SC-2000E Knitting Machine Controller
Simple Type
User Manual

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SAVCH electric provide a full range of technical support for our customers.

All users could contact with the nearest SAVCH office or service center,

also could contact with our headquarters directly.

CONTENTS

Product Introduction

Thank you for using the SAVCH SC-2000E series knitting controller.

SC-2000E series is a high-performance, high-accuracy, strong-stability and anti-jam knitting controller, manufactured using high-quality components and incorporating the up-to-date microprocessor technology available in the world. It may be the most simple-operation and stable-quality knitting controller in the marketing at present, thanks to employment of the reliable, advanced controlling technology.

Chapter 1 Attention

This manual will provide user the attention about installation, parameter setting, troubleshooting and daily maintenance. In order to guarantee to install and operate this equipment correctly , please read this manual carefully before installing , and keep it properly for all users of this equipment.

The following guidelines are special CAUTIONS :

*Ensure the power is OFF before starting to wire.

*In order to avoid shorting between the parts or circuit, do not place metal objects inside control box .

*Because the electronic components on PCB are sensitive to ESD(electrostatic discharge) , to avoid damage to the device , do not touch components or to avoid damage to the device , do not touch components or the circuit boards inside box until all static control precautions have been taken . Connect the cover to earth ground with a wire properly.

*Pay attention to the ambient temperature and the device of ventilation.

*Only a qualified personnel has right to uninstall this equipment .Please perform wiring strictly according to the basic wiring diagram.Any short between terminals is not allowed and dangerous.

*The rated power supply voltage is 220V ± 20 %.

Notice of Receiving

All our products have been strictly quality tested , and have been simulated in worst environment for a long time at factory before shipment . According to message feed back from our clients, its technical parameter has been proved to accord with the international uniform standard of the knitting mechanism.

Because products may be damaged or suffered from a severed hit during transportation, please go on checking according to the following items after receiving this equipment.

*Please confirm the product is damaged or not during shipmen after you receive this product.

*Check after unpacking this product:

1) Check whether there is a manual book in the package or not.

2) Check the nameplate on product, make sure that the part number indicated on the nameplate corresponds with the part number of your order.

Storage and Installation Environment

This product must be kept in its shipping carton before installation.

The product should be stored properly when it is not to be used for a long time. In order to make this product meets storage range specified by our company and for future maintenance, you have to pay attention to following items:

*It must be placed in a clean and dry location. The ambient temperature should be in the range of -10℃ to 65℃.

*The relative humidity at the storage location must be in the range of 0% to 75% and no fog.

*Avoiding keeping this product in an environment with corrosive gases or corrosive liquids.

*Do not store this product on a shelf or on an unstable surface.

Requirements of Environment Duringinstallation and Transportation

During the process of transportation , the temperature must be in the range (-25℃ to + 70℃) , the relative humidity must be in the range (5 % to 75%) , and the air pressure must be kept under 70kpa.

