]

This brake is operated by the lever in front of the rear wheels. To apply the brake pull the lever upwards, by hand, to engage the on position.



Accessories:

These are suitable for the NEO and other similar wheelbases



FTH20F
Footrest hanger for Discovery MK2
FTH30F
Footrest hanger for NEO Wheelbase



FFU36F Flip up footplates Small
FFU42F Flip up footplates Medium
FFU45F Flip up footplates Large



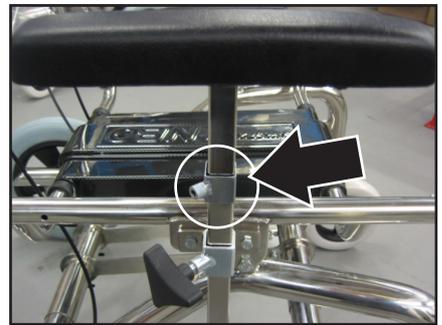
FTR42F Multi axis footplates Medium
FTR45F Multi axis footplates Large



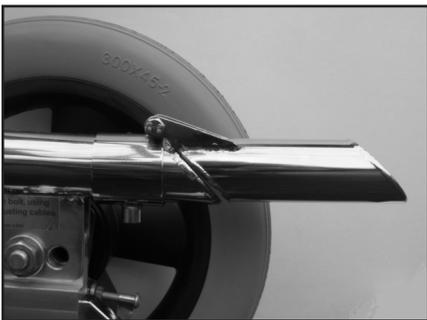
FSA10F
Swingaway footrest hangers
for Discovery Mk2 and NEO wheelbase



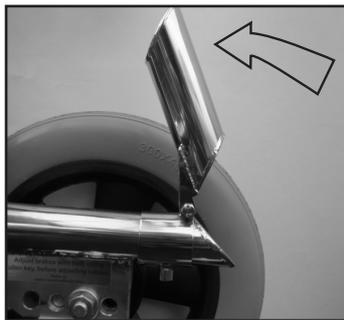
FHB10F Footrest hanger brace kit.
For Discovery Mk2 and NEO wheelbase
Mk 2 Dec 2011 onwards
Note: Hangers are NOT included.



ARM60F Arm rest stop collar



1 Extended position



2 Folding back



3 Folded over, not in use

NTA10F Tip Assist extension

Note: This extension can be folded over when not in use

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Accessories:

These are suitable for the NEO and other similar wheelbases



NAT10F Anti tipper



INT50F NEO Cross tube interface adaptor



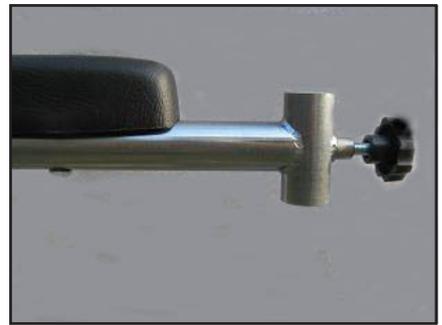
ARM50F Arm rest outrigger



DR120 Tie down 'D' ring strap



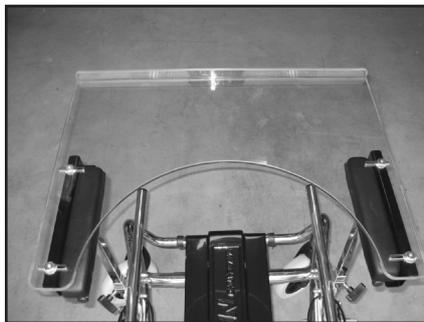
ARM10F Armrest (with sockets)



TRB10F Tray brackets to fit onto standard arm rests.



NPH10F Pram handle (width adjustable)
(Please note that this is the handle and grips only and does NOT include the Brake Levers and cables)



TRA10F
Tray: Small 600 wide x 500mm
TRA20F
Tray: Large 650 wide x 500mm
Material 8mm Polycarbonate



NBK10F NEO Basket
Size 340 x 340 x 100mm deep

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Technical Specification

Maximum Load including Seating System and luggage	120kg
Frame weight (excluding accessories)	20kg
Material	304 Stainless Steel
Seat Depth	390-460mm
Seat rail Diameter	25.4 (1 inch)
Tilt angle	35 degrees
Tilt Mechanism	Single gas strut
Width adjustment (Factory Set)	370-510mm
Wheel Lock	'Hub Lock' Cam, operated by lever
Overall width	530-670mm
Height	960mm
Push handle extension	220mm
Overall Length	715-775mm
Crash Test Standard	ISO 7176/19

Authorised wheelchair service centre:

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