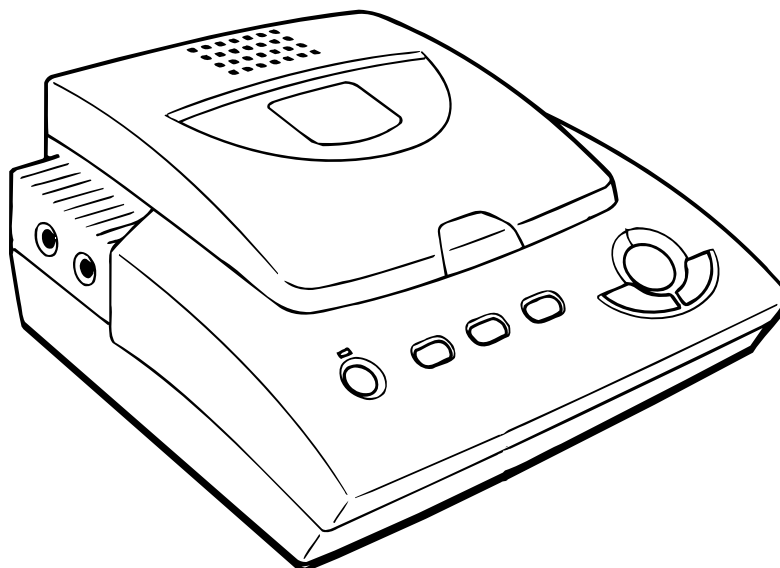


SERVICE MANUAL & PARTS LIST (without price)

DP-300 (KX-701)

FEB. 1998



INDEX

CASIO®

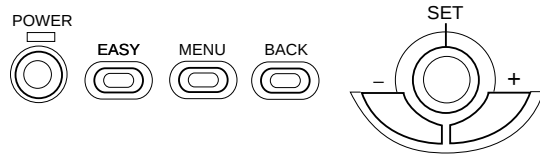
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SPECIFICATIONS

Printing method:	Dye sublimation thermoelectric printing 3-color sequential (yellow, magenta, cyan, over-coat)
Print head:	384-dot
Resolutions:	203 dpi
Gradation:	64-steps, (6-bit, approx. 260,000 colors)
Tape cartridge:	Exclusive ink cartridge (18 mm, 36 mm, 46 mm)
Printing type:	6 (easy print, frame print, calendar print, multi-screen print, compound print, tone print)
Print size: (at Easy print)	18 mm tape 120 × 160 dots (15 mm × 20 mm) 36 mm tape 240 × 320 dots (30 mm × 40 mm) 46 mm tape 344 × 459 dots (43 mm × 57.4 mm)
Print speed: (at Easy print)	18 mm tape approx. 2 minutes (6 sheets) 36 mm tape approx. 1 minute 43 mm tape approx. 1.5 minutes (excluding data transferring time)
External interface:	Serial interface
Power supply:	AC adaptor AD-2012 (DC 20.5 V)
Power consumption:	Approx. 35 W
Dimensions:	180 mm × 199 mm × 98 mm (W × D × H)
Weight:	1.1 kg

ADJUSTMENTS



DP-300 button arrangement

About pilot lamp indication;
 Light in green Stand by
 Flash in green Data transferring
 Light in orange Printing
 Light in red Data transmission error
 Flash in red Other errors

1. Current check

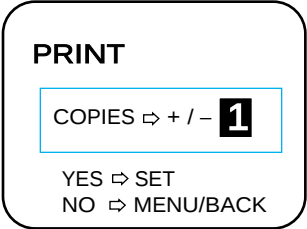
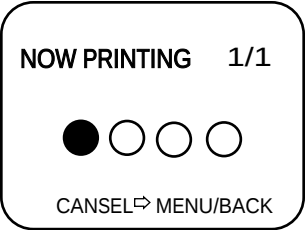
While inputting DC20.5 [V], make sure that the current consumption does not exceed the following values abnormally.

Power off DC 52 [mA] typ., DC 60 [mA] max.
 While printing DC 1.45[A] typ., DC 1.6 [A] max.

2. Unit check

DP-300 contains self check program. Before check, connect DP-300 and a digital camera QV-100, QV-200, or QV-300 with cable SB-62. Use above mentioned cameras only.

Sequence	Operation	QV camera display or DP-300 print out
1	Turn the QV digital camera on.	
2	While holding down "BACK" and "EASY" buttons, press "POWER". Hold down those buttons for more than one second. Power lamp lights in green → red → orange, then green.	KX701 TEST MODE1 VERSION 021 ⇨ Indicates the ROM version ROMCHEK OK ⇨ Shows "NG" if the ROM is faulty HEAD RANK 4 ⇨ Normally within 0 to 9 TEMP NOW 26 ⇨ Head temperature PUSH ANY KEY Should be within 23 ±5°C
3	Push any button (except POWER) to proceed to sensor check.	TAP JAM PAPER RIBBON HOME CUT EASY MENU BACK (-) (+) SET 3 1 2 4 5 6 ⇨ Shown when paper is in ⇨ Shown when tape cartridge is in ⇨ should be indicated
4	Press each button of DP-300 and make sure that mark appears underneath the pressed button's name.	TAP JAM PAPER RIBBON HOME CUT EASY MENU BACK (-) (+) SET 3 1 2 4 5 6 ⇨ appears when corresponding button is pressed.
5	Turn DP-300 off.	

