

## RECOMMENDED ACCESSORIES

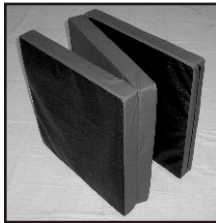
Nexus accessories are designed to work in harmony with the moving parts of our beds and, in conforming with EN1970-2000 bed Standard, reduce the risk of entrapment. Use of other manufacturers' products with our beds may take a bed/mattress combination out of EN1970-2000 guidelines and may increase the entrapment risk. Neither Nexus DMS Ltd, nor any of its employees, can take responsibility for any issues arising from use of such products.



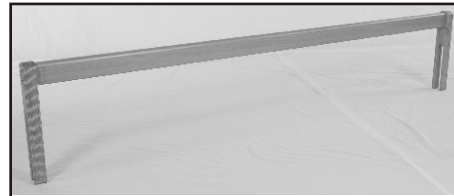
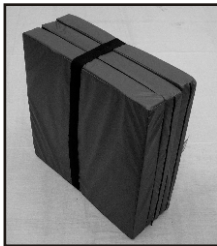
A range of matched pressure care & non-pressure care mattresses



Safety foam bumpers for siderails



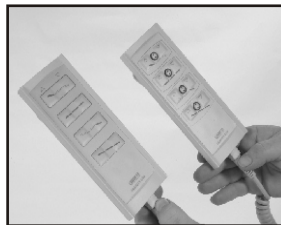
crashEx  
safety mat



Matched siderail height extenders



easyEx  
movement aid



Function-lock hand control



lightEx  
reading and  
examination light

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# Harvington

Electrically powered profiling cantilever bed,  
incorporating in-built extendability  
from 200cm to 220cm long

Code CB3E-200-90

## USER MANUAL

October 2009 edition



## SAFETY NOTICE

This manual contains important information regarding the safe & proper use of the bed. It is important that any persons involved in the assembly and/or use of the bed should have read & understood its contents. Failure to do so could result in damage to the bed and may invalidate the warranty. Be aware that elements of the bed are heavy. Those involved should observe the safe lifting and handling techniques recommended under Health & Safety Regulations.

**PAY PARTICULAR ATTENTION TO THE FOLLOWING ADVICE.**

(also refer to page 9 for guidance on Safe Working Loads)

### ASSEMBLY & INSTALLATION.

- \* The bed should be assembled by suitably competent persons.
- \* Ensure that the local electricity mains voltage corresponds to that marked on the main controller label before connecting to the supply.
- \* Ensure that cables from actuators are plugged into the main controller correctly.
- \* The fuse in the mains 'safety connector' plug should not exceed 5amps.
- \* The bed should be located on a level surface & not sited on loose floor coverings.
- \* The cable from the mains electricity supply must be routed clear of the lifting mechanism & castors to avoid danger of shearing or crushing.

### OPERATION.

- \* The brake on each castor must be applied whilst the bed is in use (see also Page 8).
- \* Do not allow children underneath the bed or to use the controls.
- \* Do not position objects under the lifting mechanism of the bed.
- \* Always ensure that limbs or body parts of both user and carer are not protruding from the bed, are not between the siderails or into the lifting mechanism when using the powered functions.
- \* Never exceed the maximum usage period of 2 minutes continuous use in any 18 mins. for any of the powered functions. Should you do so the actuator may 'close down' for a period to 'recover'.
- \* If, during operation, there are any unusual noises or smells then disconnect the bed from the mains electricity power supply immediately. Ensure that no cables are trapped.
- \* When raising/lowering the bed be very aware of any fixtures such as window sills, shelf units & electrical power sockets which may obstruct the raising of the bed. If necessary re-position the bed to avoid contact and damage.

### RE-SITING.

- \* If moving the bed to a different location always ensure that all bed functions are at their lowest position & remember to remove the plug from the mains electricity power supply.
- \* Release all brakes before moving the bed, otherwise damage may occur.
- \* Never use the siderails to push or pull the bed. Always use the head and foot boards.
- \* With or without occupant, the bed should only be moved at slow speed & not pushed over a threshold strip greater than 2cm in height.
- \* Once the bed is re-sited remember to re-apply the brakes.

