



ENGINEER'S MANUAL

# Machine Setup Instructions

Manual for machine setup instructions

i-TM



## Foreword

This is a setup manual for i-TM.

It is a document for engineers performing the after-sales service of machines.

Be sure to understand the necessary parts, procedure, and precautions through this manual before setting up the machine.

## Safety precautions

To prevent any harm or damage to those who use this product or other people, we describe items that must be surely followed as below.



Indicates that there is a lot of danger of death or serious injuries [\*1] if handled by mistake.




Indicates that there is a likelihood of death or serious injuries [\*1] if handled by mistake.





Indicates a potentially hazardous situation which may result in minor or moderate injury [\*2] or property damage if handled by mistake.

\*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

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## User's Manual / Parts List

User's manual / Parts list are stored as the PDF file in the accessory DVD. Please read the contents thoroughly and then use the machine or the optional device.

To see the PDF file, "Adobe Acrobat Reader" is necessary.

User's manual, parts list of the optional devices you have not purchased are included in this DVD. Please note beforehand.

### [How to open the DVD]

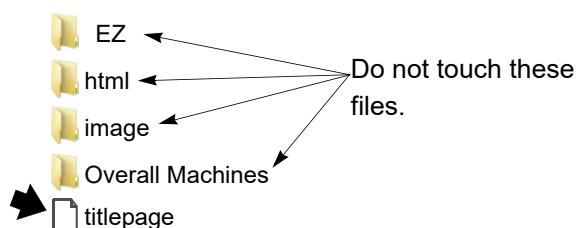
- 1 Insert a DVD into the personal computer.



Since the following pop-up window will be displayed automatically, select "Open folder to view files" (indicated by the arrow).



- 2 Double-click left "titlepage".



- 3 Select displaying language.



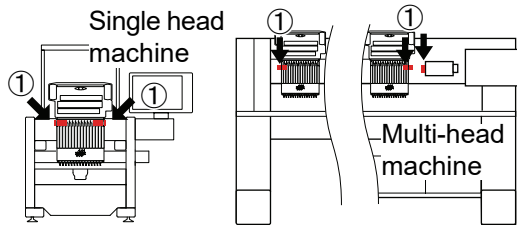
- 4 Select "User's Manual" or "Parts List", and then select the title you desire.



The figure above is an example selecting "English (Multiple Languages)" in the above 3.

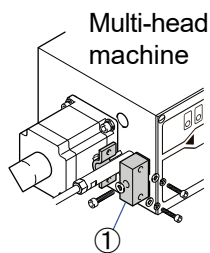
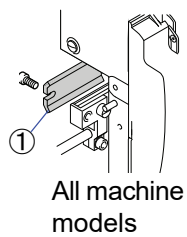
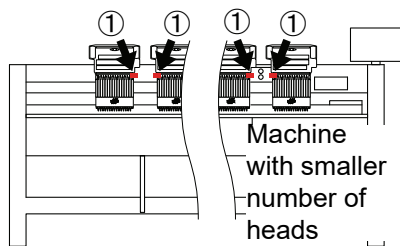
# 1. Preparation

## 1-1. Detaching stopper



Detach the stopper ①.

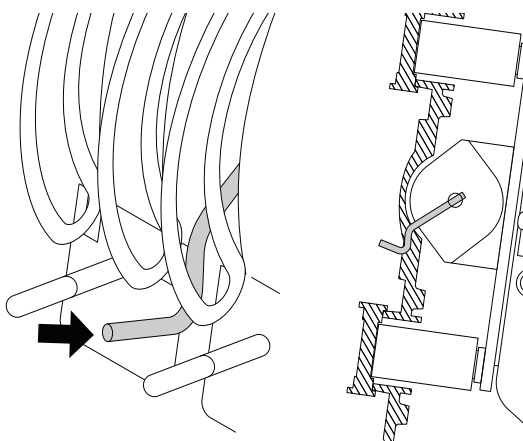
The stopper type and attaching position differ depending on the machine model and the number of heads.



