JACK

China No.1

A4 Manual Book

Jack Wechat

Jack Sewing
Machine Co.,Ltd.

Catalogue

Good-looking

Speaking

Easy to use

Each botton has voice reminder.
Each operation has voice guide.

For charging cell phone, cooling fan,
also can be used to upgrade software.

Sensor for automatic presser foot lifter

Global invention, improve the efficiency,reduce the operate intensity.

Left Lever

Humanized operation Provide a better operating experience for operator.
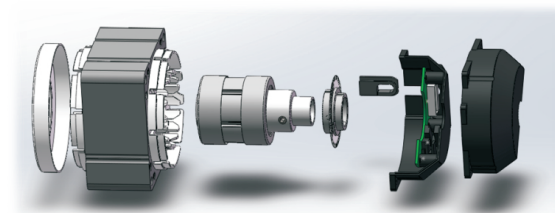
New operating panel

1. Easy to learn and to use
2. Easy to understand
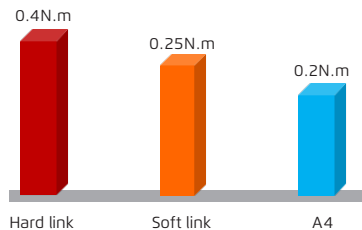3. No need to remember parameter

New motor

1. Low maintenance cost   2. Light moment of force
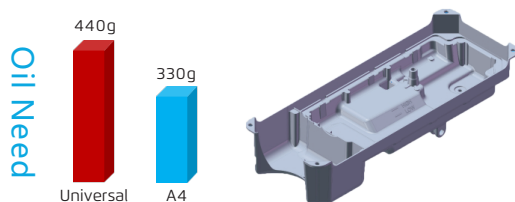3. Convenient for replacing encoder

Moment of force

Compare with hard-wired, moment of force can be reduced 100%, it is more efficient.

0.4N.m   0.25N.m   0.2N.m

Hard link   Soft link   A4

New oil tank

Low oil consumption, oil saving 25%, more cost-effective

Oil Need

440g   330g

Universal   A4

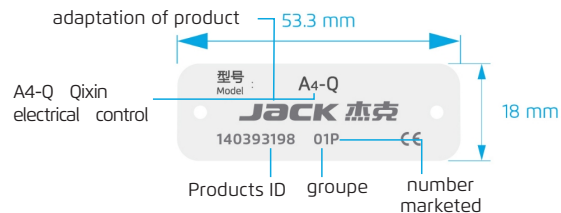## Back cover

The appearance is more neat and beautiful.

Model of machine,

adaptation of product   53.3 mm

A4-Q Qixin electrical control

型号 ：   A₄-Q
Model

JACK 杰克

140393198   01P   C€

18 mm

Products ID   groupe   number marketed
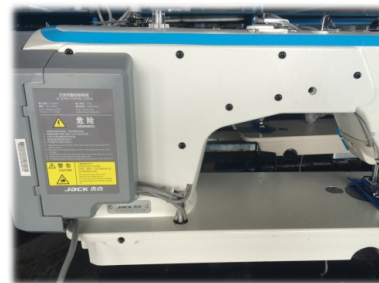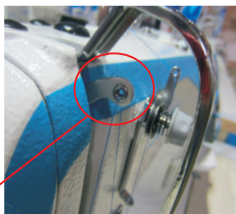
Up needle position setting
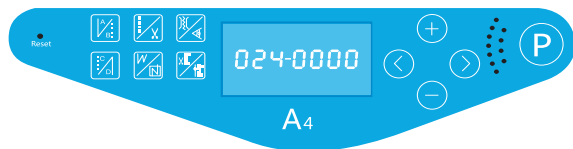
Press the button P and hold on, then press the button 🔲 to enter the monitor mode, the parameter interface displaying `24-0359` . Turn the handwheel to take-up lever on the up needle position, (The parameter will change according to the position of handwheel) press P and hold on, press 🔲 again to calibrate up needle position `24-0359` . Press the button ◎ for 3 seconds, - - - -display in the screen, the system saves the parameters and automatically exit.

