PD-9810

PROGRAMMER

ENGLISH

Thank you very much for purchasing the Brother Industrial Sewing Machine.

Please read this manual and the RH-981A Instruction manual carefully before using the machine.

Operation of this industrial sewing machine is usually carried out in front of moving parts such as the needle and the needle thread take-up. These parts may cause personal injuries. Please follow the operational and safety instructions by the experts/instructors and use this machine correctly.

FUNCTIONS

With this product, program setting can be easily performed for RH-981A.
Functions are as described below:

- Program reading from and writing to the machine and files
- Parameter setting for the program
- Cycle program setting
- Comparison of machine data and file data with the program that is set with this product
- Program copying

(NOTE) Refer to the instruction manual for the machine for how to operate the machine.

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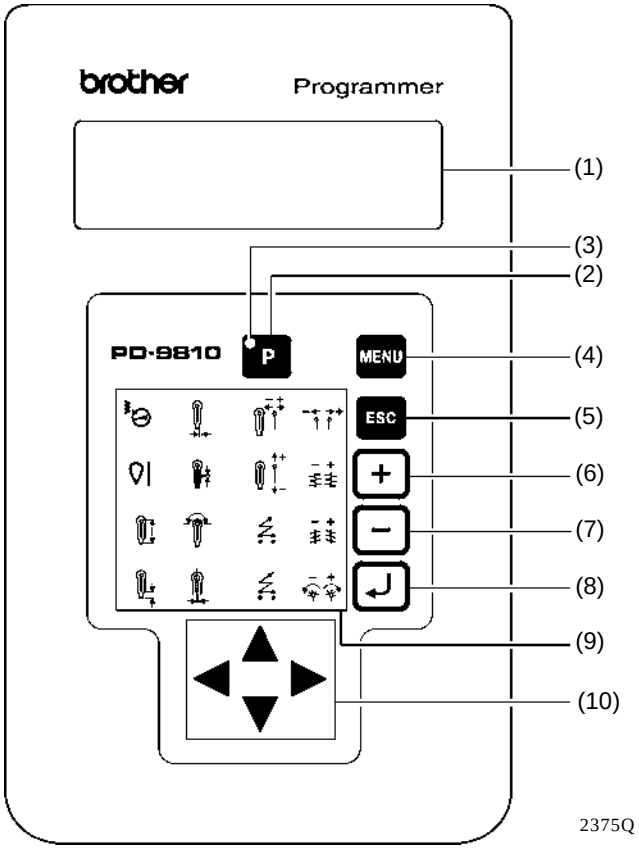
Chapter 1 INTRODUCTION

Name of Parts and Function

Name of parts and functions are illustrated hereunder.



(1) Display window
Messages, icons (*), and contents of the program appear in the window.
* A small picture that indicates the program function and each parameter.

(2) [P] key
The key is used to start and end the programmer.

(3) Start lamp
The lamp is ON while the programmer is activated.

(4) [MENU] key
The menu screen is displayed with this key.

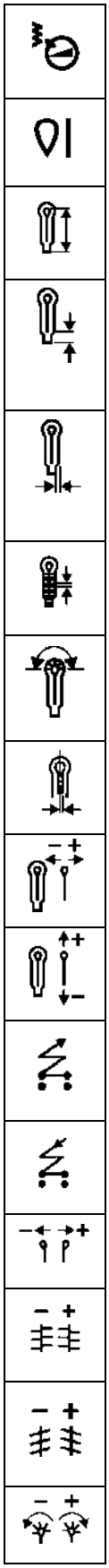
(5) [ESC] key
The key is used to return to the previous screen or to cancel settings.

(6) [+] key
Numericals for the parameter and program No. are increased by 1.

(7) [-] key
Numericals for the parameter and program No. are decreased by 1.

(8) [ENTER] key
Settings are confirmed with the key.

(9) [SHORT CUT] key (16 keys)



- [Sewing speed] key
  Pressing this key will show the setting screen for the sewing speed of the machine.
- [Eyelet pattern] key
  Pressing this key will show the setting screen for the eyelet pattern.
- [Button hole length] key
  Pressing this key will show the setting screen for the button hole length.
- [Taper length] key
  Pressing this key will show the setting screen for the taper length.
  * When a machine with the straight bar tack specifications is connected, the setting screen for the straight bar tack length will be displayed.
- [Offset] key
  Pressing this key will show the setting screen for the offset of the taper bar.
  * When a machine with the straight bar tack specifications is connected, the setting screen for the straight bar tack needle number will be displayed.
- [Stitch pitch] key
  Pressing this key will show the setting screen for the stitch pitch in straight section.
- [No. of eyelet stitches] key
  Pressing this key will show the setting screen for the number of eyelet stitches.
- [Cutting space] key
  Pressing this key will show the setting screen for the cutting space.
- [Knife X position compensation] key
  Pressing this key will show the setting screen for the compensation of knife X positions.
- [Knife Y position compensation] key
  Pressing this key will show the setting screen for the compensation of knife Y positions.
- [Start tying stitches] key
  Pressing this key will show the setting screen for the number of start tying stitches.
- [End tying stitches] key
  Pressing this key will show the setting screen for the number of end tying stitches.
- [X alignment] key
  Pressing this key will show the setting screen for the X alignment.
- [Y alignment] key
  Pressing this key will show the setting screen for the Y alignment.
- [θ1 alignment] key
  Pressing this key will show the setting screen for the alignment of θ1.
- [θ2 alignment] key
  Pressing this key will show the setting screen for the alignment of θ2.

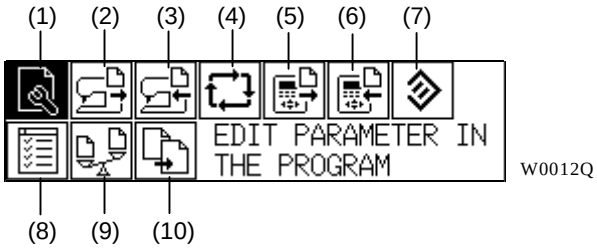
(10) [▲▼◀▶] key

The key is used to select icons and move the cursor.

Illustration on the Screen Shows

Menu screen

Described below is the name and function of icons that appear on the menu screen.



(1) <Edit> icon
Edition is performed as for parameter values for the selected program.

(2) <Machine read> icon
Program reading is performed from the machine to the programmer.

(3) <Machine write> icon
Program writing is performed from the programmer to the machine.

(4) <Cycle program> icon
Edition is performed as for the cycle program.

(5) <File read> icon
Program reading is performed from the data storage area of the programmer.

(6) <File write> icon
Program writing is performed to the data storage area of the programmer.

(7) <Initialization> icon
All of the programs loaded in the programmer are reset to the factory settings.

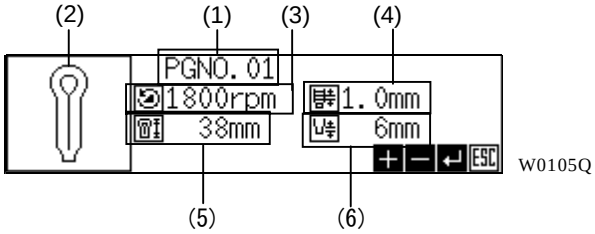
(8) <Environment setting> icon
Setting is performed as for languages and mode that are displayed on the programmer.

(9) <Program comparison> icon
Comparison of the program in edition is performed with programs in the machine and those stored in the file of the programmer.

(10) <Program copy> icon
This will perform the copy action that transcribes any program on another program.

Program No. selection screen

Described below is the name and function of icons that appear on the program No. selection screen.

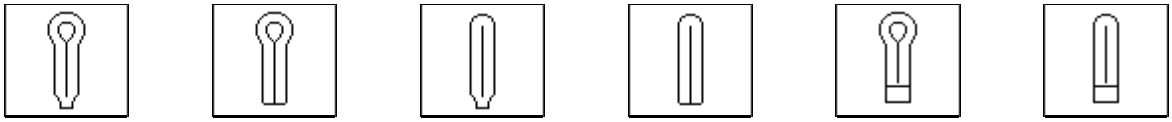


(1) Program No.

The selected program No. is displayed. The program No. can be changed by pressing the [+/-] key.

(2) Pattern display

Displayed is the stitch pattern set to the selected program No. The pattern differs in shape from what is actually formed because the pattern is only a simplified symbol to show the feature of stitch. 6 patterns are available as illustrated below:



(3) Sewing speed

This will display the sewing speed (parameter No. 00) set to the chosen program number.

(4) Stitch pitch

This will display the stitch pitch (parameter No. 05) of the sewing pattern set to the chosen program number.

(5) Button hole length

This will display the button hole length (parameter No. 02) of the sewing pattern set to the chosen program number.

(6) Taper length

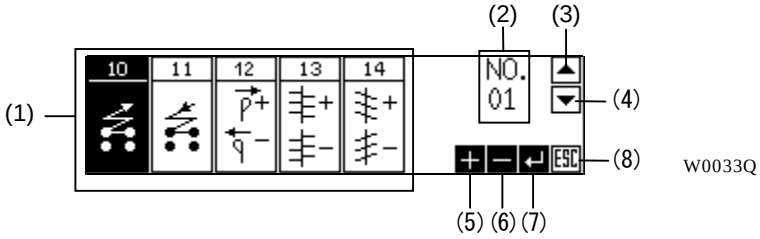
This will display the taper length (parameter No. 03) of the sewing pattern set to the chosen program number.

* When a machine with the straight bar tack specifications is connected, the straight bar tack length (parameter No. 03) will be displayed.

Parameter setting screen

Described below is the name and function of icons that appear on the parameter setting screen.

Smaller icons under and right to the screen show operable keys on the currently displayed screen. ([▲▼◀▶] key is not displayed but is nonetheless operable any time.)



(1) <Parameter> icon

Each number shows the parameter No. and the icon under the number is a simplified symbol for each parameter. Select the desired icon with [▲▼◀▶] key and press the [ENTER] key so that the setting screen for the selected parameter is displayed.