## 1-2. Precautions about i-lever

### Caution

Do not turn the color change knob with the power OFF.



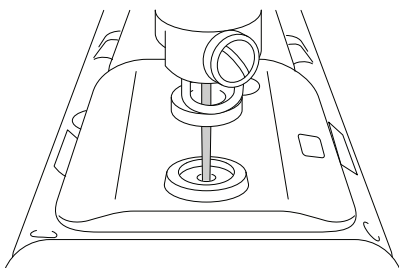
Changing the color with the i-lever protruding will break the i-lever.

## 2. Tension base

### ⚠ Caution

! The sequence of steps should be “needle location”, “electromagnet height”, and “i-lever position”.

### 2-1. Checking and adjusting the needle location

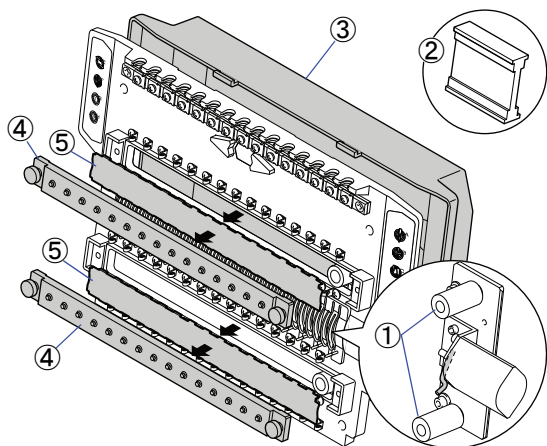


Check if the first and last needles are almost located at the center of the needle hole.

- 📖 If not, adjust the needle locations with reference to the TMEZ and TMC R Machine Setup Instructions.
- After adjusting the needle locations, also adjust the position of the i-lever.

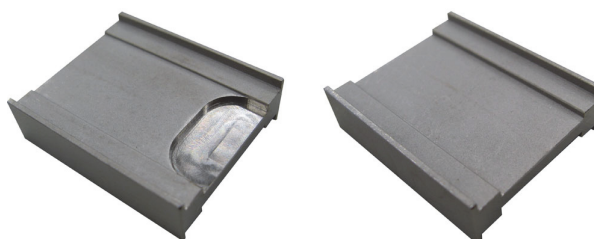
### 2-2. Adjusting the electromagnet height

#### ■ Checking the electromagnet height

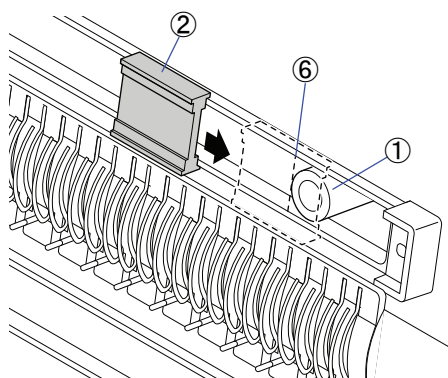


Use the gauge ② to check if the electromagnet ① is in the specified position.

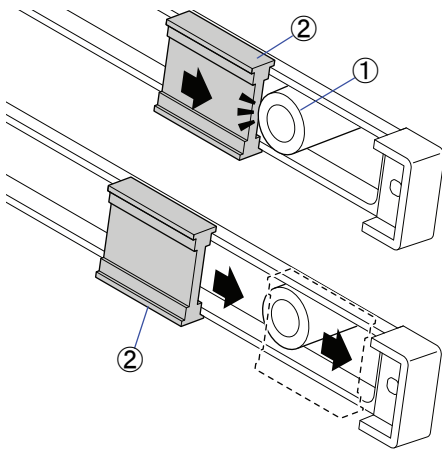
- (1) Change the needle position to the first needle by the manual color change.
- (2) Detach the tension base cover ③.
- (3) Detach the disc bar ④ and lock plate ⑤.



