HP-009 Full automatic integrated sewing series manual V1.3

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. System parameter table

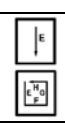
No	Project	Content	Setting range	The default value	Level
1	Sewing speed	Set sewing speed	200~5000(rpm)	4000	I
2	Soft-start function	1~9: Soft start stitches	1~9	1	I
3	Ornamental bartacks	0: Invalid 1: Effective	0~1	0	I
4	Fixed-length seam sewing speed	Set fixed-length seam sewing speed	200~4000(rpm)	3000	I
5	Simple sewing mode Settings	0: invalid 1: effectively	0~1	0	I
9	Back stitch speed limitation	can keep needle from breaking while backstitching	500~1500(rpm)	800	I
18	The stitch pattern began after the termination of the stitch, mode selection	0: End the stitch pattern 1: No end fixed seam pattern	0~1	0	I
19	Solid after before sewing stop	0: unavailable 1: available	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	0~2	0	I
21	soft start speed 1	speed of the 1st needle of soft start	100~3000(rpm)	400	I
22	soft start speed 2	speed of the 2nd needle of soft start	100~3000(rpm)	1000	I
23	soft start speed 3	speed of the 3rd~9th needle of soft start	100~3000(rpm)	1500	I
24	Presser foot soft lowering function	0: unavailable 1: available	0~1	0	I
25	Presser foot lift function	0: unavailable 1: available	0~1	0	I
27	Power on and positioning	0: unavailable 1: available	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	0~2	0	I
29	Presser foot soft lowering time	To set presser foot soft lowering time The longer time the lower speed of the presser foot	50~500(ms)	300	II
32	Decorative bar-tacking dwell time	To set decorative bar-tacking dwell time	5~500(ms)	50	I
34	To select standard bar-tacking pedal speed mode	Standard bar-tacking pedal speed Mode selection 0: Auto bar-tacking speed ; 1: Pedal speed	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	0~20	1	I
37	Thread wiping operation time	Thread wiping operation time	0~800(ms)	40	II
41	Low speed	The lowest speed of pedal	100~400(rpm)	200	I
42	Pedal curve selection	Pedal speed adjustment 0: normal 1: Slow acceleration 2: Quick acceleration	0~2	0	I
43	Dial the line that can set	0: unavailable 1: available	0~1	1	I
44	thread-cutting speed	thread-cutting speed	100~400(rpm)	280	I
45	Reverse sewing speed limit switch	To prevent the reverse stitch broken needle 0: infinite speed 1: have the speed limit	0~1	0	I
46	pressor foot lifting delays sewing	delay with pressor foot lowered	0~800(ms)	50	II
47	output time of total pressure of pressor foot lifting	output time of total pressure of pressor foot lifting	0~800(ms)	150	II
48	output duty cycle of pressor foot lifting hold time of pressor foot lifting	output duty cycle of pressor foot lifting forced shut-down after hold time of pressor foot lifting	0~100	30	II
49	output duty cycle of pressor foot lifting	output duty cycle of pressor foot lifting	1~60(s)	12	II
50	output time of total pressure of reverse-sewing	output time of total pressure of reverse-sewing	0~800(ms)	150	II
51	output duty cycle of reverse-sewing	output duty cycle of reverse-sewing	0~100	40	II
52	hold time of reverse-sewing	forced shut-down after hold time of reverse-sewing	1~60(s)	12	II
53	starting reinforcing-sewing speed	starting reinforcing-sewing speed	100~3000(rpm)	1800	I
54	starting reinforcing-sewing compensation 1	parameter of starting reinforcing-sewing stitch compensation	0~100	32	I
55	starting reinforcing-sewing compensation 2	parameter of starting reinforcing-sewing stitch compensation	0~100	18	I
56	ending reinforcing-sewing speed	ending reinforcing-sewing speed	100~3000(rpm)	1800	I
57	ending reinforcing-sewing compensation 1	parameter of ending reinforcing-sewing stitch compensation	0~100	32	I
58	ending reinforcing-sewing compensation 2	parameter of ending reinforcing-sewing stitch compensation	0~100	18	I
59	ending reinforcing-sewing speed	ending reinforcing-sewing speed	100~3000(rpm)	1800	I
60	continuous reinforcing-sewing compensation1	parameter of continuous reinforcing-sewing stitch compensation	0~100	32	I
61	continuous reinforcing-sewing compensation2	parameter of continuous reinforcing-sewing stitch compensation	0~100	18	I
62	Pedal travel upon start	Pedal position upon start Travel relative to medium pedal	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
69	Down needle positioning position	To adjust down needle position	120~240	175	I
70	Reverse needle lift function	Reversal of needle lift function after thread trimming 0: unavailable 1: available	0~1	0	I
71	Reversal of needle lift angle	Reversal of needle lift angle	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	0~9	5	I
73	Thread pressing actuation angle	Thread pressing actuation angle	10~150°	100	I
74	Thread pressing release angle	Thread pressing release angle	160~300°	270	I
75	Needle position adjustment	Needle position adjustment	0~240°	125	I
79	return to factory-set parameter	Special function parameters (2S effectively maintain automatically changes to the 0) 5: restore the current level factory parameters	0~15	0	I
80	highest speed of sewing	highest speed of sewing	300~5000(spm)	4000	II
83	Emphasis function	Machine needle to penetrate the cloth used 0: unavailable 1~15: The intensity of adjustment	0~15	0	II
84	Aggravating function	Thin, suggestion is set to 0; Thick lines, 2~6, is too large to cause the thread short, big noise.	0~15	0	II
85	Suction angle of shear line	To set suction angle of shear line	150~200	175	II
86	Power angle of shear line	To set power angle of shear line	200~300	260	II
87	Release angle of shear line	To set release angle of shear line	300~360	346	II
92	Pedal presser foot lift confirm time	Pedal presser foot lift confirm time	10~300(ms)	80	II
93	The neutral position of the pedal	Trimming the neutral position of the pedal	-15~15(0.1°)	0	II
95	dial line / clip line Type selection	Type selection; 0: dial line 1: clip line	0~1	1	II

