CP-D90DW-SL

PRINTER DRIVER SPECIFICATIONS

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Record of Revision		
Revision Date	Change Mark	Notes
Jan.26.2018	A	Ver.2.00 Correspond to 15x36(6x14") and 15x51(6x20") paper size <Changes related to 15x36(6x14") and 15x51(6x20") paper size correspondence>
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	A2	4.Function explanation 4.1.Windows
		4.1.1. Paper dialog
		1) Paper Size
		    Add 15x36(6x14") and 15x51(6x20") paper size
		    Add *4 description for printing with [15x36(6x14")]
		    and [15x51(6x20")]".

	A3	2) Margin Cut Off Add note
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	A6	8. Note
		    Add note 22) for printing with [15x36(6x14")] and
		    [15x51(6x20")]"
		
		< Changes of mistake correction >

	A7	P.1 Index
		Fixed "1.Applied mode" to "1.Applied model"
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		4.1.2. Options dialog
		2) Details
		Horizontal and Vertical
		  Fixed the mistake
		none/-3 Soft/-2/-1/0 Normal/1/2/4 Hard
		      =>none/-3 Soft/-2/-1/0 Normal/1/2/3 Hard
		P.15 "7.Error indication"
		  Fixed "8.Error indication" to "7.Error indication"

Application

This specifications apply for PRINETER DRIVER of CP-D90DW-SL

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1. Applied model

   Model : CP-D90DW-SL

2. Applied condition

2.1. Windows

Computer	: Computer equipped with Pentium class CPU or more
Main storage memory	: 512 MByte or more
Hard disk	: Empty capacity 512 MByte or more
Operating system	: Microsoft(R)Windows(R)7,8,10　x86
	Microsoft(R)Windows(R)7,8,10　x64

                                        *Use the printer driver in an environment that your operating system works properly.

Language	: English
Digital Signature	: MITSUBISHI ELECTRIC CORPORATION signature

3. Applied interface

  USB Communications   :USB 2.0

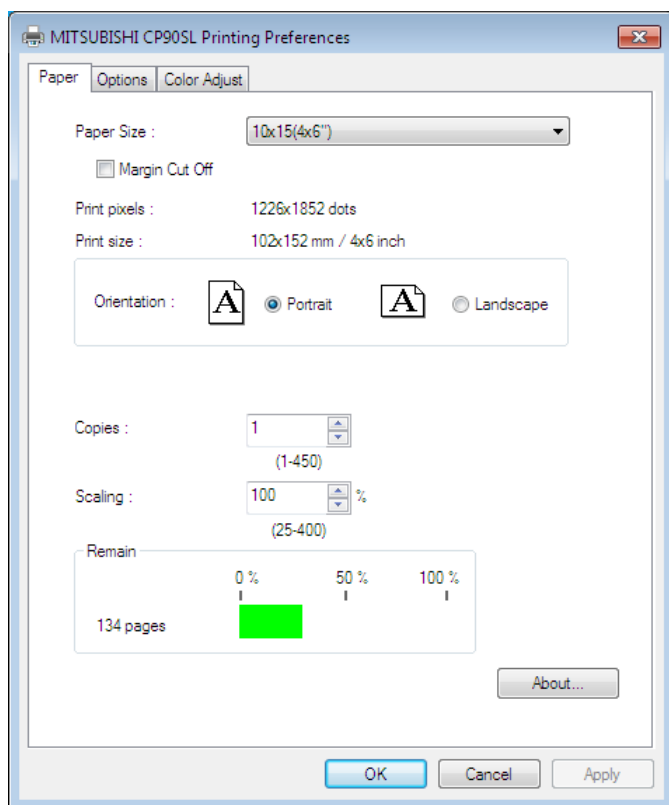   This printer supports USB 2.0 (Hi-Speed USB) interface.

  Connection of USB cable   :Be sure to use a cable 2m or shorter.

    When you take out and insert a USB cable after installation of a printer driver, please wait 10 seconds or more after extracting a cable. If the cable is reinserted without leaving an interval, the printer may not operate normally.

4.Function explanation

4.1.Windows

4.1.1. Paper dialog

<Fig. 1>

1) Paper Size

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The size of paper is selected.

Paper Size	Print pixels *
10x15(4x6")	1226x1852 dots
15x20(6x8")	1852x2428 dots
10x15x2 (4x6"x2)	1852x2488 dots
5x15x2 Type1(2x6"x2) *1	1226x1852 dots
5x15x2 Type2(2x6"x2) *1	613x1852 dots
5x15(2x6") *2	625x1852 dots
15x15(6x6")	1827x1852 dots
10x15(4x6") white border *3	1084x1684 dots
15x20(6x8") white border *3	1684x2286 dots
15x36(6x14") *4	1852x4232 dots
15x51(6x20") *4	1852x6036 dots

* The number of available pixels for the user in each paper size is displayed.

*1 : The paper cut position may shift depending on the printer.

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

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

*4 : For notes such as installation conditions, please refer to "AppendixA:Precautions for printing with [15x36(6x14")] and [15x51(6x20")]".

