

NA-11UT Series Display screen and operation

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1. Display screen and operation

1-1. Buttons and their functions

The operation screen is as illustrated below.



Function	Button	Explanation of sewing machine operation
Selection of reverse feed stitching at the beginning		The number of stitches set to the revere feed stitching at the beginning of sewing (A, B) is sewn twice.
of sewing		The number of stitches set to revere feed stitching at the end of sewing (A, B) is sewn once.
Selection of reverse feed stitching at the end of sew-		The number of stitches set to the revere feed stitching at the beginning of sewing (C, D) is sewn twice.
ing	Long	The number of stitches set to revere feed stitching at the end of sewing (C, D) is sewn once.
Constant-dimension sewing	<u></u>	Function to sew the constant-dimension sewing (E) is carried out. When the front part of part is depressed, the sewing machine automatically sews the preset number of stitches E and stops.
Polygonal shape stitching	P1 } PF	For the polygonal shape stitching, the process is set with 1-digit on the left, and the number of stitches is set with three-digit value (G) on the right. When you depress the front part of pedal, the sewing machine sews the number of stitches for the first process and stops. When you depress the front part of pedal again, the sewing machine sews the number of stitches for the next process. When the sewing machine sews the number of stitches for the final process, the polygonal shape stitching is completed.
Free stitching		 When the front part of pedal is depressed, the sewing machine performs sewing. When the pedal is returned to its neutral position, the sewing machine stops. When the front part of pedal is depressed, the sewing machine automatically performs thread trimming and related operations such as thread wiping.
Overlapped stitching		When the front part of pedal is depressed, the sewing machine automatically performs overlapped stitching. The number of repetitions is (E). When the front part of the pedal is depressed, the sewing machine automatically performs this stitching, trims the thread and stops. The sewing machine repeats this operation sequence until it is reset by depressing the back part of pedal.

Function	Button	Explanation of sewing machine operation
Selection of the number of stitches setting		For the reverse-feed stitching, the number of stitches is set with A, B, C and D. The number of stitches can be set within the range of 0 to 9. For the constant-dimension sewing, the number of stitches is set with E. The number of stitches can be set within the range of 0 to 99. For the polygonal shape stitching, the number of stitches is set with G. The number of stitches can be set within the range of 0 to 200. Setting of the number of stitches and display can be changed overby pressing key to A, B, C or D, or E or G. While the memory switch is displayed, the stored values can be checked by pressing key.
Needle bar lifting setting		 Free stitching style: When this button is pressed, the needle bar goes up and the sewing machine advances by a half step to enable the compensation stitching operation. (Practically, the sewing machine continues compensation stitching operation as appropriate.) Constant-dimension sewing style (except for the overlapped stitching) a. When the key is pressed while the sewing machine stops at the midpoint of each process, the needle goes up. When the key is pressed while the sewing machine is at rest a the end of each process, one correction stitch can be sewn. (Practically, the sewing machine continues compensation stitching operation as appropriate.)
One-shot switch		 Free stitching and overlapped stitching This stitching is not enabled even if this key is pressed. Constant-dimension sewing: Press this key. This function is initiated by pressing the front part of pedal. Then, the sewing machine automatically sews the number of stitches set for (E) and stops. Polygonal shape stitching: Press this key. The one-short switch is activated by depressing the front part of pedal. Then, the sewing machine automatically performs sewing of the number of stitches set with the right-side value (G) and stops. When the front part of pedal is depressed again, the sewing machine automatically performs sewing of the next process and stops. The sewing machine repeats this procedure until it finishes sewing of the last process. After the completion of last process, the sewing machine automatically performs thread trimming.
Thread trimming switch	×	Setting enable / disable of thread trimming: As long as this switch is displayed on the screen, the sewing machine carries out thread trimming. If this switch is not displayed on the screen, the sewing machine will not carry out thread trimming.
Soft start		 In the case this function is enabled, the sewing machine firstly operates at a low speed when the motor starts by depressing the front part of pedal. When the sewing machine has sewn the predetermined number of stitches, it runs at the normal sewing speed. When the motor is re-started without thread trimming after the sewing machine has stopped in the middle of sewing, the soft start function is not activated. On the other hand, the soft start function is activated when the motor is re-started after thread trimming. The setting of sewing speed for the soft start function can be adjusted with [007.S]. The setting of the number stitches for the soft start function can be adjusted with [008.SLS].