Sequence	Operation	QV camera display or DP-300 print out
6	Set 46 mm color ink cartridge.	
7	Set the QV camera in PLAY mode and turn DP-300 on.	After 2 seconds, QV camera's indicator shows MENU screen.
8	Press EASY button.	
9	Using DP-300's + and – buttons, select a picture on QV camera's screen.	
10	Press SET button.	 PRINT COPIES ⇄ + / – 1 YES ⇄ SET NO ⇄ MENU/BACK
11	Press SET button again.	 NOW PRINTING 1/1 ● ○ ○ ○ CANCEL ⇄ MENU/BACK Check the printed sheet for tint and color tone. Also make sure that there is no shear in printing, slant printing, or missing dots.

3. Head replacement / adjustment

Replacement

- (1) Open the printer cover. Unhook the printer cover by moving it to the right or the left.



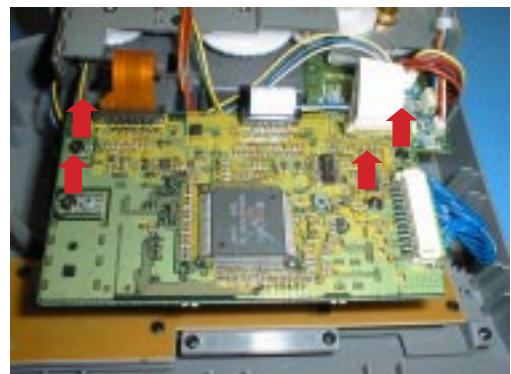
- (2) Remove the lower case by detaching three screws ②⑤.



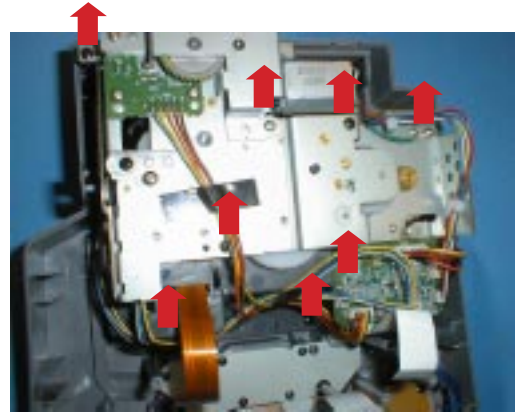
- (3) Remove all the connectors from PCB 701 MA and note the head rank number printed on the FPC from printer mechanism.



- (4) Remove four screws ②④ and remove the PCB 701 MA.

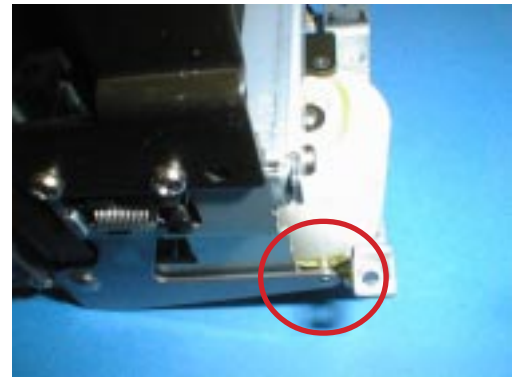


(5) Remove eight screws and take printer mechanism out.

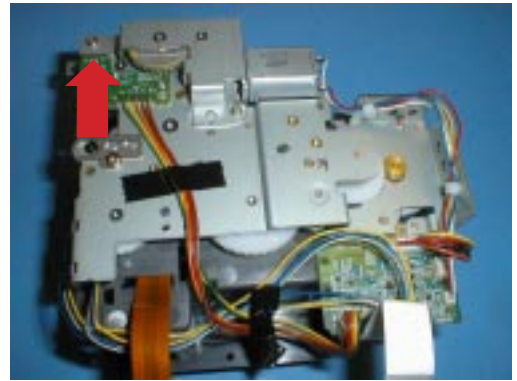
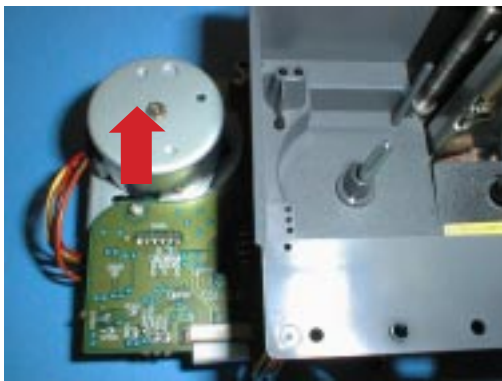


(6) Unscrew two screws then remove the cutter.

Note: When you assemble the cutter, set the shaft on the cutter lever in the ditch of the drum.
Screw may be too tight because of fixing glue. In such a case, drip alcohol between the screw and cutter.

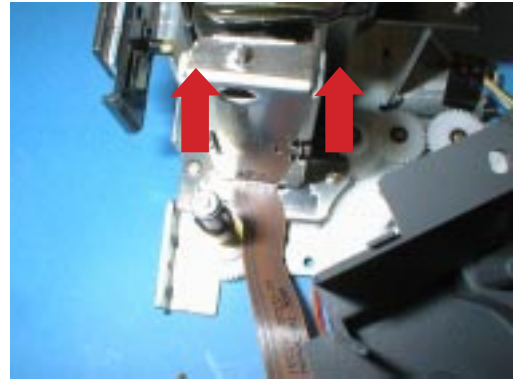


(7) Remove one screw from PCB 701 SUB and one screw from printer chassis then remove plastic frame.



