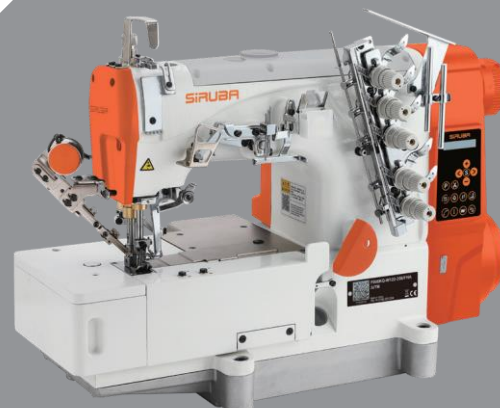


SIRUBA

ELECTRONIC CONTROL PARAMETER MANUAL

■ F006KQ-UTE



User manual of F006KQ-UTN All-in one Auto-Trimmer servo Motor

Foreword

Welcome to use our products, it is the right investment choices in garment industry!

The User manual is for our newly developed F006KQ-UTN Auto-Trimmer servo Motor system " products Reference Manual, please read this manual carefully, hope it can give you useful help.



Before reading the manual, please note the following requirements

- 1、 The user must be grounded before operations to ensure safety
- 2、 non-professionals do not disassemble the control box
- 3、 The control box and motor away from the magnetic high radiation environment
- 4、 Do not work in hot environments
- 5、 Do not work in humid environments too
- 6、 Users to ensure stable supply voltage (210V ~ 240V)

Safety requirement

- 1、 Do not put your feet on the pedals when the motor is switched on
- 2、 Let professionals to install and debug this product
- 3、 Do not open the control box and the motor cover when energized
- 4、 Please turn off the power when changing the needle, threading or replacing the bottom line
- 5、 During installation and removal service, please turn off the power
- 6、 Please turn off the power when turn lift sewing machine

Warranty Policy

- 1、 Since from the purchase of this product, we give 2-year warranty for free, Lifetime Maintenance. during the warranty period ,Any quality problems the product will be free repaired, Except artificial damage.
- 2、 without our consent disassemble or modify, the damaged will not give in warranty
- 3、 Whenever find the problem can not be solved, you can contact the company

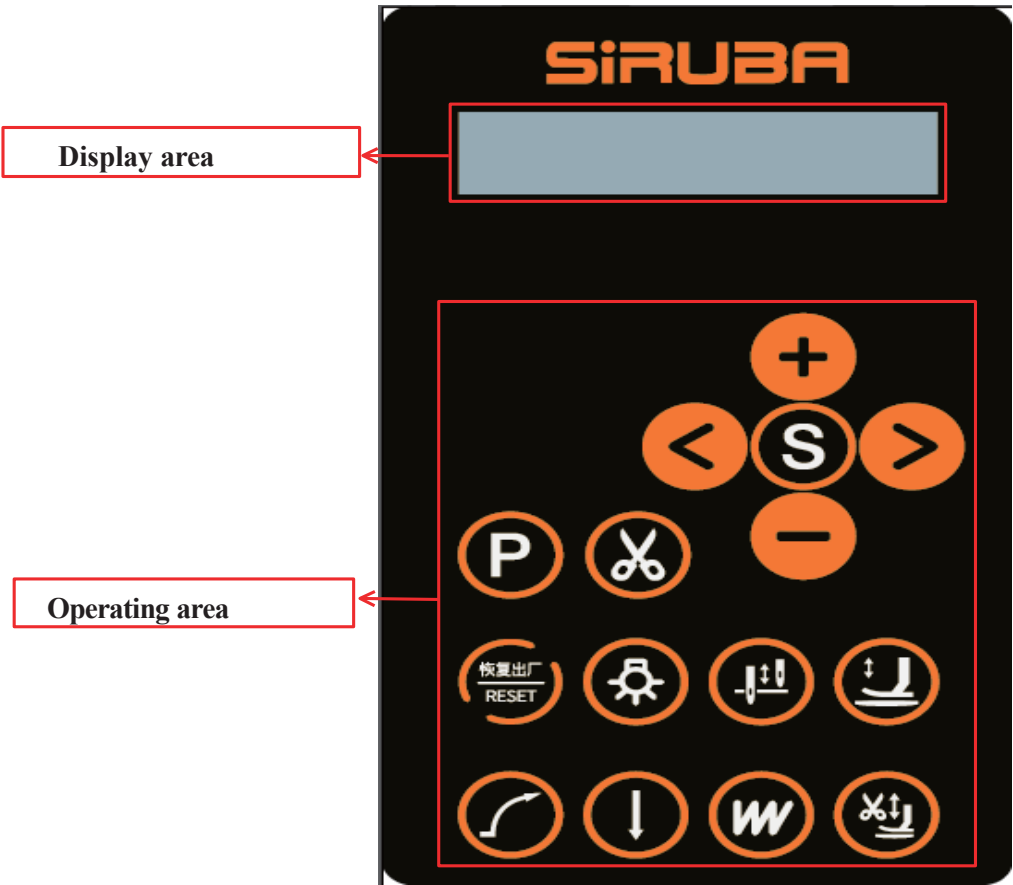
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- 1: Introduction of display screen common Operation**
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1: Introduction of display screen common Operation

