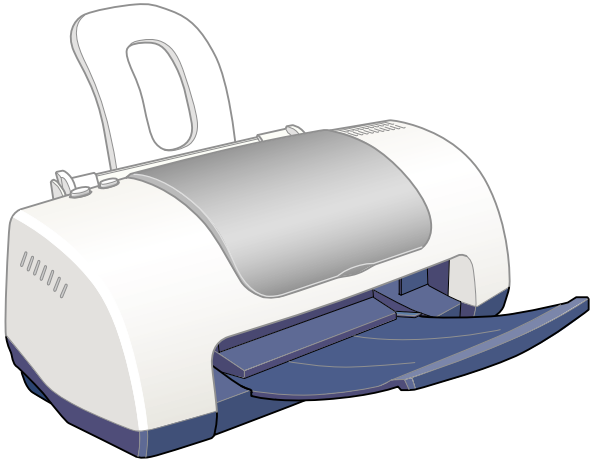
SERVICE MANUAL



Color Inkjet Printer

Stylus C41/42/43/44 series

COLOR IMAGING EPSON

EPSON®

SEIJ01011

Notice

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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. NO WORK 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.
4. WHEN DISASSEMBLING OR ASSEMBLING A PRODUCT, MAKE SURE TO WEAR GLOVES TO AVOID INJURIER FROM METAL PARTS WITH SHARP EDGES.

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. DO NOT REPLACE IMPERFECTLY FUNCTIONING COMPONENTS WITH COMPONENTS WHICH ARE NOT MANUFACTURED BY EPSON. IF SECOND SOURCE IC OR OTHER COMPONENTS WHICH HAVE NOT BEEN APPROVED ARE USED, THEY COULD CAUSE DAMAGE TO THE EPSON PRODUCT, OR COULD VOID THE WARRANTY OFFERED BY EPSON.

About This Manual

This manual describes basic functions, theory of electrical and mechanical operations, maintenance and repair procedures of the printer. 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.

Manual Configuration

This manual consists of six chapters and Appendix.

CHAPTER 1.PRODUCT DESCRIPTIONS

Provides a general overview and specifications of the product.

CHAPTER 2.DISASSEMBLY / ASSEMBLY

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

CHAPTER 3.ADJUSTMENT

Provides Epson-approved methods for adjustment.

CHAPTER 4.MAINTENANCE

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

CHAPTER 5.APPENDIX

Provides the following additional information for reference:

- Electrical circuit boards schematics
- Exploded diagram & Parts List

Symbols Used in this Manual

Various symbols are used throughout this manual either to provide additional information on a specific topic or to warn of possible danger present during a procedure or an action. Be aware of all symbols when they are used, and always read NOTE, CAUTION, or WARNING messages.

Indicates an operating or maintenance procedure, practice or condition that is necessary to keep the product's quality.

Indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.

May indicate an operating or maintenance procedure, practice or condition that is necessary to accomplish a task efficiently. It may also provide additional information that is related to a specific subject, or comment on the results achieved through a previous action.

I.ndicates an operating or maintenance procedure, practice or condition that, if not strictly observed, could result in injury or loss of life.

Indicates that a particular task must be carried out according to a certain standard after disassembly and before re-assembly, otherwise the quality of the components in question may be adversely affected.

Revision Status

Revision	Issued Date	Description
A	March 29. 2002	First Release
B	January 20. 2003	The model name (Stylus C43/C44 series) is added.

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CHAPTER

1

PRODUCT DESCRIPTION

1.1 FEATURES

The main feature of this printer is described in the following table;

Table 1-1. Feature - 1

Item	Description
Printhead	monochrome : 48 nozzles
	color : 15 nozzles x 3 (Cyan, Magenta, Yellow)
Maximum resolution	1440 x 720 DPI
Through put	Black text :5 PPM
	Black text economy (Memo) : 12 PPM
	Text & color graphic : 0.8 PPM
Color printing	4 colors
Interface*1	USB/USB 2.0 or Parallel (**IEEE-1284 compatibility mode**)
Applicable OS	Windows98, Me, XP, 2000, (95), Mac OS
Paper Handling	**Friction feed with ASF :** Top in front out
	• Holds 100 cut-sheets (65 g/m?) • Holds 10 envelopes • Holds 10 transparency films
Paper Specification	Cut sheet : A4, Letter, Legal, Half Letter, Exclusive, A5, A6 • Thickness : 0.08 mm(0.003") - 0.11 mm(0.004") • Weight : 64 g/m 2 (17 lb.55Kg) - 90 g/m 2 (24 lb.78Kg) • Quality : Exclusive paper, Bond paper, PPC
	Envelope : No.10, DL, C6, Envelope220*132 Weight :#10,DL,C6 45 g/m 2 (12 lb.) - 75 g/m 2 (20 lb.) Quality : #10,DL,C6 Bond paper, Plain paper, Air mail
Input buffer	12 KB

"*1" : Interface specification for each model are as the following.

- ☐ Parallel Interface

  EPSON Stylus C41SX .EPSON Stylus C42SX
- ☐ USB Interface

  EPSON Stylus C41UX .EPSON Stylus C42UX

Table 1-2. Feature - 2

Item	Description
Acoustic noize	Level :Approx. 48 dB(A) (According to ISO 7779)
Electrical specification	Universal power supply • Rated frequency range : 50 - 60 Hz • Input frequency range : 49.5 - 60.5 Hz • Rated current : TBD • Power consumption : TBD
Print capacity	• Black : 300 pages / A4 (ISO/IEC10561 Letter Pattern at 360 dpi) • Color : 150 pages /A4 (360 dpi, 5% duty each color)
Reliability	■ **Total print volume** : 10,000 pages (A4, Letter) or 20,000 pages (A4, Letter) ■ **Print Head Life** : 4000 million dots/nozzle

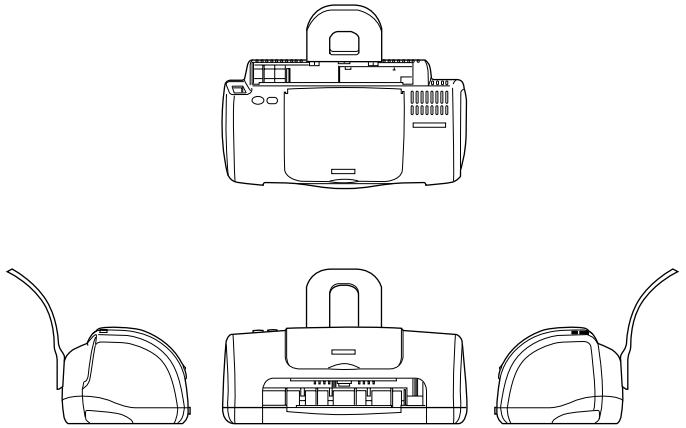


Figure 1-1. Stylus C41/C42 Dimensions

1.1.1 Model

The model names are also descriminated by market as followings;

Table 1-3. Model name

Model name	Market
Stylus C41	Mainly Asia & Pacific market
Stylus C42	Mainly American & European market
Stylus C42Plus	Printer cover : purple

1.1.2 Differences between the Stylus C41/C42 series and the Stylus C40/C20

The Stylus C41/C42 series are based on Stylus C40/C20, but the some chracteristics are different from the previous models. The main difference are as followings;

PRINT SPEED

☐ Throughput

Table 1-4. Throughput

Models	Monochrome text economy (Memo)	Text monochrome
Stylus C41/C42 series	12 PPM	5 PPM
Stylus C40/C20	8 PPM	4 PPM

INK CARTRIDGE

The Stylus Stylus C41/C42 series are adopting the CSIC type ink cartridges, similar to those of Stylus Photo 870/1270 and lately models.

Table 1-5. Ink cartridge type

Models	Ink cartridge type
Stylus C41/C42 series	CSIC
Stylus C40/C20	No CSIC

USB

The Stylus C4xUX/C2xUX are adopting USB 2.0 interface.

NOTE: *The EPSON standard USB cable or less than 3m length USB cable are commended for connection.*

POWER SUPPLY

As, the Stylus C4x are adopting the universal power supply, the power supply board is only one type.

Table 1-6. Power supply type

Models	Power supply
Stylus C41/C42 series	Universal type
Stylus C40/C20	120V AC / 220-240VAC

1.2 OPERATOR CONTROLS

1.2.1 Operate Switch

Operate switch is located on the control panel.

1.2.2 Control Panel

☐ Switches

There are 2 non-lock type push switches, and 2 LED.

☐ Indicators

(1) Power (green)
Lights when the operate switch is "ON", and AC power is supplied.

(2) Error (red)
Lights or blinks when some error occurs to the printer.

1.2.3 Panel Functions

☐ Panel Functions

SW	Function
Error Reset SW	• Loads or Ejects the Paper(Pushing within 3seconds). • Starts the Cleaning of head(Pushing for 3seconds) • When carriage is on the Ink Cartridge change position, return carriage from Ink Cartridge change position. • Starts the Ink Cartridge change (Pushing for 6seconds)

*This function is not available in printing status.

☐ Panel Function with Power on

SW	Function
Error Reset SW	Starts status printings

1.2.4 Printer Condition and Panel Status

Printer status	Indicators		
	Powe	Error	Priority
Power ON condition	On	-	10
Ink sequence	Blink	-	6
Ink Cartridge change mode	Blink	-	5
Data processing	Blink	-	9
Paper Out *1	-	On	4
Paper jam condition*1	-	On 3	3
Ink end(Black)*1	-	On->On	8
Ink level low(Black)	-	Blink->Blink	8
Ink end(Color)*1	-	On->On	8
Ink level low(Color)	-	Blink->Blink	8
Ink end (Black and Color)	-	On->On	8
No Ink Cartridge (Black or Color)*1	-	On	7
Maintenance request (Ink Overflow Counter error)	Alt blink	Alt blink	2
Fatal error*1	Off	On	1

"-":Indicator status don't change

"a->b":a is a Indicator condition when carriage is on Home Position.
b is a Indicator condition in Ink exchange sequence.

*1 : see "Errors" on page -12.

1.2.5 Errors

- Ink out

  When the printer runs out the most part of the ink of any one color, it warns ink-low and keeps printing.When the printer runs out the whole ink of any one color, it stops printing and indicates ink-out error. User is requested to install a new ink-cartridge in this state.

- Paper out

  When printer fails to load a sheet, it goes paper out error.

- Paper jam

  When printer fails to eject a sheet, it goes paper jam error.

- No ink-cartridge

  When printer detects that ink-cartridge comes off , it goes this error mode.

- Maintenance request

  When the total quantity of ink wasted through the cleanings and flushing is reaches to the limit, printer indicates this error and stops. The absorber in the printer enclosure is needed to be replaced with new one by a service person.

- Fatal errors

  Carriage control error.

* panel status is described on section1.4.4.

CHAPTER

2

DISASSEMBLY AND ASSEMBLY

2.1 Overview

This section describes procedures for disassembling the main components of the Stylus C41/C42 series. Unless otherwise specified, disassembly units or components can be reassembled by reversing the disassembly procedure. Things, if not strictly observed, that could result in injury or loss of life are described under the heading “Warning”. Precautions for any disassembly or assembly procedures are described under the heading “CAUTION”. Chips for disassembling procedures are described under the heading “CHECK POINT”.
If the assembling procedure is different from the reversed procedure of the disassembling, the procedure is described under the heading “REASSEMBLY”.
Any adjustments required after disassembling the units are described under the heading “ADJUSTMENT REQUIRED”. When you have to remove any units or parts that are not described in this chapter, refer to the exploded diagrams in the appendix.

Read precautions described in the next section before starting.

2.1.1 Precautions

See the precautions given under the handling “WARNING” and “CAUTION” in the following column when disassembling or assembling the Stylus C41/C42 series

- **Disconnect the power cable before disassembling or assembling the printer.**
- **If you need to work on the printer with power applied, strictly follow the instructions in this manual.**
- **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.**
- **Always wear gloves for disassembly and reassembly to avoid injury from sharp metal edges.**
- **To protect sensitive microprocessors and circuitry, use static discharge equipment, such as anti-static wrist straps, when accessing internal components.**
- **Never touch the ink or wasted ink with bare hands. If ink comes into contact with your skin, wash it off with soap and water immediately. If irritation occurs, contact a physician.**
- **When a lithium battery is installed on the main board of this printer, make 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.**

WARNING

- **Avant de commencer, assurez vous que l'imprimante soit eteinte et que le cordon d'alimentation soit debranche.**
- **Lorsque vous changez la pile au lithium, assurez vous que la nouvelle respecte bien les caracteristiques requises.**
- **Lorque que vous installez la pile au lithium, faites attention a l'inserer dans le bon sens en respectant la polarite.**
- **Veillez a jeter les piles usagees selon le reglement local.**
- **Ne rechargez pas les piles au lithium.**

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 to the customer after servicing, be sure to pack the printer for transportation without removing the ink cartridge.**
- **Use only recommended tools for disassembling, assembling or adjusting the printer.**
- **Observe the specified torque when tightening screws.**
- **Apply lubricants and adhesives as specified. (See "Maintenance" on page 54 for details.)**
- **Make the specified adjustments when you disassemble the printer.**
  (See "Adjustment" on page 33 for details.)

7.

2.1.2 Tools

Use only specified tools to avoid damaging the printer.

Table 2-1.

Name	Supplier	Parts No.
Phillips Screw Driver (No.1)	EPSON	B743800100
Phillips Screw Driver (No.2)	EPSON	B743800200
Nipper	EPSON	B740500100
Tweezers	EPSON	B741000100

2.1.3 Screws

Table 2-2.

No.	Name and Specification	Outward Form
1	CBS 3x6	
2	CBP 3x8	
3	CBS (P2) 3x6	
4	CBS 3x8	
5	C.P.F.S-Tite 3x12	

2.1.4 Work Completion Check

If any service is made to the printer, use the checklist shown below to confirm all works are completed properly and the printer is ready to be returned to the user.

Table 2-3. Work Completion Check

Classification	Item	Check Point	Status
Main Unit	Self-test	Is the operation normal?	☐ Checked ☐ Not necessary
	On-line Test	Is the printing successful?	☐ Checked ☐ Not necessary
	Printhead	Is ink discharged normally from all the nozzles?	☐ Checked ☐ Not necessary
	Carriage Mechanism	Does it move smoothly?	☐ Checked ☐ Not necessary
		Is there any abnormal noise during its operation?	☐ Checked ☐ Not necessary
		Is there any dirt or foreign objects on the CR Guide Shaft?	☐ Checked ☐ Not necessary
		Is the CR Motor at the correct temperature? (Not too heated?)	☐ Checked ☐ Not necessary
	Paper Feeding Mechanism	Is paper advanced smoothly? • No paper jamming? • No paper skew? • No multiple feeding? • No abnormal noise?	☐ Checked ☐ Not necessary
		Is the PF Motor at correct temperature?	☐ Checked ☐ Not necessary
		Is the paper path free of any obstructions?	☐ Checked ☐ Not necessary
Adjustment	Specified Adjustment	Are all the adjustment done correctly?	☐ Checked ☐ Not necessary
Lubrication	Specified Lubrication	Are all the lubrication made at the specified points?	☐ Checked ☐ Not necessary
		Is the amount of lubrication correct?	☐ Checked ☐ Not necessary
Packing	Ink Cartridge	Are the ink cartridges installed correctly?	☐ Checked ☐ Not necessary
	Protective Materials	Have all relevant protective materials been attached to the printer?	☐ Checked ☐ Not necessary
Others	Attachments, Accessories	Have all the relevant items been included in the package?	☐ Checked ☐ Not necessary

2.2 Disassembly

The flowchart below shows step-by-step disassembly procedures. When disassembling each unit, refer to the page number shown in the figure.

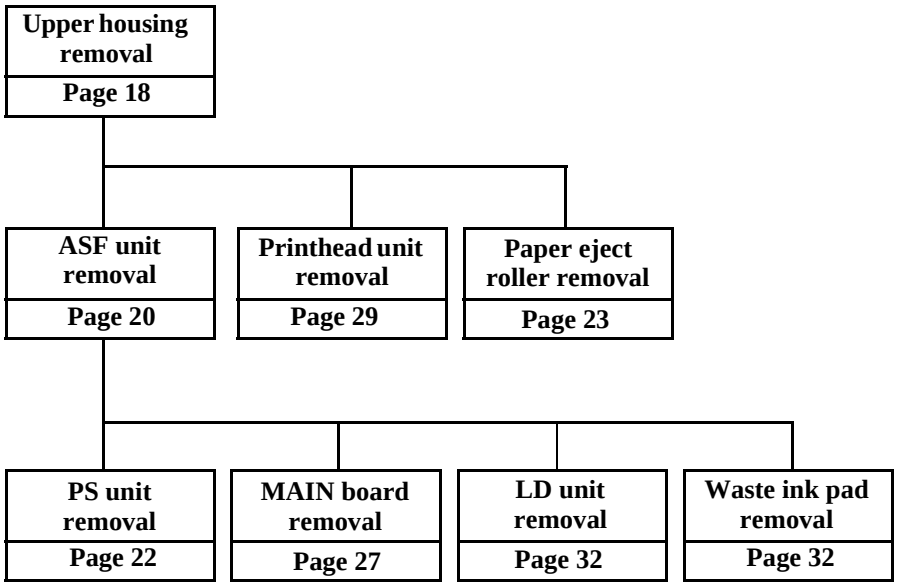


Figure 2-1. Disassembling Flowchart

CAUTION

Do not remove the Main Frame from the Lower Housing to avoid the deformation of the Main Frame.
Therefore, you cannot remove the following parts.

- **Lower Housing**
- **Main Frame**
- **PF Motor**
- **Pump Unit**
- **Cap Unit**
- **PF Roller Assy.**

2.2.1 Upper housing removal

1. Move the edge guide to the right until it stops moving. Make sure the edge guide is in the upper housing's notch position.

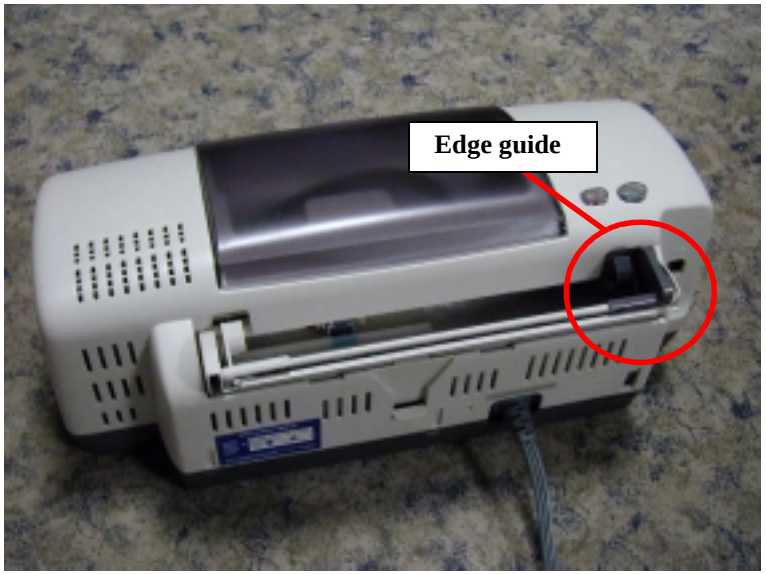


Figure 2-2. Position of Edge guide

2. Remove the 2 hooks at the front using a precision screwdriver (-).

CAUTION

The printer should not turn when the front 2 hooks are removed.

