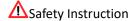
CONTROL PANEL MANUAL

TWIN 6F TWIN 6HF

Double needle industrial sewing machine





- 1. Users are required to read the operation manual completely and carefully before installation or operation.
- 2. The product should be installed and pre-operated by well-trained persons. All power supplies must be turned off during the installation work, remember not to operate with power on.
- 3. All the instruction marked with sign must be observed or executed; otherwise, bodily injuries might occur.
- 4. For perfect operation and safety, it is prohibited that using extension cable with multi-outlet for power connection.
- 5. When connecting the power cord, it must be determined that the operating voltage conforms to the rated voltage value specified in the product identification.
- 6. Don't operate in direct sun light, outdoors area and where the room temperature is over 45°C or below 0°C.
- 7. Please avoid operating near the heater at dew area or at the humidity below 10% or above 90%.
- 8. Don't operate in area with heavy dust, corrosive substance or volatile gas.
- 9. Avoid power cord being applied by heavy objects or excessive force, or over bend.
- 10. The earth wire of power cord must be connected to the system ground of the production plant by proper size of conductions and terminals. This connection should be fixed permanently.
- 11. All the moving portions must be prevented to be exposed by the parts provided.
- 12. Turing on the machine in the first time, operate the sewing machine at low speed and check the correct rotation direction.
- 13. Turn off the power before the following operation:
 - 1. Connecting or disconnecting any connectors on the control box or motor.
 - 2. Threading needle.
 - 3. Raising the machine head.
 - 4. Repairing or doing any mechanical adjustment.
 - 5. Machines idling.
- 14. Repairs and high level maintenance work should only be carried out by electronic technicians with appropriate training.
- 15. All the spare parts for repair must be provided or approved by the manufacturer.
- 16. Don't use any objects or force to hit or ram the product.

1 Button displays and operating instructions

1.1 Key description

Name	key	Indicate
Stitch length setting	+ + -	If click, increase or decrease stitch length. If long-press, continuously increase or decrease stitch length.
Pattern backing-tacking setting	A-D	If click, set used or cancelled pattern backing-tacking function. If long-press, switch to pattern backing-tacking mode editing interface.
Tight seam setting	14	If click, switch starting tight seam, ending tight seam, full function and function off successively. If long-press, switch to tight seam mode editing interface.
Pattern freedom sewing setting	Patt	If click, switch to pattern freedom sewing mode selection interface. If long-press, switch to pattern freedom sewing mode editing interface.
Pattern constant-stitch sewing setting	XI~XN	If click, switch multi-segment sewing mode or four segments sewing mode. If long-press, switch to pattern constant-stitch sewing mode editing interface.
Start back-tacking sewing	(I ∧ ∧ ABAB; V V ↓	If click, switch AB start back-tacking→ABAB start back-tacking→function off→B start back-tacking successively
End back-tacking sewing	NN: DCDC: INN	If click, switch CD end back-tacking→CDCD end back-tacking→function off→C end back-tacking successively.
Consecutive reverse sewing	(, B D D)	If click, set to consecutive reverse sewing mode.
Free sewing		If click, set to free sewing mode.
M key	M	If click, set to multi-segment sewing mode (switch to four-segment sewing, seven-segment sewing, eight-segment sewing, and fifteen-segment sewing in sequence).
Auto function		 If click, set used or cancelled auto function. If long-press, it can restore factory setting.
Thread trimming	%	 If click, set used or cancelled trimming function. If long-press, enter counter interface.
Automatic presser foot lifting setting	<u>‡</u>	If click, switch function off→automatic presser foot lifting after trimming→automatic presser foot lifting after pause→full function successively.
Half anti-side trample foot lifting	<u> </u>	If click, set used or cancelled half anti-side trample foot lifting function.
Needle stop position selection	↑	If click, the needle stop position after shift the sewing mode (up position / down position).
Slow launch setting		 If click, set used or cancelled slow launch function. In the parameter setting interface, if long-press, save the current parameter value as factory parameter value.

