

SSP-WE/3.0 Instruction Manual

SSP-WE / 3.0



MEE-070515



- 1. Thank you for purchasing our product. Based on the rich expertise and experience accumulated in industrial sewing machine production, SUNSTAR will manufacture industrial sewing machines, which deliver more diverse functions, high performance, powerful operation, enhanced durability, and more sophisticated design to meet a number of user's needs.
- 2. Please read this user's manual thoroughly before using the machine. Make sure to properly use the machine to enjoy its full performance.
- 3. The specifications of the machine are subject to change, aimed to enhance product performance, without prior notice.
- 4. This product is designed, manufactured, and sold as an industrial sewing machine. It should not be used for other than industrial purpose.



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Before Using

Check the followings prior to setting up the program and components.



Principal Parts



Accessories

<full-type></full-type>	<economic-type></economic-type>
1	. Install CD Part No. 01-008B-WE10
Manual 2	. Instruction Manual
3. Key-Lock for print port Part No. 01-009A-WE10	3. Key-Lock for USB port Part No. EP-000043
	4. RS-232C Serial Cable Part No. 02-012A-2070
	5. USB to RS-232C conversion cable Part No. 02-012A-2070
6. SSP-Writer1 Part No. 00-0000-WE10	
7. AC Adaptor Part No. 01-010A-WE10(110V) 01-011A-WE10(220V)	
8. Extension ROM (10 Units) Part No. 02-003B-BD01	
9. ROM Extractor Part No. 01-012A-WE10	
10. Interface Cable Part No. 01-008A-WE10	



Setting Up



3

Completely turn off computer power before connecting Key-Lock and SSP-Writer.

Connection to the key-lock for print port

- ① Connect the key-lock with the PC print port.
 - Connect the SSP-Writer1 on the back of the key-lock connected with the print port.

STEP

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- ② The key-lock and the interface connection cable are configured with a separateshaped pin to the both sides. Please connect them with the same-shaped pin.
- ③ Connect the interface cable with th SSP-Writer1 connection port.
- ④ Connect the AC adapter with the SSP-Writer1.
- ⑤ Put a plug of AC adapter in a socket.
- ⑥ After completion of all connections, power on the PC.

Connection to the key-lock for USB port

- ① Install the install program and then the key-lock driver.
- ② Connect to the Key-Lock for USB port. For more information, see the list of program installation items.

System Requirements

Prior to installing the program on the user PC, the user system has to equip the followings:

PC	IBM-PC or compatible
CPU	Pentium PC or more
Windows OS	Windows 98, 2000, or a version higher
Memory	64 M or higher (128M or higher is recommended)
Hard disk free space	200M or more
Display	VGA or more (We recommend aminimum of 3200 colors SVGA)
Parallel Port	Print port for connention of Key-Lock and ROM wirter and USB port
Serial Port	Serial port for connecting serial transmission cables
Mouse	Mouse for windows
Printer	Printer for supporting graphics during design printouts



- · Be sure to turn off the power of the computer before connecting appendages.
- The SSP Writer (ROM Writer Program) Program is compatible with Windows 2000, Windows XP, and Windows NT.
- In the SSP-WE/2.5 install version, the key-lock for print port is different from the key-lock for USB port. Therefore, the SSP-WE/2.5 for USB port does not support the connection to the key-lock for print port.

Installing the Program (Unavailable for Windows 95)

① Computer O/S is executed under Windows 98 or more.

② Insert the CD and go to the Disk1 folder for installation by language. Double-click the "Setup" file in the folder.



③ Upon displaying "InstallShield", click "Next".



STEP



License Aareement			6		
Please read the following license agreement c	arefully.			3	
Press the PAGE DOWN key to see the rest of	f the agreement.				
To display your license agreement, replace th Language Independent\Operating System In	e License.txt file cu dependent folder of	rrently located the Setup File	f in the es pane.	-	
NOTE: The text in your license file should cor 1,024 characters.	ntain hard returns af	ter lines with n	nore than		
J Do you accept all the terms of the preceding L setup will close. To install SunStar SSP, you r	License Agreement? must accept this agr) If you choos reement.	e No, the		
nstallShield					
	< <u>B</u> ack	Yes	No		
The Choose Destination Locati	on screen o	pens. If	you wan	t to char	ige w
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4 When the Software License Agreement screen opens, click "Yes".

- ⑥ Start installing on the screen.
- ⑦ After Setup finished installing SPP on your computer, click "Finish" to complete Setup.



⑧ You can find that the installed program is registered on the Start Menu. Then Installation is successfully completed.

If you execute the program immediately after its installation, it is not executed and only the message finding Key-Lock is displayed. Therefore connect Key-Lock Driver and Key-Lock before execution.

If the program is successfully installed, double click "SunStar Machinery Co., Ltd." in the installed folder. There is "SunStar SSP" folder. Double click it once more, you can find that there are ICONs as follows:

Program Files
 IFile (E) Edit (E) View (V)»
 Rainbow Technologies
 RoboHELP Office
 Samsung
 SunStar Machinery Co.,Ltd
 Tiny Personal Firewall
 Uninstall Information
 V3
 Visio
 Wab Publish
 ✓
 41 Object



Note

In SunStar SSP folder, you will see that program-related files, SSP-WE/2.5 execution file and SSP Writer execution file are automatically installed.

Note



STEP

Installing the Key-Lock Driver

- You can find the Key-Lock Driver in a "SUN-STAR SSP" directory.
- ② Double click a Sentinel 7.1.0.exe file in the folder to install the Key-Lock Driver.
- ③ After installing the Key-Lock Driver, connect the Key-Lock with the Print Port on the back of PC.

🖻 Key Lock Driver 🔳	
파일(<u>F</u>) 편집(<u>E</u>) 보기 »	R
3 뒤로 - 🕥 - 🌶	»
ij 주소(D) 🗁 🔽 🏓 미동 🕴	연결 »
Sentinel7, 1, 0	



Windows XP might not recognize the key lock for printer port. This may happen when Miscrosoft's Service Pack 2 is installed and the firewall is in operation

 Insert the install CD and click the latest key lock driver folder. Double-click "Sentinel 7.1.0.exe" for installation.
 If the key lock drive for print port has already been installed, this should be uninstalled.

If the key lock drive for print port has already been installed, this should be uninstalled before installing the above file.

2 Reboot the PC.

If a user has installed Service Pack 2 of Microsoft, and the firewall is in operation, the firewall should be turned off.

③ After following the above procedures, execute SSP and then the program will be executed without any problems.

If the key lock is not still recognized, go to "My Computer" and choose "Hardware" in the "System Information Display". Then click the "Device Admin" to check if LPT port is registered.

If LPT port is not registered, the key lock can not be recognized.

* "Sentinel 7.1.0.exe" driver supports both the key lock for print port and the key lock for USB.

Getting Started

Introduction

This manual is an electronic sewing machine input program relating to Pattern, Bartack and KM-2070P that users can easily create and edit and manage sewing data, generally covering about how to install and use the program. Please recommend users that they should read through this manual without fail prior to using.



Start and Finish of Program

After installing the program on your computer, connect the Key-Lock with the printer port. (Execution of the program without connection occurs an Error message.) The program is installed on your selection directory. You can find that the program is registered in a Start Menu-Program directory on the left bottom of the monitor screen as follows: (Refer to Installing the Program.)) 약진 OrCAD Bala 바이로봇 Expert Ver 4,0 🛱 SunStar SSP 3.0 SunStar SSP3.0
 SunStar SSP3.0
 Fepson
 HP Procisionscan Pro 3.1
 ACD Systems
 HP PhotoSmart
 HP Scanjet 유월DIEL
 Winsep
 Mincrosoft Project
 Winsep
 Mincrosoft ActiveSync
 Ad-aware 5.82
 Lavasoft Ad-aware
 HOLE Expent SSPWrite 한글 2002 Brief Manua 錫 Key Lock Driver 한컴 사전 Programs 📅 프로그램(P) *) 즐겨찾기(A) ~ 문서(<u>D</u>) [] 설정(<u>S</u>) Carvasoft AU-aw
 H이로봇 Expert
 Microsoft Visio
 Iomega HotBurn
 Ahead No (E) 조움말(<u>H</u>) _____ 실행(B). È 반산국 [Ex:Start Menu Program-SunStar SSP3.0-SSP3.0] ① Click SSP-WE/3.0 registered as shown in the Figure or click the execution file in the STEP folder, which is actually installed, then you can execute the program. ② START Dialog opens as shown in Start Dialog X the left picture upon execution of SSP-WE/3.0 the SSDP program. Click "New Data" to start the program. New Data File Open Exit Copy Right (C) . 2001., SunStar Machinery, All Rights Reserved ③ To terminate the program, save 4 SSP-WE/3.0 ile ROM Data I/O Edit the file, select "Finish" in the file Ctrl+N titch Length menu, or click"Close" on the right 🗳 Ctrl+0 -topupper of the program screen. F Ctrl+S save zigzag code list data +| SECOND 🚑 print 4 R preview Setup K 🚺 Exit ④ To plug out the Key-Lock during execution of the program occurs an Erro message in a few seconds and the program is not executed. Therefore do not plug out the Key-Lock during execution of the program. Please without fail to save sewing data prior to terminating the program. (5) If you click and execute Start Menu-Program SunStar-SSP WE1.0, then click "ROM" in the SSP Program menu, SSPWriter is not executed. In this case, execute SSPWriter directly, or click "ROM" after execution of SSP in the folder which its program is installed.

You must have full knowledge of the followings upon using the program.

- ① This program describes how to create and edit configuration data or sewing data using keyboard direction keys. Before using, you must read though the screen mode. The program is set up to automatically configure its screen size according to your monitor size. If you change the default screen size and execute the program to input and edit data using keyboard direction keys, it is not changed normally because of its mapping unconformity with the Windows screen. That is to say, it is inputted apart 2~3mm from the input position. But, it is correctly inputted upon using a mouse point.
- ② Configuration data like a circle cannot be asymmetrically adjusted. If you input different values in X-axis and Yaxis to extend data in the Zoom In & Zoom Out function, two axial values are systematically applied and created in the same size. If, however, you asymmetrically zoom in / out sewing data including configuration data, change its attribute into a Point Stitch.



③ If you receive and send data to SSP-Writer 1, dozens of seconds may be required.

- ④ Do not create sewing data of 10,000 stitches or more if possible. The sewing machine can create up to 300,00 stitches. However, if it creates 10,000 stitches or more in a screen, the program may get slowed, or stop. To reduce this phenomenon somewhat, select "Stitch Off" () > 3 = 10 () > 3 = 10 () > 3 = 10 () > 10 () > 10 () = 10 () > 10 () > 10 () = 10 () >
- (5) If you zooms in the screen over the maximum extension upon using Zoom In / Zoom Out tools, a message box opens and it is not extended more. Continuous execution under this situation may lose data on the screen. Therefore do not extend the screen forcibly, and reduce it using Zoom Out.



And if you reduce the screen to some extent that you cannot find data on it upon using Zoom Out, the program may stop. Please recommend you that you should restrain from reducing the screen excessively.



⑥ Select configuration data or sewing data to be applied prior to executing each function. Upon selecting data, the configuration data indicates in blue and the sewing data indicates in red. If you want to execute any data, it is good that you select it with a mouse and apply it although the blue or the red indicates.

Configuration of Program Function



Program Operation



The following chart shows the most general program flow.



The general window configuration for the program is as follows

 $\ast\,$ The above functions show only basic configurations and there are various functions including them.



Edit Screen

3



The following screen shows the general GUI and edit screen of the program. All input and edit works are executed in this screen.

If you position the mouse to Menu Bar or Sub Tool Bar or Tool Bar, a message is displayed on the Status Bar to tell you the next process. Click the left button of the mouse according to the message, and input data on the edit screen. Create or edit sewing data according to the execution status of the Dialog Box.

The Menu Bar includes the following functions The Menu Bar configures the overall functions of the program including each Tool Bar. For more information, refer to the following Tool Bars

File

New Open Save Save zigzag cord list Print preview Print Page set-up Exit

ROM Data I/O

ROM Writer Pattern/BarTack Set serial communication Send zigzag design direct Send bartack design direct Send pattern design direct

Edit

Undo Redo Cut Copy Paste Delete Data enlargement /reduction Rotation Parallel move Mirror conversion 2-step stitch File repeat setting (File Open Type)

View

Toolbar Statusbar Tool Bar Dialog Control Bar Dialog Stitch point ON/OFF Zoom In Zoom Out Zoom Full Client Imformation Display element Display element Stitch Replay Min./Max. Range Grid Division Setting

Machine type

Mechine type/model

Mesure

Point to Point Ruler Input device Key input Key input(Add/Move) Keyboard resolution

Select User P.C

Condition setting

Set sewing area Set sewing data selection scope Lay out stitch points

Image Punching

Open Image Delete Image Image Tool SST/DST Canversion

Help

Contents Help Topics Version Information



Tool Bar provides you with the Menu functions with the button type so that you can use them easily. And the Tool Bar includes Sub Tool Bars. For example, it displays information of input coordinates, total creation stitches, and various situations on the Status Bar,

Standard Tool Bar

Standard Tool Bar		×
D 🖻 🖬 🍀 🛗 🛱	3 I O II 5 6 6 6 6	Ð

New Pattern		Start new pattern
Open Pattern	Ľ	Read a saved pattern data file
Save Pattern		Save pattern data on the edit screen.
Save zigzag cord list	亭 8	Save 2070P zigzag design cord list value
Pattern to Bartack	HEX BIN	Covert Pattern into Bartack
ROM		Execute SSP Writer program
Set serial communication	¢	Set port and speed for serial transmission
Send 2070P design	NN	Send newly created design direct
Send bartack design		Send newly created design direct
Send pattern design		Send newly created design direct
Undo	BN	Reverse change step by step
Redo	REDO	Reverse UNDO function step by step
Сору	Ē	Paste the copied data
Paste	ê	Paste the copied data
Printing	8	Print data on the edit screen
Delete All	Ð	Delete all data on the edit screen

Provide functions of I/O relating items.

Measure Tool Bar

Mea	asur	e To	ol					x
₩Ą	R	.2	Ð	ðð	$\langle \rangle$	ኞ	3⁄2	in f0

Provide functions to change the selected configuration and sewing data with various types.

2-Step Stitch	ΔA	Create a stitch between stitches.
Enlarge/Reduce	36	Enlarge / reduce the selected pattern data.
Move		Move the selected pattern data.
Rotation	÷	Rotate the selected pattern data.
Mirror	ŤŤ	Inversely rotate the selected pattern data.
Stitch Off	5	Hide all stitch points on the screen.
Stitch On	45	Display again all hidden stitch points on the screen.
Ruler	3/2	Measure the distance between two stitches.
Info	in fo	Show the selected configuration and sewing data information.

· Replay Tool Bar

Rep	lay	Tool	×	
-		•		

Display and select the configuration and sewing data created on the screen. (Upon edit : Display the sequence of created sewing data points.)

