

TYPICAL

YSC-8571-A1

USER MANUAL

XI'AN TYPICAL INDUSTRIES CO.,LTD.

Notice

This product is used in system of industry sewing machine. For perfect operation and safety, installation and operation must be supervised by professional.

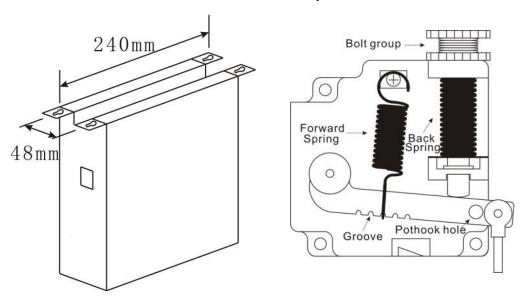
Work environment

- ▲ Please use 220V AC in ±10% ranges.
- ▲ To avoid the false operate. Please keep the product away from the high electromagnetic interference.
 - **▲** Please operate in the area which temperature is 5° C ~45 °C.
 - ▲ Please operate in the area which humidity is 80% or less.
 - ▲ Please keep the product away from the flammability and exploder.
- Notice of installation
 - ▲ The control box should be installed correctly follow the instruction in this manual.
 - ▲ Turn off the power and unplug the cord before installation.
 - ▲The wire must not set to be near the wheel and other movable parts.
 - ▲ To avoid the static interference and current leakage, all grounding must be done.
- Notice of safety
- ▲ Turn off the power before maintenance and repairs or raising the machine arms, or changing needle, or threading needle.
 - ▲ Please don't open the box except the professional.
- ▲ When turn on the machine in the first time, use low speed to operate and check the correct rotation direction.
 - ▲ During machine operation, don't touch any moving parts.
- ▲ All moving parts must use the protective device to avoid the body contact and objects insertion.
- ▲When there is water or other liquid, or caustic material on box or motor, you must stop operation and turn off the power.
 - ▲ All connector shouldn't plug and unplug when power on.
 - ▲The connector should be plug and unplug in the correct method.

1. Installation and Adjustment

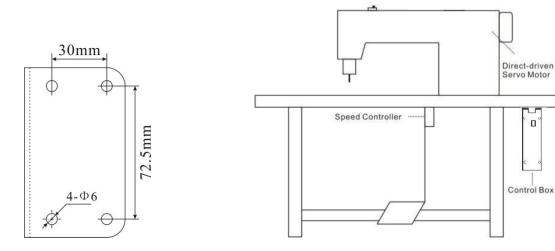
1.1 Control box

1.2 Speed controller



1.3 Dimension of speed controller bracket

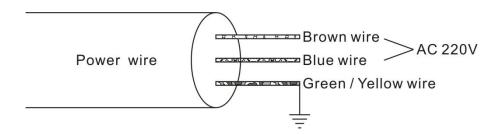
1.4 Installation diagram of system



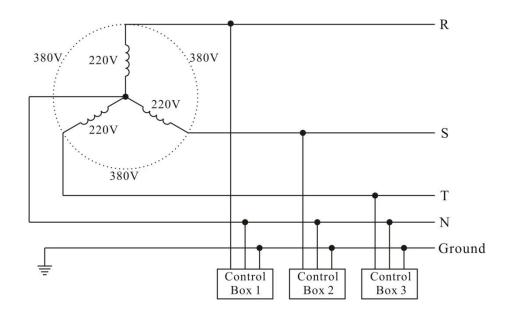
2. Power Connection

2.1 Single phase 220V power connection

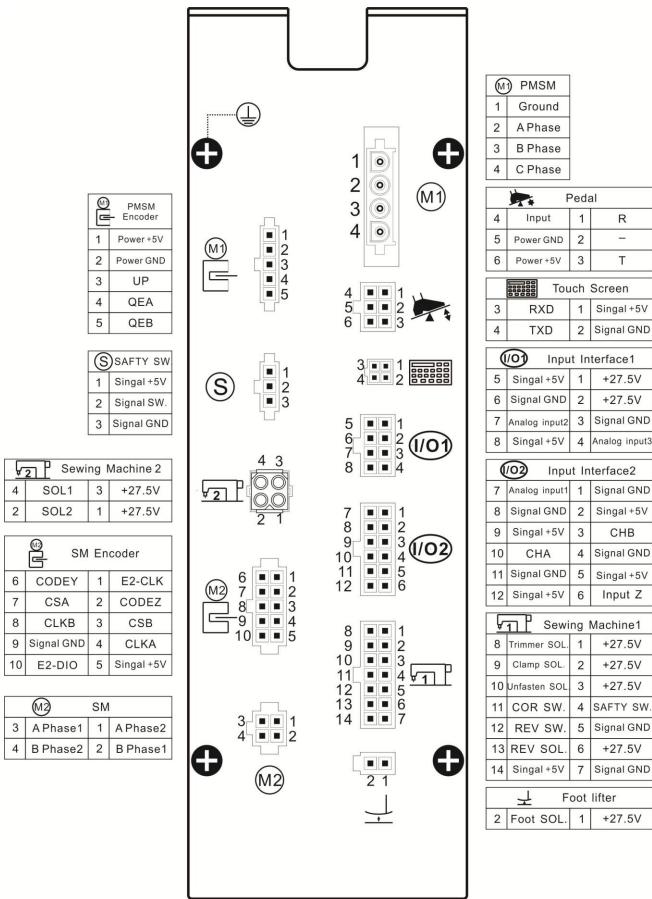
Ground wire (green & yellow) must be grounding.



