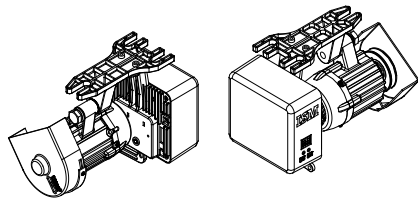


**CB Series Control Box & Motor
INSTRUCTION MANUAL**

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2. Installation manual
3. Operating way for control box panel
4. Parameter setting
5. General Parameter List

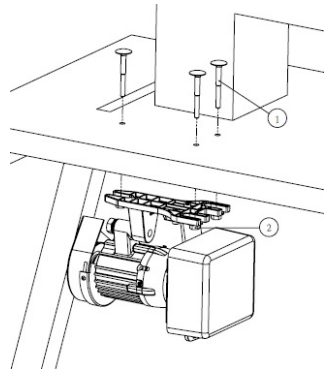


1. For safe operation

- 1.1 Prior the use of this product, please read the instruction Manual. Keep this Instruction Manual and the user may read it at anytime when necessary.
- 1.2 Before turn on the power, be sure to check the power voltage and phase agreeing with the nameplate that indicated in the control box.
 - * The operated voltage should follow the nameplate with ±10% range.
- 1.3 Grounding the machine is always necessary for safe and normal operation.
- 1.4 Check lubricating oil prior to operation.
- 1.5 Check that rotational direction of the motor is correct prior to operation.
- 1.6 So as to prevent personal injuries during operation, be careful not to allow your head and hands to come close to the moving parts. Also never try to stop it with external forces.
- 1.7 For the following conditions, turn off the power or disconnect the power plug from receptacle:
 - * For threading needle or replacing bobbin.
 - * To plug or unplug any connectors from control box.
 - * For maintenance and repairing.
 - * When machine is not at use, inspected or adjusted.
 - * When lightning and thunder occurs.
- 1.8 Operating environment
 - * Operating environment temperature 5°C~45°C.
 - * Operating environment humidity 30%~95%.
 - * Not close to high frequency or heat sources (such as electric heater).
 - * Dew, corrosive gases, and dust places should be avoided.
 - * Indoor use only, avoid the direct sunlight.
- 1.9 Warranty and maintenance
 - * The warranty period of the product is 18 months from the date of manufacture.
 - * Warranty void if improper use / man-made damage / voltage abnormal / bad grounding / self-dismantling / self-repair.
 - * Warranty void if foreign matter into / natural disasters / lightning / salt corrosion / damp / fall / self-transport damage.
 - * Repair parts should be provided by our company / maintenance person should be approved by our company.

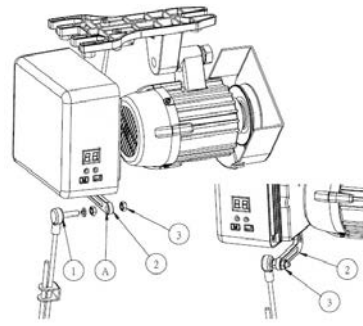
2. Installation manual

- 2.1 Drill three holes of 9 mm on the machine table, fixed the motor (suspending bracket Assy.) under the table; be sure that both pulleys of machine and motor should be parallel.
- 2.2 Put the carriage bolts to table holes(①) Then using(②) spacer、spring washer、sleeve nut to fix it.



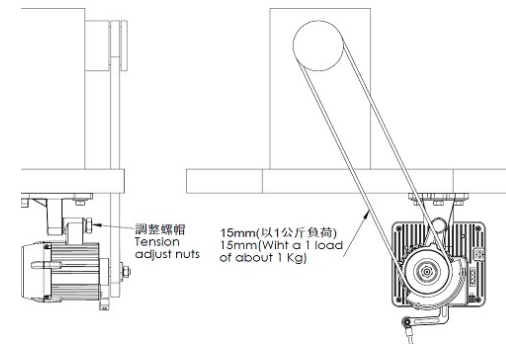
2.3 Installing the connecting rod :

Fix connecting rod ① to install hole A of pedal sensor lever ② with nut ③.