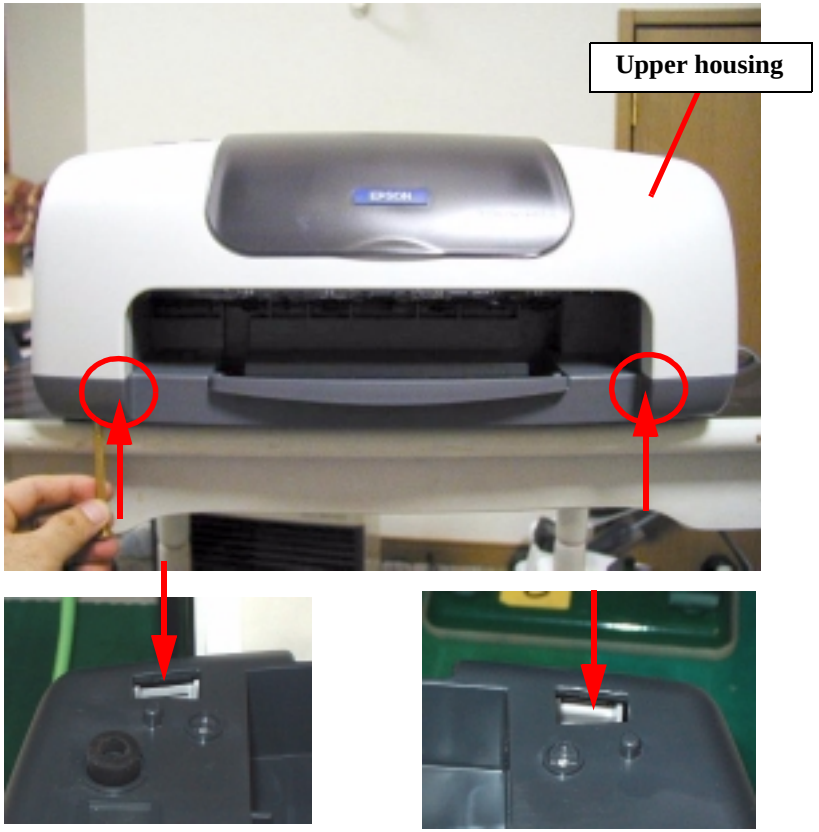


Figure 2-3. Removing the front hook

3. Remove the 2 hooks on the sides by pushing the tops of the hooks up.

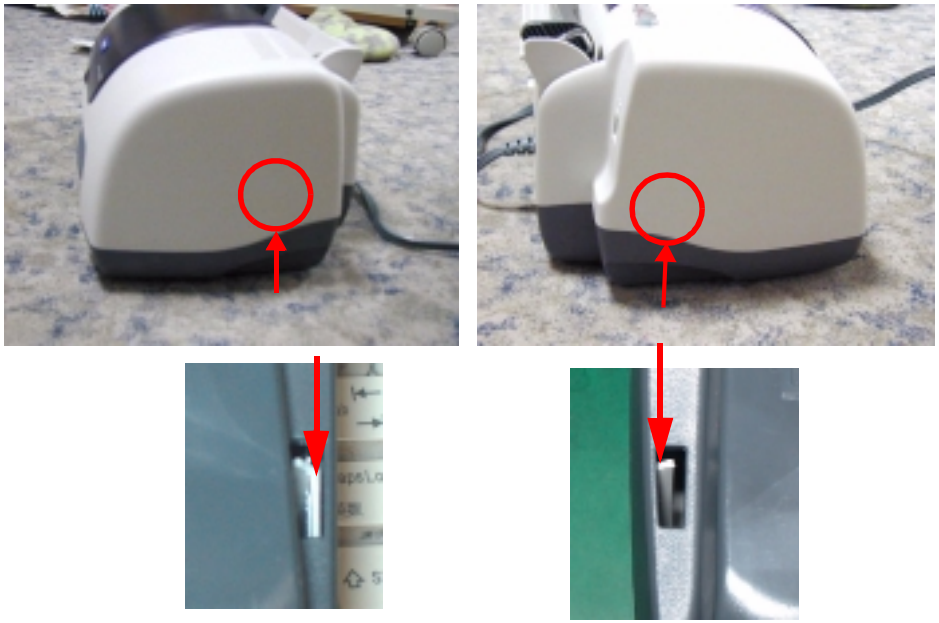


Figure 2-4. Removing the side hook

4. Remove the 3 hooks at the back using a (-) screwdriver or similar tool.

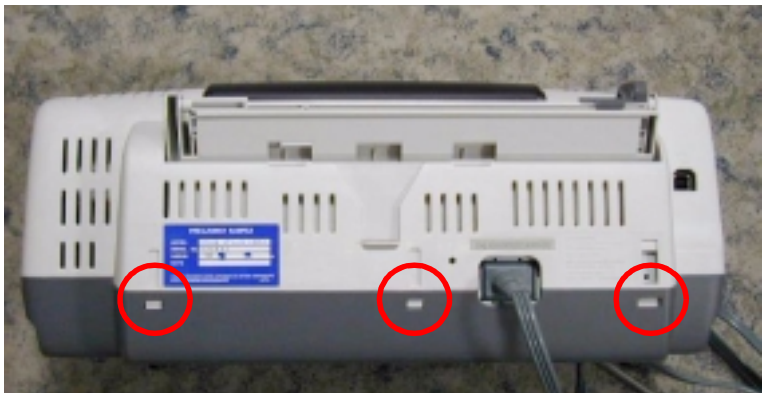


Figure 2-5. Removing the back hook

2.2.2 ASF unit removal

1. Remove the upper housing. (Refer to Section 2.2.1)
2. Take out the three screws.

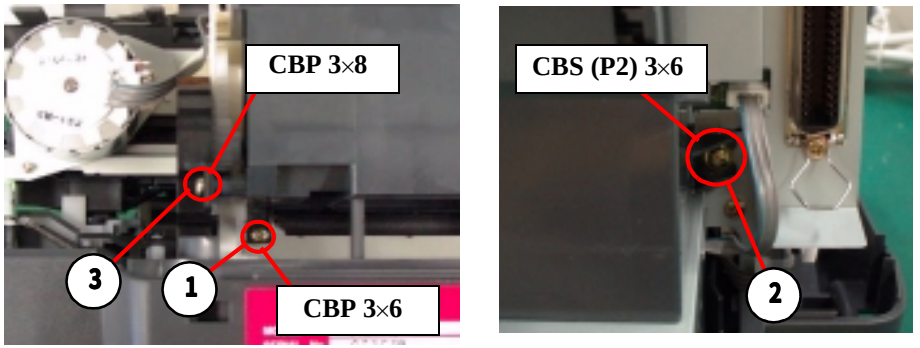


Figure 2-6. Removing the ASF unit

3. Pull the ASF unit toward the rear and remove it.

REASSEMBLY

- **When installing the ASF unit, install the spring in the guide, then install it while supporting it by hand.**

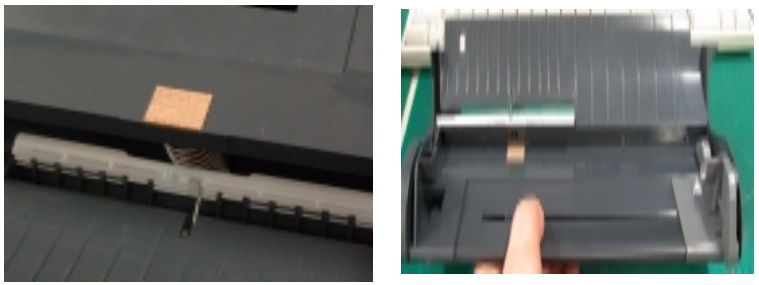


Figure 2-7. reassembling the ASF unit

- **When reassembling the ASF unit tighten screws form lower numbers in Figure2-6.**
- **Tightening Torque for screw**
  - **C.B.S 3x6 : 9+/-1 kgf.cm**
  - **C.B.S (P2) 3x6 : 9+/-1 kgf.cm**
  - **C.B.P 3x8 : 6+/-1 kgf.cm**

ADJUSTMENT REQUIRED

The Top Margin adjustment is required when the ASF unit is replaced.

2.2.3 Waste ink pad removal

1. Remove the upper housing. (Refer to Section 2.2.1)
2. Remove the ASF unit. (Refer to Section 2.2.2)
3. Remove the Waste ink pad.

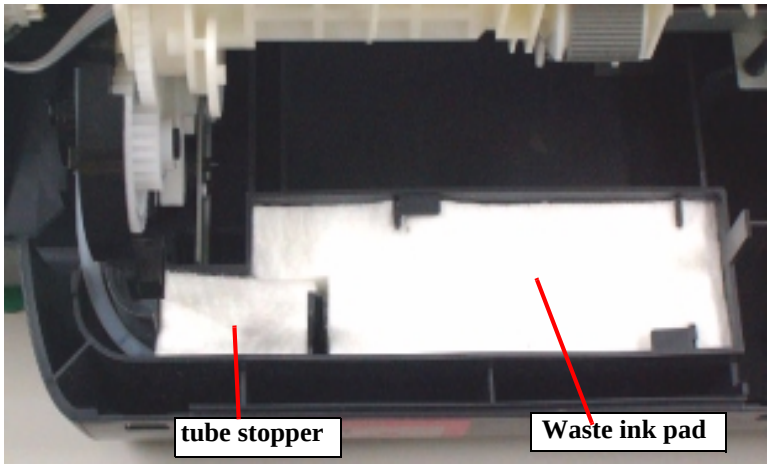


Figure 2-8. Removing the Waste ink pad

REASSEMBLY

■ **When assembling the Waste ink pad, be sure to set the tip of the ink tube in the correct position of the Waste ink pad. Otherwise it will cause ink leakage.**

Figure 2-9. Tip of ink tube setting position

ADJUSTMENT REQUIRED

When the Waste ink pad is replaced with a new one, following service item is required.

■ **Waste ink counter reset operation. (Section 3.1.13 on page 48.)**

2.2.4 PS unit removal

1. Remove the upper housing. (Refer to Section 2.2.1)
2. Remove the ASF unit. (Refer to Section 2.2.2)
3. Disconnect the cable from the connector (CN2) on the main board using tweezers, etc.
4. Take out the 2 screws.

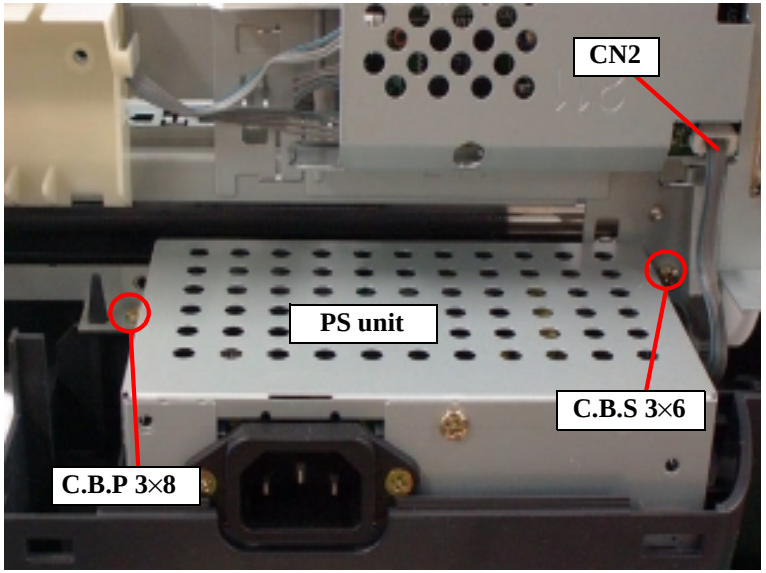


Figure 2-10. Removing the PS unit

5. Pull the PS unit out while lifting up on it.

REASSEMBLY

- **When installing the PS unit, make sure the claws are attached to the hooks on the lower housing.**

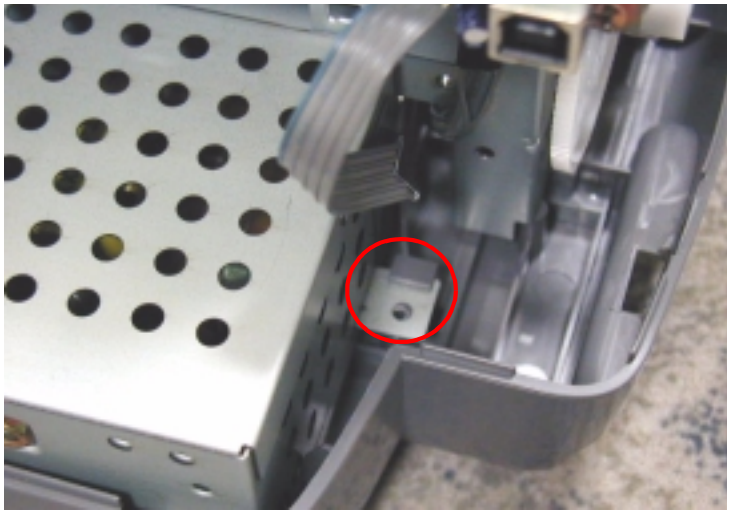


Figure 2-11. Reassembling the PS unit

- **Do not insert the pin of the PS cable to the leftmost side of the connector because the 1st pint of its cable is cut.**

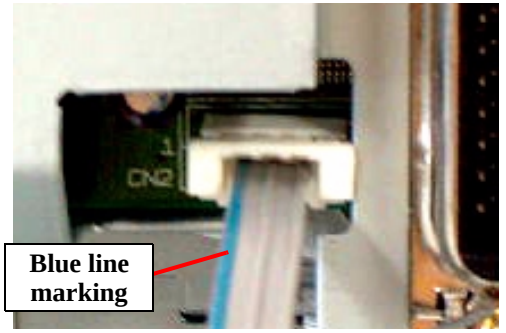


Figure 2-12. Connecting the PS cable(CN2)

- **Tightening Torque for screw**
  - C.B.S 3x6 : 6+/-1 kgf.cm
  - C.B.P 3x8 : 6+/-1 kgf.cm

2.2.5 Paper eject roller removal

1. Remove the upper housing. (Refer to Section 2.2.1)
2. Grip the dowel pin of the PE roller's gear, turn it clockwise and release the carriage lock.

