# Printer/Scanner
## (Machine Code: B577)

# SERVICE MANUAL
## (Insert Version)

**Trademarks**

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

# TABLE OF CONTENTS

i

# 3.   SERVICE TABLES

## 3.1   PRINTER SERVICE MODE

### *Service Table Key*

| Notation: | What it means |
|---|---|
| [range / **default** / step]: | Example: [-9 ~ +9 / **+3.0** / 0.1 mm step]. The setting can be adjusted in the range ±9, value reset to +3.0 after an NVRAM reset, and the value can be changed in 0.1 mm steps with each key press. |
| Italics: | Comments added for your reference. |
| *: | This value is stored in NVRAM. After a RAM reset, the default value (factory setting) is restored. |
| **DFU:** | Denotes "Design or Factory Use". Do not change this value. |

**Service Tables**

### 3.1.2  PRINTER SERVICE MODE TABLES

| 1001 | BitSw#1 Set | |
|---|---|---|
| | Adjusts bit switch settings.<br>**Note:** Currently the bit switches are not being used. | |

| 1003 | Clear Setting | |
|---|---|---|
| 1 | Initialized Printer System | |
| 2 | Delete Program | **DFU** |

| 1004 | Print Summary | |
|---|---|---|
| | Prints the service summary sheet<br>(An error log is printed in addition to the configuration page). | |

| 1005 | Display Version | |
|---|---|---|
| | Displays the version of the controller firmware. | |

| 1006 | Sample/Locked Print | **Not Available** |
|---|---|---|

## 3.1.3 SP MODES RELATED TO THE PRINTER CONTROLLER

The following SP modes are located in the copier SP mode. Refer to section 5.1 of the main unit service manual.

| 5104 | A3/DLT Double Count |
|---|---|
| | Specifies whether the counter is doubled for A3/DLT.<br>0: No, 1: Yes<br>If ① is selected, the total counter and the current user code counter count up twice when A3 or DLT paper is used. |

| 5801 | Memory All Clear |
|---|---|
| | Resets data for process control and all software counters, and returns all modes and adjustments to their defaults values.<br>☛ Section 5.1.8 of the main unit manual for details. |

| 5907 | Plug & Play |
|---|---|
| | Selects the brand name and the production name for Windows Plug & Play. This information is stored in NVRAM. |

| 7832 | Detailed Display of Self-Diagnostics |
|---|---|
| | Displays the controller self-diagnostic result.<br>☛ Section 3.6 of this manual for details. |

## 3.2  SCANNER SERVICE MODE

### 3.2.1  SCANNER PROGRAM MODE TABLE

| 1004* | Compression Type | Selects the compression type for binary picture processing.<br>[1: **MH**, 2: MR, 3: MMR] |
|---|---|---|

| 1005* | Erase Margin | Creates an erase margin for all edges of the scanned image.<br>*If the machine has scanned the edge of the original, create a margin.*<br>[0 – 5 / **0mm** / 1mm step] |
|---|---|---|

| 1007 | Store Priority | **1: Send**  2:Store Only  3: Send & Store |
|---|---|---|

| 2002 | Text (Print) Mode Settings | |
|---|---|---|
| 1* | MTF Filter Coefficient (Main scan) | Selects the MTF filter coefficient in the main scan direction for Text mode.<br>*Select a higher number for a stronger filter.*<br>*If this is "0", the MTF filter is not applied.*<br>[0-13 / **8** / 1 step] |
| 2* | MTF Filter Coefficient (Sub scan) | As above, for sub scan<br>[0-13 / **7** / 1 step] |
| 3* | MTF Filter Strength (Main scan) | Selects the MTF filter strength in the main scan direction for Text mode.<br>*Select a higher number for a stronger filter.*<br>[0-7 / **4** / 1 step] |
| 4* | MTF Filter Strength (Sub scan) | As above, for sub scan<br>[0-7 / **4** / 1 step] |
| 5* | Independent Dot Erase | Selects the independent dot erase level.<br>*With a larger SP setting, more dots are detected as independent dots and erased.*<br>*If this is "0", independent dot erase is disabled.*<br>[0-7 / **0** / 1 step] |
| 6* | Unevenness correction | Selects whether the unevenness correction is done.<br>*This function is like an FCI function. If this is "1", the edges of characters in scanned images will be smoothed.*<br>[**0: OFF**, 1: ON] |
| 7* | Smoothing Filter | Selects the smoothing pattern for Text mode when using binary picture processing mode.<br>*A larger value could cause moiré to appear in the image.*<br>[0-7 / **0** / 1 step] |
| 8* | Scanner Gamma | Selects the scanner gamma type for Text mode when using binary picture processing mode.<br>[0-11 / **4** / 1 step] |

