USER'S MANUAL

TEHX-C & TFHX SERIES

M-EFHX07-E
(2004 .01)

FOREWORD

This manual is a guidebook for using TAJIMA automatic embroidery machines TFHX series and TEHX-C (referred to as machine hereafter) correctly. Please read this manual thoroughly, understand the contents, and then use the machine.

This manual is composed of the following contents.

[IMPORTANT WARNING ITEMS FOR SAFE OPERATION]
[OUTLINE OF THE MACHINE
[BASIC OPERATION]
[DESIGN DATA]
[OPERATION OF MACHINE]
[SETTING FOR MACHINE]
[SETTING FOR EMBROIDERY]
[OPTION]
[OUTLINE OF FUNCTIONS]
[TROUBLESHOOTING AND MAINTENANCE]
[APPENDIX]

Concerning optional devices, please refer to the instruction manual of the optional device you have purchased.

The contents of this manual may contain discrepancies in detailed information when compared with the actual product you have bought due to difference of target model or continued research and improvements.If any question about the products or contents of this manual arises, please consult your TAJIMA distributor.

Please keep this manual with care near the machine for quick reference.

Tokai Industrial Sewing Machine Co., Ltd.

IMPORTANT SAFETY INSTRUCTIONS

Operation of the machine requires correct operation. Items that require your special attention on operation are specified below with the warning symbol and signal word. These items must be strictly observed to ensure safety. Signal word definition is given below.

DANGER

Indicates that there is a lot of danger of death or serious injuries (*1) if the instructions is not observed.

WARNING

Indicates that there is a likelihood of death or serious injuries (*1) if the instruction is not observed.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury (*2) or property damage.

*1:A condition caused by electric shock, injury, fracture of a bone, etc., that leads to aftereffects, or an injury that necessitates hospitalization or visits to a hospital over a long period.

*2: An injury that does not necessitate hospitalization or visit to a hospital over a long period.

 : Prohibited items

 : Items that may cause electric shock if not observed

 : Items that must be followed carefully to ensure safe operation

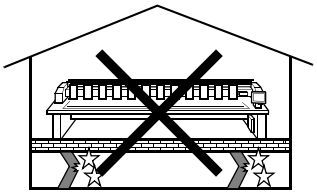
CONTENTS

INSTALLATION ENVIRONMENT

CAUTION

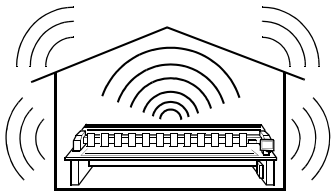
Install the machine on a sturdy floor.

The floor structure must be strong enough to bear the machine weight (indicated on the spec. plate).



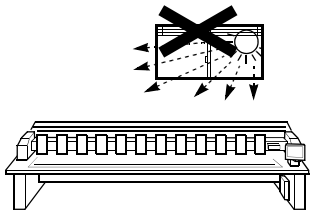
Prevent the operation noise in the environment.

To prevent the sound insulation performance of the factory in addition to the operation with reduced noise of this machine, use the interior finish materials which show high sound insulating performance for the walls, ceiling, and floor of the factory.



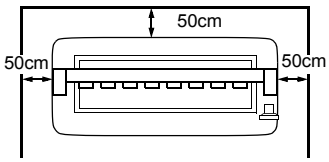
Avoid direct sunlight.

If the machine is exposed to direct sunlight over an extended period of time, the machine body may be discolored or deformed. Put curtains or shades to the site to prevent the machine from direct sunlight.



Provide enough space for maintenance.

For the maintenance purpose, provide at least 50 cm clearance around the machine (at the right, left, and backsides of the machine).



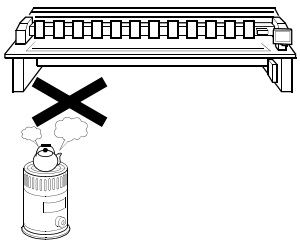
Avoid dust and moisture.

Dust and moisture lead to dirt and rust on the machine. Install air conditioning equipment, and periodically clean the working area.

Use caution not to expose the machine to direct wind from the air conditioner so that the embroidery threads do not become disheveled.

Humidity: 30 to 95%RH (relative humidity) without condensation

Ambient temperature: 5 to 40°C (during operation),
-10 to 60°C (during storage)



CAUTIONS ON MACHINE OPERATION

CAUTION

For long life machine operation, operate the machine with about 70% of the maximum speed as “operation for total fitting” for about one month after installation. By performing operation for total fitting, life of the machine will become longer, which will be useful to avoid unexpected troubles.

WARNING

To prevent accidents resulting in injury or death and physical damage, the following items must be observed strictly when operating the machine.

<Before Starting the Machine>

This machine is designed for industrial use. Use this machine for semi- or finished textile products and similar materials. Using the machine for other purposes must be avoided.

Use the machine in the environment where only authorized persons are permitted to enter, so that unauthorized persons will not manipulate the machine.

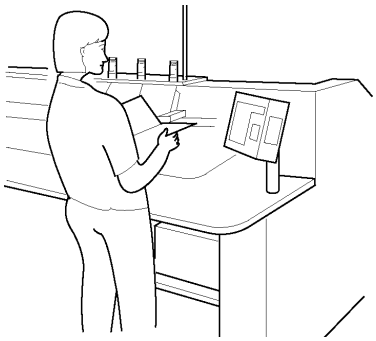
Only the persons who are sufficiently trained for the operation must operate the machine.

Do not have children access to vicinity of the machine.

The rear of the machine is not a working area. If you have to move to the rear of the machine, make sure to turn off the main switch.

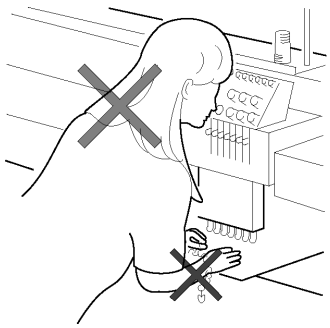
Do not stand on the machine. Using the bar switch as a grip to support yourself is strictly prohibited.

Read this manual and thoroughly understand the contents of operation before starting the machine.



Wear proper clothes and tidy up yourself so that you can smoothly perform the operation.

A single operator should operate the machine in principle. If plural operators are working together, make sure that no one is working near the moving units of the machine before starting the machine.



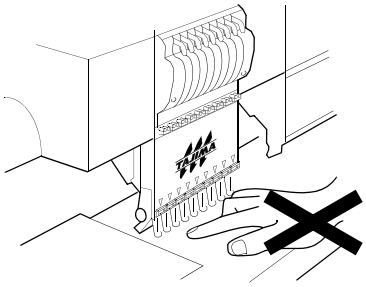
Do not damage, modify or heat the power or other cables. Do not exert undue force to them, either. Otherwise the cables will be damaged causing fire and electric shock.

Insert the power cable plug fully. If a metallic part touches a blade in the plug, it may cause fire and/or electric shock.

CAUTIONS ON MACHINE OPERATION

WARNING

<During the Machine Operation>



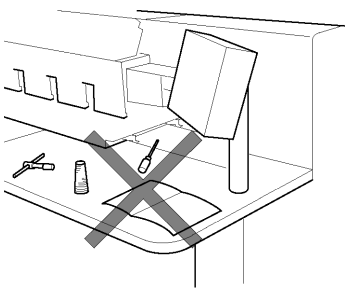
- Do not use a device such as a cellular phone that generates microwave near the control circuits of the power supply box, the operation panel box, etc. Microwave may cause malfunctioning of the machine.
- Do not remove the covers for the shaft and the pulleys when the machine is running. Do not run the machine without the covers.
- Do not have your hands or face access to movable units during running of the machine. Especially, the vicinities of needle, rotary hook, take-up lever, and pulley are dangerous.
- Keep away control units such as the power supply box and the controller box (operation panel box) from water and chemicals. Entry or splashing of them into control units leads to short circuits of internal circuits, causing fire, electric shock and other troubles. If water or other chemicals enter a control unit, shut off the power at the primary power source and contact your local distributor.

<During Machine Adjustments>

- Stop the machine before carrying out work near the needles such as threading the needle and checking the finish of embroidery.
- Shut off the power supply by turning off the power switch before manually rotating the main shaft of the machine.
- Turn off the primary power source before opening the electrical boxes. Be sure to turn off the power switch of the machine before turning off the primary power source. If not, it may cause electric shock.

CAUTION

When operating the machine, always observe the following items to prevent machine or property damage.



- Do not use bent needles or those that do not fit the materials.
- After the completion of work, shut off the power source by turning off the switch of the power distributor panel.
- Do not put things on the table.

WARNING LABELS

Important directive items

The machine has warning labels that bear instructions for safe operation. Machine operators must follow the instructions shown on the warning labels.

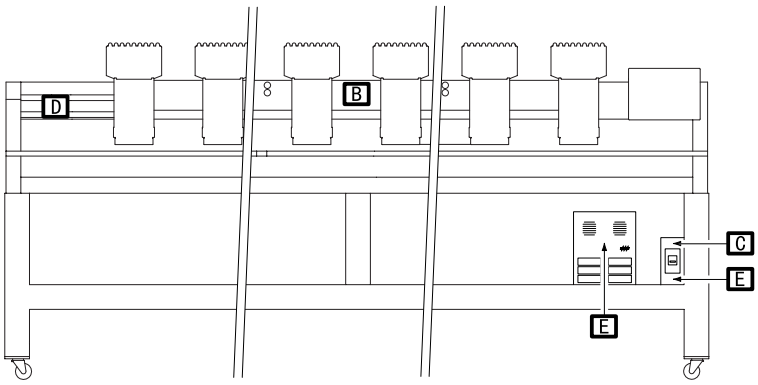
Do not detach the warning labels nor make them illegible by painting, etc.

If a warning label is missed or damaged, please consult your local distributor.

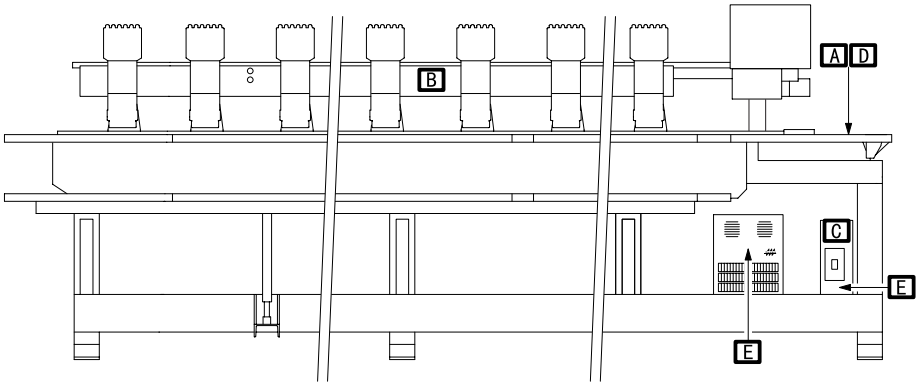
Applying position of warning labels

[TFHX series]

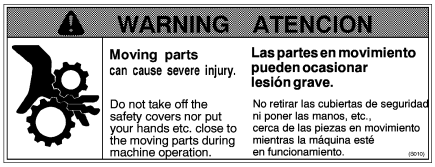
Although the shape of stand differs depending on model, applying position is the same.



[TEHX-C]



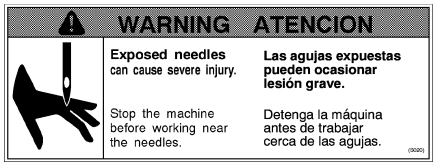
[A]



[B]

[C]

[D]



The term “Safety cover” in the label [A] and [B} refers to all covers installed near movable units of the machine.

[E]

High voltage mark

There could be in danger of electric shock, burning, or death. Persons except for service personnel designated by us should not open covers. When opening covers, wait for four minutes after turning off the power switch.

MAIN FUNCTIONS

◆NOISE-REDUCTION MECHANISM
Variety of noise-reduction mechanism keeps working environment comfortable.

◆POWER FAILURE MEASURE
It is possible to prevent the loss of products due to design displacement, etc. if power is shut off during machine operation.

◆CLEAN-UP FUNCTION
It disposes fine stitch data automatically to prevent skip stitches and thread breakage.

◆MEMORY
The machine includes 1,114,000-stitch memory as standard equipment, and it is possible to register up to 99 designs at the maximum.

◆TAKE-UP LEVER GUARD
It adds stability to thread movement, and prevents entangling of thread or coming-off of thread.

◆ENLARGE, REDUCE AND ROTATE DESIGN
It is possible to reduce/enlarge size of embroidery design within a range of 50 to 200% in increments of 1%. Rotation can be changed in increments of 1 degree.

◆AUTOMATIC REPEAT
It is possible to set up to 99 times at the maximum for X and Y directions individually by inputting value for the number of repeats.

◆FDD BUILT-IN
One piece of floppy disk can register up to 111 designs•about 240,000 stitches at the maximum in case of 2DD, and up to 223 designs•about 480,000 stitches at the maximum in case of 2HD to the memory.

◆EDIT OF DESIGN DATA
Design can be edited (modified, inserted, deleted) in 1-stitch units.

◆FRAME BACK
It is possible to return the embroidery frame by stitch unit, stop code unit, and specifying the number of stitches.

◆TRACE FUNCTION
The function checks if the design fits in the frame to be used before starting embroidery.

◆AUTOMATIC UPPER/UNDER THREAD TRIMMER
Automatic thread trimming is performed by instruction of design data. It is also possible to activate the machine manually as desired to trim thread.

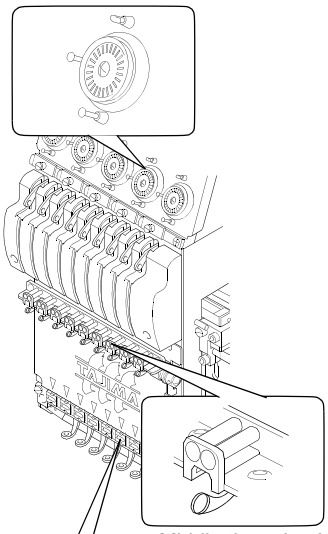
◆THREAD TENSION SUITABLE FOR HIGH-SPEED OPERATION
Highly stable thread tension is realized by the adoption of middle thread guide with tension spring and upper thread lock mechanism.

◆ROTARY TYPE THREAD BREAKAGE DETECTION MECHANISM
Stable detection of upper/under thread breakage is made possible even at high-speed operation.

◆AUTOMATIC/MANUAL OFFSET
It is possible to make the frame move to the position automatically where it is easy to change applique or frame. After the work, it is possible to return the frame to start position of design. (Automatic offset)
In addition, it is possible to return the frame to the position before traveling even if it was moved manually in process of embroidery (manual offset).

◆SATIN STITCH
It is possible to reduce/enlarge stitch length within a range of -1.0 to 1.0 mm.

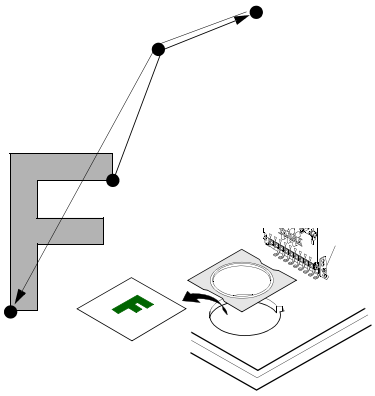
▼Rotary-type tension disk



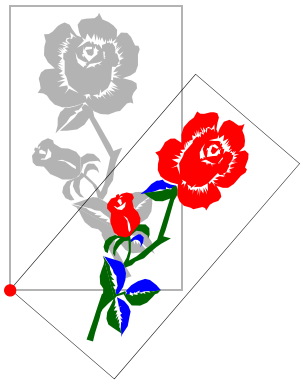
▲Middle thread guide with thread take-up spring

▲Upper thread lock mechanism

▼Automatic/manual offset

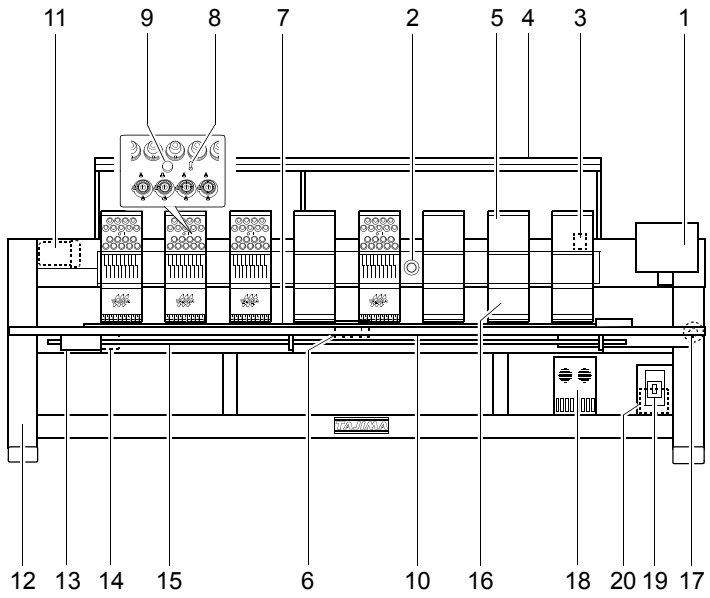


▼Reduction/Rotation of design

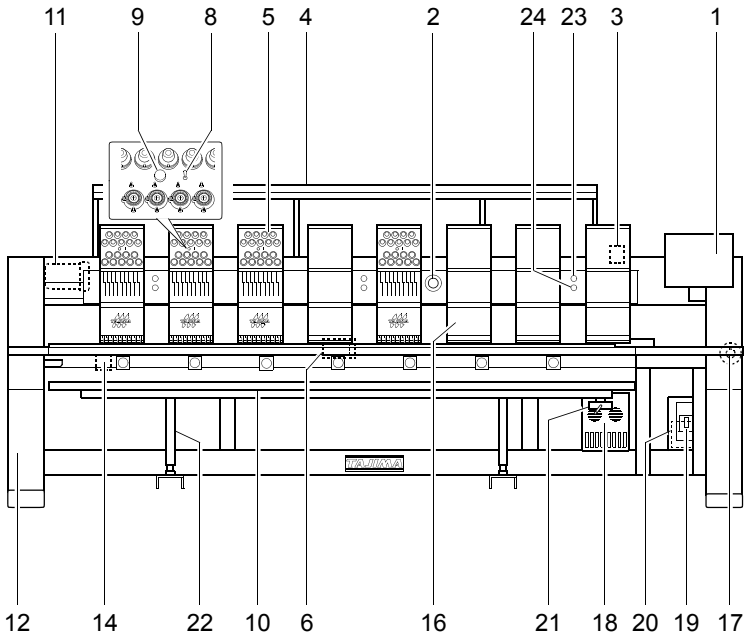


TFHX SERIES NAME OF EACH PART

TFHX .....



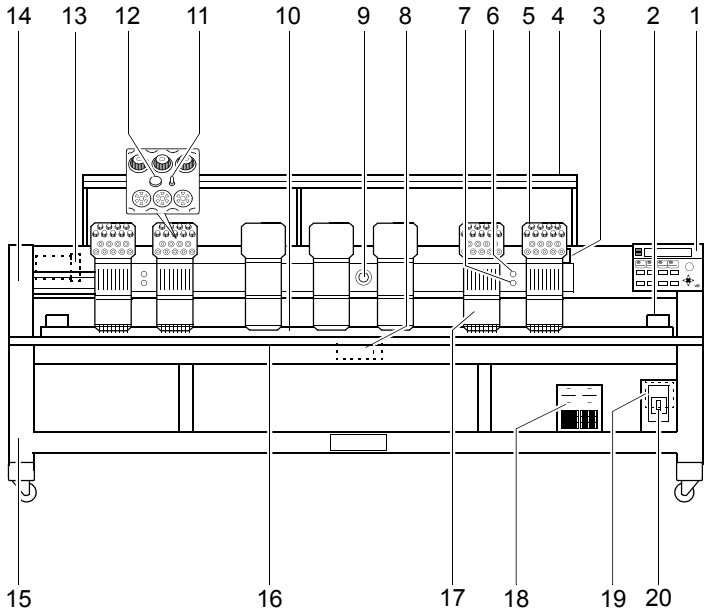
TFHX-C .....



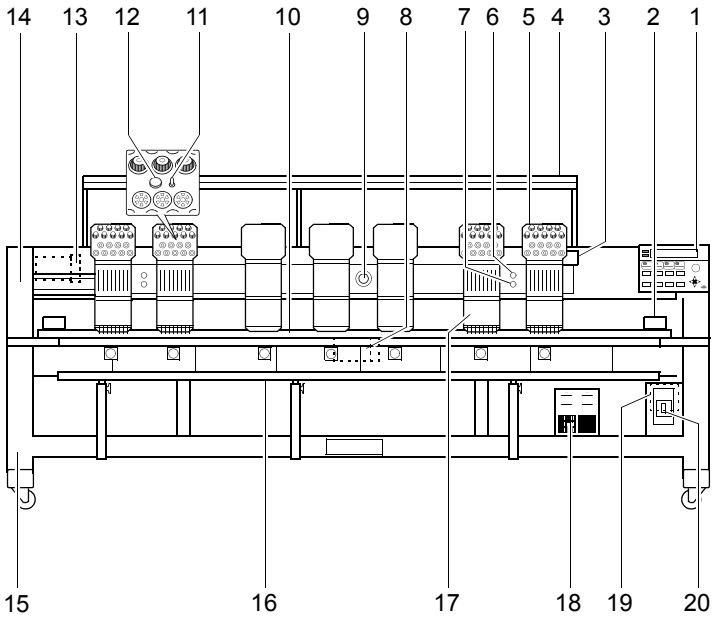
1. Operation panel
2. Emergency stop switch
3. Color change motor
4. Thread guide system
5. Rotary-type tension base
6. Y-axis motor
7. Embroidery frame
8. Tension base switch
9. Thread breakage indicator lamp
10. Machine table
11. Main shaft motor
12. Stand
13. Bar switch box
14. Thread trimming cam box
15. Bar switch
16. Needle bar case
17. X-axis motor
18. Power supply/driver box
19. Power switch
20. Inverter
21. Manual pump
22. Hydraulic cylinder
23. Stop switch
24. Start switch

TFHX SERIES NAME OF EACH PART

TFHX-II .....



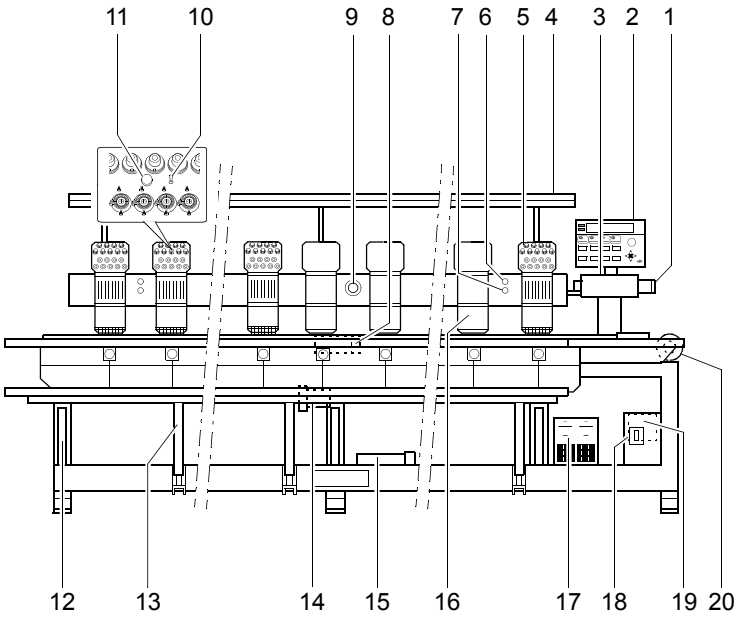
TFHX-IIC.....



1. Operation panel
2. X-axis motor
3. Color change motor
4. Thread guide system
5. Rotary-type tension base
6. Stop switch
7. Start switch
8. Y-axis motor
9. Emergency stop switch
10. Embroidery frame
11. Tension base switch
12. Thread breakage indicator lamp
13. Main shaft motor
14. Left-end box
15. Stand
16. Machine table
17. Needle bar case
18. Power supply/driver box
19. Inverter
20. Power switch

NAME OF EACH PART OF TEHX-C

TEHX-C .....



1. Color change motor
2. Operation panel
3. Color change box
4. Thread guide system
5. Rotary-type tension base
6. Stop switch
7. Start switch
8. Y-axis motor
9. Emergency stop switch
10. Tension base switch
11. Thread breakage indicator lamp
12. Stand
13. Hydraulic cylinder
14. Main shaft motor
15. Hydraulic pump
16. Needle bar case
17. Power supply/driver box
18. Power switch
19. Inverter
20. X-axis motor

POWER SUPPLY SPECIFICATION, POWER SUPPLY/DRIVER BOX

POWER SUPPLY SPECIFICATIONS .....

Electric specifications of this machine are defined as described below. Use the machine under these conditions.

- VOLTAGE, ALLOWABLE VOLTAGE RANGE: +/-10% OF THE RATED VOLTAGE
- FREQUENCY: 50/60 HZ
- CAPACITY, POWER CONSUMPTION (MAX)

  TFHXII, TFHX-IIC: 1.3 kVA 700 W
  TFHX, TFHX-C: 1.7 kVA 920 W
  TEHX-C: 2.5 kVA 1.5 kW

- INSULATING REGISTER: MORE THAN 10M OHMS (AT 500 V MEGGER)

WARNING

Since there is in danger of electric shock due to leak current, be sure to connect ground lead of the machine to the ground. Set degree of grounding to type 3 and higher (ground resistance 100 ohms or less).

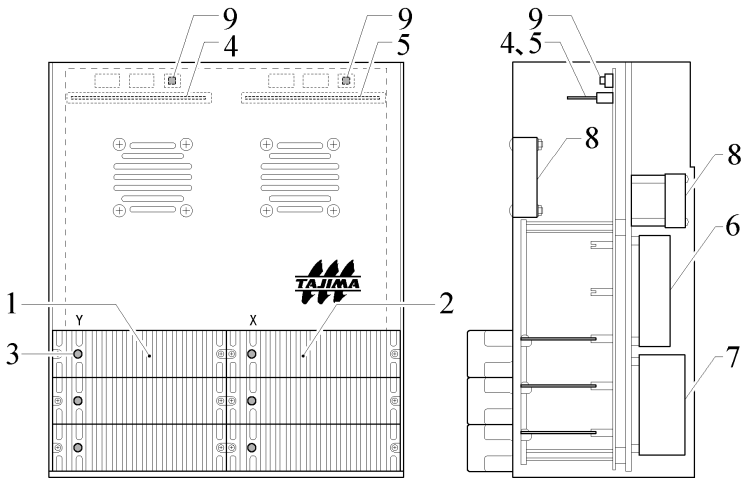
POWER SUPPLY/DRIVER BOX .....

WARNING

To prevent electric shock, be sure to use non-electrical-induced bar, etc. to press the excitation ON/OFF switch to turn ON/OFF excitation.

CAUTION

Do not put an object that blocks wind flow of the cooling fan. Inside of the box will overheat to cause the machine to malfunction.



1	Y-axis driver (Driver cards: 3 pieces)
2	X-axis drive (Driver cards: 3 pieces)
3	LED A lamp that indicates condition of the driver Lights in green: Excitation ON (normal) Lighting in orange: Excitation OFF Lit in red: Abnormal (overcurrent)
4	Driver CPU card (For Y driver)
5	Driver CPU card (For X driver)
6	Power supply card (5 V)
7	Power supply card (24 V)
8	Cooling fan
9	Excitation ON/OFF switch

SWITCHING OF POWER SUPPLY SPECIFICATION (100/200 V)

It is possible to change power supply specification by changing connecting method of short connector in the power supply box/driver box (excluding 7 to 20 head machines of TEHX-C).

WARNING

When performing this work, be sure to turn off the primary power supply to prevent electric shock. Before turning off the primary power supply, turn "OFF" the power switch.

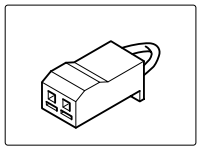
CAUTION

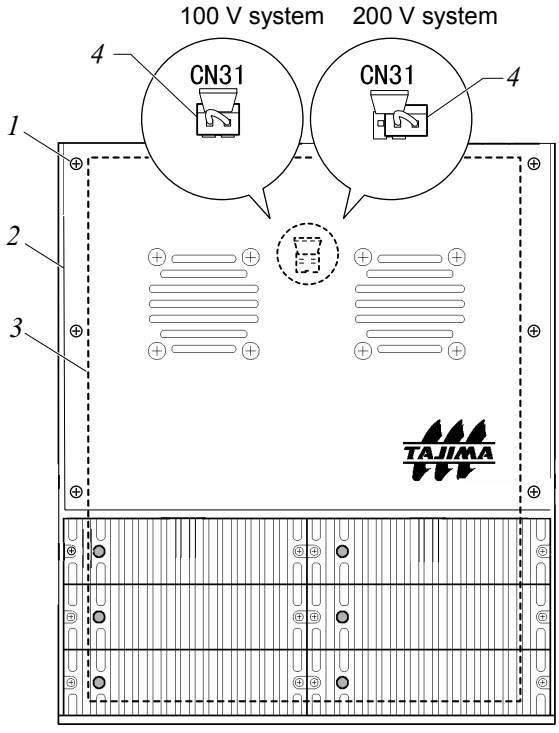
Regarding 7 to 20 head machines of TEHX-C, fix to 200 V system. When using these machine with 100 V system, they will break down.

Procedure

1. After removing the attaching screws (1) (6 spots), detach the front cover (2) of power supply/driver box.
2. Change connecting method of the short connector CN31A (4) attached to the connector CN31 on the mother board (3).

Short connector 31 A

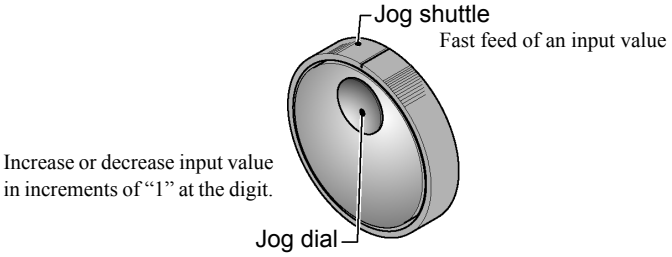




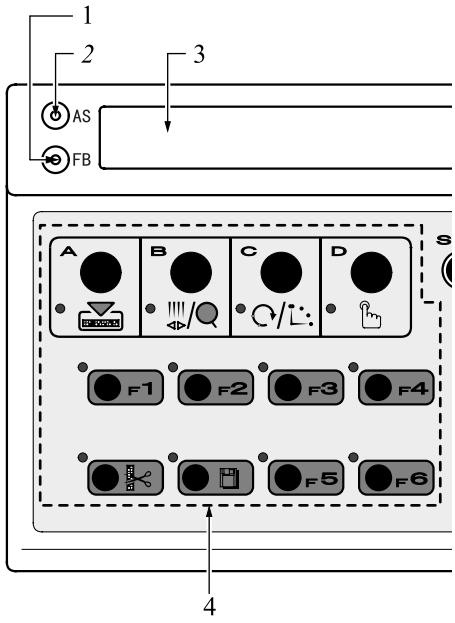
OPERATION PANEL

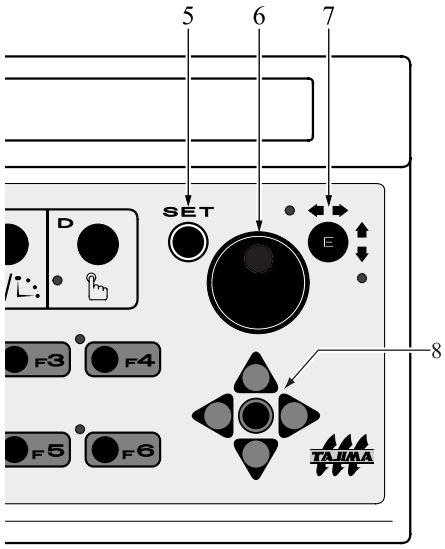
Function of each part.....

1. Indicator lamp of frame back/forward setting (p.4-8, p.5-9)
   Lit: frame back
   Unlit: frame forward
2. Indicator lamp of automatic/manual start setting (p.6-13)
   Lit: automatic
   Unlit: manual
3. Display area (p.2-10)
   Various types of setting contents will be displayed.
4. Set key (p.1-9)
   Use it to call each function.
5. Set key
   Use it when deciding the input value or the selected item, or executing the contents of manual operation. When a code number is displayed, it is also possible to use it as a reset key.
6. Jog dial/jog shuttle (p.4-6)
   Jog dial/jog shuttle has the following two functions.
   - Traveling operation of the embroidery frame
   - Selection of input value [*1]



7. Manual frame travel mode key (p.4-6)
   Press this key to set to "Manual frame travel mode" when using the jog dial to move the embroidery frame. To cancel the "Manual frame travel mode", press other operation key. When pressing this key in process of setting operation of each item, the setting contents will be reset to the previous setting value. At the same time, the display will return to the "usual display".
8. Manual frame travel key (p.4-6)
   Use it when moving the embroidery frame manually.





Supplement

*1 An example when selecting range is 0 to 5

- When rotating clockwise: 1→2→3→4→5
- When rotating counterclockwise: 1←2←3←4←5

OPERATION PANEL

9. Cover
Protective cover for the FDD

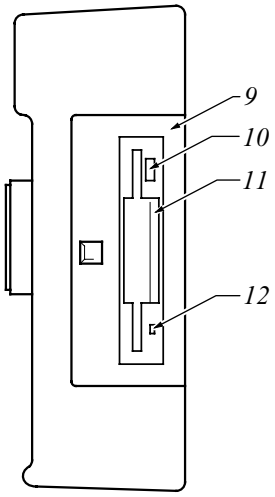
10. Disk ejection button
Used to eject a floppy disk from the FDD.

11. Floppy disk drive (FDD)
A device that drives a floppy disk to be read or written

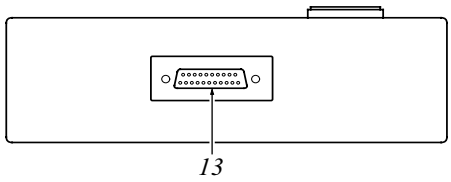
12. Operation indicator lamp
It blinks when the FDD is working.

13. Serial I/F connector
Use it when connecting DG/ML.

[Right side view]



[Bottom view]



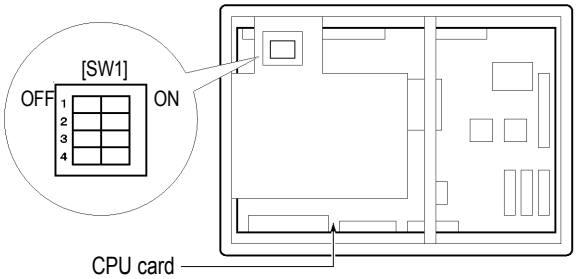
Communication speed of serial I/F connector .....

38,400 is the initial value. When performing connection with other communication speed than this, change the DIP switch (SW1) on the CPU card. For details, consult the distributor.

CAUTION

When changing setting for DIP switch, be sure to turn OFF the power. The setting for DIP switch will become effective when the power is turned ON next.

Back side of operation panel

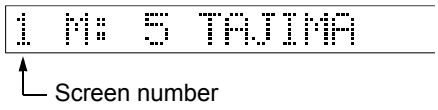


* SW1-3 should always be turned ON, and 4 should always be turned OFF

Communication speed	SW1-1	SW1-2
9,600 bps	OFF	OFF
19,200 bps	ON	OFF
9,600 bps	OFF	ON
38,400 bps	ON	ON

EACH SETTING KEY

Function of each setting key.....



Screen number

MENU KEY A:

Screen number	Function	Page
1	Design data input (Memory)	p.3-1
2	Design data input (Floppy disk)	p.3-2
4	Design data input (External device)	p.3-4
5	Memory deletion	p.3-8
6	Standby input	p.3-6

MENU KEY B:

Screen number	Function	Page
1	Automatic color change/Automatic start	p.6-13
2	Needle bar selection	p.6-15
3	Data conversion	p.6-30
4	Repeat	p.6-19
5	Automatic offset	p.6-22
6	Automatic start after automatic data set	p.6-25

MENU KEY C:

Screen number	Function	Page
1	Max Revolution	p.5-1
2	Stitch counter/design time	p.4-16
3	Frame back/forward (Set)	p.5-9
	Frame back/forward (Execute)	p.4-8
4	Automatic origin return	p.6-26
5	Preset halt	p.6-27
6	Confirmation of the number of stitches up to automatic lubrication	p.4-19

MENU KEY D:

Screen number	Function	Page
1	Manual color change	p.4-1
2	Manual thread trimming	p.4-2
3	Manual origin return	p.4-3
4	Manual offset	p.4-4
5	Trace	p.4-5
6	Manual lubrication	p.4-20

EACH SETTING KEY

FUNCTION KEY F1: F1

Screen number	Function	Page
1	Jump conversion	p.6-32
2	Automatic jump	p.6-33
3	Satin stitch	p.6-34
4	All head sewing after frame back	p.6-36
5	Backlash	p.6-35

FUNCTION KEY F2: F2

Screen number	Function	Page
1	Low Speed R.P.M.	p.5-2
2	The number of inching times at start	p.5-4
3	Stop at lower D. point (pseudo-fixed position)	p.6-29
4	Frame travel speed	p.5-6
5	Upper thread breakage detection	p.6-1
6	Under thread breakage detection (detecting times)	p.6-4
7	Under thread breakage detection (movement ratio)	p.6-7

FUNCTION KEY F3: F3

Screen number	Function	Page
1	Automatic thread trimming (ATH)	p.6-10
2	Under thread trimming selection	p.7-4
3	Table up/down device (Set)	p.5-11
4	Boring device	p.7-1
5	High-speed sequin device (Set)	p.7-5
6	Cording	p.7-2
8	Automatic lubrication system	p.7-7
9	Bobbin changer	p.7-8

FUNCTION KEY F4: F4

Screen number	Function	Page
1	Network	p.7-3

FUNCTION KEY F5: F5

Screen number	Function	Page
—	It is not used at present.	—

EACH SETTING KEY

FUNCTION KEY F6: F6

Screen number	Function	Page
1	Table up/down (Execute)	p.4-21
2	Sequin device up/down (Execute)	p.4-22

DATA EDIT KEY:

Screen number	Function	Page
1	Stitch data edit (modify)	p.3-10
2	Stitch data edit (insert)	p.3-14
3	Stitch data edit (delete)	p.3-18
4	Stitch data edit (cleanup)	p.3-21

FLOPPY DISK PROCESSING KEY:

Screen number	Function	Page
1	Floppy disk (Design data writing)	p.3-23
2	Floppy disk (Design data deleting)	p.3-27
3	Floppy disk (Formatting)	p.3-29

SET KEY: SET + MENU KEY D:

Screen number	Function	Page
—	Confirmation mode	p.4-17

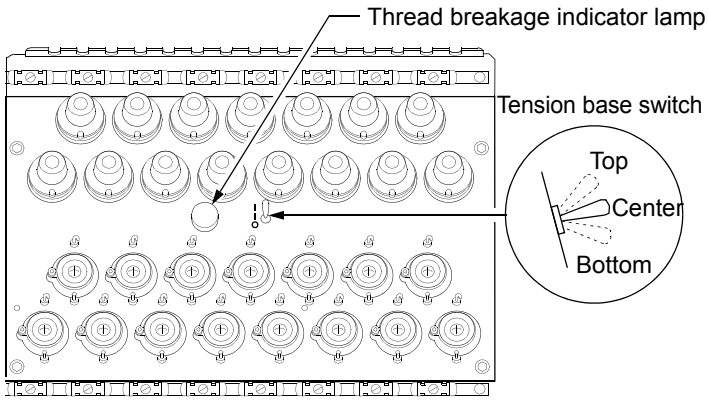
SET KEY: SET + FUNCTION KEY F2: F2

Screen number	Function	Page
1	Limit of max revolution	p.5-3
2	Frame drive start timing	p.5-5
3	Frame drive method	p.5-8
5	Adjustment of stop position of main shaft	p.5-7

SET KEY: SET + FUNCTION KEY F6: F6

Screen number	Function	Page
1	Power resume (TFHXII, TFHX-IIC)	p.4-10
2	Frame origin memory (TFHXII, TFHX-IIC)	p.4-10

ROTARY-TYPE TENSION BASE



Function of tension base switch .....

