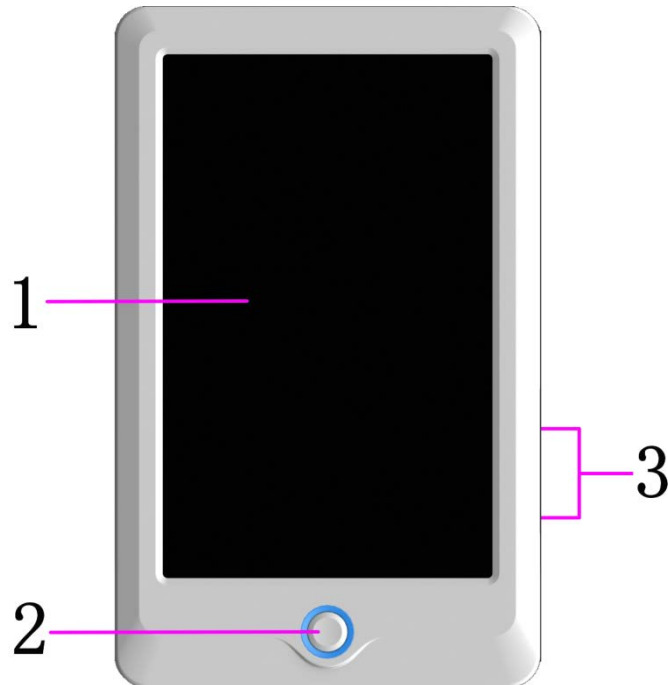# Structure of Operation Panel

1. Touch Screen

   LCD screen of high brightness is used as the touch screen of man-machine interface.
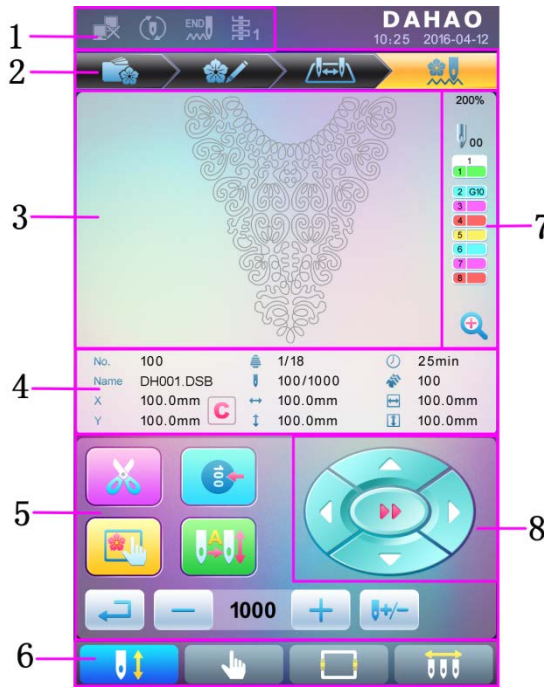
2. Operation Button
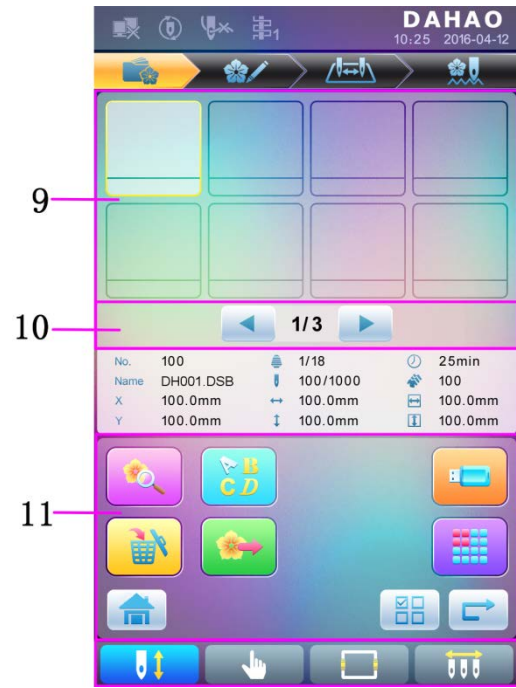
   It is used to start or stop embroidery.

