THOMSON MULTI MEDIA

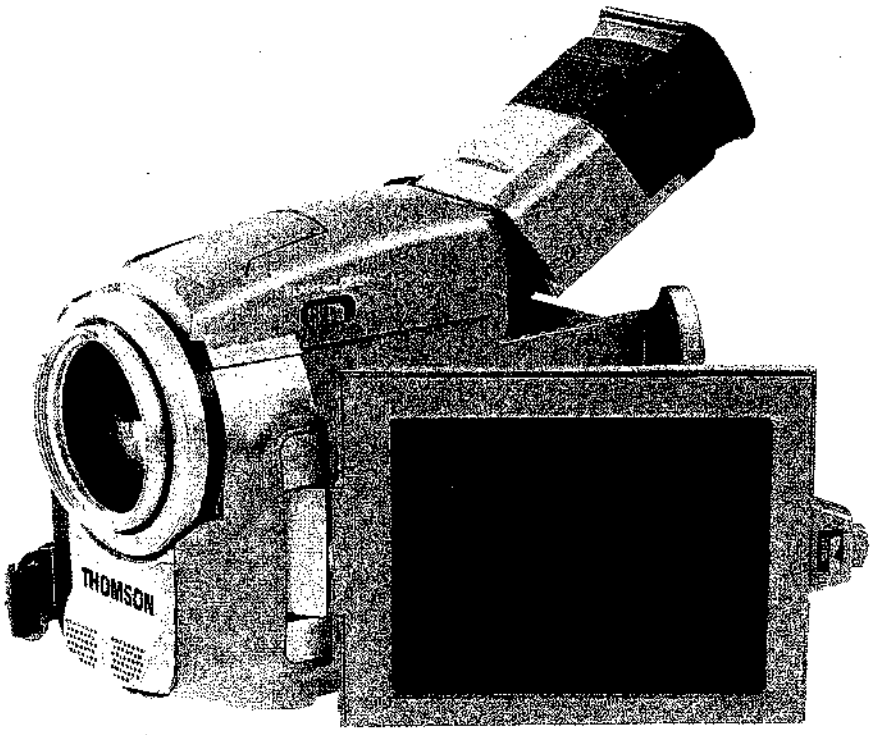
Brandt **FERGUSON** **SABA** **TELEFUNKEN** **THOMSON**

VIDEO

SERVICE MANUAL
DOCUMENTATION TECHNIQUE
TECHNISCHE DOKUMENTATION
DOCUMENTAZIONE TECNICA
DOCUMENTACION TECNICA

VMD10/20

CAMESCOPES



VMD10/20 THOMSON

WARNING : *Before servicing this chassis read the safety recommendations.*
ATTENTION : *Avant toute intervention sur ce châssis, lire les recommandations de sécurité.*
ACHTUNG : *Vor jedem Eingriff auf diesem Chassis, die Sicherheitsvorschriften lesen.*
ATTENZIONE : *Prima di intervenire sullo chassis, leggere le norme di sicurezza.*
IMPORTANTE : *Antes de cualquier intervención, leer las recomendaciones de seguridad.*

Code : 351 182 50 - 0500 / 1,1M - VMD10/20 Print. ROSSEELS PRINTING : 01 53 01 11 11

SPECIFICATIONS

GENERALS

FORMAT	:	DV Format (SD mode)
STANDARD	:	PAL
POWER SOURCE	:	DC 6,3V (Using the AC Power Adapter/Charger) DC 7,2V (Using battery pack)
CONSUMPTION	:	4,5 W (LCD monitor off - viewfinder on) 5,3 W (LCD monitor on - viewfinder off)
DIMENSIONS	:	77 (W) x 142 (H) x 94 (D) mm (With the LCD monitor closed and the viewfinder pushed back in)
WEIGHT	:	approx. =620 g
ACCESSORIES	:	AC power adapter - Lithium battery - Hand strap - Power cord - Remote control unit - Remote control battery - Cinch/Peritel adapter - S-VIDEO cable - JLIP cable - PC cable - IEEE1394 cable - AV cable -

CAMERA SECTION

SENSOR	:	CCD 1/3"
PIXELS	:	800 000
SENSITIVITY	:	< 1 Lux
ZOOM	:	10x - 200x Digital Zoom
LENS	:	F /1,8 f = 5 to 50 mm 10:1 power zoom lens.
FILTER DIAMETER	:	filter diameter 37 mm.
WHITE BALANCE	:	auto
VIEWFINDER	:	0,55 " colour LCD

VIDEO RECORDING SECTION

HEAD CONFIGURATION	:	2 video head
S-VIDEO OUTPUT	:	Y: 1 Vp-p /75 Ω analogue C: 0,29 Vp-p / 75 Ω analogue
S-VIDEO INPUT	:	Y: 0,8 Vp-p - 1,2 Vp-p / 75 Ω analogue C: 0,2 Vp-p - 0,4 Vp-p / 75 Ω analogue
VIDEO OUTPUT/INPUT-VMD20	:	1 Vp-p / 75 Ω analogue - 0,5 Vp-p - 2,0 Vp-p / 75 Ω analogue
AUDIO OUTPUT/INPUT-VMD20	:	300 mV (rms) / 1 kΩ - 300 mV (rms) / 50 kΩ analogue stereo
VIDEO OUTPUT-VMD10	:	1 Vp-p / 75 Ω analogue
AUDIO OUTPUT-VMD10	:	300 mV (rms) / 1 kΩ analogue stereo
HEADPHONE OUTPUT	:	jack Ø 3,5 mm
DV OUTPUT/INPUT-VMD20	:	4-pin, IEEE 1394 compliant
DV OUTPUT-VMD10	:	4-pin, IEEE 1394 compliant
DIGITAL STILL OUTPUT	:	Ø 2,5 mm, 3 pole
JLIP EDITOR	:	Ø 3,5 mm, 4 pole
TAPE SPEED	:	18,8 mm/s (SP) - 12,5 mm/s (LP)
MAXIMUM RECORDING TIME	:	80 min (SP) - 120 min (LP) using M-DV80 cassette

MAINS SUPPLY/ CHARGER

POWER SOURCE	:	AC 110 to 240 V ~ , 50/60 Hz
POWER CONSUMPTION	:	23 W
OUTPUT	:	DC 7,2 V -1,2 A (charge) ; DC 6,3 V - 1,8 A (VTR)
SYSTEM	:	constant current, peak detection, timer controlled.
DIMENSIONS	:	68 (W) x 38 (H) x 110 (D) mm
WEIGHT	:	approx. 250 g

CONTENTS

SECTION 1
DISASSEMBLY

1.1 BEFORE ASSEMBLY AND DISASSEMBLY

1.1.1 Precautions

1. Be sure to remove the power supply unit prior to mounting and soldering of parts.
2. When removing a component part that needs to disconnect the connector and to remove the screw for removing itself, first disconnect the connecting wire from the connector and then remove the screw beforehand.
3. When connecting and disconnecting the connectors, be careful not to damage the wire.
4. When replacing chip parts (especially IC parts), desolder completely first (to prevent peeling of the pattern).
5. Tighten screws properly during the procedures.
   Unless specified otherwise, tighten screws at a torque of 0.1N·m (1.0kgf·cm).

1.1.2 Assembly and disassembly

STEP /LOC NO.	PART	Fig. No.	REMOVAL	
			UNLOCK/RELEASE/ UNPLUG/UNCLAMP/ UNSOLDER	Note
①	UPPER CASE	Fig.1-3-1	(S1a), (S2b), (S1c), (S1d) (S1e), (L1a), 2(L1b), (L1c) CONNECTOR Ⓐ	Note 1b Note 1c
②	FRONT COVER ASSY		(S1b), 2(S1e) CONNECTOR Ⓑ, Ⓒ GRIP BELT	Note 1a Note 1b

(1) (2) (3) (4) (5)

(1) Indicate the disassembly steps. When assembling, perform in the reverse order of these steps. This number corresponds to the number in the disassembly diagram.

(2) Indicates the name of disassembly/assembly parts.

(3) Indicates the number in the disassembly diagram.

(4) Indicates parts and points such as screws, washers, springs which must be removed during disassembly/assembly.
P = Spring
W = Washer
S = Screw
Lock (L), soldering (SD), shield, connector, etc.

[Example] • Remove (W1) = Washer W1.
• Remove (SD1) = Soldering at the point SD1.
• Connector Ⓐ = Disconnector the connector Ⓐ.

(5) Precautions on disassembly/assembly.

1.1.3 Disconnection of Connectors (Wires)

Connector
Pull both ends of the connector in the arrow direction, remove the lock and disconnect the flat wire.

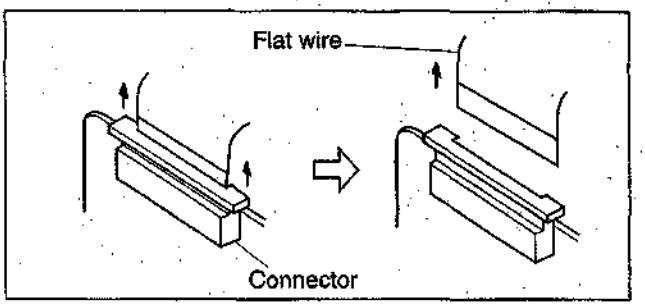


Fig. 1-1-1 Connector 1

Extend the locks in the direction of the arrow for unlocking and then pull out the wire. After removing the wire, immediately restore the locks to their original positions because the locks are apt to come off the connector.

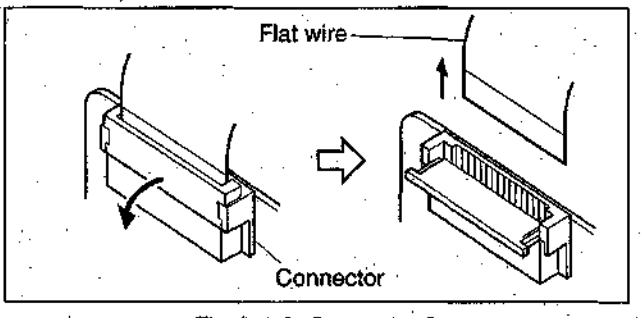


Fig. 1-1-2 Connector 2

B-B connector
Pull the board by both the sides in the direction of the arrow for disconnecting the B-B connector

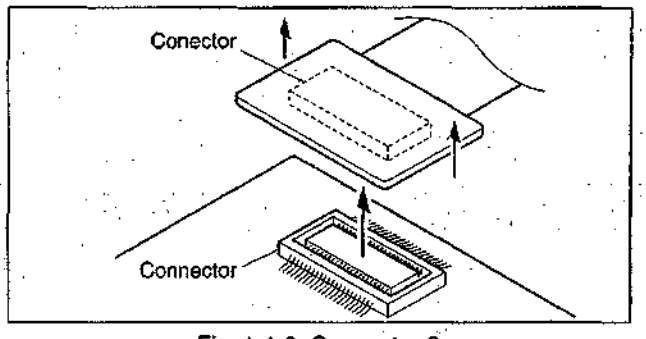


Fig. 1-1-3 Connector 3

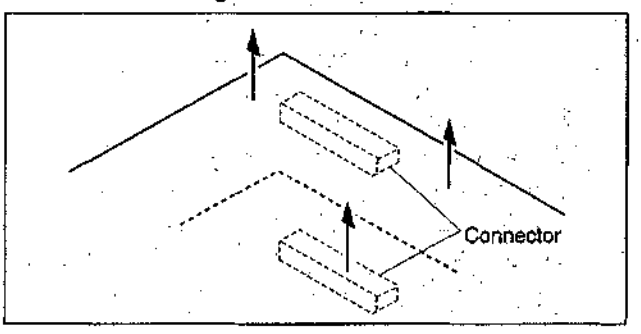


Fig. 1-1-4 Connector 4

1.2 TOOLS AND EQUIPMENTS REQUIRED FOR ADJUSTMENTS

1.2.1 Tools required for adjustments

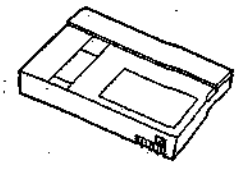
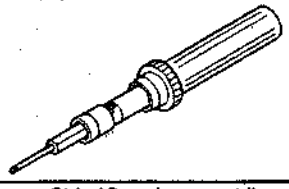
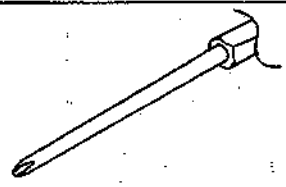
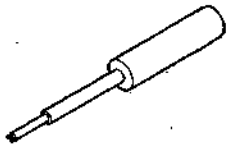
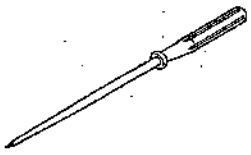
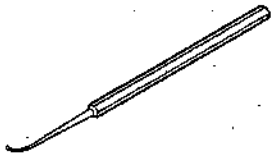
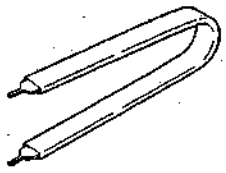
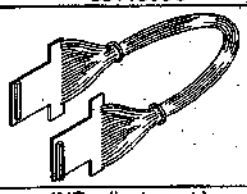
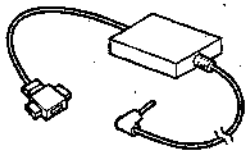
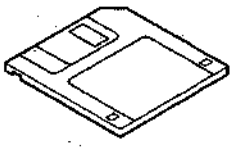
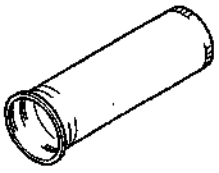
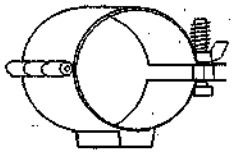
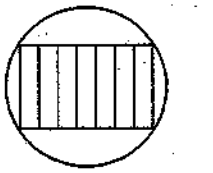
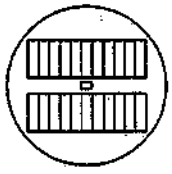
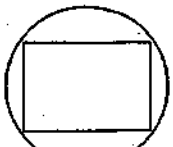
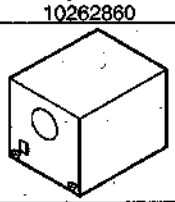
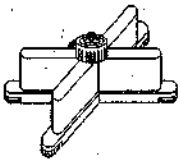
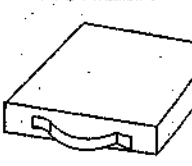
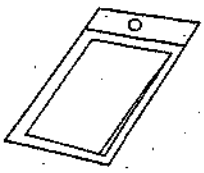
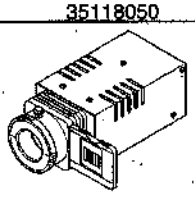
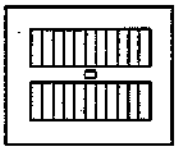
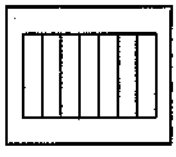
1 Alignment tape MC-2 35084420	2 Torque driver 35027200	3 Bit 35081460	4 Guide driver 35084430
			
5 Adjustment driver 10361290	6 Chip IC replacement jig 10361310	7 Connector catcher 70402598	8 Patch cord 35118080
			
9 Patch cord 35118090	10 Jig connector cable 35118100	11 PC cable 35065010	12 Service support system 35118110
			
13 INF adjustment lens 10145030	14 INF adjustment lens holder 35039040	15 Color bar chart 10211950	16 Gray scale chart 10211970
			
17 White balance chart 10211980	18 Light box 10262860	19 Camera stand	20 Soldering kit
			
21 Cleaning cloth	22 Light box assembly 35118050	23 Gray scale chart 35118060	24 Color bar chart 35118070
			

Table 1-2-1

1. Alignment tape
   To be used for check and adjustment of interchangeability of the mechanism.
2. Torque driver
   Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
3. Bit
   This bit is slightly longer than those set in conventional torque drivers.
4. Guide driver
   To be used to turn the guide roller to adjustment of the linarity of playback envelope.

5. Adjustment driver
To be used for adjustment.

6. Chip IC replacement jig
To be used for adjustment of the camera system.

7. Connector catcher
To be used to release the connector.

8/9. Patch cord
To be used to connect electrical parts, P.C. boards, etc. for servicing.

10. JIG connector cable
Connected to CN303 of the reg board and used for measuring error rates, etc.

11. PC cable
To be used to connect the VideoMovie and a personal computer with each other when a personal computer is used for adjustment.

12. Service support software
To be used for adjustment with a personal computer.

13. INF adjustment lens
To be used for adjustment of the camera system.

14. INF lens holder
To be used together with the camera stand (19) for operating the VideoMovie in the stripped-down condition such as the status without the exterior parts or for using commodities that are not yet conformable to the interchangeable ring.

15. Color bar chart (for No. 13)
To be used for adjustment of the camera system.

16. Gray scale chart (for No. 13)
To be used for adjustment of the camera system.

17. White balance chart (for No. 13)
To be used for adjustment of the camera system.
(for white balance adjustment)

18. Light box
To be used for adjustment of the camera system.

19. Camera stand
To be used together with the INF adjustment lens holder.

20. Soldering kit
Thin head is made so that it can be inserted into small spaces.

21. Cleaning cloth
Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

22. Light box (new type)
To be used for adjustment of the camera system.

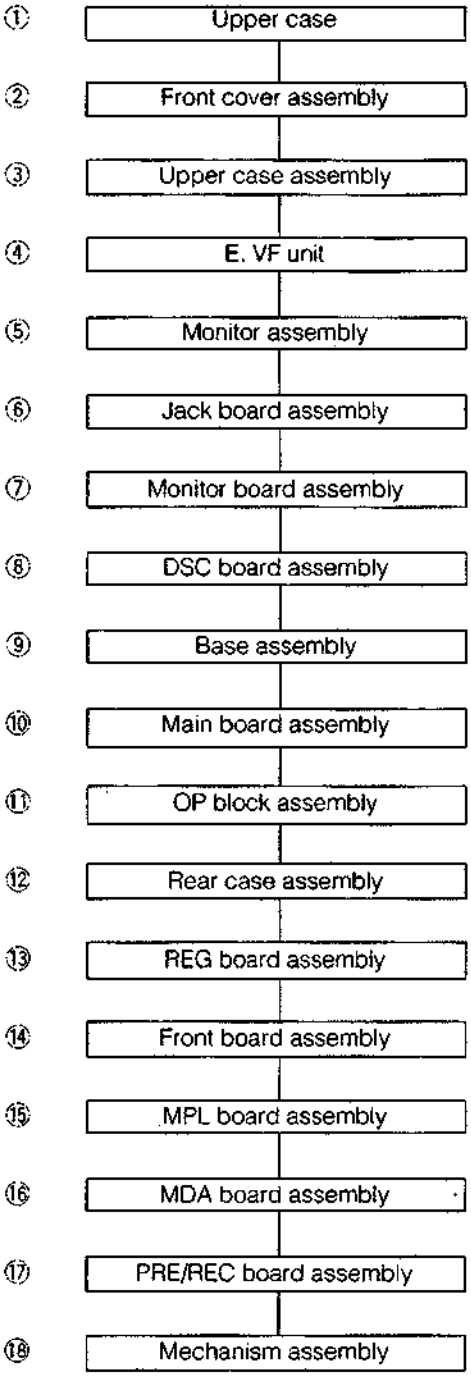
23. Gray scale chart (for No. 22)
To be used for adjustment of the camera system.

24. Color bar chart (for No. 22)
To be used for adjustment of the camera system.

1.3 DISASSEMBLY/ASSEMBLY OF CABINET PARTS

1.3.1 Disassembly flow chart

This flowchart indicates the disassembly step for the cabinet parts and board assembly in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend, route and dress the flat cables as they were originally.



