ALL-IN-ONE Machine

Operation & Maintenance Manual

Easyseal Medical Technology Co., Ltd.
2018 Version
Contents

I. Introduction ................................................................. 3
II. Applications .................................................................. 3
III. Features ...................................................................... 3
IV. Technical Specifications ............................................... 5
V. Security matters ........................................................... 5
VI. Main characteristics .................................................... 6
VII. Installation ................................................................. 8
VIII. Installation Identification ............................................ 9
IX. Operation Instructions .................................................. 10
X. Operation Procedures ................................................... 39
XI. Operation Qualification (OQ) ....................................... 41
XII. Testing Methods ......................................................... 42
XIII. Equipment Maintenance ............................................. 43
XIV. Precaution ................................................................. 55
XV. After-sale service ....................................................... 56
XVI. Intellectual Property .................................................. 58
XVII. Appendix ................................................................. 58

Attachment 1: Packing List .................................................. 59
Attachment 2: Cutting Part Wiring Diagram .......................... 61
Attachment 3: Sealing Part Wiring Diagram .......................... 62
Attachment 4: Operation Manual ........................................ 62
I. Introduction

Thank you for choosing Easyseal fully automatic cutting-sealing-printing (AIO) machine. It is the first one of this kind in the world, which can automatically complete the cutting, sealing and printing work. To maximize its performance, please carefully read this manual prior to use. At the same time, remember to install and operate it by strictly following this manual to ensure its safety and reliability in use. We recommend placing the manual in an accessible place for reference during the operation.

II. Applications

EF121-A medical automatic cutting sealing printing integrated is one of the universal medical heat sealing machine series products. It is used in paper and plastic roll bags, paper-plastic three-dimensional roll bags and Tyvek roll bags, etc. The special equipment for cutting, heat-sealing and printing adopts the continuous cutting and sealing printing method. According to the actual needs of users, the length and quantity of the single- or multi-volume packaging bags are set to accurately cut, automatically seal, and automatically print the bags. With information storage, elegant equipment, easy to use, with a variety of work modes to choose from. It is mainly satisfied with the sealing of all kinds of medical articles before sterilization in hospitals. It is fully suitable for high-temperature steam sterilization, low-temperature ethylene oxide, hydrogen peroxide plasma, and radiation sterilization. It is an upgrade product of conventional heat sealing equipment.

Sealable materials:

- Sealable pouches and coiled materials in compliance with EN868-5 and YY/T 0698-5;
- High density polyethylene materials (such as Tyvek);
- Aluminum foil composite materials.

Un-sealable materials:

- Polyethylene film;
- Soft PVC film and hard PVC chips;
- Nylon and polypropylene film.

III. Features

The housing of the cutting-sealing-printing (AIO) machine is made of the sand-blasted stainless steel, so it is easy to operate and clean it. The machine is composed of the housing (base + cover of the bottom chamber + top cover + cover of the ink ribbon chamber + cover of the reel-feeding chamber), the power socket, the guide plate, the location-limited plate of the reels, the reeling-feeding mechanism, the cutting mechanism, the sealing mechanism, the touch-screen, the printing mechanism, the control panel and switching power supply (Figure 3.1).
According to Figure 3.1, the parts of the machine are as follows:


**Main features:**

7” large touch screen display, graphical control interface, automatic micro-computer temperature control, easy operation, continuous cutting and sealing, English/Chinese printing and high reliability. Parameters can be set as per requirements, such as the cutting length, cutting quantity, sealing temperature, expiry date, autoclave No., sterilization batch code, etc. The machine combines the computer control with its automatic all-in-one (cutting-sealing-printing) function. It is a stylish, compact and light-weighted machine.


It has passed the ISO9001 certification and CE certification including 2006/42/EC (Machinery Command), 2006/95/EC (Electric Command) and 2004/108/EC (EMC Directive).

This machine is not listed in Class I, II and III medical instruments regulated by Regulation on the Supervision and Administration of Medical Devices (Order of the State Council of the People's Republic of China No. 276), so it will not be managed as a medical instrument.
IV. Technical Specifications

- Control system: 7” color LCD capacitive touch screen
- Cutting width: ≤400mm (Several reels can be cut simultaneously)
- Cutting length: ≥50mm
- Cutting speed: 20±0.5m/min
- Cutting accuracy: ≤1%
- Sealing speed: 10±0.5 m/min
- Sealing margin: 0~35 mm adjustable
- Sealing width: 12 mm
- Working temperature: 60~220°C adjustable
- Sealing pressure: 90±20N
- Temperature control error: ≤1%
- Printing method: one needle printers
- AC power: 220V±10% 50Hz
- Power: 600W
- Max current: 3.2A
- Fuse: 5A×2
- Overall Dimensions: 1040×280×230 (L×W×H)mm (excluding the guide plate)
- Weight: 35 Kg

Storage

- Temperature: 10~40°C;
- Humidity: ≤90% (R.H);
- Atmospheric pressure: 50KPa~106KPa

V. Security matters

1. The device is strictly tested before leaving the factory to ensure each one is both reliably qualified and safe.

2. Safety instruction, nameplates and labels of the product must remain complete during installation and usage.

3. Please make sure that the device is complete before use. If it has any damage, please contact the manufacturer or authorized agents. Flawed devices are strictly forbidden to continue the installation and usage.

4. Before switching on it, please make sure there is no unsafe signs shown in the device. If you have any questions, please contact the manufacturer or authorized agents.
5. Do not use the device with the power cord, plug or device itself damaged. If the power cord or the device has been damaged, it must be repaired by the manufacturer or an authorized agent before use.

6. The device’s matched power cord must be the original one provided by the manufacturer and be connected to a reliable grounded outlet with a secure stable voltage.

7. As the device contains high temperature and high pressure components, its installation and operation in places with explosion hazards are forbidden.

8. The device must be moved between the two places with equal temperature to prevent dew condensation, or the power source can be connected only when dew evaporates. Forced power connection will cause electric shock and damage to the device.

9. Please power off or disconnect the plug when the device is idle.

10. Be sure to cut off the power before cleaning! Only dry or slightly moistened soft cloth and neutral cleaning agent are permitted for cleaning.

   *Danger: Never allow any wet stuff to touch the device!*

11. No sharp or flat hard objects can be sent through the reel-feeding hole so as to avoid any harm to the device.

12. It is forbidden to insert any objects into the thermovent to avoid electric shock or any damage to the device.

13. If the device is found unsafe, please stop using it immediately.

14. The users must reach 18 years old.

**VI. Main characteristics**

1. 7” colored LCD capacitive touch screen, Android operating system, graphical operation interface, in-built clock, random setting of the operating parameters on cutting, sealing and printing, automatic storage, voice reading and Wifi function;

2. No external computer is required and the touch screen can be used to set or change the operating parameters with different input methods or the scanning gun (as an option); the parameters include the cutting length, the cutting quantity, etc. The operator name, division and the medical instrument name etc, can be printed out;

3. The machine has the separate cutting, sealing and sealing-printing functions. They can also combined to effectively improve its working efficiency;

4. The machine can realize automatic feeding, cutting, sealing and printing. After the program starts, the machine will automatically feed a reel, cut it into pouches and seal them according to the pouch length and quantity set by the operator, and then print the required text in Chinese/English;

5. The machine can cut one single reel or several reels with the same dimensions at the same time. High precision cutting can be realized according to proper setting. In addition, the machine can save cutting time and material with high stability and small deviation. Therefore, customers’ requirements for the use of lots of pouches can be satisfied;

6. The machine can automatically adjust the distance between the cutting edge and the sealing line as per the printing requirements to increase the utilization rate of reels;
7. One or several reels with the same or different widths can be loaded into the machine as per the actual requirements, so that its working efficiency can be improved by cutting and sealing several reels at the same time;

8. The machine can perform operation qualification by automatically testing its operation pressure and speed; its parameters can also be displayed at real time. Under the testing mode, you could print and save the working speed, pressure, temperature and test time of the machine;

9. The machine has a built-in database of printing parameters. Users also could use its built-in wireless LAN card connected with the wireless router to record and set sealing parameters. Thus a large quantity of sealing and printing information can be stored, making it convenient to trace or inquire the sealing quality.

10. A built-in forward (backward) sealing counter can accurately count the quantity of sealed pouches.

11. Control of unique printing functions, such as printing margin, interval symbols, interval length, sealing serial number, etc;

12. Temperature controlled by a microcomputer, accuracy ±1%, working temperature range of 60~220°C;

13. High-speed increase of temperature: only 60 seconds required from 20°C to 180°C and only 10 seconds required to increase the normal working temperature from 120°C to 180°C. High efficient and energy saving.

14. Auxiliary temperature reduction design: The in-built temperature reducing device controlled by microcomputer can reduce the waiting time from high sealing temperature to low sealing temperature. Only 40 seconds is required to decrease the normal working temperature from 180°C to 120°C, which will greatly improve the working efficiency.

15. Safe operation: If the sealing temperature is lower than 56°C or higher than 224°C, the machine will automatically stop working, which effectively guarantees the seal quality and safety.

16. Cutting speed: 10m/min; sealing speed: 10m/min; automatic cutting, sealing and printing test using light-control technique.

17. Sealing width: 12mm; Sealing indexes meet standards WS310.2-2016 and YY/T 0698.5-2009.

18. Sealing margin: 0~35mm adjustable.

19. With adjustable fixed-force system, the machine can seal 3D pouches and other paper pouches with different thickness by automatically adjusting sealing pressure.

20. The machine can be used to print Chinese, English, numbers and special symbols which complies with standard YY0466-2003 Medical Devices -- Symbols to be used in medical instrument labels, marks and information to be supplied. It meets the printing requirements for the information, such as the sterilization date, expiry date, lot number, autoclave number, operator name and division, etc.