First Pointer	-	Select the first data group. (Edit : Move to the first point.)
Previous Pointer	•	Select the previous data group. (Edit: Move to the previous point.)
Next Pointer	•	Select the next data group. (Edit: Move to the next point.)
Last Pointer	*	Select the last data group. (Edit : Move to the last point.)



Information Tool Bar

Information Tool Ba	ir						×
Total Stitch 0	Absolute	• x 0	Y 0	Stitch Length	0	Total Jump and Stitch	0

Display total stitches of the created sewing data. Upon input on the screen, the position information can be displayed with an absolute coordinate and a relative coordinate. And display the distance between the measured stitches.

Total Stitch				
Total Stitch 0 Display the number of Stitch Points displayed on the screen.				
Absolute/Relative				
Absolute X 18.80 Y 4.50 Display the inputted absolut & relative coordinates.				
Stitch Length				
Stitch Length 0 Display the distance measured between two stitches.				
Jump and stitch				
Total Jump and Stitch Display the number of stitches including jumps				

Stitch Command Tool Bar



A point item represents the point when inputting points.

Sewing Command Tool Bar



A grid line function displays lines in grid on the editing screen. (F2 Key) When converting to the automatic point in the grid line, the point is input on the location where the lines are automatically overlapped upon inputting the point. Following Edit Tool, Data Tool, Sewing Tool, Sewing Edit Tool, Sewing Change Tool, and Machine Tool Bar provide the actual functions relating to punching. All works relating to punching are mainly executed in these tool bars.

Edit Tool Bar



Upon inputting data in the current sewing range, provide various functions to facilitate users. Provide the Zoom In/Out function to enlarge or reduce the current sewing range, and move the enlarged range freely using Hand Tool. And provide the Ruler function (Not be currently provided. But this will be applied in the Upgrade Version) to display a ruler to the left and upper of the screen that users can find the size easily, and the Grid Line function for a user to easily input data by displaying the sewing range with the grid lines. In addition, it also provides an 'image punching' function that allows to make a punch on the back of the image by bringing BMP file to a sewing area.

Hand Tool (F3)	Ś	Using Zoom In to freely move the enlarged sewing range.
Zoom In (F4)	÷,	Enlarge the sewing range.
Zoom Out (F5)	Θ.	Reduce the sewing range.
Zoom All	A	Display the sewing range conforming to the sewing size.
Ruler Bar	1. Constant of the second seco	Display a ruler to the left and upper of the sewing range (Not be currently provided.)
Grid Line (F2)		Display Grid Lines on the sewing range.
Image Punching	Ś	It brings the BMP file as a reference to the center of the sewing area.

Data Tool Bar



Provide the input functions of configuration data to create sewing data tools. This is composed of functions to create various patterns such as Normal Line, Arc, Polygon, Circle, Spline, and Closed Spline. And this provides Input, Delete, and Move functions to edit one point of the created configuration data, Divide function to divide the configuration data, Offset function, Data Delete function, and overall Create and Edit functions, etc.



Input Line		Input data more than two points to create a straight line.
Input Arc		Input data more than three points to create an arc.
Input Polygon	⊉	Input data more than three points to create a polygon.
Input Circle	J	Input data more than three points to create a circle.
Input Spline	J.	Input data more than two points to create a spline.
Input Closed Spline	A	Input data more than three points to create a closed spline.
Add Point	•⊕•	Add one point of configuration data.
Delete Point	•••	Delete one point of configuration data.
Move Point	:2	Move one point of configuration data.
Divide Element	14.	Divide the selected configuration data on the basis of joints.
Offset Element	***	Position and create configuration data in a constant interval.
Delete Configuration Data		Data Delete the selected configuration data.

· Sewing Tool Bar



This is a tool bar which have functions to actually create sewing data based on the configuration data input above: Point Stitching to input stitch by stitch, Normal Stitching to create general sewing data, Zigzag Stitching to create zigzag sewing data, Inverse Stitching to create more several times of the sewing data inversely, Multi Stitching to create several sewing data in a time with the Offset function, and Delete to delete the created sewing data. These all processes are executed under the condition that configuration data or sewing data are selected.

User's jump input		User can generate jump data at his/her discretion.
Point Stitching	.Q:	Use the mouse point to input one stitch of sewing data.
Normal Stitching	5titCh	Create sewing data through the selected configuration data.
Zigzag Stitching	W	Create zigzag sewing data through the selected configuration data.
Reverse Stitching		Use the selected configuration data to create the inverse sewing data as many as creations.
Multi Stitching	*	Use the selected configuration data or sewing data to create sewing data as many as the designated offsets and number.
Delete Sewing Data	20	Delete the selected sewing data.

Sewing Edit Tool



This includes edit functions for the created sewing data, and has the same functions as the above edit functions of configuration data, except that this is actually applied to sewing data. To input and delete sewing data, and to move stitches are the same concept as configuration data. Stitch Point Join is the function to connect the Jump interval between two point stitches. Add Sewing Speed (Not be currently provided. This will be provided in the Upgrade Version.) to set up the sewing data speed, and Sewing Data Divide to select and divide any position of the created sewing data are provided.

Add Needle Entry Point	T	Input one stitch of sewing data at the selected sewing data.
Delete Needle Entry Point	, R	Delete one stitch of sewing data at the selected sewing data.
Move Needle Entry Point	$\mathbb{A} \mathbb{P}$	Move one stitch of sewing data at the selected sewing data.
Join Needle Entry Point	\diamond	Connect the stitch data between two selected sewing data.
Sewing Speed Setting		Set a speed to the selected sewing data.
Divide Sewing Data	-8-	Divide the selected sewing data.



· Sewing Change Tool



This provides functions to change attributes of the created sewing data: Sewing Direction Change to change the front and back of the created sewing data, Sewing Order Change to change the sequence of sewing data in either sides, and Sewing Attribute Change to change normal stitching into zigzag stitching and vice versa, and change the inter-stitch length and the stitch width. Sewing Length Change can change the pitch and length according the selected sewing data type, and Sewing Speed Change can change the selected sewing data speed Back Tack defines the number of stitches based on the beginning point and ending point of stitch from the created sewing data, and creates more stitches based on the created sewing data and creates more stitches based on the ending point of stitches based on the ending point of creation. According the ending point of sewing data is created again to that of the number of added stitches.

Sewing Direction Change		Change the sewing sequence of the selected sewing data.
Sewing Order Change	${\nleftrightarrow}$	Change the sequence of two selected sewing data.
Sewing Attribute Change		Change attributes of the selected sewing data.
Sewing Length Change	*•*•* IERGth ↔	Change the width and length of sewing stitch at the selected sewing data.
Sewing Speed Change	*,*** SPED *****	Change the sewing speed of the sewing data, which is selected.
Sewing BackTack	Back Tack	Input the BackTack code to the selected sewing data.
Sewing Overlap	Over Lap	Input the Overlap code to the selected sewing data.

Machine Tool



This includes mechanical control commands: Second Origin Code for a user to position the second origin except the first origin, Machine Stop Code to temporarily stop the machine by inputting a stop code at any position, Trimming Code to input the thread trimming function at any position of the created sewing data, Machine Delete Code to delete the mechanical input function codes, and Trimming All Code to automatically add the thread trimming code to the last part of each sewing data.

Second Origin Control	+	Input the second origin code to any position
Command	OKIPIN	
Machine Stop Control Command	- An	Input the machine stop code to any position of the selected sewing data.
Thread Trimming Command	00 TRIM	Input the thread trimming code to any position of the selected sewing data.
Clamp Inversion Command	ł	Input the inversion/non-inversion codes to the selected sewing data.
Mechanical Control Command Deletrion		Delete the mechanical code at the selected sewing data.
All Thread Trimming Command	Ŕ	Input the thread trimming code at all selected sewing data.
Output Port Control Command	₽	Enter the output port code from the selected sewing data.
Input Port Control Command	IN	Enter the input port code from the selected sewing data.
Delay Time Control Command	JDLYL 100ms	Enter the delay time code from the selected sewing data.
Head Up/Down Control Command	52	Enter the head up/down code from the selected sewing data.

Data Configuration

Data types can be divided into several groups: Configuration Data that is on the basis of creating sewing data such as normal line, arc, circle, polygon, and spline, and Mechanical Commands to be joined with the sewing data created by configuration data. The followings show data types simply.



[Data Creation Picture]



Configuration Data

2



As mentioned above, configuration data is based on creating sewing data. Its kind is as follows:

The configuration data is always shaped with a blue circle.



Sewing data can be divided into three types: Point Stitching, Sewing Data created based on configuration data, and Mechanical Control Command Data to be applied relating to the created sewing data.



First, Sewing Data, which you can input stitch by stitch in person, is Point Stitching as shown in the above picture. Second, Sewing Data created based on configura-tion data creates a Spline of configuration data as shown in the above picture and creates zigzag stitching of sewing data with the Spline. Third, Mechanical Control Commands indicate commands such as the second origin, temporary stop of machine, thread trimm-ing at any position of sewing data, and clamp inversion/noninversion. These are indicated with text: "Stop" for temporary stop of machine, "Clamp-L /Clamp-R" for clamp inversio-n/non-inversion, and "Trim" for thread trimming. Although there is not in the above picture, the second origin is indicated with "2-Origin".

The sewing data joint is generally indicated with a black cross.





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5

If two different sewing data exist, Jump data always exist between them and is automatically created.

Upon initially creating sewing data as shown in the left picture, Jump data is automatically created from the origin. You can find that Jump data is automati-cally created at the sewing data section too. And Jump data is automatically deleted upon deleting sewing data. And new Jump data is again created between the deleted sewing data conforming to the front and back sewing data. The Jump data cannot be edited and it always indicates with a gray dotted line.



Order of Configuration and Sewing Data

The order of sewing data is created regardless of that of configuration data.

That is, the sewing data is always created accord-ing to the constant order, and the configuration data is connected with the sewing data regardless of the order. For example, if four configuration data are created is the left picture, it is assumed that the configuration data is numbered with 1, 2, 3 and 4, and the sewing data with [1], [2], [3] and [4]. If you create sewing data with Configuration Data 4, Sewing Data [1] is created. Therefore Sewing Data [1] includes Configuration Data 4. And, if you create Sewing Data again with Configuration Data 3, it is automatically jumped with the



Sewing Data [1] created above and Sewing Data [2] is created. And Configuration Data 3 is connected with Sewing Data [2]. If you create Sewing Data with all Configuration Data like this, the Sewing Data is created according to the order shown in the above picture. And you can select **4 • • •** Replay Tool to find the creation order.

You can select data with the mouse. Configuration data and sewing data are independently respectively. Therefore, upon clicking each data, the data is displayed on the screen. As shown in the left figure, configuration data is



6

displayed in blue and sewing data is displayed in red, and the mouse lcon is in cross-shape. If it moves into the tool bar, it changes into an arrow. Place the mouse button on the sub-tool bar and click the button, an item in the sub-tool bar is concave like . Select the data joint to configuration data and sewing

data. In case of sewing data, each stitch data is selected. The selected joint of configuration data is in circle-shape and in blue like configuration data. While sewing data is displayed in red and in black to display stitch data. And configuration data and sewing data are selected within the joint point range of -3 pixel~+3 pixel long and wide each. However, if two data exist in an interval of 1mm upon selection, any point beside them may be selected. Please, refer to it without fail.
Create Data

A new edit range should be selected prior to creating configuration data or sewing data. There are two ways.

New Data File Open	Exit

First, the new edit range can be created by clicking "New Data" in Start Dialog Box created upon execution of the program

Second, it can be created by clicking "New 🗋 " in the menu bar.

Upon clicking all of two buttons, the mechanical dialog box displays as shown in the left screen. It has functions as follows:

Machine Type : Select machine type to work. Machine Model : Set up machine model. Sewing Size : After the machine model is selected, edit range- sewing range is displayed.

New Machine '	Type and Model	х
Machin	ne Type and Model	1
Machine Type	SPS/A	
Machine Model	1306 🔽	
Resolution	0.1 [mm]	
s	Sewing Size	-
Size X 130	mm Y 60 mm	
Ok	Cancel	

Upon clicking "OK", the edit range is changed into the work range as the following screen.

Control Microsoft February Measure should be control Cartering	Ina Machine Setting Image Punching Iteln
Prenty 0 Ond - Total Dach 0 About a x 0	v 0 Statch Langth 0 Total Jump and Statuh 0
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2 1000	
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6 33	
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C III	
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or Help, press FI	XI-11.50mm, VI & Knim NUM



Creating Configuration and Sewing Data

You can input each type using functional buttons in the sub-tool bar. The phasic creation process of configuration and sewing data is shown in the followings:

Creating Configuration Data



1. To input with the mouse

· Input Spline

- ① Use the mouse's left button to input any functional button you want. The selected button becomes concaved
- ② Put the mouse button on any sewing range. Mouse cursor displays in cross-shape +.



- ③ Upon clicking the mouse s left button at any input place, data
 is inputted.
- ④ The configuration data of Spline is currently selected. Therefore, upon inputting continuously, the input point displays on the screen.
- ⑤ Click the mouse's right button to finish inputting. At that time, Spline displays on the screen, and the button concaved by selection in the tool bar becomes reduced at original state.





⑥ Click "Esc" in the keyboard to cancel data under inputting. This is not applied to any data created by clicking the mouse's right button (Applicable to all input functions.)



Input Line

The order of (1), (2), and (3) are same. But, upon continuous inputting, (4) of Spline displays just point. For point to point input, lines are automatically connected. (5) and (6) are same to those of Spline.





2



Input Arc/Cricle

The order of (1), (2), and (3) are same. Arc and Circle of (4) are composed of three points. Therefore two points are displayed like Spline. However upon adding one point, the lines are automatically connected at each point and create Arc/Circle.





· Input Polygon

How to input Polygon is same to that of Line. However, Polygon is a closed loop. Therefore, upon clicking the mouse's right button to finish inputting, first point and last point are automatically connected.





Input Closed Spline

The basic creation is same to that of Spline. Upon the right button finally, it is created absolutely identical with Polygon.



The following screen shows all configuration data created previously.





2. Input with the Keyboard's Direction Key





This is equal to how to input with the mouse. There are differences moving an input cursor with the keyboard's direction keys instead of the mouse, and inputting data by clicking the keyboard's Spacebar instead of the mouse's left key. For example, select any functional button of configuration data to input in the sub-tool bar, or select the Point Stitching button with the mouse to input sewing data (equal to how to input with the mouse). After selection, move the mouse into sewing range and move the keyboard's direction key, then the mouse cursor becomes moved. If the cursor is exactly located to be inputted, click Spacebar to input data. The move unit of the direction key is fixed to 1 pixel. If you want to adjust the move unit, select Key Resolution of Input Device in the menu and adjust the unit again. For reference, if 1mm is set up to 10 pixels, move unit becomes 1mm. As mentioned above. however, this is possible only when the window screen keeps initial setup values. The above Window Resolution indicates Monitor Resolution. This is autom-atically set up. Therefore you don't need to change it. Click the mouse's right button to finish inputting. "End" key right over the keyboard's direct-ion cursor also has the same function as the mouse's right button. (Available for detailed works like stitch editing.)

