Installation/Operation/Maintenance

Manual



Portable Lamination Machine

Shenzhen Youmijia Automatic Equipment Co.Ltd

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Statement

Thank you for purchasing YMJ lamination machine. This User Manual attached with the equipment for better understanding on machine structure, Installation, Operation, and maintenance. Before using this machine, please read manual or watch demo video carefully, so that you can correctly use it in a better manner.

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Chapter 1 Product Info

1.1 Outline

Youmijia exclusively designs and manufactures the portable lamination machine by employing pneumatic principles and analyzing each original Smartphone structure. For years, YMJ has developed many different types of LCD broken glass refurbish machines and parts covering the whole refurbish process.

Welcome to visit our factory in Shenzhen, and you can bring some LCD screens for testing. Free training will be offered till you master all the skills of screen refurbish.

1.2 Features & Benefits

- Suitable for all phone models, whether the screen is flat like iPhone7 or edge like Samsung S8 edge.
- Use aluminum mold to position accurately.
- Hard black rubber is used to laminate OCA, and soft red rubber is used to laminate Lcd.
- Vacuum pump creates the vacuum dust-free room, and air compressor will offer the laminating force.
- All we have done is to keep the lamination process precise, foamless, and automatic.
- Intelligent English operating system.
- When lamination, you can choose to use glass with frame or without frame accordingly.

1.3 Technical Date

- National Patent Number: ZL 2014 2 0026733.8
- Material: Aluminium alloy& Stainless steel
- Air pressure input: 0.45~6MPa
- Control voltage: DC 24V
- Environment temp: -3°C~40°C
- Equipment size: 290*450*490mm
- Weight: 38kg
- Voltage: AC 220V
- Power: 1000W



Chapter 2 Installation

(1) Add vacuum pump oil into vacuum pump, $1/2^{4/5}$ oil is enough.

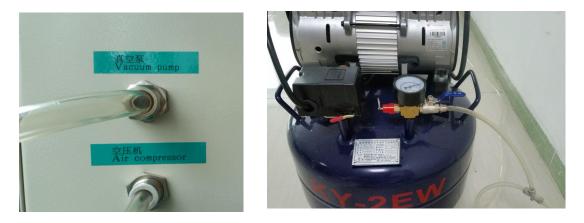


② Connect vacuum pump to lamination machine





③ Connect air compressor to lamination machine



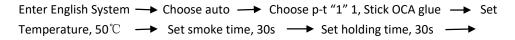


Chapter 3 Lamination Steps and Parameters

3.1 Flat/Straight Screen Lamination

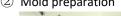
Laminate Glass with OCA (use the black rubber)

① Set Parameters

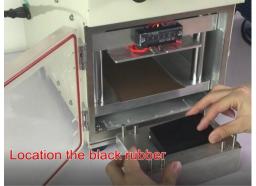


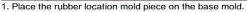
Set pressure regulating valve, 0.4MPa











2. Place the black rubber. Bright side is put upward.



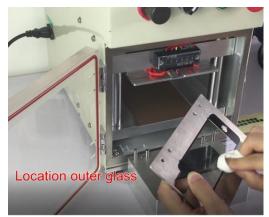
3. Use the oca mold piece to locate oca.



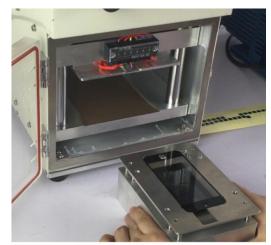
4. Locate oca and compress it on the rubber.



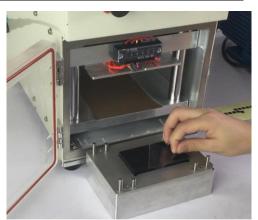
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5. Use the glass mold to locate glass and clean it.



7. Put the mold into the machine.



6. Tear off the protective film of oca.



8. Press on the door and then start.



Laminate Glass OCA with LCD (Use the Red Rubber)

1 Set Parameters

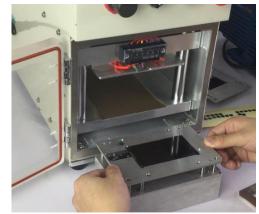
In "auto" condition \longrightarrow Choose p-t "2" 2, Stick LCD panel \longrightarrow Set temperature, $45^{\circ}C \longrightarrow$ Set smoke time, 25s \longrightarrow Set holding time, 25s \longrightarrow Return the pressure regulating valve to zero, than regulate it to 0.2MPa.