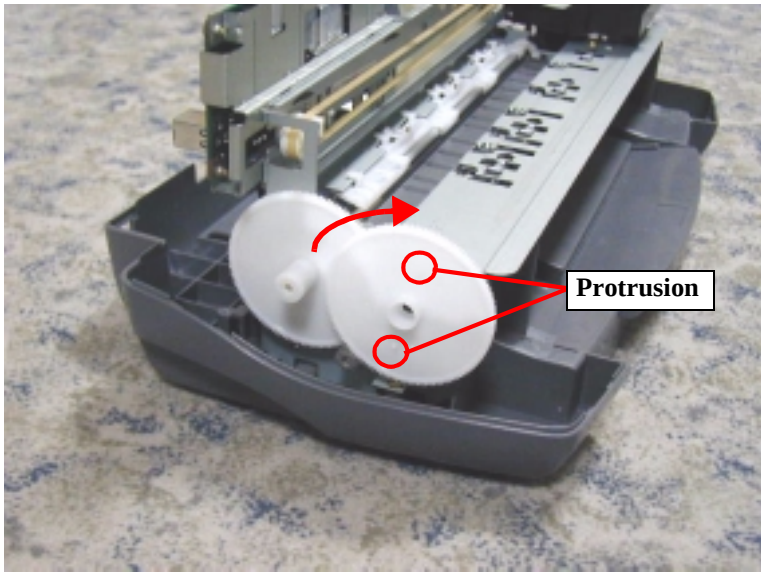


Figure 2-13. Releasing the carriage lock

3. Move the carriage to the center.
4. Take out the two screws.

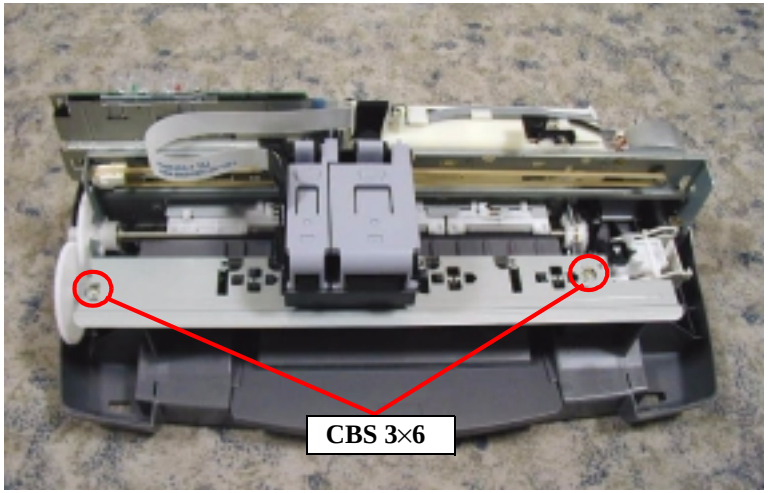


Figure 2-14. Take out the screw

5. Return the carriage to the home position, then remove the Front Frame.

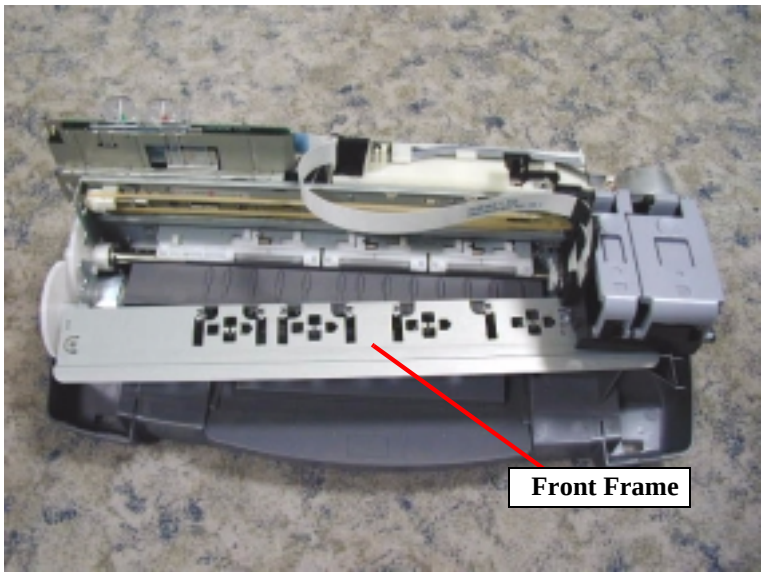


Figure 2-15. Removing the Front Frame

6. Slide the PE roller to the left side, then remove the claw extending from the lower housing.

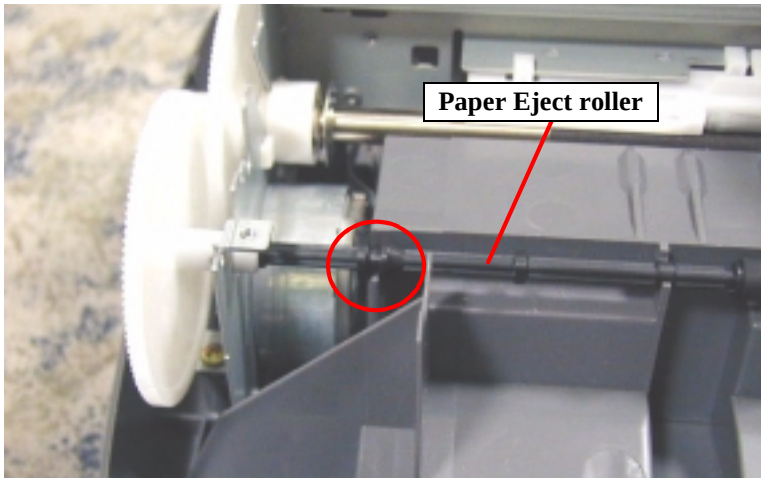


Figure 2-16. Releasing the claw extending

7. Remove the gear from the frame, then remove the Paper eject roller.

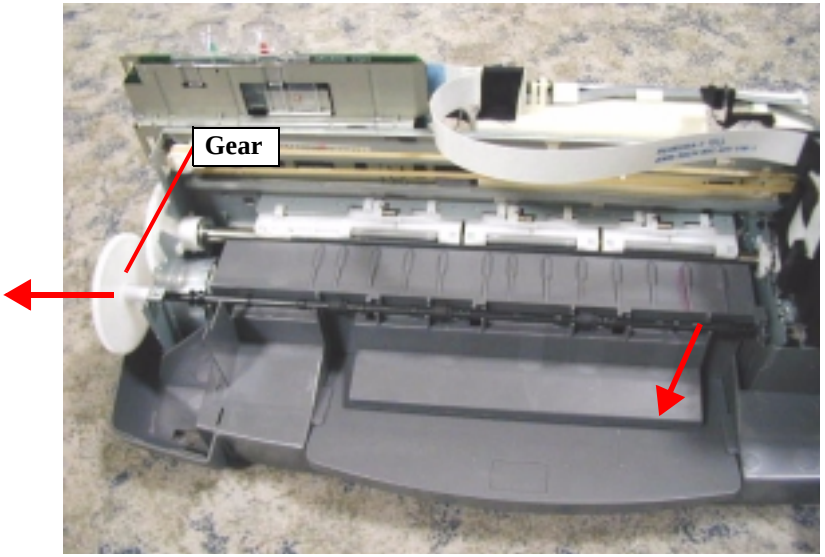


Figure 2-17. Removing the Paper eject roller

CAUTION

- **If the Paper eject roller gear and Paper eject roller shaft are removed or , make sure that neither of the Paper eject roller shaft hooks is damaged.**
  If either of the hooks is damaged, it should be replaced with a new one.

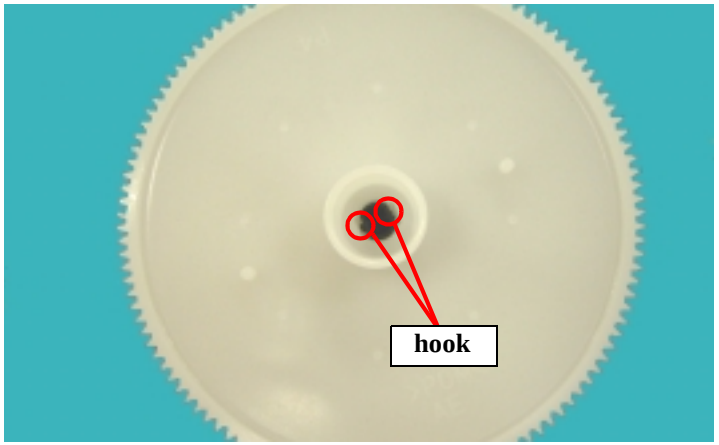


Figure 2-18. Hook of Paper eject roller

REASSEMBLY

- **Tightening Torque for screw**
  - C.B.S 3x6 screw for Front frame : 6+/-1 kgf.cm

2.2.6 Paper Guide Upper/Left removal

CAUTION

Perform this operation by the following procedures so that the coating material of the PF roller does not damage.

1. Remove the upper housing. (Refer to Section 2.2.1)
2. Place the OHP sheet between the Paper Guide Upper/Left and the PF roller by rotating the protrusion of the Paper Eject roller gear in CW direction.

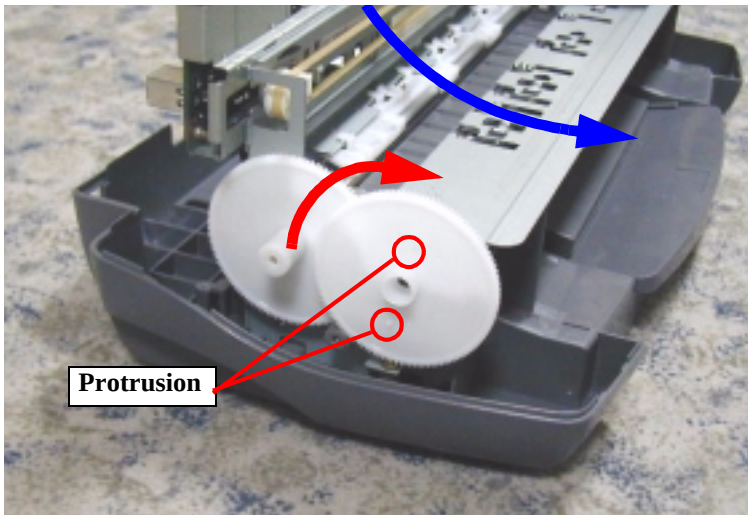


Figure 2-19. Place the OHP sheet

3. Press the dowel of the paper guide unit with tweezers, etc., then pull it forward and remove it.

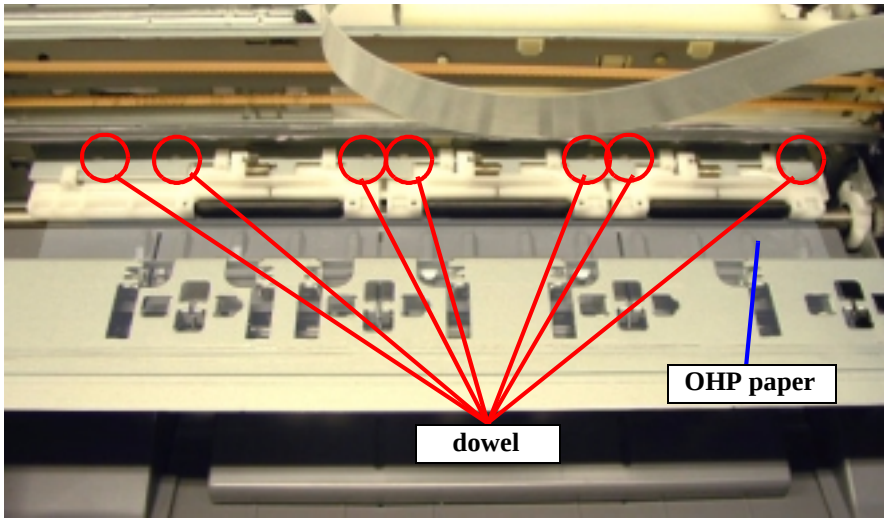


Figure 2-20. Removing the Paper Guide Upper/Left

1. Insert the tip of the spring to the Paper Guide.

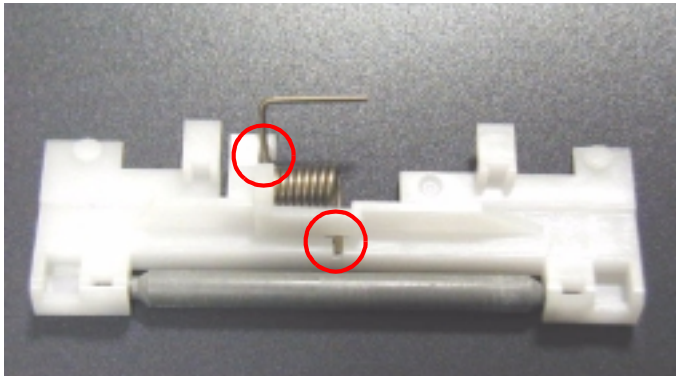


Figure 2-21. Setting the spring to the Paper Guide

2. Place the OHP sheet on the PF roller.

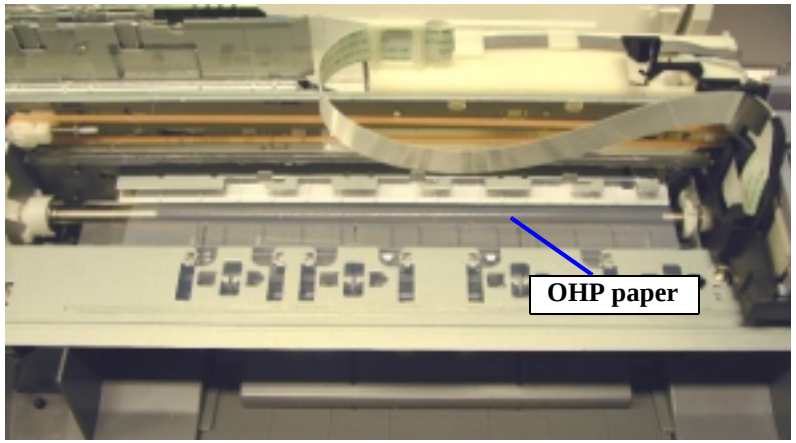


Figure 2-22. Placing the OHP sheet

3. Assemble the Paper Guide Upper/Left to the Main Frame.

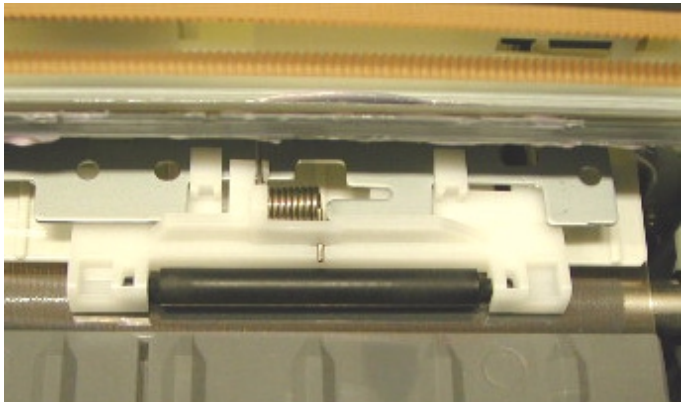


Figure 2-23. Assembling the Paper Guide 1

4. Fix the dowel of the Paper Guide Upper/Left to the hole of the Main Frame by sliding the Paper Guide Upper/Left to the right side. And, release the spring from the hook of the Paper Guide Upper/Left.

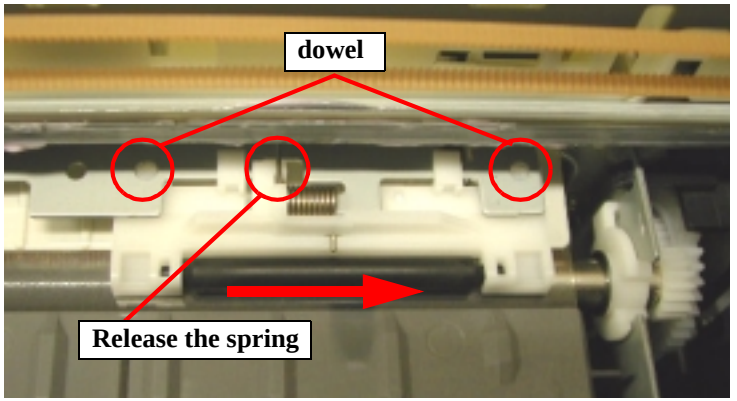


Figure 2-24. Assembling the Paper Guide 2

5. Eject the OHP sheet from the printer by rotating the protrusion of the Paper Eject roller gear in CW direction.

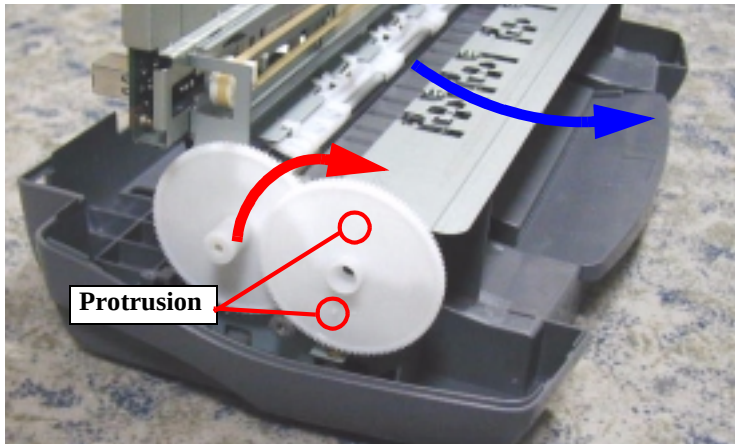
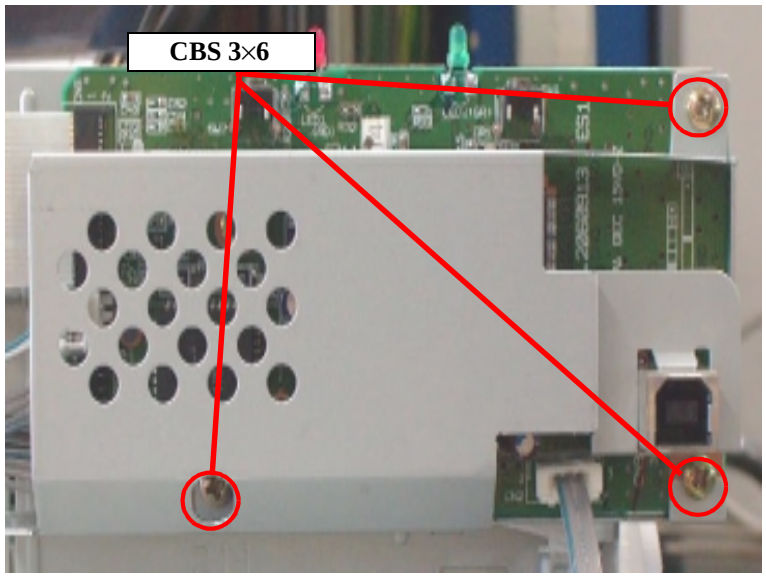


Figure 2-25. Ejecting the OHP sheet

2.2.7 MAIN board removal

1. Remove the upper housing. (Refer to Section 2.2.1)
2. Remove the ASF unit. (Refer to Section 2.2.2)
3. Remove the PS unit. (Refer to Section 2.2.4)
4. Remove the three screws, then remove the shield cover.

USB Type



Parallel Type

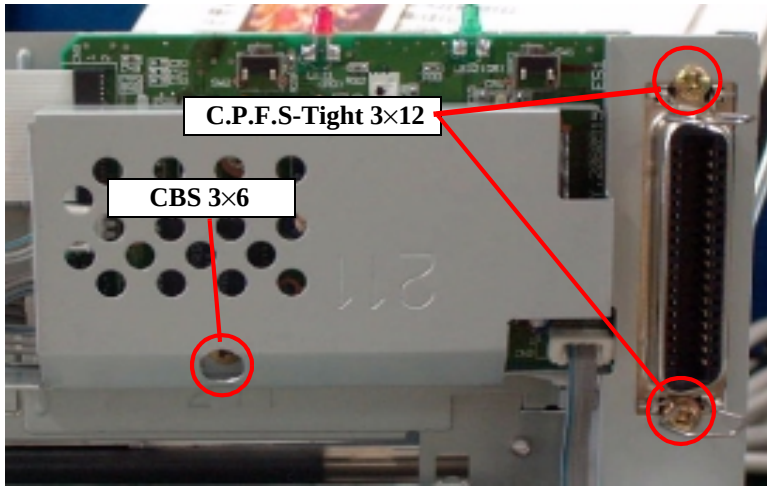


Figure 2-26. Removing the Shield cover

5. Disconnect the four connectors (CN9, CN4, CN7, CN12).

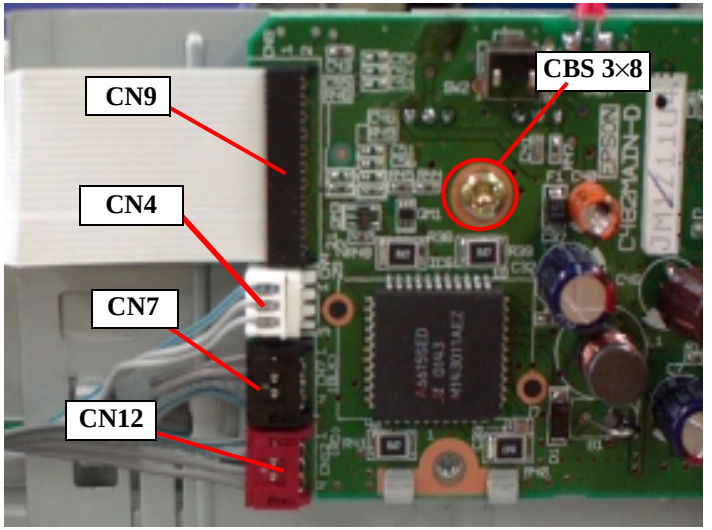


Figure 2-27. Disconnecting the connectors

6. Take out the 1 screw. (Refer to Figure 2-27.)
7. Lift the MAIN board up and remove it.

Tightening Torque for screw

- **USB Type**
  - **- C.B.S 3x6 screw : 9+/-1 kgf.cm**
  - **- C.B.S 3x8 screw : 9+/-1 kgf.cm**
- **Parallel Type**
  - **- C.B.S 3x6 screw : 9+/-1 kgf.cm**
  - **- C.P.F.S-Tight 3x12 screw : 9+/-1 kgf.cm**
  - **- C.B.S 3x8 screw : 9+/-1 kgf.cm**

ADJUSTMENT REQUIRED

When replacing the Main board with a new one, perform the following service items.

- **Before removing the Main Board, connect the parallel cable or USB cable and try to read out the following data by using the Adjustment program. If this operation succeeds, replace the Main board and write the read out data to the new Main board through the Adjustment program. (“EEPROM back up data” on page 51)**
  1) I/C Ink consumption counter.
  2) Waste ink drain pad counter.
  3) EEPROM Initial setting
  4) Head ID input
  5) Top margin adjustment
  6) Bi-D adjustment

In case the above mentioned data are not able to be read out from the defective Main board, perform the following service items.