1.3.2 Disassembly method

STEP /LOC NO.	PART	Fig. No.	REMOVAL	
			UNLOCK/RELEASE/ UNPLUG/UNCLAMP/ UNSOLDER	Note
①	UPPER CASE	Fig.1-3-1	(S1a), (S2b), (S1c), (S1d) (S1e), (L1a), 2(L1b), (L1c) CONNECTOR Ⓐ	Note 1b Note 1c
②	FRONT COVER ASSY		(S1b), 2(S1e) CONNECTOR Ⓑ, Ⓒ GRIP BELT	Note 1a Note 1b
③/④/⑤	UPPER CASE ASSY (INCL. E. VF UNIT, MONITOR ASSY)	Fig.1-3-2	3(S2a), (S2b), (S2c), 2(S2d) CONNECTOR Ⓓ, Ⓔ MULTI MEDIA CARD	Note 2
④	E. VF UNIT	Fig.1-3-3	2(S3) CONNECTOR Ⓕ LUG WIRE	Note 3a Note 3b
⑤	MONITOR ASSY	Fig.1-3-4	2(S4), (L4) CONNECTOR Ⓖ SPACER	–
⑥	JACK BOARD ASSY	Fig. 1-3-5	(S5a), (S5b), (L5) BRACKET (JACK)	–
⑦	MONITOR BOARD ASSY		3(S5b) CONNECTOR Ⓗ SPACER, SPEAKER	Note 5a Note 5b Note 5c
⑧	DSC BOARD ASSY	Fig. 1-3-6	3(S6), (L6) CONNECTOR Ⓙ, Ⓚ, Ⓛ LUG WIRE	Note 6
⑨	BASE ASSY	Fig.1-3-7	(S7a), (S7b)	–
⑩	MAIN BOARD ASSY	Fig.1-3-8	CONNECTOR Ⓜ, Ⓝ, Ⓞ Ⓟ, Ⓠ, Ⓡ SPACER	–
⑪	OP BLOCK ASSY	Fig.1-3-9	(S9a), (S9b), (S9c) CONNECTOR Ⓢ LUG WIRE	Note 9
⑫/⑬/⑭	REAR CASE ASSY (INCL. REG BOARD ASSY)	Fig.1-3-10	(S10a), 2(S10b), (S10c) CONNECTOR Ⓣ SPEACER	–
⑬	REG BOARD ASSY	Fig.1-3-11	5(S11), CONNECTOR Ⓤ	–
⑭	FRONT BOARD ASSY	Fig.1-3-12	(S12a), (S12b), (S12c), 2(S12d) CONNECTOR Ⓥ JACK COVER	Note 12
⑮	MPL BOARD ASSY		(S12c)	Note 12b
⑯/⑰/⑱	MDA ASSY (PRE/REC BOARD ASSY INCL. MECHANISM ASSY)	Fig.1-3-13a	3(S13a), 2(L13)	Note 13a Note 13b
⑯	MDA BOARD ASSY	Fig. 1-3-13b	2(S13b) CONNECTOR Ⓦ, Ⓧ, Ⓨ	–
		Fig.1-3-13c	CONNECTOR Ⓩ	Note 13c
⑰	PRE/REC BOARD ASSY	Fig. 1-3-14	2(S14), CONNECTOR ⓐ SHIELD COVER (PR)	–
⑱	MECHANISM ASSY	Fig. 1-3-15	2(S15), 2(L15) BRACKET (MECHA)	–

<Note>

Note 1a : *When dismantling the front cover assembly, remove the center screw (inside) only.*

Note 1b : *When removing the cover assembly, be sure to do it while sliding the front cover assembly frontwards because the lid is stuck into the inside. When assembling, install the ① first and then install the ② without fail.*

Note 1c : *Be careful not to break the FPC wire.*

Note 2 : *On proceeding to this work, be sure to remove the Multi media card from the set beforehand.*

Note 3a : *Be careful not to break the FPC wire.*

Note 3b : *When assembling the E. VF unit to the main frame, tighten the lug wire together with the screw.*

Note 5a : *Pay heed to the connecting point of the GND wire.*

Note 5b : *Solder the wire to the GND side of C7209 on the MONITOR board assembly.*

Note 5c : *Pay careful attention to the spacer not to lose it.*

Note 6 : *When assembling the AUDIO board assembly into the main frame, tighten the lug wire together with the screw.*

Note 9 : *Since the lug wire of the CCD board assembly is tightened together with the screw that fastens the MPL board assembly, it is required to remove the screw No. 30.*

Note 12 : *Be careful not to damage the EJECT switch. Be sure to hold the cassette cover assembly closed throughout this work.*

Note 13a : *When removing the board assembly, be careful not to damage any part.*

Note 13b : *When disassembling pay careful attention to the part not to break it.*

Note 13c : *When assembling the board assembly into the main frame, arrange the FPC with meticulous care.*