② Mold preparation



1. Use the rubber mold piece locate red rubber



2. Use Lcd mold piece to locate Lcd.



3. Direction downwards to place glass with oca.



4. Press on the door and then start.



3.1 Edge/Curved Screen Lamination Laminate Glass with OCA (Samsung S7 Edge)

① Set Parameters Enter English System→ Choose auto→ Choose p-t "1" 1, Stick OCA glue Set Temperature, 50 °C → Set smoke time, 50s→ Set holding time, 40s → Set pressure regulating valve, 0.5MPa



② Mold preparation



1. Use the mold piece to locate black rubber.

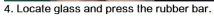


2. Oca mold to locate oca and press it.



3. Press it tight and don't the oca again.







5. Tear protective film and place the glass mold top. 6. Press on the door and then start.





Laminate Glass OCA with LCD (Use the Black Rubber)

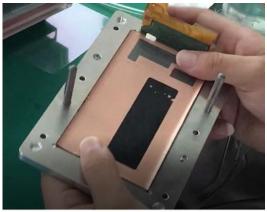
1 Set Parameters

In "auto" condition \longrightarrow Choose p-t "2" 2, Stick LCD panel \longrightarrow Set temperature, 45 °C \longrightarrow Set smoke time, 50s \longrightarrow Set holding time, 35s \longrightarrow Return the pressure regulating valve to zero, than regulate it to 0.25MPa.

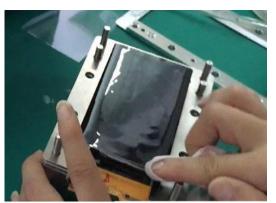




② Mold preparation



1. Use the Lcd Mold to Locate Lcd.



3. Clean the Lcd in one direction.



2. Place it on black rubber and press.



4. Tear the oca protective film off and place it.



Chapter 4 Bubble Causes and Treatments

4.1 iPhone Series

- 1) iPhone 5G/5S/5C/6/6Plus
- ① Clean up the hard conductive silver adhesives on the corner and flex cable,
- 2 Check the frame flaw if laminating glass with frame,

③ Check if there exists deviation of molds position.

2) iPhone 6s/6sPlus/7G/7Plus

① There is bubble existing in the four corner. This phenomenon is due to the backlight structure of those models. We just leave them aside for 10~20 minutes, the bubble will disappear naturally.

⁽²⁾ Through the reflect light, if we find twill on the backlight after lamination. It's for the poor heat dissipation of the backlight. Just leave them there, they will be back to normal in few minutes.

4.2 Samsung Series

1) Samsung Flat/Straight Screen

① The original screen of first time assembly, we have to tear off the transparent glue bar on the flex cable.

2) Samsung Edge Screen

 $(1)\,$ The quality and thickness of OCA will influence the lamination.

② Thicker the oca is, the less possibility bubble may appear. But thick oca requires advanced skill when framing the phone.

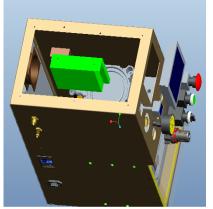
Parameters/Lamination	Edge Oca	Edge Lcd	Flat Oca	Flat Lcd
Temperature	50° ℃	45 ℃	50℃	45℃
Pressure	0.5MPa	0.25MPa	0.4MPa	0.2MPa
Smoke Time (Vacuum Suction Time)	50s	50s	30s	25s
Holding Time (Pressure Maintain Time	40s	35s	30s	25s



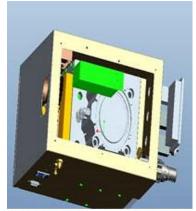
Chapter 5 Machinery Components



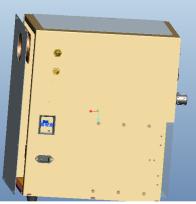
1. Remove the boad on the top.



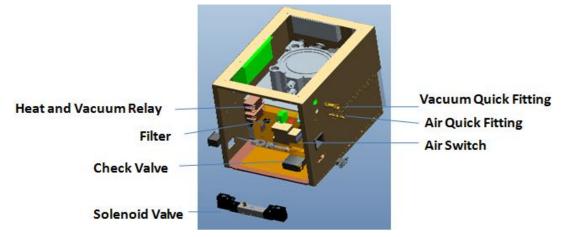
3. Take down all the parts.



2. Take down power part.



4. Take down the backboard.





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