



TERMS OF USE

Users of this Service Note shall be deemed to agree with the following Terms of Use.

1. USERS

This Service Note is only for authorized persons with user ID and password issued by Roland DG Corporation.

2. PURPOSE

Authorized persons can use this Service Note only for the purposes of selling and providing to the customers maintenance service of FJ-540, SJ-740/640/540.

3. REUSE

Authorized persons shall not disclose, transfer, rent or distribute this Service Note to, or allow this Service Note to be used in any manner by, any third party other than authorized persons.

4. REPRODUCTION

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5. EFFECT OF VIOLATION

Regardless of circumstances, we will vigorously respond to any violation hereof, through legal action.

Roland DG Corporation

3 Replacement of Main Parts

The necessary adjustments after the replacement of each part, and the referential time for each work are described as follows. **REVISED 1**

REVISED 9 HEAD REPLACEMENT :

12min.(1 Head) **SJ/SC : +30min.

1. THERMISTER CHECK
2. HEAD ALIGNMENT
3. HEAD INFORMATION CLEAR
4. CHECKING THE CAP HEIGHT *7 Adj. Time : 37min.
< Total Time : 49min. **SJ/SC : +30min. >

WIPER REPLACEMENT : 5min.

< Total Time : 5min. >

REVISED 9 CAP TOP REPLACEMENT : 30min.(6 pcs.)

1. CHECKING THE CAP HEIGHT *7 Adj. Time : 2min.
< Total Time : 32min. >

CARRIAGE MOTOR REPLACEMENT : 20min.

1. SERVO LOCK CHECK
2. AGING
3. MOTOR HOURS CLEAR Adj. Time : 5min.
< Total Time : 25min. >

PUMP REPLACEMENT : 25min.(3 pcs.)

1. PUMP HOURS CLEAR
< Total Time : 25min. >

MAIN BOARD REPLACEMENT : 15min.

1. DIP SW SETTING
2. BATTERY INSTALLATION
3. FIRMWARE INSTALLATION
4. SYSTEM PARAMETER INITIALIZE
5. HEAD RANK SETTING
6. SERIAL NUMBER INPUT *1
7. CAP & WIPER CHECK *2
8. CHECKING THE CAP HEIGHT *7
9. SENSOR CHECK
10. LIMIT & CUT DOWN POSITION INITIALIZE
11. LINEAR ENCODER SETUP
12. PAPER SIDE SENSOR ADJUSTMENT
13. INK TYPE SETTING
14. HEAD ALIGNMENT
15. CALIBRATION Adj. Time : 67min.
< Total Time : 82min. >

NETWORK BOARD REPLACEMENT : 9min.

1. FIRMWARE UPGRADE
2. IP ADDRESS SETTING Adj. Time : 7min.
< Total Time : 16min. >

HEAD BOARD REPLACEMENT : 10min. **REVISED 4**

1. THERMISTER CHECK
2. HEAD UP/DOWN SENSOR CHECK *3 Adj. Time : 3min.
3. FAN ON THE HEAD BOARD CHECK Adj. Time : 10min.
< Total Time : 23min. >

BATTERY REPLACEMENT : 7min.

1. BATTERY FLAG CLEAR *4
< Total Time : 7min. >

PANEL BOARD REPLACEMENT : 7min.

1. LCD/LED//BUZ CHECK *5
2. KEY CHECK *6 Adj. Time : 3min.
< Total Time : 10min. >

CARRIAGE BOARD REPLACEMENT : 15min.

1. HEAD UP/DOWN SENSOR CHECK *3
2. THERMISTER CHECK
3. PAPER SIDE SENSOR ADJUSTMENT Adj. Time : 5min.
< Total Time : 20min. >

INK TUBE REPLACEMENT : 75min. (12 pcs.)

< Total Time : 75min. >

CARRIAGE WIRE REPLACEMENT : 45min.

1. WIRE TENSION ADJUSTMENT
2. LIMIT & CUT DOWN POSITION INITIALIZE
3. LINEAR ENCODER SETUP Adj. Time : 15min.
< Total Time : 60min. >

LINEAR ENCODER REPLACEMENT : 25min.

1. LINEAR ENCODER SETUP Adj. Time : 3min.
< Total Time : 28min. >

3

*1 Input the serial number in the [SERVICE MENU] > [SERIAL NO.].

*2 It can be performed in the [SERVICE MENU] > [CAP&WIPER CHECK].

*3 It can be performed in the [SERVICE MENU] > [SENSOR CHECK].

*4 It can be performed in the [SERVICE MENU] > [CLOCK CHECK].

*5 It can be performed in the [SERVICE MENU] > [LCD/LED/BUZ CHK].

*6 It can be performed in the [SERVICE MENU] > [KEY CHECK].

*7 It can be performed in the [SERVICE MENU] > [CAP ADJUST] > [CHECK GAP].

Revised 20

WARNING



To prevent static damage, discharge static electricity from your body before you touch any of electronic components. You can do so by touching an unpainted metal surface on the chassis.

You can also take the following steps to prevent damage from electrostatic discharge (ESD):

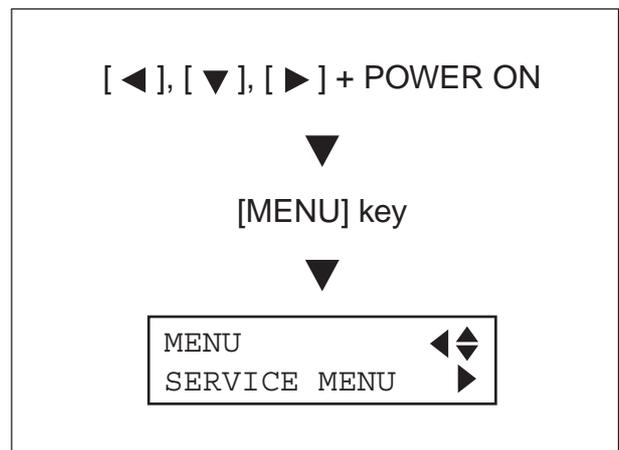
- When unpacking a static-sensitive component from its shipping carton, do not remove the component from the antistatic packing material until you are ready to install the component to the machine. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.
- When transporting a sensitive component, first place it in an antistatic container or packaging.
- Handle all sensitive components in a static-safe area. If possible, use antistatic floor pads and workbench pads.

3

3-1 HEAD REPLACEMENT REVISED 4

1 ** When replacing the HEAD of the SJ or SC, it is necessary to remove the INK from the machine. When replacing the HEAD of the FJ or CJ, proceed to **3**.

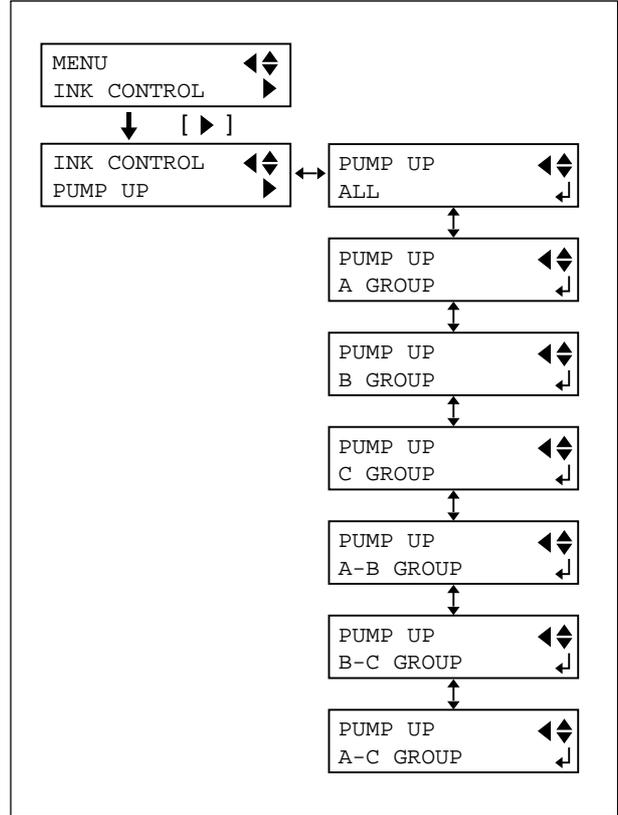
Turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.



- 2** From the menu (NOT from the service menu), select [INK CONTROL] > [PUMP UP], and select the group which you want to remove the INK of.

** This menu is available with the Ver.2.0 and above.

REVISED 1



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- 3** Input the HEAD RANK of the head which is going to be installed.

Turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.



Make sure to input the HEAD RANK before replacing the head, because the sticker which the head rank is written on will be hidden once the head is installed.

[◀], [▼], [▶] + POWER ON

[MENU] key

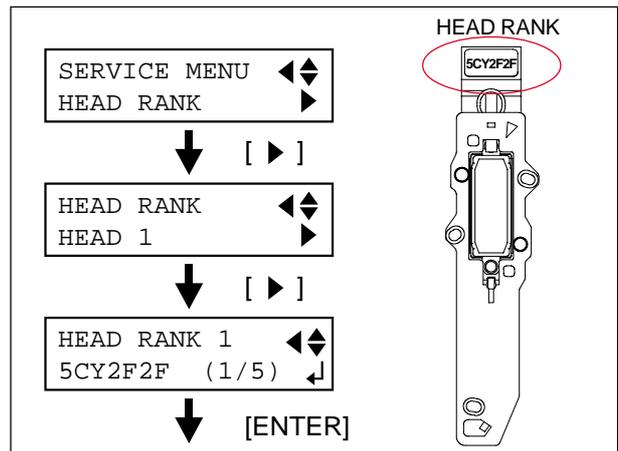
MENU
SERVICE MENU

- 4** In [HEAD RANK] menu, select the Head No. of the head that you are going to replace and input the HEAD RANK written on the new head.

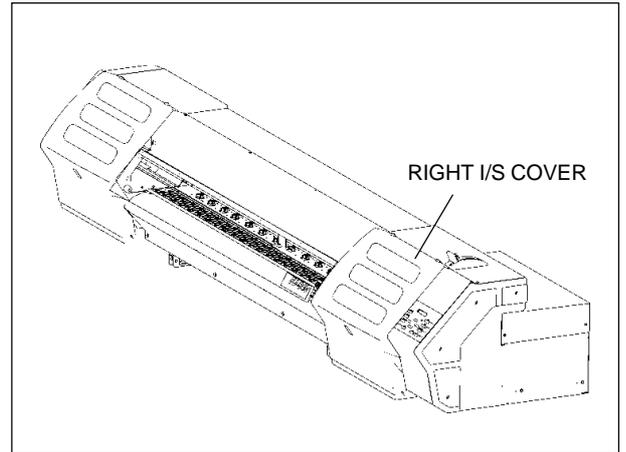
Input the HEAD RANK by selecting the digit with the Left and Right keys, and changing the parameters with the Up and Down keys.

Press the [ENTER] key to save the settings.

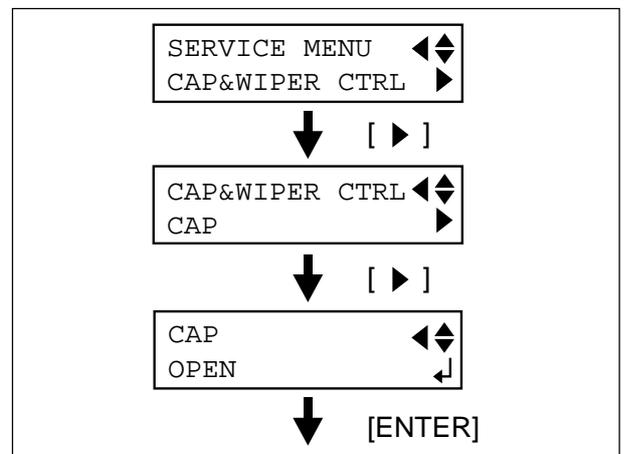
** The Head No. becomes [HEAD 1], [HEAD 2], [HEAD 3] from the head at the left end in order.



5 Remove the RIGHT I/S COVER.



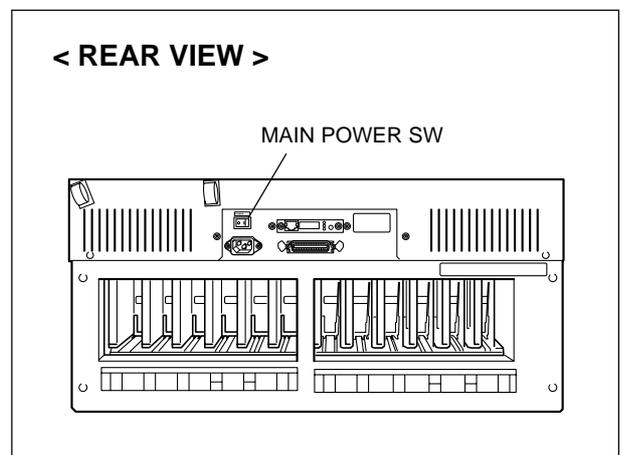
6 Select [CAP&WIPER CTRL] > [CAP] > [OPEN], and press the [ENTER] key. The CAPPING UNIT moves down and allows you to move the HEAD CARRIAGE by hand.



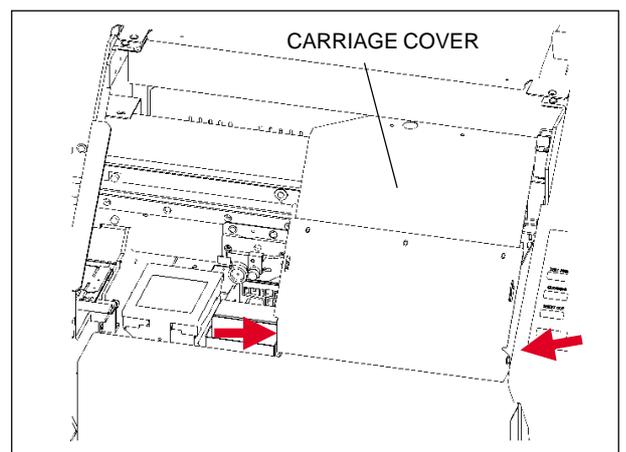
7 Turn off the SUB POWER SW, and then turn off the MAIN POWER SW.



Be sure to turn off the MAIN POWER SW when replacing the head. The head or main board could break, otherwise. It is recommended to disconnect the AC code.



8 Remove the CARRIAGE COVER.



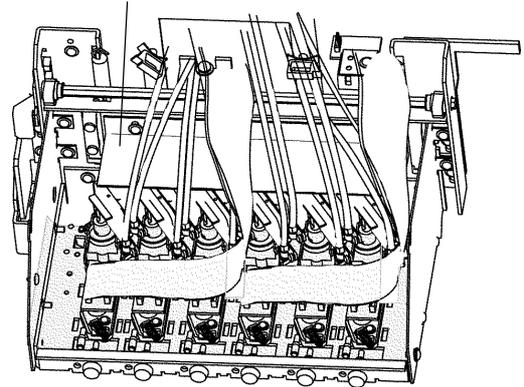
- 9** Remove the DAMPER PLATE and remove the 2 INK DAMPERS from the HEAD which will be replaced.



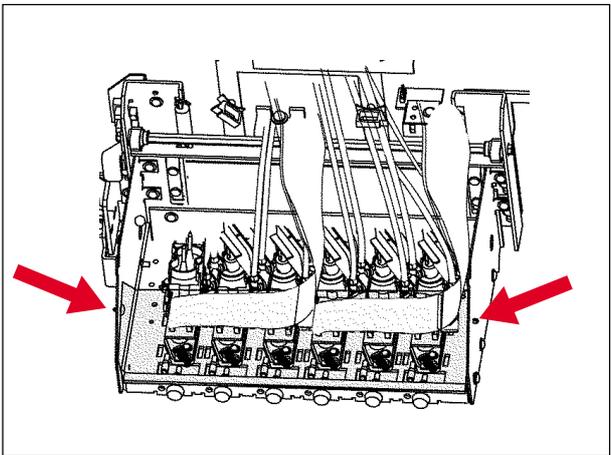
Do not hold both sides of the INK DAMPER so hard. It could break.
Be sure to remove and fix the INK DAMPER with the HEAD BOARD COVER fixed. It prevents the ink from dropping on the HEAD BOARD.

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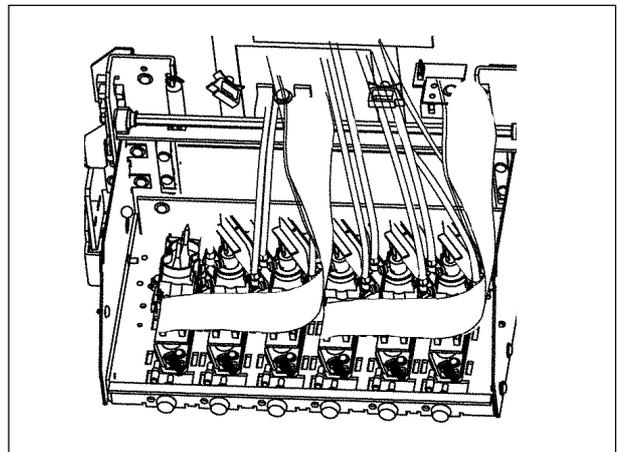
DAMPER PLATE



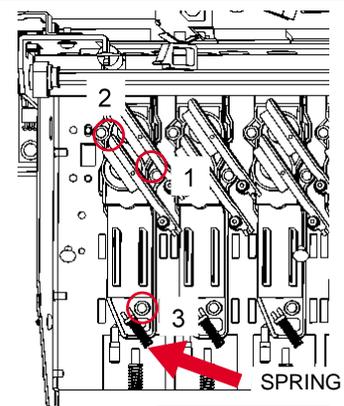
- 10** Remove the HEAD BOARD COVER (the transparent cover).



- 11** Disconnect the 2 flexible cables from the HEAD.



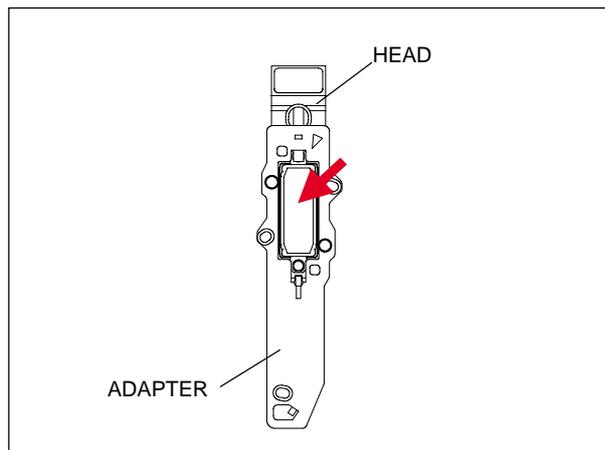
- 12** Remove the SPRING, and remove the 3 screws fixing the HEAD in order as shown in the figure.
Then, pull the HEAD towards the front and pull it up to remove it.



- 13** Remove the HEAD from the ADAPTER and fix the new HEAD to the ADAPTER.



Make sure to fix the HEAD by pressing it to the bottom left corner of the ADAPTER.
Use the 2kgf·cm torque driver (ST-056) to tighten up the screws.

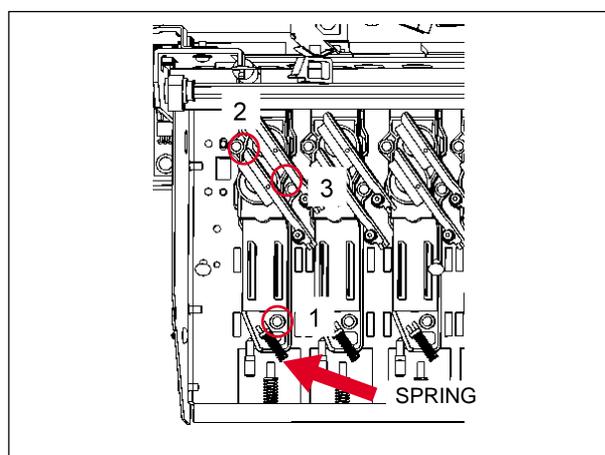


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- 14** Install the HEAD to the head carriage and fix the 3 screws temporarily. Then, fix the SPRING and tighten up the 3 screws in order as shown in the figure.



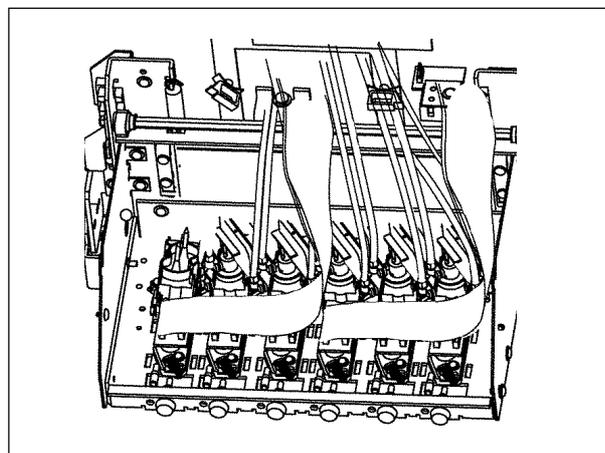
Use the 2kgf·cm torque driver (ST-056) to tighten up the screws.



- 15** Connect the 2 flexible cables to the HEAD BOARD.