3. Input with the Keyboard's Numeral Keys



Creating Sewing Data

The following describes how to create sewing data. How to input sewing data is still easier than that of configuration data mentioned above. That is why it is created with the previously crated configuration data. How to create data is generally divided into two methods: First, Point Stitching Method inputted by users, and second how to input with the previously created configuration data.

TOME

STEP

- User's jump input
 User can set a jump code at his/her discretion and use it for sewing work.
 Follow the steps below to use the function.
 - ① Select the jump stitch button on the upper left sewing toolbar. When selected, it remains pressed.
 - ② Place the mouse button at the desired location and press the mouse button to generate a jump code. Whenever the left mouse button is pressed, the jump structure data is drawn. To cancel in the middle of drawing, press "Esc".
 - ③ After finishing Step 2, press the "right mouse button" to generate a jump stitch. When the button is pressed, the jump generation window appears. When "okay" is pressed, jump stitch data is generated. When "cancel" is pressed, jump stitch data is not generated, but jump structure data only remains.









To generate jump stitches based on the existing jump structure data, select the jump structure data, enable the function, and press the jump stitch button. Press the right mouse button on the screen, and the jump stitch generation window appears. Press "okay" to generate jump data.



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Undo function

In the middle of work, the function enables the return to the previous status. It can be used by pressing the [UNDO] button on the top or simultaneously pressing "Ctrl+Z" keys on the keyboard. The UNDO function can be used once. Follow the steps below to use the function.



Redo function

In the middle of work, the function enables return again returned execution by undo function to the next status. It can be used by pressing the [REDO] button on the top or simultaneously press "Ctrl + Y" keys on the keyboard. The Redo function can be used 20 times.

Follow the Steps below to use the function.

<u>E</u> dit	⊻iew	Measure	Input <u>D</u> evice	2
ti q	Z		B B B	ų,

STEP

 Generate a design within the sewing scope as in the figure by using circle's zigzag stitching method.



② Delete the location data from the stitch data. Use the stitch point deletion function to delete.



③ To return to the original status after making deletion, press the UNDO button at the top menu or press "Ctrl+Z" keys at the same time to undo the change.





STEP

④ To return to the previous status that is status before executing UNDO function, press REDO button at the top menu or press "Ctrl+Y" keys at the same time to redo the change

<u>E</u> dit	⊻iew	Measure	Input <u>D</u> evice
tt 🛱	Z		15 h fi 🚑 1

.....

Point Stitching

This is equal to how to input configuration data mentioned above. But, upon inputting Point Stitch data initially, Jumps are automatically created based on the origin. That is to say, upon creating sewing data with any attribute, Jumps is automatically connected based on the origin.

- STEP
- Select Point Stitching button as showing in the figure. (At this time, the button becomes concave.)
- ② Put Mouse Point on the edit range to click the mouse's left button and input data. (You can continuously input data until finishing Point Stitching.)



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Sewing Tool

- ③ Click the mouse's right button to finish inputting.
- ④ The inputted Point Stitch data is displayed on the screen.



The above process is identically applied to Input with the keyboard's direction key and numeral key



There are two ways to create sewing data based on configuration: Normal Stitching Dialog and Zigzag Stitching Dialog.



· Normal Stitching

- Configuration data should be previously created on the edit range. (Please refer to "Creating Configuration Data" above.)
- ② Select any of created configuration data. If several configuration data exists as shown in the left figure, the selected configuration data displays in blue and the rest display in gray.
- ③ Click "Normal Stitching" stitle in Sewing Tool Bar.
- ④ At this time, Regular Stitch Dialog is displayed. Data can be inputted in two places: "Stitch Length (pitch)" to set up the length of stitch to be created, and "Sewing Speed" to adjust the sewing speed at a user's disposal. (Please refer to that Sewing Speed is to be available.)
- ⑤ Upon "Ok", you can find that sewing data with line attributes has been created based on Normal line configuration data as shown in the figure. ⑥ Repeat ②, ③, ④, and ⑤ above to create other sewing data.



re stitch length a	and sewing speed ok	?	
Stitch Length (Pitch)	Stitch length(pitch) Sewing speed	3 2500	[mm] (spm
Ok		Cance	al.



The following figure shows the actually created sewing data to help you understand for parameters.



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· ZigZag Stitching

- This creates stitches with the same method as "Normal Stitching", except clicking "Zigzag Stitching" WM instead of "Normal Stitching"
- ② Upon clicking "Zigzag Stitching", "zigzag Stitch Dialog" id displayed.
- ③ As shown in the figure, you can find a little more complicated input boxes than Normal Stitch: Width to determine the width of sewing data, and Stitch Length (pitch) identical with Nominal Stitch. The followings show buttons to set up start direction upon creating zigzag stitches. And there is a Speed Input box (not be currently provided). The third is a speed-related input box;

however, this box is not applied yet. In the next item, Zigzag types are presented.

As can be seen in the picture, there are 4 Zigzag types.

- · Left to the center
- · Right to the center
- Upper right to the center
- · Lower left to the center

Each item contains the Zigzag staring direction and creation location. You can select one from the 4 types.

④ Click "OK", you can find that zigzag sewing data is created as follows:





The following zigzag sewing data is provided to help you understand each parameter.





Creating Mechanical Control Commands



All mechanical buttons are summarized at the above Tool Bar. Please refer to Tool Bar about each button's function.

Mechanical control commands influence the machine directly and indirectly. They are simply created as follows:

Sencond Origin Control Command

Second Origin Control Command is not to select sewing data, but to apply to any of sewing range. The usage is similar to how to input Point Stitching Data. There are two input ways: one is to input without sewing data, and another is to input with created sewing data. In case of the former, upon inputting sewing data like Point Stitching, the second origin is creat-ed, and the Jump is automatically created based on the actual origin. In case of the latter, upon inputting the second origin at a certain place, the second origin is created at the first sewing data and Jump created based on the actual origin. And a new Jump to connect both sides is automatically created. The following shows how to create the second origin for the latter.

- Sewing data should be created before creating mechanical control commands. (Please refer to "Creating Sewing Data".)
- ② Click Second Origin then the selected button gets concaved.
- ③ Place Mouse Point where to input Second Origin at the edit range, and click the mouse's left button. Then a red circle dot is crated as shown in the figure.
- (4) Click the mouse' right button when a red dot is created, and Second Origin Dialog is displayed.
- ⑤ Click "OK" to create Second Origin, otherwise click "Cancel".





n Dialog	×
origin	
Cancel	
	n Dialog origin Cancel



STEP

⑥ The following figure shows that Second Origin is created. "2-Origin" in red is displayed at its creating place.



Please refer to the Mechanical Manual for the details of Second Origin.



Thread Timming Command

- Sewing data should be created before creating a thread trimming command. (Please refer to "Creating Sewing Data".)
- ② Click Trim at Machine Tool Bar, then the selected button gets concaved.
- ③ Place Mouse Point where Sewing Data is created, click the mouse's left button. Then the bold part is the enlarged part as shown in the figure. And blue dots indicate selected joints.
- ④ Click the mouse's right button to display Thread Trim Command Dialog as shown in the figure. Click "OK" to input a thread trimming command, otherwise click "Cancel".
- (5) The following shows a figure including the thread trimming commands, which are displayed a "Trim" in blue.











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STEP

Macine Stop Control Command/ Clamp Inversion Command

And you can create Machine Stop Control Command (Stop) and Clamp Inversion/Non-inversion Command (Clamp Inversion) as described in Thread Trimming Control Com-mand. Machine Stop Control Command is displayed as "Stop" in blue, and Clamp Inversion /Non-Inversion Command can be selected with two of right/left modes. It is displayed with "Clamp-L/Clamp-R". The figure shows that all mechanical control commands are created.





This is a command to delete the created mechanical control commands.

You can delete mechanical control commands with as described to delete one stitch data. Click machine control delete command and click sewing data where to delete, then the selected data is changed in blue. And click the right button to display a message box that asks you to delete it. Like this, whenever you exe-cute machine control commands, the message box is displayed. And a message that asks you how to do is also displayed on the lower status bar. The order is as follows:

- Click Delete Machine Control Command Machine Tool Bar prior to deleting it, then the selected button gets concaved.
- ② Use the mouse's left button to click a sewing data joint where there is a machine control command to be deleted. The figure shows that the Thread Trimming Command is selected. The selected joint gets blue. (The figure uses the same pattern as foresaid.)
- ③ Click the mouse's right button to display Machine Control Delete Dialog. It has two types of radio buttons: "Specified" and "All".

"Specified" to delete the current machine control command, and "All" to delete all machine control commands in the current edit range.





Machine Control De	lete Dialog	X
Deletes mechanical o	control command	
Specified	C All	
OK	Cancel	



All Thread Trimming Command

This is to make you convenient. Thread is automatically trimmed at the end of the connection of sewing data and jump, therefore you don't need to input a thread trimming command every end of sewing data. To apply this function, the current work should be save. (It is recommended that you apply this function finally prior to saving.) The order is as follows:

STEP

- ① Click All Thread Trimming Command * in Machine Tool Bar under the state that machine command is created, then the selected button gets concaved.
- ② Place Mouse Point at the edit range and click its right button to display Insert All Machine Control Dialog that asks you for thread trimming.

Insert all machine control dialog	x
The thread has been trimmed before the jumping,	, is this thread trimming to be automatically inserted ? \square
ОК	Cancel

- ③ Click "OK" to delete the above dialog. There is no change of sewing data on the screen.
- ④ Click Save Button on the upper-left of the menu. Save Dialog is displayed a few seconds after floppy disk reading sound occurs. And the end of sewing data is automatically trimmed. The following shows that Thread Trimming is automatically added.

Standard Tool Bar	×
□☞■診際間♥≥	I O III B B B Ø

⑤ Write directory name and file name, then click "Save". When pressing the "Cancel" button instead of the "Save" button, the created thread trimming command does not disappear; it stays effective.





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1740	
$1+5\tau$	- 1
— • • •	

Input port Control Command

This function can program the devices connected to an output port upon punching. In other words, during sewing, signals output from the selected output port can activate the operation of a user device. Therefore, if you are not a trained and skilled engineer, take extra caution in using the function. Follow the steps below to use the function.

- STEP
- ① Assume there is a square pattern design as below. This is an exercise aimed to activate the linked pneumatic signals at Point A and Point B of the square.



② Select the output port function button. When selected, the button remains pressed. Select Point A as the desired output point. When selected, the stitch point turns red.





- ③ Press the right mouse button. Upon pressing the button, the output port setting dialogue window appears. Select the output port signal for setting.
 - Output port setting : User can set an output port.
 - OFF
- : Port signal is turned off.
- ON
- : Port signal is turned on.

Set output port code for e	ternal device
AB/C CE_SERIES	C EXT I/O
A/B/C-SERIES	
OP 4.0 [Presure Foot]	•
• OFF[DOWN]	
OFF[DOWN] Insert a delay time co	← ON[UP]
© OFF[DOWN]	C ON[UP]
○ OFF[DOWN] Insert a delay time or ○ FIRST ○ LAST 0 <u></u>	← ON[UP] ommand ← BOTH ∫[x4ms]

Set the head up function for SPS/C-SERIES.

Output Port Set Dialog	No	Output port	Description
Set output port code for external device	00	OP4.0	Presser Foot[PF]
ABIC-SERIES	01	OP4.1	Feeding Frame[FF]
OP 4.0 [Presure Foot]	02	OP4.2	Thread Trimming[TT]
OP 4.1 [Feeding Frame] OP 4.2 [Thread Trimming] OP 4.3 [Thread Hold]	03	OP4.3	Thread Hold[TH]
OP 4.4 [Wiper Solenoid] OP 4.5 [Feeding Frame Left] OP 4.6 [Twostage Solenoid]	04	OP4.4	Wiper Solenoid
OP 4.7 [Reverse Device Solenoid] OP 5.0 [Rear Feeding Frame] OP 5.1 [Tension Release]	05	OP4.5	Feeding Frame Left
OP 5.3 [OII Control] OP 5.3 [OII Control]	06	OP4.6	Twostage Solenoid
OP 5.5 OP 5.6 OP 5.6	07	OP4.7	Reverse Device Solenoid
OP 6.0 OP 6.1	08	OP5.0	Rear Feeding Frame[For 5050]
OP 6.3 OP 6.4	09	OP5.1	Tension Release[For 5050]
OP 6.6 OP 6.7	10	OP5.2	Pneumatic Output +24V
	11	OP5.3	Oil Control[For 5050]
	12	OP5.4	Head Up/Down[For 5050]
	13	OP5.5	Pneumatic Output +24V
	14	OP5.6	Pneumatic Output +24V
	15	OP6.0	Output +5V
	16	OP6.1	Output +5V
	17	OP6.2	Output +5V
	18	OP6.3	Output +5V
	19	OP6.4	Output +5V
	20	OP6.5	Output +5V
	21	OP6.6	Output +5V
	22	OP6.7	Output +5V



The output port table above is applicable when the C-SERIES I/O board is used. However, in the existing A/B-SERIES, OP6.0~OP6.7 cannot be used. _____



-

C BOTH

÷ [x 4ms]

Cancel

Output Port Set Dialog

OK

Set output port code for external device

· AB/C C E_SERIES C EXT I/O A/B/C-SERIES OP 5.4 [Head Up/Down]

- ④ The delay time can be set at the position before or behind the selected output port. The delay time can be set at the unit of 4ms, and the setting can be done for before, behind, and before & behind. However, the time delay setting is not indicated on the screen.
 - FIRST : Set the delay time at the position just before the output port is set.
 - LAST : Set the delay time at the position just behind the output port is set.
 - BOTH : Set the delay time at the position before and behind the output port is set.

In FIRST, set the delay time at 200ms. Then, 200ms of time delay occurs before Head ascends.

⑤ Set Head Down at Point B using the same method. In LAST, set the time delay at 200ms.

Set output nort code for external de	
	ace
ABIC CESERIES CEX	r I/O
VB/C-SERIES	_
OP 5.4 [Head Up/Down]	*
C OFF[DOWN] @ ON[U	P]
Insert a delay time command	
OFF[DOWN] C ON[U	PJ

The figure below shows the conditions applied when the output port is set.





Output Port Control Command

This function can program the devices connected to a chosen input port upon punching. In other words, the selected input port waits until a signal is input from an external device and the normal operation begins after the signal input. Therefore, if you are not a trained and skilled engineer, take extra caution in using the function. Follow the steps below to use the function.

STEP

① Assume that there is a square pattern design as below. When the input port setting was made at Point A of the square, the sewing machine stops the sewing at Point A, and when an external signal is input to the chosen input port, the sewing machine resumes operation again.