② GAUGE: ABSO UNIT :ELECTROMAGNET (7Z0930401000)

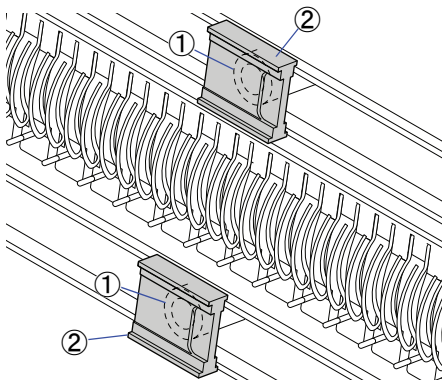


- (4) Orient the stepped side of the gauge ② to the electromagnet ① and align it with the groove.
- (5) Slide it over the electromagnet ①. When the step (level difference) ⑥ of the gauge comes in contact with the electromagnet and it does not slide further, it is the specified position.
- (6) Check also the lower electromagnet ① with the gauge ② in the same way.

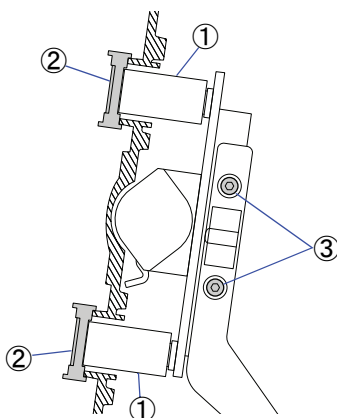


The electromagnet① needs adjustments if it comes in contact with the tip of the gauge② or if the gauge② passes over the electromagnet①.

**Adjusting the electromagnet height**



- (7) Change the needle position to the middle needle of the tension base by the manual color change.
- (8) Turn over the gauge② with the stepped side facing up and align it on the electromagnet①.

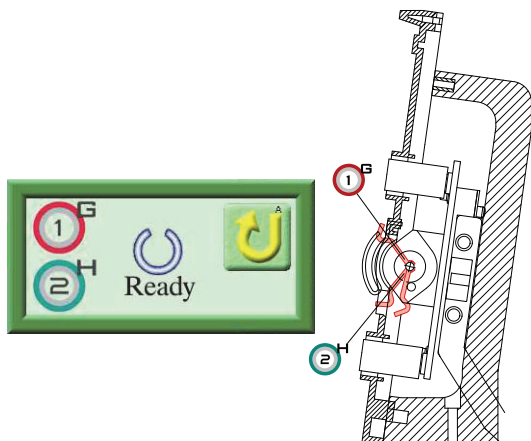


- (9) Loosen the screw③ of the arm.
- (10) Adjust the position so that the upper and lower electromagnets① touch the gauge②.
- (11) After adjusting the electromagnet height, check the electromagnet heights at the first needle and the last needle. Adjust the heights again as needed.
- (12) Tighten the screw③.
- (13) Attach the tension base cover.

**⚠ Caution**

! When attaching or detaching the tension base cover, take care not to touch the board on the backside of the LED. Damaging the board may cause the LED to fail.

## 2-3. Adjusting i-lever position

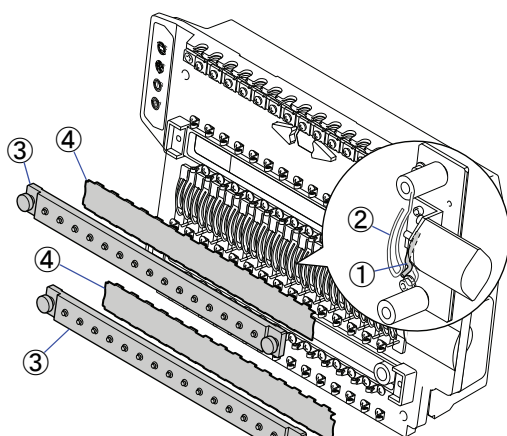


Check the i-lever position.

- (1) Press the detailed setting button for parameter P8 "85 Machine Adjustment".
- (2) Select P3 "26 i-Lever check".
- (3) Press the detailed setting button and operate the i-lever using the direct command switches.

