

BASIC EMBROIDERY OPERATION

TCMX SERIES




To embroider

1. Turn ON the power	2
2. Setting of the fabric, passing of the thread	4
3. Registration of a design in the machine memory.....	8
4. Decision of an embroidery design and the color change sequence	16
5. Decision of the design start position	27
6. Check items before embroidering	34
7. Embroidery starts.....	39

1. Turn ON the power

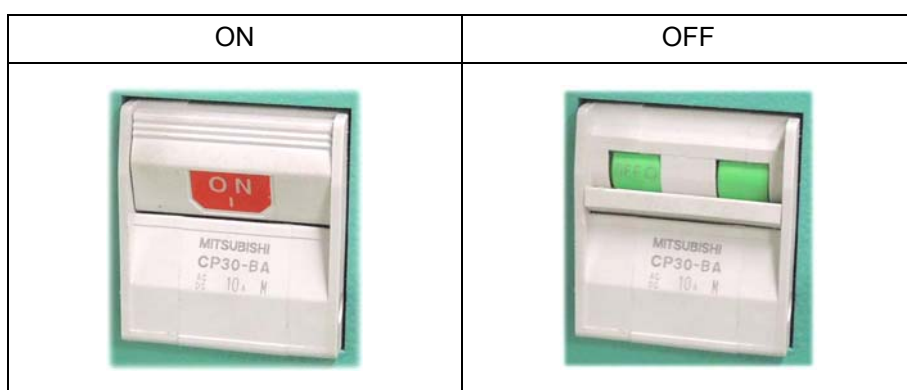
CAUTION

 Do not turn ON the machine power in the state that the USB memory is connected to the operation panel except when installing the software in the machine. The system sometimes may not start up.

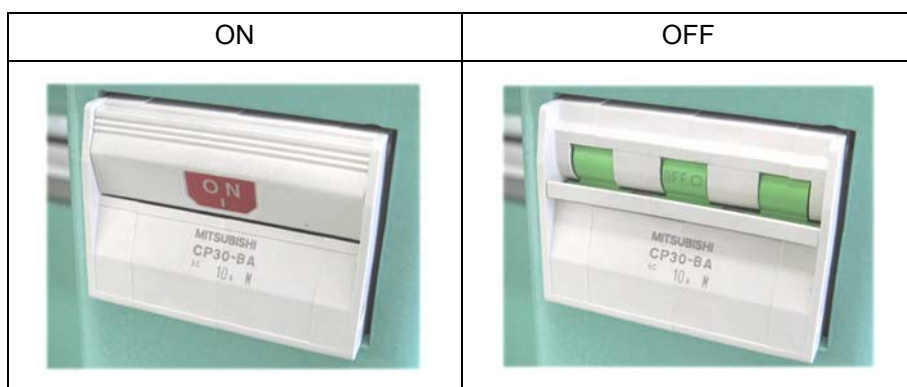
1-1. Power switch

There are following types of the power switch depending on the model.

1-1-1. TCMX-601

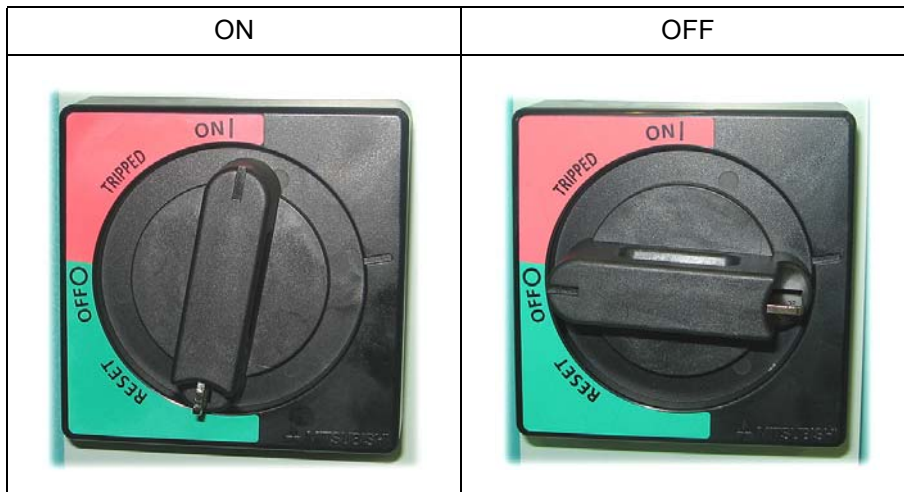


1-1-2. TCMX-II600, TCMX-II mixed type, TCMX-mixed type (L)



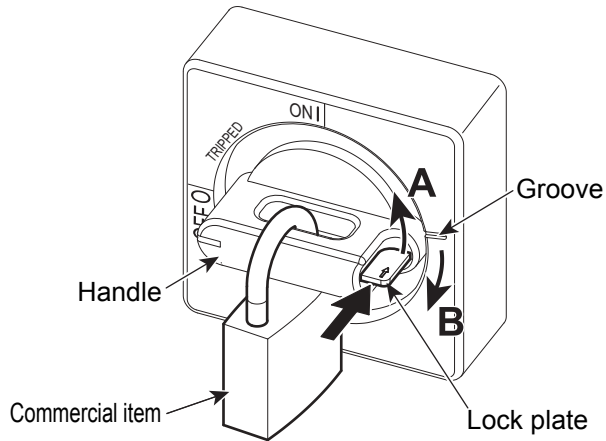
Turn ON the power

1-1-3. TCMX-600, TCMX-mixed type, TCMX-mixed type (L)



This type can be locked.

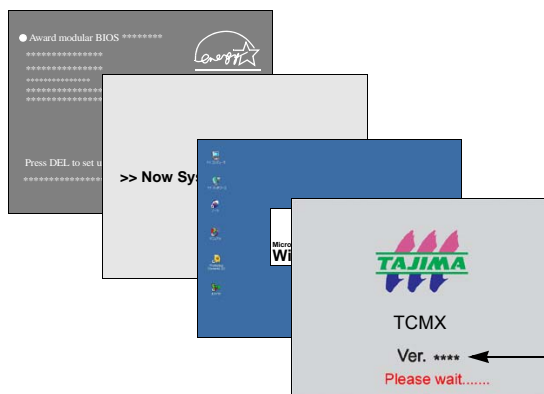
[When locking]



- (1) Turn the handle toward direction A to the position of the groove.
- (2) Push the lock plate to the direction indicated by a big arrow and return the handle to the direction B (the original position).
- (3) Lock.

1-2. Turn ON the power

After turning on the power, the screen will switch as the figure below. Wait for a while until the power starts up.

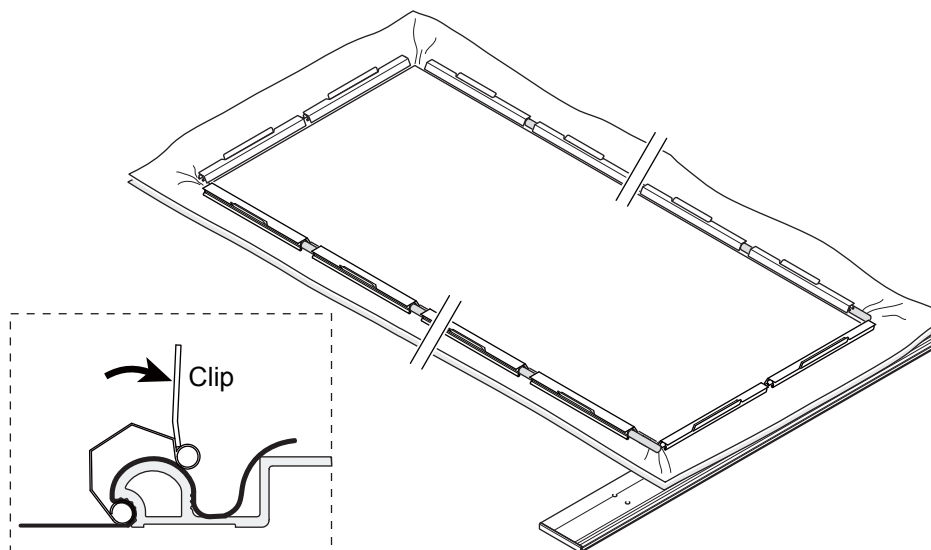


Software version installed in the machine will be displayed.

2. Setting of the fabric, passing of the thread

2-1. To set the fabric

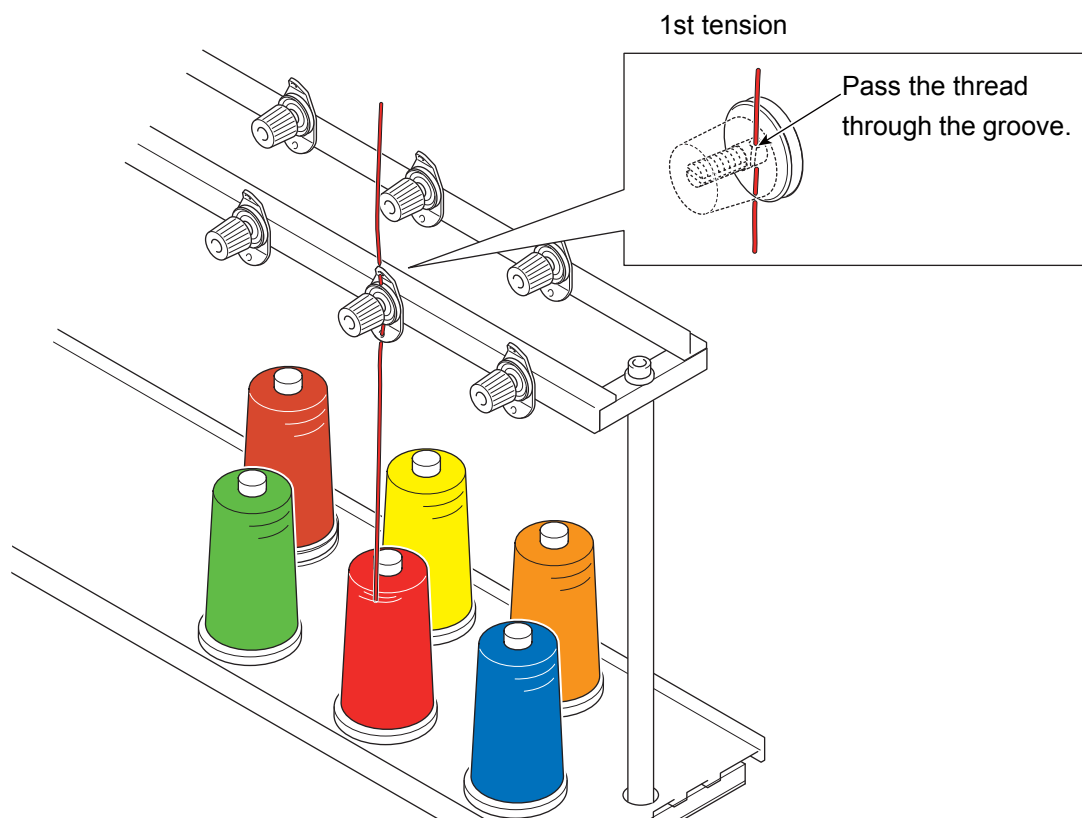
In case of chenille embroidery, stretch the fabric firmly.



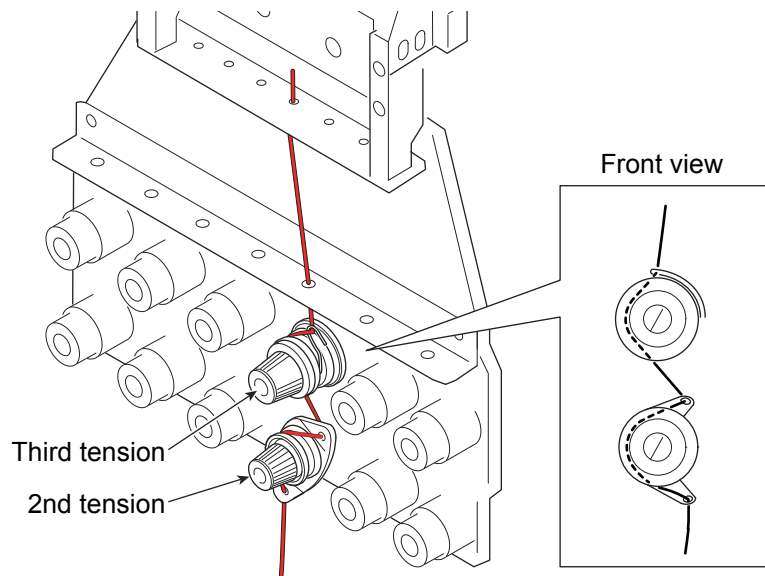
2-2. To pass the thread

2-2-1. CM head

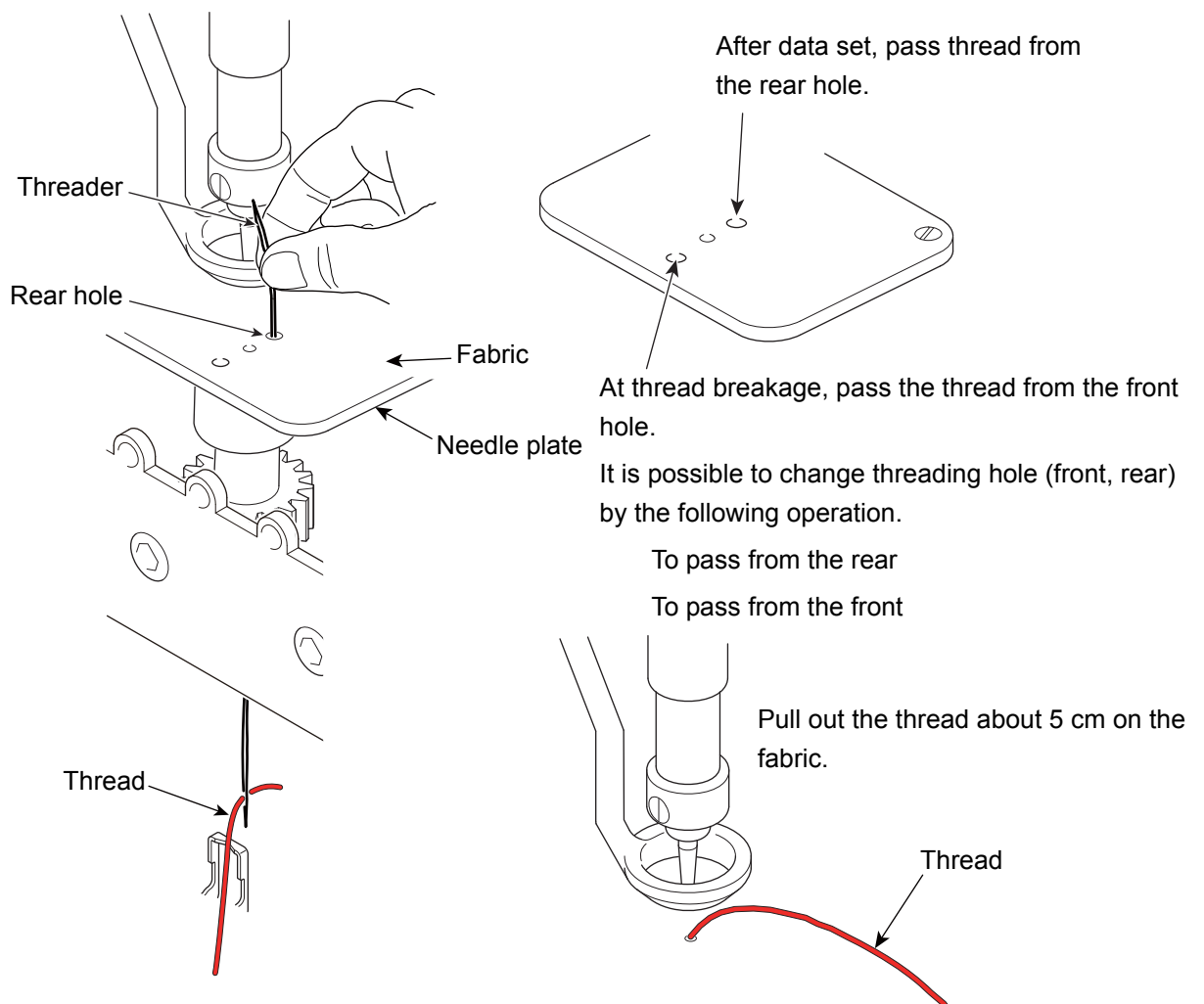
(1) Pass the thread through the 1st tension.



