

Zhangjiagang Medi Medical Equipment Co.ltd. www.medik-medical.com

User Manual



Electric Dialysis Chair

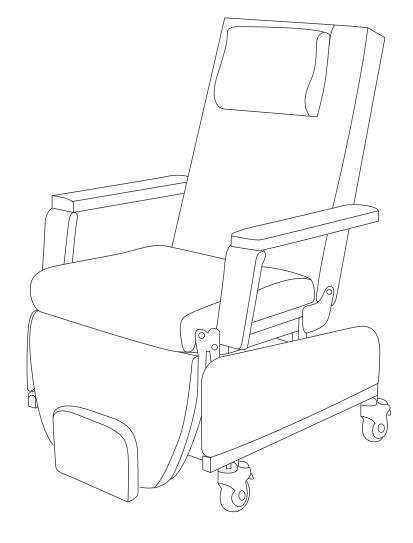




Table of contents

Introduction 1
Main structure
Main product features
Specification
Operating guide 4
Safety instructions and warnings
Electromagnetic compatibility 14
Trouble and solution 14
After-sales service
Warranty

1. INTRODUCTION

Dear Customers

Dear Customers,

Thanks for choosing our electric dialysis chair YA-DS-D09. We will provide thoughtful after-sales service in the whole process of using your products. Meanwhile, we hope to get your valuable opinions to innovate the technology in the industry and better serve the treatment and nursing of patients.

Electric dialysis chair YA-DS-D09 is mainly used for hemodialysis treatment, blood collection or infusion. Due to its small size, complete function and flexible and convenient movement, it can not only save precious medical space resources, but also provide medical services for patients more caring.

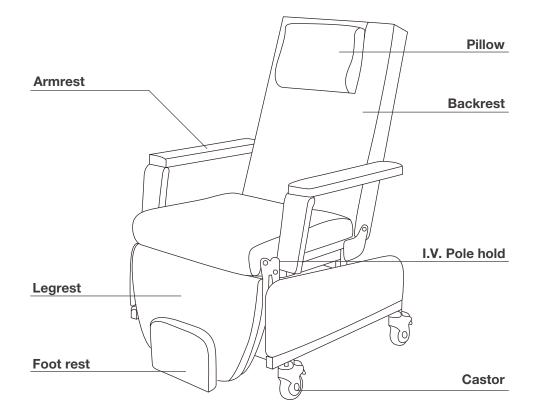
In order to fully enjoy the convenience and comfort brought by this product, and to master the use method more safely and quickly, please be sure to read this operating manual carefully.

Zhangjiagang Medi Medical Equipment Co.,Ltd. will do its best to avoid printing the text or image errors, but not responsible for the possible negligence. The criterion for the goods are based on the standard of the material.

Again, thank you for selecting this electric dialysis chair YA-DS-D09.

Main Structure

Electric dialysis chair YA-DS-D09 integrates many functions, such as sitting, lying, tilting and reclining. Various positions can be easily realized by adjusting the buttons to meet users' different requirements.



Due to convenient transportation, some parts have been disassembled during packaging and need to be installed on site. For specific methods, please consult the customer service of the company. For details, please refer to video installation.

Main Product Features

- Multi-position adjustment, using high-performance imported silent push rod motor, easily adjust the backrest, legrest, footrest, one-button CPR, one-button reset.
- The buttons of hand control is simple, intuitive and easy to operate.
- International brand silent 24V dc push rod motor, work stably, safe and reliable.
- Long term continuous working system.
 5 years of life design, reduce the cost of maintenance and replacement.
- Ultra-low energy consumption, using less than 0.12 degrees per day.
- The chair cushion is made of high density sponge, the elasticity is moderate, sitting and lying for a long time will not cause postural strain; PVC leather is durable, luxurious and comfortable.

