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Sublimation Type Retransfer Printer

**SR200/300**

# Maintenance Tool Instruction Manual

Version 1.01

# 1. Overview

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The SR200/300 Maintenance Tool is the software to check setting and operation of SR200/300 on Windows.

## 1.1 Operating Environment

The Maintenance Tool runs on the following systems.

Windows XP (SP2), Windows Vista or Windows2000 Professional

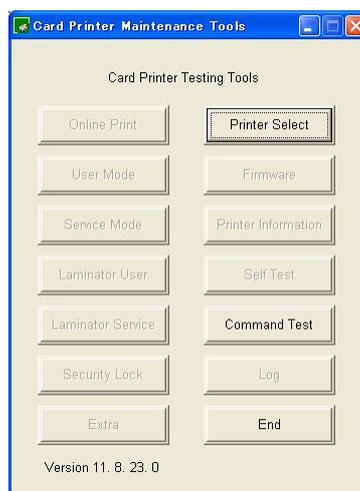
## 1.2 Installation

Click the file “install.exe” and install the software according to the guide message displayed on the screen.

Notice) To do all operation of the printer, the host interface must be USB. The USB driver needs to have been installed on the host computer to connect the printer with USB. You can install the USB driver using the CD-ROM supplied with the printer. Insert the CD-ROM to the CD-ROM drive and connect the printer to the host computer with USB. And you can install the USB driver with the Windows standard manner.

## 1.3 Initial screen

Upon starting up the Maintenance Tool, the Main Menu screen is displayed. Almost buttons will have been disabled till the target printer is selected. Press “Printer Select” button and choose the printer.



**Fig1-3 Initial Screen**

## 1.4 Selecting a printer

Press “Printer Select” button of the Main Menu screen and display the Printer Select screen.

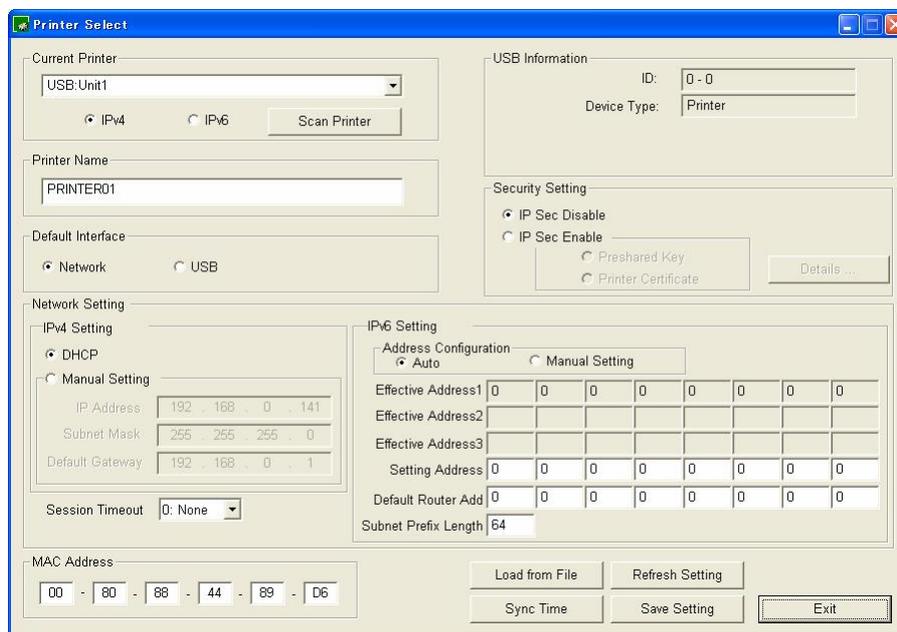


Fig1-4 Printer Select Screen

Find printers pressing “Scan Printer” on “Current Printer” field. Select one printer with combo box if multiple printers are connected. The data displayed on the screen is the information of the selected printer.

Some functions of the network printer, which is connected with network, are limited. For example, the settings of “Network Setting” field can be changed only by the USB printer. Figure 1-4 is an example when the USB printer is selected.

Notice) Some printers may not be found in case of multiple printers being connected to the network. Press “Scan Printer” again when it happens.

## 1.5 Connecting to the printer

The Printer Select screen has settings to connect to the host computer. As the initial setting of the printer is “Network” and “DHCP”, it is not needed to change the setting when the printer is connected to the network which DHCP is active. But in other cases, the setting must be adjusted using USB interface or the operation panel of the printer.

Notice) DHCP server must be attached to the same network segment. The printer uses the data of the “Manual Setting” field and starts processing when the DHCP server is not found.

- (1) Connect the printer with USB to the host computer. And turn on the printer after the host computer is powered. The printer always recognizes USB as the host interface if USB is active when the printer is powered.
- (2) Display Printer Select screen.
- (3) Press “Scan Printer” button and choose the printer.
- (4) After the setting ends, press “Save Setting” button to change the printer setting. “Refresh Setting” button shows the current printer setting, “Load From File” button shows the last setting using “Save Setting” button.

◆ About “Printer Name”

Name the printer its logical name to identify.

◆ About “Default Interface”

Specify the host interface. The USB interface is always selected if the USB is active when the printer is powered.

◆ About “Network Setting”

DHCP does not work when “Network Setting” is specified. In this case, IP Address, Subnet Mask and Default Gateway must be set. The data of “Network Setting” is used when DHCP is specified but DHCP server is not found.

“Session Time Out” is a time to detect the disconnection of the network session. The printer disconnects the printing session when no command comes from the host computer during this time.

This should be “0:None”.

Note) ID number of “USB Information” is subtracted 1 from “Unit No” . (Ex. UNIT01=ID:0)  
Even though USB connection, it's able to connect two or more printers with one PC if each “Unit No” is different. Do not connect two or more printers that they have same “Unit No.” with one PC.  
Please install USB driver again if you add new “Unit No.”, each “Unit No.” calls own USB driver.  
Please refer to “1.2 Installation” for installing USB drivers.

◆ About “Security Setting”

This is for IPSec. Choose “IPSec Disable” to inhibit IPSec. Choose “IPSec Enable” and display the IPSec Setting screen pressing “Detail” button.



- (1) Select the certification type with “Download type” combo box.
- (2) Specify the certification file using “Select” button. The file is sent to the printer when it is specified. In case that “Printer Certification” is selected with “Download type” combo box, the password when the certification file is exported is required to enter.
- (3) Send the time of day when the certification file is created using “Sync Time” button on the Printer Select screen.

IPSec is processed actually according to the following judgment table.

Printer Setting	Host computer setting		
	Security is required	Security is requested	No security
IPSec is disabled	Communication is disabled	Communication without IPSec	Communication without IPSec
IPSec is enabled but the certification fails.	Communication is disabled	Communication is disabled	Communication is disabled
IPSec is enabled and the certification succeeds.	Communication with IPSec	Communication with IPSec	Communication is disabled

## 1.6 Initial Screen for USB and Network

Buttons on the Main Menu screen become active after the printer is selected. In case of the network interface, some buttons are still disabled.

