TLAS-80R

AUTOMATIC PEN-ROD SCREEN PRINTER

Operation Instruction

Http://www.kcautopm.com Http://www.dg-padprinter.com
Dongguan KC Printing Machine Limited
Whatsapp/Wechat 0086-13592766499 Skype: Yingsuhuakelven QQ: 726986799
Email:cjscbsf@126.com 13592766499@VIP.163.com

Contents

1. Basic function and parameter

Basic Function:

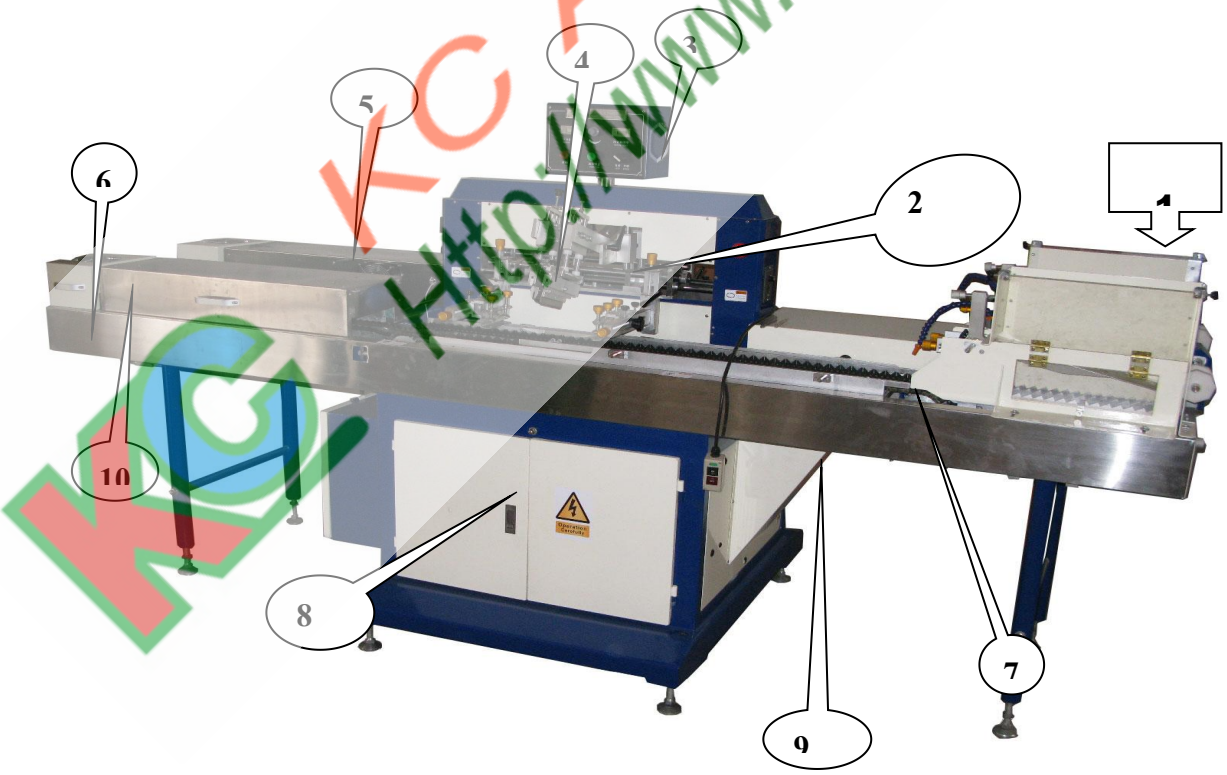
Totally automatic of loading and unloading goods, be able of single-way or double-way printing. Printing speed and store case are adjustable. Taiwan-made transducer controlling for consistency of portioning, ensuring high printing quality. Adopting IR infrared radiation or UV ultraviolet ray curing system printing and drying at same period. Wildly used for single-colour high speed printing of pen、 ball-pen、cosmetic bottles、 injector all cylindrical items.

PARAMETERS

Printing Diameter	Φ3~Φ20mm	Printing length	70~180mm
Printing stroke	80mm	Speed	7200psc/hr
Voltage Power	220V 50/Hz 5.5kw	Color type	Single
Size (mm)	3200×1100×1550mm	Weight	≈550kg

2. Structure

(1). Container: container of printing objects
(2). Printing head assembly ;
(3). Controlling panel;
(4). Stencil frame;
(5). Drying oven;
(6). Unloading way;
(7). Feeding part: feeding printing objects;



(8). Cabinet: the machine cabinet;

(9). Switch: General switch

(10) Cooing oven

3. Operation and adjustment

1). Control Panel Operation (DIAGRAM 1)

(1). **1#COUNTER**: counter of 1# printing way. The number will add one when the machine print one item every time. Lifting and pressing the rectangle on the left of the counter, it will be zero clearing.