21. Expiry date can be adjusted automatically according to the effective days with leap month and different months considered.
22. One double-line printer with 24 needles are fitted with the device to realize clear printing and quick setting for the items to be printed, such as the sterilization date, expiry date, sterilization batch code, autoclave number, operator name, medical instruments name and customized content.

23. Automatic failure warning and automatic detection during working.

24. Three printing fonts (narrow, normal, wide) and symbol printing, allowing more information on a relatively narrow pouch.

25. The control system can provide the minimum printing width based on the text to be printed by calculation to help the operator select the suitable paper-plastic pouches before printing. The system will warn the operator when the pouch is not wide enough for printing.

26. Printing functions can be activated completely or partly based on customer demands.

27. Automatic energy-saving standby function. The standby time and temperature is adjustable. Intelligent standby recovery system makes the temperature of the machine to quickly increase to the working temperature after the reel is detected by the photoelectric sensing device.

28. Advanced flat ceramic heating components feature quick increase of temperature, well-distributed heating, high-temperature resistance, long service life and high heat efficiency.

29. The machine is fitted with complete components such as the ultra silent roller worktable, multipurpose workstation of the sealing device, scanning gun and other peripheral accessories to improve its utilization rate and bring convenience to users.

VII. Installation

1. Check the completeness of the packing box. If there is obvious deformation or mechanical damage, please contact our company or agents promptly to figure out the reason and responsibility.

2. After the packaging box is opened, two people will be needed to carefully remove the machine and the accessories from the box. Check the device and the accessories according to the appendix I, the packing list. Record the missing parts if necessary.

3. Please preserve the packing box, attaching files and other accessories properly for future use.

4. At least 5cm-long room around the device is left for the flow of air during the installation. Avoid vibration, dust, corrosive or explosive gases, extreme temperature and humidity, etc.

5. The machine requires a flat and stable worktable (Easyseal multipurpose worktable is highly recommended).

6. Connection of Power Supply:

1) Make sure that the AC power supply should be 220V, 50Hz;

2) Insert one end of the power cord matching the machine into the its power interface, and plug the other end in to a 3-pin power socket which has been properly grounded.
7. Guide plate installation: Unscrew the nut at the left side counterclockwise, locate the guide plate as shown in Figure 7.1, and then clockwise tighten the nuts after the washers are placed.

![Figure 7.1 Installation of the Guide Plate]

VIII. Installation Identification

According to the requirements of GB/T19633.2-2015/ISO11607-2: 2006 for sealing quality, we should use test cards to perform the installation identification (IQ).

Installation test means that the machine has to take a validation of performance before it is put into use.

The sealing quality is related to the sealing temperature, pressure and speed. All these parameters should be adjusted in view of reels produced by different companies so as to reach certain sealing quality.

The parameters of the machine, such as sealing temperature and pressure, can be noticeably shown on the testing area of test cards.

Note: For a better examination and record for the installation identification result, our Easyseal test cards are highly recommended.

According to ISO11607-2, the sealing strip has to meet the following requirements:

- Continuous and complete.
- No channel or unsealing area.
- No perforation or torn parts.
- No material layering or separation.

After the detection of low temperature and high temperature test cards, it is necessary to use the sealing strength tester to test sealing strength. The test will determine whether the sealing strength can meet the requirements before and after the sterilization process.
IX. Operation Instructions

1. Startup

Switch on the machine and you can hear a “tick” sound of warning to indicate that the machine runs normally. The Home Page (see Figure 9.1) will appear and the self-checking of the driving mechanism will start.

During this self-checking process, a short cartoon will be played and then the working interface (Main Interface) will appear (see Figure 9.2) for you to choose the mode of operation.

2. Main Interface

On this interface are the current date, time, website and after-sales telephone number of our company and the four buttons in the middle to indicate four working modes of the machine.

![Figure 9.2 Main Interface](image)

Explanations about the Four Buttons on the Main Interface:

1) **All-in-one Mode**: Under this mode you can realize automatic cutting, sealing and printing (as an option). You only need to set the length and quantity of the reels, the sealing temperature and the information to be printed. After that, the machine will start to work automatically.

2) **Sealing Mode**: Under this mode you can realize all the functions of a normal sealing machine. Acting as a specialized on-site heat-seal machine for paper-plastic pouches, 3D paper-plastic pouches and paper-paper pouches, it can finish continuous sealing of paper-plastic pouches with any widths and printing of necessary information. The machine is mainly used to seal packaging bags of medical instruments in hospitals prior to sterilization.
3) **Record Inquiry**: In this interface, user can check the sealing record in the sealer mode and the cutting seal record in the all-in-one mode. You can enter different query conditions to query. For detailed steps, please read "Record Inquiry".

4) **Setup**: Under this mode you can set some items related to the machine status, including system sound, voice reading, screen brightness, screen dimming time, standby time and standby temperature.

3. **Touch Screen**

   This machine is fitted with a capacitive multi-touch screen. Its operation can be realized by touching the screen.

   ✓ Click the item to be selected with a finger. (See Figure 9.3)

   ✓ To open its submenu;

   ✓ To press the item for 3 seconds can switch off the printing of this item;

   ✓ To input the required text onto this position with the on-screen keyboard;

   ✓ Slide your finger on the screen horizontally or vertically.

   ✓ Vertically move the items until the required one appears on the display area;

   ✓ Horizontally move the items until the required one appears on the display area;

   ![Figure 9.3 Touch Screen](image)

   **Note**: To click the on-screen keys slightly, never press the screen with any hard objects instead of the finger.

4. **Sealing Mode**

   Click the icon “Sealing” in Figure 9.2 to enter the sealing mode. The interface is shown in Figure 9.5. In this mode, the cutting module of the device will stop working, and only the sealing or sealing of the roll bag will be performed. After the roll bag seal is printed, it will be Output on the right side of the device, suitable for sealing or sealing after loading paper and plastic bags.
1) Sealing Mode Operation Interface

Interface introduction: The machine interface is divided into two major areas of the display button distribution and definition

Functions of the icons on this interface are explained in the following table:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>🧫</td>
<td>Sterilization Date Setting</td>
</tr>
<tr>
<td>🕒</td>
<td>Time</td>
</tr>
<tr>
<td>🚫</td>
<td>Do not print Sterilization date</td>
</tr>
<tr>
<td>🕒</td>
<td>Positive Sequence Counting</td>
</tr>
<tr>
<td>🔴</td>
<td>Expiry Date Setting</td>
</tr>
<tr>
<td>🕒</td>
<td>Negative Sequence Counting</td>
</tr>
<tr>
<td>📚</td>
<td>Lot No.</td>
</tr>
<tr>
<td>🕒</td>
<td>Set Sealing Temperature</td>
</tr>
<tr>
<td>💪</td>
<td>Pot No.</td>
</tr>
<tr>
<td>🕒</td>
<td>Real Temperature</td>
</tr>
<tr>
<td>⌚</td>
<td>Operator</td>
</tr>
<tr>
<td>📄</td>
<td>Printing ON/OFF</td>
</tr>
<tr>
<td>🗸</td>
<td>Department</td>
</tr>
<tr>
<td>📄</td>
<td>Icon Printing. Three Sizes</td>
</tr>
<tr>
<td>📄</td>
<td>Character Printing. Three Sizes</td>
</tr>
<tr>
<td>📄</td>
<td>Item</td>
</tr>
<tr>
<td>📄</td>
<td>Sealing Pressure</td>
</tr>
<tr>
<td>📄</td>
<td>Sealing SN.</td>
</tr>
<tr>
<td>⌚</td>
<td>Sealing Speed</td>
</tr>
<tr>
<td>🔴</td>
<td>CE</td>
</tr>
<tr>
<td>🔴</td>
<td>Self-Inspection</td>
</tr>
<tr>
<td>📄</td>
<td>Width for all Characters</td>
</tr>
<tr>
<td>🔸</td>
<td>Parameters Setting</td>
</tr>
<tr>
<td>🔸</td>
<td>Add</td>
</tr>
<tr>
<td>🔸</td>
<td>Delete</td>
</tr>
</tbody>
</table>
Left area: This area is the print item setting area. This area shows the print items that this machine can execute. The meaning of the item icons from top to bottom are: sterilization date, expiry date, Lot number, sterilizer number (pot number), operator, department name, item name, and custom content that can be freely entered by the user. The display is divided into Chinese characters or letters. The space on the right side of the left area shows the print content currently set in this item. The style of the icon can show whether the content of this item is printed. If you need to adjust the display content, click on an item, this item will be magnified and displayed as shown in Figure 9.6. As the name indicates, click the icon after zooming in to switch this item on or off, and click on the displayed content to modify or re-select it as needed.

![Figure 9.6 Main Interface](image)

For example: 👤 means to print operator item, 📌 means that the operator item is not printed, and the text can be used to enter this item setting interface.

Right area: This area is the equipment control area. The corresponding functions in this area are:

A) Clock: Click here 🕒 to modify and set the displayed time;

B) Calendar: Click here 📅 2018-01-01 to modify the displayed date;

C) Sealing counter: 🛠️ is the counter switch, click to set the use of positive sequence count and reverse sequence count to choose two ways to seal the number of statistics;
D) Temperature display: Click to enter temperature setting, set temperature, current temperature;

E) Print function: In the lower part of the area, you can print settings for Chinese characters or symbols, display the printed style (symbol or character) and the width of the font (narrow, normal, and wide). Dark colors indicate the selection; short press the area will enter Figure 9.7 After the print setup interface is displayed, after entering the print setup interface, the following print contents can be selected according to the user's needs:

Figure 9.7 Printing Setting Interface

- Printer Switch: Touch to realize the printing or not;

- Print style: Touch to achieve the conversion of symbol or Chinese character print style, and at the same time, adjust the print style according to the width of the sealed bag to meet the need for printing content.