- **Replace the both ink cartridges with a brand new one.**
- **Replace the Waste ink pad with a new one.**
- **Reset the Ink pad counter**
- **Input the EEPROM initial setting value**
- **Input the Head ID**
- **Adjust the Top margin**
- **Adjust the Bi-D alignment.**

2.2.8 Printhead unit removal

1. Remove the upper housing. (Refer to Section 2.2.1)
2. Remove the ink cartridges.
3. Move the carriage to the center.
4. Take out the screw, then remove the CR motor from the frame.

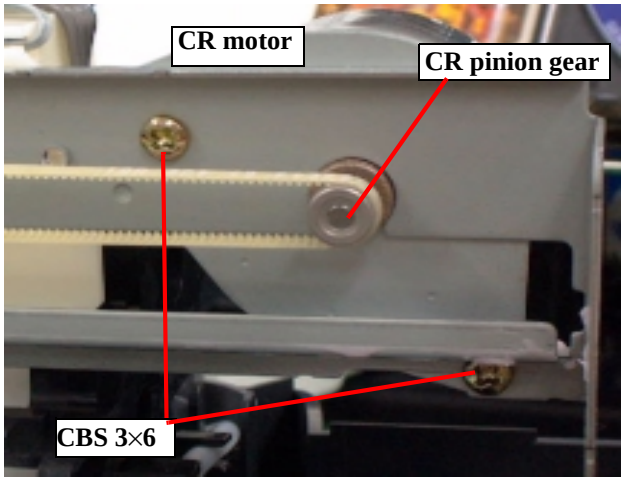
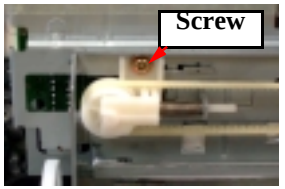


Figure 2-28. Removing the CR motor

5. Remove the timing belt from the Carriage pinion gear.

CAUTION

- **Do not remove the below screw, fixing the driven pulley. Because, the screw has been fixed in the static temparature condition. If removed, the Bi-D will be changed in widetemparature range.**



REASSEMBLY

■ **When reassembling the CR motor, it contact the lib of Main frame after turning clockwise.**

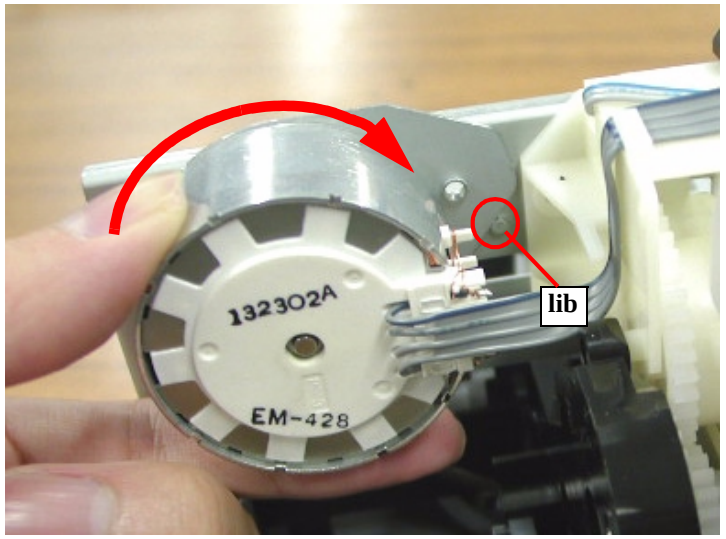


Figure 2-29. Reassembling the CR motor

■ **Tightening Torque for screw**
- C.B.S 3x6 screw : 9+/-1 kgf.cm

6. Release the FFC form the fixing points of the carriage and disconnect the FFC from the CSIC board connector on the carriage unit.

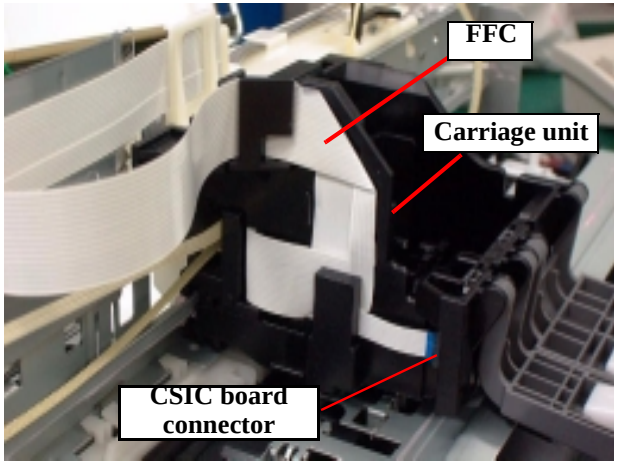


Figure 2-30. Disconnecting the FFC

7. Release the two hook, fixing between the Printhead unit and carriage cover, on the both sides of the carriage unit, then pull the unit forward and remove the cover.

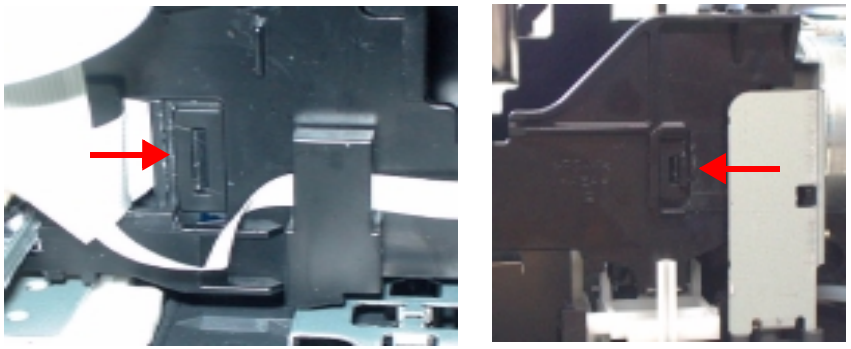


Figure 2-31. Release the two hooks

8. Lift the Printhead unit up and remove it.

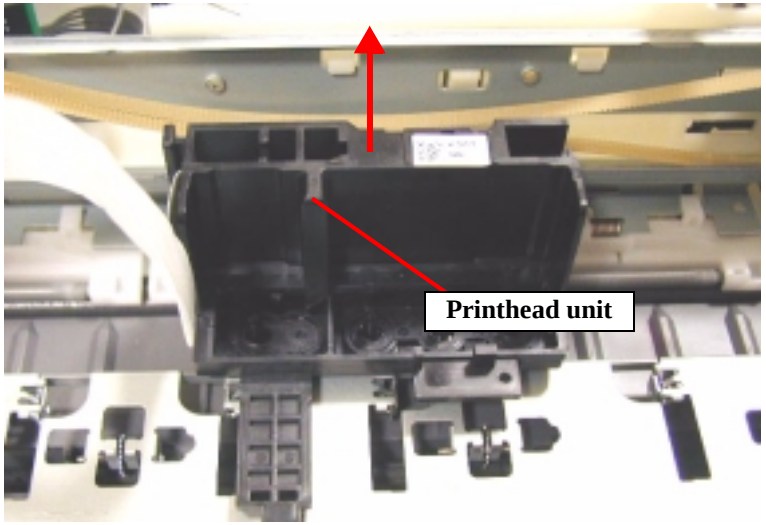


Figure 2-32. Removing the Printhead unit

9. Disconnect the FFC from the connector.

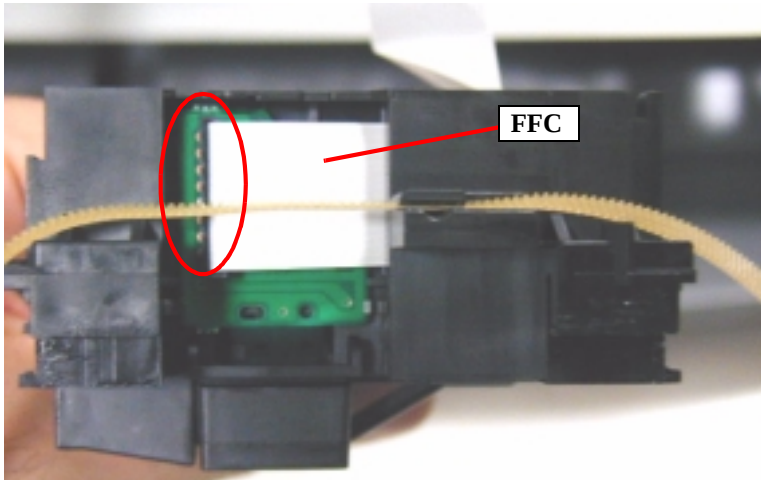
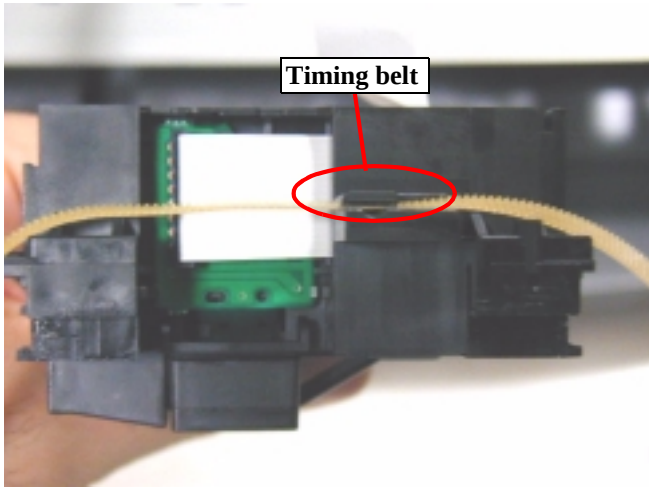


Figure 2-33. Disconnecting the FFC

REASSEMBLY

■ **If the Carriage unit is disassembled or replaced with a new one, make sure that the Carriage timing belt is set in the assembling groove correctly as following figure.**



ADJUSTMENT REQUIRED

When the Printhead is replaced with a new one, following adjustments must be performed in the order below: Refer to Table 3-1.

1. **Initial ink charge**
2. **Head ID input**
3. **Bi-D adjustment**

When the Printhead is removed and reinstalled, only the following adjustment is required. Refer to Table 3-1.

1. **Head cleaning**
2. **Bi-D adjustment**

2.2.9 LD unit removal

1. Remove the upper housing. (Refer to Section 2.2.1)
2. Remove the ASF unit. (Refer to Section 2.2.2)
3. Disconnect the cables which are connected to the LD unit.
4. Disconnect connector CN4 form the MAIN board.

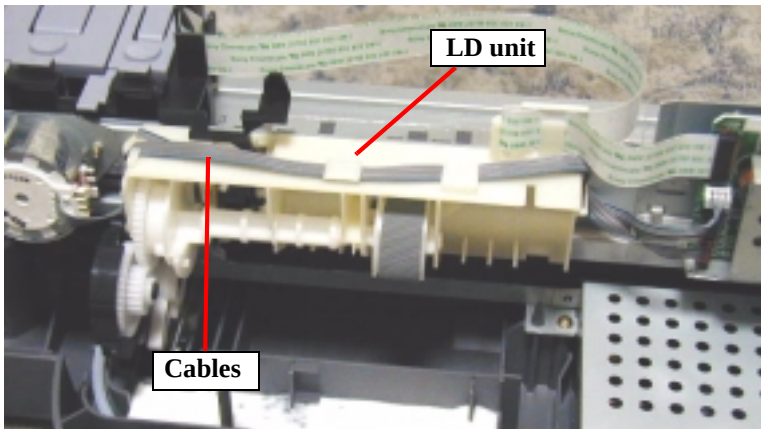


Figure 2-34. Disconnecting the Cables

5. Push the two hooks on the LD unit, then lift it up and remove hook of pump unit

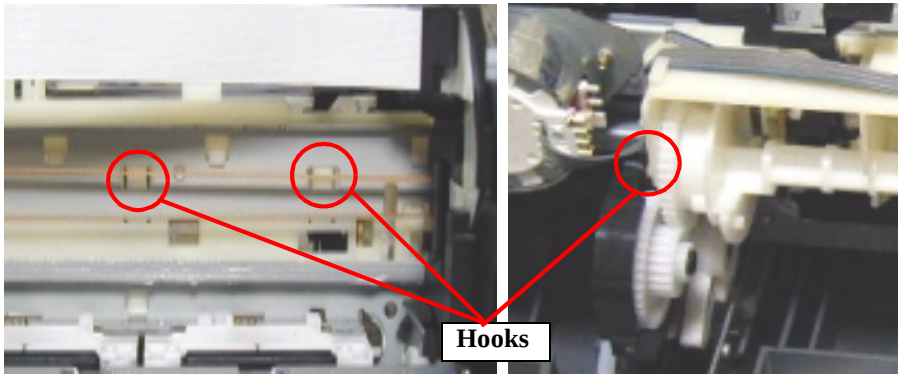


Figure 2-35. Removing the LD unit

REASSEMBLY

■ **When reassembling the LD unit, make sure that seven hooks are set to the Main frame.**

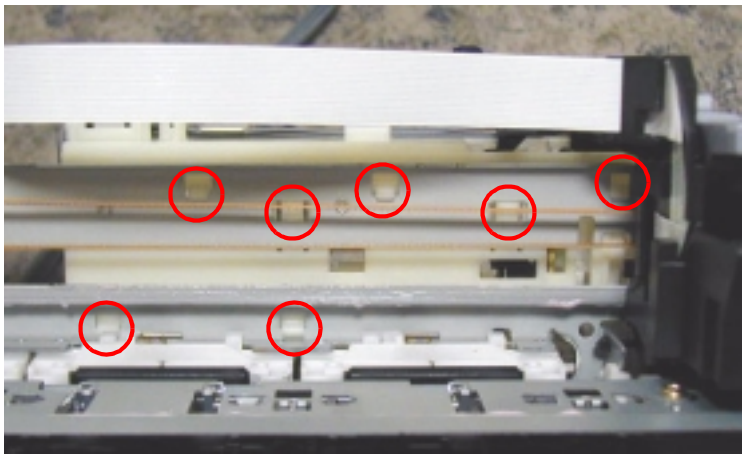


Figure 2-36. Setting seven hooks

ADJUSTMENT REQUIRED

The Top Margin adjustment is required when the LD unit is replaced.

CHAPTER

3

ADJUSTMENT

3.1 Overview

This section describes the procedure for adjustments required when the printer is disassembled and assembled for repair or service.

3.1.1 Required Adjustment

Table 5-1 lists all the necessary adjustments for this printer. If any service listed in this table is carried out, all adjustments corresponding to that service item should be performed to ensure proper operation of the printer.

Table 3-1. Required Adjustment

Performance Priority	1	2	3	4	5	6	7
Replacing parts/ Service item	EEPROM initial setting	Ink pad Counter reset	Initial Ink Charge	Head ID Setting	Top margin Adjustment	Bi-D Adjustment	USB ID Input
Replacing the Main Board	①	②	NA	③	④	⑤	⑥
Removing the Printhead unit	NA	NA	NA	NA	NA	Å	NA
Replacing the Printhead unit	NA	①	②	③	NA	④	NA
Replacing the Printer mechanism	NA	NA	①	②	③	④	NA
Replacing the Waste drain ink pad	NA	①	NA	NA	NA	NA	NA
Removing or Replacing the ASF unit	NA	NA	NA	NA	①	NA	NA
Removing or Replacing the LD unit	NA	NA	NA	NA	①	NA	NA

NOTE: *• "O": Required Adjustment. The number in the circle shows the required adjustment order.*
"NA": Not applicable.
• Following adjustments are not required on this product.
-Platen Gap adjustment
-Head Angular adjustment.
• When the Main board is replaced with new one, you may have to replace the following parts also in case the EEPROM parameter back up function is not available on the defective main board.
** Waste drain ink pad*
** Both Black & Color Ink Cartridge*

This section describes the detailed procedures of each adjustment by Adjustment Program.

In this printer, it is necessary to set the adjusting information for each printer mechanism in order to maintain consistent printing function and quality, eliminating differences of each printer mechanism's characteristics. Therefore, in case that the combination of the printer mechanism and main board changes or the print head is replaced during the repair service, you must set and save the correct information to the MAIN board, using the exclusive adjustment program.

In case any parts is removed and assembled on the repair product while running the Adjustment program, turn off the printer certainly.

3.1.2 Adjustment Program Initial Setting menu

You have to input the following four items before entering the adjustment main menu.

- ☐ Model name (Stylus C41UX/41SX/42UX/42SX)
  For the Stylus C41UX, select Model name "Stylus C41UX."
- ☐ Interface setting (LPT1, LPT2, LPT3, EPUSB1, EPUSB2, EPUSB3)

1. When you run this program, the following menu appears. Select the model name in the screen below.

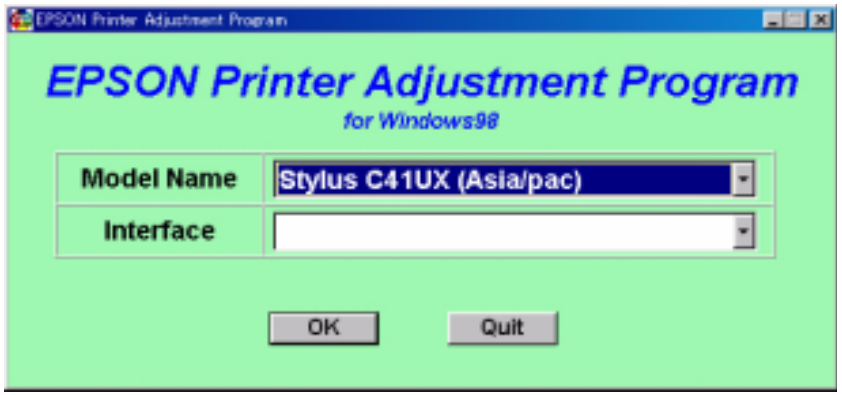


Figure 3-1. Model Name Selection

NOTE: *This printer stores model name in the PROM. Therefore, even you select the model name in the screen above, model name will not stored in the EEPROM. Selecting model name in the screen above determines respective special command for each model.*

2. Select the Interface port number which you connect the printer to your PC.

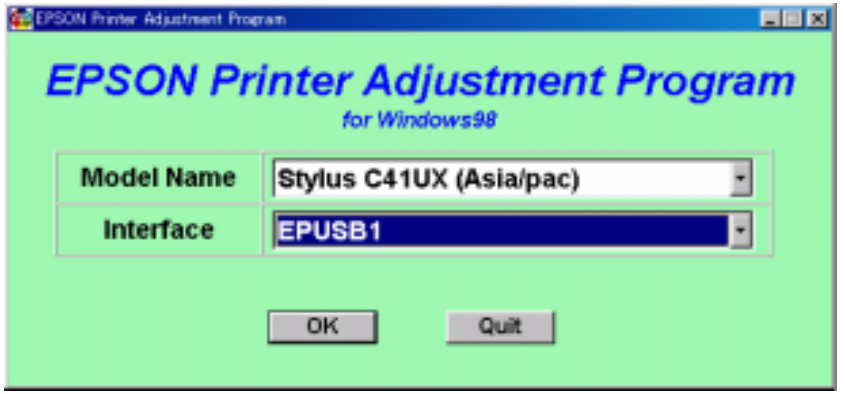


Figure 3-2. Interface Setting

3.1.3 Adjustment Program feature

The adjustment program enables you to set various values correctly to prevent malfunction and fluctuation of printing quality and printing function caused by difference in components and assembly when the printer components are replaced during repair. Basic adjustment items by using this program are shown as fellows.