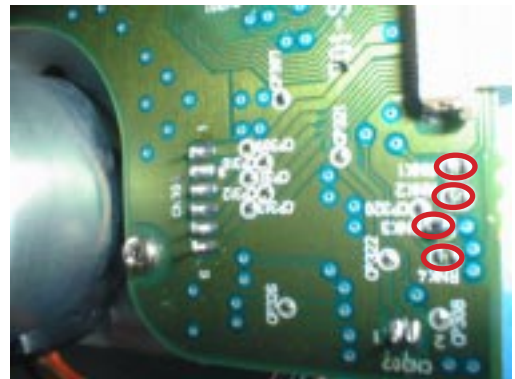
(8) Remove two screws and take the head out.

- To adjust the head position, insert small screw driver through the hole on plastic shaft then turn the adjustment screw. First, turn the screw clockwise all the way then turn it counterclockwise 2 and 1/4 turns. Head will be placed in the center.
Fine adjust the head position by turning the screw little by little and checking the result print.
- When you assemble the head, remove caution plate for ink ribbon setting and insert the FPC cable through the hole.



(9) Depending on head rank printed on FPC cable, short or open the soldering pad on PCB 701 SUB as shown below.

Head Rank	Pad RNK1	Pad RNK2	Pad RNK3	Pad RNK4
0000	Open	Open	Open	Open
1111	Short	Open	Open	Open
2222	Open	Short	Open	Open
3333	Short	Short	Open	Open
4444	Open	Open	Short	Open
5555	Short	Open	Short	Open
6666	Open	Short	Short	Open
7777	Short	Short	Short	Open
8888	Open	Open	Open	Short
9999	Short	Open	Open	Short

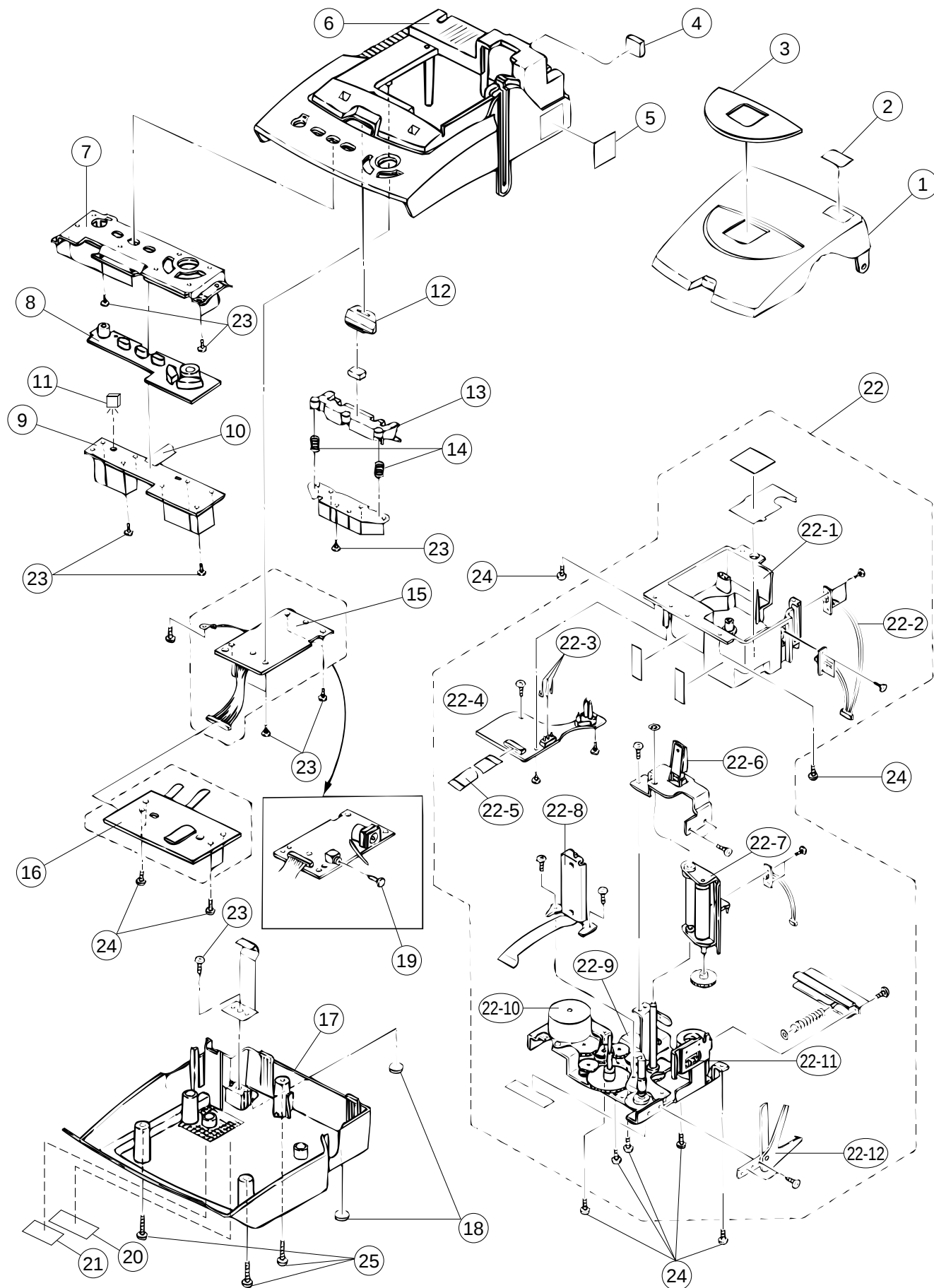


PCB 701 SUB

TROUBLESHOOTING

Trouble	Possible Cause	What to do
Print stops and pilot lamp flashes in orange slowly.	Due to excessive printing, print head temperature is too high.	Wait until the pilot lamp turns in green. Print restarts automatically when head recovers normal temperature.
Printing is indistinct.	Dirty printer head or rubber roller	Clean the head and roller with alcohol.
Tape does not come out.	Printer cover is not closed completely.	Close the printer cover.
	Tape or ink ribbon is finished.	Replace the tape cartridge.
	Tape is stuck.	Extract the stuck tape and cut the stuck part with scissors then reset the cartridge.
Tape cannot be cut.	Worn cutter	Replace the cutter.
Pilot lamp flashes in red.	No tape cartridge is set.	Set tape cartridge.
	End of tape cartridge	Set new tape cartridge.
	Faulty tape cartridge	Set new tape cartridge.
Pilot lamp lights in red.	Weak battery power of QV camera	Set new battery in QV camera.
	QV camera is in REC mode.	Set QV camera in PLAY mode.
	Faulty connection of QV camera and DP-300	Connect QV camera and DP-300 correctly.