| 2002 | Text (Print) Mode Settings | |
|---|---|---|
| 11* | Brightness – Notch 7 | Adjusts the image density for each image density level for Text mode when using binary picture processing mode. [0-255 / **128** / 1 step] |
| 12* | Contrast – Notch 7 | [0-255 / **128** / 1 step] |
| 13* | Threshold Level – Notch 7 | [0-255 / **128** / 1 step] |
| 14* | Brightness – Notch 6 | [0-255 / **128** / 1 step] |
| 15* | Contrast – Notch 6 | [0-255 / **128** / 1 step] |
| 16* | Threshold Level – Notch 6 | [0-255 / **128** / 1 step] |
| 17* | Brightness – Notch 5 | [0-255 / **128** / 1 step] |
| 18* | Contrast – Notch 5 | [0-255 / **128** / 1 step] |
| 19* | Threshold Level – Notch 5 | [0-255 / **128** / 1 step] |
| 20* | Brightness – Notch 4 | [0-255 / **128** / 1 step] |
| 21* | Contrast – Notch 4 | [0-255 / **128** / 1 step] |
| 22* | Threshold Level – Notch 4 | [0-255 / **128** / 1 step] |
| 23* | Brightness – Notch 3 | [0-255 / **128** / 1 step] |
| 24* | Contrast – Notch 3 | Adjusts the image density for each image density level for Text mode when using binary picture processing mode. [0-255 / **128** / 1 step] |
| 25* | Threshold Level – Notch 3 | [0-255 / **128** / 1 step] |
| 26* | Brightness – Notch 2 | [0-255 / **128** / 1 step] |
| 27* | Contrast – Notch 2 | [0-255 / **128** / 1 step] |
| 28* | Threshold Level – Notch 2 | [0-255 / **128** / 1 step] |
| 29* | Brightness – Notch 1 | [0-255 / **128** / 1 step] |
| 30* | Contrast – Notch 1 | [0-255 / **128** / 1 step] |
| 31* | Threshold Level – Notch 1 | [0-255 / **128** / 1 step] |

| 2003 | Text (OCR) Mode Settings | |
|---|---|---|
| 1* | MTF Filter Coefficient (Main scan) | Selects the MTF filter coefficient in the main scan direction for Text (OCR) mode. *Select a higher number for a stronger filter.* *If this is "0", the MTF filter is not applied.* [0-13 / **5** / 1 step] |
| 2* | MTF Filter Coefficient (Sub scan) | As above, for sub scan [0-13 / **5** / 1 step] |
| 3* | MTF Filter Strength (Main scan) | Selects the MTF filter strength in the main scan direction for Text (OCR) mode. *Select a higher number for a stronger filter.* [0-7 / **5** / 1 step] |
| 4* | MTF Filter Strength (Sub scan) | As above, for sub scan [0-7 / **5** / 1 step] |
| 5* | Independent Dot Erase | Selects the independent dot erase level. *With a larger SP setting, more dots are detected as independent dots and erased.* *If this is "0", independent dot erase is disabled.* [0-7 / **0** / 1 step] |

