



ATS Electric Multi-purpose

Operation Table

User Manual

A vertical line is positioned to the right of the text, and a horizontal line is positioned below the text, intersecting at the right edge of the text block.

Acknowledgements

Thanks for purchasing ATS Electric Multi-Purpose Operation Table. Before using this product, please read this user manual carefully to ensure proper operation and realization of the intended use of the product as well as to protect the safety of yourself and others.

The user manual is part of the product and should be properly kept and stored at a reachable place in the facility so that every user can have easy access to it.

This user manual applies to the following products only

Product name	Electric Multi-Purpose Operation Table
Specifications	ATS
Manufacturer	Infinium medical

This version of this manual is subject to update without notice according to the alteration in product specifications

Release

Issue date: 07-Dec

No. : SM-ATS-2016-12

Version : U/0

Content

Chapter I Safety and precautions.....	1
Article 1 Safety and Precautions about the product	1
Article 2 Safety and Precautions about the user	1
Article 3 Safety and Precautions about the operating environment	2
Article 4 Other special instructions	2
Article 5 Transportation and Environment.....	2
Chapter II Sign description.....	3
Article 1 Description of signs on the operation table and the package	3
Article 2 Description of symbols used in the user manual	4
Chapter III	5
Profile of ATS multi-purpose operating table	5
Article 1 Product introduction.....	5
Article 2 Structure and organizations (diagram)	6
Article 3 Major technical parameters	7
Chapter IV Installation and adjustment.....	8
Chapter V	9
Rules of operation (Controller function)	9
Article 1 Instructions of controller keypad.....	9
Article 2 Set and move operating table	10
Article 4 Horizontal rotation of table top	10
Article 5 Operation of head section.....	10
Article 6 Folding of foot plate.....	11
Article 7 Translational movement.....	12
Chapter VI Daily maintenance	13
Article 1 Cleaning and sterilization.....	13
Article 2 Regular maintenance	13
Chapter VII Failure recovery	14
Appendix I: Packing list (standard configuration)	15
Appendix II: Control circuit schematics.....	16

Chapter I Safety and precautions

Article 1 Safety and Precautions about the product

- This product adopts an electronic engine and has automatic overheat protection functions. Its operation mode is interval operation, which means the product must stop for 15 minutes after a continuous operation of 3 minutes.
- The accessories of the product should be purchased from manufacturer. Our company shall not be responsible for any malfunction caused otherwise.
- The installation, adjustment and use of the product should strictly follow the steps mentioned in the installation manual. Transformation and modification without permission is not allowed.
- This product integrates a mechanical system, an electronic system and a hydraulic pressure system with great precision. Please ask authorized professionals for inspection and maintenance in case of any malfunction in service.
- Personnel other than authorized staff are not allowed to dismantle the operating table or control circuit randomly.
- Please make sure the operating table is locked before use.
- Please make sure the cable of the controller is not kinked by table top before adjusting the top of the operating table.
- When applying the translation function, make sure the top of the operating table is positioned horizontally. After completion of translation and operation, reset the operating table immediately to avoid negative affect its other functions.
- Water flushing of the operating table is strictly prohibited, as it may cause short circuit of internal electronics control system and rusting or failure of components.

Article 2 Safety and Precautions about the user

- Please read the user manual carefully before using this product.
- This product only applies to the stated use.
- Please do not exceed the stated maximum load of the operating table.
- While adjusting the position, be careful that the staff or the patient is not squeezed or clamped by the active joint point of the operating table top.
- When positioning or transferring the patient, make sure that the operating table is locked and is positioned horizontally.
- Sitting on either end of the operating table (head board and foot plate) is strictly prohibited, to avoid personal injury caused by an accidental “tip-over” of the operating table.
- Do not move the operating table when the patient is lying on it.
- Make sure to spread a sterile surgical drape on the mattress before using the operating table to avoid cross infection.
- Make sure to use the anti-static mattress provided by manufacturer, otherwise personal

injury might be caused.

- Make sure to cut the electricity before repair and maintenance of the product, to avoid personal electrocution hazard.
- Open the main power switch and internal power switch, and make sure the battery can be charged automatically, and in a fully functional State, in case the battery is no working when there is a main power outage. After operation, the main power switch and internal power switch must be turned off.