② Select the input port function button. When selected, it remains pressed. Select the stitch point located at the desired place for input as Point A. The selected stitch point turns red.









i

The input port table above is applicable when the C-SERIES I/O board is used. In the existing A/B-SERIES, OP4.0~OP4.7 cannot be used. In the C-SERIES, IP 4.2 cannot be used.

④ The figure below shows the design when the input port is set.





Delay Time Control Command

This function enables the setting of the system delay time at a chosen needle data position upon punching. When the time delay code appears in the middle of sewing, the sewing is suspended for the delay time whose setting was made previously, and resumes after the set time. To set time delay, use the I/O port input code together to set the optimized motion.

Follow the steps below to use the function.

STEP

① Assume that there is a square pattern design as below. When time delay is set at Point A of the square, the sewing machine will stop operation at Point A and resume operation after the set delay time passes.



② Select the time delay function button. When selected, the button remains pressed. Select the stitch point located at the desired position for input as Point A. The selected stitch point turns red.







③ Press the right mouse button. When the button is pressed, the time delay setting dialogue window appears at the same time.

Select the delay time for setting. The delay time can be set at the unit of 4ms.

Select 100 to set 400ms of time delay.

Press the OK button to enter time delay.

et delay t	ime code	
0	▲ [x 4m:	s]
OK		Cancel

Delay T	ime Dialog 🤅 🧯	Э
Set delay time	code	
100	(x 4ms)	
OK	Cancel	

The figure below shows the design when time delay was set.





Head Up/Down Control Command (for C-Series only)

The function can program the head connected to a selected output port to move up or down upon punching. In other words, when a signal is produced from the selected output port in the middle of sewing, the head will move up or down. Therefore, if you are not a trained and skilled engineer, take extra care in using the function. Follow the steps below to use the function.

STEP

① Assume that there is a square pattern design as below. This is an exercise aimed to operate the head-up and head-down at Point A and Point B of the square.



② Select the Head Up/Down function button. When selected, it remains pressed. Select the stitch point located at the desired position for move-up/move-down as Point A. The selected stitch point turns red.







- ③ Press the right mouse button. When the button is pressed, the output port setting dialogue window appears at the same time. Select the output port signal for setting.
 - Head Up/Down : User sets the head up/down.

Select Head-Up.

Head Up/Down (Dialog 🛛 🔀
Insert a head up/down Head	command after specified Up/Down
C Head UP	Head Down
Insert a delay time com	mand after specified data y Time)
€ FIRST C	LAST C BOTH
Delay Time	<u>*</u> [x 4ms]
ок	Cancel

The head-up/down setting function is applicable to the C-series only. This serves the same function as output port setting code OP5.4 as explained previously.

The time delay can be set before and behind the position where Head Up/Down is set. The purpose of giving time delay for Head-Up/Down is to give substantial time for the head's move-up/move-down and thereby make the motion more accurate.

Time delay can be set at the unit of 4ms before, behind, and before & behind the head-up/down. But the time delay setting is not indicated on the screen.

- FIRST : Time delay is set at the position just before the output port is set.
- LAST : Time delay is set at the position just behind the output port is set.
- BOTH : Time delay is set at the position just before and behind the output port is set.

In FIRST, set 200ms for time delay. It means 200ms of time delay occurs before the head ascends.

Head U	command after specified p/Down
Head UP	C Head Down
insert a delay time comm [Delay	nand after specified data Time)
● FIRST CL	AST C BOTH
Delay Time 50	* [× 4ms]



Edit Function

There are three methods for data edit. s: First with the mouse, second with keyboard direction key, and third keyboard input value. Accordingly, you can change the data and point of configuration data and sewing data using Insert, Delete, and Move functions.

Please attention that the edit function cannot be applied without configuration data and sewing data in the edit range.

Editing with Mouse Point



Data Tool Bar is available.

Add Configuration Point

For configuration data without sewing data.

- ① It is assumed that data exist as described in the figure. Current Normal Line displays in blue, and the rest of data (Spline)display in gray.
- ② Click Configuration Point Addition in Tool Bar. (Upon selection, it gets concaved.)
- ③ Use the mouse's left button to click configuration data joints to be added. In Figure, Normal Line No. 4 joint is selected. The joint displays in red.
- ④ Move Mouse Point where to add, and continuously click the mouse's left button. Then the inputting data is added based on the initially selected joint.
- ⑤ Click the mouse's right button to finish working. At this time, the last point inputted to add is automatically connected with the next point of the existing configuration data point.







(In order to cancel additional configuration data that are being input, press "ESC" on the keyboard.)

For configuration data with sewing data

- Click configuration data with sewing data. (Normal Spline Stitch).
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 (
- ⑤ Click the mouse's right button to finish working. At this time, the last point inputted to add is automatically connected with the next point of the existing configuration data point, and then sewing data is again created.





If configuration data includes sewing data upon inputting configuration data, and if you add, delete, move the selected configuration data, the coexisting sewing data is also changed automatically.



STEP

STEP





- ④ Repeat Step ② and ③ to continuously move other points.
- ⑤ Click the mouse's right button to finish.

STEP

For configuration data with sewing data

To move configuration data with sewing data is the same method as foresaid.

However, upon moving configuration data, sewing data is again created based on the moved configuration data. The following figures show that the configuration data has moved. Compare with two cases.

Befor Moving







Editing with the keyboard direction key(Add, Delete, Move)

This is equal to how to edit with the mouse, except for using "Keyboard Space Bar" instead of the mouse's left button, and moving the mouse point with "Keyboard Direction Key". Use "End Key" to terminate instead of the mouse's right button.

STEP

① Select the function button (Insert, Delete, Move) to edit in the tool bar.

② Move Mouse Point on the edit range, and click "Keyboard Direction Key". Upon clicking Up, Down, Left and Right keys, you can find that the mouse point moves.

- ③ Make Mouse Point conformed to a configuration data joint to be applied, and click "Space Bar" to select the configuration data joint.
- ④ Take an action according to the function button (Insert, Delete, Move), and click "Space Bar" again to apply the function.
- ⑤ Click "End Key' to terminate stitching.





	Editing	with	the	keyboard	input value	
--	---------	------	-----	----------	-------------	--

This is also similar to the above method, but this provides "Insert and Move" functions only.

- Add Configuration Point
 - Select "Add Configuration Point Button" in the tool bar.
 - ② Select Keyboard Input (Add/Move) in the Input Device as shown in the figure.
 - ③ Upon selecting, the dialog box displays as shown in the figure.
 - ④ Select a configuration data joint to be inputted (using either mouse or keyboard direction key). The selected configuration data joint displays in red, and the coordinate selected as shown in the figure is displayed on the Key Input [Add/Move] Dialog box.
 - ⑤ Input configuration data point coordinates to be added into the Key Input [Add/Move] box.
 - ⑥ Click "Ok" to add the inputte coordinates.







Cancel

Oł



How to move configuration data segment

- In order to perform editing, select the "Move Configuration Data Segment" button from the tool bar
- ② Perform the steps from ② through ⑥ used to "Add Configuration Data Segment."

When applying a keyboard input(insertion/move) function and then reapplying it, you can see that "Input(Insert/Move Keyboard)" is checked. Therefore, in order to reapply the function, remove the check by selecting the following item and then perform the same procedures used at the beginning.



Editing with the mouse point



This is performed identical with how to edit configuration data. There are three edit methods like configuration data. The following figure shows sewing data edit buttons.



Needle Entry Point Edition

The following figure shows in phase how to input stitching with the sewing data inputted by Point Stitching.

- ① Select "Needle Entry Point Edition 🕺 Button" to edit in the tool bar.
- ② Use the mouse's left button to select the sewing data joint to be added. The figure shows that the 5th joint of Point Stitching is selected, which displays in blue.
- ③ Move the mouse point at the place to add, and continuously click its left button. You can find that input data is added based on the initially selected joint.
- ④ Click the mouse's right button to terminate. At this time, you can find that the last point inputted to add is automatically connected with the next point of the existing configuration data point.





Editing with Keyboard Direction Key
 Editing by Keyboard Input Value

No description is for two above methods.

In case of editing sewing data including configuration data, you must know well about the followings. If configuration data is changed after editing sewing data, you must find that sewing data is created again complying with the changed shape of configuration data.





The best sewing data creation method is to create configuration data or sewing data, create and edit sewing data conforming to actual design types, then designate various attributes of sewing data to make the final design. Creating Configuration Data → Editing Configuration Data → Creating Sewing Data →



Editing by the Stitch Creating Order

This displays the order of stitch-by-stitch sewing data and provides stitch edit functions.

- If sewing data has been created as shown in the figure, display the order of created sewing point as shown in the figure.
- ② Select Move or Delete button for one stitch of sewing data. The selected button gets concaved as shown in the figure.
- ③ If it has been selected, select the correspond ing sewing data stitch. The data stitch is displayed in a red circle dot as follows:

This displays the magnifying screen.









④ Use Replay Too Bar to move one stitch to the stitch prior to the current stitch.

Select the previous button of Replay Tool Bar. Then you can find that the selected sewing data stitch was moved to the previous stitch as shown in the figure.

⑤ To move the current stitch to the last stitch of selected sewing data, select and click the function button of last point in the Replay Tool Bar. You can find that the selected stitch has moved to the last point of the current sewing data.









⑥ Click the start point button in the Replay Tool Bar to move the stitch to the start point of the current sewing data. Upon clicking the function button, the point moves to the current sewing data as shown in the following figures. If you continuously click the button once more, the point moves to the start point of the previous sewing data.









- ⑦ To move one stitch to the next stitch of the current stitch, click "Next" in the Reply Tool Bar. Then you can find that it has moved to the next stitch.
- ⑧ Finally, click the mouse's left button to move the current sewing data at any place. The moved sewing data point indicates in the following figure.





To edit stitches with the Replay Tool bar is applied only to Move and Delete buttons. This is equal to how to edit with the mouse. And it is characterized that you can edit stitch data checking its creation order.



Data Processing

These are indispensable functions upon processing configuration data or sewing data

Sun5tar_s

Other Useful Functions



STEP



• Hand

Hand tool is a very useful function for the whole of data including edit.

- ① Let's assume that the screen is enlarged by Zoom In. (Hand tool is applied only for the enlarged screen.)
- O Select Hand tool, then it gets concaved.
- ③ Place Mouse Point on the edit range, then you can find that there is a hand-shaped icon.
- ④ Click and move the mouse's left button, then you can find that the screen moves depending on its move.

	Information Short Key
HELP	F1
Grid Line	F2
Hand Tool	F3
Zoom In	F4
Zoom Out	F5

Zoom In

Zoom In is used to enlarge the screen.

- ① Select "Zoom In".
- ② Place Mouse Point where to enlarge the edit range.



- ③ Click the mouse's left button, then the screen is enlarged on the basis of the pressing point.
- ④ There is another method to enlarge the screen. Click and drag in the mouse's left button, the range with square dotted lines is depicted. Release the mouse's left button under this state, and then the range is enlarged.





· Zoom Out

Zoom Out is used to reduce the screen.

- ① Select "Zoom Out".
- ② Place Mouse Point where to reduce the edit range.



③ Click the mouse's left button, then the screen is reduced on the basis of the pressing point.




· Zoom All

Zoom All is used for you to watch the same size screen as the edit range. ① Select "Zoom All".



② The enlarged or reduced screens are displayed at the same size as the edit range.

• Grid

"Grid" is used to display the screen at the interval set up by you. This is very useful for inputting or editing data. The default is set up 2mm long and wide.

① Select "Grid".



② Immediately upon selecting it, the screen is again depicted at the interval of 2mm with a grid pattern.



Please refer to the following for change Grid Line.

③ Select "View" in the upper menu of the program, then "Grid Division Setting" in the lowest bottom of the Full Down menu.



④ "Grid Division Setting Dialog" is displayed. Input a setting value into horizontal and vertical axial input box, and click "OK". You can find that Grid Line is again depicted with the setting value.



⑤ Grid line color: You can change the gray color of the line into different colors as desired.

Automatic Point (Snap to Grid) Function

Automatic point function provides very convenient function when inputting data through grid line mark. That is, the point input to the location that grid line is crossed is automatically moved and input to the nearest crossing point. The following figure shows the figure being input when setting grid line to automatic point and inputting the point at optional location.

When optional point was input, the point can be moved into 4 directions from the location that optional point be input as shown in the left figure below. The point is automatically moved and input on the basis of the nearest location that grid line is crossed among them. The right figure below is that point was automatically input.









STEP

Define the number and interval of selected configuration data to create a new configuration data.

① Select "Offset", then it gets concaved.

- ② Select configuration data, then it is displayed in blue.
- ③ Click the mouse's right button.
- ④ "Configuration Offset Dialog" is displayed. There are three input boxed as follows: a box to determine the configuration data creation interval, a box to determine its creation direction, and finally a box to determine the number of times.





 (5) Click "OK" upon completing all inputs. You can find that configuration data is been creating.
 Even when the user has generated a design directly using the OP Box with those pattern machines like SPS-1306/1811/2516/5030, the design can be retrieved from SSP to be edited. In this case, of course, the Offset Data can be retrieved to be edited as well.







STEP

Configuration Data Deletion

This deletes the selected configuration data. If the configuration data contains the sewing data, you can select to delete either only the configuration data, or the entire configuration, or delete both configuration and sewing data. If not, the configuration data will be deleted immediately.

- ① Click "Configuration Date Deletion", then it gets concaved.
- ② Click configuration data to delete.
- ③ Click the right button to display "Configuration Delete Dialog". There is the radio button to select two methods: One is to delete all of sewing and configuration data, another to delete just configuration data.
- ④ Click the radio button of configuration data.









It should be considered that Arc Stitching was an attribute of sewing data that existed in previous Arc configuration data. However, after deleting configuration data, it is changed into Point Stitching.

 \mathbb{R}

STEP

Sewing Tool

Reverse Stitching

This is used to re-create sewing data reversely.

① Click configuration data.

② Click a reverse Stitching function button to display "Reverse Stitch Dialog". As shown in the figure, there are various input boxes: First box to set up the number of reverse creations, and Second boxes to input upon clicking Frequer Stitch. That is, it is used to convert Reverse Stitch Type into Regular Stitch. And the inter-stitching distance is inputted into the box. Second input box is applied to set up Tugzag Stitch Type. Each box is to set up the distance and width between stitches. Finally two radio buttons is to determine the start direction of Zigzag. The current dialog box is set up default.

Terse outen biai	ug		
Reverse Sti Number of Times of	tching		Ok
Regular Stil	ching		Cancel
Stitch length	3		
	ZigZag Stitchi	ng	
Zigzag Stitch			

③ Click "OK". You can find that sewing data is created on the edit range. However you cannot if reverse sewing data is additionally created. Therefore you can make out whether or not the reverse data has been created by moving configuration data with the move function. And the following figure shows reversely created data between data below configuration data upon moving and moved data.