- Equipment serial number: Touch the button to realize the control of the heat sealing device number printing or not printing; the display means that the sealing machine serial number is not printed, you can click the icon to switch.

- CE certification: Touch can print or not print the CE certification mark. The display means the CE certification mark is not printed. You can click the icon to switch.

- Print Margin: This function can set the starting position of printing according to the actual needs of the user, that is, the distance from the leftmost edge of the printed
character to the left edge of the bag. The setting range is represented by a numerical value of 0 to 5, and a setting of 0 indicates that the current margin is approximately For a minimum margin of 3mm, add 1 to each value, and increase the width of a Chinese character. Click the drop-down arrow to enter the margin settings screen shown in Figure 9.8.

![Figure 9.8 Print Margin Setting](image1)
![Figure 9.9 Print Interval Setting](image2)

- **Print interval:** This function can set the interval between print items according to the actual needs of the user. It refers to the interval between the operator, department name, item name, and custom content to increase the segmentation interval. You can change the interval size by changing the value. There are four types of “no interval”, “1 unit”, “2 units” and “3 units”. Click the drop-down arrow to enter the print interval setting interface as shown in Figure 9.9. The print interval is set to 0. Affect the sentence segmentation of the entry, too large interval will make the printed text is too long, may cause the bag to print incomplete, please choose the print interval carefully.

F) Sealing pressure and speed: The figure shows the main parameters of the equipment, indicating that the equipment is working under the condition that the sealing pressure is 85N and the speed is 9.6m/min.

G) Sealing and parameter checking: Click to perform a seal and equipment operation parameters inspection. Please refer to the following parameter inspection.

H) Return to the main interface button: Click to indicate that after cutting is completed, touch this key to cut the machine and exit the cutting mode. Return to Figure 9.2 Main Interface

I) Working switch: Press the arrow to slide the virtual silver button to move laterally to switch the device on or off.

2) **Parameter Setting**

In the working interface (Figure 9.2), select the sealing mode and check whether the parameters are set correctly. Then press the silver button to move horizontally and the
device will start working. The machine will start to heat up to the set temperature according to the displayed temperature. Indicates that the machine is ready.

Sealing Temperature Setting:

A) TO set the seal temperature. Please click to enter the temperature setting interface. As shown in Figure 9.10, you can directly select the preset temperature, or you can use the “+” or “-” key to freely input the required seal temperature (60 ~220°C)

![Image of temperature setting interface]

Figure 9.10 Temperature Setting Interface

**Note:** Because of the quality difference among reels provided by different manufacturers, the sealing temperature will also be varied and depends on the actual sealing result. The operator can improve the sealing quality by increasing or decreasing the sealing temperature. In addition, the relevant sealing parameters may be obtained from the supplier of reels. If you have no way to know the sealing temperature, please set it by reference to the following range of temperature:

- Paper-plastic pouches complying with EN 868-5 and YY/T 0698-5 standards: 170～190°C
- High-density Polyethylene pouches (Tyvek): 110～130°C

**Note:** Correct sealing temperature must be determined according to the result of sealing test.

B) Setup of Printing Parameters

- **Printer ON/OFF:** Click or to realize the changeover between printing and not printing.
- Increase or decrease print items: Click on an option on the left side of the work interface. This item will be enlarged and displayed. After zooming in, click the icon to control whether
the item is printed. For example: 🗿 indicates the print operator item, 🗿 means that the operator item is not printed

C) Printing Content

Click one of the items on the left side of the sealing mode operation interface, it will be enlarged. After clicking the enlarged item, its setting interface will pop up. The information that can be set is as below:

✧ **Setup of Sterilization Date**

Click the date on the sealing mode operation interface to enter its setting interface shown in Figure 9.11, and then you can change the date accordingly. The default is the current date of the machine.

![Figure 9.11 Date Setting](image)

✧ **Setup of Expiry Days**

Click the expiry date 2017-05-22 to enter its setting interface shown in Figure 9.12. Then you can set the days with a range of 0~99999. According to the regulation of Central Sterile Supply Department (CSSD), the effective days of paper-plastic pouches are 180 days and those of the paper-paper pouches are 90 days. According to the effective days, expiry date can be adjusted automatically, regardless of leap month and how many days are there in a month, and will be displayed in the form of date.
➢ To input English Letters:

Click any input box that needs input, the device will pop up the input method of the operation interface shown in Figure 9.13, the input method set voice, handwriting, keyboard input in one, powerful, convenient and quick input. According to the relevant prompts of the input method, select the required Chinese-English, numeric, uppercase and lowercase functions, and other functions to complete the required input.

The input method is divided into upper, middle, and lower three parts. The upper part is an input display area, the middle part is a candidate column, and the lower part is a keyboard, a handwriting or a digital input area.

❖ Setup of Sterilization Batch

Click on the right side of from the sealing mode operation interface (see Figure 9.19) to
enter its setting interface, and you can set the batch code accordingly. At most 8 digits can be input. As shown in the figure below, LOT refers to the sterilization batch code.

![Figure 9.19 Setup of Sterilization Batch](image)

**Setup of Autoclave No. & Sterilization No.**

Click on the right side of from the sealing mode operation interface (see Figure 9.20) to enter its setting interface shown in Figure 9.28. The autoclave No. can be set with the keyboard on screen, which can be separated from the sterilization No. of the autoclave on that day with the symbol “/”, and at most 8 digits can be input. For example: “3/3” means that this is the third time sterilization of No. 3 Autoclave. In addition, equipment is abbreviated to EQU which refers to the autoclave.

![Figure 9.20 Setup of Autoclave No.](image)

**Setup of Operator**

Click on the right side of from the sealing mode operation interface (see Figure 9.21) to enter
the setting interface, and you can set the operator name with at most 8 digits (8 English characters) input. The name list is arranged in initial alphabet order on the left side of the interface, from which you can search an existing name by clicking letters at the top right-hand corner. If you click a name from the list, the selected one will display in blue. For example, Figure 9.21 shows that the selected operator is “James”. Then click to save the setting and return to the the sealing mode operation interface (see Figure 9.21). Double click on the selected name also means confirmation of your selection.

![Figure 9.21 Setup of Operator](image)

- How to add a new operator into the list

  First, click the blank input box on the right side of the interface, and then the keyboard will pop up as shown in Figure 9.22.

![Figure 9.22 Operator Adding Operation Interface (1)](image)

Second, input the name of a new operator with the keyboard (see Figure 9.31). Then click to finish input and the keyboard will disappear.
Third, click \textcolor{blue}{Add} shown in Figure 9.21 to add the new operator to the list. It will display in blue and automatically become the selected one.

\begin{itemize}
    \item How to delete an operator from the list
\end{itemize}

Click the operator name to be deleted, and then click \textcolor{blue}{Delete} shown in Figure 9.29. The selected one will be deleted from the list.

\begin{itemize}
    \item Setup of Department
\end{itemize}

Click on the right side of from the sealing mode operation interface to enter the setting interface shown in Figure 9.24, and you can set the division with at most 24 digits (24 English characters) input. The division list is arranged in initial alphabet order on the left side of the interface, from which you can search an existing division by clicking letters at the top right-hand corner. If you click a division from the list, the selected one will display in blue.

For example, Figure 9.24 shows that the selected operator is “ICU”. Then click \textcolor{blue}{Save} to save the setting and return to the the sealing mode operation interface. Double click on the selected name also means confirmation of your selection.
How to add a new Department into the list

First, click the blank input box on the right side of the interface, and then the keyboard will pop up as shown in Figure 9.25.

Second, input the name of a division with the keyboard (see Figure 9.25). Then click to finish input and the keyboard will disappear.

Third, click shown in Figure 9.26 to add the new division to the list. It will display in blue and automatically become the selected one.
How to delete a division from the list

Click the division to be deleted, and then click shown in Figure 9.32. The selected one will be deleted from the list.

Setup of Medical Instrument

Click on the right side of from the sealing mode operation interface (see Figure 9.19) to enter the setting interface shown in Figure 9.35, and you can set the medical instrument with at most 36 digits (36 English characters) input. The medical instrument list is arranged in initial alphabet order on the left side of the interface, from which you can search an existing instrument by clicking letters at the top right-hand corner. If you click a name from the list, the selected one will display in blue. For example, Figure 9.35 shows that the selected instrument is “Scalpel”. Then click to save the setting and return to the the sealing mode operation interface (see Figure 9.19). Double click on the selected name also means confirmation of your selection.
How to add a new medical instrument into the list

First, click the blank input box on the right side of the interface, and then the keyboard will pop up.

Second, input the name of a medical instrument with the keyboard and then click to save it.

Third, click shown in Figure 9.35 to add the new instrument to the list. It will display in blue and automatically become the selected one.
How to delete a medical instrument from the list

Click the medical instrument to be deleted, and then click Delete shown in Figure 9.35. The selected one will be deleted from the list.

Setup of Customized Information

Click ☑ on the right side of ☑ from the sealing mode operation interface to enter the setting interface shown in Figure 9.30, and you can set the customized information with at most 36 digits (36 English characters) input. The customized information list will be arranged in initial alphabet order on the left side of the interface, from which you can search a piece of existing information by clicking letters at the top right-hand corner. If you click a piece of information from the list, the selected one will display in blue. Then click ☑ to save the setting and return to the sealing mode operation interface.
How to add new customized information into the list

First, click the blank input box on the right side of the interface, and then the keyboard will pop up.