EXPLODED VIEW



PARTS LIST

MAIN PCB ASS'Y

Item	Code No.	Parts Name	Specification	Applicable	Q	R
16	6612 4930	PCB ASSY	R240159*1	Common	1	B
Connectors						
CN201	3502 1963	CONNECTOR	006208512210000	Common	1	C
CN202	3502 1620	CONNECTOR	006208515210000	Common	1	C
CN203	3502 1627	CONNECTOR	046214026010800	Common	1	C
CN204	3502 2310	CONNECTOR	S12B-PH-SM3-TB	Common	1	C
Diodes						
D200	2390 1470	DIODE	MA143A-(TX)	Common	1	C
D203	2390 1470	DIODE	MA143A-(TX)	Common	1	C
D204	2390 3023	DIODE	UDZTE-1724B	Common	1	C
D205	2390 2513	DIODE	1SS319-TE85L	Common	1	C
D206	2390 1470	DIODE	MA143A-(TX)	Common	1	C
ICs						
IC200	2114 4676	IC/CMOS	TC7W04FU-TE12L	Common	1	C
IC201	2105 5824	IC/CMOS	TC7SH32FU-TE85L	Common	1	C
IC202	2113 0343	IC	MC1413DR2	Common	1	C
IC203	2113 0322	IC	BA6885FS-E2	Common	1	C
IC204	2105 6379	IC	RH5VL41AA-T1	Common	1	C
IC205	2012 5721	LSI	HD6477034F200010	Common	1	C
IC206	2012 5706	LSI	HM514800CLJ-6	Common	1	C
IC207	2012 5706	LSI	HM514800CLJ-6	Common	1	C
IC208	2012 5730	LSI	M27C160-100M10010	Common	1	C
Transistors						
Q200	7101 5791	TRANSISTOR	DTA144EETL	Common	1	C
Q201	7101 5791	TRANSISTOR	DTA144EETL	Common	1	C
Q202	2254 0448	FET	2SK1580-T1	Common	1	C

Notes: Q – Quantity used per unit

R – Rank

POWER SUPPLY PCB

Item	Code No.	Parts Name	Specification	Applicable	Q	R
15	6612 4837	PCB ASSY	R340203*1	Common	1	B
Connector						
CN100	6612 5350	WIRE ASSY	A441807*2	Common	1	C
Diodes						
D101	2390 2884	DIODE	SB20-03P-TD	Common	1	C
D100	2390 2387	DIODE	SB30-03P-TD	Common	1	C
Fuses						
FU100	2797 5533	FUSE	PI-R429003	Common	1	A
FU101	2797 5547	FUSE	PI-R4291.25	Common	1	A
IC						
IC100	2105 6380	IC	NJM2360AM-TE1	Common	1	C
Jacks						
JK101	3501 8666	JACK	HSJ1462-01-010	Common	1	C
JK100	3501 8295	JACK	HEC0740-010010	Common	1	C
Transistors						
Q101	2250 1435	TRANSISTOR/DIGITAL	DTC144EKA-T146	Common	1	C
Q100	2254 0469	FET	MTD20P03HDLT4	Common	1	C

MAIN COMPONENT

Item	Code No.	Parts Name	Specification	Applicable	Q	R
1	6612 4860	COVER/CASSETTE	R140032-1	Common	1	X
2	6417 7720	LABEL/COLOR	A441960-1	Common	1	X
3	6612 4840	PANEL/DISPLAY	R340202-1	Common	1	C
4	6612 7700	CUSHION	K441200-2	Common	1	X
5	6417 7730	LABEL	A441531-5	Common	1	X
6	6612 4980	CASE/UPPER	R140034-1	Common	1	X
7	6612 5360	CASE/KEY	R240139-1	Common	1	C
8	6612 5370	RUBBER/KEY	R140028-1	Common	1	C
9	4309 7850	PCB	K340889-1	Common	1	C
10	6612 5050	CABLE/JOINT	K441810-2	Common	1	C
11	2370 1022	LED	SPB-25MVW	Common	1	C
12	6612 4970	BUTTON/PUSH	R340153-1	Common	1	X
13	6612 4960	LEVER	R340154-1	Common	1	X
14	6410 2960	SPRING	A414847-1	Common	2	X
17	6612 4870	CASE/LOWER	R140035-1	Common	1	X
18	6612 4850	RUBBER/FOOT	R440265-1	Common	2	C
19	6390 0432	CAP	A310765B-1	Common	1	C
20	6612 4890	LABEL	K441143-1	U.S.A. and CANADA	1	X
21	6612 4910	LABEL	R340191-2	Common	1	X

