



Specialised  
Orthotic  
Services

# BM SEATING SYSTEM



## USER'S MANUAL

ALL USER'S OF THE EQUIPMENT SHOULD BE AWARE  
OF THIS DOCUMENT AND ITS CONTENT

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# B.M. SEATING SYSTEM

## (Class 1 Device)

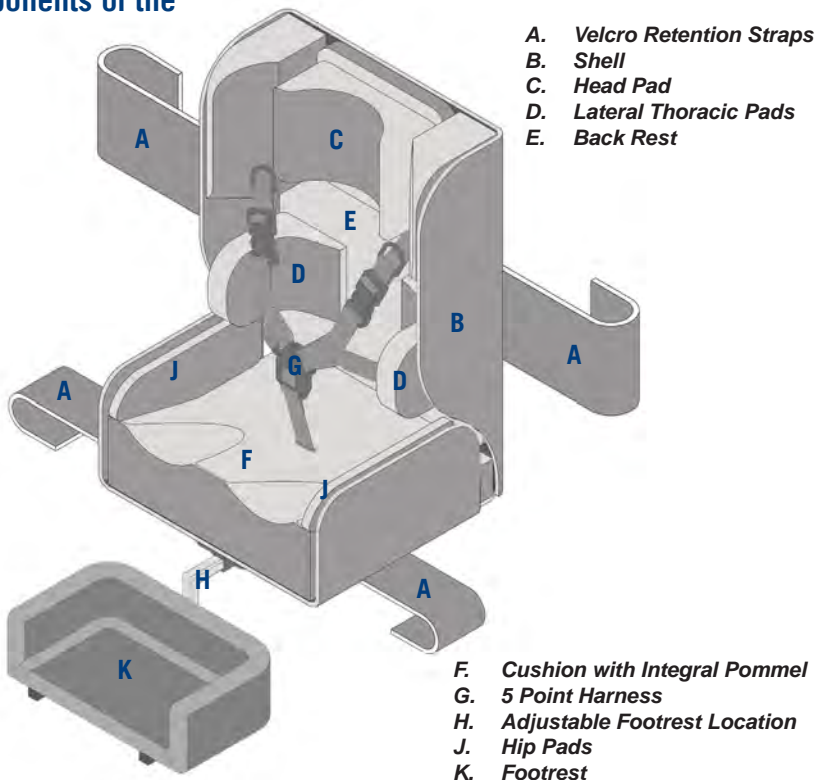
### Introduction

- The user's guide for the BM Seating System is designed to give guidance on its use and maintenance.

### Description

- The BM Seating System is a Modular Seating System intended to provide a variable amount of external support to establish a stable sitting position.
- The BM Seating System is available in one size that can be adjusted via growth liners to accommodate different sizes.
- The BM Seating System is intended for use by children from 12 months of age and upwards.
- It is important that children are assessed by a suitably qualified clinician with experience in the provision of **SPECIALISED SEATING**. Contact your local Wheelchair Service who will be able to offer advice regarding the provision of **SPECIALISED SEATING**.

### Basic Components of the BM System

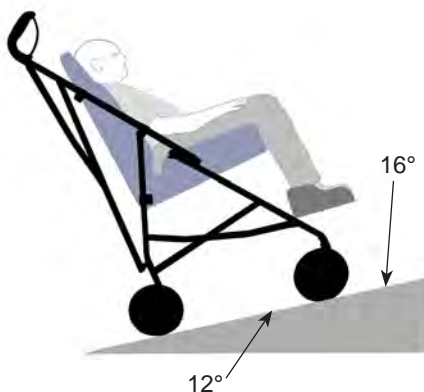


## Clinical Review

- To ensure the BM System continues to meet the clinical requirements of the client, it is recommended that the system is reviewed by the Special Seating Clinic at least once a year.
- This may be done automatically by your District Wheelchair Service.
- If a client has had a BM System over 12 months it is recommended that you contact the District Wheelchair Services for a review. This will ensure that the BM System is maintaining the clinical needs of the client.

