QA4™

Powered Mobile Surgery System

Instructions for Use

Code 21300 - QA4™ Powered Mobile Surgery System

Innovative **Medical** Technology - **Practically Applied**

AneticAid

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1. Introduction

These instructions are intended to assist you with the operation of the QA4™ Powered Mobile Surgery System. It is important that these instructions are read thoroughly before using the equipment.

It is also important to check the trolley before use to ensure there is no loss or change in performance; ensure that all trolley functions operate to their full range of movement and that all components disengage, re-engage and lock correctly. We recommend that the trolley is visually inspected for any loose or damaged parts, and foreign bodies caught in the castors.

NOTE:	If the trolley is damaged or faulty it **must** be taken out of use with immediate effect and the fault reported to Anetic Aid, your authorised dealer or maintenance department. The trolley **must not** be used until the damage or fault has been repaired.

1.1. Warnings and Cautions

Various warnings and cautions are made throughout these operating instructions.

⚠	A **WARNING** is given when the personal safety of the patient or user may be affected and when disregarding this information could result in injury.

⚠	A **CAUTION** is given when special instructions must be followed. Disregarding this information could result in permanent damage being caused to the trolley.

1.2. Intended Use and Contraindications

This product is intended for use within a clinical environment for the induction, transport, treatment and recovery of patients.

CONTRAINDICATIONS:

- The trolley is not compatible with hospital bed/trolley washers.
- The trolley must not be used near magnetic resonance imaging (MRI) machines, or any machines generating a large magnetic field.
- Do not use the trolley for transporting patients in a moving vehicle.
- The trolley has very low ground clearance beneath the central column that may cause problems when traversing uneven ground and inclines.
- The trolley should not be used outside; it may be damaged by pushing it across rough or uneven ground.

1.3. Equipment Classification

The equipment referenced in this document is CE marked and has been classified as a Class 1 Medical Device under the scope of both the Medical Devices Directive 93/42/EEC and the Medical Device Regulation 2017/745.

1.4. Serial Number Label

The serial number label is located on the cover moulding beneath the patient platform.

1.5. Putting the Trolley into Service

Care should be taken when removing the packaging, avoid the use of sharp implements wherever possible.

It is important that the trolley is working properly, fully charged, cleaned and disinfected before it is put into service. Use this manual to check all the functions and refer to Section 20, 'Battery Charging and Maintenance', and Section 23, 'Cleaning and Disinfecting the Trolley'.

The trolley should only be used, for its intended use, by suitably trained personnel who have familiarised themselves with the functions of the trolley. Our representatives are available for on-site consultation or training and our head office team will be pleased to answer any queries you may have.

1.6. Abridged Summary of Warnings and Cautions

In common with all medical devices of this nature there are inherent risks that the user should be made aware of, including potential pinch points from moving parts. Whilst every effort has been taken to eliminate these risks, care should be taken when using the trolley. It is important that the user familiarise themselves with all of the warnings and cautions contained within this document.

CAUTIONS:

- The battery must be properly maintained in accordance with these instructions. Failure to do so will result in significant loss of charge capacity or failure of the battery. Refer to Section 20, 'Battery Charging and Maintenance' for a full explanation on how to care for the battery.
- Ensure that there are no obstructions in the way before raising or lowering the backrest.
- Ensure that there are no obstructions in the way before traversing the patient platform.
- With the articulating leg section articulated downwards, the patient platform cannot be traversed towards the head end passed the neutral position.
- Ensure that there are no obstructions in the way before tilting the patient platform.
- Ensure that there is no equipment stored in the base moulding of the trolley before tilting the patient platform. NOTE: This ONLY applies when the trolley is at its lowest height.
- Applying the steering pedal with excessive force, i.e. by standing on it, may cause permanent damage to the mechanism.
- The siderail should be returned to the mid-section of the trolley during patient recovery.
- Failure to charge the battery once the low battery alarm has sounded could result in a permanent loss of maximum charge capacity.

- Only batteries supplied and approved by Anetic Aid should be used.
- The battery unit should not be opened.
- Use the battery only for its intended purpose.
- Never use a battery that is damaged.
- The battery must be recycled, properly disposed of or returned to Anetic Aid. The battery must not be discarded with Household waste.
- Ensure that the mattress is correctly orientated on the patient platform with the touch fastener of the mattress aligning with the touch fastener on the patient platform.
- Ensure that the mattress is centrally positioned across the width of the patient platform otherwise it may prevent the side rail from locking when raised.
- Do not steam clean, jet wash, soak or immerse this device.
- Do not use concentrated bleaching disinfectant solutions, organic solvent or abrasive powders in the cleaning or disinfection of this product.
- Dilute all disinfectants in accordance with the manufacturer's guidelines.
- Disinfectant products are corrosive in nature; failure to properly wash and dry the product surface could leave a corrosive residue which may cause damage to the product. Ensure the mattress is thoroughly dried before refitting.
- In line with the MHRA document, Managing Medical Devices, maintenance work should only be conducted by suitably trained personnel following manufacturer's guidelines.

WARNINGS:

- Ensure there is nothing to impede the raising or lowering of the patient platform as this could result in damage to the equipment and/or injury to the patient.
- When leaving patients unattended the trolley should be fully lowered to minimise any risk of injury should the patient fall off the trolley.
- Always apply the brakes when leaving a patient unattended, a patient is getting on or off the trolley, or transferring patients from the trolley to another platform.
- When the head section is fitted on to the trolley, ensure that the head section is fully engaged and securely locked in position.
- Ensure that the leg section is fully engaged and securely locked in position.
- Ensure that any persons responsible for removing the leg section adopt good posture and stance, in accordance with the relevant 'Moving and Handling' policies, to prevent injury to the user.
- Failure to secure the siderail to the side bar using the locking clamp could result in injury to the patient.
- Caution is required when releasing the emergency backrest handle. Once the handle is released, the backrest will drop with limited resistance. Therefore, ensure no persons are stood behind or under the backrest when the handle is released.
- Ensure that the handle is properly re-engaged. Failure to do so will result in the backrest not functioning correctly and possibly disengaging unexpectedly.
- Only use the lead supplied with the trolley for charging purposes. Do not use the lead for any other purposes.
- Visually inspect the lead for damage on a daily basis. Do not use the lead if damaged in any way.
- Exceeding any of the maximum specified weight limits could result in failure of the trolley and injury to the patient and staff.
- Incompatible mattresses can create hazards; only replace the mattress with a new mattress supplied by Anetic Aid, or your authorised dealer, to ensure compatibility in accordance with BS EN 60601-2-52:2010.