(2). **Urgent Stop**: the button can stop machine when some urgency came up.

(3).**JOG**: if the AUTO/MANUAL knob is on manual, the jog is effective. The machine will make one displacement when press jog at every turn. It can be used in adjusting the pattern position or the initial place of the machine.

(4).**START/STOP**: if the AUTO/MANUAL knob is on auto, the button is effective . Pressing once the machine will become working, and it will stop working when you press it again.

(5).**SPEED CHANGER**: speed changer of printing, rotating the knob clock wisely, the speed will increase; anticlockwise, the speed decrease.

(6).**2#COUNTETR**: counter of 2# printing way. Using it the same as 1#COUNTER.

(7).**POWER BUTTON**:

(8).**AUTO/MANUAL**: the knob determine the machine's state whether is on auto or manual. It also determine which button is effective between JOG and START/STOP.

2).Printing Head Assembly (DIAGRAM 2)

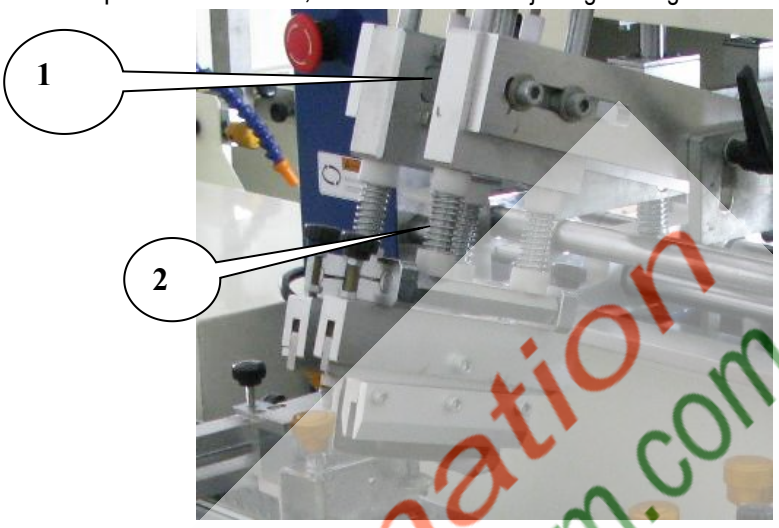
(1).Scraping Blade Pressure Adjustment: to increase/decrease the printing ink scraping pressure and flooding depth. It is recommend to adjust step by step while test printing.

(2).Scraping Blade Swing Angle Adjustment: to make scraping blade upright over center line of printing items.
(3).Printing Head Position-lock: loosen it and lift printing head assembly for screen stencil replacement.
(4).Scraping Blade Rear to Front Angle Adjustment: there are two adjust-knobs rear and front, they should be adjusted in match, to make scraping blade be parallel with screen fabric and surface of printing stock that to be printed.

3).Scraping Blade Middle Adjustment (DIAGRAM 3)

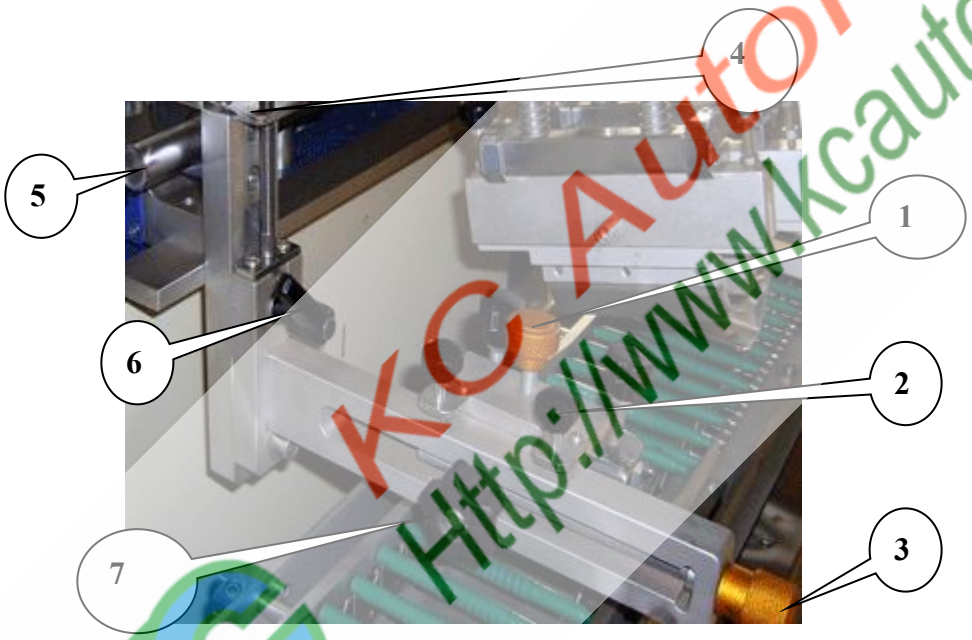
(1).Scraping Blade Adjusting screw: to adjust the relative between scraping blade and the printing stock' axis. The two up and down parallel the blade; the two rear and front adjusting the angle. It is recommend to adjust step by step while test printing.

