

OCA Vacuum Laminating Machine

User Manual

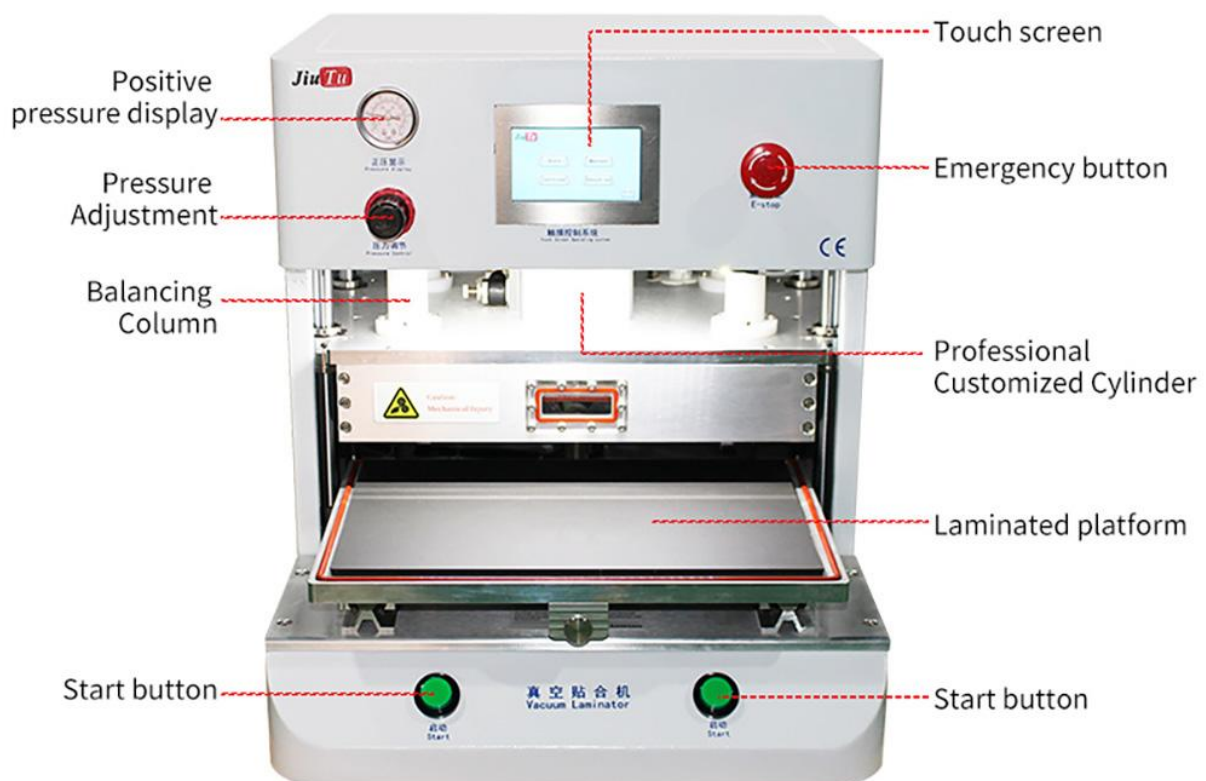


Dear Customer:

Thank you for purchasing our 9TU-D029 vacuum laminator. Please read the user manual carefully before use. Improper use or insufficient understanding of the equipment may result in unnecessary losses or unpleasant incidents.

During use, please adhere to safety precautions and strictly follow the specified technical parameters. If any quality problems arise, please contact our company promptly, and we will assist you in resolving the issue as soon as possible.

I. Equipment Structure



The 9TU-D029 vacuum laminating machine is used for bonding touchscreens and glass covers, as well as between touchscreens and displays, in mobile phones and tablets. The bonding principle involves placing the mobile phone's LCD screen and glass cover in a sealed frame within a vacuum environment. The machine's cylinder pressure presses down the inner membrane of the vacuum cylinder, completely bonding the glass cover and LCD screen, which are placed in the lower mold of the vacuum cylinder, together.

This equipment utilizes a control system independently developed by our company. It features a touchscreen display input with selectable Chinese/English menu pages, and all parameter settings are easily and intuitively viewed. It can be freely controlled in both manual and automatic modes, offering simple, easy-to-understand operation and stable reliability.

