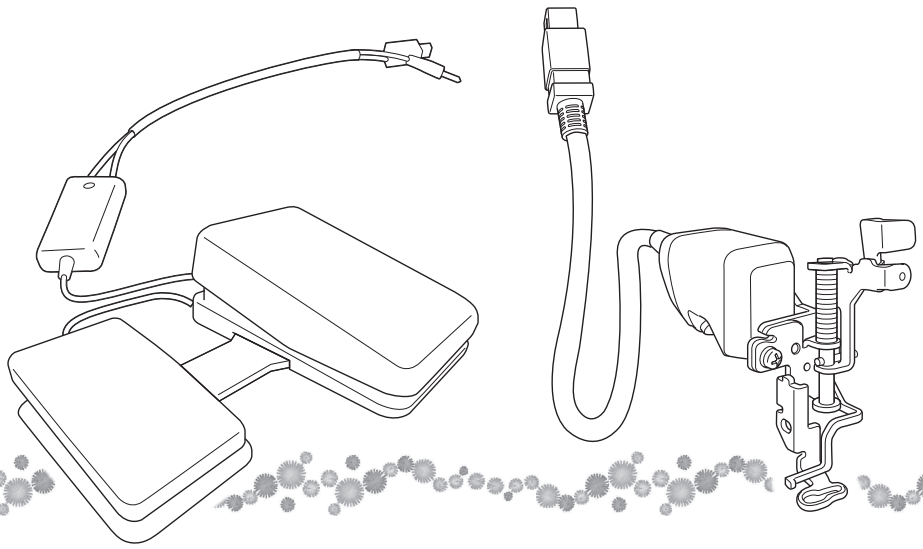
Upgrade KIT IV Operation Manual



Be sure to read this document before using the machine.
We recommend that you keep this document nearby for future reference.

Before you start

It is important to perform the upgrade according to the procedure outlined in the Installation Guide. The machine can then be used as outlined in this upgrade Operation Manual.
The screen illustrations in this manual may differ from actual ones shown on the machine.

New Features

- **LED Pointer Shows You the Needle Drop Position**
  Included Embroidery foot with LED pointer indicates the needle position with a red LED point.
  The LED pointer shows you the location of the needle penetration so that it is easier to adjust the embroidery position.
  See “Using the Embroidery Foot “W2” with LED Pointer” on page 2.

- **Customize your Foot Controller Function**
  With the multi-function foot controller, various sewing machine operations in addition to starting/stopping sewing, such as thread cutting and reverse stitching, can be specified to be performed. In addition, the small pedal can be installed on either the left or right side of the large pedal to suit your preference.
  See “Using the Multi-Function Foot Controller” on page 6.

- **New 4 categories of embroidery pattern are available**
  From 2 large size fonts, buttonholes and decorative buttonhole frames, you will find the embroidery design that you wanted.
  To view a list of the patterns, refer to page 8.

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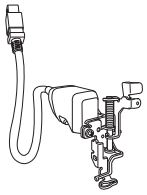
Using the Embroidery Foot “W2” with LED Pointer

Included Embroidery foot with LED pointer indicates the needle position with a red LED point.
The LED pointer shows you the location of the needle penetration so that it is easier to adjust the embroidery position.

Included Item



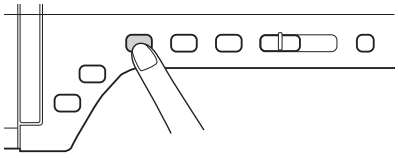
Part name	Part code
Embroidery foot “W2” with LED pointer	XF6319-001

Attaching Embroidery Foot “W2”

⚠ CAUTION

- **When attaching a presser foot, always press on the screen. You may accidentally press the “Start/Stop” button and possibly cause injury.**
- **Be sure to use the embroidery foot “W2” or “W” (included with your machine) when doing embroidery. Using another presser foot may cause the needle to strike the presser foot, causing the needle to bend or break and possibly cause injury.**

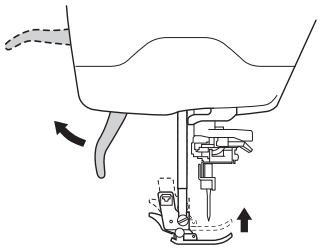
1. **Press the “Needle Position” button to raise the needle.**



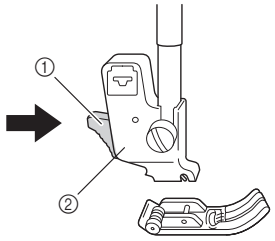
2. **Press to lock all keys and buttons.**

→ The entire screen becomes white, and all keys and operation buttons are locked.

3. **Raise the presser foot lever.**

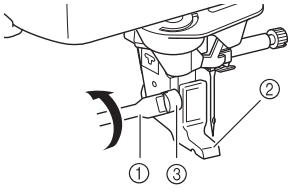


4. **Push the black button on the presser foot holder and remove the presser foot.**



① Black button
② Presser foot holder
→ Remove the presser foot from the presser foot holder.

5. **Use the screwdriver included with your machine to remove the screw of the presser foot holder, then remove the presser foot holder.**

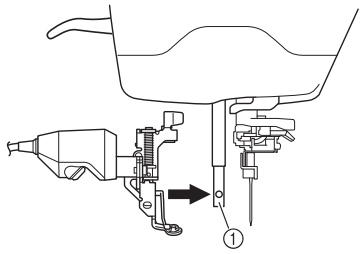


① Screwdriver
② Presser foot holder
③ Presser foot holder screw
→ Remove the screw and presser foot holder.

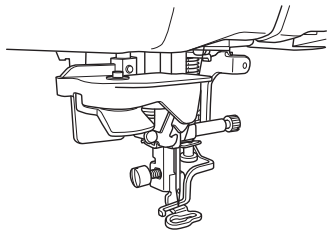
Note

- Instead of simply loosening the screw, it must be temporarily removed, while the embroidery foot “W” included with your machine can be installed simply by loosening the screw.

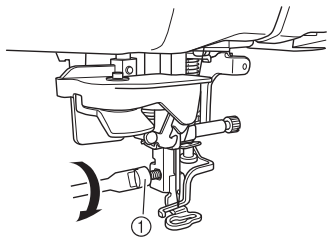
6 **Position the embroidery foot "W2" on the presser foot bar from behind.**



① Presser foot bar



7 **Hold the embroidery foot in place with your right hand, and then use the screwdriver to securely tighten the presser foot holder screw.**

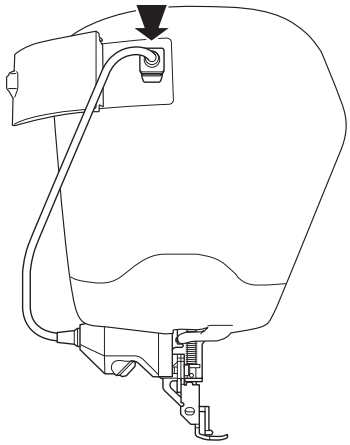


① Presser foot holder screw

⚠ CAUTION

- **Use the screwdriver included with your machine to firmly tighten the screw of the presser foot holder. If the screw is loose, the needle may strike the presser foot and possibly cause injury.**

8 **Plug the connector of the embroidery foot "W2" with LED pointer into the jack on the left of your machine.**



9 **Press** **to unlock all keys and buttons.**

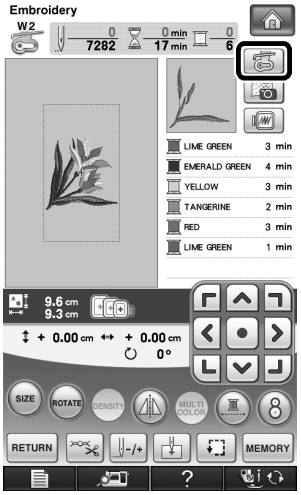
→ All keys and operation buttons are unlocked, and the previous screen is displayed.

Checking the Needle Drop Point With the Embroidery Foot "W2" with LED Pointer

The presser foot code "W2" appears on the upper left side of the screen while the embroidery foot "W2" with LED pointer is attached to your machine.

1 **After the embroidery frame is attached, press** **in the embroidery screen.**

→ The LED pointer indicates the needle drop point.