![Figure 9.31 Add Custom Content (I)](image)

Second, input a piece of new information with the keyboard, and then click to finish input and the keyboard will disappear.

![Figure 9.32 Add Custom Content (II)](image)

Third, click shown in Figure 9.36 to add the new information to the list. It will display in blue and automatically become the selected one.

3) Sealing Operation

After relevant setting is finished, the working status of the sealing mechanism. After horizontally sliding the silvery button, the temperature will start to rise. During the heating process, “Warming” will replace
“Standby” to display. Once the set temperature is reached, will appear. At this time, sliding the silvery button will make sealing work start. When no operation is found within the set standby time, the sealing mechanism will start to enter the standby state. Meanwhile, its temperature will start to decrease until the temperature drops to the set standby one. During the cooling process, “Cooling” will be seen. If the machine enters the standby status, will appear at the bottom of the screen. At this time the machine will be woken up to start working as long as the pouch (reel) to be sealed is placed into the reel-feeding port.

✓ There must be enough distance between the medical instrument inside the pouch and the opening of the pouch!!! (see Figure 9.34)

✓ The pouch must be put with its transparent surface upward and paper surface downward in the process of sealing, otherwise printing cannot be achieved.

✓ Make sure that the sealing temperature fit the pouch.

![Figure 9.34 Sealing Diagram](image)

Once the sealing mechanism is in a state of “Ready”, the pouch can be fed along the guide plate. The driving mechanism will automatically work and then the sealing work will be completed by heating, pressing and printing at one time. If no pouch is fed into the machine after 6 seconds, the driving mechanism will stop and the sealing mechanism will enter the energy-saving standby state.

4) Operating Parameter Test

When the operating state on the screen shows , click to complete an operating parameter test according to the operation steps shown on the screen. Once the sealing
parameter test interface appears, initialization of the system will start. After the initialization, “Operational qualification” will appear on screen as shown in Figure 9.35. At this time, insert a paper-plastic pouch with a test card inside onto the guide plate and it will move forward with the information printed, such as, system time, temperature, pressure, sealing time, speed and equipment No. When the test is over, click “Return” to return to the sealing mode operation interface.

![Operational qualification interface](image)

**Figure 9.35 Operating Parameter Test Interface**

5. Cutting Sealing Mode

Click the icon [All-in-one](image) to enter the all-in-one (cutting-sealing-printing) mode and Figure 9.36 shows its operation interface. Under this mode, the cutting, sealing and printing mechanisms of the machine can work at the same time. If the printing function is switched off, cutting and sealing work can also be achieved. After all the operation is over, the pouches will be discharged from the right side of the machine.

![Cutting and Sealing Mode interface](image)

**Figure 9.36 Cutting and Sealing Mode**

1) Functions of icons on the above interface are as below:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Reel movement" /></td>
<td>To enter reel movement operation interface</td>
</tr>
<tr>
<td><img src="image" alt="Cutting" /></td>
<td>To set cutting parameters</td>
</tr>
<tr>
<td><img src="image" alt="Start cutting" /></td>
<td>To start cutting</td>
</tr>
<tr>
<td><img src="image" alt="Stop" /></td>
<td>To stop cutting</td>
</tr>
<tr>
<td><img src="image" alt="Emergency Stop" /></td>
<td>Emergency Stop</td>
</tr>
<tr>
<td><img src="image" alt="Home" /></td>
<td>To return to the main interface</td>
</tr>
</tbody>
</table>
2) Setup of Cutting Parameters

a) Setup of Cutting Parameters: Please refer to the setting of all the parameters under cutting mode.

Figure 9.37 Setting Cutting Quantity

b) Set the length of the pouch.

Figure 9.38 Set Cutting Length
c) Set the unit of the length, there are centimeter and millimeter for option.

![Figure 9.39 Choose the unit](image)

Figure 9.39 Choose the unit

d) Preset the length. Choose the preset and stored length on below of the input blank.

e) 000042 means the quantity already cut.

f) Manual control of reel in and out. Click the icon, reel in and out window will pop out, like Figure 9.40, this function can control the in and out of reels, click icon to exit.

![Figure 9.40 Reel in and out](image)

Figure 9.40 Reel in and out

g) Set cutting info. Click the icon in Figure 9.36, the cutting info window will show up, This function can set and record information such as “operator”, “volume width”, “volume type”, “bag manufacturer”, etc., click “OK” to save, and click “Cancel” to restore the original settings and exit. The above information can be input according to actual needs, and will be saved in the equipment database after the determination, so as to meet the needs of future cutting information summary and traceability.
Figure 9.41 Set Cutting information

- Add and delete info.

Click the icon to add and delete the information, as shown in Figure 9.42.

Figure 9.42 Add and delete information

Other contents can be operated likewise.

3) Cutting Procedures

After all the related cutting parameters are set, cutting will start.

a) Remove the packaging film outside of the reels and all the adhesive tape, no residue of adhesive tape is allowed to enter the feeding roller of the machine.

Note: All the residual adhesive tape should be cleaned off completely to ensure normal cutting work!

Open the reel-feeding chamber to put in the reel(s). Locate the reel(s) with reference to the
location marks of inductive sensors (see Figure 9.43). Be sure that at least one inductive sensor should be able to sense the reel, or the reel-feeding mechanism will not start. A reel or several reels should be fixed by the reel location-limited plate to prevent the reel(s) deviating from the sensible area of the inductive switches. Figure 9.44 shows the correct location while Figure 9.45 shows the incorrect one.

Figure 9.43 Location of a Reel

Figure 9.44 Correct Location of a Reel
**b)** When placing a reel with its width of 200~400mm or a 3D reel, its front part should be cut into an arrow-like shape as shown in Figure 9.46 to ensure smooth feeding.

![Figure 9.45 Incorrect Location of a Reel](image)

![Figure 9.46 Trimming Diagram of a Reel](image)

**c)** After the reel(s) is (are) put in place, click the cutting button ![image](image), warning of no reel shown in Figure 9.16 will appear. Click “Next” and the machine will start to cut the reel(s) automatically as per the set length and quantity. ![image](image) indicates that the machine is in the cutting process. The actual cutting quantity will be shown in the displaying box for current quantity in the cutting mode interface (see Figure 9.4). At this time you should be ready to receive the pouches that have been cut into from the reel(s). If the location of the reel(s) is (are) away from the inductive sensors, the warning of no reel will also appear as shown in Figure 9.16.
Figure 9.47 Warning of No Reel

**d)** After the reel(s) is (are) in place, you can also click ![button](image) to make the dialogue box shown in Figure 9.8 Reel Movement Operation pop up. At this time, you can also manually make the reel move forward, until the edge of the reel extend 5cm from the discharge hole. The cutting mode will be entered after clicking the cutting button. The “Reel In” and “Reel Out” buttons shown in Figure 9.8 are primarily used to manually control the forward or backward movement of the reel(s), when there is something wrong with the machine.

*Note:* The cutting length of the first pouch to be cut off from a reel is usually 5cm longer than the set one.

**e)** Under the Cutting Mode, if you click the icon ![button](image), it will change into ![button](image) and the cutting work will stop. If you click the icon again, cutting will resume.

**f)** If cutting is over, the warning of lacking reel will appear (see Figure 9.17). Then click “Next”, and the machine will move the reel backward until the operator can hold the residue of the reel and take it out.

Figure 9.48 Warning of Lacking Reel
Note: Once cutting is over, the operator should immediately move the reel backward. No further cutting will be allowed before the residue of the reel is removed from the machine.

If any wrinkle is found out from the reel during the cutting process, a warning shown in Figure 9.18 will appear. The operator should solve it according to the description on screen. If some problem occurs during the automatic cutting process or the operator needs to stop cutting immediately, the emergency stop button should be pressed to make all the operation of the machine stop at once.

![Warning](image)

**Figure 9.49 Warning**

After cutting is over, click the Home Page button to make the machine exit from the cutting or other working modes back to the main interface shown in Figure 9.2.

Note: After cutting is over, remember to take out the residue of the reel and close the reel-feeding chamber so that no foreign matters or dust will enter the gap between polyurethane rubber rollers!

3) Working

After the setting, there will show the Printer ON/OFF on the bottom of the screen and the preview. See Figure 9.50 in below:
6. Records

Click the icon to enter the parameter setup and record interface. After that, cutting, sealing and printing mechanisms will stop working, you can only set relevant working parameters of the machine and obtain records related to cutting and sealing information of the machine.

After open the inquiry interface, you will see Figure 9.52, it records relevant information of cutting.
Click the icon then input the date of operation, this device will search and show the relevant information. As shown in Figure 9.53:

Also you can choose different time frame to check the information, as shown in Figure 9.54:
1) **System Setting**

- **System Sound**: To switch on or off the sound of buzzer in the working process of the system.

- **Speak**: To switch on or off the voice reading function. When this function works, the operation procedures or the input information can be read out, which makes it easy for users to input information and ensure its correctness.

- **Screen Brightness**: The brightness of the touch screen can be adjusted in working state. 100% means the maximum brightness. The screen will darken with the decrease of the percentage.

- **Dimming**: When no operation is found on the screen, it will dim. If you choose 30 seconds, the screen will become dim automatically in 30 seconds during which no operation is found on the screen.
This function has no influence on normal sealing work. At the same time, it can reduce electricity consumption and effectively prolong the service life of the screen.

➢ **Standby Temperature**: When no sealing work is being done, the heating mechanism will enter the standby state.

Figure 9.42 shows the setting box. If you select 60 °C, the heating mechanism will remain at 60 °C after it enters the standby state. The major purpose of this function is to reduce the energy consumption. If any operation is found, the heating mechanism will quickly increase the temperature to the set temperature.