(2) Parameter No.

A parameter number can be changed when this indication is selected with [▲▼◀▶] key and [+/-] key is pressed. Let the desired parameter No. displayed and press the [ENTER] key. Then, the setting screen for the desired parameter is displayed.

(3) <Up cursor> icon

When this icon is displayed, more information is available than what is displayed. Press [▲] key to display the above screen.

(4) <Down cursor> icon

When this icon is displayed, more information is available than what is displayed. Press [▼] key to display the below screen.

(5) <+ key> icon

The [+] key is operable.

(6) <- key> icon

The [-] key is operable.

(7) <ENTER key> icon

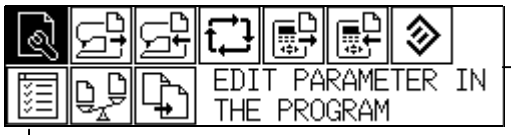
The [ENTER] key is operable.

(8) <ESC key> icon

The [ESC] key is operable.

Screen Directory

Menu screen



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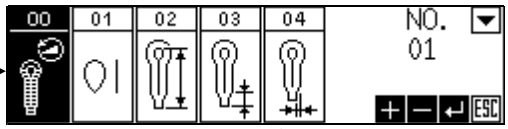
when auto read/write setting is ON

Parameter Nos.



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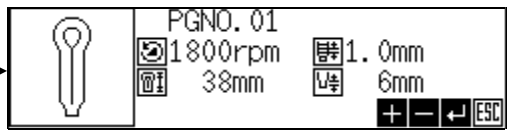
(page E-6)

- Edit
- Machine read (page E-28)
- Machine write (page E-29)
- Cycle program (page E-40)
- File read (page E-30)
- File write (page E-31)
- Initialization (page E-43)
- Environment setting (page E-45)
- Program comparison (page E-49)
- Program copy (page E-51)

Program No. selection screen (page E-5)



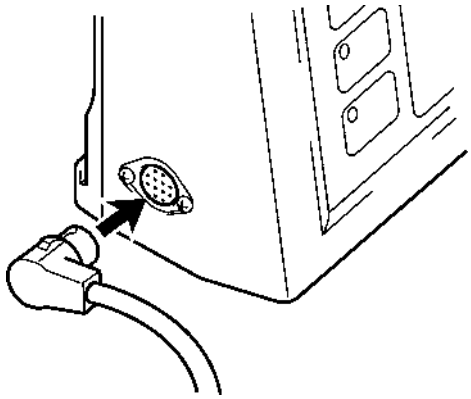
W0032Q

Chapter 2 PREPARATION

Connecting the Programmer to the Machine

(CAUTION) Be sure to confirm the power to the machine is not set to ON before connecting to the machine.

1. Connect the programmer to the connector on the left side of the operation panel.



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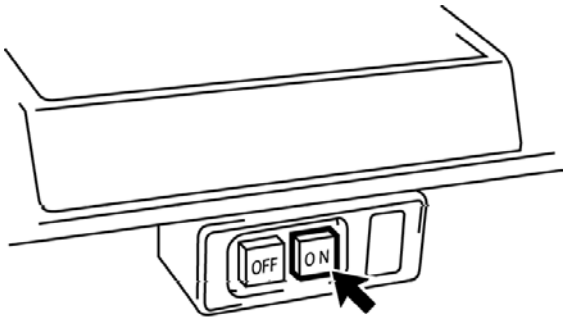
Power ON/OFF

Set the power to ON

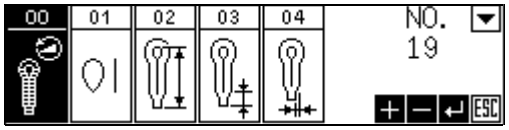
1. Set the power of the machine to ON.



1403Q

2. Press the [P] key of the programmer.

   The buzzer starts to sound, the program is automatically read from the machine, and the programmer screen will be displayed. All the lamps of the machine except the power supply lamp turns OFF.



W0034Q

(NOTE) The [P] key becomes inoperable when the machine is in conditions described below:

- In auto/manual sewing
- In feeding for test
- In changing parameter values (while the display is blinking)

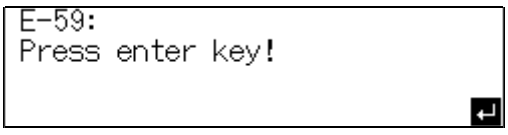
Set the power to OFF

(CAUTION) When you set the power to OFF, be sure to confirm data is not in communication nor receiving. If set to OFF while in data communication and receiving, the data is likely to be disrupted.

1. Press the [P] key of the programmer.

   The buzzer starts to sound and the display on the screen disappears. This operation is operable on any screen except for the time when data is in communication. The machine returns to the state before the programmer is activated.

(CAUTION) The data of the programmer is retained for about 1 month after the power is supplied. All the data may be lost in more than a month after the power is off and E-59 may appear.

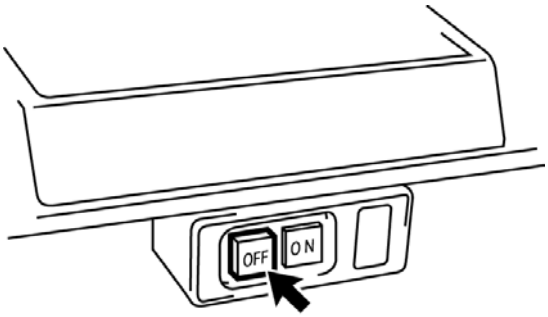


W0035Q

Press the [ENTER] key when this screen is displayed and the data returns to defaults.

Putting the Programmer in Store

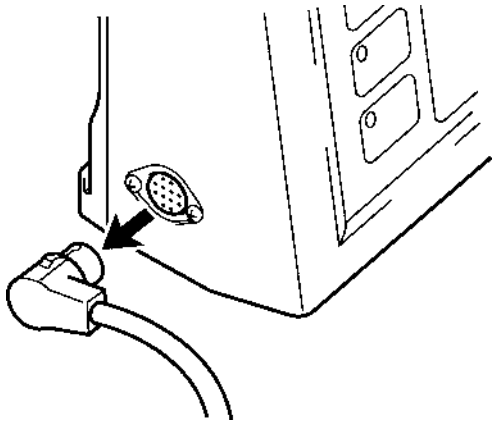
1. Set the power of the machine to OFF.



1405Q

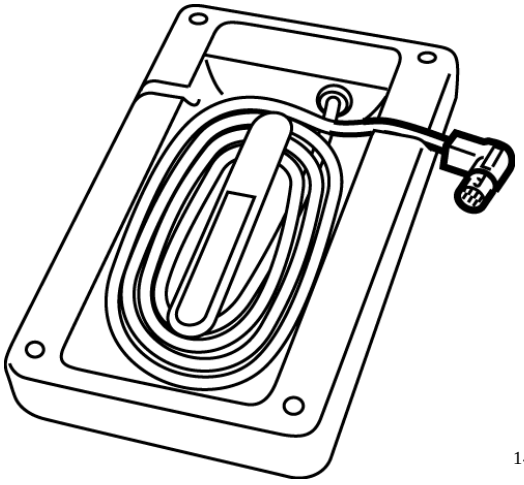
2. Press the [P] key to end the programmer.

3. Detach the programmer from the machine.



2377Q

4. Put the programmer in store by winding the cord on the back of the programmer.



1407Q

Chapter 3 EXAMPLE OF THE PROGRAM CHANGE PROCEDURE

Parameter Changing of the Program No. 5

Described below is a series of operations for parameter changing.

Procedures below exemplify how to change settings as follows by reading program No. 5 and how to write the changed data to the machine.

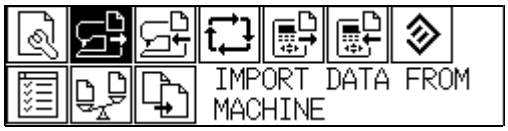
- Changing the numerals of parameter 01 (eyelet pattern) from [2] to [4].
- Changing the numerals of parameter 02 (button hole length) from [30] to [28].
- Changing the numerals of parameter 19 (taper tack angle) from [0] to [1].

At first, read program No. [05] from the machine.

1. Set program No. of the machine to [05] and press the [P] key.
   The program No.5 is automatically read. Then proceed to step 6. When the auto read/write setting is OFF, continue to perform step 2 through step 5. At the time of shipping, the auto read/write setting is set to be ON.

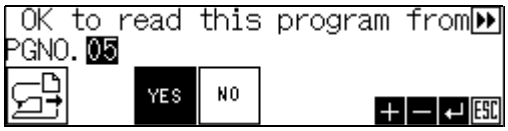
2. Press the [MENU] key to display the menu screen.

3. Select the <Machine read> icon and press the [ENTER] key.



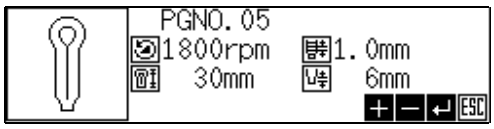
W0013Q

4. Select [YES] with the [◀▶] key and press the [ENTER] key.
   The data is read from the machine.



1577Q

5. Confirm PGNO. is set to 05 and press the [ENTER] key.

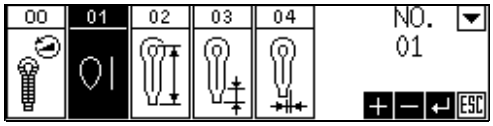


W0040Q

(NOTE) The parameter screen can also be displayed with the [SHORT CUT] key.

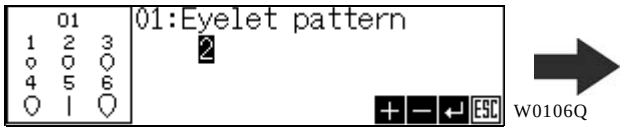
Operations from 6 to 7 are for changing the numerals of parameter 01 (eyelet pattern) from [2] to [4].