Memo

- When the LED pointer is turned on, the presser foot height is automatically adjusted according to the fabric thickness.
- If is pressed again, the fabric thickness is remeasured and the presser foot is set to the optimum height.
- If the embroidery foot “W2” is not attached, appears in gray.

* The LED pointer turns off automatically by lowering the presser foot or returning to the previous page.

Note

- With thick elastic fabric, the position will be misaligned only at raised parts in the fabric. In this case, manually adjust the position according to the thickness of the fabric.
- With fabric that has a very uneven surface such as quilting, the position is not correctly aligned. In this case, the pointer indication should be used only as a reference.

Adjusting the LED Pointer

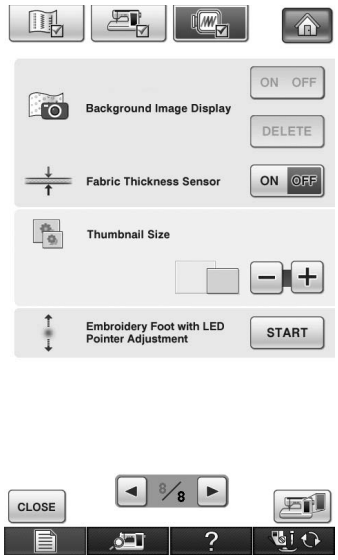
Adjust the LED pointer if it indicates a point different than the actual needle drop point.
Before adjusting the LED pointer, mark the actual needle drop point on the fabric to be embroidered, and then hoop the fabric and attach the embroidery frame.

1. **Press .**
   → The settings screen appears.
2. **Press .**
   → The Embroidery settings screen appears.

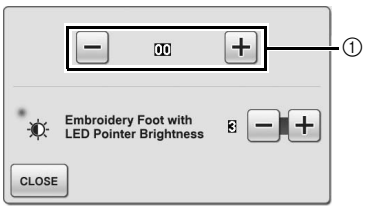
Memo

- When using the “Embroidery” or “Embroidery Edit”, touch to directly access the Embroidery settings screen.

3. **Display page 8 of the Embroidery settings screen.**



4. **Press START.**
   → The Embroidery Foot “W2” with LED Pointer Adjustment screen appears.



① LED pointer adjustment

Note

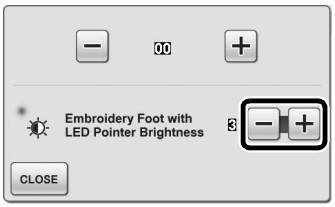
- The specified setting is saved in the machine’s memory. This is useful for positioning during continuous embroidering.
- For normal use, return the setting to “00”.

5. **Use − or + to adjust the LED pointer so that it indicates the actual needle drop point.**
6. **Press CLOSE twice to return to the original screen.**

Adjusting the Brightness of the LED Pointer

1. **Follow the steps from 1 to 4 to display the embroidery foot with LED pointer adjust screen.**

2. **Use − or + to adjust the brightness of the LED pointer.**

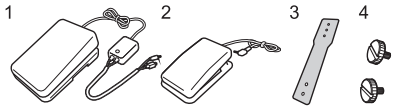


3. **Press CLOSE twice to return to the original screen.**

Using the Multi-Function Foot Controller

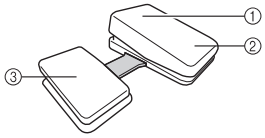
With the multi-function foot controller, various sewing machine operations in addition to starting/stopping sewing, such as thread cutting and reverse stitching, can be specified to be performed. In addition, the small pedal can be installed on either the left or right side of the large pedal to suit your preference.

Included Items



No.	Part name	Part code
1	Main foot controller	XF6470-001
2	Side pedal	XF3217-001
3	Mounting plate	XF3222-001
4	Mounting screw × 2	XF3223-001

Functions That Can Be Specified



	Controller	Functions that can be specified
①	Main foot controller	Start/Stop
②	Heel switch	Select any of the following: • Thread Cutting • Needle Position UP/DOWN • Single Stitch • Reverse Stitch* (Reinforcement Stitch)
③	Side pedal	

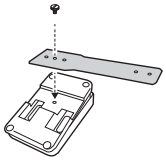
* If you set the "Reverse Stitch" function on the heel switch, machine operates the same as pressing the "Reverse/ Reinforcement Stitch" button on the machine. For the details, please refer to the Operation Manual included with your machine.

Memo

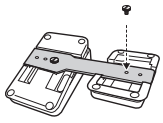
- If you set "Reverse Stitch" on the side pedal, you can easily sew darning, using zigzag stitches. With both feet, keep pressing the main foot controller, and repeat pressing and releasing the side pedal to sew forward and reverse in turn. Machine will reverse at the speed you press the main foot controller.

Assembling the Controller

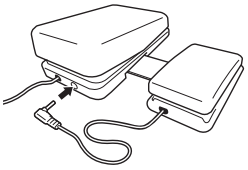
1 **Align the wide side of the mounting plate with the notch in the bottom of the main foot controller, and then secure them together with a screw.**



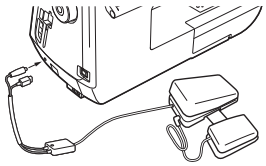
2 **Align the other side of the mounting plate with the notch on the bottom of the side pedal, and then secure them together with a screw.**



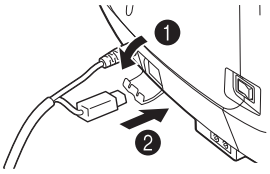
3 **Insert the plug for the side pedal into the jack at the back of the main foot controller.**



4 **Insert the round-shaped plug for the main foot controller into the foot controller jack on the right side of the machine.**



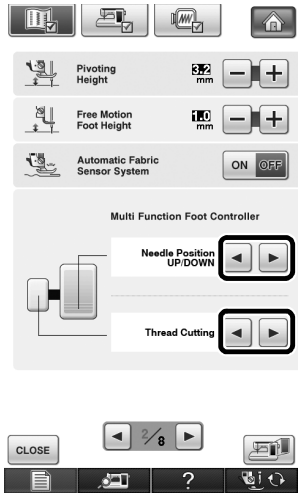
5 **Open the cover of the external port (❶) next to the foot controller jack, and then insert the square-shaped plug for the main foot controller into the external port (❷).**



Specifying the Functions

The functions performed by the multi-function foot controller can be specified in the machine settings screen.

1 **Press [ ], and then press [◄] or [►] to select the functions to be performed by the multi-function foot controller.**

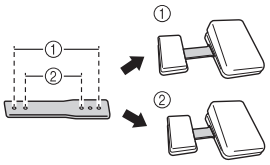


Note

- After the multi-function foot controller is connected to the sewing machine and the functions are specified, the machine's “Start/Stop” button cannot be used. All buttons other than the “Start/Stop” button can continue to be used.

Adjusting the Pedal Positions

The pedal spacing can be adjusted depending on the screw holes used in the mounting plate. The pedal spacing is the widest when the pedals are attached using the outermost screw holes ①; the pedal spacing is the narrowest when they are attached using the innermost screw holes ②.

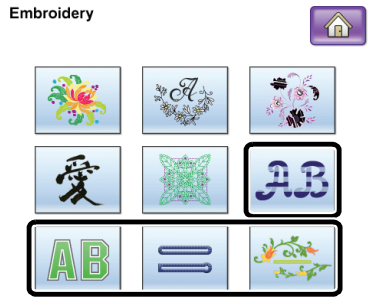


Note

- The side pedal may be attached on the right or left side of the main foot controller.
- For greater distance you always have the option of not connecting the side pedal and main foot controller using the mounting plate, making sure that both pedals are connected using the jack from the side pedal to the main foot controller.

Selecting New Embroidery Patterns

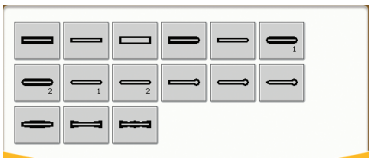
There are 4 new categories of embroidery patterns including, 2 large size fonts, buttonholes and decorative buttonhole frames. The pattern selection screen appears as below.
Refer to the Operation Manual included with your machine how to select or edit the embroidery patterns.