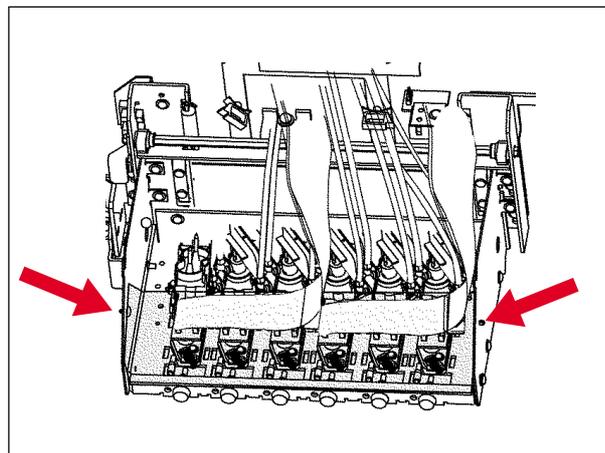
Do not connect cable to the wrong connector.



- 16** Fix the HEAD BOARD COVER temporarily.



The HEAD BOARD COVER should be fixed to prevent the ink from dropping on the HEAD BOARD when fixing the INK DAMPERS. It is not necessary to fix the cover with the NYLON LIVET, because the cover needs to be removed for the HEAD POSITION ADJUSTMENT.



REVISED 9

17 Replace the 2 new INK DAMPERS, and fix to the HEAD.

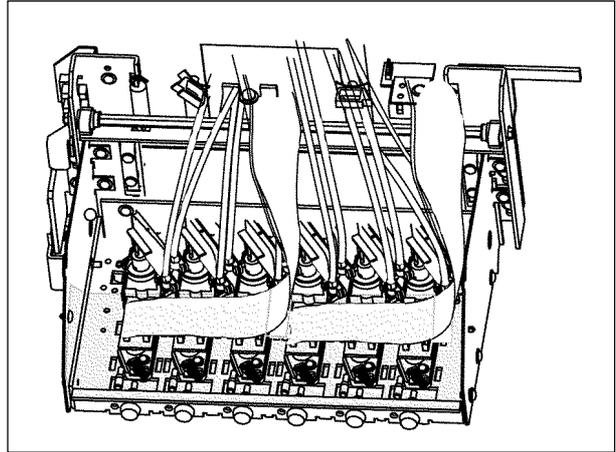


Make sure to replace the DAMPERS when the HEAD is replaced.



Do not hold both sides of the INK DAMPER so hard. It could break.

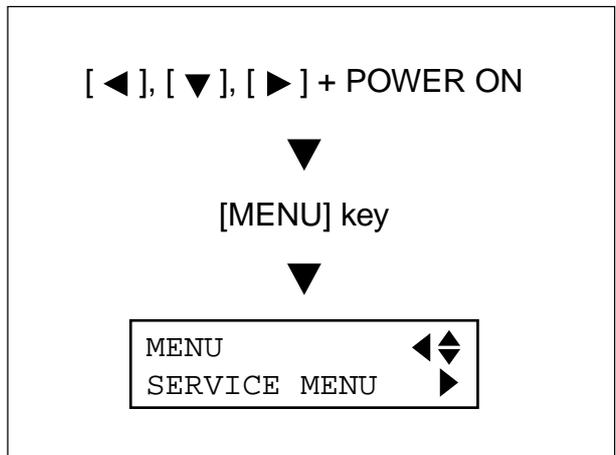
You can connect either INK DAMPER to the either connector on the HEAD, however, basically please connect the INK DAMPER which has the Ink Tube with 2 lines to rear side and connect the INK DAMPER which has the Ink Tube with 1 line to front side. **REVISED 4**



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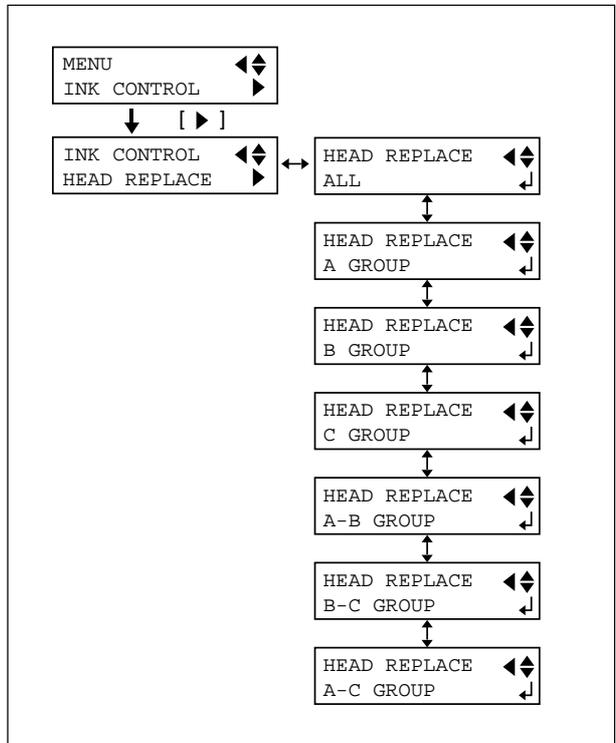
18 ** When you replaced the HEAD of the SJ or SC, it is necessary to fill INK after cleaning the ink lines. When you replaced the HEAD of the FJ or CJ, proceed to **20**.

Turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.



19 From the menu (NOT from the service menu), select [INK CONTROL] > [HEAD REPLACE], and select the group which you want to fill INK of, and press the ENTER key.

** This menu is available with the Ver.1.3 and above.



REVISED9

20 Enter the SERVICE MODE and perform the following adjustments.

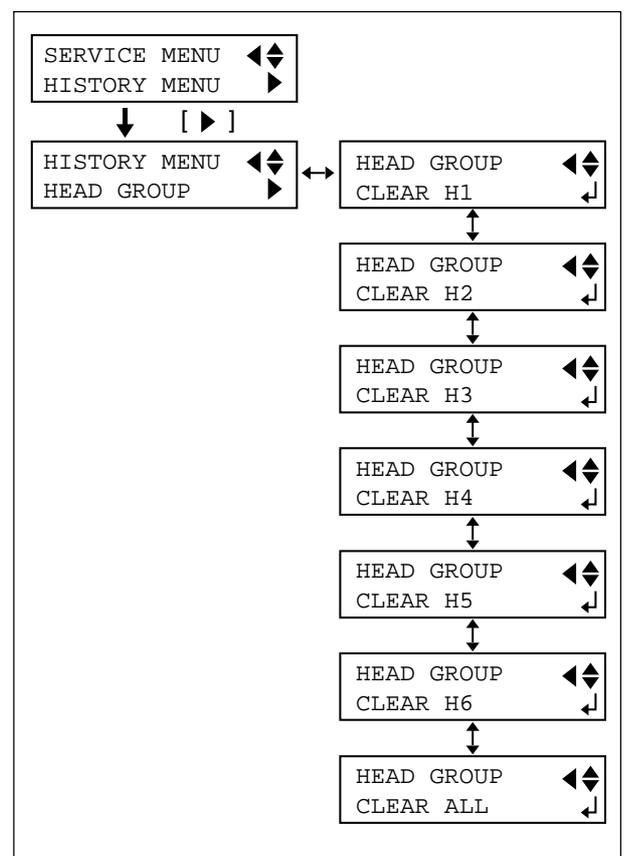
1. THERMISTER CHECK
2. HEAD ALIGNMENT
3. HEAD INFORMATION CLEAR
4. CHECKING THE CAP HEIGHT



If you replace the HEAD of the FJ or CJ, the CAPPING UNIT is in the down position at this moment.

3**HOW TO CLEAR THE HEAD INFORMATION**

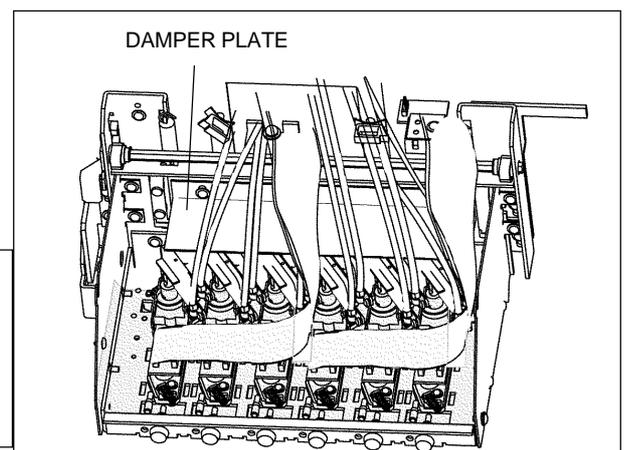
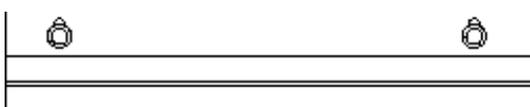
After THERMISTER CHECK and HEAD ALIGNMENT, clear the HEAD INFORMATION from the SERVICE MENU > HISTORY MENU > HEAD GROUP. Select the HEAD you replaced and press the ENTER key.

**< NOTE for fixing the DAMPER PLATE >**

When you fix the DAMPER PLATE after the above adjustments, make sure not to press it down to the DAMPERS.

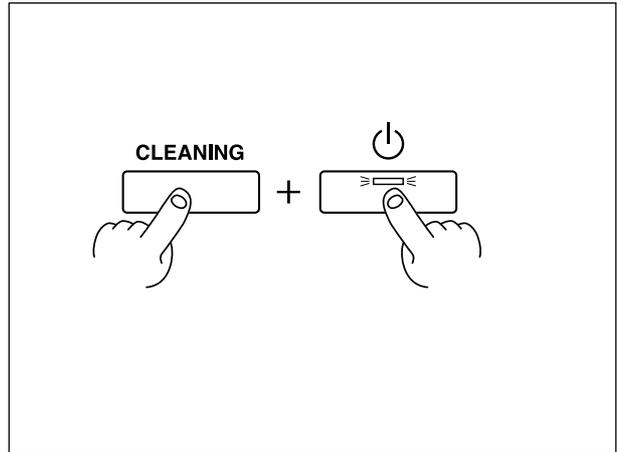


* Fix the screws at the bottom of the long screw hole.

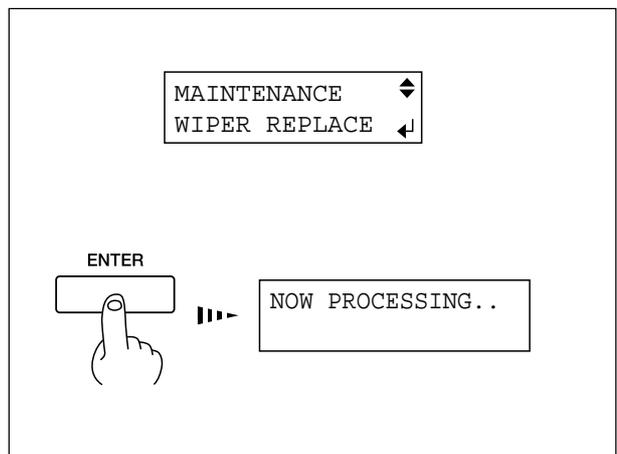


3-2 WIPER REPLACEMENT

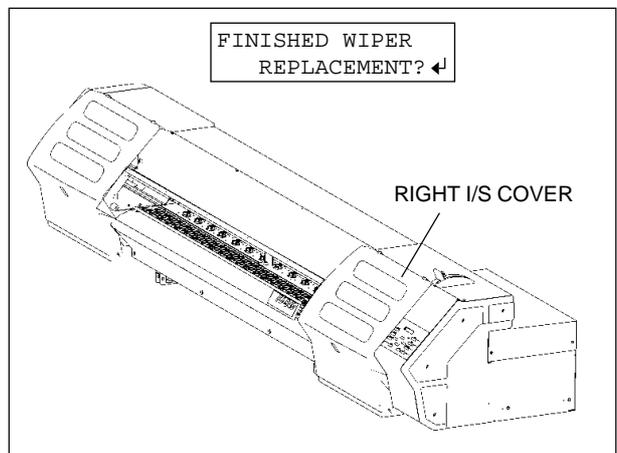
- 1 Turn on the SUB POWER SW while pressing the [CLEANING] key to enter the maintenance mode.



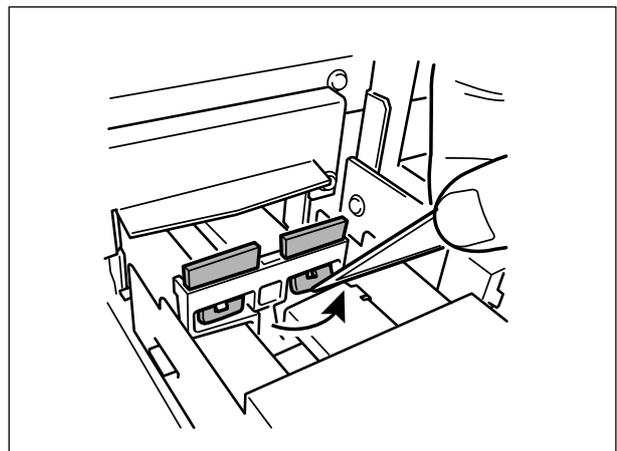
- 2 Select [WIPER REPLACE] and press the [ENTER] key. The head moves to the left side.



- 3 Make sure the screen shown in the figure is displayed. Then, remove the RIGHT I/S COVERS.



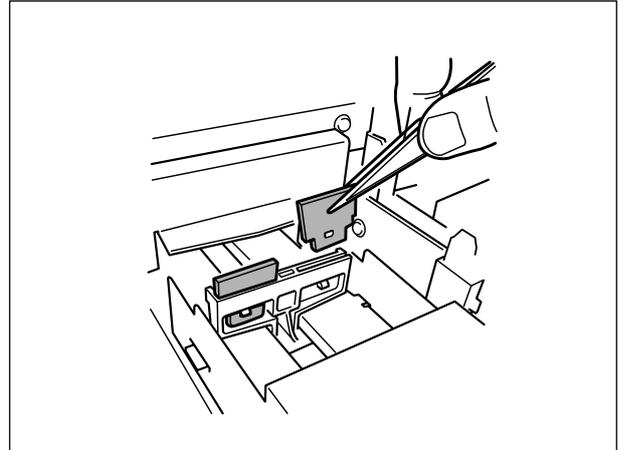
- 4 Using tweezers, grasp the bottom portion of the wiper and take it off the hook.



- 5** Remove the WIPER and install the new one.



Make sure to fix the wiper so that the rubber side faces the front.

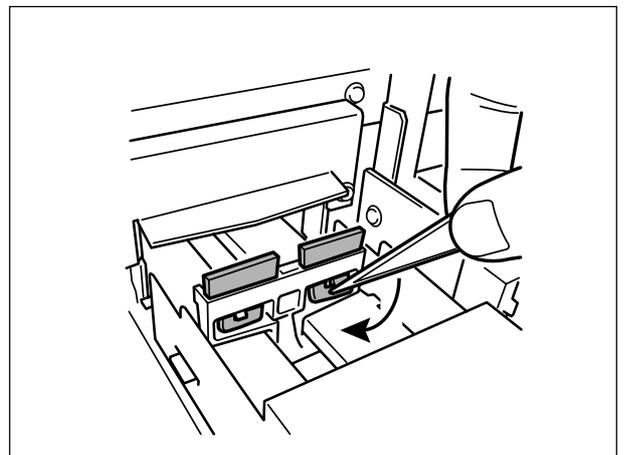


3

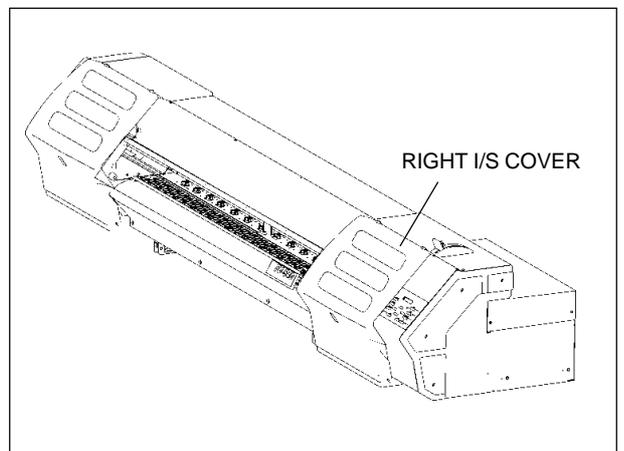
- 6** Use the tweezers to press the area shown in the figure and engage the WIPER on the hook.



Make sure to engage it on the hook. If the WIPER is not hooked, it may fall off during use.

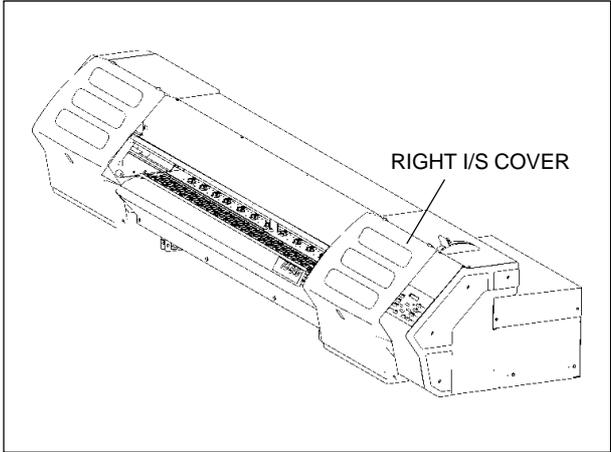


- 7** Fix the RIGHT I/S COVER and press the [ENTER] key. The head carriage moves back to the standby position and the head cleaning starts automatically. When the head cleaning finishes, the sub power will be turned off.



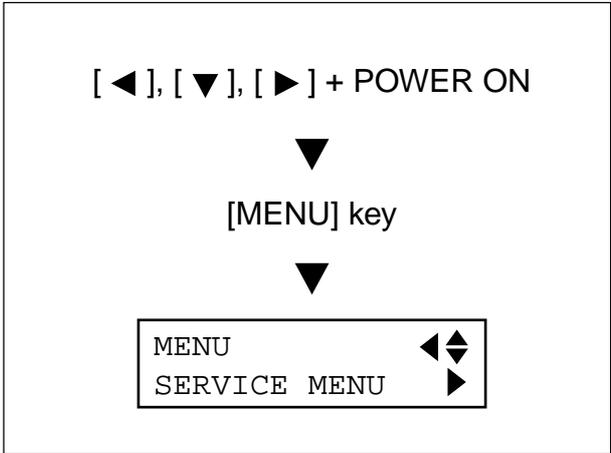
3-3 CAP TOP REPLACEMENT

1 Remove the RIGHT I/S COVER.

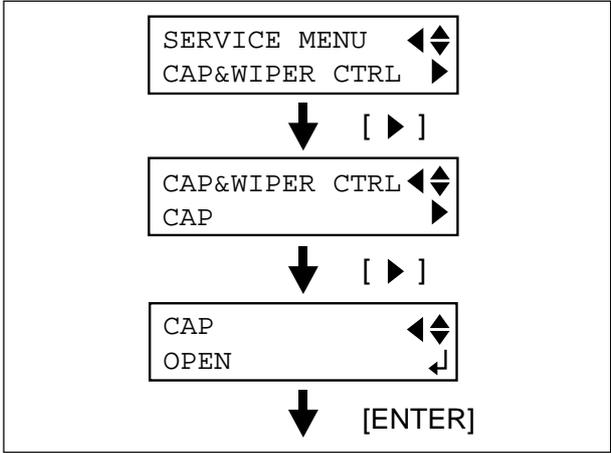


3

2 Turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.



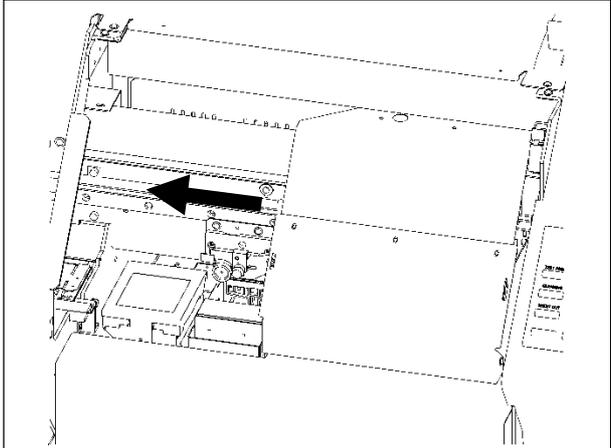
3 Select [CAP&WIPER CTRL] > [CAP] > [OPEN], and press the [ENTER] key. The CAPPING UNIT moves down and allows you to move the HEAD CARRIAGE by hand.



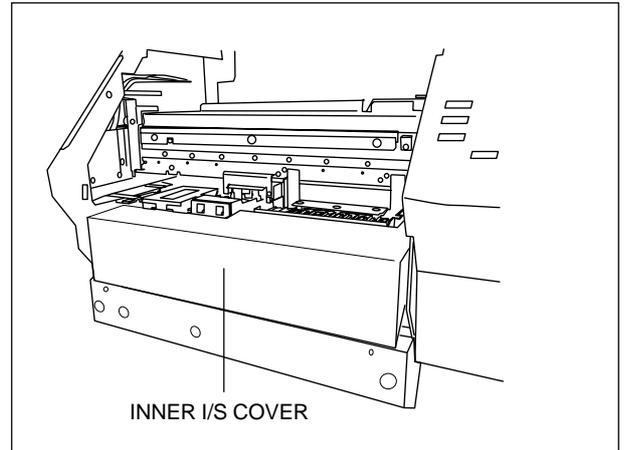
4 Move the HEAD CARRIAGE slowly leftwards so that it is not above the capping unit.



