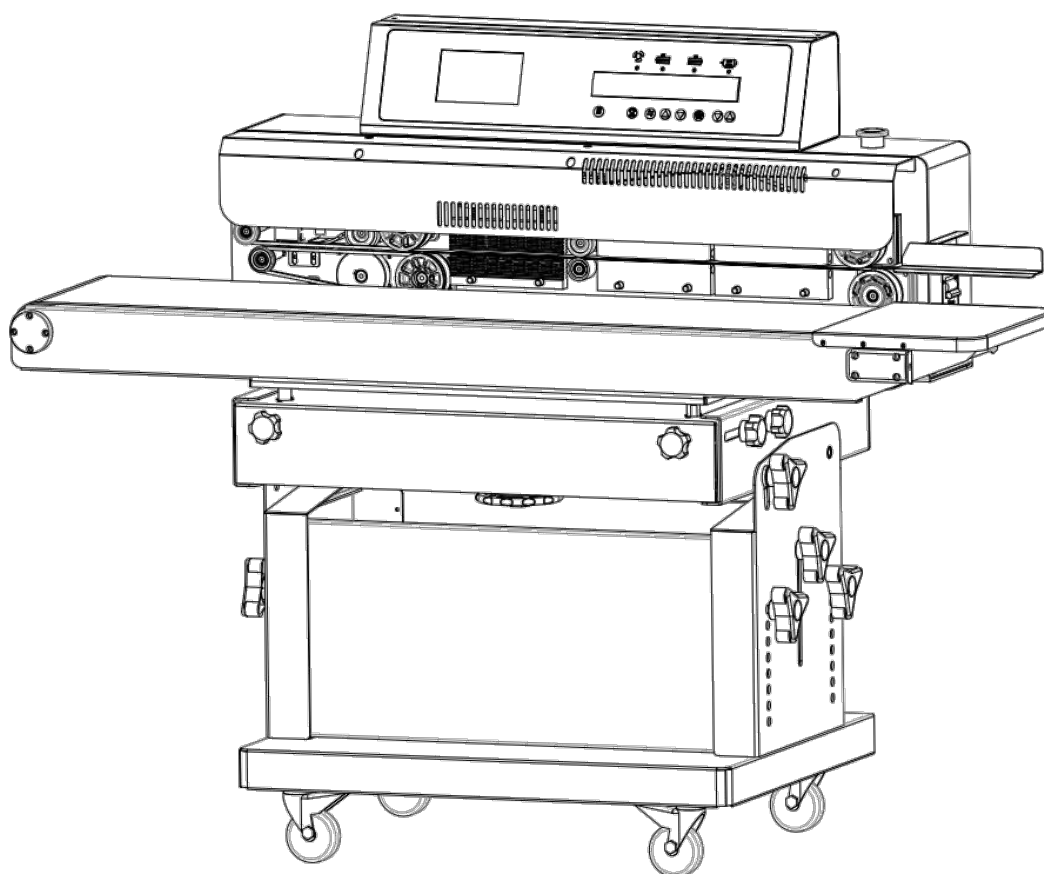


SMT-280P INKJET SEALING MACHINE



USER MANUAL

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I. Purpose of product

This machine is a new-generation continuous sealing machine with ink-jet printing capabilities, designed to meet emerging market demands. It is suitable for sealing and printing plastic films and can be widely applied in industries such as food, pharmaceuticals, chemicals, daily electronics, and seeds. It is the ideal sealing equipment for factories and shops engaged in batch packaging.

II. Features

- Constant-temperature control
- Unlimited sealing length
- Smooth speed-adjustable transmission system
- User-friendly easy operation
- Linux ink-jet system
- Smooth and durable seal
- Various types of plastic film bags
- Clear and legible ink-jet printing.

