PRINTER DRIVER GUIDE Ver.1.00

(For Macintosh® CP-M1 series)

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Refer to the following web site to check the latest version of the printer driver.

http://www.mitsubishielectric.co.jp/ldg/ja/products/visual/lineup/printer/photo/download_01_english.html

You can not use different version of the driver at the same time.

When the driver has already installed, uninstall it and then install this driver.

System requirements

Operating system : 10.14, 10.15

USB*1 cable : Be sure to use a cable 2m or shorter.

 *Use a main storage memory or hard disk with enough empty capacity in an environment that
   your operating system works properly.

*1: CP-M1 series printer supports USB 2.0 (Hi-Speed USB) interface.

Installation

Administrator authority is required to install this printer driver.

When the printer driver of older version has been installed, uninstall it before installing this driver.
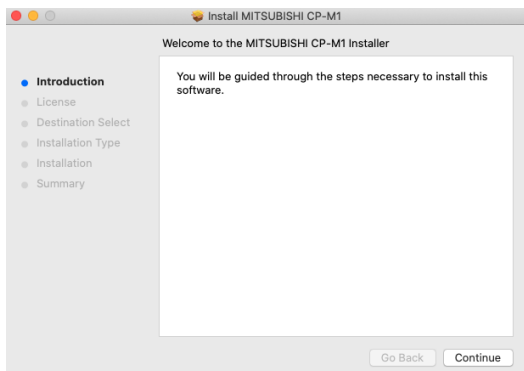
* Although the screen of the display is an installation screen of macOS 10.14, operating procedures are the same as any other macOS .

1) Start your Macintosh.

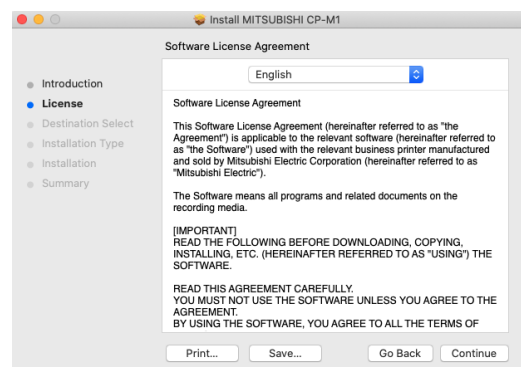2) Double-click on "CPM1MacOS10.14" of the folder. (Fig. 1)

<Fig. 1>
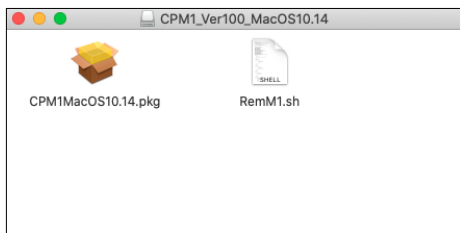
3) Click "Continue" button in the "Install MITSUBISHI CP-M1". (Fig. 2)

4) Read the Software License Agreement and click "Continue" button. (Fig. 3)

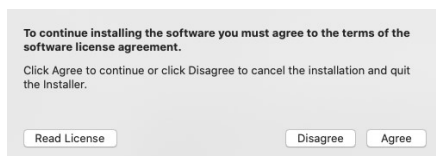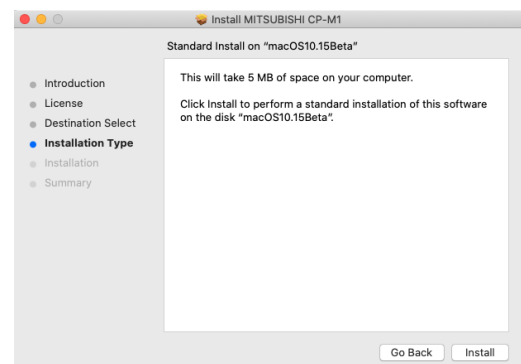<Fig. 2>   <Fig. 3>

5) When you agree with the terms and conditions of the Agreement, click "Agree." (Fig. 4)

6) Click "Install" button. (Fig. 5)

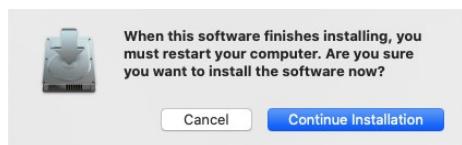<Fig. 4>   <Fig. 5>

7) Click "Continue Installation." (Fig. 6)

<Fig. 6>

8) Enter a username and password, and click "Install Software" button. (Fig. 7)

