

Automatic integral manual Sunstar version V1.1

1. Safety instruction

- Please read the operation manual and related sewing machinery datasheet carefully before correct use.
- 1.1 (1) Power voltage and frequency: please refer to motor and control box nameplate.
- (2) Interference from electromagnetic wave: please keep far away strong magnetic or high radiation environment in order to avoid obstructions and make to misoperation.
- (3) Grounding: to avoid the noise obstructions or leakage of electricity accident (including sewing machine, motor, control box and positioner).
- 1.2 Please make sure power off at least 1min and then can open control box cover, because there are dangerous high voltage.
- 1.3 Please turn off the power while repairing or wearing needle in order to protect operator's safety.
- 1.4 ⚠ Used where potential dangers exist.
- ⚠ Used where high voltage and electric danger exist.
- 1.5 Product warranty period of one year on condition that this machine is operated correctly and no man-made damage.

2. System parameter table:

2520A: Integrated sewing (thin material)      2520B: Integrated sewing (roll seam welder)

2520BL: Integrated sewing (roll seam welder The larger the needle distance)

No	Project	Content	Applicable models	Setting range	The default value	Level
1	Sewing speed	Set sewing speed	2520A 2520B 2520BL	200~5000 200~4000 200~3500	4000 3000 2800	I
2	Soft-start function	0: No soft-start function 1~9: Soft start stitches	All	0~9	1	I
3	Ornamental bartacks	0: Invalid 1: Effective	All	0/1	0	I
4	Fixed-length seam sewing speed	Set fixed-length seam sewing speed	2520A 2520B 2520BL	200~4000rpm 200~3500rpm	3000 2500	I
5	Simple sewing mode Settings	0: invalid 1: effectively	All	0/1	0	I
9	Back stitch speed limitation	can keep needle from breaking while backstitching	All	500~1500rpm	800	I
19	Solid after before sewing stop	0: unavailable 1: available	All	0/1	0	I
20	Setting of reverse sewing switch function	Reverse sewing switch mode 0: Only reverse sewing 1: Reverse sewing and fill needle 2: Only reverse sewing, standby without operating	All	0/1/2	0	I
21	soft start speed 1	speed of the 1 <sup>st</sup> needle of soft start	All	100~3000rpm	400	I
22	soft start speed 2	speed of the 2 <sup>nd</sup> needle of soft start	All	100~3000rpm	1000	I
23	soft start speed 3	speed of the 3 <sup>rd</sup> needle of soft start	All	100~3000rpm	1500	I
24	Presser foot soft lowering function	0: unavailable 1: available	All	0/1	0	I
25	Presser foot lift function	0: unavailable 1: available	All	0/1	1	I
27	Power on and positioning	0: unavailable 1: available	All	0/1	0	I
28	signal mode for turn/lift switch	Setting of signal mode of turn/lift switch of machine head 0: always open 1: always close 2: forbid a protection	All	0/1	0	I
29	Presser foot soft lowering time	To set presser foot soft lowering time	All	50~500ms	300	II
32	Decorative bar-tacking dwell time	To set decorative bar-tacking dwell time	2520A 2520B 2520BL	5~500ms	50 100	I
34	To select standard bar-tacking pedal speed mode	0: Auto bar-tacking speed ;1: Pedal speed	All	0/1	0	II
35	By-piece rate setting	0: No by-piece function 1~20: Plus 1 to by-piece value for each set thread trimming	All	0~20	1	I
37	Thread wiping operation time	Thread wiping operation time	All	0~800ms	40	II
41	Low speed	The lowest speed of pedal	All	100~400rpm	200	I
42	Pedal curve selection	0: normal; 1: Slow acceleration 2: Quick acceleration	All	0/1/2	0	I
43	Dial the line that can set	0: unavailable 1: available	All	0/1	1	I
44	thread-cutting speed	thread-cutting speed	All	100~400rpm	280	I
45	Reverse sewing speed limit switch	processing can prevent reverse sewing needle breakage 0: infinite speed 1: have the speed limit	All	0/1	0	I
46	pressor foot lifting delays sewing	delay with pressor foot lowered	All	0~800ms	200	II
47	Time of presser foot magnet full voltage output	Time of presser foot magnet full voltage output	All	0~800ms	150	II
48	Presser foot magnet voltage output duty cycle	Presser foot magnet voltage output duty cycle	All	0~100	30	II
49	output duty cycle of pressor foot lifting	output duty cycle of pressor foot lifting	All	1~60(s)	15	II
50	output time of total pressure of reverse-sewing	output time of total pressure of reverse-sewing	All	0~800ms	150	II
51	output duty cycle of reverse-sewing	output duty cycle of reverse-sewing	All	0~100	40	II
52	hold time of reverse-sewing	forced shut-down after hold time of reverse-sewing	All	1~60(s)	12	II
53	starting reinforcing-sewing speed	starting reinforcing-sewing speed	2520A 2520B 2520BL	100~3000rpm	1800 1200	I
54	starting reinforcing-sewing compensation 1	parameter of starting reinforcing-sewing stitch compensation	2520A 2520B 2520BL	0~100	30 58	I
55	starting reinforcing-sewing compensation 2	parameter of starting reinforcing-sewing stitch compensation	2520A 2520B 2520BL	0~100	10 18	I
56	ending reinforcing-sewing speed	ending reinforcing-sewing speed	2520A 2520B 2520BL	100~3000rpm	1800 1200	I
57	ending reinforcing-sewing compensation 1	parameter of ending reinforcing-sewing stitch compensation	2520A 2520B 2520BL	0~100	30 58	I
58	ending reinforcing-sewing compensation 2	parameter of ending reinforcing-sewing stitch compensation	2520A 2520B 2520BL	0~100	10 18	I
59	ending reinforcing-sewing speed	ending reinforcing-sewing speed	2520A 2520B 2520BL	100~3000rpm	1800 1200	I
60	continuous reinforcing-sewing compensation1	parameter of continuous reinforcing-sewing stitch compensation	2520A 2520B 2520BL	0~100	30 58	I
61	continuous reinforcing-sewing compensation2	parameter of continuous reinforcing-sewing stitch compensation	2520A 2520B 2520BL	0~100	10 18	I
62	Pedal travel upon start	Pedal position upon start Travel relative to medium pedal	All	10~50(0.1°)	25	II
63	Pedal travel upon acceleration	Pedal position upon start acceleration Travel relative to medium pedal		10~100(0.1°)	50	II
64	Pedal travel at highest rotation speed	Pedal position at highest rotating speed Travel relative to medium pedal		10~150(0.1°)	110	II
65	Pedal travel upon presser foot lift	Pedal position upon pedal lift Travel relative to medium pedal		~100~10(0.1°)	~30	II
66	Pedal travel upon presser foot lowering	Pedal travel from presser foot lowering position to neutral position。Travel relative to medium pedal		5~50(0.1°)	10	II
67	Pedal travel 1 upon thread trimming	Pedal position upon start trimming without presser foot function。Travel relative to medium pedal		~100~10(0.1°)	~30	II
68	Pedal travel 2 upon tread trimming	Pedal position upon start thread trimming with presser foot function。Travel relative to medium pedal		~100~10(0.1°)	~60	II