➢ **Standby Time**: Figure 9.43 shows the setting interface. The heating mechanism of the machine will enter the standby state when no sealing work is required. 10-minute standby time means that the machine will automatically lower its temperature to the standby temperature when no operation is found within 10 minutes. The function can reduce the energy consumption. If any operation is finished, the temperature of the heating mechanism will quickly rise to the set working temperature.

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Icon</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>☑</td>
</tr>
<tr>
<td>70</td>
<td>☑</td>
</tr>
<tr>
<td>80</td>
<td>☑</td>
</tr>
<tr>
<td>90</td>
<td>☑</td>
</tr>
<tr>
<td>100</td>
<td>☑</td>
</tr>
<tr>
<td>110</td>
<td>☑</td>
</tr>
<tr>
<td>120</td>
<td>☑</td>
</tr>
</tbody>
</table>

*Figure 9.57 Setup of Standby Temperature*

<table>
<thead>
<tr>
<th>Standby Time</th>
<th>Icon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>☑</td>
</tr>
<tr>
<td>5 minutes</td>
<td>☑</td>
</tr>
<tr>
<td>10 minutes</td>
<td>☑</td>
</tr>
<tr>
<td>30 minutes</td>
<td>☑</td>
</tr>
<tr>
<td>60 minutes</td>
<td>☑</td>
</tr>
</tbody>
</table>

*Figure 9.58 Setup of Standby Time*

**Note:** No matter the machine is shut down normally or the electricity is suddenly turned off, all the working parameters set prior to the shut-down can be automatically saved.

**Note:** To ensure normal heat-sealing work, no screen operation will be allowed prior to the shut-down of the motor on sealing.

**X. Operation Procedures**

1. According to WS310.1-2016 (9.8: Packaging Material, Part I: Management Code of Central Sterile Supply Department (CSSD)) and Chapter II Sealable Materials of this manual, users should choose suitable paper-plastic or paper-paper packaging reels. In addition, users need to check the sealing strength of both sides of a reel before use.
Note: If the quality of the reel is poor, the sealing quality of pouches cut off from the reel cannot be guaranteed. Please carefully study and follow instructions of reels. If you have any questions, please contact your reel suppliers or manufacturers.

2. Adjustment of the Guide Plate: Located at the left side of the machine, the guide plate can be moved within a range of 0~35mm. Counterclockwise loosen the nut until the guide plate can be moved back and forth. To move the guide plate outward will make the sealing line close to the edge of a pouch; while to move it inward will make the sealing line away from the edge of a pouch (see Figure 7.1 Installation of the Guide Plate).

After the adjustment is completed, clockwise turn the nut until the guide plate is firmly fixed.

3. According to the size of the medical instrument to be packaged, select suitable sterilization reels (their width ≤400mm) under All-in-one Mode. Set the cutting quantity and length, and switch off the printing function. Then click cutting button to start the operation. As a result, the reel will be cut into pouches and one side of them will be sealed. Put medical instruments in pouches and seal the other side with the machine. In accordance with the relevant provisions of WS310.2-2016, the distance between the sealing line and the medical instruments inside the pouch should be more than 2.5cm, which has to be considered when setting the cutting length (see Figure 10.1);

Note: Remember to keep the pouches (reels) in good order once cutting and sealing work are finished.

4. When placing medical instruments into pouches, please pay attention to the following items: a. Properly put specially-shaped and sharp items in pouches and use protective sheaths for them if it’s necessary; b. Medical instruments should be placed into pouches with proper sizes to avoid over-pressure, and their volume should not exceed 75% volume of pouches to prevent any breakage during sterilization and ensure their safety in use.

Warning: Medical instruments must not be put into the machine, or the machine will suffer serious damage.

5. After a medical instrument is put into a pouch, choose the sealing mode and the information to be printed, and press printing button to activate the printing function. Make the pouch be fed into the machine along the guide plate at the left side of the machine with the surface to be printed downward, and then the feeding mechanism will start working automatically.

The pouch will move forward and be fed into the sealing device. After it is preheated, pressed and sealed, required information will be printed on it. At last, the pouch will come out from the right side of the machine.

6. How to make sure the sealing edge is straight, smooth and parallel with the edge of the pouch, when no roller worktable is equipped: Hold each end of a pouch with your hands, and flatten
the section of the pouch to be fed into the sealer; Prior to sealing, the opening (edge) of the pouch should be parallel with the machine; The pouch should be supported by your hand to ensure right movement direction, after the driving mechanism is switched on. With the pouch completely fed into the machine, the operator should hold the medical instrument inside the pouch until the sealing work is over.

**Note:** For higher sealing efficiency, please choose the ultra silent roller worktable or multipurpose sealing workstation.

7. Because the printer is located inside the bottom of the machine, paper-plastic pouches should be fed along the guide plate with the plastic surface on the top and the paper surface on the bottom; otherwise the printing work cannot be completed.

8. Take out all the sealed pouches after sealing and let them cool down naturally.

**Suggestion:** Because the material used by paper-plastic pouch (paper-paper pouch) manufacturers are different, test cards or test pouches should be used to test the sealing effect and the dedicated tester should be used to verify the sealing strength. In addition, suitable sealing temperature should be confirmed to ensure sealing quality. Sealing temperatures differ because of different types and thickness of materials used to produce pouches.

To ensure better sealing result, please choose reels which are in accordance with the National standards (It is suggested that you purchase Easyseal reels and high/low-temperature sealing test cards or pouches.)

**XI. Operation Qualification (OQ)**

According to 5.7.10 Sealing and Packaging Requirements, Part II: Standard for Operating Procedures of Cleaning, Disinfection and Sterilization, WS310.2-2016 Central Sterile Supply Department (CSSD) and relevant regulations in GB/T19633.2-2015/ISO11607-2: 2006, the accuracy of parameters and the sealing quality of the machine should be inspected before it works every day. Therefore, test cards and sealing strength testers should be used for OQ.

OQ refers to the sealing performance verification during the normal operation of the machine.

- To test whether the sealing edge has any tube-like space or opening;
- To test whether the pressure is too high or too low;
- To test whether the sealing temperature is too high or too low;
- To test whether sealing is continuous or the sealing edge has leaks;

It is suggested that users should finish the sealing test before and after daily sealing work, and the test sample should be stored for query.

To better inspect and record operation qualification result and ensure the normal operation of the machine, it is recommended that our Easyseal reels, sealing test cards or Tyvek low-temperature sealing test cards should be used to inspect the sealing result under high and low temperature.

The sealing quality will be better guaranteed, if our Easyseal sealing strength tester is also used to inspect the sealing strength.
XII. Test Methods

1. Sealing Test Card

Our Easyseal test cards can be used to validate whether the sealing result can meet the standards and serve as proof to record the performance parameters of the machine. (see Figure 12.1). They can clearly show the sealing result and its defects. Therefore, sealing problems can be found out quickly and the sealing parameters can be adjusted accordingly to satisfy the sealing requirements and ensure the sealing quality. At the same time, test cards can be stored for validation or query for sealing results of the sealing machine.

![Figure 12.1 Sealing Test Card](image)

There are two types of sealing test cards: high-temperature (180°C) test cards(pouches) and Tyvek low-temperature (120°C) sealing test cards(pouches).

2. Sealing Strength Tester

Our Easyseal Sealing Strength Testers (see Figure 12.2) are specially manufactured according to YY/T 0698.5-2009 standard, Packaging Materials for Terminal Sterilized Medical Devices-Part 5: Heat and Self-sealable Pouches and Reels of Paper and Plastic Film Construction-Requirements and Test Methods, to test whether the sealing strength of heat-sealed pouches and reels can meet the requirements. The test data can be printed and recorded with its built-in micro printer. They can also be stored or printed with special recording software in a computer (an option to be equipped with our sealing machine) connected with the tester to realize the query for previous sealing results.
Figure 12.2 Sealing Strength Tester

**Note:** This test should be taken after the sterilization of pouches.

It is suggested that users should insist on routine inspection with test cards and sealing strength testers according to the requirements of WS310.2-2016 5.7.10 and ISO 11607. By doing so, the sealing quality can be effectively guaranteed. Especially after the sealing material is changed or the machine is repaired, the use of test cards and sealing strength testers becomes more important and necessary.

If users cannot take such tests, please contact us for chargeable inspection service. We can arrange people to take an on-site test for you or you can mail the sample or the machine to us for inspection and a relevant test report.

XIII. Equipment Maintenance

1. Ink Ribbon Replacement

The ink ribbon, one of printing supplies, is specially used in needle printers. When the printed information is illegible, it indicates that the ink ribbon needs to be replaced. The steps are shown as below:

1) First, switch off the machine and unplug it. Next, turn the “Easyseal” logo on the left side of the machine to expose the finger hole. Then insert one of your fingers through the hole and pull the logo with strength to open the ink ribbon chamber (see Figure 13.1).

2) After the ink ribbon chamber is opened, turn the base of the printer upwards according to the direction of the arrow (see Figure 13.2), and the black box is the ink ribbon cartridge.
3) Press the fastener of the ink ribbon, and pinch the lug beneath the ink ribbon. Then lift the ink ribbon to take it out (see Figure 13.3).

4) The new ink ribbon should be placed on the printer base as shown in Figure 13.4. Turn the reel of the ink ribbon clockwise according to the direction of the arrow, and at the same time press the ink ribbon until its reel is fastened to the motor shaft. At this time, you will hear a sound to indicate that the ink ribbon is firmly fixed on the printer base.

5) Finally, check whether the ink ribbon is between the printing head and printing rollers.

