

Computer Jacquard Knitting System Operation Manual

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1 SCHEMATIC DIAGRAM OF THE ELECTRIC CONTROL DRIVER BOARD OF CD-8300 CIRCULAR KNITTING MACHINE

In the magnetic hold system, interface boards P1-P4 share one power supply and P5-P8 share one power supply. In order to make full use of the two power supplies, the needle selectors should be distributed equally as far as possible.

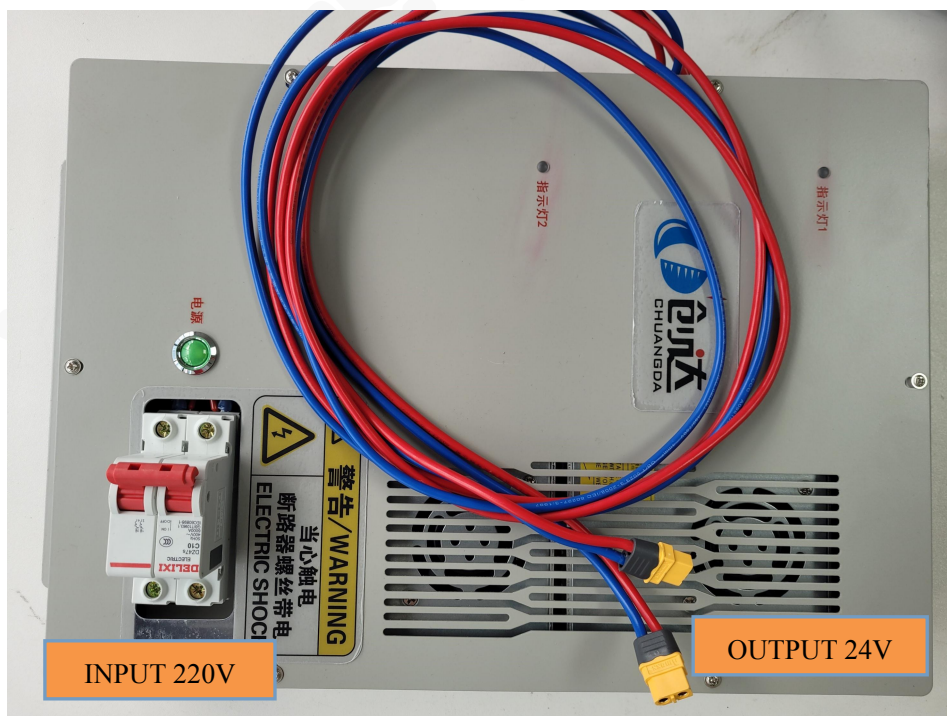
For example:

For 72F two-way computer system, No. 1-36 needle selectors use P1-P4 port; No. 37-72 needle selectors use P5-P8 port.

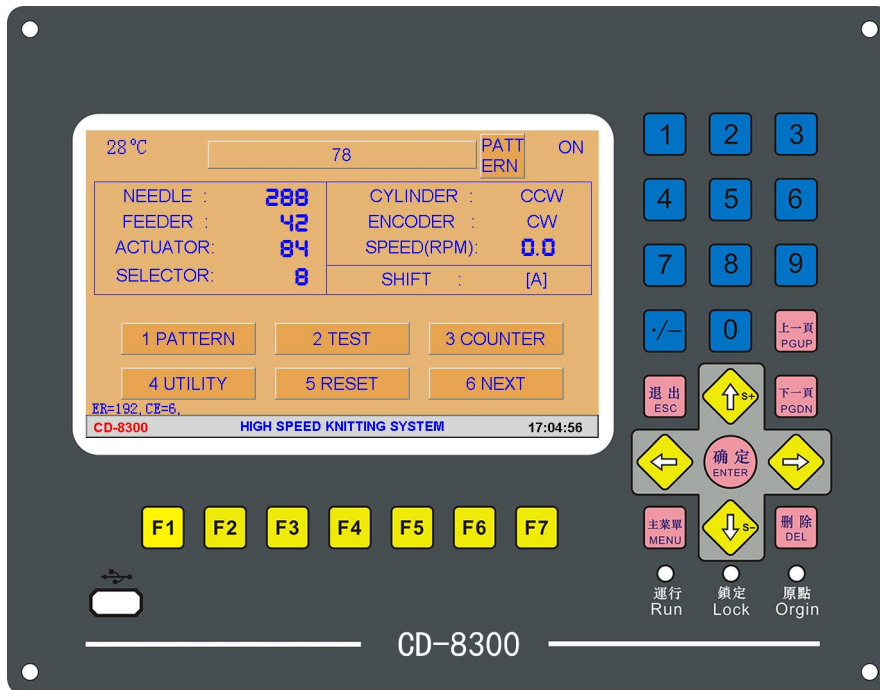
For 72F three-way computer system, No. 1-72 needle selectors use P1-P4 port; No. 73-144 needle selectors use P5-P8 port.



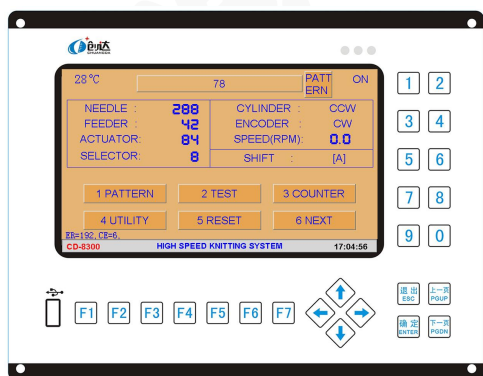
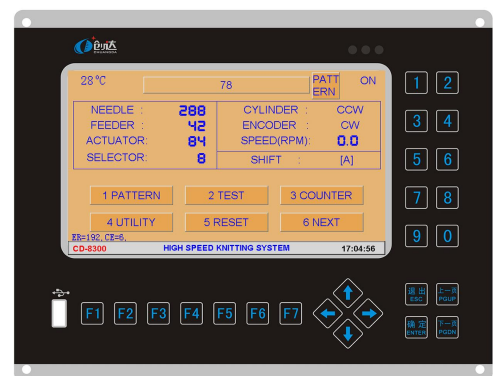
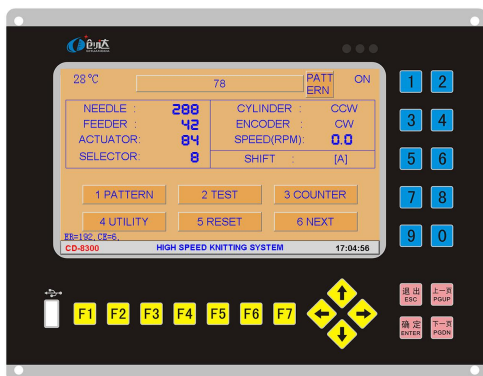
CD9301 Electric Box



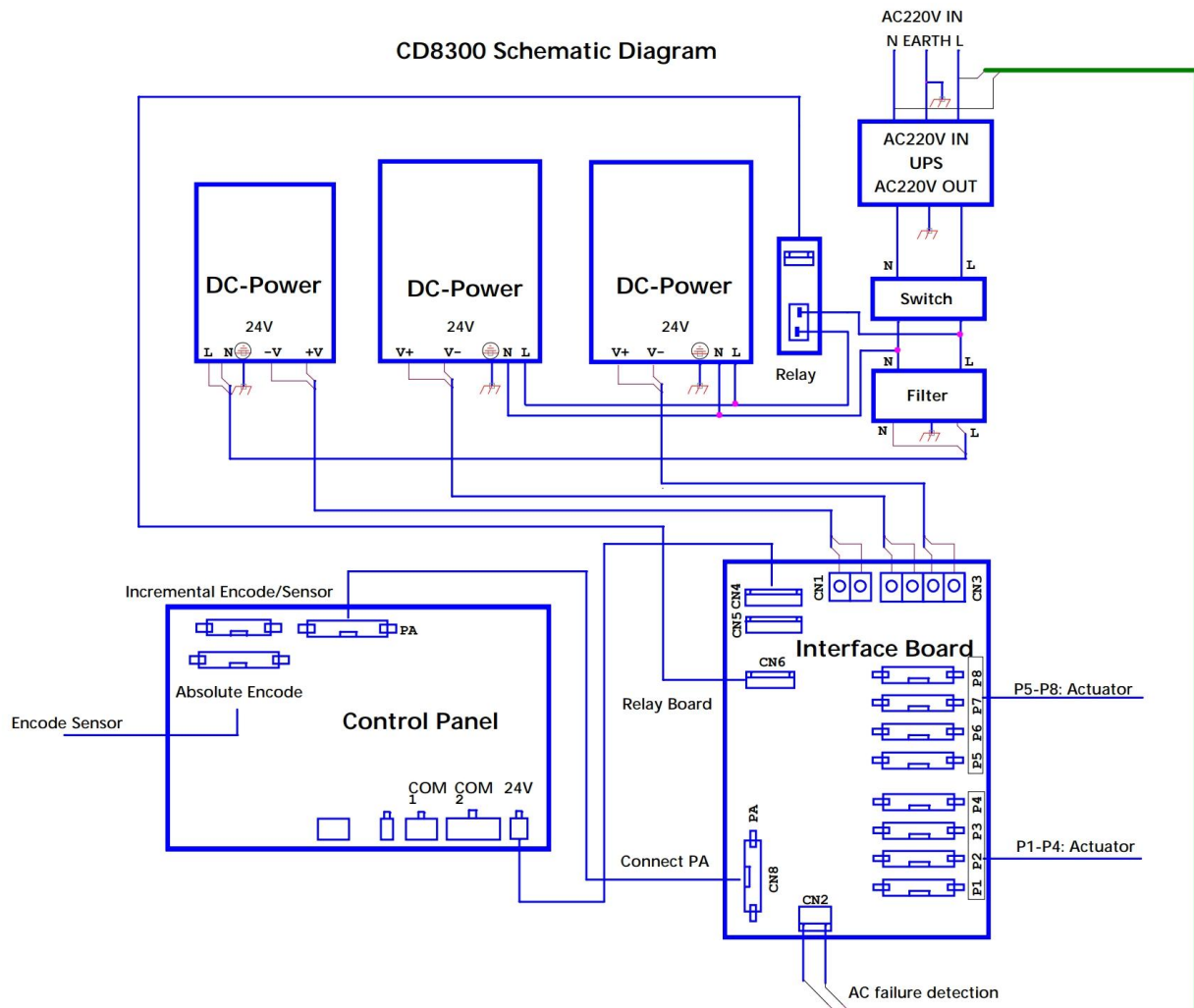
2 SCHEMATIC DIAGRAM OF THE MAIN MACHINE PANEL



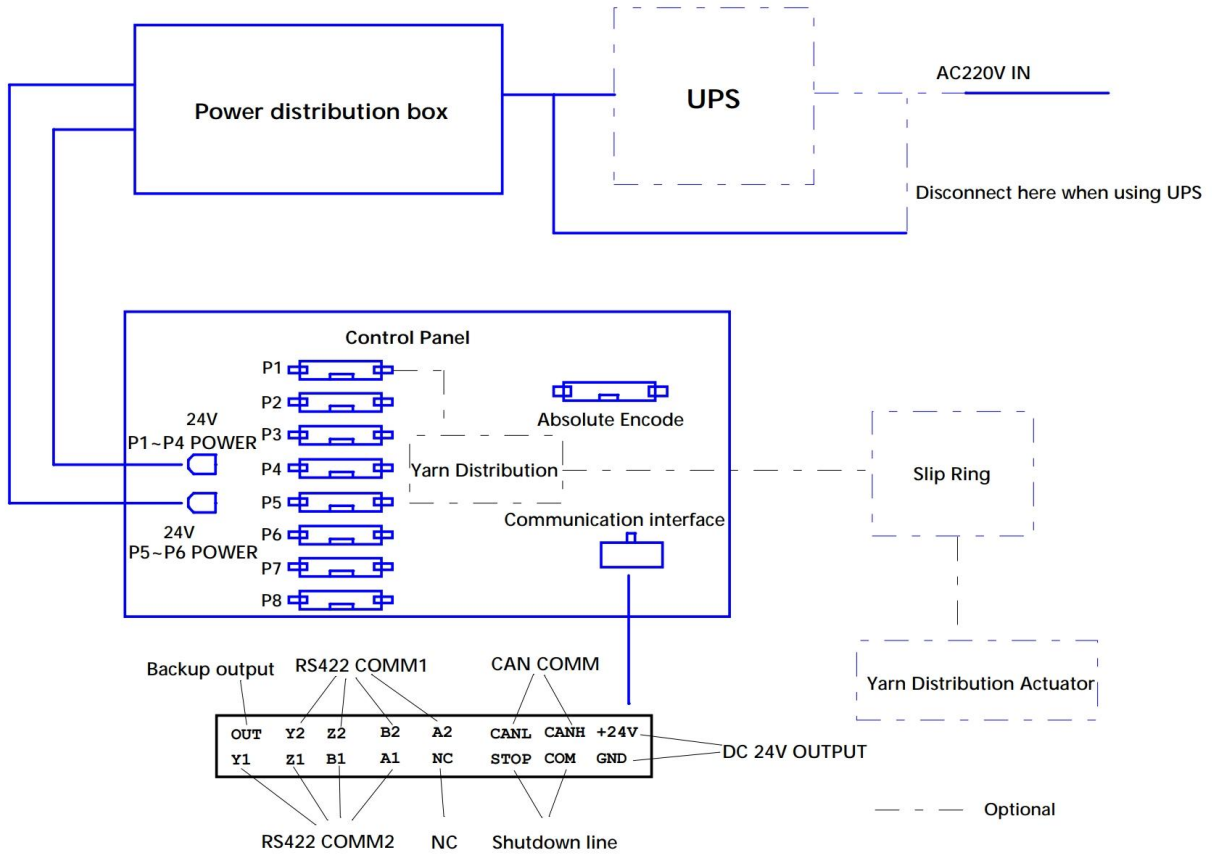
CD9300/9301 Panel (3 panels available)



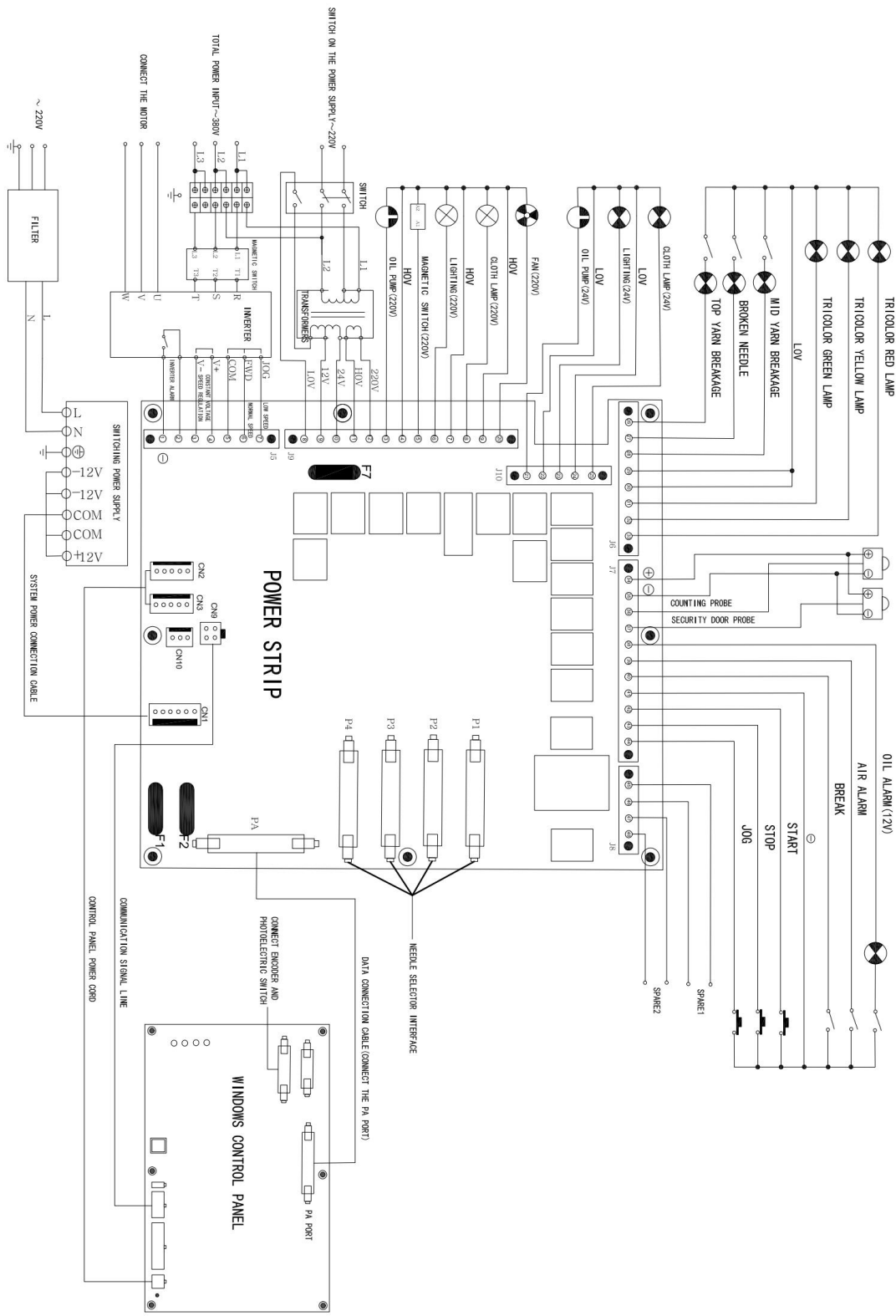
CD8300 Schematic Diagram



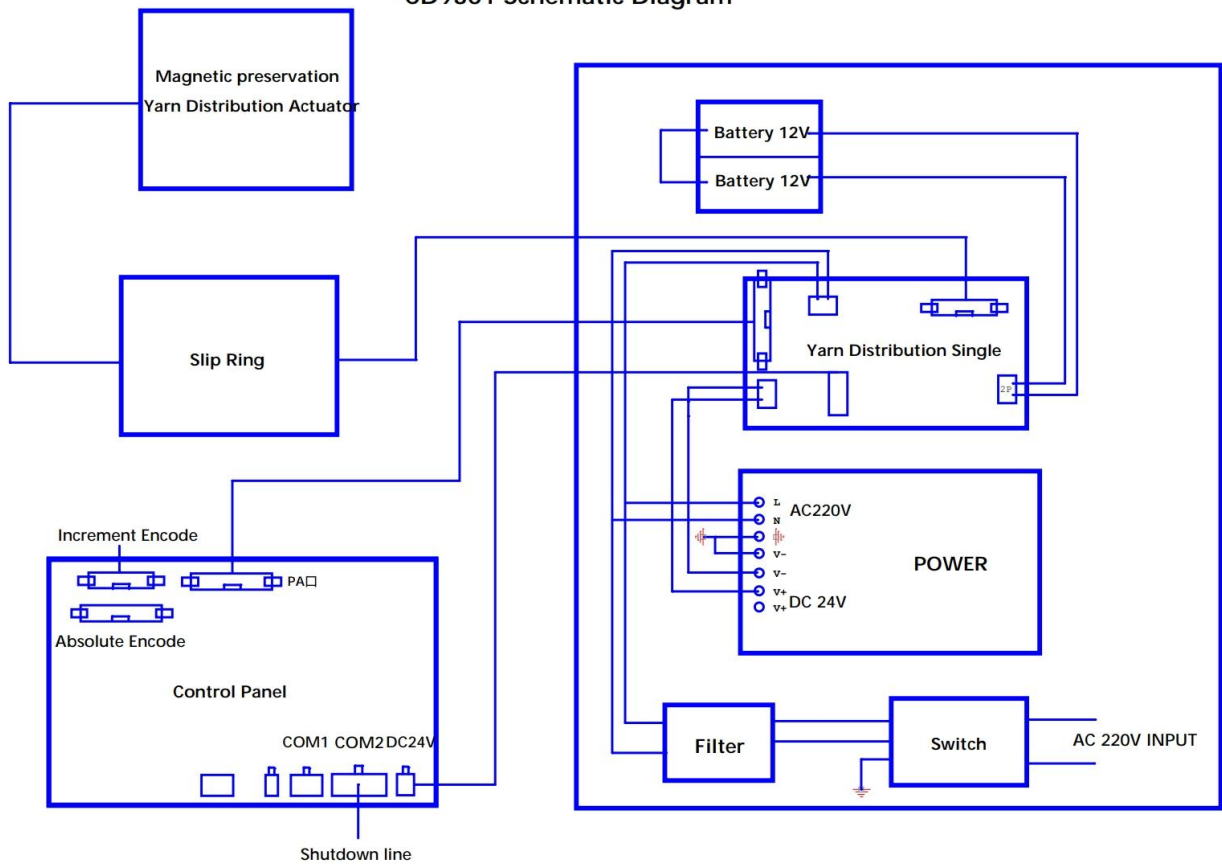
CD9301 Schematic Diagram



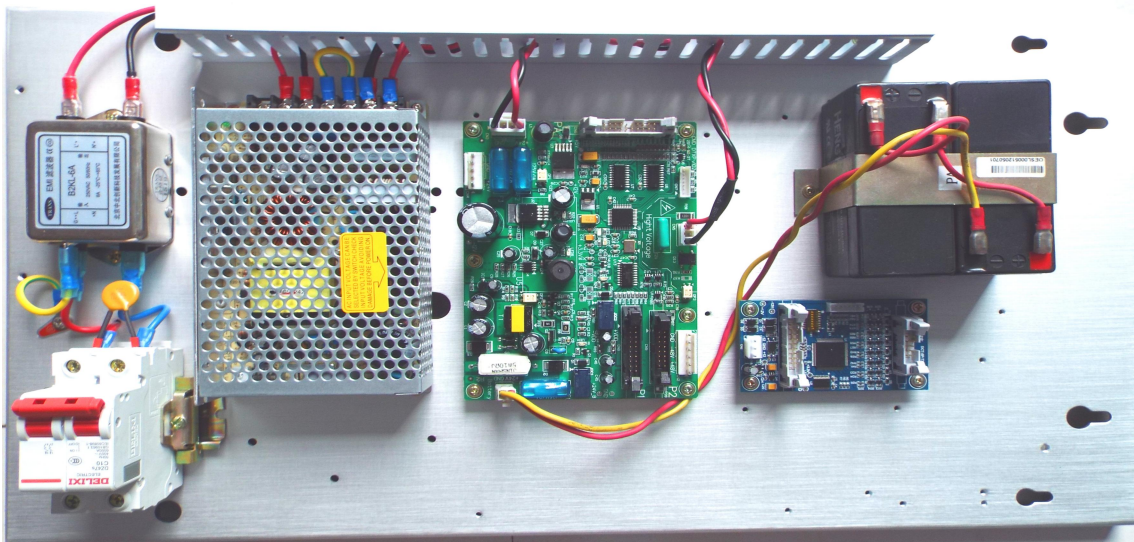
GD-8300 TEXTILE MACHINE POWER BOARD WIRING DIAGRAM



CD9301 Schematic Diagram



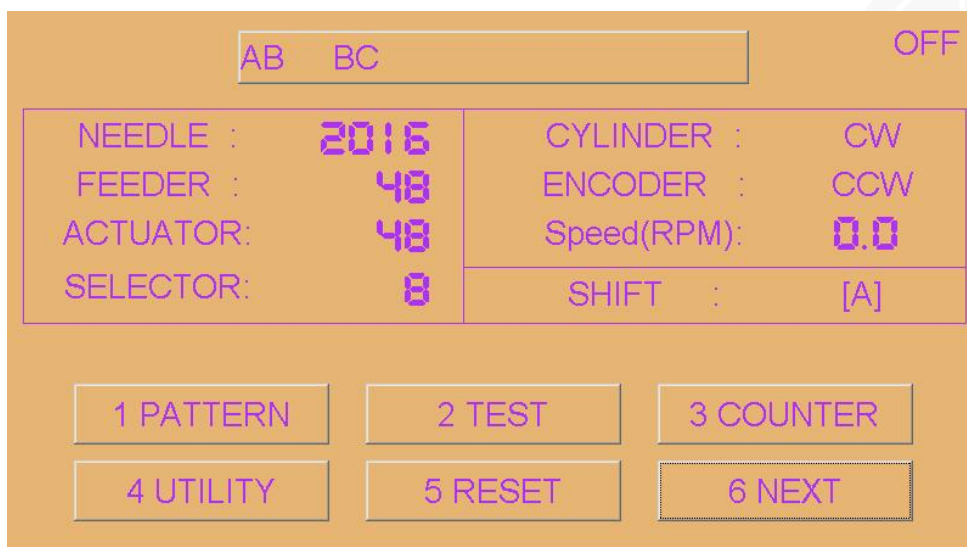
Physical Diagram of Monotonic Line Control Board



3 MAIN START MENU

When you turn on the power, the main machine starts to work and the actuator gradually warms up. At this time, following page will appear on the screen, it displays such information as machine type, number of needle, number of feeder, number of actuator, number of actuator segments, proximity switch (photoelectric switch), needle cylinder and encoder rotating direction and running speed, and shift etc.

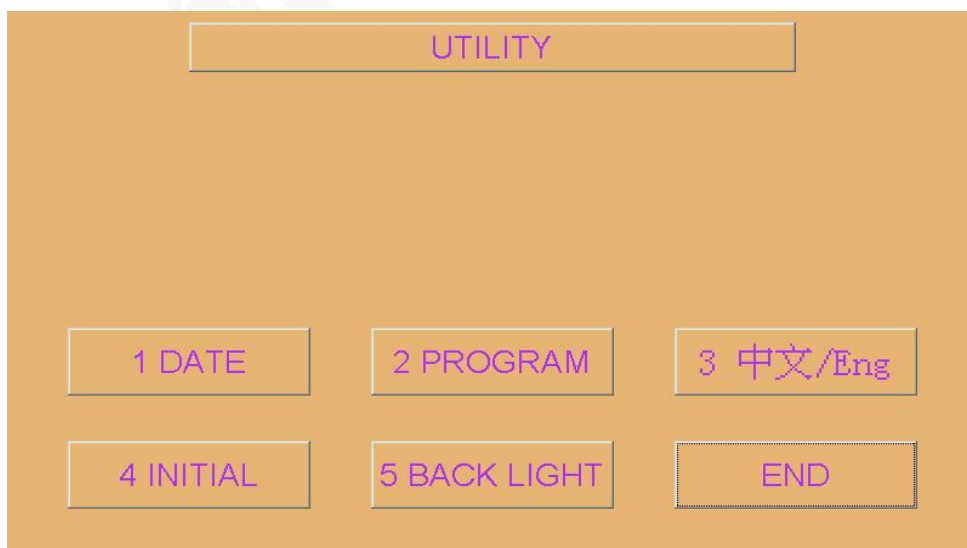
(Note: This menu is a standby menu, and the computer has not entered the Jacquard mode)



(Fig. 1)

4 MACHINE PARAMETER SETTING

Click **【UTILITY】** key to enter the following interface



(Fig. 2)

4-1 Jacquard Parameter Setting

"Preliminary Instructions" are used to input various parameters of the jacquard machine. This function involves wider aspects and will be described in detail below.

Note: Mechanical preliminary instructions (for example: the name of the machine, the total number of needles, number of feeders, etc.) have been previously entered into the computer by the manufacturer, if the user needs to change them, contact the manufacturer.

4-1-1 Preliminary Instructions

PARAME NAME		VALUE
Machine Name	=	AB BC
Needle No.	=	2016
Feeder No.	=	0048
ACTUATOR NO	=	0048
NO Use Feeder	=	0000
Selector No.	=	0008

(1)

←	→	NEXT	
↑	+		SYS.LOAD
↓	-	SPACE	ESC

(Fig. 3)

Each page in this command can be changed to other pages by pressing **【FORWARD】** **【NEXT】** . However, no matter at what page, you can directly exit the preliminary instruction revision mode by pressing the **【ESC】** key. When operating, you can use **【↑】** **【↓】** **【←】** **【→】** keys to move the cursor, use **【+】** **【-】** key to modify, or directly use the numeric keypad to enter.

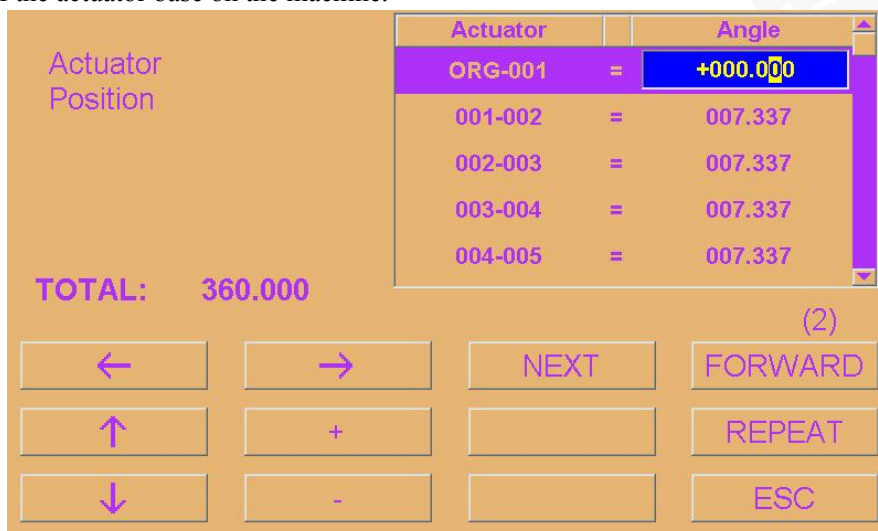
Note: When wrong data are input, it is unable to quit [preliminary instructions].

- ① Machine Name: Enter the machine name, using up to 12 characters, and change the text using **【+】** **【-】** keys.
- ② Needle No: Enter the total number of needles of the machine.
- ③ Feeder No: Enter the number of feeder of the machine.
- ④ Actuator No: Enter the number of actuators used by the machine. (Note: If it is a 3-position mode, the number of actuators is two times of the number of feeders)
 2-position mode = 1 position connecting 1 actuator
 For example: 48-feeders 2-position, the number of feeder is 48, the number of actuator is 48.
 3-position mode = 1 3-position connecting 2 actuator
 For example: 48-feeders 3-position, the number of feeder is 48, the number of actuator is 96.
- ⑤ No Use Feeder: Input the total number of feeders. (Note: You can also specify the unused feeder with custom functions)
- ⑥ Selector No: Enter the number of actuator segments

- ⑦ Encoder Ratio: Enter the needle cylinder-encoder rotation ratio. (i.e., the number of revolutions of the encoder must be the integral multiple of the number of revolutions of the machine)
 Method to calculate the number of pulses per needle: $1024 \text{ (number of pulses per revolution of the encoder)} \times \text{sync ratio} / \text{number of needles}$
 Example: Total number of needles (1920), encoder ratio (20), number of pulses per needle (recommended value is greater than 7 and smaller than 12) = $1024 * 20 / 1920$;
 Total number of needles (2640), encoder ratio (26), number of pulses per needle (recommended value is greater than 7 and smaller than 12) = $1024 * 26 / 2640$.
- ⑧ Cylinder Dir: Observe the direction of rotation of the needle cylinder on the machine and input.
- ⑨ Encoder Dir: Observe the rotation direction of the encoder and input.
- ⑩ Output Gain: This function is temporarily not available, this value is in the range of 0-9999. Default is 0.
- ⑪ Wave Group: Indicates jacquard arrangement and number of pattern groups, please set the appropriate band value according to the jacquard arrangement and number of pattern groups.

4-1-2 Actuator Angle Setting

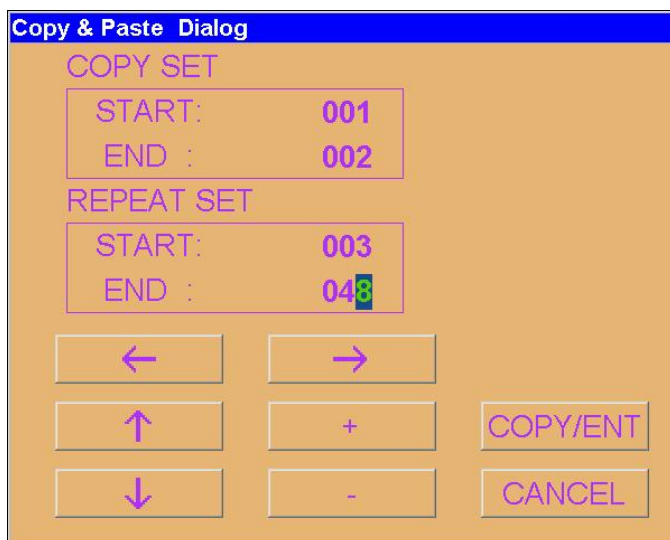
Press **【NEXT】**, the following menu will appear on the screen, this menu is used to input the precise mounting position of the actuator base on the machine.



(Fig. 4)

The angle value from the origin to the first actuator is 000.000. **(Note: ORG-001 must be +000.000)**
 All actuators must be in a 360-degree angle, if anyone is not in a 360-degree angle, you cannot end the operation in this step.

【REPEAT】: This function can be used when you repeat to input the same data. When you press this key, the following menu will appear on the screen, this function will save you time without the need to manually re-enter the same data.



(Fig. 5)

COPY SET START -- Enter the start line of the data to be duplicated.

COPY SET END -- Enter the end line of the data to be duplicated.

REPEAT SET START-- Enter the start line of the data to be filled with "replicate parameters".

REPEAT SET END -- Enter the end line of the data to be filled with "replicate parameters".

After completing the above input, press the **【COPY】** key.

Note: Differences between the 2-position and 3-position actuator angle values:

* Two-position actuator

ORG-001 = +000.000

001-002 = Angle values of the first and second sets of actuators.

002-003 = Angle values of the second and third sets of actuators.

003-003 = Angle values of the third and fourth sets of actuators.

* Three-Position actuators

ORG-001 = +000.000

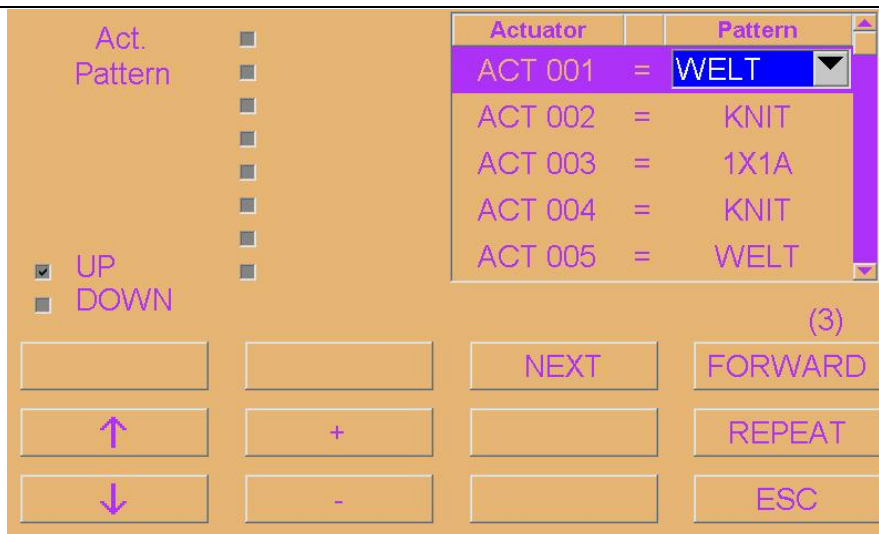
001-002 = Angle values between the first and second rows of blades of the first set of actuators

002-003 = Angle values between the second row of blades of the first set of actuators and the first row of blades of the second set of actuators.

003-004 = Angle values between the first and second rows of blades of the second set of actuators

4-1-3 Actuator Pattern Setting

Press the **【NEXT】** key, the follow menu will appear on the screen



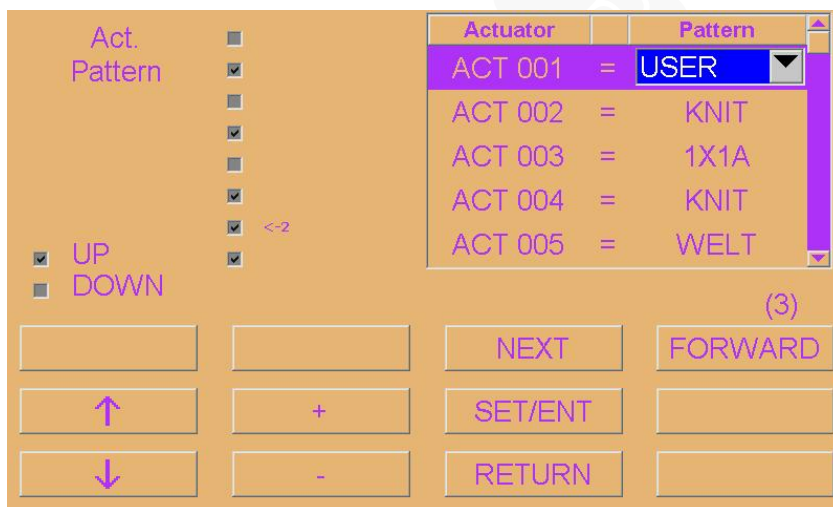
(Fig. 6)

The screen displays the ideal position of the actuator cutter head after preheating and reset. At the center of the screen are the colors of the codes at the right end, an inverted numbers indicates the status of actuator.