3. Error codes

Error Code	Contents	Possible reasons	Checking and treatment
E011、E012 E013、E014	Motor signal error	Motor position sensor signal failure	If electric engine plug is well contacted; if electric engine signal detecting device has been broken; if sewing machine handwheel correctly installed.
E015	Model type error	Unable identify operating box model type	Check operating box
E021 E022 E023	Motor overload	motor stall motor overload	If electric engine plug is well contacted; if machine head or thread-cutting mechanism has been blocked completely;f materials are too thick; Electrical signal detection signal whether the normal.
E101	Hardware drivers fault	Current detection abnormal Driving hardware error	Current detection loop system is working properly;Whether the damage to the device driver.
E111 E112	Voltage too high	High input voltage Brake circuit fault Voltage detection error	System into line voltage is too high; Braking resistance are working properly; System voltage detection circuit are working properly.
E121 E122	Voltage too low	Actual low voltage Voltage detection is wrong	If the voltage on the inlet wire is too low Whether the system voltage detection circuit the normal work.
E131	Current circuit fault	Current detection abnormal	Current detection loop system is working properly.
E133	Oz circuit fault	Oz circuit fault	Oz circuit system is working properly.
E151	Magnet circuit error	Over current magnet circuit	If machine head magnet suffers short circuit Electromagnet circuit is working properly.
E201	over current	Current detection error	Current detection loop system is working properly Electrical signal is normal.
E211 E212	Abnormal motor operation	Current or voltage detection error	If electric engine plug is well contacted; If electric engine signal is matched.
E301	Communication error	Sci circuit error	if operation box plug is well contacted; if operation box components are damaged.
E302	Operation inner failure	Sci circuit error	To check whether the operating box is damaged..
E402	Pedal ID fault	Pedal verification fault	Pedal connection is loosen.
E403	Pedal zero position fault	The pedal zero position over range	The pedal is damaged or it is not under stop state when correction.
E501	Safety switch fault	Safety switch effective	Put down the head or check turned up switch.
P.oFF	Power off Display	Power off	Wait for power supply to resume.
EvaL	Trial expired	Trial expired	Contact the dealer processing

Note:1. Turn up E501 fault when: sure it is normal to switch detection, temporary use can change the P-28 parameters;
2. If the above according to check the project cannot rule out fault, please seek technical support.