Take-up lever at up needle position

Motor initial angle test method
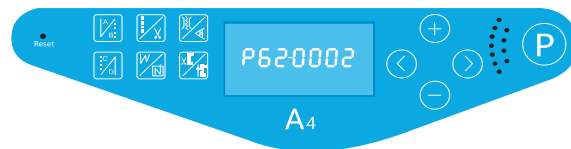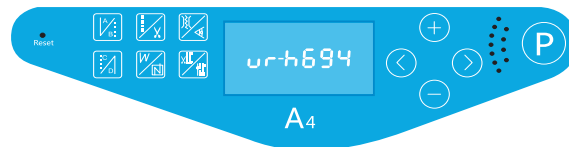

Press the button P and hold on, then press the button 🔲 to enter the monitor mode, and press P and ⊖ at the same time to the parameter `P620002` Tread the pedal onward, and the system will test motor initial angle automatically. After the test, it's necessary to change the parameter `P620002` to `P620000` ,press the button P to save and press the button P again to exit.
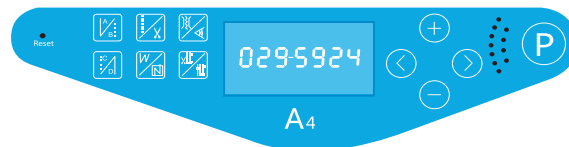
Initial angle value check method

Press the button **P** and hold on, then press the button 🔲 to enter the monitor mode, the parameter `240359` display. Press 🔘 until the third number is flicking, press ⊖ again to `0230111` angle initial display. Value 120 is normal, and the error is about 8 degrees. (**Note**: This parameter can only be viewed, not be adjusted)

Version check method

Check the machine version

Press the button **P** and hold on, then press the button 🔲 again, the machine version `ur-h698` ill display on the operation panel

Check the software version

Press the button **P** and hold on, then press 🔲 the button to enter the monitor mode, `0240000` display. Press the button ⊕ untill the third number is flicking, then press the button 🔘 to `029-5924` . The last four numbers refer software version. This parameter can only be viewed, not be adjusted)

Stitch adjustment method

Picture

Stitch length adjustment instructions:

   The right thumb press the button on the lockstitch dial, the left hand press back seam wrench slowly, the right hand rotate stitch dial at the same time, on the clockwise direction, stitch becomes smaller, on the counterclockwise direction, stitch becomes larger. When adjust to the proper position, you can let go.

   Note: When adjusting the pitch, if not press back seam lever, stitch dial is heavy.

Automatic presser foot lifter settings

Switch of press foot lifter

LED screen area

The switch of press foot lifter after trimming:

   Press , the icon display, means that the press foot lifter after trimming is on.

   Press again, the icon not display, means that the press foot lifter after trimming is off.

The midway press foot lifter settings:

   Press the button , the icon display, means that the midway press foot lifter is on. Press the button again, the icon not display, means the midway press foot lifter is off.

The time setting of sensors and presser foot lifter

Sensor work area

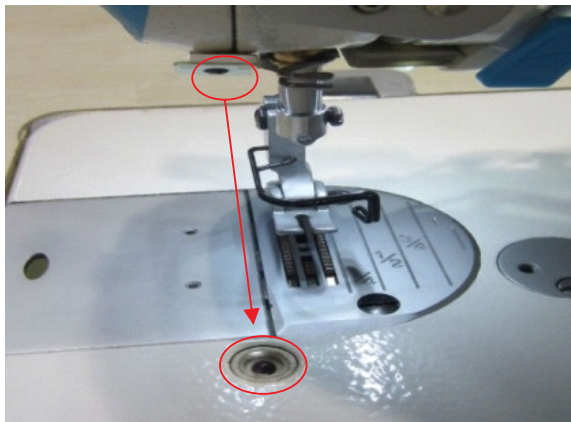Press the button 🔲 longer, and the sensor icon 🔊 display on the screen, then sensor of press foot lifter function is on. Press the button 🔲 longer again, then the function of the sensor is off.