This product must be installed in a ventilation place for better cooling.
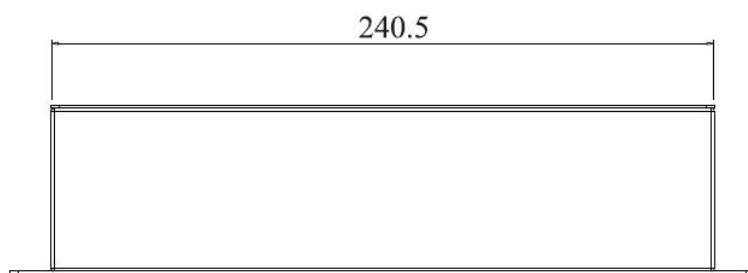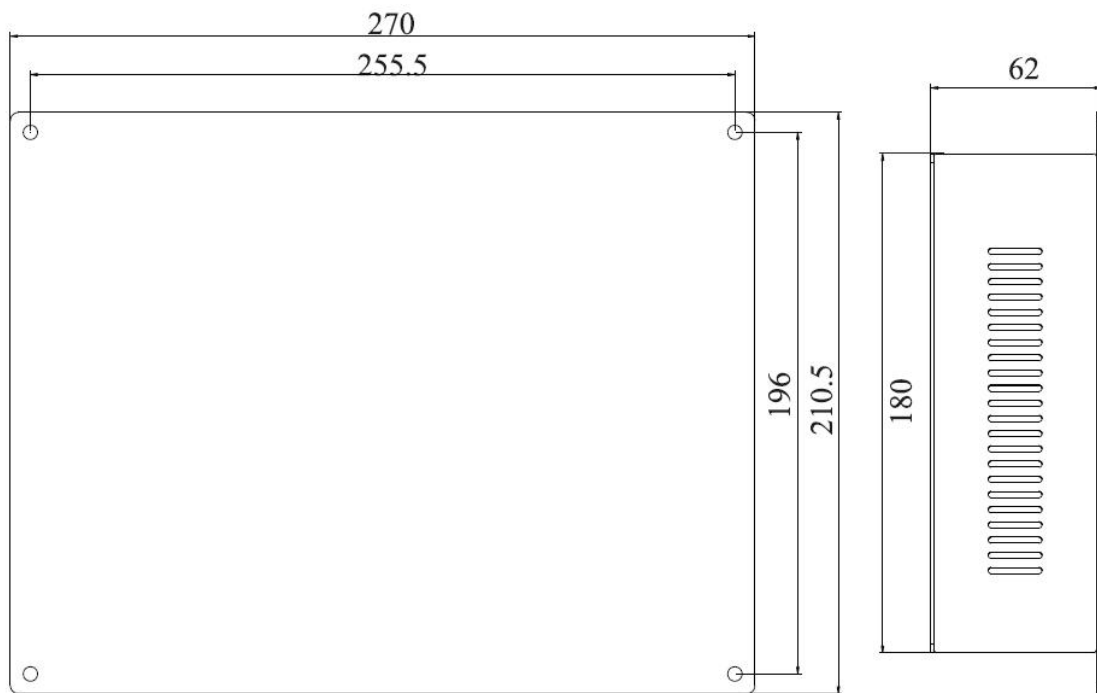
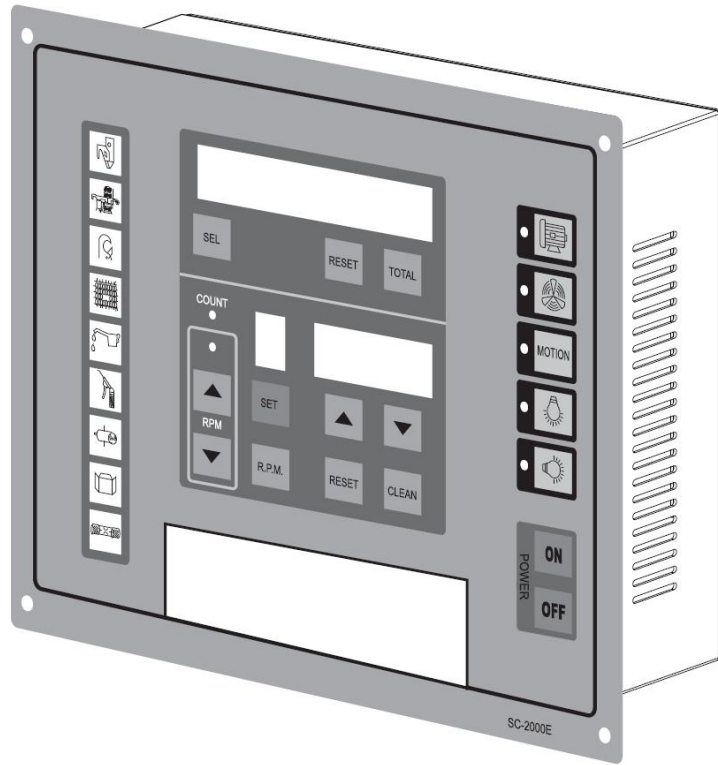The installation requirements are below:

*A place without water, steam, dust and mist of oil.