(2).Ink Flooding Scraping Blade Adjusting Screw: to adjust the relative between the ink flooding scraping blade and the printing stock' axis. The two up and down parallel the blade, two rear and front adjusting the angle. It is recommend to adjust step by step. Locking the screw above at last.



4).Screen Stencil Adjustment
(DIAGRAM 4)

(1).Stencil Clip locking-knob: after loosen two knobs in left/right sides, then can replace screen stencil to clear Next time, load the screen stencil directly and locking the screw no need to check the pattern.



(2) .Stencil Clip Angle adjust-knob: to adjust two knobs in match, they can make stencil be parallel surface of printing stock that to be printed. It is recommend to adjust step by step while test printing.

(3) .Stencil rear/front adjust-knob: to adjust two knob in match, making screen stencil in right rear/front position. Gradually adjustment is needed until fine printing results getting.

(4) .Stencil Clip Height adjust-knob: normally, the space between surface of printing stroke and fabric of screen stencil should be 1mm. Big space will make blank printing while small space will make blurred-image or distortion-image.

(5) .Stencil Clip Height adjust-knob: to adjust left/right position of screen, be locking after fine adjustment.

(6) .Stencil Clip locking-handle: after screen stencil's vertical position choosing properly, locking it for normal printing.

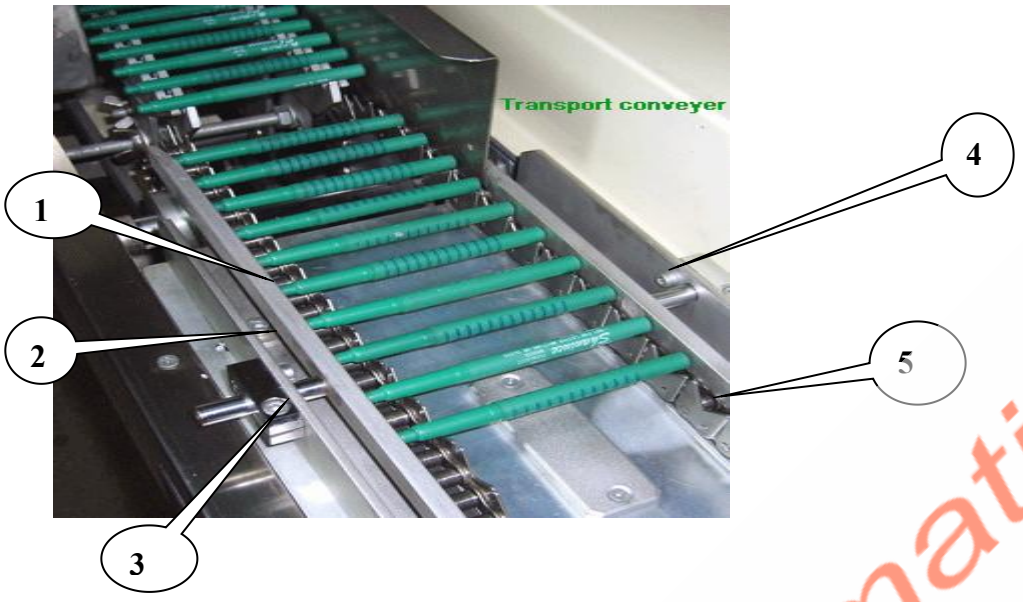
(7).Stencil Clip locking-knob: after screen stencil's horizontal position choosing properly, locking it for normal printing.

5) **.Printing Stroke Adjustment** (DIAGRAM 5)

(Diagram 5)

1.Driven Chain: Don't adjust at random as the position has been set well as default before out of factory.
2.Crank: driving the printing stroke. The distance between the crank locking screw and the power axis is half of the printing stroke, it may depends on situation.
3.Crank locking-screw: loosen and locking it before stroke adjustment and the stroke adjustment.
4.Strock Screw: to adjust printing stroke and it's range is 0~20mm, do lock the crank screw after adjustment.