Lift or fill up needle	<u> ‡ </u>	If click, lift or fill up half a needle.
Function parameter edit	[P]	If click, enter or exit the user parameter setting interface. If long-press, it will switch to the password input interface. Enter the correct password, press S key to confirm, you can enter the advanced parameter setting interface.
Setting parameter check and save	$\begin{bmatrix} \mathbf{S} \end{bmatrix}$	For the content of the selected parameters check and save: after select parameter press this key to check and modify operation, after modified parameter value press this key to exit and save the parameter. On the main interface, long press to enter the debugging parameter interface.
Parameter increase	+	If click, increase the parameter. If long-press, continuously increase the parameter.
Parameter decrease		If click, decrease the parameter. If long-press, continuously decrease the parameter.
Speed increase	*	If click, increase the sewing speed. If long-press, continuously increase the sewing speed.
Speed decrease	•	If click, decrease the sewing speed. If long-press, continuously decrease the sewing speed.

1.2 Auxiliary function

1.2.1 Debugging mode

On the main interface, long-press S key to enter to the debugging parameter interface. P92 correct the electrical angle of motor, P72 up needle position adjustment, P129 back-tacking stepping motor zero-point correction, P74 tacking stitch length compensation and P75 back-tacking stitch length compensation parameter setting.

1.2.2 Tight seam mode editing

On the main interface, long-press tight seam key to display "F-1" (start back-tacking), and press the 4th column +, - to switch between "F-1" (start back-tacking) and "d-2" (end back-tacking), press S to confirm, switch to the editing interface "01 0 0.5", press the 1st or 2nd column +, - to adjust the number of stitches of 00-12, press the 4th column +, - to adjust 0 (Normal sewing) -1 (reverse sewing). Press + + + to adjust the stitch length. After the setting is completed, press S key to confirm. Click P key to exit to the main interface.

1.2.3 Pattern freedom sewing mode

On the main interface short-press Patt to shift pattern freedom sewing mode selection interface "n1", press + + + - = to adjust n1-n9.

1.2.4 Pattern freedom sewing editing

On the main interface long-press Patt to shift pattern freedom sewing mode editing interface "n-01 01", short-press the 4th column to adjust n01-n09, short-press adjust 01-10 segment number, adjust to setting pattern number, segment number, short-press S key to confirm, shift to corresponding pattern number editing interface "01 1 3.0", short press 1st

column or 2nd column + , to adjust 00-99 stitches, short-press 4th column + , 1-9 repeat times, short-press
+ + + to adjust stitch length, after finished setting short-press S key to confirm. Press P key can exit to interface.
1.2.5 Pattern backing-tacking sewing editing
On the main interface, long press Patt to switch the pattern style editing interface "H-01 01", press the 4th column ,
to adjust the H01-H09 pattern number, and short press + + + - to adjust the 01-10 segment number, segment number,
short press S key to confirm, switch to the corresponding pattern number editing interface "01 1 3.0", press the 1st or 2nd column
+ , - to adjust the number of 00-99 stitches, press the 4th column + , - to adjust Repeat 1-9 times, press
+ 1 - to adjust the stitch length. After the setting is completed, press the S key to confirm. Short press P key to exit to the
main interface.
1.2.6 Pattern constant-stitch sewing editing
In the multi-segment sewing mode, long-press pattern constant-stitch sewing key on the main interface to switch to pattern
constant-stitch sewing editing interface "d-01 3.0", press the fourth column + to adjust the d01-d15 segment number,
and press + 1 to adjust the current segment stitch length. Short press P key to exit to the main interface.

