SERVICE MANUAL

Color ink jet printer

EPSON Stylus PHOTO 875DC

EPSON®

SEIJ99015

Notice:

- All rights reserved. No part of this manual may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SEIKO EPSON CORPORATION.
- The contents of this manual are subject to change without notice.
- All effort have been made to ensure the accuracy of the contents of this manual. However, should any errors be detected, SEIKO EPSON would greatly appreciate being informed of them.
- The above not withstanding SEIKO EPSON CORPORATION can assume no responsibility for any errors in this manual or the consequences thereof.

EPSON is a registered trademark of SEIKO EPSON CORPORATION.

General Notice: Other product names used herein are for identification purpose only and may be trademarks or registered trademarks of their respective owners. EPSON disclaims any and all rights in those marks.

PRECAUTIONS

Precautionary notations throughout the text are categorized relative to 1)Personal injury and 2) damage to equipment.

DANGER Signals a precaution which, if ignored, could result in serious or fatal personal injury. Great caution should be exercised in performing procedures preceded by DANGER Headings.

WARNING Signals a precaution which, if ignored, could result in damage to equipment.

The precautionary measures itemized below should always be observed when performing repair/maintenance procedures.

DANGER

1. ALWAYS DISCONNECT THE PRODUCT FROM THE POWER SOURCE AND PERIPHERAL DEVICES PERFORMING ANY MAINTENANCE OR REPAIR PROCEDURES.
2. NOWORK SHOULD BE PERFORMED ON THE UNIT BY PERSONS UNFAMILIAR WITH BASIC SAFETY MEASURES AS DICTATED FOR ALL ELECTRONICS TECHNICIANS IN THEIR LINE OF WORK.
3. WHEN PERFORMING TESTING AS DICTATED WITHIN THIS MANUAL, DO NOT CONNECT THE UNIT TO A POWER SOURCE UNTIL INSTRUCTED TO DO SO. WHEN THE POWER SUPPLY CABLE MUST BE CONNECTED, USE EXTREME CAUTION IN WORKING ON POWER SUPPLY AND OTHER ELECTRONIC COMPONENTS.

WARNING

1. REPAIRS ON EPSON PRODUCT SHOULD BE PERFORMED ONLY BY AN EPSON CERTIFIED REPAIR TECHNICIAN.
2. MAKE CERTAIN THAT THE SOURCE VOLTAGES IS THE SAME AS THE RATED VOLTAGE, LISTED ON THE SERIAL NUMBER/RATING PLATE. IF THE EPSON PRODUCT HAS A PRIMARY AC RATING DIFFERENT FROM AVAILABLE POWER SOURCE, DO NOT CONNECT IT TO THE POWER SOURCE.
3. ALWAYS VERIFY THAT THE EPSON PRODUCT HAS BEEN DISCONNECTED FROM THE POWER SOURCE BEFORE REMOVING OR REPLACING PRINTED CIRCUIT BOARDS AND/OR INDIVIDUAL CHIPS.
4. IN ORDER TO PROTECT SENSITIVE MICROPROCESSORS AND CIRCUITRY, USE STATIC DISCHARGE EQUIPMENT, SUCH AS ANTI-STATIC WRIST STRAPS, WHEN ACCESSING INTERNAL COMPONENTS.
5. REPLACE MALFUNCTIONING COMPONENTS ONLY WITH THOSE COMPONENTS BY THE MANUFACTURE; INTRODUCTION OF SECOND-SOURCE ICs OR OTHER NONAPPROVED COMPONENTS MAY DAMAGE THE PRODUCT AND VOID ANY APPLICABLE EPSON WARRANTY.

PREFACE

This manual describes basic functions, theory of electrical and mechanical operations, maintenance and repair procedures of EPSON Stylus PHOTO 875DC. The instructions and procedures included herein are intended for the experienced repair technicians, and attention should be given to the precautions on the preceding page. The chapters are organized as follows:

CHAPTER 1. PRODUCT DESCRIPTIONS

Provides a general overview and specifications of the product.

CHAPTER 2. OPERATING PRINCIPLES

Describes the theory of electrical and mechanical operations of the product.

CHAPTER 3. TROUBLESHOOTING

Provides the step-by-step procedures for troubleshooting.

CHAPTER 4. DISASSEMBLY AND ASSEMBLY

Describes the step-by-step procedures for disassembling and assembling the product.

CHAPTER 5. ADJUSTMENTS

Provides Epson-approved methods for adjustment.

CHAPTER 6. MAINTENANCE

Provides preventive maintenance procedures and the lists of Epson-approved lubricants and adhesives required for servicing the product.

APPENDIX

Provides the following additional information for reference:

- ***EEPROM Address Map***
- ***Connector Pin Assignments***
- ***Component Layout***
- ***Exploded Diagrams***
- ***Electrical Board Circuit Diagrams***

Revision Status

Revision	Issued Date	Description
A	March 01, 2000	First Release

Table of Contents

MAINTENANCE

APPENDIX

CHAPTER

1

PRODUCT DESCRIPTIONS

1.1 Overview

The EPSON Stylus PHOTO 875DC, an easy and low cost photo printer, has the two parts: the built-in card reader part (storage driver) and Stylus PHOTO 870 base printer part. The card reader allows the users to easily print digital camera data to render high photo quality color images.