1、The display screen is described as follows



2. Function introduction



Serial No.	Button Icons	Function Description	Quick description
1		※: Middle foot lifter and half-back step foot lifter function key ※: the key lights on when the function is on, the screen shows half-back step foot lifter function is on, the key lights off when the function is off, the screen shows half-back step foot lifter function is off	Long press enter into Auto-foot lifter Function modules

2		Auto- trimmer and auto-foot lifter function (after auto-trimmer, the foot lifter automatically) ※: when the function is open, the key lights on; when the function off, the key lights off	
3		Auto-trimmer function On or Off key ※: when the function is open, the key is on; when function off, the key is off, the function of pulling out the thread will be off when the trimmer function is off	Long press enter into Auto-trimmer Function modules
4		Press P and +, enter the user parameters. Press P and -, enter the system parameters with password.	
5		Machine head LED light On or Off key ※: luminance value 0-5, 0 means the LED light off, the key will be off. 1-5 means the LED light on, the key will be on	
6		Slow start function key ※: when the function is on, the key will light on, when the function off, the key will light off.	
7		Up or down needle position transfer key, the related function will be Visualization ※: the display screen shows needle stop position: upper needle position, means the upper needle stop position is open; the display screen shows needle stop position: down needle position, means the down needle stop position is open	
8		Free sewing mode When open, the key will be light on, the  will be light off, the multi-part sewing mode off	

9		Parameter determines the Save button	Long press to lock the screen
10		Multi-part sewing mode key ※: the key will light on when open the function, the  will be light off, the free sewing mode off	Long press to enter the setting of multi-part sewing, to adjust the prats number and the needle number
11		Return to factory setting key Press to enter: return to factory setting (need long press the key and enter the password)	
12		“+” button (modify the parameters plus), increase 50RPM when pressing the key for once time on the host interface	
13		“-” button (modify the parameters minus) , decrease 50RPM when pressing the key for once time on the host interface	
14		Left key (when adjusting items)	
15		Left key (when adjusting items)	

2、How to enter parameters and how to modify the parameters

System parameters entering analysis:

- Press  and  Key to enter the user parameter, select the parameter and adjust the value with  and  Key, confirm with  key.
- Press  and  Key to enter the system parameter with password 2014, select the parameter and adjust the value with  and  Key, confirm with  key.
- After modifying the parameter value, press  Key to return back to the previous interface, press  key to enter next interface.