9) Click "Restart" to restart the personal computer. (Fig. 8)

<Fig. 7>

<Fig. 8>
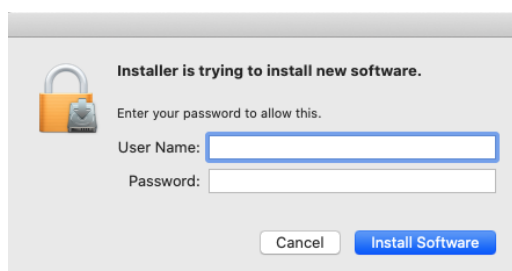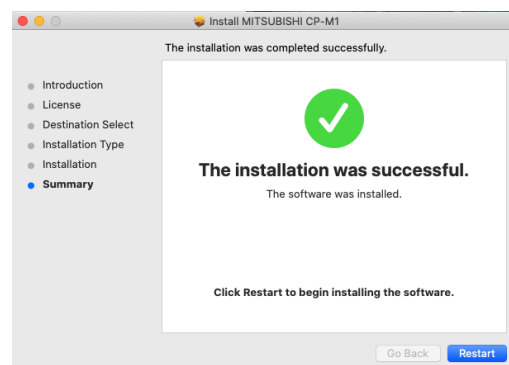
10) Turn on the printer and connect it with the personal computer.

11) Click "System Preferences" to display "System Preferences" screen. (Fig. 9)

12) Click "Printers & Scanners" on "System Preferences screen."

The installed printer is automatically added to the "Printers." (Fig. 10)

* This printer is added in the name of "MITSUBISHI CP-M1".

<Fig. 9>

<Fig. 10>
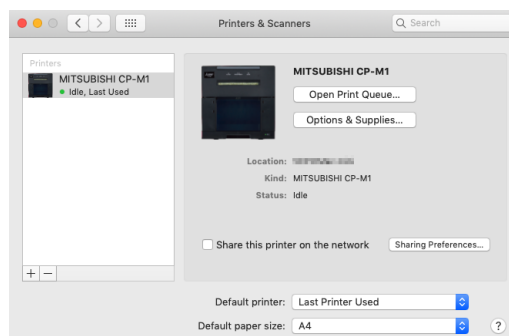
Uninstallation

Operate the following procedures to uninstall the printer driver.

1) Start "Terminal" of "Utility" in the "Applications" folder.

2) When you do not have administrator authority, obtain it by "su" command.

3) Go to the directory where the uninstallation script (RemM1.sh) is stored and execute the script.
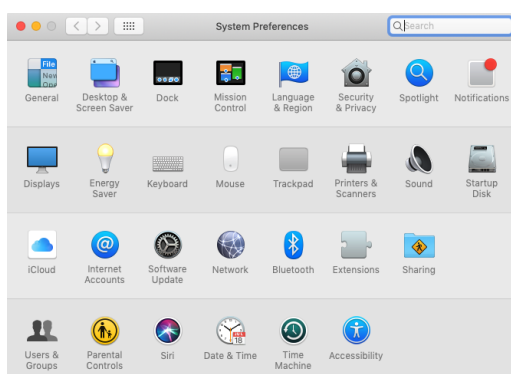
   sh RemM1.sh

4) When a password is required, enter the password for the administrator.

5) When uninstallation is completed successfully, the following message is displayed.

   Uninstallation was completed.

   Is a computer rebooted?" (Y/N):

6) Enter "Y" or "y" to reboot the computer.

   If the computer is not rebooted automatically, exit the ongoing applications and reboot the computer manually.

1. Print Settings

 * Although the screen of the display of "Preview" application, the following menu display is the same in the other applications.

1.1. Preview menu
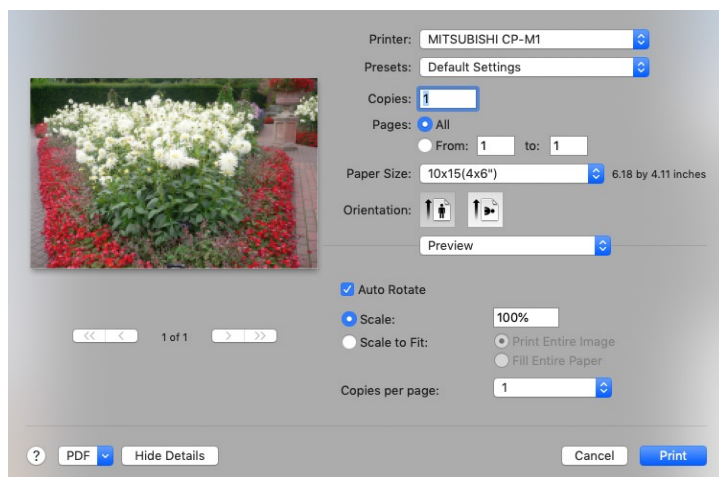

<Fig. 11 Preview menu>

1) Paper Size

 The size of paper is selected.