Parameter	Parameter range	Default	Parameter description
P16	1~9999	30	Adjust response time, sense the corresponding time after press foot lifter detecting a cloth
P17	1~99	65	Automatic presser foot sensor sensitivity setting (between the maximum and minimum value of the 02C parameter display)
P50	100~500	150	Presser foot lifting electromagnet full output time ms When the presser foot pressure is too much, this value increases, and the intensity of presser foot increases
P51	1~100	3	Presser foot lifting electromagnet per cycle opening time (ms) When this value increases, current sound of presser foot lifting increases
P52	0~800	100	Running delay time when presser footer comes down (ms)
P53	0/1	1	Presser foot lifting position and function selection 0: off 1: on
P54	1~100	5	Presser foot lifting electromagnet per cycle closing time (ms) When this value increases, current sound of presser foot lifting reduces, on the contrary, increases.

Parameter	Parameter range	Default	Parameter description
P57	0~600	100	Presser foot lifting electromagnet protection time 100ms Delay time of the midway press foot lifter (ms)
PA0	1~9999	5000s	When the sensor is on and instant shade the sensor, delay time of presser footer coming down (5s)
PA1	0~6000	50s	When the sensor is on and shade the sensor, delay time of presser footer coming down (5s)

Factory Reset

Reset with one button

Operation steps:

On the condition of power on, using a sharp objective insert into the hole • for 3 seconds to restore the factory default. When the screen shows – – – –take out the sharp and the screen shows 8888888 , then panel will display boot screen automatically, which means resets successfully.

Free sewing and thread trimming setting

Free sewing and thread trimming switch

Free sewing:

Press the button 🖊 , and the icon ! display, means it's free sewing mode at present.

LED screen area

Trimming switch:

Press the button 🖊 longer, the icon X display up, means the thread trimming is on. Press the button 🖊 longer again, the icon X not display, means the thread trimming is off.

W sewing settings

W sewing /several segment sewing button

W sewing /several segment sewing

A/B refers to the stitch numbers of initial and final sewing

D refers to sewing times
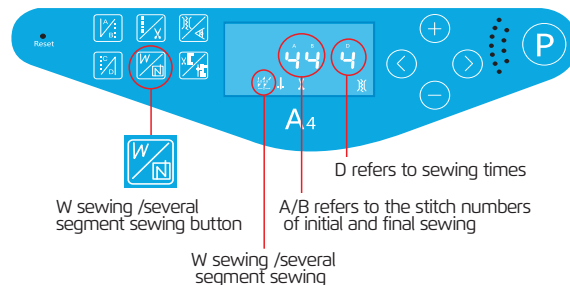
W sewing:

Press the button 🖊 ,and the icon W display, means it's W sewing mode. Press the button ◎ ◎ to the corresponding number flicking, then we can use ⊕ ⊖ to adjust. The maximum adjustable stitches of initial and final sewing is 15. The maximum adjustable sewing times is 15.

Multi-segment sewing setting
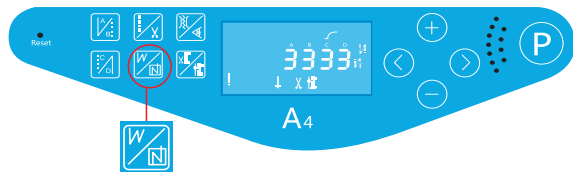
W-sewing/Multi-segment sewing setting

Multi-segment sewing setting:

Press the button longer 🔲 longer, and icon `P0 10 H6` display on the LED screen, means that it's multi-segment sewing mode. And press ⊙ to move, the number is flicking, then you can use ⊕ or ⊖ to set.

The total segment number. And the maximum adjustable segment is 24.

Segment number setting, the first segment, the second ... Display the total number of segments of the set, change the section number when you adjust.