REPEAT – You can use this key to enter the same information, the operation method is shown in Figure 6.

You can use **【↑】 【↓】** keys to select a certain actuator number, use **【+】 【-】** keys to modify the pattern . After selecting the pattern, you can select "WELT", "KNIT", "1X1A", "1X1B" and "Custom".

When you select "Custom", the displayed menu will change as shown below:



(Fig. 7)

In this interface, press **【↑】 【↓】** keys to move the "←" arrow , use **【+】 【-】** keys to change the state. After entering a custom pattern, press the **【SET】** key to save and return to the menu in Figure 7.

Note: Following are the differences between two-position and three-position actuator.

- Two-Position Actuator
 - ACT 1 = the first set of Actuator
 - ACT 2 = the second set of Actuator
 - ACT 3 = the third set of Actuator

ACT 4 = the fourth set of Actuator

- Three-Position Actuator

ACT 1 = the first row of blades of the first set of Actuator

ACT 2 = the seconds row of blades of the first set of Actuator

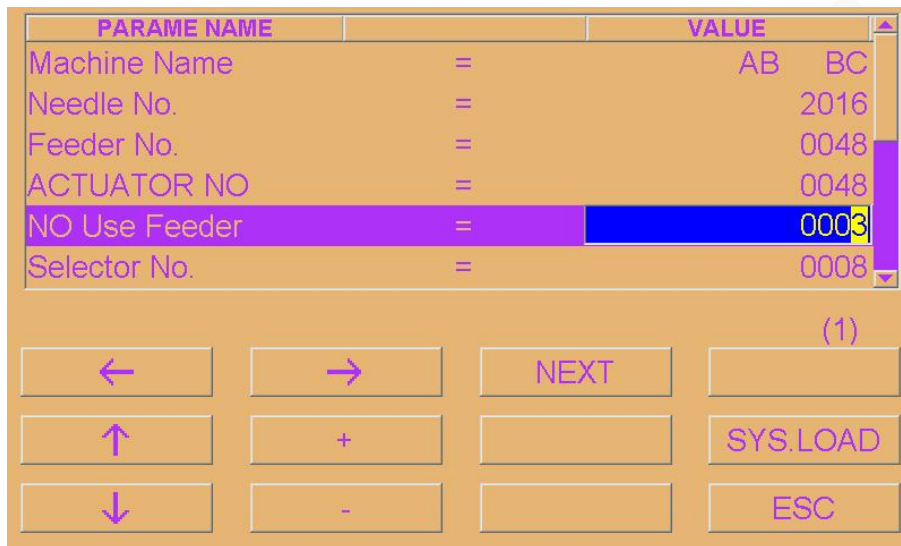
ACT 3 = the first row of blades of the second set of Actuator

ACT 4 = the seconds row of blades of the second set of Actuator

4-1-4 NO Use Feeder Setting

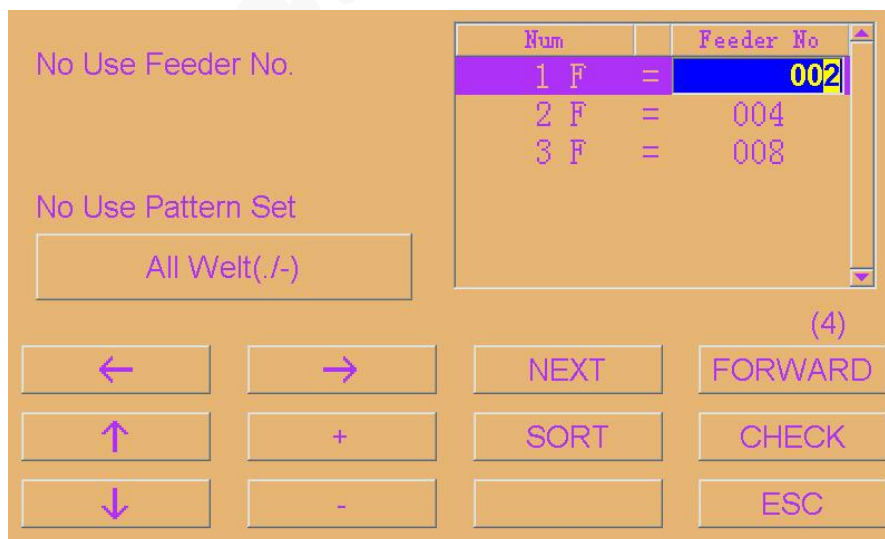
This menu is used to enter the numbers of the unused units set in the preliminary instructions.

For example, if you input 3 when setting the unused units in the preliminary instructions, then you can enter the serial numbers of the unused units as shown in the following diagram.



(Fig. 8)

Press **【NEXT】** until enter the “No Use Feeder No.” :



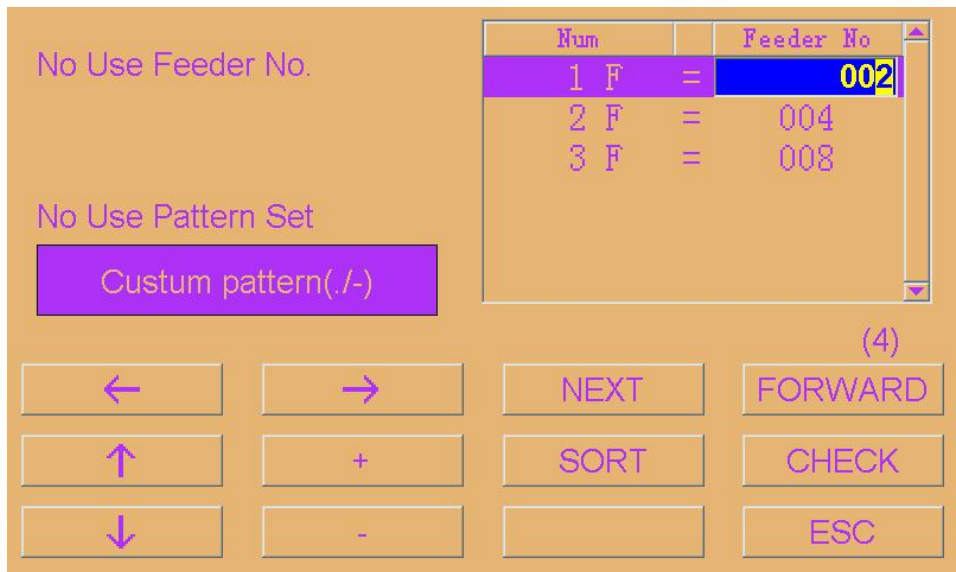
(Fig. 9)

Set the actuator to be enclosed, and press the following keys to check:

CHECK- Check for data entry errors, if you enter wrong data, an error message will be displayed.

SORT - When feeder numbers are not entered in sequence, you can press this key, the computer will automatically arrange and display them in sequence.

If you do not use **【CHECK】【SORT】** keys and exit this menu, the computer will automatically checks the input data .If you enter wrong information, you cannot exit this menu.



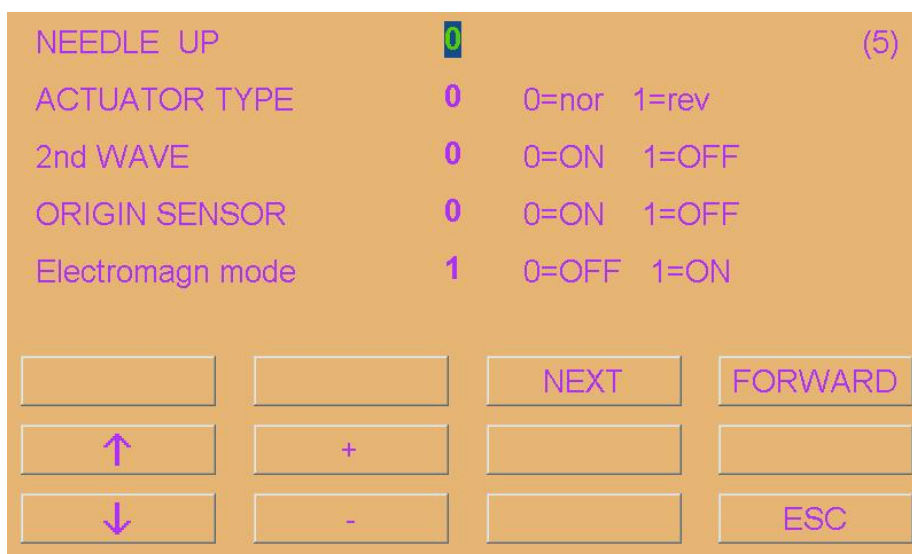
(Fig. 10)

The work mode of the enclosed actuator can be selected through "No Use Pattern Set".

If the key is not pressed, all the enclosed actuator will enter welt mode (Figure 9).

If the key is pressed, the enclosed actuator will select needles according to the movement direction set in the "Actuator pattern setting"(Figure 10).

4-1-5 Special Setting



(Fig. 11)

This depends on the knitting machine mode, and function of the cutter head at the top to the actuator.

NEEDLE UP

- = 0: Knitting will be carried out when the cutter head of the needle select moves upward; welting will be carried out when the cutter head of the needle select moves downward.
- = 1: Knitting will be carried out when the cutter head of the needle select moves downward; welting will be carried out when the cutter head of the needle select moves upward.

ACTUATOR TYPE

This function is only suitable for 3-position 16-segment actuators.

- = 0: The needle-selecting blade moves from the bottom of the first row.
- = 1: The needle-selecting blade moves from the bottom of the second row.

2nd WAVE

This function is used in the following circumstances.

The band represents the number of rows of the jacquard pieces on the needle cylinder. For example, if a machine has 2000 needles, 8 segments of actuators, the band is 250, however, if the machine has 2006 needles, the bank only process 2000 needles, and so the machine needs a second bank to process the 6 surplus needles.

- = 0: The second band is used
- = 1: The second band is not used

ORIGIN SENSOR

Origin sensor of the conductor (**usually set to 0**)

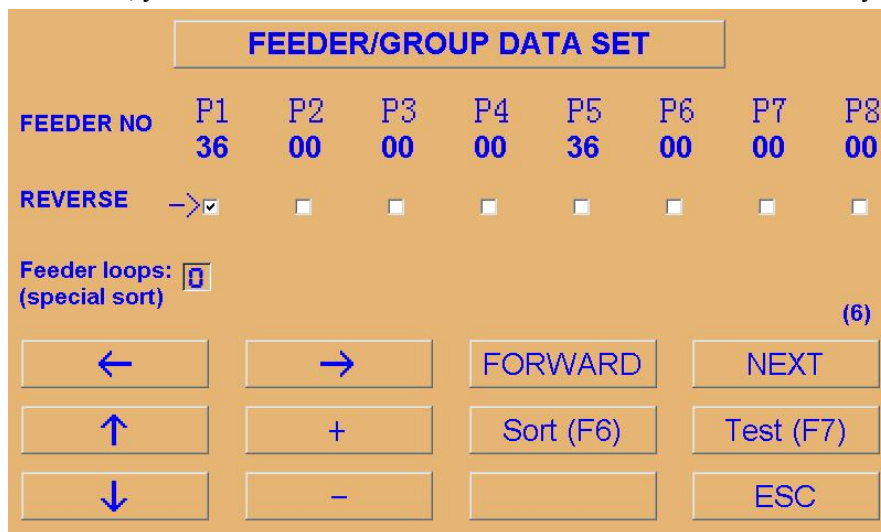
- =0: When it reaches origin, zero sensor switch glows, zero signal is valid
- =1: When it reaches origin, zero sensor switch goes off, zero signal is valid

Electromagnet mode

- = 0: Driving the ceramic chip actuator
- = 1: Driving the solenoid actuator

4-1-6 Feeder/Group Data Setting

On this screen, you can enter the number of needle selector feeders controlled by each group;



(Fig. 12)

8-fingers two-way: The port is 36 at most;

8-fingers three-way: The port is 18 at most;

12-fingers two-way: The port is 24 at most;

12-fingers three-way: The port is 12 at most;

16-fingers two-way: The port is 18 at most;

For example: P1(36) P2(36) P3(36) P4(36) P5(36) P6(36) P7(36) P8(36)

P1 code (1~36) P2 code (37~72) P3 code (73~108) P4 code (109~144)

P5 code (145~180) P6 code (181~216) P7 code (217~252) P8 code (253~288)

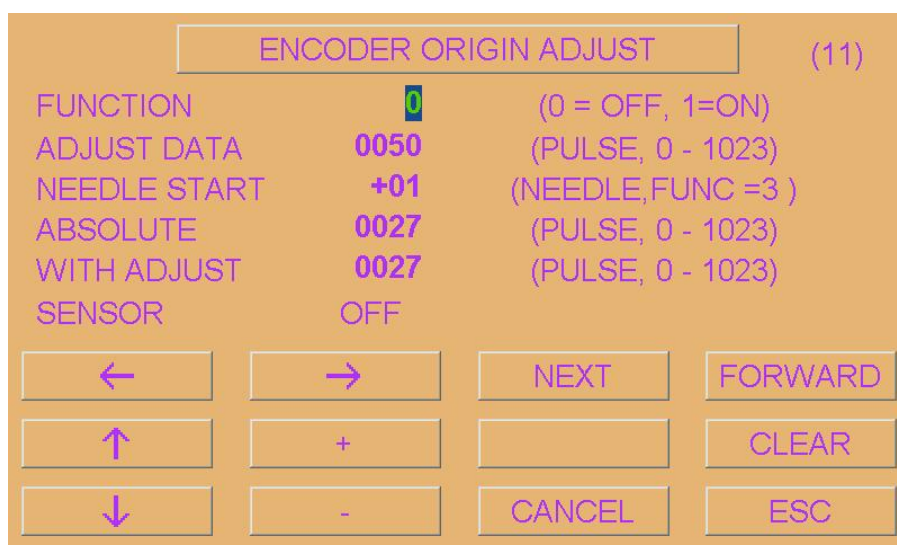
For example: P1(0) P2(8) P3(8) P4(8) P5(0) P6(8) P7(8) P8(8)

P1 code (none) P2 code (1~8) P3 code (9~16) P4 code (17~24)

P5 code (none) P6 code (25~32) P7 code (33~40) P8 code (41~48)

4-1-7 ENCODER ORIGIN ADJUST

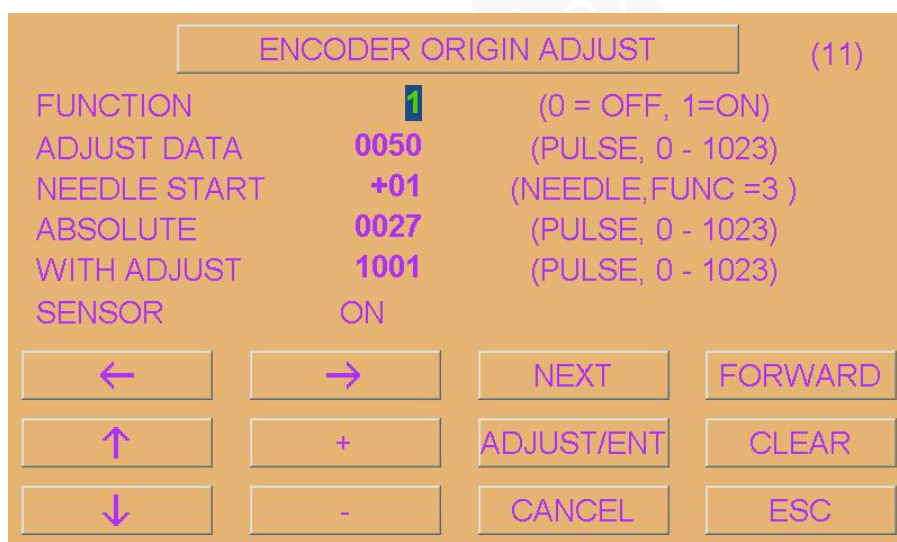
Press [Next] to enter the following menu



(Fig. 13)

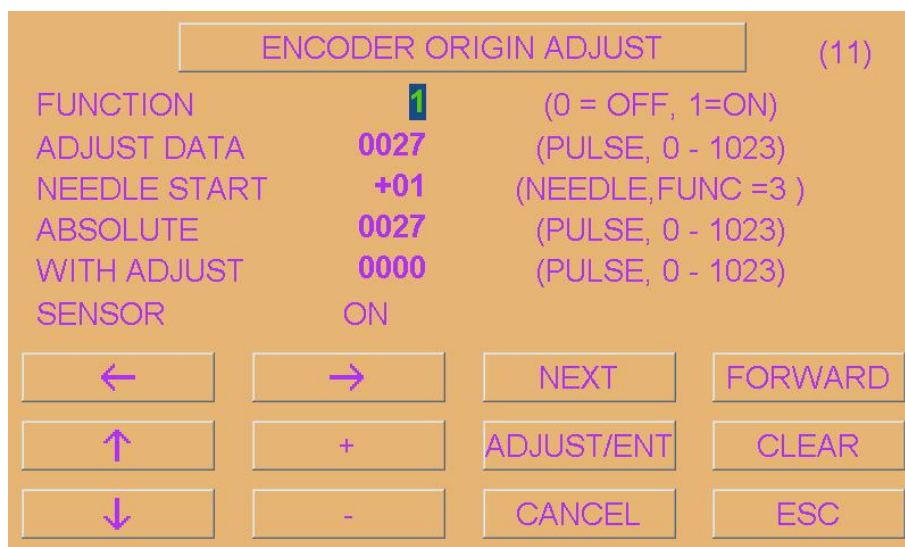
When the machine needs to re-align the origin, the origin adjustment function of the software can be used for quick adjustment.

Firstly, set the "FUNCTION" to 1, thus you can open the software origin adjustment function. Start the machine to reach the mechanical zero point where the "SENSOR" displays "ON", at this time the display interface will change, as shown below:



(Fig. 14)

Press the **【ADJUST】** key to record the current value of the origin, as shown below, and the origin alignment is completed this time.

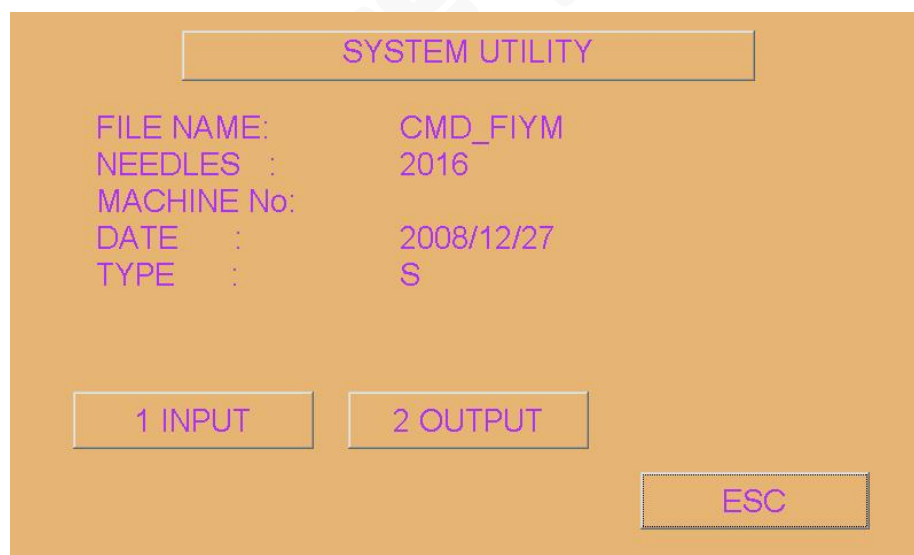


(Fig. 15)

If the pattern knitted by the machine is wrong, you can fine-tune the machine zero-point by increasing or decreasing the value of the "ADJUST DATA".

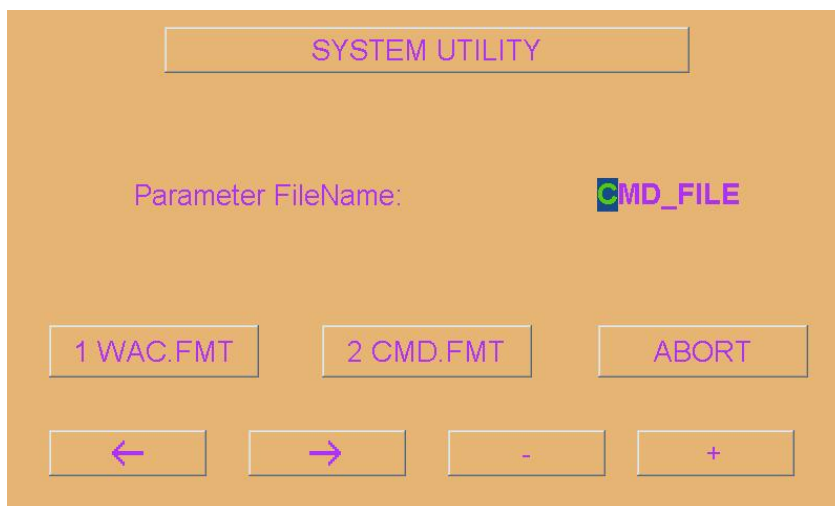
4-1-8 Save Jacquard Parameters to A USB Memory

In the "preliminary instructions" interface (Figure 3), Press the【SYS.LOAD】key to display the following menu



(Fig. 16)

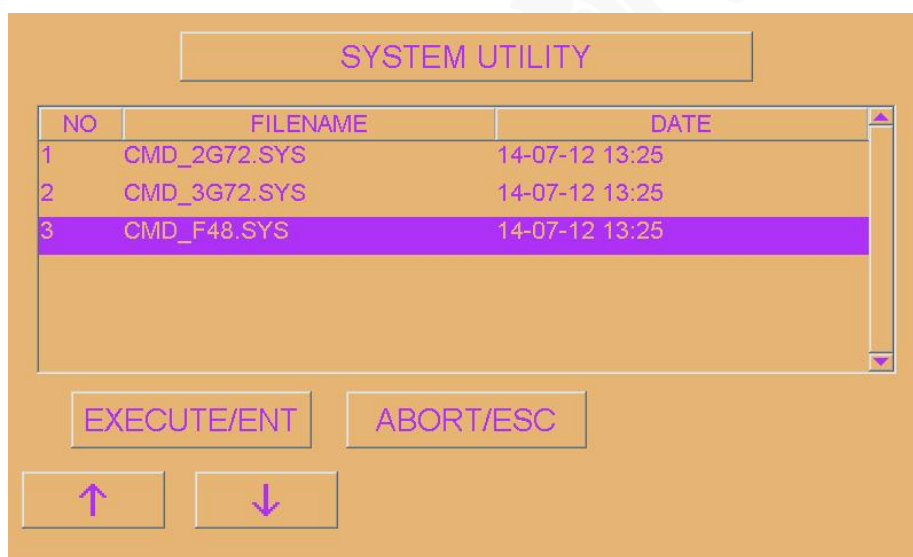
Insert a USB Memory, press the 【OUTPUT】 key, the hot will show the following when it detects the USB Memory:



(Fig. 17)

Use **【+】**, **【-】**, **【←】**, **【→】** keys to modify the system parameter file names. When pressing the "WAC.FMT" key, the system files will be packed in WAC format; when pressing the "CMD.FMT" key, the system files will be packed in the format set by our company. At last, save them into the USB Memory

4-1-9 Load Jacquard Parameters from a USB Memory



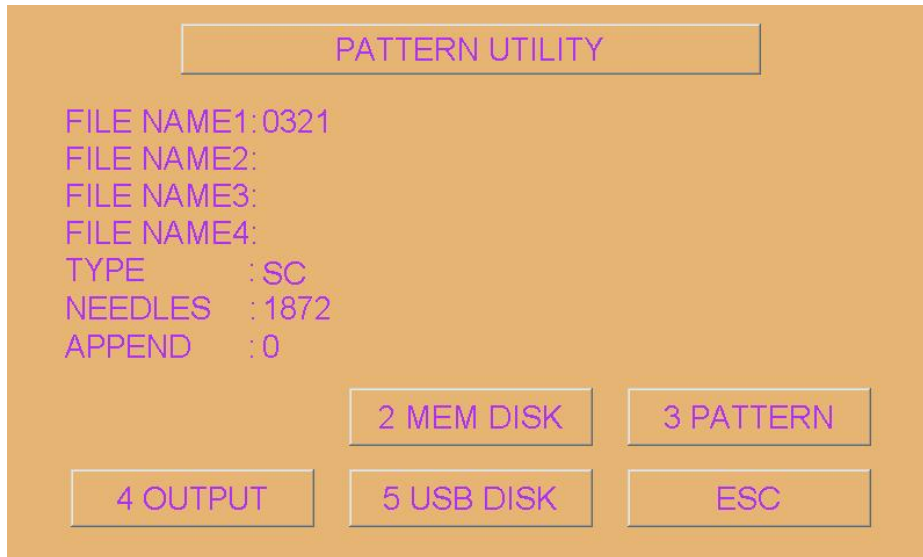
(Fig. 18)

Insert a USB memory, click **【INPUT】** key in the interface in Figure 16 , after the USB memory is detected by the computer, the names of the system parameter files will be listed (Figure 18) , use **【↑】****【↓】** keys to select the correct parameters, and then press the **【EXECUTE】** .

5 READ KNITTING PATTERNS

5-1 Enter Pattern Function Interface

In the interface in Figure 1, Press the **【PATTERN】** key to enter the “PATTERN UTILITY” menu.



(Fig. 19)

The currently running patter name, number of needles and added times etc are displayed on the screen.

The keys contained in the interface are as follows:

OUTPUT — Save the current knitting pattern files to a USB disk.

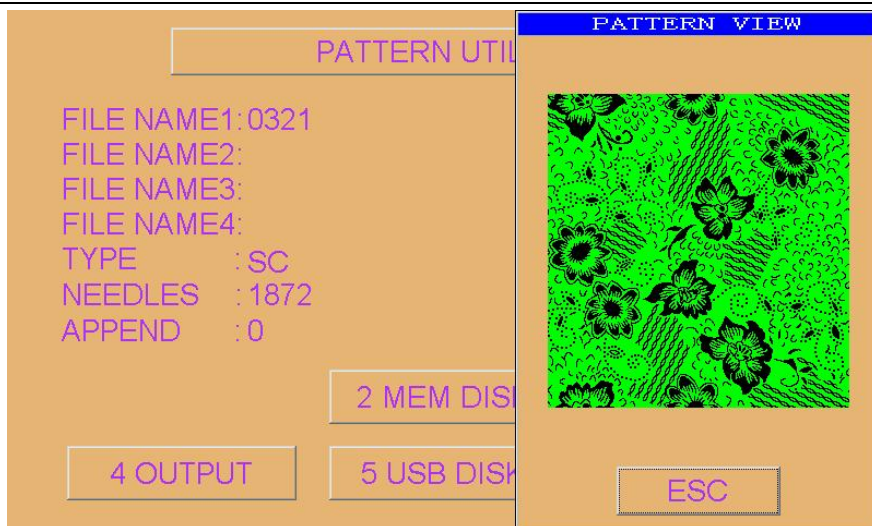
MEM DISK — Enter the Memory disk operation menu, this Memory disk means the Memory disk of the host computer.

USB DISK — Enter the USB disk operation menu.

PATTERN — Preview the pattern currently knitting or to be knitted.

ESC — Return to the main interface.

Press the **【PATTERN】** key to preview the pattern currently knitting or to be knitted, as shown below .



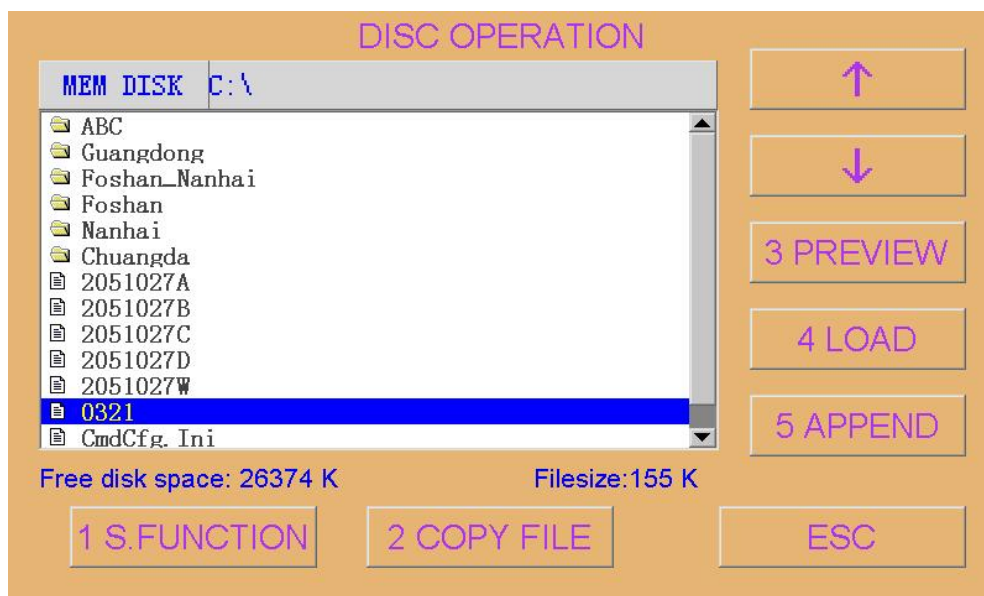
(Fig. 20)

5-2 Read Pattern Files from the Memory Disk

The computer has a certain size of internal disk space, you can save some common pattern files in it. Click **【MEM DISK】** key to enter the "DISC OPERATION" interface. When directory is selected, a menu pops up as shown in Figure 21, when file is selected, a menu pops up as shown in Figure 22.



(Fig. 21)



(Fig. 22)

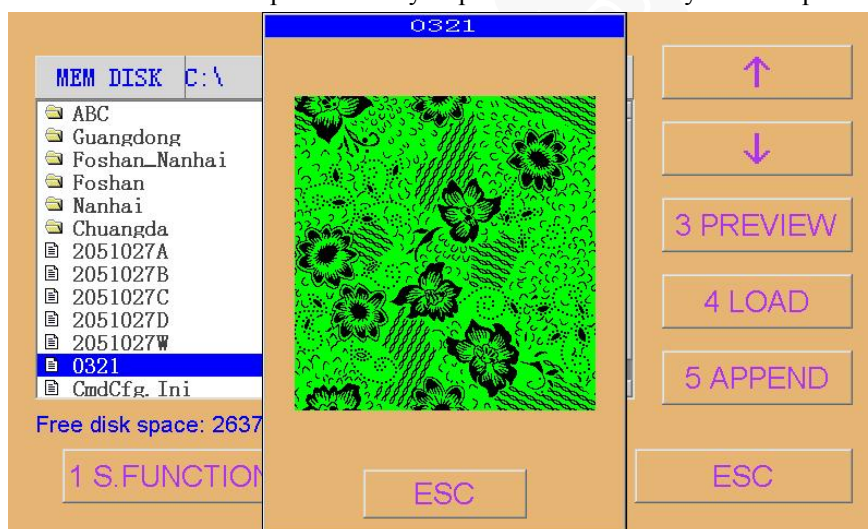
Up Arrow - Move the list cursor upward

Down Arrow - Move the list cursor downward

ENTER - If your currently selected item is directory, you can press this key to enter the currently selected directory and browse the files under the directory

EXIT - exit the current directory, and return to the previous directory

PREVIEW - If file is selected from the list items, the **ENTER** key will become **PREVIEW** key, then you can press this key to preview the currently selected pattern file.



(Fig. 23)

LOAD - If file is selected from the list item, the **EXIT** key will become **LOAD** key, you can press this key to read and save the currently selected pattern file into the Memory disk for knitting.

APPEND - In addition to the original pattern, a new pattern with the same number of needles and width of the original one is read

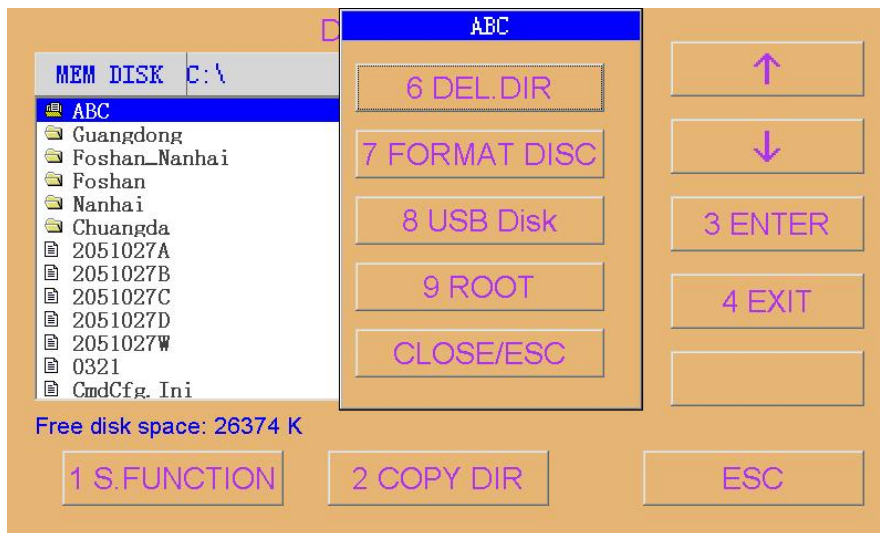
COPY DIR- If directory is selected from the list items, you can replicate the selected directory and the files under that directory to the USB disk by pressing this key.

COPY FILE - If file is selected from the list items, the **COPY DIR** key then becomes **COPY FILE**, so you can replicate the selected file to the USB disk by pressing this key.

S.FUNCTION- Some other operating function can delete files or directories (USB disk cannot delete files),

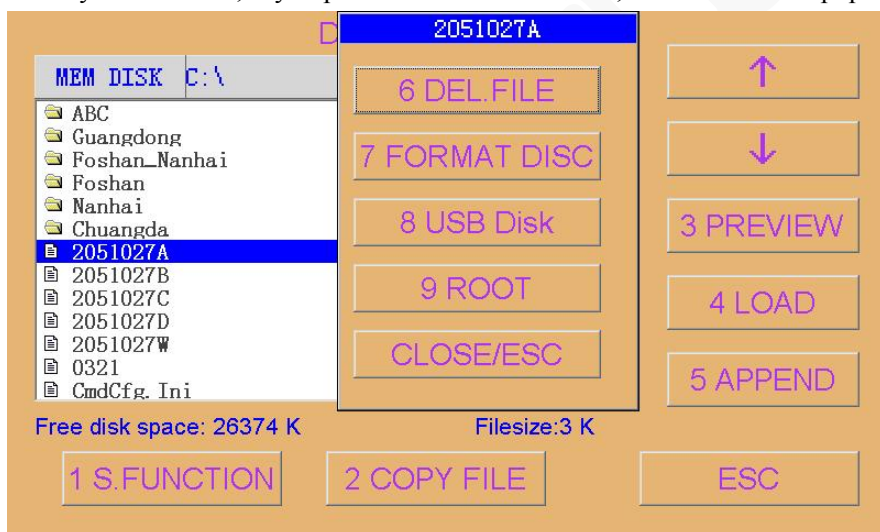
and can format the disk (USB disk cannot be formatted), you can also return to the root directory, or switch to the USB disk.

When you select directory, if you press the "S.FUNCTION", the follow menu pops up:



(Fig. 24)

When you select file, if you press the "S.FUNCTION", the follow menu pops up:



(Fig. 25)

DEL.DIR - if the currently selected item is a directory, then you can press this key to delete the selected directory.

DEL.FILE - if the currently selected item is a file, then you can press this key to delete the selected file.

