

# Instructions

Please ensure that you read through the Startup Guide that is supplied with the printer before use.

## Direct Dye Sublimation Printer

Model **CX-120**



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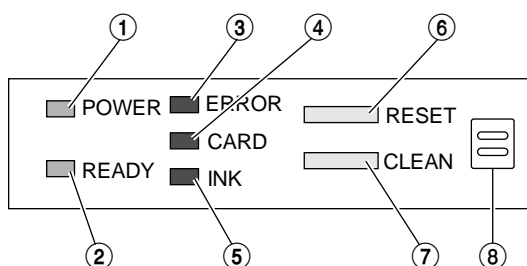
- Thank you for purchasing our product.
- Please ensure that you have read through the “Notes for Safe Operation” on Page 3 of the Startup Guide (separate book) in advance to ensure its safe use.

### **Notes regarding this manual.**

- (1) The contents of this manual shall not be reprinted or redistributed in any form without prior consent.
- (2) The contents of this manual or the specifications and external appearance of this unit may be altered without prior notice.
- (3) Illustrations used in this manual may differ slightly from the actual shape of this unit.

# Operating the Printer

## Names of Various Sections on Control Panel



- 1 POWER LED (Green)
- 2 READY LED (Green)
- 3 ERROR LED (Red)
- 4 CARD LED (Red)
- 5 INK LED (Red)
- 6 RESET Button
- 7 CLEAN Button
- 8 Buzzer

## LED Display

LED Name	Status	Description
POWER (Power supply status)		Power Off
		Power On
READY (ONLINE/LOCAL)		Not ready: Unable to issue card (unable to accept issuing command)
		Ready: Ready to issue card.
		Active: Card inside. Ready to issue card.
ERROR (Error status)		No defect. Not lit in the cases of No Card and Ink End as these are not defects.
		Irrecoverable error: Error that requires power to be turned off and on again.
		Recoverable error: Error that requires reset or door to be opened and closed.
CARD (Card status)		No defect or unknown defect related to card.
		No card inside the card cassette.
		Card transport error (JAM)
INK (Ink ribbon status)		No defect or unknown defect related to ink ribbon.
		Ink End
		Ink defect (Ink ribbon ran out, unknown type of ink ribbon, etc)

### LED indicator status



















-- Light off   -- Light on   -- Blinking



\* When in the Download mode, the POWER, READY, ERROR, CARD and INK LEDs will all light up.

# Operating the Printer (continued)

## Button Control

Other than when turning on the power, operation only starts after pressing the button for more than 1 second. Release the button upon hearing a "beep" sound from the buzzer and the respective function will be activated. This is used to prevent operational errors.

Operation Status	RESET	CLEAN	Operation	Reference
When turning on power			Initialization (Usual startup)	
			Changes to Unit Number Setting mode	Startup Guide (Separate book) Connecting multiple printers
			Changes to Download mode	Troubleshooting in this manual Action to take when printer fails to startup
			Initialization (Usual startup)	
Ready			Changes to Magnetic Head Cleaning mode	Startup Guide (Separate book) Cleaning the magnetic head
			Initialization (Software reset) Also initializes ink ribbon	
			Performs test pattern printing	Operating the printer in this manual Test print using the printer alone
Recoverable error with printer door closed <b>Caution (1)</b>			Changes to Card Transport Roller Cleaning mode	Startup Guide Cleaning the card transport roller
			Initialization (Software reset) Also initializes ink ribbon	
Irrecoverable error	Not Applicable			

Button status:  Not pressed.  Pressed.



### Caution

- (1) Open and close printer door during a recoverable error to start initialization automatically.
- (2) For initialization without performing software reset, the ink ribbon will not be initialized if the same ribbon is used. Refer to the next section of this manual on initialization.
- (3) When there is no error while card is inside the printer, the RESET button cannot function. Open and close printer door if you wish to remove the cards. Initialization will start automatically and card will be ejected from the NG Card Outlet.
- (4) When the thermal head is being cooled down, the RESET button cannot function. "Thermal head cooling" is displayed as a status of the Status Monitor. For details, see page 7 of this manual.

# Operating the Printer

## Initialization

Initialization operations are performed as follows.

1. Initialization starts automatically when printer door is closed.



### Example

- 1) Upon removing a card during a card jam
- 2) Upon changing an ink ribbon when ink runs out

2. Ink ribbon will be initialized when a different ribbon is used.

However, when initialization is activated using the RESET button, ink ribbon initialization also will be done even where the same ink ribbon is used.

## Test print using the printer alone

Even when not connected to the host computer, test printing of built-in patterns can still be done in the Ready mode by pressing the RESET and CLEAN buttons simultaneously for more than 1 second (a "beep" sound will be heard from the buzzer) and releasing it. For details, please refer to "Checking After Changing Thermal Head" in the "Startup Guide" (separate book).

## Differences Between Printing Modes

The setting of this printer can be switched between the Standard mode and Fine mode for both YMC (color) printing and Resin K (text) printing by using the setting function in the Status Monitor (Printer setting tool). When carrying out double-sided printing on the card, the same mode setting will apply to both the front and rear faces. (Setting a separate mode for the front and back is not possible.) A longer printing time will be required when set to the Fine mode. Printing time and merits of the Fine mode are as follows.

	Additional Time when Set to Fine Mode	Merits of Using Fine Mode
YMC	Approx. 5 sec / side	Improvement in evenness, texture and sharper outline
Resin K	Approx. 2 sec / side	Lesser broken and faded words

# How to Use the Status Monitor

The CX-120 Status Monitor("Status Monitor") is a software for displaying printer status and performing various printer settings.



**Caution**

Use the Status Monitor only when the printer power is tuened on.

## Software Licensing Agreement

Before using the software contained in the CD-ROM supplied, please read through the "Software Licensing Agreement" at the end of the "Startup Guide" (separate book).