### MAINTENANCE & CARE.

- \* All wingscrews, grubscrews & mechanical fixings should be checked regularly for tightness.
- \* Use a damp cloth with normal household cleaners or warm soapy water to clean the bed. Do not use cleaning agents containing ammonia, abrasives or strong solvents.
- \* Mechanical cleaning, scouring, pressure hoses or automated cleaning will damage the bed.
- \* All electrical actuators are fitted with maintenance-free self-lubricating bearings & no attempt should be made to oil or grease these parts.
- \* A suitably qualified service engineer should check all electrical parts & cables and mechanical functions For correct operation at least once every year.
- \* Any unauthorised modifications, adjustments or alterations will invalidate the product warranty.
- \* Repairs should only be carried out by a suitably qualified competent engineer.
- \* Pro-beds are classed as 'double insulated' appliances, although the mains electricity safety connector supplied with each bed is not. If beds are to be used in commercial premises then customers should seek the advice of a qualified electrician regarding 'PAT2' test recommendations, as Nexus DMS Ltd cannot advise on, or undertake, such testing.

SHOULD YOU HAVE ANY DOUBTS THEN PLEASE SEEK ADVICE!

## Troubleshooting.

### Fault

No actuator functions when hand control operated

One actuator does not work when button is pressed.

### Remedy

Check connection to mains electricity supply & fuse; check that the safety connector has not become disconnected; check connections of hand control and actuator plugs to main controller.

Check connection between actuator cable and controller.

**TIP:** If you have another Nexus bed of the same type (which you know is functioning correctly) try the hand control off that bed - if this cures the problem then the original hand control is

## Technical Data.

|  |  |
|--|--|
| Operating voltage  | ~230V / 240V / 50Hz                                  |
| Power reception  | 160 VA   |
| Power duration   | max. 2 mins in 18 mins (10%)                         |
| Appliance type B   |  |
| Safety class II  | <input type="checkbox"/>                             |
| Weight of bed  | CB3E-200-90 Harvington bed 177 kg (without mattress) |
| Safe Working Load <small>(refer to P.9)</small>                          | Harvington 260 kg (41 stones)                        |
| Product conforms to  | EN 1970:08.2000                                      |
| Product conforms to  | EN 60601-1-1:1990                                    |
| The Company reserves the right to make technical changes without notice. |  |

## RECORD OF MAINTENANCE & SERVICING

Use this page to keep a record of repairs to and servicing of this bed.

From the identification label attached to the bed (see Page 4) make a note of the following:

BED TYPE: Harvington  
PRODUCT CODE: CB3E-200-90  
SERIAL NUMBER: .....

**DATE:**            **DESCRIPTION:**

## SPARE PARTS

When contacting us for assistance or to order spare parts it is essential that we have the unique Serial Number from the bed (see Page 4). This enables us to identify the correct items for the model of bed and year of manufacture. A spare parts list is available on request or by visiting our website, where you will find this and other technical documents available for download ([www.nexusdms.co.uk](http://www.nexusdms.co.uk))

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## FEATURES OF HARVINGTON BEDS.

This modular care bed has four electrically operated functions - back rest, leg rest, bed height & Trendelenburg / reverse Trendelenburg. These are powered by linear actuators each of which is sealed, uses maintenance-free permanent lubrication and is ingress protected to IP54 standard. A floating backrest is incorporated.

The functions are operated using a 4-function function-lock hand control connected to the main controller via a spiral cable. The hand control & main control are ingress protected to IP54.

All electrical functions are isolated from the mains power supply & operate at 24v DC low voltage.

A 240V mains electrical 'safety connector' is supplied. This can reduce the likelihood of damage or injury if the bed is moved before being unplugged from the mains power supply socket.

The mattress support is constructed from metal slats which allows the mattress to breathe and so prolongs its life.