No	Project	Content	Applicable models	Setting range	The default value	Level
69	Down needle positioning position	To adjust down needle position	All	120~240	177	I
70	Reverse needle lift function	0: unavailable ; 1: available	All	0/1	0	I
71	Reversal of needle lift angle	Reversal of needle lift angle	All	0~45°	20	I
72	Thread clamp strength adjustment	Adjust the thread clamp strength size 0: Clip line function is invalid 1~9: Three Intensity Adjustment	All	0~9	7	I
73	Thread pressing actuation angle	Thread pressing actuation angle	All	10~150°	100	I
74	Thread pressing release angle	Thread pressing release angle	All	160~300°	270	I
75	Needle position adjustment	Needle position adjustment	All	0~240°	105	I
79	return to factory-set parameter	5: restore the current level factory parameters 8: restore the current level and sewing factory parameter set According to S button, select yes, then press the S key execution	All	0~15	0	I
80	highest speed of sewing	highest speed of sewing	2520A 2520B 2520BL	300~5000spm 300~5000spm	4000 3000	II
83	Aggravating function	0: invalid; 1~15 strength regulation	All	0~15	0	II
85	Suction angle of shear line	To set suction angle of shear line	All	150~200	175	II
86	Power angle of shear line	To set power angle of shear line	All	200~300	260	II
87	Release angle of shear line	To set release angle of shear line	All	300~360	340	II
92	Pedal presser foot lift confirm time	Pedal presser foot lift confirm time	All	10~300ms	80	II
93	The neutral position of the pedal	Trimming the neutral position of the pedal	All	~15~15(0.1)	0	II
95	dial line / clip line Type selection	Type selection: 0: dial line 1: clip line	All	0~1	0	II