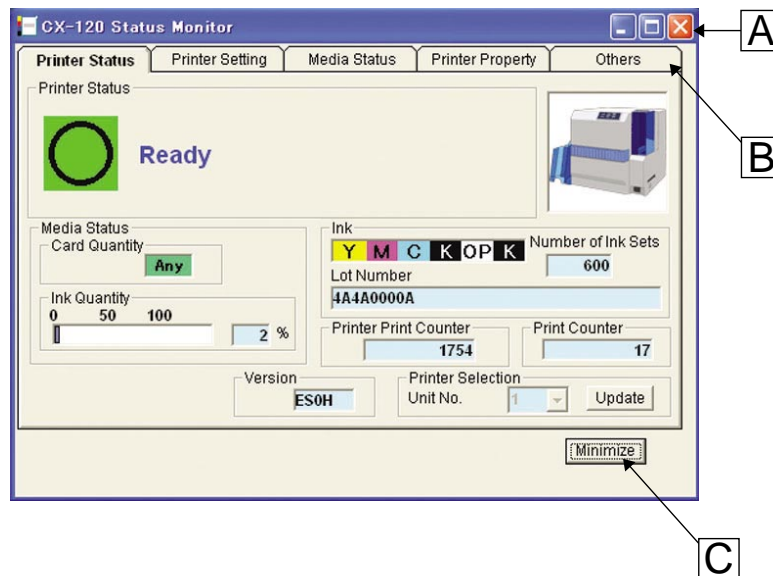
You will not be allowed to use this software unless you have agreed to accept the terms stated in the agreement.

## Operation Environment

The Status Monitor can operate under the following environment.

- Microsoft® Windows® 8 32bit/64bit
- Microsoft® Windows® 7 (First Release, Service Pack 1) 32bit/64bit
- Microsoft® Windows Vista™ (Service Pack 1/2) 32bit
- Microsoft® Windows® XP (Service Pack 2/3) 32bit
- Microsoft® Windows® 2000 Professional (Service Pack 4) 32bit

## Screen Configuration



**A**: Close button

Exits the Status Monitor

**B**: TAB for switching screens

Switches to the following screens.

- |                             |   |
|-----------------------------|---|
| (1) Printer Status screen   | : Displays printer status.  |
| (2) Printer Setting screen  | : For displaying/changing printer settings.   |
| (3) Media Status screen     | : Displays status of card and ink ribbon.   |
| (4) Printer Property screen | : Displays printer configuration.   |
| (5) Others screen           | : For updating printer firmware and performing test printing. Number of cards issued is set to 0. |

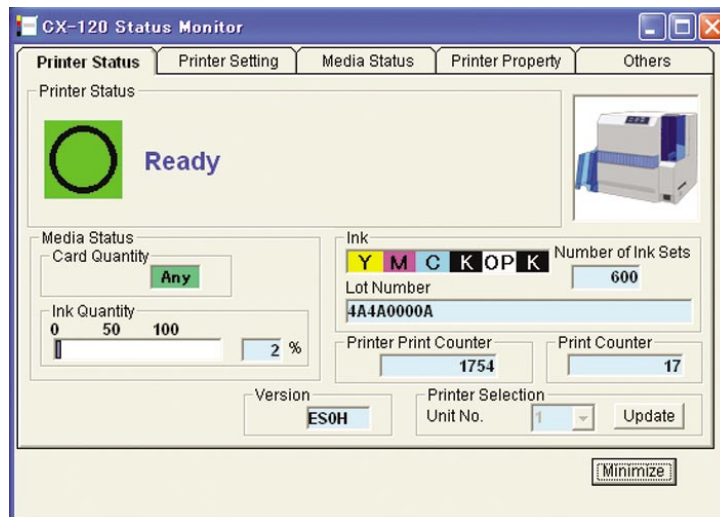
**C**: Minimize button

Minimizes the Status Monitor to an icon. The icon is displayed in the task bar.

# How to Use the Status Monitor (continued)

## Monitoring Printer Status

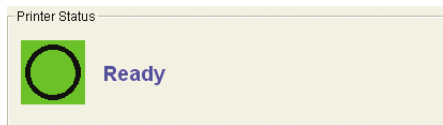
The Printer Status screen is used to monitor the printer status.



- (1) Printer status : Displays status of printer. (For details, refer to next page.)
- (2) Media status : Indicates whether cards are present as well as the remaining ink quantity.
- (3) Ink : Displays information of the installed ink ribbon. Check that the installed ink ribbon is correctly displayed. The quantity and lot number will be blank if ink ribbon is not recognized correctly or if K monochrome ink ribbon installed. In such a case, it may not be possible to control the ink ribbon properly. Check the installation status of the ink ribbon. Please refer to “Setting the Ink Ribbon” in the “Startup Guide” (separate book).
- (4) Printer Print Counter : Displays the accumulation number of cards issued by the printer.
- (5) Print Counter : Displays the number of cards issued. This figure can be reset to 0 on the Others screen. (Refer to page 12 in this book)
- (6) Version : Displays the version of the printer firmware.
- (7) Printer Selection : Switches to the target printer when the same host computer is connected to multiple printers. Click the Update button to update the status of the connected printer and select a Unit No. Then the status of the selected printer will be displayed.

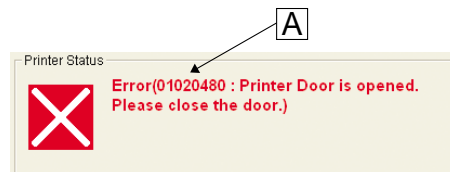
# How to Use the Status Monitor (continued)

## Ready Status Display



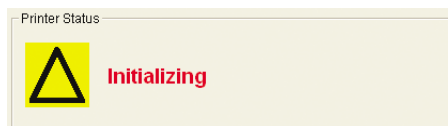
Indicates that printing is enabled.


## Error Status Display



Shows the details of a failure. A is an error code indicating the type of failure. Please refer to the Error Code list (Pages 15-16 of this manual) for the Error Codes and Corresponding Actions.