Function	Button	Explanation of sewing machine operation
Setting the needle stop position		Setting the needle stop position when the motor stops As long as this button is displayed on the LCD, the needle stop position when the motor stops is set to the "upper position". In the case this button is not displayed on the LCD, the needle stop position when the motor stops is set to the "lower position"
Setting the automatic lifting of presser foot after thread trimming	X [†] -J	Changeover between enable / disable of the presser foot lifting after thread trimming As long as this button is displayed on the LCD, the presser foot automatically goes up after thread trimming. In the case this button is not displayed on the LCD, the presser foot remains lowered after thread trimming.
Setting of the automatic presser foot lifting when the sewing machine stops in the middle of sewing		Changeover between enable / disable of the presser foot lifting when the sewing machine stops at the midpoint As long as this button is displayed on the LCD, the presser foot automatically goes up when the sewing machine stops in the middle of sewing. In the case this button is not displayed on the LCD, the presser foot remains lowered when the sewing machine stops in the middle of sewing.
Gradual increase of the set number	(d) (+)	Increase of the set number of stitches For the selection display of the memory switch, the gradual increase key of the memory switch number For the content display of the memory switch, the gradual increase key of the set value
Gradual decrease of the set number	\bigcirc	Decrease of the set number of stitches For the selection display of the memory switch, the gradual decrease key of the memory switch number For the content display of the memory switch, the gradual decrease key of the set value
Starting the memory switch	P	When this key is held pressed while the sewing machine has already started, the user level mode is started. When this key is held pressed again, the user level mode is terminated. In the case of selecting the memory switch, this key can be used as the gradual increase key of the memory switch.

1-2. Counter function

Counting the number of pieces:

In the case the memory switch [041, TM] is set to "0 (zero)" and $\begin{tabular}{c} \begin{tabular}{c} \beg$

Counting the bobbin thread:

In the case the memory switch [041, TM] is set to "(Other than 0 (zero))" and sis held pressed for two seconds, the display will be changed over. 1N: For the bobbin thread counter, the counter is reset to the bobbin thread count number set with [021, CS] by pressing key. If the bobbin thread counter reaches 0 (zero) during sewing, "E_" will be displayed and the alarm will sound. When key is pressed while the alarm is sounding, the alarm is stopped and the bobbin counter is reset.



[041, TM] value

1: Counting down by one for every stitch

10: Counting down by one for every 10 stitches

100: Counting down by one for every 100 stitches

Counting the number of stitches:

In the case the memory switch [041, TM] is set to "0 (zero))" and is held pressed for two seconds, the display will be changed over and the number of times of thread trimming is displayed. When key is further pressed, the number of stitches is displayed on the counter.

2N: When P key is pressed, the number of stitches counter is reset to "0 (zero)".

1-3. Initialization

When the power is turned ON while key and key are pressed simultaneously, the display gives the indication "3-xxxx" and the panel parameters are initialized to the factory-set values within five seconds. (The initial factory-set values are the default values stored in the operation panel.)

Turn the power OFF once after the completion of initialization.

2. List of memory switches

(1) User level

When P key is held pressed for two seconds or more with the sewing machine started, the memory switches can be set.