3. USB Main Interface

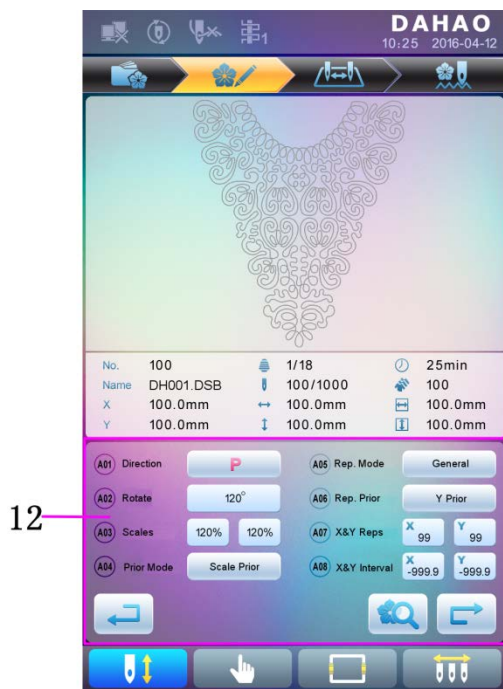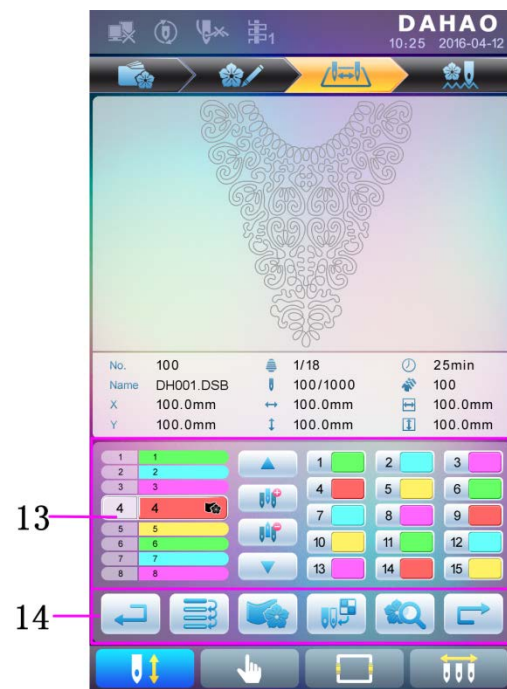   2 USB disks can be connected for data input and output.

Main Interface Instructions

Main Interface

Pattern Management

Embroidery Parameters

Color-changing Sequence

No.	Icon	Name	No.	Icon	Name
1		Network Disconnection	2		"Pattern Management" Interface
		Cyclic Embroidery Hint			"Parameter Setting" Interface
		Thread Breakage Hint			"Color-changing Sequence Setting" Interface
3		Pattern Display Area			Main Interface

No.	Icon	Name	No.	Icon	Name
4		Basic Pattern Information	11		Memory Pattern Preview
	C	Clear X/Y Displacement			Letter Pattern Operation
5		Manual Thread Trimming			Delete Pattern
		Main Shaft Jog			Pattern Output
		Frame Selection and Position			Return to Main Interface
		Auto Color-changing and Auto Start			U Disk Management
		Manual Color-changing and Manual Start			Other Functions
		Back			Single/Multiple Selection
	+, −	Main Shaft Speed Up/Down			Next
	+/−	Empty Feed	12		Common Parameter Setting
6		Embroidery Ready Status, which can be confirmed			Pattern Preview
		Embroidery Confirmation Status, which can be released	13	4 4	Current Operation
		Other Function Operation		1	Color Number List
		Manual Color-changing		1	Needle Bar Number and Color
7	01	Current Needle Position			Move Up
	1 1	Current Color-changing Time			Insert Needle Bar No.
	1 2 3	Color-changing Sequence			Delete Needle Bar No.
		Scale up pattern, and holding pressing for 2s to change into (scale down pattern)			Move Down
8		Manual Frame-moving			Needle Bar Number Color Selection Area
9		Memory Pattern List	14		Repeat
10	◄、►	Page Up/Page Down			Appliqué
					Needle Bar Color