2. Product Specifications

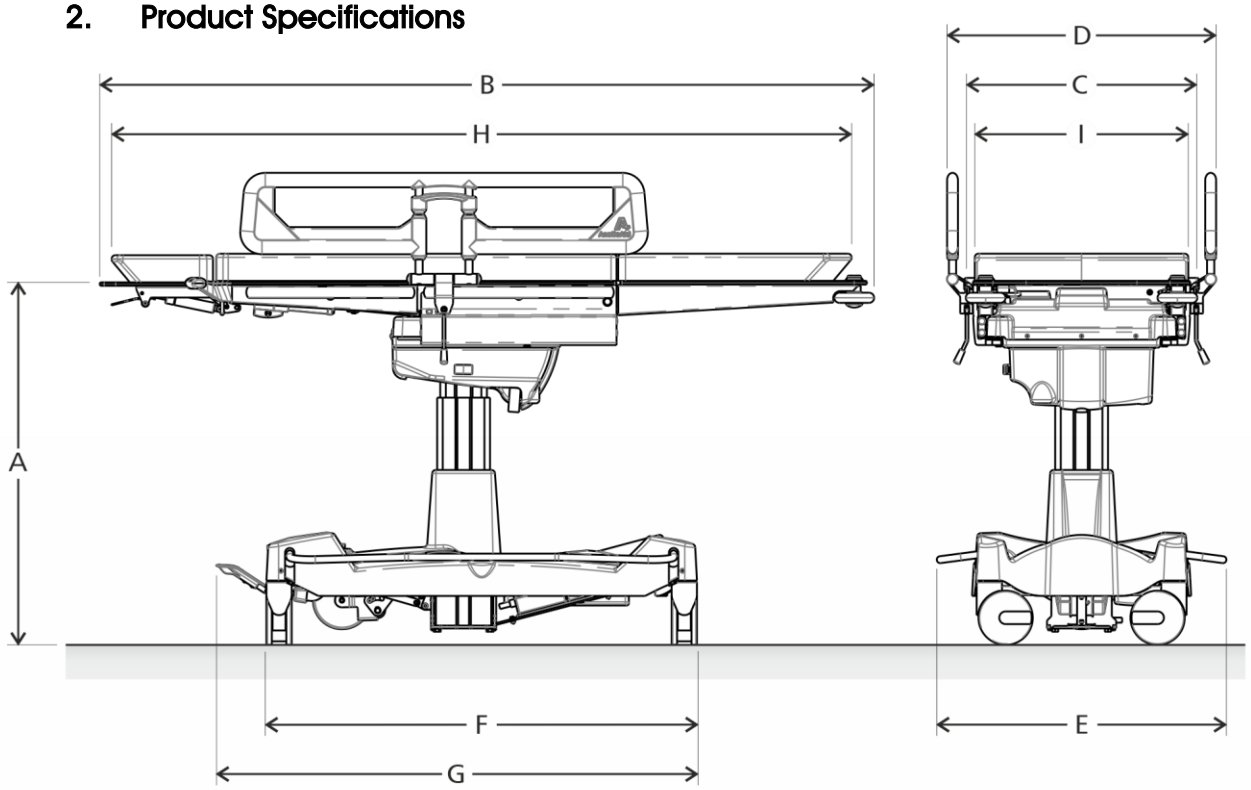


Fig. 1

Key to Fig. 1:		
Trolley Dimensions and Weight:		
A	Minimum trolley height	605mm (24.0”)
	Maximum trolley height	1005mm (39.5”)
	NOTE: Height is measured from the floor to the patient platform and does not include the mattress.	
B	Trolley length	2100mm (82.7”)
C	Trolley width to the outside of the side bar	655mm (25.8”)
D	Trolley width to the outside of the siderails	770mm (30.3”)
E	Brake width with brakes off	800mm (31.5”)
F	Base length	1190mm (47.0”)
G	Base length including 5th wheel	1330mm (52.0”)
	Castor Diameter	150mm (6.0”)
	Trolley Weight	160kg (330lb)
Mattress Dimensions:		
H	Mattress length	2040mm (80.0”)
I	Mattress width	600mm (23.6”)
	Mattress depth	75mm (3.0”)
	NOTE: Refer to Section 22, ‘K8 Pressure Care Mattress’, for full specification details.	
Trendelenburg and Lateral Tilt Range of Movement:		
Trendelenburg		20°
Reverse Trendelenburg		12°
Lateral Tilt		±12°
Backrest and Head Section Range of Movement:		
Backrest Articulation		0 - 65°
Head Section Articulation		+25/-30°
NOTE: The backrest actuator is designed to lift a maximum of 45% of the 250kg (550lb) patient weight limit; this equates to 112.5kg (248lbs). If the weight on the backrest exceeds this figure, then the backrest actuator may stall, and the backrest will not raise. This can be caused by exceeding the patient weight limit, or having the patient positioned too far up the backrest towards the head end.		

Product Specifications

C-Arm Traverse Range of Movement:	
Head End Traverse	230mm (9.0”)
Foot End Traverse	230mm (9.0”)
Patient Weight Limits:	
Trolley	250kg (550lb)
Head Section	25kg (55lb)
Leg Section	50kg (110lb)
Safe Working Load (SWL)	300kg (660lb)
NOTE: The trolley can be used in all positions with the maximum patient weight specified.	
Standard Lightweight Leg Section:	
Weight	6kg (13lb)
Articulation range	N/A
Articulating Leg Section (optional):	
Weight	11kg (24lb)
Articulation range	0 – 45°

Electrical Specification:	
Mains charging input (dependant on control box option)	230VAC, 50Hz, 1.3A
	100VAC ± 10%, 50/60Hz, 2.5A
Battery specification	2 x lead acid cells, 24V, 4.5Ah
Standard mains lead (This is the standard lead supplied, unless otherwise specified at the time of ordering)	3m IEC C13 Socket to UK Plug, Fused 5A
Full charge time from flat	8 hrs
NOTE: The charging figures quoted are dependent upon the age and condition of the battery, and are guidelines only.	

Electrical Classification:
The electrical classification for this product is; Class II Type B, fitted with a Functional Earth.
NOTE: The trolley is fitted with a functional earth connecting the mains inlet socket to the base frame. Electrical Safety Enclosure Leakage tests will be inaccurate due to the functional earth. The functional earth should be detached before performing Enclosure Leakage tests.
⚠ **CAUTION:** Ensure that the functional earth is reattached after testing.
EMC Compatibility:
Electromagnetic Compatibility: product conforms to IEC 60601-1-2:2014

Environmental Conditions:		
Temperature:	Operation	10°C to 50°C
	Storage & Transport	-20°C to 50°C
Relative Humidity:	Operation	30% to 75%
	Storage & Transport	10% to 75%
Atmospheric Pressure:	Operation	70kPa to 106kPa
	Storage & Transport	50kPa to 106kPa

Environmental Regulatory Information; WEEE, waste batteries, etc.
For the latest information about Anetic Aid’s environmental policy, WEEE policy, and the safe disposal of this product, please refer to our website.

NOTE: All dimensions quoted are subject to the following tolerances; angles ±5°, lengths and widths ±25mm (±1”), depths ±10mm (±0.4”). Anetic Aid reserves the right to change specifications without notice.

3. Product Functions

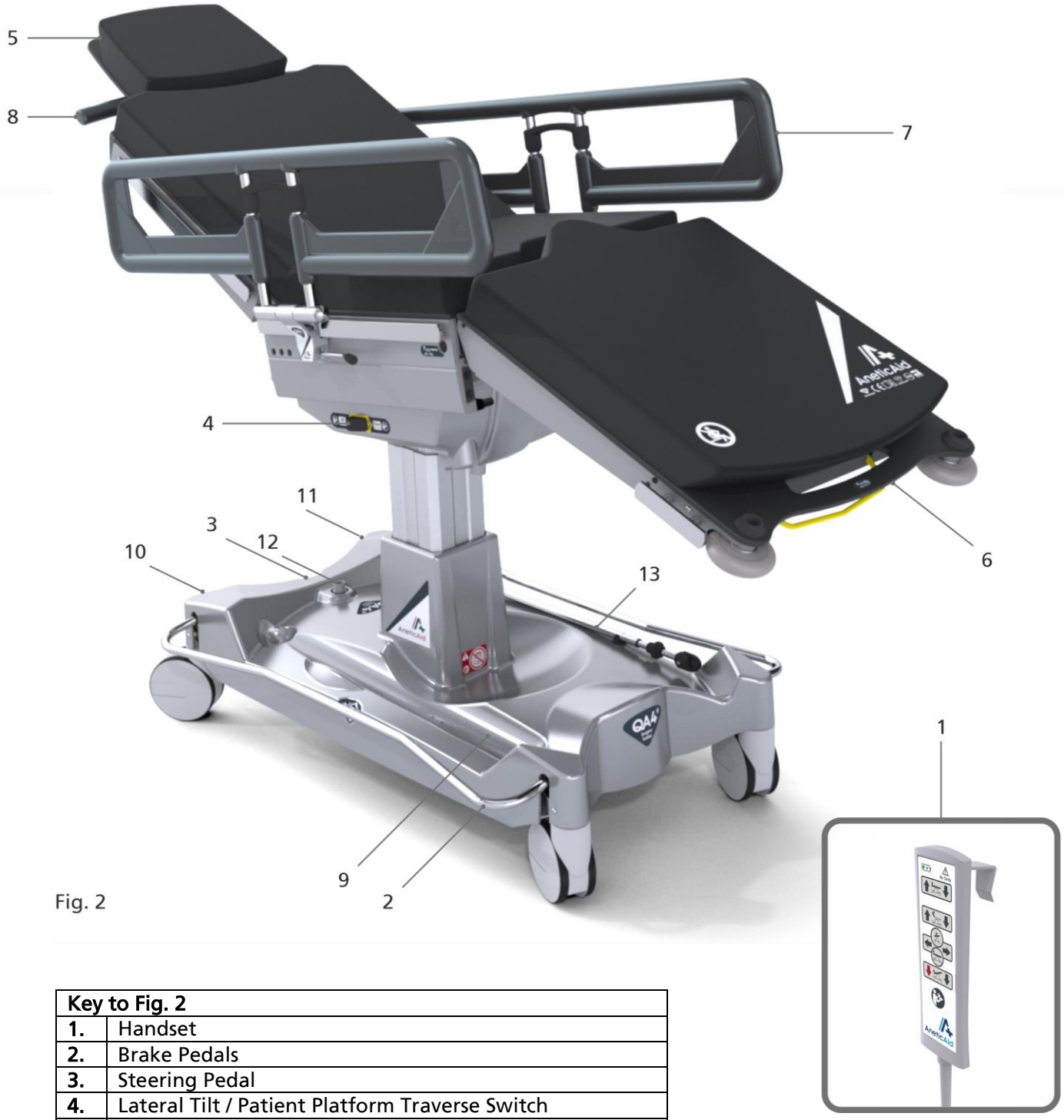


Fig. 2

Key to Fig. 2	
1.	Handset
2.	Brake Pedals
3.	Steering Pedal
4.	Lateral Tilt / Patient Platform Traverse Switch
5.	Head Section Tilt Actuation Lever
6.	Leg Section Articulating with 105mm Sidebar (optional)
7.	Single Piece Siderail
8.	Pushing Handles
9.	Oxygen Cylinder Mounting Recess
10.	'V' Mounting for Suction Canister
11.	Mains Input/Charging Socket
12.	Handset Socket
13.	Transfusion Pole

4. Introduction to Powered Functions

This section of the document gives a description of product functions that are electromechanical powered, either from the trolleys internal battery supply, or when the trolley is connected to the mains power supply (using the power lead supplied). These functions are operated and controlled from the handset (item 1, fig. 2).

CAUTION: The battery must be properly maintained in accordance with these instructions. Failure to do so will result in significant loss of charge capacity or failure of the battery. Refer to Section 20, 'Battery Charging and Maintenance' for a full explanation on how to care for the battery.

5. Using the Handset

The handset connects into the handset socket on the base of the trolley at the head end (item 12, fig. 2). The handset button functions are detailed below.

NOTE: The manufacturer recommends that a spare handset is purchased and stored in an accessible location, in the event that the handset becomes damaged.

