

KAUOHENG

KH-323 SERIES – V2

OPERATION MANUAL



電腦橫編織機

KH

COMPUTERIZED FLAT KNITTING MACHINE



CE

DEAR CUSTOMER :

Welcome to be an owner of KH-323 series-V2 computerized flat knitting machine as Kao Heng endeavors to maintain a high standard of this machine, we also pleased for your cooperation to make the machine serve longer by reading this operator manual carefully before commencing your production.

Yours sincerely,

Kao Heng Precision Machinery Industrial Co., LTD.

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Website : www.kauoheng.com.tw

Model : KH-323 SERIES-V2

Gauge : G

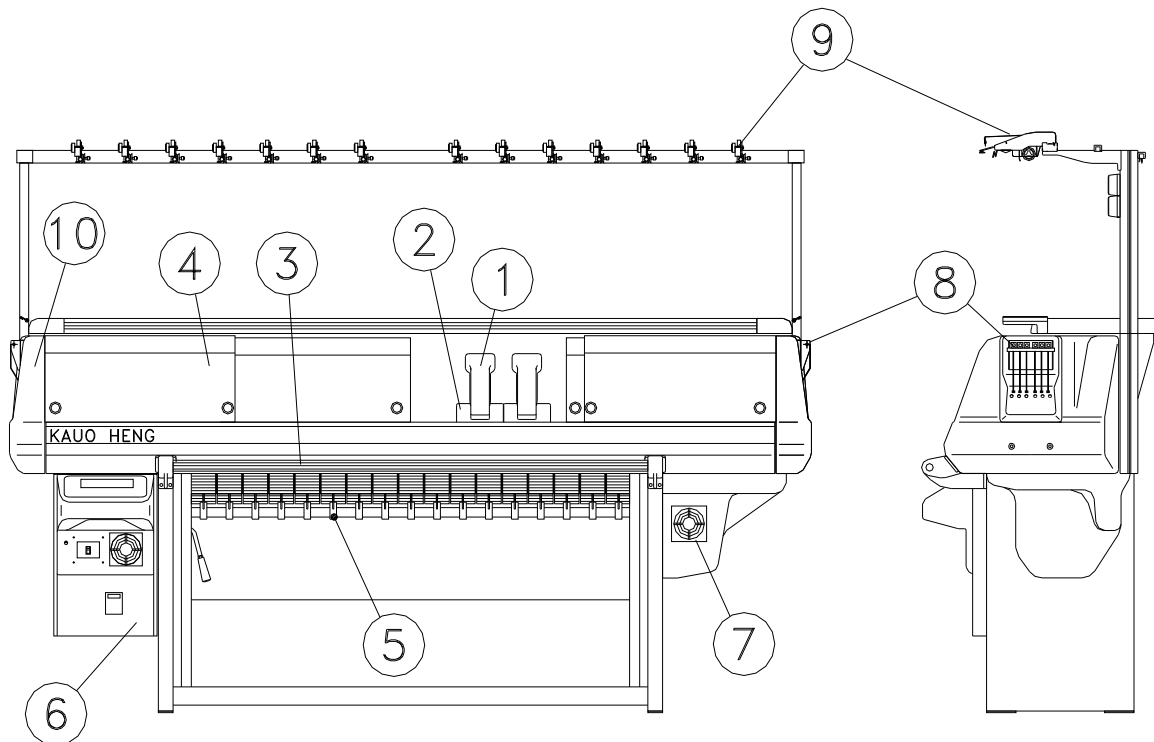
Knitting Width : Inch

Serial No. :

Date :

Power : \emptyset V

OVERVIEW OF KH-323 SERIES-V2



1. Yarn carrier selection
2. Carriage
3. Operation bar
4. Main cover
5. Fabric take-down roller
6. Controller
7. Main motor
8. Side tension
9. Top tension
10. Side cover

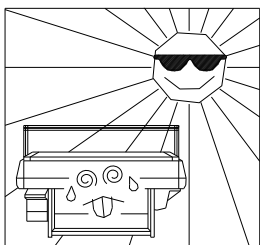
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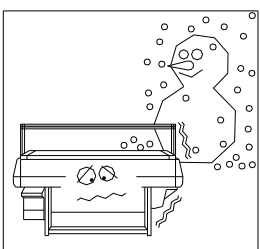
1. Points to observe

① Installation Environmental Conditions

Please install the machine as below instructions in order to use this machine in the best condition for a long period of time.

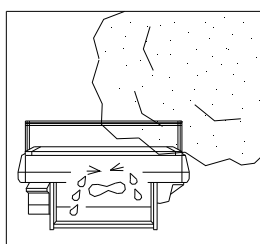


Do not install the machine at a place subject to direct sunshine and/or adjacent to a heat generation source such as a furnace/oven.

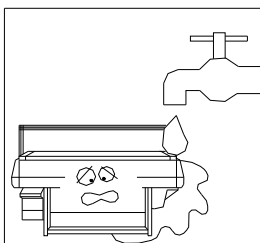


Do not install the machine at a place subject to rapid temperature changes.

The temperature should be 0°C ~ 35°C inside the controller.

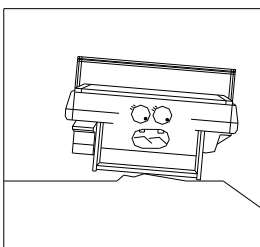


Do not install the machine at a place where there is a lot of dust and dirt, or a location affected by chemical gases, sea breeze etc.

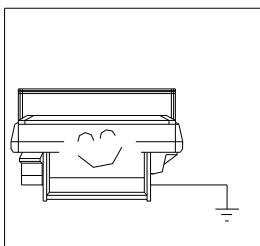


Do not install the machine at a place subject to excessive moisture.

The humidity should be 30 % ~ 80 %



Do not install the machine on a slope or unstable place.



Please connect the electric power and make sure the ground wire is connected correctly.

- ② Fig.1.1 illustrates the correct position of jacking while moving the machine. It is very important when moving the machine. The yarn carrier rail shall never be used to push the machine since it will distort the rail.

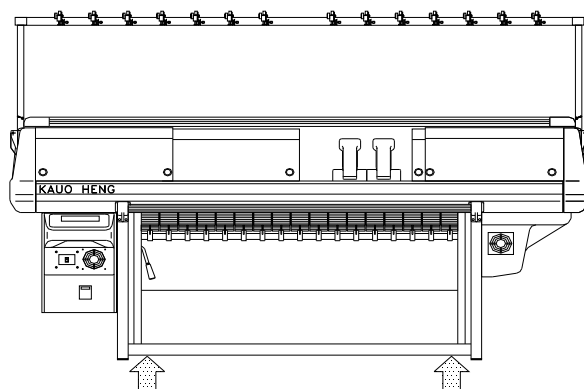


Fig.1.1 Correct position of jacking the machine

- ③ When connecting the electric power, attention must be paid to the correct voltage. And make sure the ground-wire connected.





2. Installation


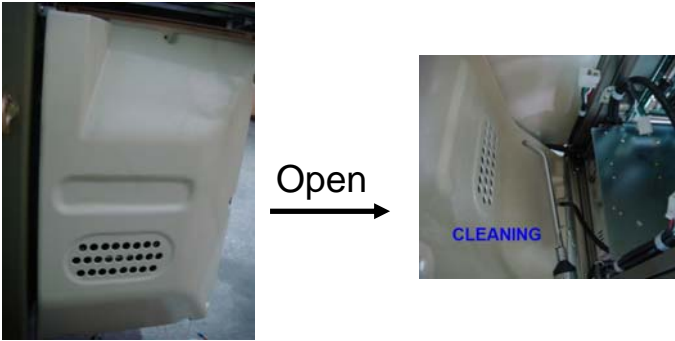
- ① After unpacking and locating the machine in the factory, it must be leveled carefully with a spirit-level to avoid machine distortion in running. We recommend the machine to be leveled with rubber padding for best result. Remove grease from the polished parts before starting to operate the machine. About the moving parts must be lubricated and cleaning according to the following instruction.

Maintenance of machine :

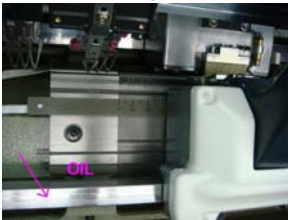

✧ Cleaning


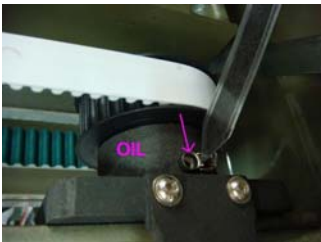

Where to clean	Interval
<p>Top tension equipment</p> 	<p>Every 8-12 hours</p>
<p>Side tension equipment</p> 	<p>Every 8-12 hours</p>
<p>Needle beds (front & back)</p> 	<p>Every 8-12 hours</p>
<p>Yarn feeders</p> 	<p>Every 8-12 hours</p>

Where to clean	Interval
<p>Cams inside carriage</p> 	<p>Every 3 months</p>
<p>Filter in front cover of main motor</p> 	<p>Every 8-12 hours</p>
<p>Filter in front cover of controller</p> 	<p>Every 8-12 hours</p>
<p>Internal controller</p> 	<p>Once a month</p>

Where to clean	Interval
<p>Open the cover of main motor to clean</p> 	<p>Once a year</p>
<p>Open back side of controller to clean</p> 	<p>Once a year</p>

※ Oil Lubrication

Where to oil	Oil type	Interval
<p>Carriage rail</p> 	<p>SAE 10W-10 oil</p>	<p>Every 8-12 hours</p>
<p>Carrier rail & Stopper</p> 	<p>SAE 10W-10 oil</p>	<p>Every 8-12 hours</p>

Where to oil	Oil type	Interval
<p data-bbox="245 365 694 405">Needle beds (front & back)</p> 	<p data-bbox="839 483 1029 577">Kauo Heng oil 1</p>	<p data-bbox="1118 512 1406 553">Every 8-12 hours</p>
<p data-bbox="295 719 647 759">Driven pulley bracket</p> 	<p data-bbox="826 835 1043 929">SAE 10W-10 oil</p>	<p data-bbox="1131 864 1394 904">Every 3 months</p>
<p data-bbox="309 1070 630 1111">Chain (Take-down)</p> 	<p data-bbox="842 1218 1027 1312">High-Temp Grease</p>	<p data-bbox="1158 1247 1366 1288">Once a year</p>

② Raise the yarn stand till the end of the tubes is leveled with the base plate, tighten the screws and connect the plug of stop motion situated at the left rear end.

3. Operation

3.1 Power switch

As Fig.3.1 front side of controller, easily find two switches. Flip upward is “ON” and downward is “OFF”.

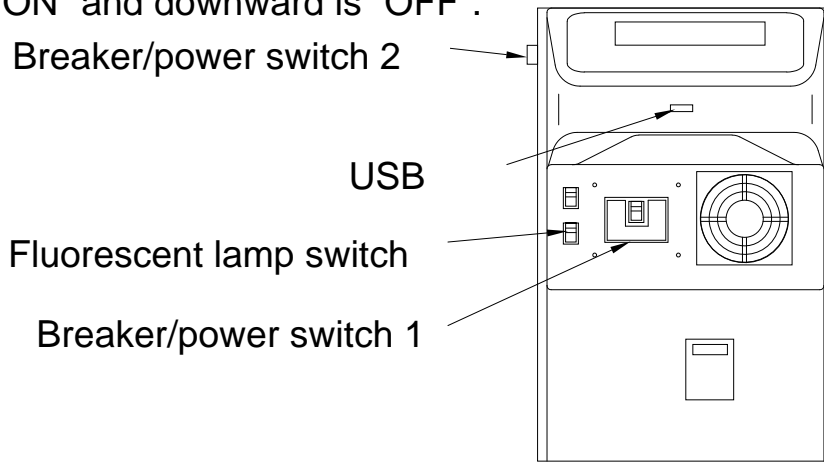


Fig.3.1 Front side of controller

3.2 Operation bar

3.2.1 Inching : When turning forward of the operation bar, machine operates slowly and stops when you loosen.

3.2.2 Starting : When turning backward of the operation bar, machine starts. Machine starts from slow speed and runs in preset speed when reaching the first terminal sign.

3.2.3 Stop : When the machine is running, you can turn operation bar in any direction to stop machine.

3.2.4 Machine executes protection mode automatically when machine stops over 3 seconds. You must turn twice backward of the operation bar to start.

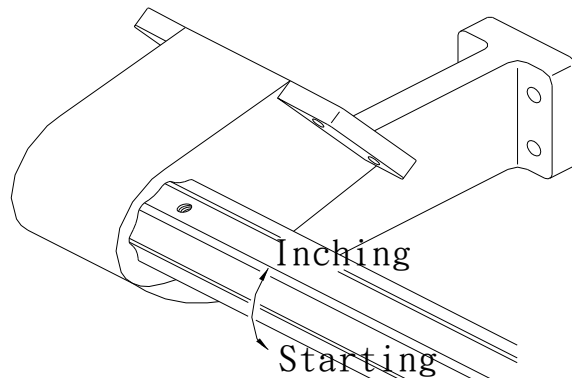


Fig.3.2 Starting operation bar

3.3 Yarn feeder

The position of carrier is adjusted according to the desired knitting width, correctly make yarn feeder beside the end working needle by 10 mm. The yarn feeder must be in the central position between front and rear needles, also check its height refer to Fig.3.3. When work several yarn feeder in knitting, the position of carrier should be adjusted to make each yarn feeder not be overlapped, it avoids damage of the parts. The yarn carrier on rail must be adjusted in easy moving, adjustment refers to Fig.3.4.