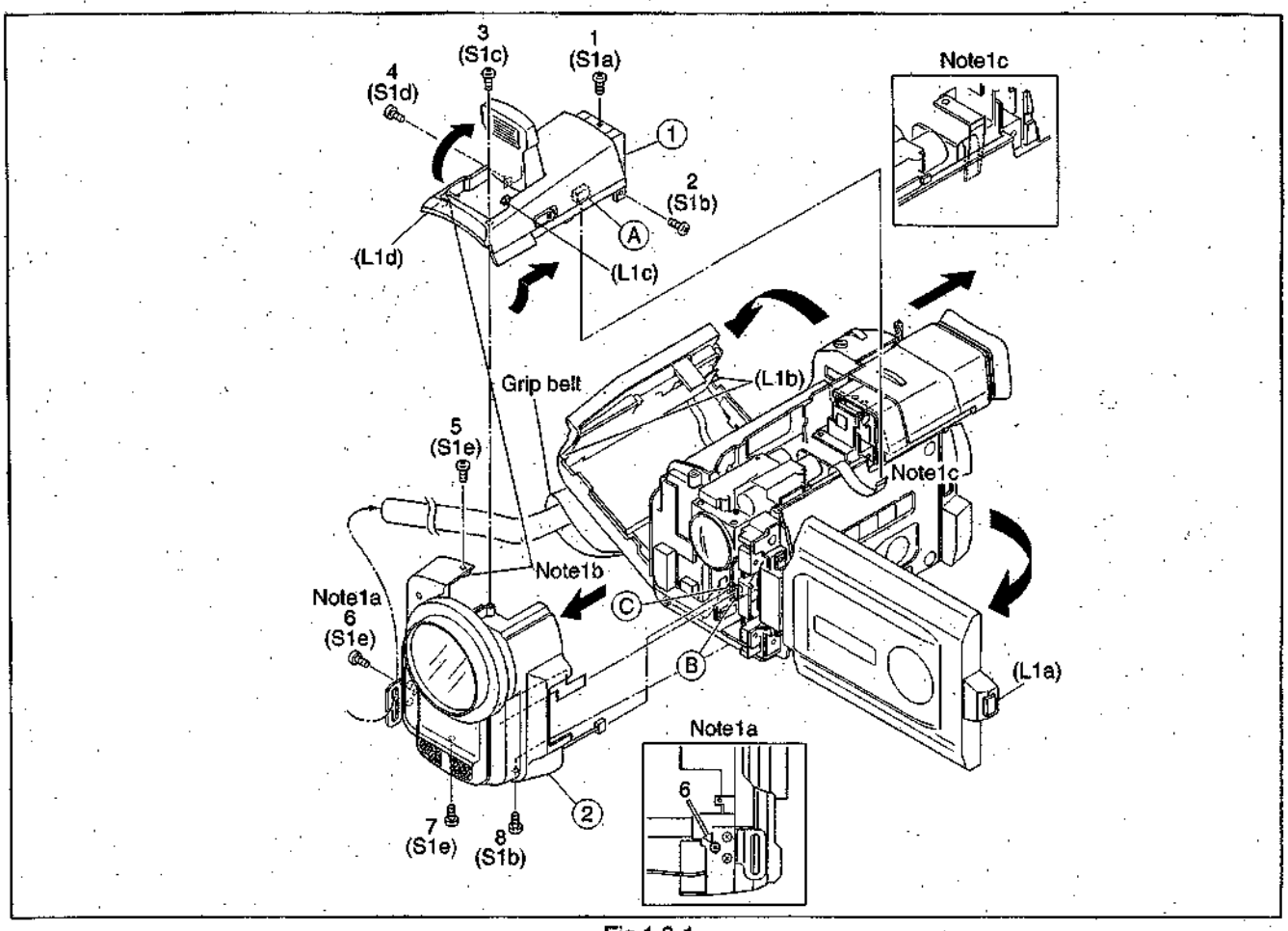


Fig.1-3-1

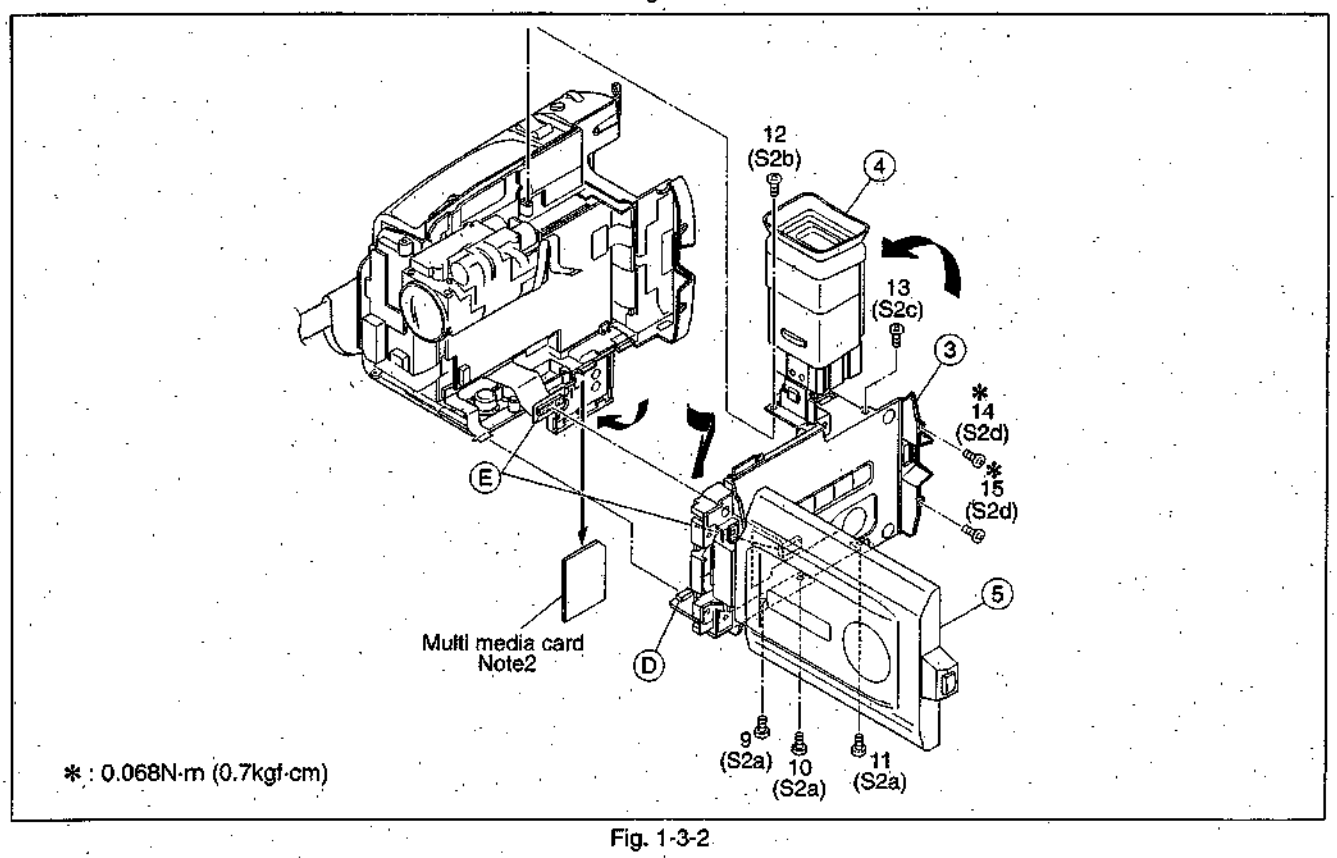


Fig. 1-3-2

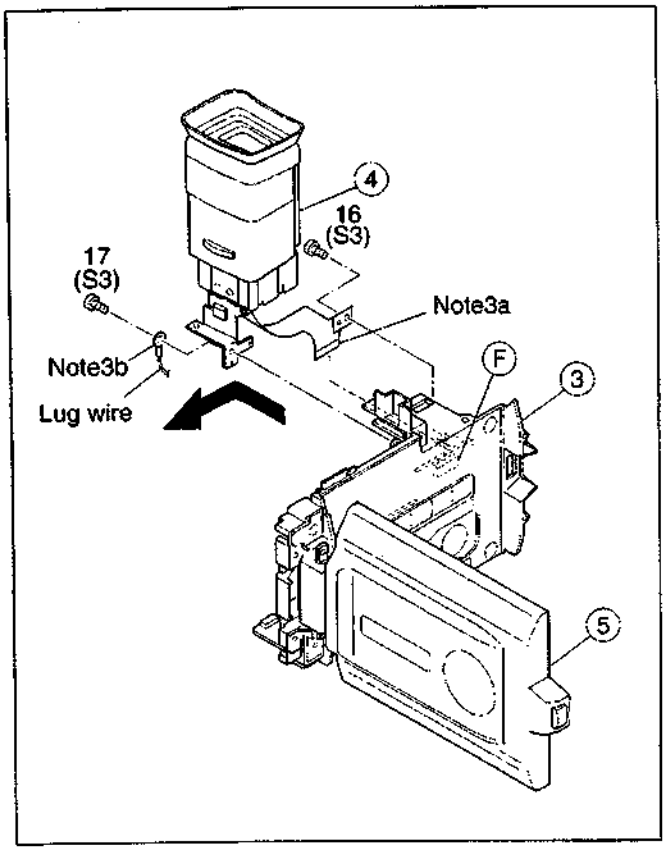


Fig. 1-3-3

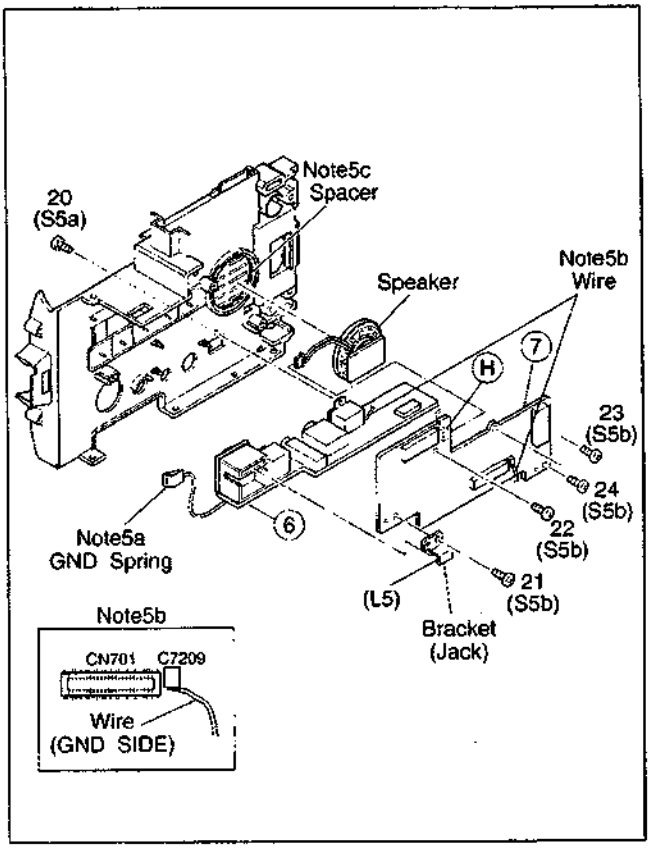


Fig. 1-3-5

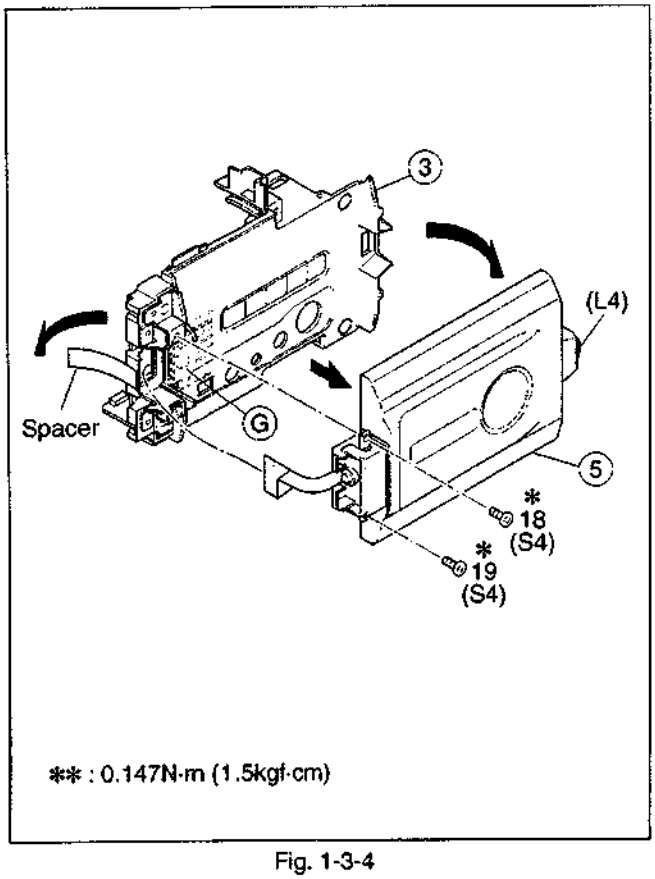


Fig. 1-3-4

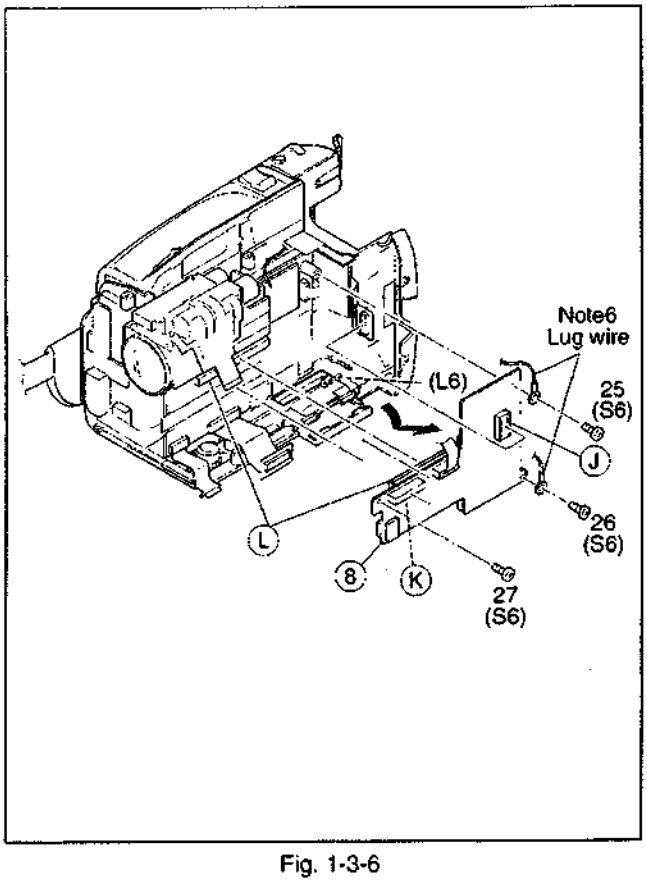


Fig. 1-3-6

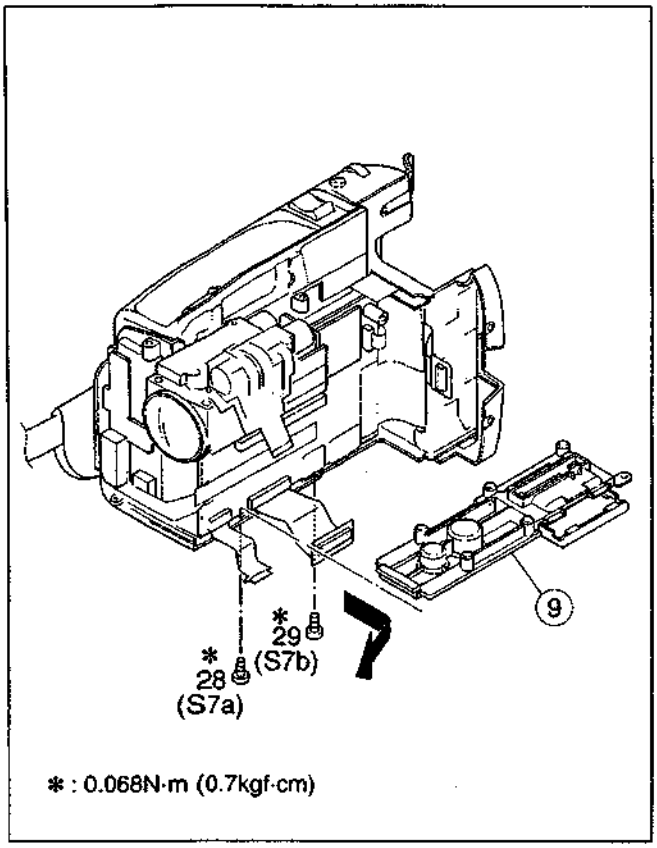


Fig. 1-3-7

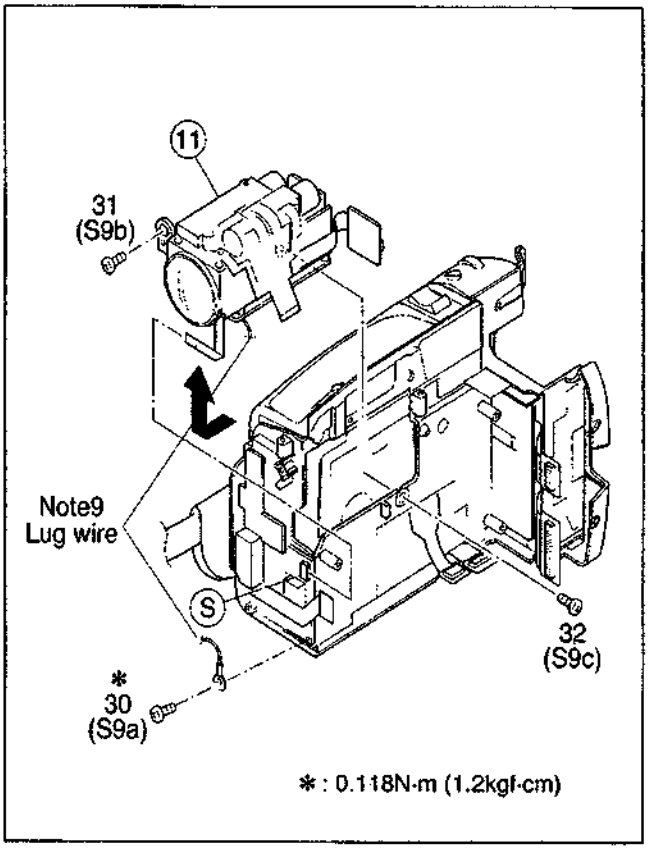


Fig. 1-3-9

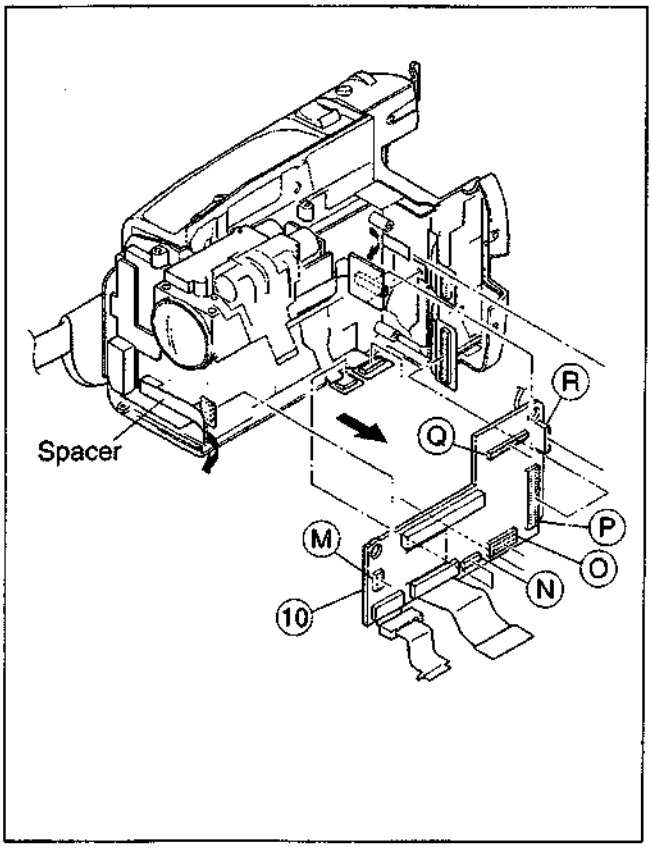


Fig. 1-3-8

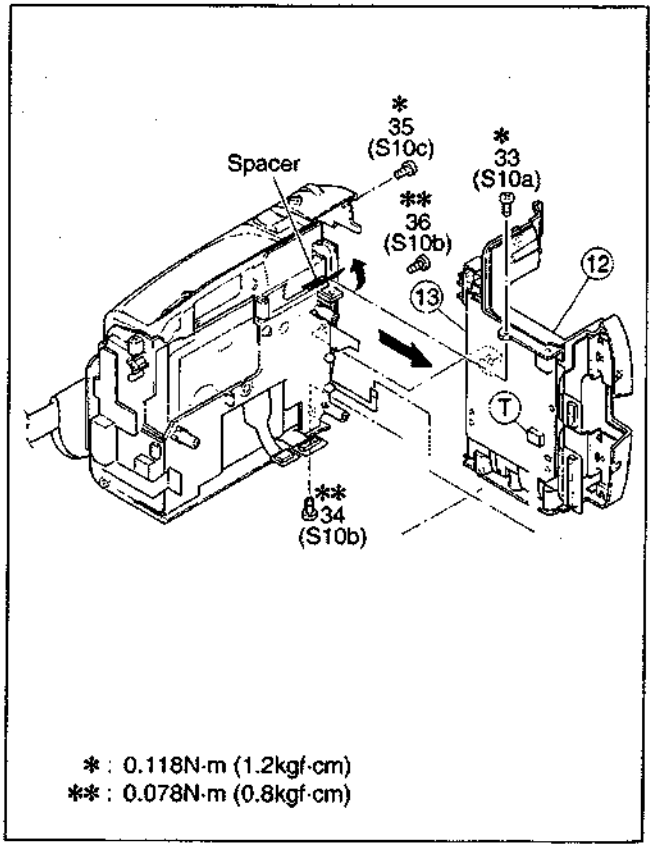


Fig. 1-3-10

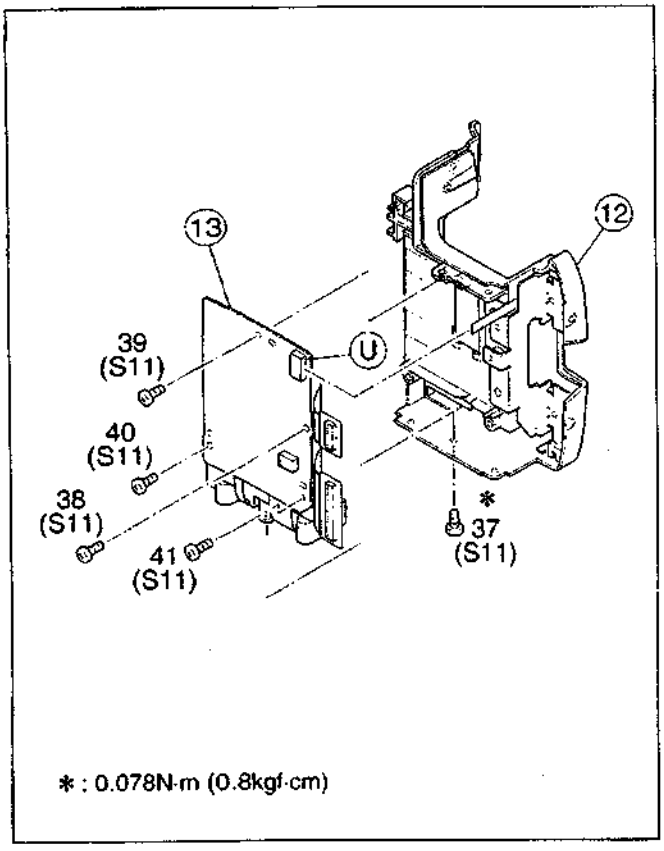


Fig. 1-3-11

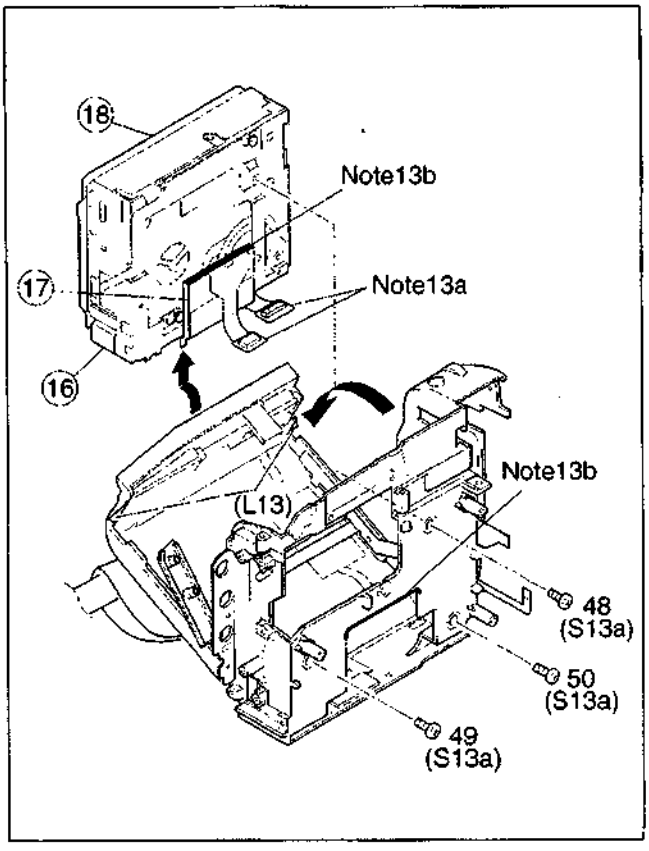


Fig. 1-3-13a

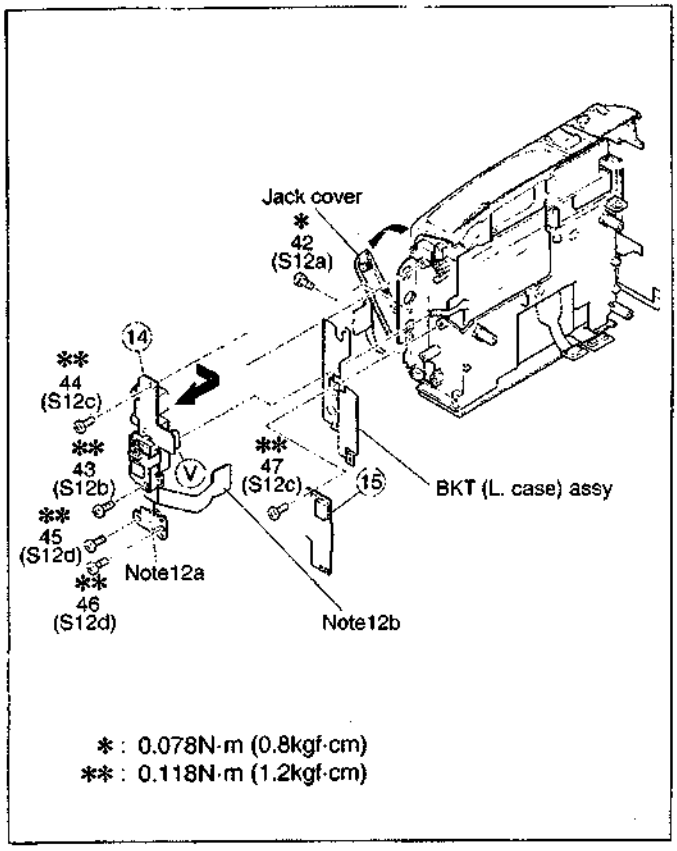


Fig. 1-3-12

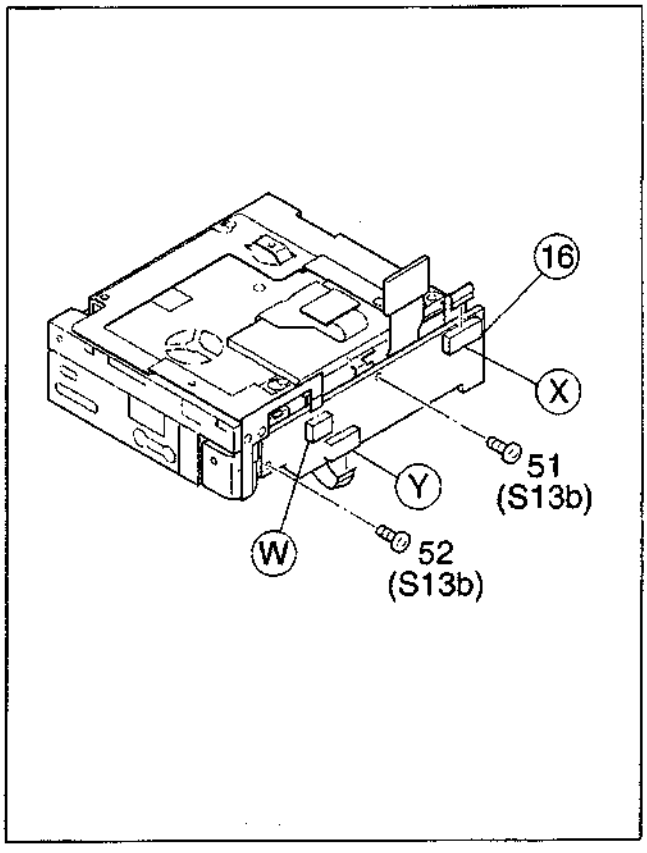


Fig. 1-3-13b

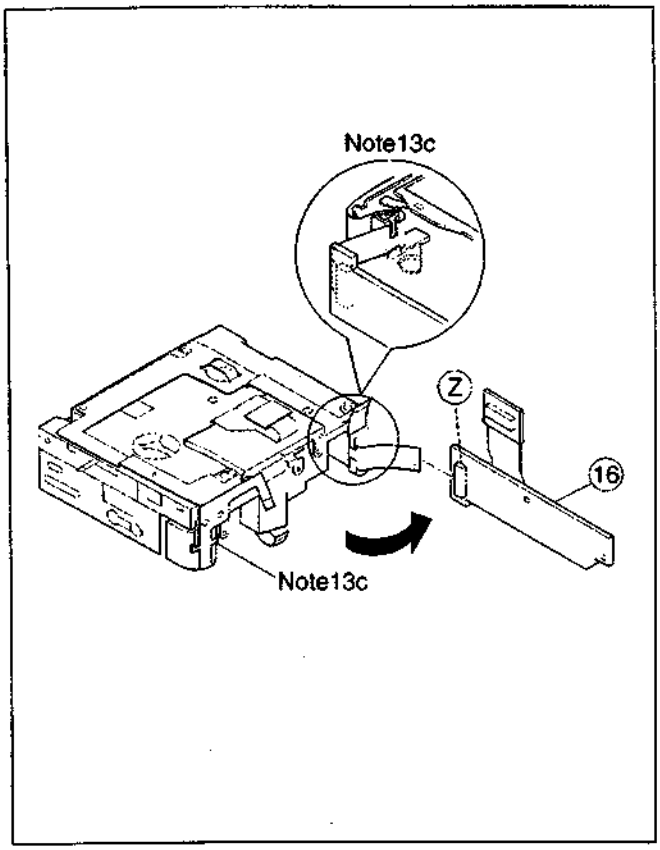


Fig. 1-3-13c

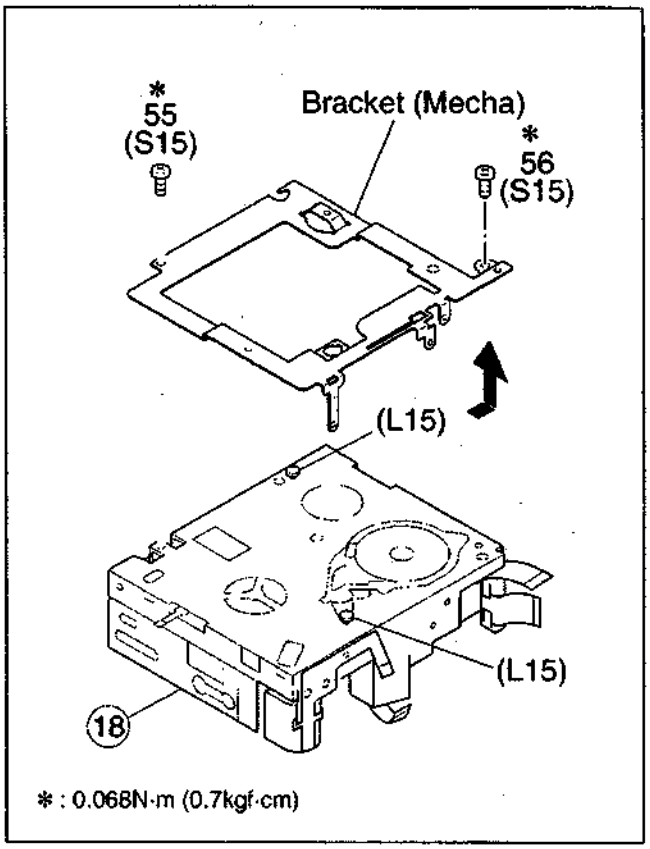


Fig. 1-3-15

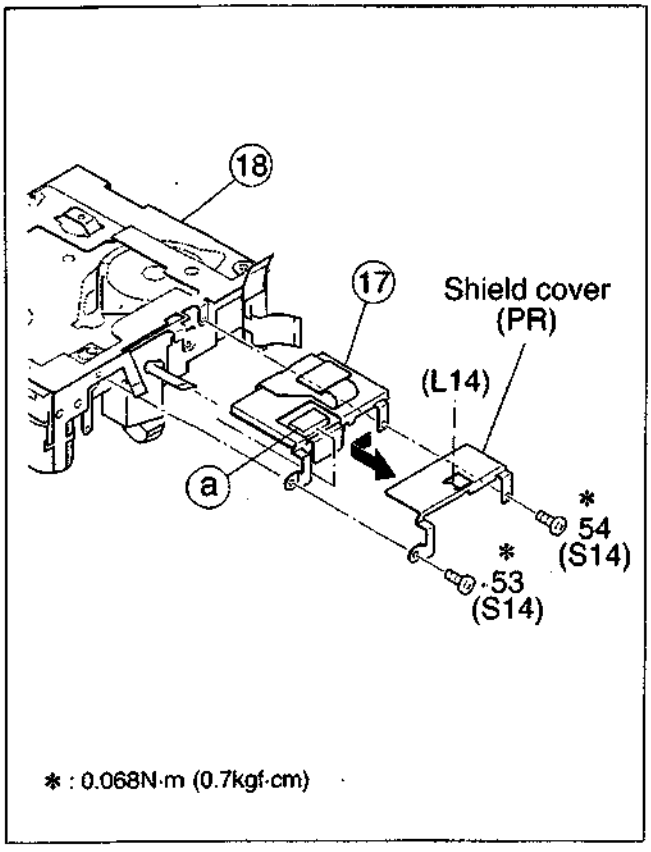


Fig. 1-3-14

1.4 DISASSEMBLY/ASSEMBLY OF E. VF UNIT

1.4.1 E. VF unit

1. Remove the eyecup and then draw out the viewfinder (VF).
2. Remove the four screws (1 to 4) and then remove the VF case (lower).
3. Remove the VF case (upper) while extending it by one side.

Note 4e: *When assembling the VF case (upper), carefully set it so that the stud of the LCD case assembly (upper) is put in the groove of the VF case (upper). After that, check to see if the VF case slides smoothly.*

4. Remove the four screws (5 to 8) and then remove the hinge assembly.

Note 4a: *When removing the hinge assembly, pay heed to the FPC assembly not to damage it.*

5. Remove the LCD case (lower) while unhooking it by the four points (L4a).

Note 4d: *When assembling the LCD case (lower), pay heed to the FPC wire not to break it.*

Note 4c: *When assembling, carefully proceed in the work not to damage any switch.*

6. Remove the LCD assembly together with the FPC assembly.

Note 4b: *When removing the LCD assembly and FPC assembly, be very careful not to damage the FPC assembly.*

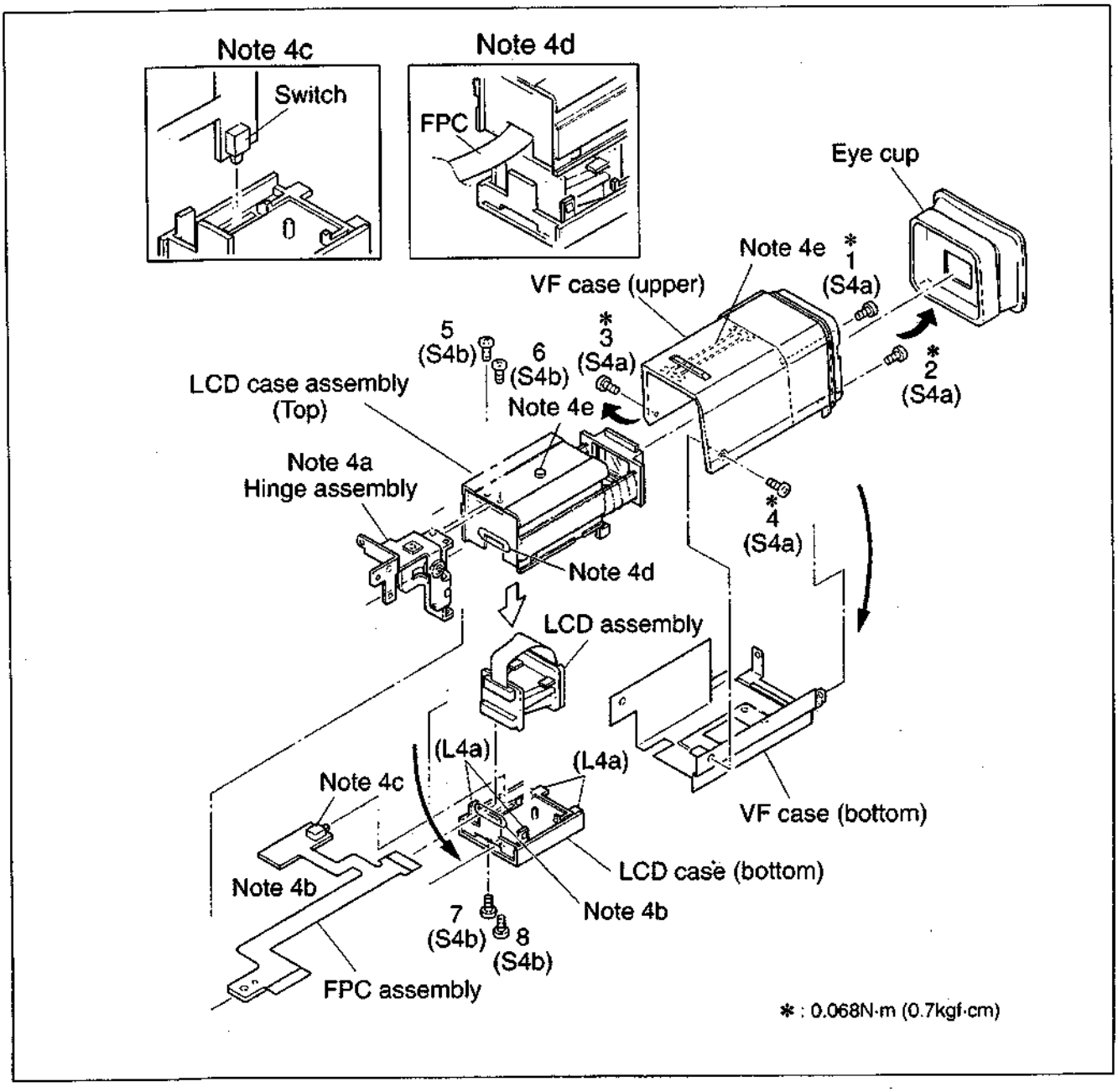


Fig. 1-4-1

1.5 DISASSEMBLY/ASSEMBLY OF MONITOR ASSEMBLY

1.5.1 Monitor assembly/Hinge assembly

1. Remove the six screws (1 to 6). While disengaging the six hooks (L5a to L5f) one after another, remove the monitor cover assembly. Then, disconnect the FPC from the connector ⓐ.
2. Remove the parts from the monitor case assembly and unlock the two connectors (ⓑ, ⓒ). While lifting the hinge assembly upwards, disconnect the FPC and then remove the hinge assembly.
3. Remove the two screws (7, 8) and the bracket (button) also.
4. Disconnect the FPC from the connector ⓓ and then remove the MONITOR board assembly and the backlight.
5. While unhooking the LCD module by the 5 points (L5g), remove the LCD module.
6. Remove the two screws (S5d). Then, remove the hinge covers (1), (2) while unhooking it by four points (L5h).
7. Remove the FPC assembly from the hinge assembly.