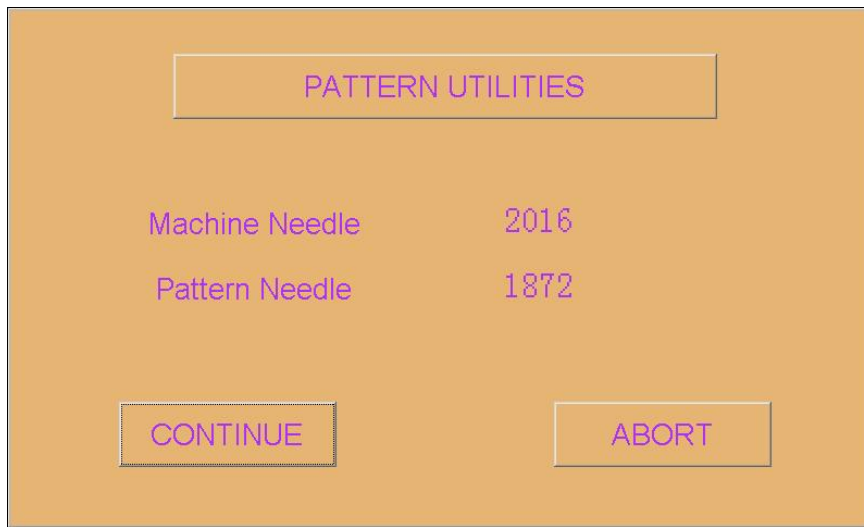
FORMAT DISC - if the currently selected item is an internal disk, then you can press this key to format the selected internal disk while deleting all files and directories in it.

ROOT - When entering a subdirectory, you can press this key to exit the subdirectory and return to the root directory.

USB disk - You can press this key to switch from the internal disk to a USB disk.

CLOSE — When you press this key, your will close the tool bar with special operations:

Use the up and down arrow keys to select the pattern to be read , and then click **【LOAD】** key, the following interface:



(Fig. 26)

Click **【CONTINUE】** , the computer will read the selected pattern and display a series of prompt boxes, when the pattern data processing is completed, it will jump back to the "PATTERN UTILITY" interface.

CmdCfg.Ini file is a system configuration for the pattern

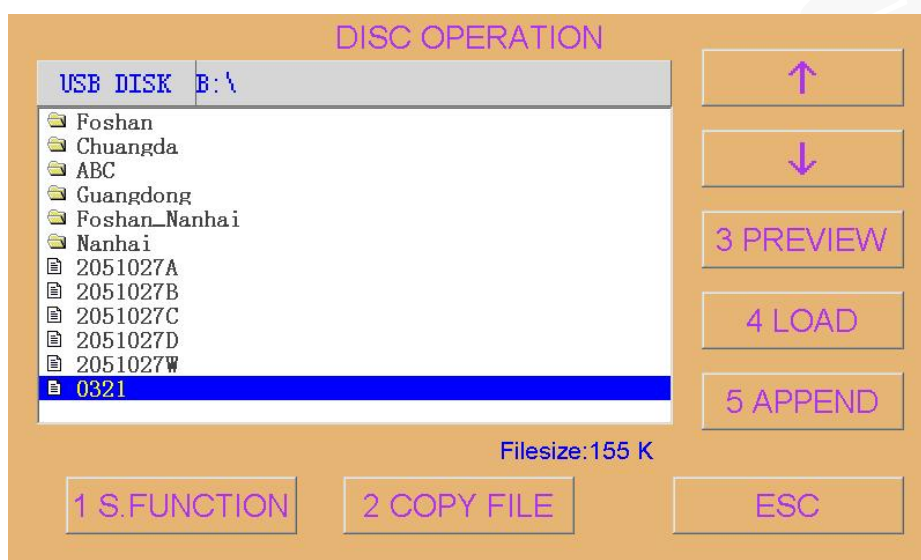
Note: The **CmdCfg.Ini** file in the memory disk should not be deleted, if it is deleted, the system has to be re-energized to re-read the pattern.

5-3 Read Pattern Files from a USB Memory

Insert a USB disk in the USB port of the panel, click the **【USB DISK】** key in the "PATTERN UTILITY" interface, the computer will detect the connection of the USB disk and display the directory and file list in the USB disk. When directory is selected, a menu pops up as shown in Figure 27, when file is selected, a menu pops up as shown in Figure 28



(Fig. 27)



(Fig. 28)

Up Arrow - Move the list cursor upward

Down Arrow - Move the list cursor downward

ENTER- If your currently selected item is directory, you can press this key to enter the currently selected directory and browse the files that that directory

EXIT - exit the current directory, and return to the previous directory

PREVIEW - If file is selected from the list items, the **【ENTER】** key will become **【PREVIEW】** key, you can press this key to preview the currently selected pattern file.

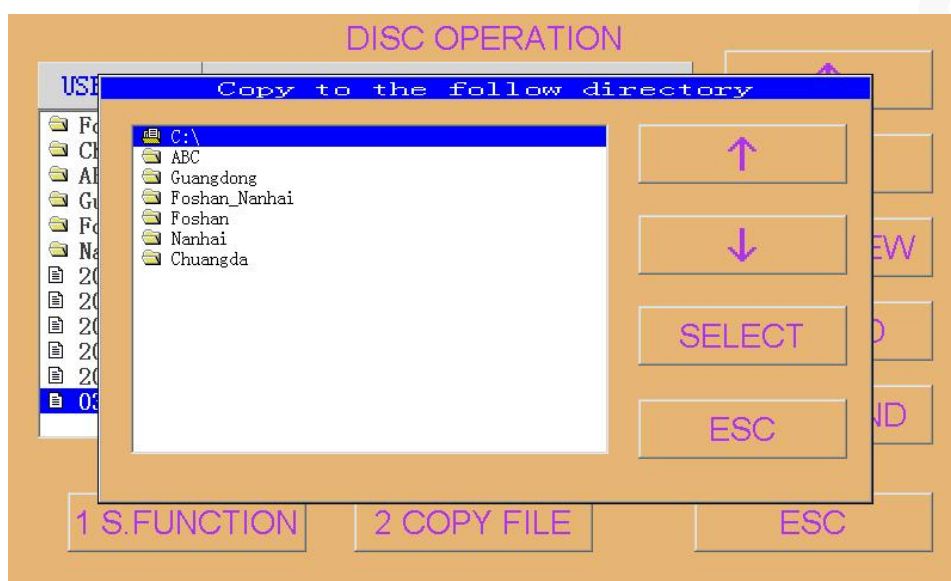
LOAD - If file is selected from the list items, the **【EXIT】** key will become **【LOAD】** key, you can press this key to read and save the currently selected pattern file into the Memory disk for knitting; if currently use memory is a USB memory, the currently selected pattern file can be saved to the root directory of the memory disk.

APPEND –In addition to the original pattern, a new pattern with the same number of needles and width of the original one is read.

COPY DIR- If directory is selected from the list items, you can replicate the selected directory and the files under that directory to the memory disk by pressing this key.

COPY FILE - If file is selected from the list items, the **【COPY DIR】** key then becomes **【COPY FILE】**, and you can press this key to replicate the selected file to the memory disk.

S.FUNCTION - Some other operating function can delete files or directories (USB disk cannot delete files), and can format the disk (USB disk cannot be formatted), you can also return to the root directory, or switch to the USB disk.



(Fig. 29)

When a file is selected from the list items, press the **【COPY FILE】** key, you will be prompted that the file will be transferred to specified directory in the memory disk (as shown in Figure 29), after the selection is completed, press the **【SELECT】** key, the file to be transferred will be replicated into the specified directory in the memory disk. If a directory is selected from the list items, you will not be prompted that the file will be transferred to specified directory in the memory, as the system only supports one level subdirectory.

5-4. Append Pattern

After the first pattern data is input, if another pattern is needed, please use the **【APPEND】** key. If the memory has sufficient space, the data of up to 4 patterns can be appended. In Figure 30, there are four patterns: "20151027A", "20151027B", "20151027C" and "20151027D", they have the same number of knitting needles, same pattern width, satisfying the conditions for additional patterns. You can use the following pattern appending functions to combine them into one knittable pattern.

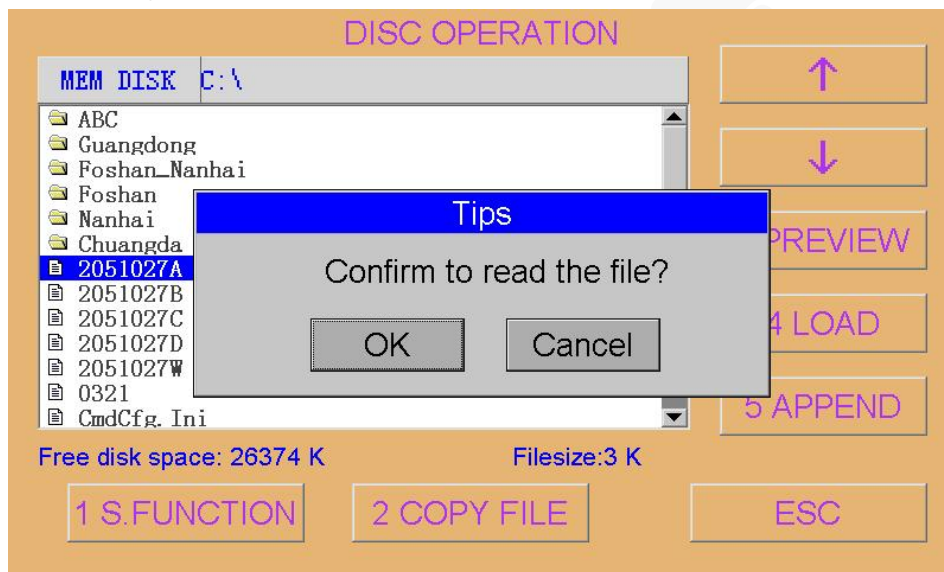
Special instructions:

8300 system or 3000 plus latest system can add the pattern with 5000 stitches and 15000 rows. If the pattern is less than this range, you may not need to add the pattern.



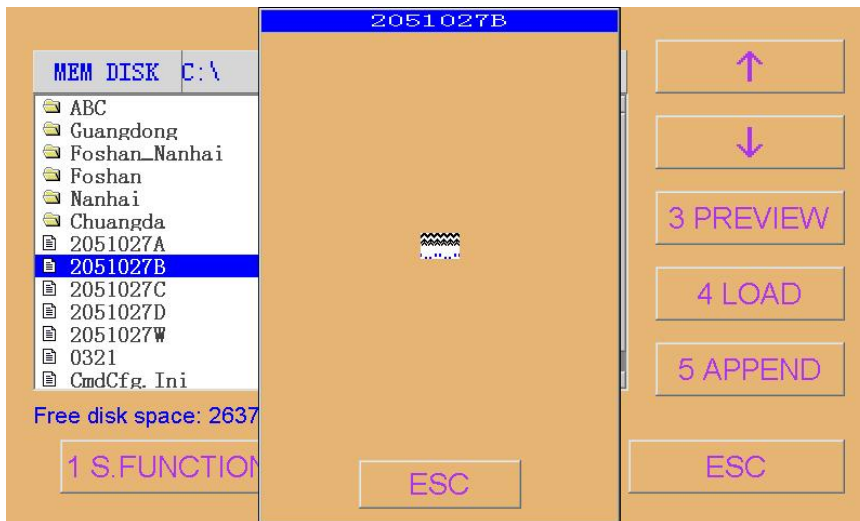
(Fig. 30)

Press the up and down arrow keys to select the file "2051027A", and then click **【LOAD】** key, as shown in the following interface:

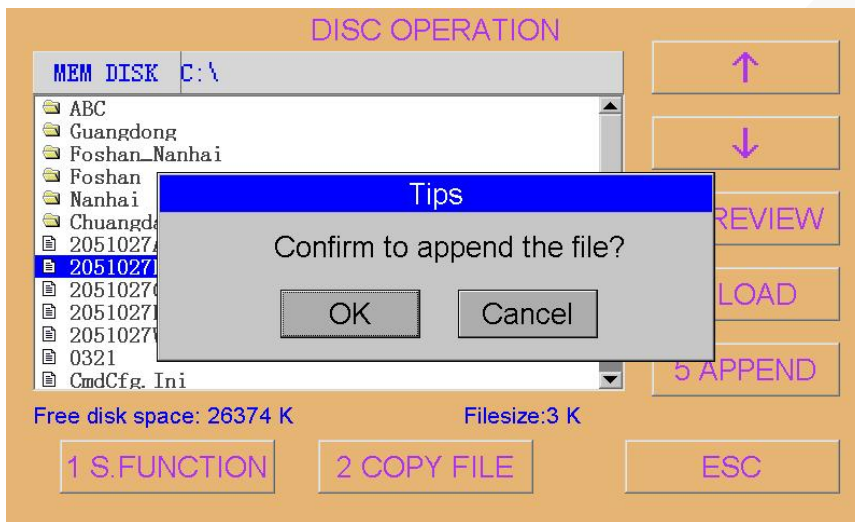


(Fig. 31)

Then select "2051027B", press "APPEND" key to read the pattern.



(Fig. 32)



(Fig. 33)

Add patterns "2051027C" and "2051027D".in the same way.

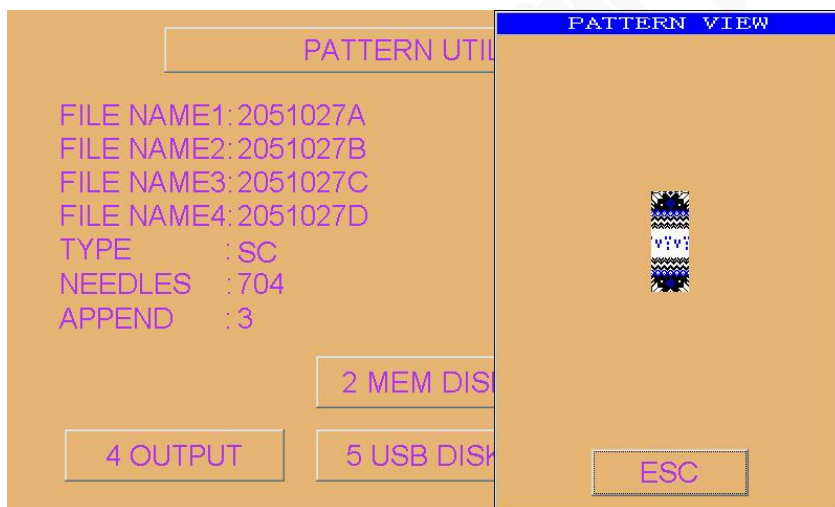


(Fig. 34)



(Fig. 35)

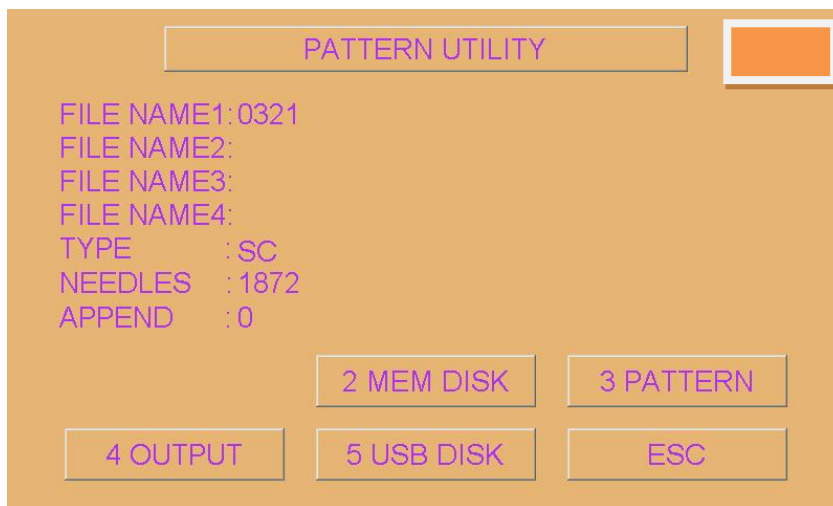
After the completion of adding patterns, exit "DISC OPERATION" interface, click 【PATTERN】 key in the "PATTERN UTILITY" page, you can see that the four pattern documents have been merged into one knittable pattern .



(Fig. 36)

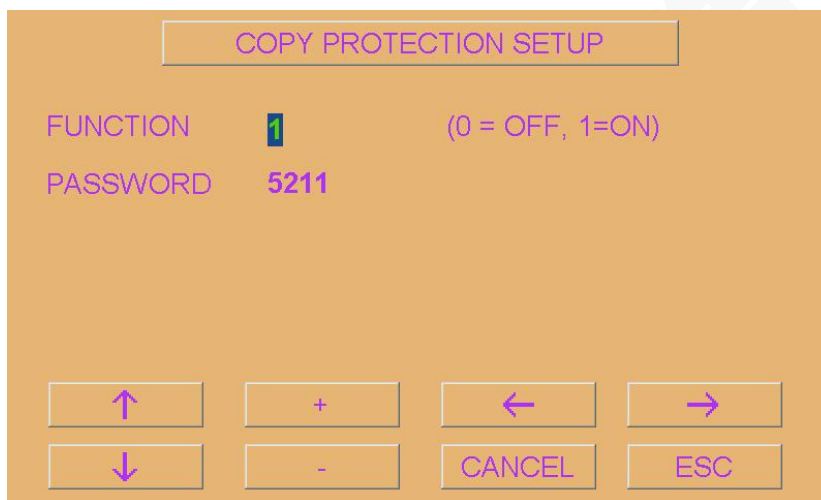
5-5 Pattern Anti-Theft Function Operating Instruction

The anti-theft function can prevent the pattern save in the machine from unauthorized replication through a USB memory. The pattern anti-theft function is disabled by default, to enable it, please follow the following operation process:



(Fig. 37)

Click the hidden key at the top right-up corner of the "PATTERN UTILITY" interface and enter the password "5211" to enter the "COPY PROTECTION SETUP" menu.



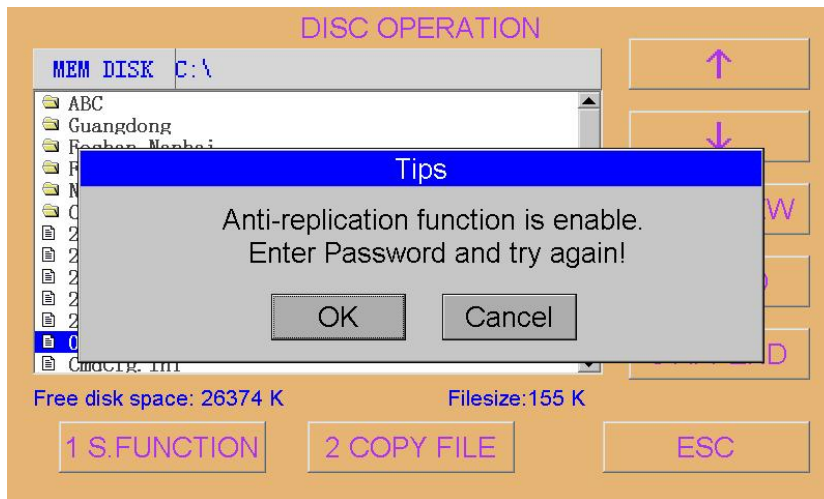
(Fig. 38)

FUNCTION – 0=Disable pattern anti-theft function; 1=Enable pattern anti-theft function

PASSWORD – 4-digit protection password

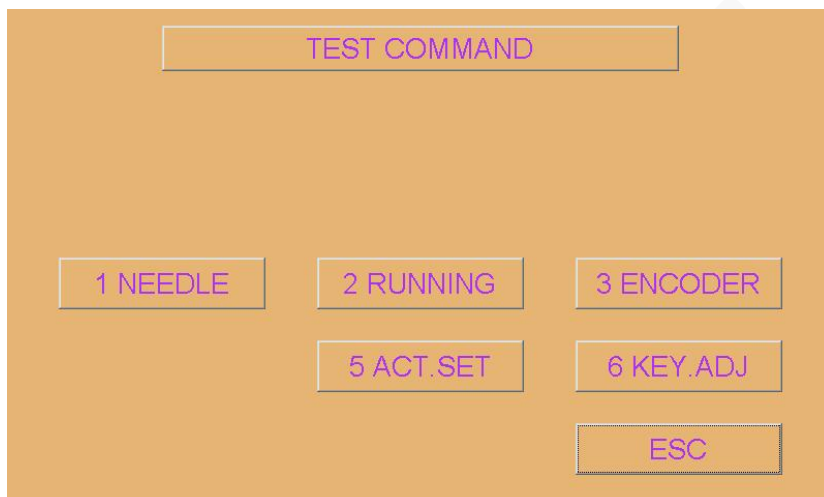
This password should be kept in a safe place (it is also the password to enter this menu)

After the anti-theft function is enable, feature , if you copy the pattern data from the machine to the USB disk (press the **【COPY FILE】**key in the memory disk operation interface) , the following prompt will appear, you have to enter the protection password before replication.



(Fig. 39)

6 TEST COMMAND



(Fig. 40)

Check instructions include the check items in the following keys:

NEEDLE — Use to check the operation of each actuator

RUNNING — Force the actuator to rotate as required by the special pattern.

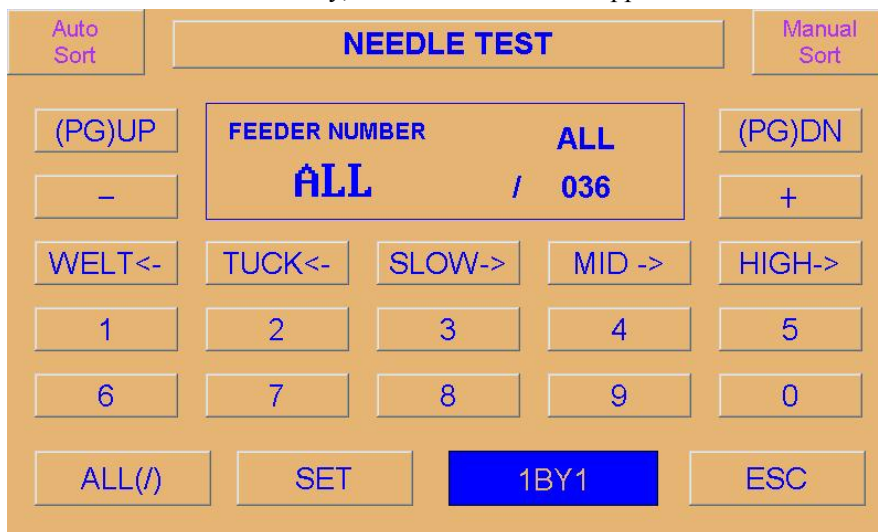
ENCODER— Check the origin position.

ACT.SET —View the position of the rear base board switch of the actuator.

KEY.ADJ ---- Adjust the touch screen so that the keys can work in a optimum status.

6-1 NEEDLE TEST

Press the **【NEEDLE】** key, the follow menu will appear:



(Fig. 41)

This screen displays the action speed of needle selector, the number of feeder and the total number of feeders. The input data can be changed according to the check needs.

[+][-] Key: The action speed of a needle selector rises or falls

[ALL] Key: All feeders of needle selector move simultaneously

[floating / doubling stitch] key: The selected needle selector switches between floating / doubling stitch.

However, this can only be done if the machine has this function.

[0]~[9] Key: Select the number of needle selector feeders that are moving.

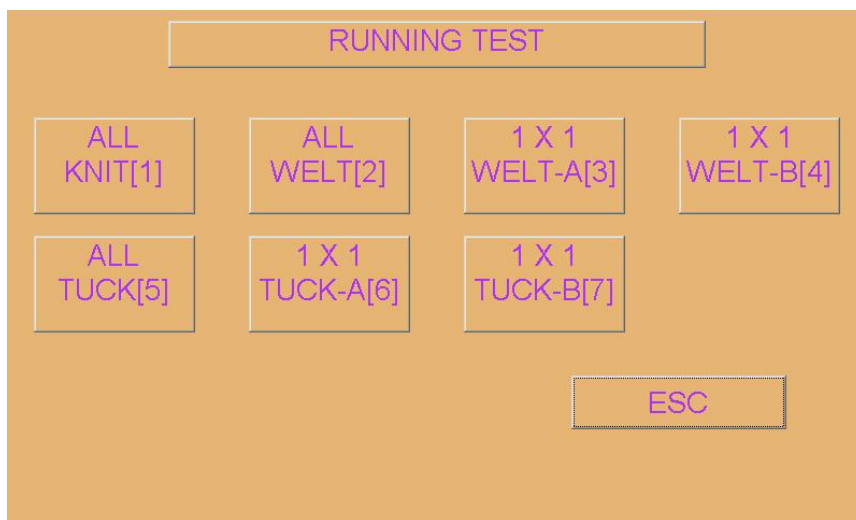
[Setting] key: After specifying the number of routes, the previously specified needle selector starts moving when pressing this key.

[One-to-One] key: The fingers move one by one.

[Automatic Sorting] key: Automatically sort all needle selector numbers. (Detailed methods refer to sorting sections)

[Manual Sorting] key: Manual power on a needle selector that needs to be sorted. (Detailed methods refer to sorting sections).

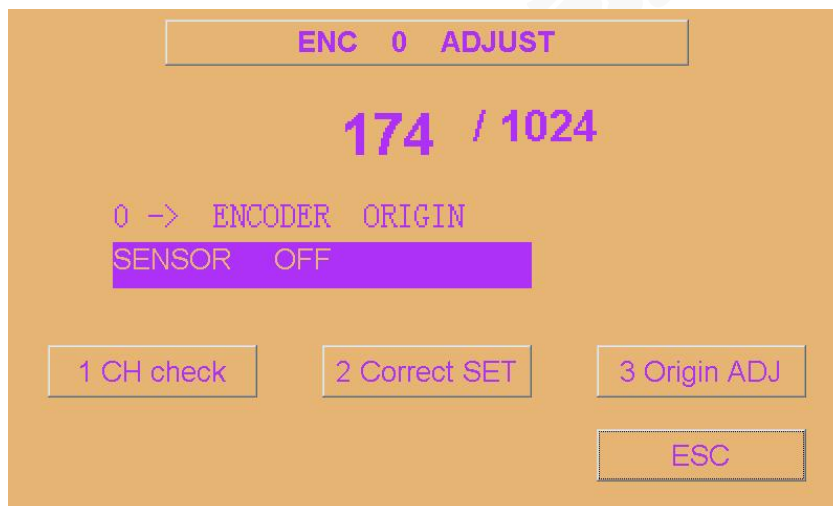
6-2 RUNNING TEST



(Fig. 42)

This function is used to check the operation of the machine in accordance with a particular type of pattern. According to the feeder and actuator settings in the [INITIAL], 【ALL TUCK】 , 【1x1 TUCK-A】 and 【1x1 TUCK-B】 may not be displayed.

6-3 ENCODER CHECK



(Fig. 43)

This function is used to install the encoder on the machine or replace the encoder. The number of current pulses (up to 1024) is shown in the menu. The buzzer will beep when the encoder is approaching the origin. The closer to the origin, the shorter the beep interval, and the beep becomes a continuous tone when the encoder reaches the origin.

When a message is input to the sensor, "SENSOR ON" will be displayed.

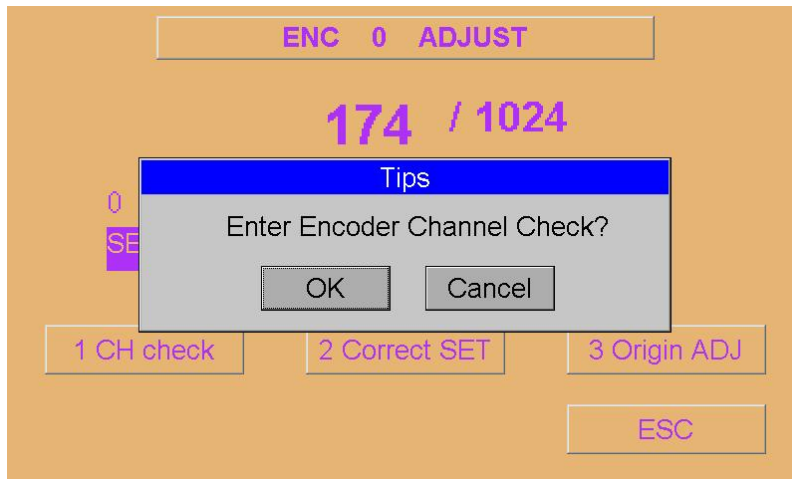
CH check Check the data of the encoder.

Correct SET Set the correction parameters of the encoder.

Origin ADJ Can Jump to the "ENCODER ORIGIN ADJUST" menu.

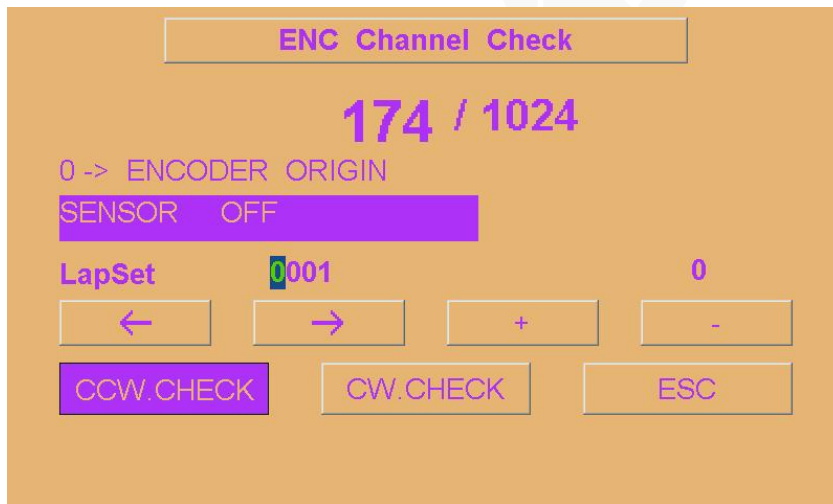
6-3-1 Encoder Channel Check

Click **【CH check】** , the following confirmation prompt will pop up:



(Fig. 44)

Input the code "5211" to enter the following interface, set LapSet to 1.

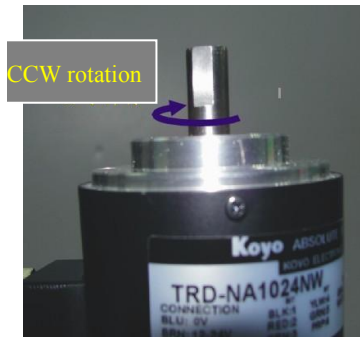


(Fig. 45)

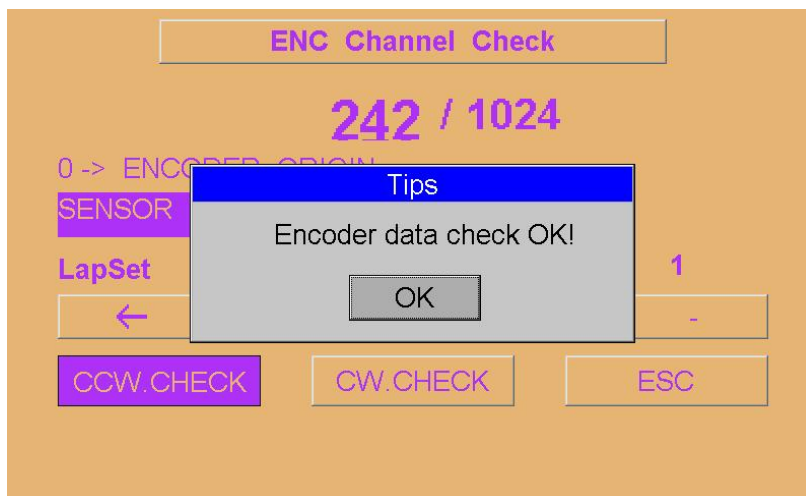
When the encoder rotates one revolution clockwise and no error is detected by the system, you will be prompted



(Fig. 46)

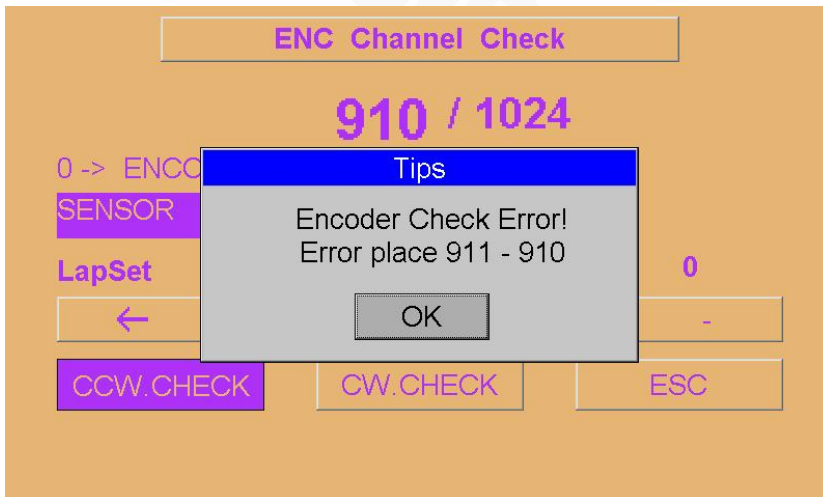


(Fig. 47)



(Fig. 48)

If it prompts "Encoder Check Error", it means that error is detected, please check the encoder and its cable. (Note: The encoder should be rotated completely all at once, and should not be rotated intermittently).



(Fig. 49)



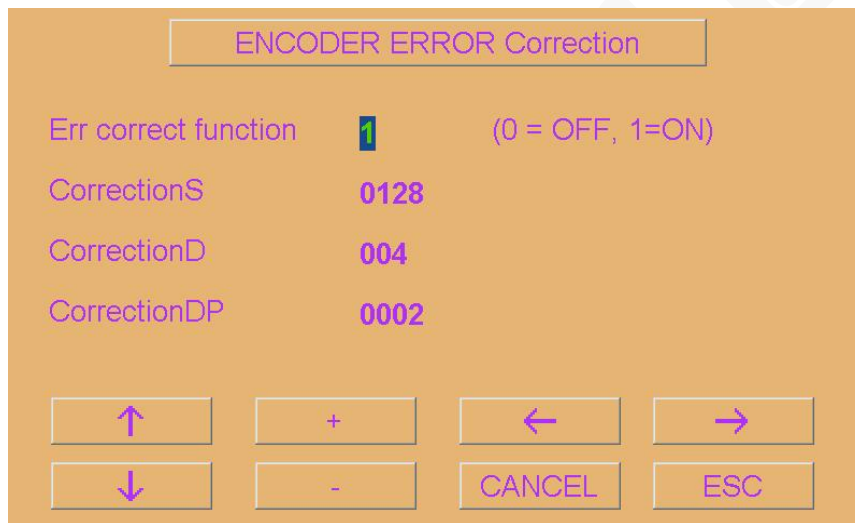
(Fig. 50)

Similarly, in Figure 45, press the【CW.CHECK】key, rotate the encoder in the detection shown in Figure 50 to check whether there is any error when the encoder rotates counterclockwise.

After checking, press the End key to return to the computer's main screen.

6-3-2 ENCODER ERROR Correction

In the "ENC 0 ADJUST" interface (Figure 43), press the 【Correct SET】 key, input the password “5211” to enter the following interface.

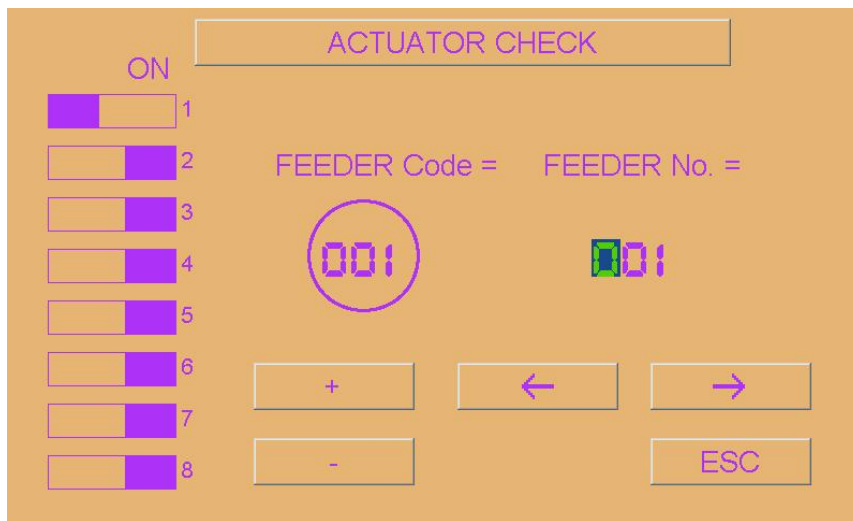


(Fig. 51)

Err correct function 0 = Disable, 1 = Enable The factory default is Enable, if it set to 0 (disable correction function), the computer will not correct the error of the encoder, the machine will not stop even if the encoder fails.

Correction-S, D, DP do not need modification and their default values are used.

