

J2C COMPOSANT 4 Avenue du grand Chène 34270 – St Mathieu de Tréviers Tel : 04 67 59 90 39 Fax : 04 67 59 89 71 j2c@j2c.fr

www.j2c.eu

USER'S MANUAL

Solder Paste Mixer

Introduction

First, thanks for your purchase of our solder paste mixer. You can achieve a better solder paste printing and reflowing by using the MIX-CD500D *solder paste mixer*. Please read this manual carefully before start using the mixer.

No further notice on the product improvement and part update. Please contact J2C composant if any questions.

It is suggested to keep the packing materials. Improper packing may damage the machine during shipping.

A free one year warranty is included with the purchase of this mixer. The user who dismantles the machine parts without authorization will void this warranty. This warranty will be void if objects other than solder paste are placed inside the machine, or if there are any improper use of the machine.

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1. Precautions

Check all the parts as per the packing list after removing the packing material.

Improper power would cause machine damages or performance reduction, so please check the conformity of power and specifications.

Place the machine on a flat and stable table. The machine will shake when being operated. Turn off the power if any abnormality or furious noise are noticed. Open the cover to check only after the machine stops working completely.

Prior to start the machine, make sure that no tools, gloves or other objects are left inside the machine. The solder cream should be placed properly and the buckle is locked securely! Weight difference over 50g in the two buckle would cause the machine to shake severely! The machine may get damaged if the buckle has not been locked!

2. Summaries

2.1. Applications

Utilizing the principle of pseudo-planetary running, MIX-CD500D mixes the solid and liquid ingredients in solder cream thoroughly to achieve coherent density. What's more, it will help to achieve consistent production and reduce the vapor absorbed inside the solder cream.

2.2. Characteristics

- 1) Triple security design to guarantee safety: lock, approximate switch and electromagnet trig.
- 2) Tilt placement of solder cream jar gets better mixing effect and reduces air bubbles.
- 3) The solder cream jar can be fetched and placed easily.

Power	AC 220V 50Hz, 60 W or AC 110V 60HZ, 60W		
Rotating speed	1000 RPM, 2nd rotation 380 RPM		
Working capacity	500g x 2 jars, 1000g x 2 jars(optional)		
Jar diameter	60 – 67mm(M size, standard), 53 – 60mm(S size, option), 67 – 84mm(L size, option)		
Time esting	0. 1~9.9 minutes, adjustment 0.1 minute.		
Time setting	10~30 minutes, adjustment 1.0 minute		
Display and caution	LED digital display, light blink and buzzer warning		
Dimension	420x420x447mm		

2.3. Specifications

3. Part Description

3.1. External



3.2. Main PCB



- 1) Power switch
- 2) Decrease time button
- 3) Increase time butto
- 4) AC 220V
- 5) Transformer input 220V

- 6) Buzzer
- 7) Electromagnet
- 8) Motor
- 9) Startup
- 10) Transformer output 24V

4. Installation and Operation

- 1) Place the machine on a flat and stable table.
- Make sure the power voltage is as specified, and the *power switch* is at OFF position; Plug in the power cord.
- Open the lock and lift the cover of machine.
 Pseudo-Planetary Motion Kit



- 4) Place the solder cream jar
- 4.1 Remove the interior cover inside the jar which contacts the solder cream surface directly (some solder cream is packed like this) and revolve the jar cover tightly again.
- 4.2 If two jars of solder cream are to be mixed at the same time, make sure they are about the same weight. Weight difference should not exceed 50g.
- 4.3 If only one jar of solder cream is to be mixed, placed the proper balancer to the empty house. The balancer can be a solder cream jar with expired cream.
- 4.4 Insert the jar to the bottom of the jar housing. The jar should fit the house comfortable. Too big or too small both will cause problems.
- 4.5 Lock the buckles of clamps in both sides and double check to make sure.
- 4.6 Check and make sure that no tools, gloves or other articles are left inside the machine.