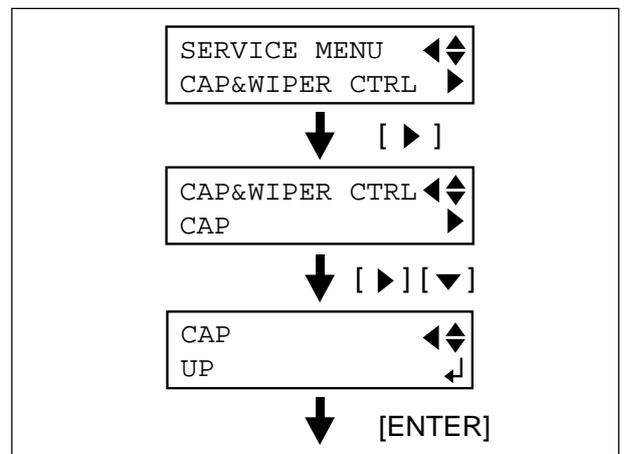
Be careful that the head does not strike the media or media clamp.



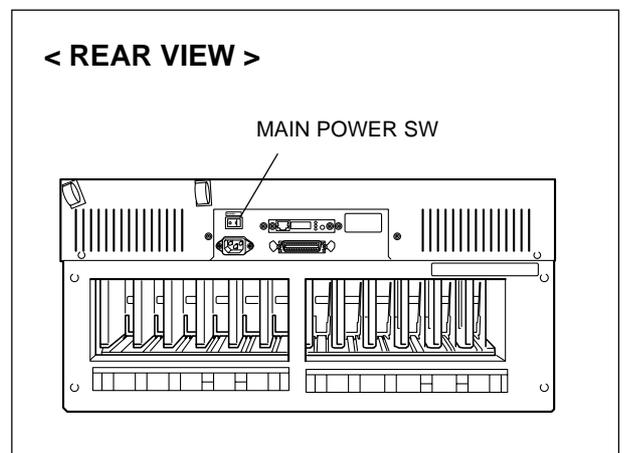
- 5 Remove the INNER I/S COVER.



- 6 Select [CAP&WIPER CTRL] > [CAP] > [UP], and press the [ENTER] key. The capping unit moves up. Press the [ENTER] key 3 times, because the capping unit moves up in 3 steps.



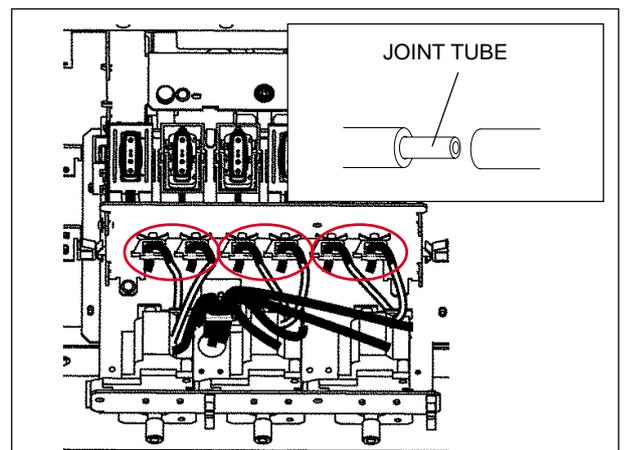
- 7 Turn off the SUB POWER SW, and then turn off the MAIN POWER SW.



- 8 Disconnect the tube (Black) of the CAP TOP from the tube (White) of the PUMP.
Keep the JOINT TUBE for connecting the tube of the new CAP TOP.



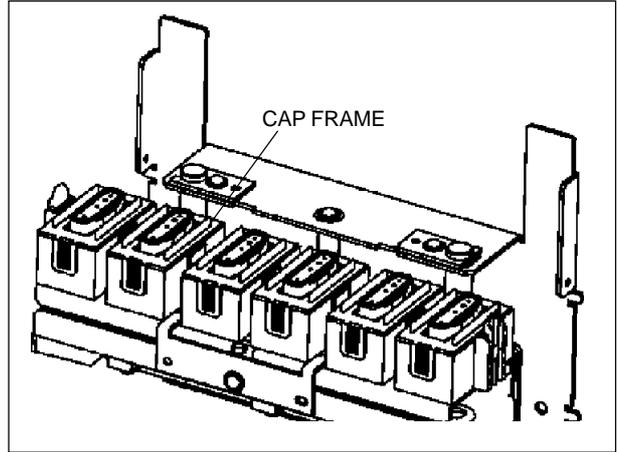
Make sure to replace the CAP TOP one by one. If you disconnect the plural tubes at the same time, there is a danger of connecting to a wrong tube.



- 9** Unhook the CAP FRAME with holding it by the other hand, and remove it.

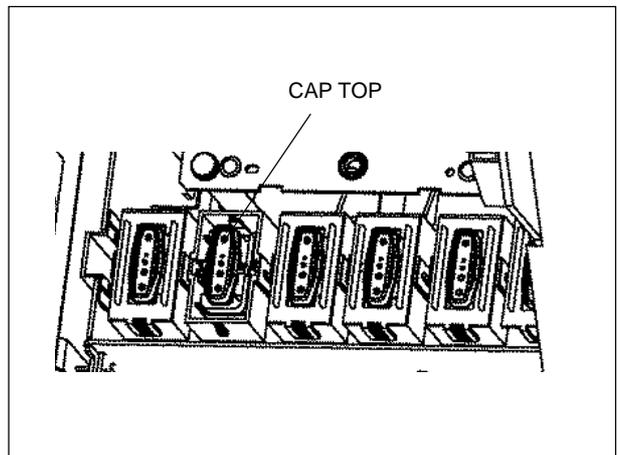


Make sure to hold the CAP FRAME. There is a SPRING under the CAP TOP. The CAP TOP will jump out unless you hold the cap frame when removing it.



3

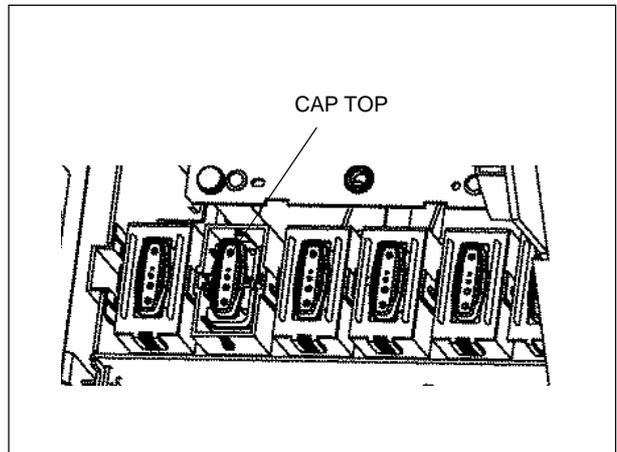
- 10** Remove the CAP TOP together with the tube.



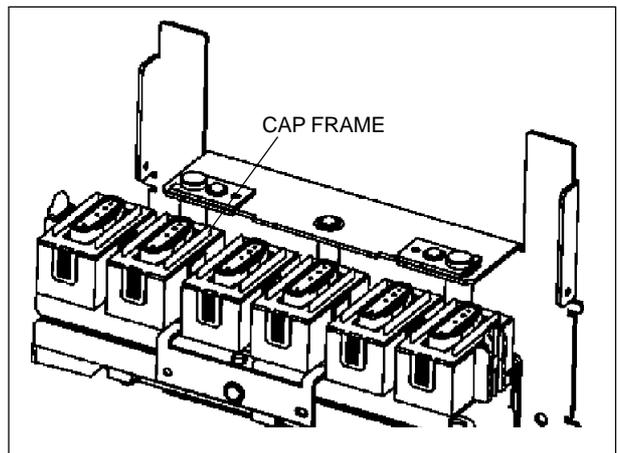
- 11** Fix the new CAP TOP. Make sure to fix it so that the tube side faces the front



Make sure not to touch the sponge. Make sure the SPRING is properly fixed under the CAP TOP.



- 12** Fix the CAP FRAME.

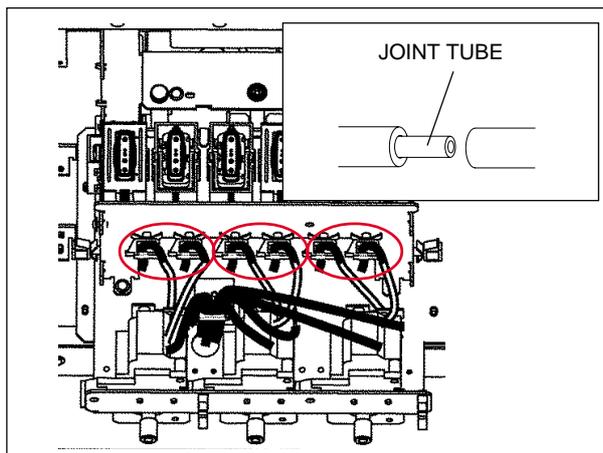


- 13** Connect the tube of the CAP TOP to the tube of the PUMP using the JOINT TUBE.

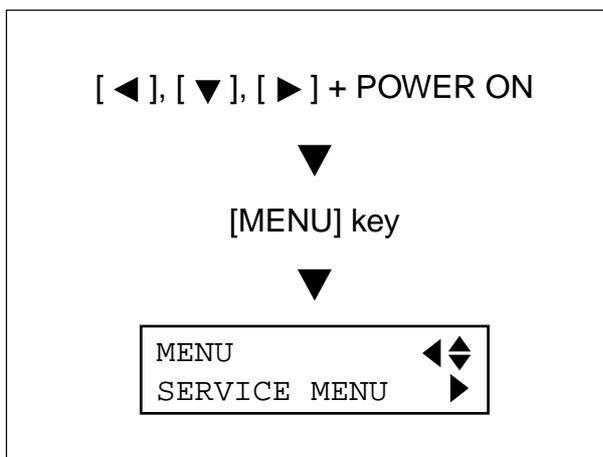
Then, replace the other CAP TOPs in the same way.



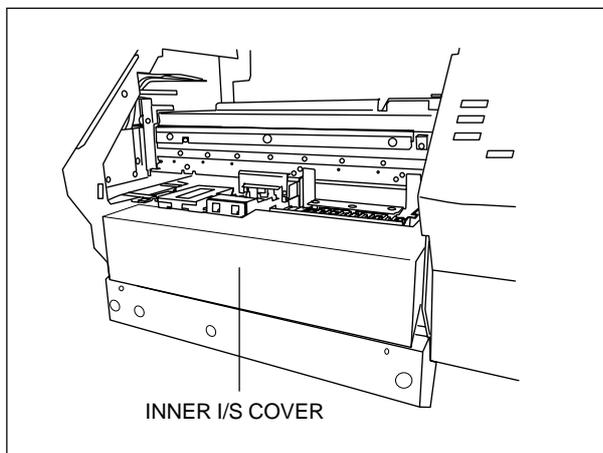
You can connect either tube of the CAP TOP to the either tube of the PUMP.



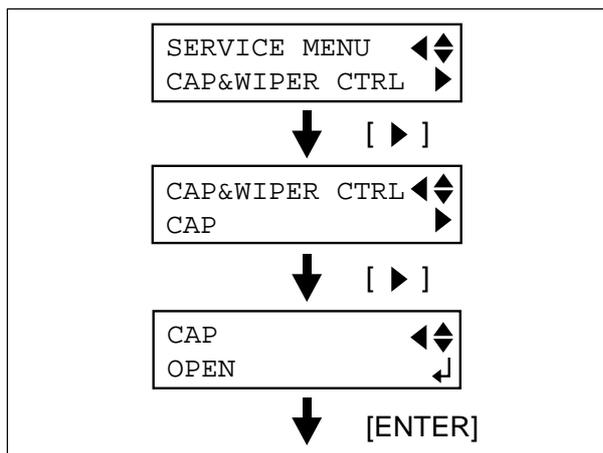
- 14** Turn on the MAIN POWER SW, then turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.



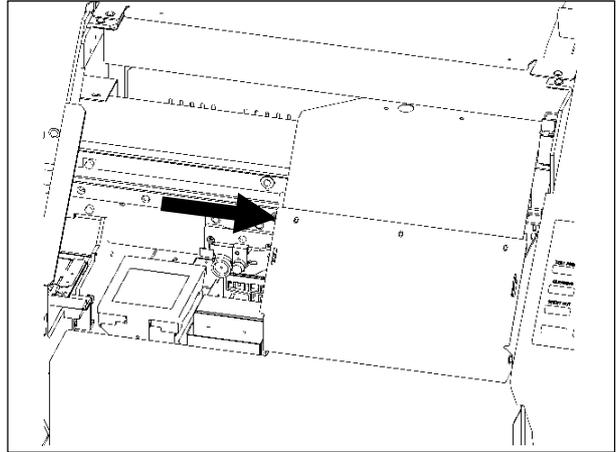
- 15** Fix the INNER I/S COVER.



- 16** Select [CAP&WIPER CTRL] > [CAP] > [OPEN], and press the [ENTER] key. The capping unit moves down.

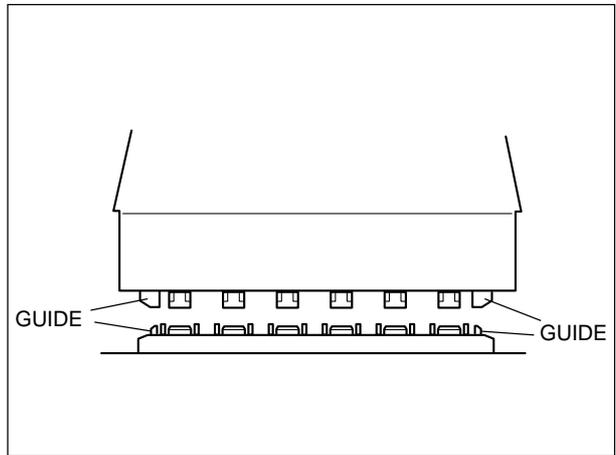


- 17** Move the HEAD CARRIAGE by hand to the standby position.



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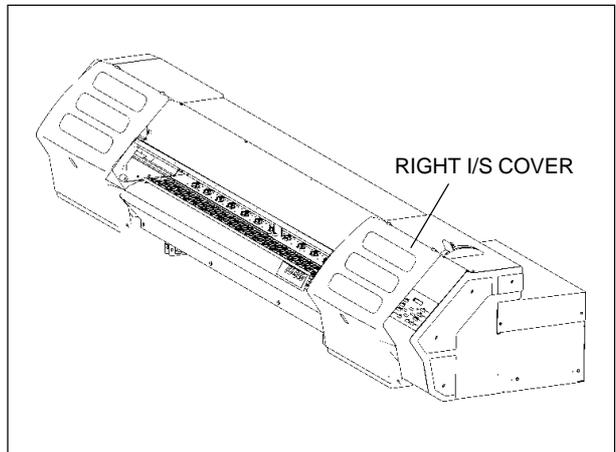
- 18** Select [CAP&WIPER CTRL] > [CAP] > [UP], and press the [ENTER] key to move up the capping unit 1 step. Align the GUIDES at the two ends of the capping unit with the GUIDES at the two ends of the head carriage by moving the head carriage by hand. Then press the [ENTER] key twice more to cap the heads with adjusting the position of the head carriage.



REVISED9

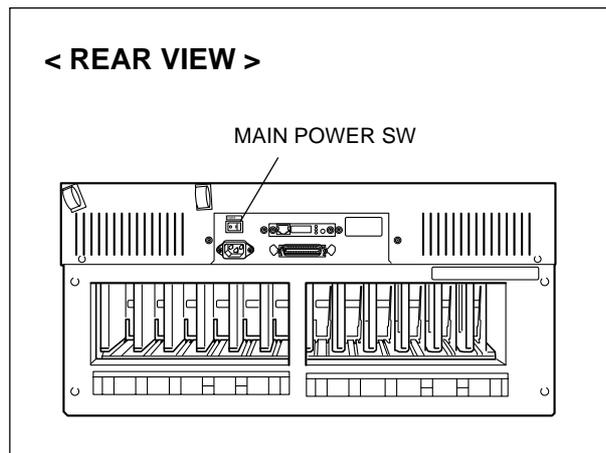
- 19** Fix the RIGHT I/S cover

Enter the SERVICE MODE and perform the following adjustment.
1.CAP HEIGHT CHECK

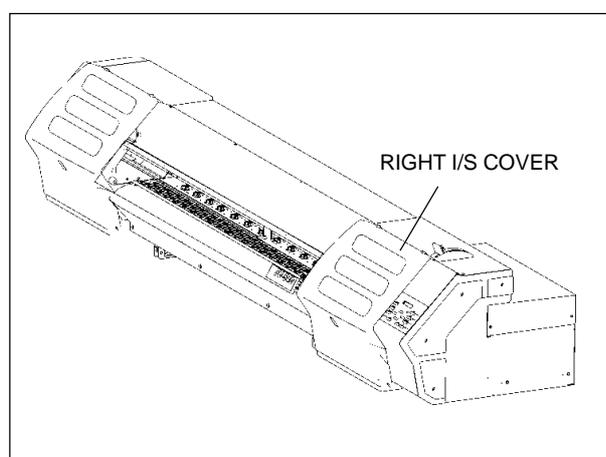


3-4 CARRIAGE MOTOR REPLACEMENT

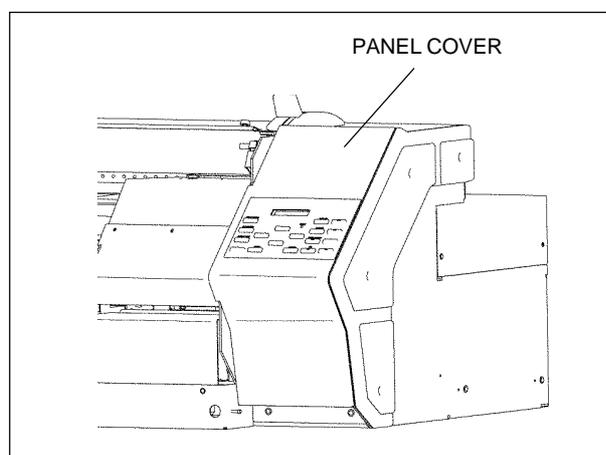
- 1** Turn off the MAIN POWER SW.



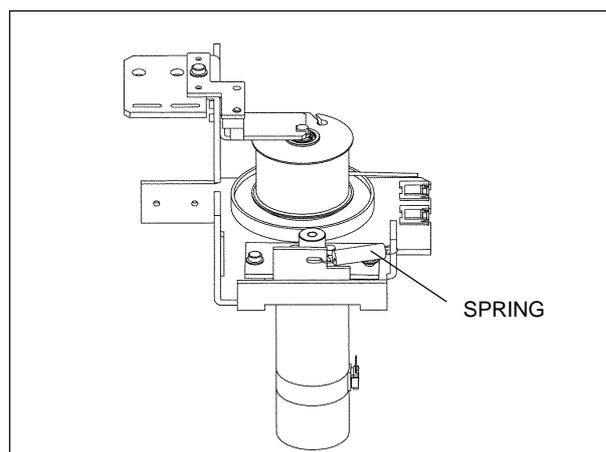
- 2** Remove the RIGHT I/S COVER.



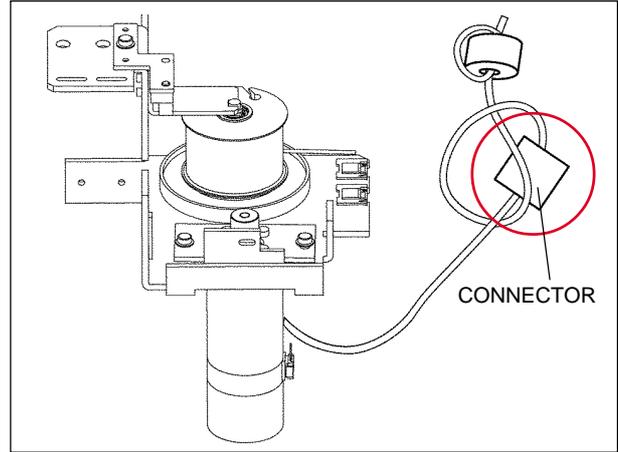
- 3** Remove the PANEL COVER. Be sure to disconnect the flexible cable connected to the PANEL BOARD.



- 4** Remove the SPRING.

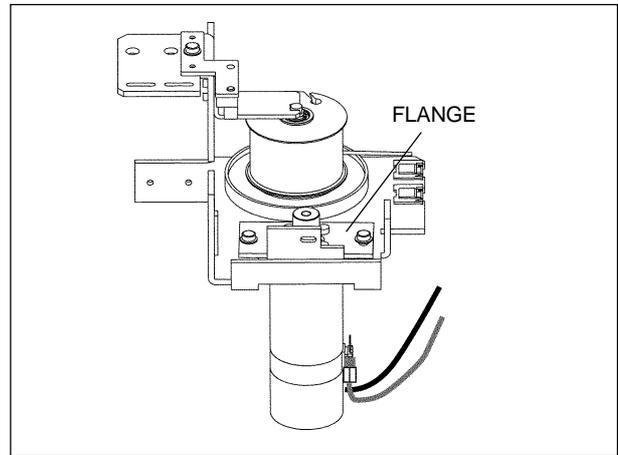


5 Disconnect the connector of the encoder cable.



3

6 Remove the screws fixing the FLANGE and remove the MOTOR together with the FLANGE. Disconnect the 2 cables from the MOTOR then.