Every time one memory switch is changed, the changed value is stored in memory by pressing key.

key.	T		I	
Parameter code	Description of parame- ter	Range	Initial value	Explanation of the content represented by the value
001.H	Maximum sewing speed	100 to 2200	2200 sti/min	Setting of the maximum number of revolutions while the sewing machine is in operation Depending on the minimum sewing speed No. 60
002.PSL	Adjustment of acceleration curve	30 to 100	80%	Setting of the percentage of rise of acceleration
003.NUD	Selection of home position of needle when the sewing machine is stopped	UP/DN	UP	UP (upper stop position) / DN (lower stop position)
004.N	Sewing speed at the start of reverse feed stitching	100 to 2200	1200 sti/min	Setting of the sewing speed to be employed at the start of reverse feed stitching
005.V	Sewing speed at the end of reverse feed stitching	100 to 2200	1200 sti/min	Setting of the sewing speed to be employed at the end of reverse feed stitching
006.B	Sewing speed of over- lapped stitching	100 to 2200	1200 sti/min	Setting of the sewing speed to be employed at the end of overlapped stitching
007.S	Soft start speed	100 to 2200	400 sti/min	Setting of the soft start speed
008.SLS	Number of stitches for the soft start	0 to 99	Two (stitches)	Setting of the number of stitches for the start start
009.A	Sewing speed for constant-dimension sewing	100 to 2200	1500 sti/min	Setting of the sewing speed to be employed when the AUTO key on the operation panel box is pressed
010.ACD	Function to automatically finish reverse feed stitching after sewing of the constant-dimension sewing (compensation stitching function is not set)	ON/OFF	ON	ON: The sewing machine carries out sewing of the constant-dimension sewing for the last step, and automatically performs reverse feed stitching and stops. Because of this operation sequence, compensation stitching function cannot be used before finishing reverse feed stitching. OFF: The sewing machine carries out sewing of the constant-dimension sewing for the last step, and stops without automatically performing reverse feed stitching. In this case, it is necessary to operate the pedal again in order to carry out thread trimming. It should be remembered, however, that compensation stitching function can be used.
011.RVM	Selection of the mode for reverse feed stitching	ON/OFF	ON	The reverse feed stitching switch: ON: Operation is enabled both while the sewing machine is in operation and when it is at rest. OFF: Operation is enabled on while the sewing machine is in operation.
012.SMS	Selection of reverse feed stitching starting mode	A/M	A	A: The sewing machine automatically carries out the constant-dimension sewing operation when the pedal is lightly depressed. M: It is possible to select start or stop of the sewing machine as desired depending on the depressing depth of the pedal.

Parameter code	Description of parameter	Range	Initial value	Explanation of the content represented by the value
013.TYS	Selection of the opera- tion mode after starting reverse feed stitching	CON/STP	CON	CON: The sewing machine automatically proceeds to the next operation when it carries out reverse feed stitching. STP: The sewing machine halts sewing every time it completes reverse feed stitching for one step. It is therefore necessary to operate the pedal every time the sewing machine halts sewing at the end of each step.
014.SBT	Not used			
015.SBA	Retaining force of the solenoid	0 to 15	7	Retaining force of the thread clamp device
016.BB	Not used			
017.SBN	Setting the number of times to start reverse feed stitching	0 to 2	Twice	Setting of the number of to-and-from times of starting reverse feed stitching
018.BT1	Correction of sewing starting of reverse feed stitching 1	0 to 999	7	BT1, BT2 = 0, disabled BT1, BT2 = 1 - 16, operation timing is advanced (in increments of 1/8 stitches)
019.BT2	Correction of sewing starting of reverse feed stitching 2	0 10 333	6	BT1, BT2 = 17 - 31, operation timing is retarded (in increments of 1/8 stitches) BT1, BT2 = 32 to 999 Not used
020.SME	Not used			
021.CS	Setting of the number of counts of bobbin thread	0 to 9999	5000	Number of counts of bobbin thread under the bobbin thread count mode is set.
022.EBC	Adjustment parameter for the pedal stroke when the back part of pedal is lightly depressed	70 to 130	100	Fine adjustment of the pedal stroke when the back part of pedal is lightly depressed
023.EBD	Adjustment parameter for the pedal stroke when the back part of pedal is depressed	70 to 130	100	Fine adjustment of the pedal stroke when the back part of pedal is depressed
024.EBN	Setting of the number of times of ending of reverse feed stitching	0 to 2	2	Setting of the number of times of repeating ending of reverse feed stitching
025.BT3	Correction of sewing ending of reverse feed stitching 3	0 to 000	5	BT3, BT4 = 0, disabled BT3, BT4 = 1 - 16, operation timing is advanced (in increments of 1/8 stitches)
026.BT4	Correction of sewing ending of reverse feed stitching 4	0 to 999	6	BT3, BT4 = 17 - 31, operation timing is retarded (in increments of 1/8 stitches) BT3, BT4 = 32 to 999 Not used
027.CT	Not used			
028.PNS	Not used			
029.DS	Not used			
030.BCC	Not used			
031.SMB	Not used			
032.BAR	Overlapped stitching parameter setting method	0 to 9	0	O: Number of times of overlapped stitching for A, BD (Max. 9 stitches) 1: Number of times of overlapped stitching for AB, CD-F (Max. 99 stitches) 2: Number of times of overlapped stitching for A, B-F + C, D (Max. 9 stitches)
033.	Not used			
034.PZO	Adjustment of low- speed range of pedal	20 to 500	100	Contraction / Expansion of the low-speed range of pedal. 50 % represents a half of the original range. 200 % represents twice as wide as the original range.

