LCX603

LABELROBO

SETUP MANUAL
(Installing manual for service person）

GRAPHTEC

HISTORY OF REVISIONS

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CONTENTS

3 Installing the Printer Driver 3-1

1   Preparation before the setup

1.1   Confirming the Installing Space for the LCX603

Confirm the installation space as shown in the picture below before installing the LCX603.

Please discuss with your end user before installing the LCX603 to your customers's site.

When installing the LCX603 on a table, please use a durable, solid table with a surface larger than 1000 mm × 400 mm.

⚠ **CAUTION**   Leave sufficient space for operations in front of and behind the printer.
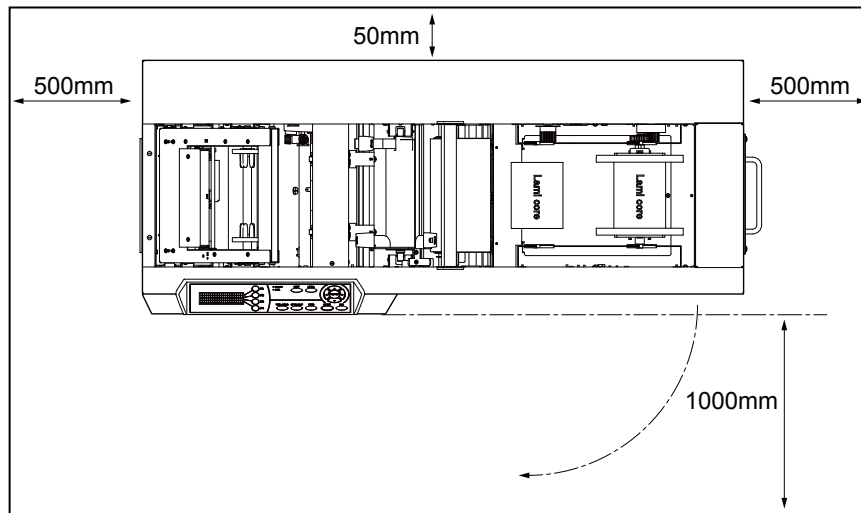
Notes for installation of the LCX603

⚠ **CAUTION**   When setting up on a desk or work table, make sure there are two people to carry out the task.

Do not use the handle in the media stocker section when lift up the LCX603, otherwise the LCX603 will break.

Handle

1.2   Preparation items before the setup

The printing test and the cutting test will be performed when the LCX603 is installing, prepare the following items to setup for the LCX603.

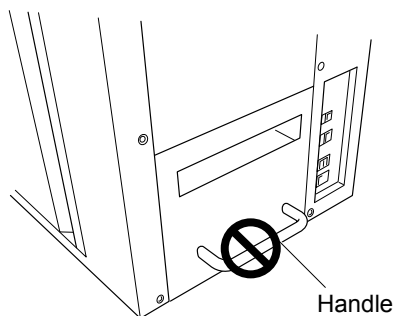| Items	Usage	Q'ty
PC	To print out the test pattern.	1
USB cable	To print out the test pattern.	1
Media: FNS Mat N50-1310B	Media for printing test	1 roll
Ink ribbon: RP120-B-R4A, Resin	Resin ink ribbon printing test for the head 1, (Black ribbon)	1 roll
Ink ribbon: RP120-BL-R4A, Resin	Resin ink ribbon printing test for the head 2, (Blue ribbon)	1 roll
Ink ribbon: RP120-R-R4A, Resin	Resin ink ribbon printing test for the head 3, (Red ribbon)	1 roll
Ink ribbon: WD120-B-R4A, Semi-Resin	Semi-Resin ink ribbon printing test for the head 1, (Black ribbon)	1 roll
Ink ribbon: WD120-BL-R4A, Semi-Resin	Semi-Resin ink ribbon printing test for the head 2, (Blue ribbon)	1 roll
Ink ribbon: WD120-R-R4A, Semi-Resin	Semi-Resin ink ribbon printing test for the head 3, (Red ribbon)	1 roll
Laminate: PET16-1110R4A	Laminating test	1 roll
Bobbin	To rewind the laminate and the separated media.	2
Blade: CB09UA	To cutting test	1
Blade holder: PHP32-CB09N-HS	To cutting test	1
Cleaning Kit	To clean the print head.	1 set

1.3   Preparation knowledge before the setup

The setting person must understand the following knowledge before setup for the LCX603.

Please read the Chapter 2 to have the knowledge for the LCX603 before setting the LCX603.

(1)   Label Printer Part Names

(2)   The functions of the control panel lamps and keys

(3)   How to install the cutting tool

(4)   How to adjust the blade length

(5)   How to install the ink ribbons

(6)   How to install the media

(7)   How to install the laminate

(8)   About compatibility of ink ribbon and the material

(9)   How to adjust the printing density

(10) How to adjust the cutting condition

(11) How to set the cross cutting function

2 Setup

2.1   How to take out the LCX603 from the Packing Box

The LCX603 is packed by the woody box as shown in the picture below.

Follow the procedure to take out the LCX603 from the packing box.

⚠ **CAUTION**   When unpacking the LCX603 from woody box, make sure there are two people to carry out the task.

How to take out the LCX603 from the packing box

(1)   Remove the self tapping screws which are marking by the red circle holding the top panel.

Remove the self tapping screws which are marking by the red circle.

Self tapping screw   Self tapping screw

(2)   Detach the top panel from the box.

(3)   Take out the accessory box from the packing box of LCX603.

Accessory box

(4) Remove the self tapping screws which are marking by the red circle holding the bottom part of outer panels.

Self tapping screw

Self tapping screw

Self tapping screw

Self tapping screw

(5) Lift up the outer panels, and then detach the outer panels from the bottom of packing box.
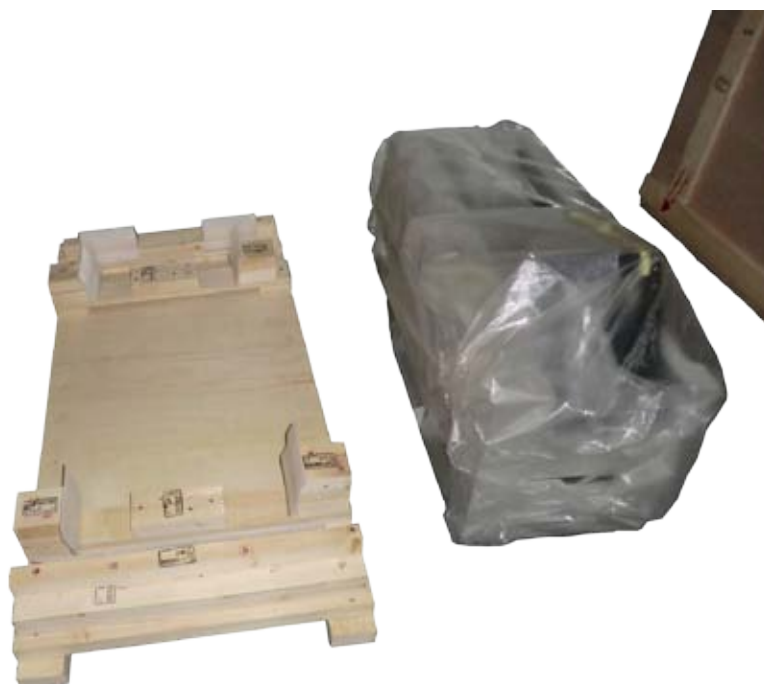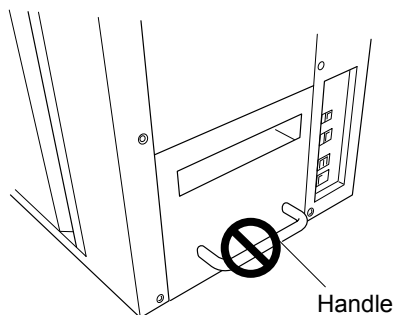
(6) Take out the LCX603 from the bottom of packing box.

⚠ **CAUTION**   When carrying the LCX603, make sure there are two people to carry out the task.

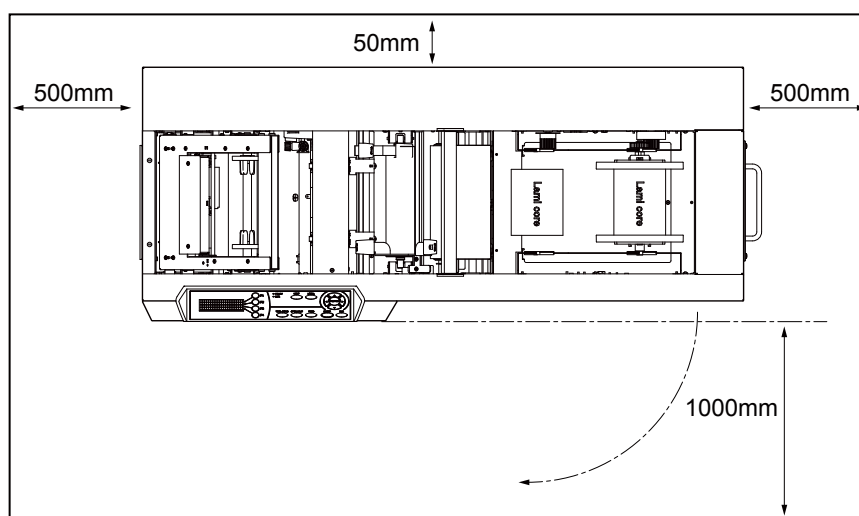When carrying the LCX603, have the bottom part of the LCX603.

Do not use the handle in the media stocker section when lift up the LCX603, otherwise the LCX603 will break.

Handle

2.2   Installing the LCX603 on the Table

(1)   Confirm the installation space as shown in the picture below before installing the LCX603.

⚠ **CAUTION**   Leave sufficient space for operations in front of and behind the printer.

(2)   When installing the LCX603 on a table, please use a durable, solid table with a surface larger than 1000 mm × 400 mm.

(3)   Install in a flat location.

(4)   The weight of LCX603 is about 80 kg, the table must be strong enough to put the LCX603.

(5)   Have the bottom part of the LCX603 and then put the LCX603 on the table.

Notes for installation of the LCX603

⚠ **CAUTION**   When setting up on a desk or work table, make sure there are two people to carry out the task.

When carrying the LCX603, have the bottom part of the LCX603.

Do not use the handle in the media stocker section when lift up the LCX603, otherwise the LCX603 will break.

Handle
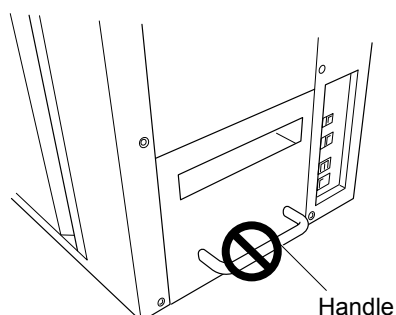
(6)   Adjust the four levelers (adjusters) so that the LCX603 is flat.
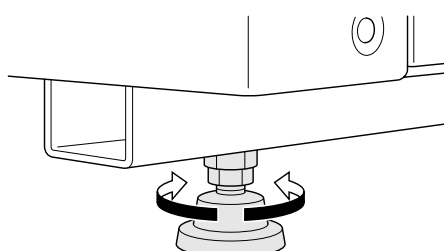
2.3   Removing the Packing Materials

Remove all packing materials from the LCX603 before turning on the power of LCX603.

(1)   Remove the PP band holding the separator arm.
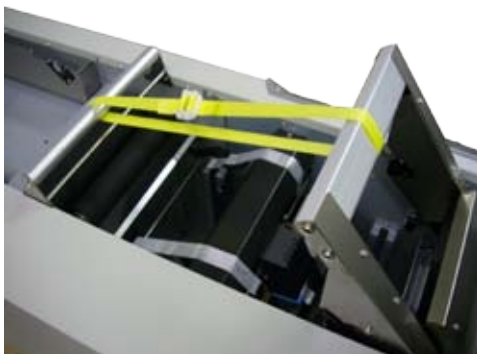
(2)   Remove the filament tapes holding the pen block.

(3)   Remove the filament tapes holding the press lever and the cam lever.

(4)   Remove the packing materials from the bottom of the pen block.
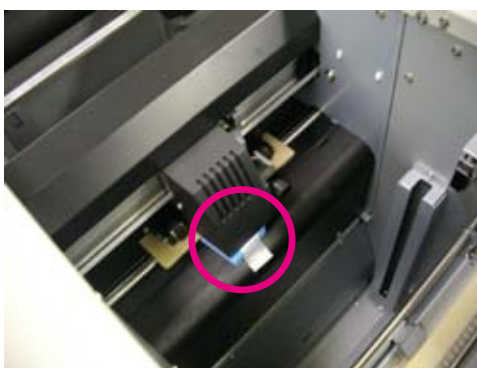
(5) Remove the packing materials from under the push roller.
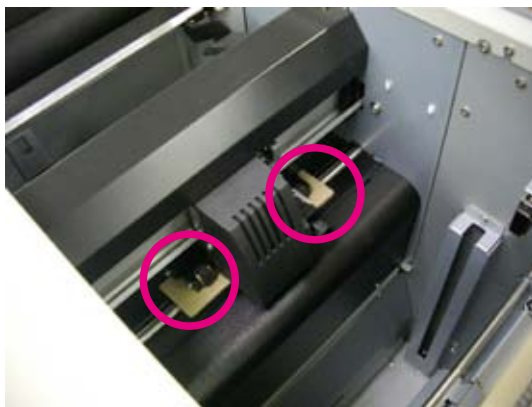
(6) Remove the filament tape holding the media stocker.

(7) Remove the filament tape holding the label tray.

(8) Remove the filament tape holding the front ribbon stocker door.

(9) Open the front door, and then remove filament tapes holding the three ribbon levers and the ribbon stocker lever.
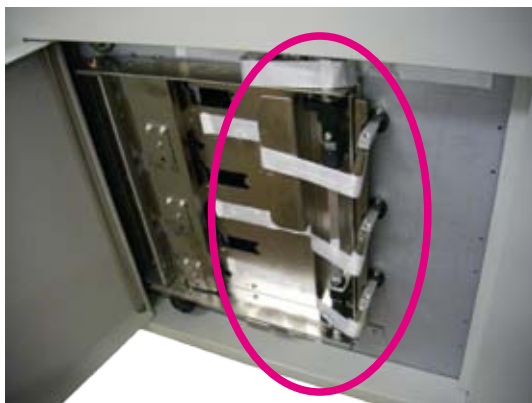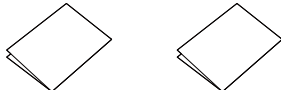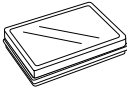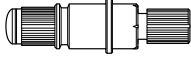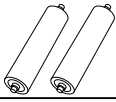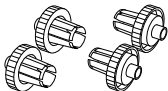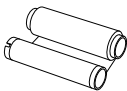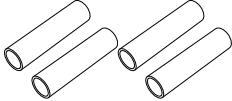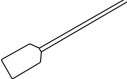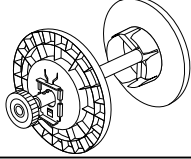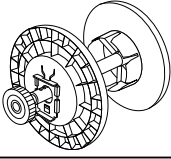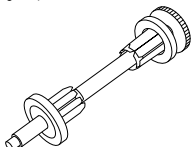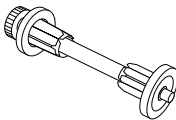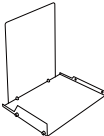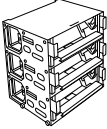
(10) Open the ribbon stocker door, and then remove filament tapes holding the three print heads.
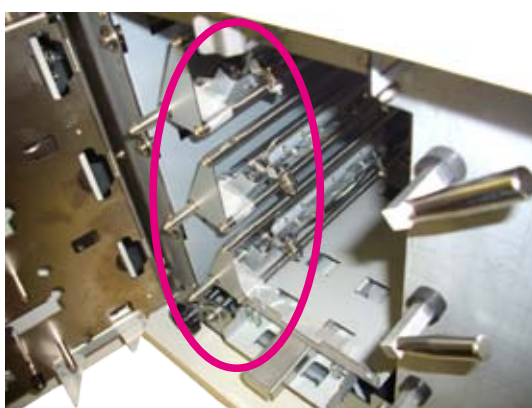
2.4   Confirming the Standard Accessories

Check to confirm that all of the items shown below are present.

Item	Q'ty	Check	Item	Q'ty	Check
Power cable	1 ps.		User's Manual (This Manual), Additional User's Manual	1 Set	
CD (Driver)	1 ps.		Cutter blade (CB09UA-1)	1 pc.	
Cutter plunger (PHP32-CB09N-HS)	1 ps.		Dancer roller (1, 2)	2 pcs.	
Ink ribbon flange	12 pcs.		Ink ribbon (Black: Semi-RESIN)	1 Set	
Winding up form tube (Uses for a separator and laminate winder bobbins)	4 pcs.		Cleaning stick	1 Set	
Media stocker flange (Long shaft)	1 Set		Laminate stocker flange (Short shaft)	1 Set	
Separator winder bobbin, Separator flange collar (Large white gear)	1 Set		Laminate stocker flange (Small black gear)	1 Set	
Media assistance	1 Set		Ribbon stocker (3 ribbon cassettes are set)	1 Set	
USB cable	1 pc.				

2.5   Confirming the power supply and the LAN cable

(1)   Confirm the specified AC power is supplied on the AC power outlet.

Do not connect the AC power cable yet.

(2)   Prepare the LAN cable if the LCX603 connect by the LAN cable.

2.6   Parts Names and Functions

Part Names 1
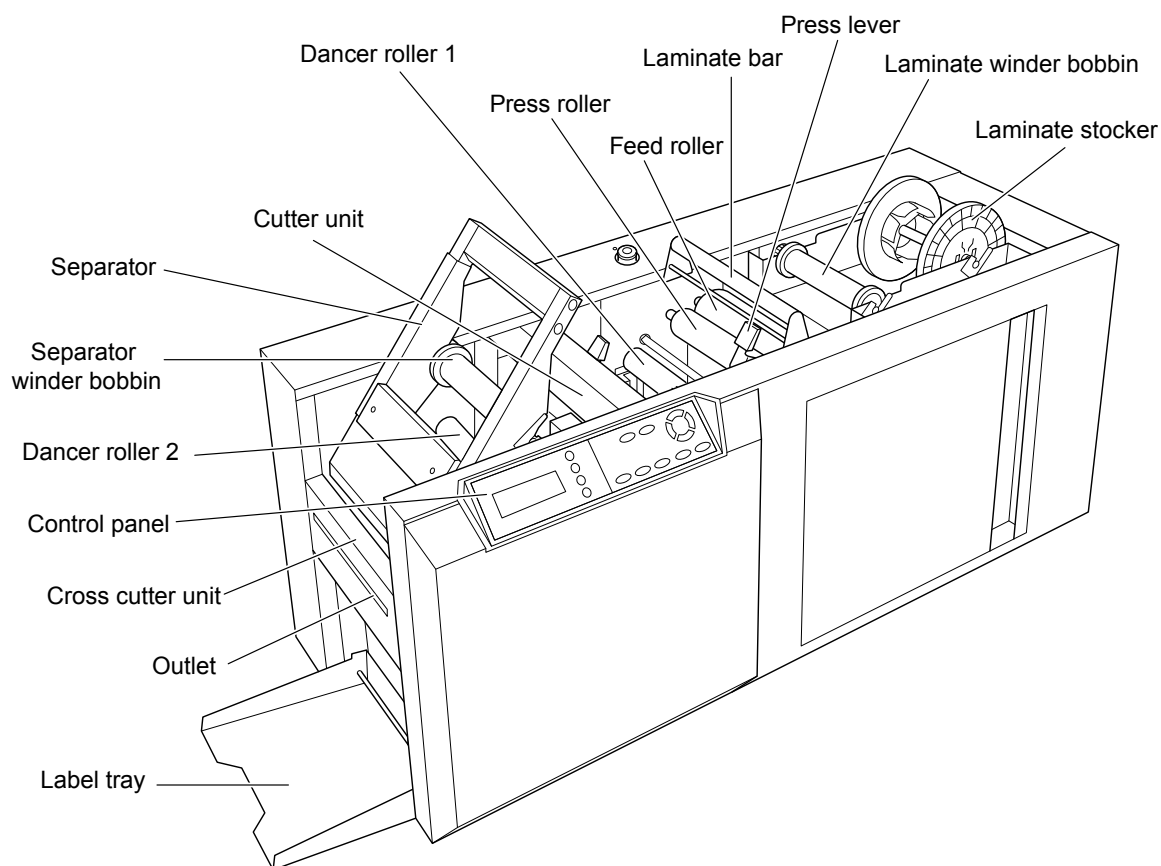
Control panel ....Carry out operations and various settings.

Separator ....Set when unnecessary media is detached.

Separator winder bobbin ....Rolls up detached unnecessary media.

Press lever ....Opens and closes the press roller when the media is set.

Laminate bar ....Used when laminate is set.

Laminate winder bobbin ....Rolls up the laminate backing sheet.

Laminate stocker ....Sets the laminate.

Feed roller ....Feeds the media.

Press roller ....Thrusts the media into the feed roller.

Dancer roller (1, 2) ....Used when setting/feeding media.

Cutter unit ....Cuts (stenciling, frame-cutting) media.

Label tray ....Tray that receives completed labels.

Cross cutter unit ....Cutter used for cross-cutting (horizontal cutting) media.

Outlet ....Section that outputs media.

Part Names 2
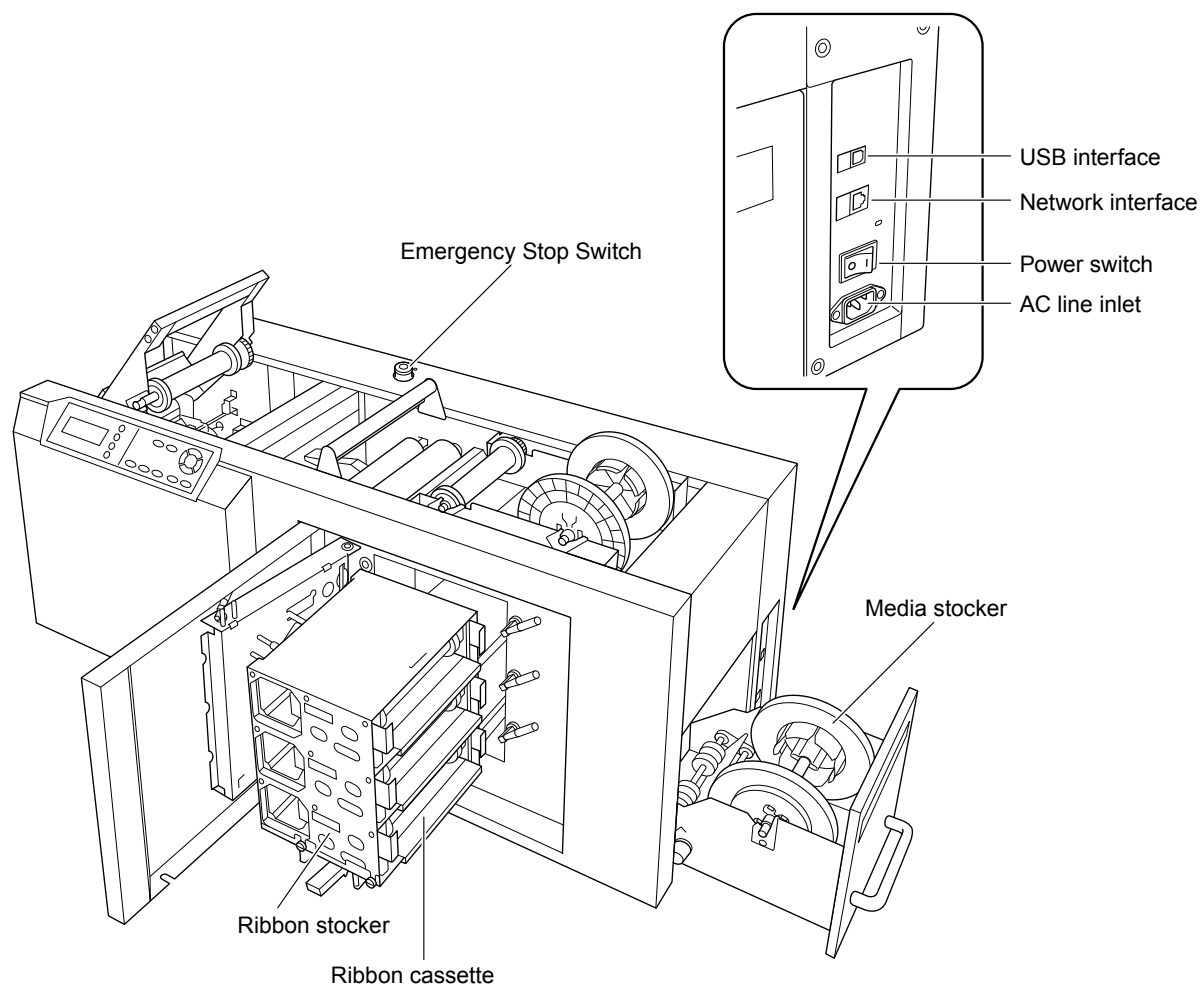
Ribbon cassette ....Used when setting the ribbon.

Ribbon stocker ....Unit that sets the ribbon cassette.

Media stocker ....Unit that sets the media.

USB interface ....Connector used when connecting this device via USB I/F.

Network interface........................Connector used when connecting this device via network I/F.

Power switch ....Switch for turning the power on/off.

AC line inlet.................................Connector that connects the power cord.

Emergency Stop Switch ....Press to stop the unit. Please use this in case of emergency.

Emergency Stop Switch
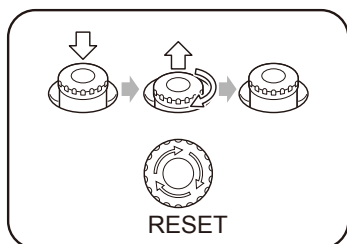
Only use this in case of emergency.

Pressing the switch will cause the switch to become depressed.
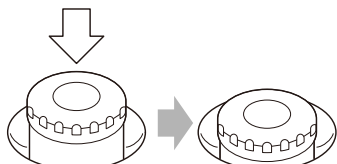
In this state, turning the power switch to the On position (|) will not turn the power on.

Cautionary notes for turning power on again

Be sure to confirm that the power switch is in the Off (O) position.

When the power switch is in the Off position, you can turn it On by turning the emergency stop switch clockwise until you hear the click and the switch pops up.
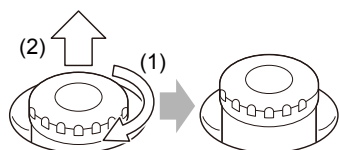
After confirming safety, turn the unit's power switch to the On (|) position.

⚠️ **CAUTION**   When turning the power on for the first time after implementing the emergency stop switch, push the switch to the On position strongly.

Part Names 3

Ribbon stocker cover

Lock lever

Front cover

Ribbon lever

Media ejection knob
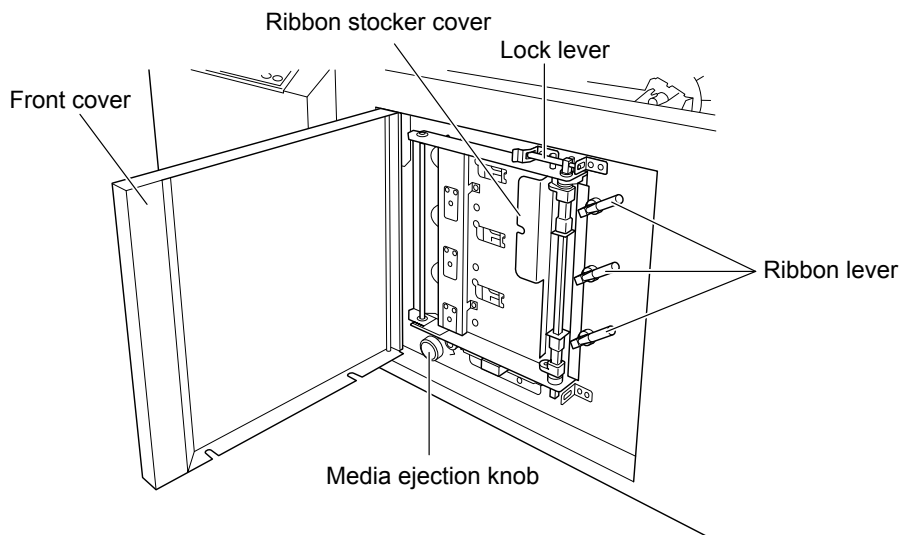
Ribbon lever ....Makes it possible to print the ribbon cassette by closing the lever.

Ribbon stocker cover ....Cover that closes after the ribbon stocker is set.

Lock lever.....................................A lever that secures the ribbon stocker cover when it is closed.

Media ejection knob....................Used when the media is detached.

Front cover...................................Cover for the ribbon stocker section.

Cutter Unit

Cutting mat

Grit roller

Push roller

Cam lever

Tool carriage

Tool holder
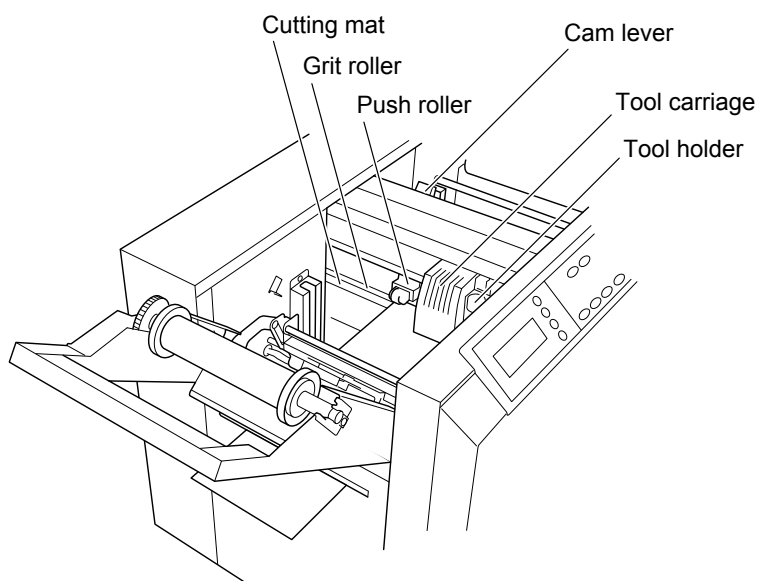
Cutting mat ....Moves the top of the cutter blades and prevents blade abrasion.

Grit roller.....................................Feeds media and can move from side to side.

Push roller...................................Thrusts the media into the grit roller.

Tool carriage...............................Section that moves the cutter forward or backward.

Tool holder...................................Section that holds the cutter and moves up and down.

Cam lever ....Moves the push roller vertically and secures/releases media when the

media is set in the cutting section.

2.7   The Flowchart of Setup

Perform setup by the following procedure of flowchart.

2.8 Connecting the AC power cable

↓

2.9.2 Installing the cutter pen to the LCX603

↓

2.10 Turning on the power

↓

2.11 Installing the media to the media stocker 2.12 Loading media to the LCX603

↓

2.13 Installing the Ink Ribbon

↓

2.14 Adjusting the density 2.15 Test Printing and Density Adjustment

↓

2.9.1 Preparing the Cutter Pen 2.16 Adjusting the blade length and the tool condition

↓

2.17 Adjusting printing and cutting position

↓

2.18 Distance Adjustment

2.19 Adjusting the print head position

↓

2.20 Installing the Separator

↓

2.21 Cross cutter setting

↓

2.22 Installing the laminate

↓

2.16 Adjusting the blade length and the tool condition

↓

2.23 Setting the Anti-Wrinkle Line

↓

2.24 Setting the Registration Mark Type

↓

2.25 Setting the Unit Length

↓

2.26 Setting the Frame Cut

↓

Output the data to the LCX603 Install the printer driver

↓

Explain the operation of LCX603

2.8   Connecting the AC power cable

This section explains how to turn on the power.

But do not turn the power on until the label materials have been set.

(1)   Make sure the power switch is in the Off (O) position.
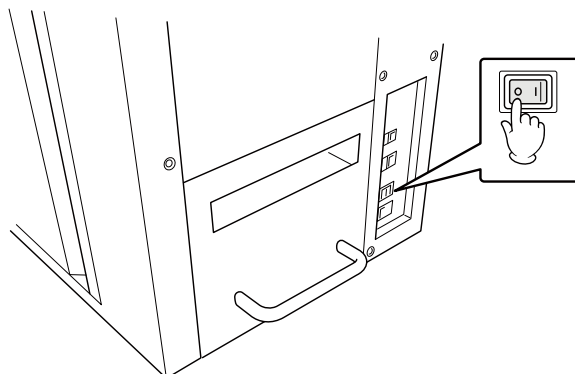
(2)   Connect one end of the attached power cables to the AC line inlet and the other end to an AC power outlet of the rated supply voltage.
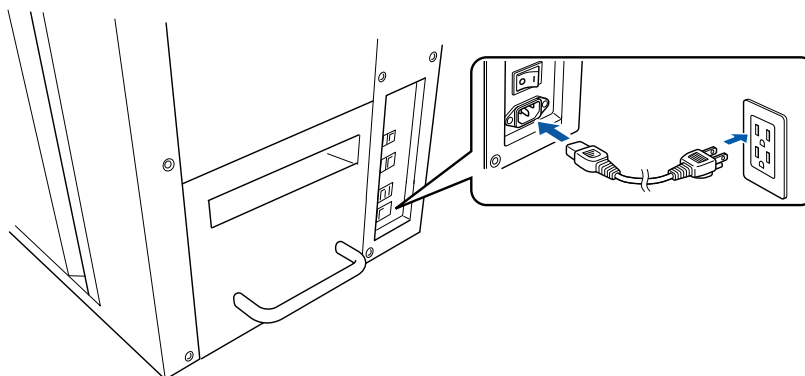
2.9   Installing the Cutter Pen
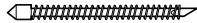
2.9.1   Preparing the Cutter Pen

⚠ **CAUTION**   When handling the cutter blades, take full care not to cut your hands.

The nomenclature and types of cutter pens are explained.

Types of Cutter Blades and Their Features

The following cutter blade and the Plunger are used with the LCX603.

Model Name & Shape	Diameter	Utilized Plunger	Use & Features
CB09UA	0.9 mm	PHP32-CB09N-HS	Standard cutter for cutting colored film. The below cut is appropriate for media with a thickness under 0.25 mm. Possible Cutting Length: App. 4000 m

Cutter Pen Part Names

The cutter blade is set and used in the cutter plunger. Set and use the blades in the suitable cutter plunger.

Cutter Blade   Plunger

Plunger cap   Blade length adjustment knob
(Fro Blue: ø 0.9 mm)
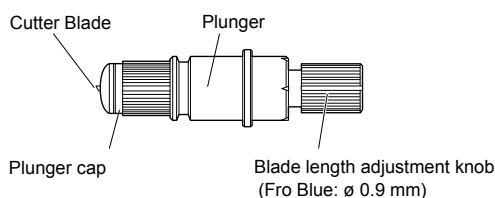
Installing the Blade to the cutter pen

(1)   Install the spring to the blade
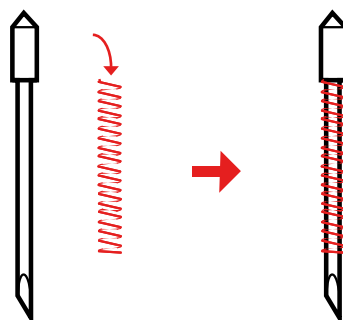
(2)   Install the blade with spring to the plunger cap.