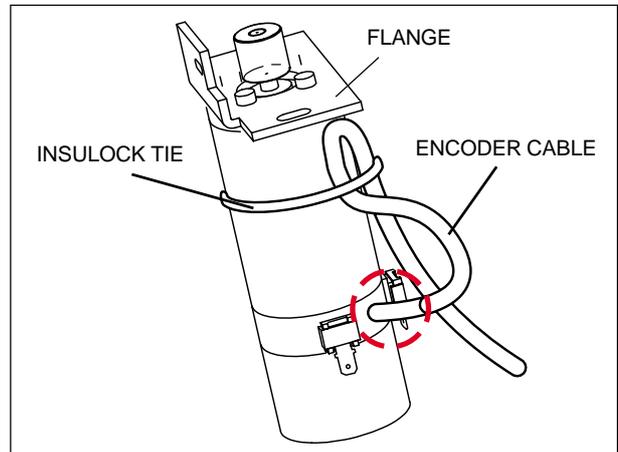


REVISED 5

7 Remove the MOTOR from the FLANGE. Fix the ENCODER CABLE of the new MOTOR using INSULOCK TIE without bending the root of the cable and then, fix the new MOTOR to the FLANGE.



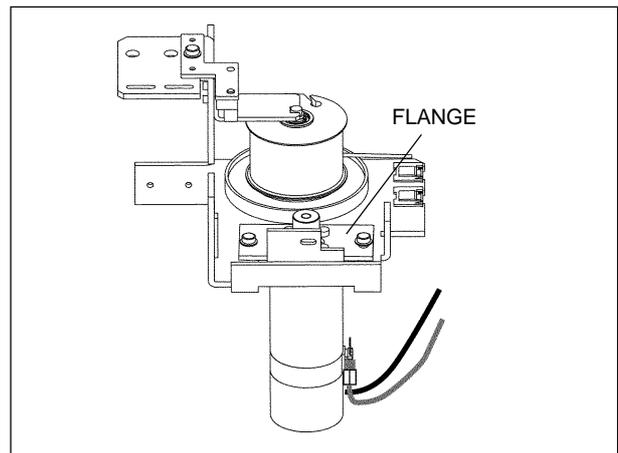
Be careful with the fixing direction of the FLANGE.



8 Connect the 2 cables to the MOTOR and fix the FLANGE with the 2 screws temporarily.



Be careful not to connect the cable to the wrong connector. The red cable should be connected to the red connector.

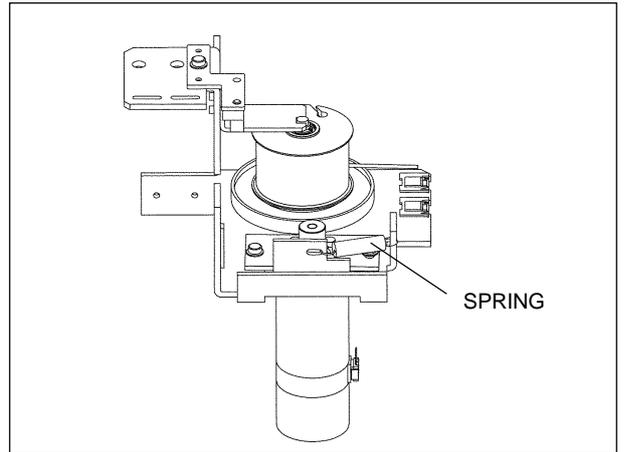


- 9** Fix the SPRING. Then, tighten up the 2 screws to fix the FLANGE with checking the gears mesh without backlash.

REVISED9



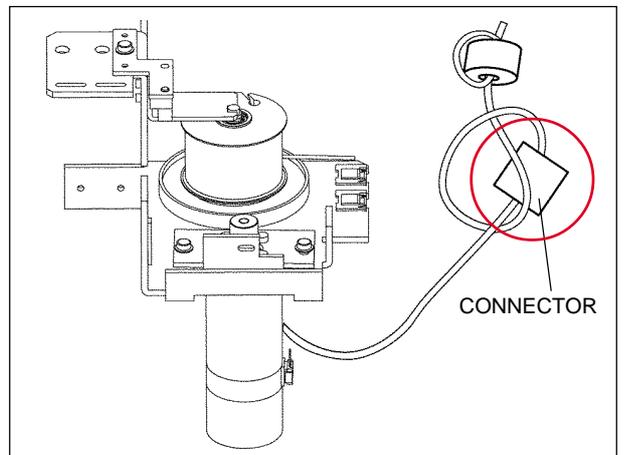
Apply a proper quantity of grease (FLOIL GE-676) between gears.



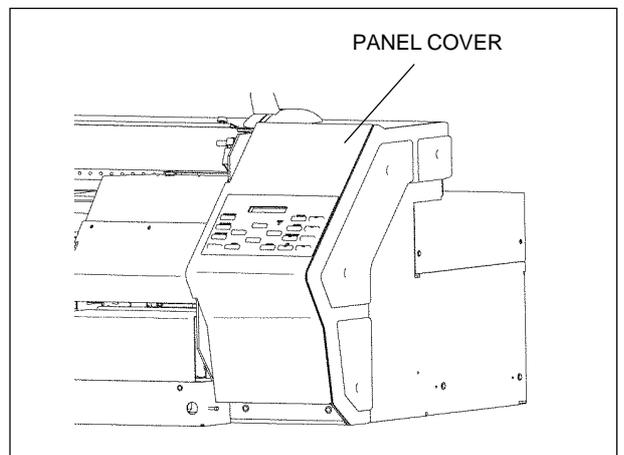
- 10** Connect the connector of the encoder cable.



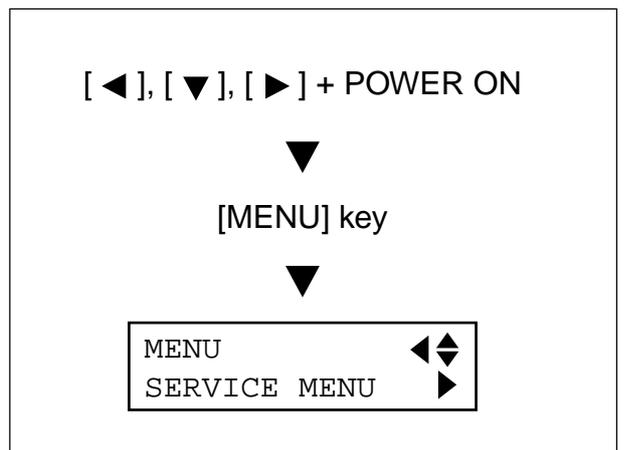
Tie the cables as shown in the figure to prevent the connector from being disconnected.



- 11** Connect the PANEL CABLE to the PANEL BOARD, and fix the PANEL COVER.

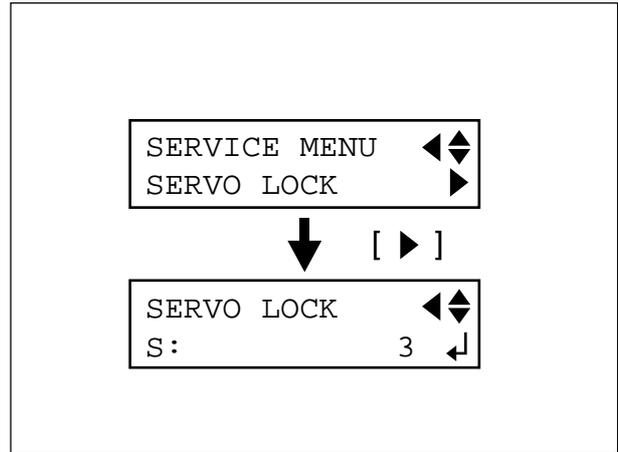


- 12** Perform the SERVO LOCK CHECK.
After turning on the main power, turn on the sub power while pressing the Left, Right and Down keys to enter the SERVICE MODE.

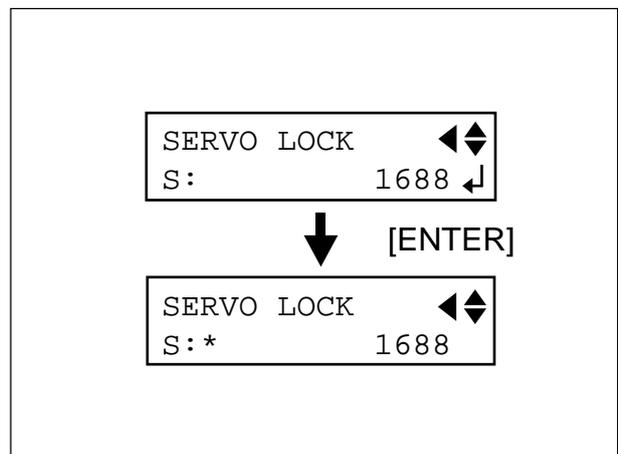


3

- 13** In [SERVO LOCK] menu, select [S].
Move the head carriage left and right by hand and make sure the value on the LCD changes depending on the head position.



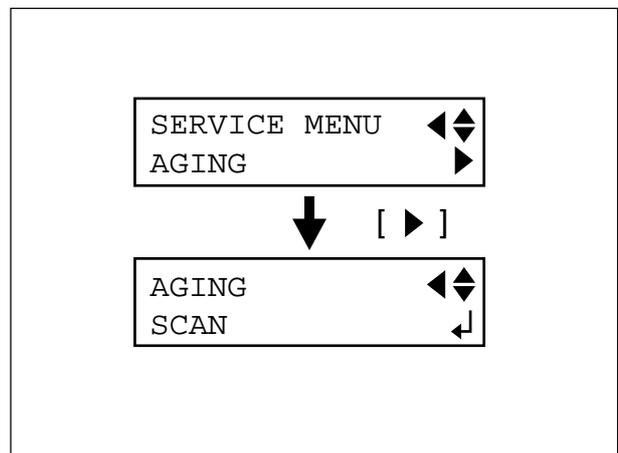
- 14** Press the [ENTER] key to excite the MOTOR.
Make sure the MOTOR is locked and the value on the LCD doesn't change.



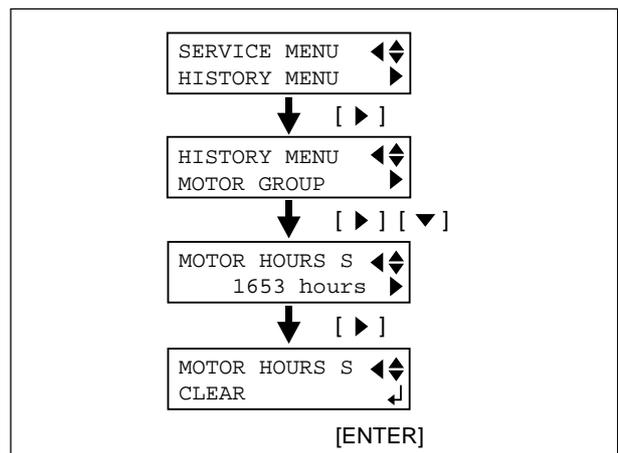
- 15** Check the AGING.
Go back to the SERVICE MENU, and select [AGING] > [SCAN] and press the [ENTER] key. Make sure the machine do the AGING and finish it.



Do the AGING with the head set at the HIGH position for its safety.

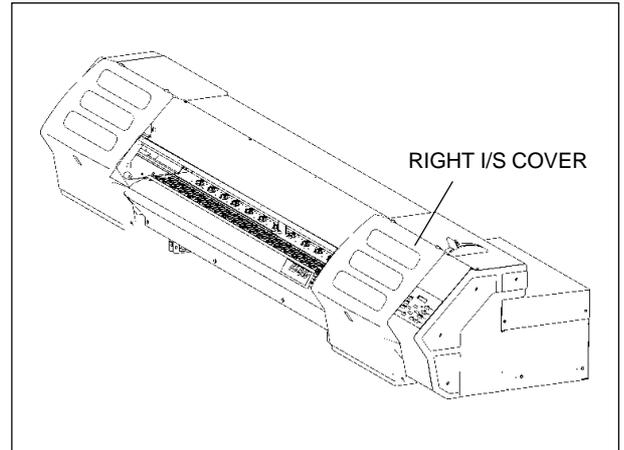


- 16** Clear the motor working hours.
Go back the SERVICE MENU, and select [HISTORY MENU] > [MOTOR GROUP] > [MOTOR HOURS S] > [CLEAR] and press the [ENTER] key. The motor working hours will be reset to 0.



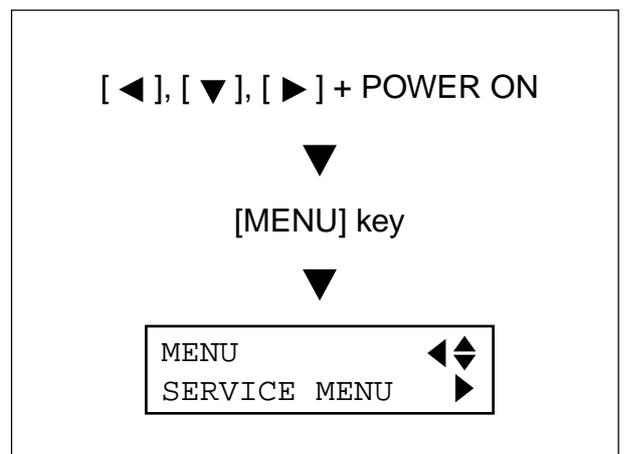
3-5 PUMP REPLACEMENT

- 1** Remove the RIGHT I/S COVER.

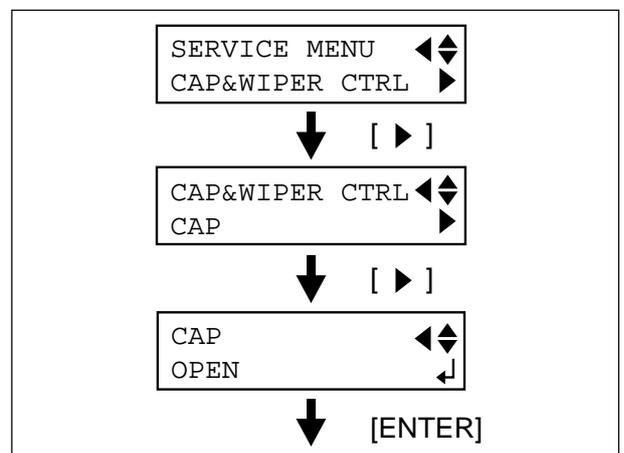


3

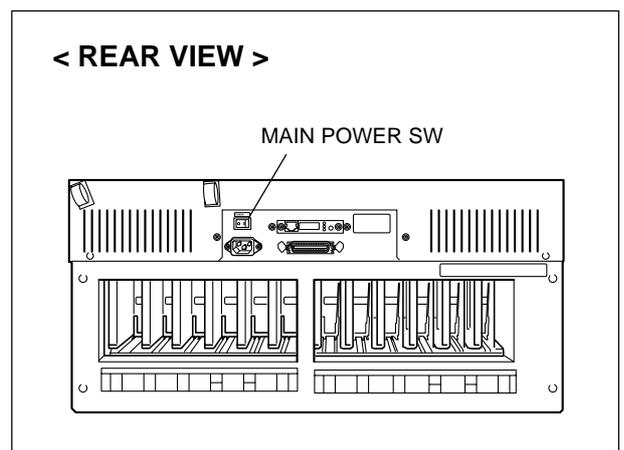
- 2** Turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.



- 3** Select [CAP&WIPER CTRL] > [CAP] > [OPEN], and press the [ENTER] key. The CAPPING UNIT moves down and allows you to move the HEAD CARRIAGE by hand.



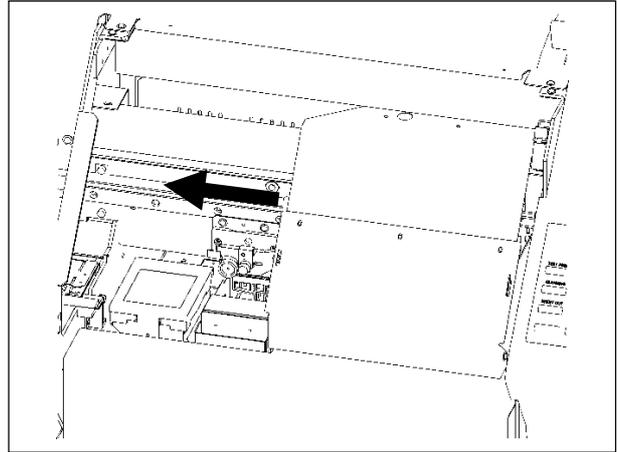
- 4** Turn off the SUB POWER SW, and then turn off the MAIN POWER SW.



5 Move the HEAD CARRIAGE slowly leftwards.

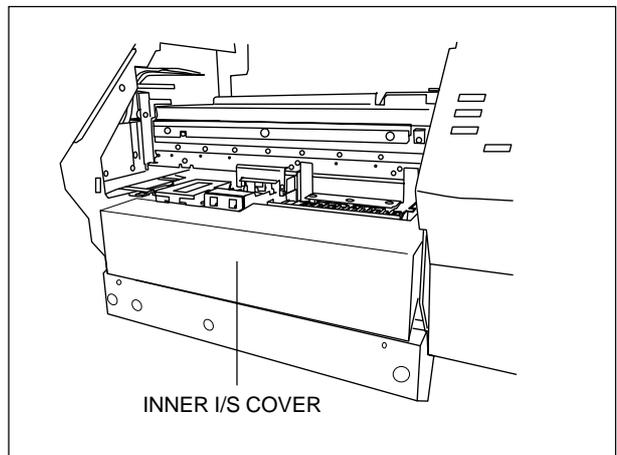


Be careful that the head does not strike the media or media clamp.



3

6 Remove the INNER I/S COVER.

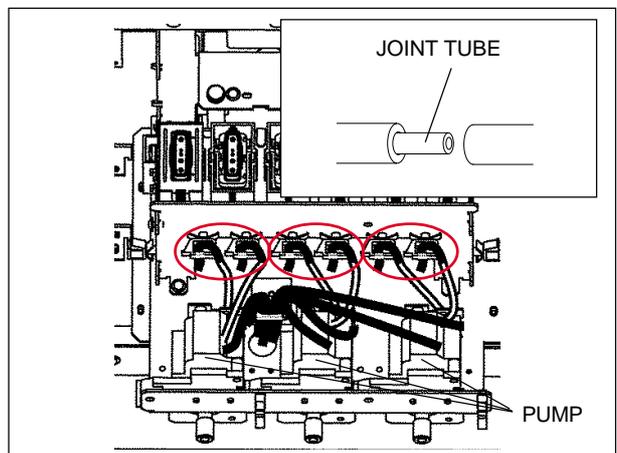


7 Disconnect the tube (Black) of the CAP TOP from the tube (White) of the PUMP.

Keep the JOINT TUBE for connecting the tube of the new PUMP.



Make sure to replace the PUMP one by one. If you disconnect the tubes of the plural PUMPS at the same time, there is a danger of connecting to a wrong tube.

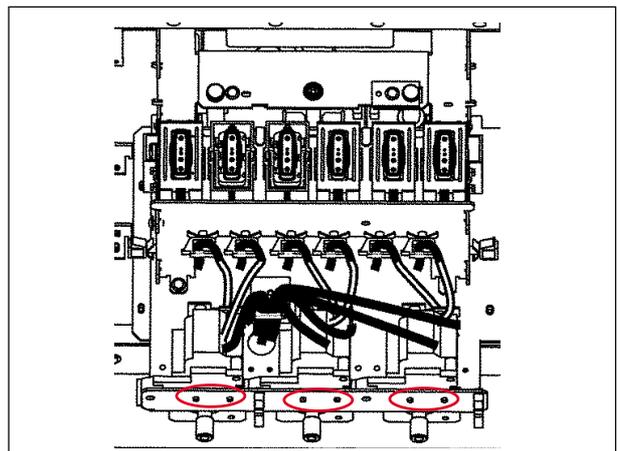


8 Remove the PUMP and replace it to the new one. Then put the 2 longer tubes into the DRAIN TUBE.

Then, replace the other 2 PUMPS in the same way.



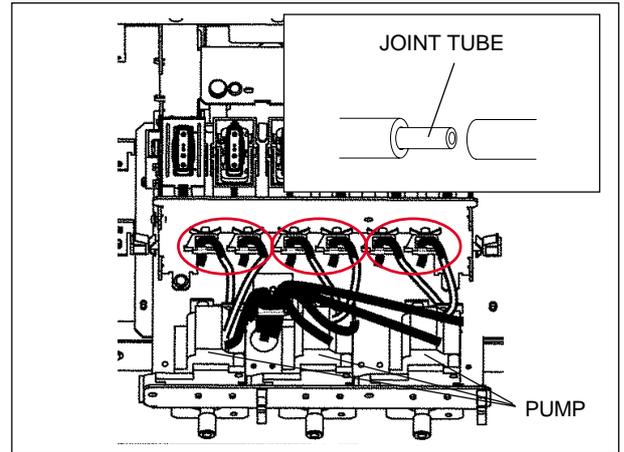
Make sure to fix the 2 projection parts of the PUMP to the holes of the FRAME.



- 9** Connect the tube of the CAP TOP to the tube of the PUMP using the JOINT TUBE.

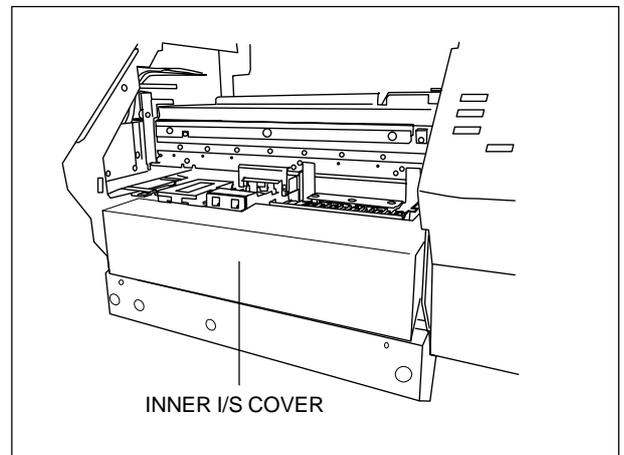


You can connect either tube of the CAP TOP to the either tube of the PUMP.