2.2 Three phase 380V power connection



3. Connector Diagram

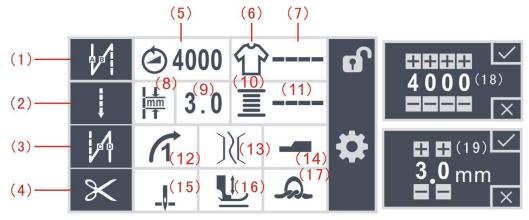


4. Function key

		Switching touch screen lock ON/OFF.
	Lock screen	The factory default 30 seconds without operating
		automatic lock screen.
•	Setup	Enter setting interface.
	Home	Return to main interface.
Return		Return to last interface.

5. Main Interface

After power on, main interface is displayed, generally sew in this interface.



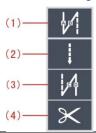
5.1 Description

	Start backtack	ON/OFF start backtack: ON, OFF;
(1)		If long press, enter setting interface.
		Note: the start backtack of fixed stitch can be set separately,
		display the setting status of the next segment in real time.
	Sewing Mode	Sewing mode: Free sewing , Continuous backtack ,
		Fixed stitch 1 15; If long press, enter setting interface
		(Continuous backtack and Fixed stitch).
(2)		Note: Fixed stitch icon 1 the left number is the next segment
		No., and the right number is the number of stitches of the next
		segment.

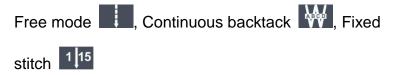
(3)	End backtack	ON/OFF End backtack: ON, OFF; If long press, enter setting interface. Note: the end backtack of fixed stitch can be set separately, display the setting status of the next segment in real time.
(4)	Thread trimming	ON/OFF thread trimming: ON, OFF; If long press, enter setting interface. The fixed stitch thread trimming can be set separately for each segment, display the setting of the next segment in real time.
(5)	Sewing Speed	Display sewing speed. Press it to enter adjust speed interface (18), press to save, press to cancel. Note: Different mode (free sewing/continuous backtack/fixed stitch), respectively, to adjust their speed.
(6)	Piece Counter	ON/OFF piece counter: TON, TOFF; If long press, enter setting interface.
(7)		If the counter is turned on, display the count.
(8)	Stitches Mode	Change the stitches mode: Fixed length, Variable length
(9)	Stitches Length	Fixed length : display the stitches length (unit: mm), press it to enter adjust length interface (19), press to save, press to cancel; If fixed stitch, press it to enter fixed stitch setting interface. Variable length : display the No. of patterns, press it to enter pattern setting interface.
(10)	Lower thread	ON/OFF Lower thread counter: I ON, OFF If long press, enter setting interface.
(11)	counter	When the counter is turned on, display the remaining count.
` ′		