| 2003 | Text (OCR) Mode Settings | |
|---|---|---|
| 6* | Unevenness correction | Selects whether the unevenness correction is done. *This function is like an FCI function. If this is "1", the edges of characters in scanned images will be smoothed.* [**0: OFF**, 1: ON] |
| 7* | Smoothing Filter | Selects the smoothing pattern for Text (OCR) mode when using binary picture processing mode. *A larger value could cause moiré to appear in the image.* [0-7 / **0** / 1 step] |
| 8* | Scanner Gamma | Selects the scanner gamma type for Text (OCR) mode when using binary picture processing mode. [0-11 / **5** / 1 step] |
| 11* | Brightness – Notch 7 | Adjusts the image density for each image density level for Text (OCR) mode when using binary picture processing mode. [0-255 / **128** / 1 step] |
| 12* | Contrast – Notch 7 | [0-255 / **128** / 1 step] |
| 13* | Threshold Level – Notch 7 | [0-255 / **208** / 1 step] |
| 14* | Brightness – Notch 6 | [0-255 / **128** / 1 step] |
| 15* | Contrast – Notch 6 | [0-255 / **128** / 1 step] |
| 16* | Threshold Level – Notch 6 | [0-255 / **188** / 1 step] |
| 17* | Brightness – Notch 5 | [0-255 / **128** / 1 step] |
| 18* | Contrast – Notch 5 | [0-255 / **128** / 1 step] |
| 19* | Threshold Level – Notch 5 | [0-255 / **158** / 1 step] |
| 20* | Brightness – Notch 4 | [0-255 / **128** / 1 step] |
| 21* | Contrast – Notch 4 | [0-255 / **128** / 1 step] |
| 22* | Threshold Level – Notch 4 | [0-255 / **128** / 1 step] |
| 23* | Brightness – Notch 3 | [0-255 / **128** / 1 step] |
| 24* | Contrast – Notch 3 | Adjusts the image density for each image density level for Text (OCR) mode when using binary picture processing mode. [0-255 / **128** / 1 step] |
| 25* | Threshold Level – Notch 3 | [0-255 / **108** / 1 step] |
| 26* | Brightness – Notch 2 | [0-255 / **128** / 1 step] |
| 27* | Contrast – Notch 2 | [0-255 / **10** / 1 step] |
| 28* | Threshold Level – Notch 2 | [0-255 / **88** / 1 step] |
| 29* | Brightness – Notch 1 | [0-255 / **128** / 1 step] |
| 30* | Contrast – Notch 1 | [0-255 / **128** / 1 step] |
| 31* | Threshold Level – Notch 1 | [0-255 / **68** / 1 step] |

Service
Tables

| 2004 | Text/Photo Mode Settings | |
|---|---|---|
| 1* | MTF Filter Coefficient (Main Scan) | Selects the MTF filter coefficient in the main scan direction for Text/Photo mode. *Select a higher number for a stronger filter.* *If this is "0", the MTF filter is not applied.* [0-13 / **3** / 1 step] |
| 2* | MTF Filter Coefficient (Sub Scan) | As above, for sub scan [0-13 / **1** / 1 step] |
| 3* | MTF Filter Strength (Main Scan) | Selects the MTF filter strength in the main scan direction for Text/Photo mode. *Select a higher number for a stronger filter.* [0-7 / **4** / 1 step] |
| 4* | MTF Filter Strength (Sub Scan) | As above, for sub scan [0-7 / **4** / 1 step] |
| 7* | Smoothing Filter | Selects the smoothing pattern for Text/Photo mode when using binary picture processing mode. *A larger value could cause moiré to appear in the image.* [0-7 / **0** / 1 step] |
| 8* | Scanner Gamma | Selects the scanner gamma type for Text/Photo mode when using binary picture processing mode. [0-11 / **6** / 1 step] |
| 11* | Brightness – Notch 7 | Adjusts the image density for each image density level for Text/Photo mode when using binary picture processing mode. [0-255 / **128** / 1 step] |
| 12* | Contrast – Notch 7 | [0-255 / **128** / 1 step] |
| 13* | Threshold Level – Notch 7 | [0-255 / **128** / 1 step] |
| 14* | Brightness – Notch 6 | [0-255 / **128** / 1 step] |
| 15* | Contrast – Notch 6 | [0-255 / **128** / 1 step] |
| 16* | Threshold Level – Notch 6 | [0-255 / **128** / 1 step] |
| 17* | Brightness – Notch 5 | [0-255 / **128** / 1 step] |
| 18* | Contrast – Notch 5 | [0-255 / **128** / 1 step] |
| 19* | Threshold Level – Notch 5 | [0-255 / **128** / 1 step] |
| 20* | Brightness – Notch 4 | [0-255 / **128** / 1 step] |
| 21* | Contrast – Notch 4 | [0-255 / **128** / 1 step] |
| 22* | Threshold Level – Notch 4 | [0-255 / **128** / 1 step] |
| 23* | Brightness – Notch 3 | [0-255 / **128** / 1 step] |
| 24* | Contrast – Notch 3 | [0-255 / **128** / 1 step] |
| 25* | Threshold Level – Notch 3 | [0-255 / **128** / 1 step] |
| 26* | Brightness – Notch 2 | [0-255 / **128** / 1 step] |
| 27* | Contrast – Notch 2 | [0-255 / **128** / 1 step] |
| 28* | Threshold Level – Notch 2 | [0-255 / **128** / 1 step] |
| 29* | Brightness – Notch 1 | [0-255 / **128** / 1 step] |
| 30* | Contrast – Notch 1 | [0-255 / **128** / 1 step] |
| 31* | Threshold Level – Notch 1 | [0-255 / **128** / 1 step] |

