

USER'S MANUAL Lettering



MEE-090929



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Features and Specifications of Lettering Function

(1) String Embroidery

1

It is a representative function of the lettering program. User can enter and embroider strings.

(2) Extended Memory Capacity

20 character strings and designs can be arranged at the same time, and up to 100 designs can be saved in the memory.

(3) Font Change

15 types of fonts are serviced allowing users to change fonts at their will.

(4) Character Entry

It is possible to enter capital letters, small letters, special characters, symbols, and numerical numbers. The letters entered can be changed for their size among large, medium, and small. The frequently used character strings can be saved in the bookmark for easy retrieval.

(5) Angle Setting

Character strings and design objects can be rotated from 0° to 359° by the unit of $+1^{\circ}$, -1° or $+5^{\circ}$, -5° . In addition, character string's angle can be adjusted by the unit of $+1^{\circ}$, -1° or $+5^{\circ}$, -5° to form an arc.

(6) Embroidery Start/End Position Setting

It is possible to set the start/end positions of the string and design objects arranged.

(7) Grid Setting

It is possible to make the setting of enabling grids displayed on the screen.

(8) Scale Up/Down

It is possible to scale up/down character strings and design objects.

(9) Hoop Size Change

Depending on usage, the hoop size can be changed. Since it is possible to see the hoop on the monitor, the arrangement of objects is easy.

(10) Work Information

The information of selected objects can be seen separately from overall objects.

Basic Steps for Lettering Program Execution

2



Screen Layout of Lettering Program

3.1 Embroidery Screen

3

<Fig. 3.1-1> is the initial screen of the lettering program.

The screen is divided into (1) the lettering screen, (2) the work information screen, (3) the main menu buttons, and (4) the hoop selection screen.



- (1) The embroidery screen shows the hoop shape, the character strings to be entered in the lettering program, and the embroidery look of designs on the screen.
- (2) The work information screen displays character strings and designs to be embroidered and the information on selected and overall objects.
- (3) The main menu button is for character string and design works.
- (4) The hoop selection screen displays hoop designs user can select depending on usage. Before another type of hoop is selected, the hoop selected in the embroidery mode remains selected.



3.2 Work Information Screen

The work information screen displays all information of the design currently called. The information for selected objects and all objects can be checked on the screen.

3.2.1 Selected Object Selected object

Name	Description	Remarks
*	# of the selected object	
	Shows the slanted degree compared with the original look of the selected object	
mm	X length of the selected object (Unit: mm)	
mm	Y length of the selected object (Unit: mm)	
mm	Total stitch # of the selected object	
COLORS	# of colors of the selected object	

3.2.2 Overall Lettering Overall lettering

Name	Description	Remarks
Overall EA	# of total objects arranged on the screen	
mm	X length of total objects (Unit: mm)	
mm	Y length of total objects (Unit: mm)	
ST	# of total stitches of all objects	
COLORS	# of colors of all objects	

3.3 Function Menu Buttons

This is a menu related to entry and arrangement of character strings and designs. When each menu button is pressed, sub-menu for each button appears accordingly. If there is no selected object, the menu appears as in <Fig. 3.3-1>. If a selected object is called, <Fig. 3.3-2> appears. Details will be described later.





3.4 Hoop Selection Screen

Five hoops are displayed on the screen. A hoop selected by user can be compared with other hoops of different sizes.

There are five types of hoops open to setting as in <Fig. 3.4-1>. The currently selected hoop is displayed in white as in <Fig. 3.4-1>.



Description and Use of Function Menus

The lettering program enables the entry of letters designated by user for letter embroidery and changing the status of input letters and designs. '4.0 Description and Use of Function Menu' will give you information on various functions of the lettering program and how to use it.

To use the function menu buttons, go to the OP Box and use the keys from F1 to F6 to select corresponding function menu buttons.



F4 Exit

4

4.1.0 Object

Object

- The Object function is to set design and string objects. It can call designs and enable user to create character strings.