## Other Status Display

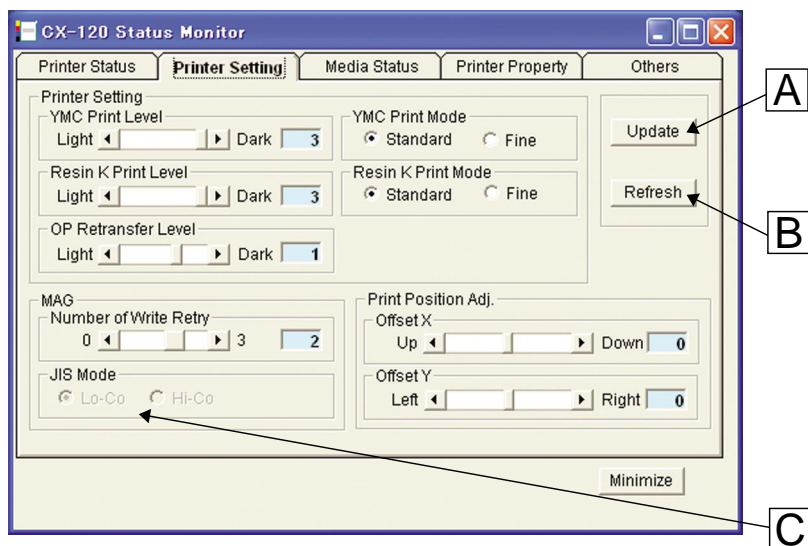


Display Message	Description
No Printer is found.	Power of printer is not switched on or the host computer and printer are not connected properly with a USB cable.
Initializing	Initializing printer. Printer will switch to the Ready mode after initialization is complete.
Cleaning	Cleaning of magnetic head in progress. Printer will switch to the Ready mode after cleaning is complete.
Offline Mode	Printer is in the offline mode.
Self Test Mode	Self-diagnostic mode. Turn on the printer power again to set printer to the Ready mode.
Download Mode	Download mode. Turn on the printer power to set printer to the Ready mode.  <div>Do not switch off printer's power when downloading as this will result in failure.</div>
Thermal Head Cooling	The thermal head is being cooled down since its temperature became too high. When cooled down, print operation will automatically start again.
Card Loading	Status of printer when it is issuing cards. Printer will return to the Ready mode upon completion of card issuance.
Card Transporting	
MAG Encoding	
Printing	
Contact IC Encoding	
Non-contact IC Encoding	
Card Unloading	
Unloading to NG Card Outlet	

# How to Use the Status Monitor (continued)

## Changing Printer Settings

Change printer settings on the Printer Settings screen.



**A** : Update button  
Changes printer settings.

**B** : Refresh button  
Displays printer settings status on the screen

(1) YMC Print Level : Adjusts the print density of YMC ink.

(2) Resin K Print Level : Adjusts the print density of Resin K ink.

(3) OP Retransfer Level : Adjusts the transfer level of the OP layer (protective layer) of the ink to the card.

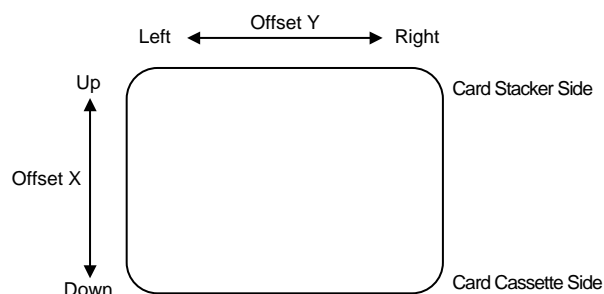
(4) YMC Print Mode : Adjusts the printing quality of YMC ink. If "Fine" is selected, print quality will be enhanced but printing speed will decrease.

(5) Resin K Print Mode : Adjusts the print quality of Resin K ink. If "Fine" is selected, print quality will be enhanced but printing speed will decrease.

(6) Number of Write Retry : Sets the maximum number of retries when error occurs while writing to the magnetic stripe.

(7) Coercive Force Setting : Change using **C** on the screen. It will not be displayed if the magnetic unit is not installed on the printer. Changes can only

(8) Print Position Adj. : Sets the position to start printing. 1 unit is equivalent to 1/150 inch. The following diagram illustrates the direction of movement for the print image.



### Caution

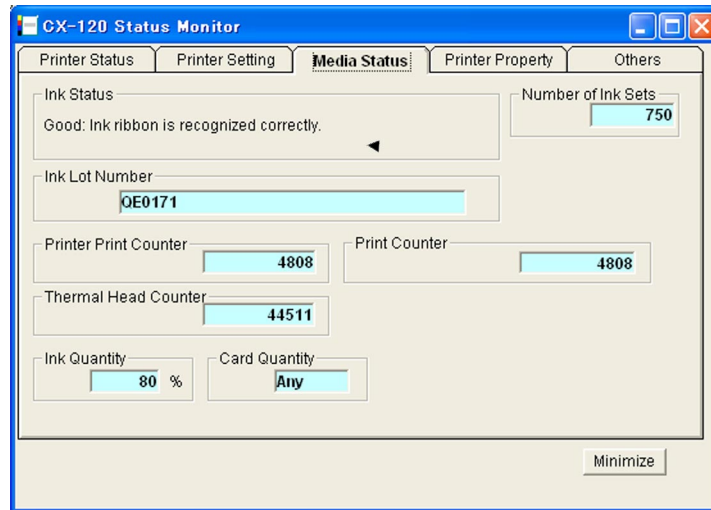
Offset X and offset Y is already set by factory default. But it is necessary to set again after replacing the thermal head. Setting offset X upwards too much may cause card jamming. In that case try to set offset X downwards a little.



# How to Use the Status Monitor (continued)

## Checking the Media and Printing Status

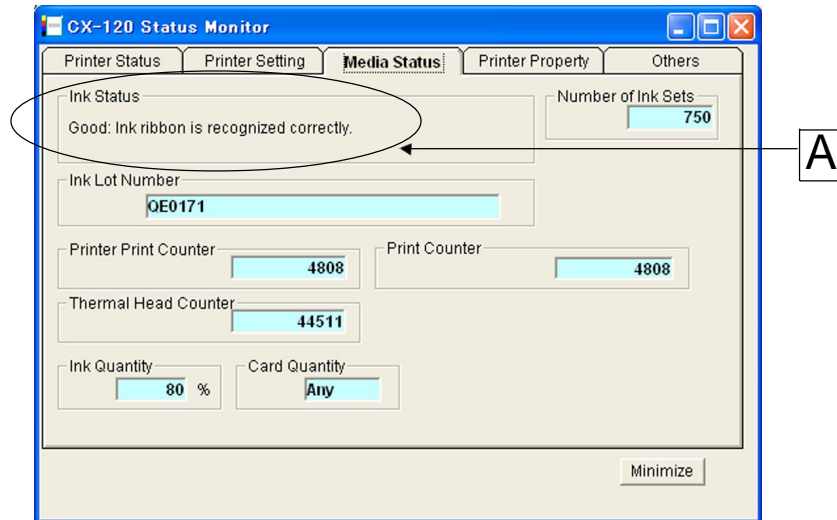
Check the status of the printer media and printing on the Media Status screen.