ON/OFF soft start: ON, OFF If long press, enter setting interface. ON/OFF clamp: ON, OFF ON/OFF wiper: Open, close ON/OFF step: ON, OFF; If long press, enter setting interface. ON/OFF step: ON, OFF; If long press, enter setting interface. Change the needle position: -up, -ldown If long press, enter setting interface. Select function of the lifting foot:			
ON/OFF clamp: ON, OFF ON/OFF wiper: open, close ON/OFF step: ON, OFF; If long press, enter setting interface. ON/OFF step: ON, OFF; If long press, enter setting interface. Change the needle position: -up, -down If long press, enter setting interface. Select function of the lifting foot:	(12)	Soft start	, and the second
(14) Step ON/OFF wiper: open, close ON/OFF step: ON, OFF; If long press, enter setting interface. (15) Needle stop position If long press, enter setting interface. Select function of the lifting foot: Close the foot lifting; I foot lifter Automatic foot lifting after stitch stop; Automatic foot lifting after thread trimming Automatic foot lifting after stitch stop and Automatic foot lifting after thread trimming. If long press, enter setting interface. ON/OFF tie thread function: ON, OFF			
ON/OFF wiper: Open, close ON/OFF step: ON, OFF; If long press, enter setting interface. Change the needle position: -up, -up, -up, -up, -up, -up, -up, -up,	(13)	Clamp / Wiper	ON/OFF clamp: ON, OFF
If long press, enter setting interface. Needle stop position If long press, enter setting interface. Select function of the lifting foot: Close the foot lifting: If foot lifter Foot lifter Foot lifter Automatic foot lifting after stitch stop: Automatic foot lifting after thread trimming If long press, enter setting interface. ON/OFF tie thread function: ON/OFF	(10)	Ciamp / Wipor	ON/OFF wiper: sopen, close
If long press, enter setting interface. Change the needle position:up,down If long press, enter setting interface. Select function of the lifting foot:	(14)	Step	ON/OFF step: ON, OFF;
Select function of the lifting foot: Close the foot lifting; If long press, enter setting interface. Select function of the lifting foot: If long press, enter setting interface. Close the foot lifting; If long press, enter setting after stitch stop; Automatic foot lifting after thread trimming If long press, enter setting interface. Concept the lifting foot: Close the foot lifting; If long after stitch stop; Concept the lifting after stitch stop and Automatic foot lifting after thread trimming. Concept the lifting foot: Close the foot lifting; If long after stitch stop; Concept the lifting after stitch stop and Automatic foot lifting after thread trimming. Concept the lifting foot: C		•	If long press, enter setting interface.
Select function of the lifting foot: Close the foot lifting; foot lifter Foot lifter Foot lifter Foot lifter Automatic foot lifting after stitch stop; Automatic foot lifting after thread trimming Automatic foot lifting after stitch stop and Automatic foot lifting after thread trimming. If long press, enter setting interface. ON/OFF tie thread function: ON, OFF	(15)	Needle stop	Change the needle position:up, -l-down
Close the foot lifting: : foot lifting; : Automatic foot lifting after stitch stop; Automatic foot lifting after thread trimming : Automatic foot lifting after stitch stop and Automatic foot lifting after thread trimming. If long press, enter setting interface. ON/OFF tie thread function: ON, OFF		position	If long press, enter setting interface.
Foot lifter Foot lifter Automatic foot lifting after stitch stop; Automatic foot lifting after thread trimming Automatic foot lifting after stitch stop and Automatic foot lifting after thread trimming. If long press, enter setting interface. ON/OFF tie thread function: ON, OFF			Select function of the lifting foot:
Foot lifter Let : Automatic foot lifting after stitch stop;		Foot lifter	L: Close the foot lifting;
Automatic foot lifting after thread trimming Lie: Automatic foot lifting after stitch stop and Automatic foot lifting after thread trimming. If long press, enter setting interface. ON/OFF tie thread function: ON, OFF			! foot lifting;
Automatic foot lifting after stitch stop and Automatic foot lifting after thread trimming. If long press, enter setting interface. ON/OFF tie thread function: ON, OFF	(16)		L: Automatic foot lifting after stitch stop;
lifting after thread trimming. If long press, enter setting interface. ON/OFF tie thread function: ON, OFF			x . Automatic foot lifting after thread trimming
If long press, enter setting interface. ON/OFF tie thread function: ON, OFF			Land Automatic foot lifting after stitch stop and Automatic foot
ON/OFF tie thread function: ON, OFF			lifting after thread trimming.
(17) Lie thread			If long press, enter setting interface.
	(17)	Tie thread	ON/OFF tie thread function: •• ON, •• OFF
	(- /	TIO TIIIOGG	If long press, enter setting interface.

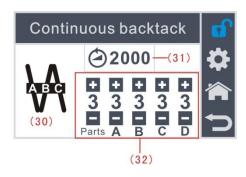
5.2 Sewing mode setting



Sewing mode key(2) select:



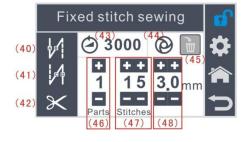
5.2.1 Continuous backtack



When sewing mode is "w", long press key (2). Enter setting interface.

- (30) Display the current Continuous Backtack type;
- (31) Show the speed of the Continuous Backtack, press it to enter the adjust speed interface (18);
- (32) Adjust the No. of segments and the stitches number of every segment.