If it is the first execution of the lettering program or if there is no object called, the screen like <Fig. 4.1.0-1> appears.

E2 Arrange , which is currently disabled, cannot be used until objects are called.



As in <Fig. 4.1.0-1>, press fl Object and 'Object Box' where input objects can be checked appears as in <Fig. 4.1.0-2>. Up to 10 of input objects can be viewed at the same time on one screen. Up to 20 objects can be saved.



WhenESSelectis pressed in <Fig. 4.1.0-2>, a dialogue window pops up allowing the selection of objecttype. SelectF1SST fileto select a design object, and chooseF2String, to select a letter object. PressF3Cancelto cancel.



4.1.1 String Object Setting for Embroidery

User can make the string setting to input chosen strings and embroider input strings.

<Fig. 4.1.1-1> is the screen for selecting character string.



- The following buttons are used to enter character strings.
 - F1 << : Moves the cursor toward the left side in entering letters. $F2 \rangle\rangle$: Moves the cursor toward the right side in entering letters. F3 DEL : Deletes input letters. F4 L.M.S : Sets the size of letters. A choice can be made among Large, Medium, and Small. F5 OK : Applies the input letters. F6 Cancel : Cancels the letter input. (E) : After selecting letters, press to apply the setting. : Moves around capital letter, small letter, numerical number, special symbols, and bookmark. They are used to select an object. : Uses the cursor to select letters. Moves around objects.

[Reference]

When pressing (a) window in the OP Box, change is made in the taps below the 'Select String' window in the order of capital letter, small letter, numerical number, symbol, and history.

There are records of character strings left in the history, so that once used, character strings can be called back.

[Exercise 4.1.1-1] Enter and save `SunStar' and 'SWF' (Size: L)

SunStar SWA

1 Press F1 Object .

When the object key is pressed, 'Object Box' appears for object input as in <Fig. 4.1.0-2>. When F5 Select is pressed in <Fig. 4.1.0-2>, the object type selection window appears as in <Fig. 4.1.0-3>. To enter character string, select F2 String .

2 Press F2 String .

As in <Fig. 4.1.1-2>, 'Font Box' appears.
 Among 15 types of fonts, user can select a desired font by using . Press E Select for selection.
 In this exercise, choose ABCS and then press E Select .

-		Object Box		_	. 6
N0	Font Box	Full Blo	ck	ngie Array	mm
2 3	ABCD	ABCD	AVBCID		ST
4	ABCD	ABCD	ABCD		COLORS
6	ABCD	ABCD	А вер		EA
8	AHED	ABCD	ABCD	KIA	mm
9 10	ABCD	ABGD	ABCD		ST





When the font selection is completed, as in <Fig. 4.1.1-3>, the 'Select String' window appears for selecting letters to be input.
 Use and (20) at the same time to select letters.



Press A.1.1-4>, the input character string can be checked on the input window.

	Select String	Selected object	
	a b c d e f g h i j k l m n o p	mm mm mm mr colors Overall lettering	
	q r s t U V W X y Z SP ABC abc 123 !?\$ History	Overall EA Cobject EA mm mm Mm ST	
SunStar_	>> DEL L.M.S OF		
		[Fig. 4.	1.1-4]

[Reference]

To reverse the letter selection, press F6 Cancel .

6 Press F5 OK .

As in <Fig. 4.1.1-5>, the input character string was created as No. 1 object. Use \bigcirc to move to No. 2 Object.



Z Press E5 Select .

As in <Fig. 4.1.1-6>, the window asking for selecting an object type appears.

Press F2 String to set a character string.

No Object	Туре	Color	Angle .	Array 🤇		
1 SunStar	Kaufmans	1	0	0		
2	OBJECT TYPE S	ELECT			mm	
3					ST	
4 (F	Select the Object 1:SST File , F2:String	Type F3:Cancel)			COLORS	
5	,	de		t	tering	
6		-			EA	
7			76		mm	
8			n		mm	
9				2	ST	
10				<u> </u>	COLORS	
		V	-	-	oocono	

(a) When the 'Font Box' window appears, select ABCD .

