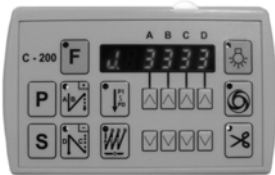# C-200 OPERATION PANEL
USER MANUAL

CONTENTS
1. User Precaution
2. Installation
3. Panel Key Functions
4. Parameter Adjustment
5. General Parameter List
6. 7 Segment LED Characters Compare Chart

CE ⊕

2008. 05

1. User Precaution :

Please read this manual with the control box manual thoroughly and pay attention to the following precaution.

- Installing and operating must be performed by the trained personnel, turn off the power and unplug the cord and wait for 5 minute before any installation.
- After installation, confirm the connector is securely connect to the control box.
- The C-200 is designed for the specific control box, don't use for other device.
- Don't apply heavy pressure on the operation panel or over bend and pull its cable.
- Secure the operation panel cable in safe location, don't let it near the pulley or belt.
- Don't use any object (hammer....etc.) to hit or ram the operation panel.
- Don't use water or solution to clean the operation panel. Use the dry cloth to clean.
- When error code occurred, remember the error code number and turn off the power, call the technician to handle the problem.
- Repair and maintenance must be performed by trained technician, and all spare parts for repair must be approved or supplied by the manufacturer.

Limited warranty
Warranty period of this product is 1 year from purchasing, or 18 months from our manufacturing date.

Warranty information
Warranty detail refers to the regulation described in the control box user manual.

Declaration of conformity
*We declare that this product meet the EC and RoHS directives and standards. See the declaration of conformity in the control box user manual for more detail.

2. Installation :

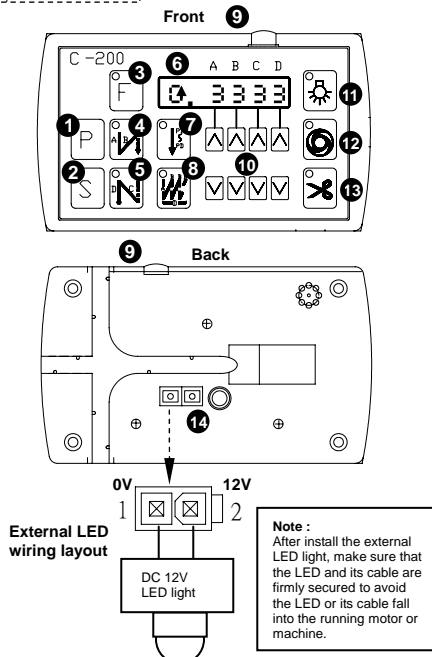a). Mount the operation panel on the bracket and secure the 3 screws show in the diagrams.

b). Loosen screws **A**, **B** in the back of machine head and install the bracket with the operation panel.

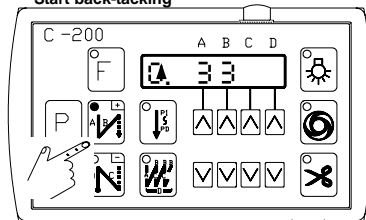c). After installation secure the screws **A**, **B** and connect the cable to the control box
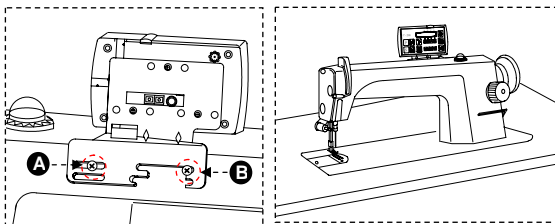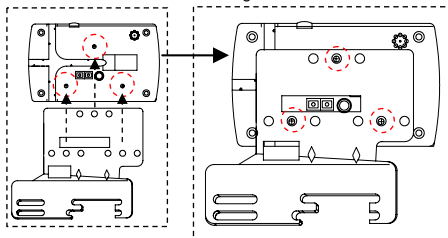
3. Panel Key Functions :

