

Instruction Manual

FOR

Benchtop Low Speed Centrifuge

TD-450

Thanks for using Sichuan SHUKE Centrifuge.

In order to play the best performance and security, please read this instruction carefully before you installing, using or mending this instrument.

Contents

1. Preface	4
2. Safety precautions	4
2.1 Installation and maintenance	4
2.2 Electric protection.....	4
2.3 Fire prevention.....	5
2.4 Operation precautions	5
2.5 Chemistry & Biology precautions	5
3. Symbols & its meanings.....	6
4. Product introduction	6
4.1 Product use and application scope	6
4.2 Product features	6
4.3 Working principle.....	7
5. Technical parameters.....	7
5.1 Technical specifications	7
5.2 Rotors parameters.....	7
6. Install & Debug.....	8
6.1 Remove the package.....	8
6.2 Installation requirements.....	8
6.3 Installing.....	8
6.4 Debug requirements	10
7. Operation.....	10
7.1 Control panel.....	10
7.2 Key explanation.....	11
7.3 Parameters setting.....	12
7.4 Acceleration and deceleration setting.....	12
7.5 Program store.....	13
7.6 Program recall.....	13
7.7 Start.....	13
7.8 Stop	14

8. Troubleshooting	14
9. Maintenance & Repair notice.....	15
9.1 Maintenance notice.....	15
9.2 Repair notice.....	16
10. Transportation and storage.....	18
10.1 Transportation.....	18
10.2 Storage.....	18
11. Warranty regulations	18

Enclosed documents: **Certificate of Compliance; Product Warranty Card; Packing List.**

1. Preface

In order to ensure safe operation of this centrifuge, please read through this instruction manual carefully and follow the instructions before starting to use or maintain this centrifuge.

The centrifuge should be operated by trained specialists only.

Failure to follow this instruction and safety information in this instruction manual will result in the expiration of the seller's warranty.

2. Safety precautions:

Safety Cautions: safety caution is aimed at the safety operation of the centrifuge which is described in this instruction. In the interest of your own personal safety, please read it carefully before you install, operate, maintain and repair this centrifuge. Knowing this safety caution and proper operating skills, the operator can avoid the hurting as well as avoid the damage to the centrifuge.

2.1 Installation and maintenance

- The centrifugal chamber may contain rotors and other accessories in it, please open the lid to check and get out of it before installing.
- When maintaining this centrifuge, all the parts which needed to remove the cover may cause electric injury. Make sure you already cut off the electricity and pulled the plug from the socket before maintaining this instrument. The maintaining work should be done by professional staffs.
- The replacement parts should be confirmed to conform to the demand of this centrifuge.

2.2 Electric protection

- To reduce the danger risk of the electric shocks, this centrifuge adopts three core plugs, which must be connected with three core socket which connects with ground wire.
- Make sure the socket on the wall connects well with the ground wire. Make sure the power voltage must conform to the voltage this centrifuge uses.
- DO NOT use three-hole changing to two-hole expansion power adapter.
- DO NOT use two wire expansion socket or multi-use power adapter which is not connect with the ground wire.
- DO NOT put the container which is full of liquid on or near the centrifuge, because if the container is knocked over, the liquid may penetrate into the centrifuge, which would destroy the components.
- The main plug must be freely accessible at all times. Pull out the power supply plug or disconnect the power supply in an emergency.

To avoid can't disconnect the mains supply from the centrifuge in the event of errors occurring in time, an emergency switch which is separate from the centrifuge must be available, this switch should be outside the room in which the centrifuge is operated or next to the exit of the room.

2.3 Fire prevention.

- Please use the same type specification overload insurance fuse. This machine use the type specification for the fuse is BGXP $\phi 5 \times 20$ 250V 10A.

- This centrifuge is not designed for separating flammable and explosive materials. **DO NOT** use this centrifuge to centrifuge these materials, **DO NOT** put these kinds of materials in the centrifuge, or put such material in all the surrounding distance within 30cm range.

2.4 Operation precautions

- Please use our company's rotors and accessories which were designed for this centrifuge.

- Please make sure the centrifugal chamber is clear and no sundries before you start it.