  The number of print pixels for each paper size is shown in the table.

Paper size		Print dots
5x15(2x6") *1		631x1852
5x15x2 Type2(2x6"x2) *2		616x1852
9x13(3.5x5")		1082x1550
10x15(4x6")	10x15(4x6")	1232x1852
	5x15x2 Type1(2x6"x2)*2	1232x1852
13x13(5x5")		1533x1550
13x18(5x7")		1550x2134
15x15(6x6")		1833x1852
15x20(6x8")		1852x2434
9x13(3.5x5") white border *3		934x1382
10x15(4x6") white border *3		1084x1684
13x18(5x7") white border *3		1382x1986
15x20(6x8") white border *3		1684x2286

*1: 5x15 (2x6"): This selection allows up to 3 different 2x6 strip in a single ink ribbon patch using media type 15x20 (6x8"). Please note, if only two 2x6 strips is printed, the rest of the ink will be skipped and not usable.

*2: Please refer to item 3 of "Operating directions for customer's purpose" on page 12.

*3: When any paper size white border is selected, all printed image will have approximately 5 mm white border.

2) Orientation

The direction of paper is set.

This is the standard setting function of the operation system.

3) Scale

Enlargement scale is set. (Range : 1 - 100000%)

This is the standard setting function of the operation system.

4) Copies

The printer prints the number of printouts which is shown in dialog. (Range: 1 – 9999)

* This is the standard setting function of the operation system.

1.2. Printer Features menu

The following settings can be configured when "Feature Sets" of "Printer Features" is set to "Options" in

the Printer Features menu.

<Fig.12 Printer Features menu>
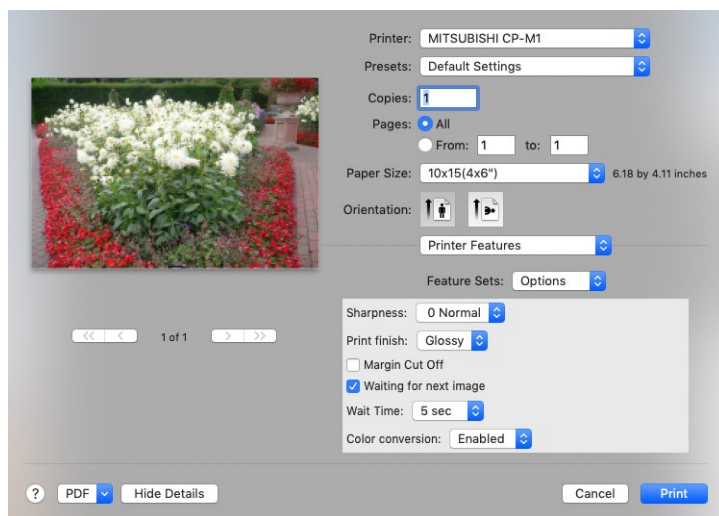
1) Sharpness

none/-3 Soft/-2/-1/0 Normal/1/2/3 Hard

Level of outline correction is changed.

none : Not perform the outline correction.

-3 to 3 : The value is smaller, the outline becomes softer.

The value is larger, the outline becomes sharper.

2) Print Finish

Set the print surface finish mode.

Glossy : Gloss finish

Matte : Matte finish

<Note on Matte finish>

  Whenever a Matte finish is selected, the ink ribbon will not rewind to maintain ribbon performance
  and image quality on a 15x20 (6x8") or 13x18 (5x7") media type.
  Also the ink ribbon will not rewind after a Matte finish is printed regardless if the next print job is Glossy.
  With 15x20 (6x8") or 13x18 (5x7") media and performing Matte finish, it is recommended to create
  even number of jobs to use the whole ink ribbon patch.
  The table below illustrates as examples how the ink ribbon is used with Matte finish based on a
  combination of paper size and number of 10x15 (4x6") / 9x13 (3.5x5") / 5x15 (2x6") image.