1	Parameter enter / increment	Enter parameter mode / parameter NO. increment key.
2	Parameter value / save	Enter value area / Save key / Enter multi-function
3	F multi-function	Definable multi-function key
4	Start back-tacking	Stitches for A、B section, 15 stitches max. / Parameter NO. increment
5	End back-tacking	Stitches for C、D section, 15 stitches max. / Parameter NO. decrement
6	LED display	Parameters / functions / A、B、C、D area value display.
7	Constant-stitch sewing	13 sections max.　(P1~PD section), 250 stitches max. for each section.
8	Bar-tacking	15 stitches max. for A、B、C section, 15 turns max. (D area) for bar-tacking.
9	Power ON LED	Power ON LED / Warning LED
10	A、B、C、D area value adjust key	$\wedge$ = increment / $\vee$ = decrement
11	External LED light switch	For external LED light, its ON or OFF state can be memorized by the operation panel.
12	Auto	Automatic function for constant-stitch sewing.
13	Trimming	Trimming function ON or OFF
14	External LED light socket	The socket for external DC 12V LED light.

Front ❾

❾ **Back**

0V   12V

External LED wiring layout

Note :
After install the external LED light, make sure that the LED and its cable are firmly secured to avoid the LED or its cable fall into the running motor or machine.
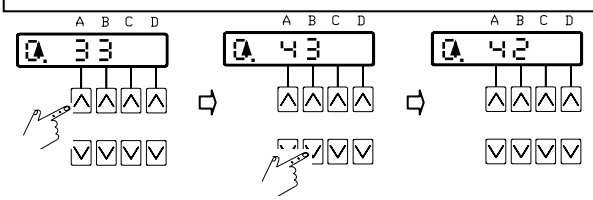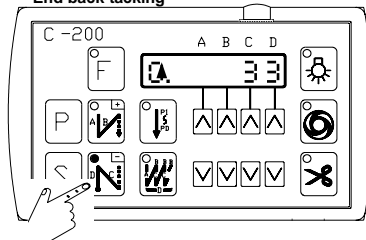
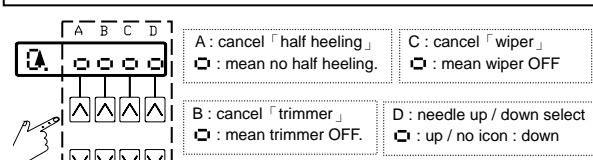DC 12V LED light

Panel function setting :

Start back-tacking

Use ∧ = +1 and ∨ = -1 to adjust the stitches of A、B、C、D section in Start / End back-tacking, 15 stitches max. in each section. (note)
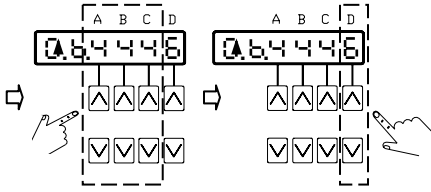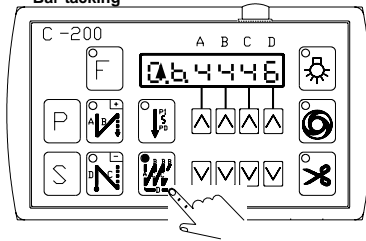
When Start / End back-tacking turn off , use the ∧ ∨ key to turn the special function ON or OFF in the A、B、C、D area. Icon ▢ indicate the function state.

A : cancel 「half heeling」	C : cancel 「wiper」
▢ : mean no half heeling.	▢ : mean wiper OFF
B : cancel 「trimmer」	D : needle up / down select
▢ : mean trimmer OFF.	▢ : up / no icon : down

End back-tacking

Bar-tacking

Bar-tacking stitches for A、B、C section, 15 stitches max. for each section.(note)

Bar-tacking turns D=6, perform bar-tacking 6 turns, 15 turns max. (note)

Note: under the Bar-tacking mode, if this key is ON, the trimming performed automatically after Bar-tacking.