(2) Pass the thread through the 2nd tension and the 3rd tension.

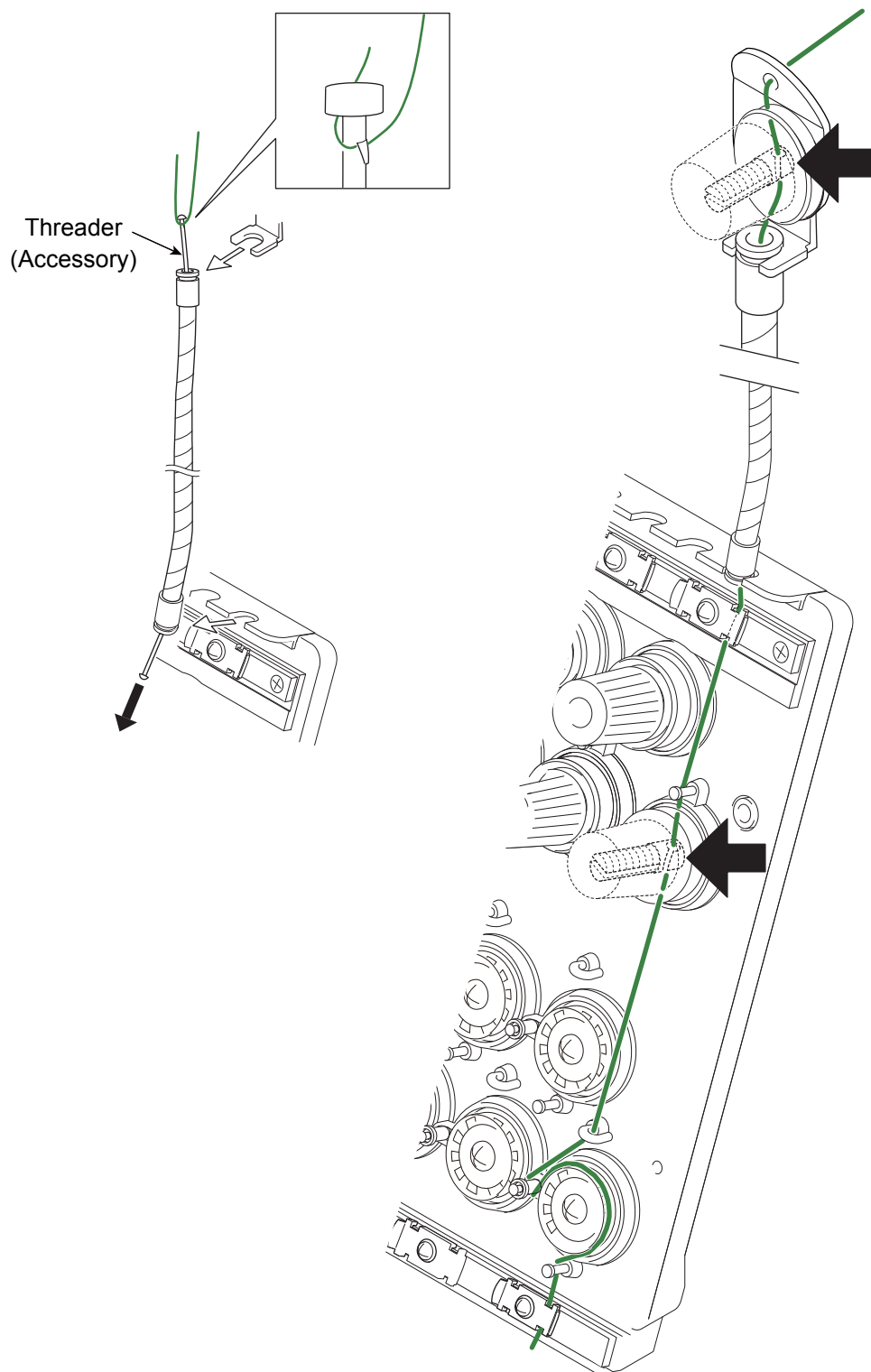


(3) Stick the threader (accessory) to the fabric and put it into the rear hole of the needle plate. Pass the thread through the tip of the threader, then pull it up. The threader can be stuck from the bottom to the top.



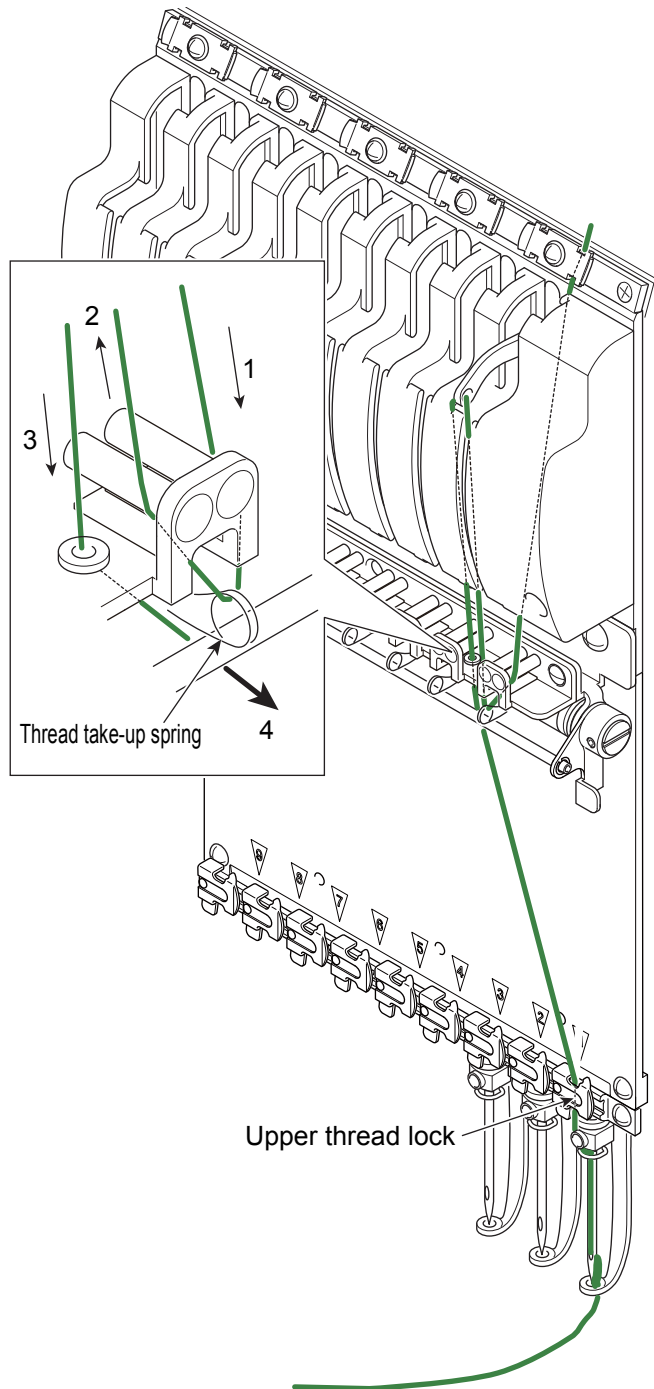
2-2-2. FM head (TCMX-mixed type series)

Threading at tension part (indicated by arrows) affects finishing of embroidering. Therefore, thread correctly.



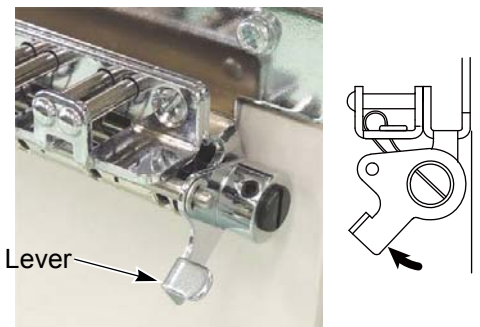
! CAUTION

- !** Pass the thread to the thread take-up spring and the upper thread lock surely. Otherwise thread breakage would be caused or the thread tension would be affected badly.
- !** Return the adjusting lever to the original position after passing the thread. Otherwise thread breakage would be caused or the thread tension would be affected badly.

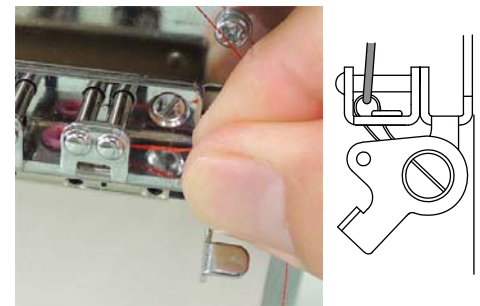


How to use adjusting lever

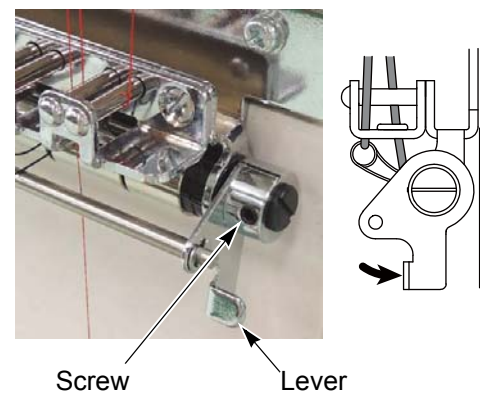
(1) Raise the lever.



(2) To pass the thread



(3) After threading, return the lever. (The screw should face to the front.)



3. Registration of a design in the machine memory

Register designs into the memory of the machine by the following methods.

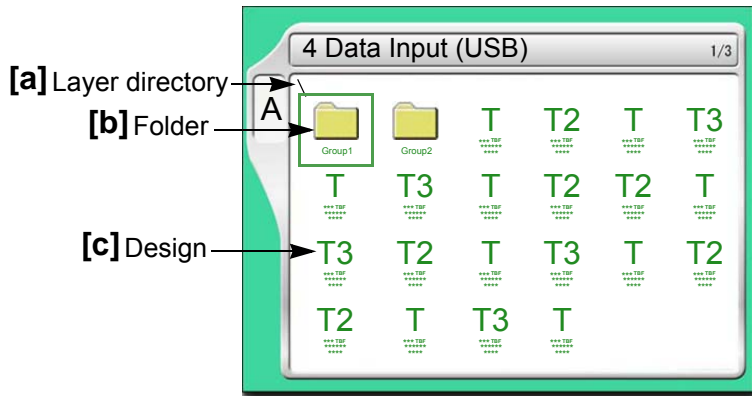
- (1) To use the USB memory
- (2) To use a personal computer (DG/ML by Pulse is necessary)

3-1. To use the USB memory (Data Input USB)

Register designs saved in the USB memory into the memory of the machine. The maximum number of stitches per design is 1,000,000 stitches.

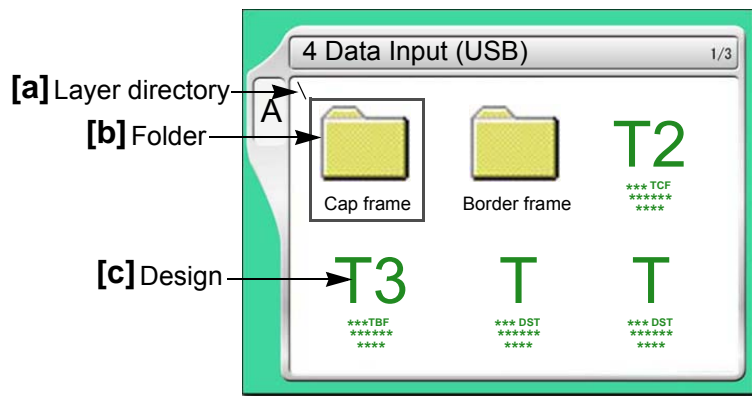
3-1-1. Explanation on the screen

[17-inch operation panel]



Folders and designs stored in the USB memory will be displayed. The design except the one shown at left will be displayed depending on a saving format of the design.

[6.5-inch operation panel]



Folders and designs stored in the USB memory will be displayed. The design except the one shown at left will be displayed depending on a saving format of the design.