3: Operating Parameter Description Table

System parameter list

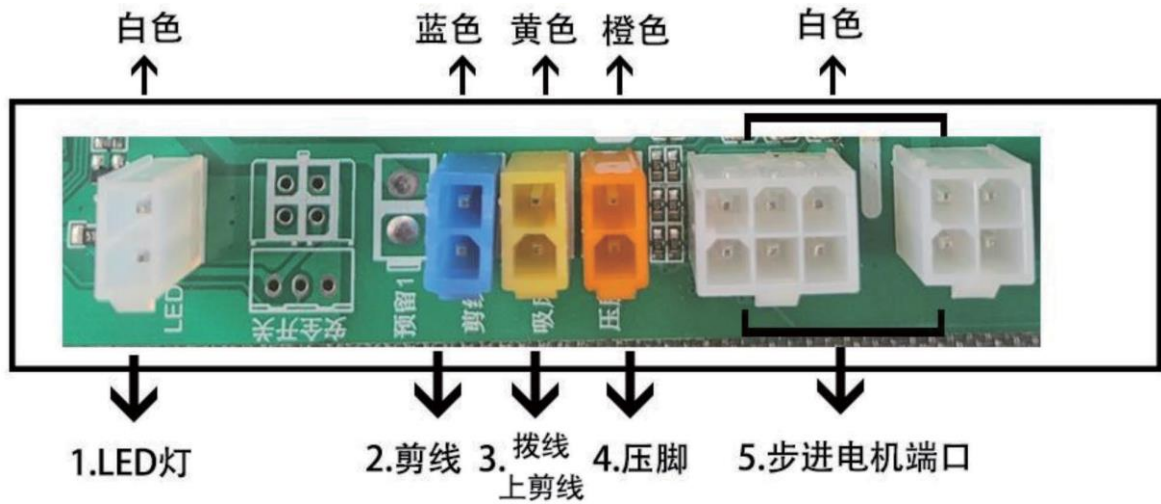
System parameter list	Function Description	Function parameter default values	Function parameter ranges	Parameter Description
P1	MAX Sewing speed	3800	200 ~ 6500	Round / Minute
P2	Start sewing speed	200	150 ~ 800	Round / Minute
P3	Pedal acceleration curve	85	10 — 100 %	
P11	Slow Start Selection	0	0 — 1	0: Disable 1: Enabled
P12	Slow start Stitches number	2	1 — 30	Stitch number
P13	Slow start speed	350	200 — 800	Round / Minute
P22	Motor drive orientation	1	0 — 1	0: Counterclockwise 1: Clockwise
P23	Displays the current speed	0		Displays the current motor speed
P24	Display foot controller voltage	0		Display foot controller output voltage
P25	Automatic running-in operation	0	0 — 1	0: OFF 1: ON
P34	The angle of upper needle stop position	0		
P35	The angle of down needle stop position	180		
P36	Delayed start time for knife action	005	0 — 2000	Millisecond
P37	Knife action time (full power + maintain power)	110	10 — 2000	Millisecond
P38	Full power scissors action time	260	10 — 990	Millisecond
P40	maintain power adjustment for knife action	50	1 — 100	Percentage
P41	Knife action release the protection time	35	20 — 800	Millisecond
P43	Scissors action reset switch enable	1	0 — 1	0: Disable 1: Enabled
P44	Manual scissor-lowering operation mode	1	0-1	0: Disable 1: Enabled
P46	Wiper action delayed start time	40	0 — 2000	Millisecond
P47	Wiper action time (full power + maintain power)	70	10 — 2000	Millisecond
P48	Wiper action time at full power time	35	10 — 990	Millisecond

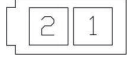
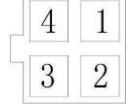
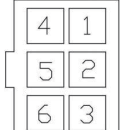
P50	Wiper action time at maintain power adjustment	50	1 — 100	Percentage
P51	Wiper action release the protection time	50	20 — 800	Millisecond
P55	Blow mode	000	0-4	0 : normal Sweep thread 1: cut one time blow one time 2 : Blow for each foot lifter 3 : Long blowing 4 : break blow
P56	Foot-lifter action delayed start time	110	0 — 2000	Millisecond
P57	Foot-lifter action time (full power + maintain power)	260	100 — 2000	Millisecond
P58	Foot-lifter action time at full power time	160	10 — 990	Millisecond
P60	Foot-lifter action time at maintain power adjustment	20	1 — 90	Percentage
P61	Foot-lifter action releases the protection time	80	20 — 800	Millisecond
P62	Automatic presser foot lifter down time	10	1 — 120	Second
P65	Half-back step pedal foot lifter delay start time	120	0 — 2000	Millisecond
P70	Motor max electric current	350	50 — 600	
P71	Maximum speed lock	4200	200 — 6500	Round / Minute
P72	System Password	2014	0000 — 9999	
P73	Voice volume	25	0-30	
P74	Language selection	0	0-1	0: Chinese 1: English
P75	Boot voice	0	0-1	0 off 1: on
P99	Display version	101		
P100	Controller version	0		
P101	Step direction	1	0 — 1	
P102	Step origin offset	32	0 — 360	Degree
P103	Step origin power	10	0 — 12	
P104	Step thread cutting power	100		
P105	Step thread cutting angle	600	0 — 1500	
P106	Step forward knife speed	350	0 — 950	
P107	Step backward knife speed	150	0 — 950	
P108	Step forward knife power	5		