The bed is supplied complete with timber 'lift & lock' siderails together with a lifting pole and grab handle. The central braking function is accessible from both sides of the bed.

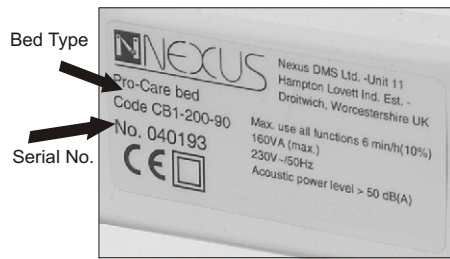
The Harvington bed has in-built extendability from its standard 200cm length to 220cm. Sets of both 200cm & 220cm siderails are supplied with each bed.

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## PRODUCT IDENTIFICATION.

Each bed carries a CE label which identifies the type of bed, its product code and its unique Serial Number. **DISPLAY OF THIS CE LABEL IS A LEGAL REQUIREMENT. IT MUST NOT BE REMOVED.**

Should you ever require advice or spare parts then it is essential that you quote the Serial Number - this enables us to match parts and advice to your particular bed.



## UNPACKING THE BED

**This procedure should be undertaken by at least two people.**

PLEASE REFER TO THE SAFETY NOTICE ON PAGE 2 BEFORE ATTEMPTING TO UNPACK AND ASSEMBLE THE BED.

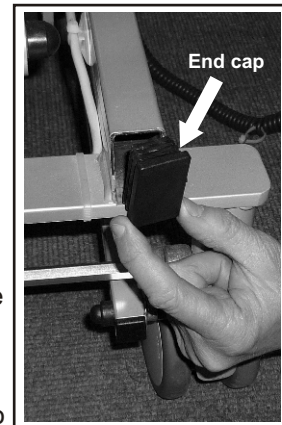
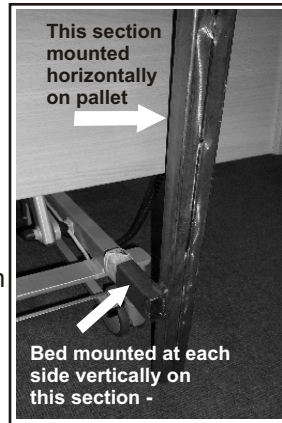
The Harvington bed is delivered fully assembled apart from the head & foot boards, the siderails and the lifting pole. It is mounted vertically on steel tubes which are, in turn, securely fastened to the transit pallet (see picture). Carefully remove all outer packaging.

The head & foot boards, siderails and lifting pole are secured to the bed by cable ties and/or strapping.

**IMPORTANT** - you must support the weight of these items **BEFORE** cutting the securing ties. Failure to do so may result in the items falling - with the potential for injury to yourself and/or damage to the item.

Once supported you should carefully cut the securing ties, remove the items and place safely away from the bed assembly area.

After ensuring that you have sufficient clear area in which to lower the bed to the floor, you can now lift the bed clear of its mounting brackets on the pallet and lower on to its castors. **IMPORTANT** - before attempting to then move the bed you must ensure that the **BRAKES** are **OFF** (see P.8) You should now fit the 2 supplied 'end caps' into the open ends of the tube on which the bed was mounted (see picture). They may require tapping gently with a hammer to locate fully into the tube.



## MATTRESS INTEGRITY.

Should a mattress cover be damaged then body or other fluids can pass through and contaminate the inner core creating the potential for cross-infection.

It is therefore recommended that a frequent inspection of mattress covers is undertaken to inspect for damage, such as holes or cuts. The inner core of the mattress should also be inspected for signs of staining or contamination.

Should there be damage to a cover then it should be disposed of safely. Should there be contamination to the inner foam core then it cannot be decontaminated and should therefore be disposed of safely. Inner cells of an Optima air-float mattress system can be decontaminated.

## GUIDANCE ON SAFE WORKING LOADS

The **Safe Working Load** **MUST NEVER** be taken as the maximum user weight.