- 5) Close the upper cover and lock the door, the *safety switch* will be turned on at this time.
- 6) Turn on the *power switch*, the LED will display the time set previously.
- 7) To adjust the mixing time, press the \frown or \frown *increase/decrease* time buttons: for 0.1-9.9 minute, time will be increased or decreased by 0.1 minutes if these buttons are pressed once; for 10-30 minutes, time will be increased or decreased by 1.0 minute if these buttons are pressed once. The time setting will be saved after three seconds.
- 8) Press the <u>**On/Off switch**</u>, the machine starts to run, the <u>**electromagnet**</u> will be activate, the upper cover is locked and can not be opened at this time; The *running indicator light* will be on and the motor starts to rotate.
- 9) The time display shows the remaining time. For 9.9 to 0.1 minutes, it will blink once every 0.1 minutes; for 30 to 10 minutes, it will blink once every 1.0 minute.
- 10) When the setting time is reached, the motor stops, the buzzer alarms, but the **running indicator light** is still on; Although the time display shows 0.0 minute, the pseudo-planetary device is still running under inertia; Do not attempt to open the upper cover now. The pseudo-planetary device comes to a complete stop after about one minute, the *running indicator light* turns off and the buzzer issues four alarm signals; the **electromagnet** is deactivated at this time. You can open the upper cover and take out the solder cream.
- 11) When the motor is running, the **<u>On/Off switch</u>** can be pressed to stop it. The display shows the remaining time. Wait one minute before opening the upper cover. During this one minute delay, except the *power switch*, the *increase/decrease* **<u>button</u>** and **<u>On/Off switch</u>** on the control panel will be unavailable. After the one minute delay, the *increase/decrease button* is still unavailable; Press the *On/Off* **<u>switch</u>** again will make the machine finish the remain time. Time setting can only be done after the power switch is turned on, before the **<u>On/Off</u> switch** is pressed the first time to guarantee the accurate time of mixing solder cream.



12) If the *power switch* is turned off accidently, do not open and touch the moving parts while the motor is running or the pseudo-planetary device is running



5. Maintenance

- The MIX-CD500D is equipped with sealed ball bearings. No oil is needed. Please keep the internal clean.
- The motor belts should be replaced in about every two years (depending on how much the machine is used). Please contact your local distributor or factory if you need help in doing so.
- Following the below procedures if the machine needs to be serviced.



Turn off the power, open the enclosure, take out the rubber pad, loose the four screws on the jar house



Take out the disk, loose the belt cover



Loose the four screws between the secondary mounting fixture and the first synchronizing device, take out the secondary rotation device

Loose the twelve screws on the main PCB board, unplug the fast connector, take out the first

transferring device and loose the four screws on it



• Change the jar house



Picture 5

- Replace the secondary rotating belt
 - 1) Take out the secondary rotating belt



Picture 6

2) Install a new secondary belt

First mount the lower secondary belt :Let the belt go over the secondary rotating gear, then go over the central fixed wheel; Push the belt below the belt guidance with both hands, let the belt go over the wheel grove; Mount the upper secondary belt in the same procedure.

The lower belt should be replaced before the upper belt. The upper and lower sequence is decided by the guiding wheel.

a) Take out the secondary rotating set

Take out the disk, over, then take out the two secondary belts; Loose the four M6 bolts $\,$, take out the secondary rotating set , (see fig. 7)



Picture 7

b) Take out the primary rotating set
 Take out the twelve screws on the main supporting board, disconnect the wire connector, get the primary rotating set out of the machine case. (see fig.7)

c) Replace the primary belt

Loose the four motor mounting bolts, push the motor slight to loose the belt; Let the new belt go over the motor wheel and rotation pulley, make sure the belt is tight and secure the motor mounting bolts (see fig.8).



Picture 8

4) Replace the motor

Use a M4 hex tool to take out the motor setting screw, take the motor pulley off. Take out the four motor mounting bolts, disconnect the motor from the capacitor. The motor can be taken off at this time(see fig.9)



Picture 9

6. Troubleshooting

Problems	Causes	Solutions
	1. Power plug may be loose	Plug the power
	2. Burnt fuse, a back up fuse is inside the power socket	Replace
powered on	3. The safety switch may have problem. A click can be heard when the cover is closed	Replace
	4. Bad control PCB board	Replace
The cover can be open when	1. The electromagnet is bad	Replace
during the one minute delay	2. Main PCB problem	Replace
The buzzer does not work.	1. Buzzer bad	
or the indicator light is not	2. Indicator light burnt	Replace
on, the machine still works	3. Main PCB bad	
Disk rotates, the jar house does not	Secondary belt broken	Replace
Up and down time setting	1. Up and down buttons bad	Replace
arrows do not work	2. Main PCB board bad	
Jar does not rotate after the	1. Primary belt broken	
start button is pressed, indicator light and	2. Motor bad	Replace
electromagnet both are on	3. Main PCB bad	
The time setting blinks only once and no display	1. Up/Down time setting buttons bad	Replace
is turned on	2. Main PCB bad	
	1. The two jar houses may be out of balance	Re-balance
Machine shakes with	2. Rotation mechanism loose	Tight
strange noise	3. Solder cream jar not placed securely	Replace
	4. Jar too small	Use proper sized jar
Machine makes strange noise after maintenance	Belt cover mounted too lower	Loose and mount the cover again