Frame Selection

User can press " " key to enter the interface for frame selection and position.
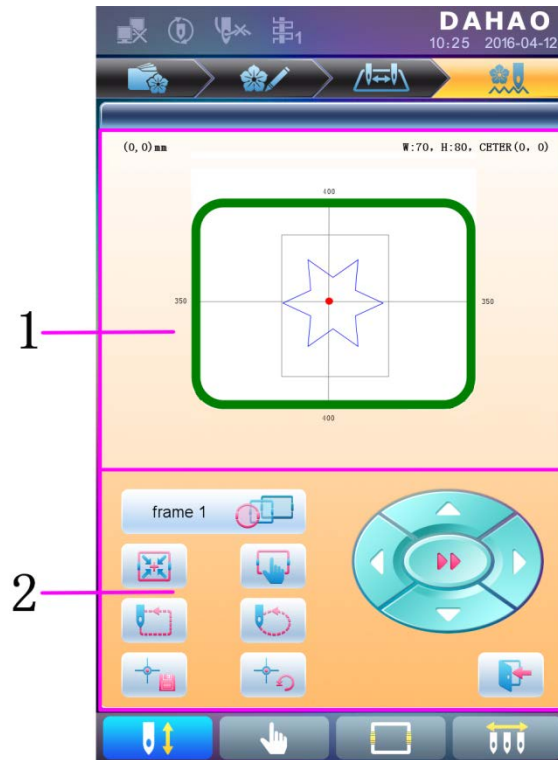
No.	Icon	Name
1		Pattern Range Display
2	frame 1	Frame Type Selection
		Position Pattern to the Center of the Frame
		Frame Parameter Setting
		Move Frame along Pattern Outside
		Move Frame along Pattern Outline
		Memory of Pattern Origin
		Recovery of Pattern Origin
		Manual Pattern Movement
		Exit

Automatic Position Limitation Function Instructions for Apparel Embroidery

A.   Working Principle

The automatic position limitation function of single-head embroidery machine controller is to determine the embroidery range of the frame by setting the distance from the center of the frame to the origin (that is X-/Y position limitation optical coupler) and the actual frame size (unit: mm). If embroidery is to be done beyond such range, the controller will activate automatic protection to prevent damage to the mechanical parts of the embroidery machine.

B.   Setting Method

1.   Set Frame Origin

Press ![hand key] key, then press ![tools key] key, to enter the following interface.
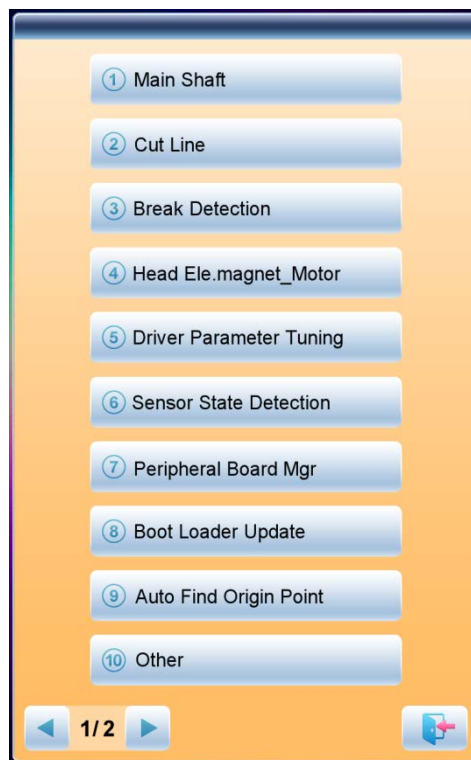
Select "⑨ Automatic Origin Search", to enter the interface to search origin automatically; the frame will search and determine the origin automatically; press " ![check key] " key to quit.
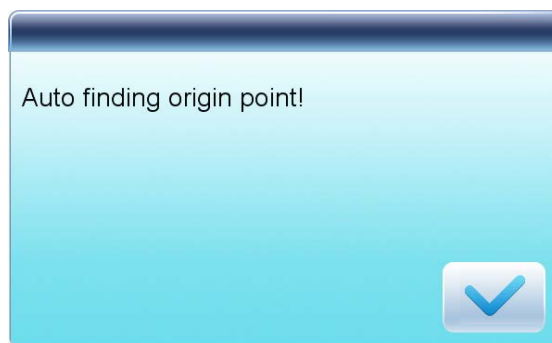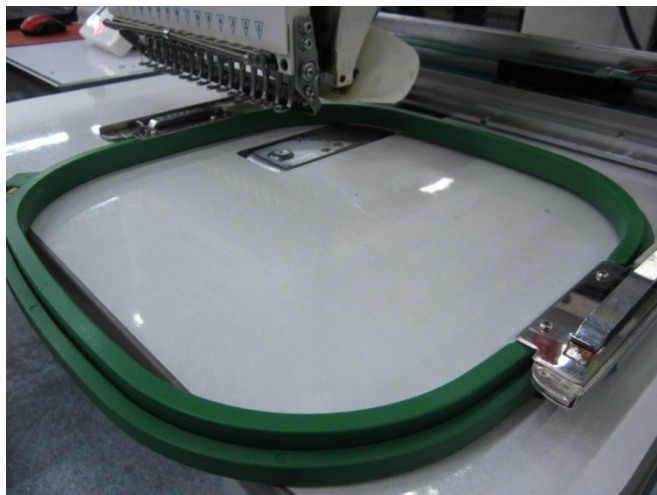
2.　Clear XY Displacement