4-6



9 When the font selection is completed, press E5 Select .

When the 'Select String' window appears as in <Fig. 4.1.1-3>, press 🖼 L.M.S and select 'L' for font size. Then enter 'SWF.'

As in <Fig. 4.1.1-7>, the input character string can be checked on the input window below.



[Reference]

To reverse the letter selection, press F6 Cancel .

10 Press F5 OK .

As in <Fig. 4.1.1-8>, character strings are created in No. 1 Object and No. 2 Object.





11 Press F6 Exit .

The character strings input in \langle Fig. 4.1.1-4 \rangle and \langle Fig. 4.1.1-7 \rangle are displayed on the screen in square as in \langle Fig. 4.1.1-9 \rangle . Use and move the character strings to the center of the hoop. Make sure the character strings do not move outside the dotted square within the hoop. Selected object is displayed in red. Use \langle \langle \rangle and select each object.

Fair Spin Rotate Position Settint	Selected object ** 1 1 0* 1 169 mm 33 mm 33 mm 33 mm 3144 st 1 colors Overall lettering Object 2 169 mm 197 mm 97 mm 12 colors object 2 colors
	[Fig. 4.1.1-9]

[Reference]

The dotted lines within the frame show whether the called objects contact the X, Y limits.

[Reference]

When the object setting is completed, and 🖻 Exit is pressed, the menu for arrange setting appears.



Press F6 OK to save character strings.

As in <Fig. 4.1.1-10>, a message window pops up, and the keys like F1 Up , F2 Down , F5 Save , and F6 Cancel are displayed. Room number indicates the space for saving new embroidery data. Moving around room numbers is possible by using F1 Up and F2 Down . Among the unoccupied rooms, select No. 10 room.



[Reference]

To cancel data saving, press 6 Cancel .

13 Press F5 Save .

The character strings input in the 'Select String' window can be seen on the embroidery window as in <Fig. 4.1.1-11>.

SunStar SWA	Selected object I I I <th></th>	
Object Arrange Hoo	op Exit	[Fig 4 1 1-11]
		IFIU. 4. I. I-I II



4.1.2 Design Object Setting for Embroidery

The embroidery designs saved in the memory can be called and set as design objects.

[Exercise 4.1.2-1] Call an embroidery design in No. 9 room and save it with the character string of [Exercise 4.1.1-1].



1 Press F1 Object .

The character strings saved in [Exercise 4.1.1-1] are saved in Room 1 and Room 2 as in <Fig. 4.1.2-1>.



2 Use is to move to Object No. 3 and press 5 Select .

As in <Fig. 4.1.2-2>, the screen for selecting an object type appears.





3 Press F1 SST file file.

When the design file key is pressed, designs saved in rooms are displayed on the screen as in <4.1.2-3>. For example, in Room No. 10, the character string set in [Exercise 4.1.1-1] is saved. Use $\begin{bmatrix} 1 & 0 \\ 0 & 0 \end{bmatrix}$ to move to Room No. 7.



A Move to Room No. 7 and press 5 Select .

A new window appears as in <Fig. 4.1.2-4>. On the left side, the selected design is displayed, and on the right side, the information of the selected design appears.



[Reference]

E Update is a button for reflecting changes. When design is saved or deleted, the update key should be pressed. The saving and deletion information can be checked on the 'Design File Load' window.

5 Press F5 OK .

As in <Fig. 4.1.2-5>, design object is saved in No. 3.



6 When object setting is completed, press F6 Exit .

As in <Fig. 4.1.2-6>, the objects whose setting is completed are listed in the object box on the screen. Use \bigcirc to move and place objects. Once selected, the objects are displayed in red, and use \bigcirc to select each object.

(The information screen of 'Selected Object ' shows No. 2 object is selected.)



