Simple side sewing machine instructions 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 frequence: 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(inculding 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.

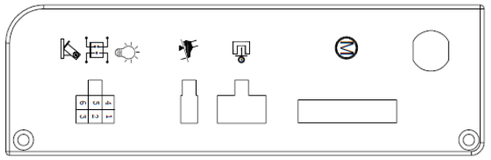
1.3 Please turn off the power while repairing or wearing needle in order to protect operater's safty.

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. Electric interface definition



Ⓜ : Servo motor power socket : Servo motor encoder socket

: Pedal socket : 18V Lamp for sewing machine (1 feet "+"、4 feet "-")

: Valve drive (2 feet "+"、5 feet "-")

Pick a relay to control the AC power supply, the installation of a suction device, which can realize the suction function.

: Turn lift switch

Overlock sewing machine without this function, is only valid for direct drive sewing machine product.

3. Electric motor mounting method

1. the head of the sewing machine needle bar lower needle stop position (on the right side of head toward the shaft grooves corresponding even on), as shown in figure A, B
2. Sewing machine head on the right side of the coupling rod sleeve on the fan two screw fan, as shown in figure C (no fan motor installation process).
   Sewing machine head on the right side of the coupling rod are orderly sheathed fan, wave washers, flat pad iron, wave washers, as shown in figure H (with the installation process of fan motor).
3. Sewing machine head on the right side of the shaft rod sleeve (rubber metal) integrated coupling and tighten the screws, as shown in figure D.

attention:

- Coupling one of the screws must be aligned with the coupling rod groove.
- After packing to confirm the sewing machine head toward the shaft on the right even the groove.

4. The motor shaft (mounted handwheel position) on the milling face up, a motor outlet toward the head behind the sewing machine head, set into the coupling rod, with 3 screw, as shown in figure E.
5. The motor protection cover into the motor, protection cover position direction gap motor outlet, a motor outlet to the first card into the motor gap, with 4 screw, as shown in figure F.
6. The handle wheel is mounted to the motor shaft, wheel one of the screws must be aligned with the motor shaft milling, tighten the screws, as shown in figure G.

Figure A

Figure B

Figure C

Figure D

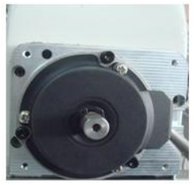


Figure E

Figure F

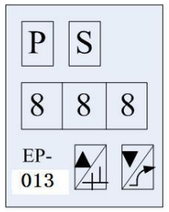
Figure G

Figure H

4. Instructions for Operation Box

4.1 key functional specification

No	Keys	Functions	No	Keys	Functions
1	P	Function keys	3	▲	Add key / needle up and down bit composite key
2	S	Scan button	4	▼	Minus key / soft-start



4.2 Monitor mode

Standby, press the "S" key for 2 seconds into the monitoring status, press ▲ ▼ to change monitor serial number, monitor value can not be modified. Specific display content:

show frame umbers	Item Name	unit		show frame umbers	Item Name	unit
SPD	speed	(*10) rpm		DJ	Angle	limit
CUR	Current	0.01A		VER	version	/
UDC	Voltage	V		PED	Pedal value	
ID	Type code	C01				

Press the S key to enter to a specific value, press P to exit and return to the standby state.

5.2 Operation Mode

5.2.1 Parameter Mode

Setup Parameter: the parameters are divided into general parameters and advanced parameters; password is needed for entering into advanced parameters. Do not start the system in parameter mode (except for P23 parameters)!! Keys are locked when motor runs.

Press "P" shortly for 1s to enter into general parameters mode, P01 will be shown: P 0 1

Press "▲▼" to change serial numbers of parameters. After pressing Key S, corresponding parameters will be shown, and press " ▲▼" to change: 3 7 0

a) After save by pressing "S", press "P "to exit .

If you press "P " directly, exit with parameters saved.

5.2.2 Advanced Parameters Mode

Password is needed to access to advanced parameters. Long press "P" for more than 3s to enter into password input interface, and the system displays: 0 0 0 which flickers from the top digit, Press "▲▼" to change with the range of 0~F, Press "S" to switch the position. if password is correct, advanced parameter serial number P 2 1 will be displayed.

If the password is incorrect, return to 000 (flickering from the top digit as before) Press "P" again to exit. Defailure password is 111. A all-purpose password shall be set in the software. After entry into advanced parameters, the general parameters can also be displayed. Reset Password: at the same time of powering on, press "▼" to enter into password resetting interface. The system will request to input the old password, and the screen will firstly display : 0 0 0

1) Flickering from the top digit, press "S" to switch the position, and press "▲▼" to change, press "P" to confirm input.
2) If the password is correct (assumed to be 111), then the decimal point will be on, and the top digit will started to flicker to set new password (assumed to be 555) 【range of value for each digit "0~9" "A~Z"】. Press "P" to enter into confirmation screen after setting; press "▲▼" and select "YES", press "S" to save, "oFF" will be displayed. It is prompted to power off, and press "P" to exit 1. 1. 1. → 5. 5. 5.
3) n O → y E S → o F F. If the password is incorrect, return to display of 000. After mistaken input for 3 times, "oFF" will be displayed to prompt to power off.