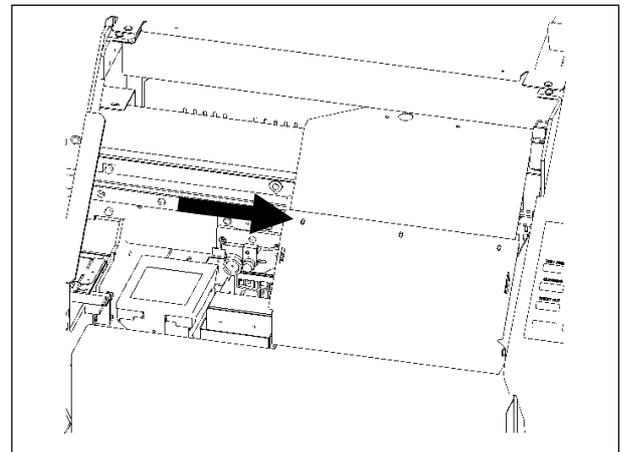


3

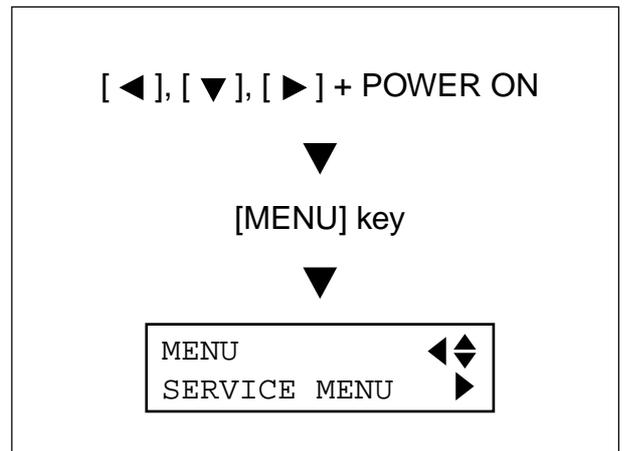
- 10** Fix the INNER I/S COVER.



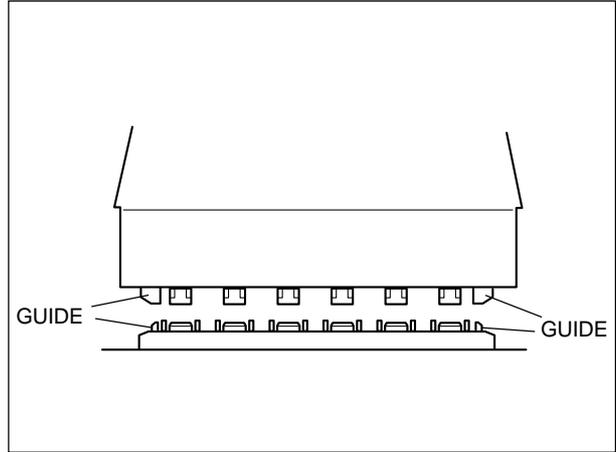
- 11** Move the HEAD CARRIAGE by hand to the standby position.



- 12** Turn on the MAIN POWER SW. Then, turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.

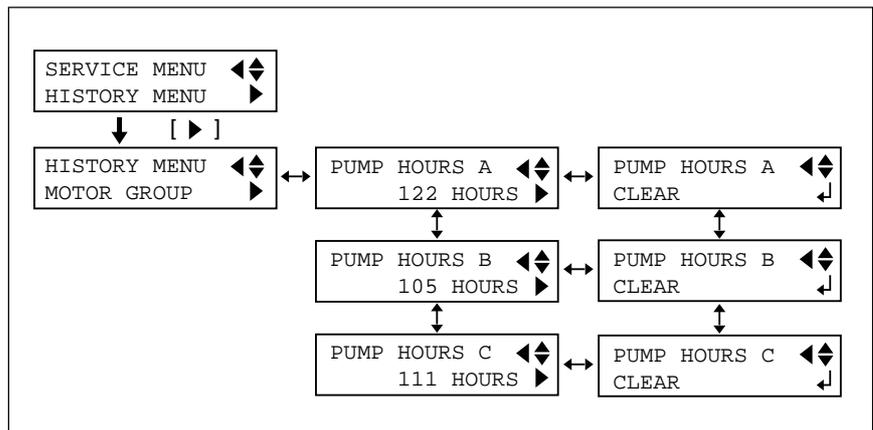


- 13** Select [CAP&WIPER CTRL] > [CAP] > [UP], and press the [ENTER] key to move up the capping unit 1 step. Align the GUIDEs at the two ends of the capping unit with the GUIDEs at the two ends of the head carriage by moving the head carriage by hand. Then press the [ENTER] key twice more to cap the heads with adjusting the position of the head carriage.



3

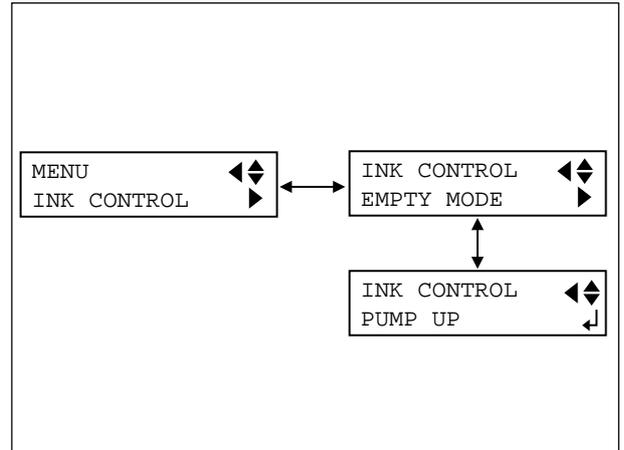
- 14** Clear the pump working hours. Go back to the SERVICE MENU, and select [HISTORY MENU] > [MOTOR GROUP], and select the PUMP you replaced and clear the time.



3-6 INK TUBE REPLACEMENT

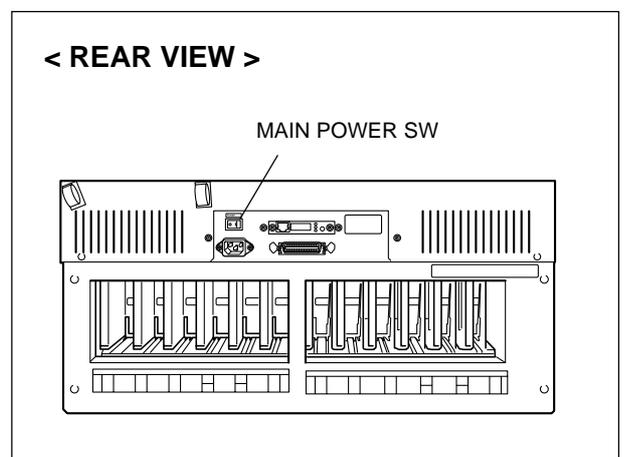
- 1** Turn on the SUB POWER SW and perform the [PUMP UP] from the [INK CONTROL] menu.

When it finishes, the SUB POWER will be automatically turned off.



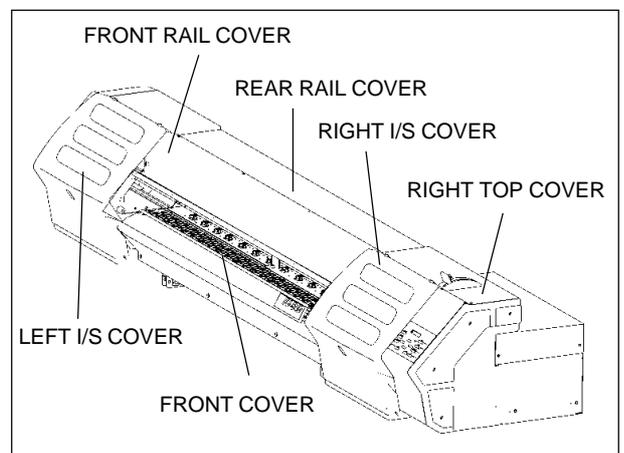
3

- 2** Turn off the SUB POWER SW, and then turn off the MAIN POWER SW.

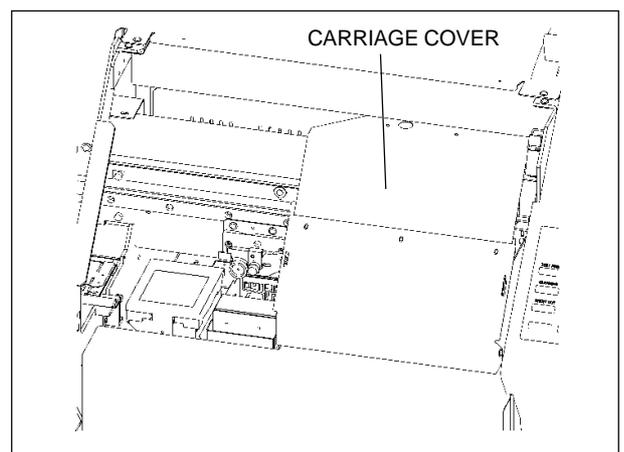


- 3** Remove the following covers.

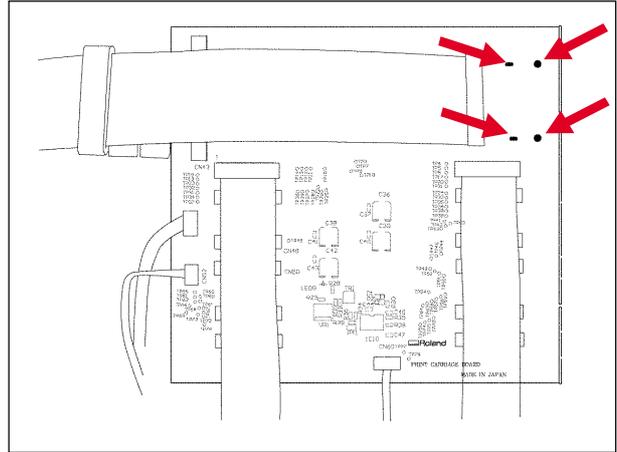
LEFT and RIGHT I/S COVERS
 RIGHT TOP COVER
 FRONT and REAR RAIL COVERS
 FRONT COVER



- 4** Remove the CARRIAGE COVER.

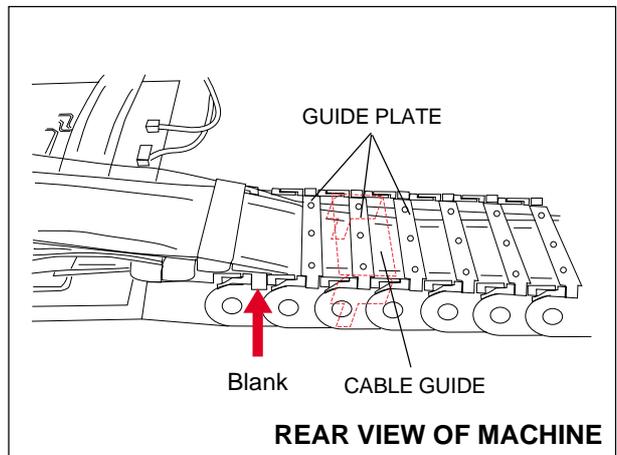


- 5** Remove the clear cover fixed on the CARRIAGE BOARD, and remove the 4 NYLON LIVETs fixing the clear plates. Then, disconnect all the 6 flexible cables that are coming from the CABLE BEAR.



3

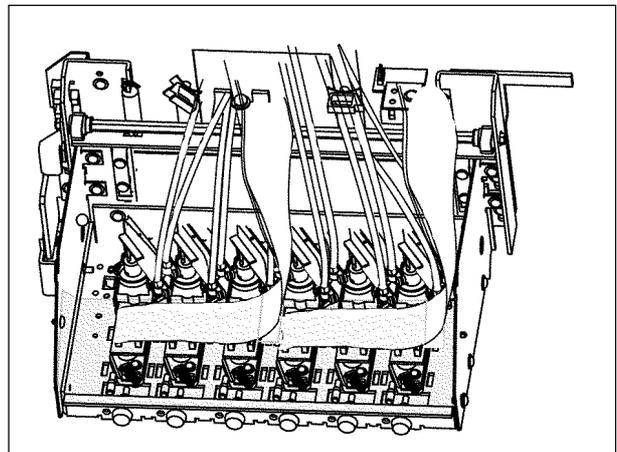
- 6** Remove the GUIDE PLATES of the CABLE BEAR and the CABLE GUIDES. Then, take out the flexible cables from the CABLE BEAR.



- 7** Disconnect the INK TUBES from the INK DAMPERS, and put the scotch tape at the tip of the ink tubes to prevent the ink from coming out.



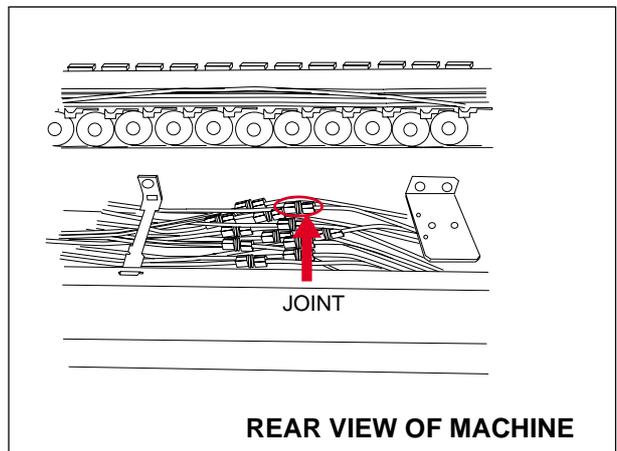
Make sure not to replace the INK TUBEs of different colors at the same time. There is a danger of connecting wrongly when fixing the new ones.



- 8** Disconnect the INK TUBEs from the JOINTs, and put the scotch tape at the tip of the INK TUBEs to prevent the ink from coming out.



It is not necessary to replace the INK TUBEs of the other side of the JOINTs.

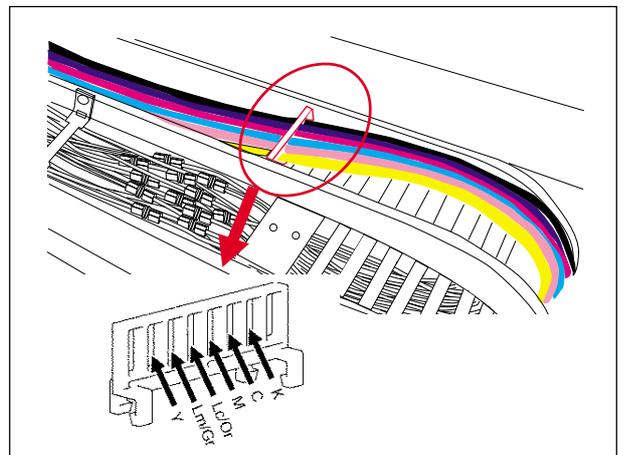


- 9** Pull out the INK TUBEs from the CABLE BEAR.

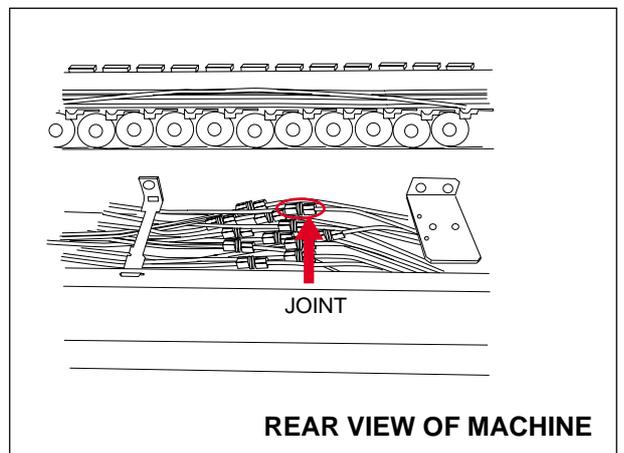
- 10** Put the new INK TUBEs in the CABLE BEAR.



Be careful which hole of the TUBE GUIDE should be used for each INK TUBE.

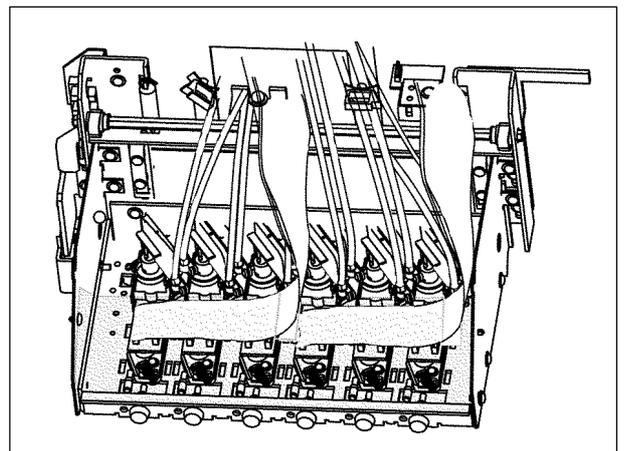


- 11** Connect the new INK TUBEs to the JOINTs, and mark the INK TUBEs to indicate the color of the ink.

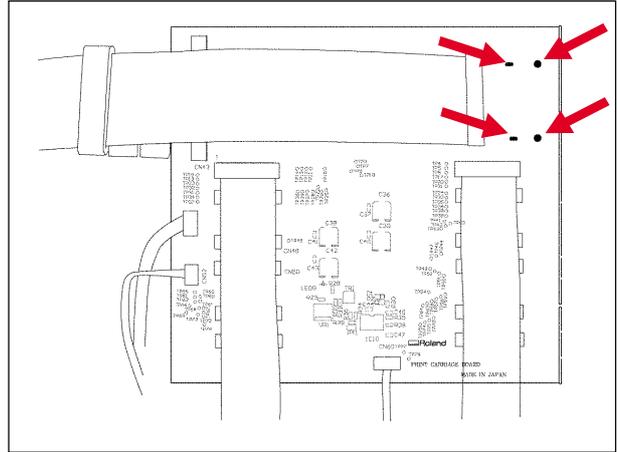


- 12** Cut the INK TUBEs at appropriate length and connect them to the INK DAMPERS. Then mark the INK TUBEs to indicate the color of the ink.

Then, replace the other INK TUBEs in the same way.



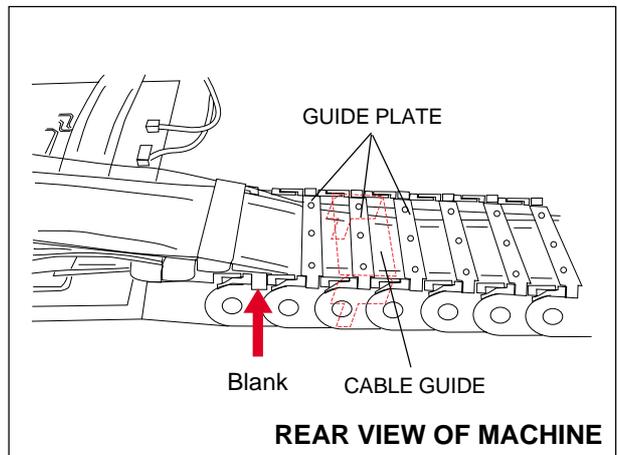
- 13** Connect the 6 FLEXIBLE CABLES to the CARRIAGE BOARD and fix the NYLON LIVETs to fix the CLEAR PLATES.



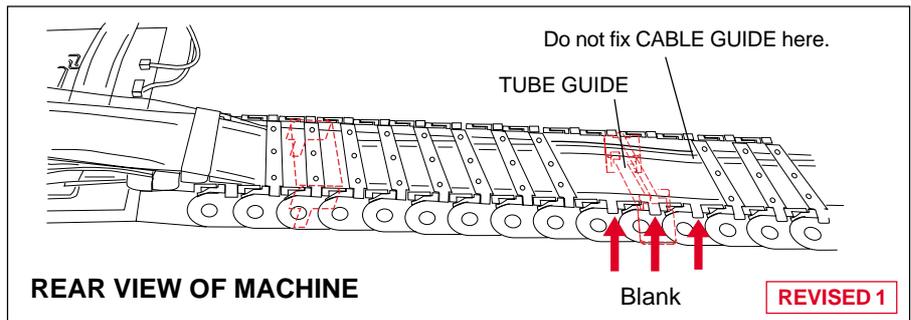
3

- 14** Put back the GUIDE PLATES and the CABLE GUIDES.

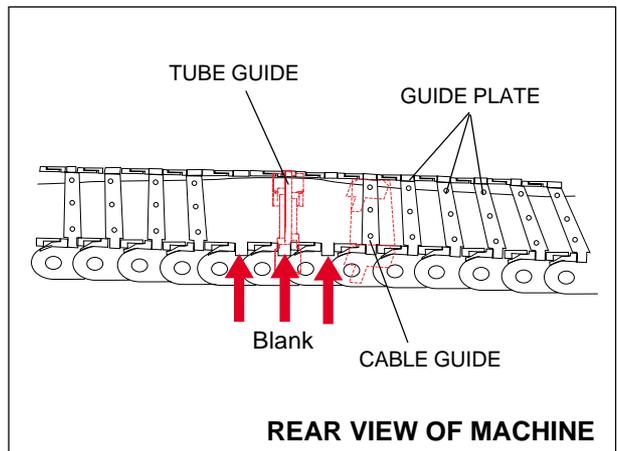
Make 1 position for the GUIDE PLATE blank at the edge of the CABLE BEAR.
Fix the CABLE GUIDE at the position shown in the figure.