"Center" position (normal operation)

Set the switch to the "center" position usually.

When the machine stops by thread breakage detection, starting the machine after performing frame back to the position where thread broke will cause only the head that detected thread breakage to restart the embroidery at that position.

To perform embroidery from the position where frame back was performed to without detection of thread breakage, move the switch to the "top" position once after performing frame back. When the switch is released, it will automatically return to the "center" position by return spring.

"Bottom" position (stop of needle bar)

Positioning the switch to "bottom" will cause the needle bar not to move. (Embroidery will not be performed.)

Function of thread breakage indicator lamp .....

- At normal operation: Lighting in green
- When upper thread breakage is detected: Lighting in red
- When under thread breakage is detected: Blinking in red

For details of start position of all head sewing after frame back, read p.6-36.

NEEDLE BAR SUSPENSION LEVER

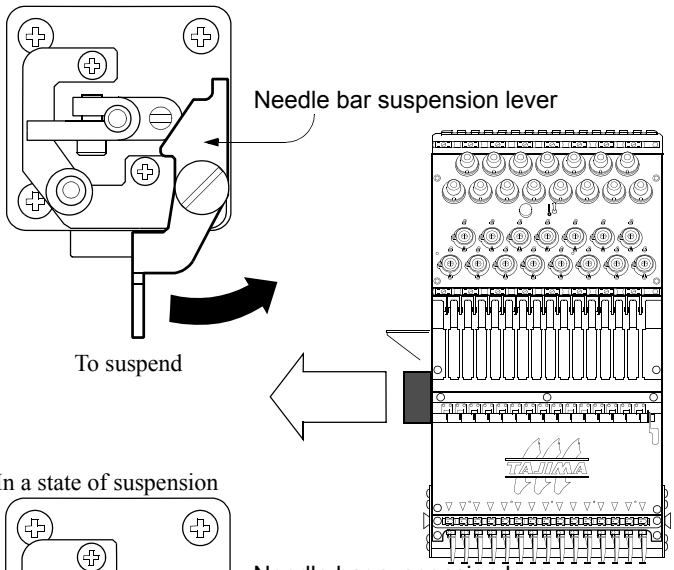
This lever switches a needle bar to be suspended/ready to operate mechanically.

WARNING

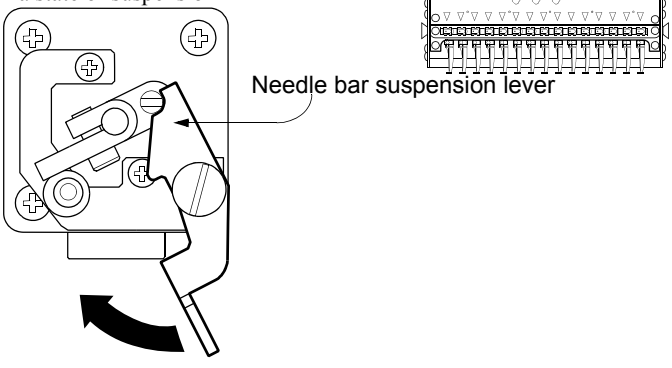
Do not perform work such as changing thread, etc. at the head of which needle bars are suspended during running of the machine. Even if needle bars are suspended by operation of needle bar suspension lever, you could be injured by unexpected malfunctioning of the machine.

[Viewing from side]

● In a state of operation possible



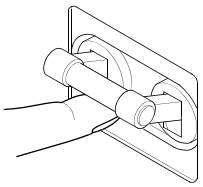
● In a state of suspension



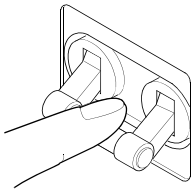
POWER SWITCH AND EMERGENCY STOP SWITCH

Power switch .....

Turn "ON" the power switch



Turn "OFF" the power switch



Shape of power switch differs depending on model.

Emergency stop switch.....

To stop the machine in an emergency, press the emergency stop switch. When restarting the machine after stopping it by the emergency stop switch in process of embroidery, follow the procedure described below.

Position of power switch after pressing emergency stop switch differs depending on model.
TFHX series: “OFF” position
TEHX-C: “Center” (middle of ON and OFF) position

Procedure

1. Turn the switch knob to the direction indicated by arrow to release the lock.

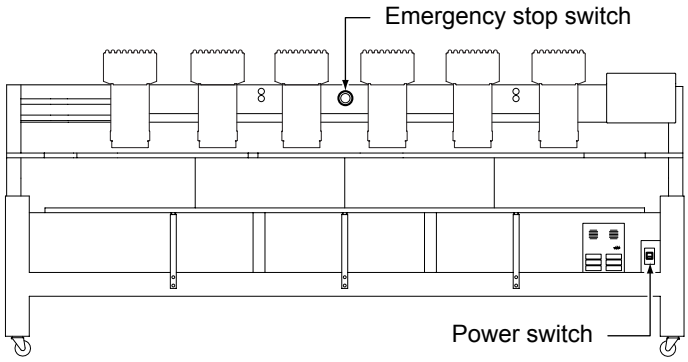
When restarting the machine, it is necessary to operate “Power resume” (p.4-13).

2. Turn “ON” the power switch.

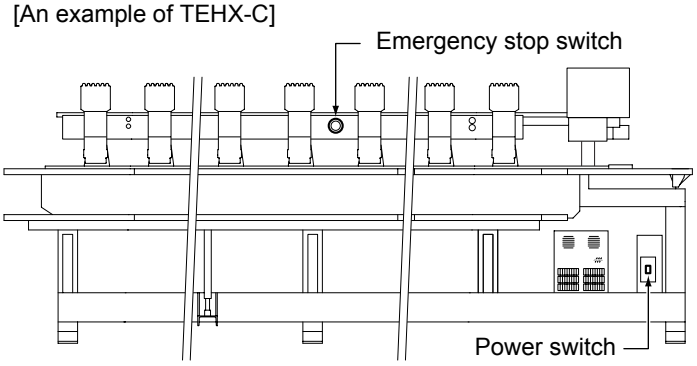
In case of TEHX-C, turn “OFF” the power switch once, and then turn it “ON”.

3. Since code number 2E3 will be displayed, perform operation of “Power resume” referring to p.4-13.

[An example of TFHX-IIC]



[An example of TEHX-C]

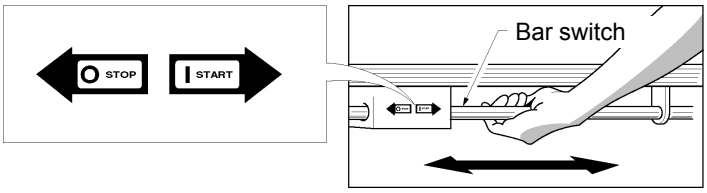


START AND STOP

WARNING

Do not have your hands, face, etc. access to moving parts such as needle, take-up lever, etc. until you confirm complete stop of the machine. Even if stop of the machine by stop switch is performed, the machine may not stop immediately due to preventive function of displacement of design.

Operation by bar switch (TFHX) .....

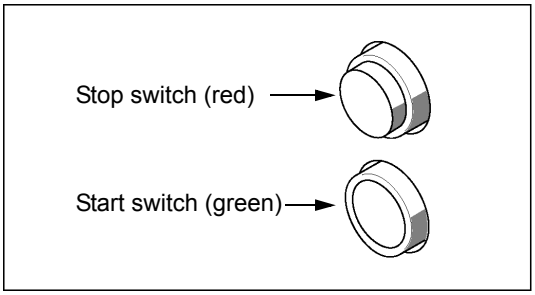


Bar switch	During stop
Move it to the right and release it immediately	Operation starts
Move it to the right, and hold it to that position	Start of inching operation When released, the machine will run normally.
Move it to the left, and release it.	Perform frame back (FB)/forward (FF) by the set unit (p.5-9).
Move it to the left, and hold it at that position	Perform FB/FF by the set unit (p.5-9). [When released within 10 feeds] The machine will stop at that time. [When released with 11 feeds or more] Continue FB/FF. It is possible to change speed of FB/FF by turning the jog dial during continuation (equivalent to 250 to 1000 rpm). Moving it to the left again will cause the machine to stop FB/FF.

Bar switch	During operation
Move it to the left, and release it.	Stop
Move it to the left, and hold it at that position	
Move it to the right, and release it	Invalid
Move it to the right, and hold it to that position	

START AND STOP

Operation by start/stop switch (excluding TFHX).....



Start switch	During stop
Press and release immediately	Operation starts
Keep on pressing	Start of inching operation When released, the machine will run normally.

Stop switch	During stop
Press and release immediately	Perform FB/FF by the set unit (p.5-9).
Keep on pressing	FB/FF will be performed by the set unit. [When released within 10 feeds] It will stop at that time. [When released with 11 feeds or more] Continue FB/FF. It is possible to change speed of FB/FF by turning the jog dial during continuation (equivalent to 250 to 1000 rpm). Pressing it again will cause the machine to stop FB/FF.

Start switch	During operation
Press and release immediately	Invalid
Keep on pressing	

Stop switch	During operation
Press	Stop

Stop by preset halt (p.6-27)

When the number of stitches reaches the preset value at shipment, the following screen will appear to cause the machine to stop.

[An example of halt for lubrication]

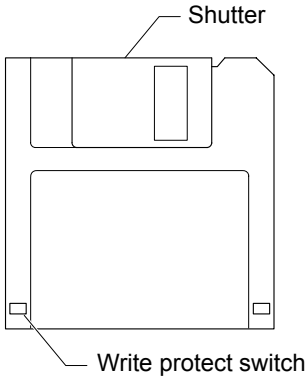
When code number “1D2” or “OIL” is displayed, press the [SET] to reset the machine after performing necessary work. The number of stitches for halting the machine will be automatically set again.

FLOPPY DISK AND FLOPPY DISK DRIVE

Floppy disk .....

CAUTION

- **Do not put the floppy disk near magnets or a TV.**
- **Do not expose the floppy disk to excessive heat, humidity, or direct sunlight.**
- **Do not place objects on floppy disk.**
- **Floppy disks do not last eternally. Data must be copied to backup floppy disks for storage.**
- **Do not use damaged or deformed floppy disk, otherwise the floppy disk drive could be damaged.**
- **Do not open the shutter.**
- **To prevent the stored data from being erased, slide the tab of the write protect switch to open the write protect window of a floppy disk (write protect state).**

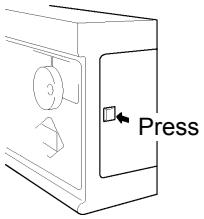


Floppy disk drive (FDD).....

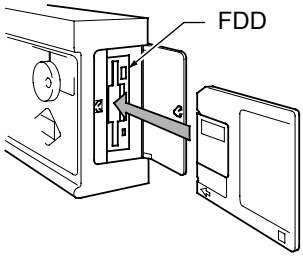
CAUTION

- **Insert a floppy disk slowly and carefully into the floppy disk drive. If a floppy disk is inserted impetuously, pressing the eject button may fail to eject the floppy disk. This could cause the floppy disk to be damaged and, in addition, the floppy disk drive could be damaged.**
- **Clean the head (the section where data is read and written) of the FDD about once a month using cleaning disk sold in the market. If the head is dirty, read/write operation could be faulty.**
- **Do not forcibly remove floppy disk from the floppy disk drive.**
  If the floppy disk is forced out of the floppy disk drive, the floppy disk and the floppy disk drive could be damaged.
- **When the floppy disk drive is operating (the operation indicator lamp lights), do not take out the floppy disk. The contents of the floppy disk could be damaged.**

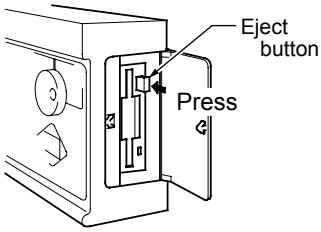
1. Opening/closing of cover



2. Inserting the floppy disk



3. Taking out of the floppy disk



INSTALLATION OF SOFTWARE

Outline

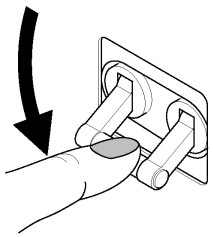
This operation installs program software to the machine. Perform this operation when setting up the machine or upgrading the version.

CAUTION

When performing installation of software, all design data currently stored in the memory will be deleted. Therefore, write necessary data to floppy disk before installation of software (p.3-23).

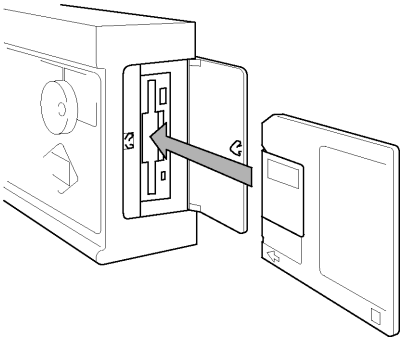
Operation

1. Turn “OFF” the power switch.



Shape of power switch differs depending on model.

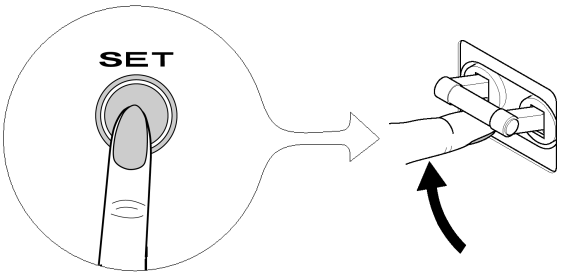
2. Set the floppy disk in which software is stored to the FDD.



INSTALLATION OF SOFTWARE

3. Turn “ON” the power switch while pressing the [SET].

Keep on pressing the [SET] even after turning “ON” the power switch.

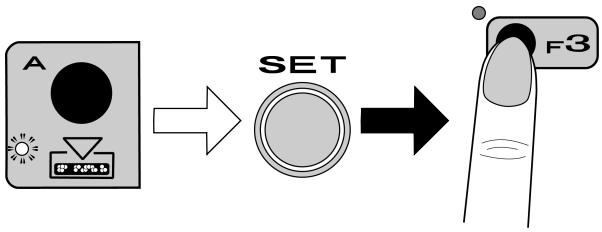


The screen display will become as shown below.

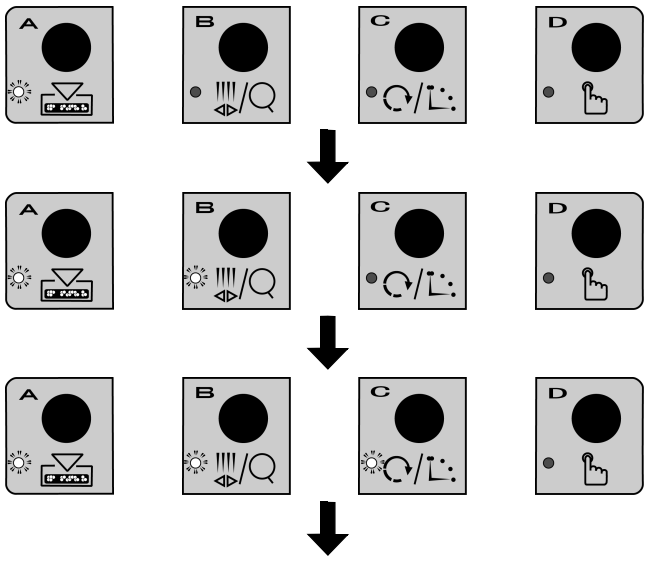
Even at this moment, keep on pressing the [SET].

4. When LED of the menu key A lights, release the [SET] and press the F3 key.

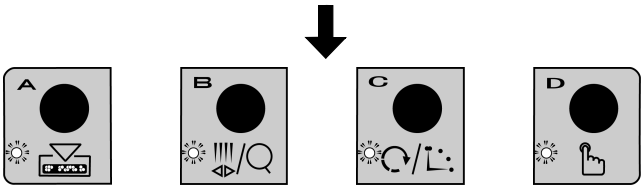
Keep on pressing the F3 key until completion of installation of software.



Software will be installed. As installation of software progresses, the indicator lamps (LED) of the menu keys A to D will light in order.

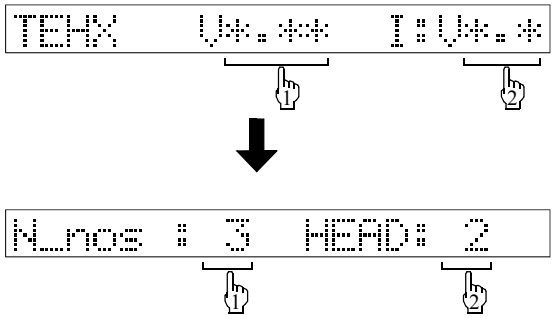


INSTALLATION OF SOFTWARE



At completion of installation of software, LED of all menu keys will light. At the same time, the screen display will become as shown below.

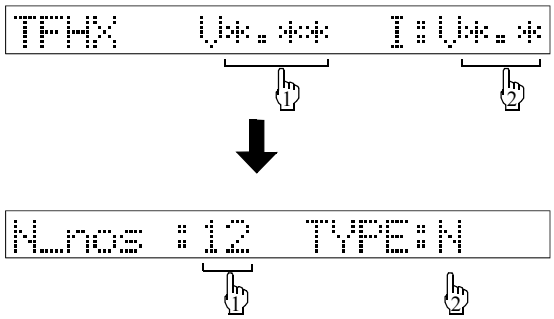
[TEHX-C]



☞ 1. Version number of software
2 ROM version number

☞ 1. The number of needles
2. The number of heads

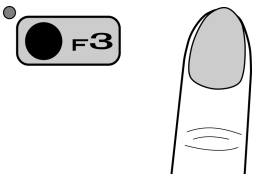
[TFHX, TFHX-C, TFHX-II, TFHX-IIC]



☞ 1. Version number of software
2 ROM version number

☞ 1. The number of needles
2. Machine type

5. When installation of software is completed, confirm if the display appears as described above, and then release the F3 key.



Hereafter, explanation for each model is given.

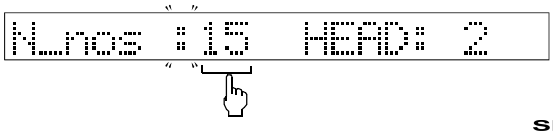
■ **TEHX-C: to p.2-8**

■ **TFHX, TFHX-C, TFHX-II, TFHX-IIC: to p.2-9**

INSTALLATION OF SOFTWARE

[TEHX-C]

6. Set the number of needles. .....



Set.....

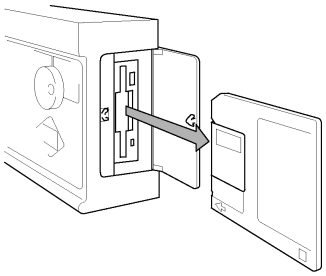
☞ An example when selecting 15 (needles)

7. Set the number of heads of the machine.....

Set.....

☞ An example when selecting 12 (heads)

8. Take out floppy disk from FDD.



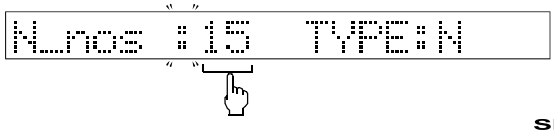
📖 Perform operation of “Frame origin memory” (p.4-10) continuously.

📖 When performing software installation, each setting value will return to the initial value. Set it again if necessary.

INSTALLATION OF SOFTWARE

[TFHX, TFHX-C, TFHX-II, TFHX-IIC]

6. Set the number of needles. .....

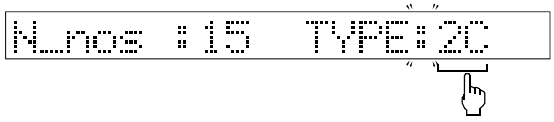


Set.....

☞ An example when selecting 15 (needles)

7. Set the machine type.....

Select among “2”, “2C”, “L”, and “LC”.



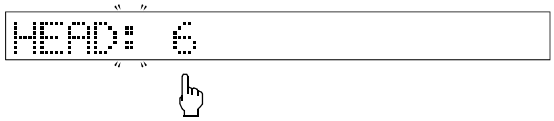
Set.....

📖 Although “N” and “NC” are displayed, do not select them. In case of TFHX, select “L”. In case of TFHX-C, select “LC”.

☞ An example when selecting 2C (TFHX-IIC)

2: TFHX-II 2C: TFHX-IIC
L: TFHX (L) LC: TFHX-C (L)

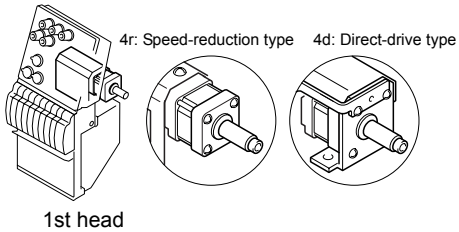
8. Set the number of heads of the machine.....



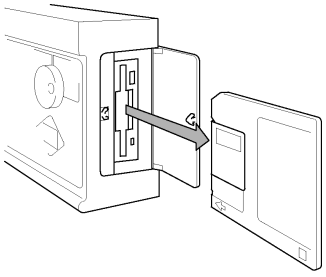
Set.....

☞ An example when selecting 6 (heads)

📖 In case of 4-head machine, select either of the followings. Perform distinction by whether motor is masked by cover or not.



9. Take out floppy disk from FDD.



📖 Perform operation of “Frame origin memory” (p.4-10) continuously.

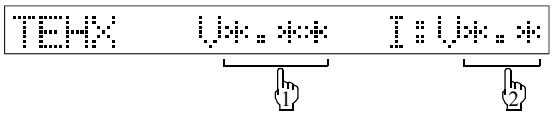
📖 When performing software installation, each setting value will return to the initial value. Set it again if necessary.

DISPLAY OF DISPLAY AREA

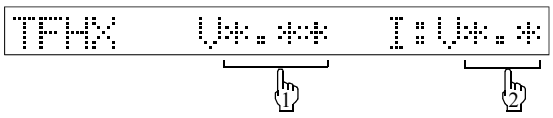
Display after turning on the power.....

When turning “ON” the power switch, self-check of software will be performed. During self-check, the screen display as shown below will appear.

[TEHX-C]



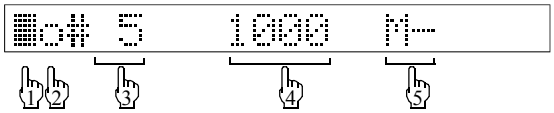
[TFHX, TFHX-C, TFHX-II, TFHX-IIC]



☞ 1. Version number of software
2 ROM version number

Usual display.....

When self-check of software is completed, the screen display as shown below will appear.



☞ 1. Display of the fixed position

When the machine stops at the fixed position [*1], this mark will be displayed.

2. Display of setting for automatic offset

: With, No display: Without

3. Display of needle position

The needle bar number currently selected will be displayed.

4. Display of the number of revolutions

The maximum rpm currently selected (p.5-1) will be displayed.

5. Completion/Incompletion of data input

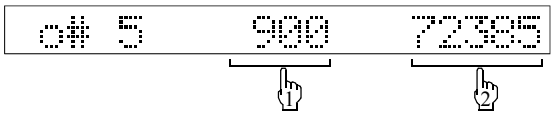
: Non-registration of design data

: Incompletion of data input

: Completion of data input (An example of design number 5)

Display during operation.....

The following screen display will appear during operation.



☞ 1. Display of the actual number of revolutions[*2]

The actual number of revolutions during operation will be displayed.

2. Stitch counter (design unit)

The number of stitches by design unit will be displayed.

Supplement

*1 In a state where the angle plate of the main shaft stops at 100°

*2 It is possible to change the value of the maximum number of revolutions (rpm) during running of the machine by operating the jog dial. In this case, when turning the jog dial, actual number of revolutions will increase/decrease accordingly. While turning the jog dial, the maximum number of revolutions (rpm) will be displayed with parenthesis “Example: “. When stopping turning, it will return to display of actual number of revolutions (rpm).

INSPECTIONS BEFORE STARTING OPERATION

Before operating the machine or embroidering, be sure to inspect the items in the table described below. If abnormality has been found in result of inspection, follow the “Corrective Measures”.

WARNING

When performing inspections before starting operation, be sure to turn “OFF” the power switch. You could be severely injured due to being entangled by the machine or sticking of needle.

Contents of inspection	Corrective measures when abnormality occurs
Attaching condition of each cover	Attach all covers to the machine correctly.
Setting condition of embroidery thread	Set embroidery thread correctly.
With or without breakage, bent, etc. of embroidery needle	Replace the needle.
Lubricating condition of each part of the machine	Perform lubrication according to need (p.9-7).
With/without of oil leakage, etc. about lubrication system (option)	Consult the distributor.

If you do not know how to cope with, please consult the distributor.

BASIC OPERATION PROCEDURE

The description explains basic operating procedure up to start of embroidery.

1. Turn ON the primary power supply. .....

Set an external device (Only when inputting design data from an external device)

2. Turn “ON” the power switch .....

Set floppy disk (Only when reading design data of floppy disk)

3. Setting on the operation panel .....

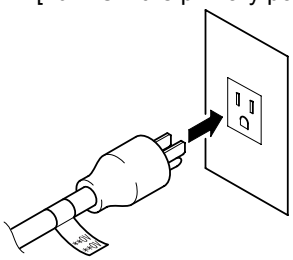
1. Data input (Data set)
2. Automatic color change/Automatic start
3. Needle bar selection
4. Data conversion
5. Repeat
6. Automatic offset

4. Manual frame travel .....

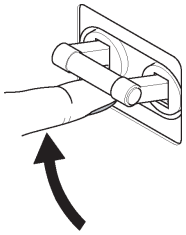
5. Turn “ON” start switch/bar switch.....

Embroidery starts.

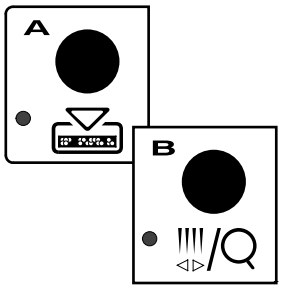
[Turn ON the primary power supply]



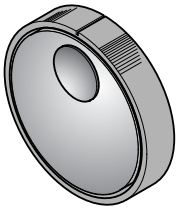
[Turn ON the power switch]

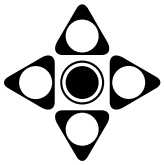


[Setting operation of the operation panel]

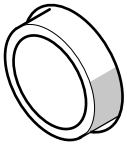


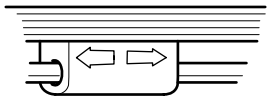
[Manual frame travel]





[Turn ON the start switch] [Turn ON the bar switch]





DESIGN DATA INPUT (MEMORY)

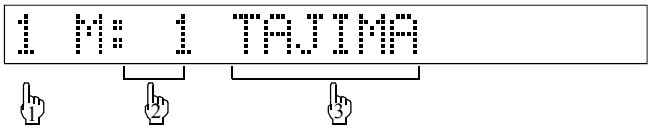
Outline

Call design data registered in the memory to perform data set [*1].

Contents to be set

Setting item	Setting range
Design data	1 to 99

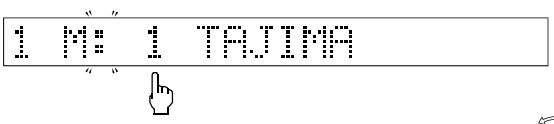
Setting screen



☞ 1. Screen number
2. Design number
3. Design name[*2]

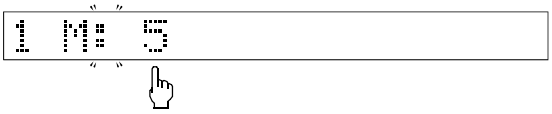
Operation

1. Selection of data input (memory).....



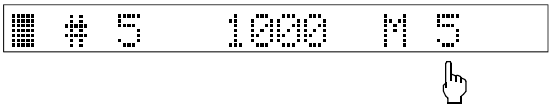
☞ The smallest No. among design data stored in the memory will be displayed.

2. Selection of design data .....



☞ An example when selecting design No. 5

3. Set (End).....



☞ The selected design number will be displayed.

Supplement

*1 In a state where it is possible to perform embroidery

*2 It is displayed only when design name for design data is registered. It is possible to display up to 8 characters.

DESIGN DATA INPUT (FLOPPY DISK)

Outline

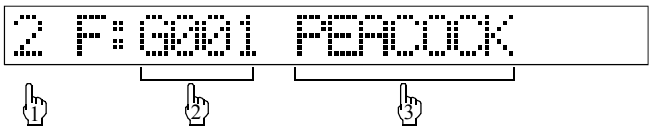
Input design data stored in floppy disk (FD) to the memory of the machine to perform data set [*1].

Contents to be set

Setting item	Setting range
Design data registered in FD	1 to 111 (2DD), 1 to 223 (2HD)
Memory-registered design No.	1 to 99

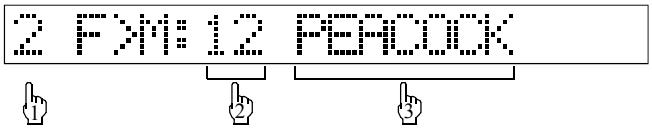
Setting screen

When selecting design data registered in floppy disk



☞ 1. Screen number
2. Design number
3. Design name[*2]

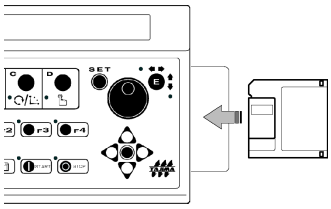
When selecting memory-registered design number



☞ 1. Screen number
2. Memory registration No.
3. Design name [*2]

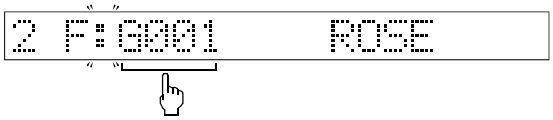
Operation

1. Insert floppy disk (FD) to the FDD.



2. Selection of data input (FD).....

Set.....



☞ The smallest No. among design data registered in the floppy disk will be displayed.

Supplement

*1 In a state where it is possible to perform embroidery

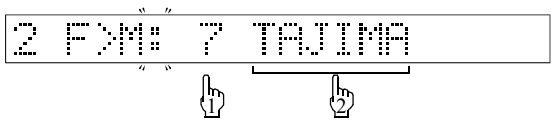
*2 It is displayed only when design name for design data is registered. It is possible to display up to 8 characters.

DESIGN DATA INPUT (FLOPPY DISK)

3. Selection of design data registered in floppy disk .....

☞ An example when selecting G003

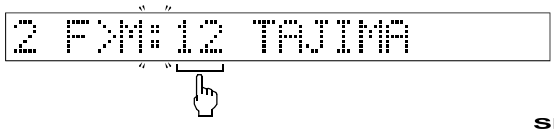
Set.....



☞ 1. The smallest design No. among numbers that can be stored in the memory will be displayed.

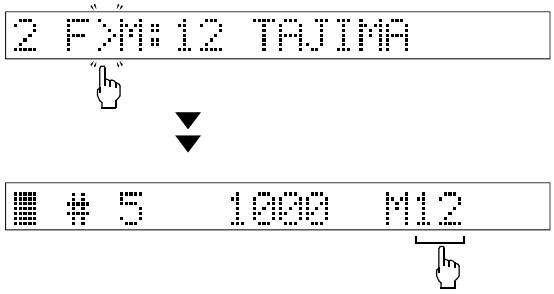
2. The design name registered in the floppy disk will be displayed.

4. Selection of memory registration No. .....



☞ An example when selecting design No. 12

5. Set (End).....



☞ It will blink during reading.

☞ The selected design number will be displayed.

DESIGN DATA INPUT (EXTERNAL DEVICE)

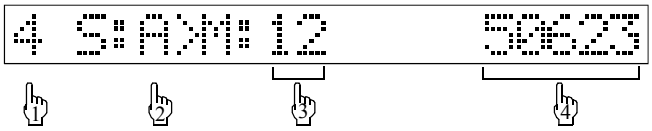
Outline

Input design data from external device (DG/ML) to the memory of the machine to perform data set [*1].

Contents to be set

Setting item	Setting range
Code format (data type)	A (Auto-detect), T (Tajima) B (Barudan), Z (ZSK)
Memory registration No.	1 to 99

Setting screen



☞ 1. Screen number
2. Code format
3. Memory registration No.
4. Remaining memory capacity

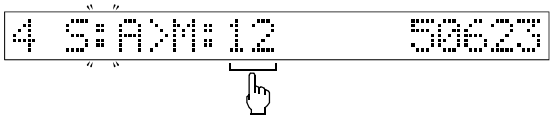
CAUTION

When connecting an external device to the machine, turn "OFF" the power of the external device and the machine. When turning "ON" the power, turn it in the order of the external device → the machine.

When transmitting data from an external device, perform transmitting after checking if the power of the machine is turned "ON".

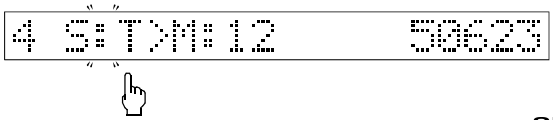
Operation

1. Selection of data input (external device).....



☞ The smallest design No. among numbers that can be stored in the memory.

2. Selection of code format of design data to read.....



☞ T: An example when selecting (Tajima)

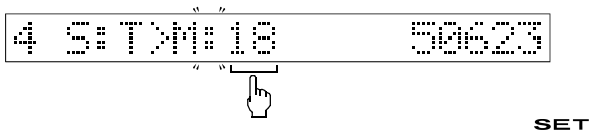
Set.....

Supplement

*1 In a state where it is possible to perform embroidery

DESIGN DATA INPUT (EXTERNAL DEVICE)

3. Selection of memory registration No. .....



☞ An example when selecting registration No. 18

4. Set (End).....

☞ The selected registration No.will be displayed.

STANDBY INPUT

Outline

Input design data [*1] from an external device (DG/ML) that is connected to the serial I/F connector (p.1-8) to the memory temporarily. In addition, design data input by standby input will be deleted when different design data is input.

CAUTION

When connecting an external device to the machine, turn "OFF" the power of the external device and the machine. When turning "ON" the power, turn it in the order of the external device → the machine.

When transmitting data from an external device, perform transmitting after checking if the power of the machine is turned "ON".

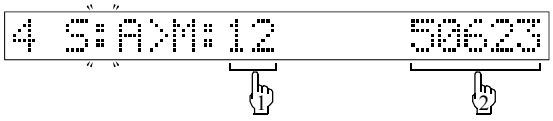
It is possible to perform standby input only when data is not set or machine start or frame forward is not performed even if data set was performed. In addition, even in this case it is not possible to perform standby input during color change (automatic and manual) or frame traveling.

When performing standby input, check if vacant capacity of memory is enough for amount of data to input and then perform inputting. When memory capacity runs out at standby input, code number 2BA will be displayed to stop input.

Regarding the first input design after switching from a state of usual running to a standby state and the first input design after switching from a standby state to a state of usual running, a part of settings is replaced by the initial value [*2]. After completion of standby input, it is possible to change setting for design freely (except in operation).

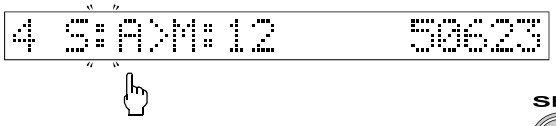
Operation

1. Selection of data input (external device).....



1. The smallest design No. among numbers that can be stored in the memory.
2. Remaining memory capacity

2. Selection of code format of design data to read.....



Select A (Auto-detect).

When design data that cannot be read even by "A (Auto-detect)" occurs, check the format of the design data and select code format again.

Set.....

SET

Supplement

*1 When it is possible to perform standby input, this state is called standby state. When inputting data from an external device in a standby state, data will be set automatically.

*2 Data conversion (Scale ratio: X/Y each 100%), Repeat (X/Y each 1 time, Design interval amount: 0 mm, Priority: X, Design interval: Frame stepping), Without automatic offset

STANDBY INPUT

3. Switching to standby mode .....

Set.....

It will blink →  [In a state of standby of input]

4. Input of design data

Input design data from an external device. During input of design data, the indicator lamp will light.

It will light → 

5. Standby operation

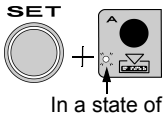
When the indicator lamp goes out and the screen display (operation standby state) as shown below appears, start embroidery.

It will go out →  [In a state of standby of operation]

In addition, when operation is finished, the machine will be in a state of standby of operation.

6. Cancellation of standby mode

Cancellation of standby mode should be performed during stop of the machine and not during standby input[*1].

Press the menu key [A] while pressing [SET]. ..... 

