

MITSUBISHI Digital Monochrome Printer P91DW
PRINTER DRIVER PD91N Ver1.1 README

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Please refer MITSUBISHI Digital Color Printer's World Wide Web Site, on the Internet.

<http://web.kyoto-inet.or.jp/org/pep-m/>

PRINTER DRIVER

The Printer Driver software enables printing on the P91DW using the standard print functions of application programs.

1. Operating method of driver software

1.1. System requirements

Computer :Computer equipped with Pentium class CPU or more

Main storage memory :32 MByte or more

Hard disk :Empty capacity 24 M Byte or more

Operating system :Microsoft(R) Windows (R) NT 4.0

Parallel cable :Be sure to use an IEEE 1284-compliant cable with double shield.

1.2. Installation

- 1) The printer must be connected and made online before the installation begins.
- 2) Start Microsoft(R) Windows(R) NT 4.0 Operating system, please.
- 3) Please push "Start" button and select "Printer (P)" of "Setting (S)" menu.
- 4) The window of "Printers" will be displayed.

Please double-click "Add Printer" icon.



<Fig.1.The window of 'Printers'>

- 5) "Add Printer wizard" starts.

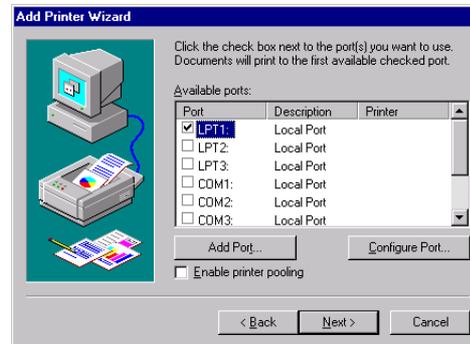
6) In case of Windows NT 4.0 in that the network is set, the selection window of the My Computer or the Network printer server will be displayed. Please select the My Computer.



<Fig.2.The window of 'Add Printer wizard'>

7) Please select the connected printer from "Available Port (A)" and push "Following" button.

LPT1 is usually selected, in case of the parallel printer.



<Fig.3.Select the Port>

8) Please push the button "Have Disk (H)".

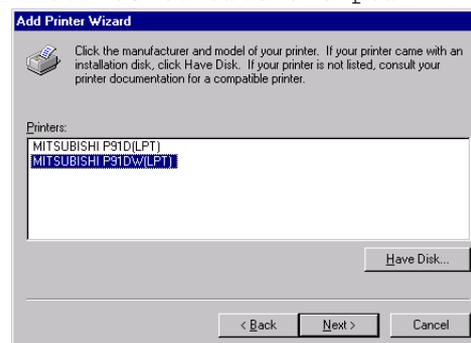
9) If the dialog "Install From Disk" is displayed, please insert the installation disk.

Please input the inserted drive (ex. A:\PD91N\), and click the "OK" button.



<Fig.4.The dialog of 'Install From Disk'>

10) Please select the printer to be used and push "Next" button.



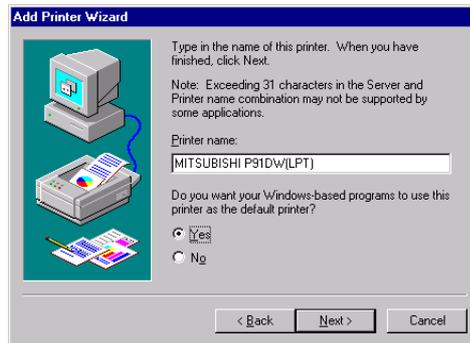
<Fig.5.Select the printer>

11) If "Select driver dialog" is displayed, please select "Replace existing driver" and push "Next" button.



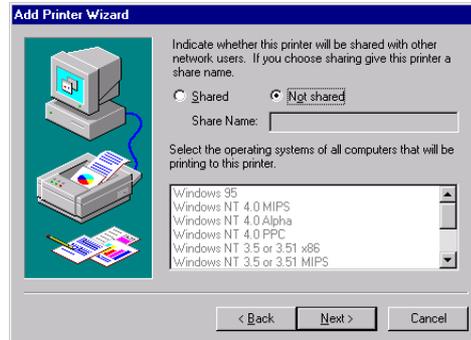
<Fig.6.Select the driver>

12) If you set it as a used usually printer, please select "Yes" and push "Next" button.



<Fig.7.Set the printer name and usually printer>

13) Please select the printer to be shared or not and push "Next" button.