Constant-stitch sewing
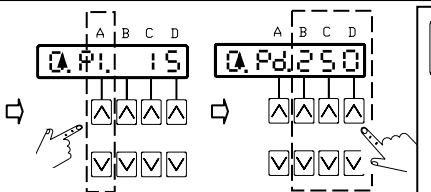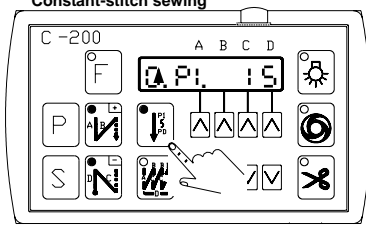
Use ∧ ∨ key under the A area to select each section for constant-stitch sewing

Use ∧ ∨ key under the B、C、D area to set the stitch for each section of constant-stitch sewing. 13 sections max. (note : P1~PD), 250 stitches max. for each section.

Note: when auto function is ON, toe down pedal once to finish the setting stitches in that section automatically . If all the sections are finished, the trimming and wiping will be performed automatically.

F multi-function

In normal mode, press S key for 2 sec. to access the multi-function select area. Select any function to use.
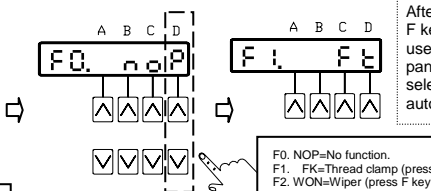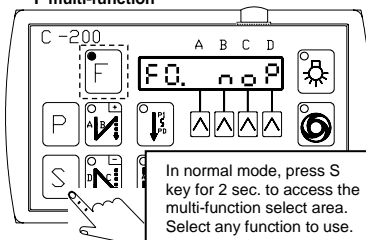
The ∧ ∨ key under the D area is the selection key for F multi-function. (F0~F6)

After function selected, press the F key under the normal mode to use the function. The operation panel will memorized the selected function and its state automatically.

F0. NOP=No function.
F1. FK=Thread clamp (press F key to switch the function ON/OFF)
F2. WON=Wiper (press F key to switch the function ON/OFF)
F3. NUD=Needle up or down (press F key to switch the needle up or down)
F4.SLOW=Slow start (press F key to switch the function ON/OFF)
F5. USW=Needle up switch (press F key to lift the needle to up position)
F6. CRS=Counter reset (press F key under the counter mode to reset the counter.

(Note) : Stitches setting of A、B、C、D sections correspond to the alphabet. (stitches / sections / turns)
A=10、B=11、C=12、D=13、E=14、F=15

Other functions by panel key combination :

Function	Key combination	Description
Reset to factory default setting	**A** + **B** + Power ON	Reset the function and parameter setting to factory default setting.
Motor rotating icon selection	**B** + **D** + Power ON	Cancel the motor rotating icon on the LED panel
Parameter mode A	P + Hold for 2 sec.	Refer to how to enter parameter mode A
Parameter mode B	P + Power ON	Refer to how to enter parameter mode B

A B C D
3 3 3 3

Cancel motor rotating icon, repeat the step to return the icon back.

A B C D
3 3 3 3
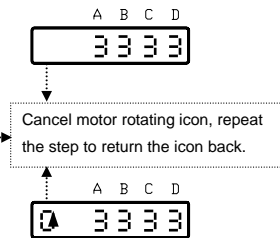
4. Parameter Adjustment :

How to enter parameter value area to adjust the value :

Step 1：Enter any parameter mode show at right side, then use ⋀ or ⋁ key to find the parameter NO. which need to be adjusted.

Step 2：After find the parameter NO., press the **S** key to enter the parameter value area, then use ⋀ or ⋁ key to adjust the value.

Note : After the value adjusted, press the **S** key to save the setting, or else the setting will be lost after power OFF.