| 2005 | Photo Mode Settings | |
|---|---|---|
| 1* | MTF Filter Coefficient (Main Scan) | Selects the MTF filter coefficient in the main scan direction for Photo mode. *Select a higher number for a stronger filter.* *If this is "0", the MTF filter is not applied.* [0-13 / **0** / 1 step] |
| 2* | MTF Filter Coefficient (Sub Scan) | As above, for sub scan [0-13 / **0** / 1 step] |
| 3* | MTF Filter Strength (Main Scan) | Selects the MTF filter strength in the main scan direction for Photo mode. *Select a higher number for a stronger filter.* [0-7 / **0** / 1 step] |
| 4* | MTF Filter Strength (Sub Scan) | As above, for sub scan [0-7 / **0** / 1 step] |
| 7* | Smoothing Filter | Selects the smoothing pattern for Photo mode when using binary picture processing mode. *A larger value could cause moiré to appear in the image.* [0-7 / **6** / 1 step] |
| 8* | Scanner Gamma | Selects the scanner gamma type for Photo mode when using binary picture processing mode. [0-11 / **7** / 1 step] |
| 9* | Dither Matrix Filter | Selects the dither matrix type for Photo mode when using binary picture processing mode. [1-11 / **11** / 1 step] |
| 11* | Brightness – Notch 7 | Adjusts the image density for each image density level for Photo mode when using binary picture processing mode. [0-255 / **128** / 1 step] |
| 12* | Contrast – Notch 7 | [0-255 / **128** / 1 step] |
| 13* | Threshold Level – Notch 7 | [0-255 / **128** / 1 step] |
| 14* | Brightness – Notch 6 | [0-255 / **128** / 1 step] |
| 15* | Contrast – Notch 6 | [0-255 / **128** / 1 step] |
| 16* | Threshold Level – Notch 6 | [0-255 / **128** / 1 step] |
| 17* | Brightness – Notch 5 | [0-255 / **128** / 1 step] |
| 18* | Contrast – Notch 5 | [0-255 / **128** / 1 step] |
| 19* | Threshold Level – Notch 5 | **Not available.** [0-255 / **128** / 1 step] |
| 20* | Brightness – Notch 4 | [0-255 / **128** / 1 step] |
| 21* | Contrast – Notch 4 | Adjusts the image density for each image density level for Photo mode when using binary picture processing mode. [0-255 / **128** / 1 step] |
| 22* | Threshold Level – Notch 4 | [0-255 / **128** / 1 step] |
| 23* | Brightness – Notch 3 | [0-255 / **128** / 1 step] |
| 24* | Contrast – Notch 3 | [0-255 / **128** / 1 step] |
| 25* | Threshold Level – Notch 3 | [0-255 / **128** / 1 step] |

**Service Tables**

| 2005 | Photo Mode Settings | |
|---|---|---|
| 26* | Brightness – Notch 2 | [0-255 / **128** / 1 step] |
| 27* | Contrast – Notch 2 | [0-255 / **128** / 1 step] |
| 28* | Threshold Level – Notch 2 | [0-255 / **128** / 1 step] |
| 29* | Brightness – Notch 1 | [0-255 / **128** / 1 step] |
| 30* | Contrast – Notch 1 | [0-255 / **128** / 1 step] |
| 31* | Threshold Level – Notch 1 | [0-255 / **128** / 1 step] |