Parameter code	Description of parame- ter	Range	Initial value	Explanation of the content represented by the value
035.BT5	Correction to the over- lapped stitching 5		6	BT5, BT6 = 0, disabled BT5, BT6 = 1 - 16, operation timing is advanced (in
036.BT6	Correction to the over- lapped stitching 6	0 to 999	5	increments of 1/8 stitches) BT5, BT6 = 17 - 31, operation timing is retarded (in increments of 1/8 stitches) BT5, BT6 = 32 to 999 Not used
037. SMP	Selection of the constant-dimension sewing mode	A/M	А	A: The sewing machine automatically performs the constant-dimension sewing operation when the pedal is lightly depressed M: It is possible to select start or stop of the sewing machine as desired depending on the depressing depth of the pedal.
038.PM	Pedal curve select function	0 to 30	10	 0 - 9: The sewing machine runs at a low speed at the beginning of sewing, then it changes the speed to a high speed. 10 (medium value): No change in sewing speed 11 - 30: The sewing machine runs at a high speed at the beginning of sewing, then it changes the speed to a low speed.
039.PS	Reverse feed stitching button compensation stitching function	0/1	0	It is enabled only in the case [011.RVM] is set to OFF. 0: Compensation stitching is not carried out with the reverse feed stitching button 1: Compensation stitching is carried out with the reverse feed stitching button
040.WON	Setting of the thread wiping / thread clamping output function	0 to 6	2	O: Neither the thread wiping operation nor the thread clamping operation are carried out 1: The thread wiping operation is carried out, and the thread clamping operation is not carried out 2: The thread wiping operation is not carried out, and the thread clamping operation is carried out. 3: Both the thread wiping operation and the thread clamping operation are carried out. 4 to 6: Not used Setting of the wiper operation: [071.W1] [072.W2] Setting of the thread clamp operation: [067.T1] [068.T2]
041.TM	Setting of statistics of the number of pieces / bobbin thread counts	0 to 100	0	0: Number of pieces count mode; the counter counts up when the number of sewn pieces of product. Other than 0: Bobbin thread count mode; the set value of [021.CS] counts down according to the number of stitches. (Example) 1: Counting down by one for every stitch 10: Counting down by one for every 10 stitches 100: Counting down by one for every 100 stitches
042.FSM	Selection of the press- er foot lifting opera- tion when the sewing machine stops in the middle of sewing	OFF/ON	OFF	OFF: The presser foot does not go up ON: Presser foot goes up.
043.FTM	Selection of the press- er foot lifting operation after thread trimming	OFF/ON	OFF	OFF: The presser foot does not go up. ON: Presser foot goes up.
044.PN	Display of the number of completed pieces of product	0 to 9999	0	Enabled when [041.TM] is set to 0 (zero).
045.SS	Setting of enable / disable of soft start	OFF/ON	OFF	OFF: Soft starting function is placed in OFF ON: Soft starting function is placed in ON

(2) Maintenance personnel level

When P key is held pressed for two seconds or more with the sewing machine started, the memory switches can be set.

