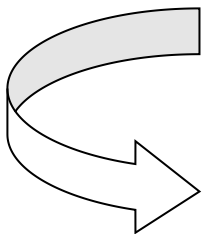


# Automatic Gyro Mixer YJ-2A-03



**User Manual**

# CONTENTS

	Page No.
WARNING .....	3
1. USER MANUAL INTRODUCTION .....	4
2. TECHNICAL SPECIFICATIONS .....	4
3. TERMS OF WARRANTY .....	4
4. SAFETY INSTRUCTIONS .....	5
5. INSTRUCTION OF LCD DISPLAY BUTTONS.....	6
6. OPERATION INSTRUCTION .....	8
7. PARAMETER SETTING INSTRUCTION .....	9
8. DEFAULT PARAMETERS .....	9
9. MAINTENANCE OF MACHINE .....	9
10. TROUBLE SHOOTING .....	10
11. MIXER MACHINE WIRING DIAGRAM .....	13

# WARNING

## Please note below points before running the machine:

1. Make sure you unscrew the screws and take out the iron plate on both sides which just used for fixation during transportation before running the machine. (See below picture). Otherwise, it will damage the machine. Our company shall not be responsible for any consequences caused.



**Caution:** Take out this iron plate before running the machine. Otherwise, it will damage the machine.

2. The machine should be laid to the ground safely, which means the four legs of the machines should be landed stably, and the body of the machine cannot shake or move. This will reduce the noise from the machine's operation, and prolong the life of the machine.

# 1. USER MANUAL INTRODUCTION



## Purpose and use of this manual

It is aimed at the machine operators and installers, who must have the necessary training and professional skill to use similar automatic machines.

For the safe use of the machine, it is important:

1. To familiarize yourself with the structure and content.
2. To read the safety chapter in detail and make sure you understand all the instructions.

# 2. TECHNICAL SPECIFICATIONS

Time of Mixing: 15 seconds ~9 mins 45 seconds

Size of Mixing can: 1~20L

Load of Mixing can: 1~35KG

Speed of Mixing can: Adjustable (Default big can speed is 90 r/min; default small can speed is 130 r/min)

Height of Mixing can: 95~410mm

Power Supply: 220V±10% 50HZ

Rated Power: 750W

# 3. TERMS OF WARRANTY

Limited Warranty: We offer a period of one year warranty for each equipment. Within guarantee period, we can help you judge the fault according to the failure phenomenon by E-mail. and send replacement part to you. If the fault has been caused by mis-use or abnormal conditions of operation, repairs will be billed at a normal cost in this case. An estimate will be submitted before repair work is started in case requested.

The user must keep the machine in a proper working condition. Broken parts and accessories must be replaced with original appropriate parts of the machine.

The manufacturer's warranty expires under below conditions:

Twelve months after date of invoicing;

In case of inexpert use;

In case of non-original spare parts are used;

In case of repairing/adaptation of the machine without written approval and/ or by unauthorized personnel;

In case of non-fulfillment of the maintenance, operation or other instructions reflected in this manual.

## 4. SAFETY INSTRUCTIONS

### **Safety requirements:**

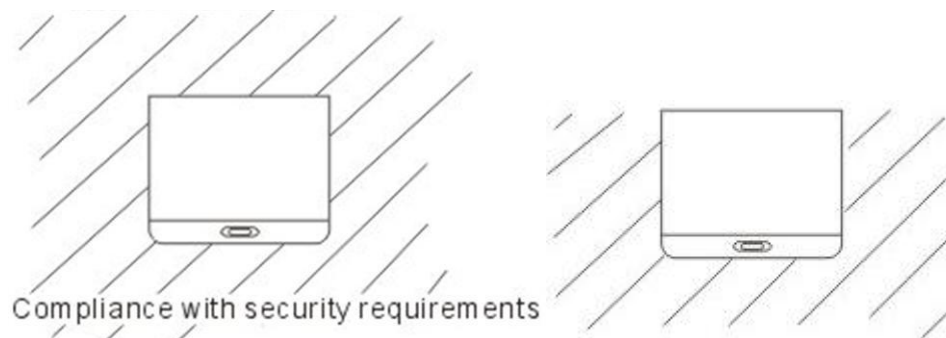
Since the mis-use and wrong operation might cause accidents, the equipment should be operated and maintained by trained personnels only. Here are the areas where accidents easily happen:

1. Operator area
2. Maintenance area

Since the mis-use might cause danger and accidents, the equipments can be used by well-trained persons only.