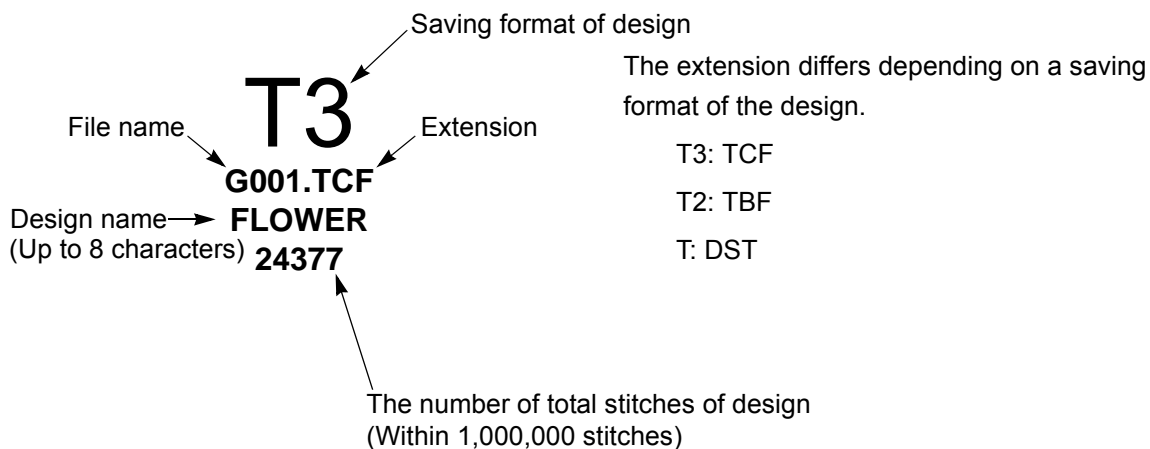
[a] Layer directory

The machine can read the design (down to the fourth layer directory) in the folder located at the third layer directory saved in the USB memory. The total amount of folders or designs which can be read in one layer directory is 255 designs at the maximum.

- \ : First layer directory
- \\ : Second layer directory
- \\\ : Third layer directory
- \\\: Fourth layer directory

[b] Folder

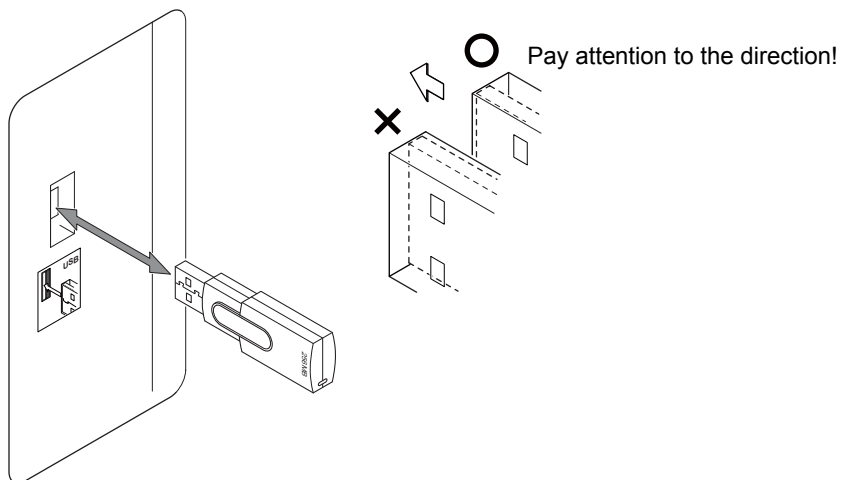
[c] Design



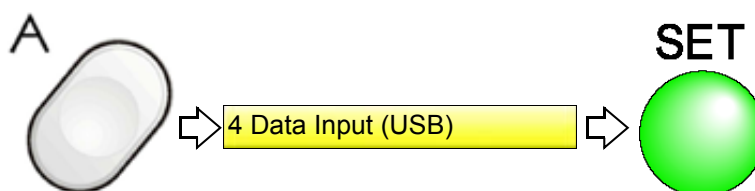
3-1-2. How to operate

The following is an example of registering a design saved in a USB memory into the machine memory. Hereafter, explanation is given based on 17-inch operation panel for convenience.

(1) To set USB memory



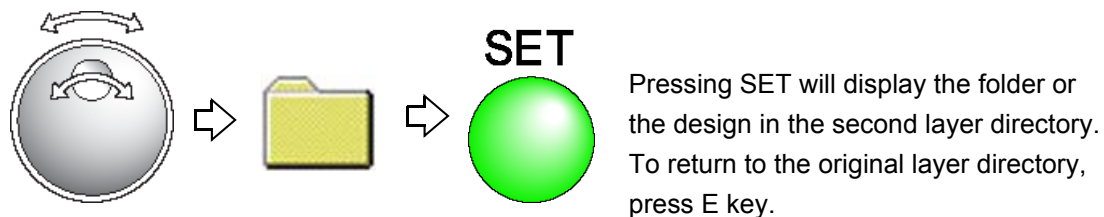
(2) To open screen



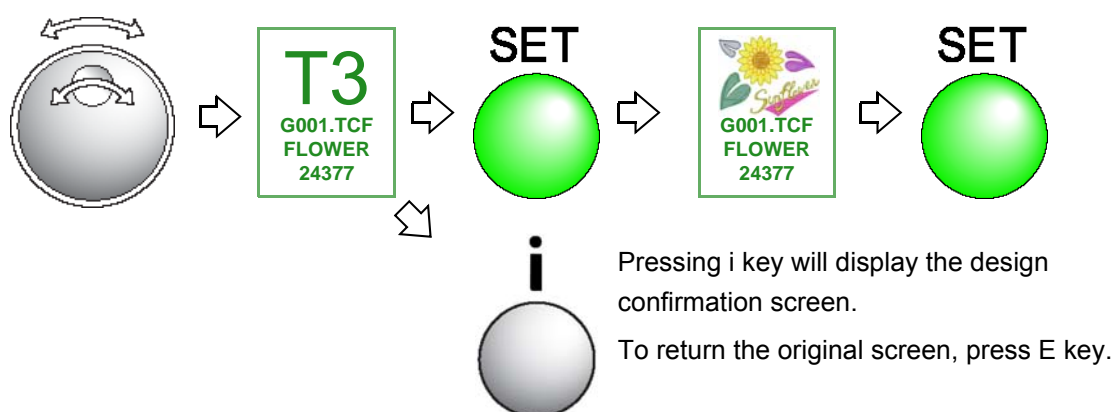
(3) To select a design

The operation differs depending on a storing place for the design.

(a) Design in a folder

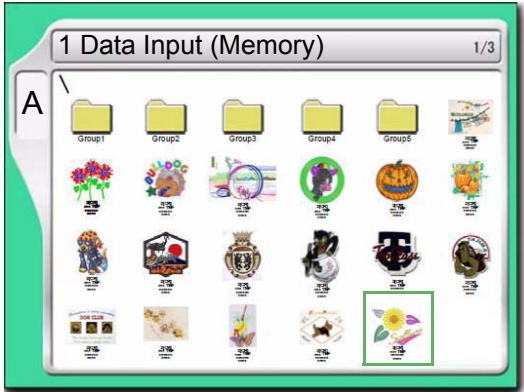
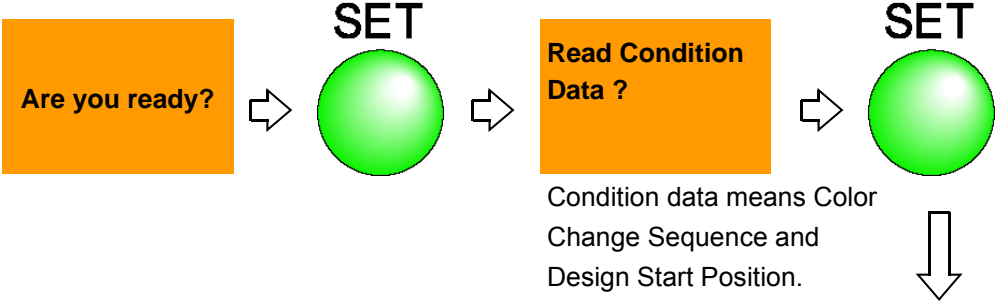


(b) Design on the screen



(4) To register the design into the machine memory

If a saving format of the design is T3 or T2, the following message will appear.



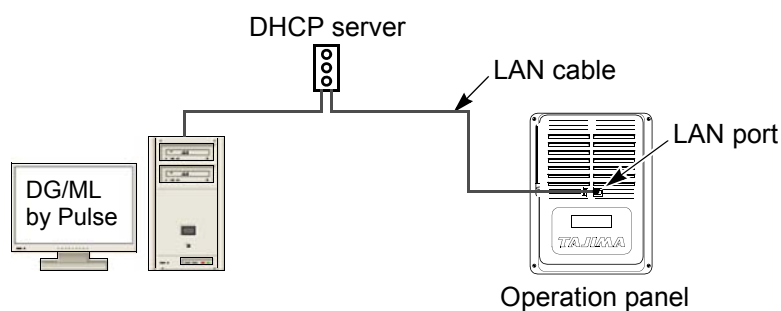
After that, proceed to "To decide an embroidery design (Data setting) (→p.16)".

3-2. To use a personal computer (Data Input Lan)

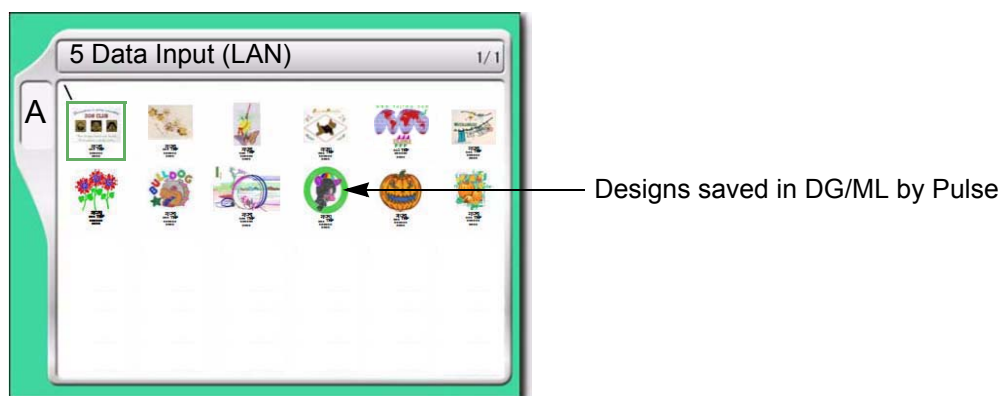
Register designs saved in the personal computer into the machine memory. The maximum number of stitches per design is 800,000 stitches.

Software sold separately (DG/ML by Pulse) and setting of IP address is necessary to perform this operation. For details, please consult the distributor.

[Example of connection]



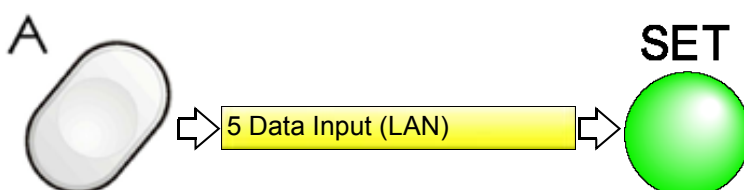
3-2-1. Explanation on the screen



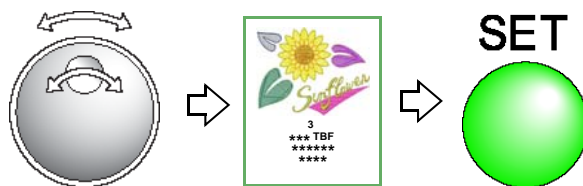
3-2-2. How to operate (not to use the bar code reader)

The following is an example of registering a design (stored in a personal computer) into the machine memory.

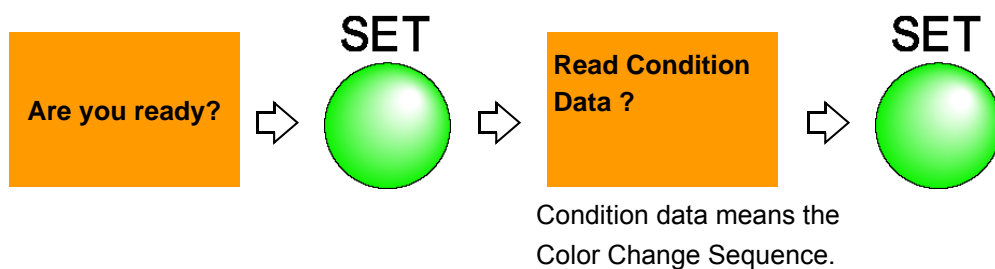
- (1) After connecting the LAN cable to the LAN port at the back of the operation panel, start up DG/ML by Pulse.
- (2) Check if network setting is "YES".
- (3) To open screen



(4) To select a design



(5) Registration of a design in the memory of the machine



This design has become the state that it is possible to embroider (Data set is completed).

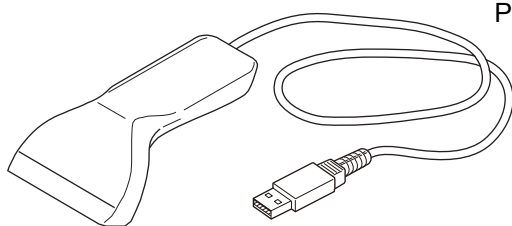
After that, proceed to "To change color automatically / to start operation automatically (Auto Color Change "AC" / Auto Start "AS") (→24)"

3-2-3. How to operate (to use bar code reader)

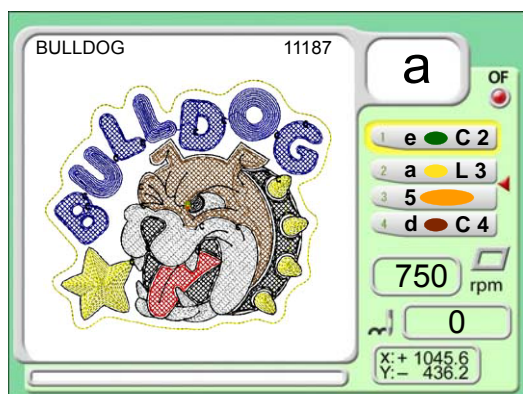
The following is an example of registering a design (stored in a personal computer) into the machine memory.

- (1) After connecting the LAN cable to the LAN port at the back of the operation panel, start up DG/ML by Pulse.
- (2) Check if network setting is "YES".
- (3) Connect the bar code reader to the USB port of the operation panel.

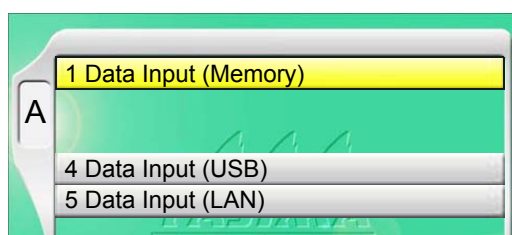
Please buy a commercial item.



- (4) Set the screen to the main screen.

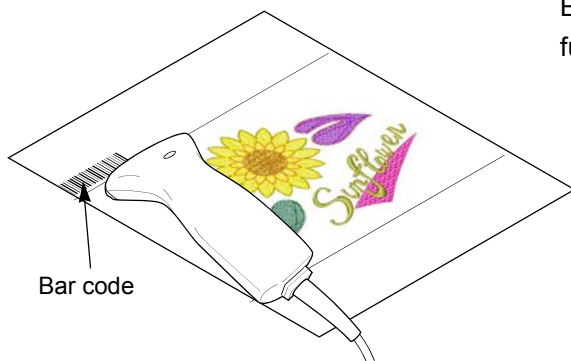


The bar code can be read from the following screen.