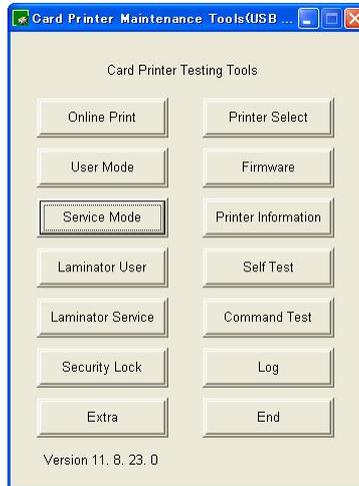


Fig1-6-1 Main Menu Screen of the USB printer

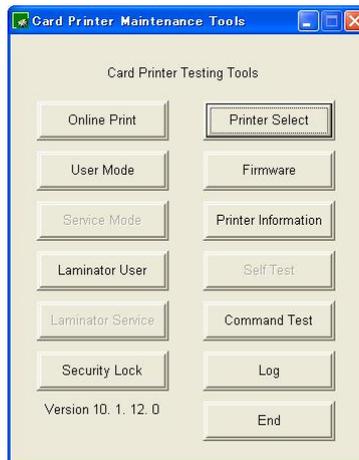


Fig 1-6-2 Main Menu Screen of the network printer

## 1.7 Error Display

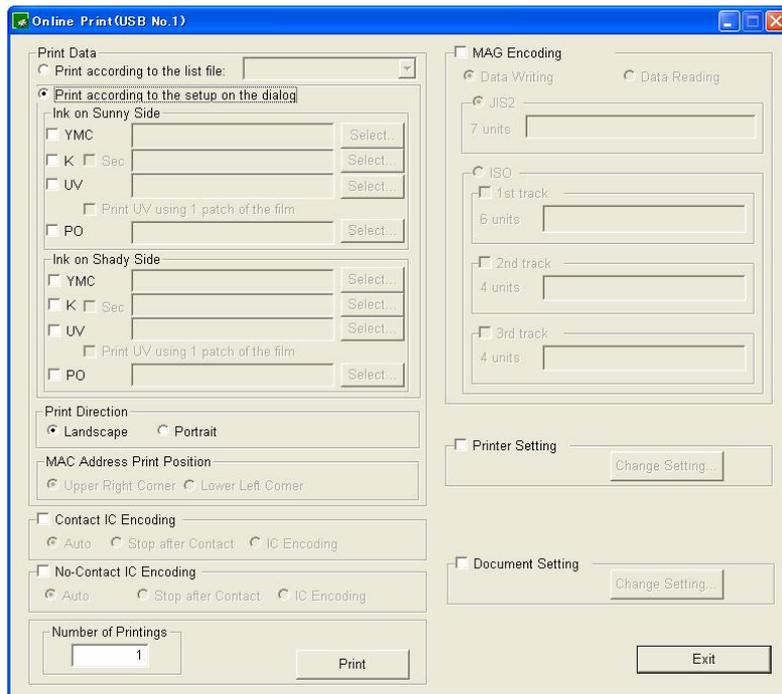
The Maintenance Tool displays an error dialog when an error occurs, which contains an error code and the corresponding description. The error code is important to identify the error. Error code in the example below is "01039000". The preceding "01" means the error of the printer, other "02d000" is a printer error code. "Appendix-1: Error Code Table" shows the code and the meaning. When the preceding is not "01", it means the error of the PC.



Fig1-7 Error message

## 2. Online Printing

Display Online Print screen using “Online Print” button of Main Menu screen. The Online Print screen can be used for checking basic operating for card issuance, such as printing and encoding.



### 2.1 Print Data setting

Set the Print Data field.

- (1) Select the “Print according to the setup on the dialog” radio button.

“Print according to the list file” is used for an automatic printing by the configuration file.

Details of this item are omitted in this manual.

- (2) Specify the print data of the front face with the “Ink on Sunny Side” field.

Use the “Select” button to specify the corresponding BMP file to the ink. If the check box is not checked, the corresponding ink is not used. The size of image must be 1036x664.

If “Sec” check box is checked, “Security Erase” will be done.

Note) “Security Erase” is a function to conceal the track of the printed text on the K ink and the retransfer film.

- (3) Specify the print data of the back face with the “Ink on Shady Side” field.

Setting procedures are the same as the way of the front face.

(4) Specify the print orientation with the “Print Direction” field.

Landscape: For horizontal layouts.

Portrait: For vertical layouts.

## 2.2 IC encoding setting

Set the “Contact IC Encoding” and “No-Contact IC Encoding” fields.

Note) This software does not access the IC. It only performs movement to the encoder, and contacting onto or releasing from the IC.

(1) Use the “Contact IC Encoding” and “No-Contact IC Encoding” check boxes to select whether to perform IC encoding or not.

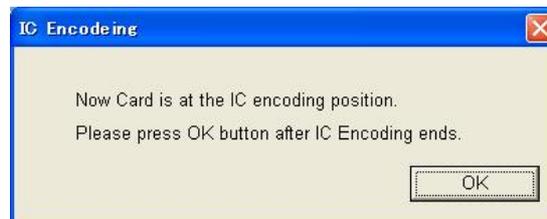
(2) Specify an IC encoding operation using the “Auto”, “Stop after Contact” or “IC Encoding” radio button.

1. When “Auto” or “IC Encoding” is selected

Performs the next process automatically when encoding is completed.

◆ When “Stop after Contact” is selected

Displays a dialog box when access to IC (contacting onto IC contact or movement to no-contact IC encoder unit) is ready.



Upon display of the dialog box, IC accessing can be done with other software. When it completes, press the “OK” button to proceed to the next process.

## 2.3 Magnetic encoding setting

Set the MAG Encoding field.

- (1) Use the “Data Writing” and “Data Reading” radio buttons to specify read/write operations.
- (2) Use the “JIS2” and “ISO” radio buttons to specify the type of magnetic stripe.
- (3) For writing operations, enter the write data in the Edit Box.

Input ASCII characters using hexa code. For example, to output the character string “012345678”, enter 30 31 32 33 34 35 36 37 38 as the data. Conversion to 4 unit and 6 unit code are performed by the software. As such, set values for 6 unit or 4 unit codes are identical for the same character strings.

Table 2-3 Code and maximum characters

Encoding format	Track1	Track2	Track3
JIS2	7 unit code Max 69 characters	-	-
ISO	6 unit code Max 76 characters	4 unit code Max 37 characters	4 unit code Max 104 characters

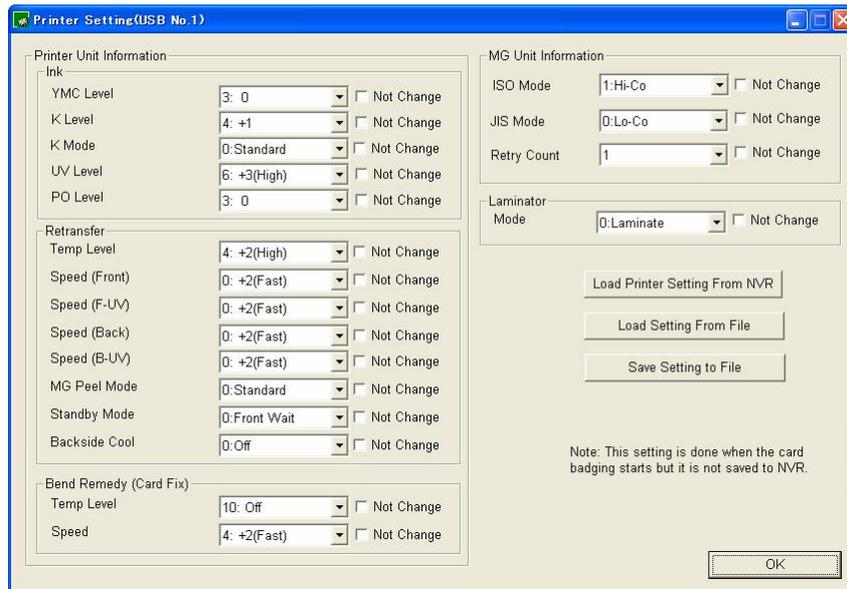
Note) The writable characters depends on the kind of code. Refer to "Appendix-2: ASCII Code Table and Magnetic Data" on ASCII characters and codes.

- (4) For reading operations, display the read data in hexa code.

Display format is identical to writing operations.

## 2.4 Printer setting

Check the “Printer Setting” check box and press “Change Setting” button to display the Printer Setting screen. The Printer Setting screen is used for changing the printer setting during the online printing operation. This setting is tentative and it is only effective during the online printing operation. In case that “Printer Setting” check box is not checked, the printer issues the cards according to its local setting.