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2) Margin Cut Off

Margin cut ON or Off is set.

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

* When setting "15x36(6x14")" and "15x51(6x20")" as the paper size, please set "Margin Cut Off" setting box unchecked.

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3) Print pixels

The number of pixels to print in each paper size is displayed.

4) Print size

The print size is displayed.

5) Orientation

Portrait/Landscape

The direction of paper is set.

6) Copies

The printer prints the number of printouts which is shown in dialog. (Range: 1 - 450)

7) Scaling

Enlargement scale is set. (Range : 25-400%)

8) Remain

The remaining amount of the ink ribbon in the connected CP-D90DW-SL is displayed in a bar.

When a printer is not connected or information from the printer can not be read, this bar is displayed in gray.
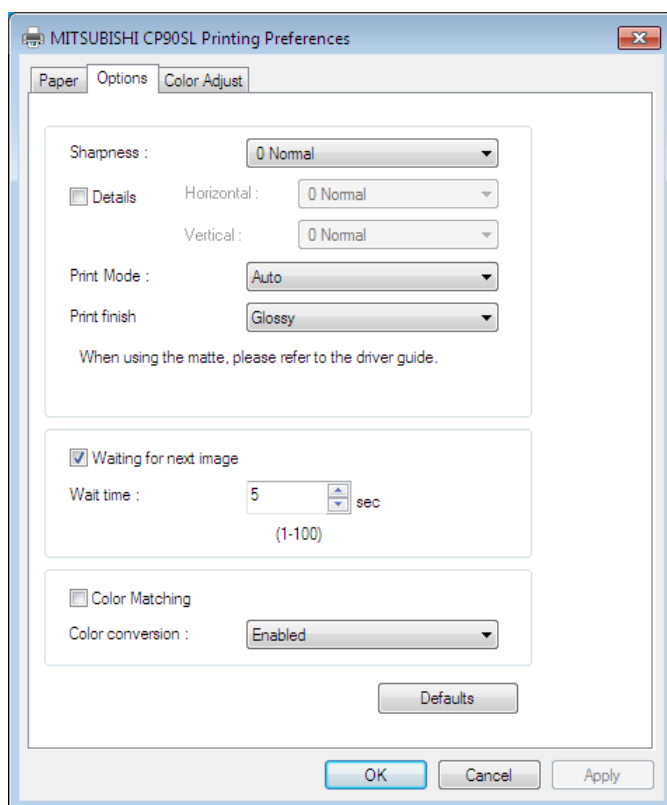
*The number of remaining amount is displayed only as a guide.

The remaining amount calculated as using the "10x15(4x6")" paper is displayed. For example, the remaining amount reduces by 2 for a print of "15x20(6x8")" and other paper sizes using whole ink surface.

9) About...

Displays the version information of this driver.

4.1.2. Options dialog

<Fig. 2>

1) Sharpness

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

Level of outline correction is changed.

none :Not perform the outline correction.

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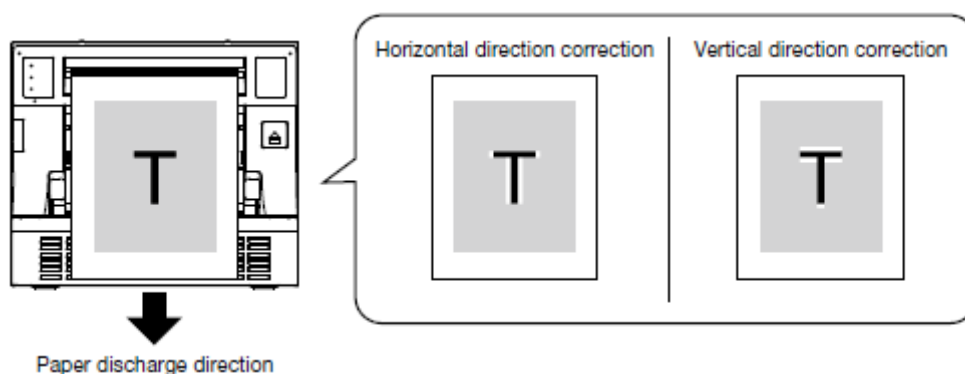
The value is larger, the outline becomes sharper.

2) Details

If the setting is ON, set the sharpness for each of horizontal and vertical direction.

Set OFF in the menu of the sharpness of 1), you set at the same strength for both horizontal and vertical directions.

* It is shown in figure the paper discharge direction and the horizontal/vertical relationship.

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Horizontal

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

    Level of outline correction is changed in the horizontal direction.

    none : Not perform the outline correction.

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

    The value is larger, the outline becomes sharper.

Vertical

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

    Level of outline correction is changed in the vertical direction.

    none : Not perform the outline correction.

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

    The value is larger, the outline becomes sharper.

	A7

3) Print Mode

    Printing mode is set.

    Fine : Prints with high speed.

    Note: please refer to *2 of "<Note on Matte finish>" on next section (Print Finish).

    Auto : Prints with appropriate speed depending on the image.

    UltraFine : Prints with high image quality.