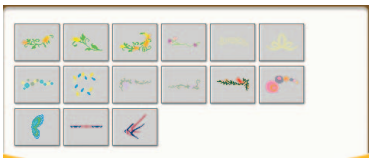
Striped character patterns

Block character patterns

Large buttonhole patterns

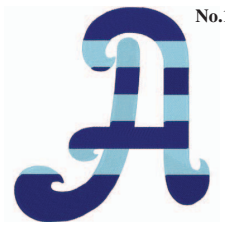


Design patterns (for buttonhole decoration)



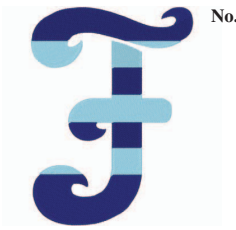
Embroidery Pattern Color Change Table

Striped character patterns



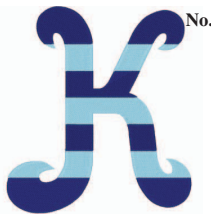
No.1

35 min	
1	(017)
2	(007)
↕ 16.2 cm ↔ 14.8 cm	



No.6

33 min	
1	(017)
2	(007)
↕ 16.5 cm ↔ 12.2 cm	



No.11

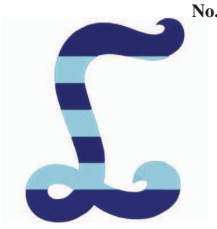
34 min	
1	(017)
2	(007)
↕ 15.6 cm ↔ 13.9 cm	

No.2

38 min	
1	(017)
2	(007)
↕ 15.3 cm ↔ 14.1 cm	

No.7

35 min	
1	(017)
2	(007)
↕ 15.1 cm ↔ 12.1 cm	

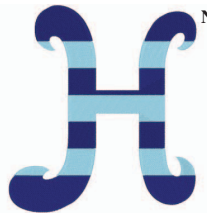


No.12

28 min	
1	(017)
2	(007)
↕ 15.4 cm ↔ 12.0 cm	

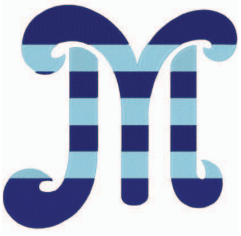
No.3

31 min	
1	(017)
2	(007)
↕ 15.1 cm ↔ 10.0 cm	



No.8

34 min	
1	(017)
2	(007)
↕ 15.6 cm ↔ 14.1 cm	

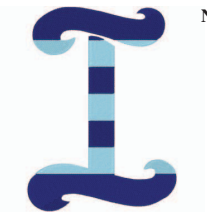


No.13

53 min	
1	(017)
2	(007)
↕ 16.9 cm ↔ 17.6 cm	

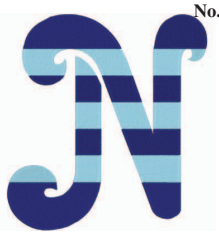
No.4

37 min	
1	(017)
2	(007)
↕ 16.6 cm ↔ 12.8 cm	



No.9

26 min	
1	(017)
2	(007)
↕ 15.4 cm ↔ 11.3 cm	

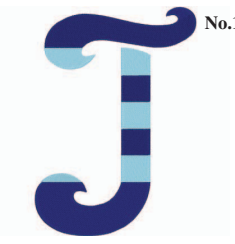


No.14

46 min	
1	(017)
2	(007)
↕ 16.3 cm ↔ 15.1 cm	

No.5

32 min	
1	(017)
2	(007)
↕ 15.1 cm ↔ 11.3 cm	

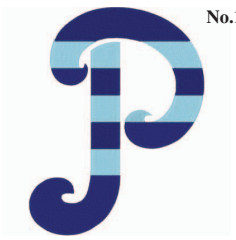


No.10

28 min	
1	(017)
2	(007)
↕ 17.3 cm ↔ 12.1 cm	

No.15

31 min	
1	(017)
2	(007)
↕ 15.1 cm ↔ 10.2 cm	



No.16

36 min	
1	(017)
2	(007)
↕ 17.2 cm ↔ 13.2 cm	

No.22

30 min	
1	(017)
2	(007)
↕ 15.9 cm ↔ 11.5 cm	

No.28

26 min	
1	(017)
2	(007)
↕ 14.7 cm ↔ 10.2 cm	

No.17

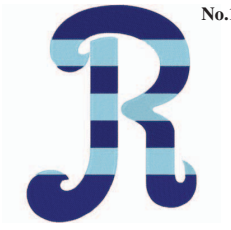
36 min	
1	(017)
2	(007)
↕ 16.6 cm ↔ 11.8 cm	

No.23

46 min	
1	(017)
2	(007)
↕ 15.3 cm ↔ 16.4 cm	

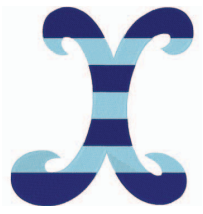
No.29

17 min	
1	(017)
2	(007)
↕ 10.8 cm ↔ 7.4 cm	



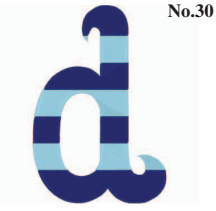
No.18

37 min	
1	(017)
2	(007)
↕ 16.4 cm ↔ 12.8 cm	



No.24

32 min	
1	(017)
2	(007)
↕ 15.0 cm ↔ 13.8 cm	



No.30

27 min	
1	(017)
2	(007)
↕ 14.9 cm ↔ 10.1 cm	

No.19

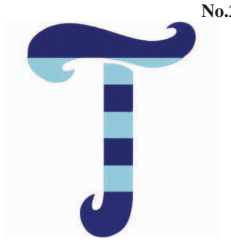
37 min	
1	(017)
2	(007)
↕ 15.7 cm ↔ 11.3 cm	

No.25

33 min	
1	(017)
2	(007)
↕ 16.2 cm ↔ 11.6 cm	

No.31

19 min	
1	(017)
2	(007)
↕ 10.7 cm ↔ 7.4 cm	

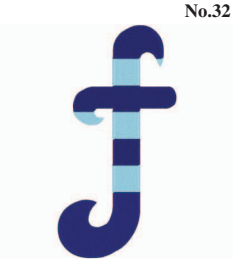


No.20

24 min	
1	(017)
2	(007)
↕ 16.2 cm ↔ 12.7 cm	

No.26

30 min	
1	(017)
2	(007)
↕ 15.3 cm ↔ 12.0 cm	



No.32

23 min	
1	(017)
2	(007)
↕ 17.6 cm ↔ 8.9 cm	

No.21

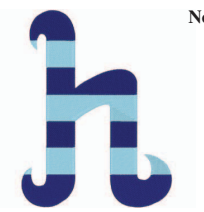
33 min	
1	(017)
2	(007)
↕ 15.1 cm ↔ 12.3 cm	