- Please make sure the speed of the rotor does not exceed its max speed when it at work.

- Please do not use your hand to force the rotor to decelerate or stop.

- Please do not lift or move the centrifuge before the rotor stop running.

- Please don't open the lid when the centrifuge is at work.

- **When the centrifuge is running, make sure there is no other objects was putted surround the centrifuge within the distance of 30 cm.** Please don't work in that range, except you need to debug the machine. **DO NOT** stretch anything into the centrifuge when it is running.

2.5 Chemistry & Biology precautions

- Routine operation may include all kinds of solution and test samples which may be pathogenic, toxic or radioactive material, all the materials should not be centrifuged by this centrifuge, unless protective measures have been adopted.

- Please pay attention to the description of the solution on the original solution container before you are going to centrifuge it.

- Be careful when you holding the liquid because they are contagious.



- The operator should strictly obey the operating procedure and method of the laboratory strictly when they operating the centrifuge.

- All the waste solution must be destroyed according to the safety and protection demand of the environment.

When you ask for after-sale service, please make sure you have cleaned up the centrifuge, which is your responsibility.

3. Symbols & its meanings

Chart 1

No.	CODE	GB No.	MEANING
1	~	4706.1	AC POWER
2		5465.2	CONNECT POWER
3	○	5465.2	OFF POWER
4		4728.2	CONNECT TO THE GROUNDED (EARTH)
5		4793	CAUTION!

4. Product introduction

4.1 Product use and application scope

This centrifuge is particularly designed for PRP use in hospital and other medical institutions, it was widely used for PRP preparation in fat transplant surgery and PRP cosmetic surgery, there are rotors for 10ml syringe, 20ml syringe, 50 ml syringe, 15ml prp tube, 10ml prp tube, 8ml prp tube, 15ml blood collection tube, 10ml blood collection tube and other PRP exclusive use kits selectable, all rotors and accessories can be autoclaved sterilization.

4.2 Product features

The centrifuge adopts induction motor driving (brushless), microprocessor control, LED display, steel housing, corrosion-resistant stainless steel centrifuge chamber, steel lid, electronic lid interlock and other safety technologies for safe operation. It can store 12 programs and there are 10 acceleration rates and 10 deceleration rates available for common use. The operation parameters such as running time, running speed/centrifugal force can be modified during operation.

The features are as below:

- (1) Due to the unique of shock absorber and the special design, the anti-vibration effect is good.
- (2) The control system of the speed adopts PID control way, it's with a high precision, 10 acceleration rates and 10 deceleration rates selectable. The induction motor makes the machine working peacefully, brushless and no carbon dust pollution.
- (3) Automatic calculation RCF value technical adopted; has the function of short runs.
- (4) Electronic locks system security the centrifuge work safely. The centrifuge can't start when the lid does not lock.

4.3. Working principle

The centrifuge is a machine using the powerful centrifugal force which was produced by the high speed running of the rotor to accelerate the settlement of particles in the liquid, make the samples of different subsidence coefficient and different density of the substance separate, concrete and pure.

5. Technical parameters

5.1 Technical specifications

Chart 2

Max. RCF	3 380 Xg
Max. Speed	4 500 rpm
Max. Capacity	6 x 50 ml
Running Time	1min~99min59S, Pulse
Speed Accuracy	± 10 r/min
Programs	12
Accel/Decel Profiles	10/10
Noise Level	≤ 60 dB(A)
Power Supply	AC 200-240V, 50HZ
Power Consumption	500 W
Dimension	45 x 55 x 36.5 cm
Weight	40 kg

5.2 Rotors parameters

Chart 3

Rotor No.	Rotor Capacity (places x volume, ml)	Max Speed (rpm)	Max RCF (g)
NO. 1-1 Swing-out Rotor	4 x 50 ml	4 000 rpm	3 000 Xg
NO. 1-2 Swing-out Rotor	16 x 10 ml syringe		
NO. 2-1 Swing-out Rotor	4 x 20 ml syringe	4 000 rpm	3 100 Xg
NO. 2-2 Swing-out Rotor	8 x 20 ml syringe		
NO. 3 Swing-out Rotor	4 x 50 ml PRP kits/syringe	4 000 rpm	3 380 Xg
NO.4 Swing-out Rotor	24 x 15 ml blood collection tube	4 000 rpm	2 890 Xg
NO.5 Fixed-Angle Rotor	6 x 50 ml syringe	4 500 rpm	3 020 Xg

6. Install & Debug

6.1 Remove the package (by the user)

Users should check the package appearance when receiving the machine. Severe impact, accumbency and upend etc. should not happen during transportation. The package appearance should be well. please contact with the cargo agent and inform our company in time if any damage is discovered.

