

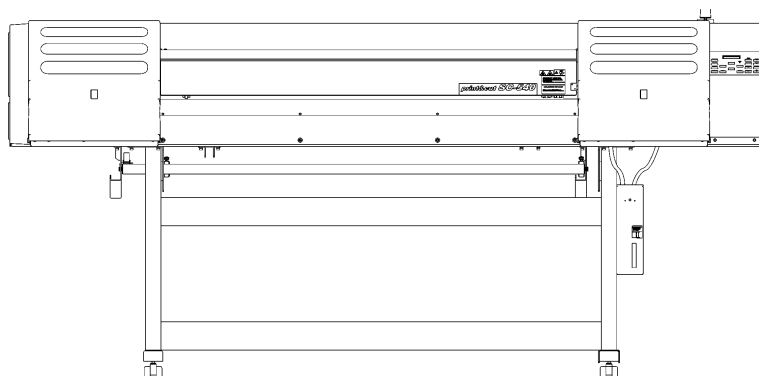
SERVICE NOTES



CAMMJET PRO II
Sign Maker by Roland DG Corporation

SOLJET PRO II
Sign Maker by Roland DG Corporation

CJ-540
SC-540



Structure & Spare Parts

1

Electrical Section

2

Replacement of Main Parts

3

Adjustment

4

Supplemental Information

5

Troubleshooting

6

Service Activities

7

Contents

1 Structure & Spare Parts

1-1	COVERS	1-1
1-2	FRAME	1-3
1-3	HEAD CARRIAGE	1-5
1-4	DRIVE UNIT	1-7
1-5	CHASSIS	1-9
1-6	PINCH ROLLER	1-10
1-7	STAY ROLL	1-11
1-8	TOOL CARRIAGE	1-12
1-9	WIPER SYSTEM	1-13
1-10	PUMP SYSTEM	1-14
1-11	INK SYSTEM	1-15
1-12	BASE FRAME	1-16
1-13	ACCESSORIES & STAND	1-17
1-14	TUC-1 CONTROLLER	1-18
1-15	TUC-1 OTHERS	1-19
1-16	TUC-1 ACCESSORIES	1-20
1-17	TU-550	1-20

2 Electrical Section

2-1	WIRING MAP	2-1
2-2	MAIN BOARD	2-2
2-3	HEAD / SERVO BOARD	2-10
2-4	SUB BOARD	2-24
2-5	TUC-1	2-30
2-6	MAINTENANCE PARTS LIST	2-31

3 Replacement of Main Parts

3-1	HEAD REPLACEMENT	3-1
3-2	WIPER REPLACEMENT	3-8
3-3	CAP TOP REPLACEMENT	3-10
3-4	TOOL CARRIAGE REPLACEMENT	3-15
3-5	CARRIAGE MOTOR REPLACEMENT	3-18
3-6	PUMP REPLACEMENT	3-22
3-7	INK TUBE REPLACEMENT	3-26
3-8	BOARDS REPLACEMENT	3-30
3-9	CARRIAGE WIRE REPLACEMENT	3-37
3-10	ENCODER SCALE REPLACEMENT	3-42
3-11	PINCH ROLLER REPLACEMENT	3-45
3-12	CUTTER PROTECTION REPLACEMENT	3-45

4 Adjustment

4-1	SPECIAL TOOLS	4-1
4-2	SERVICE MODE	4-2
4-3	HOW TO UPGRADE FIRMWARE	4-15
4-4	HEAD ALIGNMENT	4-16
4-5	LIMIT POSITION & CUT DOWN POSITION INITIALIZE	4-27
4-6	LINEAR ENCODER SETUP	4-32
4-7	CROP MARK SENSOR ADJUSTMENT	4-34
4-8	TOOL/CROP MARK SENSOR POSITION ADJUSTMENT	4-38
4-9	PRINT/CUT POSITION ADJUSTMENT	4-41
4-10	CALIBRATION (FEEDING DIRECTION)	4-45
4-11	TOOL HEIGHT ADJUSTMENT	4-47
4-12	TOOL PRESSURE ADJUSTMENT	4-49
4-13	CARRIAGE WIRE TENSION ADJUSTMENT	4-52
4-14	NETWORK BOARD INITIALIZE	4-55

5 Supplemental Information

5-1	SENSOR MAP	5-1
-----	------------------	-----

6 Troubleshooting

6-1	WHITE FINE LINES / BANDING / MISSING DOT / SCRATCHY PRINTING / BLURRED PRINTING	6-1
6-2	IT DOESN'T PRINT AT ALL	6-2
6-3	INK DROPS ON MEDIA	6-2
6-4	SHIFTING IN PRINTING	6-3
6-5	VERTICAL BANDING	6-3
6-6	PRINT DOES NOT MATCH WITH CUT	6-4
6-7	STITCH CUT	6-4
6-8	START AND END POINTS DO NOT MATCH	6-5
6-9	DISTORTED FIGURE	6-5
6-10	MEDIA SHIFTING	6-6
6-11	MOTOR ERROR	6-6
6-12	ERROR MESSAGE	6-7
	SERVICE CALL	6-7

7 Service Activities

7-1	INSTALLATION CHECK LIST	7-1
7-2	MAINTENANCE CHECK LIST	7-21
7-3	SPECIFICATION	7-25

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

14th Edition

CJ-540 '06.June

Unauthorized copying or transferral, in whole or in part, of this manual is prohibited.

Copyright © 2006 ROLAND DG CORPORATION

Printed in Japan

Roland DG Corporation

8115-13



Revision Record

Revision No.	Date	Description of Changes	Approval	Issued
0	2003.1.9	First Edition	Inagaki	Tamaki
1	2003.3.7	Sect1 Structure & Spare Parts Each parts list has been revised.	Inagaki	Tamaki
		1-14 TUC-1 CONTROLLER, 1-15 TUC-1 OTHERS, 1-16 TUC-1 ACCESSORIES, 1-17 TU-550 have been added.		
		2-5 TUC-1 WIRING MAP and Circuit Diagram have been added.		
		3-1 HEAD REPLACEMENT, 3-8 BOARD REPLACEMENT, 3-9 WIRE REPLACEMENT have been revised.		
		4-2 SERVICE MODE [THERMISTOR CHEK] and [CROPMARK SENS have been revised.		
		4-5 LIMIT POSITION & CUT DOWN POSITION INITIALIZE has been revised.		
		5-1 SENSOR MAP The name of HEAD ORIGIN SENSOR has been changed.		
		6-6 PRINT DOES NOT MATCH WITH CUT and SERVICE CALL have been revised.		
2	2003.4.8	3-5 CARRIAGE MOTOR REPLACEMENT has been revised.	Inagaki	Nakatani
		4-2 Service Mode [LINEAR ENCODER_HEADBOARD FAILED] menu has been added.		
		System SW_function has been added.		
		Service Report_Full width scanning has been added.		
		4-6: LINEAR ENCODER SETUP has been revised.		
3	2003.4.30	7-1 : INSTALLATION CHECK LIST Pump Unit Exchange Time has been revised.	Inagaki	Nakatani
		7-2 : Maintenance Check List (SC-540) Pump Unit Reference has been revised.		
4	2004.3.4	1-3 HEAD CARRIAGE, 1-4 DRIVE UNIT, 1-5 CHASSIS, 1-8 TOOL CARRIAGE, 1-9 WIPER SYSTEM, 1-10 PUMP SYSTEM have been revised.	Inagaki	Tamaki
		4-2 Service Mode [CHANGE INKTYPE] and [SYSTEM SWITCH] have been revised.		
		4-2 Contents of History Report, Service Report and History Report have been revised.		
		4-4 HEAD ALIGNMENT, 4-5 LIMIT POSITION & CUT DOWN POSITION ADJUSTMENT, 4-7 CROP MARK SENSOR ADJUSTMENT, 4-8 TOOL / CROP MARK SENSOR POSITION ADJUSTMENT and 4-9 PRINT / CUT POSITION ADJUSTMENT have been revised.		
		5-1 SENSOR MAP The name of PINCH ROLLER POSITION SENSOR has been changed.		
		6-11 MOTOR ERROR and SERVICE CALL have been revised.		
		7-1 INSTALLATION CHECK LIST Pump Unit Exchange Time and 7-2 Maintenance Check List (SC-540) Pump Unit Reference has been revised		
5	2004.8.10	1-10 : INK SYSTEM Parts have been revised.	Inagaki	Mabuchi
		Sect 3 : CHECKING THE CAP HEIGHT has been added.		
		3-1 : HEAD REPLACEMENT Step 17 has been revised		
		3-4 : CARRIAGE MOTOR REPLACEMENT Step9 has been revised.		
		4-5 : [CHECKING THE CAP HEIGHT] menu has been added.		
6	2004.9.8	7-1 : INSTALLATION CHECK LIST Printing Head Reference has been revised.	Inagaki	Tamaki
		1-4 : DRIVE UNIT Parts have been revised.		
7	2004.12.16	7-2 : Maintenance Check List The name of the grease has been revised.	Inagaki	Hioki
		4-5 : LIMIT POSITION & CUT DOWN POSITION INITIALIZE The procedure has been revised.		
8	2005.1.11	1-2 : FRAME, 1-3 : HEAD CARRIAGE, 1-5 : CHASSIS, 1-9 : WIPER SYSTEM, 1-10 : PUMP SYSTEM Parts have been revised.	Inagaki	Mabuchi
		4-2 : KEY COMBINATION, 4-3 : HOT TO UPGRADE FIRMWARE have been added.		
9	2005.2.2	1-4 : DRIVE UNIT, 1-7 : STAYROLL, 1-12 : BASE FRAME Parts have been revised.	Inagaki	Mabuchi
		4-2 : SERVICE MODE [SENSOR CHECK] has been revised.		
10	2005.6.22	6-11 : Motor error codes have been added.	Kato	Hioki
11	2005.8.5	1-4 : DRIVE UNIT 1-5 : CHASSIS Parts have been revised.	Kato	Mabuchi
		2-6 : MAINTENANCE PARTS LIST_Electrical Parts has been revised.		
		4-3 : HOW TO UPGRADE FIRMWARE Step_8 The key ► has been corrected.		




Revision No.	Date	Description of Changes	Approval	Issued
12	2006.1.12	1-9: WIPER SYSTEM, 1-3: HEAD CARRIAGE Parts have been revised.	Kato	M.Kawai
13	2006.6.15	1-11: INK SYSTEM, 1-12: BASE FRAME, 2-1: WIRING MAP Parts have been revised.	Kato	M.Kawai

To Ensure Safe Work

About ⚠️ **WARNING** and ⚠️ **CAUTION** Notices.

 WARNING	Used for instructions intended to alert the operator to the risk of death or severe injury should the unit be used improperly.
 CAUTION	Used for instructions intended to alert the operator to the risk of injury or material damage should the unit be used improperly. * material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

	The ⚡ symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. The symbol at left means "danger of electrocution".
	The ⚡ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. The symbol at left means not to touch.
	The ⚡ symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. The symbol at left means the power-cord plug must be unplugged from the outlet.

In addition to the ⚠️ **WARNING** and ⚠️ **CAUTION** symbols, the symbols shown below are also used.

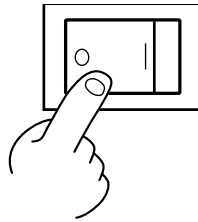


: Tips and advise before the adjustment.

WARNING



Turn off the primary power SW before servicing.



Do not recharge, short-circuit, disassemble the lithium battery, nor put it into fire.

It may cause heat, explosion and fire.



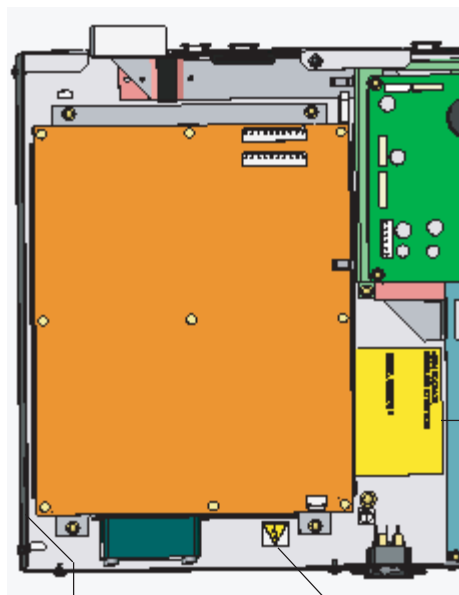
Put tape around the lithium battery for insulation for disposal or preservation.

It may cause heat, explosion and fire.

About the Labels Affixed to the Unit

These labels are affixed to the body of this product.

The following figure describes the location.



HIGH VOLTAGE, HANDLING ATTENTION

- Do not touch during power on
- Electric shock, Components damage
- Do not repair. Replace power unit.
- Do not replace fuse. Can not be recovered.

高電圧、取扱注意！

- ・通電中接触不可。感電、部品破損あり。
- ・修理不可。基板交換のこと。
- ・ヒューズ交換不可。復元不能。

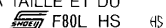


Electric charge.

Do not touch when power is on.

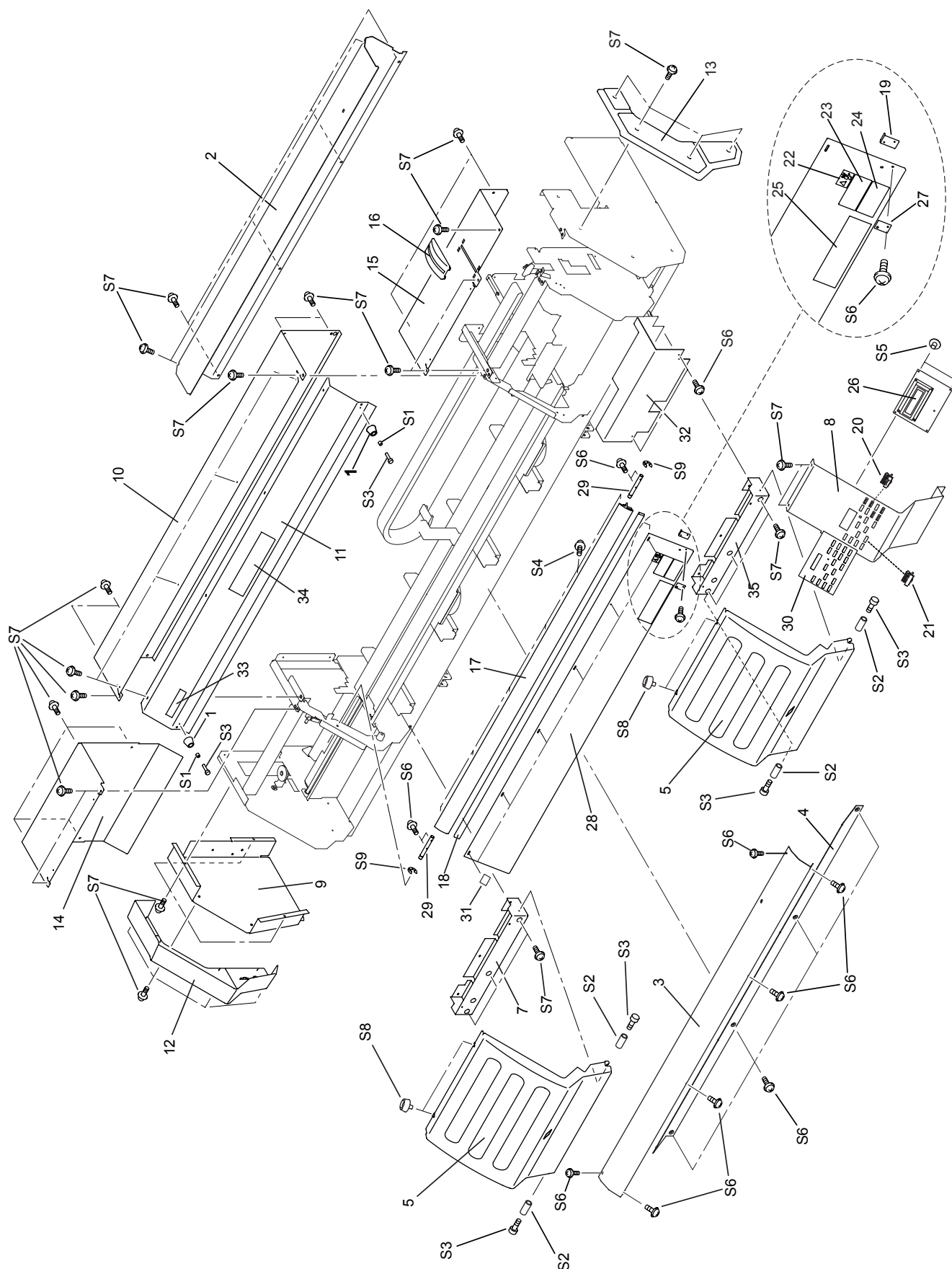
WARNING - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH FUSE OF THE SPECIFIED TYPE AND CURRENT RATING.

ATTENTION - AFIN D'EVITER TOUT RISQUE D'INCENDIE, N'UTILISER QUE DES FUSIBLES DE LA TAILLE ET DU TYPE SPECIFIES.



1 Structure & Spare Parts

1-1 COVERS



1

CJ-540 SC-540

PARTS LIST -Main Parts-

	Parts No.	Parts Name		
1	11879107	ABSORBER TK-12	*	*
2	22095143	APRON,B CJ-540	*	*
3	22095137	APRON,F FJ-540	*	*
4	22095142	APRON,F UNDER FJ-540	*	*
5	22025675	COVER,I/S FJ-540	*	
	22025986	COVER,I/S SJ-540		*
7	22025965	COVER,I/S MOTOR FJ-540	*	*
8	22025969	COVER,PANEL FJ-540	*	*
9	22025964	COVER,PLATE L FJ-540	*	*
10	22025979	COVER,RAIL B FJ-540	*	*
11	22025978	COVER,RAIL F FJ-540	*	
	22025983	COVER,RAIL F SJ-540		*
12	22025673	COVER,SIDE L FJ-540	*	*
13	22025674	COVER,SIDE R FJ-540	*	*
14	22025967	COVER,TOP L FJ-540	*	*
15	22025970	COVER,TOP R FJ-540	*	*
16	22225101	ESCUTCHEON FJ-500	*	*
17	22115881	FRAME,COVER F FJ-540	*	
	22115879	FRAME,COVER F SJ-540		*
18	21655252	HOLDER,COVER F FJ-540	*	*
19	21645106	HOOK,INT SW FJ-540	*	*
20	22495211	KEYTOP,DS-LD1H BLK	*	*
21	22495210	KEYTOP,DS-LX1H BLK	*	*
22	22535287	LABEL,CAUTION CARRIAGE #LA266	*	*
23	22535394	LABEL,CLAMP MEDIA FJ-540 #LA502	*	*
24	22535390	LABEL,EMERGENCY STOP #LA496	*	*
25	22535380	LABEL,CJ-540 #LA479	*	
	22535381	LABEL,SC-540 #LA480		*
26	W811502130	PANEL BOARD ASSY 3/13	*	*
27	22055356	PLATE, F COVER CM-500	*	*
28	22055550	PLATE,COVER F FJ-540	*	*
29	22155958	SHAFT,COVER F FJ-540	*	*
30	22665273	SHEET,PANEL CJ-540	*	*
31	21425110	WASHER,COVER FJ-50	*	*
32	22025972	COVER,INNER I/S FJ-540	*	*
33	22535220	LABEL,CORPORATE LOGOTYPE #LA79	*	*
34	22535375	LABEL,CAMMJET PRO2 #LA474	*	
	22535376	LABEL,SOLJET PRO2 #LA475		*
35	22025965	COVER,I/S MOTOR FJ-540	*	*

PARTS LIST -Supplemental Parts-

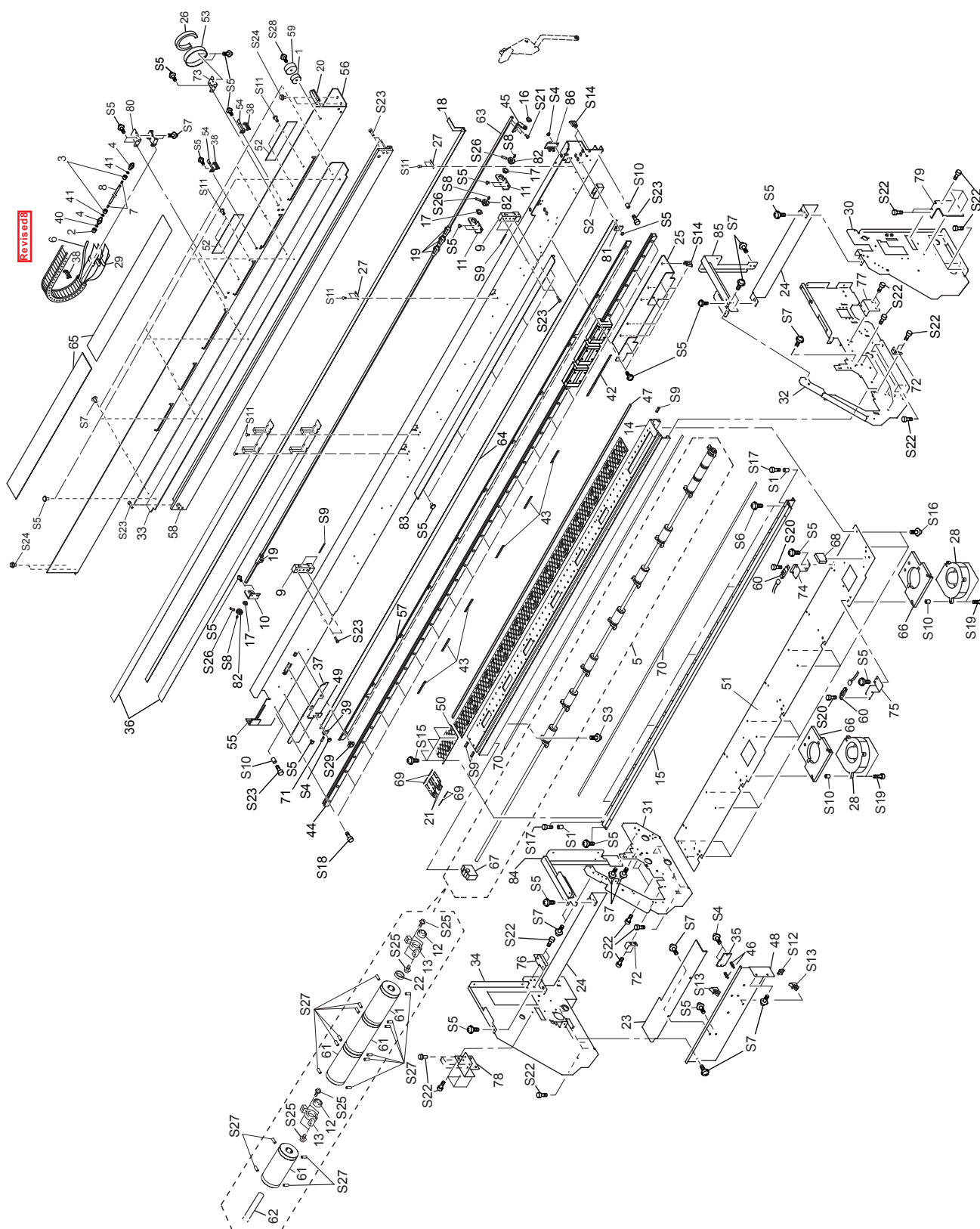
	Parts No.	Parts Name
S1	31029816	BUSH,ROLL 3*4
S2	31029819	BUSH,ROLL 3*9
S3	31049171	SCREW,CAP 3*12 Ni
S4	31289112	CUPSCREW,3*10 Ni
S5	31289109	CUPSCREW,3*4 NI
S6	31289105	CUPSCREW,3*6 BC
S7	31289110	CUPSCREW,4*8 BC
S8	31139104	SCREW,PLAPOINT M4*6 BK FE
S9	31149703	RING,E-RING ETW-4 UNI-C

1

Revised1

1-2 FRAME

1



PARTS LIST -Main Parts-

	Parts No.	Parts Name
1	11879122	ABSORBER,K-16
2	11909133	ADAPTER,SCREW 2FAI FJ-50
3	11909167	ADAPTER,SCREW 3FAI FJ-540
4	11909168	ADAPTER,TUBE 2-3FAI FJ-540
5	22805484	ASS'Y, GRIT ROLLER CJ-540
6	22805467	ASS'Y,TUBING 2*1900MM FJ-540 Revised8
7	22805478	ASS'Y,TUBING 2*20MM FJ-540
8	22805469	ASS'Y,TUBING 3*1300MM FJ-540
9	22355808	BASE, RAIL CJ-540
10	22355810	BASE,SHAFT L CJ-540
11	22355809	BASE,SHAFT R CJ-540
12	22175870	BEARING 10-19ZZ
13	22115106	BEARING HOUSING A 211-106
14	22005134	BED,CJ-540
15	22005137	BED,F FJ-540
16	12159573	BUSH,80F-0603
17	12159508	BUSH,SHAFT OILES 80F-1206
18	23475205	CABLE-CARD 12P1 2510L BB
19	21775101	CAM,SHAFT P-ROLLER CJ-500
20	11769118	CLAMP,FCM2-S6-14
21	21765122	CLAMP,MEDIA FJ-540
22	22165165	COLLAR
23	22025974	COVER,FEED MOTOR FJ-540
24	22025992	COVER,INNER I/S TOP FJ-540
25	22045479	COVER,RAIL UNDER CJ-540
26	22235415	CUSHION,PLATE CABLE FJ-540
27	W8115021A0	CUT FLEX BOARD
28	21715110	FAN,SCBD24H7-016
29	12399352	FILTER(E) FRC-45-12-6.5
30	22115892	FRAME,DRIVE PULLEY FJ-540
31	22115882	FRAME,MIDDLE L FJ-540
32	22115883	FRAME,MIDDLE R FJ-540
33	22115885	FRAME,RAIL PINCHROLL CJ-540
34	22115891	FRAME,SIDE L FJ-540
35	W811904240	GRIT ENCODER BOARD ASSY
36	22135656	GUIDE CABLE FLEX CUT CJ-540
37	22135660	GUIDE, CABLE CJ-540
38	22135559	GUIDE,TUBE 8 FJ-500
39	21655131	HOLDER,LINEAR SCALE CJ-70
40	11659149	HOLDER,RING O 2FAI FJ-50
41	11659249	HOLDER,RING O 3FAI FJ-540
42	22535388	LABEL,G-ROLLER 170 CJ-540 #LA487
43	22535387	LABEL,G-ROLLER 50 CJ-540 #LA486
44	21895152	L-BEARING LWES15C3R2320QE
45	22145457	LEVER,SHAFT CJ-540
46	21575109	NUT,BOSS H14MM S3MM N3MM
47	22635116	PAD,CUTTER CJ-540
48	22055558	PLATE,AUTOCUT JOINT FJ-540
49	22055316	PLATE,LINEAR SCALE CJ-70
50	22055584	PLATE,PLATEN SJ-540 Revised1
51	22055562	PLATE,SHUTTER FJ-540
52	22055581	PLATE,SHUTTER GUIDE CABLE CJ-540
53	22055585	PLATE,STAY CABLE 2 FJ-540 Revised1
54	22055561	PLATE,TUBE GUIDE FJ-540
55	22185431	RAIL, GUIDE CJ-540
56	22185432	RAIL,CABLE CJ-540
57	22185436	RAIL,LINEAR SCALE FJ-540
58	22185430	RAIL,PINCHROLL CJ-540
59	11509111	ROLLER,STAY CABLE FJ-600
60	15099115	SENSOR-INTERRUPTER GP2A25NJ

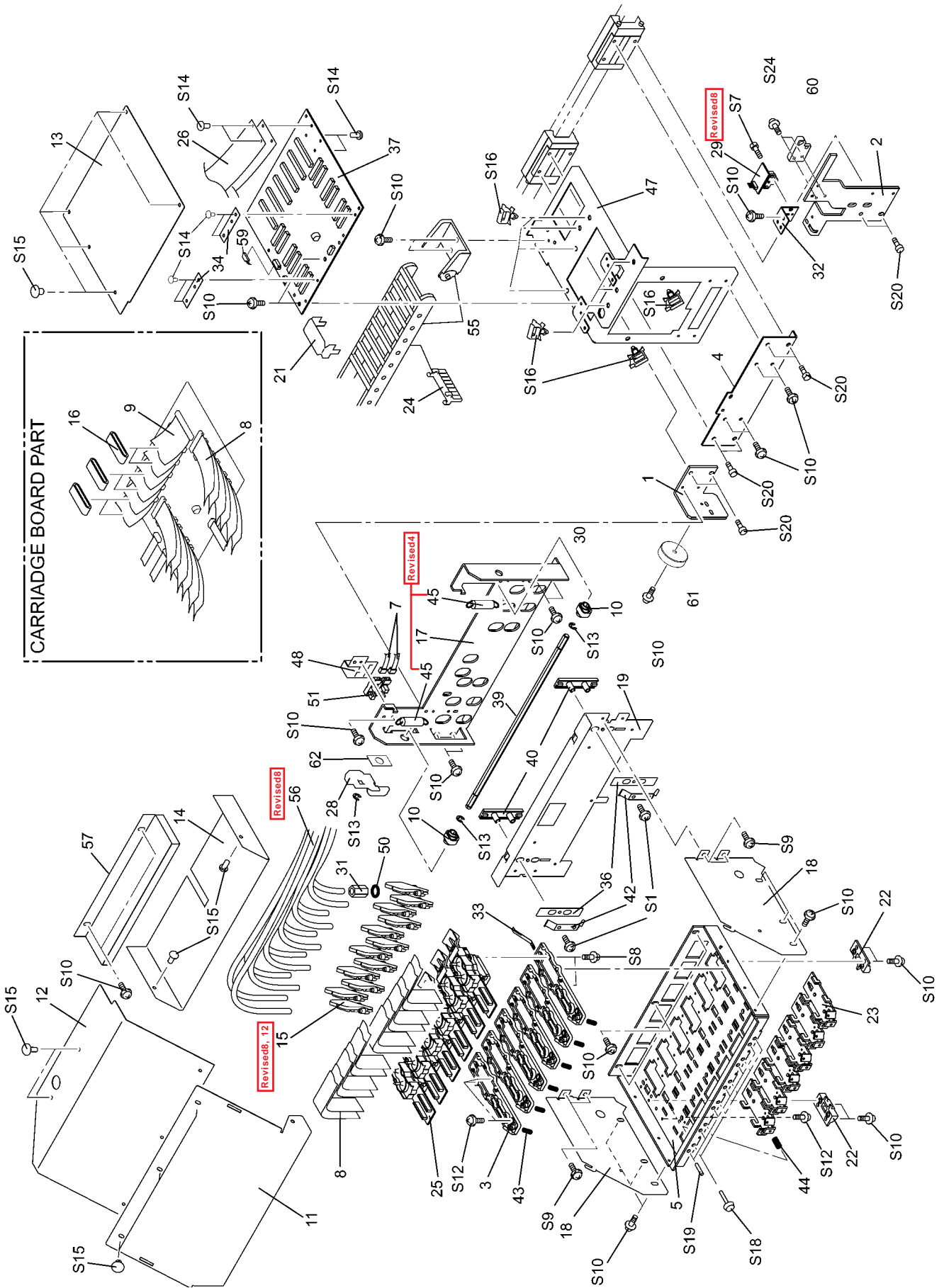
PARTS LIST -Main Parts-

	Parts No.	Parts Name
61	22075126	SET,GRIT ROLLER CJ-540
62	22155967	SHAFT,FEED FJ-540
63	22295263	SHAFT,SQUARE FJ-540
64	22665275	SHEET,LINEAR SCALE FJ-540
65	21475141	SHEET,RAIL CABLE FJ-540
66	22125432	SHUTTER,FAN FJ-540
67	22125431	SHUTTER,GRIT FJ-540
68	22125430	SHUTTER,PLATEN FJ-540
69	22185128	SLIDER CLAMP MEDIA FJ-500
70	22165215	SPACER, PLATE PLATEN CJ-540
71	22175122	SPRING,BACK UP PNC-960
72	22715337	STAY,BED JOINTFJ-540
73	22715346	STAY,PLATE CABLE 2 FJ-540 Revised1
74	22715335	STAY,P-SENSOR B FJ-540
75	22715336	STAY,P-SENSOR F FJ-540
76	22715318	STAY,RAIL CABLE FJ-540
77	22715341	STAY,RAIL CABLE RIGHT FJ-540
78	22715328	STAY,RAIL GUIDE L CJ-540
79	22715329	STAY,RAIL GUIDE R CJ-540
80	22715316	STAY,TUBE FJ-540
81	22135441	STOPPER,LINEAR SCALE FJ-540
82	22135365	STOPPER,SHAFT SQUARE CX-24
83	22325443	SUPPORT,CABLE CJ-540
84	22325447	SUPPORT,FRAME L FJ-540
85	22325448	SUPPORT,FRAME R FJ-540
86	W811502180	CUT ORG BOARD ASSY

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
S1	31029804	BUSH,ROLL 3*5.5
S2	31379102	CLAMP,FLAT CABLE FCS-25P
S3	31289112	CUPSCREW, M3*10 NI
S4	31289109	CUPSCREW, M3*4 NI
S5	31289105	CUPSCREW, M3*6 BC
S6	31289108	CUPSCREW, M3*8 NI
S7	31289110	CUPSCREW, M4*8 BC Revised1
S8	31109601	NUT,SQUARE M3 FE C
S9	31119904	PIN,SPRING 2.5*8 SUS STRAIGHT
S10	31129102	PIPE,POLYCA 4*8*10
S11	31299102	RIVET,NYLON P2655B
S12	31409702	SADDLE,LOCKING EDGE LES-1010
S13	31409801	SADDLE,LOCKING WIRE LWS-0711Z
S14	31409811	SADDLE,LOCKING WIRE LWS-1211Z
S15	31019117	SCREW,BINDING M3*8 BC
S16	31019702	SCREW,BINDING P-TIGHT 3*6 BC
S17	31049107	SCREW,CAP M3*12 BC
S18	31049155	SCREW,CAP M3*12 BC+PW3*6*0.5
S19	31049172	SCREW,CAP M3*20 NI
S20	31049105	SCREW,CAP M3*6 BC
S21	31049142	SCREW,CAP M3*6 BC MEC
S22	31049117	SCREW,CAP M4*12 BC+PW
S23	31049174	SCREW,CAP M4*15 NI
S24	31069104	SCREW,CAP M4*6+FL C
S25	31089110	SCREW,PAN M3*4 C+PW
S26	31199714	SCREW,SET WP M3*10 BC
S27	31199704	SCREW,SET WP M3*8 BC
S28	31239112	SCREW,W-SEMS M3*45 BC
S29	31239103	SCREW,W-SEMS M3*8 BC+PW12*1

1-3 HEAD CARRIAGE



PARTS LIST -Main Parts-

	Parts No.	Parts Name
1	21905170	ADAPTER,CARRIAGE L FJ-540
2	21905169	ADAPTER,CARRIAGE R FJ-540
3	21905166	ADAPTER,HEAD FJ-540
4	22355815	BASE, HOLDER CARRIAGE FJ-540
5	22355814	BASE,CARRIAGE AL FJ-540
7	23505851	CABLE ASSY HEAD U/D SENS FJ-540
8	23475206	CABLE-CARD 21P1 330L BB Revised1
9	23475200	CABLE-CARD 36P1 2480L BB
10	21775103	CAM,CARRIAGE FJ-540
11	22025958	COVER,CARRIAGE F PC FJ-540
12	22025957	COVER,CARRIAGE T FJ-540
13	22025959	COVER,CARRIAGE BOARD FJ-540
14	22025960	COVER,HEAD BOARD FJ-540
Revised8,12	15	6081181200 ASSY,INK DAMPER 3 2FAI SJ-540
	16	12399352 FILTER(E) FRC-45-12-6.5
	17	22115888 FRAME,CARRIAGE BASE FJ-540
	18	22115889 FRAME,CARRIAGE SIDE U/D FJ-540
	19	22115890 FRAME,CARRIAGE U/D FJ-540
	21	22135602 GUIDE,CABLE FJ-500
	22	22135618 GUIDE,CARRIAGE CAP FJ-540
	23	22135440 GUIDE,HEAD AL FJ-540
	24	22135559 GUIDE,TUBE 8 FJ-500
	25	22805470 ASS'Y,HEAD INKJET SOL SJ-540
	26	21655248 HOLDER,CABLE FJ-540
	28	22145454 LEVER,CARRIAGE FJ-540
Revised8	29	W811502150 LINEAR ENCODER BOARD ASS'Y CJ-540
	31	11909133 ADAPTER,SCREW 2FAI FJ-50
	32	22055557 PLATE,ENC SENS FJ-540
	33	22055547 PLATE,GND FJ-540
	34	22055486 PLATE,HOLD FILTER W11 CX-500
	36	22055548 PLATE,SLIDER CARRIAGE FJ-540
	37	W8115021C0 PRINT CARRIAGE BOARD ASS'Y CJ-540
	39	22155960 SHAFT,HEXAGON CARRIAGE FJ-540
	40	22185127 SLIDER,CARRIAGE FJ-540
	42	22175159 SPRING,CARRIAGE SIDE FJ-50
	43	22175520 SPRING,HEAD ADJUST 500 FJ-540
	44	22175519 SPRING,HEAD PLESS 500 FJ-540
Revised4	45	22625109 SPRING,PULL CARRIAGE 3500 FJ-540
	47	22715322 STAY,HOLDER CARRIAGE FJ-540
	48	22715321 STAY,SENSOR CARRIAGE FJ-540
	50	11659149 HOLDER,RING O 2FAI FJ-50
	51	15229705 PHOTO INTERRUPTER GP1A71A1
	55	12029989 COVER,TKP0180-2B R50-75
Revised8	56	22805467 ASS'Y,TUBING 2*1900MM FJ-540
	57	22805476 ASS'Y,PLATE DAMPER FJ-540
	59	23505853 CABLE ASS'Y,P-SIDE SENSOR FJ-540
	60	21345105 LOCK,CJ-500
	61	22395112 MAGNET,CJ-540
	62	22165216 SPACER,U/D LEVER FJ-540

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
S1	31019120	SCREW,BINDING M3*15 BC
S7	31049104	SCREW,CAP M2.6*4 BC
S8	31679902	SCREW,C-SEMS,2*8 C
S9	31289109	CUPSCREW, M3*4 NI
S10	31289105	CUPSCREW, M3*6 BC
S12	31089121	SCREW,PAN M2.3*8NI+PW2*6*0.4
S13	31149703	RING,E-RING ETW-4 UNI-C
S14	31299102	RIVET,NYLON P2655B
S15	31159901	RIVET,NYLON P3045W
S16	31409801	SADDLE,LOCKING WIRE LWS-0711Z
S18	31179908	SCREW,UREA N-1 M3*20 WH
S19	31199905	SCREW,SET CP M3*16 BC
S20	31069104	SCREW,CAP M4*6+FL C
S22	31249402	WAHSER,EXTERNAL TOOTH M4 C
S23	31239106	SCREW,W-SEMS M4*8 BC
S24	31289108	CUPSCREW, M3*8 NI

REVISED 8

7811801000-00 ASS'Y,INK DAMPER BK 2FAI SJ-540

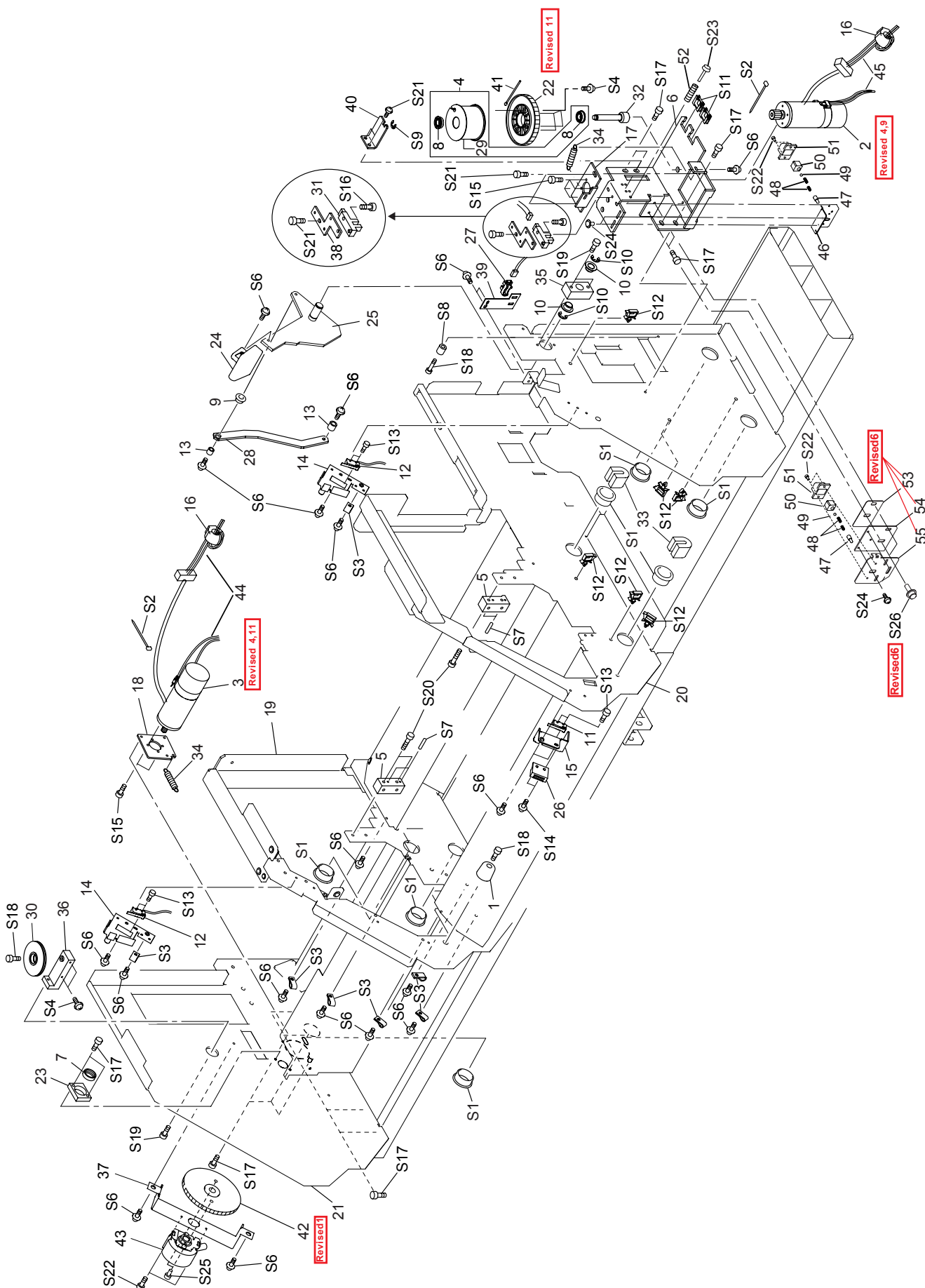
Refer to Service Information : SC540-022

REVISED 12

6081181200 ASSY,INK DAMPER 3 2FAI SJ-540

Refer to Service Information : SC540-029 or CJ540-024

1-4 DRIVE UNIT



1

PARTS LIST -Main Parts-

	Parts No.	Parts Name
	1 12359113	ABSORBER TK-2320
Revised 4,9	2 22805580	ASS'Y,SCAN MOTOR FJ-540
Revised4,11	3 7811509000	ASSY,FEED MOTOR CJ-540
	4 22805471	ASS'Y,PULLEY HD48.46S16 FJ-540
	5 22355807	BASE,RAIL FJ-540
1	6 22355811	BASE,SCAN MOTOR FJ-540
	7 22175870	BEARING 10-19ZZ
	8 22175815	BEARING F8-16ZZ
	9 12159573	BUSH,80F-0603
	10 12159563	BUSH,80F-1006
	11 23505833	CABLE-ASSY FRONT-COVER SW FJ-540
	12 23505834	CABLE-ASSY MAINT-COVER SW FJ-540
	13 21745109	COLLAR,LEVER FJ-540
	14 22025963	COVER,I/S SW FJ-540
	15 22025980	COVER,INT SW FJ-540
	16 12399334	FILTER(E),TFC-16-8-13
	17 21995122	FLANGE,MOTOR FJ-540
	18 21995124	FLANGE,MOTOR FEED FJ-540
	19 22115882	FRAME,MIDDLE L FJ-540
	20 22115883	FRAME,MIDDLE R FJ-540
	21 22115891	FRAME,SIDE L FJ-540
Revised11	22 21685149	GEAR,H235S20(B8)T2
	23 22115121	HOUSING,R-BEARING FRAME FJ-540
	24 22485104	KNOB FJ-50
	25 22145456	LEVER,CAM PINCH CJ-540
	26 12399102	MAGNET CATCH TL-105
	27 15229705	PHOTO INTERRUPTER GP1A71A1
	28 22055564	PLATE,LEVER LINK CJ-540
	29 21975157	PULLEY,HD48.46S16(B35C39.5 F53)
	30 21975154	PULLEY,UD49.2S4(B4.6C6.6)
	31 15229506	SENSOR INTERRUPTER,GP1A05A5
	32 22155963	SHAFT,PULLEY FJ-540
	33 22125429	SHUTTER,F-M-R FJ-540
	34 22175157	SPRING,C P-ROLLER CM-500
	35 22035161	STAND,LEVER FJ-500
	36 22035193	STAND,PULLEY FJ-540
	37 22715320	STAY,FA-CODER FJ-540
	38 22715244	STAY,SENSOR CARRIAGE FJ-500
	39 22715325	STAY,SENSOR PINCH FJ-540
	40 22715249	STAY,SHAFT PULLEY FJ-500
	41 21945144	WIRE FJ-540
Revised1	42 21685128	GEAR, H300S10
	43 25095120	GRID ENCODER TS5217N561 FJ-540
	44 23505847	CABLE-ASSY FEED-MOTOR54 FJ-540
	45 23505845	CABLE-ASSY SCAN-MOTOR FJ-540
	46 21345109	LOCK,STAY CJ-540
	47 22295117	SHAFT,LOCK CJ-70
	48 22175134	SPRING,A CJ-70
	49 11869103	BALL,4MM
	50 22185101	SLIDER,LOCK CJ-70
	51 21365103	CASE,LOCK CJ-70
	52 22175519	SPRING,HEAD PRESS 500 FJ-540
Revised6	53 22055637	PLATE,SPACER LOCK CJ-540
Revised6	54 22845144	BASE,ADJUSTER CJ-540
Revised6	55 22055636	PLATE,ADJUSTER LOCK CJ-540

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
	S1 31029101	BUSH,NB-19
	S2 31329602	CLAMP,INSULOK T-18L
	S3 31379116	CLAMP,WIRE T30MR
	S4 31289112	CUPSCREW, M3*10 NI
	S5 31289111	CUPSCREW, M4*6 NI
	S6 31289110	CUPSCREW, M4*8 BC
Revised1	S7 31119904	PIN,SPRING 2.5*8 SUS STRAIGH
	S8 31129102	PIPE,POLYCA 4*8*10
	S9 31149704	RING,E-RING ETW-6 SUS
	S10 31149705	RING,E-RING ETW-7 SUS
	S11 31409702	SADDLE,LOCKING EDGE LES-1010
	S12 31409801	SADDLE,LOCKING WIRE LWS-0711Z
	S13 31019149	SCREW,BINDING M2.3*8 BC
	S14 31019115	SCREW,BINDING M3*4 BC
	S15 31049170	SCREW,CAP M3*8 NI
	S16 31049173	SCREW,CAP M4*10 NI
	S17 31049117	SCREW,CAP M4*12 BC+PW
	S18 31049174	SCREW,CAP M4*15 NI
	S19 31049175	SCREW,CAP M4*20 NI
	S20 31049137	SCREW,CAP M4*25 BC
	S21 31069104	SCREW,CAP M4*6+FL C
	S22 31049105	SCREW,CAP M3*6 BC
	S23 31179908	SCREW,UREA M3*20 N-1 WH
	S24 31289105	CUPSCREW, M3*6 BC
	S25 31199701	SCREW, SET WP M3*3 C
Revised1	S26 31049130	SCREW, SET WP M3*4 C
Revised6		

Revised 9

22805580 ASS'Y,SCAN MOTOR FJ-540

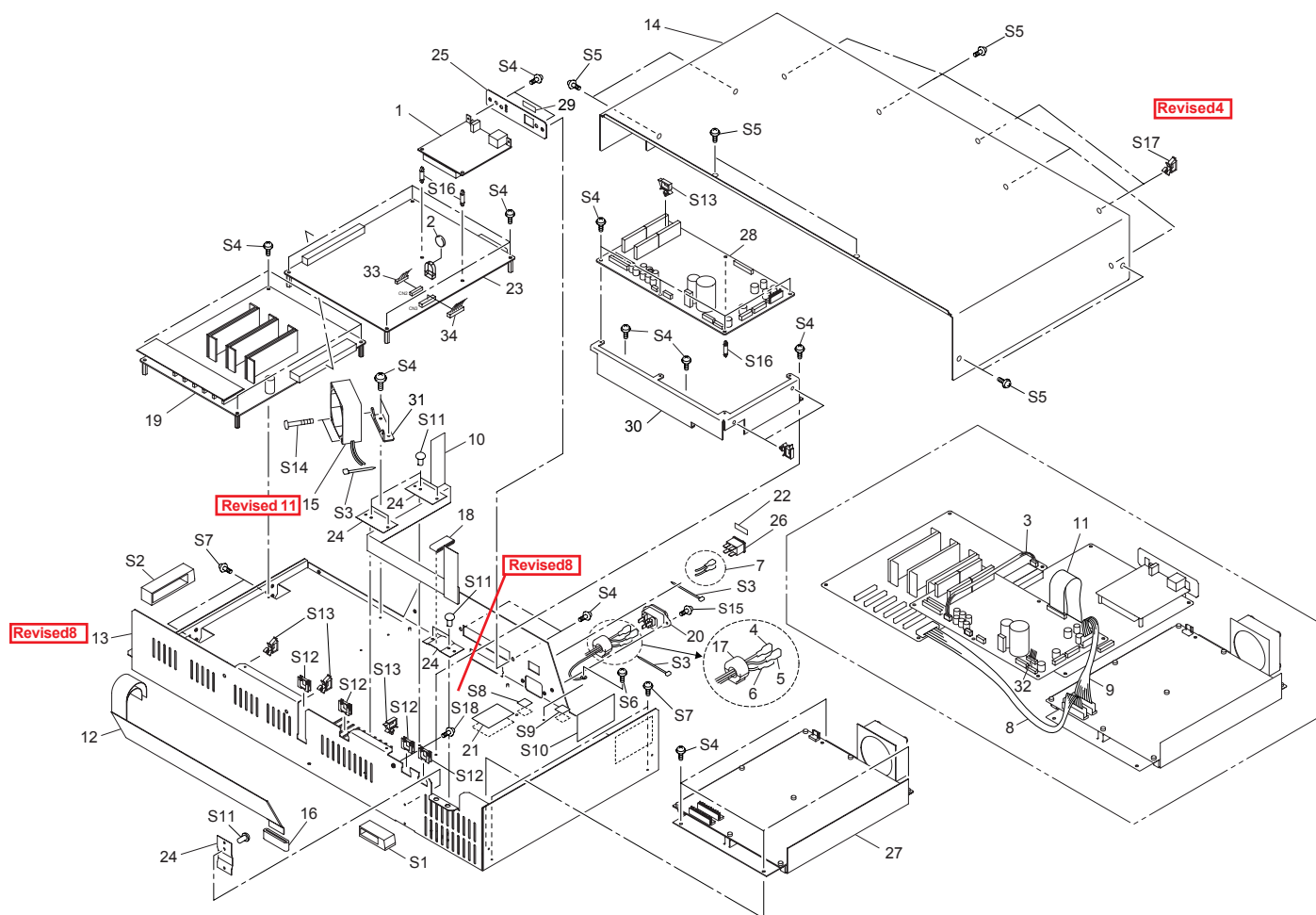
Refer to Service Information : SC540-021,CJ540-018

Revised 11

7811509000 ASSY,FEED MOTOR CJ-540

Refer to Service Information : SC540-024,CJ540-020

1-5 CHASSIS



PARTS LIST -Main Parts-

	Parts No.	Parts Name
	1	22805353 ASSY,NETWORK BOARD FJ-500
	2	15009101 BATTERY CR2032
	3	23505999 CABLE-ASSY HEAD BOARD FAN FJ-540
	4	23505631 CABLE-ASSY JUNBI A PC-600
	5	23505632 CABLE-ASSY JUNBI B PC-600
	6	23505633 CABLE-ASSY JUNBI C PC-600
	7	23505839 CABLE-ASSY JUNBIWIRE D FJ-540
	8	23505840 CABLE-ASSY POWER HEAD FJ-540
	9	23505841 CABLE-ASSY POWER SERVO FJ-540
	10	23475196 CABLE-CARD 24P1 850L BB
	11	23475197 CABLE-CARD 25P1 105L BB
	12	23475203 CABLE-CARD 26P1 810L BB
Revised 8	13	22815148 CHASSIS FJ-540
	14	22025971 COVER,CHASSIS FJ-540
Revised 11	15	1000000012 FAN,109R0624H459
	16	12399351 FILTER(E) FRC-40-12-6.5
	17	12399353 FILTER(E) TFT-081813N
	18	12399331 FILTER(E),FPC-31-12
	19	W811904020 HEAD BOARD FJ-540
	20	13429702 INLET AC-P01CF01 15A250V
	21	22535257 LABEL,CAUTION VOLTAGE #LA167
	22	22535117 LABEL,POWER CM-500 NO.893
	23	7811903900 MAIN BOARD ASS'Y FJ-540
	24	22055487 PLATE,HOLD FILTER W26 CX-500
	25	22055565 PLATE,NET CARD FJ-540
	26	13129170 POWER SW AJ7201B
	27	22425112U0 POWER UNIT SWITCHING FJ-540
	28	W811904010 SERVO BOARD FJ-540

PARTS LIST -Main Parts-

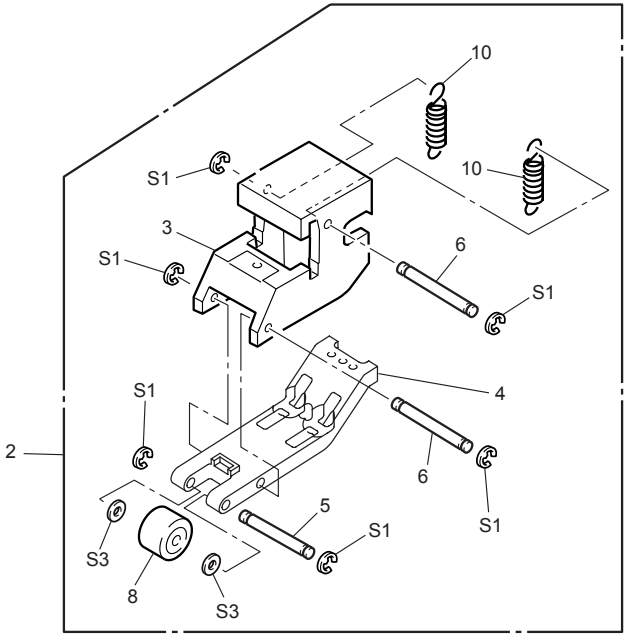
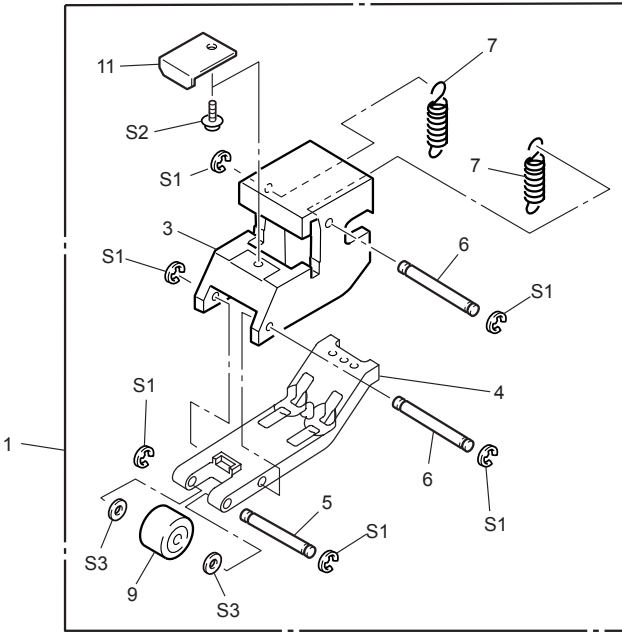
	Parts No.	Parts Name
	29	21475147 SHEET,COATING SEAL FJ-540
	30	22715326 STAY SERVO BOARD FJ-540
	31	22715327 STAY,CHASSIS FAN FJ-540
	32	23505849 CABLE-ASSY G-ENCODER54 FJ-540
	33	23505842 CABLE-ASSY PAPER-SENS FJ-540
	34	23505843 CABLE-ASSY PRI-CAR SENS FJ-540

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
	S1	31379102 CLAMP,FLAT CABLE FCS-25P
	S2	31379101 CLAMP,FLAT CABLE FCS-50P
	S3	31329601 CLAMP,INSULOK T-18S
	S4	31289109 CUPSCREW M3*4 NI
	S5	31289105 CUPSCREW, M3*6 BC
	S6	31289111 CUPSCREW, M4*6 NI
	S7	31289110 CUPSCREW, M4*8 BC
	S8	31279116 LABEL,EARTH MARK-1 NO. E-580
	S9	31279121 LABEL,FLASH-LIGHTING NO.E-582
	S10	31279191 LABEL,WARNING FUSE REPLACE #347
	S11	31299102 RIVET,NYLON P2655B
	S12	31409702 SADDLE,LOCKING EDGE LES-1010
	S13	31409801 SADDLE,LOCKING WIRE LWS-0711Z
	S14	31019123 SCREW,BINDING M3*30 BC
	S15	31169103 SCREW,FLAT M3*6 BC
	S16	31209118 SPACER,WPCS-12S-4.0
	S17	31379111 CLAMP,CABLE CKS-13-H
	S18	31019401 SCREW,BINDING M4*6 NI+EXT.TW

1-6 PINCH ROLLER

1



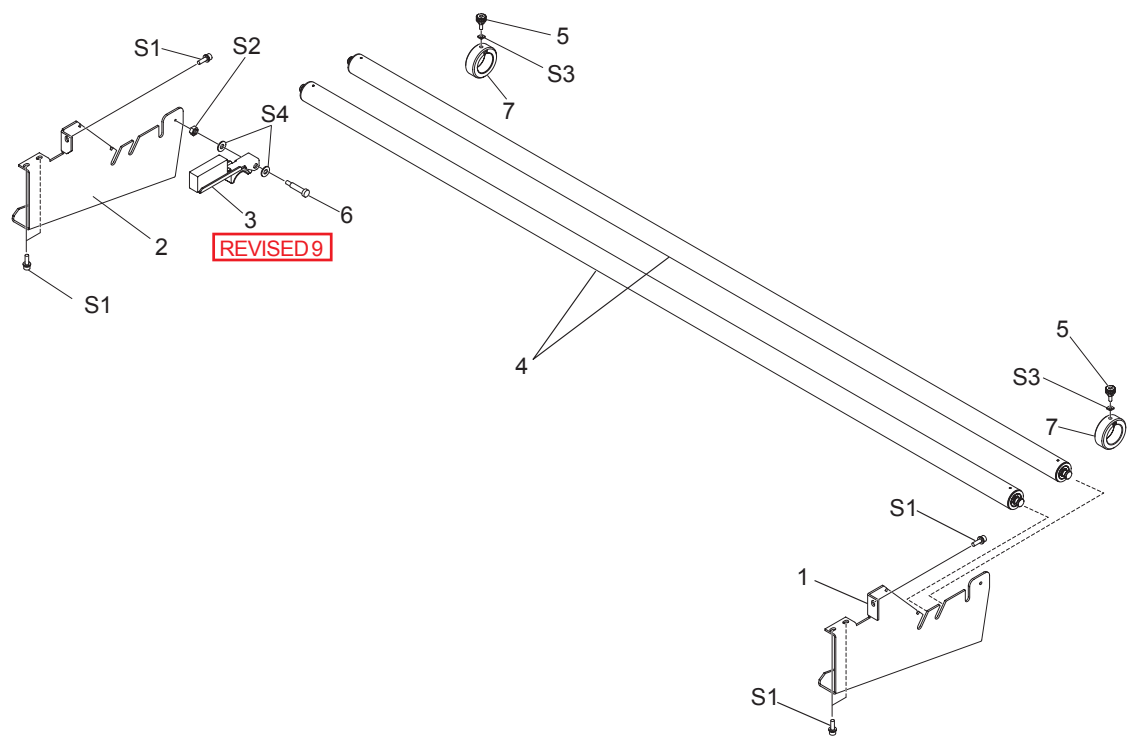
PARTS LIST -Main Parts-

	Parts No.	Parts Name
1	22805483	ASS'Y,P-ROLLER L/R CJ-540
2	22805482	ASS'Y,P-ROLLER M CJ-540
3	22115765	FRAME,P-ROLLER CJ-500
4	22145458	LEVER,P-ROLLER CJ-540
5	22145831	PIN NO.1 (214-831)
6	22145832	PIN NO.2 214-832
7	22175105	PINCH ROLL SPRING
8	21565103	P-ROLLER FD16S4(B10) TYPE2
9	21565102	P-ROLLER TD16S4(B10) TYPE2
10	22175157	SPRING,C P-ROLLER CM-500
11	22715332	STAY,SENSOR P-ROLLER CJ-540

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
S1	31149702	RING,E-RING ETW-3 UNI-C
S2	31239102	SCREW,W-SEMS M3*8 BC
S3	31249211	WASHER,PLAIN 4.3*7*0.5 C

1-7 STAY ROLL

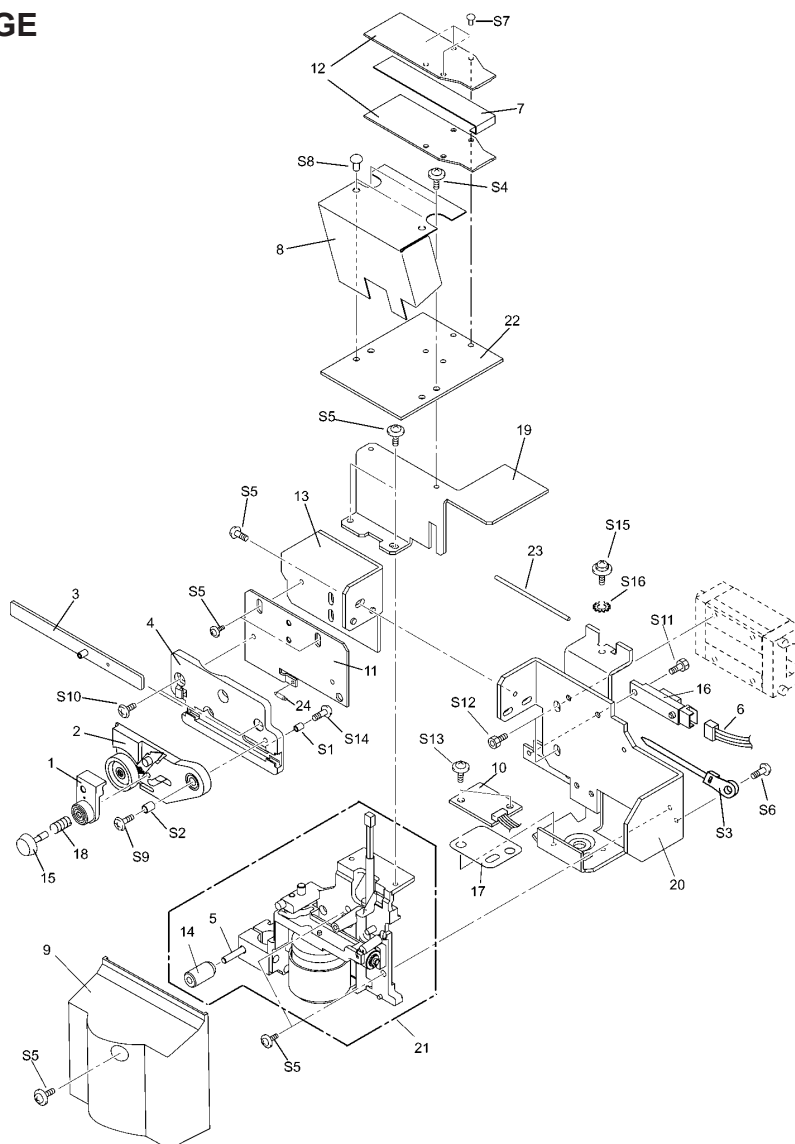


REVISED9

	Parts No.	Parts Name
1	22145217	ARM CJ-540
2	22145222	ARM, L CJ-540
3	7498804000	ASS'Y, BRAKE PNS-501
4	7811500300	ASS'Y, SHAFT SHEET CJ-540
5	7498805000	ASS'Y, STOPPER SCREW PNS-501
6	21815106	BOLT, SHOULDER PNS-501
7	22135362	STOPPER PNS-501

	Parts No.	Parts Name
S1	31049157	CAP-SCREW,6*20 BC SPW+WASHER
S2	31109808	NUT, HEXAGON M6
S3	31109603	NUT, SQUARE M5
S4	31249221	WASHER, PLANE 8*18*1.6 BC

1-8 TOOL CARRIAGE



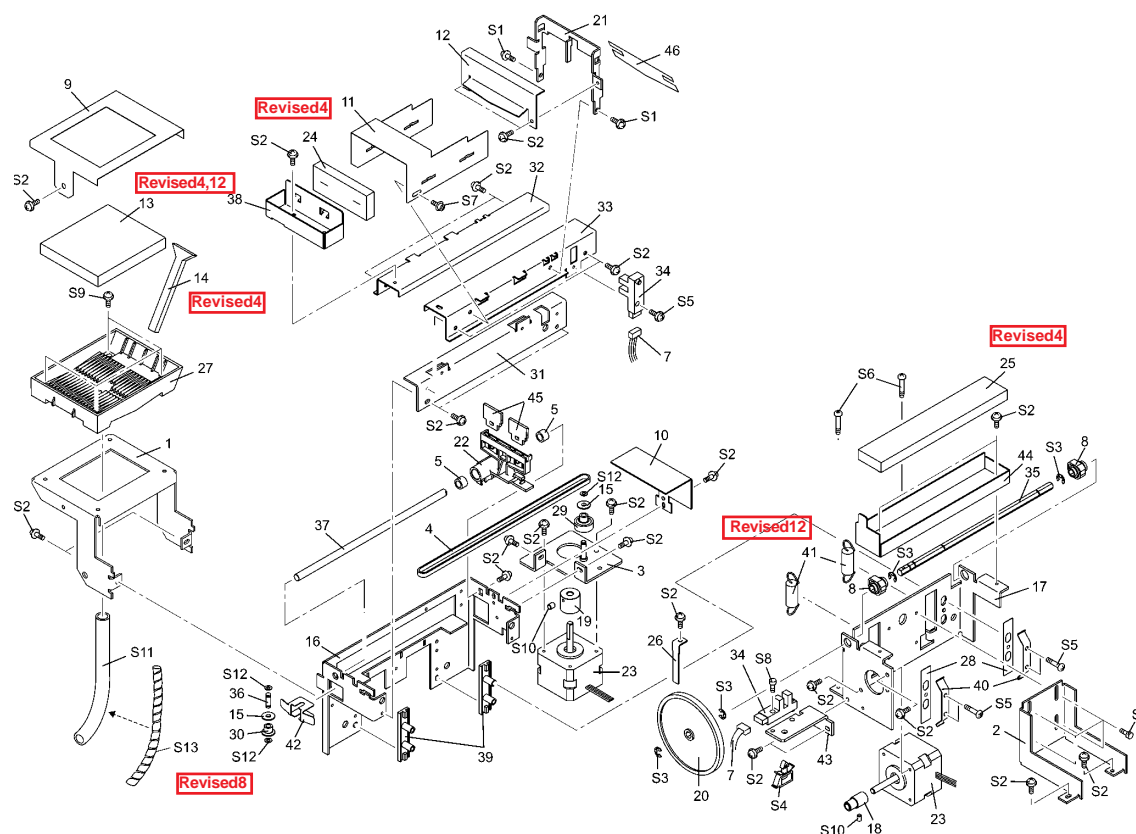
PARTS LIST -Main Parts-

	Parts No.	Parts Name
1	22805292	ASS'Y,CLAMP BLADE CM-500
2	22805291	ASS'Y,HOLDER BLADE CM-500
3	22805396	ASS'Y,PLATE CAM SLIDE FJ-500
4	22355656	BASE,CUTTER CM-500
5	21815101	BOLT,PENHOLDER
6	23505837	CABLE-ASS'Y PINCH SENS CJ-540
7	23475205	CABLE-CARD 12P1 2510L BB
8	22025956	COVER,CARRIAGE BOARD CJ-540
9	22025404	COVER,CARRIAGE CX-24
10	W811502190	CROP SENS BOARD ASS'Y CJ-540
11	22115798	FRAME,CUTTER FJ-500
12	22135656	GUIDE,CABLE FLEX-CUT CJ-540
13	21655255	HOLDER,CUTTER CJ-540
14	22285503	NUT,PENHOLDER
15	21495115	SCREW,BLADE SET CM-500
16	15099115	SENSOR-INTERRUPTER GP2A25NJ
17	21475148	SHEET,FILTER CROP CJ-500
18	22175155	SPRING,SCREW CM-500
19	22715334	STAY,TOOL CARRIAGE BOARD CJ-540
20	22715333	STAY,TOOL CARRIAGE HOLD CJ-540
21	7811501800	TOOL CARRIAGE ASS'Y CJ-540
22	W8115021B0	TOOL CARRIAGE BOARD ASS'Y CJ-540
23	21945144	WIRE FJ-540
24	22175154	SPRING,BLADE UP CM-500

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
S1	31029801	BUSH,ROLL 2*4
S2	31029803	BUSH,ROLL 3*5
S3	31379116	CLAMP,INSULOK T30MR
S4	31289109	CUPSCREW M3*4 NI
S5	31289105	CUPSCREW, M3*6 BC
S6	31289110	CUPSCREW, M4*8 BC
S7	31299102	RIVET,NYLON P2655B
S8	31159901	RIVET,NYLON P3045W
S9	31019118	SCREW,BINDING M3*10 BC
S10	31019116	SCREW,BINDING M3*6 BC
S11	31049105	SCREW,CAP M3*6 BC
S12	31069104	SCREW,CAP M4*6+FL C
S13	31089110	SCREW,PAN M3*4 C+PW
S14	31229103	SCREW,TRUSS M2*6 BC
S15	31239106	SCREW,W-SEMS M4*8 BC
S16	31249402	WASHER,EXTERNAL TOOTH M4 C

1-9 WIPER SYSTEM



* No.13 REVISED 12 Refer to Service Information : SC540-025

* No.13 REVISED 12 Refer to Service Information : CJ540-021

PARTS LIST -Main Parts-

	Parts No.	Parts Name
1	22145221	ARM, SERGE MIST SJ-540
2	22355812	BASE, WIPER FJ-540
3	22355813	BASE, WIPER MOTOR FJ-540
4	11929138	BELT, 408P2M4-530
5	12159536	BUSH, B-S6-17
7	23505996	CABLE-ASSY WIPER SENS FJ-540
8	21775103	CAM, CARRIAGE FJ-540
9	22025977	COVER, SERGE MIST FJ-540
10	22025985	COVER, WIPE R FJ-540
11	22025953	COVER, WIPER FJ-540
12	22025975	COVER, SCRAPER FJ-540
13	1000000416	FILTER(M), SERGE MIST2 SP-300 Revised12
14	22275122	FILTER(M), INNER SERGE MIST SJ-540
15	21995104	FLANGE, PULLEY STX-7
16	22115887	FRAME, WIPER FJ-540
17	22115886	FRAME, WIPER U/D FJ-540
18	21685122	GEAR, S10S20
19	21685144	GEAR, S53S5(B15)
20	21685143	GEAR, S90(B5M0.8HEX6)
21	21655250	HOLDER, SCRAPER FJ-540
22	21655245	HOLDER, WIPER FJ-540
23	22435429	MOTOR KP42GM1-014
24	21545159	PAD, WIPE F SJ-540
25	21545160	PAD, WIPER TRAY SJ-540
26	22055555	PLATE, SENS WIPE U/D FJ-540
27	22055537	PLATE, SERGE MIST FJ-540
28	22055548	PLATE, SLIDER CARRIAGE FJ-540
29	21975124	PULLEY, T14P2S4+GEAR S53
30	21975123	PULLEY, WD6.94S9
31	22185443	RAIL, GUIDE WIPER FJ-540
32	22185445	RAIL, WIPER L FJ-540

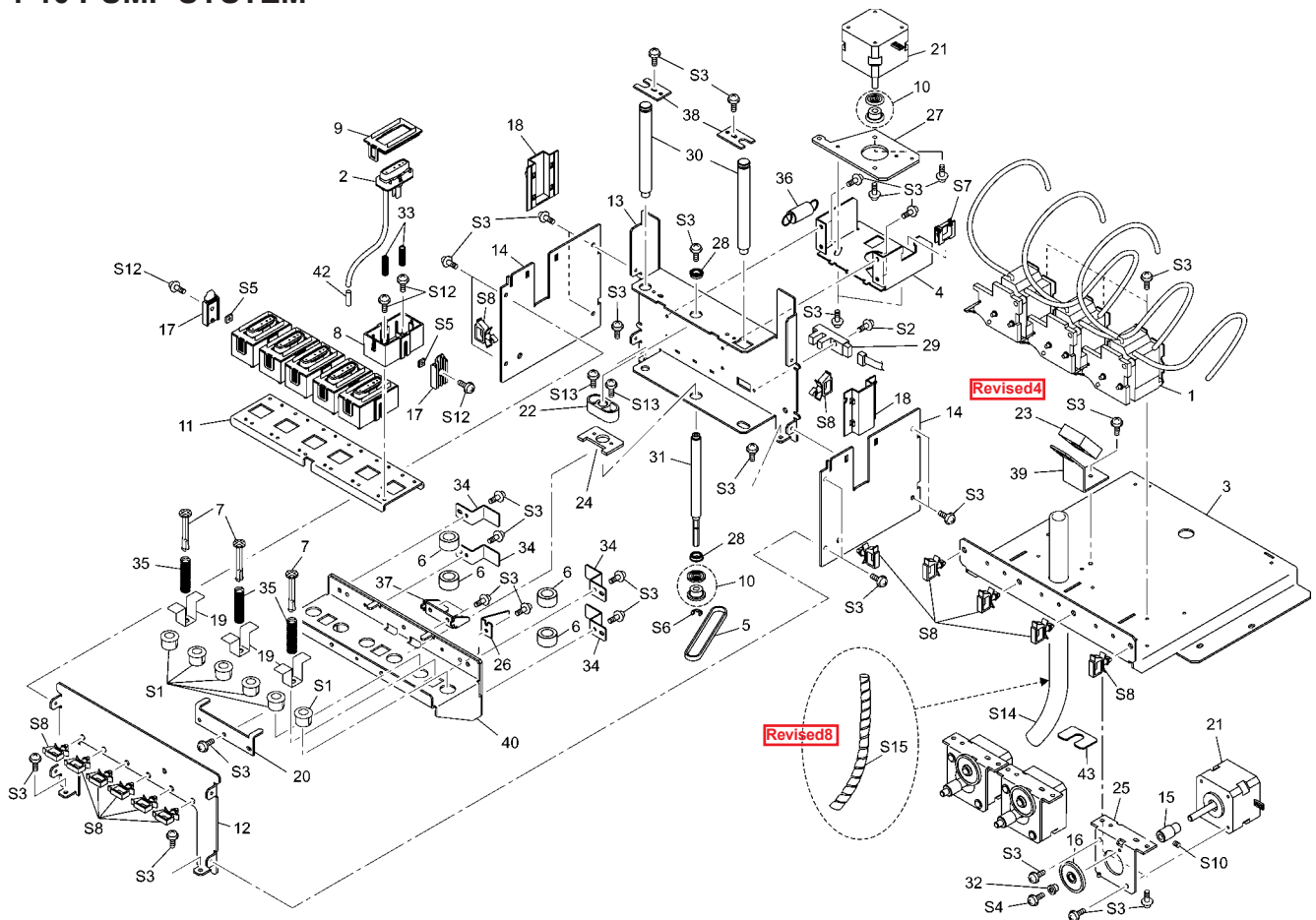
PARTS LIST -Main Parts-

	Parts No.	Parts Name
33	22185444	RAIL, WIPER R FJ-540
34	15229506	SENSOR, INTERRUPTER GP1A05A5
35	22155962	SHAFT, HEXAGON WIPER FJ-540
36	22295132	SHAFT, IDLE PULLEY STX-7
37	22155961	SHAFT, WIPER FJ-540
38	22125433	SHUTTER, WIPE F FJ-540
39	22185127	SLIDER, CARRIAGE FJ-540
40	22175159	SPRING, CARRIAGE SIDE FJ-50
41	1000000029	SPRING, PULL WIPE 2000 FJ-540 Revised12
42	22175140	SPRING, TENSIONER STX-7
43	22715324	STAY, SENS WIPE U/D FJ-540
44	21445106	TRAY, WIPE FJ-540
45	11379105	WIPER, HEAD ASP FJ-50
46	21375107	WIPER, SCRAPER FJ-540

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
S1	31289109	CUPSCREW, M3*4 NI
S2	31289105	CUPSCREW, M3*6 BC
S3	31149703	RING, E-RING ETW-4 UNI-C
S4	31409801	SADDLE, LOCKING WIRE LWS-0711Z
S5	31019120	SCREW, BINDING M3*15 BC
S6	31019160	SCREW, BINDING M3*25 BC LL
S7	31069101	SCREW, CAP M3*6+FL C
S8	31049173	SCREW, CAP M4*10 BC
S9	31089117	SCREW, PAN M3*6 NI+PW
S10	31199701	SCREW, SET WP M3*3 C
S11	31258122	TUBE, VINYL 12*16(10M) L=450MM
S12	31249952	WASHER, POLYSLIDER 2.6*5*.5 CUT
S13	22805487	ASSY, SPIRAL TUBING 400MM FJ-540 Revised8

