



lockedwave™

LP-F1

User Manual of Paper Cushion Machine



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Foreword

Thank you for using Locked Wave void fill / cushioning paper machine.

Please read this manual carefully before operation in order to make sure that you use the machine correctly.

Note: The operation of different model is slightly different, please check the instructions in the manual.

Warning

- a. The power supply must be same with the parameters on the the machine.
Misconnection is strictly prohibited. Please use only the power plug provided with the machine to prevent damage.
- b. Please ensure that the power plug is reliably grounded;
- c. Please pay attention to the short circuit and open circuit of the internal wiring in the safety switch during the carrying;
- d. Non-professional engineer is prohibited to open the machine maintenance cover.

Safety Precautions

- a. The machine will stop after the maintenance cover is opened to ensure the safety of equipment maintenance. It is strictly forbidden to use the safety switch insert separately from the maintenance cover;
- b. Do not touch any rotating parts when the machine is working;
- c. It is strictly forbidden to touch the blade during machine maintenance.



- d. It is strictly forbidden to put your fingers in the middle of the paper feeding wheel to avoid hurt of hands during the maintenance of the equipment;
- e. When the machine is working normally, the system will detect the signal of sensor or motor and stop with alarm if the motor is abnormal or paper jams happen;
- f. In the following cases, please press the power switch to cut off the main power of the machine:
 - Other item jam of the paper inlet;
 - Abnormal sound inside the machine;
 - Other abnormalities

1. Brief

Paper folding machine is a widely used paper cushion system and it is not only green environmental but also meet the requirement of most box internal packaging. Paper cushion system can switch craft paper into paper cushion with excellent shockproof protection. Compared to traditional cushion material, paper cushion can absorb more falling impact and offer better protection during the transportation.

Paper folding machine with cutting mechanism is electric equipment. Function system consists of paper machine with cutting mechanism and a stack of craft paper. Craft paper finally becomes fluffy LockedWave™ filling packaging material after folding and compression process in paper machine.

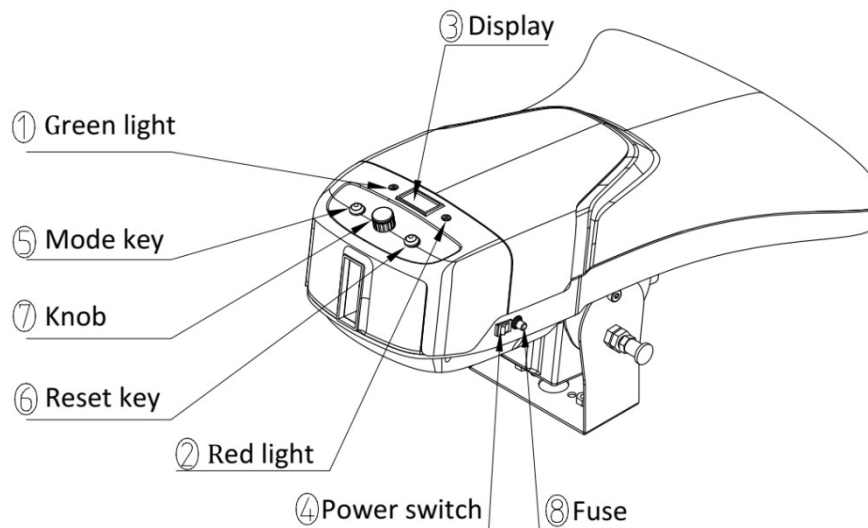
1.1 Component

Paper machine: Fold craft paper into paper cushion;

Stand: to fix paper machine ,put craft paper and adjust the height of machine , easy to move with universal wheel;

Foot switch: start and stop the paper machine.

1.2 Panel



①Green light: the normal working status of machine , green light;

②Red light: the red light flashed when machine error alarm;

③Display: 4-digit digital tube, to display working mode ,working parameter and alarm code;

④Power switch: to turn on / off machine 's power;

⑤Mode key: to switch the working mode;

- ⑥Reset key: to reset the working status;
- ⑦Knob: to set paper cushion quantity and length of paper;
- ⑧Fuse: to protect the circuit

1.2.1 Setting

SN	Content	Detail
1	Enter setting status	Long press MODE key for 3seconds , mode symbol H\L\C starts to flash
2	Exit setting status	After 6seconds without any action , mode symbol H\L\C stop flashing, exit setting status
3	Switch working mode	After entering setting mode , short press MODE key , enter another working mode , manual(H)->Length(L)->Counting(C)-> manual(H)
4	Adjust parameter	Counting mode : after entering setting mode , short press MODE key and enter counting mode , to adjust the quantity by rotate the knob, 1-100, every scale changing 1, 100-999 every scale changing 5. Length mode: after entering setting mode, short press MODE key to enter length mode, to adjust the length by rotate the knob, (unit :cm), 1-100, every scale changing 1, 100-450 every scale changing 5
5	Reset/cut paper	Press RESET When machine is on alarm status, blade return and all setting recover initialization. Machine enters Idle state. Machine will start first cutting paper action when machine is on Idle state.
6	Start/stop	Manual mode: hold the foot switch, starting shooting, release the foot switch , stop shooting and cut. Minimum length is 25cm. hold the foot switch, if beep three times and with green light flash, it means need to clear the paper shooting exit, then hold foot switch again, flash of green light will stop. Length mode: short press foot switch, enter working mode, there will be one piece preset paper and another new one will be ready when manually take out. Counting mode: short press foot switch, enter working mode, machines starts to shoot according to the preset quantity till finish the scheduled paper quantity and machine stop ; If you press foot switch

		again during the process, it will stop.
7	Feeding mode	Power on/Alarm recovery , No any kraft paper whether in feeding entrance or shooting exit under all modes. Short press foot switch or long press RESET(above 1.5s) , continuously feeding status till the feeding succeed or timeout alarm(15 seconds) . If beep three times and with green light flash, it means need to clear the paper shooting exit, then feed again.
8	Return status	After pressing MODE key, press RESET key, machine starts to enter return status.