Notes: Q – Quantity used per unit
R – Rank

PRINTER UNIT

Item	Code No.	Parts Name	Specification	Applicable	Q	R
22	6631 3400	PRINTER UNIT	R140061*1	Common	1	B
22-1	6417 7760	CASE/CASSETTE	A140425-1	Common	1	X
22-2	6417 7440	PCB ASSY	A341188A*1	Common	1	B
22-3	6415 5380	BUTTON	A440618-1	Common	1	C
22-4	6612 4990	PCB ASSY	R340204*1	Common	1	C
22-5	6612 5510	CABLE/JOINT	A441811-2	Common	1	C
22-6	6417 7970	COVER/HEAD STOPPER	A341209-1	Common	1	C
22-7	6418 6960	PLATEN ASSY	A240624A*1	Common	1	C
22-8	6612 4586	HOLDER/HEAD	K240758*1	Common	1	B
22-9	6418 6920	CHASSIS ASSY/MOTOR	A341196*1	Common	1	C
22-10	3025 1925	MOTOR/STEPPING	M35SP-6P-8784	Common	1	B
22-11	6410 7120	SPRING	C413536-1	Common	1	C
22-12	6417 7201	SCISSORS	A341068A*1	Common	1	B
Connectors						
CN300	3501 7546	CONNECTOR	B5B-ZR-SM3-TF	Common	1	C
CN301	3501 7553	CONNECTOR	B6B-ZR-SM3-TF	Common	1	C
CN302	3501 3724	CONNECTOR	B2B-ZR	Common	1	C
CN303	3501 9401	CONNECTOR	B3B-ZR-SM3-TF	Common	1	C
CN304	3501 6384	CONNECTOR	B6B-PH-K-S	Common	1	C
CN305	3502 1627	CONNECTOR	46214026010800	Common	1	C
Diode						
D300	2390 1470	DIODE	MA143A-(TX)	Common	1	C
IC						
IC300	2105 4158	IC	TA75S393F(TE85L)	Common	1	C
Transistors						
Q300	2259 2732	TRANSISTOR	2SC4617TL	Common	1	C
Q301	2259 2732	TRANSISTOR	2SC4617TL	Common	1	C
Q302	2259 2732	TRANSISTOR	2SC4617TL	Common	1	C
Q303	2259 2732	TRANSISTOR	2SC4617TL	Common	1	C
Switches						
SW300	3110 6028	SWITCH	SW-163	Common	1	C
SW301	3110 6035	SWITCH	SW-74	Common	1	C

SCREWS

Item	Code No.	Parts Name	Specification	Applicable	Q	R
23	5861 3544	SCREW	TYP.2 DIA2X4 BK	Common	25	X
24	5861 3546	SCREW	TYP.2 DIA2.3X6 BK	Common	11	X
25	5861 3542	SCREW	TYP.2 DIA2.3X12 BK	Common	3	X

Notes: Q – Quantity used per unit
R – Rank

ACCESSORIES

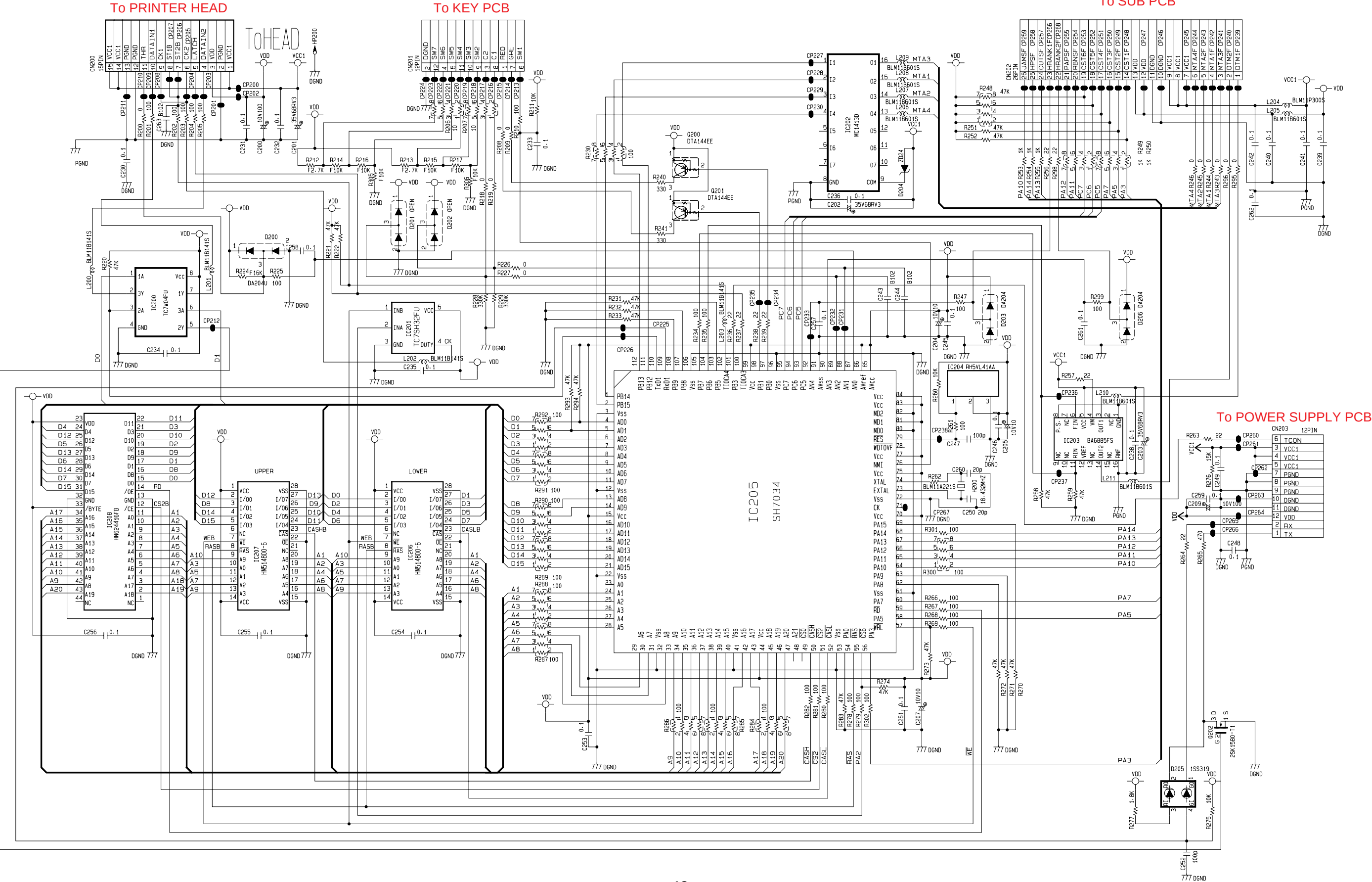
Item	Code No.	Parts Name	Specification	Applicable	Q	R
	1014 9228	ADAPTOR	AD-2012-J	120V	1	C
	1014 9242	ADAPTOR	AD-2012-E	230V: UK	1	C
	1014 9235	ADAPTOR	AD-2012-G	220V	1	C
	1014 9784	ADAPTOR	AD-2012-A	220V: AUSTRALIA	1	C
	1014 9820	CD-ROM	QV CRAFT-E	Common	1	C
	3719 5159	CABLE	04W0797-40-F	Common	1	C