The stitch number setting the first segment of the stitch number is 16, and the range of the stitch is from 1 to 99.
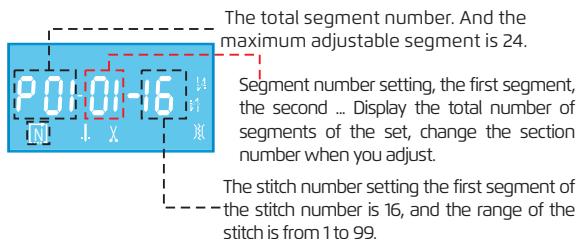
Electronic tension device setting/ presser foot lifter setting
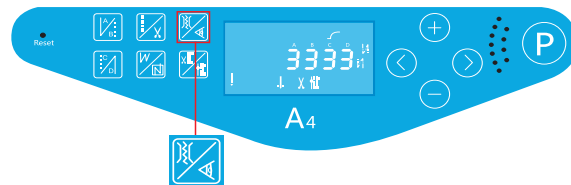
Button for thread tension / presser foot lifter sensor
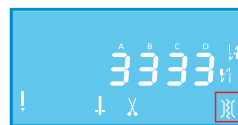
LED screen area

Thread tension device setting :

Press the button 🔲 and the icon ⧖ display on the LED screen, means the tension device is on . Press the button 🔲 again, the icon ⧖ not display, means the tension device is off.

Setting of presser foot lifter sensor:

Press the button 🔲 longer and the icon 🔊 display on the LED screen, means the presser foot lifter is on. Press the button 🔲 longer again, the icon 🔊 not display, means the presser foot lifter is off.

Adding stitch setting
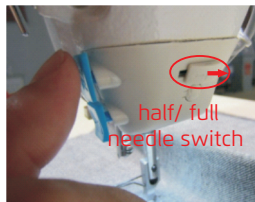
Adding half stitch:

When the addition stitch switch button is pushed backward, the function of adding half stitch will come true. When machine stops in sewing, pressing addition stitch button will have half stitch.

Half stitch button

Adding stitch:

When the addition stitch switch button is pushed forward, the function of adding one stitch will come true. When machine stops in sewing, pressing addition stitch button will have one stitch.
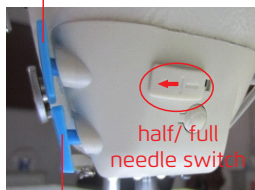
Back stitch button
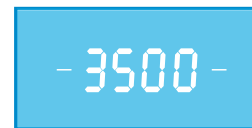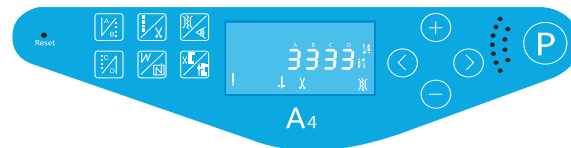
Speed adjustment

LED screen area

Increase the speed

Reduce the speed

Speed adjustment:

On the standby condition, press to increase the speed.

Speed adjustment:

On the standby condition, press to reduce the speed.

Pedal settings

136 The initial position
137 Low speed start position
138 Accelerated position
139 Maximum speed position

Foot Rest

136 The initial position
135 Presser foot lift position
134 Automatic cutting line position
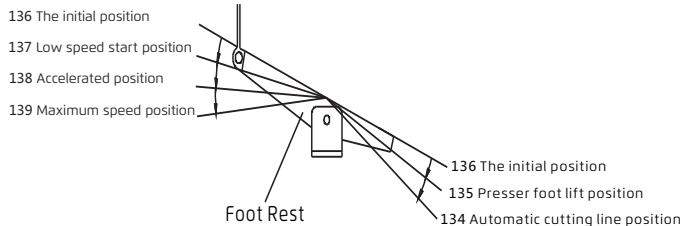
Pedal simulation theory

Parameter	Adjustable range	System default	Parameter description
P24	0~1024	80	Pedal cutting line position

Setting of anti pull after trimming

Parameter	Adjustable range	System default	Parameter description
P47	200~360	360	It realizes trimming is pulled back function When sewing thick materia

Setting of trimming afterburner coefficient (motor afterburner)

Parameter	Adjustable range	System default	Parameter description
P31	10~199	50	trimming afterburner coefficient (motor afterburner)
P49	100~500	250	Cutting line speedl

Language setting

Parameter	Adjustable range	System default	Parameter description
P99	0/1/2	1	Language selection 0: language off. 1: Chinese. 2: English

Mounting and dismounting of motor encoder

此螺丝一定要先拆下来

The screw must be removed first

向下

Downward

Operation Sequence:

1. Take down the hand wheel and then utilize hex key(4mm) to loose four electric control fastening screws (represented as AB in the picture).