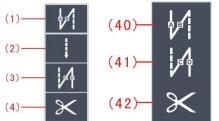
5.2.2 Fixed stitch



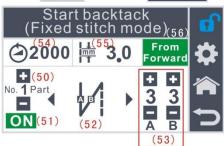
When sewing mode is "1 115", long press key (2). Enter setting interface.

- (46) Adjust the No. of segments(1~8);
- (47) Adjust the stitch number (0~99); If you want to set the total number of segments is N, set the stitch number of segment No.(N+1) to "0"; (45) can erase the number of current segment;
- (48) Adjust the stitch length of current segment;
- (40) (41) (42) Set start backtack, end backtack, thread trimmer; If long press, enter setting interface;
- (43) Display the speed of the fixed stitch, press it to enter the adjust speed interface (18);
- (44) automatic sewing

5.3 Start backtack



Long press key (1) in main interface or long press key (40) in fixed stitch interface to enter settings interface.



Special in start backtack (Fixed stitch mode), (50) used for adjust the segment No.



(52)(56)Change the mode:



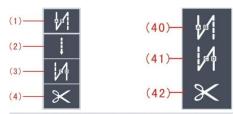
	1	2	3	4	5
From Forward	ł				
From Back					111

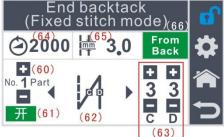
Note: When middle sewing is variable length mode, in order to prevent the effect of start backtack from the variable stitch length, we suggest customer setting start backtack with following pattern as the end of forward sewing, so that start backtack will not mix with middle segment:



- (53) Set stitches number, "A" is forward stitch, "B" is backward stitch, range is from 1 to 15;
- (54)Display start backtack speed, press it, enter adjust speed interface(18);
- (55)Display start backtack stitch length, press it, enter adjust stitch length interface(19)

5.4 End backtack



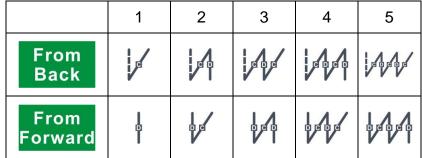




Long press key (3) in main interface or long press key (41) in fixed stitch interface to enter setting interface.

Special in End backtack (Fixed stitch mode), (60) used for adjust the segment No.

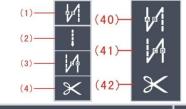
(61) ON/OFF; (62)(66) Change the mode:



Note: When middle sewing is variable length mode, in order to prevent the effect of end backtack from the variable stitch length, we suggest customer set end backtack with above pattern as from forward, so that end backtack will not mix with middle segment.

- (63) Set stitches number, "C" is backward stitch, "D" is forward stitch, range is from 1 to 15;
- (64)Display end backtack speed, press it to enter adjust speed interface(18);
- (65) Display end backtack stitch length, press it to enter adjust stitch length interface(19)

5.5 Thread trimming





Press key (4) in home interface or key (42) in fixed stitch interface, ON/OFF the thread trimming: ON, OFF If long press it, enter setting interface.

- (70) Display trimming speed;
- (71) Press it to enter adjust speed interface(18), set thread trimming speed;
- (72) ON/OFF automatically move the needle bar to its highest position.

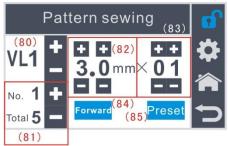
5.6 Stitch length

5.6.1 Fixed stitches length



5.6.2 Variable stitches length





- (8)Select fixed stitches length or variable stitches length;
- (9) Enter adjust fixed stitches length interface(19);
- (9) Enter set stitches pattern interface;

Factory default 8 kinds (VL1-VL8) stitches patterns consisted of several segment (maximum 15 segments), several stitches (maximum 15 stitches), with a certain stitch length (can be set as forward or backward sewing); customer can change stitch patterns freely, long press preset key (85) to reset default patterns.

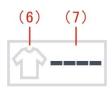
Pattern sample, take factory default of pattern VL1 as an example:

						
segment	1	2	3	4	5	6
length	3.0	3.0	3.0	3.0	3.0	!
quantity	1	1	1	1	2	
direction	forward	backward	forward	backward	forward	
trace	+3.0mm	/ -3.0mm	+3.0mm	/ -3.0mm	+3.0mm +3.0mm	
pattern			W			

- (80) Select pattern serial number, range from VL1 to VL8; (81) Adjust the segment serial number of the pattern being set, and display total amount of segments according to auto calculation; if customer need set total segment quantity as N, just set stitch quantity of segment N+1(83) as "--"; (in example, segment No. 6 stitch quantity is
- (82) Adjust stitch length of one segment, (84) adjust forward or backward sewing of one segment;

"--"means total segment quantity is 5);

5.7 Piece Count





Piece count can calculate number of work pieces approximately. If it match conditions (93) (95), work piece quantity add 1.