Cutter Pen Nomenclature

ø 0.9 mm Cutter Pen

Blade lenght
adjusment knob
(Blue)

Plunger

ø 0.9 mm Cutter blade

Spring

Plunger cap

Plunger cap
(Cross-Section)
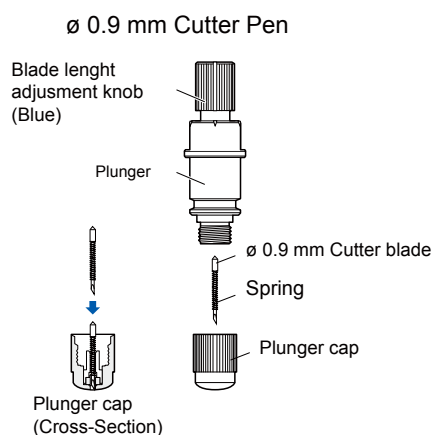
(3)   Install the plunger cap with the blade and the spring to the plunger.

⚠ **CAUTION**   When handling the cutter blades, take full care not to cut your hands.

Adjusting the Blade Length

The blade length must be adjusted to provide the most appropriate cut. Run the test cut several times and set the most appropriate blade length. The blade length varies depending on when the laminate is used/ not used.

The blade length is different when the media is laminated or not laminated.

The blade length should be adjusted after the media was set to the LCX603.

The cutter blade
moves 0.1 mm with
one scale unit.

B   A   (Blade extends)
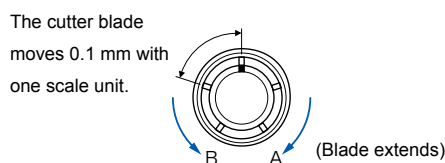
The blade length is adjusted by turning the blade length adjustment knob. To extend the cutter blade, turn the knob in the A direction. To retract the cutter blade, turn the knob in the B direction. When the knob is turned the distance of one scale unit, the cutter blade moves 0.1 mm. When the knob is given one full turn, the cutter blade moves 0.5 mm.

2.9.2 Installing the cutter pen to the LCX603

The tools (cutter pen) are set in this device.

When installing the cutter pen in the tool holder, fully insert the cutter pen section in the below order until it bumps into the top side of the tool holder. After the cutter pen is installed, tighten the screw. Furthermore, do not touch the pen tip when the power has been turned on or during operation.

⚠ **CAUTION**   When handling the cutter blades, take full care not to cut your hands. When pushing up the tool holder, take full care not to injure your fingers on the cutter blades.

(1) Loosen the tool holder screw.
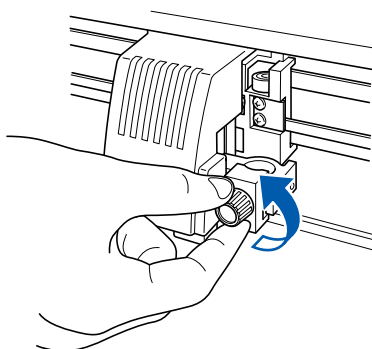
(2) While pushing up the tool holder, fully insert the cutter pen section until it bumps into the top side of the tool holder. Set the bracket to hold tool to cover the flange section of the cutter pen.
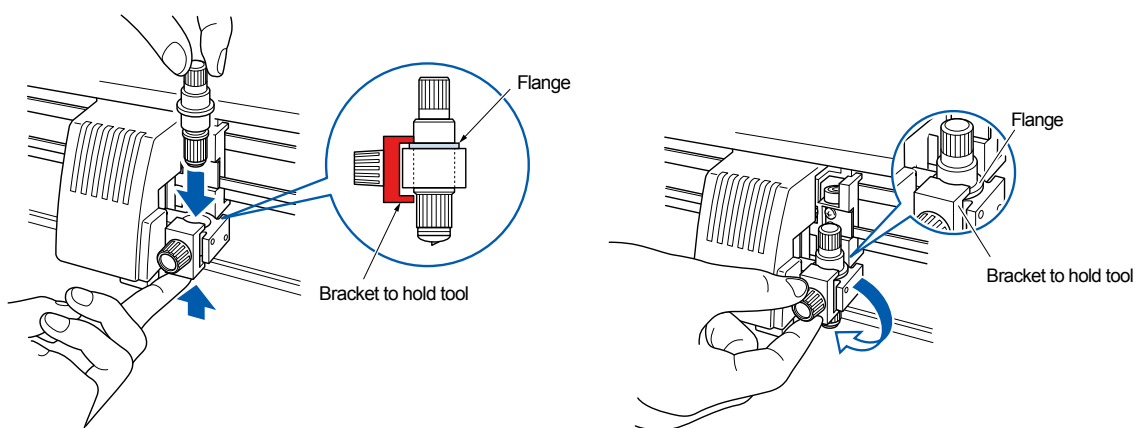
(3) When the cutter pen is set, set the bracket to hold tool to cover the flange section and tighten the screw.

Correct position of bracket   Correct position of bracket   Incorrect position of bracket
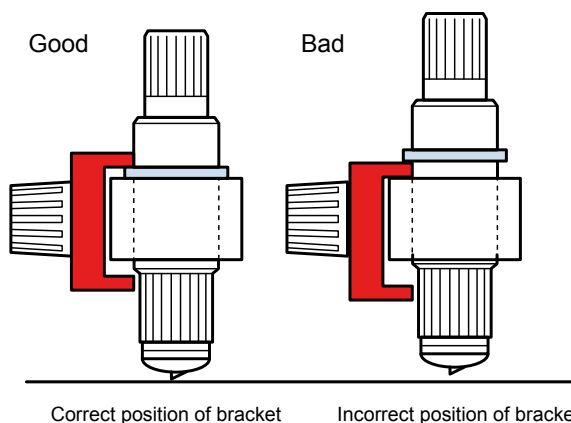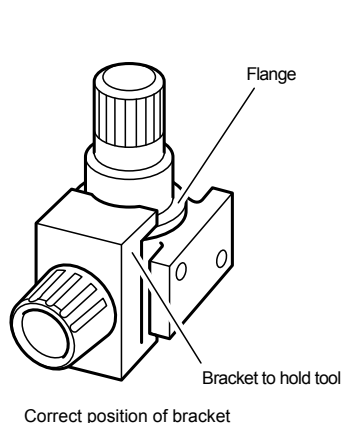
2.9.3   How to use the control panel

The functions of the control panel lamps and keys are explained.

Do not turn the power on until the label materials have been set.
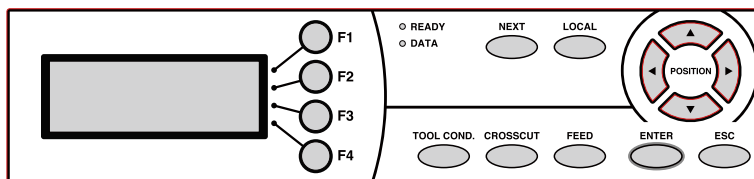
Indicator Lamps

READY..The READY lamp lights (green) while the label printer is on.

If the LOCAL key is pressed, the green lamp goes off when the menu screen appears.

DATA..The DATA lamp flashes (red) when the label printer receives data. The red lamp lights when data is saved in the internal memory. When data has been cleared (or there is no data), the red lamp goes off.

Panel Keys

F1, F2, F3, F4 (FUNCTION)...........Select the desired sub-menu in a menu screen and move to the next setting screen.

NEXT..Switch to the next item in the menu screen.

LOCAL...Switch between the READY screen and menu screen.

If pushed during an operation, the operation will terminate after one page has completed on the cutting side upon pushing the key, and the display will return to the READY screen.

TOOL COND..................................Switch to the Cutting Conditions Menu in the READY screen.

CROSSCUT...................................Crosscut media (horizontal cutting) in the READY screen.

FEED...Send label materials (media) while the key is being pushed.

Send label materials close to the press roller with one push of the key only when the label materials are set. (Source feed)

↑, ↓, ←, →(Arrow keys) ....Adjust various settings, select numerical value changes, move the cursor, and change positions.

ENTER ....After setting a function or condition at the control panel, press the [ENTER] key to register your setting.

ESC ....Cancel setting change and return to the previous screen in the menu.

Return to the previous screen in the menu.

Notes on the Use of the FEED Key

When sending label materials normally, release the ribbon lever.

When label materials (media) are sent with the FEED key, the labels that are partway through printing cannot be completed normally. If the labels partway through printing need to be completed, carry out the "OUTPUT ALL" operation instead of the FEED key.

After sending label media with the FEED key, carry out the initial transfer system action prior to the next printing. The label materials (media) can then be sent. Be careful as there will be wasted and blank labels.

Viewing the Screen

The control panel screen displays information responding to the situation at the time.

READY Screen

```
READY

    CONDITION-01
```
F1 F2 F3 F4 ── Displays the set condition number.

Printer Menu Screen

```
              COPY>
        DATA CLEAR>
         CONDITION>
1/4
```
F1 F2 F3 F4

The ">" sign which is displayed on the right-hand edge of the Menu indicates that the item has subordinate items in the menu hierarchy assigned to keys F1-F4.

↓ NEXT Key

```
     PRINT SETTING>
PRINT TEST PATTERN>
    HEAD ADJUSTMENT>
2/4   PRINTED LENGTH>
```
F1 F2 F3 F4

The menu switches by pressing the NEXT key only in the print menu.

↓ NEXT Key

```
  REGISTRAION MARK>
       UNIT LENGTH>
  FUNCTION SETTING>
3/4
```
F1 F2 F3 F4

Load Number Selection Screen

```
LOAD NO.

              <01>
SELECT:↑↓
YES:ENTER    NO:ESC
```
F1 F2 F3 F4

The selected item is shown.
The setting value within the "<>" can be changed.
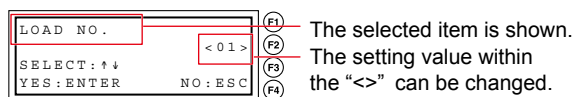
Cutting Conditions Setting Screen

```
<1 09U ←1 14 30 2>
[TOOL TYPE]
SELECT:←→↑↓
YES:ENTER    NO:ESC
```
F1 F2 F3 F4

An "_" (underbar) is shown underneath the selected cut conditions. The items are shown below.
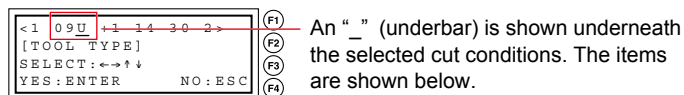
During Operation Screen

```
PROCESSING

       54/100
```
F1 F2 F3 F4 ── The number of copies is shown. (Present number/Total nuber)
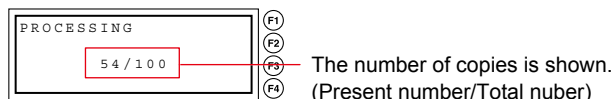
2.10 Turning on the power

(1) Turn the power switch to the On (I) position. After initial operations, the control panel's READY lamp
will light up.
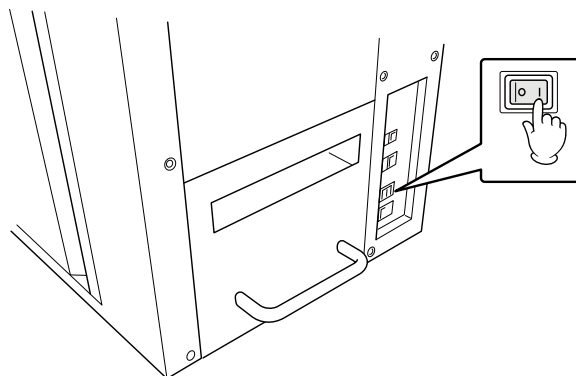
(2) If the media is not installed, the following message will display after showing the version.

```
L01: No Media
 Set the Media into
stocker.
Then press FEED key.
```

Install the media to the LCX603.

If the media is installed, the following message will display after showing the version.

```
Confirm Combination!
H3=Semi-R  H2=RESIN
H1=RESIN
YES:ENTER    NO:ESC
```

(3) Confirm the combination of ink ribbons that are installing to the LCX603.

Press the ENTER Key if the combination is correct.

After initialization was finished, following menu is displayed.

```
READY


    CONDITION-01

```

Press the ESC Key if the combination is not correct. The following menu is displayed.

```
    Condition LOAD>
     PRINT DENSITY>


```

(4) Set the density for the heads.

2.11 Installing the media to the media stocker

Take out the media flange from the accessory box, and then set the media to the flange.

(The shaft of media flange is longer than the laminate flange.)
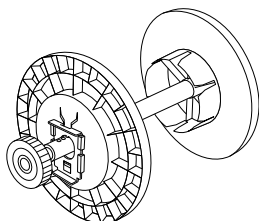
(1) Set the flange position to match to the media width.

The prepared media is FNS Mat N50-1310B.

Set the flange position to 130 mm width.

(2) Unlock the flange lock plate, and then slide the left flange to fit to media width.

Step 3:
Slide the flange to
fit to the media width.

Step 1:
Press the "PUSH"
part of the flange.

Step 2:
Slide up the flange lock plate.
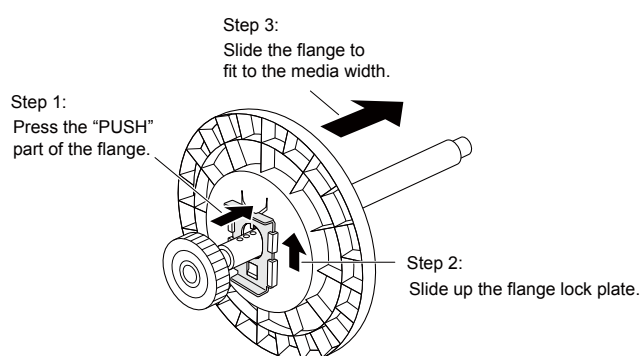
(3) Set the left flange to the 130 mm width position.

Media width (mm)

130 ● 110 ● ● ● 70
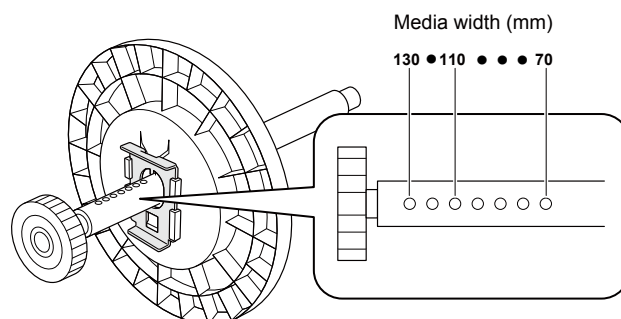
(4) Lock in the shaft groove and set the flange.

Step 1

Step 2
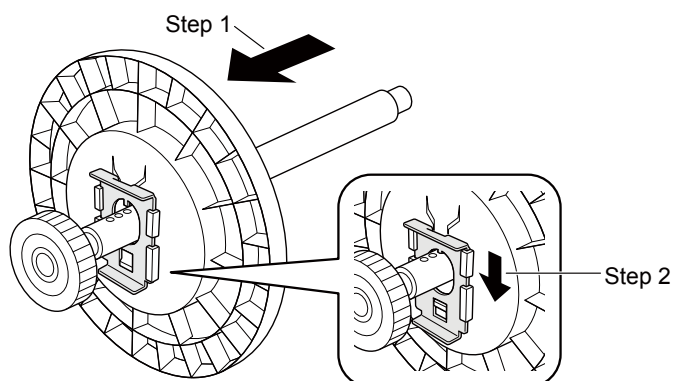
(5) Install the media to the media flange as shown in the picture below.

Confirm the rolling direction of media is same as shown in the picture below when the media is installing.

Confirm there are no gaps between the core of media and the media flange when inserting the flange to the core of media.
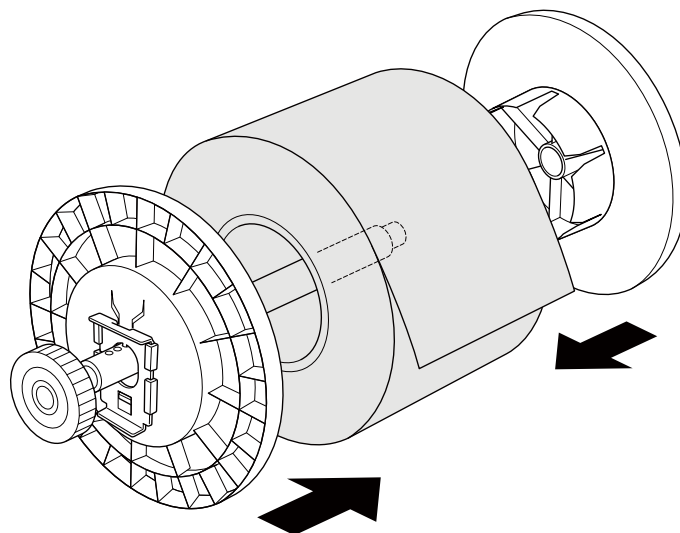
(6) Detach the media stocker from the LCX603.
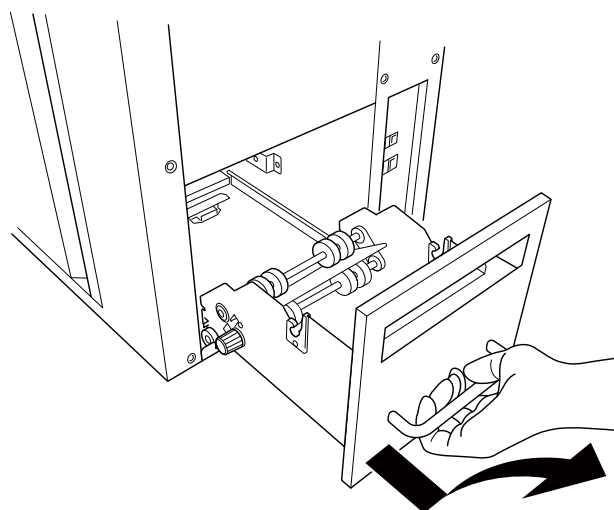
(7) Install the media to the media stocker.

Withdraw the media tip up to the stocker tip and set it exactly straight along the position scale of the media width.

However, be sure not to go over the tip of the media.

Position scale
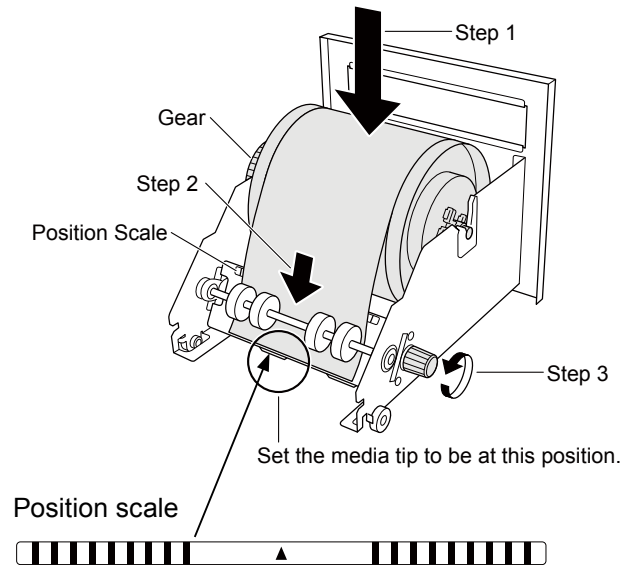
(8) Install the media stocker to the LCX603.
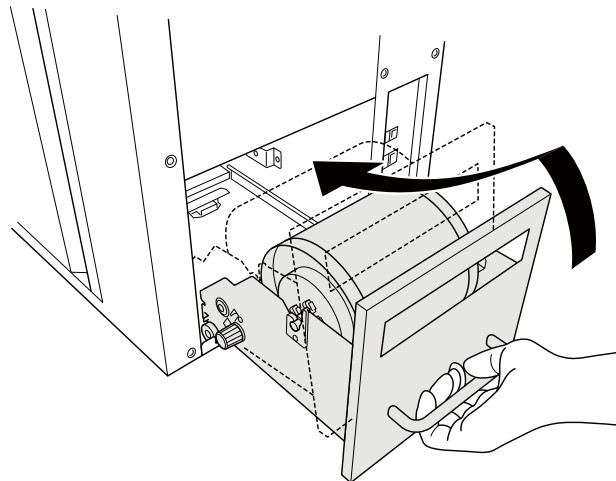
With the exception of replacing media, do not pull out the media stocker. If the media stocker is pulled out when it is set, the media may loosen and printer banding might occur.

2.12 Loading media to the LCX603

Pull out the media set by the media stocker and set when ready to use.

With the exception of replacing media, do not pull out the media stocker from the LCX603.

Media Route

The media is loaded as shown in the picture below.
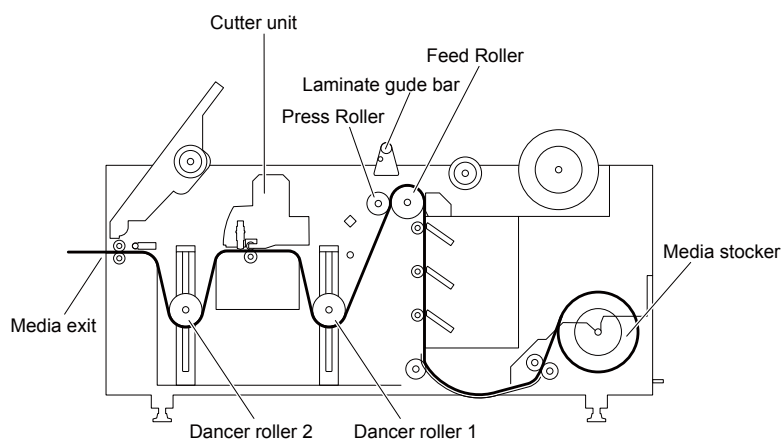
How to load the media to the LCX603

(1) Take out the Media assist from the accessory box, and then set the Media Assist to the LCX603.

Use the Media assist when loading the media to the LCX603, otherwise media jams.
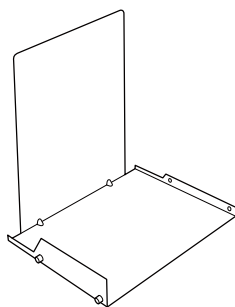
(2) Open the front door.
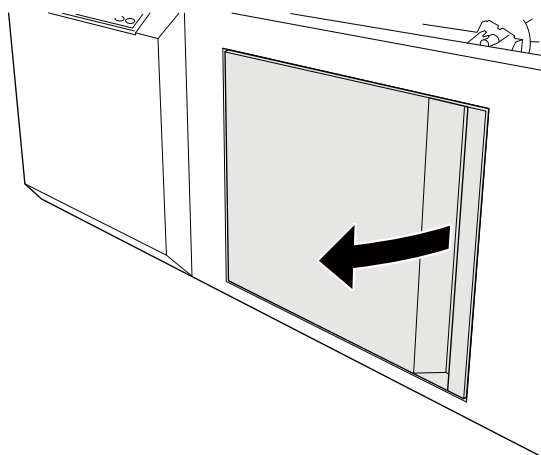
(3) Release the ribbon levers if those are set.
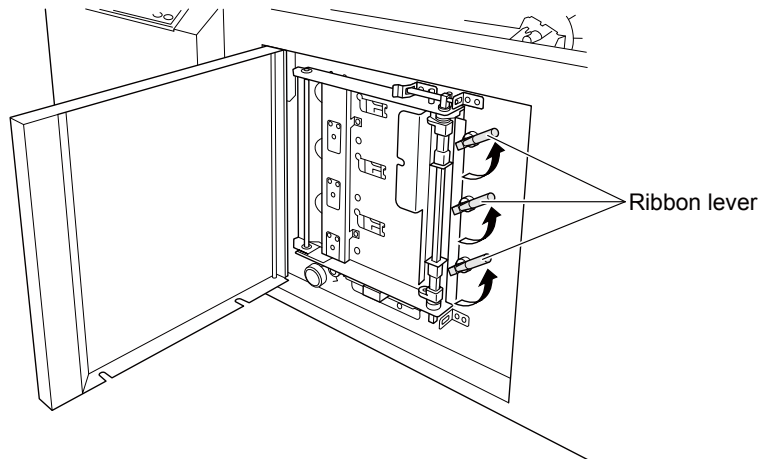
Ribbon lever

(4) Release the ribbon stocker lock lever, and then open the ribbon stocker door.

Lock lever

Step 1

Ribbon Stocker door

Step 2
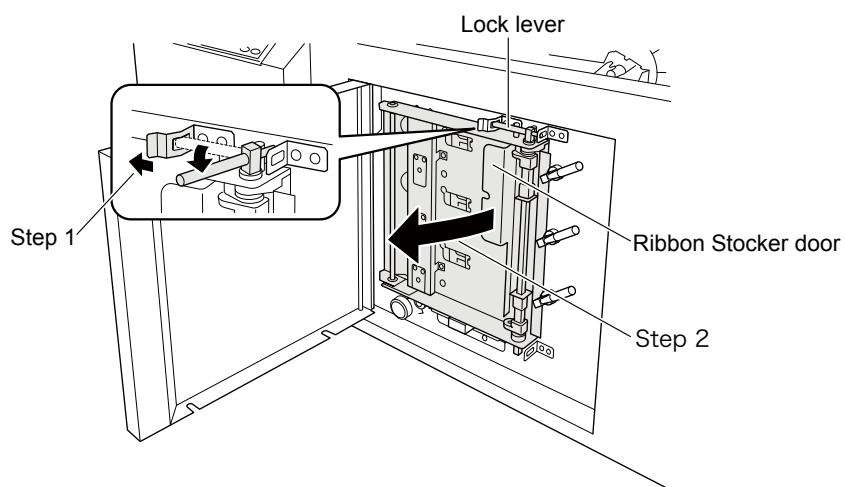
(5) Pull up the ribbon stocker lock lever as shown in the picture below, and then draw out the ribbon stocker station from the LCX603.

Step 1

Step 2

Ribbon stocker lock lever
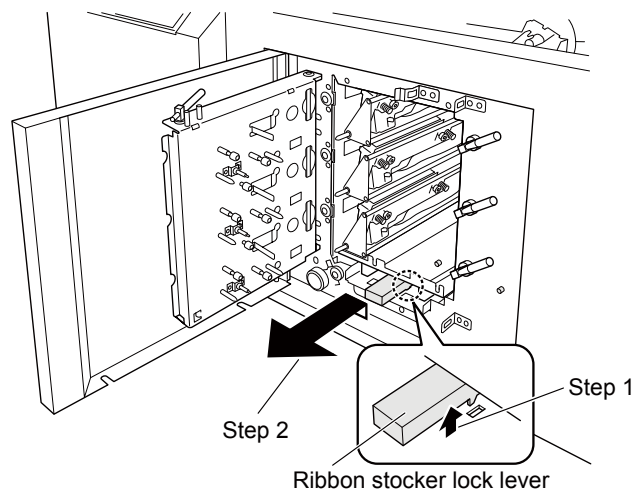
(6) Take out the ribbon stocker when the ribbon stocker is mounted on the ribbon stocker station.

(7) Install the media assist to the ribbon stocker station as shown in the picture below.

Confirm the pins of media assist are fitted to the guide of media stocker station.

Media assist

The pins must be
properly fitted to here.
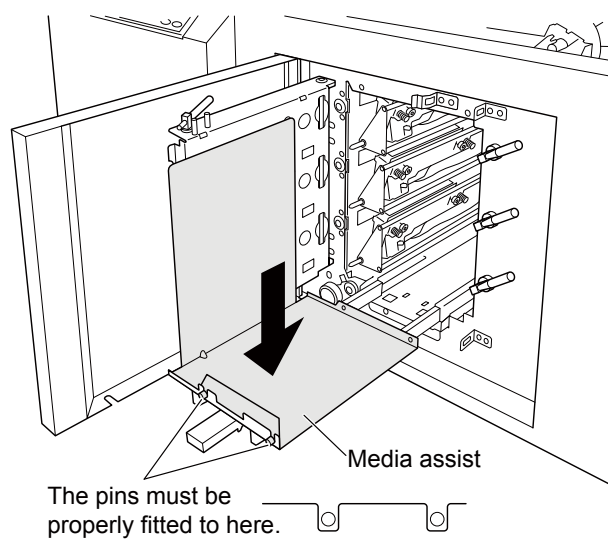
(8) Gently push the ribbon stocker lock lever to install the media assist to the LCX603 until hear click
sound.

Push the ribbon stocker lock lever and secure the lever so that the ribbon stocker station is firmly
fastened in the slot.

Ribbon stocker lock lever

Step 1

Keep the ribbon
stocker door open

Click!

Step 2
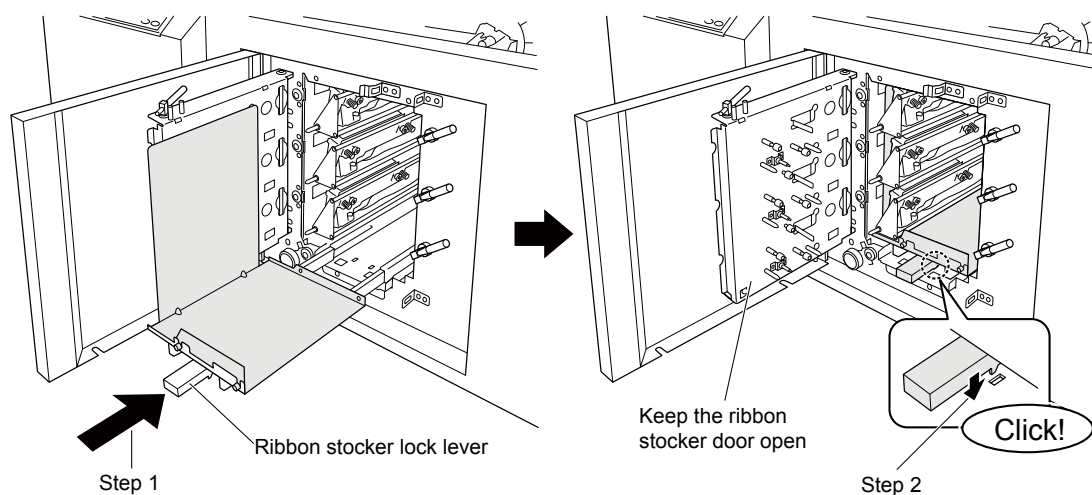
(9) Keep the ribbon stocker door open.
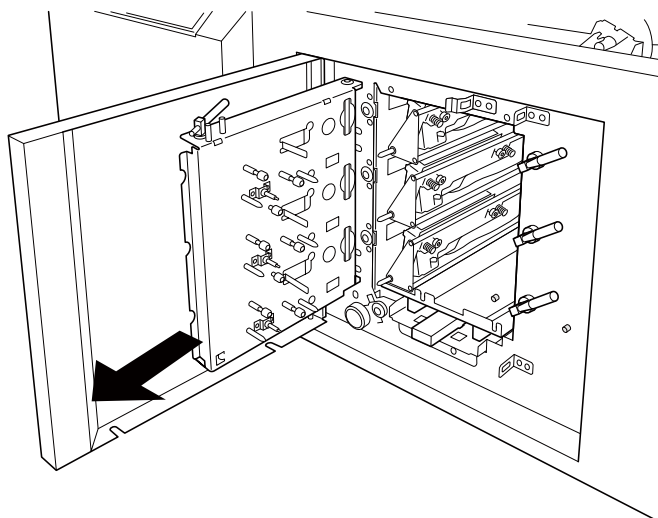
(10) Release the press roller lever, the cam lever, the separator suppression unit, and the separator arm.

Separator suppression unit

Separator arm

Step 3

Step 2

Press roller lever

Cam lever

Step 4

Step 1
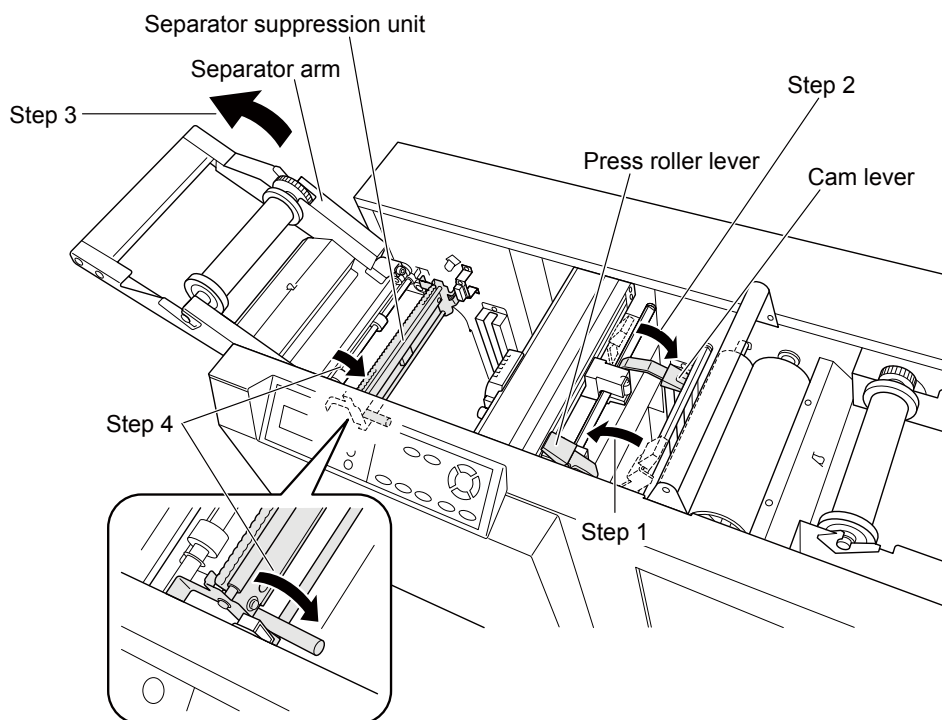
Refer to the below diagram for when the press roller lever, cam lever, separator, and separator suppression unit are set (closed) and when they are open (Release).