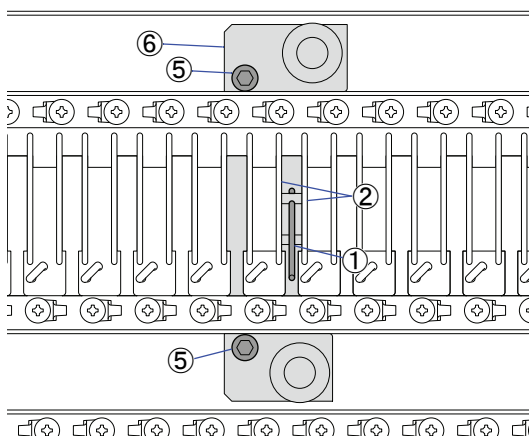
①<sup>G</sup> : Up position

②<sup>H</sup> : Down position



If the i-lever ① interferes with the take-up lever guide ②, adjust the i-lever position.

- (4) Change the needle position to the middle needle by the manual color change.
- (5) Detach the disc bar ③ and lock plate ④.



- (6) Loosen the screw ⑤.

- (7) Adjust the position of the i-TM unit ⑥ and check that the i-lever ① passes through the center of take-up lever guide ②.

- (8) When adjustment is finished, tighten the screw ⑤.

- (9) Check that the i-lever ① passes through the center of the take-up lever guide ② at the first and last needles.

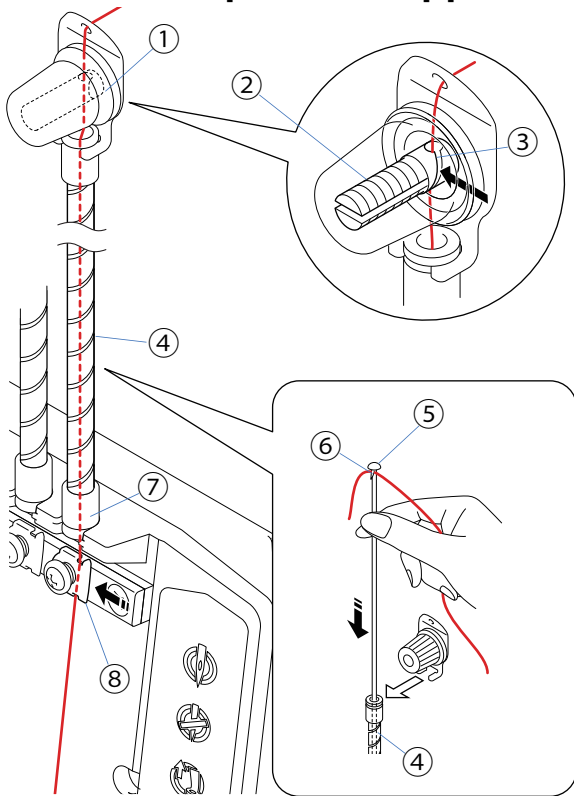
- (10) Make position adjustments by allocating the positions of the first and last needles if the i-lever ① interferes with the take-up lever guide ②.

# 3. Threading

## ⚠ Caution

! Perform threading correctly. Incorrect threading will damage the i-TM function.

### 3-1. How to pass the upper thread



#### 1 First thread tension regulator①

Pass the thread through the groove③ of the tension stud②.

☞ Otherwise, the upper thread may come off the thread tension regulator① in the middle of embroidery.

#### 2 Inside the spiral tube④

Hook the thread on the looking part⑥ of the threader⑤ (accessory) and insert it into the spiral tube④.

Pull the threader⑤ out of the tube opening⑦ fixed to the tension base and pass the thread through the spiral tube④.

#### 3 Thread presser⑧

Lift up the thread presser⑧ by finger and pass the thread through the thread presser⑧.

#### 4 Disc bars⑨ (upper and lower)

Remove disc bars⑨ (upper and lower).