In the main interface, press " [C] " key to clear the XY displacement displayed here.

3.　Manual Frame-moving

In the main interface, click the frame-moving key to move the frame to overlap its center with the needle hole.
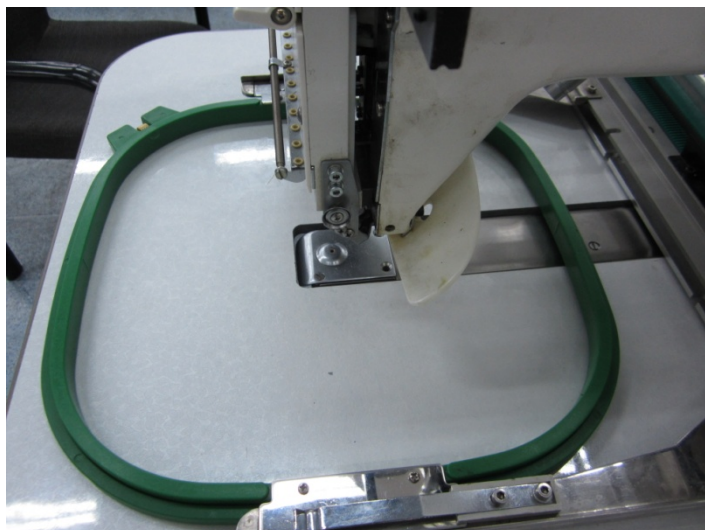
4. Set Frame Center and Size

In the main interface, check the coordinates of XY, which is the position of frame center.

Press " " key, to enter the interface for frame selection and position setting; then press " " key, to enter the interface for setting related parameters, where user can input the coordinates of XY in the main interface.
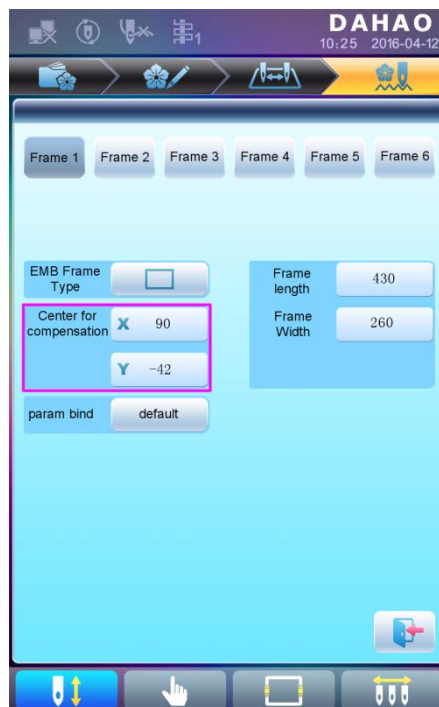
There are four parameters: "X direction center" means the distance at X direction between the frame center and X- direction position limitation optical coupler; "Y direction center" means the distance at Y direction between the frame center and Y+ direction position limitation optical coupler. "X direction frame size" means the embroidery range of the frame at X direction; "Y direction frame size" means the embroidery range of the frame at Y direction.