- (1) Ink Status : Displays the status of the installed ink ribbon.(For details, refer to next page.)
- (2) Number of Ink Sets : Displays the number of screens for the ink ribbon that has been fitted. In the example on the screen, a YMC-K-OP ink ribbon with 750 screen are installed. A YMC-K-P cycle is counted as 1 screen. The display will be blank when ink ribbon in use is unknown.
- (3) Ink Lot Number : Displays the lot number of ink ribbon installed. The display will be blank when ink ribbon in use is unknown.
- (4) Printer Print Counter : Displays the accumulation number of cards issued by the printer.
- (5) Print Counter : Displays number of cards issued. This figure can be initialized to 0.  
(Refer to page 12 in this book)
- (6) Thermal Head Counter : Displays number of printing ink panels of the thermal head. For example, 5 is added when all YMCK-OP inks are used for printing.
- (7) Ink Quantity : Displays remaining quantity of the ink ribbon.
- (8) Card Quantity : Indicates whether cards are present.

# How to Use the Status Monitor (continued)

## Display When Ink is Unknown



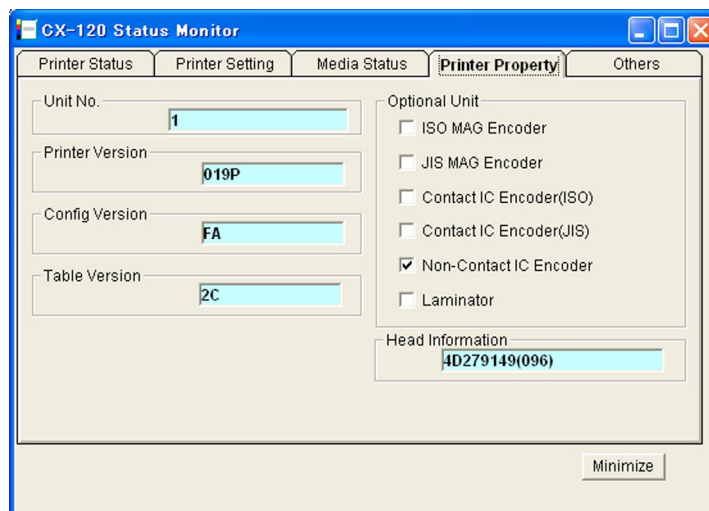
Displays the tag status of ink ribbon in **A**.

- Good : Ink ribbon is recognized correctly.
- (252: Tag Data Defect) : Recorded data of tag is incorrect. Try again after replacing the ink ribbon.
- (253: Tag Data Defect) : Unable to communicate correctly with tag. Try again after replacing the ink ribbon.
- (254: No Tag) : Unable to read tag. In this case, recognized as K monochrome ink ribbon.
- (255: R/W Defect) : Printer's tag reader is defective. Repair of printer is required.

# How to Use the Status Monitor (continued)

## Checking Printer Configuration

Check the printer configuration on the Printer Property screen.

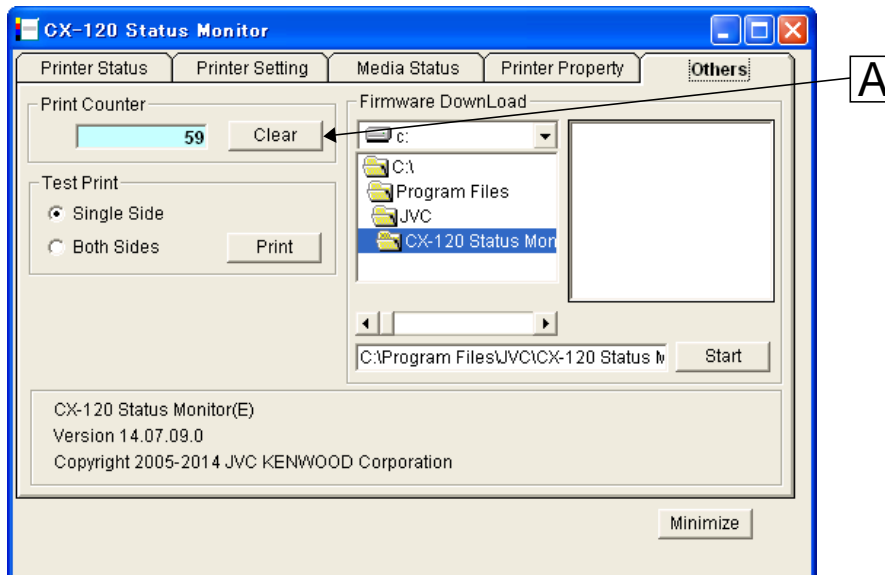


- (1) Unit No. : Number for identifying printer. This number can be changed in the Printer's operation panel. Assign different numbers to all the printers when the same host computer is connected to multiple printers. Please refer to "Connecting Multiple Printers" in the "Startup Guide" (separate book).
- (2) Printer Version, Config Version, Table Version, Laminator Version : Displays firmware version of the printer. Laminator version is only displayed when a laminating unit is connected (optional).
- (3) Optional Unit : Displays printer's hardware configuration.
- (4) Head information : Displays information of the thermal head installed in the printer.

# How to Use the Status Monitor (continued)

## Resetting the [No. of Cards Issued] Item

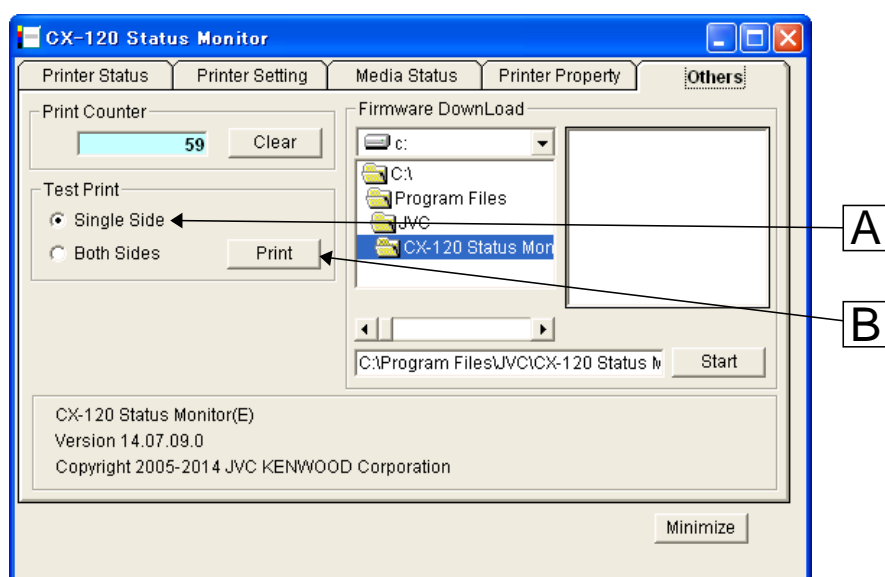
You can reset the number of cards issued on the Others screen.