The main interface key (6) turn on/off piece count function:

ON, OFF; long press it, enter setting interface;

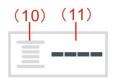
(7) is present quantity of work pieces when piece count function is turn on; (90) is current quantity number, (91) clean quantity number, (92) amend quantity number;

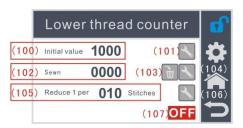
Two conditions of quantity number add 1:

i:Stitch quantity should bigger than or equal to 0.9 times of preset stitch quantity (93); ii: trimming times should bigger than or equal to preset times (95);

(94) amend preset sewing stitch quantity, (96) amend preset trimming times; (97) Turn on/off piecework function.

5.8 Lower thread counter





The lower thread counter can let you know how much lower thread is remaining.

Every time with several stitches (105), lower thread remains quantity minus 1. When lower thread remain quantity ≤ 0, buzzer buzzing 1 second, icon turns yellow at the meantime, alarming. Sewing can be continued until operate trimming motion at this time. Sewing is not allowed after trimming. Press to remove alarm, icon color back to and sewing can be continued and counted as negative number. After changing bobbin case, press again, bottom line quantity back to original value.

The home interface key (10) turn on/off this function:

ON, Topic long press to enter settings; When lower thread counter is ON, (11) is remain quantity(=preset data-sewing data); (100) preset quantity; (101) modify preset quantity; (102) is already used; (103) clear quantity already used; (104) modify quantity already used; (105) is stitch quantity for lower thread quantity minus 1; (106) modify this stitch quantity; (107) turn on/off lower thread counter function.

5.9 Soft start





In order to ensure the thread picking and nipping stability of next sewing step after trimming, soft start function can be turn on.

The home interface key (12) switching on/off soft start function; if turn on, number is the stitch quantity which operating soft start; turn off; long press to enter settings.

(110) is speed of soft start (200-500 stitch/min);

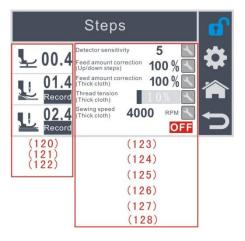
(111) adjust speed of soft start;

(112) is stitch quantity of soft start (1-5 stitch);

(113) adjust stitch quantity of soft start;

5.10 Step





Taking use of step function can improve feeding on steps, decrease deviation stitch error on thick part.

The main interface key (14) turn on/off step function;

ON OFF. Long press to enter settings. Setting way:

- ① Thickness definition: Sewing thickness means the height of presser foot when feed tooth under needle plate level; (120) present height of presser foot shown at the same time;
- ② Collection of step thickness (121): lifting presser foot to step position (as shown in the chart), press "record" to recording present thickness;
- ③ Collection of thick part thickness (122): lifting presser foot to thick part position (as shown in the chart), press "record" to recording present thickness;
- Adjusting of detector sensitivity: When detecting occasion of stepping is inaccurate, adjusting sensitivity (123), the bigger value the earlier discover step;
- Stitch length rate of up step (124) and stitch length rate of thick part (125): Actual feeding length=preset stitch length x stitch length rate;
- ⑥ Upper thread tension of thick part, the bigger value the smaller thread tension;
- Timitation of speed when sewing heavy-duty (127);
- (128) turn on/off step function.

5.11 Needle positioning





The main interface key (15) switch needle positioning: --

upper needle position, --lower needle position; Long press to enter settings;

- (130) set whether operating upper needle positioning automatically after starting up;
- (131) set whether lifting needle bar to highest point after trimming, it is easy for takeout fabrics.

5.12 Foot lifter





The main interface key (16), switching foot lifting function mode;

Long press it to enter settings.

To prevent electromagnet from overheat or burn after long time work, it will be automatic release after presser foot lifted for a while, (140) adjusting automatic release time; After presser foot release for a while, operating sewing motion after ensure presser foot compacted fabrics, (141) adjusting waiting time;

- (142) main switch of presser foot function;
- (143) switch for auto foot lifting in middle process;
- (144) switch for auto foot lifting after trimming.

5.13 Tie thread





When used tie thread, can reduce the bird's nest.