1-10 PUMP SYSTEM



PARTS LIST -Main Parts-

	Parts No.	Parts Name		
1	12809269	ASS'Y PUMP FJ-50	*	
	7576340000	SC-500 PUMP ASS'Y FOR SOL INK		*
2	12809448	ASS'Y,CAP-TOP FJ-540	*	*
3	22355802	BASE,BOTTOM FJ-540	*	*
4	22355801	BASE,TABLE MOTOR FJ-540	*	*
5	21925137	BELT,166P2M4-530	*	*
6	12159589	BUSH,S10-1050	*	*
7	22335146	CAP,TABLE SPRING FJ-540	*	*
8	21365121	CASE,CAP TOP FJ-540	*	*
9	22025671	COVER,CAP CASE FJ-540	*	*
10	22565406	DRIVE PULLEY	*	*
11	22115876	FRAME,BACK UP FJ-540	*	*
12	22115875	FRAME,FRONT CAP FJ-540	*	*
13	22115896	FRAME,MAIN CAP 2 FJ-540	*	*
Revised1	Revised1	14	22115895	FRAME,SIDE CAP 2 FJ-540
15	21685122	GEAR,S10S20	*	*
16	21685120	GEAR,S34S4.3	*	*
17	22135616	GUIDE,CAP CASE FJ-540	*	*
18	22135614	GUIDE,SIDE FRAME FJ-540	*	*
19	21655246	HOLDER,TABLE SPRING FJ-540	*	*
20	21645105	HOOK,CAP CASE FJ-540	*	*
21	22435429	MOTOR KP42GM1-014	*	*
22	21575126	NUT,TABLE FJ-540	*	*
23	21545161	PAD,TUBING SJ-540	*	*
24	22055542	PLATE,NUT FJ-540	*	*
25	22055540	PLATE,PUMP MOTOR FJ-540	*	*
Revised1	26	22055579	PLATE,SHUTTER TABLE 2 FJ-540	*
27	22055541	PLATE,TABLE MOTOR FJ-540	*	*
28	11889107	R-BEARING,D10S6(B3FL)	*	*
29	15229506	SENSOR INTERRUPTER,GP1A05A5	*	*

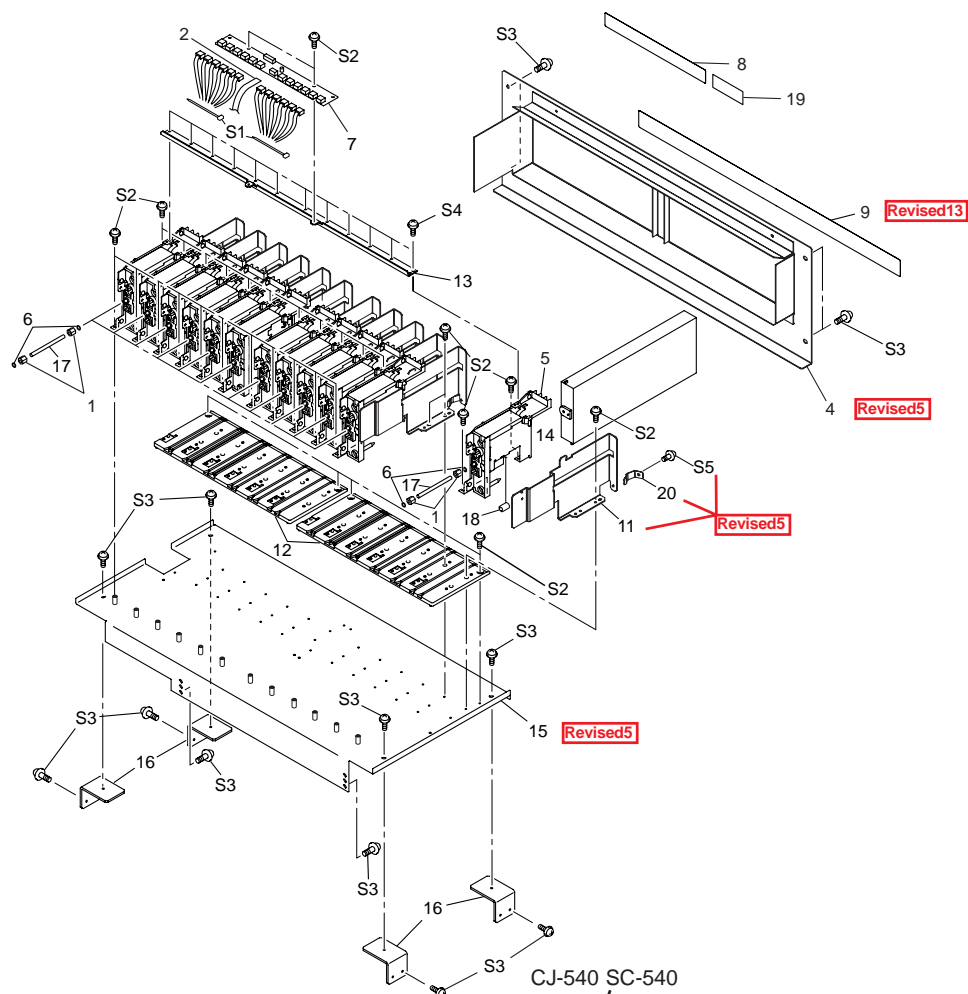
PARTS LIST -Main Parts-

	Parts No.	Parts Name	
30	22155956	SHAFT,GUIDE TABLE FJ-540	
31	22155957	SHAFT,SCREW M8 FJ-540	
32	22165178	SPACER,6FAI FJ-5	
33	22175334	SPRING,CAP HEAD FJ-540	
34	22175332	SPRING,PLATE BUSH FJ-540	
35	22175326	SPRING,TABLE FJ-540	
36	22175324	SPRING,TABLE MOTOR FJ-540	
37	22715340	STAY,NUT FJ-540	
38	22135436	STOPPER,GUIDE SHAFT FJ-540	
39	22325444	SUPPORT,TUBE 16FAI FJ-540	
40	21965150	TABLE,CAP-CASE 3 FJ-540	Revised1
42	22805477	ASS'Y,TUBING 1.4*20MM	
43	22325452	SUPPORT,TUBE FR 16FAI FJ-540	

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name	
S1	31029105	BUSH,NB-8	
S2	31289112	CUPSCREW, M3*10 NI	
S3	31289105	CUPSCREW, M3*6 BC	
S4	31289108	CUPSCREW, M3*8 NI	
S5	31109601	NUT,SQUARE M3 FE C	
S6	31149703	RING,E-RING ETW-4 UNI-C	
S7	31409702	SADDLE,LOCKING EDGE LES-1010	
S8	31409801	SADDLE,LOCKING WIRE LWS-0711Z	
S10	31199701	SCREW,SET WP M3*3 C	
S12	31019116	SCREW,BINDING M3*6 BC	
S13	31019117	SCREW,BINDING M3*8 BC	
S14	31258122	TUBE,VINYL 12*16(10M) L=400MM	
S15	22805487	ASS'Y,SPIRAL TUBING 400MM FJ-540	Revised8

1-11 INK SYSTEM



PARTS LIST -Main Parts-

	Parts No.	Parts Name		
	1	11909133 ADAPTER,SCREW 2FAI FJ-50	*	*
Revised1	2	23475201 CABLE-CARD 6P1 255L BB	*	*
Revised5	4	22025984 COVER,I/C FJ-540	*	*
	5	11659218 HOLDER,I/C SC-500	*	*
	6	11659149 HOLDER,RING O 2FAI FJ-50	*	*
	7	W811502110 INKTANK BOARD ASS'Y	*	*
Revised1	8	22535328 LABEL,USE ONLY SOL INK #LA387	*	*
		22535329 LABEL,NOT INSERT SOLINK #LA388	*	*
Revised13	9	22535436 LABEL,SET INK 1-12 FJ-540 #LA618	*	*
Revised5	11	22055594 PLATE,INK CARTRIDGE HOLDER I/C SP-300	*	*
	12	22055362 PLATE,INK FJ-50	*	*
	13	22055567 PLATE,INK JOINT FJ-540	*	*
	14	22175167 SPRING,CARTRIDGE FJ-50	*	*
Revised5	15	22035195 STAND,INK CARTRIDGE 2 FJ-540	*	*
	16	22715317 STAY,STAND I/C FJ-540	*	*
	17	22805479 ASS'Y,TUBING 2*100MM FJ-540	*	*
Revised1	18	21435109 TUBE,SILICONE 3*5*8	*	*
Revised1	19	22535330 LABEL,WARNING SOL INK #LA396	*	*
Revised5	20	22625103 SPRING,PRESS CARTRIDGE SP-300	*	*

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
S1	31329601	CLAMP,INSULOK T-18S
S2	31289112	CUPSCREW, M3*10 NI
S3	31289110	CUPSCREW, M4*8 BC
S4	31019801	SCREW,BINDING S-TIGHT M3*6 C
S5	31289109	CUPSCREW, M3*4 NI

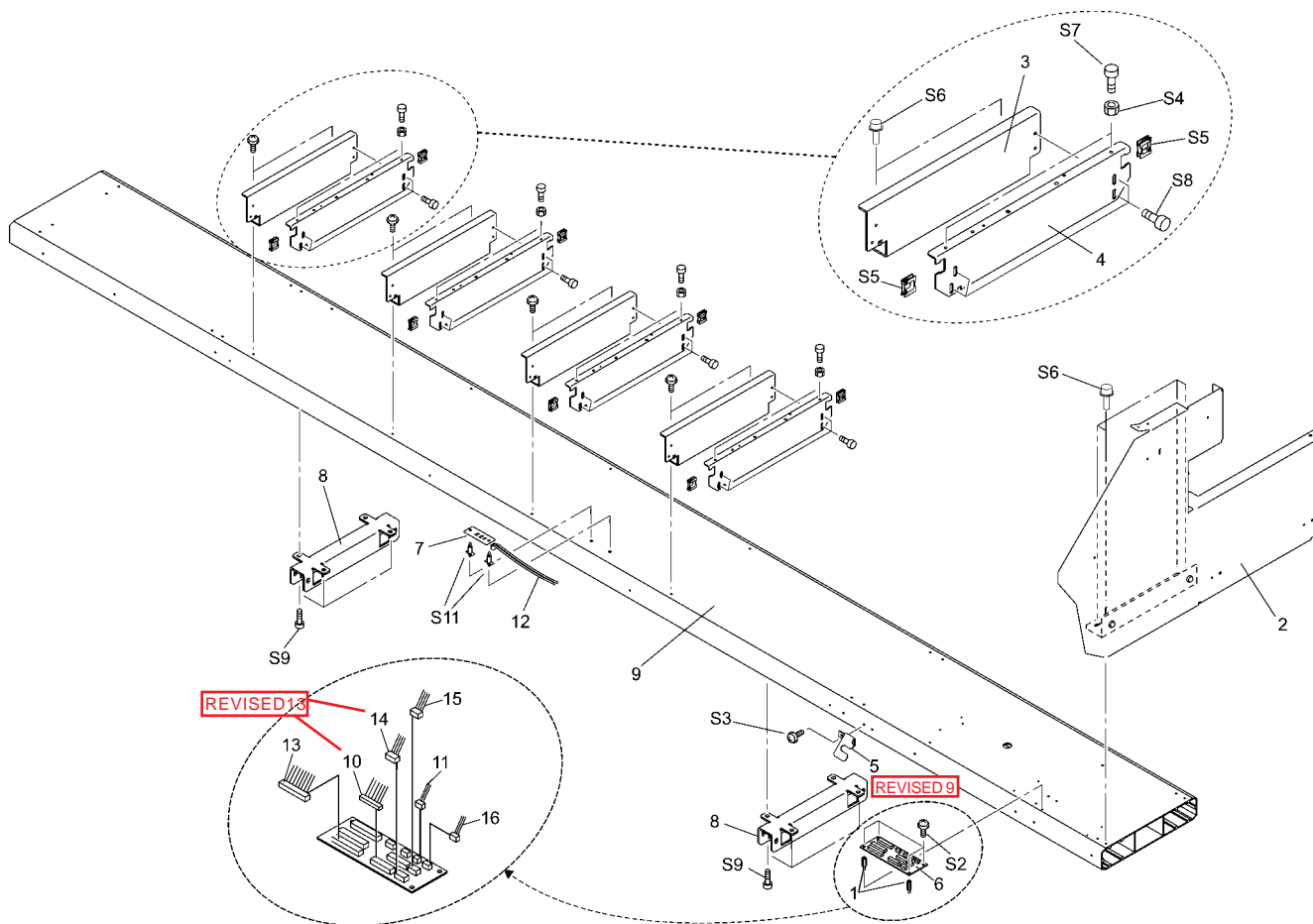
COVER,IC and PLATE INK CARTRIDGE HOLDER
are not compatible between new ones and old ones.

Refer to Service Information : No. SC540-019
No. CJ540-016

STAND, INK CARTRIDGE is compatible between new one
and old one.

1-12 BASE FRAME

1



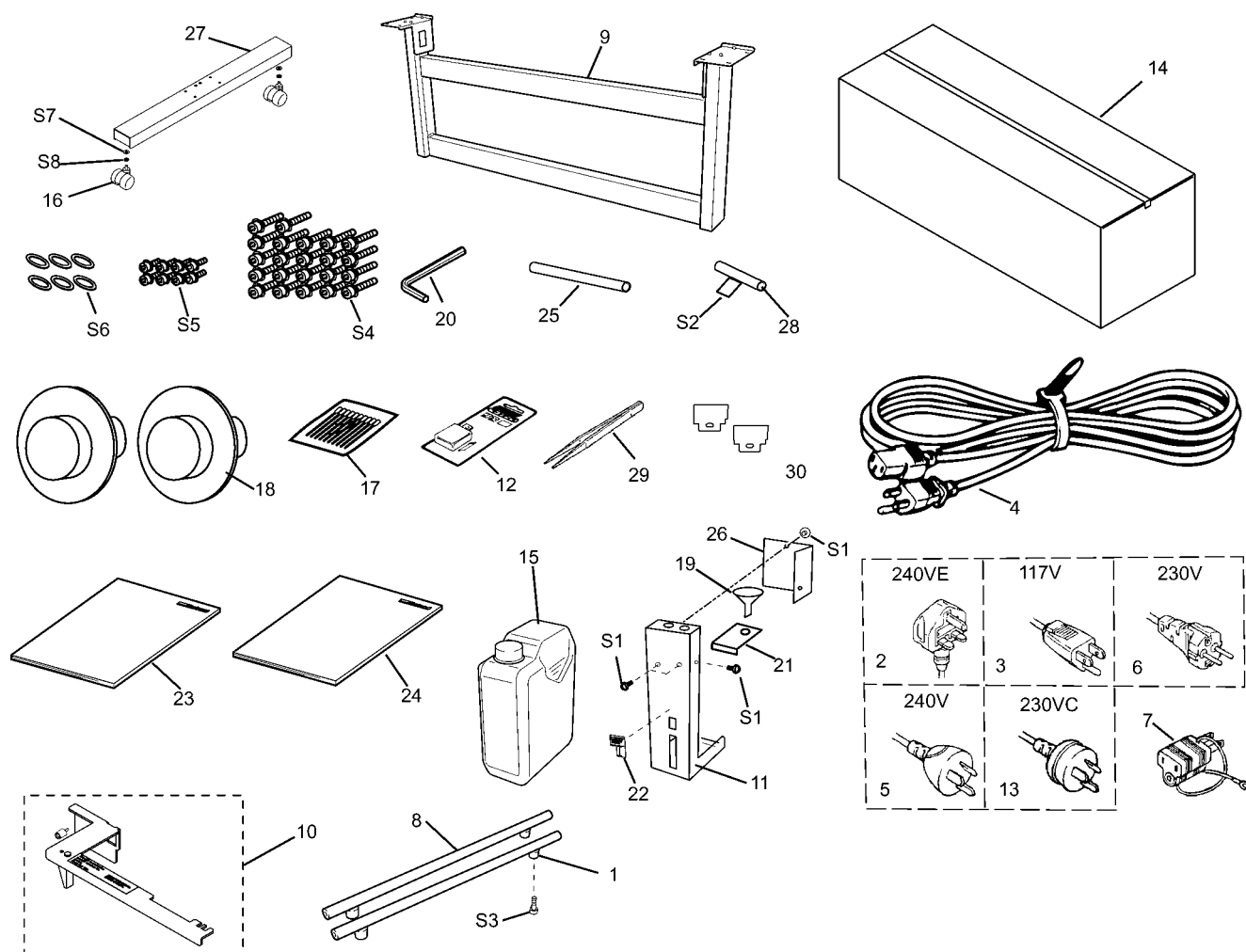
PARTS LIST -Main Parts-

	Parts No.	Parts Name
	1	NUT,BOSS H14MM S3MM N3MM
	2	FRAME,SIDE R FJ-540
	3	SPACER,BED UPPER FJ-540
	4	SPACER,BED LOWER FJ-540
REVISED 9	5	SUPPORT,TUBE FF2 16FAI FJ-540
	6	MOTSENS JUNCTION BOARD ASSY
	7	FAN JUNCTION BOARD ASSY
	8	HOLDER,ARM FJ-540
	9	BASE,AL FJ-540
REVISED 13	10	CABLE-ASSY,WIPER MOTOR 2 FJ-540
	11	CABLE-ASSY SW JUNCTION54 FJ-540
	12	CABLE-ASSY FAN MOTOR FJ-540
	13	CABLE-ASSY PUMP MOTOR FJ-540
REVISED 13	14	CABLE ASSY,CAP MOTOR 2 FJ-540
	15	CABLE-ASSY CAP SENS FJ-540
	16	CABLE-ASSY 3-COVER SW FJ-540

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
	S2	CUPSCREW ,3*4 NI
	S3	CUPSCREW ,4*8 BC
	S4	NUT,HEXAGON M4 C
	S5	SADDLE,LOCKING EDGE LES-1010
	S6	SCREW,CAP M4*12 BC+PW
	S7	SCREW,CAP M4*15 BC
	S8	SCREW,CAP M4*6+FL C
	S9	SCREW,CAP M6*20 BC+PW+SW
	S11	SPACER,PCB SUPPORT PCB-8L

1-13 ACCESSORIES & STAND



PARTS LIST -Main Parts-

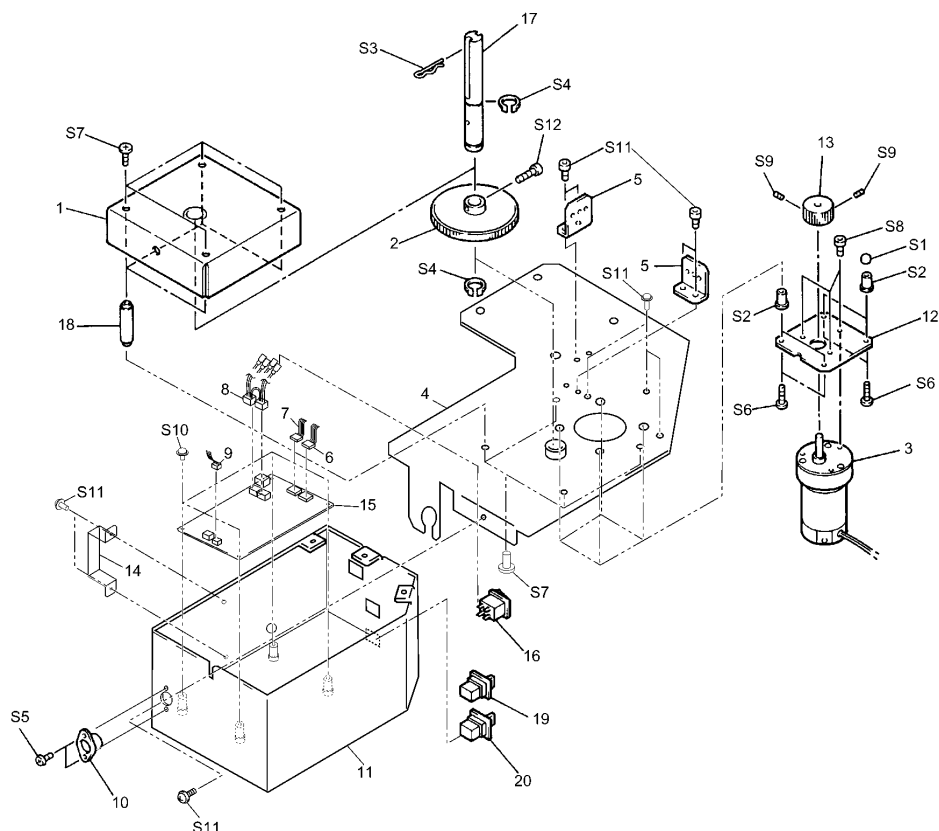
	Parts No.	Parts Name
	1	11879122 ABSORBER,K-16
	2	13499111 AC CORD H05VV-F 240VE 10A S
	3	13499109 AC CORD SJT 117V 10A 3PVC
	4	23495214 AC CORD VCTF 100V 7A 3P-S
	5	23495124 AC-CORD 3ASL/100 240VA 10A SAA
	6	23495125 AC-CORD H05VV 230V 10A S
	7	13499209 ADAPTER PLUG (100V)
	8	22145219 ARM,BASE AL FJ-540
	9	7811900800 ASS'Y,STAND FJ-540
Revised1	10	22805480 ASS'Y,STOPPER CARRIAGE FJ-540
	11	22355817 BASE,BOTTLE INK FJ-540
	12	11849102 BLADE,OLFA AUTO CUTTER XB10
	13	13439801 CABLE-AC 3P CHINA 10A/250V S
Revised1	14	7811500200 CARTON,SET CJ-540
	15	11369122 CASE,PE BOTTLE 5-038-03
	16	12329505 CASTER,BWS-50BN
	17	ST-037 CLEAN STICK TX712A
Revised1	18	21995112 FLANGE,GUIDE PNS-501
	19	12139657 GUIDE,INK FUNNEL PE 6-316-03
	20	22565682 HEXAGONAL WRENCH 5
	21	21655254 HOLDER,FUNNEL FJ-540
	22	22535393 LABEL,BOTTLE INK FJ-540 #LA501

PARTS LIST -Main Parts-

	Parts No.	Parts Name
23	26015393	MANUAL,USE EN CJ-540(ENGLISH)
	26015392	MANUAL,USE JP CJ-540(JAPANESE)
24	26015391	MANUAL,USE EN SC-540(ENGLISH)
	26015390	MANUAL,USE JP SC-540(JAPANESE)
	25	22155133 PIPE,TOOL D9*L150 FJ-540
	26	22055569 PLATE,BOTTLE INK FJ-540
	27	22035194 STAND,BASE FJ-540
	28	22135446 STOPPER,DRAIN TUBE FJ-540
	29	12569656 TWEEZERS PTS-01
	30	11379105 WIPER,HEAD ASP FJ-50

PARTS LIST -Supplemental Parts-

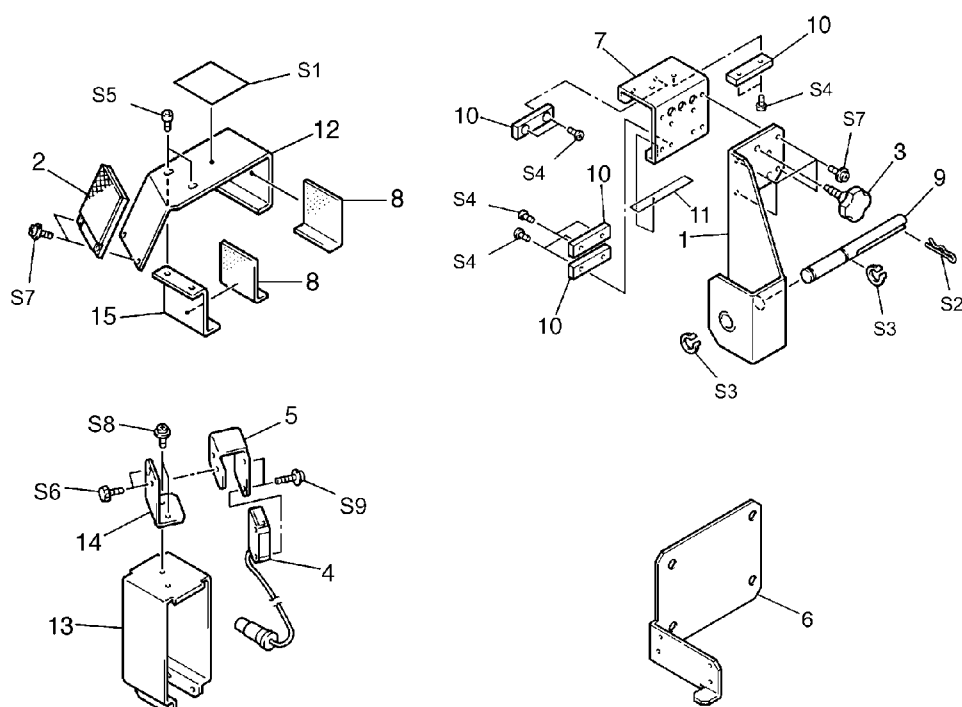
	Parts No.	Parts Name
	S1	31289105 CUPSCREW, M3*6 BC
	S2	31279201 LABEL,REPACKAGE #LA16
	S3	31049123 SCREW,CAP M6*20 BC
	S4	31049157 SCREW,CAP M6*20 BC+PW+SW
	S5	31049156 SCREW,CAP M6*8 BC+FL
	S6	31249220 WASHER,6.5*16*1 BC
	S7	31249221 WASHER,PLAIN 8*18*1.6 C
	S8	31249310 WASHER,SP M8 C

1-14 TUC-1 CONTROLLER Revised1**PARTS LIST -Main Parts-**

	Parts No.	Parts Name
1	22805225	ASS'Y,COVER GEAR TUC-60/70
2	22805229	ASS'Y,GEAR S80S60 TUC-60/70
3	22805226	ASS'Y,MOTOR TUC-60/70
4	22805485	ASS'Y,FRAME R TUC-1
5	21985112	BRACKET,TUC-60/70
6	23505370	CABLE-ASSY 3P FBSW TUC-60/70
7	23505371	CABLE-ASSY 3P MODESW TUC-60/70
8	23505372	CABLE-ASSY 4P POWER TUC-60/70
9	23505373	CABLE-ASSY DIN TUC-60/70
10	13369134	CONNECTOR TCS-2230-01-1101
11	22025669	COVER,TUC-1
12	21995107	FLANGE,MOTOR TUC-60/70
13	21685115	GEAR,S24S6(B6.5C12) TUC-60/70
14	21655244	HOLDER,ADAPTER TUC-1
15	7599609000	MAIN BOARD ASS'Y TUC-1
16	13129170	POWER SW AJ7201B
17	22295148	SHAFT,M4TAP TUC-60/70
18	22295149	SHAFT,SUPPORT TUC-60/70
19	13119310	SW,M-2013J-G
20	13119311	SW,M-2018J-G

PARTS LIST -Supplemental Parts-

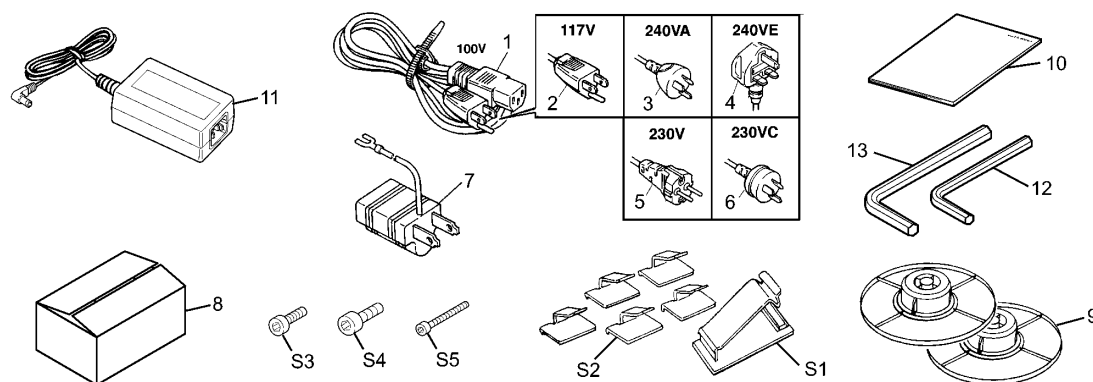
	Parts No.	Parts Name
S1	31049159	CAP,DIPPING VCP-3 BK
S2	31109501	NUT,WELL-NUT B-832
S3	31119701	PIN,SNAP M14 SUS
S4	31149502	RING,EXTERNAL C STW-14 SUS
S5	31019135	SCREW,BINDING M3*6 NI
S6	31019129	SCREW,BINDING M4*15 BC
S7	31019151	SCREW,BINDING M5*10 BC
S8	31049120	SCREW,CAP M4*6 BC
S9	31199701	SCREW,SET WP M3*3 C
S10	31239101	SCREW,W-SEMS M3*6 BC
S11	31239107	SCREW,W-SEMS M4*10 BC
S12	31049136	SCRWE,CAP M4*20 BC

1-15 TUC-1 OTHERS **Revised1****PARTS LIST -Main Parts-**

	Parts No.	Parts Name
1	22805231	ASS'Y,ARM TUC-60/70
2	22805227	ASS'Y,MIRROR TUC-60/70
3	22805230	ASS'Y,SCREW TUC-60/70
4	22805228	ASS'Y,SENSOR TUC-60/70
5	21985113	BRACKET,SENSOR TUC-60/70
6	22115714	FRAME,L TUC-60/70
7	21655139	HOLDER,SLIDER TUC-60/70
8	21545125	PAD,STAY TUC-60/70
9	22295147	SHAFT,TUC-60/70
10	22185103	SLIDER,1 TUC-60/70
11	22185102	SLIDER,GUIDE TUC-60/70
12	22715134	STAY,MIRROR TUC-60/70
13	22715131	STAY,SENSOR LOW TUC-60/70
14	22715132	STAY,SENSOR UP TUC-60/70
15	22135337	STOPPER,MIRROR TUC-60/70

PARTS LIST -Supplemental Parts-

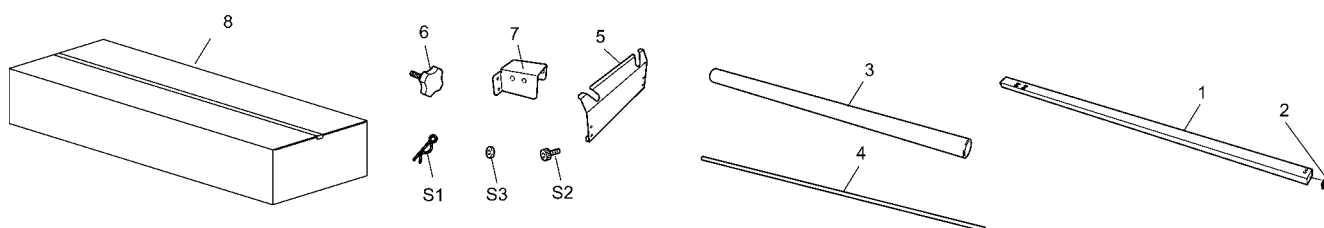
	Parts No.	Parts Name
S1	31279149	LABEL DO NOT KICK
S2	31119701	PIN,SNAP M14 SUS
S3	31149503	RING,C CTW-14 SUS
S4	31019116	SCREW,BINDING M3*6 BC
S5	31049112	SCREW,CAP M4*10 BC
S6	31179902	SCREW,UREA M3*6 N-1 BK
S7	31239107	SCREW,W-SEMS M4*10 BC
S8	31239101	SCREW,W-SEMS M3*6 BC
S9	31239104	SCREW,W-SEMS M3*15 BC

1-16 TUC-1 ACCESSORIES Revised1**PARTS LIST -Main Parts-**

	Parts No.	Parts Name
1	23495214	AC CORD VCTF 100V 7A 3P-S
2	13499109	AC CORD SJT 117V 10A 3PVC
3	23495125	AC CORD H05VV 230V 10A S
4	23495124	AC CORD 3ASL/100 240VA 10A SAA
5	13499111	AC CORD H05VV-F 240VE 10A S
6	13439801	CABLE-AC 3P CHINA 10A/250V S
7	13499209	ADAPTER PLUG (100V)
8	22605275	CARTON,TUC-60/70
9	21995106	FLANGE,GUIDE 2 PNS-70
10	26015383	MANUAL, USE JP/EN TUC-1
11	22425111	POWER UNIT,AC-ADP.DCP-801
12	21935130	TOOL,HEXAGON 3 ZN
13	21935131	TOOL,HEXAGON 6 ZN

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
S1	31379103	CLAMP,FLAT CABLE FCN-3010
S2	31469101	CODE-KEEP,K-106
S3	31049147	SCREW,CAP M4*20 BC
S4	31049120	SCREW,CAP M4*6 BC
S5	31049148	SCREW,CAP M8*10 NI

1-17 TU-550 Revised1**PARTS LIST -Main Parts-**

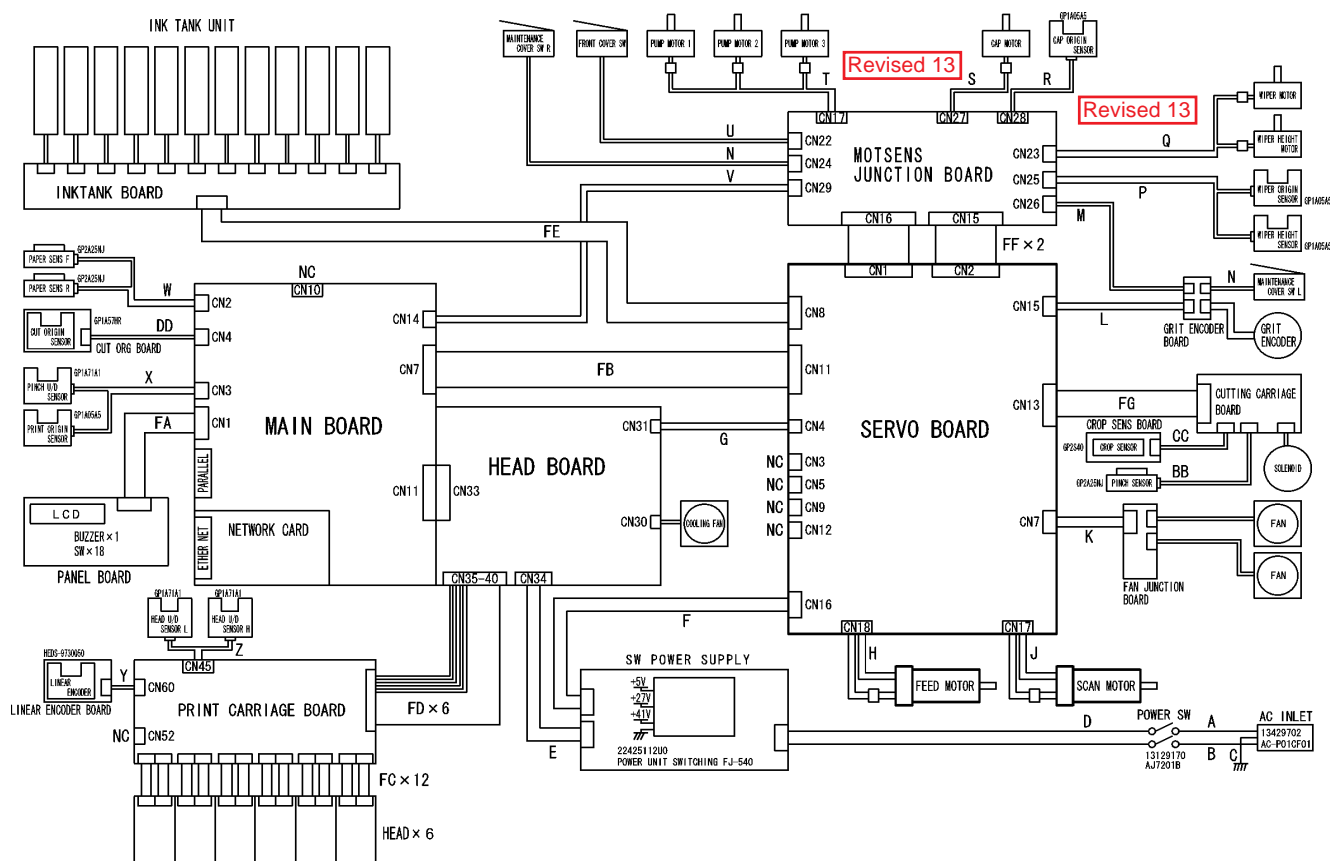
	Parts No.	Parts Name
1	22185427	RAIL,SLIDER TU-550
2	12339121	CAP,50*30
3	22155124	PIPE,TAKE UP TU-500
4	22135578	GUIDE,PAPER PNS-50
5	22325428	SUPPORT,MEDIA TU-550
6	22805230	ASS'Y,SCREW TUC-60/70
7	22805406	ASS'Y,SLIDER ADJUST TU-550
8	22605345	CARTON,SET TU-550

PARTS LIST -Supplemental Parts-

	Parts No.	Parts Name
S1	31119702	PIN SNAP M16
S2	31049105	SCREW,CAP M3*6 BC
S3	31249209	WASHER,PLAIN 4*8*0.5 BC

2 Electrical Section

2-1 WIRING MAP



2

CABLE LIST

	Parts No.	Parts Name
A	23505631	CABLE-ASSY JUNBI A PC-600
B	23505632	CABLE-ASSY JUNBI B PC-600
C	23505633	CABLE-ASSY JUNBI C PC-600
D	23505839	CABLE-ASSY JUNBIWIRE D FJ-540
E	23505840	CABLE-ASSY POWER HEAD FJ-540
F	23505841	CABLE-ASSY POWER SERVO FJ-540
G	23505999	CABLE-ASSY HEAD BOARD FAN FJ-540
H	23505847	CABLE-ASSY FEED-MOTOR54 FJ-540
J	23505845	CABLE-ASSY SCAN-MOTOR FJ-540
K	23505850	CABLE-ASSY FAN MOTOR FJ-540
L	23505849	CABLE-ASSY G-ENCODER54 FJ-540
M	23505836	CABLE-ASSY SW JUNCTION54 FJ-540
N	23505834	CABLE-ASSY MAINT-COVER SW FJ-540
P	23505996	CABLE-ASSY WIPER SENS FJ-540
Q	23415280	CABLE-ASSY, WIPER MOTOR 2 FJ-540
R	23505856	CABLE-ASSY CAP SENS FJ-540
S	23415279	CABLE ASSY, CAP MOTOR 2 FJ-540
T	23505854	CABLE-ASSY PUMP MOTOR FJ-540
U	23505833	CABLE-ASSY FRONT-COVER SW FJ-540
V	23505997	CABLE-ASSY 3-COVER SW FJ-540
W	23505842	CABLE-ASSY PAPER-SENS FJ-540
X	23505843	CABLE-ASSY PRI-CAR SENS FJ-540
Y	23505852	CABLE-ASSY LINEAR-ENC FJ-540
Z	23505851	CABLE-ASSY HEAD U/D SENS FJ-540
BB	23505837	CABLE-ASSY PINCH SENS CJ-540
CC	23505838	CABLE-ASSY CROP SENS CJ-540
DD	23505844	CABLE-ASSY CUT-CAR SENS CJ-540

FLEXIBLE CABLE LIST

	Parts No.	Parts Name
FA	23475196	CABLE-CARD 24P1 850L BB
FB	23475197	CABLE-CARD 25P1 105L BB
FC	23475206	CABLE-CARD 21P1 330L BB
FD	23475200	CABLE-CARD 36P1 2480L BB
FE	23475201	CABLE-CARD 6P1 255L BB
FF	23475203	CABLE-CARD 26P1 810L BB
FG	23475205	CABLE-CARD 12P1 2510L BB

HEAD&CARRIAGE FFC CONNECTION LIST

	HEAD	PRINT CARRIAGE BOARD
FC	BK	CN1 CN56
		CN2 CN59
	CY	CN1 CN48
		CN2 CN50
	MG	CN1 CN43
		CN2 CN45
	YE	CN1 CN55
		CN2 CN58
	LC/OR	CN1 CN47
		CN2 CN49
	LM/GR	CN1 CN42
		CN2 CN44

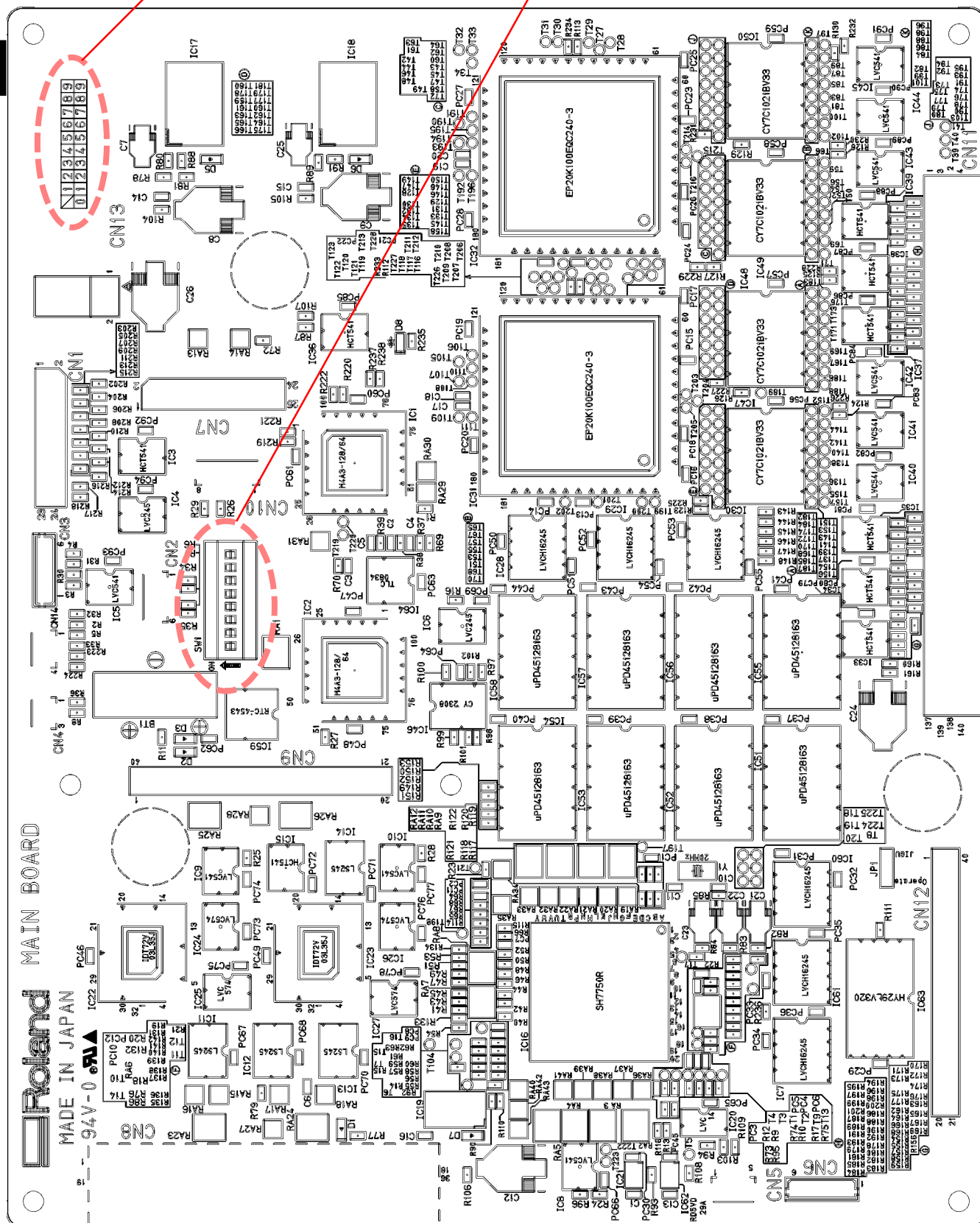
	HEAD BOARD	PRINT CARRIAGE BOARD
FD	CN35	CN37
	CN36	CN36
	CN37	CN35
	CN38	CN34
	CN39	CN33
	CN40	CN32

2-2 MAIN BOARD

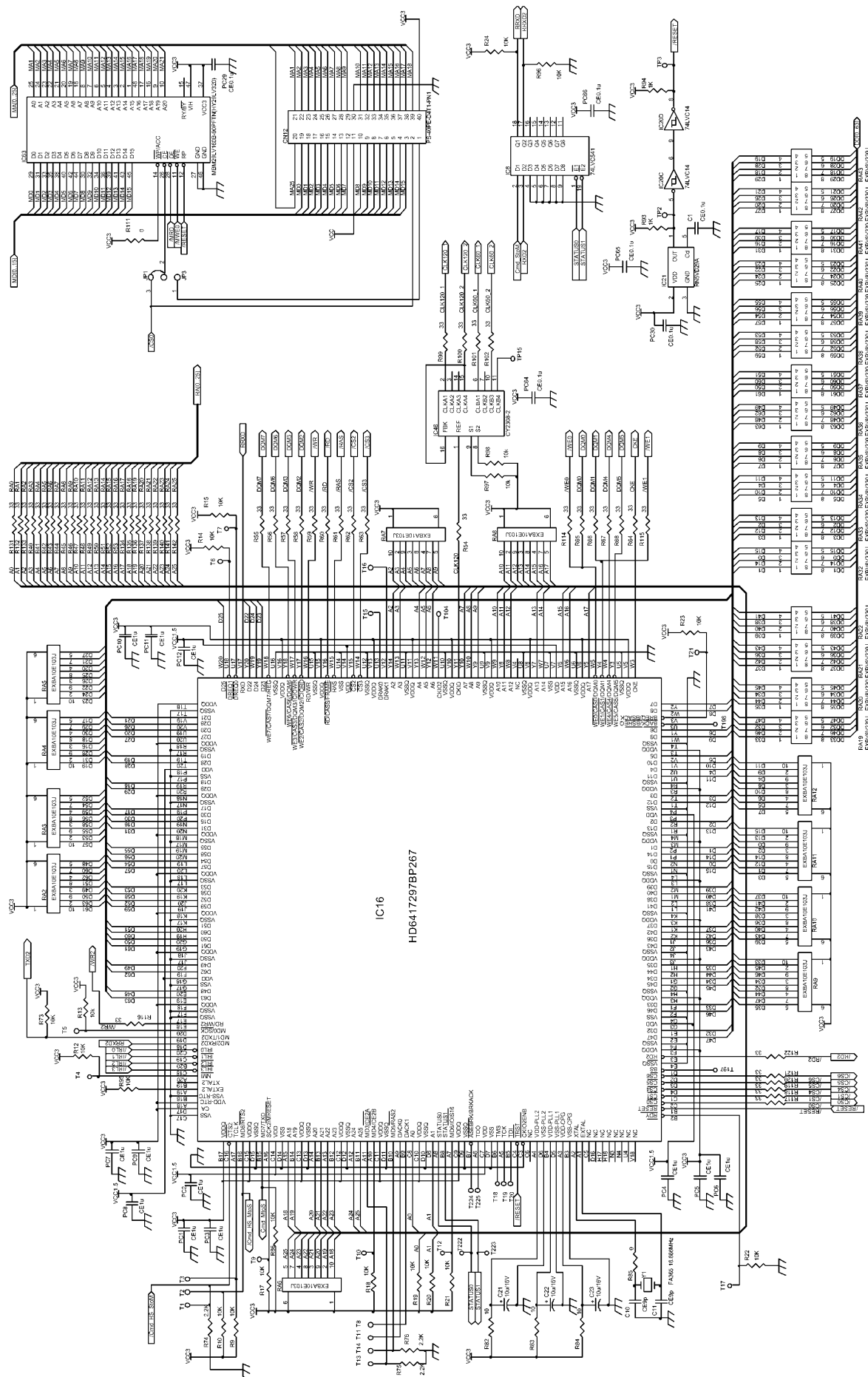
Arrangement Diagram_ Component Side

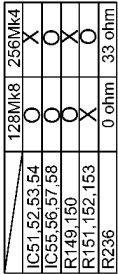
It indicates the version of the Main Board.

Model Selection				
DIP SW	FJ-540	SJ-740/540	CJ-540	SC-540
bit 1	-	-	ON	ON
bit 2	-	ON	-	ON
bit 3	Reserved			
bit 4				
bit 5	Always OFF			
bit 6				
bit 7				
bit 8				



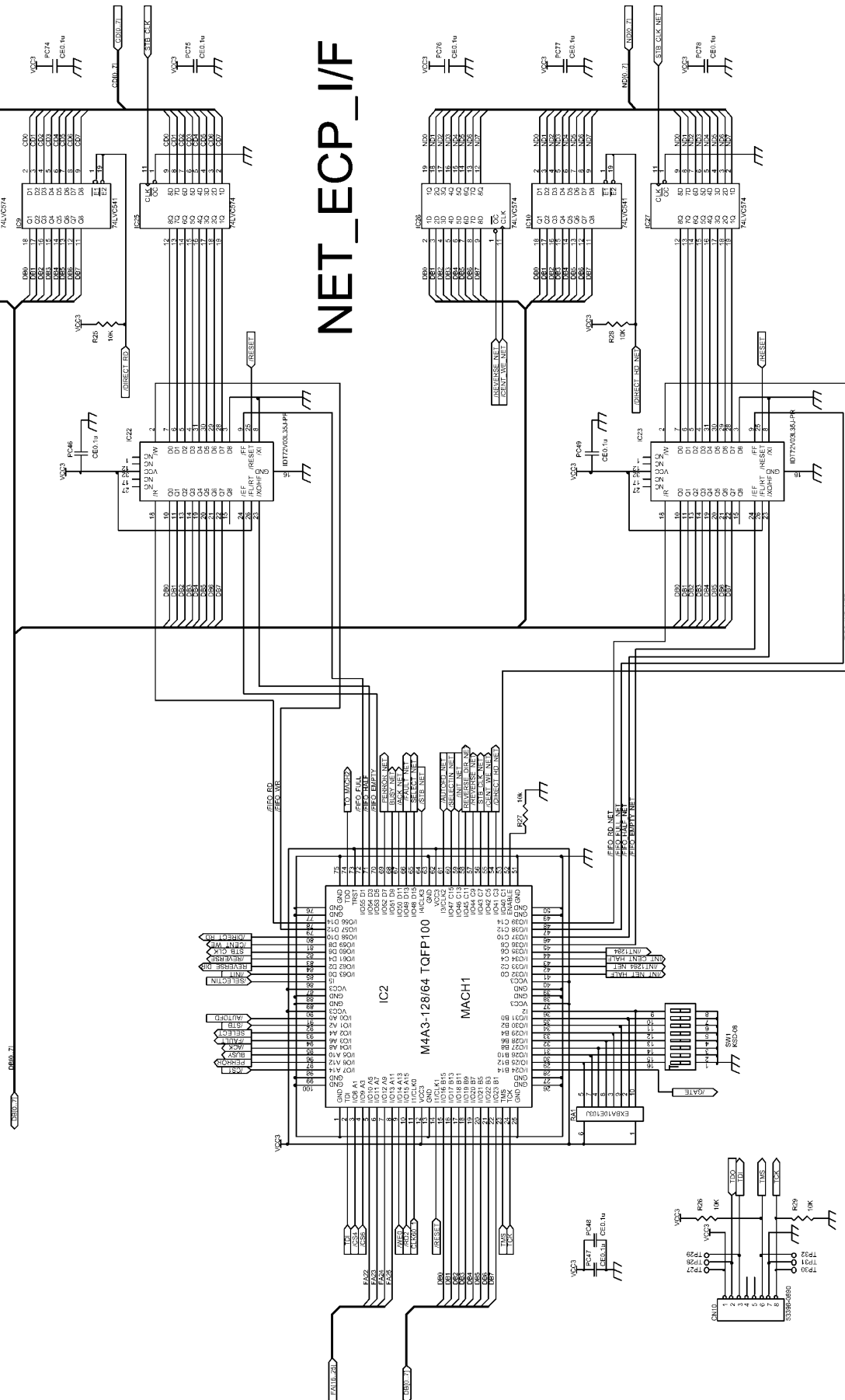
2-3

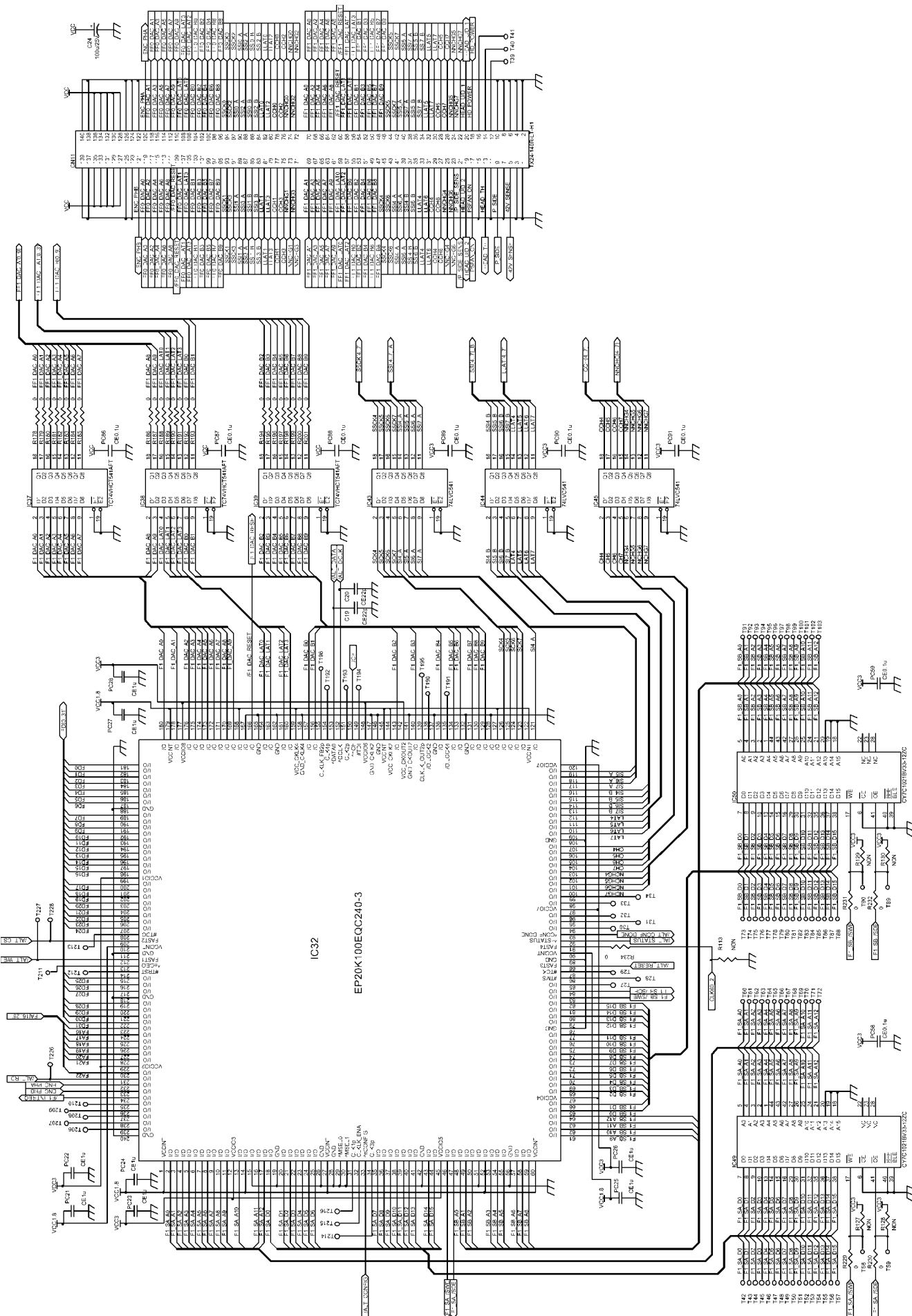




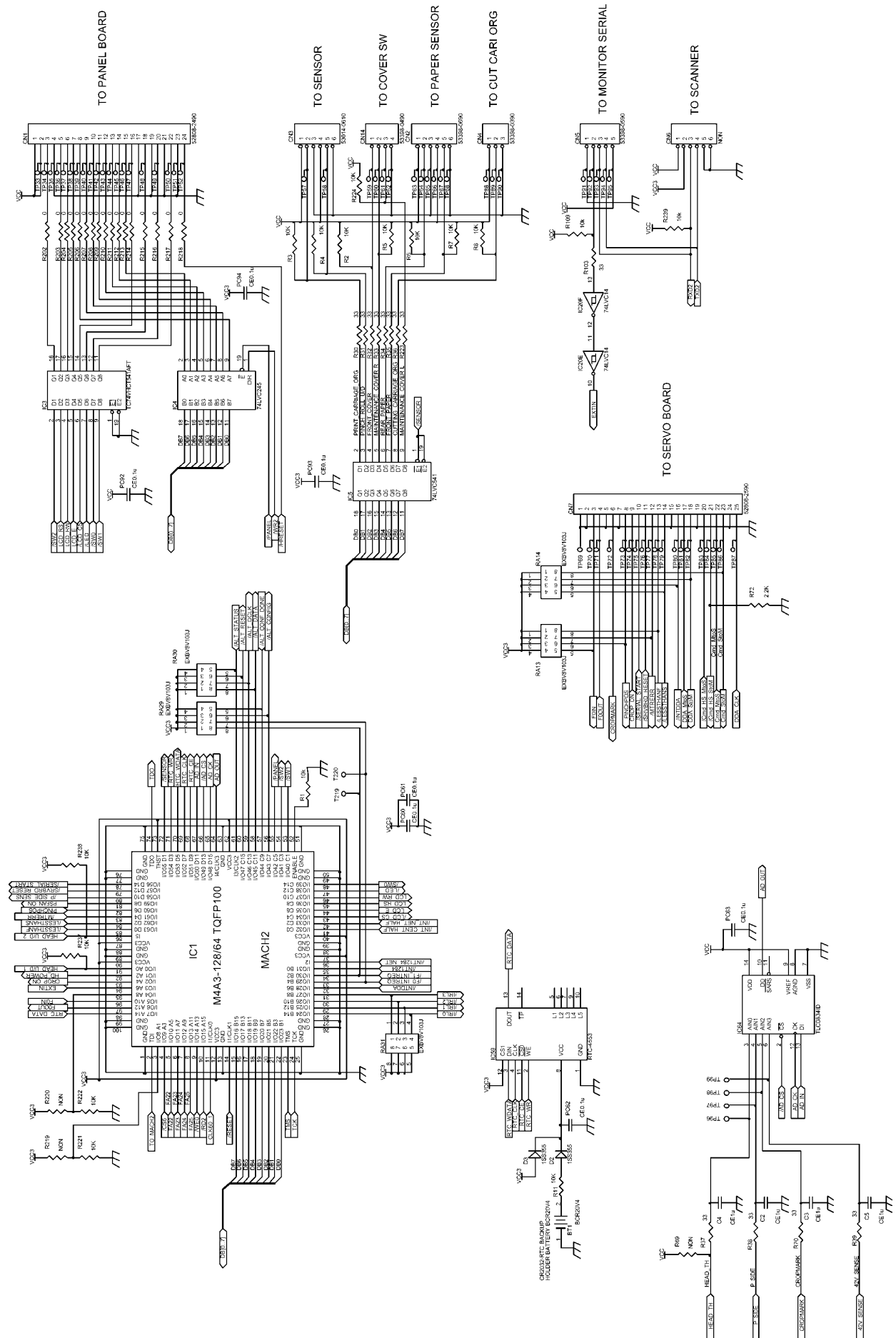
1







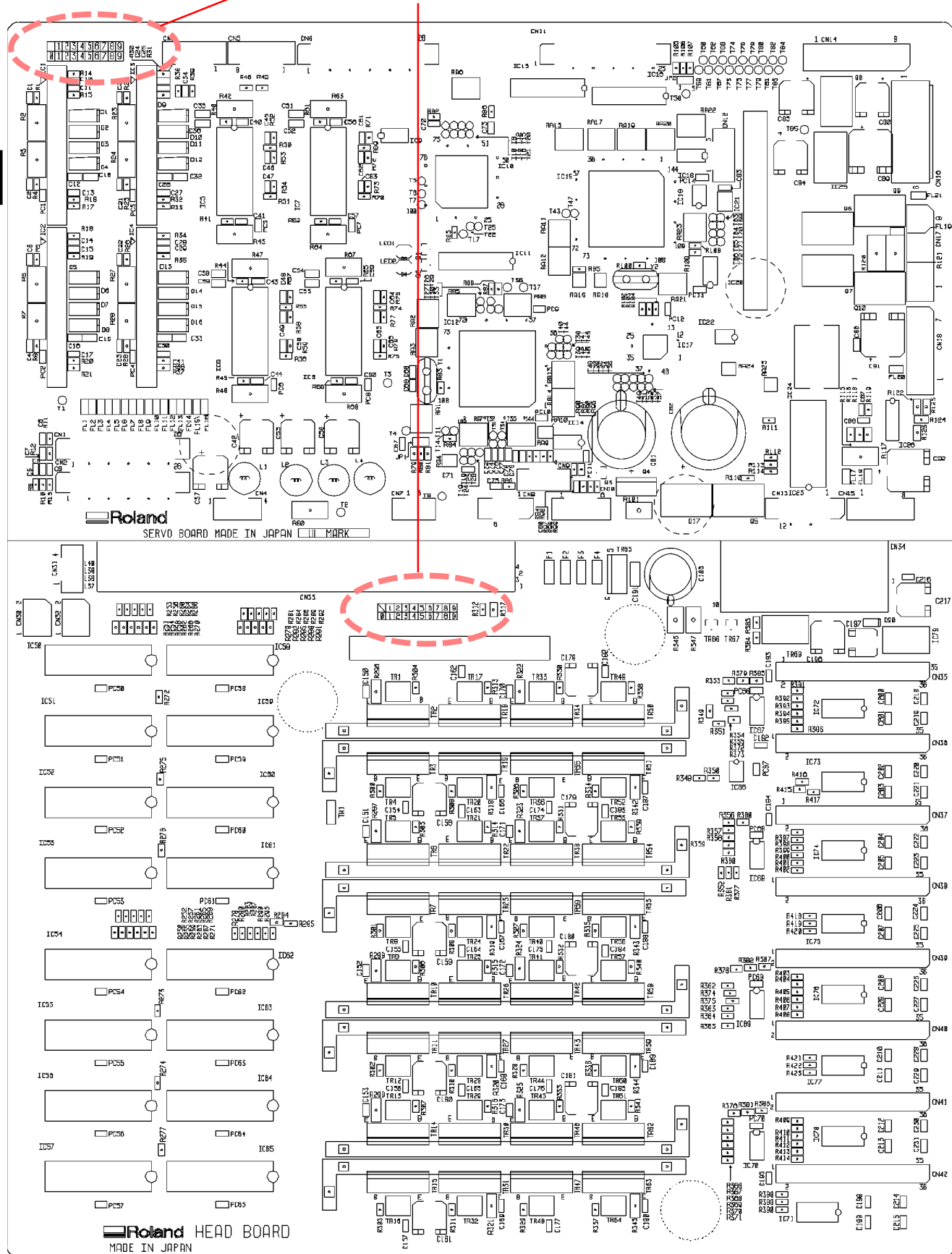
Main Board _ 7/7 Circuit Diagram



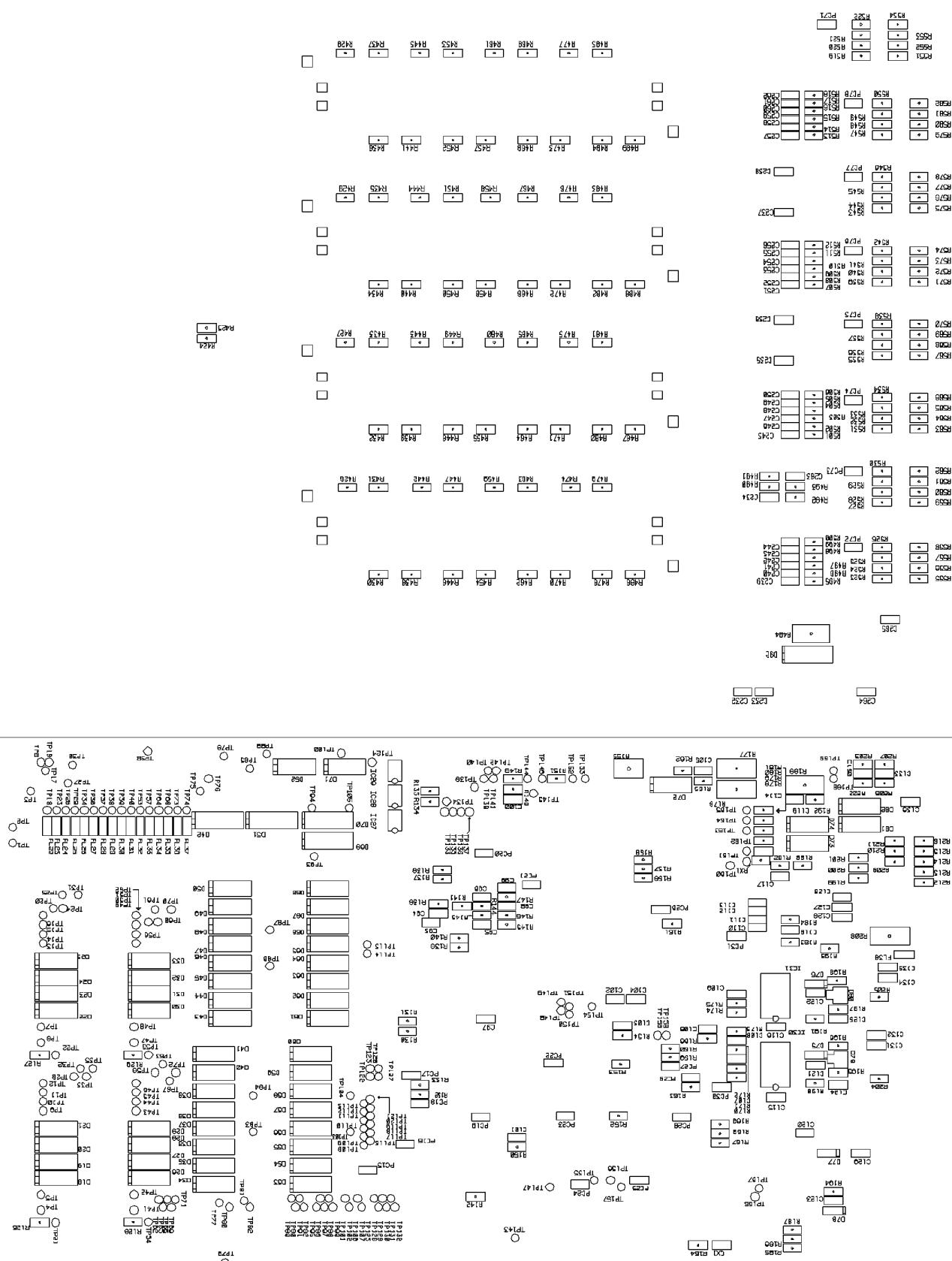
2-3 HEAD / SERVO BOARD

Arrangement Diagram_ Component Side

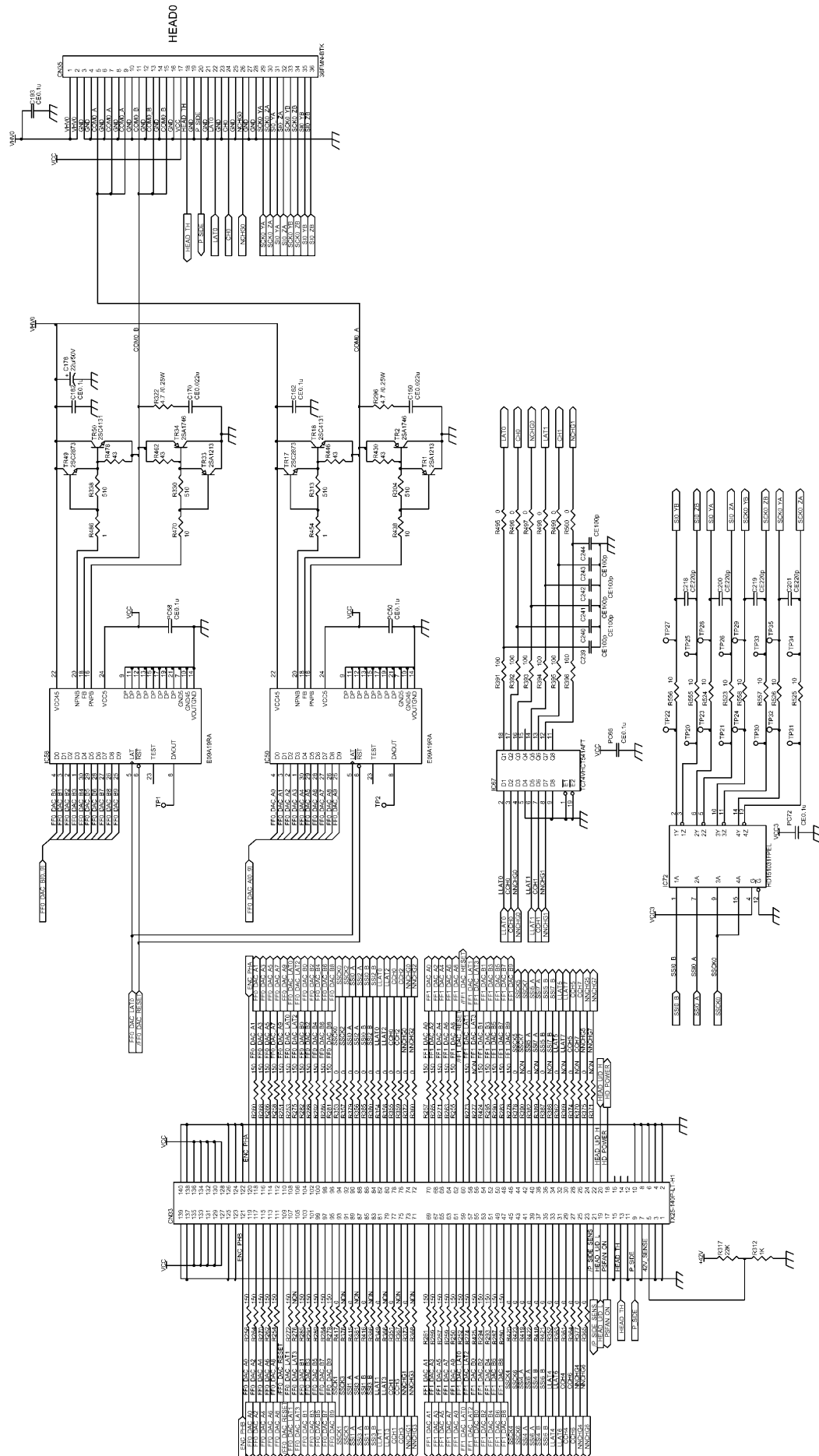
It indicates the version of the Main Board.