6-4 ACTUATOR CHECK



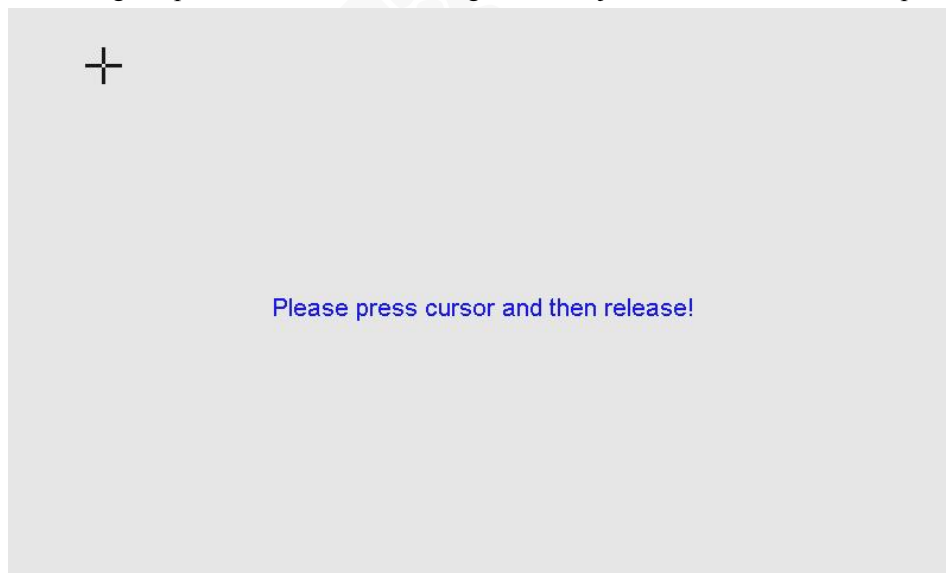
(Fig. 52)

This menu shows the information of the coding switch at the rear board of the actuator. You can directly check the correct setting of the coding switch without need to refer to other coding information.

6-5 TOUCH-SCREEN CALIBRATION

Firstly, enter the password: 5211

After entering the password, the screen changes to an adjustment menu, follow the prompts to operate.



(Fig. 53)

When the touch screen keys of the host are shifted, adjustment can be made using this function. After the adjustment is completed with the order from # 1 to # 4, end the operation by following the prompts at the center of the touch screen.

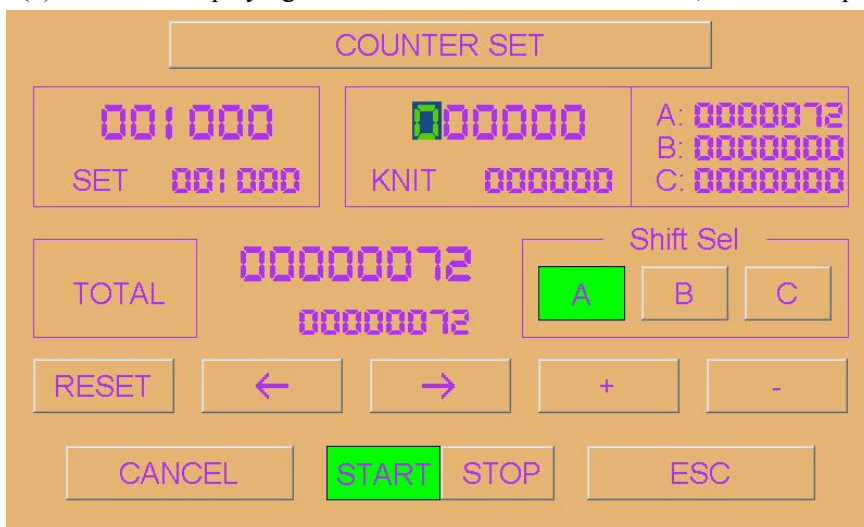
Tip: The "Encoder error" menu can also be changed to the touch screen adjustment interface.

7 COUNT SETTING

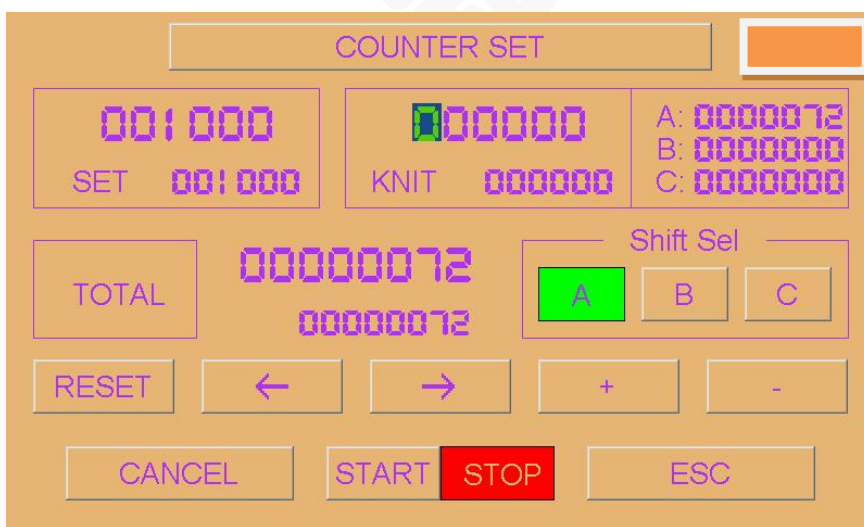
Press **【COUNTER】** on the screen to enter the setting menu

Count setting method includes the following:

- (1) Set the number of revolutions: Set the number of revolutions in knitting from start to stop of the machine, when the number of preset revolutions is reached, the machine stops knitting, the knitting menu on the screen will change into count menu, reset is needed at this time.
- (2) Knitting revolutions: the number of knitting revolutions recorded by the counter after ① display starts.
- (3) Cumulative number of revolutions: The total number of revolutions so far, irrelevant to whether pressing the "START" key.
- (4) A / B / C: Displaying the number of revolutions of shift A, B and C respectively.



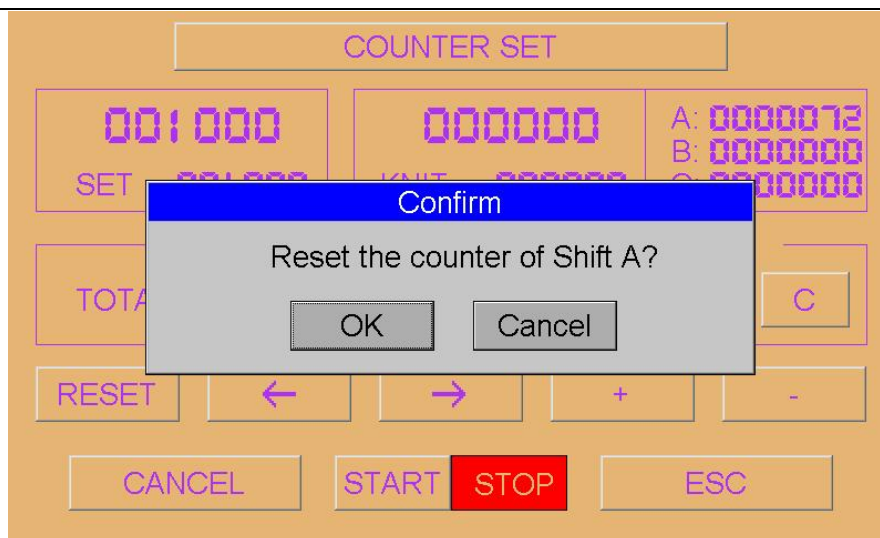
(Fig. 54)



(Fig. 55)

In the "Shift Sel" box, press **【A】** to select the number of shift A, you can also select **【B】** or **【C】** .

Press the hidden key at the top right corner of the screen (or the panel key "menu") , prompt box shown in the figure below will appear, press **【OK】** key and enter the password "5211", the count number of the currently selected shift.



(Fig. 56)

8 RESET

【RESET】 : This key is used to bring all the actuator into controller setting mode when the power is turned on. When the pattern is cleared or the machine parameters are reset, this key will also be used. After pressing the **【RESET】** key, the color of the key will become reverse 2 minutes later, the computer begins to run this command at this time.

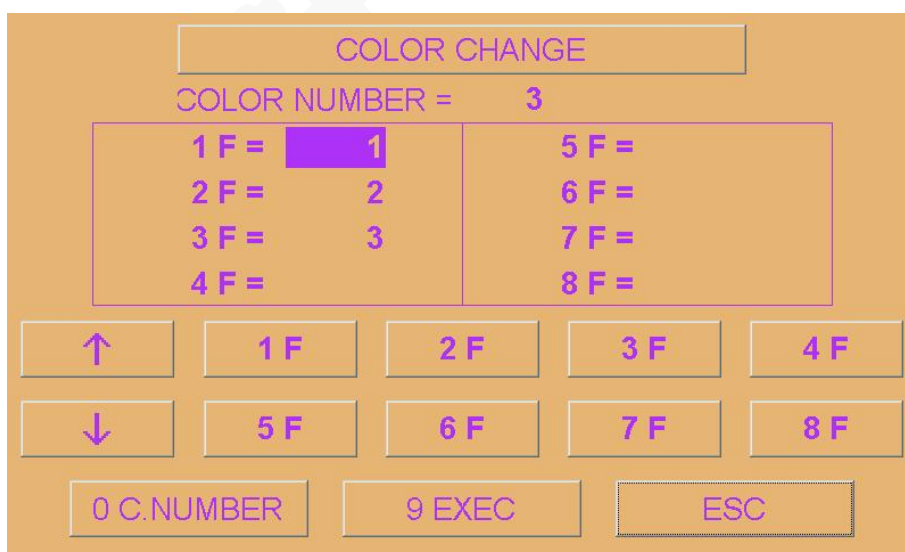
Reset

After pressing the **【RESET】** key, the reset mode can be canceled by pressing the **【RESET】** key once again.

Reset

9 COLOR CHANGE

In Figure 1, press the "NEXT" and then press **【COLOR CHG.】** key to enter the following interface:



(Fig. 57)

This function can be used to directly change the color of the pattern in the menu.

Now the use of this function is explained by taking a two -color pattern as an example.

① If the first color (odd number) of the pattern is red, the second color (even number) is blue, now we exchange the two colors.

First, use the 【↑】 【↓】 in the menu to change the "Number of colors used", then press the 【EXEC】 key to enter the following menu.

② When 1F is reversed color, select 【2F】 .

③ At this time, "1F→2F", "2F→1F" messages will be shown on the screen.

④ Then press the 【EXEC】 key.

After pressing the 【OK】 key, the screen will display the "Data has changed" message.

⑤ Press 【ESC】 key to end the operation.

Note: 【C.NUMBER】 indicate the number of colors used in the current pattern data.

10 SORTING OF NEEDLE SELECTORS

10-1 Description of new system of magnetic holding

In the magnetic hold system, interface boards P1-P4 share one power supply and P5-P8 share one power supply. In order to make full use of the two power supplies, the needle selectors should be distributed equally as far as possible.

For example:

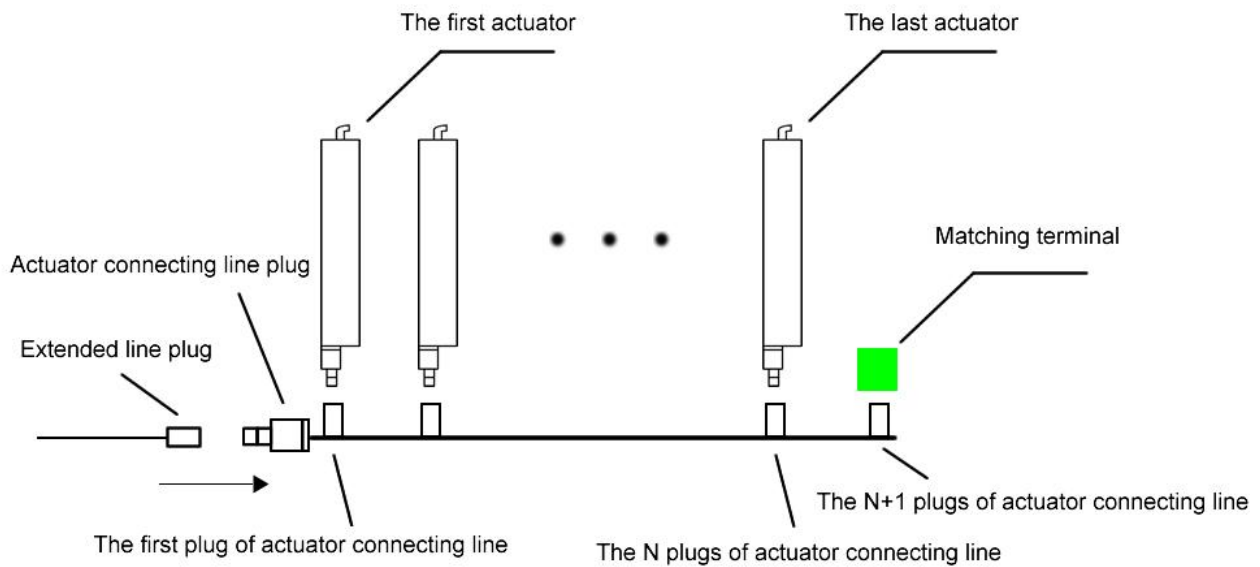
For 72F two-way computer system, No. 1-36 needle selectors use P1-P4 port; No. 37-72 needle selectors use P5-P8 port.

For 72F three-way computer system, No. 1-72 needle selectors use P1-P4 port; No. 73-144 needle selectors use P5-P8 port.

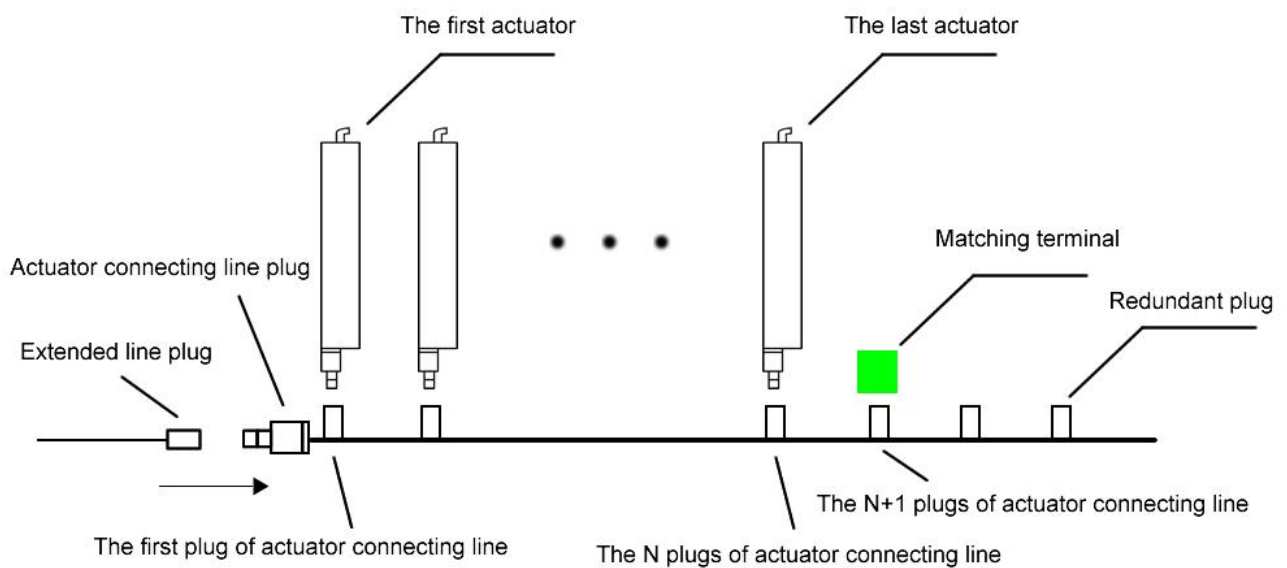


② Each of 14P needle selector connecting lines requires a terminal for communication matching, so each of 14P needle selector connecting lines will be plugged in to connect the terminal, and the terminal position will be against the last needle selector, as shown in the following figure:

Condition I: Last plug of needle selector lines connects to the matching terminal

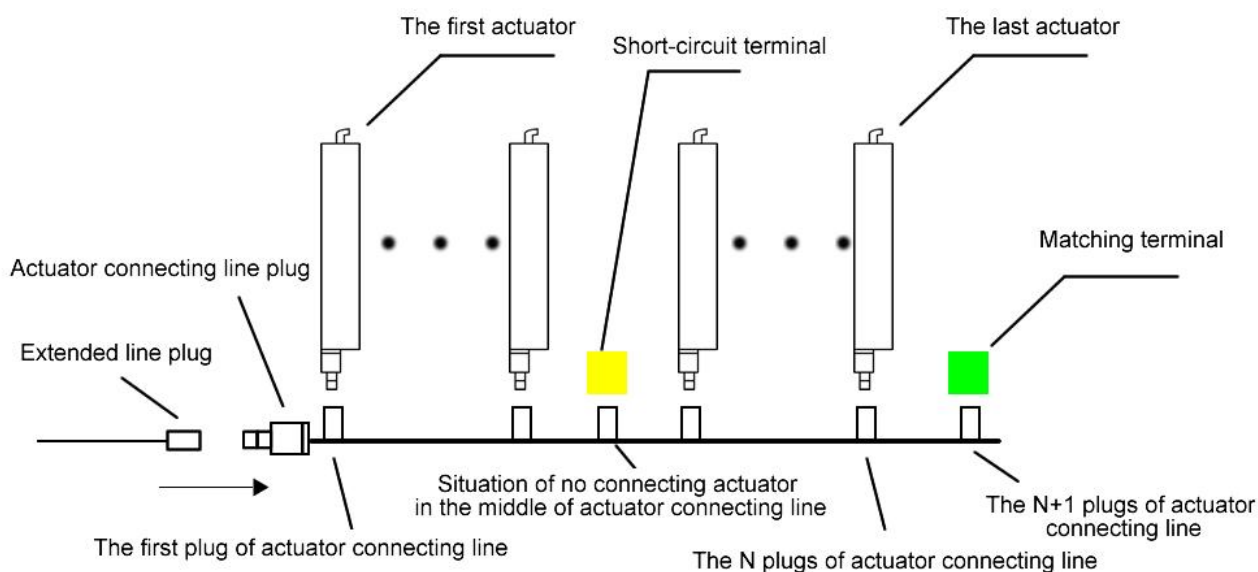


Condition II: The needle selector connecting lines have redundant plugs.



Special condition III:

There are redundant plugs between the first needle selector and the last needle selector in one needle selector connecting line, it can be sorted automatically after connecting the short-circuit terminal, otherwise it can only be sorted manually.



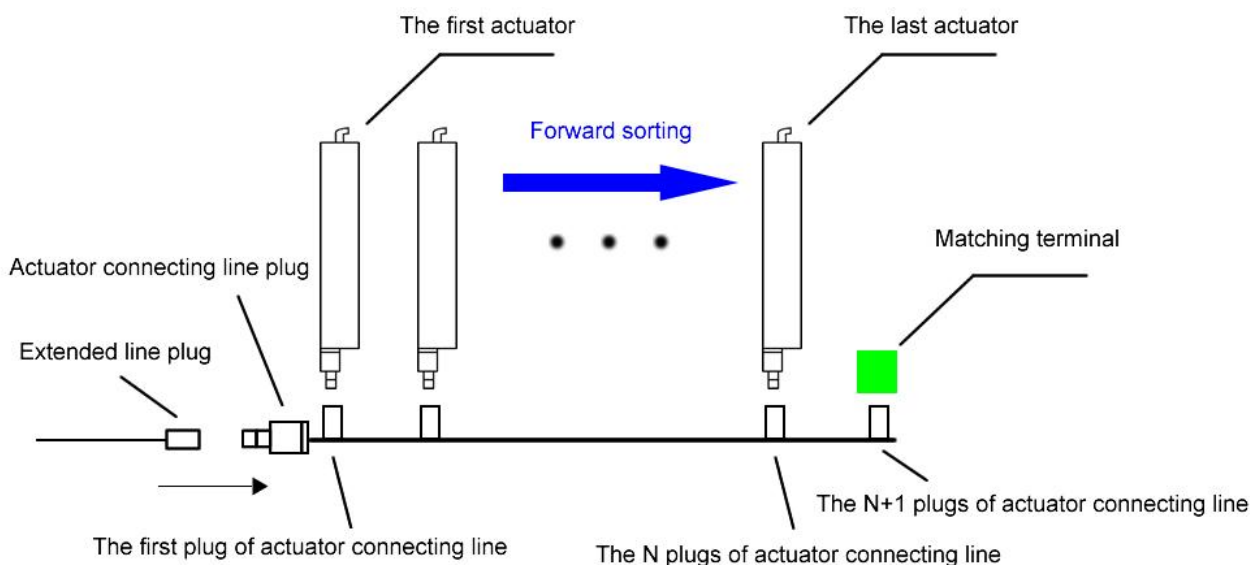
③ Port should be used after setting;

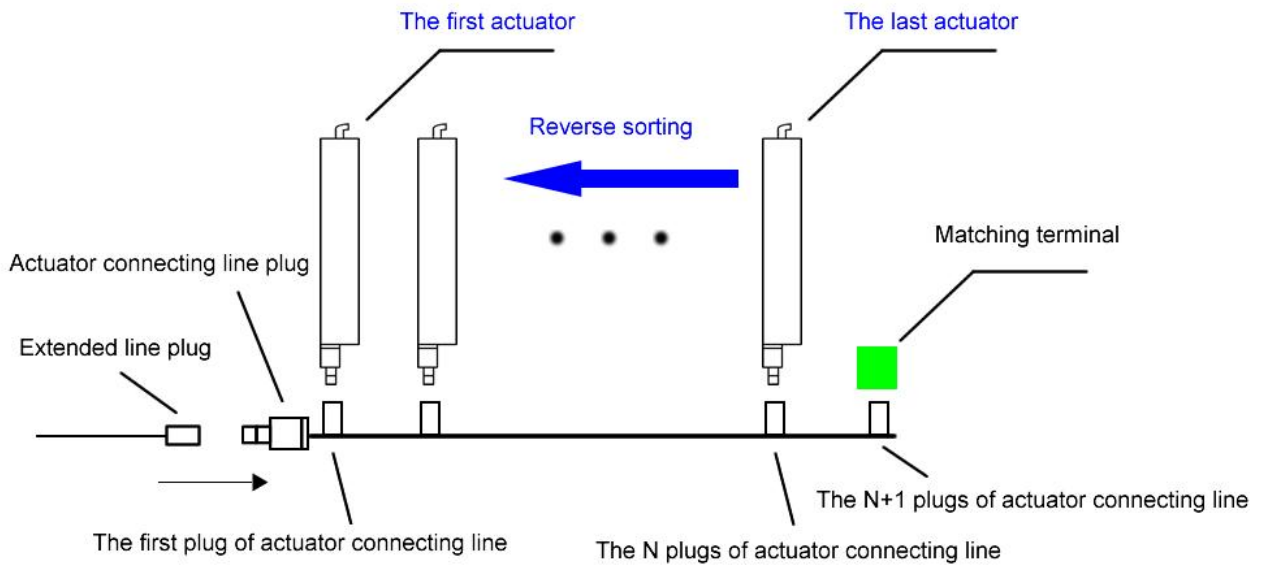
Each port of automatic sorting system interface board (Px) poses quantity and number requirements for the needle selector as follows:

- The maximum number is 36 for 8-fingers two-way needle selector;
- The maximum number is 24 for 12-fingers two-way needle selector;
- The maximum number is 18 for 16-fingers two-way needle selector;

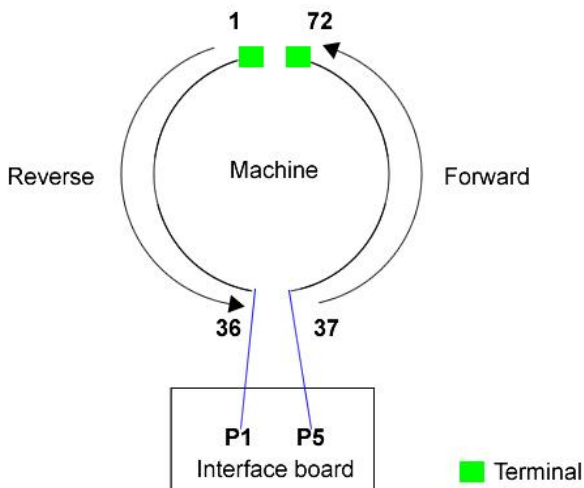
④ The installation method is basically the same as the electric magnetic system. The difference is that it is not required to install the needle selector based on the numbers; After installation of needle selector, please follow the following schematic diagram of various models to connect needle selector lines.

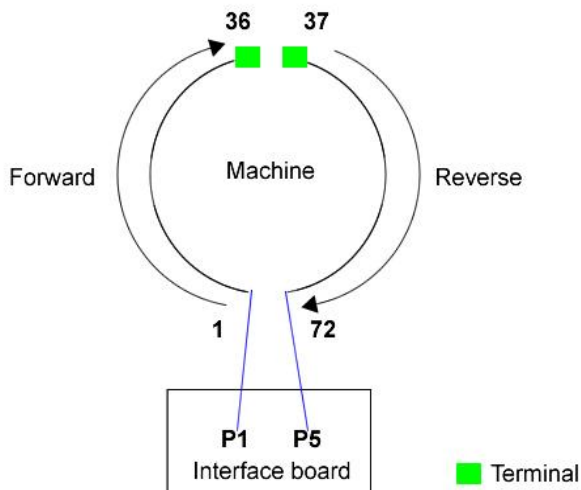
Schematic diagram of positive and negative sorting:





Schematic diagram of physical setting, port (Px) and direction setting of needle selector lines:
P1(36), P2(0), P3(0), P4(0), P5(36), P6(0), P7(0), and P8(0) for 8-fingers 72F and two-way machine
 (Opening is opposite to the machine corner) (Opening is in the position of the machine corner)

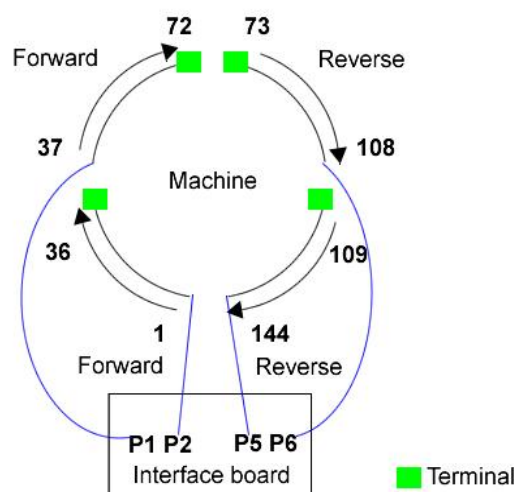
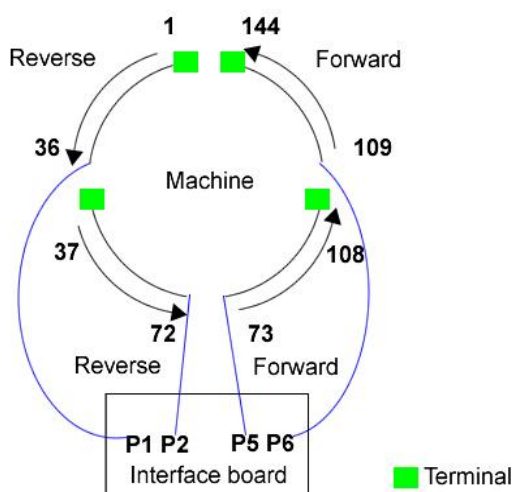




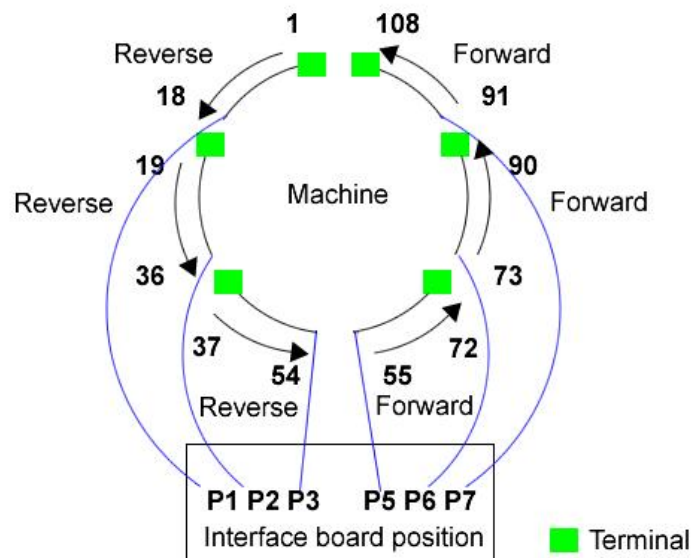
FEEDER/GROUP DATA SET								
FEEDER NO	P1	P2	P3	P4	P5	P6	P7	P8
	36	00	00	00	36	00	00	00
REVERSE	->	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeder loops: (special sort)	<input type="checkbox"/>							(6)
	←	→	FORWARD		NEXT			
	↑	+	Sort (F6)		Test (F7)			
	↓	-			ESC			

FEEDER/GROUP DATA SET								
FEEDER NO	P1	P2	P3	P4	P5	P6	P7	P8
	36	00	00	00	36	00	00	00
REVERSE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	->	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeder loops: (special sort)	<input type="checkbox"/>							(6)
	←	→	FORWARD		NEXT			
	↑	+	Sort (F6)		Test (F7)			
	↓	-			ESC			

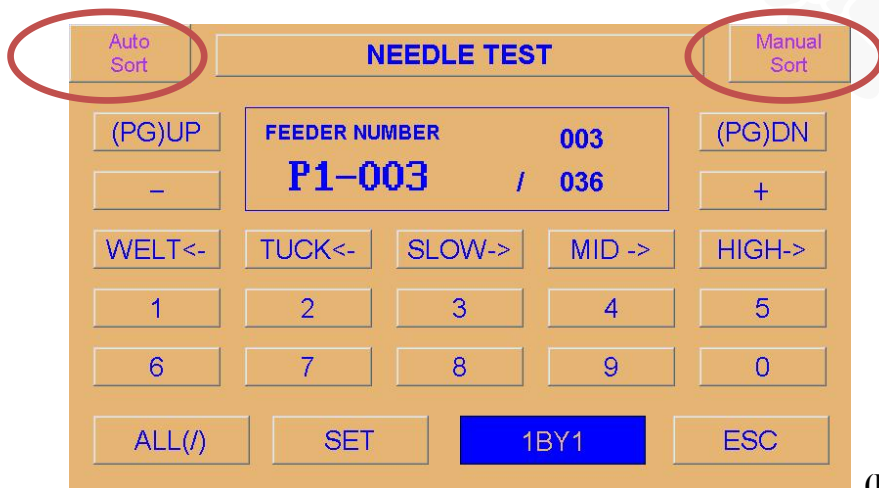
P1(18), P2(18), P3(0), P4(0), P5(18), P6(18), P7(0) and P8(0) for 8-fingers 72F and three-way machine
 (Opening is opposite to the machine corner) (Opening is in the position of the machine corner)



P1(18), P2(18), P3(18), P4(0), P5(18), P6(18), P7(18) and P8(0) for 16-fingers, 108F and 3-way machine



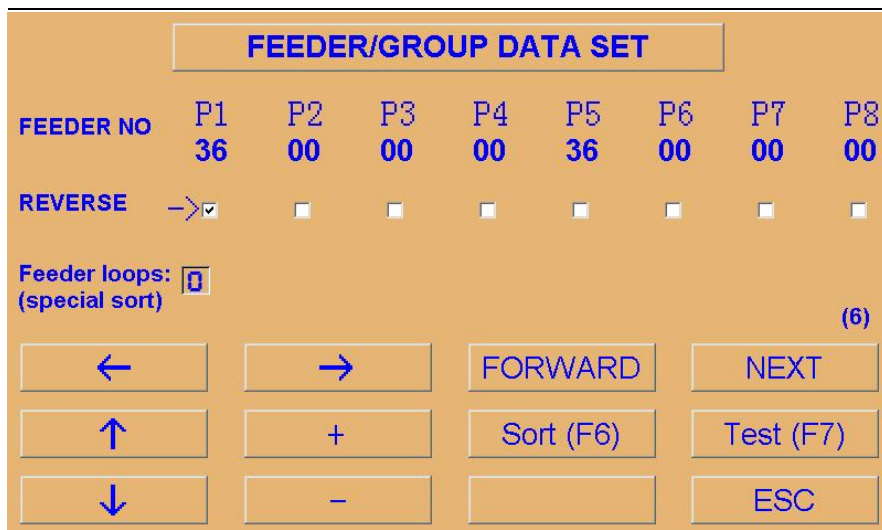
10-2 Automatic sorting method



(Fig. 58)

Click "automatic sorting" button/key and press (OK + NUM1) to select automatic sorting. Click "manual sorting" button/key and press (OK + NUM3) to select manual sorting.

① Select "1 sorting", press panel "↓" to enter the selection mode. You can choose the configuration you need (Figure 59). For the description of special sorting, please see below.



(Fig. 59)

- ② Default forward sorting (unchecked), reverse sorting (checked);
- ③ When clicking "sorting (F6)" button, the numbers of needle selector will be wrote in and saved;
- ④ If clocking "check (F7)" button after numbering, the needle selectors will move against the route number by turns.

Description of special sorting:

For example: 8-fingers AB-A-AB is a circulated 60F computer jacquard system

Coding requirement: AB-A-AB is a cycle (A+B coding 3-way - A coding 2-way - A+B coding 3-way): The first feeder - the second feeder - the third feeder the 60th feeder;

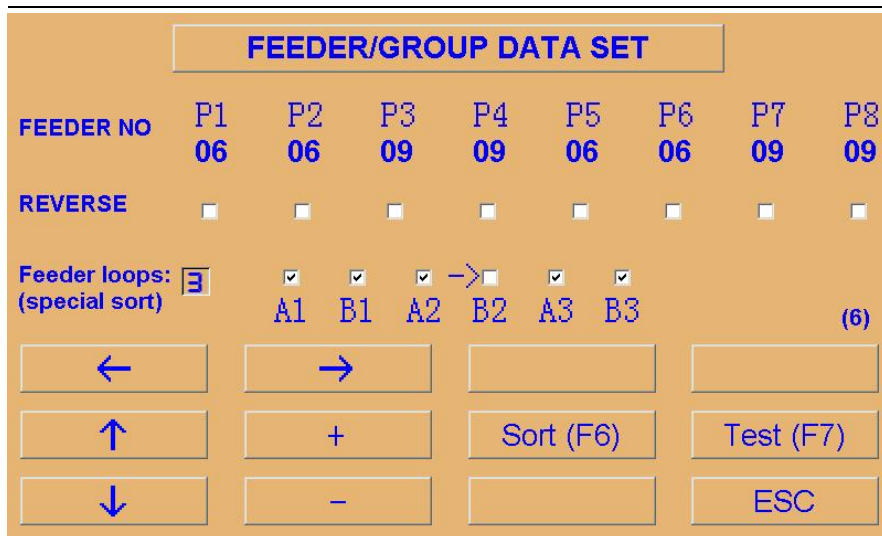
The interface setting is shown in the following figure. 3 feeders are a cycle by the way of AB-A-AB. The number of cycle routes fills in 3. The cycle format of needle selector is shown as below: A1B1-A2-A3B3.

The suggested setting is P1(6) P2(6) P3(9) P4(9) P5(6) P6(6) P7(9) P8(9).