**Fig 2-4-1 Printer Setting screen**

- (1) The corresponding setting is not changed when “Not Change” check box is checked. In this case, the setting of the printer is effective.
- (2) Pressing “Load Setting From NVR” button shows the printer setting.
- (3) Pressing “Load Setting From File” button shows the setting which is saved to the temporary file by “Save Setting to File” button.
- (4) Pressing “Save Setting to File” button saves the setting on the screen to the temporary file.
- (5) Pressing “Ok” button shows the Online Print screen.
- (6) Refer “4.1 User mode setting” about each setting items. They are same as the settings on the User Mode screen.

## 2.5 Print document setting

Check the “Document Setting” check box and press “Change Setting” button to display the Document Setting screen. The Document Setting screen is used to set the information of the print job. As this setting is used only showing the print job information, it does not any influence to the printing operation.

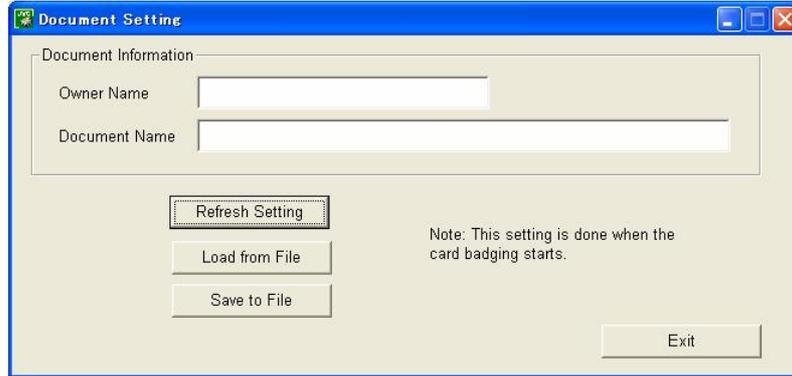
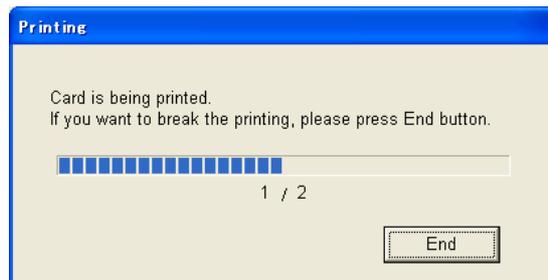


Fig 2-6 Document Setting screen

- (1) Pressing “Refresh Setting” button shows the current printer setting.
- (2) Pressing “Load From File” button shows the setting which is saved to the temporary file by “Save to File” button.
- (3) Set the print job information at “Owner Name” and ”Document Name”.
- (4) Pressing “Exit” button shows Online Print screen.

## 2.6 Issuing cards

Press the “Print” button to issue cards according to the settings. Set the number of cards to issue using “Number of Printings”. Printing status of cards will be displayed on a dialog box.



The above dialog box indicates that “printing of 1 out of 2 cards has completed”. Click the “End” button to quit printing. Card printing may also be discontinued when an error occurs.

## 3. Updating and checking firmware

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Display Firmware screen using “Firmware” button of Main Menu screen. The Firmware screen can be used for updating firmware and checking the firmware version.

Notice) Updating firmware is disabled in case of network interface.

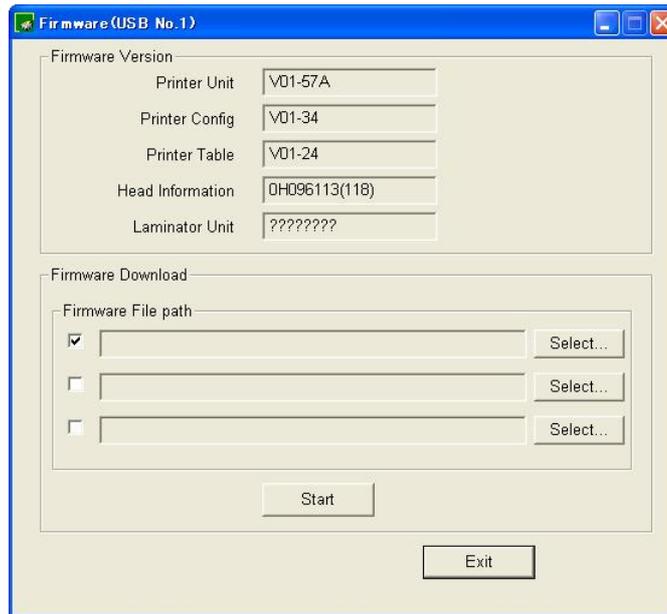


Fig3 Firmware screen

### 3.1 Updating the firmware

- (1) Let the printer LCD display “Download Ready” .
- (2) Pressing “Select” button and select the download file.

Files are classified according to the following extensions.

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

(3) Pressing “Start” button to start downloading.

New firmware gets effective after the printer is powered again. Please turn off and on the power after you finish updating all firmware. You can check the firmware version on this screen.

Note 1: Do not turn off the printer power during downloading. Otherwise, the printer may not start up properly when it is rebooted. When startup fails, start up the printer in the Download mode and download the printer firmware again.

Note 2: Turn on the printer power with pressing the center button on the printer to enter Download mode. The message “SBP2 Running.. Download Ready” will appear on LCD, and it shows the printer is ready for downloading. In Download mode, it is impossible to download Laminator firmware. Please download them in Service Mode or User Mode. In download mode, “Unit No.” of USB is always 1.

### **3.2 Checking the firmware version**

The firmware version is displayed on the “Firmware Version” field.

- (1) Firmware version of the printer is displayed in “Printer Unit”.
- (2) Version of the printer configuration data is displayed in “Printer Config”.
- (3) Version of the printer table data is displayed in “Printer Table”.
- (4) The serial number and Vth characteristics of the thermal head are displayed in “Head Information”.
- (5) Firmware version of the laminator unit is displayed in “Laminator Unit”.  
“????” is displayed when it is not attached.

## 4. Checking & changing the printer setting

Display User Mode screen or Service Mode screen using “User Mode” button or “Service Mode” button of Main Menu screen. They are used for checking and changing printer setting. They show the setting of the printer when they are opened.

Notice) “Service Mode” button of Main Menu screen is disabled when the network interface is selected.

### 4.1 User mode setting (Printer)

The screenshot shows the 'User Mode (USB No.1)' window with the following settings:

- Media:** Film Type: 0: Standard(1000/roll) [Not Change]; CardThickness: 0: Standard [Not Change]
- Print:** YMC Level: 3: 0 [Not Change]; K Level: 4: +1 [Not Change]; K Mode: 0: Standard [Not Change]; UV Level: 6: +3(High) [Not Change]; PO Level: 3: 0 [Not Change]
- Retransfer:** Temp Level: 4: +2(High) [Not Change]; Speed (Front): 0: +2(Fast) [Not Change]; Speed (F-UV): 0: +2(Fast) [Not Change]; Speed (Back): 0: +2(Fast) [Not Change]; Speed (B-UV): 0: +2(Fast) [Not Change]; MG Peel Mode: 0: Standard [Not Change]; Standby Mode: 0: Front Wait [Not Change]; Backside Cool: 0: Off [Not Change]
- Bend Remedy:** Temp Level: 10: Off [Not Change]; Speed: 4: +2(Fast) [Not Change]
- Heat Roller:** Power Save: 8: Off [Not Change]; HR Control: 1: On [Not Change]
- Setting:** Display Mode: 1: Laminator State [Not Change]; Counter: 1: Head Cnt [Not Change]; Contrast: 3: 0 [Not Change]; Buzzer: 0: On [Not Change]
- MG:** ISO Type: 1: Hi-Co [Not Change]; JIS Type: 0: Lo-Co [Not Change]; Retry Count: 1 [Not Change]
- Print Counter:** 31 [Counter Reset]
- Security Lock:** 0: Unlocked
- Load Printer Setting:** [Execute] (NVR Setting is checked)
- Change Printer Setting of NVR:** [Change Printer Setting of NVR]
- Exit:** [Exit]