<Fig.8.Set the printer will be shard>

14) Please push completion button and confirm whether the test page is printed and the printer setting is normal.



<Fig.9.Set the printer test page>

15) Please reactivate after completing all procedures.

1.3.Uninstalling method of P91DW printer driver

Please operate following the procedures below to uninstall PD91N all.

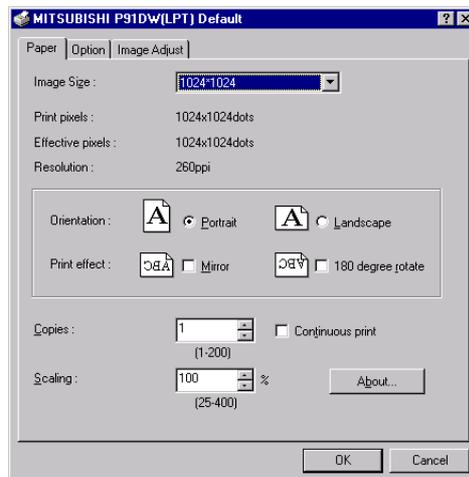
- 1) Please delete all printers installed from PD91N in the printer folder.
 - 2) Please reactivate after completing the above-mentioned procedure.
- Uninstalling has completed.

2.Function explanation

2.1. Paper dialog

< Table1.Paper size and print pixels>

Paper size	Print pixels	Effective pixels
1024*1024	1024*1024	1024*1024
1024*768	1024*768	1024*768
1024*1365	1024*1365	1024*1365
1024*5120	1024*5120	1024*5120
4 split of different screen(512*512)	1024*1024	512*512
4 split of different screen(512*384)	1024*768	512*384
150%(640*480)	960*720	640*480
125%(800*600)	1000*750	800*600
User definition1024*(1024-5120)	1024*(1024-5120)	1024*(1024-5120)



<Fig.10.The dialog of 'Paper'>

1)Image Size

The size of image is selected.

Please refer to "2.2. the user definition paper type" when you select the user definition paper type.

*The different screen split function does not operate normally due to the application occasionally.

2) Print pixels

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

3) Effective pixels

The number of 1 page's pixels by which the image is actually drawn is displayed.

*The transmission time changes depending on the size of effective pixels.

4) Resolution

The resolution of printer is displayed (260 ppi fixation).

5) Orientation

The direction of paper is set.

6) Print effect

Mirror : The function horizontally reverses the print output.

180 degree rotation :The print output is rotated by 180 degrees.

*When mirror &180 degree rotates, the order is processed in order of rotation -
> mirror.

7) Copies (1-200)

The printer prints the above number of printouts.

*When plural page is printed, it becomes like the example below usually.

(example) The print result of 2 copies of 3 pages:1p 1p 2p 2p 3p 3p

*In case of the different screen split, only when the printout is actually executed at printing, the set number of copies becomes effective.

Please note that the consecutive same images are not transmitted to the split screen.

*Some application might not transmit as the above-mentioned.

(example)The print result of 2 copies of 3 pages

:To achieve 1p 2p 3p 1p 2p 3p, the application outputs twice partially.

8) Scaling

Enlargement scale is set. (set range 25-400%)

9)Continuous print

When turning on, the same image has been printed until paper runs out.

*The printer gives priority to a continuous print even if the number of copies is set from the application.

*When you print the different screen split and the plural page, the page, printed out in the beginning, is continuously printed out.

10)About...

Displays the version information of this driver.

2.2. User definition paper setting dialog

When user definition is selected, "User definition paper setting dialog" open.

The arbitrary paper size can be set at the arbitrary horizontal width (Only the even number specifiable). The width of a vertical printing is 1024 pixel.

The width of horizontal printing is 1020-5120 pixel.



<Fig.11.The dialog of 'User Definition'>

1) Horizontal printing width

The horizontal size of print area is input. (1020-5120 pixel)

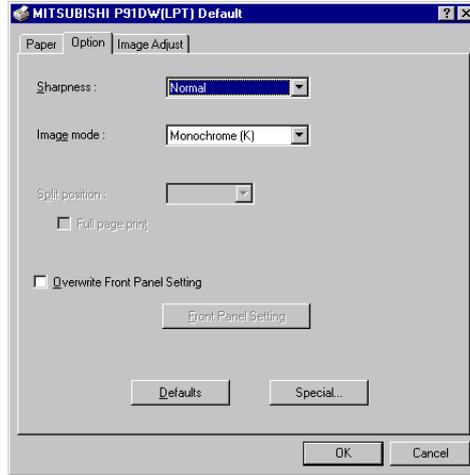
2) Defaults

The command of default.

