

JQ-3010 Microcomputer Fully Automatic
Trademark Cutter (Hot)

Operating Manual

JQ-3010 微电脑全自动商标切机 (热切)
使用说明书



Ruian Jingda Printing Machinery Co.,Ltd

瑞安市景大印刷机械有限公司

Add: Sandu, Dongchen Village Industry, Tangxia Town, Ruian City,
Zhejiang, China.

地址：中国浙江省瑞安市塘下镇三都东陈村工业区

Tel (电话) :86-577-65337601

Fax (传真): 86-577-65337602

Website (网址) : <http://www.cnjdyj.cn>

E-mail (邮箱) : zhong@cnjdyj.cn

Content

I. Operating Manual of Trademark Cutter.....	2-4
II. Parameter Setting and Operating Methods.....	5-6
III. Adjust the Method of Cutting for Printed Trademark Belt.....	6-8
IV. Method of Usual Troubleshooting.....	9-12
V. Part List of Cutter.....	13

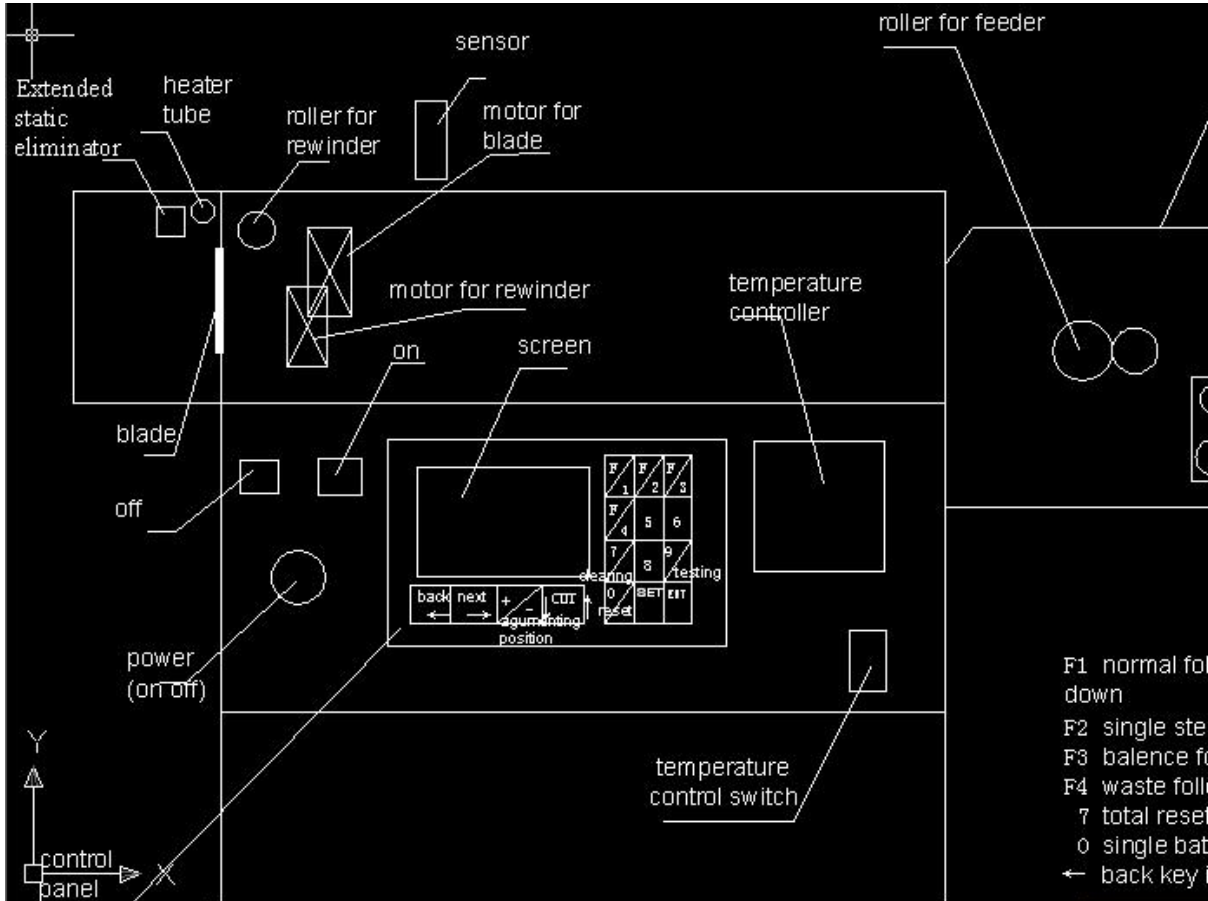
I. Operating Manual of Trademark Cutter

1. **Length of Trademark (Length)** Precut the length of the trademark, and make adjustment according to its actual length.
2. **Speed of Operation (Drives Speed):** the operation speed is divided into 5 grades, of which Grade 5 is the fastest and Grade 1 is the slowest.
3. **Speed of Cutting Blade (Reamers Speed):** the speed of the cutting blade is divided into 5 grades, of which Grade 5 is the fastest, and Grade 1 is the slowest.
4. **Position Augmenting (Make up):** a length of +3mm can be obtained.
5. **Length of Waste Label (Blank):** The length of waste label or (blank part label) in the trademark belt, only functions at F4.
6. **Period of Trademark (Period):** This function operates when there is blank part label in the trademark belt, the calculation of which is to count the number of trademarks between two blanks. It functions only at F4.
7. **Position of Waste Label (Reamer-Blank):** In case a blank belt of

trademarks occurs, the position between the cutting blades should be set according to the number of the blank trademarks when cutting for the first time or there is a color error. It functions only at F4.

8. **Position of Cutting Blade (Reamer-Sensor):** The number of trademarks between the cutting blade and the sensor.
9. **Background Colors of Trademark (Grounding Setup):** Sensor Distinguish Dark or Light, used together with sensor indicator. When the sensor casts on the color marks area, please set 0, once the light is off; please set 1 ,once the light is on.
10. **Amount of Trademarks (Total) :** This is for the setting of trademark quantities in total. When automatic cutting starts, the computer will count the label quantity automatically and the machine will stop when the preset number is reached. On display will be the trademark number in a batch and the finished trademark number +1.