Note 5a: *Don't reuse the screw that was once removed, because screw locking agent was applied to it.*
Note 5b: *When removing the monitor cover assembly, pay heed to the FPC and connectors not to damage them.*
Note 5c: *When removing/reinstalling the hinge assembly, carefully proceed in the work not to damage any part.*
Note 5d: *For disconnecting the FPC from the connector, unlock the connector first and then draw out the hinge assembly together with the FPC so that it is pulled out of the connector.*
Note 5e: *The backlight is soldered to the MONITOR board assembly. When removing the backlight individually, unsolder it by two points.*
Note 5f: *Carefully arrange the FPC.*
Note 5g: *Be careful not to lose the magnet.*
Note 5h: *When reinstalling the FPC assembly, wind it on the hinge assembly by three and a half turns.*

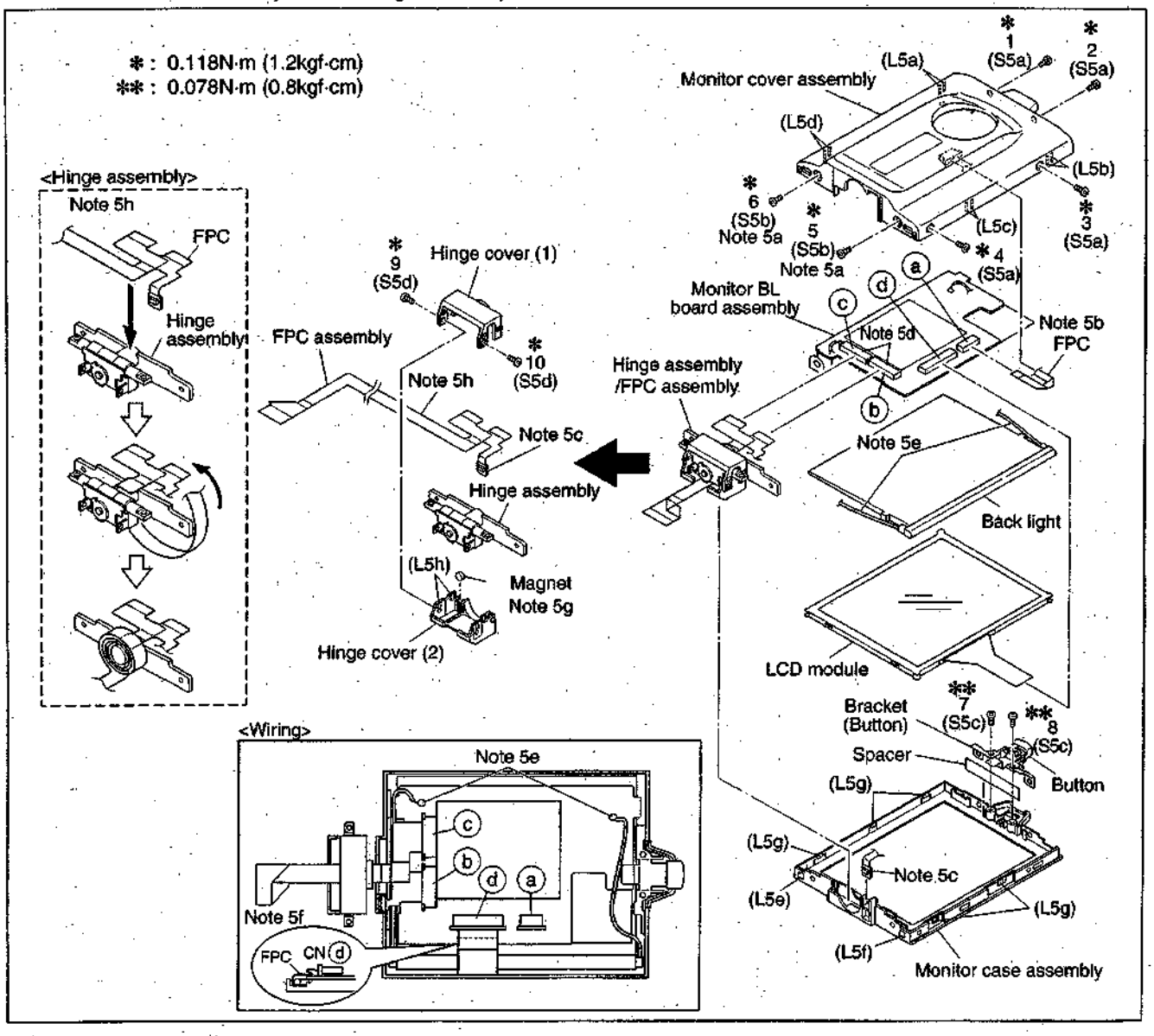


Fig. 1-5-1

1.6 DISASSEMBLY OF OP BLOCK ASSEMBLY/CCD BOARD ASSEMBLY

1.6.1 Precautions

1. Through disassembling/reassembling work, pay the most careful attention to the CCD image sensor, optical LPF, lens and so on so as to prevent them from getting dusty, soiled, scratched on the surface. If some of them gets soiled with fingerprints, etc., wipe it out with silicone paper, clean chamois, and super cleaning cloth recommended by JVC, etc.
2. The new CCD image sensor is occasionally shipped from the factory as a protection seal is applied onto its transparent glass. If so, leave the protection seal as it is and remove it just before installing it in the OP block assembly.

1.6.2 How to remove OP block assembly and CCD board assembly

1. Remove the shield seat (OP) that secures the CCD board assembly and OP block assembly.

Note 6a: *When sticking the shield seat again after it was once removed, carefully set it as it was before.*

2. Unsolder the CCD board assembly by the 16 points (SD1).

Note 6b: *Be sure to remove the parts on the soldered side of the board assembly before unsoldering, it there is something.*

2. Remove the three screws (1 to 3) and then remove the CCD board assembly.
3. Remove the two screws (4, 5) and the CCD base assembly also.

Note 6c: *When removing the CCD base assembly, carefully proceed in the work not to remove the spacer rubber or/and optical LPF together with the CCD base assembly.*

Note 6d: *Don't replace the CCD image sensor individually but replace it in a set of the CCD base assembly.*

1.6.3 How to reassemble OP block assembly/CCD board assembly

1. Install the optical LPF in the OP block assembly as the spacer rubber is fitted to the CCD side of the optical LPF.
2. Paying heed to the spacer rubber not to move it out of the right position, set the CCD base assembly and fasten it together with the spacer rubber with the two screws (4, 5).
3. Fasten the CCD board assembly with the three screws (1 to 3) first. Then, set it in the CCD base assembly and secure them by soldering at the 16 points (SD1).

Note 6e: *If some part was removed before removing the board assembly, restore it to the original place taking care not to make any shortcircuit.*

4. Stick the shield seat (OP) to the CCD board assembly and OP block assembly to secure them.

1.6.4 Replacement of service parts

Service parts to be supplied for the OP block assembly are as follows.

When replacing a part, be very careful not to get the FPC wire broken or damaged by overheating caused by soldering.

1. Focus motor
2. Zoom motor
3. Iris motor unit

Note 6f: *When soldering the wire of a new focus motor/zoom motor after replacement, be sure to keep the tip of a soldering iron approximately 1 mm apart from the terminal.*

Note 6g: *The iris motor unit includes the FPC assembly and the two sensors.*

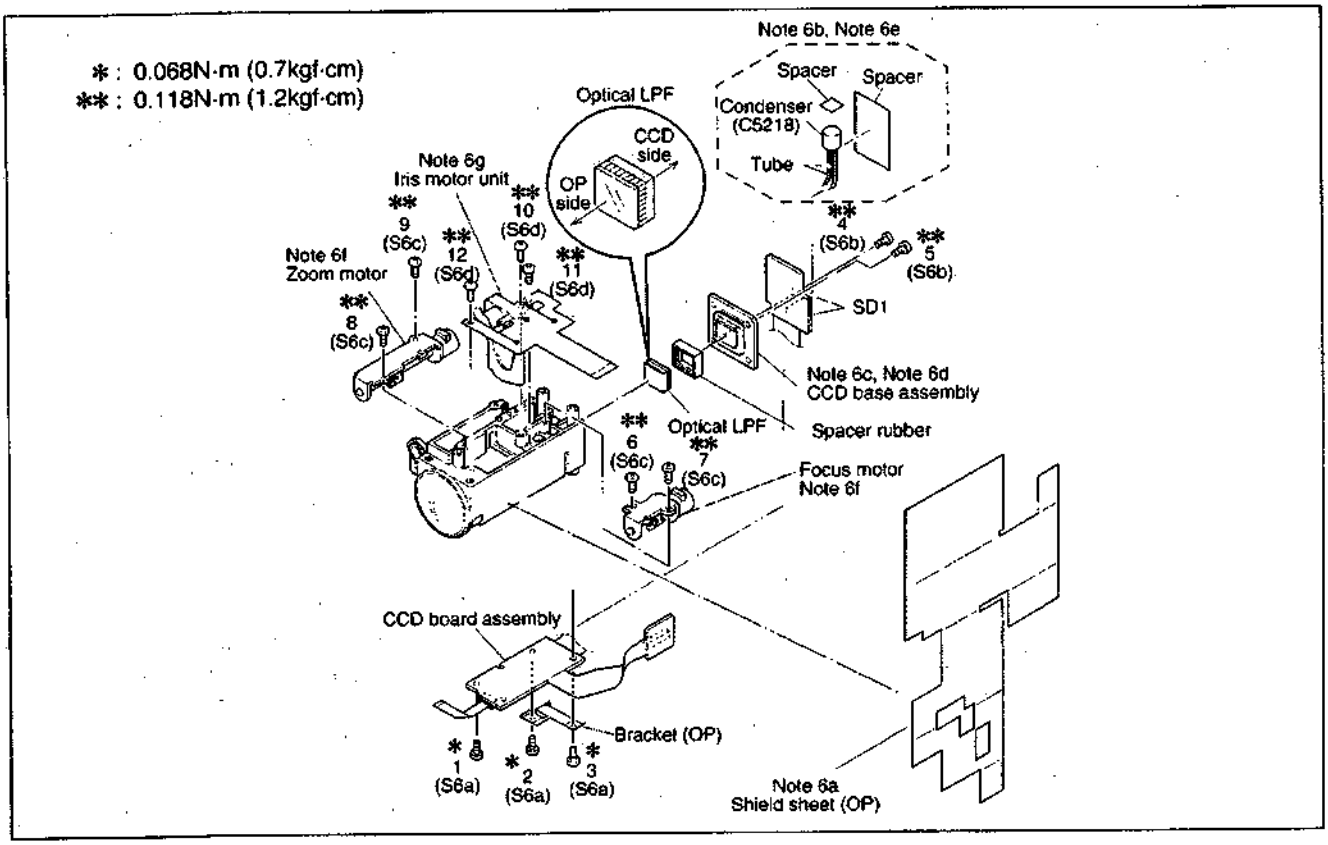


Fig. 1-6-1

LIST<DISASSEMBLY>

: Connector of removed component during disassembly

No.	Fig No.	Symbol	Connected point				Pin No.	Class	Note / Patch cord
1	Fig.1-3-1	Ⓐ	STROBE UNIT	-	⟷ DSC PWB	CN207	12PIN	FPC	NC
2	Fig.1-3-1	Ⓑ	DSC PWB	CN205	⟷ LENS SHUTTER UNIT	-	8PIN	FPC	NC
3	Fig.1-3-1	Ⓒ	DSC PWB	CN204	⟷ MIC UNIT	-	3PIN	WIRE	NC
4	Fig.1-3-2	Ⓓ	JACK PWB	CN601	⟷ MAIN PWB	CN106	33PIN	FPC	35084550/35084560
5	Fig.1-3-2	Ⓔ	MONITOR PWB	CN701	⟷ MAIN PWB	CN107	57-60PIN	(B-B)	35118150/35118160
6	Fig.1-3-3	Ⓕ	MONITOR PWB	CN702	⟷ VF BL PWB	CN7551	22-20PIN	FPC	35040940/35040930
7	Fig.1-3-4	Ⓖ	MONITOR PWB	CN703	⟷ MONITOR BL PWB	CN7501/CN7502	39PIN(18+18+3)	FPC	DIRECT
8	Fig.1-3-5	Ⓗ	MONITOR PWB	CN704	⟷ SPEAKER	-	2PIN	WIRE	DIRECT
9	Fig.1-3-6	Ⓙ	DSC PWB	CN203	⟷ REG PWB	CN302	30PIN	(B-B)	DIRECT
10	Fig.1-3-6	Ⓚ	DSC PWB	CN206	⟷ OP BLOCK	-	24PIN	FPC	35118230/35118240
11	Fig.1-3-6	Ⓛ	DSC PWB	CN202	⟷ MAIN PWB	CN104	130PIN	B-B	35118090
12	Fig.1-3-8	Ⓜ	MAIN PWB	CN105	⟷ FRONT PWB	CN501	30PIN	(B-B)	DIRECT
13	Fig.1-3-8	Ⓝ	MAIN PWB	CN101	⟷ PRE/REC PWB	CN902	20PIN	(B-B)	DIRECT
14	Fig.1-3-8	Ⓞ	MAIN PWB	CN102	⟷ MDA PWB	CN405	40PIN	(B-B)	DIRECT
15	Fig.1-3-8	Ⓟ	MAIN PWB	CN108	⟷ REG PWB	CN301	80PIN	(B-B)	DIRECT
16	Fig.1-3-8	Ⓠ	MAIN PWB	CN103	⟷ CCD PWB	CN801	60PIN	(B-B)	DIRECT
17	Fig.1-3-8	Ⓡ	MAIN PWB	CN109	⟷ POWER UNIT	-	12PIN	FPC	35064960/35064970
18	Fig.1-3-9	Ⓢ	VCO PWB	CN5401	⟷ CCD PWB	CN803	6PIN	FPC	35041070/35041060
19	Fig.1-3-10	Ⓣ	REG PWB	CN305	⟷ ZOOM UNIT	-	6PIN	FPC	35041070/35041060
20	Fig.1-3-11	Ⓤ	REG PWB	CN304	⟷ DECK OPE	-	6PIN	FPC	35041070/35041060
21	Fig.1-3-12	Ⓥ	FRONT PWB	CN502	⟷ ROTARY ENCODER	-	6PIN	FPC	35041070/35041060
22	Fig.1-3-13b	Ⓦ	MDA PWB	CN404	⟷ LOADING MOTOR	-	6PIN	FPC	DIRECT
23	Fig.1-3-13b	Ⓧ	MDA PWB	CN402	⟷ CAPSTAN MOTOR	-	18PIN	FPC	DIRECT
24	Fig.1-3-13b	Ⓨ	MDA PWB	CN403	⟷ DRUM MOTOR	-	11PIN	FPC	DIRECT
25	Fig.1-3-13c	Ⓩ	MDA PWB	CN401	⟷ SENSOR	-	15PIN	FPC	35042690/35042680
26	Fig.1-3-14	ⓐ	PRE/REC PWB	CN901	⟷ HEAD	-	8PIN	FPC	DIRECT
27	-	-	REG PWB	CN303	⟷ JIG CONN.	-	30PIN	B-B	35118100
28	Fig.1-5-1	ⓐ	MONITOR BL PWB	CN7504	⟷ DIAL PWB	CN1301	6PIN	FPC	-
29	Fig.1-5-1	ⓑ	MONITOR BL PWB	CN7502	⟷ MONITOR BL PWB	CN703	18-39PIN	FPC	-
30	Fig.1-5-1	ⓒ	MONITOR BL PWB	CN7501	⟷ MONITOR BL PWB	CN703	18-39PIN	FPC	-
31	Fig.1-5-1	ⓓ	MONITOR BL PWB	CN7503	⟷ LCD MODULE	-	24PIN	FPC	-

Table 1-7-1

1.8 CONNECTION OF CONNECTORS (PATCH CORDS)

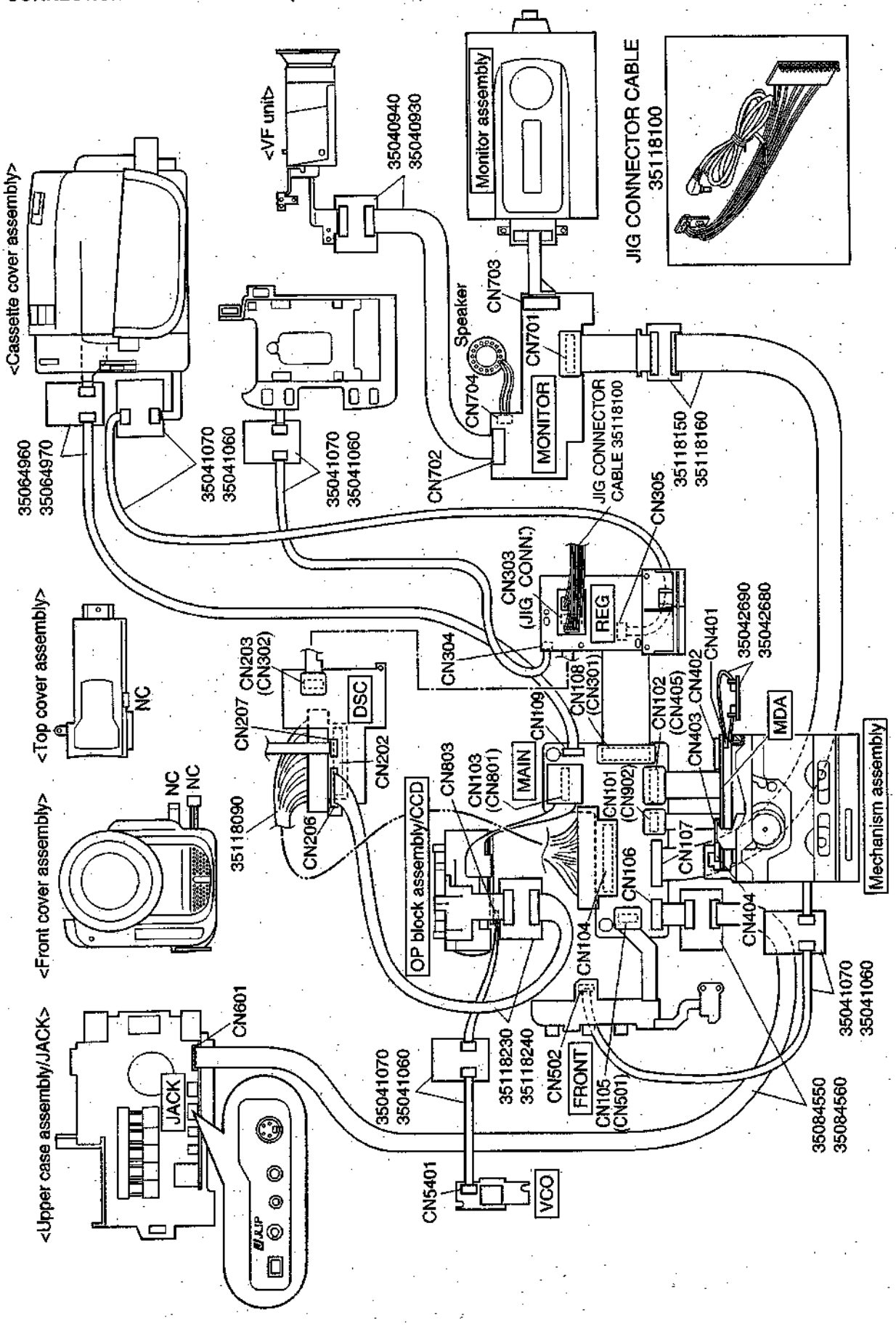


Fig. 1-8-1

1.9 HOW TO TAKE OUT CASSETTE TAPE

If the cassette tape cannot be ejected out of the cassette housing because of some electrical failure, take it out manually in the way mentioned below.

From viewpoints of workability and reliability, it is recommended to dismantle the covers and exterior components so that the cassette tape can be taken out from the cassette housing without trouble, because the following is an emergency measure to the end.

1. Disconnect the power source (battery, DC cord) from the set.
2. Open the cassette cover and remove the four screws from both sides.

Note: *Don't reuse the screw that was once removed, because screw locking agent was applied to the tip of the respective screws. Be sure to use new screws when refitting the cassette cover to the set.*

If the exterior component (lower case assembly in this case) is removed for taking out the cassette tape, it is needless to remove those screws.

3. Detach the cassette cover from the arms, and open it to the full extent paying heed to the FPC.

Note: *Pay careful attention to the FPC not to break its wire and not to damage itself, because the FPC is connected between the cassette cover and main body.*

4. Supply 3 V DC to the electrodes of the loading motor in order to slide the slide deck assembly frontwards, and stop the power supply when both the pole bases come into the unloading status inside the tape. Be careful not to damage or soil the tape with grease, etc., because the tape has not been wound up in this condition. If unloading operation continues after both the pole bases have returned inside the tape, the mechanism enters the eject mode and the cassette housing assembly is raised up. Be very careful not to get the mechanism to fall into such the situation, for, such the status may damage the tape because the slack part of the tape may be possibly caught in the cassette lid. After the cassette cover is opened, hold it remaining open with adhesive tape or the like so that it does not shut down as the cassette housing assembly is raised up. (Refer to Fig. 1-9-1)
5. Take in the slack of the tape by turning the center gear assembly with a sharp-pointed thing (for example, the chip IC replacing jig, etc.) in the direction of the arrow. Be careful not to damage the tape during winding.