2 User parameter

No.	Items	Range	Default	Description
P01	Maximum sewing speed (rpm)	100-4000	3700	Maximum speed of machine sewing
P02	Set accelerated curve (%)	10-100	100	Set the acceleration slope The greater the slope value, the steeper the speed; the smaller the slope value, the slower the speed
P03	Needle UP/ DOWN	UP/DN	DN	UP: Needle stops at up position DN: Needle stops at down position
P04	Start back-tacking speed (rpm)	200-3200	2200	
P05	End back-tacking speed (rpm)	200-3200	2200	
P06	Bar-tacking speed (rpm)	200-3000	2200	
P07	Soft start speed (rpm)	200-1500	1500	
P08	Stitch numbers for soft start	1-15	2	
P09	Automatic constant-stitch sewing speed (rpm)	200-4000	3700	Speed adjustment for automatic constant-stitch sewing
P10	Automatic end back-tacking sewing after constant-stitch sewing	ON/OFF	ON	ON: After executing the constant-stitch sewing, the back-tacking sewing will be executed automatically. In any sewing mode, mending stitch function cannot be used. OFF: After executing the last constant-stitch sewing, the back-tacking sewing function will not be automatically executed, and the front step or full back step must be performed again.
P12	Start back-tacking running mode selection	0-1	1	0: Controlled by foot pedal, can be stopped and started at will 1: Touch the foot pedal to automatically execute back-tacking action
P13	Ending mode of start back-tacking	CON/STP	CON	CON: Start back-tacking is completed automatically continued for next action. STP: After the number of stitches is completed, stop automatically.
P14	Slow start function selection	ON/OFF	OFF	

No.	Items	Range	Default	Description
P15	Manual Switch A	0-6	5	0: OFF 1: Half stitch 2: One stitch 3: Continuous half stitch 4: Continuous one stitch 5: Back-tacking when machine stop or pause
P16	Speed limit of manual	0-3200	0	6: Tight seam function The function is disabled when the value is less than 100.
P17-N06	Automatic piece counting	0-50	1	0: OFF
P17-N12	Boot counter interface	0-1	0	1-50: Trimming counting times setting 0: OFF
P17-N13	selection Automatic piece counting mode selection	0-1	0	1: ON 0: Incremental piecework mode 1: Diminishing piecework mode
P18	Start back-tacking compensation 1	0-200	160	Stitch compensation for start back-tacking A section, 0~200 action gradually delay; The large value, the longer of the A section last stitch, and the shorter of the B section first stitch.
P19	Start back-tacking compensation 2	0-200	160	Stitch compensation for start back-tacking A section, 0~200 action gradually delay; The large value, the longer of the B section last stitch.
P21	The position of the pedal for accelerating	30-1000	520	
P22	The position of the pedal for the stop	30-1000	420	
P23	The position of the pedal for presser foot lifting	30-1000	270	
P24	The position of the pedal for thread trimming	30-500	130	
P25	End back-tacking compensation 3	0-200	160	Stitch compensation for end back-tacking C section, 0~200 action gradually delay; The large value, the shorter of the C section first stitch.
P26	End back-tacking compensation 4	0-200	160	Stitch compensation for end back-tacking D section,0~200 action gradually delay; the large value, the longer of the C section last stitch, and the shorter of the D section first stitch.
P29	The strength of thread trimming stop	1-45	20	
P32	Bar-tacking compensation 5	0-200	160	Stitch compensation for bar-tacking A (C) section, 0~200 action gradually delay; the large value, the longer of the A (C) section last stitch; the shorter of the B (D) section first stitch.
P33	Bar-tacking compensation 6	0-200	160	Stitch compensation for bar-tacking B (D) section, 0~200 action gradually delay; the large value, the longer of the B (D) section last stitch; the shorter of the C section first stitch.
P34	Constant-stitch sewing running mode selection	A/M	А	A: Touch the foot pedal to automatically execute constant-stitch sewing action M: Controlled by foot pedal, can be stopped and started at will
P35	Thread tension releasing function setting when presser foot lifting action	0-2	1	O: OFF 1: Thread tension releasing output function ON when presser foot lifting, thread tension releasing output function OFF when stopover 2: Full function
P36	Thread tension releasing function selection	0-1	1	0: OFF 1: ON
P37	Thread wiping function / Thread clamping function selection	0-11	8	0: OFF 1: Thread wiping function. 2-11: Thread clamping Function and the strength of automatic thread clamping.