4.Operation box use

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.
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.
Sewing set program		The number of needles sewing set，Set up a total of 15 segment needle number P1~PF.
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 selection		Set or cancel thread-cutting function.
Needle position		Set the needle position shortcut keys, Key is effective for needle, The cancel key function is set to stop pin。
Parking / shear line automatic presser foot		Parking / shear line automatic presser foot to set shortcut keys: set or cancel the presser foot function.
Pinnumberset/check choice		Implementation of this key, circulating switch display 3 pin number to set the display value
The needle pole lamp brightness adjusting button		The shear line and presser foot set shortcut keys: set or cancel trimmer and presser foot function.
Numerical control key		Values of adjustment parameters.
Soft start		Soft start to set shortcut keys: set or cancel the pedal soft start function.
parameter setting		Entering different parameter level.
Teaching function		Set or cancel the teaching function.

5. System Function Setting Description

5.1 Enter to different parameters:

Under short-sewing setting screen, press the P key to enter the [Parameter interface], It displayed in the parameter list parameter level I

Sewing Set interface under long press the P key to enter the[password input interface], After entering the correct password and press the P key to enter the maintenance[Parameter interface], It displayed in the parameter list parameter level" I" and" II" of; initial password "1111."

5.2 The initial description of the test motor angle:

When it have power, pressing the front and rear solid to enter initial angle measuring electrical interface.

Pedal or press the key combination P + Soft Start button to begin the test, the test is successful operation box shows the test values

If the measured value exceeds the range of the reported fault E401.

5.3 Analog pedal's foot feeling correction

Soft power on while pressing the start button to enter the correct interface analog pedal

5.4 Teach Mode Description

In the fixed-length slit (paragraph one ,paragraph four, the program seam) mode, press "T key" one second, you can enter the teaching interface, this interface has buttons available: T keys, plus or minus two key, complementary pin key. function as follows:

Plus or minus key 12: Change the number of teaching sections show, segment values can accumulate up (into the next period of teaching values automatically save the last needle), minus '-' key is invalid. It should be noted: When the pedal is running, the key is invalid.

Plus or minus key 34: Modify teach pin number, when you stop running can be adjusted for the number of stitches

Complement Needle key: press to manually fill needle, change the number of stitches.

T key: Exit Teach interface, complete the number of the current segment Teach (section covering each segment value set of the original model)

After trimming pedal will exit and save the needle teach values, return to the previous fixed-length slit mode

5.5 Password Setting:

Under sewing setting screen press the P key to enter the [password interface] , enter the original password, press the key combination "trigger button + soft start" and enter the[password reset interface], After the first finished entering the new password and press S key to confirm, press the S key to enter the new password again to confirm; reset to complete the display "P-1", reset failed "0000." Each password can be set to the value of the digits 0 through 9 or letters A ~ Z

5.6 Clamp features quick setting

For line features models with a clip, press this button to display a long line of efforts to clamp adjustment (LCD "[_5]") and press the button again to exit.

6. System Info

Operation panel default mode, press the button at the same time in P made sewing needle trigger select key, enter the system monitoring state through the +-key choose need to look at the project, according to the S button to enter/exit the selected projects such as the need to exit monitoring interface, according to P keys can be.

show frame numbers	Item Name	unit		show frame numbers	Item Name	unit
JJ	Plan number	piece		U6	Motor initial Angle	limit
U1	speed of motor control	rpm		U7	Master control program version/ Head type	/
U2	Motor Current	0.01A		U8	Head type/ Master control program version	/
U3	Motor Voltage	V		U9	Dsp no	/
U4	Pedal voltage	0.01V		vEr	Operation box version of the program	/
U5	Mechanical Angle with	limit		TYPE	Software no	/

7. Accessories

NO	Product name	Amount	Product specification	Confirm	Remarks
1	Electric control box	1			
2	Ball section connecting rod	1			
3	pedal	1	PL-302		with bracket
4	screw	3	M5×25		screw
5	The instructions	1			