

VIII. General Faults

Phenomenon2

The machine makes no response when the standby button is pushed.

Reason: The button switch/sensor head is damaged;

Resolution: Replace the button switch/sensor head.

Phenomenon3

It won't seal when the working signal is normal .

Reason: Heating time is not enough;

Resolution: Prolong the heating time, and increase sealing power.

Reason: The induction film doesn't match the container's material;

Resolution: Select matched induction film.

Reason: The induction coil is damaged;

Resolution: Replace the induction coil.

Phenomenon4

The induction film crumples up, and the bottle top is melted after sealing.

Reason: The heating time is too long;

Resolution: Shorten the heating time and decrease the sealing power.

Phenomenon5

The gasket is not fully separated from the film.

Reason: The heating time is wrong;

Resolution: Adjust to relevant heating time.

IX. Packing List

GLF-500F sealing machine	1 set
Test bottle	2 pcs
User Manual	1 copy

GLF-500F Induction Sealing Machine

MODEL: USS-PHIS00001

Manual No.6310



This manual should be made available to all users of this equipment. For best results, and for maximum durability of the equipment, carefully read and follow all instructions.

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I. Applications

The GLF-500F microcomputer-based electromagnetic induction sealing machine is designed to seal plastic, glass or non-metallic bottles and cup-shaped containers using the electromagnetic induction principle. It should not be used to seal metallic containers. This machine is widely used in the medical, chemical, food, beverage, grease, cosmetics and other industries. The induced heating seal has the advantage of improving the quality level of products, by preventing the absorption of moisture, prolonging the life of products, reducing the likelihood of fake products, as well as improving the speed and quality of sealing.

Please contact the manufacturer to use it for any other purpose, and the manufacturer is not responsible for maintenance of the product if it is damaged due to improper operations. Any such repair costs shall be borne by the user.

II. Technical Parameters

Power Supply	110 V,60Hz
Power	0.8kW to 1.2kW(adjustable)
Static current	<0.1 A
Maximum allowable supply current	<6 A
Operating frequency	30 KHz (±5%)
Sealing diameter	20 to 100 (mm)
Maximum ambient temperature	45 °C (113F)
Relative humidity(RH)	<80%
Carton size	490x320x135 (mm)
Weight of whole unit	2.7kg

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III. Features

1. Automatic counting function, accurate quantity control of sealing.
2. Well-designed product structure with simple touch screen operation.
3. Automatic overheating, excess voltage and excess current protection.
4. Extra wide voltage range.
5. Reliable performance and long service life.
6. Automatic power-off function, the machine will shut down automatically if there is no operation for 15 minutes.

IV. Safety Precautions

Safety Warnings

Severe personal injuries and property losses may be caused by noncompliance with these safety warnings and precautions. The operator should have a qualification certificate and must be familiar with all the safety warnings and precautions in this manual. Correct transportation, fixing and careful testing are key to guaranteeing safe operation and preventing faults. The following warnings include special tips for each operational process.

Use Conditions

The maximum ambient temperature must not exceed 45 °C and the humidity must not exceed 80%. The machine must be used in a well ventilated place; the induction power supply at the bottom; the heat ventilation hole on the side and the sensor head must be clean and not blocked. Too high temperature or humidity have a big impact on the service life of electronic components, which may in turn cause damage to the machine.

Maintenance

Non-professionals are not allowed to disassemble the machine as there is a high current inside. Maintenance must be carried out by qualified professionals, and the precautions for maintenance must be strictly complied with during maintenance. Failure to do so will compromise the safe operation of the machine.

V. Operating Guide

Starting up

Plug the power plug in; push the “ON/OFF” button to start the machine; the nixie tube (cathode tube) will display the default setting time, which is “1.5S”, the LED is located in the middle, and the default power is 1000W.

Power Adjustment

Push the “Reduce Power” or “Increase Power” button to adjust the power; the power levels are 800W, 900W, 1000W, 1100W, 1200W from right to left (LED arrangement). If the sealing

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diameter is less than 30mm, set the power to “High” to improve the sealing speed; while if the sealing diameter is more than 60mm, set the power to “Low” to get better sealing quality.

Time Adjustment

Push the left or right “Seal Time” to respectively adjust the sealing time in seconds and tenths of seconds. The seconds are adjusted in a circle from 0 to 5 and the tenths of a second are adjusted circularly from 0 to 9, that means the time adjustment range is 0.1 to 5.9 seconds.

Trial Sealing

Put the bottle with the induction film (the face with foil must be against the top of the bottle) under the center of the sensor head, push the button on top of the sensor head, the sealing time on panel counts down and it will make a “beep” sound at the start and at the end when the timer reaches 0. The sealing finishes when the display shows the counter quantities again.