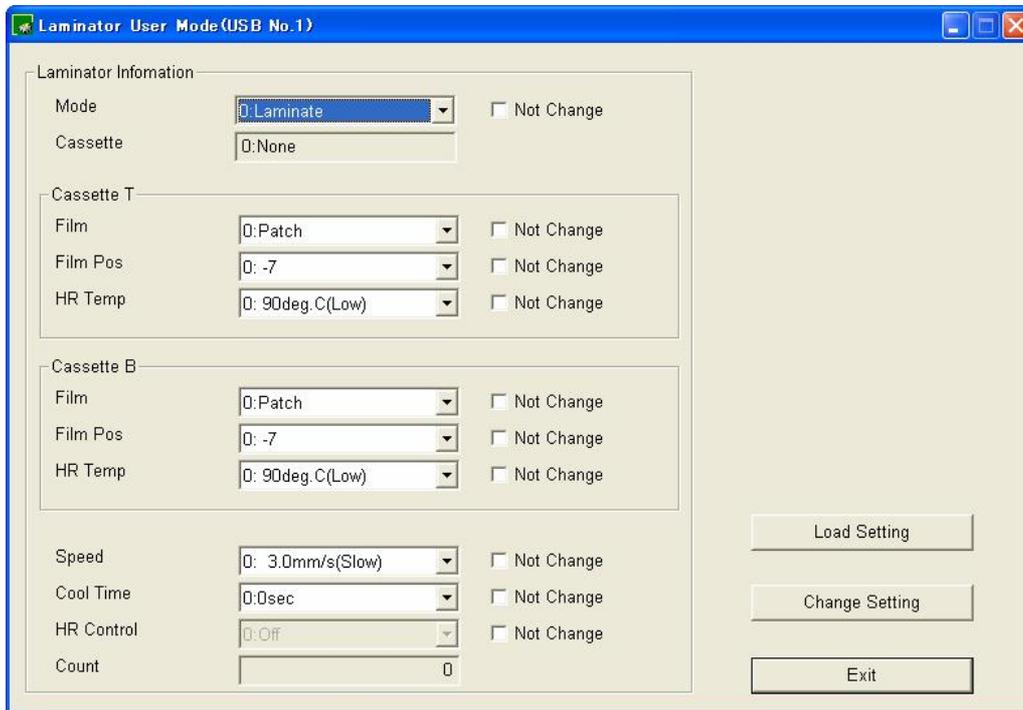
Fig 4-1 User Mode screen (Printer)

- (1) The corresponding setting is not changed when “Not Change” check box is checked. In this case, the setting of the printer is effective.
- (2) Pressing “Execute” button on “Load Printer Setting” field shows the printer setting. In case that “NVR Setting” check box is not checked, the data shown on the screen is the effective setting of the printer, and it may differ from the setting recorded in the non volatile memory of the printer.
- (3) Pressing “Change Printer Setting of NVR” stores the setting on the screen to the non volatile memory of the printer.

- (4) The number of printed card is displayed in “Print Counter”. It can be set to 0 using “Counter Reset” button.
- (5) Pressing “Exit” button shows Main Menu screen.
- (6) Specify the media with the setting on “Media Setting” field.
  - ◆ Film Type: Set the type of the retransfer film.
  - ◆ Card Thickness: Set the thickness of the card.
- (7) Specify the way of printing with the settings on “Print” field.
  - ◆ YMC Level: Set the YMC ink density.
  - ◆ K Level: Set the K ink density.
  - ◆ K Mode: Set the K ink print quality. Selecting “Fine” enhances the print quality but the printing speed becomes slower.
  - ◆ UV Level: Set the UV power of the UV ink. Selecting greater value increases the UV power.
  - ◆ PO Level: Set the Peeling Off power of the peel-off ink. Selecting greater value increases the power of peeling off.
- (8) Specify the mode of Heat roller control with the settings on “Heat Roller” field.
  - ◆ Power Save: Specify the time to become power saving mode. The printer enters the power saving mode when this time elapsed without any printing operation.
  - ◆ HR Control: Enable or disable the function which decreases the temperature of the heat roller in case of no printing during 30 minutes or more.
- (9) Specify the way of the retransfer with the settings on “Retransfer” field.
  - ◆ Temp Level: Specify the temperature of the retransfer heat roller.
  - ◆ Speed (Front): Specify the speed of the retransfer of the front side.
  - ◆ Speed (F-UV): Specify the speed of the UV of the front side.
  - ◆ Speed (Back): Specify the speed of the retransfer of the back side.
  - ◆ Speed (B-UV): Specify the speed of the UV of the back side.
  - ◆ MG Peel mode: Specify the mode of the MG peel off.
  - ◆ Standby Mode: Specify when the printer waits for the laminator becoming ready. This is effective only when both side printing and the laminator is attached. Although the printing speed may be faster when 1 is selected, it may give bad effects to the printing quality.
  - ◆ Backside cool: Select on or off of Backside Cool function. Card bending will be reduced if this function is on in dual-side printing.
- (10) Specify the way of the bend remedy with the settings on “Bend Remedy” field.
  - ◆ Temp Level: Specify the temperature of the bend remedy heat roller.
  - ◆ Speed: Specify the speed of the bend remedy.

- (11) Specify the MG encoder with the settings on “MG Unit Information” field.
  - ◆ ISO Mode: Specify the coercive force of the ISO magnetic encoder.
  - ◆ Read/Write Retry: Specify the maximum number of retries for recovering from magnetic writing or reading error.
- (12) About the settings on “Setting” field.
  - ◆ Display Mode/Counter/Contrast: Select the display mode of LCD Panel.
  - ◆ Buzzer: Disable or enable the buzzer.

## 4.2 User mode setting (Laminator)



**Fig 4-2 User Mode screen (Laminator)**

- (1) The corresponding setting is not changed when “Not Change” check box is checked. In this case, the setting of the laminator is effective.
- (2) Pressing “Load Setting” button shows the laminator setting.
- (3) Pressing “Change Setting” button stores the setting on the screen.
- (4) Specify the way of the laminating with the settings on “Laminator Information” field.
  - ◆ Mode: Select laminate or pass through.
  - ◆ Cassette: It displays that the cassette exists or not.
  - ◆ Speed: Specify speed of transporting the card in laminating.
  - ◆ Cool Time: Specify waiting time for cooling the card before laminating.
  - ◆ HR Control: It displays setting of Heater Control mode. It synchronizes with the setting of the printer.
  - ◆ Count: It displays number of the counter for laminating after cleaning. It will be set 0 after cleaning.

(5) Specify the way of the Top-side laminating with the settings on “Cassette T” field. This function is not effective for single-side model.

- ◆ Film: Specify kind of the film.
- ◆ Film Pos: Specify the patch position of the traveling direction of the film.
- ◆ HR Temp: Specify temperature of the Heat Roller.

(6) Specify the way of the Bottom-side laminating with the settings on “Cassette B” field.

- ◆ Film: Specify kind of the film.
- ◆ Film Pos: Specify the patch position of the traveling direction of the film.
- ◆ HR Temp: Specify temperature of the Heat Roller.

Note: In maintenance tool, it's able to set “HR Temp” over 180 degree C. But the limitation of the laminator is 180 degree C, and the laminator corrects it to 180 degree C when setting the temperature is higher than 180 degree C.