The main interface key (17), turn on/off function; ADON



- OFF. Long press it to enter settings.
- (150) set rounds, one round include 2 stitches.
- (151) set stitch length when tie thread.

6. Setting interface Press setting button **t** to enter settings

6.1 treadle

Set back half treadle function:

- ①Foot lifting position (Factory data)
- ②Trimming position: If there is no need lift presser foot in the middle process, meanwhile trimming is required more sensitive, trimming position can be set. (After trimming, trimming position also can lifting presser foot)
- ③Start position: If there is no need lift presser foot in the middle process, meanwhile trimming is no need sensitive, start position can be set. Back half pedal will not operate any motion.

6.2 Safety switch



To prevent any wrong motion from machine head vibration, motion will be confirm after signal changed for a while, (160) adjusting confirmed time;

If there is an alarm after lay down machine head, or there is no alarm after turn over, the signal polarity is not match, (161) adjusting signal polarity;

(162) turn on/off turn over switch function.

6.3 Machine head switch

Two machine head switches on machine head are multi-function switch, can be set respectively:

- 0: Reverse sewing
- 1: Change needle up/down
- 2: Correct stitches
- 3: Change needle up/down, reverse when sewing
- 4: Correct stitches, reverse when sewing
- 5: Correct stitches and reverse at the same time
- 6: --
- 7: The same as backpedal to trim position
- 8: Raise/down presser foot
- 9: --
- 10: --
- 11: Second Stitch Length

Specially, when setting as "11: Second Stitch Length" function, (170) adjusting intensive rate, intensive stitch length=preset stitch length×intensive rate.



6.4Correction sewing

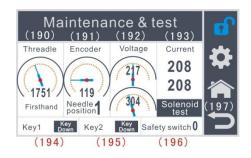


When machine head switch function setting as correct, here is parameters of stitch addition setting:

(180) is sewing speed of correct, also is speed of treadle at the first forward segment;

(181) correct after trimming: stitch adding at stop when turn on; it cannot add stitch before trimming when turn off; (182) It will be stopped at stop position as preset when turn on; It will be stopped at upper needle position or down needle position which is closer when turn off;

6.5 Maintenance & test



Used for inspect system status of partially input and output, judging whether equipment is in good condition. (190) treadle testing: step treadle to different position, shows voltage sampling value (about 750-4000) and position: ① start position ② backward first segment: presser foot lifting ③ backward second segment: trimming ④ forward first segment: low speed ⑤ forward second segment: high speed;

- (191) Encoder testing: turn hand wheel forward, shows encoder value (0-720) and needle position signal (0/1); (192) voltage read: respectively AC input 220V voltage values and controller bus-bar voltage (≈AC input voltage×1.4);
- (193) Motor for main shaft current reference value: ≈208;
- (194) head button 1 testing: after press, shows: "press", after release, shows "bounce";
- (195) head button 2 testing: after press, shows: "press", after release, shows "bounce";
- (196) Safe switch testing:
 - ①Under the status that turn over switch function is

turn off, turn over/lay down machine head, data is changing between 0/1;

②Under the status that turn over switch function is turn on, turn over/lay down machine head, machine will execute turn over alarm function;

(197) enter electromagnet testing interface (198): press relevant electromagnet button respectively, relevant electromagnet should execute pull and put motion once;

6.6 Touch screen



Used for set touch screen parameters.

- Screen brightness: (200) adjusting screen brightness
 (adjusting brightness when lock screen);
- ② Lock screen automatically: (203) after turn on after a while (201) without screen operation, screen locked automatically; lock time can be set as: 15 sec, 30 sec, 1 min, 2 min, 5 min, 10 min, 20 min and 30 min;
- 3 Buzzer: (204) turn off is mute, turn on is buzzing;
- 4 Long press to judge the time: (202) press and hold the button, after a while judge as long press motion;
- 5 Language: (205) switch between Chinese and English

6.7 About

6.8 Advanced settings

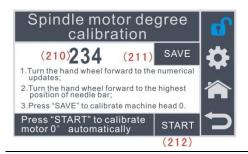
Display program version information

Enter "Advanced settings", password are required sometimes, customer can't enter advanced settings with wrong password.

7. Advanced settings (★Warning: If set up incorrectly in advanced setting interface, it may cause the machine does not work properly, please operate cautiously.)

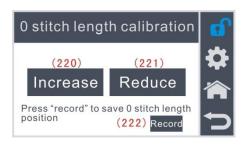
7.1 Main motor angle adjustment

Set machine head zero point and main motor zero point.



- Setting machine head zero point: Run hand wheel forward till (210) changes, when needle bar in top position, press key (211), this position is set machine head zero point.
- ② Setting motor zero point: Lift up pressure foot, no fabrics, press key (212), setting automatically.