(1) Click on the button **A** to set the number of cards issued to 0.

## Test Printing

Test printing is performed on the Others screen. Test printing does not make use a printer driver. Checking can be done to ensure that the printer is working properly.



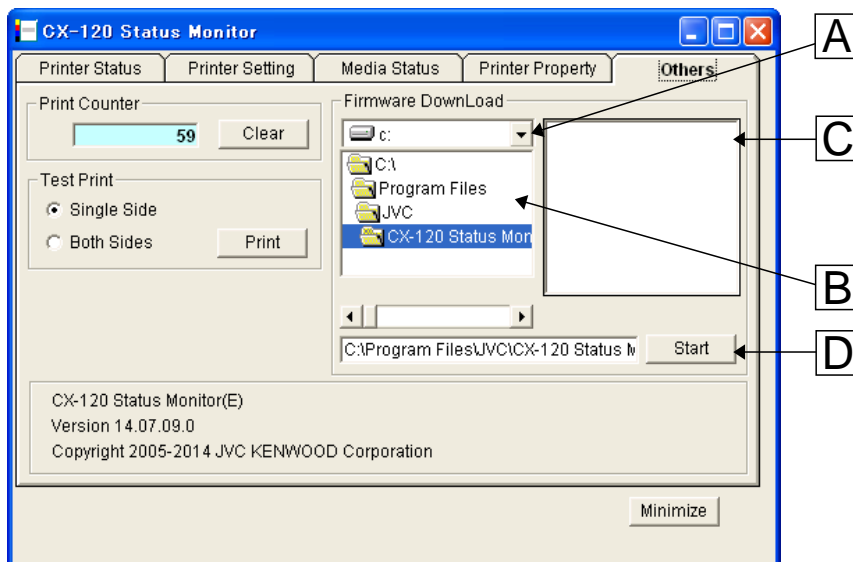
(1) Select single-side or double-side printing using **A**.

(2) Click on the button **B** to start test print. A test pattern from the printer will be printed.

# How to Use the Status Monitor (continued)

## Upgrading Firmware

Upgrade of the printer's firmware is carried out on the Others screen.  
Firmware can be updated when the printer is in the Ready mode.



Specify a file and upgrade the printer's firmware.

(1) Select drive where the file is stored using [A].

(2) Specify folder where the file is stored using [B].

(3) Select file to download using [C]. Only the target file to be downloaded will be displayed at [C]. Files are categorized based on extensions as follows.

- \*.PRF : Printer firmware
- \*.HDF : Thermal head settings
- \*.CFG : Configuration data
- \*.TBL : Table data
- \*.ICF : Laminator firmware

(4) Click on the button [D] to update the firmware.



### Caution

When downloading printer firmware, do not switch off the power until download is complete. Printer may fail to reboot if the power is switched off during download. Refer to "Action to Take When Printer Fails to Startup" (page 20) of this manual when startup fails.

# Troubleshooting (Detailed Version)

This chapter describes detailed error displays and their solutions, as well as solutions to problems related to print quality that are not mentioned in the Startup Guide (Separate book). For the removal of jammed cards, please refer to the Startup Guide (separate book).

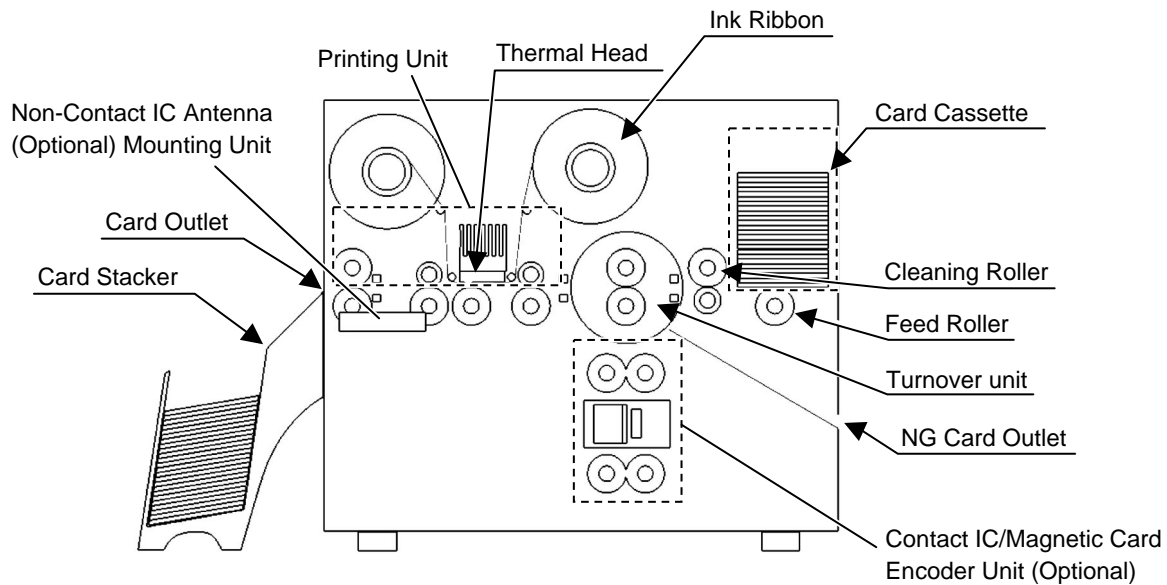
**Caution**

Do not make use of any metal tools such as tweezers to “remove jammed cards” when the power is turned on. Doing so may cause the printer to break down or electric shock.