5.2.3 Motor Angle Test Mode

Press "S" to power on, enter into motor angle test mode, and the system will display: d J

Press "P+▼" to start testing. The motor angle will be displayed after test is finished. 1 5 6 Exiting from this mode can be achieved only by powering off.

Note: the above the display value for reference only, specific to the actual data shall prevail.

6. System Parameter:

No	Item	Range of setting	Defailure Value	Remarks
1	Sewing speed	300~7000rpm	5500	(Display the range of 30~7000, the actual representative 300~7000, the same)
2	Number of stitches for soft start	1~10	2	
3	Soft start speed 1	200~2000	600	
4	Soft start speed 2	200~2000	1000	
5	Soft start speed 3	200~2000	1500	
*6	acceleration time	1~250	15	smallest unit 0.1s
*7	Deceleration time	1~250	15	smallest unit 0.1s
8	Simple sewing model setting	0~1	0	0: Invalid 1: Effective
9	Needle positioning upon energization	0~1	0	0: Don't find needle stop position 1: Find needle stop position
10	signal mode for turn/lift switch	0~2	0	0: Normally open 1: normally closed 2: invalid
11	Pedal curve selection	0~2	0	0: Normal 1: Accelerate the slow 2: Fast acceleration
14	Suction mode selection	0~5	1	0: Closed 1: Long wind suction 2: Needle suction 3: 150 needle suction 4: 200 needle suction 5: 250 needle suction
15	Suction maintenance time	1~50	5	
19	Lower needle stop position angle	30~240	177	
20	Factory parameter restore	0~2	0	0: Do not restore 1: The restoration of normal parameters 2: Recovery of all parameters
*21	Highest sewing speed	200~7000	6000	
*22	Low-speed stress-application gear election	0~15	0	0: Without afterburner 1~15: Too thick boosting gear
*23	Needle position adjustment	0~240	234	The smallest unit of 1 degrees
*25	The neutral position of the pedal	-10~8	0	
*26	Pedal travel upon start	5~33	13	
*27	Pedal travel upon acceleration	5~79	33	
*28	Pedal travel at highest rotation speed	5~125	90	
*29	Pedal stroke of back stepping motion	-23~-10	-17	
*30	test mode	0~3	3	0: Time pattern 1:number of needle pattern 2: a simple pattern 3: The factory pattern
*31	test g rate	300~6000rpm	4000	
*32	test running time	1~600	30	The smallest unit of 0.1s
*33	test pause time	1~600	20	The smallest unit of 0.1s
*34	Number of test needles	1~99	30	
*40	Model setting	------	C01	The models set manually, automatic switching program

Note: without * identified as common parameters, with * mark for the advanced parameters, the only access to the advanced parameters, P20 can be set to 2, P20 is automatically return 0.

7. Error Code Table

Fault display	Fault content	Check the project	Fault display	Fault content	Check the project
E1	Overcurrent of hardware	Check if it is well earthed Whether the damage to the device driver	E12	Motor overload	Check the sewing machine is not jammed. Actual operating excessively frequent acceleration and deceleration
E2	Whether the damage to the device driver	Check if it is well earthed Current detection loop system is working properly	E13	EEPROM error	seek technical support
E3	System voltage is too high	System into line voltage is too high	E14	Current detection of non-normal	seek technical support
E4	System voltage is too low	System into line voltage is too low	E15	Pedal zero point exceeds the range	Pedal zero point exceeds the setting range
E5	High voltage runtime	System into line voltage is too high	E16	OZ circuit of non-normal	seek technical support
E6	Needle stop signal failure	Check if the needle connector is loose	E17	Motor reverse	Check motor phase sequence and signal lines
E7	Motor HALL Signal failure	Check the motor connector for poor connection.	E18	Motor angle test failure	Re-conform the motor angle
E8	Locked rotor failure of motor	Check if the motor wire is well connected, and if it is overloaded	E19	Safety switch fault	Put down the head or check turned up switch.
E9	Over-speed failure	Check if the motor wire connection is correct	E21	Motor model code is empty	Re-conform model
E10	Low voltage runtime	Check if it is well earthed. Current detection loop system is working properly	E22	Motor model code is out of range	Re-conform model
E11	HALLA signal loss	Check the motor signal cord	E25	Z encoder signal fault	Motor plug is good contact;

Note: If the above according to check the project cannot rule out fault, please seek technical support.

8. Random accessories

NO	Product name	Amount	Specifications	NO	Product name	Amount	Specifications
1	Computer control box	1	WR569A	6	Protective cover	1	WR569-04-01
2	Pedal	1	PL-501	7	Handwheel	1	WR569-C01/ diameter 78mm
3	Ball section connecting rod	1		8	Screw attachment	1	
4	Motor	1	80SF90-B5000 (7AD1)	9	Custom line	1	CS1487A1/ Needle pole connecting line
5	Manual	1	Chinese/English ersion				