3. Operation box

Function	Button	Described
Starting reinforcing-sewing		Execute starting reinforcing-sewing 2 times, to and fro.
ending reinforcing-sewing		Execute ending reinforcing-sewing 2 times, to and fro.
free-style sewing		Press treadle ahead for normal sewing, stop in the middle, behind for thread-cutting and thread wiping.
continuous reinforcing-sewing		1. Press treadle ahead for automatic sewing, to and fro, which is set at D and can reach 15times.(F) 2. Continuous reinforcing-sewing is in trigger mode by default, treadle doesn't need to be kept being pressed, and corresponding trigger light of preset sewing is solid lit. 3. Previous ending reinforcing-sewing setting is invalid if this function is valid.
preset sewing		1.Press treadle ahead to execute sewing times set at E or E, F, G, H. 2.Sewing will stop immediately if treadle is lifted; press treadle again, it will go on with the rest. 3.Ending reinforcing-sewing (if selected), thread-cutting and thread wiping will be automatically executed after sewing is completed.
parameter setting		1.For preset sewing. Trigger treadle and the system will automatically conduct sewing at E, F, G, H sections; the treadle doesn't need to be kept being pressed. 2.Solid light for continuous reinforcing-sewing mode means that it is trigger mode by default.
thread-cutting		Set or cancel thread-cutting function.
needle-lifting/stitch		Free sewing mode, can be based on the according to the length of time is different, complementary half needle, a needle or continuous feeding half needle.
Needle position		Set the needle position shortcut keys. Key is effective for needle. The cancel key function is set to stop pin.
The middle presser foot		Presser foot to set shortcut keys: set or cancel the presser foot function.
Shear line pressure foot		The shear line and presser foot set shortcut keys: set or cancel trimmer and presser foot function.
Soft start		Soft start to set shortcut keys: set or cancel the pedal soft start function.
Pinnumberset /check choice		1.Implementation of this key, circulating switch display 3 pin number to set the display value upper end:A, B, C, DPeriod of pin number,Light corresponding level; Middleend:E, FPeriod of pin number,Light corresponding level; lower extreme:G, HPeriod of pin number,Light corresponding level; 2.Corresponding to A D period of pin number, can set range 0 ~ 15 needle, B paragraph C pin number, can set range 1 ~ 15 needle, among them, the liquid crystal display A B C D E F on each for 10 11 12 13 14 15 stitches. 3. To take the thread clamp function model, according to the buttons can show long thread clamp strength adjustment (3 bright lights and three, liquid crystal display [7]), again according to the key exit.
parameter setting		1.Entering different parameter level On the sewing setting interface, the user can press the button P to enter the Parameter Interface, then the Level I parameters in the parameter list will display. On the sewing setting interface, the user can keep pressing the button for a few seconds to enter the Password Entering Interface. After entering the right maintenance password, then the user can press the button P to enter the Parameter Interface, now the Level I and Level II parameters in the parameter list will display. 2.Password setting On the sewing setting interface, the user can keep pressing the button P for a few seconds to enter the Password Entering Interface, and press the button combination of “burst button + cutting button” to enter the Password Resetting Interface. The three indicators (respectively are Indicator S1, S2 and S3 from up to down, among which one is on) corresponding to the button S indicates the current status. S1 lights up, old password input, ending the key combination trigger key + tangent key, if the correct password into the password reset interface (mistakes have stayed the S1 state), and at the same time S2 light, prompting the input new password and click confirm S3 S key input again when the light is the new password, according to S key after two input if consistent, then set success, return to parameter interfaceIf the new passwords entered are not the same, the Indicator S1 will be on and the LC screen will be reset, and the user shall enter the old password again. If the user presses the button P, the user will be brought back to the interface parameters and no modification will be saved. You can choose from the numbers of 0 to 9 or the letters of A to F for every single character of the password. Please do keep the new password in mind.
Teaching function		Set or cancel the teaching function.
Sewing set program		The number of needles sewing set, Set up a total of 15 segment needle number P1~PF.
speed key		Speed down. Keeping pressing to lower speed, the display will automatically switch to speed set. Simple seam, free seam effective.
		Speed up. Keeping pressing to increase speed, the display will automatically switch to speed set.Simple seam, free seam effective.

Teaching function:  
In the long slot (a, four, program seam) mode, long press “T” one second, you can enter the teaching interface, this interface has buttons: T key, two groups of add-subtract key, fill needle key. Role is as follows:  
Add-subtract key 12: change teaching segments, segment numerical only to accumulate (into the next section teaching automatically save the last needle numerical reduction), 34 key is invalid. Note: when the pedal operation, the key is invalid;  
Add-subtract key 34: modify teaching pin number, to stop running when the adjust pin number. Fill needle keys: press can manually fill needle, needle change.  
T: exit show interface, complete the current segment number teaching (section numerical covering the original mode).  
After the pedal shear line, will directly from the show and save the needle numerical, before returning to the fixed length of stitch pattern.