*A place without corrosive or flammable gases, and liquids.

*A place without floating dust and the grain of metal.

*Stable Location without vibration.

Dismensions

SC-2000E

270
255.5
196
210.5
62
180
240.5

Chapter 2 Digital Panel

This chapter will provide the user the correct method of installation and wiring . To guarantee the safety of system and normal operation of this machine, you must read this manual carefully before installing .And you must start to wire according to the wiring instructions provided by this chapter.
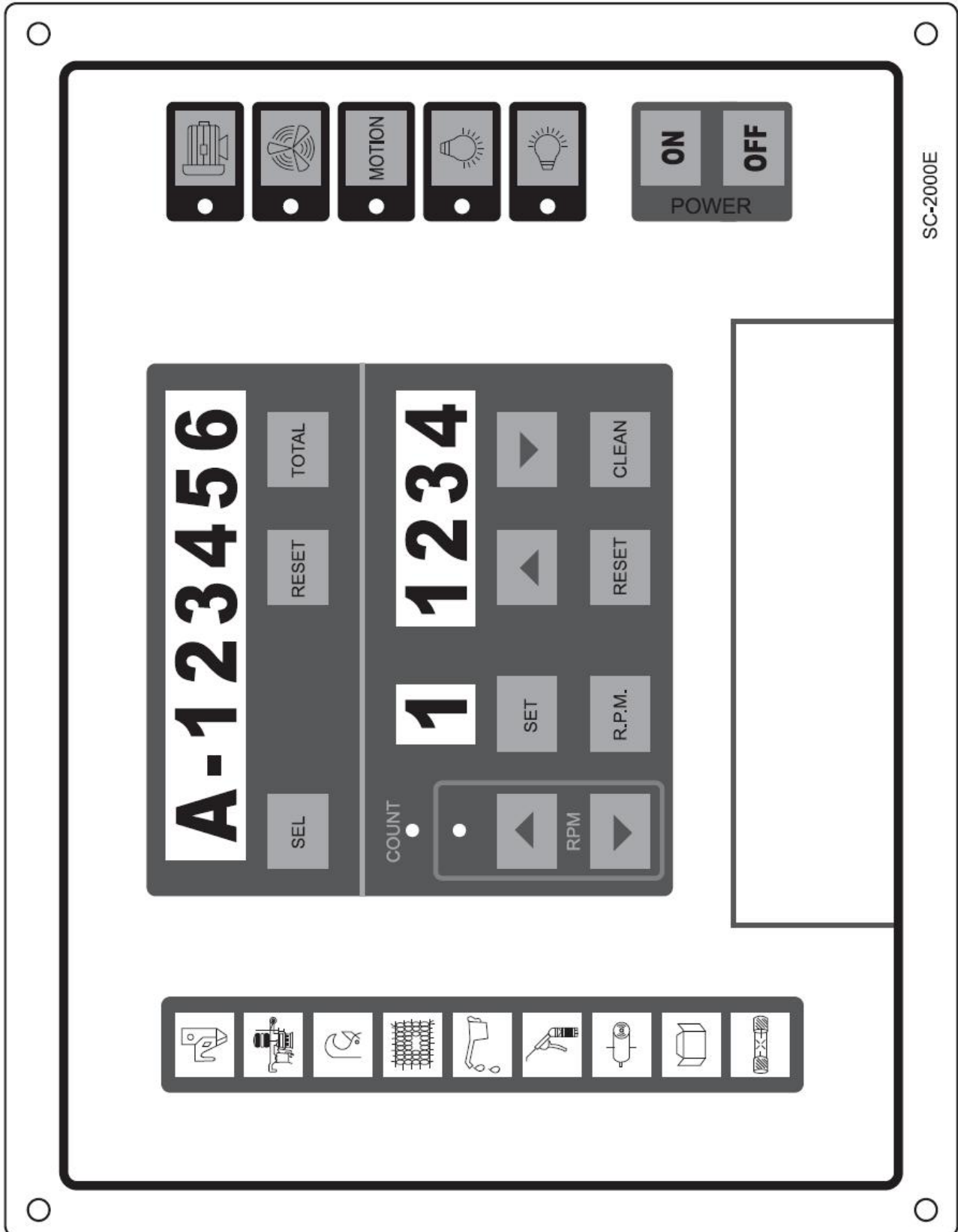
● Description of Control Panel