| 2006 | Grayscale Mode Settings | |
|---|---|---|
| 1* | MTF Filter Coefficient | Selects the MTF filter coefficient in the main scan direction when using grayscale processing mode. *Select a higher number for a stronger filter.* *If this is "0", the MTF filter is not applied* [0-15 / **0** / 1 step] |
| 2* | MTF Filter Coefficient | As above, for sub scan [0-13 / **0** / 1 step] |
| 3* | MTF Filter Strength (Main Scan) | Selects the MTF filter strength in the main scan direction when using grayscale processing mode. *Select a higher number for a stronger filter.* [0-7 / **0** / 1 step] |
| 4* | MTF Filter Strength (Sub scan) | As above, for sub scan [0-7 / **0** / 1 step] |
| 7* | Smoothing Filter | Selects the smoothing pattern when using grayscale processing mode. *A larger value could cause moiré to appear in the image.* [0-7 / **0** / 1 step] |
| 8* | Scanner Gamma | Selects the scanner gamma type when using grayscale processing mode. [0-6 / **11** / 1 step] |
| 11* | Brightness – Notch 7 | Adjusts the image density for each image density level when using the grayscale processing mode. [0-255 / **128** / 1 step] |
| 12* | Contrast – Notch 7 | [0-255 / **128** / 1 step] |
| 13* | Threshold Level – Notch 7 | **Not available.** [0-255 / **98** / 1 step] |
| 14* | Brightness – Notch 6 | [0-255 / **128** / 1 step] |
| 15* | Contrast – Notch 6 | [0-255 / **128** / 1 step] |
| 16* | Threshold Level – Notch 6 | **Not available.** [0-255 / **128** / 1 step] |
| 17* | Brightness – Notch 5 | [0-255 / **128** / 1 step] |
| 18* | Contrast – Notch 5 | [0-255 / **118** / 1 step] |
| 19* | Threshold Level – Notch 5 | **Not available.** [0-255 / **128** / 1 step] |
| 20* | Brightness – Notch 4 | [0-255 / **128** / 1 step] |
| 21* | Contrast – Notch 4 | [0-255 / **128** / 1 step] |
| 22* | Threshold Level – Notch 4 | **Not available.** [0-255 / **128** / 1 step] |

| 2006 | Grayscale Mode Settings | |
|------|-------------------------|---|
| 23* | Brightness – Notch 3 | [0-255 / **128** / 1 step] |
| 24* | Contrast – Notch 3 | [0-255 / **128** / 1 step] |
| 25* | Threshold Level – Notch 3 | **Not available.**<br>[0-255 / **128** / 1 step] |
| 26* | Brightness – Notch 2 | [0-255 / **128** / 1 step] |
| 27* | Contrast – Notch 2 | [0-255 / **128** / 1 step] |
| 28* | Threshold Level – Notch 2 | **Not available.**<br>[0-255 / **128** / 1 step] |
| 29* | Brightness – Notch 1 | [0-255 / **128** / 1 step] |
| 30* | Contrast – Notch 1 | [0-255 / **128** / 1 step] |
| 31* | Threshold Level – Notch 1 | **Not available.**<br>[0-255 / **128** / 1 step] |

| 2021 | Compression Ratio | |
|------|-------------------|---|
| 1* | Normal image | Selects the compression ratio for grayscale processing mode.<br>*For a lower compression rate, input a smaller value.*<br>[5-95 / **50** / 1 step] |
| 2* | High Quality image | [5-95 / **60** / 1 step] |
| 3* | Low Quality image | [5-95 / **40** / 1 step] |

Service
Tables

# 4.  DETAILS

## 4.1  ETHERNET BOARD

### 4.1.1  ETHERNET BOARD LAYOUT
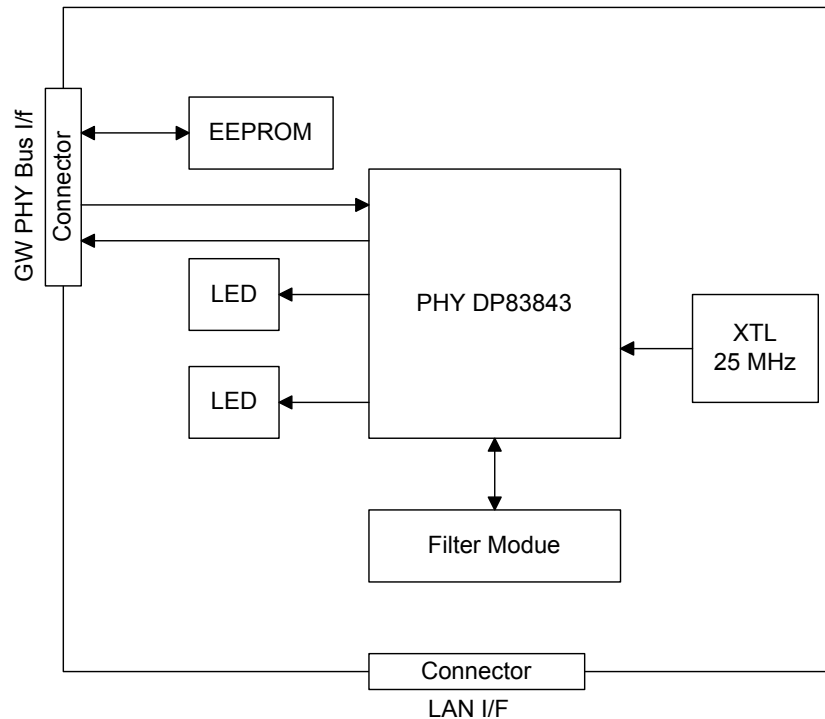


B577D002.WMF

The Ethernet board is provided as a standard feature of this machine.