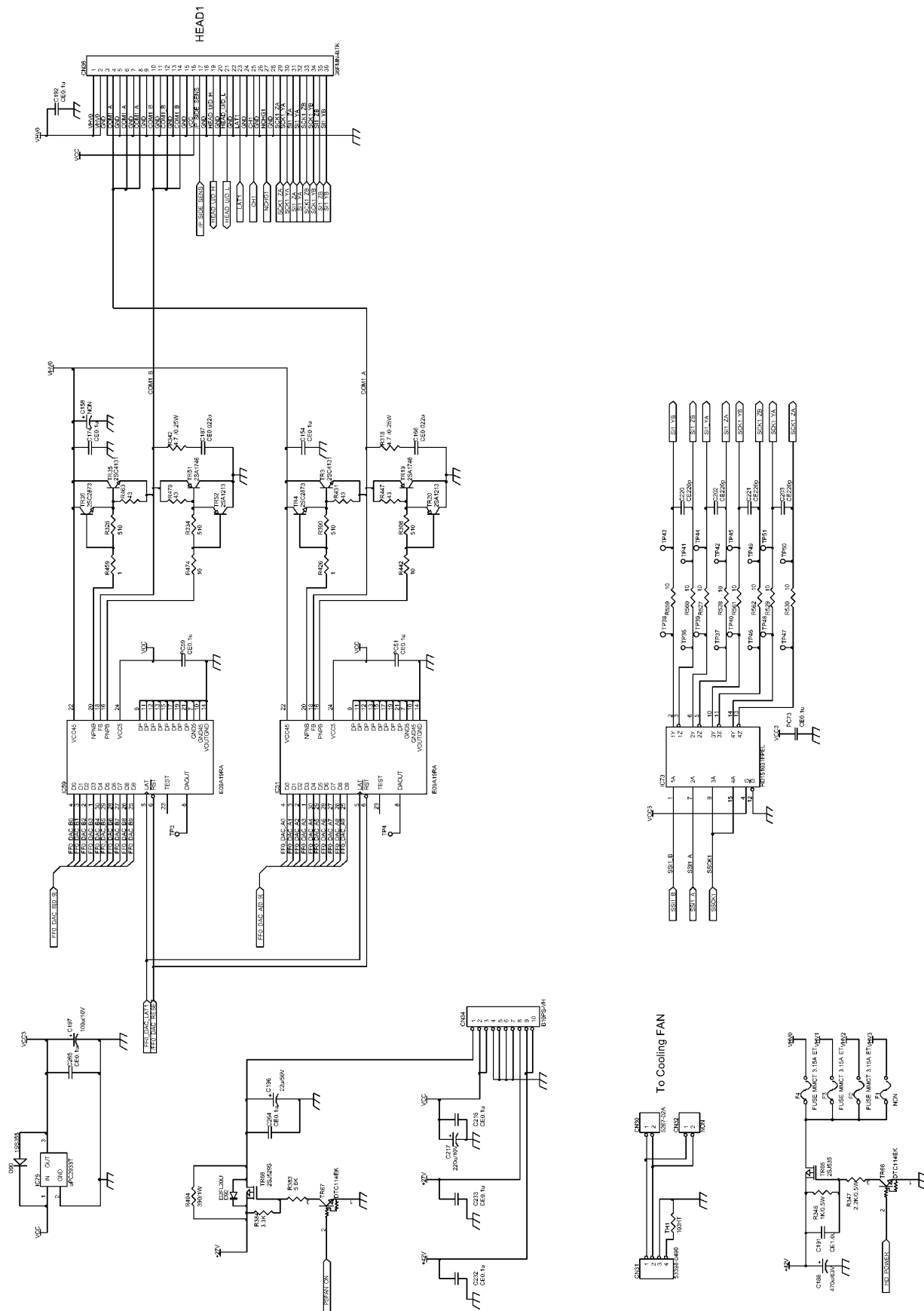
Arrangement Diagram_ Soldering Side



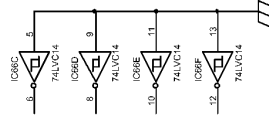
2-12



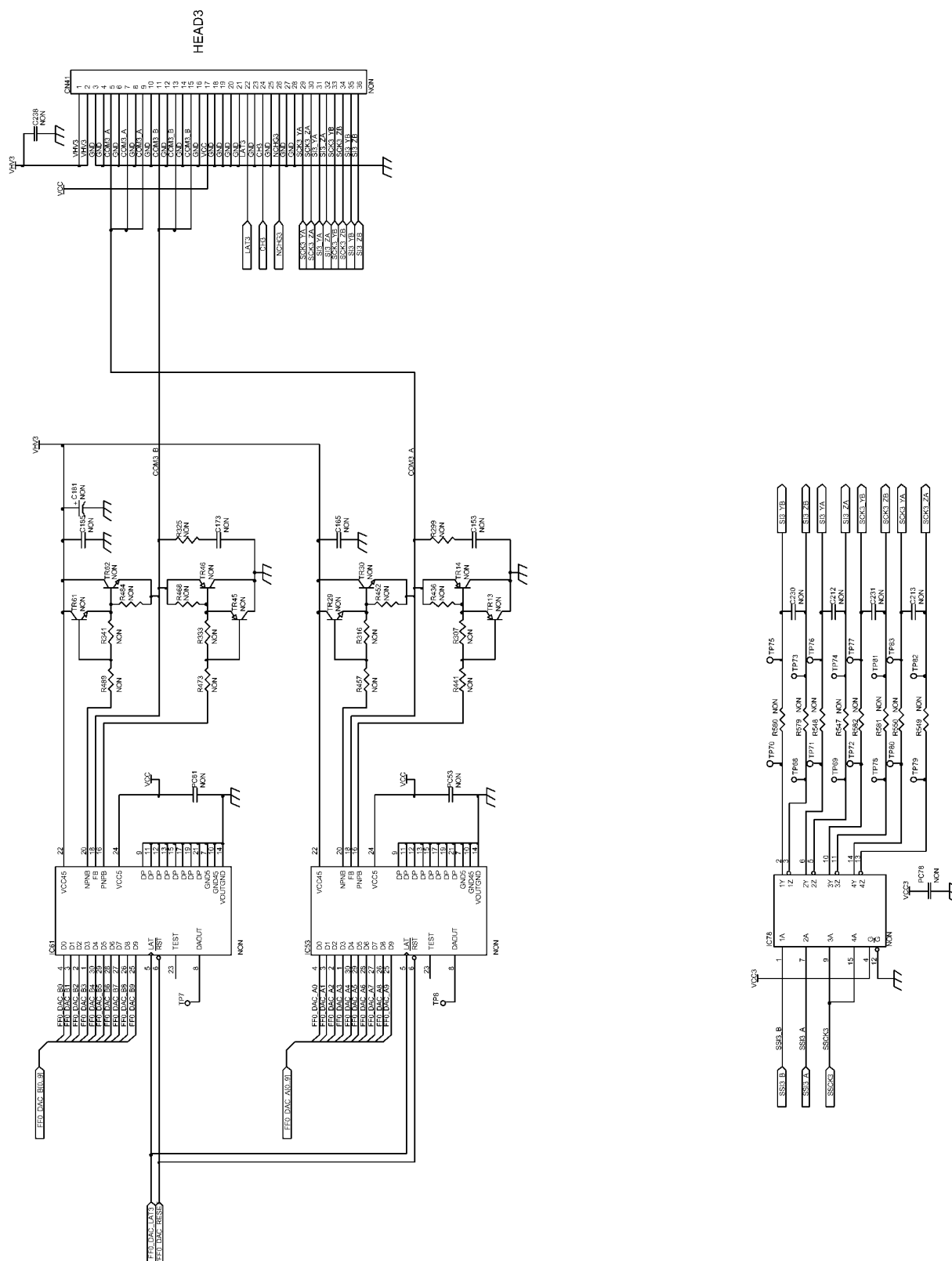
Head Board _ 2/8 Circuit Diagram

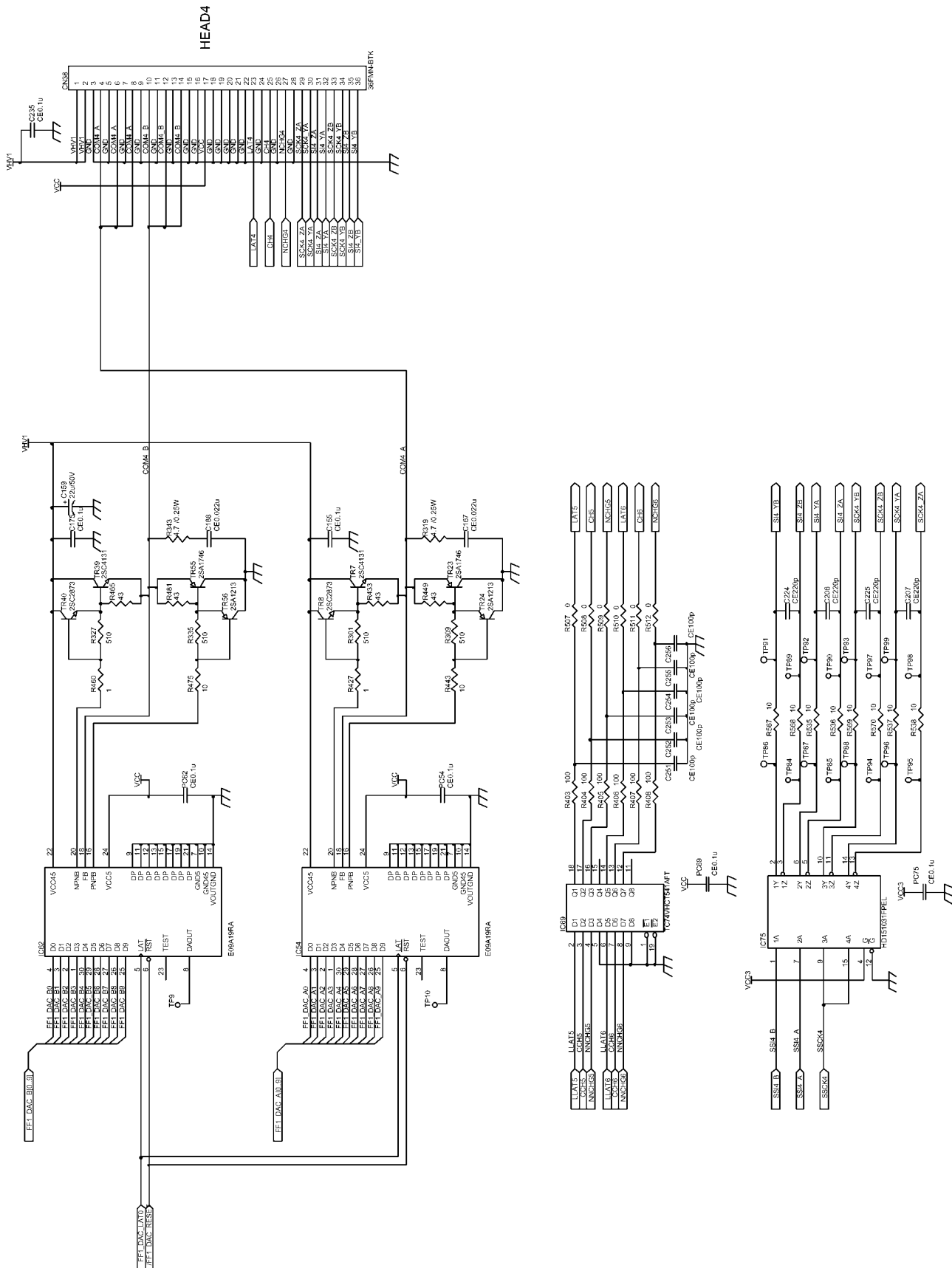


HEAD2

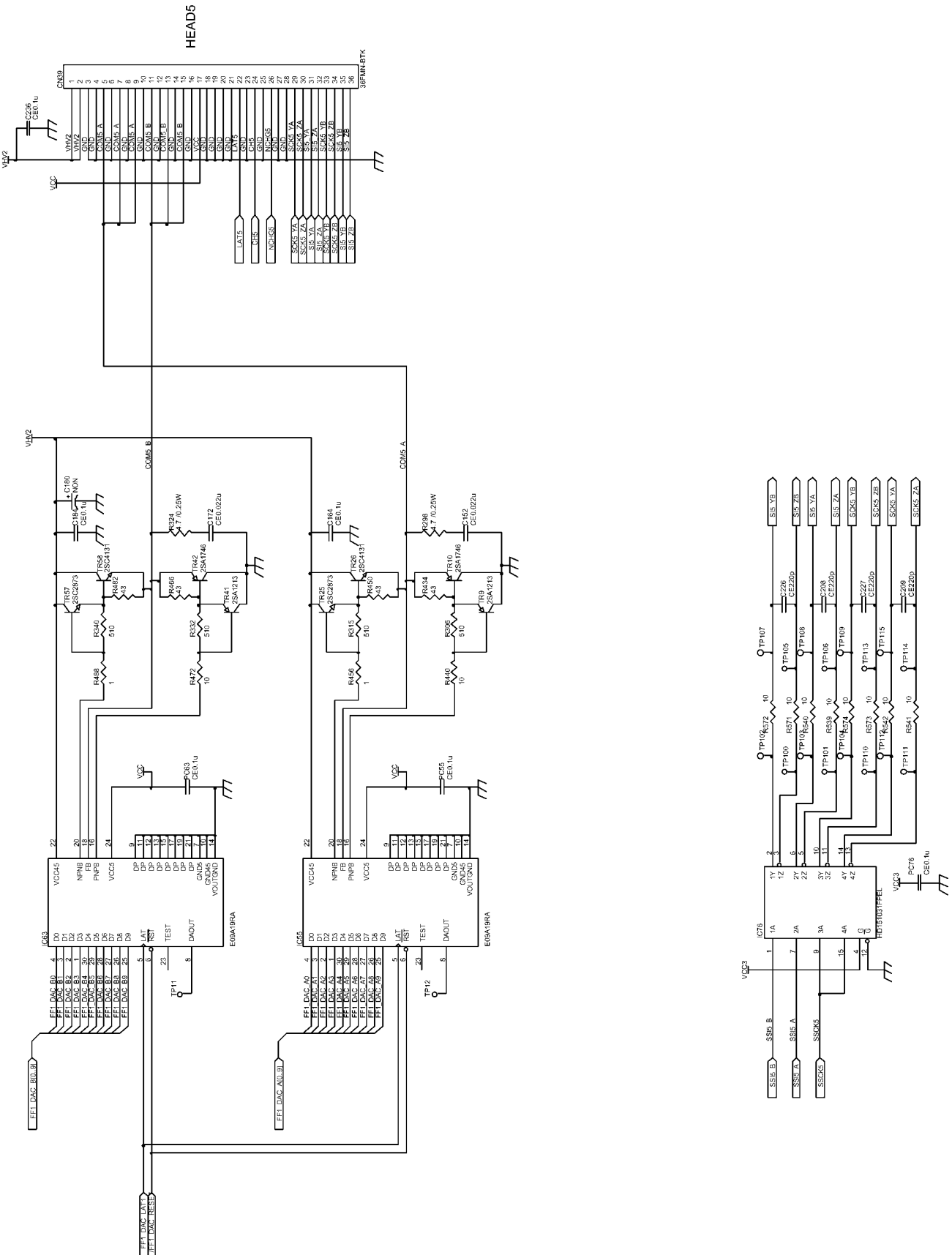


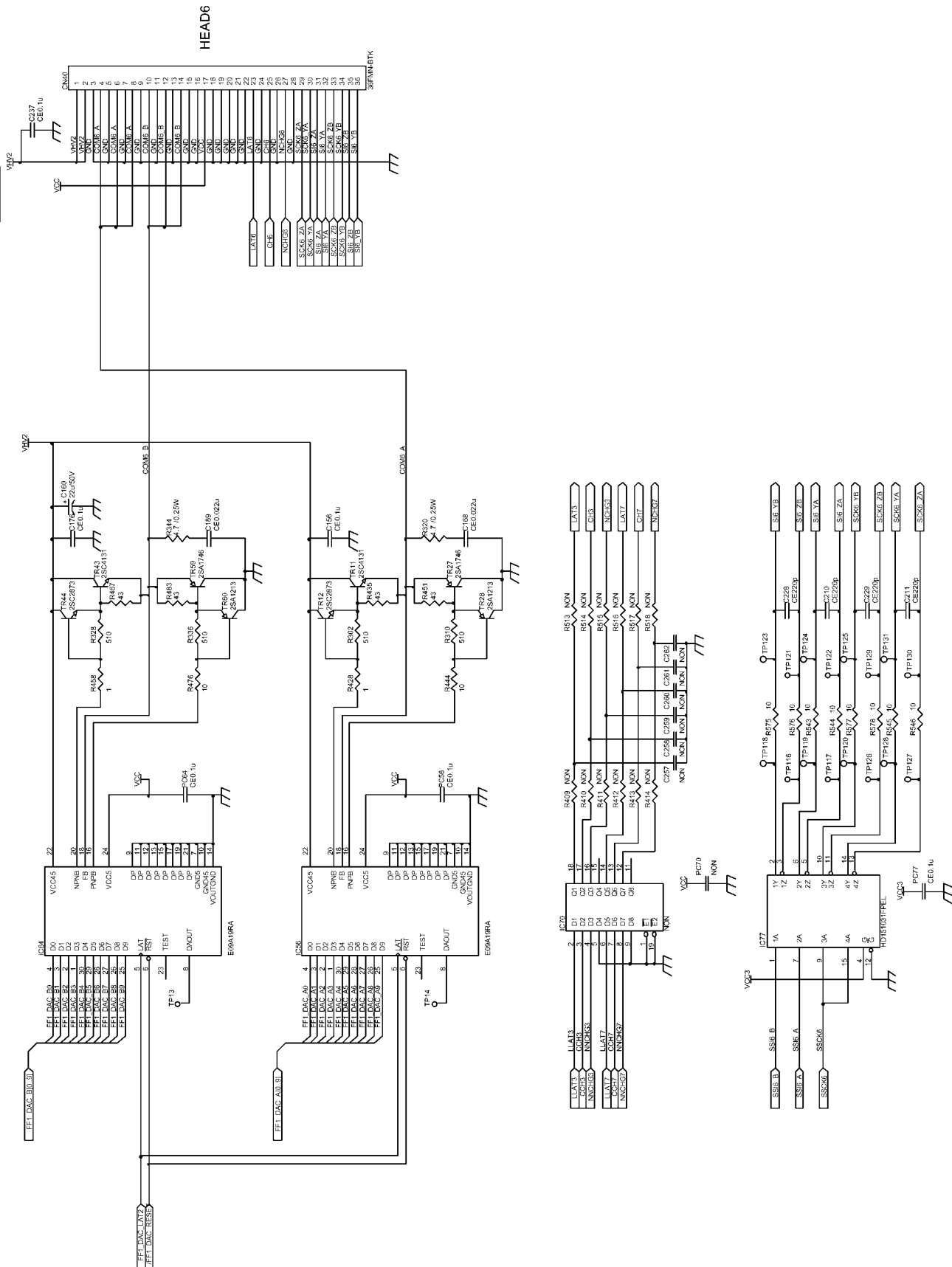
NO PARTS MOUNTED





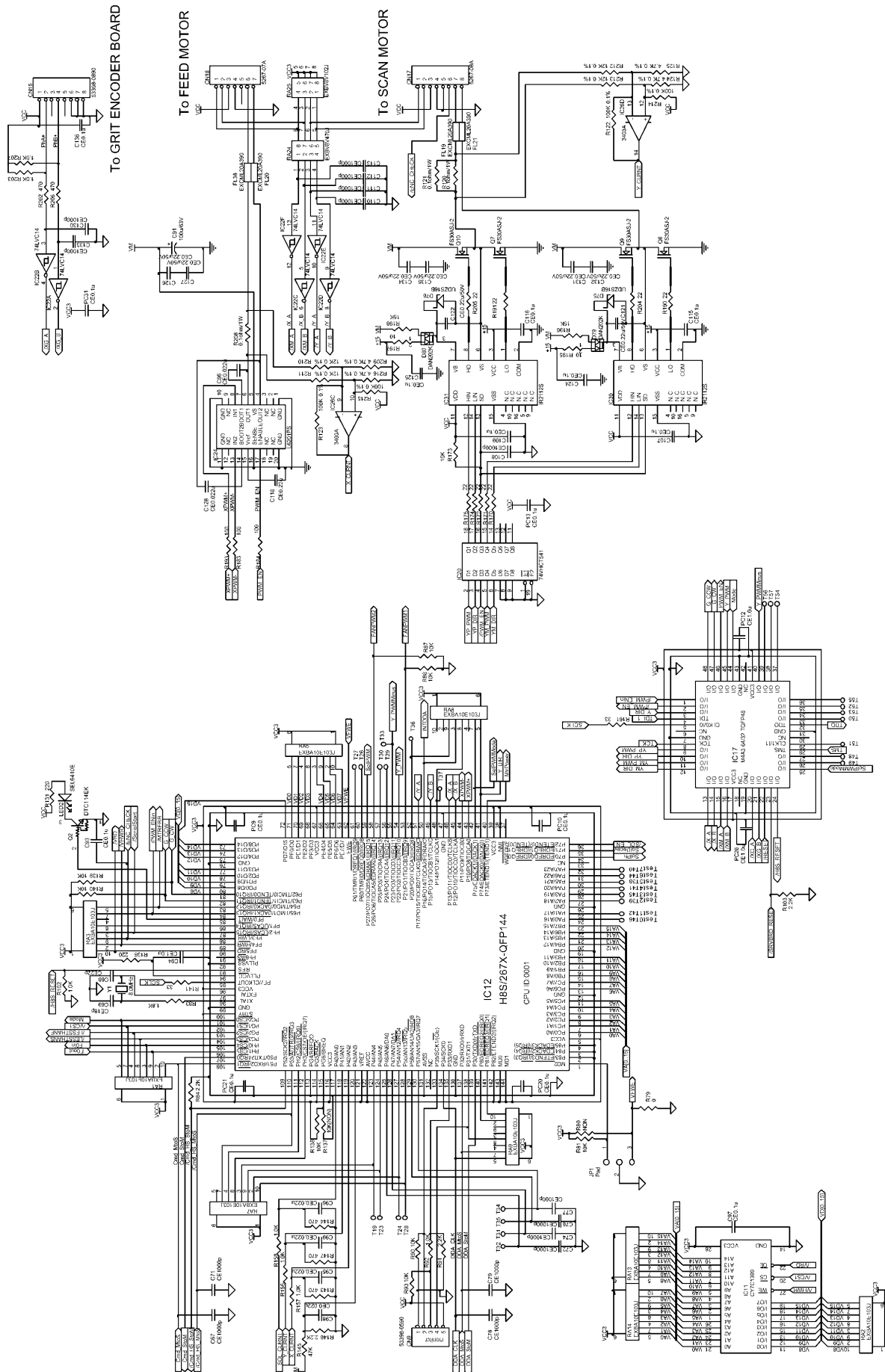
Head Board _ 6/8 Circuit Diagram



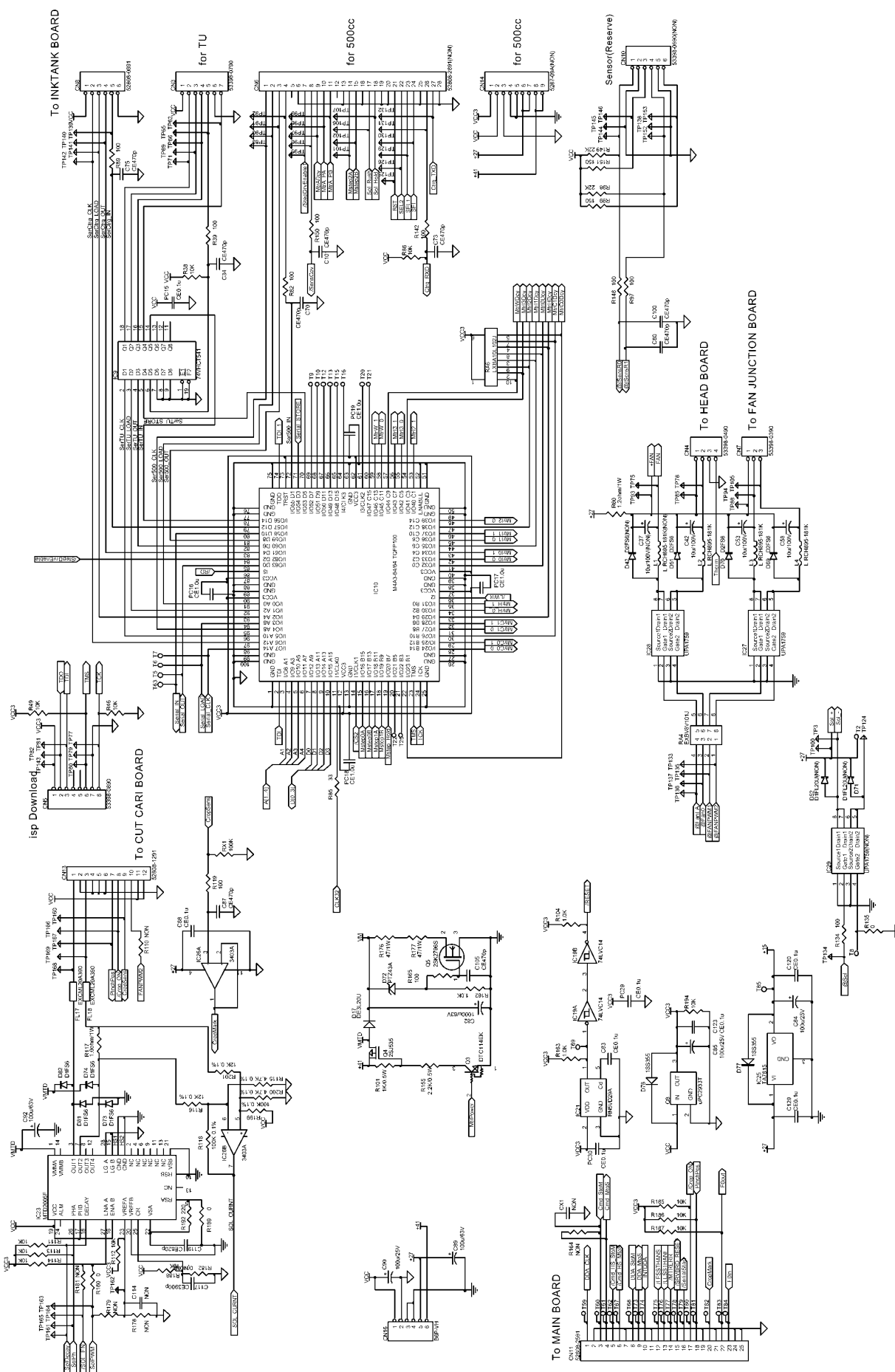


NO PARTS MOUNTED



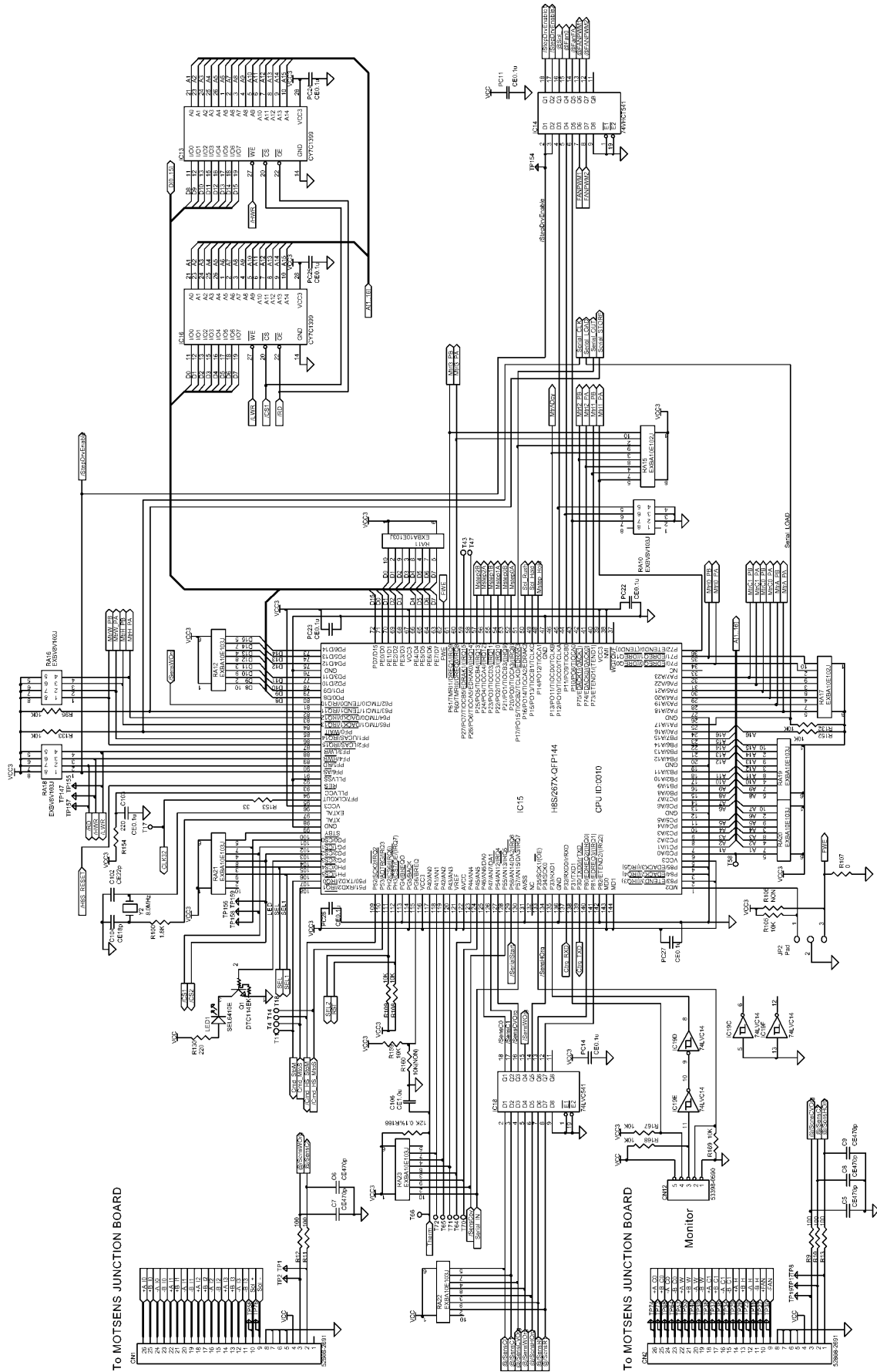


Servo Board _ 2/4 Circuit Diagram

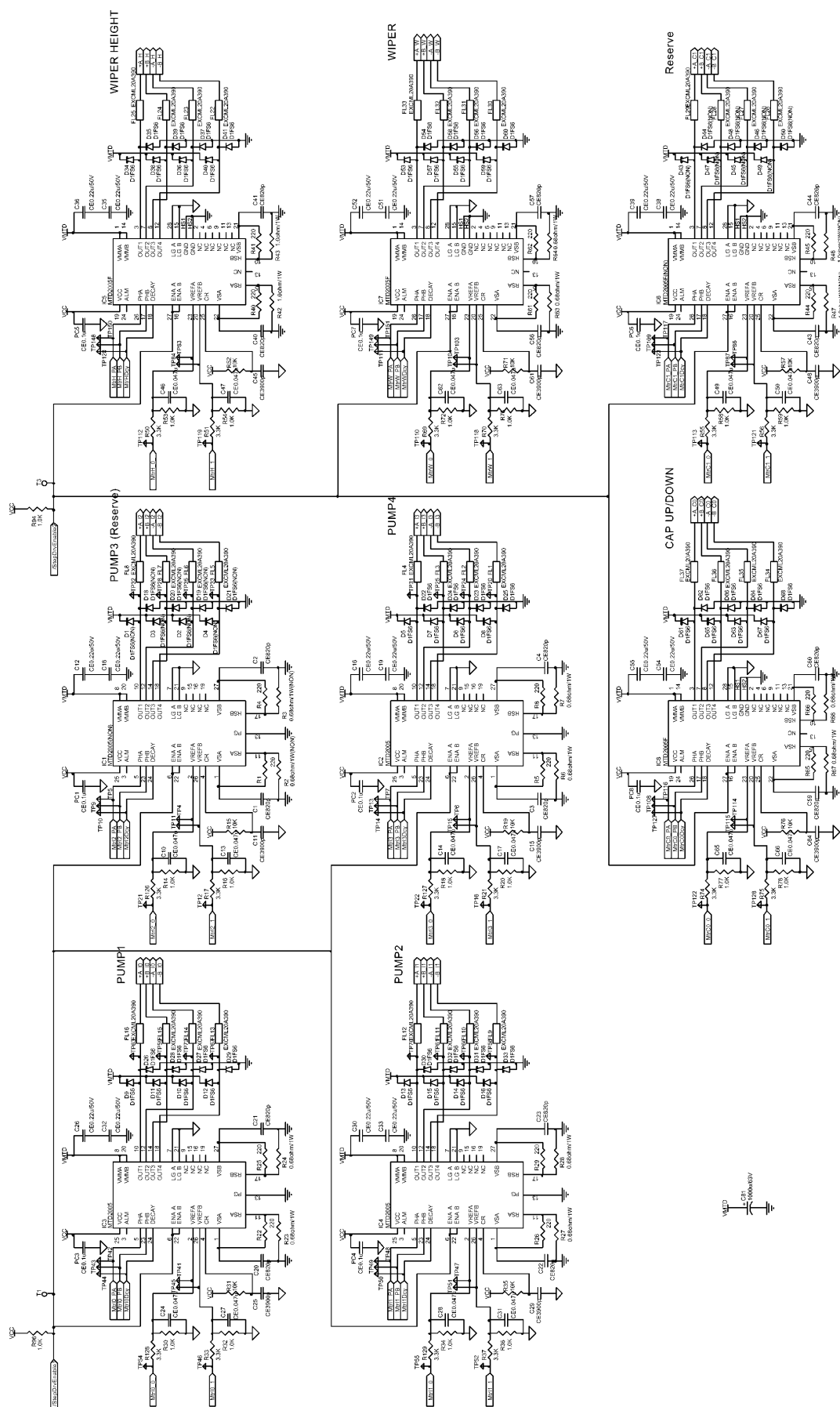


Servo Board _ 3/4 Circuit Diagram

2



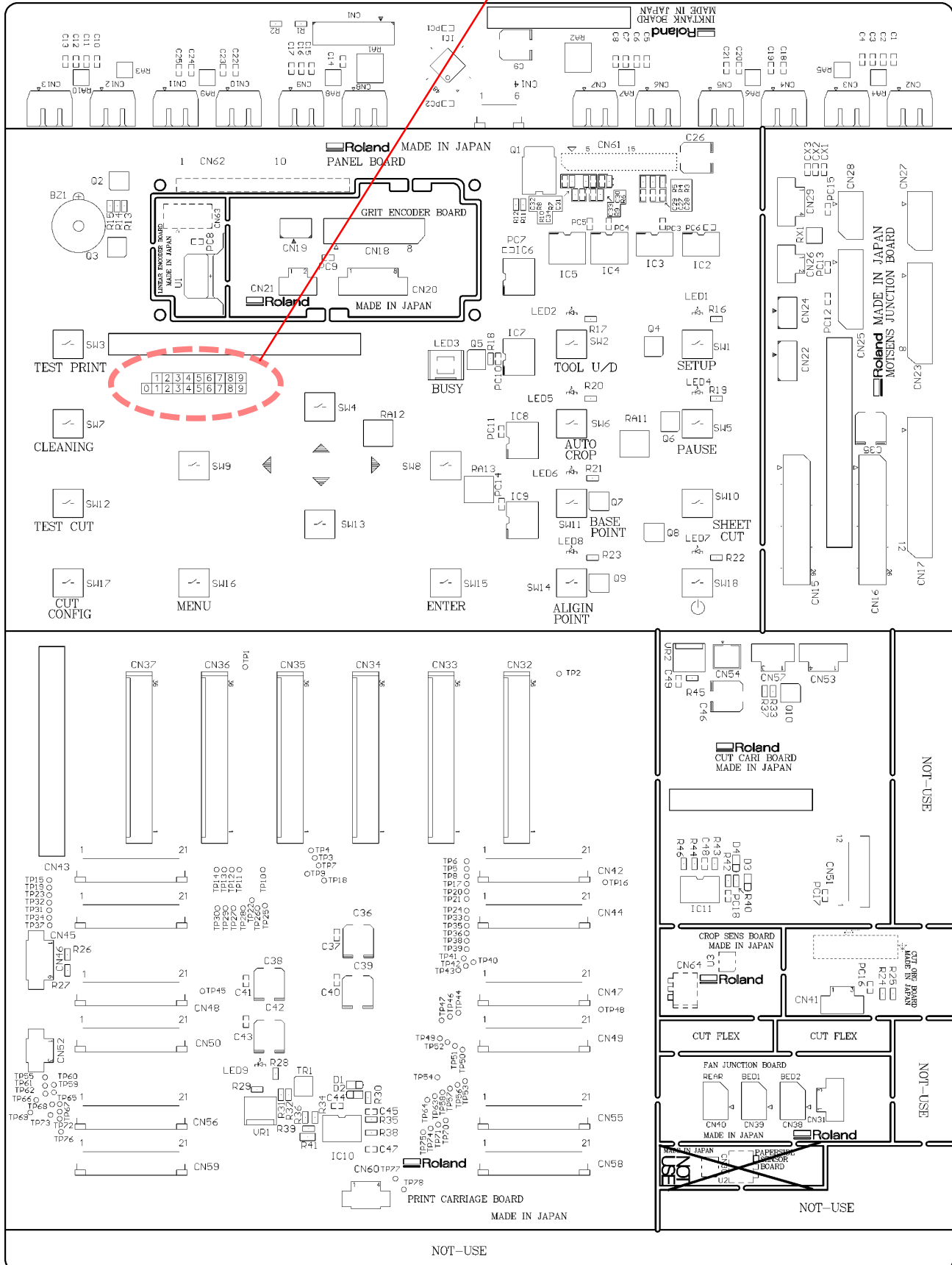
2-23



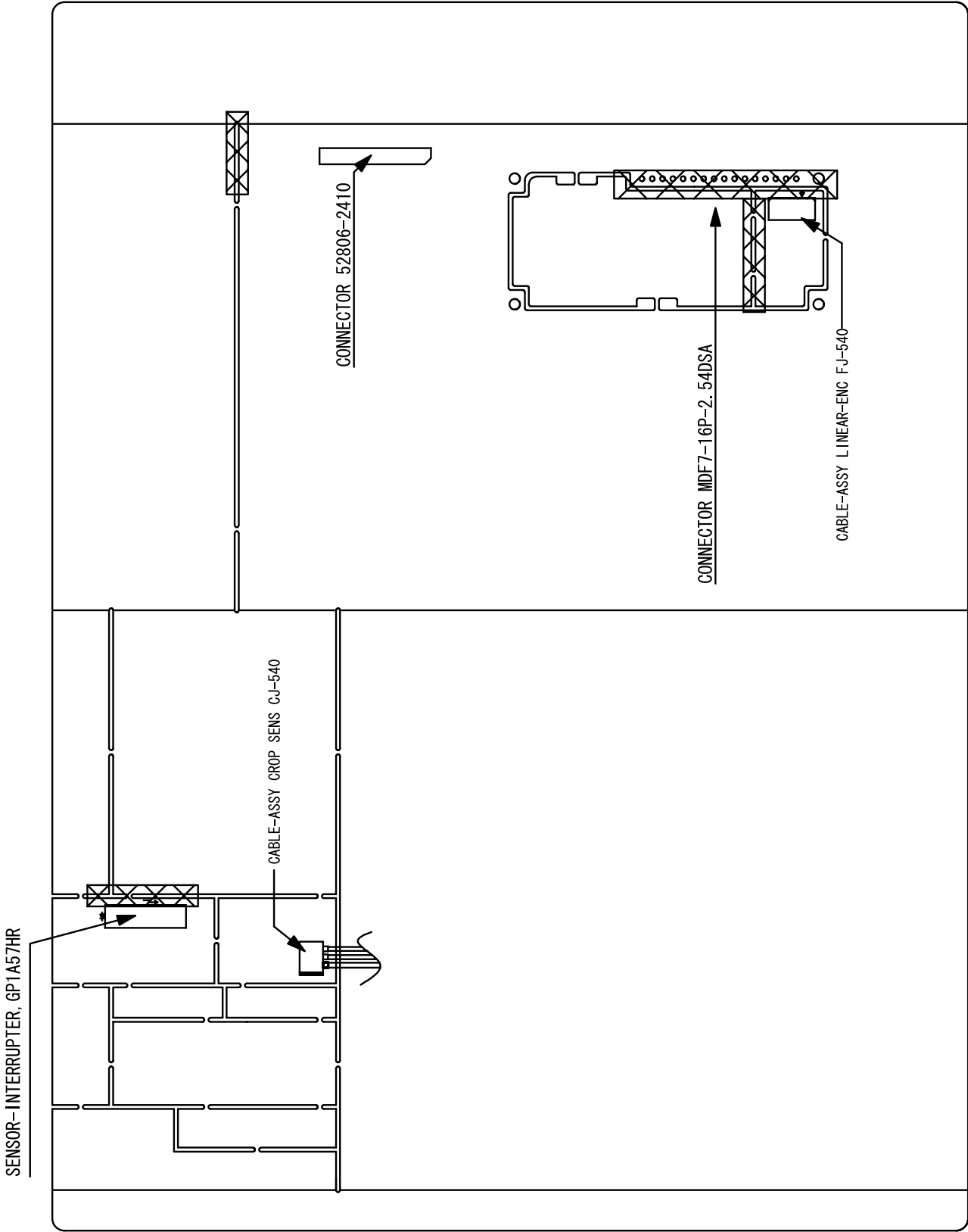
2-4 SUB BOARD

Arrangement Diagram_ Component Side

It indicates the version of the Main Board.

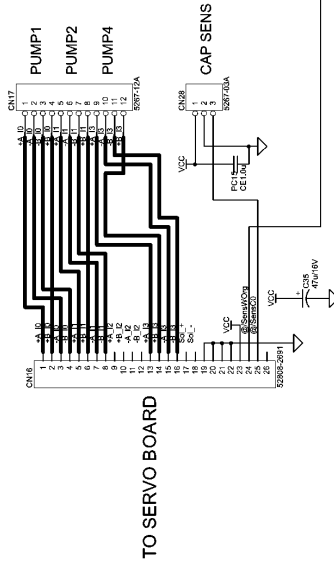
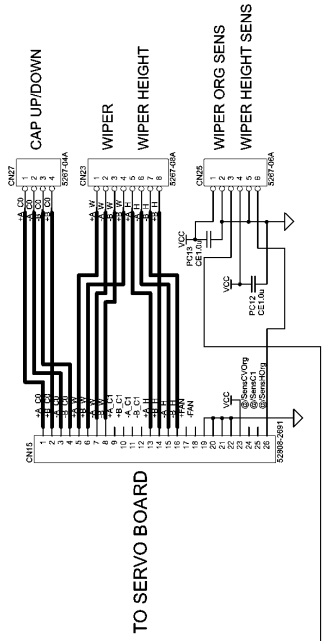
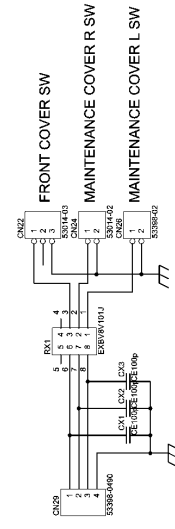
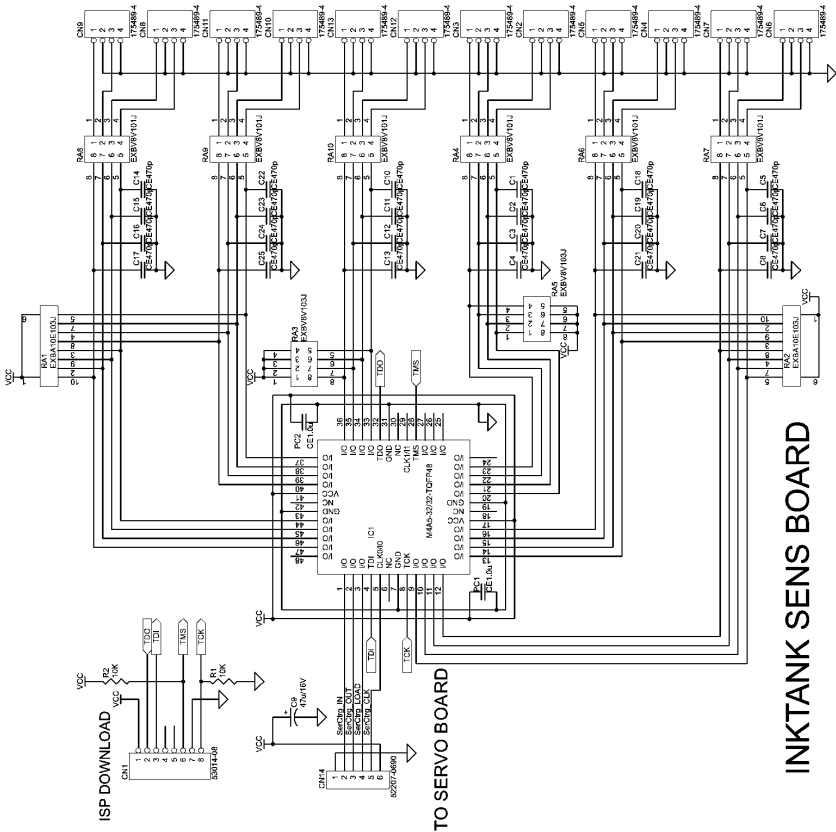


Arrangement Diagram_ Soldering Side

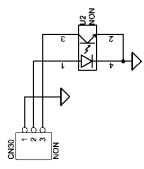
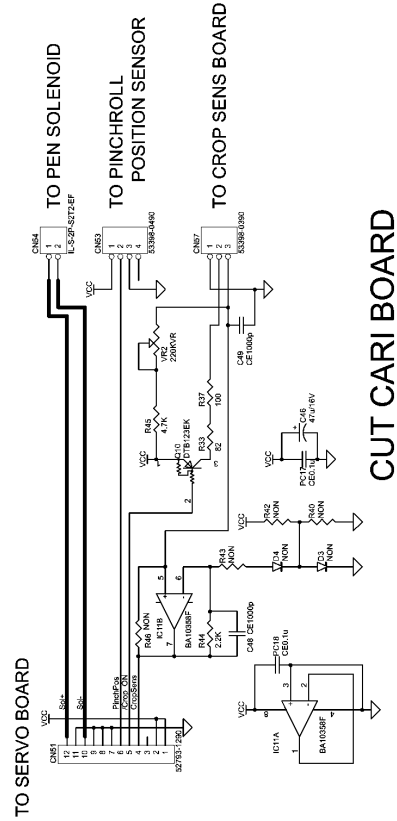


Sub Board _ 1/4 Circuit Diagram

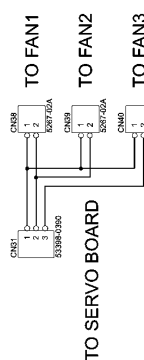
2



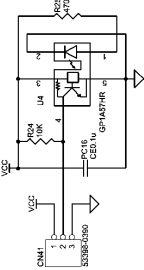
MOTSSENS JUNCTION BOARD



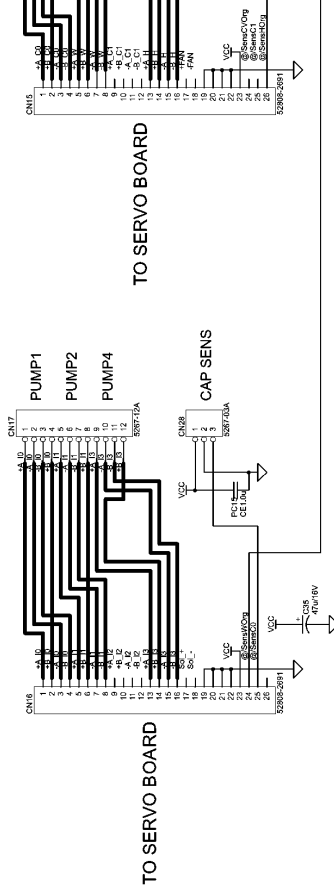
PAPERSIDE SENS BOARD



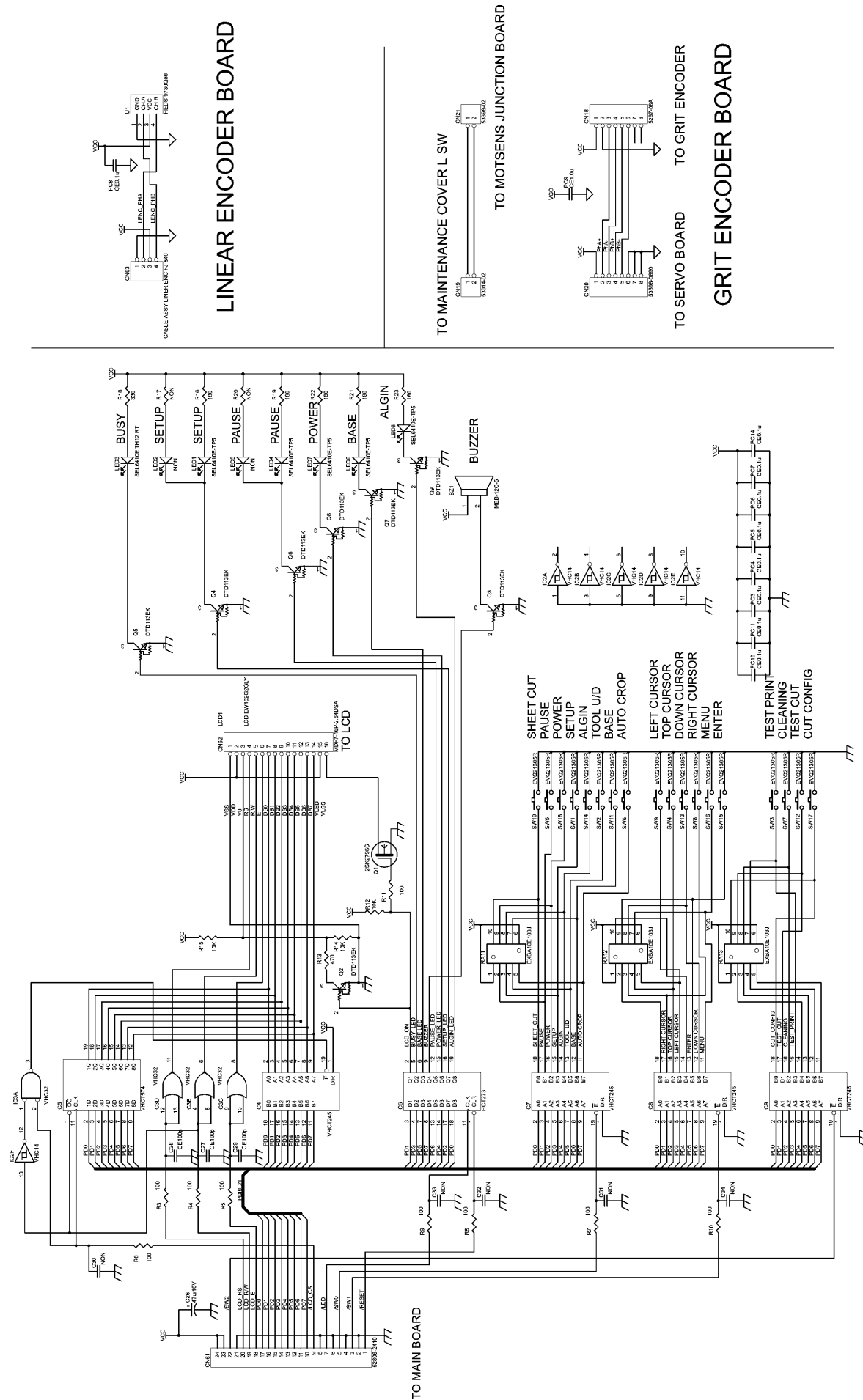
CROP SENS BOARD



FAN JUNCTION BOARD



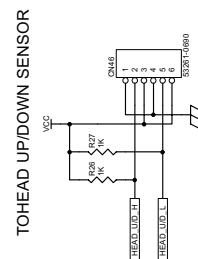
Sub Board _ 2/4 Circuit Diagram



2-28



PRINT CARRIAGE BOARD 1/2



2



2-6 MAINTENANCE PARTS LIST _ Electrical Parts

Revised 11

MAIN BOARD

IC No.	Parts No.	Description	Function
IC17	15169124	LM1086IS-ADJ	+3.3V REGULATOR
IC18	15169124	LM1086IS-ADJ	+1.8V REGULATOR

SERVO BOARD

IC No.	Parts No.	Description	Function
IC2	15189105	MTD2005	PUMP MOTOR DRIVER
IC3	15189105	MTD2005	PUMP MOTOR DRIVER
IC4	15189105	MTD2005	PUMP MOTOR DRIVER
Q4	15119122	2SJ535	MOTOR POWER SUPPLY

HEAD BOARD

IC No.	Parts No.	Description	Function
IC50	15159127	E09A19RA	D/A CONVERTER(HEAD0)
IC51	15159127	E09A19RA	D/A CONVERTER(HEAD1)
IC52	15159127	E09A19RA	D/A CONVERTER(HEAD2)
IC54	15159127	E09A19RA	D/A CONVERTER(HEAD4)
IC55	15159127	E09A19RA	D/A CONVERTER(HEAD5)
IC56	15159127	E09A19RA	D/A CONVERTER(HEAD6)
IC58	15159127	E09A19RA	D/A CONVERTER(HEAD0)
IC59	15159127	E09A19RA	D/A CONVERTER(HEAD1)
IC60	15159127	E09A19RA	D/A CONVERTER(HEAD2)
IC62	15159127	E09A19RA	D/A CONVERTER(HEAD4)
IC63	15159127	E09A19RA	D/A CONVERTER(HEAD5)
IC64	15159127	E09A19RA	D/A CONVERTER(HEAD6)
TR2	15129121	2SA1746	HEAD DRIVER(HEAD0)
TR3	15129122	2SC4131	HEAD DRIVER(HEAD1)
TR6	15129121	2SA1746	HEAD DRIVER(HEAD2)
TR7	15129122	2SC4131	HEAD DRIVER(HEAD4)
TR10	15129121	2SA1746	HEAD DRIVER(HEAD5)
TR11	15129122	2SC4131	HEAD DRIVER(HEAD6)
TR18	15129122	2SC4131	HEAD DRIVER(HEAD0)
TR19	15129121	2SA1746	HEAD DRIVER(HEAD1)
TR22	15129122	2SC4131	HEAD DRIVER(HEAD2)
TR23	15129121	2SA1746	HEAD DRIVER(HEAD4)
TR26	15129122	2SC4131	HEAD DRIVER(HEAD5)
TR27	15129121	2SA1746	HEAD DRIVER(HEAD6)
TR34	15129121	2SA1746	HEAD DRIVER(HEAD0)
TR35	15129122	2SC4131	HEAD DRIVER(HEAD1)
TR38	15129121	2SA1746	HEAD DRIVER(HEAD2)
TR39	15129122	2SC4131	HEAD DRIVER(HEAD4)
TR42	15129121	2SA1746	HEAD DRIVER(HEAD5)
TR43	15129122	2SC4131	HEAD DRIVER(HEAD6)
TR50	15129122	2SC4131	HEAD DRIVER(HEAD0)
TR51	15129121	2SA1746	HEAD DRIVER(HEAD1)
TR54	15129122	2SC4131	HEAD DRIVER(HEAD2)
TR55	15129121	2SA1746	HEAD DRIVER(HEAD4)
TR58	15129122	2SC4131	HEAD DRIVER(HEAD5)
TR59	15129121	2SA1746	HEAD DRIVER(HEAD6)
TR65	15119122	2SJ535	HEAD POWER SUPPLY
F2	12559102	MMCT 3.15A	HEAD POWER FUSE(HEAD5,6)
F3	12559102	MMCT 3.15A	HEAD POWER FUSE(HEAD2,4)
F4	12559102	MMCT 3.15A	HEAD POWER FUSE(HEAD0,1)

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.

HEAD REPLACEMENT :

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

Revised 1

1. THERMISTER CHECK
 2. HEAD ALIGNMENT
 3. HEAD INFORMATION CLEAR
 4. CHECKING THE CAP HEIGHT *8
 5. TOOL / CROP MARK POSITION ADJUSTMENT
 6. PRINT / CUT POSITION ADJUSTMENT Adj. Time : 55min.
- < Total Time : 67min. **SC : +30min. >

Revised 5

TOOL CARRIAGE REPLACEMENT : 15min.

1. LIMIT & CUT DOWN POSITION ADJUSTMENT
 2. TOOL HEIGHT ADJUSTMENT
 3. TOOL PRESSURE ADJUSTMENT
 4. CROP MARK SENSOR ADJUSTMENT
 5. TOOL / CROP MARK POSITION ADJUSTMENT
 6. PRINT / CUT POSITION ADJUSTMENT Adj. Time : 52min.
- < Total Time : 67min. >

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 : 25min.

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 *8
 9. SENSOR CHECK
 10. LIMIT & CUT DOWN POSITION INITIALIZE
 11. LINEAR ENCODER SETUP
 12. TOOL PRESSURE ADJUSTMENT *3
 13. INK TYPE SETTING
 14. HEAD ALIGNMENT
 15. CALIBRATION
 16. CROP MARK SENSOR ADJUSTMENT
 17. TOOL/CROP MARK POSITION ADJUSTMENT
 18. PRINT/CUT POSITION ADJUSTMENT Adj. Time : 85min.
- < Total Time : 110min. >

Revised 5

Revised 1

HEAD BOARD REPLACEMENT : 12min.

1. THERMISTER CHECK
 2. HEAD UP/DOWN SENSOR CHECK *5
 3. FAN ON THE HEAD BOARD CHECK Adj. Time : 10min.
- < Total Time : 22min. >

*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 is necessary to set the Tool Pressure parameters.

If you can check the value set in the previous Main Board, you can input the value without adjustment.

CUTTING CARRIAGE BOARD REPLACEMENT : 7min.

1. TOOL UP/DOWN CHECK
 2. TOOL UP/DOWN SENSOR CHECK *4
 3. PINCH ROLLER SENSOR CHECK
 4. CROP MARK SENSOR ADJUSTMENT
 5. TOOL / CROP MARK POSITION ADJUSTMENT
 6. PRINT / CUT POSITION ADJUSTMENT Adj. Time:26min.
- < Total Time : 33min. >

CARRIAGE BOARD REPLACEMENT : 15min.

1. HEAD UP/DOWN SENSOR CHECK *4
 2. THERMISTER CHECK
 3. LINEAR ENCODER SETUP Adj. Time : 10min.
- <Total Time : 25min.>

PANEL BOARD REPLACEMENT : 7min.

1. LCD/LED/BUZ CHECK *6
 2. KEY CHECK *7 Adj. Time : 3min.
- < Total Time : 10min. >

SERVO BOARD REPLACEMENT : 12min.

1. PINCH ROLLER SENSOR CHECK
 2. AGING
 3. TOOL PRESSURE ADJUSTMENT
 4. CROP MARK SENSOR ADJUSTMENT
 5. TOOL / CROP MARK POSITION ADJUSTMENT
 6. PRINT / CUT POSITION ADJUSTMENT Adj. Time : 38min.
- <Total Time : 50min.>

NETWORK BOARD REPLACEMENT : 9min.

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

CARRIAGE WIRE REPLACEMENT : 45min.

1. WIRE TENSION ADJUSTMENT
 2. LIMIT & CUT DOWN POSITION INITIALIZE
 3. LINEAR ENCODER SETUP
 4. CUTTING QUALITY CHECK Adj. Time : 18min.
- < Total Time : 63min. >

LINEAR ENCODER REPLACEMENT : 25min.

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

CROP MARK SENSOR REPLACEMENT : 10min.

1. CROP MARK SENSOR ADJUSTMENT
 2. TOOL/CROP MARK POSITION ADJUSTMENT
 3. PRINT/CUT POSITION ADJUSTMENT Adj. Time : 25min.
- < Total Time : 35min. >

BATTERY REPLACEMENT : 7min.

1. BATTERY FLAG CLEAR *5
- < Total Time : 7min. >

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

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

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

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

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

3-1 HEAD REPLACEMENT

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

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

[◀], [▼], [▶] + SUB POWER ON



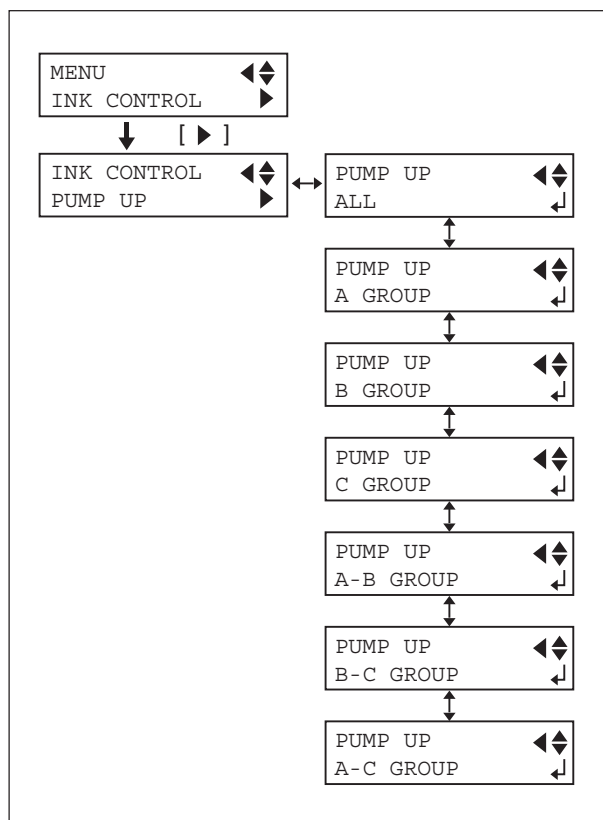
[MENU] key



MENU
SERVICE MENU



- 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.



- 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.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

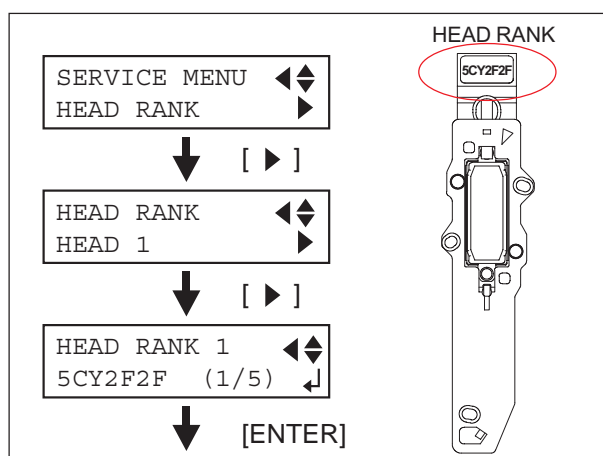
MENU
SERVICE MENU

- 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.

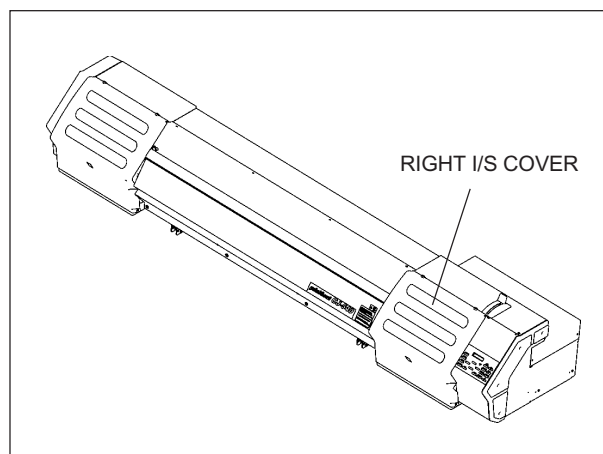
Input the HEAD RANK by selecting the digit with the Left and Right keys, and changing the parameters with the Up and Down keys.

Press the [ENTER] key to save the settings.

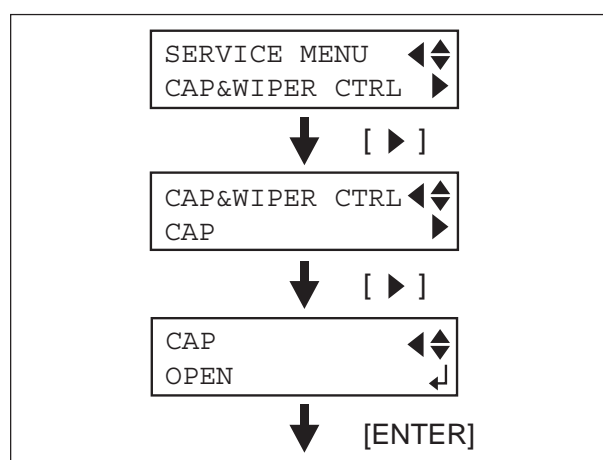
** The Head No. becomes [HEAD 1], [HEAD 2], [HEAD 3] from the head at the left end in order.



- 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.

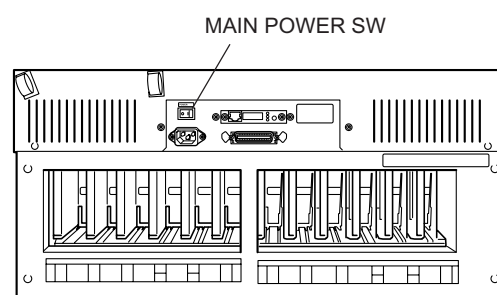


- 7** Turn off the SUB POWER SW, and then turn off the MAIN POWER SW.

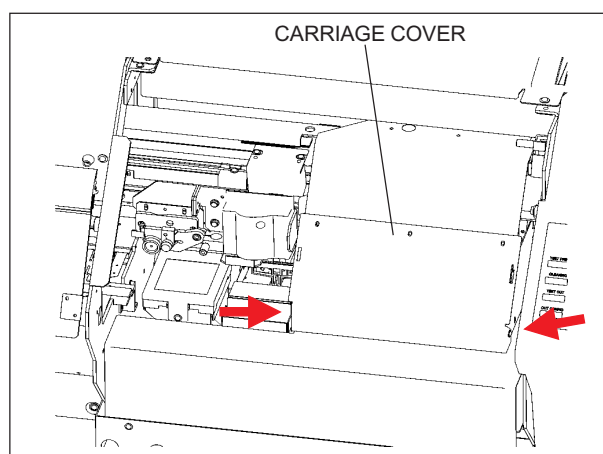


Be sure to turn off the MAIN POWER SW when replacing the head. The head or main board could break, otherwise. It is recommended to disconnect the AC code.

< REAR VIEW >



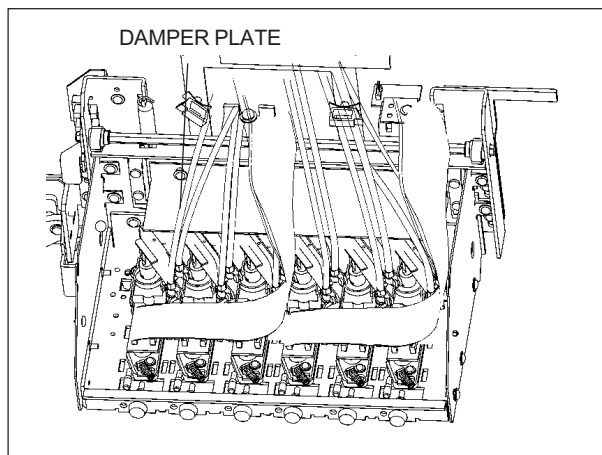
- 8** Remove the CARRIAGE COVER.



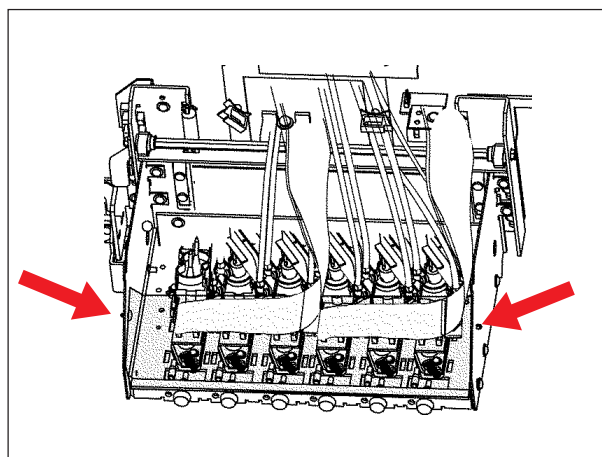
- 9** Remove the DAMPER PLATE and remove the 2 INK DAMPERS from the HEAD which will be replaced.



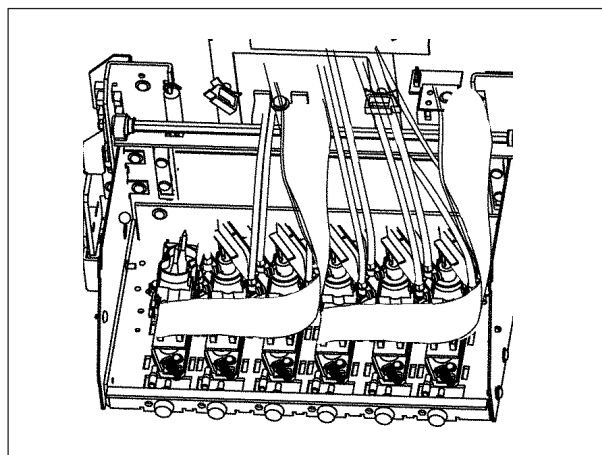
Do not hold both sides of the INK DAMPER so hard. It could break.
Be sure to remove and fix the INK DAMPER with the HEAD BOARD COVER fixed. It prevents the ink from dropping on the HEAD BOARD.



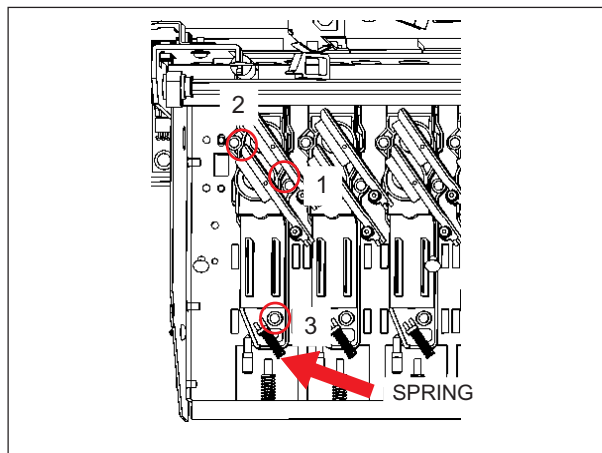
- 10** Remove the HEAD BOARD COVER (the transparent cover).



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



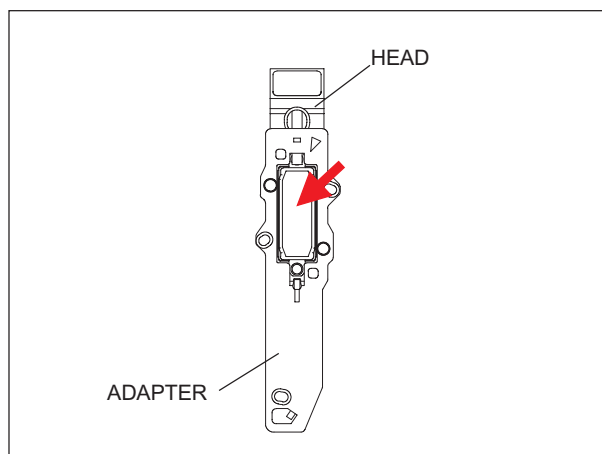
- 12** Remove the SPRING, and remove the 3 screws fixing the HEAD in order as shown in the figure.
Then, pull the HEAD towards the front and pull it up to remove it.



- 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.

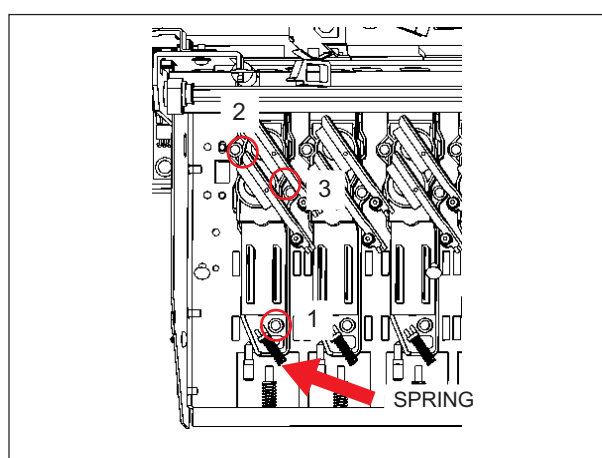


3

- 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.



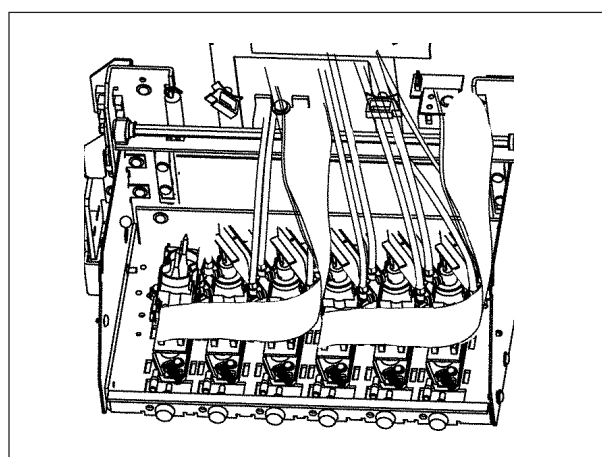
Use the 2kgf-cm torque driver (ST-056) to tighten up the screws.



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



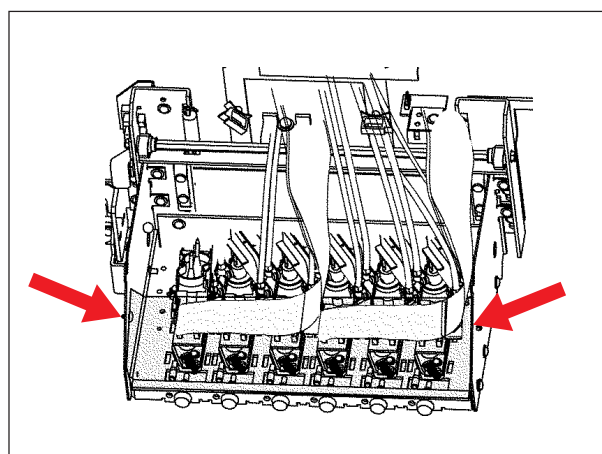
Do not connect cable to the wrong connector.



- 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 5

- 17** Replace the new 2 INK DAMPERs, and fix to the HEAD.

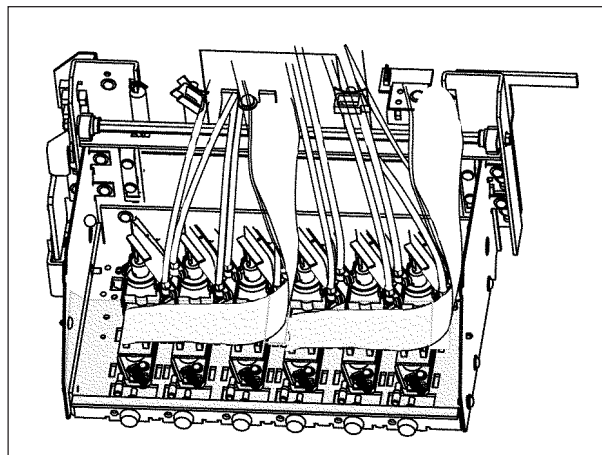


Make sure to replace the DAMPERs when the HEAD is replaced.



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 1**



- 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.

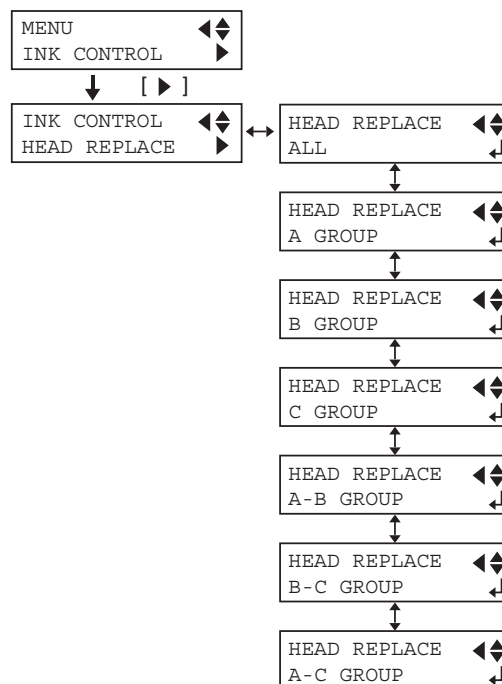
[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU
SERVICE MENU

- 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.



20 Enter the SERVICE MODE and perform the following adjustments. **Revised 1** **Revised 5**

1. THERMISTER CHECK
2. HEAD ALIGNMENT
3. HEAD INFORMATION CLEAR
4. CHECKING THE CAP HEIGHT
5. TOOL / CROP MARK POSITION ADJUSTMENT
6. PRINT / CUT POSITION ADJUSTMENT

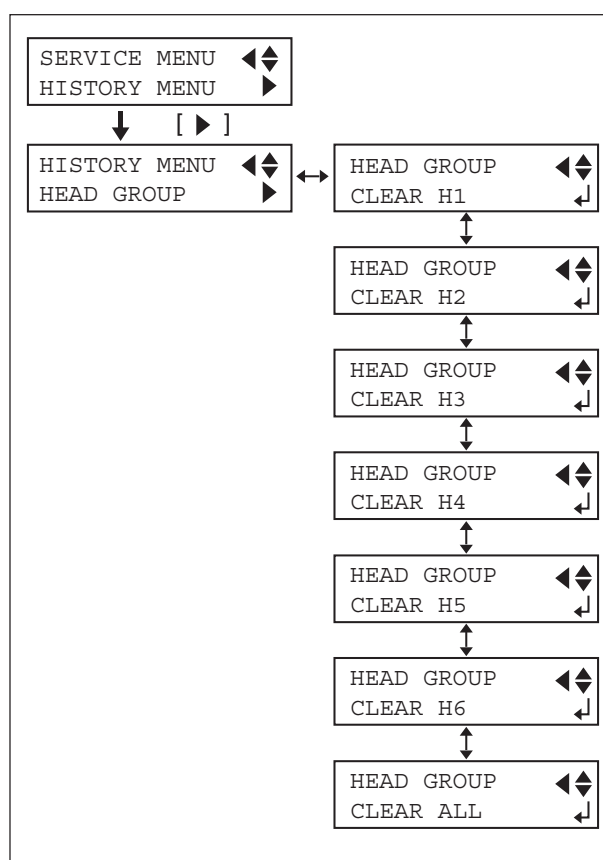


If you replace the HEAD of the CJ, the CAPPING UNIT is in the down position at this moment.

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.

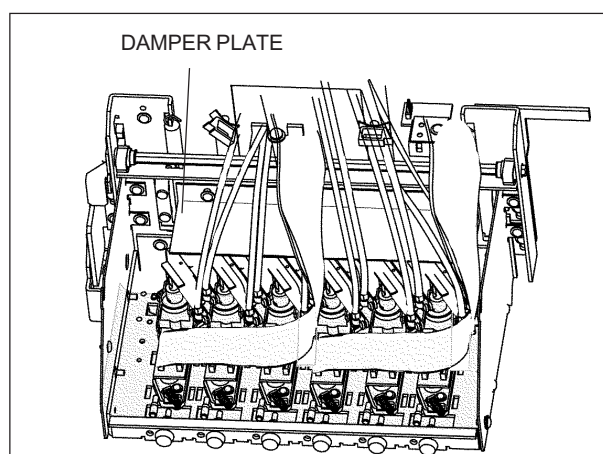
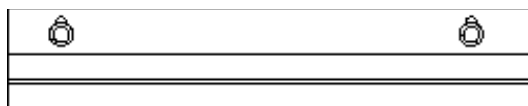


< NOTE for fixing the DAMPER PLATE >

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

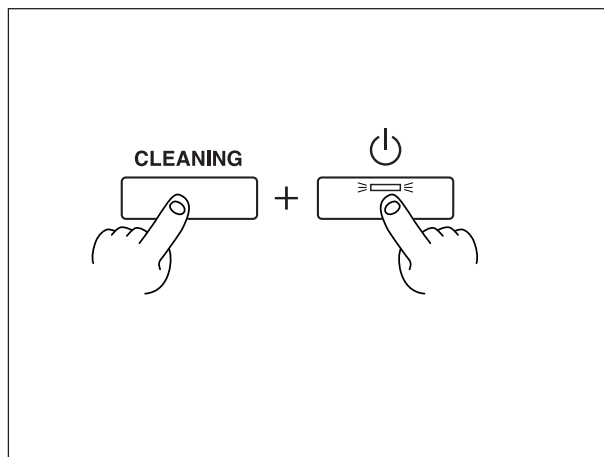


* Fix the screws at the bottom of the long screw hole.



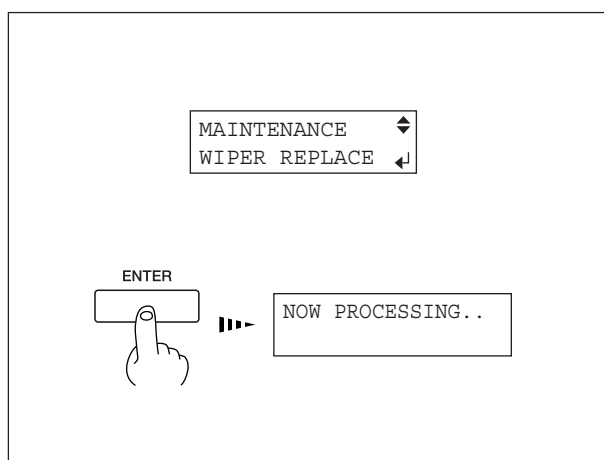
3-2 WIPER REPLACEMENT

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

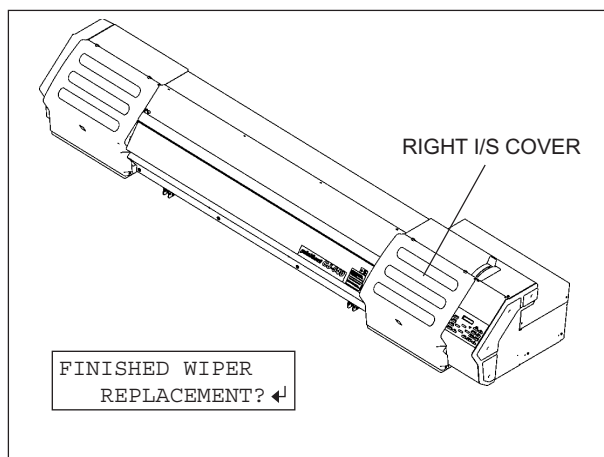


3

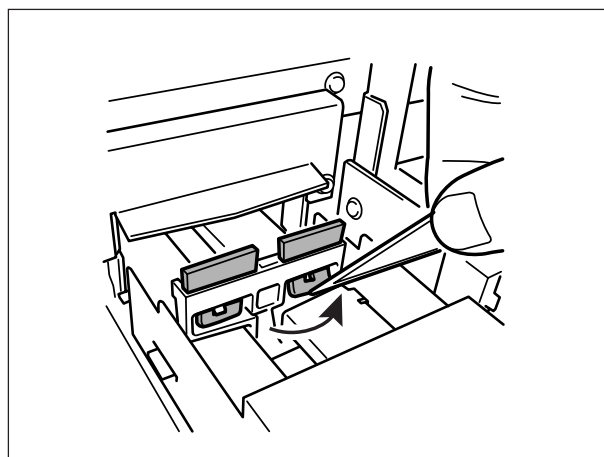
- 2 Select [WIPER REPLACE] and press the [ENTER] key. The head moves to the left side.



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



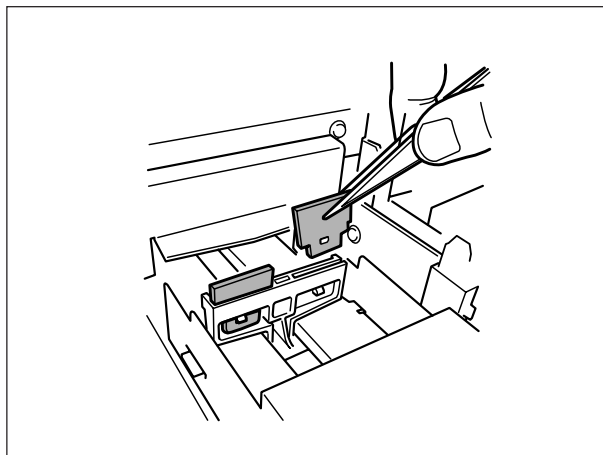
- 4 Using tweezers, grasp the bottom portion of the wiper and take it off the hook.