Paper Size	Number of images		Print Finish	Ink ribbon waste number (10x15 (4x6") /9x13 (3.5x5") conversion)	
				In the case of the image number of jobs that the next job is to use the ink ribbon over the entire Surface	In the case of the image number of jobs that the next job is to use half of the ink ribbon
9x13 (3.5x5")	1	In the case of the image number of jobs that use half of the ink ribbon	Matte	1	2
10x15 (4x6")	1			1	2
5x15x2 Type 1 (2x6"x2)	1			1	2
5x15x2 Type 2 (2x6"x2)	1or2			1	2
5x15 (2x6")	1			1	2
9x13 (3.5x5") white border	1			1	2
10x15 (4x6") white border	1			1	2
9x13 (3.5x5")	1		Glossy	1	0 *2
10x15 (4x6")	1			1	0 *2
5x15x2 Type 1 (2x6"x2)	1			1	0 *2
5x15x2 Type 2 (2x6"x2)	1or2			1	0 *2
5x15 (2x6")	1			1	0 *2
9x13 (3.5x5") white border	1			1	0 *2
10x15 (4x6") white border	1			1	0 *2
9x13 (3.5x5")	2	In the case of the image number of jobs that use the entire surface of the ink Ribbon	Glossy/ Matte	0	0
10x15 (4x6")	2			0	0
5x15x2 Type 1 (2x6"x2)	2			0	0
5x15x2 Type 2 (2x6"x2)	3or4			0	0
5x15 (2x6") *1	2or3			0	0
9x13 (3.5x5") white border	2			0	0
10x15 (4x6") white border	2			0	0

*1: 5x15 (2x6") size prints a combination of up to three 5x15 (2x6") strips on a single ink ribbon patch of
15x20 (6x8") media type.

*2: The printer may not perform the rewind function due to image content and unused ink ribbon might be
discarded.

3) Margin Cut Off

   Margin cut ON or Off is set.

   If the setting is ON, then print without margin cut.

4) Waiting for next image

   If the setting is ON, in the media of 15x20 (6x8") or 13x18 (5x7"), if you print the half size, set the

   waiting time for printing the next image in the same ink surface.

   If the setting is OFF, print without waiting.

   * This setting is intended to set the waiting time after the transfer of the last of the image of the print job.

     Waiting time between images in the print job is fixed (100 seconds).

5) Wait Time

   It set wait time. (Range: 1-100 sec)

6) Color conversion

   Set whether or not to color conversion in printer.

    Enabled : Color conversion is performed.
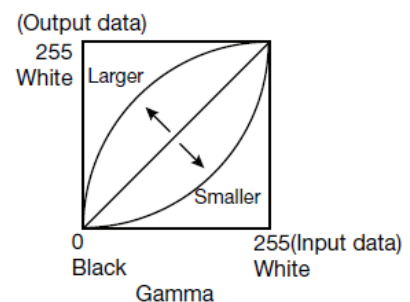
    Disabled : Color conversion is not performed.

7) Gamma

   Adjusted value R, G, and B (-5 - +5)

   Use this function to adjust the density of the middle tones.

   When you want to increase the density of the middle tones,

   decrease the value of "Gamma".

8) Brightness

   Adjusted value R, G, and B (-64 - +64)

   Use this function to adjust the brightness of the print picture.

   When you want to make the print picture darker,

   decrease the value of "Brightness".

9) Contrast
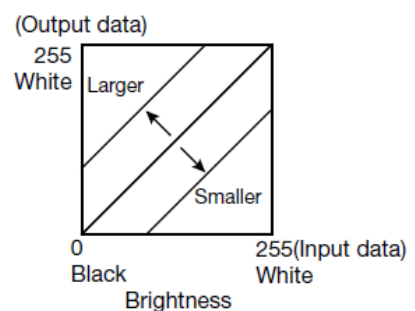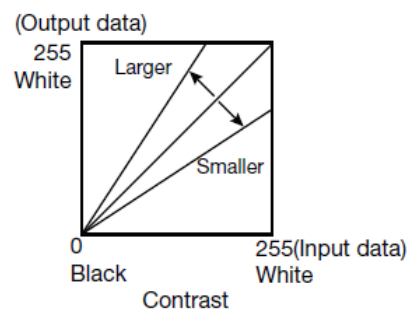
   Adjusted value R, G, and B (-64 - +64)

   Use this function to adjust the contrast of the print picture.

   When you want to make the contrast of the print picture stronger,

   increase the value of "Contrast".

2. Error indication

When an error occurs, print processing is stopped.

