

KT-TD6AWS
Operation Instruction



Please read this manual carefully before use.

Subject to change without notice!

CHANGSHA KETHINK S&T CO.,LTD.

www.kethink.com

Product Name: Laboratory Centrifuge

Product Model: KT-TD6AWS

Main Components :

control system, centrifugal chamber, driving system, rotor, refrigeration system (in refrigerated medical centrifuge) and safety protection system.

Applicable People:

This product is only applicable to trained professional operators and technicians.

Operation Attention:

Non-professional operators are forbidden to use.

Warning & Suggestive Content: display on device screen.

Operation Instruction: See above

Label & Package:



Please read the instruction.

Storage Condition & Method:

Store in the room which is ventilated, dry, light-proof and free of corrosive gas.

Warranty: 1 Year.

Precautions & Security Warnings

Precautions:

- 1) Please read the operation instruction handbook before use.
- 2) To avoid instrument failure, **DO NOT** keep it in damp, high temperature or dusty place.
- 3) **DO NOT** move or open its door when instrument is running.
- 4) Instrument should be put in solid & flat desktop, four rubber feet should be in contact with the desktop with uniform stress.
- 5) Keep liquid volume in centrifuge tubes the same by visual inspection. A large vibration will occur if liquid volume is uneven. Instrument must be stopped immediately, check liquid volume to make sure they are the same, centrifuge tubes must be placed symmetrically in even numbers.
- 6) Open instrument door and keep inner cavity clean and dry after use.
- 7) Instrument use power supply must have a reliable grounding line.

Safety Warning:

- 1) To avoid damage in instrument mechanical or electrical part, **DO NOT** collide, vibrate or throw instrument.
- 2) To avoid damage in instrument mechanical or electrical part, **DO NOT** keep instrument in damp/ high temperature place.
- 3) To avoid instrument damage, When separate acidic or alkaline substances, **DO NOT** spill it into instrument cavity.
- 4) **DO NOT** use if there is crack on rotor body / hanging cup.
- 5) Under the situation of large rotor weighing error / unbalanced rotors, operation is forbidden.
- 6) To avoid accidents, exceed the maximum speed set by the rotor and operate instrument is forbidden.

After Sales Service:

- 1) 1 year warranty (within one year from the date of purchase).
- 2) If damage **NOT** caused by inappropriate operation / man-made damage, we promise to bear all the costs within warranty period. After warranty period, only maintenance costs be charged.

1. Working Principle & Application Range

KT-TD6AWS centrifuge bench top low speed (hereinafter referred to as the instrument) adopts the principle of centrifugal sedimentation of solution density of different particles separation, enrichment and purification. It is widely used in clinical medicine, biochemistry, genetic engineering, radiation immunology, etc, is an ideal instrument for scientific research institutes, hospitals, the ideal experimental instrument.

2. Main Technical Parameters

Type	KT-TD6AWS
Max Speed	6000rpm
Max RCF	5180xg
Max Capacity	4*500ml
Speed Accuracy	± 20rpm
Timer Range	1-99min
Display	LED
Motor	AC frequency conversion
Power	600W
Noise	≤ 65dB(A)
Voltage	AC 220V 50HZ 10A

Net Weight	50Kg
Instrument Dimension	620*520*390(L*W*H)mm

3. Structure Features

- 1) The instrument adopts brushless DC motor, no spark, carbon dust pollution & low noise during running, perfectly meet the requirements of the laboratory work.
- 2) Adopt shock absorption system.
- 3) Adopt microcomputer control system, high speed control precision, touch panel helps user to set operation parameters conveniently & accurately; can modify parameters during operation & check the corresponding centrifugal force under current speed.
- 4) This machine is composed of instrument and optional rotors, suitable rotors and technical parameters are shown in the following table.