CHECK POINT

- **This program does not operate under DOS or Windows 3.X, NT, but operates Windws95/98 only.**
- **Perform this adjustment program using parallel I/ F or USB.**

Table 3-2. Basic adjustment items

No	Main Menu	Service
1	Adjustment	EEPROM initial setting
		Head ID input
		Bi- D adjustment
		USB ID input
		First dot position
		Top margin
2	Maintenance	Head cleaning
		Initial ink charge
		Refurbishment for DOA
		Protection counter check
		EEPROM check
		EEPROM back up data
3	Print A4 pattern	A4 pattern will print

The user interface of the main menu on this program is shown below.

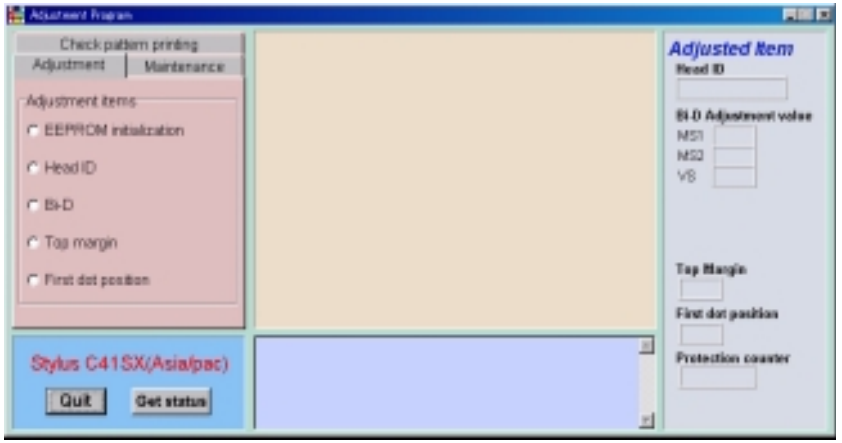


Figure 3-3. Adjustment program main menu

The “Adjusted item” in the right column shows you the adjusted item which executed in this program and it is easy to confirm the adjusted value.

Additionally, this program runs under the D4 (IEEE-1284.4) protocol. So, this program can get the several error statuses even if the printer is error condition, and can control the printer under the error condition. Following explain you the common function of the Adjustment program.

☐ Quit

If you want to exit this program, click the “Quit” button. Following menu is displayed on the screen. And clicking the “Quit” Button in the following menu exit the adjustment program completely. Clicking the “Next” button returns to the Top menu (Initial setting menu) of Figure 5-3.

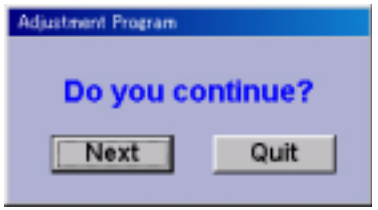


Figure 3-4. Quit function

☐ Get status

This function is used to get the printer status and following figure is displayed on the screen by clicking the “Get status” button. This function can get the printer status even if the printer is error condition except the main logic circuit failure, and control the printer by using the D4 mode functions.

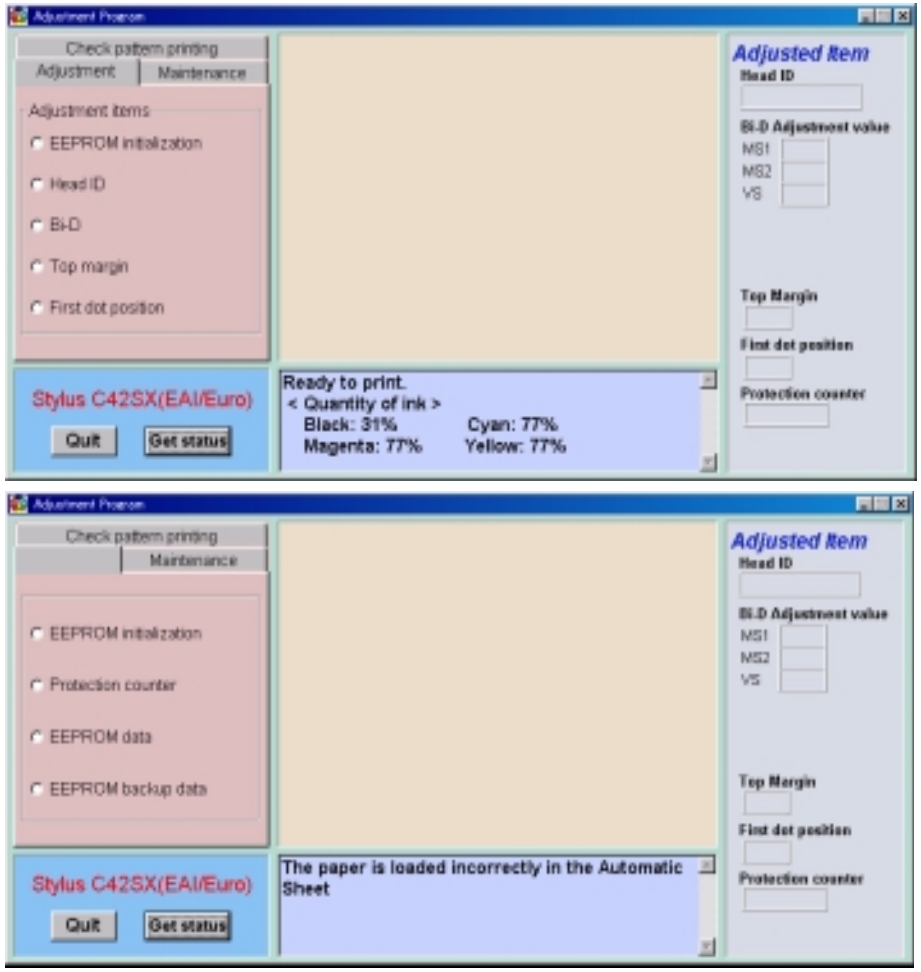


Figure 3-5. Get status function

CAUTION

This program dose not display the “Paper out” error status in the Bi-d adjustment even if the paper is out in the ASF. When the paper is out in the ASF, this program continues to send the paper feed command until the paper is set in the ASF.

3.1.4 EEPROM initial setting

This function is used when replacing the MAIN board.

Using this function enables writing of the initial setting values to the new MAIN board's EEPROM.

1. Choose the "EEPROM initial setting" in the Adjustment menu.

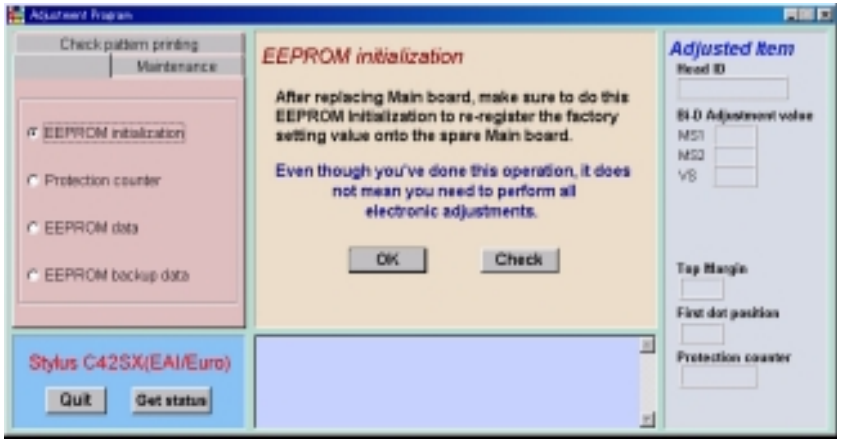


Figure 3-6. EEPROM initial setting (1)

2. Click the "OK" button, then the initial setting values are written to the MAIN board. If choose "Check", the destination setting will be appera.

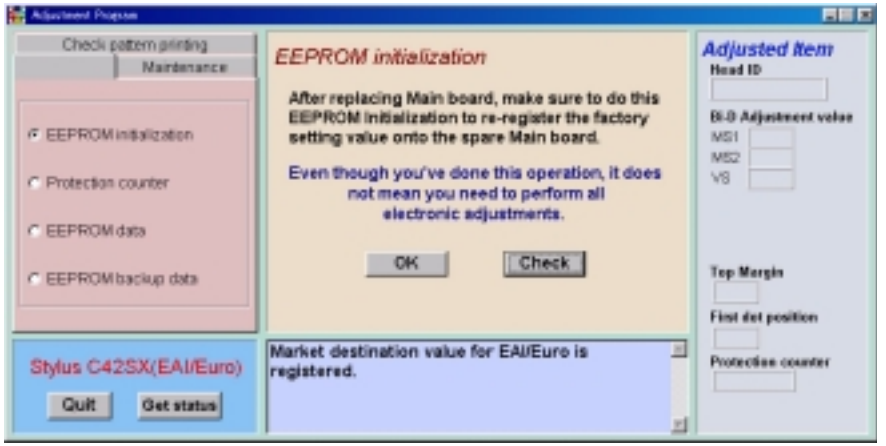


Figure 3-7. EEPROM initial setting (2)

3.1.5 Head ID

This adjustment function is required when any of the following parts is replaced.

- ☐ Printhead
- ☐ Main board
- ☐ Printer mechanism

This adjustment function enables you to write printhead Voltage ID into the specific address of the EEPROM. This operation is considered the most important to maintain proper ink discharging system. If any ID is not written correctly, it results in white or color lines and also gives bad influence on dot weight.

1. When replacing any of the parts above, make a note of VH voltage ID in advance. You can find the VH voltage ID on the following position:
   - ■ Printhead: On the top right face of the printhead.
     A 6-digit ID code is printed with the QR code on the label.
   - ■ Printer mechanism: On the label of the packing box of the printer mechanism.
2. Run the Adjustment program and enter the Adjustment Main menu.
3. Choose the “Head ID” and click it. The menu shown in the next page appears.

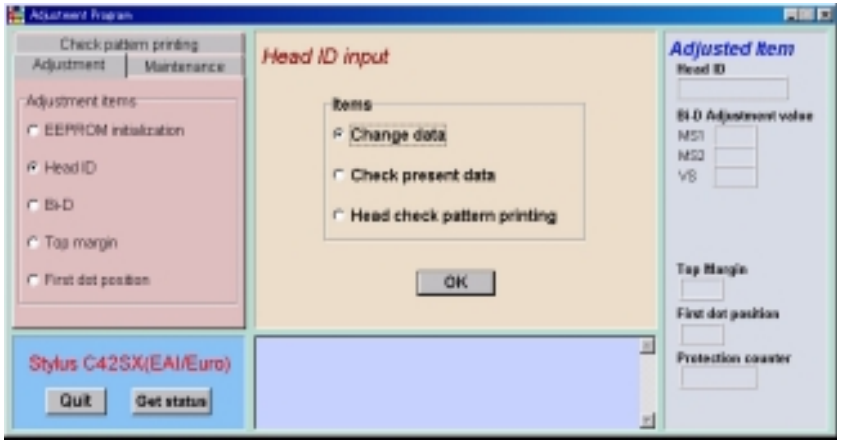


Figure 3-8. Head ID input menu

4. Choose the “Check present data” and click the OK button. Following Check present data menu is displayed. Click the OK button, then readout data is displayed.

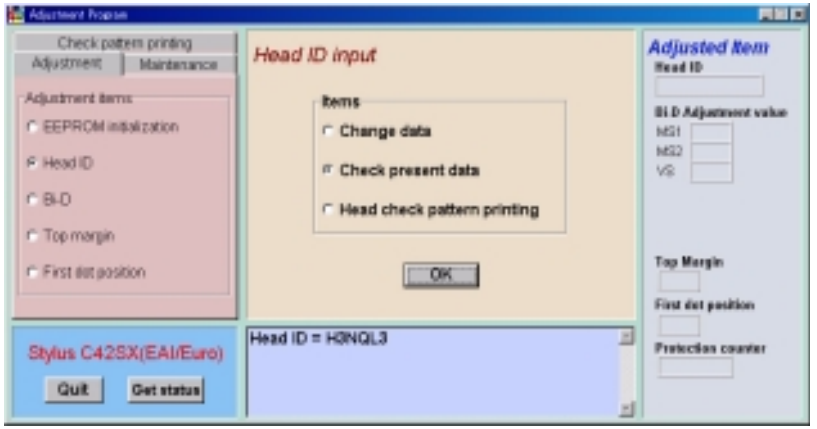


Figure 3-9. Read out the Head ID from the EEPROM

5. Choose the “Change data” item in the Head ID input menu and click the OK button. Following Head ID input menu is displayed. Input a 6-digit code of the Head Voltage ID in the following menu.

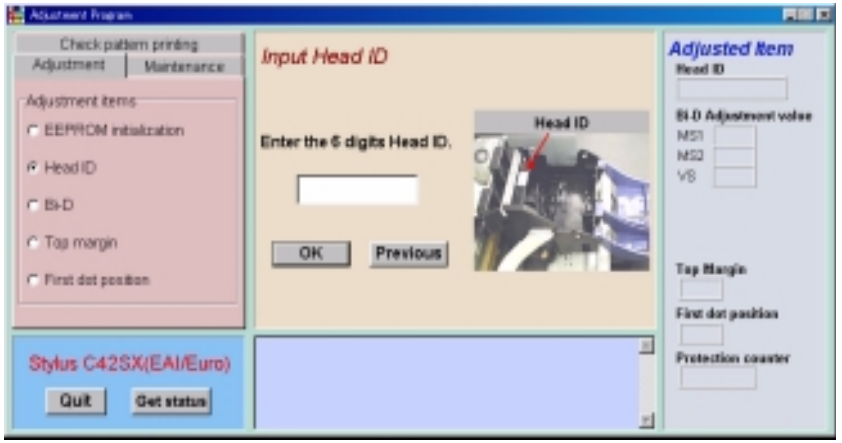


Figure 3-10. Entering the 6-digits Head ID

6. When the Head ID is input and writes to the EEPROM, the message is displayed on the bottom column in the menu.

3.1.6 Bi-D

You perform this adjustment to correct differences in printing positions, which is caused by incorrect of printing timing in right and left directions during the Bi-directional printing. Therefore, you are required to perform this adjustment after performing the following operations.

- Replacing the Print mechanism
- Replacing the main board
- Replacing the CR motor
- Replacing the Printhead

1. Choose the “Bi-D” in the “Adjustment menu” as following figure.

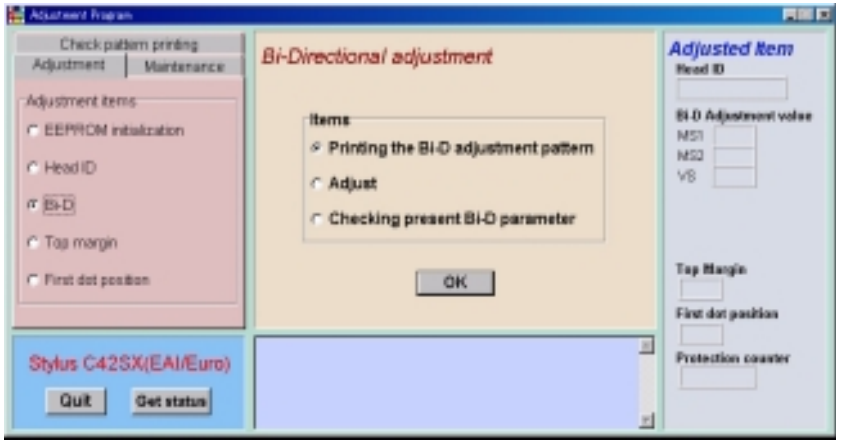


Figure 3-11. Choose the Bi-d adjustment

2. Choose the “Print the Bi-d adjustment pattern” in the “Bi-Directional Adjustment pattern” and click the “OK” button.

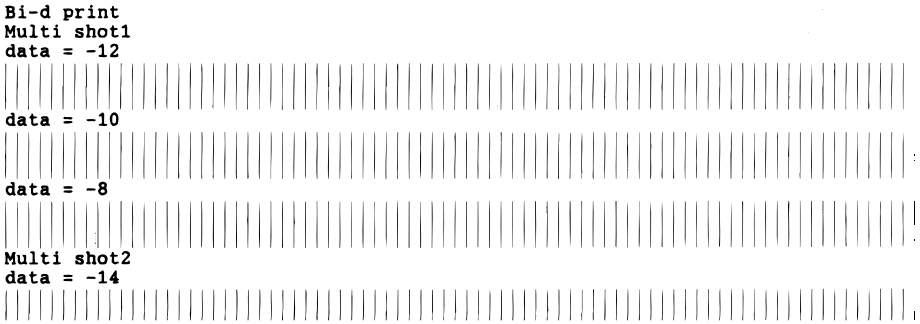


Figure 3-12. Bi-d adjustment pattern

NOTE: *As shown in the sample, gaps between passes are sometimes created in different directions among patterns. This unexpected change in direction is caused by an ink jet printer-specific reason, which is an ink jet printer inevitably performs a periodical cleaning specified by the flashing timer even during Bi-D pattern printing, so that the printing direction suddenly changes. However, this directional difference among Bi-D patterns should not be considered, and you can always confirm and adjust the pattern correctly by referring to gap amount only.*

3. Click the “Previous” and go back to the “BI-Directional Adjustment” menu. And choose the “Adjust” menu and click the “OK” button.

4. Check the printed pattern and find the misaligned dot type. Choose the misaligned dot size in the following menu and click the “OK” button.

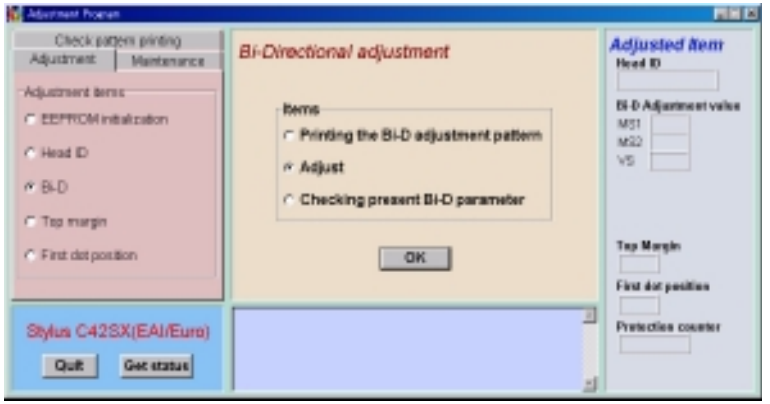


Figure 3-13. Choose the misaligned dot size

5. By choosing the misaligned dot size, following input menu for the adjustment value is displayed. Check the printed pattern again and Input the suitable value in the following menu and click the “OK” button.