Article 3 Safety and Precautions about the operating environment

- Check the electronic facilities in the room and make sure they match with this product before use.
- Make sure the floor is flat and gradeless before installation.
- This product cannot be used in environment of flammable anesthetic gases mixed with air or flammable anesthetic gases mixed with oxygen or Nitrous Oxide.
- Detergent containing ethyl alcohol is strictly prohibited in circumstances with possible application of high frequency surgical equipment to avoid fire breakout
- Make sure to get rid of any litter irrelevant with the operating table before installing or moving the operating table.
- The power supply for the operating table is $\sim 220\text{V}$, 50Hz (450W). In the use of high frequency equipment, defibrillators and cardiac defibrillation monitor, please use the operating table according to the reminder of the above equipment to avoid the interference from the use of the operating table.
- This product is a mobile operating table, and it is suggested that the operating table is positioned in an anti-static floor during application.

Article 4 Other special instructions

The disposal of the waste, residue from the operating table as well as the operating table and its accessories at the end of its service life shall be completed according to relevant stipulations of the local environmental protection department.

Article 5 Transportation and Environment

- The boxed operating table should be loaded and unloaded with a forklift, with its headpiece “upward”. Rolling and propelling is strictly prohibited. The transportation of the operating table should follow stipulations of the purchase contract.
- Storage condition:

Environment temperature : $-40^{\circ}\text{C} \sim 55^{\circ}\text{C}$

Relevant humidity: $\leq 95\%$

Atmospheric pressure: 50kPa ~ 106kPa

• Operating condition:



Environment temperature : 5°C~ 40°C



Relevant humidity: ≤70%





Atmospheric pressure: 70kPa ~ 106kPa

Chapter II Sign description

Article 1 Description of signs on the operation table and the package

Icons	Description
	Warning, illustrations
	Fragile

Icons	Description
	Manufacturer
	Battery

	Keep dry		Serial number
	Upward		Application of type B

Article 2 Description of symbols used in the user manual



Remind the operator to handle according to the description under the sign to avoid possible personal harm or serious product failure.



Remind the operator to handle according to the description under the sign and emphasize the important information in the operation or contents that require special attention.

Chapter III

Profile of ATS multi-purpose operating table

Article 1 Product introduction

ATS Electric Multi-Purpose Operation Table (hereinafter called “the operating table”) controls the movements (height adjustment, Trendelenburg and reversed Trendelenburg, lateral tilt, back movements, forward and backward movement and brake) with electro-hydraulic systems, and controls the movements (head section, leg section and vertical rotation of tabletop via manual operation.

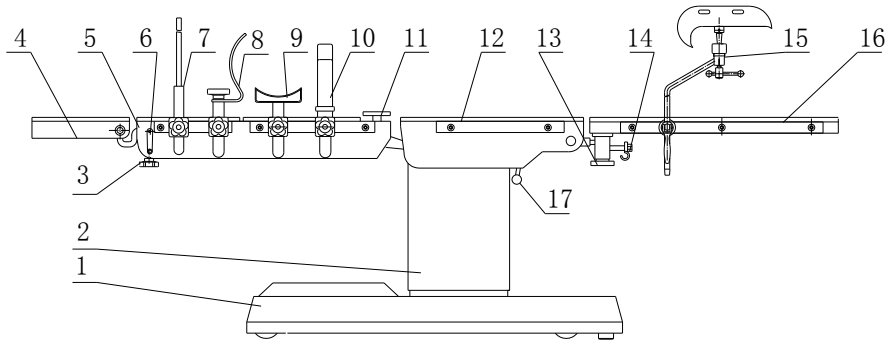
The table comprises of five sections: head section, back section, waist Section, sitting section and leg section. The forward/backward movement and 180 °rotation of tabletop can make C-arm perspective quick and easy.

The standard accessories of the operating table include the anesthetic screen, shoulder support, body support, arm support, leg support.

Emergency power supply is optionally configured. It is lead-acid batteries which can be automatically charged. It is charging when the power charge indicator is green. The indicator goes out after fully charged.

This product can satisfy the operating need of different positions including general surgery, orthopedic surgery, neurosurgery, urinary surgery and gynecology and is the most economic and applicable operating table. The design of its shape gives consideration to the average body type, aesthetics and operating requirements of various positions to make it stable.