MAINTENANCE AREA

OPERATOR AREA



### **Power Supply:**

**110-120 VOLTAGE:** When the Shaker is connected to a voltage of 110-120 Volt, the source current must be more than 32A (with the leakage current being 30mA).

**220-240 VOLTAGE:** When the Mixer is connected to a voltage of 220-240 Volt, the source current must be more than 16A (with the leakage current being 30mA).

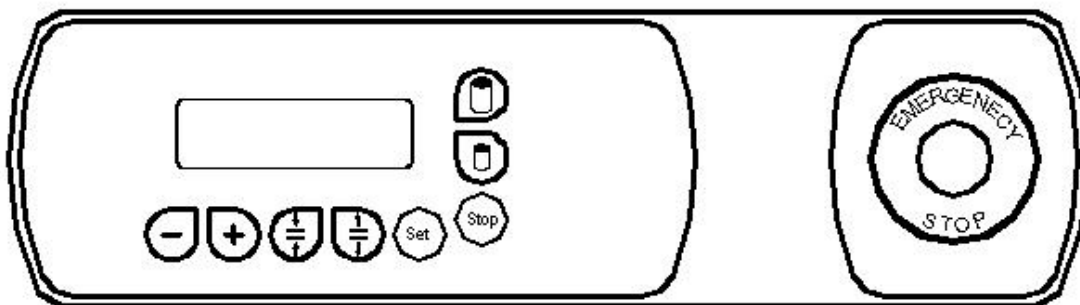
### **Safe use of the machine:**

1. The installation and maintenance of the machine must be performed by a specialized technician.
2. Please properly secure the outside panel of the mixer to prevent any physical injuries.
3. Prior to any maintenance and inspection of the machine, disconnect the power cord from the outlet mains. Make sure that the machine cannot be started unexpectedly.
4. Do not leave any tools inside in the machine after maintenance.
5. Check that the environment where the machine is installed conforms to local regulations (a permit issued by local authority may be necessary) and avoid dangerous concentration of paint cans around the equipment. It's forbidden to stock inflammable materials or other materials inside the machine. It's forbidden to use free flames, incandescent objects or equipment that are able to create sparks in the local where the machine is installed.
6. It is recommended to install a ventilation system to guarantee that the concentration of dangerous vapours around all electrical components is less than 30%.
7. Take the paint can out from the machine at the end of the work. If you don't use the machine any more, cut off its power supply.
8. In the locations where the machine is installed, the prohibition symbols "No Smoking/ Burning" have to be placed at 5 meters from the machine. The equipment is constructed for the treatment of non-explosion materials. It is forbidden to use this machine with inflammable or explosion vapors.

### **Warning:**




1. Forbid running this machine in inflammable and explosive environment.
2. This machine only can be maintained by trained personnel. We shall not be liable for any damage or injury caused by non-compliance with the “user” and ” safety” Regulations presented in this manual.
3. Forbid running this machine without drum in it.
4. Forbid to operate the machine overload. Maximum load is 35kg.
5. Make sure the drum is sealed and without leakage. You shouldn't put a distorted or leaking drum inside the machine.
6. Make sure the drum in the center of the clamping plate before mixing.
7. If the paint can has a handle, make sure the handle is fixed, otherwise, take away the handle before mixing.
8. Before starting the machine, please check whether there are objects that block the machine's rotating. If there are such objects, take them out of the machine before you start .
9. Make sure the machine at horizontal position after installing or moving.
10. Check if the machine legs are leveled if there's abnormal vibration and noise.
11. Don't switch off the machine with the can inside.
12. Make sure to unplug the machine if need to clean it.

## **5. INSTRUCTIONS OF LCD DISPLAY BUTTONS**



### **In the interface of mixing**

Turn on the power switch, when the words “ **prepared, mixing time \*: \*\*** “ occur on LCD display, means it is in the mixing interface, mixing time can be changed.

-  : Press this button each time , 15 seconds will be increased. The maximum mixing time is 9 minutes and 45 seconds.
-  : Pressing this button each time, 15 seconds will be decreased. The minimum mixing time is 15 seconds.
-  : Press this button without stopping, the upper and lower plate will move to the center part simultaneously to clamp the paint can. When releasing this button, clamping movement will stop.