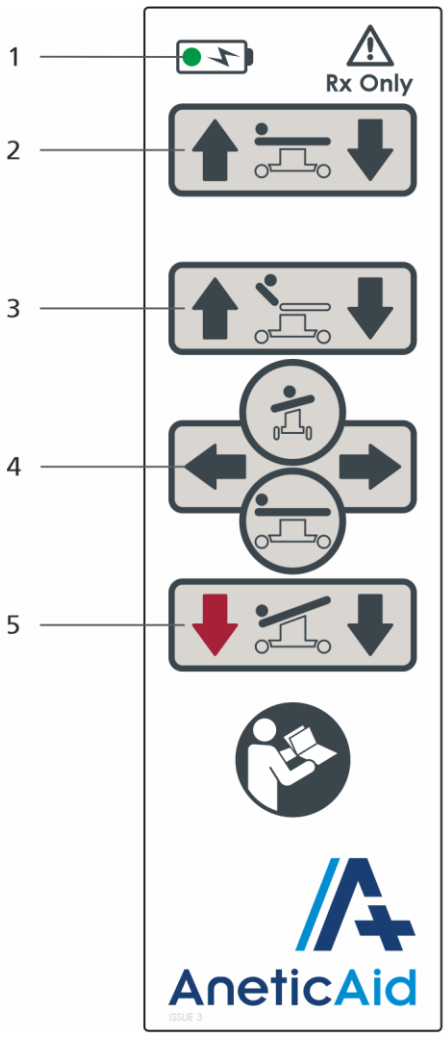


Fig. 3

Key to Fig. 3	
1.	Battery Status LED
2.	Variable Height Function
3.	Backrest Articulation Function
4.	Lateral Tilt and Patient Platform Traverse Function (shared button operation)
5.	Trendelenburg & Reverse Trendelenburg Tilt Function

⚠	**CAUTION:** The handset is in constant use, so it is particularly vulnerable to wear and tear or damage. Before use it is important to inspect the handset to ensure there is no damage to the cable or the buttons.
⚠	**WARNING:** In the event of handset damage the handset should be replaced immediately or the trolley removed from service.
⚠	**WARNING:** Handset damage may lead to malfunction during equipment use. If a handset button becomes damaged it is possible for one of the powered functions to operate spontaneously. In this unlikely event, the following actions should be taken; 1. Depress and hold the opposing function button, i.e. if the backrest is raising press backrest down. 2. Unplug the handset from the trolley. 3. Fit a new handset. 4. If another handset is not available transfer the patient to another trolley.

6. Using the Height Adjustment

The height of the patient platform can be adjusted using the up and down buttons on the handset.

⚠	**WARNING:** Ensure there is nothing to impede the raising or lowering of the patient platform as this could result in damage to the equipment and/or injury to the patient.
⚠	**WARNING:** When leaving patients unattended the trolley should be fully lowered to minimise any risk of injury should the patient fall off the trolley.

7. Using the Backrest

The backrest can be raised and lowered using the up and down buttons on the handset.

NOTE:	The backrest actuator is designed to lift a maximum of 45% of the 250kg (550lb) patient weight limit; this equates to 112.5kg (248lbs). If the weight on the backrest exceeds this figure, then the backrest actuator may stall, and the backrest will not raise. This can be caused by exceeding the patient weight limit, or having the patient positioned too far up the backrest towards the head end.
⚠	**CAUTION:** Ensure that there are no obstructions in the way before raising or lowering the backrest.

8. Selecting the Lateral Tilt or Patient Platform Traverse Function

To use either the lateral tilt, or the patient platform traverse, the rocker switch must be set to the required function. The rocker switch is located on the patient right hand side of the mid-section (item 4, fig. 2).

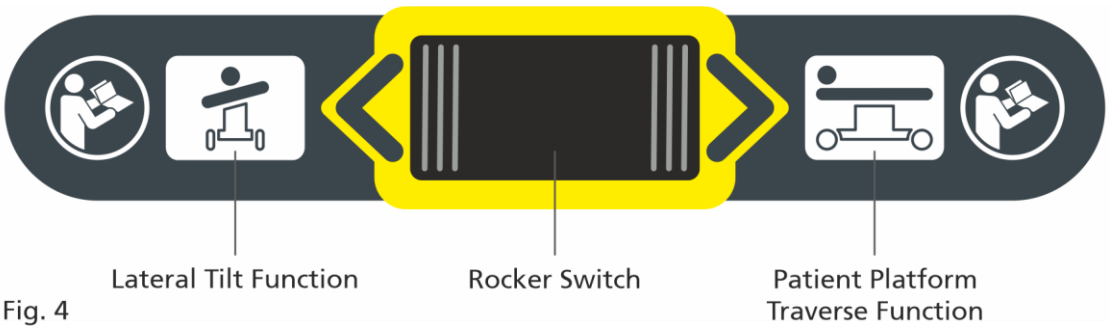


Fig. 4

9. Using the Lateral Tilt

Firstly, select the function using the rocker switch. The patient platform can now be laterally tilted (along the longitudinal axis) to the patients' left hand side, or the patients' right hand side, using the left and right buttons on the handset.

10. Using the Patient Platform Traverse

The patient platform is designed to traverse longitudinally, towards both the head end and the foot end. The traverse function enables full 'C' arm coverage, and improved surgical access from both the head end and foot end.

Firstly, select the function using the rocker switch; the patient platform can now be traversed using the left and right buttons on the handset.

The mattress and patient platform are made from x-ray translucent materials. The areas of 'C' arm access are illustrated in fig. 5, with the trolley traversed in both directions. Observe that when the patient platform is traversed in either direction, the mid-section static frame arm is revealed. In the neutral position the traversing section of the patient platform aligns with the static arm. The trolley should be returned to the 'neutral' position once the procedure has been completed.

NOTE:	The patient platform should be returned to the neutral position once the procedure has been completed, see above.
⚠	**CAUTION:** Ensure that there are no obstructions in the way before traversing the patient platform.
⚠	**CAUTION:** With the articulating leg section articulated downwards, the patient platform cannot be traversed towards the head end passed the neutral position.

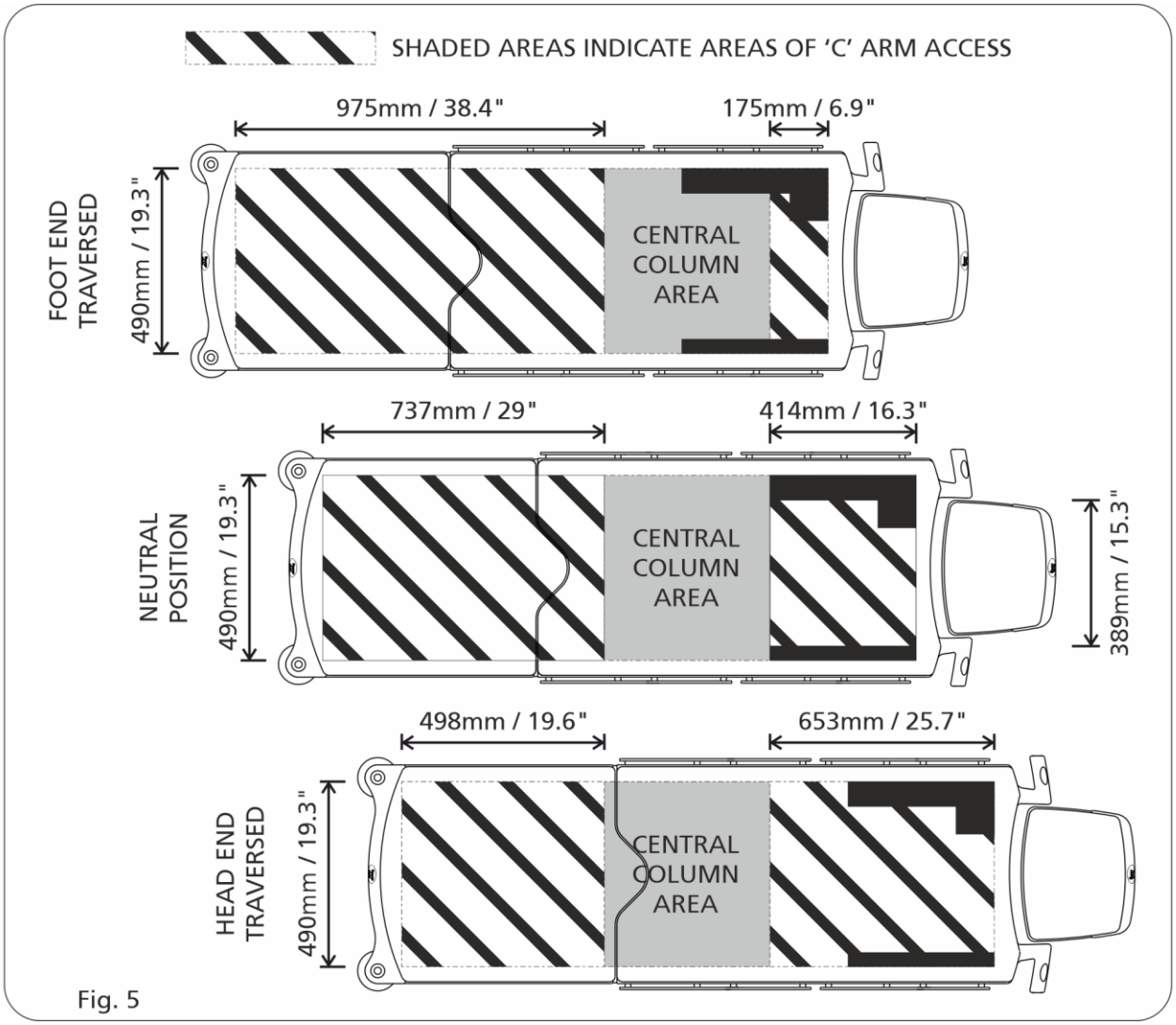


Fig. 5

11. Using the Trendelenburg Function

The patient platform can be longitudinally tilted to provide a Trendelenburg (head down) or reverse Trendelenburg (leg down) position by using one of the two down buttons on the handset. The head down Trendelenburg button is in-filled in red to indicate that this button is used for emergency positioning.