First, remove the top cover of the package, get out of the rotor and accessories; second, get out of the centrifuge from the package. Last, properly deal with the package and packing, not to pollute the environment, or save these for possible future transport of the centrifuge.

6.2 Installation requirements

(1) Environment requirements

This machine should be installed in the indoors, on a rigid solid table-board. No conductive dust, corrosive or damaging insulating air, and no powerful vibration source nearby, avoid direct sunlight.

(2) Space requirements

The distance between the back side of this centrifuge and the wall should be no less than 30 cm, in order to ensure the in-out vent of cooling air demand. The room temperature should not exceed 35 °C to ensure the best performance of the centrifuge.

(3) Power supply requirements

The power for this centrifuge is single-phase 200V-240V, 50Hz, 10A. The power should have protective earth wire. Do not use null line to instead of protective earth wire. If you are not sure about the power you are using, please contact your distributor or local electricity board.

For safety, this centrifuge adopts single-phase three core plug, to ensure good grounding. If your plug can not put into the socket, please contact electrician to change your original socket to ensure the safe action of the single-phase three core plug. Make sure the good grounding of the centrifuge.

After installing, the four rubber feet on the bottom of the centrifuge should afford uniform stress, otherwise the user should increase block and readjust to demand.

6.3 Installing

(1) Open the lid.

There are **two ways** to open the lid:

- 1). Open the lid by using the emergency release switch.

Emergency release, there is a line below the front of the machine (on the left side), which is used when power failure or something is wrong with the lock. Pull this line, after you hear a sound of unlock, you can lift the lid. This emergency release should not be used at ordinary time.

- 2). Connect the centrifuge's plug to the power supply, then press the "Stop & Open" button, after you hear a sound of unlock, lift up the lid.

Take out the rotor and accessories from the centrifuge chamber if there is any.

(2) Installing the rotor.

Examine the rotor before every use, and make sure there is no any crack or corrosion spot on rotor, especially the hanger and the bottom of the buckets / carriers. Strictly prohibited use the rotor which has crack or corrosion pit on it.

First, install the rotor on the spindle vertically (put the orifice cone downward, the screw rod should come out after the installation.). Second, fit on the gasket and nut, then screw the nut tightly by use the spanner equipped. Third, hang all the buckets / carriers on the rotor (Fig.1 and Fig.2).