No.27

19 min	
1	(017)
2	(007)
↕ 10.5 cm ↔ 8.8 cm	

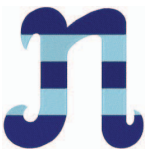
No.33

26 min	
1	(017)
2	(007)
↕ 13.9 cm ↔ 9.4 cm	



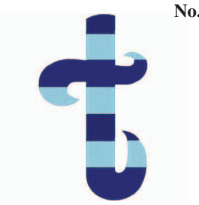
No.34 — 27 min

1	(017)
2	(007)
↕ 14.9 cm ↔ 11.3 cm	



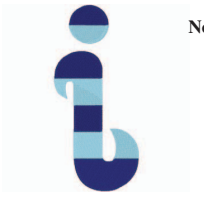
No.40 — 22 min

1	(017)
2	(007)
↕ 10.6 cm ↔ 10.5 cm	



No.46 — 19 min

1	(017)
2	(007)
↕ 14.1 cm ↔ 8.4 cm	



No.35 — 16 min

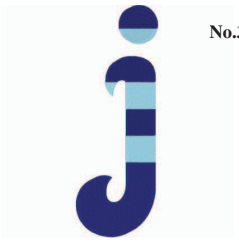
1	(017)
2	(007)
↕ 14.1 cm ↔ 6.4 cm	

No.41 — 19 min

1	(017)
2	(007)
↕ 10.8 cm ↔ 7.1 cm	

No.47 — 22 min

1	(017)
2	(007)
↕ 10.8 cm ↔ 10.6 cm	



No.36 — 19 min

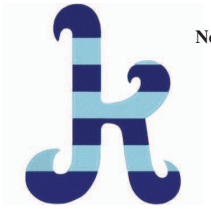
1	(017)
2	(007)
↕ 17.5 cm ↔ 6.2 cm	

No.42 — 25 min

1	(017)
2	(007)
↕ 14.0 cm ↔ 10.4 cm	

No.48 — 19 min

1	(017)
2	(007)
↕ 10.7 cm ↔ 9.8 cm	



No.37 — 28 min

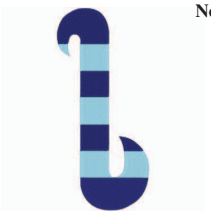
1	(017)
2	(007)
↕ 15.1 cm ↔ 11.7 cm	

No.43 — 24 min

1	(017)
2	(007)
↕ 13.8 cm ↔ 9.5 cm	

No.49 — 28 min

1	(017)
2	(007)
↕ 10.5 cm ↔ 13.2 cm	



No.38 — 18 min

1	(017)
2	(007)
↕ 15.3 cm ↔ 6.9 cm	

No.44 — 15 min

1	(017)
2	(007)
↕ 10.6 cm ↔ 7.8 cm	

No.50 — 20 min

1	(017)
2	(007)
↕ 10.3 cm ↔ 10.3 cm	

No.39 — 32 min

1	(017)
2	(007)
↕ 10.9 cm ↔ 15.0 cm	

No.45 — 20 min

1	(017)
2	(007)
↕ 10.7 cm ↔ 8.8 cm	

No.51 — 26 min

1	(017)
2	(007)
↕ 13.6 cm ↔ 8.6 cm	

No.52 — 17 min

1	(017)
2	(007)

↕ 10.5 cm ↔ 9.0 cm

No.58 — 36 min

1	(017)
2	(007)

↕ 15.8 cm ↔ 10.1 cm

No.64 — 45 min

1	(017)
2	(007)

↕ 15.4 cm ↔ 13.7 cm

No.53 — 28 min

1	(017)
2	(007)

↕ 15.1 cm ↔ 9.7 cm

No.59 — 34 min

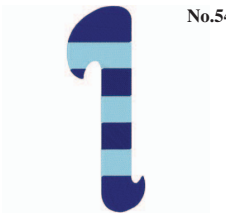
1	(017)
2	(007)

↕ 15.1 cm ↔ 9.4 cm

No.65 — 37 min

1	(017)
2	(007)

↕ 16.4 cm ↔ 10.0 cm



No.54 — 18 min

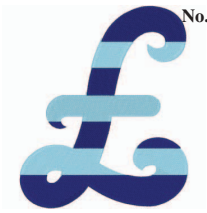
1	(017)
2	(007)

↕ 15.6 cm ↔ 5.9 cm

No.60 — 24 min

1	(017)
2	(007)

↕ 15.1 cm ↔ 10.3 cm



No.66 — 33 min

1	(017)
2	(007)

↕ 15.3 cm ↔ 12.6 cm

No.55 — 28 min

1	(017)
2	(007)

↕ 14.9 cm ↔ 10.3 cm

No.61 — 31 min

1	(017)
2	(007)

↕ 15.3 cm ↔ 9.7 cm

No.67 — 39 min

1	(017)
2	(007)

↕ 15.1 cm ↔ 12.9 cm

No.56 — 31 min

1	(017)
2	(007)

↕ 15.2 cm ↔ 10.3 cm

No.62 — 30 min

1	(017)
2	(007)

↕ 15.2 cm ↔ 9.3 cm

No.68 — 30 min

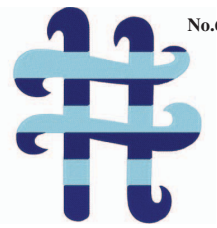
1	(017)
2	(007)

↕ 15.8 cm ↔ 10.1 cm

No.57 — 30 min

1	(017)
2	(007)

↕ 15.3 cm ↔ 11.2 cm



No.63 — 42 min

1	(017)
2	(007)

↕ 16.3 cm ↔ 14.2 cm

No.69 — 5 min

1	(017)
2	(007)

↕ 2.5 cm ↔ 5.2 cm

No.70 20 min
1 (017)
2 (007)
↕ 12.2 cm ↔ 11.4 cm

No.71 21 min
1 (017)
2 (007)
↕ 10.3 cm ↔ 9.9 cm

No.72 14 min
1 (017)
2 (007)
↕ 10.4 cm ↔ 10.7 cm

No.73 17 min
1 (017)
2 (007)
↕ 8.5 cm ↔ 10.2 cm

No.74 16 min
1 (017)
2 (007)
↕ 8.6 cm ↔ 8.4 cm

No.75 4 min
1 (017)
2 (007)
↕ 3.4 cm ↔ 3.4 cm

No.76 5 min
1 (017)
2 (007)
↕ 5.2 cm ↔ 3.5 cm

No.77 37 min
1 (017)
2 (007)
↕ 14.9 cm ↔ 13.5 cm

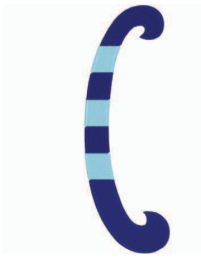
No.78 23 min
1 (017)
2 (007)
↕ 15.6 cm ↔ 9.0 cm

No.79 17 min
1 (017)
2 (007)
↕ 16.3 cm ↔ 4.9 cm

No.80 49 min
1 (017)
2 (007)
↕ 15.5 cm ↔ 14.0 cm

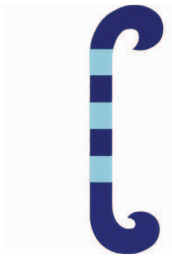
No.81 19 min
1 (017)
2 (007)
↕ 10.8 cm ↔ 10.7 cm

No.82 19 min
1 (017)
2 (007)
↕ 11.2 cm ↔ 10.3 cm

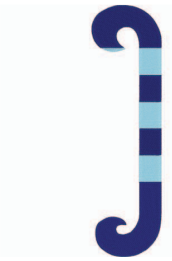


No.83 17 min
1 (017)
2 (007)
↕ 18.7 cm ↔ 6.4 cm

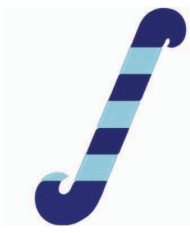
No.84 16 min
1 (017)
2 (007)
↕ 18.6 cm ↔ 6.1 cm



No.85 17 min
1 (017)
2 (007)
↕ 18.8 cm ↔ 5.5 cm



No.86 17 min
1 (017)
2 (007)
↕ 19.0 cm ↔ 5.3 cm



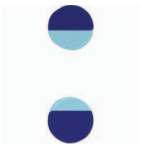
No.87 19 min
1 (017)
2 (007)
↕ 16.4 cm ↔ 11.4 cm

No.88 20 min
1 (017)
2 (007)
↕ 16.8 cm ↔ 11.9 cm

No.89 | 12 min
1 (017)
2 (007)
↕ 4.8 cm ↔ 13.0 cm

No.93 | 34 min
1 (017)
2 (007)
↕ 15.1 cm ↔ 15.0 cm

No.97 | 9 min
1 (017)
2 (007)
↕ 5.2 cm ↔ 6.1 cm



No.90 | 7 min
1 (017)
2 (007)
↕ 10.4 cm ↔ 3.4 cm

No.94 | 34 min
1 (017)
2 (007)
↕ 10.2 cm ↔ 17.8 cm

No.98 | 4 min
1 (017)
2 (007)
↕ 5.2 cm ↔ 2.8 cm

No.91 | 9 min
1 (017)
2 (007)
↕ 12.1 cm ↔ 3.5 cm

No.95 | 11 min
1 (017)
2 (007)
↕ 5.2 cm ↔ 7.8 cm

No.99 | 5 min
1 (017)
2 (007)
↕ 5.2 cm ↔ 3.5 cm

No.92 | 32 min
1 (017)
2 (007)
↕ 15.1 cm ↔ 15.0 cm

No.96 | 11 min
1 (017)
2 (007)
↕ 5.2 cm ↔ 7.8 cm

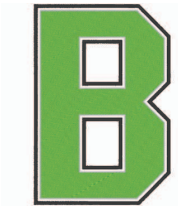
No.100 | 5 min
1 (017)
2 (007)
↕ 5.2 cm ↔ 3.5 cm

