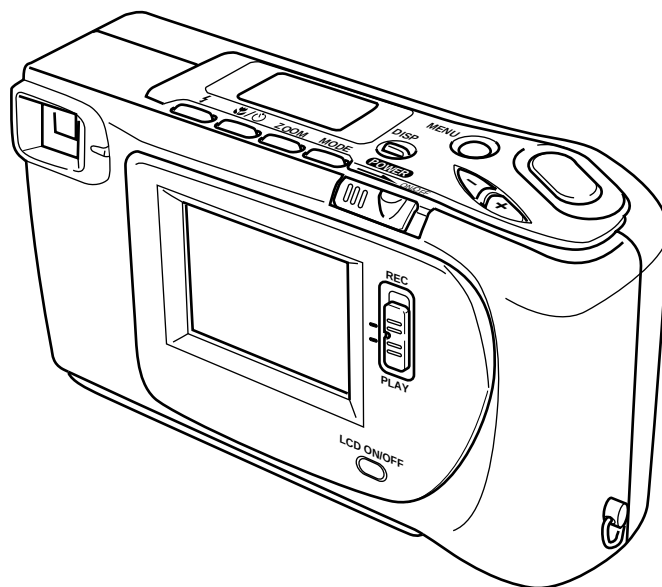


SERVICE MANUAL & PARTS LIST (without price)

QV-5000SX
(KX-777)

MAY. 1998



CASIO®

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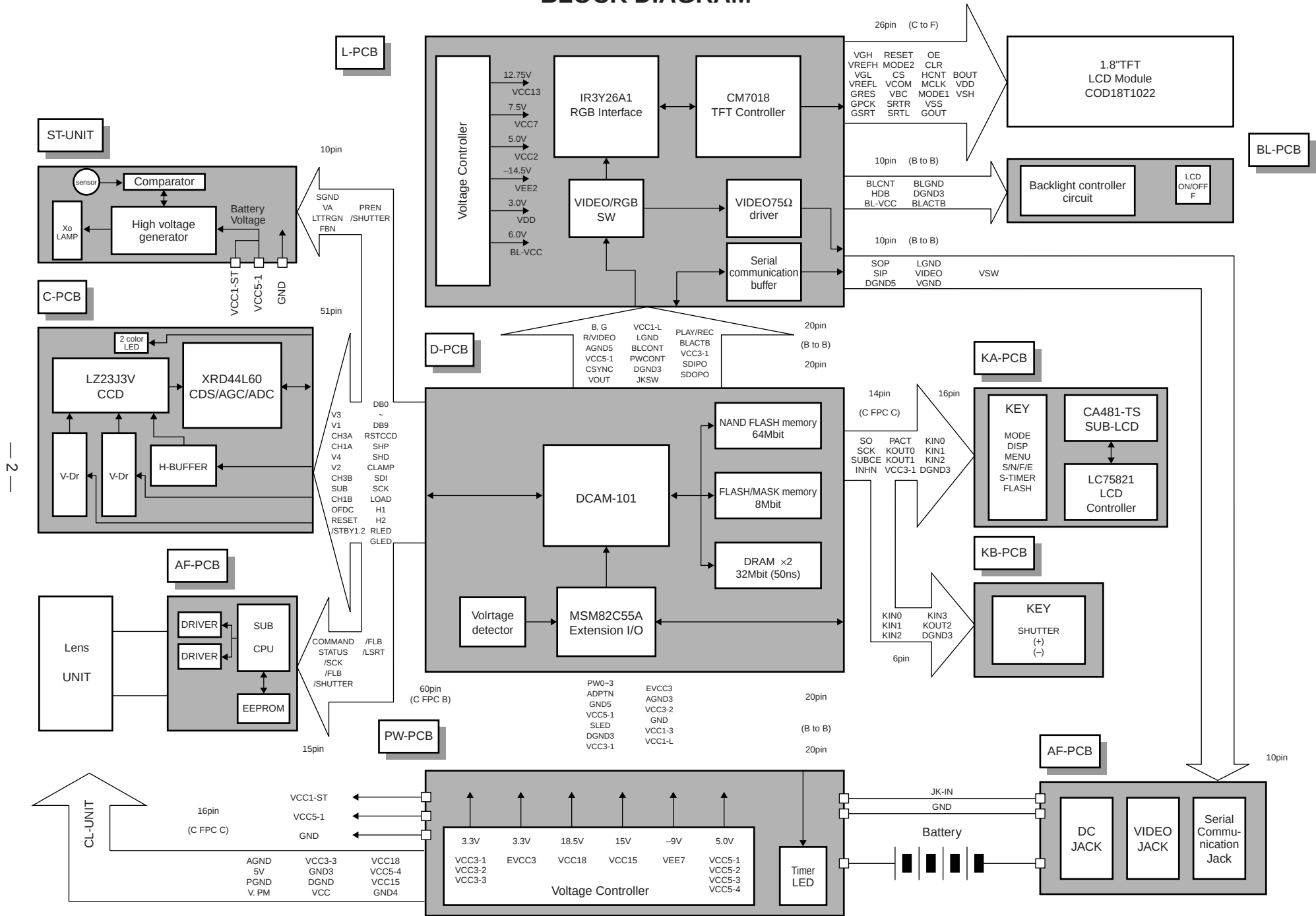
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SPECIFICATIONS

Item	Specification
Recording System	Digital (JPEG base); PC Link software can be used to input images in CAM, JPEG, TIFF and other format.
Recording Medium	Flash memory (8MB)
Memory Capacity/ Computer Output image	SUPER FINE: 16 images (450KB compressed – 1280 x 960 pixels) FINE: 30 images (225KB compressed – 1280 x 960 pixels) NORMAL: 57 images (113KB compressed – 1280 x 960 pixels) ECONOMY: 88 images (64KB compressed – 640 x 480 pixels) The above figures are approximations only. The actual number of images depends on image subject matter.
Image Element	1/3-inch CCD (Total Pixels: 1,310,000; Effective Pixels: 1,250,000)
Computer Output image	1280 x 960 / 640 x 480 pixels
Lens	F2.8, f = 5.47mm
Focusing	Selectable between phase-difference detection system autofocus and manual focus.
Aperture	Lens shutter/auto iris
Focus Range	NORMAL: 0.3m to ∞ MACRO: 10cm (From surface of protective lens.)
Light Metering	TTL center priority by CCD
Exposure Metering	Program AE
Exposure Range	EV +6 to 17
Exposure Correction	–2EV to +2EV (1/2EV units)
Shutter	CCD electronic shutter/mechanical shutter
Shutter Speed	1/8 to 1/500 second
White Balance	Automatic
Self-timer	10 seconds
Recording Modes	Single-image; Self-timer; Movie; Panorama; Title; Macro
Flash Modes	AUTO, ON, OFF, Red-eye Reduction
Monitor/Viewfinder	1.8-inch TFT low-glare color LCD; 122,100 (555 x 220) pixels
Video Output	NTSC/PAL (selectable)
Input/Output Terminals	DIGITAL OUT, VIDEO OUT, AC adaptor connector
Power Supply	Four batteries (AA-size alkaline or lithium batteries)/AC adaptor (AD-C620)
Power Consumption	Approximately 7.6 W
Dimensions	131(W) x 69(H) x 43(D) mm
Weight	Approximately 250g (excluding batteries)
Standard Accessories	wrist strap; soft case; video cable; four LR6 alkaline batteries; owner's manual

- The liquid crystal panel built into this camera is the product of precision engineering, with an effective pixel rate of 99.99%. This also means, however that 0.01% of the pixels can be expected to fail to light or to remain lit at all times.

BLOCK DIAGRAM



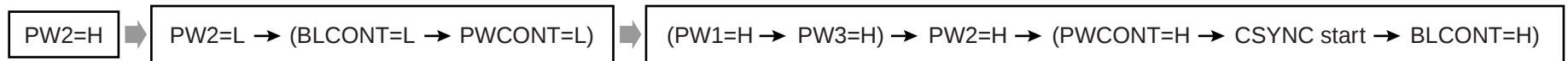
POWER SUPPLY FLOW

When power is turned on, the power supply flows in each mode are as shown below.

(1) PLAY MODE



(2) REC MODE, LCD ON



(3) REC MODE, LCD OFF



VOLTAGE TABLE

PCB	Signal	Voltage [V]	Control signal ("H" active)	Main Bolock
D	VCC1-3	BATTERY	Non, Sw,	
	EVCC3	3.3	Non, Sw,	F, F, (POWER SW)
	VCC3 VCC3-1	3.3	PW0	CPU, Flash, ROM, RAM
	VCC3-2	3.3	PW0	CPU (Analog)
	VCC3-4	3.3	PW0	CCD, Strobe
	VCC5-1	5.0	PW2	Strobe (Logic)
C	VCC18	18.5	PW1	VDr
	VCC15	15.0	PW1	CCD, VDr, Buff,
	VCC5-4	5.0	PW3	C-MOSBuff,
	VCC3 VCC3-1	3.3	PW0	CDS, AGC, AD (Driver)
	VCC3-3	3.3	PW0	CDS, AGC, AD, VDr
	VEE7	-9.0	PW3	CCD, VDr,
AF	VCC5-2	5.0	PW1	AFMotor
	VCC5-3	5.0	PW1	Eyeris, Measure
	VCC3-1	3.3	PW0	AF (Logic)
ST	VCC1-ST	BATTERY	Non, Sw,	Strobe Charge
	VCC5-1	5.0	PW2	Strobe (Logic)
L	F.B. VCC13	13.5	PWCONT	Disp (Gate)
	VCC7	7.5	PWCONT	Disp (Source) RGB I/F
	VCC2	5.0Adj	PWCONT	RGBI/F
	VEE2	-15.0	PWCONT	Disp (Gate)
	VDD	3.0	PWCONT	Disp (Logic), TFTController
	VCC5-1	5.0	PW2	Video Out, Serial
	VCC3-1	3.3	PW0	SignalSW, Serial
	BL-VCC	6.0Adj	PWCONT * BLCONT	BackLight

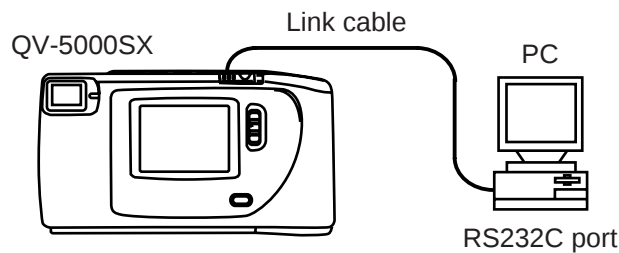
ADJUSTMENT

1. Complete Unit

1-1. Loading ADJ

Set QV-5000SX to "PLAY" mode.

- (1) Connect QV-5000SX and DOS/V PC with link cable.
- (2) Execute the adjustment software shown below on PC.
DT777E - aok - 98042101.adj
- (3) During the procedure, "MEMORY ERROR#4" appears on the display of QV-5000SX but this does not indicate malfunction.
- (4) Parameter loading complete message will be displayed.



1-2. White balance · Sensitivity adjustment

1. Preparation

- (1) Viewer (Kenko light box handy 5000) (Modified in order to input DC externally)
- (2) Voltage regulator (Output voltage: 0 to 10 V, Output current: 0 ~ 1 A)
- (3) Use two ND filter together, one ND10 and one ND20.
- (4) Use two color temperature converter filter together, one LA10 and one LA20.

* Although those filters are sold at a large camera store, they are available from CASIO. Please refer to the parts list (page 31).

2. Setting of equipment

- (1) Supply 6 V to simplified viewer from voltage regulator.
- (2) Turn on power of simplified viewer and leave it on for more than 30 minutes.

3. Adjustment procedure

- (1) Start test mode MENU2.
 - Set function switch to REC mode
 - Turn POWER switch ON while pressing DISP key and Shutter button simultaneously.
 - Press mode key twice
 - Press flash key and menu key simultaneously.
(On display, cursor is placed on CCD RGB ADJUST)
- (2) Set the filter so that center of illuminance face and center of two color temperature converter filters are lined up.
- (3) Bring lens of QV-5000SX close to the center of color temperature converter filters then stick QV-5000SX and filters together.
- (4) Press the shutter button.
- (5) When RGB ADJUST COMPLETE is displayed the initialization, of white balance is completed.
- (6) Remove two color temperature filters from simplified viewer.
- (7) Set the filter so that center of illuminance face and center of two ND filters are lined up.

- (8) Bring lens of QV-5000SX close to the center of ND filters, then stick QV-5000SX and filters together.
- (9) Press the shutter button.
- (10) When SENS ADJ COMPLETE is displayed the adjustment of sensitivity is completed.
- (11) Turn power switch off.
 - When using kenko light box handy 5000 go on with the procedure listed below, 12. to 15.
- Execute them only once. If you execute more than once start from procedure 1.**
- (12) Set function switch to PLAY mode, then turn on power.
- (13) Connect QV-5000SX and PC with a link cable then execute R, BGAIN compensation software (kadj1E.exe) on Windows 95.
- (14) Click "replace AD".
- (15) White balance adjustment is completed when "AD replacement complete" is displayed.

4. Checking Adjustment

- (1) White balance
 - Set white balance manually to sunlight.
 - Turn on the power switch of simplified viewer and take a picture.
 - Compare it with a regular picture and if there are no difference, its setting is OK.
- (2) Sensitivity
 - Set strobe to AUTO.
 - Take a picture of a person's face in a dark room at a distance of about 1 meter.
 - Compare it with a regular picture and if there are no difference, its setting is OK.

PRECAUTIONS

- Since the intensity of light and color temperature varies in the simplified viewer, let it sit for 30 minutes before using.
- The deviation of simplified viewer's illuminance face's point light intensity is large, try to set the illuminance face at the center.
- Pay attention since the figure of R, BGAIN compensation software (kadj1E. exe) keeps changing.

Equipment needed to execute white balance and sensitivity adjustment

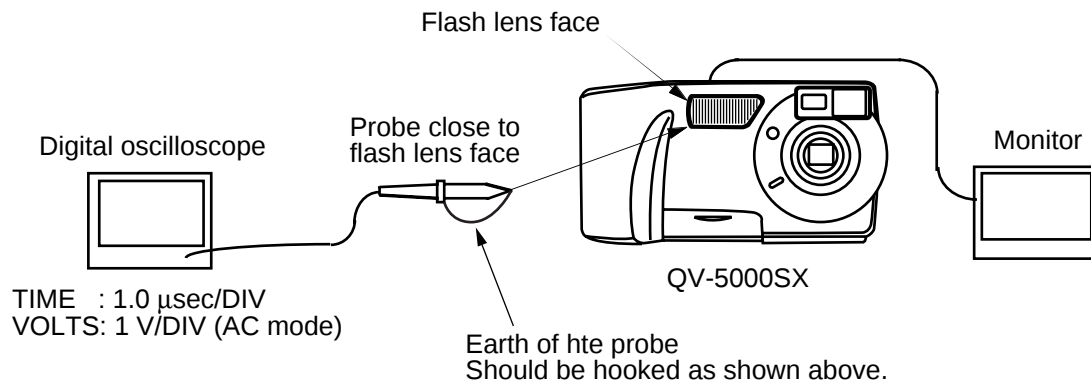
	ADJ SOFT	Light source (viewer)		Note
		Color temperature (K) light source 1	Light intensity (cd/m ²) light source 2	
No. 1	CCD RGB ADJUST	4400 ± 200		No specified figure for light intensity
No. 2	CCD SENS ADJUST		50 ± 5	No specified figure for color temperature

1-3. Flash operation and recharge operation

- Apply 6.0 ± 0.1 V voltage on DC in jack.
- Set QV-5000SX in "REC" mode.
- Perform after flash adjustment.

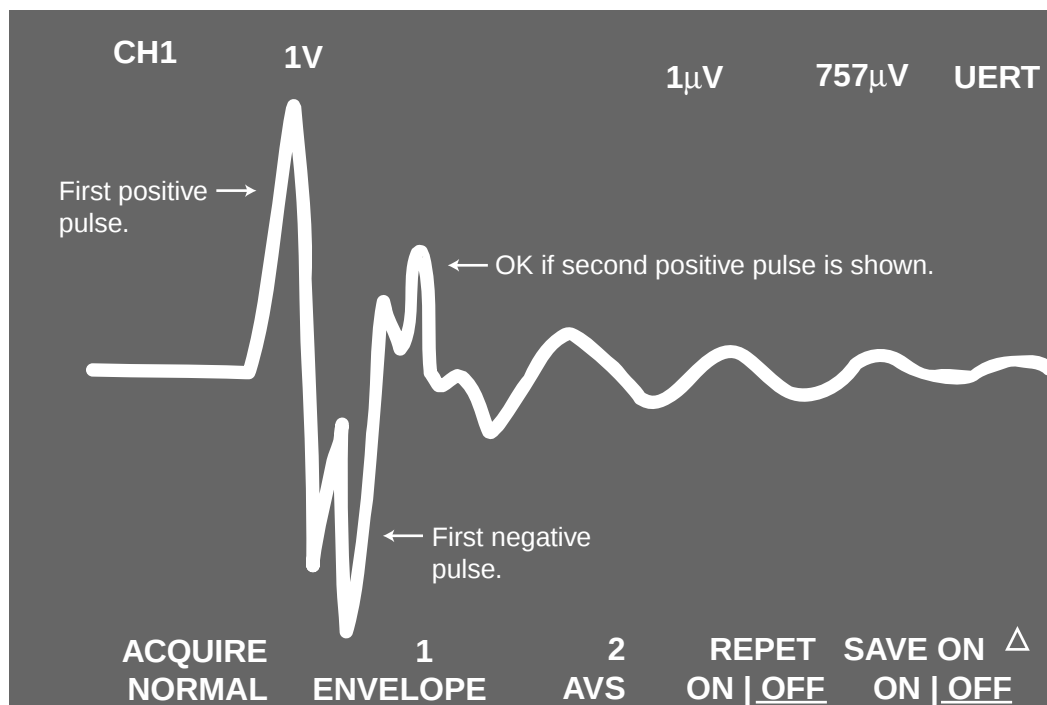
- (1) Shoot a picture with flash ON.
- (2) Shoot in red eye reduction mode.
- (3) Shoot in macro mode.
- (4) Set QV-5000SX in "PLAY" mode and check the pictures taken.
- (5) Monitor the trigger waveform of (1), (2) and (3) on a digital oscilloscope and make sure there are no errors.
- (6) Shoot a picture with flash OFF. (Make sure there is no flash)
- (7) Make sure that the charging current is less than 1.3 A.

Note: Make sure that the pictures taken in steps (1) and (2) are not whitish, dark or erroneously colored.