STEP

Multi Sewing

Multi Sewing is similar to the Reverse Stitching mentioned above. This does not create stitches reversely, but can create several same types of sewing data.

- ① Select configuration data.
- ② Select Multi Sewing to display Multi Sewing Dialog. It has various input boxes: Multi-Sewing Offset to set up the creating interval, Multi-Sewing Offset Direction, Number of Times of Creation, and Sewing Type divided into Regular Stitch and Zigzag Stitch. Currently Zigzag Stitch is selected.
- ③ Click "OK", then three configuration data are created, and continuously Zigzag Dialog.
- ④ Set up the input value of Zigzag Dialog, click "OK", then you can find that zigzag type of sewing data is created.







STEP

STEP

· Sewing Data Deletion

Delete the selected sewing data.

- Select sewing data delete button.
 Select sewing data, then the selected sewing data displays in red.
- ③ Click the mouse's right button to create the new dialog box.
- ④ Click "OK" to the selected sewing data.
- ⑤ Up to jump data are automatically deleted as the sewing data are deleted.

Sewing Edit Tool

Point Stitching Join

Join the point stitching space including Jump.

- ① Select Point Stitching Join.
- ② Select first Point Stitching Data.
- ③ Click the mouse's right button. The message saying that the following sewing data should be selected shall be displayed in the state bar.
- ④ Select second Point Stitching Data.
- ⑤ Click the mouse' s right button. At this time,Point Join Dialog is created.
- ⑥ There are 2 kinds of method to join two groups of point stitches. The first one is "Included Jump Join", and the other one is "Point Group Join".
- ⑥-1 Select "Incuded Jump Join", and click "OK" button. After that you can find that jump stitches between two groups of point stitches.

















The method to start sewing data speed setting again at the end location of already applied sewing data speed setting

You can set up again taking the location that sewing data speed setting was ended for the start point with the same method applied at first.

STEP

① Press "Sewing Speed Setting" in the left Sewing Editing Tool Bar. The selected button enters dented.

STEP

② press left button of mouse beginning with sewing data speed setting location in order to set up sewing data speed. The selected point changes into red. Next, if you press right button of mouse, the letter "Spend" in blue shall appear. But, input is made without any change because it exists already.



③ Last, input the code to set up end of sewing data setup speed. Input method is same as "Step4" of the first input method.

- 020	Sewing Spee	ed Setting 🔀	-
1	Chage speed at ne data speed at nee Change Sewing S	eedle entry of selected die entry peed 1000	-
1	ок	Cancel	Spend

The method to apply in the section other than already sewing data speed setting was applied.

You can set up sewing data speed with the same method as described above. Except, **you should note that you can**

have problem if you set up sewing data speed in the range of the section that speed was already setup. Please avoid such setup.

You can apply this between design and design in other pattern.

When you set up speed, please make sure that you should set up on the basis of sewing sequence. If not, error message shall appear.











STEE





Sewing Attribute Change

- 1 Select sewing data to be changed.
- ② Select Sewing Attribute Change.
- ③ Attribute Dialog is displayed. It includes various sewing attribute change buttons: Regular Stitch and Zigzag Stitch. The current status changes from Regular Stitch to Zigzag Stitch, therefore select Zigzag Stitch.
- ④ Immediately click Zigzag Stitch, Zigzag Dialog is displayed. Input attribute values there.

⑤ Select "OK", then you can find that the sewing data attributes have been changed.

Sewing Length Change

- Select sewing data to be changed.
 Select Sewing Length Change.
- ③ Sewing Length Change Zigzag Dialog is displayed. It includes two input boxes: Zigzag Width and Zigzag Length. The default is set up 3.
- ④ Select "OK", then you can find that the sewing data has been changed.

















Overlap Sewing

Apply the Overlap function to the selected sewing data.

- ① Select the first sewing data to be changed.
- Select Overlap Sewing.

- ③ Overlap Dialog is displayed. It includes one input box to determine the number of overlap stitches (default = 4 stitches).
- (4) Select "OK", then the sewing data is additionally overlapped four stitches.
- ⑤ You cannot that overlapping is successfully executed because the stitches are overlapped. Therefore, the overlapping can be confirmed by moving the last overlapped stitch. The following figure shows the overlapped status through stitch move.







Reference

An overlap sewing function can be applied only to the sewing data created based on the following configuration data [closed line, circle, and closed spline]



Enlargement/Reduction, Rotation, Move, and Mirror

This function can be applied to both configuration data and sewing data. If configuration data includes sewing data, Enlargement/Reduction, Rotation, Move, and Mirror are applied based on configuration data, then sewing data is recreated. Therefore all of two data can get the same effect. However, if there exists just sewing data like Point Stitching, just sewing data is applied regardless of configuration data. "Whole Pattern" is not applied to the whole data with both configuration data and sewing data. (Provided in the Upgrade Version.) That is, when only sewing configuration data without sewing data exist on the editing screen or only pure sewing data without configuration data exist. a

"Pattern All" function is applicable. (However, a reverse function is excluded.)

Enlagrement/Reduction

Enlarge and reduce the selected configuration and sewing data.

 Select configuration and sewing data to enlarge and reduce.

2 Select Enlargement/Reduction to display Enlarg-

ement/Reduction Dialog. As a dialogue box

appears, the selected configuration data or

sewing data are shown in a dotted box simu-





It has the following function:

Itaneously.

Enlargement/Reduction of specified elements(range): Applied to the selected configuration and sewing data.

X-Range: determines the enlargement/reduction range of X-axis.

Y-Range: determines the enlargement /reduction range of Y-axis.

The range is based on 100, shows 20% enlargement for 120, and 20% reduction for 80.

Increase/Decrease of number of stitches: Enlarge/reduce with the number of enlargement/reduction stitches.

Increase/Decrease stitches length: Enlarge/reduce based on the distance between stitches upon enlargement /reduction.

No (Origin or center): Enlarge/reduce based on the central position of the selected configuration and sewing data.

Yes : Enlarge/reduce based on any position selected by a user.



- ③ Click "OK" to enlarge the selected configuration and sewing data.
- 4 Reduce with the same method as the above.





STEP

· Rotation

Rotate the selected configuration and sewing data.

① Select configuration and sewing data to rotate.

② Select Rotation to display Rotation Dialog. The selected pattern is displayed to the whole range with dotted lines as shown in the figure.

The Rotation Dialog includes the following functions:

Rotation of whole pattern: Rotate the whole pattern completely.

Rotation of Specified elements(range):

Rotate only the selected configuration data or sewing data.

Angle: Input the rotation angle.

No(Origin or center): Rotate based on the selected data.

Yes: Rotate based on any position selected by a user.









- ③ Input the rotation angle of 30 degree to click "OK".
- ④ You can fine that the selected pattern has been rotated.



If you apply rotation only with the selected sewing data and set the rotating degree at 1° from computational error, the data will be distorted. In order to prevent data distortion, generate the sewing data with the configuration data as a base, then rotate the configuration data and re-generate the sewing data for rotation.



STEP

Move the selected configuration and sewing data.

- ① Select configuration and sewing data to move.
- ② Select Move to display Move Dialog. The selected pattern is displayed to the whole range with dotted lines as shown in the figure.

The Move Dialog includes the following functions: **Parallel move of whole pattern** : Move the whole pattern completely.

Parallel move of Specified elements (range) : Move just the selected configuration data or sewing data.

X-axis : Input the unit to move into X-axis. Y-axis : Input the unit to move into Y-axis.

- ③ Input 1 to X and Y axis each, and click "OK".
- ④ You can find that the selected pattern has been moved.











• Mirror

Mirror the selected configuration and sewing data.

- ① Select the configuration and sewing data to mirror.
- ② Select Mirror to display Mirror Reflection Dialog. It includes the following functions:
 X axis : Mirror based on X-axis.
 Y axis : Mirror based on Y-axis
 Point : Set up any position of a user, and mirror it. This figure shows Mirror based on Y-axis.
- ③ Click "OK". The selected pattern is displayed to the whole range with dotted lines as shown in the figure.





④ Immediately click the mouse's right button, Mirror Point Dialog is displayed.



⑤ Click "OK", then you can find that the same pattern is creted based on Y-axis marker.









STEP

Making 2-Step Stitch

Making 2-Step Stitch is the function to add one stitch between stitch and stitch. It can apply to all existing Zigzag or general stitch. Application procedure is as described below.

① Create sewing data of ZigZag or general stitch type on editing screen. This description gave ZigZag stitch as an example. Next figure is general ZigZag stitch prior to applying 2-Step stitch.



STEP

② If you select "Editing" on top of menu, you can see "2-Step Stitch" in the bottommost.

Also, If you select and apply "**2-Step Stitch**" button from measurement tool bar, you can see that one stitch is added between ZigZag stitch and stitch and so a ZigZag stitch is created as shown in the following figure.



C	<u>E</u> dit <u>V</u> iew	<u>M</u> easure	
×.	<u>U</u> ndo	Ctrl+Z	
	Cu <u>t</u>	Ctrl+X	
	<u>С</u> ору	Ctrl+C	
	<u>P</u> aste	Ctrl+V	
	S 2 Enlarg 2 S Redu	ice	
	🕂 rotati	on	
	_ [⊘] move		
	je mirro	r	
	2-Step Sti	tch	

Reference

In such case as above, we applied 2-Step Stitch to ZigZag that has configuration data. If you move segment of configuration data, you can create ZigZag again according to the changed configuration data. Therefore, existing applied 2-Step stitch becomes to disappear. Please remember this. Otherwise, if it is point stitch without configuration data, it

cannot change as configuration data.



Drag and Drop

Drag and Drop function provides convenience to user. As most application programs support, if you just drop by dragging saved pattern file with left button of mouse to editing area of executed SSP program, the file shall be automatically opened.

At this time, the dragged file changes into plus shape of mark. It means that drag and drop function is supported. Accordingly, user can conveniently use when the user wants to promptly confirm pattern design that he/she already has saved.

Select User PC

This is the function for notebook user. When inputting data by using "arrow key on keyboard", the location to be input often goes astray in case of notebook. In such case, you may just select "Notebook" in the item of "Select User PC".

Its setup procedure is as follows:

① There is "Select User PC" in the bottom- most of the item "Input Device" on top menu item. And there are "Notebook" and "Desk Top" as the list of item "Select User PC". Initially "Desk Top" was setup as basic setup.



② You may setup to "Notebook" from the item "Desk Top". If you input by using arrow key on keyboard after setting up, the problem to go astray won' t happen.

STEP

STEP

2 **Sewing setting**

- Setting the sewing area Set up the sewing area for editing
- STEP
- ① In menu, select "sewing area setting", a sub-level menu under "sewing setting".
- ② As shown in sewing setting dialog, X is set at 130mm and Y at 60 mm. The sewing area set in the initial display is aligned with these values.
- ③ Set X-length at 70mmm, and Y-length at 50mm and click "Ok", then the sewing edit area will change as shown in the figure. The area will change while sewing data remains the same.



Input Device Control Setting

Sewing Setting Dialog		X
Sewing Edit Size		
X-Length	75	mm
Y-Length	50	mm
Ok	Ca	ancel

The following figure shows Before and After setting the sewing edit area.



After





Stitch point layout

You may change the shape of sewing data created in the editing screen into various shapes.

STEP

 In menu, select "stitch point layout", a sub-level menu under "sewing setting".



2 After selecting, you will see "stitch point layout dialog".

Stitch point type:

Two different types of stitch points can be set. One is cross point, which is stored as a default value. The other is circular point.

Setting Stitch Point Layo	ut	×
Setting Stitch Po	pint/Line Layout	1
Stitch Point Type	Circle Point	
Stitch Point Size	2	
Stitch Line Size	0	
Stitch Point Color	BLACK 💌	
Stitch Line Color	RED	
Center Line On/Off	● On ● Off	
Jump Stitch On/Off	⊙ On C Off	
Initial Sett	ing Value	
ОК	Cancel	

Stitch point size:

The size of stitch point can be set. The smaller the number, the smaller the point size gets. This function can be useful for editing complicated data. However, there will be no point if the size is set at 0.

Stitch line size: Sets the thickness of the line between stitch point and point.

Stitch point color: Sets the color of stitch point.

Stitch line color: Set the color between stitch point and point.

Center line on/off: Sets on or off the centerline in the edit screen

Jump stitch on/off: Sets on or off the jump data in the edit screen

Initial setting value: Initializes all the set values into default values

OK: Applies the set values

Cancel: Exits from "stitch point layout setting dialog"





■ Copy, Paste

The above is functions familiar to users. They are supported for graphic program or most programs related to Word. This program also provides users with how to easily use the functions.

- There are configuration data and sewing data in the edit range as shown in the figure. Select the circle configuration data.
 - Edit View Me K 🖻 🖻 🥏 🖉 Zigzag Length 3
- ② Select "Copy" on the Standard tool bar, or click both "Crtl" and "C" to copy the circle configuration data. After copy, the selected configuration data has the dotted surrounding.





- ③ Move Mouse Point and click the mouse's left button at the proper position for a user to set up where to paste. The small circle is displayed based on the selected position.
- ④ Select "Paste" on the Standard tool bar, or click both "Crtl" and "V" to paste the circle configuration data. You can find that the selected configuration data has been pasted as shown in the figure.
- (5) The following figures show that pastes the sewing data created by the Point stitch. The paste procedures are equal to those of the above circle configuration data.







4 Image Punching

 \diamond

STEP

This function is provided that the user can easily punch according to image shape after calling in the Image in 1:1 size to editing area. If the user wants punching according to the shape for any paper picture or actual sewing sample, this can be used. For this, it requires the file having extension name BMP, JPG a picture file. If the user had a peripheral device of computer-Scanner, he/she can do punching work by making BMP, JPG type of image file through scanner. Image making method through scanner shall not be described here. However, what the user has to know in image making method when the user makes image, user should save Resolution of image into BMP 183 pixels/ inch, JPG 250 pixels/ inch (the number of pixel wide and long should be 73.1 per centimeter) from image making option in order to do 1:1 work when called the image into editing screen. Otherwise, the called in image shall not be 1:1 and so the size can be bigger or smaller. You should keep this in mind. And Images should be saved in the BMP or JPG format depending on creation options.

We will introduce punching process giving an actual example of picture.

 If you take a look at editing tool bar or menu item, there are commands and icons as follows. Click "Image Opening" or the icon like a palette.



② Image open dialogue box shall appear as follows.

Open	?×
Location ([): 🔂 사진	· · · · ·
N AL보레볼트 Mirios Andrew Richardson Owen Steuart Bailey Grace Tyson Ballou Eugen Bauder John Bon Jovi Lars Burmeister	
File Name (<u>N</u>):	Open
File Type (_): All Files (*,*) All Files (*,*)	Cancel
JPG FILE(*,jpg) BMP FILE(*,bmp)	

Select one of the files and press button "Opening". Selected Image file shall appear focused on the original point on editing screen.