- (5) Read the bar code.

Condition data (Color change sequence) is also read automatically.



Bar codes can be printed by the print function of DG/ML by Pulse.

This design has become the state that it is possible to embroider (Data set is completed).

After that, proceed to "To change color automatically / to start operation automatically (Auto Color Change "AC" / Auto Start "AS") (→24)"

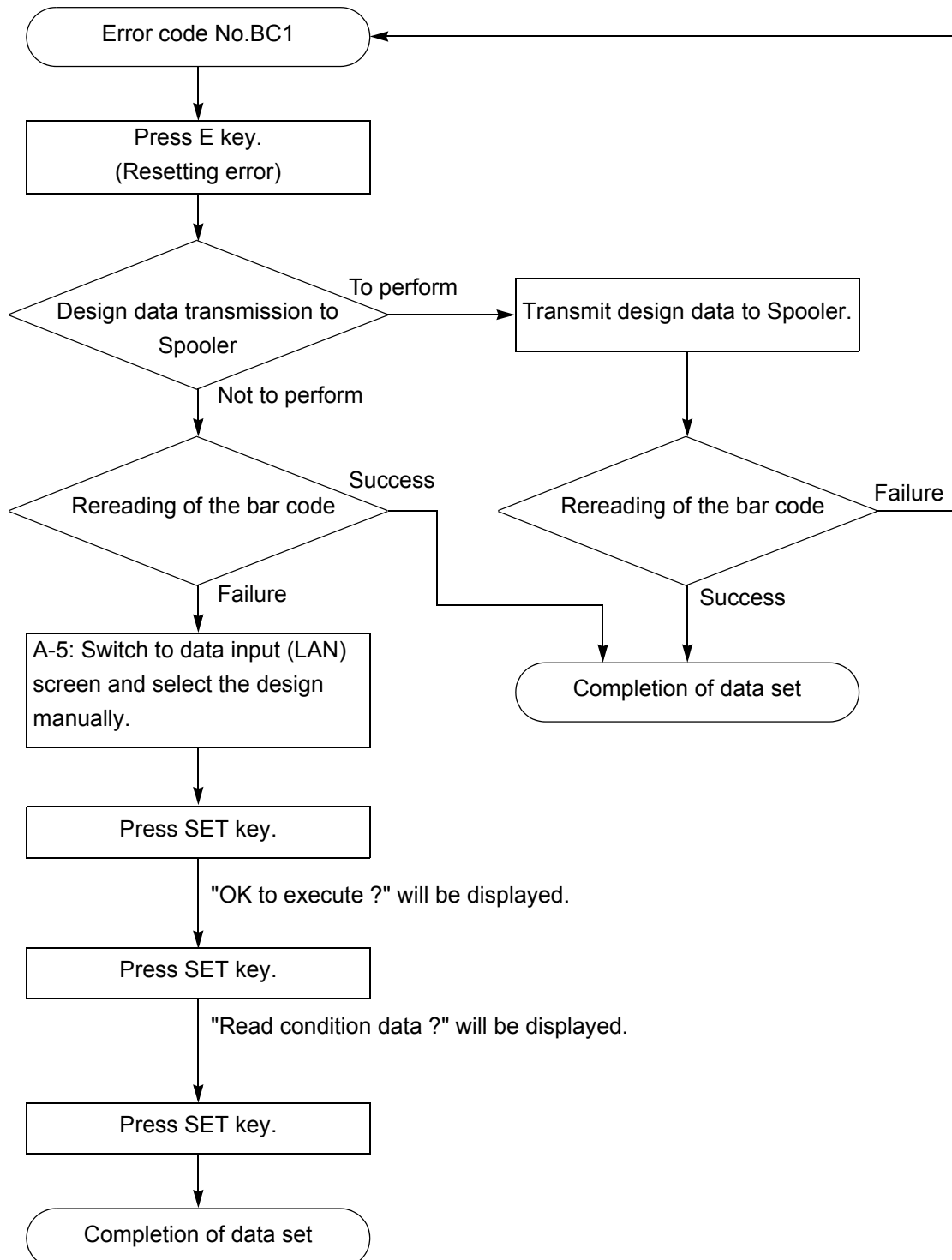
If the bar code cannot be read, error code No.BC1 will be displayed. The following points are given as factors.

(a) Selected design is not stored in Spooler

Spooler: area to store the design temporarily in a personal computer

(b) Misreading by bar code reader

Deal with above troubles with the following procedure. If these troubles are not solved, please consult the distributor.

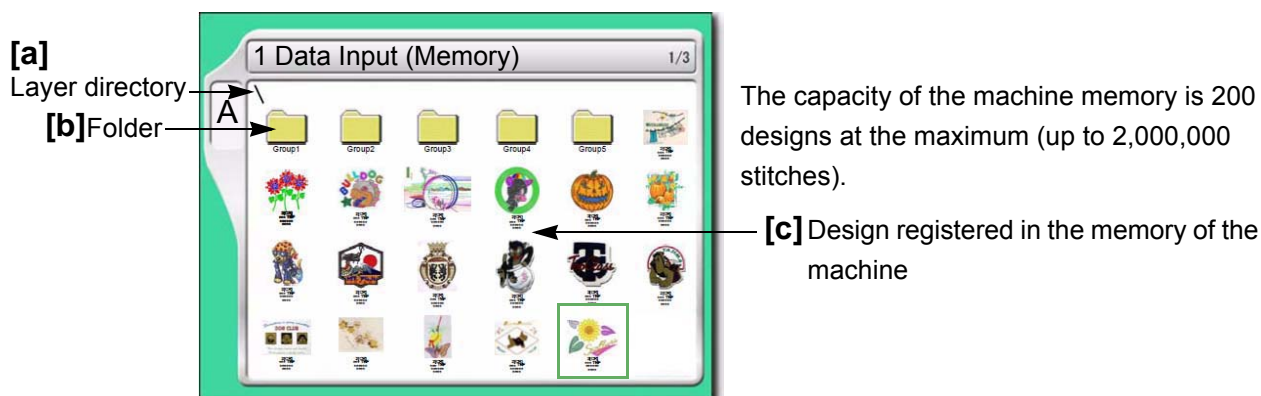


4. Decision of an embroidery design and the color change sequence

4-1. To decide an embroidery design (Data Setting)

Select the design in the machine memory and enable to embroider.

4-1-1. Explanation on the screen



The capacity of the machine memory is 200 designs at the maximum (up to 2,000,000 stitches).

[c] Design registered in the memory of the machine

[a] Layer directory

The design stored in the memory of the machine can be displayed down to the second layer directory.

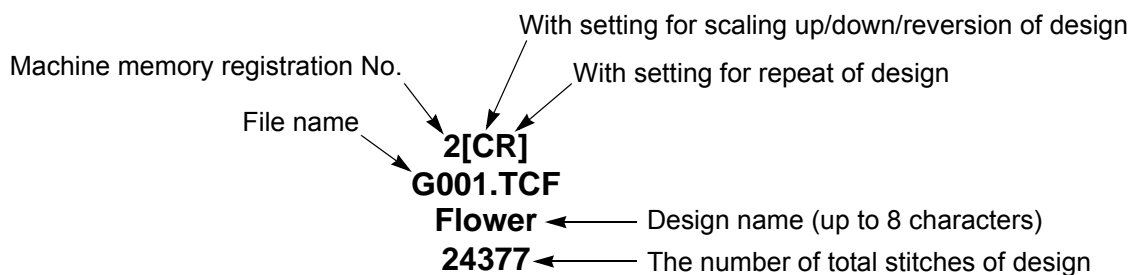
\ : First layer directory

\\ : Second layer directory

[b] Folder

Folder name can be changed.

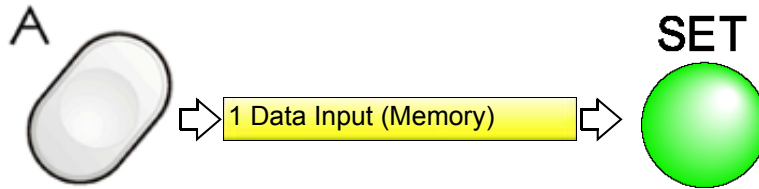
[c] Design registered in the memory of the machine



4-1-2. How to operate

This is an example of selecting the design in the memory of the machine and enabling to embroider.

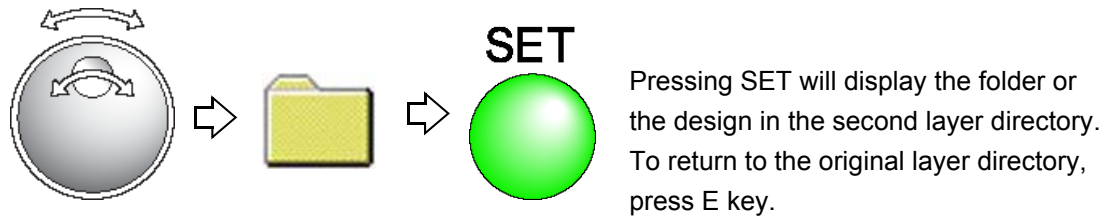
(1) To open screen



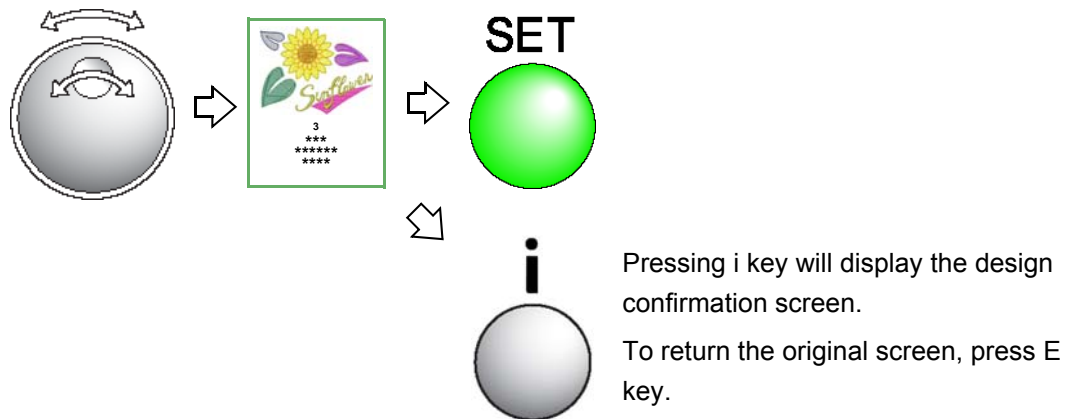
(2) To select a design

The operation differs depending on a storing place for the design.

(a) Design in a folder



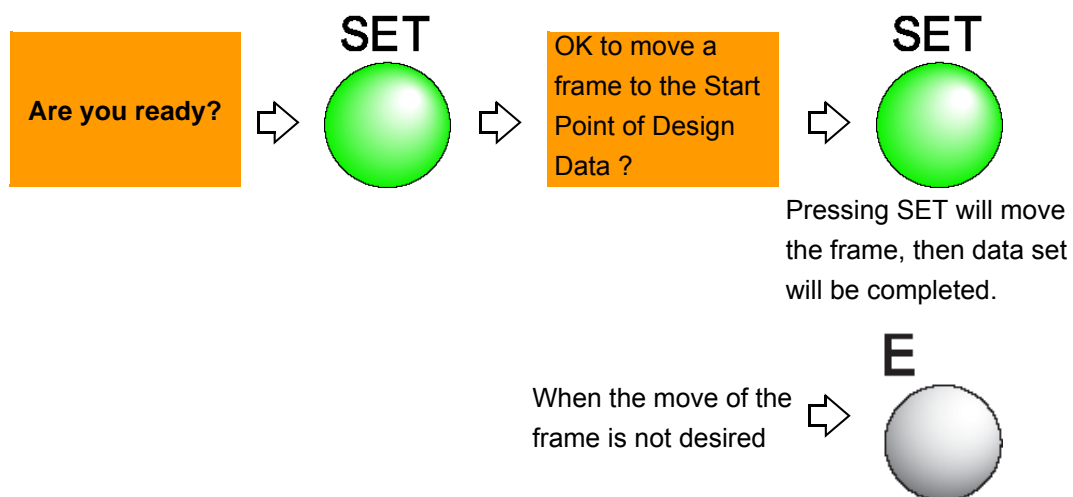
(b) Design on the screen



(3) To decide an embroidery design

! CAUTION

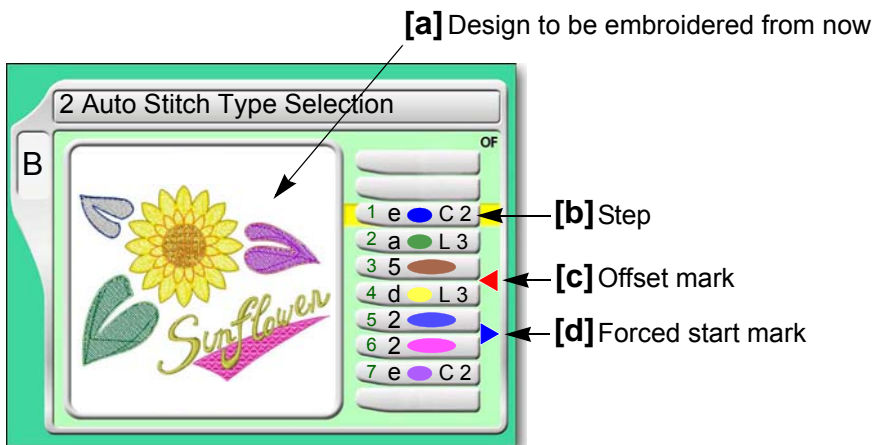
⊘ When performing this operation, do not put your hands etc. on the machine table. Moving the frame could injure you.



4-2. To decide order of embroidery type (Auto Stitch Type Selection)

This setting is unnecessary when the sewing sequence is already included in the design as the condition data to be embroidered from now.

4-2-1. Explanation on the screen

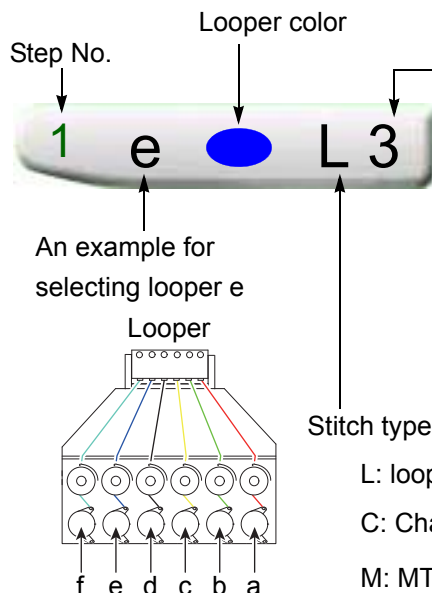


[a] Design (data set design) to be embroidered from now

[b] Step

The section divided by a color change code in the design data. The first section is called step 1, and the next section is called step 2.