Article 2 Structure and organizations (diagram)



- | | |
|----------------------------------|--------------------------------------|
| 1. Pedestal | 9. Arm support |
| 2. Column | 10. Body support |
| 3. Fixation knob of head section | 11. Waist section |
| 4. Head rest | 12. Seat section |
| 5. Back rest | 13. Handle for outreaching leg plate |
| 6. Back lifting handle | 14. Handle for folding leg plate |
| 7. Anesthesia screen | 15. Knee crutch |
| 8. Shoulder rest | 16. Leg section |

Article 3 Major Technical Parameters

Dimension of table top:

Overall length	2050mm
Width	500mm

Dimension of section:

Head section	250 x 500mm
Back section	465 x 500mm
Waist section	75 x 500mm
Seat section	550 x 500mm
Leg section	600 x 240mm

Height adjustment:

Min Height	580mm
Max Height	930mm

Range of movements:

Reversed Trendelenburg	$\geq 20^\circ$
Trendelenburg	$\geq 15^\circ$
Lateral till	$\geq 15^\circ$
Horizontal sliding	350mm
Horizontal rotation	180°

Adjustment of sections:

Head section (up/down)	$45^\circ/90^\circ$
Back section (up/down)	$75^\circ/30^\circ$
Leg section (down/ outward)	$90^\circ/90^\circ$
Waist section (rise)	80mm

Safe working load:

150kg

Max load:

250kg Standard, 450kg Optional

Security type:

Category I Type B

Power supply:

Input power (AC)

220V,

Power rating

50Hz 450W

Controller power (DC)

24V

Battery (Optional)

24V, $\geq 2.4\text{AH}$, 12hrs Optional

Chapter IV Installation and adjustment

Please check the product model and accessories according to the packing list after unpacking, and get rid of packaging materials with the operating table before installation.

Push the operating table to the required location for fixation and installation.

Insert the controller into the relevant hole of the base and tighten clockwise.

Check whether the power source of the room matches with this product. After confirmation, insert one end the power line into this socket and the other end of the power line into the power source of the room.

Fix and move the operating table according to “Chapter V Rules of operation, Article 1 Instructions of controller keypad”

Set various body positions according to “Chapter V Rules of operation, Article 2 Set and move operating table”

Set status according to relevant head board, foot plate and table top horizontal rotor the operating rules.



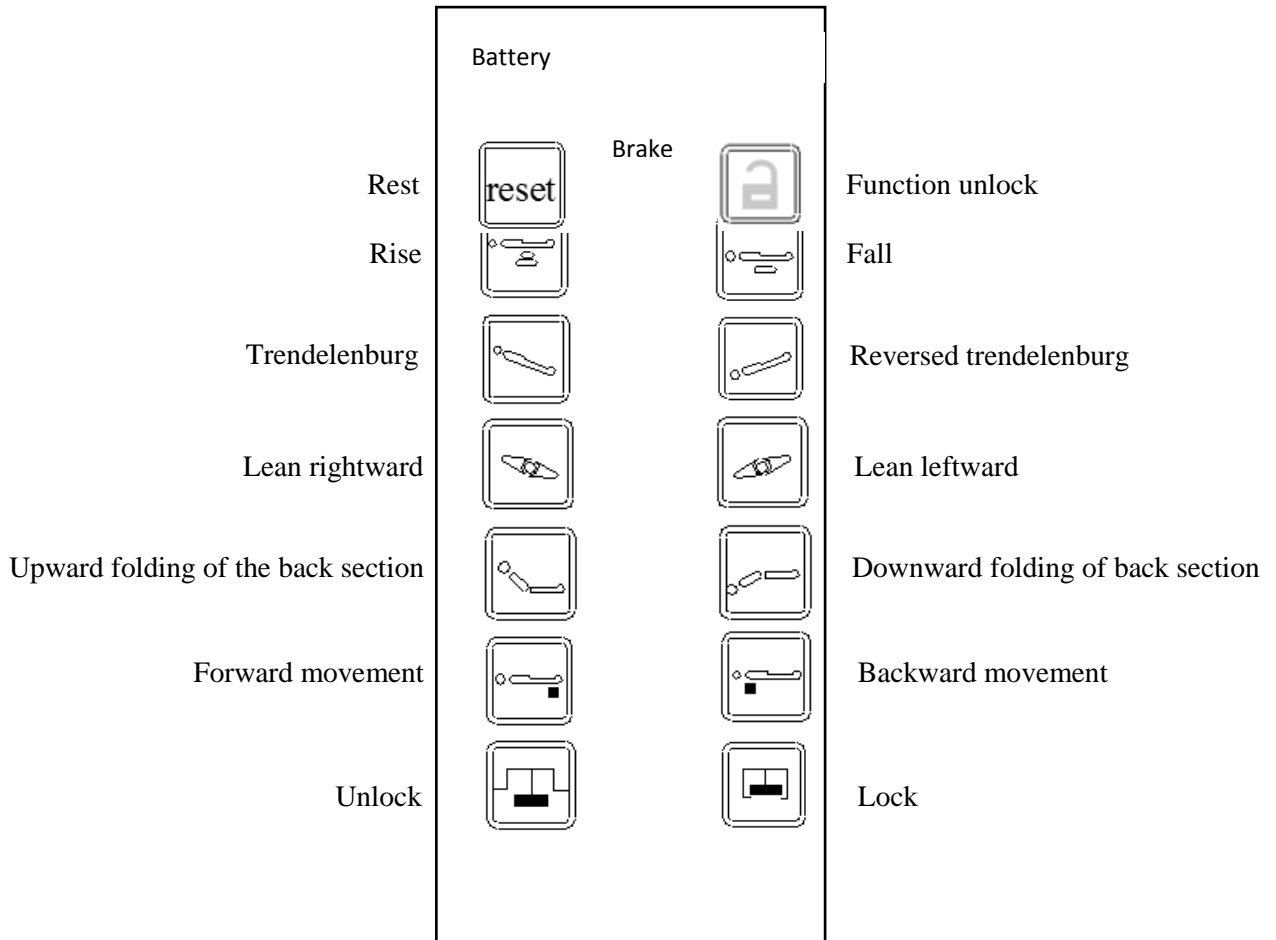
The installation and adjustment of the operating table should be done by authorized staff only.