**Note:** Prior to the fixing of the ink ribbon, the smoothness of its rotation should be tested by revolving the reel of the ribbon with your hand. If the ink ribbon cannot be fixed in place, please rotate the ribbon reel clockwise to make the motor shaft successfully be inserted in the mortise.

6) To test whether the ink ribbon has been fixed in the right place, lift the lug on the ink ribbon to check whether the ink ribbon is jammed. If it can be taken out, please re-fix it according to Step 4.

7) After the ink ribbon is fixed in place, turn the printer base down to its original position and close the ink ribbon chamber. Finally, rotate the Easyseal logo back to its original position.

**Note:**
You must use our specialized Easyseal heatproof ink ribbons to ensure normal use of the machine and avoid damage to the printing head and the reduction of preservation time of the printed information.

To avoid being scalded, replace the ink ribbon at least 10 minutes after turning off the machine or when the printing head cools down to room temperature.

There is a spare ink ribbon among the machine accessories.

The service life of the ink ribbon is related to the operating time of the machine and the quantity of printed information.

2. Fuse replacement

If the machine cannot operate after it is switched on, the fuse should be inspected for any damage. Before replacing the fuse, turn off the machine and disconnect the power line from the machine. Then pry the fuse base off and remove it from the side of the switch base with a slotted screwdriver. Replace the fuse if it is blown and re-fix the fuse base to the original place.

If the machine still cannot be started after fixing a new fuse or the new fuse disconnect from the circuit again, an inspection should be made by a professional person according to the trouble-shooting table or you can directly contact our sales agent or our company.

Note: A spare fuse is included in the the machine accessories.

3. Adjustment and Replacement of the Cutting Blade

With the increase of the cutting quantity, the edge of a blade will be abraded, weakening its cutting effect. At this time you should adjust the angle of placing the blade or replace it with a new one.

1) Adjustment of the Cutting Blade

First, switch off the machine and unplug it.

Second, remove the two cross-head screws in the middle of the machine front and the trapezoid baffle fastened by them. You will see the blade and the screw to fasten it (See Figure 13.1).

Third, put the special tool to attract the blade (See Figure 13.2), and then insert the special screwdriver into the special tool.

Fourth, loosen the screw fixing the blade with a screwdriver (see Figure 13.3) but the screw doesn’t need to be removed.

Fifth, clockwise rotate the special tool to make the number marked at the bottom of the blade rotate to the next one (According to Figure 13.4, the current number marked at the bottom of the blade is “1”). You need to clockwise...
rotate the special tool to move “2” to the bottom.

**Then** clockwise rotate the screw fixing the blade to make it tightened.

**Finally,** remove the special tool and the screwdriver, and put the baffle back.

**Note:** To increase the utilization rate of the blade and make it easy for users to locate the position of the blade, we have marked the numbers on the front surface of the blade. A special tool and a special screwdriver are supplied together with the machine.

### 2) Replacement of the Cutting Blade

The blade will be replaced when there is a gap on the edge of the blade or it deforms or its cutting edge is not sharp enough.

The **first three steps** are the same as those of adjusting the blade.

**Fourth,** unscrew the screw used to fix the blade from the machine and remove the screw and the blade (see Figure 13.5).

**Fifth,** replace the used blade with a new one, the side of which with numbers marked should face outward. Meanwhile, the number “1” on the surface of the blade should be located at the bottom (See Figure 13.4).

**Then** tighten the screw used to fix the blade.

**Finally,** remove the special tool and the screwdriver, and put the baffle back.

**Note:**

- Never use a blade which is not supplied by our company, otherwise the normal operation of the machine will be affected. The use of any blade with improper dimensions and material might cause serious damage to the machine!
- When adjusting the position of the blade or replacing the used blade, the blade frame should be on standby.
- Never adjust or replace the cutting blade before reading this manual. For your safety, touching the blade with your hands directly is prohibited. The operator should wear gloves or use...
4. Stuck Reel Removal While Cutting

When a reel is found tangled around the feeding roller (it cannot be sent out of the machine), users should click the emergency-stop button to make the machine stop working first. Second, click to return to the main interface as shown in Figure 9.2. Third, loosen the four screws on the two sides of the cover-plate with inductive switch marks (see Figure 9.13) and take down the cover-plate. Fourth, click the icon to enter the cutting mode operation interface (see Figure 9.4) and click to enter reel movement operation interface (see Figure 9.8). Fifth, click “Reel In” or “Reel Out” to move the reel to an appropriate position, and meanwhile the part of the reel twisted around the roller should be removed. At last, after confirming no pouch fragments are left over, the cover-plate can be put back.

5. Stuck Pouch Removal While Sealing

When a pouch is stuck in the machine and stops moving forward due to wrinkles or foreign matters, turn off the machine immediately and pull out the pouch slowly. Then, check whether the pouch is complete. If so, you can restart the machine but try to avoid the same accident. Fragments of pouches that fall into the machine or are stuck in the driving mechanism will affect the operation of the machine. At that time, you should ask a professional person to remove all the fragments and then restart the machine.

6. Removal of Paper Scraps

Some scraps of paper will appear in the machine under the cutting mode because of different reasons. Long-term accumulation of scraps will influence the normal operation of the machine, so there is a cover at the bottom of the machine (see Figure 3.1). If a piece of paper is stuck during the operation (perhaps after three month), please turn off the machine and unplug it. Then, turn over the machine to remove the cover from the bottom chamber. After all the paper scraps are removed, put the cover back.

7. Replacement of the main control board: After determining the failure of the main control board, first turn off the power of the equipment, unplug the power plug, and then remove the equipment bag cover, then remove the equipment cover and put it behind the equipment (note the screen and the main control The connection between the boards), check whether the new main control board is consistent with the use of the equipment. Refer to the wiring diagrams in the annex of this manual and the wiring diagram of the inner surface of the equipment housing. Remember to carefully check against the schematic diagram after connecting. To prevent the
device from working properly due to the wrong position.

8. Heating element replacement: first turn off the power of the device, unplug the power plug, open the cover of the machine, inside the device is labeled "heater plate sealing process detection" and "sealing machine hot plate replacement process", please use the device's own Hex wrench according to the procedure of inspection and replacement procedure.

9. System Prompt

1) “The machine is under interference, please restart it!” When this appears on the screen with warning sound, it indicates that the machine needs to be restarted as it suffers external electromagnetic interference.

2) “The printing head overheats!” When this is seen on the screen with warning sound, it indicates that the temperature of the printing head has exceeded its upper limit of normal working temperature. What should be done next is to wait until the printing head cools down. Then the warning will be canceled automatically and the machine will recover to a normal working state.

3) “Communication fails, please restart the machine!” When this appears on the screen with warning sound, it indicates that the communication of the machine has been interfered and it needs restarting.

4) “Please don’t operate the machine until the sealing work is finished!” When this is seen and heard, it means that the pouch(reel) is being sealed by the machine. You can operate the machine again only when the sealing work is over.

10. Machine Cleaning

1) Turn off the machine and unplug it before cleaning its outside surface.

2) Clean the housing and the screen with a soft cloth and a mild cleaning agent, such as soap. Abrasive materials are forbidden (such as steel wool).

3) Don’t insert any objects into thermovents, the reel-feeding hole and the printing mechanism to avoid electric shock or any damage to the machine when cleaning.

4) Don’t make any water drop or tiny things enter the machine through thermovents, the reel-feeding hole or the printing mechanism, when you clean the objects near the machine. Otherwise, failure in mechanical and electronic control system of the machine may happen.

**Warning**: Anything with water are prohibited from touching the machine!

5) After the machine is used for two years, the dust, paper scraps and other things may be accumulated in it. Please contact our company or sales agents for cleaning, which will prolong the service life of the machine.

11. Table of troubleshooting
<table>
<thead>
<tr>
<th>Phenomenon</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
</table>
| 1. Cannot boot             | 1. improper connection with power source  
                            | 2. improperly press the power switch  
                            | 3. damaged fuse inside the switch base  
                            | 4. heating plate over-temperature protection  
                            | 5. burned over-temperature protection  
                            | 6. damaged power supply       | 1. connect the power supply with 220V & 50Hz  
                            | 2. continuously press the power switch  
                            | 3. replace the fuse  
                            | 4. turn off the machine and then start it after it cools down to room temperature  
                            | 5. check over-temperature protection component in room temperature. Replace it if open circuit is detected  
                            | 6. check whether the switch power outputs nominal voltage, or replace it with direct-current power supply |
| 2. Starting motor cannot run | 1. improper engagement between gear teeth  
                            | 2. damaged motor  
                            | 3. improper connection between motor wires  
                            | 4. damaged main control panel       | 1. clockwise rotate its timing belt  
                            | 2. replace the motor  
                            | 3. reconnect the wires of the motor  
                            | 4. replace the main control panel |
| 3. Unsatisfactory cutting effect | 1. poor quality of a reel  
                        | 2. untrimmed front part of a reel  
                        | 3. improper position  
                        | 4. cutting blade  
                        | 5. damaged motor       | 1. replace the reel with a suitable one  
                        | 2. take out the reel, cut its front part into a shape of an arrow and put it back  
                        | 3. add the location-limited plate and put the reel back  
                        | 4. adjust the cutting angle of the blade or replace the blade  
                        | 5. replace the motor |
### Operation & Maintenance Manual

| 4. Ink ribbon motor cannot run | 1. remove the ink ribbon to observe whether the motor will run  
2. improper connection between ink ribbon motor wires  
3. damaged main control panel  
4. the ink ribbon motor rotates at abnormally high speed | 1. if so, the ink ribbon should be replaced  
2. wire the ink ribbon motor again  
3. replace the main control panel  
4. replace the main control panel |
|-----------------------------|--------------------------------------------------|--------------------------------------------------|
| 5. Black screen | 1. improper connection between the wires of screen  
2. damaged screen  
3. damaged main control panel | 1. plug the screen in and disconnect it to check whether the screen are wired in the opposite direction  
2. replace the screen and ensure no reverse connection between the screen and the main control panel  
3. replace the main control panel |
| 6. No reaction after the reel is fed | 1. the reel is not fed into the right position  
2. the reel is not located in the inductive area  
3. the inductive sensor is broken  
4. the front part of the reel is stuck | 1. take out the reel and re-feed in it  
2. take out the reel and locate it in the inductive area  
3. replace the inductive sensor  
4. clear the paper scraps inside the delivery mechanism |
| 7. Too wide printing margin | 1. cut several reels at the same time  
2. wrong setting | 1. place a location-limited plate between two reels  
2. check the set parameters |
| 8. Illegible printing information | 1. the ink ribbon is used up or damaged  
2. loose set screws on printing head  
3. ink ribbon motor failure  
4. some damaged component on the main control panel | 1. replace the ink ribbon.  
2. tighten the screws.  
3. check the connection between the ink ribbon motor and the main control panel to exclude the two failure causes -- poor contact and the stuck ink ribbon; check and replace the ink ribbon motor if necessary  
4. call the manufacturer for maintenance |
### Operation & Maintenance Manual