Notes: Q – Quantity used per unit

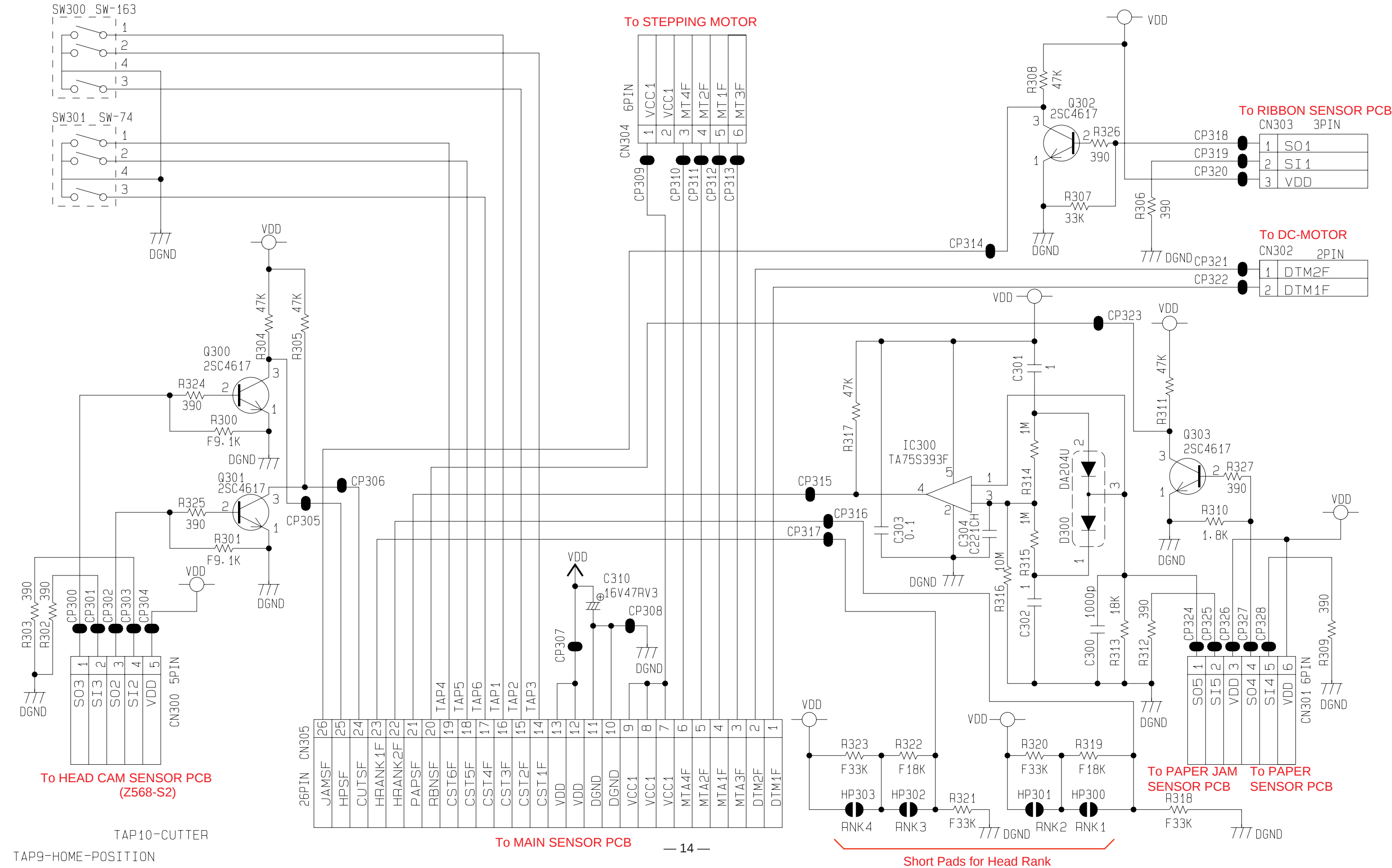
R – Rank

SCHMATIC DIAGRAMS

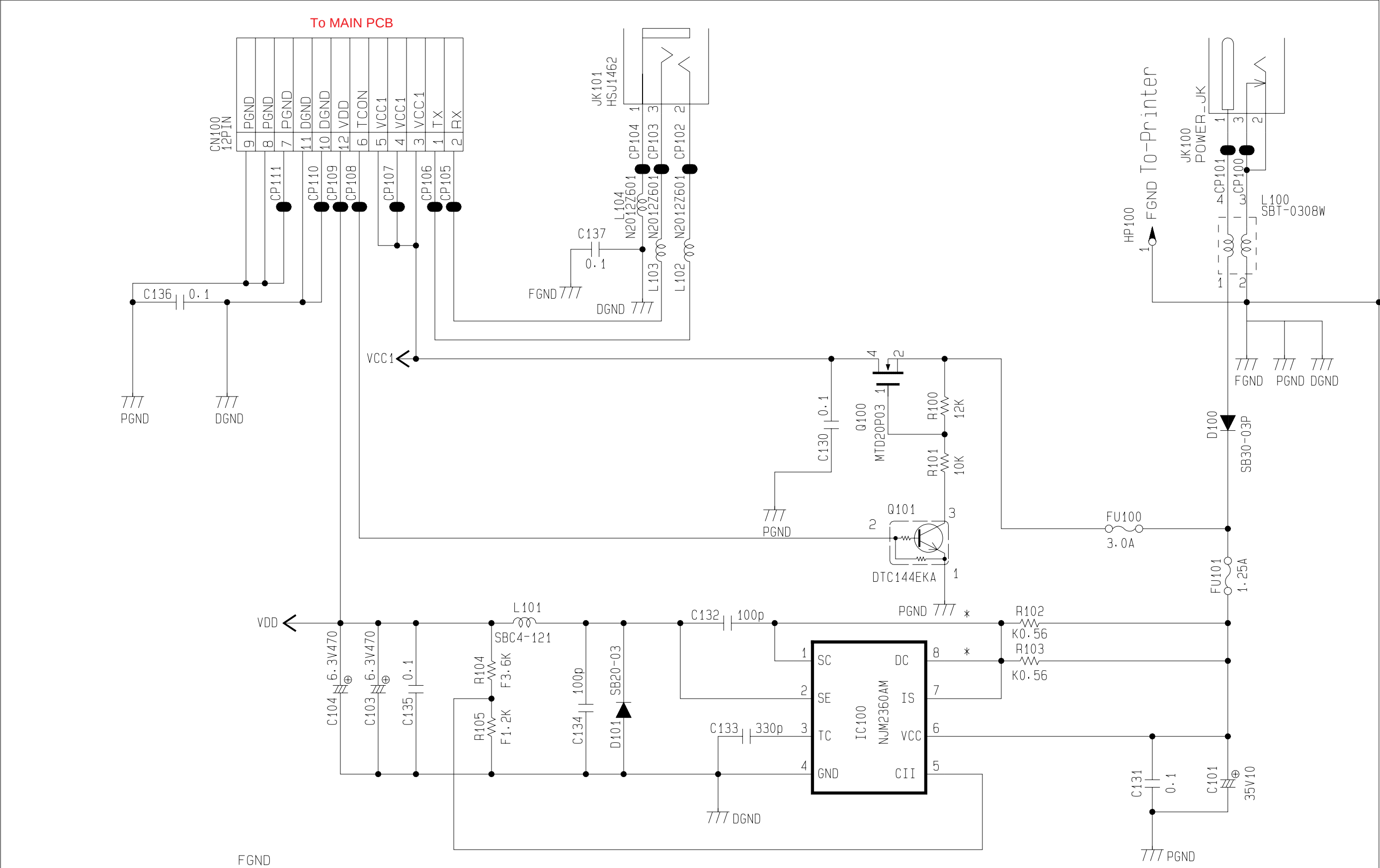
MAIN PCB 701MA



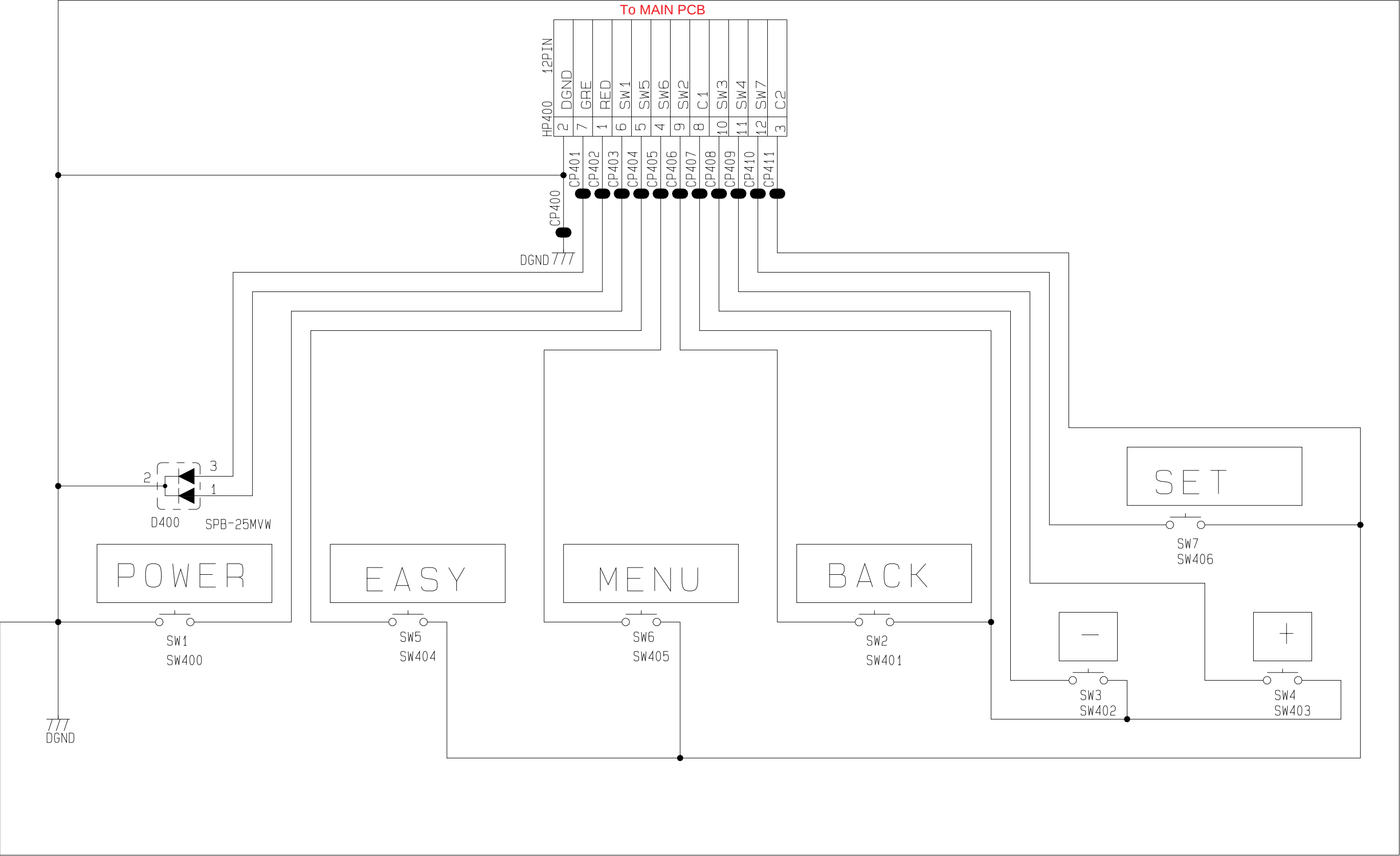