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



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

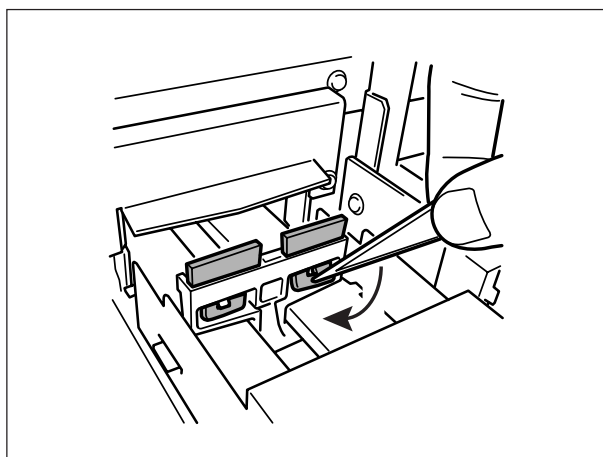


3

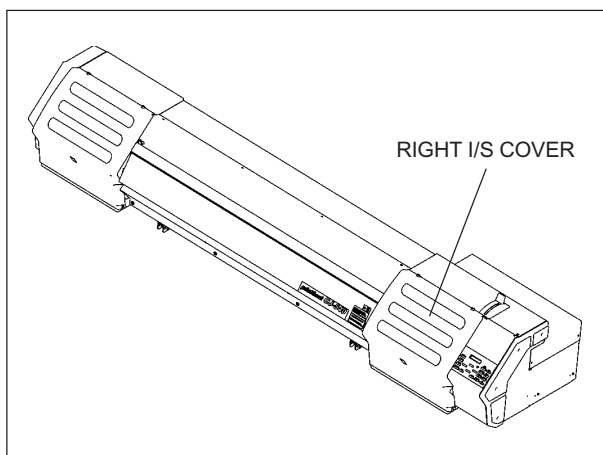
- 6** Use the tweezers to press the area shown in the figure and engage the WIPER on the hook.



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

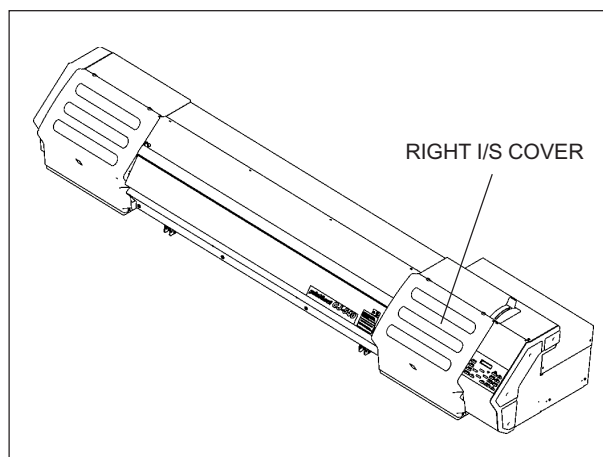


- 7** Fix the RIGHT I/S COVER and press the [ENTER] key. The head carriage moves back to the standby position and the head cleaning starts automatically. When the head cleaning finishes, the sub power will be turned off.



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.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU
SERVICE MENU

- 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.

SERVICE MENU
CAP&WIPER CTRL

CAP&WIPER CTRL
CAP

CAP
OPEN

[ENTER]

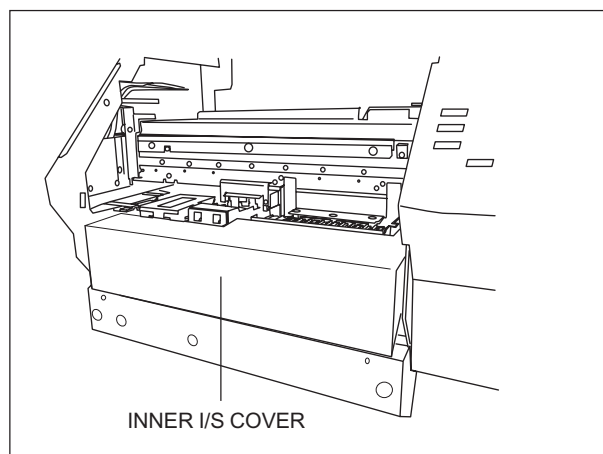
- 4** Move the HEAD CARRIAGE slowly leftwards so that it is not above the capping unit.



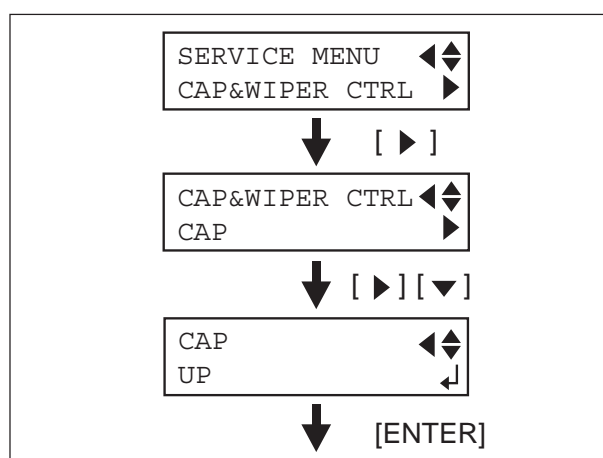
Be careful that the head does not strike the media or media clamp.



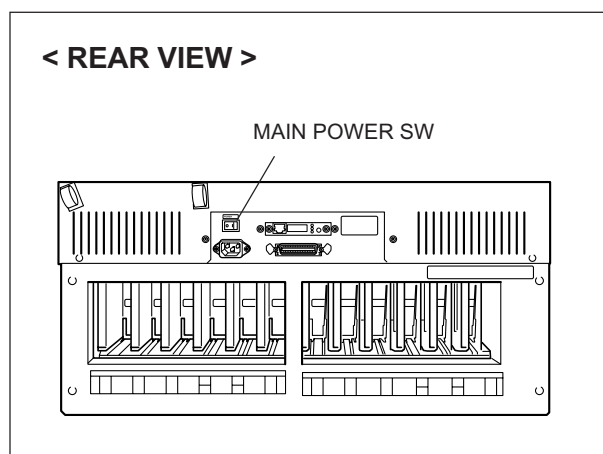
- 5** Remove the INNER I/S COVER.



- 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.



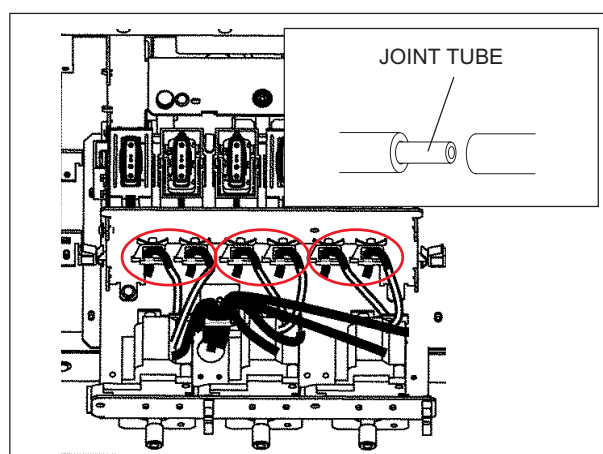
- 7** Turn off the SUB POWER SW, and then turn off the MAIN POWER SW.



- 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.



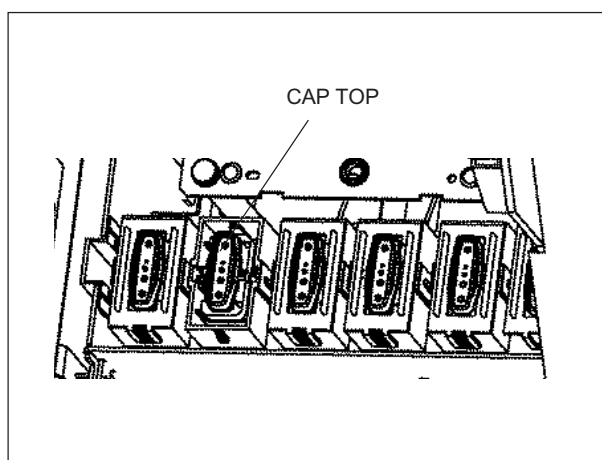
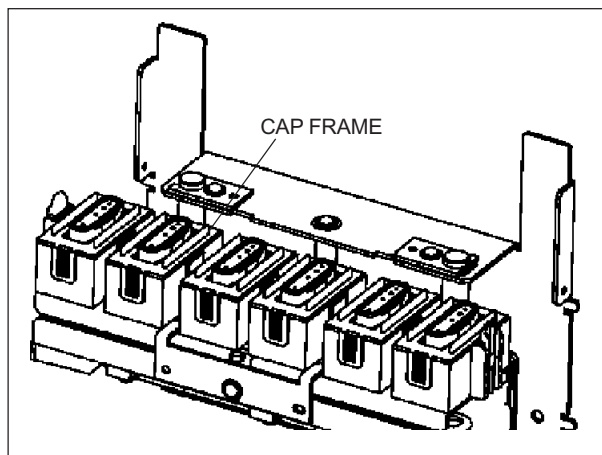
- 9** Unhook the CAP FRAME with holding it by the other hand, and remove it.



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

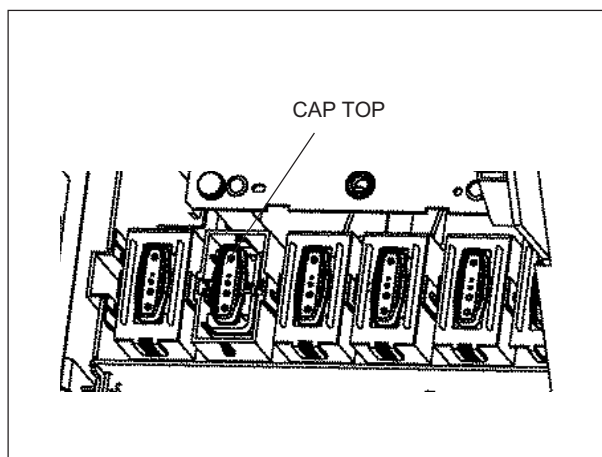
- 10** Remove the CAP TOP together with the tube.



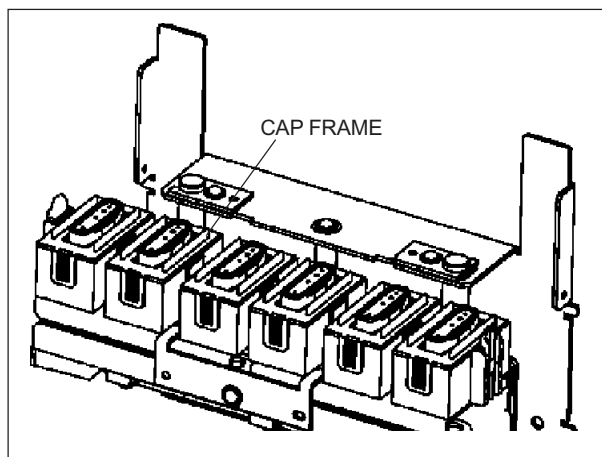
- 11** Fix the new CAP TOP. Make sure to fix it so that the tube side faces the front



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

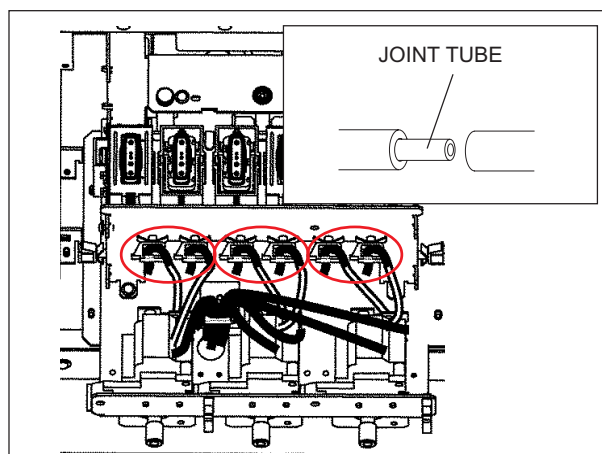


- 12** Fix the CAP FRAME.



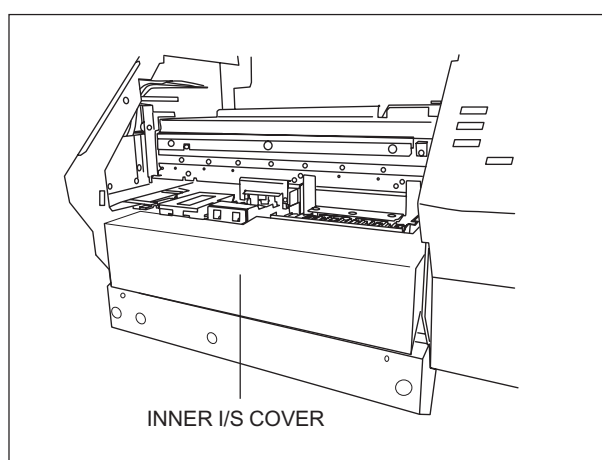
- 13** Connect the tube of the CAP TOP to the tube of the PUMP using the JOINT TUBE.

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

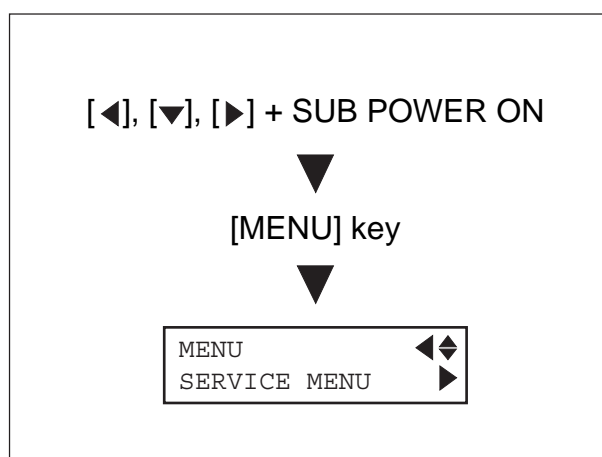


3

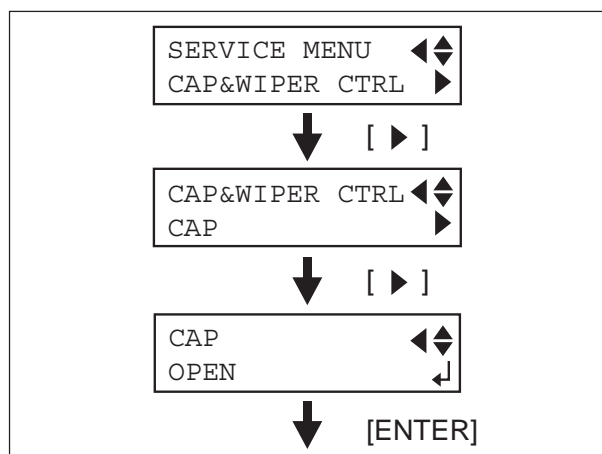
- 14** Fix the INNER I/S COVER.



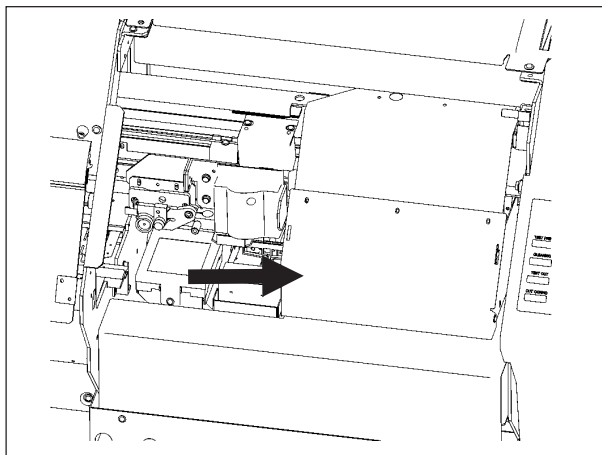
- 15** Turn on the MAIN POWER SW, then turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.



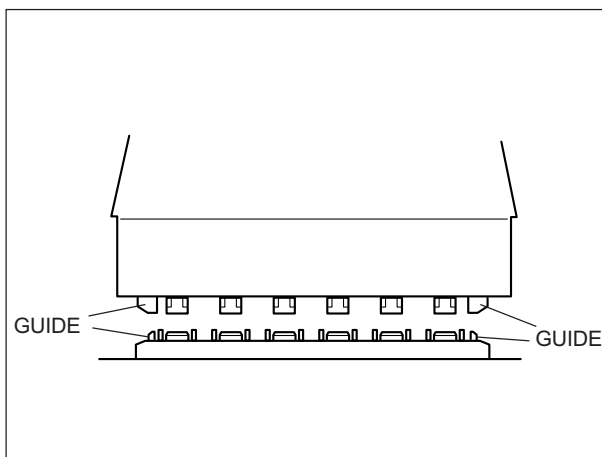
- 16** Select [CAP&WIPER CTRL] > [CAP] > [OPEN], and press the [ENTER] key. The capping unit moves down.



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



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

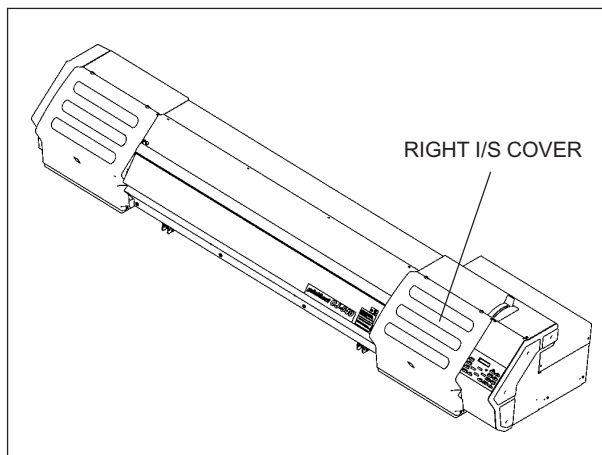


Revised 5

- 19** Fix the RIGHT I/S cover

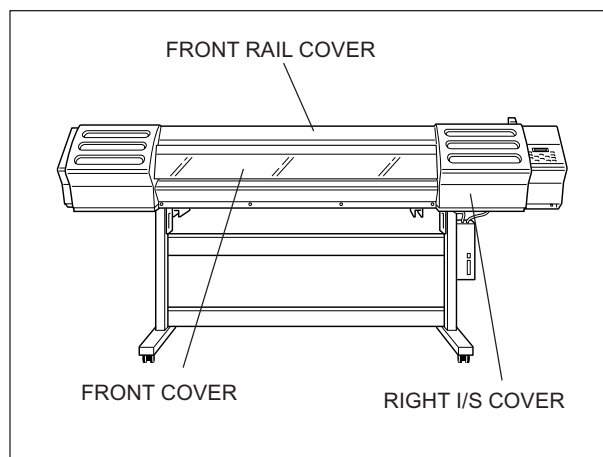
Enter the SERVICE MODE and perform the following adjustment.

1. CAP HEIGHT CHECK



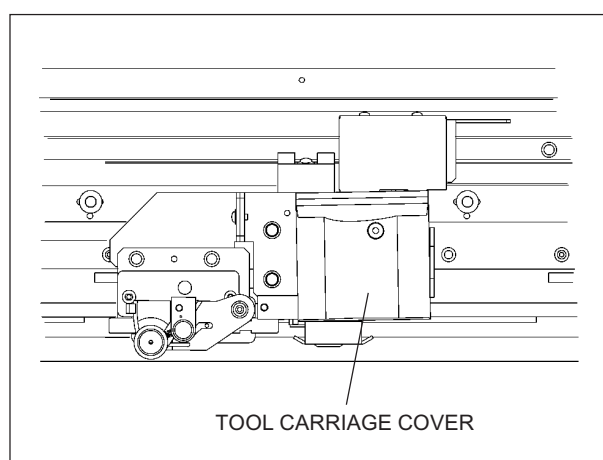
3-4 TOOL CARRIAGE REPLACEMENT

- 1 Remove the RIGHT I/S COVER, FRONT RAIL COVER and FRONT COVER.

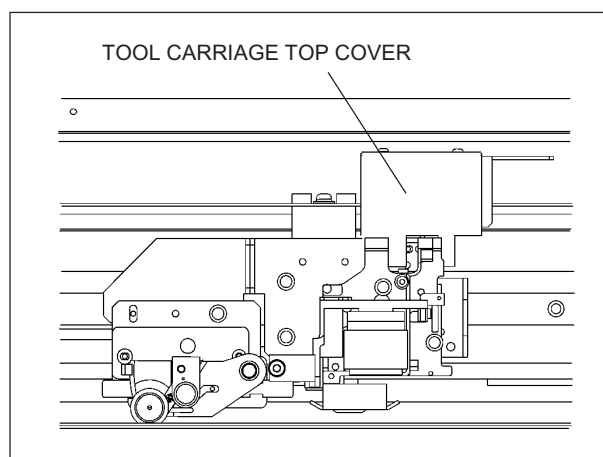


3

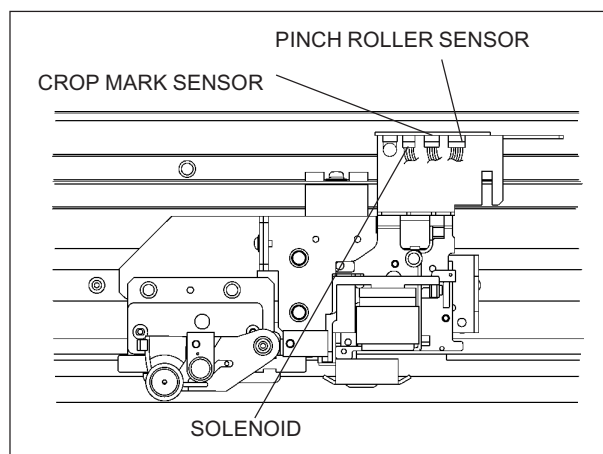
- 2 Remove the TOOL CARRIAGE COVER.



- 3 Remove the TOOL CARRIAGE TOP COVER.

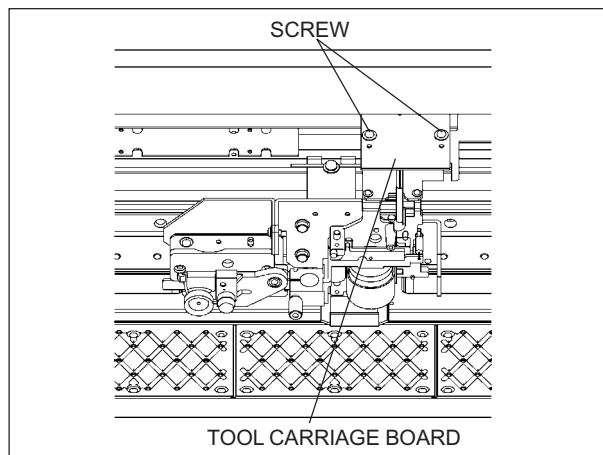


- 4 Disconnect the CROP MARK, PINCH ROLLER and SOLENOID Wirings.

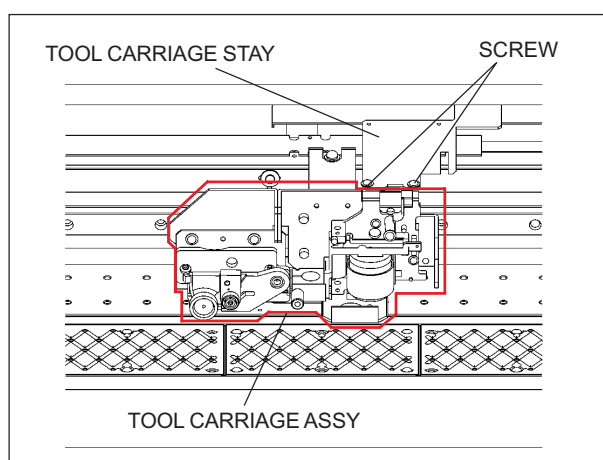


3

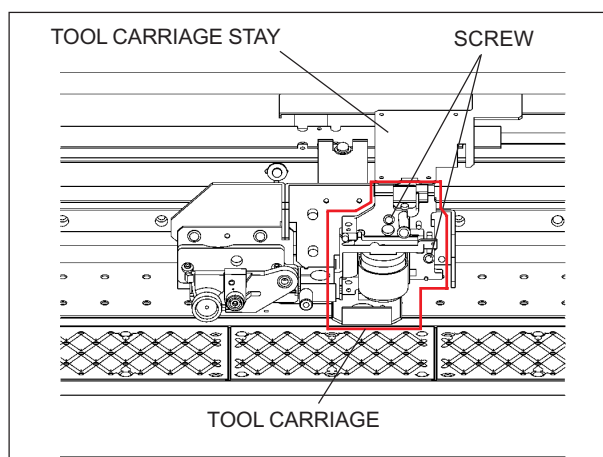
- 5 Remove the TOOL CARRIAGE BOARD.



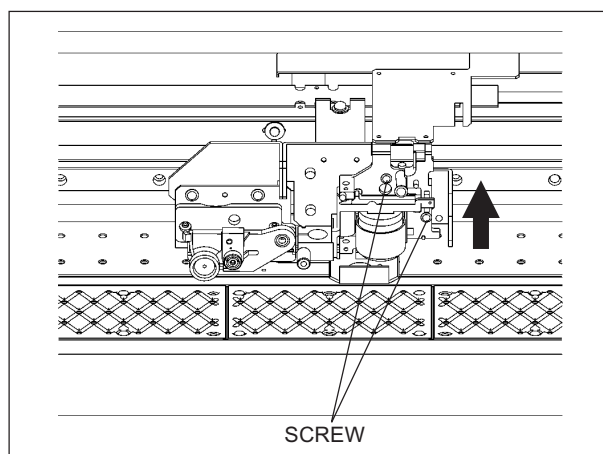
- 6 Remove the TOOL CARRIAGE ASSY from the TOOL CARRIAGE STAY.



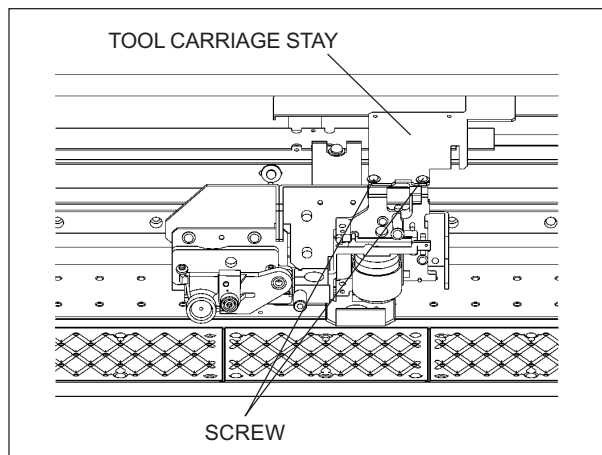
- 7 Remove the TOOL CARRIAGE.



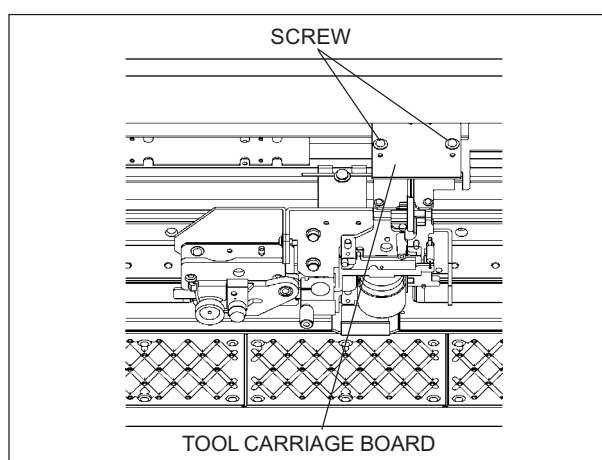
- 8 Fix the new TOOL CARRIAGE by pushing it upwards.



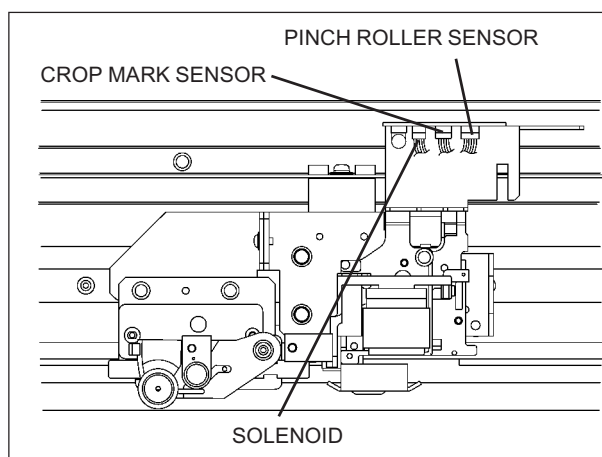
- 9** Fix the TOOL CARRIAGE to the TOOL CARRIAGE STAY.



- 10** Fix the TOOL CARRIAGE BOARD.



- 11** Connect the CROP MARK, PINCH ROLLER and SOLENOID Wirings.



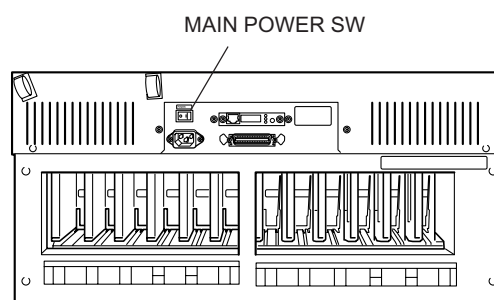
- 12** Carry out the following adjustments and settings.

1. LIMIT POSITION & CUT DOWN POSITION INITIALIZE
2. TOOL HEIGHT ADJUSTMENT
3. TOOL PRESSURE ADJUSTMENT
4. CROP MARK SENSOR ADJUSTMENT
5. TOOL / CROP MARK SENSOR POSITION ADJUSTMENT
6. PRINT / CUT POSITION ADJUSTMENT

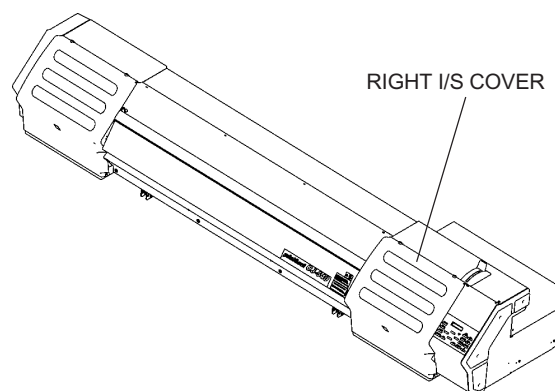
3-5 CARRIAGE MOTOR REPLACEMENT

- 1** Turn off the MAIN POWER SW.

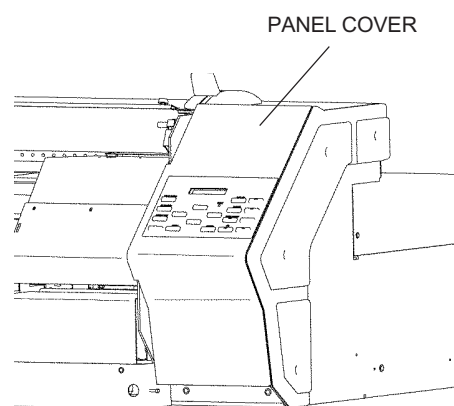
< REAR VIEW >



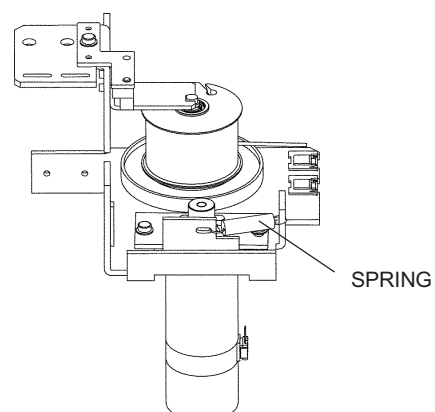
- 2** Remove the RIGHT I/S COVER.



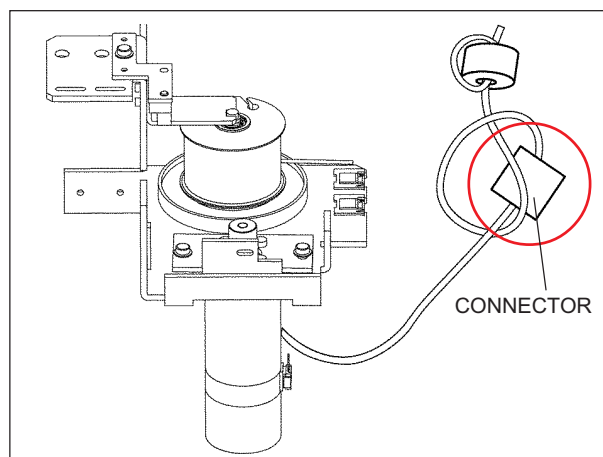
- 3** Remove the PANEL COVER. Be sure to disconnect the flexible cable connected to the PANEL BOARD.



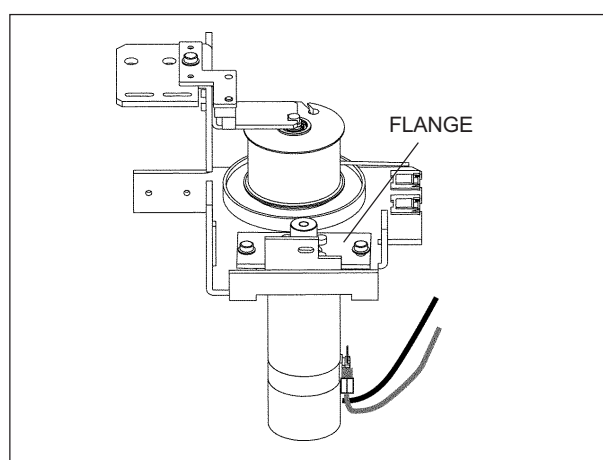
- 4** Remove the SPRING.



- 5** Disconnect the connector of the encoder cable.



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

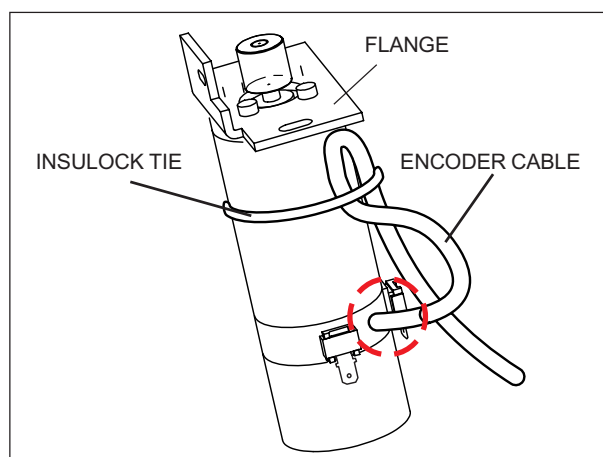


Revised2

- 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.



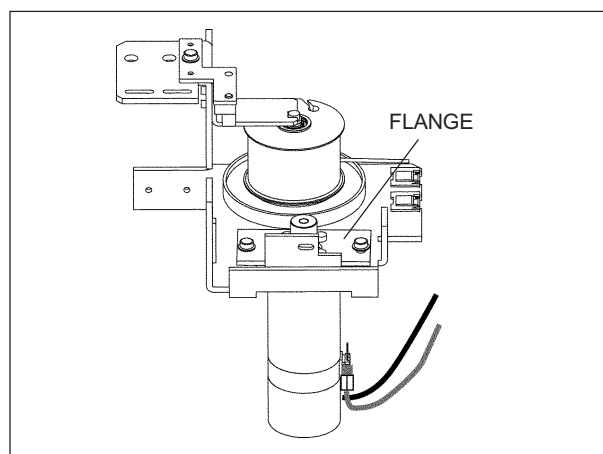
Be careful with the fixing direction of the FLANGE.



- 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.

Revised 5



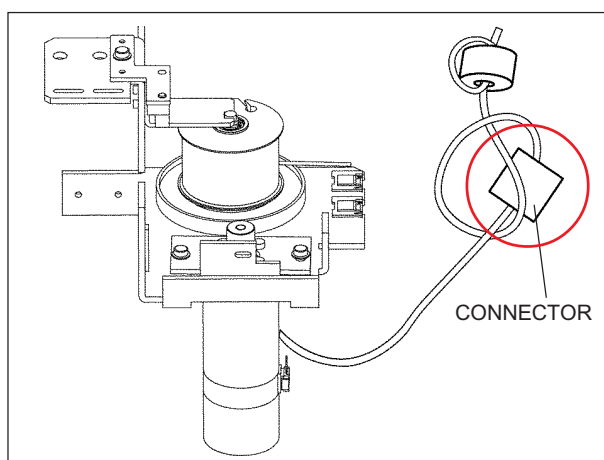
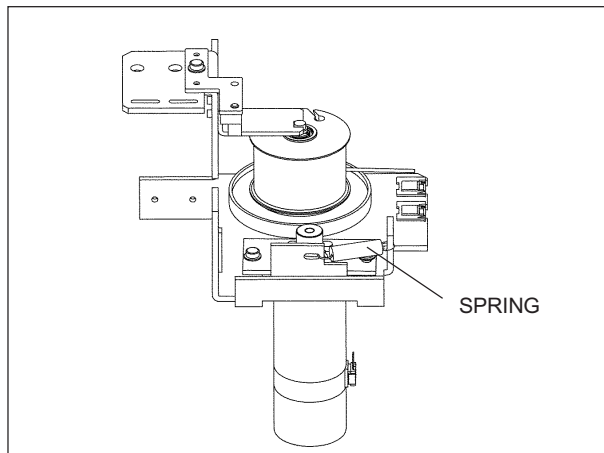
Apply a proper quantity of grease (FLOIL GE-676) between gears.

3

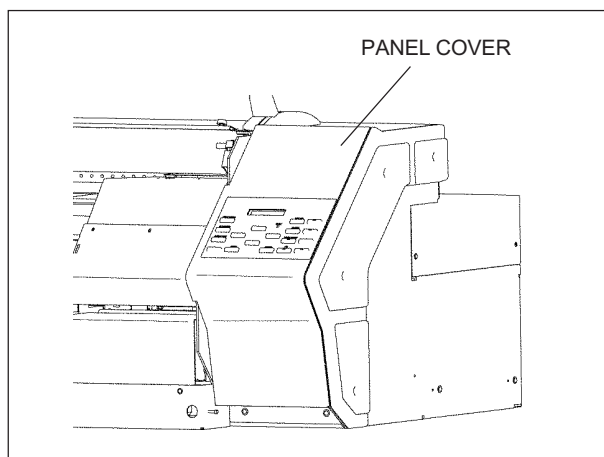
- 10** Connect the connector of the encoder cable.



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.



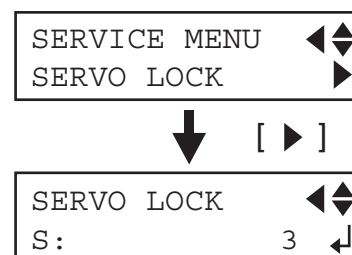
- 12** Perform the SERVO LOCK CHECK.
After turning on the main power, turn on the sub power while pressing the Left, Right and Down keys to enter the SERVICE MODE.

[◀], [▼], [▶] + SUB POWER ON

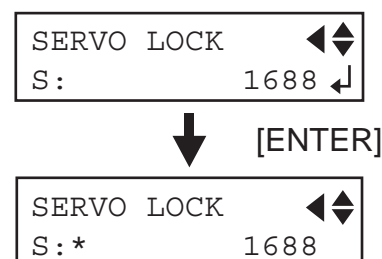
▼
[MENU] key

▼
MENU
SERVICE MENU

- 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.



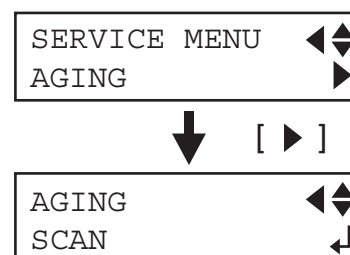
- 14** Press the [ENTER] key to excite the MOTOR.
Make sure the MOTOR is locked and the value on the LCD doesn't change.



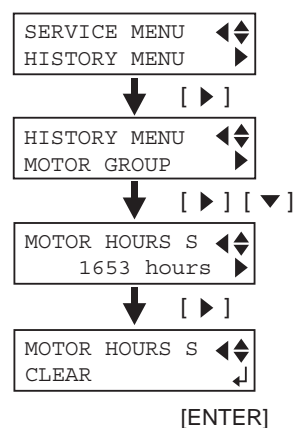
- 15** Check the AGING.
Go back to the SERVICE MENU, and select [AGING] > [SCAN] and press the [ENTER] key. Make sure the machine do the AGING and finish it.



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

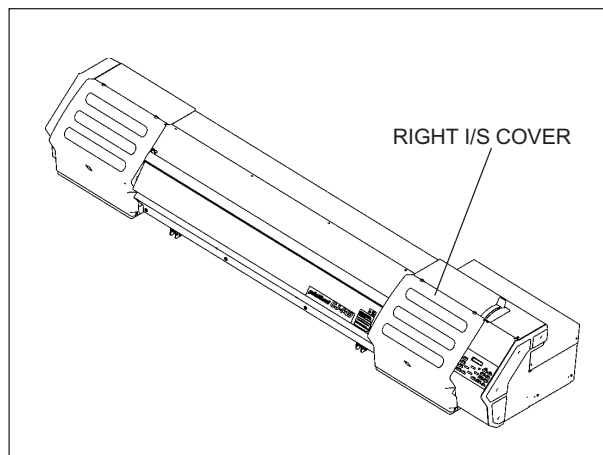


- 16** Clear the motor working hours.
Go back the SERVICE MENU, and select [HISTORY MENU] > [MOTOR GROUP] > [MOTOR HOURS S] > [CLEAR] and press the [ENTER] key. The motor working hours will be reset to 0.



3-6 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.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU
SERVICE MENU

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.

SERVICE MENU
CAP&WIPER CTRL

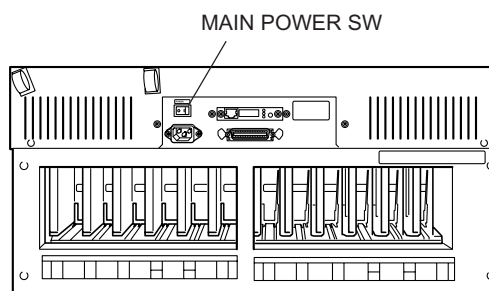
CAP&WIPER CTRL
CAP

CAP
OPEN

[ENTER]

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

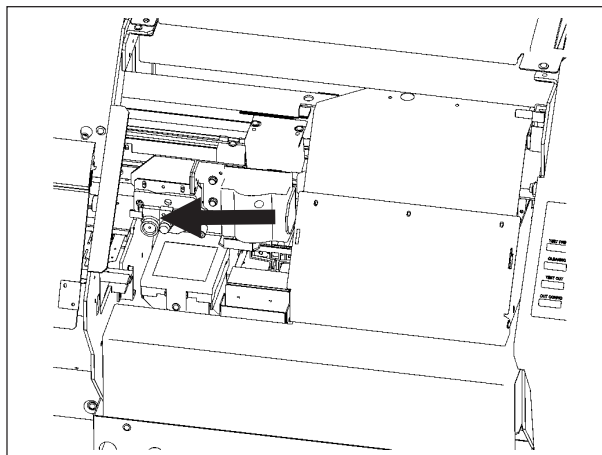
< REAR VIEW >



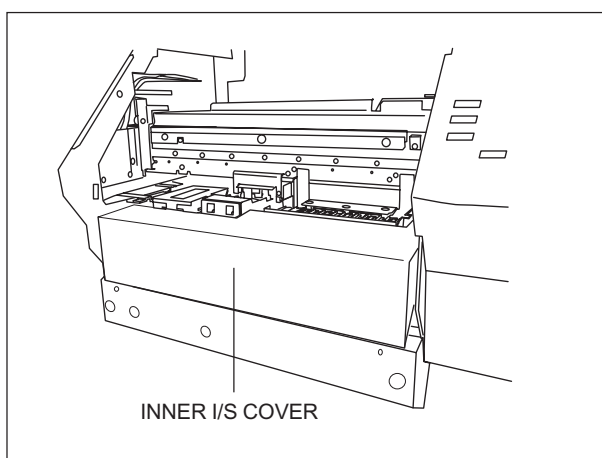
- 5** Move the HEAD CARRIAGE slowly leftwards.



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



- 6** Remove the INNER I/S COVER.

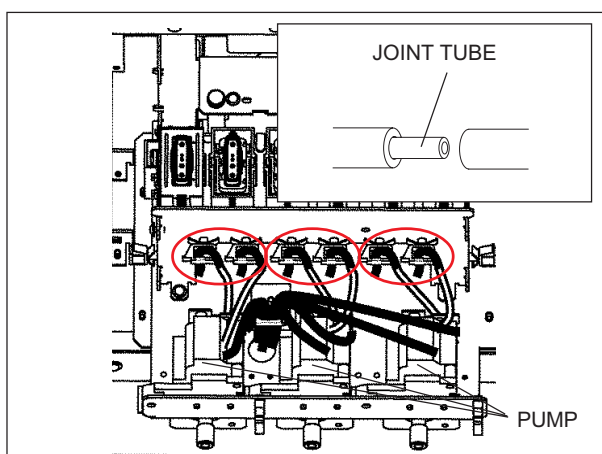


- 7** Disconnect the tube (Black) of the CAP TOP from the tube (White) of the PUMP.

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.

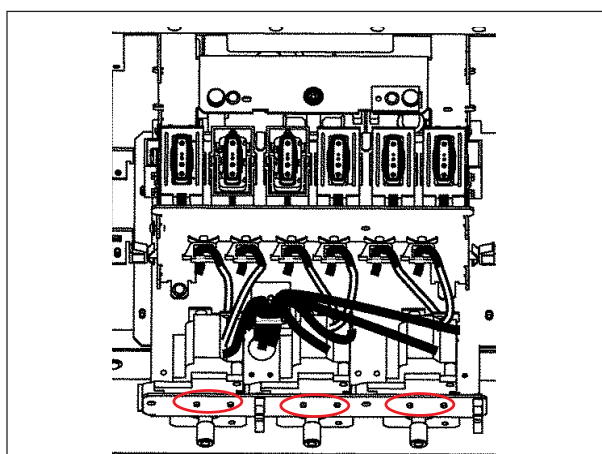


- 8** Remove the PUMP and replace it to the new one. Then put the 2 longer tubes into the DRAIN TUBE.

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



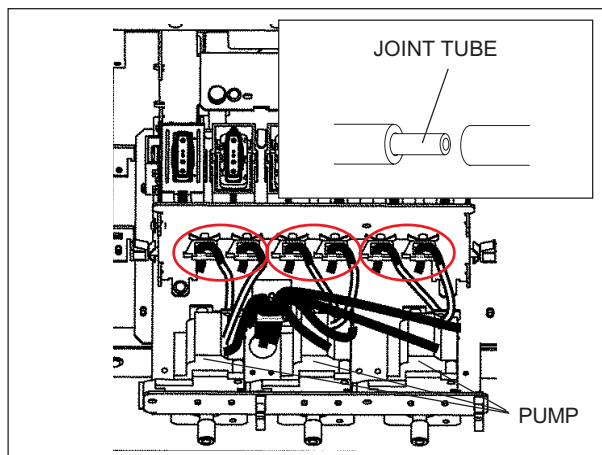
Make sure to fix the 2 projection parts of the PUMP to the holes of the FRAME.



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

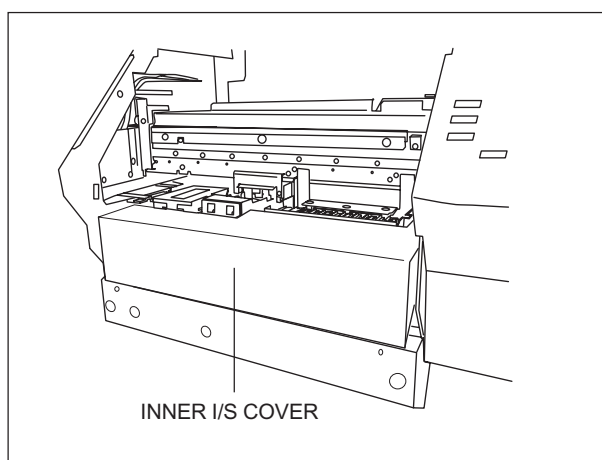


You can connect either tube of the CAP TOP to the either tube of the PUMP.

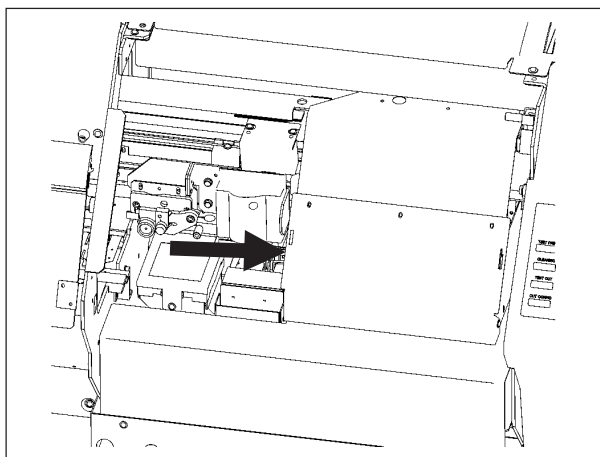


3

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



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



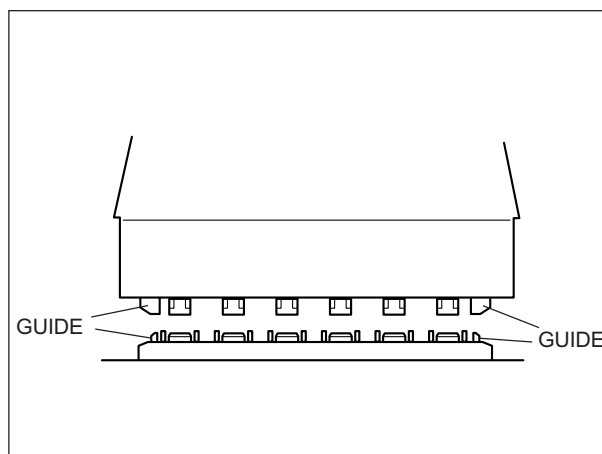
- 12** Turn on the MAIN POWER SW. Then, turn on the SUB POWER SW while pressing the Left, Right and Down keys to enter the SERVICE MODE.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

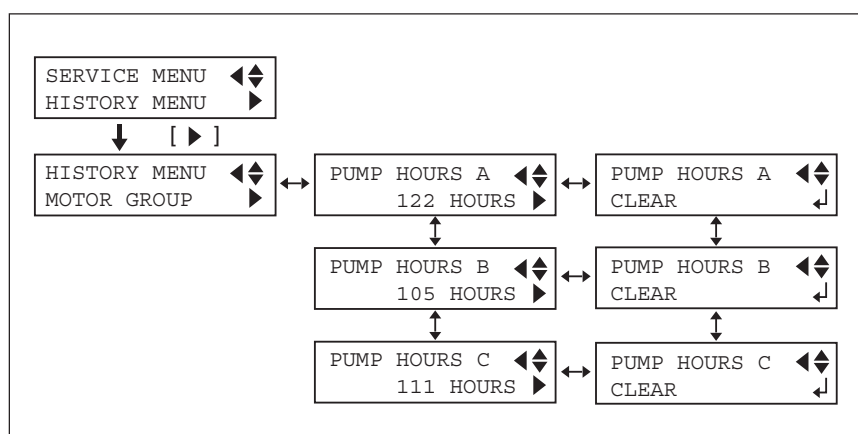
MENU
SERVICE MENU

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



3

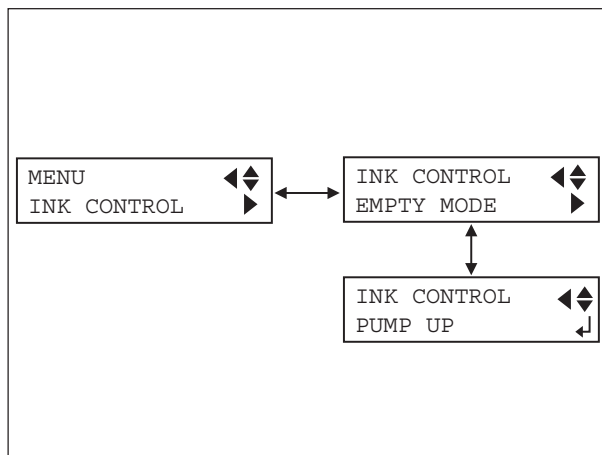
- 14** Clear the pump working hours. Go back to the SERVICE MENU, and select [HISTORY MENU] > [MOTOR GROUP], and select the PUMP you replaced and clear the time.



3-7 INK TUBE REPLACEMENT

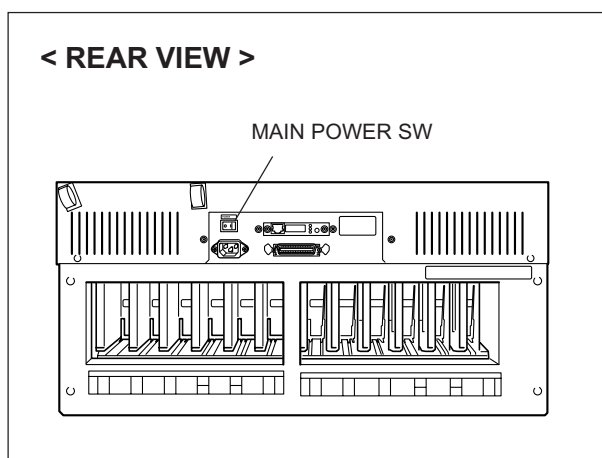
- 1 Turn on the SUB POWER SW and perform the [PUMP UP] from the [INK CONTROL] menu.

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



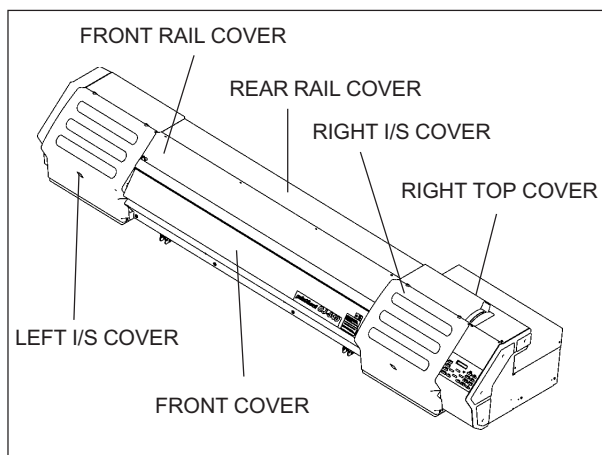
3

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

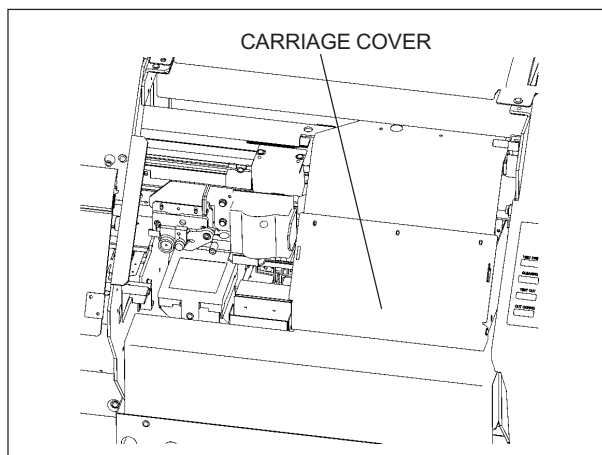


- 3 Remove the following covers.

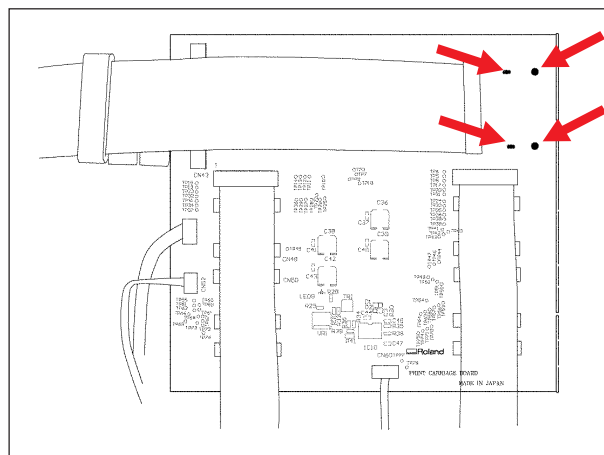
LEFT and RIGHT I/S COVERS
RIGHT TOP COVER
FRONT and REAR RAIL COVERS
FRONT COVER



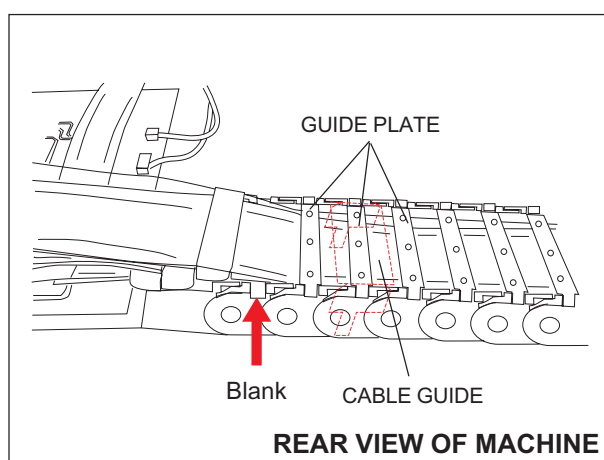
- 4 Remove the CARRIAGE COVER.



- 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.



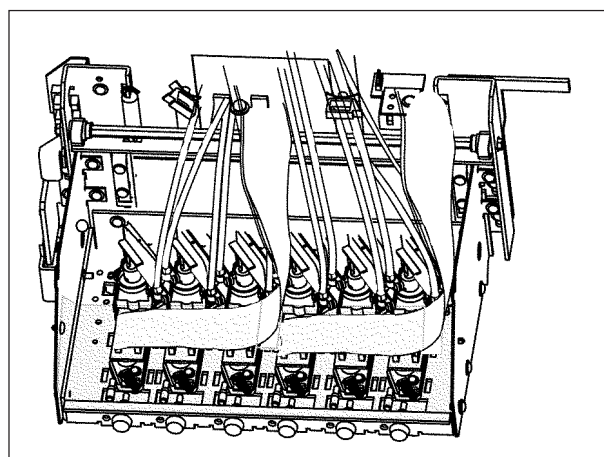
- 6** Remove the GUIDE PLATES of the CABLE BEAR and the CABLE GUIDES. Then, take out the flexible cables from the CABLE BEAR.



- 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.



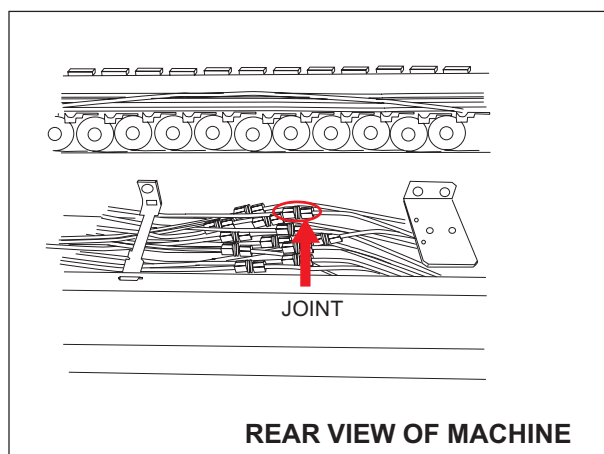
Make sure not to replace the INK TUBEs of different colors at the same time. There is a danger of connecting wrongly when fixing the new ones.



- 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 (Ink Cartridge side) of the JOINTs.



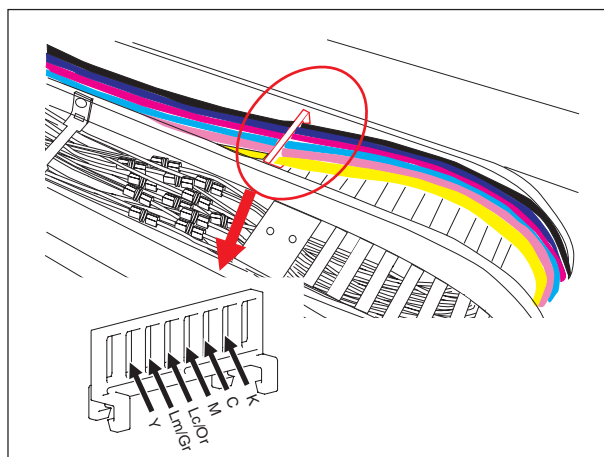
- 9** Pull out the INK TUBEs from the CABLE BEAR.

3

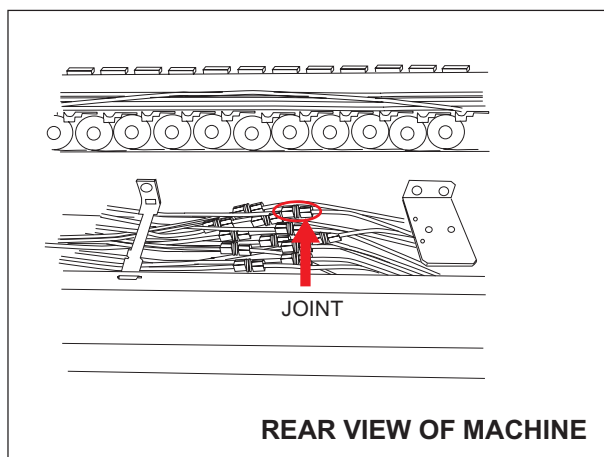
- 10** Put the new INK TUBEs in the CABLE BEAR.



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

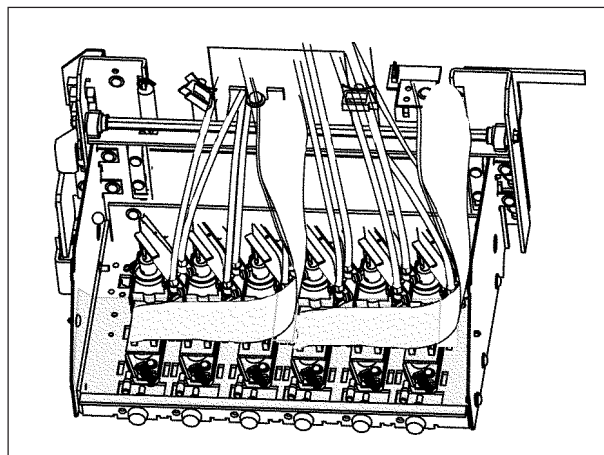


- 11** Connect the new INK TUBEs to the JOINTs, and mark the INK TUBEs to indicate the color of the ink.

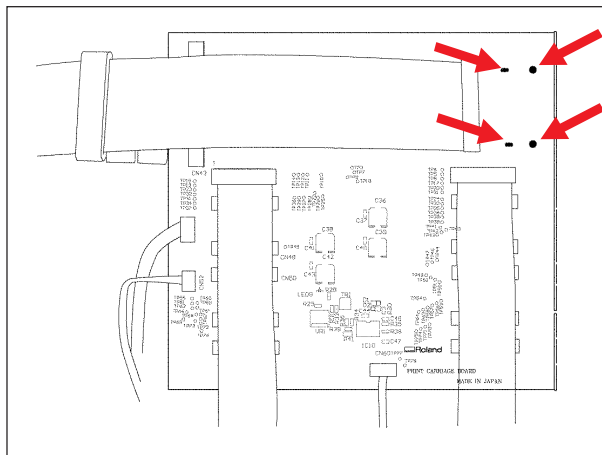


- 12** Cut the INK TUBEs at appropriate length and connect them to the INK DAMPERs. Then mark the INK TUBEs to indicate the color of the ink.

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



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

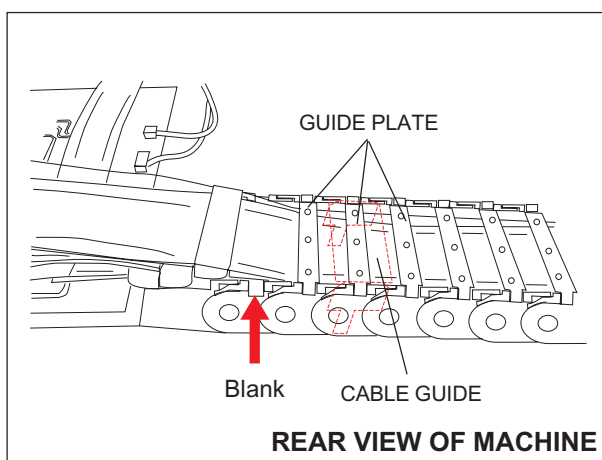


3

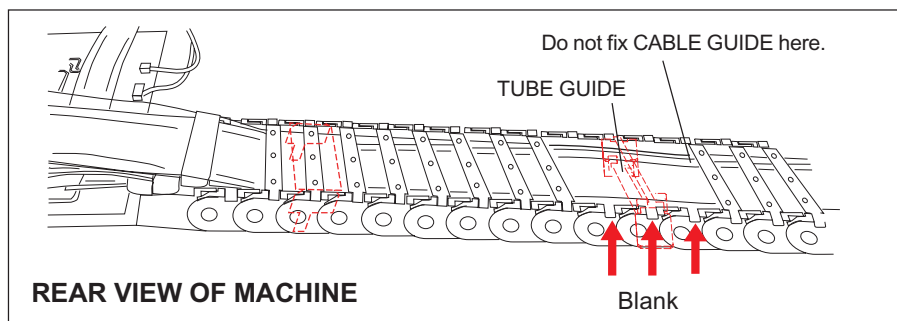
- 14** Put back the GUIDE PLATES and the CABLE GUIDES.

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.

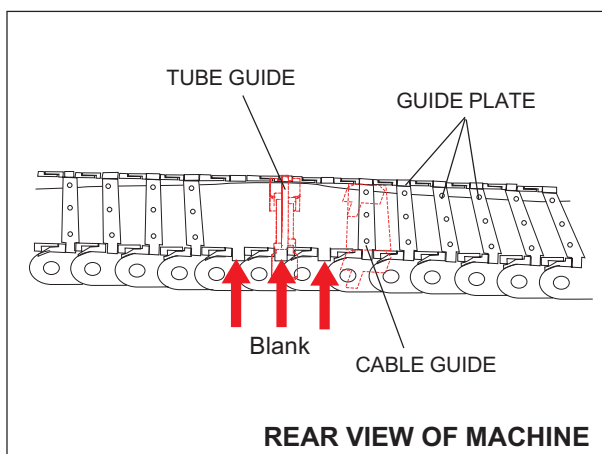


There is a TUBE GUIDE at the 11th position for the GUIDE PLATE. Make the 3 positions for the GUIDE PLATE blank at the TUBE GUIDE.



Make the 3 positions for the GUIDE PLATE blank at the other TUBE GUIDES.

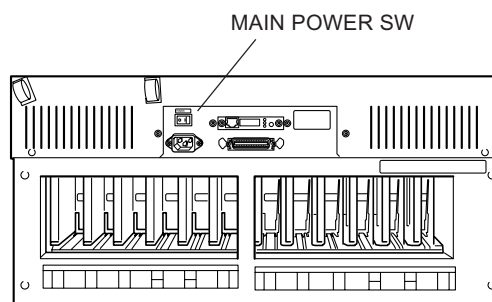
Fix the CABLE GUIDE at the first GUIDE PLATE after the blank.



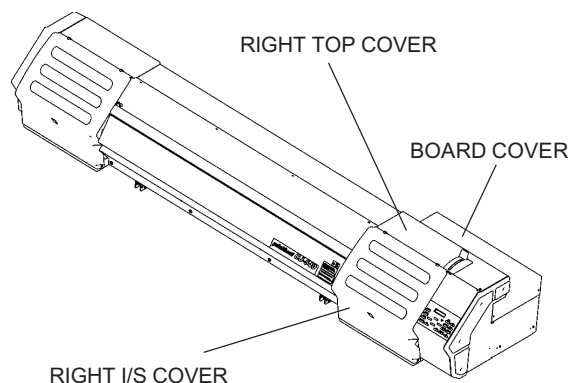
3-8 BOARDS REPLACEMENT (Head / Servo / Network / Main Board / Power Supply Board) **Revised 1**

1 Turn off the MAIN POWER SW.

REAR VIEW

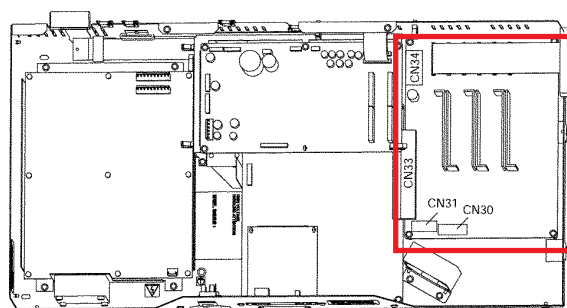


2 Remove the RIGHT TOP COVER, BOARD COVER and RIGHT I/S COVER .

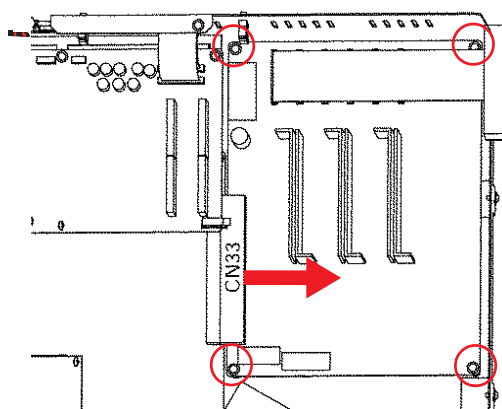


3 HEAD BOARD REPLACEMENT

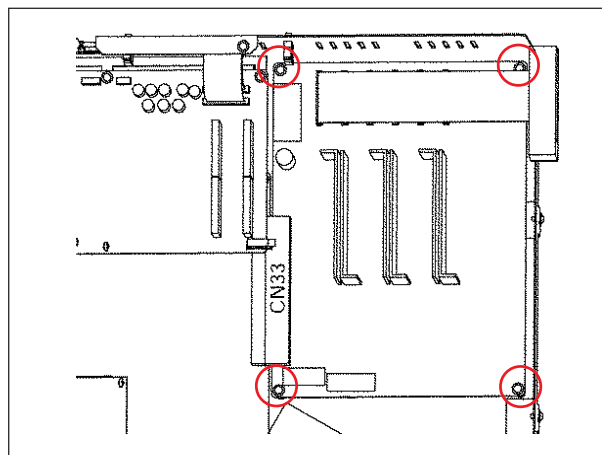
Disconnect the CABLEs from the HEAD BOARD.



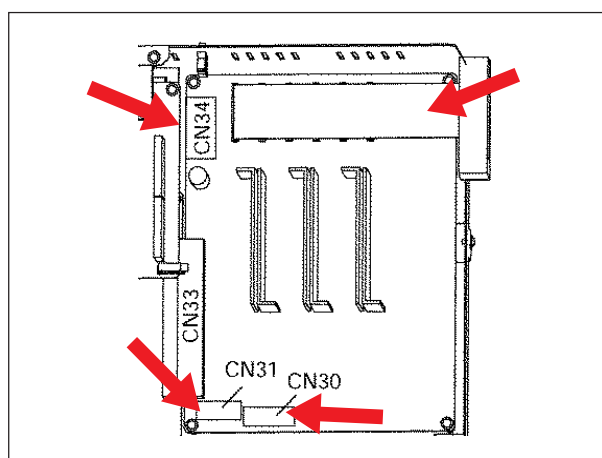
4 Remove the SCREWS and disconnect the CONNECTOR.



- 5** Replace the HEAD BOARD to the new one.



- 6** Connect all the CABLEs to the HEAD BOARD.

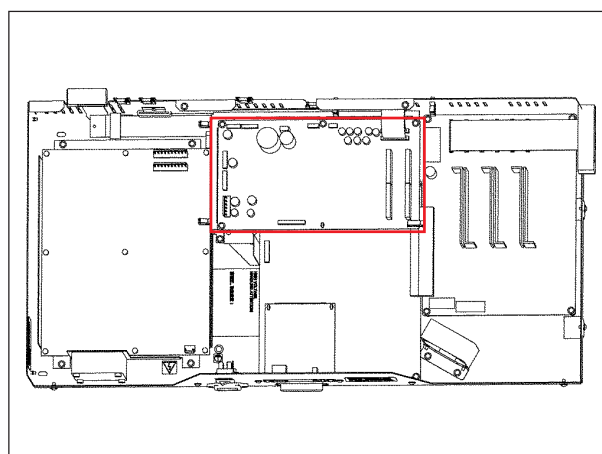


- 7** Carry out the following checks.

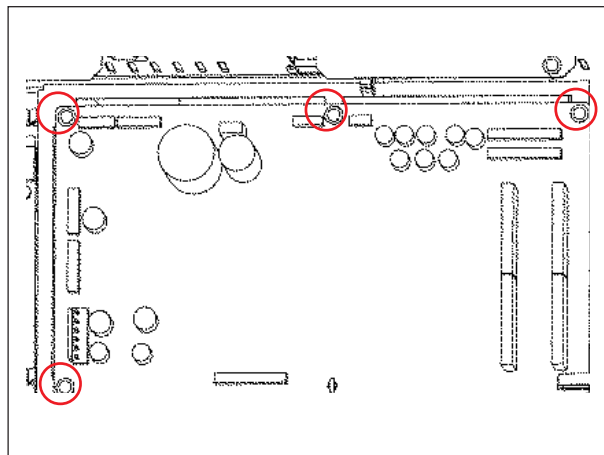
1. THERMISTER CHECK
2. HEAD UP/DOWN SENSOR CHECK
3. FAN ON THE HEAD BOARD CHECK

8 SERVO BOARD REPLACEMENT

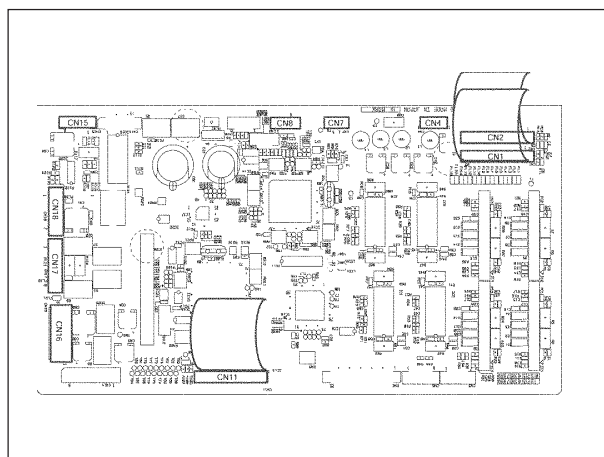
Disconnect all the CABLEs from the SERVO BOARD.



9 Replace the SERVO BOARD to new one.



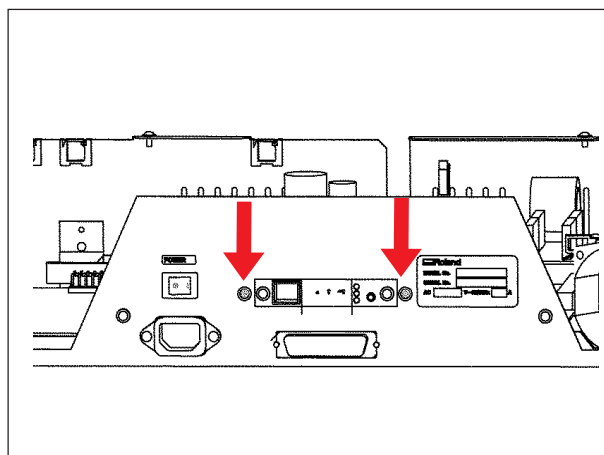
10 Connect all the CABLEs to the SERVO BOARD.



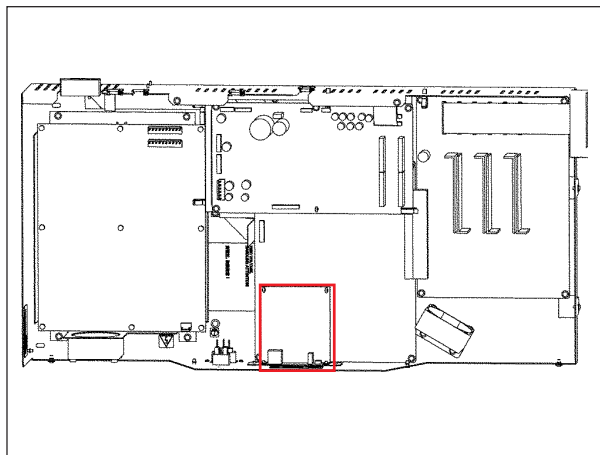
11 Carry out the following adjustments and settings.

1. PINCH ROLLER SENSOR CHECK
2. AGING
3. TOOL PRESSURE ADJUSTMENT
4. CROP MARK SENSOR ADJUSTMENT
5. TOOL/CROP MARK POSITION ADJUSTMENT
6. PRINT/CUT POSITION ADJUSTMENT

12 NETWORK BOARD REPLACEMENT
Remove the 2 SCREWS.

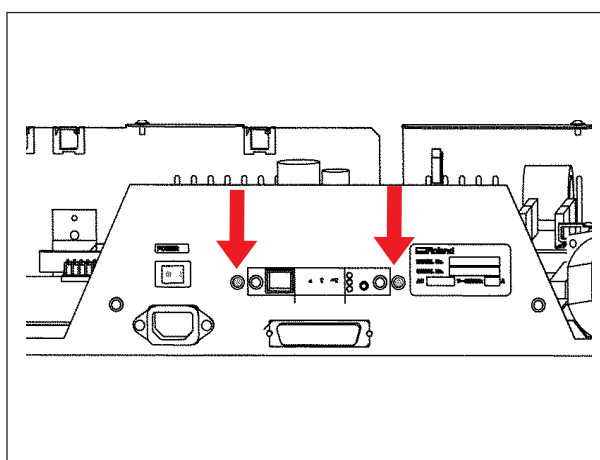


- 13** Disconnect the NETWORK BOARD from the MAIN BOARD.
Replace it to the new one and connect it.



3

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



- 15** Carry out the following adjustments and settings.