No.	Items	Range	Default	Description
P38	Automatic thread trimming function selection	ON/OFF	ON	
P39	Automatic presser foot lifting when pause function selection	UP/DN	DN	
P40	Automatic presser foot lifting after trimming function selection	UP/DN	DN	
P41	Thread trimming counter display	0-9999	0	Display the quantity of finished sewing piece. Long-press "-" key to clear the count
P42-N01	The control system version number			
P42-N02	The panel version number			
P42-N03	Speed			
P42-N04	The pedal AD			
P42-N05	The mechanical angle(up position)			
P42-N07	Bus bar voltage AD			
P42-N15	Stepping drive version number			
P42-N16	Stitch counter display (every 10 stitches, the value changes by 1)			
P42-N17	Number of needles for maintenance operation (10,000 needles) *10			
P43	Motor rotation direction setting	ccw/cw	CCW	CW: Clockwise CCW: Counter clock wise
P44	Brake strength during stopover	1-45	16	
P45	Pattern freedom sewing mode selection	0-1	0	O: Controlled by foot pedal, can be stopped and started at will 1: Touch the foot pedal to automatically execute a pattern sewing action
P46	Motor stop with a reverse angle after trimming function	ON/OFF	OFF	
P47	Adjust the reverse angle when motor stop after trimming	10-50	40	Start from the upper needle position and adjust the angle of the needle lift in reverse operation after trimming.
P48	The minimum speed (positioning speed) (rpm)	100-500	210	Adjust the minimum speed
P49	Thread trimming speed (rpm)	100-250	300	Adjust thread trimming speed
P52	Delay the start of the motor to protect the lowering time of presser foot (ms)	10-990	120	Delay the start time, with automatic presser foot down.
P53	Half back pedaling lifting presser foot function to cancel	0-2	1	O: OFF 1: Back pedaling and half back pedaling with lifting presser foot 2: Half back pedaling without lifting presser foot, back pedaling with lifting presser foot
P54	Thread trimming action time (ms)	10-990	200	
P55	Thread wiping action time (ms)	10-990	50	
P56	Power on and positioning	0-1	0	0: Always not to find the up needle position
				1: Always to find the up needle position

No.	Items	Range	Default	Description
P57	Presser foot solenoid protection time (s)	1-60	2	Forced shutdown after hold time to prevent the electromagnet from
	Up needle position			being hot for a long time Up position adjustment, the needle will advance stop when the value
P58	adjustment	0-359	200	decreased, the needle will delay stop when the value increased.
	Down needle perition			Down position adjustment, the needle will advance stop when the
P59	Down needle position adjustment	0-359	10	value decreased, the needle will delay stop when the value increased.
P60	Testing speed (rpm)	100-3700	3500	Setting testing speed.
P61	Testing A	ON/OFF	OFF	Continuous running testing.
P62	Testing B	ON/OFF	OFF	Start and stop testing with all functions.
P63	Testing C	ON/OFF	OFF	Start and stop testing without all function.
P64	Test run time	1-250	30	Start and stop testing minious an interestin
P65	Test stop time	1-250	10	
	Machine protection switch			0: Disable
P66	selection	0-1	1	1: Testing zero signal
P69	Pattern freedom sewing speed	100-3000	2000	
P70	Туре		28	
	Correction stitches distance of			
P71	manual button A	0-5.0	0	
				Adjust up needle position, the displayed value will change with the
P72	Up needle position	0-359		position of the handwheel, press "S" key to save the current position
	adjustment			(value) as up needle position.
_				Adjust down needle position, the displayed value will change with the
P73	Down needle position adjustment	0-359		position of the handwheel, press "S" key to save the current position
	aujustinent			(value) as down needle position.
P74	Tacking stitch length compensation	-100~100	0	
P75	Back-tacking stitch length	-100~100	-3	
	compensation Opportunity point of			
	Opportunity point of			
P77	back-tacking for end back-tacking in high speed in	0-200	125	
	free sewing mode			
	The start angle of thread			
P78	clamping	5-359	100	
	The stop angle of thread			
P79	clamping	5-359	270	
	The angle of trimming first			
P80	engage	0-359	35	
	The angle of trimming second			
P82	engage	0-359	160	
	Stopping strength after			
P83	trimming	10-100	20	
	Up and down needle position			
P86	distance	15-345	170	Up and down positioning distance angle (1 degree for every 4 values)
			L	