Separator suppression unit

Press roller lever

Cam lever

Open condition

Close condition

Open condition

Close condition
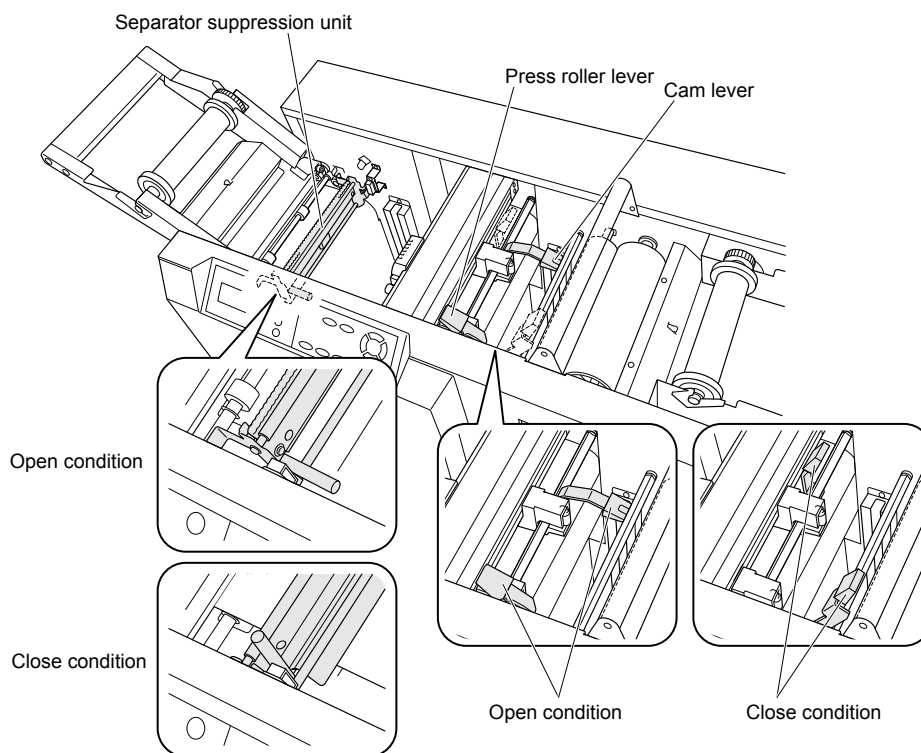
(11) Press the FEED key following the instructions from the control panel when the media has been set to the media stocker.

The media will be fed until the media comes out from the feed roller part.

Media comes out here
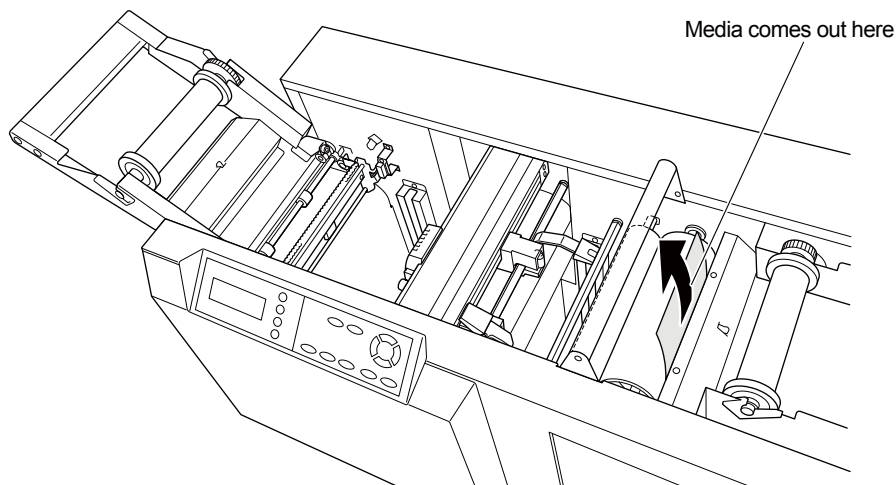
The following message will be displayed if the media is not installed to the media stocker correctly. Install the media to the media stocker correctly.

```
L01: No Media
 Set the Media into
stocker.
Then press FEED key.
```

(12) When the following message is displayed, insert the media straight through the space between the feed roller and press roller (Step 1, 2), and then set the press roller lever (Step 3).

```
L02: Pass the media
throgh press-roller
and close the lever.
Then press FEED key.
```

Set the media exactly straight along the position scale.

Position scale

Step 3   Press roller lever

Step 2   Step 1
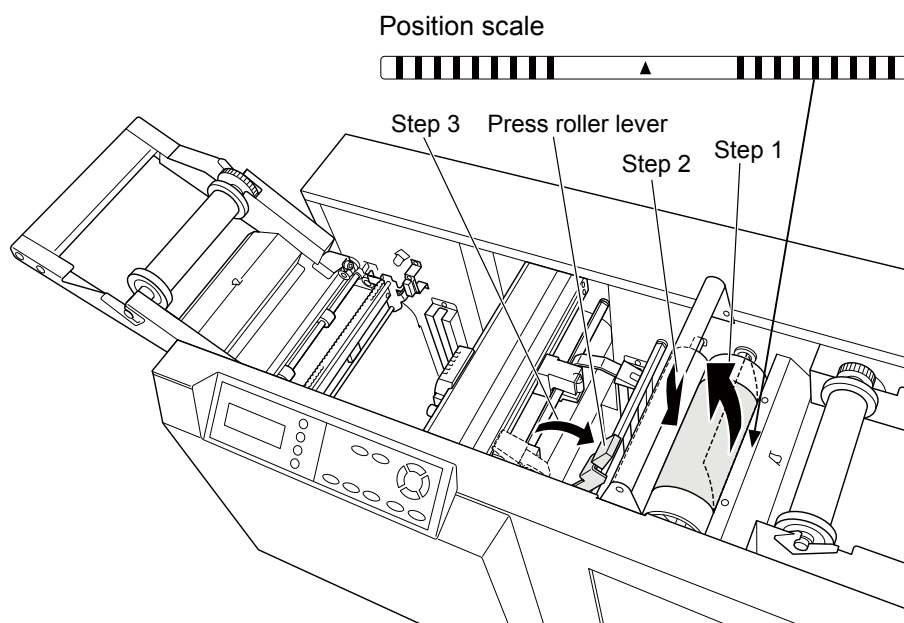
(13) Pass through the media as shown in step 1 of picture below. And hold a edge of media with your hand.

(14) Press the FEED Key until the enough media is fed to around the separator arm as shown in the picture below (step 2). The media should be passed the media feed route.

The following messages are displayed when the FEED Key is pressed.

```
L03:Press FEED key
for feeding and
setting the media.
```

⬌

```
L03:Press ENTER key
when finished
setting the media.
```

Pull up the media from here.
The media should pass under
the two cross bar here.
Step 1

Feed the media until here.
Step 2
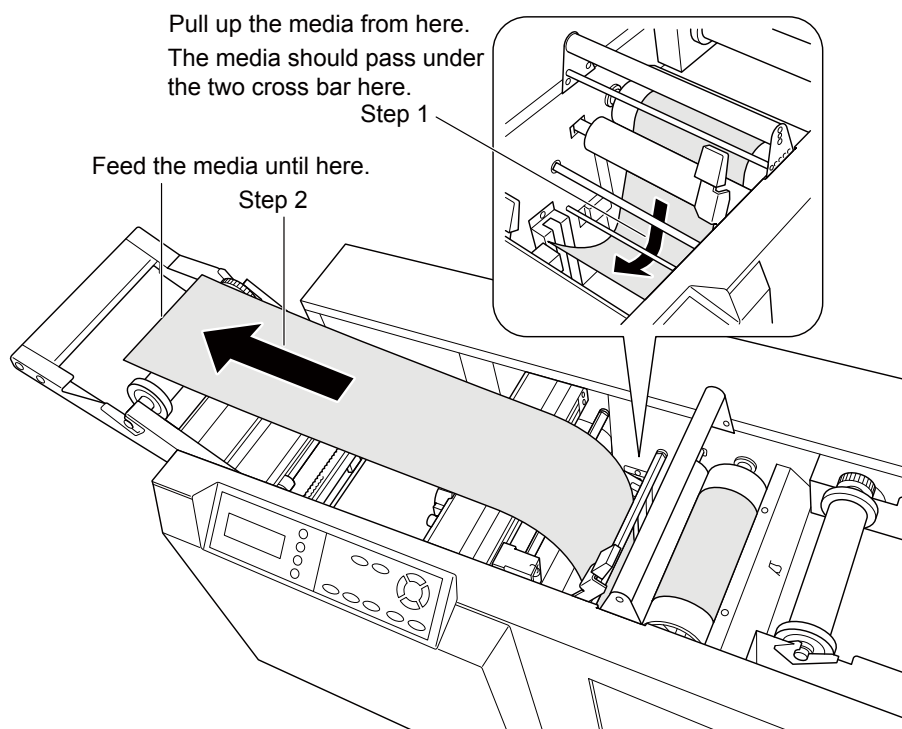
(15) Install the media by the following procedure.

Step 1: Pass through the media into the cutter unit.

Step 2: Pass through the media into the separator suppression unit.

Step 3: Pass through the media into the cross cutter section.
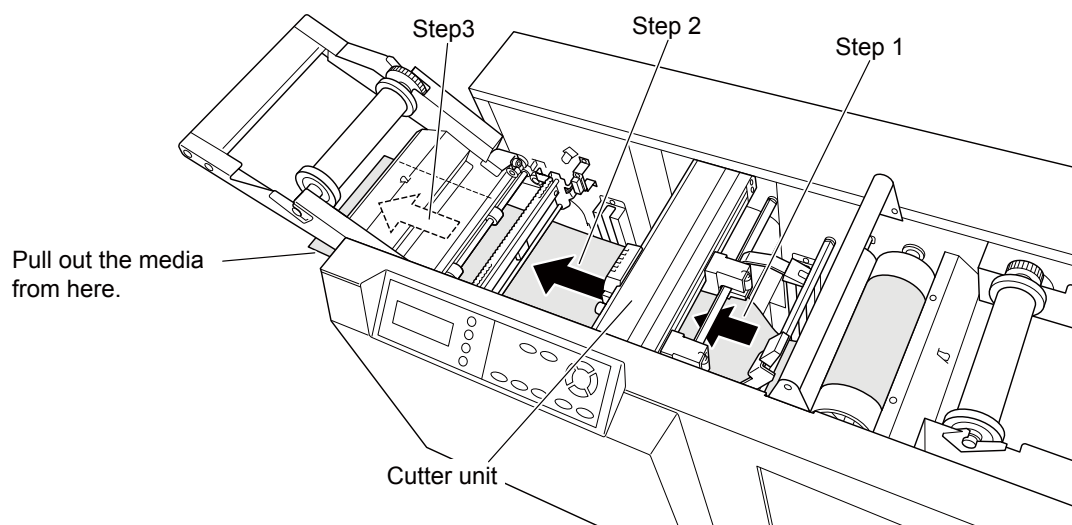
(16) The media should pass through route shown in the picture below.
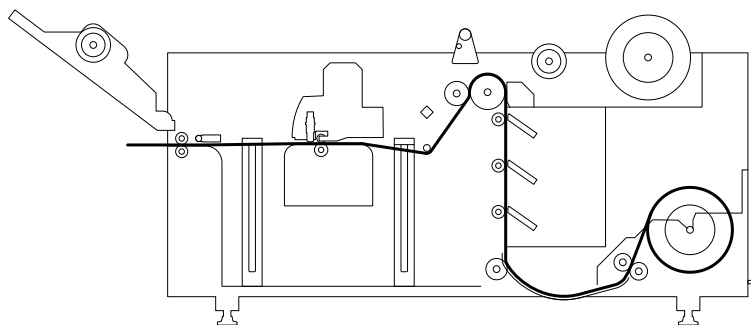
(17) Pull the media from the exit of cross cutter side (Step 1), and align the media and the position scale while the media is pulling (Step 2).

While it is straight, adjust the exit pinch rollers position (Step 3).

The exit pinch rollers should be positioned to both edges of media.

While it is straight, close the separator suppression unit (Step 4).

Step 3

The exit pinch rollers should be positioned to both edges of media.

Separator suppression unit

Exit pinch roller

Step 2

Position scale

Step1   Step 4
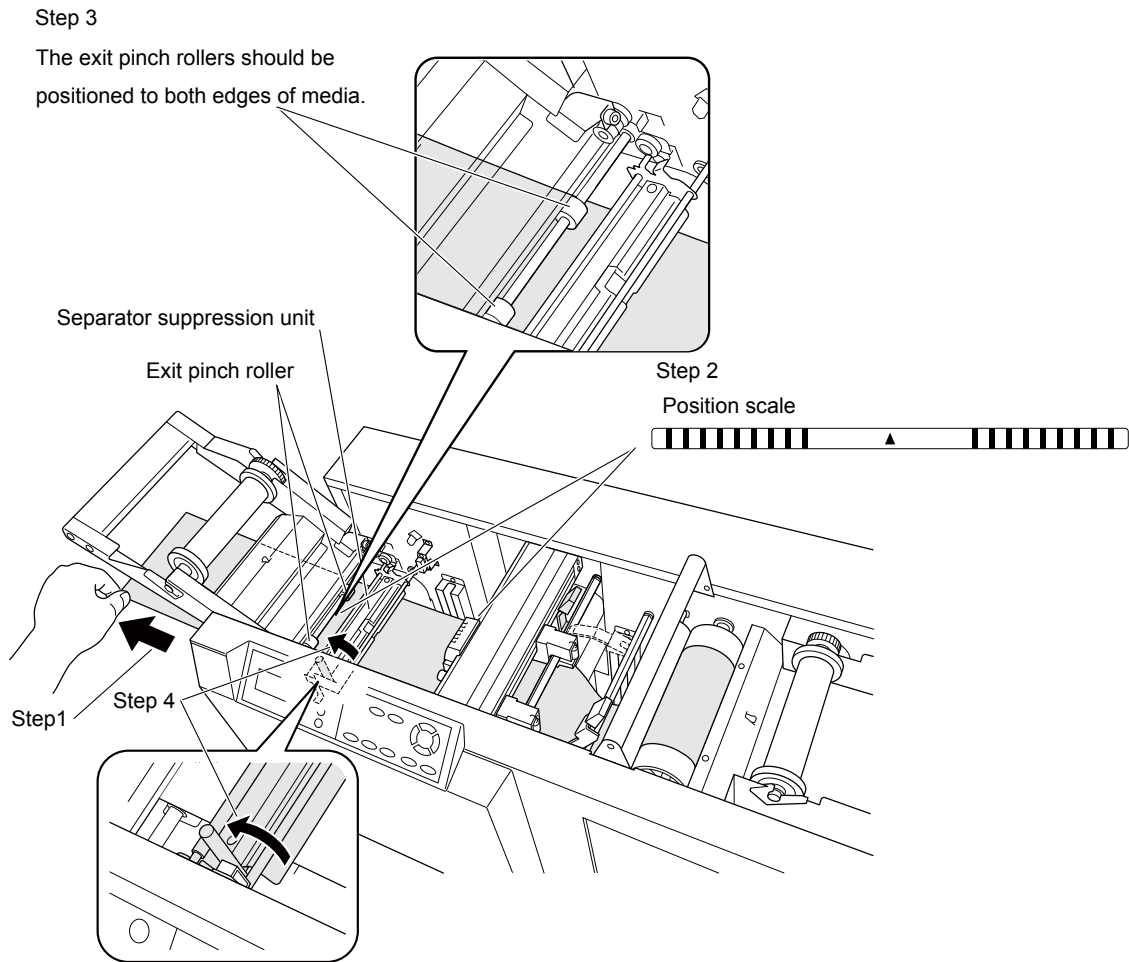
(18) Close the separator arm while pulling the media.

Separator arm
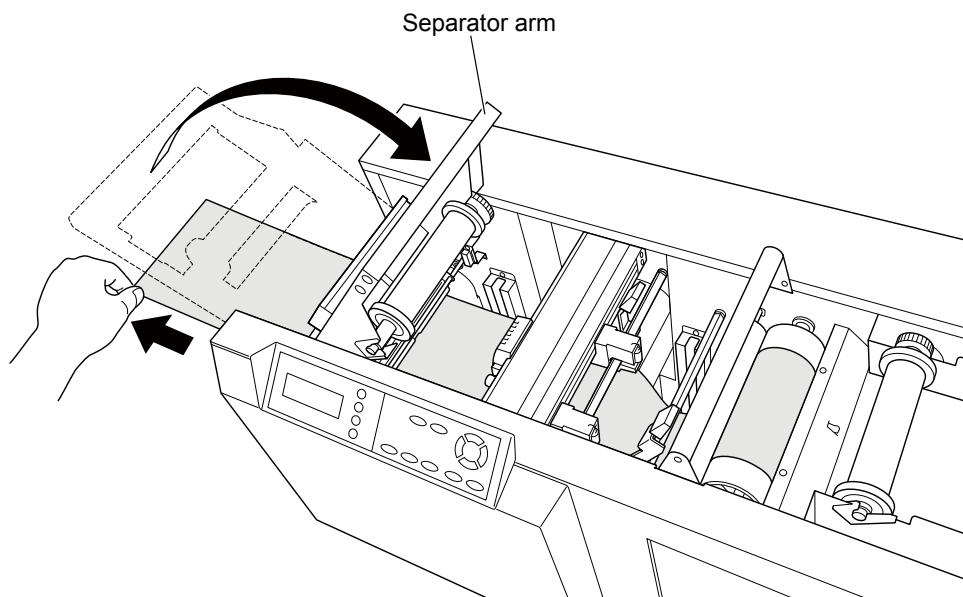
(19) Adjust the pinch roller position to fit to the media width.

Position the pinch rollers 5 mm inside from the media edge as shown in the picture below.
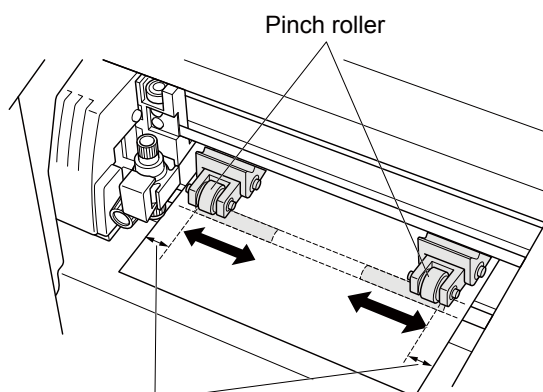
Pinch roller

Position the pinch rollers 5 mm
inside from the media edge.

(20) Close the cam lever.

Cam lever
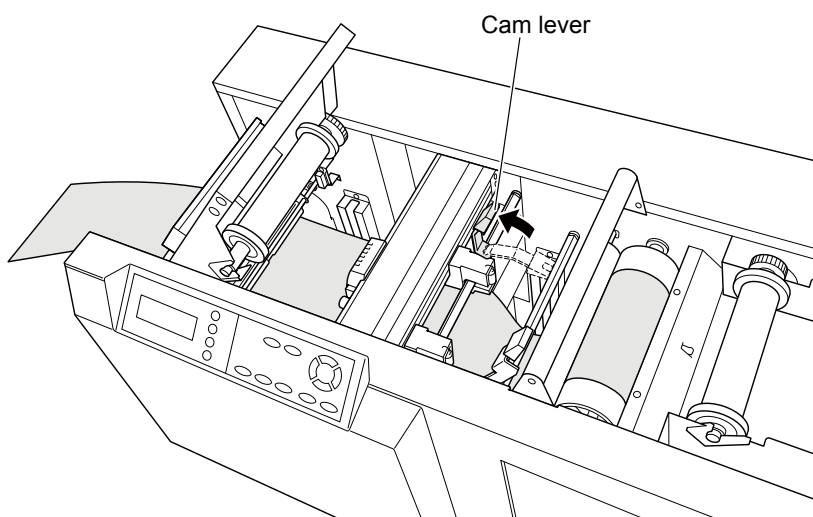
(21) The following messages are displaying during installing the media.

Press the ENTER Key after media is installed to the LCX603.

```
L03:Press FEED key
for feeding and
setting the media.
```

```
L03:Press ENTER key
when finished
setting the media.
```

(22) The following message is displayed.

Press the ENTER Key, this is confirming the separator was set.

Press the ENTER Key, even if the separator was not set.

```
L04:Confirm. Was the
winder bobbin set?


YES:ENTER
```

Above menu will not be displayed when the separator bobbin was setting to the separator holder.

Above menu will not be displayed when the separator function setting was setting to OFF.

(23) The following message is displayed.

Press the ENTER Key, this is confirming the laminate was set.

Press the ENTER Key, even if the laminate was not set.

```
L04:Confirm. Was the
laminate install?


YES:ENTER
```

Above menu will not be displayed when the laminate bobbin was setting to the laminate holder.

Above menu will not be displayed when the laminate function setting was setting to OFF.

(24) The following message is displayed. Don't press the ENTER Key until the dancer rollers are installed to the LCX603.

```
L04:Confirm. Was the
dancer roller set?
Initialize will
start.      YES:ENTER
```

(25) Install dancer roller 1 to the LCX603 as shown in the picture below.

Insert both sides of the dancer roller into the slot that accepts it.

Install dancer roller 1 to the side with the red mark.

Dancer roller 1
(Has a red ring mark on both side)

Red mark
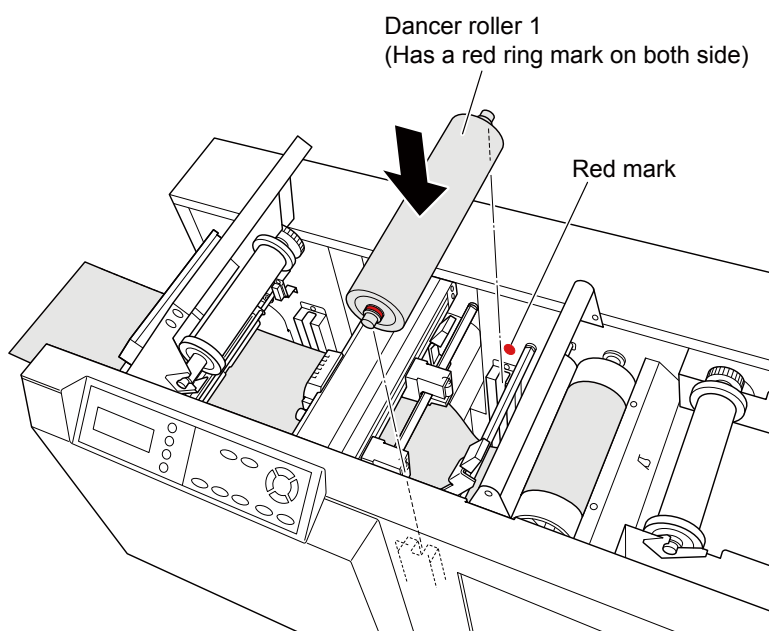
There are two kinds of dancer rollers, don't install them to wrong position.

Dancer roller 1

Red ring

There are red rings on both sides.
Used in between the press roller and cutter uint.

Dancer roller 2

There is no red ring.
Used in between the cutter unit
and the separator unit.
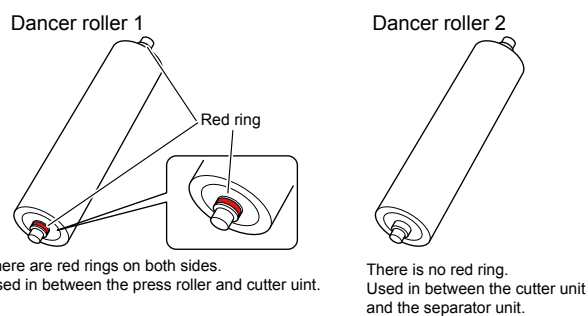
(26) Confirm the separator arm is closed.

Separator arm
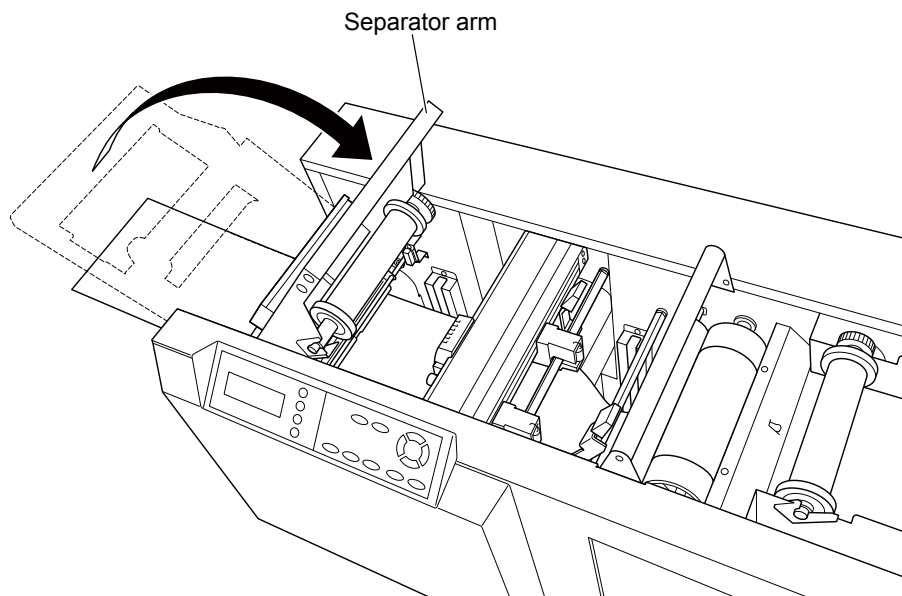
(27) Install dancer roller 1 to the LCX603 as shown in the picture below.
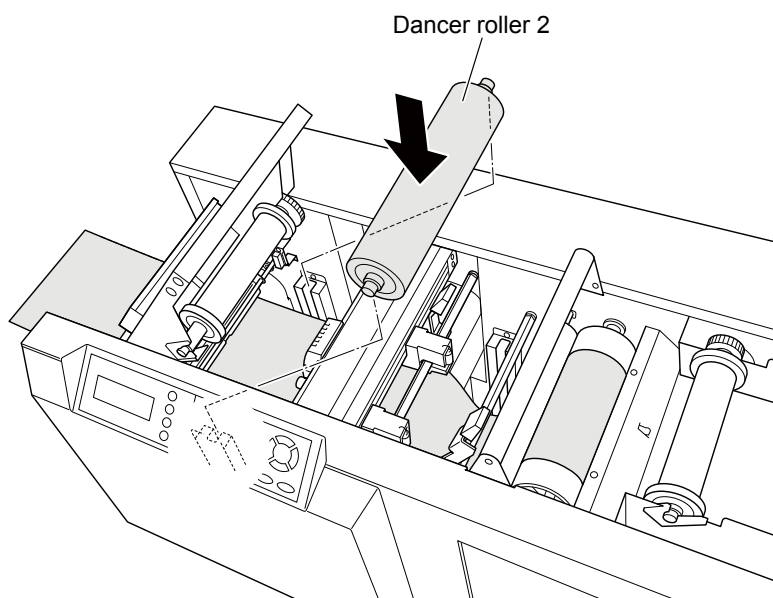
Dancer roller 2

(28) Press the ENTER Key after the dancer roller 1 and the dancer roller 2 are installed.

The LCX603 start initialization.

The following menu is displayed during initialization.

When the separator function "ON" and the separator bobbin is not installed.

```
W18:Media winder
Set winder bobbin
and press ENTER. or
press F4 to continue
```

The separator will be set later, press F4 Key this time.

When the laminate function "ON" and the laminate bobbin is not installed.

```
W09:No laminate
Load laminate!
Then press ENTER. or
press F4 to continue
```

The laminate will be set later, press F4 Key this time.

When the separator function "OFF" and the separator bobbin is installed.

```
W19:Media winder
Remove winder bobbin
and press ENTER. or
press F4 to continue
```

The separator will be set later, press F4 Key this time.

When the laminate function "OFF" and the laminate bobbin not installed.

```
W10:laminate is ins-
talled. Remove it!
Then press ENTER. or
press F4 to continue
```

The laminate will be set later, press F4 Key this time.

(29) The following menu is displayed after the media is installed.

```
Confirm Combination!
H3=Semi-R  H2=RESIN
H1=RESIN
YES:ENTER    NO:ESC
```

(30) Press the ENTER Key at this time.

After initialization was finished, following menu is displayed.

```
READY


    CONDITION-01

```

(31) Remove the media assist from the LCX603, and then install the ink ribbon to the LCX603.

Media assist
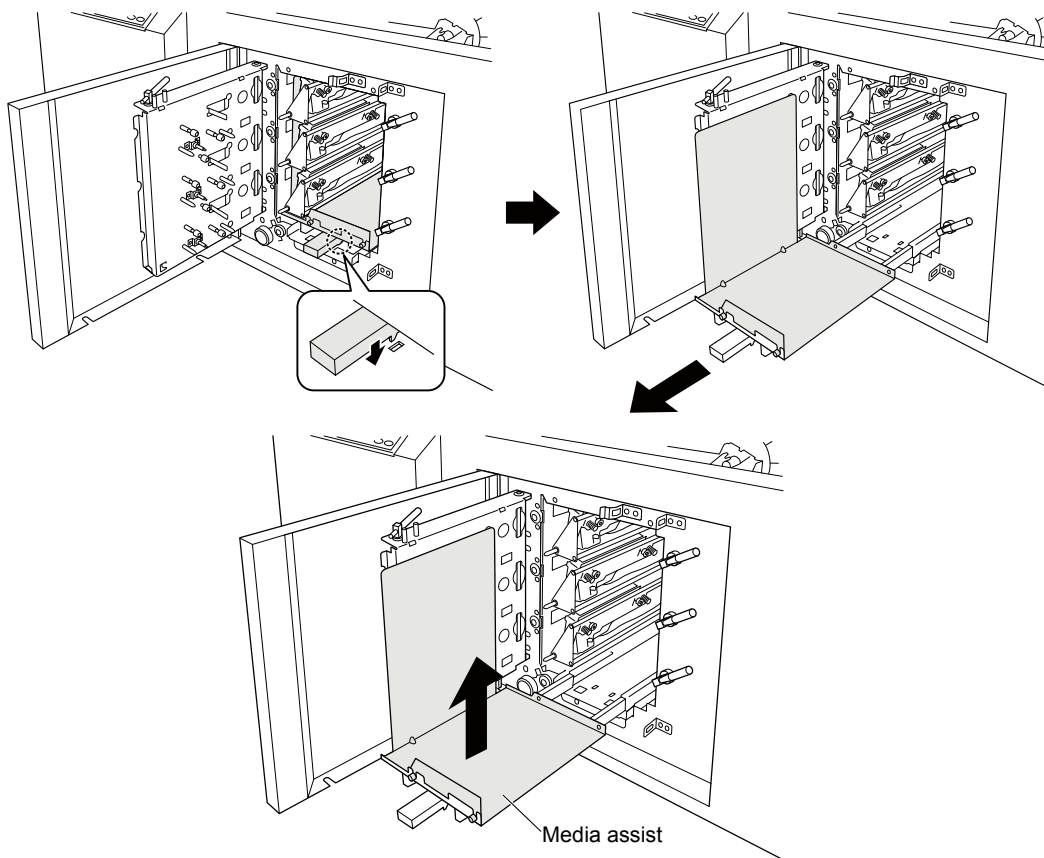
2.13 Installing the Ink Ribbon

2.13.1 How to install the ink ribbon stocker to the LCX603

(1) Take out the ribbon stocker and the ribbon cassettes from the accessory box.

Don't drop the ribbon cassettes when the ribbon stocker is taking out from the accessory box.
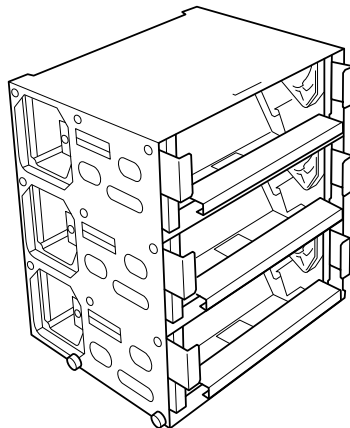
(2) Install the ribbon stocker to the LCX603 as shown in the picture below.

Ribbon stocker

The pins must be
properly fitted to here.
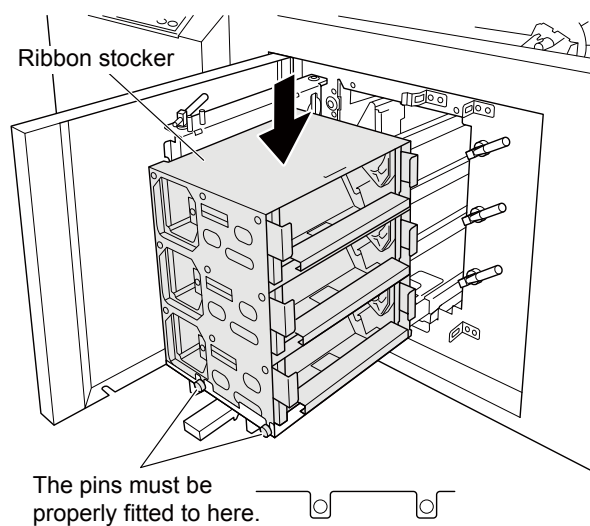
2.13.2 Regarding the Ink Ribbon Stocker

Position of ribbon cassette

The ribbon and the head numbers are started from bottom, so the bottom ink ribbon is No. 1 ribbon.

Install the black ink ribbon to the top cassette (Head 3). The black ink ribbon must install to the head 3 cassette.

Ribbon 3 (Head 3)

Ribbon 2 (Head 2)

Ribbon 1 (Head 1)
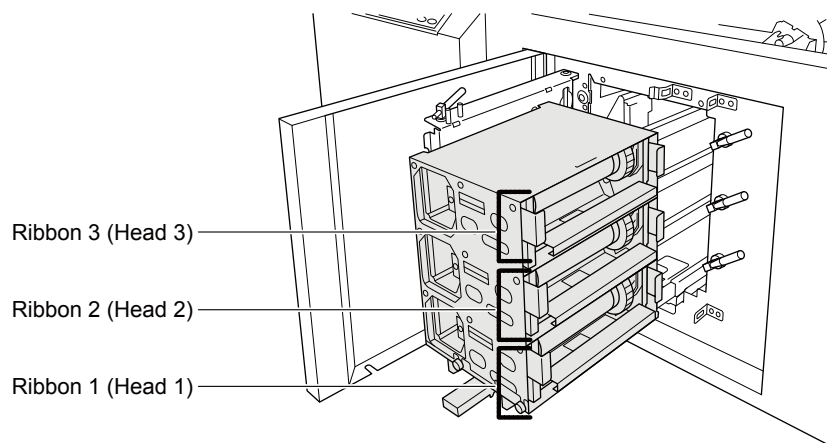
Ribbon (head) lever

When printing, set the ribbon lever to the set position.

When the media is feeding or the replacing ribbons, set the ribbon lever to the release position.

Ribbon lever set position   Ribbon lever release position

Ribbon lever
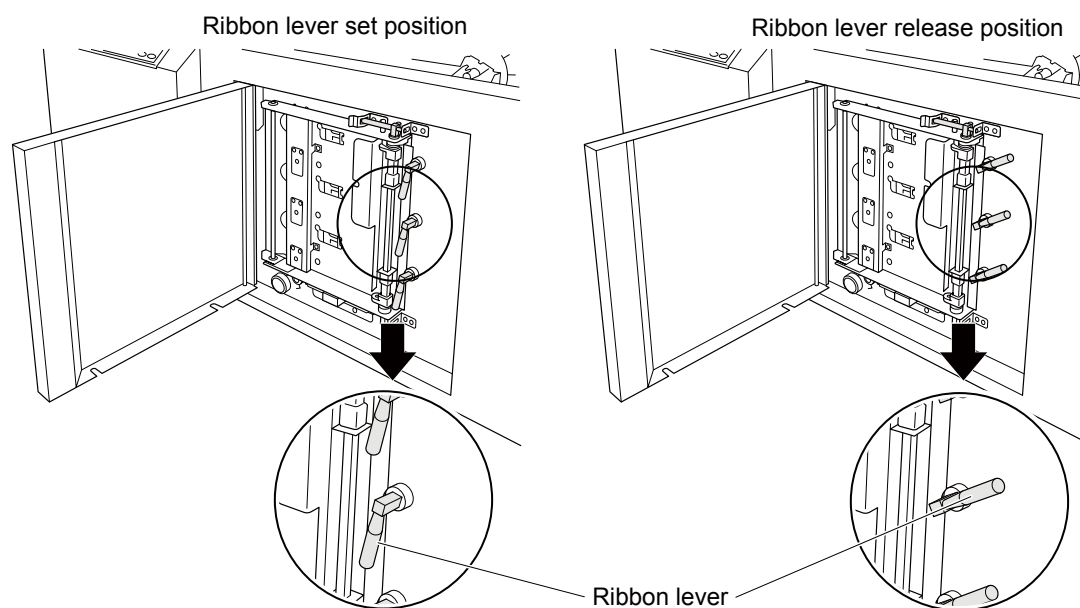
2.13.3 Installing the Ink ribbon to the Ink Ribbon Cassette

(1)   Install the ink ribbons to the ribbon cassettes which are prepared to the printing test.