[CM head]



Needle height

The setting ranges are below 10 steps.

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

If a small value is selected, the loop stitch and the chain stitch will be small.

If a large value is selected, the loop stitch and the chain stitch will be large.

Stitch type

L: loop

C: Chain

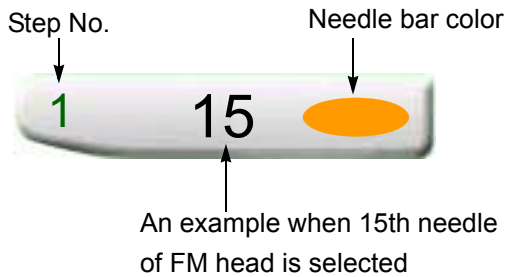
M: MT-1 (Coiling)^[*1]

T: MT-1 (taping)^[*1]

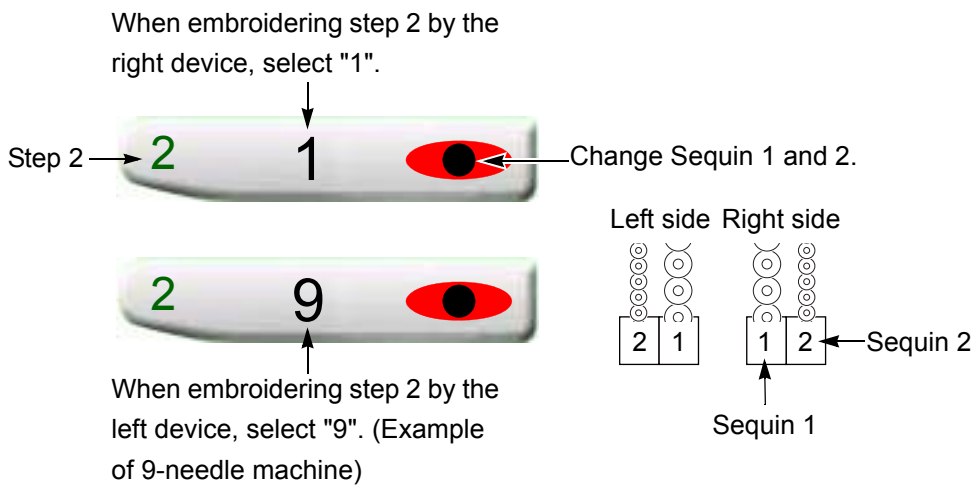
*1: M and "T" will be displayed only when MT-1 (option) is equipped.

TCMX-mixed type series

[FM head]



When Sequin device III is mounted, the following display appears.

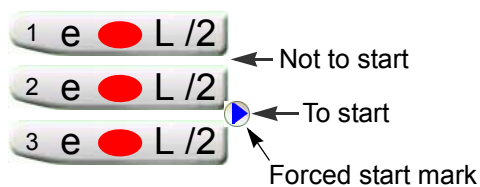


[c] Offset mark

The illustrated example shows that the frame moves to the front after finishing of step 3. However, to move the frame, the setting of "Automatic offset" is necessary.

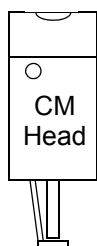
[d] Forced start mark

Even if "Auto start at same color" is set to "NO", the machine will start automatically.



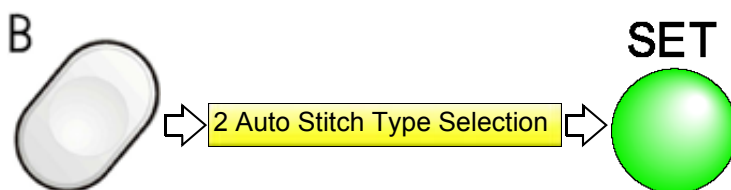
4-2-2. How to operate

The following is an example of embroidering step 1 at CM head under the below terms.

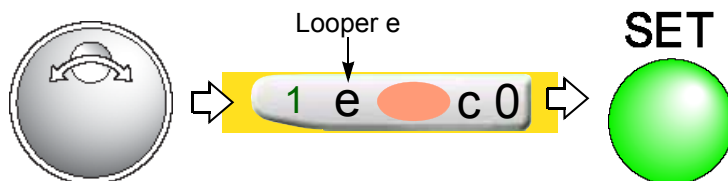


Looper e
 Stitch type: L (Loop stitch)
 Needle height: 5

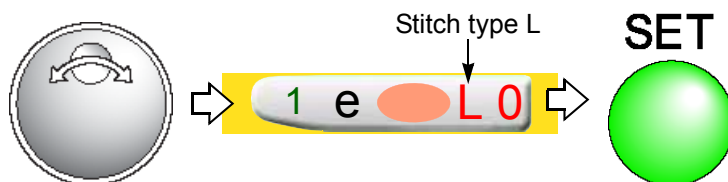
(1) To open screen



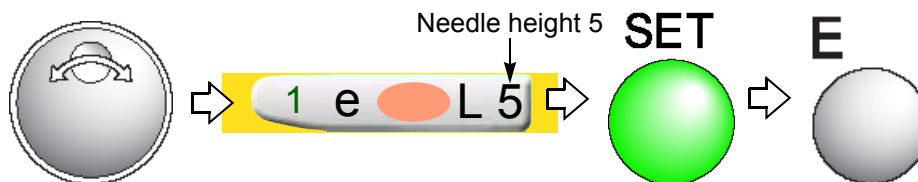
(2) To select the looper e to use at the step 1



(3) To select stitch type L (Loop stitch)



(4) To select needle height 5



In case of TCMX-mixed type series, after that, the motion when starting the machine is shown as follows.

(a) When it is in the middle of embroidery

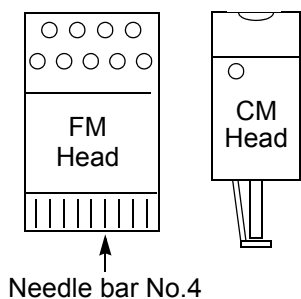
When the head selected at Auto Stitch Type Selection is different from the current head, the head will switch automatically after start of the machine, and the frame will move.

(b) When it is not in the middle of embroidery

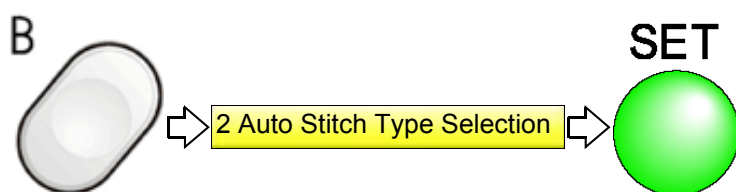
When the head selected at Auto Stitch Type Selection is different from the current head, the head will switch automatically.

4-2-3. How to operate

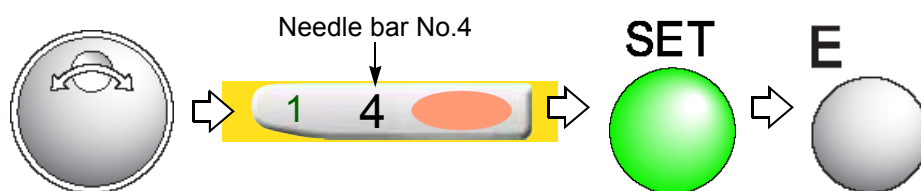
The following is an example of setting step 1 to the needle bar No.4.



(1) To open screen



(2) To select the needle bar No. to use at the step 1



After that, the motion when starting the machine is shown as follows.

(a) When it is in the middle of embroidery

When the head selected at Auto Stitch Type Selection is different from the current head, the head will switch automatically after start of the machine, and the frame will move.

(b) When it is not in the middle of embroidery

When the head selected at Auto Stitch Type Selection is different from the current head, the head will switch automatically.

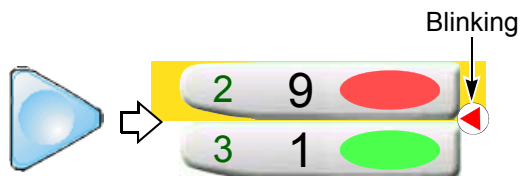
4-2-4. How to operate

The following is an example of inserting the offset mark or the forced start mark between step 2 and step 3.

(1) To select the step to insert the offset mark



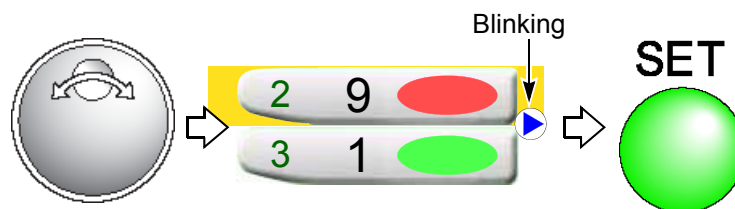
(2) To insert the offset mark



(3) To delete the offset mark

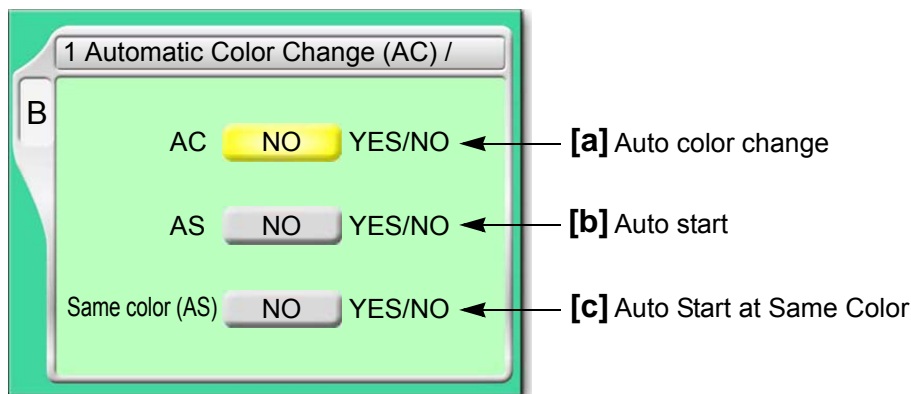


(4) To insert the forced start mark



4-3. To change color automatically / to start operation automatically (Auto Color Change "AC" / Auto Start "AS")

4-3-1. Explanation on the screen



[a] Setting to change color automatically according to Auto Stitch Type Selection

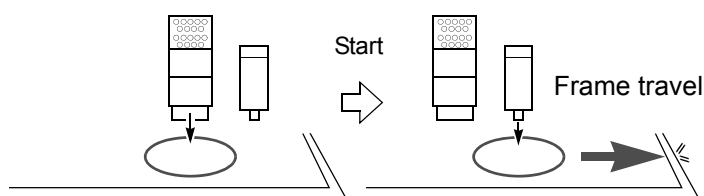
YES: To perform

NO: Not to perform

Selecting NO will select the current stitch type (CM head) or needle bar (FM head) irrespective of "Auto Stitch Type Selection".

In case of TCMX-mixed type series

When [a] is changed from NO to YES in the middle of embroidery or when the head of "Auto Stitch Type Selection" is different from the current head, the frame will move to the neighbor head after start of the machine (fixed interval movement).



[b] Setting to start operation automatically after color change

YES: To perform

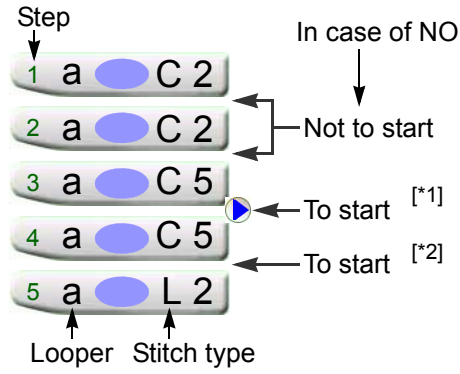
NO: Not to perform

Selecting "NO" will disable the following settings.

[c] Setting to start operation automatically when the same looper or needle bar is selected at the previous and next steps.

YES: To perform

NO: Not to perform



*1
To start individually, insert . (→p.23)

*2
Different stitch type at the same looper will cause the machine to start.

4-3-2. How to operate

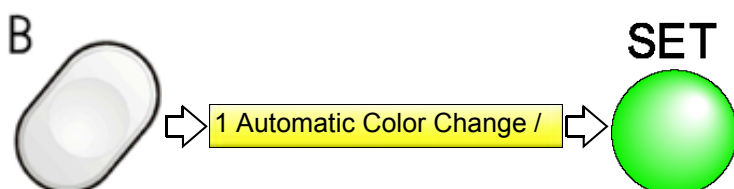
The following example is for setting below three conditions.

Automatic Color Change (AC)

Automatic Start (AS)

Automatic Start at the same color

(1) To open screen



(2) Automatic Color Change (AC)



(3) Automatic Start (AS)



(4) Automatic Start at the same color



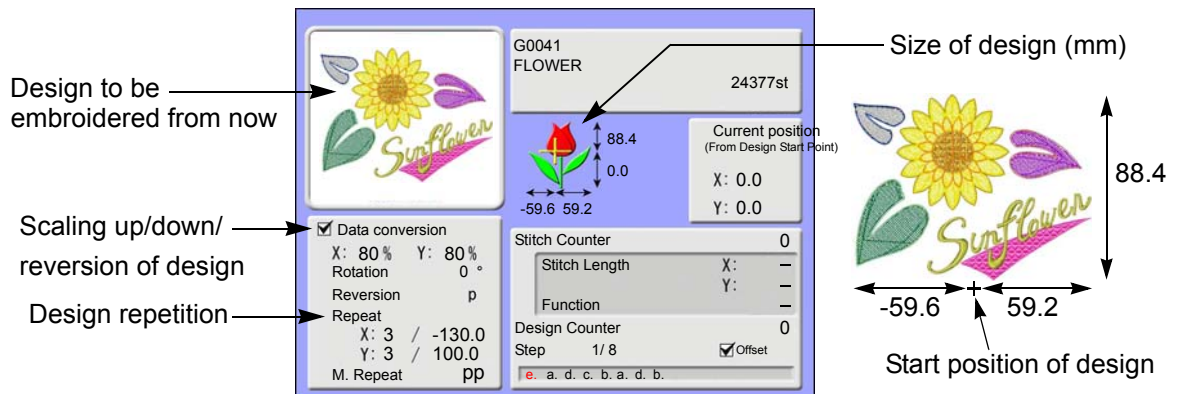
5. Decision of the design start position

5-1. To check the design size and the setting contents of the design (Check of design)

Check setting conditions such as size, scale up/down, repeat, etc of the design to be embroidered from now. Use the checking result as rough standard when deciding the design start position.