No.	Items	Range	Default	Description
P87	Wiping thread return delay time	10-990	50	Make sure the wiper returns to its original position
P88	Stopover distance	10-100	30	
P89	AC overvoltage setting	500-1023	880	
P90	Soft start first stitch speed	200-1500	400	
P91	Soft start second stitch speed	200-1500	1000	
P92	Correct the electrical angle of motor			Reading the initial Angle of encoder, the factory default was set, please do not change the values (parameter value cannot be changed manually, random change it will result the control box and motor abnormal or damaged).
P93	The starting time of the half back pedaling function (ms)	10-900	100	
P99	Starting tight seam stitch length	0-6.0	0.5	
P100	Direction of starting tight seam	0-1	0	
P101	The start angle of thread tension releasing	1-359	30	Thread tension releasing start angle (defined as 0°under calculation)
P102	The stop angle of thread tension releasing	1-359	180	Thread tension releasing end angle (defined as 0°under calculation, must be greater than P101 parameter value)
P103	Thread tension releasing strength	1-80	30	
P105	Pattern freedom sewing mode selection	0-9	0	0: OFF 1-9: Pattern freedom sewing mode
P107	Starting tight seam speed	100-3000	1800	
P108	Starting tight seam stitch number	0-12	0	
P109	The delay time before thread wiping	5-990	5	Interval time before entering thread wiping action after finding the upper positioning
P110	Trimming back time (ms)	60-990	100	Make sure the thread trimming device returns to its original position
P111	Clamp function without any thrum switch	0-1	0	
P112	The delay time before hook thread with clamp function without any thrum	0-990	60	
P113	The hook thread action time with clamp function without any thrum	0-990	70	
P114	The return back time of hook thread with clamp function without any thrum	0-990	30	
P115	Duty cycle for hook thread with clamp function without	0-100	70	

No.	Items	Range	Default	Description
	any thrum			
P116	The suction time for clamp function without any thrum	0-5000	500	
P117	Duty cycle for pull thread with clamp function without any thrum	0-100	70	
P118	Function selection of manual back-tacking button in pattern mode	0-1	0	0: If you press it for a long time, you can sew the pattern backwards.1: If click, it will clear the current number of pattern stitches and restart. It is used for corner sewing to avoid protruding one stitch.
P122	Kneeling device starting AD value	0-1023	600	
P125	The height compensation of the presser foot lifting in the middle	0-1023		Set 80 as 0 compensation, go to the major adjustment for positive compensation, the height of the presser foot will increase, go to the minor adjustment for the negative compensation, the height of the presser foot will decrease.
P126	The highest presser foot lift height of electric knee-control	0-150	80	
P127	Knee-control function selection	0-2	1	1: Valid when the main shaft motor is stopped 2: Valid when the main shaft motor is running and stopped
P129	Back-tacking stepping motor zero-point correction	-500~500	0	
P131	Normal stitch length	0-6.0	4.0	
P132	Manual close stitches distance	0-6.0	2.0	
P134	Second trimming distance	0-200	105	
P135	The lowest presser foot lift height of electric knee-control	0-150	45	
P136	The highest of presses foot lift highness	0-150	110	
P137	First trimming distance	0-200	60	
P140	Trimming step return speed	20-400	250	
P141	Trimming second section speed	20-400	100	
P142	Trimming first section speed	20-400	200	
P143	Tight seam mode selection	0-3	0	0: OFF 1: Starting tight seam 2: Ending tight seam 3: Full function
P144	Tacking stitch length compensation in high speed	-100~ 100	-5	
P145	Back-tacking stitch length compensation in high speed	-100~ 100	-18	
P146	Presser foot speed	20-300	250	
P148	When the main shaft motor is running, the highest presser	0-150	100	