There is a TUBE GUIDE at the 11th position for the GUIDE PLATE. Make the 3 positions for the GUIDE PLATE blank at the TUBE GUIDE.

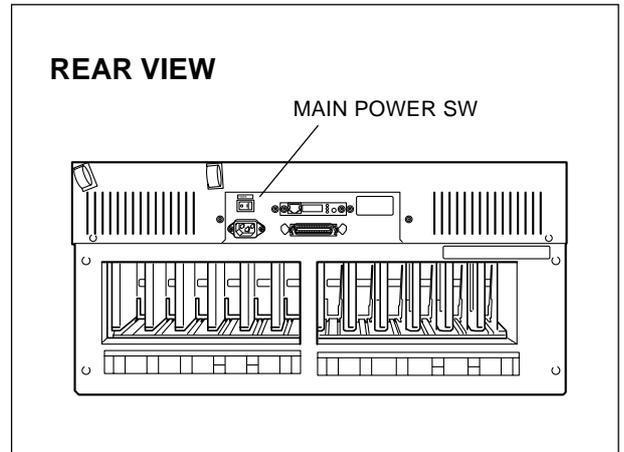


Make the 3 positions for the GUIDE PLATE blank at the other TUBE GUIDES.
Fix the CABLE GUIDE at the first GUIDE PLATE after the blank.



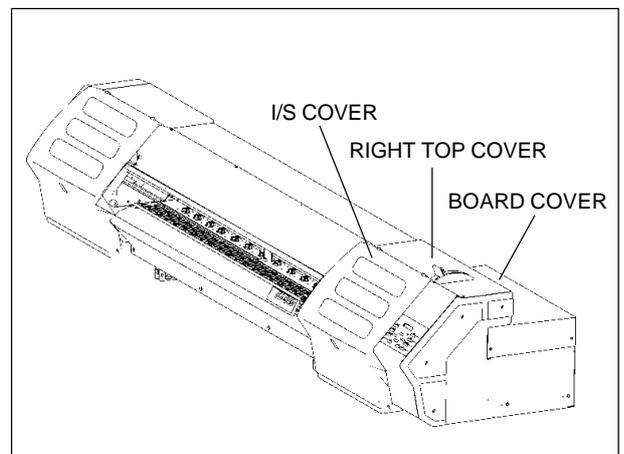
3-7 BOARDS REPLACEMENT (Head / Servo / Network / Main Board / Power Supply Board) REVISED 4

- 1** Turn off the MAIN POWER SW.

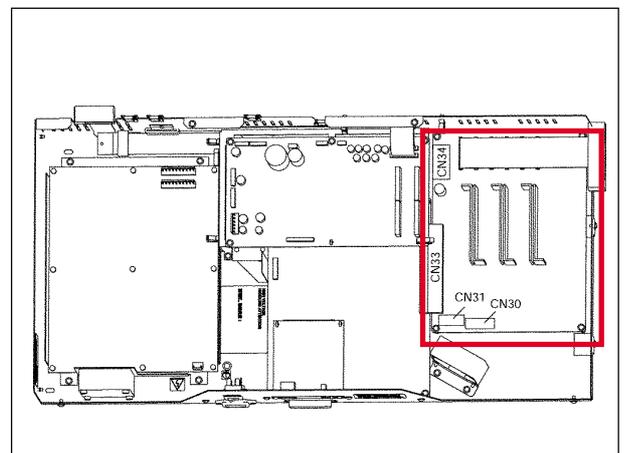


3

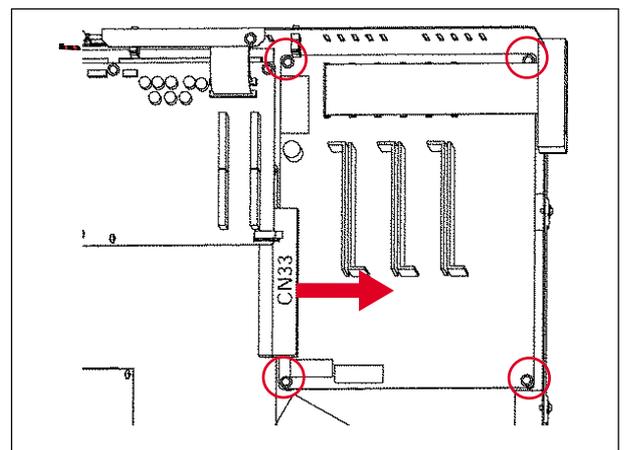
- 2** Remove the RIGHT TOP COVER, BOARD COVER and RIGHT I/S COVER .



- 3 HEAD BOARD REPLACEMENT**
Disconnect the CABLEs from the HEAD BOARD.

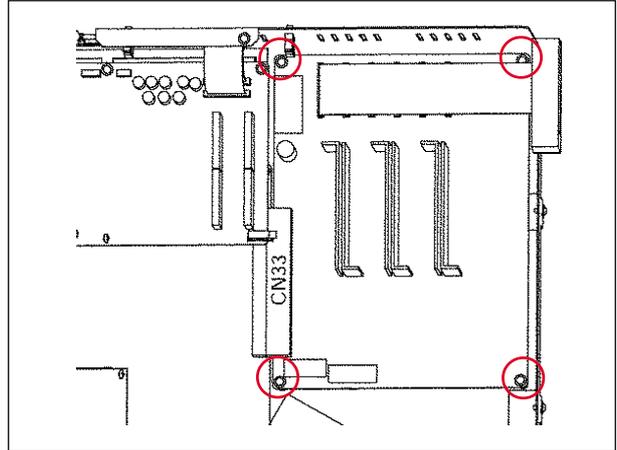


- 4** Remove the SCREWS and disconnect the CONNECTOR.



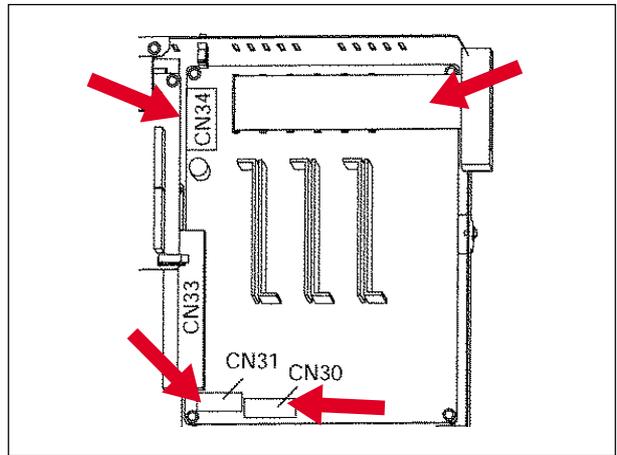
3 Replacement of Main Parts

5 Replace the HEAD BOARD to the new one.



3

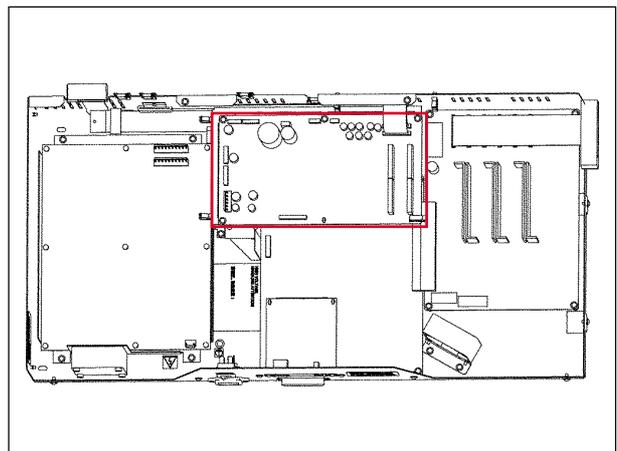
6 Connect all the CABLES to the HEAD BOARD.



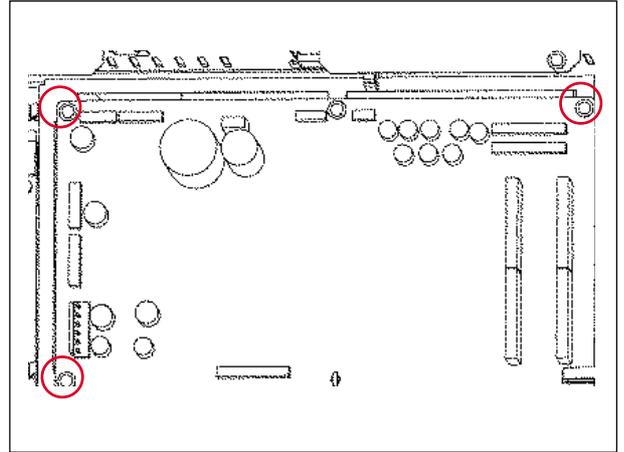
7 Carry out the following checks. **REVISED 4**

1. THERMISTER CHECK
2. HEAD UP/DOWN SENSOR CHECK
3. FAN ON THE HEAD BOARD

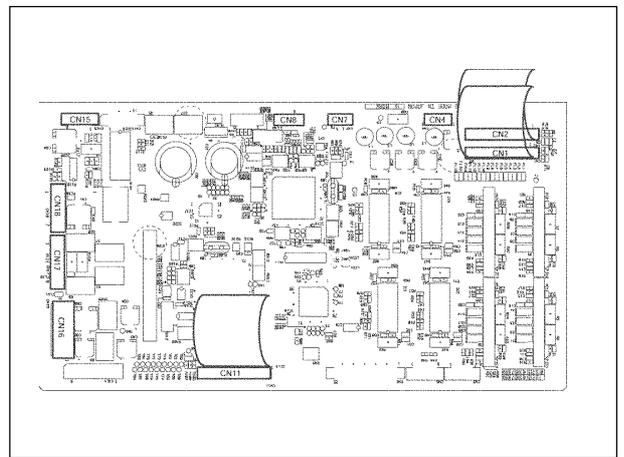
8 **SERVO BOARD REPLACEMENT**
Disconnect all the CABLES from the SERVO BOARD.



9 Replace the SERVO BOARD to new one.



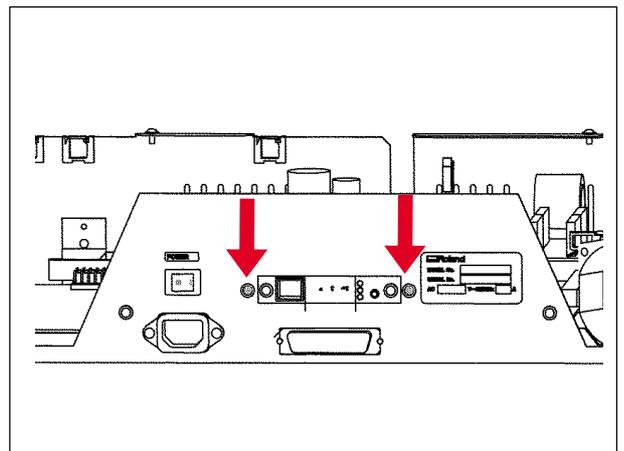
10 Connect all the CABLEs to the SERVO BOARD.



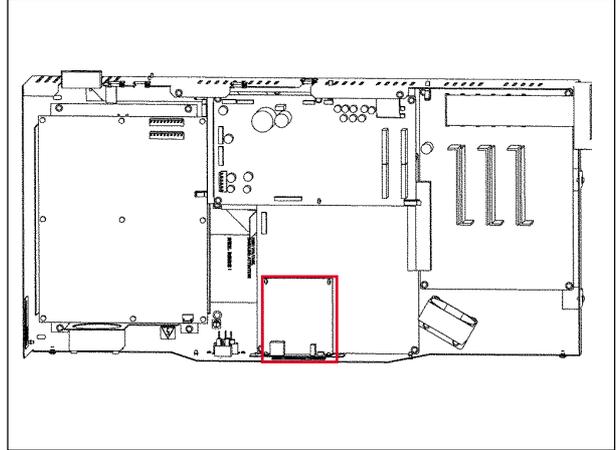
11 Carry out the following adjustments and settings. **REVISED 4**

1. PINCH ROLLER SENSOR CHECK
2. AGING

12 NETWORK BOARD REPLACEMENT
Remove the 2 SCREWS.

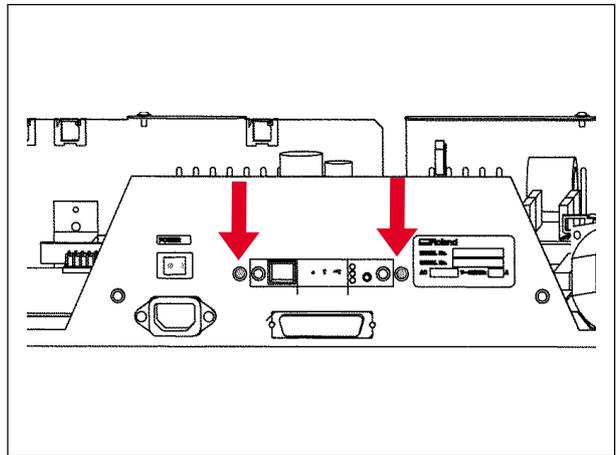


- 13** Disconnect the NETWORK BOARD from the MAIN BOARD.
Replace it to the new one and connect it.



3

- 14** Fix the NETWORK BOARD with 2 SCREWS.



- 15** Carry out the following adjustment.

REVISED 4

1. FIRMWARE UPGRADE
2. IP ADDRESS SETTING

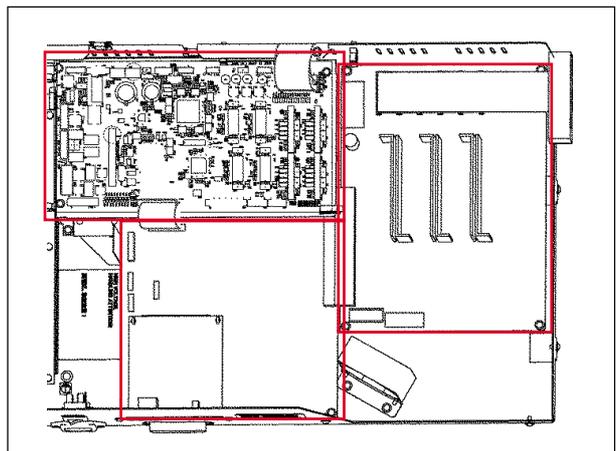
16 MAIN BOARD REPLACEMENT

Disconnect all the CABLEs which are connected to the MAIN BOARD, SERVO BOARD and HEAD BOARD.

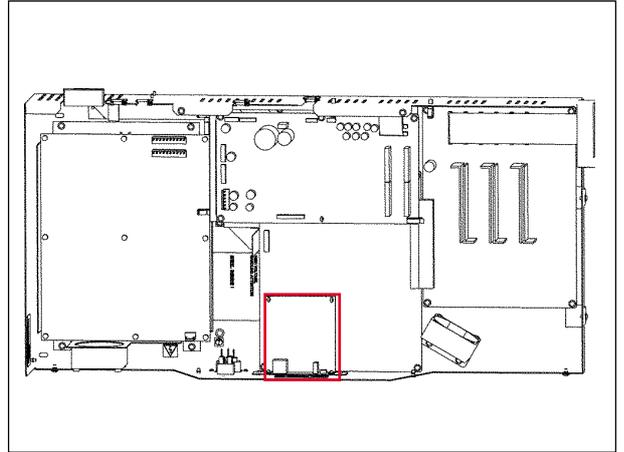


Make sure to print out the SERVICE REPORT or take a note of the HEAD RANK before replacing the MAIN BOARD.
We recommend to use the Service Tool "Peck.exe" to receive the all settings.

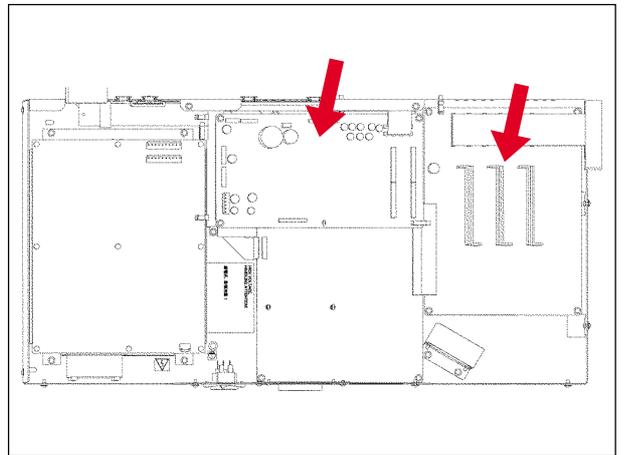
REVISED 4



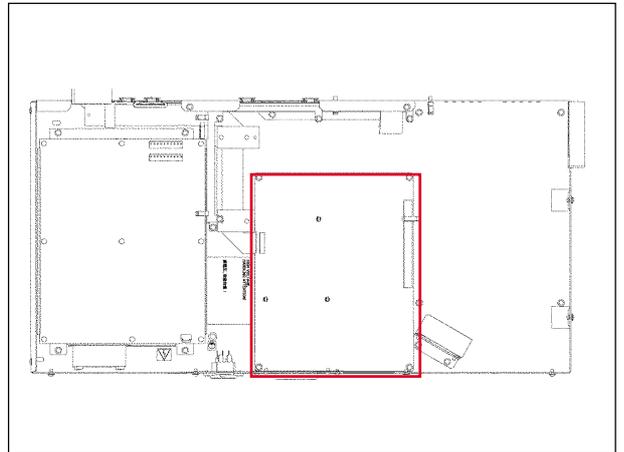
17 Remove the NETWORK BOARD.

**3**

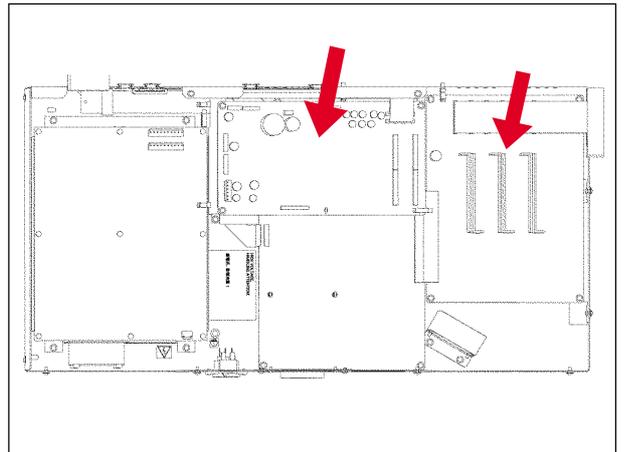
18 Remove the SERVO BOARD and HEAD BOARD.



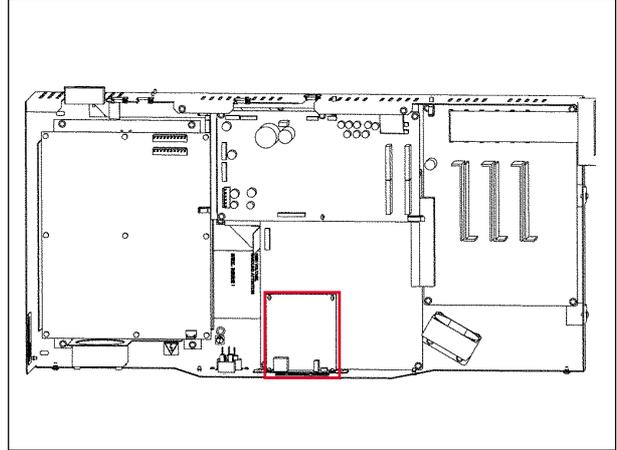
19 Replace the MAIN BOARD to the new one.



20 Fix the SERVO BOARD and HEAD BOARD.

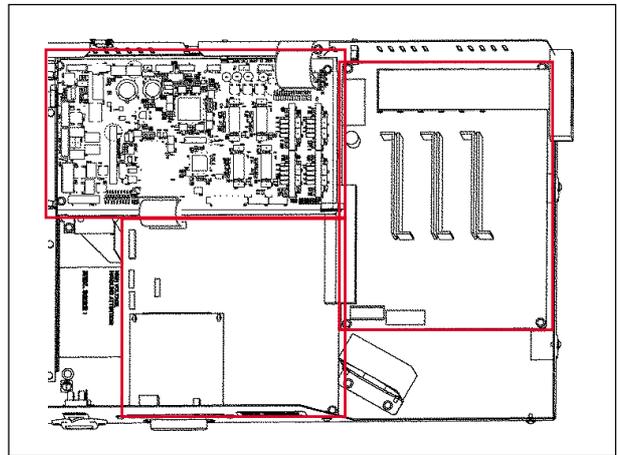


21 Fix the NETWORK BOARD.



3

22 Connect all the CABLES.



23 Carry out the following adjustments and settings.

REVISED 4

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1. DIP SW SETTING 2. BATTERY INSTALLATION 3. FIRMWARE INSTALLATION 4. <u>SYSTEM PARAMETER INITIALIZE</u> 5. <u>HEAD RANK SETTING</u> 6. <u>SERIAL NUMBER INPUT *1</u> 7. CAP & WIPER CHECK *2 8. <u>CHECKING THE CAP HEIGHT *7</u> | <ol style="list-style-type: none"> 9. SENSOR CHECK 10. <u>LIMIT & CUT DOWN POSITION INITIALIZE</u> 11. <u>LINEAR ENCODER SETUP</u> 12. PAPER SIDE SENSOR ADJUSTMENT 13. <u>INK TYPE SETTING</u> 14. <u>HEAD ALIGNMENT</u> 15. <u>CALIBRATION</u> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

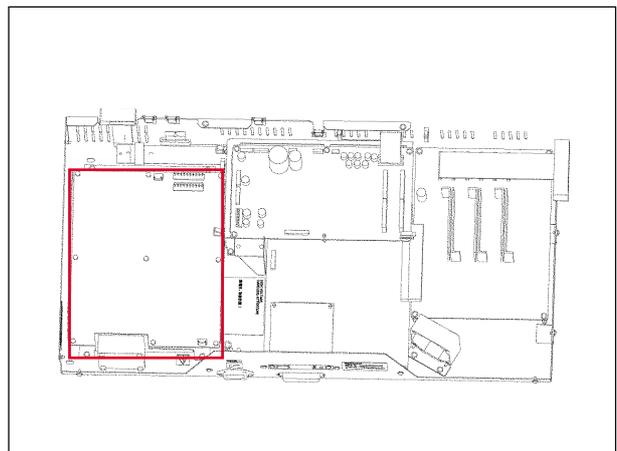
REVISED 9

- *1 Input the serial number in the [SERVICE MENU] > [SERIAL NO.].
- *2 It can be performed in the [SERVICE MENU] > [CAP&WIPER CHECK].
- *7 It can be performed in the [SERVICE MENU] > [CAP ADJUST] > [CHECK GAP].

