

TGyrate Master Vortex User's Manual



Catalog Number

OSE-VX-02

Product Name

TGyrate Master Vortex

Product Description

The TGyrate Master Vortex is a multi-sample mixer that uses eccentric rotation to create a vortex of liquid in a container such as a test tube, thereby mixing the sample thoroughly. The instrument can be used to mix samples in various centrifuge tubes and working plates. The product has features such as induction inverter motor, direct motor drive, no perishable parts, long service life, and low noise. The amplitude of 4.5 cm and the strength of the vortex make it possible to mix liquids rapidly. There are two working modes, touch and continuous, and various fixtures are available to meet experimental needs in all aspects. The metal body, balance block design, and unique rail structure ensure uniform and stable operation of the instrument. It can be widely used in universities, research institutions, factories' laboratories, etc.




Quality Warranty

The TGyrate Master Vortex has a warranty period of 12 months. Damage caused by incorrect operation or unauthorized modification using accessories or spare parts not provided by TIANGEN is not covered by the warranty. The warranty does not cover normal spoilage, radioactive contamination, or damage caused by improper cleaning.

Package Composition

Package Composition	Quantity	Catalog Number
Body of TGyrate Master Vortex	1 set	OSE-VX-02
Standard Top	1 pcs	OSE-VX-M110
Microtiter Plate Top	1 pcs	OSE-VX-M130
1.5/2.0 ml Adapter (with M130)	1 pcs	OSE-VX-M131
15ml Adapter (with M130)	1 pcs	OSE-VX-M133
Power Adapter	1 pcs	
User's Manual	1 copy	
Product Warranty Card	1 copy	
Certificate of Conformity	1 copy	

Optional Accessories

Number	Product Name	Catalog No.	Product Illustration
1	5ml Adapter (with M130)	OSE-VX-M132	
2	Circular Top (with M141)	OSE-VX-M140	
3	Circular Foam Adapter (use with M140)	OSE-VX-M141	

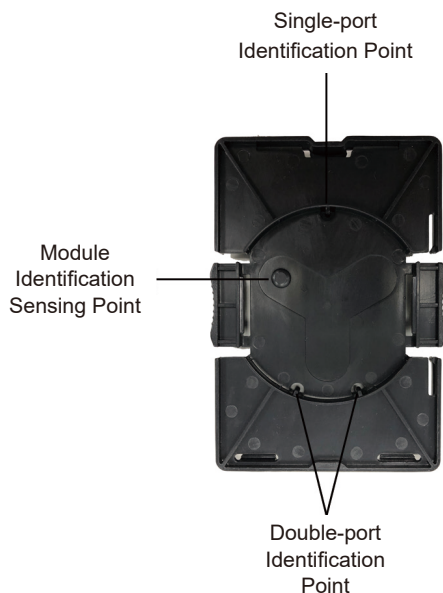
Technical Parameters

Working Mode	Touch/Continuous Mode
Vibration Method	Circumference
Amplitude	4.5 mm
Maximum Load	1.5 kg
RPM Setting Range	200-3000 rpm
Time Setting Range	1-999 min or 1-999 sec or ∞
Speed Adjustment Mode	By the infinite knob
Power Adapter	100-240 V, 50/60 Hz , 24 V/2 A,
Power Adapter Input Power	20 W
Power Adapter Output Power	15 W
Instrument Dimensions (W × D × H)	210 mm×150 mm×69 mm
Net Weight	4 kg
Protection Class	IP21

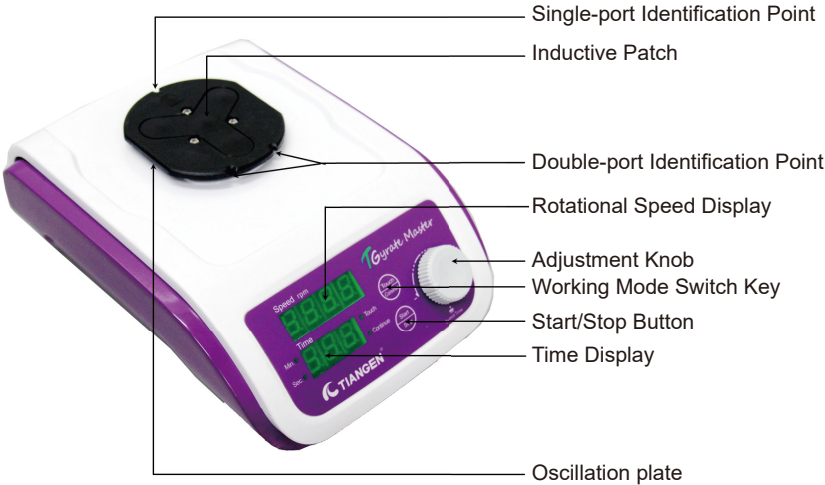
Instrument Installation

Carefully unpack the TGyrate Master Vortex by following the steps described below:

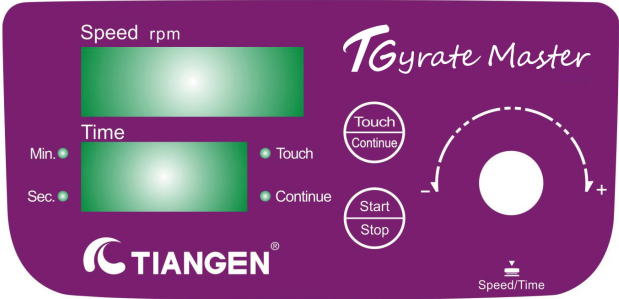
1. First, remove the top padding material.
2. Remove the instrument from the foam housing and place it on a horizontal, sturdy laboratory bench top.
3. Remove the instrument's external packaging protection material.
4. Place the instrument in a suitable operating area, plug in the power cord, make sure the power is OFF, and select the required spacer or fixture.
5. To install the Standard Top, fix one side and stretch to fit the other side onto the oscillation plate as well.
6. When installing other fixtures, first judge the direction according to the corresponding identification point, then fix the Module Identification Sensing Point on one side of the card position of the oscillation plate, then gently press the other side. The "click" sound indicates the correct installation to the right position.



Schematic Diagram of the Instrument



Operation Panel



Operation Panel Description

Touch/Continue	Touch and Continue mode switch key. Press this key to switch between working modes.
Start/Stop	Start/Stop key. After the time and speed are set, press this key to run the instrument. During the operation of the instrument, press this key to stop the operation.
Speed rpm	Speed display. The speed setting ranges between 200-3000 rpm. After the number flashes three times, the speed is set.
Time	Time display. The time setting ranges between 1-999 min or 1-999 sec or ∞ . Min and sec cannot be set at the same time. After the number flashes three times, the time is set.
Min.	Time indicator. When this light is on, the time is displayed in minutes.
Sec.	Time indicator. When this light is on, the time is displayed in seconds.
Touch.	This light is on in Touch mode.
Continue.	This light is on in Continue mode.

Operation guide

1. This instrument should be placed on a horizontal workbench. Make sure the instrument is placed on a steady surface when used;
 2. Connect the instrument to a power supply, with the power adapter providing 24V DC voltage;
 3. Turn on the power switch on the rear side of the instrument, and the instrument should default to Continue mode;
 4. Press the Touch/Continue key to switch between the Touch and Continuous modes;
 5. Press the adjustment knob once and the speed display digit flashes, at which point rotate the adjustment knob to set the speed;
 6. Press the adjustment knob twice, the time display digit flashes, at which the Min indicator light is on. Rotate the adjustment knob to set the running time;
 7. Press the adjustment knob three times, the time display number flashes, at which the Sec indicator light is on. Rotate the adjustment knob to set the running time;
 8. Press the adjustment knob four times, the time display shows "- - -", the running time is set to ∞ ;
 9. After setting, press the Start/Stop key to run the instrument;
 10. In Touch mode, only the running speed can be set. In this mode, the Time only counts;
 11. The fixtures will automatically be recognized. Except for the Standard Top, for the other fixtures, the speed is limited to 1300 rpm.
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Maintenance and Care

Before cleaning, make sure the instrument is turned off and disconnect the power cord. We recommend that customers clean the instrument surface with 75% industrial alcohol or a non-corrosive washing solution with pH=7. Ensure all parts of the instrument are completely dry before running. Ensure all parts of the instrument are completely dry before running. Be careful not to immerse the instrument in liquid or wet the instrument with liquid.

Safety Precautions

1. This instrument is mainly used for the mixing of samples in the laboratory and should be operated by professionals;
 2. The instrument should be placed on a horizontal and sturdy workbench;
 3. Switch between Touch/Continue mode when using Standard Top. Only the Continue mode is available when using other adapters;
 4. Mixing flammable and explosive objects is prohibited. Exposure to corrosive objects and liquids should be avoided;
 5. Please make sure the sample to be mixed is sealed before use to prevent the liquid from spilling;
 6. Do not block the vents;
 7. Turn off the power supply if the instrument is not used for a long time.
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