Installation of accessories or components not provided by manufacturer on the operating table is strictly prohibited.

Chapter V

Rules of operation (Controller function)

Article 1 Instructions of controller keypad



Reminder

Before certain function operations, you must press and hold the “Function unlock” key. For example, when you need to adjust the table height, please press and hold “Function unlock” while selecting the desired movement.

Article 2 Set and Move Operating Table

To lock the operating table: Press the “Lock” button to extend the locks which fix the operating table in place;

Transporting the operating table: Press the “Unlock” button, the locking mechanism will release and the operating table can be moved.



Before releasing the locking mechanism, the operating staff must hold the operating table to avoid unexpected movements after unlocking.

Article 3 Position settings

The movements such as height adjustment, trendelenburg/reversed trendelenburg, lateral tilt, forward/backward movement and so on are all electrically operated by corresponding buttons.



Before setting positions, make sure that the operating table is locked.

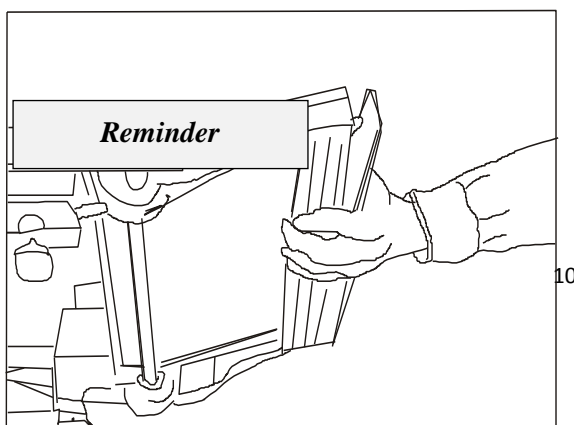
The different weight of the patients may affect the adjusting speed of the operating table top, so be careful during the process of adjustment.

Article 4 Horizontal rotation of table top

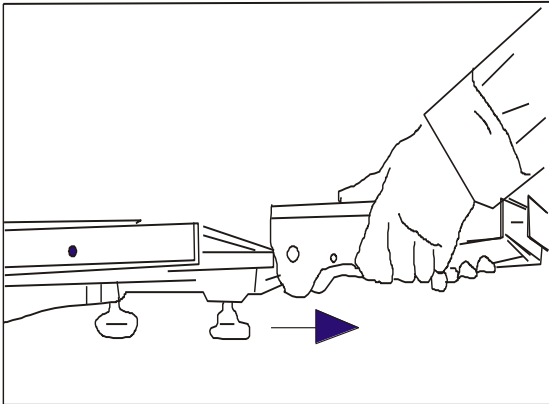
Loosen the rotation handle of tabletop (17 in diagram) and rotate the tabletop to desired angle, then tightened the handle.