   If the tape cannot be wound up by turning the center gear assembly, it is caused by the wrong mechanism mode in which the idler arm assembly and reel disk assembly are badly engaged with each other. In such the case, shift the mechanism mode so as to slightly return to the loading direction and fine adjust it.
6. Make sure that the slack of the tape is completely taken up, and make the mechanism continue unloading mode until it reaches the eject position. Then, take out the cassette tape.
7. After taking the cassette tape out of the cassette housing, check to see if the tape is not soiled with grease, etc. At the same time, check the mechanism assembly, particularly the tape transport system, if there is nothing soiled.

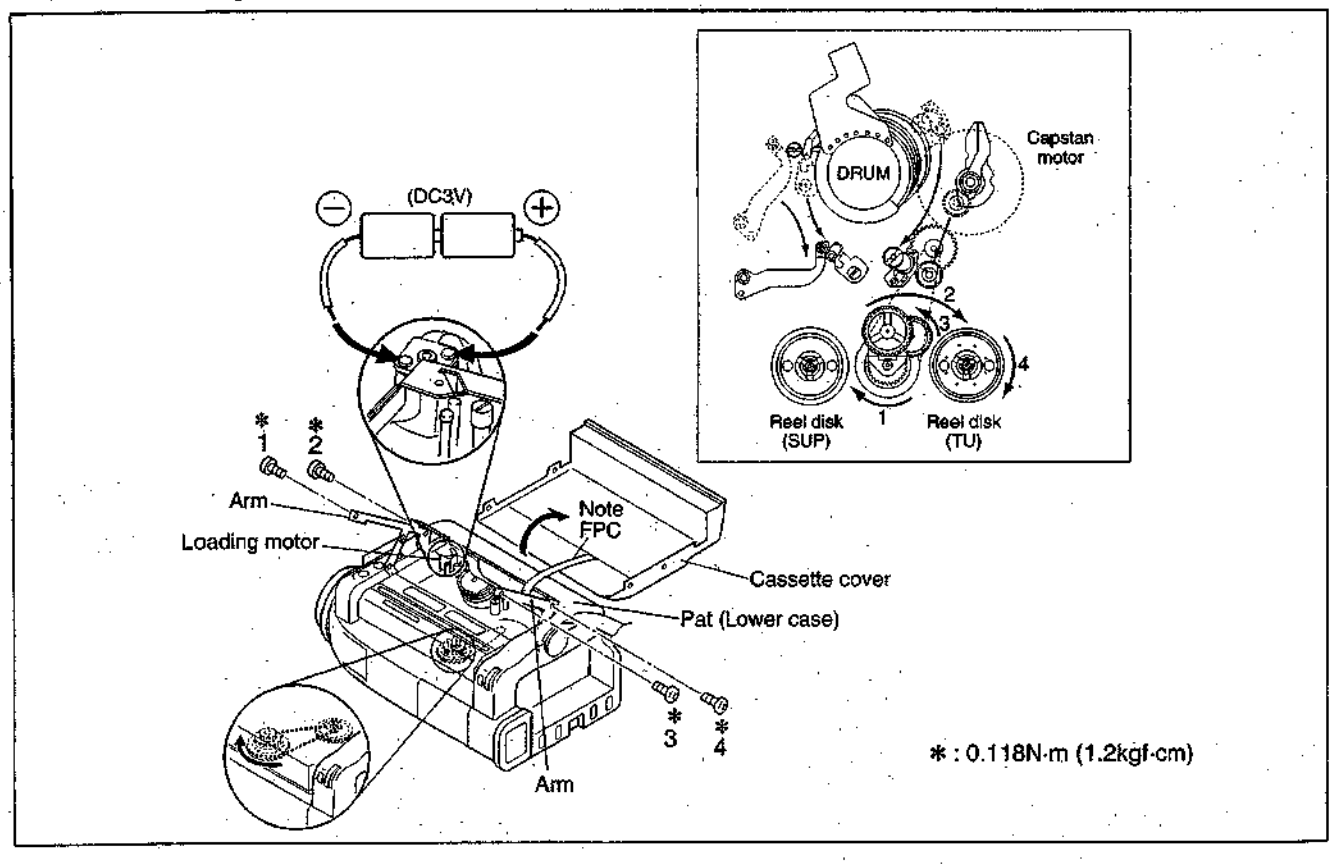


Fig. 1-9-1

<CABINET(DECK／CAMERA／MECHANISM)>

Symbol No. →	①／②								③／④／⑤							④		⑤	
Removing order of screw →	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Place to stick screw →																		*	*
Reference drawing →	Fig.1-3-1								Fig.1-3-2							Fig.1-3-3		Fig.1-3-4	
Screw tightening torque →	I								I	I	I	I	I	II	II	I		III	

Symbol No. →	⑥	⑦				⑧			⑨		⑩	⑪			⑫／⑬				⑬				
Removing order of screw →	20	21	22	23	24	25	26	27	28	29	-	30	31	32	33	34	35	36	37	38	39	40	41
Place to stick screw →											-												
Reference drawing →	Fig.1-3-5					Fig.1-3-6			Fig.1-3-7		Fig.1-3-8	Fig.1-3-9			Fig.1-3-10				Fig.1-3-11				
Screw tightening torque →	I					I			II		-	IV		I	IV	V	IV	V	V	I			

Symbol No. →	⑭					⑮	⑯／⑰／⑱			⑯		⑯	⑰		⑱	
Removing order of screw →	42	43	44	45	46	47	48	49	50	51	52	-	53	54	55	56
Place to stick screw →												-	Fig.1-3-14		Fig.1-3-15	
Reference drawing →	Fig.1-3-12						Fig.1-3-13a			Fig.1-3-13b		Fig.1-3-13c				
Screw tightening torque →	V	IV	IV	IV	IV	IV	I	I	I	I		-	II		II	

<VF UNIT>

	VF CASE(U/B)				LCD CASE(U/B)/HINGE			
Removing order of screw →	1	2	3	4	5	6	7	8
Place to stick screw →					*	*	*	*
Reference drawing →	Fig.1-4-1							
Screw tightening torque →	II				I			

<MONITOR>

	MONITOR COVER						BRACKET		HINGE	
Removing order of screw →	1	2	3	4	5	6	7	8	9	10
Place to stick screw →					*	*				
Reference drawing →	Fig.1-5-1									
Screw tightening torque →	IV						V		IV	

<OP BLOCK>

	CCD			CCD BASE		FOCUS M		ZOOM M		IRIS M		
Removing order of screw →	1	2	3	4	5	6	7	8	9	10	11	12
Place to stick screw →												
Reference drawing →	Fig.1-6-1											
Screw tightening torque →	II			IV								

M:MOTOR

<CASSETTE COVER ASSY>

	CASSETTE COVER ASSY.			
Removing order of screw →	1	2	3	4
Place to stick screw →	*	*	*	*
Reference drawing →	Fig.1-9-1			
Screw tightening torque →	IV			

<NOTE>

1) * : *Don't reuse the screw, because screw lock bond was applied to them.*
2) *Pay careful attention to tightening torque for each screw.*

I : 0.098N·m(1.0kgf·cm) II : 0.068N·m(0.7kgf·cm) III : 0.147N·m(1.5kgf·cm)
IV : 0.118N·m(1.2kgf·cm) V : 0.078N·m(0.8kgf·cm)

Fig. 1-10-1

1.11 EMERGENCY DISPLAY

LCD display	Emergency mode	Details	Possible cause
E01	LOADING	In the case the encoder position is not shifted to the next point though the loading motor has rotated in the loading direction for 4 seconds or more. This error is defined as [E01].	1. The mechanism is locked during mode shift. 2. The mechanism is locked at the mechanism loading end, because the encoder position is skipped during mechanism mode shift. 3. No power is supplied to the loading MDA.
E02	UNLOADING	n the case the encoder position is not shifted to the next point though the loading motor has rotated in the unloading direction for 4 seconds or more. This error is defined as [E02].	1. The mechanism is locked during mode shift. 2. The mechanism is locked at the mechanism loading end, because the encoder position is skipped during mechanism mode shift.
E03	TU & SP REEL FG	IIn the case no REEL FG is produced for 4 seconds or more in the capstan rotation mode after loading was complete, the mechanism mode is shifted to STOP with the pinch roller set off. This error is defined as [E03]. However, no REEL EMG is detected in the SLOW/STILL mode.	1. The idler gear does not engage with the reel disk well. 2. Though the idler gear and reel disk are engaged with each other, the tape is not wound because of overload to the mechanism. 3. No FG pulse is output from the reel sensor. 4. No power is supplied to the reel sensor. 5. Tape transport operation takes place with a cassette having no tape inside. 6. The tape slackens and no pulse is produced until the slack is taken up and the tape comes into the normal status.
E04	DRUM FG	In the case there is no DRUM FG input in the drum rotation mode for 4 seconds or more. This error is defined as [E04], and the mechanism mode is shifted to STOP with the pinch roller set off.	1. The drum cannot be started or drum rotation is stopped because tape transport load is too high. 1) Tape tension is extremely high. 2) The tape is damaged or soiled with grease, etc. 2. The DRUM FG signal is not received by the syscon CPU. 1) Disconnection in the middle of the signal line. 2) Failure of the DRUM FG pulse generator (hall element). 3. No drum control voltage is supplied to the MDA. 4. No power is supplied to the DRUM MDA.
E05	–	–	–
E06	CAPSTAN FG	In the case no CAPSTAN FG is produced in the capstan rotation mode for 2 seconds or more. This error is defined as [E06], and the mechanism mode is shifted to STOP with the pinch roller set off. However, no CAPSTAN EMG is detected in the STILL/FF/REW mode.	1. The CAPSTAN FG signal is not received by the syscon CPU. 1) Disconnection in the middle of the signal line. 2) Failure of the CAPSTAN FG pulse generator (MR element). 2. No capstan control voltage is supplied to the MDA. 3. No power is supplied to the CAPSTAN MDA. 4. The capstan cannot be started or capstan rotation is stopped because tape transport load is too high. 1) Tape tension is extremely high. (Mechanical locking) 2) The tape is damaged or soiled with grease, etc. (Tape tangling occurs, etc.)

Table 1-11-1 (DVC_02)

SECTION 2
MECHANISM ADJUSTMENT

2.1 PRELIMINARY REMARKS ON ADJUSTMENT AND REPAIR

2.1.1 Precautions

1. When fastening parts, pay careful attention to the tightening torque of each screw. Unless otherwise specified, tighten a screw with the torque of 0.039 N·m (0.4 kgf·cm).
2. Be sure to disconnect the set from the power supply before fastening and soldering parts.
3. When disconnecting/connecting wires, be careful not to get them and their connectors damaged. (Refer to the Section 1.)
4. When replacing parts, be very careful neither to damage other parts nor to fit wrong parts by mistake.

2.1.2 Necessary jigs

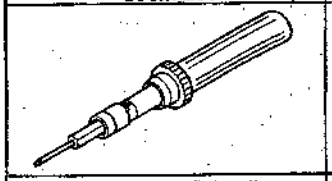
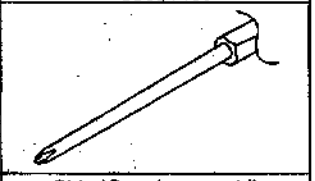
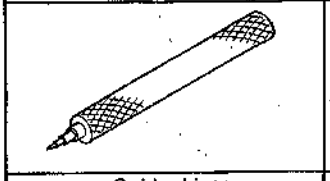
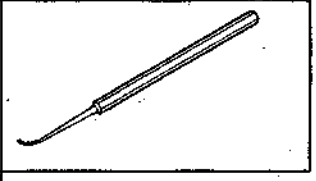
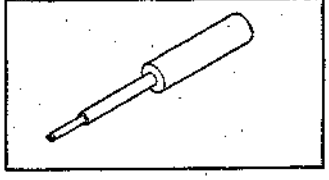
1 Torque driver 35027200	2 Bit 35081460
	
3 Slit washer fitting jig 35084500	4 Chip IC replacement jig 10361310
	
5 Guide driver 35084430	
	

Fig. 2-1-1

2.1.3 Notes on procedure for disassemby/assembly

The disassembling procedure table (Table 2-2-2 on page 22, a part of the table is shown below for reference) shows the procedure to disassemble/reassemble mechanism parts. Carefully read the following explanation before starting actual disassembling/reassembling work. The item numbers (circled numbers) in the following explanation correspond to those appearing under respective columns of the table.

(1) Circled numbers appearing in this column indicate the order to remove parts. When reassembling, follow these numbers in the reverse order. Circled numbers in this column correspond to those appearing in drawings of this section.

(2) This column shows part names corresponding to circled numbers in the left column.

(3) The symbol (T or B) appearing in this column shows the side which the objective part is mounted on.
T = the upper side, B = the lower side

(4) Symbols appearing in this column indicate drawing numbers.

(5) This column indicates parts and points such as screws, washers, springs, and others to be removed/fitted for disassembling/reassembling the mechanism. Besides such the parts, this column occasionally indicates working points.
P = Spring
W= Washer
S = Screw
* = Lock (L), soldering (SD), shield, connector (CN), etc.

Example
- Remove (W1) = Washer W1.
- * Remove the solder at (SD1) = Point SD1.
- * Disconnect Ⓐ = Connector Ⓐ.

(6) Numbers in this column represent the numbers of notes in the text. For example, "1" means "Note 1".
(For parts that need phase adjustment after reassembling, refer to "2.2.7 Check and adjustment of mechanism phase".)

(7) This column indicates required after-disassembling/reassembling work such as phase adjustment or mechanism adjustment.

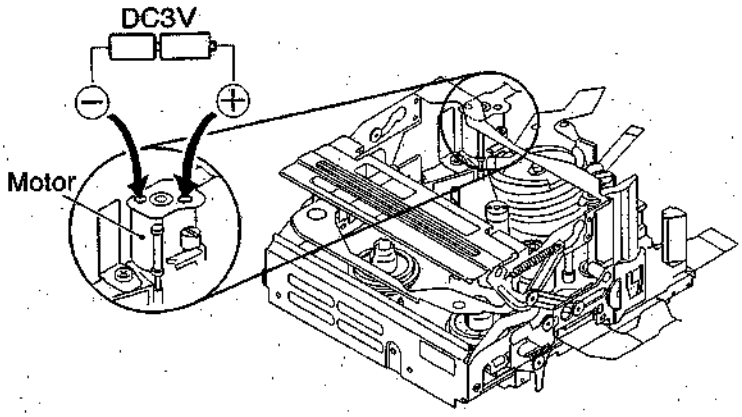
Step	Part Name		Fig.	Point	Note	Remarks
Ⓐ	Cassette housing assembly	T	1	3(S1),(L1a)-(L1d)	1a, 1b, 1c, 1d	Adjustment
(2a)	Reel disk (SUP) assembly	T	2	(W2)	2a, 2b	
(2b)	Reel disk (TU) assembly	T	2	(W2)	2a, 2b	
(2c)	Reel cover assembly	T	2	(S2b),2(S2a),(W2)	2d	
(3a)	Tension arm assembly	T	3	(W3a)	3b	
↑ (1)	↑ (2)	↑ (3)	↑ (4)	↑ (5)	↑ (6)	↑ (7)

2.2 DISASSEMBLY/ASSEMBLY OF MECHANISM ASSEMBLY

2.2.1 General statement

The mechanism should generally be disassembled/assembled in the EJECT mode (ASSEMBLY mode). (Refer to Fig. 2-2-1.)
However, when the mechanism is removed from the main body, it is set in the STOP mode. Therefore, it is required to shift the mechanism mode from the STOP mode to the EJECT mode after the mechanism is removed from the main body. In such the case, supply 3 V DC to the electrode on the top of the loading motor to enter the mechanism mode into the EJECT mode.

<Mechanism assembly/Cassette housing assembly>



<Back side of the mechanism assembly>

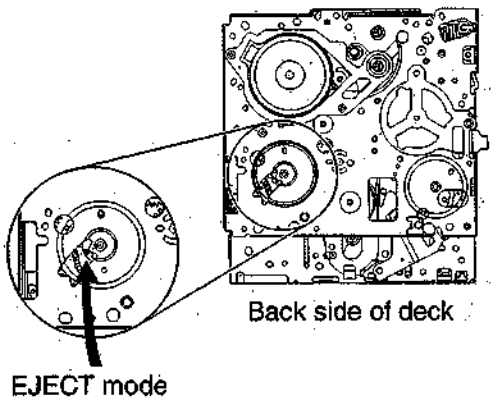


Fig. 2-2-1

2.2.2 Explanation of mechanism mode

The mechanism mode of this model is classified into six modes as shown in Table 2-2-1. Each mechanism mode can be distinguished from others by the relative position of "●" mark on the sub cam gear to the inner or outer protrusion on the main deck.

Refer to Fig. 2-2-2 to 2-2-7 below.
The EJECT mode, C IN mode and SHORT FF mode should be recognized by the relative position of the "●" mark to the inner protrusion, while the STOP mode, REV mode and PLAY mode should be recognized by that to the outer protrusion.