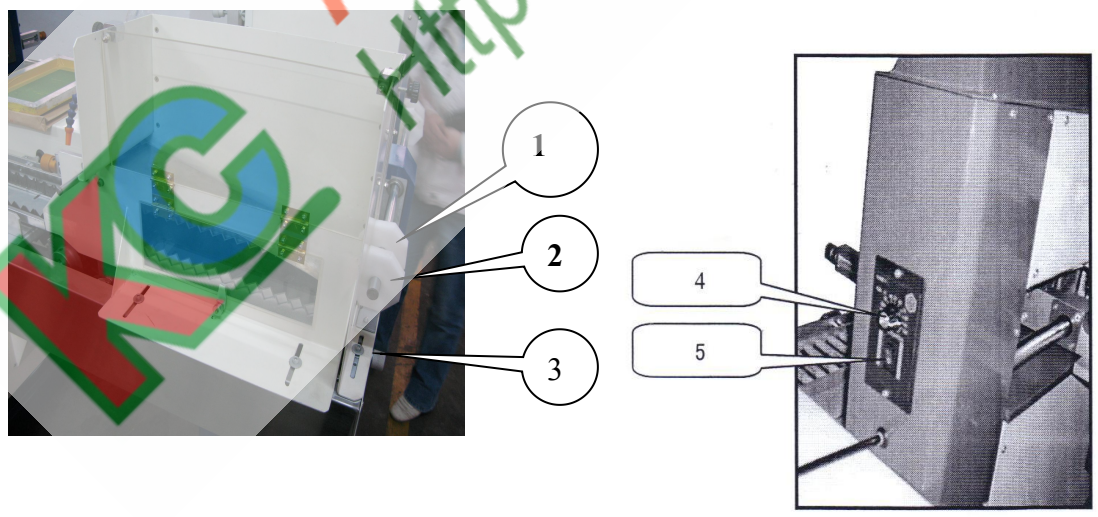
6).Printing Holding Way Adjustment (DIAGRAM 6)



(1).Dam Plate: adjusting it with sprocket to and for, making sure the chain is in the middle.
(2).Base Panel Screw
(3).Dam Plate Screw
(4).Base Panel: adjusting it depends on the printing length, then locking the base panel screw and the dam plate screw.
(5).Printing Stock Holding Chain

7).Arranging and Speed Control (DIAGRAM 7)

1.Arranging Wheel: adjusting it's position, making sure Printing stock not inclined, remember to lock the



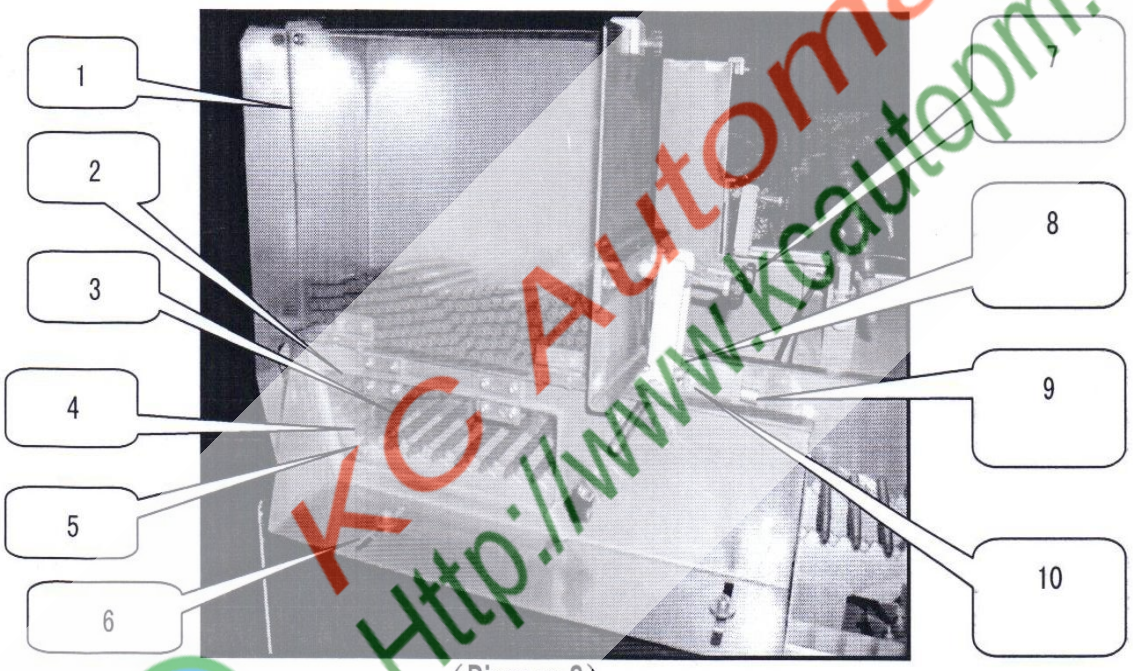
screw of it at last.