1.1.1 Features

The EPSON Stylus PHOTO 875DC features the following:

1. Supports PCMCIA (Personal Computer Memory Card International Association) Flash ATA card reader function.
2. Supports Compact Flash, Smart Media, Memory Stick (with PCMCIA Adapter).
3. Printer part and Storage part be connection via the USB hub
4. High color print quality
5. High speed printing
6. Windows/Macintosh exclusive
7. USB connection only high speed transfer
   - Theoretical fastest transfer speed: 1.2MB/s
   - Actual effect transfer speed: Approx. 440KB/s*

   ** Pentium 400MHz, Windows98 Second Edition, in the case that read data from the 48MB CF card. Transfer speed depends on the environment of host PC.*
8. The storage is recognized to the host as the removable media.
9. The card reader has a write protect function due to DSC media protection.
10. The card reader has the function that acquires media insertion status.
11. The card reader has the function that storage detects the allocated drive.
12. The card reader has the function that acquires the serial number of storage.

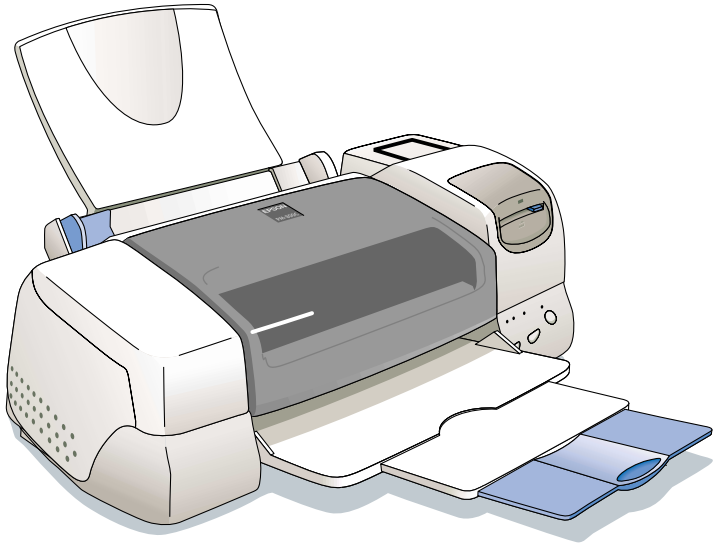


Figure 1-1. EPSON Stylus PHOTO 875DC

1.2 Basic Specifications

This section only provides the basic specifications for the card reader part. For the information on the printer part, please see the EPSON Stylus PHOTO 870/1270 Service Manual.

1.2.1 Basic Specifications for the Card Reader Part

ENVIRONMENT

The following are requirements that must be met to use the USB Mass Storage Class driver.

- ☐ Operating System:
  - ■ Microsoft Windows 98*
  - ■ Microsoft Windows 98 Second Edition*
  - ■ MacOS 8.5 or later, and MacOS ROM version J1-1.2 or later.

  **Only the pre-installed OS*
- ☐ USB Hosts:
  The USB Host must meet following requirements.

  <Windows98 >
  - ■ Microsoft Windows 98 is pre-installed on the Host PC that compiles with the PC98 design guide.
  - ■ All of USB ports work correctly. (The functionality of the USB Port(s) must be ensured by PC OEM)

  < Macintosh >

  The following product that was installed MacOS ROM version J1-1.2 or later (USB Service 1.1 or later) is necessary:
  - ■ iMac (/A, /B, Color Model)
  - ■ PowerMacintosh G3 (Blue & White)

NOTE: **Vacancy memory 1MB over necessary*

REFERENCES

- ☐ Universal Serial Bus Specification Revision 1.0
- ☐ USB Mass Storage Class CBI Transport Specification v1.0 RC5
- ☐ American National Standard for Information Systems - Reduced Block Commands (RBC) T10/1240D

1.2.2 Electric specifications

120 V VERSION

☐ Rated voltage:	AC 100 - 120V
☐ Input voltage range:	AC 99 - 132V
☐ Rated frequency range:	50 - 60Hz
☐ Input frequency range:	49.5 - 60.5Hz
☐ Rated current:	0.4 A
☐ Power consumption:	Approx. 14W (ISO 10561 Letter Pattern) Approx. 4.5 W in standby mode
☐ Energy Star compliant	
☐ Insulation Resistance:	10M ohms min. (between AC line and chassis, DC 500V)
☐ Dielectric strength:	AC 1500V rms. 1minute (between AC line and chassis)

220-240 V VERSION

☐ Rated voltage:	AC 220 - 240V
☐ Input voltage range:	AC 198 - 264V
☐ Rated frequency range:	50 - 60Hz
☐ Input frequency range:	49.5 - 60.5Hz
☐ Rated current:	0.3 A

- Power consumption: Approx. 15W (ISO 10561 Letter Pattern)
  Approx. 4.5W in standby mode
  Energy Star compliant
- Insulation Resistance: 10M ohms min. (between AC line and chassis, DC 500V)
- Dielectric strength: AC 1000V rms. 1minute or
  AC 1200V rms. 1 second (between AC line and chassis)
- Safety, EMC
  - Safety: UL1950 (UL)
    CSA C22.2 No.950 (CSA)
    EN60950 (VDE)
  - EMC: FCC Part15 Subpart B Class B
    CSA C108.8 Class B
    AS/NZS3548 Class B
  - CE marking: Low voltage directive 73/23/EECEN60950
    EMC Directive 89/336/EEC EN55022 Class B
    EN61000-3-2
    EN61000-3-3
    EN50082-1
    IEC 801-2/801-3/801-4