2. Take down the electronic control box and then use hex key (4mm) to loose the screw (represented as C in the lower left corner of the picture).

3. Loose 2 motor encoder fastening screws by the hex key and take down the upper part of housing, then remove the motor encoder.

Announcements of dismounting the motor grating film
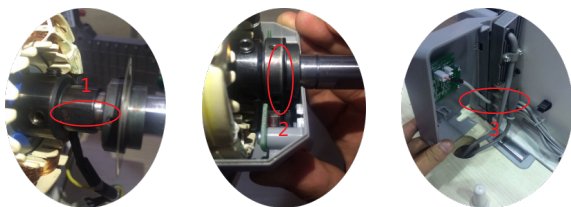
Announcements:

1.Rotating the first screw of the motor grating film to fix flat.

2.After replacing the grating film, need to make sure the left-right position of the grating film, and don't touch the encoder.

3.Need to make sure the power lines are no connecting to the electricity when install the control box.

Electronic Parameter

1、In the standby state, press key 🅟 to enter the parameter mode.

2、Press key ◁ ▷ and key ⊕ ⊖ to adjust the corresponding parameter.

3、When the parameter have changed, parameter interface will flash. Short press key 🅟 to save the modified parameters. Long press key 🅟 to exit parameter interface, return to standby state.

Parameter	Adjustable range	System default	Parameter description
P01	200~5000	3500	the maximum speed of free sewing (the maximum speed)
P03	0/1	1	Needle position selection (0:up; 1: down)
P04	200~3000	1800	Start back tacking speed
P05	200~3000	1800	End back tacking speed
P06	200~3000	1800	Continuous back sewing speed (W sewing)
P09	0/1	0	Soft start switch (0: off; 1: on)

Parameter	Parameter Range	Default	Parameter Description
P15	2000/1/2	0	Mode of adding stitch 0: continuous; 1:adding half stitch; 2: adding one stitch
P17	0~9999	3000	Automatic presser foot sensor sensitivity setting (between the maximum and minimum value of the 02C parameter display)
P18	1~70	24	Stitch balance for start back tacking No.1 (Pull in compensation)
P19	1~170	20	Stitch balance for start back tacking No.2 (Release of compensation)
P24	0~1024	150	Trimming point of pedal
P25	1~170	24	Stitch balance for end back tacking No.1
P26	1~70	20	Stitch balance for end back tacking No.2
P27	0~9999	0	Automatic presser foot lifter of time

Parameter	Parameter Range	Default	Parameter Description
P30	0~31	0	Feed forward torque of motor: 0: normal functions 1-3 1: feed forward torque level
P31	10~60	20	Trimming afterburner coefficient (motor afterburner)
P45	1~10	1	Back stitch electromagnet per cycle opening time (ms)
P46	1~10	1	Back stitch electromagnet per cycle opening time (ms)
P47	200~360	360	After trimming anti pull (It realizes trimming is pulled back function)
P49	1~100	2	Trimming speed
P50	100~500	150	Presser foot lifting electromagnet full output time ms
P51	1~10	1	Presser foot lifting electromagnet per cycle opening time (ms)

Parameter	Parameter Range	Default	Parameter Description
P52	0~800	100	Running delay time when presser footer comes down (ms)
P53	0/1	1	Presser foot lifting function selection 0: off 1: on
P54	1~100	5	Presser foot lifting electromagnet per cycle closing time (ms)
P56	0/1	1	Run to up needle position after Power on: 0: no action 1: action
P57	0~600	100	Presser foot lifting electromagnet protection time 0.1s; 0 means no protection
P60	200~5000	3000	The maximum speed of constant sewing (Automatic test speed)
P62	0/1/2/3	0	Special mode: 0: Normal mode 1: Simply sewing mode 2: Motor initial angle measurement 3: Automatically setting the pulley ratio by the CPU. 4: Automatic test modle (It has needle stop position of automatic test, running 5s and stopping 3S)
P66	0/2	2	2: safety switch function is on 0: off
P68	0~5000	4000	The upper limit of the maximum speed

