3D Rotating Mixer

Cat. No. BT910
**INTRODUCTION**

The 3D rotating mixer is a uniquely designed instrument which can mix samples at any angle of rotation with a variety of sample tubes. Adjusting the rotating frame (tube holder) can make the products rotate either horizontally or vertically or at any angle. It is widely used in molecular hybridization to mix blood and various samples. The rotation speed is moderate. The 3D rotating mixer is compact, light and convenient, can be easily moved to a bench top, a refrigerator or an incubator. It is very easy to clean.

**OPERATION**

Before operating, turn the switch to “0” position, insert the tubes into the tube frame well. Turn the switch to “1” position. The instrument will start operating. Turn to “0” to stop operating.

**Warning:**
1. The tube frame should be the same type on the two sides of the cross bar. Put the samples in balance.
2. Do not put hand on the tube frame when the instrument is operating.
3. Turn off the instrument to check if the instrument is too noisy or shakes heavily.

**TUBE FRAME REPLACEMENT**

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<table>
<thead>
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<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
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- Remove the tube frame that is not needed, as shown in Figure A. Figure B shows the part after the tube frame is removed.
- Insert the unoccupied pole of the cross bar to the tube frame to be used, as shown in Figure C. Figure D shows the cross bar with fixed tube frame. Put this assembly to the main instrument.
MAINTENANCE
Use cloth with non-corrosive cleansing fluid (PH=7 ± 1) to clean surface of the instrument. Only operate the instrument after it has dried. Do not dip the instrument into fluid or water.

TECHNICAL SPECIFICATIONS
Dimension: 240x145x210 (mm)
Power: ≤4W
Input Power: AC100-230V, 50/60Hz
Fuse: 0.5A /1.0A
Speed: 18rpm

TUBE FRAME

| To affix 2.0ml or 1.5ml tube | To affix the tube with outer diameter of 15~16mm and 12~13mm | To affix 50ml and 0.5ml tube |

TROUBLE SHOOTING

<table>
<thead>
<tr>
<th>Issue</th>
<th>Possible Causes</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Rotor not working when the power is on.</td>
<td>Power line problem</td>
<td>Check the power line</td>
</tr>
<tr>
<td>Broken switch</td>
<td>Broken switch</td>
<td>Change the switch</td>
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<tr>
<td>Other</td>
<td>Other</td>
<td>Contact BT Lab Systems</td>
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<tr>
<td>Tube frame cannot be fixed on the cross bar</td>
<td>Serious wear of the rubber ring, or rubber ring broken</td>
<td>Change the rubber ring</td>
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<td>Instrument vibrates heavily when operating. Non-uniform rotating speed</td>
<td>Caused by serious imbalance and using different types of tube frame on each side.</td>
<td>Use the same type of tube frame. Keep the weight of the two sides the same.</td>
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TECHNICAL SUPPORT
BT Lab Systems offers technical support for all of its products. If you have any questions about the product’s use or, operation, please contact BT Lab Systems at the following:

E-Mail: info@BTLabSystems.com