Block character patterns

No.1 | 44 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 11.2 cm

No.3 | 42 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 10.3 cm

No.5 | 40 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 9.1 cm



No.2 | 51 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 10.3 cm

No.4 | 48 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 10.3 cm

No.6 | 34 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 9.1 cm

No.7

49 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.3 cm	

No.13

64 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 12.5 cm	

No.19

46 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.4 cm	

No.8

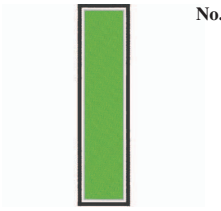
47 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.3 cm	

No.14

53 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.3 cm	

No.20

29 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.4 cm	



No.9

23 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 3.9 cm	

No.15

47 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.3 cm	

No.21

45 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.3 cm	

No.10

33 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.4 cm	

No.16

41 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.3 cm	

No.22

42 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 11.2 cm	

No.11

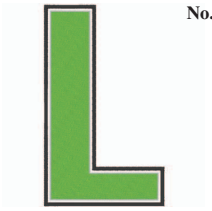
47 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.7 cm	

No.17

49 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.9 cm	

No.23

66 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 14.1 cm	



No.12

28 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 9.1 cm	

No.18

50 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.3 cm	

No.24

40 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 10.4 cm	

No.25 — 34 min

1	(509)
2	(001)
3	(900)

↕ 15.2 cm ↔ 11.3 cm

No.31 — 32 min

1	(509)
2	(001)
3	(900)

↕ 10.7 cm ↔ 8.6 cm

No.37 — 36 min

1	(509)
2	(001)
3	(900)

↕ 15.2 cm ↔ 8.9 cm

No.26 — 38 min

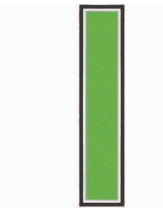
1	(509)
2	(001)
3	(900)

↕ 15.2 cm ↔ 9.7 cm

No.32 — 24 min

1	(509)
2	(001)
3	(900)

↕ 15.2 cm ↔ 6.3 cm



No.38 — 21 min

1	(509)
2	(001)
3	(900)

↕ 15.2 cm ↔ 3.4 cm

No.27 — 32 min

1	(509)
2	(001)
3	(900)

↕ 10.7 cm ↔ 8.6 cm

No.33 — 42 min

1	(509)
2	(001)
3	(900)

↕ 14.9 cm ↔ 8.6 cm

No.39 — 44 min

1	(509)
2	(001)
3	(900)

↕ 10.7 cm ↔ 12.5 cm

No.28 — 37 min

1	(509)
2	(001)
3	(900)

↕ 15.2 cm ↔ 8.6 cm

No.34 — 35 min

1	(509)
2	(001)
3	(900)

↕ 15.2 cm ↔ 8.6 cm

No.40 — 30 min

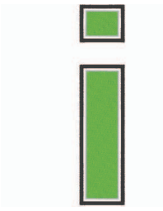
1	(509)
2	(001)
3	(900)

↕ 10.7 cm ↔ 8.6 cm

No.29 — 28 min

1	(509)
2	(001)
3	(900)

↕ 10.7 cm ↔ 8.6 cm



No.35 — 20 min

1	(509)
2	(001)
3	(900)

↕ 15.2 cm ↔ 3.4 cm

No.41 — 30 min

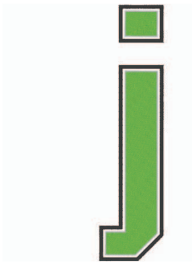
1	(509)
2	(001)
3	(900)

↕ 10.7 cm ↔ 8.6 cm

No.30 — 37 min

1	(509)
2	(001)
3	(900)

↕ 15.2 cm ↔ 8.6 cm



No.36 — 26 min

1	(509)
2	(001)
3	(900)

↕ 19.4 cm ↔ 4.9 cm

No.42 — 37 min

1	(509)
2	(001)
3	(900)

↕ 14.9 cm ↔ 8.6 cm

No.43 — 36 min

1	(509)	
2	(001)	
3	(900)	

↕ 14.9 cm ↔ 8.6 cm

No.49 — 46 min

1	(509)	
2	(001)	
3	(900)	

↕ 10.7 cm ↔ 14.3 cm

No.55 — 42 min

1	(509)	
2	(001)	
3	(900)	

↕ 15.2 cm ↔ 9.9 cm

No.44 — 17 min

1	(509)	
2	(001)	
3	(900)	

↕ 10.7 cm ↔ 5.9 cm

No.50 — 27 min

1	(509)	
2	(001)	
3	(900)	

↕ 10.7 cm ↔ 8.9 cm

No.56 — 43 min

1	(509)	
2	(001)	
3	(900)	

↕ 15.2 cm ↔ 9.9 cm

No.45 — 31 min

1	(509)	
2	(001)	
3	(900)	

↕ 10.7 cm ↔ 8.4 cm

No.51 — 31 min

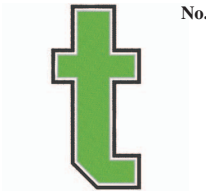
1	(509)	
2	(001)	
3	(900)	

↕ 14.9 cm ↔ 9.4 cm

No.57 — 40 min

1	(509)	
2	(001)	
3	(900)	

↕ 15.2 cm ↔ 10.6 cm



No.46 — 24 min

1	(509)	
2	(001)	
3	(900)	

↕ 14.0 cm ↔ 6.8 cm

No.52 — 25 min

1	(509)	
2	(001)	
3	(900)	

↕ 10.7 cm ↔ 7.5 cm

No.58 — 42 min

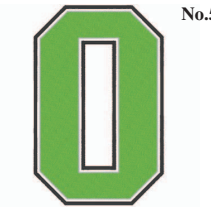
1	(509)	
2	(001)	
3	(900)	

↕ 15.2 cm ↔ 9.9 cm

No.47 — 30 min

1	(509)	
2	(001)	
3	(900)	

↕ 10.7 cm ↔ 8.6 cm



No.53 — 46 min

1	(509)	
2	(001)	
3	(900)	

↕ 15.2 cm ↔ 9.9 cm

No.59 — 47 min

1	(509)	
2	(001)	
3	(900)	

↕ 15.2 cm ↔ 9.9 cm

No.48 — 27 min

1	(509)	
2	(001)	
3	(900)	

↕ 10.7 cm ↔ 9.4 cm

No.54 — 24 min

1	(509)	
2	(001)	
3	(900)	

↕ 15.2 cm ↔ 5.7 cm

No.60 — 30 min

1	(509)	
2	(001)	
3	(900)	

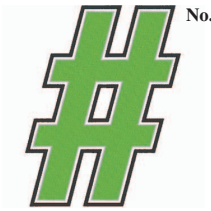
↕ 15.2 cm ↔ 9.9 cm

No.61

48 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 9.9 cm

No.62

47 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 9.9 cm



No.63

46 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 11.8 cm

No.64

57 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 14.5 cm

No.65

48 min
1 (509)
2 (001)
3 (900)
↕ 18.3 cm ↔ 9.9 cm

No.66

41 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 10.1 cm

No.67

45 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 10.6 cm

No.68

41 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 10.6 cm

No.69

7 min
1 (509)
2 (001)
3 (900)
↕ 2.6 cm ↔ 5.5 cm

No.70

17 min
1 (509)
2 (001)
3 (900)
↕ 9.3 cm ↔ 9.3 cm

No.71

20 min
1 (509)
2 (001)
3 (900)
↕ 8.8 cm ↔ 8.8 cm

No.72

18 min
1 (509)
2 (001)
3 (900)
↕ 9.3 cm ↔ 9.3 cm

No.73

21 min
1 (509)
2 (001)
3 (900)
↕ 6.1 cm ↔ 9.3 cm

No.74

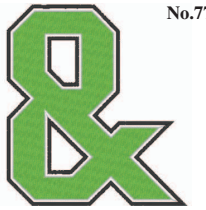
22 min
1 (509)
2 (001)
3 (900)
↕ 8.2 cm ↔ 8.3 cm