<table>
<thead>
<tr>
<th>Issue Description</th>
<th>Possible Causes</th>
</tr>
</thead>
</table>
| 9. No printing                    | 1. The printing function is not started  
2. The guide plate is so close to the front of the machine so that the pouch cannot touch the printing head  
3. Printing head failure  
4. Photoelectric printing switch failure  
5. Some component on the main control panel is damaged |
|                                  | 1. Start the printing function and check printing items  
2. Move the guide plate backward.  
3. Check the connection between the printing head and the main control panel to exclude the failure cause of poor contact; check and replace the printing head if necessary  
4. Check the wire connection, the fixing of the photoelectric switch and its output voltage; replace the damaged switch if necessary  
5. Call the manufacturer for maintenance |
| 10. “The printing head overheats” on screen | 1. Loose flexible printed circuit (FPC) connected with printing head  
2. Automatic printing head over-temperature protection  
3. Printing head failure  
4. Too high or low ambient temperature  
5. Some component on the main control panel is damaged |
|                                  | 1. Reconnect FPC with printing head  
2. Restart after the machine is shut off and cools to room temperature  
3. Check the connection between the printing head and the main control panel to exclude the failure cause of poor contact and weld failure; check and replace the printing head if necessary  
4. Adjust the ambient temperature to 20～40°C  
5. Call the manufacturer for maintenance |
| 11. Heating plate failure         | 1. Bad connection  
2. Damaged heating plate  
3. Some component on the main control panel is damaged |
|                                  | 1. Check the connection between the heating plate and the main control panel to exclude the failure cause of poor contact.  
2. Replace heating components  
3. Call the manufacturer for maintenance |
| 12. Heating plate cannot reach the set temperature | 1. Unsuitable input voltage  
2. Damaged heating plate  
3. Damaged temperature sensor  
4. Loose connecting wire  
5. Some damaged component on main control panel |
|                                  | 1. Connect the power supply with 220V and 50Hz  
2. Replace heating component  
3. Replace temperature sensor  
4. Check for poor contact  
4. Call the manufacturer for maintenance |
<table>
<thead>
<tr>
<th>Operation &amp; Maintenance Manual</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. The reel(pouch) cannot move after being fed in at set temperature</td>
</tr>
<tr>
<td>14. Abnormal Temperature Increase</td>
</tr>
<tr>
<td>15. “under interference” on screen</td>
</tr>
<tr>
<td>16. Blurred screen or unreadable code on it</td>
</tr>
<tr>
<td>17. Blank screen after startup</td>
</tr>
</tbody>
</table>
## Operation & Maintenance Manual

<table>
<thead>
<tr>
<th>Issue</th>
<th>Possible Causes</th>
<th>Possible Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Wrong date</td>
<td>1. wrong date setting</td>
<td>1. reset</td>
</tr>
<tr>
<td></td>
<td>2. the battery of the clock on the main control panel run out</td>
<td>2. replace the battery</td>
</tr>
<tr>
<td></td>
<td>3. some damaged component on main control panel</td>
<td>3. call the manufacturer for maintenance</td>
</tr>
<tr>
<td>19. Stop during sealing work</td>
<td>1. program chaos</td>
<td>1. turn off and restart the machine</td>
</tr>
<tr>
<td></td>
<td>2. over-temperature protection of heating plate</td>
<td>2. restart the machine after it is shut off and cool to room temperature</td>
</tr>
<tr>
<td></td>
<td>3. motor failure</td>
<td>3. check the connection between the motor and the main control panel to exclude the failure cause of poor contact. Check and replace the motor if necessary</td>
</tr>
<tr>
<td></td>
<td>4. some damaged component on main control panel</td>
<td>4. call the manufacturer for maintenance</td>
</tr>
<tr>
<td>20. Substandard sealing strength</td>
<td>1. too low set temperature</td>
<td>1. raise the set temperature</td>
</tr>
<tr>
<td></td>
<td>2. inaccurate temperature control</td>
<td>2. call the manufacturer for maintenance</td>
</tr>
<tr>
<td></td>
<td>3. too thick plastic film</td>
<td>3. raise the set temperature</td>
</tr>
<tr>
<td></td>
<td>4. the pressure exerted by the pressing roller is reduced</td>
<td>4. adjust or replace the spring</td>
</tr>
<tr>
<td></td>
<td>5. liquid or dirty marks in sealing area</td>
<td>5. replace the reel(pouch)</td>
</tr>
<tr>
<td></td>
<td>6. foreign matter in sealing area</td>
<td>6. remove the foreign matter</td>
</tr>
<tr>
<td></td>
<td>7. dirty things around the pressing roller</td>
<td>7. clean up the pressing roller</td>
</tr>
<tr>
<td>21. Sealing pressure warning</td>
<td>1. too high sealing pressure</td>
<td>1. lower the set pressure</td>
</tr>
<tr>
<td></td>
<td>2. too low sealing pressure</td>
<td>2. increase the set pressure</td>
</tr>
<tr>
<td></td>
<td>3. damaged pressure transmitter</td>
<td>3. replace it</td>
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<td></td>
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<tr>
<td>---</td>
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</tr>
<tr>
<td><strong>22. Wrinkled or melted plastic film</strong></td>
<td><strong>23. Rough sealing trail</strong></td>
<td></td>
</tr>
<tr>
<td>1. too high set temperature</td>
<td>1. too low set temperature</td>
<td></td>
</tr>
<tr>
<td>2. inaccurate temperature control</td>
<td>2. inaccurate temperature control</td>
<td></td>
</tr>
<tr>
<td>1. lower the set temperature</td>
<td>1. raise the set temperature</td>
<td></td>
</tr>
<tr>
<td>2. call the manufacturer for maintenance</td>
<td>2. call the manufacturer for maintenance</td>
<td></td>
</tr>
<tr>
<td><strong>24. The surface of machine feels too hot</strong></td>
<td><strong>25. Too hot power cord</strong></td>
<td></td>
</tr>
<tr>
<td>1. set of too high sealing temperature</td>
<td>1. too thin voltage input cable connected with power socket</td>
<td></td>
</tr>
<tr>
<td>2. cooling fan failure</td>
<td>2. too long extension line of the machine due to the application of power strip</td>
<td></td>
</tr>
<tr>
<td>3. the cooling fan surrounded by piled things</td>
<td>3. too high set standby</td>
<td></td>
</tr>
<tr>
<td>4. too high ambient temperature</td>
<td>1. check the voltage input mechanism of the socket and lay the cable again</td>
<td></td>
</tr>
<tr>
<td>5. too high standby temperature</td>
<td>2. not longer than 5m extension line</td>
<td></td>
</tr>
<tr>
<td>1. reduce the sealing quantity to cool the machine</td>
<td>3. lower the standby temperature</td>
<td></td>
</tr>
<tr>
<td>2. check whether the cooling fan can run and discharge the hot air; otherwise replace it</td>
<td>4. adjust or replace the spring</td>
<td></td>
</tr>
<tr>
<td>3. be away from the wall or remove the piled things surrounding the cooling fan</td>
<td>5. replace the reel(pouch)</td>
<td></td>
</tr>
<tr>
<td>4. change the ambient temperature or put the machine in a place with suitable temperature</td>
<td>6. remove the foreign matter</td>
<td></td>
</tr>
<tr>
<td>5. decrease the standby temperature</td>
<td>7. clean up the pressing roller</td>
<td></td>
</tr>
<tr>
<td>1. raise the set temperature</td>
<td>2. call the manufacturer for maintenance</td>
<td></td>
</tr>
<tr>
<td>3. raise the set temperature</td>
<td>3. raise the set temperature</td>
<td></td>
</tr>
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<tr>
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<tr>
<td>7. clean up the pressing roller</td>
<td>7. clean up the pressing roller</td>
<td></td>
</tr>
<tr>
<td>1. too thick plastic film</td>
<td>1. too thick plastic film</td>
<td></td>
</tr>
<tr>
<td>4. the pressure exerted by the pressing roller is reduced</td>
<td>4. too low set temperature</td>
<td></td>
</tr>
<tr>
<td>5. liquid or dirty marks in sealing area</td>
<td>5. too high ambient temperature</td>
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<tr>
<td>6. foreign matter in sealing area</td>
<td>5. too high standby temperature</td>
<td></td>
</tr>
<tr>
<td>7. dirty things around the pressing roller</td>
<td>6. too high standby temperature</td>
<td></td>
</tr>
<tr>
<td>1. reduce the sealing quantity to cool the machine</td>
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<td>2. check whether the cooling fan can run and discharge the hot air; otherwise replace it</td>
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<tr>
<td>3. be away from the wall or remove the piled things surrounding the cooling fan</td>
<td>3. be away from the wall or remove the piled things surrounding the cooling fan</td>
<td></td>
</tr>
<tr>
<td>4. change the ambient temperature or put the machine in a place with suitable temperature</td>
<td>4. change the ambient temperature or put the machine in a place with suitable temperature</td>
<td></td>
</tr>
<tr>
<td>5. decrease the standby temperature</td>
<td>5. decrease the standby temperature</td>
<td></td>
</tr>
<tr>
<td>1. too thin voltage input cable connected with power socket</td>
<td>1. too thin voltage input cable connected with power socket</td>
<td></td>
</tr>
<tr>
<td>2. too long extension line of the machine due to the application of power strip</td>
<td>2. too long extension line of the machine due to the application of power strip</td>
<td></td>
</tr>
<tr>
<td>3. too high set standby</td>
<td>3. too high set standby</td>
<td></td>
</tr>
<tr>
<td>1. check the voltage input mechanism of the socket and lay the cable again</td>
<td>1. check the voltage input mechanism of the socket and lay the cable again</td>
<td></td>
</tr>
<tr>
<td>2. not longer than 5m extension line</td>
<td>2. not longer than 5m extension line</td>
<td></td>
</tr>
<tr>
<td>3. lower the standby temperature</td>
<td>3. lower the standby temperature</td>
<td></td>
</tr>
</tbody>
</table>
## Operation & Maintenance Manual