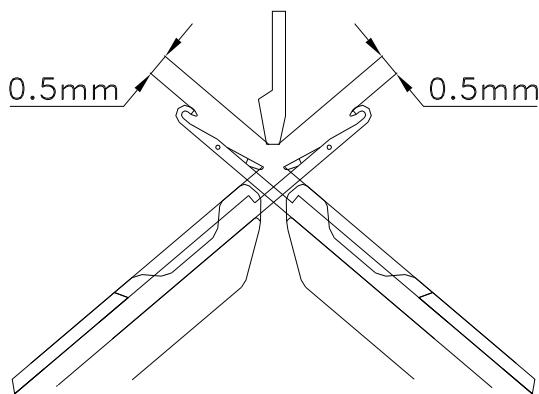


Fig.3.3 Position of yarn carrier

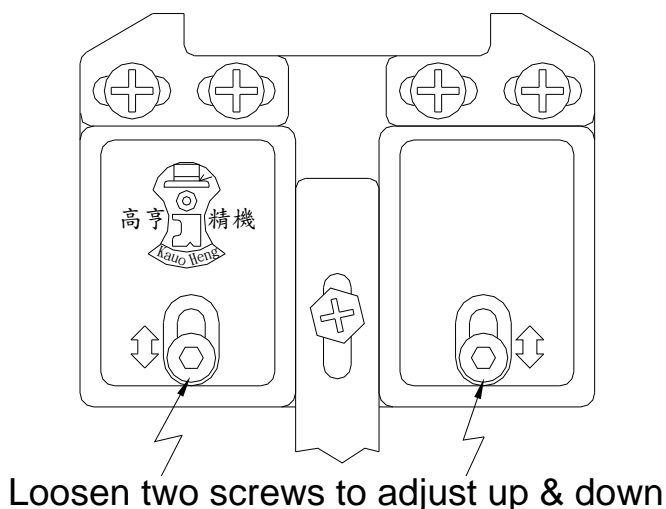


Fig.3.4 Adjustment of carrier

3.4 Top tension

Top tension springs should have the correct tension, the opening of the knot-catcher must be set according to the yarn count that is being knitted.

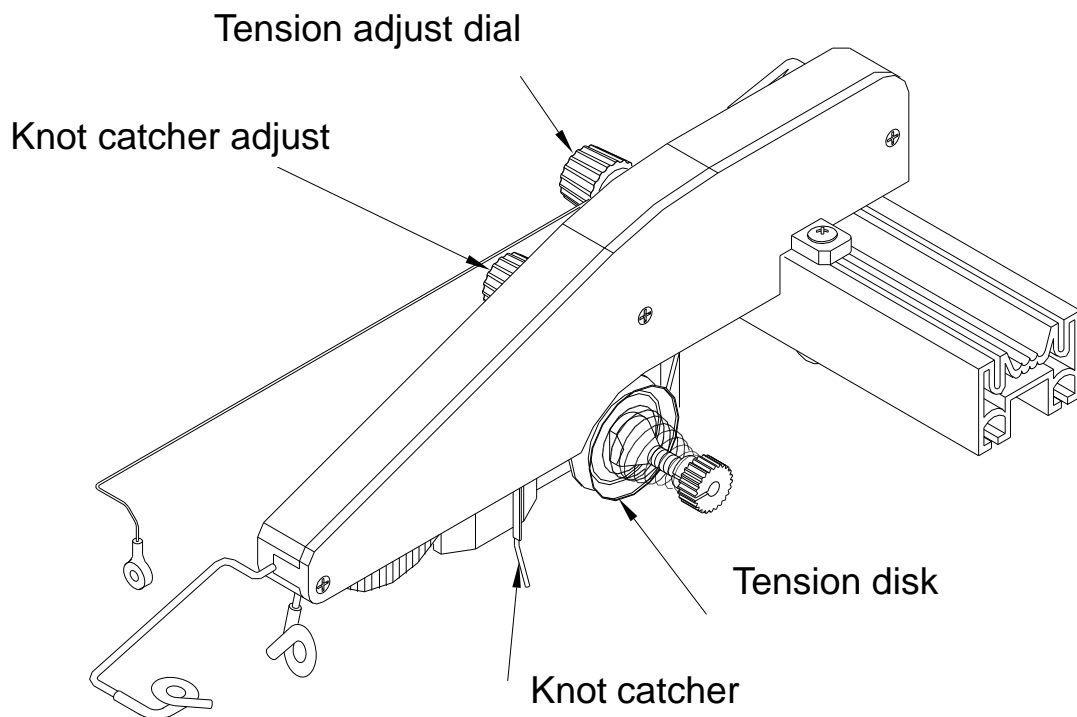


Fig.3.5 Top tension

3.5 The latch brush

Latch brush is important to prohibit the needle latch to close in knitting, the correct brush setting is illustrated in Fig.3.6.

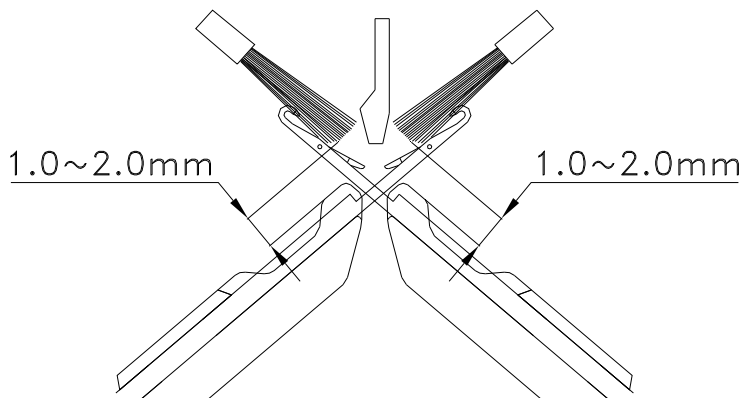


Fig.3.6 Correct position of brush

4. Clear filter

Filters are equipped in the controller and in the parts of main motor, it prohibits dust to come inside. Please take out the filter and dust it often refer to Fig.4.1.

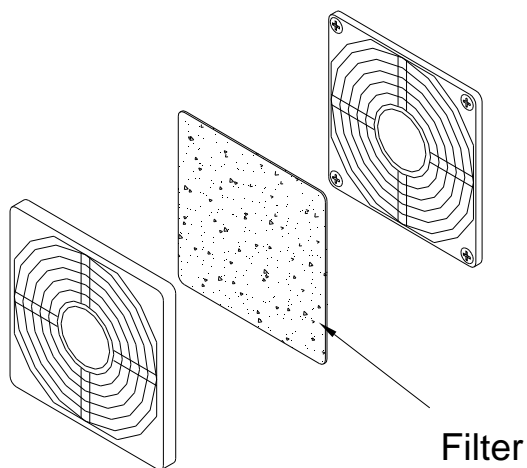


Fig.4.1 Cleaning filter

5. Needle bed

5.1 KH-323D-V2 needle bed

KH-323D-V2 the structure of front and rear needle bed is the same with regular needle high butt and low butt.

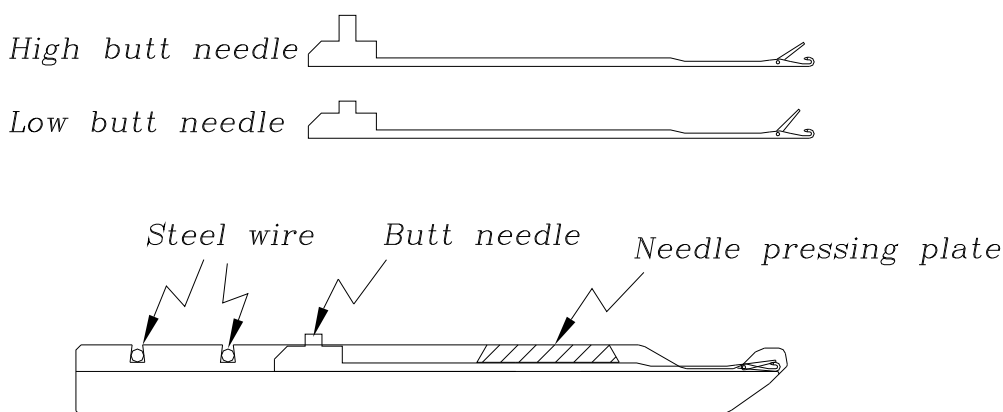


Fig.5.1 The structure of front & rear needle bed

For the knitting needles in unused you don't need to dismantle them. All you have to do is to push them in the unactive position. In Fig.5.2 take out the steel wire firstly, and push to the shown area and replace the steel wire.

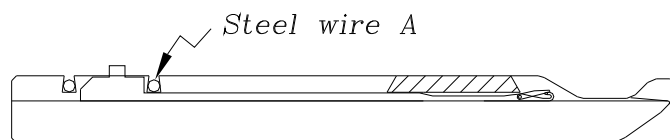


Fig.5.2 Unworked position

5.2 KH-323DJ&DTJ&N-V2 needle bed

The structure of the front and rear needle bed is the same.

KH-323DJ&N-V2 is with regular needles high butt and low butt.

KH-323DTJ-V2 is with transfer needles high butt and low butt. They all have one more step of jacks on front and rear needle beds to do more function.

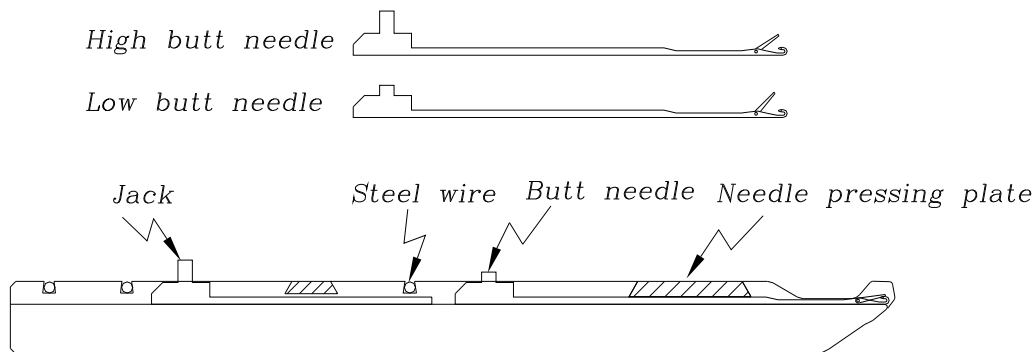


Fig.5.3 The structure of front & rear needle bed

The unused butt needles and jacks you jacks you just push them down to the unworked position. Of course you must pull out and back the steel wire A & B for procedure.

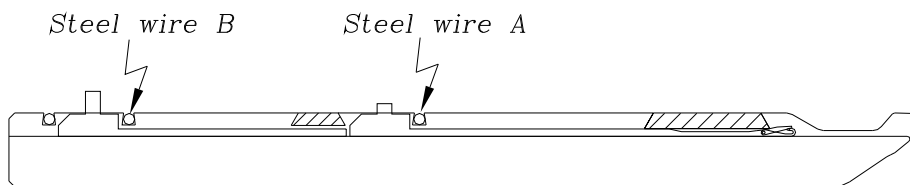


Fig.5.4 Unworked position

6. Cam plate distance

The distance between cam plate and needle bed is maximum 0.1 mm, Fig.6.1 shows how to check and adjust. Please check it by every 3 months, loosen the stepped screw and turn the bearing pin to adjust the distance, make sure to tighten the stepped screw after adjustment.

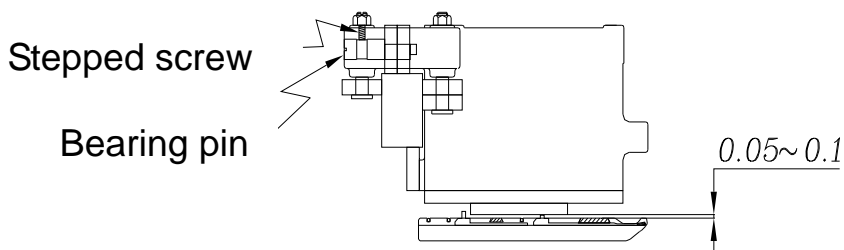


Fig.6.1 Adjust cam plate distance

7. Remove carriage

When it becomes necessary to remove the carriage, it can be removed from the left hand side or the right hand side. The procedures are as following :

- ① Turn off the power firstly.
- ② Remove the side cover.
- ③ Disconnect the two plugs on back of carriage.
- ④ Remove the fitting screw and cap bolt on connecting plates as shown in Fig.7.1. Then pay attention to remove the carriage.
- ⑤ After replacing the carriage, it must be confirmed that the plugs, fitting screws and cap bolts are all completely connected, then start machine.

