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Trading as **EVOCARE** and **L&M EQUIPMENT**

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Quality
ISO 9001

KH 401 MULTI-LIFT



OPERATING, MAINTENANCE & CLEANING MANUAL

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SPECIFICATIONS

DIMENSIONS:

| | |
|-----------------------|----------------|
| Length | 1100mm |
| Width | 670mm |
| Height | 1220mm |
| Effective lift range | 430mm – 1700mm |
| Leg gating (inside) | 510mm – 885mm |
| Lift reach | 700mm |
| Base height | 210mm |
| Leg height from floor | 160mm |
| Turning radius | 1300mm |

LIFT SPEED:

Slow - 38mm per second
Fast - 58mm per second

LIFT DRY WEIGHT:

42 Kg (with battery)

REMOVABLE BOOM:

4.75Kg

REMOVABLE KNEEPAD:

4.40Kg

LIFT CAPACITY:

Max load - **150kg's**

CASTORS:

Ø150 Total lock rear polyurethane castor
Ø100 Swivel front polyurethane castor
Note: Smaller castors available on request.

FINISH:

Epoxy powder coated
Polyurethane legs and yoke
PVC cover, and upholstery kneepad

ELECTRICAL ITEMS:

Tested by Linak Australia to standards:-
AS 3108-1990
AS 3200.1-1990

SAFETY PRECAUTIONS.

For safety precautions only properly trained personal should use the hoist.

1. The KH 401 Multi-lift is manufactured and tested with safety and function for the carer and patients as the utmost importance. No parts should be removed from the hoist without approval as this may create an unsafe working condition.
2. The **MAXIMUM** safe working load is **150 Kg's**.
3. **EMERGENCY LOWERING/RAISING:** The emergency lowering/raising buttons can be used to lower/raise the hoist if there is a handset failure. The switches are located on the controller under the big red emergency stop switch. Simply press using a ballpoint pen or similar object, **DO NOT** use a sharp object such as a compass point.

4. Always use the correct slings on the hoist.
5. The hoist should not be used on rough or sloping surfaces. ie. Wheel chair ramps etc, and does not recommend that the hoist be used outdoors.

OPERATING INSTRUCTIONS

1. INSTALLATION OF BATTERY PACK.

Before the Multi-Lift Hoist can be operated the battery pack will need to be placed on charge (See - Charging Battery Instructions). When the battery pack is fully charged, remove the battery from the charger and place it on the hoist. Simply locate the battery on the mounting bracket and clip the release lever into the secure position. The Hoist is now ready for use. (fig 1)



Fig 1.

2. HANDSET:

2.1 RAISE/LOWER:

The Hoist operates via a hand controller. To raise or lower the hoist, simply press the required switch on the touch pad.

There are four switches on the hand controller for raising and lowering. The top two switches are for slow normal operation (tortoise); the middle two switches are for faster operation (Hare). Simply choose the speed that suits your application. (fig 2)

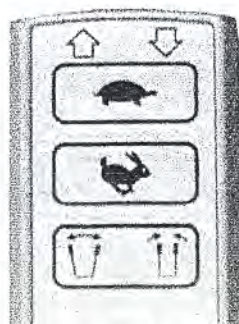


Fig 2.

3. **LEG GATING:**
To OPEN or CLOSE the "Gate" on the legs, simply press the hand controller with the required function. (The lower set of switches operates the leg "gate"). Open on the left, close on the right.
4. **YOKE - SLING MOUNTING POINTS (fig 3)**
Refer to the fitting instructions supplied with your chosen sling.(fig 15)

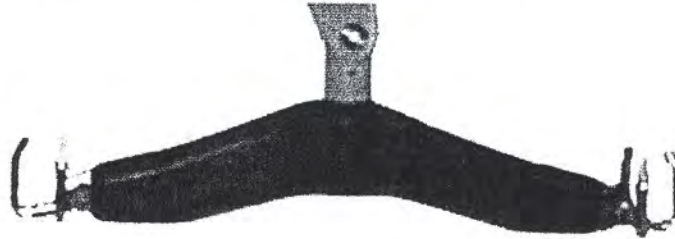


Fig 3.

5. **KNEEPAD REMOVAL AND STORAGE**

5.1 The kneepad is removable when the hoist has to be used for lifting purposes. Using both hands (fig 4), one to take the weight and the other to guide the hook on or off the locating pins (fig 5). The kneepad can be conveniently stored on the rear of the lifter on the same pins (fig 6). See picture below.