7.2 Zero stitch length adjustment



Stitch length motor installed or position changed, must adjust zero stitch length again.

Enter this interface, stitch length change to zero stitch length position. Put fabrics under press foot for sewing, checking stitch length plus or minus. Stop then adjust zero point stitch length. If stitch length plus, decrease stitch length (221), otherwise, increase stitch length (220). Sewing and adjusting till stitch length is zero, press key (222), then exit.

7.3 Duty of solenoid

7.4 Action degree

Set solenoid duty: clamp, thread tension, auto foot lifter

Set needle stop position (up & down), thread trimmer act and release angle, thread tension act and release angle.

7.5 Thickness of material

calibration



Press foot height detector installed or position changed, must calibrate again.

(230) Display sensor sample values; (231) Display real height by calculating; (232) Setting calibration fixtures height; (235) Text display, tell user how to operate:

1) Put down press foot, no fabrics, put down feed tooth under needle plate, make sure the lowest position, press key (234); 2 Put(232) calibrated height fixtures under press foot, press key (234), finish calibration.

7.6 Setting press foot

Setting press foot pulling whole power time, turn on / off auto foot lifter release on time function.

7.7 Change machine head	Change machine head, and press "setting" confirm.
7.8 Stitch length ratio	Setting forward ratio, backward ratio, high speed ratio.
7.9 Factory data reset	
7.10 Password	Setting "advantage setting" interface password and switch.
7.11 Parameter	Enter parameter table; press long can adjust D and O
	series parameters.

8. ERROR CODE

CODE	Description	Measurement
E101	Voltage is too high	Check power supply voltage
E102	Voltage is too low	Check power supply voltage
E103	Voltage is too high	Check power supply voltage
E104	Voltage is too low	Check power supply voltage
E106	Overload	Check motor cable/machine stuck?/encoder
E107	Communication error	Repair control box
E108	Overload	Check motor cable/machine stuck?/encoder
E109	Motor error	Check motor cable/machine stuck?/encoder
E110	Synchronizer error	Check motor cable/machine stuck?/encoder
E200	No step motor information	Check motor cable
E204	Step motor overtime	Check motor cable/machine stuck?
E205	Step motor no electric angle	Check motor cable
E206	Step motor no mechanical zero point	Check motor cable
E207	Mechanical zero point over range	Check motor cable
E209	Step motor no mechanical zero point	Check motor cable
E213	Step motor over range	Check motor cable
E216	Step motor overload	Check motor cable/machine stuck?
E217	Communication error	Repair control box
E249	No step motor information	Check motor cable

9. Parameter

No.	Range	Description
S01	500~5000rpm	Maximum speed
S02	150~500 rpm	Minimum speed
S03	500~3500 rpm	Speed of Start Backtack
S04	500~3500 rpm	Speed of End Backtack
S05	500~2500 rpm	Speed of Continuous Backtack
S06	500~4500 rpm	Speed of Fixed Stitch
S07	150~300 rpm	Speed of Thread Trimming
S08	200~500 rpm	Speed of Slow Start
T04	1 200ma	Time of wait stepper motor delay when run stepper motor before
T01	1~200ms	main motor.
T02	1~10ms	Stepper motor communication time
T03	1~200ms	Timing before the wiper solenoid act.
T04	1~200ms	Timing for the wiper solenoid action.
T05	1~500ms	Timing before the foot lifter solenoid is act.
T06	1~500ms	Timing before the foot lifter solenoid is released.
T07	1~999ms	Timing of the foot lifter solenoid is act with whole output.
T08	1~999ms	Timing of the reverse solenoid is act with whole output.
T09	1~1000ms	Timing of judge the Safety Switch.
T10	1~200ms	The pedal will be greater sensitive when the value is smaller.
A01	0~1	Needle Up/Down: 0 down, 1 up
A02	0~1	Fixed Stitches automatic sewing
A03	0 1	Needle Up/Down of Correct Stitches:
A03	0~1	0 - random, 1 - A01
A04	0~11	Input1 function
A05	0~11	Input2 function
A06	0~1	Thread trimming
A07	0~1	Step fixing switch