Default data

Horizontal printing width :maximum(5120 pixel)

2.3. Option setting dialog



<Fig.12.The dialog of 'Option'>

1) Sharpness

Soft/Normal/Hard

Level of outline correction is changed.

2) Image mode

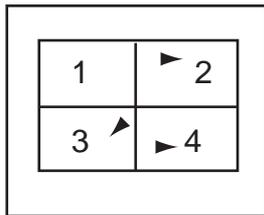
Color (RGB) / Monochrome (K)

Image transformation mode is changed.

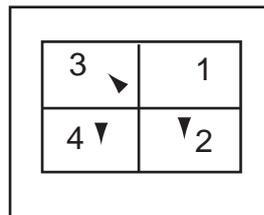
3) Split position

The position of begin the print at different screen Split mode is decided.

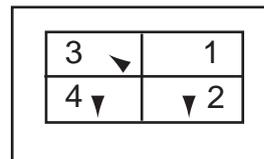
*When different screen is selected, Split position is available.



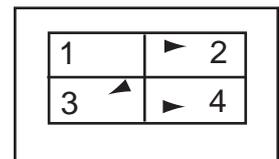
<(512*512):Portrait>



<(512*512):Landscape>



<(512*384):Portrait>



<(512*384):Landscape>

4) Full page print

In case of turning on, when you printed the plural page image at different screen Split mode, even if the split position has been neither 4 after transmitting the last page, the printout can be executed.

5) Overwrite front panel setting

In case of check, overwrite front panel setting.

6) Front panel setting

Front panel setting dialog appears. (Refer to 2.5 Front panel setting dialog)

7) Special...

The Special setting dialog appears. (Refer to 2.4 Special setting dialog)

8) Defaults

The command of default.

Defaults

Sharpness: Normal

Image mode: Monochrome (K)

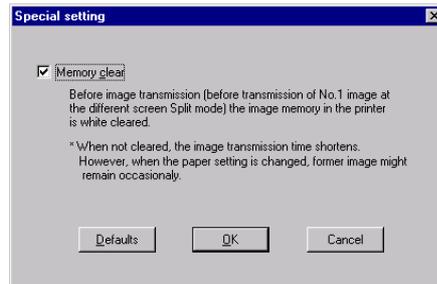
Split position:1

Full page print:OFF

Overwrite front panel setting:OFF

Memory clear:ON

2.4. Special setting dialog



<Fig.13.The dialog of 'Special setting'>

1) Memory clear

Before image transmission (before transmission of No.1 image at the different screen Split mode) the image memory in the printer is white cleared.

*When not cleared, the image transmission time shortens.

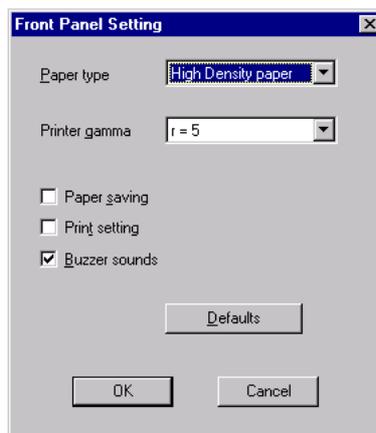
However, when the paper setting is changed, former image might remain occasionally.

*When background print, the memory might not be able to clear due to the application.

2) Defaults

Memory clear:ON

2.5 . Front panel setting



<Fig.14.The dialog of 'Front panel setting'>

1) Paper type

Standard paper/High density paper

Paper type is selected.

2) Printer gamma

Gamma=1-5

Gamma curve is selected.

3) Paper saving

Paper saving mode is selected.

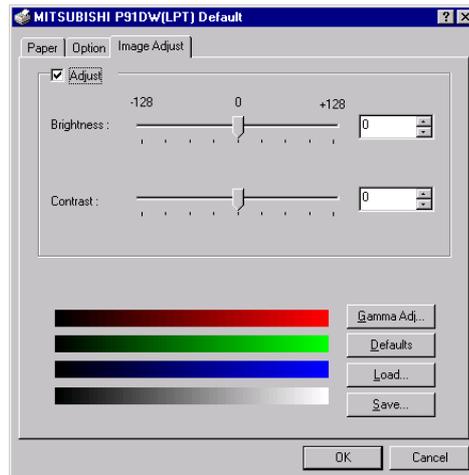
4) Printer setting

Select whether printer conditions will be printing or not.