Every time one memory switch is changed, the changed value is stored in memory by pressing key.

Parameter code	Description of parameter	Range	Initial value	Explanation of the content represented by the value	
046.DIR	Not used				
047.MAC	Sewing machine type code	0 to 999	6	Less than 80: Lockstitch type (9: Special-purpose lockstitch type (provided with 1-stitch low speed starting function): When the low-speed start display is cancelled, the first stich of free stitching is sewn at a low speed.)	
048.SYM	Not used				
049.SPD	Not used				
050.MPD	Not used				
				Energization self-check function Rotation fault determination time	
	Setting of the energiza-			0 Disabled 1 second	
054 01117	tion self-check function	0.4- 40	_	1 2 seconds	
051.CHK	(Detection of the pedal	0 to 10	2	2 3 seconds	
	signal and power failure)			\sim Enabled \sim	
				9 10 seconds	
				10 11 seconds	
052.PA	Setting of the pedal response when depressing the front part of pedal	20 to 400	80%	Set the pedal response according to the operator's skill. 20 %: Slowest to respond to the speed input with the pedal 400 %: Fastest to respond to the speed input with the pedal	
053.FT	Presser foot lift delay time in the case of lightly depressing the back part of pedal when sewing machine stops in the middle of sewing	0 to 2000	100ms	In the case the sewing machine is provided with the presser foot lifting device: Adjust the delay time according to the sensitivity of the pedal.	
054.BK	With / without retaining of the motor shaft when the sewing machine stops	OFF/ON	OFF	ON: The motor shaft angle is retained when the sewing machine stops. OFF: Not retained	
055.TOT	Total limit time of the motor operation	1 to 800	8Hrs	In the case [058.UTD] is set to ON Maximum of 33 days (880 hours)	
056.TM1	Motor running time	1 to 999	2s	In the case [058.UTD] is set to ON Operating time of free stitching at the time of aging	
057.TM2	Motor stopping time	1 to 999	51s	In the case [058.UTD] is set to ON Stop time between cycles at the time of aging	
058.UTD	Aging function	OFF/ON	OFF	Aging starts The sewing machine runs under the sewing mode set on the operation panel.	
059.T	Setting of the thread trimming speed	80 to 400	300 sti/min	Adjustment of the thread trimming operation speed If the thread trimming speed is too low: Thread trimming cannot be carried out normally. If the thread trimming speed is too high: Stopping performance is impaired.	
060.L	Sewing speed under the low speed mode	80 to 400	200 sti/min	Adjust the sewing speed at which the sewing machine runs under the low speed mode	