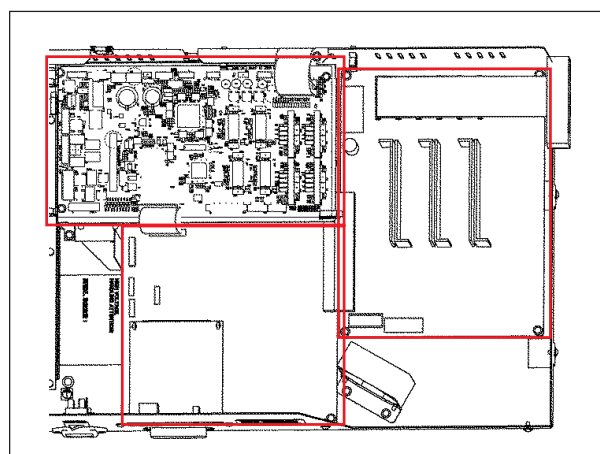
1. FIRMWARE UPGRADE
2. IP ADDRESS SETTING

16 MAIN BOARD REPLACEMENT

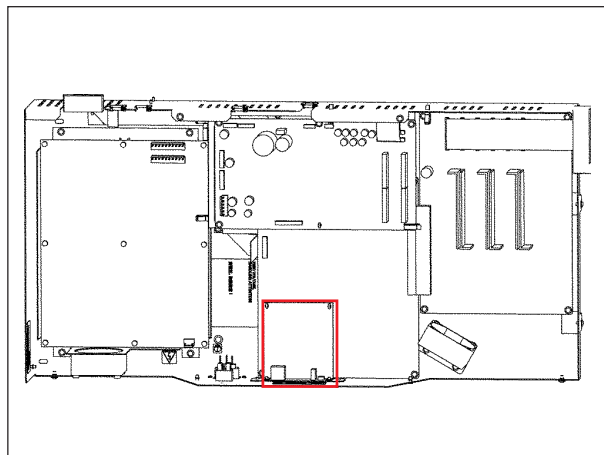
Disconnect all the CABLES which are connected to the MAIN BOARD, SERVO BOARD and HEAD BOARD.



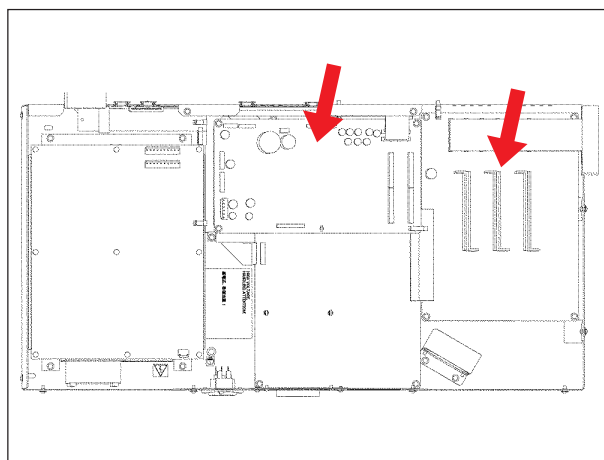
Make sure to print out the SERVICE REPORT or take a note of the HEAD RANK before replacing the MAIN BOARD.
We recommend to use the Service Tool "Peck.exe" to receive the all settings.



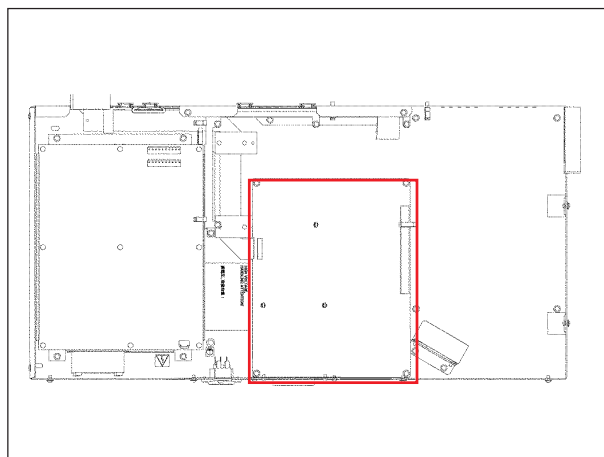
- 17** Remove the NETWORK BOARD.



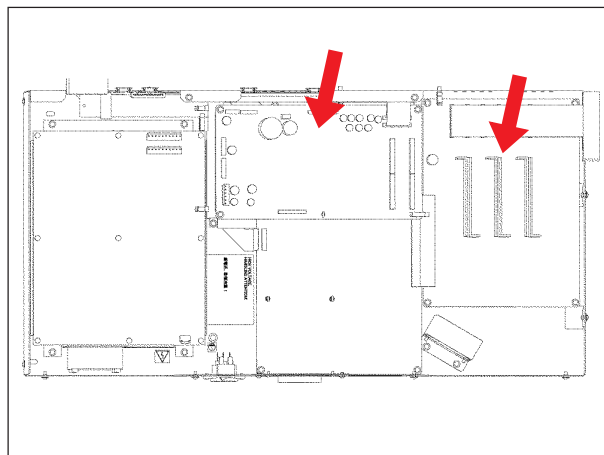
- 18** Remove the SERVO BOARD and HEAD BOARD.



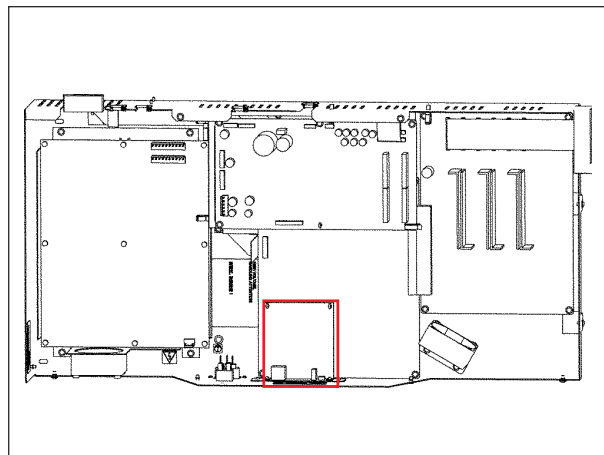
- 19** Replace the MAIN BOARD to the new one.



- 20** Fix the SERVO BOARD and HEAD BOARD.

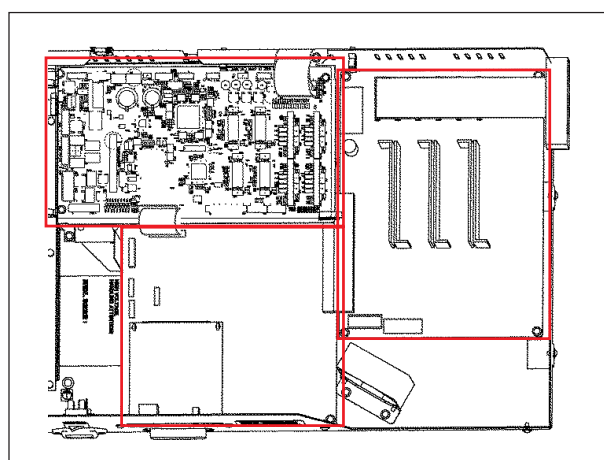


21 Fix the NETWORK BOARD.



3

22 Connect all the CABLES.



23 Carry out the following adjustments and settings.

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 *8
9. SENSOR CHECK

10. LIMIT & CUT DOWN POSITION INITIALIZE
11. LINEAR ENCODER SETUP
12. TOOL PRESSURE ADJUSTMENT *3
13. INK TYPE SETTING
14. HEAD ALIGNMENT
15. CALIBRATION
16. CROP MARK SENSOR ADJUSTMENT
17. TOOL / CROP MARK POSITION ADJUSTMENT
18. PRINT / CUT POSITION ADJUSTMENT

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

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

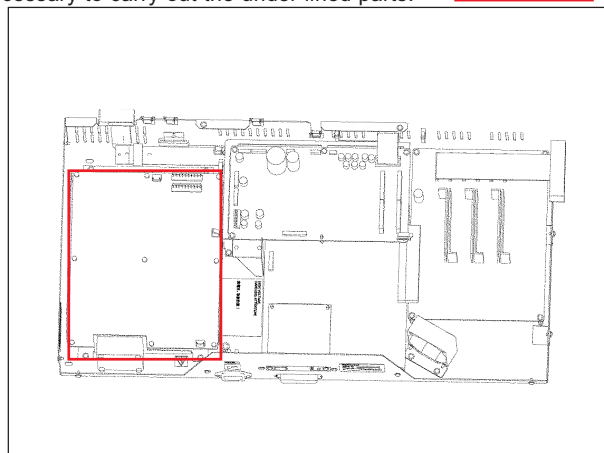
*3 If you can check the value set in the previous Main Board, you can input the value without adjustment.

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

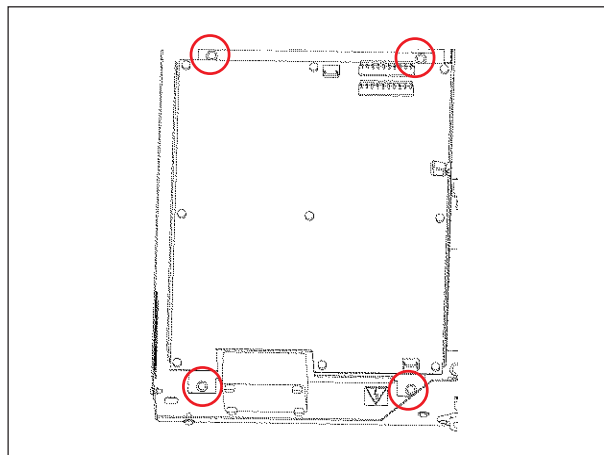
If you use the Peck.exe and receive & send the data, it is not necessary to carry out the under lined parts.

Revised 1

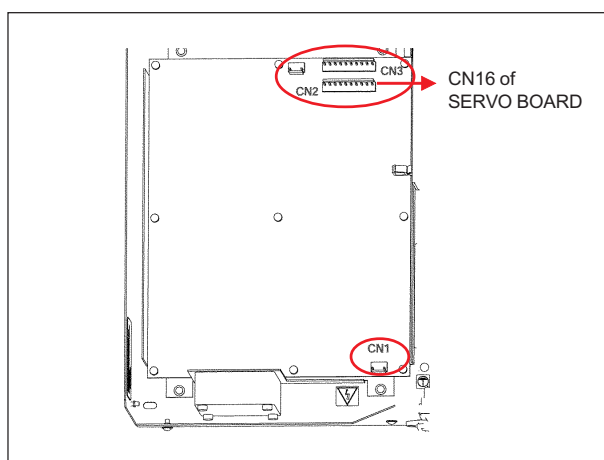
24 **POWER SUPPLY BOARD REPLACEMENT**
Disconnect all the CABLES.



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



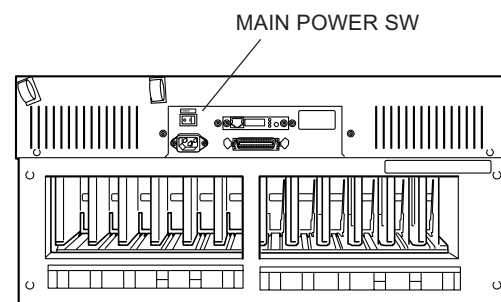
- 26** Connect all the CABLES.



3-9 CARRIAGE WIRE REPLACEMENT

- 1** Turn off the MAIN POWER SW.

REAR VIEW

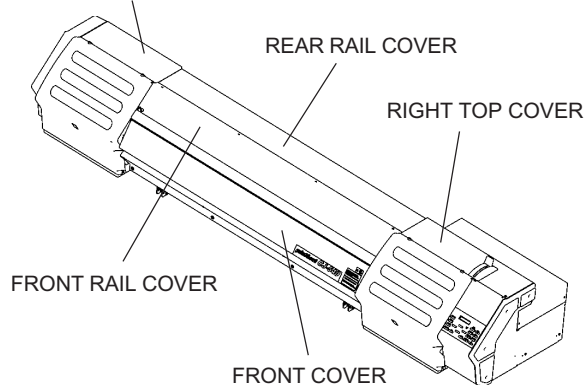


3

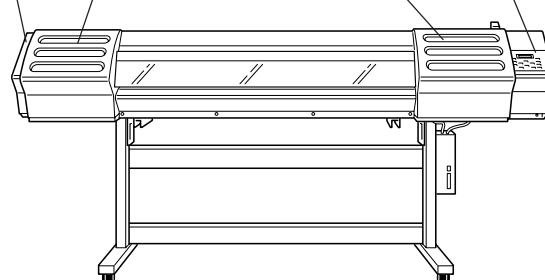
- 2** Remove the following covers.

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

LEFT TOP COVER



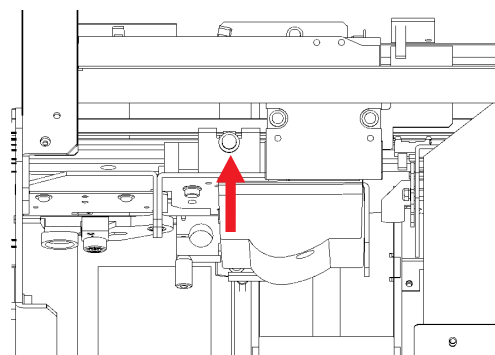
LEFT SIDECOVER **PANEL COVER**
LEFT I/S COVER **RIGHT I/S COVER**



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

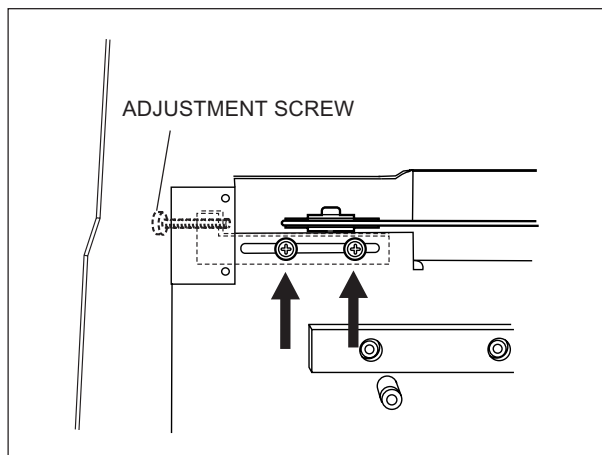
- 3** Loosen the screw fixing the HEAD CARRIAGE to the CARRIAGE WIRE.

TOP VIEW

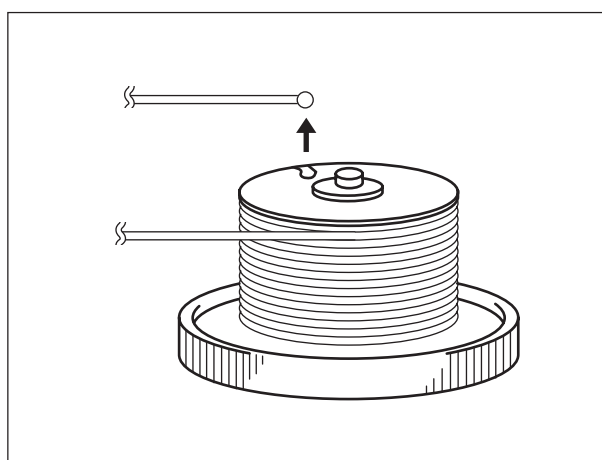


3

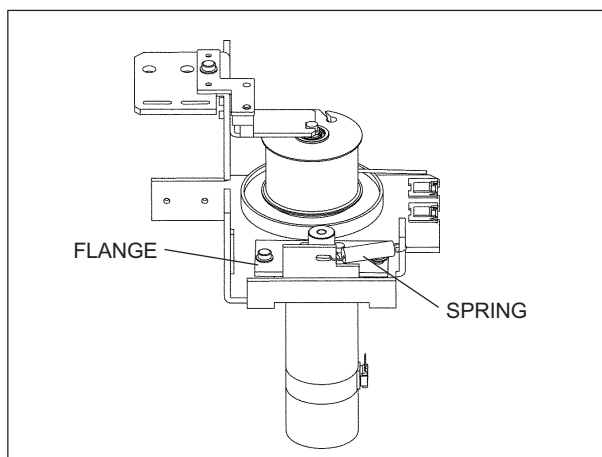
- 4** Loosen the 2 screws and then the ADJUSTMENT SCREW in order to loosen the wire tension.



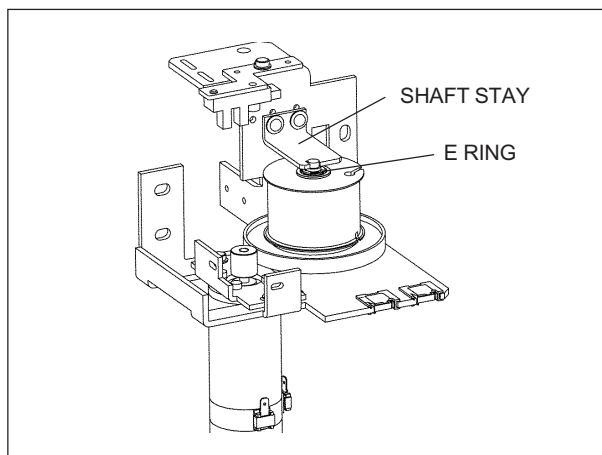
- 5** Remove the CARRIAGE WIRE as shown in the figure.



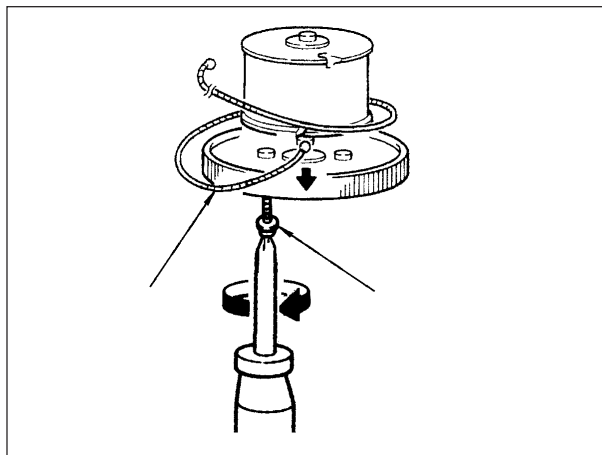
- 6** Loosen the screws fixing the MOTOR FLANGE, then remove the SPRING.



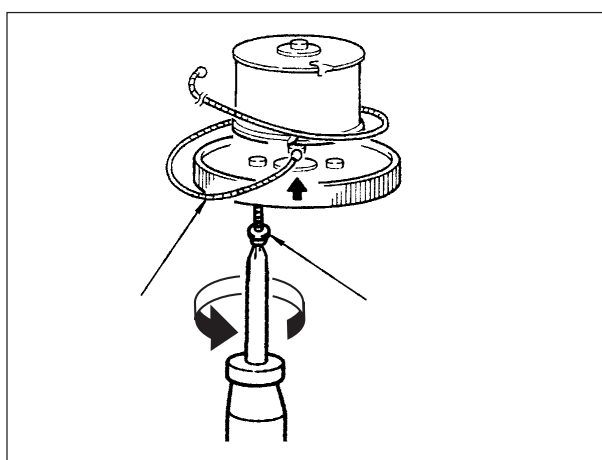
- 7** Remove the SHAFT STAY and the E RING, then remove the DRIVE PULLEY from the shaft.



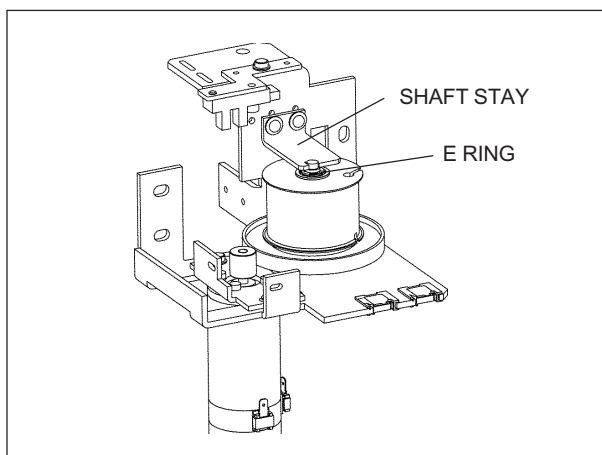
- 8** Remove the screws fixing the DRIVE GEAR and remove the CARRIAGE WIRE from the PULLEY.



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



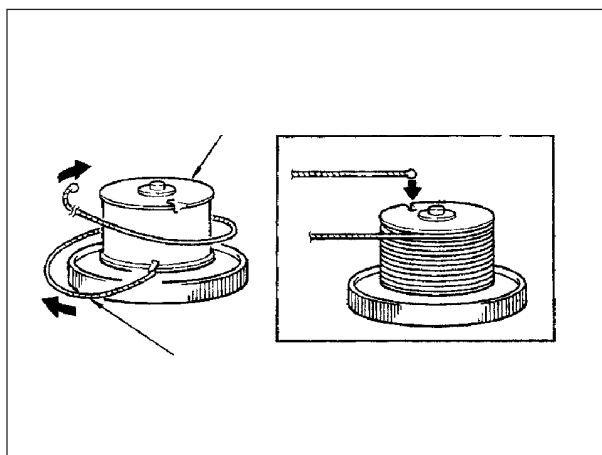
- 10** Put the DRIVE PULLEY into the shaft and fix it with the E RING. Then, fix the SHAFT STAY.



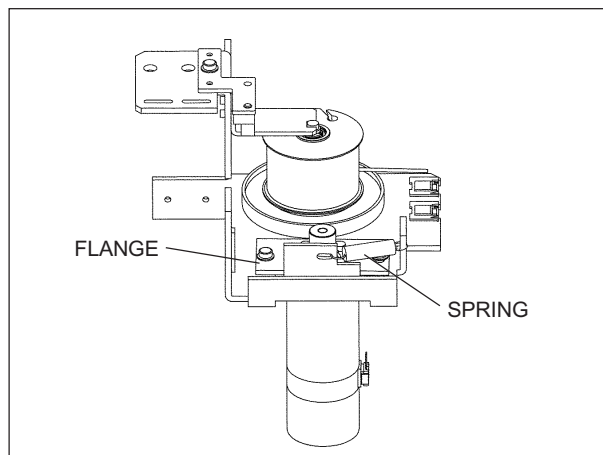
- 11** Wind the CARRIAGE WIRE around the DRIVE PULLEY from bottom to the top, and fix the other end of the WIRE.



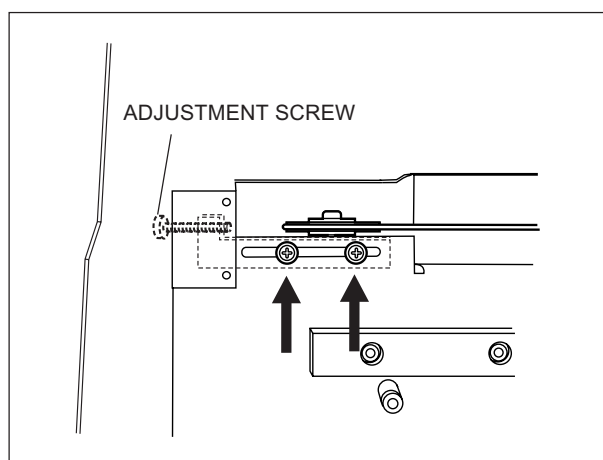
Make sure that the CARRIAGE WIRE does not cross over.



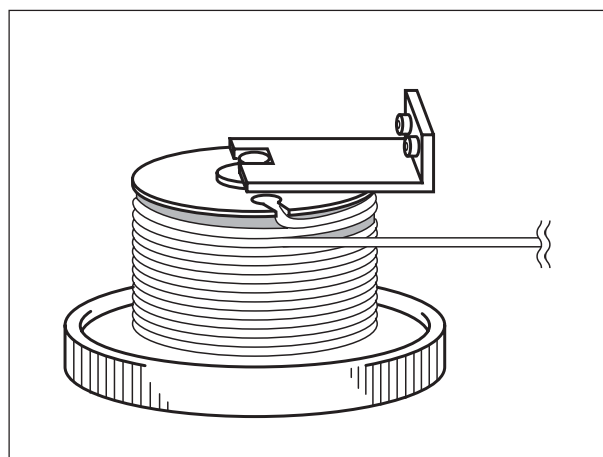
- 12** Fix the SPRING, then tighten up the 2 screws to fix the FLANGE with checking the gears mesh without backlash.



- 13** Tighten the ADJUSTMENT SCREW and remove the slack in the Wire.
Do not tighten it too tightly. **Revised 1**



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

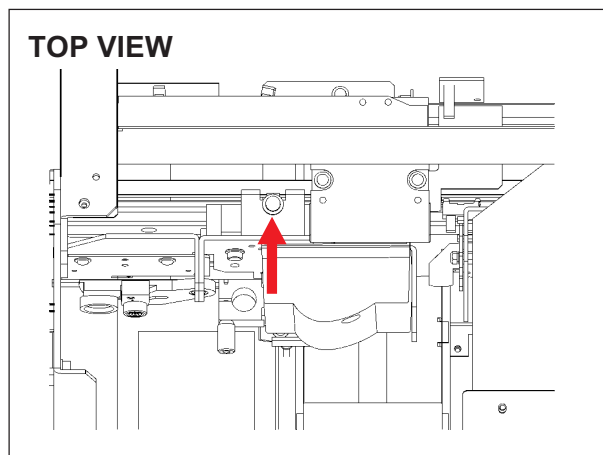


- 15** Fix the HEAD CARRIAGE to the CARRIAGE WIRE.

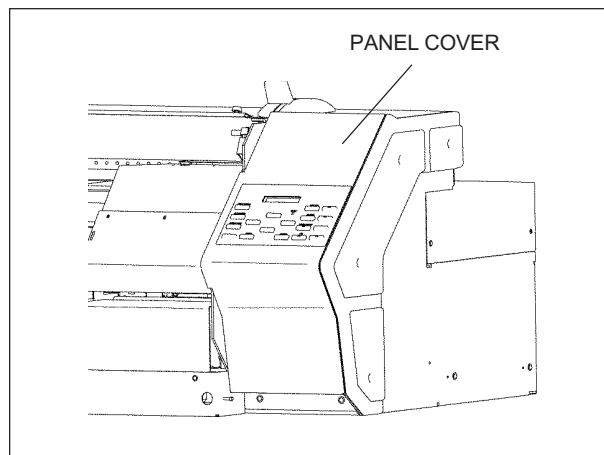


Please make sure that the Tool Carriage is connected with the Printing Carriage and also, Printing Carriage is locked. **Revised 1**

TOP VIEW



- 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.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU	◀▶
SERVICE MENU	▶

- 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.

SERVICE MENU	◀▶
CAP&WIPER CTRL	▶

↓ [▶]

CAP&WIPER CTRL	◀▶
CAP	▶

↓ [▶]

CAP	◀▶
OPEN	↵

↓ [ENTER]

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

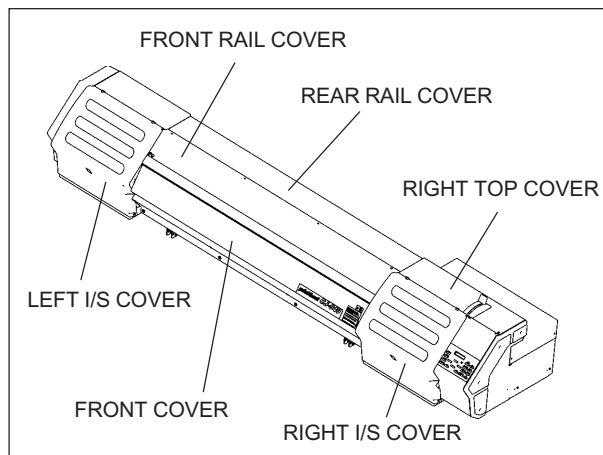
Then, carry out the following adjustments.

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

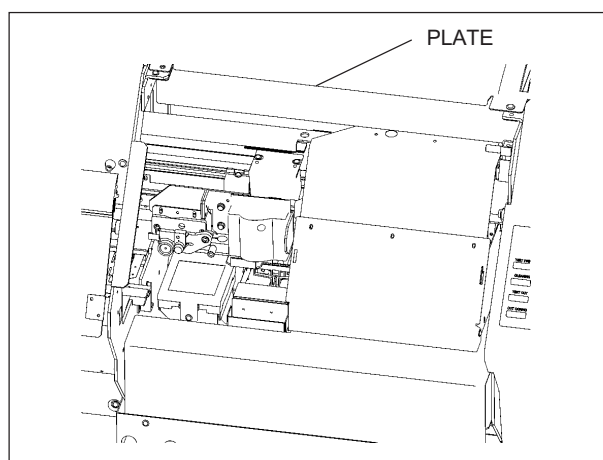
3-10 ENCODER SCALE REPLACEMENT

- 1** Remove the following covers.

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



- 2** Remove the PLATE.



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

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU
SERVICE MENU

- 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.

SERVICE MENU
CAP&WIPER CTRL

[▶]

CAP&WIPER CTRL
CAP

[▶]

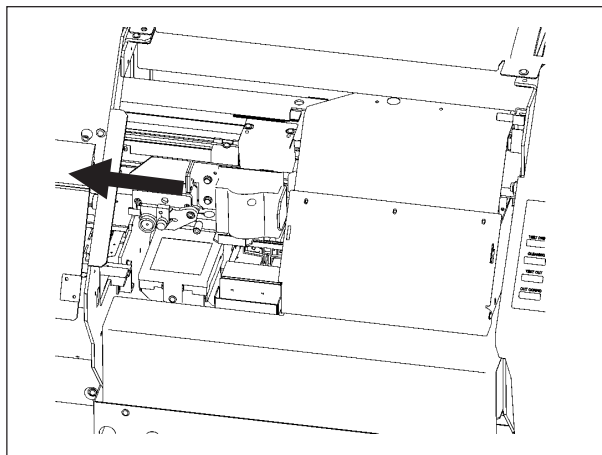
CAP
OPEN

[ENTER]

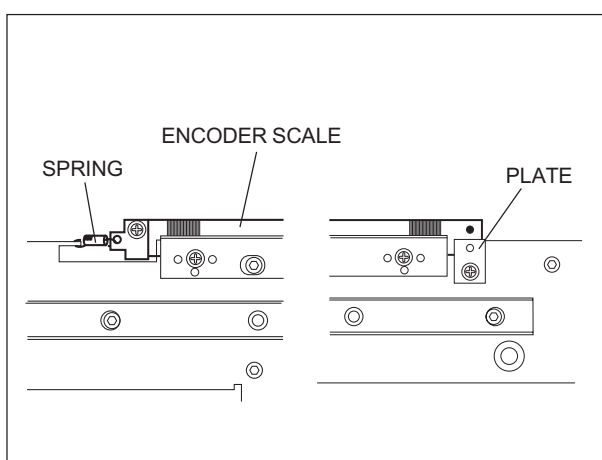
- 5** Move the HEAD CARRIAGE slowly leftwards.



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



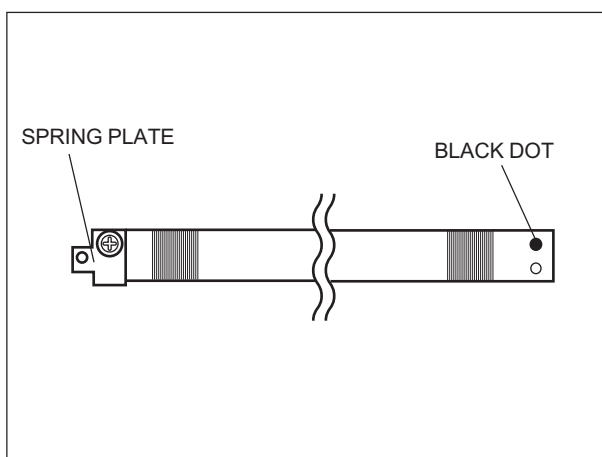
- 6** Remove the ENCODER SCALE by removing the PLATE fixing the ENCODER SCALE at its right end and the SPRING on its left end.



- 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.



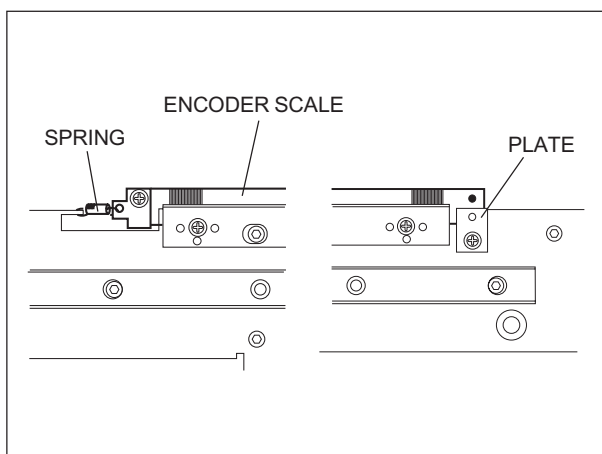
Make sure not make scratches or put grease on the ENCODER SCALE when fixing it.



- 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 is 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

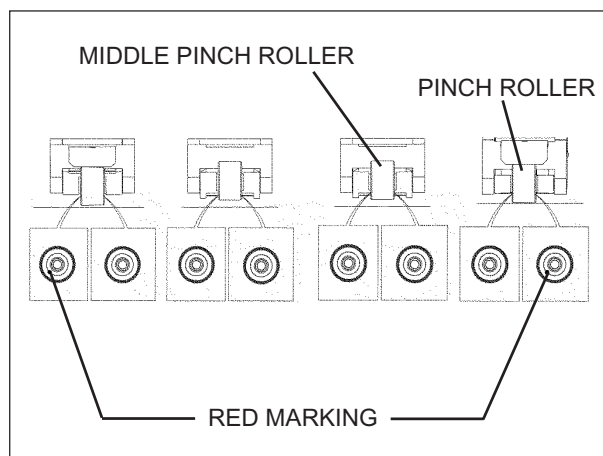
- 10 Carry out the LINEAR ENCODER SETUP.
(LINEAR ENCODER / LINEAR CALIB.)

3-11 PINCH ROLLER REPLACEMENT

- 1 Conical Type is used on both LEFT & RIGHT PINCH ROLLERS and flat type is used for the MIDDLE PINCH ROLLERS.



Red marking is done on the outer side of LEFT & RIGHT PINCH ROLLERS.

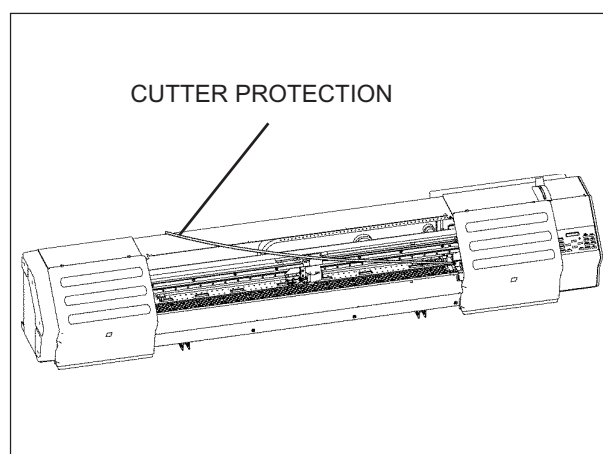


3

3-12 CUTTER PROTECTION REPLACEMENT

- 1 Align the CUTTER PROTECTION fully to the right side of the BED.


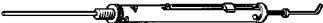
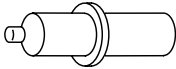

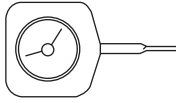

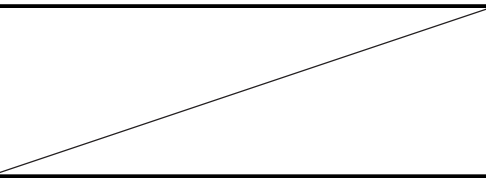
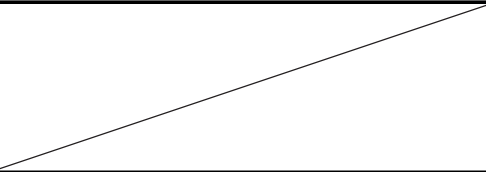
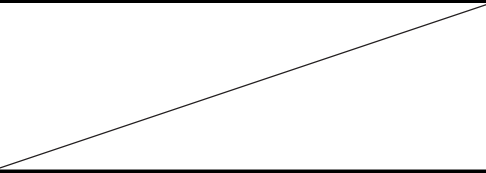
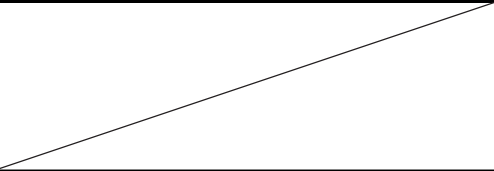
- 2 Make sure that the CUTTER PROTECTION is not bumpy by pressing it with your hand.



4 Adjustment

4-1 Special Tools

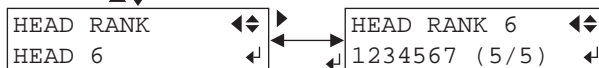
Table shows a list of special tools recommended by Roland DG Corp.

Tool No.	ST-056	
Tool Name	TORQUE DRIVER N6	
Purpose	HEAD ALIGNMENT	
Tool No.	ST-002	
Tool Name	TENSION GAUGE 300g (3N)	
Purpose	TOOL PRESSURE ADJUSTMENT	
Tool No.	ST-006	
Tool Name	WHITE DUMMY PEN	
Purpose	TOOL HEIGHT ADJUSTMENT TOOL PRESSURE ADJUSTMENT	
Tool No.	ST-011	
Tool Name	TENSION METER	
Purpose	WIRE TENSION ADJUSTMENT	
Tool No.	ST-013	
Tool Name	DIAL TENSION METER DT-100 (100g/1N)	
Purpose	TOOL PRESSURE ADJUSTMENT	
Tool No.	ST-037	
Tool Name	CLEAN STICK TX712A	
Purpose	HEAD CLEANING	
Tool No.	21755102	
Tool Name	CLEANING LIQUID, 500ml CJ-70	
Purpose	HEAD CLEANING (PIG/DYE)	
Tool No.	21755107	
Tool Name	CLEANING LIQUID (SL) 500ML	
Purpose	HEAD CLEANING (SOL)	
Tool No.	22085115	
Tool Name	KIT, CLEANING CJ/FJ	
Purpose	HEAD CLEANING (PIG/DYE) * Cleaning Liquid + Cleaning Sticks 10 pcs.	
Tool No.	22085118	
Tool Name	KIT, CLEANING (SL)	
Purpose	HEAD CLEANING (SOL) * Cleaning Liquid + Cleaning Sticks 10 pcs.	

4-2 SERVICE MODE

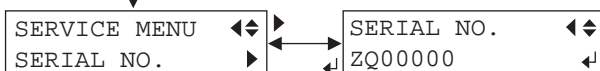
[◀], [▼], [▶] + POWER ON

[MENU] key

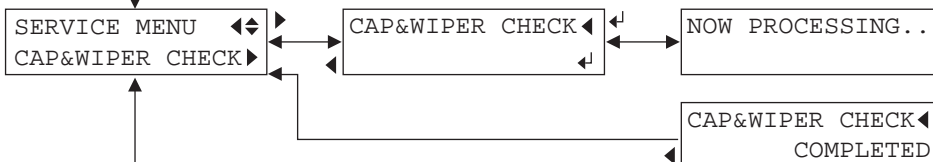


This menu is used for entering the HEAD RANK for each HEAD with 35 digit number and alphabet. The digits can be changed with [◀] and [▶] keys and parameters can be changed with [▲] and [▼] keys. Press the [ENTER] key to save the settings. Warning sound comes out when the CHECK SUM is not correct.

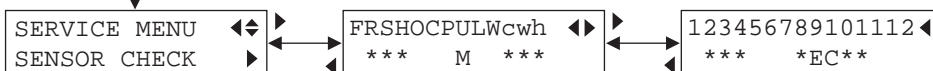
4



This menu is used for entering the Serial No. of the machine. The digits can be changed with [◀] and [▶] keys and parameters can be changed with [▲] and [▼] keys.



This menu is used for checking the CAP & Wiper movement.
1. Move the Carriage to the position where is on the Platen by hand.
2. Press the [ENTER] key to check the Cap, Wiper, Wiper Up/Down, Cap Motor, Cap Sensor, Wiper Motor and Wiper Sensor.
3. Checking finishes when the COMPLETED message appears.



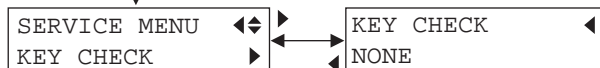
Revised9

This menu displays the status of the sensors. When the sensor is ON, * will be displayed. Alphabet in the menu stands for F: Front Paper Sensor, R: Rear Paper Sensor, S: Crop Mark Sensor, H: Head Origin Sensor, O: Origin Sensor, C: Cover Sensor, P: Pump Cover Sensor, U: Head Height Sensor, L: Sheet Load Sensor, W: Pinch Roller Sensor, c: Cap Sensor, w: Wiper sensor, h: Wiper Height Sensor.

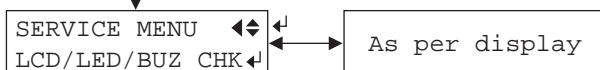
Head Sensor
H: HIGH
M: MIDDLE
L: LOW
Pump Cover Sensor
R: Right Pump Cover is ON.
L: Left Pump Cover is ON.
*: Right & Left Pump Covers are ON.
Blank: Right & Left Pump Covers are OFF.

Alphabet of the 2nd page stands for Cartridge Sensor of each color and Ink Empty.

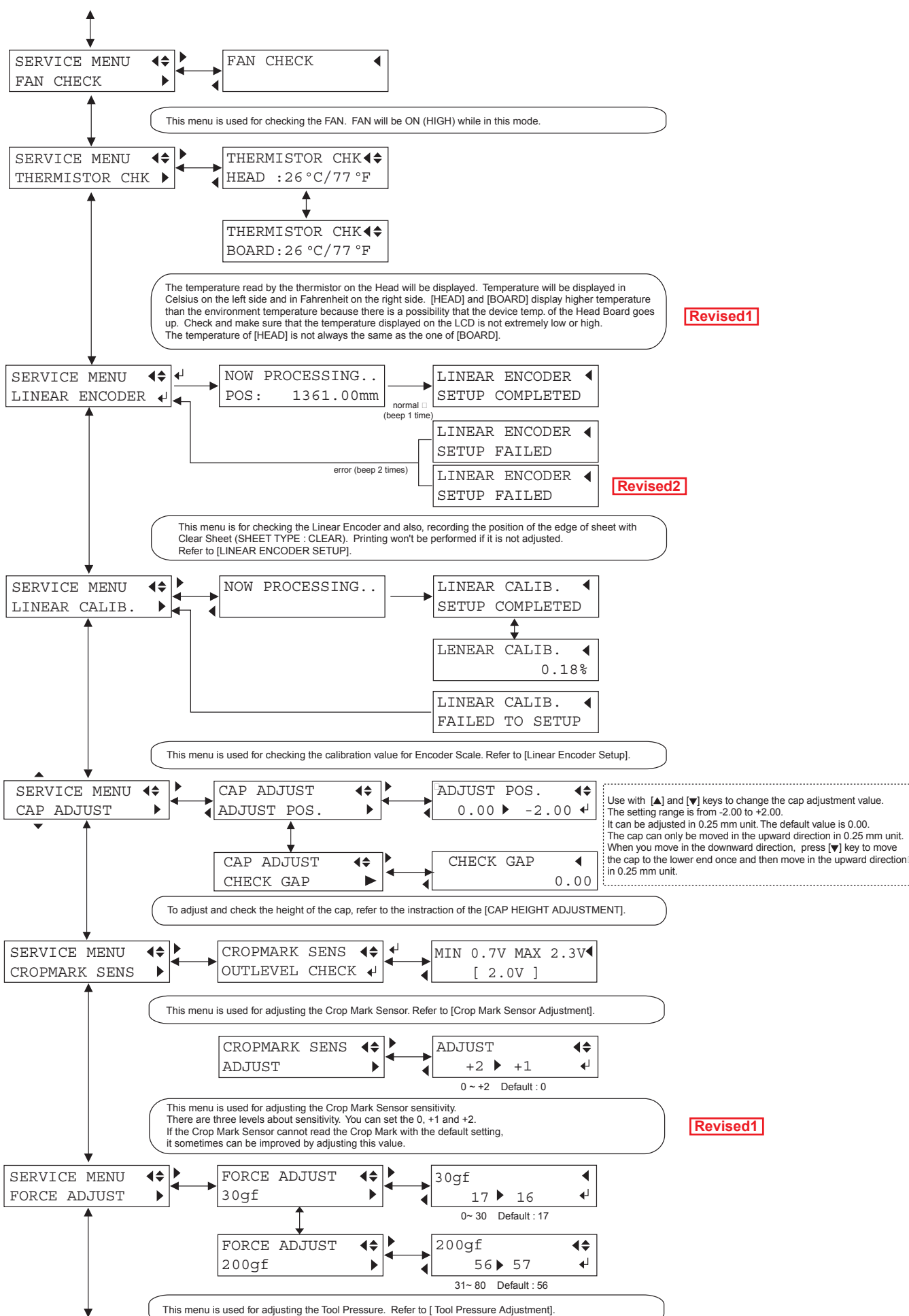
Blank: No Cartridge, Ink remaining
C: Cartridge installed, Ink remaining
E: No Cartridge, Ink empty
*: Cartridge installed, Ink empty

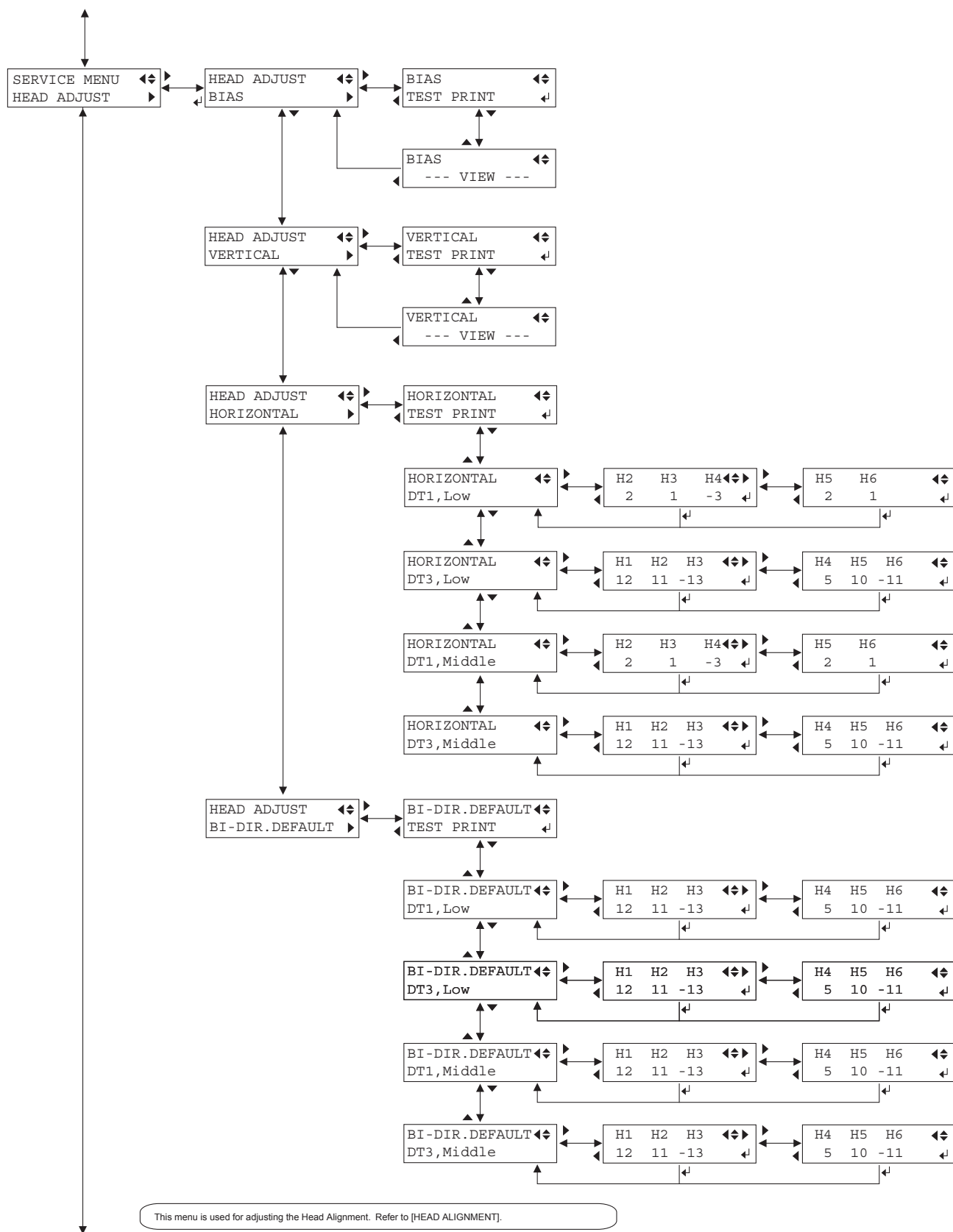


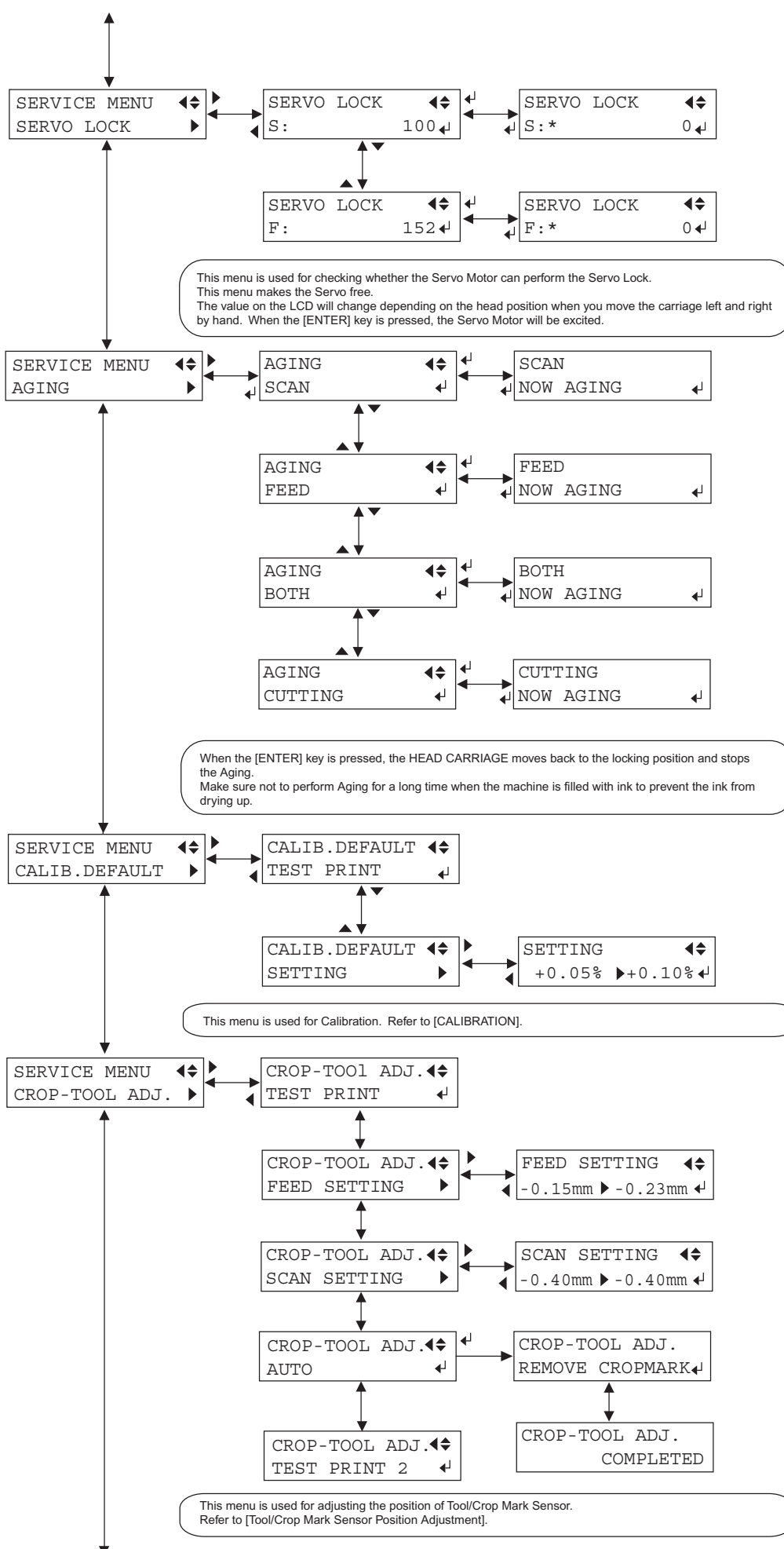
This menu is used for checking the panel keys. [NONE] will be displayed at the bottom row of the LCD if no key is pressed. The name of the key being pressed will be displayed. This menu finishes when the [◀] key is pressed or it is left without pressing any key for 10 seconds. When there is any key that has not been pressed, the name of the key will be indicated with the beep sound. Secondary power cannot be turned off even pressing the SUB POWER SW while in this mode.

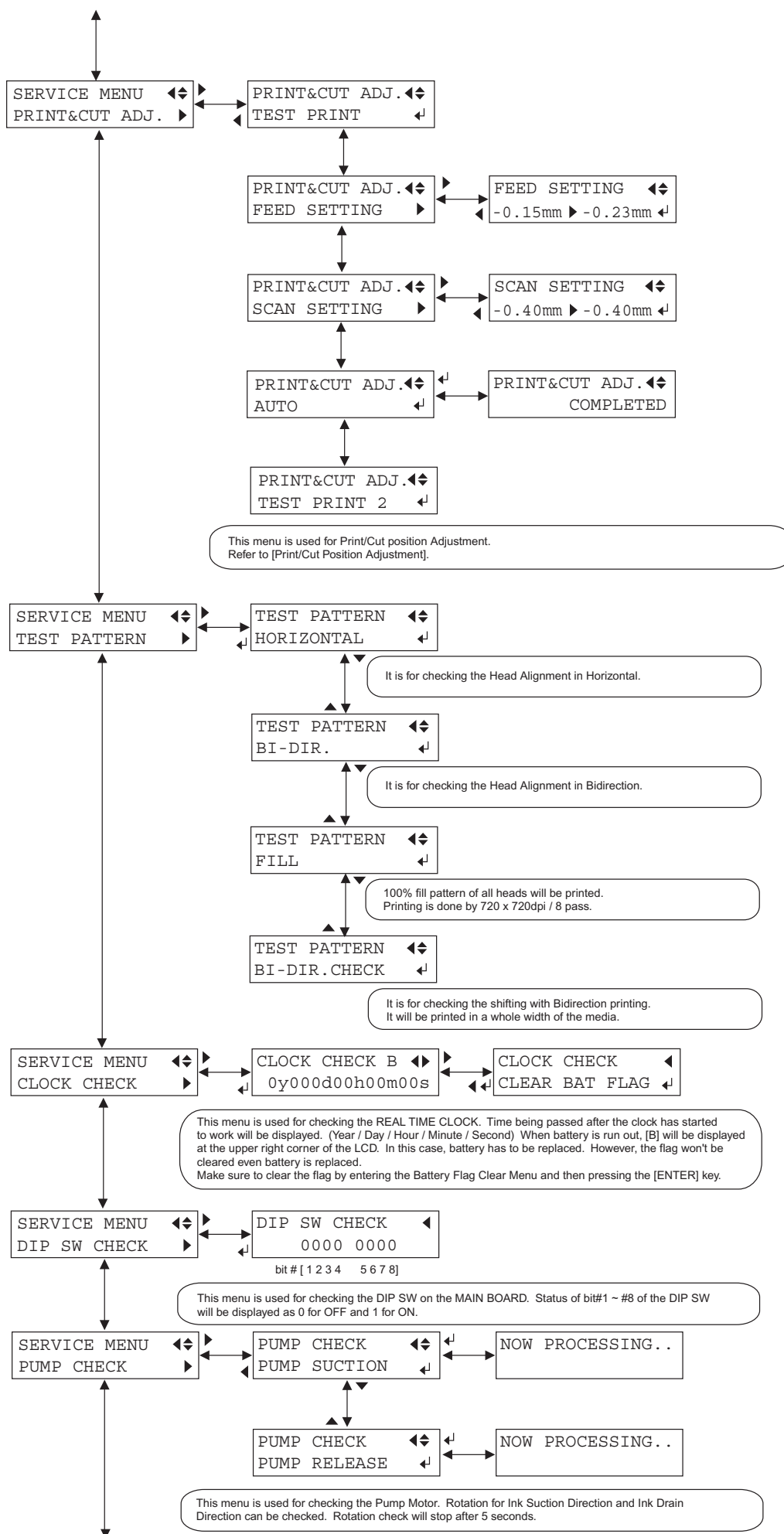


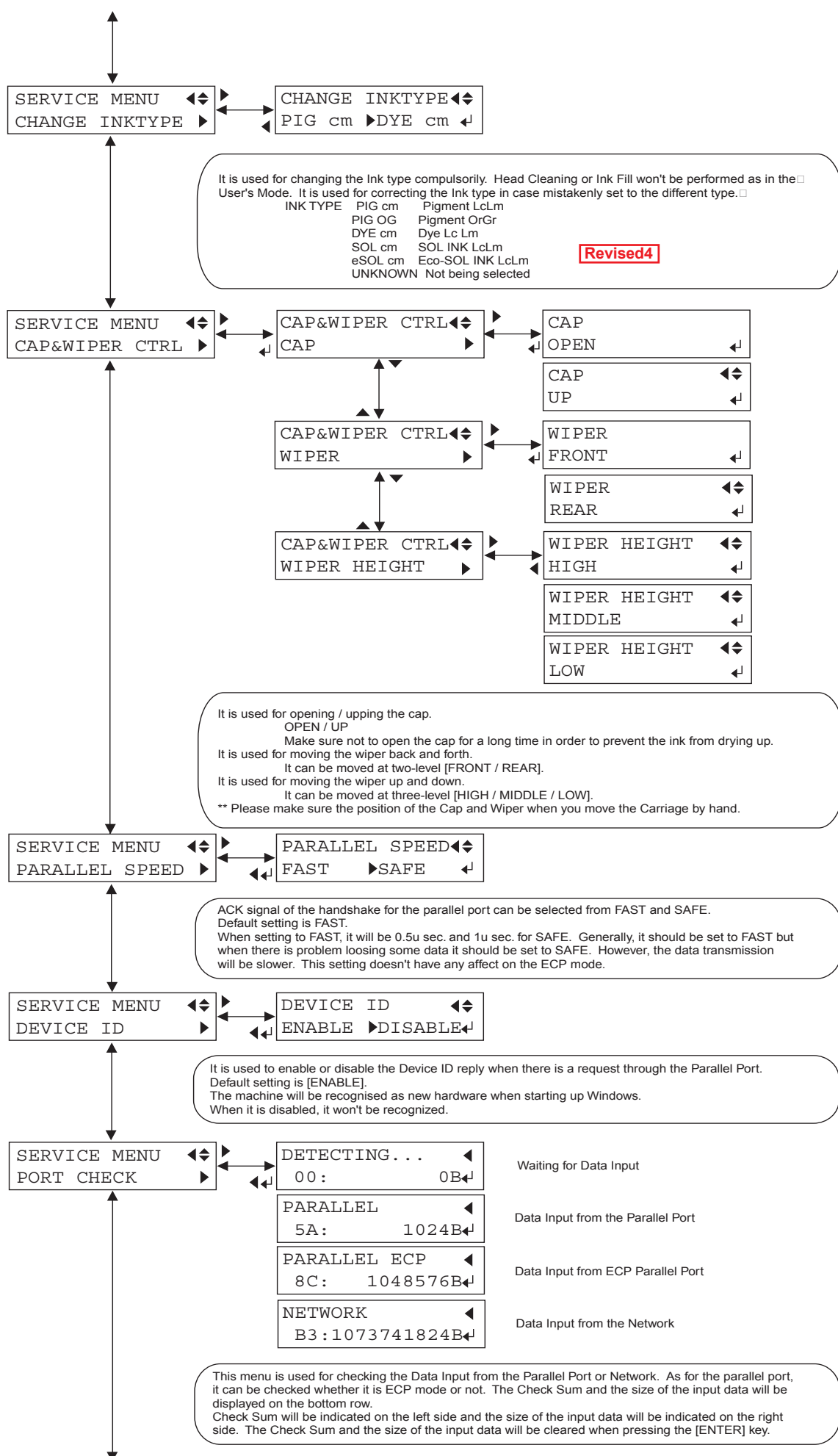
This menu is used for checking the LCD, LED and the Buzzer. While in this mode, the function check of the LCD, LED and the Buzzer can be performed. All turning ON/OFF test of the LED, Contrast ON/OFF test of the LCD, back light test of LCD, Buzzer ON/OFF test, Displaying the Cursor key of the LCD, all characters of LCD will be displayed.













Contents of History Report

MOTOR GROUP

Item	Contents	Unit	Reference
MOTOR HOURS F	Total time that the Feed Motor has been rotated.	hour	
MOTOR HOURS S	Total time that the Scan Motor has been rotated.	hour	
PUMP TIMES A	Number of times that the Pump Motor A has been rotated.	times	
PUMP TIMES B	Number of times that the Pump Motor B has been rotated.	times	
PUMP TIMES C	Number of times that the Pump Motor C has been rotated.	times	
CLEAR ALL	Clear all the value in the Motor Group.		

HEAD GROUP

Item	Contents	Unit	Reference
SHOT COUNT 1	Number of shots fired from the nozzle (H1 left).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 2	Number of shots fired from the nozzle (H1 right).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 3	Number of shots fired from the nozzle (H2 left).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 4	Number of shots fired from the nozzle (H2 right).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 5	Number of shots fired from the nozzle (H3 left).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 6	Number of shots fired from the nozzle (H3 right).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 7	Number of shots fired from the nozzle (H4 left).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 8	Number of shots fired from the nozzle (H4 right).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 9	Number of shots fired from the nozzle (H5 left).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 10	Number of shots fired from the nozzle (H5 right).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 11	Number of shots fired from the nozzle (H6 left).	Shots/1000	Life : 6 billion Shots / nozzle
SHOT COUNT 12	Number of shots fired from the nozzle (H6 right).	Shots/1000	Life : 6 billion Shots / nozzle
WIPE H1	Number of times the Wiping has been performed (H1).	times	
WIPE H2	Number of times the Wiping has been performed (H2).	times	
WIPE H3	Number of times the Wiping has been performed (H3).	times	
WIPE H4	Number of times the Wiping has been performed (H4).	times	
WIPE H5	Number of times the Wiping has been performed (H5).	times	
WIPE H6	Number of times the Wiping has been performed (H6).	times	
RUB H1	Number of times the Rubbing has been performed (H1).	times	
RUB H2	Number of times the Rubbing has been performed (H2).	times	
RUB H3	Number of times the Rubbing has been performed (H3).	times	
RUB H4	Number of times the Rubbing has been performed (H4).	times	
RUB H5	Number of times the Rubbing has been performed (H5).	times	
RUB H6	Number of times the Rubbing has been performed (H6).	times	
CLEAN AUTO H1	Number of times the Auto Head Cleaning has been performed (H1).	times	
CLEAN AUTO H2	Number of times the Auto Head Cleaning has been performed (H2).	times	
CLEAN AUTO H3	Number of times the Auto Head Cleaning has been performed (H3).	times	
CLEAN AUTO H4	Number of times the Auto Head Cleaning has been performed (H4).	times	
CLEAN AUTO H5	Number of times the Auto Head Cleaning has been performed (H5).	times	
CLEAN AUTO H6	Number of times the Auto Head Cleaning has been performed (H6).	times	
CLEAN N, H1	Number of times the Normal Head Cleaning has been performed (H1).	times	
CLEAN N, H2	Number of times the Normal Head Cleaning has been performed (H2).	times	
CLEAN N, H3	Number of times the Normal Head Cleaning has been performed (H3).	times	
CLEAN N, H4	Number of times the Normal Head Cleaning has been performed (H4).	times	
CLEAN N, H5	Number of times the Normal Head Cleaning has been performed (H5).	times	
CLEAN N, H6	Number of times the Normal Head Cleaning has been performed (H6).	times	
CLEAN M, H1	Number of times the Medium Head Cleaning has been performed (H1).	times	
CLEAN M, H2	Number of times the Medium Head Cleaning has been performed (H2).	times	
CLEAN M, H3	Number of times the Medium Head Cleaning has been performed (H3).	times	
CLEAN M, H4	Number of times the Medium Head Cleaning has been performed (H4).	times	
CLEAN M, H5	Number of times the Medium Head Cleaning has been performed (H5).	times	
CLEAN M, H6	Number of times the Medium Head Cleaning has been performed (H6).	times	
CLEAN POW, H1	Number of times the Powerful Head Cleaning has been performed (H1).	times	
CLEAN POW, H2	Number of times the Powerful Head Cleaning has been performed (H2).	times	
CLEAN POW, H3	Number of times the Powerful Head Cleaning has been performed (H3).	times	
CLEAN POW, H4	Number of times the Powerful Head Cleaning has been performed (H4).	times	
CLEAN POW, H5	Number of times the Powerful Head Cleaning has been performed (H5).	times	
CLEAN POW, H6	Number of times the Powerful Head Cleaning has been performed (H6).	times	
FILL INK H1	Number of times the Fill Ink has been performed (H1).	times	
FILL INK H2	Number of times the Fill Ink has been performed (H2).	times	
FILL INK H3	Number of times the Fill Ink has been performed (H3).	times	
FILL INK H4	Number of times the Fill Ink has been performed (H4).	times	
FILL INK H5	Number of times the Fill Ink has been performed (H5).	times	
FILL INK H6	Number of times the Fill Ink has been performed (H6).	times	
HEAD WASH H1	Number of times the Head Wash has been performed (H1).	times	
HEAD WASH H2	Number of times the Head Wash has been performed (H2).	times	
HEAD WASH H3	Number of times the Head Wash has been performed (H3).	times	
HEAD WASH H4	Number of times the Head Wash has been performed (H4).	times	
HEAD WASH H5	Number of times the Head Wash has been performed (H5).	times	
HEAD WASH H6	Number of times the Head Wash has been performed (H6).	times	
PUMP UP H1	Number of times the Pump Up has been performed (H1).	times	
PUMP UP H2	Number of times the Pump Up has been performed (H2).	times	
PUMP UP H3	Number of times the Pump Up has been performed (H3).	times	
PUMP UP H4	Number of times the Pump Up has been performed (H4).	times	
PUMP UP H5	Number of times the Pump Up has been performed (H5).	times	
PUMP UP H6	Number of times the Pump Up has been performed (H6).	times	
CLEAR H1	Clear all the value of the H1.		
CLEAR H2	Clear all the value of the H2.		
CLEAR H3	Clear all the value of the H3.		
CLEAR H4	Clear all the value of the H4.		
CLEAR H5	Clear all the value of the H5.		
CLEAR H6	Clear all the value of the H6.		
CLEAR ALL	Clear all the value of all the Head.		

MAINTENANCE GROUP

Item	Contents	Unit	Reference
COUNT	Number of times the Head Maintenance has been performed.	times	
TOTAL TIME	Lapsed time from the last Head Maintenance.	hours	This value is cleared automatically after carrying out the Head Maintenance.
PRINTING TIME	Printing time from the last Head Maintenance.	hours	This value is cleared automatically after carrying out the Head Maintenance.
CLEAR ALL	Clear all the value in the MAINTENANCE GROUP.		

WIPE GROUP

Item	Contents	Unit	Reference
WIPING COUNT	Number of times the Wiping has been performed.	times	This value is cleared automatically after replacing it.
RUBBING COUNT	Number of times the Rubbing has been performed.	times	This value is cleared automatically after replacing it.
WIPE REPLACE	Number of times the Wipe has been replaced.	times	
CLEAR ALL	Clear all the value in the WIPE GROUP.		

PRINT GROUP

Item	Contents	Unit	Reference
PRINTING TIME	Total time of printing performed.	hours	Time of the Test print is not included.
PIGMENT PAGES	Number of pages printed with Pigment Ink.	pages	
DYE PAGES	Number of pages printed with Dye Based Ink.	pages	
SOL PAGES	Number of pages printed with Sol Ink.	pages	
ECO-SOL PAGES	Number of pages printed with Eco-Sol Ink.	pages	
HEAD LOW	Number of pages printed when the Head height is Low.	pages	
HEAD MIDDLE	Number of pages printed when the Head height is Middle.	pages	
HEAD HIGH	Number of pages printed when the Head height is High.	pages	
CLEAR ALL	Clear all the value in the PRINT GROUP.		

CUTTING GROUP

Item	Contents	Unit	Reference
CUTTING TIME	Total time of cutting performed.	hours	Time of the Test print is not included.
CLEAR ALL	Clear all the value in the CUTTING GROUP.	pages	

INK GROUP

Item	Contents	Unit	Reference
CARTRIDGE 1	Number of times the Ink Cartridge 1 has been changed.	times	
CARTRIDGE 2	Number of times the Ink Cartridge 2 has been changed.	times	
CARTRIDGE 3	Number of times the Ink Cartridge 3 has been changed.	times	
CARTRIDGE 4	Number of times the Ink Cartridge 4 has been changed.	times	
CARTRIDGE 5	Number of times the Ink Cartridge 5 has been changed.	times	
CARTRIDGE 6	Number of times the Ink Cartridge 6 has been changed.	times	
CARTRIDGE 7	Number of times the Ink Cartridge 7 has been changed.	times	
CARTRIDGE 8	Number of times the Ink Cartridge 8 has been changed.	times	
CARTRIDGE 9	Number of times the Ink Cartridge 9 has been changed.	times	
CARTRIDGE 10	Number of times the Ink Cartridge 10 has been changed.	times	
CARTRIDGE 11	Number of times the Ink Cartridge 11 has been changed.	times	
CARTRIDGE 12	Number of times the Ink Cartridge 12 has been changed.	times	
CHANGE INK	Number of times the Ink Type has been changed.	times	
CLEAR ALL	Clear all the value in the INK GROUP.		

ERROR GROUP

Item	Contents	Unit	Reference
SERVICE CALL	Number of times the Service Call has occurred.	times	
S-CALL HISTORY	Service Call Number in the last 5 times.	No.	
SERVO ERROR F	Number of times the Servo Error (Feed Motor) has occurred.	times	
SERVO ERROR S	Number of times the Servo Error (Scan Motor) has occurred.	times	
LOW TEMP.ERR.	Number of times the Low Temperature Error has occurred.	times	
HIGH TEMP.ERR.	Number of times the High Temperature Error has occurred.	times	
PROTECT PUMP	Number of times the Protect Pump Error has occurred.	times	
EMERG. CAPPING	Number of times the Emergency Capping Error has occurred.	times	Number of times it is capped compulsorily to protect the head from drying up when the head is out of the cap more than 10 min..
START UNCAPPED	Number of times the machine starts with the uncapped.	times	
CLEAR ALL	Clear all the value in the ERROR GROUP.		

SYSTEM GROUP

Item	Contents	Unit	Reference
POWER ON COUNT	Number of times being powered on.	times	
POWER ON TIME	Total times that the machine has been on.	hours	Sleep time is not included.
SLEEP TIME	Total times that the machine has been in sleep mode.	hours	
SHEETCUT COUNT	Number of times the Sheet Cut has been performed,	times	It counts Auto Sheet Cut performed
CLEAR ALL	Clear all the value in the SYSTEM GROUP.		

Service Report

Roland SOL JET PRO II series

Model	: SC-540	Menu unit	: mm
Version	: 2.30	Menu language	: English
Serial No.	: ZQ10101	Head Temperature	: 24 °C / 75.2 °F
Sheet type	: Opaque	On Board Temperature	: 30 °C / 86.0 °F
Empty mode	: Stop	Ink remain (1-6)	: 99 / 98 / 99 / 99 / 99 / 98
Ink type	: SOL INK LcLm	Ink remain (7-12)	: 99 / 98 / 99 / 99 / 99 / 98
Calibration	: +0.20%	Head height	: MIDDLE
Revised2 Full width scanning	: DISABLE	Periodic cleaning	: ENABLE
	: H 1 H2 H3 H4 H5 H6		
Bi-dir. adjust No.1	: -6 -5 -5.5 -5.5 -3 -4		
No.2	: -4 -3 -3 -3.5 -3 -2.5		
No.3	: -5 -4.5 -5 -4 -3 -4		
No.4	: -4 -3 -3 -3.5 -3 -3		
Tool Parameter	:	Cutting calib. (F/S)	: 0.00/ 0.00 %
Force	: 120 gf	Print-cut adjust (F/S)	: -0.08/ +0.23 %
Velocity	: 20 cm/s	Cutting priority	: COMMAND
Offset	: 0.250 mm	Prefeed	: DISABLE
Up Velocity	: 20 cm/s		

4

Service Report

Head rank H1	:	5CY2F2FVWU0UVQS	30S.	. D			
H2	:	5E0252FTZVZUVQR	005.	. D			
H3	:	5FZ282FUZW0UTSS	00G.	. D			
H4	:	5DV2E2CXVWWTUPR	304.	. D			
H5	:	6AV2E2CRWTVXVURS	00E.	. D			
H6	:	61W2F31UXVYUTRU	00A.	. D			
	:	H 1	H2	H3	H4	H5	H6
Head hori. (DT1. Low)	:		- 3	+4	+2	+6	+2
(DT1. Middle)	:		- 3	+5	+3	+7	+2
Head bi (DT1.Low)	:	+18	+17	+16	+18	+16	+16
(DT3. Low)	:	+16	+16	+15	+15	+15	+15
(DT1. Middle)	:	+27	+27	+27	+28	+25	+26
(DT3. Middle)	:	+24.5	+25	+24	+26	+24	+24
Dip SW	:	01000000	Sleep	:	15 min		
System SW	page1 :	00000000	Parallel speed	:	FAST		
	page2 :	00000000	Device ID	:	ENABLE		
	page3 :	00000000	Maintenance request	:	NONE		
	page4 :	00000000	Booter version	:	1.00		
Limit position	:	7.6 mm	Battery	:	Charged		
Cutter down position	:	2050.2 mm	Periodic CL. interval	:	360.0		
Calibration default	:	-0.10 %	Periodic CL. degree	:	LIGHT		
Encoder position (L)	:	1639.6 mm					
Encoder position (R)	:	268.0 mm	Force adjust 30gf	:	30		
			Force adjust 200gf	:	77		
Environment match	:	+ 0.045%	Crop-tool adjust (F/S)	:	+1.18/ +0.32 m		
Encoder calibration	:	+ 0.068%	Print-cut adjust (F/S)	:	+1.00/ -1.10 m		
			Crop sensor adjust	:	0		
			Timeout	:	NONE		

History Report

History Report

Model : SC-540
 Version : 2.30 Serial No. : ZQ10101

= = = Motor group = = =

Motor hours (feed) : 0 hours
 Motor hours (scan) : 0 hours
 Pump hours (A/B/C) : 0/ 0/ 0 hours

= = = Head group = = =

Shot count H1 (1, 2) : 1,624 1,629 K shot / nozzle
 H2 (3, 4) : 1,893 1,889 K shot / nozzle
 H3 (5, 6) : 1,659 1,659 K shot / nozzle
 H4 (7, 8) : 2,033 2,035 K shot / nozzle
 H5 (9, 10) : 710 708 K shot / nozzle
 H6 (11, 12) : 722 722 K shot / nozzle

	H1	H2	H3	H4	H5	H6
Wiping count for head	18	18	18	18	18	18 times
Rubbing count for head	0	0	0	0	0	0 times
Auto cleaning count	5	5	5	5	5	5 times
Normal cleaning count	2	2	2	2	2	2 times
Medium cleaning count	0	0	0	0	0	0 times
Powerful cleaning count	0	0	0	0	0	0 times
Fill ink count	2	2	2	2	2	2 times
Head wash count	2	2	2	2	2	2 times
Pump up count	0	0	0	0	0	0 times

= = =Maintenance group = = =

Count : 0 times
 Total time : 94 hours
 Printing time : 1 hours

= = =Wiper group = = =

Wiping count : 54 times
 Rubbing count : 0 times
 Wiper replace count : 0 times

= = =Print group = = =

Printing time : 0 hours
 Print pages by Pigment : 0 pages
 by Dye ink : 0 pages
 by SOL ink : 18 pages
 [Revised4] by ECO-SOL : 18 pages
 by Head height low : 1 pages
 by Head height middle : 17 pages
 by Head height high : 0 pages

= = =Ink group = = =

Cartridge change (1-6) : 0 0 0 0 0 0 times
 Cartridge change (7-12) : 0 0 0 0 0 0 times
 Change ink type : 2 times

= = =Error group = = =

Service call count : 0 times
 Service call history : * * * * *
 Motor error (feed) : 0 times
 Motor error (scan) : 1 times
 Low temperature error : 0 times
 High temperature error : 0 times
 Protecting pump error : 0 times
 Emergency capping : 0 times
 Start uncapped : 6 times

= = =System group = = =

Power on count : 59 times
 Power on time : 12 hours
 Sleep time : 16 hours
 Sheet cut count : 8 times

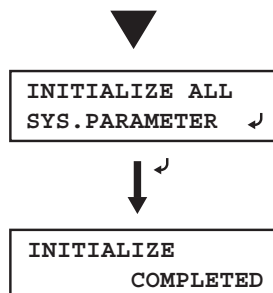
= = =Cutting group = = =

Cutting time : 0 hours
 Disconnect carr. count : 0 times

Other Factory Mode

SYSTEM PARAMETER INITIALIZE

[▲], [▼], [ENTER] + POWER ON



All parameters will be initialized. Turn on the sub power switch while pressing [▲], [▼] and [ENTER] keys.

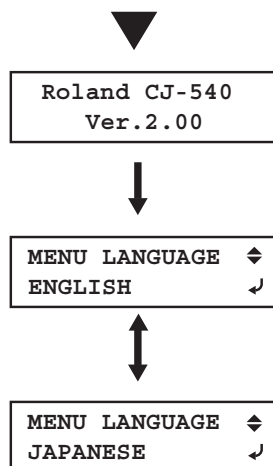
Initialize can be performed by pressing the [ENTER] key. It can also be cancelled by pressing the [POWER] key. The power will be off automatically when initialize is completed.

It is necessary to setup the LIMIT POSITION after the initialization. The error message [SERVICE CALL 0101] will appear if you don't setup the LIMIT POSITION.

4

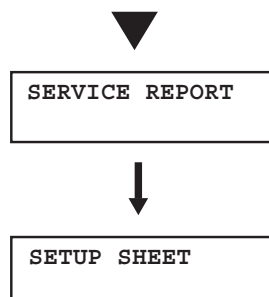
DISPLAYED LANGUAGE

[MENU] + POWER ON



SERVICE REPORT_PRINTING

[▼] + POWER ON



Turn on the sub power switch while pressing [▼] key.