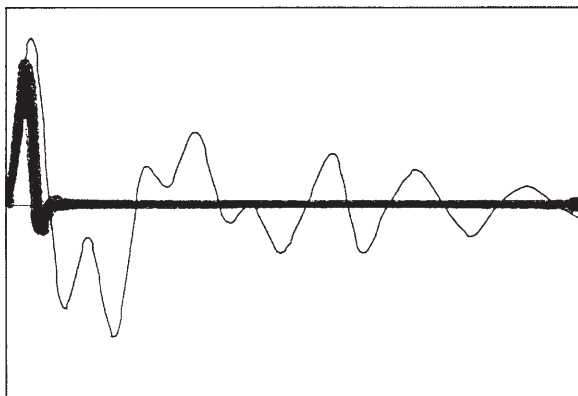
Flash trigger waveform

1. Normal waveform
TIME : 1 μ sec/DIV
VOLTS : 1 V/DIV

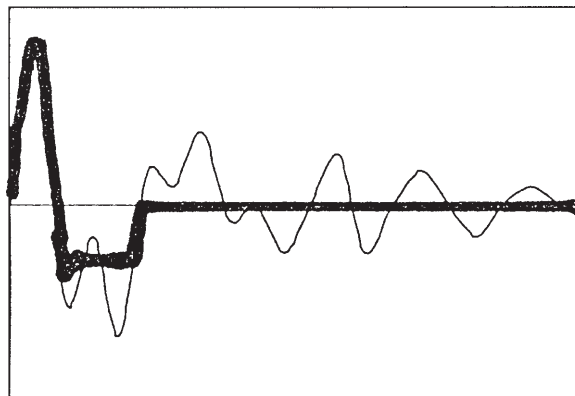


2. NG waveforms when trigger skipping occurs.

- (1) When trigger skipping occurs on the first positive pulse.



- (2) When trigger skipping occurs on the first negative pulse.



1-4. Current consumption

Set QV-5000SX to “PLAY” mode.

- (1) Current consumption (DC in = 6.0 ± 0.1 [V])
- (2) Lower the voltage from 6 V as shown below then make sure the battery warning indicator changes.

DC in = 5.0 ± 0.05 [V] (PLAY mode) 

DC in = 4.65 ± 0.05 [V] (PLAY mode) 

Note: Make sure that current consumption is less than 550 mA in PLAY mode.

Reference:

- Current consumption of REC mode.
- Maximum 800 mA (Flash charge current is not included)

1-5. Operation check (Reference)

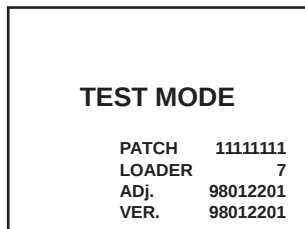
- (1) Shock resistance, battery operation
- (2) Jack operation, slide switch operation, button operation.
- (3) Cover open/close operation, battery cover open/close operation
- (4) Resolution, paralax, color revival
- (5) Standard/Macro switch, AE operation, AF operation, self timer countdown display
- (6) Flash display function, LED display function
- (7) Video output, digital communication, page display
- (8) Dust and scratches on lens
- (9) Appearance

Notes:

- In MACRO mode make sure the focus gets clear at a distance of 100 ± 4 mm from the front part of protector.
- In NORMAL mode make sure you are able to see the specified resolution specified on the center resolution chart and 79 % chart at a distance of 300 ± 10 mm.
- Operate the procedures listed below as a secondary judgement of procedure (2).
- In NORMAL mode make sure you are able to see the specified resolution specified on the center resolution chart and 85 % chart at a distance of 1000 ± 10 mm.
 - * Take a shot at F mode then check the resolution after loading it to the PC.
 - * After checking on the PC. Adjustments are made only when there is a problem.
- Plates, letters, screws, label are to be checked as appearance.
- Check the color revival using tint chart and the noise level
Make sure the figures on video outputs are as shown below.
~ROM98022502: $1.0 \text{ V} \pm 0.2\text{V}$ (test pattern white 100 %)
ROM98022601~: $0.82\text{V} \pm 0.2\text{V}$ (test pattern white 75 %)
 - * Operate at 75 Ω end terminal.
- Make sure the setting “NTSC/PAL” after D-PCB replacement.

1-6. Test mode

- (1) Turn power ON while pressing shutter button and DISP button simultaneously.
TEST MODE display is displayed.



In the center of the display "TEST MODE" is displayed at 4 times the size of other letters.

In the lower right corner PATCH, LOADER, ADj and Program version are displayed.

PATCH : When there is no PATCH, 11111111 will be displayed

ADJ : When ADJ is broken or CCD is not adjusted, dates will not be displayed.

- (2) Press MENU button and FLASH button simultaneously.
MENU 1 appears on the display.
- (3) Double click MODE key then press MENU button and FLASH button simultaneously.
MENU 2 appears on the display
 - Press +/- to select and SHUTTER button to confirm.

MENU1	
1. INIT. SETTING NTSC 2. INIT. SETTING PAL 3. GRAY SCALE (10STEP) 4. BLACK 5. 50% GRAY 6. WHITE 7. CROSS HATCH 8. COLOR BAR	
MENU1-1 MENU1-2	Set at factory. 1. RECLCD: ON 2. ON 3. FLASH: AUTO 4. QUALITY: F 5. WB: AUTO 6. PICTURE: NORMAL 7. MOVIE TIME: 3.2 sec 8. TITLE 9. Zoom: 10. VIDEO OUT: NTSC or PAL
MENU1-3	Displays 10 steps of grey scale. Light intensity values are 16, 38 ,60, 82, 104, 126, 148, 170, 192, 214, 235
MENU1-4	Black display
MENU1-5	50 % gray display
MENU1-6	White display
MENU1-7	32 × 32 pixel grid pattern on black, or RED square at REC Thru (320 × 216) or Yellow square at PLAY MODE (360 × 240) or 1 PIXEL mark is displayed in the center.
MENU1-8	Displays color bar.

MENU2	
1. CCD RGB ADJUST 2. CCD SENS. ADJUST 3. BATT. TEST 4. REC INFO. 5. SELF COPY 6. IMAGE COPY 7. MOTOR SETTING 8. SOKKYO CHANGE 9. NO COMP CAPT	
MENU2-1	Execute CCD color solid adjustment, then record it on ADJ of flash memory display. Press shutter button by adjusting the light amount using specified filters in specified viewer. When setting mark is displayed it is completed.
MENU2-2	Execute CCD sensitivity check, check result is stored in ADJ area of the picture flash memory. Press shutter button by adjusting the light amount using specified filter in specified viewer. When setting mark is displayed, it is completed.
MENU2-3	Battery life measurement function. When shutter button is pressed, it will shoot pictures at interval of about 10 seconds. It will go off when battery goes dead or when power is turned off.
MENU2-4	FOCUS/iris display function At REC through, present Focus point and iris will be displayed on the LCD. It will be easy to control Manual Focus precisely. It will go off when power is turned off.
Do not use 5 to 9 of MENU2 because it will corrupt data stored.	

2. D-PCB Assy

2-1. Operation check

- Set QV-5000SX in "PLAY" mode.
- Connect C, L, PW, KA, KB, JK, BL PCB.
- Connect PACT (CP510) to GND for short time (1, 2 seconds).
Then the unit will be operation mode.

Supply electricity to each power source of D PCB.

VCC3-1; $3.3 \pm 0.08V$ VCC5-1; $5.0 \pm 0.1V$
EVCC; $3.3 \pm 0.08V$ VCC1-3; $6.0 \pm 0.08V$

AC adaptor can be used. But if the unit does not operate correctly use the values listed above.

1. Clock frequency check

Make sure SYSCLKP terminal is at $f_0 = 54MHz \pm 60ppm$.

2. DT program check

Program used: dt777E

Check the items listed below.

- (1) Make sure serial communication connection is OK.
- (2) Check ROM version.
- (3) Make sure DRAM is OK.
- (4) Make sure flash memory is OK.
- (5) Check the voltages detected. (HIGH will be displayed)
(vcc1-3 voltage high; $6.0 \pm 0.1 V$, middle; $4.5 \pm 0.1 V$, low; $4.0 \pm 0.1 V$)
- (6) Check that each mode is OK.
 - REC/PLAY mode
 - VIDEO jack used/not used
 - AC adaptor jack used/not used
- (7) Make sure each key works correctly.
- (8) Make sure each LED lights.
 - LED for self timer
 - Operation display LED
- (9) Make sure TFT LCD display goes on and off correctly.
- (10) Make sure SUB LCD lights.
- (11) Turn power OFF.

3. Make sure RGB and VIDEO are outputted.

For VIDEO, check each of NTSC type and PAL type.

Note: Make sure video signal level are as shown below.

ROM version (~98022502) : $0.810 V \pm 0.160$ (100 % white)
ROM version (98022601~) : $0.665 V \pm 0.150$ (75 % white)

How to use

dt777E ENTER

To check D PCB (dt777E.exe), you will have to enter into serial communication for D PCB alone.
For host computer use 1 MB PC-AT compatible. Add check circuit to connectors as needed.

TEST contents

Version display	Displays ROM version.
Self test of DRAM	Read/write check of video buffer area only.
Check of control block	If no errors are found "OK" will be displayed. If any errors are found FLASH memory will be formatted. (about 30 seconds) In this case, all the pictures in memory will be deleted.
Voltage detect test	Displays the voltage detected by HIGH, MID, and LOW.
Mode detect test	Detect REC/PLAY mode, video out mode, AC adapter mode, and displays result.
Detects each key	Test by pressing keys. Press the key that is shown on the display.
LED display test	Test operation display of self timer, follow the procedures shown on display, and check if the lights go on.
LCD display ON/OFF test	Turn LCD display OFF then turn it ON again Follow the procedures shown on the display.
Sub LCD display test	Display all segments, then erase them. Follow the procedures shown on the display.

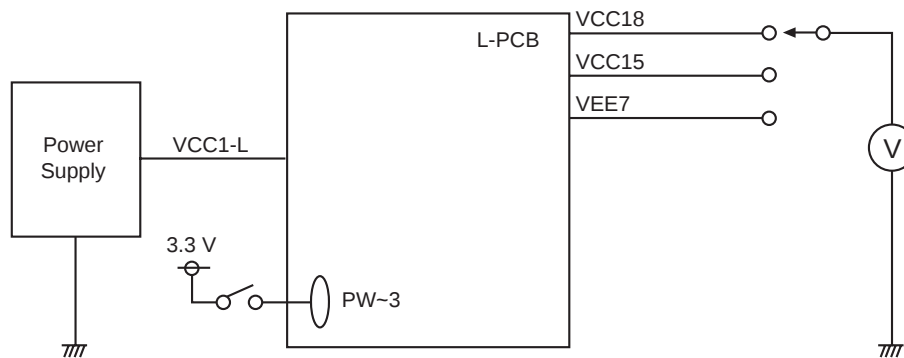
3. L-PCB Assy

3-1. VCC18, VCC15, VEE7 voltage adjustment

- Make sure VCC1-1 (CP149) = 5.0 ± 0.05 [V]
- Apply $3.3 \text{ V} \pm 5 \%$ to PW0 to PW3.

- (1) Apply $5.0 \pm 0.05 \text{ V}$ to VCC1-1 and adjust VR120 so that VCC18 (CP121) becomes $18.5 \pm 0.5 \text{ V}$.
- (2) Adjust VR125 so that VCC15 (CP125) becomes $15.0 \pm 0.2 \text{ V}$.
- (3) Adjust VR130 so that VEE7 (CP133) becomes $-9.0 \pm 0.2 \text{ V}$.

Note: Adjust VCC15 after adjusting VCC18.



DISASSEMBLY

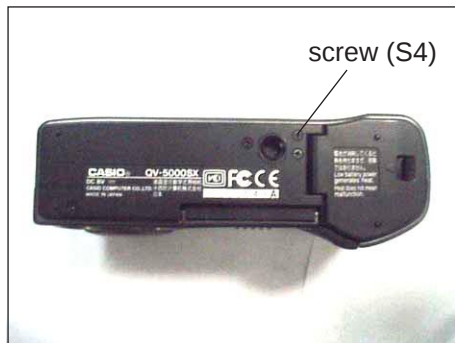
1. Unscrew two screws (S4) on the side.



5. Use a (-) screwdriver to remove the small hook.



2. Unscrew a screw (S4) on the bottom.



6. Remove the upper case.



3. Open battery cover.



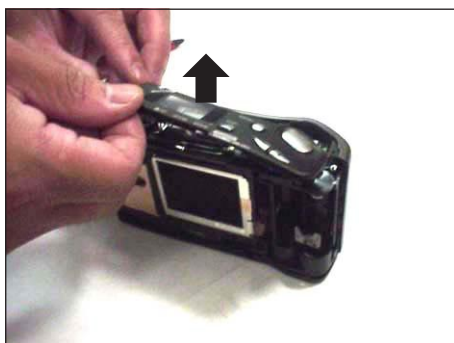
7. It should look like this.



4. Release the hook on the side.



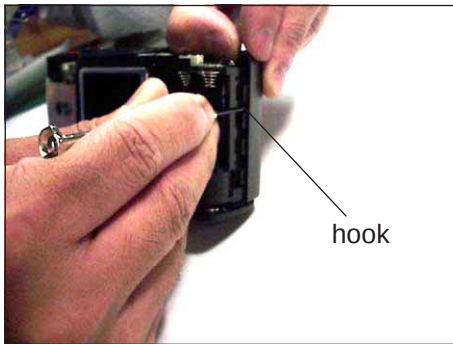
8. Remove the top case by lifting it up.



9. It should look like this.



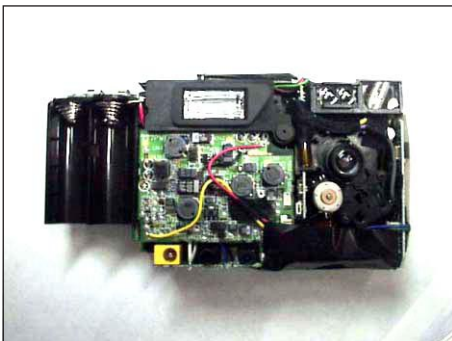
10. Remove the hook of battery holder.



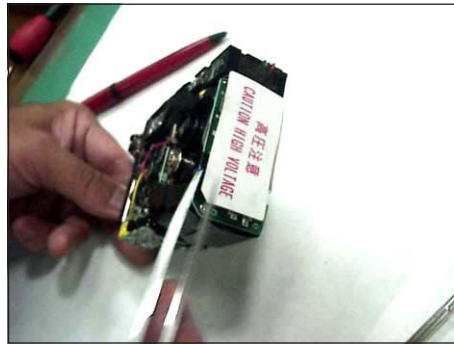
11. Pull out the frame block.



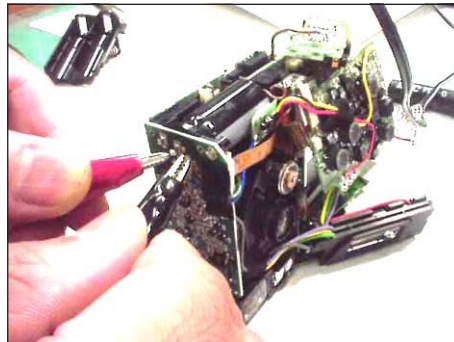
12. Frame block



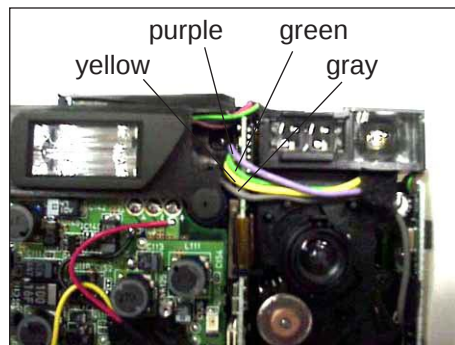
13. Remove the label that says "CAUTION HIGH VOLTAGE"



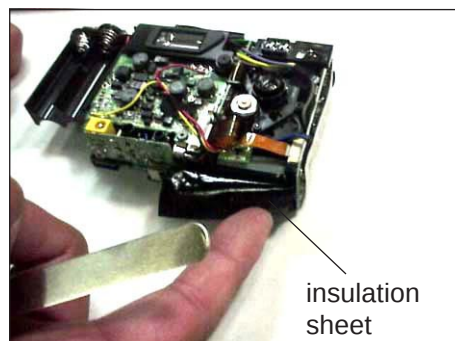
14. Connect resistor (1.5 k Ω 5W) to flash capacitor for discharging.



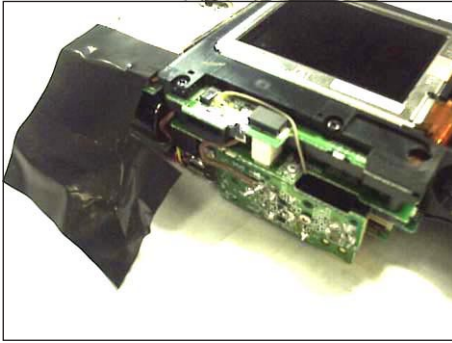
15. Put purple wire on top then green, yellow and gray on the bottom when assembling the top part of the lens.



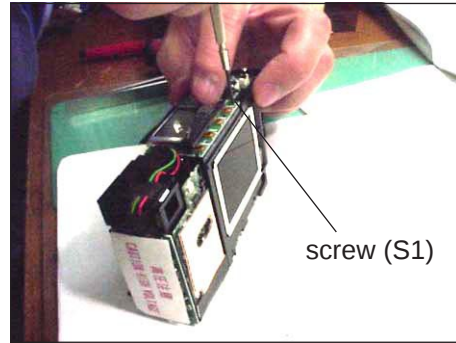
16. Peel off the insulation sheet on the bottom.



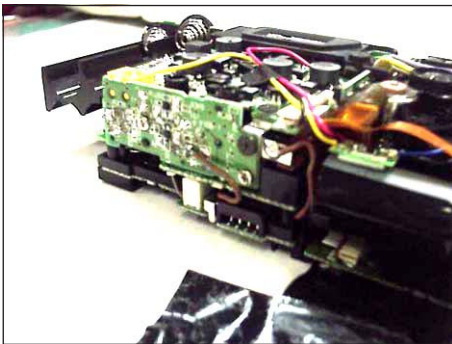
17. Bottom view (LCD)



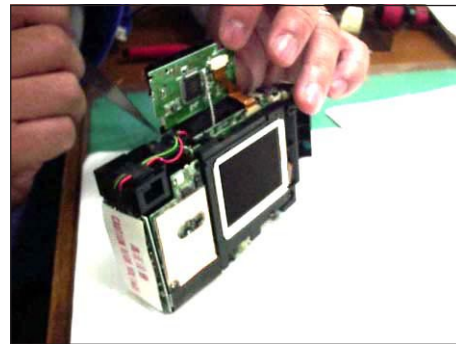
21. Remove a screw (S1) of KB PCB.