No.75

6 min
1 (509)
2 (001)
3 (900)
↕ 3.4 cm ↔ 3.9 cm

No.76

8 min
1 (509)
2 (001)
3 (900)
↕ 5.4 cm ↔ 4.7 cm

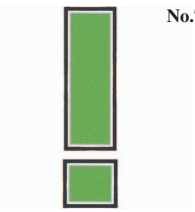


No.77

53 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 13.7 cm

No.78

35 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 10.3 cm



No.79

24 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 4.1 cm

No.80

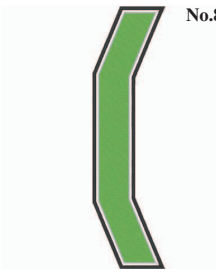
67 min
1 (509)
2 (001)
3 (900)
↕ 15.2 cm ↔ 13.8 cm

No.81

17 min	
1	(509)
2	(001)
3	(900)
↕ 10.8 cm ↔ 7.1 cm	

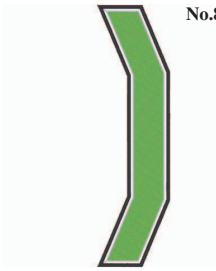
No.82

17 min	
1	(509)
2	(001)
3	(900)
↕ 10.8 cm ↔ 7.1 cm	



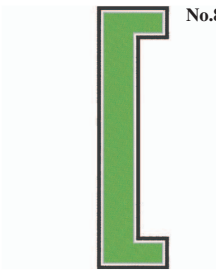
No.83

27 min	
1	(509)
2	(001)
3	(900)
↕ 19.9 cm ↔ 5.5 cm	



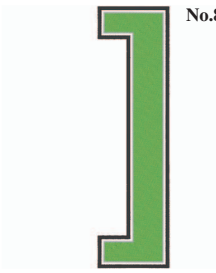
No.84

27 min	
1	(509)
2	(001)
3	(900)
↕ 19.9 cm ↔ 5.5 cm	



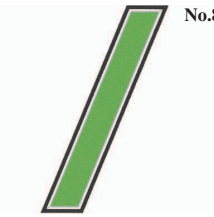
No.85

30 min	
1	(509)
2	(001)
3	(900)
↕ 19.9 cm ↔ 5.4 cm	



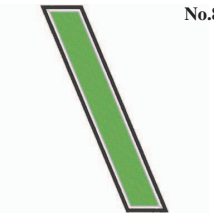
No.86

30 min	
1	(509)
2	(001)
3	(900)
↕ 19.9 cm ↔ 5.4 cm	



No.87

21 min	
1	(509)
2	(001)
3	(900)
↕ 15.7 cm ↔ 9.7 cm	

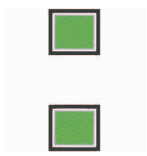


No.88

21 min	
1	(509)
2	(001)
3	(900)
↕ 15.7 cm ↔ 9.7 cm	

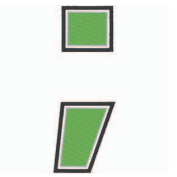
No.89

14 min	
1	(509)
2	(001)
3	(900)
↕ 5.2 cm ↔ 10.7 cm	



No.90

13 min	
1	(509)
2	(001)
3	(900)
↕ 10.7 cm ↔ 3.9 cm	



No.91

15 min	
1	(509)
2	(001)
3	(900)
↕ 12.6 cm ↔ 4.7 cm	

No.92

67 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 15.2 cm	

No.93

69 min	
1	(509)
2	(001)
3	(900)
↕ 15.2 cm ↔ 15.2 cm	

No.94

46 min	
1	(509)
2	(001)
3	(900)
↕ 9.3 cm ↔ 14.7 cm	

No.95

17 min	
1	(509)
2	(001)
3	(900)
↕ 5.4 cm ↔ 9.0 cm	

No.96

16 min	
1	(509)
2	(001)
3	(900)
↕ 5.4 cm ↔ 9.0 cm	

No.97

14 min	
1	(509)
2	(001)
3	(900)
↕ 5.0 cm ↔ 8.0 cm	

No.98

7 min	
1	(509)
2	(001)
3	(900)
↕ 5.0 cm ↔ 3.5 cm	

No.99

8 min	
1	(509)
2	(001)
3	(900)
↕ 5.4 cm ↔ 4.7 cm	

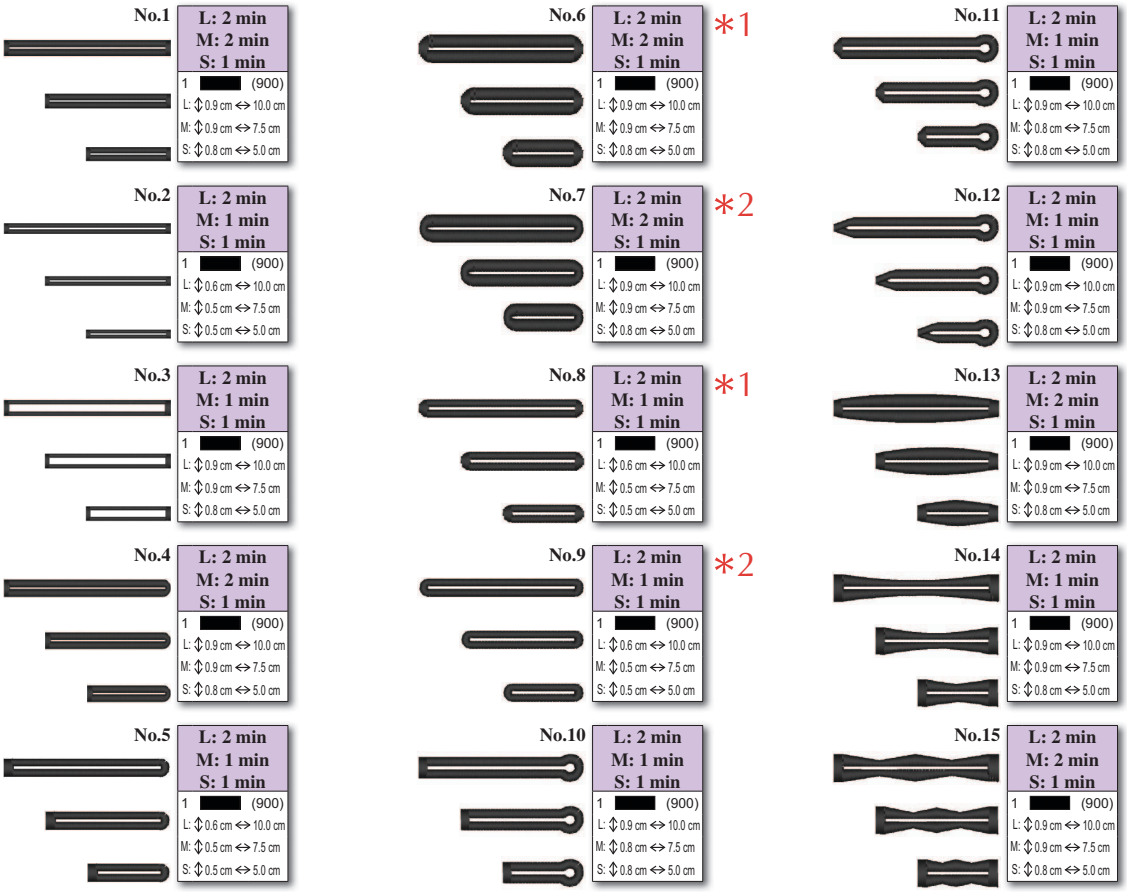
No.100

7 min	
1	(509)
2	(001)
3	(900)
↕ 5.0 cm ↔ 3.5 cm	

Large buttonhole pattern

Memo

- It is recommended to combine these buttonholes with the “Design patterns (for buttonhole decoration)” shown on the next page. Refer to page 22 for examples of combinations.



Memo

- It is recommended to use these designs to decorate the “Large buttonhole patterns” shown on the previous page. Refer to page 22 for examples of combinations.