    *When setting "15x36(6x14")" and "15x51(6x20")" as the paper size, regardless of the settings of
     the printer driver, "PrintMode" is set to "UltraFine".

	A4

4) Print Finish

    Set the print surface finish mode.

    Glossy : Gloss finish

    Matte : Matte finish

  <Note on Matte finish>

 *1: Whenever a Matte finish is selected, the ink ribbon will not rewind to maintain ribbon performance and
    image quality.Also the ink ribbon will not rewind after a Matte finish is printed regardless if the next print
    job is Glossy.With performing Matte finish, it is recommended to create even number of jobs to use the
    whole ink ribbon patch.

*2: Whenever "Print Mode" is set to Fine with 15x20 (6x8") media set, the printer may not perform the rewind
    function due to image content and unused ink ribbon might be discarded.

    Using 15x20 (6x8") media set under Fine mode for these print sizes, it is recommended to create even
    number of jobs to use the whole ink ribbon patch, even if the print finish is glossy.

    *When setting "15x36(6x14")" and "15x51(6x20")" as the paper size, regardless of the settings of the
    printer driver, "Print Finish" is set to "Glossy".

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5) Waiting for next image

    If the setting is ON, 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).

6) Wait Time

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

7) Color matching

Color matching is carried out according to the ICC profile set in the "Color control" tab.

When the ICC profile is not set in the "Color control" tab, set the "Color matching" to OFF because the color matching is not carried out in this case.

8) Color conversion

Set whether or not to color conversion in printer.

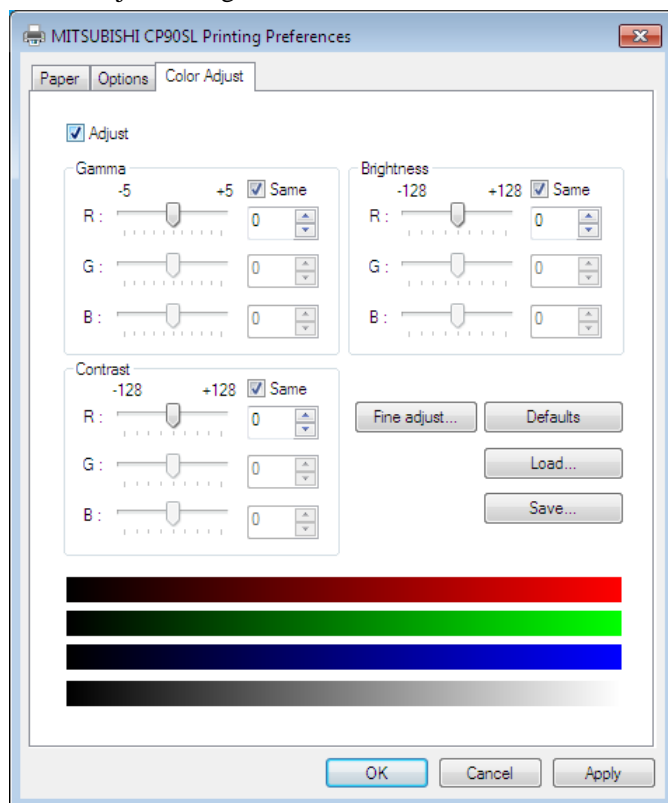Disabled : Color conversion is not performed.

Enabled : Color conversion is performed.

When the color matching is set to ON, color conversion is not available.

9) Defaults

All the settings in Option dialog are reset to the defaults.

Item	setting
Sharpness	0 Normal
Print Mode	Auto
Print Finish	Glossy
Waiting for next image	ON
Wait Time	5sec
Color Matching	OFF
Color conversion	Enabled

4.1.3. Color Adjust dialog
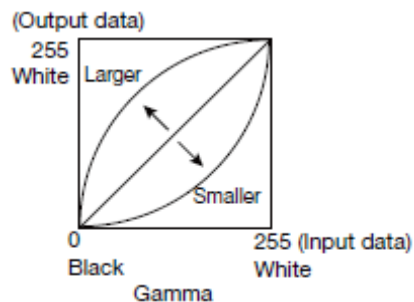

<Fig. 3>

1) Adjust

Tick the box for the color adjustment.

2) Gamma

Adjusted value (-5 - +5)

When you want to increase the density of the middle
tones, decrease the value of "Gamma" of the
color adjustment dialog.
Same check box ON:R,G and B are same value,
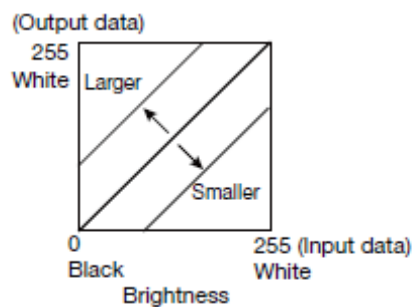OFF:R,G and B are individually adjusted.