: Press this button without stopping, the upper plate and lower plate will move to opposite ends simultaneously to release the paint can. When releasing this button, the two plates will stop moving.



: Press this button to mix with big can speed. **(Noted: the height of the can  $\geq 220\text{mm}$  will be identify as big can)**



: Press this button to mix with small can speed. **(Noted: the height of the can  $< 220\text{mm}$  will be identify as small can)**



: After setting the mixing time, press this button to save. (next time you turn on the mixer, the saved mixing time will occur on LCD display )



: 1. During mixing, press this button to stop mixing. The clamping mechanic will move to its original place ( the vertical position) automatically, and release the upper and lower plate.

2. When “ not stop at origin” occur on the LCD display, press this button, the clamping mechanics will move to its original place ( the vertical position).

### In the interface of setting parameter:



Turn on the power switch and pressing the button in the same time until the LCD display “Big can speed (50-100) “ , you can enter into the interface of parameter setting **(Noted: need to press this button without stopping until the parameter setting interface occur on the LCD display)**



: this button is used to choose the last item which you want to set the parameter for.



: this button is used to choose the next item which you want to set the parameter for.



: this button is for increasing the number of the parameter or select the parameter value.



: this button is for decreasing the number of the parameter or select the parameter value.



: press this button to return back to the main interface.



: this button is used for saving the parameter. **( Noted: after finishing setting the parameter for one item, you need to press this button to save the data. The LCD will display “save successfully” )**

## 6. OPERATION INSTRUCTION

### 1. Turn on the power


Turn on the power supply, model no. "YJ-2A\*\*\*\*" will show on the LCD display. Then communication will be checked automatically. If it's normal, "**Communication ok**" will show on the LCD display. If the clamping mechanics are not at its origins, the LCD will display "**rotating to origin**". Please wait a moment, the clamping mechanics will move to its origin automatically. After this is finished, "**Prepared, mixing time xxxx**" will show on the LCD display.

### 2. Put paint can on the plate

Pull out the lower plate, put paint can on it, move the paint can to the center place. Find something (such as elastic belt ) to fix the handle of paint can, then push lower plate into the machine, when you heard "click", means the lower plate already back to the right place.

**Caution: distorted paint can and leaking paint can are forbidden to use.**

### 3. Choose mixing time

Mixing time can be changed by pressing "+" or "-". Press one time, 15 seconds will be increased or decreased. The minimum mixing time is 15 seconds, the maximum mixing time is 9 minutes and 45 seconds. If you'd like to save the mixing time, press  button. The system will take it as the default mixing time after machine is restarted.

### 4. Start the machine to mix paint

Choose either big can button or small can button to mix paint for different sizes of can. Big can button is corresponding to relatively small speed of mixing paint, and small can button is for relatively big speed of mixing paint.

**Noted : 1. The two speeds is adjustable . Big can speed rang is 50r/min-100r/min,default is 90r/min.**

**Small can speed rang is 50r/min-150r/min, default is 130r/min.**

**Noted: 2. During mixing , the door could not open.**

### 5. Take out the paint can

Pull out the lower plate. Take out paint can. Remember to push the lower plate to its original position, close the door.

**Noted : After finishing mixing. If you need to mix again, you need to open the door, then close it. Otherwise, it won't mix for the second time.**





## 7. PARAMETER SETTING INSTRUCTION

There are totally four parameters can be set. They are: "Big can speed", "Small can speed", "Mixing mold", "select language".



1. **Enter the interface of parameter setting:** Turn on the power switched on, press the button



"Set" without releasing until the interface "big can speed (50-100)" occurs, and then you can release the button.

2. **Select the parameters:** Press big can  or small can  to select the item of parameter which you want to set. It's a unidirectional cycle to view the parameters one by one.

3. **Adjust the parameters:** Press  or  to adjust the value.

4. **Save parameters:** After finishing adjusting the parameter of one page, press  to save and press  to return to main interface.

**Attention: After setting parameter, need to turn off the machine and wait for a moment then turn on the machine if you want to mix a can.**

## 8. DEFAULT PARAMETERS

Big can mixing speed	90 (r /min)
Small can mixing speed	130 (r /min)
Mixing mode	2

## 9. MAINTENANCE OF MACHINE

To safeguard the normal operation of the machine, prolong its life, utilize its economy value to the maximum, please kindly insist in the daily maintenance work.