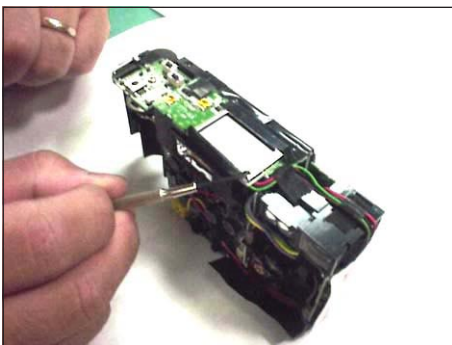
18. Bottom view (camera)



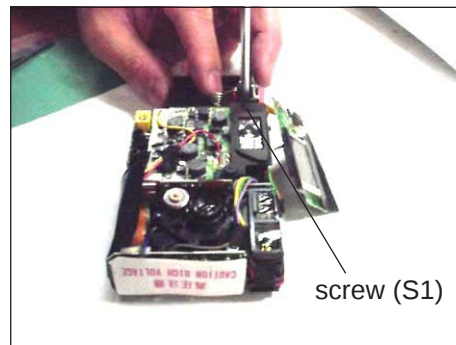
22. Remove KA PCB and KB PCB.



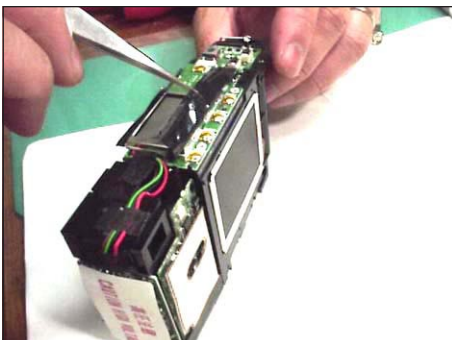
19. Peel off the insulation sheet.



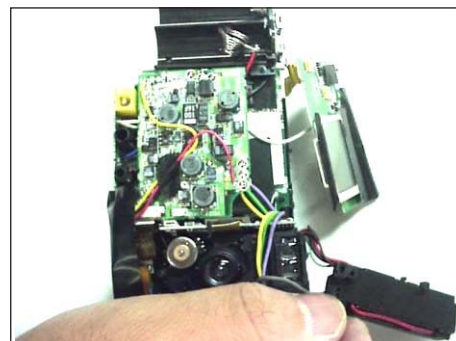
23. Unscrew two screws (S1) of the flash unit.



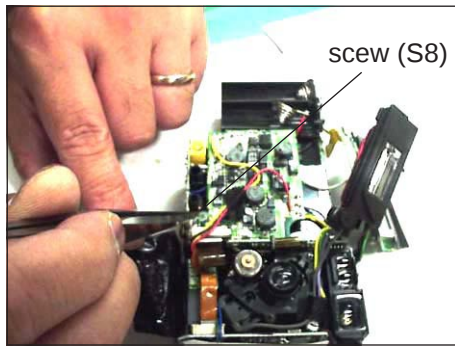
20. Unscrew two screws (S9) of KA PCB hidden under the insulation sheet.



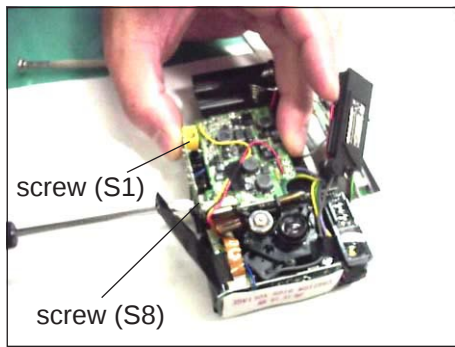
24. Remove the flash unit.



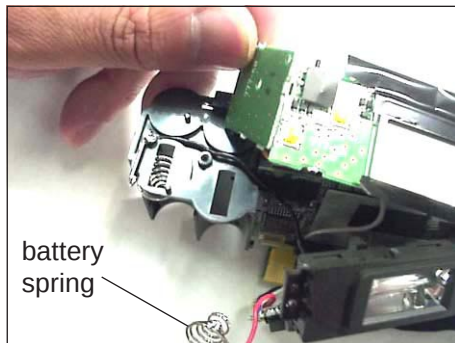
25. Unscrew screw (S8) of PW PCB and remove washer.



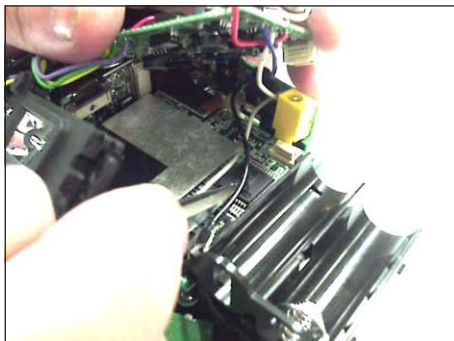
26. Unscrew screws (S8) and (S1) and remove washer.



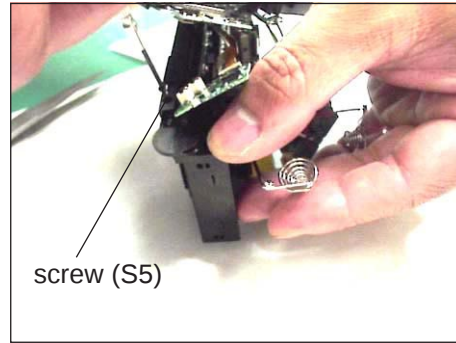
27. Remove the battery spring.



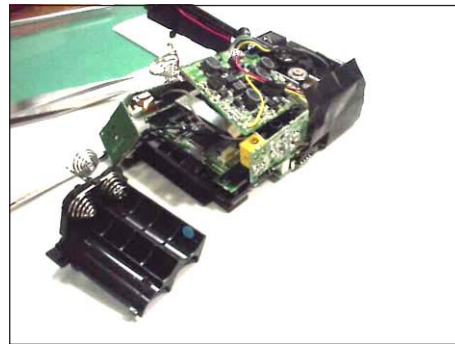
28. Remove PW PCB and JK PCB.



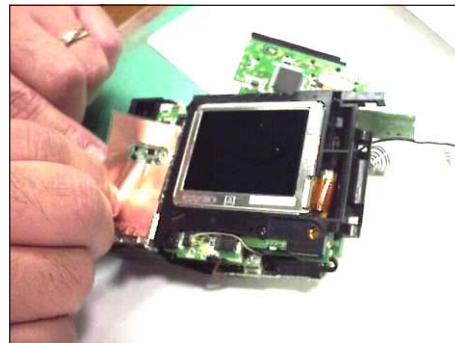
29. Unscrew a screw (S5) of battery holder.



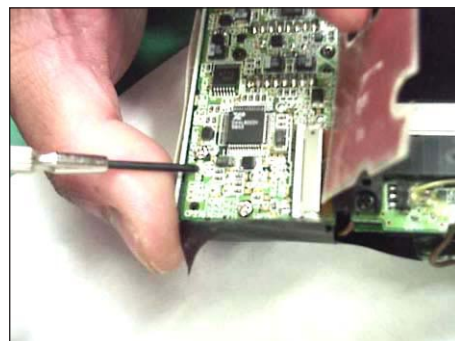
30. Remove battery holder.



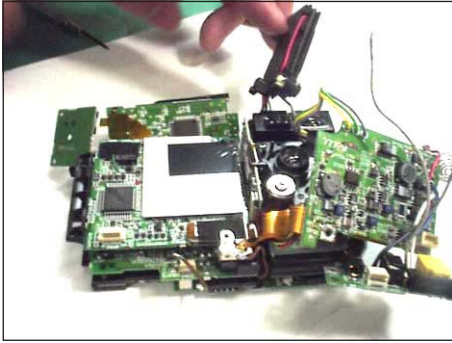
31. Peel off insulation sheet of lens ass'y.



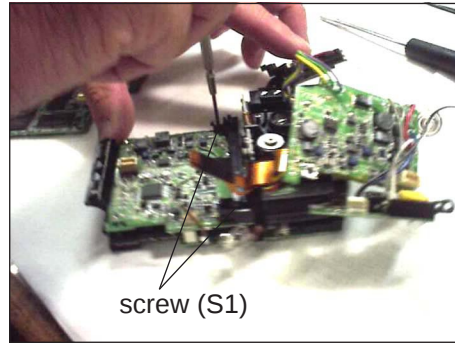
32. Unscrew two (S2) screws.



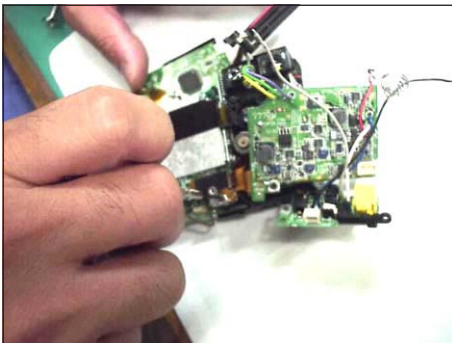
33. Remove flash unit.



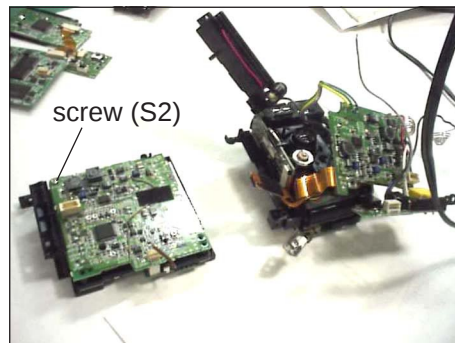
37. Unscrew two screws (S1) of lens ass'y.



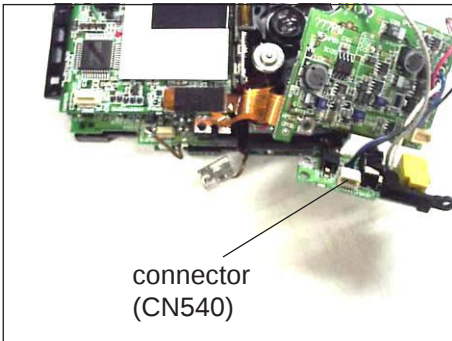
34. Unscrew a screw (S2) from metallic part on D PCB.



38. Remove lens ass'y. Remove a screw (S2) of L PCB.



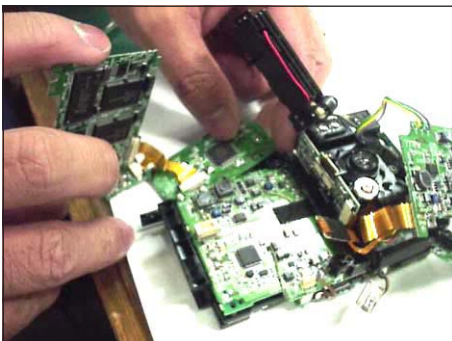
35. Remove connector (CN540). When assembling be sure the contact is secure.



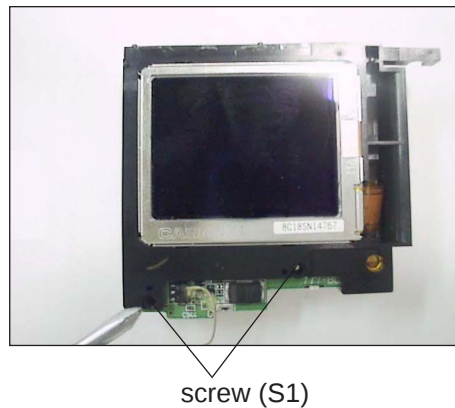
39. Remove L PCB.



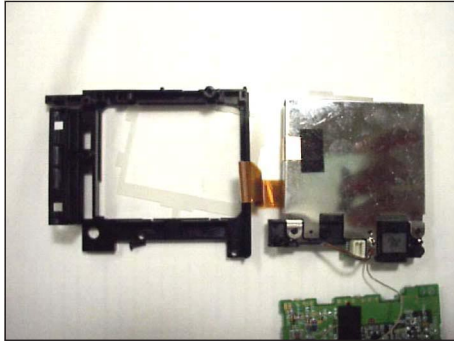
36. Remove D PCB.



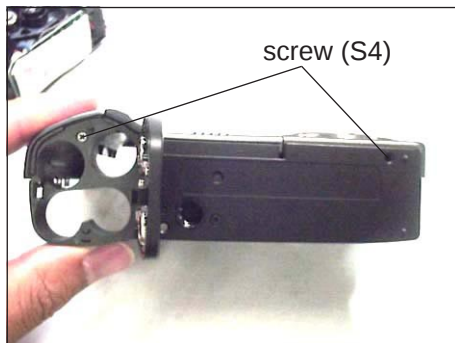
40. Unscrew two screws (S1) of DP frame.



41. Remove LCD and BL ass'y.



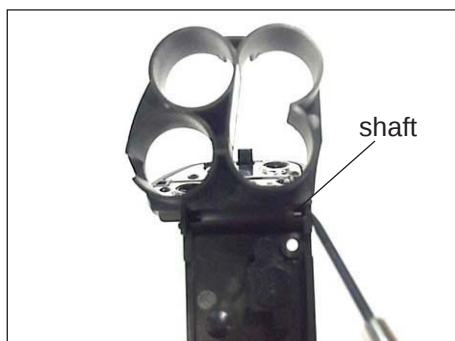
42. Unscrew two screws (S4).



43. Remove bottom case ass'y.

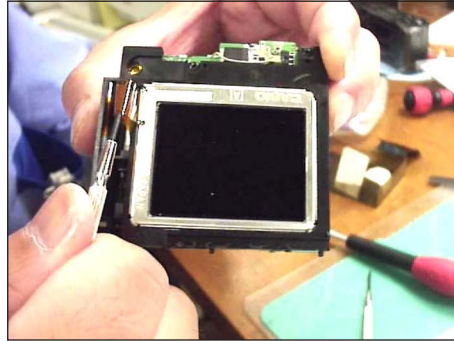


44. Press the shaft and remove the battery cover.



PRECAUTIONS WHEN ASSEMBLING

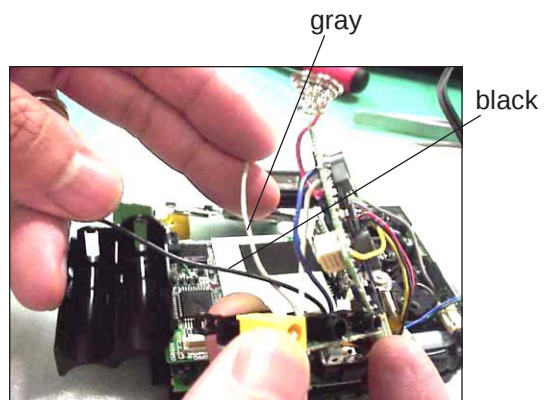
45. When putting DP frame to LCD, pull the cable first.



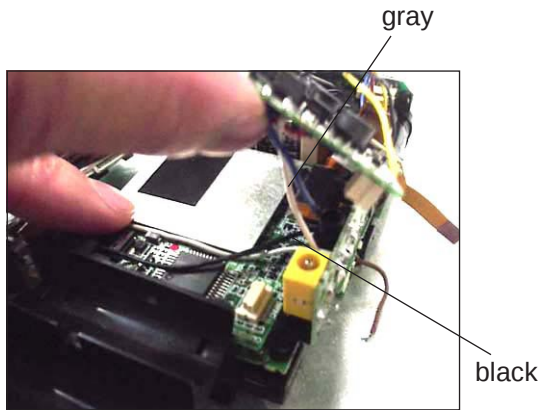
46. Put the excess part of the wire inside so the case will not nick the wires.



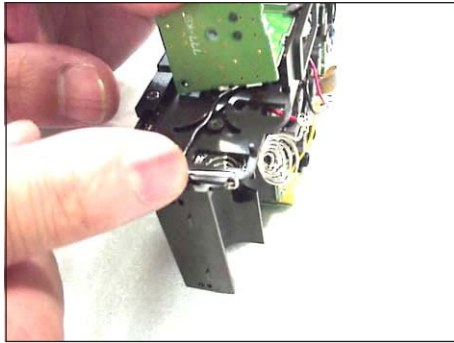
47. When assembling PW PCB place the black and gray wires as shown below.



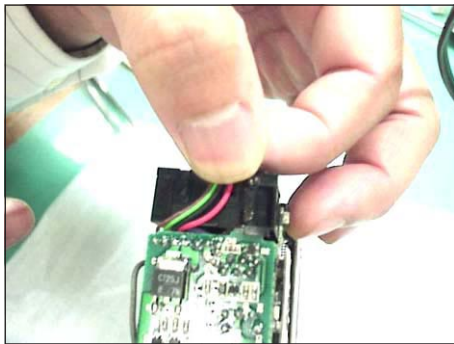
48. Let the black wire and gray wire run as shown.