3) Brightness

Adjusted value (-128-+128)

When you want the brightness of the print picture to be
dark, the value of "Brightness" of the color
adjustment dialog must be decreased.
Same check box ON:R,G and B are same value,
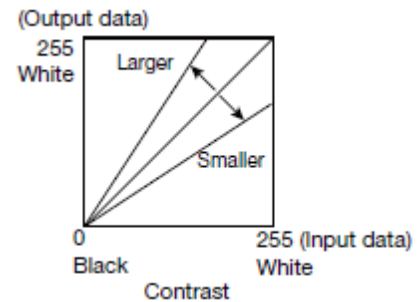OFF:R,G and B are individually adjusted.

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4) Contrast

Adjusted value (-128-+128)

When you want the contrast of the print picture to be strong, the value of "Contrast" of the color adjustment dialog must be increased.

Same check box ON:R,G and B are same value,

OFF:R,G and B are individually adjusted.

5) Fine adjust

The more minute color adjustments are carried out by the Gamma adjustment tone curve.

6) Defaults

All adjustable values in Color Adjust dialog become 0.
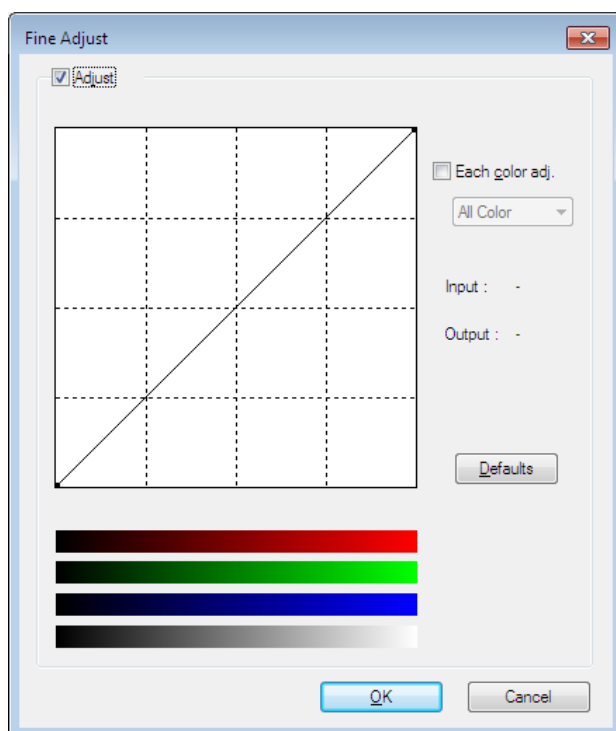
7) Load...

The color adjustment setting file is loaded.

8) Save...

The color adjustment setting is saved.

4.1.3.1. Fine Adjust dialog

<Fig. 4>

1) Adjust

Tick the box for the color adjustment.

2) Each color adjustment

ON: Each RGB color is individually adjusted.

OFF: The same adjustment of each RGB color carries out.

3) Selecting the color to be adjusted

When adjusting color individually, select the color to be adjusted.

4) I/O value display

The input (gradation value before adjustment) and output (gradation value after adjustment) of the adjustment point are displayed.

5) Defaults

All the tone curves become a linear straight line of the range (0, 0) - (255, 255).
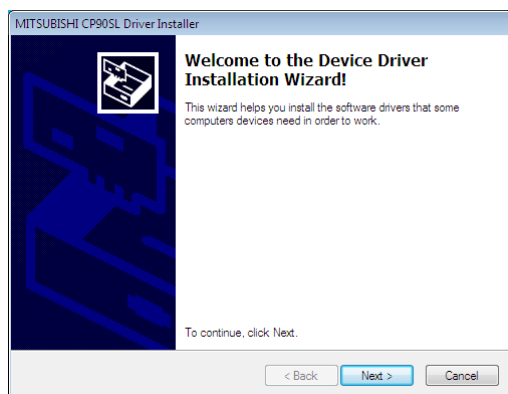
5.Installation

5.1.Windows7

5.1.1. Installing the driver

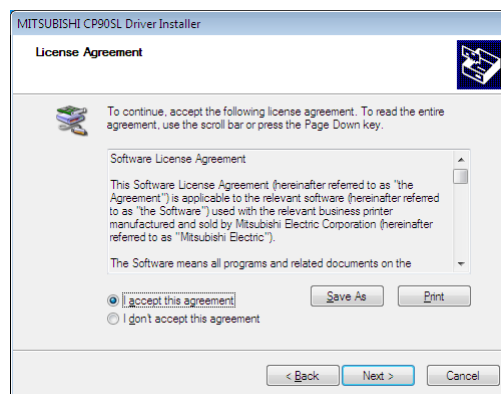* Install the printer driver for Windows 7 before you connect the printer to your PC.

1) Start Windows® 7 operating system.

2) Logon as an Administrator or Administrator group members.

3) Start the installer (Install_Drv.exe) by "Run as administrator".

4) Install according to the instructions in the wizard.