<EJECT mode>

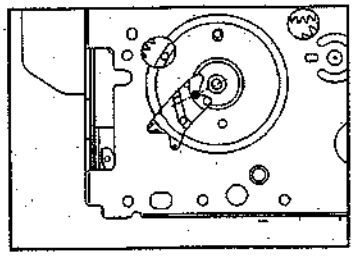


Fig. 2-2-2

<C IN mode>

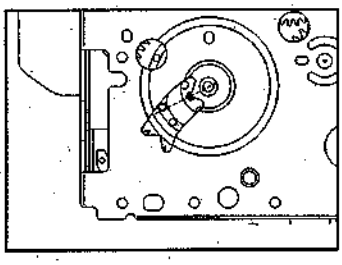


Fig. 2-2-3

<SHORT FF mode>

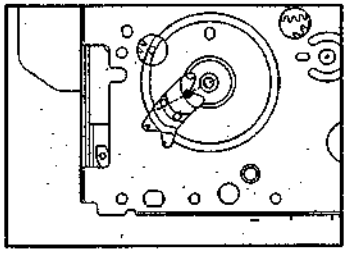


Fig. 2-2-4

<STOP mode>

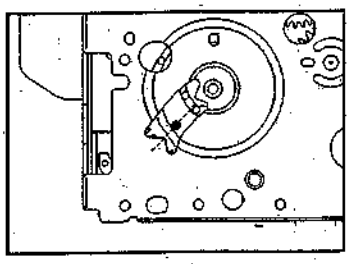


Fig. 2-2-5

<REV mode>

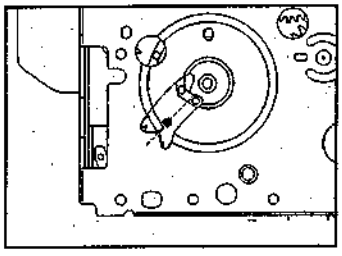


Fig. 2-2-6

<PLAY mode>

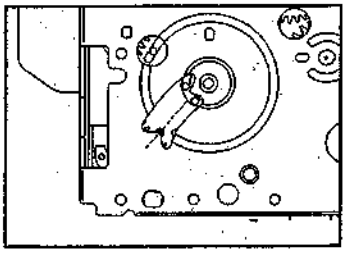


Fig. 2-2-7

2.2.3 Mechanism timing chart

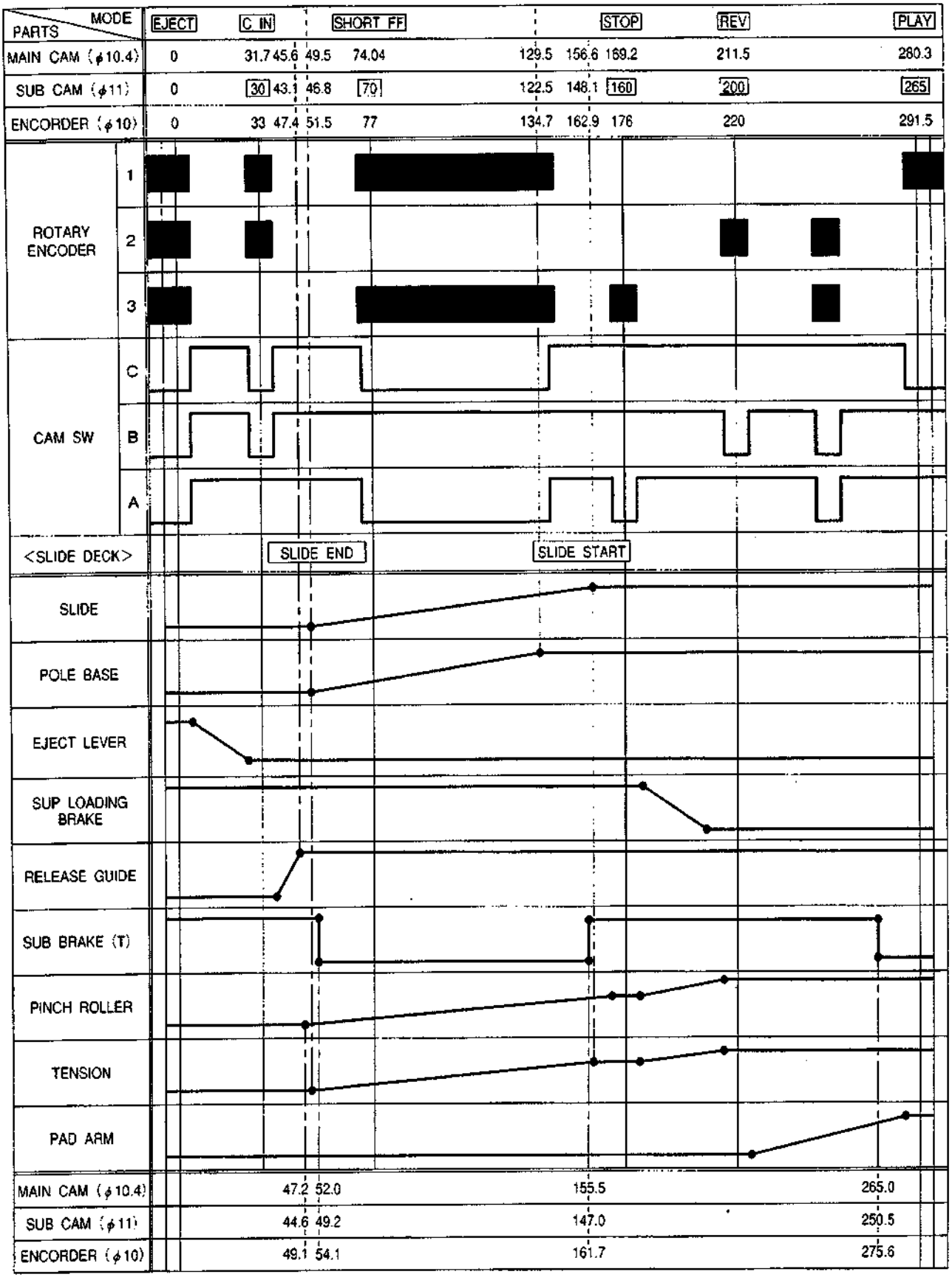


Table 2-2-1

2.2.4 Disassembly/assembly of mechanism assembly

1. Configuration

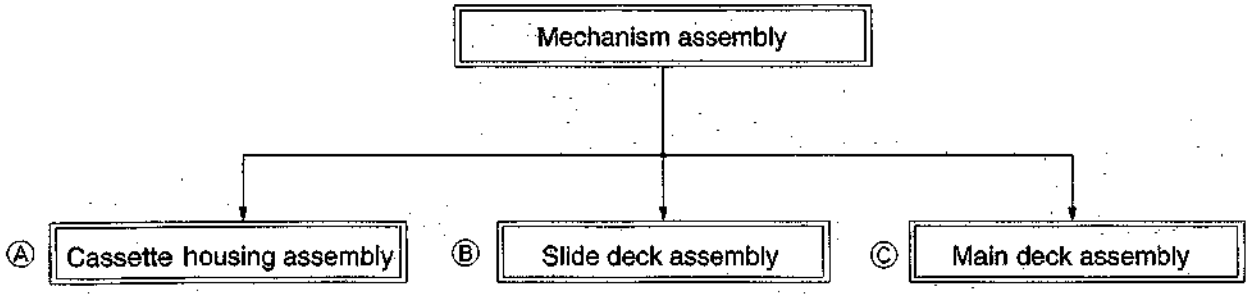


Fig. 2-2-8

2. Procedures for disassembly

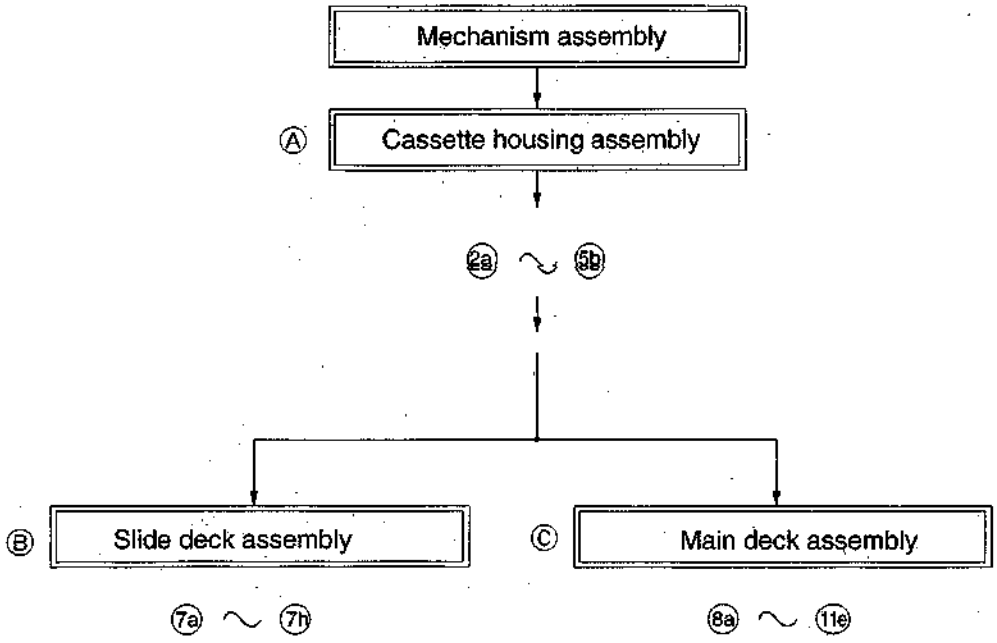


Fig. 2-2-9

3. Disassembling procedure table

Step	Part Name		Fig.	Point	Note	Remarks
Ⓐ	Cassette housing assembly	T	1	3(S1),(L1a)-(L1d)	1a, 1b, 1c, 1d	Adjustment
(2a)	Reel disk (SUP) assembly	T	2	(W2)	2a, 2b	
(2b)	Reel disk (TU) assembly	T	2	(W2)	2a, 2b	
(2c)	Reel cover assembly	T	2	(S2b),2(S2a),(W2)	2d	
(3a)	Tension arm assembly	T	3	(W3a)	3b	
(3b)	Release guide assembly	T	3	-	3a	
(3c)	Idler arm assembly	T	3	(W3b)	-	
(3d)	Guide arm assembly	T	3	-	3a	
(3e)	Pinch roller arm assembly	T	3	(W3a)	-	
(4a)	Cleaner arm assembly	T	4	(L4a)	4a	
(4b)	Slant pole arm assembly	T	4	(W4),(L4b),(P4a),(P4b)	4c	
(4c)	Drum assembly	T	4	3(S4)	4b	
(5a)	Guide roller (S) assembly	T	5	(P5)	5a, 5b	
(5b)	Rail assembly	T	5	3(W5)	5c, 5d	
Ⓑ	Slide deck assembly / Ⓒ Main deck assembly	T	6	(W6),(L6a)-(L6d)	6a, 6b	(Adjustment)
Ⓑ	Slide deck assembly					
(7a)	Loading brake assembly	T	7	(W7),(L7a),(P7a)	7c	Adjustment
(7b)	Guide pin (SUPPLY)	T	7	(S7a)	-	
(7c)	Pad arm assembly	T	7	(W7),(L7b),(P7b)	7d	
(7d)	Slide guide plate assembly	T	7	(S7b)	7c	Adjustment
(7e)	Collar	T	7	-	7a	
(7f)	Collar	T	7	-	7a	
(7g)	Sub brake assembly	T	7	(W7),(L7c),(P7c)	7b	
(7h)	Control plate assembly	T	7	2(W7),(L7d),(P7d)	7b	
Ⓒ	Main deck assembly					
(8a)	Tension lever assembly	T	8	-	8c	
(8b)	Slide lever assembly	T	8	-	8b	
(8c)	Brake control lever assembly	T	8	-	8a	
(9a)	Loading guide	T	9	(S9)	-	
(9b)	Timing belt	T	9	-	9b	
(9c)	Center gear assembly	T	9	-	-	
(9d)	Motor bracket assembly	T	9	2(S9)	9a	
(9e)	Worm wheel	T	9	(W9)	-	(Phase adjustment)
(9f)	Gear holder	T	9	(S9)	-	
(10a)	Main cam gear	T	10	(S10)	10b	Phase adjustment
(10b)	Brake control plate	T	10	(L10)	10b	Phase adjustment
(10c)	Rotary encoder	T	10	(S10),(W10a)	10a	Phase adjustment
(10d)	Connect gear	T	10	(W10a)	-	(Phase adjustment)
(10e)	Reel drive pulley assembly	T	10	(W10b)	-	
(11a)	Catcher (T) assembly	T	11	2(S11)	-	
(11b)	Capstan motor	T	11	2(S11)	-	
(11c)	Charge arm assembly	T	11	(W11)	11	
(11d)	Sub cam gear	T	11	(S11)	-	Phase adjustment
(11e)	PWB holder	B	11	2(S11)	-	

Table 2-2-2

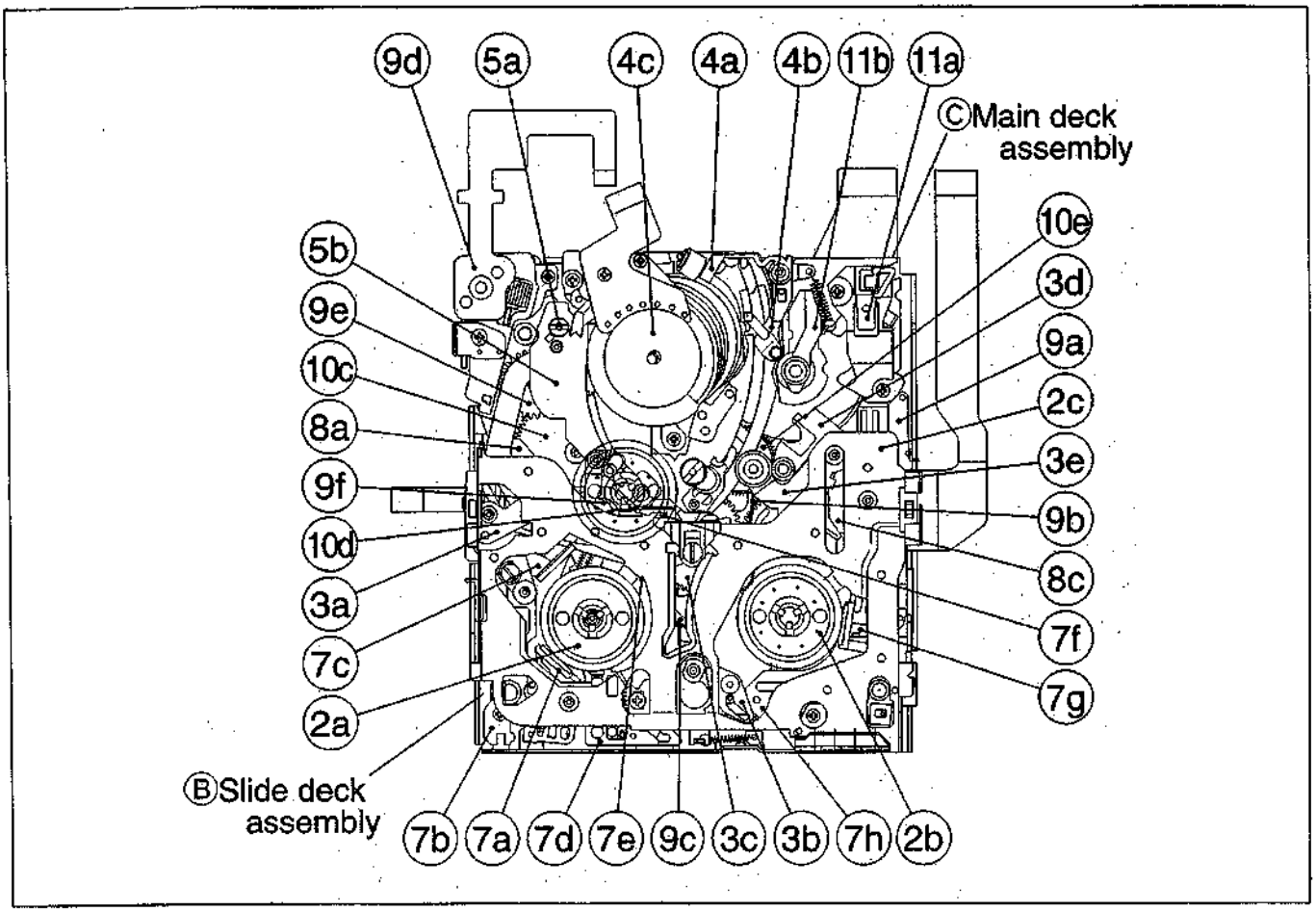


Fig. 2-2-10 Top view

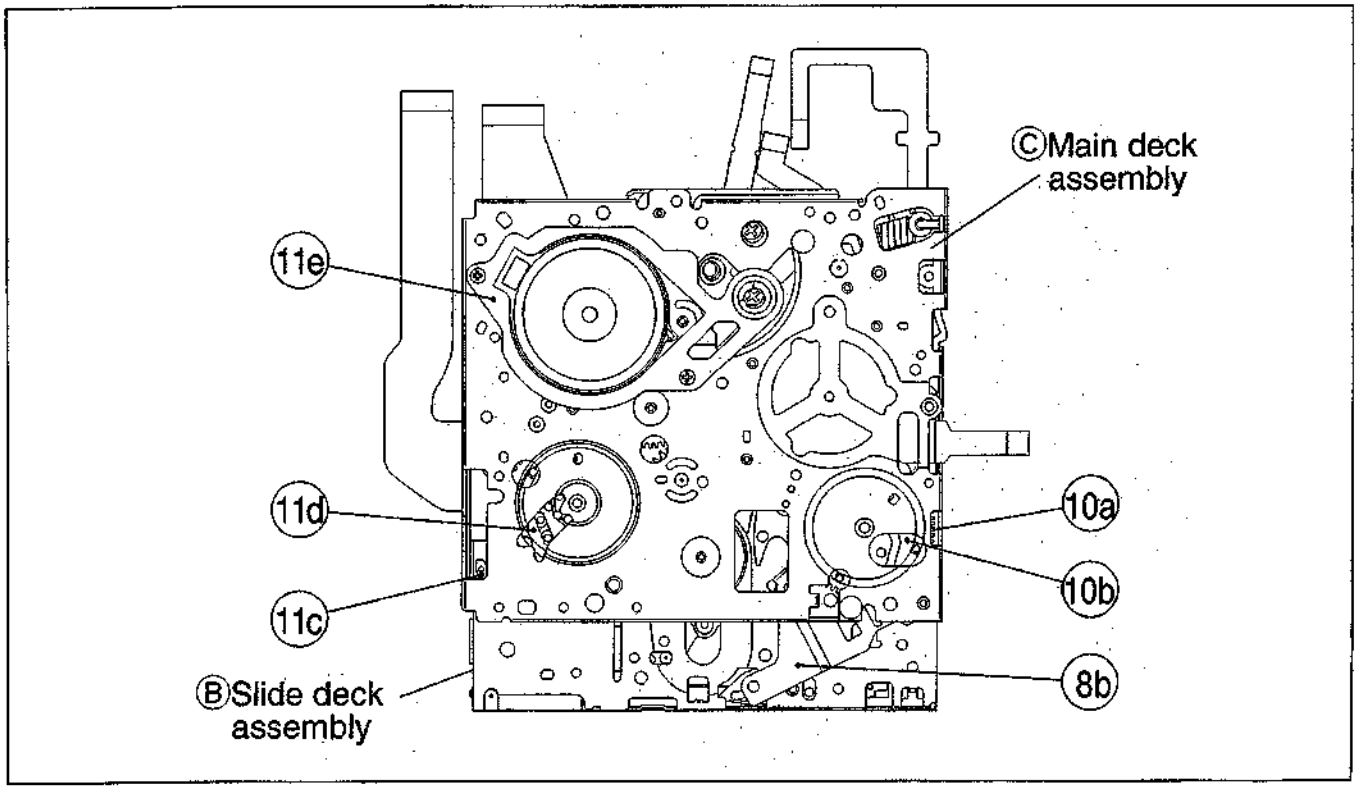


Fig. 2-2-11 Bottom view

2.2.5 Disassembly/assembly

1. Ⓐ Cassette housing assembly

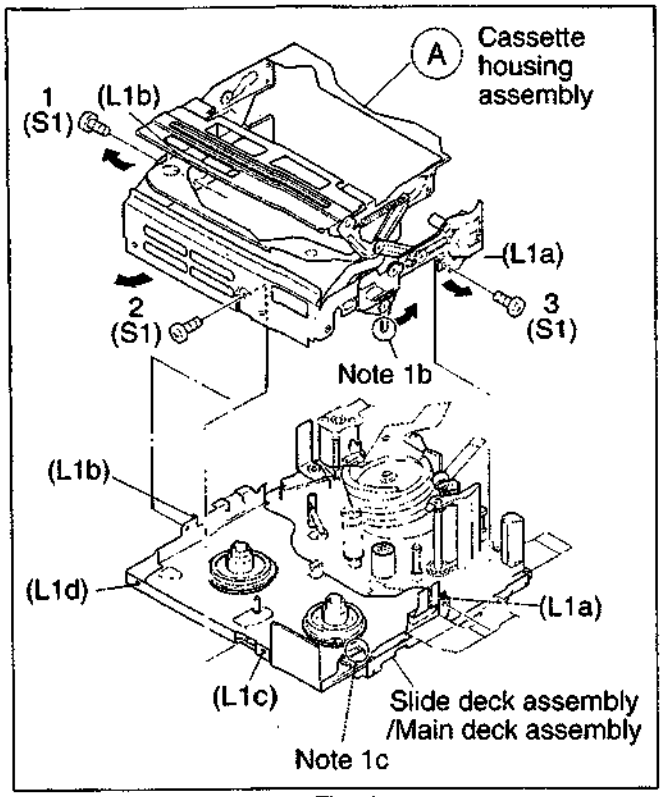
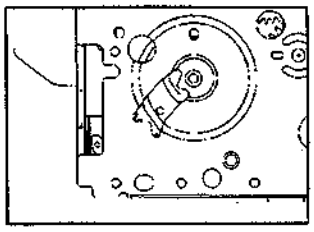
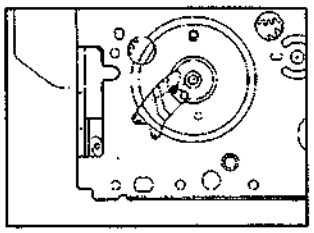


Fig. 1

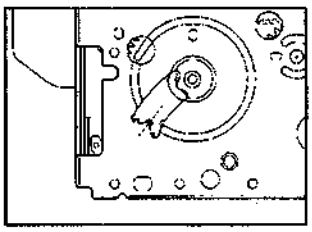
<STOP mode>



<EJECT mode>



<PLAY mode>



Note 1a:
Shift the mechanism mode from the STOP mode to the EJECT mode.

Note 1b:
Reassemble the cassette housing assembly to the mechanism as the cancel lever is moved in the direction of the arrow.

Note 1c:
When reassembling the cassette housing to the mechanism, make sure that there is no deformation in the frame or no damage to the switches, etc.

Note 1d:
After reassembling the component parts, check the mechanism operation in the PLAY mode.
For details of checking method, refer to "2.2.8 assembling slide deck assembly and main deck assembly".

2. (2a) Reel disk (SUP) assembly
(2b) Reel disk (TU) assembly
(2c) Reel cover assembly

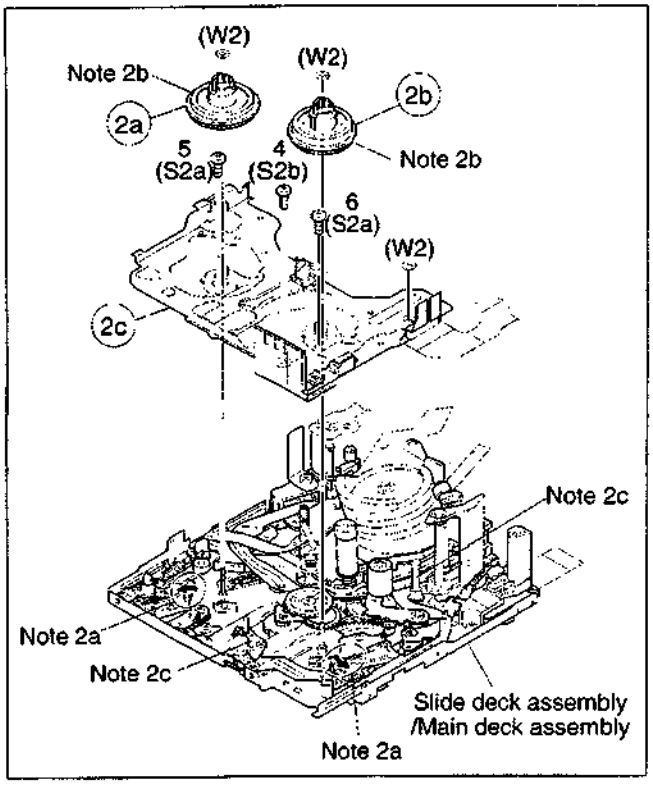
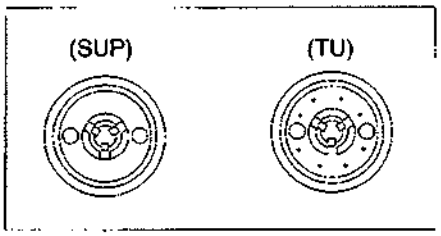


Fig. 2

Note 2a:
When removing the reel disk assembly, be careful not to break the brake pad which applies lateral pressure to the reel disk.

Note 2b:
Be careful not to make a mistake in installing the reel disk.
The SUP reel disk and TU reel disk can be distinguished from each other by the appearance as shown below.