CAUTION: Ensure that there are no obstructions in the way before tilting the patient platform.

CAUTION: Ensure that there is no equipment stored in the base moulding of the trolley before tilting the patient platform. **NOTE:** This ONLY applies when the trolley is at its lowest height.

12. Introduction to Manual Functions

This section of the document gives a description of product functions that are manually operated, and how to use them.

13. Using the Brakes

All four castors are simultaneously braked by depressing either of the brake pedals at any point along the length of the pedal (item 2, fig. 2). The brakes are disengaged by lifting either pedal.

WARNING: Always apply the brakes when leaving a patient unattended, a patient is getting on or off the trolley, or transferring patients from the trolley to another platform.

14. Using the Steering Pedal, activates 5th wheel

The trolley can be manoeuvred more easily by engaging the 5th wheel steering mechanism (item 3, fig. 2). The mechanism is engaged, and disengaged, by pressing down on the steering pedal. To move the trolley sideways disengage the 5th wheel.

CAUTION: Applying the steering pedal with excessive force, i.e. by standing on it, may cause permanent damage to the mechanism.

15. Using the Head Section

The head section can be detached from the trolley to improve surgical/anaesthetic access, and to allow other head section options to be fitted; see Section 27. 'Product Accessories'.

Removing the head section, prior to administering anaesthetic, reduces the length of the backrest, and the need to reposition the patient in theatre. Removing the head section also gives greater access to the patient from the head end for theatre staff.

The head section is articulated by pulling up on the head section tilt actuation lever (item 5, fig. 2). To remove the head section, lift the release handle, then lower and remove the head section from the support bracket; as illustrated in fig. 6 and fig. 7.

WARNING: When the head section is fitted on to the trolley, ensure that the head section is fully engaged and securely locked in position.

16. Using the Leg Section

The trolley is fitted as standard with a non-articulating lightweight leg section. If the trolley is fitted with an articulating leg section refer to Section 28.

To remove the leg section, depress each button in turn located one on each side of the trolley, and remove the leg section; see fig. 8. To replace the leg section, align the spigots of the leg section into the mating female sockets on the trolley, and push home firmly until the leg section is fully engaged; see fig. 9.

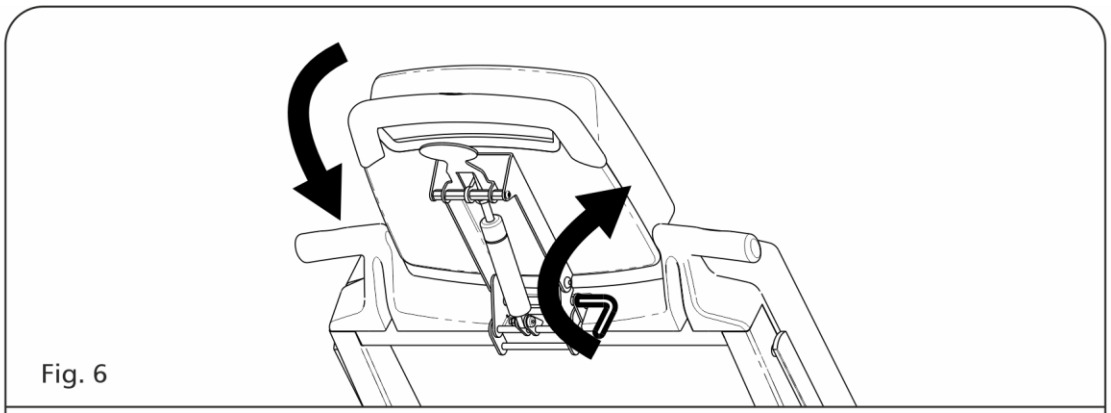


Fig. 6

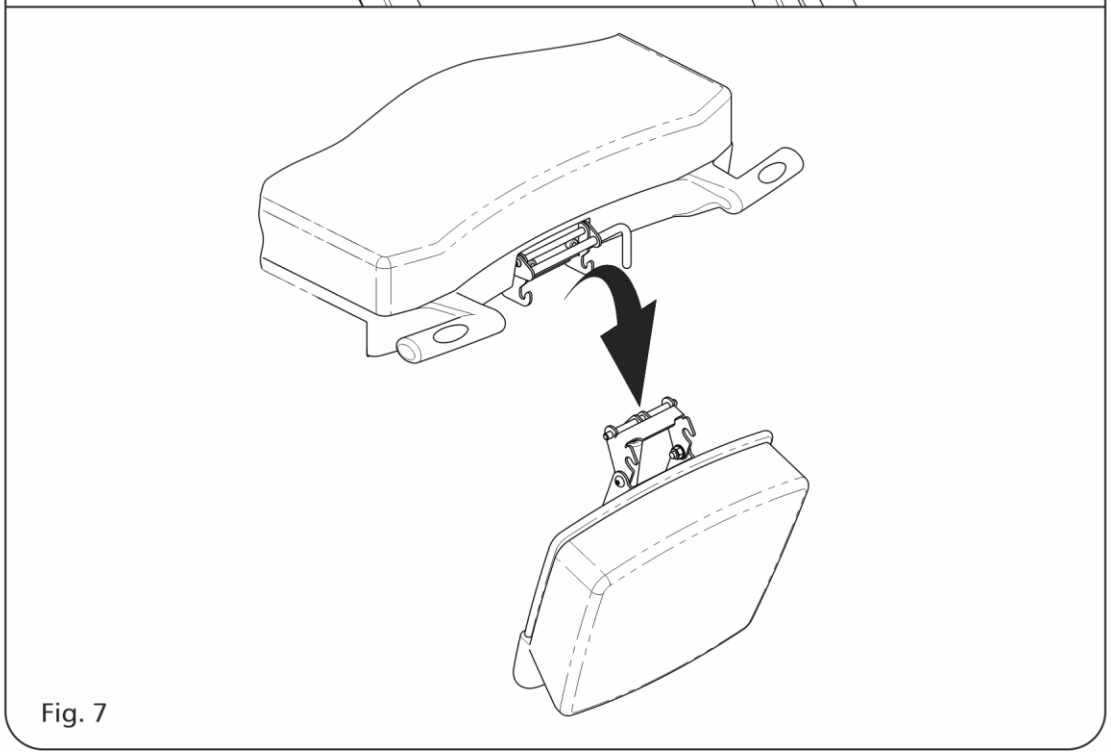


Fig. 7

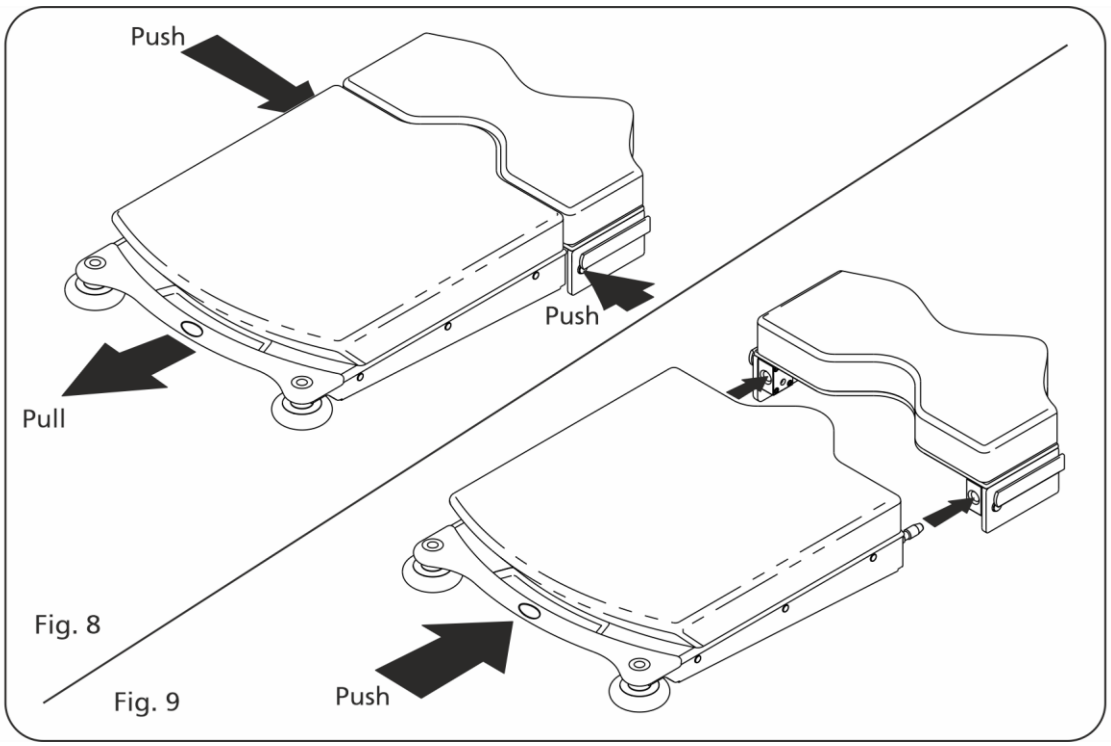


Fig. 8

Fig. 9

⚠	**WARNING:** Ensure that the leg section is fully engaged and securely locked in position.
⚠	**WARNING:** Ensure that any persons responsible for removing the leg section adopt good posture and stance, in accordance with the relevant 'Moving and Handling' policies, to prevent injury to the user.

17. Using the Single Piece Siderail

The trolley is supplied with two single piece siderails that attach directly onto the side bar.