Correct Seal

Open the bottle cap and check the seal. The seal is correct if it is smooth and tight, the gasket is fully separated, and the film has fully adhered to the bottle.

Insufficient Pressure

If the seal has only partially adhered, maybe the cap is not tight enough and the film has not been fully pressed onto the top of bottle; replace the film and try again.

Inadequate Time

Even if the seal seems firm but the film separates when it’s pulled lightly by hand, or the gasket does not separate from the film, maybe the sealing time was insufficient or the film does not match with the bottle’s material. Just adjust the sealing time or change the induction film type for a different material.

Too Long Sealing Time

If the film has crumpled up and the bottle is obviously melted, it means the sealing time was too long and it must be reduced accordingly.

Start to Work

When the test sample completely complies with the requirements, the sealing work can start. The sealing times should be readjusted when using bottles and films of different types. Push the “Show” button to check the time, and the counter will return to zero if the “Show” button is pushed for 2s. The machine will shut down automatically if there is no operation (including the button on top of the sensor head) for 15 minutes. The settings from the current operation will be the default for the next start up as long as the power plug is not pulled out; this includes the power setting, sealing time, and counter.

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Operations Panel Schematic Diagram

left seal time: seconds' adjustment

right seal time: tenths of seconds' adjustment

ON/OFF: power supply switch

show cleaned: display and zeroing

Reduce power: decrease the power

Increase power: increase the power

Standby switch: equivalent to the button on top of the sensor head

Fault Codes

E2: Over Voltage

E1: Under Voltage

VI. Precautions for Use

Operating Power Supply

The machine has automatic protection when the input voltage is too high (140V). It will not seal and it displays fault code E2. The machine has automatic protection when the input voltage is too low (70V). It will not seal and it displays fault code E1.

System Temperature

The overheating protection will cut in automatically to stop the induction output when the system temperature is too high, and the sealing work can continue when the temperature drops (don't switch off the power supply).

Over Current Protection

When it displays the “over current” fault code, it means that the output current exceeds the maximum allowable value; the over current protection will cut in and sealing will not work. The distance between the sensor head and the object for sealing must be increased properly to drop the operating current (the “over current” protection may affect the normal work for large bottle diameters and a non-metallic insulation plate should be adhered to the sensor head to resolve the problem; the insulation plate shall be provided by the user).

Standby Switch

The standby switch is equivalent to the button on top of the sensor head. Before using the standby switch, please check the sensor head position and don't put the sensor head on a metal part and push the standby switch.

Alignment

During sealing work, the object for sealing must be aligned with the center of the sensor head, so as to ensure seating quality.

Sealing Material

The polymer on the sealing film must tightly and firmly adhere to the object for sealing.

Ventilation

The machine must be used in a well-ventilated place without any air inlet blockages.

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Foreign Substances

No foreign substance should be allowed to fall into the machine, otherwise, it may cause a fault.

Abnormalities

If there's an abnormality, such as the coil burning abnormally during the operation process, push the ON-OFF button to stop the work, otherwise, it can easily cause personal injury.

Unpacking

After unpacking, check whether the case has any obvious damage. Check whether all of the accessories are in present, according to the packing list. Please contact the seller if the item has any problems.

Container Material

The material of the packaging container may be PE, PP, PET, PS, ABS and so on, plastic containers with plastic screw caps are the easiest for sealing. It may be more complicated for other materials. The induction sealing can also be used for glass containers, which should be treated first for easier sealing.

VII. FAQ

There's one bottle unsealed among ten or twenty bottles. What's the matter with the sealing machine?

High quality sealing is determined by the consistency of the technological process. Indirect functions may impact the sealing effect. In order to get proper sealing, the foil must be fully touching the container under pressure. The sealing material shall be matched with the container material and should be fully exposed to the magnetic field so that the foil can be sealed after heating up. An error in any of these items may cause poor quality or infirm sealing. It is easy to make a mistake with the sensor head. Usually an infirm seal is caused by insufficient pressure where the foil does not fully touch the bottle top, or the exposure time to the magnetic field is too short.

The problem of non-matching material also happens often; it's probably caused by caps or containers provided by different suppliers or different lots of a product provided by the same supplier.

Why is the bottle top seal loose?

The sealing gasket is composed of foil and polymer. In order to fix the foil in the bottle cap, wax is used as an adhesive to fix it usually. The foil heating up has a dual function. The melted polymer enables the foil to adhere to the packaging container, and the wax is melted to make the foil separate from the cardboard. The melted wax is absorbed by the cardboard and the foil sticks to the bottle top. The wax is too thin, and there's still some space left after it's melted and absorbed by the cardboard, which makes the bottle top loose.

VIII. General Faults

Phenomenon1

The power supply indicator light is not on when switching on the power.

Reason: The power plug is not properly plugged in;

Resolution: Plug in the power plug firmly.

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