Table 1 parameters of suitable rotor (part of the rotors)

No	Item	Max Speed(r/m)	Max RCF (xg)	Capacity(ml)	Size(mm)
NO.1	Angle rotor	6000rpm	5180xg	12 × 10ml	Φ 16 × 87
NO.2	Angle rotor	5000rpm	3080xg	12 × 15ml(adapt 5/7/10ml)	Φ 16 × 118
NO.3	Angle rotor	5000rpm	3515xg	24 × 15ml(adapt5/7/10ml)	Φ 16 × 118
NO.4	Angle rotor	5000rpm	2850xg	6 × 50ml	Φ 29 × 106
NO.5	Angle rotor	5000rpm	2630xg	4 × 100ml	Φ 37 × 124
NO.6	Angle rotor	5000rpm	3130xg	6 × 100ml	Φ 37 × 124
NO.7	Horizontal rotor (auto decap)	4000rpm	3150xg	4 × 12 × 2/5ml vacuum blood collection tube	Φ 13 × 75/100
NO.8	Horizontal rotor (auto decap)	4000rpm	3520xg	4 × 18 × 2/5ml vacuum blood collection tube	Φ 13 × 75/100
NO.9	Horizontal rotor	4000rpm	3650xg	4 × 24 × 2/5ml vacuum	Φ 13 ×

	(auto decap)			blood collection tube	75/100
NO.10	Horizontal rotor adapter	4200rpm	3157xg	Rotor adapter	-
	rack	4200rpm	3157xg	4 × 8 × 5/7ml	Φ 13 × 95
	rack			4 × 8 × 10/15ml	Φ 16 × 87
	rack			4 × 2 × 50ml	Φ 29 × 106
	rack			4 × 1 × 100ml	Φ 37 × 124
	rack			4 × 2 × 100ml	Φ 37 × 124
NO.11	Horizontal rotor	4000rpm	3016xg	4 × 250ml 4 hanging cups	Φ 64 × 125
	adapter	4000rpm	3016xg	4 × 8 × 5/7ml	Φ 13 × 95
	adapter			4 × 8 × 10/15ml	Φ 16 × 135
	adapter			4 × 2 × 50ml	Φ 29 × 106
	adapter			4 × 2 × 100ml	Φ 37 × 124
NO.12	Horizontal rotor	4000rpm	3515xg	4 × 500ml 4 hanging cups	Φ 78 × 150
	adapter	4000rpm	3515xg	4 × 4 × 50ml	Φ 37 × 124
	adapter			4 × 12 × 5/7ml	Φ 13 × 95
	adapter			4 × 16 × 5/7ml	Φ 13 × 95
	adapter			4 × 16 × 10/15ml	Φ 29 × 106
	adapter			4 × 2 × 100ml	Φ 37 × 124
	adapter			4 × 3 × 100ml	Φ 37 × 124
	adapter			4 × 1 × 250ml	Φ 64 × 114
NO.13	Horizontal basket rotor	4000rpm	3016xg	4 × 18 × 5/7ml	Φ 13 × 95
NO.14	Horizontal basket rotor	4000rpm	3016xg	4 × 24 × 5/7ml	Φ 13 × 95
NO.15	Horizontal ELISA plate rotor	4000rpm	2310xg	2 × 2 × 48 holes	
NO.16	Horizontal ELISA plate rotor	4000rpm	2310xg	2 × 2 × 96 holes	
NO.17	Horizontal ELISA plate rotor	4000rpm	2490xg	4 × 2 × 96 holes	
NO.18	Horizontal ELISA plate rotor	4000rpm	2850xg	4 × 4 × 96 holes	

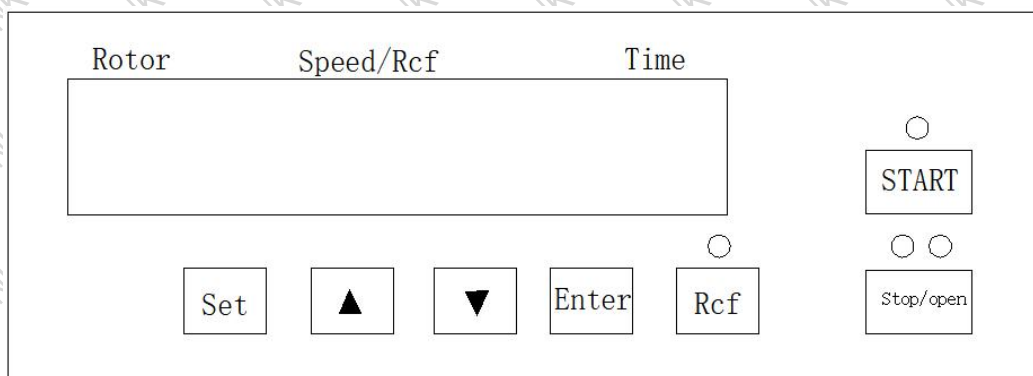
4. Installation

- 1) Instrument should be put on solid & flat desk top (reinforced concrete countertop is the best desk top).
- 2) Instrument should be placed on a horizontal desk top.
- 3) Instrument should be stored in dry, well ventilated room with relative

humidity under 85%, room temperature within 5 °C ~ 35 °C . To avoid damage caused by electric leakage, DO NOT keep instrument under direct sunlight.