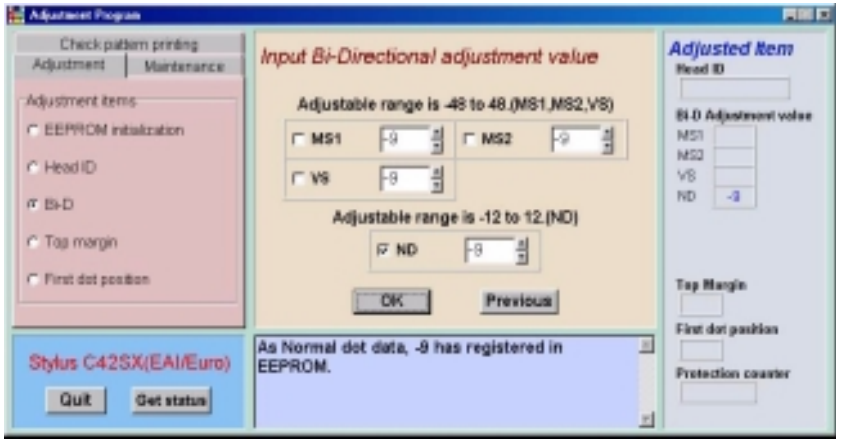


Figure 3-14. Bi-d adjustment input menu

6. The following menu appears. Press “OK“ to system reset to the printer. The input value is written in the specific address of the EEPROM.

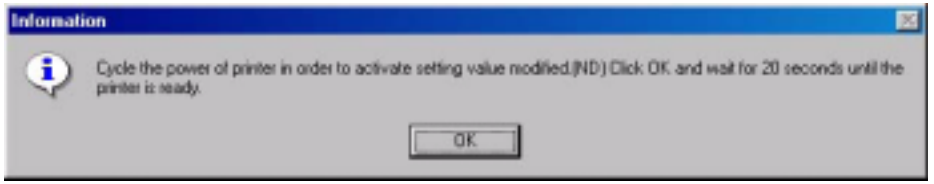


Figure 3-15. System reset of the printer

7. To confirm if the adjustment value is suitable, click the “Previous” button and go back to the “Bi-Directional Adjustment” menu. Choose the “Print the Bi-D adjustment patter” and click the “OK” button.
8. Repeat from Step1 to the previous step to align the Bi-D pattern.

3.1.7 USB ID

When you replace the main board with a new one, you have to input the USB ID newly into the specific address of the EEPROM. When the Printer and the PC are connected with a USB cable, the USB port driver loads the unique code from the specific address of the printer’s EEPROM and the provides the USB port number to the unique code. The USB port driver controls the several USB ports under the Windows 98 environment.

A unique code called USB ID is input to the specific address of the EEPROM in our manufactory and the following total 18-digit code is used as a USB ID for the EPSON ink jet printer.

- Factory line number (3-digit)
- PC number (2-digit)
- Input year/month/date/time (hour, minutes, second) (12-digit)
  The timer data of the PC is used for this input data.
- Number 0
  A “0” is automatically added for the last digit in the input program.

In repair activity, we use a 10-digit code of the Serial number for a USB ID. The remaining 8digits code is generated in the adjustment program and added to the serial number automatically.

CAUTION

- **In case the USB ID is not input in the adjustment program after the main board is replaced to new one, the USB ID may not possibly unique one. In this case, the USB ID conflicts another peripheral USB ID in the USB port driver and the another USB peripheral may not possibly be used with the USB.**
- **This menu is only appeared in case of connecting to USB model.**

1. Choose the “USB ID input” in the Adjustment menu.

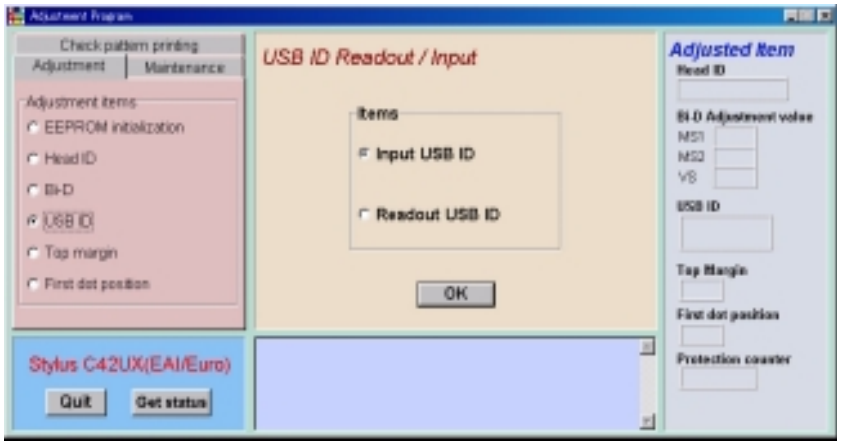


Figure 3-16. Choose the USB ID input menu

2. Choose the “Input USB ID” and click “OK” button in the “USB ID check/Input” menu. Following menu is displayed.

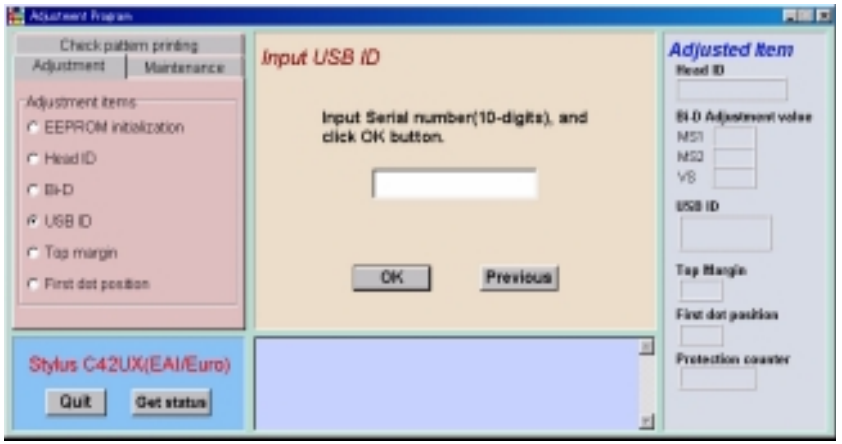


Figure 3-17. Choose the USB ID input menu

3. Check the 10digits code of the serial number on the serial number label stuck around the rear side of the Upper housing. Input the 10digits code of the serial number in the input menu and click “OK” button.

NOTE: *Even though you input irresponsible another 10digits code and click the “OK” button, the program allow to input the code and write down it the specific address of the EEPROM. But, there is a possibility that the code is not unique and the code conflicts another USB ID in the USB port driver.*

3.1.8 First Dot Position

This Adjustment revises gap of left margin (Print start position) of post card printing and A4 printing.

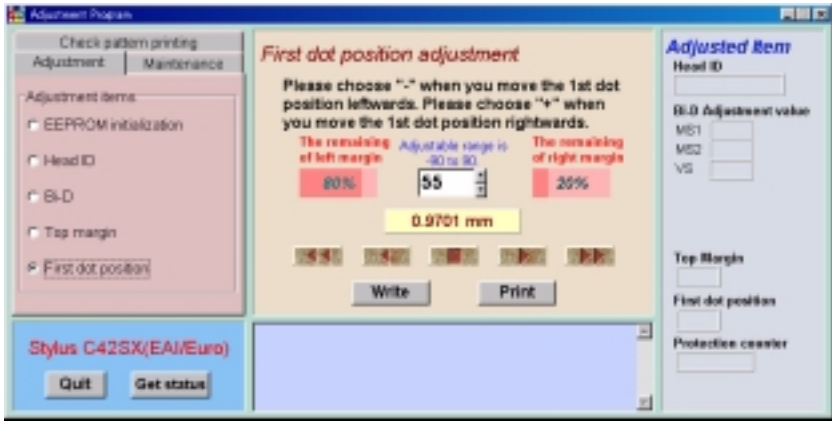


Figure 3-18. First Dot Position Adjustment

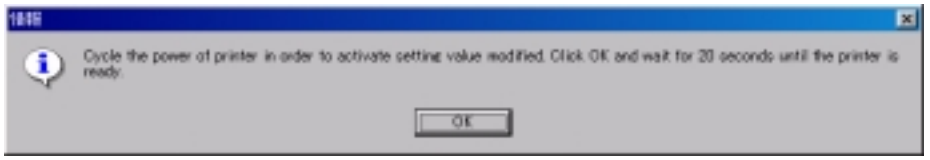
The figure indicated in the center of Adjustment window is the current figure recorded in EEPROM.

1. Press [Print] button and print Adjustment Pattern.

```
1st dot position = 55
```

Figure 3-19. First Dot Position Pattern

2. Measure the distance (left margin) from the paper left edge of print pattern to vertical pole of print start position.(Refer to Figure 3-36)
3. Change setting by pressing “r” “s” button beside or under the predetermined figure.
4. If following indication appears, set printer power OFF/ON in order to record predetermined limit to printer at first.



5. Press [OK] button after confirming.
6. Repeat above 2 to 5 and adjust so that left margin will be 3+/-1.5mm.

- **While warming up (Power LED blinking condition),Program can not be executed (communication error happens). Execute program on condition that Printer power LED is turning on.**
- **Whenever input step 1, it changes by 1/2880dpi (0.009mm).**

3.1.9 Top margin

This function can be used to change the top margin value.

You are required to perform this adjustment after performing the following operations.

- Removing or replacing the ASF unit.
- Removing or replacing the LD unit.
- Replacing the Printer mechanism
- Replacing the main board

1. Choose the “Top margin” in the Adjustment menu.

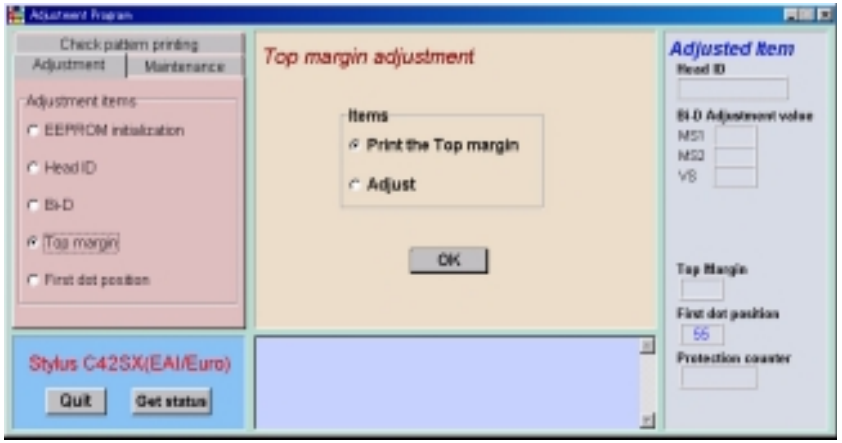


Figure 3-20. Choose the Top margin menu

2. Choose the “Print the Top margin” in the “Top margin adjustment” and click the “OK” button.

Figure 3-21. Top margin adjustment pattern

3. Check that the printed horizontal line is in 2.6mm ~ 7.2mm from the top of the paper. If it is out of the specific range, perform the Top Margin adjustment by the following procedure.
4. When adjusting the top margin, select “Adjust” from “Top margin adjustment”, the click the “OK” button.

3.1.10 Head cleaning

This printhead cleaning is CL1' and about 1/8 of the brand-new black I/C and 1/17 of the brand-new color I/C are consumed. Before use this function, check the remaining ink amount of the both I/C by using the "Get status" function.

1. Choose the "Head cleaning" in the Maintenance menu.

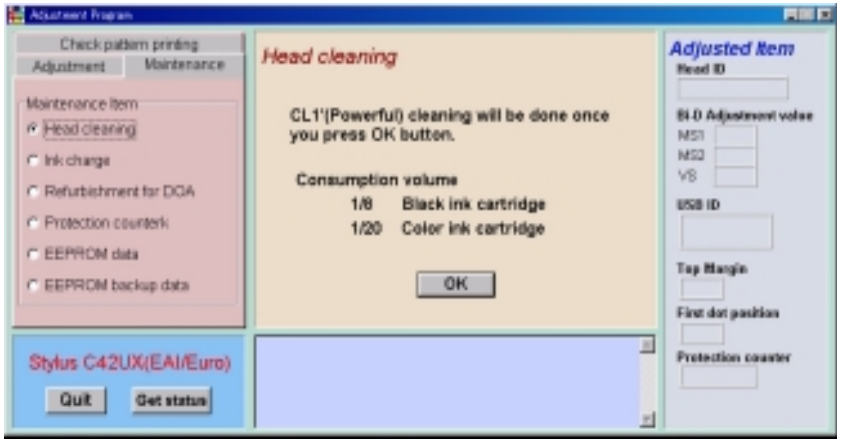


Figure 3-22. Choose the Head cleaning menu

2. Click the "OK" button in the menu. The powerful cleaning is performed.

3.1.11 Initial ink charge

After you replaced any of the following units, perform initial ink charge and return the printer after making sure that ink is ejected correctly from the printhead.

- After replacing the printer mechanism
- After replacing or removing the printhead

CAUTION

Before you perform the initial ink charge operation, replace the installed cartridges with new ones, because the ink amount used for the initial ink charge operation is so large.

1. Choose the "Initial ink charge" in the Maintenance menu.

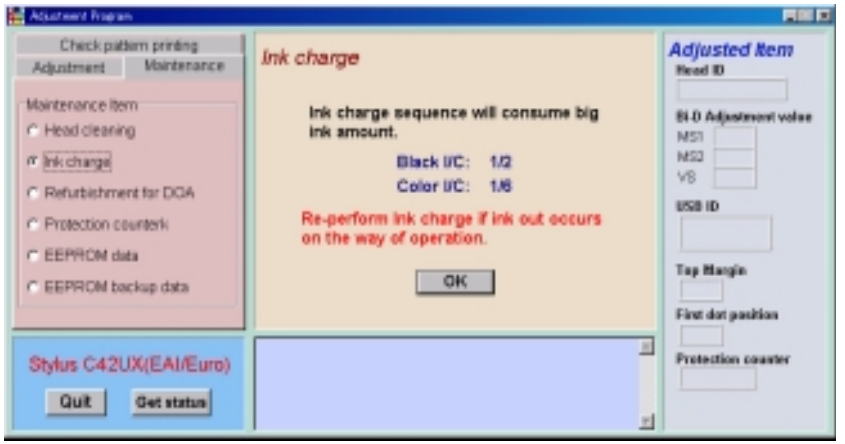


Figure 3-23. Choose the Initial Ink Charge menu

2. Click the "OK" button in the menu. The initial ink charge is performed.

NOTE: *As described in the menu message, about 1/4 amount of the Black ink cartridge and 1/9 amount of the Color ink cartridge are consumed in the initial ink charge operation.*

3.1.12 Refurbishment for DOA

If you clean the cavity of the printhead and cap assembly, this function will be useful.

CAUTION

- **After carry out this function, replace the waste drain ink pad with new one and reset the Waste drain ink pad counter. Otherwise, the ink or S46 liquid may leak from the pad during the transportation.**
- **Prepare the following tool.**
  ***Dummy ink cartridge, Injector, S46 liquid**
- **Do not carry out this program repeatedly. This operation is available only one time. Excessive operation causes overflow of the ink and S46 liquid.**
- **When you refurbish the repair product by using this program, do it on your responsibility.**
- **When you charge S46 liquid into the dummy ink cartridge with the Injector, make sure fill out the dummy ink cartridge with S46 liquid. In case enough S46 liquid is not charged into the dummy cartridge, the printhead will not cleaned and not filled with the S46 liquid enough in this operation.**
- **Keep the S46 liquid and the dummy ink cartridge clean.**

1. Choose the “Refurbishment for DOA” in the Maintenance menu.

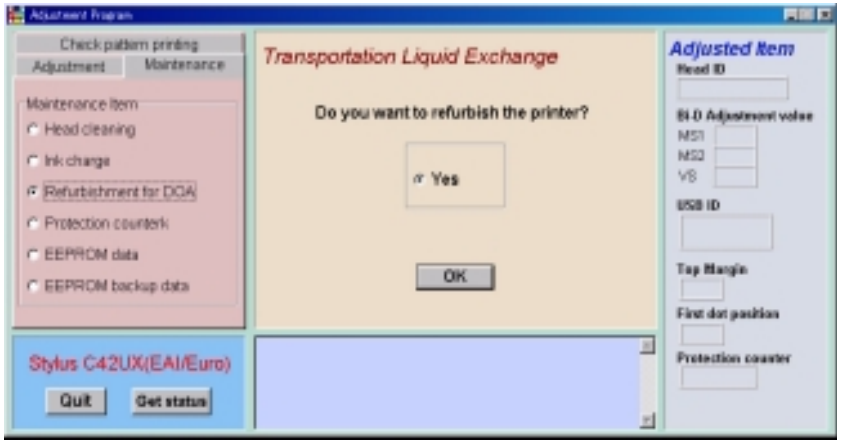


Figure 3-24. Choose the Refurbishment for DOA menu

2. Set the dummy cartridge in the printer using the ink replacement function.
3. Select “Yes” under “Item,” then click the “OK” button. The “Refurbishment for DOA” function is then executed.

3.1.13 Protection counter check

The program allows you to check or clear the current protection counter value (waste ink amount counter).

Check the present counter value

1. Choose the “Check the present counter values” in the “Maintenance” menu and click the “OK” button.

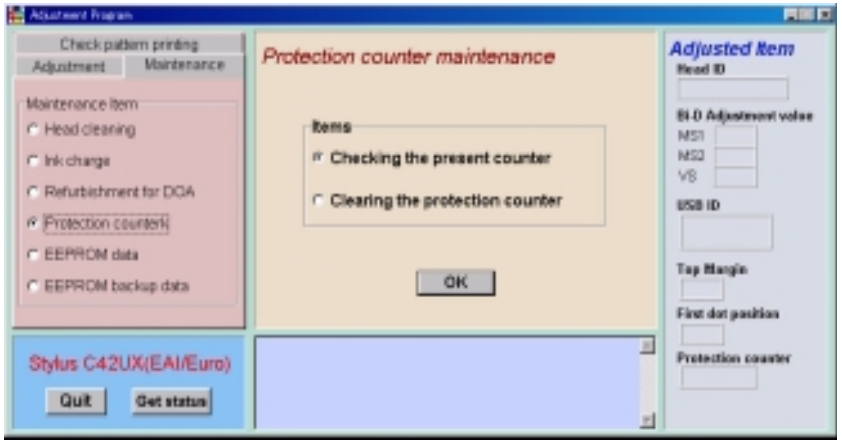


Figure 3-25. Choose the Check the present counter value

2. After read the Caution description on the above menu, click the “OK” button in the menu. The present counter value is displayed on the bottom column as following figure.