2 Setting and operation

2.1 Installation

Please check pater machine installation diagram.

2.2 Connecting power

Power requirement : 100~240VAC 50/60Hz

2.3 Working mode

1. Manual mode: hold the foot switch, starting shooting, release the foot switch, stop shooting and cut .Minimum length is 25cm. Hold the foot switch, if beep three times and with green light flash, it means need to clear the paper shooting exit, then hold foot switch again, flash of green light will stop.
2. Length mode: short press foot switch , enter working mode, there will be one piece preset paper and another new one will be ready when manually take out.
3. Counting mode: short press foot switch , enter working mode, machines starts to shoot according to the preset quantity till finish the scheduled paper quantity and machine stop; If you press foot switch again during the process, it will stop.

2.3.1 Switching working mode

Long press MODE key for 3 seconds, mode symbol H\L\C starts to flash, and short press MODEkey, enter another working mode.

Manual mode: [H--], Length mode: [L024], Counting: [C123], Alarm: [E004]
Mark: digit 024 represent for 024cm in L024; Digit 123 represents for continuously producing 123 pieces in C123. Digit 004 represent for alarm code in E004

2.4 How to feed

When machine is powered on or alarm recovery, make sure the shooting exit without any paper before, then please operate below if you want to feed:

- 1、 Fold the craft paper into strips manually , length is around 50CM;
- 2、 Short press foot switch or long press RESET(1.5s above) , keep the machine in continuously feeding status (this status can last 15 seconds) ; If beep three times and with green light flash, it means need to clear the paper shooting exit, then feed again.
- 3、 Feed the paper into the entrance, the feeding is successful if machine pulls the paper and there is paper at exit.

If you find the paper is finished soon during the process , please short press the foot switch and stop the machine; Please use tape to connect the paper end to the beginning of new paper stack and then short press foot switch.

3 Error message and exclusion

Machine will stop and alarm when system detected abnormal motor speed, paper jam to ensure the safety of machine and packer, machine can't work till the troubleshoot ,detailed alarm information and exclusion as below:

Alarm code table:

SN	CONTENT	DETAL	OPERATION
1	E001	Blade is not at starting position	Press Reset key
2	E002	Blade does not leave the starting position	Press Reset key
3	E003	Blade does not return to starting position	Press "RESET", or check whether release or not the cover of machine
4	E004	No paper detected at the entrance	Check if out of paper
5	E005	No paper detected at the exit	Press Reset key
6	E006	Paper jam	Find the detail below the table
7	E007	Abnormal stop of feeding motor	Press "RESET", or check whether release or not the cover of machine
8	E008	Abnormal speed of feeding motor	
9	E009	Error of blade motor	

Solution for paper jam inside the machine: (E006)

- 1、 Press Reset key, remove the alarm symbol and red light is not flashing any more;
- 2、 Clear the shooting exit, press foot switch again and if machine works normally , skip the following step;
- 3、 If panel still display E006, hold the MODE key and press RESET key several times, take out all papers and then feed again;
- 4、 After finish step3, the problem solved, skip following steps;
- 5、 Unplug power plug, open the maintenance cover;
- 6、 Clean the jammed paper and make sure that machine should be powered off during the cleaning;
- 7、 Install the maintenance cover;
- 8、 Insert the power plug into socket and feed again.

4 Specification

Dimension is the maximum space size.

4.1 Basic specification

Equipment specification:

Weight: 17KG
Dimension: 681(L)*452(W)*352(H) mm
Packing size: 745(L)*550(W)*380(H) mm
Speed: 72m/min
Paper length range: 0.25~4.5m
Counting range: 1~999
Lifetime of machine: 3year
Lifetime of wearing part: 1year (blade, roller)

Stand:

Weight: 22KG
Dimension: 762*703*(1320~1570) mm
Packing size: 1300*450*165mm
Adjustable length range: 250mm

Foot switch:

Weight: 0.8kg
Dimension: 200*100*74mm
Cable length: 4m

Electrical connection:

Voltage: 100~240VAC
Frequency: 50/60Hz
Power supply: Rated power 150W

Safety:

Open cover and shutdown: The hardware automatically cuts off all motor power to ensure operator safety when top cover is opened;

Warning label: there is obvious warning label in dangerous position;

Safety specification design: The mechanical structure design meets the requirements of CE safety regulations, and all dangerous parts can not be touched by hand.

4.2 Consumption specification

Craft paper:

Weight: 70g/m²
Length: 360 m
Width: 38CM;
Folded length: ≤220mm
Stack weight: 14.7Kg

5 Transportation and storage

1. The machine should not have strong vibration and shock during transportation;
2. The machine must not be exposed to sun and rain, and should be stored in an environment with a temperature range of -25 to $+55$ °C (-13 to 131 °F) and a relative humidity of less than 90% RH.

5.1 Appendix

5.2 Machine assembly dimensions