NOTES:	The siderails are intended to be located on the mid-section of the trolley for two reasons; – Firstly, with the siderails on the mid-section the patient coverage is adequate for both the upper and lower torso with the backrest either horizontal or articulated; see fig 10. – Secondly, the backrest actuator is designed to lift the weight of the backrest and 45% of the patient weight. Exceeding this weight may cause the backrest actuator to stall, and the backrest will not raise. Locating the siderails on the backrest increases the weight on the backrest, which reduces the patient weight that can be lifted.
⚠	**CAUTION:** The siderail should be returned to the mid-section of the trolley during patient recovery.
⚠	**WARNING:** Failure to secure the siderail to the side bar using the locking clamp could result in injury to the patient.

To attach the siderail (fig. 11); holding the siderail vertically, pull up on the siderail release handle (A); this will allow the locking clamp (B) to articulate. Holding the locking lever (C), position the clamp (B) onto the siderail, and rotate the locking lever (C) clockwise, or anticlockwise, to lock the siderail in position (fig. 12). Reverse this technique to remove the siderail.

The siderail can be rotated down whilst still attached to the trolley. With the siderail still secured to the trolley, pull up on the release handle (A) as indicated in fig. 13 and rotate the cotside away from the trolley into the down position.

18. Using the Emergency Backrest Release Function

The emergency backrest release handle allows the backrest to be dropped immediately from any articulated angle to the horizontal position.

NOTES:	When the emergency backrest release handle is disengaged the backrest will **not** function; the backrest handle must be engaged for correct backrest operation.
	It is important that staff are clearly informed as to the location of the emergency release handle, its function, and mode of operation.

To release, grasp the emergency release handle and rotate the handle anticlockwise. As the handle is released the backrest will be unsupported and will drop to the horizontal position; see fig. 14.

⚠	**WARNING:** Caution is required when releasing the emergency backrest handle. Once the handle is released, the backrest will drop with limited resistance. Therefore, ensure no persons are stood behind or under the backrest when the handle is released.

Follow these steps to re-engage the release handle. With the backrest horizontal depress the backrest down button, see fig. 3, to ensure that the backrest actuator is retracted to its shortest length. Now grasp the emergency release handle and rotate the handle 90 degrees clockwise until the handle 'clicks' into position and physically stops;

see fig. 15. The release handle is now re-engaged enabling the backrest to be operated from the handset.

WARNING: Ensure that the handle is properly re-engaged. Failure to do so will result in the backrest not functioning correctly and possibly disengaging unexpectedly.

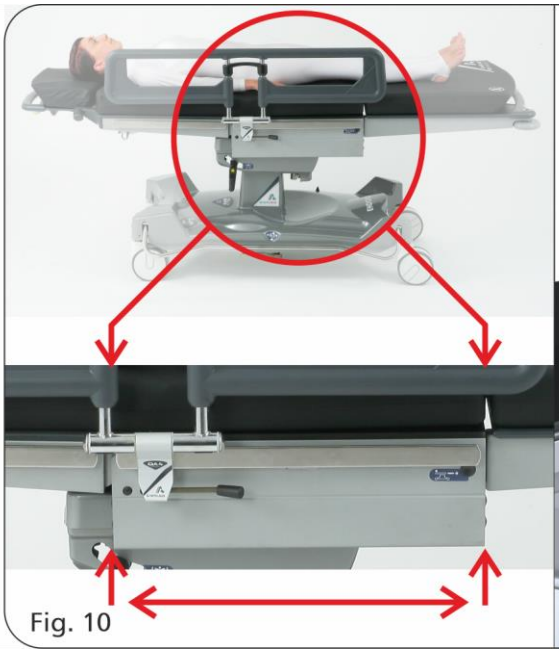


Fig. 10

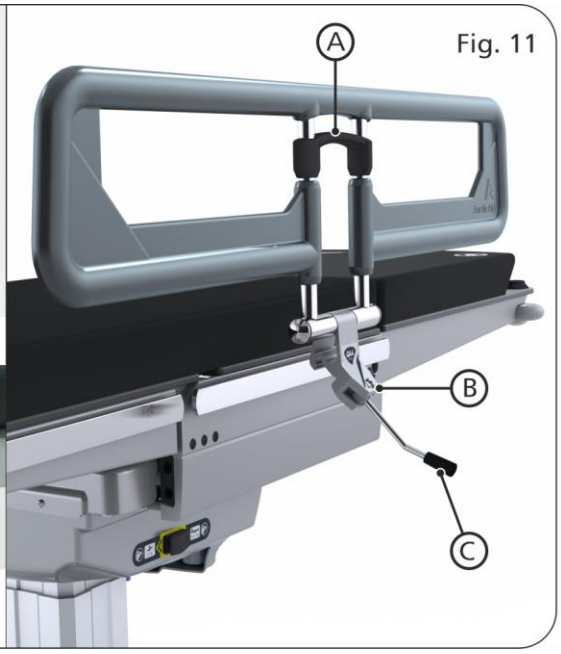


Fig. 11

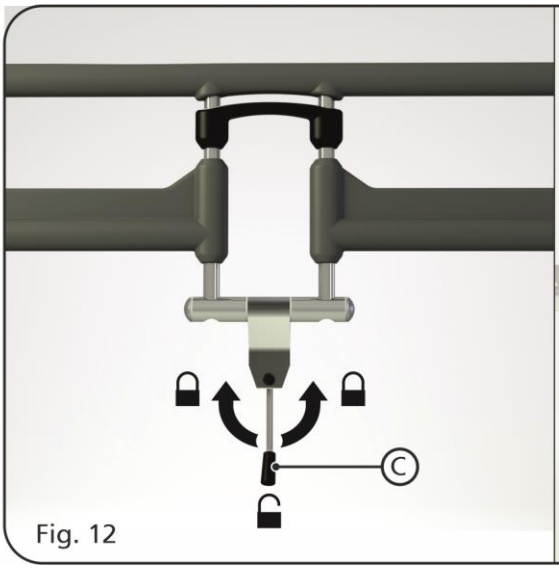


Fig. 12

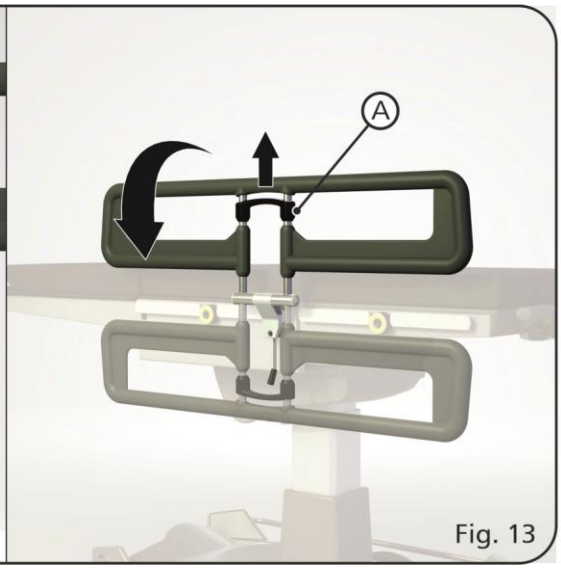
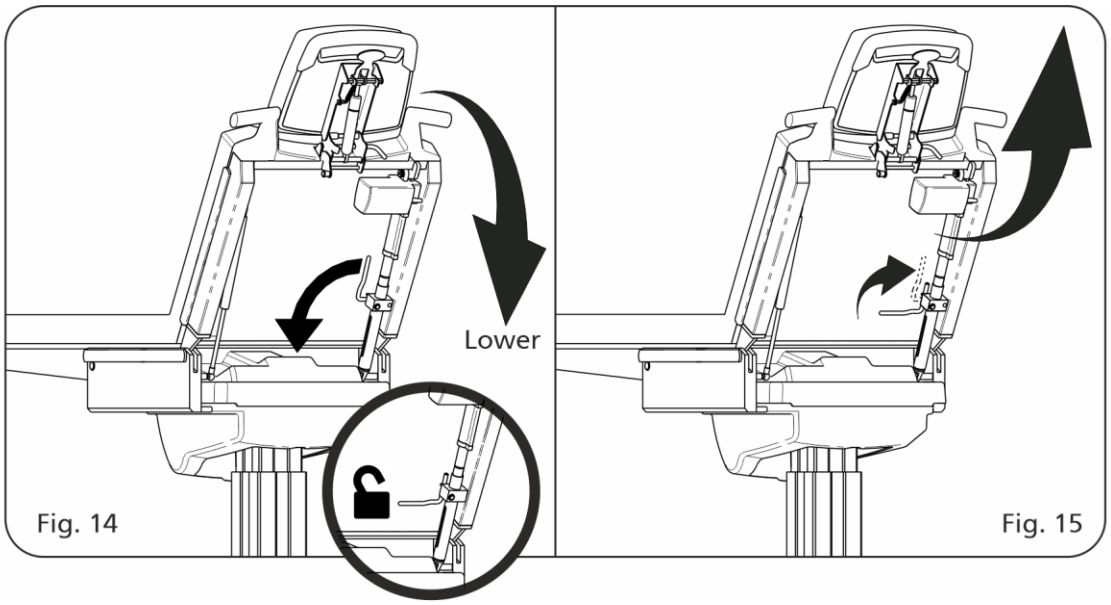