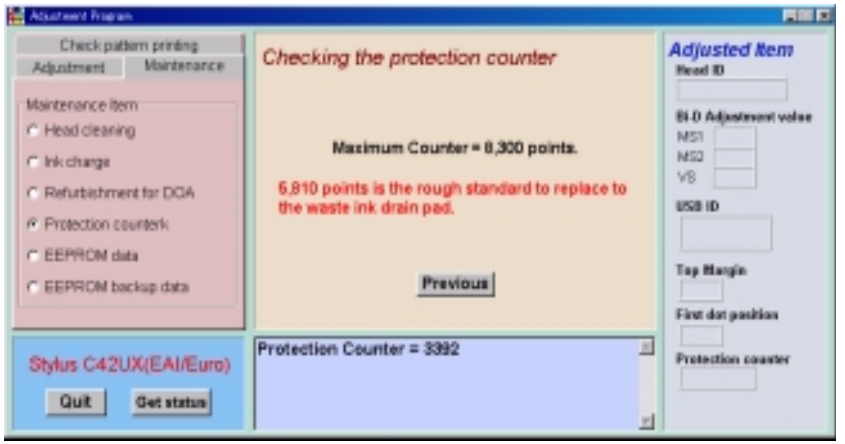


Figure 3-26. Present counter value

3. If the present counter value is over 5845 points, we recommend you to replace the Waste ink drain pad to new one.

Clear the present counter value

1. Choose the “Clearning the present counter values” in the “Ptotection counter maintenance” menu and click the “OK” button.

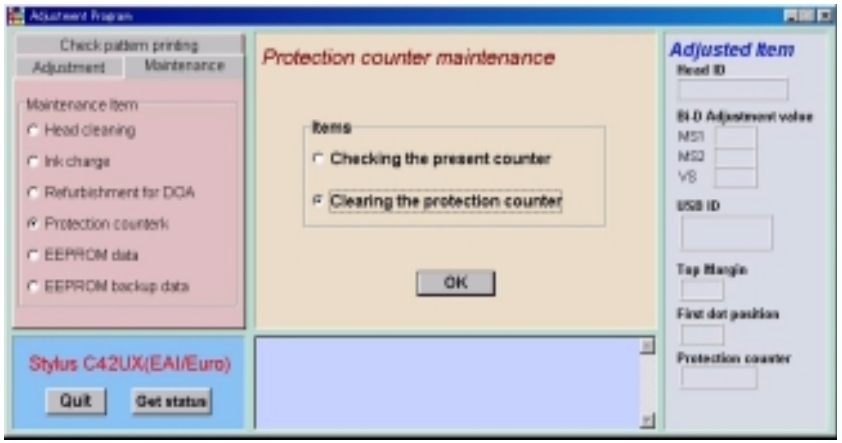


Figure 3-27. Choose the Clear the present counter value

2. After you read the description on the menu, click the “OK” button.

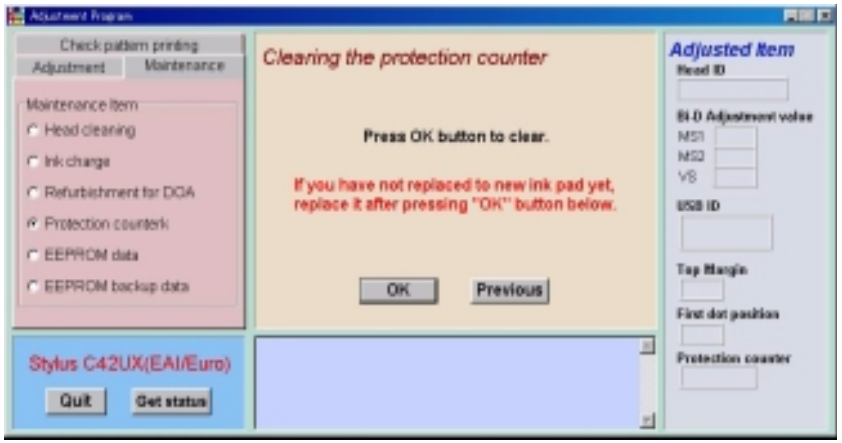


Figure 3-28. Clear the present counter value

CAUTION

Be sure to replace the installed waste ink pad with a new one after or before you clear the current protection counter value.

CHECK POINT

The initial value of the Protection counter is differ by destination as bellow:

- **ESP : 0**
- **Excepting ESP: 2940**

3.1.14 EEPRON check

You can check the EEPROM data or can write the specific data into the specific address of the EEPROM directly even if the printer is error condition. (In case one of the main logic circuit such as CPU, I/F receiver IC, RAM, EEPROM is broken, this function is not available) Select the “EEPROM check” function in the Maintenance menu.

The main menu of this function is as following figure. The following two functions are built in this program.

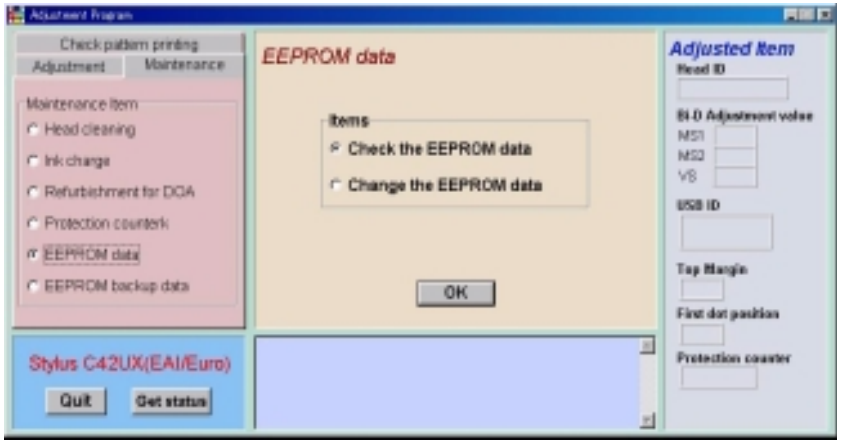


Figure 3-29. EEPROM check function

- Check the EEPROM data
  You can check the specific data stored in the specific address of the EEPROM.
  Input the specific address with hexadecimal code. Use this function in your analysis usefully.

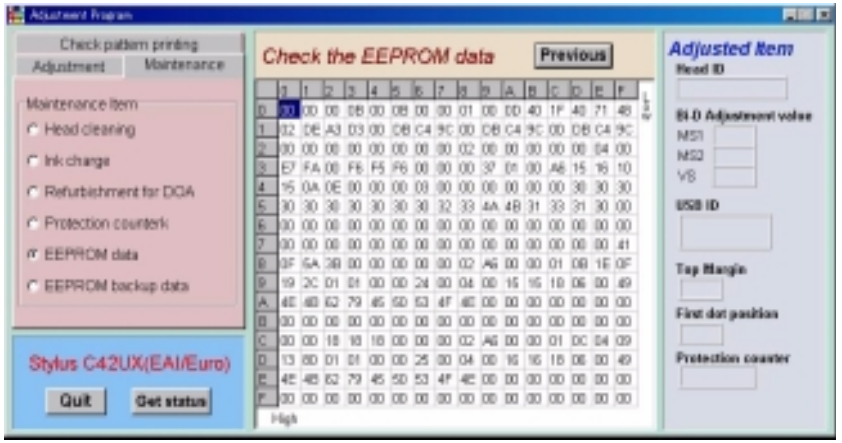


Figure 3-30. Check the EEPROM data

- Change EEPROM data
  You can change the specific data stored in the specific address of the EEPROM.
  However, do not use this function except the special case. Careless usage causes any trouble.

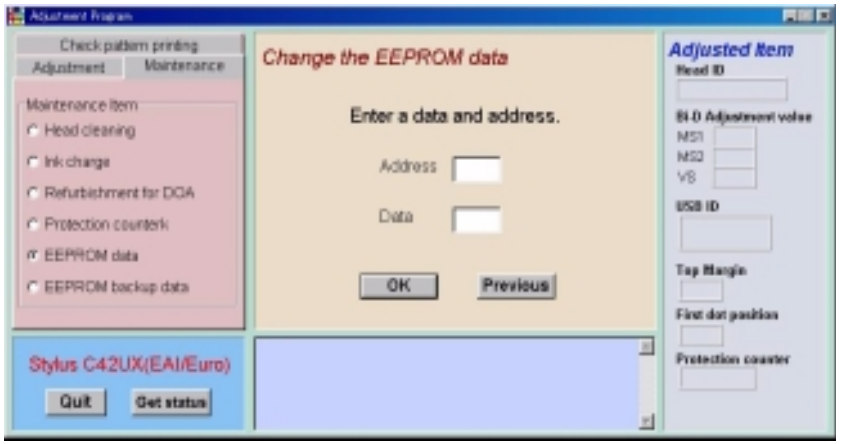


Figure 3-31. Change the EEPROM data

3.1.15 EEPROM back up data

This function is used when replacing the MAIN board.

Using this function, the data on the currently used MAIN board are backed up, then the backed up data can be written to the EEPROM on the new MAIN board after replacement.

CHECK POINT

This function may fail. If it fails, replace the MAIN board with a new one, then carry out the specified adjustments in order.

1. Choose the “EEPROM backup data” in the Maintenance menu.

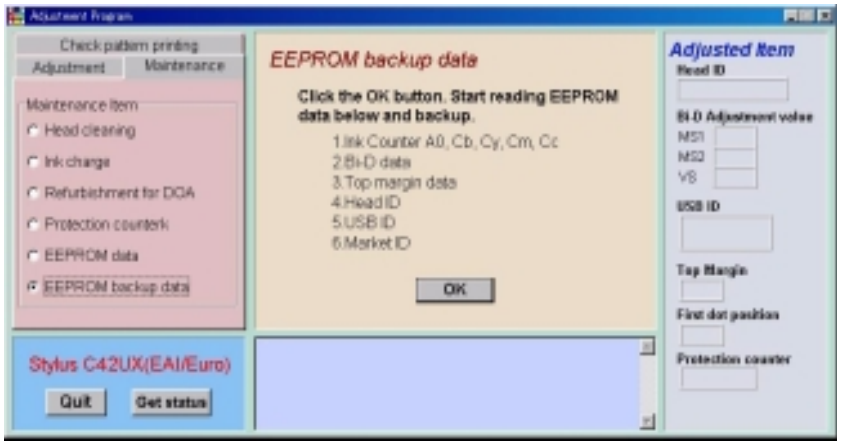


Figure 3-32. EEPROM backup data

2. The EEPROM data on the current MAIN board are backed up by clicking the “OK” button. The following message is displayed when the data backup operation is completed. Replace the printer’s MAIN board, then turn the power ON again and click the “OK” button.

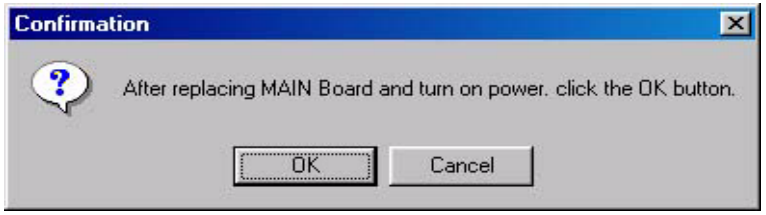


Figure 3-33. Replace the defective main board with new one

3. The backed up data will be written to the EEPROM on the new MAIN board.

3.1.16 A4 pattern will print

We recommend to use this function to check the repaired product quality in your final stage of your repair. The following 6 items are printed on the check pattern.

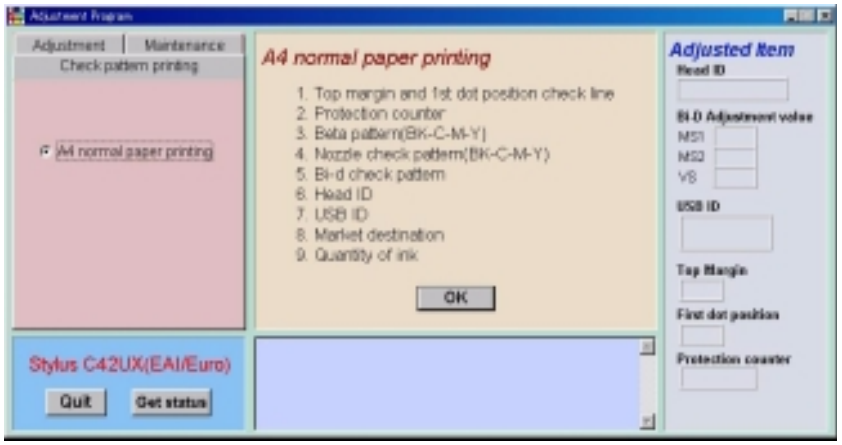


Figure 3-34. A4 Check pattern

CAUTION

Do not print the A4 Check pattern on the EPSON exclusive paper such as Photo quality ink jet paper. This check pattern is for the plain paper. So, use the Plain paper for this check pattern printing.

CHECK POINT

- **The check point for the first black and each color solid pattern (beta pattern 360 x 360dpi normal dot) in the A4 Check pattern is as follows.**
  -Any white line is not observed.
  -Uneven banding is not observed extremely.
- **The check point for the second Nozzle check pattern (120dpi) is as follows.**
  -Ink is fired from all nozzles.
  -Uneven banding is not observed extremely.
- **The check point for the third Alignment pattern is as follows.**
  -Each vertical line is printed straight.
- **If any incorrect printing is observed on the A4 Check pattern, perform the head cleaning or bi-d adjustment. If the phenomenon is not improved, replace the printhead or suitable mechanical parts.**

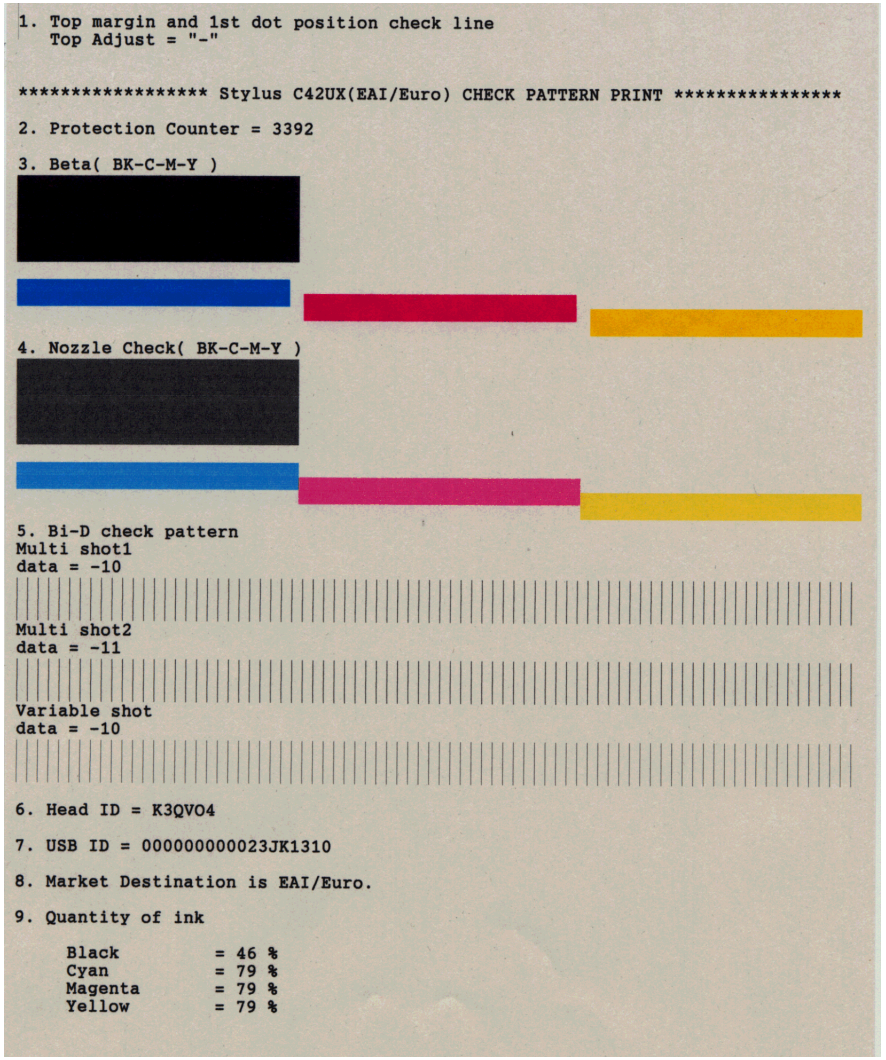


Figure 3-35. A4 Check pattern

CHAPTER

4

MAINTENANCE

4.1 Overview

This section provides information to maintain the printer in its optimum condition.

4.1.1 Cleaning

This printer has no mechanical components which require regular cleaning except the printhead. Therefore, when returning the printer to the user, check the following parts and perform appropriate cleaning if stain is noticeable.

CAUTION

- **Never use chemical solvents, such as thinner, benzine, and acetone to clean the exterior parts of printer like the housing. These chemicals may deform or deteriorate the components of the printer.**
- **Be careful not to damage any components when you clean inside the printer.**
- **Do not scratch the surface (coated part) of PF roller assembly. Use soft brush to wipe off any dusts. Use a soft cloth moistened with alcohol to remove the ink stain.**
- **Do not use cleaning sheet included in the media for normal usage. It may damage the coated surface of PF roller. If the adhesive surface of the cleaning sheet is set to the ASF LD roller side and used to clean the ASF LD roller surface, it is no problem.**

☐ Exterior parts
Use a clean soft cloth moistened with water and wipe off any dirt. If the exterior parts are stained with ink, use a cloth moistened with neutral detergent to wipe it off.

☐ Inside the printer
Use a vacuum cleaner to remove any paper dust.

☐ ASF LD Roller
If paper dust on the surface of ASF LD Roller lowers the friction, set the adhesive surface of the cleaning sheet included in the media to the surface of the ASF roller and repeat loading paper from the ASF.

4.1.2 Service Maintenance

If print irregularity (missing dot, white line, etc.) has occurred or the printer indicates “Maintenance Error”, take the following actions to clear the error.

☐ **Head Cleaning:**
The printer has a built-in head cleaning function, which is activated by operating the control panel.
Confirm that the printer is in stand-by state (the POWER indicator is not blinking), and hold down the Error Reset SW on the control panel for more than 3 seconds. The printer starts the cleaning sequence (The POWER indicator blinks during the cleaning sequence).

☐ **Maintenance Error Clear:**
Ink is used for the operations such as cleaning as well as printing. Therefore, the printer wastes certain amount of ink and drains it into waste ink pad, while counting the amount of the waste ink. Once the amount of the waste ink reaches the predetermined limit, the printer indicates “Maintenance Error” and the waste ink pad should be replaced.

- Overflow Counter Limit:
  Overflow Counter (Protection Counter A) >=8350
- Timing for Replacing the Waste Ink Pad:
  When the total amount of the waste ink reaches the predetermined limit, the LED indicates “Maintenance Error”.
  Also, during repair servicing, check the ink counter along with the firmware version, ink counter, select code page, nozzle check pattern on the status printing sheet. If the ink counter value is close to its limit, notify your customer and recommend that the waste ink pad be replaced (If the waste ink pad is not replaced at that time, there is a possibility that “Maintenance Error” will occur soon after the printer is returned to the customer). Once you have the confirmation of the customer, replace the waste ink pad.
- Replacement Procedure: “Waste ink pad removal” on page -21
- After the Replacement:
  Reset the Overflow Counter (Protection Counter A) : “Protection counter check” on page -48

4.1.3 Lubrication

The characteristics of the grease have great affects on the mechanical function and durability, especially does the characteristics about temperature environment. The type and amount of grease used to lubricate the printer parts are determined based on the results of internal evaluations. Therefore, be sure to apply the specified type and amount of grease to the specified part of the printer mechanism during servicing.