| Function Blocks | Description |
|---|---|
| PHY (Physical Layer Device) | Completely standardized physical layer device for the functions of each device in the network. |
| EEPROM | Stores the MAC address. |

The physical layer device, the lowest layer of the OSI reference model, refers to the physical components of the network: cables, connectors, and so on. OSI, the *Operating Standard Interface*, is a framework upon which networking standards are arranged. It is commonly diagramed as a layered cake.

## 4.1.2 ETHERNET BOARD OPERATION

The NIB is a standard IEEE802.3u type which implements 10/100Mbps auto negotiation. System initialization sets the network for 10Mbps/100Mbps.



B577D003.WMF
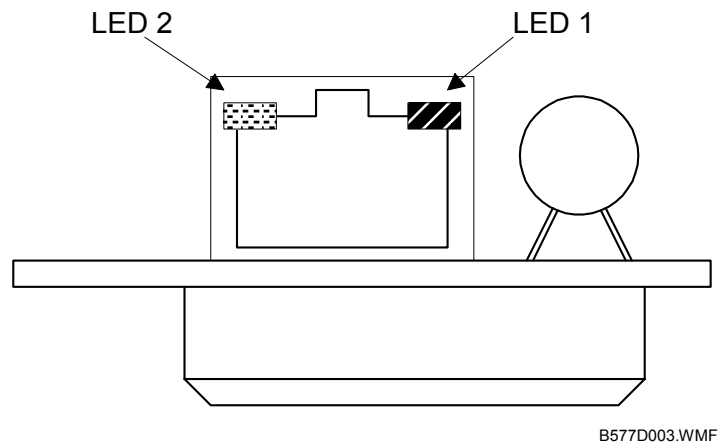
| LED 1 (Green) | Indicates the link status:<br>ON     Link Safe<br>OFF    Link Fail |
|---|---|
| LED 2 (Orange) | Indicates the operation mode:<br>ON     100 Mbps mode<br>OFF    10 Mbps mode |

## 4.2  FILE FORMAT CONVERTER (MLB)

In previous models (such as A-C2, R-C2), DeskTopBinder V2 could retrieve copy and print jobs from the document server and convert them to TIFF. However, this software-based conversion was slow for many users.

So, for this machine, this conversion has been made hardware-based, using the optional File Format Converter. Without the File Format Converter, copy and print jobs cannot be downloaded to a PC (or e-Cabinet) from the document server.

Two common target formats are provided for conversion to files that can be selected by the SP modes: JPEG, and TIFF.

In scanner mode, users can select file format from TIFF, JPEG, or PDF. The time to create TIFF and JPEG files will be shortened with the File Format Converter, especially for high scanning resolution and large image size. When the customer selects PDF, the machine creates a TIFF or JPEG file from the scanned image first then converts it to PDF. So, the total time to create a PDF is also shortened with the File Format Converter.