Parameter	Parameter Range	Default	Parameter Description
P71	0~50	2	Slow release lifter level adjustment, the smaller values and the faster quickly
P76	1~500	60	Back sewing electromagnet full output time ms
P78	10~359	120	Clamp wire start angle
P79	0~359	320	Clamp wire end angle
P98	0~4	4	Voice volume(0~4), 4 is maximum (Restoring the factory will not change)
P99	2000/1/2	1	Voice selection 0: Voice Closing, 1: Chinese 2: English Default 1 Chinese
PA0	1~9999	5000	When the sensor is on and instant shade the sensor, delay time of presser footer coming down (unit ms)
PA1	0~600	50	When the sensor is on and shade the sensor, delay time of presser footer coming down (unit 0.1s)

Parameter	Parameter Description	Parameter	Parameter Description
10	stitch counter	26	The ratio between motor and machine
11	Counter for sewing pieces	27	The total used time (hours) of motor
12	real speed of the head	28	The sampling voltage of interaction
13	State of encoder	29	DSP Software version
20	DC voltage	02A	Simulate inputing sampled value 1
21	Machine speed	02B	Simulate inputing sampled value 2
22	The phase current	02C	Error Counter
23	Initial electrical angle	02D	QP Superstate
24	Machine angle	030-037	The history record of error codes
25	The sampling voltage of pedal	P+ free sewing	Control box panel version

Error Code	Description	Solution
Err-01	Hardware overcurrent	Turn off the power switch, and restart after 30 seconds. If the controller still does not work, please replace it and inform the manufacturer.
Err-02	Software overcurrent	
Err-03	system under voltage	Disconnect the controller power and check if the input voltage is too low (lower than 176V). If yes, please restart the controller when the normal voltage is resumed. If the controller still does not work when the voltage is at normal level, please replace the controller and inform the manufacturer.
Err-04	ver-voltage when the machine is off	Disconnect the controller power and check if the input voltage is too high (higher than 264V). If yes, please restart the controller when the normal voltage is resumed. If the controller still does not work when the voltage is at normal level, please replace the controller and inform the manufacturer.
Err-05	Over-voltage in operation	
Err-06	Solenoid	Turn off the system power to detect if electromagnet connection is correct, whether there is loose, damaged phenomenon. If yes, replace it in time. Restart the system after confirmation, if it still does not work, please replace the controller and inform the manufacturer.
	Short circuit	

Error Code	Description	Solution
Err-07	Motor current measuring failure	Turn off the system power, restart after 30 seconds to see if it works well. If such failure happens frequently, seek technical support。
Err-08	Sewing motor blocked	- Eliminate sluggish movement in the sewing machine - Replace encoder - Replace sewing motor
Err-09	Brake circuit failure	Check the brake resistor plug on the electric board. Replace the control box。
Err-10	Communication failure	Check the connection and if necessary plug in. Replace the control box.
Err-11	Machine head needle positioning failure	Check if the connection line between machine head synchronize rand controller is loose or not, restore it and restart the system. If it still does not work, please replace the controller and inform the manufacturer.

Error Code	Description	Solution
Err-12	Initial motor electrical angle failure	- Try 2 to 3 more times after power down -if it still does not work, please replace the controller and inform the manufacturer.
Err-13	Motor hall failure	Turn off the system power, check if the motor sensor plug is loose or dropped off, restore it and restart the system. If it still does not work, please replace the controller and inform the manufacturer.
Err-14	Dsp read/write eeprom failure	Turn off the system power, restart the system after 30 seconds, if it still does not work, please replace the controller and inform the manufacturer.
Err-15	Motor over-speed protection	
Err-16	Motor reversion	
Err-17	Hmi read/write eeprom failure	
Err-18	Motor overload	
Err-23	Sewing motor blocked encoder failure	- Eliminate sluggish movement in the sewing machine - Replace encoder - Replace sewing motor
R	Switch alarm	Straighten the handpiece, to ensure that the switch recovery