③ Now, you can do punching using each function key on the image in 1:1 size on editing screen. The followings are the figure (left) created only configuration data only according to outer line of hat on image and the figure(right) created sewing data.





The figures above show only the punched data on condition that removed the hat appeared on editing screen. You can delete the image appeared on editing screen, call in again and move the called in image. You can perform the above function as follows:

④ Next is the function to delete called in image..

If you select "**Delete Image**" in the right figure, you can delete the image appeared on editing screen.

If you want to call in the image again, you may just select "Open BMP Image".



(5) You can move the image existing on editing screen.

Select "Image Move" in Image Tool item above. Input dialogue box shall appear as follows.

If you input the value as much as the location to move to X, Y input box and press "Yes" button, you can see the image moved as much as the input value. The following figure shows the figure of moved hat.



Image Mov	/e Dialog		×
X-Move	-15	• [mm]	ок
Y-Move	-10	• [mm]	Cancel

Reference



5 **Embroidery Conversion Function**

It provides the function to convert embroidery design file *.sst of SunStar and *.dst of TAJIMA into pattern file. You can convert and display or save embroidery design only up to 30,000 stitches in SSP-WE/1.0 at present. But, please remember that you can use embroidery design only up to 20,000 stitches in pattern machine.

Embroidery design conversion function is as follows:

① Select "Embroidery Call Function" from "Image Punching" menu item. Upon selecting it, "Embroidery File Call Dialogue" box appears as shown below.

g	Image Punching Help	
>>	Open BMP Image	
ah I	Delete Image	
	Image Tool	×
	SST/DST Conversion	

(2) Convert embroidery file by selecting file name and embroidery file type to create in "Embroidery File Call Dialogue" box and pressing the opening button. Description by each item is as follows:

Input File Name: It is the item to input the name that embroidery file is converted and saved into pattern file.

Embroidery File Open: It is the button to call embroidery file to convert.

Jump Stitch Length: The default value of this field is set to "0". If this value is increased, jump converts to normal stitch and is created with default value "0" during embroidery file conversion. No problems occur for normal embroidery files, but for those with width over 12.7mm between stitch and stitch, increase the setup value prior to conversion.

Embroidery Convers	sion Dialog 🛛 🗙
Input File Name	000
Open SST/DST File	File Open
Auto Thread Cutti	ng
🔽 On	C Off
Embroidery File Typ	ie
C SST File	DST File
ок	Cancel

Embroidery File Type: It is the item to select embroidery file type to convert at present. We selected TAJIMA file in the figure above.

OK Button: If you press "OK" button, embroidery file is converted into pattern file.

After setting up the items above, select the button "Embroidery File Open".

③ Open Dialogue box shall appear that you can select embroidery file to call for conversion. Select embroidery file to convert and then press "Open" button. Open dialogue box shall disappear again and "Embroidery File Call Dialogue" shall appear.

Open				? ×
Location ([):	🔄 자수 디자인	•	•	
 Divide, dst G001, dst G002, dst G003, dst G004, dst G005, dst 	a) G006,dst a) G007,dst a) G008,dst a) G009,dst a) G010,dst a) G015,dst	a G020, dst a Gsample, dst a Ks0173, dst a Ks0202, dst a Ks1294, dst a Ks668, dst	■]Pikachu ■ Swf,dst	I, dst
₹		0.08	2422	+
File Name (<u>N</u>): File Type (<u>T</u>):	Pikachu			Open Cancel

- ④ Now, press "OK" button in "Embroidery File Call Dialogue" box for actual conversion. Dialogue box shall disappear and there is no change. "000" file actually changed from embroidery file into pattern file is created into the folder of Original Embroidery Design.
- ⑤ Call the changed pattern file "000" by selecting "Open" button on top of menu.

ble,dst 🖉
det.
(ust
dst
.,dst
dst
-

Press "Open button".

You can see that the changed embroidery file appears as pattern file on screen as shown in the figure below.



References for embroidery design change is as described below. First, concept of embroidery and pattern is somewhat different and so you might have problem if you change existing embroidery file into pattern file and sew as it is. Such problem is because design is that for embroidery itself and so sewing may not be done properly in the pattern due to thickness of thread or conditions of needle and sewing cloth, stitch width of design, etc. Also, due to property of embroidery code, jump function can input instead of general stitch in the optional middle or one stitch can be added before the location that stitch is started after jump in case of complex embroidery design conversion, in particular, in case of Satin. Please note such points and then convert embroidery design into pattern design and sew.

Reference



④ Press the "Convert" button for conversion. When conversion is complete, the message as in the figure appears.

SSP-W	E/3.0
	Transformed from JUKI AMS Data to SPS Pattern data
	OK I

⑤ Press the "Open" button and check whether the file conversion is properly conducted.





When using the JUKI data, conversion might be impossible if codes related to machine control, external input/output ports, and lapse time are contained.

DXF and HPGL files used at AutoCad are supported. A user can read DXF and HPGL files, and convert them immediately into the composition data for display on the screen.

Since the function is very convenient, AutoCad users can make the most of the function when generating design data. The general file type of AutoCad is DWG. DWG file can be saved as DXF file as well in AutoCad. When it is saved as DXF file, the file versions can vary. SSP2.5 supports up to the lastest version of AutoCad DXF 2004.

The following is the steps of using the function.

STEP

① The following is the original AutoCad DXF file desired to open.



② Use the SSP file open function to select and open desired DXF, HPGL files. When trying to open a file, the open dialog box automatically shows the list of all files.

If the user wants to see DXF or HPGL files only, select DXF File on the file attribute field.

open			2
Location ([):	🗁 Sample	- 🗲 🛨	
😇 Frontpanel 😇 PQ3534002485 🔤 Rearpanel	Airbagassy		
File Name (<u>N</u>):			Open

- ③ Select 'Rearpanel' and press 'Open.'
- (4) The same design generated in AutoCad is displayed on the screen as the composition data.



⑤ The user can select each composition data to immediately create the sewing data.


Pattern Data I/O

File Save/Open provides users with the functions that save the newly inputted pattern or re-reads the saved pattern.

File Name (N): (Test

File Type (T):

ATI files *, *



Save

Cancel

-

STEP



Please save it here considering the followings: The sewing machine reads data files with the number such as 000, 001, 002. You should save files with the same name as the above number. And if you input various pattern designs using an actual floppy diskette, you should make a folder of "SPC" to save them there. However, if any floppy diskette is inputted upon clicking "Save", "SPS" folder is automatically created on the diskette. Therefore, upon displaying of the Save dialog, select A:\ floppy drive, select the selected "SPS" folder, and save files in it. If you save them in computer hard disk, you don't need to write the save name as the above. However, if you input them into the sewing machine through a floppy disk, you must do as mentioned above.

③ "Test" file in the corresponding folder is saved.

File Open

Read the saved pattern file to display it again in the edit range.

(1) Select File Open on the menu tool bar.

Open				? ×
Location (]):	🔄 Cirlce	•	£ 🖉	
a 000				
ina] circle12				
, 🖬 circle 18				
ESU,				
File Name (N):	Test			Open
File Type (\underline{T}) :			•	Cancel

- ② File Open Dialog is displayed.
- ③ Select "Test" file and select "Open", then the saved pattern is again displayed on the edit range.

STEP

STEP

Information

It is presented that the file name and its path on the upper side of window frame.



\cdot Continuous file opening function

The function enables continuous opening of files. In case of opening files continuously, a newly called file is generated at the end of the sewing data created on the screen. Follow the steps below to use the function.

① There are two designs of 001 and 002 as below.







Second design : 002

② Call the first design 001. There is no problem although the existing user has already generated a design. Call the second design 002. Before calling the second design, user should set the continuous file opening function.

The setting method is as follows:

Click the edit menu on the screen top. The fulldown menu appears upon the click. Looking at the bottom of the full-down menu, there is a sub-menu called File Open Type. Click on the menu, and then another sub-menu appears. The sub-menu is composed of OFF and ON. In most of time, when the function is not applied, OFF is chosen. When the continuous file opening function is used, user needs to select ON. By selecting ON, ON is set.





③ Call the second design 002. As in the figure, the second design is created continuously from the last data of the first design using it as a starting point.



Saving KM-2070P pattern data

The KM-2070P file save function stores general pattern data, and additionally stores ROM.zig and $\star.txt$ data.

STEP

2

■ File save

Saves all the data inputted in the edit area to the present point.

SSP-WE73.0		
Ele BOM Data VO Edit Yew Measure Input	Davice Control Setting Machine Setting Image Punching Help	
	i i i	
at the		
C 100.		
Kal www.		
 R 		
200		
có 🕫		
R 29	NZ	
息 坝		
A. A.F		
8 \$	$\overline{\mathbf{A}}$	
L 1		
æ -v-		
1. mm	· · ·	
× 15		
1. m		
H		
88 w		
. Back		
Cver		
or Nelp, press F1	X1-11.50mm, Y	1.5.95mm NUM

① To save your current pattern designs in the edit area, click \blacksquare save.

② After save is clicked, floppy drive will be read and the save dialog box will appear. Select the route name for saving, key in the name of the file to be saved, "tree" and click "save". Saves as others, Location, File name, File format, Save, Cancel

Save As				?×
Location (]):	🗟 2070p	•	1	
	,			
File Name (N)	liree 📝			Save
File Type (I):	All files *,*			Cancel

i

The save dialog box will remain even after clicking "save" and saving the data.

This is to store 2070P "ROM.zig" data. As shown here, "ROM.zig" data will be automatically saved. Click "save" again to store "tree" data.

Save As				? ×
Location (]):	🔄 2070p	-	£ 💋	
🔊 ROM, zig				
File Name (M)				Save
File Type (<u>T</u>):	All files *.*		•	Cancel



■ Saving 2070P text file

Remember to save 2070 text file, you have to click "file save" first. Otherwise, you cannot save file for 2070P.

Saving method is identical to "file saving" as explained above. Click 2070 save button. The file format will be in "*.txt" file instead. Even if you type in "tree" for the file that you want to save, the actual file that will be stored will carry "tree.txt" and saved in a different file. If you follow this procedure, you will have three different files in the "data" folder. The following are files that will be stored. Saves as others Location File name File format Save Cancel

Save As	?×
Location ([):	🔄 2070p 💽 🖻 🛅 🗐
File Name (K):	Treel ; Save
File Type (I):	(*,txt) Cancel
Tree 📓	The file saved in the existing SSP (commonly used with pattern)
Tree.txt	Input data list file for 2070P (not applicable to exiting KM-2070)
ROM.zig	2070P-dedicated serial transmission data file

Just double-click tree.txt with a mouse to see the file list. SSP not needed. You can input design directly onto 2070P with the file list. Refer to "KM-2070P design input user manual" for detailed information.

KM-2070P Zigzag Design and ROM Data Serial Transmission

Using serial transmission tool, 2070P zigzag designs and ROM data "ROM.zig" is transmitted to KM-2070P sewing machines.

Note

If the user's PC or notebook does not have a serial port, but has a USB port only, designs can not be transferred via the existing cable. In this case, the conversion device, which helps convert the USB port to serial port, can be used for data transfer.



PC and KM-2070P connection configuration





The following is an overall configuration flow of "Zigzag design direct serial transmission and ROM data serial transmission"

The following describes detailed methods for "Zigzag design direct serial transmission" and "ROM data serial transmission". The "ROM data serial transmission" describes the steps under the assumption that the user has already created 2070 serial transmission file (ROM.zig) To create, refer to "data save".



Zigzag design direct transmission

■ Zigzag design direct transmission

You can immediately transmit data as is displayed on your edit screen. For example, if you have inputted your own zigzag design on the edit screen as follows, you can send the current design to 2070P immediately.

Be sure to connect the serial transmission cable to the computer and 2070P dial operation box. (Refer to the main composition items to connect)



- ① Before sending the design on the edit screen to 2070P, you have to set 2070P to receive transmission from SSP. Refer to the following.
- 1. Press both N1 and + key at the same time with the power on.

Prog (or programming) will be displayed in the box after trimming.

2. Press N2

The ROM pattern number and pattern shape number will pop up (Ex.: 9-01. Different numbers can appear)

3. Use + and - key to select the pattern shape number you want to receive

Ex: 9-09).

Pattern shape number for input: Any number from 1 to 99 can be inputted. Here, the figure shows the pattern shape number 9-09.

 Press N1. "down" will start to flash with beeping sounds from the speaker.



STEP

② After going through 1 to 4 as explained above, you from SSP.	will be ready to receive
③ For transmission, click "zigzag direct transmission button" under the standard tool bar. If it goes smoothly, you will hear a long "beep" sound instead of repetitive beeping sounds. "End" will be displayed on the 2070P operation box and the transmitting pattern number will appear on the indicator. You will see "successfully transmitted" on the edit screen of SSP.	_uum uata (/O Edit <u>View M</u> easu 2 圖 명 部 때 (文 王 道) To Tool States
If the pattern is not transmitted right even with the "successfully transmitted" message, press the transmission button again.	
④ To start sewing with the inputted design, press PARA/SET to return to sewing mode.	PARA
You will see the amplitude on the indicator.	
Press PARA/SET once again.	
The amplitude on the indicator will start to flash.	
⑤ Press ROM pattern key.	
⑦ Press PARA/SET again.	\bullet
You can begin sewing when the amplitude is displayed on the indicator.	



ROM data serial transmission

3

STEP

ROM data serial transmission

- ① Connect the serial transmission cable to the computer and the 2070P dial operation box. (Refer to the main composition items to connect). Before transmission, set 2070P ready to receive transmission as explained in "zigzag direct transmission".
- ② Select "serial communication set button" under menu.



③ "Serial communication dialogue" box will appear after selection.

Port Setting: To start serial data transmission to your computer, you have to set communication port for the serial cable connected. The number of serial ports can vary depending on specifications of the computer. Normally, desk top computers have two and lap tops have one serial port. As the current "serial transmission" tool is connected to 2070P, you can use COM-1 only.

As shown in the serial port setting dialogue, you don't need to change values of each item. Use the default values as they are, for they have already been set to comply with 2070P.

	COM 1 Part Information	Rond to Data COM 1
SEND DATA	Cower Portinionnation	Bend to Data COMPT
RECEIVE DATA		
		<u> </u>
T		E
	0.011.022.0-11-0	Constitute Darts 0.00M 3/2
SEND DATA	COM-2/3 Port Information	Send to Data COM-2/5
RECEIVE DATA		
		<u></u>
		=
1		<u>F</u>
Serial Port [C	OM-1/COM-2/COM-3]	
	COM-1 C COM-2 C COM-3	Load ROM_Zig Data
Port Setting		
	Port Checking	Egit
Port Setting		
COM 1 Rot	COM 2 Part	COM 2 Port
Paud Pate 57600		57600
Badd Hale 197000	Baud Rate 57000	Baud Rate 157000

Parity Bit No Parity

-

Parity Bit No Parity

Port Checking: A function designed to check the serial transmission program connections of 2070P and SSPz before starting serial data transmission.