Fig. 13



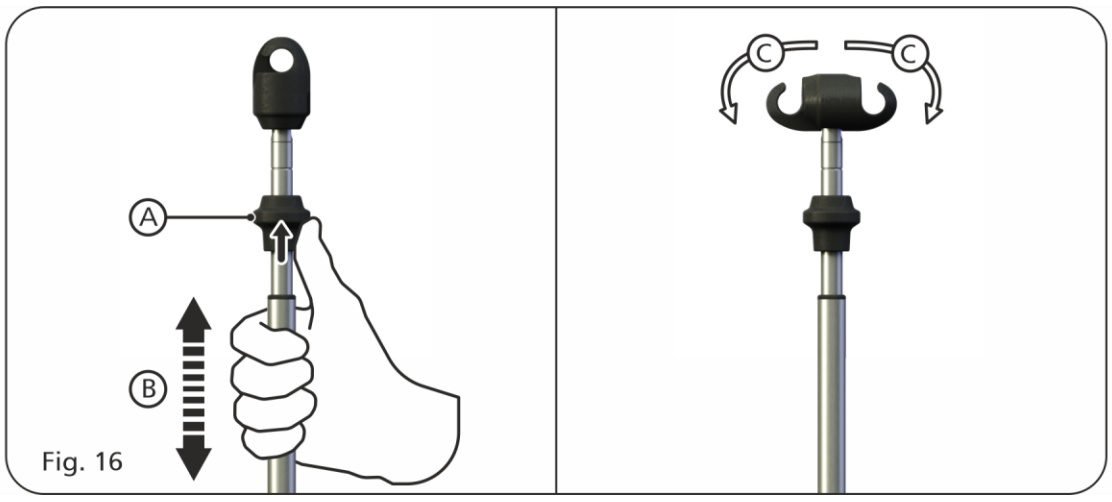
19. Using the Transfusion Pole

The trolley is fitted with a loose transfusion pole (item 13, fig. 2) that can be fitted at any point along the side bar and secured using the locking lever.

To adjust the height of the transfusion pole, as illustrated in fig. 16. Grasp the locking mechanism (A) and using your thumb, lift the mechanism to release the lock and move the pole up or down to the required height (B); release the mechanism to lock the pole in any position.

The transfusion pole is fitted with two spring-loaded hooks that are designed to return to their original, upright position, when not in use. Swivel one or both hooks outwards (C) to hang the IV bags.

NOTE:	The maximum weight limit per IV hook is 3kg (6.6lbs) or 3 litres (101.4 fl oz), and the safe working load for the IV pole is 6kg (13.2lbs).



20. Patient Weight Limits

The trolley is designed to accommodate a maximum patient weight of 250kg, and a safe working load of 300kg (SWL). Patients should mount the trolley at the centre of the patient platform and their weight kept as evenly distributed as possible whilst on the trolley.

Note that all the removable head sections are designed to take a maximum weight of 25kg, and the removable leg section is designed to take a maximum weight of 50kg.

NOTES:	The safe working load is the sum of the maximum patient weight, the weight of any accessories attached to the trolley and the weight of the items on or attached to those accessories.
	The maximum patient weight limit is reduced to 160kg if the patient is reversed on the trolley (meaning the patients head will be on the foot section); see Section 21.
⚠	**WARNING:** Exceeding any of the maximum specified weight limits could result in failure of the trolley and injury to the patient and staff.

21. Reversing the Patient

The patient can be reversed on the trolley to increase patient c-arm access for some specific imaging procedures; reversing the patient means the patients head will be on the foot section. Should it be required, the Retrograde Pyelography or foot end mattress extension attachments can be used to further offset the patient position relative to the central column area.

When reversing the patient the following points should be observed;

- The maximum patient weight limit is reduced from 250kg to 160kg.
- To maximise trolley stability, the castors should be positioned trailing towards the foot end; see fig. 20.
- To incline the foot end head down you will need to use the reverse Trendelenburg button; item 5, fig. 3.
- With a Retrograde Pyelography or foot end mattress extension fitted, the Trendelenburg function may stall due to the higher offset weight. Should this occur you will be required to, (a) slide the patient towards the central column by approximately 300mm, and (b) press the grey reverse Trendelenburg button briefly before again pressing the red Trendelenburg button.

⚠	**CAUTION:** To prevent the trolley becoming unstable, do not fit the following accessories in combination; – Do not fit more than one retrograde extension. – Do not fit a foot end mattress extension in combination with a leg section and retrograde section.
⚠	**WARNING:** Exceeding the 160kg weight limit could result in tipping, failure of the trolley and injury to the patient and staff.

22. Battery Charging and Maintenance

The battery will require recharging at regular intervals. The frequency with which the battery requires recharging will be dependent on how often the equipment is used, and the general condition of the battery.

NOTES:	The manufacturer recommends that the trolley is put on charge when not in use, including overnight. Establishing this routine will ensure that the trolley does not run out of charge in the course of a day.
	If the trolley is going to be placed in storage the trolley must be charged for 8 hours every 2 weeks. Failure to do so will result in permanent battery damage.
	It is recommended that the battery is replaced every 3 years.

The trolley is supplied with an IEC mains power lead which is used to charge the on-board battery (specification in 'Electrical Specification' on page 5). The power lead should be plugged into a mains socket and the appliance connector end plugged into the charging socket on the trolley (item 11, fig. 2). The socket should now be switched on.

WARNING: Only use the lead supplied with the trolley for charging purposes. Do not use the lead for any other purposes.

WARNING: Visually inspect the lead for damage on a daily basis. Do not use the lead if damaged in any way.

Once the mains power lead is connected the control unit will check the charge capacity of the battery before commencing charging, this may take up to 12 minutes. Once this test is complete the battery will either; begin to charge and the battery status LED on the handset will flash 'green', or the battery status LED will turn solid 'green' to indicate that the battery is fully charged. From flat, the battery will take approximately 8 hours to fully charge. Plugging the trolley in for a short period of time will only partially recharge the battery.

The trolley can be left on charge permanently as there is no danger that the battery can be over charged. The control unit manages the status of the battery charge, switching the charging circuit off when the battery is full and back on when the charge dissipates below a pre-set level.

When the battery charge is low the control unit will emit a continuous 'beeping' tone when any one of the function buttons is being depressed, and the handset battery status LED will turn 'amber'. This indicates that the battery must be recharged; failure to do so will result in the deep discharge protection being enabled.

CAUTION: Failure to charge the battery once the low battery alarm has sounded could result in a permanent loss of maximum charge capacity.

If the battery has not been charged and the trolley is continuously used, the battery will run flat and eventually reach a 'deep discharge' condition. A normal 8 hour charging period will not be sufficient to recover the battery. The battery will need to be on charge for approximately 72 hours to fully recover.

CAUTION:

- Only batteries supplied and approved by Anetic Aid should be used.
- The battery unit should not be opened.
- Use the battery only for its intended purpose.
- Never use a battery that is damaged.
- The battery must be recycled, properly disposed of or returned to Anetic Aid. The battery must not be discarded with Household waste.

23. K8 Pressure Care Mattress

The mattress is fixed to the patient platform with touch fastener; this enables the mattress to be removed from the trolley for cleaning and replacement.

NOTES:

When fitting a new mattress to the trolley the touch fastener on the patient platform must also be replaced.

The mattress parts should be visually inspected for damage on a daily basis. If the outer mattress fabric is torn, then fluids may penetrate and the mattress should be replaced. Do not attempt to repair tears or splits with self-adhesive tapes.

WARNING: Incompatible mattresses can create hazards; only replace the mattress with a new mattress supplied by Anetic Aid, or your authorised dealer, to ensure compatibility in accordance with BS EN 60601-2-52:2010.

CAUTION: Ensure that the mattress is correctly orientated on the patient platform with the touch fastener of the mattress aligning with the touch fastener on the patient platform.

CAUTION: Ensure that the mattress is centrally positioned across the width of the patient platform otherwise it may prevent the side rail from locking when raised.

K8 Pressure Care Mattress Specification	
	Latex free
	X-ray translucent
Foam Base Layer	Polyether polyurethane foam, density 48 to 52kg/m², nominal hardness 210N – 250N
Foam Top Layer	Viscoelastic temperature sensitive foam, density 58 to 62kg/m², nominal hardness 70N – 100N
Fabric Cover	Polyurethane coated nylon, polyamide, polyester which is; breathable, anti-microbial, chlorine resistant (<1%, 10,000 ppm) and waterproof (to 2000mm)
Touch Fastener	Polyamide with high strength adhesive
Fabric Cover Seams	High frequency welded seams which are fully sealed and high strength
Fire Safety	Compliant to Fire Crib Test 5 BS7177
Life Expectancy	The mattress life expectancy is 4 years. Dependent upon the level of care and maintenance the pressure care properties of this mattress may reduce once the life expectancy has been exceeded
Warranty	The mattress is guaranteed against defects found in material or workmanship for a period of 12 months from the date of invoice.
Judith Waterlow Score	The mattress is rated as medium to high risk and suitable for the majority of patients up to 23 hours. It is important to remain aware of individual patient needs, and standard nursing practices must always apply for patients immobile or at high risk to pressure sores

24. Fitting a Replacement Mattress Cover

- Remove and discard the old mattress cover; take note of the foam orientation as you remove the cover.
- Inspect the foam for contamination to ensure it is fit for use.

CAUTION: If the foam is contaminated, it must be replaced.

- Unzip and open out the replacement mattress cover.
- Insert the foam into the replacement cover ensuring it is orientated correctly.
- As you begin to pull the zip slider, draw together both sides of the zip to minimise any strain on the mattress cover; be careful not to snag the mattress cover, or the foam stockinet cover, in the zip slider.

CAUTION: If the above action is not observed both the mattress seams, and the zip, will be overly stressed and could fail.

- Continue to draw together both sides of the zip as you pull the zip slider, working your way around the mattress in small sections.
- When the cover is completely zipped up, manipulate the cover to sit evenly on the foam, using the seams of the mattress cover as a reference.
- Make sure the zip cover flap is folded down protecting the zip.