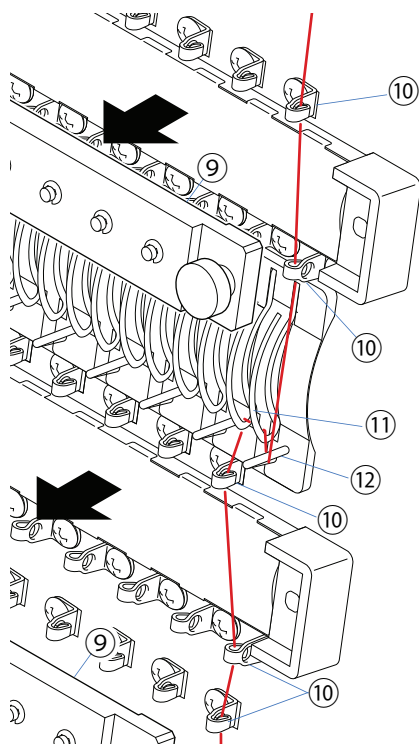
☞ The disc bar⑨ is fitted with a magnet. Grasp the knob and remove the disc bar.

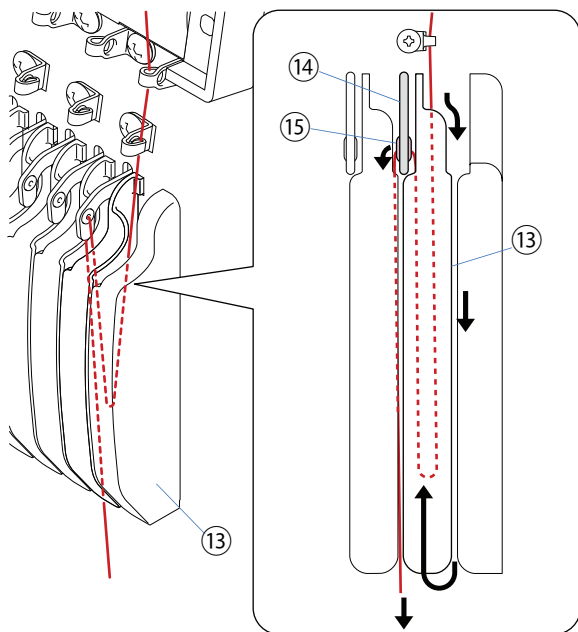
#### 5 Take-up lever guide⑪

Pass the thread through thread guides⑩ (two locations) and then pass through take-up lever guide⑪ via hook guide⑫.

#### 6 Lower disc bar⑨

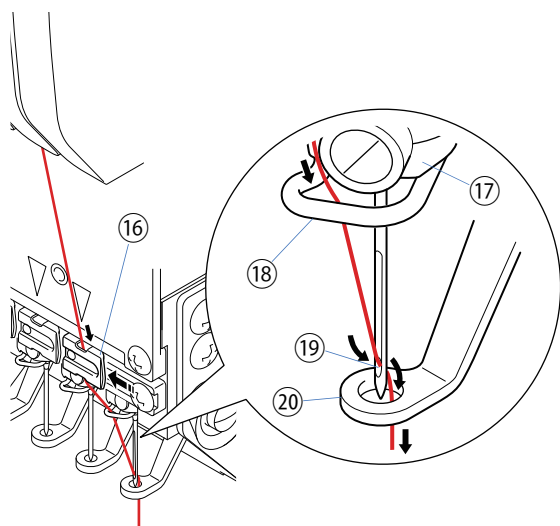
Pass the thread through thread guides⑩ (three locations).





### 7 Middle thread guide<sup>13</sup>

Hook the thread to the middle thread guide<sup>13</sup> of the needle bar case and pass it through the hole<sup>15</sup> in the take-up lever<sup>14</sup> from the right side.