Note: The kneepad section is 4.5 Kg's. If you feel that 4.5 Kg's will be too heavy, acquire some help the first time trying this and then feel the weight and then try it yourself.



Fig 4.



Fig 5.



Fig 6.

6. TILT UP FOOTPLATE

The footplate may be used in either the down position or in the tilted up position when lifting the patient. It is the operator's choice as to when and where the footplate may be obstructing or not. Kerry Equipment recommends lifting the footplate when using as a lifter. (fig 7)



Fig 7.

7. BOOM REMOVAL

- 7.1 This process takes a few tries before the centre of gravity and force required to remove this is achieved. **(Please practice this a few times to get to know how to do it.)**
- 7.2 The front section of the boom is removable when you need to use the hoist as a standing hoist



Fig 8.



Fig 9.

- 7.3 Before you start. Make sure that the boom is in the lowest position and the rear castors are locked. Position yourself on the right hand side of the boom as shown in the picture above (fig 8). Take hold of the boom (with your left hand) approximately in the middle of the bend and with your right hand pull the knob out. (Spring Button) (fig 9)
The boom should now be able to slide out. Pull the boom towards you with your left hand. The second picture shows the boom extracted from the socket, with the operator holding the boom front in the left hand.

Note: The front section of the boom is 5 Kg's. If you feel that 5 Kg's will be too heavy, acquire some help the first time trying this and then feel the weight and then try it yourself.

The same procedure is used in replacing the boom.

BATTERY CHARGING AND CARE

1. MOUNTING OF THE CHARGING UNIT.

It is recommended that the charging unit be mounted on a wall out of the way of normal traffic, at approximately waist high, close to an electrical outlet. This will help in easy attachment and removal of the battery when charging is required.

2. CHARGING

Before the Hoist can be operated the battery pack will need to be charged. Minimum 4 hours for flat battery. Please follow the instructions below.

- 2.1 Plug the charger unit into the 240-Volt supply outlet. The unit is now ready to accept a battery that requires charging; a GREEN L.E.D. (ON) will be displayed. (fig 10)
- 2.2 To charge the battery, simply locate the battery on the mount bracket and clip into position. (The GREEN and ORANGE L.E.D. on the front of the charger will be displayed). The battery is fully charged when the ORANGE L.E.D. is OFF and only the GREEN L.E.D. is displayed.
- 2.3 If a two-battery system is going to be used, replace the first battery once charged, with the second battery. Charge as above.

NOTE: A battery pack may remain on charge indefinitely without any detrimental effects to the battery or charging unit.

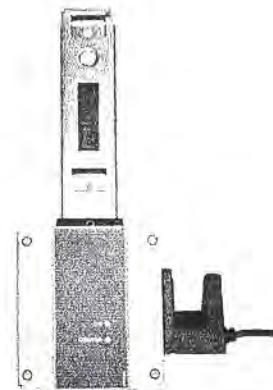


Fig 10 Charger unit without battery.

3. BATTERY CARE

The batteries are fully sealed lead acid batteries, which should be recharged on a regular basis. To care for your batteries and obtain the maximum life **DO NOT** allow the batteries to run totally flat before recharging.

The controller is fitted with an **audio low battery warning alarm**. When this warning alarm sounds complete the lift process, then change the battery and recharge. Kerry Equipment recommends that a 2-battery system be used; this allows one battery to always be on charge while the other is in use, and hence the hoist may never be out of service with a flat battery.

MAINTENANCE INSTRUCTIONS

LUBRICATION

The Hoist requires periodical lubrication. These points are:

1. CASTORS

It is always best practice to remove all hair and lint from the castors as soon as possible, always allowing free movement of all the wheels.

The head bearing will need lubricating monthly. Simply spray TAC-2 up into the bearing while rotating the castor.(fig 11)

The wheel also requires lubricating every month. To do this the wheel must be unbolted and removed from the castor frame. TAC-2 can then be sprayed into the hub centre to lubricate the internal bearings. (fig 12)



Fig 11.



Fig 12.

2. BASE PIVOT POINTS

All pivot points will need to be lubricated monthly with TAC-2 or similar lubricant. Simply spray the recommended points for 2 seconds on either side.

The hoist has to be turned onto its side for access to the following lubrication points. (To do this 2 people are required.)