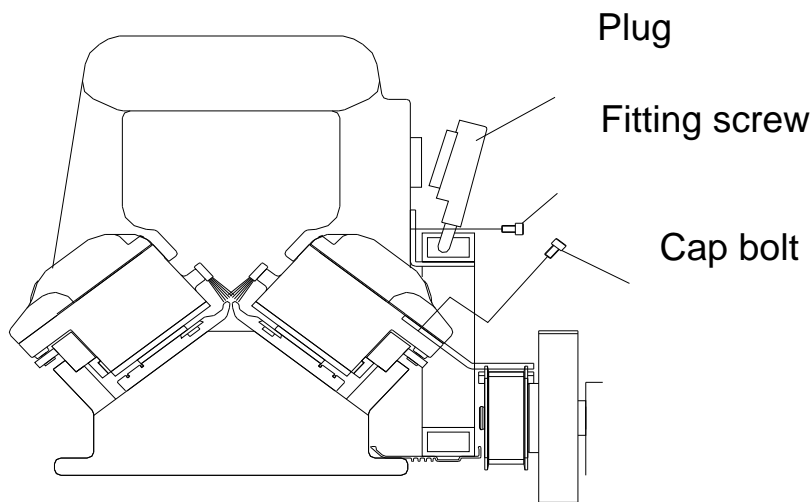


Fig.7.1 Remove the carriage

8. Fabric take-down system

In principle of the take-down tension strength must be small and average.

The take-down system is controlled by torque motor. There are two important things to adjust the take-down tension strength.

Each roller can be adjusted individually. The pressure of roller gets larger and the speed of fabric take-down gets faster.

- ⊙ To detect fabric falling or wraparound, there is equipped with a press-off detector in the front of roller and a fabric roll-up detector in the back of roller. The machine will stop automatically when the fabric happens fall or wraparound.

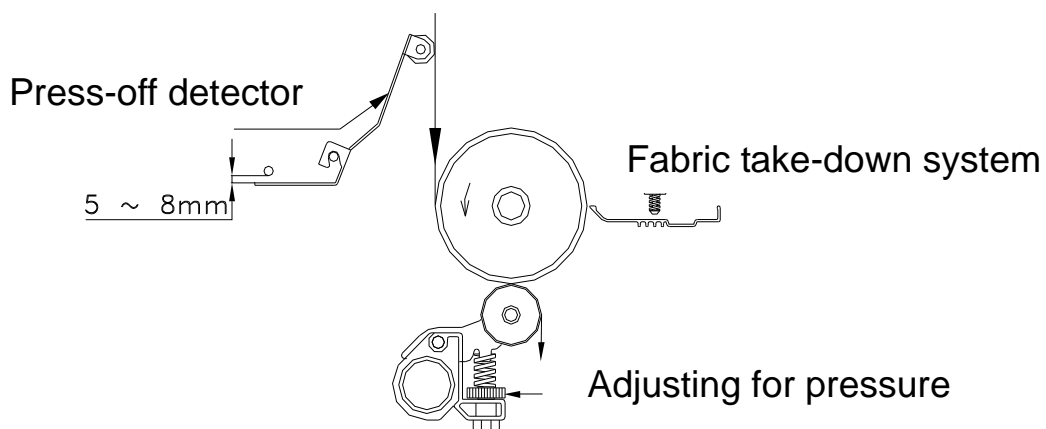


Fig.8.2 Fabric take-down system

9. Racking mechanism

- ① The rear bed can be racked five (5) pitches, the initial position "0". See the left selvedge of needle bed, the corresponding position that the first needle of rear is on the left hand side of the first needle of front. As shown in Fig.9.1.
- ② In editing instruction you can choose the left racking or the right racking by one pitch.
- ③ In each racking position the rear bed and the front bed must be kept in correct corresponding relation. You check it with pushing one front needle to tuck position, the hook of front needle and the knock-bit of rear bed should be at the same position.

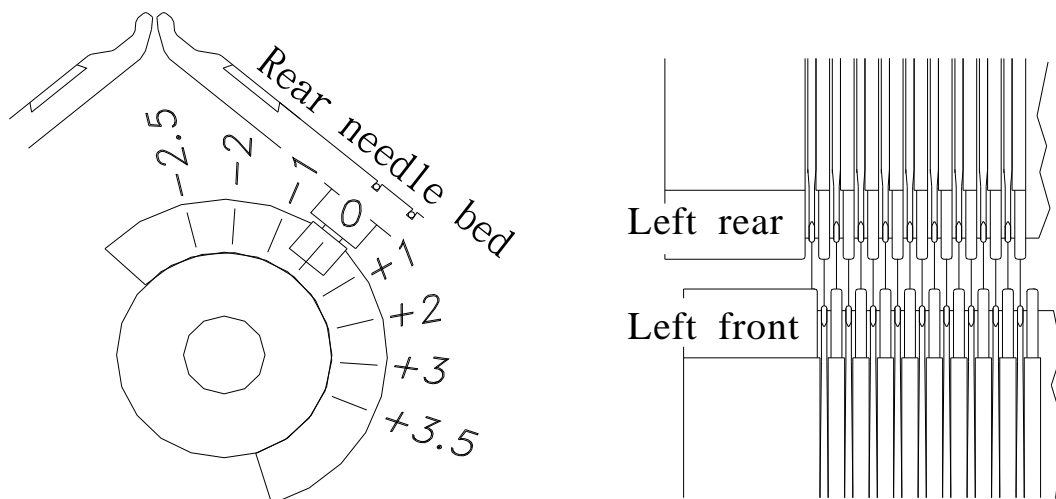


Fig.9.1 Initial position of needle bed

- ④ If there has racking instruction in programming, you must enter the test mode to rack the needle bed in the set position before you execute run, and make sure the racking mechanism is matched your programming.
 - ⊙ Needle position of transfer must be at the left -2 and at the right +3 of needle bed.

- ⑤ If the corresponding position of needle bed is not proper, loosen the stepped screws and adjust the rear bed to correct position, then tighten the stepped screws after adjustment. Refer to Fig.9.2.

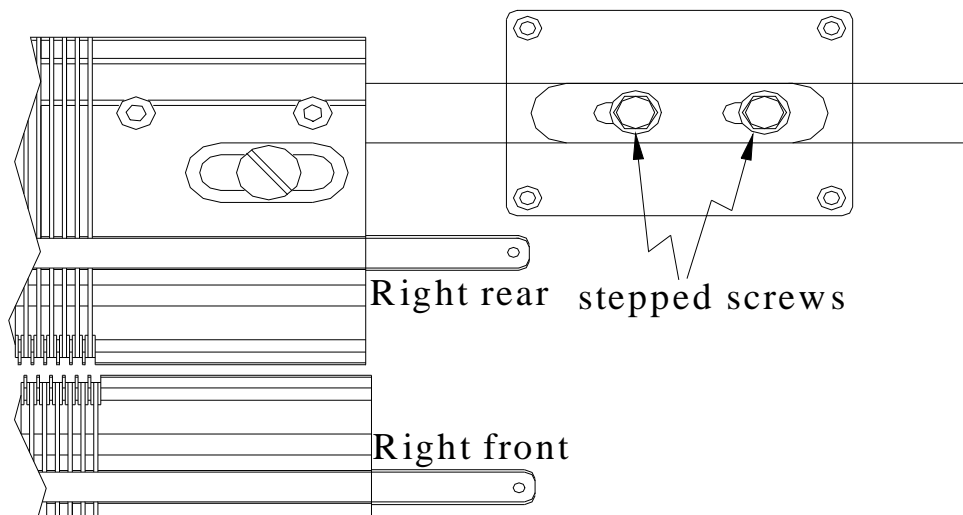


Fig.9.2 Adjusting the position of needle bed

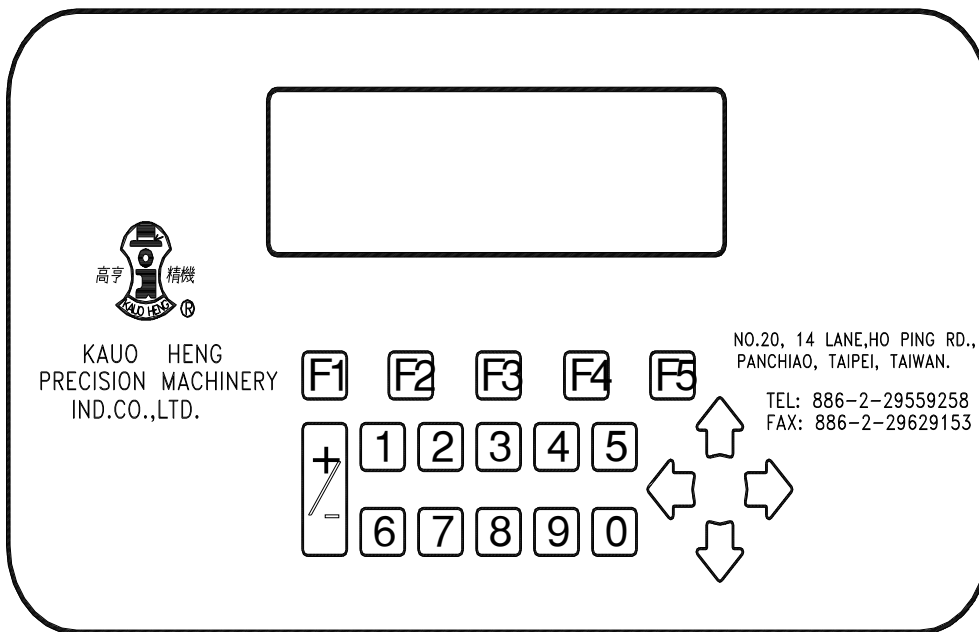
10. Carriage combination and separation

KH-323 SERIES-V2 is equipped with two carriages, you can choose in use of combination or separation by yourself for different knitting production.

Please operate combination or separation as follows :

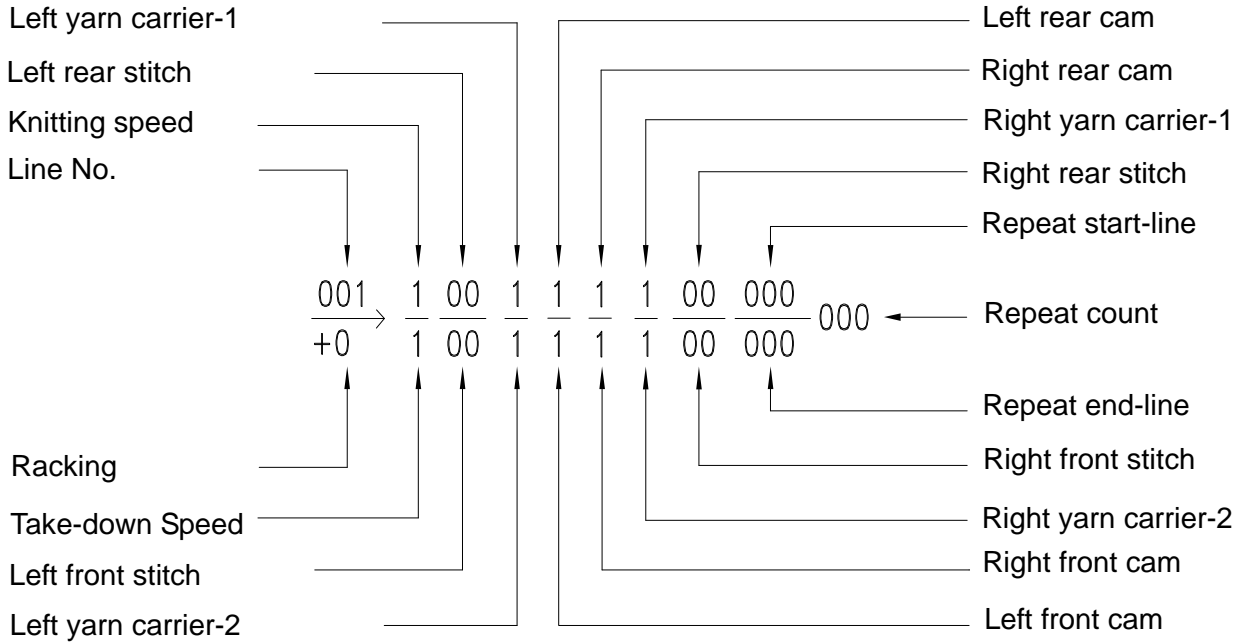
- ① Turn off power.
- ② Loosen the four screws unconnected plate of driving belt, push the connecting-block to the direction of carriage to pass, then take off the connecting-block.
- ③ In separate situation , the interval of two knitting piece must be minimum 8 inch. (Each 4 inch inactive area to left and right from the central needle.)
- ④ Move carriage to the marked position on belt, and replace the belt fixed connecting-block.