When pressing the [SET] in a state of standby of operation, the indicator lamp of the menu key A will blink, and it will become possible to perform standby input of other designs (Input standby state). To return from input standby state to operation standby state, press the [SET] again.

When code number [2B3, 2B4, 2BA, or 3D6] is displayed in process of standby input, press the [SET] to reset the machine. Resetting the machine will cancel the standby state, and design data that has been input by standby input and design data in process of standby input will be deleted.

Supplement

*1 The indicator lamp of the menu key A should not be turned on.

MEMORY DELETION

Outline

Delete design data registered in the memory. There are following two types of "Memory deletion".

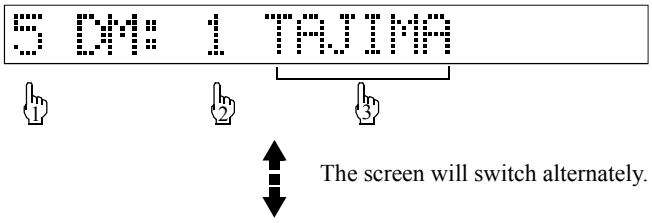
- **Delete the selected design data only**
- **Delete all design data**

Contents to be set

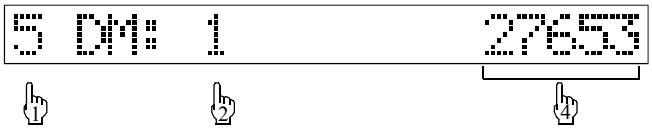
Setting item	Setting range
Design data	1 to 99 (To delete selected design data only) 00 (To delete all design data)

Setting screen

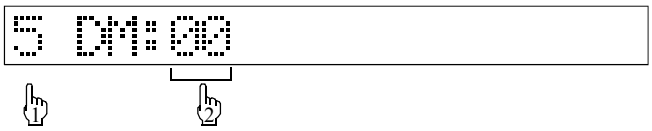
When deleting the selected design data only



The screen will switch alternately.

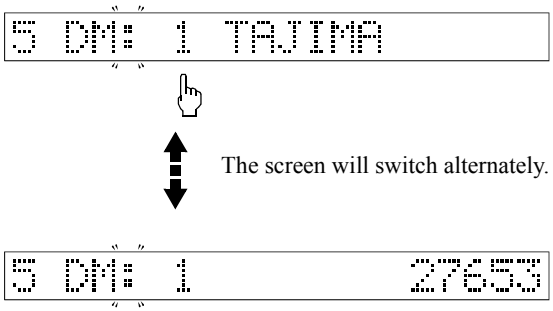


When deleting all design data



Operation

1. Selection of memory deletion .....



The screen will switch alternately.

It is not possible to perform memory deletion in process of embroidery.

1. Screen number
2. Design number
3. Design name[*1]
4. The number of stitches of design data

1. Screen number
2. All design data

The smallest design No. among numbers registered in the memory will be displayed.

The warning buzzer will sound.

Supplement

*1 It is displayed only when design name for design data is registered. It is possible to display up to 8 characters.

MEMORY DELETION

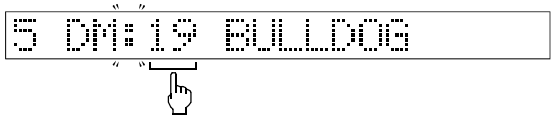
2. Selection of deleting method

● When deleting the selected design data only .....

☞ An example when selecting design No. 18

SET

Set (End) .....

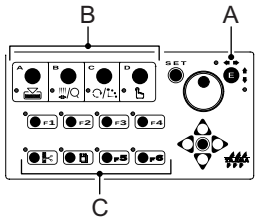


☞ The next design No. to the deleted one will be displayed.

The screen will switch alternately.

📖 When returning to usual display: A

When performing other setting•operation: B, C



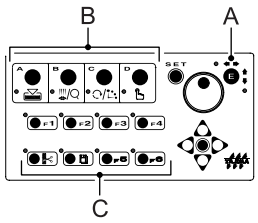
● When deleting all design data.....

SET

Set (End) .....

📖 When returning to usual display: A

When performing other setting•operation: B, C



STITCH DATA EDIT (MODIFY)

Outline

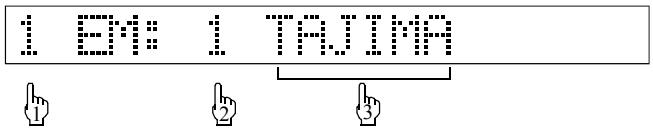
Modify stitch data of design data registered in the memory.

Contents to be set

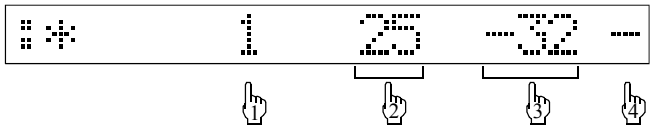
Setting item	Setting range
Design data	1 to 99
Stitch data	1 to the last stitch number
X data	-12.7 to 12.7 mm
Y data	-12.7 to 12.7 mm
Function code	S (stop), J (jump), H (high speed), L (low speed), A (ATH), P (sequin), E (end), — (stitch)

Setting screen

When selecting design data



When selecting stitch data



Operation

1. Selection of data edit (modify).....

Set.....

Perform modification of stitch data by one stitch unit. It is also possible to select stitch data to modify by using search function.

1. Screen number
2. Design number
3. Design name[*1]

1. Stitch No.: An example of the first stitch
2 X data: An example of +2.5 mm
3 Y Data: An example of -3.2 mm
4. Function code

The smallest design No. among numbers registered in the memory will be displayed. When embroidery is in halfway, the design No. currently embroidered will be displayed.

Supplement

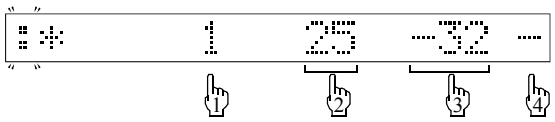
*1 It is displayed only when design name for design data is registered. It is possible to display up to 8 characters.

STITCH DATA EDIT (MODIFY)

2. Selection of design data to edit .....

☞ An example when selecting design No. 5

Set..... SET

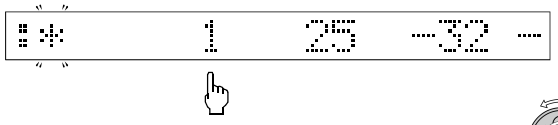


☞ 1. Stitch No.: An example of the first stitch
2 X data: An example of +2.5 mm
3 Y Data: An example of -3.2 mm
4. Function code

3. Selection of stitch data to modify

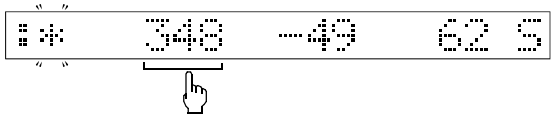
● When not using search function

Set ..... SET



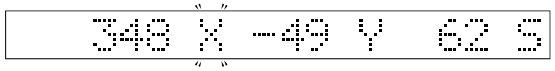
☞ When embroidery is in halfway, the current stitch data No. will be displayed. In this case, it is possible to select the current and subsequent stitches.

A▸ Select stitch data.....



☞ An example when selecting the 348th stitch

Set..... SET



This completes the selection of stitch data. Proceed to “4. Modification for X data” (p.3-12).

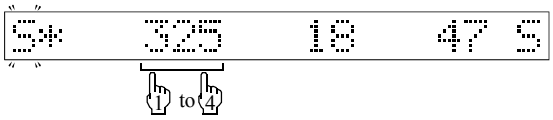
● When using search function

Select function code to search .....

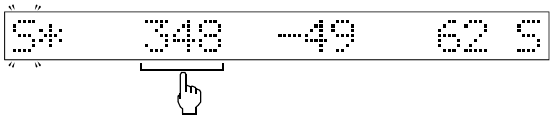
☞ An example when selecting S (Stop)

STITCH DATA EDIT (MODIFY)

Set ..... SET



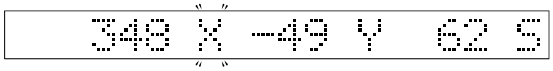
Set ..... SET



Select " " .....

Set ..... SET

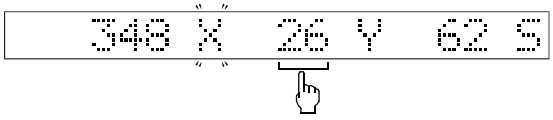
Set ..... SET



This completes the selection of stitch data. Proceed to "4. Modification for X data".

4. Modification for X data

Select X data value after modification .....



☞ 1 The initial stitch data that includes S (Stop) will be searched. It is only possible to search the current and subsequent stitches during embroidery.

2. Every pressing the [SET] will cause stitch data that includes the same function code will be searched in order of precedence.

3. It is also possible to select other function codes by turning the [Jog dial].

4. When there is no function code to be searched for, display will not change.

☞ An example when selecting the 348th stitch

☞ An example when selecting 26 (2.6 mm)

When not changing X data, press the [SET] and move to modification of Y data.

STITCH DATA EDIT (MODIFY)

Set..... SET

5. To modify Y data

Select Y data value after modification.....

☞ An example when selecting -12 (-1.2 mm)

Set..... SET

6. Modification of function code

Select function code after modification [*1].....

☞ An example when selecting J (Jump)

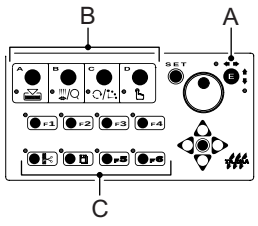
7. Set (End)..... SET

The screen for the next stitch data will be displayed.

📖 When modifying other stitch data: Return to "3. Selection of stitch data to modify" A▶ section (p.3-11), and select stitch data to modify.

📖 When returning to usual display: A

When performing other setting•operation: B, C



Supplement

*1 S: Stop, J: Jump, H: High speed, L: Low speed, A: ATH, P: Sequin, E: End, —: Stitch

STITCH DATA EDIT (INSERT)

Outline

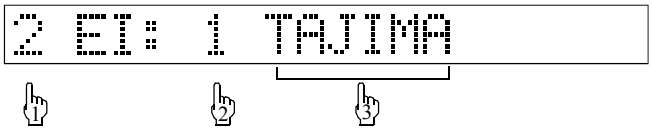
Insert stitch data to design data registered in the memory.

Contents to be set

Setting item	Setting range
Design data	1 to 99
Stitch data	1 to the last stitch number
X data	-12.7 to 12.7 mm
Y data	-12.7 to 12.7 mm
Function code	S (stop), J (jump), H (high speed), L (low speed), A (ATH), P (sequin), E (end), — (stitch)

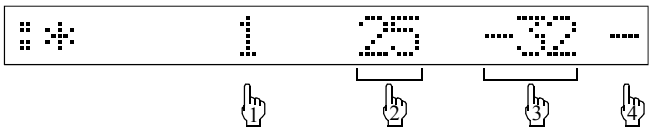
Setting screen

When selecting design data



1. Screen number
2. Design number
3. Design name[*1]

When selecting stitch data



1. Stitch No.: An example of the first stitch
2 X data: An example of +2.5 mm
3 Y Data: An example of -3.2 mm
4. Function code

Operation

1. Selection of data edit (insert) .....

Set.....

The smallest design No. among numbers registered in the memory will be displayed. When embroidery is in halfway, the design No. currently embroidered will be displayed.

Perform insertion of stitch data by one stitch unit. It is also possible to select a target for insertion by using search function.

Stitch data will be inserted just before the selected stitch data.

Supplement

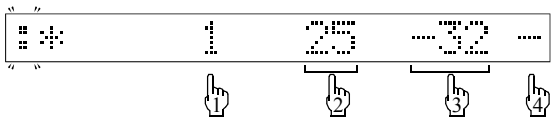
*1 It is displayed only when design name for design data is registered. It is possible to display up to 8 characters.

STITCH DATA EDIT (INSERT)

2. Selection of design data to edit .....

☞ An example when selecting design No. 5

Set.....

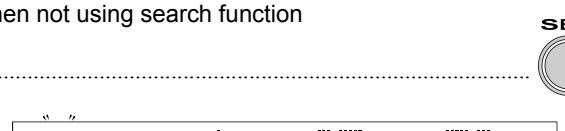


☞ 1. Stitch No.: An example of the first stitch
2 X data: An example of +2.5 mm
3 Y Data: An example of -3.2 mm
4. Function code

3. Selection of stitch data to insert

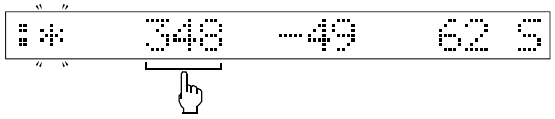
● When not using search function

Set .....



☞ When embroidery is in halfway, the current stitch data No. will be displayed. In this case, it is possible to select the current and subsequent stitches.

A▸ Select stitch data .....



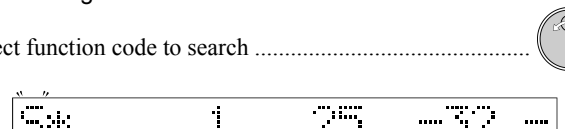
☞ An example when selecting the 348th stitch

Set.....

This completes the selection of stitch data. Proceed to “4. Setting for X data” (p.3-16).

● When using search function

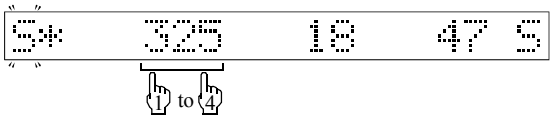
Select function code to search .....



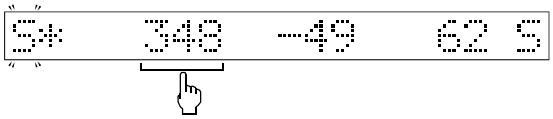
☞ An example when selecting S (Stop)

STITCH DATA EDIT (INSERT)

Set ..... SET



Set ..... SET



Select " " .....

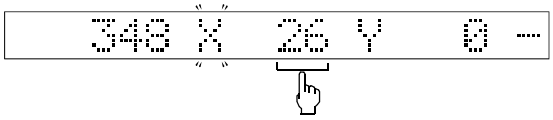
Set ..... SET

Set ..... SET

This completes the selection of stitch data. Proceed to "4. Setting for X data".

4. Setting for X data

Select X data value of stitch data to insert .....



☞ 1 The initial stitch data that includes S (Stop) will be searched. It is only possible to search the current and subsequent stitches during embroidery.

2. Every pressing the [SET] will cause stitch data that includes the same function code will be searched in order of precedence.

3. It is also possible to select other function codes by turning the [Jog dial].

4. When there is no function code to be searched for, display will not change.

☞ An example when selecting the 348th stitch

☞ An example when selecting 26 (2.6 mm)

When not changing X data, press the [SET] and move to modification of Y data.

STITCH DATA EDIT (INSERT)

Set..... SET

5. Setting for Y data

Select Y data value of stitch data to insert .....

☞ An example when selecting -12 (-1.2 mm)

Set..... SET

6. Setting for function code

Select function code [*1].....

☞ An example when selecting J (Jump)

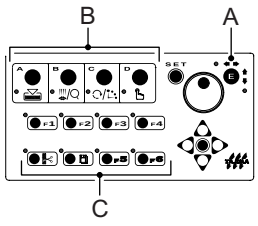
7. Set (End)..... SET

The screen for the next stitch data will be displayed.

📖 When inserting other stitch data: Return to "3. Selection of stitch data to insert" A▶ section (p.3-15), and select stitch data to insert.

📖 When returning to usual display: A

When performing other setting•operation: B, C



Supplement

*1 S: Stop, J: Jump, H: High speed, L: Low speed, A: ATH, P: Sequin, E: End, —: Stitch

STITCH DATA EDIT (DELETE)

Outline

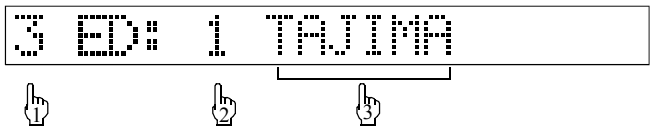
Delete stitch data of design data registered in the memory.

Contents to be set

Setting item	Setting range
Design data	1 to 99
Stitch data	1 to the last stitch number

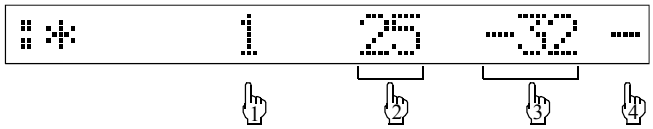
Setting screen

When selecting design data



1. Screen number
2. Design number
3. Design name [*1]

When selecting stitch data



1. Stitch No.: An example of the first stitch
2 X data: An example of +2.5 mm
3 Y Data: An example of -3.2 mm
4. Function code [*2]

Operation

1. Selection of data edit (delete).....

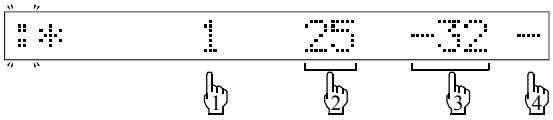
Set..... SET

The smallest design No. among numbers registered in the memory will be displayed. When embroidery is in halfway, the design No. currently embroidered will be displayed.

2. Selection of design data to edit .....

An example when selecting design No. 5

Set..... SET



1. Stitch No.: An example of the first stitch
2 X data: An example of 2.5 mm
3 Y Data: An example of -3.2 mm
4. Function code

Supplement

*1 It is displayed only when design name for design data is registered. It is possible to display up to 8 characters.

*2 S: Stop, J: Jump, H: High speed, L: Low speed, A: ATH, P: Sequin, E: End, —:Stitch

Perform deletion of stitch data by one stitch unit. It is also possible to select stitch data to delete by using search function.

STITCH DATA EDIT (DELETE)

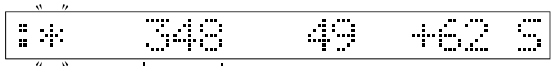
3. Selection of stitch data to delete

● When not using search function

Set ..... SET

A▸

Select stitch data..... 



This completes the selection of stitch data. Proceed to “4. Set (End)” (p.3-20).

☞ When embroidery is in halfway, the current stitch data No. will be displayed. In this case, it is possible to select the current and subsequent stitches.

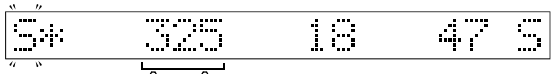
☞ An example when selecting the 348th stitch

● When using search function

Select function code to search ..... 

☞ An example when selecting S (Stop)

Set ..... SET



☞ 1 The initial stitch data that includes S (Stop) will be searched. It is only possible to search the current and subsequent stitches during embroidery.

2. Every pressing the [SET] will cause stitch data that includes the same function code will be searched in order of precedence.

3. It is also possible to select other function codes by turning the [Jog dial].

4. When there is no function code to be searched for, display will not change.

Set ..... SET

☞ An example when selecting the 348th stitch

Select “ ⠿ ”..... 

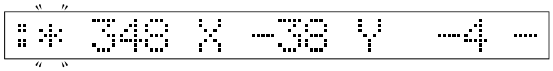
STITCH DATA EDIT (DELETE)

Set ..... SET

This completes the selection of stitch data. Proceed to “4. Set (End)”.

4. Set (End)..... SET

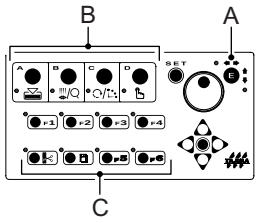
The contents of the next stitch data will be displayed as the 348th stitch on the screen.



When deleting other stitch data: Return to “3. Selection of stitch data to delete“ A▶ section (p.3-19), and select stitch data to delete.

When returning to usual display: A

When performing other setting•operation: B, C



STITCH DATA EDIT (CLEANUP)

Outline

Delete a fine stitch in design data registered in the memory and make the next stitch absorb the fine stitch.

It is not possible to perform operation of cleanup in process of embroidery.

CAUTION

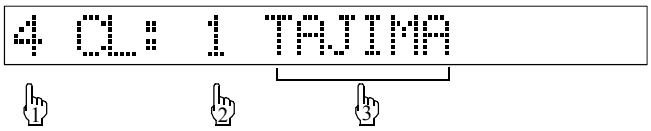
The original design data will be overwritten to design data after cleanup by this operation. Save the original design data to floppy disk according to need.

Contents to be set

Setting item	Setting range
Design data	1 to 99
Stitch length of stitch data to clean up	0.4 to 0.9 mm (in increments of 0.1 mm)

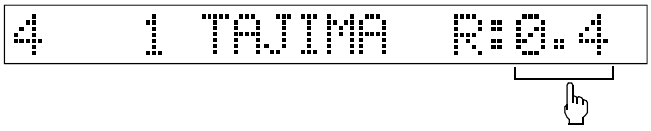
Setting screen

When selecting design data



1. Screen number
2. Design number
3. Design name[*1]

When selecting stitch data



Stitch length of stitch data to clean up: An example of 0.4 mm [*2]

Operation

1. Selection of data edit (cleanup).....

Set.....

The smallest design No. among numbers registered in the memory will be displayed.

Supplement

*1 It is displayed only when design name for design data is registered. It is possible to display up to 8 characters.

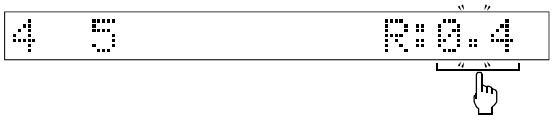
*2 Stitch data of stitch length less than 0.4 mm will be deleted.

STITCH DATA EDIT (CLEANUP)

2. Selection of design data to edit .....

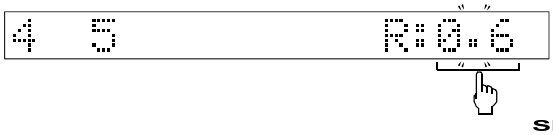
☞ An example when selecting design No. 5

Set.....



☞ The current setting value will be displayed.

3. Selection of stitch length to clean up .....

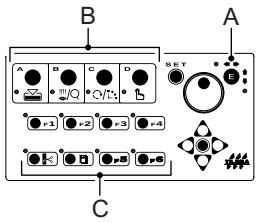


☞ An example when selecting stitch length 0.6 mm

4. Set (End).....

📖 When returning to usual display: A

When performing other setting•operation: B, C



Outline

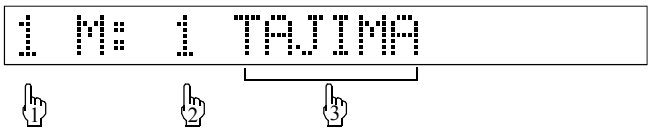
Write design data registered in the memory to floppy disk (FD).

Contents to be set

Setting item	Setting range
Design data (Memory)	1 to 99
Design data (FD)	1 to 111 (2DD), 1 to 223 (2HD)
Design name	0 to 9, A to Z (max. 8 characters)

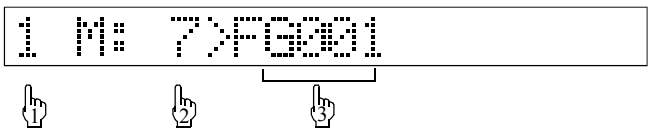
Setting screen

When selecting design data in the memory



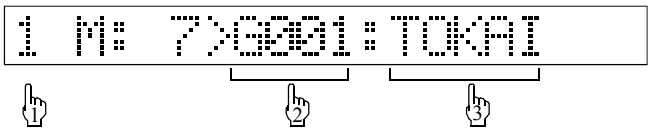
☞ 1. Screen number
2. Design number
3. Design name [*1]

When selecting writing No. to floppy disk (FD)



☞ 1. Screen number
2 Memory design number
3 Writing No. to FD.

When registering design name



☞ 1. Screen number
2 FD Design number
3 Design name [*2]

CAUTION

Do not turn OFF the power in process of this operation. When turning OFF the power or at power failure, a part of or whole of design data will be damaged.

Supplement

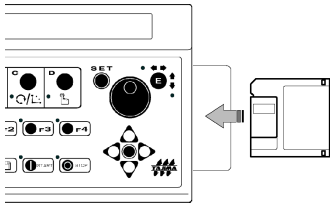
*1 It is displayed only when design name for design data is registered. It is possible to display up to 8 characters.

*2 It is possible to set up to 8 characters.

FLOPPY DISK (DESIGN DATA WRITING)

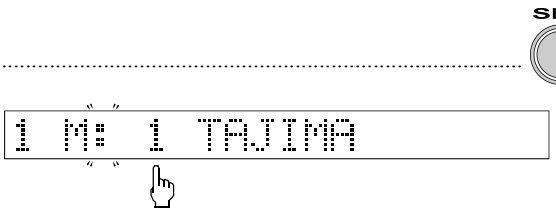
Operation

1. Insert floppy disk (FD) to the FDD.



2. Selection of floppy disk (write).....

Set.....

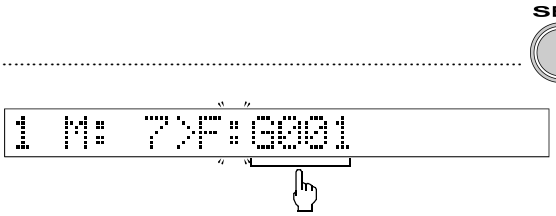


☞ The smallest design No. among numbers registered in the memory will be displayed.

3. Selection of memory design data to write to FD.....

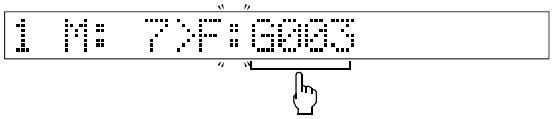
☞ An example when selecting design No. 7

Set.....



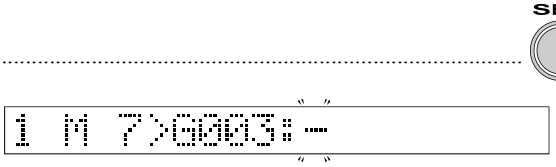
☞ Writing design number to floppy disk (FD)

4. Selection of writing design No. to floppy disk .....



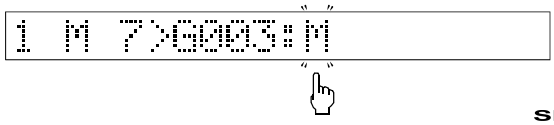
☞ An example when selecting design No. G003

Set.....



FLOPPY DISK (DESIGN DATA WRITING)

5. Registration of design name when writing to floppy disk .....



SET

Set.....

Select “A”.....

SET

Set.....

Select “P” .....

SET

Set.....

Select “L”.....

SET

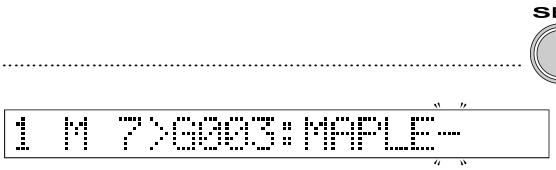
Set.....

📖 An example when selecting “M”. In this example, “MAPLE” is applied to design name.

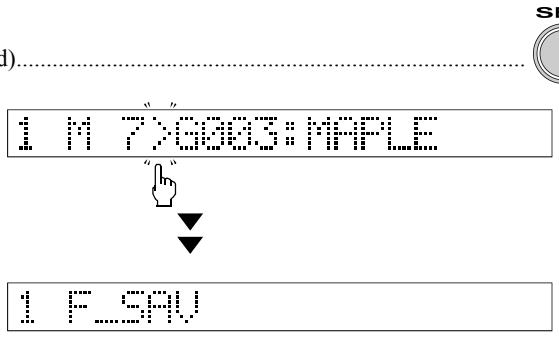
FLOPPY DISK (DESIGN DATA WRITING)

Select “E” .....

Set.....



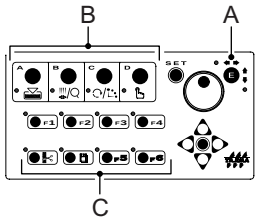
6. Set (End).....



☞ It blinks during writing.

When returning to usual display: A

When performing other setting•operation: B, C



FLOPPY DISK (DESIGN DATA DELETING)

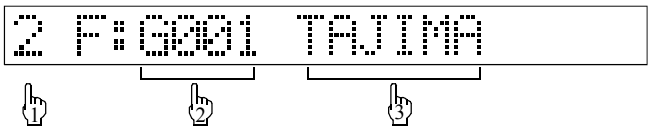
Outline

Delete design data stored in floppy disk (FD) by one design unit.

Contents to be set

Setting item	Setting range
Design data	1 to 111 (2DD), 1 to 223 (2HD)

Setting screen



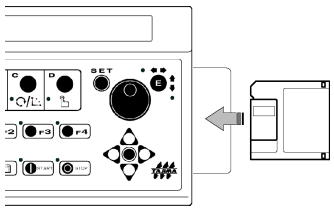
☞ 1. Screen number
2. Design number
3. Design name[*1]

CAUTION

Do not turn OFF the power in process of this operation. When turning OFF the power or at power failure, a part of or whole of design data will be damaged.

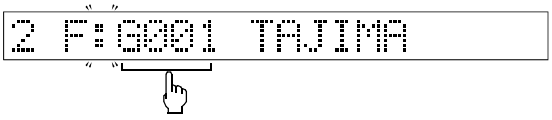
Operation

1. Insert floppy disk to the FDD.



2. Selection of floppy disk (delete) .....

Set.....



☞ The smallest design No. among numbers stored in floppy disk will be displayed.

Supplement

*1 It is displayed only when design name for design data is registered. It is possible to display up to 8 characters.

FLOPPY DISK (DESIGN DATA DELETING)

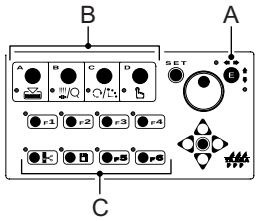
3. Selection of design data to delete.....

4. Set (End).....

☞ An example when selecting design No. 18

When returning to usual display: A

When performing other setting•operation: B, C



FLOPPY DISK (FORMATTING)

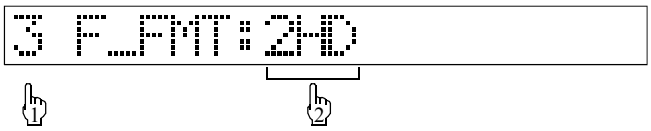
Outline

Format floppy disk.

Contents to be set

Setting item	Setting range
Floppy disk type	2DD, 2HD

Setting screen



☞ 1. Screen number
2. Floppy disk type

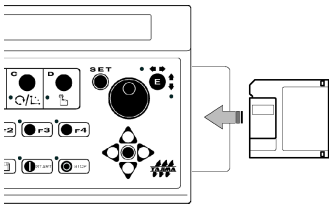
CAUTION

Do not turn OFF the power in process of this operation. When the power is turned OFF or power failure occurs, a part or all of design data in floppy data will be damaged.

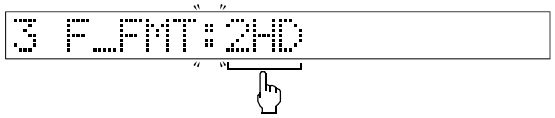
When formatting floppy disk, in which design data has been written, all written design data will be deleted. Store the data to other floppy disk if necessary.

Operation

1. Insert floppy disk to the FDD.



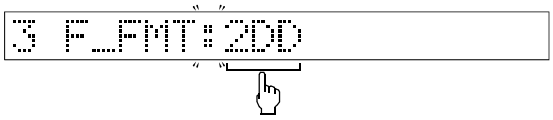
2. Selection of floppy disk (format) .....



☞ The floppy disk type currently selected will be displayed.

FLOPPY DISK (FORMATTING)

3. Selection of floppy disk type to format.....

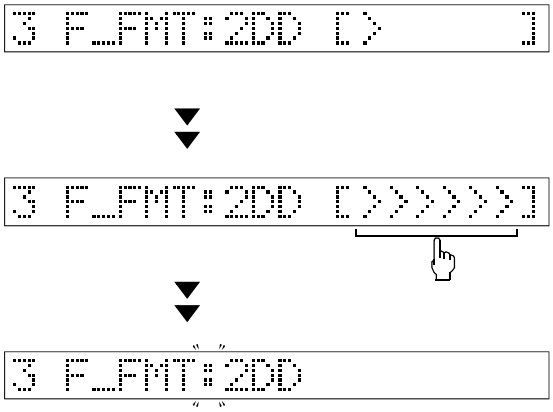


☞ An example when selecting 2DD

Set.....

📖 The warning buzzer will sound.

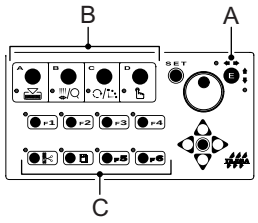
4. Set (End).....



☞ Degree of progress will be displayed with “ ”.

📖 When returning to usual display: A

When performing other setting•operation: B, C



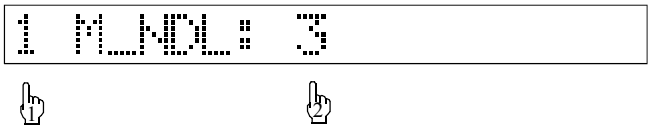
Outline

Perform color change manually.

Contents to be set

Setting item	Setting range
Needle bar number	1 to the last needle

Setting screen



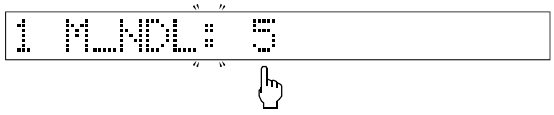
☞ 1. Screen number
2. Needle bar number

CAUTION

When performing this operation, do not have your hands, etc. access to vicinity of needle bar case. You could be injured by moving needle bar case.

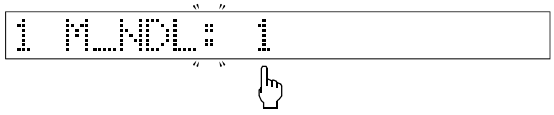
Operation

1. Selection of manual color change .....



☞ The current setting value will be displayed.

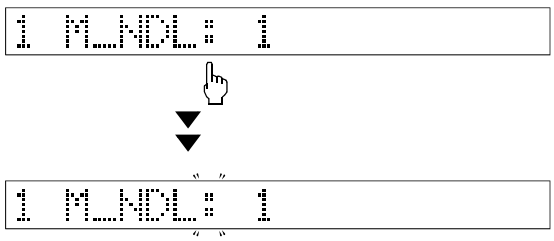
2. Selection of needle bar number .....



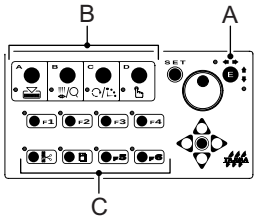
☞ An example when selecting needle bar number 1

3. Set (End).....

Needle bar case will slide to perform color change.



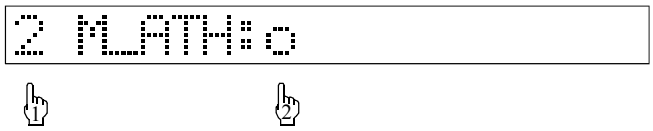
☞ It will go out in operation.
When returning to usual display: A
When performing other setting•operation: B, C



Outline

Perform thread trimming manually.

Setting screen



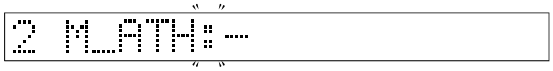
☞ 1. Screen number
2. Manual thread trimming

CAUTION

When performing this operation, do not put your hands, etc. near needle or on the machine table. You could be injured by moving needle and frame.

Operation

1. Selection of manual thread trimming.....



"To perform" thread trimming .....

📖 The warning buzzer will sound.

2. Set (End).....

Perform thread trimming.

Outline

Move the embroidery frame to the origin (start position of design) [*1].

Setting screen

1. Screen number
2. Manual origin return

CAUTION

When performing this operation, do not put your hands, etc. on the machine table. You could be injured by moving frame.

Operation

1. Selection of manual origin return.....

"To perform" manual origin return .....

The warning buzzer will sound.

2. Set (End).....

The embroidery frame will move to the origin.

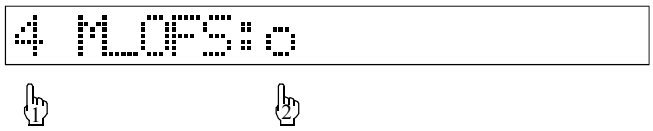
Supplement

*1 It is the position where the machine is started or frame forward is performed for the first time after inputting the design data. If the "Automatic offset" (p.6-22) is set, the "offset start position" is the origin.

Outline

Return the embroidery frame that was moved by manual frame travel to the original position.

Setting screen



☞ 1. Screen number
2. Manual offset

CAUTION

When performing this operation, do not put your hands, etc. on the machine table. You could be injured by moving frame.

Operation

1. Selection of manual offset.....

"To perform" manual offset .....

📖 The warning buzzer will sound.

2. Set (End).....

The embroidery frame will move to the original position.

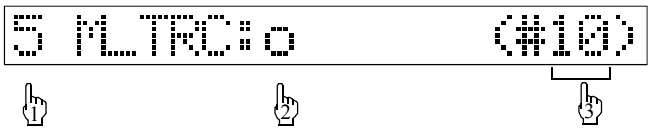
Outline

Move the frame along embroidery range of design data of which data has been input.

It is not possible to perform operation of trace in process of embroidery.

For details of trace, read p.8-6.

Setting screen



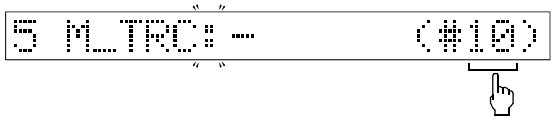
1. Screen number
2. Trace
3. The current needle bar number

CAUTION

When performing this operation, do not put your hands, etc. on the machine table. You could be injured by moving frame.

Operation

1. Selection of trace.....



The current needle bar number will be displayed.

"To perform" trace .....

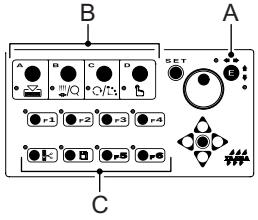
The warning buzzer will sound.

2. Set (End).....

The embroidery frame will move along embroidery range of design data.

When returning to usual display: A

When performing other setting•operation: B, C



Outline

Move the embroidery frame to a free setting position. There are following three types in “Manual frame travel”.