### 4.3 Service mode setting (Printer)

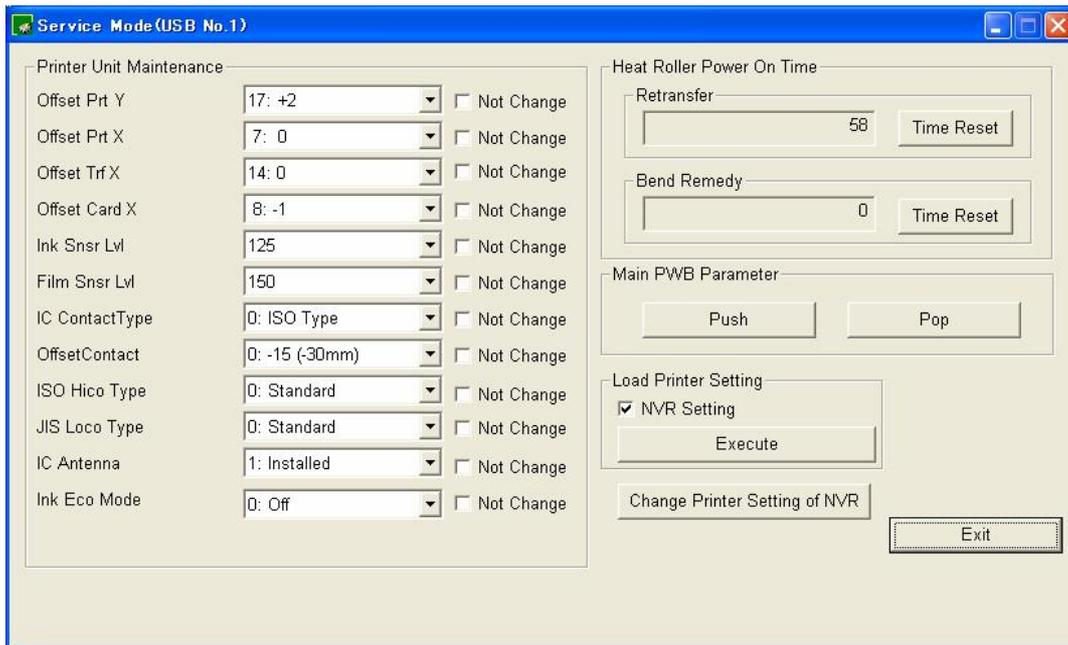


Fig 4-3 Service Mode screen (Printer)

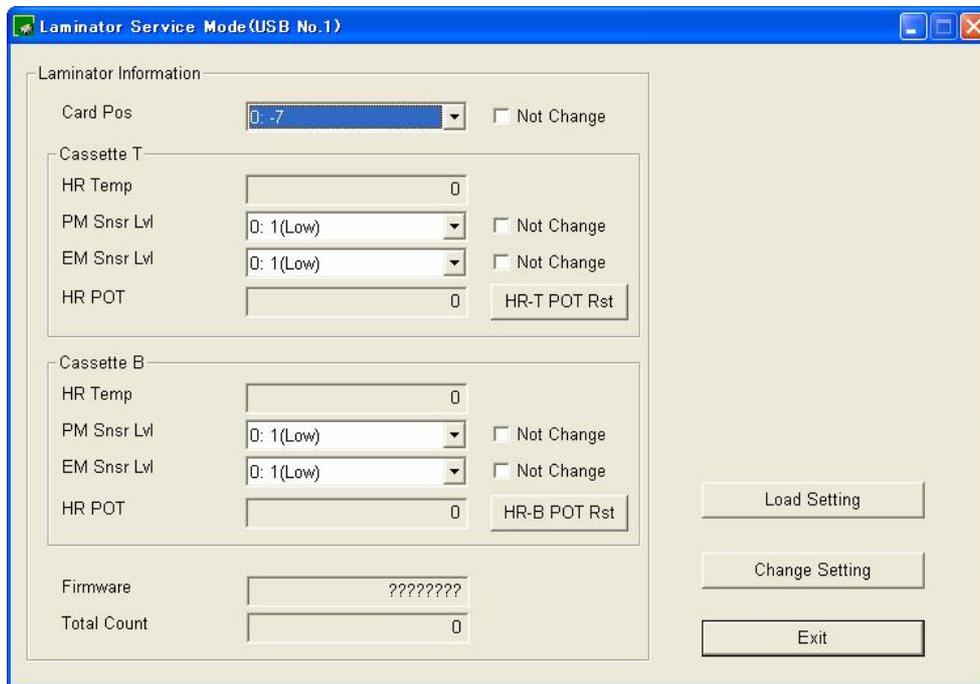
(1) Pressing “Execute” button on “Load Printer Setting” field shows the printer setting. In case that “NVR Setting” check box is not checked, the data shown on the screen is the effective setting of the printer, and it may differ from the setting recorded in the non volatile memory of the printer.

- (2) Pressing “Change Printer Setting of NVR” stores the setting on the screen to the non volatile memory of the printer.
- (3) Display the time during the heat roller is powered on “Heat Roller Power On Time” field. It can be set to 0 using corresponding “Time Reset” button.
- (4) Pressing “Push” button stores the printer setting to the non volatile memory of the thermal head, and pressing “Pop” button restores the printer setting.
- (5) Pressing “Exit” button shows the Main Menu screen.
- (6) Change the printer setting with the settings on the “Printer Unit Maintenance” field.
  - ◆ Offset Prt Y: Adjust the horizontal print starting position to the retransfer film direction. 1 step makes the position move by 0.17mm.
  - ◆ Offset Prt X: Adjust the vertical print starting position to the retransfer film direction. 1 step makes the position move by 0.17mm.
  - ◆ Offset Trf X: Adjust the retransfer position to the card. 1 step makes the position move by 0.086mm.
  - ◆ Offset Card X: Adjust the card position on beginning of the retransfer.

Notice) If this setting is changed, the card jam or the retransfer problem may happen.  
The other settings should be changed for the adjustment.

- ◆ Ink Snsr Level: Adjust sensor level of the Ink sensor.
- ◆ Film Snsr Level: Adjust sensor level of the Film sensor.
- ◆ IC Contact Type: Select the type of IC Contact unit.
- ◆ Offset Contact: Adjust offset position of IC Contact unit.
- ◆ ISO HICO Type: Select the type of ISO MG unit.
- ◆ JIS LOCO Type: Select the type of JIS MG unit.
- ◆ IC Antenna: Disable or enable the IC antenna.
- ◆ Ink Eco Mode: Disable or enable “Ink Eco Mode” <Firmware V01-57A or later>

## 4.4 Service mode setting (Laminator)



**Fig 4-4 Service Mode screen (Laminator)**

- (1) The corresponding setting is not changed when “Not Change” check box is checked. In this case, the setting of the laminator is effective.
- (2) Pressing “Load Setting” button shows the laminator setting.
- (3) Pressing “Change Setting” button stores the setting on the screen.
- (4) Specify the way of the laminating with the settings on “Laminator Information” field.
  - ◆ Card Pos: Adjust card position. No need to change value because film position should be adjusted normally.
  - ◆ Firmware: Firmware version of the laminator unit is displayed in “Firmware”. “?????” will be displayed when no laminator is attached.
  - ◆ Total Count: Display total count of Laminating. “0” will be displayed when no laminator is attached.
- (5) Specify the way of the Top-side laminating with the settings on “Cassette T” field. This function is not effective for single-side model.
  - ◆ HR Temp: Display temperature of the Heat Roller. “0” will be displayed when no laminator is attached.
  - ◆ PM Snsr Lvl: Adjust sensor level for Film mark sensor.
  - ◆ EM Snsr Lvl: Adjust sensor level for film end mark sensor.
  - ◆ HR POT: Display power on time of the heater. It can be set to 0 using corresponding “HR-T POT Rst” button. “0” will be displayed when no laminator is attached

(6) Specify the way of the Bottom-side laminating with the settings on “Cassette B” field.