25. Cleaning and Disinfecting

It is recommended that only CE marked cleaning products are used in the cleaning of the trolley and the mattress. Cleaning and disinfection should be carried out by hand only.

CAUTION:

- Do not steam clean or jet wash this device.
- Do not soak or immerse this device.
- Do not use concentrated bleaching disinfectant solutions, organic solvent or abrasive powders in the cleaning or disinfection of this product.
- Dilute all disinfectants in accordance with the manufacturer's guidelines.
- Disinfectant products are corrosive in nature; failure to properly wash and dry the product surface could leave a corrosive residue which may cause damage to the product. Ensure the mattress is thoroughly dried before refitting.

Clean the trolley and mattress with warm water and neutral detergent and dry the surfaces thoroughly using a soft cloth. Suitable disinfectants are: quaternary ammonium compounds, isopropyl alcohol & chlorine bleach; refer to the table below. Apply disinfectant by cloth, spray or disinfectant wipe. Following disinfection, wash off all surfaces with clean warm water and dry thoroughly using a soft cloth. Clean all touch fastener attachments periodically with a soft brush, neutral detergent and suitable disinfectant as stated. The product will be adversely affected and its life expectancy reduced if the above cautions are not observed.

Compound	% Active	pH Range	Dwell Time
Chlorine	<10,000ppm (1%)	7-9	≤10 mins.
Chlorine is suitable, ensure the surfaces are rinsed and thoroughly dried as instructed.			
Alcohol	70 (typical)	N/A	≤10 mins
Alcohol is suitable, subject to the following precaution; the surfaces must be rinsed and thoroughly dried as instructed (if not the PU coating may swell and be vulnerable to damage).			
Hydrogen Peroxide	3-25%	5-9	≤5 mins.
Hydrogen Peroxide is conditionally suitable; the compound must be fully neutralized, and the surfaces must be rinsed and thoroughly dried as instructed. Highly alkaline peroxide pH≥10 is not suitable.			
Quaternary Ammonium	3-15%	7-13	Varies
Quaternary Ammonium is conditionally suitable; the surfaces must be rinsed and thoroughly dried as instructed. Quaternary Ammonium's are typically too alkaline, those with a pH≥10 are not suitable. **Do not use** QUAT wipes containing sodium hydroxide.			

26. Product Warranty

The product, when new, is guaranteed to be free from defects in materials and workmanship and to perform in accordance with the manufacturer's specification for a period of one year from the date of invoice from Anetic Aid or their approved distributor. Anetic Aid will repair or replace, at their discretion, any components found to be defective or at variance with the manufacturer's specification within this time at no cost to the purchaser.

AneticCare Protect your investment with a manufacturer backed service and maintenance package; contact Anetic Aid for more details.

Warranty exclusions; the warranty does not provide cover for breakage or failure due to tampering, misuse, neglect, accidents, modifications or shipping. The warranty is also void if the product is not used in accordance with the manufacturer's instructions or is repaired during the warranty period by any persons other than Anetic Aid or its appointed agent. No other expressed or implied warranty is given.

Extended warranty; the warranty may be extended from the date of purchase, if the product is maintained by Anetic Aid or its appointed distributor, commencing at the end of the initial one year warranty period (quotations available upon request). Extended

warranty limitations; the extended warranty does not cover pressure care mattresses or ancillary equipment (12 month warranty only applied).

For warranty, service and calibration, please contact Anetic Aid or their appointed distributor.

27. Product Maintenance

The life expectancy of a QA4 Surgery Trolley is 10 years from date of introduction to clinical use, dependant on the level of care and maintenance. The performance of this device may reduce once the life expectancy has been reached and exceeded. It is recommended that the trolley is serviced on an annual basis in accordance with the manufacturer's service schedule, and that the battery is replaced every 3 years.

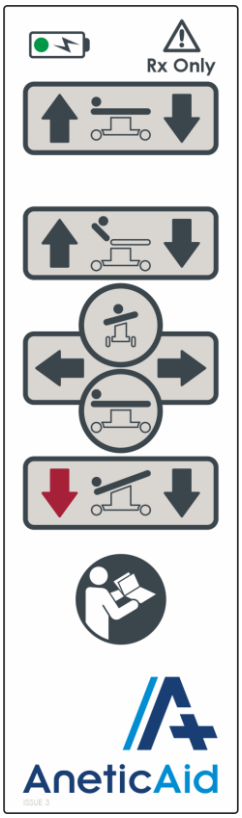
Before use, ensure all trolley functions operate to their full range of movement and that all components disengage, re-engage and lock correctly. Also visually inspect the trolley for any loose or damaged parts and foreign bodies caught in the castors.

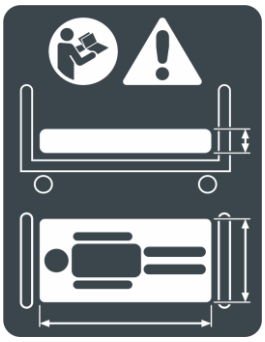
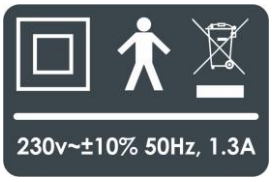
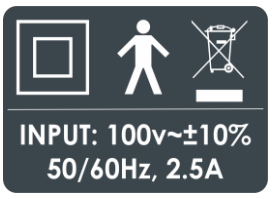
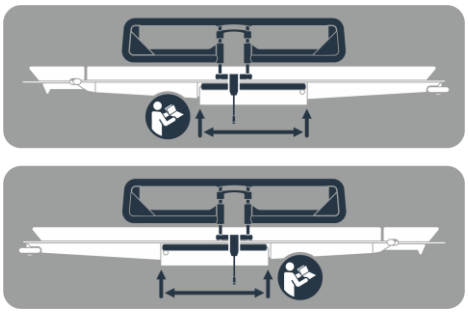
NOTE:	If the trolley is damaged or faulty it **must** be taken out of use with immediate effect and the fault reported to Anetic Aid, your authorised dealer or maintenance department. The trolley **must not** be used until the damage or fault has been repaired.
⚠	**CAUTION:** In line with the MHRA document, Managing Medical Devices, maintenance work should only be conducted by suitably trained personnel following manufacturer's guidelines.

28. Label Identification

The following list is a description of all the labels used on the trolley;

Product reference, serial number and date of manufacture.	
Maximum patient weight limit is 250kg (551lbs) and the trolley safe working load is 300kg (661lbs). The maximum load for the head section is 25kg (55lbs) and the maximum load for the leg section is 50kg (110lbs).	
Depress the brake pedal to brake all four castors.	

Depress the steering pedal to engage and disengage the 5th wheel steering function.	
Select the Lateral Tilt or Patient Platform Traverse Function.	
Pull up on the head section tilt actuation lever to articulate the head section.	
Indicates that the leg section is removable.	
Handset membrane.	
Depress both leg section release buttons, in turn, to remove the leg section.	
Unlocking the emergency backrest handle allows the user to lower the backrest in the event of an emergency.	

Incompatible mattress can create a hazard.	
Electrical Information label; 230VAC input.	
Electrical Information label; 100VAC input.	
Mattress batch label.	
Labels to indicate that the manufacturer recommends the siderails be positioned on the mid-section side bar.	
Branding label.	
The screen printed Anetic Aid brand logo with multiple information symbols; 'K8 Pressure Care' technology, CE marked, refer to the instructions for use, mattress is x-ray translucent, latex free, and compliant to Fire Crib Test 5 BS7177.	

29. Product Accessories

Code	Description
QA4 Surgery Trolley System	
21300	QA4™ Powered Mobile Surgery System - with K8 Pressure Care Mattress
Optional Accessories	
21325	QA4 Build Option - Headrest - Dual-articulating Head Positioner - with Shaped Cushion and Neck Plate Pad
21322	QA4 Headrest - Full Width Articulating - with K8 Pressure Care Mattress
21347	QA4 Side Rail Cover - PADDED - for Single-piece Side Rail - GREY Material - PAIR
21348	QA4 Side Rail Cover - PADDED - for Single-piece Side Rail - CHILD PRINT Material - PAIR
21356	QA4 Leg Section - Standard Light Weight
21357	QA4 Leg Section - Standard Light Weight - with Full Length UK Side Bar
21357E	QA4 Leg Section - Standard Light Weight - with Full Length EU Side Bar
21357US	QA4 Leg Section - Standard Light Weight - with Full Length US Side Bar
21355	QA4 Leg Section - Articulating
21353	QA4 Leg Section - Articulating - with 105mm UK Side Bar
21354	QA4 Leg Section - Articulating - with 105mm EU Side Bar
21354-US	QA4 Leg Section - Articulating - with 105mm US Side Bar
21365	QA4 Accessory - Oxygen Delivery Bar & Drape Screen
21390	QA3 / QA4 Accessory - Push / Pull Bar
21395	QA3 / QA4 Accessory - Foot-end Extension - with 30mm Deep Mattress
21397-EU	Urology / Retrograde Pyelography / Gynaecology Extension - with EU Side Bar
21397-UK	Urology / Retrograde Pyelography / Gynaecology Extension - with UK Side Bar
21397-US	Urology / Retrograde Pyelography / Gynaecology Extension - with US Side Bar
21370	Operation Table Accessories Stand - Mobile
21360H	QA4 Mattress - for Standard Head Section - K8 Pressure Care
21360B	QA4 Mattress - for Upper & Lower Torso Section - K8 Pressure Care
21360L	QA4 Mattress - for Leg Sections - K8 Pressure Care

30. Using the Articulating Leg Section

To articulate the leg section, pull up on the leg frame lever and push down on the board. To remove the leg section refer to Section 16.