6. Select parameter 01 (eyelet pattern) by either one of three methods described below:
   A. Press the [Eyelet pattern] key.
   B. Move the cursor to the icon of parameter 01 with the [▲▼◀▶] key and press the [ENTER] key.
   C. Move the cursor to [NO.] with the [◀▶] key and select No. 01 with the [+/-] key. Then, press the [ENTER] key.

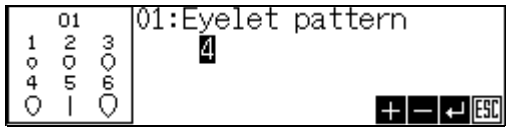


W0041Q

7. Change the numeral to [4] with the [+/-] key and press the [ENTER] key.
   When you want to cancel the changed numeral, press the [ESC] key. The changed numeral is cancelled and the screen returns to the previous one.



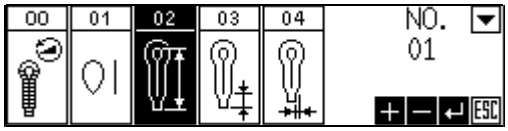
W0106Q



W0107Q

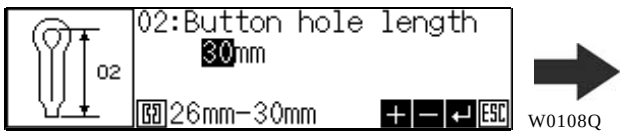
Operations from 8 to 9 are for changing the numerals of parameter 02 (button hole length) from [30] to [28].

8. Select parameter 02 (button hole length) by either one of three methods described below:
   A. Press the [Button hole length] key.
   B. Move the cursor to the icon of parameter 02 with the [▲▼◀▶] key and press the [ENTER] key.
   C. Move the cursor to [NO.] with the [◀▶] key and select No. 02 with the [+/-] key. Then, press the [ENTER] key.



W0044Q

9. Change the numeral with the [+/-] key and press the [ENTER] key.
   When you want to cancel the changed numeral, press the [ESC] key. The changed numeral is cancelled and the screen returns to the previous one.



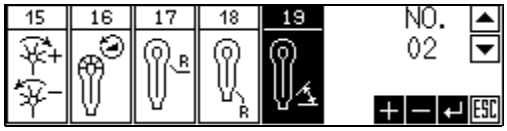
W0108Q

W0109Q

(NOTE) The work clamp data of the sewing machine will be shown in the lower part of the screen. Numbers outside the range can be set here, but it will cause an error when writing them to the machine.

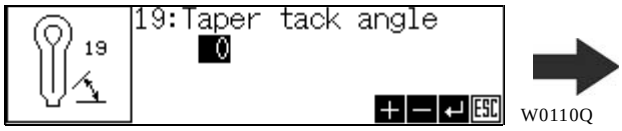
Operations from 10 to 11 are for changing the numerals of parameter 19 (taper tack angle) from [0] to [1]

10. Select parameter 19 (taper tack angle) by either one of two methods described below:
    A. Move the cursor to the icon of parameter 19 with the [▲▼◀▶] key and press the [ENTER] key.
    B. Move the cursor to [NO.] with [◀▶] key and select No. 19 with the [+/-] key.
    Then, press the [ENTER] key.

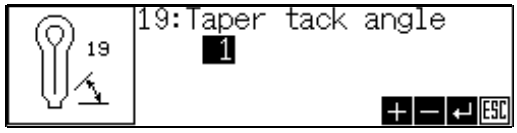


W0047Q

11. Change the numeral with the [+/-] key and press the [ENTER] key.
    When you want to cancel the changed numeral, press the [ESC] key. The changed numeral is cancelled and the screen returns to the previous one.



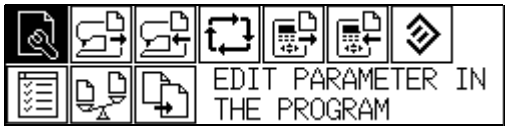
W0110Q



W0111Q

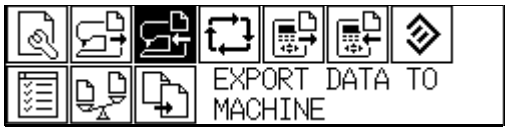
Operations from 12 to 15 are for writing the changed data to the machine.

12. When the auto read/write setting is ON, press [P] key to end the programmer.
    Then the parameter for the program No., which is under edition, is automatically written to the machine.
    With above operational steps finished, parameter change and program writing have been completed.
    When the auto read/write setting is OFF, press the [MENU] key to display the menu screen.



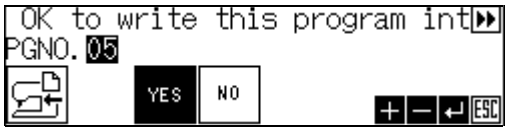
W0012Q

13. Select the <Machine write> icon and press the [ENTER] key.



W0014Q

14. Confirm program No. 5 is set and select [YES] with the [◀▶] key. Then, press the [ENTER] key.



1584Q

15. The buzzer starts to sound and press the [P] key to end the programmer after the writing is completed.
    Parameter change and writing of the program have completed after going through operations 1 - 15.

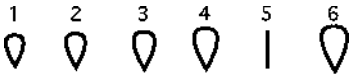
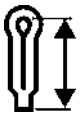
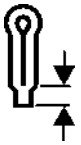
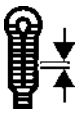
Chapter 4 PARAMETER

Parameter Table

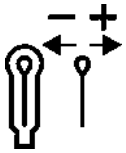
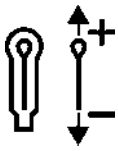
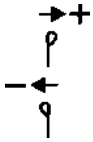
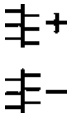
Described below is the contents of the parameter that is set on each program.

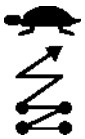
- The parameter values can be stored independently for each program. Each parameter for the taper tack and the straight bar tack is also independently stored.
- The allowable setting range for some parameters may vary from the range specified, depending on the settings of each other parameters.
- Two kinds of specifications for the taper tack and the straight bar tack are available as to the machine and a part of parameters vary with the specifications of the connected machines.

When the programmer is connected to the machine with the taper tack specifications

No.	Setting items	Setting range	Unit	Default
00	Sewing speed	1,000~2,200rpm	100	1,800
01	Eyelet pattern 	1~6	1	2
02	Button hole length (Note 1) 	-00:5~50mm -01:5~38mm -02(L1):14~18mm (L2):18~22mm (L3):22~26mm (L4):26~30mm (L5):28~32mm (L6):32~36mm (L7):36~40mm	1	-00:25mm -01:25mm -02(L1):16mm (L2):20mm (L3):24mm (L4):28mm (L5):30mm (L6):34mm (L7):38mm
03	Taper length 	0~20mm	1	6
04	Offset	0.5~2.0mm	0.1	1.5
05	Stitch pitch 	0.5~2.0mm	0.1	1.0

(Note 1) Setting ranges and defaults of stitch lengths may vary with the machine sub-class.

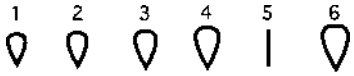
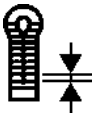
No.	Setting items	Setting range	Unit	Default
06	No. of eyelet stitches	4~20 stitches	1	9
07	Cutting space	-0.3~0.5mm	0.1	0.0
08	Knife X position compensation 	-0.5~0.5mm	0.1	0.0
09	Knife Y position compensation 	-0.7~0.7mm	0.1	0.0
10	Start tying stitches	0~2 stitches	1	0
11	End tying stitches	0~2 stitches	1	0
12	X alignment 	-1~6	1	0
13	Y alignment 	-1~6	1	0
14	θ1 alignment	-3~3	1	0

No.	Setting items	Setting range	Unit	Default
15	θ2 alignment	-3~3	1	0
16	Eyelet machine speed (Note 2)	-600~0rpm	100	0
17	Eyelet Radius	OFF、1~5	1	OFF
18	Taper tack Radius	OFF、1~5	1	OFF
19	Taper tack angle	-5~5	1	0
20	Slow start stitches 	0~3 stitches	1	0
21	Slow start speed (Note 3)	400~1,500rpm	100	1,000
22	Stitch width correction	-1.0~1.0mm	0.1	0

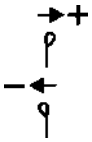
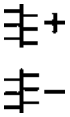
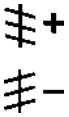
(Note 2) Eyelet speed will be decided according to the speed which is set to the parameter 00 (sewing speed).

(Note 3) If the sewing speed is slower than the slow start speed, the slow start speed for sewing will be conformed to the sewing speed.

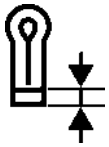
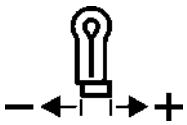
When the programmer is connected to the machine with the straight bar tack specifications

No.	Setting items	Setting range	Unit	Default
00	Sewing speed	1,000~2,200rpm	100	1,800
01	Eyelet pattern 	1~6	1	2
02	Button hole length (Note 1)	-12(L1):14~18mm (L2):18~22mm (L3):22~26mm (L4):26~30mm (L5):28~32mm (L6):32~36mm (L7):36~40mm	1	-12(L1):16mm (L2):20mm (L3):24mm (L4):28mm (L5):30mm (L6):34mm (L7):38mm
03	Tacking length	2.0~6.0mm (Up to 3.0mm on one side)	0.1	4.0
04	Tacking stitches	5~18 stitches	1	7
05	Stitch pitch 	0.5~2.0mm	0.1	1.0
06	No. of eyelet stitches	4~20 stitches	1	9
07	Cutting space	-0.3~0.5mm	0.1	0.0

(Note 1) Setting ranges and defaults of stitch lengths may vary with the machine sub-class.