A.

1. Press " TOTAL " to choose to displaying the eight digital value of total or the total count of three shifts (A + B + C).

2. Press " SEL " to display the six digital value of the total counts of A shift or B or C.

3. Press " RESET " to make the value of total counts of shift to zero, or B shift or C shift.

4. After pushing " TOTAL + RESET " key , when power on again can it clear the total list.

B.

1. When the switch of counter is on, the counter indicator is lighting to identify easily that the signal has been input or not.

2. Speed of running setting: Press the " UP / DOWN " key directly (0-63) .

C.
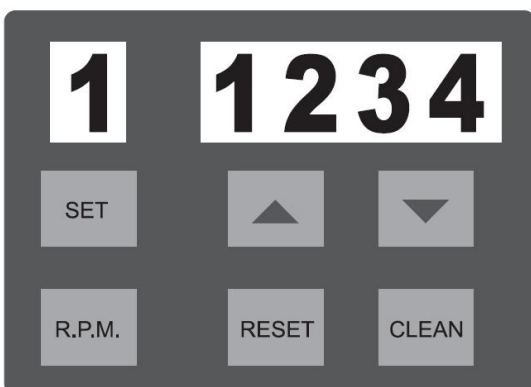
The value setting had adopted two sections of the auto-accelerating mode to increase or decrease.

And press the " UP / DOWN " key to adjust the value to what you want. So the operation is simple and expedient.

1.Left Monitor: The monitor in always lighting in running and flashing in setting state.

    a.Running:

        The " 1 " is displayed to show that it is in knitting cloth state .

        The " 2 " is displayed to show that it is in clean state

    b.Setting:

        The " 1 " is displayed to show that the cloth is setting.

        The " 2 " is displayed to show that the clean is set.

        The " 3 " is displayed to show that it is the protection at maximal speed.

        The " 4 " is displayed to show the machine is heated.

2.Right monitor: Display the value of the left state.

3." SET ": Pressing the key may change the value of items. When the sec , modification had been completed , you must press the " CLEAN " all time and press " SET " to enter the 3 " 4 " setting.

    Otherwise it will return to the running state, the " 3 " setting is the value of protection at Max R.M.P the " 4 " is about heating machine . The consumer must make it's running to reach the value of setting (During proper). And the value of setting is read, the R.M.P of machine can be adjusted. Otherwise the machine only run in a certain value at low speed. (If the consume needn't the function, the value of setting is set to zero.)

4. " R.P.M ": Press the key to display the value of R.M.P, when the actual R.M.P exceed the value of protection , the machine will stop and the value will be flash , then press the key to avoid the state.

5. " RESET ": Press the key to make cloth counter to zero in running state.

6. " CLEAN ": When the counter reaches the value of first section setting, the panel display the indication to clean. Press this key to execute the clean, if not, press the " RESET " to restart .

D.

This key is on / off the power of inverter. Turn on the power, the indicator is lighting. Turn off the power, the indicator isn't lighting.

E.

Press the key is on the fan in running or not .If it starts up quickly, the fan will run after five seconds. If it is running in low speed, the fan will be off.

F.