Please make sure the operating table top is centered before using this function.

Article 5 Operation of head section



Grasp the pull rod at one end of the head board and pull outwards. It can be folded upward or downward. Release the pulls rod to secure the head board.



To remove the head board, loosen the two fixing knobs under the backplane and the head board will slide out. To reassemble slide the head board back into the table body and tighten the knobs.

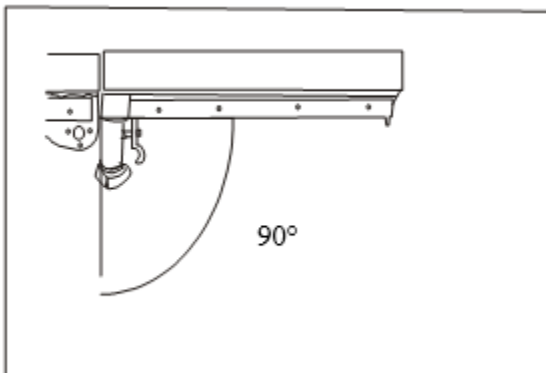
Make sure to use both hands when installing or removing the head board to avoid equipment damage and personal harm caused by accidental slip of the head board.

Watch your hands when installing or removing the head board.

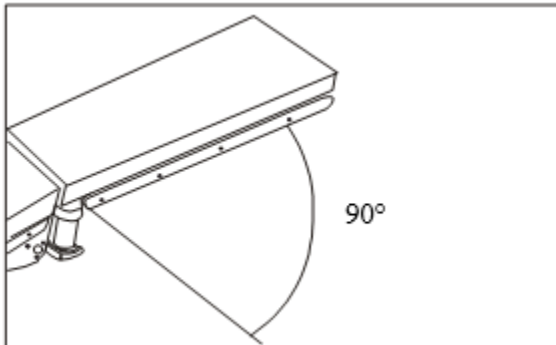
Putting excess weight on the headboard such as sitting on it, will cause damage. Please do not sit on the head board.

 **Warning**

Article 6 Folding & Rotating the leg rest

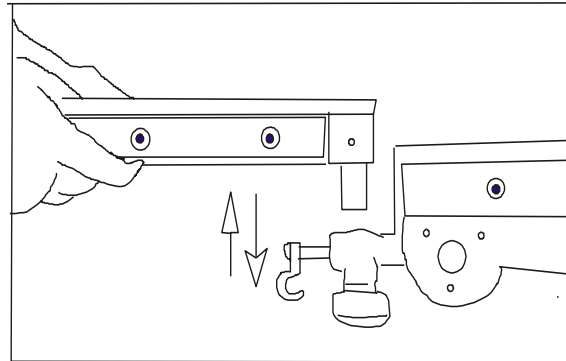


Grasp the pull rod outward, to adjust the downward folding angle of the leg rest. Release the pull rod to set required position.



Unscrew the knob below the leg rest to rotate. Tighten to set the required position.

To separate the leg rest completely from the central table, full loosen the knob and pull the leg rest upward with both hands. Reverse process to reinstall.



Warning

Make sure to use both hands when installing or removing the Leg Rest to avoid equipment damage and personal harm caused by accidental slip of the Leg Rest. Watch your hands when installing or removing the foot plate. Sitting on the foot plate is strictly prohibited.

Article 7 Translational movement (Lateral Movement).

Table top movement forward/ afterward: Press the button accordingly, the table top shall move forward/ backward.

Reminder

Please make sure the operating table top is at the horizontal level before using the translational function. The operating table should be returned to original position after completing the translational movement. Translational movement in situations of downward folding or forward-leaning and backward-leaning will cause damage to the table. Downward folding, forward-leaning or backward-leaning of the table top after translation may cause the table to tip over.

Chapter VI Daily maintenance

Article 1 Cleaning and sterilization

After each operation, the table must be cleaned and disinfected, and kept dry.