In common with other manufacturers we quote a Safe Working Load for each of our beds. When a bed is tested, a **static load** is evenly distributed over the whole surface of the bed. Remember when a bed is in use that the load is rarely static or evenly distributed. Should a visitor, for example, sit down heavily on one side of the bed then the shock load at that point will be extreme, the load will be uneven & the total combined weight may **exceed** the Safe Working Load. The **SWL** must take account not only of the weight of the user but also the weight of the mattress, bed linen & other items loaded on to the bed eg. Air pump for air-driven mattress.

You should also take account of any likely weight gain by the user in the future.

Typically, a mattress could weigh 20kg; an air-driven system could be as much as 30kg; a couple of pillows 3kg; bed linen around 12kg - **the total of such items, together with anything else placed on the bed, PLUS the weight of the user must NEVER exceed the Safe Working Load.**

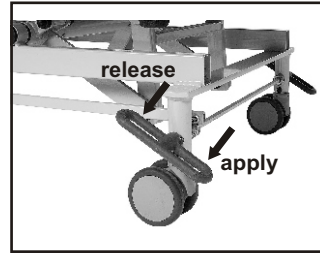
Neither Nexus DMS Ltd, nor any of its employees, can accept responsibility for any issues arising from overloading a bed. Should damage result from such actions then any necessary repairs will not be covered under warranty.



## APPLYING & RELEASING THE BRAKES.

The Harvington bed features central braking which is accessible from either side of the bed, at the foot end. When the brakes are OFF the pedal is in the HORIZONTAL position. To apply the brakes simply exert foot pressure to one side of the pedal.

The picture to the right shows the brakes in the ON position.



## EXTENDING THE LENGTH OF THE BED.

When delivered, the lying surface of a Harvington bed is set to a length of 200cm.

The bed can, however, be easily extended by 20cm to a lying surface length of 220cm.

### FOOT END EXTENSIONS

First you must remove the standard length siderails by, at the foot end, unscrewing the mattress support platform release screws shown in the picture and pulling out the footboard gently and sufficiently to be able to slide the siderails off the finger assemblies. Once the siderails have been removed then the footboard can be pulled out fully until it is held against its 'stops' and will go no further.

Re-tighten the release screws.

Now you can extend the leglift section by releasing the two screws on the underside and pulling out against its 'stops'.

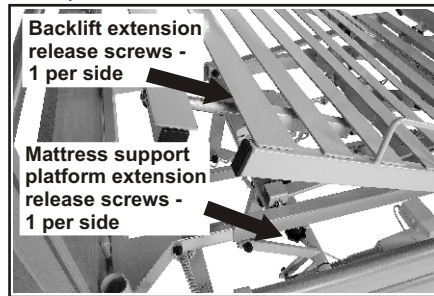
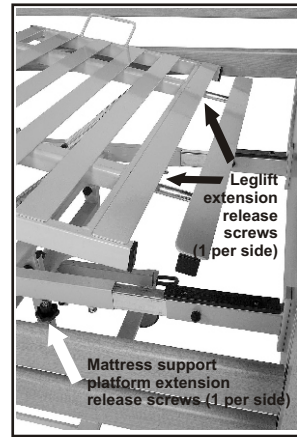
Re-tighten the release screws.

### HEAD END EXTENSIONS

As with the foot end there are two screws which release the mattress support platform extension and two which release the lifting backrest extension - release all four, slide out the extensions against their 'stops' and re-tighten the screws.