1.2.3 Reliability

- Total print volume: 25,000 pages (A4, Letter)
- Printhead life: 3000 million dots/nozzle

1.2.4 Environmental Condition

TEMPERATURE

- Operating: 10 to 35°C *3
- Non-operating: -20 to 60°C*1
  1 month at 40°C and 120 hours at 60°C

HUMIDITY

- Operating: 20 to 80% RH *2*3
- Non-operating: 5 to 85% RH *1*2

**1: With shipment container*

**2: Without condensation*

**3: See the figuer below for the condition.*

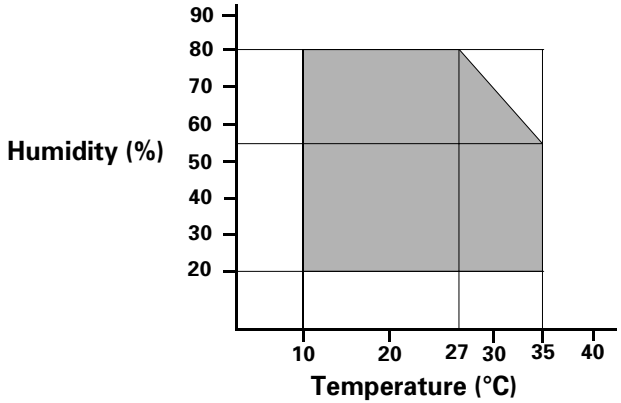


Figure 1-2. Temperature/Humidity Range

RESISTANCE TO SHOCK

- ☐ Operating: 1G, within 1 ms, X, Y, Z directions
- ☐ Non-operating: 2G, within 2 ms, X, Y, Z directions with shipment contanier

RESISTANCE TO VIBRATION

- ☐ Operating: 0.15G, 10 - 55Hz, X, Y, Z directions
- ☐ Non-operating: 0.50G, 10 - 55Hz, X, Y, Z directions with shipment contanier

CAUTION

- **When storing the printer, make sure the printhead is capped.**
- **When transporting the printer, ensure the ink cartridges are installed in the printer and the printhead is capped.**
- **If the printer power is off with the printhead left uncapped, turn the printer on with the ink cartridges installed, cap the printhead, and turn the printer off.**
- **Ink freezes at below -4°C. It will be usable again after keeping it for about three hours at 25°C.**

1.3 Interface

1.3.1 USB Interface

SPECIFICATIONS

- Standard: Based on the following:
  - Universal Serial Bus Specifications Revision 1.0
  - Universal Serial Bus Device Class Definition for Printing Devices Version 1.0 (Printer part)
  - Universal Serial Bus Mass Storage Class CBI Transport Specification v1.0 (Storage part)
- Bit rate: 12Mbps (Full Speed Device)
- Data encoding: NRZI
- Adaptable connector: USB Series B
- Recommended cable length: 2 meters

CONNECTOR PIN ASSIGNMENT

Table 1-1. Connector Pin Assignment and Signals

Pin No.	Signal Name	I/O	Function Description
1	VCC	-	Cable power. Max. power consumption is 2mA.
2	-Data	Bi-D	Data
3	+Data	Bi-D	Data, pull up to +3.3 V via 1.5K ohm resistor.
4	Ground	-	Cable ground

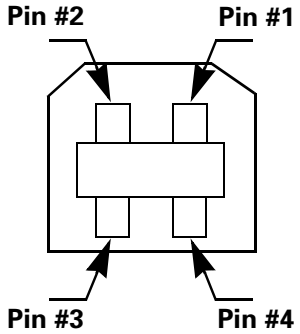


Figure 1-3. USB Pin Assignment

DEVICE ID

The printer sends the following device ID string when it is requested.

- When IEEE1284.4 is enabled,

  <00H><5EH>
  MFG:EPSON;
  CMD:ESCPL2,BDC,D4;
  MDL:Stylus<SP>Photo<SP>875DC;
  CLS:PRINTER;
  DES:EPSON<SP>Stylus<SP>Photo<SP>875DC;

- When IEEE1284.4 is disabled,

  <00H><5AH>
  MFG:EPSON;
  CMD:ESCPL2,BDC;
  MDL:Stylus<SP>Photo<SP>875DC;
  CLS:PRINTER;
  DES:EPSON<SP>Stylus<SP>Photo<SP>875DC;

NOTE: *[00H] denotes a hexadecimal value of zero.*

1.3.2 PCMCIA Card Slot

CARD SLOT STANDARD

- ☐ PCMCIA Type-II card slot x 1
- ☐ PC Card Standard ('97) compliance

MEMORY CARD

The following memory card is supported.

- ☐ PCMCIA Flash ATA card
- ☐ Compact Flash (with PCMCIA adapter)
- ☐ Smart Media (with PCMCIA adapter)
- ☐ Memory Stick (with PCMCIA adapter)

VOLTAGE

The following voltage is supported.

- ☐ 5v
- ☐ 3.3v/5v
- ☐ 3.3v

<Restriction item of SONY Memory Stick>

CAUTION !

As for the SONY memory stick, the following faulty occurs. Therefore, the restriction on use exists.