No.	Setting items	Setting range	Unit	Default
08	Knife X position compensation	-0.5~0.5mm	0.1	0.0
09	Knife Y position compensation	-0.7~0.7mm	0.1	0.0
10	Start tying stitches	0~2 stitches	1	0
11	End tying stitches	0~2 stitches	1	0
12	X alignment 	-1~6	1	0
13	Y alignment 	-1~6	1	0
14	θ1 alignment 	-3~3	1	0
15	θ2 alignment	-3~3	1	0
16	Eyelet machine speed (Note 2)	-600~0rpm	100	0

(Note 2) Eyelet speed will be decided according to the speed which is set to the parameter 00 (sewing speed).

No.	Setting items	Setting range	Unit	Default
17	Eyelet Radius	OFF、1~5	1	OFF
18	Width correction value 	-1.0~0mm	0.1	0
19	Tacking overlap amount	0~2.0mm	0.1	1.0
20	Slow start stitches	0~3 stitches	1	0
21	Slow start speed (Note 3)	400~1,500rpm	100	1,000
22	Stitch width correction	-1.0~1.0mm	0.1	0
23	Tacking X alignment 	-1.0~1.0mm	0.1	0
24	Tacking angle compensation	-3~1	1	0

(Note 3) If the sewing speed is slower than the slow start speed, the slow start speed for sewing will be conformed to the sewing speed.

Parameter Selection

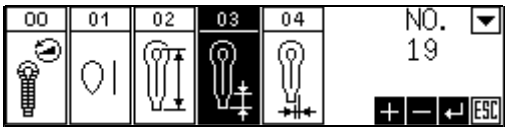
(NOTE) The screen shown is an example when the programmer is connected to the machine with the taper tack specifications. When the programmer is connected to the machine with the straight bar tack specifications, a partly different screen will be displayed.

Selection with the [SHORT CUT] key

1. Press any one of the [SHORT CUT] keys on the programmer.
   For further details of the [SHORT CUT] key, refer to “Name of Parts and Function”(page E-2).

Selection with the [▲▼◀▶] key

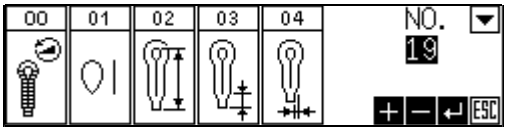
1. Select any one of the parameter icons with the [▲▼◀▶] key and press the [ENTER] key.



W0051Q

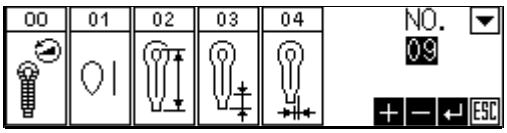
Selection with the [+/-] key

1. Select parameter No. with the [▲▼◀▶] key.



W0052Q

2. Select any one of the parameter No. with the [+/-] key and press the [ENTER] key.



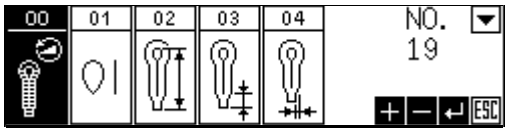
W0053Q

Changing the Parameter

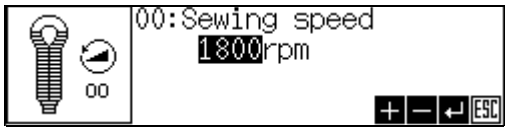
Described below is the setting method for parameter No. 00 (sewing speed) from[1800rpm] to [2000 rpm] as an example.

(NOTE) The screen shown is an example when the programmer is connected to the machine with the taper tack specifications. When the programmer is connected to the machine with the straight bar tack specifications, a partly different screen will be displayed.

1. Select parameter No. 00 on the parameter selection screen with the [▲▼◀▶] key and press the [ENTER] key.



W0054Q



W0112Q

2. Select [2000rpm] with the [+/-] key and press the [ENTER] key.

W0113Q

Chapter 5 PROGRAM READING AND WRITING

Program Reading from the Machine

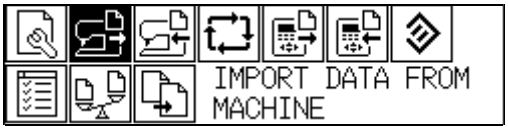
1. Press the [P] key to start the programmer.

   When the auto read/write setting is set to OFF, the menu screen appears and so does the parameter setting screen when set to ON. For further details, refer to “Auto Read/Write Setting”(page E-34).

W0012Q

2. Select the <Machine read> icon with [▲▼◀▶] key and press the [ENTER] key.

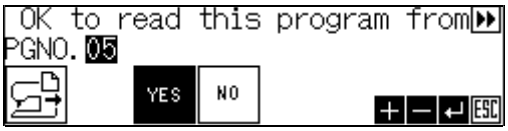
   When the auto read/write setting is set to ON, the screen below does not appear. For further details, refer to “Auto Read/Write Setting”(page E-34).



W0013Q

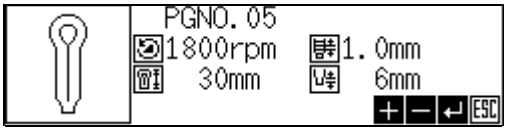
3. Press the [ENTER] key after confirming the program No..

   The data is read from the machine.



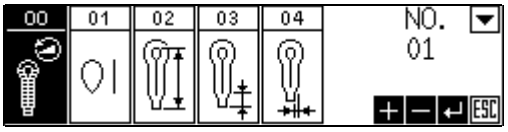
1577Q

4. Press the [ENTER] key.



W0040Q

   The screen below appears.



W0034Q

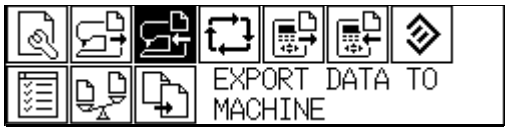
(NOTE) The screen shown is an example when the programmer is connected to the machine with the taper tack specifications. When the programmer is connected to the machine with the straight bar tack specifications, a partly different screen will be displayed.

Program Writing to the Machine

1. Press the [MENU] key to display the menu screen.

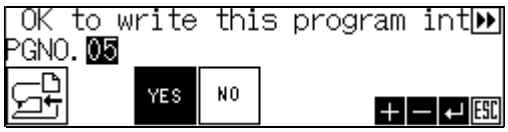
W0012Q

2. Select the <Machine write> icon with the [▲▼◀▶] key and press the [ENTER] key.



W0014Q

3. Press the [ENTER] key after confirming the program No..
The buzzer starts to sound and the writing is to end.



1584Q

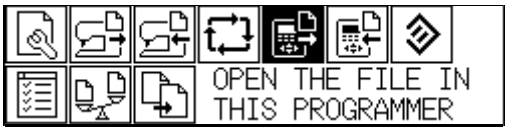
4. Press the [P] key to end the programmer.

Program Reading from the File

1. Press the [MENU] key to display the menu screen.

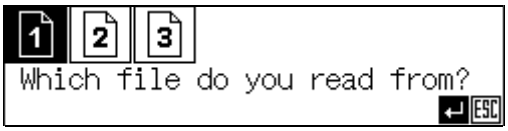
W0012Q

2. Select the <File read> icon with the [▲▼◀▶] key and press the [ENTER] key.



W0015Q

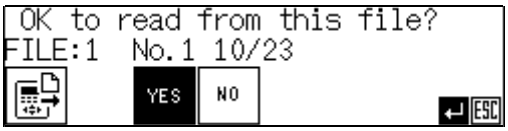
3. Select the file to read with the [◀▶] key and press the [ENTER] key.



1588Q

4. Select [YES] with the [◀▶] key and press the [ENTER] key.

When you change the file to read, press the [ESC] key to return to the previous screen and select the file again.

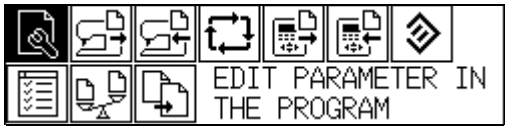


1589Q

Program Writing to the File

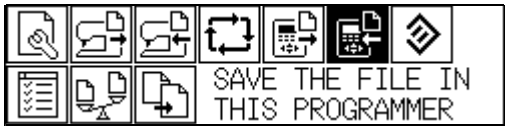
Any name can be input to a file. When the file name is not changed, you don't have to proceed with procedures from 4 to 7.

1. Press the [MENU] key to display the menu screen.



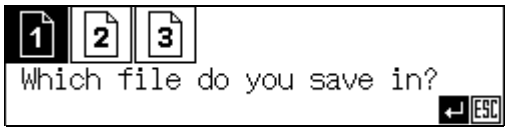
W0012Q

2. Select the <File write> icon with the [▲▼◀▶] key and press the [ENTER] key.



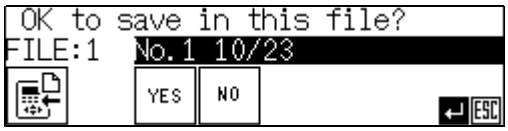
W0016Q

3. Select the file to write with the [◀▶] key and press the [ENTER] key.



1590Q

4. Select a file name with the [◀▶] key and press the [ENTER] key.



1591Q

5. Move the cursor to the position where a desired alpha-numeral is input with the [+/-] key.

W0062Q

6. Select a desired alpha-numeral to input with the [▲▼◀▶] key and press the [ENTER] key.
   The position of [3] is changed to [7].

W0063Q

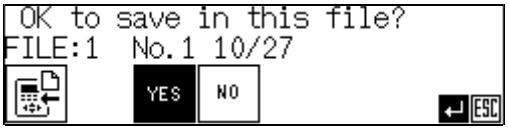
(NOTE) If you want to delete an alpha-numeral, move the cursor to the position where the alpha-numeral is desired to delete and enter a space. The space can be entered by setting the cursor to next right to z in lower case character and pressing the [ENTER] key.

W0064Q

7. Enter an alpha-numeral by repeating procedures from 5 to 6. Press the [ESC] key to return to the previous screen after the alpha-numeral is entered.

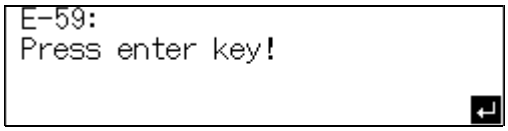
8. Select [YES] with the [◀▶] key and press the [ENTER] key.