How to enter parameter mode :

Parameter mode		Operation	First display	Range for parameter
Level 1	Mode A	On normal mode, press and hold P key for 2 sec.	001. H	Parameter from # 001 ～ 046
Level 2	Mode B	Hold P key and power ON at same time.	047.ПAC	Parameter from # 001 ～ 122

Parameter application :

Presser foot setting : (parameter mode B)

1. How to select the 「Foot lifting solenoid」type【063. FTP】:
* 【063.FTP】for foot lifting solenoid selection, value range from「M / A」, preset on「M」type.
* 「M」= Magnetic type solenoid, 「A」= Air type solenoid. If set on magnetic type, you also need to properly set the parameter【064 . FO】and【065 . FC】to ensure the presser foot operated correctly, wrong setting might cause the foot lifting solenoid unable to lift or over-heat.

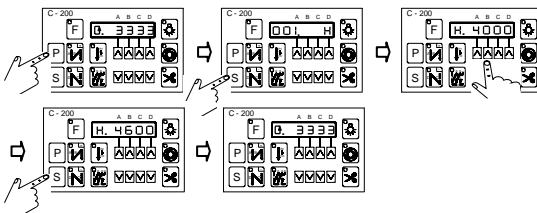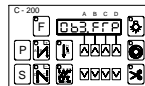2. How to set the 「Full-ON time」for the foot lifting solenoid【064 . FO】: (Solenoid pulling torque time)
* 【064.FO】full-ON time when solenoid lift, value range from 0 ~ 990 ms, preset value depend by the machine code.
*This parameter only valid when【063. FTP】=「M」type.
*Each time when solenoid activate, the solenoid use the【064. FO】full-ON power setting first, then change to the 【065. FC】the switching power setting of duty cycle to maintain the solenoid lifting and lower the power consumption.
*If this parameter value setting too low might cause the solenoid unable to lift, If setting too high might cause solenoid over-heat.
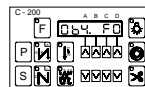
3. How to set the 「Duty cycle」for foot lifting solenoid【065 . FC】: (decrease the solenoid power consumption in %)
* This parameter only valid when【063. FTP】=「M」type.
* 【065.FC】duty cycle after Full-ON time, value range from 0 ~ 90 % , preset value depend by the machine code.
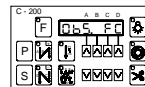
Safety switch setting: (parameter mode B)

1. How to set the 「Safety switch」for the trimmer signal mode【075. SFM】:
* 【075. SFM】safety switch for trimmer signal mode, value range from「NO / NC」, preset value depend by the machine code.
* 「NO」mode : Sewing start only when「Safety switch」input signal is「OPEN」, if signal is「CLOSE」, the machine will stop.
* 「NC」mode : Sewing start only when「Safety switch」input signal is「CLOSE」, if signal is「OPEN」, the machine will stop.
*When「Safety switch」input signal is incorrect, the machine will stop sewing, and the rotating icon on LED panel will also stop.
*If rotating icon been cancel, When「Safety switch」input signal is incorrect, the machine will stop sewing, the LED panel will showing the error code 16.
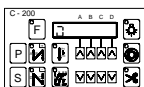
If motor don't run and rotating icon stop or LED panel showed【ER0. 16】, please check the machine head's safety switch and its connection signal, also confirm【075. SFM】setting is match the safety switch signal.