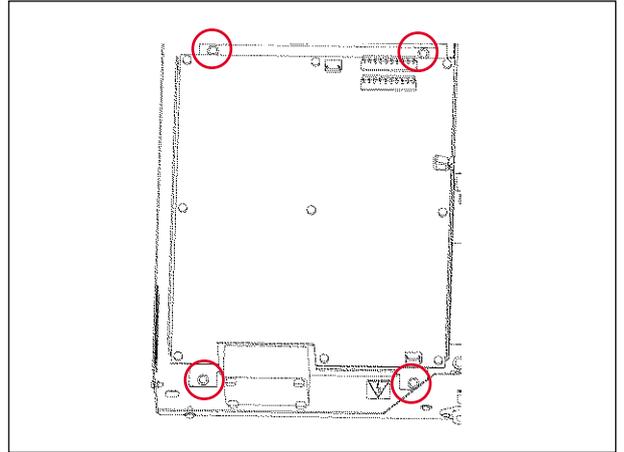
If you use the Peck.exe and receive & sent the data, it is not necessary to carry out the under lined parts.

24 **POWER SUPPLY BOARD REPLACEMENT**

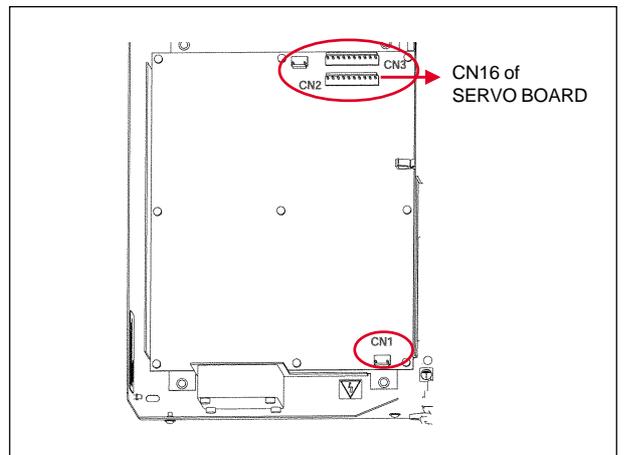
Disconnect all the CABLES.



- 25** Remove the POWER SUPPLY BOARD together with the FAN and replace it to the new one.

**3**

- 26** Connect all the CABLES.



3-8 BATTERY REPLACEMENT REVISED15

⚠ CAUTION

Danger of explosion if battery is incorrectly replaced.
 Replace only with the same or equivalent type recommended by the manufacturer.
 Dispose of used batteries according to the manufacturer's instructions.

⚠ ATTENTION

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie.
 Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur.
 Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

⚠ ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig handling.
 Udsiftning ma kun ske med batteri af samme fabrikat og type.
 Levér det brugte batteri tilbage til laveranøren.

3

⚠ WARNING



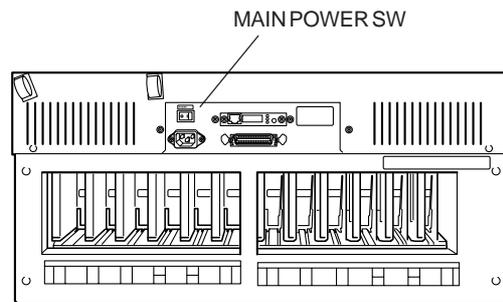
Do not recharge, short-circuit, disassembly the lithium battery, nor put it into fire.
It may cause heat, explosion and fire.



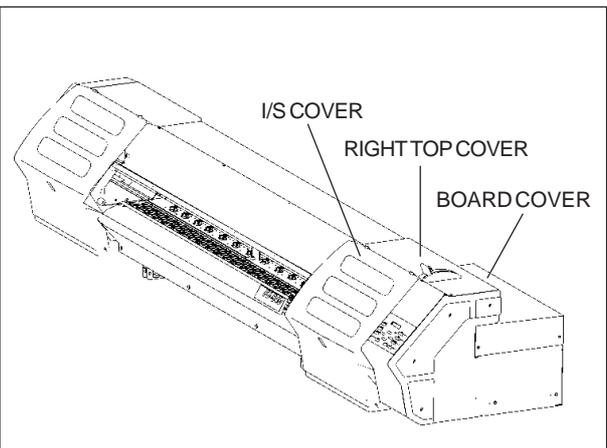
Put tape around the lithium battery for insulation for disposal or preservation.
It may cause heat, explosion and fire.

1 Turn off the MAIN POWER SW.

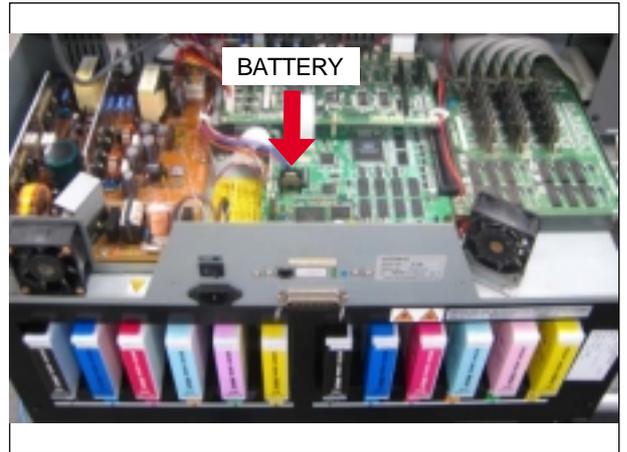
REAR VIEW



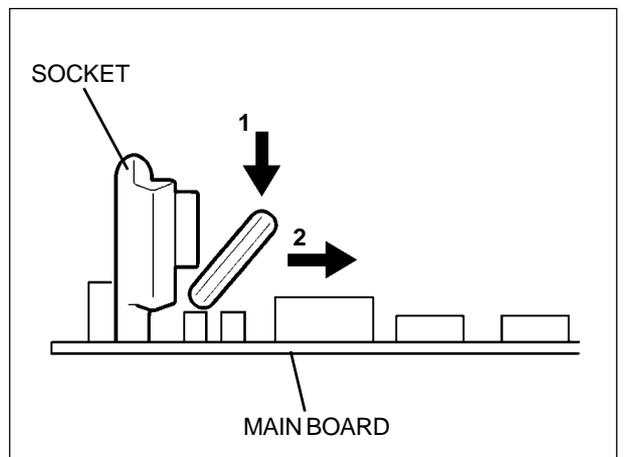
2 Remove the RIGHT TOP COVER, BOARD COVER and RIGHT I/S COVER .



- 3** Remove the BATTERY on the MAIN BOARD by pushing it down and tilting towards right.



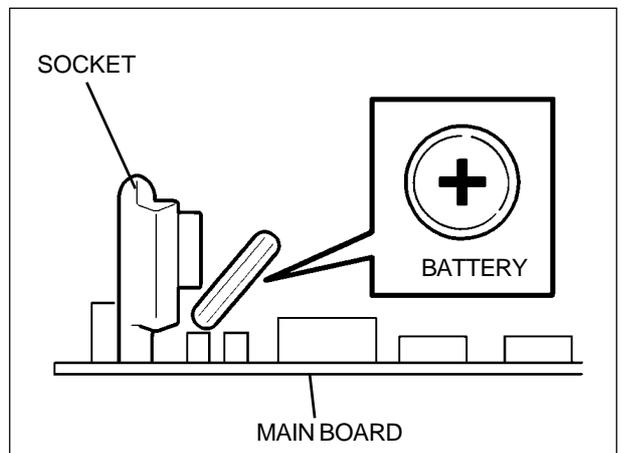
3



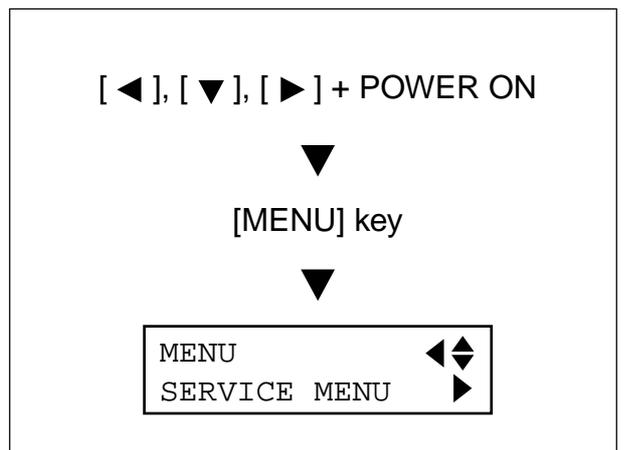
- 4** Replace the BATTERY with new one.



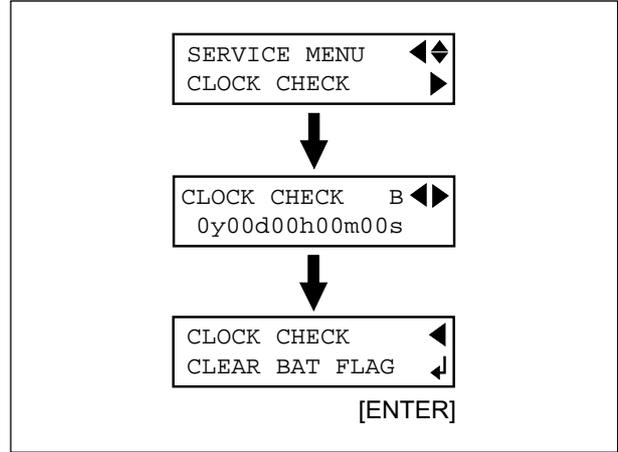
Be careful with the direction of the BATTERY.



- 5** Turn on the MAIN POWER SW and turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.

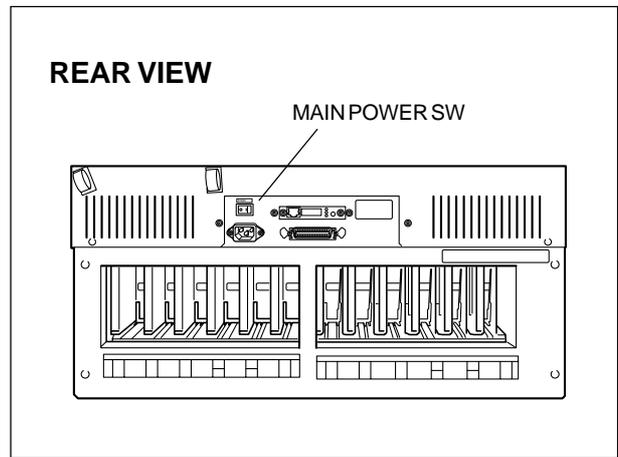


6 Clear the BATTERY FLAG from the [CLOCK CHECK] menu in the SERVICE MODE.

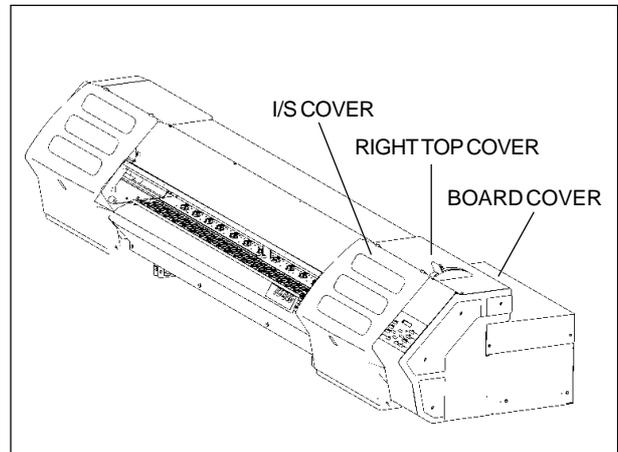


3

7 Turn off the MAIN POWER SW.



8 Fix the RIGHT TOP COVER, BOARD COVER and RIGHT I/S COVER .



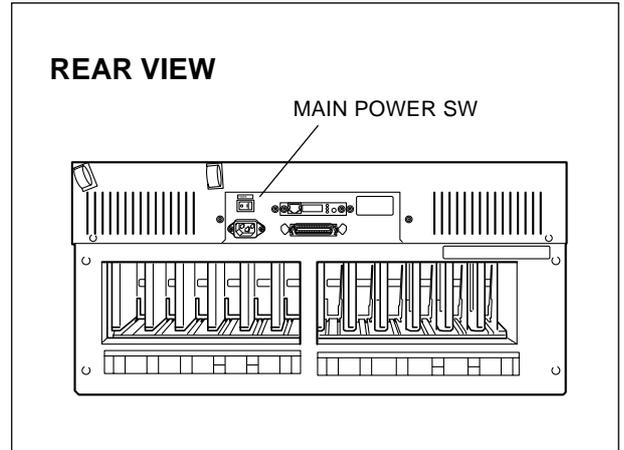
9 Dispose the BATTERY.



FOLLOWING MAY CAUSE EXPLOSION OF BATTERY.
RECHARGE, SHORT-CIRCUIT, DISASSEMBLY, HEATING,
PUTTING INTO FIRE.
DON'T PUT BATTERY WITH OTHER METAL OR BATTERY.
DISPOSE BATTERY WITHOUT INSULATION.

3-9 CARRIAGE WIRE REPLACEMENT

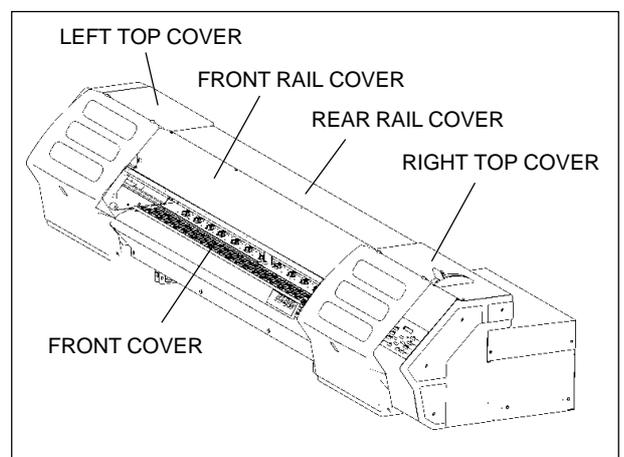
- 1** Turn off the MAIN POWER SW.



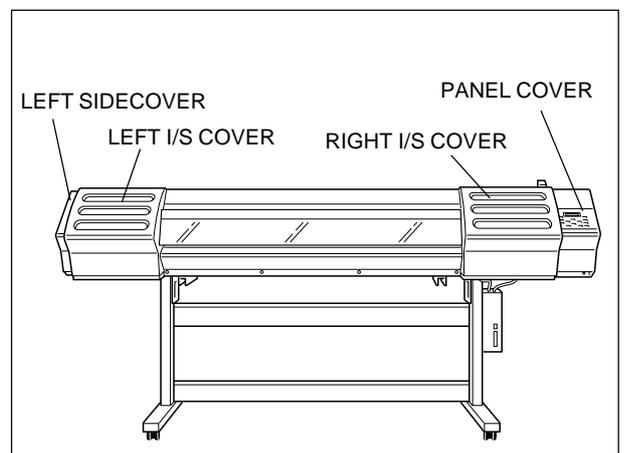
3

- 2** Remove the following covers.

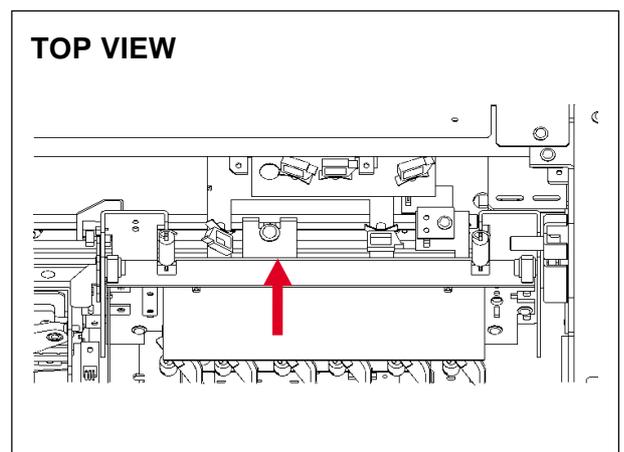
LEFT and RIGHT I/S COVERS
 PANEL COVER
 LEFT and RIGHT TOP COVERS
 FRONT and REAR RAIL COVERS
 FRONT COVER
 LEFT SIDE COVER



Be sure to disconnect the flexible cable connected to the PANEL BOARD when removing the PANEL COVER.

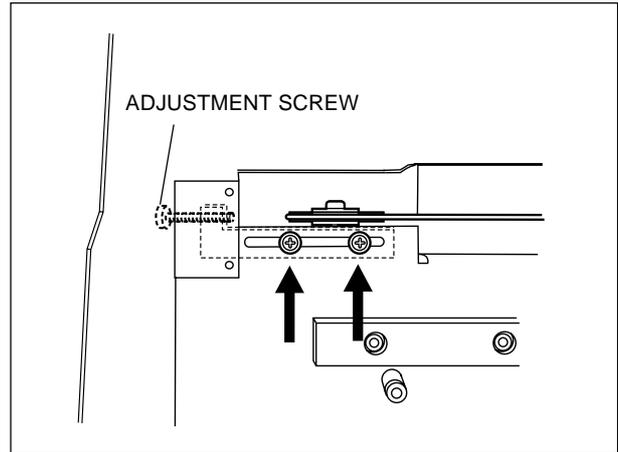


- 3** Loosen the screw fixing the HEAD CARRIAGE to the CARRIAGE WIRE.



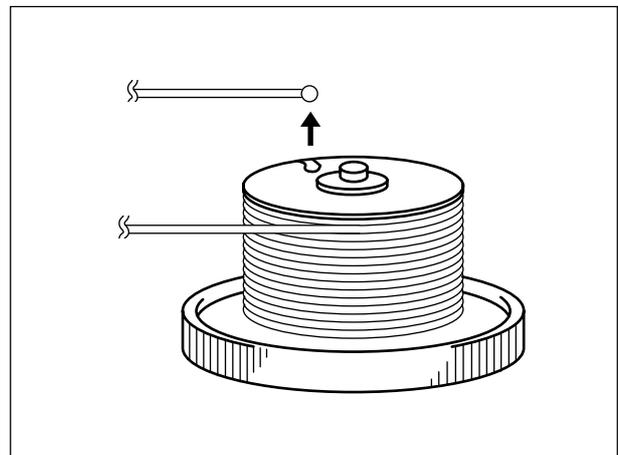
3 Replacement of Main Parts

- 4** Loosen the 2 screws and then the ADJUSTMENT SCREW in order to loosen the wire tension.

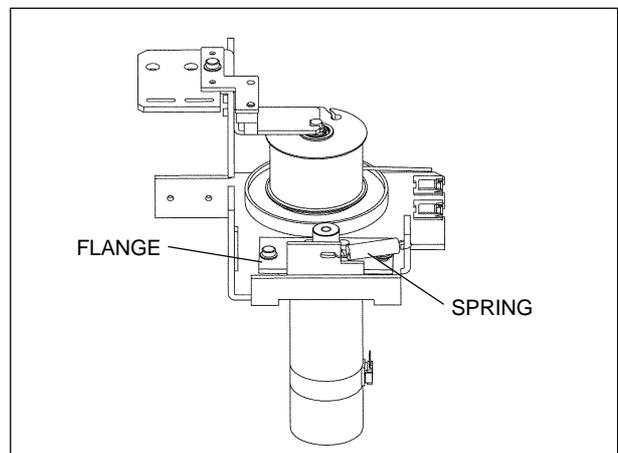


3

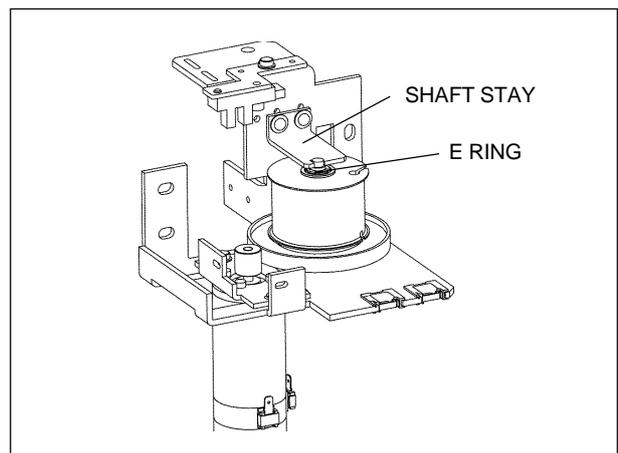
- 5** Remove the CARRIAGE WIRE as shown in the figure.