**Caution**

There is a protruding part inside the printer unit. Put on hand gloves and insert your hand carefully so as not to injure yourself.

## Internal Configuration



# Troubleshooting (Detailed Version)

## List of Error Codes and Corresponding Actions

### 1. Errors message and corresponding actions related to the printer or laminator.

Error Code	Message Display on Status Monitor	Action
	No printer is found.	Check whether the host computer and the printer is connected correctly with USB cable. Check whether the power of the card printer is turned on.  Note: If the printer power is switched on while the Status Monitor is on, printer may not be recognized even if the connection is correct. In such case, please turn off and on the power of the printer. Then restart Status Monitor.
01020480	Printer Door is opened. Please close the door.	Close printer door.
01020481	Cleaning unit is not set. Please set the cleaning unit.	Attach cleaning unit.
01023A00	There is no card. Please supply cards.	Replenish card in the card cassette.
01023A80	Laminator is not ready. Card is printed but it is not laminated. Please solve the problem of the laminator. Lamination will begin automatically if it is solved.	Check whether the power of the laminator is turned on. If the laminator is switched off, turn on the power, and open the printer door and close it. Remove laminator problem by referring to instruction manual of the laminator.
01033600	Ink ribbon failure happens. Please open the printer door and make sure the ink ribbon is set correctly.	Check if ink ribbon is inserted properly.
01033B81	Feed JAM happens. Please unset the card cassette and move the card.	Refer to Feed Jam of Startup Guide (separate manual) and remove the jammed cards.
01033B82 to 01033B85, 01033B88	Card JAM happens in the printer. Please open the printer door and remove the card in the printer.	Refer to Jam within Printer of Startup Guide (separate manual) and remove the jammed cards.
01033B86	Laminator is not ready. Please initialize the printer after the problem of the laminator is solved.	Refer to the instruction manual of the laminator and remove the laminator problem. When laminator switches to the Ready mode, open and close printer door to initialize the printer.
01040882	Printer initialization fails. Please confirm the laminator is ready and it is connected to the printer correctly.	Check to ensure that laminator is in the Ready mode and the connection cable between units are correctly installed.
01043681	Ink mark is not found. Please open the printer door and make sure the ink ribbon is set correctly.	Check if there is any ink ribbon defect.
01044001	It fails to access to printer EEPROM. Please turn off and on the power of the printer, and initialize the printer.	Unrecoverable error. Call for servicing if it recurs after restoring power.
01044002	It fails to access to print head EEPROM. Please turn off and on the power of the printer, and initialize the printer.	Unrecoverable error. Call for servicing if it recurs after restoring power.
01044400	Hardware failure happens. Please turn off and on the power of the printer, and initialize the printer.	Unrecoverable error. Call for servicing if it recurs after restoring power.
01044480	Unexpected error happens in the mechanical procedure. Please turn off and on the power of the printer, and initialize the printer.	Unrecoverable error. Call for servicing if it recurs after restoring power.

# Troubleshooting (Detailed Version)

Error Code	Message Display on Status Monitor	Action
0104AB00	Magnetic encoder mechanism failure happens. Please turn off and on the power of the printer, and initialize the printer.	Unrecoverable error. Call for servicing if it recurs after restoring power.
0104C000	Turnover mechanism failure happens. Please turn off and on the power of the printer, and initialize the printer.	Unrecoverable error. Refer to Jam within printer of Startup Guide (separate manual) and remove jammed card when there is card in the inverter mechanism. Call for servicing if it recurs after restoring power.
0104C100	Thermal Head Mechanism failure happens. Please turn off and on the power of the printer, and initialize the printer.	Unrecoverable error. Call for servicing if it recurs after restoring power.
0104F600	The temperature in the printer is too hot. Please turn off the power of the printer till it becomes cool enough.	<ul style="list-style-type: none"> <li>• Check to ensure that temperature of the environment is not too high.</li> <li>• Clean the fan filter.</li> <li>• Check if the air inlet behind the printer is blocked.</li> <li>• After the printer has been cooled down, turn on the power again. Contact the servicing center if the same problem recurs.</li> </ul>
0104F601	The temperature in the printer is too cool. Please turn off the power of the printer till it becomes warm enough.	Turn on the power again after the printer has warmed up. Contact the servicing center if the same problem recurs.
0104F800	The temperature of the thermal head is too hot. Please turn off the power of the printer till it becomes cool enough.	<ul style="list-style-type: none"> <li>• Check to ensure that temperature of the environment is not too high.</li> <li>• Clean the fan filter.</li> <li>• Check if the air inlet behind the printer is blocked.</li> <li>• After the printer has been cooled down, turn on the power again. Contact the servicing center if the same problem recurs.</li> </ul>
0104F801	The temperature around the thermal head is too cool. Please turn off the power of the printer till it becomes warm enough.	Turn on the power again after the printer has warmed up. Contact the servicing center if the same problem recurs.
01052681	Download data is invalid. Please confirm whether the file is correct.	Downloaded data is incorrect. Check the file.
01420081	There is no ink ribbon. Please open the printer door and replace the ink ribbon with a new.	Replace with a new ink ribbon.
01420082	There is no laminator film. Card is printed but it is not laminated. Please open the front door and replace the film with a new, and the lamination will begin automatically.	Replace with a new laminator film.

## 2. Software or System Errors message and Corresponding Actions

The following errors are failures in the software or system of the host computer. Restore power of the host computer and printer. Consult your dealer if the problem cannot be resolved.



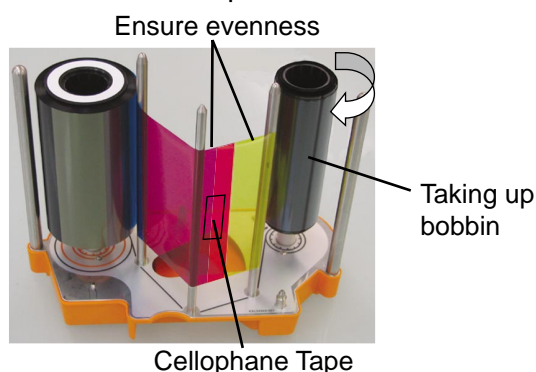
# Troubleshooting (Detailed Version) (continued)

Error Code	Message Display on Status Monitor
02000001	Error happens in CX Port Manager. Memory is not enough.
02000002	Error happens in CX Port Manager. Command was rejected by the port driver.
02000003	Error happens in CX Port Manager. Command ends abnormally.
02000004	No Printer is found. Please confirm the printer is connected correctly, or it is powered.
02000005	Error happens in CX Port Manager. Printer port is not found.
02010000	Error happens in CX Port Manager. SRB status is invalid.
02020000	Error happens in CX Port Manager. HA status is invalid.
02030000	Error happens in CX Port Manager. Target status is invalid.
09000002	No Printer is found. Please confirm the printer is connected correctly, or it is powered.
09000003	Error happens in DLL. Memory is not enough.
09000004	Error happens in DLL. It fails to read a file.