Follow the instruction below:

- 2.1 Both people are to stand on one side of the hoist. One near the push handle, the other by the side of the hoist.
- 2.2 The person near the push handle locks the total lock castors.
- 2.3 In conjunction with one another pull the hoist towards the side, lowering the hoist onto the floor.

You now have access to all the lubrication points under the base. ie: pivot points, leg lever and leg pivot. Simply spray TAC-2 on all the pivot points for 2 seconds.

- 3. Leg Actuator Pivots (fig 13)
- Leg Pivots
- Tie Rod Pivot Points

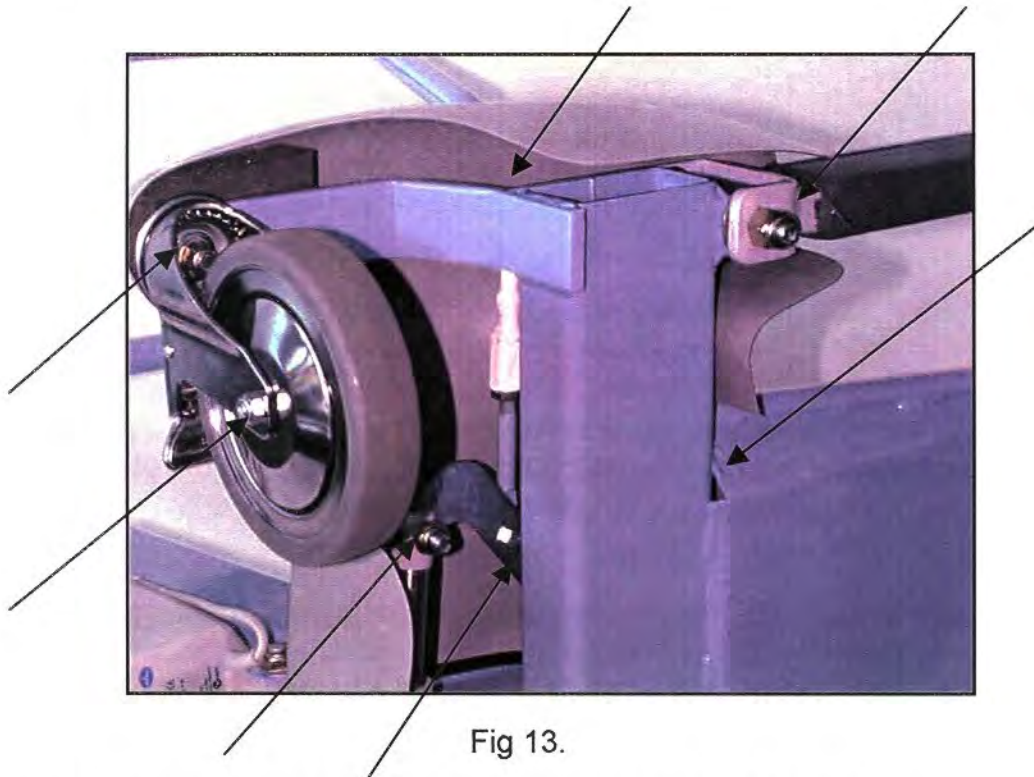


Fig 13.

4. ARM, ACTUATOR and SPRING PIN LUBRICATION POINTS

The arm pivot points will need to be lubricated monthly with TAC-2 or similar lubricant (fig 14.). Simply spray on each side of the recommended points as required. The boom removable socket and spring button/pin will also need lubricating as required.