2.Arranging Wheel locking-screw:
3.Active-plate Adjustment:

4.Arranging Speed Control: adjust the arranging motor speed, make printing stock constantly.
5.Arranging Button: to start/stop the arranging motor.

8).Feeding Adjustment (DIAGRAM 8)

1.Container: container of printing stocks. Adjusting the fender's position depends on the length of printing stocks, making the printing stock on best position.
2.Active Slice(can't be seen in the diagram): adjusting it's angle make the distance between it's top, and the dead-toothed panel is three diameters of printing stocks. It depends on situation. It's extending change with the diameter of printing stock direct. Do lock the screw above after adjustment.



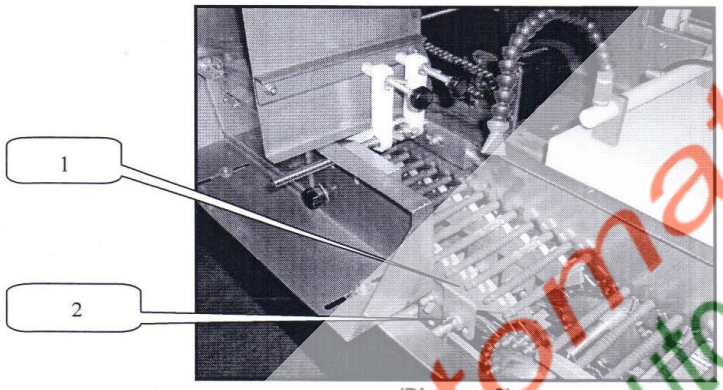
(Diagram 8)

3.Slipping Plate: adjusting the space between it's end and the active slice more than one diameter and small than two. Then, locking the screw above. If the diameter of printing-items is over 15mm, it need to expend the space between slipping plate and active slice, three tooth's best.
4.Pen-holder A;
5.Pen-holder B;
6.Container case: adjusting it make it have a litter distance from printing stock. Then locking the screw.
7.Slipping Plate angle-knob: adjusting it's depth, make the height between slipping plate and the top of dead-toothed panel is 1.5time diameter of pen-holder, which the machine spit one pen-holder a time constantly. It recommend to adjust step by step while test printing.
8.Slipping Plate locking-ring: adjusting it make the slipping plate is in the middle of printing stock.
9.Slipping Stand Knob: fine adjusting it match with the slipping angle-knob. Making the items constantly. Locking

the screw after adjustment.
10.Slipping stand locking-screw.

9).Delivering Adjustment (DIAGRAM 9)

1.Dead-toothed Panel: fine adjusting the active-plate adjustment (diagram 7) at the rear of the container make printing stock delivered constantly. Then locking the four button fly-screws at the rear and front.
2.Ebttonfly-screw.



(Diagram 9)

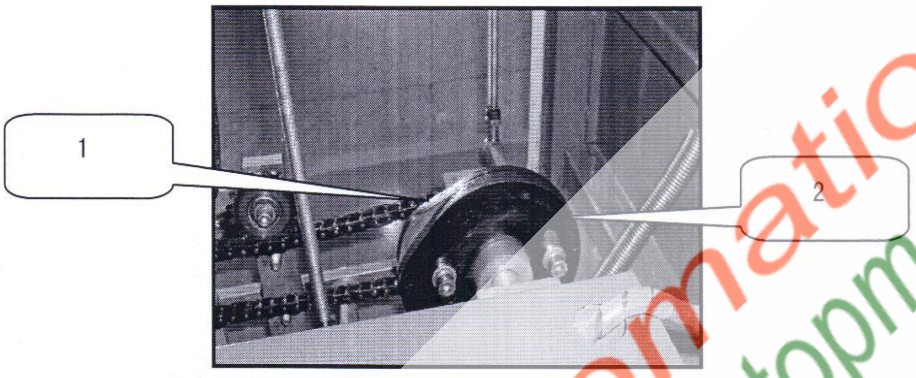
10).Holding Adjustment (DIAGRAM 10)

(Diagram 10)

1.Printing Bearing: it need wipe frequently. Making sure it clean and agile but not slack
2.Holding Stand locking-screw: adjusting it depends if different length of printing stroke. Making sure there are 1.5mm space between printing bearing locking screw and the chain to prevent knock.
3.Holding Stand.