   When the file to write to is changed, press the [ESC] key to return to the previous screen and select a file again.



1592Q

(CAUTION) The data of the programmer is retained for about 1 month after the power is supplied. All the data may be lost in more than a month after the power is off and E-59 may appear.



W0035Q

Press the [ENTER] key when this screen is displayed and the data returns to defaults.

Chapter 6 HANDY FUNCTIONS

Auto Read/Write Setting

When the programmer is to start or end, setting can be performed as for auto program reading and writing (refer to “Enable/disable for auto read/write”(page E-46) for the setting method.) Operation for file reading and writing is not needed at each start and end of the programmer. Program numbers to read and write can be selected from two choices below:

- One of any programs (It is recommended to set the program No. normally to this choice because of its shortness in reading and writing.)
- All of the program (It takes long in reading and writing.)

When the auto read/write setting is ON

When the programmer is started, a program is automatically read from the machine. Operations to end the programmer vary with the setting at the end of the programmer last time. Follow the procedure of operation described below:

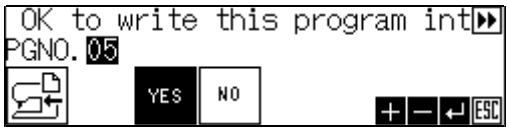
1. Press the [P] key while the programmer is in operation.

   When the programmer is ended last time with the auto read/write setting ON, a program is automatically written in the program and the programmer is to end. When the programmer is ended last time with the auto read/write setting OFF, the confirmation message for writing is displayed. Proceed with operations below:

2. When [YES] is selected with the [◀▶] key, the program is automatically written in the machine and then the programmer is to end.

   When the program No. to read/write is set to [One of any programs];

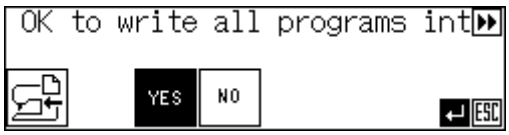
   When the program No. to read/write is set to [One of any programs], the program No. under edition is displayed on the screen. The program No. can be changed with the [+/-] key.



1584Q

   When the program No. to read/write is set to [All of the program];

   When the program No. to read/write is set to [all of the program], the program No. is not displayed.



1593Q

3. When [NO] is selected with the [◀▶] key, writing is cancelled and the programmer is to end.

When the auto read/write setting is OFF

Program reading and writing are not performed when the programmer is started or ended.

When the [MENU] key and the [P] key are concurrently pressed

When the [P] key is pressed with the [MENU] key pressed while the programmer is in operation, writing is cancelled and the programmer is to end.

File Saving Function

Three programs at maximum, which are currently read in the programmer, can be stored as a file. Saved files are optional to read and write. The same file can be used on multiple machines if the programmer is connected to different machines and the saved file is written in them.

For the method to save a program in a file, refer to “Program Writing to the File”(page E-31).

(NOTE) The taper tack and the straight bar tack programs are saved in different files respectively. While reading and writing the file, either one of files is selected according to specifications of connected machines.

Chapter 7 OTHER FUNCTIONS

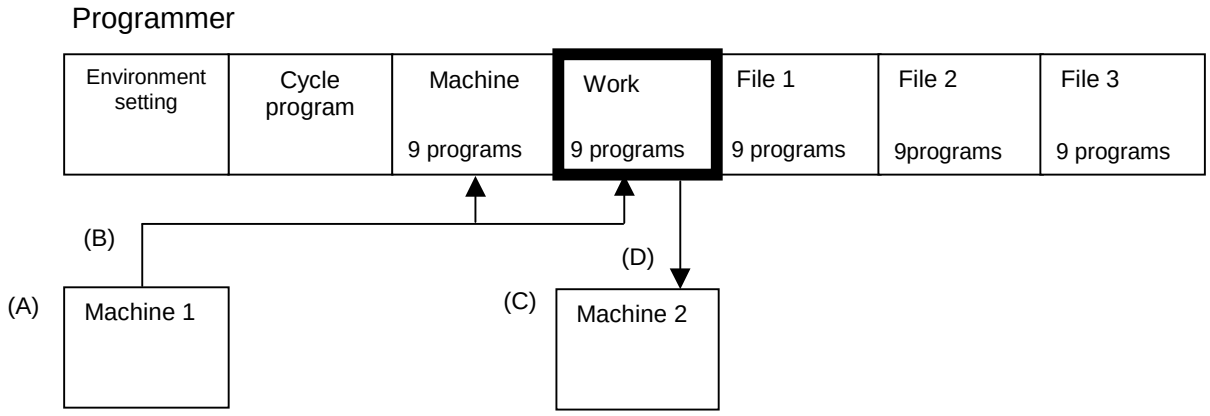
Data saving to another machine

Saving area

Many kinds of data can be saved in the programmer. There exists a multi-segmented data saving place in the programmer and each segmented place is called " area". Each area serves as described below:

- Environment setting — Data saving for environment setting.
- Cycle program — Data saving for cycle program.
- Machine — Data saving for the data read from the machine.
- Work — Data saving for the data read from the machine. When data change is made on the programmer, the data saved in this area is changed.
- File 1 - 3 — Data saving for the data handled in the work area.

Saving method



Read all of the program of machine 1 into the programmer.

(CAUTION) Be sure to confirm the power for machine 1 is not set to ON, before connecting to machine 1.

1. Connect the programmer to the connector on the left side of the operation panel of machine 1.

2. Set the power for machine 1 to ON. (A)

3. Press the [P] key to start the programmer.
   The buzzer starts to sound and the programmer screen appears. All the lamps of machine 1 but the power source lamp are turned off.

4. Set the auto read/write setting to OFF. (Refer to “Enable/disable for auto read/write”(page E-46).)
   (NOTE) If the auto read/write setting is set to ON, programs in machine 2 are read into the programmer at the startup of machine 2.

5. Set the program Nos. for the programmer to read and write to [All of the program]. (Refer to “Setting numbers of the program to read and write”(page E-46).)

6. Read all of the program in machine 1 into the programmer. (B) (Refer to “Program Reading from the Machine”(page E-28).)

   The data in machine 1 is read into the machine area and work area. All jobs such as data change on the programmer are executed in the work area. The data in the machine area will not be changed unless another data is read and is used as comparative reference to the changed data in the work area and for other purposes.

7. Press the [P] key on the programmer to end the programmer and set the power of machine 1 to OFF.

8. Disconnect the programmer from the connector on the left side of the operation panel of machine 1.

Proceed to write the data in the programmer to machine 2.

(CAUTION) Be sure to confirm the power for machine 2 is not set to ON, before connecting to machine 2.

9. Connect the programmer to the connector on the left side of the operation panel of machine 2.

10. Set the power for machine 2 to ON. (C)

11. Write the data in the work area of the programmer to machine 2. (D) (Refer to “Program Writing to the Machine”(page E-29).)

    The data of machine 1 read into the work area is written into machine 2.

Cycle Program Setting

Cycle program setting

Setting can be performed as for continuous execution of 8 programs at maximum.

The example below exemplifies changing the cycle program from [01 (ON), 01 (ON), 05 (OFF)] to [01 (ON), 01 (ON), 01 (ON), 05 (OFF)].

1. Press the [P] key to start the programmer.

2. Press the [MENU] key to display the menu screen.

W0012Q

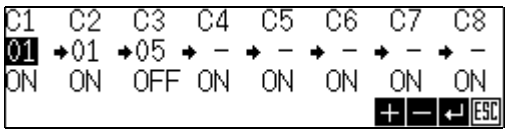
3. Select the <Cycle program> icon with the [▲▼◀▶] key and press the [ENTER] key.

W0017Q

4. Select the required cycle program with the [◀▶] key and press the [ENTER] key.

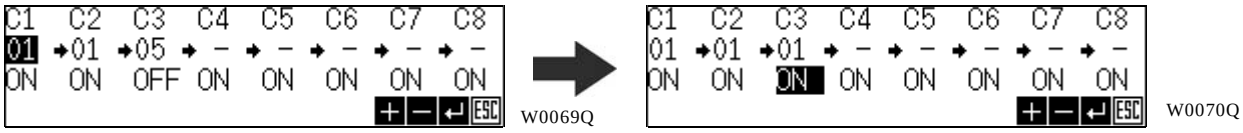
W0114Q

5. Select any one of the program No. (01 - 09) with the [+/-] key.



W0069Q

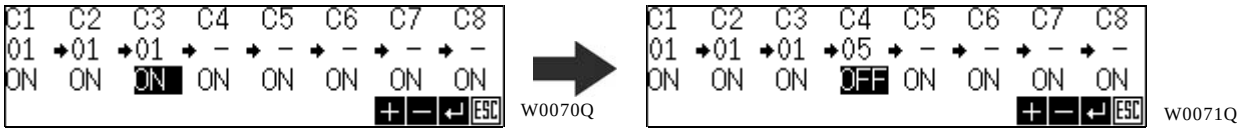
6. Select [05] with the [▲▼◀▶] key and change to [01] with the [+/-] key. Change the knife setting below from [0FF] to [ON] with the same operation.



W0069Q W0070Q

7. Select [-] below [C4] with the [▲▼◀▶] key and change to [05] with the [+/-] key. Change the knife setting below from [ON] to [OFF] with the same operation.

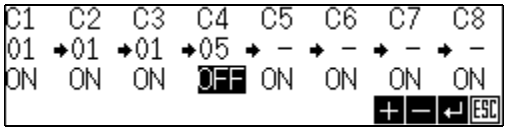
If the knife setting is kept to be ON and no setting is performed for the knife at the machine, the knife performs operation in sewing on the settings set at the programmer although settings at the machine are prior to those at the programmer.



W0070Q W0071Q

8. Proceed with operations from 6 to 7 to set the cycle setting.

When an input column for program Nos. is [-], cycle programs set further right to that column are all disable. Be sure to perform the continuous input of the program to execute in order not to put a space.