FAULTY CONDITION

1. Carry out the light protect (the LOCK notch) of the memory stick main body.
2. Memory stick is connected to the memory stick PCMCIA adapter (MSAC-PC1/MSAC-PC2).
3. Write protect of the USB Mass Storage driver is canceled.
4. Write data (includes "delete file", "format") from the host (Windows98, Macintosh).

NOTE: *In the case that four aforementioned conditions were included, all the faulty occurs.*

PHENOMENON

Processing ends normally when it wrote data in the media with both WIndows98 and Macintosh. However, all the processing fail actually. Also, the blue screen is displayed, in the case that it is worst.

CAUSE

The cause of this problem is that the combination of the memory stick and PCMCIA adapter are not conforming to the specifications of PCMCIA. It is not able to detect it electrically even if the memory stick is set up to "write protect", although PCMCIA is the possibility specification that detect whether or not is the media of "write protect" electrically.

1.4 Function

For the printer operation, please see the Stylus PHOTO 870/1270 Service Manual.

1.4.1 Card Reader Part Panel Operation

LEVER

☐ Card eject lever

NOTE: **Do not operate while Access LED is lighted.*

INDICATOR

☐ Access LED(Green)

Access LED lights up at the time of read/write of the media.

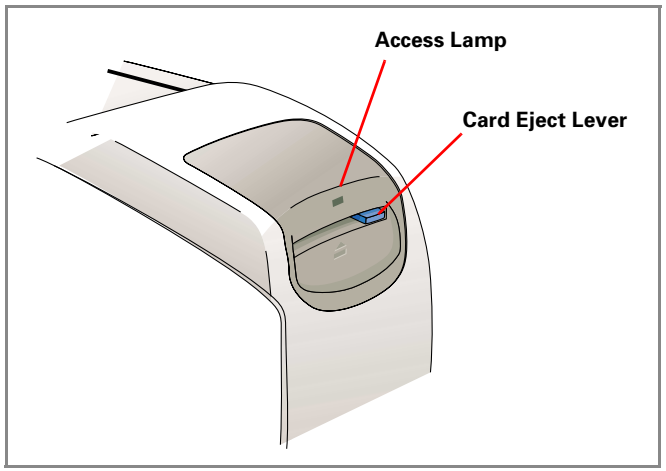


Figure 1-4. Card Reader Part Control Panel

1.4.2 Card Reader Driver Function (Windows)

1.4.2.1 Drive form

The card reader is recognized to OS as the removable disk drive, and its drive name is allocated.

1.4.2.2 Card information acquisition

This function acquires the insertion condition of the PCMCIA card from the card reader and informs the application software of it. Information acquisition uses USB Control/Bulk transfer when API is called.

1.4.2.3 Drive name acquisition

The application software can acquire drive name assigned for the card read by using acquisition API. Also, if multiple cared readers exist on USB, the application software can acquire each pair of serial number and drive name.

1.4.2.4 Correspondence language

It corresponds to seven country of OS (Japanese, English, French, Italian, German, Spanish, Portuguese).

1.4.2.5 [Read Only mode] function

When [Read Only mode] is selected (default), the driver operates the media inserted to the card reader as the “Write Protect”.

1.4.2.6 [Write to Disk mode] function

The following function is supported in [Write to Disk mode].

1. Read/Write for long file name (8+3 characters or more)
2. Format (correspondence only the logic format by OS)
3. Delete file
4. Change file attribute
5. Make file
6. Rename file

7. Make folder
8. Delete folder
9. Rename folder

1.4.2.7 Switching to [Write to Disk mode]

- ☐ Switching between [Read Only mode] and [Write to Disk mode] is bidirectionally possible.
- ☐ Switching between the [Read Only mode] and [Write to Disk mode] is implemented in condition without a media being inserted. Mode change is carried out by executing the application software "EPSON USB RW Switcher". The result comes into effect at the time of the next media insertion.
- ☐ Since the [Read Only mode] driver and [Write to Disk mode] driver are the same driver, installation is unnecessary.
- ☐ The mode information is preserved to Windows Registry. Mode change is done by referring to the registry when the host is powered on.
- ☐ Registry entry that controls this mode is as follows.

  HKEY_LOCAL_MACHINE¥Enum¥ESDI¥EPSON___PM800DCSTORAGE

  The key is as follows:

  Readonly (Binary, 00 = [Write to Disk mode], 01 = [Read Only mode])

1.4.2.8 USB Descriptor change function

This function rewrites USB Descriptor of the card reader by using the API. The item that rewrites is as follows.

1. iProduct strings (UNICODE, maximum 23 characters)
2. iSerialNumber strings (UNICODE, maximum 12 characters)

1.4.2.9 Correspondence file system

The file system that corresponds is as follows.

1. FAT (VFAT)
2. FAT32

1.4.3 Card Reader Driver Function (Macintosh)

1.4.3.1 Drive form

The card reader is recognized to OS as the removable disk drive.

1.4.3.2 Card information acquisition

This function acquires the insertion condition of the PCMCIA card from the card reader and can notify the application software of it. Information acquisition uses USB Control/Bulk transfer when API is called.

1.4.3.3 Disk information acquisition

The application software can acquire the following information regarding the card reader by using the API.

1. Volume Reference Number
2. Driver Reference Number
3. Volume Name
4. Serial Number of the Card Reader

Also, when multiple card readers exist on USB, the application software can acquire each pair of the serial number and disk name.