(2)   Install the RESIN ink ribbon (RP120-B-R4A) to the top ribbon cassette (head 3).

(3)   Pull out the ink ribbon cassette from the ribbon stocker gently as shown in the picture below.

Step 2

Step 1
While pressing the stopper lever of center back, pull the ribbon cassette gently.
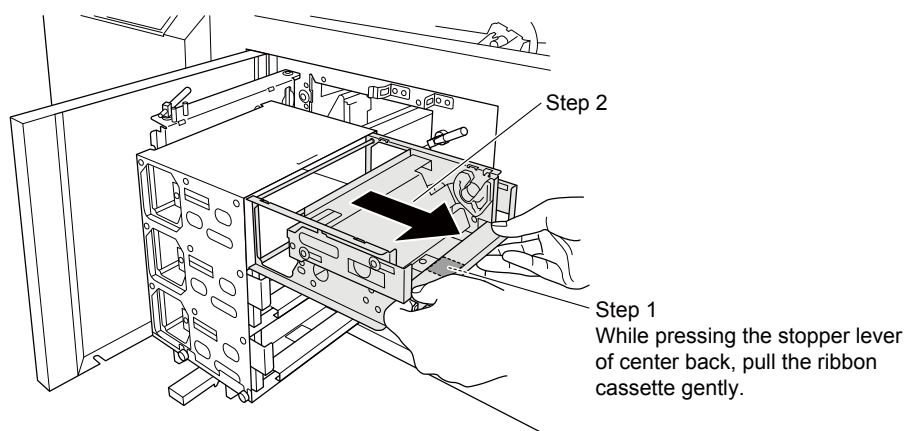
The head pressure selector plate for the RESIN and the Semi-RESIN ink ribbons

There are two types of ink ribbons: RESIN and Semi-RESIN.

RESIN (Resin-type)......................RP120-***

Semi-RESIN (Wax-type)..............WD120-***

The head pressure selector plate position have to be selected by the ink ribbon type.

Ink ribbon cassette

Head pressure selector plate

Lever

Step 2
Slide the head pressure selector plate

Step 1
Press the lever to release the head pressure selector plate
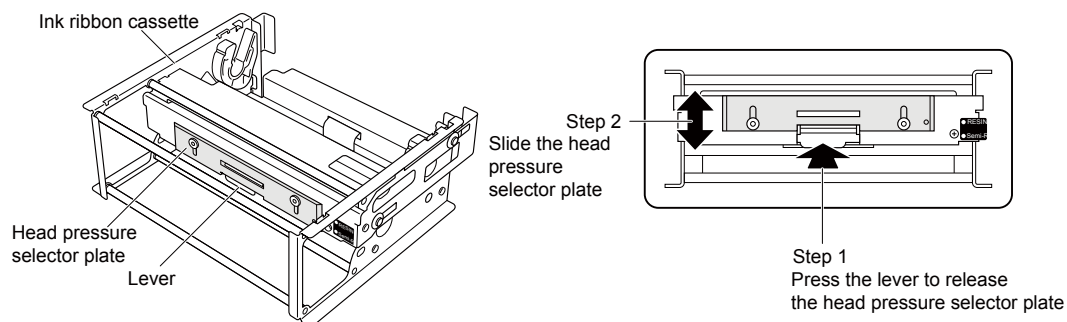
(4) Set the print head pressure selector plate to the RESIN position, for the RESIN ink ribbon was installed in step (2).

(5) Slide the print head pressure selector plate to the RESIN position as shown in the picture below.

RESIN   **Semi-RESIN**

Head pressure selector plate

Head pressure selector plate   Stpper

Stpper

While pressing the stopper, slide the head pressure selector plate up.

While pressing the stopper, slide the head pressure selector plate down.
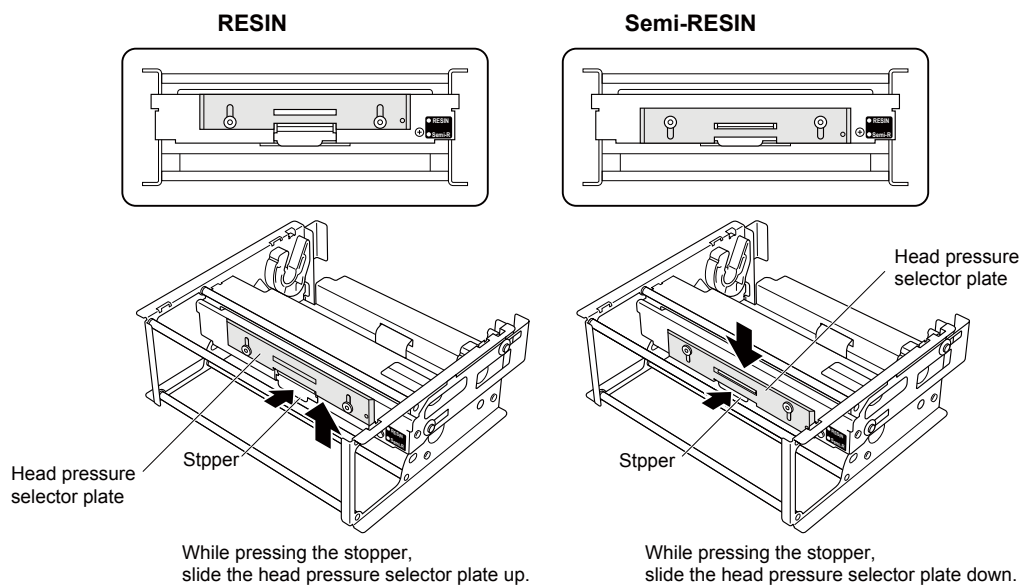
Confirm the print head pressure selector plate position when the ink ribbon was replaced.

(6) Take out the RESIN ink ribbon and the ribbon flanges from the accessory box.

(7) Install the ink ribbon flange to the ink ribbon.

(8) Set the ink ribbon flange to the ink ribbon as shown in the picture below.

When peeling the tape, be careful not to peel the film section of the ribbon.

Cutout section

A

Not yet printed side

Printed side   Not yet printed side

Printed side

Ink ribbon flange
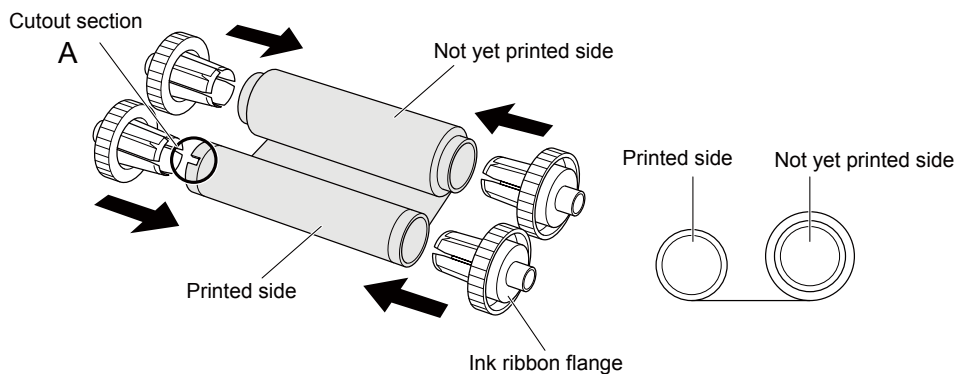
(9) Expand the ink ribbon as shown in the picture below.

Not yet printed side

Printed side

(The side, which rolls the transparent part when the ribbon is new)
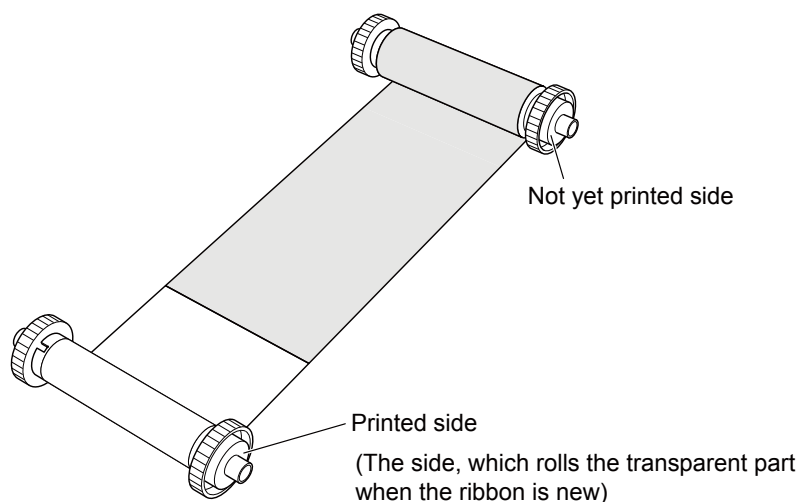
(10) Put the ink ribbon cassette onto the expanded ink ribbon as shown in the picture below.

Confirm the rewind direction of ribbon is same as shown in the picture below.
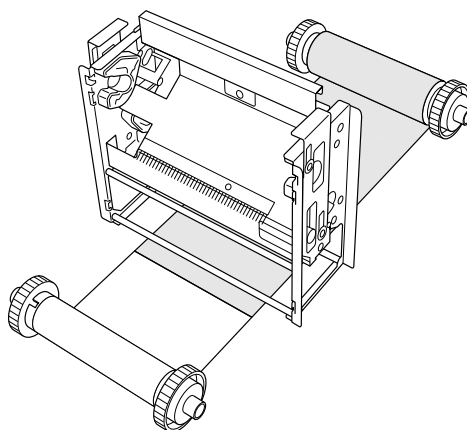
(11) Set the ink ribbon and hold the flange section when setting it. Push until there is a clicking sound.

Set the cutout section of the ink ribbon bobbin into the position shown in the below picture.

Set the cutout part of bobbin to this side.

Not yet printed side

Printed side
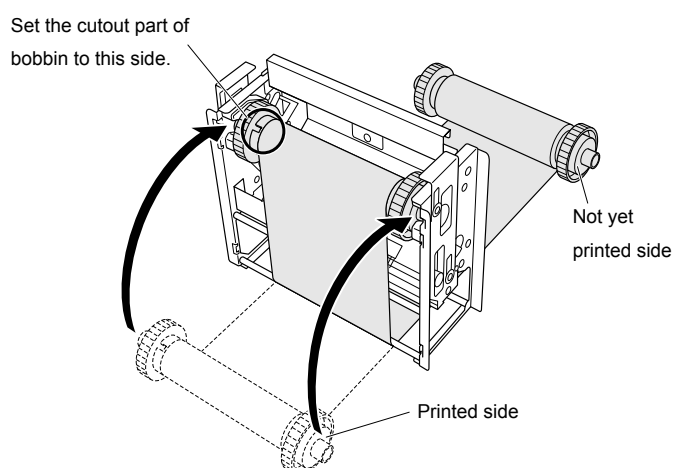
During set-up, be careful not to confuse the sending side with the wind-up side. (When set in the ribbon stocker, make the area coming toward the upper side the wind-up side.)

Take care not to let dust into the cassette bar or ribbon. The significant presence of dust can lead to a thermal head malfunction. If dust has settled on the cassette bar or ribbon, slightly wind the wind-up side.

(12) Hold the flange section in the reverse side also and set it into the ribbon cassette. Push until there is a clicking sound.
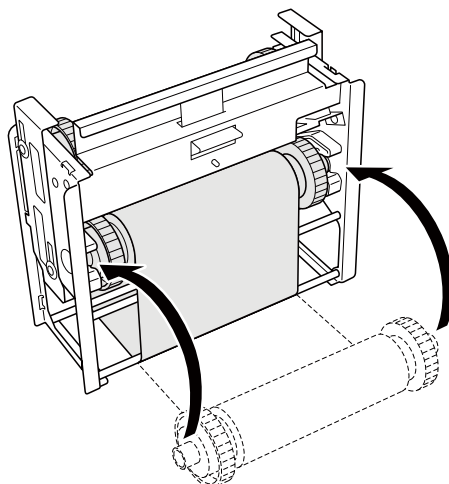
(13) Make sure the ink ribbon is not slack. Roll up the ribbon if it is slack.

Rewind until the transparent film is no longer visible.

Make sure there are no wrinkles in the ink ribbon. Missing text occurs when there are wrinkles.

(14) Set the ribbon cassette in the ribbon stocker.
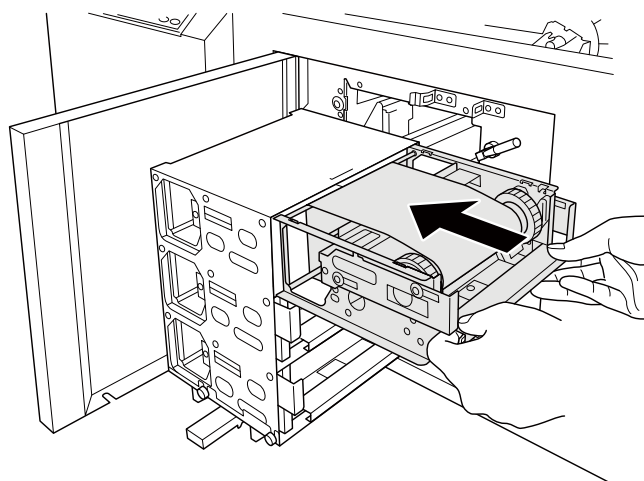
(15) Set other ink ribbon of heads in the same procedure.

Set non-black ink ribbons in ribbon 1 (Head 1) and ribbon 2 (Head 2)

Confirm the black ink ribbon is set for ribbon 3 (Head 3).

(16) Push the lever and slowly and quietly return the ribbon stocker to the LCX603 after all ribbon cassettes were set to the ribbon stocker (Step 1).

Push until there is a clicking sound. Push and fasten the lever so that it is secured in the slot (Step 2), and close the ribbon stocker door (Step 3).

Lever

Step 1

Step 3

Step 2
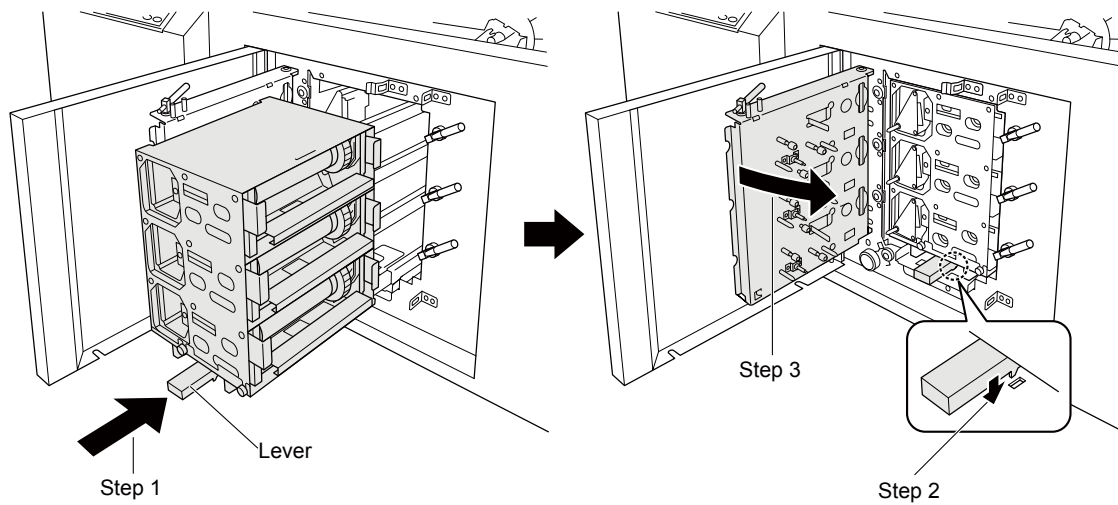
(17) Lock the ribbon stocker door as shown in the picture below.

Lock lever
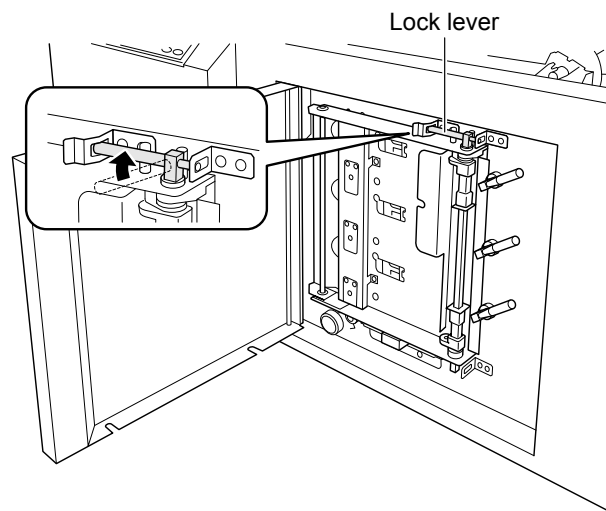
Setting the ink ribbon is now complete

(18) Set the ribbon lever to set position.

Set the ribbon lever when printing.
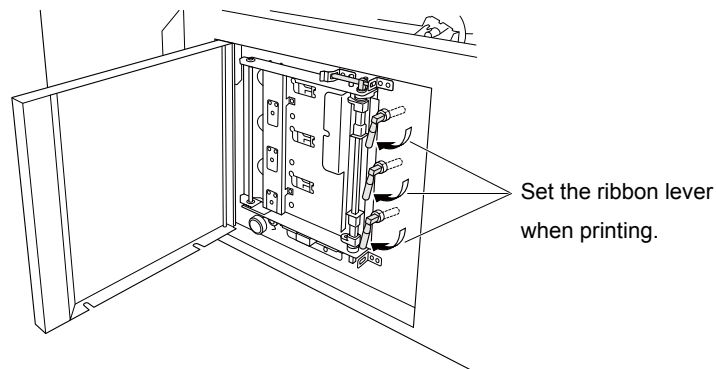
(19) After finishing setting the ink ribbons, adjust the density setting to match with the ink ribbon before printing.

2.14 Adjusting the density

The density is adjusting the thermal power for the print head.

Therefore the density must have correct setting for the ink ribbon and the media to make a good printing.

Before printing you have to understand the matching for the each ink ribbons and media.

And each ribbons need to have a different thermal power to make a good printing.

So you have to have knowledge of the ink ribbons and the media before printing by the LCX603.

Especially don't set the high density to the Semi-RESIN ink ribbons, the Semi-RESIN ink ribbons will be broken by the high thermal power and the thermal head will be damaged.

Feature of ink ribbons

There are two kind of ink ribbon types, which are the RESIN ink ribbons and the Semi-RESIN ink ribbons.

Use these ink ribbons to match the usage of labels.

Type	Ink ribbon name	Color	Feature	Light resistance
RESIN (Resin)	RP120-B-R4A	Black	Good chemical resistance Good scratch resistance	6 years
	RP120-R-R4A	Red		
	RP120-BL-R4A	Blue		
	RP120-W-R4A	White		
	RP120-Y-R4A	Yellow		3 years
Semi-RESIN (Resin-Wax)	WD120-B-R4A	Black	Good chemical resistance Easy to scratch	6 years
	WD120-R-R4A	Red		1 year
	WD120-BL-R4A	Blue		
	WD120-G-R4A	Green		

Numerical value of the light fastness mentioned above is a reference level in an approximate aim.

The guide of density for the ink ribbon and the media

Media type	Media Name	Semi-RESIN WD120-B-R4A WD120-R-R4A WD120-G-R4A*2 WD120-BL-R4A						RESIN RP120-B-R4A RP120-BL-R4A RP120-R-R4A RP120-Y-R4A RP120-W-R4A*3					
		Setting Range	Guide value of density				Setting Range	Guide value of density				
			A	B	C	D		A	B	C	D		
FNS (Silver base)	FNS Mat N25-1310B-R4	24 to 36	30	24	30	24	42 to 48	45	42	45	42		
	FNS Mat N50-1310B-R4	24 to 36	30	24	30	24	42 to 48	45	42	45	42		
	FNS Mat S50-1310B-R4	24 to 36	30	24	30	24	42 to 48	45	42	45	42		
	FR1615-50-1310-R4A	24 to 36	30	24	30	24	44 to 48	48	44	48	44		
PET (Transparence)	PET25A-1310B-R4	24 to 36	30	24	30	24	44 to 48	46	44	46	44		
	PET50A-1310B-R4	26 to 36	31	26	31	26	44 to 48	46	44	46	44		
	FR1225-50-1310-R4A	24 to 36	30	24	30	24	42 to 48	44	42	44	42		
PET (White)	PETWH50A-1310-R4A	24 to 36	30	24	30	24	42 to 48	45	42	45	42		
	FR1415-50-1310-R4A	30 to 36	33	30	33	30	44 to 48	46	44	46	44		
PET (Yellow)	FR1015-50-1310-R4A	26 to 36	31	26	31	26	44 to 48	46	44	46	44		
YUPO	FR5311-85-1310-R4A	24 to 36	30	24	30	24	42 to 48	46	42	46	42		
	FR6311-80-1310-R4A	26 to 36	31	26	31	26	42 to 46	44	42	44	42		
Gross Paper	GROSS PW-1310B-R4*1	28 to 36	32	28	32	28	-	-	-	-	-		
NP COAT Paper	NP COAT PW-1310B-R4	28 to 36	31	26	31	26	-	-	-	-	-		

*1 Gross PW-1310B-R4 is material for exclusive use of the ink ribbon of Semi-RESIN WD120-B-R4A (black).

*2 The WD120-G-R4A (Green) Semi-RESIN ink ribbon is not suitable for fill printing. Please use this ribbon for printing that involves characters and lines.

*3 The RP120-W-R4A (White) RESIN ink ribbon is unsuitable for printing on white media regardless of the compatibility and setting values indicated. Please use this ribbon after carefully considering the color scheme involved.

Data Type A	Data Type B	Data Type C	Data Type D
ABCDEF GHIJKL	ABCDEF GHIJKL	ABCD	ABCD
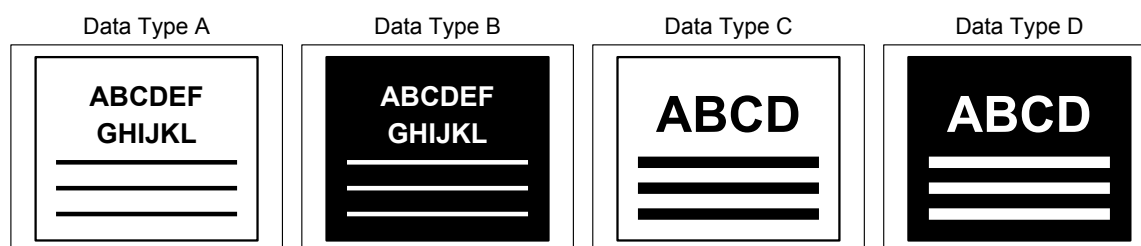
Matching with media and ink ribbon

		Type of ink ribbon	
		Semi-RESIN	RESIN
FNS	FNS Mat N25-1310B-R4	Good printing quality	Good printing quality
	FNS Mat N50-1310B-R4	Good printing quality	Good printing quality
	FNS Mat S50-1310B-R4	Good printing quality	Printable, printing quality is not so good
	FR1615-50-1310-R4A	Good printing quality	Good printing quality
PET (Transparence)	PET25A-1310B-R4	Good printing quality	Printable, printing quality is not so good
	PET50A-1310B-R4	Good printing quality	Printable, printing quality is not so good
	FR1225-50-1310-R4A	Good printing quality	Good printing quality
PET (White)	PETWH50A-1310-R4A	Good printing quality	Good printing quality
	FR1415-50-1310-R4A	Good printing quality	Good printing quality
PET (Yellow)	FR1015-50-1310-R4A*1	Good printing quality	Good printing quality
YUPO	FR5311-85-1310-R4A	Printable, printing quality is not so good	Printable, printing quality is not so good
	FR6311-80-1310-R4A	Printable, printing quality is not so good	Printable, printing quality is not so good
Gross Paper	GrossPW-1310B-R4*2	Printable, printing quality is not so good	Not printable
NP COAT Paper	NP COAT PW-1310B-R4	Printable, printing quality is not so good	Not printable

*1 The yellow pet may vary in a color after printing depending on an ink ribbon color.

*2 Gross PW-1310B-R4 is material for exclusive use of the ink ribbon of Semi-RESIN WD120-B-R4A (black).

How to adjust the printing density

(1)   Adjust the printing density.

   At this time, the RESIN ink ribbon RP120-B-R4A has been installed to the print head 3.

   And the media FNS Mat N50-1310B has been installed.

   Set the media type to "FNS Mat N50-1310B".

   Set the ribbon type to "RESIN".

   Set 42 for the printing density according from the table of "The guide of density for the ink ribbon and the media".

   And set the printing density for other print head by same procedure also.

(2)   Set the all ribbon lever to the set position.

Set all lever to set position.
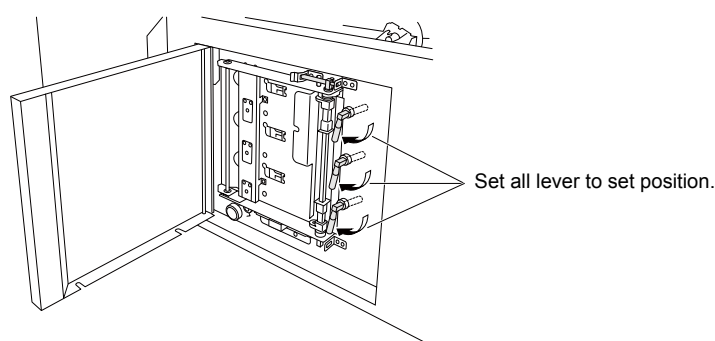
(3)   Press the LOCAL Key, the following menu is displayed.

```
        PRINTER MENU>
        CUTTER MENU>
        OUTPUT ALL>
```

(4)   Press the F1 Key (PRINT MENU), the following menu is displayed.

```
               COPY>
         DATA CLEAR>
          CONDITION>
1/4
```

(5)   Press the NEXT Key until the following menu is displayed.

```
       PRINT SETTING>
  PRINT TEST PATTERN>
      HEAD ADJUSTMENT>
2/4   PRINTED LENGTH>
```

(6)   Press the F1 Key (PRINT SETTING), the following menu is displayed.

```
        PRINT DENSITY>
       PAGE PRINT MODE>
  ANTI-WRINKLE LINES>
```

(7)   Press the F1 Key (PRINT DENSITY), the following menu is displayed.

```
  CONSTRUCTION MEDIA>
         DENSITY HEAD3>
         DENSITY HEAD2>
         DENSITY HEAD1>
```

(8)   Press the F1 Key (CONSTRUCTION MEDIA), the following menu is displayed.

Select the media type "FNSmat N50" with the POSITION keys (▲▼).

```
MEDIA TYPE
         <FNSmat N50>
SELECT:↑↓
YES:ENTER     NO:ESC
```

(9)   Press the ENTER key, after media type is selected, the following menu is displayed.

```
  CONSTRUCTION MEDIA>
         DENSITY HEAD3>
         DENSITY HEAD2>
         DENSITY HEAD1>
```

(10) Press the F2 Key (DENSITY HEAD3), the following menu is displayed.

Select the ribbon type "RESIN" with the POSITION keys (▲▼).

```
HEAD3 RIBBON TYPE
         <      RESIN>
SELECT:↑↓
YES:ENTER     NO:ESC
```

(11) Press the ENTER key, after ribbon type is selected, the following menu is displayed.

Select the DENSITY "42" with the POSITION keys (▲▼).

```
HEAD3 DENSITY
                 <42>
SELECT:↑↓
YES:ENTER     NO:ESC
```

(12) Press the ENTER key, after DENSITY is selected, the following menu is displayed.

```
 CONSTRUCTION MEDIA>
      DENSITY HEAD3>
      DENSITY HEAD2>
      DENSITY HEAD1>
```

(13) Select the ink ribbon type and the printing density for the head 1 and head 2 by same procedure of the print head 3 density setting.

(14) Press the LOCAL Key, the menu returns to the READY menu.

(15) Perform the test print to confirm printing result is good quality.

2.15 Test Printing and Density Adjustment

Confirm the 130 mm width of media is installed to the LCX603.

Confirm the ink ribbons are installing to the all ribbon cassettes.

The test printing will not be performed correctly if above media and ribbons are not installed.

The following test pattern is printed when the test print is performed.

Test printing pattern

Feeding direction

Head 3 (Ribbon 3)
Head 1 (Ribbon 1)
Head 1 (Ribbon 1)
Head 2 (Ribbon 2)
Head 2 (Ribbon 2)
Head 3 (Ribbon 3)
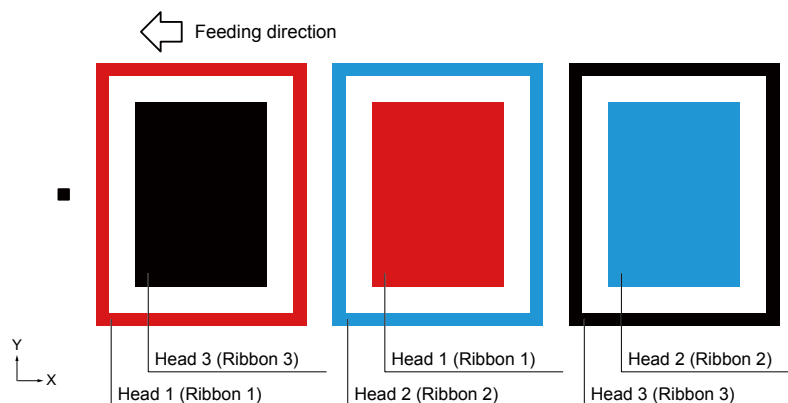
How to print the test printing pattern

(1) Press the LOCAL Key, the following menu is displayed.

```
          PRINTER MENU>
          CUTTER MENU>
           OUTPUT ALL>
```

(2) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                 COPY>
           DATA CLEAR>
            CONDITION>
1/4
```

(3) Press the NEXT Key until the following menu is displayed.

```
        PRINT SETTING>
   PRINT TEST PATTERN>
      HEAD ADJUSTMENT>
2/4  PRINTED LENGTH>
```

(4) Press the F2 Key (PRINT TEST PATTERN), the following menu is displayed.

```
   PRINT TEST PATTERN>
 ADJUST P&C POSITION>
```

(5) Press the F1 Key (PRINT TEST PATTERN), the following menu is displayed.

```
PRINT TEST PATTERN?



YES:ENTER       NO:ESC
```

(6) Press the ENTER Key to print the test pattern.

When press the ESC key at above menu, the menu returns to the previous menu.

Density adjustment from the printing result

Adjust the printing density from the printing result of test pattern for all print head.

If a printing result seems to rub, gradually increase the printing density. Don't set to the printing density too high, the ribbon sticks to a head or the ribbon breaks.

The wrinkle appears after the ink ribbon is installed, print the test pattern several times until the wrinkle disappears from the printing result.

How to adjust the printing density

(1) Press the LOCAL Key, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
          OUTPUT ALL>

```

(2) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
               COPY>
          DATA CLEAR>
           CONDITION>
1/4
```

(3) Press the NEXT Key until the following menu is displayed.

```
       PRINT SETTING>
  PRINT TEST PATTERN>
      HEAD ADJUSTMENT>
2/4   PRINTED LENGTH>
```

(4) Press the F1 Key (PRINT SETTING), the following menu is displayed.

```
        PRINT DENSITY>
       PAGE PRINT MODE>
  ANTI-WRINKLE LINES>

```

(5) Press the F1 Key (PRINT DENSITY), the following menu is displayed.

```
CONSTRUCTION MEDIA>
       DENSITY HEAD3>
       DENSITY HEAD2>
       DENSITY HEAD1>
```

(6) Press the F2 Key (DENSITY HEAD3), the following menu is displayed.

(Press the F4 Key if adjusting for the head 1.)

(Press the F3 Key if adjusting for the head 2.)

```
HEAD3 RIBBON TYPE
         < RESIN    >
SELECT:↑↓
YES:ENTER      NO:ESC
```

(7) Press the ENTER key.