11. **Accuracy:** The accuracy between the length of the finished trademark and the preset trademark length. (reserved functional

extension)



Temperature Control Switch and Temperature Controller use for HOT CUTTING FUNCTION and the blade should be change hot cutting blade

The setting of operation: First, open power (on off), and the screen appears:

Function 1: Total (Amount of Trademarks)

Count (The quantity of have been cut)

Group (Total Produce)

First Page

Length (Length of Trademark)

Total (Amount of Trademarks)

Drives Speed (Speed of Operation)

Blank (Length of Waste marks)

Second Page

Reamers Speed (Speed of Cutting Blade), 1 is slowest, 5 is fastest

Back off (Function of hot cutting) “on or off”

Make up (Position of Augments) +/-

Period (Period of Trademarks) work on Function 4

Third Page

Reamer-Blank (Position of Waste Mark)

Reamer-Sensor (Position of Cutting Blade)

Grounding Setup (Base Color of Trademark) 1.0

English 中文

Function (2.3.4) has the same page.

II. Parameter Setting and Operating Methods

1. Enter “Cutting function 1” frame, and press “ ↑ ” and “ ↓ ” keys will change the cutting function. (1, 2, 3, 4)
2. Cutting function 1: cutting trademark belt with no waste mark (or blank part), automatic to tracking coloring
3. Cutting function 2: cutting trademark belt with no waste mark (or blank part), automatic to tracking coloring (guide cutting)
4. Cutting function 3: Cutting at a certain length, without using the sensor.
5. Cutting function 4: cutting trademark belt with waste mark (or blank part), automatic to tracking coloring.

III. Adjust the Method of Cutting for Printed Trademark Belt

Press “ ← ” and “ → ” keys, and the trademark belt will be moved.

Press “ ↓ ” key to try the cutting. Press SET to find the parameter to be modified. Press the corresponding number key, and the data on this figure will be modified. For example, to modify the parameter of “position of augmenting”, press “ ↓ ” key to change between “+” and

“ — ”, and press “ ← ” and “ → ” keys to select the parameter to be modified. When the modification is finished, press ENTER to save and exit.

Press “0” to enter testing frame, and check input, output and controller keys. Move the no mark area (blank area) and the color area on the trademark belt under the light emitted by the sensor and see if there is change of color in figure “1” of the number “12345678” displayed. If there is no color change, it indicates that the sensor cannot identify the color. Before adjustment, set the “position of augmenting” to zero, cutting use function 1, and cut continuous trademark belt with color guide block.