II. Specifications

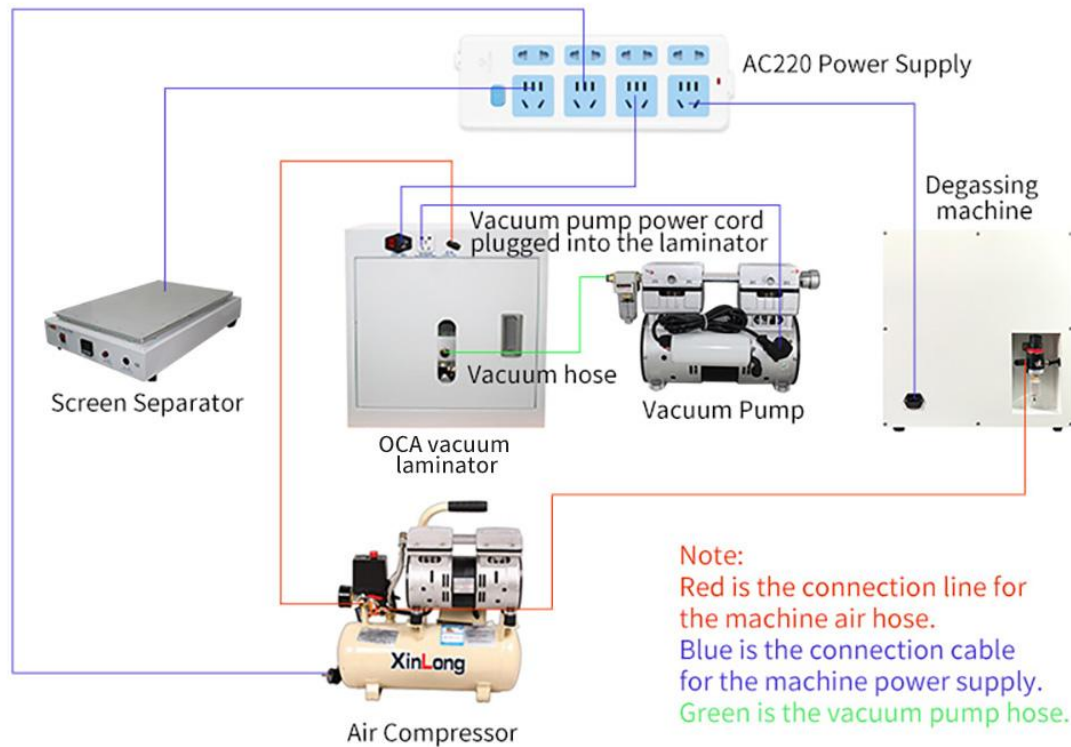
Brand and Model	9TU-D029
Equipment Name	OCA Vacuum Laminating Machine
Equipment	LCD assembly laminating, cover plate laminating
Power Supply	AC220V 50HZ/60HZ
Equipment Power	1500W (with 900W vacuum pump)
Working Air Source	0.5MPa—0.6MPa (Dry gas source)
Supply Air Pressure	4-6Kgf/cm ²
Control System	PLC control system
Operating Interface	4.3-inch touchscreen Chinese/English page
Drive Method	Cylinder drive
Pressure Adjustment	Precision regulating valve

Pressure Display	SMC Digital Pressure Gauge
Heating Method	Built-in temperature control and constant temperature upper heating
Equipment Safety	Emergency stop button, dual-button start
Maximum Fitting Size	340mm*250mm（16 inches and below）
Production Efficiency	10—15 second/PCS（configurable）
Working Environment	10—60℃
Working Humidity	40%—95%RH
Equipment	L455mm*W540mm*H495mm
Equipment Weight	60KG