11).Printing Cam Adjustment (Diagram 11)

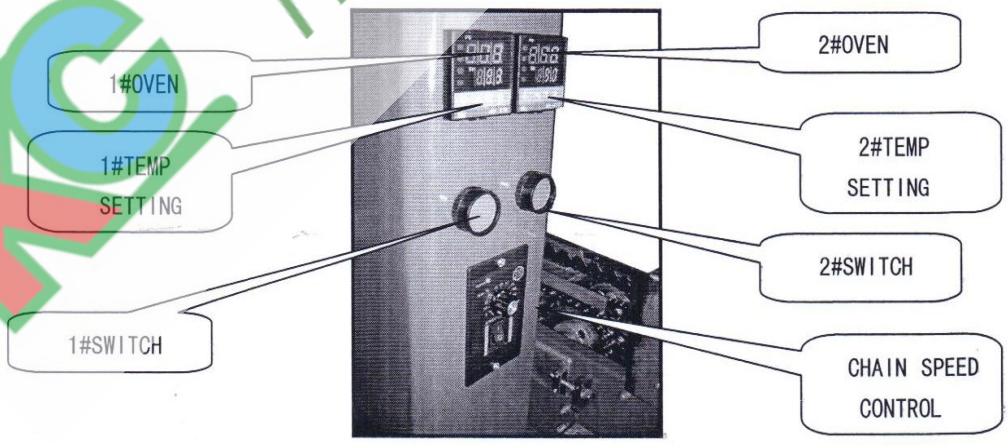
1.Holding dead-cam: position of this can determine the angle of scraping blade, the default setting is already and user do not need to adjust it.
2.Holding active-cam: user could adjust the overlap shortest when the two cams overlapped completely and when they crossed in maximum angle then stroke can be biggest.



(Diagram 11)

12).Temperature setting (Diagram12)

1#2#Oven: temperature controller;
1#2#Oven Temperature Setting: normal temperature 80~120degree by C. it control temperature automatically. When the temperature reach the setting, the power stop automatically, when the temperature below the setting, the oven start automatically.
1#2#Oven Switch: start/stop the oven.
Chain speed control: controlling the speed of chain in the oven, it match with the printing speed. Making sure two printing stocks won't on one tooth and have enough time to dry.



(Diagram 12)

4. Troubles and shooting

Phenomenon of troubles	reasons	Solve Methods
1.no pattern	Scraping blade too high or the stencil blocked	Adjusting the scraping blade
2.pattern deformed	Stencil lack tension or the stencil panel too high	Adjusting stencil
3.pattern deformed	Printing stock too long over the circumference of printing stock	Adjusting the printing stock
4.patter wire drawing	Stencil is not clean	Clean the stencil
5.patter damp	Wrong ink or the oven temperature to low	Change ink or increase oven temperature
6.delivering printing stocks overlapped	Distance between active toothed panel and the dead	Adjusting the distance or change the active toothed panel and the dead toothed
7.delivering printing stocks inclined	Active slice too high or the two chain too closed	Adjusting the active slice or the distance between two chains
8.delivering printing stocks inconstantly	Active slice too high	Adjusting the active slice
9.rut noise	Lack of lubricant	Add lubricant

5 Accessories

ordinal	Name and quantity
1	One Operation Instructions(include frequency conversion instructions)
2	A set of common tools and tool-box
3	A air of spare scraping blade folder and ink flooding scrapping blade folder

6. Temperature setting

TYPE(REX-C10FX02-M*EF) PID intelligent temperature setting device

Operation Instruction

First of all thank you for using our machine. This series of device is depends on the most sophisticated control theory, adopt computer monolithic control have the PID self-adjustment function. Before using it please read this instruction carefully.

Ⅰ. TYPE

REX [1] [2] [3] [4]—[5] * [6] [7]

Device type

[1] ——————————

[2] **F** ——————— have PID function

[3] Input: K- K flame couple
J- J flame couple
S- S flame couple D- D flame couple

[4] Temperature range:02:0-400℃ 05:0-999℃ 06:0-1200℃ 07:0-1372℃ 08:0-1600℃

[5] Out: M-relay contactor output
V-no contactor voltage p; use output drive solid relay SSR
8-D. C 4～20mA output
G-transpose pulse output, connect control silicon