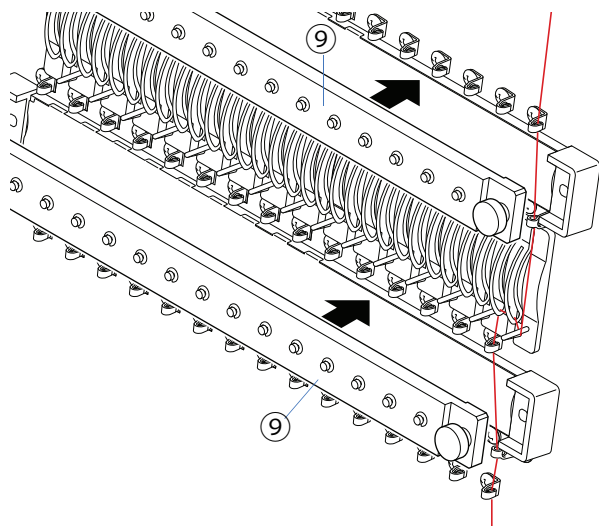
### 8 Upper thread lock<sup>16</sup>

Lift up the upper thread lock<sup>16</sup> by finger and pass the thread through the upper thread lock<sup>16</sup>.

### 9 Surrounding needle


Pass the thread through the thread holder<sup>18</sup> of the needle clamp<sup>17</sup> and then pass it through the needle hole<sup>19</sup> from front to rear.

Also, pass the thread through the hole in the presser foot<sup>20</sup> after passing it through the needle hole<sup>19</sup>.



### 10 Disc bar<sup>9</sup>

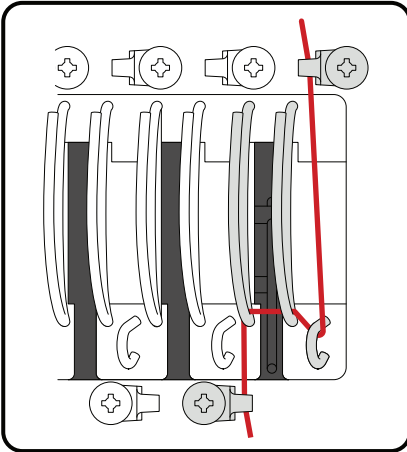
Finally set disc bars<sup>9</sup> (upper and lower) after all the threads are set.

 You can install the disc bars<sup>9</sup> even if they are reversed in upper, lower, left, and right.

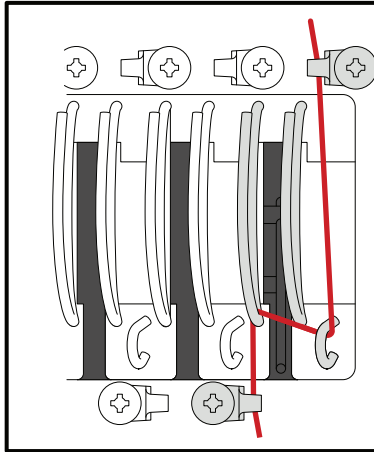
### 3-2. Wrong examples of threading

Failure to pass the thread correctly may cause the i-TM to malfunction and thread breakage. Perform threading correctly.

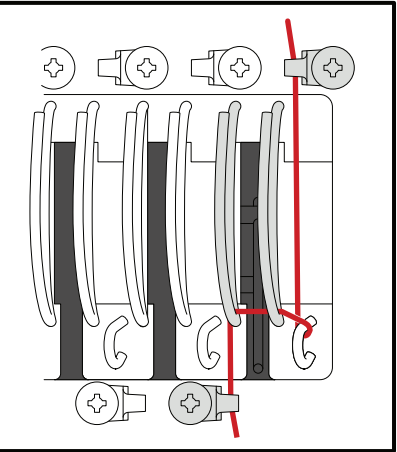
**Correct way of threading**



**Wrong way of threading**



**Wrong way of threading**



### 3-3. Preventing snarling

When using a polyester thread, it is recommended to attach the snarl-preventive attachment. Leaving the snarled thread may cause the thread to get caught in the i-lever, possibly resulting in thread breakage or error (No. 3F4).



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