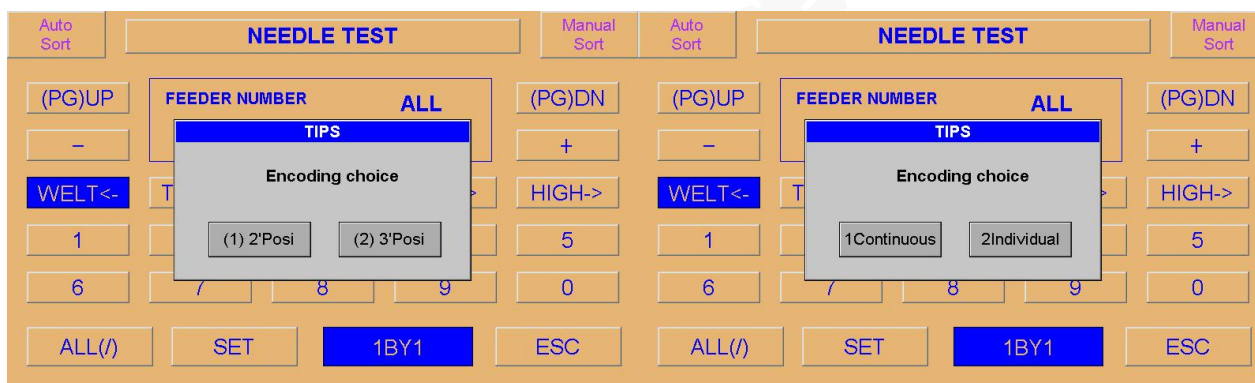
The maximum number is 36 for 8fingers two-way needle selector; the difference between maximum and minimum numbers shall not be greater than 36;

The maximum number is 24 for 12fingers two-way needle selector; the difference between maximum and minimum numbers shall not be greater than 24;

The maximum number is 18 for 16fingers two-way needle selector; the difference between maximum and minimum numbers shall not be greater than 18;



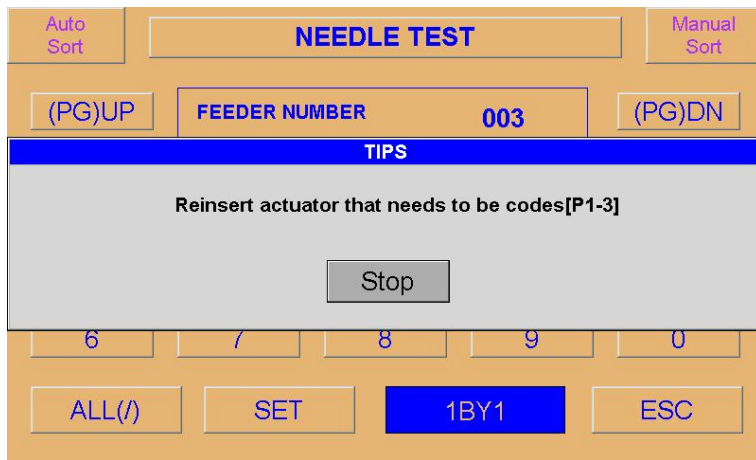
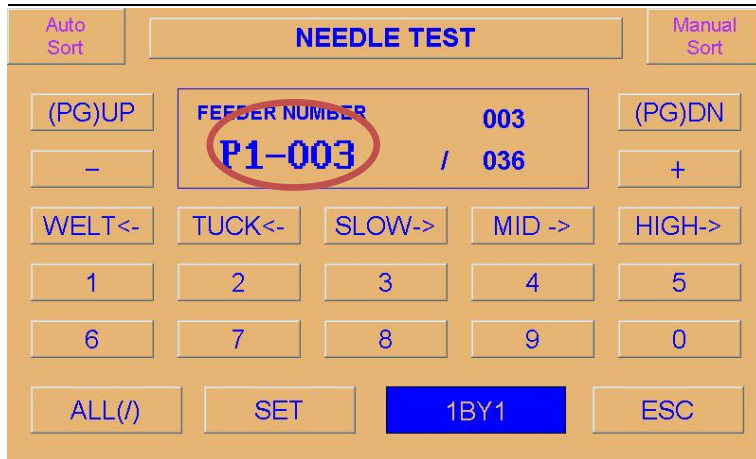
10-3 Manual sorting method



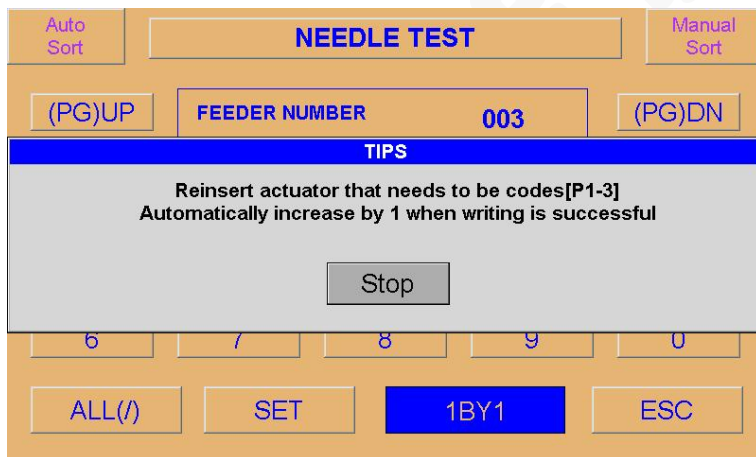
(Fig. 61A)

(Fig. 61B)

- ① Select the number you need to write, and press "Set Key".
- ② Then press "manual sorting" to select between "2 -way" and "3 -way". (Use 16 fingers as 8 fingers 3-way and select 2-way; other options are normal)
- ③ There are continuous and separate options, as shown in Figure 61B.
- ④ Select "continuous" option: It automatically adds 1 after the encoding is successful until you manually press "stop".
 Select "separate" option: It automatically stops after the coding is successful.
- ⑤ In the case of (Figure 62) and (Figure 63), the needle selector that needs to be encoded is pulled down and then re-inserted. If the needle selector beats, it indicates it is successfully coded.



(Fig. 62)



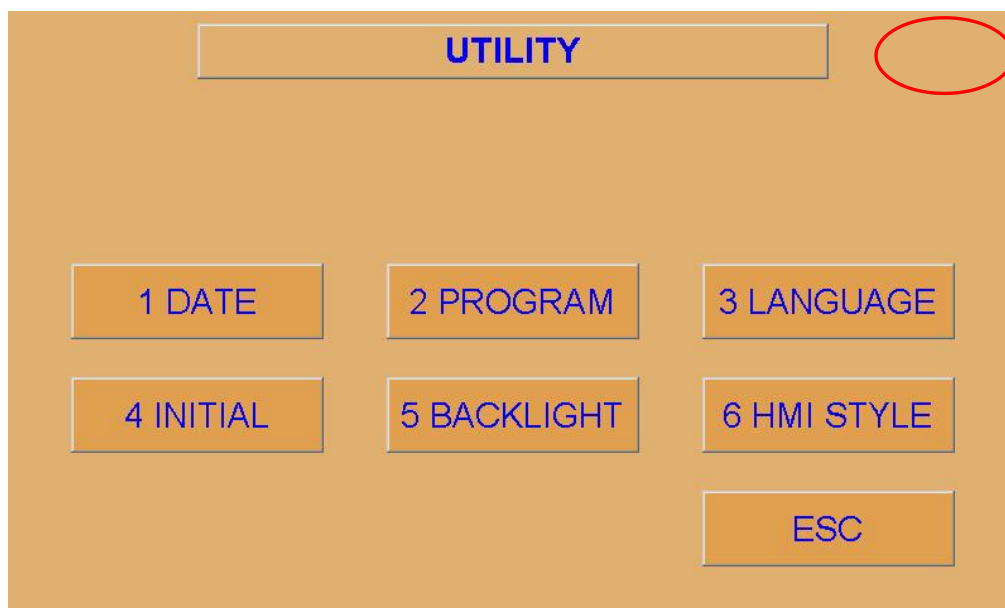
(Fig. 63)

11 POWER FAILURE AND KNITTING CONTINUATION FUNCTION

11-1 Power Failure and Knitting Continuation Function

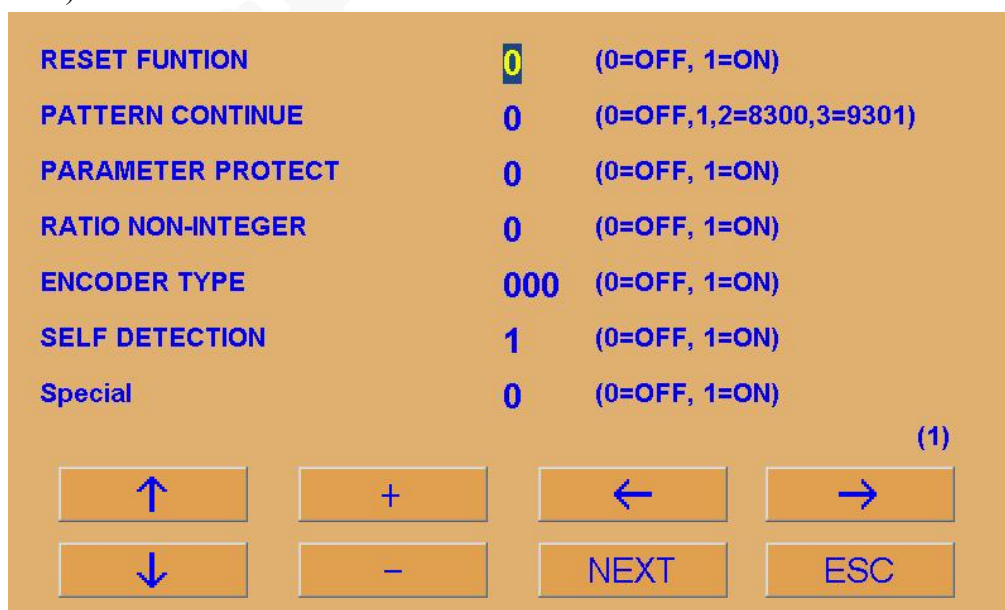
Computer Settings

1. Click the **【MEMORY FUNCTION】** button to enter the following interface (Fig.11-1)



(图11-1)

2. Click the hidden button in the blank area circled in red in the upper right corner (Fig. 11-1) to enter the password interface. Enter the password "5211" and the following interface will appear (Fig. 11-2)



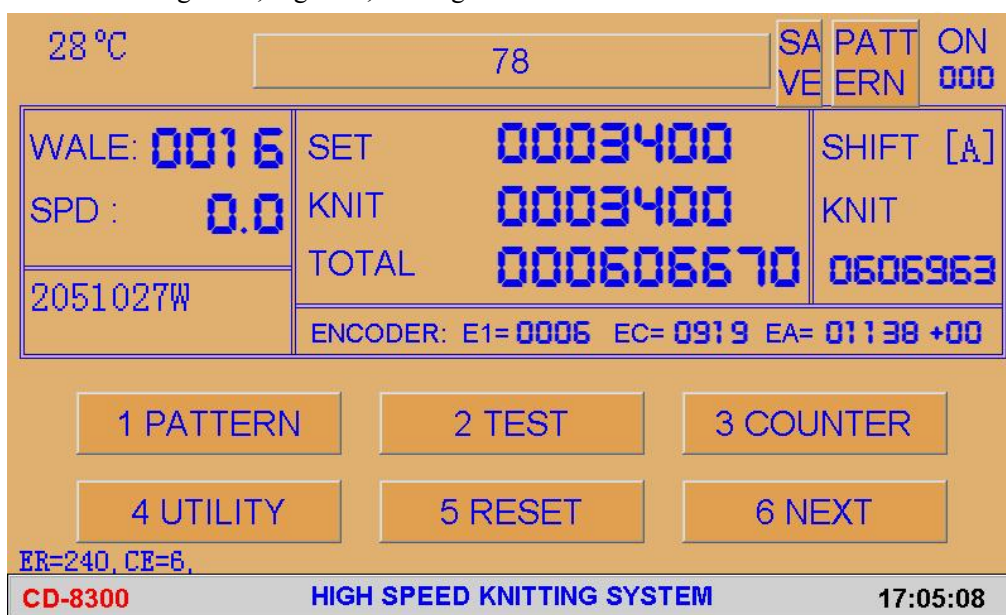
(Fig.11-2)

3. If there is a UPS backup power supply for 8300, set the parameter of 【 PATTERN CONTINUE】 to 1.
4. If there is no UPS backup power supply for 8300, set the parameter of 【 PATTERN CONTINUE】 to 2.
5. When using this function for 9301, set the parameter of 【PATTERN CONTINUE】 to 3.
6. When this function is not needed, set the parameter of 【PATTERN CONTINUE】 to 0.

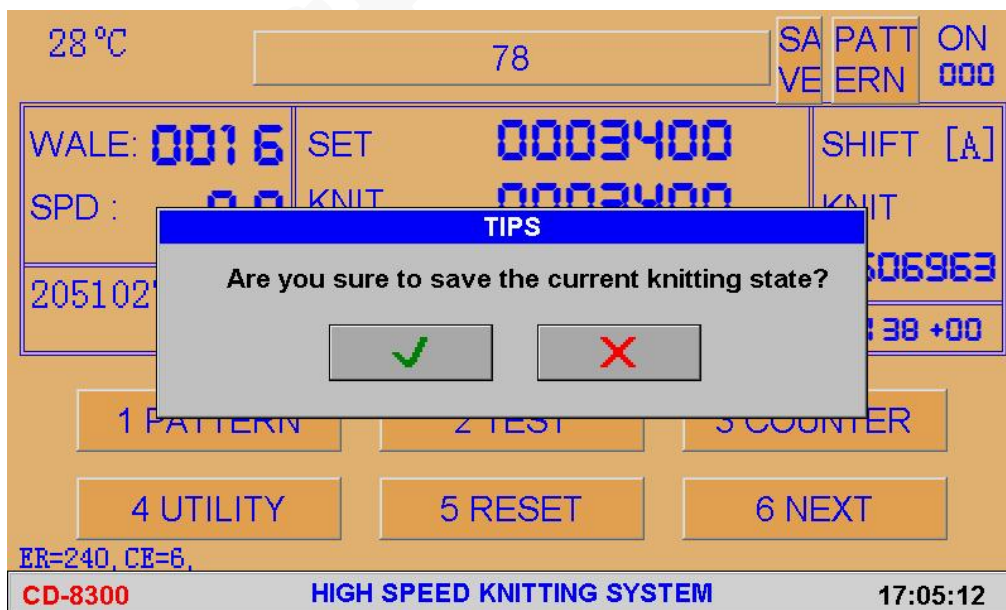
11-2 Manual Power Failure and Knitting Continuation Function

Main Interface Operation

After the machine stops running, click the 【SAVE】 button to save the current knitting status as shown in Fig. 11-5, Fig.11-6, and Fig.11-7.



(Fig.11-5)



(Fig.11-6)

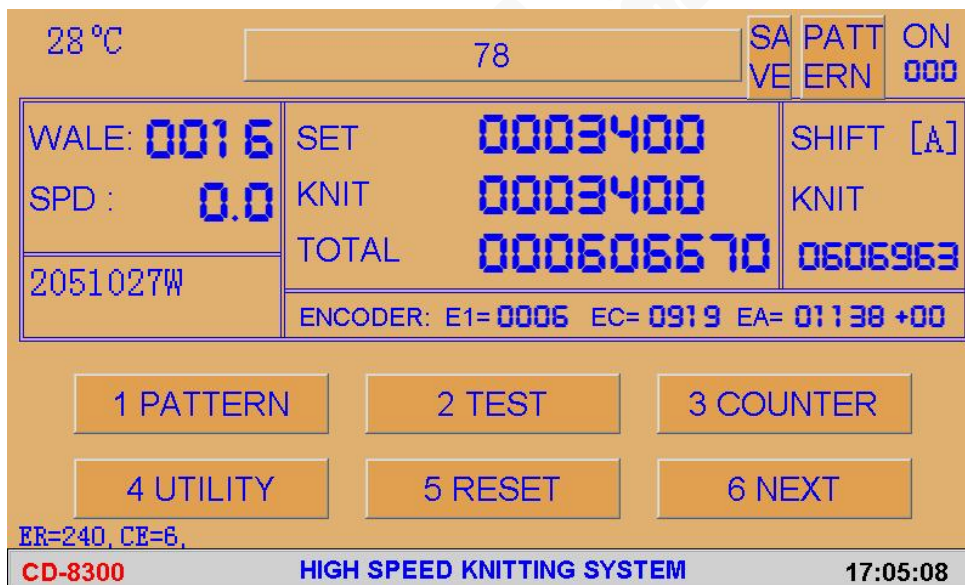


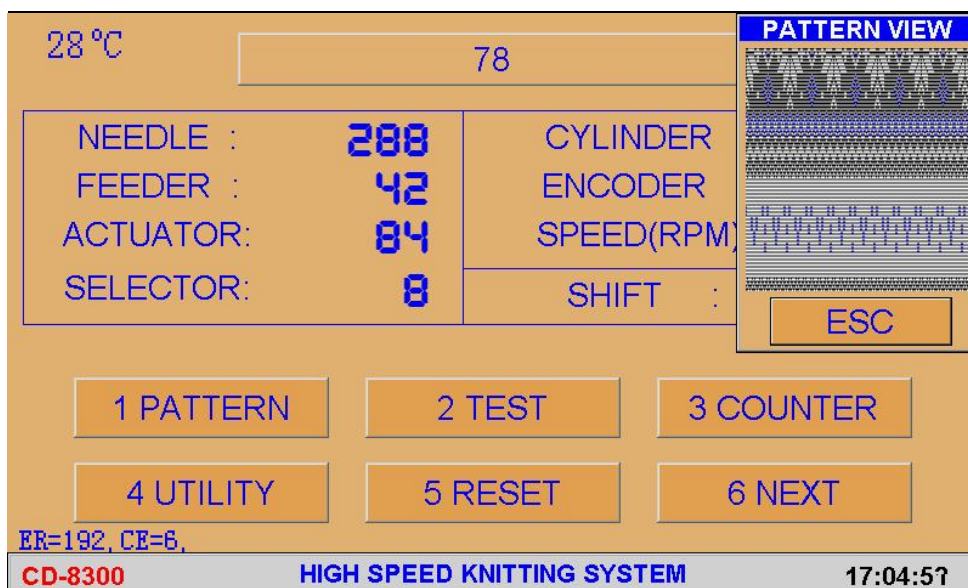
(Fig.11-7)

12 MAIN INTERFACE PATTERN PREVIEW FUNCTION

Main Interface Operation

1. Click the **【PATTERN】** button to preview the current pattern being used.
2. Press the **【ESC】** button to exit the pattern preview image.

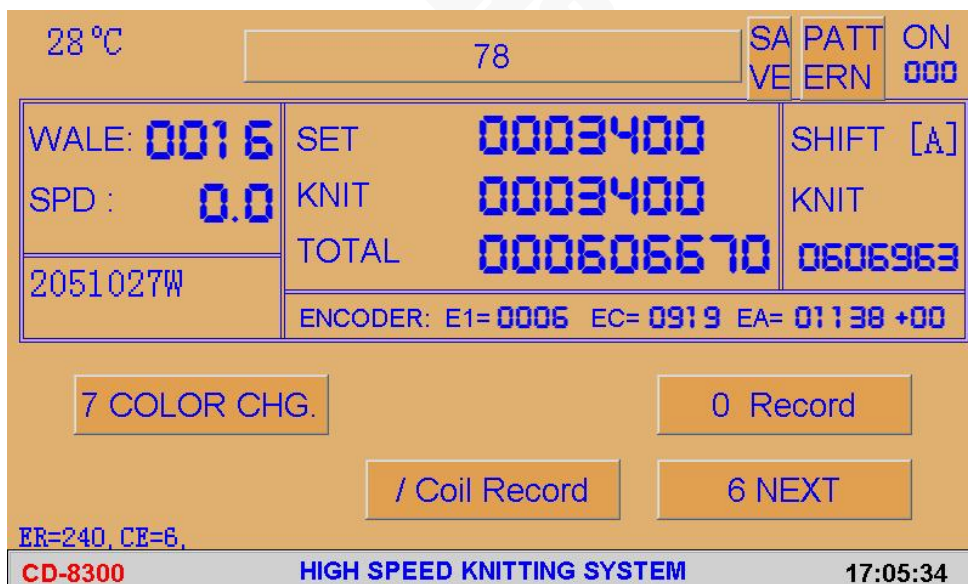




13 VIEW ONLINE ERROR RECORD FUNCTION

Main Interface Operation

1. Click the **【6 NEXT】** button to switch to the next interface (Fig. 13-1).
2. **【0 RECORD】** User can view the error records and the number of consecutive errors in the jacquard status of each P port (Fig. 13-2).
 - ① Click the **【UP】** or **【DOWN】** button to scroll and view.
 - ② Click on **【POINT】** to view records with more errors.
 - ③ Click the **【CLEAR】** button to clear all records.
 - ④ Click the **【EXIT】** button to return to the main interface.



(Fig.13-1)

JOIN FAILURE RECORD				
NO	TIME	STATE	WRONG TIMES	
P3(37A)	06-14 09:23:01	STOP	34	
P3(38A)	06-14 09:23:01	STOP	34	
P3(38B)	06-14 09:23:01	STOP	34	
P3(39A)	06-14 09:23:01	STOP	34	
P3(39B)	06-14 09:23:01	STOP	34	
P3(40A)	06-14 09:23:01	STOP	34	
P3(40B)	06-14 09:23:01	STOP	34	
P3(41A)	06-14 09:23:01	STOP	35	
P3(41B)	06-14 09:23:01	STOP	36	

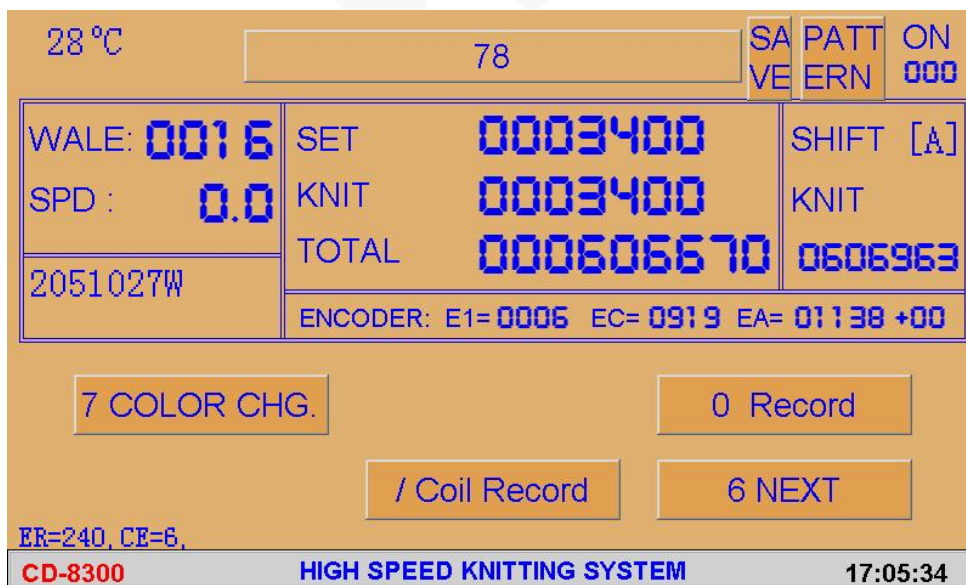
Buttons: ↑, ↓, POINT, CLEAR, ESC

(Fig.13-2)

14 VIEW COIL ERROR RECORD FUNCTION

Main Interface Operation

1. Click the **【6 NEXT】** button to switch to the next interface (Fig. 14-1).
2. Click the **【/COIL RECORD】** button to view the records of coils that have experienced faults, as shown in Fig. 14-2.
 - ① Click **【UP】** or **【DOWN】** button to scroll and view.
 - ② Click **【POINT】** to filter out non-duplicate records.
 - ③ Click **【CLEAR】** button to clear all records.
 - ④ Click **【EXIT】** button to return to the main interface.



28°C 78 SA PATT ON
VE ERN 000

WALE: 0016	SET 0003400	SHIFT [A]
SPD: 0.0	KNIT 0003400	KNIT
2051027W	TOTAL 000606670	0606963
ENCODER: E1= 0006 EC= 0919 EA= 01138 +00		

7 COLOR CHG. 0 Record

/ Coil Record 6 NEXT

ER=240, CE=6,
CD-8300 HIGH SPEED KNITTING SYSTEM 17:05:34

(Fig.14-1)

COIL FAILURE RECORD				
NO	TIME	TYPE	COIL NO	
P1 (3A)	06-14 17:03:43	Fusing	8,	
P1 (3A)	06-14 17:03:45	Fusing	8,	
P1 (3A)	06-14 17:03:45	Short	8,	
P1 (4A)	06-14 17:04:01	Fusing	3,	
P1 (4A)	06-14 17:04:03	Fusing	3,	

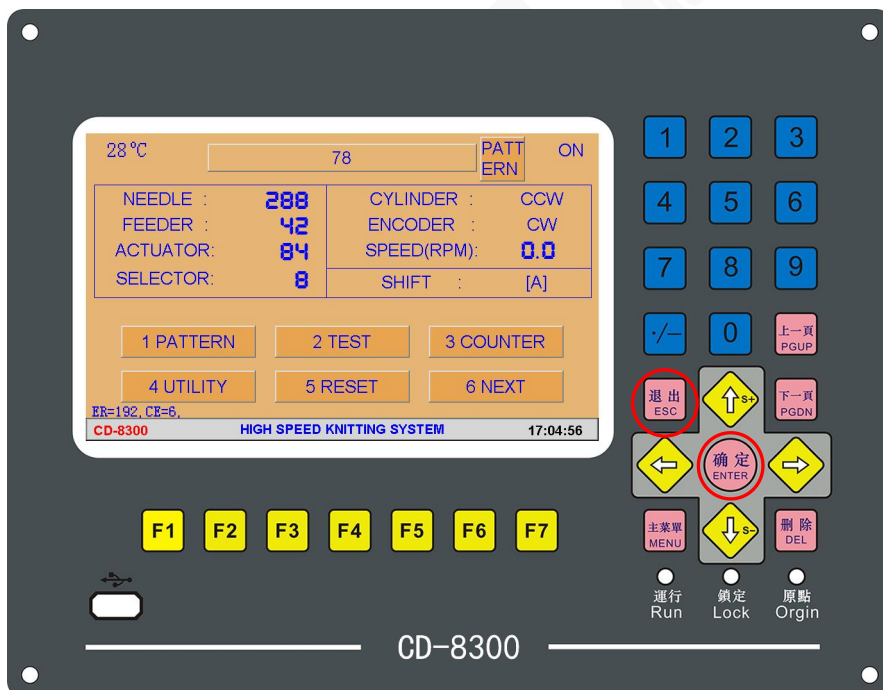
Navigation buttons: ↑, ↓, POINT, CLEAR, ESC

(Fig.14-2)

15 MAIN INTERFACE COMPOSITE BUTTON SORTING FUNCTION

Button Panel Operation

Pressing the **【OK】** and **【EXIT】** keys together can achieve quick automatic sorting (Fig. 15-1).



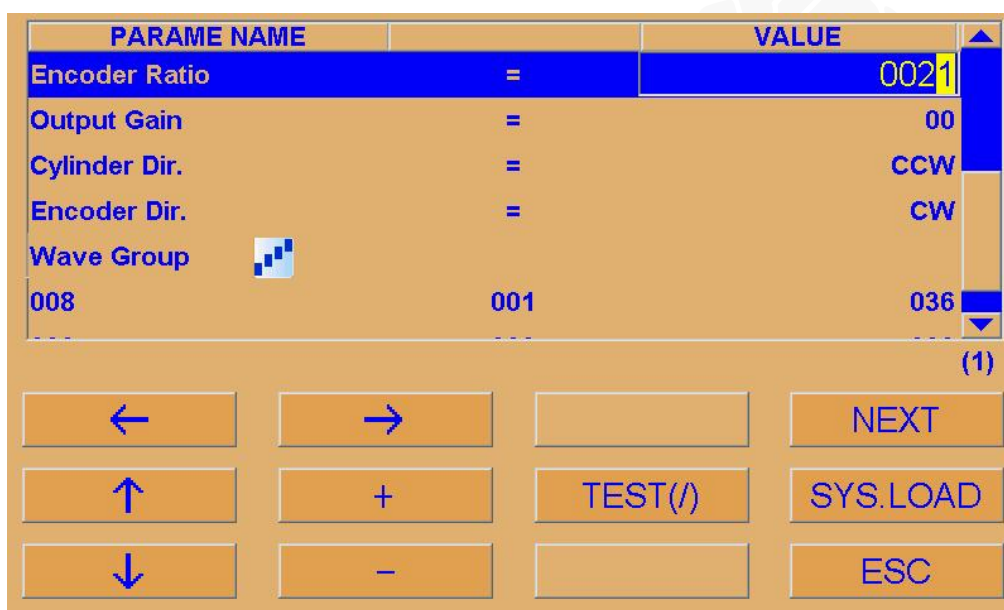
(Fig. 15-1)

16 AUTOMATIC SYNCHRONIZATION RATIO FUNCTION

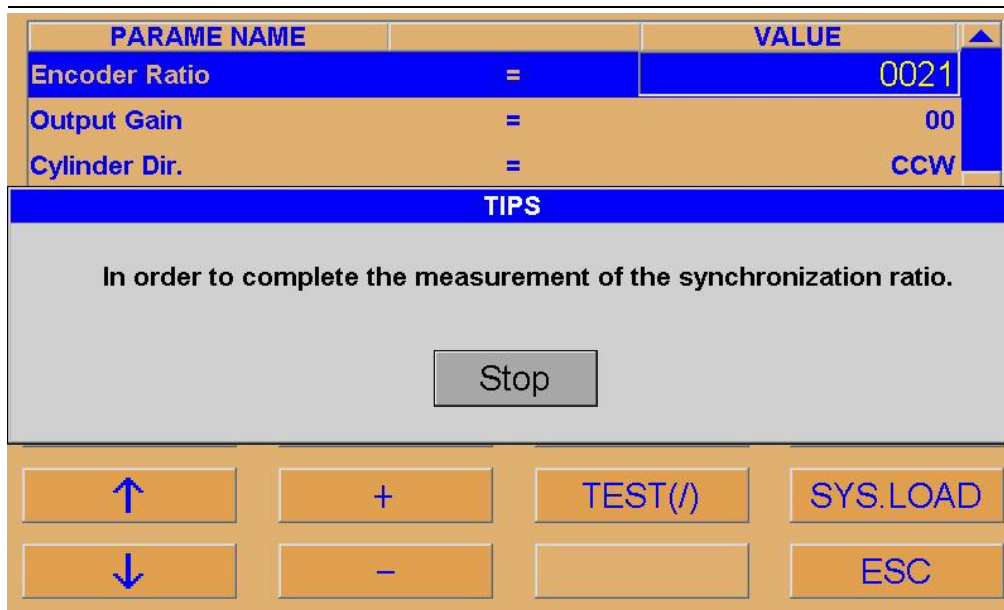
1. Main interface operation, click **【UTILITY】** - **【INITIAL】**, press the up and down arrows, move the cursor to the synchronization ratio position, click as shown in Fig. 16-1, and the **【TEST(/)】** button will be displayed at this time;
2. Click the **【TEST (/)】** button, and a prompt box will pop up as shown in Fig. 16-2. At this time, start the machine and you can measure 10 times;
3. After passing through the origin once, as shown in Fig. 16-3, the synchronization ratio and total pulse will pop up.

Reminder: Before starting the machine, ensure the following conditions, otherwise the machine will not automatically stop:

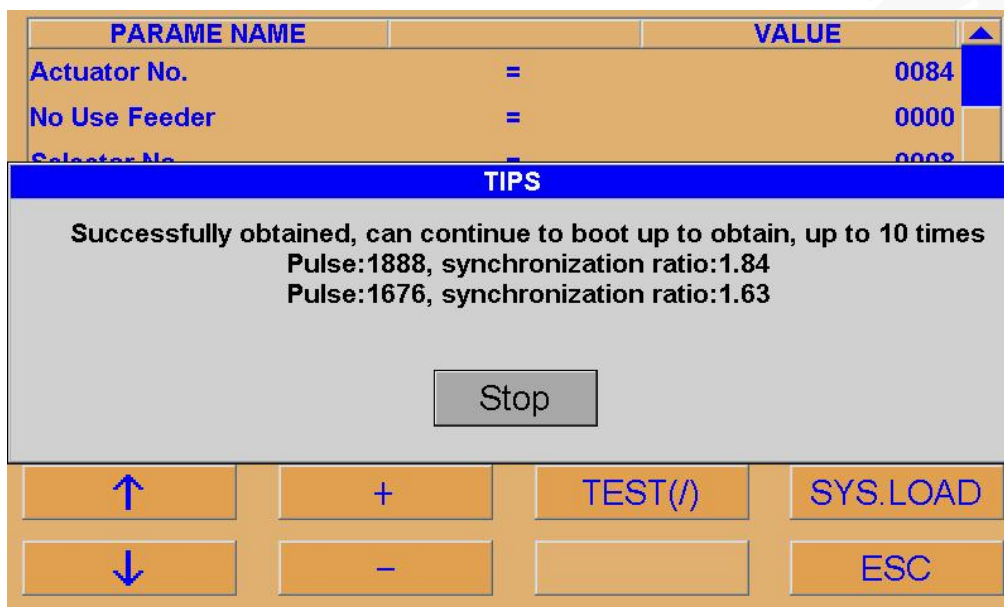
1. The proximity switch (also known as the Zero Point Sensor) must be installed and working properly;
2. The shutdown line must be connected normally and working properly.



(Fig.16-1)



(Fig.16-2)



(Fig.16-3)

17 NEEDLE SELECTOR PROGRAM VERSION VIEWING FUNCTION

Main Interface Operation

Click on **【2 TEST】** - **【5 ACT.VER】**, click on **【FORWARD】** - **【NEXT】** to view the needle selection versions of each port, as shown in Fig. 17-1. Three types of needle selection versions are displayed, and each version can be clearly seen. Different versions display different colors, but A00 is the problematic version of the needle selection, which may be that the needle selection is not inserted or the needle selection is not coded.

Reminder:

1. The prerequisite for displaying the version is to turn on the "Self Detection Function", otherwise it will be all read A00;

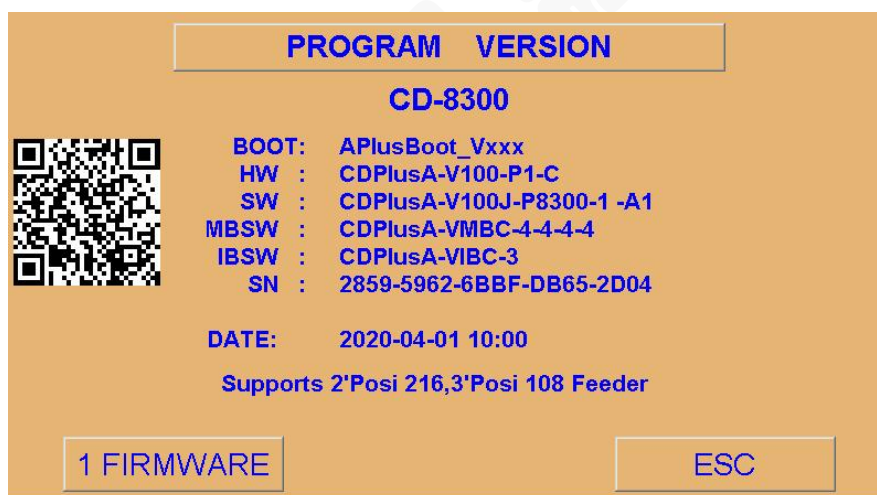
2. The difference in color only highlights different versions, which have different colors.



(Fig.17-1)

18 SYSTEM UPDATE

Displays version information for the application and the number of feeders supported locally.



(Fig. 64)

HW: CDPlusA-V100-P1-C indicates current hardware version information

SW: CDPlusA-V100J-P8300-1-A1 indicates the current system software version (A1 is needle selector software version)

MBSW: CDPlusA-VMBC-4-4-4-4 indicates the software version of the current computer mainboard

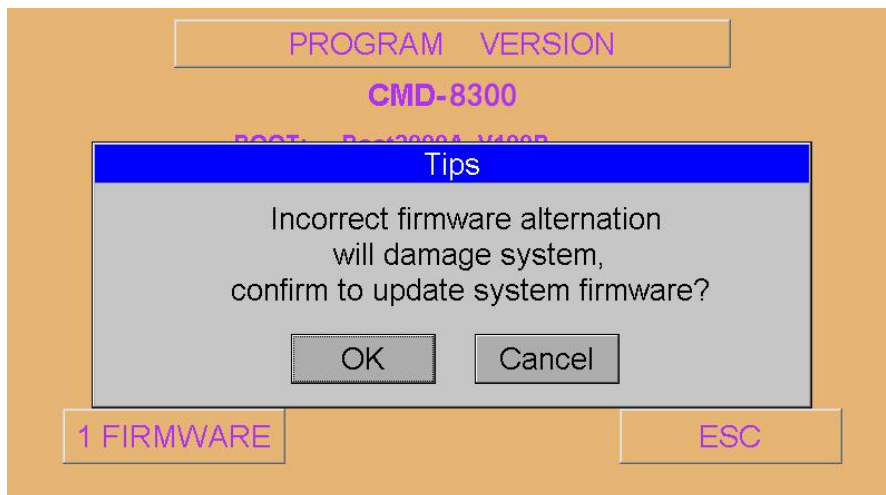
IBSW: CDPlusA-VIBC-3 indicates the software version of the current interface board

SN: 2859-5962-6BBF-DB65-2D04 indicates the random serial number of the current computer

"This machine supports 2-way 216F, 3-way 108F" indicates the number of feeders and functions of this machine.