[Reference]

When the object setting is completed, press F6 Exit . And the arrange setting menu appears.



☑ After finishing movement and arrangement, press 🕫 OK .

Use F1 Up , F2 Down keys to select the unoccupied No. 11 Room.



8 Press E5 Save .

When saving is completed, as in <Fig. 4.1.2-8>, the strings and design input are displayed.

SunStor SunSto	
Object Arrange Hoop Exit	[Fig. 4.1.2-8]

[Reference] If saving is not desired, press F6 Cancel .

4.2.0 Arrange

Arrange

- Arrange is a function of arranging string and design objects and changing object status. Under Arrange, there are sub-menus such as Spin, Arc, Position, and Setting.

If there is a called object, as in <Fig. 4.2.0-1>, E2 Arrange is enabled on the screen. In case where lettering program is first executed or where there is no called object, the use of E2 Arrange is limited. As in <Fig. 4.1.2-6>, when E6 Exit is pressed after the object setting is completed, Arrange setting menu appears without the need to press E2 Arrange .



When 2 Arrange is pressed, the menu for changing object setting appears as in <Fig. 4.2.0-2>.



■ The followings are frequently used buttons.



() () () () () () () () () () ()

: Moves an object.



4.2.1 Fair

This function rotates both sides of a string object centered around the core of the object at the range from 0° to 359°. The string can be rotated by the unit of +1°, -1° or +5°, -5°. On the 'Selected Object' window, the rotary angle value can be checked. The rotation status can be checked on the embroidery screen.

When **E** Exit is pressed after a string object is set in 'Object Box,' or when **E** Arrange is pressed while an object is called, and **E** Arrange is enabled as in <Fig. 4.2.0-1>, the setting menus appear as in <Fig. 4.2.1-1>.

<Fig. 4.2.1-1> is a screen showing called string objects.



When F1 Fair is pressed as in <Fig. 4.2.1-1>, the screen for Fair setting appears as in <Fig. 4.2.1-2>.



<Fig. 4.2.1-3> shows the string which was rotated up to 30° by +5° each. Press **F6** OK to save. Then as in <Fig. 4.2.1-4>, the character string applied with the setting appears on the embroidery screen.

Description on Buttons

(F1) +	-1Dearee	: Rotates the string by .	+1°.
	Degree	. Rotates the string by .	T I

- **F2** -1Degree : Rotates the string by -1° .
- **F3** +5Degree : Rotates the string by $+5^{\circ}$.
- **F4** –5Degree : Rotates the string by -5° .
 - : Applies the setting and returns to the previous menu.

[Reference]

F6 OK

For design object, the fair function cannot be used.



4.2.2 Spin

This function spins the entire string and design objects at the range from 0° to 359° . The objects can be spun by the unit of $+1^{\circ}/-1^{\circ}$ or $+5^{\circ}/-5^{\circ}$. On the 'Selected Object' window, the spin angle value can be checked. The spin status can be checked on the embroidery screen.

When F6 Exit is pressed after the string object setting is completed in the 'Object Box,' or when F2 Arrange is pressed while an object is called and F2 Arrange is enabled as in <Fig. 4.2.0-1>, the setting menu appears as in <Fig. 4.2.2-1>.

The Spin function is applicable to design and string objects. <Fig. 4.2.2-1> is a screen showing called design and string objects.



Press 😰 Spin as in <Fig. 4.2.2-1>, and the screen for spin setting appears as in <Fig. 4.2.2-2>.



<Fig. 4.2.2-3> is the screen of rotating the object up to 30° by the unit of $+5^{\circ}$. When F6 OK is pressed to save, the rotated object is displayed on the embroidery screen as in <Fig. 4.2.2-4>.



4.2.3 Arc

The Arc function changes the string object to the Arc form. The arc setting can be made by the unit of $+1^{\circ}$, -1° or $+5^{\circ}$, -5° . Reverse setting is also possible.