- ◆ HR Temp: Display temperature of the Heat Roller. “0” will be displayed when no laminator is attached.
- ◆ PM Snsr Lvl: Adjust sensor level for Film mark sensor.
- ◆ EM Snsr Lvl: Adjust sensor level for film end mark sensor.
- ◆ HR POT: Display power on time of the heater. It can be set to 0 using corresponding “HR-T POT Rst” button. “0” will be displayed when no laminator is attached

## 5. Checking the printer status

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Display Printer Information screen using “Printer Information” button of Main Menu screen. It shows the printer status.

The screenshot shows a window titled "Printer Information (USB No.1)" with a blue title bar and standard Windows window controls. The window is divided into several sections:

- Media Information:** A table with fields for Film Type (0: Standard(1000panels)), Film Quantity (0: 0%), Card Thickness (0: Standard), Card Quantity (0: Exist), Ink Type (0: YMCK), Ink Quantity (14: 28%), Number of Ink Panels (1000), and Ink Lot Number (VE5921).
- Counter:** A table with fields for Total Count (103), Free Count (31), Head Count (46), Cleaning Count (61), and Error Count (4).
- Miscellaneous:** A table with fields for Retransfer HR POT (60), Remedy HR POT (0), UnResetable Retransfer HR POT (60), UnResetable Remedy HR POT (0), and Additional Sens Code (12).
- Printer Unit Information:** A table with fields for Basic Resolution(X) (300), Basic Resolution(Y) (300), Card Size(X) (1013), Card Size(Y) (639), Print Position(X) (0), Print Position(Y) (0), Print Size(X) (1036), and Print Size(Y) (664).
- Option Information:** A table with fields for MG (0: None), IC Contact (1: ISO Type), Contact IC R/W (1: Installed), IC Antena (1: Installed), Turn Over Unit (1: Installed), Bend Remedy HR (1: Installed), Security Lock (1: Installed), and Laminator (0: None).

An "Exit" button is located at the bottom right of the window.

Fig 5 Printer Information screen

- (1) Pressing “Exit” button shows the Main Menu screen.
- (2) “Media Information” field shows the media information.
  - ◆ Film Type: Shows the kind of the retransfer film.
  - ◆ Film Quantity: Shows the remained film quantity in percentage. (10% step)
  - ◆ Card Thickness: Shows the kind of the card.
  - ◆ Card Quantity: Shows the remained card quantity in the card tray.
  - ◆ Ink Type: Shows the kind of the ink.
  - ◆ Ink Quantity: Shows the remained ink quantity in percentage. (2% step)
  - ◆ Number of Ink Panels: Shows the quantity of the ink patches.
  - ◆ Ink Lot Number: Shows the ink lot number.

- (3) "Printer Unit Information" field shows the printer status.
- ◆ Basic Resolution(X): Shows the horizontal resolution in DPI.
  - ◆ Basic Resolution(Y): Shows the vertical resolution in DPI.
  - ◆ Card Size(X): Shows the horizontal card size in the number of the printing dot.
  - ◆ Card Size(Y): Shows the vertical card size in the number of the printing dot.
  - ◆ Print Position(X): Shows the beginning of X coordinates.
  - ◆ Print Position(Y): Shows the beginning of Y coordinates.
  - ◆ Print Size(X): Shows the horizontal printable size in the number of the printing dot.
  - ◆ Print Size(Y): Shows the vertical printable size in the number of the printing dot.
- (4) "Counter Information" field shows number of the Counters.
- ◆ Total Count: Shows the number of the Total Counter.
  - ◆ Free Count: Shows number of the Free Counter. This can be set to 0 using "Counter reset" button on User Mode screen.
  - ◆ Head Count: Shows number of the Head Counter.
  - ◆ Cleaning Count: Shows the number of the printed card since the roller cleaning was done. This will be set 0 when the roller cleaning is done.
  - ◆ Error Count: Shows value of the Error Counter.
- (5) "Miscellaneous" field shows other information.
- ◆ Retransfer HR POT: Shows the Power-on-Time of retransfer Heater (hour).
  - ◆ Remedy HR POT: Shows the Power-on-Time of bend-remedy Heater (hour).
  - ◆ UnResetable Retransfer HR POT: Shows the Power-on-Time of retransfer Heater (hour).
  - ◆ UnResetable Remedy HR POT: Shows the Power-on-Time of bend-remedy Heater (hour).
  - ◆ Additional Sense Code: Details of this item is omitted in this manual.
- (6) "Option information" field shows status of Options.

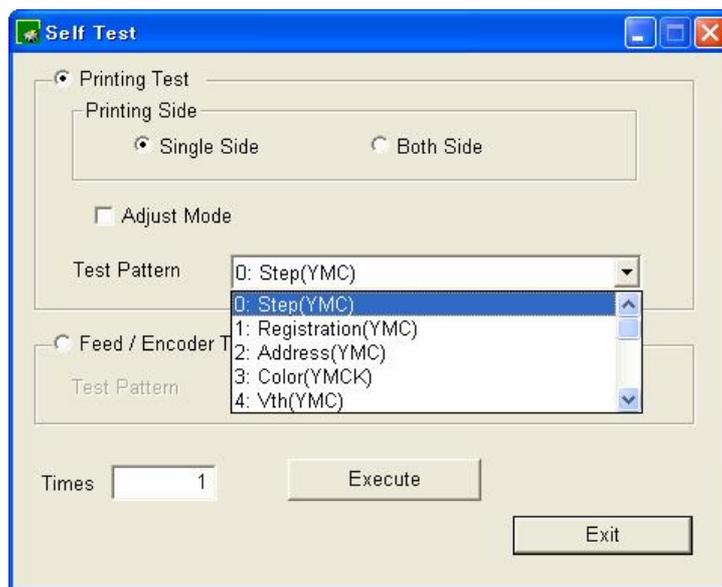
## 6. Self test

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Display Self Test screen using “Self Test” button of Main Menu screen. Self Test is a local function of the printer.

### 6.1 Printing test

Specify the test pattern and issue cards.

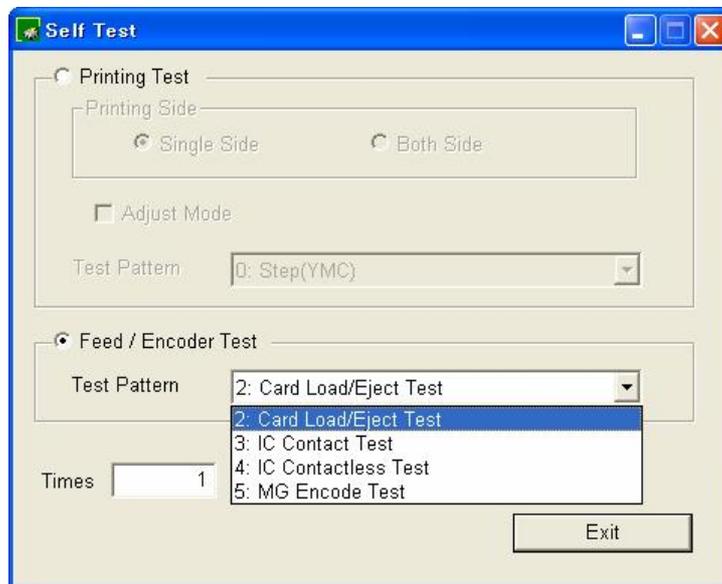


- (1) Choose “Printing Test” radio button.
- (2) Specify either single side printing or both side printing with “Printing Side” field.
- (3) Choose a test pattern with combo box. Information of settings will be printed if No.9 – 13 is selected.
- (4) Enter the number of cards in “Times”, and press “Execute” button. The card will have been printing till an error happen if 0 is set in “Times”.

Note) Do not check “Adjust Mode”. <Only for factory use>

## 6.2 Mechanical Test

Specify the test pattern and do mechanical tests.