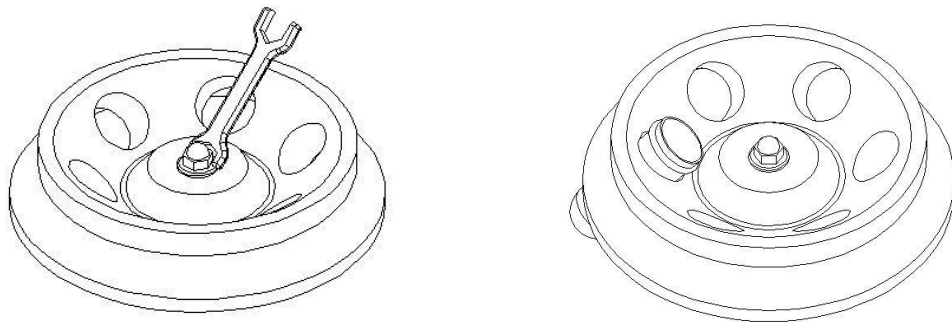


Fig. 1 Fixed-angle rotor installation

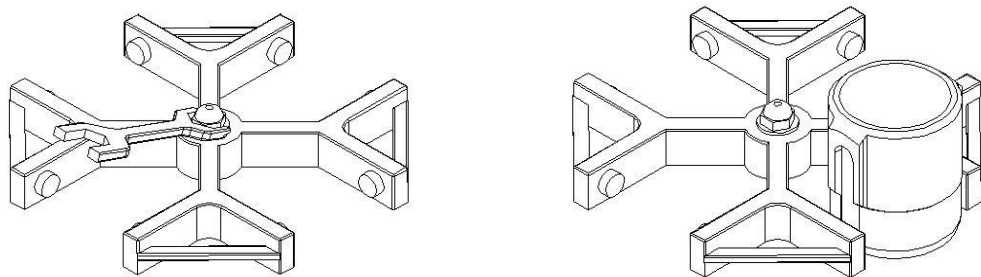


Fig. 2 Swing-out rotor installation

Do not begin the centrifugation process before the rotor has been securely fastened.

Put the test solution in the test tube(for the fixed-angle rotor, the test solution should not exceed 75% of the nominal), then weight it by mount pan balance, the weight error of each filled test tube should be $\leq 1\text{g}$ to make sure the machine has long service life (when the solution is below 7ml, you just need to make sure it in balance by visual inspection is ok).

For the fixed-angle rotor, the test tube must be loaded in the rotor on a symmetry balance status to make sure the rotor can spin in a balance state. **For swing-out rotor, all of the buckets / carriers must be loaded in** and the test tube/sample must be load in even number on a symmetry balance status to make sure the rotor can spin in a balance state. **Imbalance running strictly prohibited.** There is serious accident may occur due to the imbalance running or not weigh the weight carefully.

Stop the centrifugation process when there is abnormal noise generated during the acceleration process or centrifugation process, check if the machine is running at a balance status.

Close the lid

Press the lid down, the lid was locked after you hear a sound.

(3) Connect the power

Make sure the power with an earth wire before you start connect the power, then switch on the power switch.

6.4 Debug requirements.

WARNING: DO NOT start the centrifuge process before you cleaning the centrifugal chamber, otherwise you will damage machine!

Operate the centrifuge like the operating sequence of NO.7 described below, first choose low speed working, and then set to the high speed gradually. If there is no exception, the debugging is successful.

7. Operation

7.1 Control panel

There are 12 keys on the panel in total

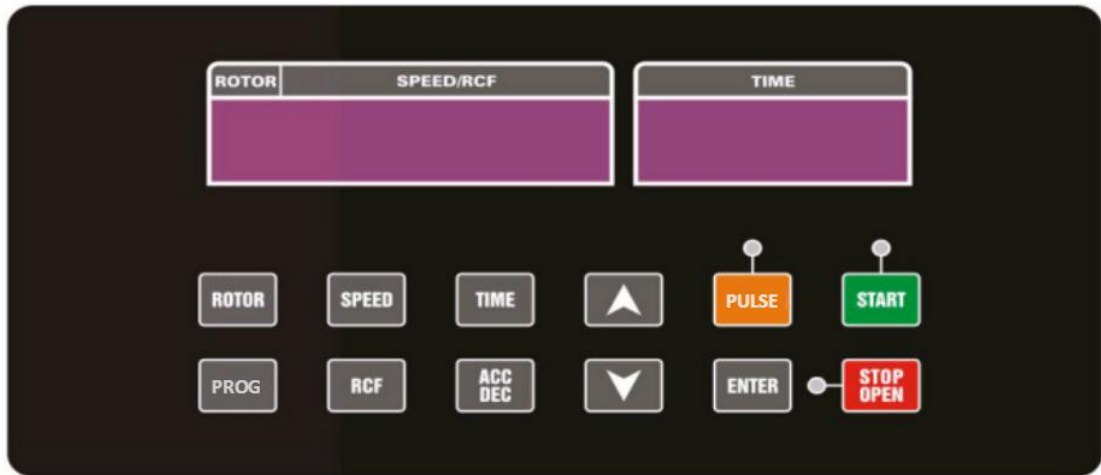


Fig. 3

7.2 Key explanation

1). **“ROTOR”**

This key means the rotor number.