- 4.1 Arm Pivot
- Boom Socket/Pin
- Actuator Pivots

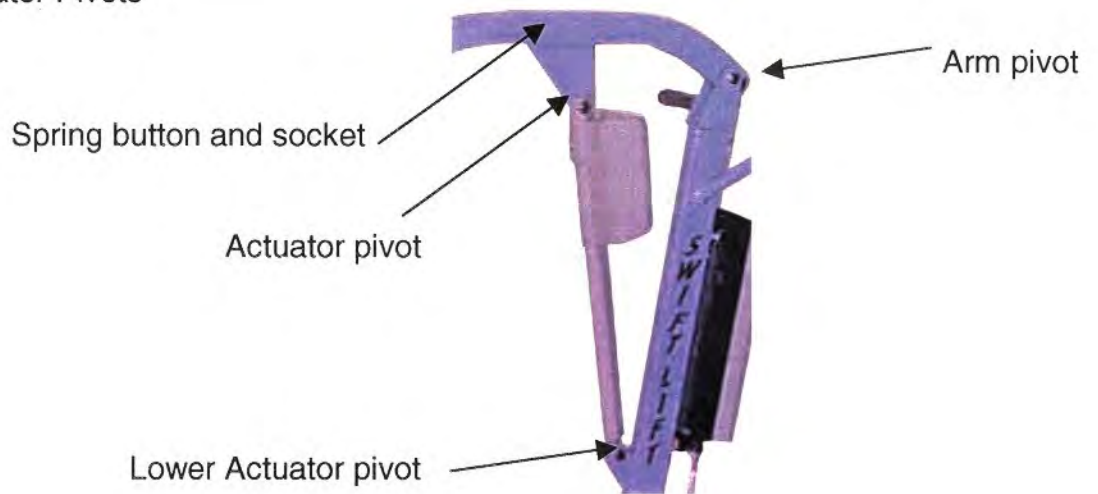


Fig 14.

TAC-2 is a CRC product and is available from most automotive outlets or from Kerry Equipment.

ASSEMBLY / DISASSEMBLY INSTRUCTIONS

Kerry Equipment fully assembles their hoist prior to delivery. Kerry Equipment only recommends qualified service personal to work or service any of their hoists. Any assembly or disassembly should be checked with Kerry Equipment and or Distributor before commencing with any repair.

GENERAL CLEANING

1. The hoist can be cleaned with a low strength detergent, warm water and a soft textured cloth. This includes all Epoxy powder coated framework, PVC cover, polyurethane legs, kneepad and yoke.
2. **CAUTION**
Do not immerse any parts in water.
Do not allow water/cleaning liquid to enter the battery or controller.
Clean up spills immediately.
3. **SLING CARE**
Protect from direct sunlight.
Repair any cuts or fraying immediately.
Slings are machine washable.
Please refer to care instructions on the sling.

Distributed by: -



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Manufacturers of
Hospital & Nursing Home Equipment

KH400 SF/SFL/SFB/SFLB STANDING SLING

KH400SF - Premium sling-medium (Suit Patients from 40-110kg) Velcro
KH400SFB - Premium sling-medium (Suit Patients from 40-110kg) Buckle
KH400SFL - Premium sling-large (Suit Patients from 100-150kg) Velcro
KH400SFLB - Premium sling-large (Suit Patients from 100-150kg) Buckle

KH400SF



KH400SFB

4. KERRY EQUIPMENT SLINGS ARE APPROVED TO AUSTRALIAN STANDARD AS 3581 - 1988



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TECHNICAL INFORMATION

| | |
|-----------------------|---|
| * CODE | KH400SF, KH400SFL, KH400SFB, KH400SFLB |
| * AUSTRALIAN STANDARD | AS 3581-1988 |
| * PATIENT SIZE | 40 kg - 110 kg for KH400SF, KH400SFB |
| * PATIENT SIZE | 100 kg - 150 kg for KH400SFL, KH400SFLB |
| * USEABLE ON | KH401 Multi lift KH 400G Quik Stand |
| * MATERIAL | Reinforced Polyester High density foam |

WARNING

- 1) DO NOT USE THIS SLING IF A PATIENT NEEDS NECK OR HEAD SUPPORT.
- 2) DO NOT USE THIS SLING IF A PATIENT SUFFERS FROM BACK INJURY.
- 3) DO NOT USE THIS SLING IF A PATIENT CAN NOT WEIGHT BEAR.
- 4) PLEASE UNDERSTAND HOIST OPERATING INSTRUCTION PRIOR TO USING.

FITTING INSTRUCTIONS

- STEP 1 -** Undo waist strap and slide the sling down the back of the chair to the base of the spine. (fig 16)
Fasten the velcro waist strap snugly around the waist.
NOTE: Picture shows sling without patient for clarity.



Fig 16.

- STEP 2 -** Move the lifter into position directly in front of the patient. (fig 17) Ensure lifting arm is at lowest point. Legs of the lifter are gated to clear the legs of the chair and castor brakes are released (not in braking position). Patients feet are placed comfortably on the footplate and patients knees are placed against knee pad.



Fig 17.

