

ZOJE

ZJ20U-Series

Single needle
lockstitch zig-zag sewing machine

QD629 Control panel manual

Safety instructions





1. Users should read the instruction manual completely and carefully before installation or operation.
2. The product must be installed and pre-operated by well-trained personnel.
3. All instructions marked must be followed or followed, otherwise Injuries may occur.
4. To ensure perfect performance and safety, please do not use an extension cable with multiple sockets for connection to power supply.
5. When connecting power cords to power sources, ensure that the supply voltage is less than 250 VAC and matches the rated voltage indicated on the motor nameplate.

※Attention: If the control box has 220V AC system, do not connect
The control box is connected to a 380V AC outlet. Otherwise, an error will occur and the motor will not run. If this happens, immediately turn off the power and check the supply voltage.

6. Do not work in direct sunlight, outdoors or indoor temperatures above 45°C or below 5°C.
7. Avoid working near the heater when equipment or humidity is below 30% or above 95%.
8. Do not work in places with heavy dust, corrosive substances or volatile gases.
9. Avoid exposing the power cord to heavy objects, excessive force, or excessive bending.
10. The power cord ground wire must be connected to the manufacturing facility ground using appropriately sized wires and terminals. This connection must be securely fastened.
11. All moving parts must be protected from the intended parts.
12. After turning on the machine for the first time, turn on the sewing machine at low speed and check the correct direction of rotation.
13. Turn off the power before the following operation:
 - a) Connect or disconnect any connectors on the control unit or motor.
 - b) Filling needle.
 - c) Raising the machine head.
 - d) Repair or make any mechanical adjustments.
 - d) Machine downtime.
14. Repairs and maintenance work must only be carried out by suitably trained electronics technicians.
15. All repair parts must be provided or approved by the manufacturer.
16. Do not use any object or force to hit or ram the product.

1. Button Displays and operating instructions

1.1 Key Description

Function key enter parameter area		Under normal mode, press the [P] key to enter the user parameter mode Press and hold the [P] key to boot into parameter mode Technician
Enter and determine \ save button		Enter parameter values such items and their contents change after adjustment, need to press the [S] key to save the confirmation. Note: The parameters are saved directly by the [S] key.
UP / Needle positinon		1. Choose the region parameter items incrementing key 2. Parameter setting value incrementing key 3. Select the shortcut needle position
DOWN / Soft start		1. Choose the region parameter items of diminishing key 2. Is decremented key parameter settings 3. Slow play seam selection shortcuts

2 User Parameter & Technician Parameter

Parameter	Parameter Function	Range	Default	Description
In the normal screen, press [P]				
P01	Maximum Sewing Speed (r/S)	100-3700	3700	Maximum speed of machine sewing
P02	Speed Curve Adjustment (%)	1-100	80	The Lager the value, the faster to increase speed
P03	Needle UP/ DOWN	UP/DN	DN	UP: Needle Stops at Up Position DN: Needle Stops at Down Position
P07	Soft Start Speed (r/S)	200-1500	400	Soft Start Speed Adjustment
P08	Stitch Numbers for Soft Start	0-99	2	Soft Start Stitches Setting (one unit = half stitch)
P14	Soft Start	ON/OFF	ON	ON: Slow start feature is turned on. OFF: Slow start function off.
P15	Make up pin mode	0-3	0	0: Semi-pin ; 1: a pin 2 : Continuous filling half needle 3 : Continuous injection
P24	Foot pedal reverse voltage	30-500	120	
P30	Thick material angle	0-100	0	
P42	Information Display	N01-N07		N01 Electrically controlled version serial numbers N02 Selected needle cassette version N03 Speed N04 Pedals AD, N05 Positioning angle (0--359), N06 Under the positioning angle