W0071Q

(NOTE) Render the input column for [C1] to [-] in order to clear all of the setting and press the [ENTER] key.

9. Press [ESC] key when the setting is completed, and the screen will return to the selection screen for cycle programs.

W0114Q

10. Press the [ESC] key to return to the menu screen after the setting is completed.

W0012Q

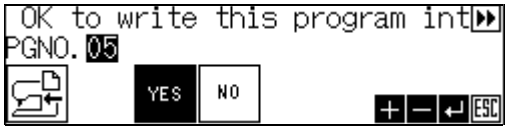
11. Select the <Machine write> icon with the [▲▼◀▶] key and press the [ENTER] key.

The cycle program is written into the machine concurrently with program writing to the machine.

W0014Q

12. Press the [ENTER] key.

The buzzer starts to sound and writing is to end.



1584Q

Display of the program Nos. for the machine at cycle program writing

When the cycle program set on the programmer is written, an exceptional display may occur for the program No. display of the machine depending how both settings are combined.

When numbers of the cycle program set on the programmer are less than those set on the machine;

- C1 - C3 are set to the cycle program of the machine.
- [C3] is displayed on the program No. window of the machine.
- [C1] and [C2] are set to the cycle program of the programmer.

When writing is performed to the machine with these conditions above, the display in the program No. indication box of the machine is changed as illustrated below:

<Display in the program No. indication box>

(NOTE) When numbers of the cycle program set to the machine are less than those set to the programmer, display in the indication box will not change.

Initializing the Program in the Work Area

Initialization can be performed as for the program read in the work area of the programmer. (Reset to the factory setting.) For the work area, refer to “Data saving to another machine”(page E-38).

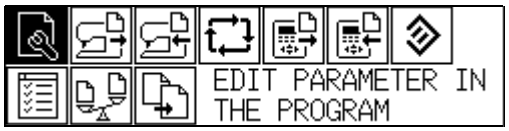
Programmer

Environment setting	Cycle program	Machine	Work	File 1	File 2	File 3

Initializing all of the program

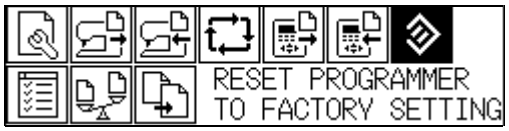
1. Press the [P] key to start the programmer.

2. Press the [MENU] key to display the menu screen.



W0012Q

3. Select the <Initialization> icon with the [▲▼◀▶] key and press the [ENTER] key.



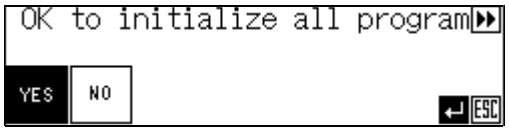
W0018Q

4. Select the <Initialize all of the program> icon (icon on the right) with the [◀▶] key and press the [ENTER] key.

W0072Q

5. Select [YES] with the [◀▶] key and press the [ENTER] key.

When operations described above are performed, initialization has been completed as for all programs (01 - 09) in the work area (Programs saved in file 1, 2, and 3 are not initialized.)



1594Q

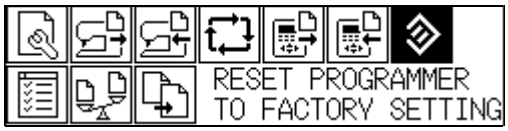
Initializing one of any programs

1. Press the [P] key to start the programmer.

2. Press the [MENU] key to display the menu screen.

W0012Q

3. Select the <Initialization> icon with the [▲▼◀▶] key and press the [ENTER] key.



W0018Q

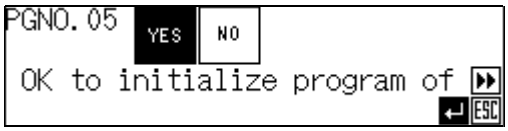
4. Select the <Initialize any program> icon (the icon on the left) and press the [ENTER] key.

W0074Q

5. Select any program No. with the [+/-] key and press the [ENTER] key.

W0075Q

6. Select [YES] with the [◀▶] key and press the [ENTER] key.

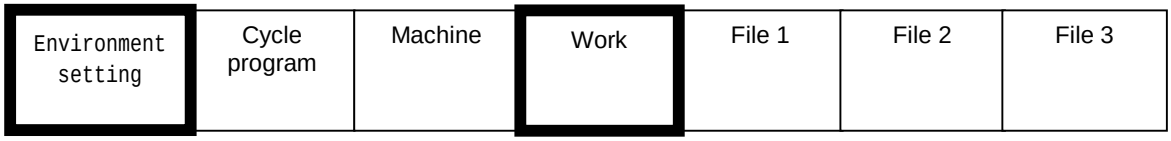


1595Q

When operations above are completed, any program is initialized.

Initializing all of the program in the environment setting area and work area

Programmer



1. Press the [P] key with the [ENTER] key pressed to start the programmer.
   The buzzer sounds five times and the programmer starts with all of the program in the environment setting area and work area.

Environment Setting

Setting is performed as for programmer operation.

Language used

Any language can be selected from languages listed below. Language setting is set to English at the factory setting.

<For Asia>

• English • Japanese • Chinese • Spanish • Indonesian

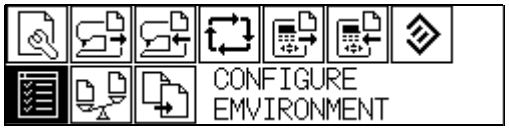
<For Europe>

• French • German • Portuguese • Italian
• Turkish • Spanish • English • Indonesian

1. Press the [P] key to start the programmer.

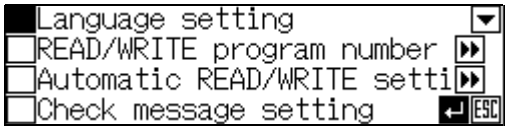
2. Press the [MENU] key to display the menu screen.

3. Select the <Environment setting> icon with the [▲▼◀▶] key and press the [ENTER] key.



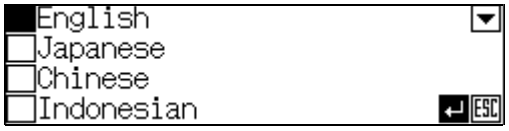
W0019Q

4. Select the [Language setting] with the [▲▼] key and press the [ENTER] key.

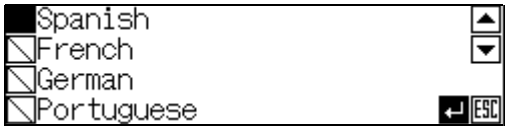


1596Q

5. Select the desired language with the [▲▼] key and press the [ENTER] key.
When the [ENTER] key is pressed, the language is changed and the screen returns to the previous one. A slash is put in a check box for the language that can not be selected.



W0391Q



W0392Q

W0393Q

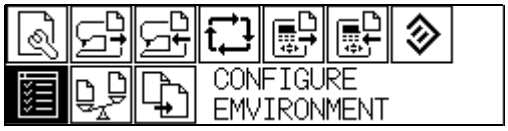
Setting numbers of the program to read and write

Numbers of the program to read and write can be set to either [All programs] or [Any one program].

1. Press the [P] key to start the programmer.

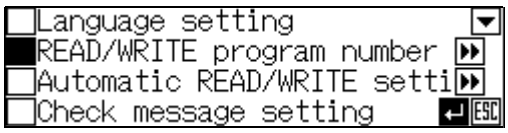
2. Press the [MENU] key to display the menu screen.

3. Select the <Environment setting> icon with the [▲▼◀▶] key and press the [ENTER] key.



W0019Q

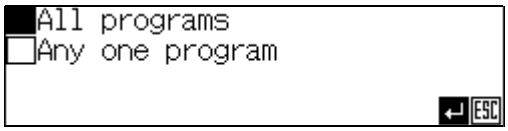
4. Select [READ/WRITE program number setting] with the [▲▼] key and press the [ENTER] key.



1600Q

5. Select either of [All programs] or [Any one program] with the [▲▼] key and press the [ENTER] key.

Select [All programs] to read and write all of the program and so does [Any one program] to read and write one of any program. When set to [All programs], it takes long time to read and write because 9 programs are all read and written by one operation for reading and writing. Setting to [Any one program] is recommended as a normal setting.



1601Q

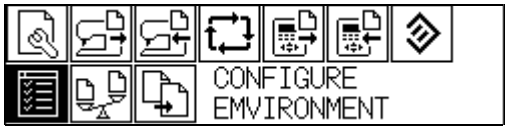
Enable/disable for auto read/write

Setting can be performed as for enable/disable for auto read/write of the program.

1. Press the [P] key to start the programmer.

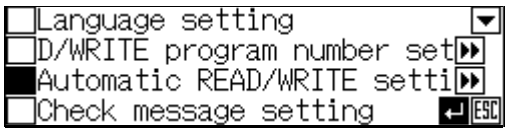
2. Press the [MENU] key to display the menu screen.

3. Select the <Environment setting> icon with the [▲▼◀▶] key and press the [ENTER] key.



W0019Q

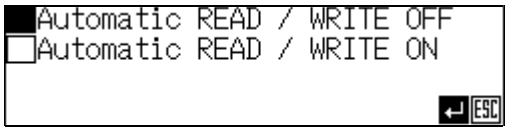
4. Select [Automatic READ/WRITE setting] with the [▲▼] key and press the [ENTER] key.



1602Q

5. Select [Automatic READ / WRITE OFF] or [Automatic READ / WRITE ON] with the [▲▼] key and press the [ENTER] key.

   Select [Automatic READ / WRITE ON] to enable the auto read/write and select [Automatic READ / WRITE OFF] to disable the auto read/write.