2). **“SPEED”**,

The user can press this key for speed setting or press this key to enable the display screen to show the SPEED value during the centrifugation.

3). **“TIME”**

This key means the centrifuge time. When the user press this key, they can press the key ▲ or key ▼ to set the centrifugation time, then press the key “ENTER” to store it.

4). **“PROG”**

This key means the programs. When the user want to set a program memory for the rotor, they need to press this key to edit program no., or when the user wants to recall the program which they already set, they need to press this key to recall the program.

5). **“RCF”**,

The user can press this key for RCF setting or press this key to enable the display screen to show the RCF value during the centrifugation.

6). **“ACC / DEC”**

This key means the ACCELERATION and DECELERATION. The user can press this key then press the key ▲ or key ▼ to set the acceleration rates and deceleration rates. The ACC setting and DEC setting can conversion freely by press this key.

7). “▲ and ▼”

The user can press these two keys to set the parameter value.

8). “PULSE”

This key means short runs. When the user keep press this key, the centrifugation process will begin to toward the parameter the user set, when the user stop the press this key, the machine will stop the centrifuge process.

9). “START”

This key means start the centrifuge process. The user needs to press this key to start the centrifuge process after they set all the parameters.

10). “ENTER”

This key means confirm/store. When the user set the parameter, they need to press this key to store the parameter they just set. For example, when the user set the spin speed at 3000 rpm for a rotor, they need to press this key to store this speed they just set.

11). “STOP / OPEN”

When the machine is spinning, the user can press this key to stop centrifuge process. When the centrifuge process is not begin, the user can press this key for unlock the lid then open the lid.

7.3 Parameters setting

There are 12 buttons on the control panel (as mentioned above). When you press the button, the display window will show the corresponding parameter, then you can press the ▲ or ▼ button to set the parameter, press the “ENTER” button to save it after you set each parameter. For example, before you start the machine, you need to set the speed. Now press the “SPEED” button, the window will show the speed value, you can press the ▲ or ▼ to set the speed. Such as you want the centrifuge rotate at 3000 rpm, you just press ▲ button, then the speed value will increase, when the value reach 3000 rpm, just stop press the button, press the “ENTER” button to store it, then press the “TIME” button to set the spin time, press the “ENTER” button to store it, after all the parameters was set, then press the “START” button, the centrifuge will rotate at speed of 3000 rpm. if the Max speed for the rotor is 4500 rpm, you can set the speed you needed between 50 to 4500 rpm.

The procedure set is mainly based on the rotate speed. When you want to know the RCF during the operation, press the “RCF” button will be ok.

7.4 Acceleration and deceleration setting

Press ACC/DEC button, when there is letter “A 1” flicker in the display

screen, its ACC setting status now, press ▲ or ▼ to adjust the letter, 1 is fastest, 10 is the slowest, 10 levels in total, after you choose it, press the “ENTER” button to store it.

Press ACC/DEC button, when there is letter “D 1” flicker in the display screen, its DEC setting status now, press ▲ or ▼ to adjust the letter, 1 is fastest, 10 is the slowest, 10 levels in total, after you choose it, press the “ENTER” button to store it.

7.5 Program store

For a more convenient use, there are 12 program memories storable for repeated routine operation.

Program store: set the parameters first, such as the number of the rotor, rotate speed, time, acceleration, deceleration, etc, then press the “PROG” button twice, there will be letter “C 01” displayed on the screen, press

▲ or ▼ can change the parameters which displayed behind letter “C”, after all is ok, press “ENTER” button to store it. (note: the parameters behind letter “C” is the program memories / procedure serial number which you are going to store.)


For example, if you are going to store program 1 for rotor NO.1, 3 000 rpm, 20 minutes, ACC levels 4, DEC level 5. Now set the rotor to 1, then press “ENTER” button, set the rotate speed to 3 000, then press the “ENTER” button, set the time to 20 minutes, then press the “ENTER” button, set the ACC to 4, then press the “ENTER” button, set the DEC to 5, then press the “ENTER” button. Press “PROJECT” twice, when there is letter “C 1” displayed on the screen, press ▲ or ▼ button to set the number to “C 4”, then press the “ENTER” button, now the program is stored.