INSTRUCTION MANUAL



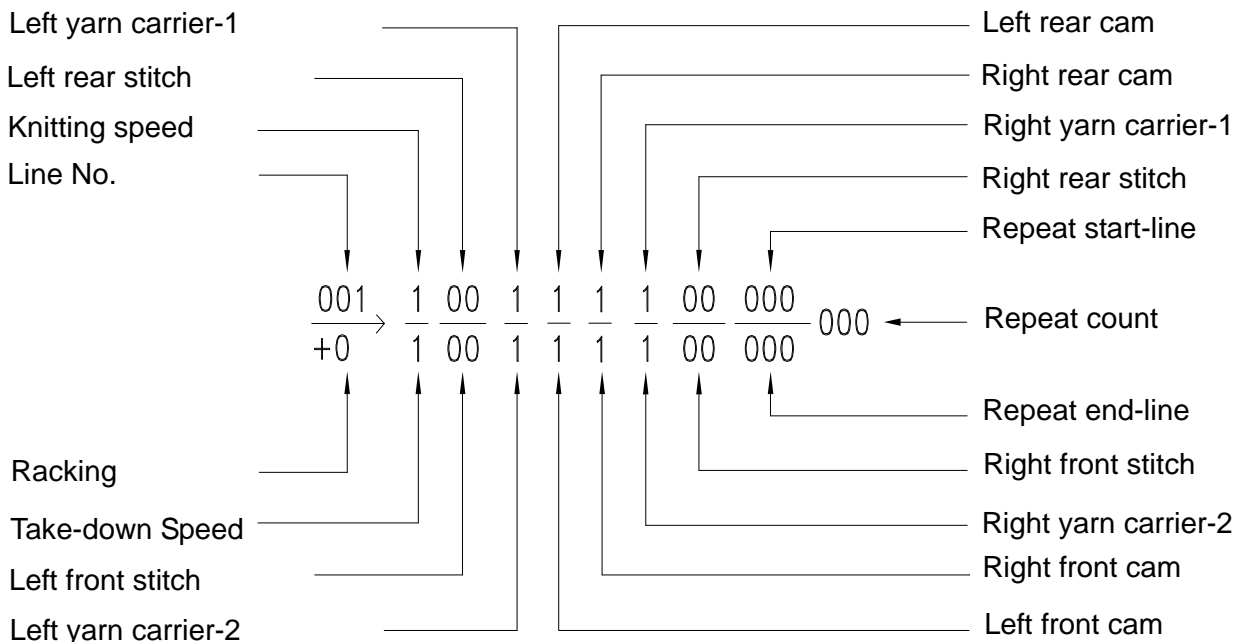
0.START	_____	26
1.EDIT	_____	26
2.RUN	_____	31
3.FILE	_____	40
4.FUNCTION	_____	43
5.TEST	_____	45

KH-323D-V2 INSTRUCTION EXPLANATION



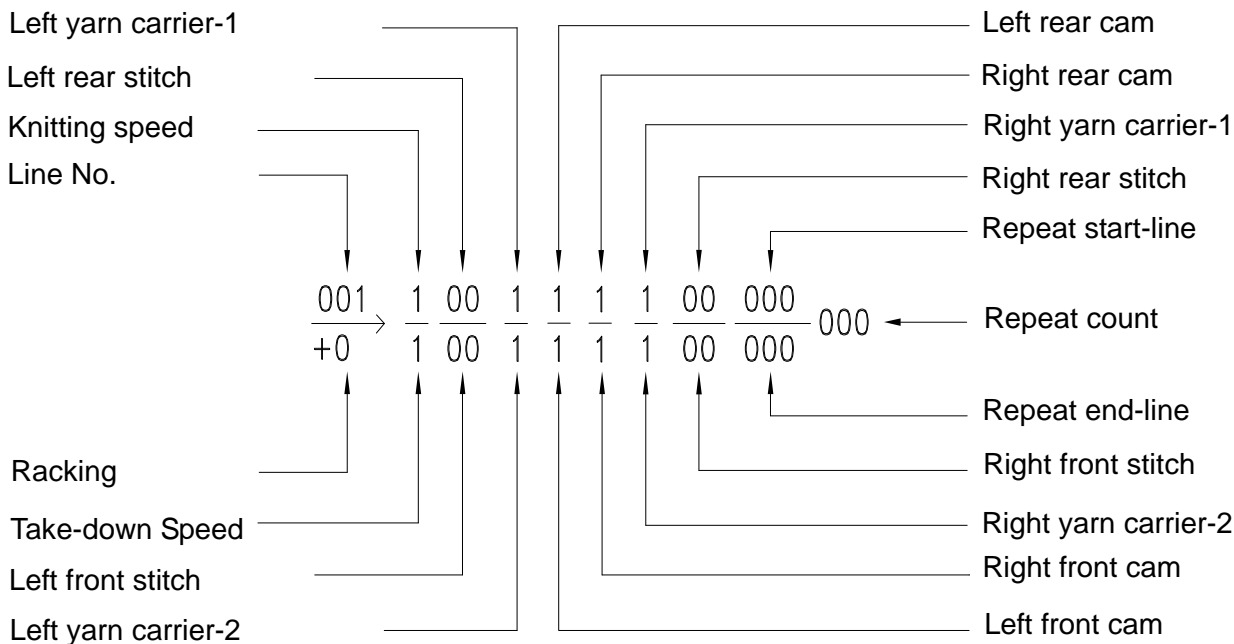
Yarn carrier	0. None yarn carrier Yarn carrier-1 : 1~6 ; Yarn carrier-2 : 1~6	
Cam	0. Miss 1. Knit 2. Tuck 3. High butt knit	4. High butt knit Low butt tuck 5. High butt tuck
Knitting speed	0. Same as previous line 1 (Slow) ~9 (Fast)	Line No.1 is not allowed "0"
Take-down speed	0. Same as previous line 1~8 9. Short needle width	Line No.1 is not allowed "0" Setting from 0~99
Racking	+1 Rack right 1 pitch -1 Rack left 1 pitch In racking, the maximum of knitting speed is No.6	Face to the front of machine, you see the direction of movement of the rear bed.
Stitch	Setting from 0~99 (14G)	00 is zero (Tightest) Larger numeric gets longer loop.

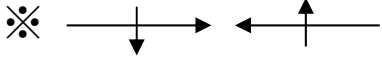
KH-323DJ-V2 INSTRUCTION EXPLANATION



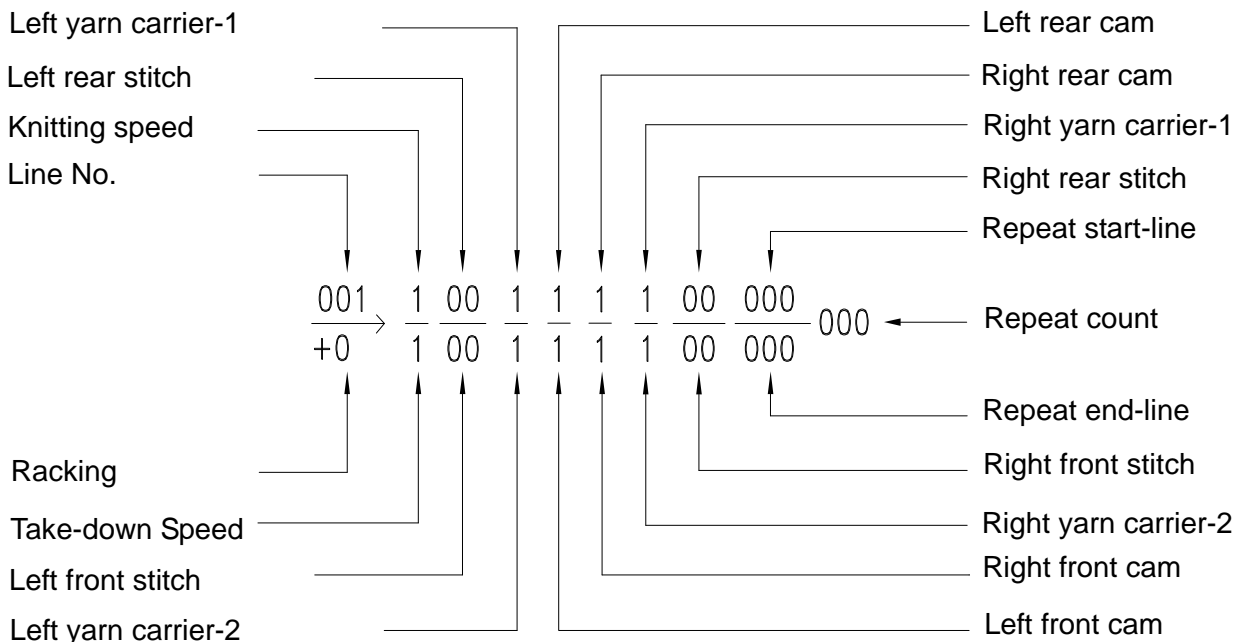
Yarn carrier	0. None yarn carrier Yarn carrier-1 : 1~6 ; Yarn carrier-2 : 1~6	
Cam	0. Miss 1. Knit 2. Tuck 3. High butt knit	4. High butt knit Low butt tuck 5. High butt tuck 6. Jack knit 7. Jack tuck
Knitting speed	0. Same as previous line 1 (Slow) ~9 (Fast)	Line No.1 is not allowed "0"
Take-down speed	0. Same as previous line 1~8 9. Short needle width	Line No.1 is not allowed "0" Setting from 0~99
Racking	+1 Rack right 1 pitch -1 Rack left 1 pitch In racking, the maximum of knitting speed is No.6	Face to the front of machine, you see the direction of movement of the rear bed.
Stitch	Setting from 0~99 (14G)	00 is zero (Tightest) Larger numeric gets longer loop.

KH-323DTJ-V2 INSTRUCTION EXPLANATION



Yarn carrier	0. None yarn carrier Yarn carrier-1 : 1~6 ; Yarn carrier-2 : 1~6	
Cam	0. Miss 1. Knit 2. Tuck 3. High butt knit 4. High butt knit Low butt tuck	5. High butt tuck 6. Jack knit 7. Jack tuck 8. Transfer ※ 
Knitting speed	0. Same as previous line 1 (Slow) ~9 (Fast)	Line No.1 is not allowed "0"
Take-down speed	0. Same as previous line 1~8 9. Short needle width	Line No.1 is not allowed "0" Setting from 0~99
Racking	+ 1 Rack right 1 pitch - 1 Rack left 1 pitch In racking, the maximum of knitting speed is No.6	Face to the front of machine, you see the direction of movement of the rear bed.
Stitch	Setting from 0~99 (14G)	00 is zero (Tightest) Larger numeric gets longer loop.

KH-323N-V2 INSTRUCTION EXPLANATION



Yarn carrier	0. None yarn carrier Yarn carrier-1 : 1~6 ; Yarn carrier-2 : 1~6	
Cam	0. Miss 1. Knit 2. Tuck 3. High butt knit 4. High butt knit Low butt tuck	5. High butt tuck 6. Jack knit 7. Jack tuck 8. Knit + Lycra tuck 9. Lycra tuck
Knitting speed	0. Same as previous line 1 (Slow) ~9 (Fast)	Line No.1 is not allowed "0"
Take-down speed	0. Same as previous line 1~8 9. Short needle width	Line No.1 is not allowed "0" Setting from 0~99
Racking	+ 1 Rack right 1 pitch - 1 Rack left 1 pitch In racking, the maximum of knitting speed is No.6	Face to the front of machine, you see the direction of movement of the rear bed.
Stitch	Setting from 0~99 (14G)	00 is zero (Tightest) Larger numeric gets longer loop.

0. START




WELCOME TO KAUOHENG SYSTEM

Fig.0-1

When turning on the machine, it will appear this screen and display main menu after you press any key.

When you switch on the machine, then it displays **【MEMORY ERROR】** or **【FILE ERROR】** , you must switch off the machine and contact our agent or our service department.

There are five selections in main menu as Fig.0-2 illustrates and numeric corresponds to selection. Please directly press numeric key on keyboard then enter it.



1.EDIT 2.RUN
3.FILE 4.FUNC
5.TEST

Fig.0-2

1. EDIT

Press in main menu, then display edit menu. There are five selections in edit menu as Fig.1-1 illustrates.

1. Open file 2. New file 3. Yarn carrier 4. Stitch 5. Take down speed



1.OPEN 2.NEW
3.YARN FEED 4.STITCH
5.TAKE DOWN

Fig.1-1

1.1 OPEN : Open file

Press **F1** in edit menu, and then the screen displays as Fig.1-2.

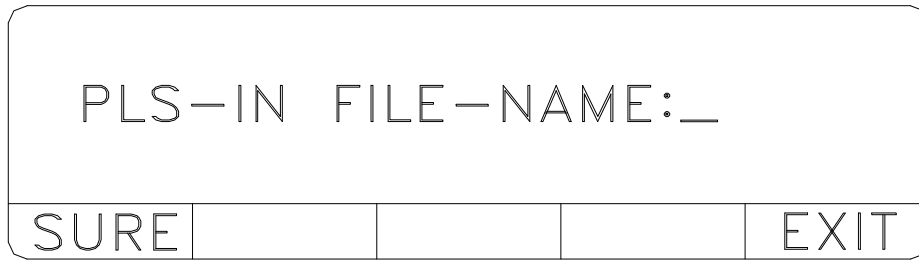


Fig.1-2

Remark : In screen there are five small squares, each one corresponds to **F1** ~ **F5** on keyboard, blank means out of function. For example, in Fig.1-2, **F1** is SURE, **F2** ~ **F4** are blank in no function, **F5** is EXIT. In other screen menu the operation will be the same.

In Fig.1-2, input the file name with numeric, and press **F1** : SURE ; then enter program to edit. When opening the file, input file name which is not existent. And the screen will appear Fig.1-3 warning screen, and then press **F1** to enter file or press **F5** to exit.



Fig.1-3

Edit screen appears two lines of instructions, cursor stops on the racking position, directly use numeric key and left, RIGHT key to edit instruction, or press UP, DOWN key change to other line. **+/-** key is for change of rack to left or right. Edit instruction, and please refer the instruction explanation.