No.	Items	Range	Default	Description
	foot lift height of electric			
	knee-control			
P153	Ending tight seam stitch length	0-5.0	0.5	
P154	Ending tight seam speed	100-3000	1800	
P159	Direction of ending tight seam	0-1	0	0: Forward 1: Backward
P160	Ending tight seam stitch number	0-12	2	
P165	Stitch counter mode selection	0-4	0	O: Do not count I. Increase cycle count Decrease cycle count Increase cycle count Increase count, alarm after the count is full, need to press the clear key to start recounting Decrease count, alarm after the count is full, need to press the clear key to start recounting
P166	Upper limit of stitch counter (stitch) *10	0-9999	500	
P167	Upper limit of maintenance stitch number (10000 stitch) *10	0-9999	9000	
P170	Correction stitches distance of manual button B	0-6.0	0	
P171	Correction stitches distance of manual button C	0-6.0	1.8	
P172	The highest of presser foot lift highness limit	0-300	150	
P173	Correction stitches distance of manual button D	0-6.0	0.8	
P174	Manual Switch B	0-6	3	0: OFF 1: Half stitch 2: One stitch 3: Continuous half stitch 4: Continuous one stitch 5: Back-tacking when machine stop or pause 6: Tight seam function
P175	Manual Switch C	0-6	1	0: OFF 1: Half stitch 2: One stitch 3: Continuous half stitch 4: Continuous one stitch 5: Back-tacking when machine stop or pause 6: Tight seam function

No.	Items	Range	Default	Description
				0: OFF
				1: Half stitch
				2: One stitch
P176	Manual Switch D	0-6	1	3: Continuous half stitch
				4: Continuous one stitch
				5: Back-tacking when machine stop or pause
				6: Tight seam function
D177	1mm forward stitch length	0.2000		
P177	reference value setting	0-2000		
D4.70	1mm backward stitch length	0.2000		
P178	reference value setting	0-2000		
D4.70	2mm forward stitch length	0.2000		
P179	reference value setting	0-2000		
5400	2mm backward stitch length			
P180	reference value setting	0-2000		
	3mm forward stitch length			
P181	reference value setting	0-2000		
	3mm backward stitch length			
P182	reference value setting	0-2000		
	4mm forward stitch length	0-2000		
P183	reference value setting			
_	4mm backward stitch length			
P184	reference value setting	0-2000		
_	5mm forward stitch length			
P185	reference value setting	0-2000		
	5mm backward stitch length			
P186	reference value setting	0-2000		
	6mm forward stitch length			
P187	reference value setting	0-2000		
	6mm backward stitch length			
P188	reference value setting	0-2000		
	7mm forward stitch length			
P189	reference value setting	0-2000		
	7mm backward stitch length			
P190	reference value setting	0-2000		
P235	Pattern sewing compensation	0-200	160	
F 4 3 3	1	0-200	100	
P236	Pattern sewing compensation 2	0-200	160	
	1 =		1	<u> </u>

Note: the initial value of parameters is for reference only, and the actual value of parameters is subject to the real object.

3 Error code list

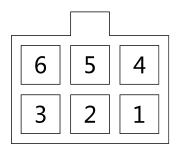
Error Code	Problem description	Solutions
E01	High voltage	 Whether the grid voltage is higher than AC260V; If it is self-generated power supply, please reduce the generator power; If it still does not work normally, please replace the control box and notify the after-sales service.
E02	Low voltage	 Whether to connect to low voltage; Reset; If it still does not work normally, please replace the control box and notify the after-sales service.
E03	CPU communication abnormal	 Turn off the system power and check whether the connection of the display screen is loose or disconnected, restart the system after returning it to normal. Turn off the system power, remove the control box and only plug in the power cord to power on, whether alarm E05, if it still alarms E03, replace the control box and notify the after-sales service.
E05	Pedal signal abnormal	 Check whether the pedal connector is loose or fall off, and restart the system after returning it to normal. If it still does not work normally, please replace the control box or speed controller and notify the after-sales service.
E07	Main shaft motor locked-rotor	 Turn off the power and check whether the handwheel can be turned smoothly (turn the handwheel by hand), if it cannot be turned, please check the machine; Turn off the power, check whether the motor power connector is loose, plug it in and restart it; Check whether the upper needle stop position is correct, if not, please adjust the upper positioning position; If it still does not work normally, please replace the control box or spindle motor and notify the after-sales service.
E10	Electromagnet overcurrent	 Unplug the solenoid connector, if alarm E10, replace the control box and notify the after-sales service. If there is no alarm after removing the solenoid connector, please plug it back in Step on the front pedal to let the sewing machine perform thread clamping and back-tacking. If alarms, please turn off start back-tacking and end back-tacking, restart the control box, and then step forward. If alarms, please turn off the thread clamping function and restart the electronic control, and step forward again. If there is no alarm, replace the clamper. Step on the front pedal to let the sewing machine perform thread clamping and back-tacking. If it alarms, please turn off start back-tacking and end back-tacking, restart the control box, and then step forward. If there is no alarm, please turn off the thread clamping function and restart the control box, and open start back-tacking function, step forward again, if it alarms, please replace the back-tacking solenoid. Step on the front pedal to let the sewing machine perform thread clamping and back-tacking. If there is no alarm, please step back halfway to raise the presser foot. If it alarms, please replace the presser foot solenoid. Step on the front pedal to let the sewing machine perform thread clamping, back-tacking and half anti-side trample. If there is no alarm, please back step pedal to trim. If it alarms, please replace the thread trimming solenoid.
E09 E11	The positioning signal of main shaft motor encoder is abnormal	 Turn off the system power, check whether main shaft motor encoder connector is loose or fall off, restore it to normal and restart the system. Check whether the motor zero point correction setting is correct; Reset the motor zero point correction; Whether there is oil on the encoder code plate, please clean it if there is any; If it still does not work normally, please replace the control box or main shaft motor and notify the after-sales service.
E14	Main shaft motor encoder signal is abnormal	 Turn off the system power, check whether the main shaft motor encoder connector is loose or fall off, restore it to normal and restart the system. Check whether the grating is installed correctly (whether the grating screws are tightened and whether the grating is in the center of the encoder).