7.6 Program recall

Press “PROG” once when the speed display screen displayed “P 1”, press the ▲ or ▼ button to choose the procedure you needed, then press “ENTER” button to recall this program. (note: the number behind the letter “P” is the program number you are going to recall.)

7.7 Start

After all the parameters were set, press “Start” button, when the green indicator light is on, the centrifuge begins to start. After reaching the given speed, the instrument starts to count down.

 **For swing-out rotor, please note all of the buckets / carriers must be loaded in and the test tube which with solutions in it must be placed in a symmetrical balance status before press the key “START” to begin the centrifugation process.**


7.8 Stop

When it is working, the centrifugal time decelerates to zero; the centrifuge will speed down according to the parameters. When the rotors stop working totally, and hearing the alarm, the user can open the lid. If you want to stop the centrifuge during its working, press “Stop & Open” button, the instrument will stop according to the above processes.

When the centrifuge gives out a fault alarm or showing a code “error”, press the “Stop & Open” key to clear.

After the centrifuge stop, press “Stop & Open” button, after you hear a sound of unlock, lift up the lid.


Warning:


 **DO NOT** run rotors overspeed. The user should be responsible for the loss which was caused by overspeeding.

When need to change rotor, loose the lock nut with the spanner equipped, then get out of the rotor and install the new rotor the experiment required.

To avoid running the rotor overspeed, the relative rotor number must be reset after the rotor was changed, set the rotor number to the umber as the rotors parameters chart (chart 3) indicated.

 **The tubes/test sample must be placed symmetrical balanced.**

 **DO NOT** lift up or move the centrifuge when it is running.

 **DO NOT** opens the lid when the rotor is running.

8. Troubleshooting

Chart 3

Error code display	probable causes	solutions
E.1	Imbalance. The test tube was not placed in the rotor in even number, or the test solution in the tube is not at a balance status.	Open the lid to make sure it in a balance status.
E.3	The centrifuge lid isn't closed when pressing the start key.	Close the lid tight.
	The installation of the lid testing micro switch doesn't reach the designated position or has been damaged.	Check and change another one

E.7	The motor operates without speed. Speed signal is not reliable, or the speed sensor is damaged.	Check and change another one
	The motor doesn't work. The motor and rotor are locked.	Change motor
	Wires loosen or the powerful electroplax is damaged.	Check and change another one
E.6	The temperature is too high.	Make sure the temp. <40°C
E.2.	Overspeed protection: the rotor number is wrong or the powerful electroplax is not under protection.	Check and change another one

Exclude the above several faults, the machine still can't work normally, please contact with our company or the service station for help.

9. Maintenance & Repair notice

9.1 Maintenance notice

(1) The service life of the buckets / carriers is five years, or 3 000 times cumulative frequency use, or 2 000 hours. The rotor was prohibited to use when any of these three service life reach.

(2) Please clean the centrifuge chamber after every use. Put few grease on the shaft of the cone for protection, put some desiccant bag in the centrifuge chamber to avoid shaft corrosion as well.

(3) When you are not going to use this machine in the near future or are ready to maintain it, make sure you have pulled the plug from the socket. Because if you just switch off the power button but not pull the plug from the socket, the machine is still with electricity, under this circumstances, the accident may occur, especially when the machine is under maintain.

(4) When you are not going to use this machine in the near future or are ready to maintain it, make sure you have pulled the plug from the socket. Because if you just switch off the power button but not pull the plug from the socket, the machine is still with electricity, under this circumstances, the accident may occur, especially when the machine is under maintain.

(5) In order to prevent the spindle being bended and damage the drive shaft of the

rotor, please be gently when you install or discharge the rotor from the spindle. Screw out the bolt, then taking out the rotor vertically.

(6) When you are not going to use this machine in the near future, clean the chamber, dry it. Take out the rotor from centrifugal chamber, clean it with neutral cleaning mixture, dry it with a clean cloth (do not use electric hair drier to dry the rotor), preventing chemical corrosion, put it in a dry and ventilated place. Do not use non-neutral detergent to clean rotor. The center hole of rotor should have a little grease for protection.