Please resolve the error and resume the held job from the job menu.

(1)The error dialog messages are displayed in the Print Queue screen

No.	Error dialog message	Operation
1	The printer is not connected. *macOS10.14 Offline *macOS10.15	After resolving the error, resume printing / processing from the job menu. The print job operations of the Print Queue screen are equipped as standard in the operating system. The Job menu are "Delete Job", "Hold Job", "Resume Job" and "Resume Job on Page". * Numeric characters are indicated in (xxxx).
2	Something is wrong with the printer. Turn the printer Off and then On again, and try again.	
3	Ink Ribbon Empty(xxxx)	
4	Ink Ribbon End(xxxx)	
5	Ink Ribbon Error(xxxx) Check Ink Ribbon.	
6	Ink Ribbon Error(xxxx) Check Ink Ribbon and set Paper again.	
7	It is not equipped with the Paper Strip Bin (xxxx)	
8	Paper Empty(xxxx)	
9	Printing unit is opened.(xxxx)	
10	Paper End(xxxx)	
11	Paper JAM(xxxx) Check Ink Ribbon and set Paper again.	
12	Mechanical Error(xxxx) Check Ink Ribbon and set Paper again.	
13	Mechanical Error(xxxx) Turn the printer Off and then On again, and try again.	
14	Electrical Error(xxxx) Turn the printer Off and then On again, and try again.	

* The error dialog messages are displayed in the Print Queue screen which is displayed

   by clicking the "Open Print Queue" button in "Printers & Scanners".

* When the error message is long, "..." is displayed in the middle of a sentence and

   the whole sentence may not be displayed. In such cases, please clicks [i] mark of right of the error dialog,

   the whole sentence is displayed.

(2) Error displayed in job list on the Print Queue screen

The following errors are displayed in job list on the Print Queue screen.

* Numeric characters are indicated in "****".

* When no error message and printing is not carried out, check the indicators on the front of the printer.

* For the details of the indicators on the printer, see the operation manual of CP-M1series printer.
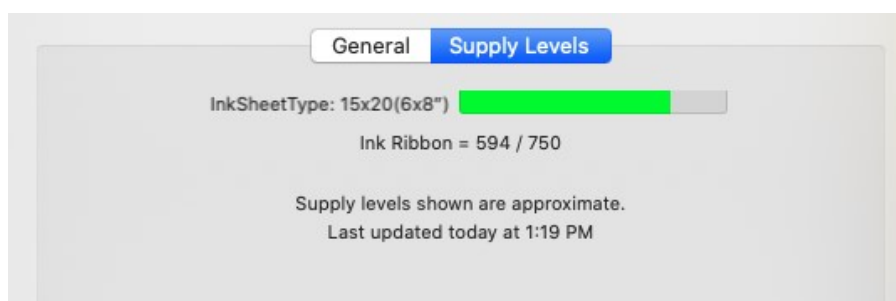

3.Supply Levels

No.	Error Log message	Operation
1	pagesize-inkribbon-unmuch 0x****	Paper size of printer driver and Ink Ribbon type do not match. After resolving the error, resume printing processing from the job menu.
2	driver-setting-unmuch 0x****	Printer driver settings is incorrect. After resolving the error, resume printing processing from the job menu.
3	out-of-range 0xFFFF	Transfer image size is out of range. After resolving the error, resume printing processing from the job menu.
4	protocol-error 0x****	Communication error. After resolving the error, resume printing processing from the job menu.
5	memory-timeout	It takes time to start printing. After checking and resolving the error, resume printing processing from the job menu.

You can check the ink sheet type and the remaining amount from the Supply Level dialog

by pressing the Options & Supplies button.

InkSheetType : Ink ribbon model name.

Ink Ribbon = remaining number /maximum number of sheets

General   **Supply Levels**

InkSheetType: 15x20(6x8")

Ink Ribbon = 594 / 750

Supply levels shown are approximate.
Last updated today at 1:19 PM

<Fig13. Supply Levels>

*When during printing or an error occurs in the printer, the supply level may not be displayed correctly.

*For the latest supply level information, please redisplay the supply level screen.

Notes

1) Secure of Hard disk for spool file

   Secure the capacity of Hard disk for spool file enough for the printer operation and the number of printing sheets.

   The printing cannot be correctly carried out when the capacity is running short.

   The drive for spool file is the same drive as the system drive usually.

2) Operation of the printer

   Refer to the operation manual of the printer.

   Do not turn off the power switch during data transfer or print.