Note 2c:
When removing the reel cover assembly, pay heed to the guide arm assembly. For, the guide arm assembly is just inserted into the slide deck assembly from the upside and it is apt to come off after the reel cover assembly is removed.

Note 2d:
When fitting the reel cover assembly to the set, carefully tighten the screw with the specified tightening torque of 0.068N·m (0.7kgf·cm).

3. (3a) Tension arm assembly/ (3b) Release guide assembly
(3c) Idler arm assembly/ (3d) Guide arm assembly
(3e) Pinch roller arm assembly

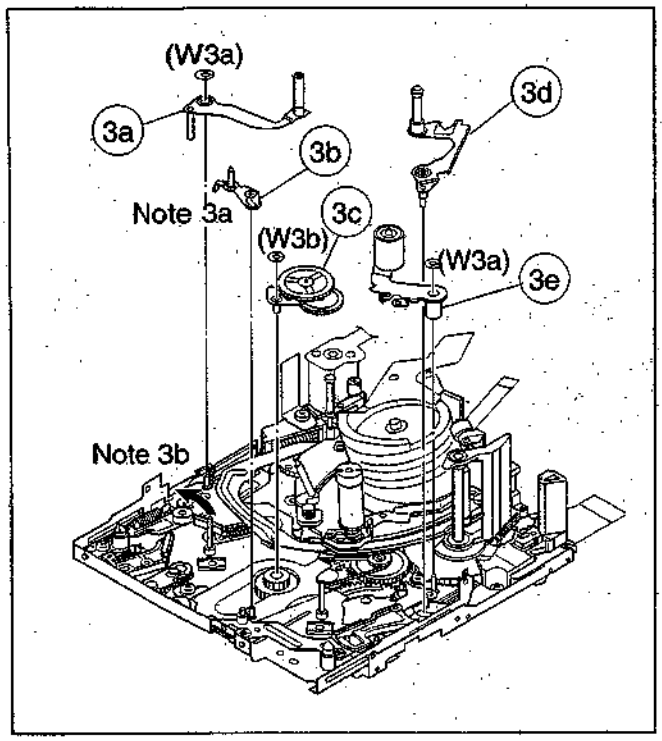
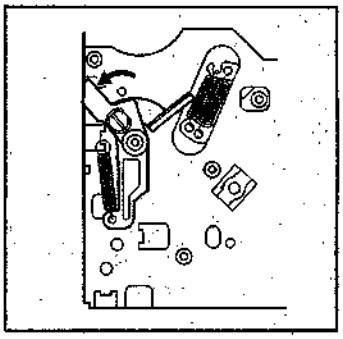


Fig. 3

Note 3a:
When removing the reel cover assembly, pay heed to release guide assembly and guide arm assembly. For, the guide arm assembly is just inserted into the slide deck assembly from the upside and it is apt to come off after the reel cover assembly is removed.

Note 3b:
Reassemble the tension arm assembly to the mechanism as the pad arm assembly is moved to the extent in the direction of the arrow.



4. (4a) Cleaner arm assembly/ (4b) Slant pole arm assembly
(4c) Drum assembly

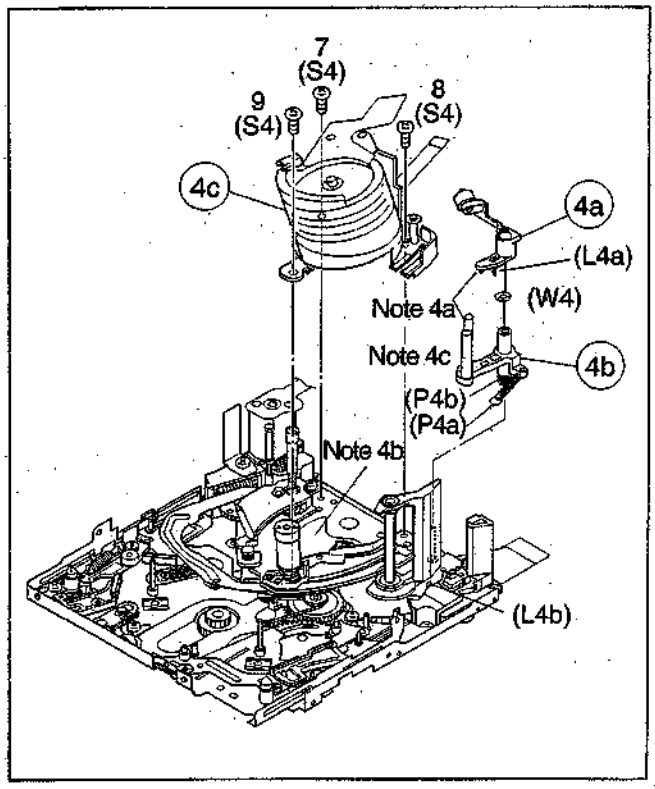
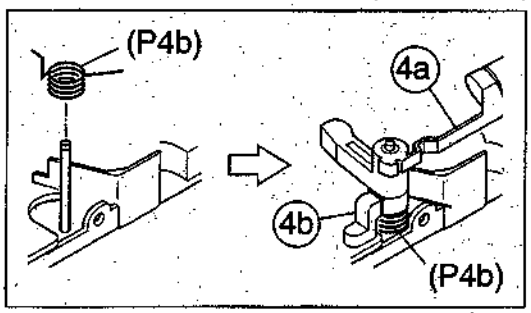


Fig. 4

Note 4a:
When removing the cleaner arm assembly, it is recommended to remove the slant pole arm assembly together with it except the case of a single unit replacement, because the hook (L4a) is hard to disengage.

Note 4b:
When the shield is applied, carefully remove the drum final assembly because the drum is stuck to the shield.

Note 4c:
How to set the coil spring (P4b).



5. (5a) Guide roller (SUPPLY) assembly/ (5b) Rail assembly

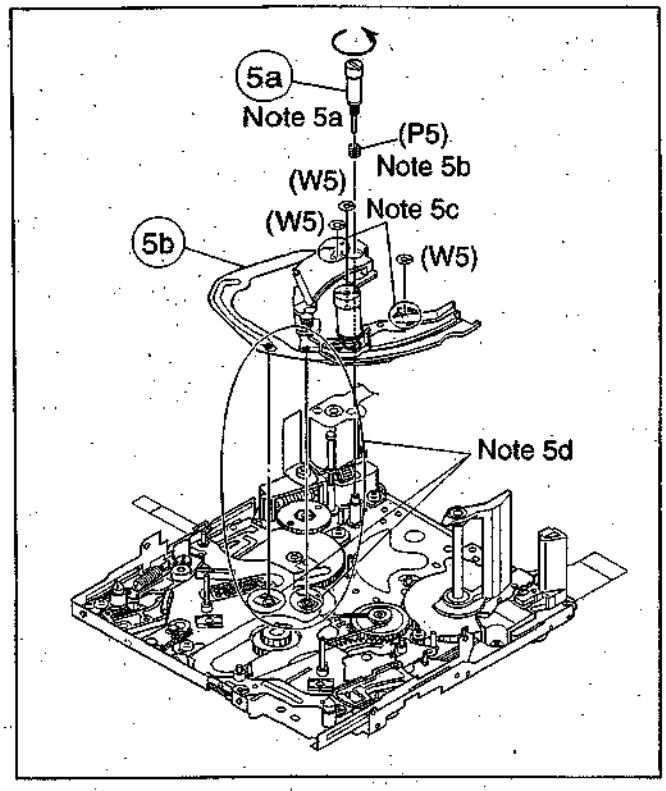


Fig. 5

Note 5a:
When removing the rail assembly, remove the guide roller (SUPPLY) assembly beforehand.

Note 5b:
Pay careful attention to the spring not to lose it.

Note 5c:
Pay careful attention to the engagement of the rail assembly's arm ends because they easily come off the engagement. Moreover, make sure that there is neither deformation nor damage observed in them.

Note 5d:
When removing the rail assembly, check to see if the collar is securely set in the arm groove.

6. (B) Slide deck assembly/ (C) Main deck assembly

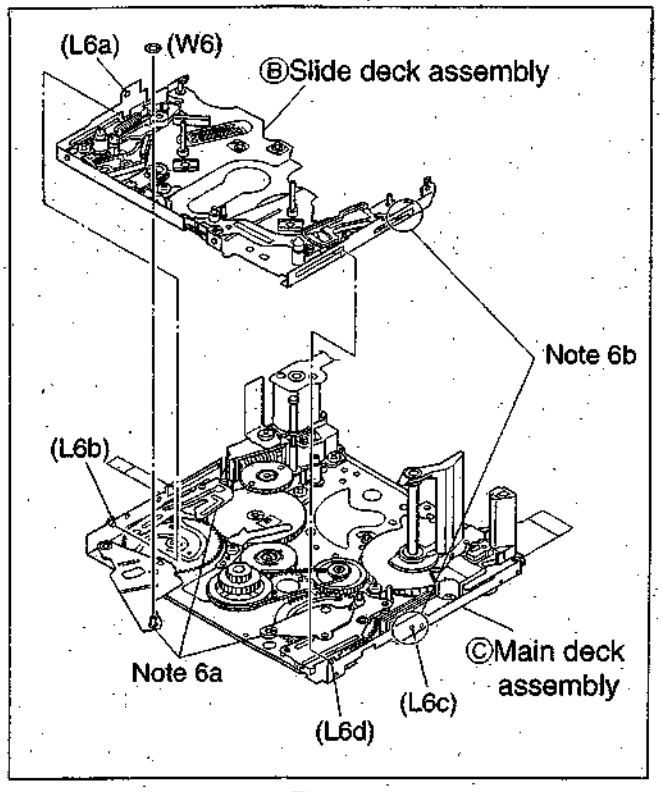
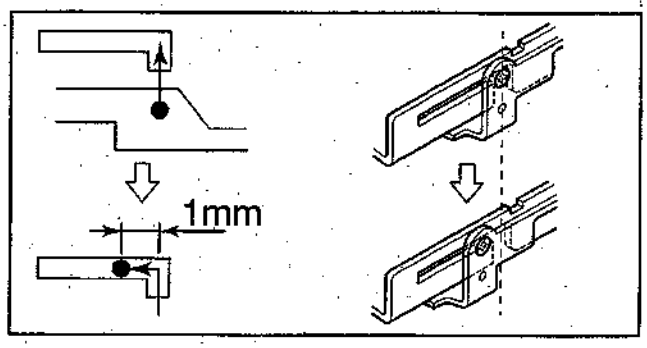


Fig. 6

Note 6a:
When removing the slide deck assembly, pay heed to the three components of the following because they are apt to come off after the slide deck assembly is removed.

(8a) Tension lever assembly/ (8b) Slide lever assembly
(8c) Brake control lever assembly
For reassembling those components, refer to Fig. 8.

Note 6b:
When reassembling the slide deck assembly to the main deck assembly, combine them with each other by the side grooves and then slide the slide deck assembly by 1 mm or so.



7. (7a) Loading brake assembly/ (7b) Guide pin (S)
(7c) Pad arm assembly/ (7d) Slide guide plate assembly
(7e) Collar/ (7f) Collar/ (7g) Sub brake assembly
(7h) Control plate assembly

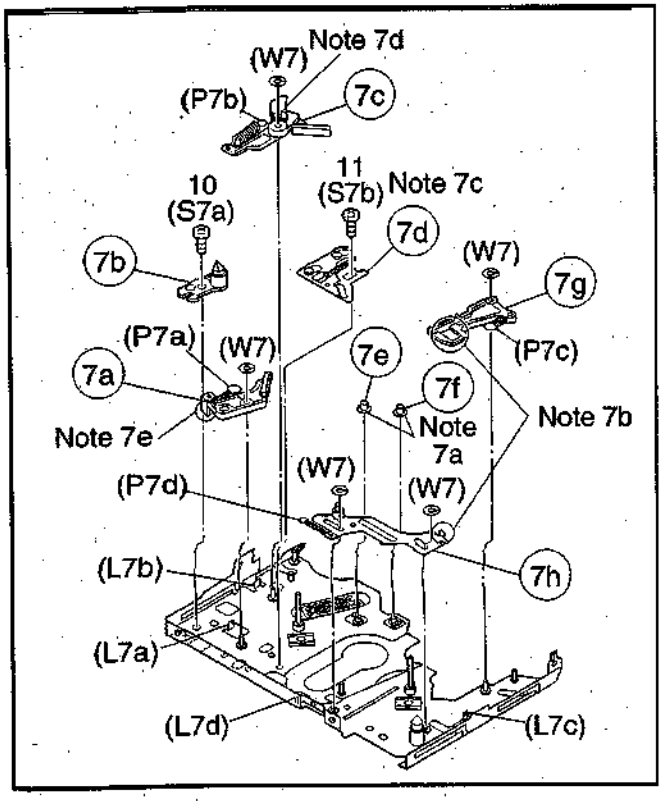


Fig. 7

8. (8a) Tension lever assembly/ (8b) Slide lever assembly
(8c) Brake control lever assembly

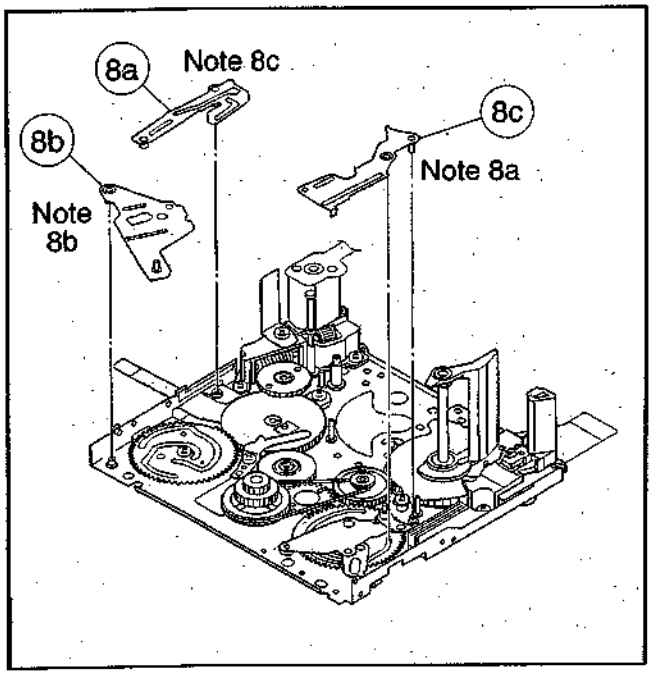
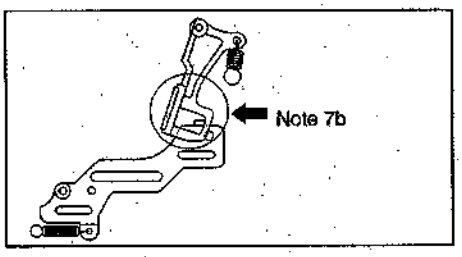


Fig. 8

Note 7a:
Don't remove these parts unreasonably. If they are removed for some reason, be very careful not to lose them.

Note 7b:
When reinstalling the sub brake assembly, set the control plate assembly so that its hook is set in the # part of the sub brake assembly.



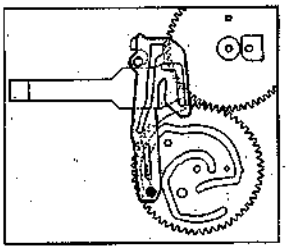
Note 7c:
Since the slide guide plate assembly controls the slide deck assembly so that it exactly slides the main deck assembly, it must exactly be assembled in the PLAY mode. Therefore, temporarily fix the slide guide plate assembly in this stage. For details of reassembling procedure, refer to "2.2.8 *Assembling slide deck assembly and main deck assembly*" on page 32.

Note 7d:
The pad arm assembly controls the tension level of the tension arm assembly. For adjustment of the tension arm assembly, refer to page 25.

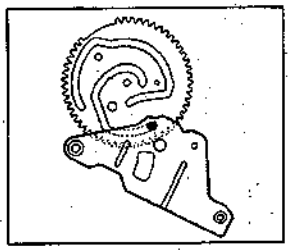
Note 7e:
When reinstalling the load brake assembly, slightly lift the slide deck assembly upwards because the lower part of the load brake assembly sticks out of the slide deck assembly.

Note 8a, 8b, 8c:
For refitting the respective parts, refer to the following figures

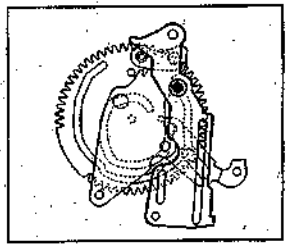
(8a) Tension lever assembly



(8b) Slide lever assembly



(8c) Brake control lever assembly



9. (9a) Loading guide/ (9b) Timing belt
(9c) Center gear assembly/ (9d) Motor bracket assembly
(9e) Worm wheel/ (9f) Gear holder

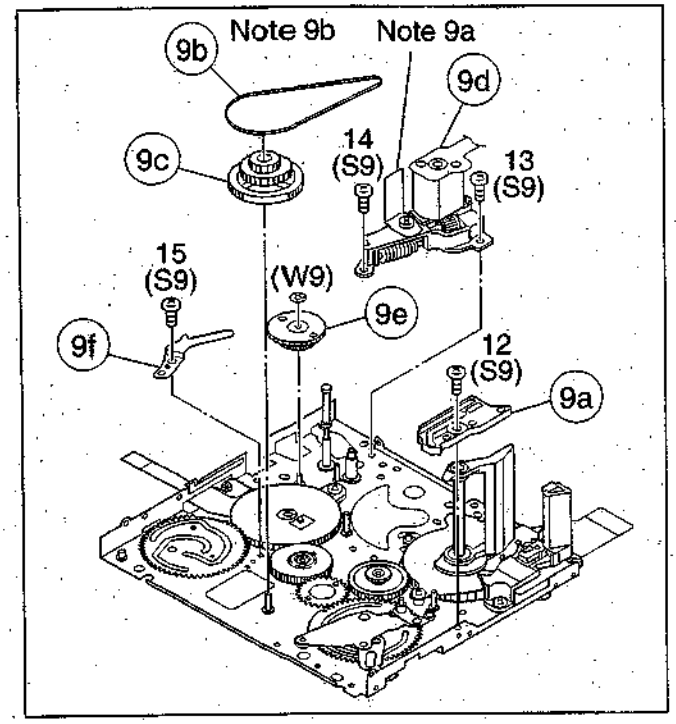


Fig. 9

Note 9a:
Carefully handle the DEW sensor. (Don't touch the sensor surface in particular.)

Note 9b:
When engaging the timing belt, make sure that it securely engages with the gears of both the center gear assembly and reel drive pulley assembly.

10. (10a) Main cam gear/ (10b) Brake control plate
(10c) Rotary encoder/ (10d) Connect gear
(10e) Reel drive pulley assembly

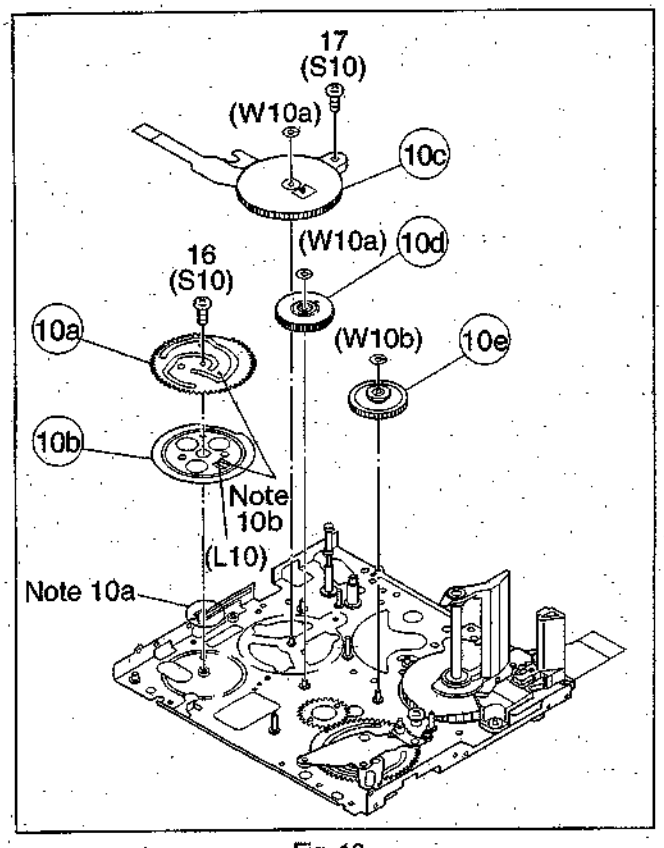
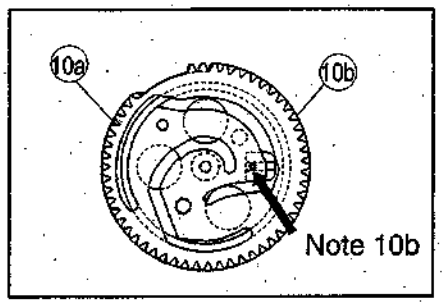


Fig. 10

Note 10a:
When removing/refitting parts, pay careful attention to the flexible board and so on not to damage them.

Note 10b:
When reinstalling the main cam gear and the brake control plate, first fit them together so that the protrusion on the brake control plate is set in the slot on the main cam gear as shown below, next install the two together to the main deck assembly.