Service Report can be printed on the A4 size media.

The printing will be performed in Black.

* Please print the [History Report] from the Service Mode.

Service Menu

Service Menu Item	Combination Key Selection	Comments
Service Mode	◀ ▼ ▶ + Sub Power	Press [Menu] and [▶] to enter Service Menu.
Upgrade F/W	◀ ▲ ▼ + Sub Power	[Are you sure?] will be displayed. Press [ENTER] to upgrade F/W.
Installing F/W	◀ ▲ ▼ + Main Power	Use this when the main board is replaced.
	Main Power → ENTER	[SUM-ERROR] will be displayed by turning on the Main Power. Press [ENTER] to upgrade F/W.
System Parameter Initialize	▲ ▼ ENTER + Sub Power	All parameters will be initialized. Press [ENTER] to start Initialize.
Limit/Cut Down	◀ ▲ ▶ + Sub Power	Press [▲] while aligning Carriage to cap Heads. Press [ENTER] and set up Cut Down Pos. Press [ENTER].
History Report (REPORT)	Service Menu → REPORT → Select [HISTORY REPORT]	Select [HISTORY REPORT] and press [▶]. Then, select Head and press [ENTER] to print History Report.
Service Report	▼ + Sub Power	Service Report (Adjustment value) will be printed.

Users Menu

Users Menu Item	Combination Key Selection	Comments
Language/Unit	Menu + Sub Power	Press [▲] / [▼] to select Language.
Manual Cleaning	Cleaning + Sub Power	Select [CLEANING] and Press [ENTER]. Carriage moves to the maintenance position on the left hand side.
Wiper Replace	Cleaning + Sub Power	Press [▼] one time and press [ENTER].

4-3 HOW TO UPGRADE FIRMWARE (Referential Time : 5min.) Revised8

- 1** Check the SC/CJ's IP address.



It is necessary to prepare the followings to upgrade the FIRMWARE.

1. Firmware Disk
2. Windows PC (OS Windows2000/XP)
 - * Network port is required.
3. Peck.exe
4. Network cable
 - *A cross cable is required when you connect SC/CJ to PC directly.

- 2** Confirm that main power of SC/CJ is turned "on " and sub power is turned "off".

Double-click Peck.exe to start the Peck.



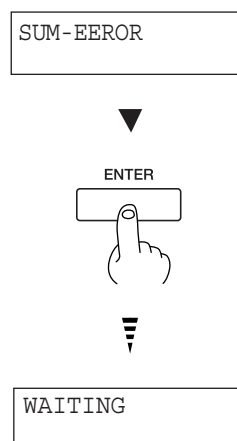
4



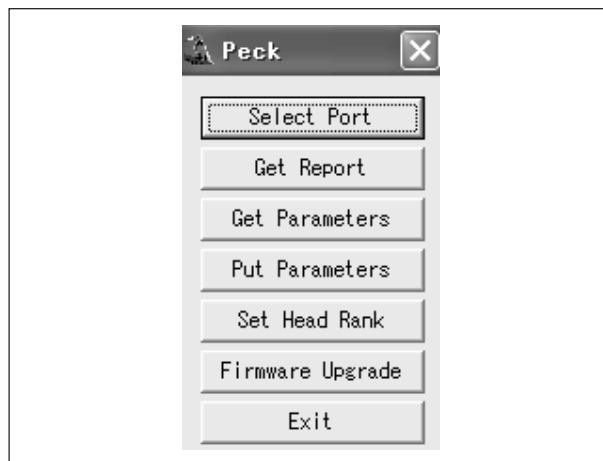
[SUM ERROR] is displayed when the Main Power SW is turned on if the new Main board is replaced.

In case of that, press [ENTER] to excute the installation.

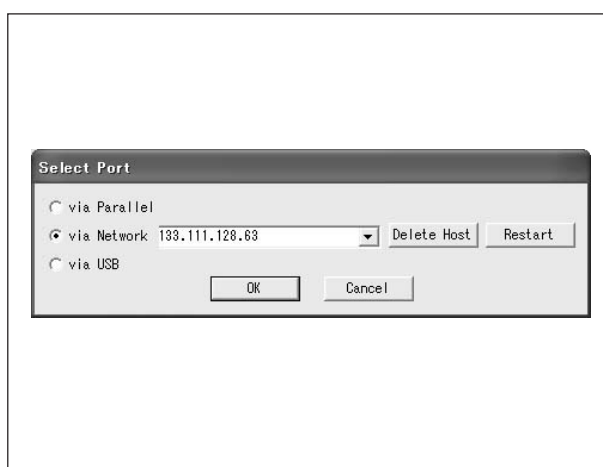
Or refer to step **8** **[F/W installation when the Main Board is replaced]**.



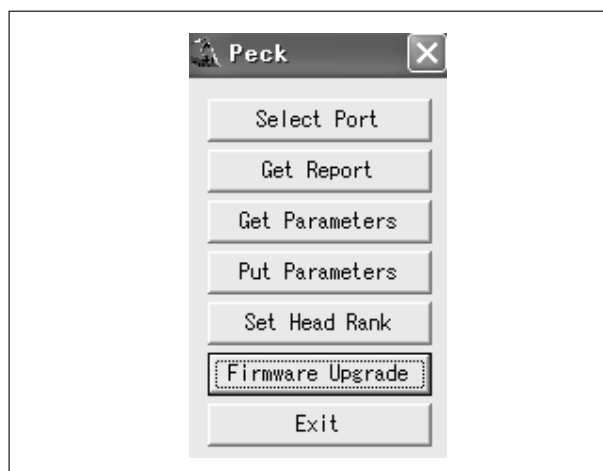
- 3** [Peck] screen is displayed.
Click [Select Port] button.



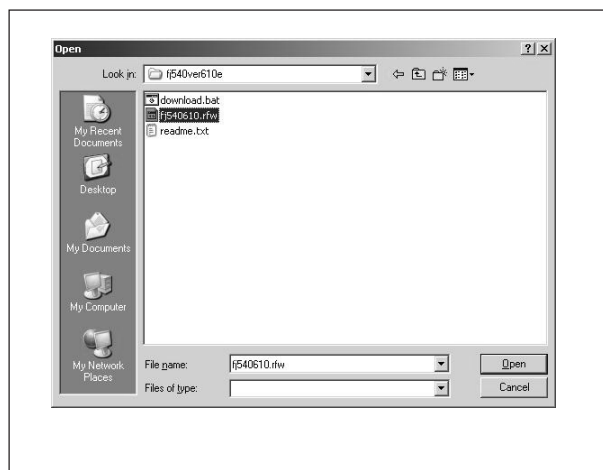
- 4** Check on the [via Network], and input the SJ/CJ's IP address.
Click [OK].



- 5** [Peck] screen is displayed again.
Click [Firmware Upgrade] button.

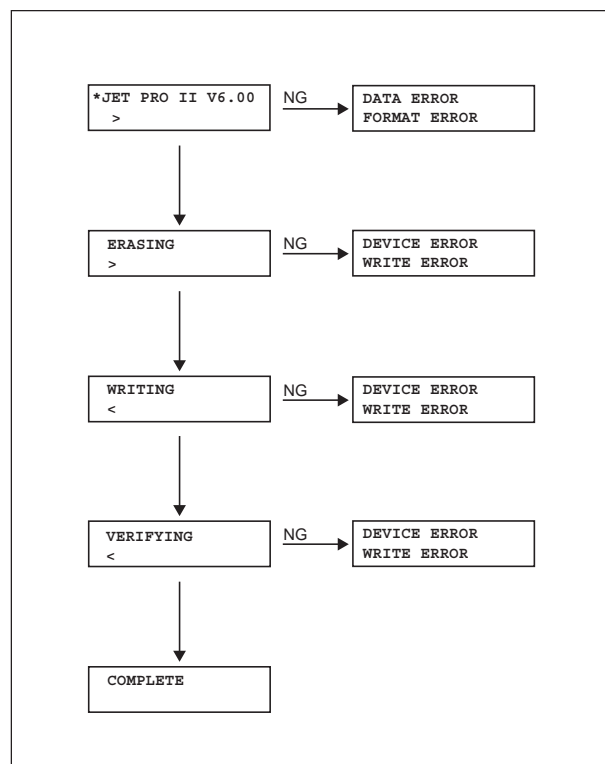


- 6** [Open] screen is displayed.
Select the firmware file, and click [Open].
Peck starts to send the firmware to the SC/CJ.



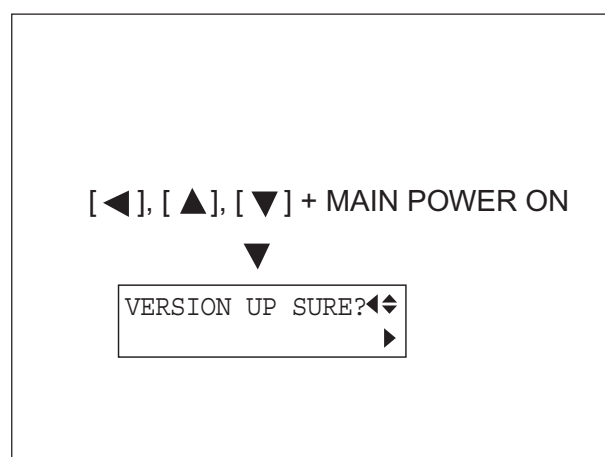
- 7** Machine goes into Firmware Upgrade mode automatically.

When upgrade is completed, sub power sw will be turned off automatically.



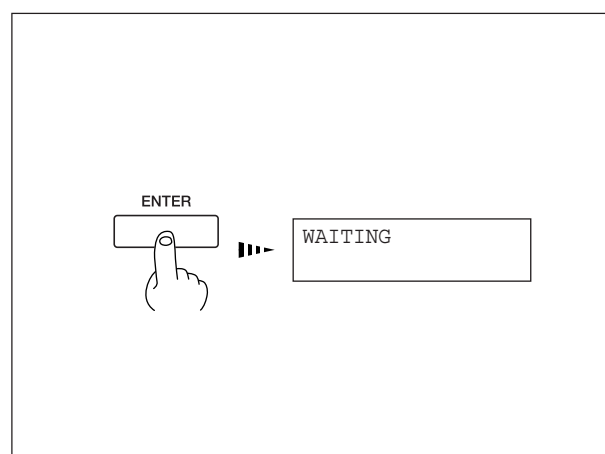
Revised 11

- 8** **[F/W installation when the Main Board is replaced]**
Make sure the Main power SW is OFF and then turn on the Main power SW again while pressing [◀], [▲] and [▼] keys.



- 9** Press [ENTER] to execute the installation.

Send the firmware using the Peck.



4-4 HEAD ALIGNMENT (Referential Time : 30 min._1 Head Alignment)

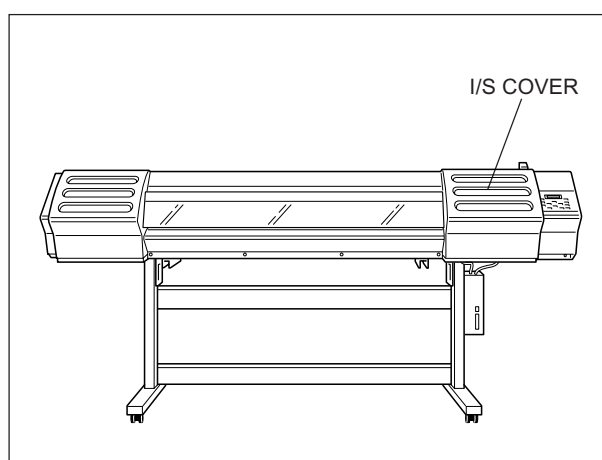
[About HEAD ALIGNMENT]

HEAD ALIGNMENT is necessary to obtain the good printing quality.

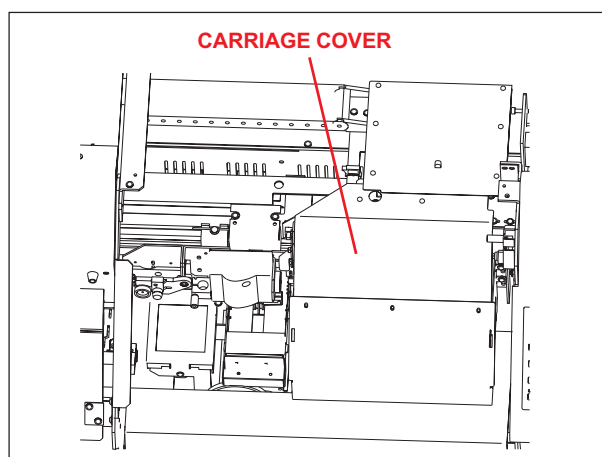
If the heads are not aligned, printing problems, such as banding, fine lines, gap between bands, could occur.

4

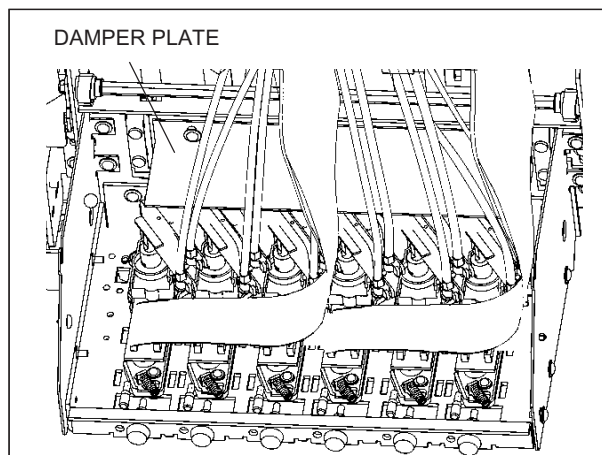
- 1 Remove the Right I/S COVER.



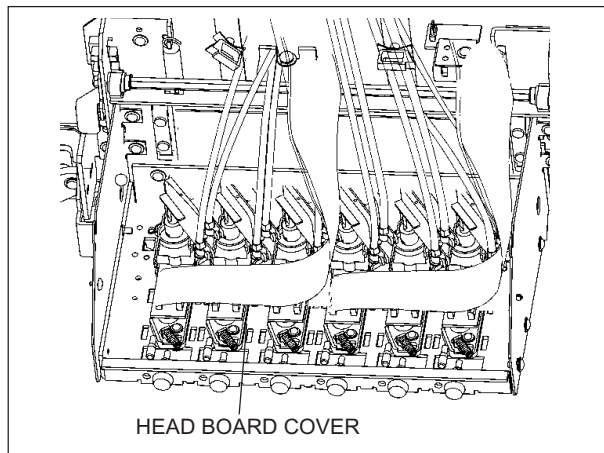
- 2 Remove the CARRIAGE COVER.



- 3 Remove the DAMPER PLATE.



4 Remove the HEAD BOARD COVER (Clear Cover).



5 Turn on the SUB POWER SW while pressing [◀], [▼] and [▶] keys to enter the SERVICE MODE.
Setup the PET film on the machine.

[◀], [▼], [▶] + POWER ON



[MENU] key



MENU
SERVICE MENU

[BIAS ADJUSTMENT]

6 Select the [BIAS TEST PRINT] menu under the [HEAD ADJUST] menu and press the [ENTER] key.

SERVICE MENU
HEAD ADJUST

[▶]

HEAD ADJUST
BIAS

[▶]

BIAS
TEST PRINT

[↵]

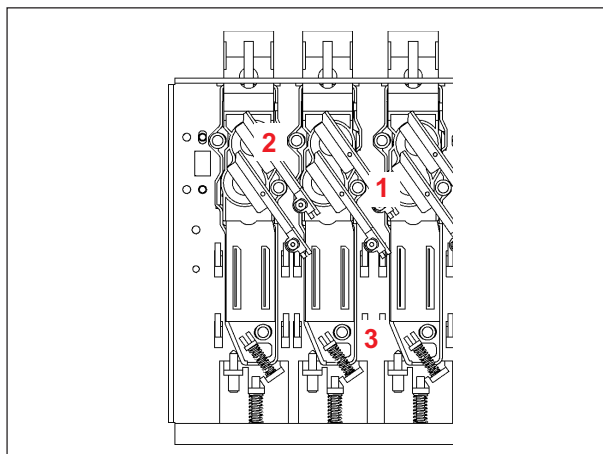
7 TEST PATTERN shown in the right figure will be printed.



- 8** Loosen the 3 screws fixing the Head in order as shown in the figure.



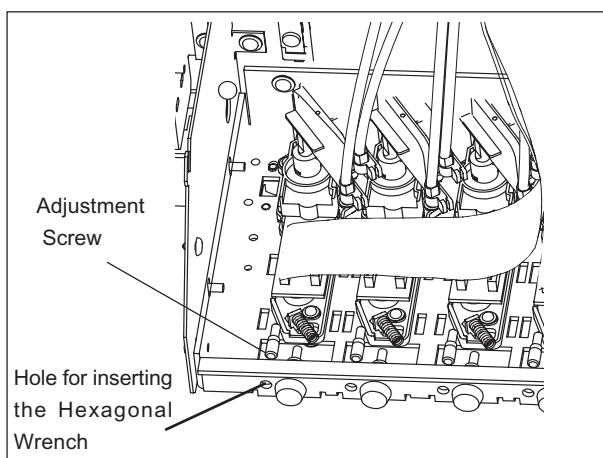
Loosen the screws fixing the Head for 1/2 turn.
If the screws are loosened too much,
adjustments could not be performed correctly.



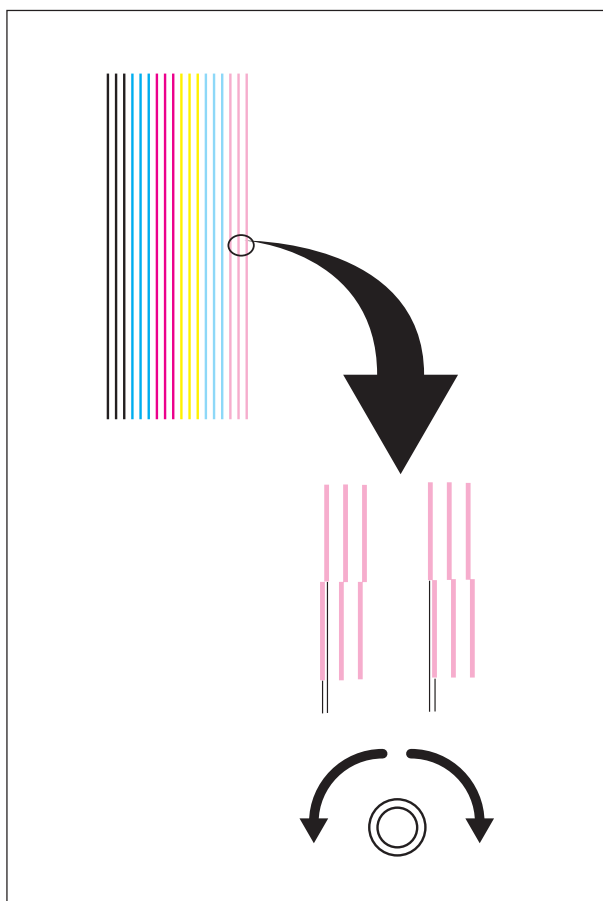
- 9** Insert the 1.5 mm Hexagonal Wrench to the hole of the HEAD CARRIAGE, then, turn the screw so that the lines of each color in the test pattern will be straight.

Reference

Position of the printing moves 1 line by turning the screw 3/4 turn.



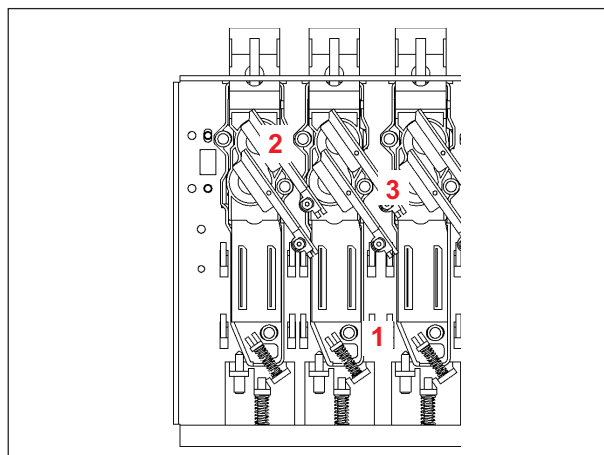
- When the upper lines are the left side of the lower lines, turn the screw CW.
- When the upper lines are the right side of the lower lines, turn the screw CCW.



- 10** Tighten the screws fixing the Head in the reverse order when fixing with using the TORQUE DRIVER (ST-056).



Torque for tightening is **2kgf • cm (20cNm)**.
Make sure not to tighten the screws firmly.



4

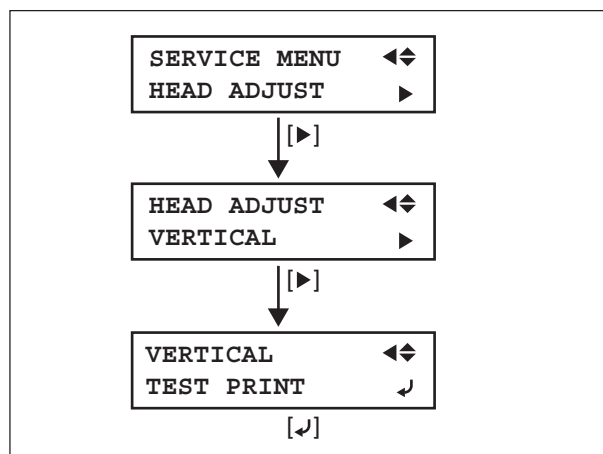
- 11** Print the test pattern again.
If the result is NG, repeat **6** ~ **10**.



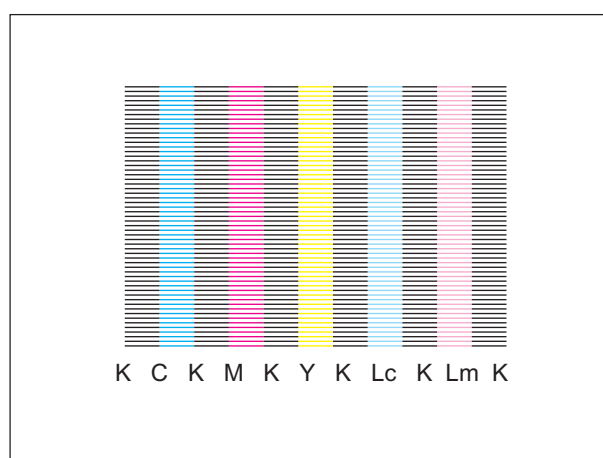
The shifting of lines should be within 1/2 dot.

[VERTICAL ADJUSTMENT]

- 12** Select the [VERTICAL TEST PRINT] under the [HEAD ADJUST] menu and press the [ENTER] key.



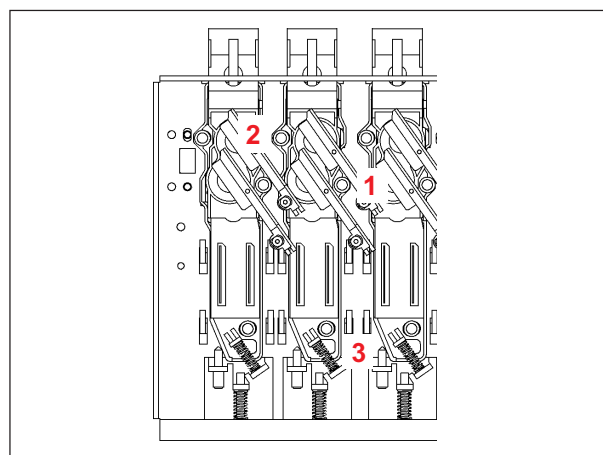
- 13** TEST PATTERN shown in the right figure will be printed.



- 14** Loosen the 3 screws fixing the Head in order as shown in the figure.



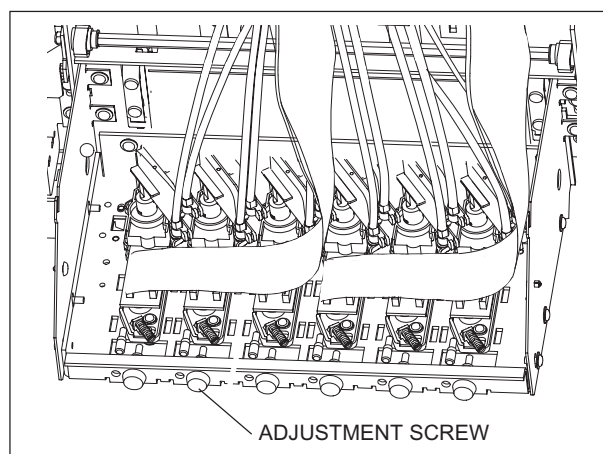
Loosen the screws fixing the Head for 1/2 turn. If the screws are loosened too much, adjustments could not be performed correctly.



- 15** Turn the ADJUSTMENT SCREW so that the lines of each color in the test pattern will be straight.

Reference

Position of the printing moves 1/2 line by turning the screw 30 degrees.

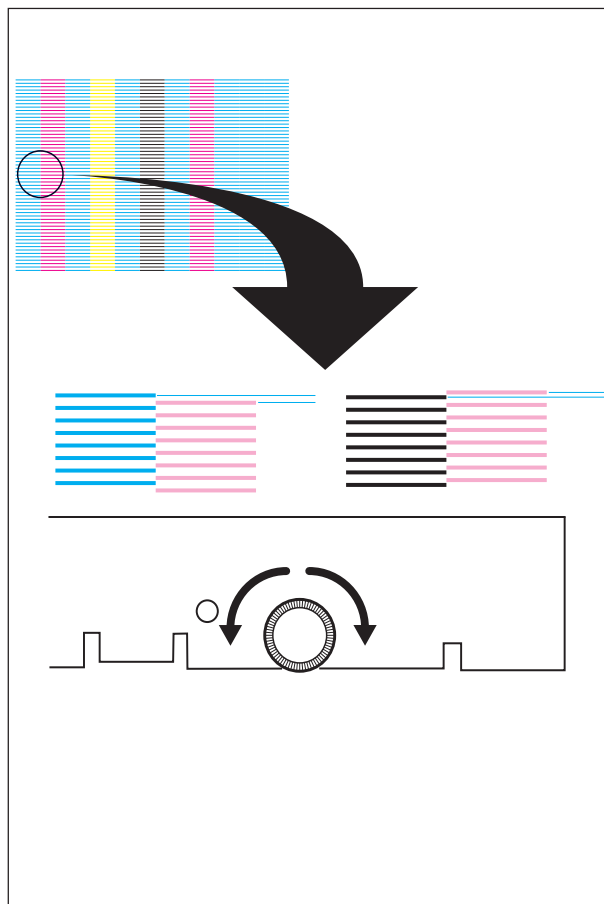


- When the lines excepting the K lines are above the K lines, turn the Adjustment Screw CW.
- When the lines excepting the K lines are below the K lines, turn the Adjustment Screw CCW.



Adjust the other Heads on the basis of the K Head. It is not necessary to adjust the K Head.

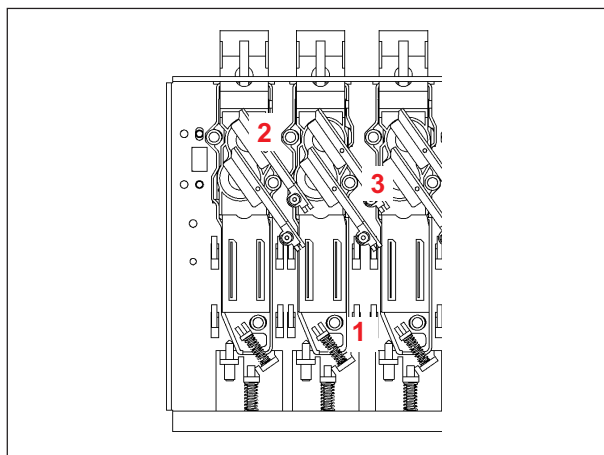
4



- 16** Tighten the screws fixing the Head in the reverse order when fixing with using the TORQUE DRIVER (ST-056).



Torque for tightening is **2kgf • cm (20cNm)**.
Make sure not to tighten the screws firmly.



- 17** Print the test pattern again.
If the result is NG, repeat **12** ~ **16**.

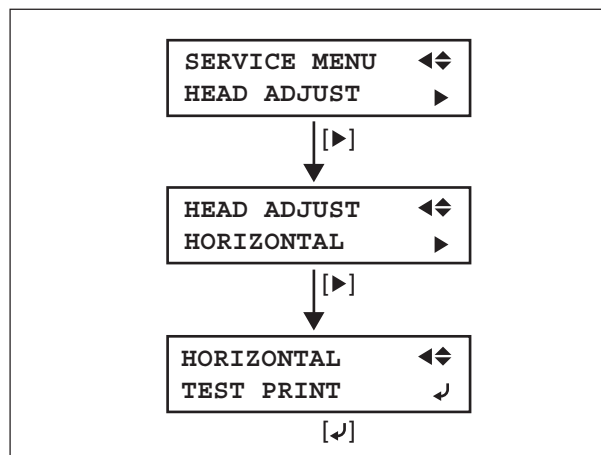


The shifting of lines should be within 1/2 dot.

- Revised4** **18** If the VERTICAL test print result is OK, select the [BIAS TEST PRINT] menu under the [HEAD ADJUST] menu and print the BIAS test pattern again.
If the BIAS test print result is NG, repeat [6] ~ [10] .

[HORIZONTAL ADJUSTMENT]

- 19** Select the [HORIZONTAL TEST PRINT] in the [HEAD ADJUST] menu and press the [ENTER] key.

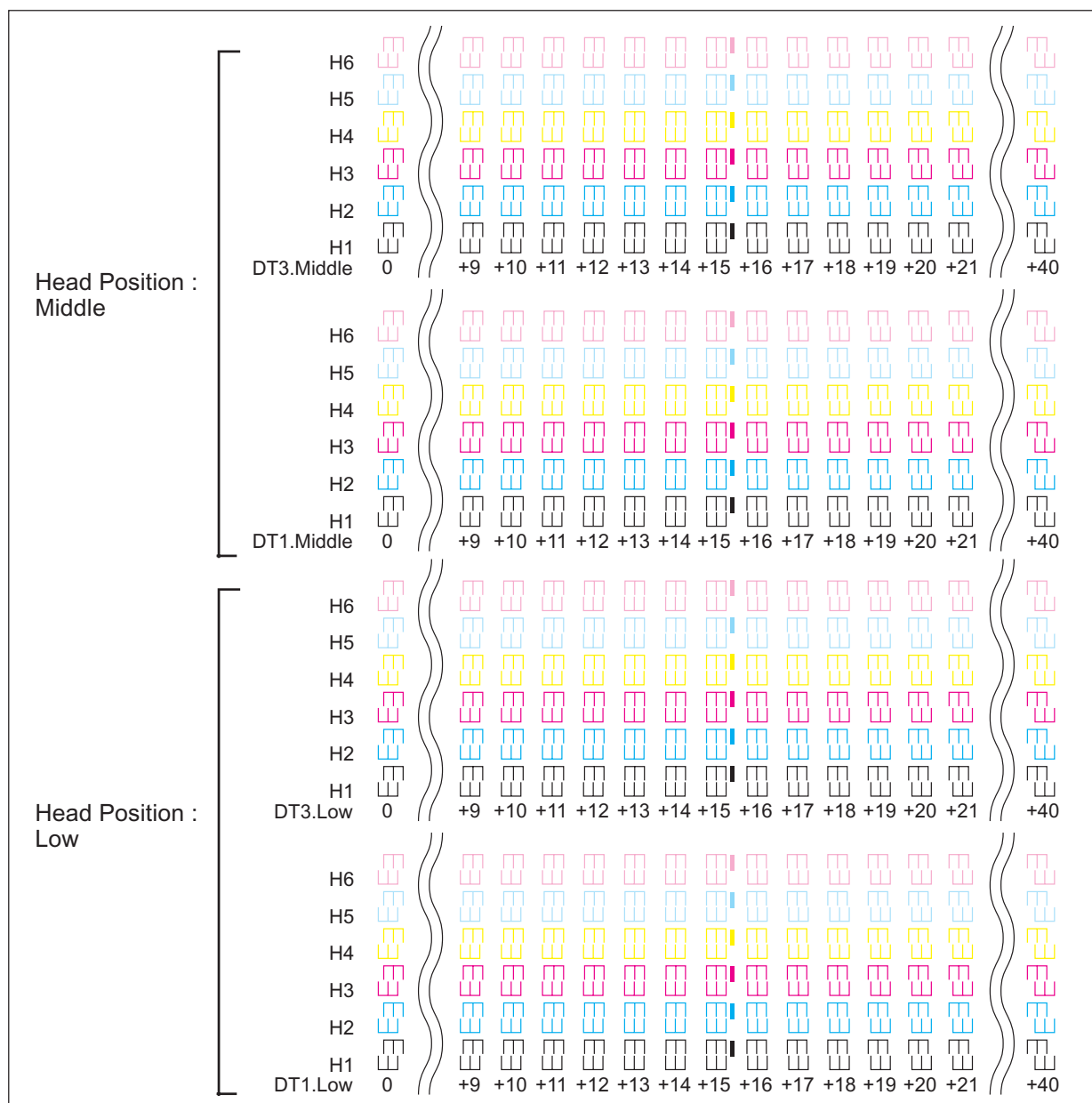
**4**

- 20** Following TEST PATTERN will be printed.

Find the position where the block of each color matches the K block and check the number.

In case of having problem deciding the number, the number between the 2 numbers can be selected.

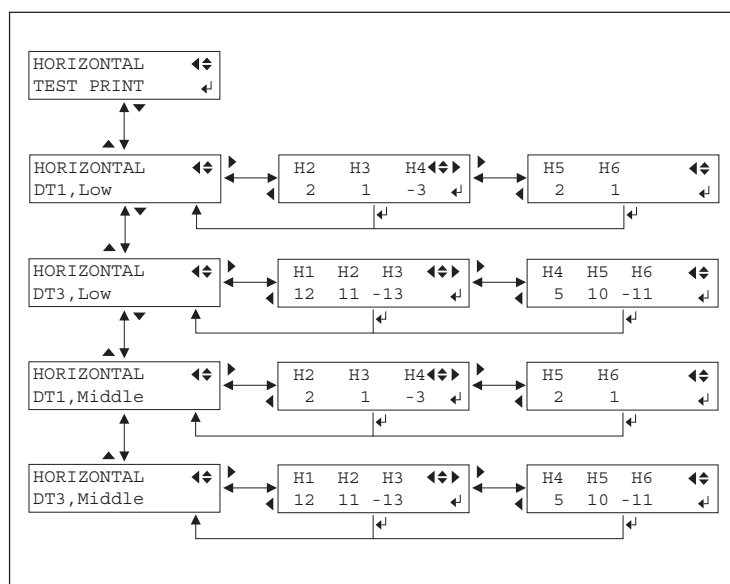
The number with ■ is the current setting.



- 21** Select [DT1, Low], [DT3, Low], [DT1, MIDDLE] and [DT3, MIDDLE] in the [HEAD ADJUST] menu and enter the parameters checked at **19** with [▲] and [▼] keys. Press the [ENTER] key to save the settings.



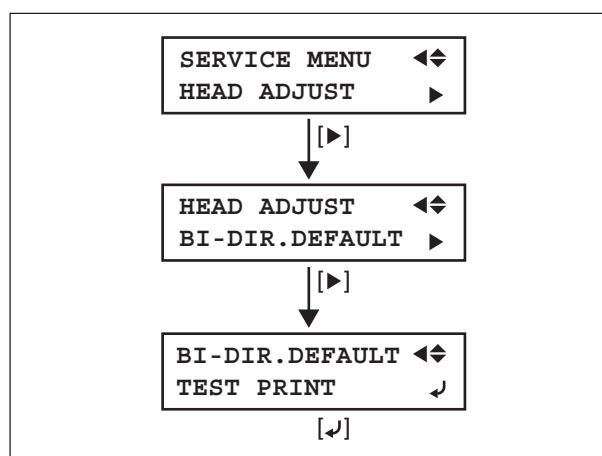
Parameters can be entered with an increment of 0.5.



4

[BIDIRECTION ADJUSTMENT]

- 22** Select [BI-DIR.DEFAULT TEST PRINT] in the [HEAD ADJUST] menu and press the [ENTER] key.



23 Following TEST PATTERN will be printed.

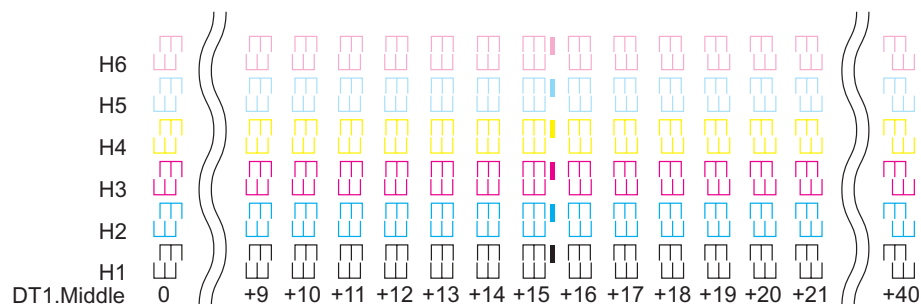
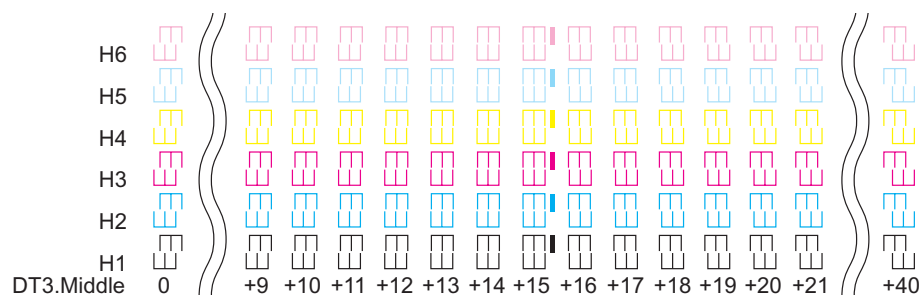
Find the position where the upper block matches the lower block and check the number.

In case of having problem deciding the number, the number between the 2 numbers can be selected.

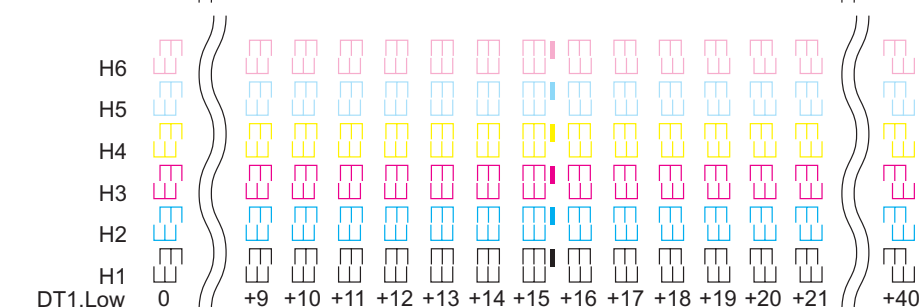
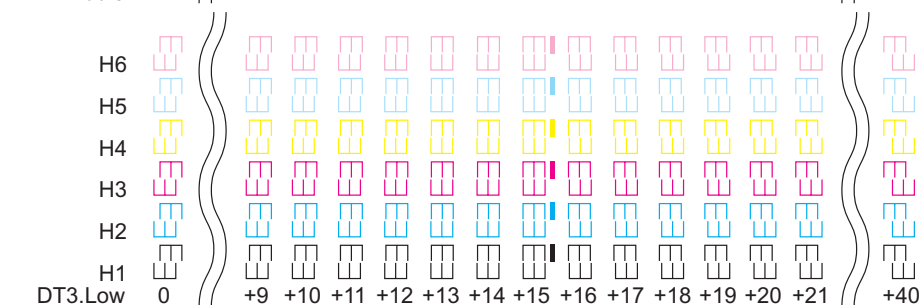
The number with ■ is the current setting.

4

Head Position :
Middle



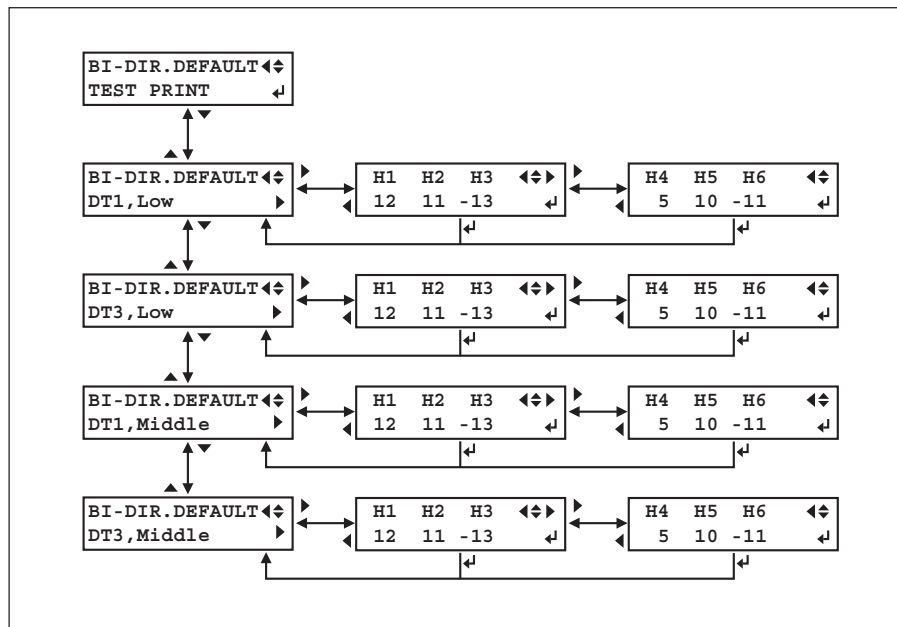
Head Position :
Low



- 24** Select [DT1, Low], [DT3, Low], [DT1, MIDDLE] and [DT3, MIDDLE] in the [HEAD ADJUST] menu and enter the parameters checked at **22** with [▲] and [▼] keys. Press the [ENTER] key to save the settings.

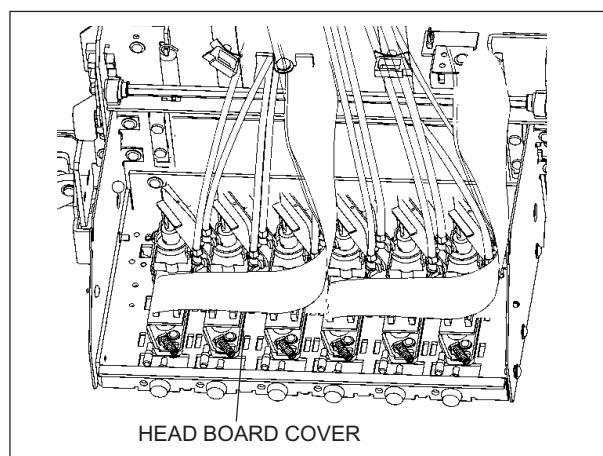


Parameters can be entered with an increment of 0.5.



4

- 25** Fix the HEAD BOARD COVER (Clear Cover).

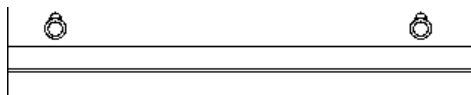


- 26** Fix the DAMPER PLATE.

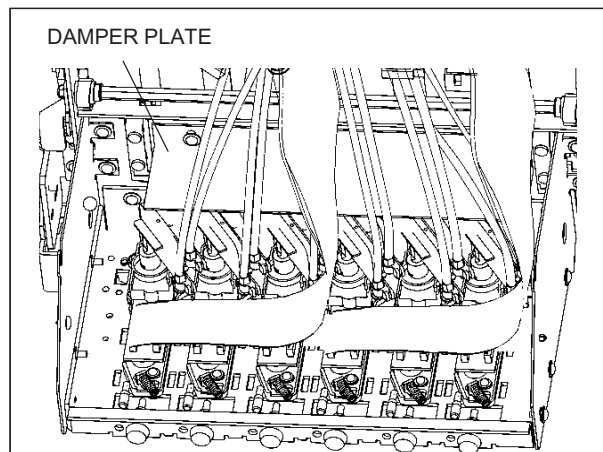


Make sure to press the Damper Plate downward lightly when fixing it.

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



If you press the Damper Plate strongly, the Damper will be broken.



4-5 LIMIT POSITION & CUT DOWN POSITION INITIALIZE (Referential Time : 10min.)

Revised1 Revised7

[About LIMIT POSITION & CUT DOWN POSITION INITIALIZE]

This is used to detect the distance between the Limit Sensor and the Capping Position. After completing the detection, the distance from the Cut Down Position to the Limit Sensor will be detected. When the Limit Position is not correctly set, a locking problem could occur.

Please make sure that the value of the Limit Position in the Service Report is **25.2 +/- 3.1mm**.

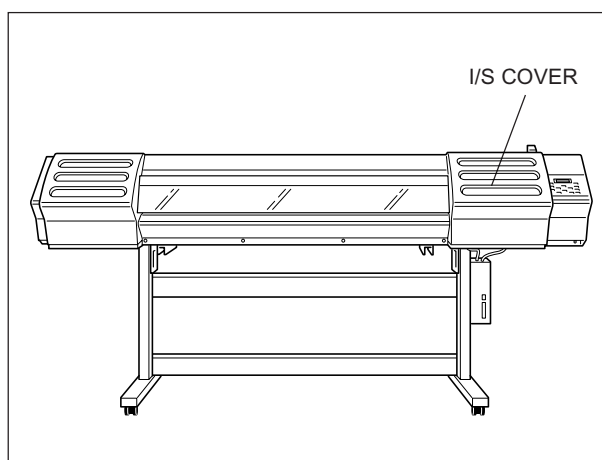
When the Cut Down Position is not correct, the problem related to the Sheet Cutter could occur.



Make sure the following for the right adjustment.

When the heads are capped,

1. heads are aligned to the center of the Caps.
2. from the position where the head is just locked at the head carriage is positioned in 0.5mm to the right direction.

4**1** Remove the Right I/S COVER.**2** Turn on the SUB POWER SW while pressing [◀], [▲] and [▶] keys.

Make sure that HEAD CARRIAGE is connected to the TOOL CARRIAGE.

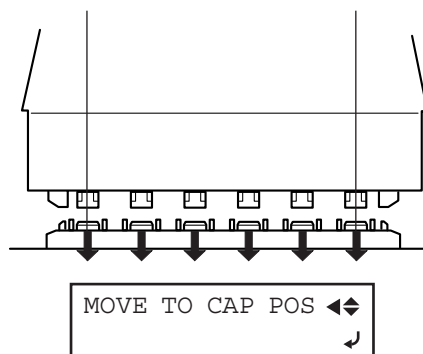
[◀], [▲], [▶] + SUB POWER ON

LIMIT INITIALIZE
MENU

NOW PROCESSING...

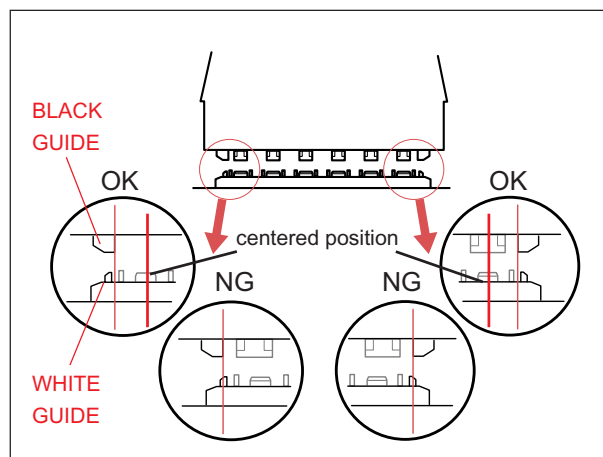
3 Move the HEAD CARRIAGE to the right position to close the cap and press [▲][▼] to close the cap.

Be careful not to scratch the HEAD when you move the carriage manually.



Make sure the HEADS are capped correctly.

If the WHITE GUIDES of the CAPPING UNIT come inside from the BLACK GUIDES of the HEAD CARRIAGE at either side, the capping position is not correct.

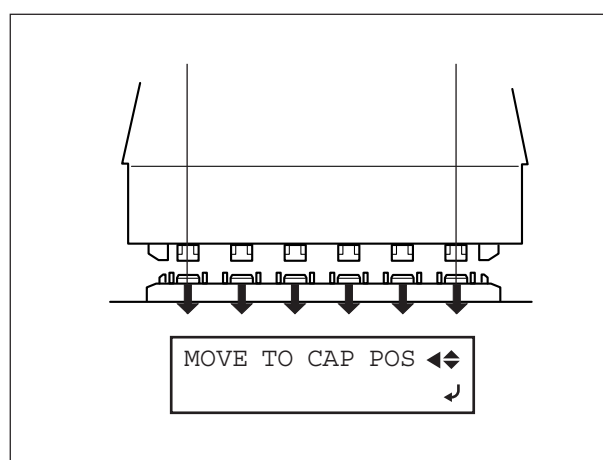


4

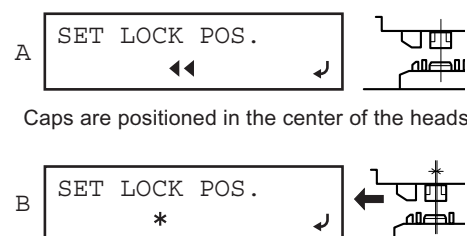
- 4** When the Caps go down, lock the head carriage. Press the [ENTER] key.



The current carriage position is memorized and the caps go down when the [ENTER] key is pressed.



- 5** Move the HEAD CARRIAGE to the left slowly and stop it at the position where " * " mark is displayed on the LCD. If " * " mark is displayed, go to procedure **8**. If " * " mark is not displayed, go to procedure **6**.



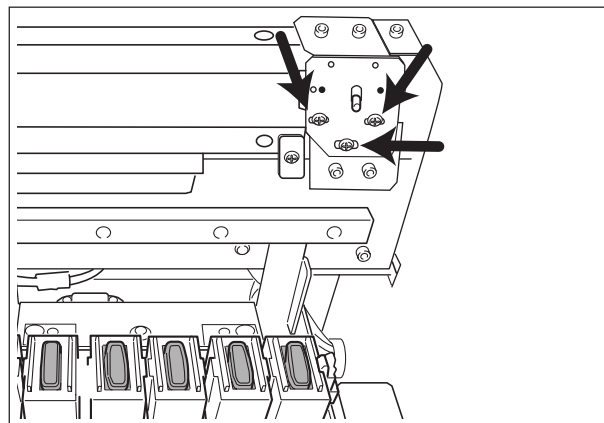
Caps are positioned in the center of the heads.

Caps are positioned in 0.5mm left from the center of the head.

[*] mark is displayed, when the Head center is 0.5mm shifted to the left from the Cap center.

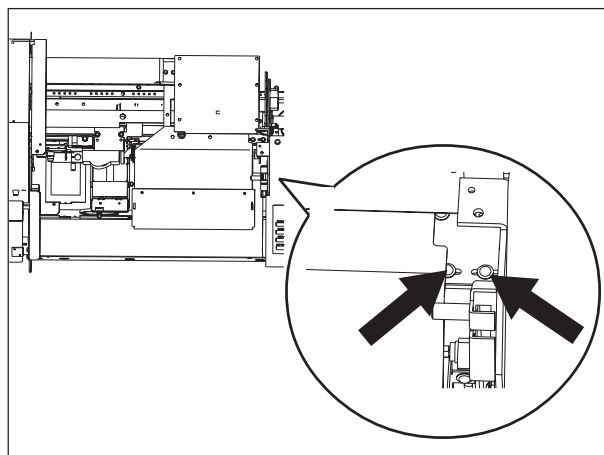
- 6** [For the Serial No. ZR70376(CJ-540) ZR71380(SC-540) and above]

Move the HEAD CARRIAGE to the left from the lock position and loosen three screws as shown in the figure. Move the HEAD CARRIAGE back to the lock position and lock it.



[For the Serial No. ZR70376(CJ-540) ZR71380(SC-540) and below] *The number of the screws and position are different from the other type.

Move the HEAD CARRIAGE to the left from the lock position and loosen the 2 screws as shown in the figure. Move the HEAD CARRIAGE back to the lock position and lock it.



4

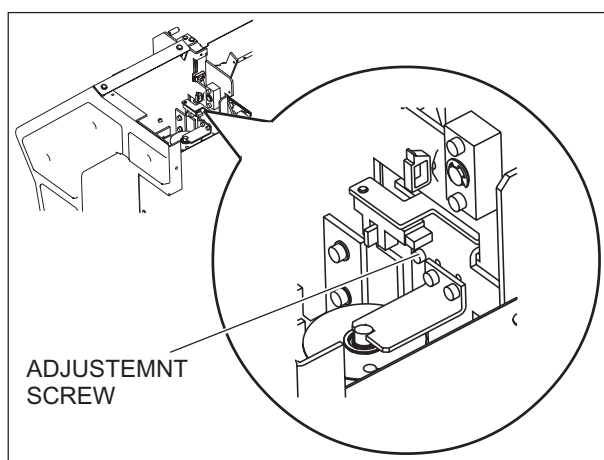
Revised4

- 7 Move the HEAD CARRIAGE with it locked to the position where " * " mark is displayed as the figure B in the procedure 5.



If the HEAD CARRIAGE cannot be moved to the position where " * " mark is displayed when you move the HEAD CARRIAGE from the position A to position B as shown in the figure in the procedure 5, move the HEAD CARRIAGE by loosening the white screw on the right hand side of LOCK UNIT.

The white adjustment screw is in the position in the right figure.

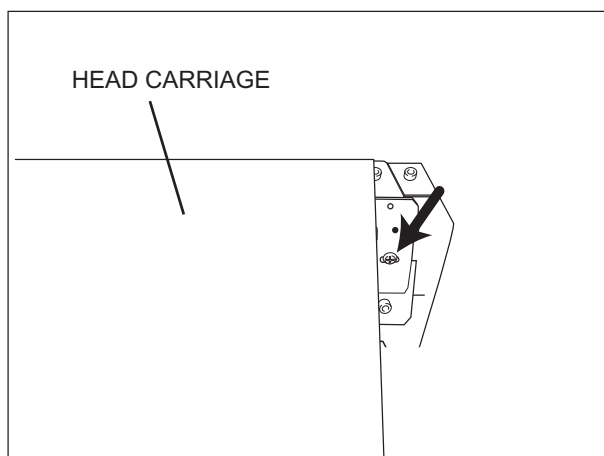


- 8 [For the Serial No. ZR70376(CJ-540) ZR71380(SC-540) and above]

Fix the LOCK UNIT by tightening the screw from the gap as the HEAD CARRIAGE is locked. After tightening the screw in the figure, unlock the HEAD CARRIAGE and tighten the other screw.

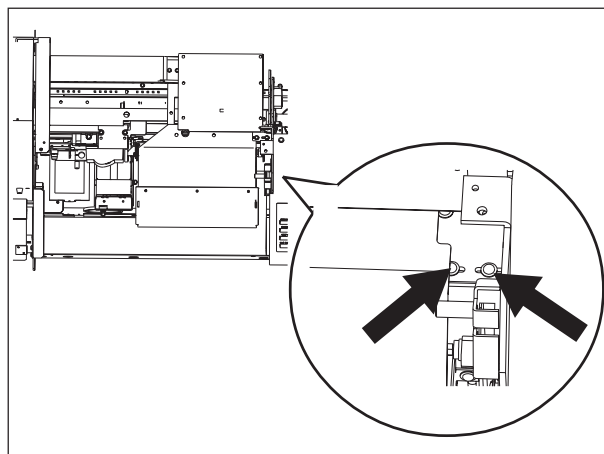


Use the driver which has a long shaft.



[For the Serial No. ZR70376(CJ-540) ZR71380(SC-540) and below]

Fix the LOCK UNIT by tightening the screw from the gap as the HEAD CARRIAGE is locked. After tightening the screw in the figure, unlock the HEAD CARRIAGE and tighten the other two screws.



- 9** Make sure the HEAD CARRIAGE is locked and press the [ENTER] key.



Make sure that the media is not installed to the machine.

[ENTER] key



NOW PROCESSING...

SETTING UP THE
LIMIT ↵

- 10** Carry out the LIMIT POSITION INITIALIZE by pressing the [ENTER] key.

After the LIMIT POSITION INITIALIZE is completed, the message appears as shown in the figure.

[ENTER] key



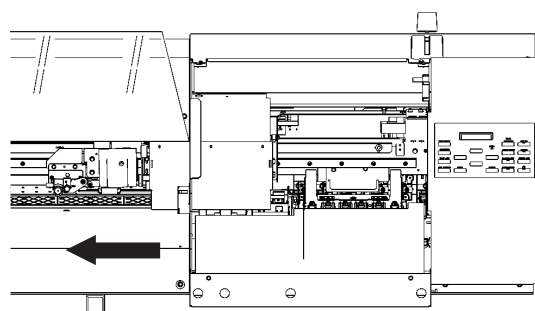
DETECTING..



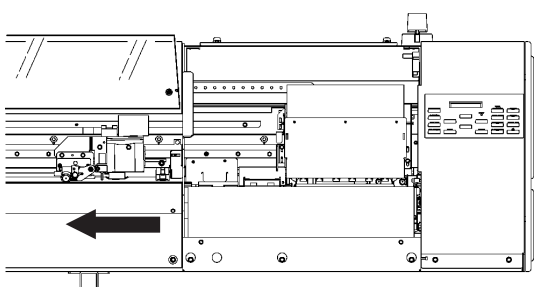
SETTING UP
CUTTER DOWN POS ↵

- 11** TOOL CARRIAGE will be separated from the HEAD CARRIAGE.

If the TOOL CARRIAGE will not be separated from the HEAD CARRIAGE as shown in the figure, turn off Secondary Power Switch and perform the operations once again from **2**.



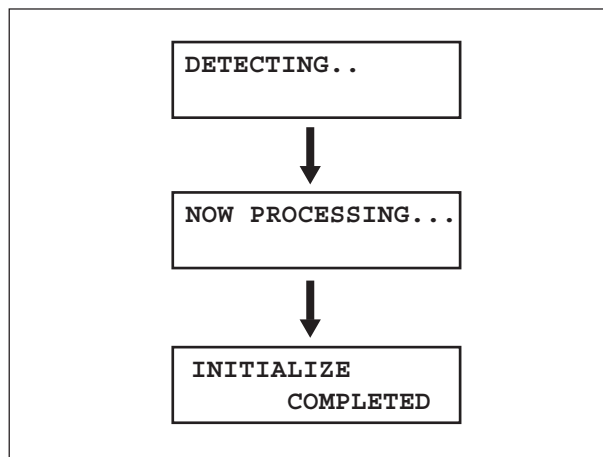
- 12** Move the TOOL CARRIAGE with your hand until it makes full contact with the LEFT FRAME with CUT DOWN status.



- 13** Carry out the CUT DOWN POSITION INITIALIZE by pressing [ENTER] key.

After the completion of the INITIALIZE, print the SERVICE REPORT. Then, check the value of the Limit Position is **25.2 +/- 3.1mm**.

If not, please adjust it again.



4-6 LINEAR ENCODER SETUP (Referential Time : 3min.)

[About LINEAR ENCODER SETUP]

LINEAR ENCODER SETUP is necessary for the machine to recognize the width by the software coordinates. It is also necessary for checking whether the encoder module can read the scale correctly in the whole width.

Revised2

- 1 Lower the Pinch Rollers.
Make sure to unload the media when it is set on the machine.
Then, turn on the SUB POWER SW while pressing [◀], [▼] and [▶] keys to enter the SERVICE MODE.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU
SERVICE MENU

- 2 Select the [LINEAR ENCODER] menu in the SERVICE MENU and press the [ENTER] key.

SERVICE MENU
LINEAR ENCODER

NOW PROCESSING..
POS: 1361.00mm

Revised2

- 3 One of the messages will appear at the completion of the set up. In case of SETUP error, check the followings.
 1. Dirt/Scratch on the ENCODER SCALE.
 2. Dirt/Scratch on the ENCODER MODULE.
 3. ENCODER SCALE is not between the ENCODER MODULE.
 4. Backlash of the CARRIAGE MOTOR GEAR and the DRIVE GEAR.
 5. Fixation between the CARRIAGE and the CARRIAGE WIRE.
 6. Bad Contact in the cables.

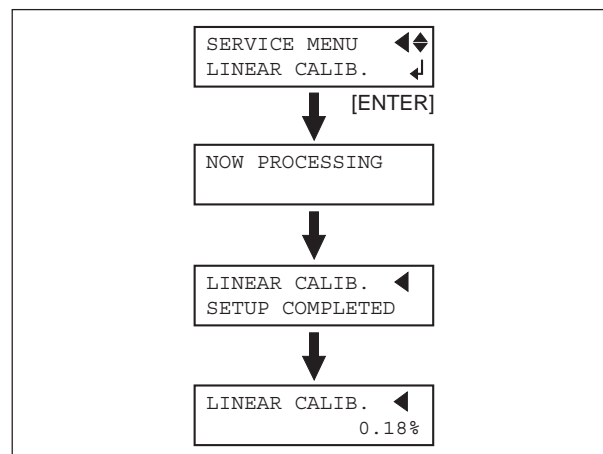
In case of HEADBOARD error, the Head Board could be defective.

LINEAR ENCODER
SETUP COMPLETED

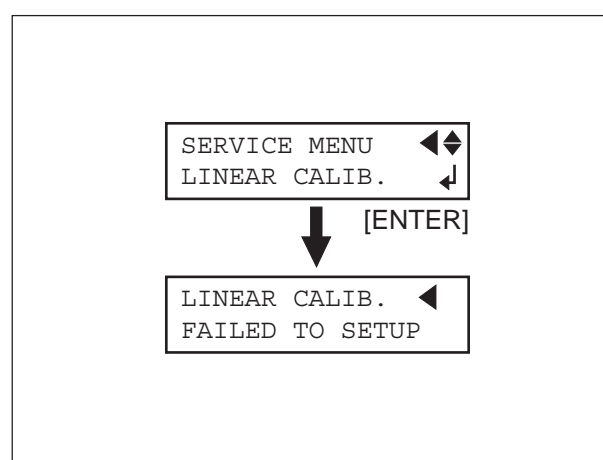
LINEAR ENCODER
SETUP FAILED

LINEAR ENCODER
HEADBOARD FAILED

- 5** When Linear Encoder Setup is completed, carry out the [LINEAR CALIB.] in the Service Menu.



- 4**
- 6** In case of an error, check the followings.
1. Dirt/Scratch on the ENCODER SCALE.
 2. Dirt/Scratch on the ENCODER MODULE.
 3. ENCODER SCALE is not between the ENCODER MODULE.
 4. Backlash of the CARRIAGE MOTOR GEAR and the DRIVE GEAR.
 5. Fixation between the CARRIAGE and the CARRIAGE WIRE.
 6. Bad Contact in the cables.



4-7 CAP HEIGHT ADJUSTMENT (Referential Time : 5min.) REVISED 5

[About CAP HEIGHT ADJUSTMENT]

CAP HEIGHT ADJUSTMENT is to adjust the height of the cap.

It must be done when you remove or replace the cap unit.

If this adjustment has not been done there is a possibility that a CAP OPEN SUCTION is not performed correctly.

This adjustment can be performed in firmware version 1.20 and above.

CAP OPEN SUCTION is an operation to suck ink without the heads capped. This can remove the ink accumulated on the Cap surfaces by the flushing done above the Caps.

4

- 1 Lower the Pinch Rollers.
Make sure to unload the media when it is set on the machine.
Then, turn on the SUB POWER SW while pressing [◀] [▼] and [▶] keys to enter the SERVICE MODE.

[◀], [▼], [▶] + POWER ON

[MENU] key

MENU	◀▶
SERVICE MENU	▶

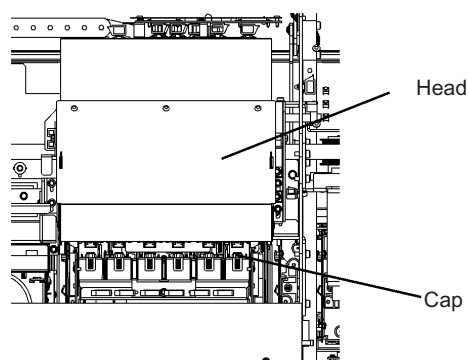
- 2 Select the [CAP ADJUST] menu in the SERVICE MENU and select [ADJUST POS.].

When the carriage is not in the capping position, press [▼] key to move the cap lower and then move the carriage to the capping position.



-Note that the caps do not contact the head.
-When you press the [▼] key, the cap moves to the position in the setting value -2.00mm.
-It is only possible to move the cap stepwise to the upward direction in the [ADJUST POS.] menu. When you move the cap in the downward direction, press [▼] key to move the cap lower end once and then move upward direction in 0.25mm unit.

SERVICE MENU	◀▶	CAP ADJUST	◀▶
CAP ADJUST	▶	ADJUST POS.	▶

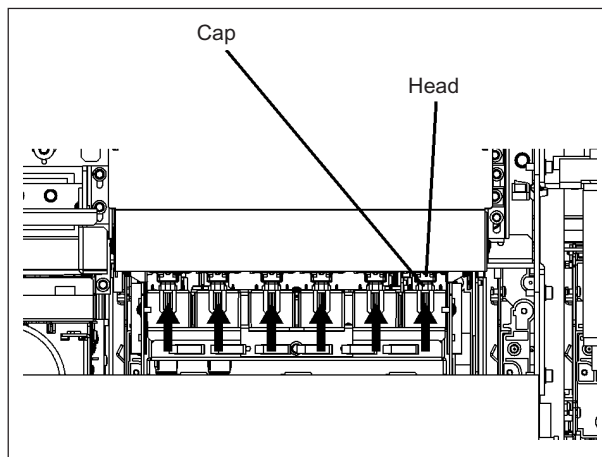


Head

Cap

- 3** Move the cap upward to the position that the cap contacts exactly to the head, then press [ENTER] to update the adjustment value.

- When you press [▲] key, the cap moves to the upward direction in 0.25mm unit.
- When you press [▼] key, the cap moves to the position in the setting value -2.00mm.
- When you press[◀] key, the adjustment value is not updated and the capping is carried out and then exiting the menu.

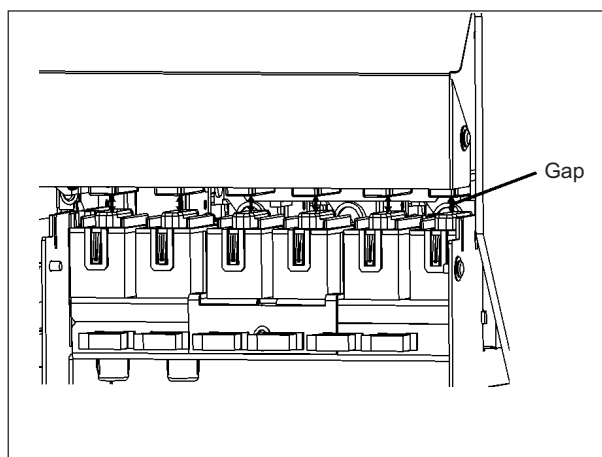


- 4** Enter the [CHECK GAP.] menu in the [SERVICE MODE] to check the cap adjustment value.

The cap moves to the same position as the CAP OPEN SUCTION is performed. Check if there is the gap between the cap and head.



[CHECK GAP.] is the menu to check the gap between the caps and head. For adjustment, use the [ADJUST POS.] menu.



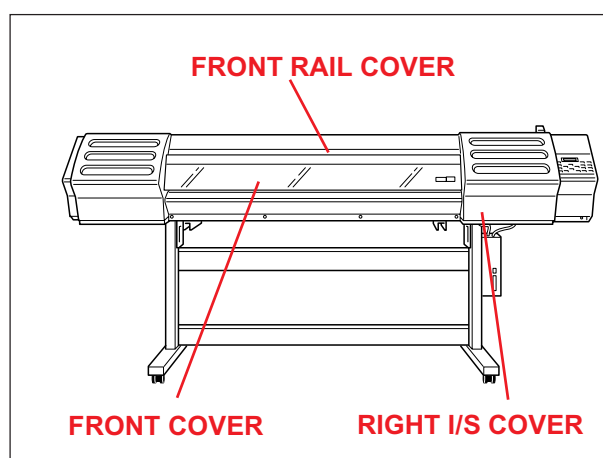
4-8 CROP MARK SENSOR ADJUSTMENT (Referential Time : 10min.)

[About CROP MARK SENSOR ADJUSTMENT]

This adjustment is for adjusting the sensitivity of the CROP MARK SENSOR.
If not adjusted, crop marks can not be read correctly and result in a problem that the cutting shifts from the printing.

4

- 1 Remove the RIGHT I/S COVER, FRONT COVER and FRONT RAIL COVER.



- 2 Turn on the sub power switch while pressing [◀], [▼], [▶] and [] keys to enter the SERVICE MODE.

[◀], [▼], [▶] + SUB POWER ON

▼
[MENU] key

MENU ◀▶
SERVICE MENU ▶

- 3 Select [OUTLEVEL CHECK] under the [CROP MARK SENS] menu.

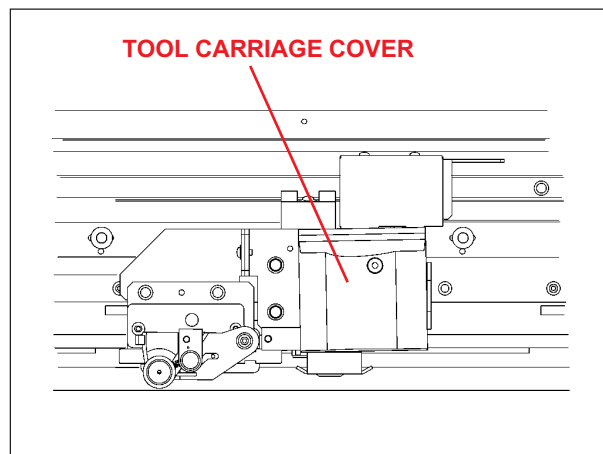
Crop Mark will be printed when the [ENTER] key is pressed.

SERVICE MENU ◀▶
CROP MARK SENS ▶

↓
CROP MARK SENS ◀▶
OUTLEVEL CHECK ◀↓

[ENTER]

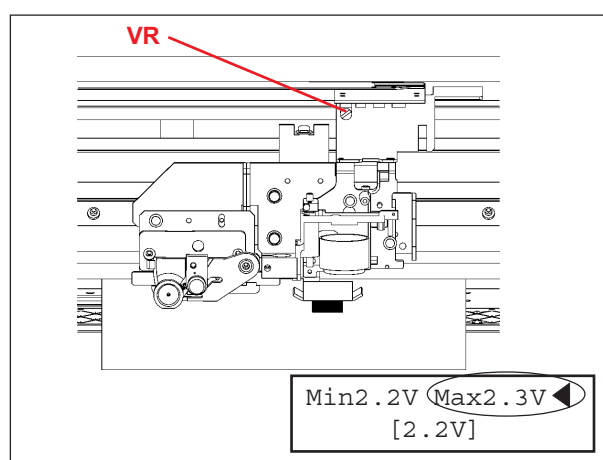
- 4** Remove the TOOL CARRIAGE COVER.



- 5** After Crop Mark will be printed, the TOOL CARRIAGE moves on the Crop Mark automatically.

When you use the Pigment Ink, adjust the VR on the CARRIAGE BOARD so that the voltage displayed in the LCD will be 2.5 +/- 0.1V.

Revised4 When you use the Sol Ink, adjust the VR on the CARRIAGE BOARD so that the voltage displayed in the LCD will be 2.3 +/- 0.2V.



Revised4



In case of using the Sol Ink, the voltage displayed in the LCD can keep on decreasing because the Sol Ink cannot dry up easily.

- 6** Perform [OUTLEVEL CHECK] again and make sure that the voltage is correct value.
If it is out of range, try **3** ~ **5** again.



In case of using the Sol Ink, there is no problem that the maximum voltage displayed in the LCD is in the range of 2.3 +/- 0.2V.

Min2.2V Max2.3V [2.2V]

Revised4 [CROP MARK SENSOR ADJUSTMENT with USER'S MEDIA]

If Crop Marks cannot be detected with user's media even if you perform this adjustment, it is necessary to do the adjustment using that user's media. When you do this adjustment, it is necessary to have the printed Crop Marks dried up completely.

If you have a user's media which Crop Marks are already printed on, you can use this media.

If you have done this adjustment, we cannot guarantee the Crop Marks printed on the Roland original media can be detected correctly.

7 Set the User's media and do **2** - **4** .

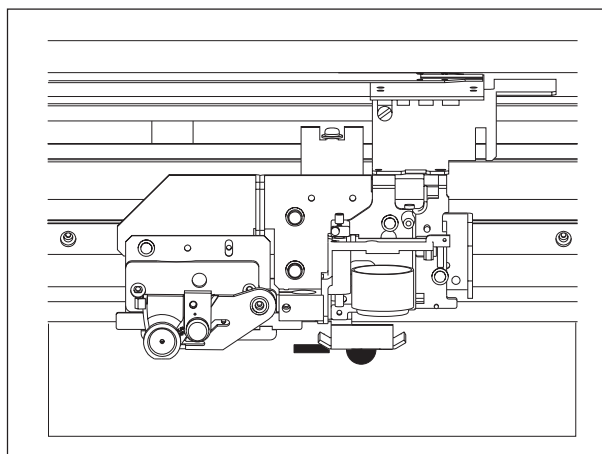
8 If you have a user's media which Crop Marks are already printed on, you can use this media after removing the current set Media.

And, adjust the Tool Carriage and the Media positions in order to allow the Crop Mark Sensor to read the Crop Marks.

If you do not have a user's media which Crop Marks are already printed on, it is necessary to wait until the Crop Marks will dry up and the voltage displayed in the LCD will stop decreasing.

(It could take about 1 hour until the displayed voltage stops decreasing.)

9 Adjust the VR on the CARRIAGE BOARD so that the center voltage displayed in the LCD will be 2.5 +/- 0.1V with making the Crop Mark Sensor read the Crop Mark.



Min2.2V Max2.3V ◀
[2.2V]

- 10** If the voltage does not become $2.5 \pm 0.1V$ even if the VR on the CARRIAGE BOARD is adjusted, the User's Media is not appropriate for Crop Mark detection.

4-9 TOOL / CROP MARK SENSOR POSITION ADJUSTMENT (Referential Time : 10min.)

[About TOOL/CROP MARK SENSOR POSITION ADJUSTMENT]

This adjustment is for calibrating the shifting in the relative positions of Tool and Crop Mark Sensor. If it is not adjusted, the relative positions of Tool and Crop Mark Sensor will not be calibrated and result in a problem that the cutting shifts from the printing.

There are two adjusting ways prepared in this Mode, Manual and Auto.

We recommend to carry out the Manual Adjustment for more accurate adjustment.

4

- 1 Turn on the sub power switch while pressing [◀], [▼] and [▶] keys to enter the SERVICE MODE.

- Setup the PET-G film when you use the Pigment Ink.
- Setup the SPVC-G film when you use the Sol Ink.

Revised4 - Setup the SVGG film when you use the Eco-Sol Ink.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU
SERVICE MENU

[MANUAL ADJUSTMENT]

- 2 Select [TEST PRINT2] under the [CROP-TOOL ADJ.] menu.

Test Pattern will be printed and cut when the [ENTER] key is pressed.

SERVICE MENU
CROP-TOOL ADJ.

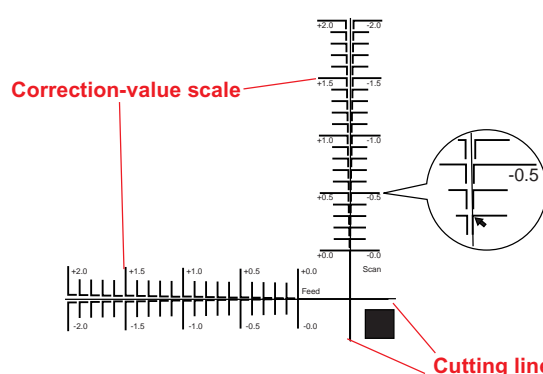
CROP-TOOL ADJ.
TEST PRINT 2

[ENTER]

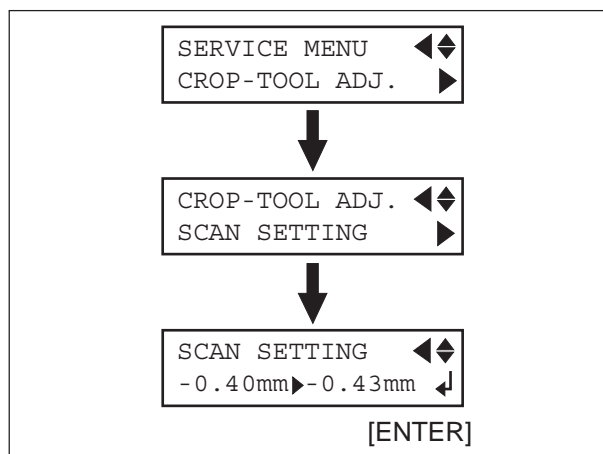
- 3 From the Test Pattern, find the value where the printing line matches the cutting line.

In this case, the correction value for the scanning direction is "-0.3".

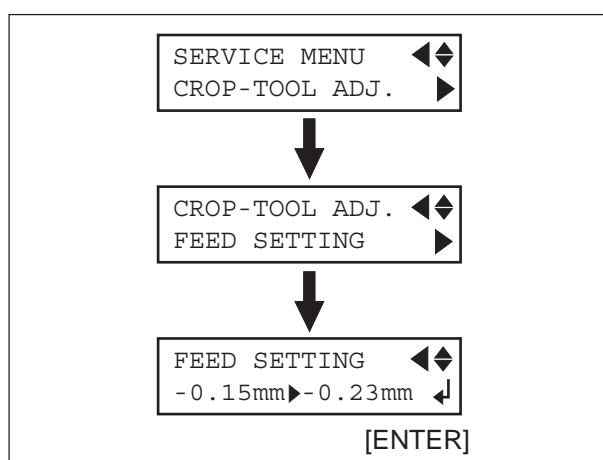
<TEST PATTERN>



- 4** Select [SCAN SETTING] from the [CROP-TOOL ADJ.] menu and enter the correction-value found in the Test Pattern.