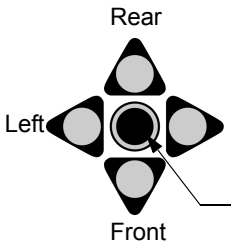
- **Frame travel by manual frame travel key**
- **Frame travel by jog dial/jog shuttle**
- **Frame travel by jog remote-controller (option)**

CAUTION

When performing this operation, do not put your hands, etc. on the machine table. You could be injured by moving frame.

Operation

[Manual frame travel key]

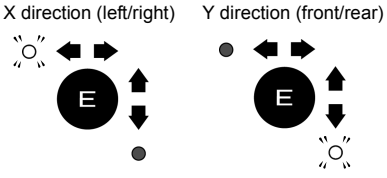


Every pressing this key will switch high-speed/low-speed.

[Jog dial/Jog shuttle]

1. Selection of frame travel direction .....

Manual frame travel mode



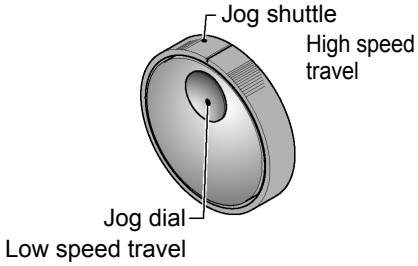
2. Frame travel .....

When selecting X direction Clockwise ▶ Move to the right

Counterclockwise ▶ Move to the left

When selecting Y direction Clockwise ▶ Move to the rear

Counterclockwise ▶ Move to the front



To cancel manual frame travel mode, press menu key or function key.

MANUAL FRAME TRAVEL

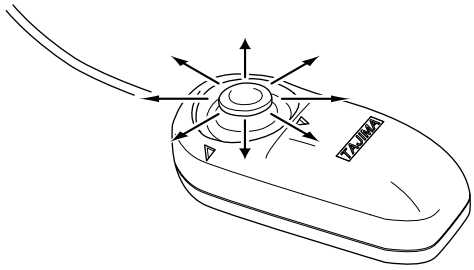
[Jog remote-controller (option)]

1. Selection of frame travel mode .....

Press the manual frame travel mode key to light either of LED lamps.

2. Frame travel .....

Move the stick for frame travel. Frame travel speed can be changed by angle of inclination of the stick.



It is possible to perform frame travel by jog remote-controller only when the display is the usual display (p.2-10).

When you do not use the jog remote-controller, store it in a jog remote-controller pocket, etc. not to move the frame carelessly.

FRAME BACK/FORWARD

Outline

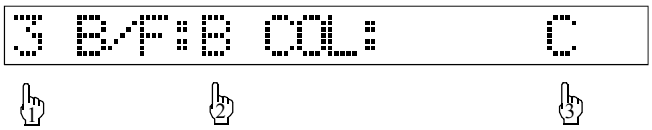
After setting frame back/forward, perform frame back/forward by stop code unit or specifying the number of stitches.

Contents to be set

Setting item	Setting range
Frame back/forward	B: Frame back C: Frame forward
Execution mode	C: Stop code unit The number of stitches: Designation of the number of stitches [*A]

*A Frame back/forward is performed by the set number of stitches in a mass.

Setting screen

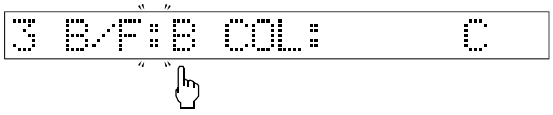


CAUTION

When performing this operation, do not put your hands, etc. on the machine table. You could be injured by moving frame.

Operation

1. Selection of frame back/forward.....



Frame forward.....

To perform frame back/forward by feed unit (1, 3, 5 stitches), use the stop switch or bar switch (p.2-2, p.5-9).

1. Screen number
2. Frame back/forward
3. Executing method
   C: Stop code unit
   The number of stitches: Designation of the number of stitches

The current setting value will be displayed.

An example when selecting F (forward)

FRAME BACK/FORWARD

2. Set..... SET

When executing frame back/forward in the next, perform the following operation.

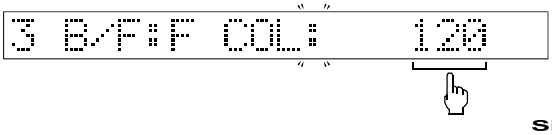
[Frame back/forward by stop code unit]

Set (End)..... SET

Perform frame back/forward by stop code unit. (Frame forward in this example) To perform frame back/forward further, repeat this operation.

[Frame back/forward by specifying the number of stitches]

Selection of the number of stitches.....



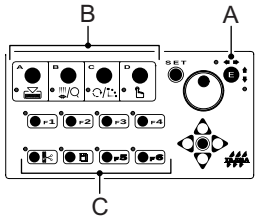
Set (End)..... SET

Frame back/forward will be performed by collecting the set number of stitches (frame forward in this example). To perform further frame back/forward, repeat the operation described above.

The warning buzzer will sound.

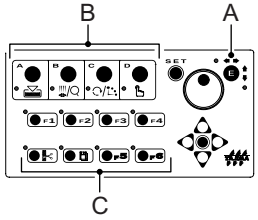
When returning to usual display: A

When performing other setting•operation: B, C



The warning buzzer will sound.

When returning to usual display: A When performing other setting•operation: B, C

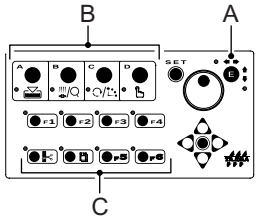


An example when selecting 120 (stitches)

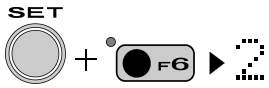
The warning buzzer will sound.

When returning to usual display: A

When performing other setting•operation: B, C



FRAME ORIGIN MEMORY (TFHXII, TFHX-IIC)



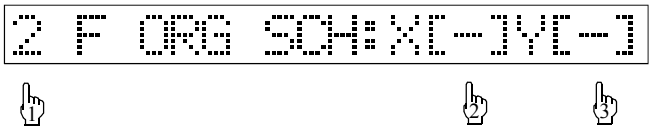
Outline

Make the machine memorize the origin of the embroidery frame [*1]. Perform this operation after installing software or when the frame was moved by hand with the power turned “OFF”.

Contents to be set

Setting item	Setting range
Origin of X-axis is detected	○ (Detection), — (Not to detect)
Origin of Y-axis is detected	

Setting screen



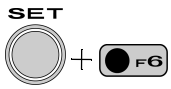
☞ 1. Screen number
2. In a state of detection of X-axis origin
3. In a state of detection of Y-axis origin

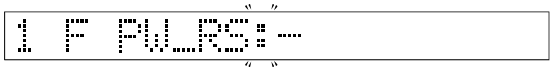
⚠ CAUTION

When performing this operation, do not put your hands, etc. on the machine table. You could be injured by moving frame.

Operation

1. Selection of frame origin memory

Press [F6] while pressing [SET] ..... 



Press [F6] ..... 

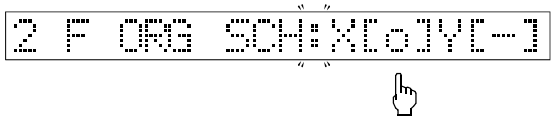
Supplement

*1 TFHXII: The center of the embroidery space, TFHX-IIC: The center of the embroidery space of the cap frame

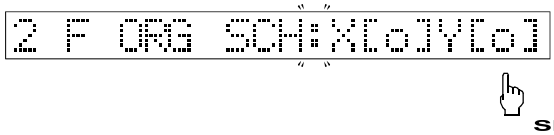
FRAME ORIGIN MEMORY (TFHXII, TFHX-IIC)

2. Execution of frame origin memory .....

Move the frame by manual frame travel key from the left end to the center direction and make the machine detect the origin of X-axis. (When it detects the origin, frame travel will stop.)



Move the frame by manual frame travel key from the front to the center direction and make the machine detect the origin of Y-axis. (When it detects the origin, frame travel will stop.)



3. Set (End).....

The frame will return to the position prior to performing this operation.

📖 It is not possible to use jog remote-controller (option) or jog dial/jog shuttle.

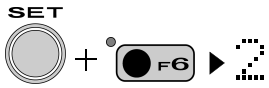
📖 There is no object to order of operation (X/Y).

☞ "○" will be displayed.

☞ "○" will be displayed.

📖 The warning buzzer will sound.

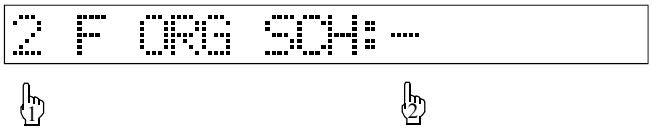
FRAME ORIGIN MEMORY (TFHX, TFHX-C, TEHX-C)



Outline

Make the machine memorize the origin of the embroidery frame [*1]. Perform this operation after installing software or when the frame was moved by hand with the power turned “OFF”.

Setting screen



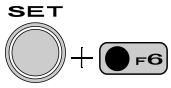
☞ 1. Screen number
2. Frame origin memory

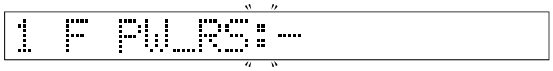
⚠ CAUTION

When performing this operation, do not put your hands, etc. on the machine table. You could be injured by moving frame.

Operation

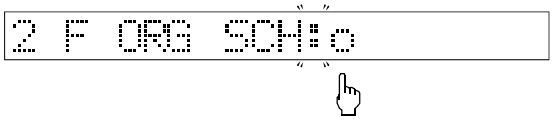
1. Selection of frame origin memory

Press [F6] while pressing [SET] ..... 



Press [F6] ..... 

2. Execution of frame origin memory ..... 



☞ An example when selecting ○ (To perform frame origin memory)

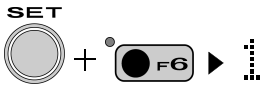
3. Set (End)..... 

The frame will return to the position prior to performing this operation after moving to the origin.

Supplement

*1 TFHXII: The center of the embroidery space, TFHX-IIC: The center of the embroidery space of the cap frame

POWER RESUME (TFHXII, TFHX-IIC)



Outline

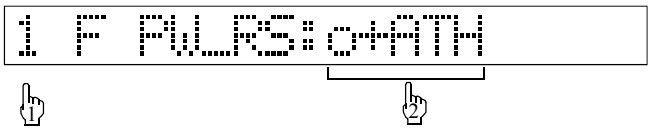
When embroidering work was interrupted by power shut off (including stop by the emergency stop switch) during running of the machine, move the embroidery frame to the position of interruption to prevent displacement of design.

Contents to be set

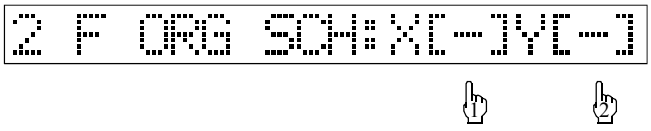
Setting item	Setting range
Power resume	— (Not to perform) ◯ (To perform: to make the machine become in the state of stop at the fixed position) ◯+ATH (To perform: to make the machine stop become in the state of stop at the fixed position after performing thread trimming)
Origin of X-axis is detected	◯ (Detection), — (Not to detect)
Origin of Y-axis is detected	

Setting screen

Movement of power resume



When searching frame origin

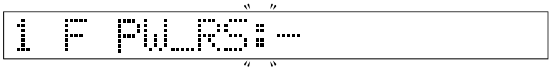


⚠ CAUTION

When performing this operation, do not put your hands, etc. near needle or on the machine table. You could be injured by moving needle and frame.

Operation

1. Reset of code number 2E3 ..... SET



To return the embroidery frame to the correct position, “Frame origin memory” (p.4-10) must be set.

1. Screen number
2. Movement of power resume

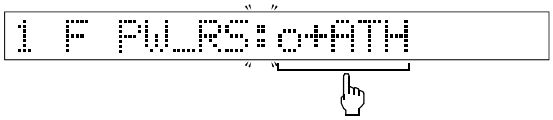
1. In a state of detection of X-axis origin
2. In a state of detection of Y-axis origin

When operation was stopped by power shut off and the power is turned on after that, code number 2E3 will be displayed. To call screen for power resume as shown left at other cases than power shut off, press [6] while pressing [SET] (p.4-10).

When the power was shut off by the emergency stop switch, release the emergency stop switch (p.2-1) and then turn “ON” the power.

POWER RESUME (TFHXII, TFHX-IIC)

2. Execution of power resume.....



☞ An example when selecting to make the machine stop at the fixed position after thread trimming

📖 Do not select " − "

When selecting "○", "○+ATH", warning buzzer will sound.

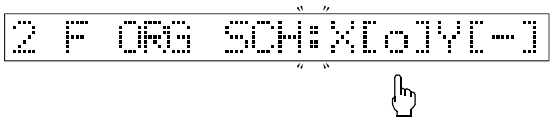
Set.....

The machine will stop at the fixed position after performing thread trimming.

3. Execution of frame origin search.....

📖 It is not possible to use jog remote-controller (option) or jog dial/jog shuttle.

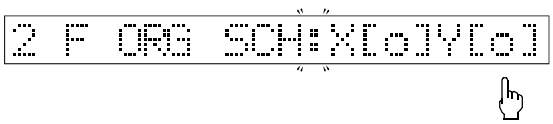
Move the frame by manual frame travel key from the left end to the center direction and make the machine detect the origin of X-axis. (When it detects the origin, frame travel will stop.)



📖 There is no object to order of operation (X/Y).

☞ "○" will be displayed.

Move the frame by manual frame travel key from the front to the center direction and make the machine detect the origin of Y-axis. (When it detects the origin, frame travel will stop.)



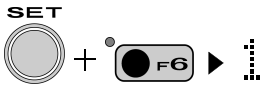
☞ "○" will be displayed.

📖 The warning buzzer will sound.

4. Set (End).....

The frame will move to the position prior to power shut off.

POWER RESUME (TFHX, TFHX-C, TEHX-C)



Outline

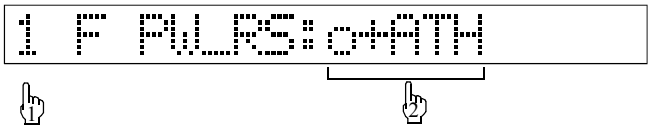
When embroidering work was interrupted by power shut off (including stop by the emergency stop switch) during running of the machine, move the embroidery frame to the position of interruption to prevent displacement of design.

Contents to be set

Setting item	Setting range
Power resume	— (Not to perform) ○ (To perform: to make the machine become in the state of stop at the fixed position) ○+ATH (To perform: to make the machine become in the state of stop at the fixed position after performing thread trimming)

Setting screen

Movement of power resume



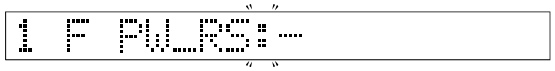
☞ 1. Screen number
2. Movement of power resume

⚠ CAUTION

When performing this operation, do not put your hands, etc. near needle or on the machine table. You could be injured by moving needle and frame.

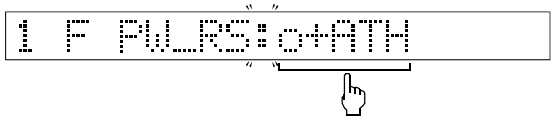
Operation

1. Reset of code number 2E3 ..... SET



📖 When operation was stopped by power shut off and the power is turned on after that, code number 2E3 will be displayed. To call screen for power resume as shown left at other cases than power shut off, press [6] while pressing [SET] (p.4-10).

2. Execution of motion of fixed position stop.....



📖 When the power was shut off by the emergency stop switch, release the emergency stop switch (p.2-1) and then turn "ON" the power.

☞ An example when selecting to make the machine stop at the fixed position after thread trimming

📖 Do not select "—"

When selecting "○", "○+ATH", warning buzzer will sound.

3. Set (End)..... SET

The frame will move to the position prior to power shut off.

STITCH COUNTER/DESIGN TIME

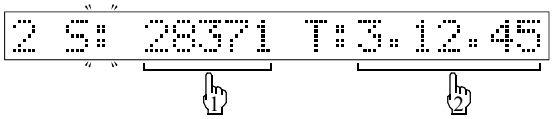
Outline

Display the number of stitches that have been embroidered up to now (stitch counter) and the actual embroidery time that has been spent for embroidering one design (design time).

Operation

[Stitch counter/Display of design time]

Selection of Stitch counter/Design time.....



[Reset of stitch counter]

Resetting of stitch counter.....

Select “0”

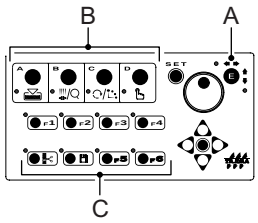
Set (End).....

It is possible to reset stitch counter at any time you desire. Design time will be reset when the current embroidery is finished and next the machine is started.

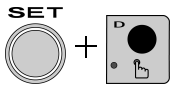
1. The number of total stitches
2. Design time (An example of 3 hours 12 minutes and 45 seconds)

When returning to usual display: A

When performing other setting•operation: B, C



CONFIRMATION MODE



Outline

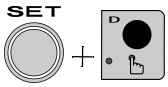
Confirm the current setting contents.

Operation

[Confirmation of setting for data input]

1. Switching to confirmation mode

Press the menu key [D] while pressing the [SET].

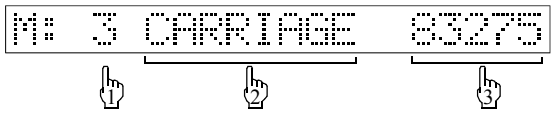


It will blink → 

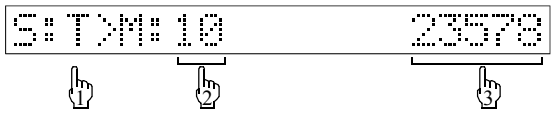
2. Confirmation of setting for data input..... 

The current input condition will be displayed.

When it is in a state of data input/memory operation



In a state of memory writing operation
In case of (external device → memory)



3. Cancellation of confirmation mode..... 

or 

It is not possible to change setting contents.

It is possible to perform this operation only when display is usual display (p.2-10).

Explanation for only “Data input” and “Needle bar selection” are described here. When confirming other setting contents, perform confirmation referring to this item.

1. Design number
2. Design name
3. The number of stitches of design data

1. Code format
2. Design number
3. Remaining memory capacity (the number of stitches) before performing memory writing operation

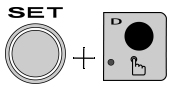
CONFIRMATION MODE

[Confirmation of setting for needle bar selection]

When 12 steps are set and the third step is currently specified

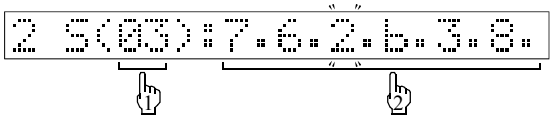
1. Switching to confirmation mode

Press the menu key [D] while pressing the [SET].



It will blink →

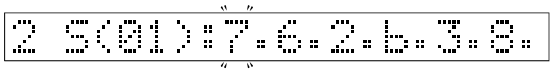
2. Selection of needle bar selection.....



3. Confirmation of setting for needle bar selection.....

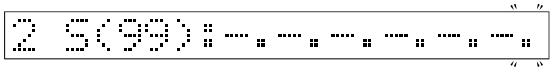
When turning counterclockwise:

It will move down to step 1.



When turning clockwise:

It will move up to the last step (99).



4. Cancellation of confirmation mode.....  or 

It is possible to confirm setting contents of needle bar selection even if setting for color change is set to “Manual”.

1. Step number
2. Needle bar number

Needle bar numbers 10 and more are converted as described below for display.

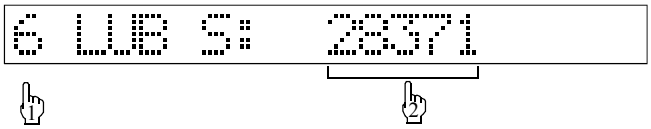
10→a 11→b 12→c 13→d
14→e 15→f

CONFIRMATION OF THE NUMBER OF STITCHES UP TO AUTOMATIC LUBRICATION

Outline

Confirm the number of stitches up to performing automatic lubrication (option for TFHX series).

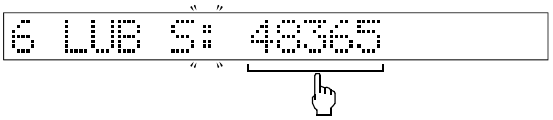
Setting screen



Operation

[Confirm the number of stitches up to performing automatic lubrication]

Selection of the number of stitches for lubrication.....



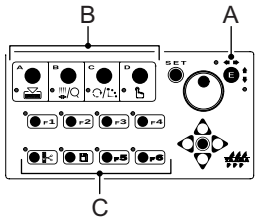
The number of stitches will not change when setting for automatic lubrication system (p.7-7) is set to “Not to use”.

1. Screen number
2. The number of stitches up to performing automatic lubrication

The number of stitches up to performing automatic lubrication

When returning to usual display: A

When performing other setting•operation: B, C



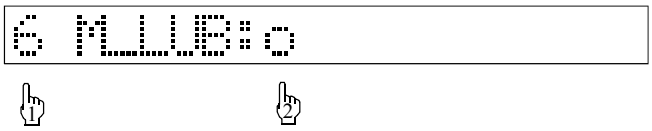
Outline

Activate automatic lubrication system (option for TFHX series) manually to perform lubrication.

Contents to be set

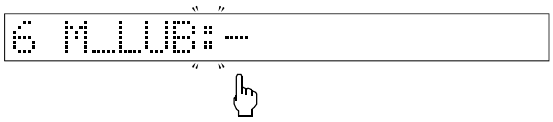
Setting item	Setting range
Lubrication system	○ (To activate), — (Not to activate)

Setting screen

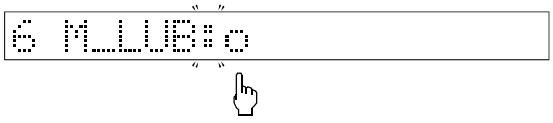


Operation

1. Selection of manual lubrication .....



"To perform" manual lubrication .....



2. Set (End).....

Lubricating pump will activate.

When performing this operation, the number of stitches up to automatic lubrication (p.4-19) will be reset.

It is possible to perform this operation regardless of setting for automatic lubrication system (p.7-7) "To use/not to use". However, do not perform this operation when automatic lubrication system is not equipped to the machine. (The machine will freeze.)

☞ 1. Screen number

2. Automatic lubrication system

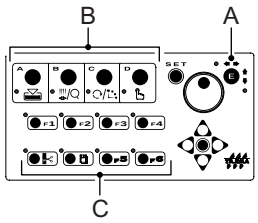
☞ The current setting value will be displayed.

☞ ○ An example when selecting (To perform manual lubrication)

The warning buzzer will sound.

When returning to usual display: A

When performing other setting•operation: B, C



Outline

Move up/down the machine table.

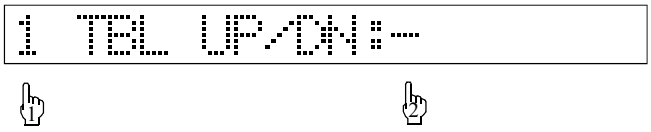
This operation aims at model equipped with auto sub-table lifter.

It is possible to perform this operation only when Y-axis drive system is positioned at the rearmost

Contents to be set

Setting item	Setting range
Table up/down	○ (Possible to operate), — (Impossible to operate)

Setting screen



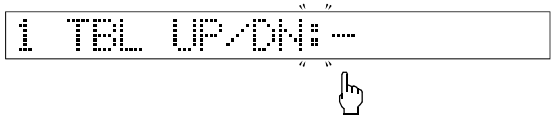
1. Screen number
2. Table up/down

CAUTION

When performing this operation, pay enough attention to surrounding safety. You could be injured by moving up/down table.

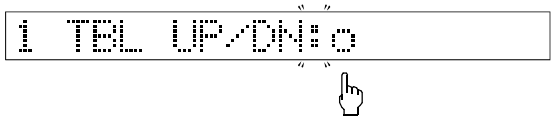
Operation

1. Selection of table up/down F6



The current setting value will be displayed.

Table up/down “Possible to operate” .....



○ An example when selecting (Possible to operate)

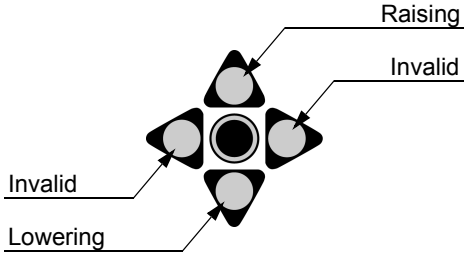
2. Execution of table up/down (end) .....

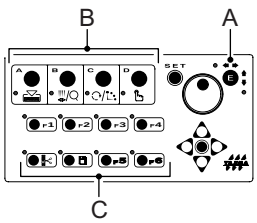
During up/down, warning buzzer will sound.

When returning to usual display: A

When performing other setting•operation: B, C

Table will move up/down.





SEQUIN DEVICE UP/DOWN

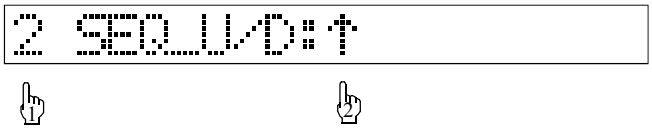
Outline

Move up/down sequin device (optional for TFHX series)

Contents to be set

Setting item	Setting range
Sequin device up/down	↑ (Raising) ↓ (Lowering)

Setting screen

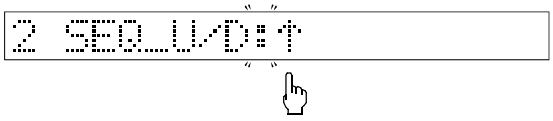


CAUTION

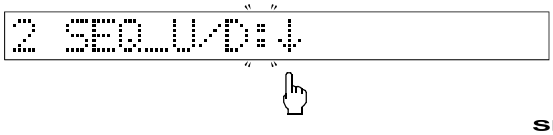
When performing this operation, pay enough attention to surrounding safety. You could be injured by moving up/down sequin device.

Operation

1. Selection of up/down of sequin device F6

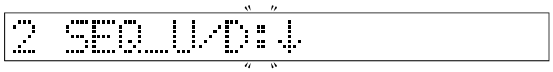


Sequin device "lowering" .....



2. Set (End)..... SET

Sequin device will lower.



It is possible to perform this operation only when setting for sequin device (p.7-5) is set to "L, R, LR".

It is possible to perform this operation only when the current needle position is sequin needle.

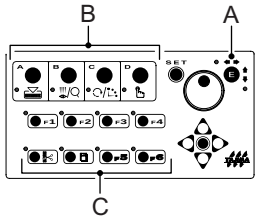
1. Screen number
2. Sequin device up/down

The current up/down condition will be displayed.

↓ An example when selecting (lowering)

When returning to usual display: A

When performing other setting•operation: B, C



MAX REVOLUTION

Outline

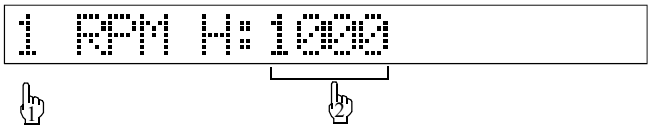
This is a setting for the maximum number of revolutions of the main shaft of the machine.

Contents to be set

Setting item	Setting range
Max Revolution	250 to 1000 rpm (in increments of 10rpm) [*A]

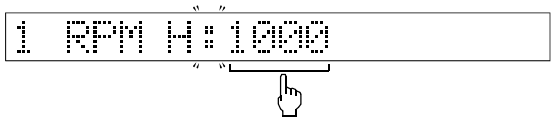
*A It differs depending on model or spec.

Setting screen

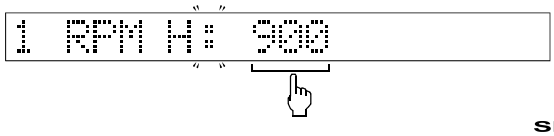


Operation

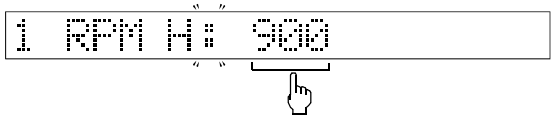
1. Selection of the maximum number of revolutions.....



Change.....



2. Set (End).....



It is not possible to set the maximum number of revolutions exceeding the value of "Limit of max revolution" (p.5-3).

Optimum value for the maximum number of revolutions differs depending on embroidery conditions (frame to use, type of thread, etc.).

It is also possible to change the maximum number of revolutions (rpm) by turning the jog dial during running of the machine.p.2-10).

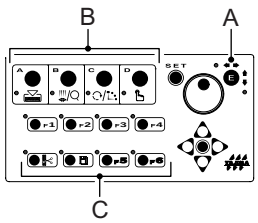
1. Screen number
2. The maximum number of revolutions

The current setting value will be displayed.

An example when selecting 900 (rpm)

When returning to usual display: A

When performing other setting•operation: B, C



LOW SPEED R.P.M.

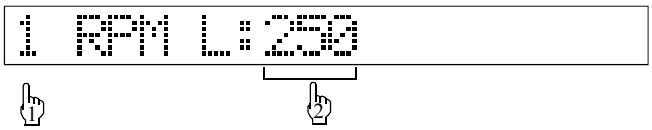
Outline

This is a setting for the minimum number of revolutions of the main shaft of the machine.

Contents to be set

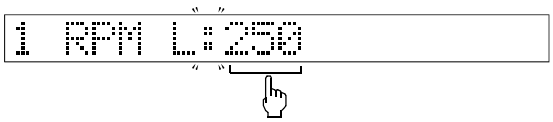
Setting item	Setting range
Low Speed R.P.M.	250 to 700 rpm (in increments of 10 rpm)

Setting screen

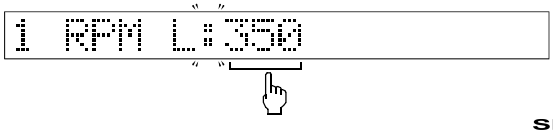


Operation

1. Selection of low speed r.p.m. F2



Change.....



2. Set (End)..... SET

It is not possible to set low speed r.p.m. exceeding the value of "Max revolution" (p.5-1).

Optimum value for the number of low speed revolutions differs depending on embroidery conditions (frame to use, type of thread, etc.)

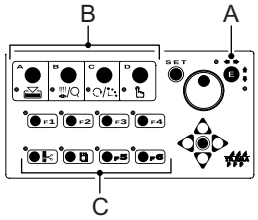
1. Screen number
2. The number of low speed revolutions

The current setting value will be displayed.

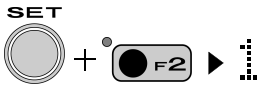
An example when selecting 350 (rpm)

When returning to usual display: A

When performing other setting•operation: B, C



LIMIT OF MAX REVOLUTION



Outline

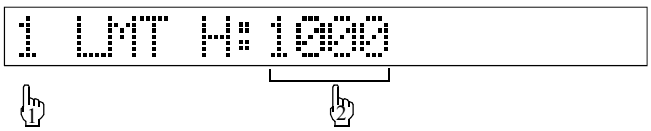
This is a setting for upper limit value to the number of revolutions of the main shaft of the machine.

Contents to be set

Setting item	Setting range
Limit of max revolution	500 to 1000 rpm (in increments of 10pm) [*A]

*A It differs depending on model or spec.

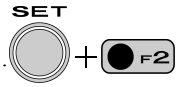
Setting screen

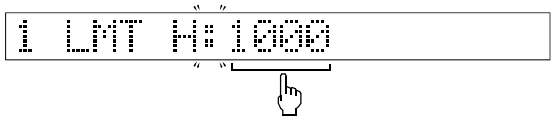


1. Screen number
2. Upper limit value to the maximum number of revolutions

Operation

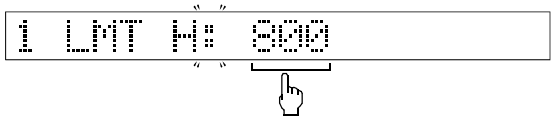
1. Selection of limit of the maximum number of revolutions

Press the [F2] while pressing the [SET]. ..... 



The current setting value will be displayed.

Change..... 

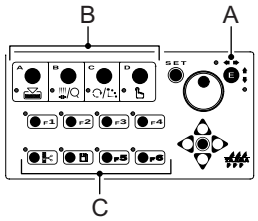


An example when selecting 800 (rpm)

2. Set (End)..... 

When returning to usual display: A

When performing other setting•operation: B, C



It is not possible to increase the maximum number of revolutions (p.5-1) exceeding the value set here.

THE NUMBER OF INCHING TIMES AT START

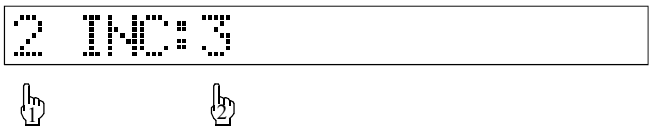
Outline

Set the number of inching times when starting the machine by start switch or bar switch after stopping the machine in the middle of embroidery.

Contents to be set

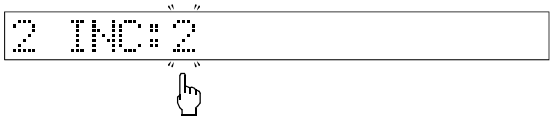
Setting item	Setting range
The number of inching times at start	0 to 9

Setting screen



Operation

1. Selection of the number of inching times at start..... F2



Change.....

2. Set (End)..... SET

The value set at p.6-10 will be applied at start of the machine after data set, and start of the machine after performing automatic/manual thread trimming.

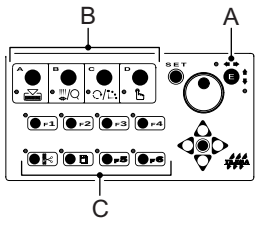
1. Screen number
2. The number of inching times

The current setting value will be displayed.

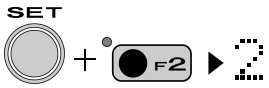
The warning buzzer will sound.

When returning to usual display: A

When performing other setting•operation: B, C



FRAME DRIVE START TIMING



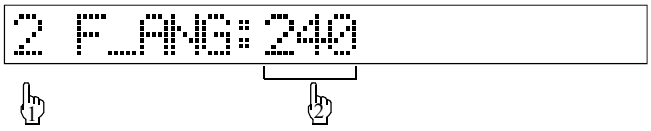
Outline

Set drive start timing of the embroidery frame.

Contents to be set

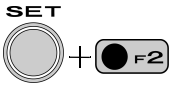
Setting item	Setting range
Frame drive start timing	230 to 260° (in increments of 10 °)

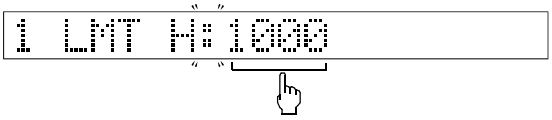
Setting screen



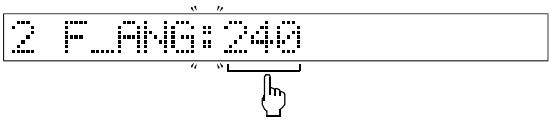
Operation

1. Selection of frame drive start timing

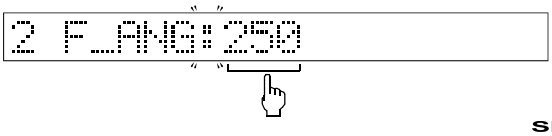
Press the [F2] while pressing the [SET]. ..... 



Press the [F2]..... 



Change..... 



2. Set (End)..... 

Relationship between timing and thread tension

230° ◄——► 260°
Weak Strong

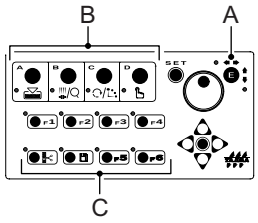
1. Screen number
2. Frame drive start timing

The current setting value will be displayed.

The current setting value will be displayed.

An example when selecting 250 (°)

When returning to usual display: A
When performing other setting•operation: B, C



FRAME TRAVEL SPEED

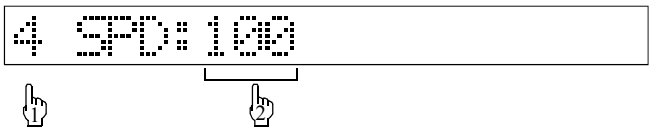
Outline

Set origin return and travel speed of the embroidery frame at offsetting.

Contents to be set

Setting item	Setting range
Frame travel speed	100, 200 mm/Second

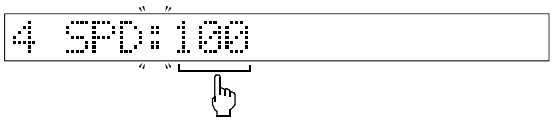
Setting screen



☞ 1. Screen number
2. Frame travel speed

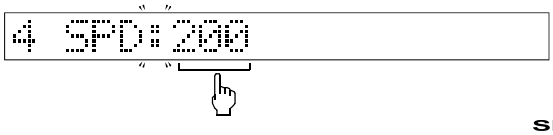
Operation

1. Selection of frame travel speed..... F2



☞ The current setting value will be displayed.

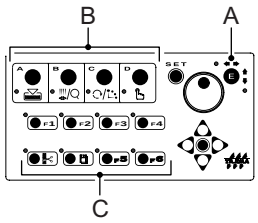
Change.....



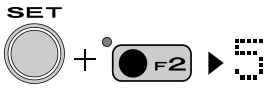
☞ An example when selecting 200 (mm/sec)

2. Set (End)..... SET

When returning to usual display: A
When performing other setting•operation: B, C



ADJUSTMENT OF STOP POSITION OF MAIN SHAFT



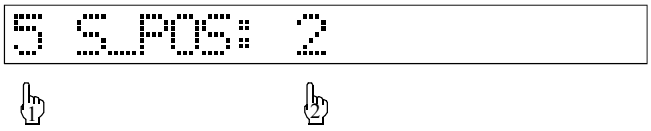
Outline

Adjust stop position (degrees) of the main shaft.

Contents to be set

Setting item	Setting range
Main shaft stop position	-5 to 5°, —: Not to adjust

Setting screen



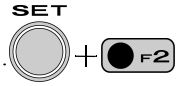
Setting is possible only for TFHX series.

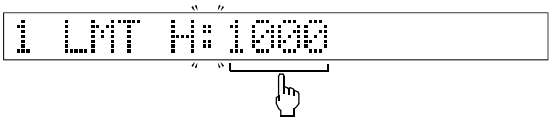
When the main shaft stops with deviation from stop position (97.5 to 107.5), adjust stop position by this setting.