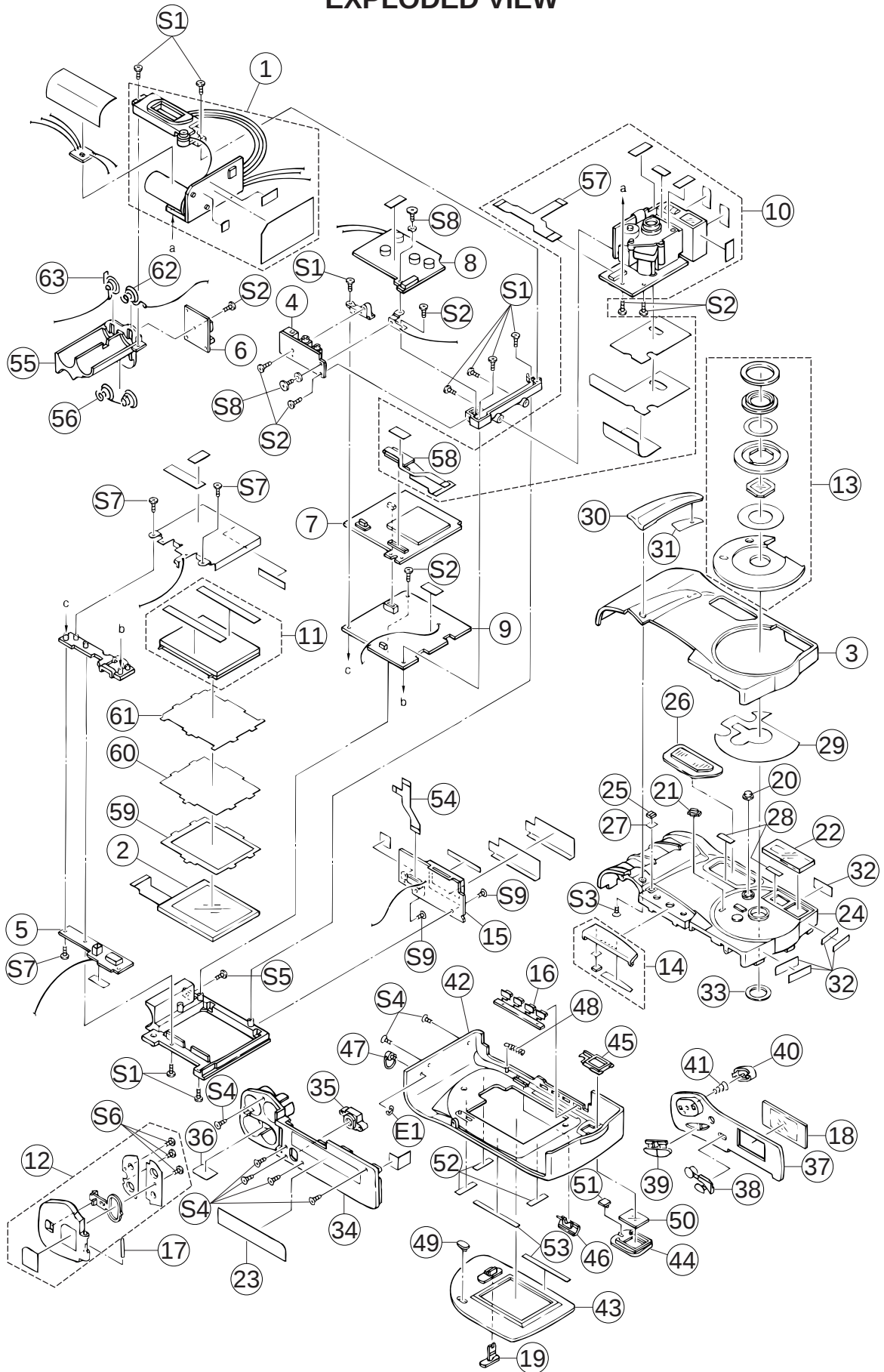
49. Wiring under KB PCB.



50. Wiring of upper lens ass'y.



EXPLODED VIEW



PART PRICE LIST

DIGITAL PCB ASSY

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
Ics							
N	IC400	2105 6486	IC	S-80835ANNP-EDZ-T2	1	AC	C
	IC410	2105 5215	IC	TC7W74FU(TE12L)	1	AE	C
	IC412	2114 4676	IC	TC7W04FU(TE12L)	1	AD	C
N	IC414	2105 6472	IC	TC74AC00FT(EL)	1	AF	C
N	IC415	2105 6244	IC	TC7S32FU(TE85L)	1	AC	C
N	IC420	2105 6471	IC	MSM82C55A-2GS-2K	1	BC	C
N	IC426	2105 6488	IC	S-80847ANNP-EJB-T2	1	AC	C
N	IC427	2105 6491	IC	S-80842ANNP-ED6-T2	1	AC	C
N	IC428	2105 6493	IC	PST9337UR	1	AC	C
N	IC458	2105 6470	IC	LM4041CIM3X-1.2	1	AL	C
N	IC460	2105 6492	IC	PST9330UR	1	AC	C
N	IC500	2105 6473	IC	TC7WH125FU(TE12L)	1	AF	C
N	IC502	2105 6473	IC	TC7WH125FU(TE12L)	1	AF	C
	IC505	2105 5719	IC	TC7W32FU(TE12L)	1	AE	C
N	IC510	2765 2183	LSI	KM29V64000T	1	CY	C
N	IC560	2012 6033	LSI	MB81V18165B50LPFTN	1	BT	C
N	IC561	2012 6033	LSI	MB81V18165B50LPFTN	1	BT	C
CONNECTOR							
N	CN578	3502 2441	CONNECTOR	54154-0209	1	AD	X
N	CN580	3502 2441	CONNECTOR	54154-0209	1	AD	X
TRANSISTORS							
	Q400	2250 1162	TRANSISTOR/CHIP	2SA1576A-T106R	1	AA	B
	Q405	2259 2715	TRANSISTOR/DIGITAL	DTC144EE-TL	1	AA	B
N	Q440	2259 2745	TRANSISTOR/DIGITAL	DTC143EE-TL	1	AA	B
N	Q441	2259 2745	TRANSISTOR/DIGITAL	DTC143EE-TL	1	AA	B
N	Q442	2259 2745	TRANSISTOR/DIGITAL	DTC143EE-TL	1	AA	B
N	Q443	2259 2745	TRANSISTOR/DIGITAL	DTC143EE-TL	1	AA	B
N	Q444	2795 8150	FET/CHIP	2SK2035(TE85L)	1	AA	B
OSCILLATORS							
N	H450	2590 2722	OSCILLATOR	SPT2A-32KHz	1	AG	C
N	H452	2590 2745	OSCILLATOR	CX-51F-27.0M	1	AP	C
N	H454	2590 2744	OSCILLATOR	CX-51F-20.0M	1	AP	C

LINER PCB ASSY

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
Ics							
N	IC150	2114 5800	IC	MB3800PFV-G-BND-EF	1	AP	C
	IC180	2105 4501	IC	RN5RL30AA-TR	1	AD	C
	IC300	2254 0550	IC	TC7W66FU(TE12L)	1	AD	C
	IC302	2254 0550	IC	TC7W66FU(TE12L)	1	AD	C
	IC310	2105 6490	IC	TK15405MTL	1	AH	C
	IC315	2105 5712	IC	TC7S04FU(TE85L)	1	AD	C
	IC340	2114 5846	IC	IR3Y26A1	1	BH	C
	IC390	2114 5805	IC	NJM3414AV-TE1	1	AI	C
	IC900	2114 5842	IC	S-8327E50MC-EKE-T2	1	AI	C
CONNECTORS							
N	CN320	3502 2436	CONNECTOR	52465-1091	1	AD	X
N	CN901	3502 2436	CONNECTOR	52465-1091	1	AD	X
N	CN300	3502 2442	CONNECTOR	53887-0209	1	AF	X
SWITCH							
	SW300	3412 1106	SWITCH/SLIDE	SSSS212-12-B	1	AC	C
TRANSISTORS							
N	Q152	2259 2715	TRANSISTOR/DIGITAL	DTC144EE-TL	1	AA	B
	Q155	2259 2757	TRANSISTOR/CHIP	2SD2150-T100R	1	AB	B
	Q300	2259 2715	TRANSISTOR/DIGITAL	DTC144EE-TL	1	AA	B
	Q301	2259 2715	TRANSISTOR/DIGITAL	DTC144EE-TL	1	AA	B
	Q310	2254 0448	FET/CHIP	2SK1580-T1	1	AC	B
N	Q900	2259 2757	TRANSISTOR/CHIP	2SD2150-T100R	1	AB	B
DIODES							
	D160	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	X
	D161	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	X
	D162	2390 1379	DIODE/SCHOTTKY/CHIP	MA729-(TX)	1	AB	X
	D163	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	X
	D190	2390 1379	DIODE/SCHOTTKY/CHIP	MA729-(TX)	1	AB	X
	D300	2390 1379	DIODE/SCHOTTKY/CHIP	MA729-(TX)	1	AB	X
	D310	2390 1379	DIODE/SCHOTTKY/CHIP	MA729-(TX)	1	AB	X
	D757	2390 1358	DIODE/VARICAP	MA329-(TX)	1	AC	X
	D778	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	X
FUSES							
N	FU101	2797 4977	JUMPER/CHIP	ERJ2GE0R00X	1	AA	B
N	FU900	2797 5589	FUSE	PI-R429.375	1	AC	B
VARIABLE RESISTORS							
	VR151	2775 1470	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B53	1	AB	C
	VR320	2775 1827	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B13	1	AB	C
	VR340	2775 1491	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B54	1	AB	C
	VR344	2775 1491	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B54	1	AB	C
	VR381	2775 1484	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B24	1	AB	C
	VR755	2775 1484	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B24	1	AB	C
	VR900	2775 1505	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B55	1	AB	C
CONVERTER							
	T155	3065 0713	CONVERTER/DC-DC	6CA-02	1	AM	C

POWER PCB ASSY

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
Ics							
N	IC110	2105 6480	IC	S-8520B33MC-ARS-T2	1	AL	C
N	IC115	2105 6479	IC	RN5RL33AA-TR	1	AC	C
	IC120	2114 5842	IC	S-8327E50MC-EKE-T2	1	AI	C
N	IC125	2105 6477	IC	LP2951CMX	1	AM	C
N	IC127	2105 6478	IC	RH5RH553B-T1	1	AK	C
	IC130	2114 5607	IC	TK11830MTL	1	AL	C
N	IC135	2114 5849	IC	TK11250BMCL	1	AE	C
N	IC137	2114 5849	IC	TK11250BMCL	1	AE	C
N	IC139	2114 5849	IC	TK11250BMCL	1	AE	C
N	IC140	2105 6480	IC	S-8520B33MC-ARS-T2	1	AL	C
CONNECTORS							
N	CN112	3502 2443	CONNECTOR	52746-1690	1	AC	C
N	CN114	3502 2442	CONNECTOR	53887-0209	1	AF	C
TRANSISTORS							
	Q110	2114 5807	FET/CHIP	SI3441DV-T1	1	AK	B
N	Q111	2259 2745	TRANSISTOR/DIGITAL	DTC143EE-TL	1	AA	B
	Q120	2251 0847	TRANSISTOR/CHIP	2SB1386-T100R	1	AD	B
	Q121	2259 2715	TRANSISTOR/DIGITAL	DTC144EE-TL	1	AA	B
N	Q122	2259 2757	TRANSISTOR/CHIP	2SD2150-T100R	1	AB	B
	Q126	2259 2715	TRANSISTOR/DIGITAL	DTC144EE-TL	1	AA	B
N	Q127	2105 6481	FET/CHIP	SI3442DV-T1	1	AH	B
	Q130	2259 2715	TRANSISTOR/DIGITAL	DTC144EE-TL	1	AA	B
	Q131	2250 1579	TRANSISTOR/CHIP	2SA1774-TLR	1	AA	B
	Q140	2114 5807	FET/CHIP	SI3441DV-T1	1	AK	B
	Q195	2259 2715	TRANSISTOR/DIGITAL	DTC144EE-TL	1	AA	B
DIODES							
	D100	2390 2506	DIODE/CHIP	RB060L-40TE25	1	AD	C
	D110	2390 1883	DIODE/CHIP	RB160L-40TE-25	1	AC	C
	D120	2390 1883	DIODE/SCHOTTKY/CHIP	RB160L-40TE-25	1	AC	C
	D127	2390 1883	DIODE/SCHOTTKY/CHIP	RB160L-40TE-25	1	AC	C
	D130	2390 1379	DIODE/SCHOTTKY/CHIP	MA729-(TX)	1	AB	C
	D131	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C
	D140	2390 1883	DIODE/SCHOTTKY/CHIP	RB160L-40TE-25	1	AC	C
N	D195	3013 2611	LED/CHIP	SML-010JTT86	1	AB	C
FUSES							
N	FU102	2797 5592	FUSE	TR1608FF-1A	1	AC	B
N	FU103	2797 5593	FUSE	TR1608FF-1.5A	1	AC	B
	FU104	2797 5593	FUSE	TR1608FF-1.5A	1	AC	B
VARIABLE RESISTOR							
	VR130	2775 1484	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B24	1	AB	C
	VR120	2775 1491	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B54	1	AB	C
	VR125	2775 1491	RESISTOR/SEMIFIXED/CHIP	EVM-1XSX50B54	1	AB	C

JACK PCB ASSY

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
CONNECTOR							
N	CN101	3502 2445	CONNECTOR	53309-1090	1	AC	C
FUSE							
N	FU100	2797 5594	FUSE	PI-R429002	1	AC	B
JACKS							
	JK100	3501 6755	JACK/POWER	HEC3600-010120	1	AD	C
	JK101	3501 8197	JACK/MINI	HSJ1169-019010	1	AF	C
	JK102	3502 2439	JACK	HSJ1456-01-220	1	AC	C

KEYBOARD(A) PCB ASSY

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
IC							
N	IC800	2114 5847	IC	LC75821W	1	AT	C
SWITCHES							
N	SW830	3412 2083	SWITCH	MSS-26	1	AD	C
	SW800	3412 2068	SWITCH	EVQPQHB55	1	AB	C
	SW801	3412 2068	SWITCH	EVQPQHB55	1	AB	C
	SW802	3412 2068	SWITCH	EVQPQHB55	1	AB	C
	SW804	3412 2068	SWITCH	EVQPQHB55	1	AB	C
	SW805	3412 2068	SWITCH	EVQPQHB55	1	AB	C
	SW806	3412 2068	SWITCH	EVQPQHB55	1	AB	C
DIODES							
	D800	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C
	D801	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C
	D802	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C
	D804	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C
	D805	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C
	D806	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C

KEYBOARD(B) PCB ASSY

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
CONNECTOR							
	CN810	3502 2412	CONNECTOR	52745-0690	1	AB	C
SWITCHES							
N	SW810	3412 1519	SWITCH/TACT	SKQMAH-T3	1	AC	C
N	SW811	3412 1519	SWITCH/TACT	SKQMAH-T3	1	AC	C
N	SW820	3412 2085	SWITCH/TACT	SKQAAA-T	1	AC	C
DIODES							
	D808	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C
	D809	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C
	D810	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C
	D811	2390 1820	DIODE/CHIP	1SS355-TE-17	1	AA	C

BACK LIGHT PCB ASSY

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
IC							
	IC920	2105 6463	IC	TC7ST02FU(TE85L)	1	AD	C
CONNECTOR							
N	CN900	3502 2444	CONNECTOR	53353-1091	1	AE	C
SWITCH							
	SW900	3412 2068	SWITCH	EVQPQHB55	1	AB	C
TRANSISTORS							
	Q920	2259 2715	TRANSISTOR/DIGITAL	DTC144EE-TL	1	AA	B
	Q924	2253 0700	FET/CHIP	2SK1485-T1	1	AG	B
TRANSFORMER							
	T920	3012 1414	TRANSFORMER/INVERTER	BLC10-01	1	AM	C

MAIN BODY COMPONENT

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
N	1	1014 9879	STROBE UNIT	CO-777	1	CN	A
	2	2725 1347	DISPLAY ASSY/TFT LCD	COD18T1022RN	1	DI	A
N	3	6613 0620	PANEL/REAR	K140444-1	1	BT	X
N	4	6613 0830	PCB ASSY/JACK	K341261*1	1	CN	A
N	5	6613 0831	PCB ASSY/BACK LIGHT	K341261*2	1	CL	A
N	6	6613 0832	PCB ASSY/SHUTTER	K341261*3	1	CG	A
N	7	6613 0840	PCB ASSY/DIGITAL	K140476*1	1	EH	A
N	8	6613 0842	PCB ASSY/POWER	K240967*1	1	DG	A
N	9	6613 0843	PCB ASSY/LINEAR	K140477*1 M	1	DI	A
N	10	6613 0844	LENS ASSY	K341231*1	1	EJ	A
N	11	6613 0846	BL ASSY	K441390*1	1	CQ	A
N	12	6613 0875	COVER/BATTERY	K341277*1	1	AZ	B
N	13	6613 0876	LENS ASSY/PANEL	K240983*1	1	CI	C
N	14	6613 0877	COVER/CONSOLE	K441444*1	1	AV	X
N	15	6613 0880	PCB ASSY/TOP	K341281*1	1	BX	A
N	16	6613 0890	BUTTON	K341041-1	1	AI	C
N	17	6613 0900	SHAFT	K441310-1	1	AA	X
N	18	6613 0910	PLATE/DISPLAY	K441302-1	1	AD	X
N	19	6613 0920	KNOB/REC	K341039-1	1	AB	C
N	20	6613 0930	COVER/SENSOR	K341055-1	1	AB	X
N	21	6613 0940	COVER/LED	K341036-1	1	AB	X
N	22	6613 2240	COVER/FINDER	K441471-1	1	AN	X
N	23	6613 0960	PLATE/RATING	K441441-1	1	AA	X
N	24	6613 1080	CASE/LOWER	K140447-1	1	AP	C
N	25	6613 1090	MAGNET	K441281-1	1	AF	X
N	26	6613 1100	COVER/STROBE	K341064-1	1	AE	X
N	27	6613 1110	TAPE/DOUBLE SIDE	K441445-2	1	AA	X
N	28	6613 1120	TAPE/DOUBLE SIDE	K441445-3	2	AA	X
N	29	6613 1130	TAPE/DOUBLE SIDE	K441314-1	1	AA	X
N	30	6613 1140	GRIP	K140487-1	1	AD	X
N	31	6613 2791	TAPE/DOUBLE SIDE	K441501A-1	1	AA	X
N	32	6613 3500	PLATE/INSULATION	K441494-8	5	AA	X
N	33	6613 3510	SPACER/TAPE	K441522-1	1	AA	X
N	34	6613 1200	CASE/BOTTOM	K140449-1	1	AL	X
N	35	6613 1210	SCREW/FOR STAND	K341059-1	1	AC	X
N	36	6613 1220	LABEL/FOR BATTERY	K441442-1	1	AA	X
N	37	6613 1230	CASE/TOP	K140446-1	1	AL	C
N	38	6613 1240	BUTTON	K341042-1	1	AI	C
N	39	6613 1250	BUTTON	K240866-1	1	AK	C
N	40	6613 1260	BUTTON/SHUTTER	K341044-1	1	AH	C
N	41	6613 1270	SPRING/SHUTTER	K441297-1	1	AA	C
N	42	6613 1280	CASE/UPPER	K140451-1	1	AR	C
N	43	6613 1290	COVER/DISPLAY	K140450-1	1	AL	X
N	44	6613 1300	COVER/FINDER	K140445-1	1	AD	X
N	45	6613 1310	CASE/FINDER	K240857-1	1	AA	X
N	46	6613 1320	KNOB/POWER	K341037-1	1	AA	C
N	47	6613 1330	PIN/STRAP	R340181-2	1	AE	C
N	Item	Part No.	Part Name	Specification	Q	Price Code	R
N	48	6613 1340	SPRING/POWER	K441298-1	1	AA	C
N	49	6613 1360	BUTTON/LCD	K341038-1	1	AB	C
N	50	6613 1370	PROTECTOR/FINDER	K441299-1	1	AC	X
N	51	6613 1380	COVER/LED	K341054-1	1	AA	X
N	52	6613 1390	TAPE/DOUBLE SIDE	K441445-4	3	AA	X
N	53	6613 1400	TAPE/DOUBLE SIDE	K441445-5	2	AA	X
N	54	6613 1430	CABLE	K341005-1	1	AE	X