No.1 — 3 min

1	(513)
2	(206)
3	(010)
4	(209)

3.0 cm ↔ 6.4 cm

No.2 — 1 min

1	(513)
2	(010)
3	(206)

1.8 cm ↔ 3.3 cm

No.3 — 4 min

1	(513)
2	(209)
3	(010)
4	(206)
5	(209)

4.7 cm ↔ 7.2 cm

No.4 — 2 min

1	(502)
2	(810)
3	(612)

3.6 cm ↔ 10.9 cm

No.5 — 1 min

1	(399)

1.4 cm ↔ 4.4 cm

No.6 — 1 min

1	(399)

1.6 cm ↔ 2.6 cm

No.7 — 1 min

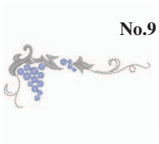
1	(017)
2	(005)
3	(812)

1.6 cm ↔ 4.3 cm

No.8 — 1 min

1	(399)
2	(019)
3	(206)

3.5 cm ↔ 4.1 cm



No.9 — 2 min

1	(804)
2	(005)

3.0 cm ↔ 7.0 cm

No.10 — 1 min

1	(804)
2	(005)

1.8 cm ↔ 5.6 cm

No.11 — 3 min

1	(808)
2	(800)
3	(208)
4	(001)

3.5 cm ↔ 8.4 cm

No.12 — 4 min

1	(085)
2	(070)
3	(209)

3.3 cm ↔ 5.8 cm

No.13 — 10 min

1	(019)
2	(017)
3	(513)
4	(019)

12.6 cm ↔ 6.2 cm

No.14 — 1 min

1	(107)
2	(007)

0.4 cm ↔ 5.3 cm

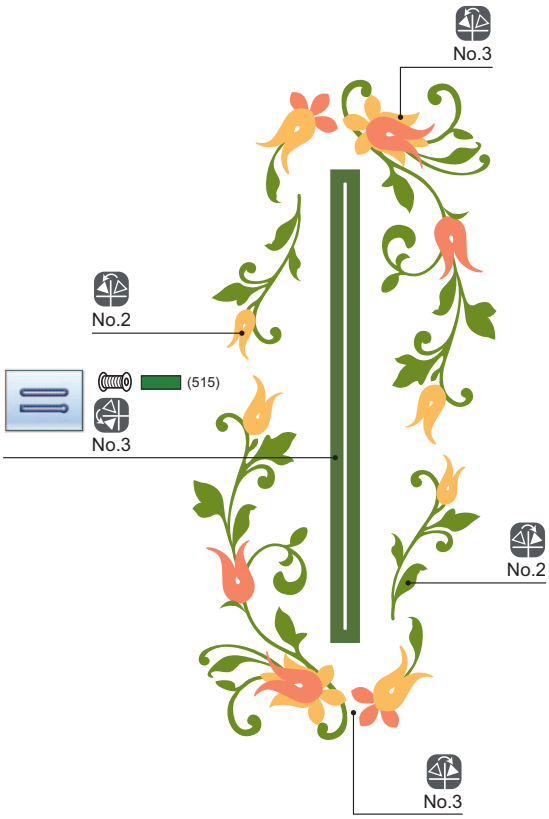
No.15 — 1 min

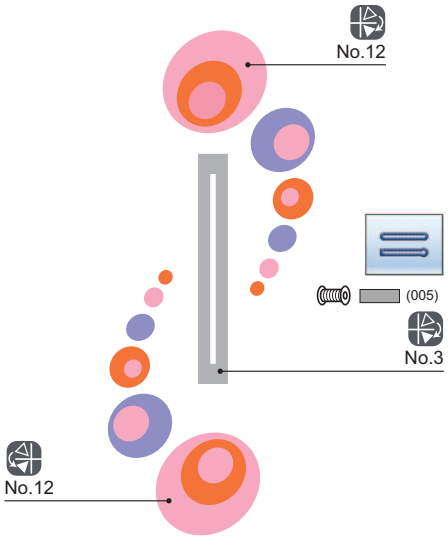
1	(007)
2	(107)
3	(007)

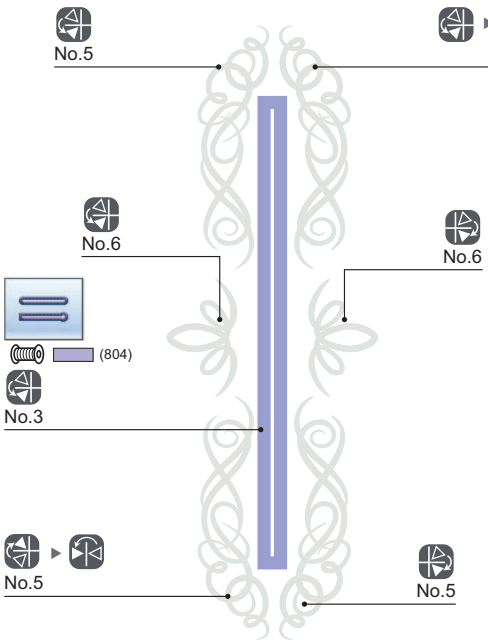
4.7 cm ↔ 4.3 cm

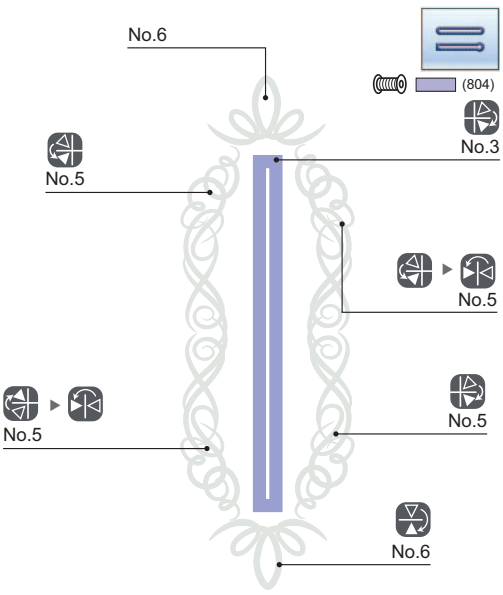
Examples of Combinations

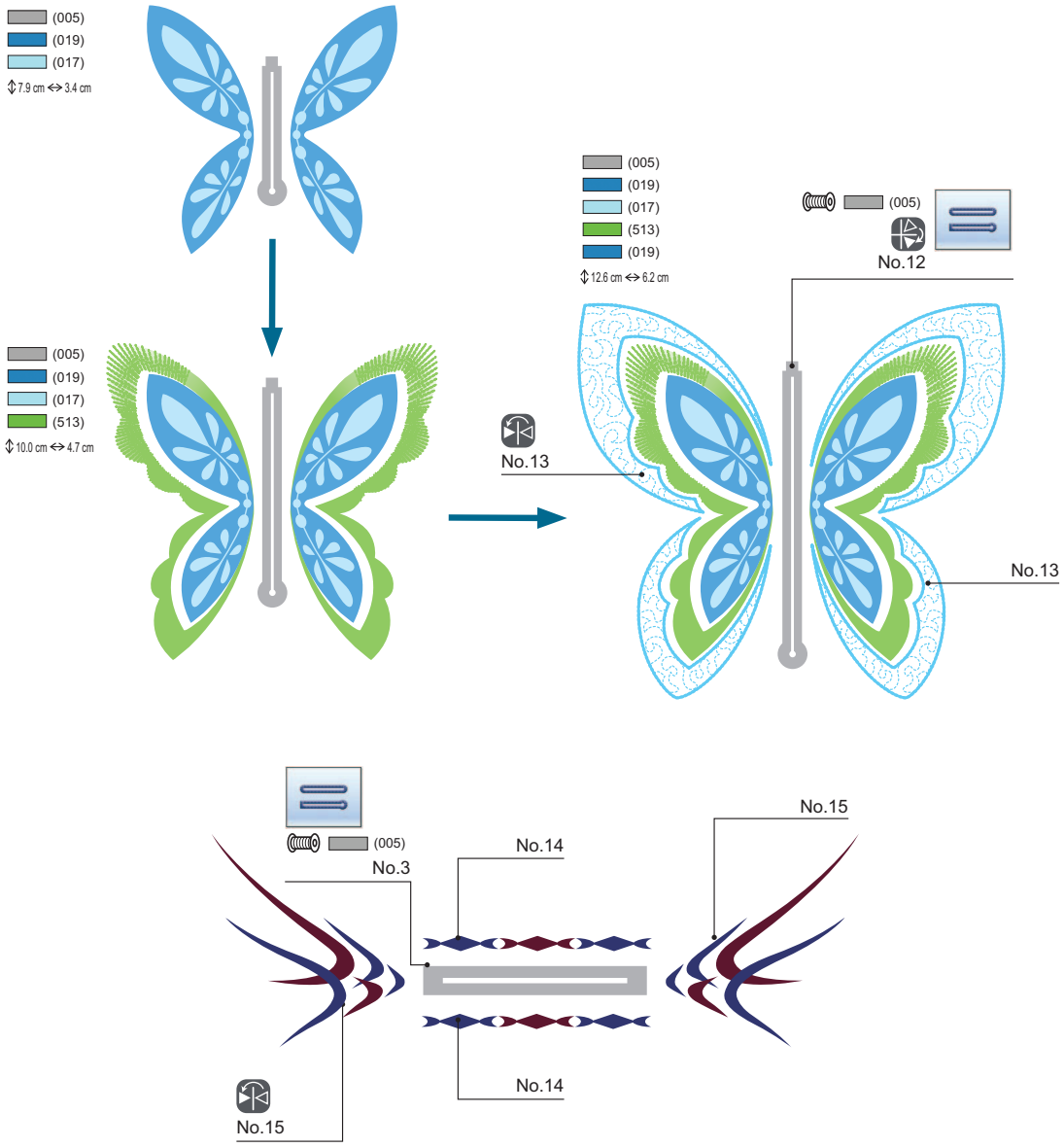
Positioning symbols:
These symbols indicate how the embroidery patterns have been flipped or rotated to create the combined pattern.