1. Screen number
2. Adjusting value to the current stop position (degrees)

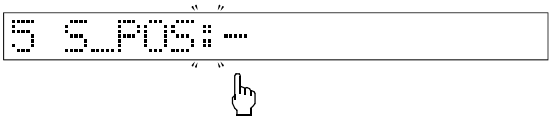
Operation

1. Selection of adjustment of main shaft stop position

Press the [F2] while pressing the [SET]. ..... 

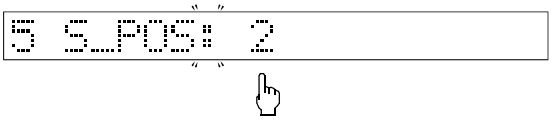


Press the [F2]..... 



The current setting value will be displayed.

2. Change..... 

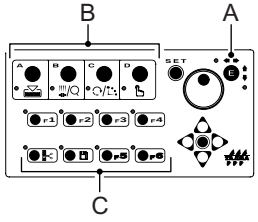


An example when selecting 2 (degrees)

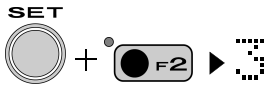
3. Set (End)..... 

When returning to usual display: A

When performing other setting•operation: B, C



FRAME DRIVE METHOD



Outline

This setting reduces looping.

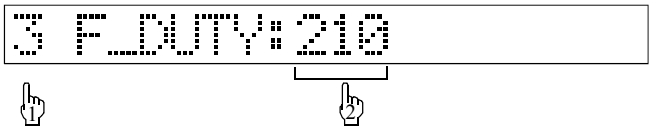
Contents to be set

Setting item	Setting range
Frame drive method	200, 210 [*A]: Frame drive for reducing looping AUTO: Usual frame drive

*A 200: TFHX, TFHX-C 210: TFHX-II, TFHX-IIC

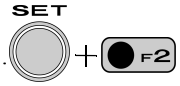
200/210 is displayed according to selected value at “Setting for machine type” (p.2-9).

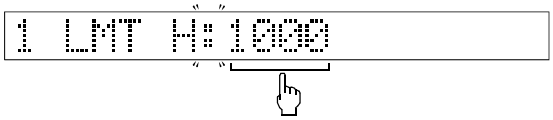
Setting screen



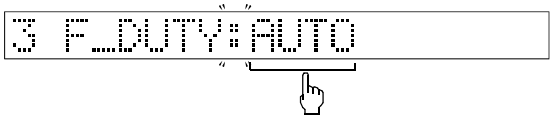
Operation

1. Selection of frame drive method

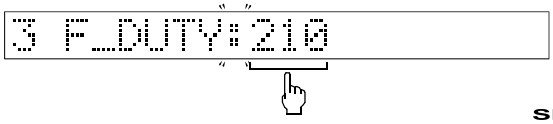
Press the [F2] while pressing the [SET]. ..... 



Press the [F2]..... 



Change..... 



2. Set (End)..... 

Setting is possible only for TFHX series.

The number of revolutions (rpm) will be limited by this setting (looping-reduction frame drive) as described below.

	Limit of max revolution	Low speed rpm limit
200	850	550
210	2, 4H: 800 6, 8H: 700	450

1. Screen number
2. Frame drive method

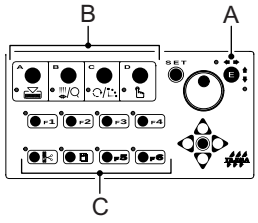
The current setting value will be displayed.

An example when selecting 210 (°)

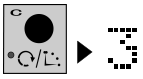
200: TFHX, TFHX-C
210: TFHX-II, TFHX-IIC

When returning to usual display: A

When performing other setting•operation: B, C



FRAME BACK/FORWARD



Outline

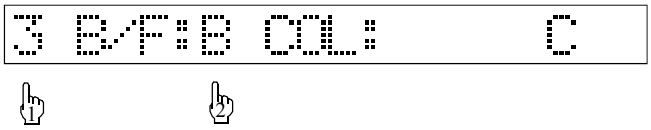
This is a setting for frame back/forward, and feed unit.

Contents to be set

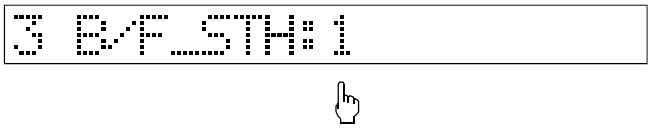
Setting item	Setting range
Frame back/forward	B: Frame back C: Frame forward
Feed unit	1, 3, 5 stitches

Setting screen

When setting frame back/forward



When setting feed unit



Operation

1. Selection of frame back/forward ..... 

2. Setting for frame back/forward ..... 

Set ..... 

The value set here will become contents of movement of frame back/forward by stop switch or bar switch (p.2-2).

1. Screen number
2. Frame back/forward

Feed unit

The current setting value will be displayed.

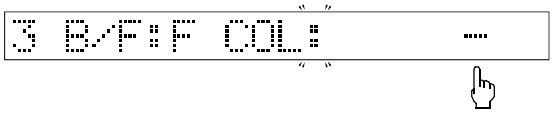
An example when selecting F (forward)

The warning buzzer will sound.

To perform frame back/forward by stop code unit or specifying the number of stitches here, read p.4-9.

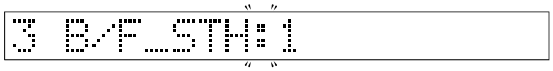
FRAME BACK/FORWARD

3. Selection of feed unit .....



☞ Select " − ".

Set.....



Change.....

☞ An example when selecting 3 (stitches)

4. Set (End).....

When returning to usual display: A

When performing other setting•operation: B, C

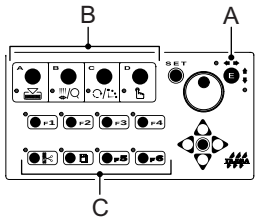


TABLE UP/DOWN DEVICE

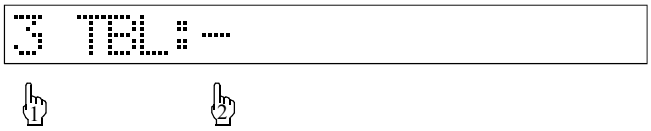
Outline

This setting makes table up/down device become possible to use.

Contents to be set

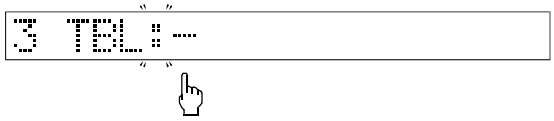
Setting item	Setting range
Table up/down device	○ (To use), — (Not to use)

Setting screen

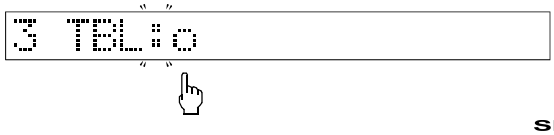


Operation

1. Selection of table up/down device F3



Change..... 



2. Set (End)..... SET

This setting aims at model equipped with auto sub-table lifter.

It is not possible to make setting for table up/down device during embroidery.

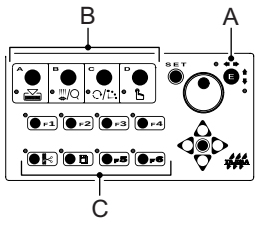
1. Screen number
2. Table up/down device

The current setting value will be displayed.

○ An example when selecting (To use)

When returning to usual display: A

When performing other setting•operation: B, C



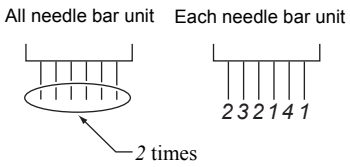
UPPER THREAD BREAKAGE DETECTION

Outline

Set how many consecutive upper thread breakage signals are treated as thread breakage

It is possible to set the number of detecting times by all needle bar/ each needle bar unit.

[Setting example]



When upper thread breakage is detected, “Thread breakage indicator lamp” (p.1-12) will light in red and code number 291 will be displayed to stop the machine.

Relationship between the number of detecting times and sensitivity

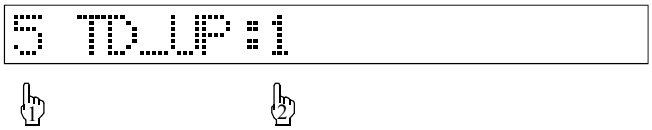
1 ◄——► 4
High [Sensitivity] Low

[When performing setting by all needle bar unit]

Contents to be set

Setting item	Setting range
The number of detecting times	1 to 4, — (Not to detect)

Setting screen



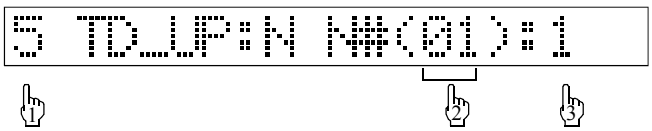
1. Screen number
2. The number of times of detection

[When performing setting by each needle bar unit]

Contents to be set

Setting item	Setting range
Needle bar number	1 to the last needle
The number of detecting times	1 to 4, — (Not to detect)

Setting screen



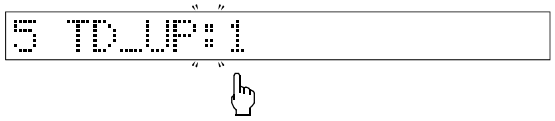
1. Screen number
2. Needle bar number
3. The number of times of detection

UPPER THREAD BREAKAGE DETECTION

Operation

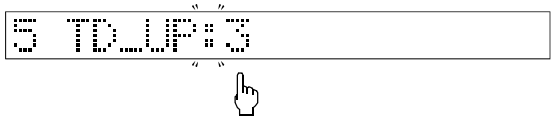
[All needle bar unit]

1. Selection of upper thread breakage detection F2



☞ The current setting value will be displayed.

Change.....

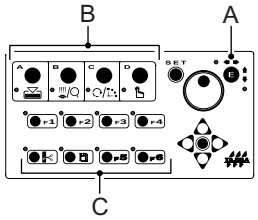


☞ An example when selecting 3 (times)

2. Set (End)..... SET

📖 When returning to usual display: A

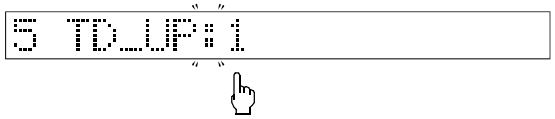
When performing other setting•operation: B, C



[Each needle bar unit]

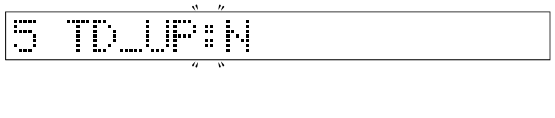
📖 It is not necessary to perform setting for all needle bar numbers.

1. Selection of upper thread breakage detection F2

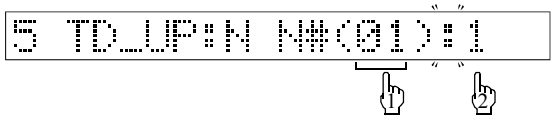


☞ The current setting value will be displayed.

2. Select each needle bar unit “N” .....



Set..... SET

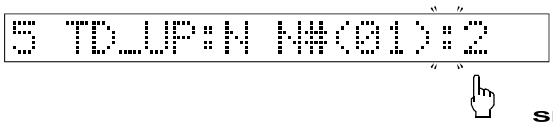


☞ 1. Needle bar number 1

2. The current setting value will be displayed.

UPPER THREAD BREAKAGE DETECTION

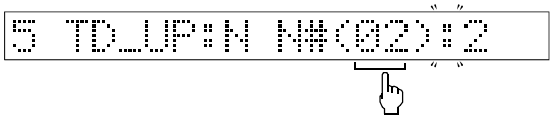
3. Selection of the number of detecting times of needle bar number 1



☞ An example when selecting 2 (times)

📖 It is also possible to select needle bar number by turning the jog shuttle.

Set..... SET

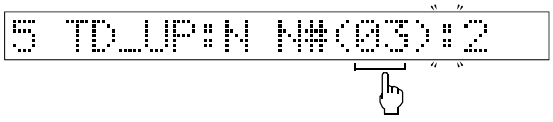


☞ Needle bar number 2

4. Selection of the number of detecting times of needle bar number 2

☞ An example when selecting 4 (times)

Set..... SET



☞ Needle bar number 3

5. Selection of the number of detecting times of needle bar number 3 and after

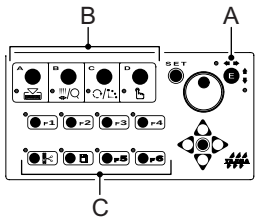
Set the number of detecting times of needle bar number 3 to the last needle bar in the same manner as above.

☞ Needle bar number 9 (an example of 9-needle machine)

6. Set (End)..... SET

📖 When returning to usual display: A

When performing other setting•operation: B, C



UNDER THREAD BREAKAGE DETECTION (DETECTING TIMES)

Outline

Set how many times of consecutive detection of under thread breakage information [*1] are treated as thread breakage. It is possible to set the number of detecting times by all needle bars/each needle bar unit.

When under thread breakage is detected, "Thread breakage indicator lamp" (p.1-12) will blink in red and code number 293 will be displayed to stop the machine.

Relationship between the number of detecting times and sensitivity

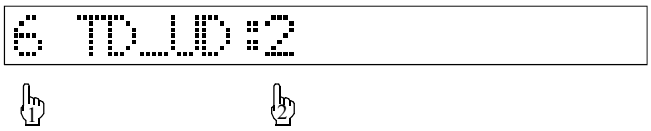
2 ◄——► 8
High [Sensitivity] Low

[When performing setting by all needle bar unit]

Contents to be set

Setting item	Setting range
The number of detecting times	2, 4, 6, 8, — (Not to detect)

Setting screen



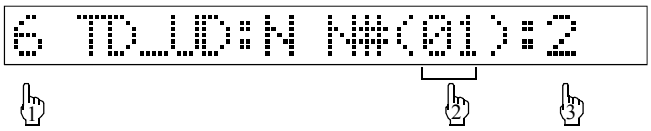
1. Screen number
2. The number of times of detection

[When performing setting by each needle bar unit]

Contents to be set

Setting item	Setting range
Needle bar number	1 to the last needle
The number of detecting times	2, 4, 6, 8, — (Not to detect)

Setting screen



1. Screen number
2. Needle bar number
3. The number of times of detection

Supplement

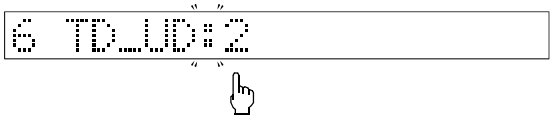
*1 Under thread breakage detection (movement amount ratio) (p.6-7)

UNDER THREAD BREAKAGE DETECTION (DETECTING TIMES)

Operation

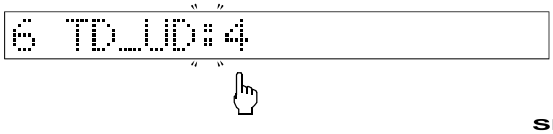
[All needle bar unit]

1. Selection of under thread breakage detection (the number of detecting times) F2



☞ The current setting value will be displayed.

Change..... 

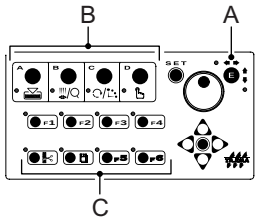


☞ An example when selecting 4 (times)

2. Set (End)..... 

📖 When returning to usual display: A

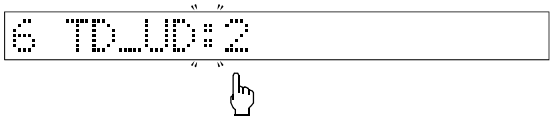
When performing other setting•operation: B, C



[Each needle bar unit]

📖 It is not necessary to perform setting for all needle bar numbers.

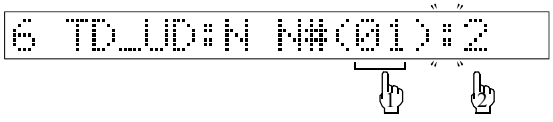
1. Selection of under thread breakage detection (the number of detecting times) F2



☞ The current setting value will be displayed.

2. Select each needle bar unit “N” ..... 

Set..... 

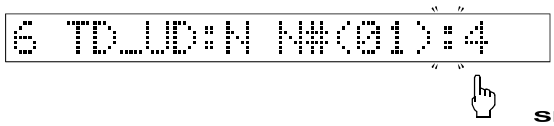


☞ 1. Needle bar number 1

2. The current setting value will be displayed.

UNDER THREAD BREAKAGE DETECTION (DETECTING TIMES)

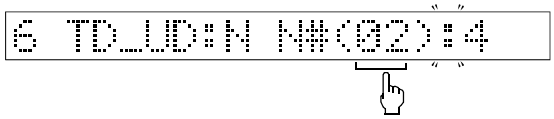
3. Selection of the number of detecting times of needle bar number 1



An example when selecting 4 (times)

It is also possible to select needle bar number by turning the jog shuttle.

Set.....

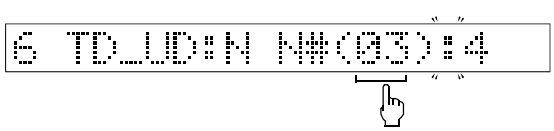


Needle bar number 2

4. Selection of the number of detecting times of needle bar number 2

An example when selecting 6 (times)

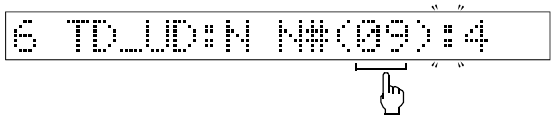
Set.....



Needle bar number 3

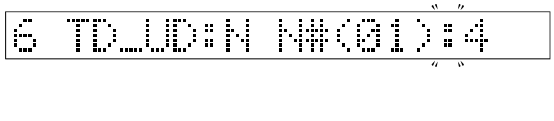
5. Selection of the number of detecting times of needle bar number 3 and after

Set the number of detecting times of needle bar number 3 to the last needle bar in the same manner as above.



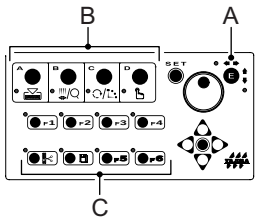
Needle bar number 9 (an example of 9-needle machine)

6. Set (End).....



When returning to usual display: A

When performing other setting•operation: B, C



UNDER THREAD BREAKAGE DETECTION (MOVEMENT RATIO)

Outline

This is a setting for making the machine detect under thread breakage. It is possible to perform setting by all needle bar/each needle bar unit.

📖 When under thread breakage is detected, "Thread breakage indicator lamp" (p.1-12) will blink in red and code number 293 will be displayed to stop the machine.

📖 Relationship between movement amount ratio and sensitivity

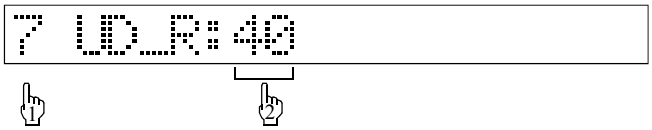
40 ◄——► 80
Low [Sensitivity] High

[When performing setting by all needle bar unit]

■Contents to be set

Setting item	Setting range
Movement amount ratio	40 to 80% (in increments of 10%)

■Setting screen



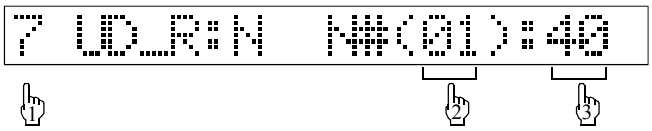
☞ 1. Screen number
2. Movement amount ratio

[When performing setting by each needle bar unit]

■Contents to be set

Setting item	Setting range
Needle bar number	1 to the last needle
Movement amount ratio	40 to 80% (in increments of 10%)

■Setting screen



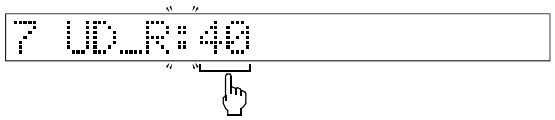
☞ 1. Screen number
2. Needle bar number
3. Travel amount ratio

UNDER THREAD BREAKAGE DETECTION (MOVEMENT RATIO)

Operation

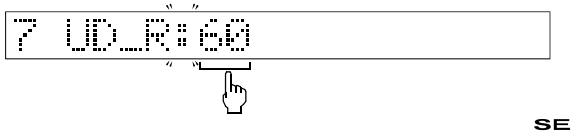
[All needle bar unit]

1. Selection of under thread breakage detection (movement amount ratio) F2



☞ The current setting value will be displayed.

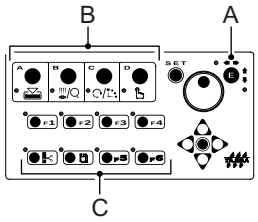
Change..... 



☞ 60An example when selecting (%)

2. Set (End)..... SET

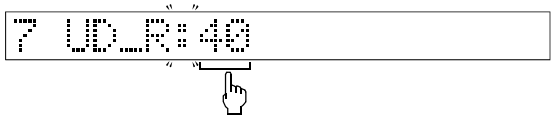
📖 When returning to usual display: A
When performing other setting•operation: B, C



[Each needle bar unit]

📖 It is not necessary to perform setting for all needle bar numbers.

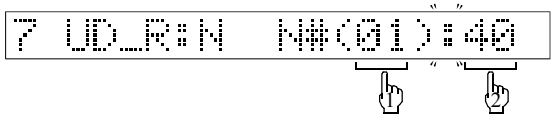
1. Selection of under thread breakage detection (movement amount ratio) F2



☞ The current setting value will be displayed.

2. Select each needle bar unit “N” ..... 

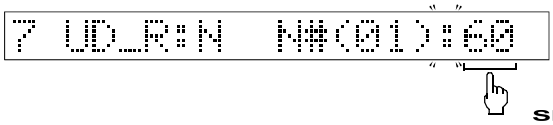
Set..... SET



☞ 1. Needle bar number 1
2. The current setting value will be displayed.

UNDER THREAD BREAKAGE DETECTION (MOVEMENT RATIO)

3. Selection of movement amount ratio of needle bar number 1 ...



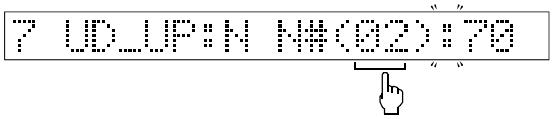
☞ An example when selecting 60 (%)

📖 It is also possible to select needle bar number by turning the jog shuttle.

Set.....

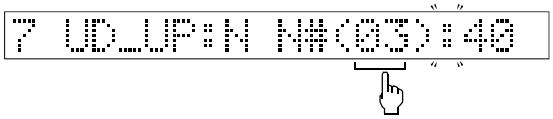
☞ Needle bar number 2

4. Selection of movement amount ratio of needle bar number 2 ...



☞ An example when selecting 70 (%)

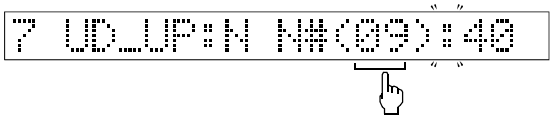
Set.....



☞ Needle bar number 3

5. Selection of movement amount ratio of needle bar number 3 and after

Set movement amount ratio of needle bar numbers 3 to the last needle bar in the same manner as above.

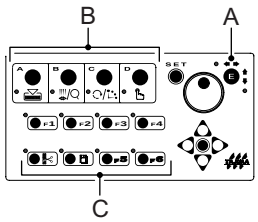


☞ Needle bar number 9 (an example of 9-needle machine)

6. Set (End).....

📖 When returning to usual display: A

When performing other setting•operation: B, C



Outline

Set to perform/not to perform thread trimming at every step of color change and the details.

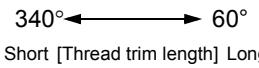
Contents to be set

Setting item	Setting range
Use of ATH	○ (To use) [*A], ← (To use) [*B] — (Not to use)
Picker OFF timing (Thread trim length) [*C]	340 to 359°, 0 to 60° (in increments of 1°)
The number of inching times at machine start after thread trimming	2 to 9 [*D]
The number of times of return stitching at start after thread trimming	1, 2, — (Not to perform) [*E]
Return stitch length	0.6, 0.8 mm [*E]

*A To perform tie stitching at thread trimming

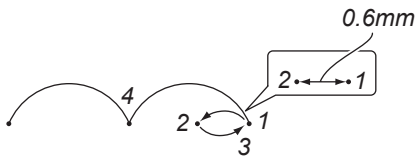
*B Not to perform tie stitching at thread trimming. Select this setting when stitch data for tie stitching is included in the design data to use.

*C Picker OFF timing



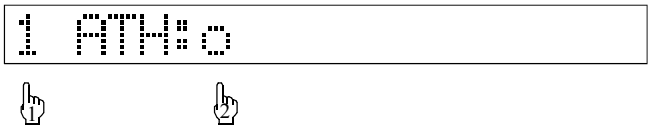
*D This value is also applied at start of the machine after data set in addition to after thread trimming (automatic, manual).

*E The number of times of return stitching (an example of 1 time) and return stitch length (an example of 0.6 mm)



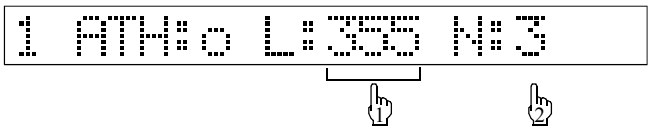
Setting screen

When setting ATH



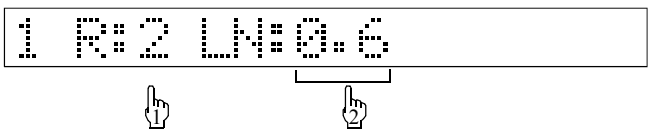
☞ 1. Screen number
2. How to use ATH

When setting picker OFF timing and the number of inching times at start



☞ 1. Picker OFF timing
2. The number of inching times after thread trimming

When setting the number of times of return stitching and return stitch length

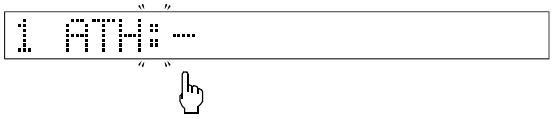


☞ 1. The number of return stitches
2. Return stitch length

AUTOMATIC THREAD TRIMMING (ATH)

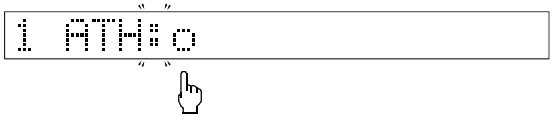
Operation

1. Selection of automatic thread trimming F3



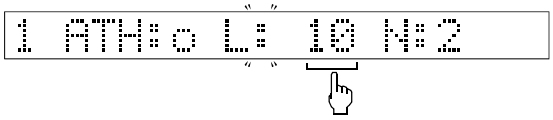
☞ The current setting value will be displayed.

2. Setting for use of ATH .....



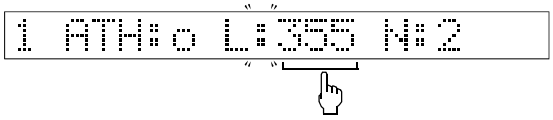
☞ An example when selecting “To perform” automatic thread trimming

Set..... SET



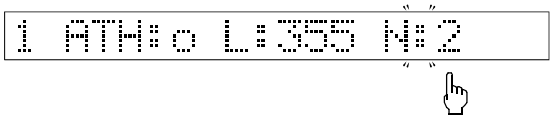
☞ The current setting value will be displayed.

3. Setting for picker OFF timing (thread trim length).....



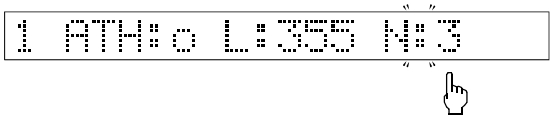
☞ An example when selecting 355 (°)

Set..... SET



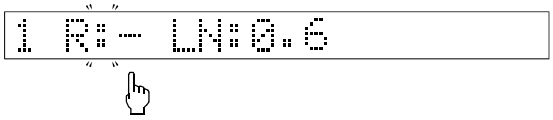
☞ The current setting value will be displayed.

4. Setting for the number of inching times at start after thread trimming



☞ An example when selecting 3 (times)

Set..... SET



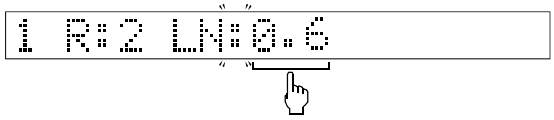
☞ The current setting value will be displayed.

AUTOMATIC THREAD TRIMMING (ATH)

5. Setting for the number of times of return stitching at start after thread trimming

☞ An example when selecting 2 (times)

Set..... SET



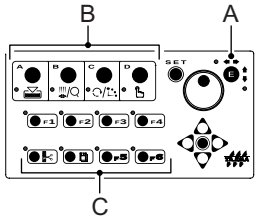
☞ The current setting value will be displayed.

6. Setting for return stitch length.....

☞ An example when selecting 0.8 (mm)

7. Set (End)..... SET

📖 When returning to usual display: A
When performing other setting•operation: B, C



AUTOMATIC COLOR CHANGE/AUTOMATIC START

Outline

This setting sets color change method (automatic/manual) and start method (automatic/manual) after color change.

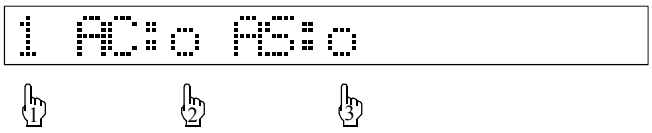
Contents to be set

Setting item	Setting range
Color change method	○ (Automatic), — (Manual)
Start mode	○ (Automatic A) [*A], > (Automatic B) [*B], — (Manual)

*A Automatic start is performed only when different colors are selected before and after color change (When the same color is selected before and after color change, automatic start is not performed).

*B Automatic start is performed even when the same color is selected before and after color change.

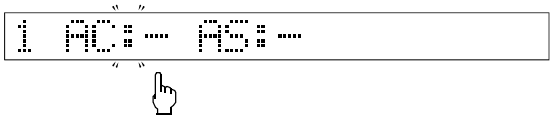
Setting screen



1. Screen number
2. Color change method
3. Starting method

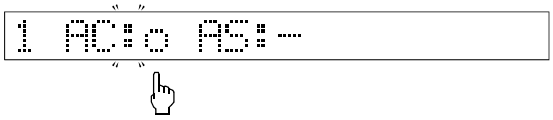
Operation

1. Selection of automatic color change/automatic start .....



The current setting value will be displayed.

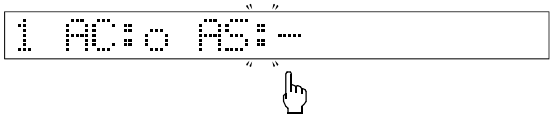
2. Setting for color change method .....



An example when selecting automatic color change

When selecting "— (manual)", this completes the setting.

Set.....

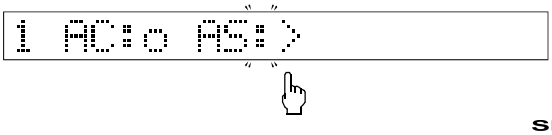


The current setting value will be displayed.

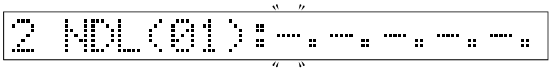
When color change method is set to "manual", it is not possible to set for start method.

AUTOMATIC COLOR CHANGE/AUTOMATIC START

3. Setting for start mode .....



4. Set (End).....

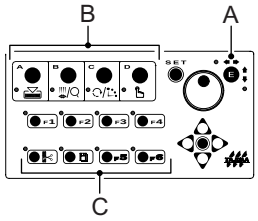


☞ An example when selecting automatic B

📖 When setting color change mode to “automatic”, the screen will become setting screen for “Needle bar selection” (p.6-15) as shown left regardless of setting contents of start mode.

📖 When returning to usual display: A

When performing other setting•operation: B, C



NEEDLE BAR SELECTION

Outline

This is a setting for order of needle bars to use (needle bar to use at every step of color change).

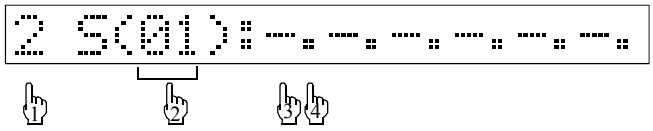
Contents to be set

Setting item	Setting range
Needle bar number	1 to 9, a to f (10 to 15) [*A]
Offsetting at automatic color change	◯ (To perform), • (Not to perform)

*A Needle bar number 10 and more will be converted for display as shown below.

10→a 11→b 12→c 13→d 14→e 15→f

Setting screen

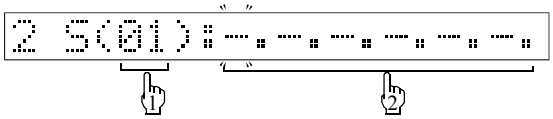


☞ 1. Screen number
2. Step
3. Needle bar number
4. Offsetting at automatic color change (p.6-24)

Operation

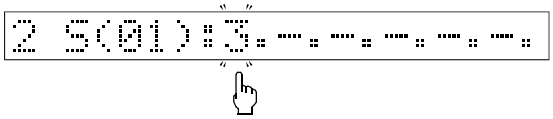
Setting example 1: When setting order of needle bars to use to 3, 6, and 12

1. Selection of needle bar selection.....



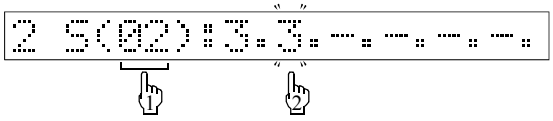
☞ 1. Step 1
☞ 2. The current setting value will be displayed.

2. Selection of step 1 .....



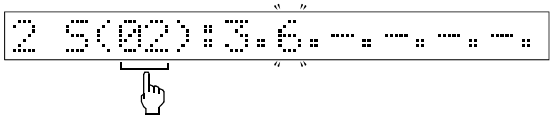
☞ An example when selecting needle bar number 3

Set.....



☞ 1. Step 2
2. The same needle bar number as step 1 will be displayed.

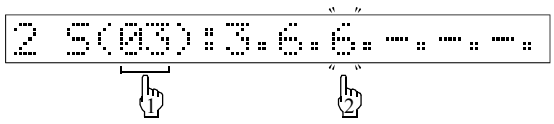
3. Selection of step 2 .....



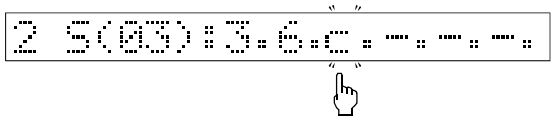
☞ An example when selecting needle bar number 6

NEEDLE BAR SELECTION

Set..... SET



4. Selection of step 3 .....



5. Set (End)..... SET

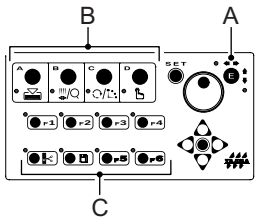
☞ 1. Step 3

2. The same needle bar number as step 2 will be displayed.

☞ An example when selecting needle bar number 12 (c)

📖 When returning to usual display: A

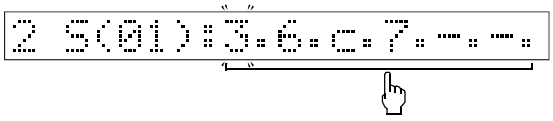
When performing other setting•operation: B, C



NEEDLE BAR SELECTION

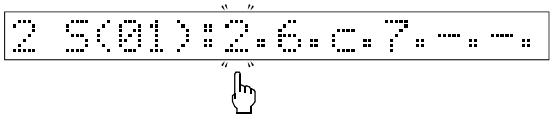
Setting example 2: When changing the current setting 3, 6, 12, and 7 to 2, and 1 this time

1. Selection of needle bar selection.....



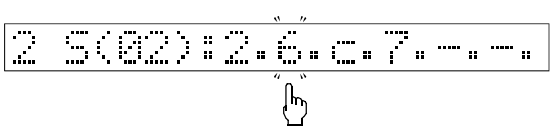
☞ The current setting value will be displayed.

2. Change of step 1.....



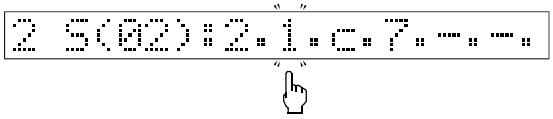
☞ An example when selecting needle bar number 2

Set.....



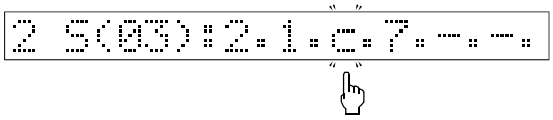
☞ Step 2

3. Change of step 2.....



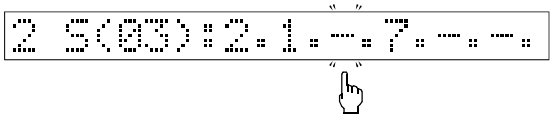
☞ An example when selecting needle bar number 1

Set.....

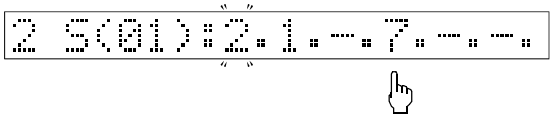


☞ Step 3

4. Select "—" .....



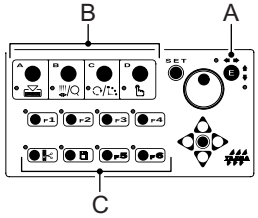
5. Set (End).....



☞ Although display remains, embroidery will not be performed.

When returning to usual display: A

When performing other setting•operation: B, C

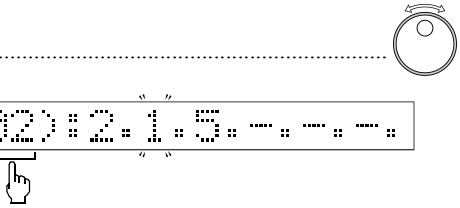


NEEDLE BAR SELECTION

Setting example 3: When performing setting again

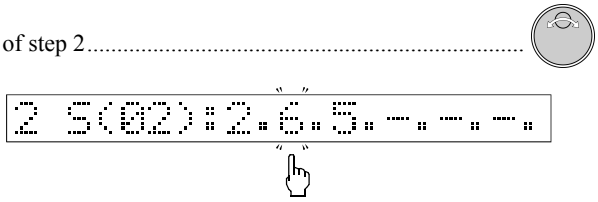
When changing needle bar number “1” of step 2 to “6” in the screen as shown below

1. Selection of step 2 .....



☞ An example when selecting step 2

2. Change of step 2 .....

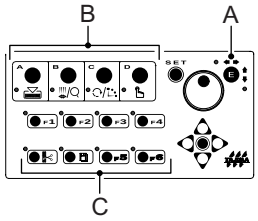


☞ An example when selecting needle bar number 6

3. Set (End) .....

📖 When returning to usual display: A

When performing other setting•operation: B, C



Outline

This setting is used to embroider design data input in the memory repeatedly.