N	55	6613 1450	HOLDER/BATTERY	K240858-1	1	AE	X
N	56	6614 0750	SPRING/BATTERY	K441296-1	1	AB	C
N	57	6613 1470	CABLE	K240915-1	1	AI	X
N	58	6613 1480	CABLE	K140422-1	1	BM	X
N	59	6613 1510	SPACER/SHEET	K441309-1	1	AA	X
N	60	6613 1520	SHEET/FILTER	K441308-1	1	AH	X
N	61	6613 1530	SHEET/DIFFUSION	K441307-1	1	AB	X
N	62	6614 0760	SPRING/BATTERY	K441295-1	1	AB	C
N	63	6614 0770	SPRING/BATTERY	K441294-1	1	AB	C
N	E1	5861 3649	E RING	1.5 JISB2805	1	AA	X
	S1	5112 0868	SCREW	BT3 1.7X5 BK	7	AA	X
	S2	5860 0301	SCREW	BT3 1.7X3.5 NI	10	AA	X
	S3	5860 2380	SCREW	PS3 1.7X3.5 BK	1	AA	X
	S4	5860 3381	SCREW	PS3 1.7X4 BK	7	AA	X
	S5	5861 3527	SCREW	BT3 1.7X2.5 BK	1	AA	X
N	S6	5861 3698	SCREW	PS1 1.7XZ2.0 NI	3	AA	X
N	S7	5861 3742	SCREW	BT1 1.7X3.5 BK	3	AA	X
N	S8	5861 3741	SCREW	M1.7X3(BK)D-4H-5	2	AA	X
	S9	6330 5240	SCREW	A44797-5	2	AA	X
N		1915 3723	IGBT	CT25AS-8	1	AX	C

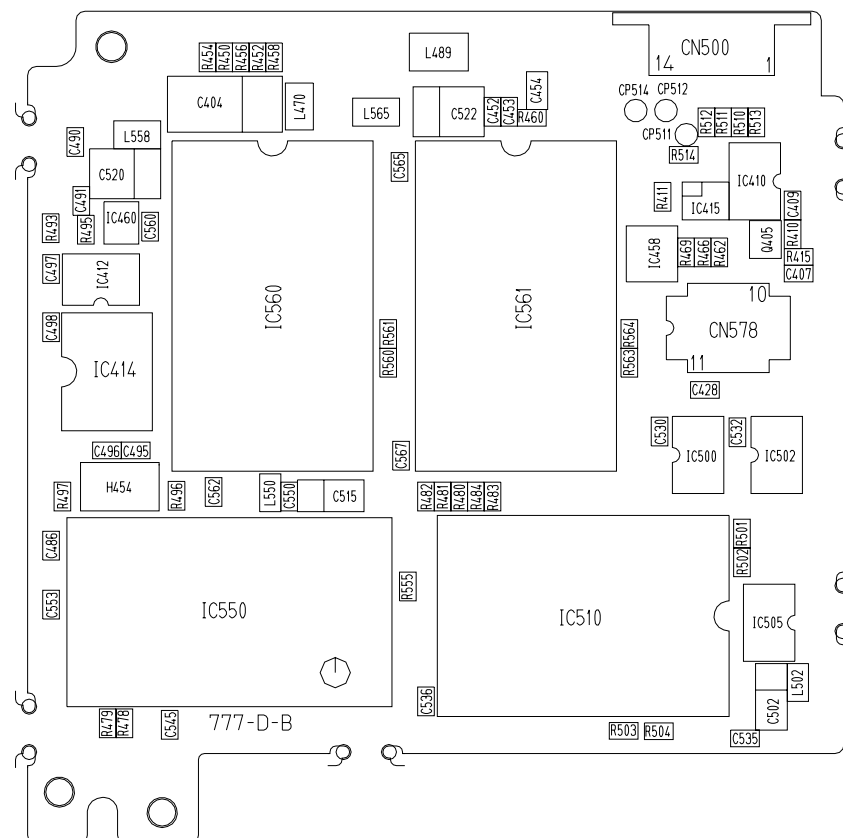
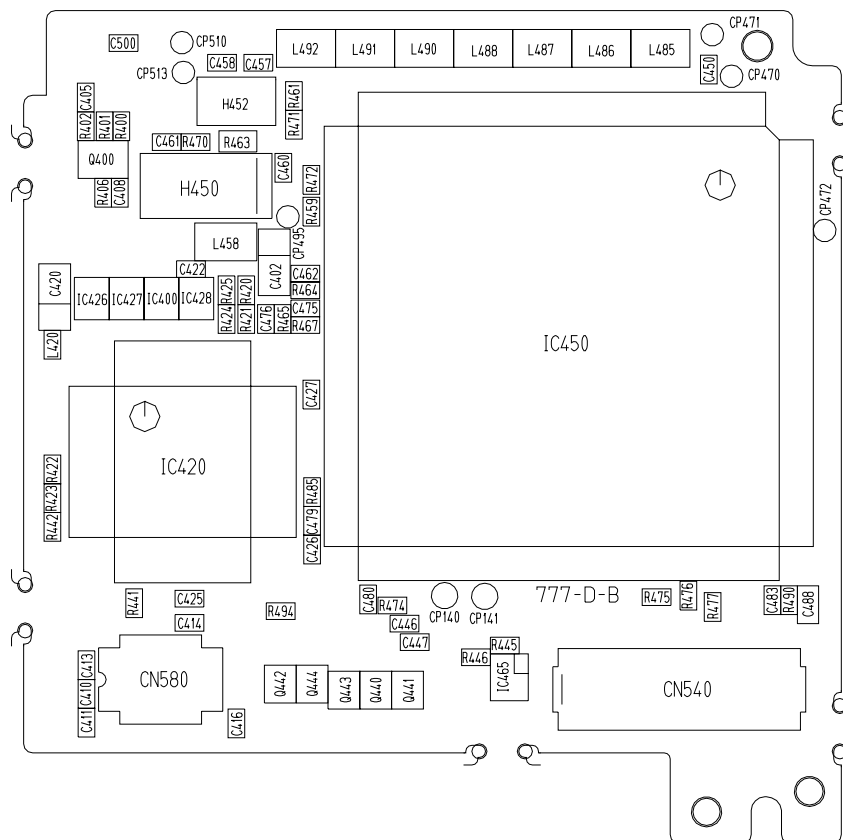
ACCESSORY

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
		1014 9871	CASE/SOFT	SC-773	1	AS	X
		5861 3578	STRAP	ST-K775	1	AF	X
		1014 8773	CABLE/VIDEO	VC-K723-FC	1	AR	X

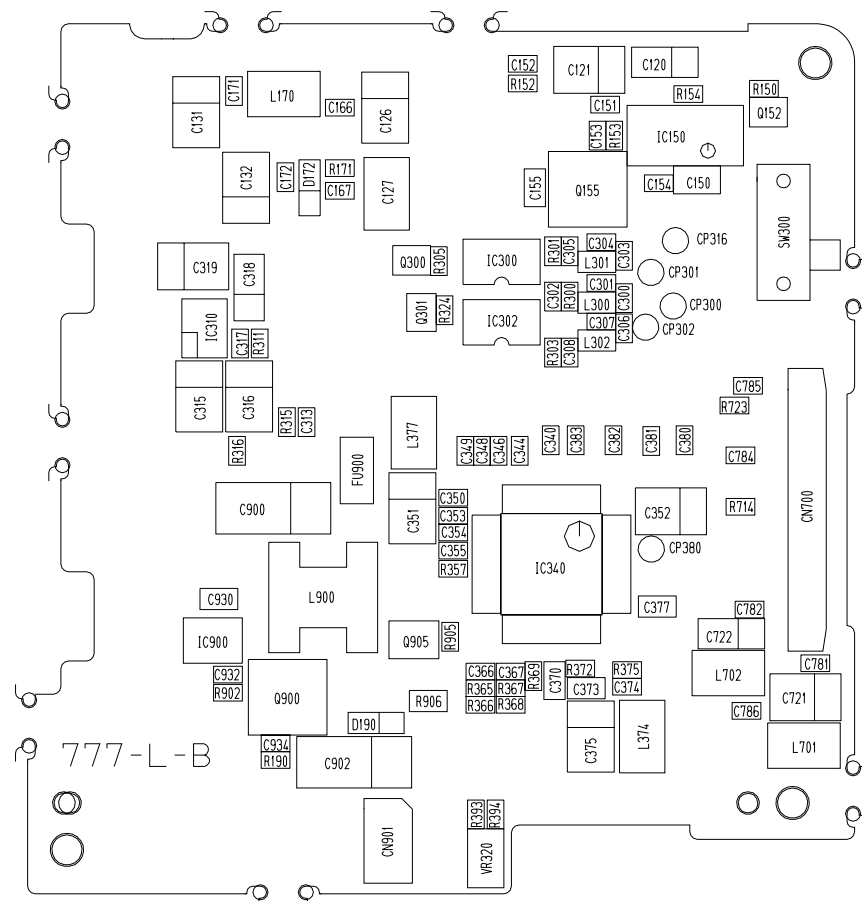
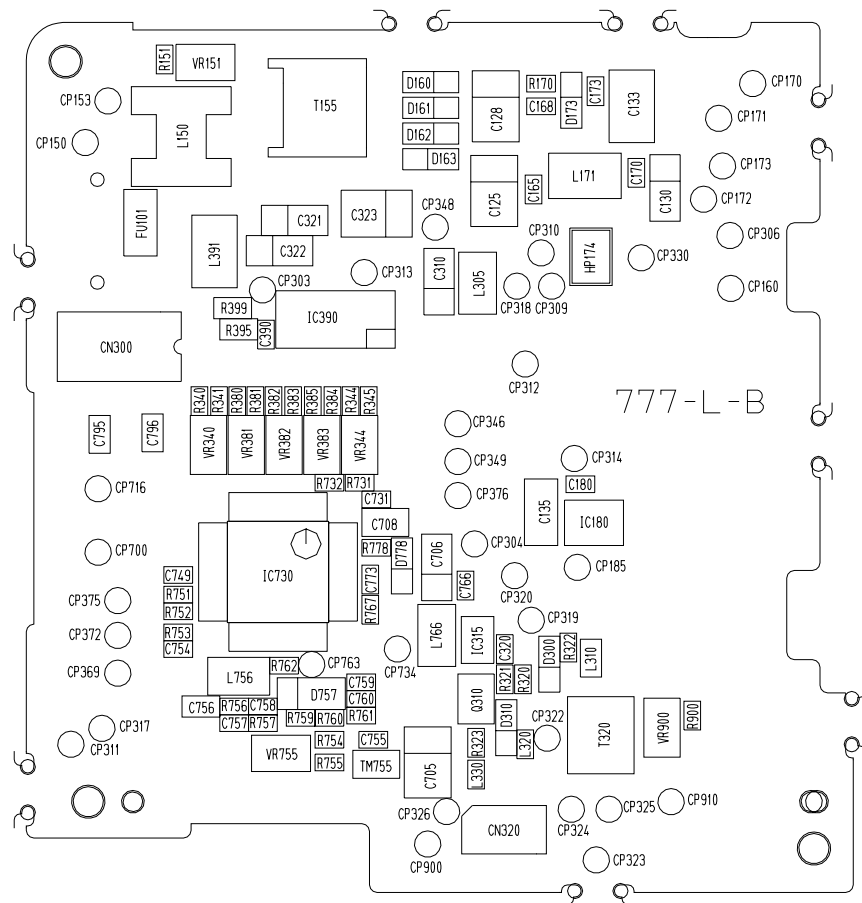
ADUJUSTMENT FILTER

N	Item	Part No.	Part Name	Specification	Q	Price Code	R
N		1904 5436	FILTER/ND	ND10(50X50)	1	DP	A
N		1904 5437	FILTER/ND	ND20(50X50)	1	DP	A
N		1904 5438	FILTER/COLOR	LA10(50X50)	1	DP	A
N		1904 5439	FILTER/COLOR	LA10(50X50)	1	DP	A

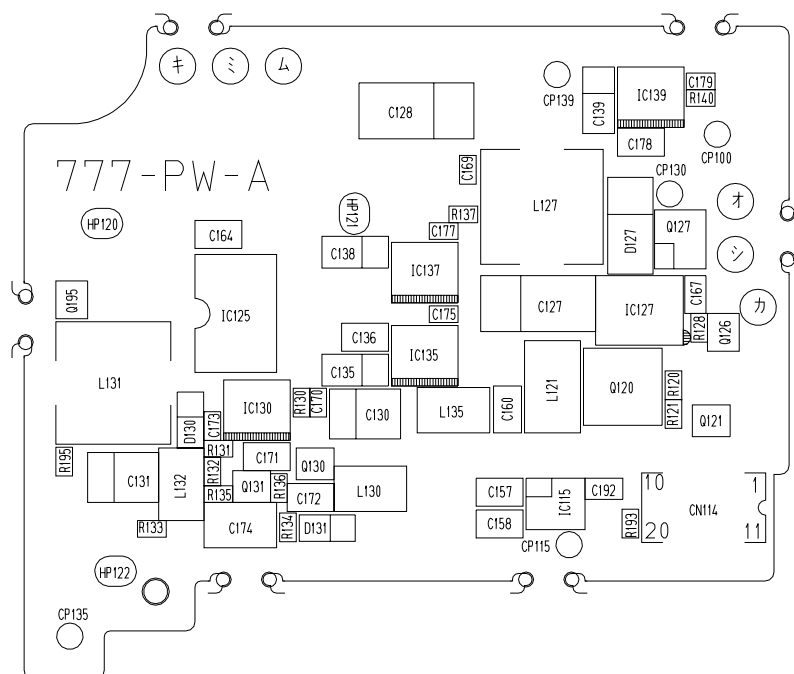
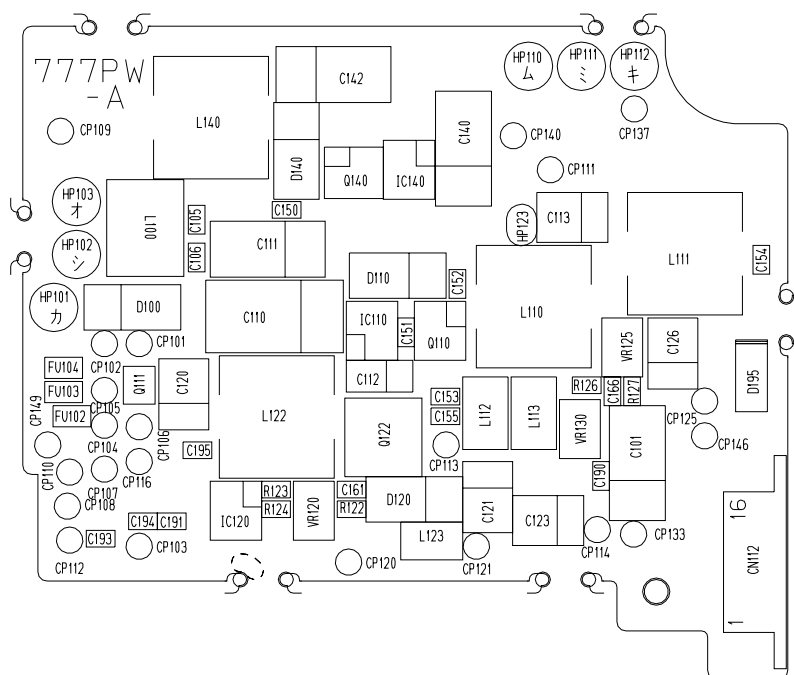
D PCB (PCB-K777D)

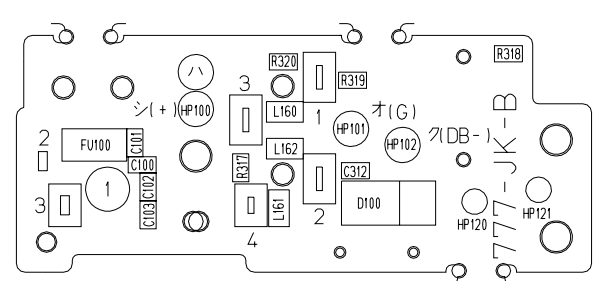
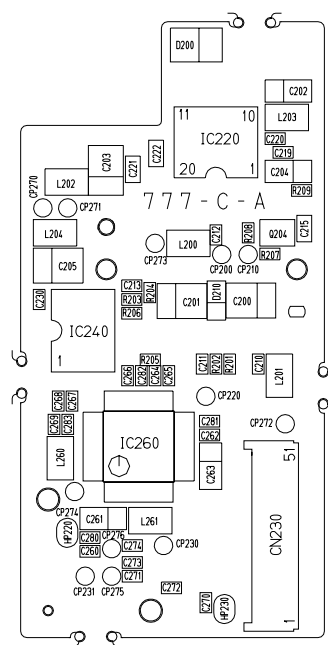
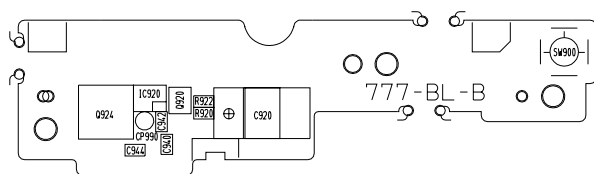


L PCB (PCB-K777L)