III. Structure and Principle

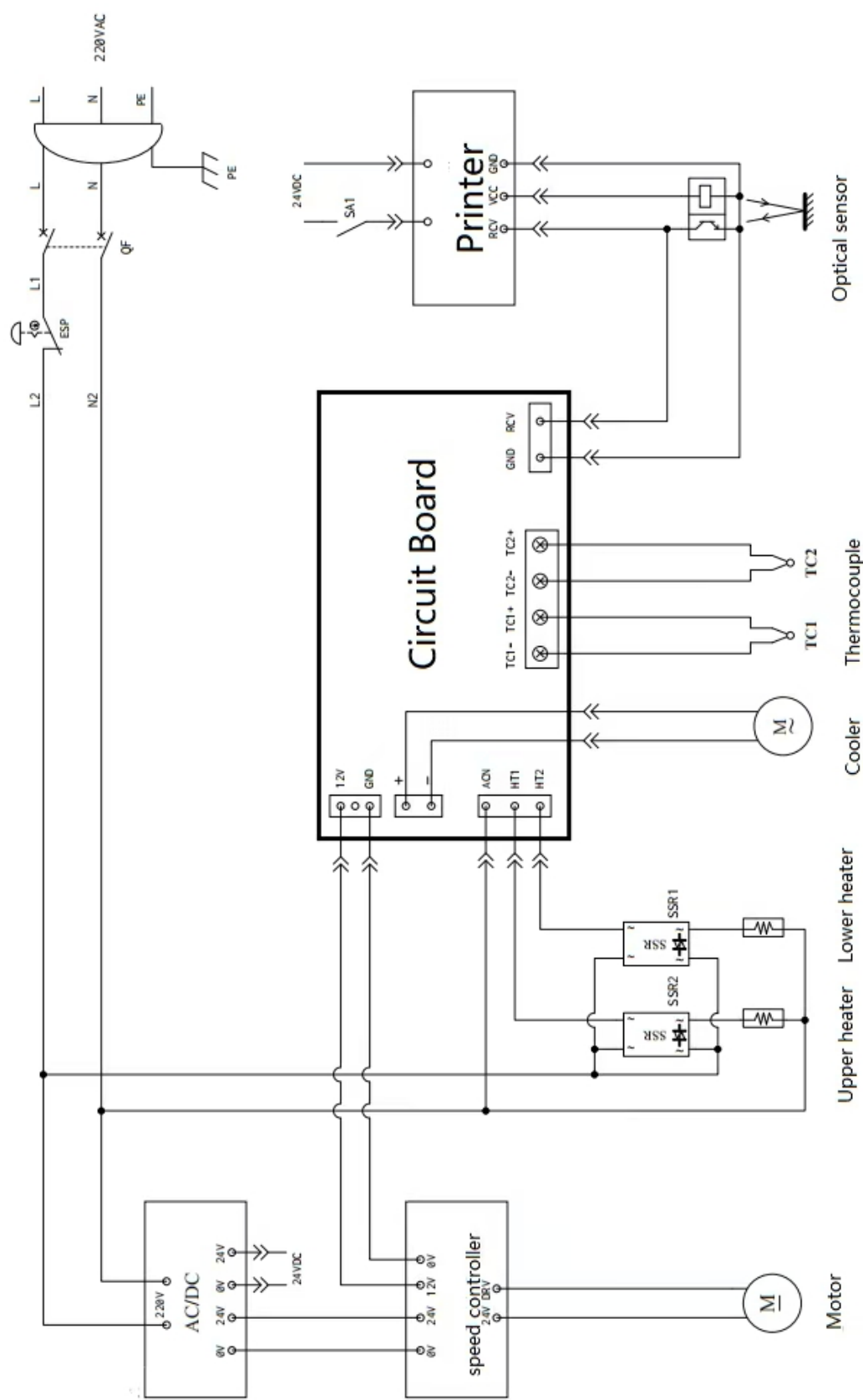
(1)The machine consists of speed-adjusting mechanism, sealing temperature control system, transmission and conveying components, and an ink-jet printing device.

(2) When powered on, the heating elements generate heat, rapidly raising the temperature of the upper and lower heating copper bars. The temperature controller and speed-adjusting device regulate the required temperature and speed according to the material of bag. to the heating zone, causing the plastic film to fuse under heat. Then carried into the cooling zone, where embossing rollers press it to create stripes or mesh patterns. Finally, the ink-jet printer print the text, QR code, bar code or patterns.