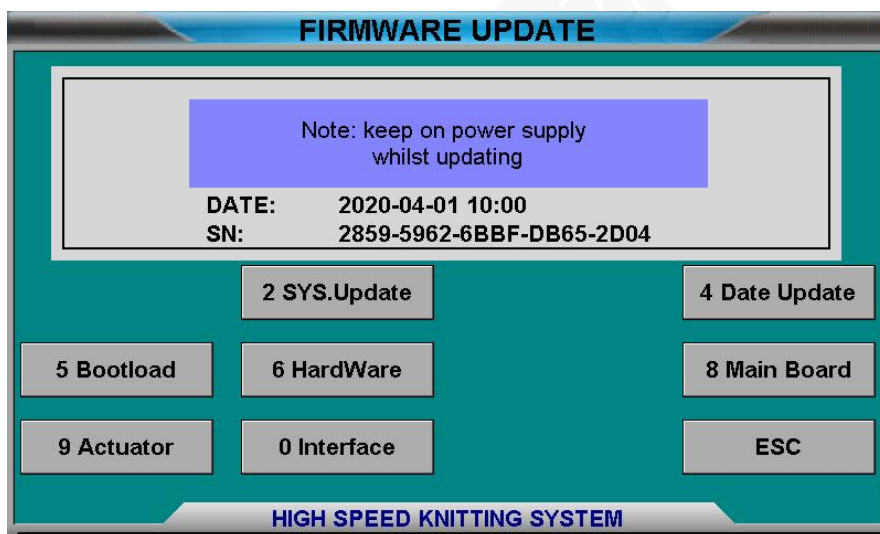
Copy the update file (*.Bin) and update guide file (*.Ini) into the root directory of USB flash disk, insert into panel USB interface

The following dialog box will appear when pressing [Firmware Update]



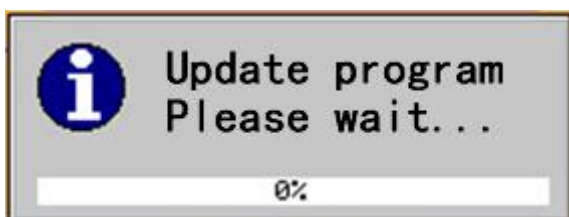
(Fig. 65)

Press [OK] and enter password "4305" to enter the update operation screen.



(Fig. 66)

Click "2 system update"



(Fig.67)

(Note: In the process of updating the system program (Figure 67), the power supply cannot be disconnected to

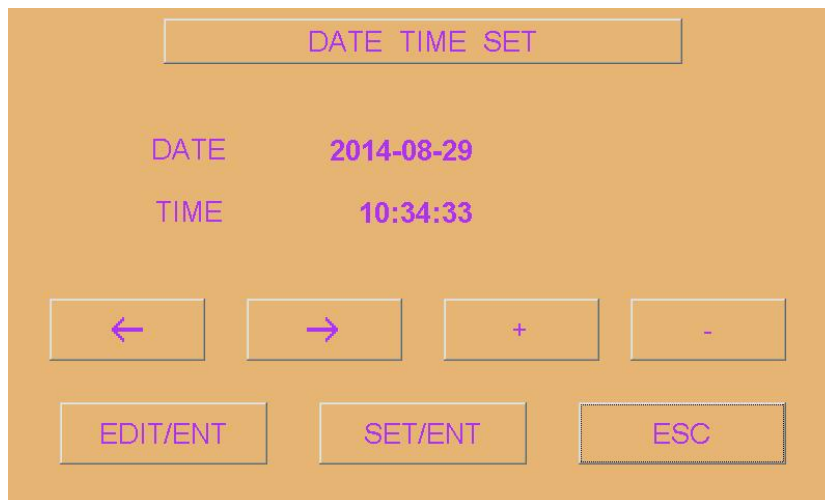
prevent update failure)

After the system program is updated, please re-energize!
System program update is completed!

19 OTHER AUXILIARY FUNCTIONS

19-1 Date

Display the current date and time information



(Fig. 62)

EDIT - Adjust the host's built-in clock, use **【+】** and **【-】** keys to correct.

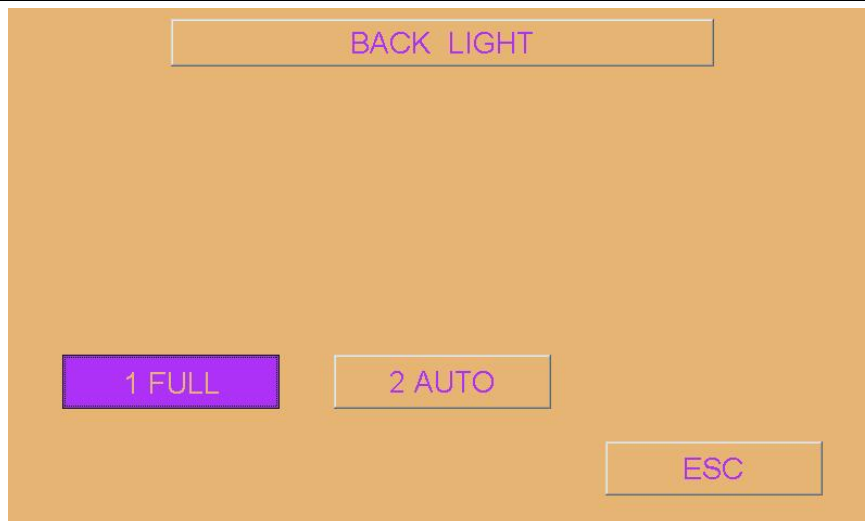
SET - When the adjustment is completed, press this key, the clock starts running.

19-2 Language

Switching the screen display language, English and Simplified Chinese are optional.

19-3 Backlight

LCD screen backlight illumination settings, there are two states for your choice.



(Fig. 63)

FULL- When this option is selected, the screen will remain lit. This function is only used where data input needs a long time.

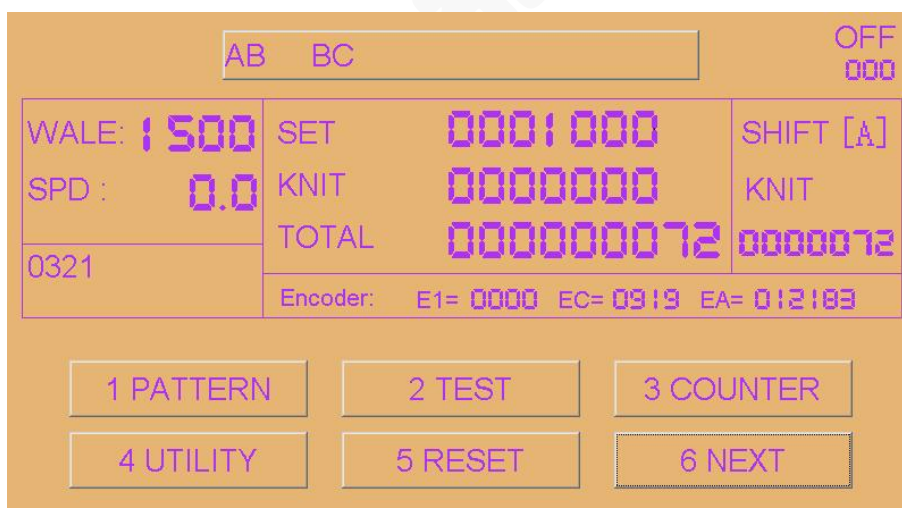
AUTO - When this option is selected, if there is no operation for about 1 minute, the backlight will turn off automatically. If an error occurs, the screen will remain full brightness. When the backlight is off, the backlight will be turned on by touching any part of the screen.

20 MACHINE OPERATION:

Start the knitting machine.

After confirming that the mechanical and electrical parameters of the machine are set correctly, and the knitting patterns have been entered, start the machine by following the steps below:

When the machine starts weaving, the following message appears on the display screen:



(Fig. 64)

WALE: Displaying knitting wale

SPD: Revolution per minute (RPM.)

SET: Set number of revolutions, the value set with the "Count"

KNIT: Number of knitting revolutions, the current knitting value from the “Start” of “count”.

TOTAL: Total knitting number

PATTERN: Pattern file name

SHIFT: The shift currently counted

SHIFT KNIT: The knitting number of the shift currently counted

ENCODER: Displaying the code value of during operation of the encoder

Stop Machine Operation

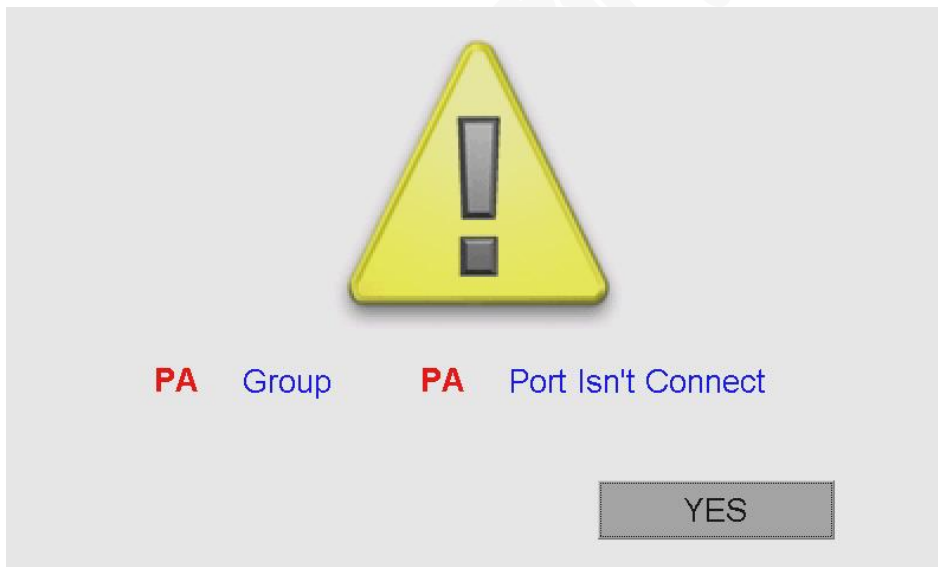
The machine may stop during normal operation if the STOP key is pressed or any abnormal circumstance occurs. After reaching the count (the knitting number is equal to the set number), the knitting work is completed, the machine will automatically stop, and the screen will display the count menu (Figure 54).

If the machine is not used for a long time, disconnect the main power.

21 TIPS OF MACHINE EXCEPTIONS

21-1 No-connection of main engine PA port

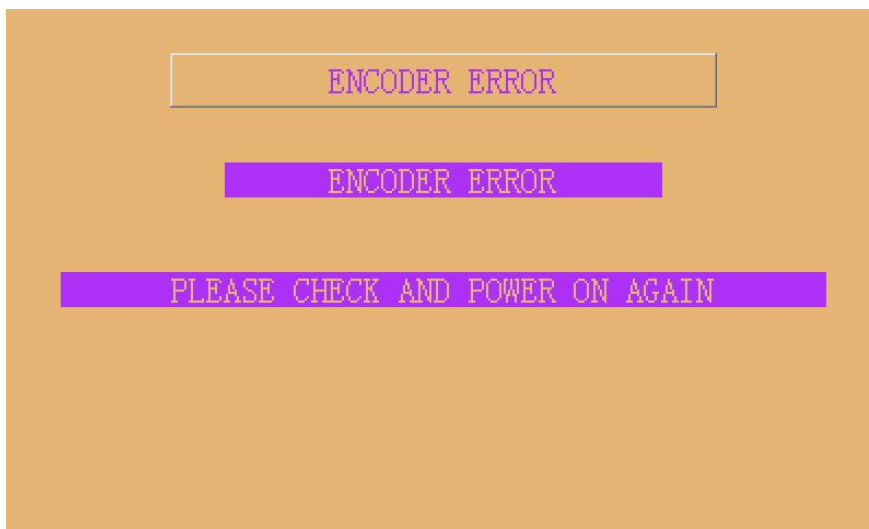
If the following entire warning screen is displayed, it indicates an internal failure of the machine.



(Fig. 71)

When there is a communication problem between the main engine and the drive part of the power board, the alarm screen as shown above will be displayed. At this time, please turn off the machine power supply, check whether PA connecting line (26 core wiring) is damaged, and is closely connected with the socket on the main engine and power board. Re-energize after confirmation. If there is still no improvement, please contact the manufacturer.

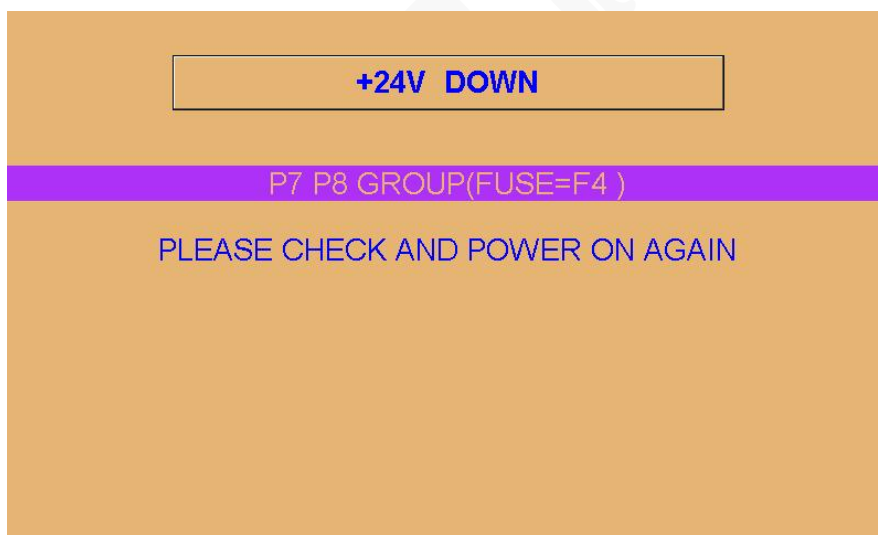
21-2 Encoder error



(Fig. 72)

When the main engine does not detect encoder connection, the screen shown above is displayed. Please turn off the machine power supply, check whether the encoder connecting line is broken, whether the connection of the joint is tight, whether the encoder connecting line is tight with the socket on the main engine, and then turn on the machine power supply to observe again. If there is still no improvement, please contact the manufacturer.

21-3 Burnout of interface board fuse

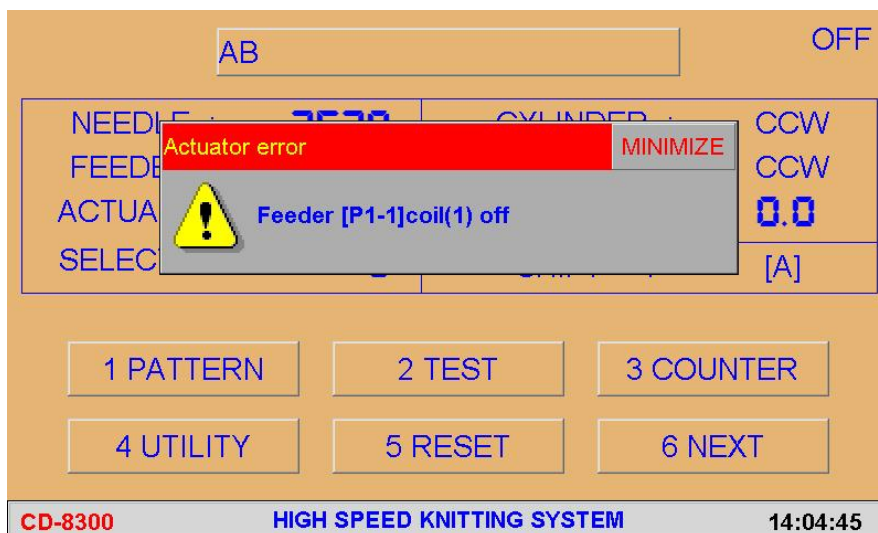


(Fig. 73)

The above alarm screen prompts "P7 P8 group (FUSE = F4)", indicating that the fuse F4 on the power board is disconnected. If it prompts "P1 P2 group (FUSE = F1)", indicating that the fuse on the power board F1 is disconnected.

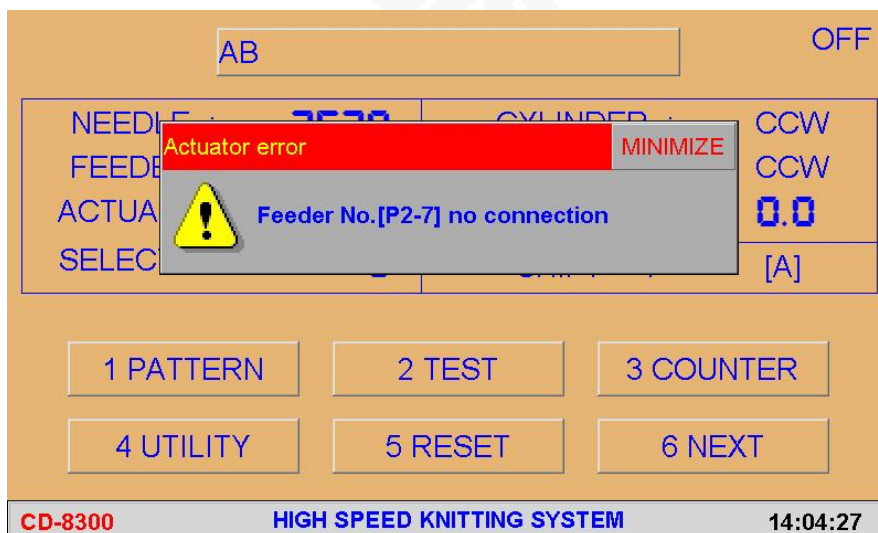
In case of the above situation, please turn off the power supply of the machine, check whether the fuses F1 and F4 are burnout or in bad contact, and replace the appropriate fuse (250V/12.5A). The fuse burnout may be the results of broken connecting line of needle selector or the overload of needle selector. Please check carefully before turning on the machine power.

21-4 Abnormality of finger coil of needle selector



The above alarm screen prompts "Number [P1-1] coil (1) is broken", indicating that the coil of the first finger of the first feeder needle selector in P1 port is broken. The red light of the needle selector circuit board will always be on. Please check the needle selector and replace it. If there is still no improvement, please contact the manufacturer.

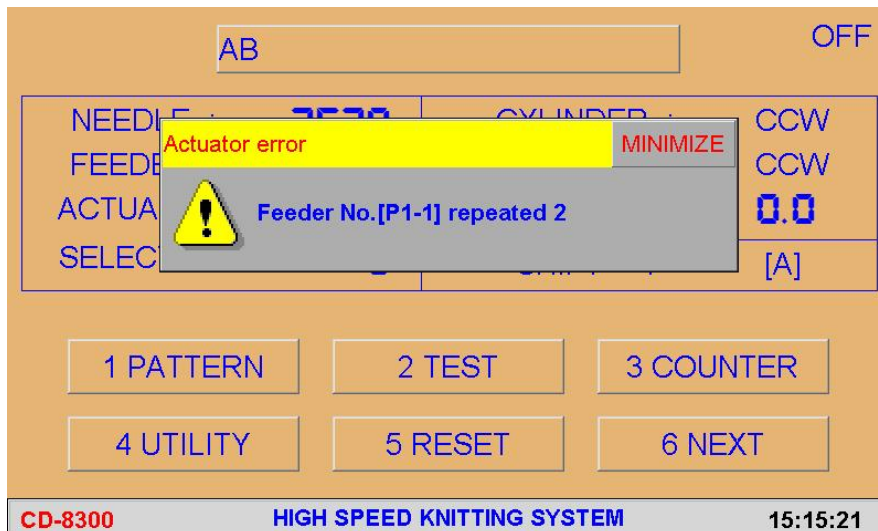
21-5 No connection of needle selector



The above alarm screen prompts "Number [P2-36] needle selector is disconnected", indicating the socket of the 36th route needle selector in P2 port is loose or the circuit board device is abnormal. Please check the socket connection of the needle selector, reconnect the needle selector, pay attention to whether the green light is always on, and whether the green light flashes when the finger moves; If there is still no improvement, please contact the

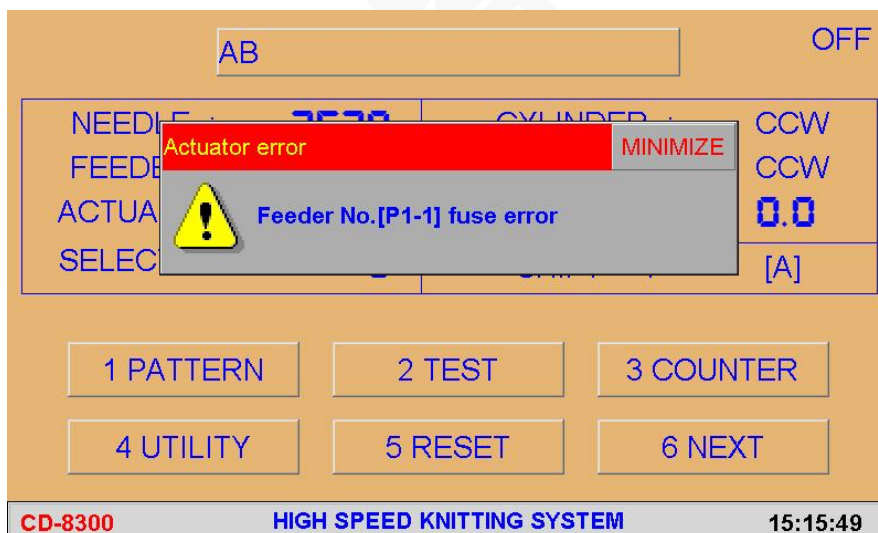
manufacturer.

21-6 Repeated number of needle selector



The above alarm screen prompts "Number [P1-1] needle selector is repeated", indicating two numbers are repeated of the first route needle selector in P1 port. Please reorder to resolve the above errors. If there is still no improvement, please contact the manufacturer.

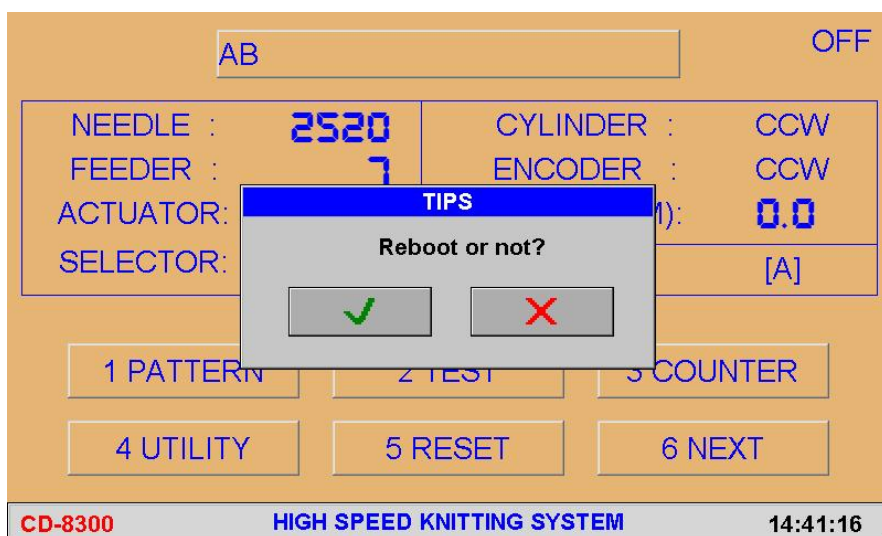
21-7 Burnout of needle selector fuse



The above alarm screen prompts "fuse of No. [P1-1] needle selector burnt out", indicating the fuse of the first feeder needle selector in P1 port is burnt out. The red light of the circuit board will keep flashing. Please replace the circuit board or replace the fuse.

Special instructions: After the shutdown caused by abnormality of needle selector is

handled and the error of needle selector disappears, the machine can re-start up to continue working in the following interface.

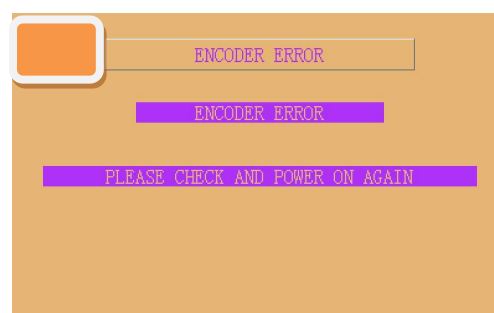


22 SPECIAL FUNCTIONS

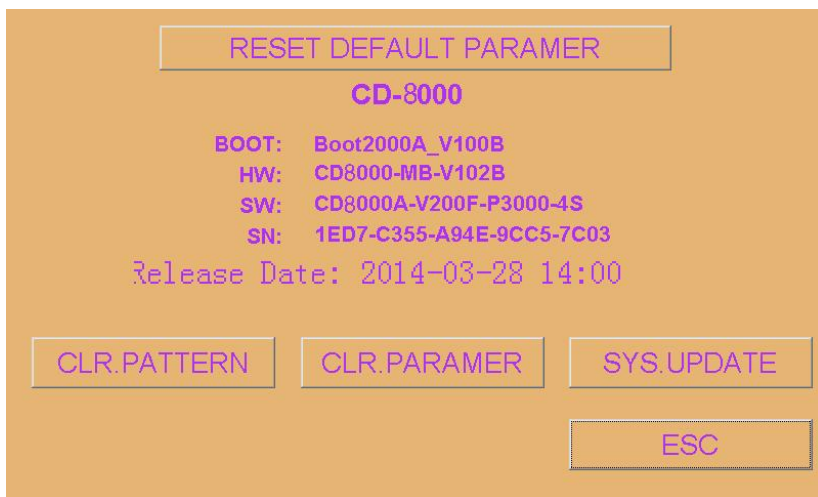
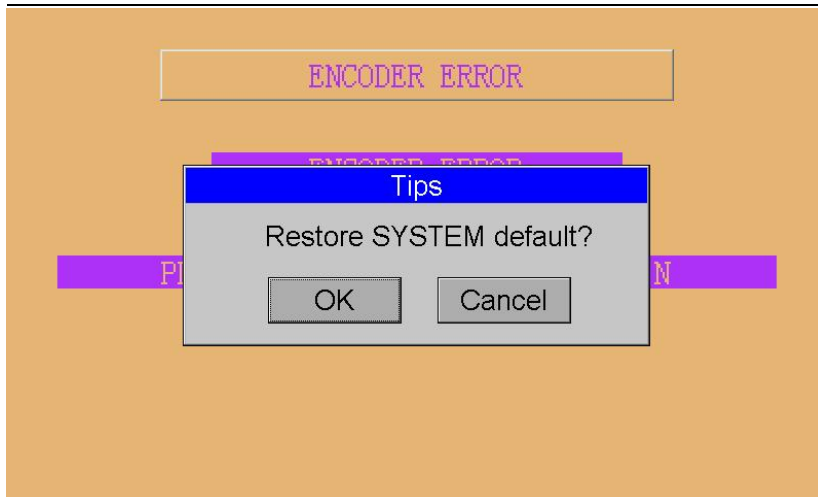
22-1 Forced Removal of System Data

This function is used to clear all the patterns and system data stored in the machine, so be sure to perform a backup of all data (refer to 4.1.8 for backup operations) before removing them; you can clear the data with the following steps:

1. After the machine is stopped, cut the data line connected with the encoder, then the following menu will appear on the screen. (Under normal circumstances, if the "ENCODER ERROR" appears on the screen, check whether the encoder's connection data line is connected properly);



2. Connect the zero point sensor using a sheet metal, so that it remains ON state, click the icon in the upper left corner of the screen, the following prompt menu appears, press OK, a password input interface automatically pops up, enter 5211, the menu will automatically jump to the system parameter restoration menu.

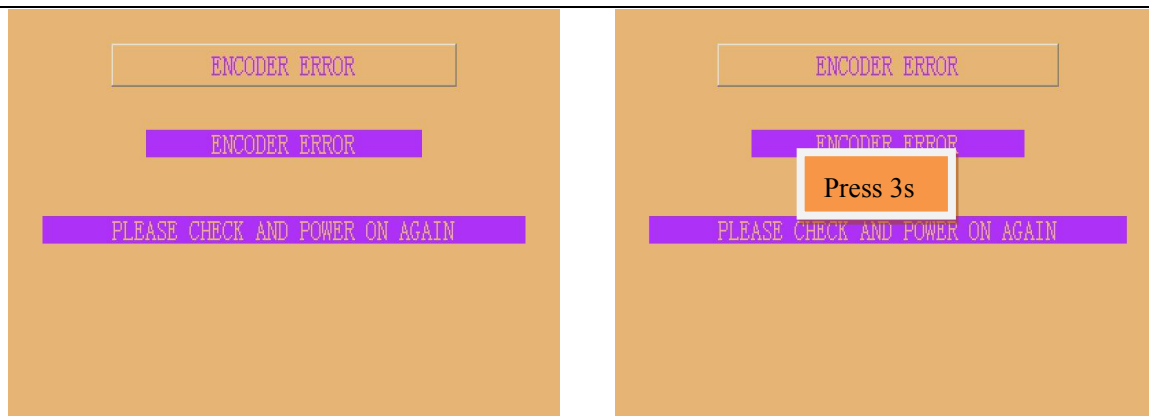


3. Click **【CLR.PATTERN】** , and press the confirm key, the system starts to clear the read patterns;
4. Click **【CLR.PARAMER】** , and press the confirm key, the system starts to execute the command to clear the data;
5. At this time, it is necessary to input new system data into the system, followed by inputting preliminary instructions, pattern data and counter setting.
6. Data removal is completed.

22-2 Forced Touch-Screen Calibration

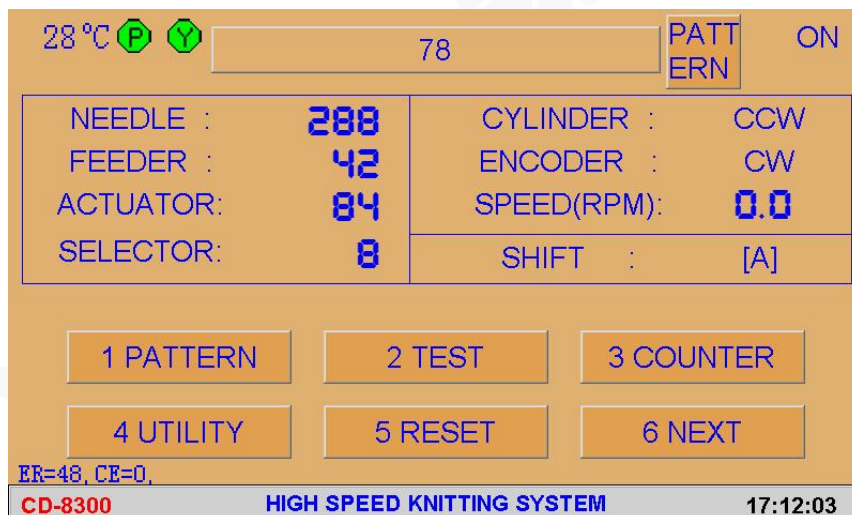
During shutdown, unplug the encoder cable, turn off the power and restart, the following menu appears, press and hold the mid position of the screen for 3 seconds to force the screen to enter the calibration mode.

Refer to 6-5 Touch-screen calibration function for calibration procedure.



23 LINE ADJUSTMENT FUNCTION DESCRIPTION

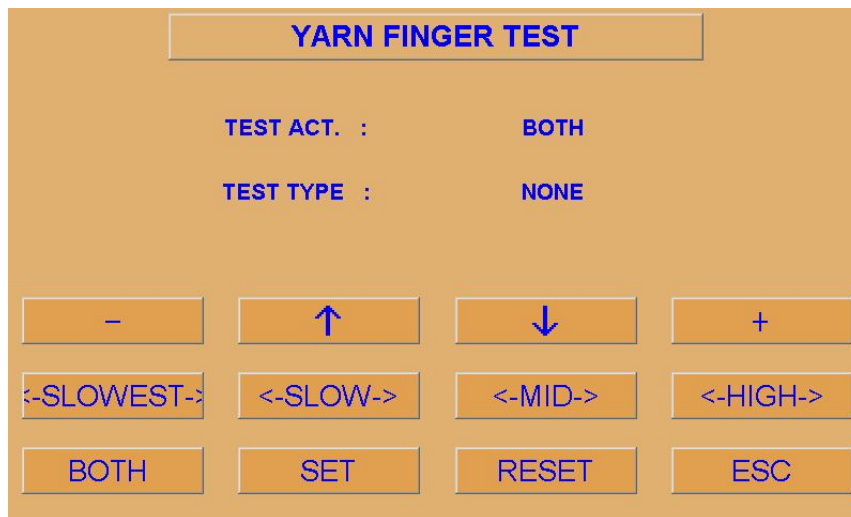
23-1 Startup Main Screen



There are two indicator lights (P) and (Y) in the upper left corner of the screen. (P) Represents jacquard, (Y) represents line adjustment; Green represents that the function is enabled (valid), and gray represents that the function is disabled (invalid). When the jacquard pattern is not read in, (P) is gray, and there is no jacquard action during machine knitting; When the line adjustment function is not turned on or the line adjustment pattern is not read properly, (Y) is gray, and there is no line adjustment action during machine knitting. When starting the machine for knitting, please confirm that all jacquard and line adjustment patterns have been

input.

23-2 Yarn Check



(Fig. 69)

Check individual: You can choose from **【SETTINGS】**, **【RESET SETTINGS】**, or **【BOTH】**.
 Check the model: The action speed can be selected from four gears: **【LOW SPEED】**, **【LOW】**, **【MEDIUM】** and **【HIGH】** speed.

The **【+】** and **【-】** keys are used to fine tune the action speed. The **【↑】** key selects the direction of the needle selector action to be all upwards, while the **【↓】** key indicates downwards.

23-3 Setting of Line Adjustment Control Parameters

23-3-1 Line Adjustment Finger Control 1

YARN CONTROL 1			
YARN CONTROL		ON-1	(0/1/2/3/4)
SET DEGREE FROM ENCODER		+000.000	
RESET DEGREE FROM ENCO		+000.000	
SET SIDE WORK		DOWN	(1-DN,2-UP)
RESET SIDE WORK		DOWN	(1-DN,2-UP)
/SLV TYPE		SAME COURSE	(7)
←	→	FORWARD	NEXT
↑	+	/SLV	
↓	-		ESC

- **Adjusting Line Finger Control:** 5 options available (Set to ON-1)
 - OFF: Select OFF without using the line adjustment needle selector.
 - ON-1: There is a needle selector for jacquard, and the type of needle selector for line adjustment is 1.
 - ON-2: There is a needle selector for jacquard, and the type of needle selector for line adjustment is 2.
 - ON-3: There is no needle selector for jacquard, the type of needle selector for line adjustment is 1.
 - ON-4: There is no needle selector for jacquard, and the type of needle selector for line adjustment is 2.
- **Set the degree of synchronizer:** Input to adjust the offset angle between the needle selector and the knitting needle selector.
- **Reset the degree of the synchronizer:** Input to adjust the offset angle between the line adjustment needle selector and the knitting selector.

Note: The (+) in the offset angle indicates that the action of the line adjustment needle selector is earlier than that of the jacquard needle selector, and (-) is backward.
- **Set the action direction of the needle selector:** Set the working direction of the line adjustment needle selector to be up or down.
- **Reset the action direction of the needle selector:** Set the working direction of the line adjustment needle selector to be up or down.
- **/SLV TYPE** There are two options:
 - Same horizontal column: SLV area after knitting pattern.
 - Front row: SLV area before knitting pattern.

*SLV=SELV AGE: The pattern of the switching position when switching yarns.

Note 1): When using only the line adjustment needle selector, please set the option to reset the action direction to the same content as the working direction option.

Note 2): On machines that have both jacquard and line adjustment, the action of the line adjustment needle selector is usually earlier than that of the jacquard needle selector. This advance is set from the beginning of the action of the jacquard needle selector, based on the position of the machine installation.

Note 3): Regarding the DIP switch number of the line adjustment and needle selector.

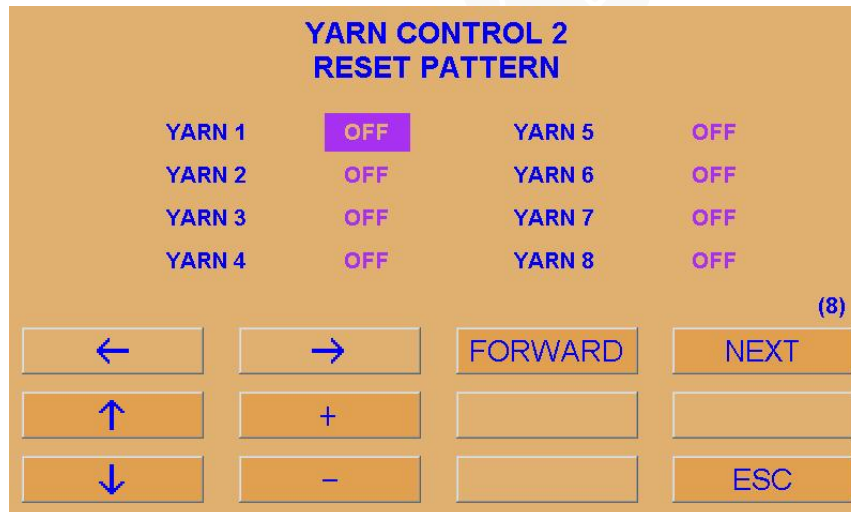
When the line adjustment finger control is set to ON-1 and ON-2, the number is the next digit of the last needle selector number used for knitting.