When $\boxed{\text{FS}}$ Exit is pressed after string object setting is completed in the Object Box, or when $\boxed{\text{F2}}$ Arrange is pressed while an object is called and $\boxed{\text{F2}}$ Arrange is enabled as in <Fig. 4.2.0-1>, the setting menus appear as in <Fig. 4.2.3-1>.

<Fig. 4.2.3-1> is the screen where the string object is called.



When S Arc is pressed in <Fig. 4.2.3-1>, the arc setting screen appears as in <Fig. 4.2.3-2>.



<Fig. 4.2.3-3> is the screen for conducting Arc up to 30° by pressing 3 +5Degree .
Press 6 OK to save. Then as in <Fig. 4.2.3-4>, the saved Arc setting can be checked.



<Fig. 4.2.3-5> shows the screen where ES Rotate was used as in <Fig. 4.2.3-3>.

Press **F6** OK to save, and then as in <Fig. 4.2.3-6>, the saved Rotate setting can be checked. Compared with <Fig. 4.2.3-4>, the character string's arc is reversed based on the X axis.



Description on Buttons

F1 +1Degree	: Changes the shape of arc by the unit of $+1^{\circ}$.
F2 -1Degree	: Changes the shape of arc by the unit of -1° .
F3 +5Degree	: Changes the shape of arc by the unit of $+5^{\circ}$.
F4 -5Degree	: Changes the shape of arc by the unit of -5° .
F5 Rotate	: Reverses the shape of arc only based on the X axis without reversing the letters.
F6 OK	: Applies the setting and returns to the previous menu.

[Reference]

The arc setting function can be used for design objects.

4.2.4 Position

The Position function is to set the begin and end positions of embroidery for all character strings and design objects.

When **F6** Exit is pressed after the string object setting is completed in the Object Box or when **F2** Arrange is pressed while the object is called and **F2** Arrange is enabled as in <Fig. 4.2.0-1>, the setting menu appears as in <Fig. 4.2.4-1>. <Fig. 4.2.4-1> is the screen where a design object and a character string object are called.



When Position is pressed in <Fig. 4.2.4-1>, the screen of <Fig. 4.2.4-2> appears. The points marked from $(1 \sim 9)$ are displayed for selection. After selecting points among $(1 \sim 9)$ and pressing number keys, press (E) for setting. To select points not included in $(1 \sim 9)$, use $(1 \sim 9)$ to move to a desired position and press (E) for setting.







Press F1 Start to set the embroidery start point. As in \langle Fig. 4.2.4-3 \rangle , a cursor is created at the center. If it is desired to set a start point at ①, press '1' and then press (2) for setting. As in \langle Fig. 4.2.4-4 \rangle , ① was set as the start point and it turned green.



When the embroidery start point is set, 🔁 End is enabled to set the embroidery end point. When 🖻 End is pressed, the cursor is created at the center of the frame.



Use \bigcirc to move as in <Fig. 4.2.4-5>. When (s) is pressed, the embroidery end point can be set.

When F6 OK is pressed, the start and end points are finalized. To cancel or return to the previous stage, press F6 Cancel .

4.2.5 Setting

The Setting menu has such functions as the scale up/down of an object, letter spacing of a character string, and the color on/off.

When **E** Exit is pressed after the string object setting is completed in the Object Box or when **E** Arrange is pressed while the object is called and **E** Arrange is enabled as in <Fig. 4.2.0-1>, the setting menu appears as in <Fig. 4.2.5-1>. <Fig. 4.2.5-1> is the screen where a design object and a character string object are called.



When **E** Setting is pressed in <Fig. 4.2.5-1>, the setting menu appears as in <Fig. 4.2.5-2>.

	Selected object *** 1 0" *** 1 0" *** 76 mm *** 76 mm *** 71 mm *** 7353 ST *** 8 couors Overall lettering Object 2 EA *** 243 mm *** 10887 ST *** 9 couors
Scale Up Scale Dn Space+ Space- Col C	Off Ok [Fig. 4.2.5-2]



4.2.5-1 Scale Up / Dn

This function is to scale up or down an object.