		3. Check whether there is oil on the encoder code plate, if there is, please clean it up, and restart the system	
		after recovery. 4. If it still does not work normally, please replace the control box or main shaft motor and notify the after-sales service.	
		1. Please check whether the motor power cord has bad	
E15	Main shaft motor drive overcurrent	contact;	
		2. Please check whether the motor power cord is crushed;	
		3. Please replace the control box or main shaft motor and notify the after-sales service.	
E17	Machine overturned	1. Turn off the system power and check if the machine is overturned.	
		2. Check whether the machine protection switch detection setting is correct.	
		3. If it still does not work normally, please replace the control box or panel and notify the after-sales service.	
	Main shaft motor failed to start	1. Turn off the system power, check whether main shaft motor power cord connector and encoder connector	
		are loose or fall off, restore them to normal and restart the system.	
E20		2. Check whether the motor zero point correction setting is correct, reset the motor zero point correction	
		3. If it still does not work normally, please replace the control box or main shaft motor and notify the	
		after-sales service.	
E28	Maintenance warning	Please perform maintenance. (When an alarm occurs, press the S key to clear and re-count.)	
	Abnormal		
	communication		
E80	between main	Please replace the control box and notify the after-sales service.	
	chip and drive		
	chip		
	Back-tacking stepping motor overcurrent	1. Turn off the system power and observe whether back-tacking stepping motor is stuck. If it is stuck, remove	
		the mechanical failure of the machine first. If it is normal, check whether connector of back-tacking stepping	
E82		motor is loose or fall off, restore it to normal and restart the system.	
		2. If it still does not work normally, please replace the control box or back-tacking stepping motor and notify	
		the after-sales service.	
	The positioning signal of back-tacking stepping motor encoder is abnormal	1. Turn off the system power and observe whether back-tacking stepping motor is stuck. If it is stuck, remove	
		the mechanical failure of the machine first. If it is normal, check whether the encoder connector of	
E84		back-tacking stepping motor is loose or fall off, and restart the system after returning it to normal.	
		2. Check whether the grating is installed correctly (whether the grating screws are fastened and whether the	
		grating is in the center of the encoder);	
		3. Check if there is oil on the grating code plate, if so, please clean it up, and restart the system after	
		restoration;	
		4. If it still does not work normally, please replace the control box or back-tacking stepping motor and notify	
		the after-sales service.	
	Back-tacking motor encoder signal is abnormal	1. Turn off the power of the system, check whether the encoder connector of back-tacking stepping motor is	
		loose or fall off, restore it to normal and restart the system.	
E85		2. Check whether the grating is installed correctly (whether the grating screws are fastened and whether the	
		grating is in the center of the encoder);	
		3. Check if there is oil on the grating code plate, if so, please clean it up, and restart the system after	
		restoration;	
		4. If it still does not work normally, please replace the control box or back-tacking stepping motor and notify	
		the after-sales service.	