Model	YA-DS-D09
Overall size	1000*880*1300mm
Back section adjustment	-10°~75°
Leg section adjustment	-80°~12°
Trendelenburg position	0-12°
Loading capacity	200 KG
Motor	2
Rated excitation voltage	3-12V DC
Working voltage of the weighing system	9VDC 600mA
Safe load	150%F.S
Linear error	±0.03%F.S
Precision grade	C2-C3
Numerical display accuracy	50g/100g
Reference value	10KGS, 20KGS, 30KGS, 50KGS
Sensitivity	2.0±0.002mV/V
Zero point temperature effect	±0.002%F.S/10 [°] C
Sensor material	Alloy steel
Weight scale range	0-250kg
Sensor seal class	IP68
Storage environment	Temperature: -20 $^\circ$ ~60 $^\circ$, relative humidity: 10%~85%
Operation environment	Temperature: $0^{\circ}C \sim 35^{\circ}C$, relative humidity: $10\% \sim 85\%$

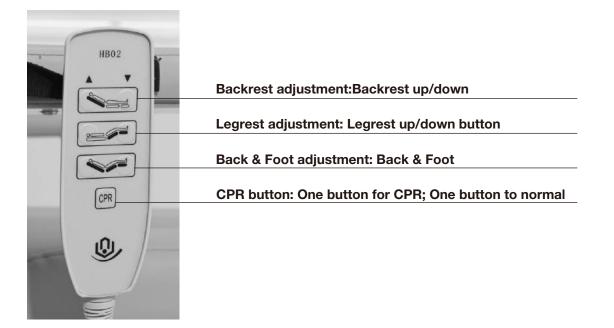
Specification

Operating Guide

Hand controller:

The hand controller can be used to adjust the angle of the chair backrest, legrest, height and foot rest as desired within the adjustment ranges.

Press the button to operate, and release it to stop at the desired position.



1. Raising and Lowering the Backrest Section

Raise the backrest section to the desired position by pressing and holding the Backrest Up arrow control. The backrest section can rise to -10° ~75°.

Lower the head section to the desired position by pressing and holding the Backrest Down arrow control.

2. Raising and Lowering the Legrest Section

Raise the legrest section to the desired position by pressing and holding the Legrest Up arrow control. The knee section can rise to $-80^{\circ} \sim 12^{\circ}$.

Lower the knee section to the desired position by pressing and holding the Legrest Down arrow control.

3. Raising and Lowering the footrest & back rest Section

Press and hold Foot & back Up arrow control to reduce lenght from foot to seat. Press and hold Foot & back Down arrow control to increase lenght from foot to seat.

4. Electric CPR function

The emergency CPR control is handles located in the back of the chair.

- Pull and hold the handle. Hold the handle until the head section come to a stop in the flat position.
- Release the handle.

NOTE:

The emergency CPR control handle must be continually pulled until the head section of the chair reaches a flat position. Releasing the control handle will cause the head section to stop lowering.

5. Electric Normal function

Press and hold Normal Control to normal seating position.

Safety Instructions and Warnings

Safety Instructions

- To insure safe operation, read carefully the entire manual, especially the section on "Safety Instructions and Warnings" before installing, operating, or servicing this equipment.
- This instruction is used to prevent the possible safe accident and ensure you to operate this product correctly. It is classify to "warning" and "caution" according to the possible damage or injure when fail to operate correctly.

"WARNING"- The warning symbol identifies special instructions or procedures which, if not correctly followed, could result in serious bodily harm.

"CAUTION"- This caution symbol identifies special instructions or procedures which, if not strictly observed, could result in damage to or destruction of equipment.

• The following "warning" and "caution" are very important, it must be strictly followed.



Warning

 Always unplug the power plug from the power outlet when using electric medical equipment.

The functions to be enabled must be confirmed and set by medical staff according to the clinical diseases. Only professional staff or under the guidance of professional staff can operate the chair. When it is possible for children or people who cannot understand the operation (such as the mentally disabled) to touch the handheld switch alone, pull out the power plug or the handheld operator every time to prevent accidents caused by incorrect operation.