Click "Next" button on "Welcome to the Device Driver Installation Wizard!". (Fig. 5)

5) Accept the License Agreement and select "I accept this agreement" and click "Next" button on
  "License Agreement". (Fig. 6)

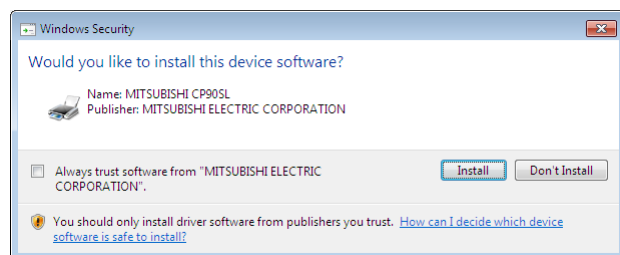<Fig. 5>   <Fig. 6>

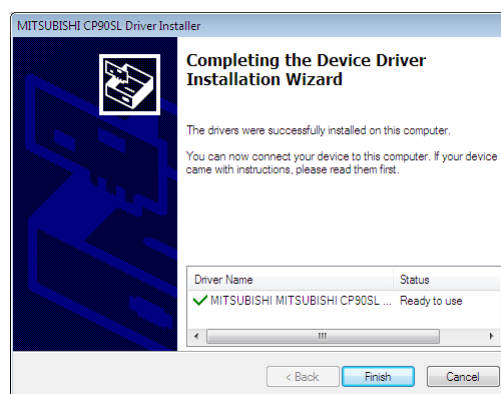6) Click "Install" button on "Windows Security". (Fig. 7)

7) Window of (Fig. 8) appears on success in installation.

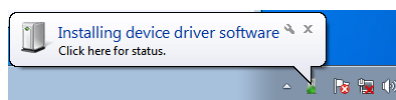<Fig. 7>   <Fig. 8>

5.1.2. Installing the USB port

1) Power on the printer and connect it to your PC with USB cable.

2) The driver software will be automatically installed. Click the balloon to check the installation status. (Fig. 9)

3) Click "Close" button to finish the installation. (Fig. 10)

<Fig. 9>   <Fig. 10>

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4) Icon of "MITSUBISHI CP90SL" will be added to the "Printers and Faxes" in the "Devices and Printers".

5) Restart your PC.

5.2. Windows 8

5.2.1. Installing the driver

* Install the printer driver for Windows 8 before you connect the printer to your PC.

1) Start Windows® 8 operating system.

The following procedure is the same as 6.1.1. Installing the driver 2) to 7) of 6.1.Windows 7.
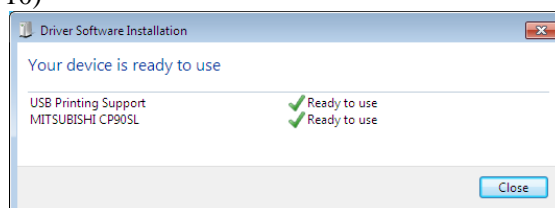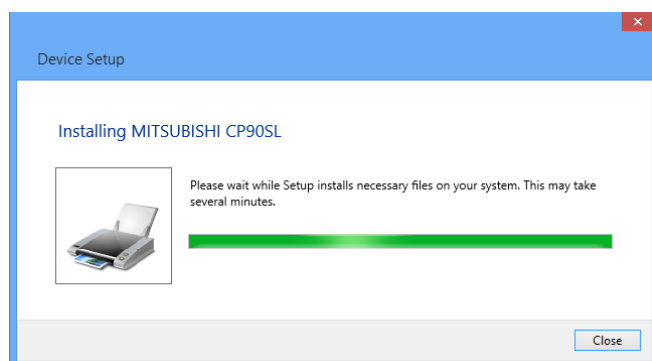

5.2.2. Installing the USB port

1) Now, power on the printer and connect it to your PC with USB cable.

2) The driver software will be automatically installed. Click the printer icon on the task bar to check the installation status. (Fig. 11)

<Fig. 11>

3) Progress screen of the installation is displayed. When the installation is complete, the screen will disappear. (Fig. 12)

<Fig. 12>

4) Icon of "MITSUBISHI CP90SL" will be added to the "Printers" in the "Devices and Printers".

5) Restart your PC.

5.3. Windows 10

5.3.1. Installing the driver

* Install the printer driver for Windows 10 before you connect the printer to your PC.

1) Start Windows® 10 operating system.

   The following procedure is the same as 6.1.1. Installing the driver 2) to 7) of 6.1. Windows 7.

5.3.2. Installing the USB port

This is the same procedure as 6.2.2. Installing the USB port of 6.2. Windows 8.

6. Uninstallation

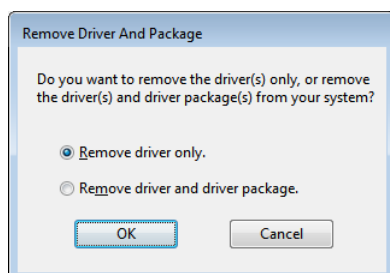Operate the following procedures to uninstall the printer driver.

When uninstalling the printer driver, confirm that the printer driver is not used from the application or the print job does not remain in the spooler.

When you use the printer, confirm that the printer is not set as default printer.