Parameter code	Description of parameter	Range	Initial value	Explanation of the content represented by the value
061.FO	Full output time of the presser foot / reverse feed stitching solenoids at the initial stage	0 to 2000	250ms	Time during which the sewing machine runs with the full output of the presser foot / reverse feed stitching solenoids (at the beginning of operation)
062.FC	Output signal frequency of the presser foot / reverse feed stitching solenoids	0 to 100	38%	Frequency of the output signal of the presser foot / reverse feed stitching solenoids Reduction of power consumption and prevention of overheat of the solenoid
063.FD	Motor start delay according to the presser foot lifting timing	0 to 990	50	The starting time of the motor is adjusted to time the start of motor by depressing the pedal to the presser foot lift by the solenoid.
064.HHC	Selection of the press- er foot lifting operation when the back part of pedal is lightly de- pressed	OFF/ON	OFF	ON: The sewing machine carries out thread trimming without lifting the presser foot when the back part of pedal is lightly depressed OFF: The sewing machine lifts the presser foot and does not perform thread trimming when the back part of pedal is lightly depressed. (The sewing machine carries out thread trimming when the pedal is fully depressed.)
065.SFM	Signaling of the safety switch	0 to 5	0	0: The safety switch input signal is always on state (high) 1: The safety switch input signal is always off state (low) 2 to 5: Safety switch is disabled.
066.LTM	Thread trimming mode	0/1/2/3	2	O: Not used 1: Not used 2: Thread trimming mode for the flat-bed sewing machine (Thread trimmer operates when the sewing machine stops at the lower home position and goes up to the upper home position) 3: Interlocked thread trimming mode (Thread trimmer operates when the sewing machine stops at the upper stop position)
067.T1	Operating position of the thread clamp	0 to 990	110	Angle at which the thread clamp device is operated
068.T2	Retaining angle of operation of the thread clamp	0 to 990	240	Angle at which the thread clamp operation is retained
069.M	Setting the sewing speed in the case of stopping the sewing machine in the middle of sewing	0 to 1250	900	Setting of the speed to be employed when the sewing machine stops in the middle of sewing without performing thread trimming
070.NC	Setting the angle of reverse-rotation needle-up operation after thread trimming	0 to 280	0	0: Reverse-rotation needle-up function is not used 1 to 280: The sewing machine performs reverse-rotation needle-up. Set value "4" means "once". (Example) Set value 4: Needle lifting angle: 1 degree Set value 140: Needle lifting angle: 35 degrees Set value 280: Needle lifting angle: 70 degrees
071.W1	Thread wiping operation delay time	0 to 980	10ms	Time to be elapsed until thread drawing / thread wiping operation is started after detection of the upper stop position
072.W2	Thread wiping operating time	0 to 9990	70ms	Operating time of thread drawing / thread wiping operation
073.WF	Presser foot lifting operation delay time	0 to 990	50ms	Time to be elapsed until the presser foot lifting operation is standard after the completion of thread drawing / thread wiping operation

Parameter code	Description of parameter	Range	Initial value	Explanation of the content represented by the value
074.FHT	Operation maintaining time of the reverse-feed stitching / presser foot lifting solenoid	1 to 400	30s	In the case the reverse-feed stitching solenoid is held in the ON state until the set time is reached, the output power to the reverse-feed stitching solenoid is turned OFF to protect the circuit. To activate the solenoid again, manually press the reverse feed stitching switch. In the case the presser foot lifting solenoid is held in the operating state by slightly depressing the back part of pedal, the output power to the presser foot lifting solenoid is turned OFF to protect the circuit. To activate the solenoid again, return the pedal to its neutral position once, and slightly depress the back part of pedal again.
075.UEG	Upper stop position of the needle	0 to 250	60	Fine adjustment of the upper stop position angle of needle Take "40" as zero point. When this value is decreased, the needle stops at a lower position. When this value is increased, the needle stops at a higher position.
076.DRU	Degree between the needle-down position and needle-up position	1 to 360	165	The degree by which the sewing machine is rotated in the reverse direction until the needle-up position is reached can be set as desired while using the needle-down stop position as the base point.
077.ANU	Automatic retrieval of the needle-up stop position by turning the power ON	OFF/ON	ON	ON: When the power to the sewing machine is turned ON, the sewing machine automatically retrieves the needle-up stop position and stops. OFF: When the power to the sewing machine is turned ON, the sewing machine does not automatically retrieve the needle-up stop position.
078. URU	Degree between the origin and the needle-up stop position	0 to 360	0	The degree by which the sewing machine is rotated in the reverse direction until the needle-up position is reached can be set as desired while using the origin as the base point.