## Stability of Buggy/Wheelchair and Seating Systems

- To ensure that the BM System and wheelbase are safe to use, it is important that fitting the BM System to the wheelbase does not make the wheelbase unstable during normal daily use. Each BM System when handed over to the user will be tested for stability to the relevant angle of stability for the chair to be tested.
- The recommended maximum angle of tilt is 12 degrees for attendant transit wheelchairs and 16 degrees for users of self propelling wheelchairs and 16 degrees for users of electric indoor and outdoor electric wheelchairs.
- If the client is going to use additional items mounted to the wheelbase or seating system such as communications aids etc., then it is essential that the test be done with these in situ to assess their impact on the safety of the wheelbase. Similarly, simple items such as trays need to be in place for the test to take into account all the equipment to be used by the client (see diagram opposite).
- The stability test is always done with the client seated in the seating system and all equipment to be used by the client on a daily basis when in the seating system in situ. The combined client Seating System and wheelbase assembly is tested to the specified maximum angle of tilt.
- Once the test has been successfully completed a Stability Certificate will be issued by Specialised Orthotic Services Limited. A copy of this certificate will be handed over when the equipment is supplied and should be kept with the user manual for future reference.
- **The BM is not to be used with any other wheelbase(s) than those for which it has been stability tested and proven safe for use.**
- **Always steer clear of obstacles where possible.**
- **When using the equipment never attempt to climb or descend an incline where the surface is rough, wet or slippery (gravel, loose chippings, grass, rain, ice, snow, etc).**
- **If the equipment is to be used in an electric wheelchair then read carefully the wheelchair manufacturers instructions with regard to safety.**



## Stability of Buggy/Wheelchair and Seating Systems (Cont.)

- **WARNING:** Whilst the client is seated in the seating system, the attachment of any heavy object to the wheelbase (i.e. shopping bags etc.) will have a serious effect on the overall stability of the wheelbase and may place the safety of the client at risk.

### Stowage of the Seating System and Wheelchair

- During use of your Special Seating System it may be necessary for you to remove the Seating System and stow this along with the wheelchair in a vehicle.
- It is **important** to realise that these items pose a **risk** if not adequately restrained whilst in transit.
- It is **not** adequate to simply place the items into a car boot or the floor of an open vehicle such as an MPV or estate car as in a collision these unsecured items could cause **serious injury** to occupants of the vehicle.
- Various retention methods are available to secure such equipment during transit, and a list of Wheelchair Restraint System Manufacturers are listed below.

### W.T.O.R.S MANUFACTURERS

Below are details of some Wheelchair Tie down and Occupant Restraint Systems manufacturers.

#### UNWIN SAFETY SYSTEMS

Unwin House  
The Horseshoe  
Coat Road  
Martock  
Somerset  
TA12 6EY

TEL: 01935 827740  
FAX: 01935 827760  
E Mail: sales@unwin-safety.co.uk

#### KOLLER ENGINEERING LTD

Unit 5, Garrett Road  
Lynx Trading Estate  
Yeovil  
Somerset  
BA20 2TJ

TEL: 01935 426695  
FAX: 01935 433766  
E Mail: enquiries@koller.co.uk

#### QSTRAINT (EUROPE)

Unit 175  
John Wilson Business Park  
Whitstable  
Kent  
CT5 3RB

TEL: 01227 773035  
FAX: 01227 770035  
E Mail: qstraint@qstraint.com

#### SAFETEX

Unit 16 / 17  
Bookham Industrial Park  
Church Road  
Bookham  
Surrey  
KT23 3EU

TEL: 01372 451272  
FAX: 01372 451282  
E Mail: sales@safetex.com

# USER GUIDE 1.0

## 1.1. FITTING THE BM SEATING SYSTEM TO THE WHEELBASE.

- To fit the BM System correctly into the wheelbase is important for the clients safety.
- Make sure the velcro retaining straps '1' (Fig.1.1a) are undone before fitting the BM Seat into the wheelbase.
- Place the seat into the wheelbase making sure that it is right back on the seat canvass
- Feed the two broad velcro straps around the wheelbase seat and overlap firmly to secure the BM seat in position



View on 'A'



View on 'B'

# USER GUIDE 2.0

## 2.1. PLACING THE CLIENT IN THE BM SEAT

- It is important that all carers are aware of the Health & Safety guidelines for '**Lifting and Handling**'.
- Before lifting the client make sure all straps are placed out of the BM System. This will avoid the straps becoming trapped under the client when seated.
- With all the client harness straps released and placed outside the seat the client can now be placed in the seat.
- It is very important that the pelvis is positioned right back into the back of the seat base, failure to do so may well detract from the sitting posture achieved.