(Example 1) For machines with 72 channels and 2 power positions, set the needle selector number to 73, and reset the needle selector number to 74 (the needle selector number for jacquard is 1-72).

(Example 2) For machines with 72 channels and 3 power positions, set the needle selector number to 145, and reset the needle selector number to 146 (for jacquard, the needle selector number is 1-144).

When the line adjustment finger control is set to ON-3 or ON-4, follow the following settings:
Set the needle selector number to 1, and reset the needle selector number to 2.

23-3-2 Line Adjustment Finger Control 2



On this page, you can set the initial position of the yarn fingers after the machine is turned on and reset the position of the yarn fingers. The Fig. above shows that finger 4 is selected, that is, after turning on the machine, finger 1 moves on the line. Similarly, other fingers can also be set as needed.

23-3-3 Line Adjustment Finger Control 3



In this screen, you can input the angle between the line adjustment fingers.

For example: 6-tone line finger:

Finger 1 00.000 (starting angle of finger 1=00.000) **Finger 5** XX.XXX (Angle between finger 1 and finger 5)

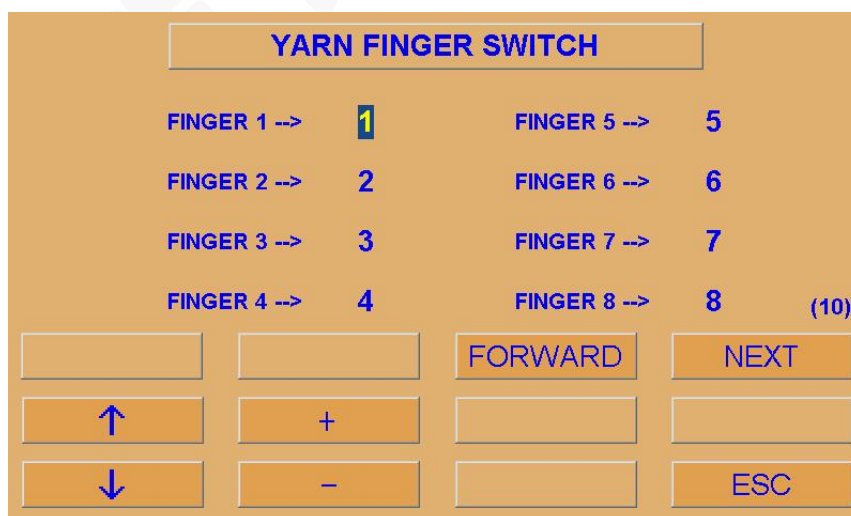
Finger 2 XX.XXX (angle between finger 1 and finger 2) **Finger 6** XX.XXX (Angle between finger 1 and finger 6)

Finger 3 XX.XXX (Angle between finger 1 and finger 3) **Finger 7** 00.000

Finger 4 XX.XXX (Angle between finger 1 and finger 4) **Finger 8** 00.000

In general, there is no need to set it, all defaults to 0.

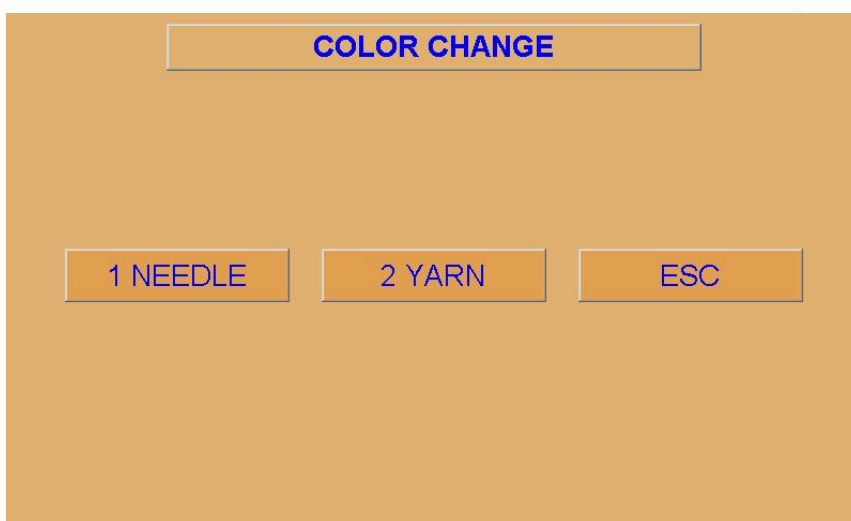
23-3-4 Color Changing Head Finger Transformation



This setting is used to swap the underlying control signals, making it convenient to correct finger sequence errors caused by incorrect conductive slip ring wiring, without the need for rewiring. General users should not make arbitrary modifications to avoid confusion in finger order during actual use. If you need to modify the yarn arrangement order during production, please use the "color change" function.

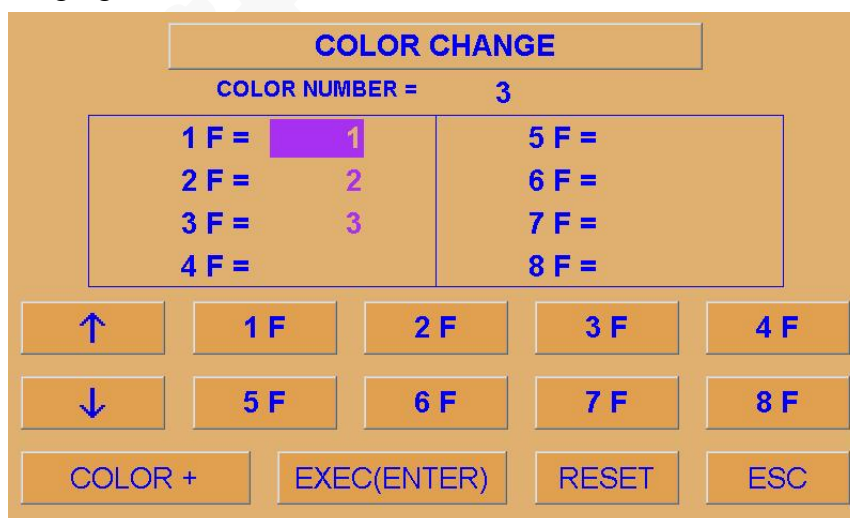
23-4 Color Change Control (For temporary use in troubleshooting yarn)

Press the **【Next Page Reminder】** button in Fig. 1, and then press the **【Color Change】** button to enter the following interface:



(Fig.73)

- Press **【Number of Needles】** to enter the color change of jacquard control, as shown in the following figure.:



(Fig.74)

This function allows for direct color transformation of patterns in this screen. Now let's take the 2-color pattern as an example for explanation.

① If the pattern is red for the YARN 1 (odd numbered paths) and blue for the YARN 2 (even numbered paths), now we

Swap the parts that use these two colors.

Firstly, change the "number of colors used" using the **【↑】** and **【↓】** buttons on the screen, and then press the **【EXECUTE】** button

It will transition to the following screen.

② When 1F is an inverted color representation, select **【 2F 】** .

③ At this point, the message "1F → 2F" and "2F → 1F" will appear on the screen.

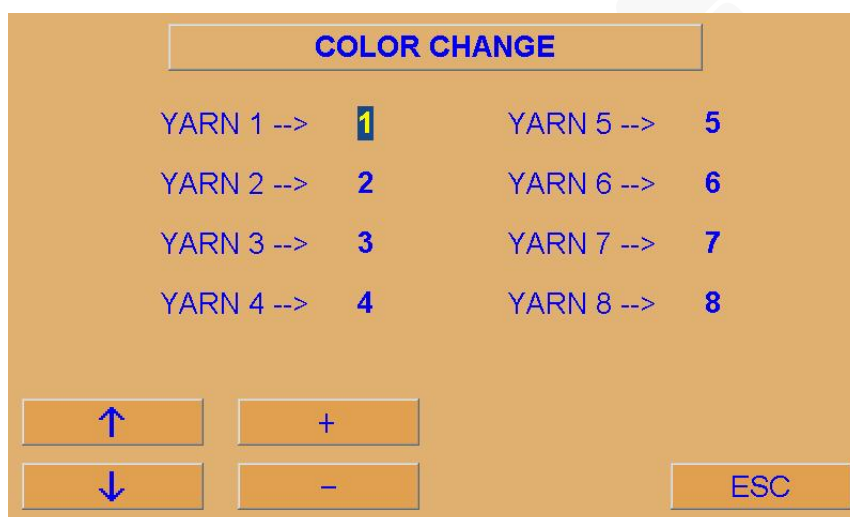
④ At this point, please press the **【EXECUTE】** button.

After pressing the **【CONFIRM】** button, the screen will display the message "Data has changed".

⑤ Press the **【END】** button to end the operation.

Note: **【Use of Color Count】** refers to the number of colors used in the pattern data used.

- Press **【YARN】** to enter the color change control for line adjustment, as shown in the following figure:



(Fig.75)

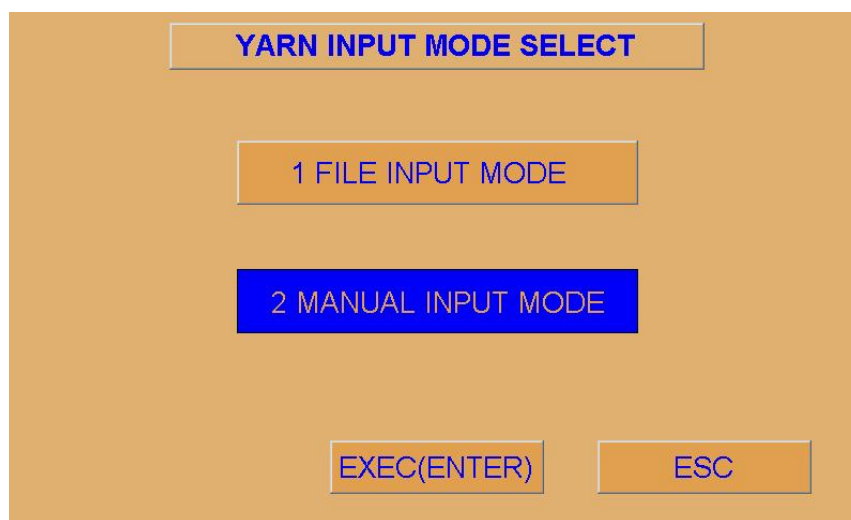
Use the pattern transformation function to change the color of the current pattern.

Taking the 4-tone pattern as an example for description.

If the colors of the fingers in the pattern are red, black, white, and blue, but the yarn inserted by the fingers during yarn arrangement is white, blue, red, and black; At this point, a color change operation is required to make the yarn arrangement consistent with the pattern. As shown in the above Fig., use the "up and down arrows" and "add and subtract" keys to modify the corresponding value of the yarn, and then press the **【END】** button to end the operation. The computer will automatically switch finger movements during knitting based on the transformation list, ensuring that the knitting pattern is correct.

Note: Whether it is the color change controlled by jacquard or the color change controlled by line adjustment, they are only effective for the current knitting pattern. When the pattern is reread (re-entered), the settings will be restored to default. If color change is required, please enter it again.

23-5 Selection of Line Adjustment Input Method



(Fig.30)

Press the **【LINE ADJUSTMENT MODE】** to select the input method for line adjustment

File input mode: The computer can read the jacquard (with line adjustment information) pattern files generated by our company's printing software or WAC printing software. When reading this file, both the jacquard data and line adjustment data will be input together, without the need to input them separately.

Manual input mode: The computer can read and use the built-in editor to manually input and edit the generated line adjustment files (*.yac type line adjustment pattern files). How to use the built-in editor to create line adjustment pattern files will be explained in detail in section 5-4 below. If set to manual input mode, the jacquard pattern file needs to be read separately.

The jacquard+line adjustment system generally selects the **【FILE INPUT MODE】**, and click **【EXECUTE】** to make the selection effective. When it is necessary to test the line adjustment fingers separately, use manual input mode to input specific line adjustment patterns; If the jacquard file is not read separately at this time, the jacquard needle selector will not operate (in the standby screen, the<P>indicator light in the upper left corner is gray).

23-6 Manual Editing and Line Adjustment Patterns



(Fig.47)

After clicking on **【LINE ADJUSTMENT INPUT】**, you can choose the method of line adjustment input:

WAC mode editing: The traditional WAC line editor has certain limitations in loop operations.

CMD mode editing: Our newly developed line adjustment editor is simple and easy to understand, which extends traditional modes.

This page will also display the editor used to write the current pattern. If you need to modify it, please select the corresponding editor.

Attention: After setting the **【LINE ADJUSTMENT MODE】** to "Manual Input Mode" (as shown in Fig. 30), the line adjustment pattern file inputted by the editor can be read into the line adjustment pattern data area and knitting.

➤ **WAC Mode Editing**



(Fig.48)

The above figure shows the yarn number, the number of line adjustment fingers, and the number of horizontal columns for line adjustment.

NO : Number of yarn rows in the line adjustment program. When you want to insert a new yarn, please press **【INS】** (INSERT), and each press will insert a row.

FINGER: Finger number for line adjustment. After pressing the **【/】** key, both fingers can be set simultaneously.

COURSE: Setting the number of knitting horizontal columns. The number marked with **【*】** before the display is not the number of horizontal columns, but the number of operating cycles of the machine in that state. Pressing the **【LAP】** key can set the **【*】** mark to be turned on or off.

REPEAT: Set the number of repetitions. Press **【R.ST】** (REPEAT START) on the starting line that needs to be repeated, and press **【R.END】** (REPEAT END) on the ending line. If you want to cancel this operation, please press **【R.CLR】** (REPEATCLEAR). We use * to indicate the beginning and end of the horizontal column that needs to be repeated. The steps ① - ⑧ in the following Fig. show an example of repeated horizontal knitting.

序 号	手指编号	横 列	重 复
0 0 1 0	1	0 0 4 4 ①	
0 0 2 0	2	0 0 2 2 ②⑤	0 0 2 *
0 0 3 0	3	*0 0 0 2 ③⑥	*
0 0 4 0	2 / 3	*0 0 0 4 ④⑦	E N D *
0 0 5 0	4	0 0 4 4 ⑧	

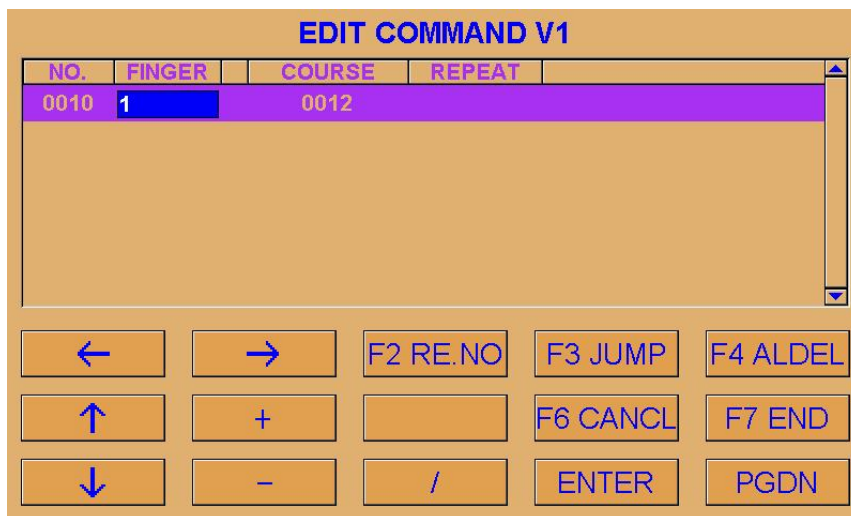
[PGDN] (FUNCTION CHANGE): Press this key to switch between (Fig. 48) and (Fig. 49).

[DEL] (DELETE) : Eliminate a row of yarn.

[ALL DEL] (ALL DELETE) : Eliminate all line adjustment data.

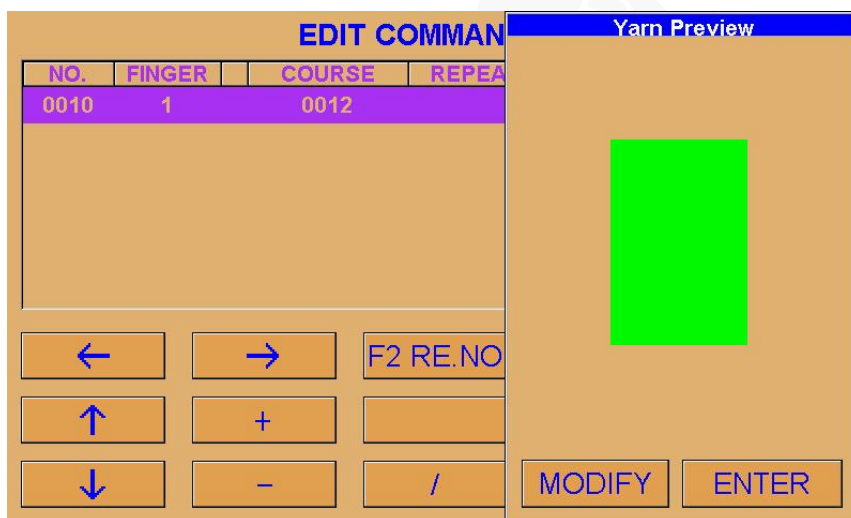
[JUMP] : Jump the cursor from its starting line to the ending line.

[RE.NO] : Automatically arrange the order when entering new yarns.



(Fig.49)

Pressing the **【CANCEL】** will exit editing and the modifications made will not be saved. Pressing **【END】** will display the following screen, which will display the edited pattern. Users can check if the knitting action is correct.



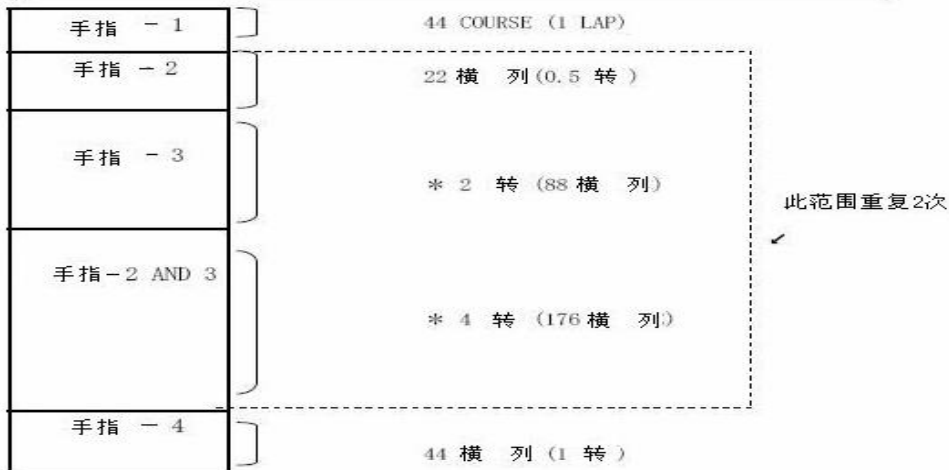
(Fig.50)

Press **【OK】**, and the computer will save the modifications to the line adjustment pattern file. If it is a newly created file, it is required to enter the file name. (Note: After editing and saving, a *.yac class line adjustment pattern file will be generated on the memory disk.)

Press **【MODIFY】** to return to the screen shown in Fig. 48, and the user can edit it again.

(例 题 1)

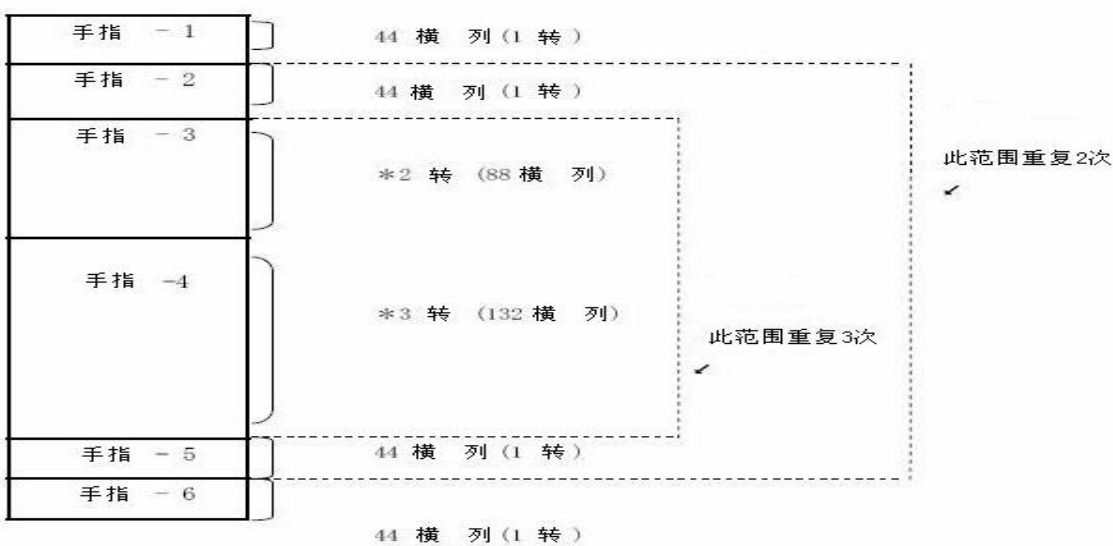
序 号	手指编号	横 列	重 复
0 0 1 0	1	0 0 4 4	
0 0 2 0	2	0 0 2 2	0 0 2 *
0 0 3 0	3	*0 0 0 2	*
0 0 4 0	2 / 3	*0 0 0 4	E N D *
0 0 5 0	4	0 0 4 4	



Total: 660 horizontal columns
(15 revolutions per control cycle)

(Example 2)

序 号	手指编号	横 列	重 复
0 0 1 0	1	0 0 4 4	
0 0 2 0	2	0 0 4 4	0 0 2 *
0 0 3 0	3	*0 0 0 2	0 0 3 **
0 0 4 0	4	*0 0 0 3	E N D **
0 0 5 0	5	0 0 4 4	E N D *
0 0 6 0	6	0 0 4 4	



Total: 1584 horizontal columns
(36 revolutions per control cycle)

➤ **CMD Mode Editing**

EDIT COMMAND V2					
NO.	FINGER	COURSE	REPEAT1	REPEAT2	REPEAT3
001	2	0001	030		
002	4	0001	END		
003	4	0001	030	002	
004	2	0001	END	II	
005	1	0048		END	
006	3	* 0003			

←	→	F2 NO.	F3 INS	F4 DEL
↑	+	F5 LAP	F6 JUMP	F7 CLR
↓	-	(/)FGER	R.END	ESC

(Fig.51)

NO.: The number of yarn rows in the line adjustment program. When you want to insert a new yarn, please press **【Insert】**.

FINGER: Adjust the line finger number. After pressing the **【/】** key, both fingers can be set simultaneously.

COURSE: Set the number of knitting horizontal columns. The number marked with **【*】** before the display is not the number of horizontal columns, but the number of operating cycles of the machine in that state. Pressing the **【Circle/Line】** key can set the **【*】** mark to be turned on or off.

REPEAT 1: Set the number of repetitions for the first layer. Use the "arrow" key to move the cursor to the beginning of the cycle in column 1, enter the number of cycles, press the "down arrow" to the end of the cycle, press the **【OK】** key, and the position will be displayed as "END" (cycle end).

REPEAT 2: The second layer repetition setting can be nested (including) the previous layer repetition setting. Move the cursor to this column for setting.

REPEAT 3: Set the number of repetitions for the third layer, which can be nested (including) the upper two layers of repetitions. Move the cursor to this column for setting.

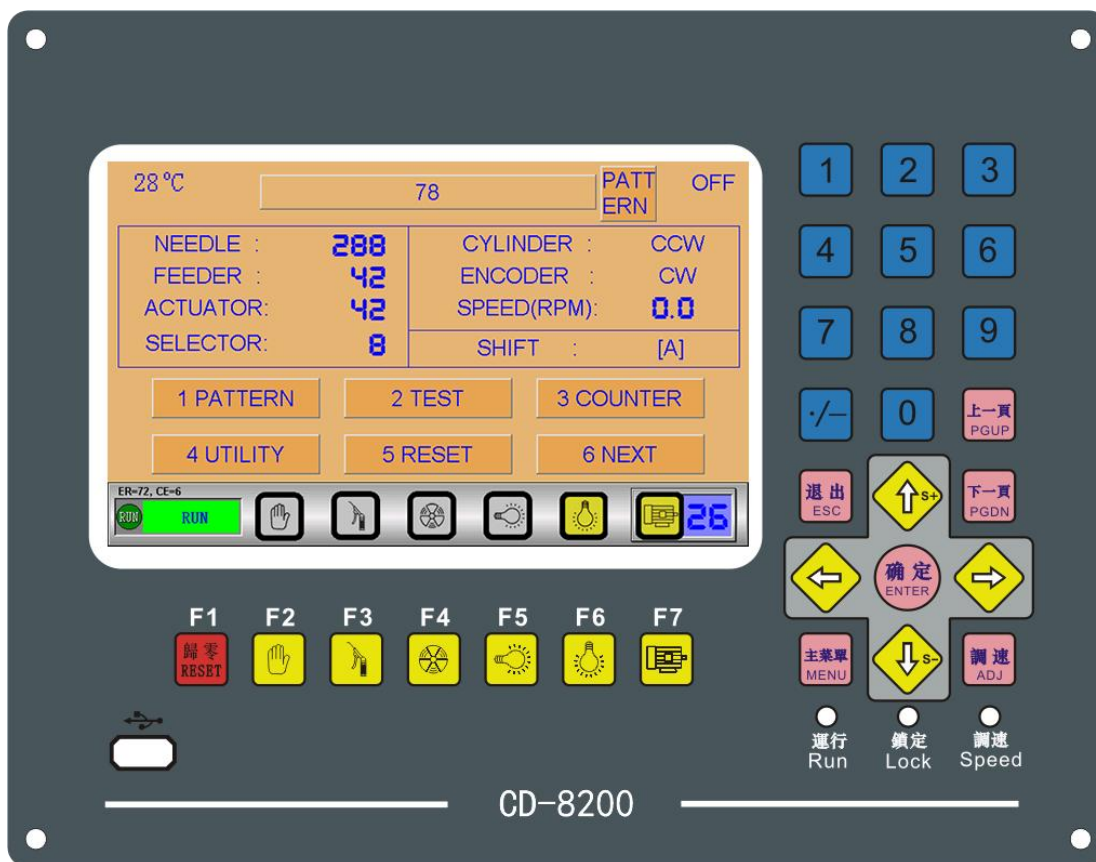
Taking the pattern in Fig. 37 as an example (the machine has 48 courses):

- The 2nd and 4th fingers each have a course, and the tissue circulates 30 times.
- The 4th and 2nd fingers each have a course, and the tissue circulates 30 times.
- First finger 48 courses (1 circle)
- b) and c) form an organization that circulates twice.
- Run the third finger 3 times ($3 \times 48 = 144$ courses)

Note: When nested within a loop (including), it must include the entire loop of the previous level and cannot include a part.

Press **【CLEAR】** to clear all data, press **【EXIT】** to prompt whether to save the modified data.

24 SCHEMATIC DIAGRAM OF THE MAIN MACHINE PANEL



Description of Electrical Control Keys

- | | | | |
|--|-------------------------------|--|-------------------------------------|
| | Operation date clearing key | | Transducer power supply control key |
| | Fan control key | | Cloth lighting lamp control key |
| | Illuminating lamp control key | | Forced control key |
| | Clearing key | | Speed regulation enable key |
| | Operation speed increase key | | Operation speed decrease key |

24-1 Electrical Parameter Setting

In the "memory function" interface, click **【Electrical parameter setting】** to enter the electrical parameter setting menu:

24-1-1 Oil Pump and Machine Leaning Cleaning Setting



(Fig.20)

Each page in this command can be changed to other pages by pressing **【Previous page】** **【Next page】** . However, no matter at what page, you can directly exit the preliminary instruction revision mode by pressing the [End] key. When operating, you can use **【↑】** **【↓】** **【←】** **【→】** keys to move the cursor, use **【+】** **【-】** key to modify, or directly use the numeric keypad to enter.

The oil pump has three operation modes for choice

- 0 - continuous work mode;
- 1 - Second interval work mode: The pump starts work according to the second interval work time and stops work according to the interval stop time;
- 2 – Revolution interval work mode: The pump starts work according to the revolution interval work time and stops work according to the interval stop time.

Set cleaning revolutions Carry out machine cleaning according to the preset value.

24-1-2 Machine Operation Setting



(Fig. 21)

Set jog speed ---- Set count jog to 1-40 grades

Set overspend ---- Maximum machine speed setting

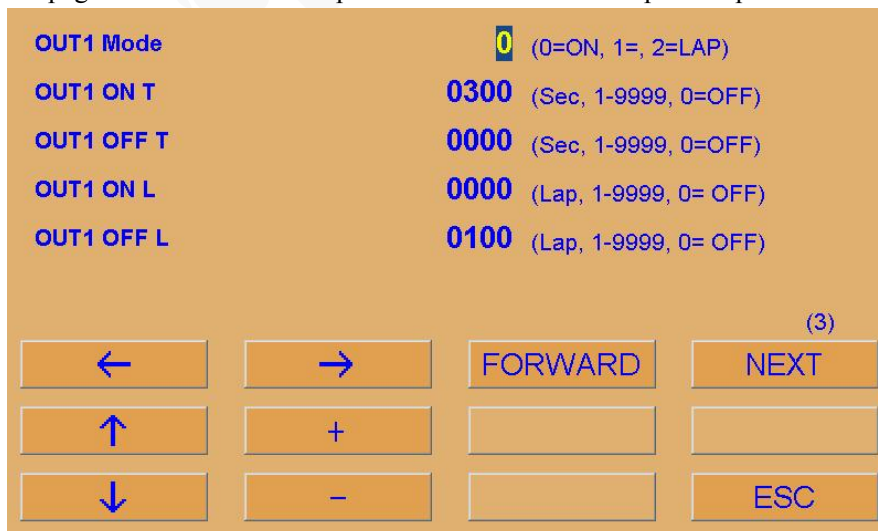
Disable speed regulation ---- 0 – Enable speed regulation; 1 - disable speed regulation

Needle breaking signal drive ---- 1 – Allow the controller to output 12V needle breaking drive voltage, 0 - disable output

Oil insufficient signal drive ---- 1 – Allow the controller to output 12V oil insufficient signal drive voltage, 0 - disable output

24-1-3 Electrical Output 1 Setting

This page is used to set the output characteristics of the <spare output 1> on the power supply board.



(Fig. 22)

24-1-4 Electrical Output 2 Setting

This page is used to set the output characteristics of the <spare output 2> on the power supply board.

OUT2 Mode	0	(0=ON, 1=, 2=LAP)
OUT2 ON T	0300	(Sec, 1-9999, 0=OFF)
OUT2 OFF T	0000	(Sec, 1-9999, 0=OFF)
OUT2 ON L	0000	(Lap, 1-9999, 0= OFF)
OUT2 OFF L	0100	(Lap, 1-9999, 0= OFF)

(4)

←	→	FORWARD	
↑	+		
↓	-		ESC

(Fig. 23)


After modifying the parameters, press **【End】** key to exit and save the settings of the parameters.

24-2 Machine Operation


24-2-1 Start the knitting machine

After confirming that the mechanical and electrical parameters of the machine are set correctly, and the knitting patterns have been entered, start the machine by following the steps below:

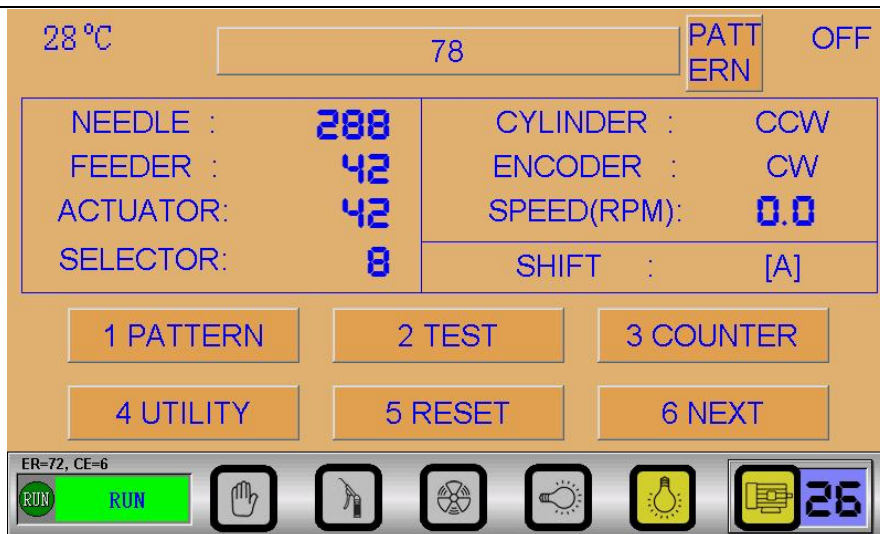
Firstly know the following: There are three keys on the machine: Start (green), jog (orange) and stop (red) keys, the priority order from high to low is stop, jog, start.

Press the  key on the panel, the corresponding icon is lit up on the display (yellowing), the inverter is powered on, press the start key of the machine, the machine starts running.

After delaying for 5 seconds, the fan starts rotation (when the fan button is lit), the gas valve is opened to supply gas; the oil pump starts and supplies oil with the selected operating mode. After the machine starts running, the start and stop of the fan, cloth lighting lamps, illuminating lights or adjustment of machine speed, etc, will not affect the normal operation of the machine.

Note: The  key is not available during operation, in order to ensure that no-load operation of the contactor.

When the machine starts weaving, the following message appears on the display screen:



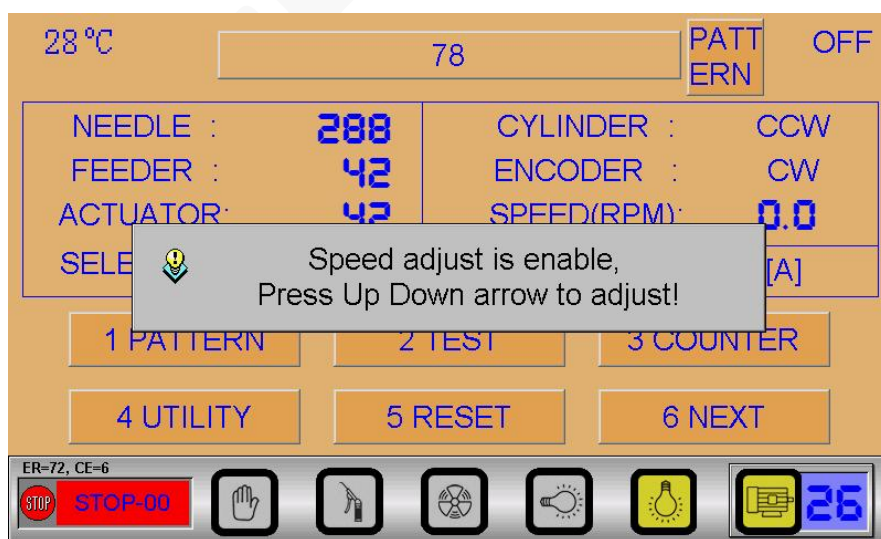
(Fig. 69)

Notes about the "Jog" key:

If the jog key is pressed when the machine is shutdown, the machine will run slowly or stop. If the jog key is pressed during normal operation, the machine will run slowly, and the machine will stop after the jog key is released. If the jog key and start key are pressed at the same time, the machine will run slowly; if the jog key if released firstly, the machine automatically start normal operation. During jogging, the fan cannot be started; whether the gas terminal outputs voltage at this time will depend how the power supply is set

24-2-2 Adjust the Running Speed of the Machine

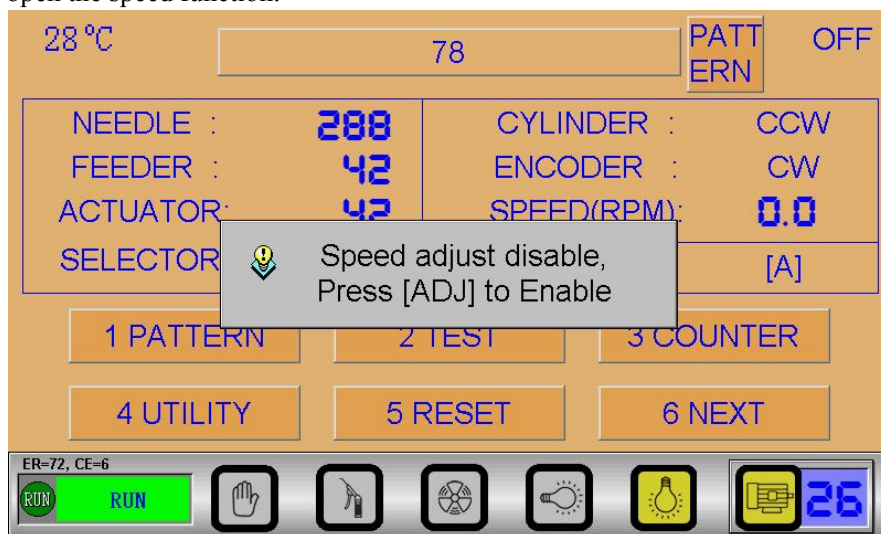
Press key to unlock the speed control function, speed to speed up, press to slow down, pay attention to the operation speed of the machine when adjusting the speed.