**Detailed Descriptions**

# SPECIFICATIONS

## 1. SYSTEM COMPONENTS



B577V900.WMF
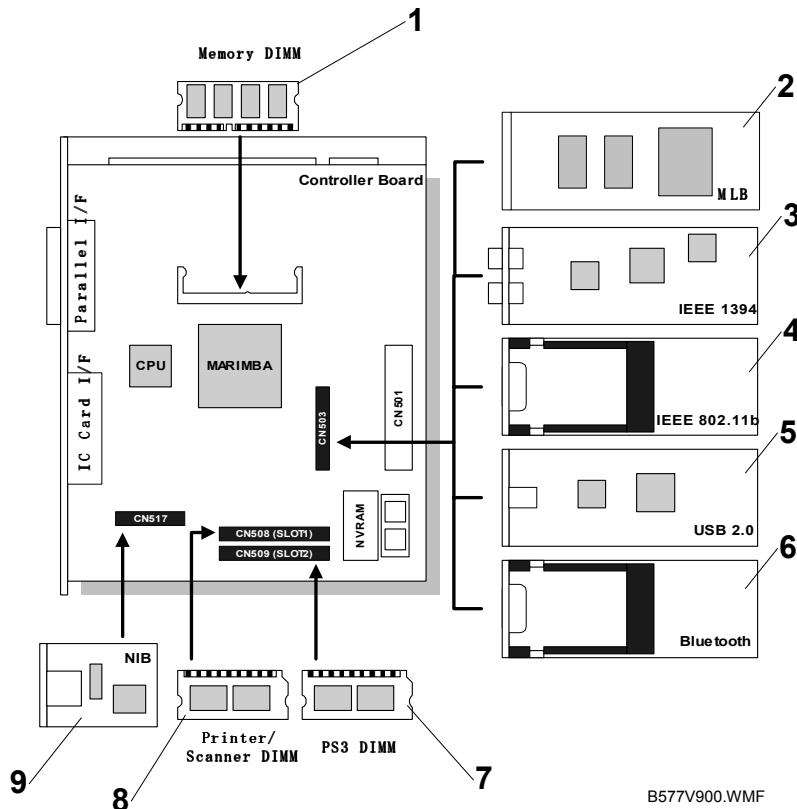
| No. | Item | Code | Remarks |
|-----|------|------|---------|
| 1 | Memory 128 MB | G331 | Common with B079 |
| 2 | File Format Converter (MLB) | B519 | Common with B135 |
| 3 | IEEE 1394 (FireWire) | G336 | Common with B079 |
| 4 | IEEE 802.11b (Wireless LAN) | B515 | Common with B079 |
| 5 | USB 2.0 | B525-01 | Common with B079 |
| 6 | Bluetooth | G354 | Common with B079 |
| 7 | PostScript 3 | G354-05 | --- |
| 8 | Printer/Scanner Module (ROM DIMM) | B577 | Provided with HDD and NIB |
| 9 | NIB (Network Interface Board) | B525-17 | Common with B079 |

## 2. LED INDICATORS

| LED | Description | On | Off |
|-----|-------------|-----|-----|
| LED 1 (Green) | Link Status | Link success | Link failure |
| LED 2 (Orange) | Power distribution | Power on | Power off |

## 3.  PRINTER SPECIFICATIONS

Printing Speed:       Maximum 22 ppm (A4/LT LEF): B089 model
                      Maximum 27 ppm (A4/LT LEF): B093 model
                      Maximum 32 ppm (A4/LT LEF): B097 model

Printer Languages:    PCL6/PCL5e
                      PostScript 3 (option)
                      RPCS (Refined Printing Command Stream) - an original
                      Ricoh PDL)

Resolution (Driver):  1200 dpi (RPCS)
                      600 dpi (PCL 6/PCL5e/PS3/RPCS)
                      300 dpi (PCL5e/RPCS)
                      200 dpi (RPCS)

Resident Fonts:       PCL:
                        35 Intellifonts
                        10 True Type fonts
                      PS3:
                        136 fonts (24 Type 2 fonts, 112 Type 14 fonts)

Host Interfaces:      Bi-directional IEEE1284 parallel x 1 (Standard)
                      Ethernet (100 Base-TX/10 Base-T) (Option)
                      IEEE1394 with SCSI Print and IP Over 1394 (Option)
                      IEEE 802.11b Wireless LAN (Option)
                      Bluetooth (Option)
                      USB 2.0 (Option)

Network Protocols:    TCP/IP, IPX/SPX, NetBEUI, AppleTalk, SMB, IPP

Memory:               Maximum 192 MB
                      (Standard 64 MB + 128 MB optional DIMM)

## 4.  USB SPECIFICATIONS

USB connectivity is provided as an option for this machine.

| Interface  | USB 1.1, USB 2.0 |
|------------|------------------|
| Data rates | 480 Mbps (high speed), 12 Mbps (full speed), 1.5 Mbps (low speed) |
|            | High speed mode is only supported by USB 2.0. |

# 5. IEEE 802.11B SPECIFICATIONS

| Standard applied | IEEE802.11b | |
|---|---|---|
| Data transmission rates | Speed | Distance |
| | 11 Mbps | 140 m (153 yd.) |
| | 5.5 Mbps | 200 m (219 yd.) |
| | 2 Mbps | 270 m (295 yd.) |
| | 1 Mbps | 400 m (437 yd.) |
| Network protocols | TCP/IP, Apple Talk, NetBEUI, IPX/SPX, SMB | |
| Bandwidth | 2.4GHz<br>(divided over 14 channels, 2400 to 2497 MHz for each channel) | |