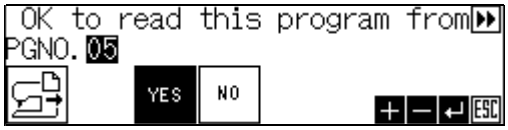


1603Q

Display/non-display of the check message

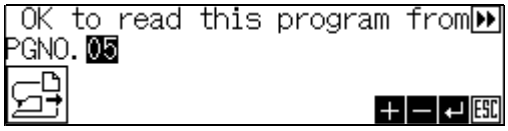
Selection of the check message ([YES] and [NO]) can be performed between display and non-display.

• Screen for [Check message ON]



1577Q

• Screen for [Check message OFF]



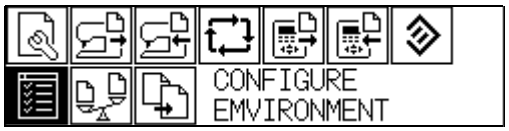
1605Q

(NOTE) When the check message is set to [OFF], the file name change function (Refer to “Program Writing to the File”(page E-31)) becomes inoperable.

1. Press the [P] key to start the programmer.

2. Press the [MENU] key to display the menu screen.

3. Select the <Environment setting> icon with the [▲▼◀▶] key and press the [ENTER] key.



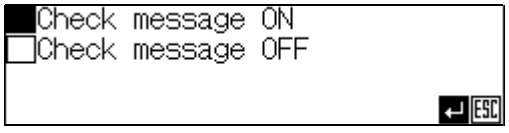
W0019Q

4. Select [Check message setting] with the [▲▼] key and press the [ENTER] key.

1606Q

5. Select [Check message ON] or [Check message OFF] with the [▲▼] key and press the [ENTER] key.

   Select [Check message ON] to enable the confirmation message and select [Check message OFF] to disable.



1607Q

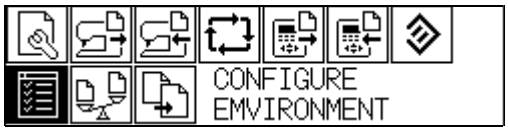
PROM version display

The version of PROM installed in the programmer and the one for the machine can be displayed.

1. Press the [P] key to start the programmer.

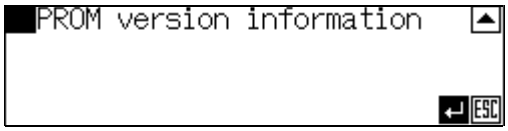
2. Press the [MENU] key to display the menu screen.

3. Select the <Environment setting> icon with the [▲▼◀▶] key and press the [ENTER] key.



W0019Q

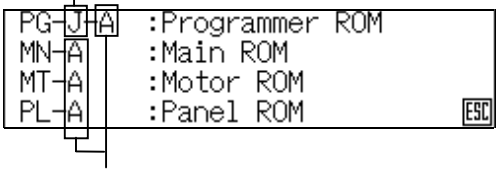
4. Select [PROM version information] with the [▲▼] key and press the [ENTER] key.



1608Q

The PROM version is displayed. The upper line is for the programmer and the lower for the machine.

Indicating PROM specifications (For Asia or Europe : [J] means PROMs for Asia, [F] for Europe).



W0115Q

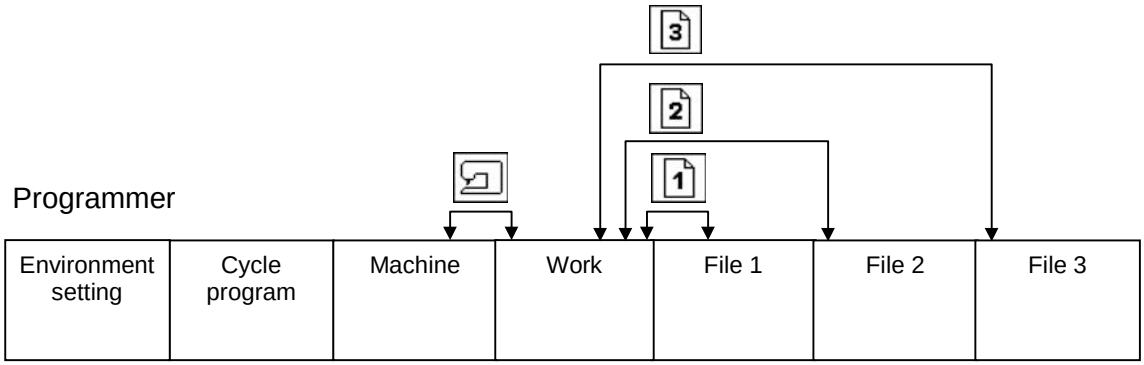
Indicating the PROM version (Numerals like [01] are suffixed to the alphabetical character if the PROM is specially generated. Ex: PG-J-A01, MN-G01)

Comparing the Program

The currently editing data can be compared with the data in the machine or the file in the programmer.

• 9 programs can be all compared.

• The cycle program is excluded from the comparative object.

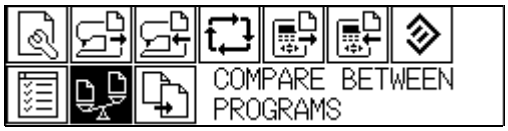


Comparing with the data in the machine

1. Press the [P] key to start the programmer.

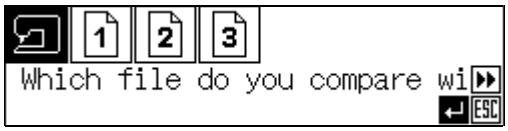
2. Press the [MENU] key to display the menu screen.

3. Select the <Program comparison> icon with the [▲▼◀▶] key and press the [ENTER] key.



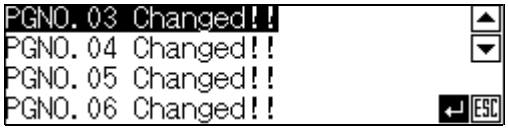
W0020Q

4. Select the far left key with the [◀▶] key and press the [ENTER] key.



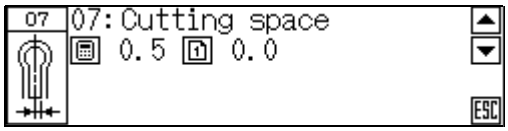
1610Q

(1) When the program is changed, the changed program No. is displayed.



1611Q

When the program No. is selected with the [▲▼] key and the [ENTER] key is pressed, the changed parameter is displayed.



W0116Q

(2) If no change is made on the program, [No change!!] is displayed.

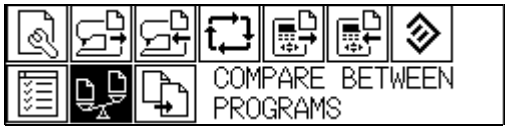
1613Q

Comparing with the data in the programmer

1. Press the [P] key to start the programmer.

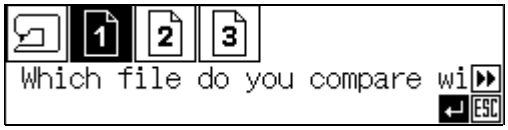
2. Press the [MENU] key to display the menu screen.

3. Select the <Program comparison> icon with the [▲▼◀▶] key and press [ENTER] key.



W0020Q

4. Select any one of the file icon (the file to compare) with the [◀▶] key and press the [ENTER] key.

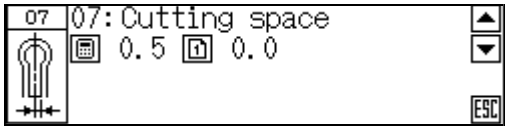


1614Q

(1) When the program is changed, the changed program No. is displayed.

1611Q

When the program No. is selected with the [▲▼] key and the [ENTER] key is pressed, the changed parameter is displayed.



W0116Q

(2) If no change is made on the program, [No change!!] is displayed.

1613Q

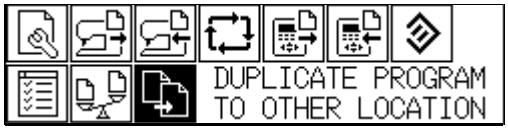
Copying the program

Described below is the copy procedure to transcribe the program stored in the programmer, on another program with different program number.

1. Press [P] key to start the programmer.

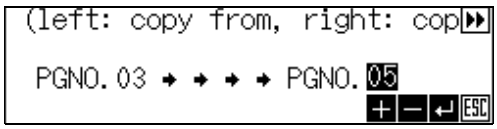
2. Press the [MENU] key to display the menu screen.

3. Select <Program copy> icon with the [▲▼◀▶] key and press the [ENTER] key.



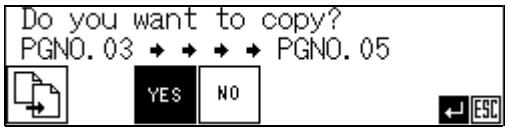
W0021Q

4. Select the program number of the source and the destination for the copy with the [+/-] key and the [◀▶] key, then press the [ENTER] key.



W0117Q

5. Select [Yes] with the [◀▶]key and press the [ENTER] key.



W0118Q

The program will be copied to the destination and the screen will return to above 4. Pressing [ESC] key or [MENU] key will switch the screen to the menu screen.

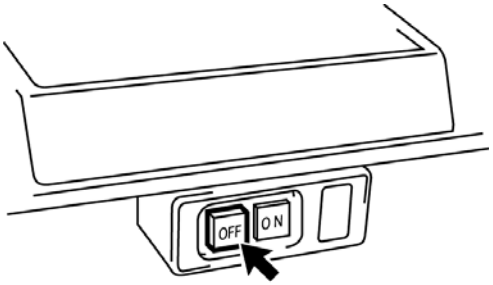
PROM Exchange Procedures

PROM in the programmer can be upgraded.

Refer to the Instruction Manual of the machine for how to exchange PROM of the machine.

(CAUTION) When PROM of the programmer is exchanged, PROM of the machine should be changed to the identical version to the programmer. If either one of PROMs is changed, an error will occur because of inconsistency of the version.