E86	Back-tacking stepping motor failed to start	 Turn off the power of the system, check whether the power cord connector of back-tacking stepping motor and the encoder connector are loose or fall off, restore them to normal and restart the system. Check whether the grating is installed correctly (whether the grating screws are fastened and whether the grating is in the center of the encoder); Check if there is oil on the grating code plate, if so, please clean it up, and restart the system after restoration; If it still does not work normally, please replace the control box or back-tacking stepping motor and notify the after-sales service. 	
E87	Back-tacking stepping motor locked-rotor	 Turn off the system power and observe whether back-tacking stepping motor is stuck. If it is stuck, remove the mechanical failure of the machine first. If it is normal, check whether the power cord connector of back-tacking motor and the encoder connector are loose or fall off, restore them to normal and restart the system. If it still does not work normally, please replace the control box or back-tacking stepping motor and notify the after-sales service. 	
E92	Thread trimming (presser foot) stepping motor overcurrent	1. Turn off the system power and observe whether trimming (presser foot) stepping motor is stuck. If it is stuck, remove the mechanical failure of the machine first. If it is normal, check if trimming (presser foot) stepping motor connector is loose or fall off, restore it to normal and restart the system. 2. If it still does not work normally, please replace the control box or trimming (presser foot) stepping motor and notify the after-sales service.	
E94	Thread trimming (presser foot) stepping motor can't find zero-point	 Turn off the system power and observe whether trimming (presser foot) stepping motor is stuck. If it is stuck, remove the mechanical failure of the machine first. If it is normal, check whether trimming (presser foot) stepping motor encoder connector is loose or falling off, and whether there is oil on the encoder code plate. If there is, please clean it up, restore it to normal and restart the system. If it still does not work normally, please replace the control box or trimming (presser foot) stepping motor and notify the after-sales service. 	
E95	Thread trimming (presser foot) stepping motor encoder signal is abnormal	 Turn off the system power, check if the thread trimming (presser foot) stepping motor encoder connector is loose or fall off, restore it to normal and restart the system. If it still does not work normally, please replace the control box or the thread trimming (presser foot) stepping motor and notify the after-sales service. 	
E96	Thread trimming (presser foot) stepping motor failed to start	 Turn off the power of the system, check whether the thread trimming (presser foot) stepping motor power cord connector and encoder connector are loose or fall off, and restart the system after returning it to normal. If it still does not work normally, please replace the control box or the thread trimming (presser foot) stepping motor and notify the after-sales service. 	
E97	Thread trimming (presser foot) stepping motor stalling	1. Turn off the system power and observe whether the thread trimmer (presser foot) stepping motor is stuck. If it is stuck, remove the mechanical failure of the machine first. If it is normal, check whether the thread trimming (presser foot) stepping motor power cord connector and encoder connector are loose or fall off, restore them to normal and restart the system. 2. If it still does not work normally, please replace the control box or the thread trimming (presser foot) stepping motor and notify the after-sales service.	

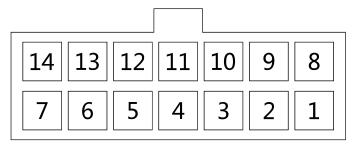
4 Port diagram

6P function port description



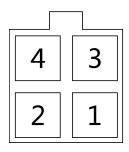
- 1. Suction with clamp function without any thrum: 3 (+32V), 6
- 2. Hook thread with clamp function without any thrum: 2 (+32V), 5

12P function port description



- 1. Thread clamping: 2, 9 (+32V)
- 2. Thread tension releasing: 3, 10 (+32V)
- 3. LED Light: 4 (DGND), 11 (S5V)
- 4. Manual back-tacking: 5
- 5. Mending stitch: 7
- 6. 1/2 mending stitch: 14
- 7. 1/4 mending stitch: 12

4P function port description



1. Presser foot height sensor 1, 3(DGND), 4(S5V)

	NOTES
Dealer:	*texi