```
HEAD3 DENSITY
                   <42>
SELECT:↑↓
YES:ENTER      NO:ESC
```

(8) Adjust the numerical value (42 to 48) with the POSITION keys (▲▼) and set the density.

Press the ENTER key after the density is adjusted, the display returns to the previous screen.

Press the ESC key to return to the previous screen.

Press the LOCAL key to return to READY status.

Adjust the printing density from the printing result of test pattern for all print head.

If a printing result seems to rub, gradually increase the printing density.

If the ribbon sticks to a head, the wrinkle is appeared, decrease the printing density.

If the vertical white lines are appeared on the printing result, there is dust on the print heads or the platen rollers.

Clean the print head or the platen roller, and then perform the printing test again.

Cleaning the print head and the platen roller

When there is dirt on the print head or the platen roller, the rub printing appears on the printing result.

When there is dust on the print head or the platen roller, the vertical white lines are appeared.

Clean the print head by the following procedure, and then perform the printing test.

How to clean the print head

(1) Detach the ribbon stocker.
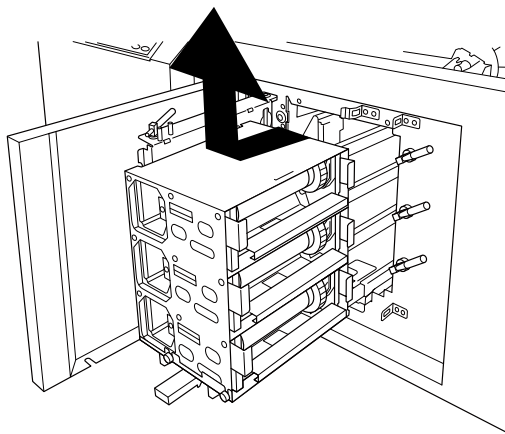
(2) Open the print head section, and gently wipe the heating element section at the tip of the head with the cleaning stick as shown in the picture below.

Open the print head area   Cleaning stick   Heating element area of print head
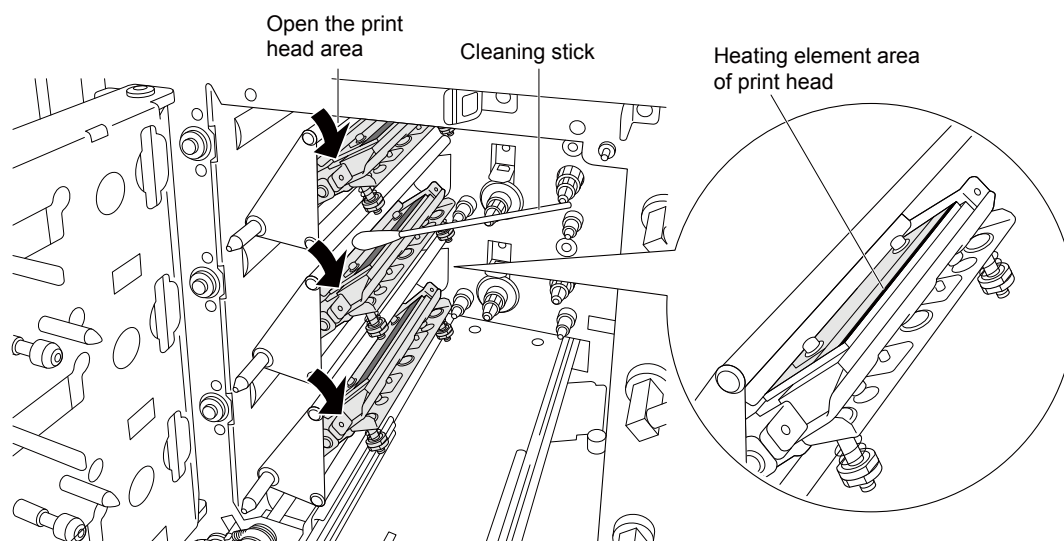
Since there is the possibility of damaging the head if you rub it forcefully or wipe it with a cloth that has not been specified, wipe it only with a cleaning stick.

When particularly dirty, apply a little IPA (Isopropyl Alcohol 90% purity or greater) and rub it gently.

So as to not damage it, never strike or scratch it with a sharp or hard object.

Upon performing maintenance, in order to prevent the likes of electrostatic disruption and corrosion, please do not directly touch the print heads with your hands. Ensure not to do the same for the media surface that the print heads come into contact with.

How to clean the platen roller

(1) Detach the ribbon stocker.
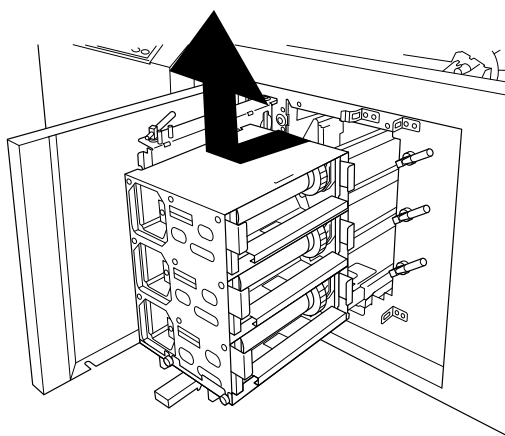
(2) Open the print head section, and gently wipe the platen roller with the cleaning stick as shown in the picture below.

Since there is the possibility of damaging the platen roller if you rub it forcefully or wipe it with a cloth that has not been specified, wipe it only with a cleaning stick.

When particularly dirty, apply a little ethanol or IPA (Isopropyl Alcohol) and rub it gently.

Platen Roller

Cleaning stick
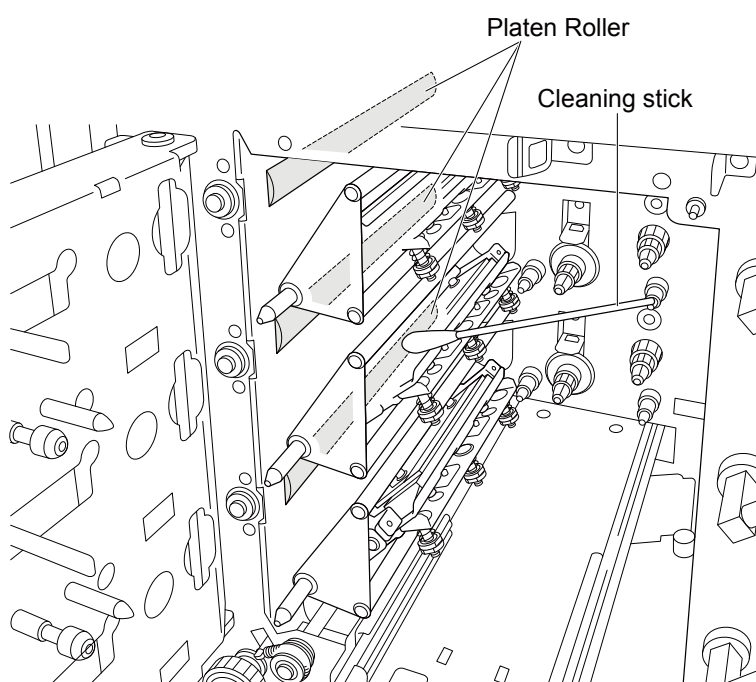
2.16 Adjusting the blade length and the tool condition

Adjusting the blade length

If the blade length is not adjusted to fit the utilized label materials (media) and cutter blade, it will not be possible to achieve an optimal cut. After adjusting the blade length manually, run a test cut and adjust further.

(1)   Adjust the blade length with same level of the tip of the blade holder as shown in the picture below. Gradually adjust the blade length to the thickness of the label material from the 0 length.
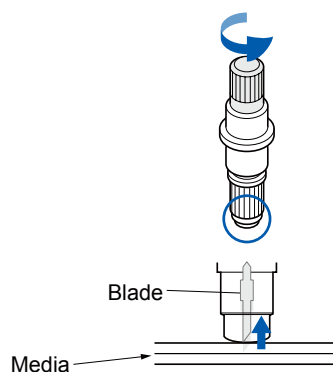
(2)   Extend the gradually to the thickness of the label material. A blade length that is lesser than the thickness of the backing sheet matched to the film, and greater than the thickness of the film is optimal. Try cutting the film, and adjust so that there are cutting trace marks in the backing sheet. If the backing sheet has been completely cut, increase the blade length if it is too short and there are remaining cuts in the film.
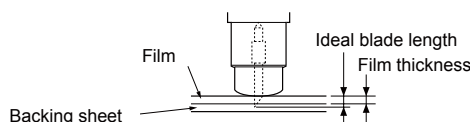

The blade length is adjusted by turning the blade length adjustment knob. Turn the blade clockwise to lengthen the blade; turn counterclockwise to retract. The blade extends ap. 0.1 mm for every calibrated rotation.
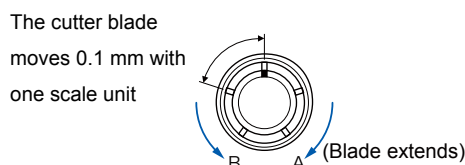
(3)   The media of "FNS Mat N50-1310B" is installing to the LCX603. Have about 0.1 mm blade length this time. (Turn the one scale unit clockwise from the 0 mm blade length.)

(4)   Confirm the cutting condition by the cutting test.
       Increase the cutting force a little if the media was not cut enough.
       Increase the blade length a little if the media was not cut enough after the cutting force is increased.
       (The blade length does not have enough length to cut the media. Turn a half scale unit clockwise to have enough length to cut the media.)

Adjusting the tool condition

There are five items for the tool condition, which are tool type, blade offset, cutting force, cutting speed, and acceleration.

Tool type................. The 09U is displayed on the LCD. The CB-09U is a cutting blade for the LCX603. The CB-09U is used for the LCX603 only. Therefore the tool type is not selectable for the LCX603.

Blade offset .... The blade offset depends on the media thickness. The most of media is not necessity to adjust this. Set this setting to "0".

Cutting force........... The cutting force depends on the hardness of the media. More force needs when the hard media is cutting.

Cutting speed .... The cutting speed affects to quality of cutting. Decrease the cutting speed to have a good cutting quality.

Acceleration .... The acceleration affects to quality of cutting. Decrease the acceleration to have a good cutting quality.

How to adjust the tool condition

(1)   The media of "FNS Mat N50-1310B" is installing to the LCX603. Set the 0 for blade offset, the 14 for cutting pressure, the 15 for cutting speed, and the 1 for acceleration.

(2)   Press the TOOL COND. Key in READY status, the following menu is displayed.

```
     TOOL CONDITIONS>
            TEST CUT>
        CUTTING WIDTH>
```

(3)   Press the F1 Key (TOOL CONDITIONS), the following menu is displayed.

```
<1 09U 0 14 15 1 >
[CONDITION NO.]
SELECT:←→↑↓
YES:ENTER      NO:ESC
```

(4)   Press the POSITION Key (←→) to move cursor to the offset position.

```
<1 09U 0 14 15 1 >
[OFFSET]
SELECT:←→↑↓
YES:ENTER      NO:ESC
```

(5)   Set the 0 for offset by using POSITION (↑↓) Key.

(6)   Press the POSITION Key (←→) to move cursor to the cutting force position.

```
<1 09U 0 14 15 1 >
[FORCE]
SELECT:←→↑↓
YES:ENTER      NO:ESC
```

(7)   Set the 14 for force by using POSITION (↑↓) Key.

(8) Press the POSITION Key (←→) to move cursor to the cutting speed position.

```
<1 09U 0 14 30 2 >
[SPEED]
SELECT:←→↑↓
YES:ENTER      NO:ESC
```

(9) Set the 15 for force by using POSITION (↑↓) Key.

(10) Press the POSITION Key (←→) to move cursor to the acceleration position.

```
<1 09U 0 14 15 1 >
[ACCEL]
SELECT:←→↑↓
YES:ENTER      NO:ESC
```

(11) Set the 1 for acceleration by using POSITION (↑↓) Key.

(12) Press the ENTER Key, setting is stored.

(13) Press the LOCAL Key, to return to READY status.

Confirming the cutting result by the test cutting

Perform the test cutting after tool condition was set, and then confirm the cutting quality.

Confirm the media is cut enough. Confirm the corner is cutting correctly.

Adjust the tool condition if the cutting quality is bad until the cutting quality becomes better.

How to perform the test cutting

(1) Press the TOOL COND. Key in READY status, the following menu is displayed.

```
TOOL CONDITIONS>
      TEST CUT>
   CUTTING WIDTH>
```

(2) Press the F2 Key (TEST CUT), the following menu is displayed.

```
TEST CUT?

POSITION:←→↑↓
YES:ENTER      NO:ESC
```

Press the POSITION keys (←→↑↓) move the tool carriage to the position where the cutting test will be carried out.

(3) Press the ENTER key to cut a triangular test pattern in the middle of the square in the current position. The below message will appear.

```
TOOL CONDITIONS>
      TEST CUT>
   CUTTING WIDTH>
```

(4)   Perform a check of the cut pattern. Peel the square section of the test pattern exterior and observe the triangular corner section in the middle. If the corner sections are round, the correction amount (offset) is lacking. By contrast, if there are sharp whisker-like areas in the corner sections, the offset is too high.
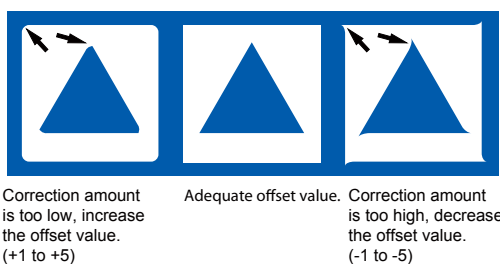
Correction amount is too low, increase the offset value. (+1 to +5)

Adequate offset value.

Correction amount is too high, decrease the offset value. (-1 to -5)

Peel the triangular section and the remaining thinly cut traces in the backing sheet will be just the right cutting force. In cases where the backing sheet has been fully cut, the cutting force is too high or the blade length is too long. In cases where cutting traces are not present in the backing sheet, the cutting force is too low or the blade length is too short.

Peel the triangular section and the remaining thinly cut traces in the backing sheet will be just the right cutting force. In cases where the backing sheet has been fully cut, the cutting force is too high or the blade length is too long. In cases where cutting traces are not present in the backing sheet, the cutting force is too low or the blade length is too short.
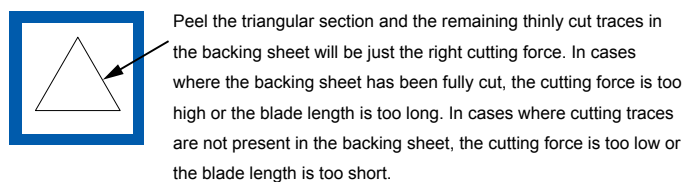
(5)   Press the F1 key (TOOL CONDITIONS) and adjust the cutting force/correction amount (offset) in the condition setting menu.

(6)   Repeat steps (2) - (5) until a favorable cut has been achieved.

(7)   If a favorable cut has been achieved, press the ESC key to return to READY status.

2.17 Adjusting printing and cutting position

When there is a shift in the cut position and the cutter section registration mark reading sensor, it is possible to compensate by entering a correction value.

In printing with Head 3 (ribbon 3), the registration mark reading sensor and the tool holder position are adjusted.

First print the adjustment pattern, then cut with the cutter attached in the tool holder as the registration mark standard.

Print and Cut Adjustment Pattern Instructions
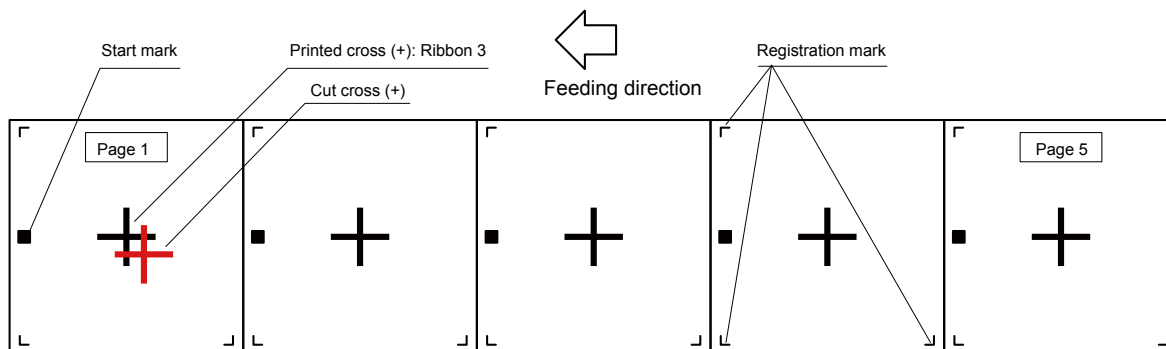
Three registration marks are printed in one page.

How to adjust the printing and the cutting position

The 5 page of adjustment patterns will be printed, and then the LCX603 will scan the start mark and the registration marks. The LCX603 cuts the cross on the printed cross pattern according by the registration marks. Then adjust the position between the printed cross pattern and the cut cross.

(1) Press the LOCAL Key in READY status, the following menu is displayed.

```
            PRINTER MENU>
             CUTTER MENU>
              OUTPUT ALL>


```

(2) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                  COPY>
            DATA CLEAR>
             CONDITION>
    1/4
```

(3) Press the NEXT Key until the following menu is displayed.

```
          PRINT SETTING>
     PRINT TEST PATTERN>
         HEAD ADJUSTMENT>
    2/4   PRINTED LENGTH>
```

(4) Press the F2 Key (PRINT TEST PATTERN), the following menu is displayed.

```
  PRINT TEST PATTERN>
ADJUST P&C POSITION>


```

(5) Press the F2 Key (ADJUST P&C POSITION), the following menu is displayed.

```
PRINT ADJUSTMENT
PATTERN?


YES:ENTER      NO:ESC
```

(6) Press the ENTER key, and then the 5 pages of crosses (+) for the adjustment reading are printed.
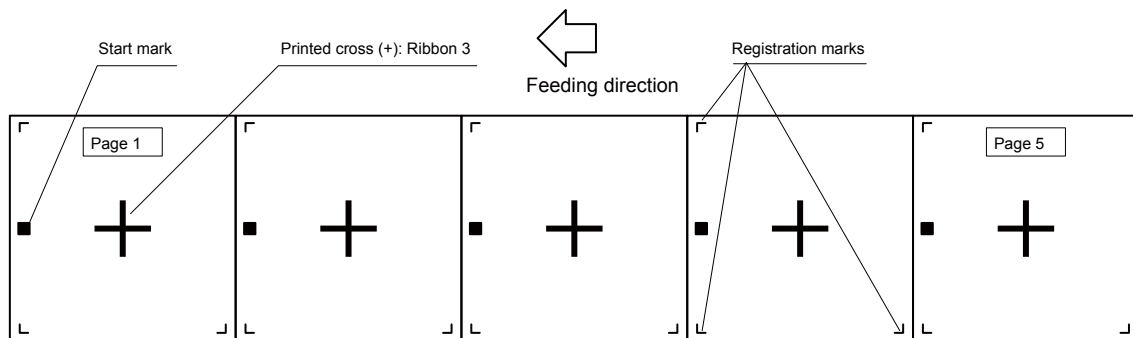
(7) The LCX603 scans the "Start Mark" and "Registration Mark", then cut the adjustment cross (+) on the first age with the cutter pen set in the tool carriage.
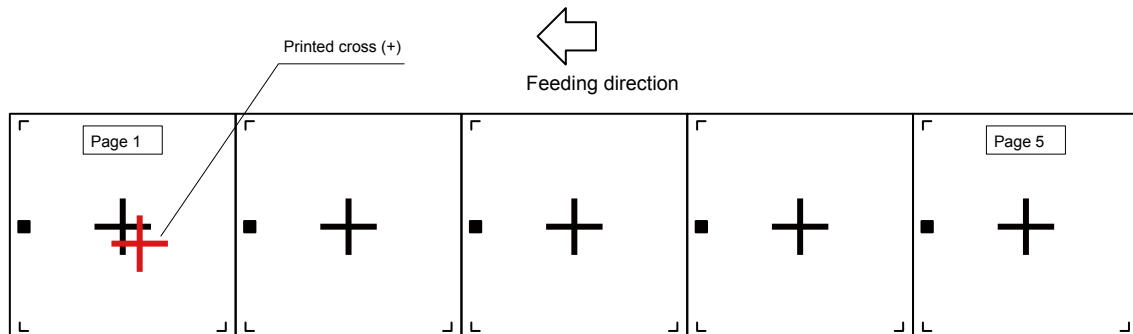
(8) After the cut, the following is displayed.

```
POSITION ADJUSTMENT
     X-POSITION ADJ>
     Y-POSITION ADJ>
   CUT CONFIRMATION>
```

(9) Based on the crosses (+) for the correction reading that was scanned, measure how far you must slide the correction crosses (+) cut for comparison so that they overlap (cut the center of the printed crosses (+)), and record the value.
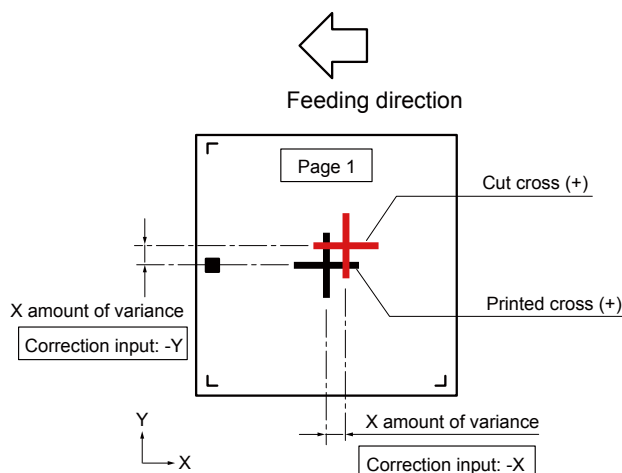
For example in the above illustration, direction x and direction y are both misaligned in direction plus (+). As such, it is necessary to correct to direction minus (–).

Each correction value will become a negative value.

(10) Press the F2 key (X-POSITION ADJ) and enter the correction value for direction x.

```
X-POSITION ADJUST
              < 0.0>mm
ADJUST:↑↓
YES:ENTER      NO:ESC
```

Change the numerical value (-1.5 to +1.5) with the POSITION keys (↑↓) and input the correction value.

Press the ENTER Key to store the value. The menu is returned to the previous screen.

```
POSITION ADJUSTMENT
     X-POSITION ADJ>
     Y-POSITION ADJ>
   CUT CONFIRMATION>
```

(11) Press the F3 key (Y-POSITION ADJ) and enter the correction value for direction y.

```
Y-POSITION ADJUST
              < 0.0>mm
ADJUST:↑↓
YES:ENTER      NO:ESC
```

Change the numerical value (-1.5 to +1.5) with the POSITION keys (↑↓) and input the correction value.

Press the ENTER Key to store the value. The menu is returned to the previous screen.

```
POSITION ADJUSTMENT
     X-POSITION ADJ>
     Y-POSITION ADJ>
   CUT CONFIRMATION>
```

(12) After the correction values for both the X direction and the Y direction input, then confirm the adjustment.

(13) Press the F4 Key (CUT CONFIRMATION), the following menu is displayed.

```
CONFIRM ADJUSTMENT?



YES:ENTER      NO:ESC
```

(14) Press the ENTER key, and then the adjustment confirmation cross cutting is cut on the 2nd page by the cutter.

Feeding direction

X amount of variance
Correction input: -Y

X amount of variance
Correction input: -X

Confirm the variance on the page 2
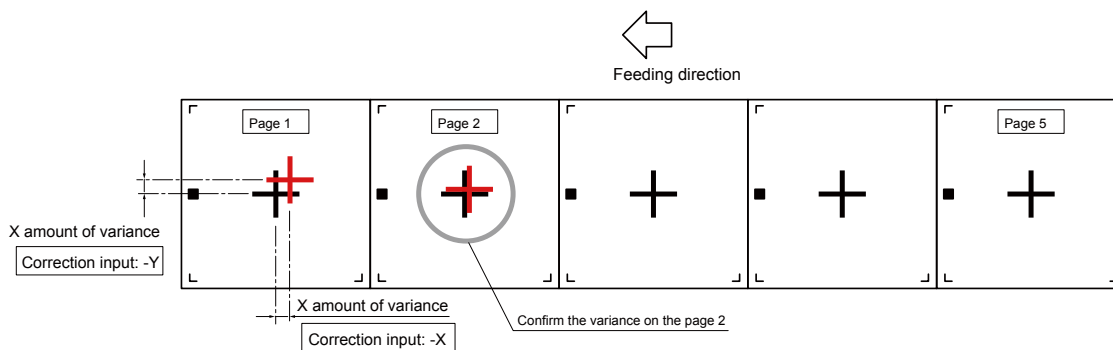
(15) After the cut, the following is displayed.

```
POSITION ADJUSTMENT
      X-POSITION ADJ>
      Y-POSITION ADJ>
    CUT CONFIRMATION>
```

(16) Confirm the result of the 2nd page. If there is gap between the printed cross and the cut cross, then repeat the step (10) to (15).

(17) If there is no gap between the printed cross and the cut cross, then press the LOCAL Key to exit from the adjustment.

2.18 Distance Adjustment

This adjustment should be performed after the different thickness of media was installed.

The distance adjustment compensates for the length of the plot line generated according to the thickness and type of the media used. As for the distance adjustment value, the length of the line is measured and entered.

The adjustment pattern is printed, and the correction value is entered as the distance adjustment.

Measure the distance between crosses printed with Head 3 (ribbon 3), and enter the correction value as Correction Value = Measured Value - 190 mm.

The adjustment pattern outputs two layers. Measure the printing results, and enter the correction value.

Also, printing the distance removed data in the direction of the media feed, when setting the distance adjustment value, refer to the User Pattern Correction printed below.

The 130 mm width media have to be installed when performing the distance adjustment.

And the ink ribbons have to be installed for all print heads.

Adjustment Pattern Instructions

First page

Feeding direction

Printed with head 3

Printed with head 2

Wrinkle prevention lines

[Example]
Head 1 (Ribbon 1): Blue
Head 2 (Ribbon 2): Red
Head 3 (Ribbon 3): Black

Measure the length

Second page

Feeding direction

Printed with head 3

Printed with head 1

Wrinkle prevention lines

[Example]
Head 1 (Ribbon 1): Blue
Head 2 (Ribbon 2): Red
Head 3 (Ribbon 3): Black

Measure the length
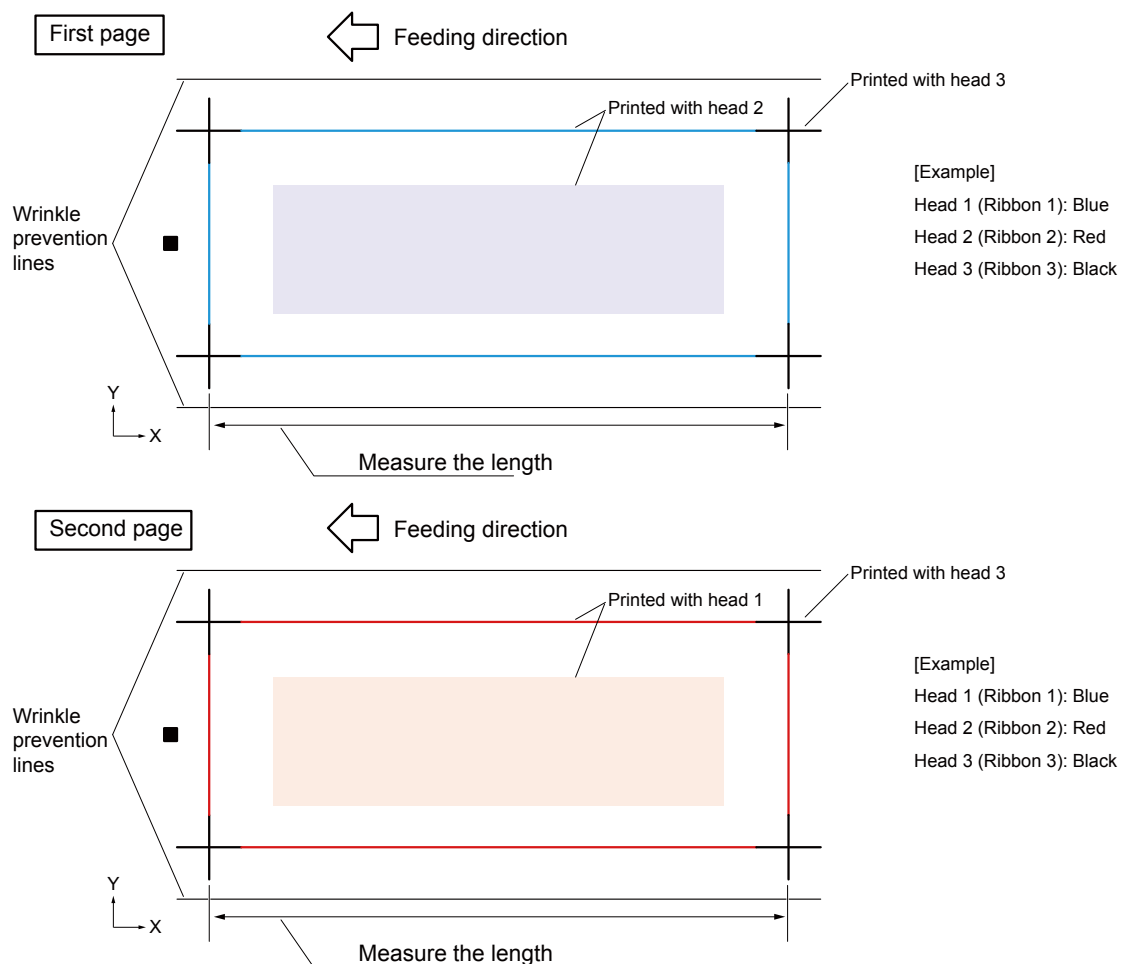
Print 4 cross sections with Head 3. Print the connecting line segment with Head 1 in the first layer, and Head 2 in the second layer.

How to adjust the distance adjustment

(1)   Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
        CUTTER MENU>
         OUTPUT ALL>
```

(2)   Press the F1 Key (PRINT MENU), the following menu is displayed.

```
               COPY>
         DATA CLEAR>
          CONDITION>
1/4
```

(3)   Press the NEXT Key until the following menu is displayed.

```
      PRINT SETTING>
 PRINT TEST PATTERN>
     HEAD ADJUSTMENT>
2/4  PRINTED LENGTH>
```

(4)   Press the F3 Key (HEAD ADJUSTMENT), the following menu is displayed.

```
 ADJ. PATTERN PRINT>
       DISTANCE ADJ.>
    HEAD 1 POS. ADJ.>
    HEAD 2 POS. ADJ.>
```

(5)   Press the F1 key (ADJ. PATTERN PRINT), the following menu is displayed.

```
PRINT ADJUSTMENT
PATTERN?

YES:ENTER    NO:ESC
```

(6)   Press the ENTER key (Yes), and print the adjustment pattern.

After printing, the menu returns to the READY status.

Press the ESC key to return to the previous screen.

```
READY

    CONDITION-01
```

(7) Release the ribbon lever.
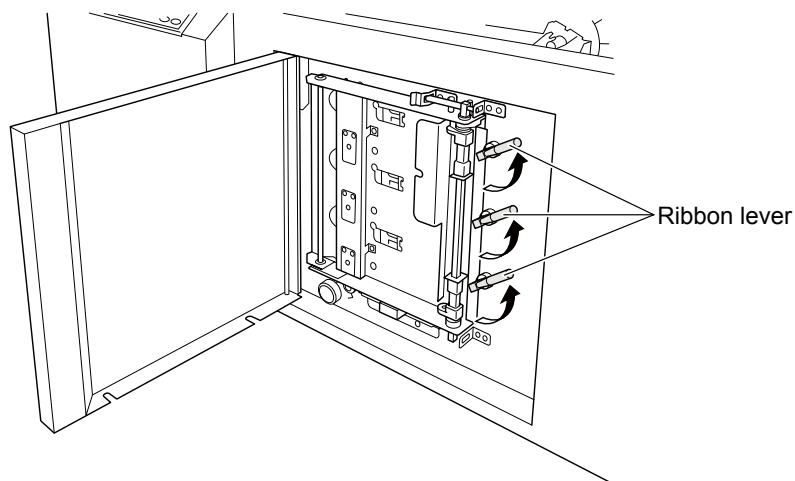
Ribbon lever

(8) When the ribbon lever released, the following message will be displayed.

```
Confirm Combination!
H3=Semi-R   H2=RESIN
H1=RESIN
YES:ENTER    NO:ESC
```

(9) Press the FEED Key until the printed media comes out from the exit area of the LCX603.

(10) Measure the first page of X distance between crosses printed with Head 3 (ribbon 3), and enter the correction value.

Feeding direction

Printed with head 3

Printed with head 2

Wrinkle prevention lines

Measure the length (measured value)

Correction value = 190.0 mm -measured value
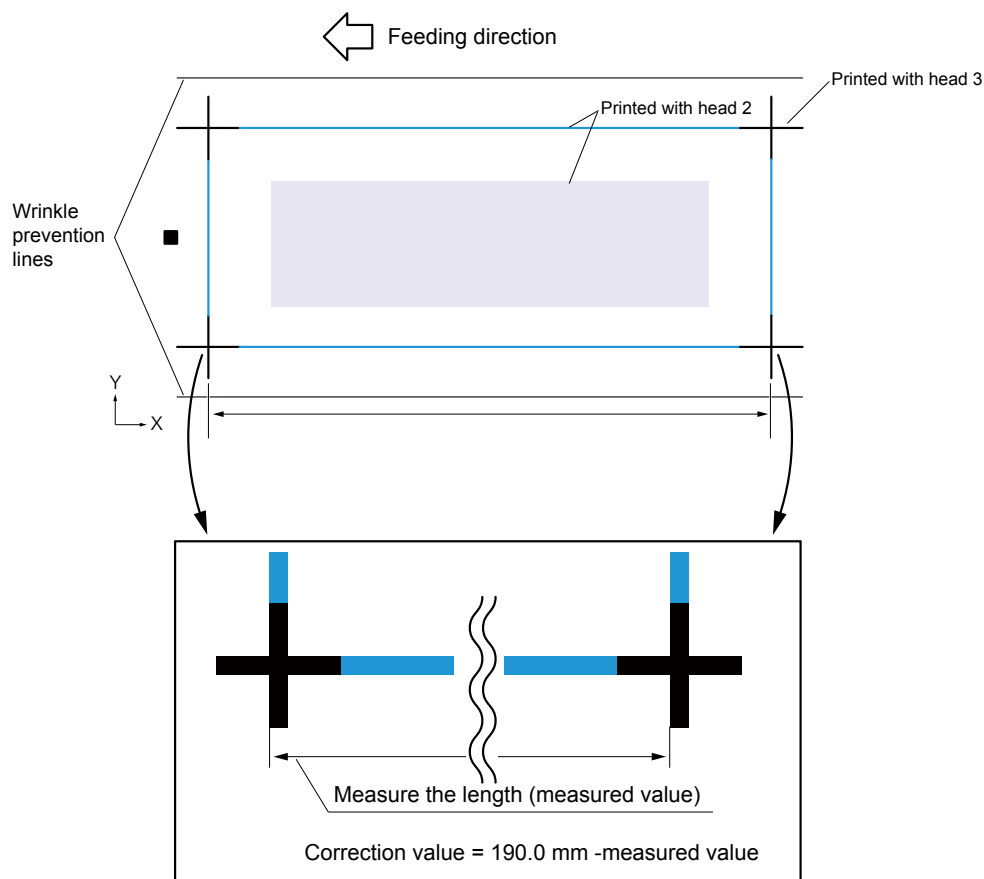
For example in the above illustration, the correction value becomes negative when "correction value = 190.0 mm - measured value" and the measured value was made 190.5 mm. (Correction Value: Input as -0.5 mm)

(11) Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
          OUTPUT ALL>
```

(12) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                COPY>
          DATA CLEAR>
           CONDITION>
1/4
```

(13) Press the NEXT Key until the following menu is displayed.

```
       PRINT SETTING>
  PRINT TEST PATTERN>
      HEAD ADJUSTMENT>
2/4   PRINTED LENGTH>
```

(14) Press the F3 Key (HEAD ADJUSTMENT), the following menu is displayed.

```
  ADJ. PATTERN PRINT>
        DISTANCE ADJ.>
     HEAD 1 POS. ADJ.>
     HEAD 2 POS. ADJ.>
```

(15) Press the F2 Key (DISTANCE ADJ.), the following menu is displayed.

```
DISTANCE ADJ.
190.0mm      < 0.0>mm
ADJUST:↑↓
YES:ENTER     NO:ESC
```

Input the numerical value (-1.5 to +1.5) with the POSITION keys (▲▼) and input the correction value.

(16) Press the ENTER Key, the following menu is displayed.

```
  ADJ. PATTERN PRINT>
        DISTANCE ADJ.>
     HEAD 1 OPS. ADJ.>
     HEAD 2 OPS. ADJ.>
```

(17) Set the all ribbon lever to the set position.

Set the ribbon lever
when printing.

(18) Press the F1 key (ADJ. PATTERN PRINT), the following menu is displayed.

```
PRINT ADJUSTMENT
PATTERN?