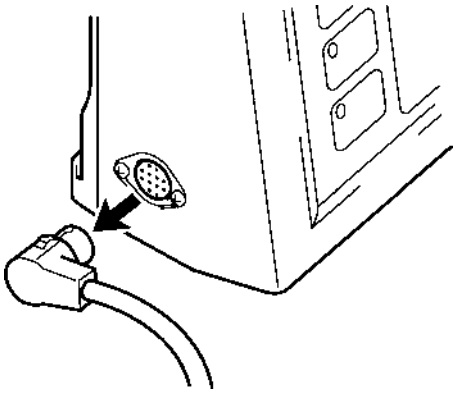
1. Shut off the power to the machine.



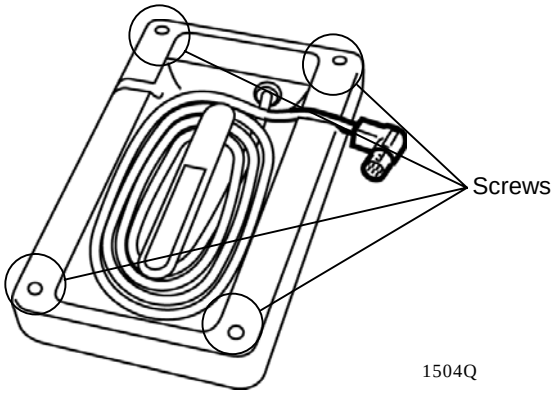
1405Q

2. Press the [P] key to end the programmer.

3. Disconnect the machine from the programmer.


2377Q

4. Loosen and dismount (4) screws on the back of the programmer with a screwdriver and put the cover off.



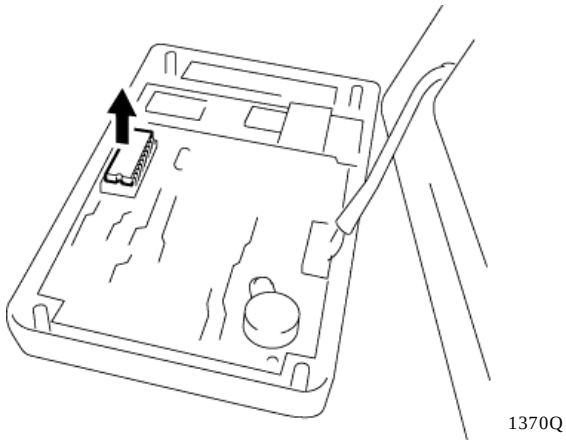
1504Q

5. Detach PROM from the socket with tools.

   Tools are independently sold.

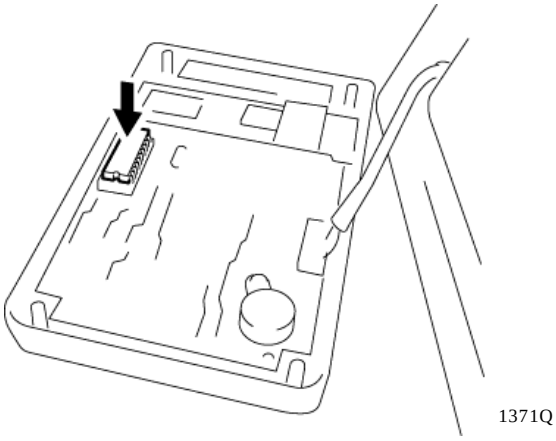
   If tools are unavailable, use (-) screw driver to detach PROM.

   (CAUTION) When a screwdriver is used to detach, ply each side of PROM with care alternately and gradually. If only one side is plied, PROM may be damaged.



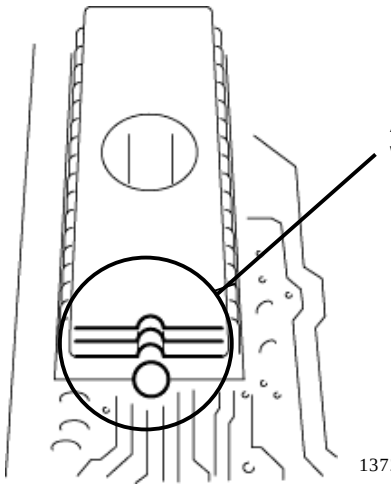
1370Q

6. Attach new PROM to the socket.



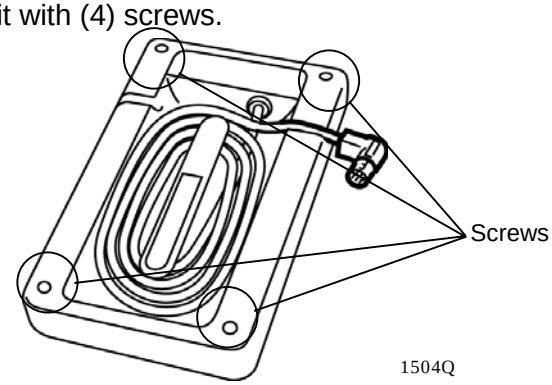
1371Q

   (CAUTION) Attach PROM by aligning the notch with the white circle on the printed circuit board (PCB). If attached in reverse way, the programmer may become in trouble.



1372Q

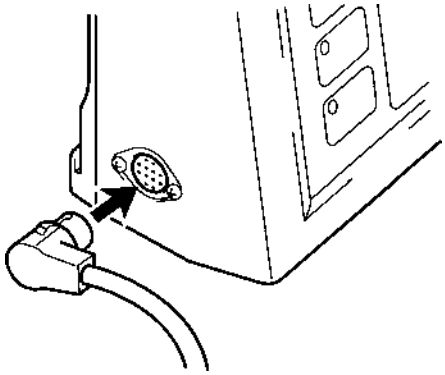
7. Put the cover back and fasten it with (4) screws.



1504Q

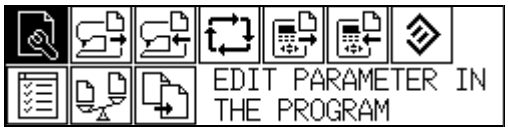
8. Connect the programmer to the machine and press the [P] key to start the programmer.
   The buzzer sounds five times and the programmer starts with all of the program in the environment setting area and work area.

(CAUTION) Be sure to initialize the program after you replace the PROM.



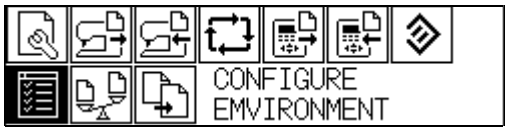
2376Q

9. Press the [MENU] key to display the menu screen.



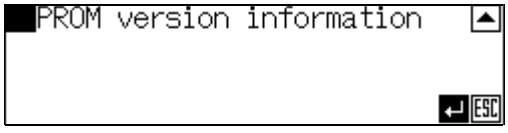
W0012Q

10. Select the <Environment setting> with the [▲▼◀▶] key and press the [ENTER] key.



W0019Q

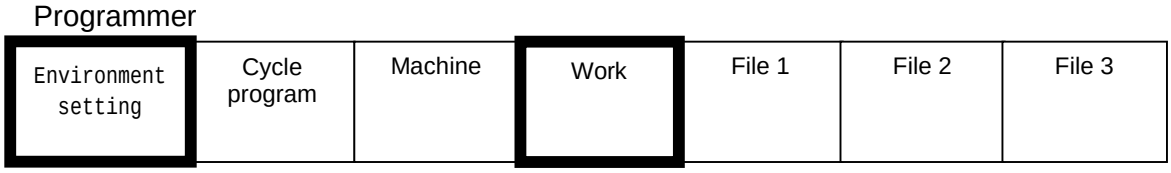
11. Select the PROM version information with the [▲▼] key and press the [ENTER] key.



1608Q

12. Confirm the version of PROM is upgraded. (the version is changed to the one of changed PROM.)

Change to factory settings



1. Press the [P] key with the [ESC] key and the [ENTER] key pressed to start the programmer.
   The buzzer sounds six times intermittently and the programmer starts to operate with all of the program in the above areas initialized. (Settings are returned to those set at the factory.)

Chapter 8 ERROR MESSAGE

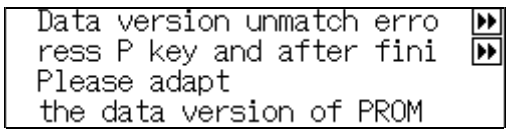
List of Messages

Data version unmatch error

Inconsistency of the version between machine and programmer causes this error. Set versions between programmer and machine to identical ones. For how to exchange PROM of the programmer, refer to “PROM Exchange Procedures”(page E-52).

A part of message is out of the indication box. The integral message is as described below:

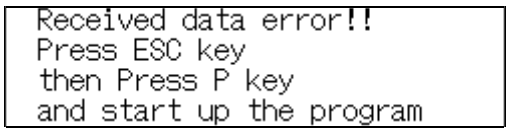
“Data version unmatch error!! Press P key and after finished, please adapt the data version of PROM.”



1616Q

Received data error

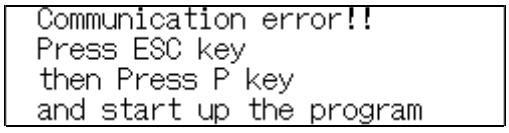
When the received data is disrupted, this error occurs. Restart the programmer and receive the data again.



1617Q

Communication error

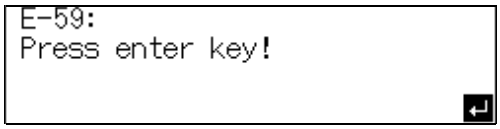
When communication fails, this error occurs. Restart the programmer and perform communication again.



1618Q

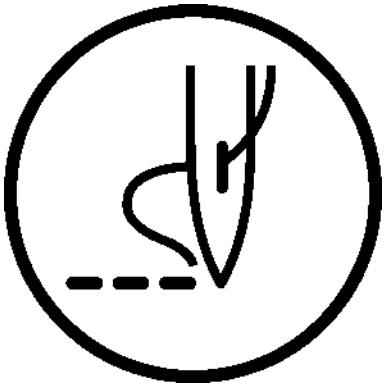
Data lost error

The error may occur if the power is not supplied in more than 1 month after the power is off. Press the [ENTER] key when the error occurs. The data returns to defaults.



W0035Q

brother



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