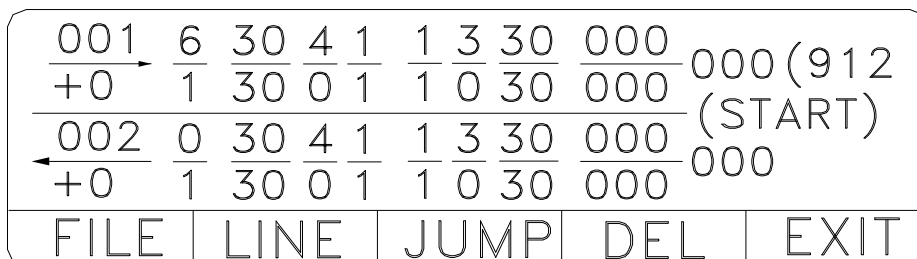
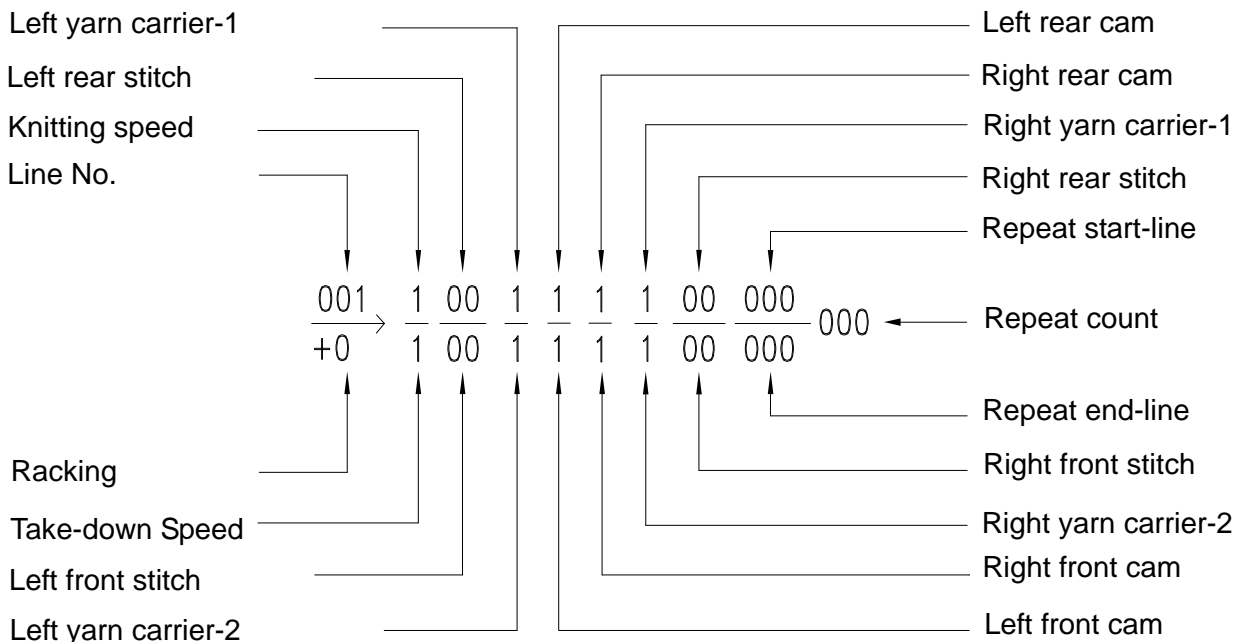


Fig.1-4 Edit screen

INSTRUCTION EXPLANATION



F1 FILE : Insert a file.

FILE NAME: _____ (FILE)				
COURSE: _____				
SURE				EXIT

Fig.1-5 Insert file

F2 LINE : After current editing line inset a “ blank line ”, and the following lines are backward.

F3 JUMP : This function is allowed jump to any line. If the input line No. is over total line, it will jump to the last line.

TO: _____ (JUMP)				
SURE				EXIT

Fig.1-6 Jump

F4 DEL : Delete indicated lines.

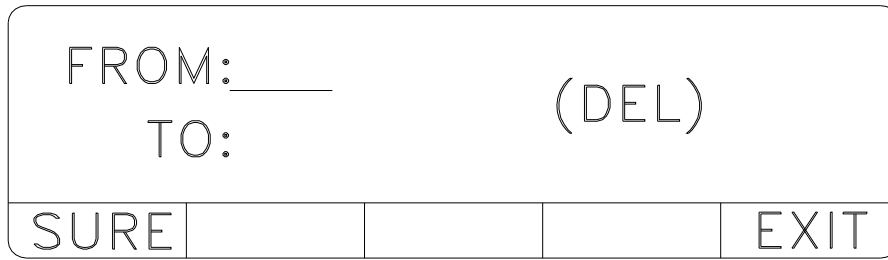


Fig.1-7

F5 EXIT : Press EXIT then the system will ask you to save this file, if it is not a new file, directly press **F1** SURE to use the same file name to save. The screen displays as Fig.1-9 ; then press **F1** .

If you don't want to save, press **F5** twice to exit.



Fig.1-8

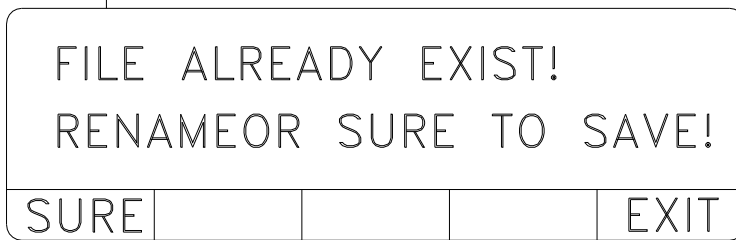


Fig.1-9

Save file



Not save

Fig.1-10

1.2 NEW : Open file

After you edit the first line, press **F2** to insert blank line and go on editing.

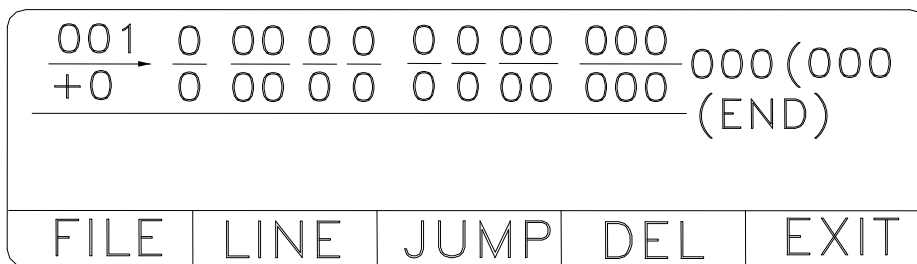


Fig.1-11

1.3 YARN FEED : Quickly edit the working yarn carriers of any file.

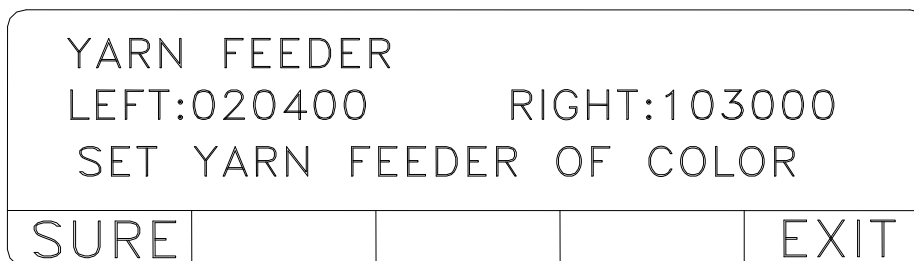


Fig.1-12

1.4 STITCH : Quickly edit the working stitch value of any file.

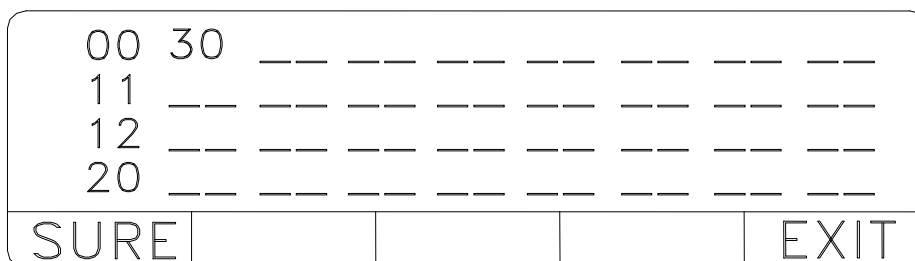


Fig.1-13

1.5 TAKE DOWN : Quickly edit the working take down value of any file.

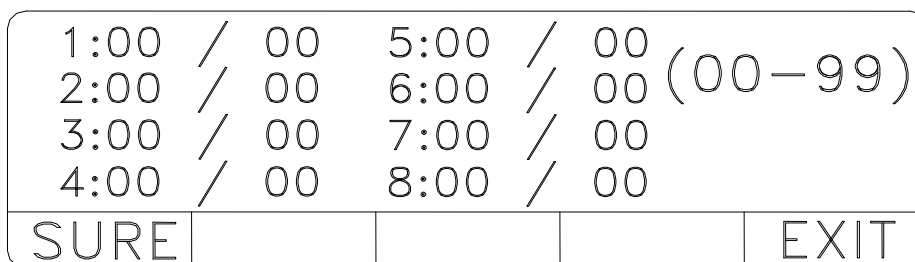


Fig.1-14

2. RUN



Fig.2-0

Press 2

⊙ Enter RUN mode, if any of cam or stitch is error, it displays as Fig.2-1.

You should go to the TEST mode, correct it then come back to RUN mode.

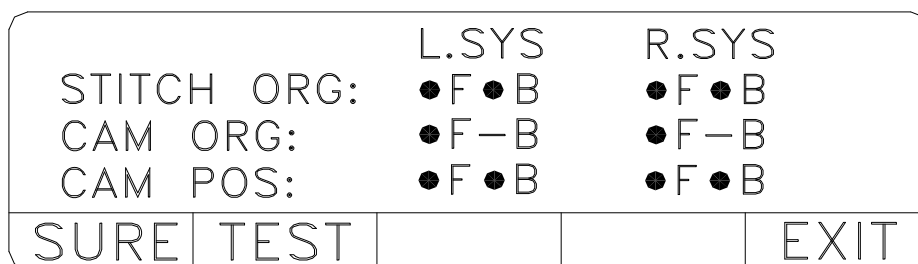


Fig.2-1

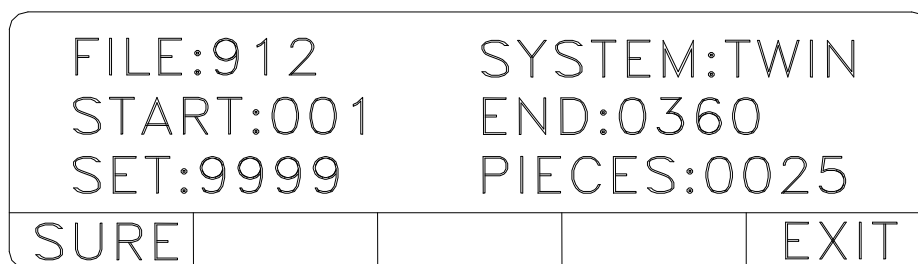


Fig.2-2

Enter Fig.2-2, display will show the file name, system (carriages)

TWIN for separation or COMB for combination, START (start needle), END (end needle), SET (total pieces), PIECES (finished pieces), after setting press F1 to enter Fig.2-3.

ERROR MESSAGE

After you finish inputting the instruction for the program that occurs incorrect action or wrong instruction to the function of machine, it will automatically appear ERROR message on RUN mode.

Error message table

Message	Explanation
Line not even	To edit a program, the total lines of program must be an even number. Otherwise the carriage does not return to the left side to proceed the next knitting piece.
Carrying feeder	It is an error that the carriage carries a yarn feeder when you set carriage in an empty action without yarn feeder.
None feeder (L)	When you set the action of knit, the carriage has to carry a yarn feeder.
None feeder (R)	
Rack error	Before ending the program, the needle bed must be racked back to the home position. In case the program racks one level to the right, it needs rack one level to the left back to the home position before ending.
Feeder 1 error	Before ending the program, the yarn feeder must return to home position, Otherwise it is impossible to proceed the next knitting piece.
Feeder 2 error	
Feeder 3 error	
Feeder 4 error	
Feeder 5 error	
Feeder 6 error	
Repeat error	Repeat must be set in even lines of amount, for example the start line is an odd and the end line must be an even, or from an even to an odd. (From odd line to odd line or from even line to even line are unacceptable.)
Rack over speed	In racking, the maximum of knitting speed is No.4.
Start-ndl error	The number of start-needle must be smaller than the number of end-needle.
End-ndl error	The number of end-needle must be larger than the number of start-needle, or smaller than the number of total-needle.

Tab.2-1 Error message table

Error message table

Message	Explanation
SPEED OVER WITH RACKING	In racking, the maximum of knitting speed is No.6
START NEEDLE ERROR	The number of start-needle must be smaller than the number of end-needle.
END NEEDLE ERROR	The number of end-needle must be larger than the number of start-needle, or smaller than the number of total-needle.
START SPEED=0	The first line Speed must be setting. don't setting "0".
TRANSFER ERROR	Without transfer function.
END COURSE ERROR	Over 998 courses.

Tab.2-2 Error message table

- ※ Please correct the error of edited program according to the error message of LCD display.