CAUTION

- **Never use oil or grease other than those specified in this manual. Use of different types of oil or grease may damage the component or give bad influence on the printer function.**
- **Never apply larger amount of grease than specified in this manual.**

Table 4-1. Specified Lubricants

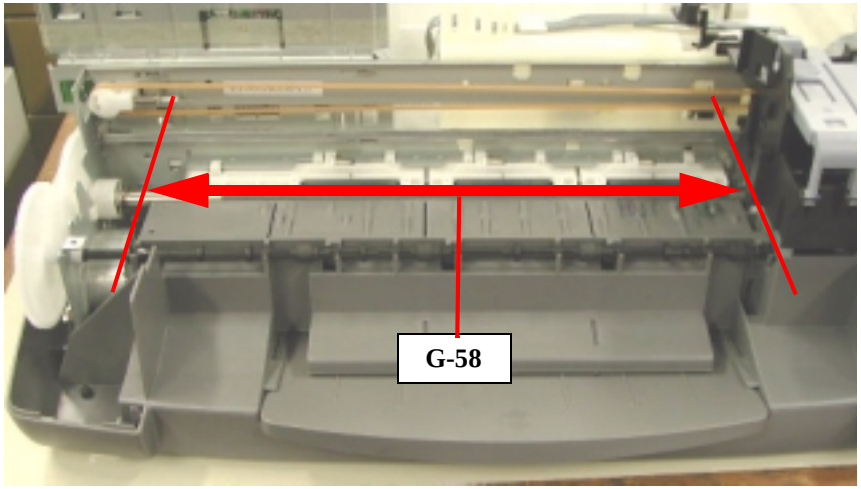
Type	Name	EPSON Code	Supplier
Grease	G-46	1039172	EPSON
Grease	G-58	1082176	EPSON

Table 4-2. Lubrication Type/Point

No.	Lubrication Type/Point	Remarks
1	**<Lubrication Point>** • Specified area on the Main frame. Refer to Figure 4-1, "Lubrication point 1". **<Lubrication Type>** • G-58 **<Lubrication Amount>** • 100mg x 4 points	• Use a brush to apply it. • After lubrication, move the CR unit left or right and smooth out the grease on the Front frame.

Table 4-2. Lubrication Type/Point

No.	Lubrication Type/Point	Remarks
2	**<Lubrication Point>** • Specified area on the Front frame. Refer to Figure 4-2, "Lubrication point 2". **<Lubrication Type>** • G-58 **<Lubrication Amount>** • F1mm x 200mm	• Use a syringe to apply it. • After lubrication, move the CR unit left or right and smooth out the grease on the Front frame.
3	**<Lubrication Point>** • Specified area on the Paper eject roller. Refer to Figure 4-3, "Lubrication point 3". **<Lubrication Type>** • G-46 **<Lubrication Amount>** • F1mm x 1mm x 9points	• Use a syringe to apply it. • After lubrication, turn the Paper eject roller and smooth out the grease on the Paper eject roller.



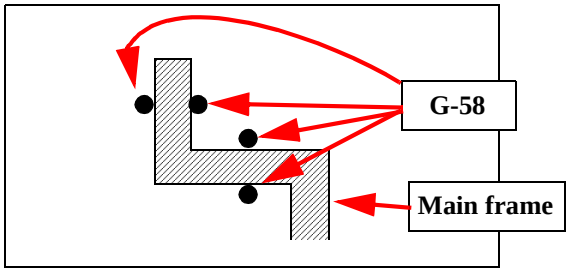


Figure 4-1. Lubrication point 1

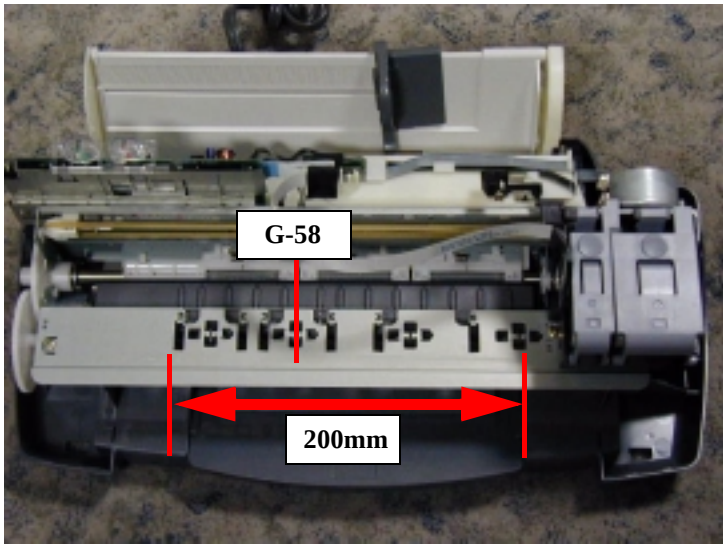


Figure 4-2. Lubrication point 2

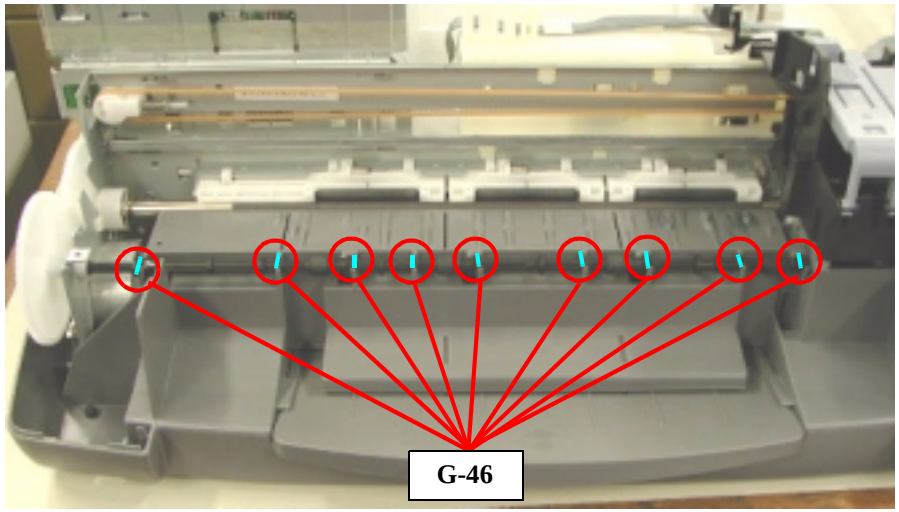


Figure 4-3. Lubrication point 3

CHAPTER

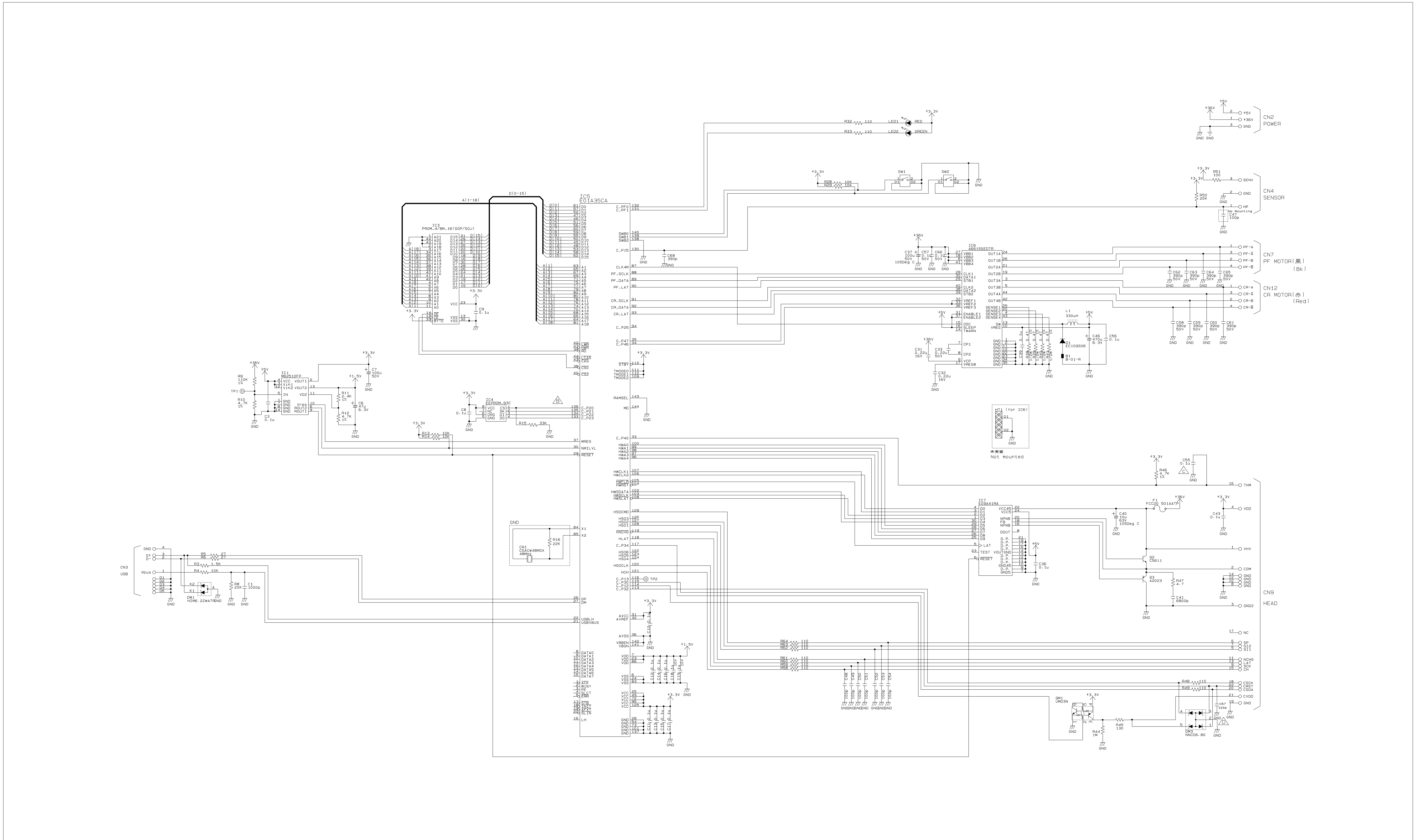
5

APPENDIX

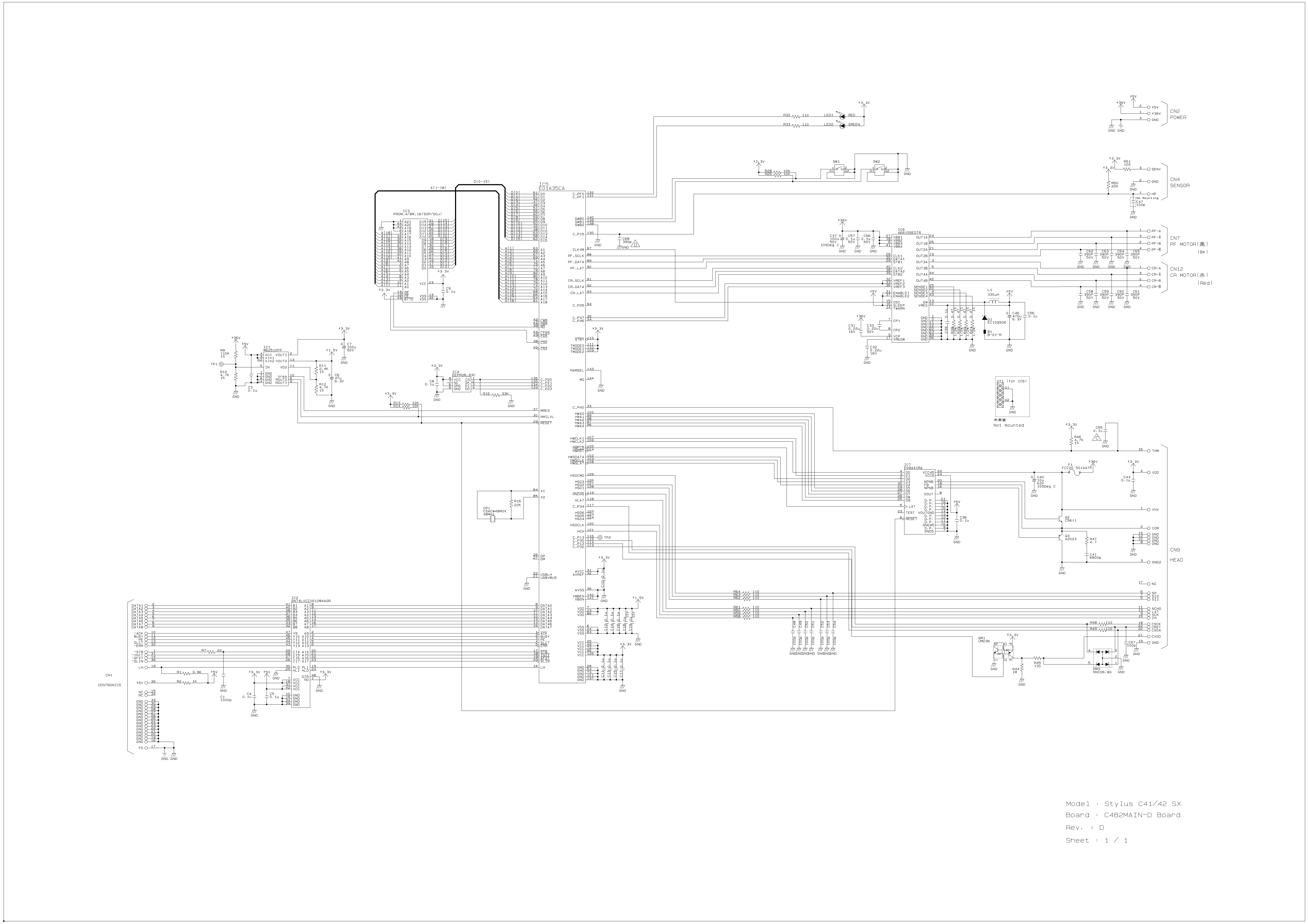
5.1 Electrical Circuits

See the following pages for the electric circuit diagrams below:

- C482MAIN-C : Stylus C41/42 UX series control circuit board
- C482MAIN-D : Stylus C41/42P SX series control circuit board
- C482PSH : Power supply circuit board



Model : Stylus C41/42 UX
Board : C482MAIN-C Board
Rev. : D
Sheet : 1 / 1

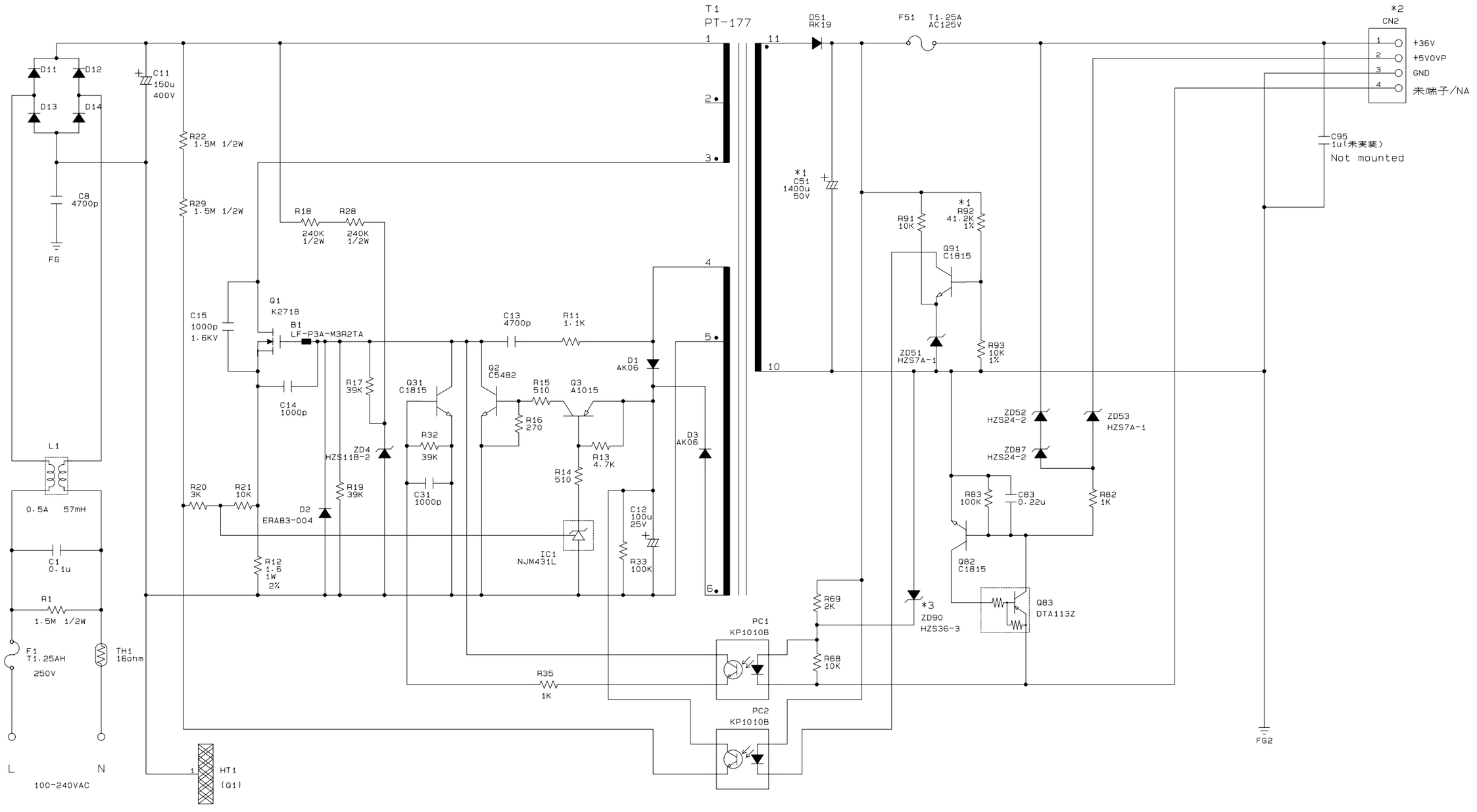


Model : Stylus C41/42 SX

Board : C482MAIN-D Board

Rev. : D

Sheet : 1 / 1



※ 1

	C482	
C51	1400μ	
R92	41.2K	

※ 2 : CN2

	C482	
Pin number	3	
1pin	+36V	
4pin	未端子/NA	

※ 3 : For Location ZD90, In case C482 : Non mounting,
In case C484 : Mounting

Model : Stylus C41/42 SX/UX
Board : C482PSH Board
Rev. : C
Sheet : 1 / 1