### FITTING 220cm LONG SIDERAILS

Refer to 'Fitting the footboard' on P.5 and 'Fitting the siderails' on P.6

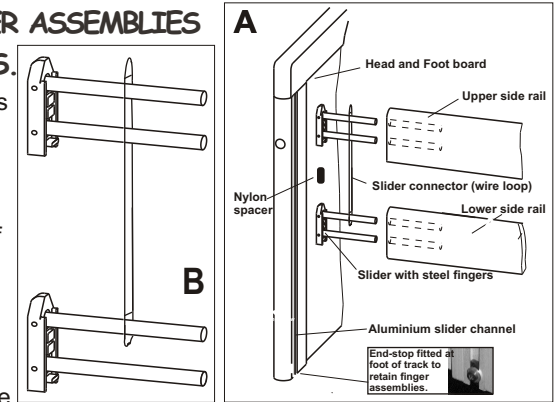


## FITTING THE SIDERAIL FINGER ASSEMBLIES TO THE HEAD & FOOT BOARDS.

It is essential that the finger assemblies are fitted correctly to ensure efficient operation and to ensure that the approved gap between the siderails is maintained - refer to diagram A. Pay particular attention to the positioning of the wire loop over the fingers - refer to diagram B.

Once you are familiar with the layout then, using a cross-head screwdriver, remove the end-stop from the bottom of each aluminium track and slide in the

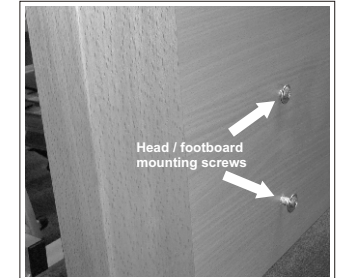
finger assemblies from the bottom as shown. Replace and secure the end-stop, making sure that the screw locates in the hole through the inner face of the track.



## FITTING THE HEADBOARD

The two headboard mounting brackets are pre-assembled into the ends of the mattress support platform. Each has an upper and a lower threaded hole to accept the mounting screws.

Locate the four screws through the headboard mounting holes, offer up the headboard to the brackets and, using the allen key supplied, securely tighten the screws but do not overtighten. It is recommended that you locate all four screws loosely before tightening.

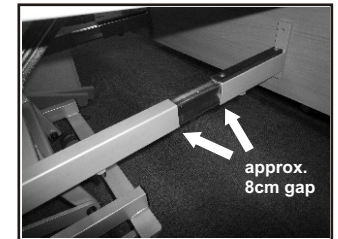
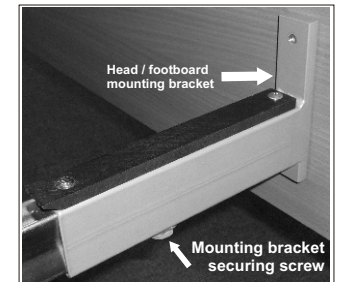


## FITTING THE FOOTBOARD

Follow the procedure for mounting the headboard as detailed above.

However, once completed, and using the allen key supplied, you should release the two mounting bracket securing screws (one at each side) - see picture.

Once both are released, you should carefully slide out the footboard + mounting bracket assembly until there is an approx. gap of 8cm between the ends of the mounting bracket sleeves and the ends of the tubular mattress support platform - see picture. This is required in order to simplify the fitting of the siderails.



## FITTING THE SIDERAILS

The finger assemblies at both sides of the **headboard** should be at their lowest position.

For one side of the bed take two siderails & slide fully onto the finger assemblies in the **headboard**, with the opposite ends resting on the floor.

The finger assemblies in the **footboard** should be lifted until they lock in the raised position.

Lift the foot end of the siderails rails & slide onto the finger assembly in the footboard - see picture. Take care not to slide too far otherwise the rails will detach from the fingers at the head end - just sufficient to hold both ends in place.

Repeat this process for the two rails at the other side of the bed.

Once all four rails are in place then slide the footboard back fully into the tubular section of the mattress support &, using the allen key, re-tighten the two grub screws securely.



## FITTING THE LIFTING POLE

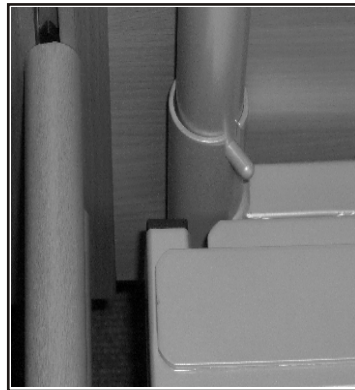
There is a socket for the lifting pole located on each side of the bed at the head end.