STEP 3 - When using KH400SF, KH400SFB chose the coloured strap which fits comfortably over the attachment knob, there are two recommended mounting points relevant to patient size.(fig 18)

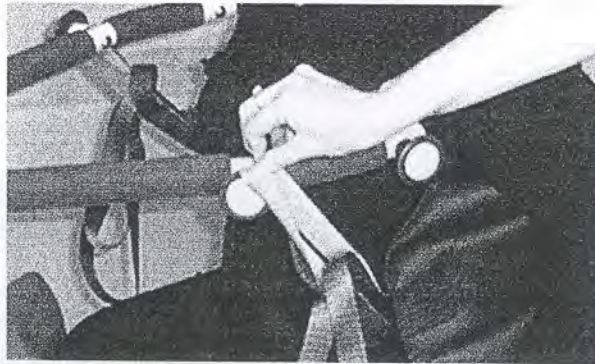


Fig 18.

The front knobs are used for patients over 5'6" (165cm) and the back knobs are used for shorter patients ie: below 5'6" (165cm). (fig 19)

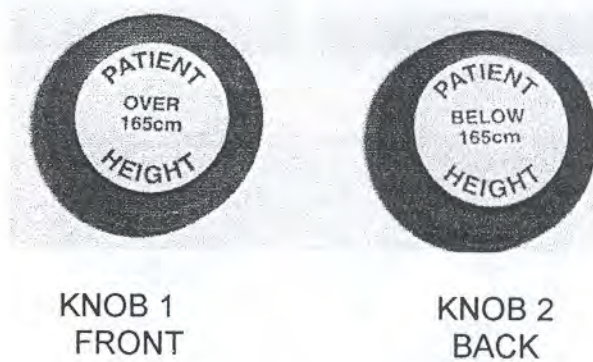


Fig 19.

The patient can use the hand rails to steady themselves (as shown in picture fig 20)
The operator/carer can also steady the patient by holding side of sling.

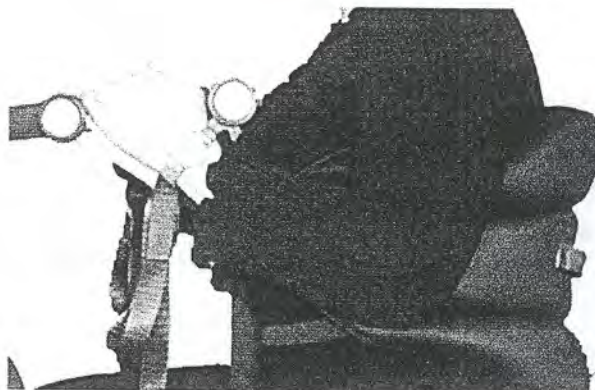


Fig 20.

- STEP 4 -** Start with the lift process using the slow speed.
Make sure that the patient feels secure in the sling and that they are in a balance posture. (fig 21, 22, 23)
Encourage the patient to lean slightly back and not forward. This will assist in the lifting process by not allowing the sling to ride up under the arms of the patient



Fig 21.



Fig 22.



Fig 23.

- STEP 5 -** For your convenience Kerry Equipment has supplied a "User Records Chart" (located at the back of this manual). It is used to record patient lifting preferences to which mounting points and sling colours best suit them. (Hint: Copy the chart and keep the original with this manual)

- STEP 6 -** Reverse the process when lowering the patient

KH 400SS SEATING SLING

KH400SS



KERRY EQUIPMENT SLINGS ARE APPROVED TO AUSTRALIAN STANDARD AS 3581 - 1988



TECHNICAL INFORMATION

| | |
|------------------------------|--|
| * CODE | KH400SS |
| * AUSTRALIAN STANDARD | AS 3581-1988 |
| * PATIENT SIZE USEABLE ON | 40 kg - 110 kg for KH400SS KH 400G Quik Stand KH401 Multi lift |
| * MATERIAL | Reinforced Polyester High density foam |

WARNING

- 5) DO NOT USE THIS SLING IF A PATIENT NEEDS NECK OR HEAD SUPPORT.
- 6) DO NOT USE THIS SLING IF A PATIENT SUFFERS FROM BACK INJURY.
- 7) KH400SS IS ONLY USED FOR SEATED TRANSFERS. NOT TO STAND PATIENTS.
- 8) PLEASE UNDERSTAND HOIST OPERATING INSTRUCTION PRIOR TO USING.