(7) When using stainless steel tube, the speed should be reduced to a maximum speed of 80% or less to ensure safe use, if Proportion of liquid is greater than 1.2, you need to recalculate the max speed according the following method:

$$N = n\sqrt{1.2/S}$$

(the "N" is the max speed allowed; "n" is the maximum speed of the original; S is the proportion of the centrifugation liquid).

(8) When using stainless steel tube, the speed should be reduced to a maximum speed of 80% or less to ensure safe use, if Proportion of liquid is greater than 1.2, you need to recalculate the max speed according the following method:

$$N = n\sqrt{1.2/S}$$

(the "N" is the max speed allowed; "n" is the maximum speed of the original; S is the proportion of the centrifugation liquid).

The centrifuge tube should be replaced regularly, strictly prohibit to use the tube which is about to burst.

(9) Polypropylene (PP) tube (bottle) can't come with concentrated nitric acid (95%), aqua regia, toluene, benzene, gasoline, kerosene. Polycarbonate (PC) centrifuge tube (bottle) can't come with hydrofluoric acid, hydrochloric acid (30%, 50%), sulfuric acid (10%), nitric acid (95%), aqua regia, potassium hydroxide, magnesium hydroxide, ammonium hydroxide, aluminum fluoride, ammonium sulfide, ammonium acetate, ammonium carbonate, sodium nitrate, chromic acid (50%), toluene, benzene, gasoline, acetaldehyde, acetone, ethanol, isobutanol, ethyl ether, cresol, and others to use together. Polyethylene (PE) centrifuge tube (bottle) can not come with sulfuric acid (50%, 75%), benzene, gasoline, kerosene.

9.2 Repair notice

Fuse replacement

(1) Turn off the power, disconnect the plug between the wire and external power

supply, then disconnect the plug between the wire and centrifuge.

- (2) There is a fuse holder below the power socket on the back side of the centrifuge (Fig.4), with a fuse symbolic identification, find the V-groove of the fuse holder (Fig.5); use a straight screwdriver to insert this groove, and pull out the fuse holder.
- (3) Take out the damaged fuse protector and discard it, take out the standby fuse protector from the holder and install it, the fuse protector specification of this centrifuge is BGXP BGXP $\phi 5 \times 20$, 250V, 10A.
- (4) Insert the fuse holder into the power socket.