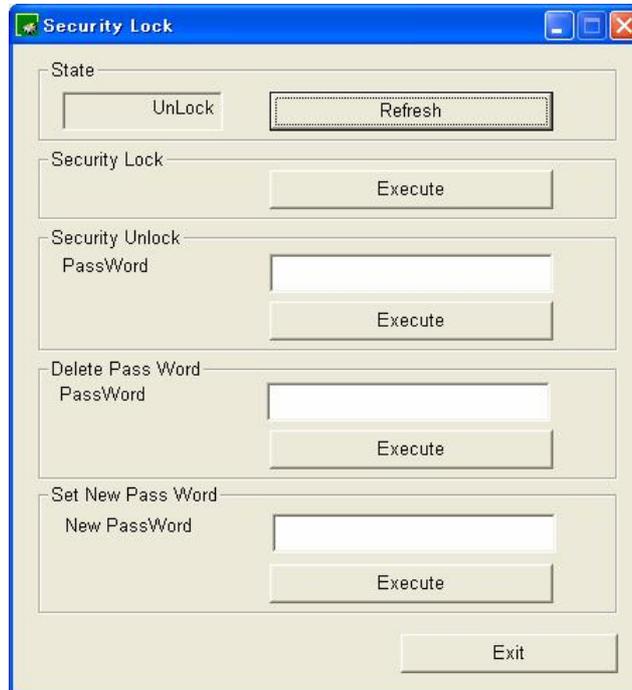
- (1) Choose "Feed/Encoder Test" radio button.
- (2) Choose a test pattern with combo box.
- (3) Enter the number of cards in "Times", and press "Execute" button. The card will have been printing till an error happen if 0 is set in "Times".

# 7. Others

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## 7.1 Security Lock

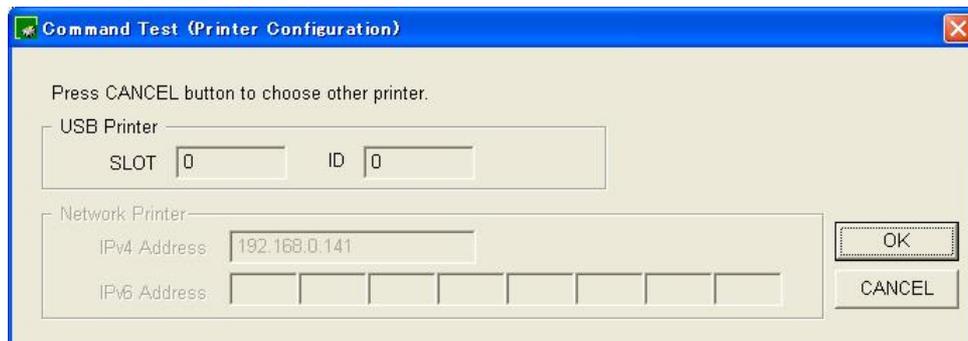
Set Security Lock or Unlock



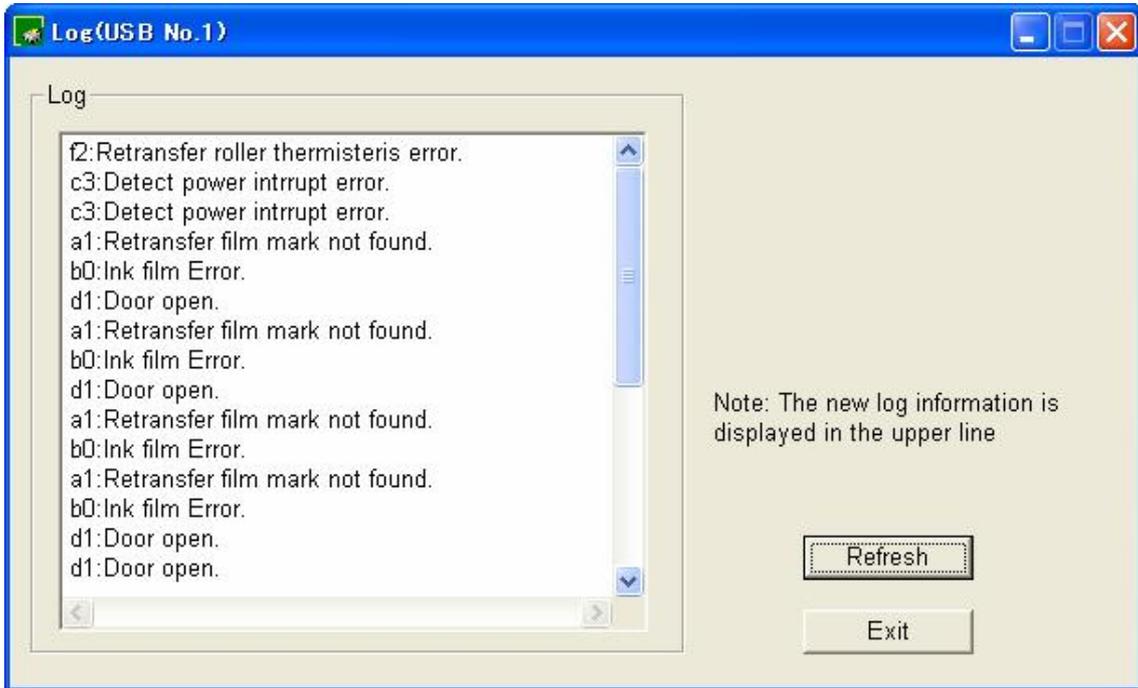
- (1) Enter password in "Set New Pass Word" area and press "Execute".
- (2) Press "Execute" button of Security Lock area to enable Security Lock.
- (3) Enter password in "Security Unlock" area and press "Execute" button to unlock Security Lock.
- (4) Enter password in "Delete Pass Word" area and press "Execute" button to delete password.
- (5) Press "Refresh" button to refresh status of "State" area.

## 7.2 Command Test

Details of this item are omitted in this manual.

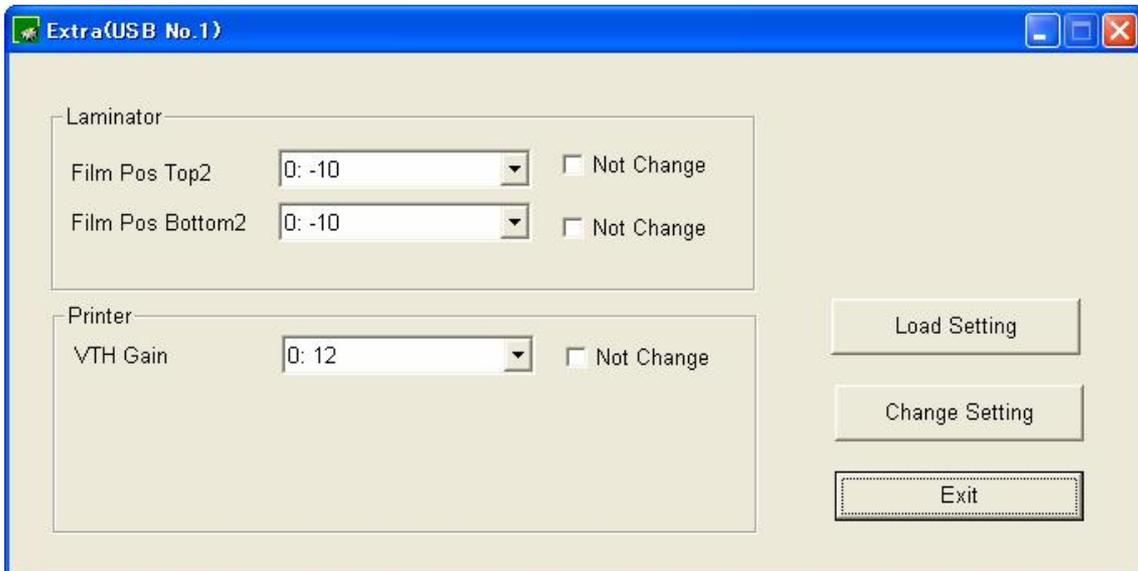


### 7.3 Log



- (1) Latest status will be displayed if push "Refresh" button.
- (2) The new log information is displayed in the upper line. Log has no time information.