 \langle Fig. 4.2.5-3 \rangle is a zoom/in embroidery object which is displayed on the screen by pressing F1 Scale Up in \langle Fig. 4.2.5-2 \rangle . Compared with \langle Fig. 4.2.5-2 \rangle , the object is expanded. When F2 Scale Dn is pressed, the object is zoomed out.



When <Fig. 4.2.5-3> is saved, the expanded image of the objects can be seen as in <Fig. 4.2.5-4>.

Selected object	
Object Arrange Hoop Exit	[Fig. 4.2.5-4]

4.2.5-2 Space + / -

This function is to adjust space between letters of a character string.

 \langle Fig. 4.2.5-5 \rangle shows a character string object is called. When \bigcirc Setting is pressed, the setting menu appears as in \langle Fig. 4.2.5-6 \rangle .



<Fig. 4.2.5-7> shows the space between letters is widened by pressing Space+ in <Fig. 4.2.5-6>.
Compared with <Fig. 4.2.5-6>, the letters are more distant from each other in <Fig. 4.2.5-7>. When
F4 Space- is pressed, the distance grows shorter.



When the design of <Fig. 4.2.5-7> is saved, the embroidery image applied with spacing adjustment can be checked as in <Fig. 4.2.5-8>.





4.2.5-3 Color Off/On

The function is to turn on or off colors of a letter object.

When Color-Off is activated, the embroidery work is conducted in mono color. When Color-On is activated, each letter is given a color, and embroidery work can be conducted by color.

As in <Fig. 4.2.5-9>, default value is Color-Off. When the object is saved after selecting Col-Off, the monocolor character string is displayed on the screen.

When the object is saved after selecting Col-On as in <Fig. 4.2.5-10>, the character string is displayed on the screen in four colors.



[Reference]

For a design object, the Color Off/On function is not applicable.

4.3.0 **Hoop**

- The hoop menu is to make settings for grid and hoop.

Press F5 Hoop on the main menu of the lettering program, and <Fig. 4.3.0-1> appears.



Grid : Displays grids on the embroidery screen.
 Hoop : Chooses the size of a hoop.



4.3.1 Grid

This function is to make grids appear or disappear on the screen. When F1 Grid is pressed in <Fig. 4.3.0-1>, grids appear as in <Fig. 4.3.1-1>.



4.3.2 Hoop

The hoop function is to select a hoop of desired size. When $\boxed{\text{F2}}$ Hoop is pressed in <Fig. 4.3.0-1>, a window asking for the selection of a hoop appears as in <Fig. 4.3.2-1>. Select a hoop and press $\textcircled{\text{F2}}$. Then as in <Fig. 4.3.2-2>, the selected hoop will appear on the embroidery screen.

The seven hoop shapes displayed on the top of the embroidery screen show the hoop selected in \langle Fig. 4.3.2- $1\rangle$ is chosen.

HOOP SELECT HOOP SELECT HOOP 380/230 HOOP TRF-18 HOOP TRF-15 HOOP TRF-12 HOOP TRF-13 HOOP TRF-14 HOOP TRF-15 HOOP CAPSEMI Orgent EA Image: ST Image: ST <th>Selected object</th>	Selected object
Ok Cancel [Fig. 4.3.2-1]	Object Atrange Hoop Exit [Fig. 4.3.2-2]



4.4 Exit

- The Exit menu is used to end the lettering program.

When F6 Exit is pressed on the main menu of the lettering program, <Fig. 4.4-1> appears. To end the program, press F1 YES . Then the screen moves to the embroidery mode.

Message Do you want extra	Selected object Markov mm mm mm mm Markov mm Colors Overall lettering Overall lettering Overall settering mm Markov ST Colors Colors Colors Colors Colors Colors Colors Colors
Yes No	[Fig. 4.4-1]