After finishing checking the system and confirming the program executive then the screen displays as Fig.2-3.

TOTAL:0404					COURSE:024				
LEFT:103000					RIGHT:020400				
LEFT:ENABLT					RIGHT:ENABLT				
SURE					EXIT				

Fig.2-3

In Fig.2-3, Column 1 displays TOTAL (total executive lines) , COURSE (total file lines) , Column 2 displays LEFT (yarn carrier of left system) , RIGHT (yarn carrier of right system) . Column 3 displays LEFT (the left carriage) , RIGHT (the right carriage)

Finish setting and press **F1** to enter Fig.2-4.

001	6	30	4	1	1	3	30	000	000	(912
+0	1	30	0	1	1	0	30	000		(9999
002	0	30	4	1	1	3	30	000	000	(0055
+0	1	30	0	1	1	0	30	000		
RUN	EDIT	1PCS	ORG	EXIT						

Fig.2-4

	File name	: (912
Right side of screen display	Set pcs	: (9999
	Finished pcs	: (0055

- F1** RUN : Turn the operation bar for knitting.
- F2** EDIT : Edit stitch value and knitting speed. See Fig.2-5, Fig.2-6, Fig.2-7, Fig.2-8, Fig.2-9, Fig2-10, Fig.2-11.
- F3** 1 PC : Knit 1 piece and stop machine.
- F4** ORG : Give up the fabric on knitting. The method you turn the operation bar to stop machine, and press **F4** to make cam and stitch to home position, and then start the operation bar to make the carriage return to left beginning position.
- F5** EXIT : To exit

F2 EDIT :

1.STITCH	2.SPEED	02:15
3.TAKE DOWN	4.REPEAT	
5.WIDTH	6.SHOCK	
		EXIT

Fig.2-5 Edit

Press **1** in **STITCH**

00	30	---	---	---	---	---	---
11		---	---	---	---	---	---
12		---	---	---	---	---	---
20		---	---	---	---	---	---
SURE						EXIT	

Fig.2-6 Stitch

Fig.2-6 displays all the used stitch value of file. Directly move the cursor to the area of being changed, and press the numeric key to correct it. For example, in Fig.2-6 the 12 is replaced by 15, then all the stitch value 12 is/are changed with 15 in this file.

Press **2** in **SPEED**

CHANG SPEED DATA	
COURSE SPEED	
001	8
SURE	EXIT

Fig.2-7 Speed

Fig.2-7 displays the exchange of knitting speed. Directly press the numeric key to change knitting speed, or press UP/DOWN key to the changed line and correct it.

Press **3** in TAKE DOWN

1:00 / 00	5:00 / 00		
2:00 / 00	6:00 / 00	(00-99)	
3:00 / 00	7:00 / 00		
4:00 / 00	8:00 / 00		
SURE			EXIT

Fig.2-8 Take down

Fig.2-8 displays the entire used take down value of file. Directly move the cursor to the area of being changed, and press the numeric key to correct it.

Press **4** in REPEAT

COURSE / REPEAT COUNT			
004 / 002			
SURE			EXIT

Fig.2-9 Repeat

Fig.2-9 displays the repeat count. Directly move the cursor to the area of being changed, and press the numeric key to correct it.

Press **5** in WIDTH

SHORT NEEDLE WIDTH:9			
→		←	
005NDLS		005NDLS	
SURE			EXIT

Fig.2-10 Width

Fig.2-10 displays the short needle width. Please press numeric key to fill in the needles directly.

Press **6** in **SHOCK**

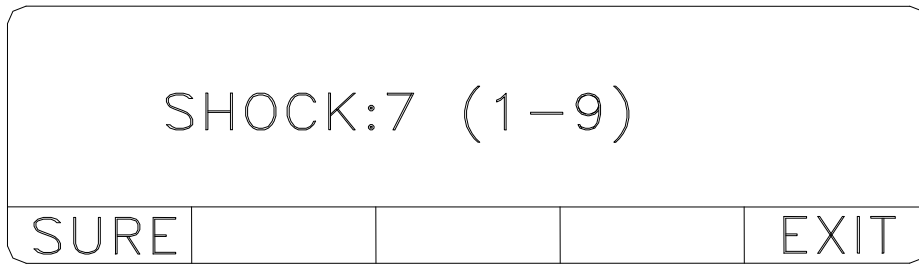


Fig.2-11

Fig.2-11 displays the shock. Directly move the cursor to the area of being changed, and press the numeric key to correct it.

Fig.2-12 Production times ←

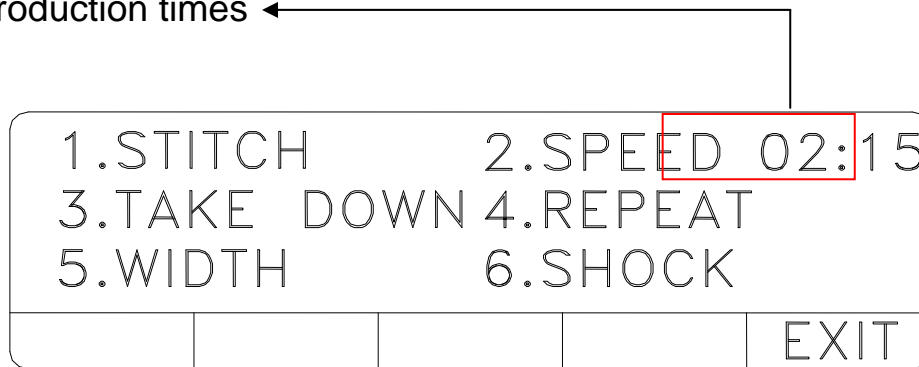


Fig.2-12

Machine stop : If the fault signal (auto-stop equipment) is operated, it will display the fault signal as Fig.2-13, and corrective action refer to Table 2-3, 2-4.

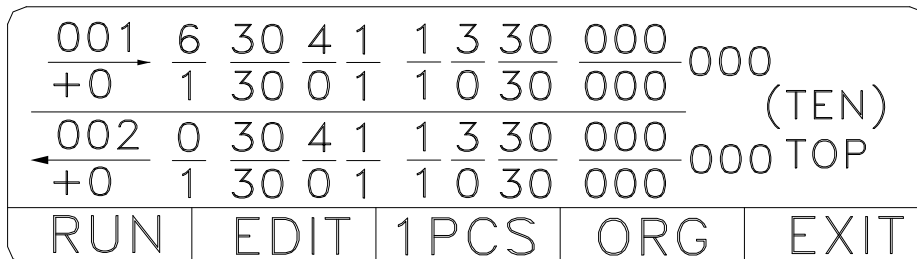


Fig.2-13

Tab.2-3 Machine stop signal & Corrective action

TEN TOP	Check if yarn breakage, tension loose or yarn knot is occurred with top tension. If yes, please do the action to correct it.
STEN L	Check if yarn breakage or yarn knot is occurred with left side tension. If yes, please do the action to correct it.
STEN R	Check if yarn breakage or yarn knot is occurred with right side tension. If yes, please do the action to correct it.
NEDL L-F	Check if needle breakage or fabric rise is occurred. If yes, please do the action to correct it.
NEDL L-B	Check if needle breakage or fabric rise is occurred. If yes, please do the action to correct it.
NEDL R-F	Check if needle breakage or fabric rise is occurred. If yes, please do the action to correct it.
NEDL R-B	Check if needle breakage or fabric rise is occurred. If yes, please do the action to correct it.
DROP	Check if fabric fall or take-down speed slow is occurred. If yes, please do the action to correct it.
ENTANGLE	Check if fabric roll-up is occurred. If yes, please do the action to correct it.
ROLLPUSH	Check if roller grip is open. If yes, please do the action to correct it.
COVR	Check if safety cover is not closed. If yes, please do the action to correct it. (Option)
SHCK	Check if needle or shock sensor is too sensitive. If yes, please do the action to correct it.
24V	Signal input.
OVER	Check if needle tight or timing belt breakage is occurred. If yes, please do the action to correct it.

Tab.2-4 Machine stop signal & Corrective action

LMT L	Check if left limit sensor (KCE2201), encoder or plastic in blue on connecting ring is damaged. If yes, please do the action to correct it.
LMT R	Check if right limit sensor (KCE2201), encoder or plastic in blue on connecting ring is damaged. If yes, please do the action to correct it.
RACK	Check if racking sensor bracket (KCF9401B) is in correct position or racking sensor 9KCF9407) is damaged. If yes, please do the action to correct it.
ENCODER	Check if encoder is damaged.
CAM LF	Check if left front side pc board (KCF3054) is damaged or cams cannot run smoothly without any obstruction. If yes, please do the action to correct it.
CAM LB	Check if left back side pc board (KCF3054) is damaged or cams cannot run smoothly without any obstruction. If yes, please do the action to correct it.
CAM RF	Check if right front side pc board (KCF3054) is damaged or cams cannot run smoothly without any obstruction. If yes, please do the action to correct it.
CAM RB	Check if right back side pc board (KCF3054) is damaged or cams cannot run smoothly without any obstruction. If yes, please do the action to correct it.
MAINMOT	Check inverter, motor and timing belt.
STI LF	Check if left front side pc board (KCE1002) or stepping motor is damaged. If yes, please do the action to correct it.
STI LB	Check if left back side pc board (KCE1002) or stepping motor is damaged. If yes, please do the action to correct it.
STI RF	Check if right front side pc board (KCE1002) or stepping motor is damaged. If yes, please do the action to correct it.
STI RB	Check if right front side pc board (KCE1002) or stepping motor is damaged. If yes, please do the action to correct it.
POWR DOWN	Signal input.
STOP	Signal input.

3. FILE

1.DISP	3.DEL
3.COPY	4.TRANS
5.READ	6.CLEAR

Fig.3-1

3.1 DISP : Display

Select file location from RAM or USB.

SELECT FILE LOCATION				
	RAM		USB	EXIT

Fig.3-2

Fig.3-3 Move cursor to select the displayed file name, and press **F1** SURE the system will execute program once simultaneously, and display screen as Fig.3-4.

<u>912</u>	913	914	915	RAM
04	FILE	00483	BYTES	
		24349	BYTES	FREE
SURE				EXIT

Fig.3-3

<u>001</u>	6	30	4	1	1	3	30	000	000	(912
+0	→	1	30	0	1	1	0	30	000	(9999
002	0	30	4	1	1	3	30	000	000	(0055
←+0		1	30	0	1	1	0	30	000	
RUN	EDIT	1PCS	ORG	EXIT						

Fig.3-4

3.2 DEL : Delete the input file name, and press **F1** for sure.



Fig.3-5

3.3 COPY : Input source file name and target file name, and press **F1** for sure.

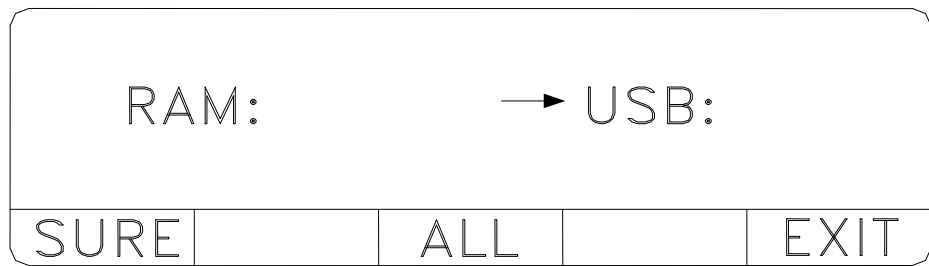


Fig.3-6

3.4 TRANS : Save file to USB floppy.

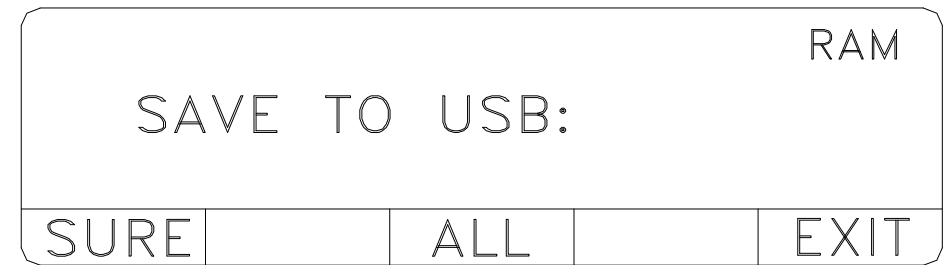


Fig.3-7

3.5 READ : Load file from USB floppy.

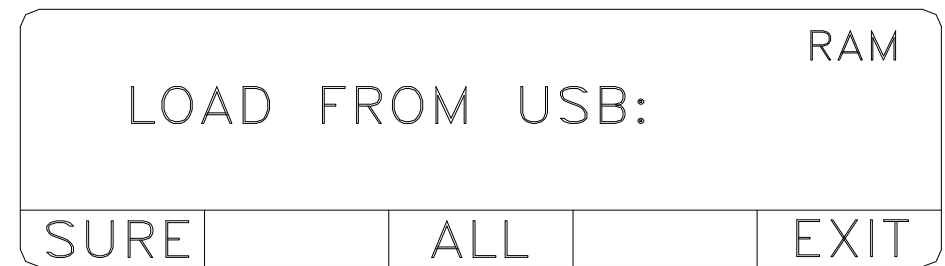


Fig.3-8

3.6 CLEAR : Clear all files.

ARE YOU SURE?				
SURE				EXIT

Fig.3-9

ARE YOU SURE REALY?				
SURE				EXIT

Fig.3-10

PLEASE INPUT PASSWORD: <u>555</u>				
SURE				EXIT

Fig.3-11

Enter code No : 555

4. FUNCTION



Fig.4-1

4.1 STITC : Stitch parameters, directly adjust with numeric. (Machine has two sets of stitch parameters ; one is for separation system and the other is for combination system.)