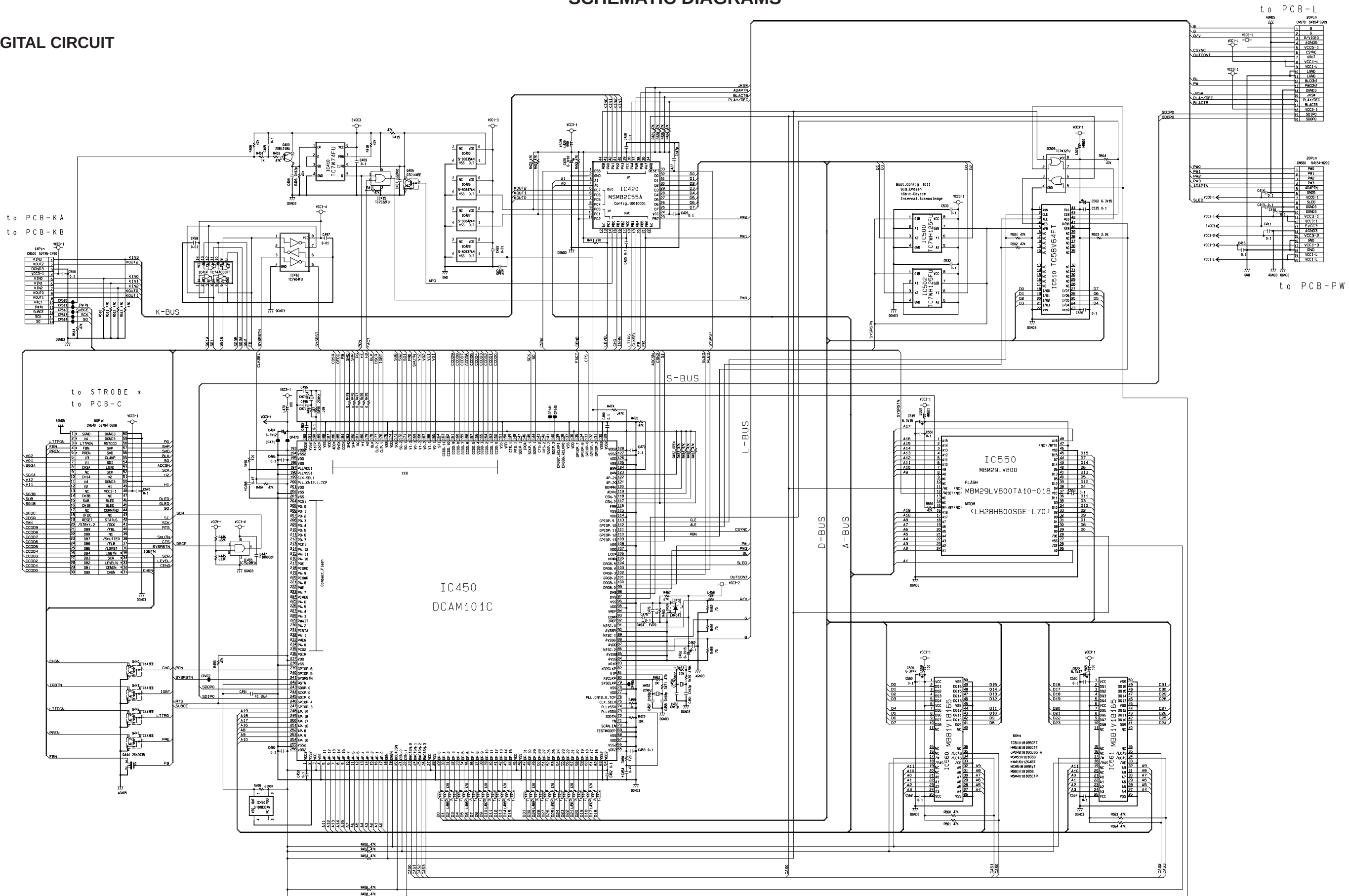
PW PCB (PCB-K777PW)