## When ink ribbon is torn

Repair in the following ways when the ink ribbon is torn due to some reasons.

1. Cut off the torn portion with scissors neatly.
2. Adhere the cellophane tape close to the center of the unused ribbon and the taking-up ribbon. Do not discard any used ink ribbon on the taking up bobbin.
3. Wind the ink ribbon on the taking up reel with hand until the torn portion cannot be seen.



### Caution

Refer to the "Setting the Ink Ribbon" in the Startup Guide (separate book) and pay attention to the ink ribbon installation procedures.



### Caution

When the surface material of the card in use does not suit the printing mode of this printer, the card and ink ribbon may stick together during printing, causing the ink ribbon to tear. Consult your card dealer when the ribbon is torn due to its adhesion to the card.

## Problems Related to Printing

### Printing Position Out of Alignment

Causes and actions to take when printing position on the card is constantly out of alignment.

- Adjustment position is out of alignment  
Refer to the "Checking after Replacement of Thermal Head" in the Startup Guide (separate book) on procedures to adjust the printing position.

- Card size is different from the compatible dimensions (54.0 mm x 85.6 mm).  
When the card size is different, the top and bottom or left and right margins will not be equal. Check with your card dealer.

Causes and actions to take when printing position on the card varies from card to card.

- Card transport roller is dirty  
Refer to "Cleaning the Card Transport Roller" in "Maintenance" of the Startup Guide (separate book) on procedures to clean the roller.

- When using pre-printed cards  
The printing position of pre-printed cards may vary from card to card. Consult your dealer on pre-printed designs for which the deviance is not easily noticeable after printing.

# Troubleshooting (Detailed Version)

## Problems related to Color Printing

Cause and actions to take when there is dirt on the card's printed surface.

### Dirt

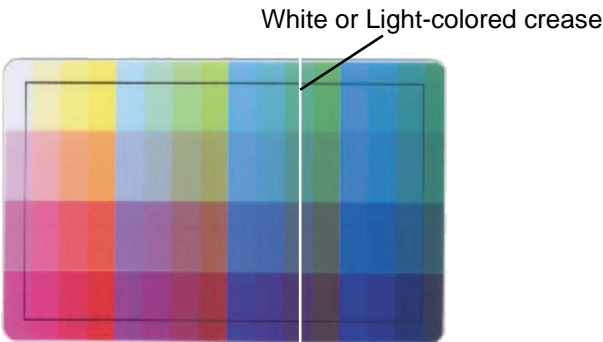
- **Cleaning roller is dirty**  
Refer to the "Cleaning the Cleaning Roller" in "Maintenance" of the Startup Guide (separate book) on procedures to clean the roller.
- **Card transport roller is dirty**  
Refer to the "Cleaning the Card Transport Roller" in "Maintenance" of the Startup Guide (separate book) on procedures to clean the roller.
- **Card is stained by fingerprints, etc**  
Put on lint-free hand gloves so that the card surface will not be stained with fingerprints when handling the cards.



Print cards in an environment that is not subject to excessive dust.

### Blurred Color and Crease

- **Card transport roller is dirty**  
Refer to the "Cleaning the Card Transport Roller" in "Maintenance" of the Startup Guide (separate book) on procedures to clean the roller.
- **Thermal head is dirty**  
Refer to the "Cleaning the Thermal Head" in "Maintenance" of the Startup Guide (separate book) on procedures to clean the thermal head.
- **Try printing in Fine mode**  
Fine mode produces a more stable print quality as printing is carried out more slowly when compared to the Standard mode. Therefore, uneven print density and crease may not be so visible.
- **When white crease frequently appear**  
Replace the thermal head as it is damaged when there are frequent vertical white crease as shown in the diagram below even after cleaning the thermal head, or when the color lightens to the extent that crease are visible. Refer to the "Procedures for changing Thermal Head" in the Startup Guide (Separate book) on procedures to replace the thermal head.



# Troubleshooting (Detailed Version)

## Color Shift (Color Bleed)

- **Card Transport Roller is dirty**  
Refer to the "Cleaning the Card Transport Roller" in "Maintenance" of the Startup Guide (separate book) on procedures to clean the roller.

- **When Using Thin Cards**  
This printer is able to print cards with a thickness of 0.25 mm or above. Cards may not be transported properly when thinner cards are used and color shift may occur.

## Discoloration

- **When there is discoloration at random spots**  
Printing error will occur when there is dirt on the card during printing. Refer to the "Cleaning the Cleaning Roller" in "Maintenance" of the Startup Guide (separate book) on procedures to clean the roller.
- **When discoloration appears in a crescent shape at print areas with high print density.**  
Please note that the ink ribbon may be creased and discoloration may occur when printing broad areas such as backgrounds in high print density. Consult your dealer on the card designs to use to prevent such problems.



- **Printing error at periphery of the card**  
Printing error may occur when the ink ribbon and card are not in close contact due to burrs around the card. Consult your card dealer when there are burrs on the card.

## Problems Related to Text Printing

### Blurred / Distorted

- **When text is blurred**  
Refer to "Changing Printer Settings" on Page 8 of this manual to increase the Resin K print density setting (+ direction) using the Status Monitor.
- **When text is distorted**  
Refer to "Changing Printer Settings" on Page 8 of this manual to decrease the Resin K print density setting (- direction) using the Status Monitor.  
As a feature of the Resin K ink, the text printed on a white background appears relatively darker when text printing is performed on top of YMC print. Reduce the Resin K print level (– direction) when the text on YMC print appears unclear.
- **When unable to bring a balance between blurred/ distorted text**  
The maximum resolution for text printing with resin K ink or fine line printing in the "Standard mode" is 2 dots. Printing fine lines and text containing 1-dot lines may result in blurred print. Choose the "Fine mode" when you use such fonts.