It is not possible to perform setting for repeat in process of embroidery.

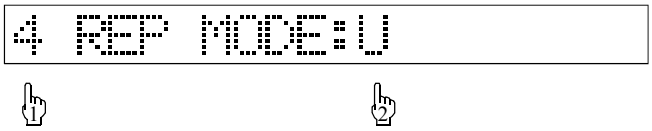
For details of repeat, read p.8-2.

Contents to be set

Setting item	Setting range
Repeat mode	U (Usual repeat), X (X-axis mirror image repeat), Y (Y-axis mirror image repeat), R (180° rotated repeat)
The number of repeats in X direction	1 to 99
The number of repeats in Y direction	1 to 99
Design interval in X direction	From 0.1 mm (—: Left direction, No display: right direction)
Design interval in Y direction	From 0.1 mm (—: Front direction, No display: Rear direction)
X/Y repeat priority	X (X direction priority), Y (Y direction priority)
Thread trimming prior to traveling design interval	(To perform thread trimming), (Not to perform thread trimming)

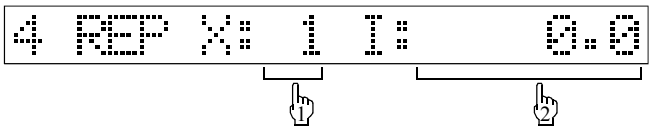
Setting screen

When setting for repeat mode



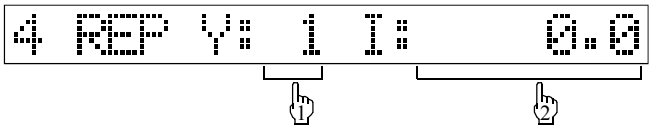
1. Screen number
2. Repeat mode

When setting the number of repeats to X direction and design interval amount



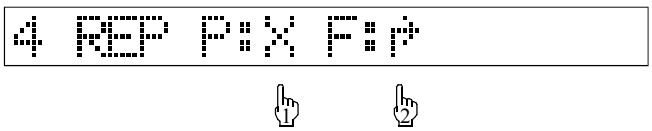
1. The number of repeats
2. Design interval amount

When setting the number of repeats to Y direction and design interval amount



1. The number of repeats
2. Design interval amount

When setting X/Y repeat priority and thread trimming prior to design interval

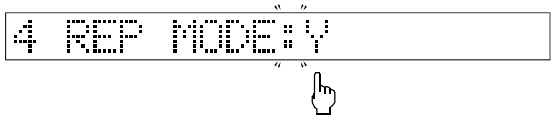


1. X/Y repeat priority
2. Thread trimming prior to traveling of design interval

REPEAT

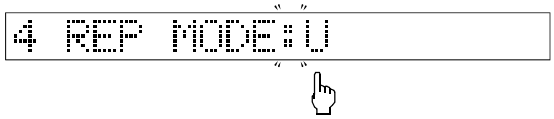
Operation

1. Selection of repeat.....



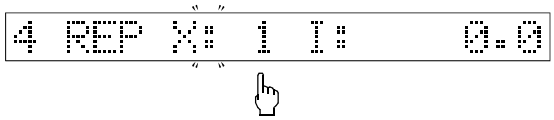
☞ The current setting value will be displayed.

2. Setting for repeat mode .....



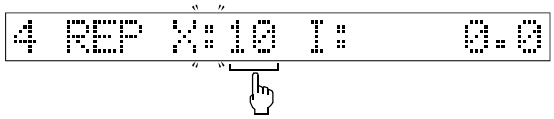
☞ An example when selecting U (Usual repeat)

Set.....



☞ The current setting value will be displayed.

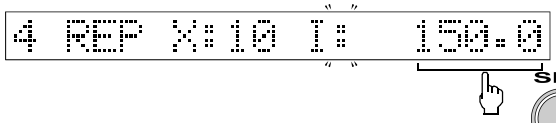
3. Setting for the number of repeats in X direction.....



☞ An example when selecting 10 (times)

Set.....

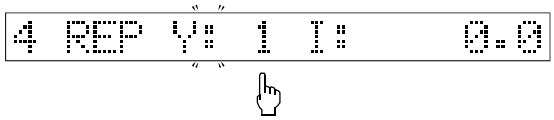
4. Setting for design interval amount in X direction.....



☞ An example when selecting 150 (mm)

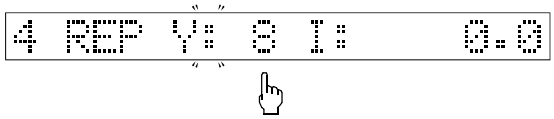
It is also possible to perform setting by jog dial/jog shuttle.

Set.....



☞ The current setting value will be displayed.

5. Setting for the number of repeats to Y direction.....



☞ An example when selecting 8 (times)

REPEAT

Set..... SET

6. Setting for design interval amount in Y direction.....

☞ An example when selecting 55 (mm)

📖 It is also possible to perform setting by jog dial/jog shuttle.

Set..... SET

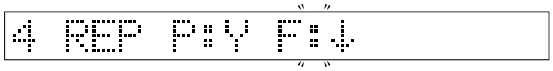
☞ The current setting value will be displayed.

7. Setting for X/Y repeat priority .....

☞ An example when selecting Y

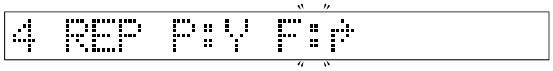
Set..... SET

☞ The current setting value will be displayed.



8. Setting for thread trimming prior to traveling design interval ...

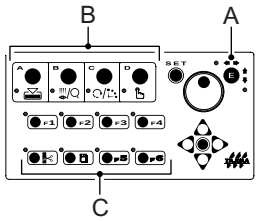
☞ An example when selecting to perform thread trimming



9. Set (End)..... SET

📖 When returning to usual display: A

When performing other setting•operation: B, C



Outline

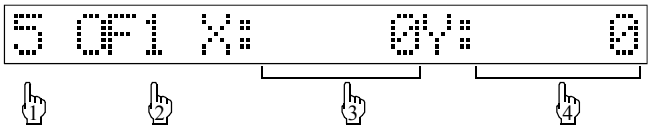
This setting makes the frame move to the front [*1] automatically when embroidery is finished.

Contents to be set

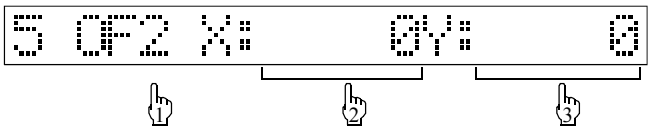
Setting item	Setting range
Offset middle position	Embroidery space
Offset start position	

Setting screen

When setting offset middle position [*2]



When setting offset start position



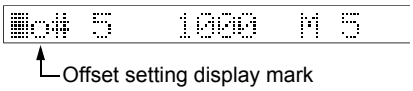
CAUTION

When performing this operation, do not put your hands, etc. on the machine table. You could be injured by moving frame.

It is not possible to perform setting for automatic offset in process of embroidery.

For details of automatic offset, read p.8-3.

After setting automatic offset, the display will become usual display as described below (p.2-10).



1. Screen number
2. Display of setting for offset middle position
3. Frame travel amount of X-axis
4. Frame travel amount of Y-axis

1. Display of setting for offset start position
2. Frame travel amount of X-axis
3. Frame travel amount of Y-axis

To cancel setting for automatic offset, change design data, or set values of both middle position and offset start position to “0”. (After calling this screen, press [SET].)

Supplement

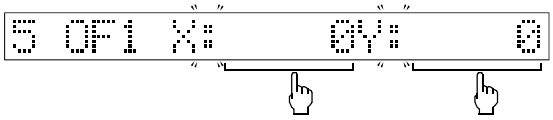
*1 Offset start position

*2 It will move to offset start position through offset middle position.

AUTOMATIC OFFSET

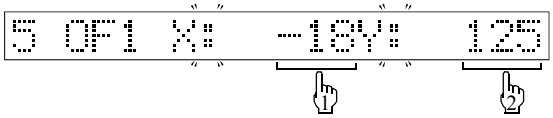
Operation

1. Selection of automatic offset.....



☞ The current coordinates of the frame become X: 0, Y: 0.

2. Setting for offset middle position.....



📖 It is possible to omit setting for offset middle position by pressing the [SET].

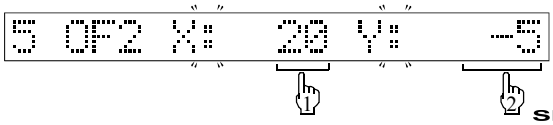
📖 It is also possible to perform setting by jog dial or jog remote-controller (option).

☞ An example when selecting 1. X-axis: -18 (mm)

☞ An example when selecting 2. Y-axis: 125 (mm)

Set.....

3. Setting for offset start position.....

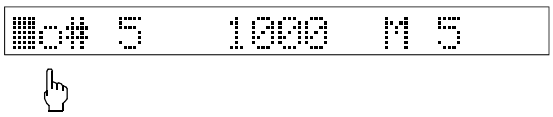


📖 It is also possible to perform setting by jog dial or jog remote-controller (option).

☞ An example when selecting 1. X-axis: 20 (mm)

☞ An example when selecting 2. Y-axis: -5 (mm)

4. Set (End).....



☞ Offset setting display mark

OFFSETTING AT AUTOMATIC COLOR CHANGE

Outline

This setting makes the frame move to the front [*1] automatically at color change code in process of embroidery and end code.

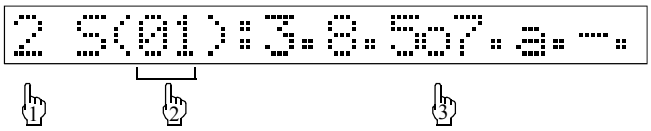
The frame does not move when setting for automatic offset (p.6-22) is not set.

For details of offsetting at automatic color change, read (p.6-22).

Contents to be set

Setting item	Setting range
Offsetting at automatic color change	○ (To perform), • (Not to perform)

Setting screen



1. Screen number
2. Step
3. Offsetting at automatic color change

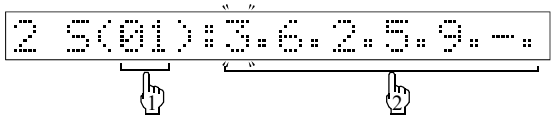
Operation

Setting example: When moving the frame to the front after finishing embroidery with step 3 (needle bar number 2) of design number 5

1. Data input (memory) (p.3-1) .....

Set data of design number 5.

2. Selection of needle bar selection.....

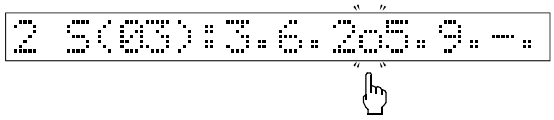


1. Step 1
2. The current setting value will be displayed.

3. Selection of offsetting at automatic color change .....

The current setting value will be displayed.

Change.....



an example when selecting to perform offset

Set.....

4. Setting for automatic offset (p.6-22) .....

Supplement

*1 Offset start position

AUTOMATIC START AFTER AUTOMATIC DATA SET

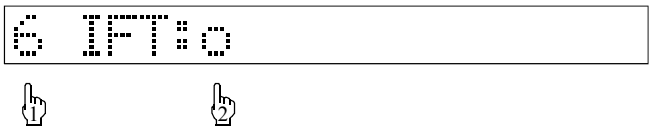
Outline

This setting makes the machine start automatically to embroider the same design repeatedly at the same position after finishing embroidery.

Contents to be set

Setting item	Setting range
Automatic start after automatic data set	○ (To perform), — (Not to perform)

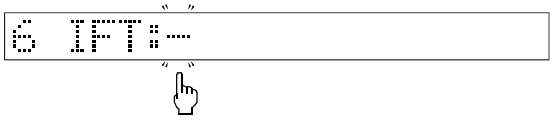
Setting screen



☞ 1. Screen number
2. Automatic start after automatic data set

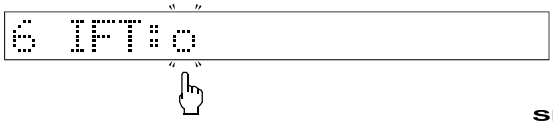
Operation

1. Selection of automatic start after automatic data set.....



☞ The current setting value will be displayed.

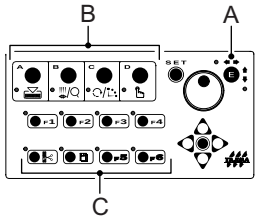
Change.....



☞ An example when selecting to perform automatic start after automatic data set

2. Set (End).....

📖 When returning to usual display: A
When performing other setting•operation: B, C



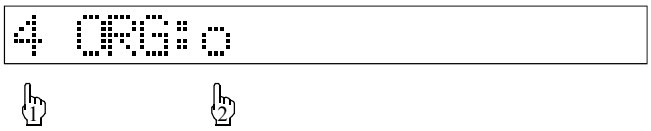
Outline

This setting makes the frame return to the origin (start position of design) [*1] automatically after end of embroidery.

Contents to be set

Setting item	Setting range
Automatic origin return	○ (To perform), — (Not to perform)

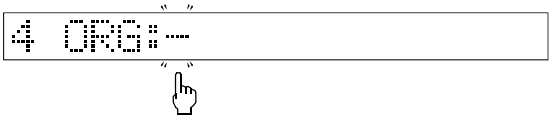
Setting screen



☞ 1. Screen number
2. Automatic origin return

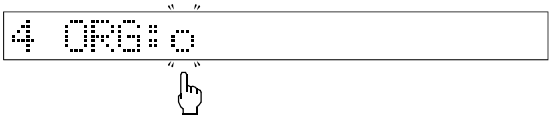
Operation

1. Selection of automatic origin return.....



☞ The current setting value will be displayed.

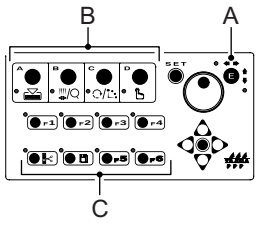
Change.....



☞ An example when selecting to perform automatic origin return

2. Set (End).....

📖 When returning to usual display: A
When performing other setting•operation: B, C



Supplement

*1 It is the position at which start of the machine or frame forward is performed after input of design data. When “automatic offset”(p.6-22) is set, “Offset start position” is the origin.

PRESET HALT

Outline

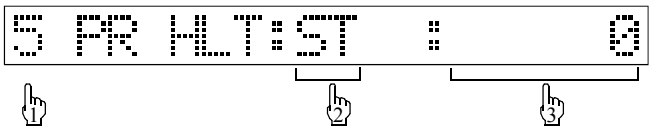
This setting makes the machine stop automatically. There are five types of stopping method. When counting reaches set value, code number will be displayed to stop the machine.

Contents to be set

Setting item	Setting range
Halt by stitch (ST)	0 to 999999 stitches
Halt by data (DT)	0 to 99999 cm
Halt by the number of designs (DGN)	0 to 999 designs
Halt for lubrication (OIL)	0 to 99 (in increments of 10,000 stitches)
Prior to end (END) [*A]	◯ (To perform), — (Not to perform)

*A The machine stops at one stitch prior to end code. After stop of the machine, it is possible to perform frame back.

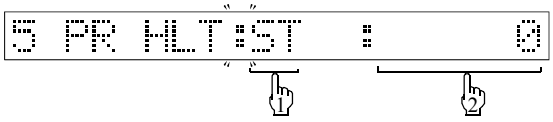
Setting screen



1. Screen number
2. Stopping method
3. Preset setting value[*1]

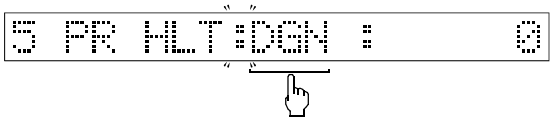
Operation

1. Selection of preset halt.....



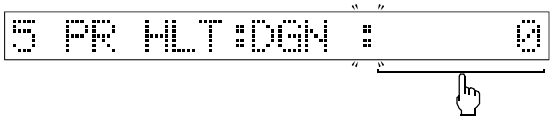
1. The current halting method will be displayed.
2. The current setting value will be displayed.

2. Setting for halting method.....



An example when selecting DGN (halt by the number of designs)

Set.....



The current setting value will be displayed.

Preset halt

Halting method	Code number
Halt by stitch	1D2
Halt by data	
Halt by the number of designs	
Prior to end	
Halt for lubrication	OIL

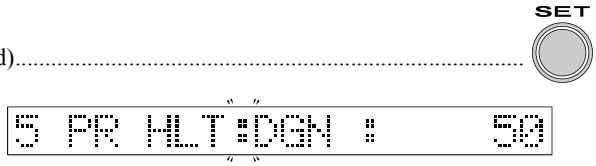
Supplement

*1 The number of digits of setting value differs depending on method of preset halt.

PRESET HALT

3. Selection of preset setting value.....

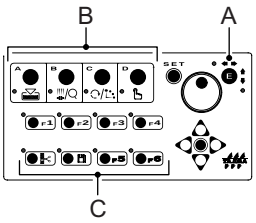
4. Set (End).....



☞ An example when selecting 50 (designs)

📖 When returning to usual display: A

When performing other setting•operation: B, C



STOP AT LOWER D. POINT (PSEUDO-FIXED POSITION)

Outline

This setting makes the machine stop at pseudo-fixed position (lower dead point) when it is stopped by end code 2 [*1].

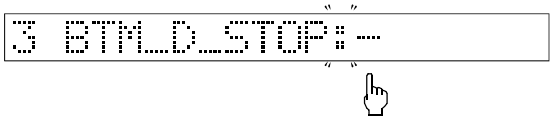
Contents to be set

Setting item	Setting range
Stop at lower D. point (pseudo-fixed position)	○ (To perform), — (Not to perform)

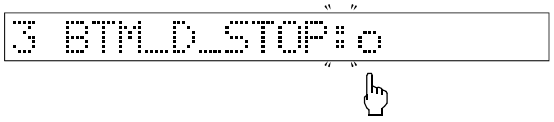
Setting screen

Operation

1. Selection of stop at the pseudo-fixed position F2

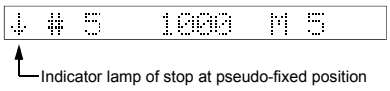


Change..... 



2. Set (End)..... 

When the machine stops at pseudo-fixed position, usual display will become as described below.



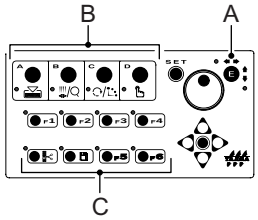
1. Screen number
2. Stop at the pseudo-fixed position

The current setting value will be displayed.

An example when selecting to stop at the pseudo-fixed position

When returning to usual display: A

When performing other setting•operation: B, C



Supplement

*1 There are two types of code. One is code that indicates end point of design (End code 2) and another is code that indicates break point of design to be repeated (End code 1) in repeat embroidery.

Outline

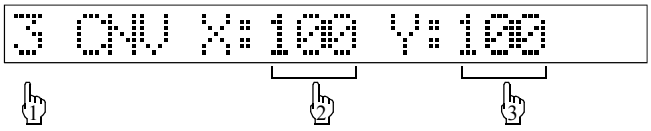
Based on design data that has been input, this setting transforms size or direction of the design.

Contents to be set

Setting item	Setting range
X, Y scale ratio	50 to 200% (in increments of 1%)
Rotating angle	0 to 359° (in increments of 1°)
Reversion	P (Not to perform), ꟻ (To perform)

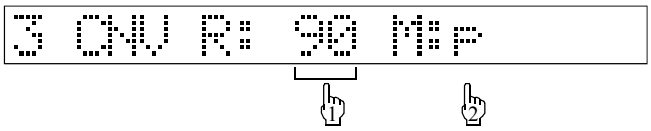
Setting screen

When setting X scale ratio and Y scale ratio



1. Screen number
2 X-axis scale ratio
3 Y-axis scale ratio

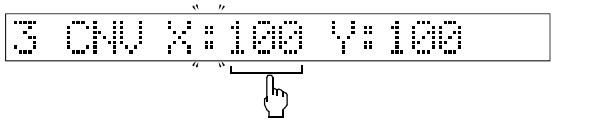
When setting rotation and reversion



1. Rotating angle
2 Reversion

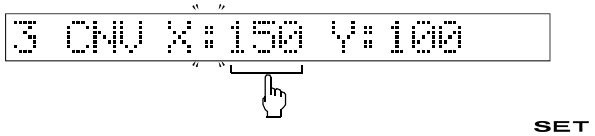
Operation

1. Selection of data conversion .....



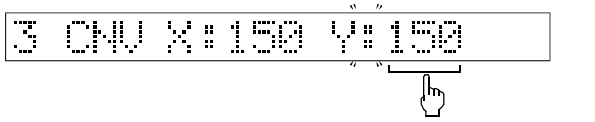
The current setting value will be displayed.

2. Setting for X scale ratio.....



An example when selecting 150 (%)

Set.....



The same value as X-axis will be displayed.

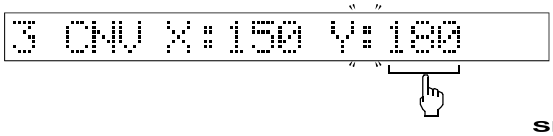
It is not possible to perform setting for data conversion in process of embroidery.

For details of data conversion, read p.8-1.

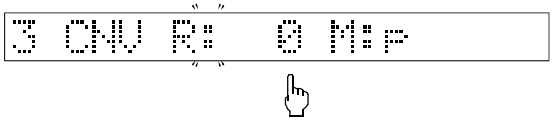
When inputting another design data, it will return to the initial value.

DATA CONVERSION

3. Setting for Y scale ratio.....



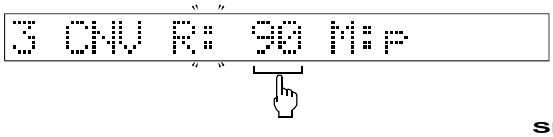
Set.....



☞ An example when selecting 180 (%)

☞ The current setting value will be displayed.

4. Setting for rotating angle.....



Set.....

☞ An example when selecting 90 (°)

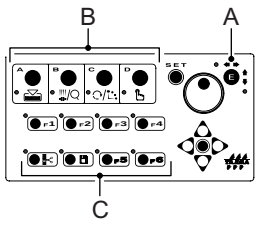
☞ The current setting value will be displayed.

5. Selection of reversion.....

☞ An example when selecting to perform reversion

6. Set (End).....

📖 When returning to usual display: A
When performing other setting•operation: B, C



JUMP CONVERSION

Outline

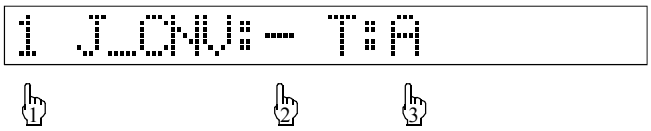
This is a setting for making how many consecutive jump codes perform frame stepping and frame travel method.

For details of jump conversion, read p.8-5.

Contents to be set

Setting item	Setting range
The number of stitches	1 to 9 (the number of stitches to perform jump conversion) — (Not to perform jump conversion)
Frame travel method	A (Batch processing to perform consecutive frame stepping) B (Frame stepping by one stitch as data is)

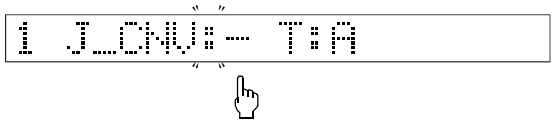
Setting screen



1. Screen number
2 The number of stitches
3 Frame travel method

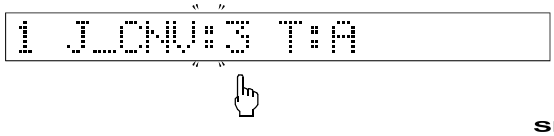
Operation

1. Selection of jump conversion F1



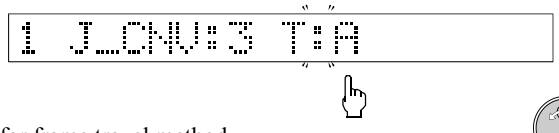
The current setting value will be displayed.

2. Setting for the number of stitches .....



An example when selecting 3 (times)

Set..... SET



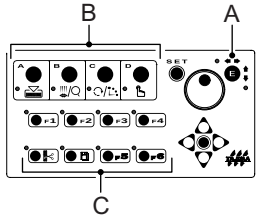
The current setting value will be displayed.

3. Setting for frame travel method .....

An example when selecting B (Frame stepping by one stitch as data is)

4. Set (End)..... SET

When returning to usual display: A
When performing other setting•operation: B, C



AUTOMATIC JUMP

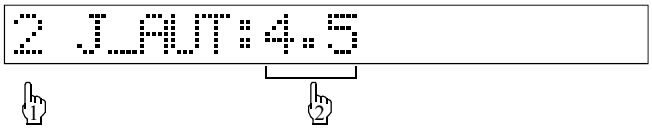
Outline

This is a setting for causing longer stitch length than the set value to perform jumping automatically.

Contents to be set

Setting item	Setting range
Stitch length	4.0 to 9.9 (in increments of 0.1 mm) — (Not to perform automatic jump)

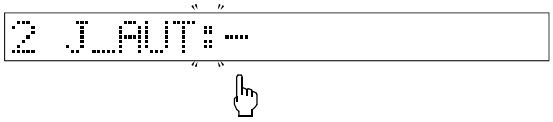
Setting screen



☞ 1. Screen number
2 Stitch length

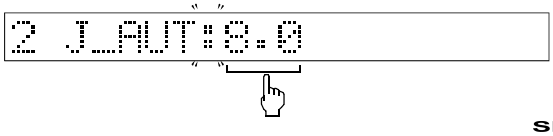
Operation

1. Selection of automatic jump..... F1



☞ The current setting value will be displayed.

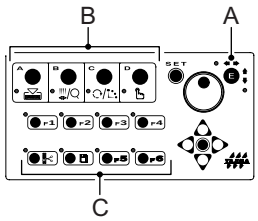
2. Selection of stitch length.....



☞ An example when selecting 8.0 (mm)

3. Set (End)..... SET

When returning to usual display: A
When performing other setting•operation: B, C



SATIN STITCH

Outline

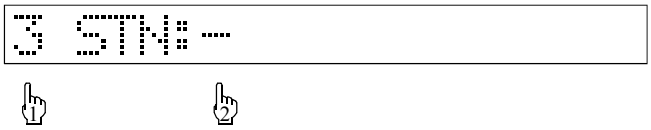
This setting reduces/enlarges satin stitch length.

For details of satin stitch, read p.8-6.

Contents to be set

Setting item	Setting range
Amount of reduction/ enlargement	-1.0 to 1.0 (in increments of 0.1 mm) — (Not to perform reduction/enlargement)

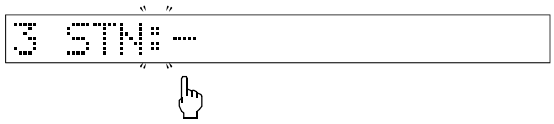
Setting screen



1. Screen number
2 Amount of reduction/enlargement

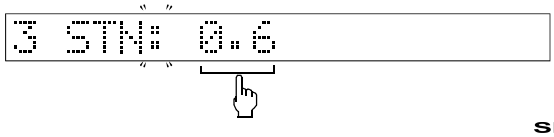
Operation

1. Selection of satin stitch F1



The current setting value will be displayed.

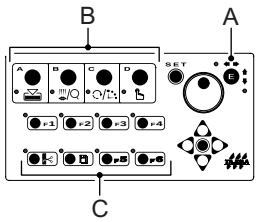
2. Selection of amount of reduction/enlargement .....



An example when selecting 0.6 (mm)

3. Set (End)..... SET

When returning to usual display: A
When performing other setting•operation: B, C



BACKLASH

Outline

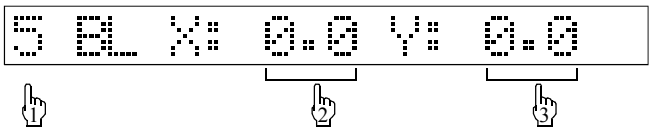
This is a setting for correcting mechanical error of X/Y-axis drive system generated when stitch of design data is reversed.

For details of backlash, read p.8-5.

Contents to be set

Setting item	Setting range
Correcting value for X-axis backlash	-0.5 to 0.5 (in increments of 0.1 mm)
Correcting value for Y-axis backlash	

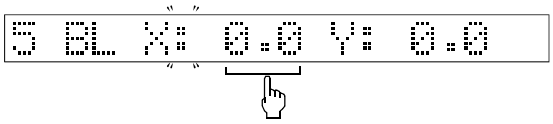
Setting screen



1. Screen number
2 X-axis correcting amount
3 Y-axis correcting amount

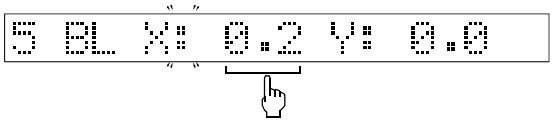
Operation

1. Selection of backlash..... F1



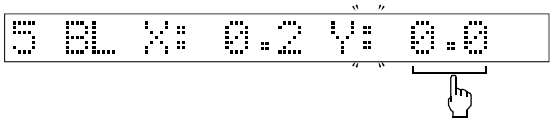
The current setting value will be displayed.

2. Setting for correcting value for X-axis backlash.....



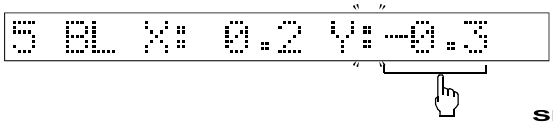
An example when selecting 0.2 (mm)

Set..... SET



The current setting value will be displayed.

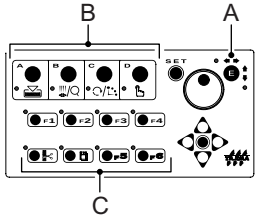
3. Selection of correcting value for Y-axis backlash.....



An example when selecting -0.3 (mm)

4. Set (End)..... SET

When returning to usual display: A
When performing other setting•operation: B, C



ALL HEAD SEWING AFTER FRAME BACK

Outline

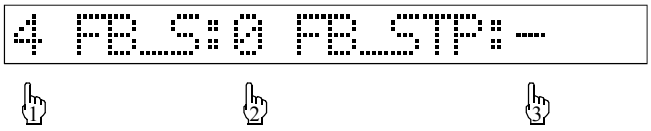
This setting sets start position of all head sewing when starting the machine after performing frame back, and sets whether the machine stops at the start position or not.

Contents to be set

Setting item	Setting range
Start position of all head sewing	A: (Whole section of frame back) 0 to 9 (0 to 9 stitches prior to the point)
Stop at start position [*A]	○ (To perform), — (Not to perform)

*A When selecting "A (whole section of frame back" at setting for start position of all head sewing, it is only possible to set to "— (Not to stop)".

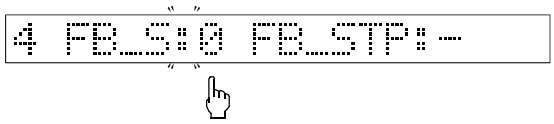
Setting screen



1. Screen number
2 Start position of all head sewing
3 Stop at start position

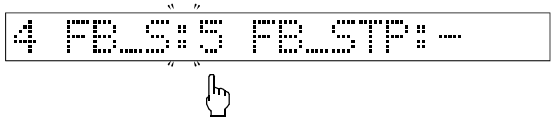
Operation

1. Selection of start of all head sewing after frame back F1



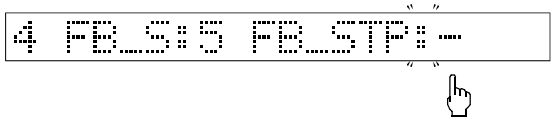
The current setting value will be displayed.

2. Setting for start position of all head sewing..... ◎



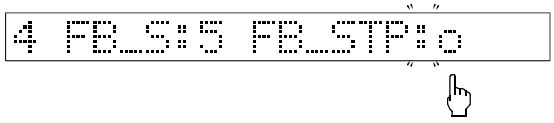
An example when selecting 5 (stitches prior to the point)

Set..... SET



The current setting value will be displayed.

3. Setting for to stop/not to stop at start position ..... ◎



An example when selecting ○ (To stop)

When performing frame back after detection of thread breakage, the head where thread breakage detected will sew all section of frame back regardless of setting for start point of all head sewing.

It is not possible to set during embroidery whether the machine stops at the start position of all-head sewing or not.

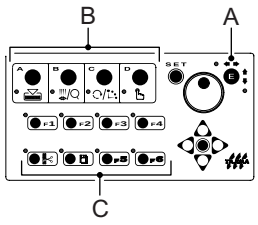
ALL HEAD SEWING AFTER FRAME BACK

4. Set (End)..... SET

When motion of stop at start point is set to " ○ (to stop)", the machine will stop at the start position at all-head sewing and code number [1D1] will be displayed. Start the machine with bar switch or start switch.

When returning to usual display: A

When performing other setting•operation: B, C



Outline

Perform setting for making boring device possible to be used and the details.

📖 It is not possible to perform setting for boring device in process of embroidery.

Contents to be set

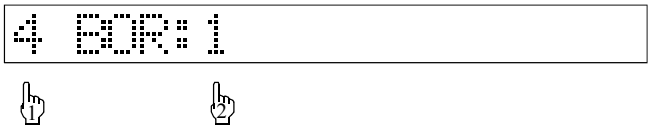
Setting item	Setting range
Boring device	1 (To use): Not to perform data processing [*A] 3 (To use): Add mechanical offset amount 12 mm [*B] — (Not to use)

📖 Use the setting range separately as shown below according to whether design data includes offset data for boring or not.
- With: 1
- Without: 3

*A Movement of the frame is as data is. It is not possible to perform data conversion.

*B It is possible to perform data conversion.

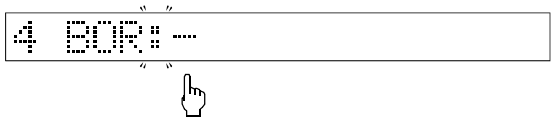
Setting screen



☞ 1. Screen number
2. Boring device

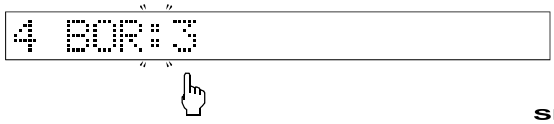
Operation

1. Selection of boring device..... F3



☞ The current setting value will be displayed.

Change.....

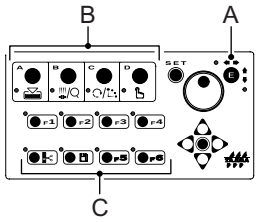


☞ An example when selecting 3 (To use: To add mechanical offset 12 mm)

2. Set (End)..... SET

📖 When returning to usual display: A

When performing other setting•operation: B, C



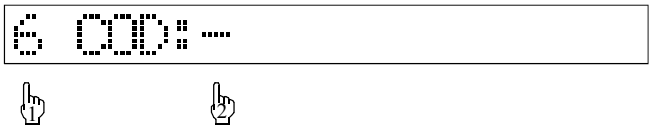
Outline

This setting makes cording device become possible to use.

Contents to be set

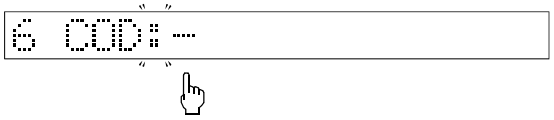
Setting item	Setting range
Cording	○ (To use), — (Not to use)

Setting screen

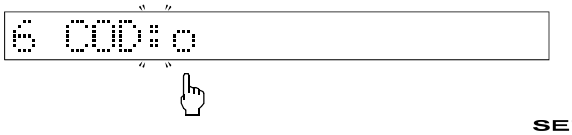


Operation

1. Selection of boring device..... F3



Change.....



2. Set (End)..... SET

It is not possible to perform setting for cording device in process of embroidery.

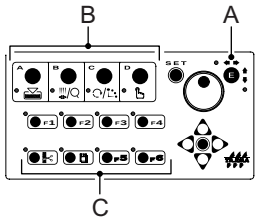
1. Screen number
2. Cording device

The current setting value will be displayed.

An example when selecting ○ (To use)

When returning to usual display: A

When performing other setting•operation: B, C



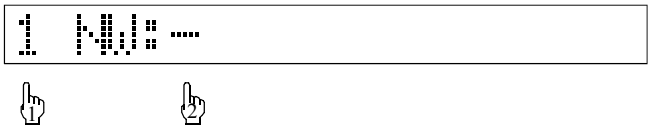
Outline

This is a setting for making two-way network possible with use of DG/ML.

Contents to be set

Setting item	Setting range
Network	○ (To use), — (Not to use)

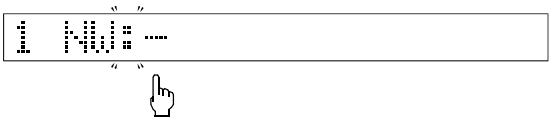
Setting screen



☞ 1. Screen number
2. Network

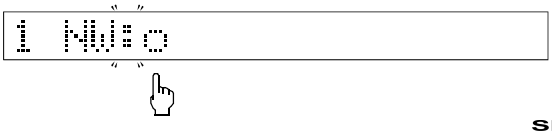
Operation

1. Selection of network F4



☞ The current setting value will be displayed.

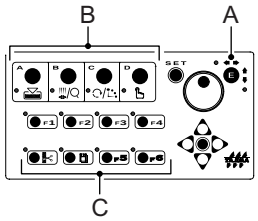
Change..... 



☞ An example when selecting ○ (To use)

2. Set (End)..... SET

📖 When returning to usual display: A
When performing other setting•operation: B, C



Option
UNDER THREAD TRIMMING SELECTION

Outline

This is a setting for making the machine trim under thread when travel amount of frame stepping after thread trimming is the setting value and more.

Contents to be set

Setting item	Setting range
Under thread trimming selection	Not available to use.