Clean the operating table, mattress and accessories of the operating table with a soft cloth & sponge and disinfectant.

Dry excess detergent with a dry cloth.

Mattress must be disinfected with alcohol.

 **Warning**

Water flushing of the operating table will cause damage to the table.

Use of bristle brush and wire brush is strictly prohibited, while abstergent, paint, lacquer thinner and acid should be prevented from being used on any surface of the operating table.

High temperature sterilization of the mattress is strictly prohibited.

Detergent containing ethyl alcohol is strictly prohibited in circumstances with possible application of high frequency surgical equipment (such as ESU) to avoid fire risk.

Reminder

Clean and sterilize every day. In situations of serious pollution, clean whenever necessary. Please dismantle the accessories and mattress of the operating table before cleaning and sterilization.

Article 2 Regular maintenance

Regular maintenance should be done before use or at least once per day.

Please confirm that various joint active points are working properly, and there is no abnormal noise during each of the position settings. Also be sure there are no visual damage to the various accessories.

 **Warning**

Untrained staff or unauthorized techs should not implement the inspection and maintenance of the operating table.

Chapter VII Failure recovery

Reminder

The content of this chapter is only used for guiding users to solve simple defects. If the encountered defects are not included in this chapter, please contact the manufacturer.

No	Fault description	Troubleshooting
1	Main power switch does not light up	<ol style="list-style-type: none"> 1. Check that the operating table is supplied with electricity. 2. Check the fuse located by the power inlet on the table.
2	Appears buzzing noise	<ol style="list-style-type: none"> 1. Check that the main power switch is open 2. Check that the battery backup has electricity. If your table is outfitted with the battery option. 3. Check all movements of the table to the maximum range. The overflow valve relieve pressure and problem should be solved.
3	The functions lose range of movement.	<ol style="list-style-type: none"> 1. Check the power is supplied. 2. Check the hand controller is normal. 3. Check the plug on control board is not loose.

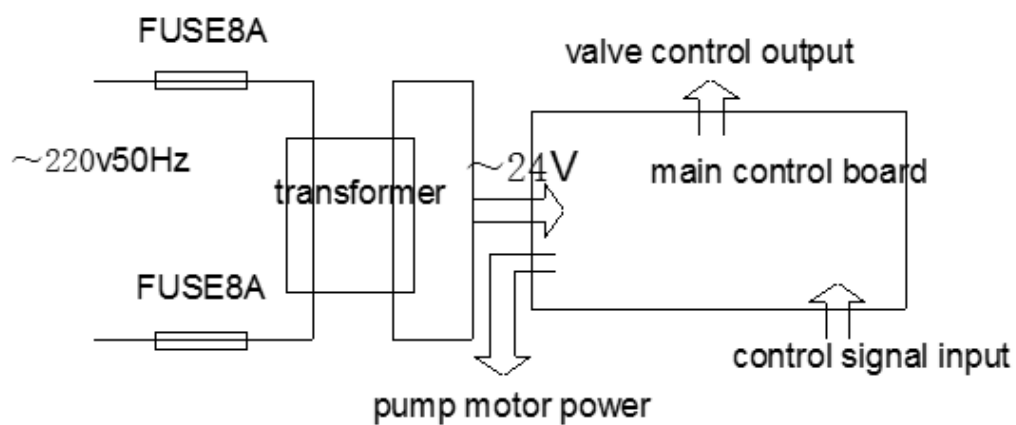
 Warning

***Untrained or unauthorized staff should not implement the inspection and maintenance of the operating table.
Untrained or unauthorized staff should not dismantle the operating table or control circuit without permission.
Make sure to cut off the power supply before changing fuse to avoid electrocution hazard.***

Appendix I: Packing list (standard configuration)

No.	Item	Qty.
1.	ATS electronic multi-purpose operating table	1
2.	Anesthetic screen	1
3.	Shoulder support	2
4.	Body support	2
5.	Arm support	2
6.	Leg rest	2
7.	Mattress	1
8.	Controller	1
9.	Power line	1
10.	User manual	1

Appendix II: Control circuit schematics



END

Infinium Medical, Inc.
12151 62nd St. N. #5
Largo FL 33773 USA
Tel: (727) 531 8434
Fax: (727) 531 8436
www.infiniummedical.com