" MOTION ": If the motion faction is opened (The indicator is light) , the machine will still run in low speed . When top or bottom yarn broken, needle or spray oil abnormal and cloth broken .but other abnormal fault, the machine will stop.

G.

Up Lamp:
Press the key could control the lighting equipment (AC 110V and AC 220V) .

H.

Cloth Lamp:
Press the key could control the lighting equipment (AC 110V 220V and AC 12V)

I.

Top Yarn Indicator:
The indicator is flashing and the red lamp will flash among the three different-colored lamp, and the machine will stop automatically .

J.

Bottom Yarn Indicator:
The indicator is flashing and the yellow lamp will flash among the three different-colored lamp, and the machine will stop automatically.
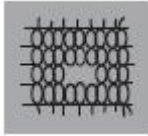
K.

Needle Abnormal Indicator:
The indicator is flashing, the machine will stop automatically.

L.

Broken Cloth Indicator:

When the machine abnormal to result in the cloth broken,the indicator will be flash. and the machine will stop automatically.

M.

Absent Oil Indicator:

When the spray oil machine has no oil, the indicator will be flash, the machine will stop automatically.
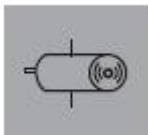
N.

Clean Indicator :

When the counter reaches the value set duringfirst section , the indicator will be flash and thegreen lamp among the three different-coloredlamp will flash and machine will stopautomatically . Press the " RESET " to madecounter to zero

O.

Roll Cloth Indicator:

When the second section setting has been executed completely, the indicator will be flash, and the green lamp among the three different-colored lamp will flash and machine will stop automatically. Press the " RESET " to made counter to zero.

P.

Safe Door Indicator:

If the safe door has not been closed well, the indicator will be flash and machine will stop automatically.
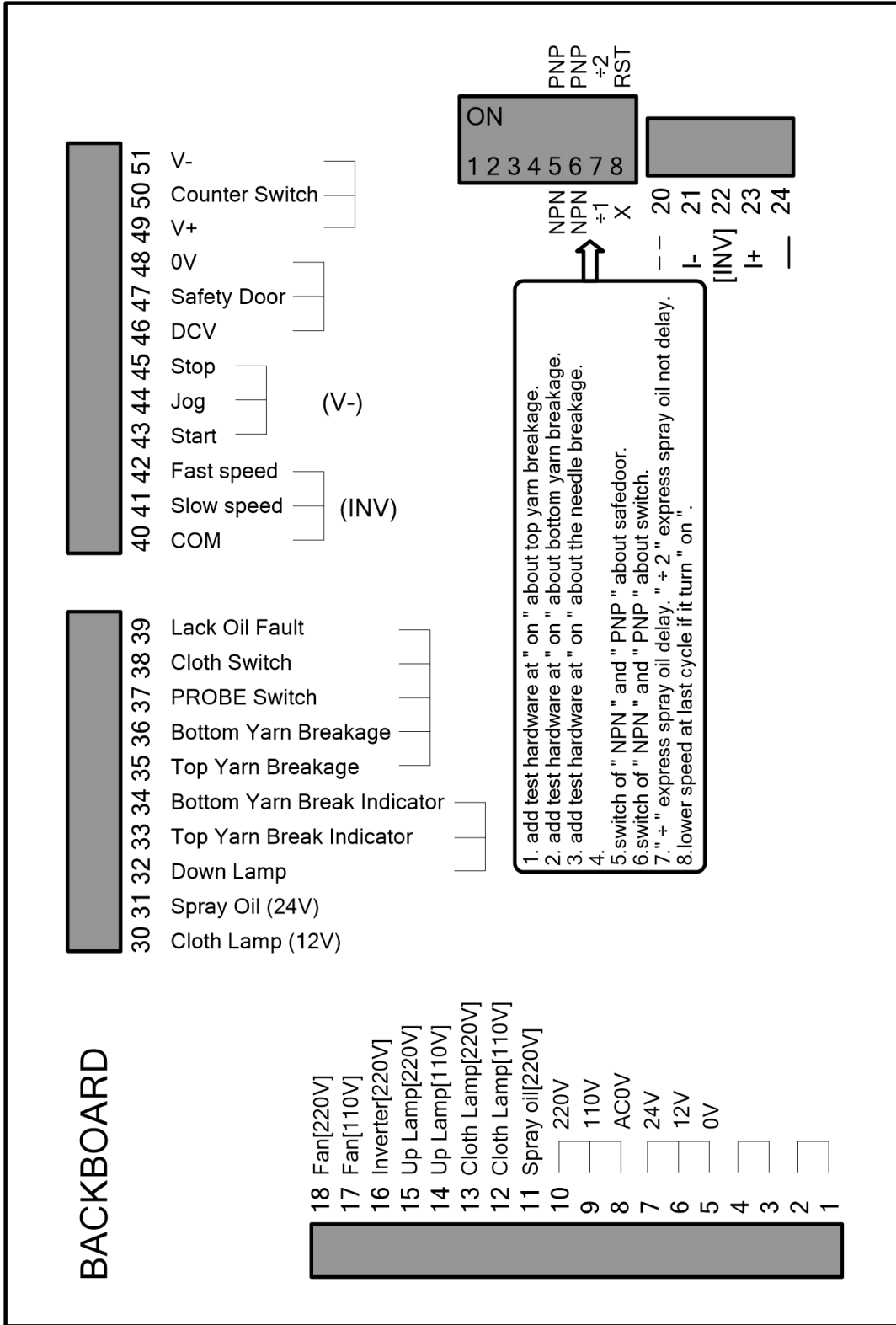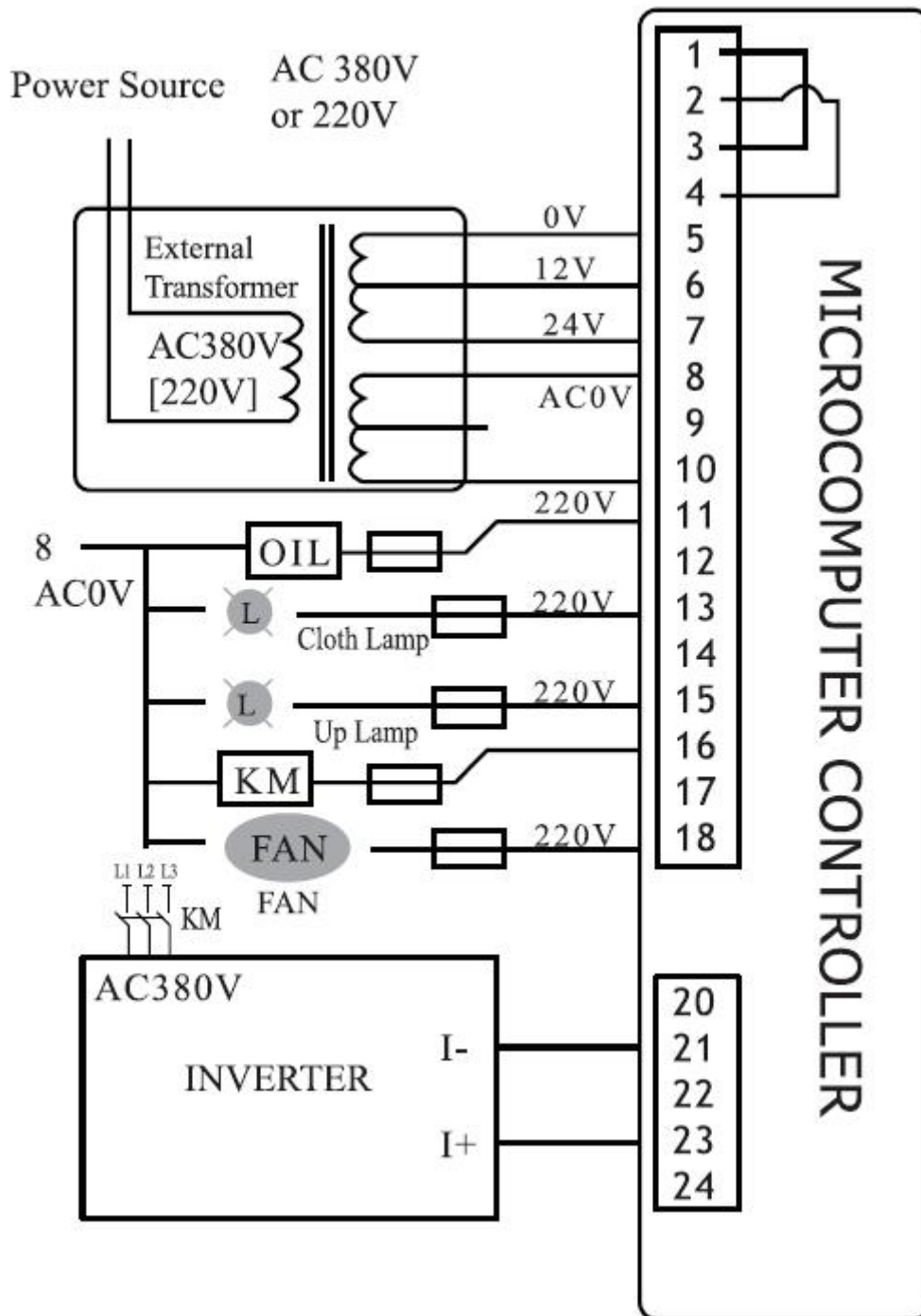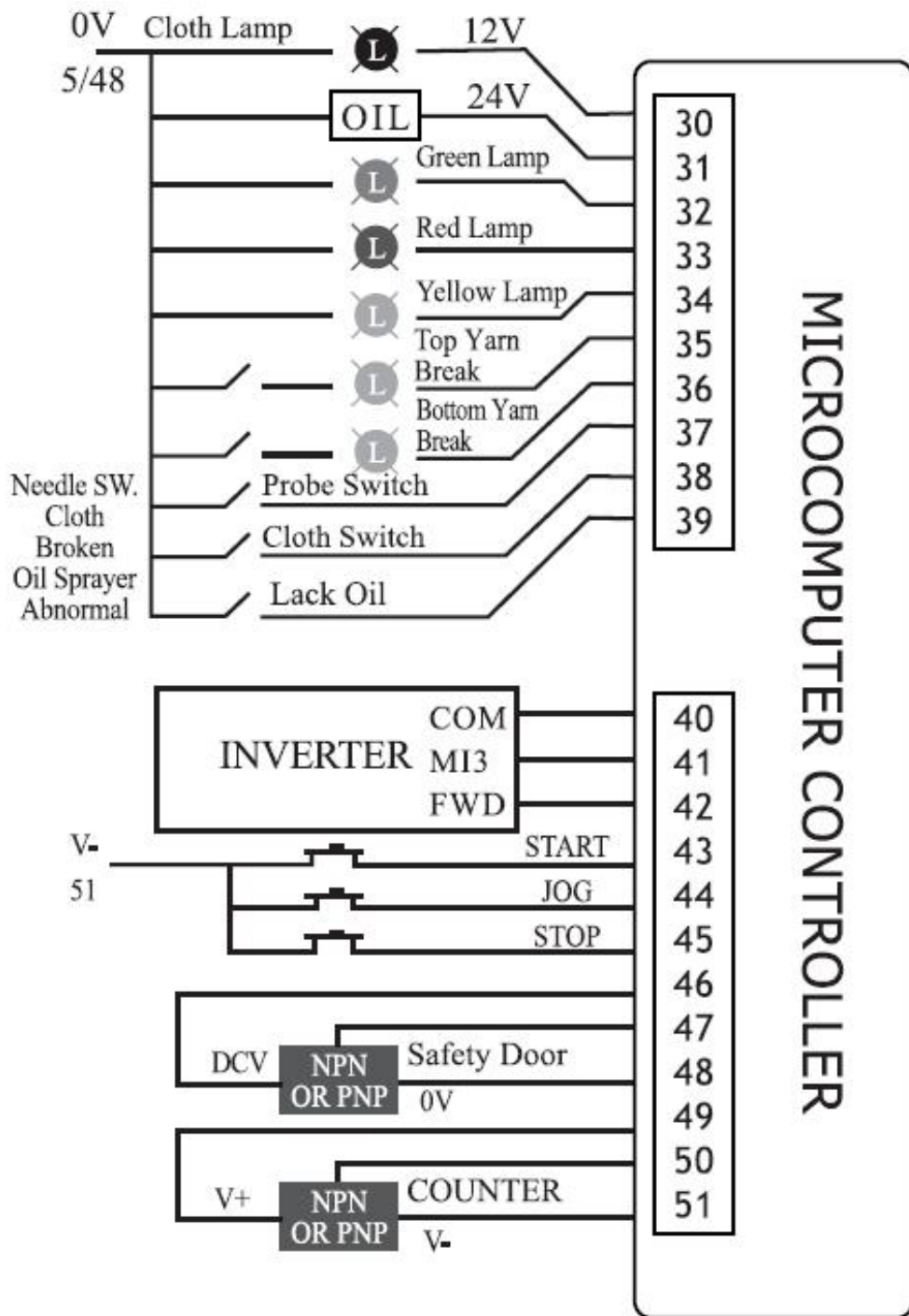
Q.