When you uninstall and then reinstall the printer driver, restart your PC after the reinstallation is completed.
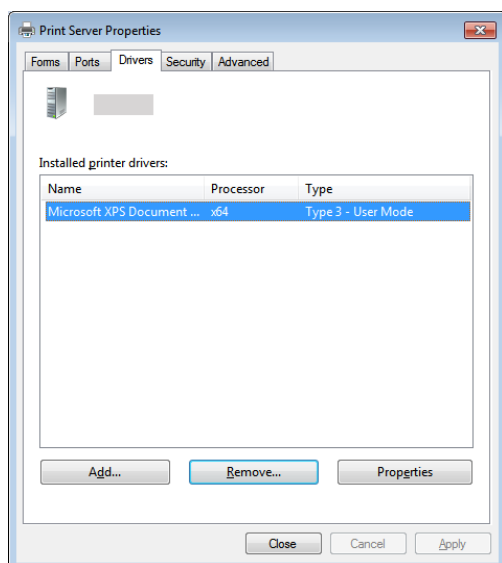
6.1.Windows 7

1) Click Start button and select "Devices and Printers" from Start Menu.

2) Right-click the printer icon to be removed and select "Remove device".

3) Click "Yes" button in the "Remove Device" confirmation dialog.

4) While selecting any of the icon under "Printers and Faxes" category in the "Devices and Printers" window, select "Print server properties" at the top of the window.

5) Open "Drivers" tab of "Print Server Properties" and click "Change Driver Settings" button.

* Depending on the version of the operating system, this window may not be displayed.

6) The similar window that doesn't have "Change Driver Settings" button at the bottom left is displayed. Select the printer driver to be removed and click "Remove" button.

7) Select "Remove driver only." in "Remove Driver And Package" dialog and click "OK" button. (Fig. 13)

[Important] Don't select "Remove driver and driver package".

<Fig. 13>

8) Click "Yes" button in "Print Server Properties" confirmation dialog.

9) Confirm that the driver has been removed in "Print Server Properties". (Fig. 14)
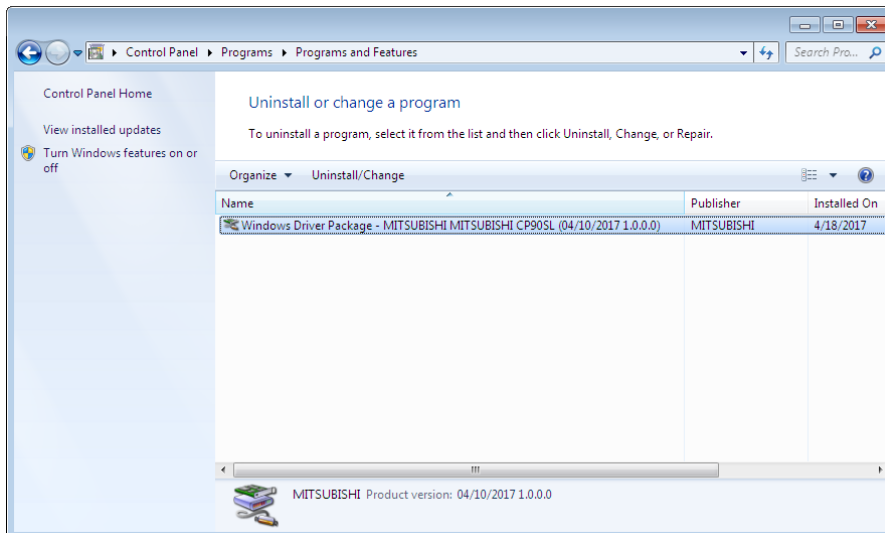

<Fig. 14>

10) Select "Programs and Features" on the "Control Panel".

11) Select "Windows Driver Package –MITSUBISHI MITSUBISHI CP90SL" and click "Uninstall/Change" with right-click. (Fig. 15)

Confirm that the driver package has been removed in "Programs and Features".

<Fig. 15>

12) Disconnect the USB cable from your PC.

13) Restart your PC.

6.2.Windows 8

* When uninstalling the driver, make sure to connect the printer to the USB port on the PC that is used for the installation.

1) Display "desktop" and press Windows "START" Key and "C" and display a charm.

Then, click "Settings" and select "Control Panel" and select "Devices and Printers."

　"Devices and Printers" is displayed.

2) Right-click the printer icon to be removed and select "Remove device".

3) Click "Yes" button in the "Remove Device" confirmation dialog.

4) While selecting any of the icon under "Printers" category in the "Devices and Printers" window, select

　"Print server properties" at the top of the window.

The following procedure is the same as 5) to 13) of 7.1.Windows 7.

6.3.Windows 10

* When uninstalling the driver, make sure to connect the printer to the USB port on the PC that is used for the installation.

1) Display "desktop" and press Windows "START" Key and click "Settings".

Then, select "Devices" and select "Devices and printers" in "Printers & scanners".

　"Devices and Printers" is displayed.

The following procedure is the same as 2) to 4) of 7.2.Windows 8.