This function will be explained in detail on the other page.

5-1-1. Explanation on the screen



The size based on the design start position after scaling up/down will be displayed. This example shows the size of vertical 88.4 mm and horizontal 118.8 mm.

5-1-2. How to operate

(1) To open screen

Press i key.



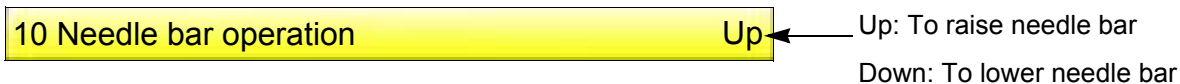
If this key is pressed again, setting contents in detail and error codes occurred until now can be confirmed.

To return to the main screen, press E key.

5-2. To lower needle bar to adjust frame position (Needle bar operation) (FM head)

This function is applicable for TCMX-mixed type.

5-2-1. Explanation on the screen

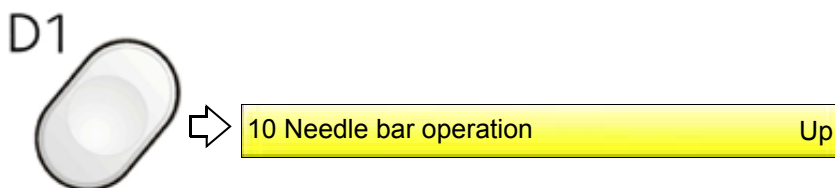


5-2-2. How to operate

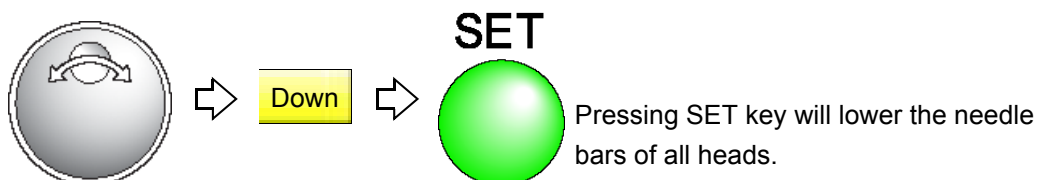


The following is an example of lowering the needle bar.

(1) To open screen



(2) To lower needle bar

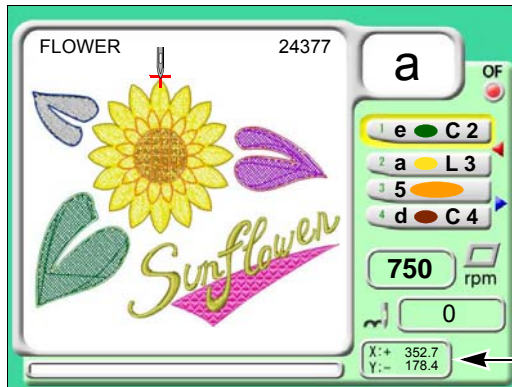


5-3. To move the frame to the design start position (Manual frame travel)

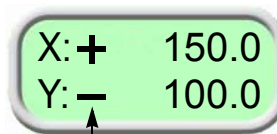
This operation is unnecessary when the frame has already come to the start position of the design by the operation described previously.

5-3-1. Explanation on the screen

Main screen



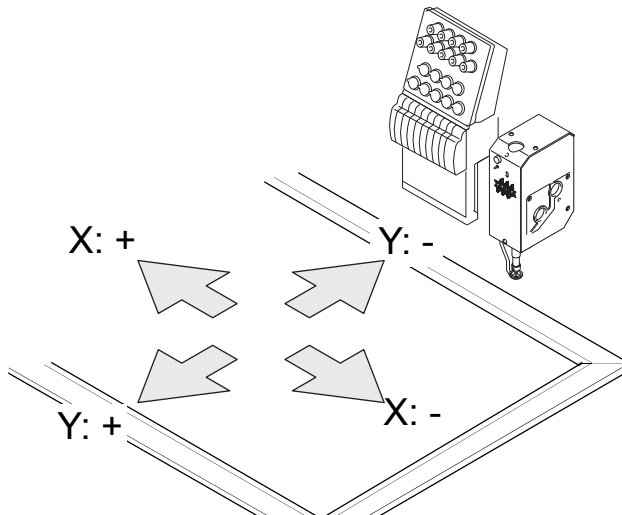
The current frame position is displayed by the numerical value (mm). The frame position is based on Frame Origin.



The code (+/-) means the frame travel direction.

[Relation between frame travel direction and code]

- (1) If the frame moves to the rear, the mark will be "Y:-".
- (2) If the frame moves to the front, the mark will be "Y:+".
- (3) If the frame moves to the right, the mark will be "X:-".
- (4) If the frame moves to the left, the mark will be "X:+".



5-3-2. How to operate

There are three methods of operation as described below.

 **CAUTION**

 When performing this operation, do not put your hands etc. on the machine table. Moving the frame could injure you.

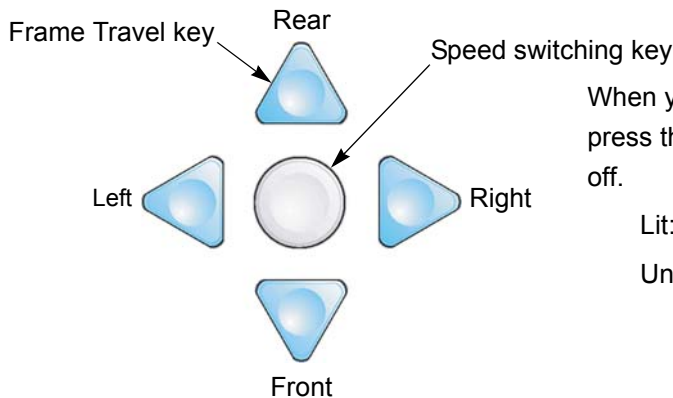
(1) To use the frame travel key

(a) Switch to the main screen

Press E key plural times to switch to the main screen.

(b) To move the frame to the design start position

Press any desired key. The frame will move.



When you want to change the frame travel speed, press the speed switching key. The key will light on/off.

Lit: High speed

Unlit: Low speed

(2) To use the Jog dial /Jog shuttle

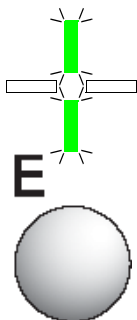
(a) Switch to the main screen.

Press E key plural times to switch to the main screen.

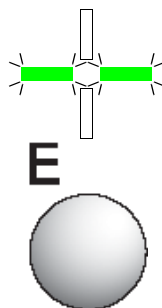
(b) To decide the frame travel direction

Press E key to decide the frame travel direction.

It moves vertically.

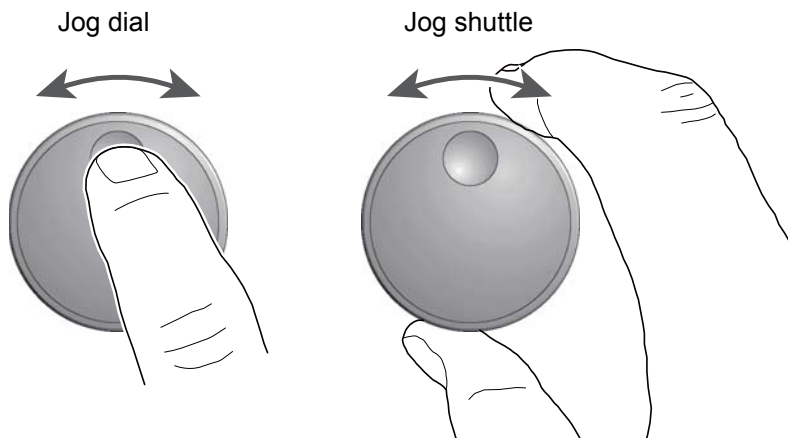


It moves horizontal.



(c) To move the frame to the design start position

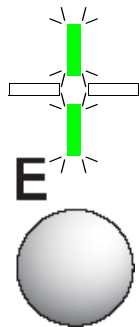
Turn the jog dial (low speed) / the jog shuttle (high speed). The frame will move.



(3) To use the Jog remote-controller (Option for some models)

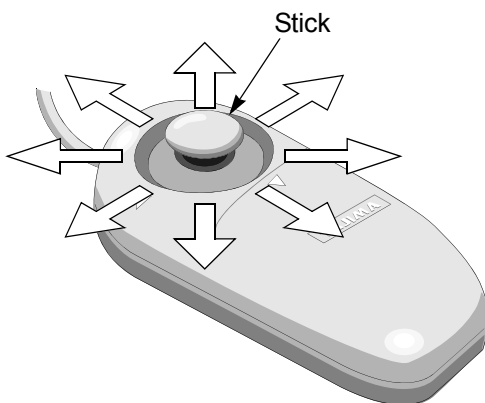
(a) Switch to the main screen.

Press E key plural times to switch to the main screen.

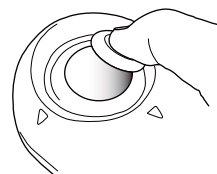


(b) To move the frame to the design start position

Tilt the stick. The frame will move.

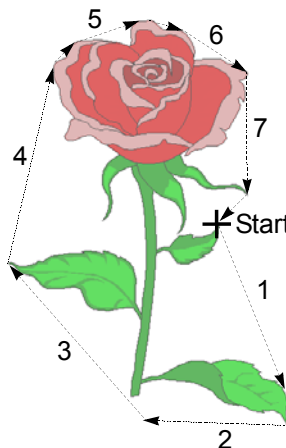


Frame travel speed will be changed by degree of leaning condition of the stick.



5-4. To check if a design fits in an embroidery space (Trace)

Since the frame moves according to the size of the design, you can check whether the design fits in the embroidery space or not.



The number in the left picture indicates the orbit of the frame. After completion of trace, embroidering from that position is possible.

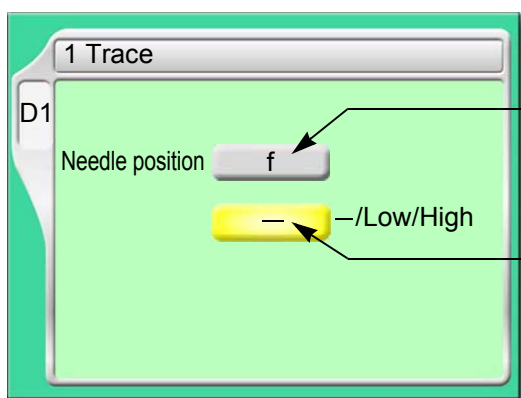
When repeat is set

The machine will trace the whole designs after tracing the first design.

When automatic offset is set

The machine traces according to setting.

5-4-1. Explanation on the screen



Current looper or Needle bar No.

The frame will move on the basis of this.

Speed of frame travel

Low: Low speed

High: High speed

-: Not to execute

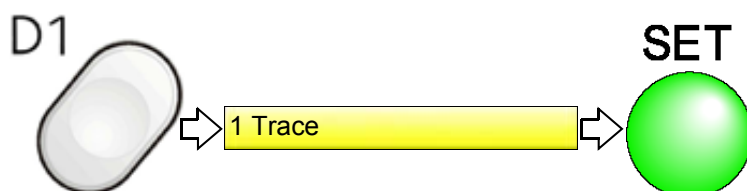
5-4-2. How to operate

⚠ CAUTION

⊘ When performing this operation, do not put your hands etc. on the machine table. Moving the frame could injure you.

The following is an example of executing trace.

(1) To open screen



(2) To execute

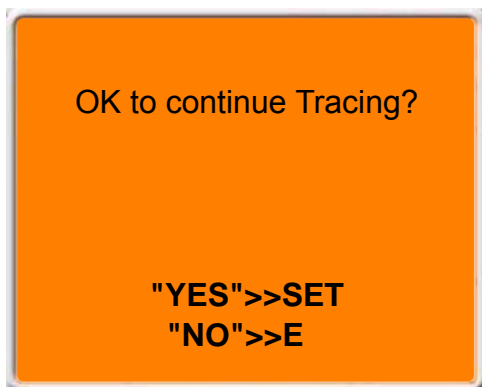


When the tracing is impossible due to the design size exceeding the embroidery space, follow the procedure below after checking the size of the design.

- (a)** The frame will move again after temporary stop.
- (b)** Code No.225 will be displayed.
Press E key.
- (c)** Move the frame to the design start position.
- (d)** Perform tracing again.

To interrupt trace, follow the procedure below.

- (a)** Suspend the operation by the bar switch or the stop switch.
Code No.1C1 will be displayed.
Do not turn OFF the power while displaying code No.1C1.
- (b)** Press E key.
- (c)** After that, follow the message described below.

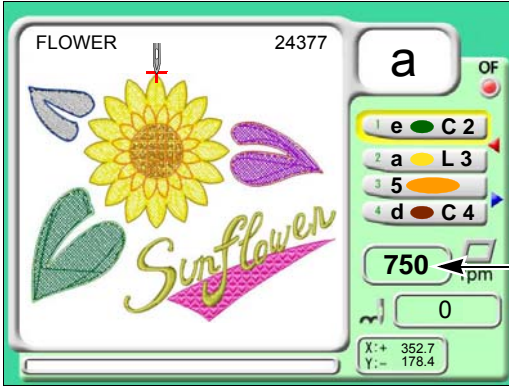


To continue → SET key
To suspend → E key

6. Check items before embroidering

6-1. Maximum speed (Max revolution)

The value set here will be the maximum speed of the machine. It is automatically increased/decreased depending on stitch length in the middle of embroidery.

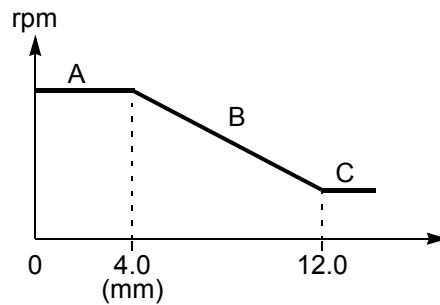


Speed display column

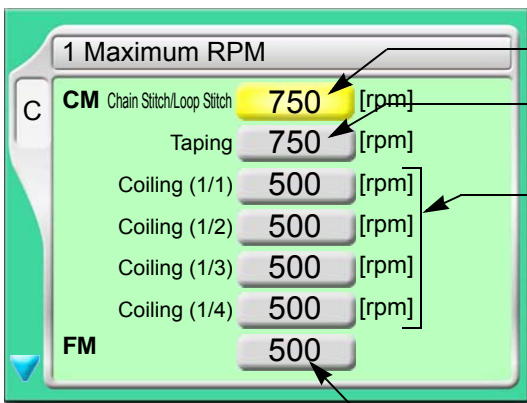
During stop: The maximum speed is displayed.