P110	Step motor presser foot lift angle	340	0 — 1500	
P111	Step motor presser foot lift speed	390	0 — 950	
P112	Step motor release presser foot speed	300	0 — 950	
P113	Step motor presser foot lift power	6		
P114	Step motor release presser foot power	2		

4: Control box port description

The control box Port Description



The port number	Port device name for the connection	Port instruction		
①	head LED socket		2:1	2:5V 1:GND
②	Trimming function port		2:1	2: trimming 1:34V
③	Air-suction function port		2:1	2: blowing 1:34V
④	Lifting presser foot function port		2:1	2: Presser foot lifting 1:34V
⑤	Stepper motor port		4:1 3:2	4:Earth 1:V 3:W 2:U
			4:1 5:2 6:3	1:Z 2:QA 3:QB 5:GND 6:5V

5: Error code analysis

Display error code	Error code meaning	Various possible for the erro	Solution
ER-01	Not find needle position	1 : Hand wheel and motor 2: Hand wheel magnet off 3: Hand wheel magnet polarity reversal 4: Nine-pin terminal head Poor contact 5: Motor hall damaged, with the change motor	1: check whether the motor signal line is loose 2: replace the wheel 3: replace the motor
ER-02	Foot controller signal error	1: Not plugged foot controller into control box 2: foot controller inserted upside 3: foot control box line broken 4: foot controller damage	1: check the foot controller signal line 2: change the foot controller 3: replace the foot controller

ER-03	Motor phase signal error	1: Nine-pin terminal plug Poor connect 2: Hall and rotor has large deviations when the motor is mounted 3: Motor hall damage	1: open the rubber cover on the motor through the hole to see whether the motor rotor and stator in the same surface to ensure the error is not more than 1MM 2: replace the motor 3: replace the control box
ER-04	Motor stall protection	1: Sewing machine overweight or blocked 2: Motor overload 3: 4-wire motor drive cable is not connected or inserted upside	1: check motor 4P line 2: check whether the sewing machine is too heavy 3: replace the controller
ER-05	Hardware over current	1: Display bad cable connection Motherboard 2: Motherboard chip damage	1: check motor 4P line 2: check whether the sewing machine is too heavy 3: replace the controller
ER-07	Serial communication timeout	1: Display bad cable connection Motherboard 2: Motherboard chip damage	1: Check the connection line between the display screen and the control box. 2: check whether the controller run well, if not, controller damage 3: check whether there is a high frequency machine near the machine interference 4: change the display panel
ER-09	Poor memory	1: Motherboard memory corruption or bad	1: control box damage
ER-12	Knife is not reset the alarm	1: Reset the detector is broken 2: knife stuck not reset	1 : check the hall is damage or not 2: check whether the induction magnet is detected or not 3: check induction magnet pole is installed in reverse or not 4. change the control box
ER-15	The motor board error		

ER-16	Over load	1. The motor drive power supply voltage is too high, the 220V power supply voltage exceeds the limit value (AC310V), or the load inertia is too large to the regenerative voltage exceeds the limit value (DC440V), or the voltage detection circuit fails. Note:(110V control system power supply voltage exceeds limit value (AC155V), or load inertia is too large to regeneration voltage exceeds limit value (DC220V).
ER-20	Under voltage error	1. The motor drive power supply voltage is too low, the 220V power supply voltage is lower than the limit value (AC91V), or the motor drive power supply voltage is lower than the limit value (DC130V), or the voltage detection circuit fails. Note:(110 V power supply voltage is below the limit (AC45.5 V), or motor drive power supply voltage is below the limit (DC 65V))



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The specification and/or the equipment described in the instruction book and parts list are subject to change because of modification with out previous notice
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