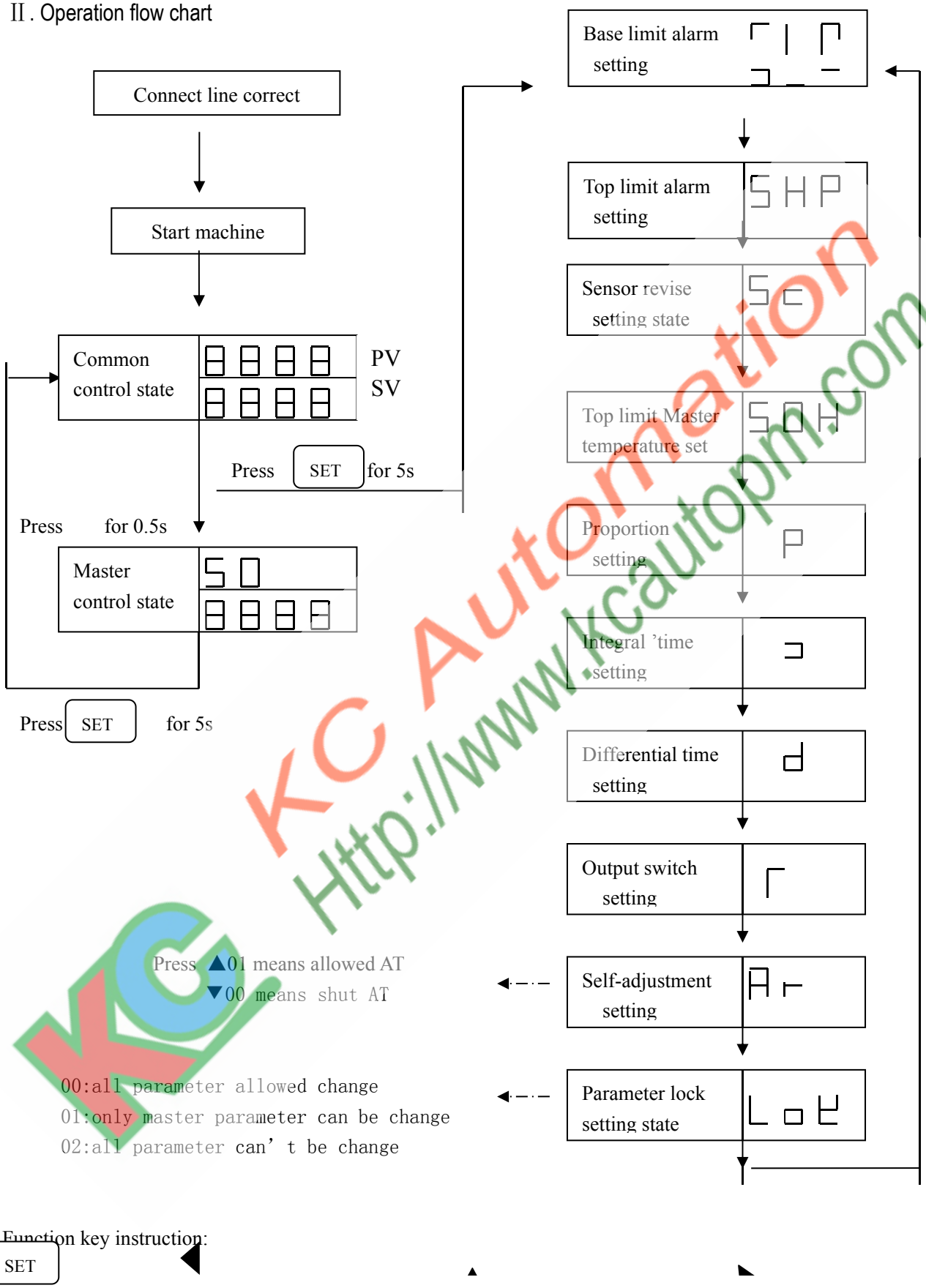
[6] Alarm 1: N-no alarm E-deviation top limit alarm
F-deviation base limit alarm H-absolute top limit alarm
L-absolute base limit alarm

[7] Alarm 2: refer to alarm 2

size / type	panel	Install hole
C900	96×96	92×92
C700	72×72	68×68
C400	48×96	45×92
C410	96×48	92×45
C10	48×48	45×45

Example: C900fk06-V*EN
Means: panel:96×96;have PID self-adjustment function K flame couple;
TEMP range 0～1200℃;no contactor voltage pulse output(drive solid relay SSR);
ALM1-deviation top limit alarm; no alarm 2

II . Operation flow chart



Function key instruction:

SET

NOTE:

1. on the setting state, PV window display the setting value, SV window display the value you put in.