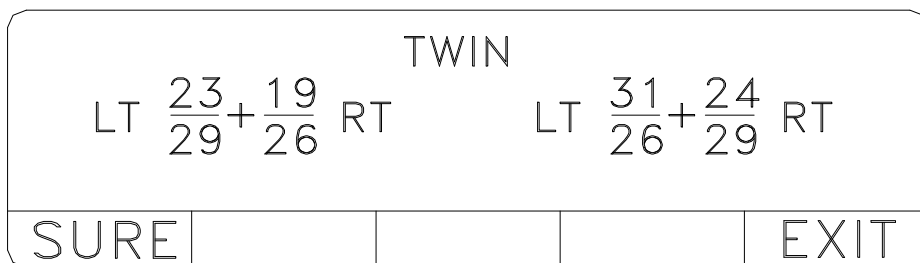


Fig.4-2

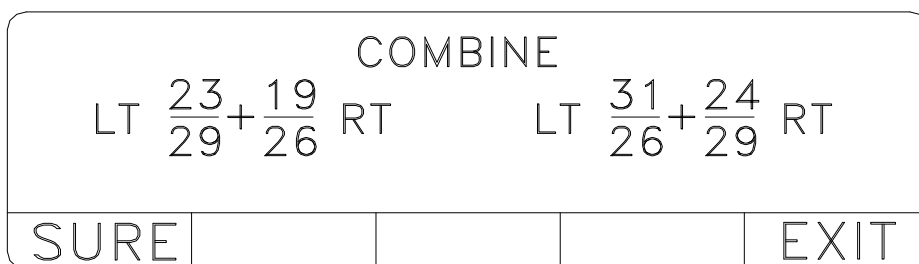


Fig.4-3

4.2 BUZZ : Setting buzzer function in action or not.

KEYBOARD:ENABLE ALARM:ENABLE				
SURE	ENBL		DISA	EXIT

Fig.4-4

4.3 MODE : Setting display mode in English and in Chinese.

1. 中文 4. 2. ENGLISH 5. 3.				
SURE				EXIT

Fig.4.5

4.4 SYSTEM : Setting left and right carriage system is open or not.

LEFT:ENABLE RIGHT:ENABLE				
SURE	ENBL		DISA	EXIT

Fig.4.6

5. TEST

1.RACKING	2.MAIN MOTOR
3.IN/OUT	4.CAM
5.TAKE DOWN	6.STITCH

Fig.5-1

5.1 RACKING :

◀ RACKING TO LEFT ▶ RACKING TO RIGHT PLEASE TEST RACKING				
SURE				EXIT

Fig.5-2

5.2 MAIN MOTOR :

BAR ↓ LOW SPEED 000000 BAR ↑ INCHING MAIN SERVO TEST				
SURE				EXIT

Fig.5-3

5.3 IN/OUT : Signal. Test when they are switched on. There should be with a small dot appeared in the front.

		L.SYS		R.SYS
STITCH ORG:		● F ● B		● F ● B
CAM ORG:		● F - B		● F - B
CAM POS:		● F ● B		● F ● B
NEEDLE BREAK:		● F ● B		● F ● B
NEXT				EXIT

Fig.5-4

7-SHOCK-DROP		LIMLT:-L-R
-OVER -RACK		T-TEN:-1-2
-24V -ROLLPUSH		S-TEN:-L-R
-ORG -ENTANGLE		RUN:- -SL
-COVER -ORGR		STOP:- -UP
PREV		EXIT

Fig.5-5

- | | | | | | |
|------------|---|-----------------------|---------|---|-------------------|
| L.SYS | : | Left system | R.SYS | : | Right system |
| STITCH ORG | : | Stitch Origin | CAM | : | Cam Position |
| | | | POS | | |
| CAM ORG | : | Cam Origin | NEEDLE | : | Probe needle |
| | | | BREAK | | |
| SHOCK | : | Collision sensitivity | LIMLT-L | : | L-Limit sensor |
| DROP | : | Fabric fall detector | LIMLT-R | : | R-Limit sensor |
| OVER | : | Main motor overload | T-TEN-1 | : | Top tension error |
| RACK | : | Racking | T-TEN-2 | : | T-ten slow speed |
| 24V | : | 24V | S-TEN-L | : | L-Side tension |
| ROLLPUSH | : | Take down open | S-TEN-R | : | R-Side tension |
| ORG | : | Left Origin sensor | RUN | : | High speed |
| ENTANGLE | : | Fabric roll up | SL | : | Slow speed |
| COVER | : | Safety cover | STOP | : | STOP |
| ORGR | : | Right Origin sensor | UP | : | UPS |

5.4 CAM : Move cursor to make the cam or the yarn feeder solenoid in action.

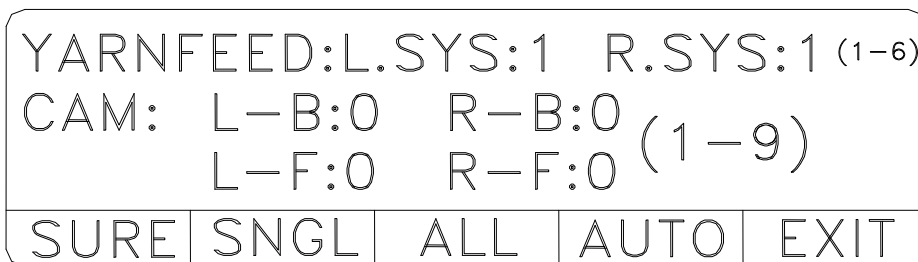


Fig.5-6

5.5 TAKE DOWN : Setting the speed of fabric take-down then turning the operation bar to test.



Fig.5-7

5.6 STITC : Stitch. Setting the value , Press **F1** ~ **F4** to test.

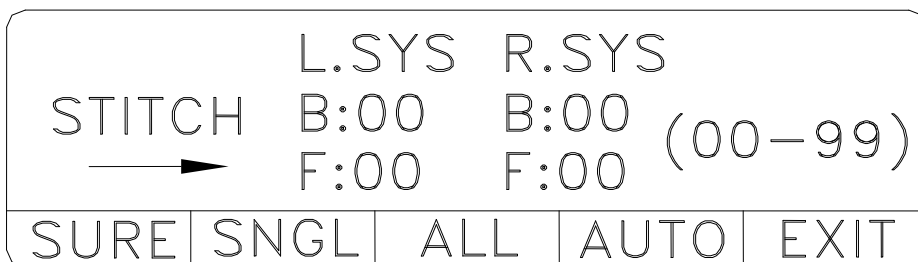
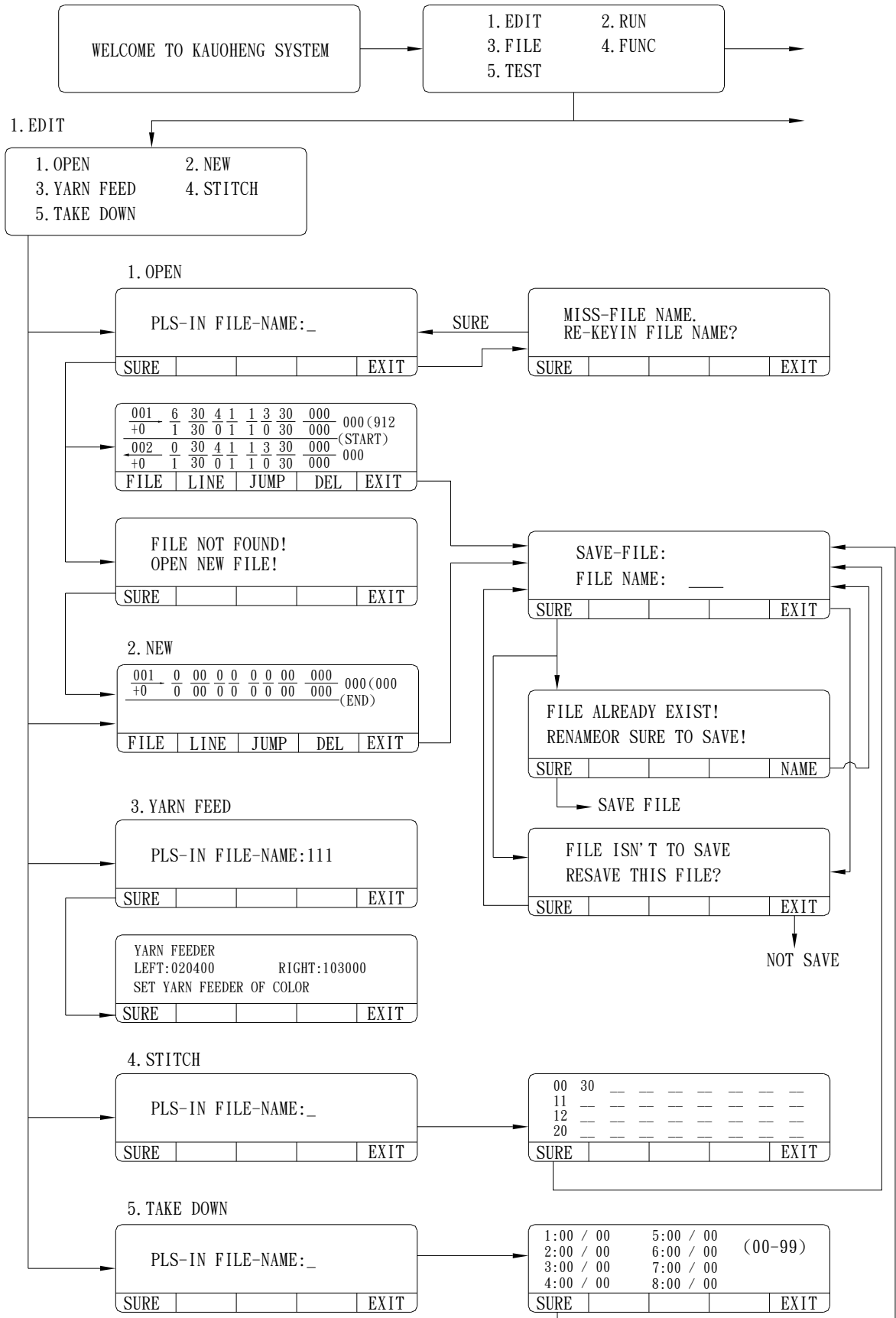
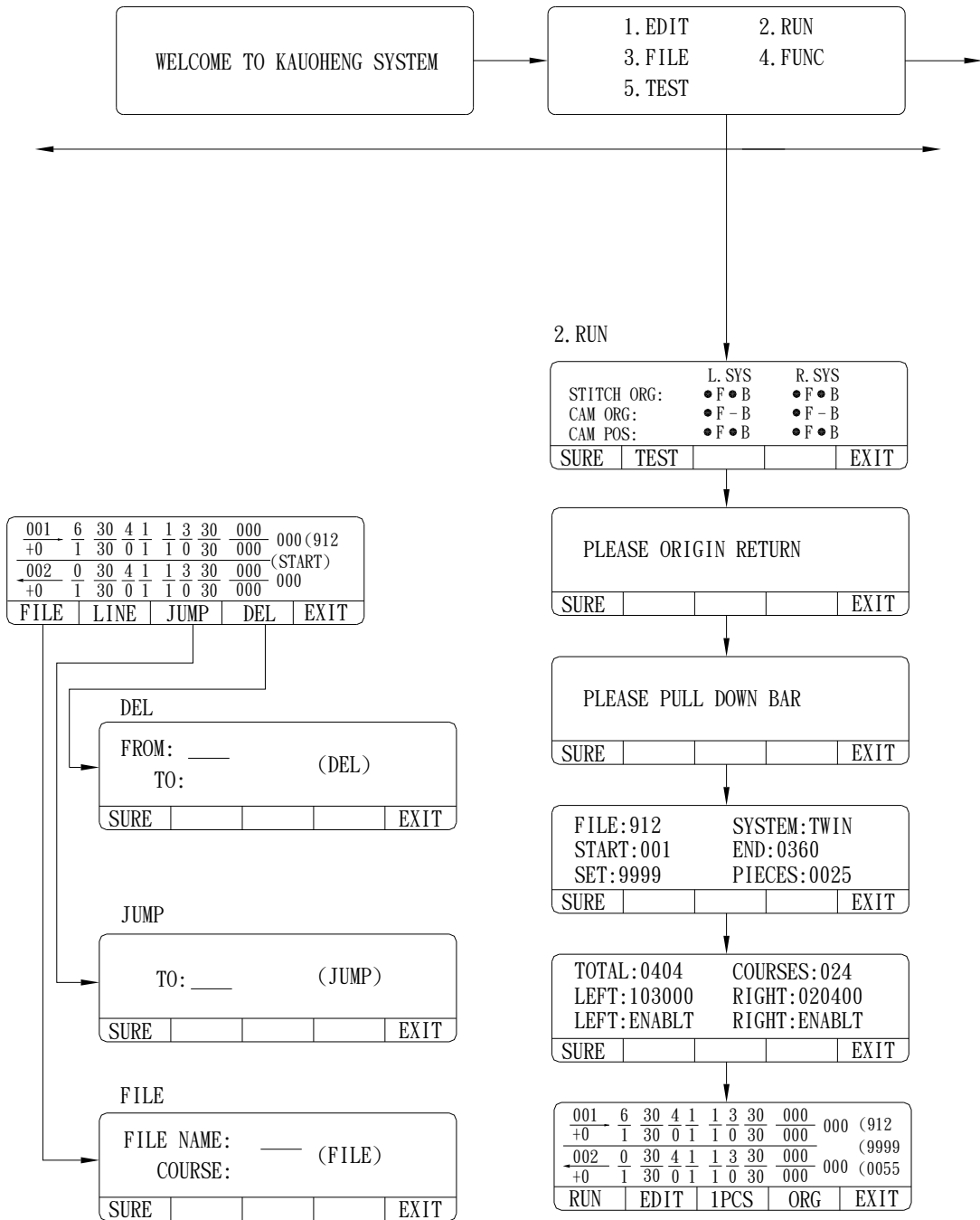