YES:ENTER     NO:ESC
```

(19) Press the ENTER key (Yes), and the corrected distance adjustment pattern is printed.

After printing, the menu returns to the READY status.
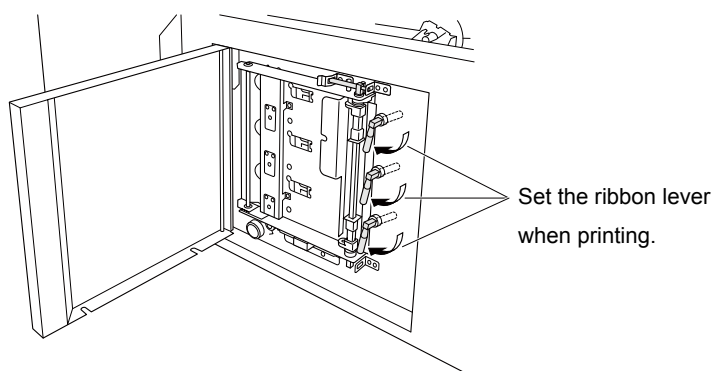
```
READY

     CONDITION-01
```

(20) Release the ribbon lever.
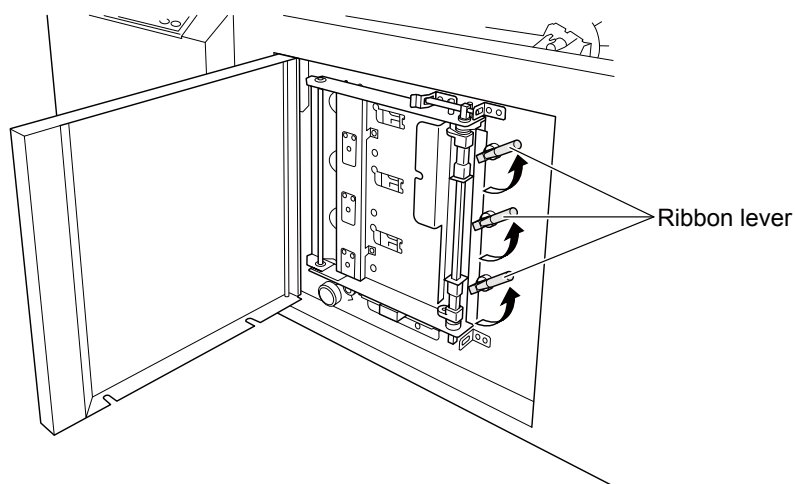
Ribbon lever

(21) When the ribbon lever released, the following message will be displayed.

```
Confirm Combination!
H3=Semi-R  H2=RESIN
H1=RESIN
YES:ENTER     NO:ESC
```

(22) Press the FEED Key until the printed media comes out from the exit area of the LCX603.

(23) Measure the first page of X distance between crosses printed with Head 3 (ribbon 3), and confirm the distance x was adjusted to the 190 mm.

(24) The adjustment is end if the distance x was adjusted to the 190 mm.

2.19 Adjusting the print head position

This adjustment should be performed after the distance adjustment.

Head position adjustment occurs depending on the type and thickness of the utilized media, and the head (ribbon) position misalignment is corrected. The head position adjustment value is entered as a measurement of the line segment misalignment.

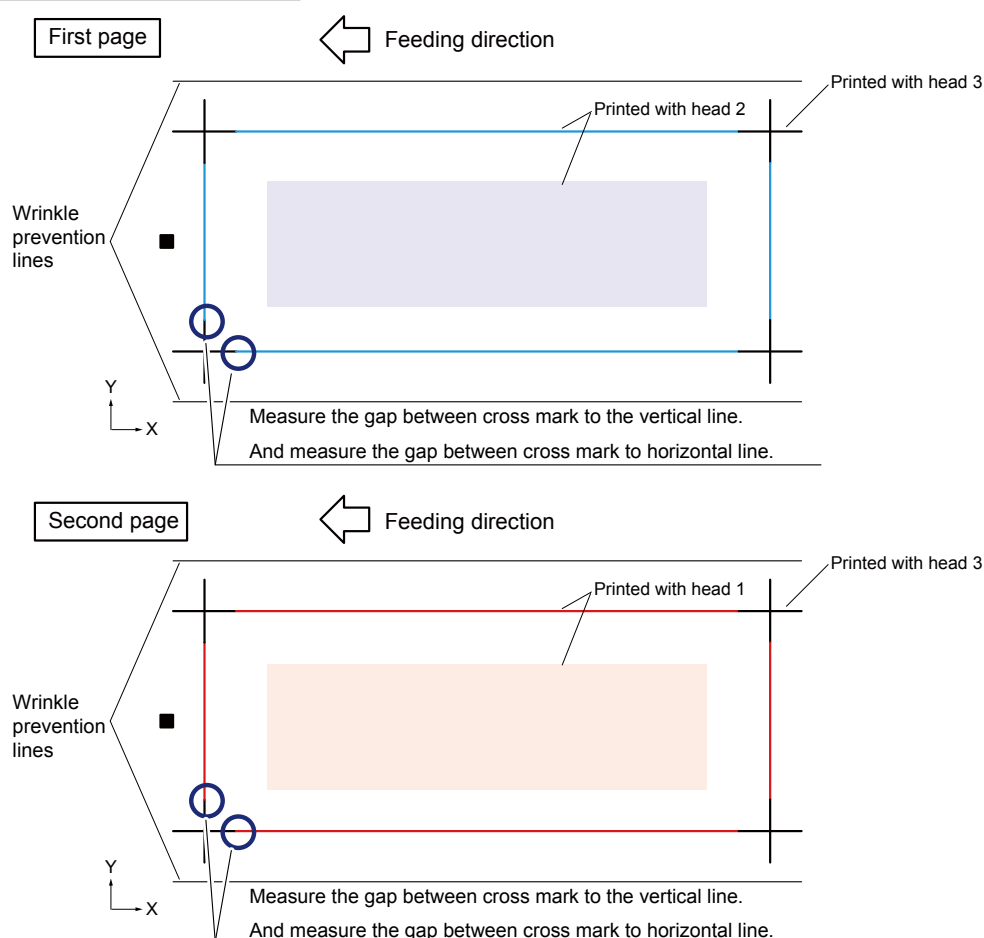The adjustment pattern is printed, and the correction value is entered in the head position adjustment. The adjustment pattern outputs two layers. Measure the first layer and input the correction value for Head 1 Position Adjustment. Measure the second layer and input the correction value for Head 2 Position Adjustment.

The 130 mm width media have to be installed when performing the print heads position adjustment. And the ink ribbons have to be installed for all print heads.

Adjustment Pattern Instructions

First page — Feeding direction

Printed with head 3

Printed with head 2

Wrinkle prevention lines

Y
X

Measure the gap between cross mark to the vertical line.
And measure the gap between cross mark to horizontal line.

Second page — Feeding direction

Printed with head 3

Printed with head 1

Wrinkle prevention lines

Y
X

Measure the gap between cross mark to the vertical line.
And measure the gap between cross mark to horizontal line.

How to adjust the print head position

(1) Set the all ribbon lever to the set position.
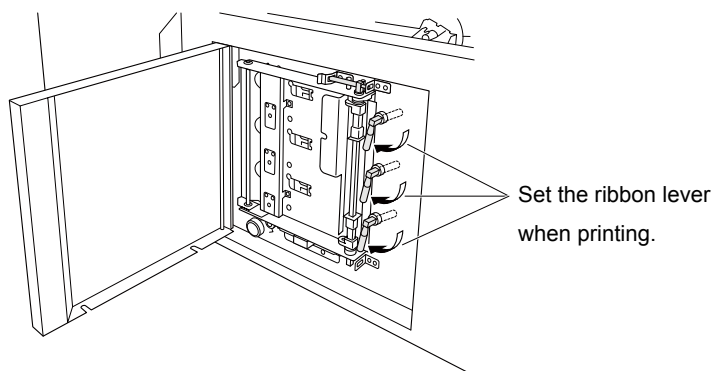
Set the ribbon lever
when printing.

(2) Press the LOCAL Key in READY status, the following menu is displayed.

```
          PRINTER MENU>
           CUTTER MENU>
            OUTPUT ALL>

```

(3) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                  COPY>
            DATA CLEAR>
             CONDITION>
1/4
```

(4) Press the NEXT Key until the following menu is displayed.

```
         PRINT SETTING>
    PRINT TEST PATTERN>
       HEAD ADJUSTMENT>
2/4   PRINTED LENGTH>
```

(5) Press the F3 Key (HEAD ADJUSTMENT), the following menu is displayed.

```
  ADJ. PATTERN PRINT>
         DISTANCE ADJ.>
     HEAD 1 POS. ADJ.>
     HEAD 2 POS. ADJ.>
```

(6) Press the F1 key (ADJ. PATTERN PRINT), the following menu is displayed.

```
  PRINT ADJUSTMENT
  PATTERN?


  YES:ENTER     NO:ESC
```

(7) Press the ENTER key (Yes), and print the adjustment pattern.

After printing, the menu returns to the READY status.

Press the ESC key to return to the previous screen.

```
READY

     CONDITION-01
```
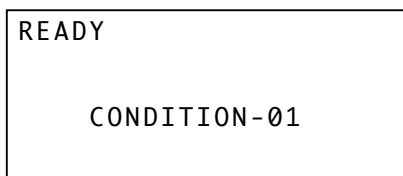
(8) Measure the amount of variance between the cross mark and the horizontal line in the first page.

This value is used to adjust the print head 3 and the print head 1 horizontal position.

Measure the amount of variance between the cross mark and the vertical line in the first page.

This value is used to adjust the print head 3 and the print head 1 vertical position.
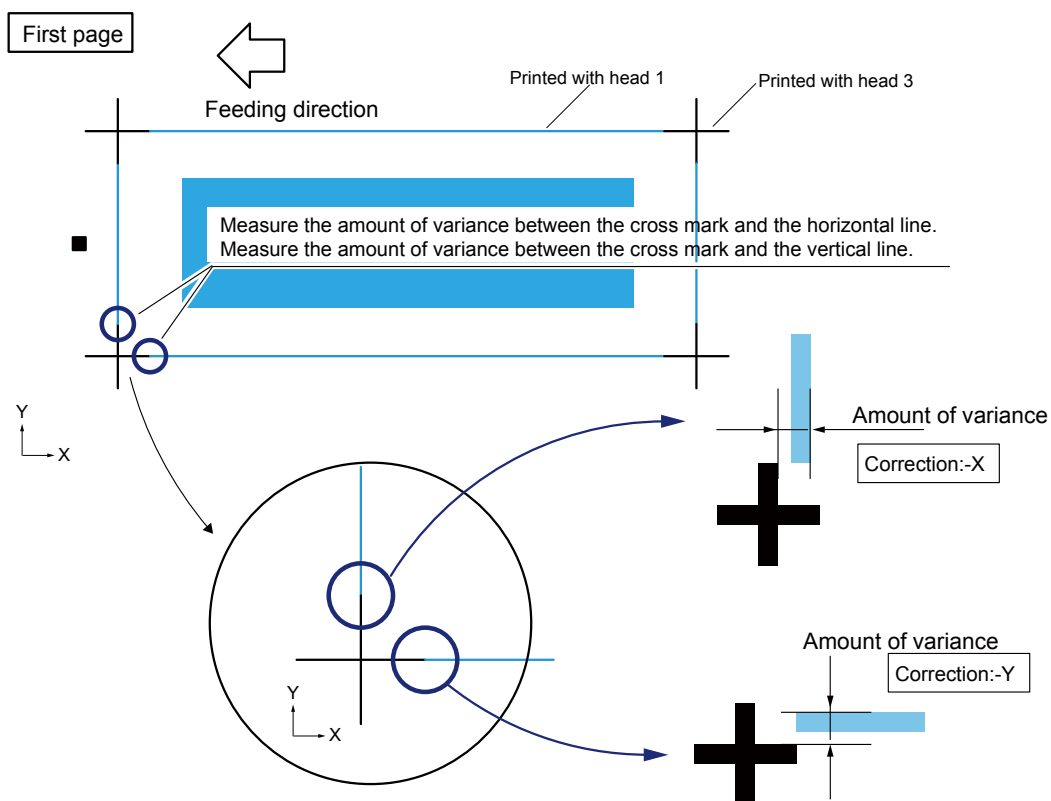
(9) Measure the amount of variance between the cross mark and the horizontal line in the second page.

This value is used to adjust the print head 3 and the print head 2 horizontal position.

Measure the amount of variance between the cross mark and the vertical line in the second page.

This value is used to adjust the print head 3 and the print head 2 vertical position.

(10) Input the amount of variance (correction for the X and Y) for the head 2 and the head 1.

(11) Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
         OUTPUT ALL>

```

(12) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                COPY>
          DATA CLEAR>
           CONDITION>
1/4
```

(13) Press the NEXT Key until the following menu is displayed.

```
        PRINT SETTING>
   PRINT TEST PATTERN>
      HEAD ADJUSTMENT>
2/4   PRINTED LENGTH>
```

(14) Press the F3 Key (HEAD ADJUSTMENT), the following menu is displayed.

```
ADJ. PATTERN PRINT>
     DISTANCE ADJ.>
  HEAD 1 POS. ADJ.>
  HEAD 2 POS. ADJ.>
```

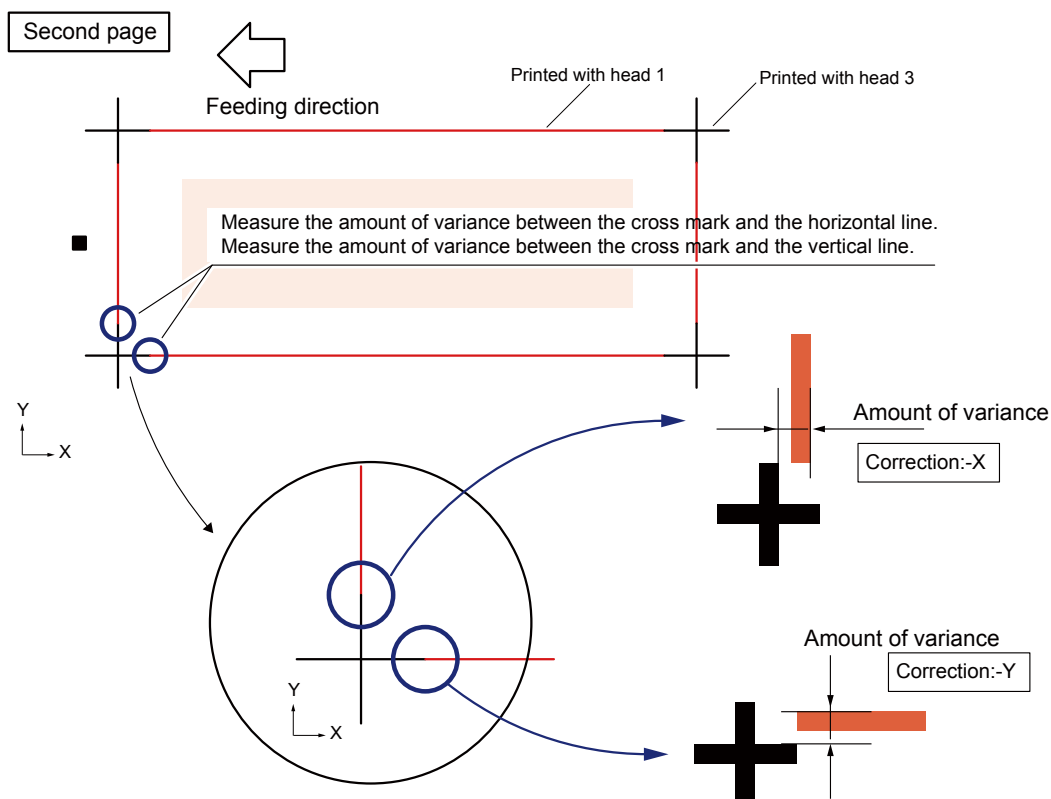(15) Press the F4 Key (HEAD 2 POS. ADJ.), the following menu is displayed.

```
HEAD2 POSITION ADJ.


         HEAD2-X>
         HEAD2-Y>
```

(16) Press the F3 Key (HEAD2-X), to input the head 2 of amount of variance (correction for the X).

The following menu is displayed.

```
HEAD2-X
             < 0.0>mm
ADJUST:↑↓
YES:ENTER     NO:ESC
```

Input the numerical value (-1.5 to +1.5) with the POSITION keys (▲▼) and input the correction value.

Press the ENTER Key to store the value. The menu is returned to the previous screen.

```
HEAD2 POSITION ADJ.


         HEAD2-X>
         HEAD2-Y>
```

(17) Press the F4 Key (HEAD2-Y), to input the head 2 of amount of variance (correction for the Y).

The following menu is displayed.

```
HEAD2-Y
             < 0.0>mm
ADJUST:↑↓
YES:ENTER     NO:ESC
```

Input the numerical value (-1.5 to +1.5) with the POSITION keys (▲▼) and input the correction value.

Press the ENTER Key to store the value. The menu is returned to the previous screen.

```
HEAD2 POSITION ADJ.


         HEAD2-X>
         HEAD2-Y>
```

(18) Press the ESC Key, the following menu is displayed.

```
ADJ. PATTERN PRINT>
     DISTANCE ADJ.>
  HEAD 1 POS. ADJ.>
  HEAD 2 POS. ADJ.>
```

(19) Press the F3 Key (HEAD 1 POS. ADJ.), the following menu is displayed.

```
HEAD2 POSITION ADJ.


            HEAD1-X>
            HEAD1-Y>
```

(20) Press the F3 Key (HEAD1-X), to input the head 1 of amount of variance (correction for the X).

The following menu is displayed.

```
HEAD1-X
            < 0.0>mm
ADJUST:↑↓
YES:ENTER     NO:ESC
```

Input the numerical value (-1.5 to +1.5) with the POSITION keys (▲▼) and input the correction value.

Press the ENTER Key to store the value. The menu is returned to the previous screen.

```
HEAD1 POSITION ADJ.


            HEAD1-X>
            HEAD1-Y>
```

(21) Press the F4 Key (HEAD1-Y), to input the head 1 of amount of variance (correction for the Y).

The following menu is displayed.

```
HEAD1-Y
            < 0.0>mm
ADJUST:↑↓
YES:ENTER     NO:ESC
```

Input the numerical value (-1.5 to +1.5) with the POSITION keys (▲▼) and input the correction value.

Press the ENTER Key to store the value. The menu is returned to the previous screen.

```
HEAD1 POSITION ADJ.


            HEAD1-X>
            HEAD1-Y>
```

(22) Press the ESC Key, the following menu is displayed.

```
 ADJ. PATTERN PRINT>
      DISTANCE ADJ.>
   HEAD 1 POS. ADJ.>
   HEAD 2 POS. ADJ.>
```

(23) Press the F1 key (ADJ. PATTERN PRINT), the following menu is displayed.
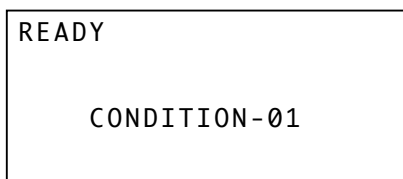
```
PRINT ADJUSTMENT
PATTERN?


YES:ENTER     NO:ESC
```

(24) Press the ENTER key (Yes), and print the adjustment pattern.

After printing, the menu returns to the READY status.

```
READY


     CONDITION-01
```

(25) Confirm the amount of variance for each print heads. Readjust the head position if there is amount of variance still.

2.20 Installing the Separator

Install the separator after the media is installed.

Set the separator function to "ON" before using the separator function.

How to set the separator function to "ON"

(1) Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
         OUTPUT ALL>

```

(2) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                COPY>
          DATA CLEAR>
           CONDITION>
1/4
```

(3) Press the NEXT Key until the following menu is displayed.

```
   REGISTRATION MARK>
          UNIT LENGTH>
    FUNCTION SETTING>
3/4
```

(4) Press the F3 Key (FUNCTION SETTING), the following menu is displayed.

```
            LAMINATE>
           SEPARATOR>
           CROSS CUT>
           FRAME CUT>
```

(5) Press the F2 Key (SEPARATOR), the following menu is displayed.

```
SEPARATOR SETTING
                  <ON>
SELECT:↑↓
YES:ENTER     NO:ESC
```
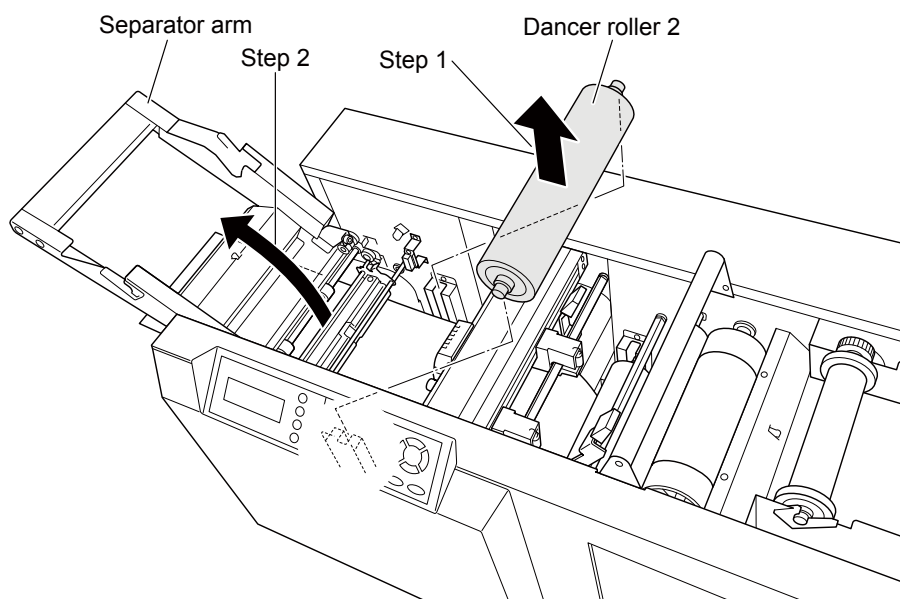
(6) Select "ON" by using the POSITION Key (▲▼).

```
SEPARATOR SETTING
                  <ON>
SELECT:↑↓
YES:ENTER     NO:ESC
```

How to install the separator bobbin

(1) Take out the dancer roller 2 from the LCX603 (Step 1), and then open the separator arm as shown in the picture below (Step 2).

Separator arm Step 2 Step 1 Dancer roller 2

(2) Take out the flange, the separator bobbin shaft, and bobbin from the accessory box.

(The separator bobbin shaft has larger white gear than the laminate bobbin shaft.)

Install the bobbin and the flange to the separator bobbin shaft as shown in the picture below.

Separator flange collar
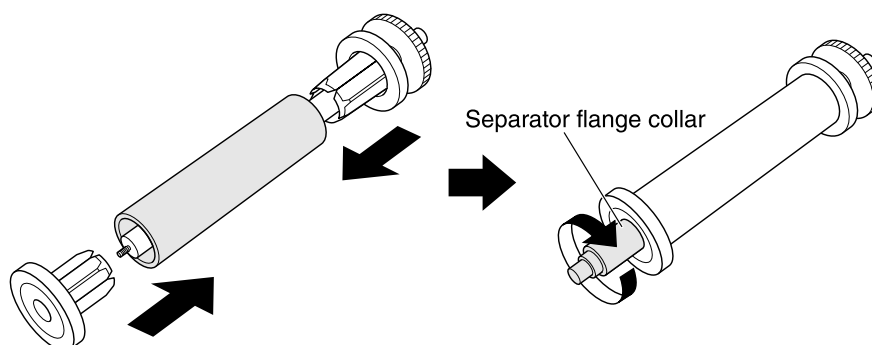
(3) Install the separator bobbin shaft to the separator unit as shown in the picture below.
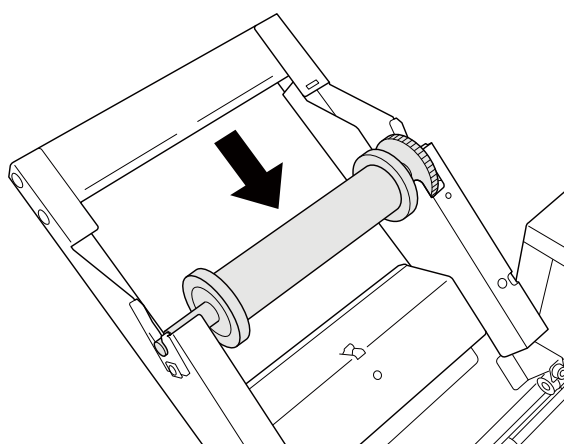
(4) Open the separator suppression unit (Step 1) and pull out the media from the separator unit (Step 2).

Cut the adhesive area of the media approximately 100 mm from the posterior end (Step 3).

Peel the adhesive section of the media (Step 4).

Pull the backing media only out from the media exit area.

Pull the adhesive part of media out from the separator suppression unit (Step 6).

Step 5
Pull the backing media only out from here.

Separator arm

Step 6
Pull the adhesive section only out from here

Step 2
Pull the media out from here

Step 4
Detach the sdhesive section only

Backing sheet

Step 3
Cut the adhesive section only at approximately 100 mm from the posterior end of the media.

Separator suppression unit

Step 1
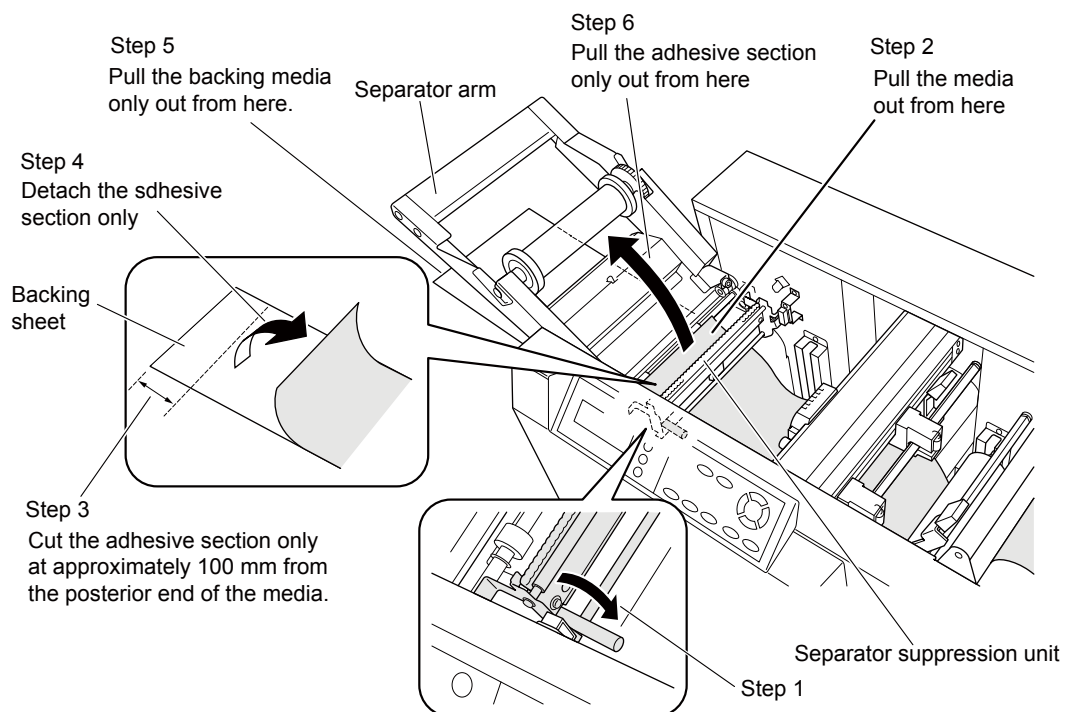
(5) Put the adhesive part of media to the bobbin while pulling the backing part of media as shown in the picture below.

Step 2
Put the adhesive part of media to the bobbin.

Step 1
Pull out the backing part of media.
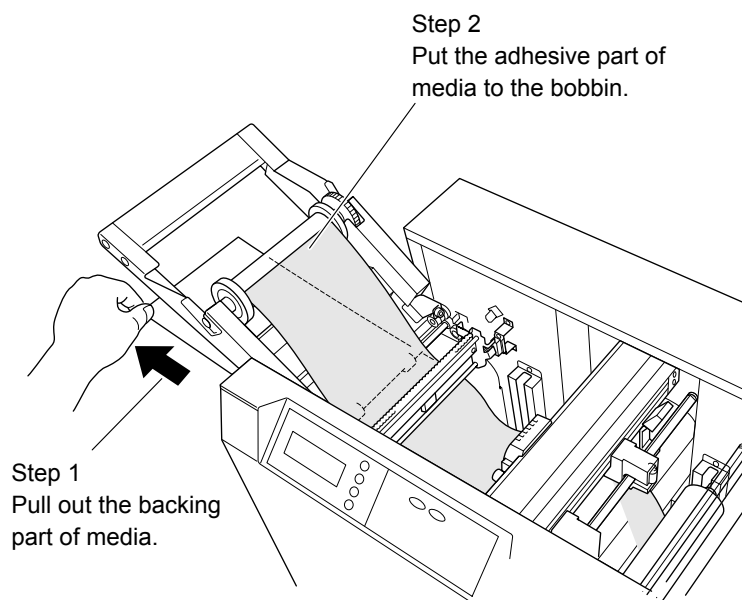
(6)   Close the separator suppression unit while pulling the backing part of media as shown in the picture below. Take care of the adhesive part of media is not putting to the white exit pinch rollers.

Separator suppression unit.

Step 1
Pull out the backing
part of media.

Step 2
Close the separator
suppression unit.
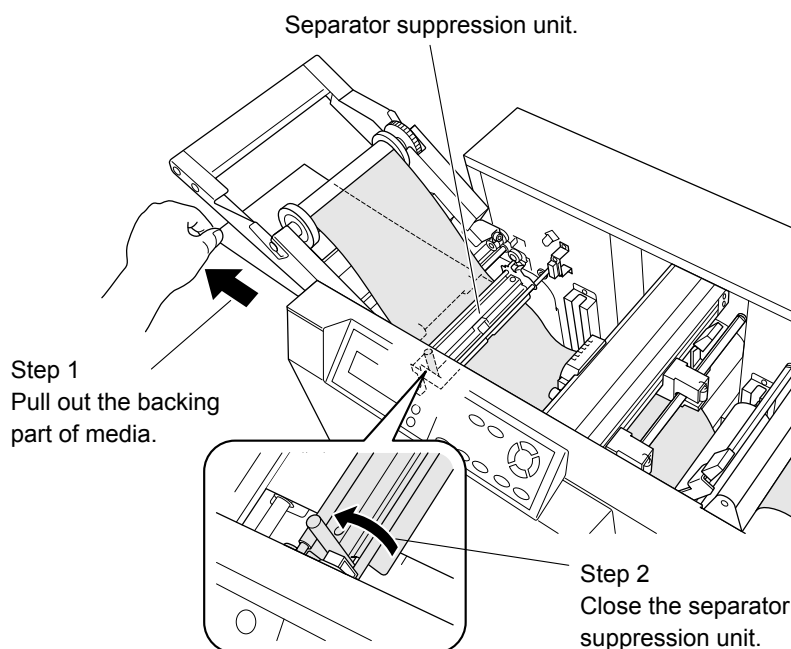
(7)   Close the separator arm while pulling the backing part of media as shown in the picture below.
And then wind the separator bobbin manually to avoid the adhesive part of media to touch to the white exit pinch rollers.

Step 2
Close the separator arm

Separator arm

Step 3
Wind the separator
bobbin manually.

Step 1
Pull out the backing
part of media
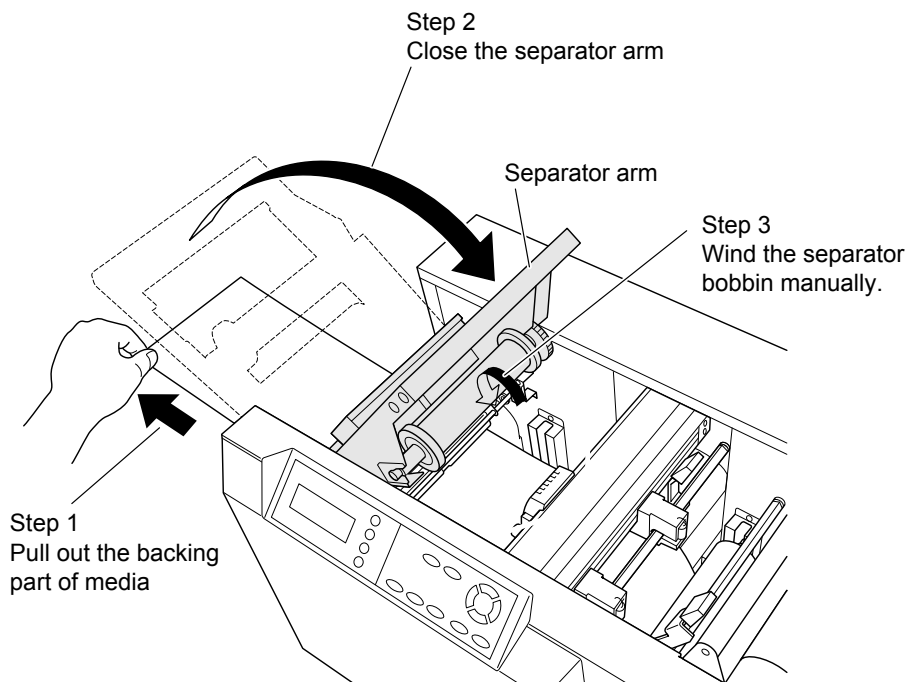
(8)   Install the dancer roller to the LCX603.
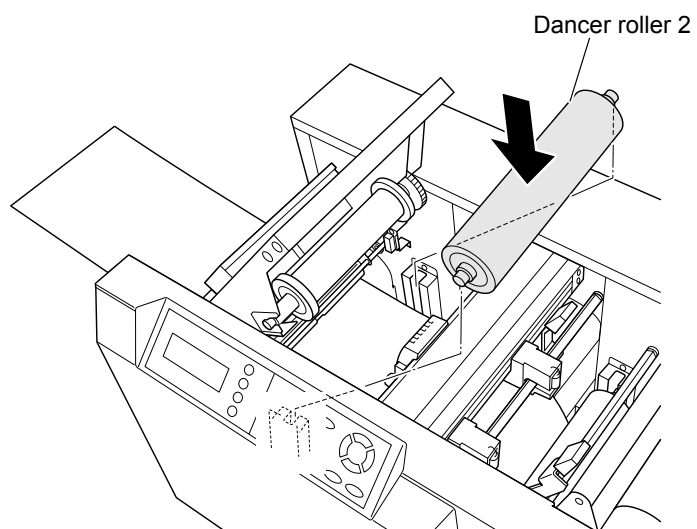
Dancer roller 2

(9)   Open the cam lever, and then close the cam lever to initialize the position of the dancer roller 2.