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Do not pull the plug with wet hands.

Do not use wet hands to pull out the power plug. Be careful of electric shock.

The power plug should be inspected and cleaned regularly.

Remove the power plug from the socket once every six months and wipe the blade and contact surface with a dry cloth. If the power plug attached to dust or not firmly plugged into the socket, it will lead to electric shock or fire accidents.

• When unplugging, hold the power plug.

When unplugging the power plug, do not pull the power cord, you must take the tight end of the power plug to unplug it. Otherwise, it will lead to the risk of breaking, short-circuit or electric shock.

• Do not lift the back while in the prone position.

Elevating the back in a prone position, or turning the head and foot upside down (putting the head on the leg plate and the foot on the back), can cause the joints in the spine to bend in the opposite direction, risking injury.

• Do not hide in the chair, do not put anything on the cover.

Do not hide under the chair, when the heart, wrist, foot and so on are clamped in the movable part of the chair and the main frame and injured; Do not use items on the cover of the chair, when the chair in position or lifting adjustment, may damage the chair. When adjusting the posture and lifting of the chair, make sure there are no obstacles under and behind the chair before the operation.

• Do not sit at either end of your back or feet when they are level.

In the back, foot to the level, do not sit at the end of both ends, beware of broken stability caused by the chair turned over and injured; it could also damage the dialysis chair.

When dialysis chair is in tall position or show bed shape, do not fluctuation.

Do not get up or down when the chair is high or in bed.otherwise, it could fall over and get hurt or break down.up and down the chair, the height of the chair and the angle of the foot to the lowest position, and at this time the caster brake must be locked.

• The caster brakes must be locked.

In addition to moving the chair, you must step on both sides of the caster brake pedal, locking the caster.when the patient gets up and down the chair, it may cause injury if the chair can be moved at will.

In the process of changing different positions of the chair, when the leg frame and the seat frame are in the same plane, do not lift the leg frame to the stage, so as not to cause possible damage to the chair.

Don't prop up the chair under the table with your hands. Don't prop up the table when you get up and down.table top rotation or damage, there is a risk of injury overturned.

During operation, hands and feet should not be inserted into the movable parts.

During operation, hands and feet should not reach under the chair frame, foot or armrest.watch out for injuries when your limbs get caught in a falling chair frame.

Don't step on the foot board to get up and down the chair

The foot pedal of the chair is designed to relieve the pressure on the patient's calf. When not in use, please put the foot pedal away.do not step on the foot board to get up or down the chair.

- When using the function of raising and turning the handrail, the screw under the handrail must be tightened.
- Do not use your hands to hold the armrest up and down the chair when it is raised or turned outward.otherwise, it may damage the handrail and risk of injury.
- Not for infants.

Infants and young children are not allowed to use and are at risk of injury from falling through gaps in armrests and chairs.

• Use in conjunction with the patient's condition.

Because the patient's symptoms are different, there is a possibility that the patient's body position may change with the operation of the dialysis chair to worsen the symptoms.therefore, which function to enable and which posture to adjust must be confirmed and set by medical staff according to the clinical disease type. Only after doctors or nurses fully explain the content of the "operation manual" and the use method in conjunction with symptoms, can patients or their families directly operate and use it.



Caution!

To go to the lavatory patient fluctuation chair, the angle of leg board is designed relatively small, leg board falls to the minimum when meeting with pedal switch have bump, this is normal phenomenon. If you need to move the chair, please raise the Angle of the leg board a little higher to avoid the foot switch and the leg board touch, so as to facilitate the steering of the chair.

• Check the power cord.

Special attention should be paid to the power supply and other wires should not be clamped or run over by casters or other heavy objects. Especially the power line, once the damage may occur burning damage, leakage, there is a fire and electric shock risk.

• Don't spill the liquid on the electrical parts.