SUB PCB 701SUB



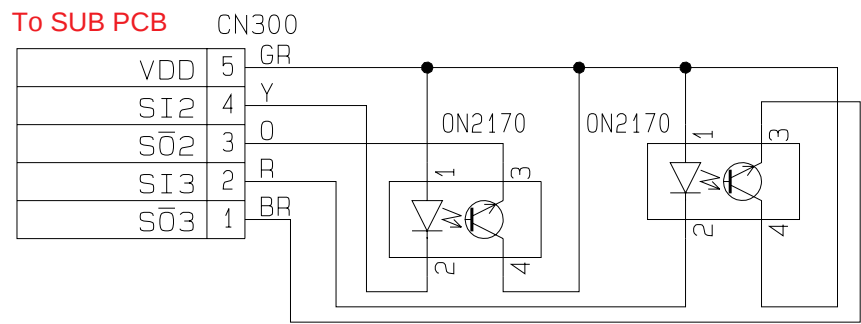
POWER SUPPLY PCB 701P



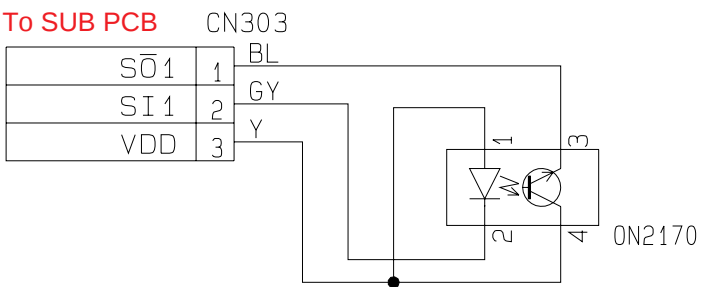
KEY PCB 701K



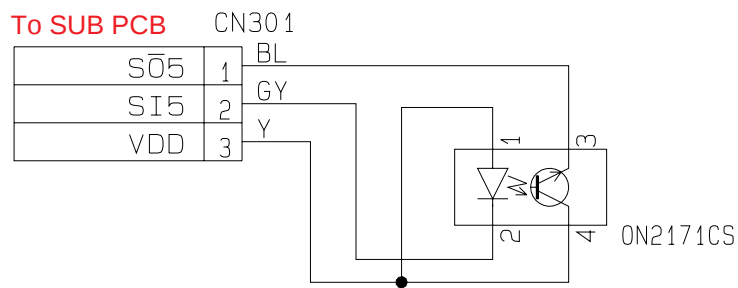
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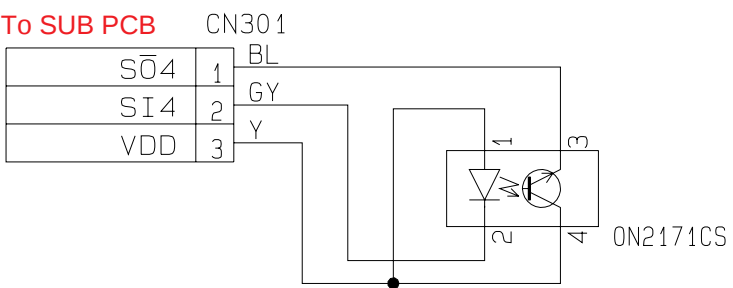
RIBON SENSOR PCB Z568-S3



PAPER JUM SENSOR PCB Z568-S3



PAPER SENSOR PCB Z568-S3



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