NOTES:	With the articulating leg section the leg section should be articulated down to the maximum angle before being removed. This shortens the distance between the end of the leg section and the mounting sockets. This does two things; one, it provides better access to the release buttons, and two, it reduces the distance that the user has to reach to support the weight of the articulating leg section.
	When replacing the articulating leg section pull the actuation handle to operate the gas struts and allow the location spigots to achieve a horizontal position.
⚠	**CAUTION:** With the leg section articulated down caution must be exercised when tilting the trolley leg down, i.e. into a reverse Trendelenburg position.
⚠	**CAUTION:** With the articulating leg section articulated downwards, the patient platform cannot be traversed towards the head end passed the neutral position.

31. Using the Dual-articulating Head Positioner

The trolley is designed to allow for various head section options to be fitted; refer to Section 15. 'Using the Head Section'. To remove a head section, lift the release handle fig.17 (C), then lower and remove the head section from the support bracket; this is illustrated in fig's. 6 and 7.

The head positioner articulates on 2 axes, (A) and (B). Pulling on lever (A) allows the head piece of the positioner to articulate on axis (A). Pulling on lever (B) allows the neck piece to articulate on axis (B); see fig. 17. Using the levers in combination the head positioner can be elevated up and in towards the body section mattress as shown in fig's. 18 and 19.

NOTE:	The maximum weight limit for the dual-articulating head section is 25kg.
⚠	**CAUTION:** When releasing the levers it is important to support the weight of the patients head. Failure to do so could result in injury to the patient.

Fig. 17

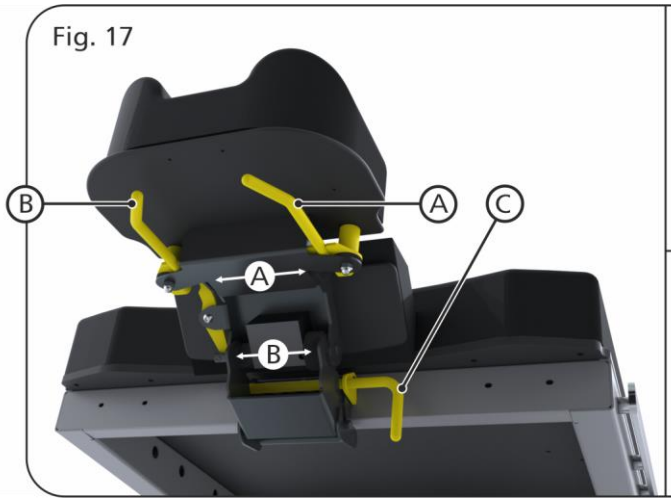


Fig. 18

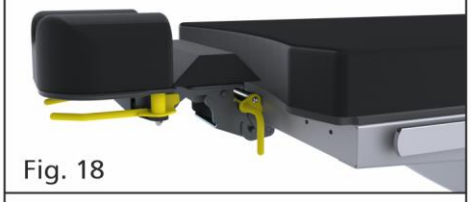


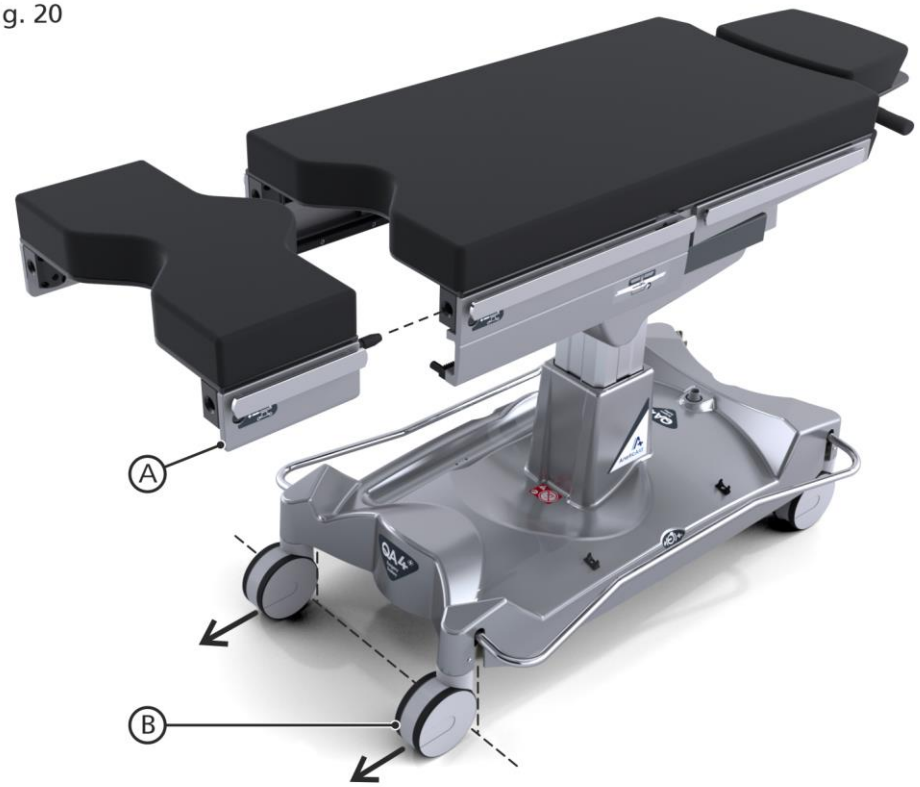
Fig. 19

32. Using the Urology, Retrograde Pyelography, Gynaecology Extension

The purpose of the accessory is to increase patient c-arm access by enabling the patient to be positioned further down the trolley, towards the foot end, and away from the central column area; see fig.5, 'C' Arm Access. To detach the leg section, and attach the extension (A), refer to Section 16. Using the Leg Section.

NOTES:	To maximise trolley stability, the castors (B) are best positioned projecting away from the trolley, and underneath the extension, as shown in the image below.
	When transporting patients, traverse the trolley to the 'neutral position' to ensure maximum stability; see Section 10. Using the Patient Platform Traverse.
⚠	**CAUTION:** To prevent the trolley becoming unstable, do not fit the following accessories in combination; – Do not fit more than one retrograde extension. – Do not fit a foot end mattress extension in combination with a leg section and retrograde section.

Fig. 20



QA4™

Powered Mobile Surgery System

Do not lift by brake pedals or top, lift from steel base frame only.

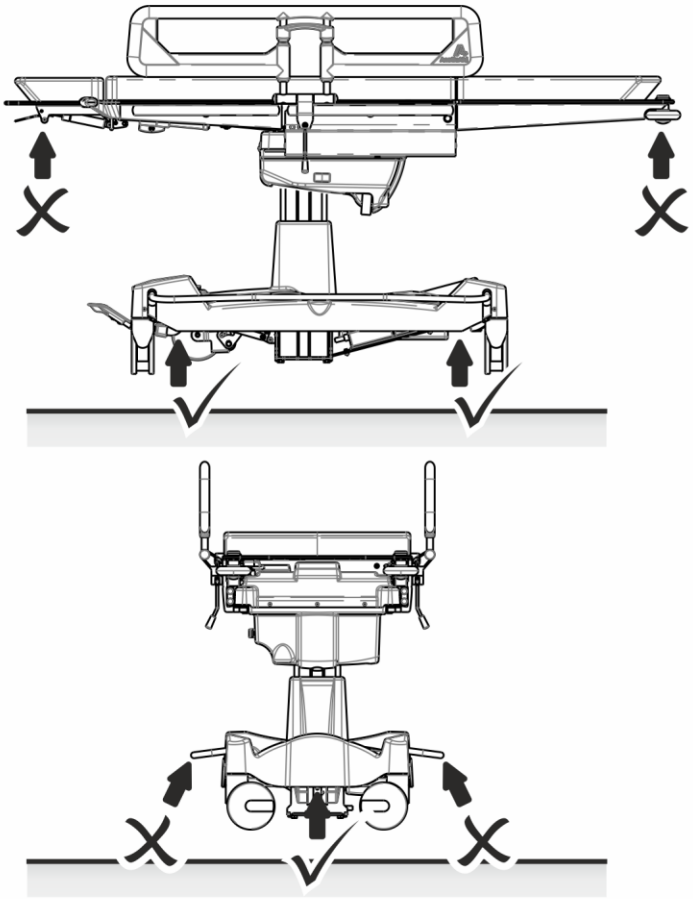
No lo levante sujetándolo por los pedales de freno ni por la parte superior, levántelo únicamente sujetándolo por la base de acero.

Fren pedallarindan veya en üst kisimdan kaldirmayiniz, yalnızca çelik taban çerçevesinden kaldırın.

Ne pas soulever avec les pedales de frein ou par le haut, ne soulever que par le cadre en acier.

Nicht an den bremspedalen oder am oberteil anheben, nur am stahlgestell anheben.

لا تحمل النقالة من مقابض الكوابح أو من الأعلى
ارفع النقالة من إطار القاعدة المعدنية فقط



Important Battery Information:

Before Use: The trolley must be charged for 8 hours.

Storage: The trolley must be charged for 8 hours every 2 weeks.
Failure to do so will result in permanent battery damage.
See Section 20, 'Battery Charging and Maintenance, for further information.

CE MD UKCA EC REP EU-UK Authorised Representative Ltd.
Unit 591, Moat House, 54 Bloomfield Avenue,
Belfast, BT5 5AD, Northern Ireland

CH REP OZG OneZurich Group Ltd.,
Mülibodenstrasse 3, 8172 Niederglatt ZH,
Switzerland

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