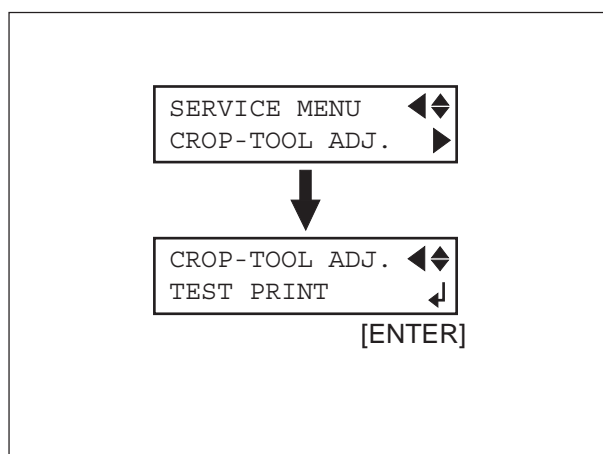


- 5** Select [FEED SETTING] from the [CROP-TOOL ADJ.] menu and enter the correction-value found in the Test Pattern.



- 6** Select [TEST PRINT] under the [CROP-TOOL ADJ.] menu.

Test Pattern will be printed and cut when the [ENTER] key is pressed.



- 7** If the cutting line is shifted from the printed image, fine adjust the error in Carriage Moving Direction and Grit Roller Moving Direction in the step **4** and **5**.

[AUTOMATIC ADJUSTMENT]

- 6** Setup the Vinyl Sheet (note : Vinyl should be black and the backing should be white.) on the Machine.

Turn on the sub power switch while pressing [], [] and [] keys to enter the SERVICE MODE.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU
SERVICE MENU

- 7** Select [AUTO] under the [CROP-TOOL ADJ.] menu.
Crop Mark will be cut when the [ENTER] key is pressed.

MENU
SERVICE MENU

SERVICE MENU
CROP-TOOL ADJ.

- 8** While the Vinyl is still set on the Machine, peel off the Crop Mark being cut when the message shown in the right figure is displayed on the LCD.

Then, press the [ENTER] key.

CROP-TOOL ADJ.
REMOVE CROPMARK?

[ENTER]

- 9** TOOL / CROP MARK SENSOR ADJUSTMENT will be done automatically.

CROP-TOOL ADJ.
COMPLETED!!

4

4-10 PRINT / CUT POSITION ADJUSTMENT (Referential Time : 10min.)

[About PRINT / CUT POSITION ADJUSTMENT]

This adjustment is for calibrating the relative positions of printing and cutting.

If it is not adjusted, it could result in a problem that the cutting shifts from printing.

There are two adjusting ways prepared in this Mode, Manual and Auto.

We recommend to carry out the Manual Adjustment for more accurate adjustment.

- 4** **1** Turn on the sub power switch while pressing [◀], [▼] and [▶] keys to enter the SERVICE MODE.

- Setup the PET-G film when you use the Pigment Ink.
- Setup the SPVC-G film when you use the Sol Ink.

Revised4 - Setup the SVGG film when you use the Eco-Sol Ink.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU
SERVICE MENU

- 2** Before carrying out this adjustment, it is necessary to do the TOOL / CROP MARK SENSOR POSITION ADJUSTMENT.

MENU
SERVICE MENU

SERVICE MENU
CROP-TOOL ADJ.

[MANUAL ADJUSTMENT]

- 3** Select [TEST PRINT2] under the [PRINT&CUT ADJ.] menu.

Test Pattern will be printed and cut when the [ENTER] key is pressed.

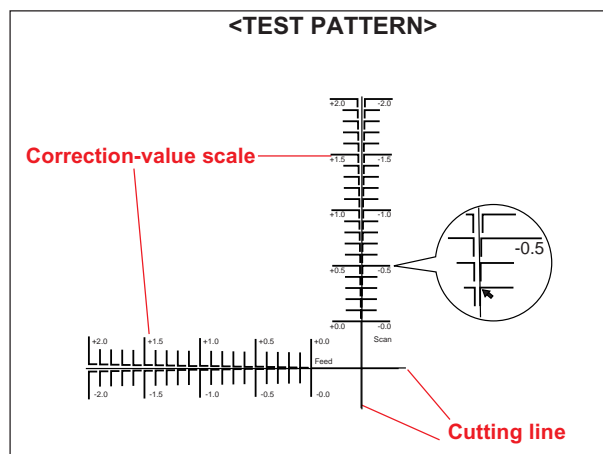
SERVICE MENU
PRINT&CUT ADJ.

PRINT&CUT ADJ.
TEST PRINT 2

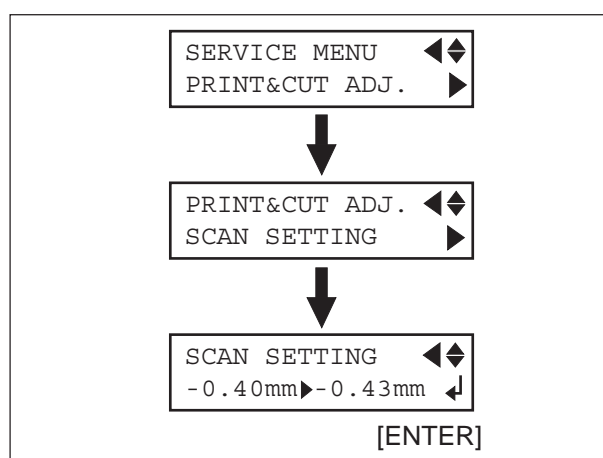
[ENTER]

- 4** From the Test Pattern, find the value where the printing line matches the cutting line.

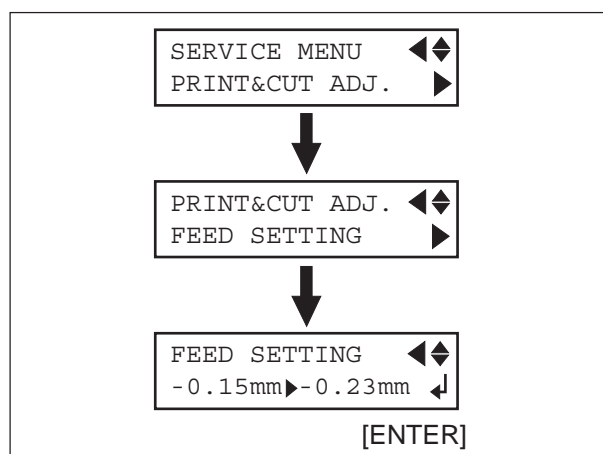
In this case, the correction value for the scanning direction is "-0.3".



- 5** Select [SCAN SETTING] from the [PRINT&CUT ADJ.] menu and enter the correction-value found in the Test Pattern.

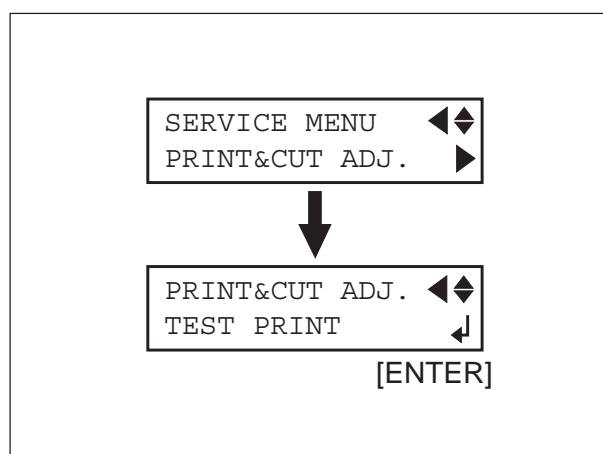


- 6** Select [FEED SETTING] from the [PRINT&CUT ADJ.] menu and enter the correction-value found in the Test Pattern.



- 7** Select [TEST PRINT] under the [PRINT&CUT ADJ.] menu.

Test Pattern will be printed and cut when the [ENTER] key is pressed.



- 8 If the cutting line is shifted from the printed image, fine adjust the error in Carriage Moving Direction and Grit Roller Moving Direction in the step 4 and 5.

[AUTOMATIC ADJUSTMENT]

- 4 9 Turn on the sub power switch while pressing [], [] and [] keys to enter the SERVICE MODE.
- Setup the PET-G film when you use the Pigment Ink.
 - Setup the SPVC-G film when you use the Sol Ink.
 - Revised4 - Setup the SVGG film when you use the Eco-Sol Ink.

[◀], [▼], [▶] + SUB POWER ON

[MENU] key

MENU
SERVICE MENU

- 10 Select [AUTO] under the [PRINT&CUT ADJ.] menu. PRINT / CUT OFFSET ADJUSTMENT will be done automatically after printing Crop Marks when the [ENTER] key is pressed.

SERVICE MENU
PRINT & CUT ADJ.

PRINT&CUT ADJ.
AUTO

[ENTER]

PRINT&CUT ADJ.
COMPLETED!!

[CHECKING]

- 11 Select [TEST PRINT] under the [PRINT&CUT ADJ.] menu.

When the [ENTER] key is pressed, Crop Marks will be printed on both edges of the media and will be cut. Make sure there is no shifting between the positions of the Crop Mark and Cutting.

In case of correcting the error, perform Manual Adjustment.

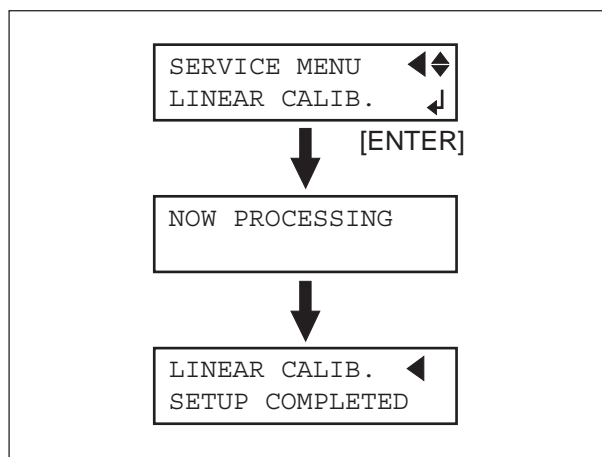
SERVICE MENU
PRINT & CUT ADJ.

PRINT&CUT ADJ.
TEST PRINT

[ENTER]

12 When Cutting is not fit with the Crop Mark at the left side, carry out the LINEAR ENCORDER CALIBRATION.

Select the [LINEAR CALIB.] in the Service Mode and carry out [LINEAR CALIB.].



4-11 CALIBRATION (FEEDING DIRECTION) (Referential Time : 20min.)

[About CALIBRATION]

CALIBRATION is for adjusting the feeding amount of the GRIT ROLLER.

Carry out this adjustment, in case of having problem to print in the correct length in the media feeding direction.

Calibration is done by using the PET-G in the Factory. Calibrate the feeding direction with customer's media if necessary.

- 4**
- 1** Turn on the SUB POWER SW while pressing [◀], [▼] and [▶] keys to enter the SERVICE MODE.

[◀], [▼], [▶] + POWER ON



[MENU] key



MENU	◀◆
SERVICE MENU	▶

- 2** Set the PET-G film on the machine.

- 3** Select the [TEST PRINT] menu under the [CALIB. DEFAULT] menu and press the [ENTER] key.

SERVICE MENU	◀◆
CALIB.DEFAULT	▶

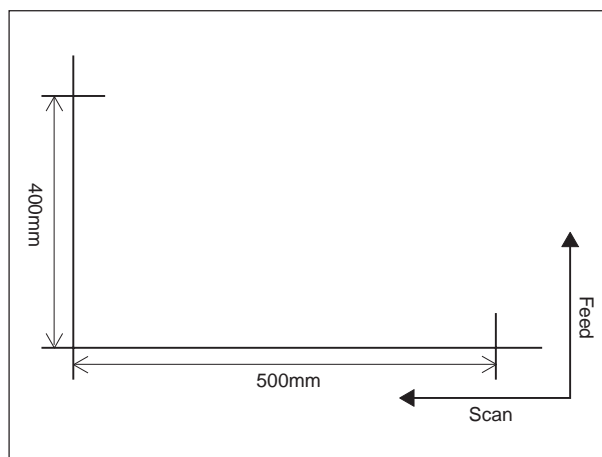


CALIB.DEFAULT	◀◆
TEST PRINT	↵

- 4** TEST PATTERN will be printed.
Calibrating amount can be calculated with the formula shown at **5** based on the printing result.



TEST PATTERN is always printed with Offset 0.00%. Therefore, TEST PATTERN is not changed even if you change the amount in the [SETTING] menu.



- 5** Calculate the amount to be calibrated with the formula shown at the right figure.

1. CA = Calibrating Amount
2. CL = Commanded Length (=400mm)
3. ML = Measured Length

FORMULA

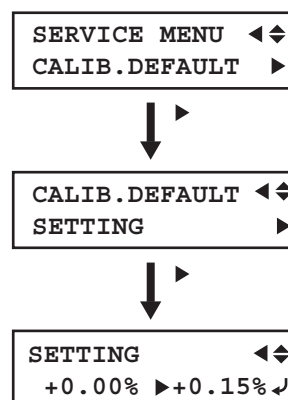
$$CA = \frac{CL - ML}{ML} \times 100$$

- 6** Select the [SETTING] menu under the [CALIB. DEFAULT] menu and change the amount to be calibrated with [▲] and [▼] keys.

Press the [ENTER] key to save the setting.

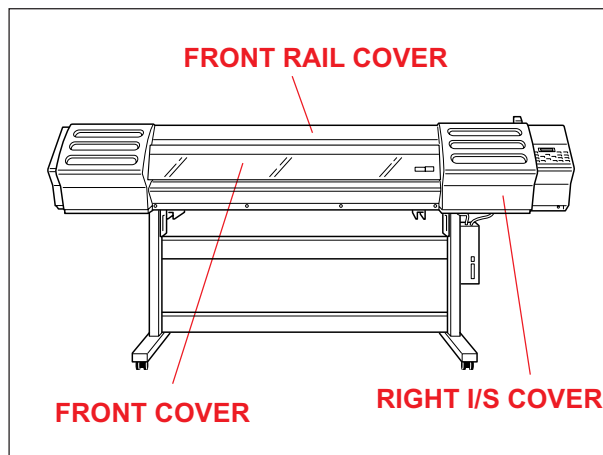


Parameters can be entered with an increment of 0.05%.
(MAX. +2.00% ~ MIN. -2.00%)



4-12 TOOL HEIGHT ADJUSTMENT (Referential Time : 20min.)

- 1** Remove the RIGHT I/S COVER, FRONT COVER and FRONT RAIL COVER.



- 4** **2** Turn on the sub power switch while pressing [], [] and [] keys to enter the SERVICE MODE.
Select [FORCE ADJUST] in the SERVICE MODE.



When you enter the [FORCE ADJUST] menu, you can move only the TOOL CARRIAGE.

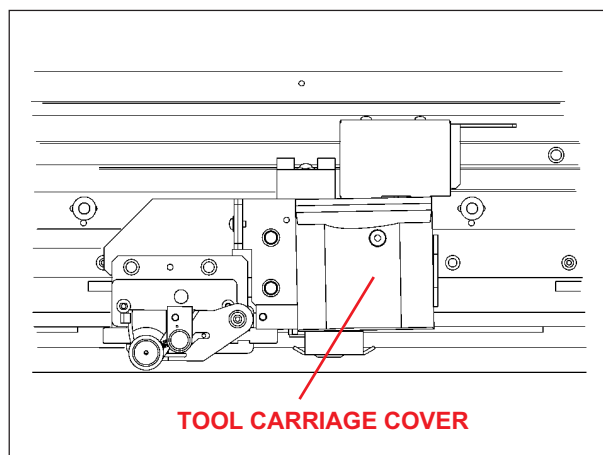
[◀], [▼], [▶] + SUB POWER ON

▼
[MENU] key

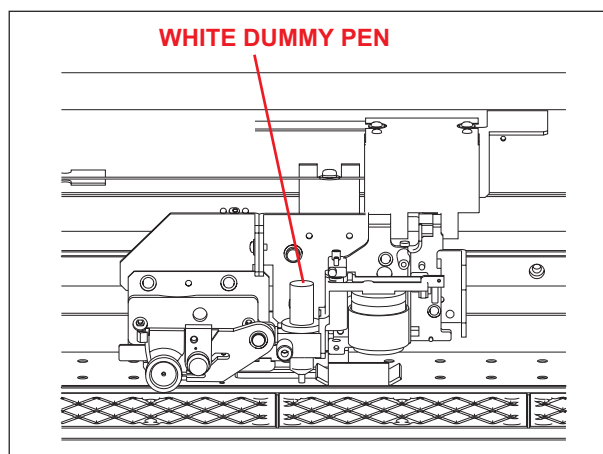
MENU
SERVICE MENU

SERVICE MENU
FORCE ADJUST

- 3** Remove the TOOL CARRIAGE COVER.

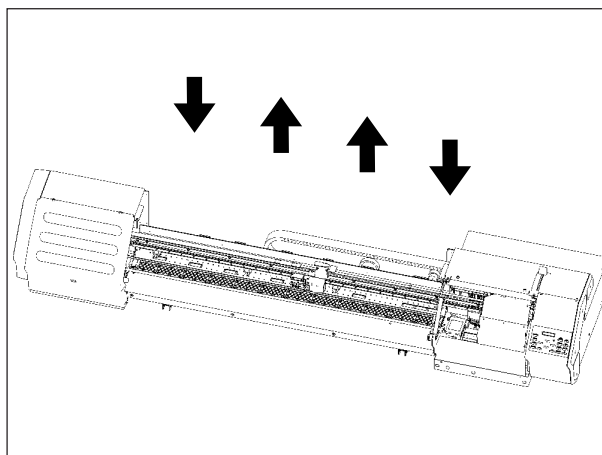


- 4** Put the WHITE DUMMY PEN (ST-006) on the TOOL CARRIAGE.



- 5** Lower the PINCH ROLLERS at both edges of the GRIT ROLLER.

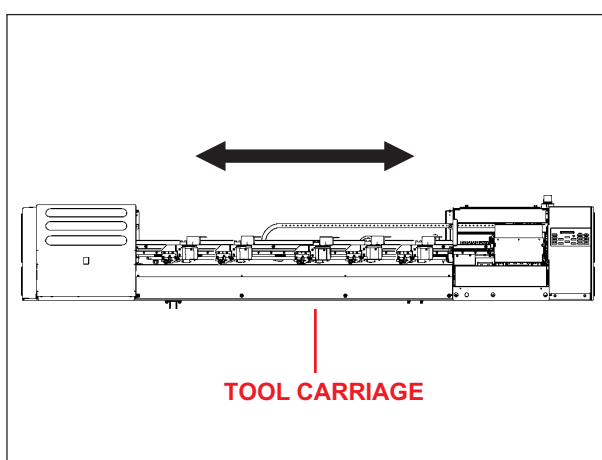
MIDDLE PINCH ROLLERS should be UP.



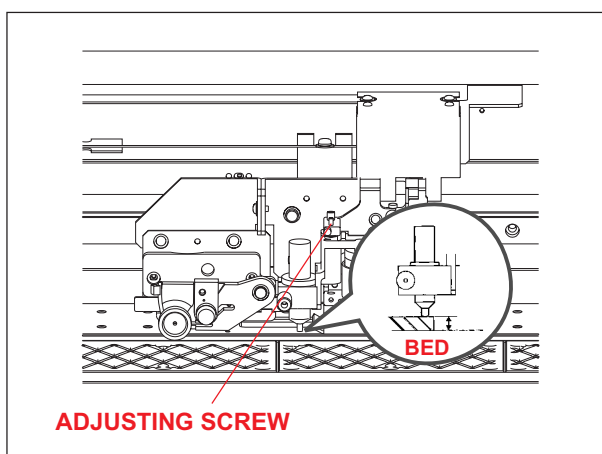
- 6** Move the TOOL CARRIAGE to the position where the clearance between the pen tip and the BED is the smallest among the 5 positions shown in the right figure.



[H] Mark is written at the position where the TOOL HEIGHT was adjusted in the factory. It is written at the position where the BED is at the highest. In another words, where the clearance between the HEAD and BED is the smallest.



- 7** Adjust the ADJUSTING SCREW so that the clearance between the pen tip and the BED will be 2.5 ~ 2.6mm.



- 8** Carry out the following adjustment.

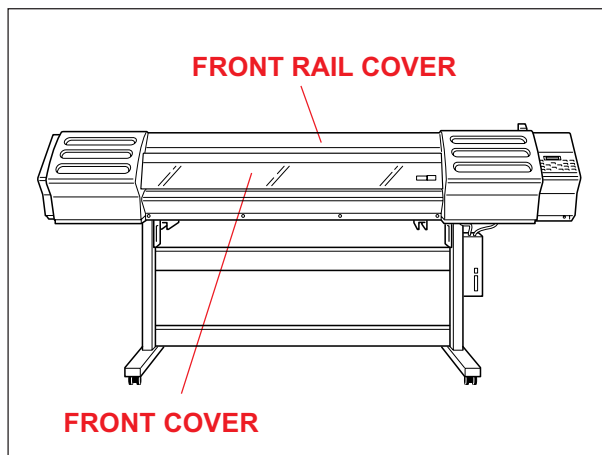
1. TOOL PRESSURE ADJUSTMENT

4-13 TOOL PRESSURE ADJUSTMENT (Referential Time : 15min.)

- 1** Remove the FRONT COVER and FRONT RAIL COVER.



When you do this adjustment, carry out the TOOL HEIGHT ADJUSTMENT.



- 4** **2** Turn on the sub power switch while pressing [], [] and [] keys to enter the SERVICE MODE.
Select [FORCE ADJUST] in the SERVICE MODE.



When you enter the [FORCE ADJUST] menu, you can move only the TOOL CARRIAGE.

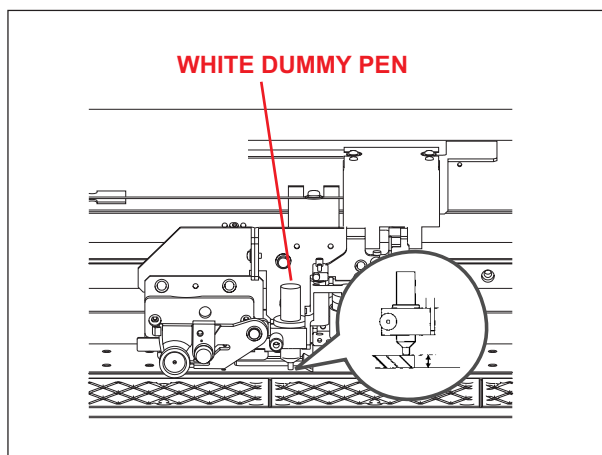
[◀], [▼], [▶] + SUB POWER ON

▼
[MENU] key

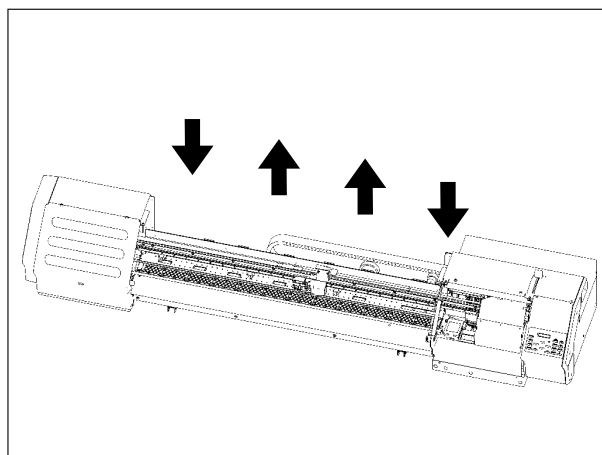
MENU
SERVICE MENU

SERVICE MENU
FORCE ADJUST

- 3** Put the WHITE DUMMY PEN (ST-006) on the TOOL CARRIAGE.



- 4** Lower the PINCH ROLLERS at both edges of the GRIT ROLLER.
MIDDLE PINCH ROLLERS should be UP.

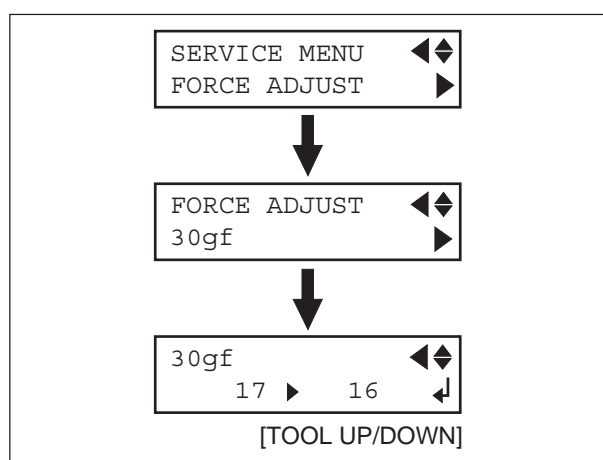


- 5** Move the TOOL CARRIAGE to the position where the TOOL HEIGHT was adjusted.

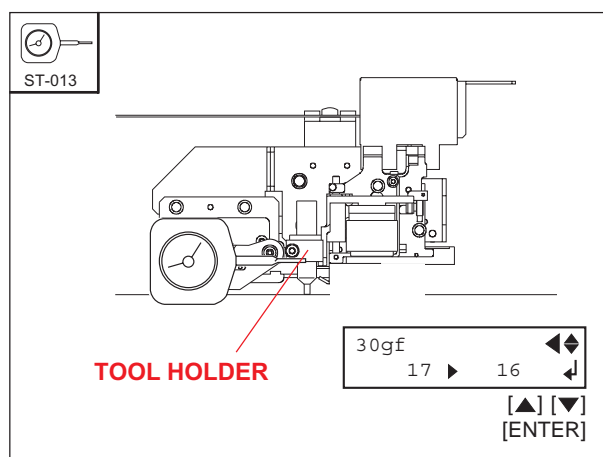


[H] Mark is written at the position where the TOOL HEIGHT was adjusted in the factory. It is written at the position where the BED is at the highest. In other words, where the clearance between the HEAD and BED is the smallest.

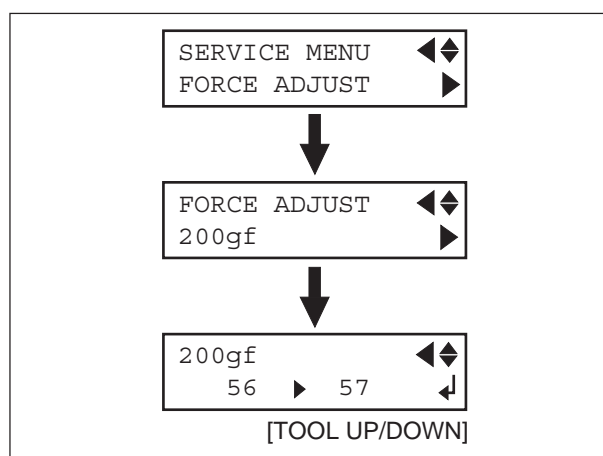
- 6** Select [30gf] under [FORCE ADJUST] menu.
Press the [TOOL UP/DOWN] key and move the TOOL down.



- 7** Pull up the Handle part of the TOOL HOLDER with the DIAL GAUGE (ST-013) and measure the pressure when the pen tip leaves the BED.
Adjust the parameter in the [30gf] menu with [] and [] keys so that the pressure will be 25 ~ 35gf(0.25N ~ 0.35N).
Press the [ENTER] key to save the settings.



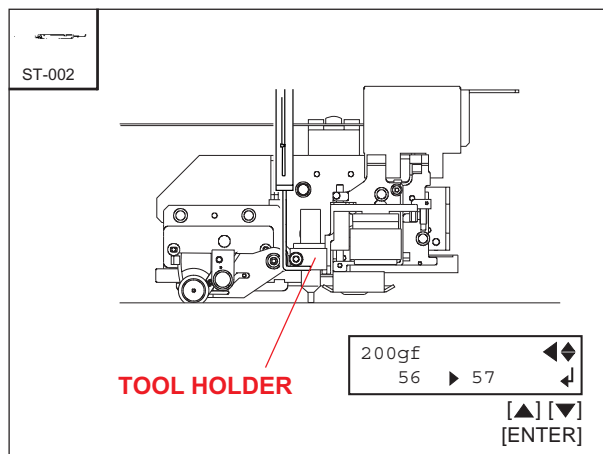
- 8** Select [200gf] under [FORCE ADJUST] menu.
Press the [TOOL UP/DOWN] key and move the TOOL down.



- 9** Pull up the Handle part of the TOOL HOLDER with the TENSION GAUGE (ST-002) and measure the pressure when the pen tip leaves the BED.

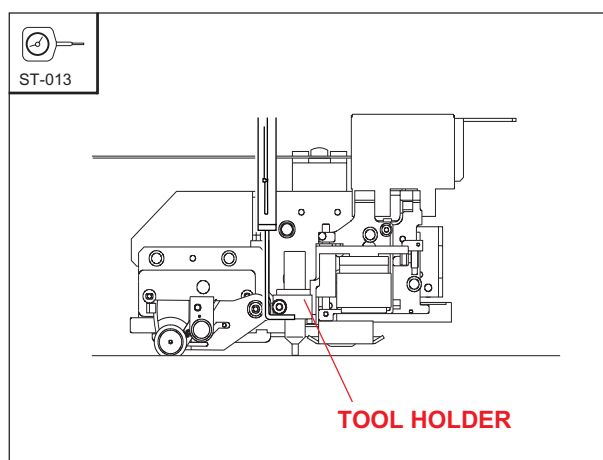
Adjust the parameter in the [200gf] menu with [] and [] keys so that the pressure will be 195 ~ 205gf (1.9N ~ 2.0N).

Press the [ENTER] key to save the settings.



- 4** **10** Enter [30gf] menu under [FORCE ADJUST] menu. Confirm that the force is 25 ~ 35gf(0.25N ~ 0.35N) when the tip of the Pen leaves the Bed by lifting the Handle part of the TOOL HOLDER with the DIAL GAUGE (ST-012).

In case of NG, adjust again.

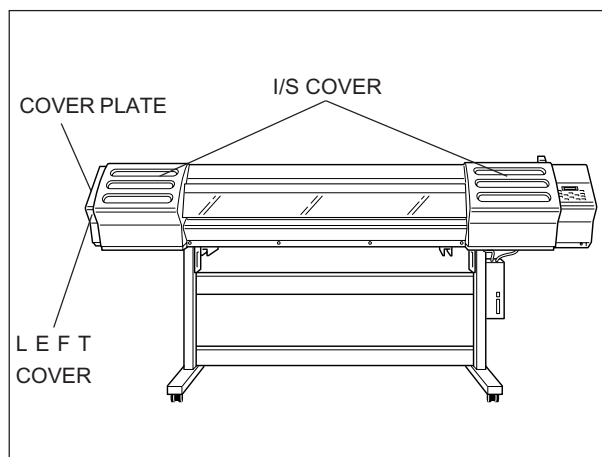


4-14 CARRIAGE WIRE TENSION ADJUSTMENT (Referential Time : 10min.)

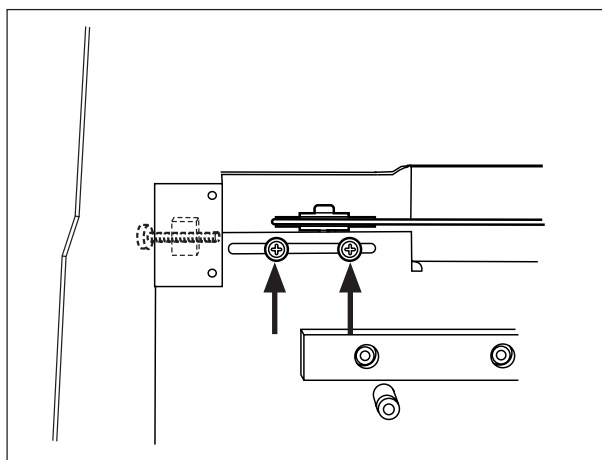
- 1 Remove the Left COVER, Right & Left I/S COVERS and COVER PLATE.



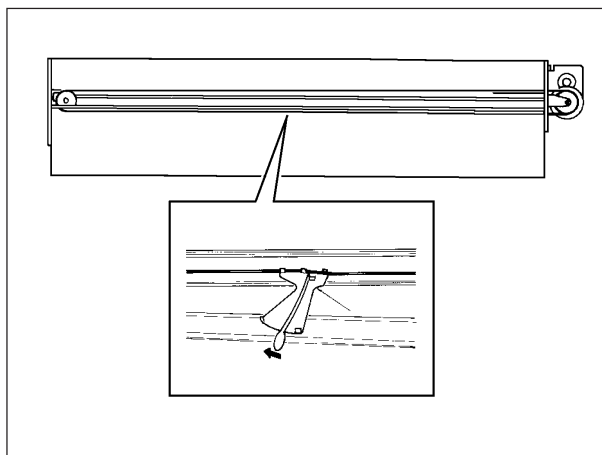
After replacing the wire, carry out this adjustment from 4 .



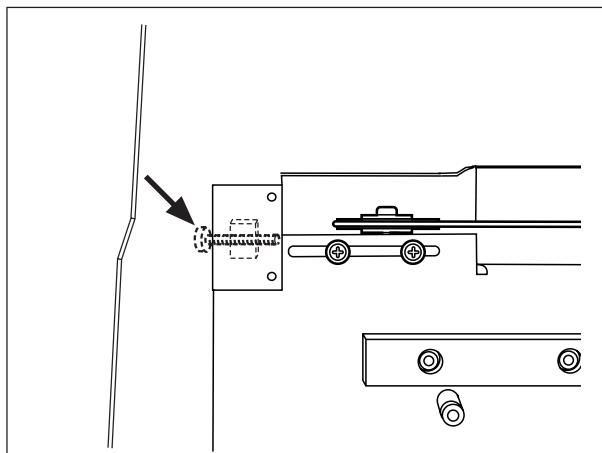
- 2 Loosen the screws shown in the figure.



- 3 Measure the wire tension with the TENSION METER (ST-011) at the center of the LM GUIDE.

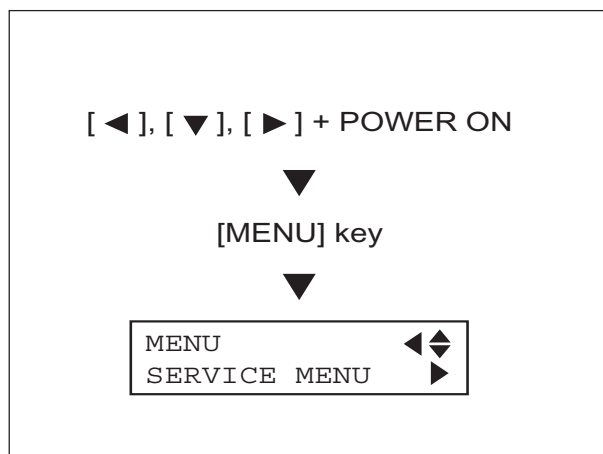


- 4 Adjust the tension with the ADJUSTMENT SCREW so that it will be as 13lb ~ 15lb when replacing the wire, or 9lb ~ 11lb in other cases.
9lb ~ 11lb is the optimal wire tension. The value for the wire tension when replacing the wire is set on the assumption that the tension will get settled in the optimal wire tension 9lb ~ 11lb, due to the stretch of the wire.

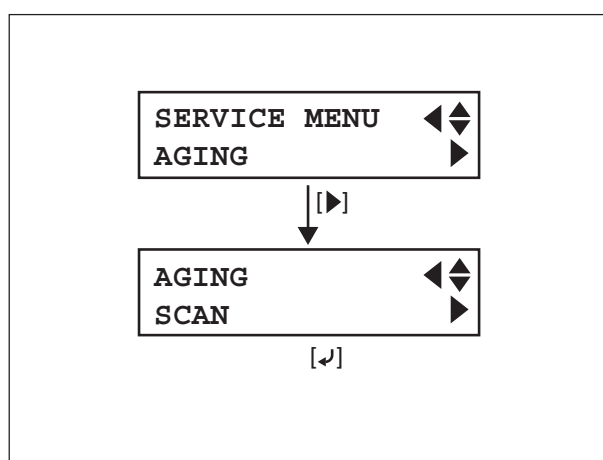


4

- 5** Turn on the SUB POWER SW while pressing [◀], [▼] and [▶] keys to enter the SERVICE MODE.

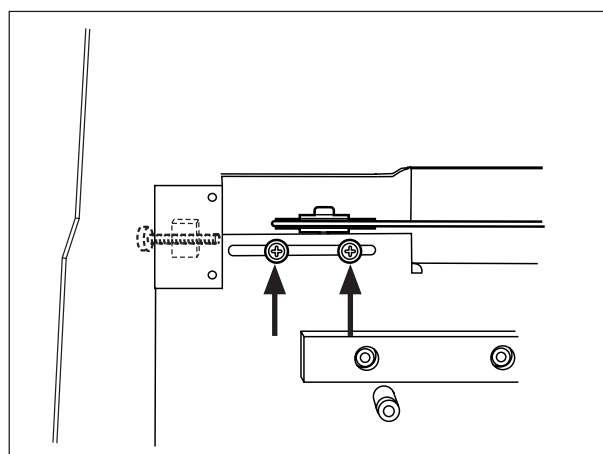


- 4** **6** Select the [SCAN] menu under the [AGING] menu and press the [ENTER] key to start AGING.



- 7** After moving the HEAD CARRIAGE back and forth 20 times, press the [ENTER] key to finish the AGING. Then, check the tension again. If the tension changes, re-adjust it.

- 8** Tighten the screws shown in the figure after completing the adjustment.



- 9 Check and make sure that the tension is within the range.
If not, adjust it again.

4-15 NETWORK BOARD INITIALIZE (Referential Time : 2min.)

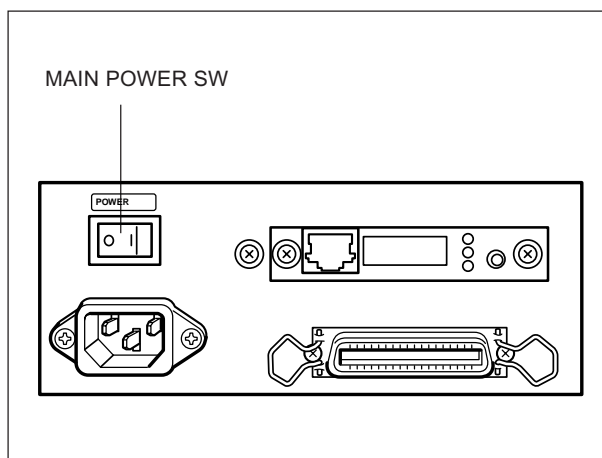
[About NETWORK BOARD INITIALIZE]

NETWORK BOARD INITIALIZE is necessary when the network board has stopped responding. When there is no response even if sending "PING" command or connecting from a browser, there is a possibility that the setting of the network board has become incorrect. In such case, the setting can be returned to the default by carrying out the INITIALIZE.

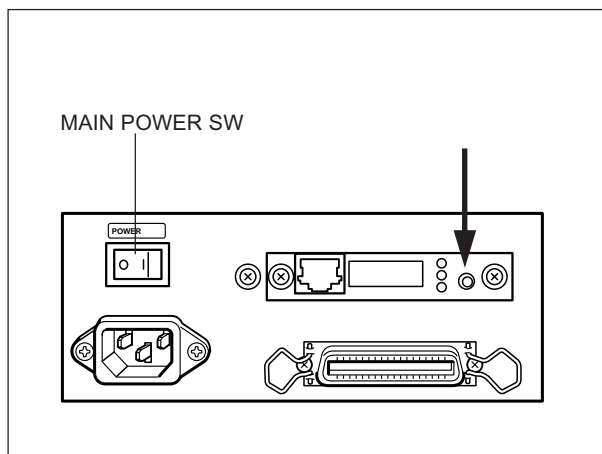
After the INITIALIZE is completed, it is necessary to set the IP address again. For details, please refer to Roland PrintServer Network Setting Guide.

4

1 Turn off the MAIN POWER SW.



2 Turn on the MAIN POWER SW while pressing the button of the network board.



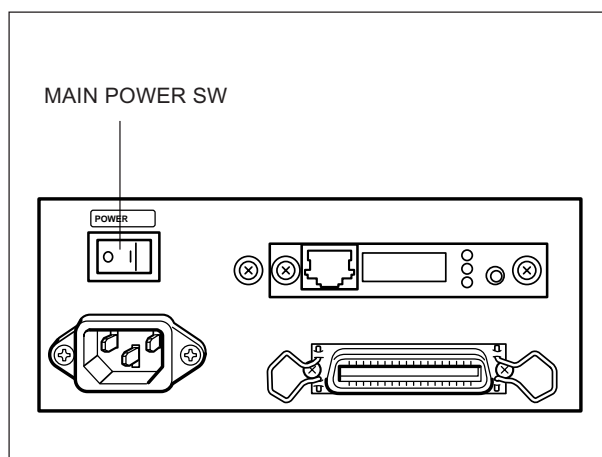
3 Release the button after green and yellow LEDs of the network board start flashing, and press the button again to carry out the INITIALIZE.

When the INITIALIZE is completed, the yellow LED flashes regularly after LEDs flash three times.

- 4** Turn off the MAIN POWER SW and then turn it on again.

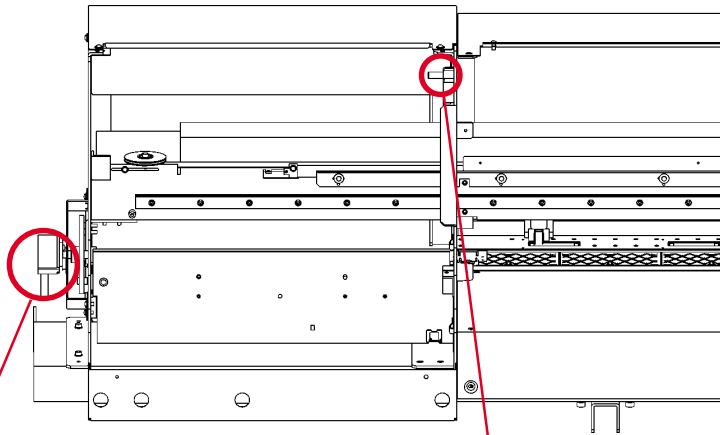


The network board will not work properly if the MAIN POWER SW is not turned on again. Such symptom could occur as that the network board does not accept any data although it returns the IP address.



5-1 SENSOR MAP

(Left side of the machine)



GRIT ENCODER

It detects rotation position of the Grit Roller.

MAINTENANCE COVER SENSOR

It detects whether the Maintenance Cover is opened or closed.

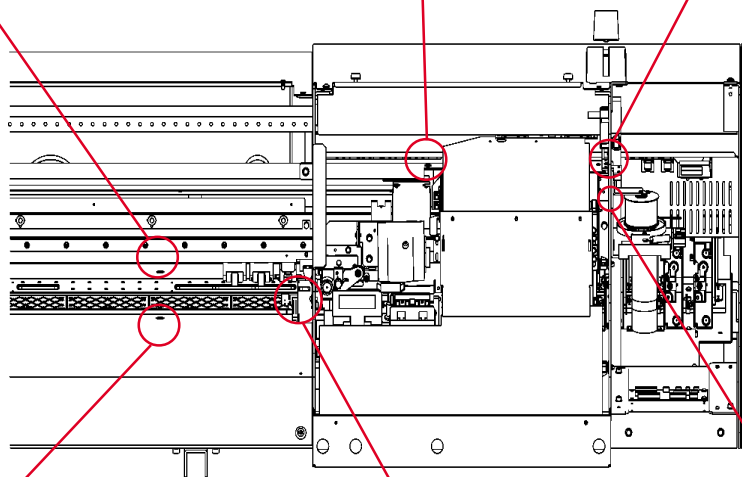
(Right side of the machine)

REAR PAPER SENSOR

It detects the rear edge of the media and also whether the media is set or not.

LIMIT SENSOR

It detects the origin of the Carriage Moving Direction and the limit.



FRONT PAPER SENSOR

It detects the front edge of the media.

FRONT COVER SENSOR

It detects whether the Front Cover is opened or closed.

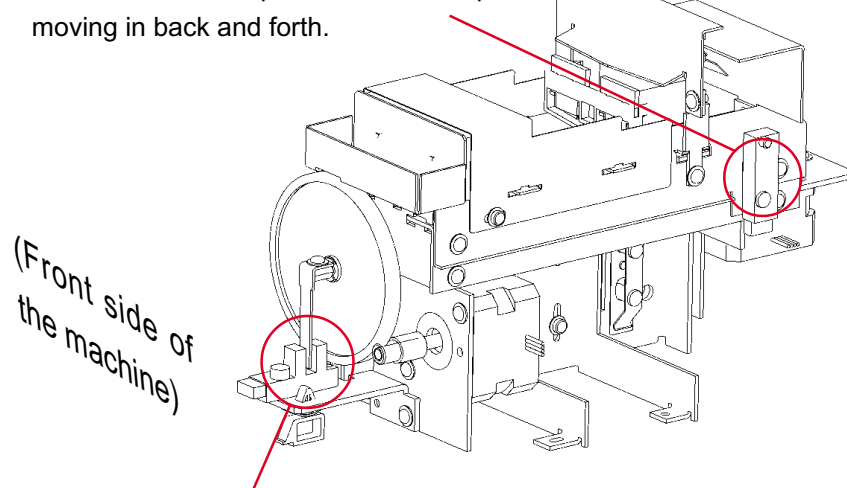
HEAD LOCK SENSOR

It detects whether the HEAD CARRIAGE is at locking position or not.

Revised1

WIPER SENSOR

It detects the limit position of the Wiper moving in back and forth.



ENCODER MODULE

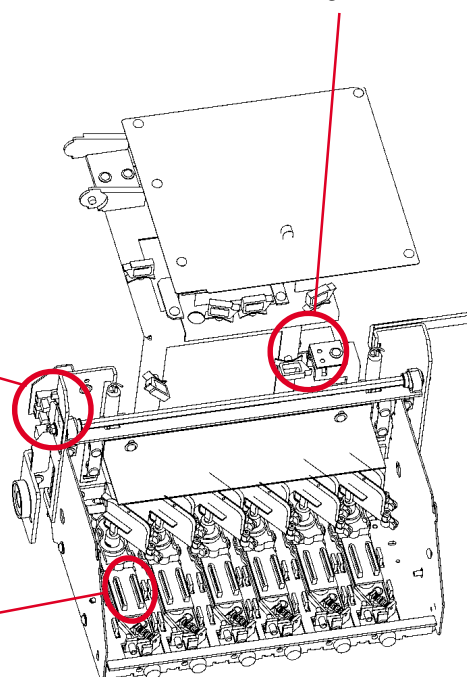
It detects coordinates for Carriage Moving Direction.

WIPER HEIGHT SENSOR

It detects the limit position of the Wiper height.

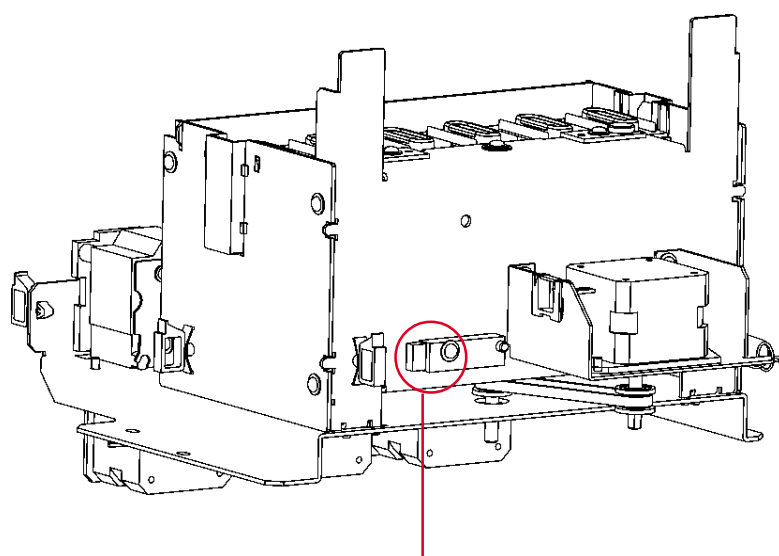
HEAD UP/DOWN SENSOR

It detects the position of the Head Height Lever.



THERMISTOR (HEAD)

It takes the temperature around the Head.
The black Head is used for the measurement.

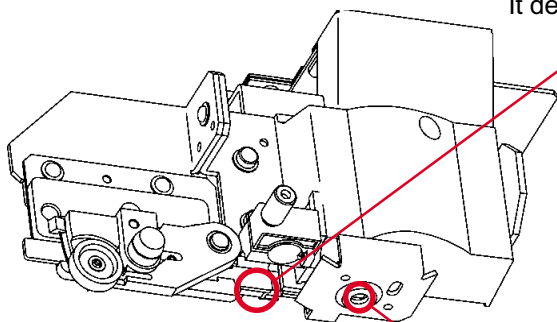


CAPPING SENSOR

It detects the limit position of the Capping Unit.

PINCH ROLLER SENSOR

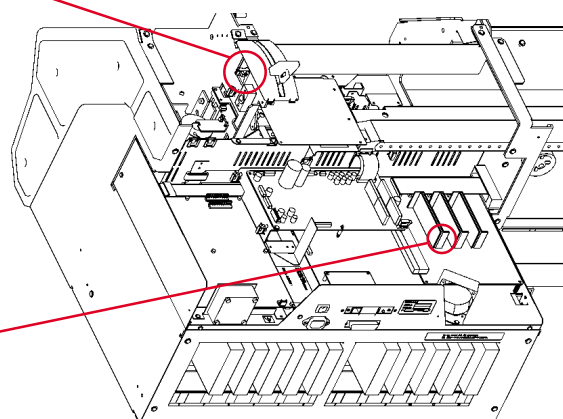
It detects the Pinch Rollers when setting up media.

**CROP MARK SENSOR**

It detects the Crop Mark.

SHEET LOAD SENSOR

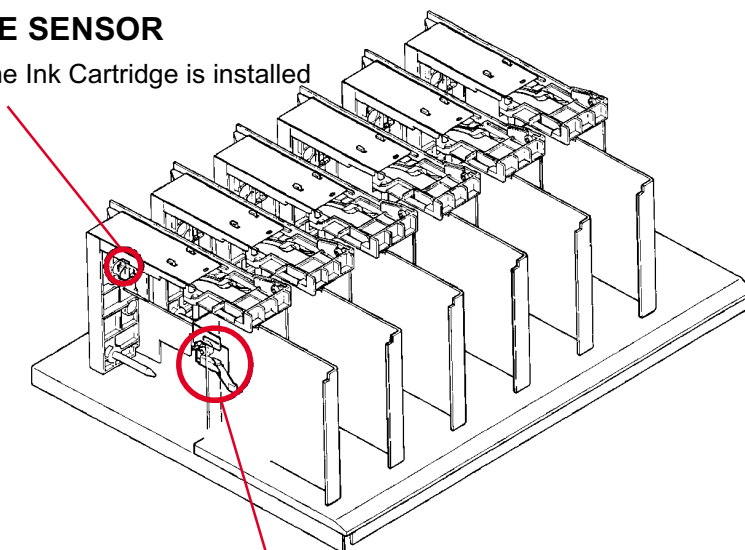
It detects whether the Sheet Loading Lever is UP or DOWN.

**THERMISTOR (HEAD BOARD)**

It takes the temperature around the Head Board.

INK CARTRIDGE SENSOR

It detects whether the Ink Cartridge is installed or not.

**INK EMPTY SENSOR**

It detects whether the Ink Cartridge is empty or not.

6 Troubleshooting

6-1 WHITE FINE LINES / BANDING / MISSING DOT / SCRATCHY PRINTING / BLURRED PRINTING

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Temporary clogging in nozzles	Manual Head cleaning	Users Manual	Nozzle condition becomes poor due to the foreign substance attached to the surface of the head or very slight drying of the ink.
2	Wrong setting for the media	Apply correct setting		The amount of the ink which can be accepted is different between the each media. If the ink amount is not proper, the printing image becomes blotted or banding appears in the printing image because of too much ink. It is necessary to do the Calibration when printing on the media which has a different thickness. If the Calibration is not adjusted properly, white lines or banding appear because of the bad feeding amount.
3	Transformation of Cap	Cap Top Replacement	[3-3 CAP TOP REPLACEMENT]	Cleaning is not performed efficiently and the white or dark lines appear in the printing image.
4	Wiper wears out	Wiper Replacement	[3-2 WIPER REPLACEMENT]	Wiper cannot remove the foreign substances stuck on the surface of the head. In that condition, ink is not fired properly and the white or dark fine lines appear in the printing image.
5	Foreign substances	Manual Cleaning	Users Manual	When foreign substances are stuck on the surface of the head, ink is not fired properly resulting in the white or dark fine lines in the printing image. The same thing happens when foreign substances are stuck on the cleaning wiper or cap, because the head cleaning cannot be performed efficiently in that condition.
6	Pump tube is clogged	Pump Replacement	[3-5 PUMP REPLACEMENT]	Cleaning is not performed efficiently because ink is not sucked well. As a result, white or dark lines appear in the printing image.
7	Ink Damper is clogged	Replace Ink Damper		Ink is not supplied to the head properly. As a result, the white or dark lines appear in the printing image, or printing becomes scratchy.
8	Ink cartridge is almost empty	Replace Ink Cartridge		When the ink cartridge is approaching to its empty, the negative pressure of the ink increases resulting in the scratchy printing or missing dot due to lack in ink supply. When the [INK CONTROL] in the menu is set to [LATER], the machine doesn't stop the job when the ink cartridge becomes almost empty.
9	Head is out of adjustment	Head Alignment	[4-4 HEAD ALIGNMENT]	When the Bias or Vertical adjustment is not adjusted properly, white or dark fine lines appear in the printing image. When the Horizontal or Bi-direction adjustment is not performed properly, banding appears in the printing image.
10	Head Rank is incorrect	Set Head Rank	[3-1 HEAD REPLACEMENT]	Head rank setting affects the amount of the fired ink. If it is not set properly, the printing image becomes light or dark or blurred.
11	Broken head or Life of head	Head Replacement	[3-1 HEAD REPLACEMENT]	Ink cannot be fired correctly and results in missing dot when the head is broken or reaches its life. When the head is electrically broken, it sometimes prints unnecessary lines.
12	Broken MAIN BOARD or HEAD BOARD	Replace MAIN BOARD or HEAD BOARD	[3-7 BOARD REPLACEMENT]	If the signal sent to the Head is not normal, the Head doesn't work properly.

6-2 DOES NOT PRINT AT ALL

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Ink Cartridge is almost empty	Confirm remaining ink. / Replace the Ink Cartridge.	Users Manual	When the ink cartridge is approaching to its empty, the negative pressure of the ink increases and ink is not fired properly due to lack in ink supply. When the [INK CONTROL] in the menu is set to [LATER] the machine doesn't stop the job when the ink cartridge becomes almost empty.
2	Foreign substances	Manual Cleaning	Users Manual	When foreign substances are stuck on the surface of the head, ink is not fired properly.
3	Wiper wears out	Wiper Replacement	[3-2 WIPER REPLACEMENT]	It cannot remove the foreign substances stuck on the surface of the head.
4	Air bubbles in Ink line	Powerful Cleaning	Users Manual	If there are air bubbles in the ink line, ink is sometimes not fired. Air bubbles tend to go into the ink line by installing and uninstalling the ink cartridge so many times. All the air bubbles inside the lines can be removed by the powerful cleaning.
5	Pump Tube is clogged	Pump Replacement	[3-5 PUMP REPLACEMENT]	Cleaning is not performed properly because ink is not sucked efficiently.
6	Ink Damper is clogged or broken	Ink Damper Replacement		Ink is not supplied to the head properly.
7	Broken Ink Tube	Ink Tube Replacement	[3-6 INK TUBE REPLACEMENT]	Ink is not supplied to the head properly.
8	Bad contact with Flexible Cable or Cut line in Flexible Cable	Re-fix / Replace Flexible Cable		When there is a bad contact with the Flexible cable connected to the head, or there is a cut line in the Flexible cable, the head doesn't work properly.
9	Broken Head or Life of Head	Head Replacement	[3-1 HEAD REPLACEMENT]	When the head is mechanically or electrically broken, the head doesn't work properly.
10	Broken MAIN BOARD or HEAD BOARD	Replace MAIN BOARD or HEAD BOARD	[3-7 BOARD REPLACEMENT]	If the signal sent to the Head is not normal, the Head doesn't work properly.

6-3 INK DROPS ON MEDIA

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Foreign substances	Manual Cleaning	Users Manual	When foreign substance such as fiber dust is stuck on the surface of the head, ink sometimes leaks from it.
2	Media strikes Head	Change Media		If the media tends to curl or become bumpy due to ink, the head sometimes strikes the media and it causes the ink dropping problem. It can be avoided by using the Media Clamps or changing the head height.
3	Broken Ink Damper	Ink Damper Replacement		When there is a hole in the Ink Damper, ink flows through the head nozzles and results in ink dropping.
4	Broken Ink Tube	Ink Tube Replacement	[3-6 INK TUBE REPLACEMENT]	When the Ink Tube is broken, ink flows through the head nozzles and results in ink dropping.
5	Broken Head	Head Replacement	[3-1 HEAD REPLACEMENT]	When the Head is broken mechanically, ink flows through the head nozzles and results in the ink dropping.
6	Broken MAIN BOARD or HEAD BOARD	Replace MAIN BOARD or HEAD BOARD	[3-7 BOARD REPLACEMENT]	Ink firing could not be controlled correctly and sometimes results in the ink dropping.

6-4 SHIFTING IN PRINTING

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Media is not set correctly.	Set Media correctly.	Users Manual	Media is not set straight. Make sure to set the Media straight referring to the Users Manual.
2	Encoder Scale is dirty / broken.	Clean or Replace Encoder Scale.	[3-9 Encoder Scale Replacement]	When Encoder Scale is dirty or broken, the printing image can be shifted in a staircase pattern because the printing position in the scanning direction cannot be detected correctly.
3	Encoder Module is dirty / broken	Clean or Replace Encoder Module		When Encoder Scale is dirty or broken, the printing image can be shifted in a staircase pattern because the printing position in the scanning direction cannot be detected correctly.
4	Head is out of position.	Head Alignment.	[4-4 HEAD ALIGNMENT]	When the 2 heads are not aligned, the color shifting occurs and when the bidirectional and horizontal adjustment is not correct, the shifting occurs in every band.
5	ABSORPTION FAN is not working.	Replace the FAN / Servo Board.	[3-7 BOARD REPLACEMENT]	When the ABSORPTION FAN is not working, Media floats on the BED and this results in the Shifting in Printing.

6-5 VERTICAL BANDING

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Encoder Scale is dirty.	Clean / Replace Encoder Scale.	[3-9 Encoder Scale Replacement]	When there is scratch or dirt on the Encoder Scale, the printing image could be damaged its quality and the vertical bandings could be appeared at the position where there is scratch or dirt. Use KIMWIPE for cleaning or replace it. Never use chemicals, such as alcohol, for cleaning.
2	LM Guide is dirty.	Clean LM Guide.		When there is dirt on the LM Guide, the Head carriage has the big moving resistance and the printing image becomes to be changed from the other part at the position where there is a dirt. And it results in the vertical banding.
3	There is a dirt in teeth of Drive Gear.	Clean Drive Gear.		When there is a dirt in the teeth of the Drive Gear, the movement of the Head Carriage is changed at the position where there is a dirt. And it results in the periodical vertical bandings.
4	There is a dirt in teeth of Motor Gear.	Clean Motor Gear.		When there is a dirt in the teeth of the Motor Gear, the movement of the Head Carriage is changed at the position where there is a dirt. And it results in the periodical vertical bandings.

6-6 PRINT DOES NOT MATCH WITH CUT

Revised1

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Within tolerance	Explain to User		Shifting of Printing and Cutting Position within 0.5mm / within 0.3% of distance traveled is in tolerance.
2	Elasticity in Media			Media will expand or shrink depending on the temperature and humidity. Therefore, if the elasticity differs when printing and when cutting, Printing and Cutting Positions will be shifted. By acustoming the media to the environment before printing, it could make the difference of elasticity minimum.
3	The machine's environment is not optimized.	Carry out the Environment Matching.	Uses Manual	Carry out [ENV. MATCH] in User's menu. Cutting position in the carriage moving direction is detected by the Motor ENCODER while the printing position is detected by the ENCODER SCALE. The ENCODER SCALE expands and contracts depending on the environment (temperature & humidity), and it causes the Print/Cut shifting problem in the carriage moving direction. (The shifting amount becomes bigger as it is far from the carriage standby position.) This function adjusts the machine to optimize its state to the environment where it is used. This function is the same adjustment as [LINEAR CALIB.] in Service menu.
4	Offset value of [CUTTING ADJ.] is not zero (0).	Set the Offset value to zero (0).		When you are performing printing and cutting, use a value of "0" the menu of [CALIBRATION] -- [CUTTING ADJ.]. This setting is using the machine for cutting only.
5	Print / Cut Position Adjustment is not correct	Print / Cut Position Adjustment	[4-9 Print / Cut Position Adjustment]	Print / Cut Position Adjustment is to calibrate the error in the relative positions of Head and Tool Carriage due to the manufacturing tolerance and correct an error in printing and cutting positions. Therefore, if this adjustment is not performed correctly, printing and cutting positions will be shifted.
6	Calibration for Carriage Moving Direction is not correct	Calibration	[4-10 Calibration]	Media Feeding amount is slightly different in each media because of the difference in its thickness. When the feeding amount changes, landing position of the dots will be changed and results in banding.
7	Crop Mark Sensor is dirty	Clean the Crop Mark Sensor		Print / Cut Offset Adjustment can not be done correctly when the Crop Mark Sensor is dirty. When Crop Mark Sensor is dirty, relative positions of Printing and Cutting can not be corrected and cause printing and cutting positions to be shifted.
8	Sensitivity of Crop Mark Sensor is low	Crop Mark Sensor Adjustment	[4-7 Crop Mark Sensor Adjustment]	When the sensitivity of Crop Mark Sensor is low, relative positions of Printing and Cutting can not be corrected and cause printing and cutting positions to be shifted.
9	Tool / Crop Mark Sensor Position Adjustment is not correct	Tool / Crop Mark Sensor Position Adjustment	[4-8 Tool / Crop Mark Sensor Position Adjustment]	Tool / Crop Mark Sensor Position Adjustment is to calibrate the error in the relative positions of Tool and Crop Mark Sensor. Therefore, printing and cutting positions will be shifted when the relative position of Tool and Crop Mark Sensor is shifted from the correct position. And also, based on the fact that this adjustment is correctly done, the Print / Cut Offset Adjustment is performed. Therefore, the printing and cutting position will shift even not using Crop Marks.

6-7 STITCH CUT

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Blade tip is wearing out	Replace the Blade		When blade wears out, it will be caught by the vinyl and results in stitch cut.
2	Blade Holder tip is caught by the media	Don't use Blade Extension Function		Blade holder tip gets caught by the vinyl depending on the surface condition or type of media. In this case, try cutting without using the blade extension function.
3	Scratch in Cutter Protection	Replace the Cutter Protection	[3-12 Cutter Protection _ Replacement]	Cutter Protection is where the blade lands for cutting. If there is scratch in the Cutter Protection, blade is caught by the vinyl because it sticks deeper into the vinyl and results in stitch cut.
4	Bearing inside Blade Holder doesn't rotate smoothly.	Replace the Blade Holder		There are bearings inside the Blade Holder. When the bearings don't rotate smoothly, direction of the blade slightly shifts from the correct direction and therefore, it will be caught by the vinyl which results in stitch cut.
5	Tool Height is not correct	Tool Height Adjustment	[4-11 Tool Height Adjustment]	When Tool Height is not adjusted, blade hits the Bed strongly and bounces which results in stitch cut. In most cases, stitch cut at the beginning is caused by this reason.
6	Tool Pressure is not correct	Tool Pressure Adjustment	[4-12 Tool Pressure Adjustment]	When Tool Pressure is not adjusted, blade hits the Bed strongly and bounces which results in stitch cut.
7	Holder part of Tool Carriage / Tool Carriage ASS'Y are loose.	Fix Holder part of Tool Carriage / Tool Carriage ASS'Y again.	[3-4 Tool Carriage _ Replacement]	When Holder part of Tool Carriage / Tool Carriage ASS'Y are loose, the cutting is unstable and results in the stitch cut.
8	Tool doesn't move up/down smoothly	Replace the Tool Carriage	[3-4 Tool Carriage _ Replacement]	When Tool doesn't move up and down smoothly, blade sometimes hits the Bed strongly and bounces which results in stitch cut. In most cases, stitch cut at the beginning is caused by this reason.
9	Solenoid Driver IC on Servo Board is broken	Replace IC23 on the Servo Board		When Solenoid Driver IC breaks, sometimes high pressure will be generated. In this case, blade hits the Bed strongly and bounces which results in stitch cut.

6-8 START AND END POINTS DO NOT MATCH

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Blade Offset doesn't match with offset set in the machine	Match Offset	User's Manual	Blade used on the machine has offset and therefore, tip is shifted from its center. When the offset setting done on the machine doesn't match with the blade offset, offset correction won't be done. Therefore, the starting and ending points won't match especially when cutting circles.
2	Middle Pinch Roller is not used	Use Middle Pinch Roller	User's Manual	There are 4 Pinch Rollers, left, right and middle. When using only left and right pinch rollers, middle part of the media won't follow both edges when the media is fed. Therefore, the starting and ending points won't match. It is recommended to use the middle pinch rollers especially when using wide media.
3	Scratch in Cutter Protection	Replace the Cutter Protection	[3-12 Cutter Protection _ Replacement]	Cutter Protection is where the blade lands for cutting. If there is scratch on the Cutter Protection, blade doesn't rotate smoothly and therefore, starting and ending point won't match.
4	Blade tip is wearing out	Replace the Blade		When blade tip wears out, offset will be changed. Therefore, as same as 1, the starting and ending point won't match especially when cutting circles.
5	Bearing inside Blade Holder doesn't rotate smoothly	Replace the Blade Holder		There are bearings inside the Blade Holder. When the bearings don't rotate smoothly, direction of the blade slightly shifts from the correct direction and therefore, starting and ending points do not match.
6	Holder part of Tool Carriage / Tool Carriage ASS'Y are loose.	Fix Holder part of Tool Carriage / Tool Carriage ASS'Y again.	[3-4 Tool Carriage _ Replacement]	When Holder part of Tool Carriage / Tool Carriage ASS'Y are loose, the cutting is unstable and starting and ending points do not match.
7	Tool Height is not correct	Tool Height Adjustment	[4-11 Tool Height Adjustment]	When Tool Height is not adjusted, blade hits the Bed strongly and bounces. Therefore, the cutting at the very beginning won't be done and cause the starting and ending points to be shifted.
8	Tool Pressure is not correct	Tool Pressure Adjustment	[4-12 Tool Pressure Adjustment]	When Tool Pressure is not adjusted, blade hits the Bed strongly and bounces. Therefore, the cutting at the very beginning won't be done and cause the starting and ending points to be shifted. And also, when the Tool Pressure is set too high by the user, the blade offset changes because the blade tip goes deep into the vinyl. Therefore, the starting and ending points will be shifted.
9	Motor Gear is meshed too tight or too loose	Adjust Backlash		When Motor Gear is meshed too tight or too loose, Tool Carriage and Grit Roller will be driven unstable and results in starting and ending points to shift.

6-9 DISTORTED FIGURE

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Blade Holder is set loose on Tool Carriage	Secure the Blade Holder	User's Manual	When Blade Holder is set loose on Tool Carriage, the blade tip becomes very shaky when cutting and results in distorted figure.
2	Blade Offset doesn't match with offset set in the machine	Match Offset	User's Manual	Blade used on the machine has offset and therefore, tip is shifted from its center. When the offset setting done on the machine doesn't match with the blade offset, offset correction won't be done and results in distorted figure.
3	2 Middle Pinch Rollers are not used	Use Middle Pinch Roller	User's Manual	There are 4 Pinch Rollers, left, right and 2 for the middle. When media is pinched with only 2 Pinch Rollers at both sides, middle part of the media doesn't follow the both edges and results in distorted figure. Make sure to set the Middle Pinch Rollers especially using wider media.
4	Blade tip is wearing out	Replace the Blade		When blade tip wears out, offset will be changed. Therefore, it results in distorted figure like the way 2.
5	Bearing inside Blade Holder doesn't rotate smoothly	Replace the Blade Holder		There are bearings inside the Blade Holder. When the bearings don't rotate smoothly, direction of the blade slightly shifts from the correct direction and results in distorted figure.
6	Holder part of Tool Carriage is loose	Replace the Tool Carriage	[3-4 Tool Carriage _ Replacement]	When holder part of Tool Carriage is loose, direction of the blade slightly shifts from the correct direction and results in distorted figure.
7	Tool Carriage is loose	Replace the Tool Carriage	[3-4 Tool Carriage _ Replacement]	When the Tool Carriage is loose, the blade tip becomes shaky and results in distorted figure.
8	Motor Gear is meshed too tight or too loose	Adjust Backlash		When Motor Gear is meshed too tight or too loose, Tool Carriage and Grit Roller will be driven unstable and results in distorted figure.

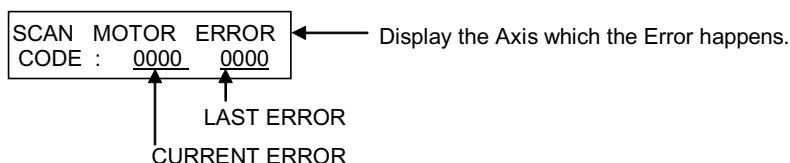
6-10 MEDIA SHIFTING

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Flanges for the Media is loose	Fix the Flanges with Stopper	User's Manual	Media Flanges are fixed by the stoppers. If the stoppers are not fixed, roll shifts to left and right during media feeding and results in media shifting.
2	Flanges are not set correctly to the Media	Setup Media again	User's Manual	When the flanges are not fully inserted to the media tube, media will be fed eccentric and results in media shifting.
3	Media is not set straight to the machine	Setup Media again	User's Manual	The most effective measure against media shifting is to set the media straight to the machine. Small tilting of the media when setting it up could result in big shifting especially doing long print. It is recommended to setup the media by adding tension towards front and check the shifting by prefeed function before actually start printing.
4	Grit Roller is dirty	Clean the Grit Roller		When dust such as pieces of vinyl is stick to the grit roller, power to hold the media will be weakened and results in media shifting. Use brush to clean the Grit Roller.
5	Pinch Roller is wearing out	Replace the Pinch Roller		When pinch rollers wear out, power to hold the media will be weakened and results in media shifting. Referential time for replacement of pinch roller is 24 months.
6	Grit Roller is loose	Fix the Grit Roller		When Grit Roller becomes loose, feeding amount between left and right edges will be different and results in media shifting.

6-11 MOTOR ERROR Revised4

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Media Jam	Remove cause of Media Jam.		When the edges of the media curls or the media absorbs the Ink and becomes to be irregular surface of the media, the Head Carriage catches on the media during printing and results in the Motor Error.
2	Motor breakage / life	Motor Replacement		When the Motor is broken or reaches its life, the Motor cannot obey the order from the CPU and it results in the Motor Error.
3	Power Supply voltage for Motor is not supplied	Replace Switching Power Supply		When the Power Supply voltage for the Motor is not supplied, the Motor cannot move and it results in the Motor Error.
4	Broken Servo Board	Replace Servo Board.	[3-7 BOARD REPLACEMENT]	When the Servo Board is broken, the Power Supply voltage for the Motor is not supplied and the Motor cannot move. It results in the Motor Error.
5	Dirt in teeth of Drive Gear.	Clean Drive Gear.		When there is a dirt in the teeth of the Drive Gear and it cannot rotate, the Motor Error occurs.
6	Weight of Media exceeds usable Media.	Use usable Media.		When the weight of Media is too heavy, the Motor Error occurs due to the too much load for feeding Media.

<ERROR DESCRIPTION>



< ERROR LIST >

Bit No.	MEANING	CAUSE
0001	Feed Motor Deviation Error	< User side > 1. Media Jam 2. Pull or Move the Carriage by hand. 3. Carriage runs into a thing/hands. 4. Media is stuck because the media end is not separated from the paper tube. 5. Heavy media is used.
0004	Feed Motor Overcurrent Error 1 (Big load is put on the motor instantaneously.)	
0008	Feed Motor Overcurrent Error 2 (A little load is put on the motor for a long time.)	
0010	Scan Motor Deviation Error	
0040	Scan Motor Overcurrent Error 1 (Big load is put on the motor instantaneously.)	
0080	Scan Motor Overcurrent Error 2 (A little load is put on the motor for a long time.)	< Mechanical Side > 1. There is a bad contact/cut-line in the cable. 2. Screw fixing the tool carriage to wire is shifted. 3. Motor is broken./Life 4. Head/Servo Board is broken.

6-12 ERROR MESSAGE

NO	CHECKING POINT	ACTION	REFERENCE	OUTLINE
1	Service Call	Refer to Service Call	Refer to Service Call	
2	Internal Error	Restart machine		This message is displayed when the unexpected error happens. In the most case, the error can be fixed by restarting the machine. If the error still happens in spite of restarting the machine, it sometimes could be solved by carrying out the Limit Initialization or changing some setting values.