# 6. IEEE 1394 SPECIFICATIONS

| Interface | IEEE 1394 (firewire) | |
|---|---|---|
| Number of Ports | 2 ports | |
| Data Transmission Speed | 400 Mbps, 200 Mbps, 100 Mbps | |
| Available Features, Functions, Protocols | SCSI print | IP over 1384 |
| | Print | Print, Scan |
| | SBP-2 | TCP/IP |

# 7. BLUETOOTH SPECIFICATIONS

| TransmissionSpecifications | Based on Bluetooth V1.1 |
|---|---|
| Data Transfer Speed | 1 Mbps |
| Profile | Hard Copy Cable Replacement Profile (HCRP), Serial Port Profile (SPP), BIP |
| Distance Between Devices | 10 m (The maximum distance when using outdoors, otherwise depends on the office environment.) |

# 8. SCANNER SPECIFICATIONS

| | | |
|---|---|---|
| Standard Scanner Resolution: | Main scan/Sub scan 600 dpi | |
| Available scanning Resolution Range: | 100 ~ 1200 dpi; | When used as a Network TWAIN scanner. |
| | 100, 200, 300, 400, 600 dpi; | When used as a network delivery scanner or for sending e-mail |
| Grayscales: | 8 bits/pixel | |
| Scanning Speed Throughput: | 0.8 sec./sheet (A4 LEF, 200 dpi without binary compression) 49 spm (A4 LEF, 200 dpi binary, MH) | |
| Interface: | Ethernet (100 Base-TX/10 Base-T for TCP/IP) IEEE 1394/IP Over IEEE 802.11b Wireless LAN | |
| Compression Method: | MH, MR, MMR (Binary Picture Processing) JPEG (Grayscale Processing) | |
| Video Memory Capacity: | 192  MB | |
| Image Storage Capacity: | Number of originals per file: Maximum 2,000 pages Maximum of files: 3000 files | |

# 9. SOFTWARE ACCESSORIES

## 9.1 PRINTER

The printer drivers and utility software are provided on one CD-ROM. An auto-run installer allows you to select which components to install.

### *Printer Drivers*

| Printer Language | Windows 95/98/Me | Windows NT4.0 | Windows 2000, XP, Server 2003 | Macintosh |
|---|---|---|---|---|
| PCL 6 | Yes | Yes | Yes | No |
| PCL 5e | Yes | Yes | Yes | No |
| PS3 | Yes | Yes | Yes | Yes |
| RPCS | Yes | Yes | Yes | No |

**NOTE:** 1) The printer drivers for Windows NT 4.0 are only for the Intel x86 platform. There is no Windows NT 4.0 printer driver for the PowerPC, Alpha, or MIPS platforms.
2) The PS3 drivers are all genuine AdobePS drivers, except for Windows 2000/XP/Server 2003, which uses Microsoft PS. A PPD file for each operating system is provided with the driver.

### *Utility Software*

| Software | Description |
|---|---|
| Agfa Monotype Font Manager 2000 (Win 95/98/Me, NT4, 2000) | A font management utility with screen fonts for the printer. |
| SmartNetMonitor for Admin (Win 95/98/Me, NT4, 2000/XP/Server 2003) | A printer management utility for network administrators. NIB setup utilities are also available. |
| SmartNetMonitor for Client (Win 95/98/Me, NT4, 2000/XP/Server 2003) | A printer management utility for client users. Peer-to-peer printing utility and parallel/recovery printing functions are included. |
| 1394 Utility (Win 2000/XP) | A utility for removal IEEE 1394 printers. |
| LAN-Fax M3 Driver (Win 95/98/Me, NT4, 2000/XP) | This driver allows use of the LAN-Fax functions by installing the LAN-Fax driver, Address Book, and LAN-Fax Cover Sheet Editor. |
| Printer Utility for Mac | This software provides several convenient functions for printing from Macintosh clients. |
| USB Printing Support | A utility for the USB 2.0 board. A computer running Windows 98 SE or Windows ME requires installation of this utility. |
| Acrobat Reader | A utility that allows reading PDF files. |

**SPEC.**

## 9.2 SCANNER

The scanner driver and utility software are provided on one CD-ROM.

### Scanner Driver

- Network Twain Driver for Win95/98/Me/NT3.51/NT4.0/2000/XP

### Scanner Utilities

- Scan Router V2 Lite for Win95/98/Me/NT4.0/2000/XP
- Desk Top Binder V2 Lite for Win95/98/Me/NT4.0/2000/XP/Server 2003