During operation: Actual operating speed is displayed.

Stitch Length	Embroidery speed
Up to 4.0 mm	Maximum speed (A in the right figure)
4.1 mm to 11.9 mm	Automatic change (B in the right figure)
12.0 mm or more	Low speed (C in the right figure)



6-1-1. Explanation on the screen



Maximum speed of Chain Stitch and Loop Stitch

Maximum speed of MT-1 (Taping)^[*1]

Maximum speed of MT-1 (Coiling)^[*1]

*1:It will be displayed only when Mt-1 (option) is equipped.

TCMX-mixed type series

Maximum speed of FM head

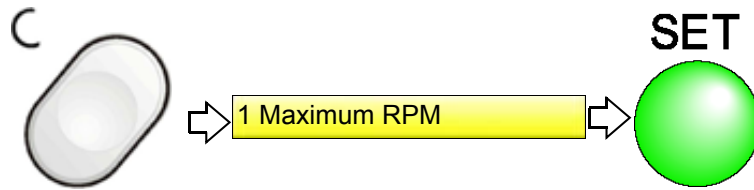
When "N" is displayed, the maximum speed differs in each needle bar.

To apply the same maximum speed to all needle bars, change "N" to a value. When a value is displayed, the same maximum speed is applied to all needle bars.

6-1-2. How to operate

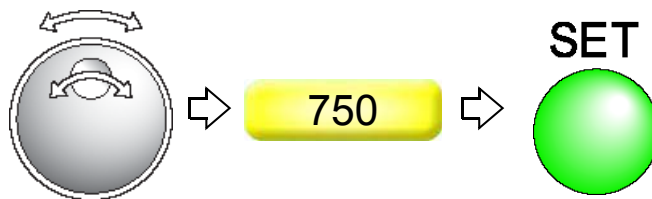
The following is an example of setting the maximum speed of CM head.

(1) To open screen



(2) To select maximum speed

Selection of the value exceeding "Max. Revolution Limit" is not possible.



To change the maximum speed during operation of the machine, turn the jog dial / the jog shuttle.



While turning the jog dial, the following display appears.

The number described in [] is the maximum speed.

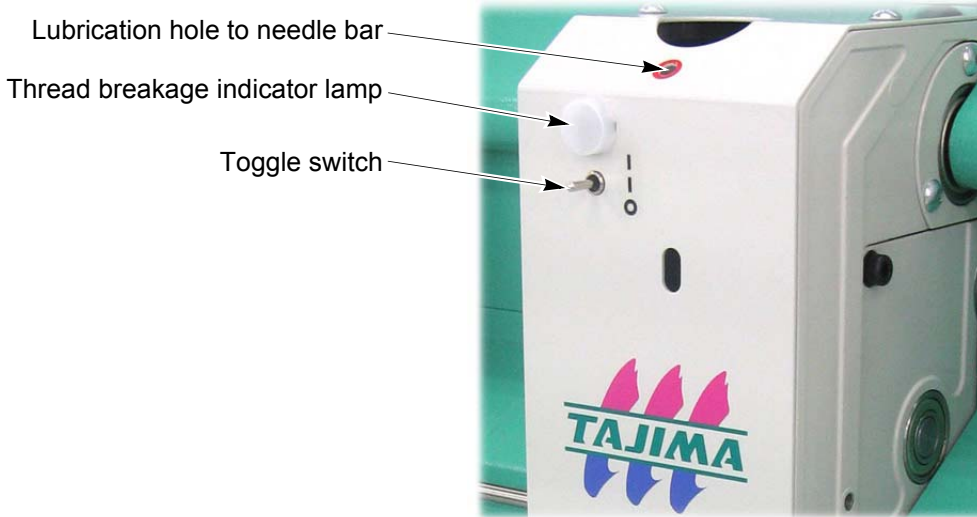
[700]

6-2. Embroidery head

6-2-1. CM head

It is possible to embroider only when the toggle switch is turned "ON".

The switch manipulation during operation of the machine is invalid. Even if the switch manipulation is performed, it will become effective after the machine stops.

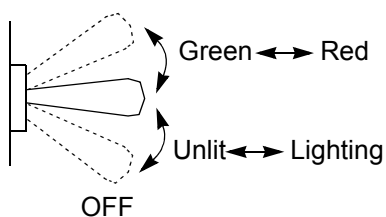


(1) Lubrication hole to needle bar

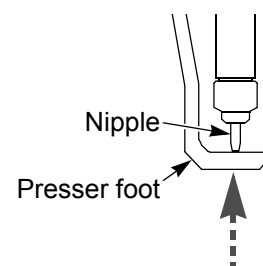
(2) Thread breakage indicator lamp

Lit in green	Embroidery is possible. When CM head is selected
Unlit	Embroidery is suspended. When FM head is selected (TCMX-mixed type series)
Blinking in green	Frame back section at the head without thread breakage. The lamp at the head without thread breakage blinks in green during frame back.
Lit in red	Thread Detection
Red/green alternate blinking	During color change or working of ATH in CM head

(3) Toggle switch



If the switch is turned OFF, the head will suspended, then the nipple and the presser foot will move up.



6-2-2. FM head (TCMX-mixed type series)

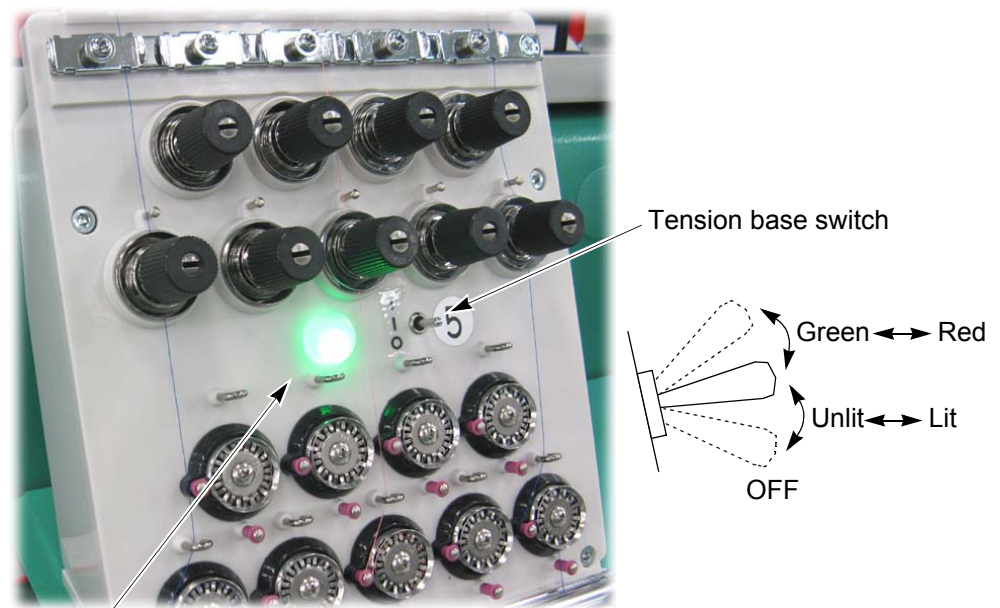
Check the position of the following tension base switch and needle bar suspension lever before embroidering.

Regarding the tension base switch and the needle bar suspension lever, embroidering is possible only when both of them are set to "ON".

(1) Tension base switch

This switch will suspend the head electrically.

The switch manipulation during operation of the machine is invalid. Even if the switch manipulation is performed, it will become effective after the machine stops



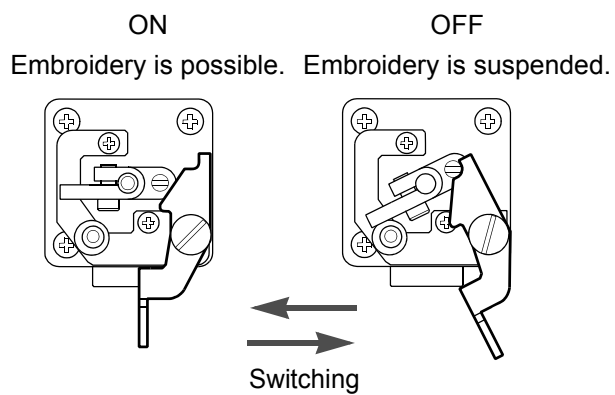
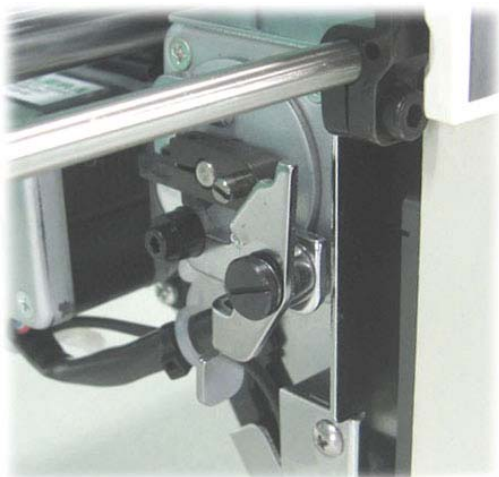
Thread breakage indicator lamp

Lit in green	Embroidery is possible. When FM head is selected
Unlit	Embroidery is suspended. (Needle bar will not move down.) When CM head is selected
Blinking in green	Frame back section at the head without thread breakage. The lamp at the head without thread breakage blinks in green during Frame Back.
Lit in red	Upper thread breakage
Blinking in red	Under thread breakage

(2) Needle bar suspension lever

This lever will suspend the head mechanically.

It is located at the left side of the head.



7. Embroidery starts

7-1. Start and stop

7-1-1. Bar switch

⚠ CAUTION

⚠ Before starting the machine, pay enough attention to the surrounding safety. Moving needle bar and/or frame could injure you.

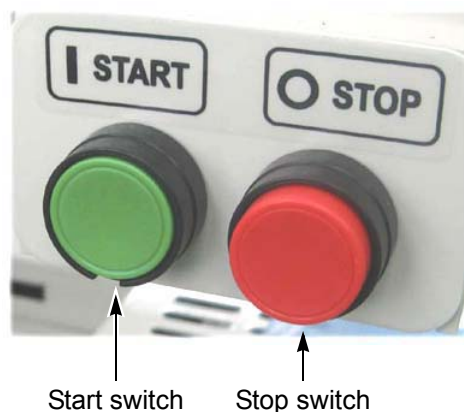
- (1) When starting the operation, move the bar switch to the right.
- (2) To stop the machine, move the bar switch to the left.
- (3) To start slow operation, move it to the right and keep at that position. Returning to the original position will start normal operation.



7-1-2. Start/stop switch

- (1) When starting the operation, press the start switch.
- (2) To stop the machine, press the stop switch.
- (3) To start slow operation, keep on pressing the start switch. Releasing it will start normal operation.

TCMX-601



The following switches are equipped in some models.



7-2. Frame Back (to return the frame) / Frame Forward (to advance the frame)

⚠ CAUTION

⊘ Frame Back/Forward with CM head
Do not put your hands etc. near needle or on the table. Since the needle will move to activate ATH, you could be injured.

Frame Back

This function will return the frame to the direction where stitches return with the needle bar stopped.

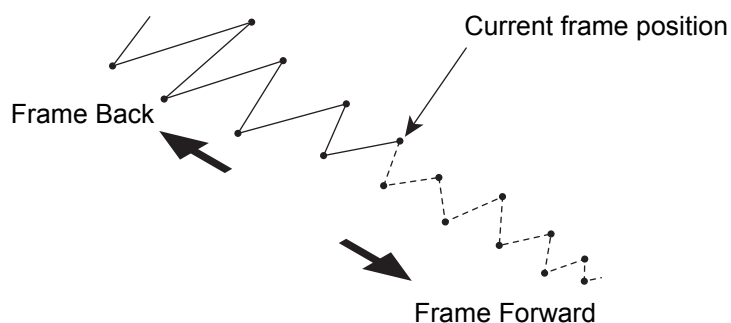
Frame Back is performed when thread breaks, and the repair stitches are performed from that position only at the head with thread breakage.

In case of CM head, Frame Back will not be performed when Frame Back function is set to "NO".

Frame Forward

This function will move the frame to the direction where stitches advance with the needle bar stopped.

The frame can be moved immediately to the embroidery start point when you want to start from the middle of embroidery.



There are following two types of execution of Frame Back/Forward.

(1) Operation by operation panel

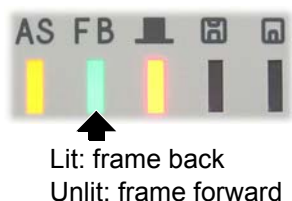
The machine will execute FB/FF by Stop code or by specifying the number of stitches.

(2) Operation by the bar switch or the stop switch

The machine will execute FB/FF by 1-stitch or setting unit. (Explanation is given as follows.)

[Current setting condition]

You can check which of Frame Back or Frame Forward is selected by the operation panel.



If the machine detects thread breakage, Frame Back will be set temporarily.

7-2-1. Frame back/forward by the bar switch

 CAUTION
 When performing this operation, do not put your hands etc. on the machine table. Moving the frame could injure you.

(1) CM head

Frame Back will not be performed when Frame Back function is set to "NO".

To perform Frame Forward in the middle of embroidery, perform manual thread trimming before performing Frame Forward.

Move the bar switch to the left and return to the original position immediately during stop of the machine.	When the current setting is Frame Back After thread trimming, Frame Back will be performed by 1-stitch unit. When the current setting is Frame Forward Frame Forward will be performed by 1-stitch unit.
---	---

<p>Move the bar switch to the left and keep at that position during stop of the machine.</p>	<p>When the current setting is Frame Back</p> <p>After thread trimming, the machine will continue Frame Back by 1-stitch unit in case within 10 stitches. Returning to the original position will stop Frame Back. The machine will continue Frame Back by setting unit in case of 11 stitches or more.^[*1]</p> <p>Returning to the original position will not stop the machine operation. To stop, move it to the left again.</p> <p>When the current setting is Frame Forward</p> <p>The machine will continue Frame Forward by 1-stitch unit in case within 10 stitches. Returning to the original position will stop Frame Forward. The machine will continue Frame Forward by setting unit in case of 11 stitches or more.^[*1]</p> <p>Returning to the original position will not stop Frame Forward. To stop, move it to the left again.</p>
--	--

*1:Change of frame feed unit

It is possible to select among 1, 3 and 5 stitches.