(Fig. 70)

If no speed adjustment is made, the computer will stop the speed regulation function two minutes later to

prevent false triggering, as shown in the Fig71. below, press the【speed regulation】key on the control panel to open the speed function.



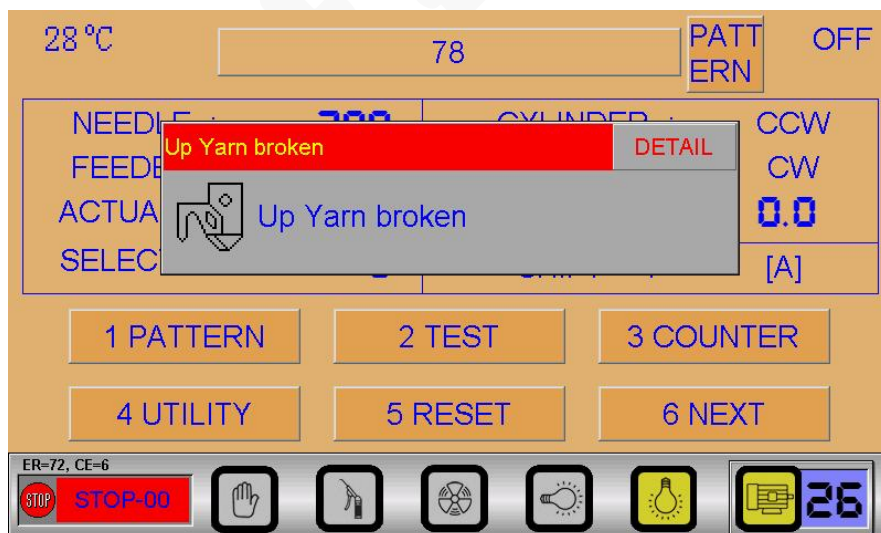
(Fig. 71)

24-2-3 Stop Machine Operation

The machine may stop during normal operation if the STOP key is pressed or any abnormal circumstance occurs. After reaching the count (the knitting number is equal to the set number), the knitting work is completed, the machine will automatically stop, and the screen will display the count menu (Figure 59), while the valve is closed, and the fan and pump are stopped.





24-3 Tips to Abnormalities of the Machine

If there is any peripheral electrical abnormality during operation, alarm screen will pops up, as shown below:




(Fig. 72)

The machine will be caused to stop when any of the following 10 kinds of abnormalities occurs, and the machine can restarted after the problem is solved.

Prompt Box	Description of Abnormalities	Remedies
	The safe door of the machine is not close	Close the safety door before pressing the start key to start knitting
	Yarn break in the upper segment, the external tri-color signal lamp and the corresponding yarn lamp are flashing	Connect the broken yarn
	Yarn break in the upper segment, the external tri-color signal lamp and the corresponding yarn lamp are flashing	Connect the broken yarn
	Probe is abnormal, external needle breakage light flashes. Note: Needle breakage signal drive should be open (Figure 21)	Check the probe
	Oil insufficient, oil pump fault signal lamp flashes Note: The oil insufficient drive should be open (Figure 21)	Check the engine oil level of the machine
	Air pressure insufficient Note: To enable this function, the barometer should have an electric contact	Check the air pressure of the machine
	Check transducer fault Note: To check the transducer, riot is necessary or connect a transducer fault connection wire	Check whether the transducer is abnormal, whether the parameter setting is reasonable, whether the connecting wire is loose
	Check broken cloth Note: Check is available only if a cloth break probe is installed.	Check cloth break status and solve the problem
	An external low-voltage load short circuit, external low-voltage load power supply is cut off	Check whether the AC 12 and 24 volts of the power supply board is normal
	Over-speed error, when the machine speed exceeds the set value (Figure 21), the machine will report an error	Make sure whether the speed limit is reasonable, whether the machine speed regulation is normal

In case of upper and mid section yarn break, cloth break, oil insufficiency, air pressure insufficiency, the machine

still needs jogging function, needs the forcing key, the prompt  on the screen becomes yellow. If continually use the forcing key to make the indicator lamp flashes, then the machine enter the forced mode, and the poser supply to the yarn feed lamps is cut off to prevent over-current when many of the yarn feed lamps are lit.. You can press the forcing key again to exit the forced or super forced state.

25 TROUBLESHOOTING OF COMMON PROBLEMS

25-1 General Steps to Troubleshoot the Machine's Failure to Make Patterns During Operation

1. Troubleshoot system program faults

In the main standby menu, use a sheet metal to keep the sensor active (photoelectric switch light is lit, the upper right corner displays ON), start the machine to see if the machine can enter jacquard interface. If it can enter the jacquard interface, then re-adjust the origin and the sensor to the appropriate positions, confirm that the connection lines have no problem, if it cannot enter the Jacquard system, it can be judged that the system program has problems; enter the next step.

2. Check whether the origin sensor can be triggered at high speed during operation

After starting the machine, check whether the sensor status can be displayed on the machine interface, or directly observe whether the sensor light flashes when the machine runs to the sensor position. If not, readjust the sensor position, and observe as above again. If the sensor is triggered, but the machine still fails to enter the jacquard interface, enter the next step for further check.

3. Check whether the position of the sensor and the pattern starting point of encoder are the same.

Move the needle cylinder to the zero position, check whether the【WITH ADJUST】of the "ENCODER ORIGIN ADJUST" is close to 0, if there is a large deviation, adjust the position of the origin , and observe the result again. And confirm that the sensor device is not loose. After it is confirm that the above items have no problem, but the machine still cannot enter the jacquard interface, you can increase the sensing area of the sensor, or adjust the 【ADJUST DATA】 in the "ENCODER ORIGIN ADJUST" interface, so that the pattern start point is slightly lag behind the sensor zero position.

4. Check whether the sensor hardware and connecting lines have are problems.

Enter the "ENCODER ORIGIN ADJUST" interface, rotate the needle cylinder to confirm whether the adjusted value has changed, use a metal sheet to keep the sensor triggered, check whether 【SENSOR】 on the interface displays ON. And make sure that the cable is in good contact.

5. Check whether the encoder hardware, the shaft couplings and other related devices have problems

Enter the encoder check interface, refer to 6.3.1 encoder check steps, confirm that the encoder is normal. Reassemble, and make sure that the couplings are free from slip, deformation, fracture and other failures.

6. If problems still exist after all above items are checked, then it can judged that the mechanical structure has problems, such as problems in large disc gears or gearbox etc.

25-2 General Steps to Troubleshoot Why the Machine Makes Wrong Patterns During Operation

The following troubleshooting mainly focuses on a computer system failure, do not include knitting process details

Regular wrong patterns:

1. If mirror image patterns are knitted, check whether the needle cylinder rotation direction is correct, and confirm that whether "reverse break down" is checked when decompose the drawing pattern.
2. Check whether the corresponding knitting needles, thimbles, jacquard pieces, and actuators are abnormal (including whether actuator codes are repeated)
3. Check whether the blowing mechanism repeatedly impacts a certain unit.

Irregular wrong patterns:

1. Check whether the encoder and needle cylinder rotation direction is set correctly, whether the band group is set correctly (if there is a second band, confirm whether the function is enabled).
2. Check other parameters of the preliminary instructions, actuator units, angle, etc.
3. Check whether the synchronization ratio is set correctly, and make sure that the encoder and coupling have no problem and are connected properly.
4. Check whether the large gear and gearbox of the machine are abnormal

25-3 General Steps to Troubleshoot the Touch-Screen

Touch screen does not respond:

1. Check whether the LED5 lamp at the lower right corner of the connecting socket touch of the screen is flashing normally (communication signal between the touch screen and motherboard)
2. Keep pressing any part of the touch screen, LED7 will keep glowing, LED6 and LED3 will flash at a higher frequency (data collection instructions)
3. Plug and insert the connecting cable between the touch screen and the motherboard (Push out in parallel with black snap should vertical to the edges of the motherboard, then unplug the cable)
4. Take a normal touch screen B, test it interchangeably with touch screen A. If touch screen B can still work properly, then its control system has no problem, and it can be judged that touch screen A fails. If touch screen B cannot work normally while the A can work normally, it can be judged that the original touch screen control system fails, and contact our after-sales personnel.

Touch point of the touch screen is abnormal:

1. Confirm whether the screen can enter the screen calibration interface, if can, perform a screen calibration (refer to 6.5 for calibration method)
2. Forcibly enter the screen calibration interface: In shutdown state, unplug the encoder, restart after turning off the power, press and hold the center of the screen for 3 seconds, forcibly enter the screen calibration mode. (Refer to 14.2)

25-4 General Steps to Troubleshoot Actuators

25-4-1 Some Cutter Heads in Same Actuator Do Not Work

- ① Confirm whether the ceramic piece is stuck by foreign matters, or the drive plate interface is in poor contact.
- ② Make interchangeable tests with other interfaces of the same actuator (can swing normally).

25-4-2 One of the Actuator Groups in the Same Connecting Line Does Not Work, Other Groups Work Normally

- ① Check whether the cable of that group is damaged.
- ② Interchange the two line interfaces on the sale power board, if the other group has problems, it can be confirmed that the power drive board has problems and need to be replaced.
- ③ Disconnect the faulty group of actuators, enter **【NEEDLE TEST】**, press the **【HIGH】** key to test, use a trouble-free actuator cable to connect the actuators one by one in sequence of serial numbers, if the actuator group does not work when connecting a actuator, it can be judged that the last connected actuator has problem, and it should be tested separately.

25-4-3 Some Actuators in the Same Actuator Group Do Not Work

- ① Check whether the "FEEDER/GROUP DATA SET" is correct
- ② Confirm whether the DIP switch coding is within the control scope
- ③ Connect the actuators that do not work on the connecting lines of other actuator groups for swing test.

26 ANALYSIS OF FAILURE CASES

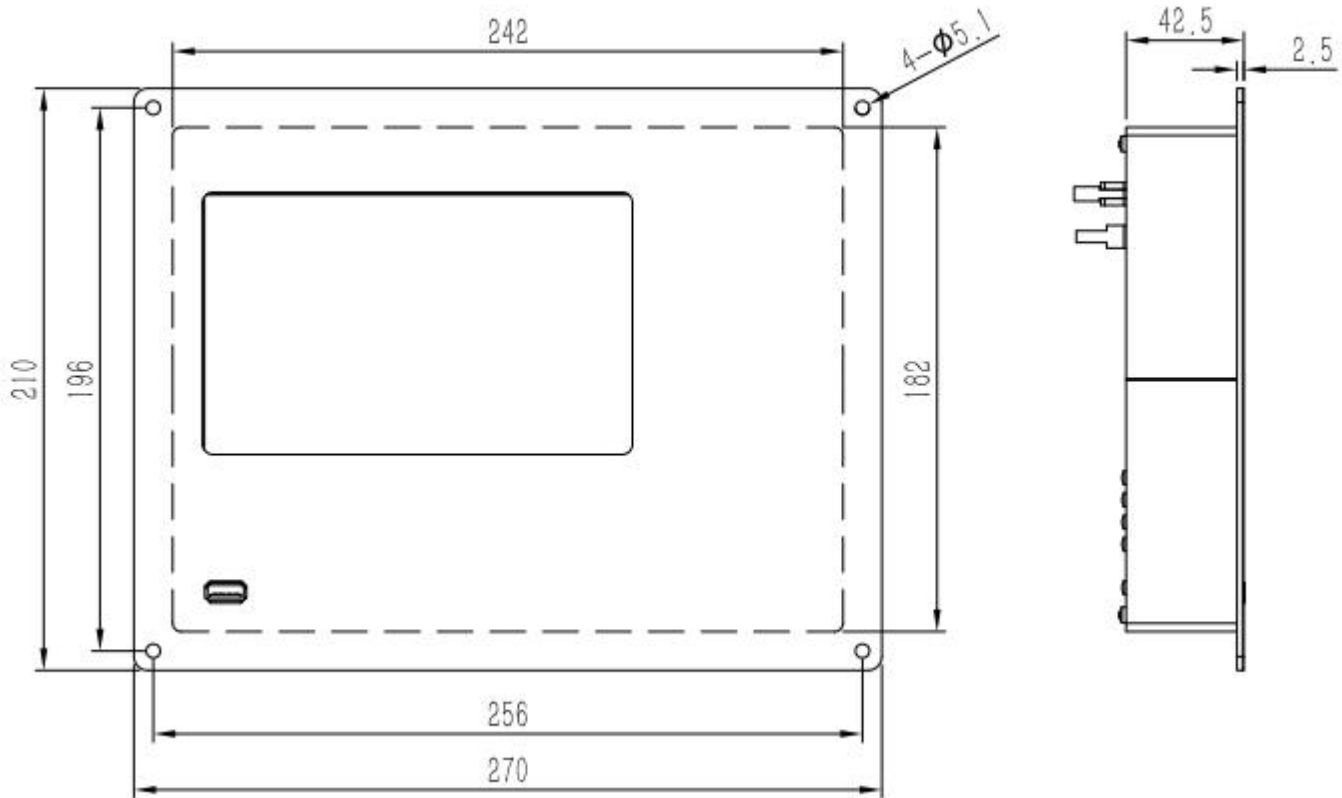
26-1 Analysis of Actual Failure Cases

	Description of the Failures	Possible Causes	Remedies
1	After reading the pattern, the machine fails to knit pattern during operation	Origin sensor device is loose and is not triggered	Re-adjust the origin position and tighten
2	It prompts: "Date processing failed" while reading the pattern	The setting value of "Actuator angle ORG-001" is negative	Re-set this value to zero
3	The needles count in the Jacquard interface can +1 only after the needle cylinder rotates 1 revolution	"Encoder rotation direction" is set incorrectly	Changes "UTILITY→ INITIAL→ Encoder DIR."
4	It can knit patterns normally during jogging and slow operation, but it sometimes can knit patterns and sometimes cannot knit patterns after pressing the start key.	The distance between the sensors and the sensing metal is too large, sometimes can sense, sometimes cannot sense	Properly adjust the sensor position in a scope about 1.5 ~ 2.5mm
5	72-unit yarn change machine Site status: 1. Check the screen and yarn, the test results are normal 2. After entering yarn change jacquard mode, the first finger does not move, the other fingers are normal 3. Set finger 1 to the initial position, after entering yarn change mode, finger 1 does not	Finger fine tuning angle setting error or the corresponding data line connection error	1. Check whether the corresponding data line is connected correctly Check the finger fine tuning angle setting, generally this value is 0

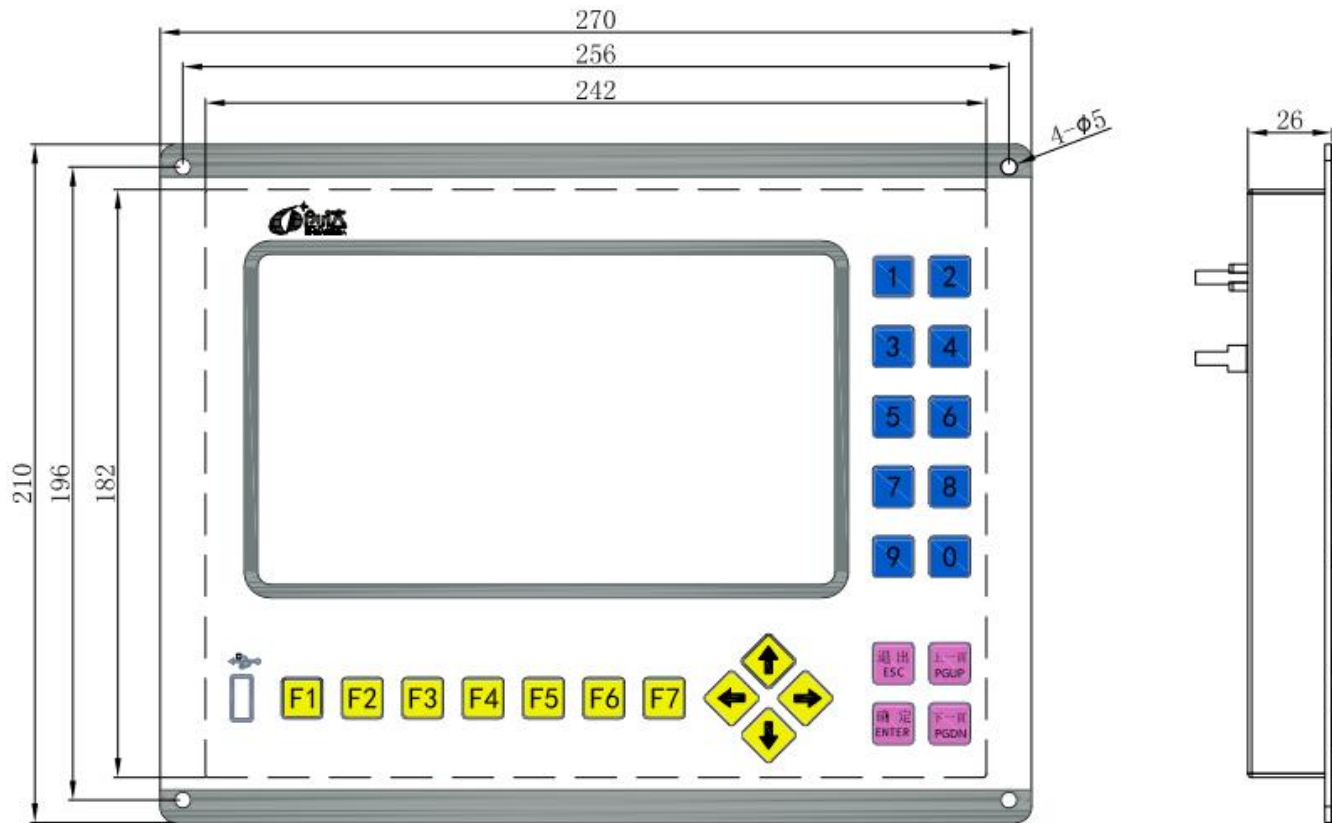
	move and is unable to retract		
6	<p>1. Jacquard is normal after the machine is started</p> <p>2. Pattern knitting becomes confused after the machine runs a period of time</p> <p>3. It becomes normal after being re-adjusted to zero</p> <p>4. The problem reoccurs after the machine runs a period of time</p>	The encoder cannot normally locate the mechanical position	<p>1. Check whether the connection between the encoder and the gearbox is normal</p> <p>2. Check whether the coupling is damaged</p> <p>3. Check whether the coupling and the machine slips during operation (can view the encoder adjustment screen at low speed synchronous adjustment screen, check whether the pulse is changing uniformly)</p> <p>4. Check whether the large gear and the gearbox of the machine are normal</p>
7	After reinstalling the origin sensor, the jacquard needles do not move and the interface stays in the initial needle movement state and do not enter the jacquard operation menu	<p>1. The position of the sensor varies from the pattern starting point of encoder</p> <p>2. The sensing metal supporting the sensor acts too short a time</p>	<p>1. Adjust the position of the origin sensor</p> <p>2. Increase the acting area of the sensing metal</p>
8	<p>1. Irregular patterns appear during commissioning of the new machine</p> <p>2. Actuators lead or lag the correct positions in slow operation</p> <p>3. Check and confirm that the functions and movements of the actuators are correct (1X1A, code confirmation)</p>	Encoder Setting Error	Reset after confirming the Encoder ratio
9	<p>Machine type: Towel machine</p> <p>Site status: Reverse patterns are knitted during commissioning</p>	<p>1. The rotation direction of the needle cylinder is set incorrectly</p> <p>2. Reverse breakdown is selected when making templates</p>	<p>1. Check whether the rotation direction of the needle cylinder is the set direction</p> <p>2. Check whether the reverse breakdown is checked when making breakdown using a template software</p>
10	Patterns are confused during jogging, but not confused during medium and high speed operation.	The zero points differs from the pattern start point, but the difference is not large.	1. Re-adjust the origin position
11	Pattern position shifts but patterns are not wrong (occasionally)	<p>1. Mechanical origin position error</p> <p>2. Synchronous data are seriously interfered</p>	<p>1. Check whether the ground line is connected correctly</p> <p>2. Move the needle cylinder to the mechanical zero point, confirm the difference between the encoder and zero point value</p> <p>3. Check whether the coupling slips, is distorted or broken</p>
12	When previewing patterns, the screen does not move	<p>1. USB-disk file disorder</p> <p>2. Data read timeout</p>	Plug and unplug the battery after shutdown

27 SYSTEM INSTALLATION SCHEMATIC DIAGRAM

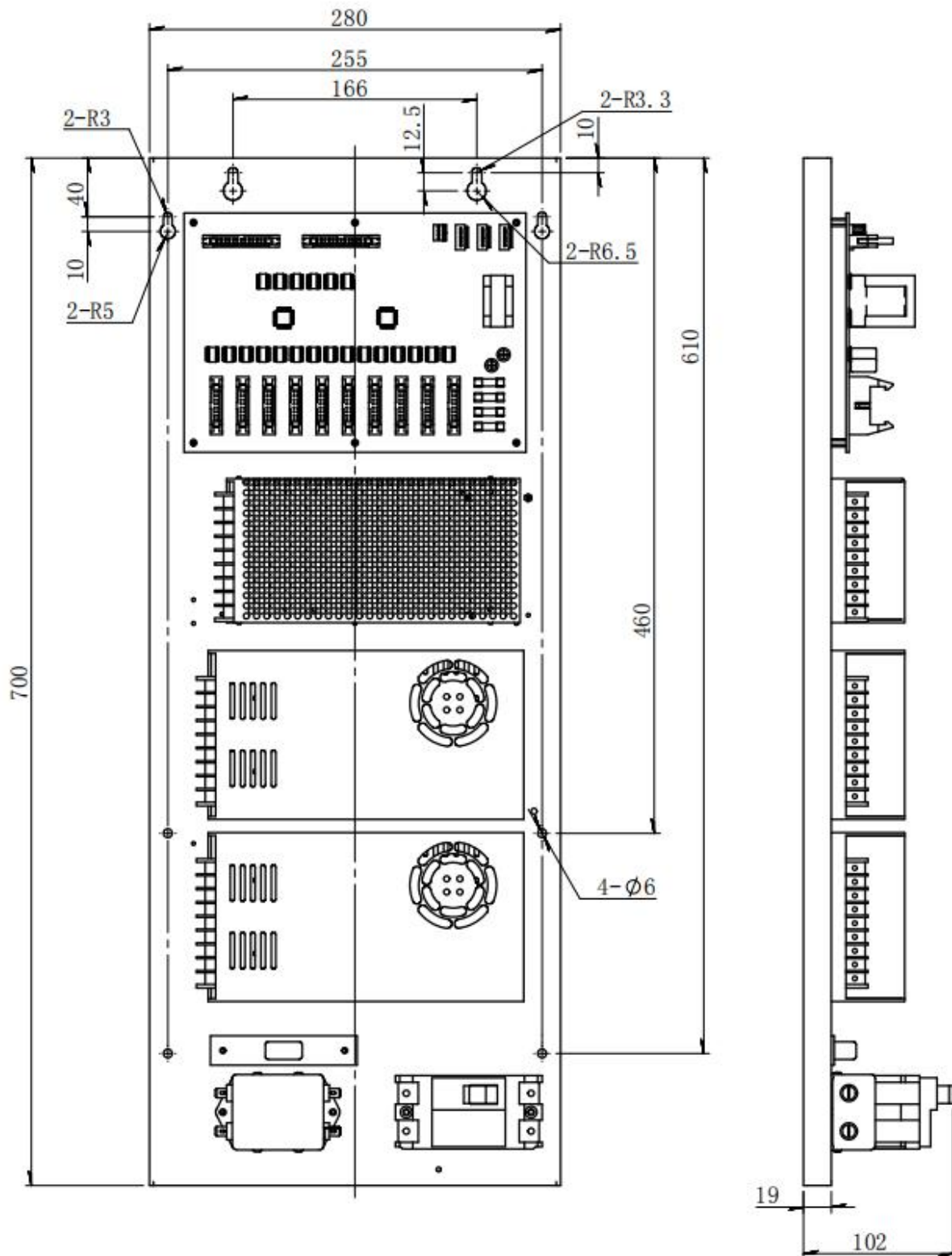
27-1 8300 System Panel Schematic Diagram



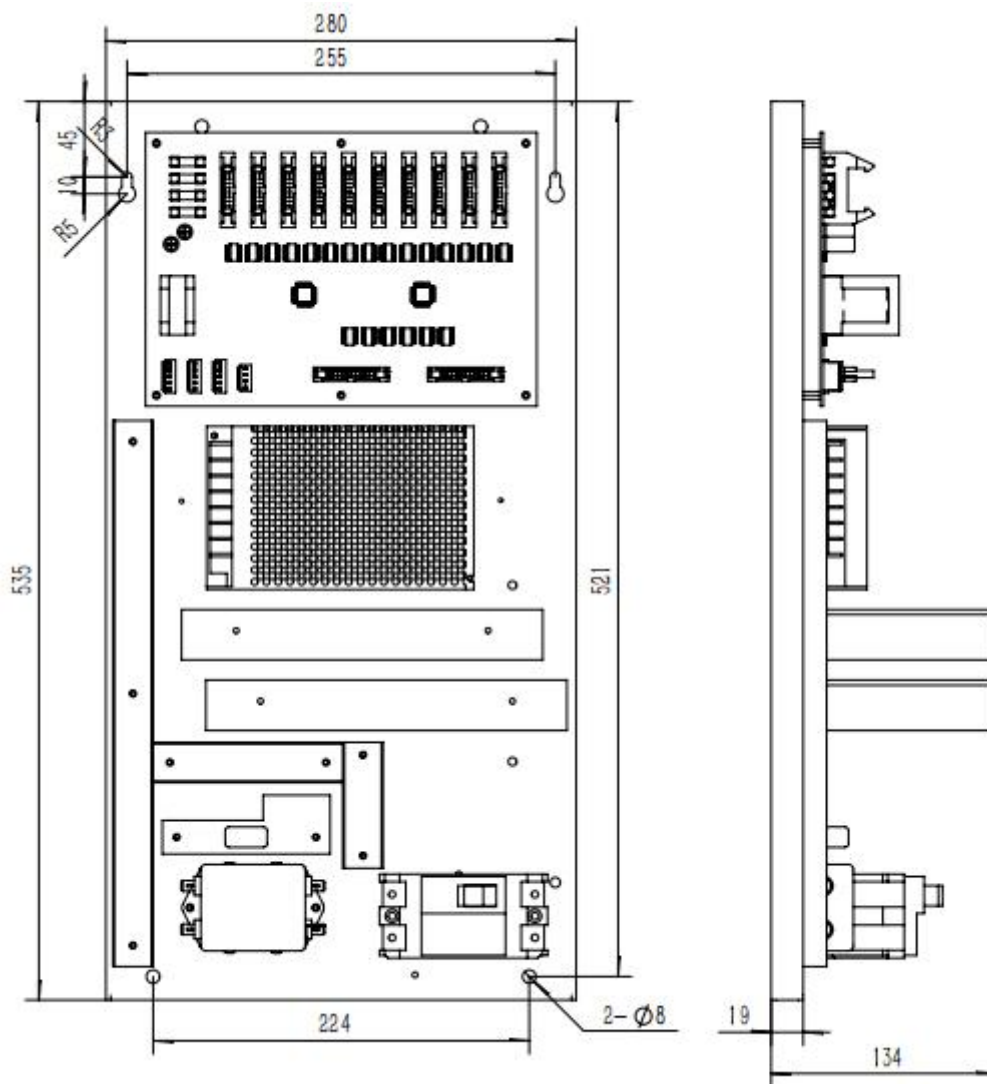
27-2 9301 System Panel Schematic Diagram



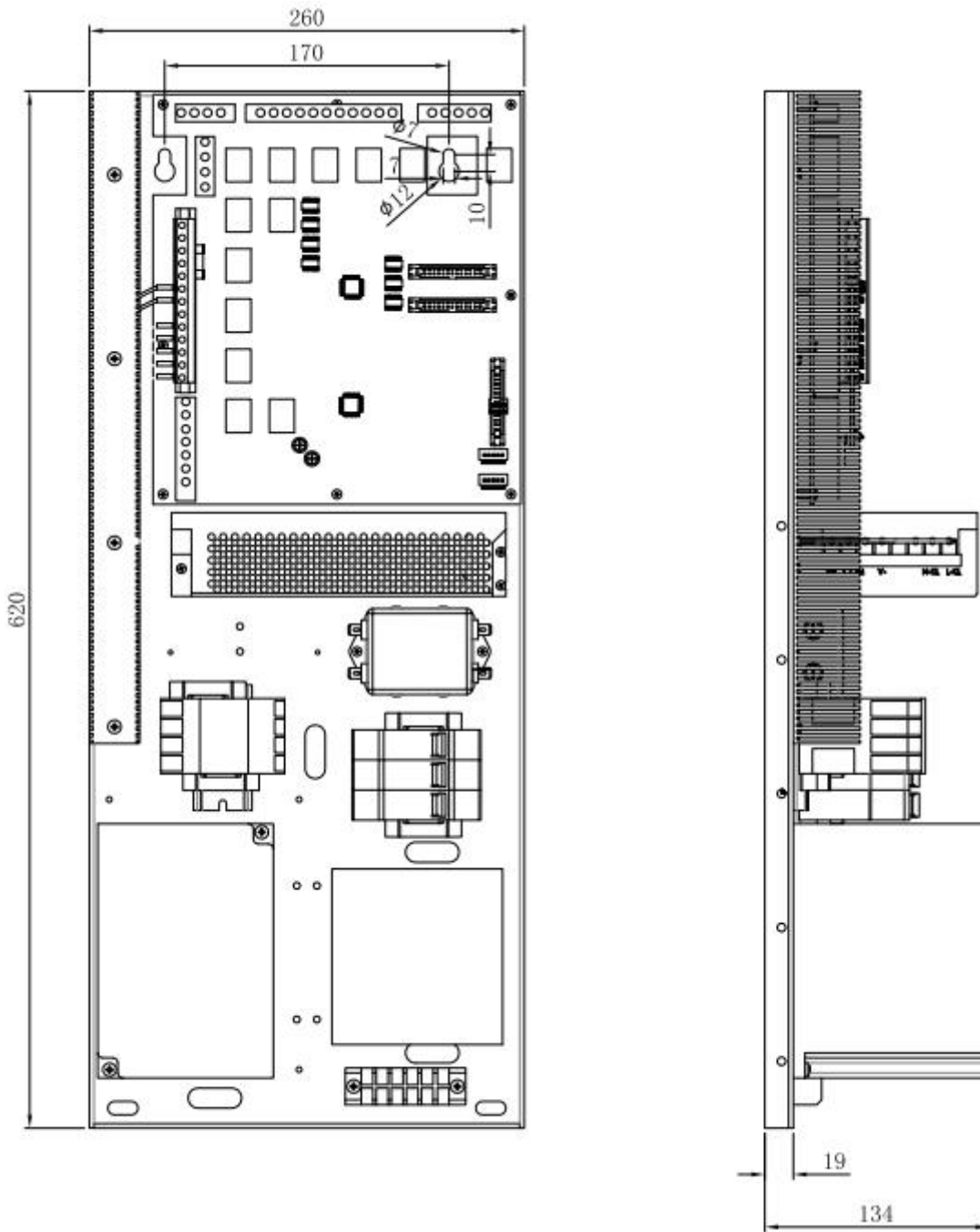
27-3 8300 System Panel A-type Board Schematic Diagram



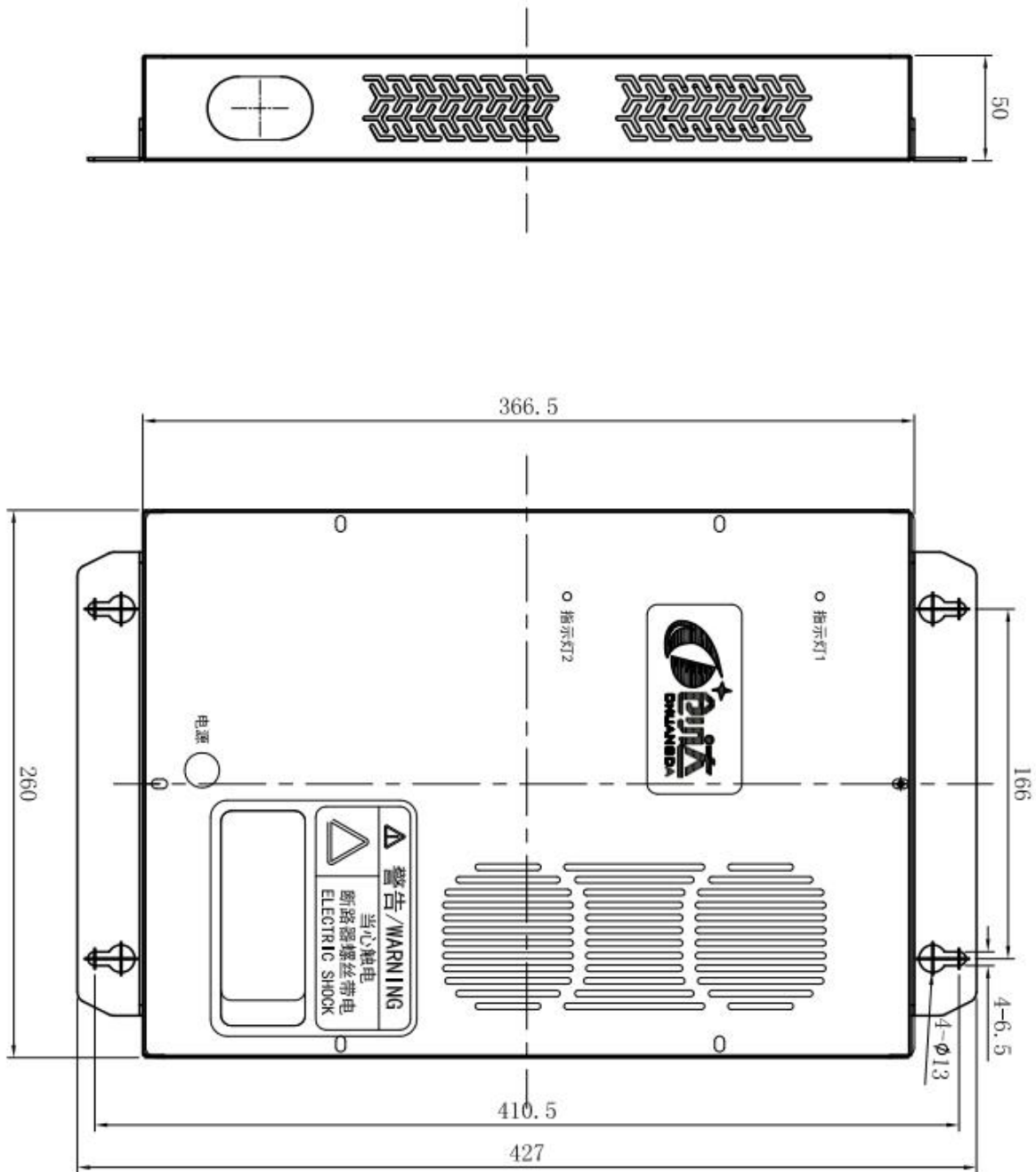
27-4 8300 System Panel B-type Board Schematic Diagram



27-5 Main Machine System C-type Board Schematic Diagram



27-6 9301 System Power Box Schematic Diagram



28 WARRANTY AND AFTER-SALES SERVICE

The system equipment of the company has been inspected for external appearance, performance, and aging resistance, therefore, you can use it at ease.

28-1 Warranty

Refer to the warranty rules of the company for details

28-2 After-Sales Service

Guangdong Chuangda Automatic Equipment Co., Ltd. provides the most perfect service, for more information about the latest developments of the products of the company, please visit the following website:
<http://www.fscd.cn> <http://www.gdcd.cn>

After-sales service outlets

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