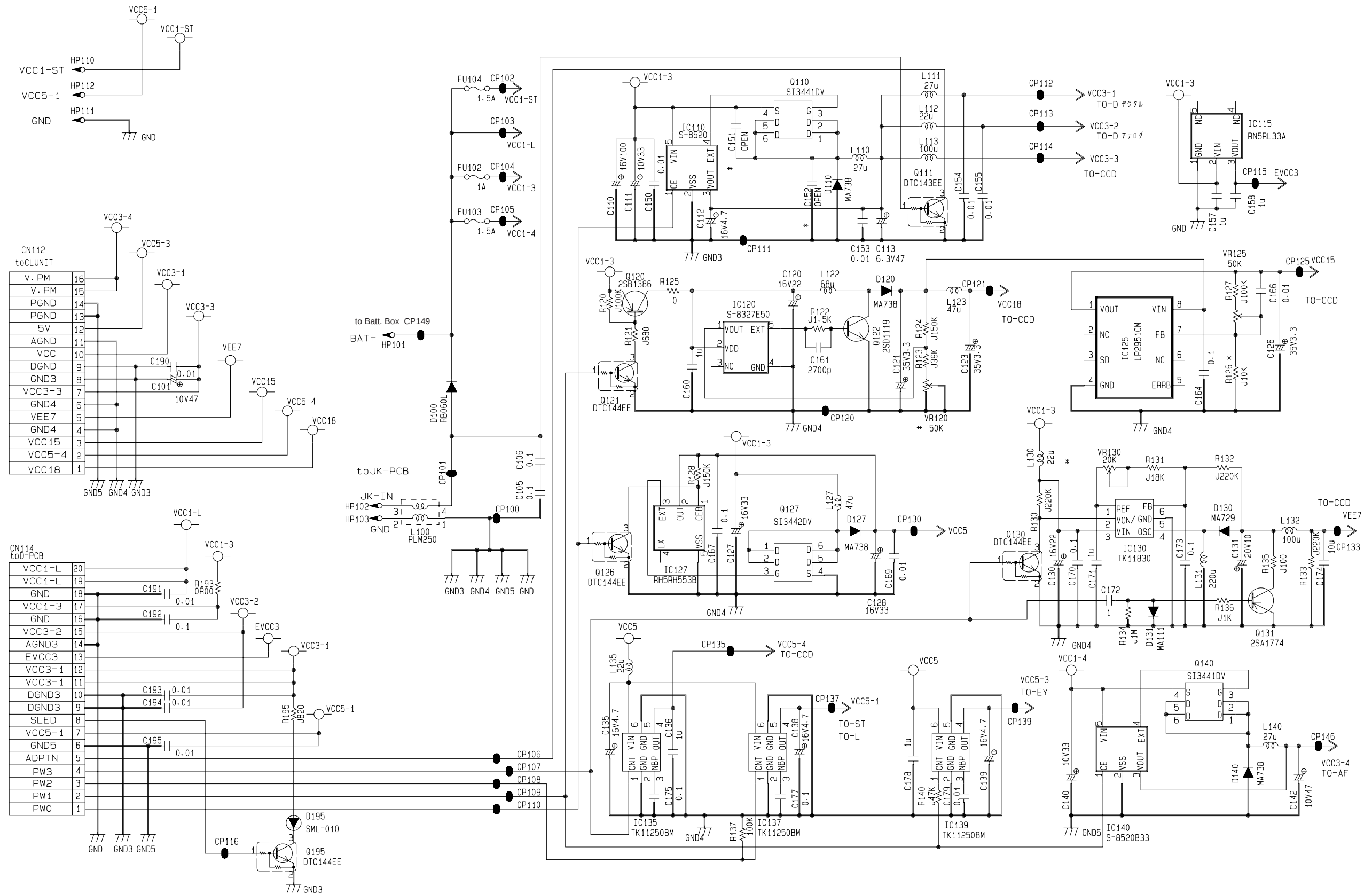


SCHEMATIC DIAGRAMS

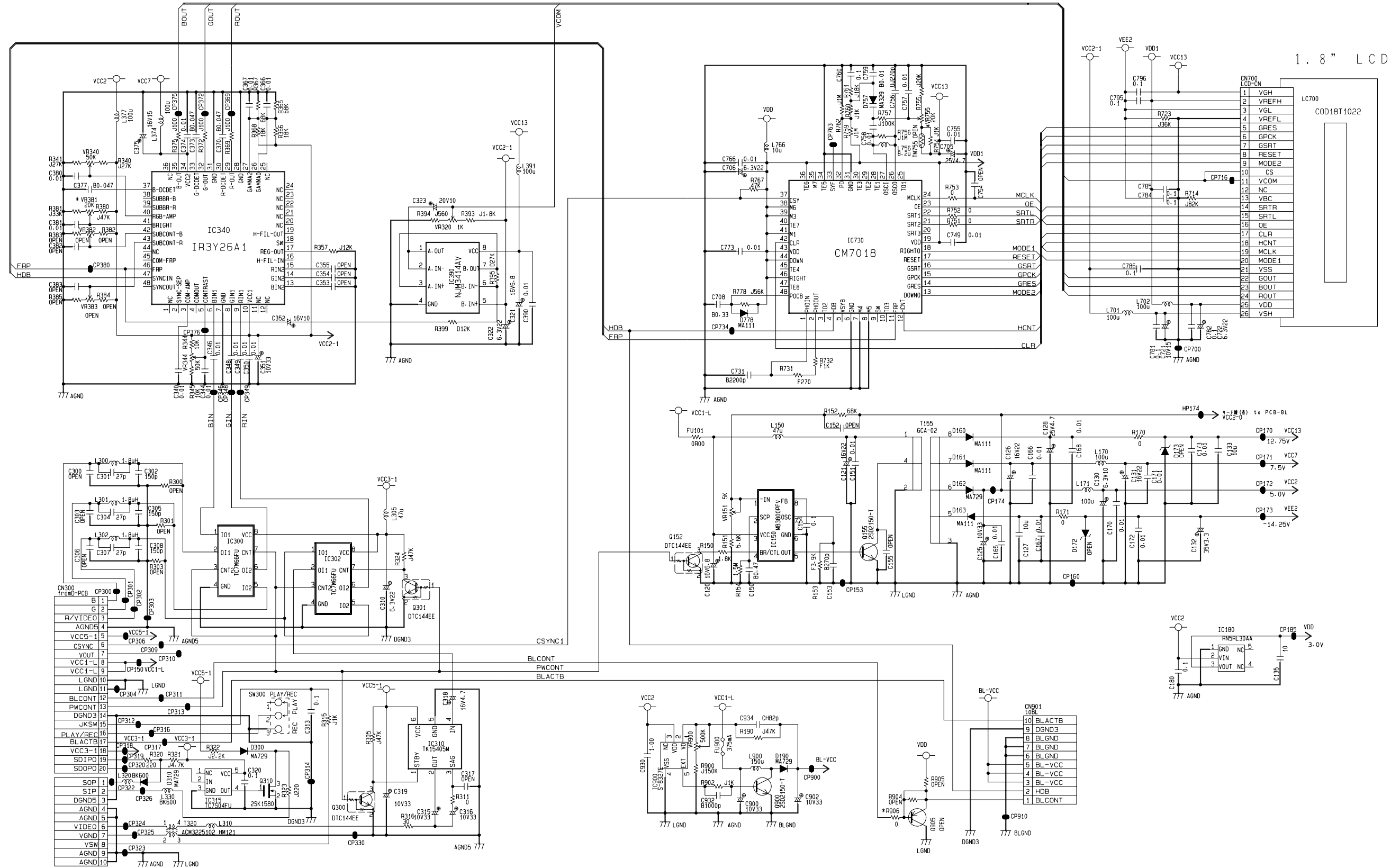
DIGITAL CIRCUIT



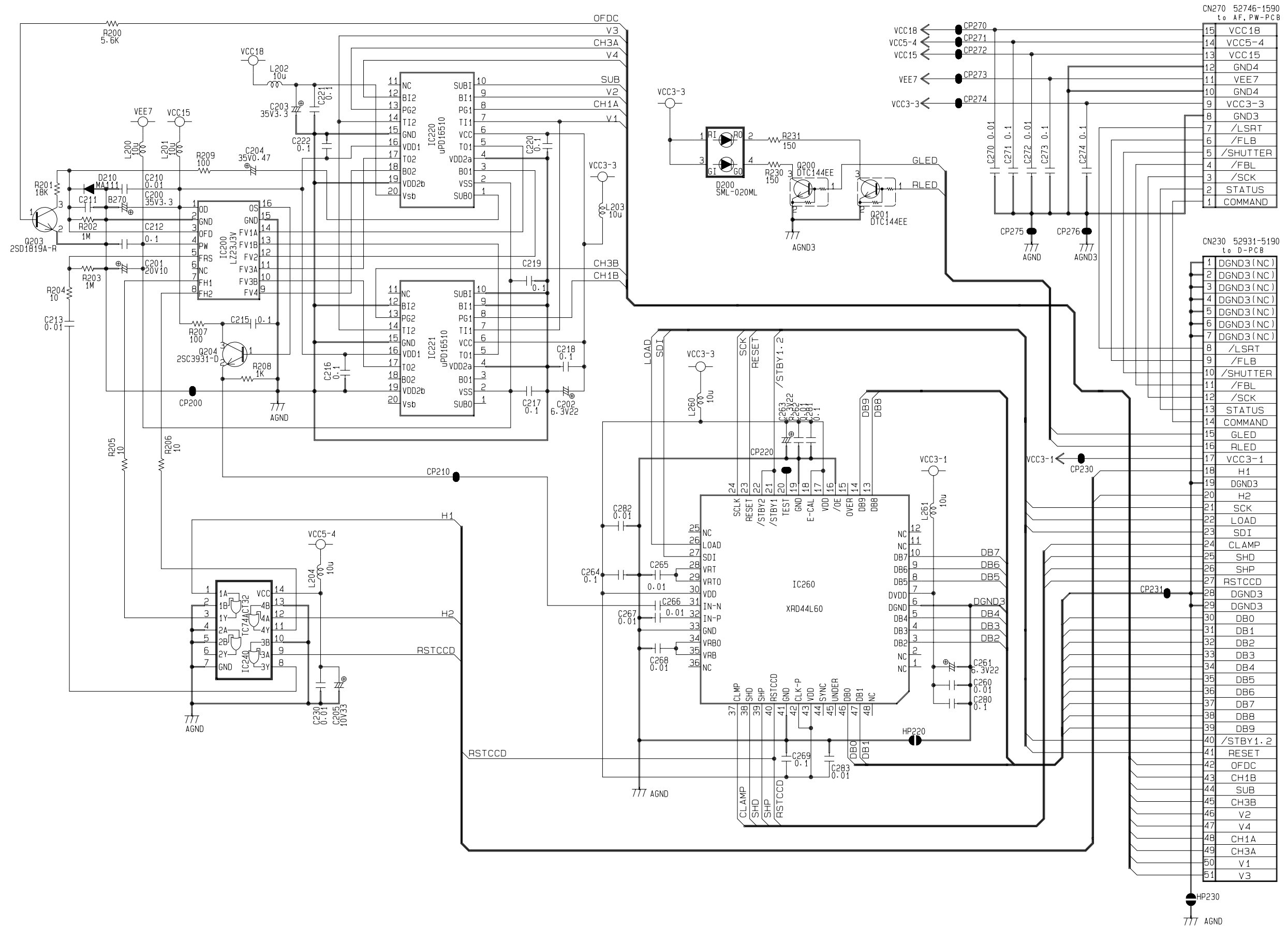
POWER CIRCUIT



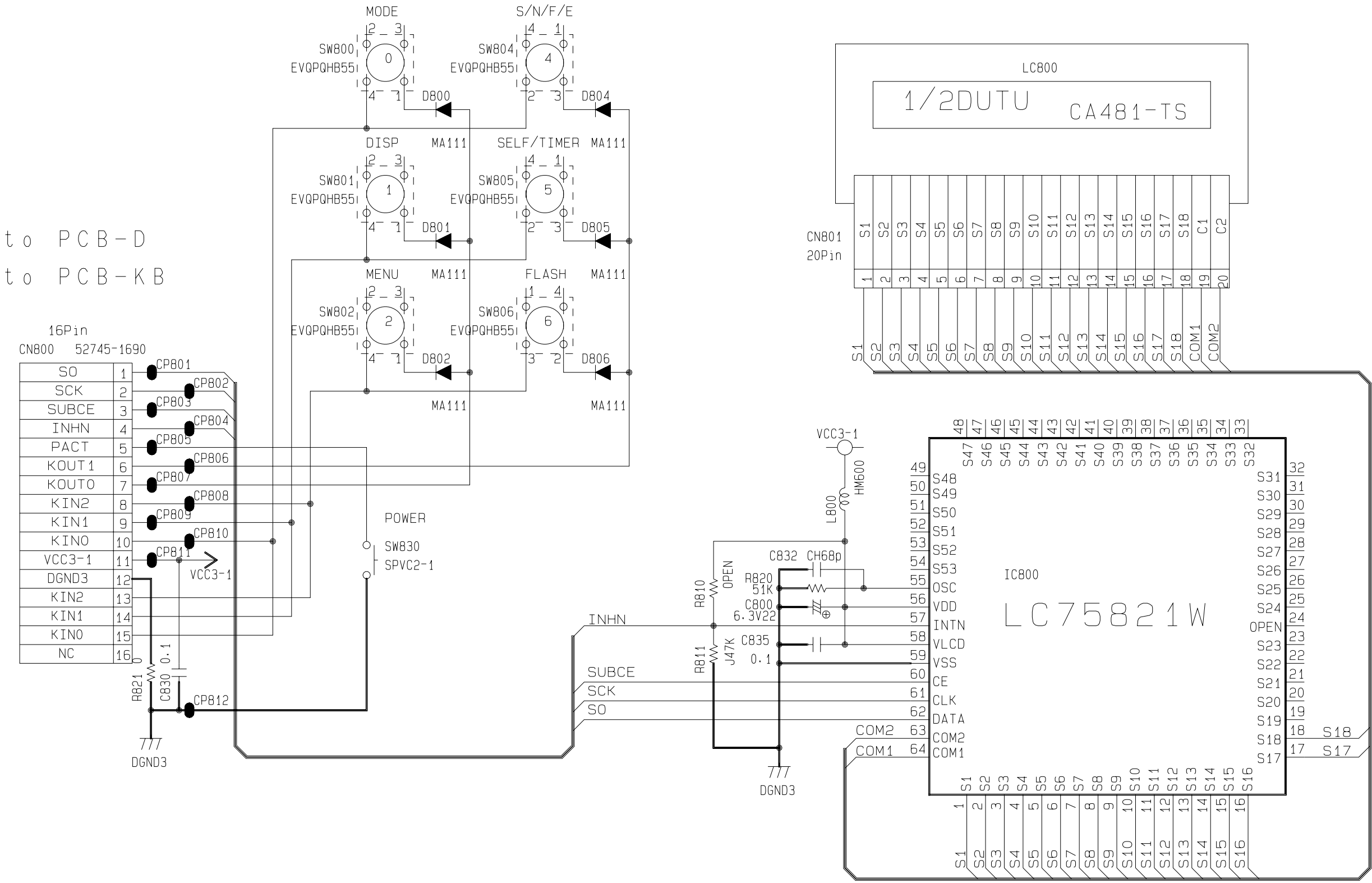
LINEAR CIRCUIT



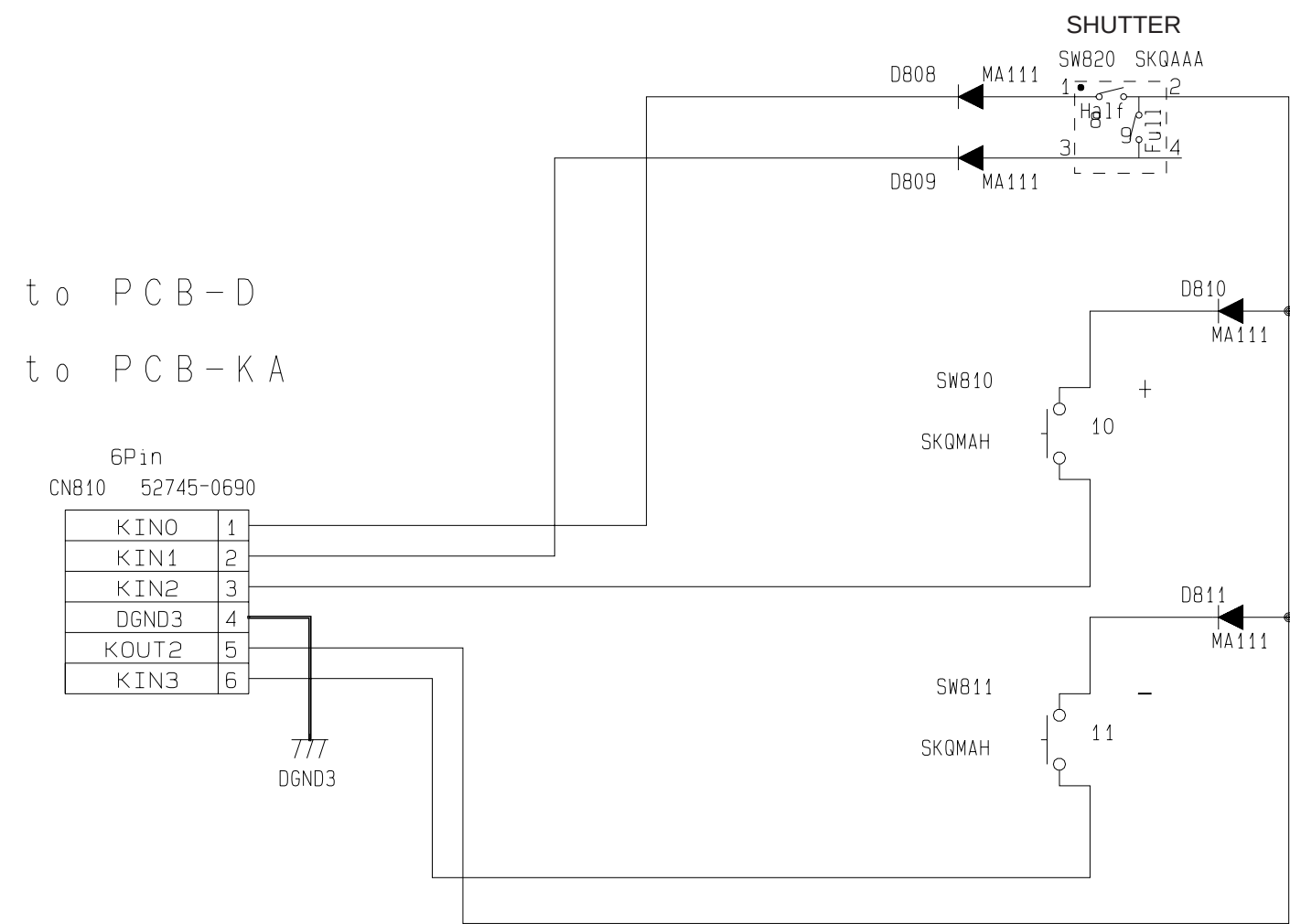
C-PCB CIRCUIT



KA-PCB CIRCUIT



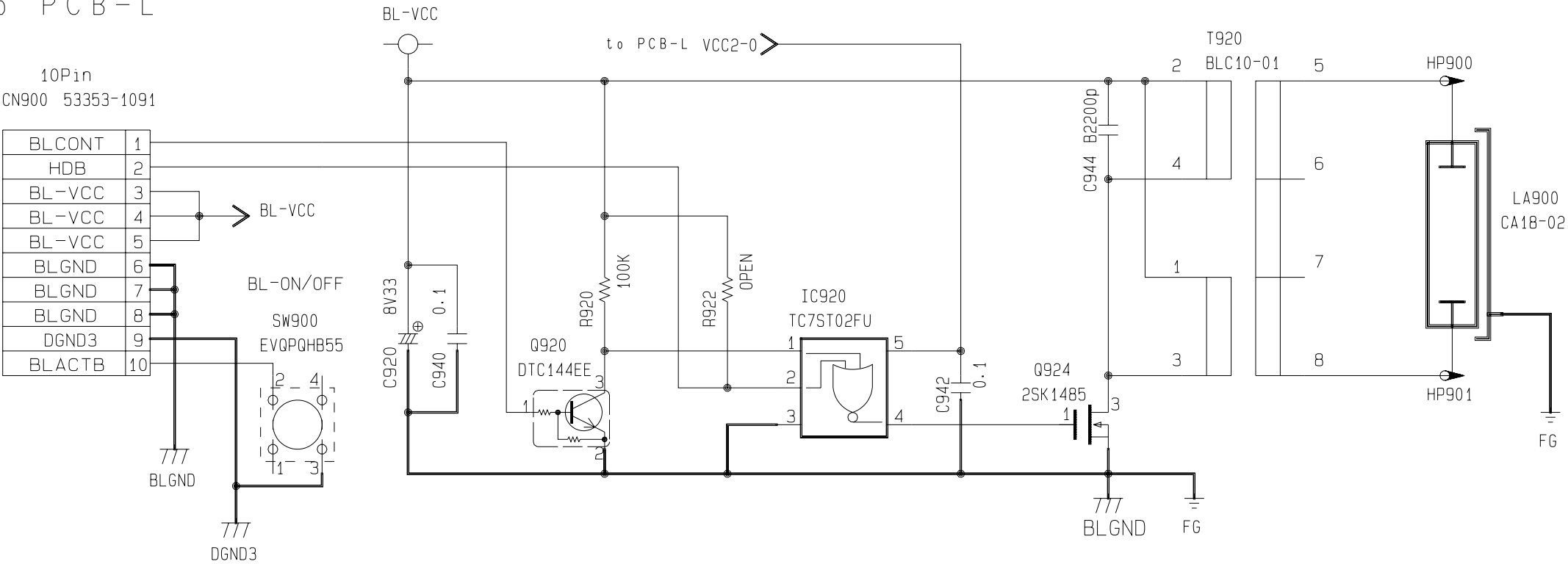
KB-PCB CIRCUIT



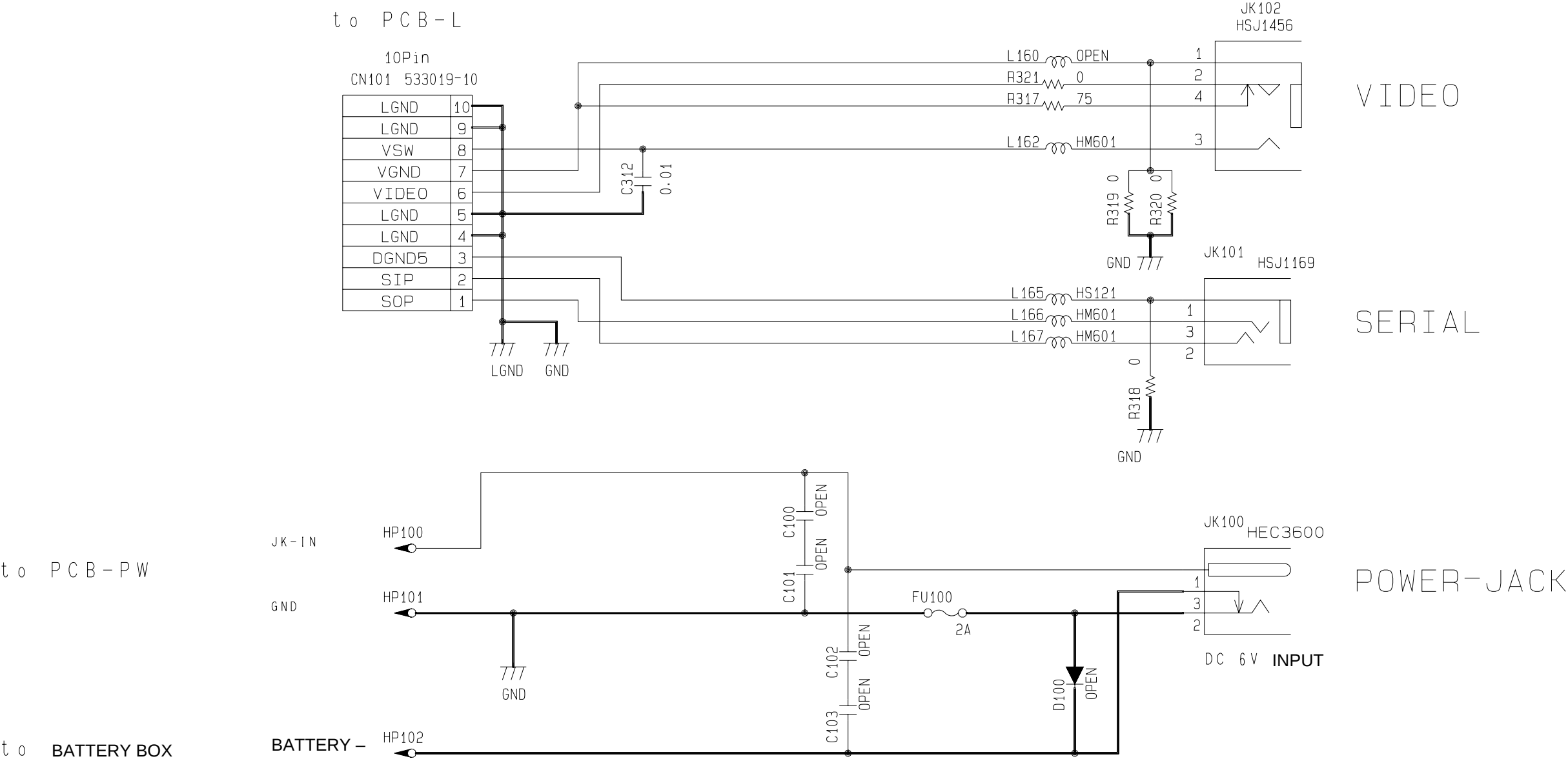
	8 S W	9 S W
OFF	0 F F	0 F F
Press half way	0 N	0 F F
Press Completely	0 N	0 N

BL-PCB CIRCUIT

to PCB-L



JK-PCB CIRCUIT



TROUBLESHOOTING

Trouble 1 : Display failure on Video/LCD display is OK.

- Setting of NTSC/PAL is incorrect.
 - ▮ Charge the video setting that is right for the TV (Refer to user's manual).
- L board failure of JK board failure.
 - ▮ Replace boards.

Trouble 2 : Flash does not work.

Unable to adjust (White 100 %).

Unable to set to red eye reduction mode (Flashes only once).

- Strobe unit failure.
 - ▮ Replace strobe unit.

Trouble 3 : No display when in REC mode. Display failure.

- Connection failure of D board connector (CN540).
 - ▮ Reconnect connector.

Trouble 4 : Unable to focus.

- Dirty lens. ▮ Clean lens.
- Lens assy failure. ▮ Replace lens assy.

Q & A

Q1. The film counter seems incorrect.

- A1.** The film counter reduces depending on the available memory. If one picture takes a lot of memory the film counter may reduce by two. In some cases film counter may not change.
The film counter is only a predicted number considering from the remaining memory.

Q2. The picture is blurred.

- A2.** The recording precision is a lot higher than the VGA camera from while ago.
A little bit of dirtiness or movement of the camera may affect the picture.
Clean the lens and press the shutter button slowly.
When it is a bit dark and slow shutter is in operation using a tripod is recommended.
Also make sure that LED of AF is green, and MACRO/NORMAL setting is accurate.

Q3. Through display looks smaller and blurry than the PLAY display.

- A3.** The display is little rougher than the ones before.
This is because there are more pixels now which will take more time to produce picture, so in order to display the through pictures without waiting their is a preview display. At the same time thinning out of picture is in operation which results in disturbing lines.
There is no problem with the recorded through picture.

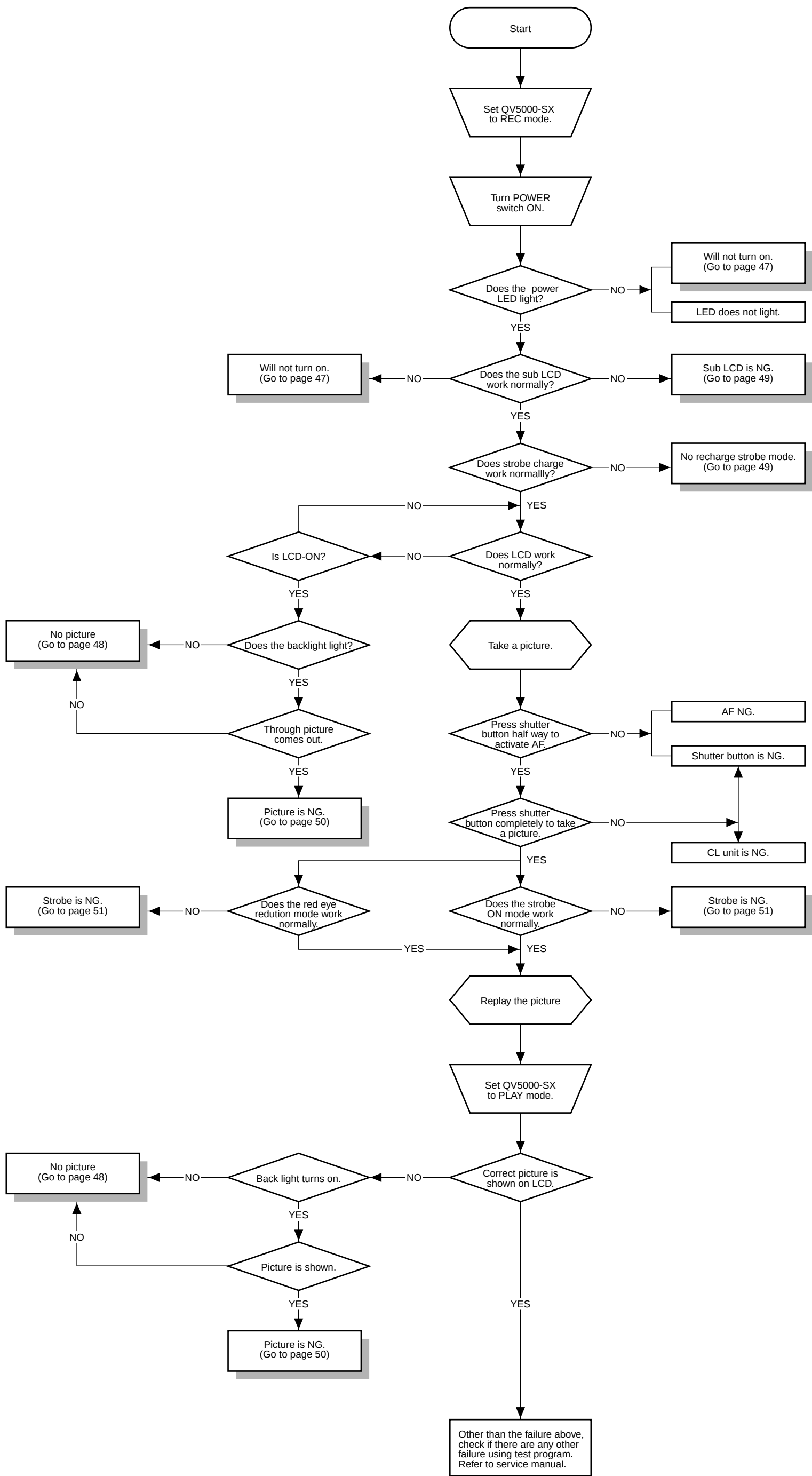
Q4. The LCD display disappears when inserting video cord to the video output terminal in PLAY mode.

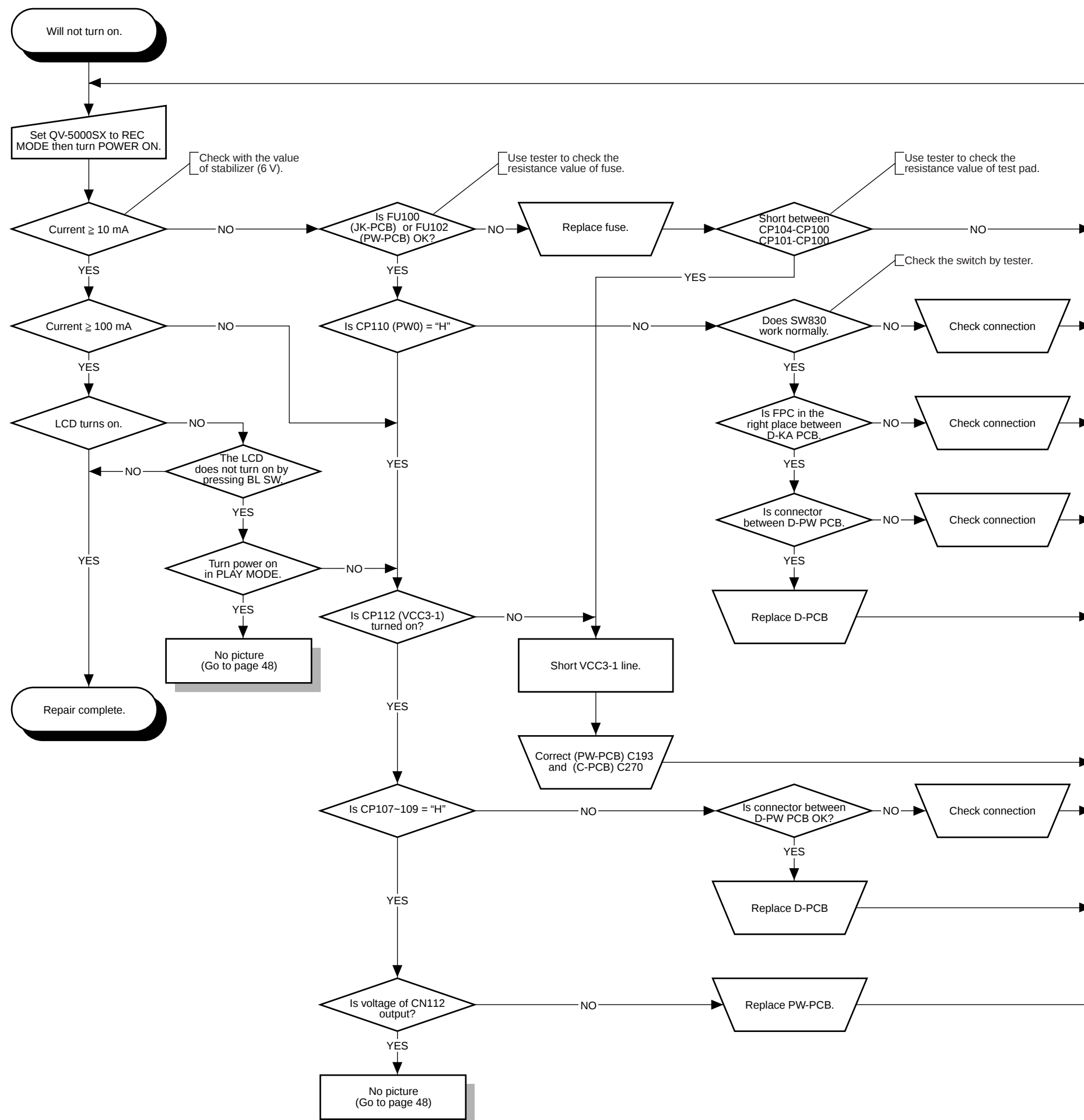
- A4.** When you inset video cord for external display the display on camera will disappear.