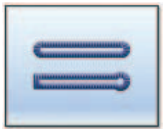








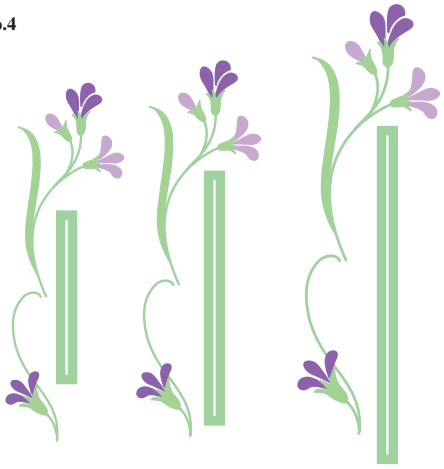

(005)
(019)
(017)
7.9 cm ↔ 3.4 cm
(005)
(019)
(017)
(513)
10.0 cm ↔ 4.7 cm
(005)
(019)
(017)
(513)
(019)
12.6 cm ↔ 6.2 cm
(005)
No.12
No.13
No.13
(005)
No.3
No.14
No.15
No.14
No.15



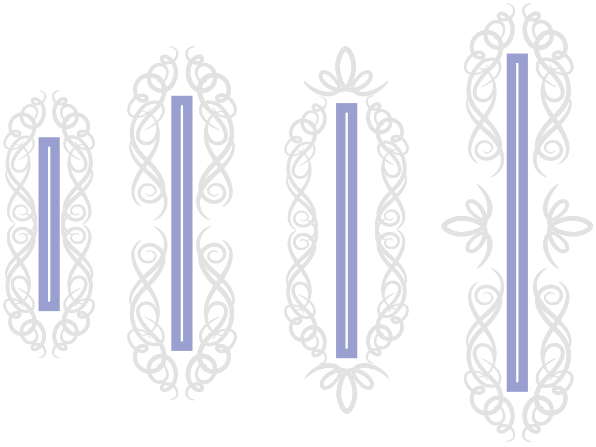
No.1

No.1 + No.2 + No.3

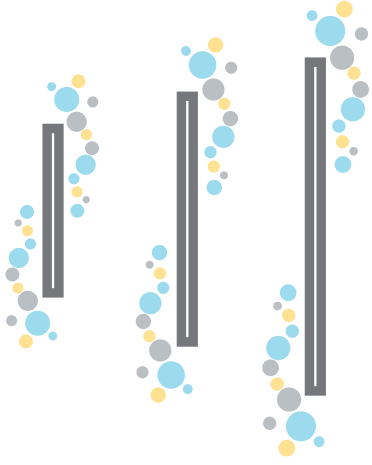
No.4



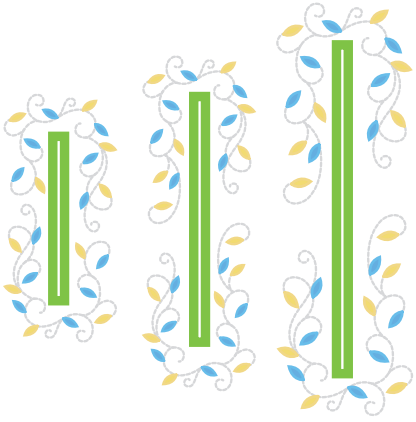
No.5 + No.6

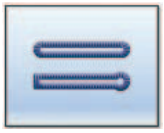


No.7



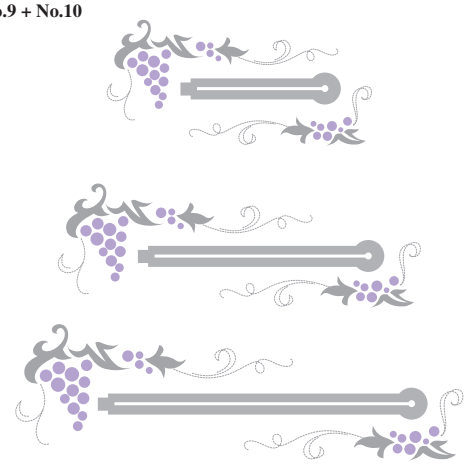
No.8





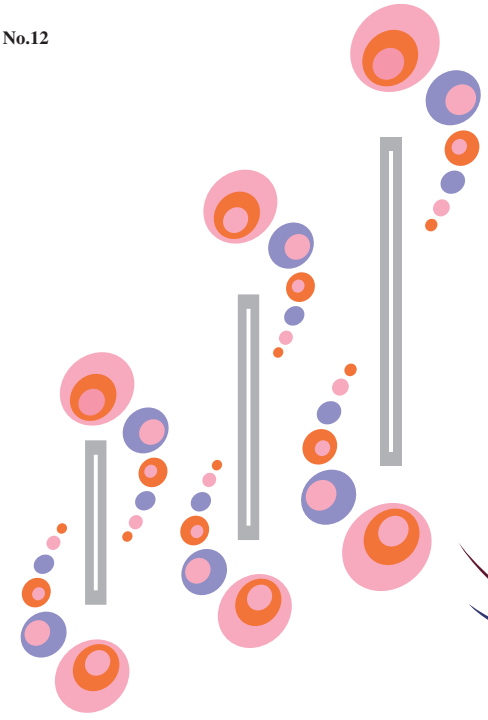
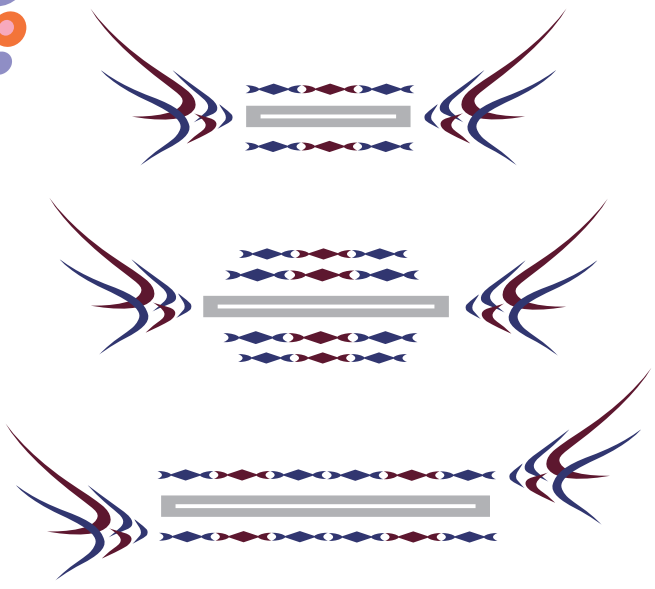
No.11

No.9 + No.10



No.11

No.12



No.14