

1. Notice

YSC-8333 is used in system of industry sewing machine. For perfect operation and safety, installation and operation must be supervised by professional.

1.1 Work environment

- ▲ Please use 220V AC in ±10% ranges.
- ▲ To avoid the false operate, please keep the product away from the high electromagnetic interference.
- ▲ Please operate in the area which temperature is 5°C~45°C. Please operate in the area which humidity is 80% or less.
- ▲ Please keep the product away from the flammability and exploder.

1.2 Notice of installation

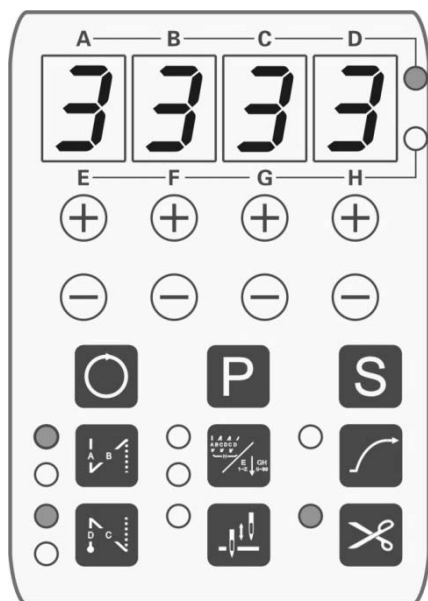
- ▲ The control box should be installed correctly follow the instruction in this manual.
- ▲ Turn off the power and unplug the cord before installation.
- ▲ The wire must not set to be near the wheel and other movable parts.
- ▲ To avoid the static interference and current leakage, all grounding must be done.

1.3 Notice of safety

- ▲ Turn off the power before maintenance and repairs or raising the machine arms, or changing needle, or threading needle.
- ▲ Please don't open the box except the professional.
- ▲ When turn on the machine in the first time, use low speed to operate and check the correct rotation direction.
- ▲ During machine operation, don't touch any moving parts.
- ▲ All moving parts must use the protective device to avoid the body contact and objects insertion.
- ▲ When there is water or other liquid, or caustic material on box or motor, you must stop operation and turn off the power.
- ▲ All connector shouldn't be plug and unplug when power on.
- ▲ The connector should be plug and unplug in the correct method.

2. Function of Operation Box

Operation box diagram :



Function	Key	Operation
Start Tacking Selection		Setting start tacking, turn on upper LED is single tacking, lower LED is double tacking, turn off all LED is no tacking. A is the stitches of forth sewing. B is the stitches of back sewing. They are both in range 1~15.
End Tacking Selection		Setting end tacking, turn on upper LED is single tacking, lower LED is double tacking, turn off all LED is no tacking. C is the stitches of back sewing. D is the stitches of forth sewing. They are both in range 1~15.
Select sewing mode		Turn off all LED is free sewing.
		Turn on the upper LED is bar tacking sewing.
		Turn on the lower LED is constant-stitch sewing.
Slow Start		Slow start switch, see 3.6
Needle Up / Down		Select the stop position of needle.
Trimming		Enable or disable the trimming.
Parameter Function	P	Enter or exit parameter function interface.
Setup Function	S	Confirm and save current value of parameter.
Interface Selection	O	Switch current interface to another.
Increase	+	Value increase.
Decrease	-	Value decrease.

3. Operation of the Interface

3.1 Parameter setup: Press **P** will be into parameter select interface, using **A+** and **A-** to select parameter type, using **C+**, **C-**, **D+** and **D-** to select parameter index. Press **S** will be into parameter setting interface, value of current parameter will be displayed on bar A ~ D, using **+** and **-** can modify the value. Use **S** to confirm or **P** repeal change. After modifying, use **P** to back to sewing interface.

3.2 Parameter solidifying: If user want to change some parameter's default value, then select the parameter, press **S** into parameter setting interface, press , the default value has been changed.

3.3 Resumine parameter through One-Key Default: Select any parameter in parameter

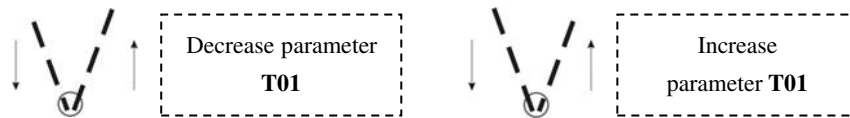
select interface, and press **S** into parameter setting interface, can be used to recall the default value. Use **S** to confirm or **P** repeal change.

3.4 Access the special function parameter interface: Without any operation during power up, only S, T and A type parameter can be select. Press **P** during power up will display , and then O type parameter can be accessed.

3.5 Adjust the tacking

3.5.1 Adjusting of RVE. SOL. action time

For start/end tacking or bar tacking, if unbalanced situation is appeared during natural direction to reverse direction, please correct it as below:



3.5.2 Adjusting of RVE. SOL. release time

For start/end tacking or bar tacking, if unbalanced situation is appeared during reverse direction to natural direction, please correct it as below:



3.6 Slow start function: If be effective, every new operation after trimming will run by slow speed for several stitches firstly, speed is relative with parameter **S08**, stitch is relative with parameter **O01**.