5. General Parameter List :

Parameter NO.	Function Name	Range	Description
Speed related parameter			
【001. H】	Maximum sewing speed	50~9999 spm	Maximum sewing speed setting.
【002.SLM】	Soft start mode selection	T / A	T=Soft start activate on next sewing after trimming. A=Soft start activate when pedal down.
【004. N】	Start back-tacking speed	50~8000 spm	Start back-tacking speed adjustments
【005. V】	End back-tacking speed	50~8000 spm	End back-tacking speed adjustments
【006. B】	Bar-Tacking Speed	50~8000 spm	Bar-tacking speed adjustments
【007. S】	Slow start speed	50~2000 spm	Slow start speed adjustments
【009. A】	Automatic constant-stitch sewing speed	50~8000 spm	Automatic constant-stitch sewing speed adjustments
【122. HL】	Upper limit of maximum speed	50~9999 spm	The limit of the maximum sewing speed. (If 【122. HL】=3000, but 【001. H 】= 4000, then the valid maximum sewing speed is limited to 3000)
Back tacking related parameter			
【014.SBT】	Start back-tacking function selection	ON / OFF	Start back-tacking turn ON or OFF
【015.SBA】	Setting stitches A of Start back-tacking	0~15 stitches	Start back-tacking stitches for A section
【016.SBB】	Setting stitches B of Start back-tacking	0~15 stitches	Start back-tacking stitches for B section
【017.SBN】	Setting turns of Start Back-tacking	0~4 turns	Start back-tacking turns
【021.EBT】	End back-tacking selection	ON / OFF	End back-tacking turn ON or OFF
【022.EBC】	Setting stitches C of End back-tacking	0~15 stitches	End back-tacking stitches for C section
【023.EBD】	Setting stitches D of End back-tacking	0~15 stitches	End back-tacking stitches for D section
【024.EBN】	Setting turns of End back-tacking	0~4 turns	End back-tacking turns
Bar-tacking related parameter			
【010.ACD】	Automatic sewing End back-tacking	ON / OFF	Automatic end back tacking after constant stitches
【032.BAR】	Bar-tacking selection	ON / OFF	Bar-tacking turn ON or OFF
【033.BRC】	Setting stitches of Bar-tacking	0~99 stitches	Bar-tacking stitches
【034.BRN】	Setting turns of Bar-tacking	0~15 turns	Bar-tacking turns
【038. PM】	Constant-stitch sewing selection	ON / OFF	Constant-stitch sewing turn ON or OFF
【039. PS】	Setting stitches for section of Constant-stitch sewing	0~250 stitches	Stitches for each section of constant-stitch sewing (P1~PD sections, total13 sections)
Wiper & Trimmer related parameter			
【040.WON】	Wiper function selection	ON / OFF	Wiper turn ON or OFF
【092. W1】	Delayed timing prior to wiper engaged	0~980 ms	Delay timing (for lock-stitch, chain stitch machine)
【093. W2】	Setting timing of wiping	0~9990 ms	Motion time (for lock-stitch, chain stitch machine)
【041. TM】	Trimmer function selection	ON / OFF	Trimmer turn ON or OFF
【082. T1】	Delayed timing prior to trimmer engaged	0~990 ms	Delay time (chain stitch machine)
【083. T2】	Trimming time	0~990 ms	Motion time (chain stitch machine)
【075.SFM】	Safety switch	NO / NC	Safety switch (chain stitch, direct drive lock-stitch machine)
Presser foot related parameter			
【063.FTP】	Type selection for foot lifting solenoid	M / A	M=Magnetic type / A=Air type
【064. FO】	Full-On time for foot lifting solenoid	0~990 ms	Solenoid pulling torque adjustment
【065. FC】	Duty cycle time for foot lifting solenoid	10~90 %	Solenoid switching power adjustment.
【066. FD】	Running-Delay time setting	0~990 ms	Delay time for presser foot
【070.HHC】	Cancel foot lifting at half-heeling pedal	ON / OFF	No foot lifting at half-heeling when turn ON

6. 7 Segment LED Characters Compare Chart :

Arabic Numerals																			
0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9

English Alphabet																			
A	A	B	b	C	C	D	d	E	E	F	F	G	G	H	H	I	i	J	U
K	t	L	L	M	n	N	n	O	o	P	P	Q	q	R	r	S	S	T	r
U	U	V	u	W	H	X	II	Y	Y	Z	=								