### 7.4 Extra<Printer firmware : V01-54A or later>



- (1) Film position of top side is adjustable in this menu. <Laminator firmware V105 or later, CF-L700-2 only>
- (2) Film position of bottom side is adjustable in this menu. <Laminator firmware V105/V006 or later>
- (3) Vth Gain is adjustable in this menu. <Printer firmware V01-54A or later>

## <Appendix-1: ASCII Code Table and Magnetic Data>

					b7	0	0	0	0	1	1	1	1
					b6	0	0	1	1	0	0	1	1
					b5	0	1	0	1	0	1	0	1
b4	b3	b2	b1		0	1	2	3	4	5	6	7	
0	0	0	0	0				0	@	P	`	p	
0	0	0	1	1				1	A	Q	a	q	
0	0	1	0	2				2	B	R	b	r	
0	0	1	1	3				3	C	S	c	s	
0	1	0	0	4				4	D	T	d	t	
0	1	0	1	5				5	E	U	e	u	
0	1	1	0	6				6	F	V	f	v	
0	1	1	1	7				7	G	W	g	w	
1	0	0	0	8				8	H	X	h	x	
1	0	0	1	9				9	I	Y	i	y	
1	0	1	0	A				*	:	J	Z	j	z
1	0	1	1	B				+	;	K	[	k	{
1	1	0	0	C				,	<	L	¥	l	
1	1	0	1	D				-	=	M	]	m	}
1	1	1	0	E				.	>	N	^	n	~
1	1	1	1	F				/	?	O	_	o	DEL

4 units Code

6 units Code

7 units Code

The following start and end sentinels cannot be used as part of the data.

Code	Meaning	Character (Hexa Value)
4 Units Code	Start Sentinel	; (3b)
	End Sentinel	? (3f)
6 Units Code	Start Sentinel	% (25)
	End Sentinel	? (3f)
7 Units Code	Start Sentinel	DEL (7f)
	End Sentinel	DEL (7f)

## <Appendix 2 Card Printer Error Code Table>

No.	Error Code			Name	Contents
	SK	ASC	ASQ		
1	02	D0	00	No card	There is no card, or the hopper tray is not closed.
2	02	D1	00	Door Open	Printer door is opened, or cleaning roller is not attached.
3	02	D3	00	Busy of Transporting	Busy because of transporting card or encoding. <b>Note:</b> This error is not returned from functions. Control Function returns positive value as BUSY.
4	02	D4	00	Busy of Printing	Busy because of printing. <b>Note:</b> This error is not returned from functions. Control Function returns positive value as BUSY.
5	02	D5	00	Busy of Transporting and Printing	Busy because of both “Busy of Transporting” and “Busy of Transporting and Printing”, or on the way of retransfer. <b>Note:</b> This error is not returned from functions. Control Function returns positive value as BUSY.
8	02	DA	00	Preheating	Printer is on the way of preheating.
9	02	DB	00	Initializing	Printer is on the way of initializing.
10	02	DC	00	Testing or Cleaning	Printer is on the way of Off-line Test or cleaning.
11	02	DD	00	On Setting or Transport Mode	Printer is in the setting mode or transporting mode.
12	02	DE	00	Not Ready for Download	Firmware download cannot be done as printer is not in Download mode.
13	02	FD	00	Sleeping	Printer is in the power save mode. <b>Note:</b> To exit this, initializing printer, which is pressing ENTER button after RESET button or sending REZERO command, is required.
14	02	FE	00	Password Error	Password certification is not done.

No.	Error Code			Name	Content
	SK	ASC	ASQ		
15	03	90	00	Jam(Hopper)	The card does not arrive the card supply sensor within a predefined time.
16	03	91	00	Jam(TurnOver)	The card does not arrive the sensor inside the turnover unit within a predefined time.
17	03	92	00	Jam(MG)	The card does not arrive at the card edge sensor within a predefined time after leaving turnover unit. Also in case of magnetic encoding, when detection by the start position sensor of the MG unit is not possible.
18	03	93	00	Jam(Transfer)	The card does not arrive the card outlet sensor within a predefined time after leaving the card edge sensor.
19	03	94	00	Jam(Discharge)	The card stops at the card outlet sensor.
22	03	A1	00	Media Search	Mark on the retransfer film could not be detected.
23	03	AD	00	MG Write Error	Writing error to the magnetic stripe happens.
24	03	AE	00	MG Read Error	Reading error from the magnetic stripe happens.
25	03	B0	00	Ink Error	Invalid ink is attached.
26	03	B1	00	Ink Search	Mark on the ink ribbon could not be detected, or ink is broken.
28	04	44	00	Hardware	Time out was detected by the printer firmware.
30	04	AB	00	MG Mechanical	Mechanical error happens in the MG unit.
31	04	AC	00	MG Hardware	Hardware error happens in the MG unit.
36	04	BF	00	EXT2. Communicate	Communication error happens during updating laminator firmware.

No.	Error Code			Name	Content
	SK	ASC	ASQ		
38	04	C1	00	Heater Cam	Heater Cam is out order.
39	04	D8	00	Hardware	Circuit trouble was detected at the initialization, or writing error to the laminator memory fails during updating laminator firmware.
40	04	F0	00	TR Overheat	The temperature of retransfer roller is too hot.
41	04	F1	00	TR Broken	Retransfer roller is out of order.
42	04	F2	00	TR Sensor Broken	Retransfer roller thermister is out of order.
43	04	F3	00	RR Overheat	The temperature of bend remedy roller is too hot.
44	04	F4	00	RR Broken	Bend remedy roller is out of order.
45	04	F5	00	RR Sensor Broken	Bend remedy roller thermister is out of order.
46	04	F6	00	Overcool	The temperature in the printer is too cool.
47	04	F8	00	Head Overheat	The temperature of the thermal head is too hot.
49	05	1A	00	Parameter List Length Error	The content of command is invalid. Parameter list length value in CDB or Page Data is invalid.
50	05	20	00	Invalid Command Operation Code	The content of command is invalid. Operation Code in CDB is invalid.
51	05	24	00	Illegal Field in CDB	The content of command is invalid. The data in CDB is invalid.
53	05	26	00	Invalid Field in Parameter List	The content of command is invalid. The data in Page Data is invalid.
54	05	27	00	Invalid Color Code in CDB	Invalid ink is specified.
55	05	2A	00	Command Sequence Error	The command is issued in bad order. Ex. Load Card is done when the card is in the printer.
56	05	2B	00	MG Data Error	MG data from the host computer is invalid.

No.	Error Code			Name	Contents
	SK	ASC	ASQ		
57	05	2C	00	IC Encoder not installed	There is no specified IC Encoder.
58	05	2D	00	MG Encoder not installed	There is no specified MG Encoder.
59	05	FB	00	Invalid Download Data	Download data from the host computer is invalid.
60	06	28	00	Medium Changed	Printer was initialized by pressing RESET button.
61	06	29	00	Power On or Bus Device Reset Occurred	Printer was initialized by turning on the printer power.
62	42	A2	00	Media Run Out	End of retransfer film is detected.
63	42	B2	00	Ink Run Out	End of ink ribbon is detected.
64	04	C2	00	HR Overheat	The temperature of the bend remedy heat roller or retransfer heat roller.
65	03	A8	00	MG Write Error in Self Test	MG writing error happens in MG Self Test.
66	05	2E	00	Option Not Installed	The command could not be executed as the turn over unit is not attached.
67	05	21	00	Security Key is already set	New security key could not be registered as the key is already set.
68	05	23	00	Security key is not set	Security key is not registered.
69	05	22	00	Invalid Security Key	Security key is invalid.
70	04	C3	00	Detect Power Interrupt	24V electric power was interrupted.
71	03	95	00	Jam(Retransfer)	Card JAM error happens during retransfer.