It is not possible to perform setting for selection of under thread trimming at present.

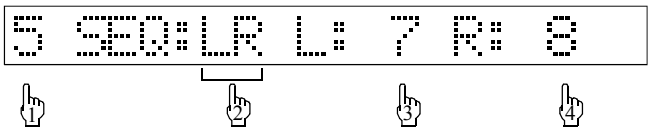
Outline

This is a setting for making sequin device (option for TFHX series) available for use and for sequin feed amount.

Contents to be set

Setting item	Setting range
Sequin device	L: left side R: right side LR: Both sides — (Not to use)
Sequin feed amount	5 to 10 mm (in increments of 1 mm)

Setting screen



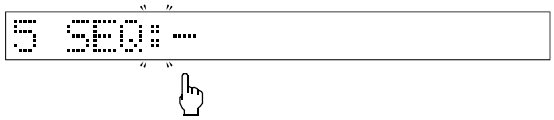
It is not possible to perform setting for sequin device in process of embroidery.

Although rough standard of feeding amount of sequin chip is sequin size +0.7 (mm), it differs depending on outer diameter or material. Therefore, perform adjustment at your discretion.

1. Screen number
2. Sequin device
3. L-side sequin feed amount
4. R-side sequin feed amount

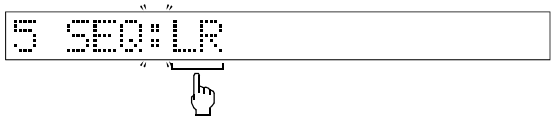
Operation

1. Selection of sequin device..... F3



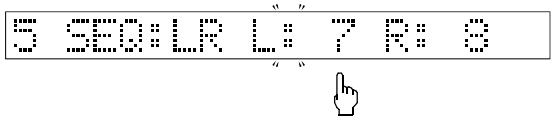
The current setting value will be displayed.

2. Setting for use of sequin device .....



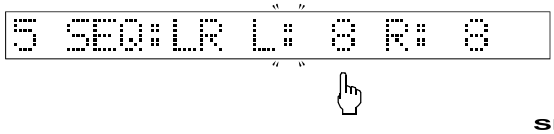
An example when selecting LR

Set..... SET



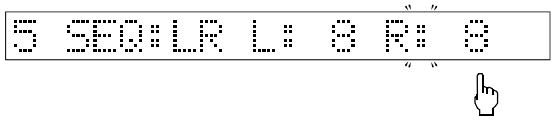
The current setting value will be displayed.

3. Setting for L-side sequin feed amount .....



An example when selecting 8 (mm)

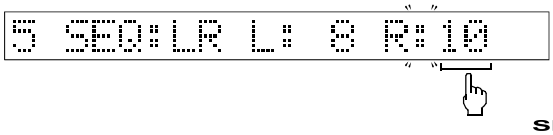
Set..... SET



The current setting value will be displayed.

Option
HIGH-SPEED SEQUIN DEVICE

4. Setting for R-side sequin feed amount.....



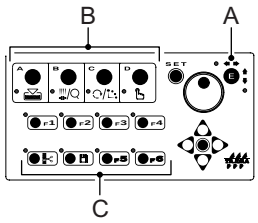
5. Set (End).....

SET

☞ An example when selecting 10 (mm)

When returning to usual display: A

When performing other setting•operation: B, C



Option
AUTOMATIC LUBRICATION SYSTEM

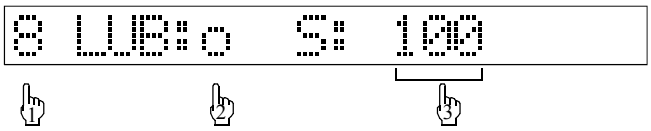
Outline

This is a setting for making automatic lubrication system (option for TFHX series) available for use and for the number of stitches for lubrication.

Contents to be set

Setting item	Setting range
Automatic lubrication system	○ (To use), — (Not to use)
The number of stitches for lubrication	1 to 9999 (in increments of 1,000 stitches)

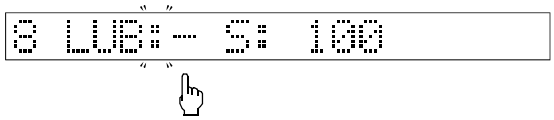
Setting screen



☞ 1. Screen number
2. Automatic lubrication system
3. The number of stitches for lubrication

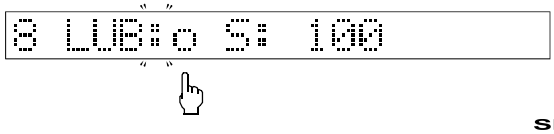
Operation

1. Selection of automatic lubrication system F3



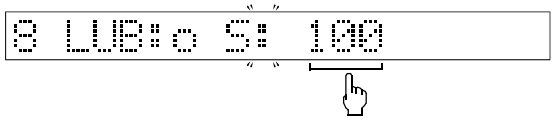
☞ The current setting value will be displayed.

2. Setting for automatic lubrication system..... 



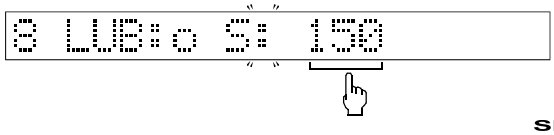
☞ An example when selecting ○ (To use)

Set..... SET



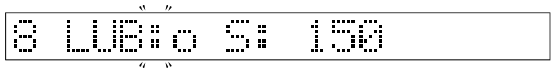
☞ The current setting value will be displayed.

3. Setting for the number of stitches for lubrication ..... 

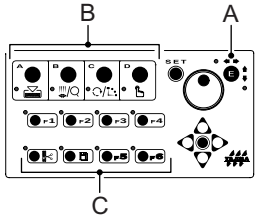


☞ An example when selecting 150 (150,000 stitches)

4. Set (End)..... SET



📖 When returning to usual display: A
When performing other setting•operation: B, C

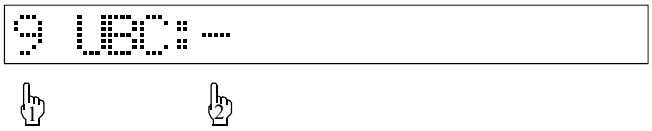


Outline

This is a setting for making bobbin changer (option for TFHX, TFHX-II) available for use.

Contents to be set

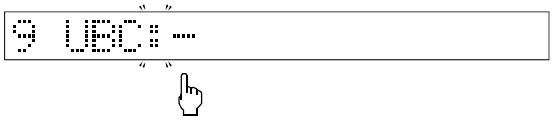
Setting screen



☞ 1. Screen number
2. Bobbin changer

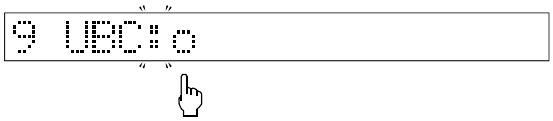
Operation

1. Selection of bobbin changer..... F3



☞ The current setting value will be displayed.

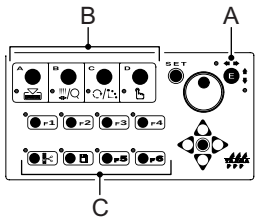
Change.....



☞ An example when selecting ○ (To use)

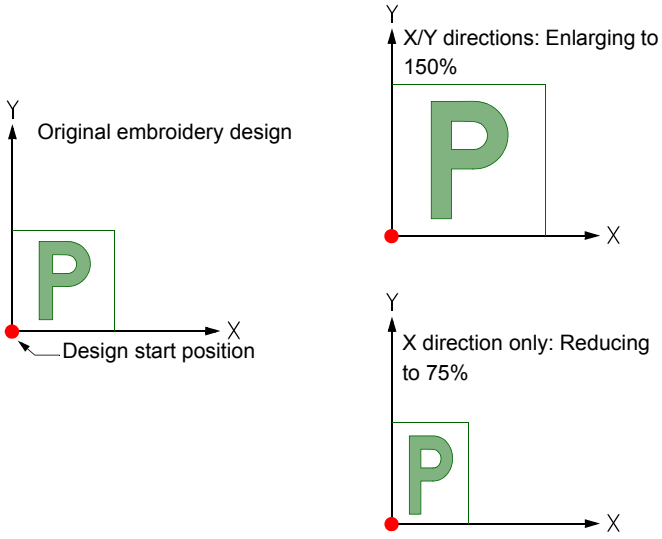
2. Set (End)..... SET

When returning to usual display: A
When performing other setting•operation: B, C



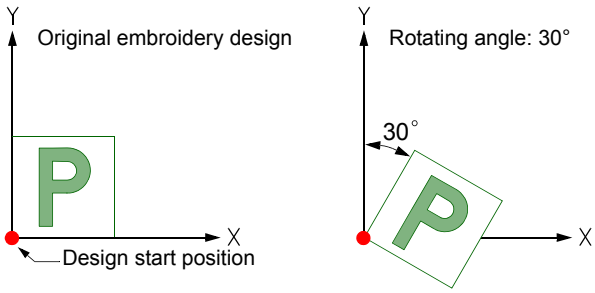
Enlargement/Reduction

It is possible to perform enlargement•reduction to X and Y directions by 50 to 200%.



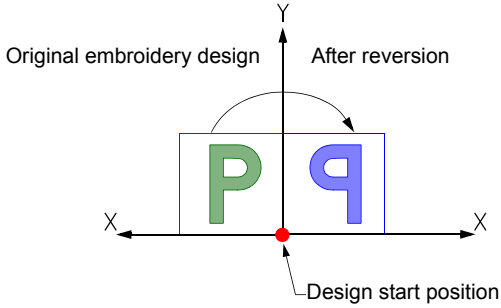
Rotation

It is possible to rotate a design up to 359 degrees in increments of 1 degree.



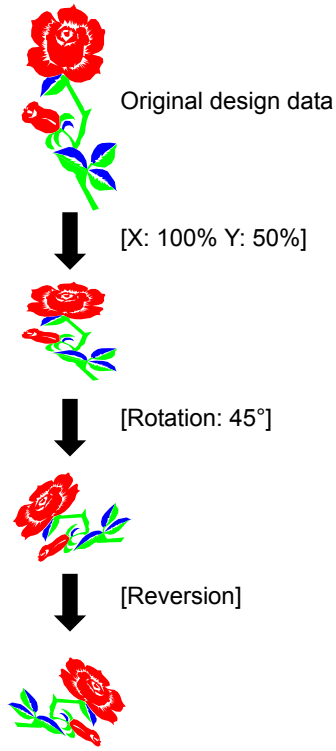
Reversion

It is possible to perform reversion using Y-axis as the base line.



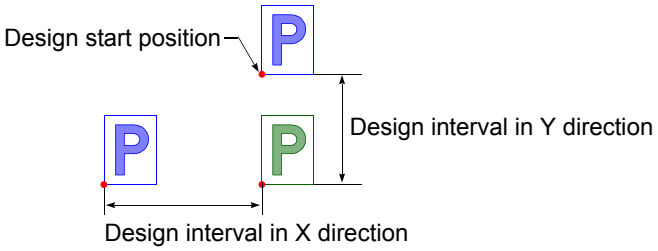
When setting all of enlargement•reduction, rotation, and reversion, embroidery will be performed with the following order of priority.

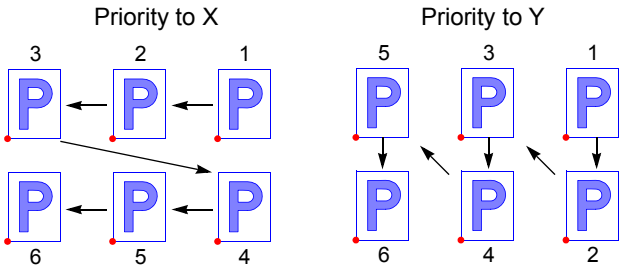
1. Enlargement//Reduction
2. Rotation
3. Reversion



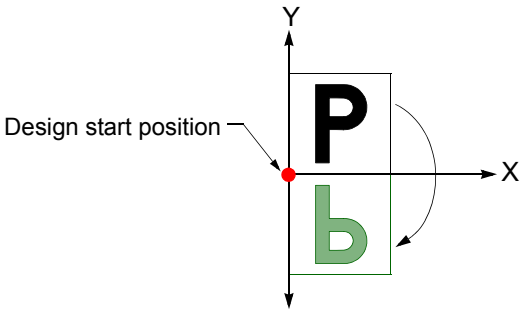
REPEAT

It is possible to perform embroidery repeatedly.

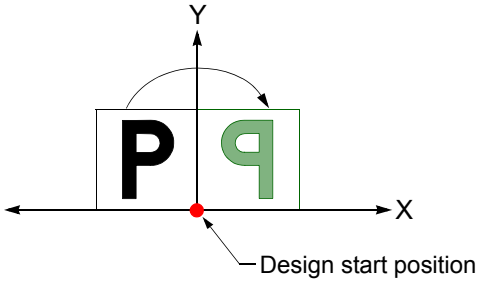




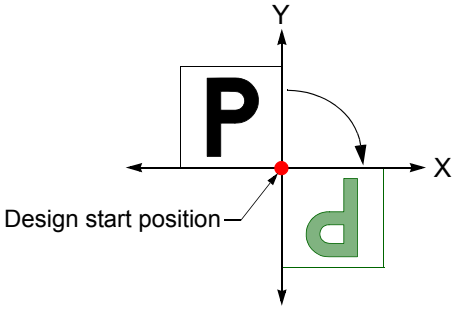
X-axis mirror image repeat.....



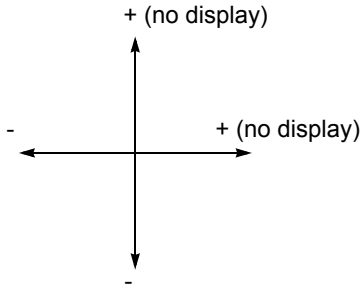
Y-axis mirror image repeat.....



180° rotated repeat.....



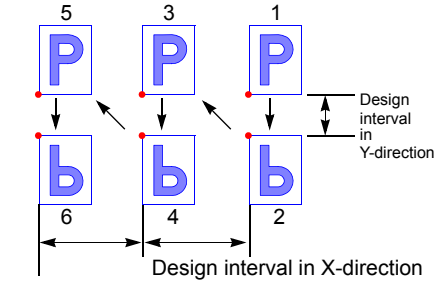
Direction of repeat is determined by “Direction” at design interval setting.



The left illustration is an example when both X and Y are minus directions.

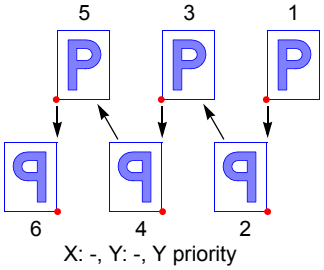
In X-axis mirror image repeat, Y-axis mirror image repeat, and 180° rotated repeat, repetition will be made as the same as the initial setting in odd-numbered times, and the reversed design will be repeated in even-numbered times step by step.

[X-axis mirror image repeat]



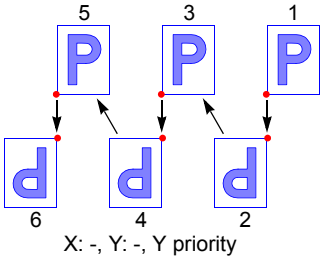
X: -, Y: -, Y priority

[Y-axis mirror image repeat]



X: -, Y: -, Y priority

[180° rotated repeat]

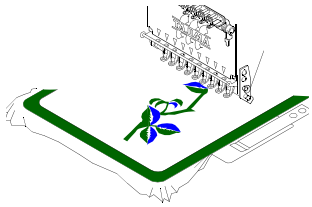


X: -, Y: -, Y priority

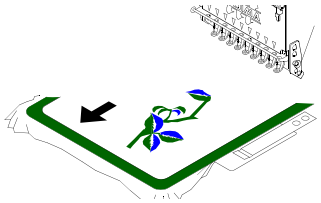
Manual offset

This function makes the embroidery frame return to the original position when the machine was stopped at free setting point in process of embroidery and the embroidery frame was moved to the front by manual frame travel.

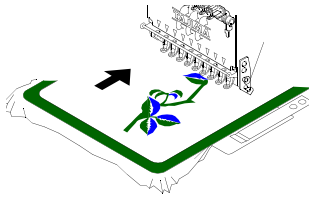
1. Stop the machine at the free setting point (A), and perform manual thread trimming.



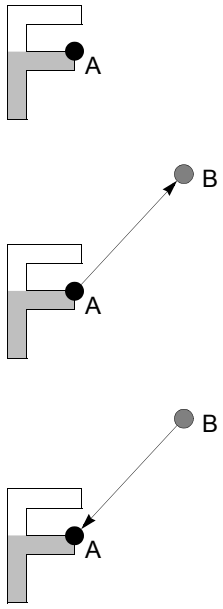
2. Move the frame by manual frame travel to the front (B) for checking embroidery design, etc.



3. When performing this operation, the frame will return to the free setting point (A).



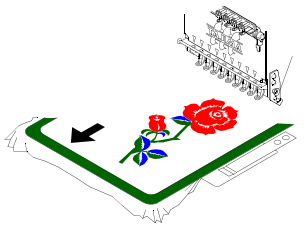
A: Free setting point B: Frame travel position



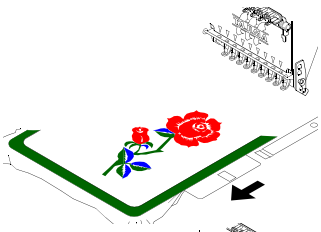
Automatic offset

This function moves the embroidery frame forward automatically at the end position of design.

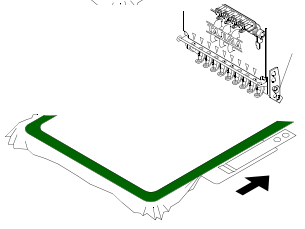
1. The machine stops at the end position of design (B) to perform thread trimming [*1], and the frame moves to the offset start position (D) through the middle position (C).



2. Change fabric or frame.

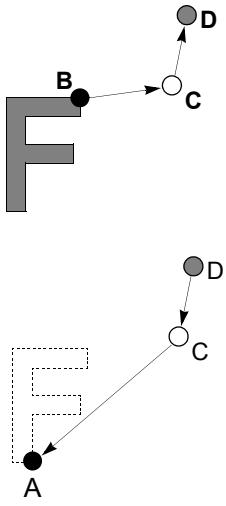


3. When starting the machine, the frame will move to the start position of design (A) through the middle position (C), and embroidery will start[*2].



A: Start position of design
B: End position of design
C: Middle position
D: Offset start position

When the middle position (C) is not set, it will not go through.



Supplement

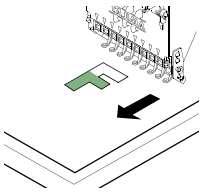
*1 When setting for ATH (p.6-10) is set to “To use”

*2 When setting for start mode (p.6-13) is set to “Automatic”

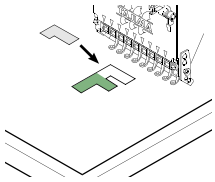
Offsetting at automatic color change

This function makes the embroidery frame move to the front automatically at color change point in process of embroidery.

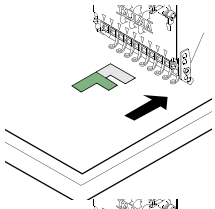
1. The machine stops at the color change point (B) in process of embroidery to perform thread trimming [*1], and the frame moves to the offset start position (C) through the middle position (A).



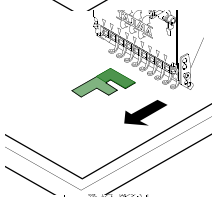
2. Place applique.



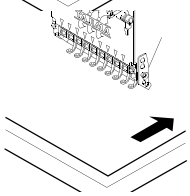
3. When starting the machine, the frame will move to the color change point (B) in process of embroidery through the middle position (A), and embroidery will continue



4. The machine will stop at the end position of design (D) and perform automatic thread trimming [*1}. The frame will move automatically to the offset start position (C) through the middle position (A).

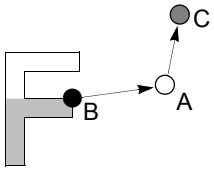


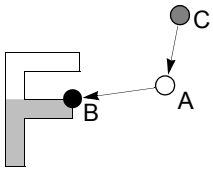
5. When starting the machine after changing fabric, etc., the frame will move to the start position of design (E) through the middle position (A), and embroidery will start [*2].

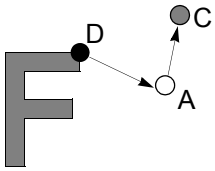


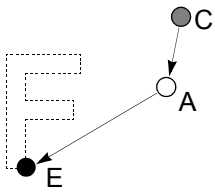
A: Middle position
B: Color change point
C: Offset start position
D: End position of design
E: Start position of design

When the middle position (C) is not set, it will not go through.









Supplement

*1 When setting for ATH (p.6-10)is set to “To use”

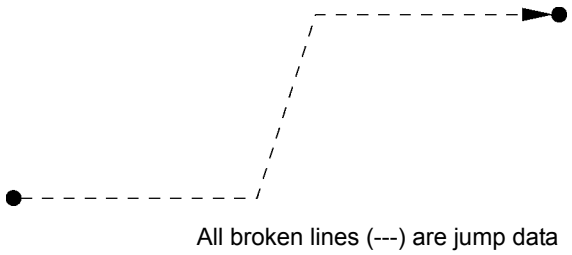
*2 When setting for start mode (p.6-13) is set to “Automatic”

Travel method of frame at jump conversion

There are following two types of travel method of frame at jump conversion.

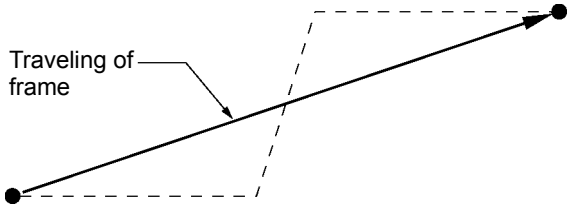
- Batch processing
- As data is

Explanation is given taking the following jump data as an example.

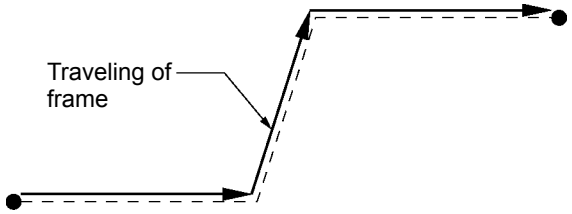


All broken lines (---) are jump data

Batch processing

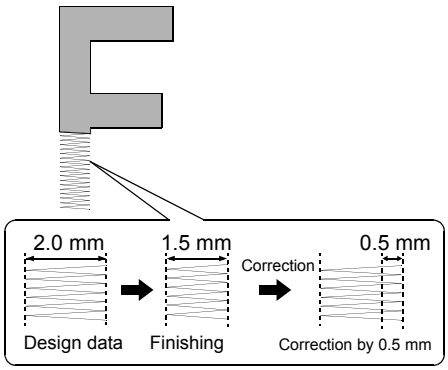


As data is



Backlash

This function corrects drive error generated when direction of stitch data is reversed (reversion of polarity).

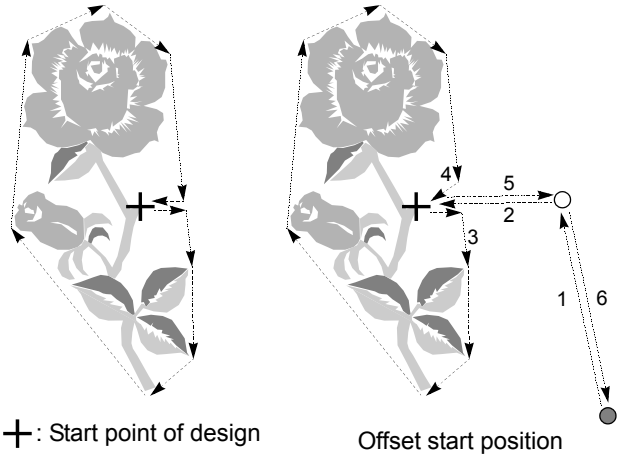


It is possible to perform correction to X and Y directions respectively by -0.5 to 0.5 mm.

TRACE, SATIN STITCH

Trace

This function makes the frame move along the outer circumference of the design that has been set.



When repeat is set, only one design at the beginning will be traced.

When data conversion or automatic offset is set, the frame will move according to the setting.

When tracing is interrupted .....

When tracing was interrupted halfway by the following factors and performing “Manual offset” (p.4-4) or “Manual origin return” (p.4-3), the frame will return to the start point of tracing. Therefore, it is possible to perform tracing again.

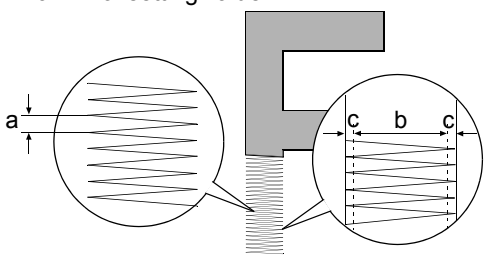
1. Stop by bar switch or stop switch (code number 1C1 will be displayed, and the frame will stop after moving to the position where traveling direction switches.)
2. When the fixed position signal disappears (Code number 211 will be displayed, and the frame will stop immediately.)
3. When frame limit was detected (Code number 221, 222, 223, or 224 will be displayed and the frame will stop immediately.)

When tracing was interrupted halfway by the emergency stop switch or power shut off and performing “Power resume” (p.4-13) after turning on the power again, the embroidery frame will return to the start point of tracing. Therefore, it is possible to perform tracing again.

Satin stitch

This function extends•reduces satin stitch length.

a: Distance
b: Stitch length
c: 1/2 of setting value



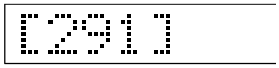
It is possible to perform enlargement•reduction within a range of -1.0 to 1.0 mm.

When the distance (a) is 1 mm or less, it is judged as satin stitch.

When the machine stopped

There are two main machine stop factors: one is stop by occurrence of error and another is stop by normal stop factor. When the machine operation is interrupted with code number displayed on the screen, carry out the troubleshooting referring to the code chart below.

An example of display of code number



Stop by occurrence of error

When code number of 300 series is displayed, contact the distributor.

Code number	Stop Factor	Corrective Action
211	The fixed position signal (main shaft Z signal) is not detected.	Return the main shaft to the fixed position. Check the encoder signal.
221	The embroidery frame moved to the limit position (left direction). (Excluding TFHXII, TFHXII-C)	Move the frame manually so that embroidery can be performed within the set range.
222	The embroidery frame moved to the limit position (right direction). (Excluding TFHXII, TFHXII-C)	
223	The embroidery frame moved to the limit position (front direction). (Excluding TFHXII, TFHXII-C)	
224	The embroidery frame move to the limit position (rear direction). (Excluding TFHXII, TFHXII-C)	
228	Table up/down operation was performed when the frame was positioned at the front. <TEHX-C multi-head machine only>	Move the frame to the rearmost and perform table up/down operation.
251	Lubrication pump oil is insufficient.	Supply oil to the tank.
291	Thread breakage has been detected.	Check thread.
	Tension base card is faulty.	Replace the tension base card.
293	The machine has detected under thread breakage.	Check the under thread.
2B1	Although the machine was started from the serial interface, no response is obtained for 5 seconds. (No device is connected to the serial interface).	Check connection of the device. Correct the design data.
2B3	Data exists in an end code.	Correct the design data.
2B4	Function code error (No stitch code exists in the third character)	
2B5	Sequin data error <Excluding TEHX-C multi-head machine>	
2B7	Data is not set.	Perform data set.

2B8	When the pre-reading buffer becomes empty and output data is absent. <TEHX-C multi-head machine only>	During operation: Lower the r.p.m. During frame forward: Wait until all design data is read.
2BA	Overflow of memory capacity	Delete unnecessary designs registered in memory.
2BB	Available range to perform frame back was exceeded.	Do not perform frame back any more.
2BC	No design is registered in the memory.	Register designs in the memory.
	Attempt was made to perform memory delete of design in process of embroidery	To perform memory delete of design in process of embroidery, perform data input of other data or perform data input of the same design again.
	Attempt was made to perform data edit (cleanup) in process of embroidery.	Do not perform data edit (cleanup) in process of embroidery.
2C1	The machine was started without needle bar selection.	Perform needle bar selection.
2C2	Incorrect option setting	Set correctly.
2C6	Operation of the machine was performed during working of bobbin changer. <Excluding TEHX-C multi-head machine>	Do not perform operation of the machine during working of bobbin changer.
2CE	Stop by safety device	After removing the obstacle, press the set key, and then press the start switch.
2E3	Power was shut off during operation of embroidery.	Perform operation of power resume after turning ON the power.
311	Encoder A signal does not change for 5 seconds.	Check the encoder or encoder signal lines. Check the main shaft driver for excitation.
	Abnormality of motor, motor belt	Check the motor or motor belt.
312	Encoder Z signal status does not change.	Check the encoder or encoder signal lines.
331	Signal of abnormality of bobbin changer was detected. <Excluding TEHX-C multi-head machine>	Operate the bobbin changer manually after resetting error, check and adjust the point that causes bad movement.
382	The needle position signal status during color change does not change for 1 second and more.	Check the color change motor and power supply circuit. Check the potentiometer (needle position sensor).
383	When input of needle position was abnormal	Check the number of needles at installation of software.
	There was no needle position signal during rotation of the main shaft.	Check the potentiometer (needle position sensor).
3A6	ATH knife retractable position has become non-uniform.	Check the position of ATH movable knife.
3C1	Contact error of the bar switch or start/stop switch, breakage of the switch harness, or bad connection of the connector	Check the connector and the connecting terminal. Replace the limit switch or switch assembly.
3D6	There is abnormality in the program or in the CPU card.	Check the CPU card.
	When software is not installed normally	Install software.

B01	Floppy disk format has an error.	Format the floppy disk. Replace with a new formatted floppy disk.
	Abnormality occurred in reading/writing.	Copy other designs to a new floppy disk and dispose of the old floppy disk.
B03	The write protect window of the floppy disk is open.	Close the write protect window.
B04	No floppy disk has been inserted.	Insert a floppy disk.
BC1	Selected design is not found on the floppy disk.	Select other design.
	No design is registered on the floppy disk.	
BC4	Design was not written from the memory to floppy disk correctly. <TEHX-C multi-head machine only>	Retry writing.
BC5	Available capacity of the floppy disk is not sufficient.	Replace with floppy disk that has enough remaining capacity.
C01	The FDD does not work.	Check the FDD connector. If there is no problem with the connection, replace the FDD unit.
CE1	Mismatching of serial communication speed	Accommodate communication speed of the external device with that of the machine.

Stop by usual stop factor

Stop by the code numbers (100-series) described below is not caused by occurrence of error.

Code number	Stop Factor	Corrective Action
1B1	Stop due to a frame stepping code.	In this case, it is not stop by abnormality. Perform “start operation” or “frame back/forward operation”. Alternatively, press any operation key (excluding manual frame travel key) to continue the machine operation.
1B2	Stop due to a stop code.	
1B3	Stop due to stop code 1.	
1B4	Stop due to thread trimming code.	
1B6	Stop by offset code at automatic color change	
1C1	Stop by stop switch	
1D1	Stop at the start of all-head embroidery due to the stop setting.	Start the machine and continue embroidery.
1D2	Stop by preset halt (except lubrication)	Press the set key to reset the machine.
OIL	Preset halt (lubrication)	Supply oil to the necessary spots and press the set key to reset the machine.

TROUBLESHOOTING

IF TROUBLE OCCURS

CAUTION

Adjustment includes some complicated works. Consult your local distributor before working.

Cause of troubles and adjustments……

Symptom	Cause	Corrective Action
Machine cannot start	Loose or broken belts	Adjust the belt tension or replace the belt.
	Needle position signal, NOT detected.	Adjust the needle position so that needle position is properly indicated in the manual color change section on the operation panel.
	Lamp in the power supply/driver box indicated abnormality	Turn “OFF/ON” the power.
	Poor connection of power supply box connectors.	Insert the connector securely
Stop position error	Loose or soiled belt	Adjust the belt tension or clean the belt.
	Galling of driving parts	Adjust/replace the rotary hooks and/or needle bar drive system
Incorrect color changing	Stop position is incorrect.	Adjust the position.
	Position of take-up lever is wrong.	Adjust the position of the take-up lever at the stop position so that its position is the same as others.
	Needle position NOT detected.	Adjust the needle position so that needle position is properly indicated in the manual color change section on the operation panel.
Thread detection error	Malfunctioning of rotary tension disk or rotary disk slit	Clean rotary tension disk or rotary disk slit, and check movement.
Jump error	Incorrect positioning of parts related to needle bar drive system	Adjust the fixing position of the upper dead point stopper.
Design displaced	Incorrect positioning of frame drive belt	Adjust the belt tension.
	Malfunctioning of frame drive system	Replace/adjust the parts.
	Overall frame weight is excessive.	Lower the r.p.m. of the main shaft.
	Drive unit (X, Y-axes) defective	Replace the drive unit.
		Replace the X-axis/Y-axis drivers.
Thread breakage	Wrong needle-rotary hook timing or improper gap	Adjust the timing or gap.
	Wrong needle bar lower dead point	Readjust the lower dead point.
	Scratches on rotary hooks, presser feet, or on thread passage areas	Remove the scratches.
	Incorrect upper/lower thread tension	Adjust the tension.
	Repeated stitching at the same point	Correct the data.
	Incorrect take-up lever timing	Readjust the take-up lever driving cam timing.

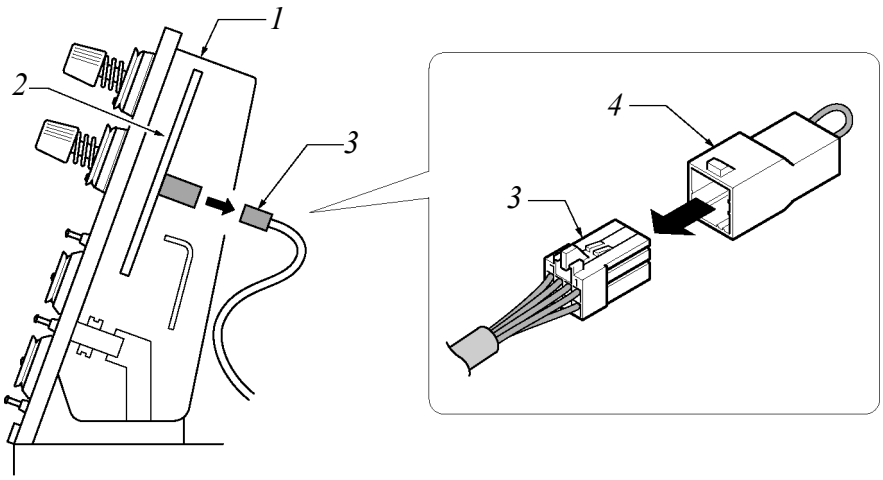
Matters related to ATH	Thread is not trimmed.	Adjust the ATH knife position.
	Thread comes off at start of sewing.	Adjust the thread trimming length by setting for “Picker off timing” (p.6-10).
	Poor tensioning of upper thread	Adjust the tension.
Needle bar activates even if the tension base switch is set to the “bottom” position.	Tension base card is faulty.	Replace the tension base card. When continuing embroidery tentatively, cut off the head where trouble occurred from the control.

Cutting off the control of head where trouble occurred

When embroidering by all heads becomes impossible [*1] due to defect of tension base card, this work makes embroidery possible by the remaining heads by cutting off the head where trouble occurred from object of control.

Procedure

1. Detach the tension base cover (1).
2. Remove the connector (3) of extension harness in the tension base from the tension base card (2).
3. Connect the accessory jumper connector (4) to the connector CN2 (3) of the extension harness in the tension base.



Supplement

*1 When code number 291 is displayed or needle bar moves up and down even if the tension base switch is set to “Bottom” (p.1-12) position, etc.

WARNING

Daily maintenance should be performed by personnel who has been trained properly.

When restarting operation, attach all covers that were detached.

CAUTION

Be sure to perform daily maintenance (inspection, cleaning, lubrication, and greasing). If daily maintenance is not performed, problem could occur.

If the machine is not used for a long period, turn the power switch ON in regular intervals. Although each card of the machine has a backup battery, data may be lost for about one month because voltage of the battery will come down gradually due to discharge when the power switch is turned off.

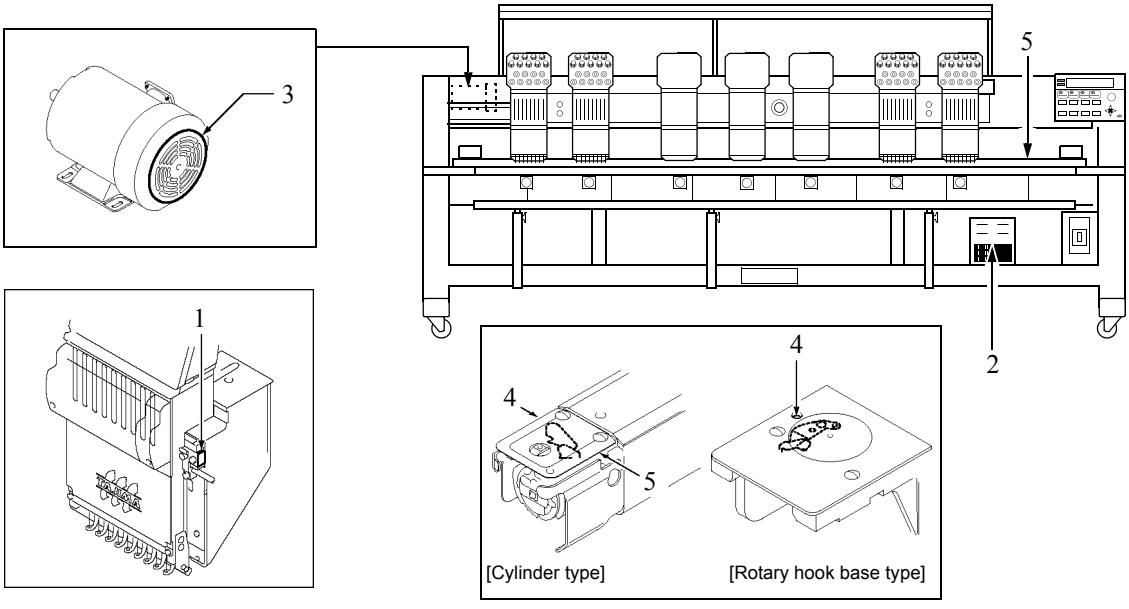
Cleaning

WARNING

Some circuits are still charged even after turning off the primary power supply. Wait until they are completely discharged (4 minutes), and then start cleaning.