X Frame Actual Size L

Y Frame Actual Size W
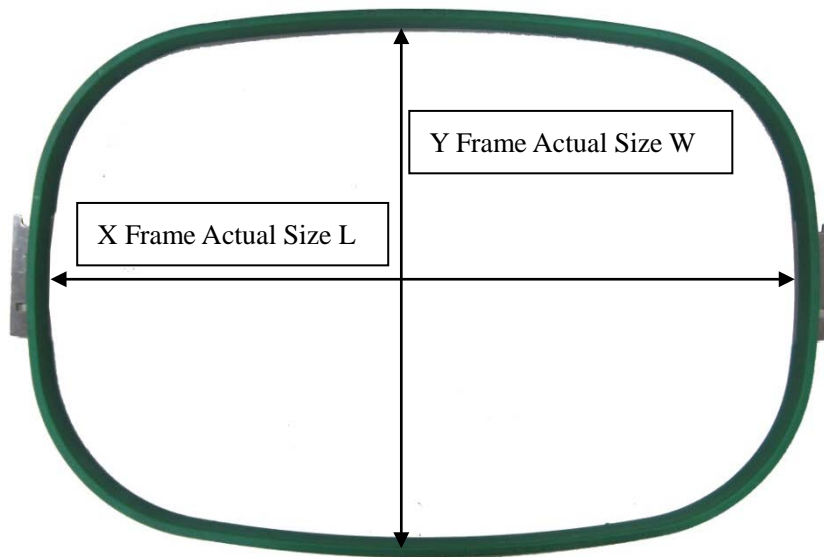
"X direction frame size" and "Y direction frame size" should be set according to the actual size of different frames. Note: this parameter need be set according to the actual embroidery range of the frame, for the apparel frame is usually not square.
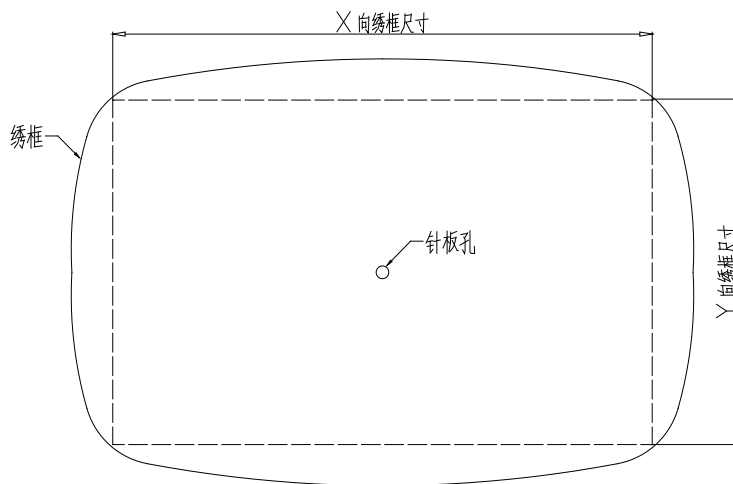
C. Cancel Position Limitation

Set "Frame Selection" as "No Frame", the position limitation function will be canceled and the software protection for the frame of flat embroidery will also become invalid.
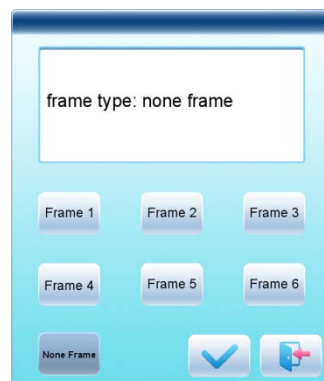
D.   Common Frame Size (Unit: mm)

Frame 1:
Size: 550×375
Embroidery Range: 430×260

Frame 2:
Size: 290×290
Embroidery Range: 230×230

Frame 3:
Size: 200
Embroidery Range: 150

Frame 4:
Size: 150
Embroidery Range: 100

Frame 5:
Size: 120
Embroidery Range: 90

Frame 6:
Size: 90
Embroidery Range: 40

A15 Controller Operation Quick Guide

Part I. Embroidery

Pattern Management " **":** memory pattern preview, letter pattern operation, delete pattern, pattern input/output, pattern function setting, etc.