1.4.3.4 Drive information acquisition

The application software can acquire the following information regarding the card reader by using the API.

1. Write Protect Status
2. USB String descriptor, iManufacturer strings (product maker)
3. USB String descriptor, iProduct strings (product name)
4. USB String descriptor, iSerialNumber strings (serial number)

1.4.3.5 Correspondence language

It corresponds to seven language of OS (Japanese, English, French, Italian, German, Spanish, Portuguese).

1.4.3.6 [Read Only mode] function

When [Read Only mode] is selected (default), the driver operates the media that is inserted to the card reader as the “Write Protect”.

1.4.3.7 [Write to Disk mode] function

The following function is supported in [Write to Disk mode].

1. Read/Write for long file name (8+3 characters or more)
2. Format
3. Delete file
4. Change file attribute
5. Make file
6. Rename file
7. Make folder
8. Delete folder
9. Rename folder
10. Memory of the Folder condition (location, size etc)*

NOTE: *Not able to acquire the information that is whether the file is opened by the restriction of File Exchange of the MacOS 8.5.1 belonging.*

1.4.3.8 Switching to [Write to Disk mode]

- ☐ Switching between [Read Only mode] and [Write to Disk mode] is bidirectionally possible.
- ☐ Mode change is implemented in condition without the media being mounted. The mode change is carried out by the implementation of the application software “EPSON USB RW Switcher”.
- ☐ The change result comes into effect at the time of the next media mounting.
- ☐ The mode information is stored to the initial setting file (EPSON PhotoStarter pref).

1.4.3.9 Media insertion / removal

- ☐ The icon and volume name (untitled, etc.) are displayed on the desktop when the PCMCIA media is inserted into the card reader.
- ☐ In the case that the media is removed, the disk should be un-mounted without fail. (Drag the icon on the desktop in the garbage can, or Click [Eject] on [Special] menu.)
- ☐ When the un-mounting is carried out normally, the message “The memory card can be removed from the card drive. Please remove the memory card.” is displayed and the icon disappears from the desktop.

- ■ **In the case that media is removed without un-mounting, the warning message is displayed immediately. At this time, replace the media in the drive immediately. There is the possibility that the system becomes unstable and the data be lost if the media is not replaced in the drive.**
- ■ **In the case that USB cable is pulled out without un-mounting, the warning message is displayed immediately. At this time, reconnect the cable to the port immediately. There is the possibility that the system becomes unstable and also the data be lost if the cable is not reconnected to the port.**

1.4.3.10 Media format

Media can be formatted when the [Write to Disk mode] is selected. The format that initializes the media differs depending on the condition of the current media format, as shown in the table below:

Table 1-2. Initialization Format

Current Format	Initialization possibility format
Unformated	Mac OS standard, Mac OS expansion*1, DOS
Mac OS	Mac OS standard, Mac OS expansion*1, DOS*2
DOS	Mac OS standard*3, DOS

**1: For the media of 32MB over, the Mac OS expansion format can be also selected.*

**2: The media that was initialized with iMac or G3 can select the DOS format.*

**3: In the case that File Exchange is ineffective (OFF), a Mac OS standard format can be selected.*

1.4.3.11 Icon

An icon is displayed to the desktop when a media is mounted. Note the exclusive icon is only displayed for HFS format media. For DOS format media, a Mac OS standard icon is used.

1.4.3.12 Correspondence file system

1. FAT(VFAT)*
2. HFS
3. HFS+ (32MB or more)

**: File Exchange is used.*

1.4.3.13 Display in the expansion manager

If "EPSON USBStorageClass1" is selected by the expansion manager, the following character strings are displayed as an item information.

EPSON USBStorageClass1

This USB driver is necessary to use the EPSON Stylus Photo series PCMCIA card driver.

1.5 Outer Case Specifications

DIMENSIONS

- ☐ Stacker (open): 483 mm (W) x 613 mm (D) x 302 mm (H)
- ☐ Stacker (closed): 483 mm (W) x 407 mm (D) x 302 mm (H)

NOTE: *With a paper support installed*

WEIGHT

Approximately 6.4 kg

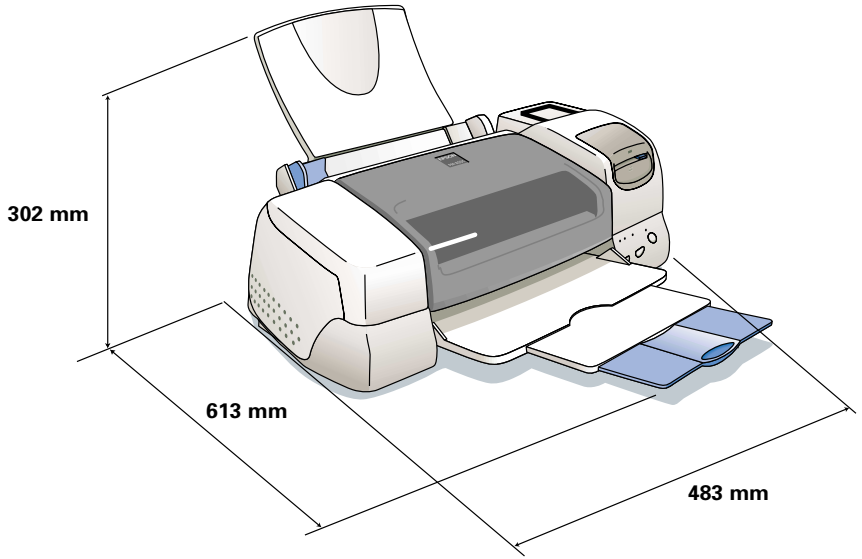


Figure 1-5. External Dimension

CHAPTER

2

OPERATING PRINCIPLES

2.1 Overview

The EPSON Stylus PHOTO 875DC consists of the printer part and card reader part. The printer part is the same as for the Stylus PHOTO 870. So this manual only refers to the operating principles of the card reader part.