Insert the lifting pole into either the left or right hand socket, according to choice.

Rotate the pole until the pin on the pole locates in the corresponding groove in the socket - this keeps the pole secure in the correct position for use.

Hang the grab handle over the end of the pole between the two vertical pins & adjust the strap to the required length.

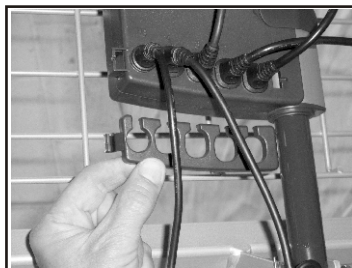
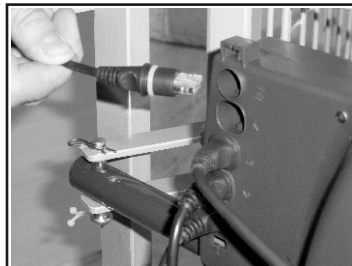
The pole can be lifted slightly to free the pin & swung out of the way when not in use. It must NOT bear any weight when in this position.



## ELECTRICAL CONNECTIONS

All actuators (motors) and the hand control unit are already connected to the main control box. The pictures to the left are for information only and show a typical actuator plug connection to the main control box and the retaining strap which clips into position in order to ensure that plugs remain securely connected. This retaining strap must be removed before any plug can be disconnected.

The only electrical connection required is to the 240v mains supply socket, for which we provide a safety connector. This has a standard 3-pin 13amp type plug at one end and a 2-pin socket at the other - into which plugs the power lead from the bed.



## USING THE ELECTRICALLY POWERED FUNCTIONS.

BEFORE USING ANY POWERED FUNCTION PLEASE READ THE SAFETY NOTICE ON PAGE 2.

Harvington beds are fitted with an function-lock hand control similar to the one pictured. This controls the independent operation of the back-rest, leg-rest, bed height & Trendelenburg functions.

It allows any or all functions to be locked using the special 'key' provided - inserting and turning clockwise to lock (closed padlock pictogram) or anti-clockwise to un-lock (open padlock pictogram).

The 4 buttons to the left control the 'raise' functions & the 4 buttons to the right the 'lower' functions.

Each button carries a pictogram to denote its function.



A clip on its rear allows it to be positioned conveniently on a siderail.

In use, take care that the hand control spiral cable does not become entangled around a castor - the fine inner wires are easily damaged if misused in this way.

## RAISING & LOWERING THE SIDERAILS

### TO RAISE:

Hold the UPPER siderail at the head end & slide up the channel until the locating pin engages with a 'click'.

Both upper & lower rails are now locked in the upper position, correctly spaced.

Repeat the procedure at the foot end.

For occupant safety always 'lift & lock' the siderails at the head end first.



### TO LOWER:

Hold the UPPER siderail & lift slightly until it stops. This action 'unlocks' the release button on the side of the head/footboard.

Press & hold the button & **gently** lower the siderails until they rest on the stop at the bottom of the track. **NEVER** let go of the rails & allow them to drop.

For occupant safety always lower the rails at the foot end first

## ADJUSTING THE FOWLER POSITION KNEE-BREAK

The Fowler position knee-break is adjusted on ratchet mechanisms attached to the leg lift section and can be adjusted both manually and electrically. There are 6 positions available so that you can achieve the correct angle for a particular users knees.

**MANUAL ADJUSTMENT:** Raise the leg lift section electrically to a chosen height and then, holding one of the mattress retaining handles, lift the foot section until it 'clicks' and remains at the position you require. To lower - lift fully to its highest position (you will hear 'clicks') then lower until the foot section rests on the mattress support unit.

**ELECTRICAL ADJUSTMENT:** Raise the leg lift section electrically until you achieve the required knee angle. Lower electrically until you hear 1 'click' then raise electrically to the height you require. The chosen angle will be maintained. To lower - use the hand control and lower electrically until flat.