3.7 Resume the default value of all parameters: Set parameter **O17** to , turn on the power again, after display finished, all parameters have been default value themselves.

3.8 Encrypt the parameter interface: First change parameter **O27** for user's password, then set parameter **O15** to enable password, after this, accessing to parameter interface will be in password interface firstly, set the correct password and use **S** to confirm.

4. General Parameter Table (part)

4.1 Speed parameter

SN	Name	Range	Description
S01	Max speed	500~5000 s/m	Maximum speed.
S02	Min speed	150~500 s/m	Minimum speed.
S03	Speed of start tacking	500~2500 s/m	Speed of start tacking.
S04	Speed of end tacking	500~2500 s/m	Speed of end tacking.
S05	Speed of bar tacking sewing	500~2500 s/m	Speed of bar tacking sewing.
S06	Speed of C-S sewing	500~4500 s/m	Speed of constant-stitch sewing.
S07	Trimming speed	150~300 s/m	Speed of trimming.
S08	Slow sewing speed	200~500 s/m	Slow sewing speed when start.

4.2 Time parameter

SN	Name	Range	Description
T01	RVS action time	1~200ms	Action time of the REV SOL, see 3.5
T02	RVS release time	1~200ms	Release time of the REV SOL, see 3.5
T03	Delay time of wiper	1~200ms	Timing before the wiper solenoid act.
T04	Action time of wiper	1~200ms	Timing for the wiper solenoid action.
T05	Delay time of foot lifter	1~500ms	Timing before the foot lifter solenoid is act.
T06	Release time of foot lifter	1~500ms	Timing before the foot lifter solenoid is released.
T07	Time of foot lifter whole output	1~999ms	Timing of the foot lifter solenoid is act with whole output.
T08	Time of RVS whole output	1~999ms	Timing of the reverse solenoid is act with whole output.
T10	Time of remove shake	1~200ms	The speed controller will be greater sensitive when the value is smaller.

4.3 Enable parameter

SN	Name	Range	Description
A01	Up position	ON~OFF	ON: the stop position is up. OFF: the stop position is down.
A02	Automatically sewing	ON~OFF	Valid only in constant-stitch sewing, when set to "ON", enable the automatic sewing.
A03	mode of stitch correction	ON~OFF	ON: continual, OFF: half needle
A04	Stitch correction with single button	ON~OFF	For free sewing, if there is single switch on machine arms, when set to "OFF" the switch is reverse switch always. When set to "ON", the switch is reverse switch at sewing and is stitch correction switch at stop.
A05	Stitch correction with double button	ON~OFF	When set to "ON", enable the reverse and stitch correction switch both are valid. When set to "OFF", disable the double key be valid at the same time, and in this mode, the function of the

			single switch is determined by A04 .
A06	Free sewing Trimming	ON~OFF	When it is "ON", enable the trimming.
A07	bar tacking sewing Trimming	ON~OFF	When it is "ON", enable the trimming.
A08	Wiping	ON~OFF	When it is "ON", enable the wiping. When A06 or A07 is "OFF", A08 is invalid.
A09	Foot lift	ON~OFF	When it is "ON", enable foot lift.
A10	clamp	ON~OFF	"ON" to enable clamp
A12	Counting the product quantity	ON~OFF	When it is "ON", display the product quantity, increase for 1 after trimming.
A13	Pullback after trimming	ON~OFF	When it is "ON", Pullback after trimming
A14	Trimming protection	ON~OFF	When it is "ON", the pedal must be back to the balance position to do next operation after trimming, "OFF" to be no required.
A15	Foot lifter after trimming	ON~OFF	When A08 is "ON", if A15 is set to "ON", the foot lifter will lift automatically after trimming.
A16	The first segment keep on with the start tacking of C-S sewing	ON~OFF	It is valid only for constant-stitch sewing. If enable automatic sewing mode and set the start tacking, the next segment of constant-stitch sewing will do automatically after the start tacking is finished when it is "ON". When it is "OFF" or disable the automatic sewing mode, machine will stop automatically after the start tacking is finished.
A17	The end tacking keep on with the last segment of C-S sewing	ON~OFF	It is valid only for constant-stitch sewing. If enable automatic sewing mode, the end tacking and trimming will do automatically after the last segment of constant-stitch sewing is finished when it is "ON". When it is "OFF" or disable the automatic sewing mode, machine will stop automatically after the last segment of constant-stitch sewing is finished. The end tacking and trimming will do until step forward the pedal again.
A18	Move to up position after power on	ON~OFF	When it is "ON", the machine will move to up position and stop automatically as power on.
A19	Foot lifter acting in foot lift position	ON~OFF	When the pedal is half back toe down, if it is "ON", the position is foot lift. If it is "OFF", the position is to be balance.
A20	Trimmer acting in foot lift position	ON~OFF	When it is "ON", the trimming will at the foot lifter position.
A21	Soft start	ON~OFF	When it is "ON", it will do a soft start after trimming, see 3.6