## 2.2. FASTENING THE HARNESS AND SECURING THE CLIENT

- Once the client is placed, secure the harness around the client, joining the straps at the release button '2' and pulling the straps through the cam buckles (Fig.2.2b) until correctly adjusted, then close the cam buckles.
- For extra adjustment pull or release the shoulder straps via the 'D' rings (Fig.2.2a).
- Overlap the velcro band '3' attached to the lateral supports (Fig.2.2c) across the front of the client and close the velcro together.

1 - 'D' Rings

2 - Release Button

3 - Lateral Support Velcro Band



View on 'A'





## 2.3. FOOTREST FITTING & ADJUSTMENT

- If the adjustable footrest is to be used this can be attached easily by inserting the footrest bracket into the locating socket at 'H' (Fig.2.3a), the footrest is secured by turning the locking knob (Fig.2.3b) in a clockwise direction until locked.
- The footrest is easily detached by turning the locking knob anti-clockwise 4 or 5 turns to release the lock and slide the locating bracket out.
- With the client safely seated as instructed the footrest can be simply adjusted by releasing the vertical (Fig.2.3c) and horizontal (Fig.2.3b) wing knobs.



## 2.4. UPHOLSTERY

- All the support pads fitted to the BM System are attached by Velcro. The pads have fitted covers and these can be removed by simply unzipping the cover.



# USER GUIDE 3.0

## 3.1. ADJUSTING THE BM SEATING SYSTEM

- The BM is provided with removable growth pads that allow the seating system to be adjusted to suit the original size of the client when assessed and also to allow for growth or comfort.

## 3.2. ADJUSTING THE DEPTH OF SEAT (Leg Length)

- If the harness goes through the back panel and packers then release the upper cam locks on the harness (See 3.6) and pull the upper straps (Fig.3.2a) through the seat shell and all the back panels.
- Remove the complete back panel assembly including all pads (Fig.3.2b).
- Refit the amount of packers you require (if any) and then refit the upholstered back panel (Fig.3.2c).
- Refit harness straps (See 3.6).



### 3.3. ADJUSTING THE HEADREST

- If the harness goes through the headrest pads and packers, then release the upper cam locks on the harness (See 3.6) and pull the upper straps (See 3.6)) through the seat shell and all the back headrest pads.
- Remove the headrest (Fig.3.3a) then remove the complete headrest pad assembly including all pads (Fig.3.3b).
- Refit the amount of packers you require (if any) then refit the upholstered headrest pad and headrest (Fig.3.3c).
- Refit harness straps (See 3.6).
- Headrest can be set at any height along the headrest pad via the velcro strips to find the correct position for the client.



### 3.4. ADJUSTING THE HIP PADS (Thigh Width)

- Remove the upholstered pad (Fig.3.4a), remove the amount of pads you do not require (Fig.3.4b) then refit the upholstered pad.



### 3.5. ADJUSTING THE LATERAL PADS (Width & Height)

- If the harness goes through the back panels and packers, then release the upper cam locks on the harness (See 3.6) and pull the upper straps (Fig.3.5a) through the seat shell and all the back panels.
- Remove the complete back panel assembly including all pads (Fig.3.5b).
- Release the straps (Fig.3.5c) from the rear of the pads.
- Reposition the lateral pads (Fig.3.5d) and secure the strap around the back of the pads.
- Refit the back panel assembly and secure the chest strap (Fig.3.5e).
- Refit harness straps (See 3.6).



### 3.6. ADJUSTING THE HARNESS (Height)

- Press the red button (Fig.3.6a) in the centre of the buckle to release the straps.
- Release all the cam buckles (Fig.3.6b) at the rear and under the shell and pull out the two upper straps.
- Re-insert the straps through all the corresponding pads (Fig.3.6c) at the required height and through the corresponding slot in the shell (Fig.3.6d).
- Adjust the strap lengths to roughly the correct length and close the cam buckles (Fig.3.6e).
- Finally follow the procedure for fastening the harness and securing the client (See 2.2)





# USER GUIDE 4.0

## MAINTENANCE OF THE BM SYSTEM

To make sure that the BM System remains satisfactory it is necessary to carry out simple maintenance.