IV. Parameter

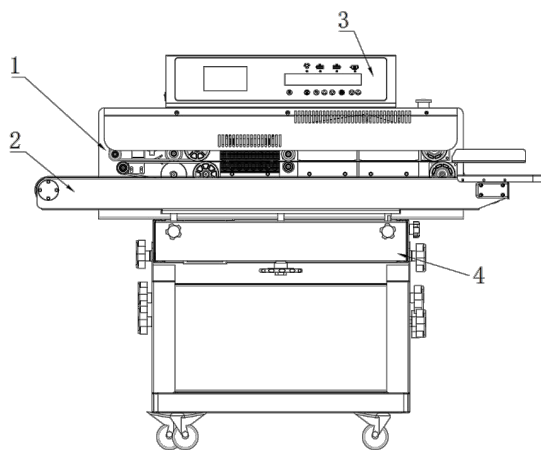
Model	SMT-280P
Voltage	220V/50Hz 110v/60Hz
Power	1650W
Speed	0-25m/min
Rang of temperature	0-300℃
Type of printing	Ink-jet
Max. loading	15Kg
Seal width	10mm
Dimension	1290×545×1000mm
Weight	98Kg

V. Circuit Diagram



VI. How to use

i. Component name:



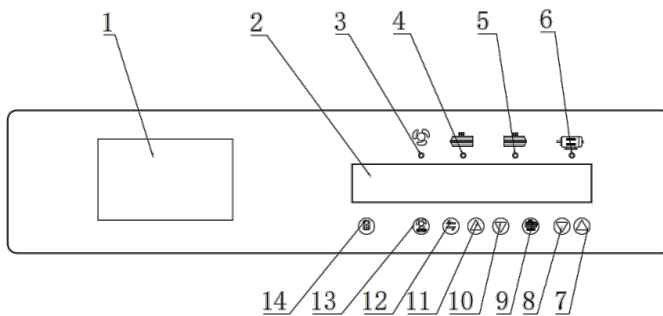
1. Seat plate parts

2. conveyor

3. Control box

4. Rack frame

ii. Control panel



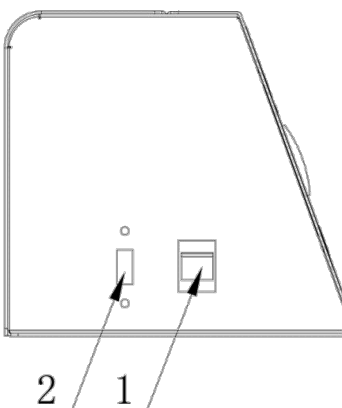
1. Code input screen 2. Control screen 3. Fan indicator 4. Upper heater indicator