4) The power supply used must have a reliable ground wire to ensure reliable contact between the ground wire of the instrument and the ground wire of the network power supply to prevent leakage or accidental damage caused by the network power supply.

5. Operating Procedures



1. Open the door cover, install rotor, tighten bolt.
2. Put centrifuge tubes with liquid into rotors, centrifugal tube must be in even number with even liquid (inspected by visual), rotate rotor gently after putting the tubes.
3. Shut & lock the door cover, otherwise instrument will not work.
4. Plug in power socket, press the power switch (on the back of the centrifuge,above the power socket).
5. Rotor NO/Speed/ Time Setting:

(1) Rotor No setting(under the stopped state): Press the "Set" button,

when the decimal in the lower right corner of the LED which displays rotor numbers lights up, it will enter the rotor number setting mode, and then press the "▲" or "▼" key to select the right rotor number that work with the centrifuge (there are 6 types of rotor numbers available).

(2) Speed setting: Press the "Set" button, when the decimal in the lower right corner of the LED which displays speed lights up, it will enter speed setting mode, press "▲" or "▼" button under speed display area (max speed:6000rpm).

(3) Time setting: Press the "Set" button, when the decimal in the lower right corner of the LED which displays time lights up, it will enter time setting mode, press "▲" or "▼" button to set the current running time (max running time:99min),countdown.

(4) When the above steps completed, press "ENTER" button to confirm,then press "START" to run. Control panel display rotor number, speed and remaining centrifugal time.

5) Centrifuge time countdown to "0", instrument stop automatically; when rotation speed is equal to zero, buzzer sounds;if press "stop" when instrument is running, centrifuge stop,buzzer stop.

6. If need to change RCF during operation, press " RCF" key, current RCF will be display on screen.It will automatically return to the running state.

7. During operation, if centrifugal force conversion needed, press the "RCF" key (RCF light is on), the centrifugal force at the current speed will

be displayed, and it will automatically return to the running state after 3 seconds.

8. During the centrifugal operation, if need to check the original set parameters, press "SET" key, the instrument will display the original parameters; the instrument will automatically return to the running state after 4 seconds.

9. During the operation of the centrifuge, if need to modify the operating parameters, press "SET" key to the decimal point to the position of the parameter to be modified, and then press the "▲" or "▼" key to select the parameter to be modified, and press the "ENTER" key to confirm the modification parameter.

10. When rotor stop rotating, press door lock on the right and take out centrifuge tubes.

11. Shut off the power switch after using it.

6. Safety Precautions

1) **DO NOT** move instrument or open its door cover when centrifuge is running.

2) Put centrifuge on solid & flat desk top, four rubber feet should be in contact with the desk top under even stress, lest vibration caused.

3) Liquid volume in centrifuge tube should keep the same by visual inspection. A large vibration may occur when there is large liquid volume difference. Instrument must be stopped & checked immediately, make

sure liquid volume is the same, centrifuge tubes must be placed symmetrically in even numbers.

4) If centrifugal tube rupture when centrifuge is running, will occur a large vibration, machine must be stopped immediately.

5) The power supply must have a ground wire.

7. Warranty

1 year warranty (within one year from the date of purchase).

If damage NOT caused by inappropriate operation / man-made damage, we promise to bear all the costs within warranty period. After warranty period, only maintenance costs be charged.

Certificate of Conformity

Product Name: Tabletop low-speed Centrifuge

Product Model: KT-TD6AWS

Product No:

Max Speed: 6000 rpm

Max RCF: 5180 xg

This product has been tested and proved to be qualified for delivery in conformity with technical standard.

Inspector:



Date: Sep,10th, 2020

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KT-TD6AWS Tabletop Low Speed Centrifuge**Packing List**

NO	Item	Specification	Quantity	Remarks
1	Tabletop Low Speed Centrifuge	KT-TD6AWS	1set	
2	Rotor		2pcs	
3	Rack			
4	Tool			
5	Power		1pcs	
6	User Manual		1pcs	
7	Certificate of Conformity		1pcs	
8	Packing List		1pcs	