2. if you want to enter the second setting district from the common control state, you must press over 5s

3. If user want to quit the second setting state to the common control state, there are two ways:

(1)Press set over 5s

(2) Don't press any key over 30s, the system will quit to the common control state by itself.

There are differences between the two methods. In the No.1 way, the parameter user settled and changed are effective. In the No.2 way they are ineffective.

4.On the second setting district, when AT=1, press set over 5s, the system will quit the second setting district and enter in self-adjust state by itself, and the polite light twinkle.

5.On the self-adjustment state, press , the system will quit self-adjustment state, enter in setting state if user want to back to self-adjust state can set AT-1 and press over 5s.

6.If user want to prevent others change the parameter, can on the second setting district setting value of the 01 or 02.

Ⅲ. CODE EXPLANATION IN OPERATION FLAW CHART

The follow codes will show one by one when you press; depends on different function some codes may miss in your instrument.

Code	name	range	explanation	Setting value
SO	Master setting	0-9999	Setting master value	90
SL	Absolute base limit alarm setting	0-9999	Setting base limit alarm value	-
SLP	Deviation base limit alarm setting	0-9999	Setting different detector the top limit alarm value bellow the master setting value	-
SH	Absolute top limit alarm setting	0-9999	Setting top limit alarm value	-
SHP	Deviation top limit alarm setting	-999-9999		018
Sc	Sensor revise setting	-200-200	Revise sensor deviation	-03
SOH	Master temperature top limit setting	0-9999	Limit the master temperature adjustment maximum	150
P	Proportion range	1-999	Setting proportion: can be 0	020
I	Integral time	0-3600s	Setting integral time:0 means this function shut off	090
d	Differential time	0-3600s	Setting differential time:0 means this function shut off	014
T	Proportion cycle	1-99s	Setting output button Sycle, can not be 0	15
Ar	Self-adjustment	00:stop 01:start	Setting self-adjustment start/stop	00
LOC	Setting lock	00:no lock 01:lock except master 02:lock all para	Setting parameter allow/not allow revise	01

Ⅳ. ABOUT SELF-ADJUST

1. Why use self-adjust

Most of strict temperature-contain situation adopt PID. Different object have different most suitable P(proportion), (differential time), D(integral time). The traditional PID instrument, the traditional PID instrument, the parameter able is controlled by professor, otherwise it may make mismatch and the system out of control. It bring problems to users. This PID has the function of self-adjust, so start this function, it can adjust by itself depends on different object and situation to get the most situational to get the most situational parameter.

2. How to use self-adjust

(1).Press come into the second area, depends on operation flaw come into self-adjust situation. set "AT" to "01", then press , for 5second.then the instrument come into self-adjust situation. Now the light of "AT" twinkle. At the nearby of the setting point after setting for three cycles the self-adjust over, then the "AT" light out. The parameter settled hold in the instrument by itself.

(2).If you want to check the PID parameter, you can do it in the second setting area in setting by itself.

(3).During self-adjust, the power supply must be constantly, otherwise restart the self-adjust.

(4).If you start the self-adjust at the beginning of temperature rise, the adjusted point, the two parameters may be different in this two situation. In common choose the second.

(5).When there are too many distribution. User can start self-adjust several times to make sure the rationality.

Instrument TECHNICAL INDEX

1.Measure error:1%、0.5%±1、0.2%±1three grades
Cool compensate error: in 0～50℃,≤±2℃.
Temperature coefficient≤0.05%/℃
2.Display range:-1999～9999、-199～9999 two kinds
3.Alarming range: setting free
4.Replay output contact volume:3A/220V,impede or appoint
5.Contact sign:5V/40

Ⅵ. CARE OF WHEN OPERATION

1.check the instrument division standards and the voltage to make sure it is you order.
2.connect it diagram correct.

3.use some material compensate wire for hot galvanic coupling insult signal.
4.use the same standards low impede for the hot resistance input line, or the three wires same length
5.Don't confuse the power input line with the sensor signal input line, or the instrument may be burnout; that don't be repaired. The outputting terminal can't be short by strong current.
6.separating instrument wires, signal wires with strong current transfer wires to reduce electromagnetic radiation If can't, please use screened wires.

7.make out the follows when order
(1).type of instrument
(2).sensor division
(3).instrument output type
(4).temperature measure range
(5).other special technical, function requirement

Ⅶ. SIMPLE REPAIRMENT

1.If user thinks the instrument out of control, please check sensor and the line connect.
If all display and out put polit are normal but the instrument is out of control, please check the output control wire; whether there is short. Breaking or wrong connect leads the internal component of instrument broken. User can cut power and open the instrument to check whether the output terminal clutch gold and the output protect-oral resistance have been burnout.