5. Lower heater indicator 6. Motor speed 7. Speed up "+"

8. Slow down "-" 9. Switch of heater 10. Cool down "-"

11. Heat up "+" 12. Select up and down heater 13. Counter of bag

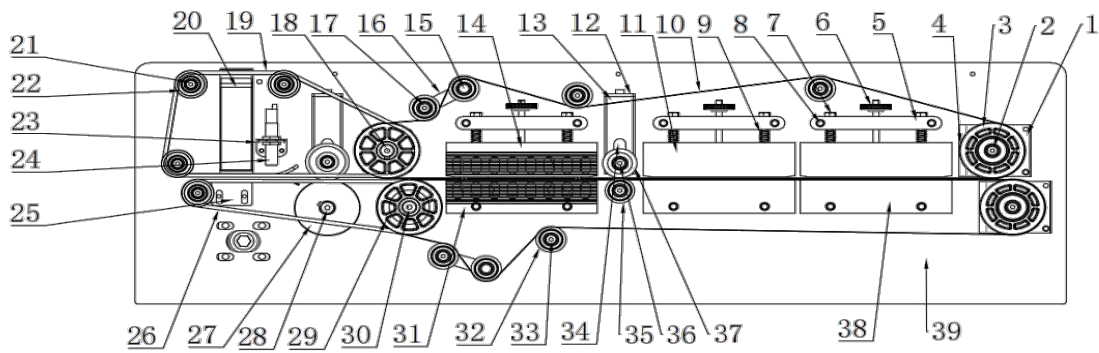
iii. Side port



1. Switch of printer

2. USB input

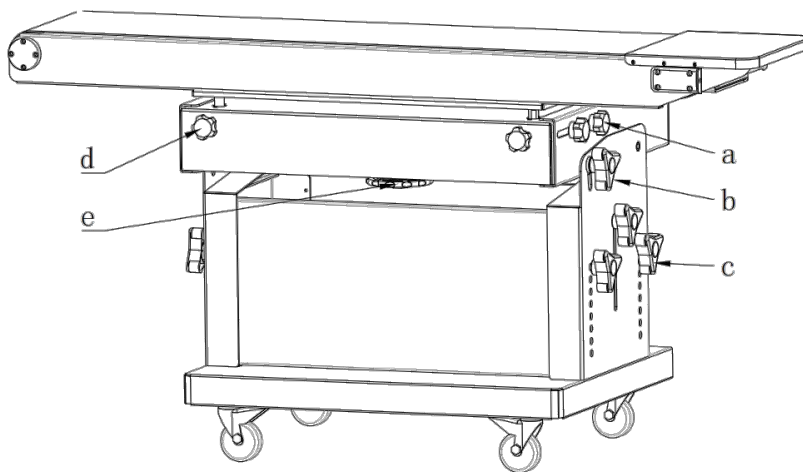
iv.Sealing part and adjustment



2	Passive wheel shaft	22	Guide wheel
3	Passive wheel inner shell	23	Optical sensor bracket
4	Passive wheel outer shell	24	Optical sensor
5	Copper bar fixing bracket	25	In-jet printer bracket
1	Adjustable seat	21	Guide wheel shaft
6	Copper bar adjusting knob	26	Lower toothed belt
7	Copper bar fixing rod	27	Embossing wheel
8	Copper bar fixing shaft	28	Driving wheel inner
9	Upper heater spring	29	Lower driving wheel shaft
10	Teflon belt	30	Lower cooling bar
11	Upper heater	31	Pressing wheel
12	Welded part of Knob screw	32	Idler wheel shaft
13	Sliding peace	33	Idler wheel shaft
14	Upper cooling bar	34	Fixing block
15	Torsion spring shaft	35	Lower idler wheel
16	Swing arm	36	Upper idler wheel shaft
17	Pressure wheel shaft	37	Upper idler wheel sleeve
18	Driving wheel shaft	38	Lower heater
19	Upper toothed belt	39	Diaphragm
20	Cartridge		

- ① Adjust distance between the heaters and the cooling bars, according to the material and thickness of the bag. Rotate adjusting knob clockwise to increase the distance, and rotate counterclockwise to decrease the distance.
- ② Adjust idler wheel and the silicone wheel, by a hexagon wrench with a handle to turn the screw clockwise to loosen these two wheels, and turn the screw counterclockwise to tighten these two wheels.
- ③ Tension adjustment of the sealing belt: Loosen the fixing screw of the torsion spring shaft, rotate the torsion spring shaft to the left to tighten the belts, and rotate it to the right to loosen the sealing belt. After the appropriate adjustment is made, fix the nut.
- ④ Adjustment of the running deviation of the sealing belt: Use a hexagon wrench with a handle to adjust the two screws on the adjustment seat to make the sealing belt in the correct position.

v. Conveying part and adjustment



- a. In-and-out adjustment knob of the conveyor b. Angle adjustment knob of the conveyor
- c. Fixing knob for raising the whole machine d. Fixing knob for raising the conveyor
- e. Steering wheel for raising the conveyor

- ① Horizontal adjustment of the conveyor: Loosen the knobs a on both sides, move the conveyor table to an appropriate position, and then tighten the knobs a on both sides.
- ② Up-and-down adjustment of the conveyor: Loosen the fixing knobs d on both sides, rotate the steering wheel e to adjust the conveyor table to an appropriate height, and then tighten the knobs d on both sides.
- ③ Angle adjustment of the conveyor table: Loosen the knobs b on both sides, adjust the conveyor table to an appropriate angle, and then tighten the knobs b on both sides.

vi. Preparation before starting the machine

- (1) This machine is equipped with a three-pin socket with the housing grounded. When in use, it should have a good grounding to ensure safe production.