Cam lever
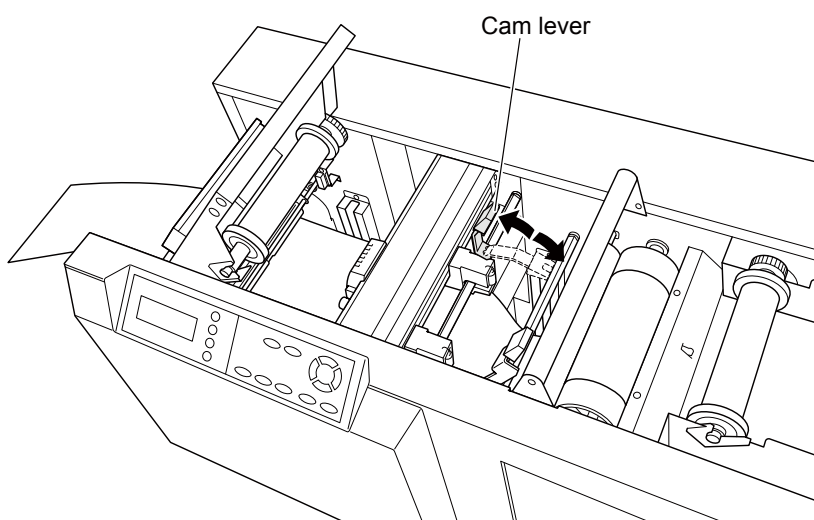
2.21 Cross cutter setting

When the cross cut function is used set this function to "ON".

The Default setting is "ON".

The media is cut at exit area when this function is set to "ON".

Caution of using the cross cutter

Cross cut is for cut to only the backing part of media. The separator function should be used when the cross cut function is using.

There may be uncut materials if you try to cut media by backing sheet or with attached laminate materials.

Also, the crosscut section might be damaged if the glue of media attaches to the blade. Do not cut anything other than the backing sheet.

The lifespan of a crosscut cutter blade is approximately 10,000 times.

How to set the cross cutter function

(1) Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
        CUTTER MENU>
         OUTPUT ALL>
```

(2) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
              COPY>
        DATA CLEAR>
         CONDITION>
1/4
```

(3) Press the NEXT Key until the following menu is displayed.

```
   REGISTRATION MARK>
         UNIT LENGTH>
    FUNCTION SETTING>
3/4
```

(4) Press the F3 Key (FUNCTION SETTING), the following menu is displayed.

```
          LAMINATE>
         SEPARATOR>
         CROSS CUT>
         FRAME CUT>
```

(5) Press the F3 Key (CROSS CUT), the following menu is displayed.

```
CROSS CUT SETTING
                <ON>
SELECT:↑↓
YES:ENTER     NO:ESC
```

(6) Select "ON" by using the POSITION Key (▲▼).

```
CROSS CUT SETTING
                    <ON>
SELECT:↑↓
YES:ENTER       NO:ESC
```

(7) Press the ENTER Key to store the setting, and the menu returns to the previous menu.

(8) Press the LOCAL Key, the menu returns to the READY menu.

2.22 Installing the laminate

Install the laminate after the media is installed.

Set the laminate function to "ON" before using the laminate function.

Do not turn the laminate holder flange and the laminate rewind flange manually except the laminate is installing, otherwise the laminator error occurs.

How to set the laminate function to "ON"

(1) Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
          OUTPUT ALL>
```

(2) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                COPY>
          DATA CLEAR>
           CONDITION>
1/4
```

(3) Press the NEXT Key until the following menu is displayed.

```
   REGISTRATION MARK>
          UNIT LENGTH>
    FUNCTION SETTING>
3/4
```

(4) Press the F3 Key (FUNCTION SETTING), the following menu is displayed.

```
            LAMINATE>
           SEPARATOR>
           CROSS CUT>
           FRAME CUT>
```

(5) Press the F1 Key (LAMINATE), the following menu is displayed.

```
LAMINATE SETTING
                  <ON>
SELECT:↑↓
YES:ENTER     NO:ESC
```

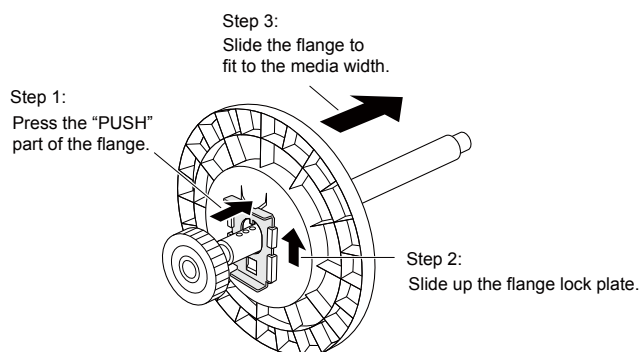(6) Select "ON" by using the POSITION Key (▲▼).

```
LAMINATE SETTING
                  <ON>
SELECT:↑↓
YES:ENTER     NO:ESC
```

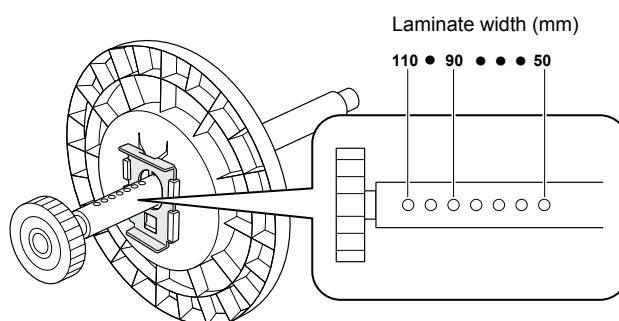(7) Press the ENTER Key to store the setting, and the menu returns to the previous menu.

(8) Press the LOCAL Key, the menu returns to the READY menu.
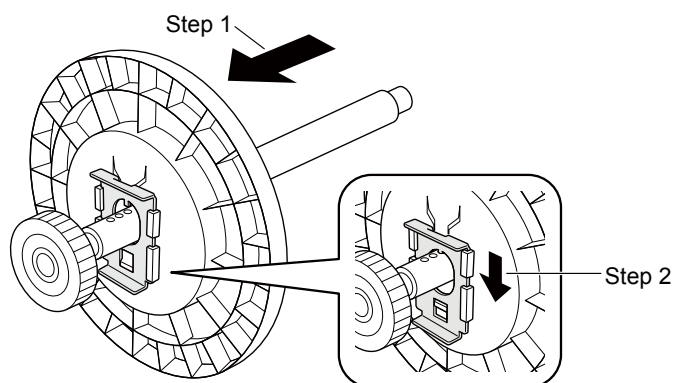
How to install the laminate

(1) Take out the flange and the laminate stoker shaft from the accessory box.

(The laminate stocker shaft is longer than the media stocker shaft.)

(2) Set the flange position to match to the laminate width.

The prepared laminate is PET16-1110R4A.

Set the flange position to 110 mm width.

(3) Unlock the flange lock plate, and then slide the left flange to fit to laminate width.

Step 3:
Slide the flange to
fit to the media width.

Step 1:
Press the "PUSH"
part of the flange.

Step 2:
Slide up the flange lock plate.

(4) Set the left flange to the 110 mm width position.

Laminate width (mm)

110 ● 90 ● ● ● 50

(5) Lock in the shaft groove and set the flange.

Step 1

Step 2

(6)   Install the laminate to the media flange as shown in the picture below.

Confirm the rolling direction of laminate is same as shown in the picture below when the laminate is installing.

Confirm there are no gaps between the core of laminate and the laminate flange when inserting the flange to the core of laminate.
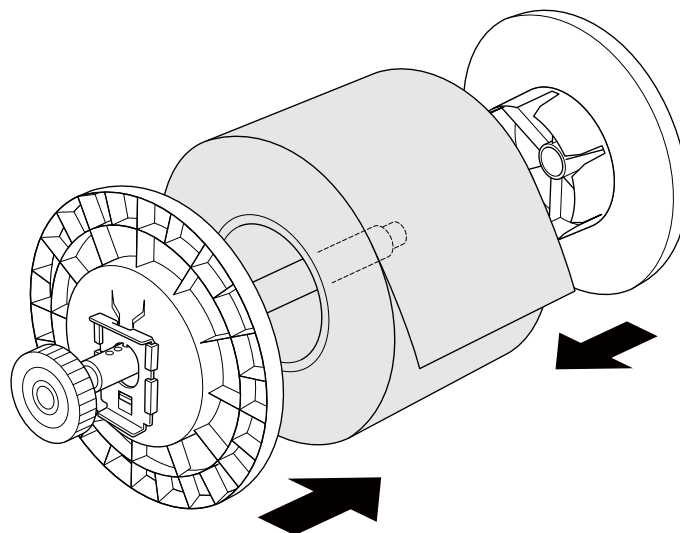
(7)   Take out the flange, the laminate rewind bobbin shaft, and bobbin from the accessory box.

(The laminate rewind bobbin shaft has small black gear than the separator bobbin shaft.)

Install the bobbin and the flange to the laminate bobbin shaft as shown in the picture below.
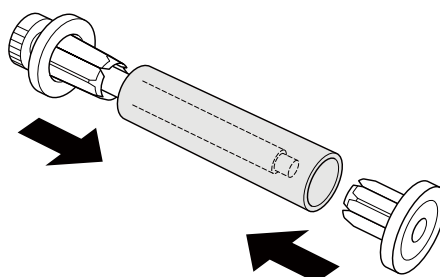
(8)   Install the laminate rewind bobbin and the laminate to the LCX603 as shown in the picture below.

(9) Pull out the laminate (Step 1).

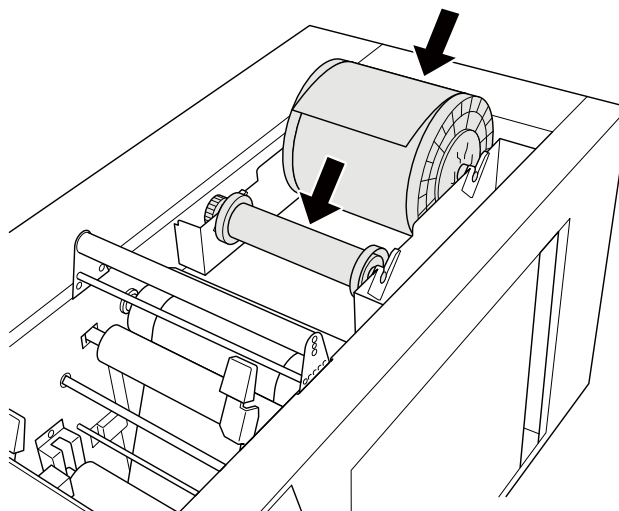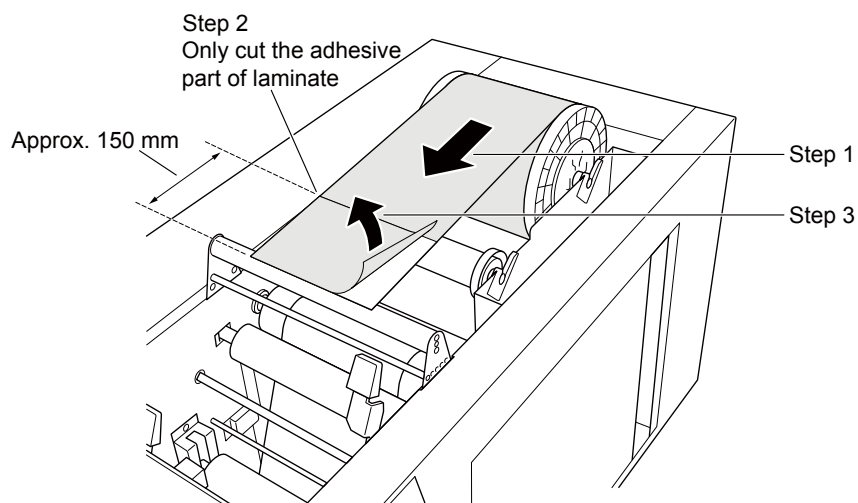Cut the adhesive area of the laminate approximately 150 mm from the forefront (Step 2).

Cut and peel the adhesive section of the laminate tip (Step 3).

Step 2
Only cut the adhesive
part of laminate

Approx. 150 mm

Step 1

Step 3

(10) Apply the laminate (adhesive section) straight over the laminate bar and laminate tension bar to the media (Step 1).

Fold back the backing sheet side from the laminate tension bar and attach to the laminate winder bobbin with tape (Step 2).

Laminate bar

Laminate tension bar

Step 1
Put the adhesive part
of laminate onto
the media.

Step 2
Attach the laminate backig
sheet to the rewind bobbin
using the tape.

Laminate

Laminete backing sheet
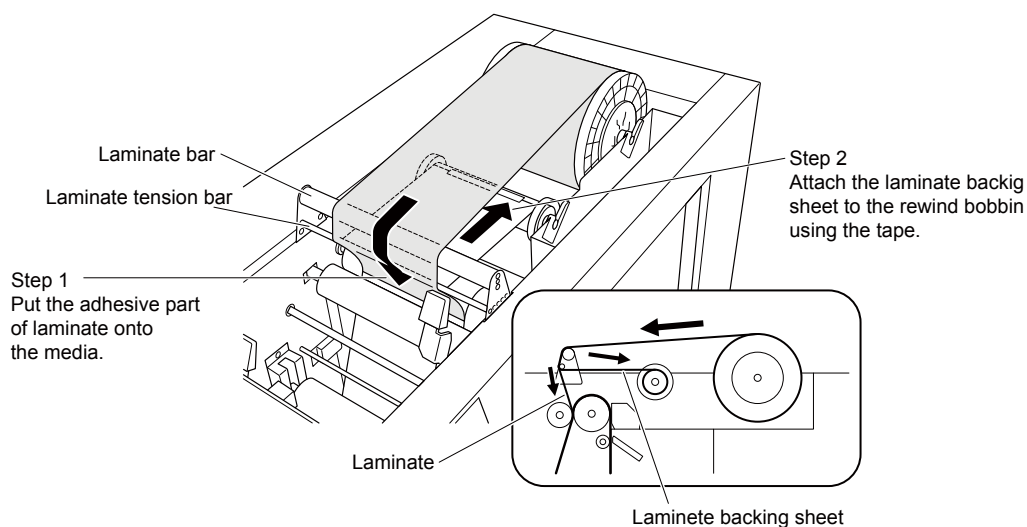
If the laminate backing sheet is overly sagging, twist the laminate winder bobbin to wind it up.

Since there is a rotational direction in the laminate winder bobbin, refer to the below picture when winding.
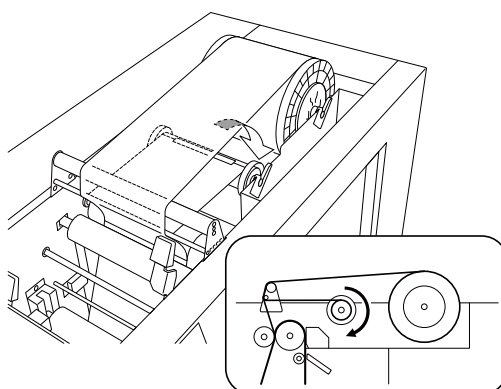
(11) Release the ribbon lever.
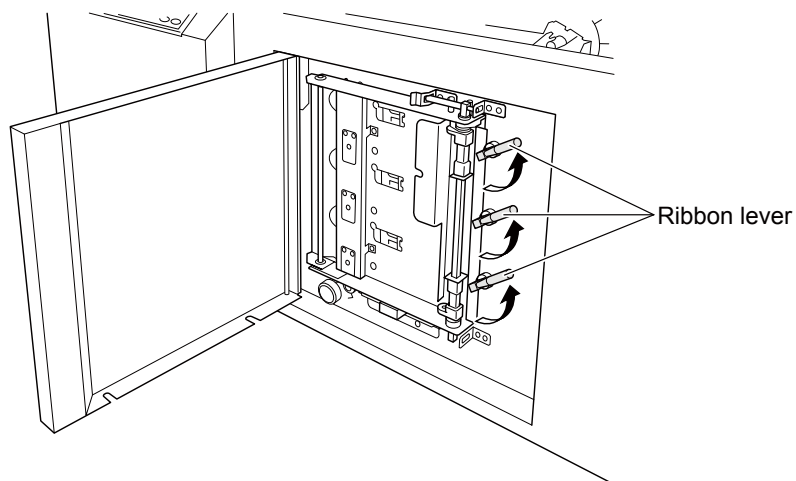
Ribbon lever

(12) When the ribbon lever released, the following message will be displayed.

```
Confirm Combination!
H3=Semi-R  H2=RESIN
H1=RESIN
YES:ENTER    NO:ESC
```

(13) Press the FEED key, and always make sure there are no wrinkles when feeding the media and that the backing sheet is wound in the winder bobbin when the laminate is fed.

When the below message is displayed, release the ribbon lever.

```
W04:Loading checl
Ribbon lever is set.
Can not feed.
YES:ENTER
```

(14) Readjust the cutter blade length and the cutting force after the laminate is installed.

2.23 Setting the Anti-Wrinkle Line

Set whether to print the anti-wrinkle lines or not.

When set to ON, a line about 1.3 mm wide is printed outside the printing area in the direction of the width of the media printing data, and wrinkling is prevented.

Typically, use this device with the lines printed (ON).

When shipped from the factory, the device is set to ON.

When the balance of the print data position is poor, wrinkles occur on the ribbon during printing, and there are cases where this has an effect on the printing result. In a case such as this, set to ON.

When not necessary use this anti-wrinkle lines, set this setting to OFF. (If printing good balance of printing data.)

Feeding direction
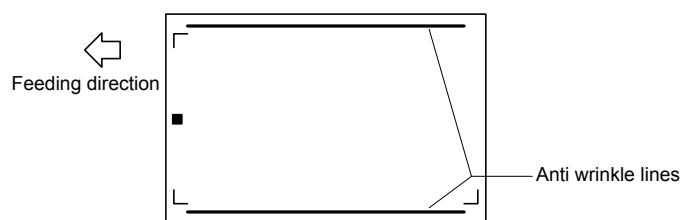
Anti wrinkle lines

How to set the anti-wrinkle lines function

(1)   Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
         OUTPUT ALL>

```

(2)   Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                COPY>
          DATA CLEAR>
           CONDITION>
1/4
```

(3)   Press the NEXT Key until the following menu is displayed.

```
        PRINT SETTING>
  PRINT TEST PATTERN>
      HEAD ADJUSTMENT>
2/4   PRINTED LENGTH>
```

(4)   Press the F1 Key (PRINT SETTING), the following menu is displayed.

```
        PRINT DENSITY>
      PAGE PRINT MODE>
   ANTI-WRINKLE LINES>

```

(5) Press the F3 Key (ANTI-WRINKLE LINES), the following menu is displayed.

```
ANTI-WRINKLE LINES
                 <ON>
SELECT:↑↓
YES:ENTER      NO:ESC
```

(6) Select "ON" by using the POSITION Key (▲▼).

```
ANTI-WRINKLE LINES
                 <ON>
SELECT:↑↓
YES:ENTER      NO:ESC
```

(7) Press the ENTER Key to store the setting, and the menu returns to the previous menu.

(8) Press the LOCAL Key, the menu returns to the READY menu.

2.24 Setting the Registration Mark Type

Read the programmed registration mark in the cutter section and run cutting to match the registration mark.

Select axis adjustment from "1POINT" and "3POINT".

Use axis adjustment (tilt adjustment) and distance adjustment in the following manner.

1POINT.................. Adjusts from data starting point (origin) position for 1POINT adjustments.

3POINT .... Adjusts in 3 aspects of the registration mark for 3POINT adjustments: origin/x-axis direction/y-axis direction.

The work time shortens when the registration mark setting is set to 1POINT, but the position adjustment accuracy is inferior compared to 3POINT. Select 3POINT when an accurate position adjustment is necessary.
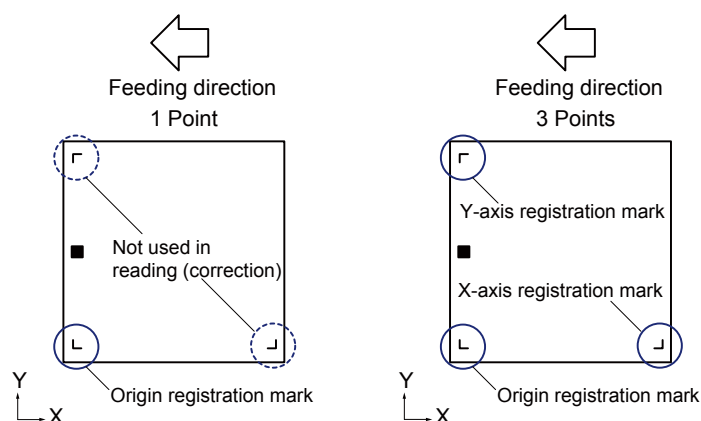
How to set the registration mark setting

Confirm the registration mark setting is set to the 3 points this time.

(1) Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
         OUTPUT ALL>

```

(2) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
               COPY>
          DATA CLEAR>
          CONDITION>
  1/4
```

(3) Press the NEXT Key until the following menu is displayed.

```
   REGISTRATION MARK>
         UNIT LENGTH>
    FUNCTION SETTING>
  3/4
```

(4) Press the F1 Key (REGISTRATION MARK), the following menu is displayed.

```
REGISTRATION MARK
          TYPE<3POINT>
SELECT:↑↓
YES:ENTER      NO:ESC
```

(5) Select "3POINT" by using the POSITION Key (▲▼).

```
REGISTRATION MARK
          TYPE<3POINT>
SELECT:↑↓
YES:ENTER      NO:ESC
```

(6) Press the ENTER Key to store the setting, and the menu returns to the previous menu.

(7) Press the LOCAL Key, the menu returns to the READY menu.

2 Setup

2.25 Setting the Unit Length

Switch the display unit of the coordinate value shown on the display to millimeters (mm) or inches (inch).

Length unit switching is reflected in the following items. Other lengths are fixed in millimeters (mm).

• Media size value

• Distance adjustment input value (input is mm unit and standard inch is shown vertically)

• Head adjustment input value

• Position adjustment input value

• m display during printed length value (mm) selection; ft (feet) display during inch selection.

How to set the unit length

Confirm the unit length is set to mm this time.

Confirm the registration mark setting is set to the 3 points this time.

(1) Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
          OUTPUT ALL>

```

(2) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
               COPY>
          DATA CLEAR>
           CONDITION>
1/4
```

(3) Press the NEXT Key until the following menu is displayed.

```
   REGISTRATION MARK>
         UNIT LENGTH>
    FUNCTION SETTING>
3/4
```

(4) Press the F2 Key (UNIT LENGTH), the following menu is displayed.

```
UNIT LENGTH

              <   mm>
SELECT:↑↓
YES:ENTER      NO:ESC
```

(5) Select "mm" by using the POSITION Key (▲▼).

```
UNIT LENGTH

              <   mm>
SELECT:↑↓
YES:ENTER      NO:ESC
```

(6) Press the ENTER Key to store the setting, and the menu returns to the previous menu.

(7) Press the LOCAL Key, the menu returns to the READY menu.

2.26 Setting the Frame Cut

This setting to use or not use frame cut (outline cutting).

When frame cut is set to "ON", cut the outline conforming to the indicated plotting area in the printer driver when printing/cutting.

Frame Cut

Residue removal may become difficult in the separator unit depending on the configuration of the labels being produced or label material type (25 μm materials or paper-type materials).In such cases you will have to peel with your hands, but insert a cutting line in the outline of the sheet and remove excess residue in the separator unit. Horizontal cutting afterward will become smooth as a result.
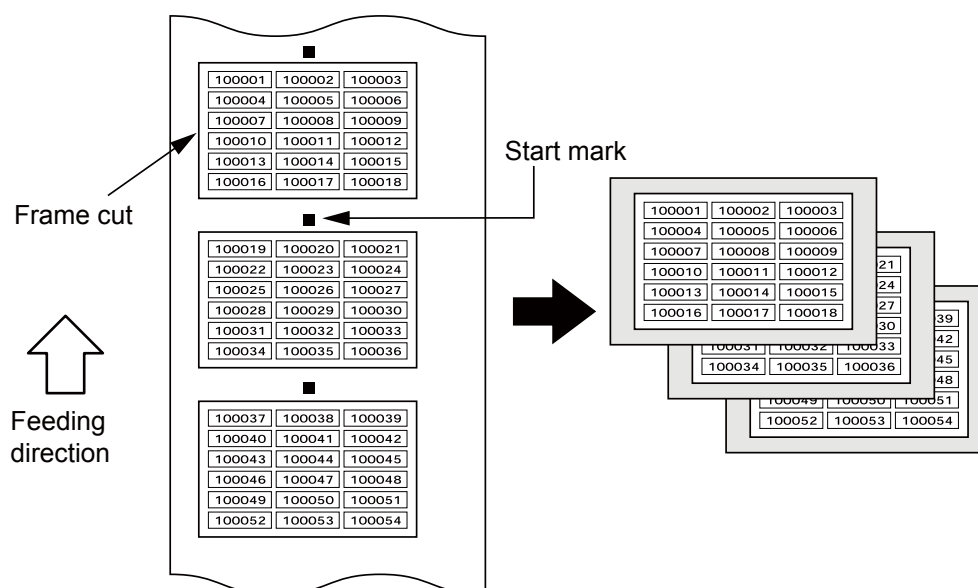
In sequence number creation application software, etc., there is a function that lays out sequence numbers or bar codes in the sheet by designing single layer labels. However, they are conversely not able to indicate a cutting line for outline cutting. As such, the LCX603 will match the paper size and cut the outline.

How to set the frame cut

Confirm the frame cut setting is set to the "OFF" this time.

(1) Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
         OUTPUT ALL>

```

(2) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
               COPY>
          DATA CLEAR>
           CONDITION>
    1/4
```

(3) Press the NEXT Key until the following menu is displayed.

```
    REGISTRATION MARK>
           UNIT LENGTH>
     FUNCTION SETTING>
  3/4
```

(4) Press the F3 Key (FUNCTION SETTING), the following menu is displayed.

```
             LAMINATE>
            SEPARATOR>
            CROSS CUT>
            FRAME CUT>
```

(5) Press the F4 Key (FRAME CUT), the following menu is displayed.

```
  FRAME CUT SETTING
                   <OFF>
  SELECT:↑↓
  YES:ENTER      NO:ESC
```

(6) Select "OFF" by using the POSITION Key (▲▼).

```
  FRAME CUT SETTING
                   <OFF>
  SELECT:↑↓
  YES:ENTER      NO:ESC
```

(7) Press the ENTER Key to store the setting, and the menu returns to the previous menu.

(8) Press the LOCAL Key, the menu returns to the READY menu.

Installing printer driver at next chapter.

3 Installing the Printer Driver

The printer driver (OPS632) is for use with the Windows LCX603 driver.

By using this driver software, it will be possible to use the LCX603 with Windows and to create labels with software that runs on Windows. This driver software can be run on Windows 2000/XP/Vista/7.

When using this driver software, please understand that it may not comply with functions in Windows based on the functional limitations of this device. In addition, display screens from Windows 7 will be used to explain the menu.

**Close any virus detection programs or system resident programs that are running.**

When installing, it is necessary to log in as an administrator group member.

3.1   When send the print data via the USB

How to install the printer driver for USB

(1)   Confirm the USB cable is not connected to the PC and the LCX603.

(2)   Insert the CD provided with the LCX603 into the CD-ROM drive of your computer.

   The "User Account Control" screen of the software appears.
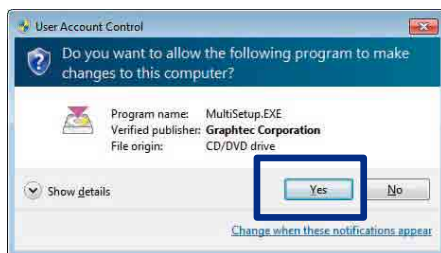
   Click "Yes".

(3)   The installer "Start" menu will appear.

(4)   Press the Install "LCX603 Software" to start to install the printer driver.
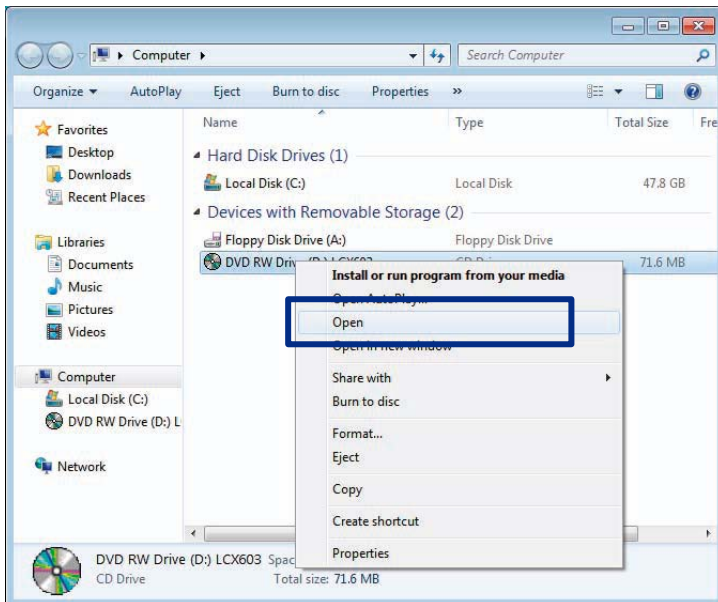
When software AutoPlay is setting in Windows 7

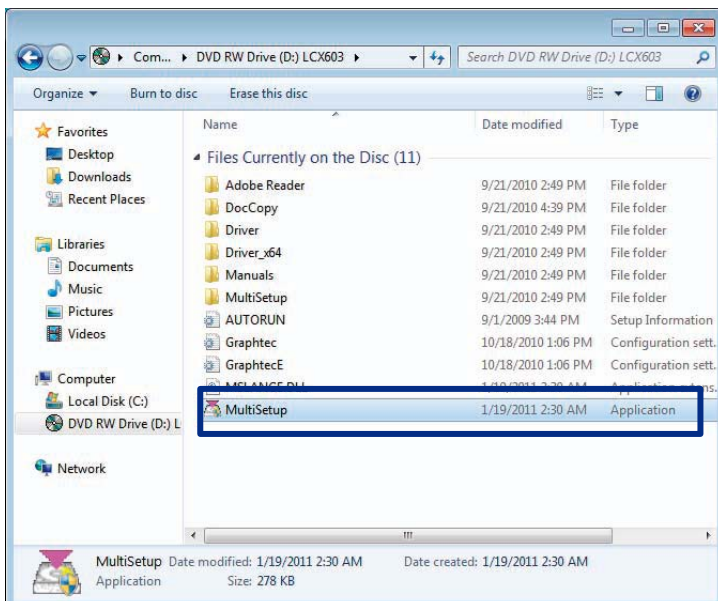(1)   Select "Run MultiSetup.exe" from the Windows "AutoPlay" selection menu.

When software AutoPlay is not setting in Windows 7

(1)   Select the CD-ROM drive from the computer, click the right button of mouse, then select "Open" as shown in the picture below.
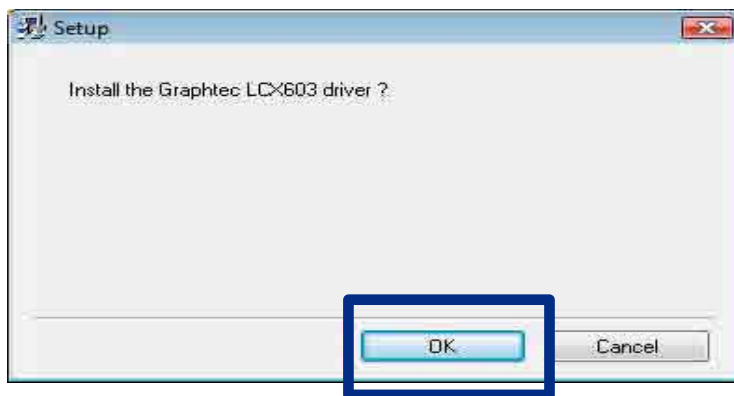

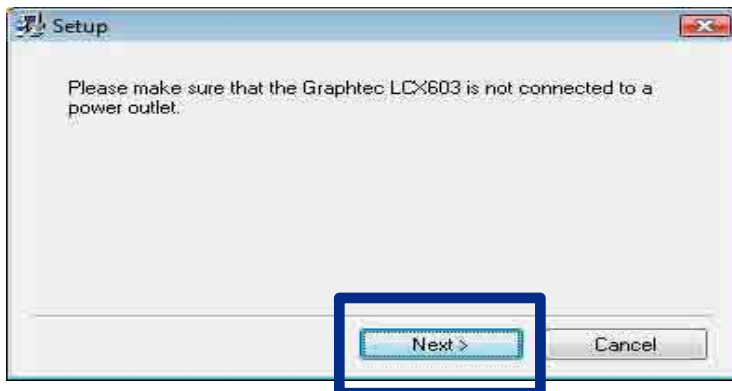(2)   Double click the "MultiSetup.exe" to run the "MultiSetup.exe".
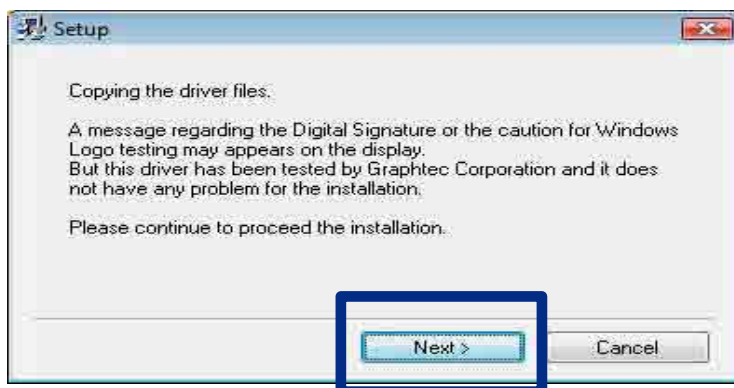
(3) The installer "Start" menu will appear.

(4) Click "Install LCX603 Software", the following menu is displayed.

(5) Follow the instructions shown in the menu, and then click "OK" button.

(6) Confirm the LCX603 is not connected to PC via the USB, and then click "Next" button.

(7) Click "Next" button.