5) Buzzer sounds

Select whether the buzzer will sound or not.

2.6. Image adjustment dialog



<Fig.15.The dialog of 'Image adjustment'>

1) This function adjusts the image.

In case of no check, processing speed goes up because of the operation processing omission.

2) The brightness is adjusted.

Adjusted value (-128-+128)

$$K'(x) = K(x) + \text{Brightness}$$

3) The contrast image is adjusted.

Adjusted value (-128-+128)

Contrast ≥ 0

$$K'(x) = K(x) + (\text{Contrast}/128) * x$$

Contrast < 0

$$K'(x) = K(x) + (\text{Contrast}/128) * (x/2)$$

4) Gamma...

The more minute image adjustment is carried out by the Gamma adjustment tone curve.

*The operation for the adjustment is carried out in above order.

5) Reset

All adjustable values become 0.

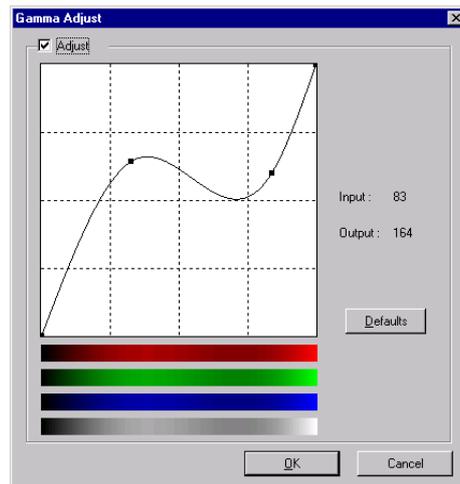
6) Load

The data of all the image adjustments including the Gamma adjustment is loaded.

10) Save

The data of all the image adjustments including the Gamma adjustment is saved.

2.7. Gamma adjustment dialog



<Fig.16.The dialog of 'Gamma adjustmnet'>

1) Adjustment

In case of no check, processing speed goes up because of the operation processing omission.

2) I/O value display

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

3) Defaults

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

3. Notes

3.1. Secure of Hard disk for spool file

Please secure the capacity of Hard disk for spool file enough for the operating printer 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.

3.2. Print test of the printer with small paper size

A part of the image is cut by printing the test page at installing.

In this case, please print after adjusting the enlargement scale smaller after installing.

3.3. Operation of the P91DW

Refer to the operation manual of the P91DW.

Please do not turn off the power switch for a printer in data transfer and print. If you turn off the power switch, re-starting of a computer may be needed.

When deletion of a printing data cannot be performed, re-starting of a computer is required.

4. Operating directions for customer's purpose

4.1. When you want to shorten transmission and print time

1) When you continuously print the same size image

Please remove the check on "The memory is cleared" of special setting dialogs. As a result, the transmission time can be shortened.

2) In case a small image file is expanded and printed

When a small image file is expanded and printed, please do not operate the enlargement scale of the application side or the paper dialog, but use "Image size" of the user definition paper dialog setting. As a result, the transmission time can be shortened.

Example)

When you print the file of the image of 640*480 pixels, if making the setting of the paper dialog

"150%(640*480)" and printing at the printer enlargement 960*720pixels, the transmission time can be shortened.

4.2. When you want to adjust the image of the print out.

Below settings are invalid.

1) When you want the density of entire print picture to be thick (dark), the value of "Brightness" of the image adjustment dialog must be decreased.

2) When the focus of the print picture is loose (The contrast is weak), the value of "Contrast" of the image adjustment dialog must be reduced.

The contrast becomes stronger.

3) When you want to adjust Gamma of the printout.

By moving the graph of the Gamma adjustment dialog with mouse, The density of the entire image can be adjusted to the arbitrary Gamma curve.

The density becomes high (dark) when decrease the output value to the input value.

The density becomes low (bright) when enlarging the output value to the input value.

Prohibition matter

We prohibit Reverse Engineering, decompiling or reversely assembling to this driver software.

Exemption from responsibility

This software does not operate normally depending on operating environment occasionally.

Moreover, even if any damage (including, but not limited to, lost profit or damage caused from special circumstances etc.) occurs concerning this product, Mitsubishi Electric Co. will not assume any responsibility at all.