SERVICE CALL

Revised1

CODE No.	MEANING	CONTENTS	CAUSE	ACTION
0002	Sub CPU Communication Error	Disorder of communication with Sub CPU	Sub Board does not work correctly. Sub CPU does not work correctly. There is a bad connection between Main Board and Sub Board.	1) Check Cable Connection between Main Board and Servo Board 2) Servo Board Replacement 3) Main Board Replacement
0101	Limit Position Error	Limit Initialization in the Service Mode has not been done.	Limit Initialization in Service Mode has not been done.	1) Carry out Limit Position Initialize.
Revised4 0102	Head Lock Sensor Error	Even though the machine carries out the regular movement, the output of the Head Lock Sensor does not reach the expected value.	Head Lock Sensor does not work correctly or is broken.	1) Head Lock Replacement 2) Check the mechanical Backlash or loose with the scanning axes.
Revised4 0103	Limit Sensor Error	Even though the machine carries out the regular movement, the output of Limit Sensor does not reach the expected value.	Limit Sensor does not work correctly or is broken.	1) Limit Sensor Replacement 2) Check the mechanical Backlash or loose with the scanning axes.
0104	Cap Unit Protection Error	Even though the machine carries out the regular movement, the output of Cap Sensor does not become to reach the expected value.	Disorder of Cap Motor Fault of Cap Unit Fault of Cap Sensor Cut-line or short-circuit of Cable and Flexible Cable	1) Cap Motor Replacement 2) Cap Unit Replacement 3) Cap Sensor Replacement 4) Cable and Flexible Cable Replacement
0105	Tool Carriage Connection Error	Machine fails to connect the Tool Carriage to the Head Carriage.	Fault of Tool Carriage Connection Loose of Connection Part Fault of the Limit Position Initialize value Limit Sensor does not work correctly or is broken.	1) Check the mechanical Backlash or loose with the Tool Carriage part. 2) Lock Position Adjustment 3) Limit Position and Cut Down Position Initialize 4) Limit Sensor Replacement
0106	Tool Carriage Disconnection Error	Machine fails to disconnect the Tool Carriage to the Head Carriage.	Disorder of Cap Motor Loose of Connection Part Fault of the Limit Position Initialize value Limit Sensor does not work correctly or is broken.	1) Check the mechanical Backlash or loose with the Tool Carriage part. 2) Lock Position Adjustment 3) Limit Position and Cut Down Position Initialize 4) Limit Sensor Replacement
0107	Unset up of the Linear Encoder	Linear Encoder Setup has not been done.	Linear Encoder Setup has not been done.	1) Carry out Linear Encoder Setup.
0108	Wiper Unit Protection Error	Even though the machine carries out the regular movement, the output of the Wiper Height Sensor does not become to reach the expected value.	Disorder of Wiper Height Sensor Fault of Wiper Unit Fault of Wiper Height Sensor Disconnection or short-circuit of Cable and Flexible Cable	1) Wiper Motor Replacement 2) Wiper Unit Replacement 3) Wiper Height Sensor Replacement 4) Cable and Flexible Cable Replacement
Revised4 0109	Wiper Protection Error	Even though the machine carries out the regular movement, the output of the Wiper Sensor does not reach the expected value.	Disorder of Wiper Sensor Fault of Wiper Unit Fault of Wiper Sensor Cut-line or short-circuit of Cable and Flexible Cable	1) Wiper Motor Replacement 2) Wiper Unit Replacement 3) Wiper Sensor Replacement 4) Cable and Flexible Cable Replacement
0110	Linear Encoder Error	Input value from Linear Encoder is not changed when Linear Encoder is set up the Origin. When Motor stops during printing, Motor does not complete the movement which is supposed to be done.	Read error of Linear Encoder Read error of Encoder on Scan Motor side Wire is not fixed to Head Carriage firmly.	1) Confirm whether Encoder Scale is between the slit of Encoder Module in a whole width of the machine. 2) Linear Encoder Replacement 3) Scan Motor Replacement 4) Confirm Cable Connection between Linear Encoder Board and Print Carriage Board. 5) Confirm Connection between Wire and Head Carriage. 6) Main Board Replacement
Revised4 0111	Tool / Crop Mark Sensor Adjustment Error	This error occurs when the machine performs the Auto Crop Mark Detection or the Auto Print / Cut adjustment without the Tool / Crop Mark Sensor Adjustment.	Tool / Crop Mark Sensor Adjustment has not been performed.	1) Tool / Crop Mark Sensor Adjustment

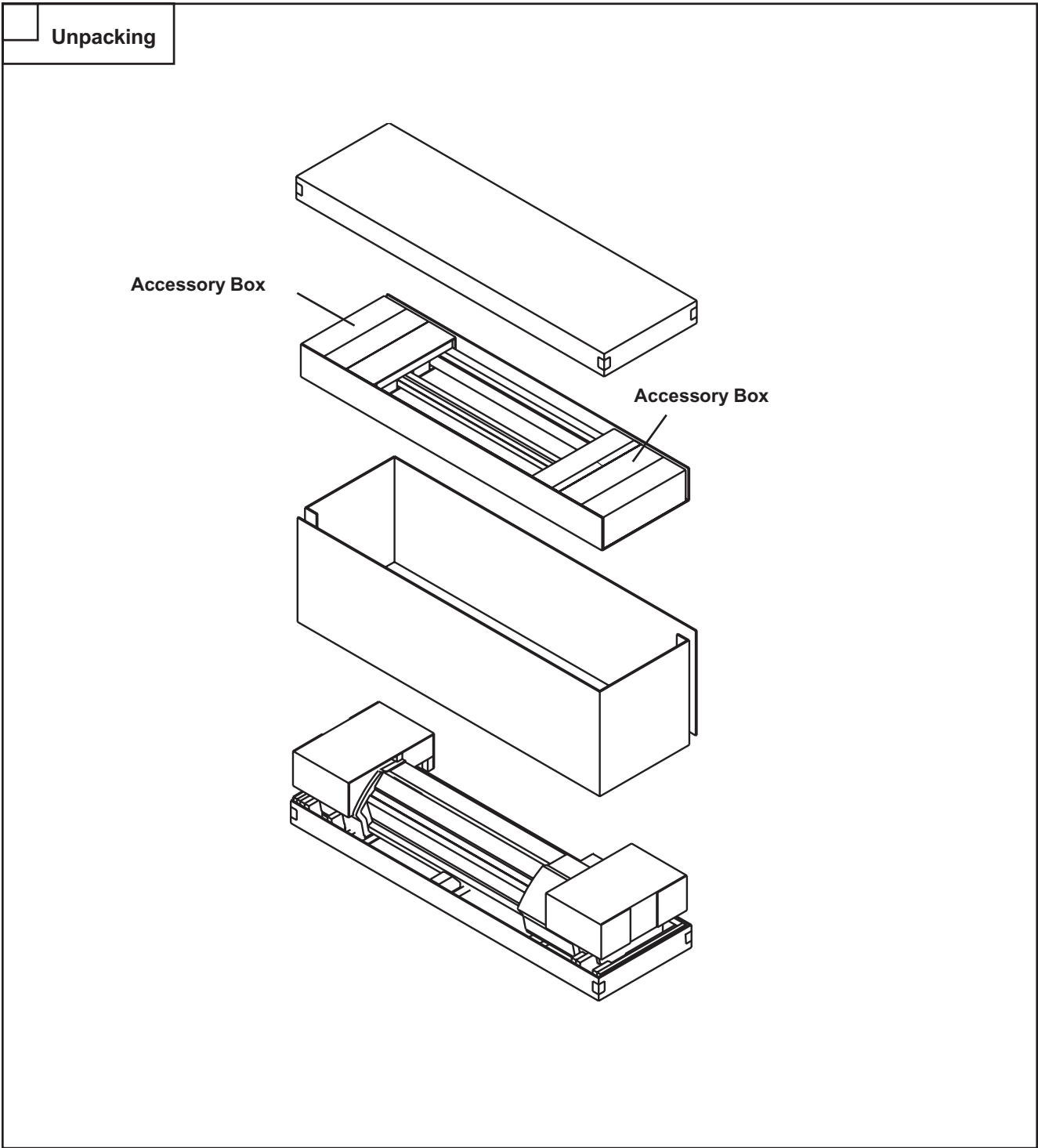
7 Service Activities

7-1 INSTALLATION CHECK LIST

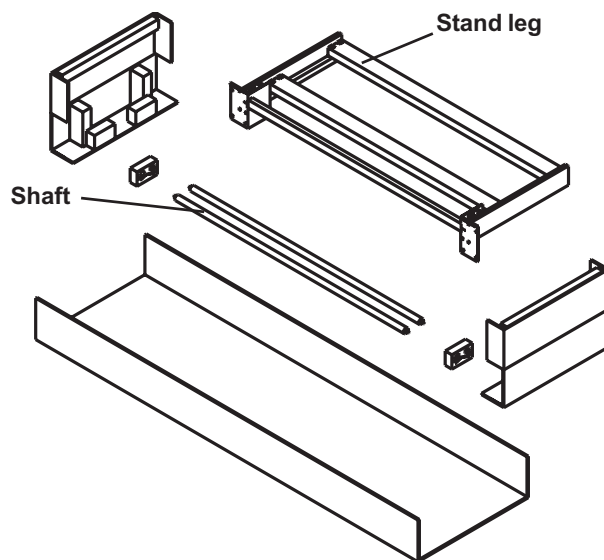
CJ-540 & SC-540 INSTALLATION CHECK LIST

Date : . ,

Serial Number	User	Date	Minimum Space Required
			3.7m (W) X 2.0m (L) X1.8m (H)
Classification			
Purchase	Loan Unit	Demo Unit	Replacement

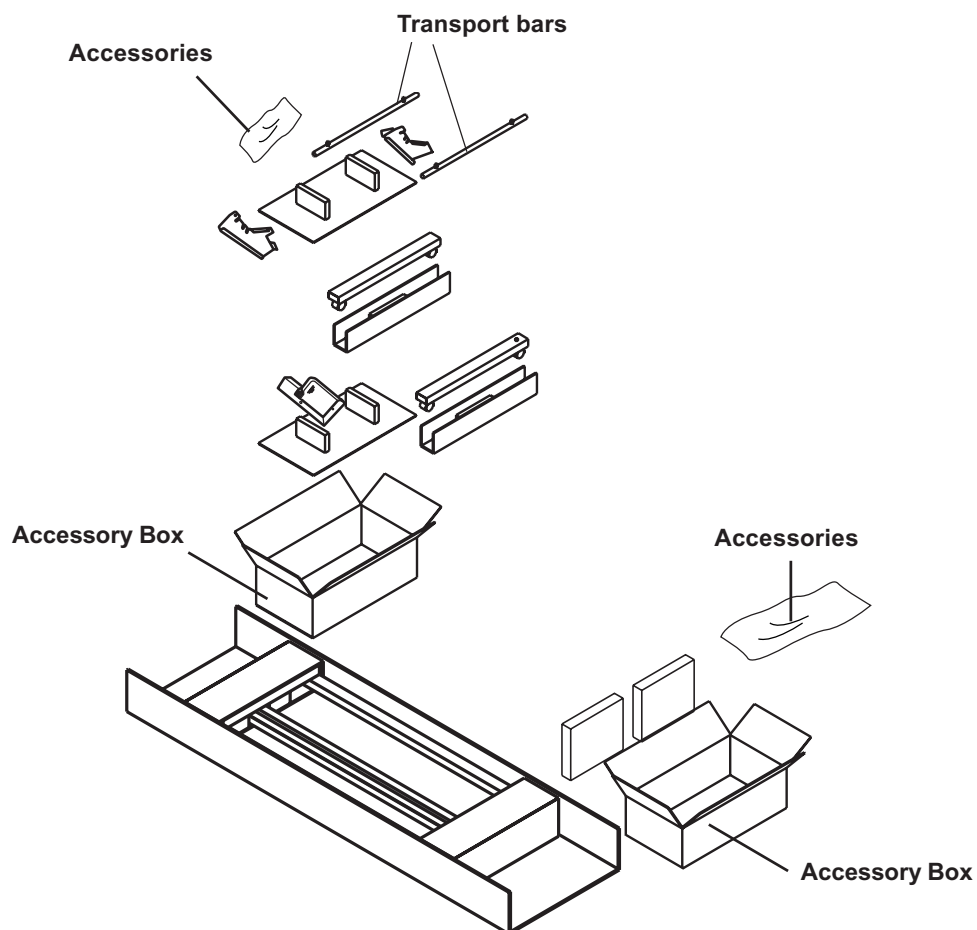


Unpacking the Stand

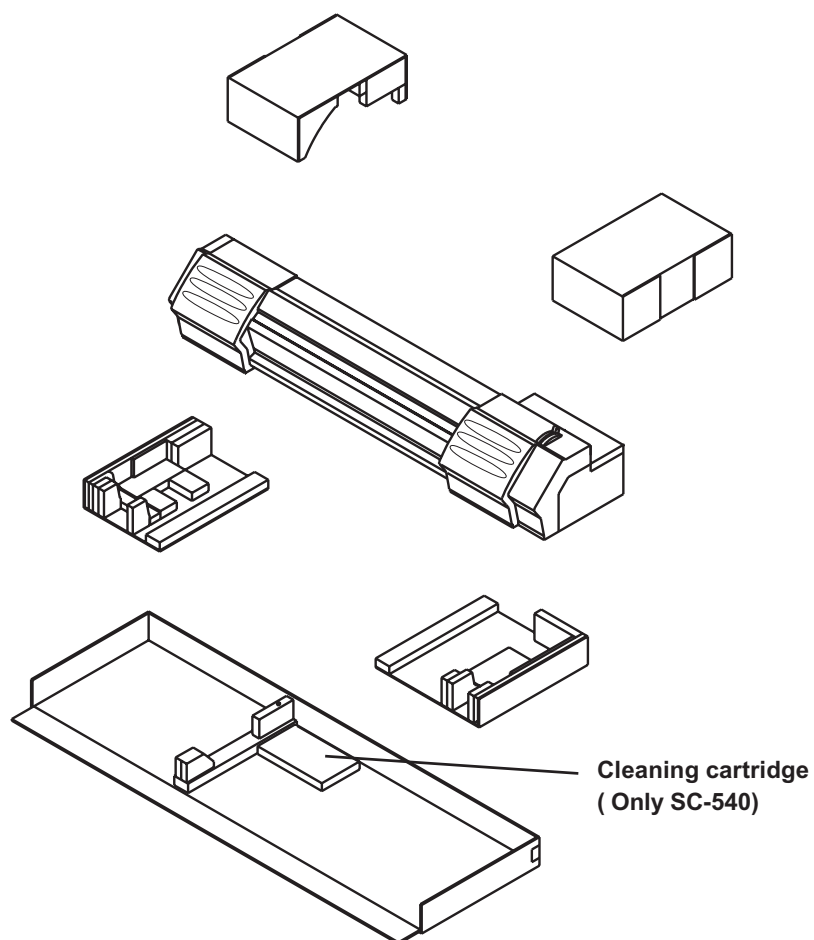



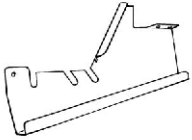
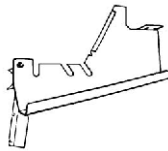
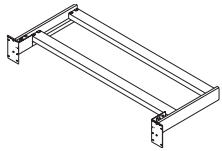
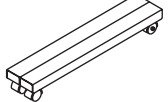

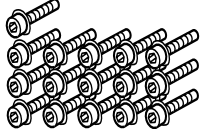


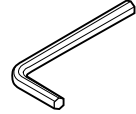
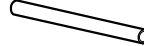
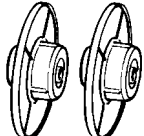
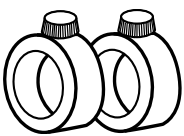

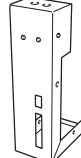
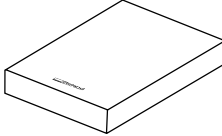
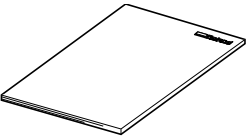
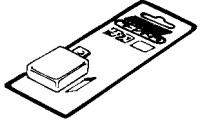
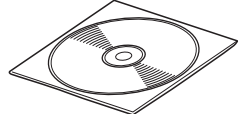
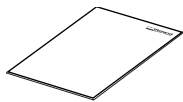
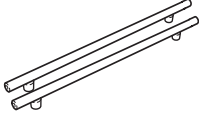
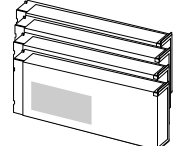


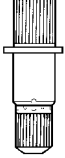
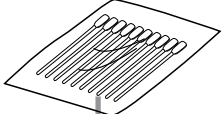

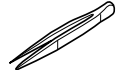
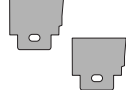
7

Unpacking the
Accessory Box



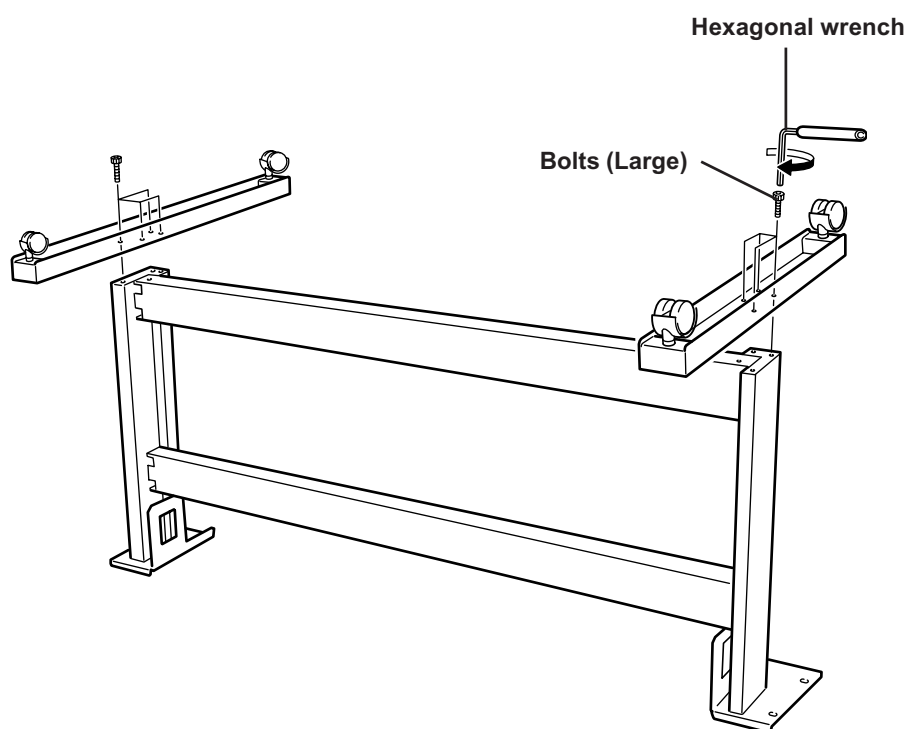
Unpacking the main unit



<input type="checkbox"/> Checking the Accessories			
 <input type="checkbox"/> Power cord : 1	 <input type="checkbox"/> Arm (Right) : 1	 <input type="checkbox"/> Arm (Left) : 1	 <input type="checkbox"/> Stand leg: 1
 <input type="checkbox"/> Caster: 2	 <input type="checkbox"/> Shaft : 2	 <input type="checkbox"/> Bolts (Large) :22	 <input type="checkbox"/> Bolts (Small) :8
 <input type="checkbox"/> Washers : 6	 <input type="checkbox"/> Hexagonal wrench : 1	 <input type="checkbox"/> Pipe : 1	 <input type="checkbox"/> Media flanges : 2
 <input type="checkbox"/> Stoppers : 2	 <input type="checkbox"/> Drain bottle : 1	 <input type="checkbox"/> Bottle stand : 1	 <input type="checkbox"/> Roland SelectColor™ : 1
 <input type="checkbox"/> User's manual : 1	 <input type="checkbox"/> Replacement blade for separating knife : 1	 <input type="checkbox"/> Roland PrintServer CD-ROM : 1	 <input type="checkbox"/> Roland PrintServer Network Settings Guide : 1
 <input type="checkbox"/> Transport bars :2	 <input type="checkbox"/> Cleaning cartridge : 4 (Only SC-540)	 <input type="checkbox"/> Maintenance Video :1	 <input type="checkbox"/> Blade :1
 <input type="checkbox"/> Blade Holder :1			
 <input type="checkbox"/> Cleaning kit : 1	 <input type="checkbox"/> Cleaning sticks : 10	 <input type="checkbox"/> Tweezers : 1	 <input type="checkbox"/> Wipers : 2

Assembling the Stand

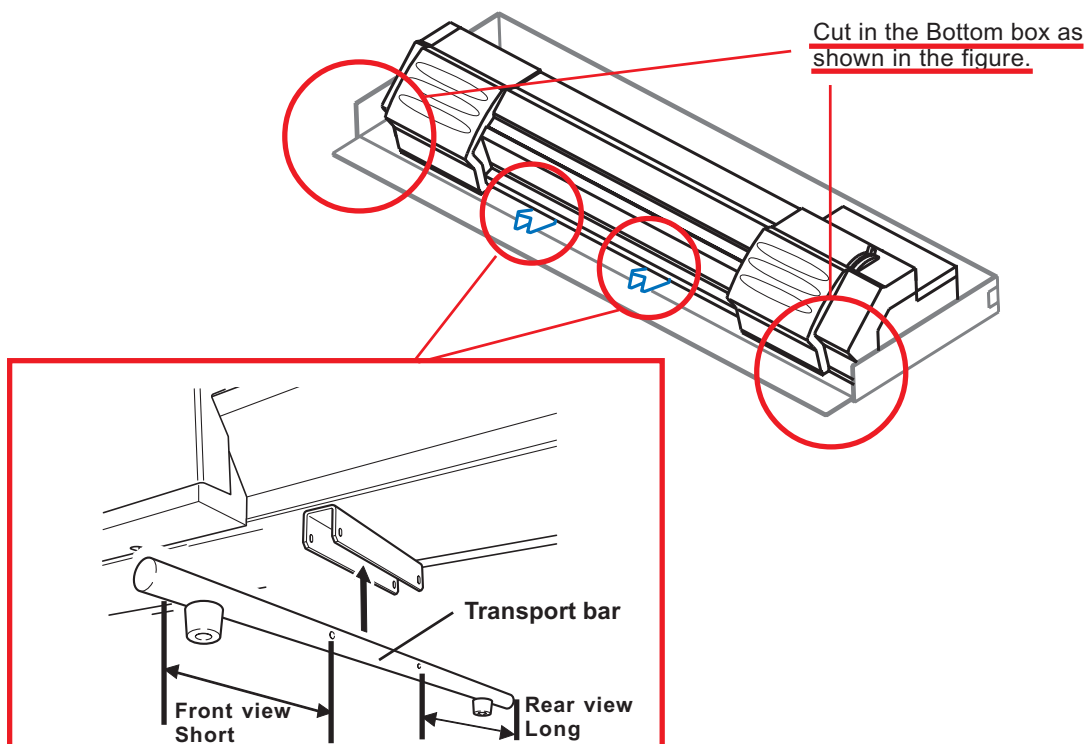
- ☐ Invert the Stand legs and attach the Casters with 8 Bolts (Large).



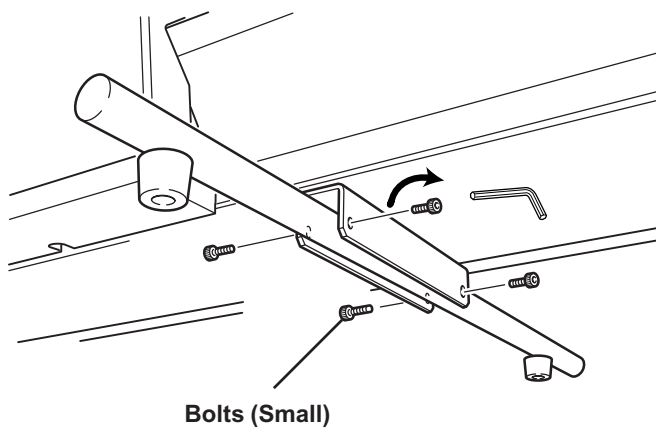
7

Attachment of the Transport bars

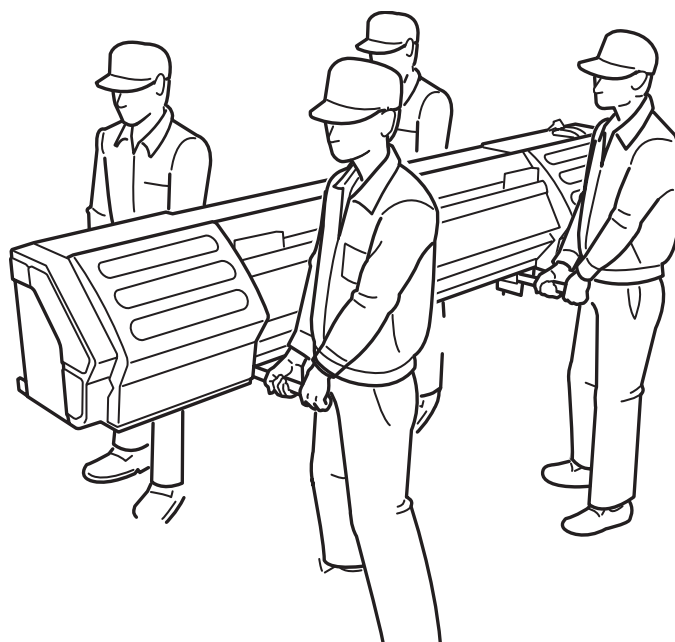
- ☐ 1. Attach the Transport bars at the bottom of the main unit. Make sure the rubber foot faces down.



- ☐ 2. Secure the Transport bars with 8 Bolts (Small).

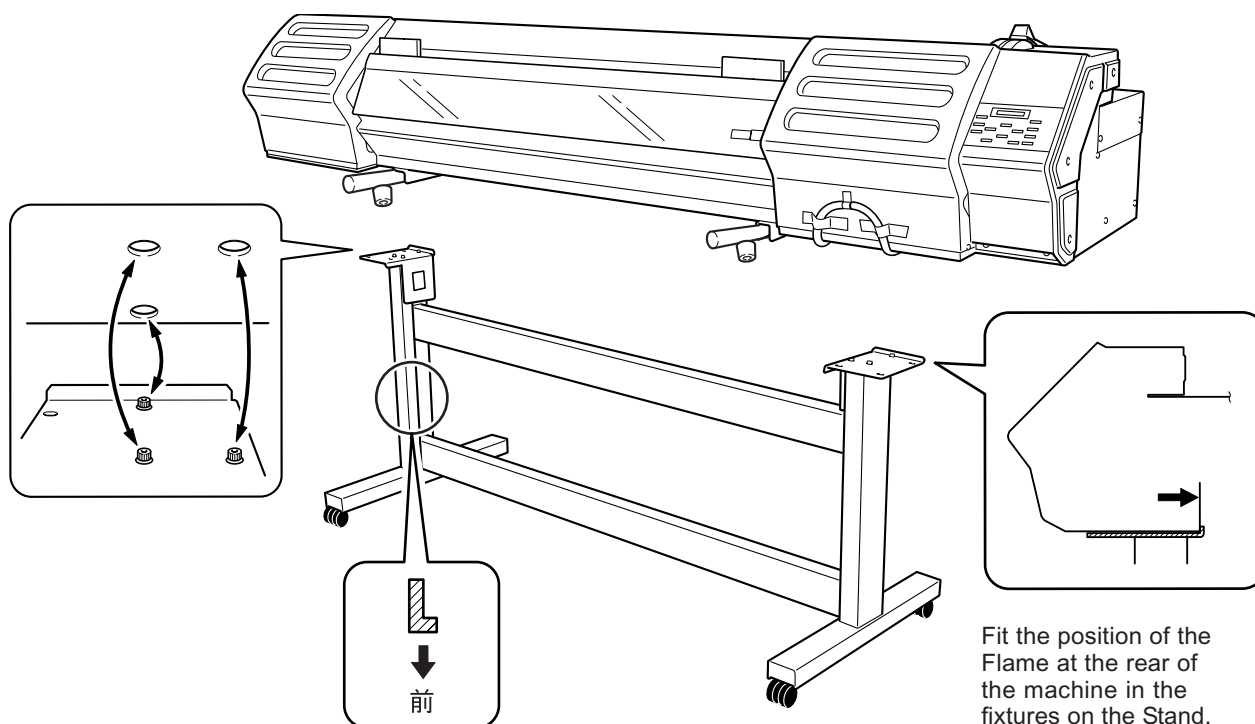


- ☐ 3. Grip these position in the figure and move it.

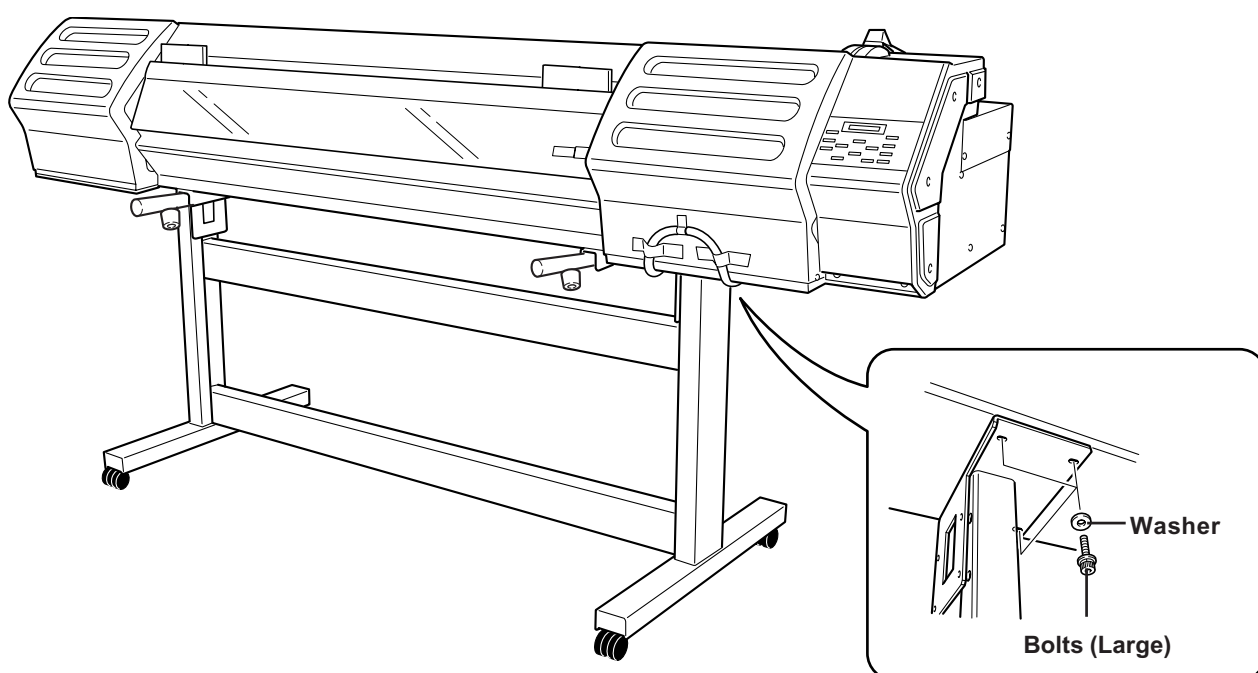


Assembling the Main unit

1. Set the Stand up and place the machine on the stand.

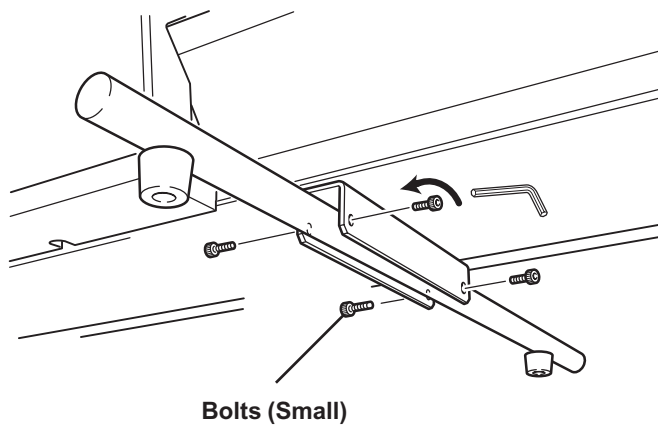


2. Secure the machine and the Stand with 6 Bolts (Large).



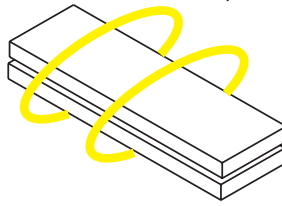
☐ Removing the
Transport bars

- ☐ Remove the 8 Bolts (Small).

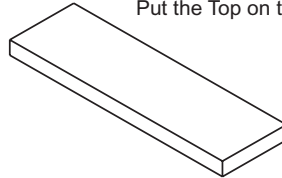


Making the Packaging smaller

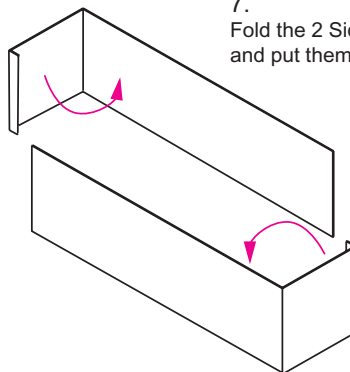
9.
Bind up the boxes with the PP Band.



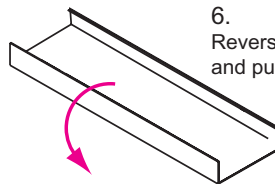
8.
Put the Top on the Pads [7].



7.
Fold the 2 Side pads as shown in the figure and put them on the Pad [6].

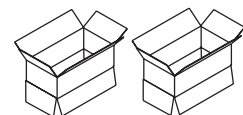


6.
Reverse the Pad as shown in the figure and put it on the flattened accessories boxes.



5.
Put the flattened Accessories boxes.

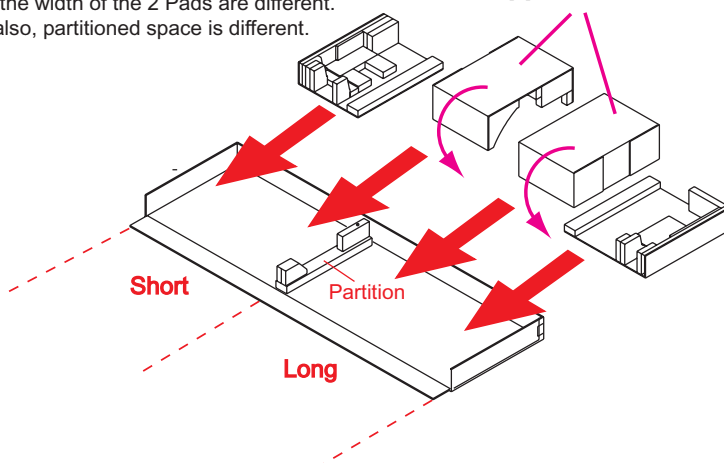
4.
Make the 2 Accessories boxes flat.



3.
Put the other Small pads or boxes inside the Boxes placed at [2].

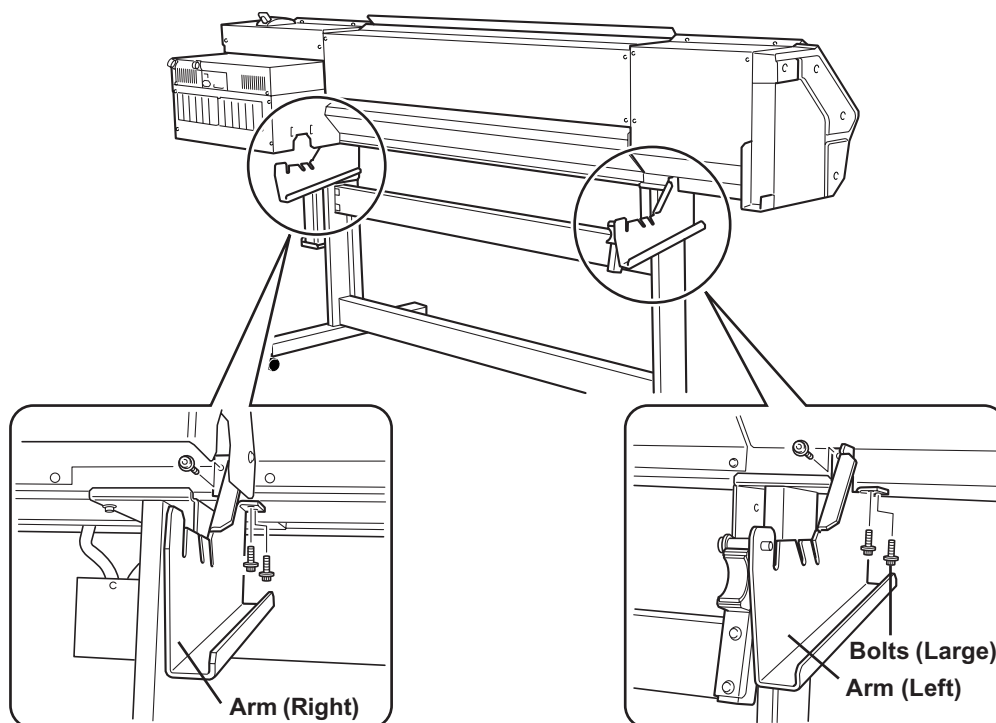
2.
Reverse the 2 Boxes as shown in the figure and place them between the Pads placed at [1] and the Partition.

1.
Place the 2 Pads on the Bottom Box.
Note the width of the 2 Pads are different.
And also, partitioned space is different.

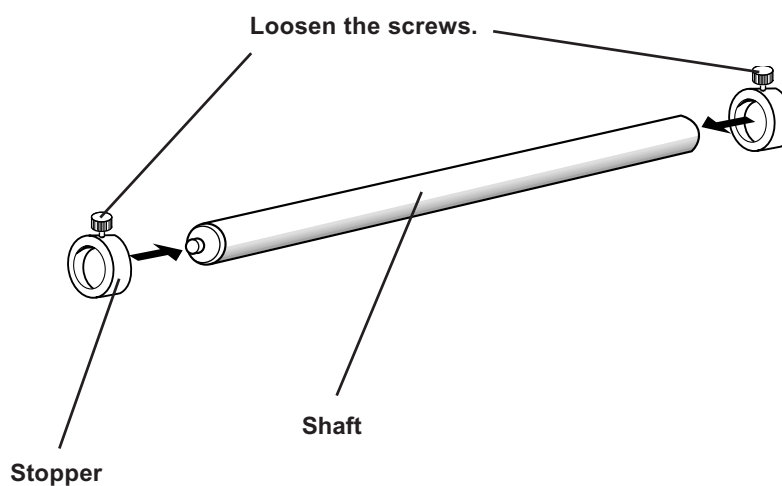


Installing the Accessories

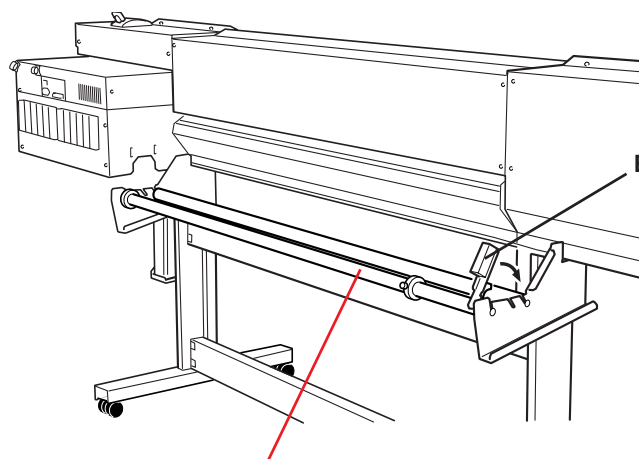
1. Attach the Arms at the position in the figure.



2. Attach the Stoppers onto the both sides of the Shaft.



- ☐ 3. Attach the 2 Shafts so that the one with the Stoppers is at the position shown in the figure.
After that, attach the Brake.



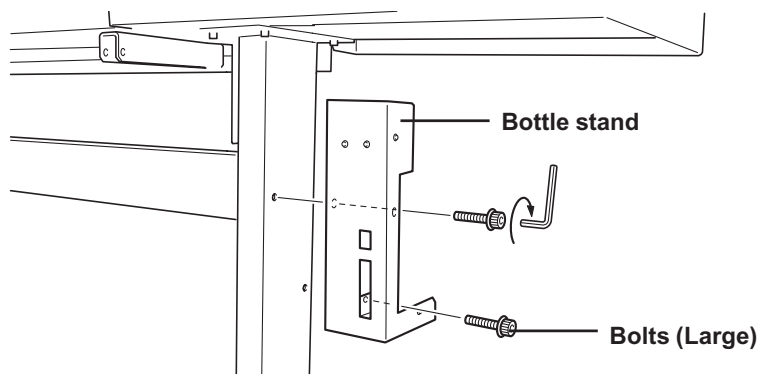
Shaft with Stoppers

Brake

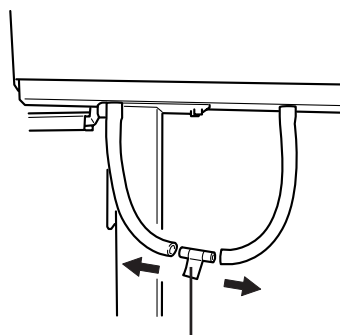
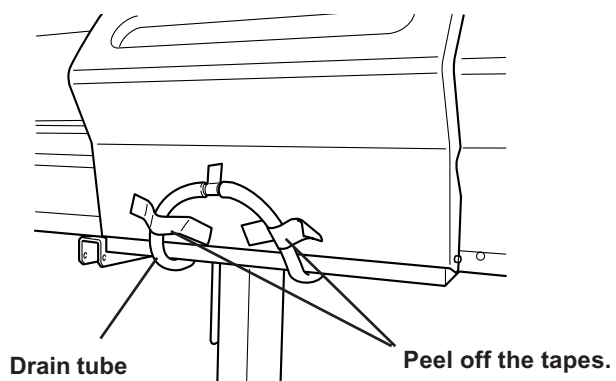
* Explain to set the Brake when using the roll media. If the machine works without the Brake set, media feeding will be unstable and it will affect the printing quality.

Installing the Drain Bottle

1. Secure the Bottle stand with 2 Bolts (Large).

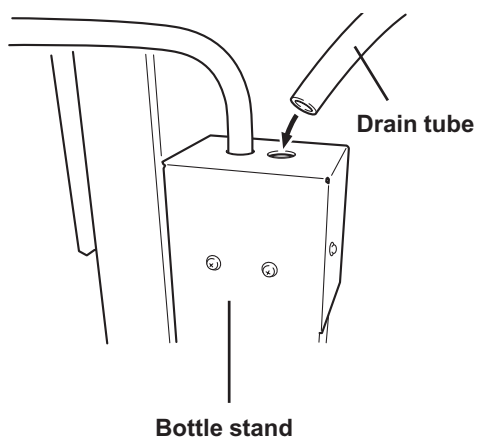


2. Remove the Stopper from the Drain tube.



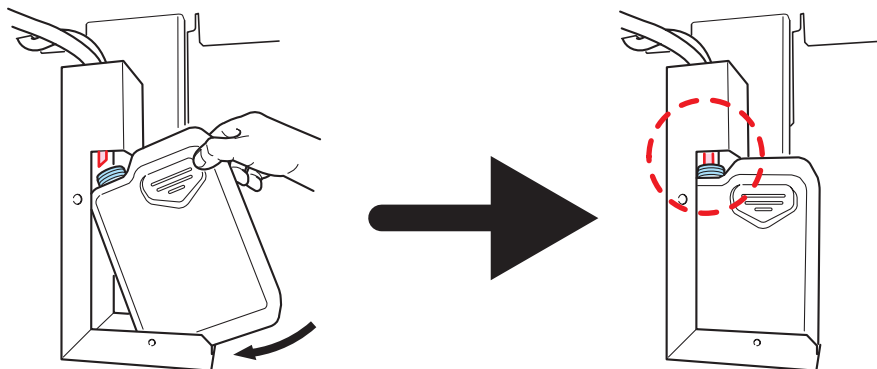
Stopper
 * Explain to keep it, because it will
be necessary when the machine is
transferred.

3. Insert the Drain tube into the Bottle stand securely.

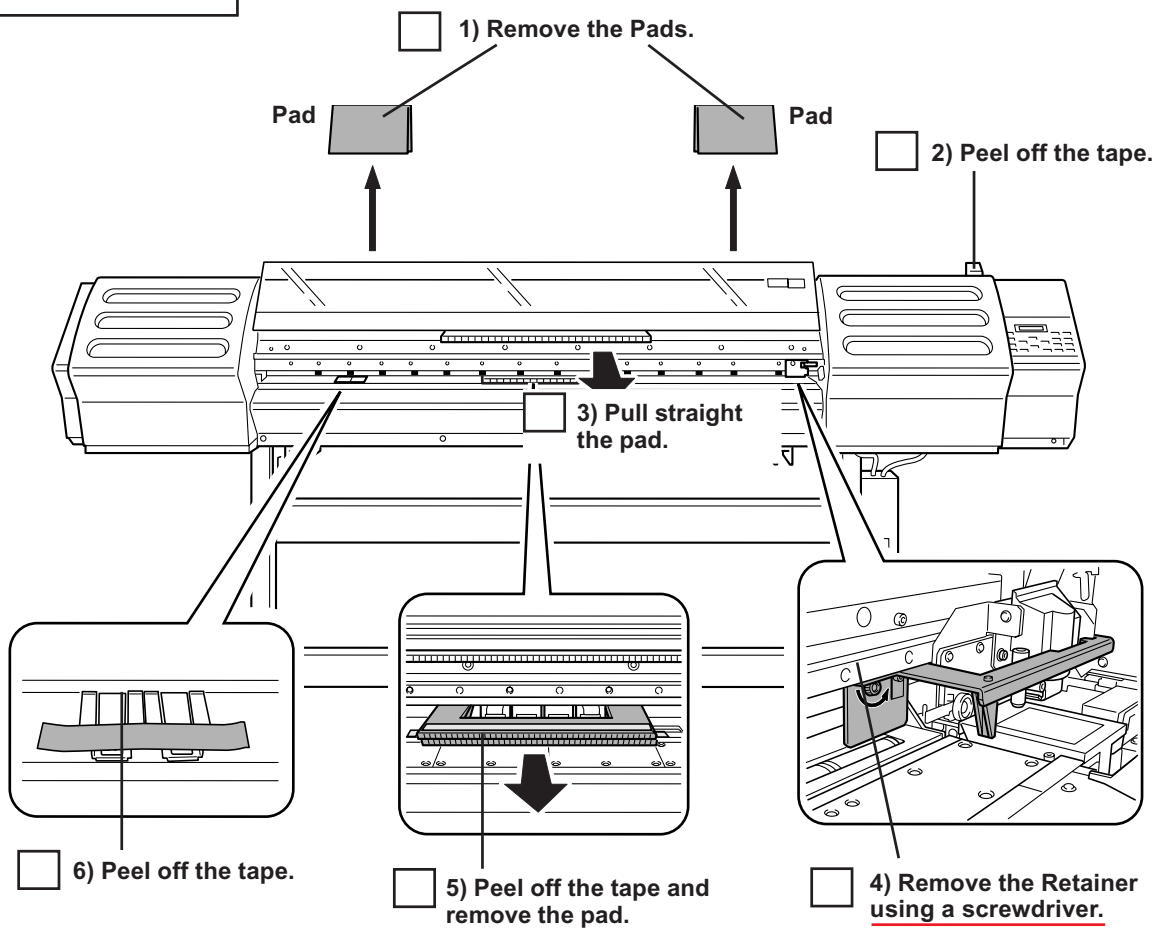


- ☐ 4. Remove the Cap and the Inner cap of the Drain bottle and attach the Drain bottle to the Bottle stand.

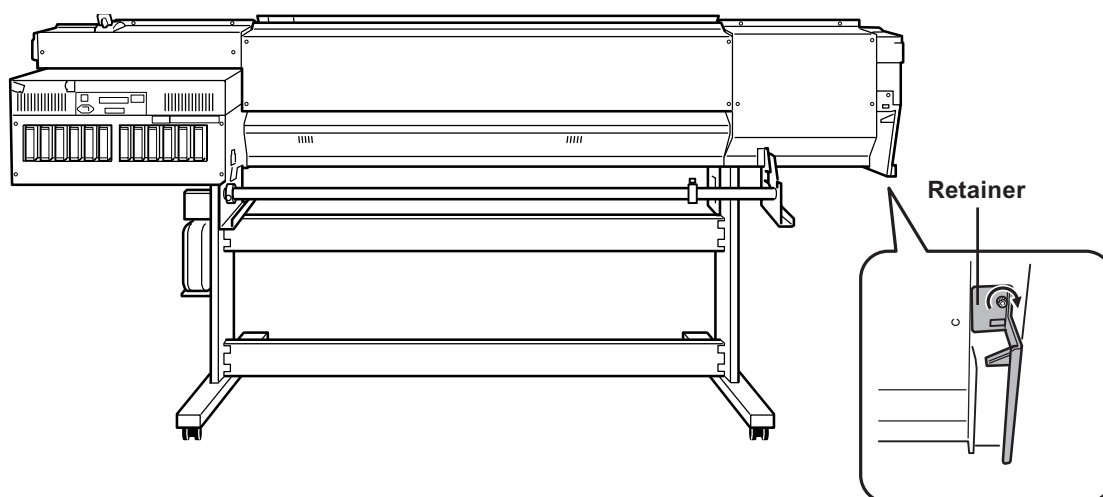
Make sure the Drain tube is inserted into the Drain bottle.



Removing the protective stuff



Rear view



7) Attach the Retainer you removed.

<input type="checkbox"/> Connection	<input type="checkbox"/> Connecting the Power Cord
	<input type="checkbox"/> Connecting to the Computer

<input type="checkbox"/> Installation of the Roland SelectColor

!! IMPORTANT !!

<Supported Operation Systems>
Windows XP / 2000
 * Windows ME / 98 and MAC OS are available as the client PC.

<Recommended System Requirements on Windows>
CPU: Pentium 4 1.5GHz or faster Memory: 512 MB and more
HDD: 10 GB or more for Storage Monitor: 1024 x 768 pixels (32 bit color)

<input type="checkbox"/> Network Setting	<input type="checkbox"/> Setting of Computer Enter the IP Address (Ex.; 192.168.0. 100) and the Subnet Mask (Ex.; 255.255.255.0).
	<input type="checkbox"/> Setting of Roland-PrintServer Enter the IP Address (Ex.; 192.168.0. 101) and the Subnet Mask (Ex.; 255.255.255.0).

<input type="checkbox"/> Before printing	<input type="checkbox"/> Switching on the Power
--	---

!! IMPORTANT !!
Explain to keep the Main switch on all the time and use only the Sub switch when daily use.

☐ **<For SC-540 >**
 Filling Ink
4 pcs. of the SOL INK cleaning cartridges are required in this work.

☐ SOL INK LcLm

☐ Installation of Ink Cartridges

!! IMPORTANT !!

*** Explain to insert the same type and color of Ink Cartridge into 1 ~ 6 and 7 ~ 12.**

*** Explain not to remove an Ink Cartridge until it runs out.**
If an Ink Cartridge is removed and inserted often, air may go into the Ink tube and it may cause the ink dropping problem.

<div data-bbox="113 152 161 197" style="border: 1px solid black; width: 30px; height: 20px; margin-bottom: 5px;"></div> <div data-bbox="113 208 288 241">Before printing</div>	<div data-bbox="381 197 429 241" style="border: 1px solid black; width: 30px; height: 20px; display: inline-block; margin-right: 5px;"></div> <div data-bbox="448 197 619 253" style="display: inline-block;"> <For CJ-540 > Filling Ink </div> <div data-bbox="456 282 504 327" style="border: 1px solid black; width: 30px; height: 20px; display: inline-block; margin-right: 5px; margin-top: 10px;"></div> <div data-bbox="515 282 699 315" style="display: inline-block; margin-top: 10px;">PIGMENT LcLm</div> <div data-bbox="895 293 943 338" style="border: 1px solid black; width: 30px; height: 20px; display: inline-block; margin-right: 5px; margin-left: 100px;"></div> <div data-bbox="954 293 1123 327" style="display: inline-block; margin-left: 10px;">PIGMENT OrGr</div> <div data-bbox="456 360 504 405" style="border: 1px solid black; width: 30px; height: 20px; display: inline-block; margin-right: 5px; margin-top: 10px;"></div> <div data-bbox="515 360 638 394" style="display: inline-block; margin-top: 10px;">DYE LcLm</div> <div data-bbox="381 495 429 539" style="border: 1px solid black; width: 30px; height: 20px; display: inline-block; margin-right: 5px; margin-top: 30px;"></div> <div data-bbox="448 495 1251 528" style="display: inline-block; margin-top: 30px;">Match the machine to the environment where installed using [MENU] key.</div> <div data-bbox="475 539 651 573" style="border: 2px solid red; padding: 5px; margin-top: 10px;"> !! IMPORTANT !! The printing length in scanning direction may change depending on the operating environment, such as temperature or humidity. This adjustment is to reduce misalignment between the printing and the cutting in the scanning direction caused by the operating environment. </div> <div data-bbox="381 808 429 853" style="border: 1px solid black; width: 30px; height: 20px; display: inline-block; margin-right: 5px; margin-top: 30px;"></div> <div data-bbox="448 808 632 842" style="display: inline-block; margin-top: 30px;">Installing Cutter</div> <div data-bbox="381 965 429 1010" style="border: 1px solid black; width: 30px; height: 20px; display: inline-block; margin-right: 5px; margin-top: 30px;"></div> <div data-bbox="448 965 598 999" style="display: inline-block; margin-top: 30px;">Setting Media</div> <div data-bbox="440 1032 616 1066" style="border: 2px solid red; padding: 5px; margin-top: 10px;"> !! IMPORTANT !! * Explain to refix the Media flanges depending on the diameter of roll media. * Explain to adjust [Head Height], [Feed Correction] and [Bidirectional Correction] when using another type of media. * Explain about the thickness of usable media. Refer to the User's Manual [7-2 Media Conditions]. * Explain to use the Media clamps when using the media which curls easily. In case the Media clamps are used, make sure the Head Height is set at 2(Middle) or 3 (High). If the Head Height is set at 1 (Low), the Head may strike the Media clamps and it may break the Head. * Explain to remove the roll media from the machine after use. If the roll media is installed on the machine for a long time, the roll media may bend by the weight and it may influence the printing result. </div>
--	---

<div data-bbox="113 1877 161 1921" style="border: 1px solid black; width: 30px; height: 20px; margin-bottom: 5px;"></div> <div data-bbox="177 1899 268 1933">Printing</div>	<div data-bbox="381 1910 429 1955" style="border: 1px solid black; width: 30px; height: 20px; display: inline-block; margin-right: 5px; margin-bottom: 10px;"></div> <div data-bbox="448 1910 558 1944" style="display: inline-block; margin-bottom: 10px;">Test Print</div> <div data-bbox="381 2011 429 2056" style="border: 1px solid black; width: 30px; height: 20px; display: inline-block; margin-right: 5px;"></div> <div data-bbox="448 2011 978 2045" style="display: inline-block;">Send the printing data via ROLAND SelectColor.</div>
---	---

<input type="checkbox"/> Cutting	<div> <input type="checkbox"/> Test Cutting </div> <div> <input type="checkbox"/> Adjust the Cutting Conditions. The following cutting conditions can be set by [CUT CONFIG] key. <ul style="list-style-type: none"> * Blade Force * Cutting Speed * Blade Offset * Tool-up Speed </div> <div style="border: 2px solid red; padding: 10px; margin-top: 10px;"> <p>!!IMPORTANT!!</p> <p>Explain about [CUTTING PRIOR] menu.</p> <p>[MENU] ... The machine will cut with the cutting conditions set on the machine.</p> <p>[COMMAND] ... The machine will cut with the cutting conditions set on the Roland SelectColor.</p> </div> <div> <input type="checkbox"/> Send the cutting data via ROLAND SelectColor. </div>
----------------------------------	---

<input type="checkbox"/> Printing and Cutting	<div> <input type="checkbox"/> Print with Crop Marks </div> <div> <input type="checkbox"/> Dry the media </div> <div style="border: 2px solid red; padding: 10px; margin-top: 10px;"> <p>!!IMPORTANT!!</p> <p>Explain to dry sufficiently the media before cutting.</p> <p>The drying time differs depending on the type of media.</p> </div> <div> <input type="checkbox"/> Alignment of the Crop Marks (Automatic and Manual) </div> <div style="border: 2px solid red; padding: 10px; margin-top: 10px;"> <p>!!IMPORTANT!!</p> <p>Depending on the type of media, the Crop Marks on the media may not be detected automatically.</p> <p>In this case, explain to perform the Manual Alignment.</p> </div> <div> <input type="checkbox"/> Cutting </div> <div style="border: 2px solid red; padding: 10px; margin-top: 10px;"> <p>!!IMPORTANT!!</p> <p>* Explain not to use the Media Clamps when cutting.</p> <p>* Explain to set the value of [CUTTING ADJ.] in [CALIBRATION] menu to [0] when using the machine for printing & cutting, because this menu is to correct the cutting length when using the machine only for cutting.</p> <p>* When you go on to cutting right after printing, the Cap of the Blade Holder may rub the printed surface and damage the printed image.</p> <p>In this case, it is necessary to increase the amount of the Blade extension slightly.</p> </div>
---	---

☐ Operation

Operate the following contents based on the User's manual.

- ☐ Replacing the Ink Cartridge

!!IMPORTANT!!

* Explain not to replace the Ink cartridges while the machine is working.
Air may go inside the Ink cartridge and it may influence the printing quality.

* Explain about [CONT.] mode which is for printing continuously.

- ☐ Checking the remaining Ink

- ☐ Setting the printing start position

!!IMPORTANT!!

Explain not to feed back the media using the Up key.
The Pinch rollers may pass over the printed surface and it may smudge the printed image.

- ☐ Setting the Margins

- ☐ Setting of [SHEET TYPE]

- ☐ Making corrections for printing with user's media
- * Feed Correction
 - * Bidirectional Correction

- ☐ Save and call Bidirectional correction value

!!IMPORTANT!!

Recommend users to note the memory number which is set the adjustment value on each media.

- ☐ Making corrections for printing and cutting (Automatic and Manual)

- ☐ **< For CJ-540 >**
Changing the type of Ink

!!IMPORTANT!!

It is necessary 4 Cleaning Cartridges when changing the type of Ink.
4 Cleaning Cartridges can perform cleaning 3 times.

☐ Maintenance

- ☐ Cleaning the Printing Head using [CLEANING] key
- * ALL
 - * GROUP A : Black & Cyan
 - * GROUP B : Magenta & Yellow
- < For CJ-540 >**
- * GROUP C : Light Cyan & Light magenta or Orange & Green
- < For SC-540 >**
- * GROUP C : Light Cyan & Light magenta

!! IMPORTANT !!

Explain that the machine will display [PRESS THE POWER KEY TO CLEAN] message if the machine is left without using for 1 month. (For SC-540)

- ☐ Cleaning the Printing Head using Cleaning Kit

!! IMPORTANT !!

Instruct users how to perform the cleaning using the Maintenance Video so that they can do it rightly by themselves.

- ☐ Replacing the Wiper

- ☐ Cleaning other parts
- * Platen
 - * Grit rollers
 - * Pinch rollers
- (Raise the Pinch rollers when not in use.)
- * Reflective tape
 - * Front cover
 - * Sheet sensor

!! IMPORTANT !!

* Explain it is necessary to clean these parts as daily maintenance.

* Explain how to wash off the ink as follows.

1. Water down the cleaner.
2. Soak a cloth in the water and wring it.
3. Wipe gently with the cloth.

- ☐ Discarding the discharged ink in the Drain bottle

!! IMPORTANT !!

* Explain about the time to discard the discharged ink in the Drain bottle.

* Explain to switch off the machine before performing to discard the discharged ink.

* Explain to discard carefully the discharged ink from the Drain bottle so that the ink does not spatter.

<input type="checkbox"/> Others	<input type="checkbox"/> Explain to switch off and on the machine and check the result before calling an engineer when some error occurs. There is a possibility to solve the problem.
	<input type="checkbox"/> Instruct users how to cap the Head.
	<p>!!IMPORTANT!!</p> <p>It is necessary to cap the Head by users if the Head does not return to the standby position.</p>
	<input type="checkbox"/> Explain to users about [Preset function for Bi-direction Correction].

	PARTS NAME	CJ-540	SC-540	
7 Exchange Time of the Consumable Parts	Printing Head	6 billion shots / nozzle (6000000 kshots) * When the Head is replaced, the Dampers should be replaced at the same time.		REVISED 5
	Wiper	6 months or Wiping 3000 times or Ribbing 100 times <u>* When the cleaning has been done for the 500 times, the message for replacement of the Wiper will be shown on the LCD.</u>		
	Carriage Motor	1500 hours		
	Cap Top	24 months	6 months	
	Ink Tube	2000 hours		
	Pump Unit		50,000 rotations (When ECO-SOL INK are used.) 6 months (When SOL INK are used.)	REVISED 4
	Sponge for Flushing	24 months	6 months	
	Sponge for Wiper	12 months		
	Battery	24 months		
	Cutter Protection	Replace it if there are scratches on it.		
	Pinch Roller	Replace it if the rubber part is worn out.		

7-2 Maintenance Check List (For CJ-540)

AFTER 6 MONTHS MAINTENANCE CHECK LIST

Model	Serial Numer	User	Date
PC	OS	Application	

MAINTENANCE

Check Points	Contents	Reference
<input type="checkbox"/> System Report Output		
<input type="checkbox"/> Firmware	<input type="checkbox"/> OK <input type="checkbox"/> Upgrade	
<input type="checkbox"/> Consumables	Head <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 billion shots
	Carriage Motor <input type="checkbox"/> OK <input type="checkbox"/> Replacement	1500 hours
	Cleaning Wiper <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 months or Wipping : 3000 times or Rubbing : 100 times
	Cap Top <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	24 months
	Ink Tube <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	2000 hours
	Sponge for Frushing <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	24 months
	Sponge for Wiper <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	12 months
	Pinch Roller <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	24 months
	Cutter Protection <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	On demand
	Lithium Battery <input type="checkbox"/> OK <input type="checkbox"/> Replacement	24 months
<input type="checkbox"/> Mechanical	Carriage Drive Gear <input type="checkbox"/> OK <input type="checkbox"/> Backlash <input type="checkbox"/> Lubrication <input type="checkbox"/> Replacement	Grease : FLOIL GE-676
	Grit Drive Gear <input type="checkbox"/> OK <input type="checkbox"/> Backlash <input type="checkbox"/> Lubrication <input type="checkbox"/> Replacement	Grease : FLOIL GE-676
	Wire <input type="checkbox"/> OK <input type="checkbox"/> Tension <input type="checkbox"/> Replacement	
	Grit Roller <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Pinch Roller <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Reflective Tape <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Front Cover <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Sheet Sensor <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Tool Carriage <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Blade Holder <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Bed <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
<input type="checkbox"/> Printing	<input type="checkbox"/> OK <input type="checkbox"/> NG (Reason)	
<input type="checkbox"/> System Report Output	** In case of any changes.	

REVISED 6

7

OPERATIONCHECK

Media	<input type="checkbox"/> Loading	Others
Printing	<input type="checkbox"/> Printing position	
	<input type="checkbox"/> Printing Calibration	
Maintenance	<input type="checkbox"/> Cleaning using the Cleaning Kit	
Reference	<input type="checkbox"/> Media Type	
	<input type="checkbox"/> Head Height	
	<input type="checkbox"/> Printing Area	
Roland COLORIP	<input type="checkbox"/> Printing Mode	
	<input type="checkbox"/> Color Profiles	
	<input type="checkbox"/> Lendering	

NOTE

--

AFTER 12 MONTHS MAINTENANCE CHECK LIST

Model	Serial Numer	User	Date
PC	OS	Application	

MAINTENANCE

Check Points		Contents		Reference
<input type="checkbox"/>	System Report Output			
<input type="checkbox"/>	Firmware	<input type="checkbox"/> OK <input type="checkbox"/> Upgrade		
<input type="checkbox"/>	Consumables	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement		6 billion shots
	Head	<input type="checkbox"/> OK <input type="checkbox"/> Replacement		1500 hours
	Carriage Motor	<input type="checkbox"/> OK <input type="checkbox"/> Replacement		
	Cleaning Wiper	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement		6 months or Wipping : 3000 times or Rubbing : 100 times
	Cap Top	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement		24 months
	Ink Tube	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement		2000 hours
	Sponge for Frushing	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement		24 months
	Sponge for Wiper	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement		12 months
	Pinch Roller	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement		24 months
	Cutter Protection	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement		On demand
	Lithium Battery	<input type="checkbox"/> OK <input type="checkbox"/> Replacement		24 months
<input type="checkbox"/>	Mechanical	Carriage Drive Gear <input type="checkbox"/> OK <input type="checkbox"/> Backlash <input type="checkbox"/> Lubrication <input type="checkbox"/> Replacement		Grease : FLOIL GE-676
		Grit Drive Gear <input type="checkbox"/> OK <input type="checkbox"/> Backlash <input type="checkbox"/> Lubrication <input type="checkbox"/> Replacement		Grease : FLOIL GE-676
		Wire <input type="checkbox"/> OK <input type="checkbox"/> Tension <input type="checkbox"/> Replacement		
		Grit Roller <input type="checkbox"/> OK <input type="checkbox"/> Cleaning		
		Pinch Roller <input type="checkbox"/> OK <input type="checkbox"/> Cleaning		
		Reflective Tape <input type="checkbox"/> OK <input type="checkbox"/> Cleaning		
		Front Cover <input type="checkbox"/> OK <input type="checkbox"/> Cleaning		
		Sheet Sensor <input type="checkbox"/> OK <input type="checkbox"/> Cleaning		
		Tool Carriage <input type="checkbox"/> OK <input type="checkbox"/> Cleaning		
		Blade Holder <input type="checkbox"/> OK <input type="checkbox"/> Cleaning		
		Bed <input type="checkbox"/> OK <input type="checkbox"/> Cleaning		
<input type="checkbox"/>	Printing	<input type="checkbox"/> OK <input type="checkbox"/> NG (Reason)		
<input type="checkbox"/>	System Report Output	** In case of any changes.		

REVISED 6

NOTE

7-2 Maintenance Check List (For SC-540)

AFTER 6 MONTHS MAINTENANCE CHECK LIST

Model	Serial Number	User	Date
PC	OS	Application	

MAINTENANCE

Check Points	Contents	Reference
<input type="checkbox"/> System Report Output		
<input type="checkbox"/> Firmware	<input type="checkbox"/> OK <input type="checkbox"/> Upgrade	
<input type="checkbox"/> Consumables	Head <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 billion shots
	Carriage Motor <input type="checkbox"/> OK <input type="checkbox"/> Replacement	1500 hours
	Cleaning Wiper <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 months or Wiping : 3000 times or Rubbing : 100 times
	Cap Top <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 months
	Ink Tube <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	2000 hours
	Pump Unit <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	50,000 rotations (When ECO-SOL INK are used.) 6 months (When SOL INK are used.)
	Sponge for Frushing <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 months
	Sponge for Wiper <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	12 months
	Pinch Roller <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	24 months
	Cutter Protection <input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	On demand
	Lithium Battery <input type="checkbox"/> OK <input type="checkbox"/> Replacement	24 months
<input type="checkbox"/> Mechanical	Carriage Drive Gear <input type="checkbox"/> OK <input type="checkbox"/> Backlash <input type="checkbox"/> Lubrication <input type="checkbox"/> Replacement	Grease : FLOIL GE-676
	Grit Drive Gear <input type="checkbox"/> OK <input type="checkbox"/> Backlash <input type="checkbox"/> Lubrication <input type="checkbox"/> Replacement	Grease : FLOIL GE-676
	Wire <input type="checkbox"/> OK <input type="checkbox"/> Tension <input type="checkbox"/> Replacement	
	Grit Roller <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Pinch Roller <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Reflective Tape <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Front Cover <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Sheet Sensor <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Tool Carriage <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Blade Holder <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
	Bed <input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
<input type="checkbox"/> Printing	<input type="checkbox"/> OK <input type="checkbox"/> NG (Reason)	
<input type="checkbox"/> System Report Output	** In case of any changes.	

REVISED 4

REVISED 6

7

OPERATIONCHECK

Media	<input type="checkbox"/> Loading	Others
Printing	<input type="checkbox"/> Printing position	
	<input type="checkbox"/> Printing Calibration	
Maintenance	<input type="checkbox"/> Cleaning using the Cleaning Kit	
Reference	<input type="checkbox"/> Media Type	
	<input type="checkbox"/> Head Height	
	<input type="checkbox"/> Printing Area	
Roland COLORIP	<input type="checkbox"/> Printing Mode	
	<input type="checkbox"/> Color Profiles	
	<input type="checkbox"/> Lendering	

NOTE

AFTER 12 MONTHS MAINTENANCE CHECK LIST

Model	Serial Numer	User	Date
PC	OS	Application	

MAINTENANCE

Check Points	Contents	Reference
<input type="checkbox"/> System Report Output		
<input type="checkbox"/> Firmware	<input type="checkbox"/> OK <input type="checkbox"/> Upgrade	
<input type="checkbox"/> Consumables		
Head	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 billion shots
Carriage Motor	<input type="checkbox"/> OK <input type="checkbox"/> Replacement	1500 hours
Cleaning Wiper	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 months or Wipping : 3000 times or Rubbing : 100 times
Cap Top	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 months
Ink Tube	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	2000 hours
Pump Unit	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	50,000 rotations (When ECO-SOL INK are used.) 6 months (When SOL INK are used.)
Sponge for Frushing	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	6 months
Sponge for Wiper	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	12 months
Pinch Roller	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	24 months
Cutter Protection	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning <input type="checkbox"/> Replacement	On demand
Lithium Battery	<input type="checkbox"/> OK <input type="checkbox"/> Replacement	24 months
<input type="checkbox"/> Mechanical		
Carriage Drive Gear	<input type="checkbox"/> OK <input type="checkbox"/> Backlash <input type="checkbox"/> Lubrication <input type="checkbox"/> Replacement	Grease : FLOIL GE-676
Grit Drive Gear	<input type="checkbox"/> OK <input type="checkbox"/> Backlash <input type="checkbox"/> Lubrication <input type="checkbox"/> Replacement	Grease : FLOIL GE-676
Wire	<input type="checkbox"/> OK <input type="checkbox"/> Tension <input type="checkbox"/> Replacement	
Grit Roller	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
Pinch Roller	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
Reflective Tape	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
Front Cover	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
Sheet Sensor	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
Tool Carriage	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
Blade Holder	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
Bed	<input type="checkbox"/> OK <input type="checkbox"/> Cleaning	
<input type="checkbox"/> Printing	<input type="checkbox"/> OK <input type="checkbox"/> NG (Reason)	
<input type="checkbox"/> System Report Output	** In case of any changes.	

REVISED4

REVISED6

NOTE

--

7-3 Specification

Main unit Specification

		CJ-540
Printing / Cutting method		Piezo ink-jet method / media-moving method
Printing/Cutting width		185 to 1346 mm (7-5/16 to 53 in.)
Acceptable media widths		210 to 1371 mm (8-5/16 to 54 in.)
Conditions for usable media		Cuttable media thickness: 0.08 to 0.22 mm (0.00315 to 0.00866 in.) (depending on media composition) Maximum cuttable media thickness including base paper (backing paper): 0.4 mm (0.0157 in.) Maximum printable media thickness including base paper (backing paper): 1.0 mm (0.039 in.) Maximum diameter for roll media: 180 mm (7-1/16 in.) Core inner diameter for roll media: 50.8 mm (2 in.) or 76.2 mm (3 in.) Maximum weight for roll media: 20 kg (44.1 lb.)
Ink cartridges	Pigmented ink	Exclusive pigmented ink cartridge
	Capacity	220 cc +/- 5 cc
	Color	The six colors black, cyan, magenta, yellow, light cyan, and light magenta or the six colors black, cyan, magenta, yellow, orange, and green
	Dye-based ink	Exclusive dye-ink cartridge
	Capacity	220 cc +/- 5 cc
	Color	The six colors black, cyan, magenta, yellow, light cyan, and light magenta
Printing resolution (Printing dot resolution)		Max. 1440 dpi
Distance accuracy (When printing)		Error of less than +/- 0.3% of distance traveled, or 0.3 mm, whichever is greater (at Roland PET-film, print travel: 1 m (39-3/8 in.))
Acceptable tool		Cutter (blade and blade holder) : Special blade for CAMM-1 series
Cutting Speed		10 to 600 mm/s (10 to 300 mm/s in the media-feed direction)
Blade force		30 to 300 gf
Blade offset compensation		0.000 to 1.500 mm (0 to 0.0591 in.)
Software resolution (When cutting)		0.025 mm/step (0.00984 in./step)
Distance accuracy (When cutting)		Error of less than +/- 0.4% of distance traveled, or 0.3 mm, whichever is greater When distance correction has been performed (when the setting for [CALIBRATION] - [CUTTING ADJ.] has been made): Error of less than +/- 0.2% of distance traveled, or 0.1 mm, whichever is greater
Repetition accuracy (When cutting)		0.1 mm or less (excluding stretching/contraction of the media) [Range for assured repetition accuracy] (*1) For media with a width exceeding 610 mm (24 in.): Length 4,000 mm (157-7/16 in.) For media with a width of 610 mm (24 in.) or less : Length 8,000 mm (315-15/16 in.)
Repetition between printing and cutting		+/- 0.5 mm (+/- 0.0197 in.) max. at 25 degrees C (77 degrees F) (excluding possible shift caused by expansion/contraction of the media and/or by reloading the media, and provided that media length is under 3000 mm (118-1/16 in.)
Alignment accuracy for printing and cutting when reloading media		Error of less than +/- 0.3% of distance traveled, or 2 mm, whichever is greater [Guaranteed area of alignment for printing and cutting when reloading the media] (*2)
Printing heads cleaning		Automatic cleaning and manual cleaning
Interface		Bidirectional parallel interface (compliant with IEEE 1284: Nibble mode, ECP mode (non compression)) and Ethernet 10Base-T or 100Base-TX
Power-saving function		Auto-sleep
Power consumption	Printing mode	Maximum: 2.0A/100V to 240V +/- 10% 50/60 Hz
	Standby mode	Maximum: 0.6A/100V to 240V +/- 10% 50/60 Hz
Acoustic noise level	Printing mode	64 dB (A) or less (according to ISO 7779)
	Standby mode	40 dB (A) or less (according to ISO 7779)
Dimensions	Main unit	2699 mm [W] x 742 mm [D] x 519 mm [H] (106-5/16 in. [W] x 29-1/4 in. [D] x 20-7/16 in. [H])
	With stand	2699 mm [W] x 742 mm [D] x 1300 mm [H] (106-5/16 in. [W] x 29-1/4 in. [D] x 51-3/16 in. [H])
Packed dimensions		2835 mm [W] x 850 mm [D] x 965 mm [H] (111-5/8 in. [W] x 33-1/2 in. [D] x 38 in. [H])
Weight	Main unit	136 kg (299.8 lb.)
	With stand	152 kg (335 lb.)
Packed weight		219 kg (482.8 lb.)
Environment	Power on	Temperature: 15 to 32 degrees C (59 to 89.6 degrees F), Humidity: 35 to 80% (non-condensing) (*3)
	Power off	Temperature: 5 to 40 degrees C (41 to 104 degrees F), Humidity: 20 to 80% (non-condensing)
Included items		power cord : 1, arm (Right) : 1, arm (Left) : 1, stand leg : 1, caster : 2, shafts : 2, bolts (Large) : 22, bolts (Small) : 8, washers : 6, hexagonal wrench : 1, pipe : 1, media flanges : 2, stoppers : 2, blade : 1, blade holder : 1, transport bars : 2, drain bottle : 1, bottle stand : 1, Roland SelectColor™ : 1, user's manual : 1, replacement blade for separating knife : 1, Roland-PrintServer CD-ROM : 1, Roland PrintServer Network Settings Guide : 1, cleaning kit : 1 (cleaning sticks : 10, tweezers : 1, wipers : 2)

		SC-540
Printing / Cutting method		Piezo ink-jet method / media-moving method
Printing / Cutting width		185 to 1346 mm (7-5/16 to 53 in.)
Acceptable media widths		210 to 1371 mm (8-5/16 to 54 in.)
Conditions for usable media		Cuttable media thickness: 0.08 to 0.22 mm (0.00315 to 0.00866 in.) (depending on media composition) Maximum cuttable media thickness including base paper (backing paper): 0.4 mm (0.0157 in.) Maximum printable media thickness including base paper (backing paper): 1.0 mm (0.039 in.) Maximum diameter for roll media: 180 mm (7-1/16 in.) Core inner diameter for roll media: 50.8 mm (2 in.) or 76.2 mm (3 in.) Maximum weight for roll media: 20 kg (44.1 lb.)
Ink cartridges	Pigmented ink	Exclusive SOL INK cartridge
	Capacity	220 cc +/- 5 cc
	Color	The six colors black, cyan, magenta, yellow, light cyan, and light magenta
Printing resolution (Printing dot resolution)		Max. 1440 dpi
Distance accuracy (When printing)		Error of less than +/- 0.3% of distance traveled, or 0.3 mm, whichever is greater (at Roland PET-film, print travel: 1 m (39-3/8 in.))
Acceptable tool		Cutter (blade and blade holder) : Special blade for CAMM-1 series
Cutting Speed		10 to 600 mm/s (10 to 300 mm/s in the media-feed direction)
Blade force		30 to 300 gf
Blade offset compensation		0.000 to 1.500 mm (0 to 0.0591 in.)
Software resolution (When cutting)		0.025 mm/step (0.00984 in./step)
Distance accuracy (When cutting)		Error of less than +/- 0.4% of distance traveled, or 0.3 mm, whichever is greater When distance correction has been performed (when the setting for [CALIBRATION] - [CUTTING ADJ.] has been made): Error of less than +/- 0.2% of distance traveled, or 0.1 mm, whichever is greater
Repetition accuracy (When cutting)		0.1 mm or less (excluding stretching/contraction of the media) [Range for assured repetition accuracy] (*1) For media with a width exceeding 610 mm (24 in.): Length 4,000 mm (157-7/16 in.) For media with a width of 610 mm (24 in.) or less : Length 8,000 mm (315-15/16 in.)
Repetition between printing and cutting		+/- 0.5 mm (+/- 0.0197 in.) max. at 25 degrees C (77 degrees F) (excluding possible shift caused by expansion/contraction of the media and/or by reloading the media, and provided that media length is under 3000 mm (118-1/16 in.)
Alignment accuracy for printing and cutting when reloading media		Error of less than +/- 0.3% of distance traveled, or 2 mm, whichever is greater [Guaranteed area of alignment for printing and cutting when reloading the media] (*2)
Printing heads cleaning		Automatic cleaning and manual cleaning
Interface		Bidirectional parallel interface (compliant with IEEE 1284: Nibble mode, ECP mode (non compression)) and Ethernet 10Base-T or 100Base-TX
Power-saving function		Auto-sleep
Power consumption	Printing mode	Maximum: 2.0A/100V to 240V +/- 10% 50/60 Hz
	standby mode	Maximum: 0.6A/100V to 240V +/- 10% 50/60 Hz
Acoustic noise level	Printing mode	64 dB (A) or less (according to ISO 7779)
	standby mode	40 dB (A) or less (according to ISO 7779)
Dimensions	Main unit	2699 mm [W] x 742 mm [D] x 519 mm [H] (106-5/16 in. [W] x 29-1/4 in. [D] x 20-7/16 in. [H])
	With stand	2699 mm [W] x 742 mm [D] x 1300 mm [H] (106-5/16 in. [W] x 29-1/4 in. [D] x 51-3/16 in. [H])
Packed dimensions		2835 mm [W] x 850 mm [D] x 965 mm [H] (111-5/8 in. [W] x 33-1/2 in. [D] x 38 in. [H])
Weight	Main unit	136 kg (299.8 lb.)
	With stand	152 kg (335 lb.)
Packed weight		221 kg (487.2 lb.)
Environment	Power on	Temperature: 15 to 32 degrees C (59 to 89.6 degrees F), Humidity: 35 to 80% (non-condensing) (*3)
	Power off	Temperature: 5 to 40 degrees C (41 to 104 degrees F), Humidity: 20 to 80% (non-condensing)
Included items		power cord : 1, arm (Right) : 1, arm (Left) : 1, stand leg : 1, caster : 2, shafts : 2, bolts (Large) : 22, bolts (Small) : 8, washers : 6, hexagonal wrench : 1, pipe : 1, media flanges : 2, stoppers : 2, blade : 1, blade holder : 1, transport bars : 2, drain bottle : 1, bottle stand : 1, Roland SelectColor™ : 1, user's manual : 1, replacement blade for separating knife : 1, Roland-PrintServer CD-ROM : 1, Roland PrintServer Network Settings Guide : 1, SOL INK Cleaning cartridges : 4, cleaning kit : 1 (cleaning sticks : 10, tweezers : 1, wipers : 2)

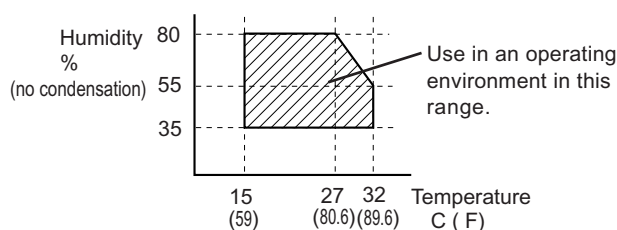
*1) The following conditions must be satisfied:

- Media type: 3M Scotchcal Mastercut Film
- Roll media must be loaded on the shaft
- Side margins: 25 mm (1 in.) or more for both the left and right margins
- Front margin: 35 mm (1-1/8 in.) or more
- The required length for cutting must be pulled out from the roll

(*2)

- Temperature : 25 °C (77°F)
- Media type : SV-G-1270G
- Data size : 3,000 mm in the media-feed direction
1,000 mm in the carriage-movement direction
- The required length for cutting must be pulled out from the roll
- No lamination
- When reloading media, at the menu, select [BASE-ALIGN] to automatically detect crop marks.
- Excludes the effects of slanted movement and of expansion and contraction of the media.

(*3)Environment



Interface Specifications

Standard	Bidirectional parallel interface (compliant with IEEE 1284: ECP mode (non compression))
Input signals	$\overline{\text{STROBE}}$ (1BIT), DATA (8BITS), $\overline{\text{SLCT IN}}$, $\overline{\text{AUTO FEED}}$, $\overline{\text{INIT}}$
Output signals	BUSY (1BIT), $\overline{\text{ACK}}$ (1BIT), $\overline{\text{FAULT}}$, SLCT, PERROR
Level of input output signals	TTL level
Transmission method	Asynchronous

Network Interface Specifications

Control Area

For 100Base-TX and 10Base-T

10Base-T/100 Base-TX Ethernet network cable specifications

Data	Values
Max. cable length	100 m
Cable type	S/UTP Type "category 5"
Impedance	100 Ohm
Connector type	RJ-45



CJ-540
SC-540