Cleaning area	Cycle
Case linear section (1), power supply/driver box section (2), Filter section of main shaft motor (3)	Once/week
ATH section (4)	Everyday
X/Y-xis drive system (5)	Once/2 weeks

Explanation is given taking TFHX-IIC as an example. Regarding other models, the contents of works are the same.



MAINTENANCE

Lubrication

WARNING

During machine lubrication, turn off the power switch. You may sustain severe injuries due to being entangled by moving machine units.

CAUTION

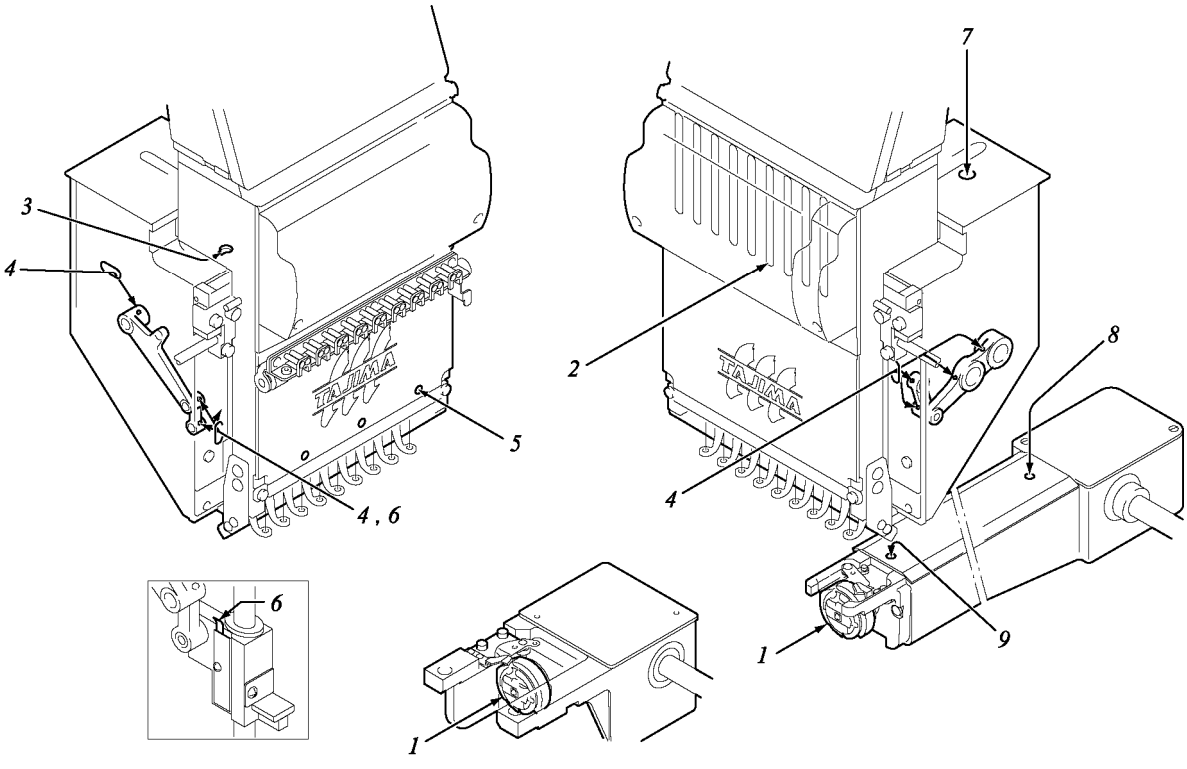
Keep the lubrication cycle as shown below. Deviated lubrication cycles may cause thread breakage.

When performing lubrication, use only Tajima's genuine SF oil or equivalent (#150 spindle oil: ISO viscosity grade = VG18).

[TFHX series]

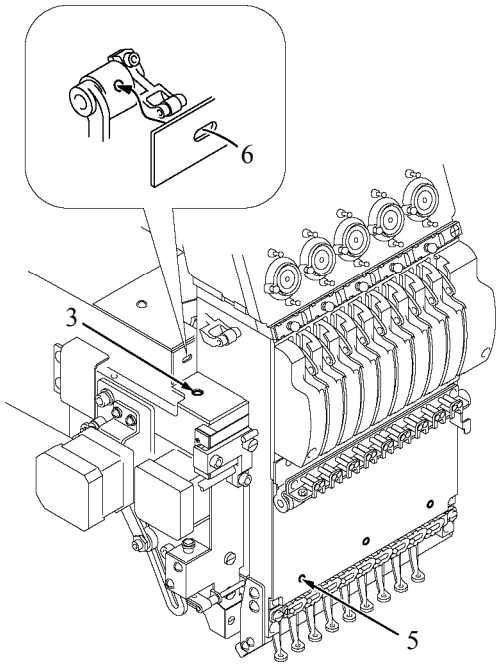
Lubrication Points	Cycle
Rail section of rotary hook (1)	Every 3 to 4 hours of operation
Needle bar (2), needle bar drive shaft (3), inside of the arm (4), felt packing (5), wick of presser foot reciprocator (6), take-up lever drive lever (7)	Once/week
Inside of the cylinder bed (rear) (8)	Once/2 to 3 weeks
Inside of the cylinder bed (front) (9)	Once/3 months

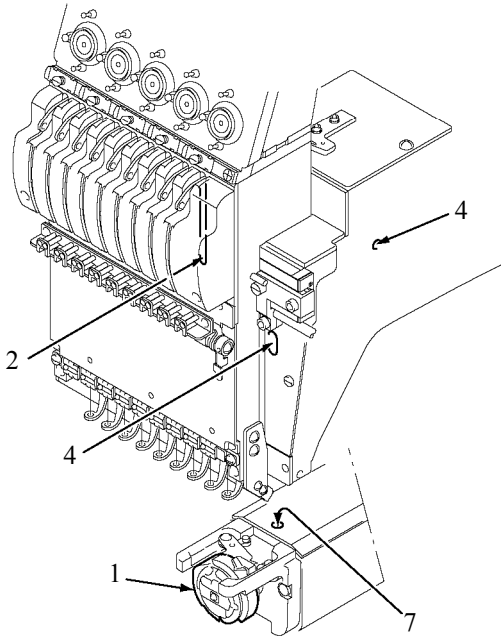
When automatic lubrication system is installed to the machine, perform working according to the user's manual of this device.

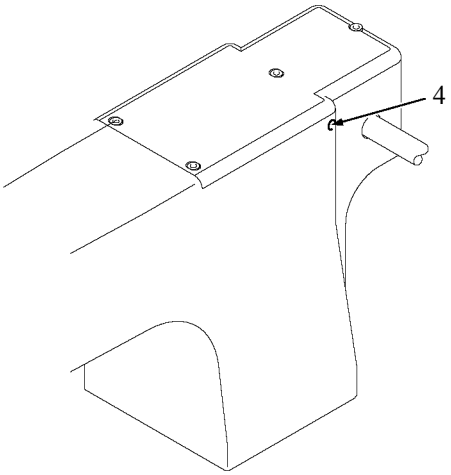


[TEHX-C]

Lubrication Points	Cycle
Rail section of rotary hook (1)	Every 3 to 4 hours of operation
Needle bar (2), needle bar drive shaft (3), inside of the arm (4), felt packing (5), take-up lever bearing case (6)	Once/week
Inside of the cylinder bed (front) (7)	Once/3 months







MAINTENANCE

GREASING

WARNING

During machine greasing, turn off the power switch. You may sustain severe injuries due to being entangled by moving machine units.

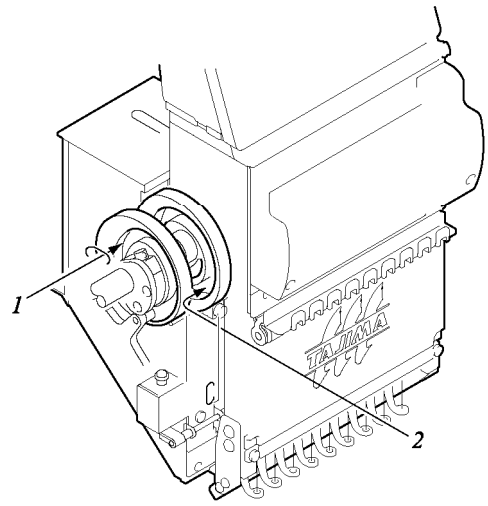
CAUTION

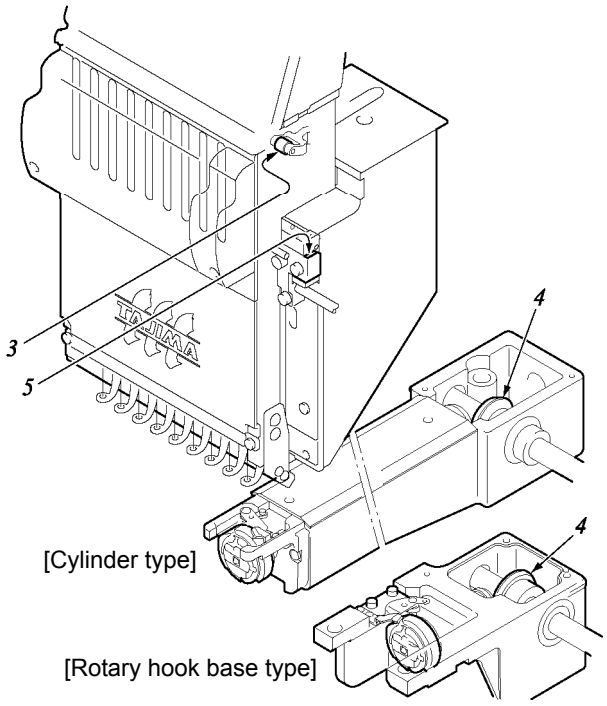
When performing greasing, consult the distributor.

Use the recommended goods (mineral oil-based lithium grease) or equivalent.

[TFHX series]

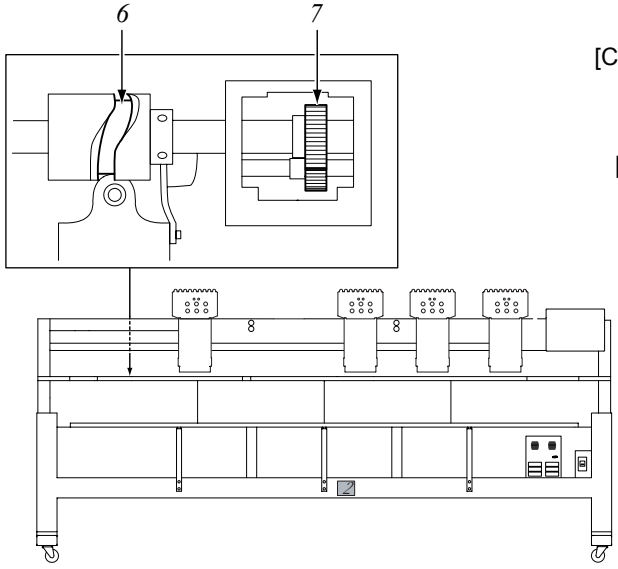
Greasing spot	Cycle
Presser foot cam (1), take-up lever drive cam (2), roller of take-up lever drive lever (3), spiral bevel gear (4)	Once/3 months
Case linear section (5), ATH cam (6), inside of the gear box (7)	Once/6 months





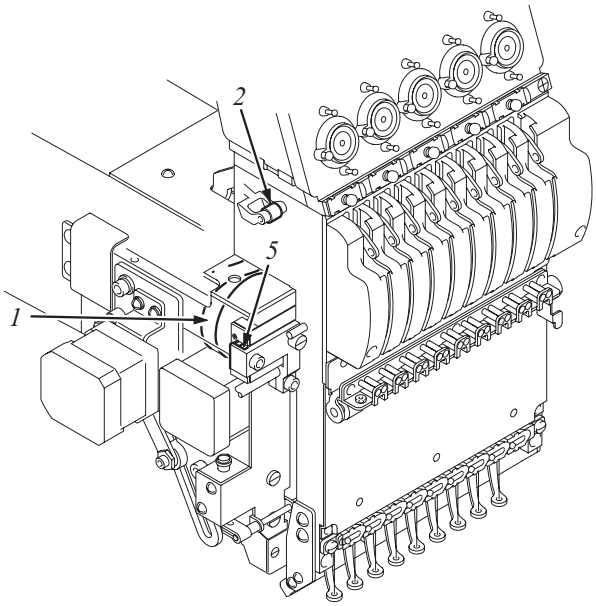
[Cylinder type]

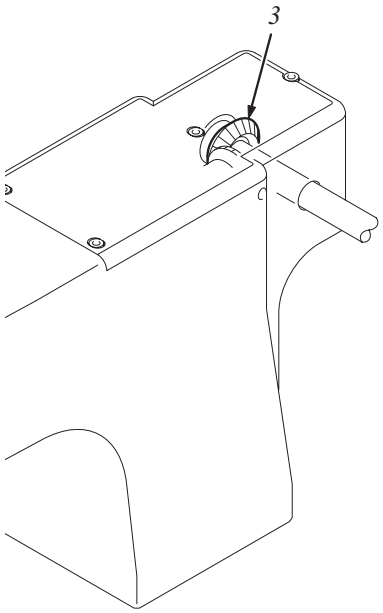
[Rotary hook base type]



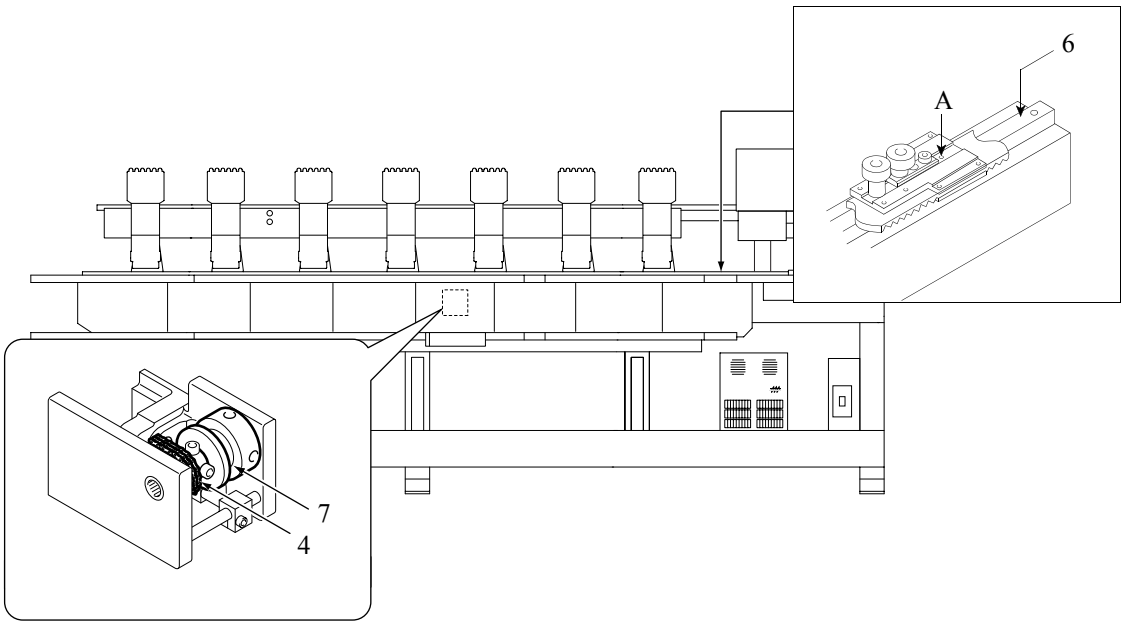
[TEHX-C]

Greasing spot	Cycle
Take-up lever drive cam (1), roller of take-up lever drive lever (2), spiral bevel gear (3), Roller chain (4)	Once/3 months
Case linear section (5), X-axis/Y-axis drive system (6), ATH cam (7)	Once/6 months





For the machine with greasing holes (A), inject grease from the greasing hole using greasing gun, etc.



MAINTENANCE

INSPECTIONS

WARNING

During machine inspection, turn off the primary power supply. (Before turning off the primary power supply, turn OFF the power switch.) You may sustain severe injuries due to being entangled by moving machine units.

Inspection Point	Contents of inspection	Cycle
Belt of main shaft drive system	Tension of belt, degree of wear, existence of crack	Once/3 months
Belts of X/Y drive system		
Rotating and sliding part	Degree of wear	

REPAIR

WARNING

To prevent accidents resulting in injury or death and physical damage, the following must be observed when performing the repairs of the machine.

Before starting the work, be sure to disconnect the primary power supply to the machine (Before disconnecting the primary power supply, turn OFF the power switch.). Even if the primary power supply is turned off, some circuits are still charged. Wait (4 minutes) until these circuits are completely discharged and then start the work.

If the machine needs repairs, the repairs must be done only by the service personnel assigned and trained by Tajima or qualified technician. (Consult your distributor.)
Do not change the specification nor modify the parts of the machine without due consultation with Tajima. Such modification may risk the operational safety.

When restarting the machine after repairs, attach all covers etc. which were removed for repair operation.

CAUTION

For the machine repairs, use TAJIMA genuine parts for replacement.

A

ABSOLUTE ORIGIN
A mechanical origin to detect the absolute origin of embroidery frame

AFC
Abbreviation of Automatic Frame Changer. Device for performing automatic embroidery continuously against piece goods fabric to be embroidered

AFC VALVE
Air valve that activates AFC.

APPLIQUE
The method to sew colored clothes, etc. that are cut to various shapes on the material.

ATH
Abbreviation of Automatic Thread Trimming and Holding Device

AUTOMATIC FRAME TRAVEL
Automatic frame travel by inner processing in such an occasion as at the end of embroidery or during set of offset.

AUTOMATIC JUMP
To make jump automatically when a stitch length exceeds the setting value.

AUTOMATIC LUBRICATION SYSTEM
Device to lubricate to each section of machine head automatically (option).

B

BOBBIN CHANGER
A device attached to under face of table to change bobbins automatically (option)

BORDER FRAME
A kind of embroidery frames It holds cut cloth (material) of some extent of size to be stretched.

BORING DEVICE
A device that makes hole(s) on the cloth (material) by knife attached to the needle bar to add values to embroidery

BUFFER (BUFFER MEMORY)
Buffer memory media to smooth input/output of data

C

CAP FRAME
A kind of embroidery frame for embroidery on cap (option). There are two types: one is wide cap frame and another is semi-wide cap frame. Wide cap frame enables embroidery on wider range in circumference direction compared with semi-wide cap frame.

CHECK SUM
A kind of measures to detect error of data transfer or saved (memory)contents.

CLEANUP
To make preceding and succeeding stitches absorb to remove fine stitch of design data.

CODE FORMAT
Data type (tape code) for data input

COILING
To coil cord-shaped material around core thread to be sewn on the material to be embroidered.

CORDING DEVICE
Device to sew corded material to material to be embroidered (option).

CURSOR
A mark that indicates the position where character or value is to be input/displayed on the screen. Some of marks blink ore reverse character

D

DATA CONVERSION
To reduce/enlarge, rotate, or reverse the original design data.

DATA INPUT
To set design data that corresponds to design to sew

DATA SET
Operation to decide a series of setting contents in data input

D-AXIS
Driving shaft to rotate sewing needle or nipple (TMCE series)

DESIGN DATA
Data to embroider design It consists of design and data such as embroidery mode.

DESIGN INTERVAL
Amount of movement (mm) when one design moves to the next design in repeat embroidery of the same design

DESIGN INTERVAL FUNCTION
Moving method when moving one design to the next design in embroidering the same design repeatedly. Moving method includes by stitch and by frame stepping (frame stepping only for TMLH series)

DIP SWITCH
A small slide switch to change conditions of machine movements

DSW
Abbreviation of Dual in Package Switch. Refer to DIP switch.

E

EMBROIDERY FRAME
A general term of frames that hold material to be embroidered such as cloth, leather, etc. 3

END CODE
There are the code that indicates the end point of embroidery (end code 2) and the code that indicates the pause in designs to be repeated (end code 1).

EXCITATION
To generate magnetic power by sending electric current into coil such as electric magnet, etc.

F

FDD
Abbreviation of Floppy Disk Drive Refer to Floppy Disk Drive

FIXED PITCH MOVEMENT
To move the frame to right or left direction (X-axis direction) by preset head pitch (head interval)

FIXED POSITION
It is the regular stop position, and is indicated by angle of the main shaft of the machine

FLOPPY DISK
An external memory device of which round shaped polyester surface is pasted with magnetic powder It is used for storing design data, etc.

FLOPPY DISK DRIVE
A device to write or read data or program of floppy disk

FRAME BACK
To move the embroidery frame only to the returning direction of stitches with the needle bar(s) stopped

FRAME FORWARD
To move the embroidery frame only to the advancing direction of stitches with the needle bar(s) stopped

FRAME LIMIT SWITCH
Switch to limit the embroidery range

FRAME LIMIT
The embroidery space limited by the frame limit switches

FRAME
Refer to embroidery frame

FRAME STEPPING
To move the embroidery frame only with the main shaft of the machine kept stopped during embroidery

FUNCTION CODE
A control code to specify function or action of the machine

H

HALF CUT
To cut only the upper material of piled materials (usually two pieces) by laser irradiation

I

INCHING
Very slow rotation of the main shaft when the machine starts or before it stops.

J

JUMP
Not to activate needle bar by cutting off the driving force from needle bar driving mechanism. It is possible to generate a longer stitch than the maximum length of one stitch by jumping during operation. When the machine stops, it is always in a state of jumping.

L

LCD
Abbreviation of Liquid Crystal Display

LED
Abbreviation of Light Emitting Diode

LOOPING
In a state of remaining upper thread on fabric with incomplete tightening due to poor pulling of upper thread by take-up lever.

M

MANUAL FRAME TRAVEL
To move the embroidery frame to a free setting position by key switch operation.

MANUAL THREAD TRIMMING
To activate the ATH by key switch operation to trim thread(s).

MARKING
To draw illustrations or letters by scorching the surface of the material by laser irradiation (only when laser processing).
To make the basting data (marking design) for positioning the material to be embroidered in applique embroidery or placing

M-AXIS
Drive shaft to rotate nipple or bobbin (TMLH series)

MEMORY DESIGN
Design data written in the memory

MEMORY
Internal memory device

MEMORY REGISTRATION
To write to the memory (memory writing)

MEMORY WRITING
To write to the memory (memory registration)

MODE
Contents of setting, operation

N

NEEDLE BAR SELECTION
To set orders of needle bars to be used

NIPPLE
Part to press material to be embroidered in LH head. Attachment suitable for material to be sewn such as cord, tape. etc. is attached

NIPPLE STROKE
Stroke of nipple in up and down directions

NMI
Abbreviation of Non-Maskable Interrupt. The interrupt factor that cannot be inhibited and is used when computer signal is input.

NUMERICAL KEYS
Numerical key switches of 0 to 9

O

OFFSET START POSITION
A free setting position that makes the embroidery frame wait temporarily in offset setting.

ORIGIN
The position where trace or start/frame forward was made at the beginning after data set (start position of design).
* When automatic free setting offset is set, the offset start position will become the start position.

P

POLARITY
Posture of a design when embroidering.

R

RAM
Abbreviation of Random Access memory

RESET
To return the control system of the machine that stopped movement by stop factor to the previous condition to its stop.

RETURN STITCHING
It prevents misstitching or fraying, and is executed when the machine starts to sew.

ROM
Abbreviation of Read Only Memory

RS232C CONNECTOR
Connector for data communication

S

SEQUIN
A kind of decorative materials to be sewn on clothes, etc. Thin round plate(s) that have hole at the center to be sewn.

SOLENOID
A kind of drive devices when the power is turned on, and it is a kind of products for which electric magnet is applied

SPEED CODE
Design data code to switch embroider speed (high speed/low speed)

STEP
Sequence of color changes for one design

STEP
To advance value one by one

STITCH DATA
Data set for each one stitch, which consists of X•Y data, function code, and speed code (D series, TLFDII).

STOP AT LOWER D. POINT (PSEUDO-FIXED POSITION)
To stop the machine with needle stuck in cloth at end of embroidery (end code 2) (Stop at the lower dead point).

T

TAJIMA COMPLEMENT ERROR
Error related to composition of X and Y data (It is composed of 10 values of +/-1, +/-3, +/-9, +/27, +/-81). It means two values that are complemental each other (for example +27 and -27) exist on X or Y data at the same time

TAJIMA TWO-WAY NETWORK SYSTEM (OPTION)
System that performs centralized control of plural machines using a personal computer. It can transmit design data or receive running condition of each machine.

TAPE CODE
Data type (code format) for data input

THE NUMBER OF STITCHES
The number of needle sticks when embroidering

TUBULAR GOODS FRAME
A kind of embroidery frames. It mainly holds trainer, T-shirt, etc. to be stretched

U

UBC
Abbreviation of Under thread bobbin changer. Refer to bobbin changer.

UNDER THREAD RELEASE
Action that makes the frame perform slight reciprocating movement to pull out under thread for loosening its tension before thread trimming not to trim under thread by other sections than the thread trimming section.

V

VERSION NUMBER
The number that shows developing order of software or hardware of the machine

W

WRITE DESIGN NUMBER
Memory registration number to set for data management when design data is written (memorized).

X

X DATA
The data that makes the embroidery frame move right/left direction (X direction) by the X-axis drive system. The value displayed as X data indicates movement amount (mm), and the symbol indicates movement direction (+left, -right).

X-AXIS DRIVE SYSTEM
The drive system that makes the embroidery frame move to right and left directions against the front of the embroidery machine. 2

Y

Y DATA
The data that makes the embroidery frame move front/rear direction (Y direction) by the Y-axis drive system. The value displayed as Y data indicates movement amount (mm), and the symbol indicates movement direction (+front, -rear).

Y-AXIS DRIVE SYSTEM
The drive system that makes the embroidery frame move to front and rear directions against the front of the embroidery machine.

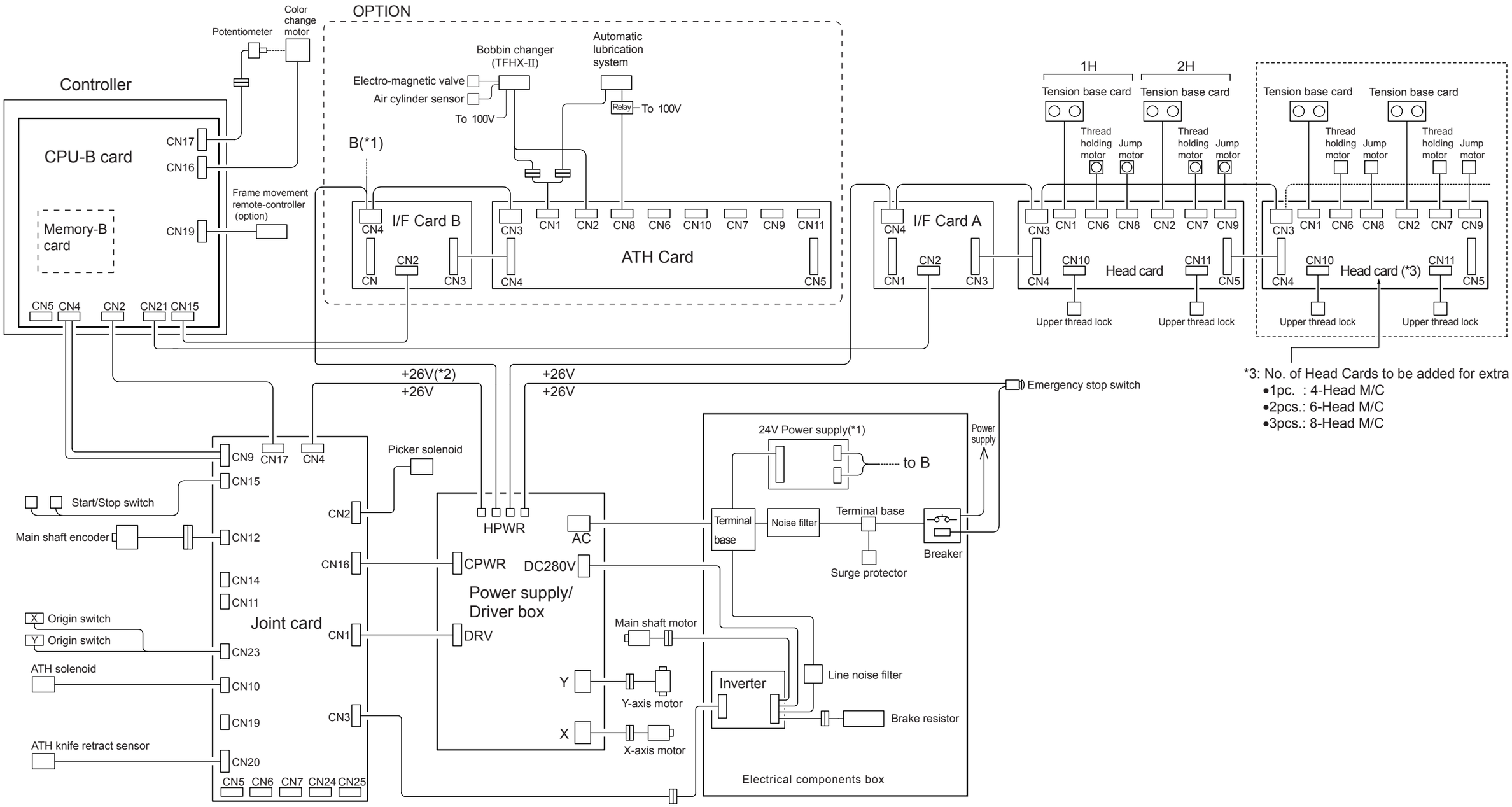
Z

Z-AXIS
Drive shaft to change needle height (TMCE series)

ZIGZAG SWING EMBROIDERY
To sew cord-shaped material by zigzag swing. * Needle are not located to cord-shaped material generally.

TFHX-II, TFHX-IIC ELECTRICAL SYSTEM DIAGRAM

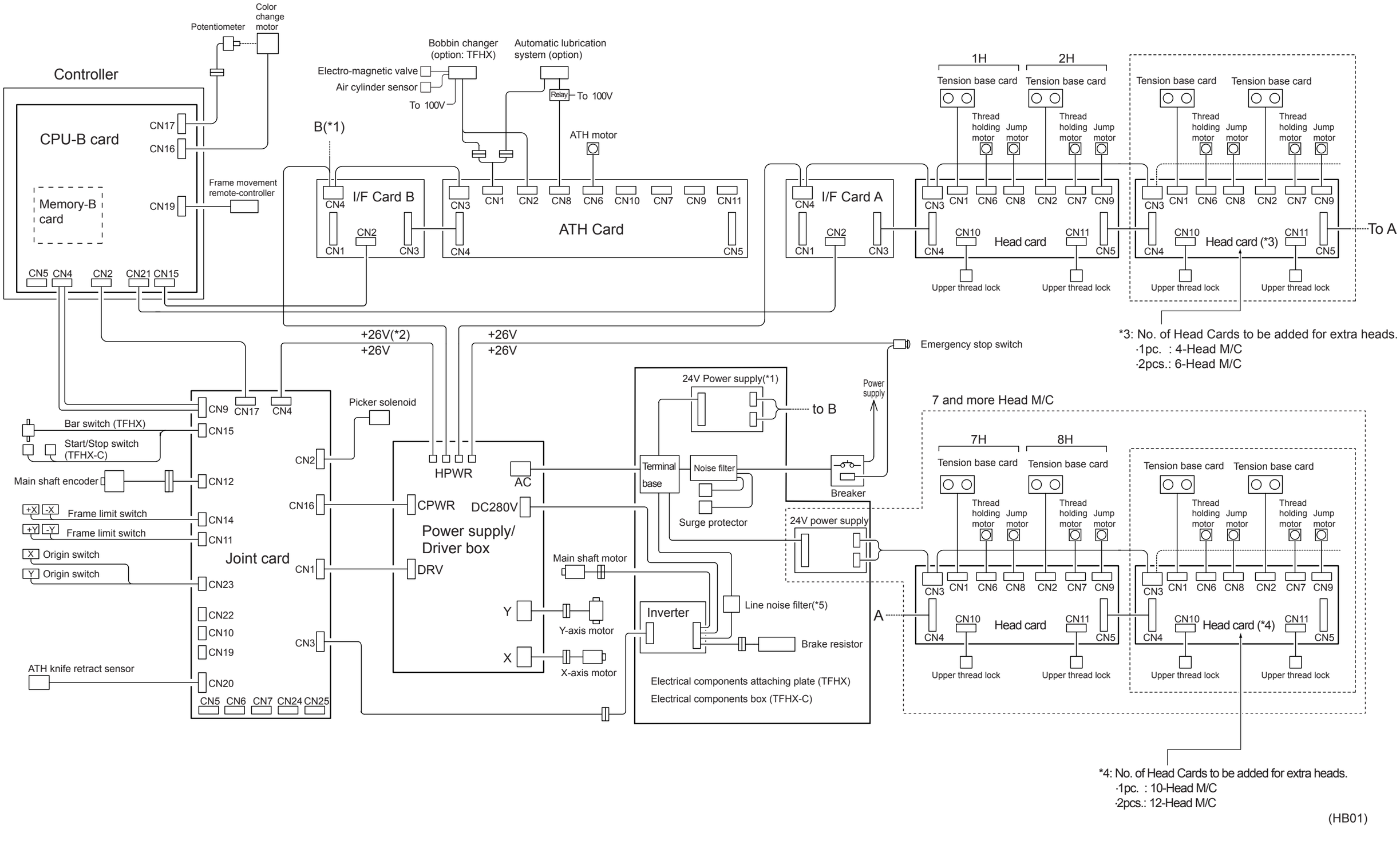
*1: Under thread trimming retractable ATH spec. M/C with 8 heads.
*2: M/C without under thread retractable ATH spec. and M/C with 6 or less heads.



(GC06)

TFHX, TFHX-C ELECTRICAL SYSTEM DIAGRAM

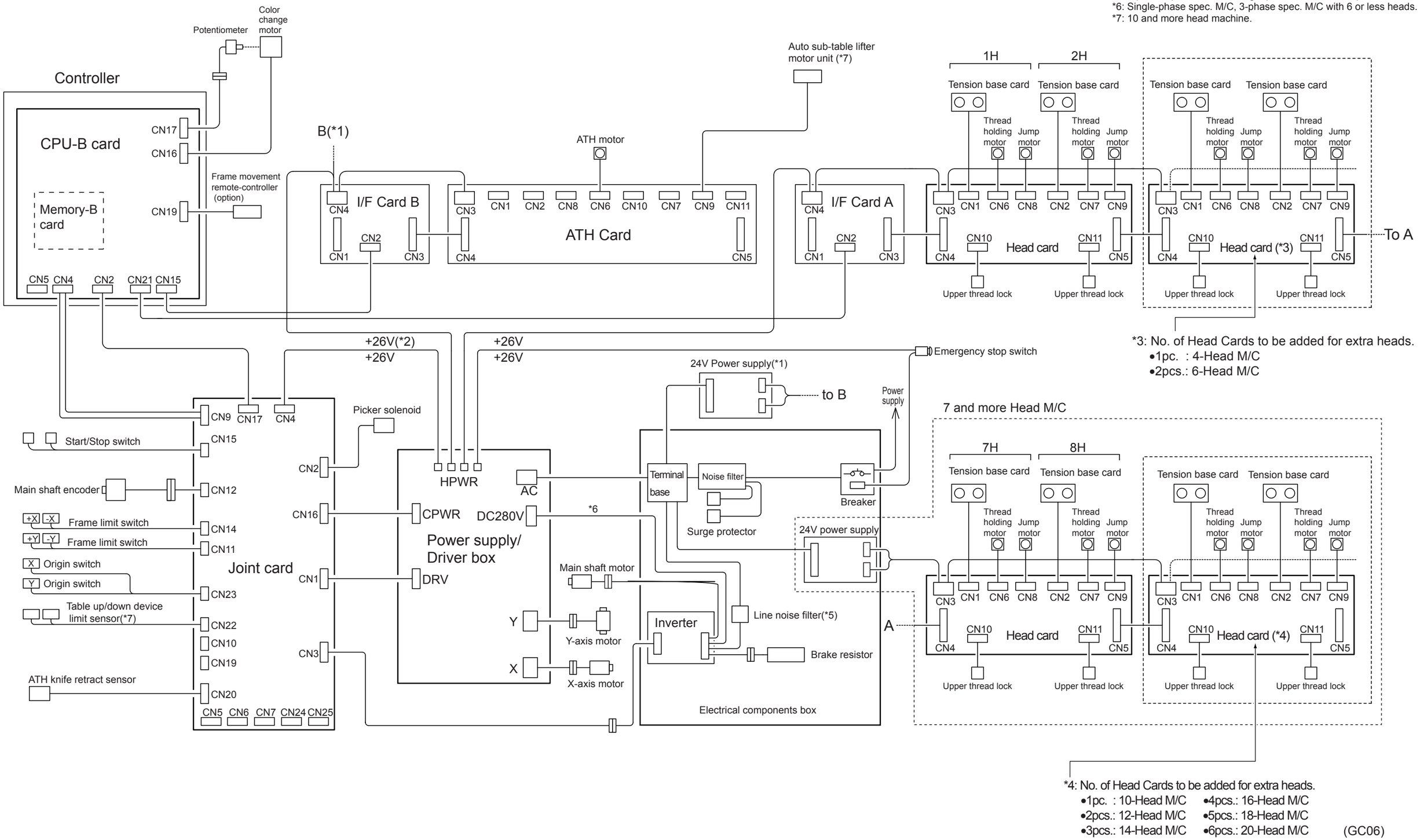
*1: Under thread trimming retractable ATH spec. M/C with 8 and more heads.
*2: M/C without under thread retractable ATH spec. and M/C with 6 or less heads.
*5: 3-phase spec. M/C, and single-phase Standard/M-spec. M/C.



(HB01)

TEHX-C ELECTRICAL SYSTEM DIAGRAM

*1: Under thread trimming retractable ATH spec. M/C with 8 and more heads.
*2: M/C without under thread retractable ATH spec. and M/C with 6 or less heads.
*5: 3-phase spec. M/C, and single-phase Standard/M-spec. M/C.
*6: Single-phase spec. M/C, 3-phase spec. M/C with 6 or less heads.
*7: 10 and more head machine.



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