(2) When using it for the first time or after a long interval of use, the electric heating elements may get damp. It is necessary to preheat at a low temperature for several minutes before normal operation can be carried out.

(3) Adjust the height of the conveyor table as required to suit the external dimensions and angle of the sealing belt needed.

vii. start the machine

(1) Connect the power supply and turn on the power switch. The motor speed regulation indicator light will turn on, and all the transmission components will run synchronously.

(2) Turn on the temperature controller and the fan switch. The indicator light will turn on. Adjust the temperature controller to the required temperature according to the material and thickness of the packaging bag. When the heating rod starts to preheat, the machine should be started to run at a low speed simultaneously.

(3) The sealing part of the packaging bag should be placed flat and aligned. Put the bag mouth close to the feeding port and send it in. When the sealing part is bitten by the sealing belt, it will move forward automatically. At this time, do not push or block it arbitrarily, otherwise, it will cause uneven sealing or malfunctions.

(4) If there is dirt adhered to the sealing belt, the cooling rod, and the heating rod, the machine should be stopped for cleaning.

viii. Stop the machine

In order to protect the Teflon belt, before preparing to stop the machine, it is required to adjust the heating temperature back to the zero position first. At this time, the temperature pointer will start to drop slowly, and the sealing belt is still running. After several minutes, when the temperature drops below 100°C, the fan and the main power switch can be turned off.

(Note: In order to extend the service life of the whole machine, if it works continuously for more than 8 hours, please stop the machine for 0.5-1 hour and then continue to use it.)

VII. Ink-jet Parameter and setting

i. Ink-jet Parameter

System: Linux 3.4 LCD

Screen: 5-inch capacitance touch screen

Resolution: 300 DPI x 600 DPI

Speed: max 40m/min

Character height: PF160 1.25cm / PF320 2.54cm

Font: simhei, song, regular, traditional, Arial, DOT, 5x7, 7X9, 10X16, and other

Graphics: Bitmap format monochrome or 24-bit color

Barcode: 128 yards, UPC code, product code, 39, a job should code, QR codes, DM code

Udisk import format: TXT/XLSX

Information max size: 3 GB

ii. start page



Text: Click to input text information.

Picture: After clicking, you can import the stored BMP format pictures from a USB flash drive.

Barcode: You can set barcode information such as barcodes and QR codes.

Date: Click to quickly input the current date.

Counter: It is a sequential counting number, and you can set a sequential number with a maximum length of 8 digits that can change.

Delete: Click to delete the currently selected text box.

iii. Ink-jet setting

The screenshot shows a mobile application interface for an InkJet printer. The title bar at the top indicates 'InkJet WWW' and the time '06-20 11:54'. The main heading is 'Printer'. Below this, there are several rows of settings, each with a label, a plus/minus control, and a numeric input field. The settings are: Delay (10), Mul.Time (1), Mul.Gap (10), Speed (50), Encoder (3), Mul.Bold (1), Dir (L->R), Apart (No), Ink Type (MEK 9.0), Nozzle (Right), Total (00000000), and a Clear button. At the bottom, there is a numeric keypad with digits 0-9 and a green checkmark button.

Delay(Pixel): Max 60000, it will print after this pixels value from trigger start

Mul.Times: Max 100, it will print one more times at each trigger, 0 means repeat to print until you press the button suspend.

Mul.Gap (Pixel) : max 100, times you want to repeat print.

Speed: speed (m/min) = $0.2 \times \text{speed}$ max 200, it means the speed without synchronizer.

Encoder: when it's 0, there's no synchronizer and the parameter speed is working. The font width is big as this parameter value is big

Mul.Bold: Max 10. The font is black as this parameter value is bigger

Dir: the direction for device moving to

Apart: print one picture unit each time, max 5

InkType: mek 8.5V~ 9V ; water: 10V~ 10.8V

Note: When changing any parameter, please cancel the printing first.

iv. Edit Text

Text Field: The input character content.