1. Only professionals are allowed to disassemble the machine.
2. Lubricate the screw rod and guide pillar every three months.
3. Solve the problem in time.

## 10. TROUBLESHOOTING

### 1) Communication Errors

Possible reasons	Solution
1. Inverter is not electrified.	1. Check the wires connected to the inverter to see whether there's electricity go through these wires.
2. Communication setting error	2. Reset the inverter: set the P3.09 to "065", set the P3.10 to "001".
3. 485 controlling wires is in the reverse connection	3. Switch both end of the control wire, and connect them correctly.
4. Wires are wrongly connected	4. Check the wire according to the electric diagram
5. Mainboard fault	5. Replace the electronic board
6. Inverter fault	6. Replace the inverter

### 2) Parameters fault

Possible reason	Solution
1. the parameters are beyond its range in design	1. Re-adjust the parameters

### 3) No electricity go through the whole machine






Possible reasons	Solutions
1. Something wrong with the power supply	1. check the fuse on the machine. 2. check the board PCB2. If LED7 or LED8 light is off, means the fuse on the PCB2 board have problem. 3. If LED8 light is on, but there is no contents showed on the main board displayer, means there's problem of the main board or its wires connecting.

### 4) Positioning error

Probable reason	Solution
1. The belt problem	1. Check whether the belt is loose, falling off, or rupture, recover to its original shape by adjusting the belt

2. Detecting board fault	<p>- If the test piece located in the groove of optoelectronic switch, the light should be on. Otherwise, the detecting board is broken.</p> <p>- If the test piece is outside the groove of photoelectric switch, the light should be off. Otherwise, the detecting board is broken.</p>
3. Clutch fault	1. Please refer to the solution of clutch fault

### 5) Clamping system faults

<b>Probable reason</b>	<b>Solution</b>
1. the distance between bottom plate and upper plate is not enough	1. Increase the distance between the two plates by pressing the button 
2. Detecting board problem	<p>1. Press the button  or  to check whether the numerical value shown on the display change, if it doesn't change, means the detecting board is broken.</p> <p>2. You can also press the button  or  to check the light on the detecting board of the belt pulley, if the light change but the numerical value shown on the displayer unchanged, means there's connecting problem between three PCB in the backside of the mixer.</p>





### 6) Door lock error

<b>Probable reason</b>	<b>Solution</b>
1. Electronic board fault	<p>1. You can check LED1 on the PCB2 during mixing</p> <p>-If the LED1 light is on but the electromagnetic door lock cannot lock, means the door lock broken.</p> <p>-If the LED1 light is off, means PCB2 broken.</p>

### 7) Unable to rotate

<b>Probable reason</b>	<b>Solution</b>
1. The belt problem	1. Check if the belt rupture

### 8) Can broken by clamping

<b>Probable reason</b>	<b>Solution</b>
1. Relay fault	<p>press the button  or  to check LED2 on the PCB2.</p> <p>When press , in normal situation, the light LED2 should be on and the relay should be close. If LED2 is on and relay is open ,means the relay have broken. If LED2 is off , means the PCB2 have problem.</p> <p>When press , in normal situation, the light LED2 should be off and the relay should be open. If LED2 is on means the PCB2 have problem.</p>

### 9) Clutch fault

<b>Probable reason</b>	<b>Solution</b>
1. Detecting board fault	<p>Firstly, turn off the machine, disconnect the gray cable which connecting the main board, then turn on the mixer. In normal situation, when push the iron piece of clutch motor to innermost place, the inner indicator light which on the detecting board should be on. When pull the iron piece of clutch motor outwards, the inner indicator off and the outer indicator light should be on. If not, the detecting board have problem.</p>
2. Motor fault	<p>Firstly, turn off the machine, connect the gray cable back to the main board, make the clamping mechanism in vertical position. Then turn on the mixer, check the LED5 and LED6 on the PCB2</p> <ul style="list-style-type: none"> <li>- If both LED5 and LED 6 give flash light but the clutch motor not work, means it's the clutch motor problem.</li> <li>- In normal situation, when the iron piece of clutch motor go inside, the LED 6 should be on, when the iron piece of clutch motor go outside, LED 6 should be off and LED 5 should be on. If not, means it's the PCB2 board problem.</li> <li>- If the iron piece clutch motor go inside and then go outside immediately, means it's the detecting board problem.</li> </ul>