3. Table of error codes

E	rror code	Meaning of the code	Possible problem that has occurred	Corrective measure
			The pedal circuit may have a problem or the pedal is in the depressed state when energizing or self-checking it.	Return the pedal to its neutral position.
	ERR-00	Input signal self-check error	2. DC voltage, low voltage	Check the pedal signal line for problem.
			Abnormal signal from the drive module	
	ERR-01	Machine head signal	Synchronizer fault, or detection of the upper home position is not possible	
	LIXIX-01	feedback fault	Sensor magnet has dropped	
			Toothed belt jumping or slack	
			1. 30 V fuse has blown out	In the case of a power failure,
	PWROFF	Power failure	2. System power failure	check each fuse and re-energize the sewing machine.
Serious trouble	ERR-03	Sewing machine head operation fault	Synchronizer fault, or detection of the lower home position is not possible	
ouble	ERK-03		Sensor magnet has dropped	
			Toothed belt jumping or slack	
	ERR-04	Overcurrent, overvoltage or inadequate voltage	Motor power system trouble	
	ERK-04		2. Instantaneous power failure	
	ERR-05	DC voltage, overvoltage Solenoid input power, overcurrent	Brake resistance has broken, or brake fuse has blown out	Turn OFF the power to the system, and carry out investigation
			2. Instantaneous power failure	
			Overload or short-circuit of sole- noid	Turn OFF the power to the system, and carry out investigation
	ERR-06		2. Drive circuit failure	
			Instantaneous power failure	
			Mechanical hitching	Turn OFF the power to the sys-
	ERR-07	Rotation fault	Thread trimming mechanism trouble	tem, and carry out investigation and inspect whether or not the mechanical characteristics of
			3. Encode signal fault	sewing machine are normal.

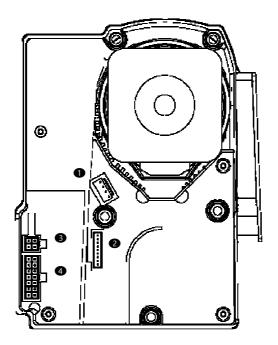
Е	rror code	Meaning of the code	Possible problem that has occurred	Corrective measure
			Parameter setting for the MPD or SPD is not correct.	Turn OFF the power and check whether or not the sewing ma-
			2. Overload	chine motor is normal.
	Α	Pulley stop position fault	3. Encoder signal fault	
			4. Unstable synchronizer signal	
			Motor failure, or drive power shortage	
			Sewing speed has exceeded the maximum sewing in the same direction	Check the connection of drive line U / V/ W between the power box and motor
Warning in genera	B Warning	Excessive maximum sewing speed	Sewing speed has exceeded 300 r/min in the reverse direction	
ing			3. Encoder signal fault	
ener			4. Motor failure (degauss, etc.)	2. Ground the system
<u>ai</u>	С	Synchronizer self-check	Synchronizer is not installed	Turn the power OFF. Re-install the synchronizer. Re-turn the power ON.
		lauit		Change the synchronizer with a new one.
	D	EEPROM error	EEPROM which stores parameters has a problem.	Change the EEPROM with a new one.
	E	EEPROM parameter fault	Parameters in the EEPROM are not correct.	Re-start the sewing machine
	F	Motor encode signal fault	In the case "F" alarm continues, the encoder in the motor has failed.	Check the motor signal line for disconnection and poor contact.

If any failure has been detected, turn OFF the power to the system first. hen, check the ground wire of the control system.

Wait for 30 seconds. Then, re-turn ON the power to the system to check whether or not the system operates normally.

If the failure has not been corrected, repeat the aforementioned procedure several times. If the failure still continues, contact your distributor.

4. Names of connectors



- Motor power connector
- Motor encoder connector
- Pedal switch connector
- Solenoid connector

Check to make sure that the connectors are locked after connection.

Table of comparison between the numerical characters shown on the control box and the actual numerical characters

Numerical character portion:

Actual numerical value	0	1	2	3	4	5	6	7	8	9
Font of the displayed numerical character	[]	/	<u>-</u>	1.1.1	'- '	17.	17	17/	[[]	<u></u>

Alphabetic character portion:

Actual alphabetical character	A	В	С	D	Е	F	G	Н	Ι	J
Font of the displayed alphabetical character	<u> </u>	1-1	' -	<u>'-</u> '	1-		-1	11	,	/_/
Actual alphabetical character	K	L	M	N	О	Р	Q	R	S	Т
Font of the displayed alphabetical character	1-1-	1_	<i>171</i>	171	1_1	<u>יי</u>	77	<i>'</i> -	5	-
Actual alphabetical										
character	U	V	W	X	Y	Z				