FITTING INSTRUCTIONS

- STEP 1 -** Undo waist strap (A) and slide the sling down the back of the chair to the base of the spine until point aligns with the base of the spine
Fasten the velcro waist strap (A) snugly around the waist.
NOTE: Picture shows sling without patient for clarity. (fig 24)

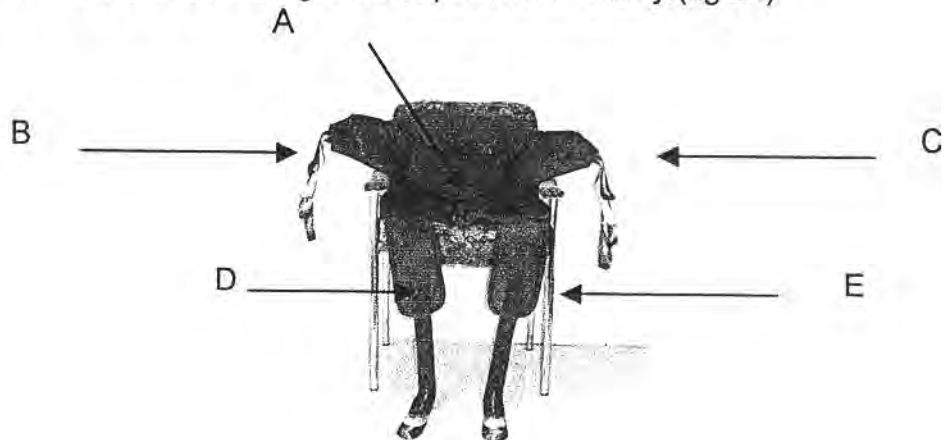


Fig 24.

- STEP 2 -** Lift the patient leg, turn slightly and slide the leg straps (D & E) under the leg so both sling connection straps are between the legs (fig 25)



Fig 25.

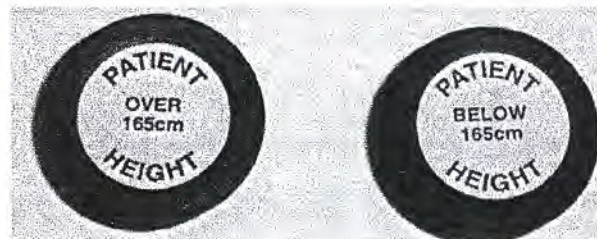
STEP 3 - Move the lifter into position directly in front of the patient. Ensure lifting arm is at lowest point. Legs of the lifter are gated to clear the legs of the chair and castor brakes are released (not in braking position). Patients feet are placed comfortably on the footplate and patients knees are placed against knee pad.

STEP 4 - Fit the upper body straps (**B & C**) to the front knobs (**patient over 165cm**). Using the coloured strap which fits comfortably over the attachment knobs



Fig 26.

STEP 5 - Fit the lower body straps (**D & E**) to the rear knobs (**patient below 165cm**) using the coloured strap which fits comfortably over the attachment knob. Ensure both sides have the same coloured straps fitted (fig 27).



KNOB 1
FRONT

KNOB 2
BACK

Fig 27.

The patient can use the hand rails to steady themselves (as shown in picture fig 28) The operator/carer can also steady the patient by holding side of sling.



Fig 28.

STEP 6 - Start with the lift process using the slow speed.

Only lift the patient far enough to clear the chair.

Make sure that the patient feels secure in the sling and that they are in a balance posture.

Encourage the patient to lean slightly back and not forward, this will assist in the lifting process.(fig 29, 30, 31)

NOTE: The KH400SS is ideal for patients who can not weight bare, the sling has a commode aperture for toileting.



Fig 29.



Fig 30.



Fig 31.

STEP 7 - For your convenience Kerry Equipment has supplied a “User Records Chart” (located at the back of this manual). It is used to record patient lifting preferences to which mounting points and sling colours best suit them. (Hint: Copy the chart and keep the original with this manual)

STEP 8 - Reverse the process when lowering the patient

CARE INSTRUCTIONS

1. SLING CARE

Protect from direct sunlight.
Do not puncture with any sharp objects.
Repair any tears immediately.
Do not lift a patient if there is any sling defects.

2. SPOT CLEANING

The slings are machine washable.
Treat spills and stains as soon as possible.
Gently scrape away any soils or mop away liquid from surface of fabric with damp cloth.
Do not scrub with stiff brush.
Dry in shade away from direct heat.
Allow drying thoroughly before re-use.



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