Parameter	Parameter Function	Range	Default	Description
				NO7 Bus voltage AD
P43	Setting Direction of Motor Rotation	CCW/CW	CCW	CW : Clockwise CCW : Counter Clockwise
Press and hold the [P] key to boot				
P44	Brake force	1-50	16	Efforts to stop the machine when selecting
P48	Low (Positioning) Speed (r/S)	100-500	210	Setting Positioning Speed
P56	Needles Goes Up Automatically as Power turned on	0-2	1	0: always not to find a position 1 : : always looking for positioning 2 : If the motor is positioned on the no longer find location (only with magnet motor)
P58	Up Position Adjustment	0-1439	40	Up Position Adjustment The needle will advance stop when the value decreased. The needle will delay stop when the value increased.
P59	Down Position Adjustment	0-1439	720	Down Position Adjustment The needle will advance stop when the value decreased. The needle will delay stop when the value increased.
P60	Testing Speed (r/S)	100-3700	2000	Setting testing speed.
P61	Testing A	ON/OFF	OFF	Option of Testing A, after setting press 【060. TV】 to set the speed keep running.
P62	Testing B	ON/OFF	OFF	Option of Testing B, after setting press 【060. TV】 to set the speed execute the cycle of Start – Sewing –Stop - Trimming
P63	Testing C	ON/OFF	OFF	Option of Testing C, after setting press 【060. TV】 to set the speed execute the cycle of Start – Sewing –Stop without positioning function
P64	Running Time of Testing B and C	1-250	20	Setting running time of testing B and C
P65	Stop Time of Testing B and C	1-250	20	Setting stop time of testing B and C
P66	Machine Protection Switch Testing	0-2	1	0 : Disable , 1 : Testing zero signal , 2 : Testing positive signal
P67	Trimming Protection Switch Testing	ON/OFF	OFF	OFF : Disable ON : Enable
Press and hold the [P], [S] key while the boot				
P70	The factory Type Selection		27	
P72	The needle position correction	0-1439	0	Hand rotation manual to the appropriate position, press S key to save

Parameter	Parameter Function	Range	Default	Description
P73	Under needle position correction	0-1439	0	Hand rotation manual to the appropriate position, press S key to save
P84	Thick start angle	0-330	9	
P85	The thick end angle	0-330	57	
P92	Encoder start angle		160	View manual 1.5 chapter

3 Error Code List

Error Code	Problem	Strategies
E01	1) Power ON, the main voltage detection is too high 2) When the supply voltage is too high	Turn off the system power supply, and detect whether the supply voltage is correct. (Or exceed the rated voltage specified in use.) If correct, please replace the control box and inform the factory
E02	1) Power ON, the main voltage detection is too high 2) When the supply voltage is too high	Turn off the system power supply, and detect whether the supply voltage is correct. (Or exceed the rated voltage specified in use.) If correct, please replace the control box and inform the factory
E03	Operation panel and CPU transmission communication exception	Turn off the system power, check the operation panel interface is loose If contact is good, please change the operation panel. If it is not operated, the control box is damaged, please change
E05	Control of the contact of the device	Off the system power supply, check and control the connector is loose or fall off, Will resume normal after the restart system If you still can not work normally, please replace the speed controller and notify the manufacturer.
E07	a) Motor plug wiring contact is not transferred b) Lock head or motor belt foreign body in the card die c) The machine is too thick, the motor torque is not enough. d) Module driven output exception	Rotating head motor hand wheel observation is stuckIf stuck, the first rule out mechanical failure Such as rotation normal Check the motor encoder connector and motor power cable joints are loose If there is a loose please revise Such as good contact Check the supply voltage of the power supply voltage is too high or too high If you have to adjust As normal, please replace the control box and notify the manufacturer.

E9 E11	Synchronizer signal error.	Power off system Check the motor encoder interface is loose or off Will resume normal after the restart system If you still can not work normally, please inform the factory and replace the motor.
E14	Encoder signal exception	Turn off the system powe Check the motor encoder interface is loose or off Will resume normal after the restart system If you still can not work normally, please replace the motor and notify the manufacturer.
E15	Power module is not normal overcurrent protection	Turn off the system power, and then restart If you still can not work normally, please inform the factory and replace the motor.
E17	Head protection switch is not in the correct position	Turn off the system power, check the nose is opened, the head switch is damaged.
E20	Motor starting failure	After driving the motor does not rotate, do not look for the encoder reference point

4. Port Outline Diagram