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7. Error indication

No.	Error dialog message	Button	Operation
1	Printer is not connected.	OK	Click OK button. After connecting the printer (Turn on the printer./ Connect the I/F cable), printing starts automatically.
2	Data Transmission Error.	OK	When clicking OK button, the dialog disappears and the print job is deleted. After turning the power off and turning it back on, start printing process again.
3	The printer does not respond. Turn the printer Off and then On again, and try again.		
4	Something is wrong with the printer.(xxxx) Turn the printer Off and then On again, and try again.	Cancel	When the error is resolved, the dialog disappears and printing starts automatically. When Cancel button is clicked, printing is canceled. All the jobs in the printer are cancelled and printing is cancelled. * Numeric characters are indicated in (xxxx).
5	Paper size of printer driver and Ink Ribbon type do not match.		
6	Ink Ribbon Empty (xxxx)		
7	Ink Ribbon End (xxxx)		
8	Ink Ribbon Error (xxxx) Check Ink Ribbon.		
9	Ink Ribbon Error (xxxx) Check Ink Ribbon and set Paper again.		
10	It is not equipped with the Paper Strip Bin (xxxx)		
11	Paper Empty (xxxx)		
12	Printing unit is opened. (xxxx)		
13	Printing unit was opened while printing. (xxxx) Check Ink Ribbon and set Paper again.		
14	The printer was turned off while printing. (xxxx)		
15	Ink Ribbon and Paper type do not match. (xxxx)		
16	Paper End (xxxx)		
17	Paper JAM (xxxx) Check Ink Ribbon and set Paper again.		
18	Mechanical Error (xxxx) Check Ink Ribbon and set Paper again.		
19	Mechanical Error (xxxx) Turn the printer Off and then On again, and try again.		
20	Fan Lock Error (xxxx) Turn the printer Off and then On again, and try again.		
21	Thermistor Error (xxxx) Turn the printer Off and then On again, and try again.		
22	Color Sensor Error (xxxx) Turn the printer Off and then On again, and try again.		
23	MAT OP Error (xxxx) Turn the printer Off and then On again, and try again.		
24	Humidity sensor Error (xxxx) Turn the printer Off and then On again, and try again.		
25	EEPROM Error (xxxx) Turn the printer Off and then On again, and try again.		
26	FLASH Access Error (xxxx) Turn the printer Off and then On again, and try again.		
27	MDA Error (xxxx) Turn the printer Off and then On again, and try again.		
28	Power voltage Error (xxxx) Turn the printer Off and then On again, and try again.		
29	Preheat Error (xxxx) Turn the printer Off and then On again, and try again.		
30	Printer data transfer Error (xxxx) Turn the printer Off and then On again, and try again.		
31	DDR Error (xxxx) Turn the printer Off and then On again, and try again.		
32	FPGA Error (xxxx) Turn the printer Off and then On again, and try again.		
33	Printer driver settings is incorrect.		
34	Transfer image size is out of range.		

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

* When an error occurs in the printer, printing starts automatically by resolving the error.

For the details of the indicators on the printer, see the Operation manual of this printer.

The error may not be displayed in the case of system configurations other than that shown below.

Set "Enable bidirectional support" for printer properties.

Interface	Operating system	Setting
USB	Windows® 7	Set "Enable bidirectional support" for printer properties.
	Windows® 8	
	Windows® 10	

* The print job is not deleted if the printer is not turned on or the I/F cable is not connected. By turning on the printer or connecting the I/F cable, the data will be transferred again.

8.Note

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 drive of Windows system 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) Applicability of color adjustment

The color adjustment is applied to the entire printing range including the background.

4) About "Print directly to the printer"

With some applications, if "Print directly to the printer" is selected, objects may not be printed correctly.

In that case, select "Spool print documents ..." by the "details" page of printer property sheet.

5) 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.

6) System requirements for USB interface

Use a personal computer with Windows 7 ,Windows 8 or Windows 10 pre-installed, and make sure that its USB operation is guaranteed by the manufacturer.

CP-D90DW-SL printer supports USB 2.0 (Hi-Speed USB) interface.

7) 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.

8) 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.

9) 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.

10) Remainings

Remainings on the Paper tab shows the remainings of the ink ribbon by a bar, by reading information from the printer when the Paper tab is displayed. The correct information may not be acquired during printing.

11) Connection with more than one printer

When multiple CP-D90DW-SL printers are connected to one personal computer, the "Add New Hardware Wizard" will be displayed and installation of the printer drivers will be carried out repeatedly for each connected printers. The same number of printer drivers as that of connected printers are installed.

12) Errors during printing

When an error occurs during printing, it may not be displayed on the monitor. To resume printing, check the indicator on the front of the printer and take the countermeasure. For the indication by the indicator of the printer and the countermeasures, see the operation manual of the printer.

13) Setting of the color matching

Even if the color matching is set to ON by the printer driver, color matching may not be available with some applications.

With some applications, color matching is effective even if it is set to OFF.

14) When you print and "Parameter's value is invalid." is displayed, perform the following operations.

a) Select "Device Manager" from "Hardware" tab of "System Properties."

b) Select "Scan for hardware changes."

15) Install the printer driver first, and then connect the printer to the personal computer.

16) When the printer is in standby status, the printer driver may not be installed correctly. Install the printer driver while the printer is activated.

17) You can set the number of printouts from 1 to xxx in the Paper dialog, however, the maximum number of printouts per one paper roll varies depending on the paper size.