Sending data window: It shows extended design data code transmitted to 2070P. After data code transmission, your window will display "1: Download…Zigzag Design".

Receiving data window: It shows the code value after successful transmission to 2070P as below.

- 1. ZigCode: 55 (Command reception complete)
- 2. ZigCode: 66 (Normal data reception complete)

3. ZigCode: 77 (Command execution complete)

Zigzag file loading: A function designed to read ROM.zig extended design data for 2070P for transmission.

Data transmission button: It sends extended design data for 2070P it had read to 2070P.

Exit: Exits from the "Serial transmission dialog" box.

- ④ Leave the port in its COM-1 port status and click "Port Checking" to check whether it is ready to communicate with 2070P. If the port is ready to send, a "successfully connected" message will appear.
- ⑤ If everything is set, click "Zigzag file loading…" to read extended design file (ROM.zig). If you press the button, you will see a box to open.

Select the zigzag file you wish to send and press "open"

Open	?×
Location (I): 📝 바탕 화면	
000	📾 MSDN Library – January 2001
🖳 10, 30, 10, 50의 바로 가기	🗓 Eattern DIP Switch Setting Method
🚽 3,5 플로피 (A)의 바로 가기	(ROM, zig)
न न 계산기	DitraEdit-32
🖳 박윤철	
Acrobat Reader 5,0	
•	
File Name (<u>N</u>): ROM	Open
File Type (I):	Cancel

- (6) Press "Data transmission" to send the selected zigzag extended design to 2070P. After sending the data, you will see in your operation box of 2070P something similar to "Zigzag direct transmission method" If you have sent the data successfully, you will see "successfully transmitted".
- Sample design (Basic patterns for KM-2070P)



The above sample design that actually was sewn is a design offered as a standard pattern.

Design transmission for bar tack series

Transmitting the user-created bar tack design files to the bartack machine via serial transmission tool

Note

If the user's PC or notebook does not have a serial port, but has a USB port only, designs can not be transferred via the existing cable. In this case, the conversion device, which helps convert the USB port to serial port, can be used for data transfer. The following describes overall configuration flow for "Design direct serial transmission".



Important! Before transmitting design, be sure to send all the sewing data after inserting trimming code at the last needle point. Transmission will be done even without the trimming code, but only the main axis will move after sewing starts.

Communication set-up process is identical to zigzag design direct transmission. However, to ensure seamless communication between SSP and the machine, be sure to set <u>38400</u>, bar tack series setting in KM-2070P <u>57600</u> for basic communication set-up.



Setting port and communication speed

STEP

- ① Connect serial transmission cable between the computer and the dial operation box of the bar tack machine.
- ② Select "Serial communication set-up" under menu.



③ After selecting, "Serial communication dialog" will pop up.

Port setting:

Set communication port for the connected serial cable to start serial data transmission to the computer. The number of serial ports may differ depending on computer specifications. In general, desk top computers carry two, and lap top computers one serial port, or sometimes carry no serial port at all. USB port on the computer can still be used even without any serial port, but a USB serial converter will be needed. Select "COM-1, COM-2, COM-3" button accordingly depending on the serial port currently connected to your computer. Lap tops with one serial port usually have "COM-1" set up. After selecting, press "Port Setting" to set the communication speed.

ZigZag Serial Comm, Dialog		
SEND DATA	COM-1 Port Information	Send to Data COM-1
RECEIVE DATA		A
T		×
SEND DATA	COM-2/3 Port Information	Send to Data COM-2/3
RECEIVE DATA		
न		T
Serial Port [CON	H1/COM-2/COM-3]	Load ROM_Zig Data
Port Setting	Port Checking	E <u>x</u> it

As shown in the serial port setting dialog below, change the value of the baud rate only. The initial screen is set up to meet the 2070P speed, so select 38400 for baud rate of the relevant port and press OK to exit. The serial port setting dialog will disappear, and only the serial communication dialog will remain. Press "Port setting" once again to select baud rate of the serial port setting dialog. Select 38400 and click OK to exit. Be sure to double-set baud rate.

COM-1 Port	COM-2 Port	COM-3 Port
Baud Rate 38400	Baud Rate 57600 💌	Baud Rate 57600
Data Bit 8 Bit	Data Bit 8 Bit 💌	Data Bit 🛛 🛛 💌
Stop Bit 1 Bit	Stop Bit 1 Bit 💌	Stop Bit 1 Bit 💌
Parity Bit No Parity 💌	Parity Bit No Parity 💌	Parity Bit No Parity 💌

The following procedures are intended to describe the design transmission process step by step.

- 1) The bar tack machine must be ready to receive a design on the edit screen from SSP. Refer to the following.
- 1. Turn on the power and press Reset at the same time.

Prog (programming) will be displayed on the LED of OP and the mode will change into transmission ready.

At this point, click "Port Checking" in the serial communication dialog to see the communication connection between the bartack machine and SSP. If they are connected, you will see a "successfully connected" message.

2. Click Ready.

STEP

The pattern number for transmission will pop up. In bar tack series, the initial pattern number for transmission will differ by type for basic patterns used all vary by type.

The following shows basic patterns used for different types.

1. SPS-1201 Series: 1~32 2. SPS-1202 Series: 1~33 3. SPS-1254 Series: 1~56



Zag Serial Comm, Dialo	3	×
SEND DATA	COM-1 Port Information	Send to Data COM-1
RECEIVE DATA		
I		r F
SEND DATA	COM-2/3 Port Information	Send to Data COM-2/3
RECEIVE DATA		
		<u>^</u>
र		T
Serial Port	[COM-1/COM-2/COM-3]	Load ROM_Zig Data
Port Setting	Port Checking	
`		Egit



You can send data other than the basic patterns to the rest of the pattern number area to receive pattern data from your PC. Here, SPS-1254 is used as an example to demonstrate the transmission process. The pattern number for initial transmission will be "r-57".

 Use + and - key to select the pattern number you wish to receive. You can receive anywhere from 57 to 99. (SPS-1254)







⑤ Press Select.

The machine will change into sewing mode with the pattern number selected.

6 Press Pedal to start.

Note!!

For the current bartack series, the number of stitches that can be transmitted to the machine with design data input is defined for each type. Refer to the following for the maximum number of stitches for transmission.

SPS-1201 Series: 500 stitches
 SPS-1202 Series: 500 stitches
 SPS-1254 Series: 1000 stitches.

The maximum number of stitches for transmission includes both jump and sewing stitches. To check the total number of stitches that can be transmitted, please refer to "Total Jump and Stitch" in the upper menu.

а јл	nage	Pun	chir	g <u>k</u>	<u>i</u> e.,				
é in fo	•	•	►	*			_	_	
ch Len	igth 🛛		Ţ	otal J	ump and	Stitch	98		

Be sure to keep in mind the maximum number of stitches for transmission by machine type when sending designs.



Design transmission of pattern series

Transmission of the user-created pattern design files to the pattern machine via serial transmission tool. However, it is applicable to C- and E-Series machine types.

Note

If the user's PC or notebook does not have a serial port, but has a USB port only, designs can not be transferred via the existing cable. In this case, the conversion device, which helps convert the USB port to serial port, can be used for data transfer.



[Pattern connection configuration]



Serial port connection to the lap top (the location of serial port will differ depending on the PC).



Serial port connection to the new OP box





The following describes overall configuration flow for "Design direct serial transmission".

Communication set-up process is identical to zigzag design direct transmission. However, to ensure seamless communication between SSP and the machine, be sure to set 115200 communication set-up.

2 Port and communication speed setting

① Connect serial transmission cable between the computer and the operation box of the pattern.

② Click "Serial communication setting" under menu.

STEP



③ After selection, "Serial communication dialog" box will appear.

Port Setting: The setting is equivalent to the bartack.

As shown in the serial port setting dialog below, change the value of the baud rate only. The initial screen is set up to meet the 2070P speed, so select 115200 for baud rate of the relevant port and press OK to exit. The serial port setting dialog will disappear, and only the serial communication dialog will remain. Press "Port setting" once again to select baud rate of the serial port setting dialog. Select 115200 and click OK to exit. Be sure to double-set baud rate.

Serial Port Setting		×
COM-1 Port	COM-2 Port	COM-3 Port
Baud Rate 115200	Baud Rate 57600 💌	Baud Rate 57600
Data Bit 🛛 🖉	Data Bit 🛛 💌	Data Bit 🛛 🗨
Stop Bit 1 Bit 💌	Stop Bit 1 Bit 💌	Stop Bit 1 Bit 💌
Parity Bit No Parity 💌	Parity Bit No Parity 💌	Parity Bit No Parity 💌
ОК	Cancel	

The following procedures explain design transmission process step by step.



Pattern data direct transmission

3

① Press MODE in pattern operation box and << MAIN Menu >> select 7. Download Ptrn under main menu. 7. Download Ptrn ② Save Pattern Num will appear. Key in "001" Save Pattern Num using the number key in the operation box to Save Num = 000 save the name of the pattern. ③ Press Enter. Save Parrern Num Select the final memory you wish to store. Save Num = 001 1) "0": Store received design in the main Memory(0)/FDD(1) memory of the CPU. To Exit(ESC)... 2) "1": Save received design in floppy disc. After you select the number you wish to store, you will have the download setting mode on with beeping sounds. ④ After transmission is ready using pattern OP, use SSP to send created designs. Press JM Data I/O <u>E</u>dit <u>V</u>iew <u>M</u>eas Pattern data direct transmission of SSP. j 🖬 🕄 🐘 📖 🕈 🛓 🚺 🎯 (5) If transmission is successful. OP box screen << MAIN Menu >> will return to the initial screen with beeping 7. Download Ptrn sounds. 6 On your PC, a "successfully transmitted" message will appear. ⑦ To check the status of the transmitted design << MAIN Menu >> to the pattern, go to 5. Patter List. Call in 5. Pattern List design and start sewing. 6. EMB Call 7. Download Ptrn

Note!!

For the pattern series, the number of stitches that can be transmitted to the machine with design data input is limited.

SPS/A/B- Series: 10,000 stitches

The maximum number of stitches as described above includes both jump and sewing stitches.

Go to Total Jump and Stitch in the upper menu to see the total number of stitches for transmission.





Be sure to keep in mind the maximum number of stitches for transmission by machine type when sending designs.

The set-up values of baud rate by machine type are as follows.

- 1. KM-2070P: 57600 (Default value for SSP program)
- 2. Bartack Series: 38400
- 3. Pattern Series: 115200

How to use the USB to Serial conversion cable

- ① Before using the USB to Serial conversion cable, install the driver saved in the provided CD in the user's computer.
- ② Reboot the computer after the installation is completed.
- ③ Connect the cable to the USB port after rebooting. Then, the computer will automatically recognize the USB connection.
- (4) After the connection is properly made, set up a virtually created COM port, following the setup procedures.
- (5) As the figure below shows, select "My Computer."



6 When the My Computer window is open, press <u>"System Information Display"</u> on the top left. Select and open the system information from "My Computer."





The system registration information window is displayed as below. Select "Hardware" and then "Device Manager" to open the Device Manager window.

System	Restore	n Restore Automatic Updates		Remote
General	Cor	nputer Name	Hardware	Advance
Add Hard	ware Wizard	1		
S.	The Add Ha	ardware Wizard I	helps you install har	dware.
			Add Hardw	vare Wizard
Device M	anager			
	The Device on your con properties o	Managerlists a nputer. Use the I fany device.	II the hardware devi Device Manager to	ices installed change the
	Driv	er Signing	Device I	Manager
Hardware	Profiles		~ _	
Ð	Hardware p different ha	rofiles provide a rdware configura	way for you to set u ations.	up and store
			Hardwar	e Profiles
2	different ha	rdware configura	Hardwar	e Profiles

Find "Port (COM and LPT)" from the list of device manager, and press "+" button to display the internal items.

🖳 Device Manager	
File Action View Help	
← → 🖬 😫	
E- 📕 WAREHOUSE	
🗄 📲 Computer	
🗄 🥪 Disk drives	
🗄 🖳 Display adapters	
🗄 🥝 DVD/CD-ROM drives	
🗄 🛁 Floppy disk controllers	
🗄 📲 Floppy disk drives	
🗄 🦳 IDE ATA/ATAPI controllers	
🗄 🐷 Keyboards	
🗄 🖔 Mice and other pointing devices	
🗄 👰 Monitors	
Wetwork adapters	
🖻 🦓 Other devices	
🗉 📝 Ports (COM & LPT) 🔁	
+ Processors	
🗄 🧐 Sound, video and game controllers	
🗄 🦞 System devices	
🗄 🕰 Universal Serial Bus controllers	
and Here 👻 🖉 de rata antites a construe construe construence con C.S.	

After the USB to Serial Port driver is installed, it can be checked whether the communications port (COM) is virtually created. Previously, there was no COM port.



Select "Communications Port" and press the right mouse button. Select "Properties."





When the communications port window is open, select the port setup and press the "Advanced (A)" button.

	Propercies	acions Port (LUM	minunio
	r Resources	Port Settings Dri	General
	per second: 9600	В	
Ŧ	Data bits: 8		
×	Parity: None		
•	Stop bits: 1		
<u>•</u>	Flow control: None		
Restore Defaul	Advanced	:	
Can	0		

The COM advanced setup window appears.

Lastly, find "COM port number" at the bottom of the window, and select an unused one among COM1 to COM3.

In case of SSP, only COM1, COM2, and COM3 are supported.

If COM1 remains unused, select COM1.

Before COM1 is selected, a temporary COM port is selected. When the selection is completed, press "OK" and close all the windows related to the setup.

Reboot the computer and ensure that COM1 remains selected. If COM1 is selected, it means that COM port was successfully set up.

Use SSP to transfer pattern designs.

anced Settings for COMI							
Use FIFO buffers (re	quires 16550 d	compatible UAP	RT)				01
Select lower settings	to correct con	nection probler	ns.			L	Can
Select higher setting:	s for faster per	formance.				-	Cur
Receive Buffer: Low (1)				— J	High (14)	(14)	Dera
		•	,				
Transmit Buffer: Low (1)		e.		—Į	High (16)	(16)	
COM3 COM4 COM5 COM5 COM6 COM7 COM8	_						
COM10 COM11 COM12 COM12 COM12 COM14	D 1 2 3 4						
COM19 COM19 COM13 COM19	5 6 7 8						
COM1 COM2 COM2 COM2 COM2 COM2	0 1 2 3						
COM24 COM25 COM25 COM25 COM25	4 5 6 7						



SSPWriter



ROM DATA I/O



ROM DATA I/O has two items of ROM and Pattern/BarTack. ROM for the BarTack sewing machine executes the external SSPWriter program connected with the SSP-WE/2.5 program. To execute this function, SSP-Writer1 must be connected with the computer print port, and the executive program must be installed in the computer. How to install and use the SSPWriter program is in detail described in the following configuration and installation of SSP Writer:

J. S	SDP Trial Ver	100
<u>F</u> ile	ROM Data I/O	Edit
	IIII ROM	
1	Hex pattern ∢ Bin ⊊BarTac	k

Pattern/BarTack provides the function to convert the pattern file into the binary file (Bin file) so that it can be used in BarTack.