Do not spill water, juice, miso soup on motor, sensor or handheld operator.otherwise, dialysis chair will be unable to work or appear local fault.in case of accidental spatter, remove the power plug from the socket and contact the dealer.

• Do not damage the electric drive operator.

Do not beat the hand-held electric drive operator or pull the spring type wire, or it will lead to rupture damage.

• Maintenance must be carried out after the power plug is removed.

The power plug must be removed from the socket for maintenance.

• Remove the power plug when not in use for a long time.

When not in use for a long time, the power plug must be removed from the socket.

• The design can only be used by one person.

The dialysis chair is designed for one person, not more than two.

• Items cannot be placed under the chair.

Don't put anything under the chair.also, keep away from walls.obstacles can cause chair damage when the back, foot, or height of the chair is adjusted.

• Do not move the chair over uneven surfaces.

Try to avoid moving on the road with big steps or sharp bumpy roads or corridors.if you must move in the above locations, move as slowly as possible.

• Do not hold the infusion chair with a hanger.

Do not hold the infusion chair with a hanger.beware of damaging infusion rack.

• Keep away from the fire.

Avoid using stoves or other heating appliances near the chair.otherwise, it will cause deterioration, deformation or fire.

• Don't put anything heavy on the table.

Do not put your elbows on the table, do not put more than 10kg of weight or television.otherwise, objects or tvs will fall, causing injury or damage.

• The weight of the infusion rack is 3kg.

No more than 3kg can be hung on the infusion rack.otherwise, there is a risk of damage to the infusion rack.

• The broken or damaged chair cannot be used.

In case of failure or damage during use, stop using immediately and entrust repair.if continued to use, will cause harm. Remove the power plug from the socket immediately.

• Do not use in damp places.

Do not use the chair in damp place or keep, metal products may rust, if electric parts be affected with damp, dialysis chair will cause breakdown likely.

• There is no strict life span of the equipment, and the expected service life is 10 years. The service life decreases with the use frequency.electronic parts in the equipment should be recycled according to local laws and regulations after they are no longer used and should not be discarded at will.

• Transport and storage

The weight of the product is large, in the process of handling, stacking and loading and unloading, do not invert the medical device. Storage environment: keep away from heat source, avoid direct sunlight, pay attention to dust, moisture and corrosion. Transportation and storage should be carried out in the following environment: temperature range - $20 \boxtimes \sim 60 \boxtimes$, humidity range (no condensation) $10\% \sim 85\%$. The atmospheric pressure range is 50.0kpa ~ 106.0 kpa.

Electromagnetic compatibility



Notice

•Without consent of zhangjiagang medi medical equipment co., ltd., unauthorized modification of the product may result in problems in electromagnetic compatibility.

• The design and test of electric dialysis chair ya-ds-d04conform with the operation procedure of electromagnetic compatibility.

1.Cable requirement

Cable name	Cable type	Cable length
Power line	Non-shielded parallel lines	3.2 meters
Hand controller wire	Non-shielded parallel lines	1 meter

2.Key components of electromagnetic compatibility.

The key components of electromagnetic compatibility for the product are power line, the main circuit board and control panel.the use or replacement of accessories, cables and transducers for non-supporting designs can lead to a significant reduction in electromagnetic compatible emission and anti-disturbance performance. Do not replace the product parts without authorization.

3.Guidance and manufacturer's Declaration- electromagnetic emissions

Guidance and manufacturer's declaration-electromagnetic emissions

The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such environment.

Emissions test	Compliance	Electromagnetic environment-guidance
Rf emissions Gb 4824	Group 1	The product uses rf energy only for its internal function. Therefore, its rf emissions are very low and are not likely to cause any interference in nearby electronic equipment.
Rf emissions gb 4824	Class a	The product is suitable for use in all establishments, including domestic establishments and those directly connected to the public low
Harmonic emissions gb 17625.1	Not applicable	voltage power supply network that supplies buildings used for domestic purposes.
Voltage fluctuations/flicker emissions gb 17625.2	Not applicable	

4.Guidance and manufacturer's Declaration– electromagnetic immunity

Guidance and manufacturer's declaration-electromagnetic immunity

The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment.