18) Uninstallation and reinstallation of the printer driver

Confirm that the printer is not set as default printer and then uninstall the printer driver.
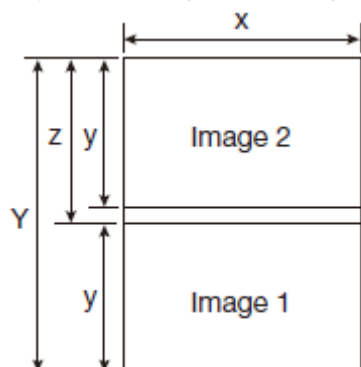
When you uninstall and then reinstall the printer driver, restart the computer after the reinstallation is completed.

19) 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.

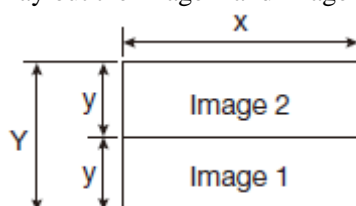20) When "10x15x2 (4x6"x2)" is selected in "Paper size"

Lay out the image 1 and image 2 as following and print them.

	Print dots
Y	2488
x	1852
y	1226
z	1262

21)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	1226
x	1852
y	613

A6

22) When setting "15x36(6x14")" and "15x51(6x20")" as the paper size

If the preview image is not displayed in Photo Viewer, please uncheck the "Fit picture to frame" check box.

9. Prohibition matter

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

10. 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.

AppendixA: Precautions for printing with [15x36(6x14")] and [15x51(6x20")]

■Installation conditions
1. Please place the printer at the edge of a stable table with a height of 30 cm or more.
2. Please secure a space as shown by < Figure1> .

■Operating environment
Temperature : 5 - 35 degrees
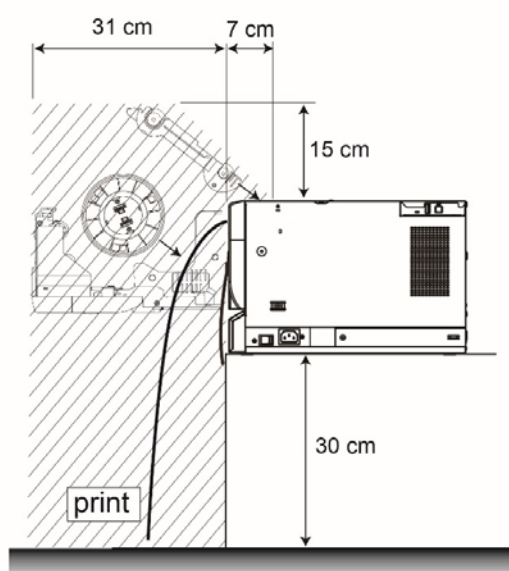Humidity : 30 - 80%RH (no condensation)

■Request to customers
1. Please do not use paper tray.
2. Please arrange cardboard and adhesive tape as shown by <Figure2>.
Depending on the curl state of the print, the print may be caught in the gap on the front of
the printer, which may cause paper jamming and poor print quality.
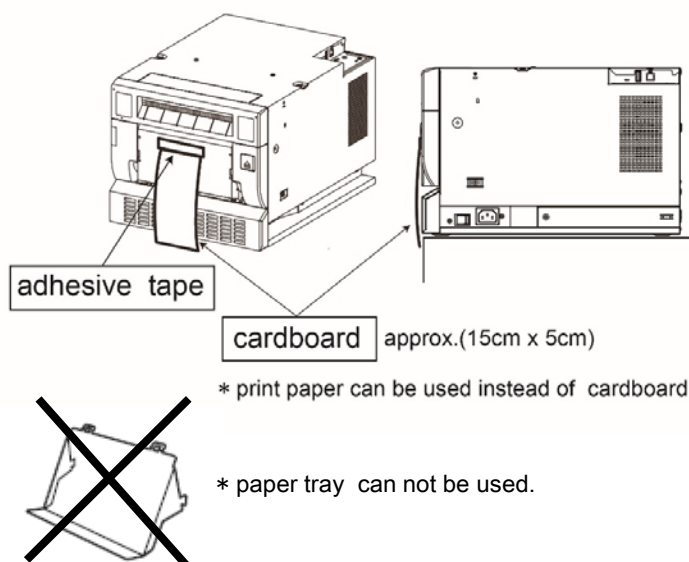
■Usage note
1. Do not touch the paper during printing. It may cause damage to the printer or print quality.
Until a print is ejected normally, do not pull the paper forcibly. The printer may fall off the table.
2. Please remove the print every printing. Leaving prints may cause paper jam.
3. Depending on the environment, paper may be curled more easily.
4. Depending on the image and lighting conditions, the joints of the images may be conspicuous.

■ Space required for panoramic print （shaded area）

31 cm   7 cm

15 cm

30 cm

print

< Figure 1 >

■ Request to customers

adhesive tape

cardboard   approx.(15cm x 5cm)

＊ print paper can be used instead of cardboard

＊ paper tray can not be used.

< Figure 2 >