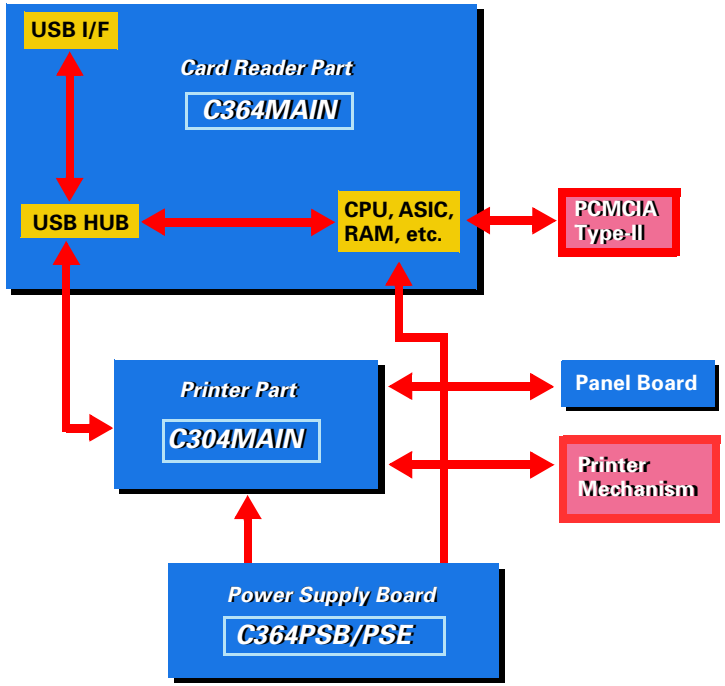


Figure 2-1. Block Diagram of the Stylus PHOTO 875DC

2.1.1 Card Reader Part

The figure below summarizes the card reader part.

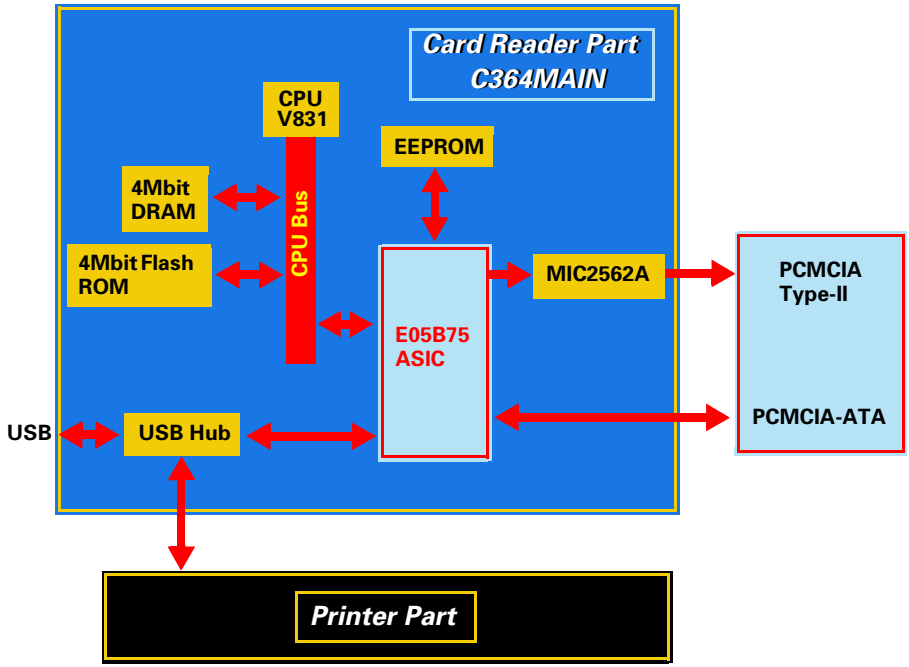


Figure 2-2. Block Diagram for the Card Part

The major elements in the card reader part are as shown in the following table.

Table 2-1. Major Elements in the Card Reader Part

Name	IC	Functions
CPU (V831)	IC1	160-pin PGFP, operating at 33.0MHz (internally 99MHz). • USB storage class target • PCMCIA control
ASIC (E05B75)	IC2	A 208-pin PGFP, operating at 33 MHz (48MHz for USB). • USB storage class • PCMCIA interface • 16-bit DATA BUS V831 interface • EEPROM interface • Mac. serial interface • 2 LED drive boards • 1 universal input port
MIC2562A	IC6	PCMCAI socket power controller • 14-pin S.O. package
MBM29LV400TC/BC	IC8	4Mbit flash ROM • 48-pin TSOP • Powered by 3.3V single power source • Can be cleared by chip bulk or sector unit. • Program
MSM51V4265E-60	IC4	4Mbit DRAM with the 2CAS-type page access function • 44-pin TSOP • Powered by the 3.3V single power source • Various buffers • Work area
AT93C46-10S-2.7	IC10	1Kbit (x16) EEPROM • 8-pin SOP • Powered by 3.3V single power source • Stores the device ID • Stores the panel information

Table 2-1. Major Elements in the Card Reader Part (continued)

Name	IC	Functions
TUSB2043	IC5	4-port hub IC • 32-pin TQFP • 3.3V-operative self power mode • Integrates a transceiver that complies with the Universal serial bus specifications Rev.1.