   If you turn off the power switch, restarting of a computer may be needed.

   When deletion of a printing data cannot be performed, restarting of a computer is required.

3) About connection of a computer and a printer

   Do not disconnect the interface cable during data transfer.

   If the interface cable is disconnected, wait 1 minute or more after disconnecting the cable to connect it again. If the cable is connected without leaving an enough interval, the printer driver may not work correctly.

4) System requirements for USB interface

   Use a personal computer that are USB-guaranteed by the manufacturer.

   CP-M1 series printer supports USB 2.0 (Hi-Speed USB) interface.

5) Connection of USB cable

   When you take out and insert a USB cable after installation of a printer driver, wait 10 seconds or more after extracting a cable.

   If the cable is reinserted without leaving an interval, the printer may not operate normally.

6) Print job

   Do not delete the print job in the spooler during data transfer. When deleting it, do not start printing until the printer becomes to the initial status.

7) Number of prints

   With some applications, the number of prints set by the printer driver does not work. Set the number of prints from the print dialog box of the application.

8) Errors during printing

   When an error occurs during printing, it may not be displayed on the monitor. Check the indicator on the front of the printer and take the countermeasure, and then start printing procedure again. For the indication by the indicator of the printer and the countermeasure, see the operation manual of the printer.

9) When "Resume Job" is selected after "Hold Job" is performed in the Print Queue screen, an error may not be displayed even if it occurs. In this case, select "Hold Job" and resolve the error, then click "Resume Job" to resume printing.

10) "Add" of the "Printer List"

   In some version of macOS, you may not print images with the printer registered by the "Add" button.

   Make the computer recognize the printer by the procedure described in "Installation."

11) When the printer is turned off or a USB cable is not connected to the printer, the printer stauts may be
   displayed as standby. However, it does not affect the further printing oprations.

12) When an error job is deleted without resolving the error, the error indication in the
   Print Queue may not be cancelled even if the error is resolved.
   After resolving the error, the error indication disappears in the next printing.
   Or delete the printer from the printer list, and then add it again to cancel the error indication.

13) When you pause or resume the printing or delete the job in the Print Queue while the printer driver is
   communicating with the printer such as during the printer error, the communication may fail and the
   deleted job may be printed.

14)When the 5x15x2 (2x6"x2) (Type 1 or Type 2) is selected for the paper size
   The paper cut position may shift depending on the printer.

15) When the 5x15x2 (2x6"x2) Type 2 is selected for the paper size
   When the number of printed pictures (pages) or that of copies is set to an odd number,
   a blank page may be printed, if you delete or pause the job in the Print Queue during the printer error.

16) There is the case that the paper size may not switch by paper size menu of preview
   menu. In this case, after selecting the other paper size, please re-select the paper size again.

17) Open Print Queue => Printer => Print Test Page : Test page size is 10x15(4x6") .

Operating directions for customer's purpose

1. When you want to adjust the color of the print image.
   Set the following settings in "Feature Sets" of "Printer Features menu".
   (Note that the effects are invalid on the display even if you make following setting.)
   1) When you want the density of entire print picture to be thick (dark), decrease the value of "Brightness".
   2) When the print picture is out of focus (the contrast is weak), increase the value of "Contrast".
      The contrast becomes stronger.
   3) When you want to change the color of printout.
      Change the value of "Brightness".
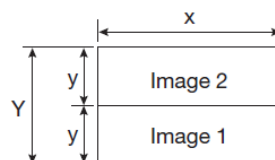   Increase Red :Increase the "R" value.
      Increase Green :Increase the "G" value.
      Increase Blue :Increase the "B" value.

2. When "5x15x2 Type 1" is selected in "Paper size"
Lay out the image 1 and image 2 as following and print them.

	Print dots
Y	1232
x	1852
y	616

3. When "5x15x2 Type 2" is selected in "Paper size"
When multiple images are selected in "Preview", etc., the images are printed in 5x15 (2x6") size.
When the number of pages or copies is odd, the last print of 5x15 (2x6") size paper is output as a blank
page. Depending on the application software, a blank page may be set every other page.

Prohibition matter

We prohibit Reverse Engineering, decompiling or reverse assembling of this driver software.

Exemption from responsibility

Occasionally, this software does not operate normally depending on operating environment.

Moreover, Mitsubishi Electric Co. will not assume any responsibility for damage (including, but not limited

to, lost profit or damage caused from special circumstances etc.) occurring during the use of this driver.