A08	0~1	Wiper(must set A10 to "0")
A09	0~1	Foot Lifter
A10	0~1	Clamp
A11	0~1	Piece counter
A12	0~1	Lower thread counter
A13	0~1	After trimming, pullback to Needle Top.
A14	0~1	The Foot Lifter will lift automatically when stop,
A15	0~1	The Foot Lifter will lift automatically after trimming.
A16	0~1	In Fix Stitches. If A02 was set to "1", the next segment will sew
AIO	0~1	automatically after the Start Backtack.
A 1 7	0.1	In Fix Stitches. If A02 was set to "1", the End Backtack and thread
A17	0~1	trimming will do automatically after the last segment.
A18	0~1	The machine will move to Needle Up and stop automatically as
ATO	0~1	power on.
A19	0~2	Function of pedal back -1: 0 - neutral position, 1 – Foot Lifter,
A13	0~2	2-thread trimming
A20		
A21	0~1	Slow Start
A22		
D01	0~359°	Needle Up degree.
D02	0~359°	Needle Down degree.
D03	0~359°	Trimmer act degree.
D04	0~359°	Trimmer release degree.
D05	0~359°	Reverse act degree.
D06	0~359°	Reverse release degree.
D07	0~359°	Clamp act degree.
D08	0~359°	Clamp release degree.
D09	0~359°	Stitch length motor start angle.
D10	0~359°	Stitch length motor finish angle.

D11	0~359°	Reverse forbidden act degree(RVS.SW)
D12	0~359°	Reverse allow act degree(RVS.SW)
O01	1~10	The number of stitches of slow start
004	0 500/	Upper thread tension adjustment during thick step, output under
O04	0~50%	take up
O05	10~100%	The duty of Foot Lifter SOL
006	0~1	The foot lifter SOL will be released automatically after the time
008	0~1	desired(O07)
O07	5~30s	"The time desired" of O06
O09	10~100%	The duty of RVS SOL
O10	0~1	The RVS SOL will be released automatically after the time
010	0~1	desired(O11)
O11	5~30s	"The time desired" of O10
017	50~150%	Stitch length addition during forwarder sewing.
O18	50~150%	Stitch length addition during back tack.
O23	1~60	The running time of aging test.
O24	1~60	The idle time of aging test.
O25	1~720	The total time of aging test.
O26	0~1	Set to "1/2" active the aging test.
O27	500~3000	Reduction speed of back tack speed
O29	1.0~5.0mm	Stitch length when back tack speed reduction is begin
O31	0~1	Safety switch
O32	0~1	Polarity of safety switch
O33	200~4000rpm	Reduction speed of step sewing speed
O37	0~100	Step thickness
O38	0~100	Thickness of thick part
O39	50~200	Up step compensation rate
O40	50~200	Thick part compensation rate
O41	1~100	With how many stitches bottom line quantity add 1

O42	0~1	Foot Lifter when clamping.
	-	
O43	1~9999	Preset data for lower thread counter.
O44	0~9999	Lower thread counter.
O45	1~999	Stitch quantity for piece counter judgment.
O46	1~99	Thread trimming times for piece counter judgment.
O47	0~9999	Piece counter quantity.
O48	10~100%	The duty of clamp SOL.
O49	10~100%	The duty of unfasten SOL.
O51	0~1	Reset parameter to Factory Defaults
O53	10~100%	Output of free sewing when presser foot discharge and at a low speed and without front bar-tacking.
O54	10~100%	Output when presser foot discharge during start with slow start
O55	10~100%	Output when presser foot discharge under other status
O56	0~4095	Pedal input MAX value: value ≥ O57
O57	0~4095	Pedal input dividing value of high speed and low speed: O56 ≥ value ≥ O58
O58	0~4095	Pedal input dividing value of low speed and Balance: O57 ≥ value ≥ O59
O59	0~4095	Pedal input dividing value of Balance and Foot lifter: O58 ≥ value ≥ O60
O60	0~4095	Pedal input dividing value of Foot lifter and Trimming: O59 ≥ value ≥ O61
O61	0~4095	Pedal input MIN value: value ≤ O60
O62	0~250	Pedal loop value
O63	0~5	Pedal mode: 0–linear; 1–polyline; 2–curve (slow → quick); 3 – curve (quick → slow); 4-S curve (slow → quick → slow); 5-S curve (quick → slow → quick)
O64	500~5000	The speed of knee of polyline
O65	0~4095	The value of knee of polyline: O56 ≥ value ≥ O57
O66	1~10ms	The period of Foot Lifter SOL(ms)
O67	1~10ms	The period of RVS SOL(ms)
O68	0~1	Mode of the End Backtack: 0- Stop first, then act RVS SOL; 1-Act RVS SOL when running
O69	0~1	Mode of correct stitches: 0-before trimming only; 1-only if stop

072	0~10	Add torque when low speed
O73	1~9	Sensitivity of start go up step