Immunity test	lec 60601test level	Compliance level	Electromagnetic environment- guidance
Electrostatic discharge(esd) Gb/t 17626.2	±6kv contact ±8kv air	±6kv contact ±8kv air	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Electrical fast translent/burst Gb/t 17626.4	±2kv for power supply lines ±1kv for input/output lines	±2kv for power supply lines ±1kv for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge Gb/t 17626.5	±1kv line(s) to line(s) ±2kv line(s) to earth	±1kv line(s) to line(s) ±2kv line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment
Voltage dips, short interruptions and voltage variations on power supply input lines Gb/t 17626.11	<5% ut (>95% dip in ut) For 0,5 cycle) 40% ut (60% dip in ut) For 5 cycles 70% ut (30% dip in ut) For 25 cycles <5% ut (>95% dip in ut) For 5 s	<5% ut (>95% dip in ut) For 0,5 cycle) 40% ut (60% dip in ut) For 5 cycles 70% ut (30% dip in ut) For 25 cycles <5% ut (>95% dip in ut) For 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the product requires continued operation during power mains interruptions, it is recommended that the product be powered from an uninterruptible power supply or a battery.
Power frequency (50/60hz) Gb/t 17626.8	3a/m	3a/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE: UT is the a.c. mains voltage prior to application of the test level

5.Guidance and manufacturer's declaration– electromagnetic immunity

Guidance and manufacturer's declaration - electromagnetic immunity-

The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment.

Immunity test	IEC 60601test level	Compliance level	Electromagnetic environment-guidance
Conducted rf Gb/t 17626.6 Radiated rf Gb/t 17626.3	3Vrms 150kHz~80MHz 3V/m 80MHz~2.5GHz	3V/m	Portable and mobile rf communications equipment should be used no closer to any part of the product, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance: D=[150khz ~ 80mhz] D=[80mhz ~ 800mhz] D=[800mhz ~ 2.5ghz] Where p is the maximum output power rating of the transmitter in watts (w) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).b Field strengths from fixed rf transmitters, as determined by an electromagnetic site surveyc, should be less than the compliance level in each frequency ranged. Interference (from a mobile phone for example), may occur in the vicinity of equipment marked with the following symbol:

Note 1: At 80 MHz and 800 MHz, the higher frequency range applies. Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

● field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, am and fm radio broadcast and tv broadcast cannot be predicted theoretically with accuracy. to assess the electromagnetic environment due to fixed rf transmitters, an electromagnetic site survey should be considered. if the measured field strength in the location in which the product is used exceeds the applicable rf compliance level above, the product should be observed to verify normal operation. if abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the product.

• over the frequency range 150 khz to 80 mhz, field strengths should be less than 3 v/m.

6.Recommended separation distances between por table and mobile rf communications equipment and the product.

Recommended separation distances between portable and mobile rf communications equipment and the product for life supporting equipment and systems.

The product is intended for use in an electromagnetic environment in which radiated rf disturbances are controlled. The customer or the user of the product can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile rf communications equipment (transmitters) and the product as recommended below, according to the maximum output power of the communications equipment.

Rated maximum	Separation distance (d) according to frequency of transmitter/m			
output power of transmitter/ w	150khz \sim 80mhz 80mhz \sim 800mhz		800mhz \sim 2.5ghz	
0.01	0.12	0.12	0.23	
0.1	0.38	0.38	0.73	
1	1.2	1.2	2.3	
10	3.8	3.8	7.3	
100	12	12	23	

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be determined using the equation applicable to the frequency of the transmitter, where p is the maximum output power rating of the transmitter in watts (w) according to the transmitter manufacturer.