Short of Power Indicator:

If the 12 volt is, the indicator will be flash and machine will stop automatically, and the power must be turn off to restart machine because of safety factors.

Chapter 3 Wiring

BACKBOARD

Terminal	Label
51	V-
50	Counter Switch
49	V+
48	0V
47	Safety Door
46	DCV
45	Stop
44	Jog — (V-)
43	Start
42	Fast speed
41	Slow speed — (INV)
40	COM

Terminal	Label
39	Lack Oil Fault
38	Cloth Switch
37	PROBE Switch
36	Bottom Yarn Breakage
35	Top Yarn Breakage
34	Bottom Yarn Break Indicator
33	Top Yarn Break Indicator
32	Down Lamp
31	Spray Oil (24V)
30	Cloth Lamp (12V)

ON
1 2 3 4 5 6 7 8

PNP PNP ÷2 RST
NPN NPN ÷1 X

20	—
21	I-
22	[INV]
23	I+
24	—

1. add test hardware at " on " about top yarn breakage.
2. add test hardware at " on " about bottom yarn breakage.
3. add test hardware at " on " about the needle breakage.
4.
5. switch of " NPN " and " PNP " about safedoor.
6. switch of " NPN " and " PNP " about switch.
7. " ÷ " express spray oil delay, " ÷ 2 " express spray oil not delay.
8. lower speed at last cycle if it turn " on ".

Terminal	Label
18	Fan[220V]
17	Fan[110V]
16	Inverter[220V]
15	Up Lamp[220V]
14	Up Lamp[110V]
13	Cloth Lamp[220V]
12	Cloth Lamp[110V]
11	Spray oil[220V]
10	220V
9	110V
8	AC0V
7	24V
6	12V
5	0V
4	
3	
2	
1	

● Description of Wiring Terminal Board

- Innovate for more | win forever
- Industry intelligence | Energy saving | Green power

Savch wechat
Service Number

Quanzhou Factory
Address:3# Zixin Road, Jiangnan Hi-Tech Industrial Park,
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Service Network
Website：www.savch.net

Qualification
Received ISO9001 and CE recognition

Sales service contact address