A. Input Pattern

 →Use page keys to select patterns → →

B. Select Pattern for Embroidery
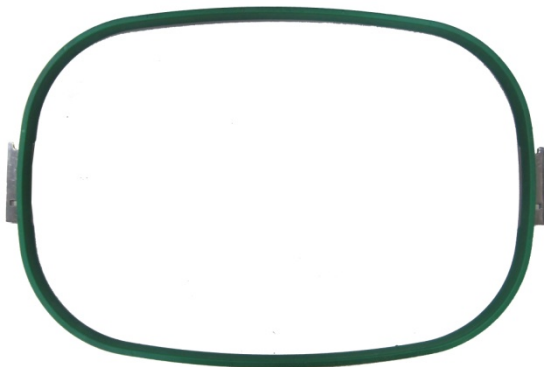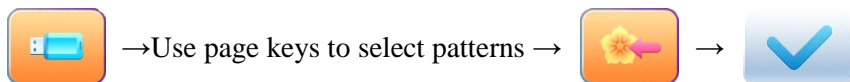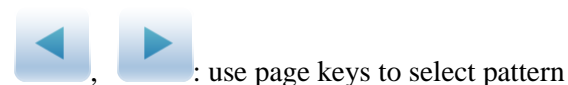
 , : use page keys to select pattern

Common Parameter Setting " **":** direction, angle, X/Y scaling, priority setting, etc.

Color-changing Sequence Setting " **":** repeat, appliqué, needle bar color setting, etc.

C. Modify Embroidery Parameters: A01-A08: click to set.

D. Under this Interface: set color-changing sequence.

Main Interface " **":** thread trimming, main shaft jog, frame setting, color-changing and start mode setting, manual frame-moving, speed adjustment, empty feed, etc.

E. Frame Selection and Position

① Frame Selection: → 绣框类型选择 →

② Frame Position: → Use direction keys ⬅, ➡, ⬆, ⬇ to adjust frame position →
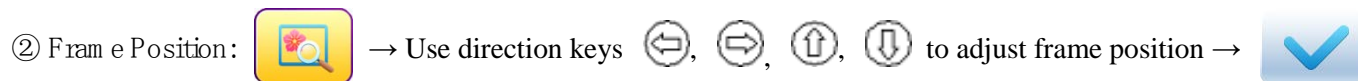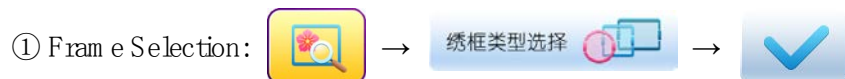
F. Embroidery Confirmation

 $\xrightarrow{\text{Confirm}}$

G. Start Embroidery

 → Start

H. Release Embroidery Confirmation

 $\xrightarrow{\text{Release Confirmation}}$

If user, after releasing embroidery confirmation, wants to embroidery the pattern again, user need operate from step B "Select Pattern for Embroidery" again.

A15 Controller Operation Quick Guide
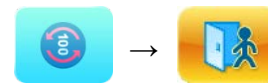
Part II. Manual Operation

A. Manual Trimming

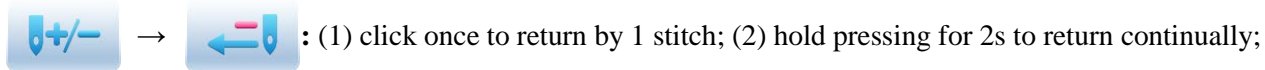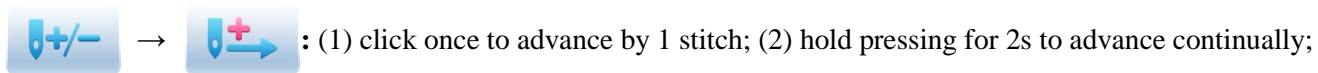**B. Manual Color-changing**

C. Main Shaft Jog

D. Manual Frame-moving

Direction Keys: , , , ;
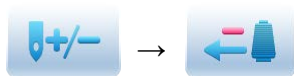
Speed Shift Key:

E. Empty Feed

1. Empty Feed and Return at Low Speed

 → **:** (1) click once to return by 1 stitch; (2) hold pressing for 2s to return continually;

2. Empty Feed and Advance at low Speed

 → **:** (1) click once to advance by 1 stitch; (2) hold pressing for 2s to advance continually;

3. Locate the Last Color-changing Code

 →

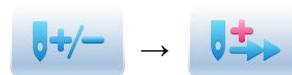**5. Empty Feed and Return at High Speed**

 →
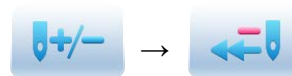
7. Return to Embroidery Start Point

 →

4. Locate the Next Color-changing Code

 →

6. Empty Feed and Advance at High Speed

 →

8. Return to Embroidery Stop Point

 →