Note 1: at 80 mhz and 800 mhz, the separation distance for the higher frequency range applies. Note 2: these guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

The electric chair ya-ds-d04has been tested by yy0505-2012 / iec 60601-1-2:2004, which is not guaranteed to be unaffected by electromagnetic interference in any way, the electric chair ya-ds-d04should be avoided in high electromagnetic environments.

Electromagnetic compatibility

1.Periodical check and maintenance

Please check and maintain the chair periodically to ensure safe using.

2.Clean and disinfection

While cleaning, first wipe with a cloth dampened in neutral detergent which diluted with water, and then wipe with dry cloth. Do not clean with volatile solvents, such as thinner, volatile oil, petrol, and so on. Please disinfect the chair with a diluted solution of $0.05 \sim 0.2\%$ benzalkonium chloride solution, $0.05 \sim 0.2\%$ benzalkonium chloride solution, $0.05 \sim 0.2\%$ benzethonium chloride solution, and $0.05 \sim 0.2\%$ chlorhexidine solution.

Caution: do not disinfect the chair by ozone sterilizer or high pressure steam.

Trouble and solution

When the chair doesn't work normally, check it according to the follow form. If it is still out of working, stop using the chair and send it to local dealer for repairing immediately. For after-sales service, please show the identification number marked on the product label.

Problem	Checking	Solution	
Buttons of the controller are out of working	Power cord unplugged from outlet.	Re-plug the power cord into outlet.	
	Power cord plugged into outlet but still fail to work.	Check the outlet to make sure it is charged with electricity.	
The indicator	Power cord unplugged from outlet.	Re-plug the power cord into outlet.	
light of controller didn't light up	Power cord plugged into outlet but still fail to work.	Check the outlet to make sure it is charged with electricity.	
The indicator light of controller flashes under non-operating state	The electric motors overheat.	Wait 20~40 minutes and try again.	
The indicator light of controller flashes while press the button			

After-sales service

product warranty

The warranty is attached to the back cover of this operating manual, and records such as "name of seller, date of purchase" must be verified. The records should be clearly readable and properly kept. The warranty period is one year from the date of purchase.

entrust repair

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1.Within the warranty period

The warranty is attached to the back cover of this operating manual, and records such as "name of seller, date of purchase" must be verified. The records should be clearly readable and properly kept. The warranty period is one year from the date of purchase.

2. Exceeding the warranty period

The warranty is attached to the back cover of this operating manual, and records such as "name of seller, date of purchase" must be verified. The records should be clearly readable and properly kept. The warranty period is one year from the date of purchase.

minimum number of years for spare parts

In our company, the minimum maintenance period of functional parts for medical chair repair (parts necessary to maintain the function of the goods) is 6 years after the cessation of manufacturing.

• on natural damage of the dialysis chair apron, mask, headrest and sensor components

Because it involves the disassembly of products and the replacement of parts, in order to ensure the follow-up performance and safety of products, please contact the supplier, and the supplier shall assign professionals to provide door-to-door service or under the guidance of the professional staff of the supplier to disassemble or replace the products.replacement parts must be supplied by the manufacturer or approved by the manufacturer. Disassembly or replacement of parts by non-professionals is prohibited. Otherwise, all possible consequences shall be borne by the customer.

the relevant after-sales service

Please check with your dealer or our nearest branch.

• after-sales address and telephone number

Please refer to the distribution lists of each dealership or company.

Warranty

Product warranty card				
User			Tel	
Add				
Product			Serial no	
Invoice no.			Purchase date	
Dealer			Tel	
Address				
Dealer's		Declaration		
signature and stamp		The warranty period of this product is one year, from the date of purchasing.if the product is damaged due to force majeure or improper user operation and self-disassembly, it is not within the warranty scope.		

Zhangjiagang medi medical equipment co., ltd. Reserves the right to interpret this statement.

CONTACT US