<table>
<thead>
<tr>
<th>Temperature</th>
</tr>
</thead>
</table>

### 26. Have a feeling of electrical shock when touching the machine
- 1. The socket is not grounded
- 2. Leakage of electricity

1. Ground the socket
2. Do not touch the machine, disconnect it, pull out the power cord from it and call the manufacturer for maintenance

### 27. Lack of matched device
- 1. The reel cannot be cut
- 2. Low efficiency in sealing
- 3. No place to store the reel
- 4. Cannot test the strength of sealing
- 5. Cannot test the result of sealing

1. Purchase single-deck or double-deck reel cutting machine
2. Purchase roller worktable or plate worktable
3. Purchase specified stainless steel multipurpose worktable
4. Purchase sealing strength tester
5. Purchase test cards and magnifier.

If you still cannot use the machine, please contact the company or authorized agent.

## XIV. Precaution

Do not open the machine housing in order to prevent electric shock or scald. All the machine repairs and upgrades must be done by people authorized by or trained by our company.

- **It is prohibited to cut any other materials with this machine; otherwise the service life of the blade will be affected greatly!**
- Please switch off the machine or remove the power plug, and close the reel-feeding chamber, when the machine is idle.
- When the machine breaks down, please turn off the machine immediately. It can be started until the problem is resolved.
- **It is forbidden to seal Tyvek (120°C low-temperature pouch) at high temperature (higher than 150°C)!**
- It is prohibited to operate the machine when failures exist. Only after they are eliminated by authorized people can the machine be used.
- **Please ensure that the power source connected with the machine is properly-grounded, because static electricity has great influence on the control panel.**
- Under sealing mode, please pay attention to the way of sticking sterilization indicator tape to...
prevent it entering the driving mechanism and being stuck on pressing rollers.

In the sealing mode, please pay attention to the following paste instructions for the paste of the sterilization instructions to prevent the adhesive tape from entering the drive mechanism of the cutting machine and stick it on the press wheel, which will affect the normal use of the device. (See Figure 14.1)

Summary: Regardless of the method used to identify the sealing equipment, no matter what measures are used to detect the sealing effect, no matter how many rules are implemented to ensure the normal operation of the sealing equipment, the purpose is to ensure that the items are sterilized after packaging and before opening the packaging. Maintain sterility and ensure that the sealing equipment operates under normal working conditions, so that the sealing quality can be effectively guaranteed.

XV. After-sale service

1. Scope of Free Service

Our company offers one-year warranties. The time starts from the date of the invoice (or one month after the date of production if users have no invoice).

Free service items include repairs, components replacement and the allocation of products (As ink ribbons are consumable and power cords are easily damaged, their replacement and repairs are exclusive of free service items).

If the contract stipulates otherwise, such stipulations will prevail.
2. Scope of Chargeable Service

1) We will charge for the service beyond the guarantee period.

2) During the guarantee period, we will charge for repair if it is caused by one of following ones.

   a). Body parts damage or deformation caused by external factors;
   
   b). Dust accumulates inside the machine, or the machine body is corroded, damaged by biological invasion, soaked by liquid, or go mouldy, due to bad environment;
   
   c). Heat sensitive materials are attached to mechanical parts because of improper operation;
   
   d). Use of sealable materials not mentioned in the manual;
   
   e). Use of power supply without credible ground connection;
   
   f). Use of higher voltage than the rated one;
   
   g). Irresistible natural disasters;
   
   h). Use of parts not produced by our company;
   
   i). Don’t follow the manual;
   
   j). Unauthorized modification, dismantlement or maintenance;
   
   k). Users cannot prove that the product is under warranty or it is produced by our company.

3. Maintenance Procedures

Please follow the steps below, when you need an authorized agent or our company to provide maintenance service:

a) Contact our sales department or sales agents and tell us the factory number and service number on the label stuck at the right side of the machine. We will find the detailed production and maintenance files according to the information you provide.

   Note: Users must provide the factory number and service number, or we will not offer after-sales service.

b) Provide certified acquisition date.

c) State failure phenomenon.

d) Offer telephone number and address.

e) If it is necessary to send the machine to the manufacturer for repairs, please choose the logistics companies designated by the manufacturer, such as Depon Logistics. Users must pay the freight, when the machine is not under warranty.

4. Contact Information

If you have any problem, please contact our company or our sales agents.
Our contact information is as below:

Name: Shandong Yifeng Medical Technology Co., Ltd.
Address: East of Dingzhuang Road, Zibo Hi-Tech Development Zone, Zibo city, Shandong Province
Tel: 157 25756733
Fax: 0533-3911066
Email: easyseal@sina.cn
Website: www.easyseal.net
Free Service Hotline in China: 400-0533-360

Contact Details of Sales Agent: (To be filled in by a sales agent or a user)
Name:
Address:
Tel:
Fax:
Email:
Website:

XVI. Intellectual Property

Easyseal Medical Technology Co., Ltd. (hereinafter called Easyseal) is the copyright owner of this operation and maintenance manual which is not a publication, and has the right to consider it to be a restricted document. This manual is only taken as a reference to operate and maintain our product.

This manual and all the intellectual property (including copyright) belong to Easyseal. It is forbidden for anyone to use or disclose the information, or help others to obtain information from this manual. Anyone without written authorization is prohibited to take pictures, copy, duplicate and translate a part of or all the information of this manual in any other languages.

This equipment contains the following patent technologies of Easyseal: Patent numbers: ZL 2016 2 1024778.7, ZL 2016 2 1021391.6, ZL 2016 3 0419176.0, ZL 2016 3 0419167.1, ZL 2016 3 0419170.3, ZL 2016 3 0091258.7. If any imitation will be held liable

Easyseal owns the right of final explanation.
Easyseal keeps the right to modify the manual without prior notice.
Easyseal keeps the right to adjust the device technical parameters without prior notice.

XVII. Appendix

The attachments have been placed into a bag. Please paste it on the left of the screen or keep it near the machine.
Attachment I: Packing List
Attachment II: Cutting Wiring Diagram
Attachment III: Sealing-Printing Wiring Diagram
Attachment IV: Operational Procedures (Note: This Operational Procedure is for user's reference only). The attachment has been plastic sealed and placed in the accessory bag. Please use double-sided adhesive to stick on the left side of the device display or put it near the cutting seal to print the integrated sealing machine.

**Attachment 1: Packing List**

**Model EF121-A Machine**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Specifications</th>
<th>Qty.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cutting-Sealing-Printing (AIO) Machine</td>
<td>EF121-A</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Power Supply Cord</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Guide Plate</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Location-limited Plate</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Special Tool</td>
<td></td>
<td>1</td>
<td>For the adjustment of cutting blade</td>
</tr>
<tr>
<td>6</td>
<td>Special Screwdriver</td>
<td></td>
<td>1</td>
<td>For the adjustment of cutting blade</td>
</tr>
<tr>
<td>7</td>
<td>Allen wrench</td>
<td></td>
<td>1</td>
<td>Inside the machine</td>
</tr>
<tr>
<td>8</td>
<td>Ink Ribbon</td>
<td>EF308</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Operation &amp; Maintenance Manual</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Quality Certificate</td>
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</tr>
<tr>
<td>11</td>
<td>Fuse</td>
<td>5A 5×20</td>
<td>2</td>
<td></td>
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<tr>
<td>12</td>
<td>Operation Procedures</td>
<td>Plastic-sealed</td>
<td>1</td>
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</tr>
<tr>
<td>13</td>
<td>Paper-plastic Test Card</td>
<td>EF351</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
### Operation & Maintenance Manual

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Code</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Tyvek Test Card</td>
<td>EF361</td>
<td>10</td>
</tr>
<tr>
<td>15</td>
<td>High-temperature Pouch</td>
<td>EF525</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>Low-temperature Pouch</td>
<td>EF520</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>Instruction for Sealing Test Card</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
Attachment 2: Cutting Wiring Diagram
Attachment 3: Sealing-Printing Wiring Diagram