(2) FM head

<p>Move the bar switch to the left and return to the original position immediately during stop of the machine.</p>	<p>Frame Back or Frame Forward will be performed by 1-stitch unit depending on the current setting condition.</p>
<p>Move the bar switch to the left and keep at that position during stop of the machine.</p>	<p>The machine will continue Frame Back / Frame Forward by 1-stitch unit in case within 10 stitches. Returning to the original position will stop FB/FF.</p> <p>The machine will continue Frame Back / Frame Forward by setting unit in case of 11 stitches or more. ^[*1]</p> <p>Returning to the original position will not stop FB/FF. To stop, move it to the left again.</p>

*1:Change of frame feed unit

It is possible to select among 1, 3 and 5 stitches.

7-2-2. Frame Back/Forward by stop switch

 CAUTION
<p> When performing this operation, do not put your hands etc. on the machine table. Moving the frame could injure you.</p>

(1) CM head

Frame Back will not be performed when Frame Back function is set to "NO".

To perform Frame Forward in the middle of embroidery, perform manual thread trimming before performing Frame Forward.

<p>Press the stop switch and release immediately during stop of the machine.</p>	<p>When the current setting is Frame Back</p> <p>After thread trimming, Frame Back will be performed by 1-stitch unit.</p> <p>When the current setting is Frame Forward</p> <p>Frame Forward will be performed by 1-stitch unit.</p>
<p>Keep on pressing the stop switch during stop of the machine.</p>	<p>When the current setting is Frame Back</p> <p>After thread trimming, the machine will continue Frame Back by 1-stitch unit in case within 10 stitches. Releasing it will stop Frame Back. The machine will continue Frame Back by setting unit in case of 11 stitches or more.^[*1]</p> <p>Even releasing it will not suspend Frame Back. To stop, press the stop switch again.</p> <p>When the current setting is Frame Forward</p> <p>The machine will continue Frame Forward by 1-stitch unit in case within 10 stitches. Releasing it will stop Frame Forward. The machine will continue Frame Forward by setting unit in case of 11 stitches or more.^[*1]</p> <p>Even releasing it will not suspend Frame Forward. To stop, press the stop switch again.</p>

*1:Change of frame feed unit

It is possible to select among 1, 3 and 5 stitches.

(2) FM head

Press the stop switch and release immediately during stop of the machine.	Frame Back or Frame Forward will be performed by 1-stitch unit depending on the current setting condition.
Keep on pressing the stop switch during stop of the machine.	<p>The machine will continue Frame Back / Frame Forward by 1-stitch unit in case within 10 stitches. Releasing it will stop FB/FF.</p> <p>The machine will continue Frame Back / Frame Forward by setting unit in case of 11 stitches or more. [*1]</p> <p>Even releasing it will not suspend FB/FF. To stop, press the stop switch again.</p>

*1:Change of frame feed unit

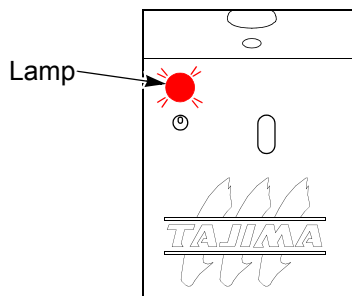
It is possible to select among 1, 3 and 5 stitches.

7-3. Countermeasure against thread breakage

7-3-1. CM head

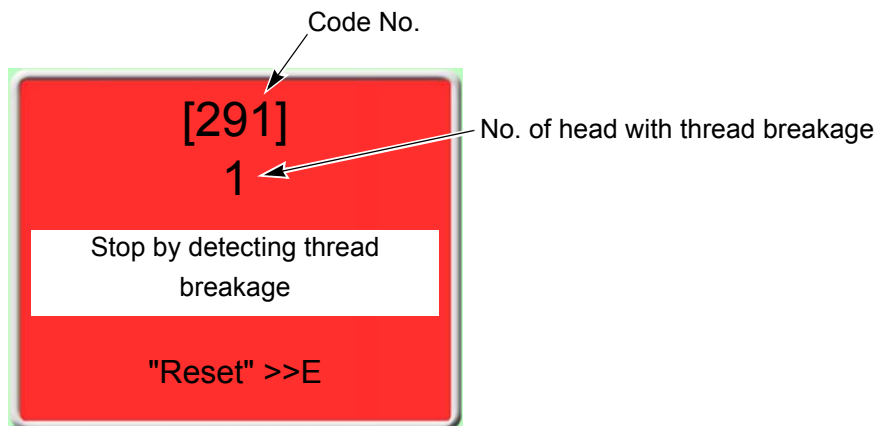
The machine will stop automatically and will be the following condition.

(1) The lamp of the head with thread breakage will be lit in red.



(2) Code No. (number indicating stop factor) will be displayed on the operation panel.

[291]: Thread breaks.



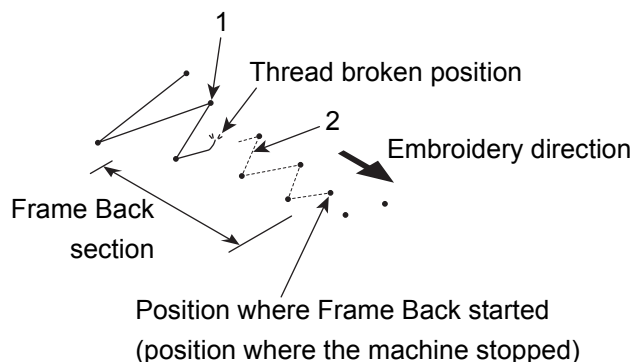
(3) Pass the thread. Regarding how to pass the thread, refer to the detail page.(→p.5)

(4) Start the operation after performing Frame Back by several stitches.

Starting stitches after Frame Back differ between the head with thread breakage and the head without thread breakage.

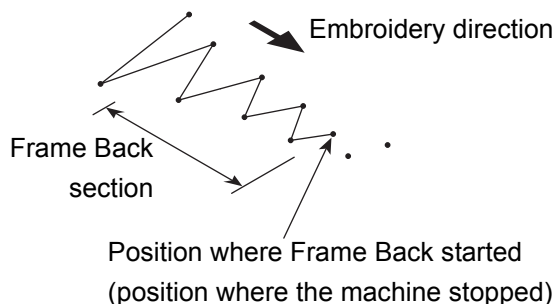
[Head with thread breakage]

The machine restarts embroidery from the position where Frame Back stopped (1 in the figure below). As a result, repair stitches will be performed at the position 2 with missing stitches due to thread breakage.



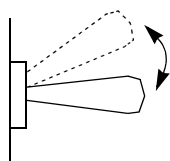
[Head without thread breakage]

The machine restarts embroidering from the position where Frame Back started. This example is for the case "Frame Back Function" is set to "0".



To make the head without thread breakage embroider from the position where Frame Back is stopped, set the tension base switch of that head to the "Top" once before starting operation. (When you release the switch, it will return to the original position.)

Toggle switch



Thread breakage indicator lamp will change color from green to red.

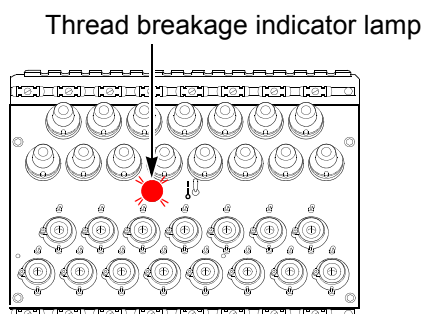
7-3-2. FM head (TCMX-mixed type series)

The machine will stop automatically and will be the following condition.

- (1)** The thread breakage indicator lamp lights in red or blinks in red.

Lit in red: The upper thread breaks.

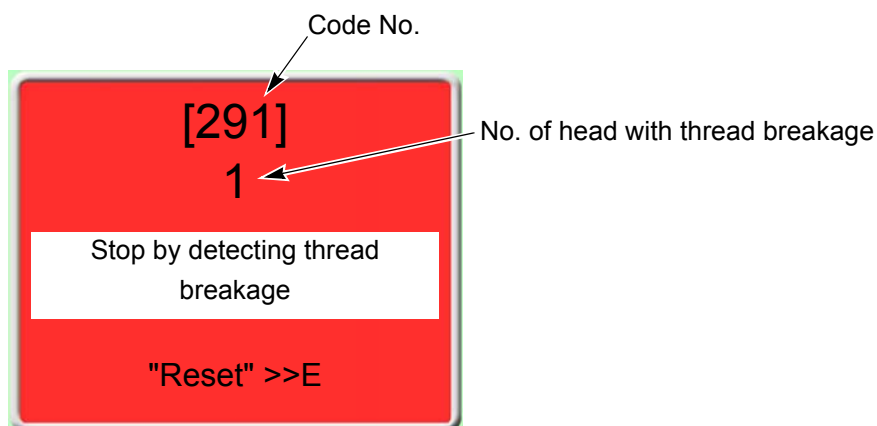
Blinking in red: The under thread breaks.



- (2)** Code No. (number indicating stop factor) will be displayed on the operation panel.

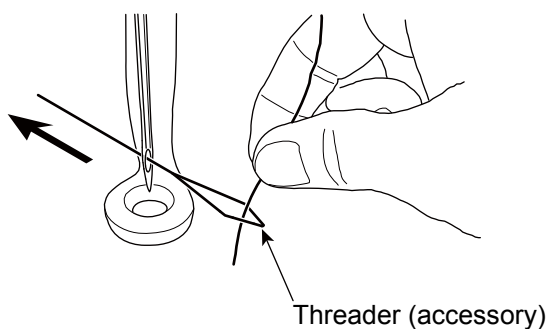
[291]: Upper thread breaks.

[293]: Under thread breaks.



After that, restart the embroidery according to the following procedure.

- (a)** Pass the upper thread, or change the under thread (bobbin).

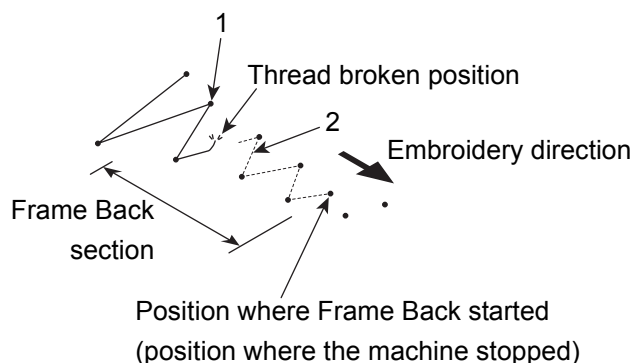


(b) Start the operation after performing Frame Back by several stitches.

Starting stitches after Frame Back differ between the head with thread breakage and the head without thread breakage.

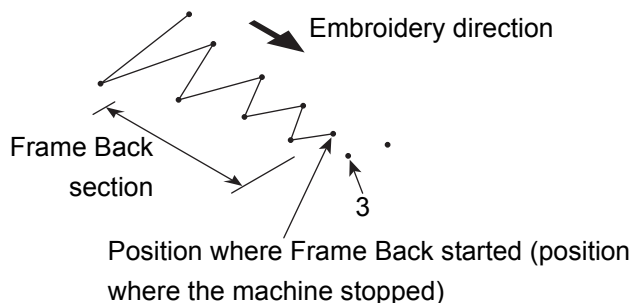
[Head with thread breakage]

The machine restarts embroidery from the position where Frame Back stopped (1 in the figure below). As a result, repair stitches will be performed at the position 2 with missing stitches due to thread breakage.



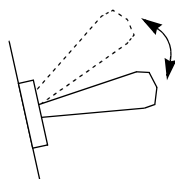
[Head without thread breakage]

The machine restarts embroidery from the position 3 next to where frame back started. This example is for the case "All head sewing after frame back" is set as "0".



To make the head without thread breakage embroider from the position where Frame Back is stopped, set the tension base switch of that head to the "Top" once before starting operation. (When you release the switch, it will return to the original position.)

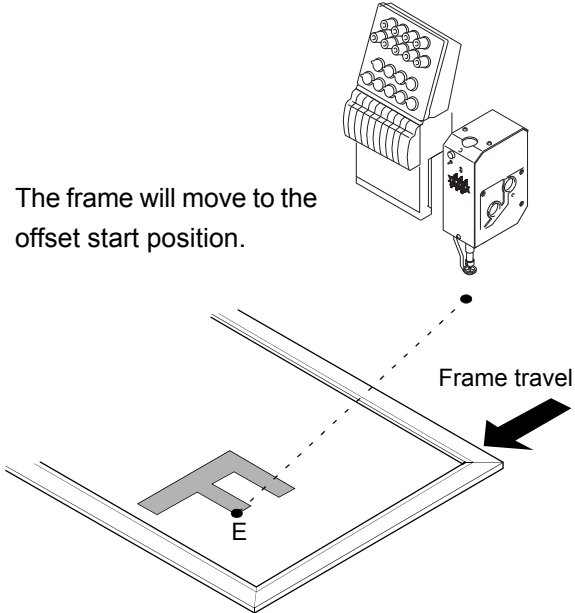
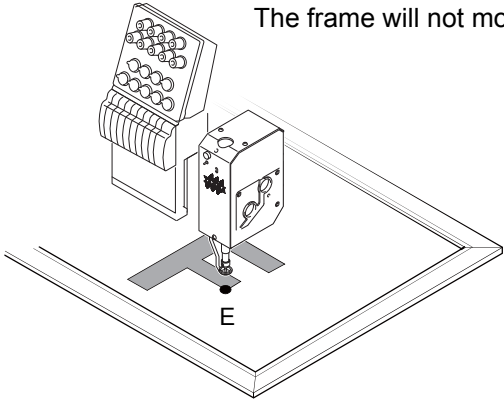
Tension base switch



Thread breakage indicator lamp will change color from green to red.

7-4. Completion of embroidery

Destination of the frame movement differs depending on setting of the machine.

Setting for Automatic Offset	
With	Without
<p>The frame will move to the offset start position.</p>  <p>Frame travel</p> <p>E</p>	<p>The frame will not move.</p>  <p>E</p> <p>However, when Auto Origin Return is set, the frame will move to the design start position</p>

1st Edition October, 2010

9th Edition May, 2019

■ **Manufactured by : TISM Co.,Ltd.**

Address : NO.1800, Ushiyama-cho, Kasugai, Aichi-pref., 486-0901, Japan

TEL : 81-568-33-1161 FAX : 81-568-33-1191

■ **Distributed by : Tajima Industries Ltd.**

Address : NO.1800, Ushiyama-cho, Kasugai, Aichi-pref., 486-0901, Japan

TEL : 81-568-37-1130 FAX : 81-568-37-1230

●**Copy, reprint, or reform of a part or whole of this manual without permission is prohibited.**