Pattern/Bartack

 Upon selection of "Pattern → BarTack" in the upper tool bar, the following dialog box is displayed

^D attern / BarTack / AMS210D Con	version Dialog 🛛 🗙
From Pattern(SPS) to BarTac	:k(SPS)
Pattern>BarTack	
Output File Name Test.bin	Select Pattern Files
From BarTack(SPS) to Patter	rn(SPS)
C BarTack>Pattern	
Output File Name	Select BarTack File
From AMS-210D(JUKI) to BarT	ack(SPS)
C AMS-210D>BarTack	
Output File Name	elect AMS-210D File
Conversion OK	Cancel

(2) Pattern \rightarrow BarTack is selected as the default value. Do not change it.

With reference to, Pattern→ BarTack is provide in the upgrade version only.

Display File Name : Box to input the name of pattern file which is converted and saved as a BarTack file

Select Pattern Files : Button to create the Selection Dialog Box to select the pattern file to be converted

STEP



③ Input "Test.bin" in the Output File Name input box. And click the Select Pattern File button.

The BarTack file has Binary type to record ROM files with SSP-Writer(Rom Writer). The machine for BarTack provides various designs through ROM, therefore it must always convert them into Binary files. It is desirable to write extension names in advance because their extension names have to be "*.bin" upon writing.

④ The following Dialog Box is displayed. Open the directory where pattern files are saved in the Dialog Box, and select the pattern files. Up to 67 pattern files can be selected at a time. And select pattern files with the mouse's left button under pressing the "Ctrl" button in the keyboard to select multi pattern files as shown in the Figure

Open	? ×
Location ([): 🔄 내 문서	• E Ø 🖻 🖩
급동사니 회 001 대 Brief Manual 회 002 대 My Pictures 회 003 ROM WRITER 회 004 SPP 2월15일 회 005 회 000 대 Brief Manual	DSPP 2월14일 DSPP 2월15일
File Name (<u>N</u>): ["000" "001" "002" "003" "004	4" "005" OPEN
File Type (I):	CANCLE

- (5) Select "Open", and press <u>Conversion OK</u> in the Dialog Box. If the file is successfully converted, the following message is displayed.
- (6) The converted file is located where the file opened.

SSDP	Ver, 2.5 💌
	Successfully Conversion
	<u>OK</u>

When the *.bin file (converted and generated as in the above) is written on ROM, it can be used as an extension pattern. In the case of SSP-1201 (Bartack), those basic patterns number 33 and above following numbers 1 through 32 can be used as extension patterns. And in the case of SPS-1202 (Button Sewer), those basic patterns number 34 and above following numbers 1 through 33 can be used as extension patterns. When the *.bin file is generated, the brtk.bin file is also generated, which stores information but has nothing to do with the actual extension pattern data.




List of Configuration

① SSP-Writer1

2

- ② 25P Cable for Connection of Print Prot
- ③ Power Adaptor
- ④ Extension ROM (10 units)
- (5) Extension ROM Exchange Extractor



SSPWriter Installation

The SSPWriter program is automatically installed upon installation of the SSP-WE/2.5 program.

■ File configuration

The file is configured as follows: ① SSPWriter.exe

- How to connect
 - ① Connect Key Lock to the backside of Print Port.
 - ⁽²⁾ Connect SSP-Writer1 Interface Cable to the backside of Key Kpck.
 - ③ Plug in Power Adapter to power supply, and connect Adapter Jack to SSP-Writer1 plug.
 - (4) Connect SSP-Writer1 Interface Cable to SSP-Writer1 Data In/Out port.

 \bigotimes

3

SSP Writer Program is compatible with Windows 98, 2000, and XP.



it is changed into 27C512.



SSP Writer1 Program Manual

Description of Program Key

Δ

The followings summarize the functions in the program screen.

Open Bin File	1 I	Open Bin files to the program buffer.
Save Buffer		Save the data recorded in Program Buffer to the disk.
Edit Buffer		Display the buffer content in the screen.
DOS Shell	MS DOS	Execute the DOS Shell program.
LPT Port		Select the print port no to be used.
Device Type		Select the ROM Type device to be programmed.
HEX→BIN	HEX BIN	Convert HEX file into BIN file. (Not in service.)
Read ROM	Read	Read ROM data to save it to the buffer.
Blank Check	Blank Check	Check if data is recorded in the ROM.
Write ROM		Record the program buffer content to the ROM.
Verify	Verify	Compare and verify the ROM's content with the program buffer's content.
Auto Write	Auto	Execute Blank Check, Write ROM, and Verify in sequence, and automatically record data to the ROM.
Change Speed	speed	Change the speed to record the buffer's content to the ROM.

The ROM Writer program generally provides various functions and device type ROMs. However, SSPWriter program is exclusively used for the BarTack machine. Therefore, it is configured only with necessary functions and provides ROM types of 27C256 and 27C512, 27C010, 27C020, 27C040 only.

Cautions

For EPROM Switch

This is located to the side of SSP-Writer1. Generally place it to the left to use. If only NS's 27CXX series products have problems, place it to the right to use.

ERRER Message

1. If the following message is displayed, the machine is not operated. Therefore check the print port connection status and power supply, and execute it again.

"Programming Module not found Please check connection of power Adapter"	
The followings show device types to be provided.	
EPROM, DEVICE	
27C256, 27C512, 27C010, 27C020, 27C040	









If SSP-Writer1 is connected with interface cable and Power Adapter, the SSPWriter program can be immediately executed in the program.

Select ROM Data I/O in the program menu to display ROM item. Select this item to execute the SSPWriter program. Upon selection, the following figure is displayed.

i

If the following error message is displayed upon execution of program in spite that SSP-Writer1 is normally connected, execute it again after termination of program, then the message is not displayed.

> "Programming Module not found Please check connection of power Adapter"

If the program is not execute in spite of selecting ROM Data I/O to execute ROM function; SSPWriter program, execute it in the Start menu or execute "SSPWriter.exe" to the installed folder. (Note: If ROM DATA I/O is executed after execution of SSP-WE/0.9x registered in the Start menu, the above problem occurs. This is not a problem of the program. If you execute ROM by executing SSP-WE/0.9x in the installed folder, the SSPWriter is normally executed.)



Let introduce the process to actually record "*.bin" files in the ROM through the SSPWriter.

STEP

 If the SSPWriter program is executed, first of all make Device Setting suitable for ROM Type. SSP-Writer1 is set up to conforming to 27C256 ROM upon delivery. The Information Dialog shows that Device Type is set up 27C256. However, if you set up the device toc 27C512 in the SSPWriter program, adjust it as follows:





1. Click Device Type	among the function
buttons	

- 2. Upon selection, the following screen is displayed. This is sep up to 27C256 Type.
- Select 27C512 item to press "OK", then the following screen is displayed. Set up DIP Switch of SSP Writer1 as shown in the above figure, and press "OK". You can confirm that the Device Type is converted into "27C512" in the Information Dialog.

Select Device Type	
27C256 27C256	OK
C 27C512	Cancel
C 27C010	
C 27C020	
C 27C040	
]

Dip Switch Dialog(27C512)	×
	OFF ON
1 2 3 4 5 6 7 8 9	10 11 12
(OK	Cancel

- ② You should check the blank status of ROM to record data in the ROM. If any day has been recorded in the ROM, the following message is displayed. Otherwise, "Blank Check OK!!" message is displayed. Let it do as follows:
 - 1. Plug in ROM 27C512 exactly to the TexTool socket of SSP-Writer1, go down the front lever to fix. (Connect the ROM direction correctly.
 - Select "Blank Check" among the function buttons. The following message is displayed.



3. Upon pressing "OK", the Box stops for a few seconds, the following error message is displayed.

Disply Count Dialog 🛛 🔀	SSP Writer1 🛛 🛛 🕅
Buffer Counting. Address: 00FFFF	EPROM Checking OK !!!
OK Cancel	<u>OK</u>

If any data has been recorded in the ROM, the following message is displayed.

SS	SP Writer1 🛛 💌
E	Frror Occured
Γ	OK

- ③ If Blank Check is successfully executed, open BIN files to save them to the buffer in preparation for recording data to the ROM.
 - 1. Select "Open Bin File" 📰 in the menu.
 - 2. The following "Open Dialog" is displayed.

Open		? ×
Location ([):	🕞 BARTACK기본패턴	- • Ø 🗗 🔳
Bm10,bin Drtk,bin Kkk,bin test,bin		
File Name (<u>N</u>);	★ ,bin	OPEN
File Type (\underline{T}) :	Bin File(*,bin)	Cancel

3. Select "Bm10.bin" to the directory where the files is saved, and click "Open". Then you can confirm "Bm10.bin" to "File Name" in the Dialog.

Here the user may write on those files containing actual extension patterns as was mentioned earlier in regard to Pattern/Bartack. It must be kept in mind that no writing should be done on the "brtk.bin" file since it contains th information on extension patterns only.

④ Check if the opened file has been saved to the buffer.

Click "Edit Buffer" in among the function keys. If the data is normally recorded, the following screen is displayed.

<mark>냂</mark> 제목없 View(<u>V</u>)	음 - SS Functio	P Wri	iter 1																_	□ ×]
2		B			1S 0S	7			HE BII	X	Rea	d	Blank Check			Verif		Auto		500	
ADD : 00010 : 00020 : 00030 : 00040 : 00050 : 00060 : 00080 : 00010 : 00000 :	41 0A 73 09 EA 08 EA 08 EA 08 00 00 00 00 00 00 35 01 3C 3A B1 00 00 0A 00 0A 00 0A 00 0A 00 0A 01 57 3C B0 72 00 0A 30 01 1 82 7F 23 03 24 34 02 56 3C 3A 21	EA (EA (D5 (EA (D5 (EA (00 (00 (00 (00 (00 (00 (00 (0	D8 EA D8 FA D00 D6 D8 EA D00 00 D00 00 D00 00 D00 00 D00 23C D00 24C D01 56C SAC 6A SAC 6A D01 56C SAC 30A D01 56C SAC 30A D01 56C SAC 30A D01 56C SAC 30A	08 09 00 08 00 00 00 3A 3C 00 0A 57 57 31 12 12 14 7A 00 3C FB 1F	57 (EA (E2 (EA (00 (00 (00 (00 (12 (B3 (00 (35 (35 (35 (36) 35 (36) 10 (30) 32 (10 (80) 10 (80) 56 (90) 56 (5	99 EA 08 EA 08 EA 00 15 08 EA 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 30 00 30 00 30 01 32 32 04 36 32 32 04 36 32 30 70 00 34 00 24 01 83 32 04 36 32 36 30 37 36 38 30 300 24 300 24 300 24 300 24 300 24 30	08 08 2F 08 00 00 00 3A 3A 00 83 FD 00 83 14 00 3C 08 35 13 30 FB 720	EA 7B E3 EA 00 00 00 15 13 BB 00 05 3C FD B2 A0 02 0A C3 56 01 00	08 09 00 08 00 00 00 00 00 00 00 00 00 00 00	EA EA EA EA 00 00 00 3C 0A B0 33 3C B0 33 8C 10 12 56 FB 21 40 E8 01 3A	08 00 00 00 00 00 00 00 00 00 00 00 00 0	EA EB E5 EA 00 00 00 00 10 00 40 FD 80 80 82 56 31 6F B B B 00 A0 00 01 00	08 08 00 00 00 00 00 00 00 00 00 00 00 0	A	ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê	Y ê Y ê Y ê Y ê Y ê Y Y Y 0 Y Y	êêê · · ·	ê f ê ⊥ !! » . Ă < j	ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê ê	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
To see data content in detail, press the keyboard's direction keys u and down, then you can confirm that the data saved in the program buffer is passing over page by page.																					

Note



- (5) Now the data is normally saved in the buffer. You have only to save record the program buffer saving data to the ROM. Click "Write ROM" among the function buttons. The screen stops for dozens of seconds, and the following message is displayed. (Although there is no reaction, it is not wrong because the data is being recorded.)
- (6) Data is completely recorded in the ROM through above Item (5). Finally, check if the data has been normally recorded in the ROM. That is, this reads the data saved to the ROM to display it to the screen. Click "Read" in the menu. At this time it reads data for a few seconds without reaction, and a message is displayed for normal readding. Otherwise an error message is displayed. Then, you have only to display the data saved to the buffer through "Edit Buffer" in above Item (4). If all data includes values such as "00 00 00..." or "FF FF FF...", this means that

data is not normally saved to the ROM.

SSP Writer1 🛛 🕅
Done!
OK

SS	P Writer 1 📘	×
D	one!	
[ОК	

Note

If there is no display in spite that data is displayed in the screen through "Edit Buffer" after reading, press the keyboard's up-and-down direction keys.

6 Other Function



· Save Buffer

Click this function while the data recorded in the ROM plugs in the TextTool socket, then the data recorded in the ROM is saved to BIN files.

Save Dialog is displayed prior to saving. Write the file name to be saved and press the Save button, then data is saved where "SSPWriter.exe" file is located. In case of successful saving, the "Save OK!!" message is displayed.

Input File Name	Dialog 🗙
Input Save Name	est.bin
ОК	Cancel
SSP Writer1	×
Save OK !!	
<u>OK</u>	



Dos Shell

To execute "command.com" file for DOS. Upon execution of this function, the following screen is displayed.





LPT Port

To select Print Port to be used. Upon pressing this function, the following Port Select Dialog is displayed.

Select LPT Port	13 m
LPT1 Port	ОК
C LPT2 Port	Cancel
C LPT3 Port	



· Verify

To compare and verify the buffer's content with the ROM's content. In case of successful comparison and verification, the following message is displayed.







100000	
l ü urt	o
mui	

· Auto

To execute Blank Check, Write ROM, and Verify in sequence, and automatically record data to the ROM. If you use "Auto" after saving data in the program buffer through "Open BIN File", all process can be executed at a time.



· Speed

To adjust the programming speed to record data in the ROM. There are three speed items, which have not a great difference actually. You have only to use them in the default status. Upon selection of function buttons, the following screen is displayed.

Writing Speed Dialog	×
Select Program Writing Speed	
Normal Speed	
C High Speed	
C Express Speed	
OK	

Clear Window

To delete the data displayed on the window. As shown in the Figure, select "Clear Window" in the lower of "Function".

냃제목없	음 - SSP ₩riter	1
View(⊻)	Function	
9	Clear Window	
6	Information Dia	alog

· End

As shown in the Figure, click the Window End key to terminate the program.



Note

Enclosed ROM type is ERROM and non-consumption ROM as user can re-use after recording a program if user deletes the recorded program. Also, ROM Eraser is required if user wants to record new program in it and ROM Eraser can buy from relative company for IC easily.