# Troubleshooting (Detailed Version)

## Problems Related to Protective Layer (OP)

Card surface lacks gloss or becomes matte on areas for which the transparent protective layer (OP) is printed.

- When there is an area for which transfer of protective layer is poor  
Refer to "Changing Printer Settings" on Page 8 of this manual to darken the OP retransfer level setting (+ direction) using the Status Monitor.
- When a crescent-shaped gap appears in the area where the protective layer (OP) is printed  
OP retransfer level is too dark. Refer to "Changing Printer Settings" on Page 8 of this manual to lighten the OP retransfer level setting (-direction) using the Status Monitor.
- When the ink ribbon tears while printing the protective layer  
OP retransfer level is too dark. Refer to "Changing Printer Settings" on Page 8 of this manual to lighten the OP retransfer level setting (-direction) using the Status Monitor.
- When printing OP on a part of the card only.  
OP may be transferred with a little unevenness at the terminal portion of the card. It is recommended to set OP area for the entire card to prevent this from occurring.

## Actions to Take When Printer Fails to Start Up

Printer will fail to start up during reboot when downloading of printer's firmware fails. In such a case, follow procedures below to switch to the Download mode and download the printer's firmware again.

1. Switch off the power of the printer.
2. Switch on the power while pressing on the RESET button on the control panel.  
Printer switches to the Download mode and all 5 LEDs on the control panel are lit.
3. Refer to "Upgrading Firmware" on Page 13 of this manual to download the printer firmware using the Status Monitor.



### Caution

Laminator firmware and configuration information cannot be downloaded when in the Download mode. To download these files, turn on the power again and switch to the Standard mode.

# Version Upgrade

Versions of the firmware, Printer Driver and Status Monitor for this printer may be upgraded to add new functions or improve performance without prior notice. Consult your dealer on details of and ways to obtain the latest version, as well as on their operability with the application software in use.

- How to Upgrade Firmware Version  
Refer to the "Upgrading Firmware" feature in "How to use the Status Monitor" of the page 13 on this book.
- How to Upgrade Printer Driver and Status Monitor  
Refer to the "Printer Software Install Manual" .



## Caution

The following defects may occur as a result of the version upgrade for the firmware of the printer, the Printer Driver and the Status Monitor.

- The operation of the printer or application software becomes unstable.
- Defects in print result occurs.
- Print color or shade differs.
- The performance of reproducing fine letters, changes.
- Others

Be sure to retain a copy of the current version when performing version upgrade. Reinstall the previous version immediately if these problems occur. We are not liable for any damage such as defective cards or interruptions during printing as a result of the version upgrade.

# Specifications

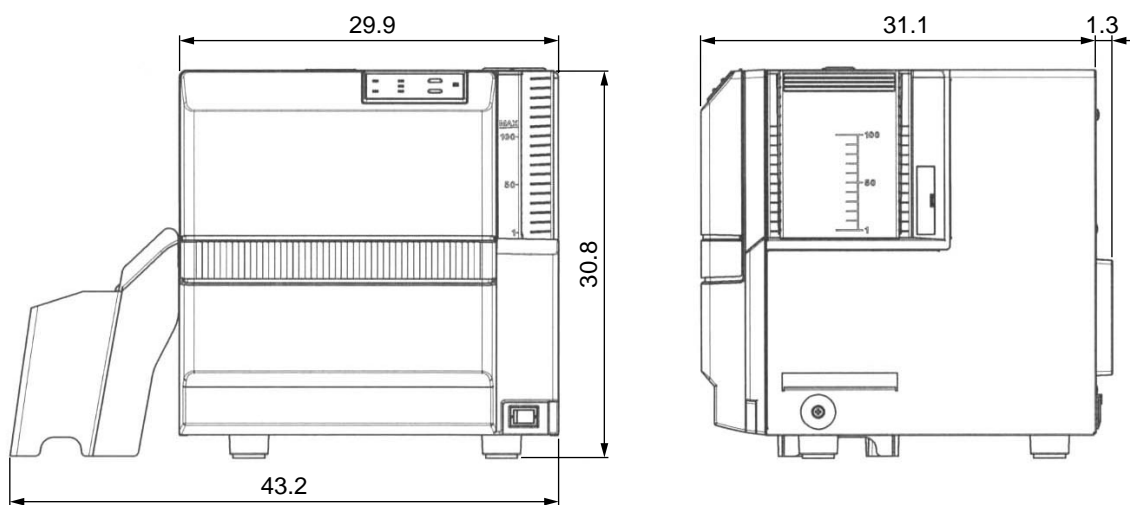
## Main Specifications

Recording Mode	: Dye sublimation
Paper Feed Mode	: Automatic feeding
Recording Density	: 300 dpi
Color	: YMC 256 gradation levels per color Resin K, OP 2 gradation levels
Printing Time	: Approx. 20 seconds (Single-sided printing in standard mode for all of YMC, Resin K and OP, encoding time excluded)
Interface	: USB 2.0 Hi-Speed (USB-IF certified product)
Usage Environment	: Temperature 15°C ~ 30°C Humidity 35% ~ 70% (without condensation)
Storage Environment	: Temperature -15°C ~ 55°C Humidity 20% ~ 80%
Power Supply	: AC 100 - 120 V / 220 - 240 V 50/60Hz (tolerance $\pm 10\%$ )
Power Consumption	: 1.6 A (100 V) / 0.8 A (200 V)
Wattage	: 160W(Max.)
Dimension	: 29.9(W)x32.4(D)x30.8(H)(Unit: cm)
Mass	: 12kg and below (excluding MG/IC encoder) 15kg and below (including MG/IC encoder)

Accessories, consumable and optional items are described in the Startup Guide (separate book).

The specifications and appearance of the printer, accessories, consumable and optional items may be changed for the purpose of product improvement without prior notice.

## External Dimension



Unit: cm

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In this book, the names for Microsoft® Windows® 8 operating system, Microsoft® Windows® 7 operating system, Microsoft® Windows Vista™ operating system, Microsoft® Windows® XP operating system and Microsoft® Windows® 2000 operating system are written as Windows® 8, Windows® 7, Windows Vista™, Windows® XP and Windows® 2000 respectively.

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# Direct Dye Sublimation Printer CX-120    Instructions