4.4 Degree parameter (can be accessed by press **P** during power on)

SN	Name	Range	Description
D01	Up lever	0~359°	Up lever degree.
D02	Down lever	0~359°	Needle bar down degree.
D03	Trimmer act	0~359°	Trimmer act degree.
D04	Trimmer release	0~359°	Trimmer release degree.
D05	Reverse act	0~359°	Reverse SOL. act degree.
D06	Reverse release	0~359°	Reverse SOL. act release degree.
D07	Clamp act	0~359°	Clamp act degree.
D08	Clamp release	0~359°	Clamp release degree.

4.5 Special function parameter (can be accessed by press **P** during power on)

SN	Name	Range	Description
O01	Stitches of slow sewing at start	0~10	The stitches of slow sewing at start when trimming is finished. The speed of slow sewing is set in S08 .
O05	Duty of foot lifter output	1~10	The duty cycle of PWM for signal of foot lifter solenoid. The power will be greater if this value is bigger, at the same time, the heat is more.
O06	Foot lifter release timed	ON~OFF	When it is "ON", the foot lifter solenoid will be released automatically after the time desired.
O07	Foot lifter release time	1~10s	When O06 is "ON", the time of foot lifter act.
O09	Duty of RVS output	1~10	The duty cycle of PWM for signal of RVS solenoid. The power will be greater if this value is bigger, at the same time, the heat is more.
O10	RVS release timed	ON~OFF	When it is "ON", the RVS solenoid will be released automatically after the time desired.
O11	RVS release time	5~30s	When O10 is "ON", the time of RVS act.

O15	Parameter encrypt	ON~OFF	See 3.8
O17	Initialization of parameters	ON~OFF	See 3.7
O23	Running time of aging test	1~60s	The running time of aging test.
O24	Idle time of aging test	1~60s	The idle time of aging test.
O25	Total time of aging test	1~255h	The total time of aging test. It will be stopped when reached the time.
O26	Aging test enable	ON~OFF	"ON" to active the aging test.
O27	User's password	0~9999	See 3.8
O31	Safety SW. enable	ON~OFF	"ON" to enable the safety switch function.
O32	Safety SW. mode	0~1	0: Normal close, 1: Normal open.
O48	Duty of clamp output	1~10	The duty cycle of PWM for signal of clamp solenoid. The power will be greater if this value is bigger, at the same time, the heat is more.

5. Measurement of Error and Warning

Error code	Causation	Measurement
E 0 1	Voltage is too high	Check the AC power.
E 0 6	Load is too heavy	Check the load.
E 0 8	Load is too heavy	Check the load.
E 1 0	Position check error	Check synchronizer, see6.2
E 1 1	Encoder error	Check Encoder, see6.4
PEdL	Pedal warning	Release the pedal to balance position.
CRrE	Safety SW warning	Check Safety SW.

6. Signal Checking

Press **S** during power on, it will display **f E 4 f** and then enter the mode of Measurement of Input Signal. Press **P** show the SN, press **⊙** select the SN.

6.1 Speed controller: Display of the different pedal position as below:

Display code	Meanings	Descriptions
H 4 7 1	High speed	The second segment forward, pull is 02~99.
L 4 0 1	Low speed	The first segment forward, pull is 01.
b L - -	Balance	Default.
F P - -	Foot lifter	The first segment backward.
f n - -	Trimming	The second segment of backward.
E r r o	Fault	Speed controller fault or disconnected.

6.2 Synchronizer: Turn the hand wheel by hand equably, display **U P** when Synchronizer signal active.

6.3 Switch B – REV. SW. C – COR. SW. D -- Safety SW.

6.4 Hall signal of motor: Turn the hand wheel by hand equably, display the hall signal of motor, range is 0~7. If the fault state appeared, then display **E r r o**.

6.5 Encoder signal of motor: Turn the hand wheel by hand equably, display the encode count of motor, the error is ±5 normally.

6.6 Solenoid: Display **f r B F**, press **A+**, **B+**, **C+&D+** act Ioleniod, A-trimmer, B-RVS, C-clamp, D-foot lifter

6.10 AC power: **2 2 0** Display the current AC power is 220V.

7. Machine degree

Press **⊙** during power on, display **E r o**. A display SN, use **A+** or **A-** to change degree type, turn hand wheel equably, display the current degree.

R 0 0 8 Zero point: Turn hand wheel to top dead center, and then press **S** to set zero degree point.

b 0 6 5 Up level: Turn hand wheel to up lever, press **S** to save current degree to up lever position. Setup of other degree parameters are the same with above.

C 2 3 0 Down level

d 2 5 0 Trimmer act

E 0 3 0 Trimmer release

F 3 0 0 Reverse act

G 3 0 0 Reverse release

H 1 8 0 Clamp act

I 3 0 0 Clamp release