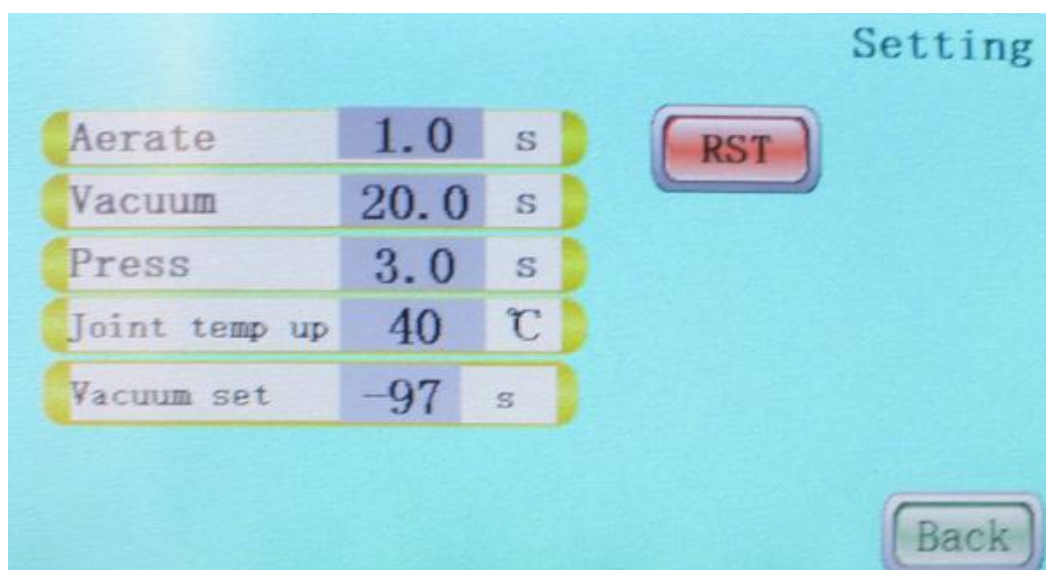
III. Operating Instructions

1. Install the machine as shown in the diagram.

Installation and Wiring Diagram for Five-Piece Laminator



2. Parameter settings

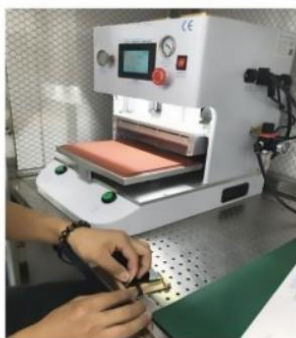


3. Turn on the power switch to enter the touch screen main interface, select the language to enter automatic mode, and click "Wait for startup" to automatically pop up the bonding platform.

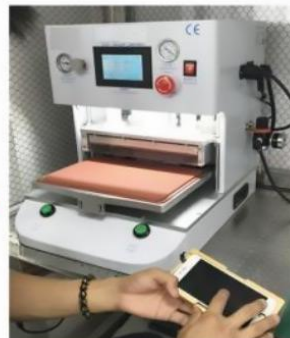


4. Perform automatic laminating

Automatic bonding operation process demonstration



1. Gently peel off the OCA adhesive protective film.



2. When positioning the cover plate, gently tap the center.



3. Place the positioned assembly on the bonding platform.



4. Press both green "Start" buttons simultaneously.



5. Enter bonding mode.



6. Bonding complete.

IV. Common Problems and Solutions

Symptom of the problem	Troubleshooting and solutions
The machine does not power on	1. Check if the machine's power cord is properly connected.
	2. Check if the fuse at the machine's power socket is blown.
	3. If the power switch is on, check if there is power from the internal 24V power supply or if the touchscreen power connector is loose.
The vacuum pump loses power during operation.	1. Check if the fuse at the machine's power socket is blown.
	2. The vacuum pump is faulty; replace the vacuum pump.
	3. The solid-state relay is faulty; replace it with a solid-state one.
The negative pressure value is too low during machine operation	1. The vacuum pump itself is faulty; replace the vacuum pump.
	2. Check if the vacuum tubing is properly connected to the vacuum pump.
	3. Check if the sealing ring on the tray has come loose.
	4. Check if the silicone gasket on the tray is misaligned.
	5. Local atmospheric pressure issues (related to altitude and weather).
The machine fails to release pressure during automatic operation	1. Check if the decompression time is set correctly in the parameter settings.
	2. The decompression solenoid valve is faulty; replace the solenoid valve.

V. Daily Maintenance and Care

1. The machine must be operated strictly according to the specifications. Before use, check all parts for damage or debris, especially the vacuum cylinder.
2. If any abnormal phenomena are found during use, stop using the machine immediately and troubleshoot the problem. Do not force it to operate while it is malfunctioning, as this may damage the machine.
3. Regularly lubricate all bearings and guide rails.
4. The vacuum pump should always have sufficient oil to prevent it from drawing air and causing noise. Clean the oil tank and change the oil every 6 months.
5. Drain the water from the air compressor once a month.

VI. Precautions

1. Do not frequently turn the machine on and off. In case of emergency during operation, press the emergency stop button immediately.
2. During the screen bonding process, never press the screen with your hands during positioning, otherwise air bubbles will be generated.