2.1.2 Power Supply Board

C364PSB/PSE, the power supply board of this printer, features the following:

- ☐ Logic line: +5V ± 5%, 0.95A
  +3.3V ± 5%, 0.85A
- ☐ Drive line: +42V ± 5%, 0.4A (maximum 1.4A)
- ☐ Power supply control in the secondary power switch
  - ■ The secondary side switching operation allows the printer to keep supplying power to the both logic and drive lines for at least 30 seconds after the printer power is turned off.
  - ■ If the AC plug is disconnected from the AC socket while the printer power is on, voltage for the logic line is kept for at least 256ms.

2.1.3 USB Hub

2.1.3.1 Overview

The USB hub of this printer features the following:

- ☐ Complies with the Universal serial bus specifications Rev. 1.0.
- ☐ Not powered from the Vbus.
- ☐ Self-powered hub
- ☐ Two ports are used as the down stream ports. (Other two are not used.)
- ☐ Stand-alone type hub without CPU's control
- ☐ Vendor ID/product ID is built up to allow future support availability.

2.1.3.2 Hub Port Connection

When connecting to the USB, the hub IC (TUSB2043A) lets the printer recognize the device in the following order:

1. Hub IC
2. Printer part
3. Card reader part

2.1.4 Printer Circuit Operation

The printer circuit operation of this printer is the same as for the Stylus PHOTO 870 except for the points below:

- ☐ Power supply circuit
  The card reader part is powered by the printer's power supply board.
- ☐ No parallel interface connector is supported but art work exists.
- ☐ USB interface circuit
  Changed to the interface that connects to the PC via the USB hub.

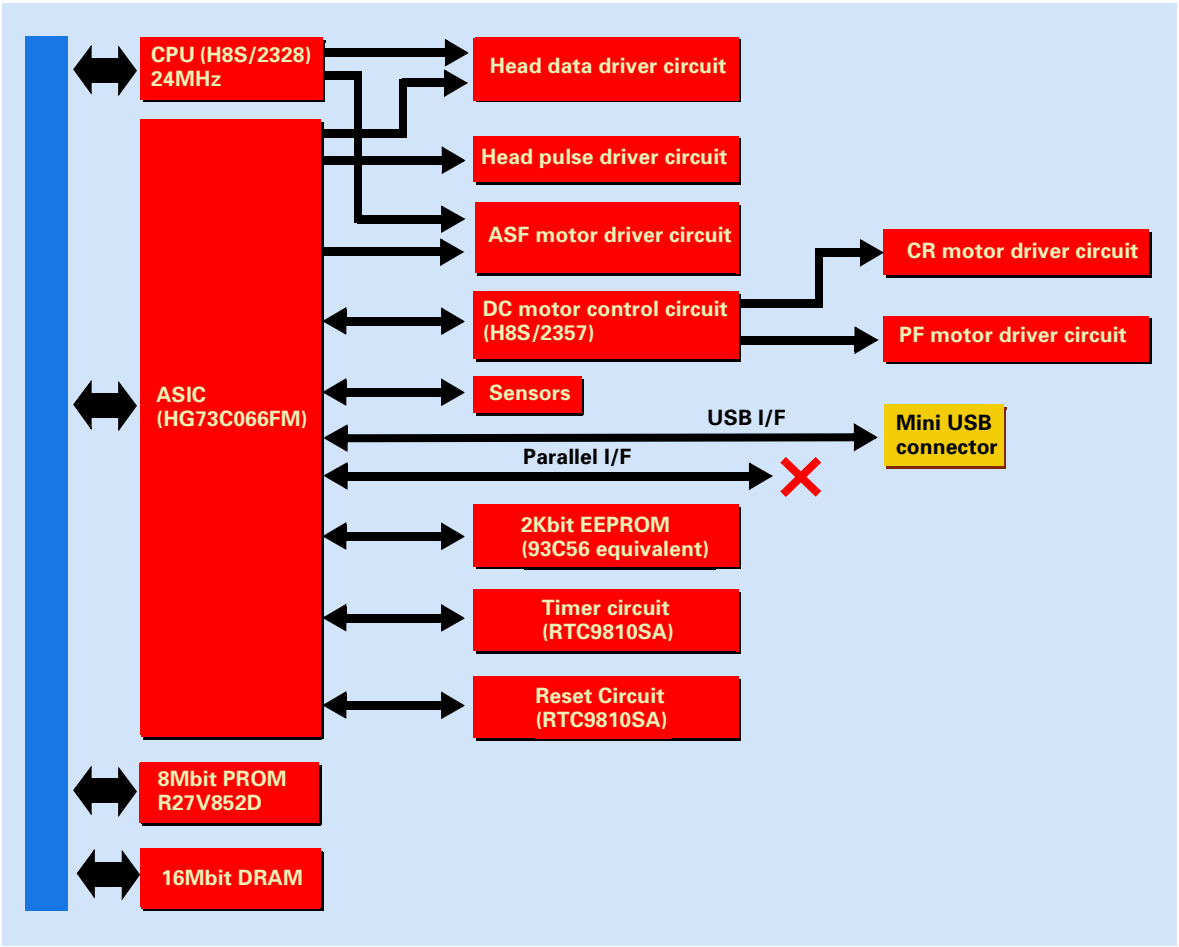


Figure 2-3. Printer Circuit Block Diagram

CHAPTER

3

TROUBLESHOOTING

3.1 Overview

Please see the EPSON Stylus PHOTO 870/1270 Service Manual.