### 4.1. CLEANING THE BM SYSTEM

- During use the BM System will require cleaning. This can be done by simply applying a warm damp cloth with a mild detergent to the inside surface of the seat to remove any soiling and towel dry. **Note:** The covers/pads **MUST** be removed prior to any cleaning of the seat.
- If the BM System remains slightly damp simply leave for a short period at room temperature to dry.
- The inner Foam pads on the BM System are made from an open cell foam, which will absorb water. **DO NOT** get these excessively wet as the foam will be a problem to dry.
- The cushion foam is sealed in a special water proof clear plastic protective skin which although waterproof is air permeable to assist daily management. Under no circumstances is the clear protective skin to be removed as the foam will have no protection against contamination and will need to be replaced. If the plastic skin becomes seriously damaged contact SOS immediately. To clean the cushion pad, simply wipe down with mild detergent and a damp cloth and towel dry and leave at room temperature to dry thoroughly. Under no circumstances use excessive heat to try to dry the foam as this could damage the protective skin.
- **DO NOT PUT THE BM SYSTEM NEXT TO A HOT FIRE OR USE EXCESSIVE HEAT TO DRY AS EXCESSIVE HEAT COULD AFFECT THE COMPONENTS OF THE SEAT.**
- **DO NOT USE SCOURERS OR CAUSTIC SUBSTANCES SUCH AS BLEACH**

## 4.2. REMOVABLE COVERS

- For cleaning of removable covers please refer to wash label on the inside of the padded cover.
- **DO NOT REMOVE THE FOAM FROM THE WATERPROOF LINER OR TRY TO WASH IT AS THIS FOAM WILL ABSORB WATER AND WILL BE A PROBLEM TO DRY OUT.**
- **ANY DEVIATIONS FROM THE WASH LABEL MAY AFFECT THE FIRE RETARDANCY OF THE COVER(S).**

## 4.3. HARNESSSES, PADS & STRAPS

- Make sure all straps are in good working order and that buckles work correctly.
- If any show signs of fraying or any buckles are broken or faulty contact your Wheelchair Service immediately, **DO NOT ATTEMPT TO REPAIR.**
- Harnesses may be cleaned by applying a warm damp cloth with a mild detergent, **DO NOT USE POLISH.**

## 4.4. VISUAL INSPECTION

- Every 3 - 4 weeks check the condition of the BM System and wheelchair, if you notice any faults or broken parts please notify your Wheelchair Service immediately, **DO NOT ATTEMPT TO REPAIR.**

## 4.5. FIRE RETARDANCY

- Fire retardant materials have been used in the construction of this seating system.
- It is important that no accelerants are introduced to the materials (e.g. Hairspray, fabric cleaners, deodorants, polish etc..), as this may adversely affect the fire retardancy of your equipment.

## IF YOU DETECT A FAULT OR BREAKAGE

1. IF YOU DETECT A FAULT OR BREAKAGE OF THE EQUIPMENT THEN REPORT THIS IMMEDIATELY.
2. UNDER NO CIRCUMSTANCES ARE ANY MODIFICATIONS / ALTERATIONS TO BE DONE BY ANYONE OTHER THAN SPECIALISED ORTHOTIC SERVICES LTD (see contact details enclosed).
3. TO CONTACT SPECIALISED ORTHOTIC SERVICES LTD PLEASE REFER TO THE INFORMATION INCLUDED IN THIS USER MANUAL.

## REPAIRS & SERVICE

### **Within the warranty period.**

All Seating Systems manufactured by Specialised Orthotic Services Ltd. carry a guarantee on the main parts for 12 months, excluding covers and straps which are guaranteed for 3 months, when used normally. If during this period the product becomes defective and needs repair then please contact SOS (please see the end of this users guide for details). You can also contact your local wheelchair service regarding any faults requiring attention.

### **Outside the warranty period.**

For any goods requiring repair or attention after the guaranteed period, then assessment can be made as to the cost of the work required to effect the repair.

On acceptance of this quotation the work will proceed.

### **Misuse or neglect.**

**The repairs necessary resulting from misuse or neglect, whether within the warranty period or not will be charged for.**

## MEDICAL DEVICES DIRECTIVE 93 / 42 EEC

**Specialised Orthotic Services Ltd.** in compliance with the Medical Devices Directive have an obligation to investigate and take corrective action on defective devices. To assist us with this procedure we would appreciate your assistance in meeting this obligation by informing us as soon as possible and make the device available for inspection as soon as possible having become aware of a defect.

We are required to notify the Competent Authority of certain types of incidents within 10 to 30 days.

As part of our quality system we have established procedures to deal with such incidences and would appreciate your swift notification to us via our telephone, fax or e-mail details at the end of this users manual.



If you require further copies of this handout or require further details relating to any of its content, then please contact us (Copyright applies):



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