Font: Font selection.

Height: Character height (in pixel points).

Spacing: Character spacing.

Bold: Bold the font.

Width: Character width (in pixel points).

Direction: Directions of 0, 90, 180, 270 degrees.

Dot-matrix Effect: DOD effect under solid fonts.

Bind as Variable: The current content is a variable character, and the data can be sourced from txt, Excel (.xlsx), RS232 communication, or socket communication.

v. Edit Time



The screenshot shows the 'New Counter' configuration screen in the InkJet application. The interface is dark-themed with white text and light-colored input fields. At the top, the status bar shows 'InkJet', 'WWW', and the time '06-20 11:51' with a battery icon. Below the status bar is a back arrow and the title 'New Counter'. The main area contains several settings:

- Counter:** A text field containing '00000001'.
- Font:** A dropdown menu showing 'SimSun'.
- Bold:** A dropdown menu showing 'No'.
- Height:** A dropdown menu showing '315'.
- Width:** A dropdown menu showing '158'.
- Gap:** A dropdown menu showing '20'.
- Dir:** A dropdown menu showing '0'.

At the bottom left, there is a radio button labeled 'Dot Style' which is currently unselected. At the bottom right, there is a green square button with a white checkmark, indicating a confirmation or save action.

InkJet WWW 06-20 11:51

← New Time

Type: yyyy-MM-dd Font: SimSun

Height: 315 Width: 158

Gap: 20 Bold: No

Dir: 0 ☐ Dot Style ☐ Expire



Font: font type

Height: height for text

Width: width for text

Gap: gap between characters

Bold: bold font

Dot Style: DOD style for solid font

Expire: expired date. it will be filled by system automatically, according the periods of validity.

vi. Edit Barcode

InkJet WWW 06-20 11:50

← New Barcode

Type: code 128 Data:

Frame: No Height: 50

Human Yes X Comp.: 100



Type: code128、code39、Int25、UPC-A、ENA13、QR、DM. (If QR or DM, you can choose to bind the bar code as a variable bar code sourced from a data source (such as .txt, .xlsx, or socket).

Data: The data string of the bar code.

Add Frame: Whether the bar code is surrounded by horizontal bars at the top and bottom.



vii.Setting of system



ValidDay: check the deadline according period of validity

Spit: switch of intermittent duty for ink box. it's for avoiding to block the ink box when it's in standby status.

Cartridge: the size for ink box is 1 inch or half inch.

Interval: unit is second. the interval for flash

Print Language: it's working after reset

LongerMsg: the message size can be up to 2M when this parameter value is yes Columns: columns for each flash print.

DPI: single nozzle

Reset Ink: capability for standard ink box when software checks the remaining ink.

viii.settings for counter

The screenshot shows the 'Counter' settings interface. The top status bar displays 'InkJet WWW' and the time '06-20 11:57'. The title bar of the app is 'Counter'. The settings are organized into two columns. The left column contains 'Bit' (set to 8), 'Stop' (set to 99999999), 'Loops' (set to 1), and 'Dir' (set to 'Inc'). The right column contains 'Start' (set to 1), 'Step' (set to 1), 'Mul.Times' (set to 1), and 'ZeroLead' (set to 'Yes'). Each input field has '+' and '-' buttons for adjustment. At the bottom, there is a numeric keypad with buttons for digits 0 through 9, a backspace button (X), and a green checkmark button to confirm the settings.

Bit: digit for calculating. from 1 to 8.