CHAPTER

4

DISASSEMBLY AND ASSEMBLY

4.1 Overview

This chapter describes procedures for disassembling the main components of the EPSON Stylus PHOTO 875DC. Unless otherwise specified, disassembly units or components can be reassembled by reversing the disassembly procedure. Therefore, no assembly procedures are included in this chapter. Precautions for any disassembly or assembly procedure are described under the heading "CAUTION" and "CHECK POINT". Any adjustments required after disassembling the units are described under the heading "REQUIRED ADJUSTMENT".

Since the printer part is common to the Stylus PHOTO 870, this manual only describes the procedures that are specific to Stylus PHOTO 875DC. For the rest of the procedures, please see the Stylus PHOTO 870/1270 Service Manual.

4.1.1 Precaution for Disassembling the Printer

See the precautions given under the heading "WARNING" and "CAUTION" in this section when disassembling or assembling EPSON Stylus PHOTO 875DC.

- **Disconnect the power cable before disassembling or assembling the printer.**
- **Wear protective goggles to protect your eyes from ink. If ink gets in your eye, flush the eye with fresh water and see a doctor immediately.**
- **If ink comes into contact with your skin, wash it off with soap and water. If irritation occurs, contact a physician.**
- **A lithium battery is installed on the main board of this printer. Be sure to observe the following instructions when serving the battery:**
  1. **Keep the battery away from any metal or other batteries so that electrodes of the opposite polarity do not come in contact with each other.**
  2. **Do not heat the battery or put it near fire.**
  3. **Do not solder on any part of the battery. (Doing so may result in leakage of electrolyte from the battery, burning or explosion. The leakage may affect other devices close to the battery.)**
  4. **Do not charge the battery. (An explosion may be generated inside the battery, and cause burning or explosion.)**
  5. **Do not dismantle the battery. (The gas inside the battery may hurt your throat. Leakage, burning or explosion may also be resulted.)**
  6. **Do not install the battery in the wrong direction. (This may cause burning or explosion.)**
- **Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacture. Dispose the used batteries according to government's law and regulations.**

CAUTION

Risque d'explosion si la pile est remplacée incorrectment. Ne remplacer que par une pile du même type ou d'un type équivalent recommandé par le fabricant. Eliminer les piles déchargées selon les lois et les règles de sécurité en vigueur.

CAUTION

- **Never remove the ink cartridge from the carriage unless this manual specifies to do so.**
- **When transporting the printer after installing the ink cartridge, be sure to pack the printer for transportation without removing the ink cartridge.**
- **Use only recommended tools for disassembling, assembling or adjusting the printer.**
- **Apply lubricants and adhesives as specified. (See Chapter 6 for details.)**
- **Make the specified adjustments when you disassemble the printer. (See Chapter 4 for details.)**
- **Once the ink cartridge mounted on the printer is removed, air comes into and creates bubbles in the cartridge. These bubbles clog ink flow and eventually cause printing malfunction. For this reason, If you need to remove any ink cartridges during disassembling, be sure to replace them with new ones.**
- **Because of the reasons above, make sure to return the printer to the user with new ink cartridges installed.**

4.1.2 Tools

Table 4-1 lists the tools recommended for disassembling, assembling, or adjusting the printer. Use only tools that meet these specifications.

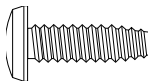
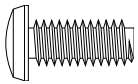
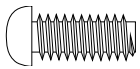
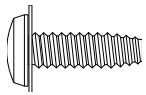
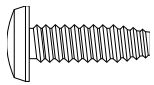
Table 4-1. Tool List

Tools	Commercially Available	Code
(+) Driver No.2	O.K.	B743800200
(+) Driver No.1	O.K.	B743800400
Tweezers	O.K.	B741000100
Hexagon Box Driver (Paired side: 5.5mm)	O.K.	B741700100
Scale PF unit Assembling tool	EPSON exclusive	1050767
Mounting Plate Scale Attachment tool	EPSON exclusive	1051765

4.1.3 Specifications for Screws

Table 4-2 shows screw specifications. During assembly and disassembly, make sure that the specified types of screws are used at proper locations, referring to the table below.

Table 4-2. Screw Specifications

Body	Name	Size
	+Bind S-tite (CBS)	M3x6
	+Bind P-tite (CBP)	M3x6
	+Bind P-tite (CBP)	M3x8
	+Bind P-tite (CBP)	M2.5x5
	+Pan head (C.P.)	M3x6
---	+Pan head B-tite Sems	M3X8
	+Bind S-tight Sems (CBS Sems)	M3x6
	+Bind S-tight (CBS)	M3x10
---	+Pan head B-tite Sems	1.7 x 5