(8) Select the USB from the pull down menu, and then click the NEXT button.
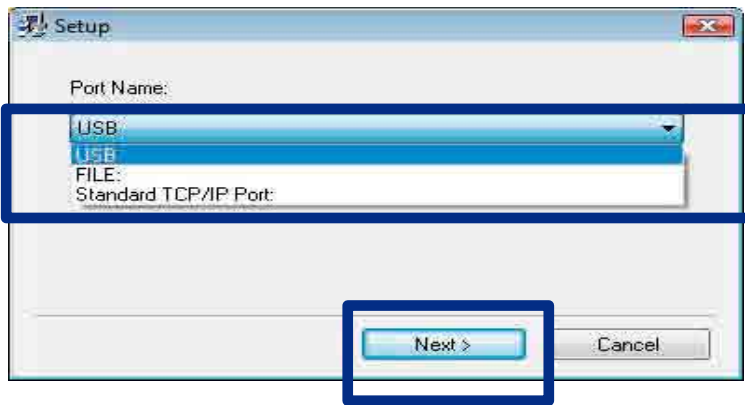
(9) The USB printer driver is copied to the PC.
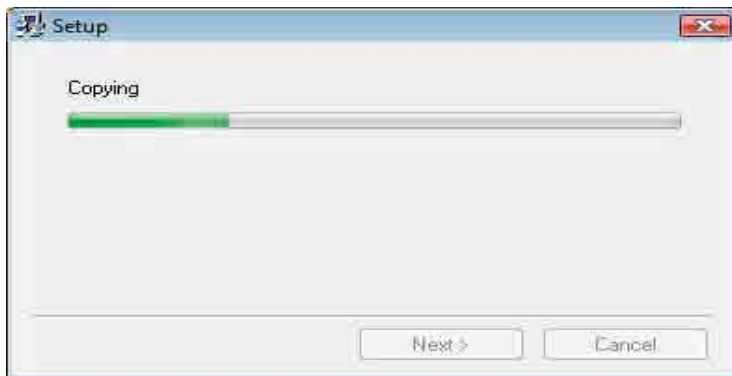
(10) The following menu is displayed after copying is finished.
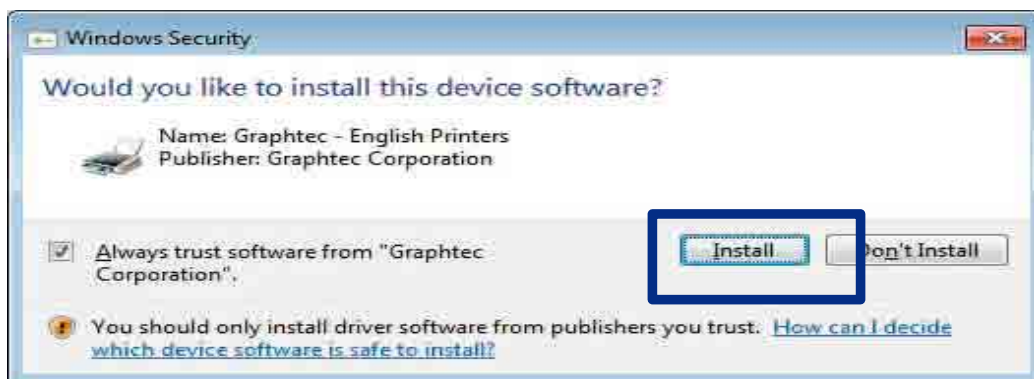
(11) Click on the checkbox entitled "Always trust software from 'Graphtec Corporation'" to place a checkmark inside it.

(12) Click the "Install" button, to install the USB driver.

(13) Click the "OK" button, and then connect the LCX603 and the PC via the USB cable.
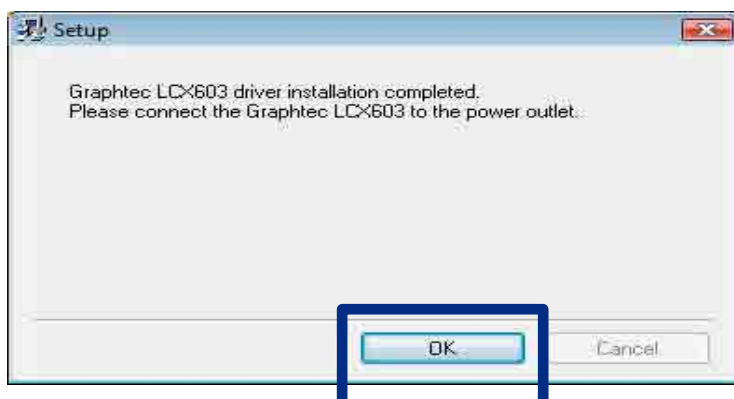
(14) Turn on the power for the LCX603.

(15) The device driver will be installed.
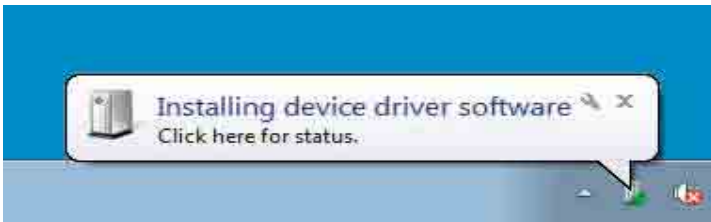
(16) The following menu is displayed after the device driver was installed.
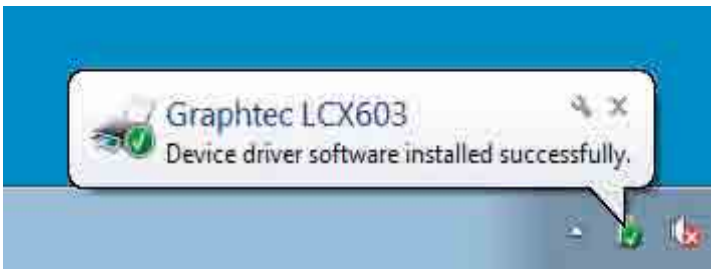
(17) Installation of a USB driver is an end now.

If the installation is successful, "Graphtec LCX603" will display within "Start" → "Devices and Printers" using Windows 7.

3.2   When send the print data via the LAN

Set the IP address and other settings for the LAN connection before connecting the LCX603 via the LAN.

Therefore the IP address have to get from the administrator of network.

The item to set up for the LAN connecting

• DHCP setting

• IP address setting

• Subnetmask setting

• Gateway setting

• MAC address (The MAC address must be used by the administrator of network when the LAN was protected by the MAC address.)

How to set up for the LAN connecting

(1)   Turn on the power for the LCX603.

(2)   The following menu is displayed when the media is installed.

```
Confirm Combination!
H3:xxxxxx   H2:xxxxxx
H1:xxxxxx   xxxxxxxxx
YES:ENTER
```

(3)   Press the ENTER Key.

DHCP Setting

Set the DHCP setting to "OFF". And have a IP address for the LCX603. The IP address should be assigned by the administrator of network. The LCX603 will be disconnected from the network when the DHCP server was released the IP address for device by time sharing setting.

Therefore the fixed IP address had better to be assigned for the LCX603.

(4)   Press the LOCAL Key in READY status, the following menu is displayed.

```
         PRINTER MENU>
          CUTTER MENU>
           OUTPUT ALL>

```

(5)   Press the F1 Key (PRINT MENU), the following menu is displayed.

```
               COPY>
           DATA CLEAR>
            CONDITION>
1/4
```

(6)   Press the NEXT Key until the following menu is displayed.

```
          LAN SETTING>
          MAC ADDRESS>


4/4
```

(7) Press the F1 Key (LAN SETTING), the following menu is displayed.

```
                    DHCP>
              IP ADDRESS>
             SUBNET MASK>
                 GATEWAY>
```

(8) Press the F1 Key (DHCP), the following menu is displayed.

```
DHCP SETTING
                    <OFF>
SELECT:↑↓
YES:ENTER      NO:ESC
```

(9) Select "OFF" with the POSITION keys (▲▼).

Press the ENTER key, the display returns to the previous screen.

Press the ESC key to return to the previous screen.

Press the LOCAL key to return to READY status.

The below screen will appear when turning the setting from "ON" to "OFF" or from "OFF" to "ON".

```
PRINTER IS RESET



YES:ENTER      NO:ESC
```

Press the ENTER key to reset. (Resetting will take time when DHCP is set to "ON".)

Press the ESC key to return to the previous screen.

Press the LOCAL key to return to READY status.

IP Address Setting

The IP address cannot input when the DHCP setting is set to "ON". Set the DHCP setting to "OFF" before the IP address is input.

(10) Press the LOCAL Key in READY status, the following menu is displayed.

```
             PRINTER MENU>
              CUTTER MENU>
               OUTPUT ALL>
```

(11) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                     COPY>
               DATA CLEAR>
                CONDITION>
 1/4
```

(12) Press the NEXT Key until the following menu is displayed.

```
              LAN SETTING>
              MAC ADDRESS>


 4/4
```

(13) Press the F1 Key (LAN SETTING), the following menu is displayed.

```
                      DHCP>
              IP ADDRESS>
            SUBNET MASK>
                 GATEWAY>
```

(14) Press the F2 Key (IP ADDRESS), the following menu is displayed.

```
IP ADDRESS
    <xxx.xxx.xxx.xxx>
INPUT:←→↑↓
YES:ENTER     NO:ESC
```

(15) Select the digits with the POSITION keys (◄►), select the number with the POSITION keys (▲▼).

Press the ENTER key, the display returns to the previous screen.

Press the ESC key to return to the previous screen.

Press the LOCAL key to return to READY status.

The below message will display when DHCP is "ON". After confirming, press the escape key to return to full screen.

```
IP ADDRESS
    <xxx.xxx.xxx.xxx>


RETURN:ESC
```

Subnet mask input / display

The subnet mask cannot input when the DHCP setting is set to "ON". Set the DHCP setting to "OFF" before the subnet mask is input.

(16) Press the LOCAL Key in READY status, the following menu is displayed.

```
            PRINTER MENU>
             CUTTER MENU>
              OUTPUT ALL>

```

(17) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                    COPY>
              DATA CLEAR>
              CONDITION>
1/4
```

(18) Press the NEXT Key until the following menu is displayed.

```
            LAN SETTING>
            MAC ADDRESS>


4/4
```

(19) Press the F1 Key (LAN SETTING), the following menu is displayed.

```
                        DHCP>
            IP ADDRESS>
          SUBNET MASK>
              GATEWAY>
```

(20) Press the F3 Key (SUBNET MASK), the following menu is displayed.

```
SUBNET MASK
    <xxx.xxx.xxx.xxx>
INPUT:←→↑↓
YES:ENTER       NO:ESC
```

(21) Select the digits with the POSITION keys (◄►), select the number with the POSITION keys (▲▼).

Press the ENTER key, the display returns to the previous screen.

Press the ESC key to return to the previous screen.

Press the LOCAL key to return to READY status.

Gateway input / display

The gateway cannot input when the DHCP setting is set to "ON". Set the DHCP setting to "OFF" before the gateway is input.

(22) Press the LOCAL Key in READY status, the following menu is displayed.

```
          PRINTER MENU>
          CUTTER MENU>
            OUTPUT ALL>
```

(23) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                        COPY>
            DATA CLEAR>
             CONDITION>
1/4
```

(24) Press the NEXT Key until the following menu is displayed.

```
          LAN SETTING>
          MAC ADDRESS>


4/4
```

(25) Press the F1 Key (LAN SETTING), the following menu is displayed.

```
                        DHCP>
            IP ADDRESS>
          SUBNET MASK>
              GATEWAY>
```

(26) Press the F4 Key (GATEWAY), the following menu is displayed.

```
GATEWAY
     <xxx.xxx.xxx.xxx>
INPUT:←→↑↓
YES:ENTER        NO:ESC
```

(27) Select the digits with the POSITION keys (◄►), select the number with the POSITION keys (▲▼).

Press the ENTER key, the display returns to the previous screen.

Press the ESC key to return to the previous screen.

Press the LOCAL key to return to READY status.

MAC address display

The MAC address is used when the network device is secured by the MAC address.

The LCX603 displays the MAC address on the LCD.

(28) Press the LOCAL Key in READY status, the following menu is displayed.

```
        PRINTER MENU>
         CUTTER MENU>
         OUTPUT ALL>

```

(29) Press the F1 Key (PRINT MENU), the following menu is displayed.

```
                COPY>
          DATA CLEAR>
           CONDITION>
1/4
```

(30) Press the NEXT Key until the following menu is displayed.

```
         LAN SETTING>
         MAC ADDRESS>


4/4
```

(31) Press the F2 Key (MAC ADDRESS), the following menu is displayed.

```
MAC ADDRESS
          IP ADDRESS>
         SUBNET MASK>
            GATEWAY>
```

(32) Press the F4 Key (GATEWAY), the following menu is displayed.

```
MAC ADDRESS
  <00:03:76:08:xx:xx>


RETURN:ESC
```
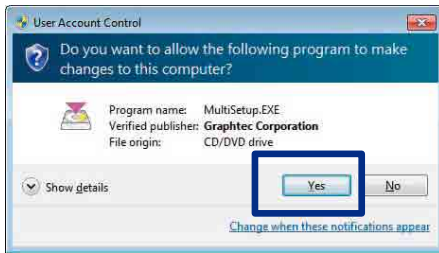
A unique address will be displayed.

Press the ESC key to return to the previous screen.

Press the LOCAL key to return to READY status.

(33) Insert the CD provided with the LCX603 into the CD-ROM drive of your computer.

The "User Account Control" screen of the software appears.

Click "Yes".

(34) The installer "Start" menu will appear.

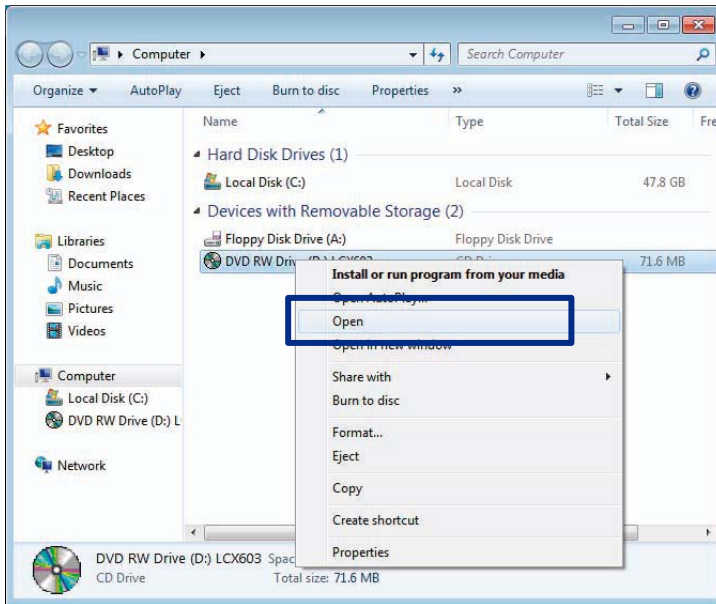(35) Press the Install "LCX603 Software" to start to install the printer driver.

When software AutoPlay is setting in Windows 7

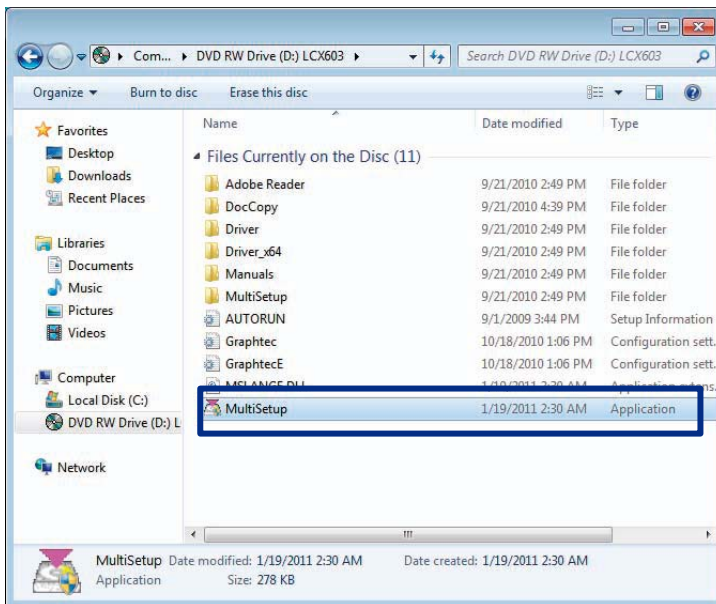Select "Run MultiSetup.exe" from the Windows "AutoPlay" selection menu.

When software AutoPlay is not setting in Windows 7

Select the CD-ROM drive from the computer, click the right button of mouse, then select "Open" as shown in the picture below.

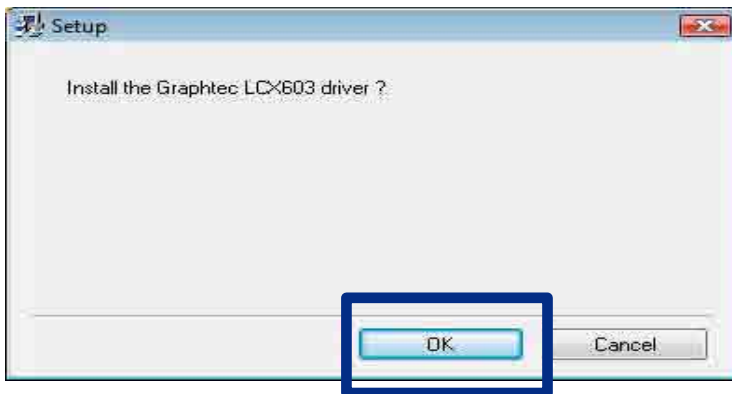Double click the "MultiSetup.exe" to run the "MultiSetup.exe".

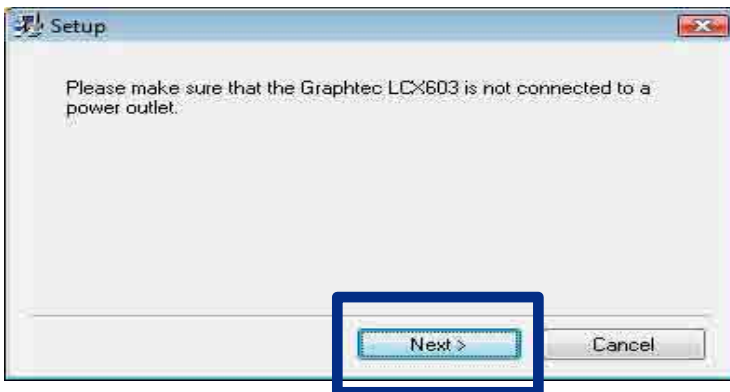(36) The installer "Start" menu will appear.

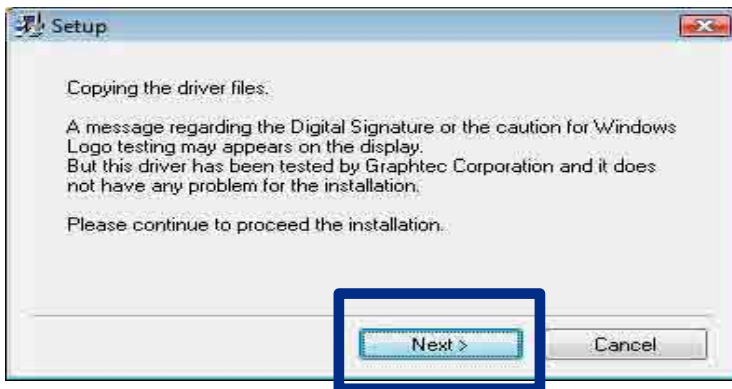(37) Click "Install LCX603 Software", the following menu is displayed.

(38) Follow the instructions shown in the menu, and then click "OK" button.
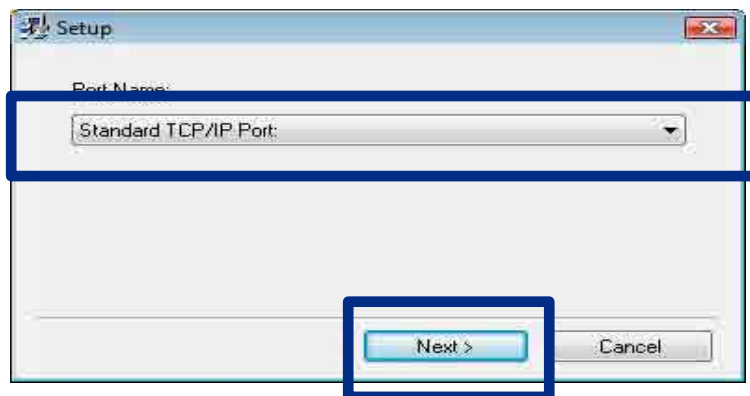

(39) Confirm the LCX603 is not connected to PC via the LAN, and then click "Next" button.

(40) Click "Next" button.

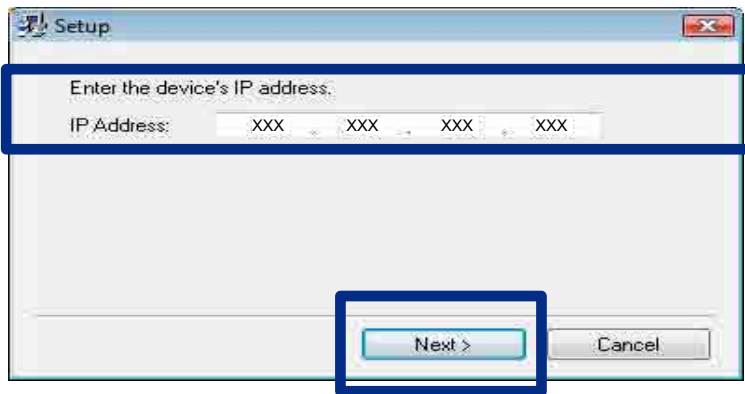(41) Select the Standard TCP/IP from the pull down menu, and then click the NEXT button.

(42) Click "Next" button.

(43) Input the IP Address, which was set at step (14). Then click NEXT button.

(44) When the installation has finished, the following menu is displayed. Click on the "OK" button.
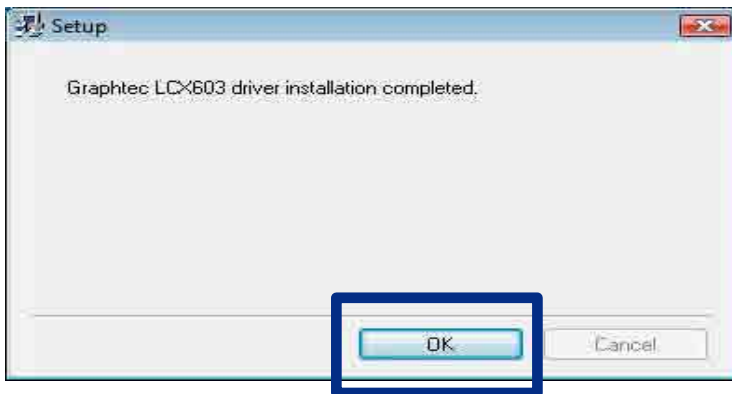
If the installation is successful, "Graphtec LCX603" will display within "Start" → "Devices and Printers" using Windows 7.

3.3   Printer Driver Operation

This is a description with regard to the printer driver use when printing label data created in the application software etc.

*The display screens are different in each application software.

Open the Print window.

Select each of the following tabs and make settings.

• Paper tab: make settings with regard to paper size, area, print orientation, display units, etc.

• Graphics tab: make settings with regard to the color setting for each print head, cutlines, etc.
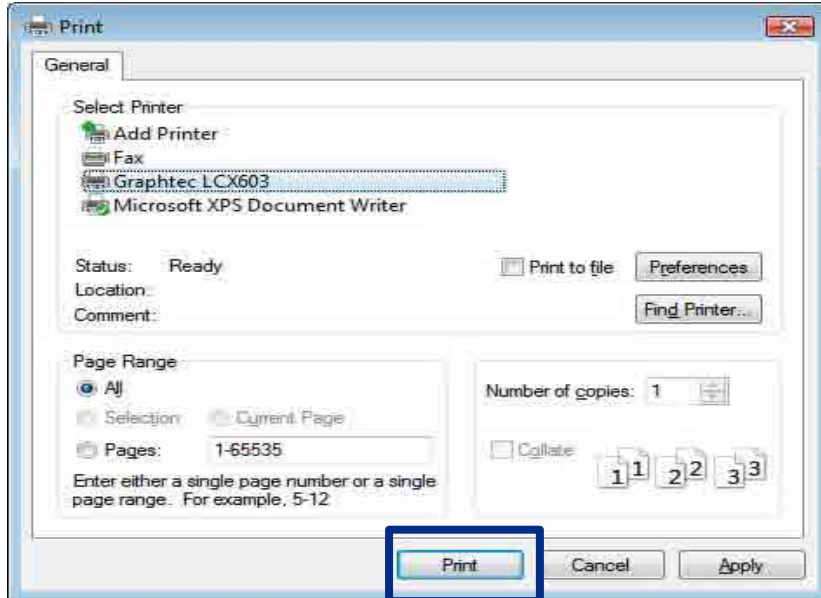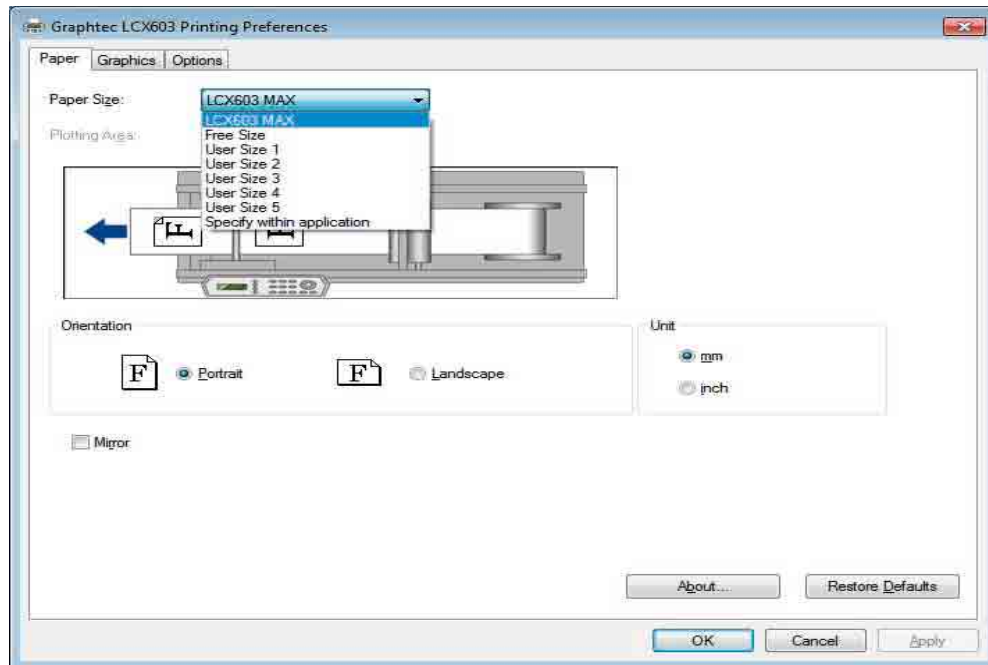
• Options tab: perform settings for resolution, transfer data type, and designing.

Click on [Print], and open the window.

[Paper] Tab

Paper Size .... Specifies the driver paper size used to determine the actual paper when creating the label data.

There are eight available paper sizes: "LCX603 MAX", "Free Size", "User Size 1 - 5", and "Specify within application".

Size "LCX603 MAX" is 100 mm x 200 mm.

"Free Size" can be set within the "LCX603 MAX" settings.

Please set the plotting area above 40 mm*.

The name of the user-defined size can be changed and the settings can be recorded.

Set the paper width by the following formula If media width is other than 130 mm width.

Paper width = Media width - 30 mm

Example: Media width 120 mm

120 mm - 30 mm = 90 mm

Plotting Area .... Selecting "Free Size" allows specifying an effective plotting area of the desired dimensions.

Orientation .... The printing direction can be set to either "Portrait" or "Landscape".

Mirror .... Prints the label as a mirror image.

Unit .... The plotting area numerical values unit of measurement can be changed.

About .... Click to display the copyright and version information of the printer driver currently in use.

Restore Defaults............... Resets the settings to their original values.

* The minimum size of the media feed direction of the LCX603 main unit is 65 mm.

Even if a value lower than 65 mm is set, output will be 65 mm.

[Graphics] Tab
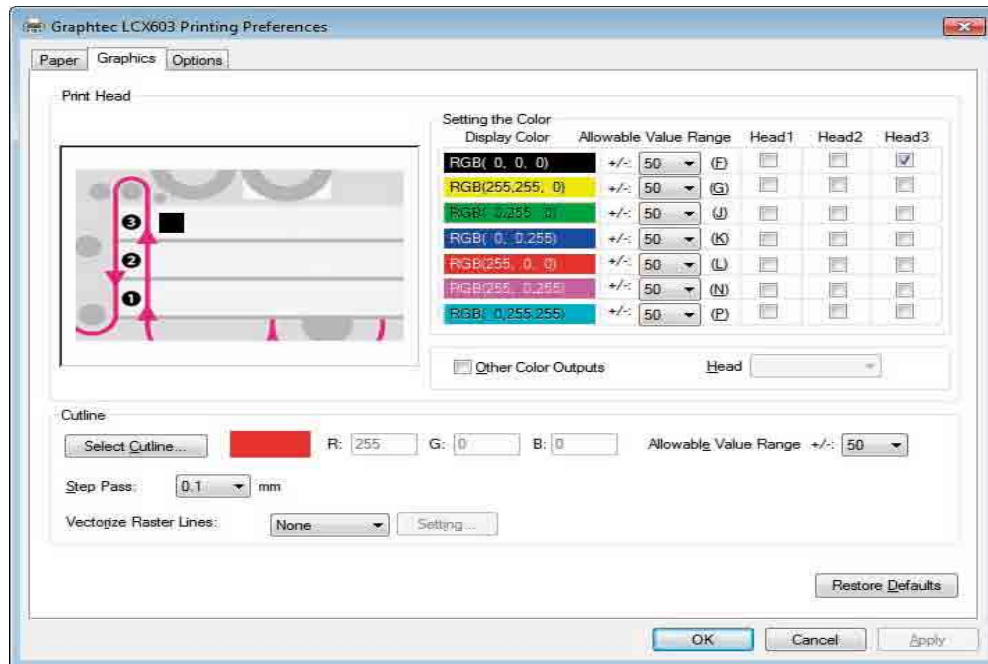
Print Head .... Displays the head number output settings of the label data color made by the
application. The display changes through the color selection set in "Setting the
Color".

The body heads are installed as Head 1, Head 2, and Head 3 from bottom to
top with Head 3 being the basic one.

Setting the Color .... Selects the output color of Head 1, Head 2, and Head 3. The available colors
are seven: black, red, blue, green, magenta, cyan, and yellow. The color with a
check next to it is selected.

The color specified here is the application color. The actual printing color is the
color of the set ink ribbon.

Other Color Outputs .... To be selected when using a label color different from the seven display colors.
Selection among Heads 1 - 3 can be made, but even if Head 3 is not selected, it
is used in the cut mark printing, so please set black ribbon in Head 3.

Select Cutline .... Specifies the color of the line data, which carries out the label's half-cutting.
The cutline recognized by the driver is the color specified here and is only the
thinnest line that can be set in the application.

The exact wording differs according to the application, but please use the
thinnest line thickness such as zero and make the cutline as a hairline.

When thin lines with the same colors as those set for the cutlines are present on
the data, depending on the application being used, said lines may be perceived
as being cutlines and cut as a result. In such instances, either widen the width
of the lines that were excessively cut, or change the data-based color of the
lines set for the cutlines, followed by changing the color under "Select Cutline"
in the driver to match the actual cutlines.

Color Settings................... When clicking "Select Cutline", "Setting the Color" will be displayed. You can then choose from the basic colors, or add a new one through "Add Color".

The allowable value range for a given color is set as ± 50 as default.

Allowable Value Range...The allowable value range with respect to color setting 255 is displayed, which can then be set in the 0 - 100 range.

For example, if the value is set to 50, up to 205 is recognized as a set color.

Step Pass .... This function carries out processing while skipping the blade tip control. By lowering the setting value, the arc's fine blade tip control is carried out smoothly, which improves the image quality.

If a very big value is selected, then the cut shape could not be executed properly.

Typically, please use the default settings.

Depending on the application, because the circle or ellipse data is output in fine lines, the cutter vibrates due to the blade tip control, which may cause distortion in the cut. If this happens, by increasing the value here, the cutline will become smooth and the cutting speed will be improved.

Vectorize Raster Lines ..... Depending on the application, the line processing method is different, and the cutline extraction may not be possible. Using this function allows the cutline extraction in some cases.

Typically, please use it with "None".

None: .... Raster lines are not vectorized. Only data, which has been sent as vector lines from the application, is handled as Cutlines.

Method 1:.............. The same as "None", with one addition. Certain types of rectangular solid fill data are handled as thick vector line data.

Method 2:.............. The same as Method 1, with one addition. When circles, ellipses or other curved lines are sent as raster data, Cutlines will also be extracted from the raster data.

Method 3:.............. Cutlines are extracted from the raster data only. Use Method 3 if you have problems such as rectangles being output as separate segments when you use Method 1 and 2.

Vectorize Raster Lines Settings

.... The vectorize settings can be set only during Method 2 and 3.
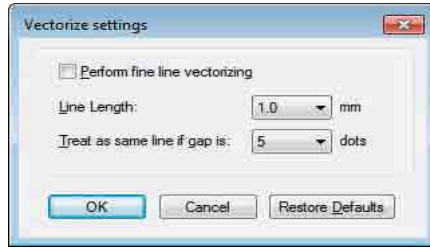
Perform fine line vectorizing

.... Vectorizing is performed after the data has been converted
to fine lines.

If the lines to be vectorized are too wide, the driver will not
recognize them as Cutlines and they will not be output. If
you want to output such lines as Cutlines, check this box.
Use this option with applications where fine lines cannot be
output.

Line Length........... Specifies the minimum length of the cutlines to be output.
The driver ignores lines which are shorter than this length,
and does not output them.
The settings range is 0.1 mm - 5.0 mm.

Treat as same line if gap is

............................. Specifies the dot gap, which is acceptable as same line
data.

Depending on the application used, gaps can occur in an
output raster line, making it difficult to determine whether
the segments are from the same line or separate lines. This
option fills in the dots and enables output as one continuous
line. However, if this value is too large, separate lines may
be treated as one continuous line.
The settings range is from 0 to 20 dots.

Restore Defaults............... Resets the settings to their original values.

[Options] Tab

When you click on the [Options] tab, the following screen appears.
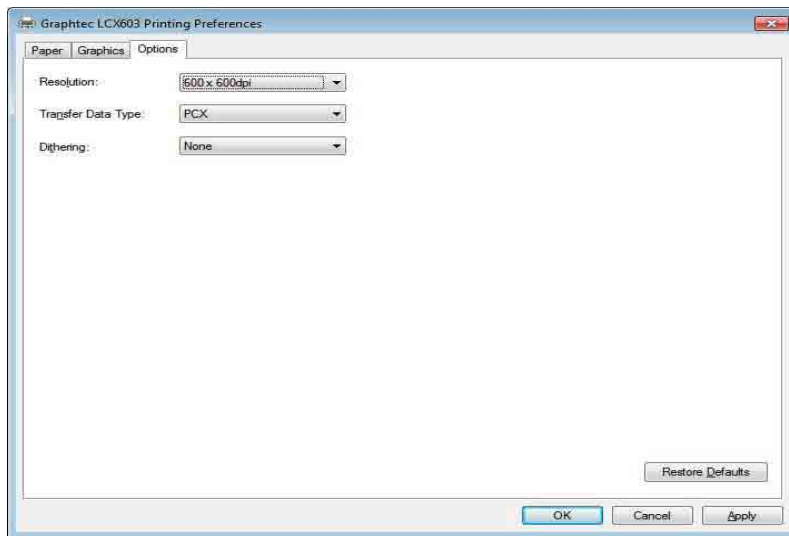
Resolution .... Select the resolution for data output from either 600 dpi × 600 dpi or 600 dpi × 1200 dpi.

Typically, please use 600 dpi × 600 dpi.

When switching resolution from the driver software (600 × 600 dpi←→600 × 1200 dpi), if there is data currently being output, perform the switch once all data has been output. Please use caution, since changing the resolution during data output consumes non-print media.

Transfer Data Type .... Specify the type of data to be transferred from either PCX or RAW.

Typically, please use PCX.

Dithering .... None", "Coarse" or "Fine" can be selected.

Typically, use "None".

Restore Defaults .... Resets the settings to their original values.

End of setup

Install the application software and perform the printing test.

Explain the operation of the LCX603 to your customer after setup of LCX603.