Start: beginning value for counting

Stop: ending value

Step: step value

Loops: counting loops

Mul.Times: counting frequency

Dir: INC counting increases , DEC counting decreases

Zero Lead: YES : means all the 0 in front of 1 will be printed

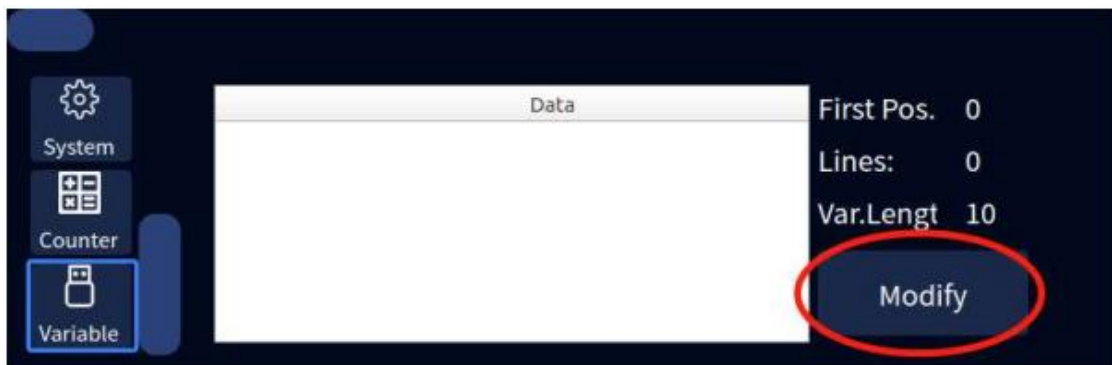
NO : means all the 0 in front of 1 will not be printed

step value 1 and interval 1, the line is "1234567....."

step value 1 and interval 2,the line is "1 1 2 2 3 3 4 4 5 5 6 6....."

step value 2 and interval 2, the line is "1 1 3 3 5 5 7 7 9 9....."

ix. Variable source settings

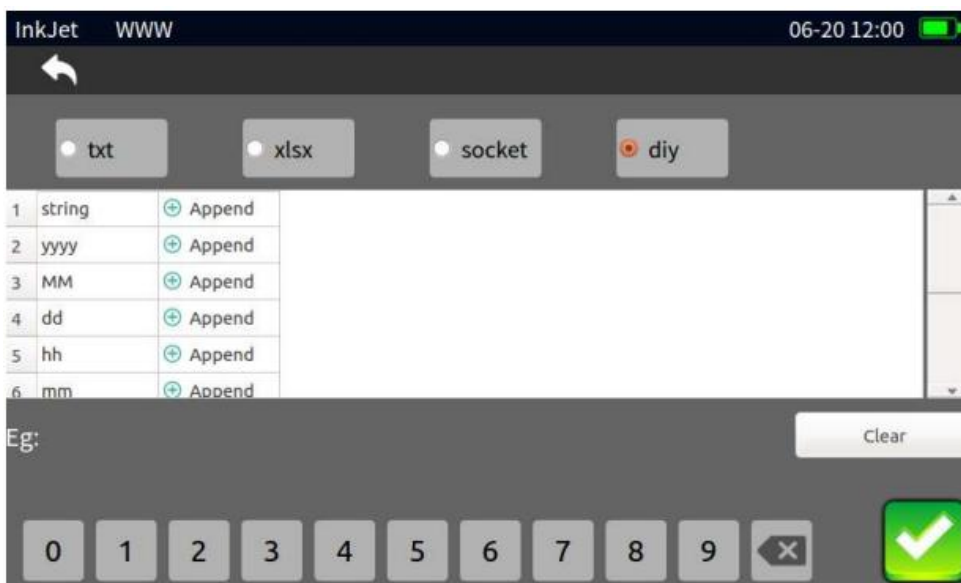


Txt: text file of .txt. each row as a unit. the file is from USB

xlsx: excel file of .xlsx. each column as a unit. the file from USB

socket: socket com/RS232. Please ask the protocol details from the manufacturer.

diy: the cells custom DIY



string: customized string. double-click "string" to modify

Yyy, MM, dd, hh, mm, Counter, separator for time format. click button add to add

varieties into customized series

location for first line : in the module text or table, the row which you want to start

VIII. Packing list

No.	Item	Qty.
1	Teflon belt 1445mm	4
2	Toothed belt 657mm	2
3	Toothed belt 550mm	2
4	Crosshead screwdriver	1
5	Hex wrench	1
6	Spanner 14-17	1
7	Cartridge	1
8	Silicone sleeve	2
9	Upper wheel sleeve	2
10	Carbon brush for motor	2
11	Cable 3m	1