Fig.5-8

6. Operating procedures



Operating procedures

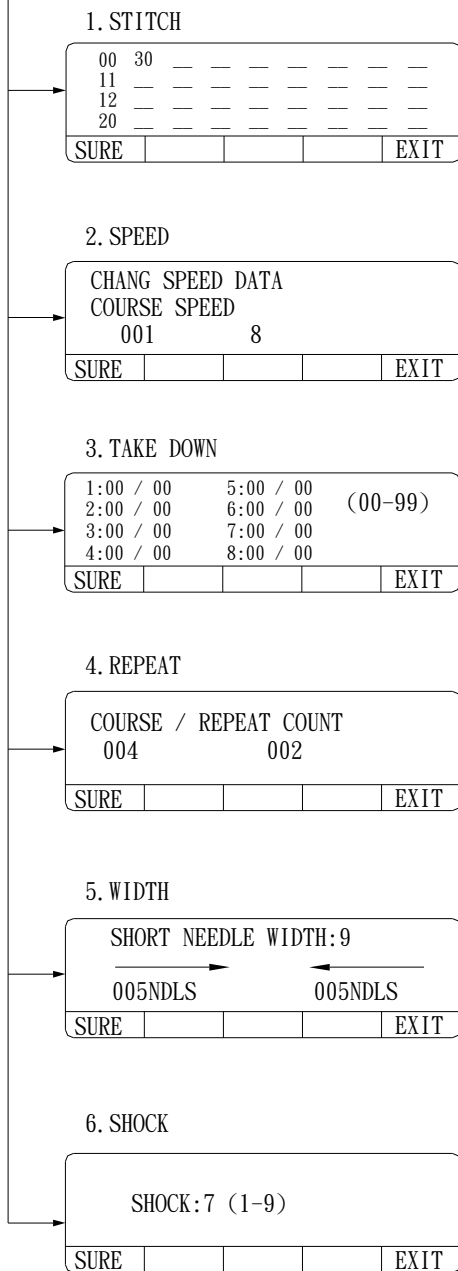


Operating procedures

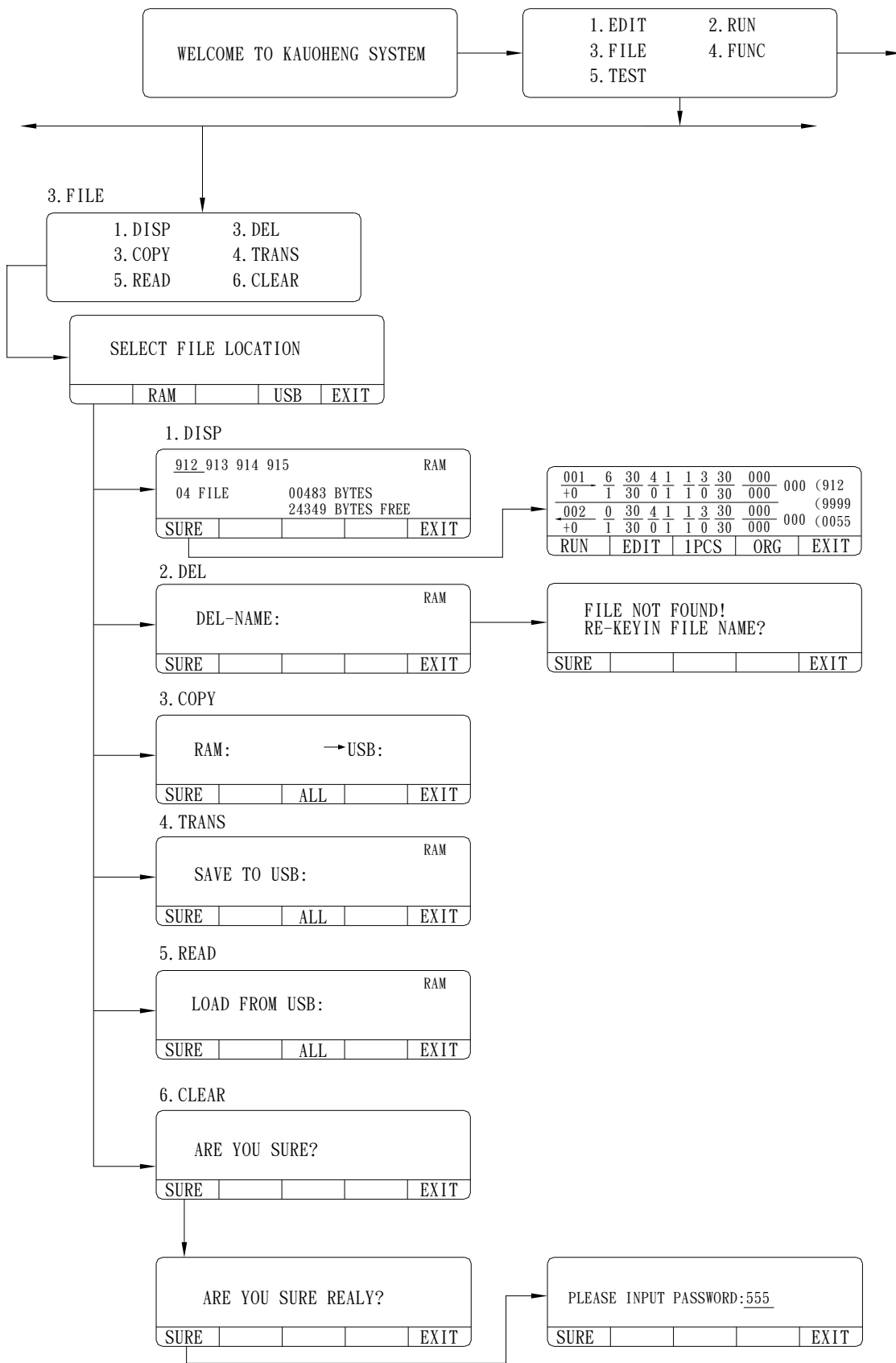
2. RUN

001	6	30	4	1	1	3	30	000	000	(912
+0	1	30	0	1	1	0	30	000		(9999
002	0	30	4	1	1	3	30	000	000	(0055
+0	1	30	0	1	1	0	30	000		
RUN	EDIT	IPCS	ORG	EXIT						

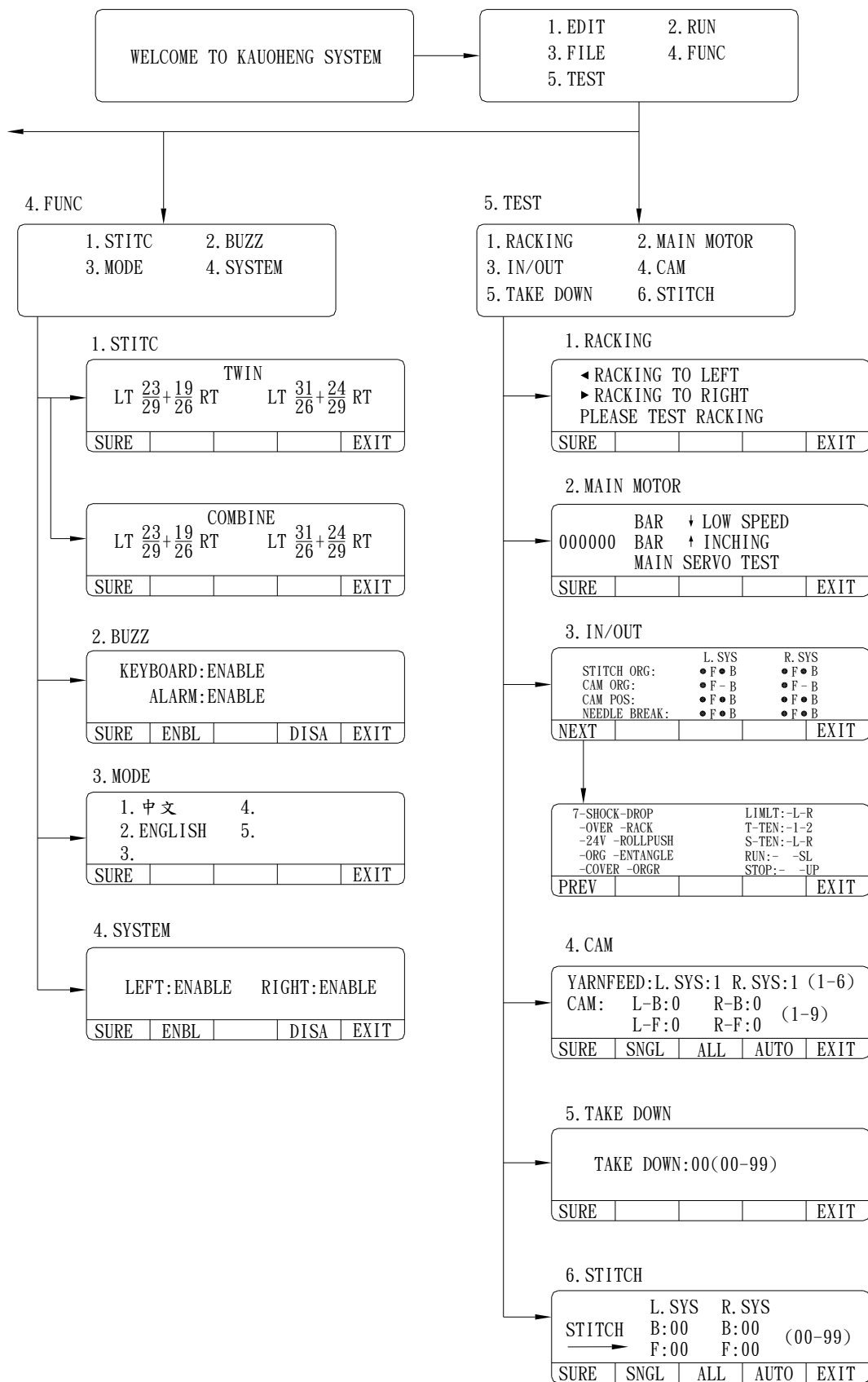
1. STITCH	2. SPEED	02:15			
3. TAKE DOWN	4. REPEAT				
5. WIDTH	6. SHOCK				
					EXIT

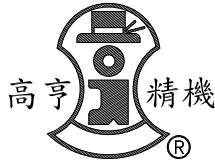


Operating procedures



Operating procedures





高亨精機工業有限公司

KH-323-V2

FILE
NAME

PAGE

Line No.	Knitting Speed	Left Rear Stitch	Yarn Carrier Left	Rear Left	Cam Right	Yarn Carrier Right	Right Rear Stitch	Repeat Start-Line	Repeat Count	Description
Rack	Take down Speed	Left Front Stitch		Front Left	Cam Right		Right Front Stitch	Repeat End-Line		
<input type="checkbox"/> <input type="checkbox"/> 1	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>Line No.001 is not allowed "0" for knitting speed and take-down speed</p> <hr/> <p>Rack: +1 Right 1 pitch -1 Left 1 pitch</p> <hr/> <p>Knitting Speed: 0.Same as previous line 1(Slow)~9(Fast)</p> <hr/> <p>Take-down Speed: 00~99 0.Same as previous line 1~8 9.Short needle width</p> <hr/> <p>Yarn carrier: 0. None yarn carrier 1. No.1 yarn carrier 2. No.2 yarn carrier 3. No.3 yarn carrier 4. No.4 yarn carrier 5. No.5 yarn carrier 6. No.6 yarn carrier</p> <hr/> <p>Cam: 0.Miss 1.Knit 2.Tuck 3.High butt knit 4.High butt knit, low butt tuck 5.High butt tuck 6.Jack knit 7.Jack tuck 8.Knit, Half cam Tuck 9.Half cam Tuck</p> <hr/> <p>Stitch: 00~99</p>
<input type="checkbox"/> <input type="checkbox"/> 2	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> 3	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> 4	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> 5	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> 6	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> 7	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> 8	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> 9	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> 0	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

FILE NAME		TOTAL EXECUTIVE LINE	
DATE		PRODUCTION	min./pc
CARRIAGE	1 × 1 <input type="checkbox"/>	2-CAM <input type="checkbox"/>	
Carriage must be on left side for starting			



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