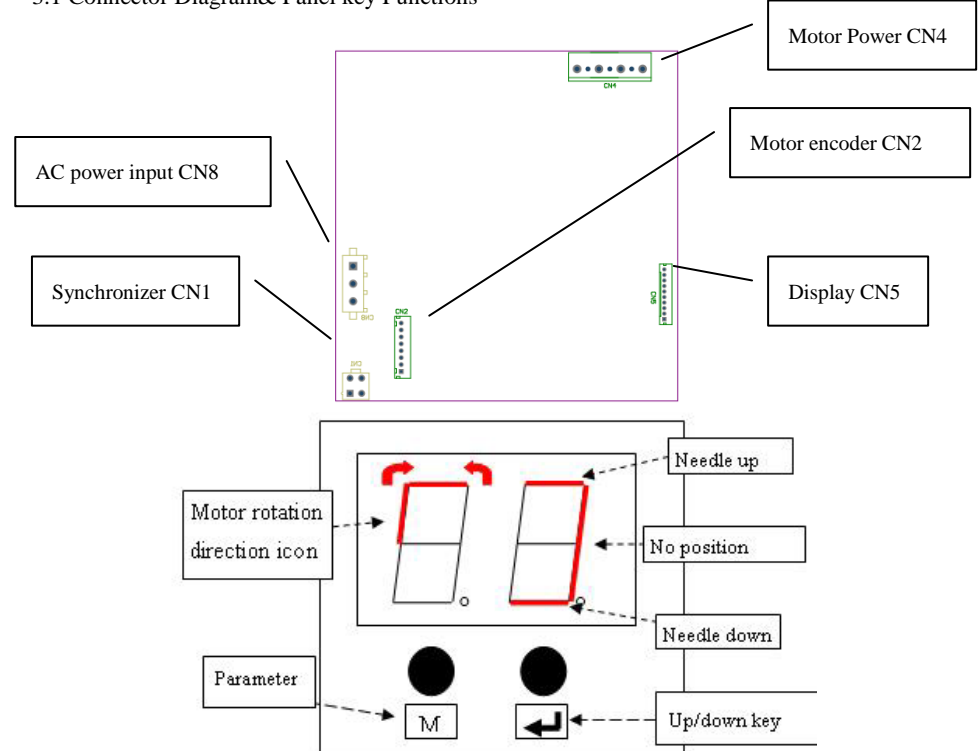
2.4 Pulley rate adjustment :

- 2.4.1 Installation of Pulley which between Between Motor and machine.
- 2.4.2 Up-down shift tension adjust nuts. Adjust belt tension force.
- 2.4.3 Adjust belt tension force rangin



3. Operating way for control box panel

3.1 Connector Diagram& Panel key Functions



3.2 Select the machine type and motor specification

STEPS

1. Press **M** and **←** simultaneously, and turn ON the power until panel display “rS” then release the key.
2. Press **M** key, thus machine type will be cycled increased.
3. Press **←** key to save and enter motor specification selection.
4. Press **M** key, thus motor specification will be cycled increased.
5. Press **←** key to save.
6. Please restart the machine.

	Motor Type
45	450Walt motor
55	550Walt motor
65	650Walt motor
70	700Walt motor

	Machine Type
LS	Lock Stitch
OL	Overlock.
PB	Postbed
TN	Twin Needle
CS	ChainStitch
SP	Special

Parameter setting STEPS

1. Press **M** key and turn on the power until the panel display “PA. Release **M** key, the panel display parameters number. (or)
2. In normal mode, then press **M** key until the panel display “PA”. Release **M** key, the panel display parameters number.

Parameter Setting Key Description

M	←
1. Press one time to increase Number.	1. Press one time to enter Parameter or parameter value.
2. Hold Press to decrease number	2. Press 2 Seconds to Save Parameter value

Error message indicator

Error Code	Description of error detected
E.1 or E.A	Synchronizer failure
E.2	Motor is not rotating
E.5	Speed unit output failure
E.8	Setting speed over the motor maximum speed
E.9	IPM is failed
E.0 or E.C	Braking timing error

General Parameter List

NO.	Item	Range	Unit	LS	OL	PB	TN	CS	SP
P1	Sewing machine maximum speed	2 ~ 80	*100spm	40	60	20	25	40	8
P2	Sewing machine positioning speed	10 ~ 25	*10spm	20	20	20	20	20	10
P3	Motor's pulley dimension	50 ~ 100 (note1)	*1mm	75	85	65	65	75	50
P4	Machine's pulley dimension	50 ~ 120 (note1)	*1mm	75	55	65	80	65	120
P5	Pulley ratio setting mode	ON: Refer motor pulley ratio measurement OF: Refer P.3 and P.4 AT: Auto measurement	--	AT	AT	AT	AT	AT	AT
P6	Virtual needle down positioning function	ON: Valid OF: Invalid	--	OF	OF	OF	OF	OF	OF
P7	The angles between virtual needle down positioning point and needle up signal	70 ~ 250	*1°	180	180	180	180	180	180
P8	Soft start stitches	0 ~ 19	*1 stitch	0	0	0	0	0	0
P9	Soft start speed	25 ~ 200	*10spm	40	40	25	40	40	40
F1	Synchronizer mode	ON: Valid OF: Invalid	--	OF	OF	OF	OF	OF	OF
F2	Motor rotating direction	ON: Clock wise OF: Counter Clock wise	--	ON	OF	ON	ON	OF	OF
F3	Motor static brake function	0: Invalid 1 ~ 20: The bigger value means the more powerful braking force.	--	0	0	0	0	0	0
F4	Accelerating speed slope	1 ~ 8 (fast~slow)	--	3	3	3	3	3	4
F5	Decelerating speed slope	1 ~ 15 (fast~slow)	--	3	3	3	3	3	10
L1	Auto needle up positioning when power on	ON: Valid OF: Invalid	--	ON	ON	ON	ON	ON	ON
L3	Sewing machine reversed revolution angles after pedal heel down	0~250	*1°	0	0	0	0	0	0