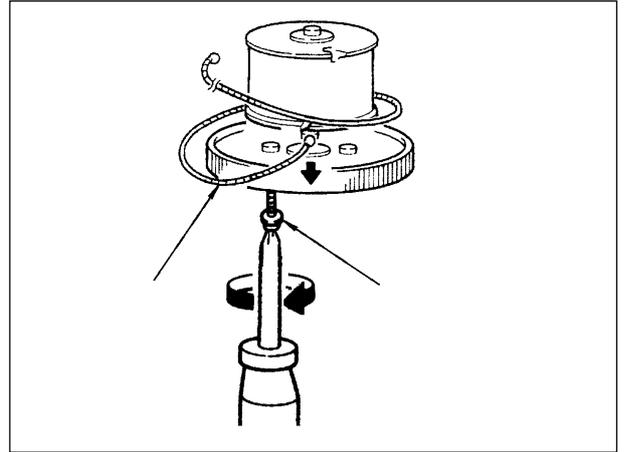
- 6** Loosen the screws fixing the MOTOR FLANGE, then remove the SPRING.



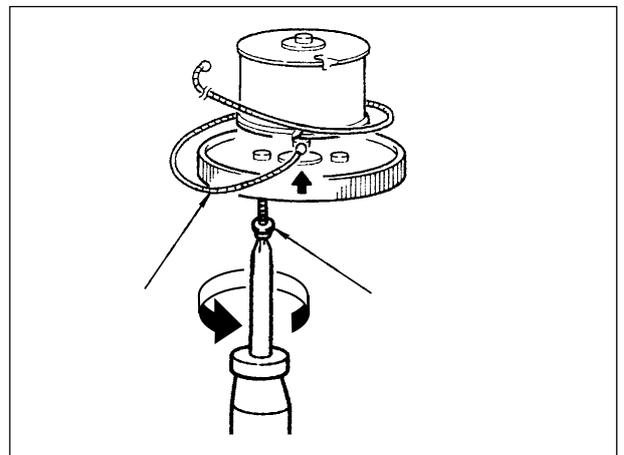
- 7** Remove the SHAFT STAY and the E RING, then remove the DRIVE PULLEY from the shaft.



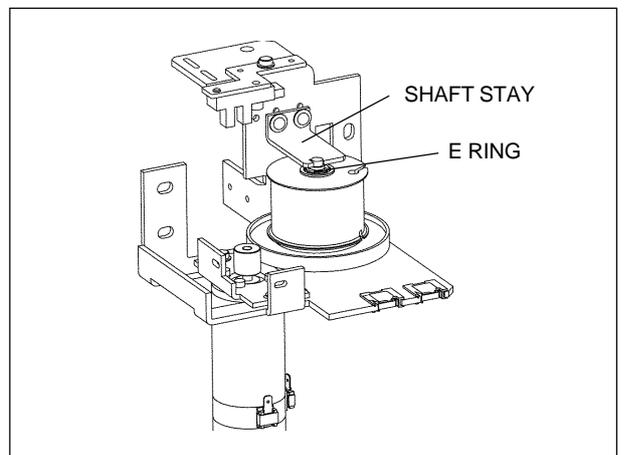
- 8** Remove the screws fixing the DRIVE GEAR and remove the CARRIAGE WIRE from the PULLEY.



- 9** Fix one end of the new WIRE and fix the DRIVE GEAR to the DRIVE PULLEY with the screws.



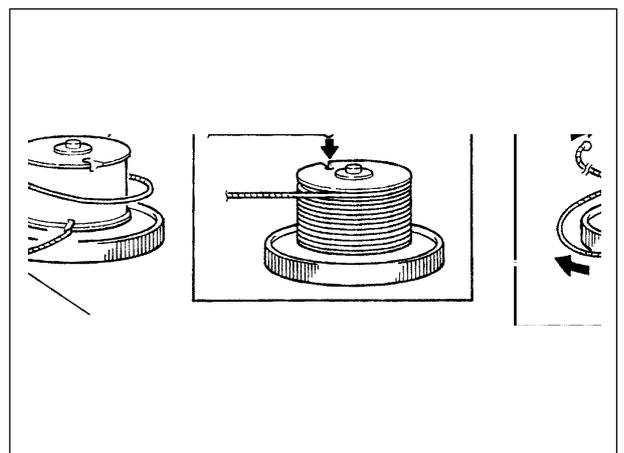
- 10** Put the DRIVE PULLEY into the shaft and fix it with the E RING. Then, fix the SHAFT STAY.



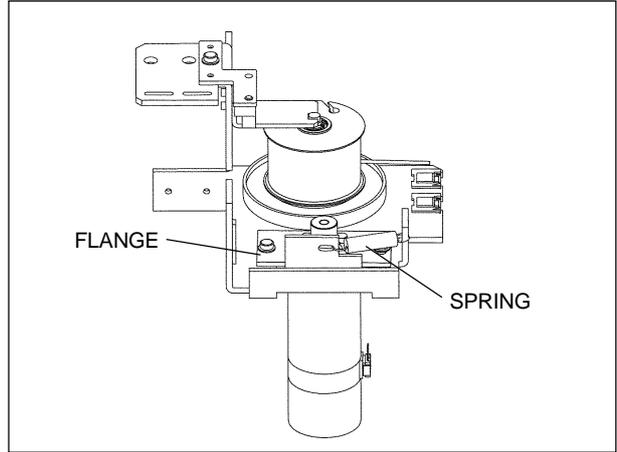
- 11** Wind the CARRIAGE WIRE around the DRIVE PULLEY from bottom to the top, and fix the other end of the WIRE.



Make sure that the CARRIAGE WIRE does not cross over.

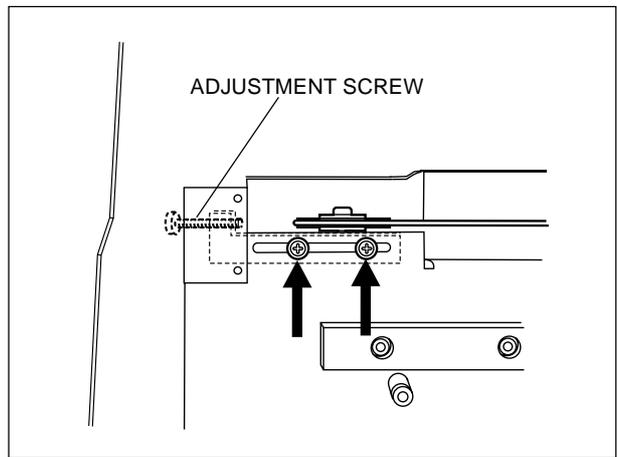


- 12** Fix the SPRING, then tighten up the 2 screws to fix the FLANGE with checking the gears mesh without backlash.

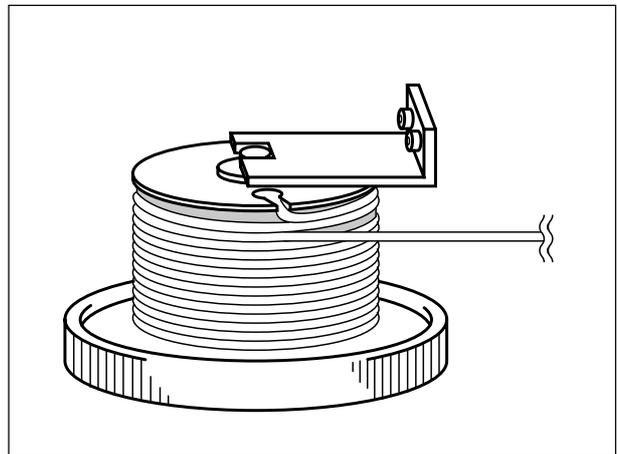


3

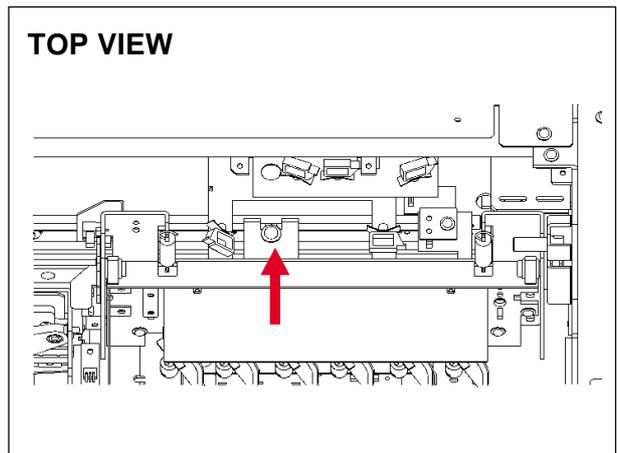
- 13** Rotate the DRIVE PULLEY until the CARRIAGE WIRE comes to its second wind from the top. **REVISED4**



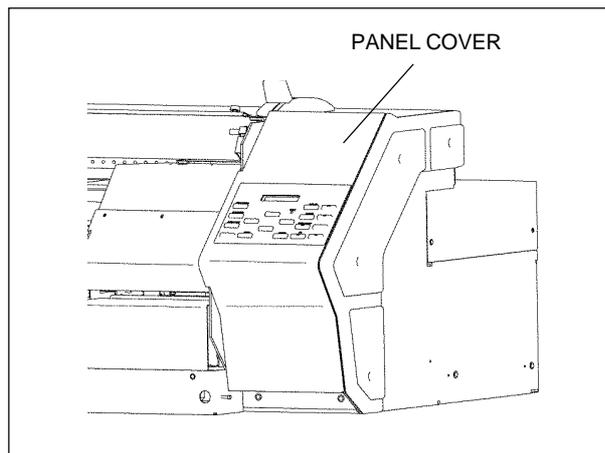
- 14** Rotate the DRIVE PULLEY until the CARRIAGE WIRE comes to its second wind from the top.



- 15** Fix the HEAD CARRIAGE to the CARRIAGE WIRE.

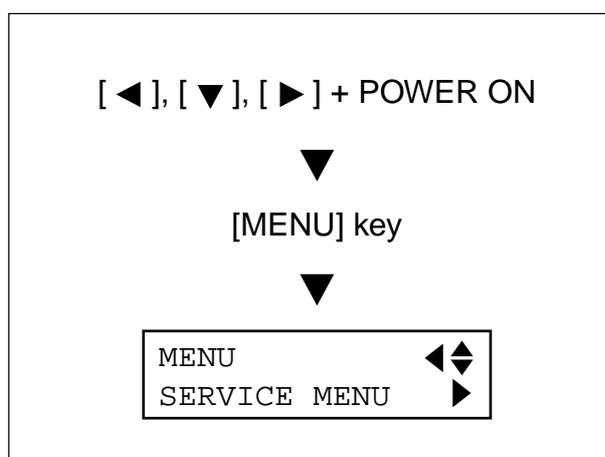


- 16** Connect the PANEL CABLE to the PANEL BOARD, and fix the PANEL COVER.

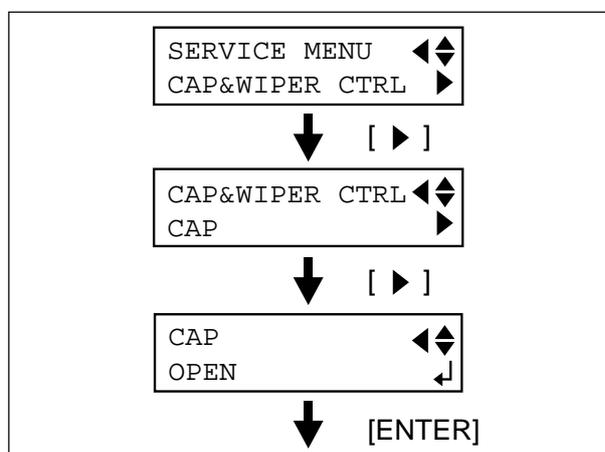


3

- 17** Turn on the MAIN POWER SW. Then, turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.



- 18** Select [CAP&WIPER CTRL] > [CAP] > [OPEN], and press the [ENTER] key. The CAPPING UNIT moves down and allows you to move the HEAD CARRIAGE by hand.



- 19** Move the HEAD CARRIAGE in a whole width of the GUIDE RAIL several times to remove the slack in the CARRIAGE WIRE.

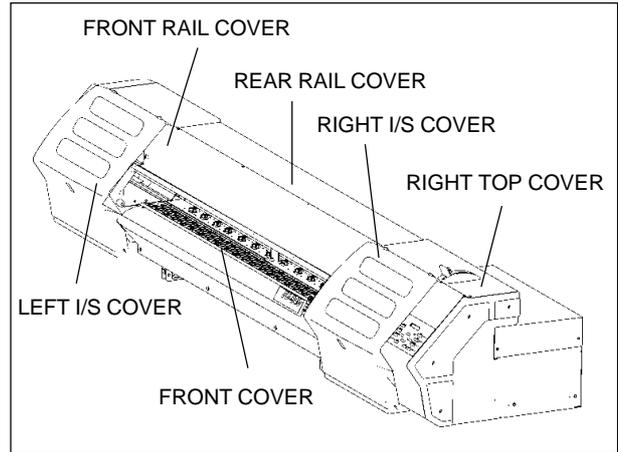
Then, carry out the following adjustments.

1. WIRE TENSION ADJUSTMENT
2. LIMIT POSITION & CUT DOWN POSITION INITIALIZE
3. LINEAR ENCODER SETUP

3-10 ENCODER SCALE REPLACEMENT

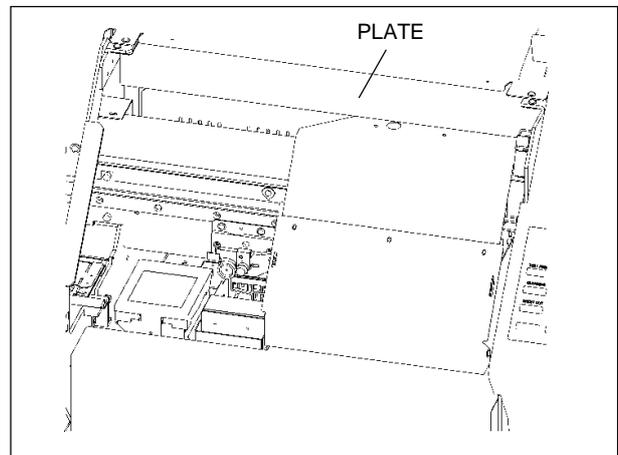
1 Remove the following covers.

- LEFT and RIGHT I/S COVERS
- RIGHT TOP COVERS
- FRONT and REAR RAIL COVERS
- FRONT COVER



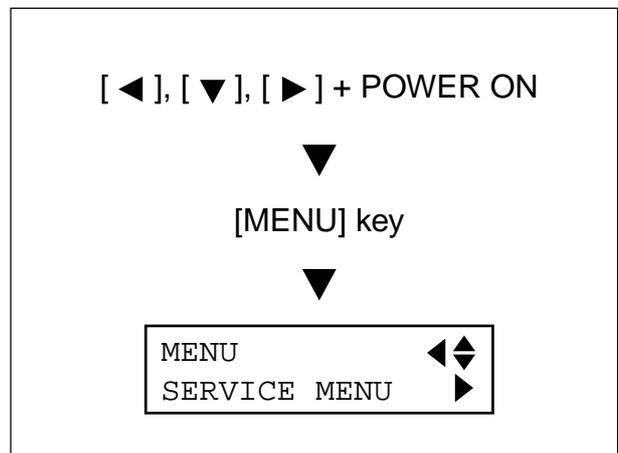
3

2 Remove the PLATE. **REVISED1**

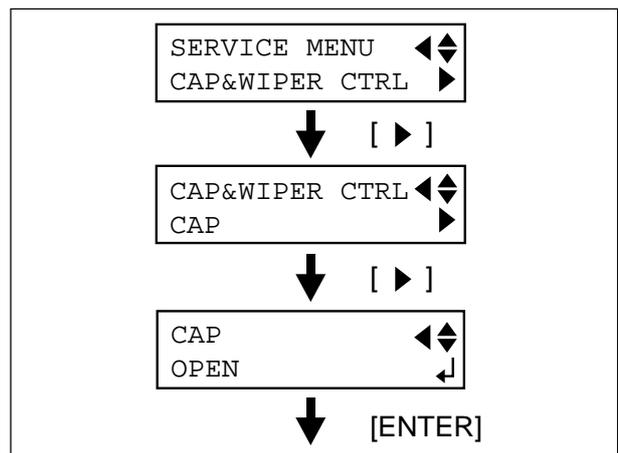


3 Turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.

REVISED1



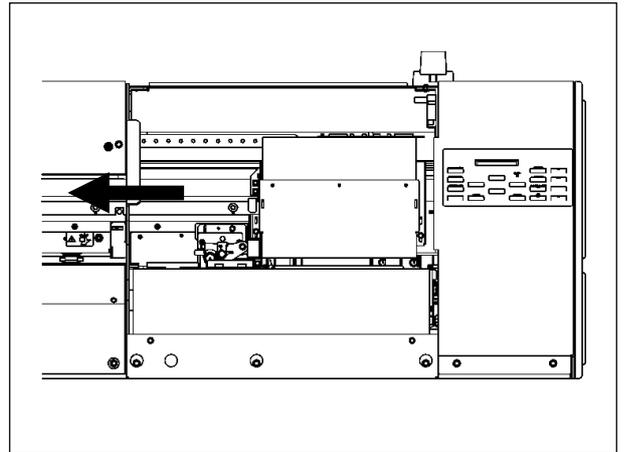
4 Select [CAP&WIPER CTRL] > [CAP] > [OPEN], and press the [ENTER] key. The CAPPING UNIT moves down and allows you to move the HEAD CARRIAGE by hand. **REVISED1**



- 5** Move the HEAD CARRIAGE slowly leftwards.
REVISED1

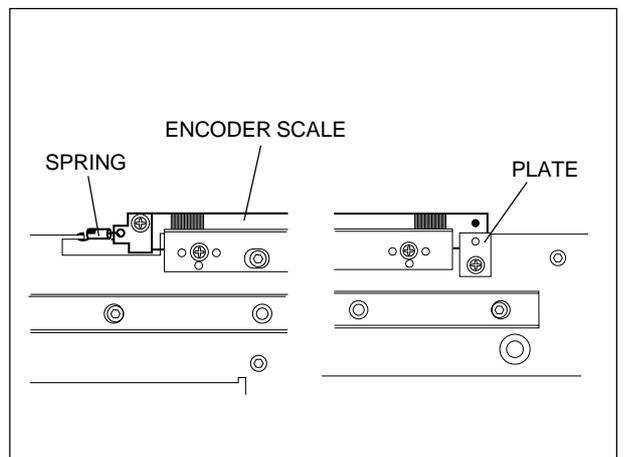


Be careful that the head does not strike the media or media clamp.



3

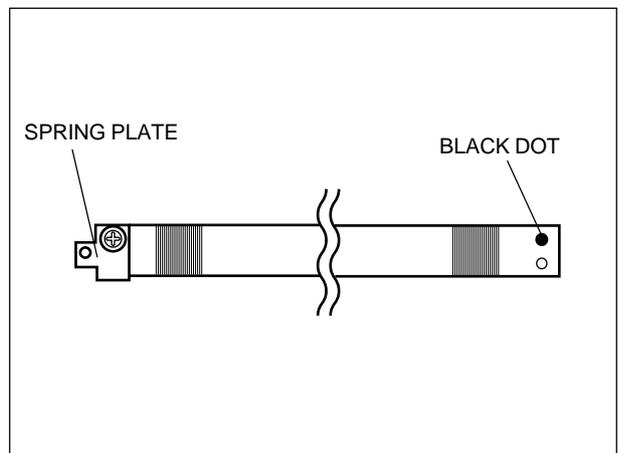
- 6** Remove the ENCODER SCALE by removing the PLATE fixing the ENCODER SCALE at its right end and the SPRING on its left end.



- 7** Remove the SPRING PLATE from the ENCODER SCALE and fix it to the ENCODER SCALE where there is no black dot written on it.



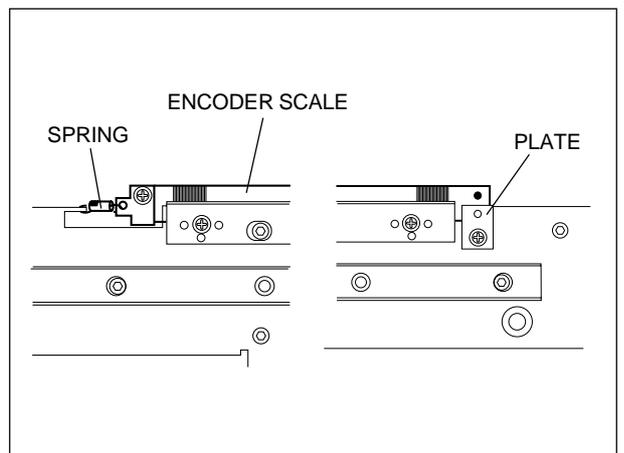
Make sure not make scratches or put grease on the ENCODER SCALE when fixing it.



- 8** Put the ENCODER SCALE in between the ENCODER PLATE and the GUIDE RAIL.
 Then, fix the right end with the PLATE and hook up the SPRING on the left end.
 Make sure that the ENCODER SCALE its in place.



Do not loosen or tighten the screws fixing the ENCODER PLATE.



9 Move the HEAD CARRIAGE in a whole width of the machine.

Make sure that the ENCODER SCALE doesn't make contact with the ENCODER MODULE and also ENCODER SCALE is between the slit of the ENCODER MODULE.

3

10 Carry out the LINEAR ENCODER SETUP.