First, press the “ ← ” and “ → ” keys of the controller to move the trademark belt, and calibrate the position to be cut with the edge of cutting blade. Then, adjust the position of the sensor, let it be on the blank part of the trademark belt, and the sensor cast on the mark on the trademark belt. Now, adjust the controlling knob of the blank length, and let the indicator be off or on. Then, pull the trademark belt, and there should be on and off change of the indicator. Press “ ↓ ”

key to cut off the surplus part. Now, press “on” and try a few cuttings. Press “off” to see the position of the trademark position. If the cutting position is forward, press SET to enter the parameter modification frame, then press the “←” and “→” keys to select the parameter of “position of augmenting”, and set the value “—”. If the figure approaches the length of the surplus cutting, try a few more cuttings and see the cutting position, and set the value of compensation position accordingly.

Cutting function 4 is used for cutting trademark belt with waste mark (blank) length, whose adjustment method is the same with cutting function 1. Before stopping the trial cutting, try cutting function 3 to cut a few cuttings, and compare the length of cut trademark with that of the trademark belt. The two lengths should be approximately the same. The same applies to the trial cutting of the length of the blank trademark. Use cutting function 3 to cut the length of blank trademark, and make the two lengths approximately the same.

IV Method of Usual Troubleshooting

Phenomenon 1: the upper electric cutting tool to-and-fro several times.

Reason 1: During the procession of reposition, you don't find the low position sensor, on the working page, press "9" to enter into test page, use baffle slice to shut out the middle of switch, look whether the showed 2 changes, if it isn't, it means the sensor doesn't work; if the voltage of connecting-wire plate 11 and Foot13 hasn't changed <10, it means there is something wrong with connection of sensor, if the voltage is >10, it means the circuitry may be open circuit, if the voltage is 0, it means the short circuit.

Phenomenon 2: The cutting tool always rests on the position apart from sensor.

Reason 2: Sensor signal is wrongly set, change the motor pulse 0100 into 1100 under the machinery parameters page, if it is 1150, and change it into 0150.

Phenomenon 3: The press key doesn't work.

Reason 3: Press any key on the panel, observing whether there is red light twinkling quickly in the controller. If the red light isn't related to press or not, it means there is something wrong with key panel caused

by connector plugs becoming loose inside.

Phenomenon 4: The display is abnormal, but other operations work normally (motor can work).

Reason 4: It means there is something wrong with the display screen, which is caused by connector plugs becoming loose inside and great machinery vibration.

Phenomenon 5: Feeding motor can't work

Reason 5: Maybe there isn't pulse output, press 9 on the panel to enter into "test page", in the test page, select the DC-voltage-gear of the digital universal meter and measure Foot 11 on connecting-wire plate with the black end of it and then measure Foot 10 on connecting-wire plate to check whether there is 12V-voltage or not. If not, maybe because Foot 10 on connecting-wire plate isn't connected to DC2 (+12V), also maybe because Foot 11 isn't connected to COM (GND ground). If there isn't anything wrong with circuitry connection, measure Foot 1 with the red end of it to see whether there is 5V-output. If there isn't 5V-output, the motor can't work; if there is 5V-output, measure Foot 3 to see whether there are voltage changes

(1V-5V). If there are some changes, it means there is something wrong with the motor or the driver, if not, maybe there is something with the controller.

Phenomenon 6: Feeding Motor without Direction

Reason 6: Maybe it is caused by wrong circuitry connection or no output, select the DC-voltage-gear of the digital universal meter and measure Foot 11 on connecting-wire plate with the black end of it and then measure Foot 2 on connecting-wire plate to check whether there are voltage changes (1V-5V). Press <- key Foot 2 to output about 1 voltage, press -> Foot 4 to output about 5V. If there are some changes, it means there is something wrong with the driver.

Phenomenon 7: No static output

Reason 7: Press No. 9 on the panel and then enter into “test picture”, on which press Key 2 to check if there is static output. Under the normal connecting condition, check if there is output change about Foot 24. If there are no changes, it means there is something wrong with the controller. If there are some changes, it means there is something wrong with MOC3041.

Phenomenon 8: Discharging motor can't work.

Reason 8: Touch COM ground with the black end of universal meter and measure IN foot of electrostatic plate with the red end of universal meter and then induce the materiel inductor with hand to check if there are changes about this foot. If there are no changes, it means there is something wrong with the inductor. It there are some changes, measure the right welding point on 1K resistance under the 555 chip to check if there are some changes. If there are no changes, it means there is something wrong with 555 chips. If there are some changes, it means there is something wrong with MOC3041.

V Parts List of Cutter:

1. Heating Pipe One Piece
2. Electric Heating Pipe One Piece
3. Rust Inhibiting Oil One Bottle
4. Wrench One Set
5. Disaster Box Three Piece
6. Protective tube Three Piece
7. Blade Aluminium Triangle Two Piece
- 8.M3 hexagon socket head cap screw Six Piece
- 9.Thermal Baffle One Piece