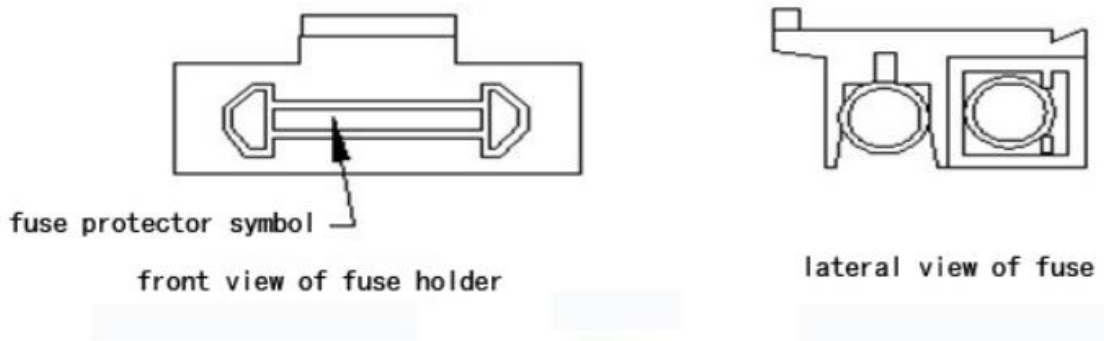


Fig. 4

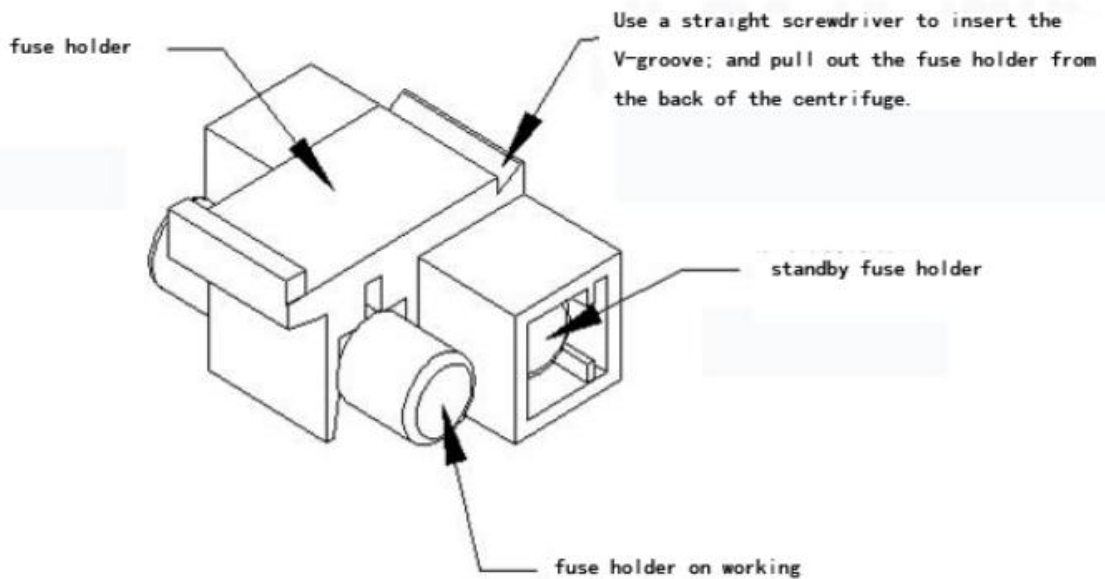


Fig. 5

10. Transportation and storage

10.1 Transportation

- When the centrifuge need a long distance transportation, wooden case should be used. The centrifuge should be cover with dust mask, and fill up with damping materials all around the machine, it is strictly prohibited of collision, rolling and dipping in the rain or snow in the process of the transportation.
- Movement indoor can do directly, but also should avoid big shock, collision, convert.

10.2 Storage

- When centrifuge will not put to use for a long period, the lid should be open, store in a ventilated, dry and clean room. The storage place should not have corrosive, inflammable and explosive materials.

Due to the technology constantly updated, if there is something different with the manual, please contact our company for help.

11. Warranty regulations

All the products of our company, the buyers get one and half year warranty from the date of they receive the machine, we will take all cost which are caused by quality defects during the guarantee period. When there is any problem with the machine at the time which out of the warranty period, we will also provide the maintain service, the users only need to pay the parts cost.

Any of the following conditions is not in the free maintenance range:

- Failures which caused by incorrect installation, operation or maintenance
- Failures which caused by trying to dismantle, change the relevant components parameters
- Failures which caused by using rotors and accessories not designed for this centrifuge
- Failures which caused by force majeure, such as war, natural disaster, etc.

In order to make people understand our product, and provide better service for customers, please keep the warranty card and maintenance record.

Certificate of Compliance
for
Benchtop Low Speed Centrifuge TD-450

Product Name: Benchtop Low Speed Centrifuge TD-450

Factory Number: 17070605

This product is permitted to leave the factory after inspection.

Inspector: _____

Date: _____

Product Warranty Card

(maintained this card within the warranty period.)

Product Name	Benchtop Low Speed Centrifuge TD-450		
Product number	17070605	Date of production	July, 2017
Purchase date			
Name of user and Department(stamped)			
Address:			Contact:
Tel:	Fax:	E-mail:	
Comments and Suggestions to our products:			

Packing List

Serial number	Name	Quantity	Unit	Remarks	
1	TD-450 centrifuge mainframe	1	set		
2	optional rotors	No.1 swing-out rotor 4 x 50 ml (for round bottom tube)	1	set	
3					
4					
5					
6					
7					
8					
9	attachment tools/accessories	spanner	1	set	
10		power cable	1	piece	
11					
12					
13	attachment documents	instruction manual	1	piece	
14		certificate of compliance	1	piece	
15		product warranty card	1	piece	
16		packing list	1	piece	
17					

Packing person: _____

Date: _____