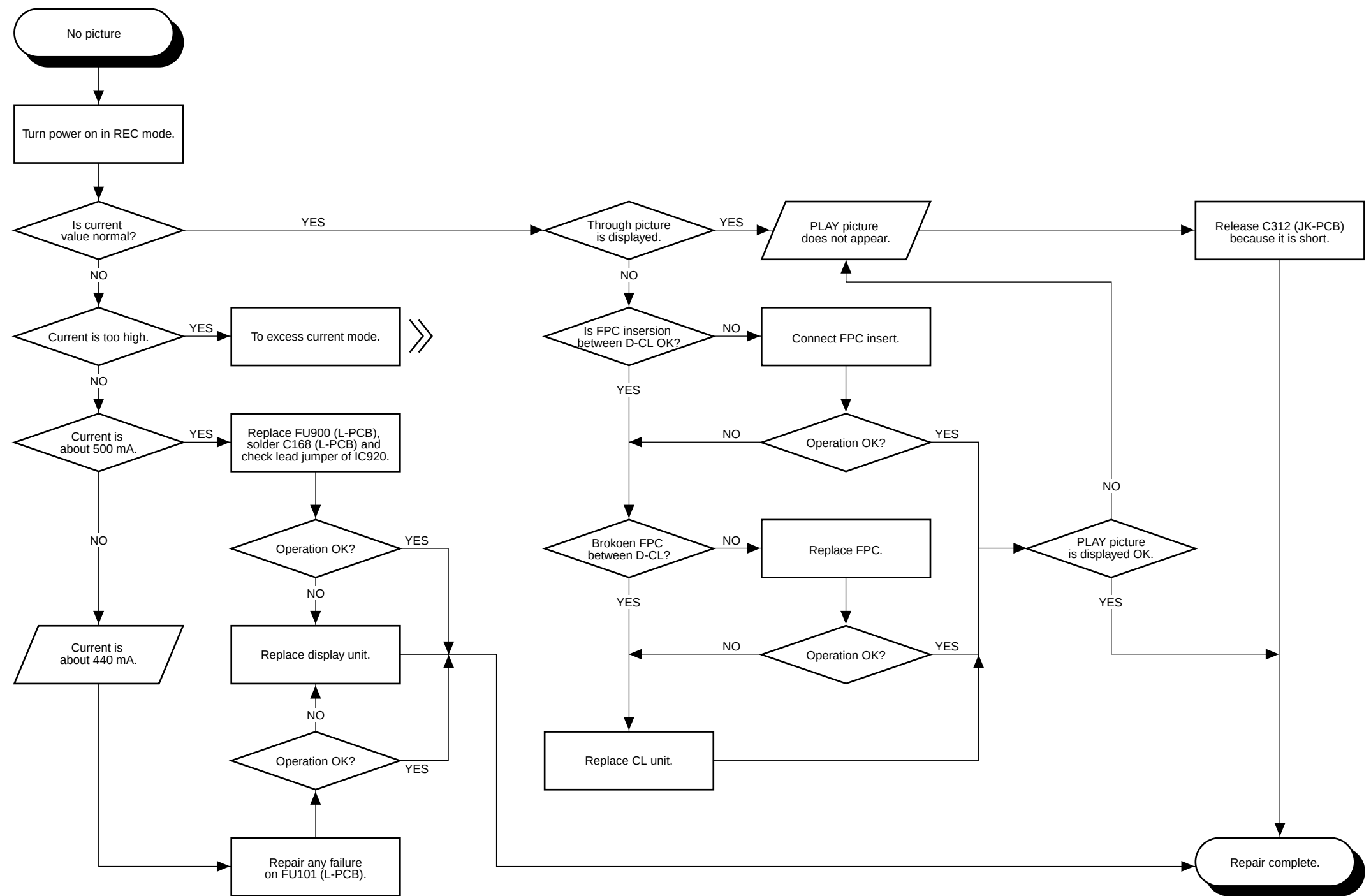
Q5. 4 to 5 seconds after watching the picture on LCD video the display changes.

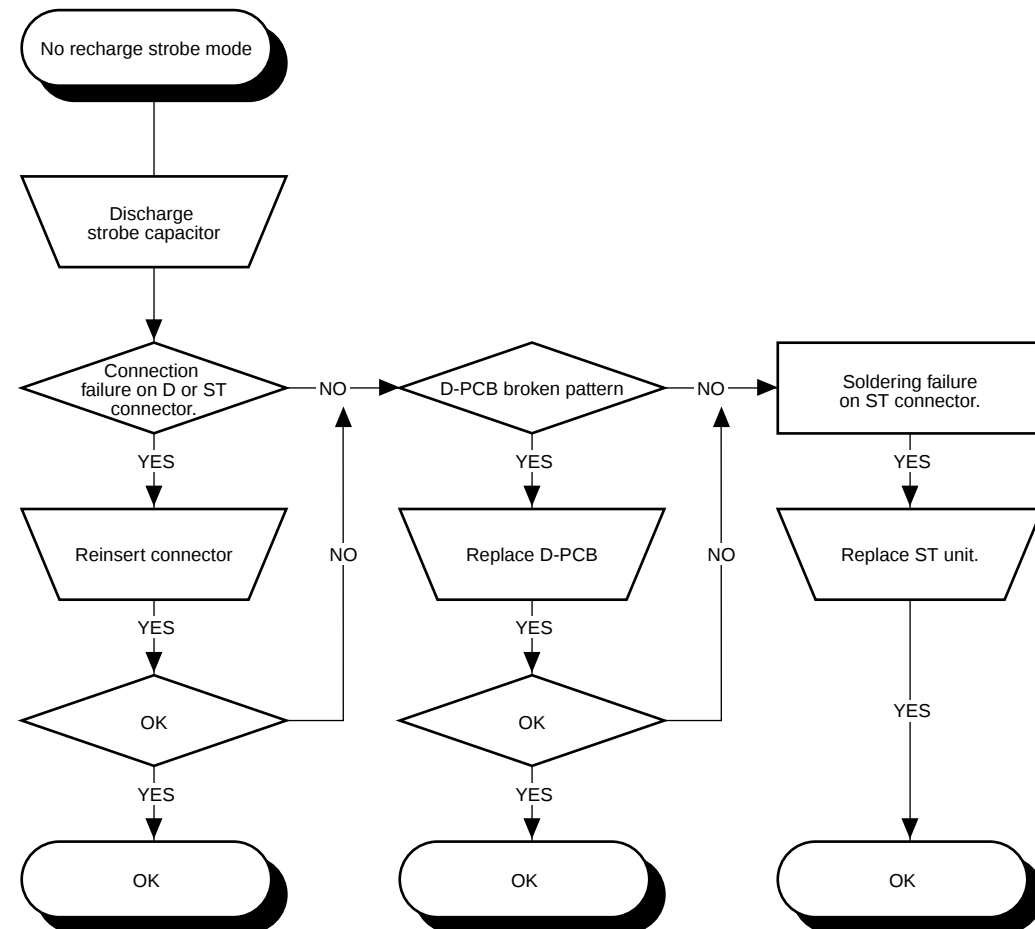
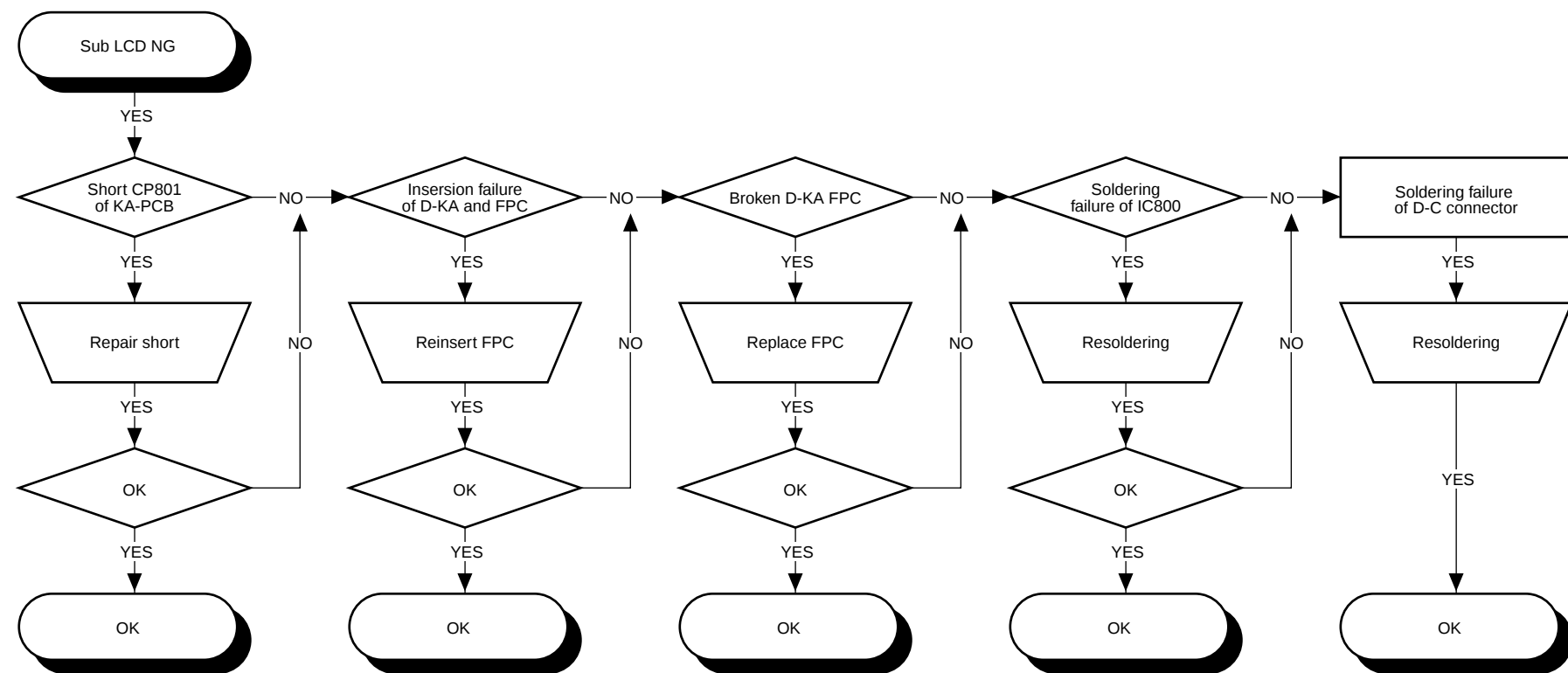
- A5.** QV-5000SX has preview display to show the pictures early. When looking in PLAY mode preview display is displayed first than the more precise picture after that.

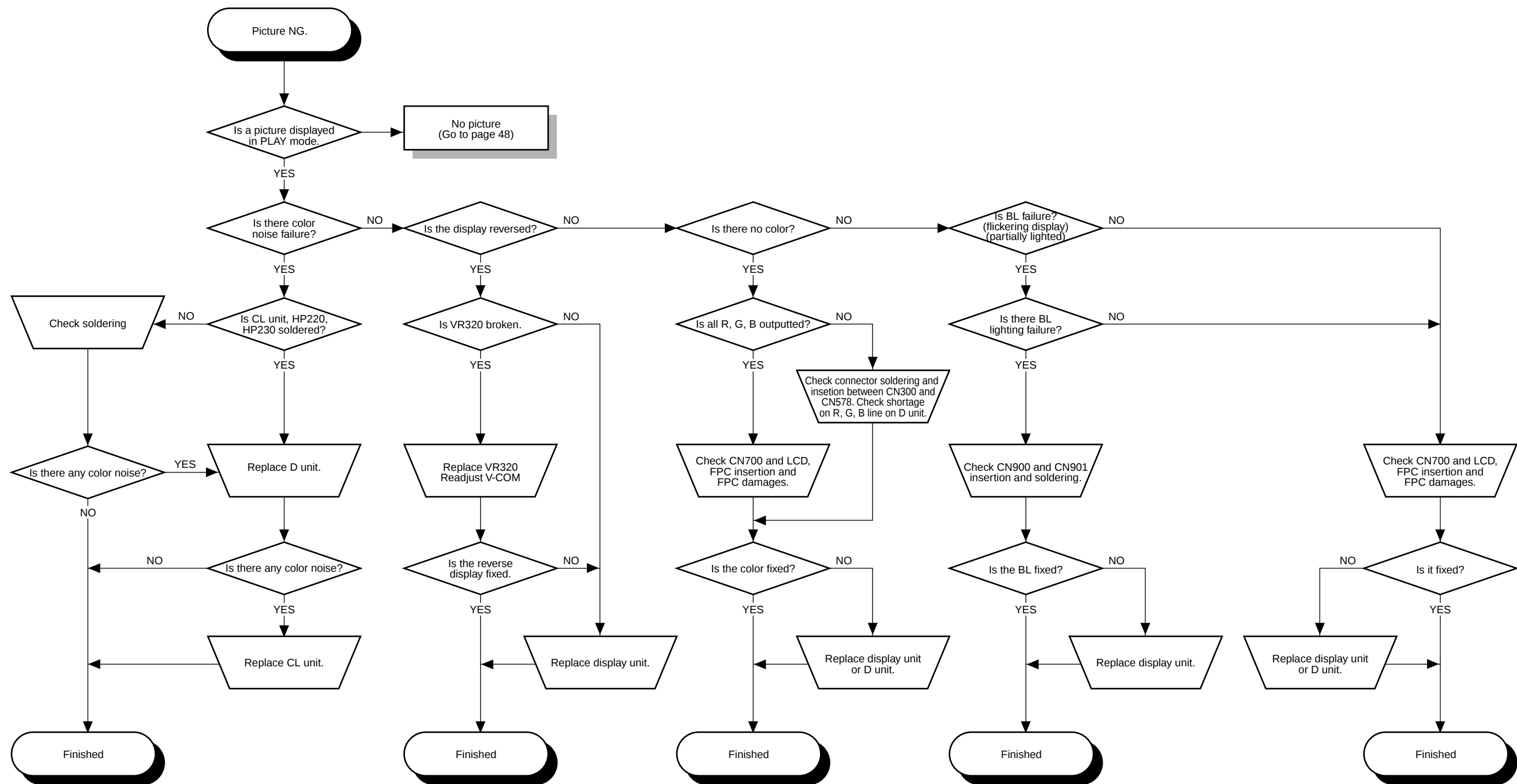
FLOW CHART OF TROUBLE SHOOTING

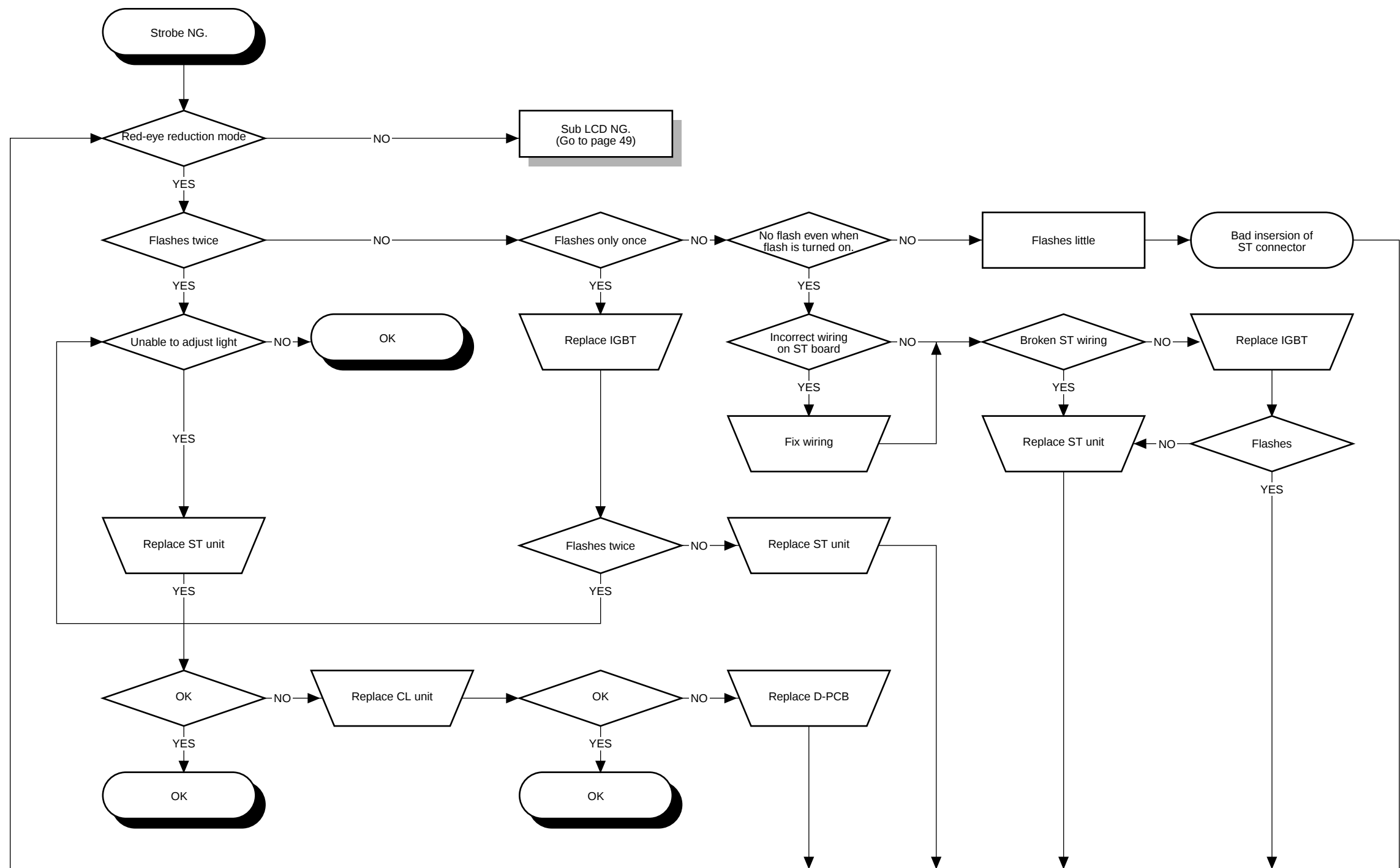












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