11. (11a) Catcher (T) assembly/ (11b) Capstan motor
(11c) Charge arm assembly/ (11d) Sub cam gear
(11e) PWB holder

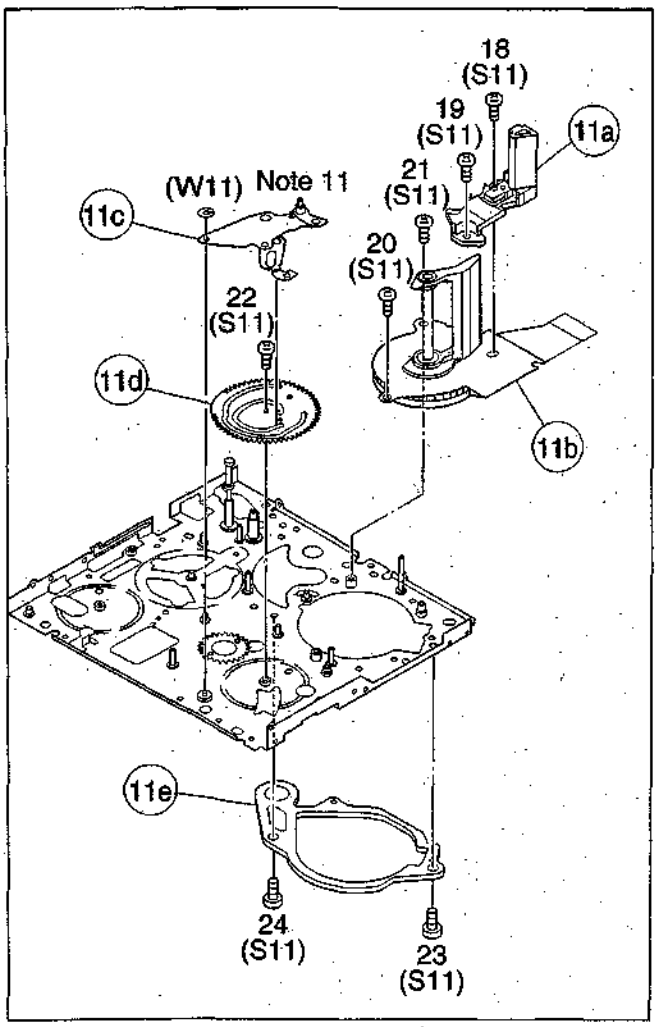
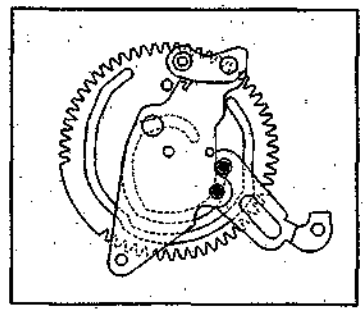
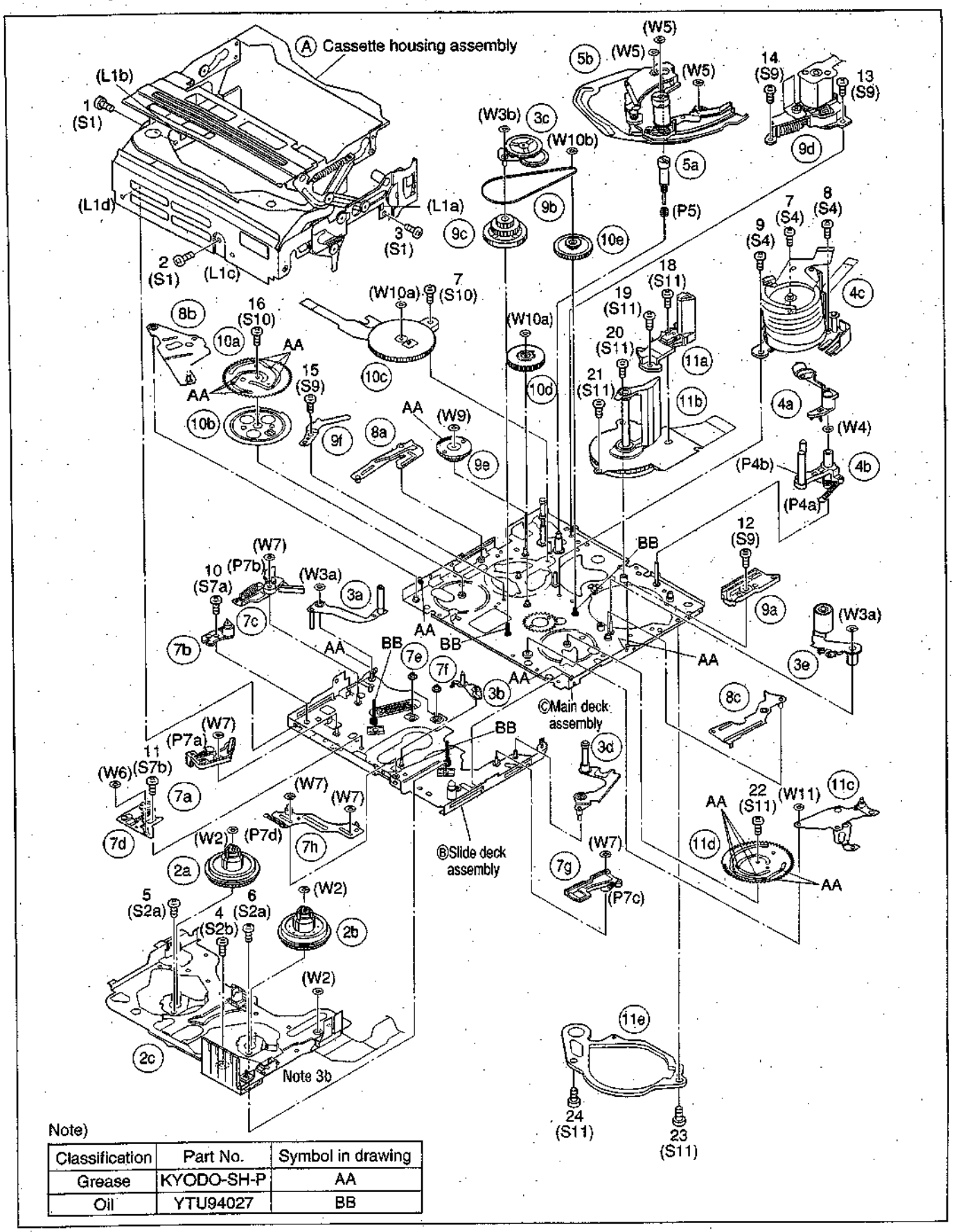


Fig. 11

Note 11:
The following figure shows how to put the charge arm assembly and sub cam gear assembly together.



2.2.6 List of procedures for disassembly

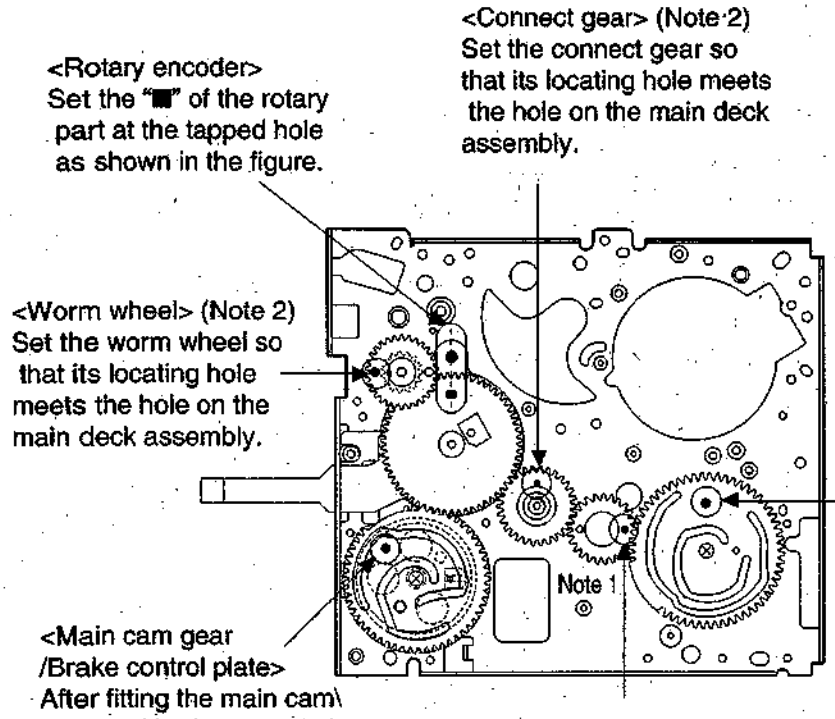


Note)

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-P	AA
Oil	YTU94027	BB

Fig. 2-2-12

2.2.7 Checkup and adjustment of mechanism phase



<Rotary encoder>
Set the "■" of the rotary part at the tapped hole as shown in the figure.

<Connect gear> (Note 2)
Set the connect gear so that its locating hole meets the hole on the main deck assembly.

<Worm wheel> (Note 2)
Set the worm wheel so that its locating hole meets the hole on the main deck assembly.

<Sub cam gear>
Set the sub cam gear so that its locating hole meets the hole on the main deck assembly. This state represents that the mechanism is in the EJECT mode, which is the "mechanism assembly mode".

<Main cam gear /Brake control plate>
After fitting the main cam\ gear and brake control plat together,set them together so that their locating holes meet the hole on the main \ deck assembly.

<Connect gear 2> (Note 2)
Set the connect gear 2 so that its locating hole meets the hole on the main deck assembly.

Note 1:
Since the connect gear 2 is tightly fixed to the main deck by caulking, adjust its phase with the connect gear and sub cam gear.

Note 2:
The part that needs phase adjustment by the hole on the main deck assembly must exactly be set as the specified phase. There is a fear that some part is installed in a wrong phase because assembling of the mechanism is automated. If so, set every part in the correct phase whenever the mechanism is reassembled.

Fig. 2-2-13

2.2.8 Assembling slide deck assembly and main deck assembly

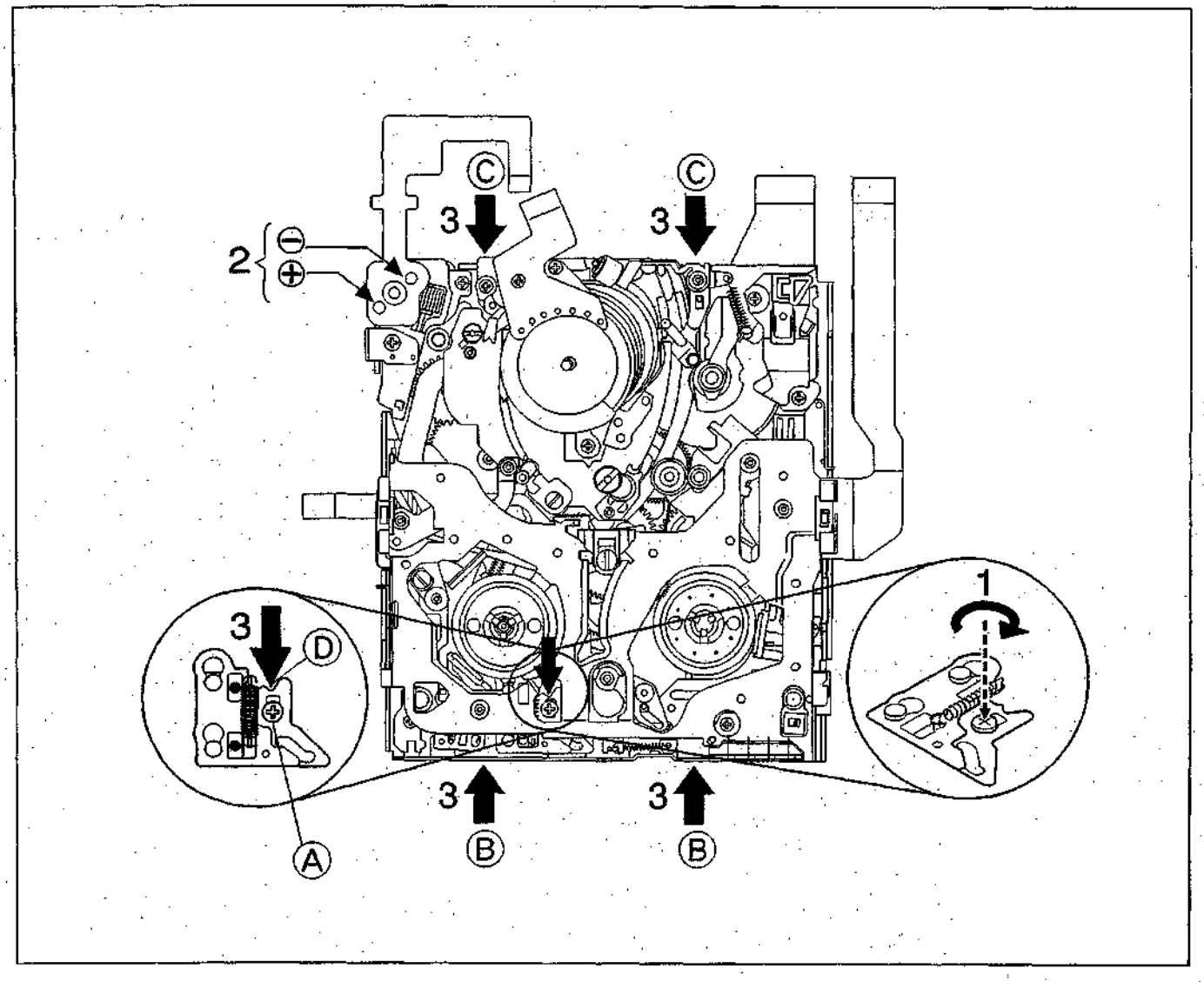


Fig. 2-2-14

Assembling procedure

1. Loosen the screw Ⓐ.
2. Set the mechanism in the PLAY mode. (Refer to page19)
3. Press the end face B of the slide deck assembly (reel disk side) and the end face Ⓒ of the main deck assembly (drum assembly side) with uniform force so that the two assemblies are tightly pressed to each other. Furthermore, press the part Ⓓ and tighten the screw Ⓐ.

Note : *Tightening torque for screw Ⓐ: 0.029 N·m (0.3 kgf·cm)*

2.2.9 Locating tension pole

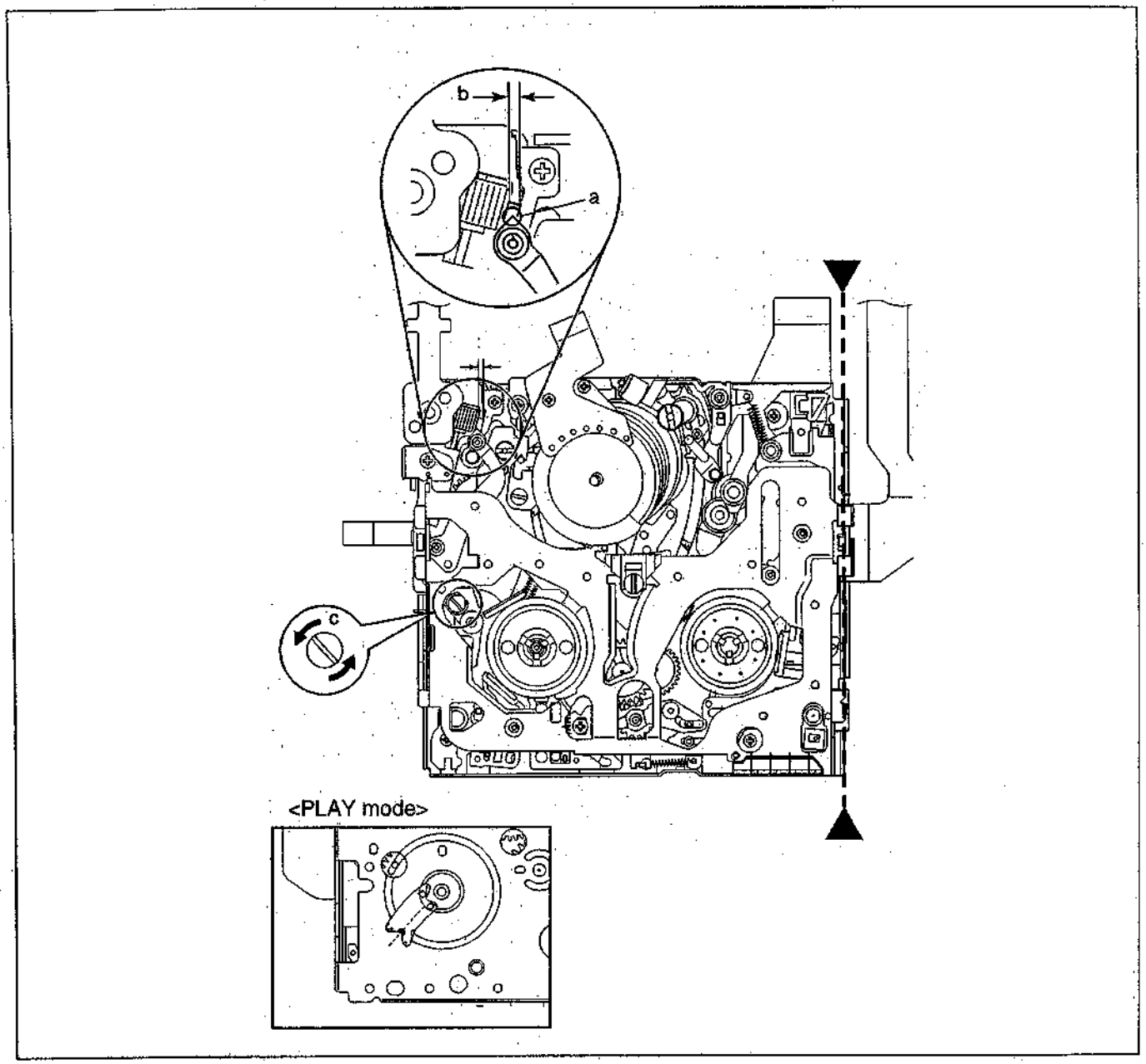


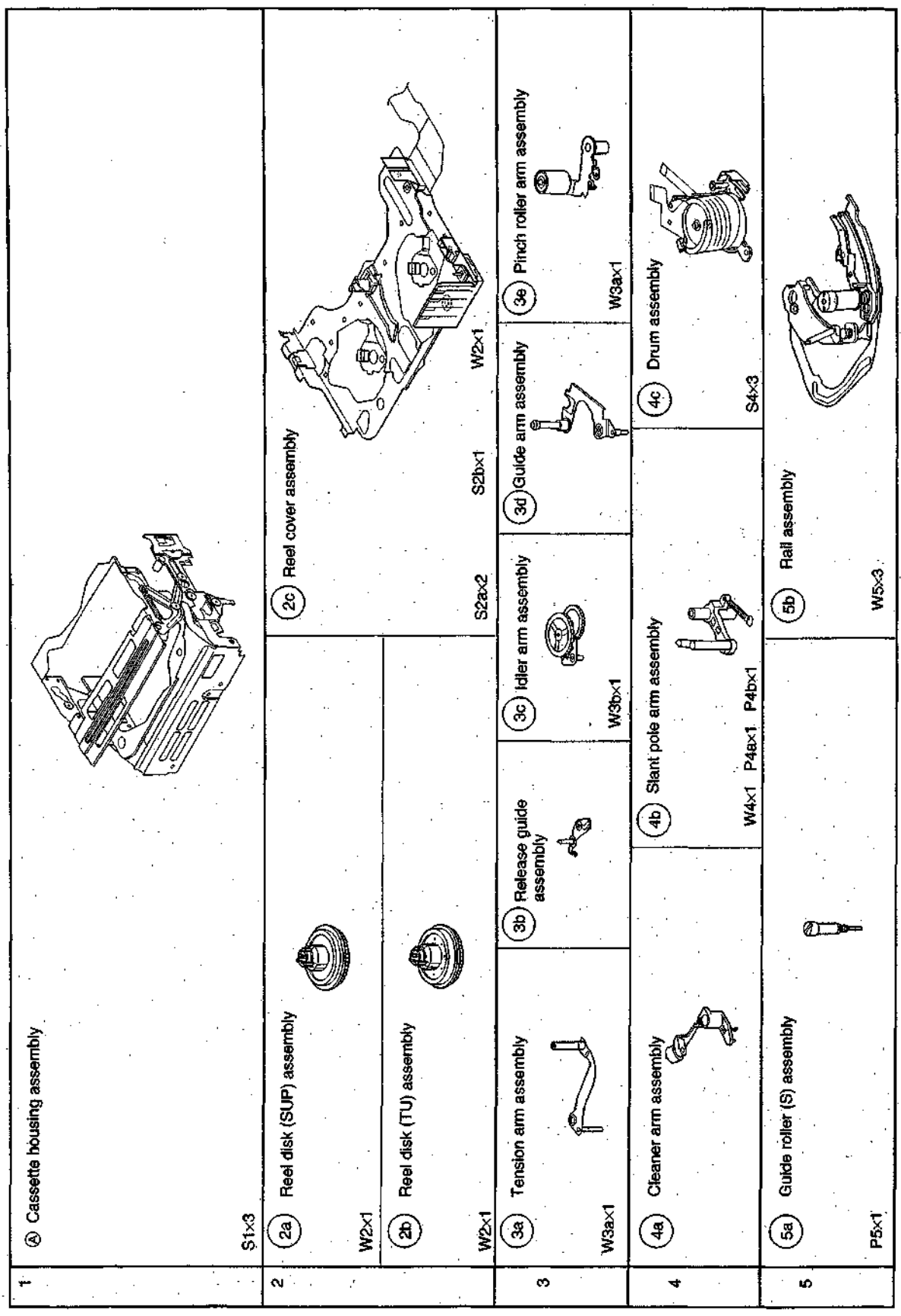
Fig. 2-2-15

Locating procedure

1. Enter the mechanism assembly into the PLAY mode. (Refer to page 19)
2. When the " ▶------◀ " part is positioned down, make sure that the part "a" of the tension arm assembly is located within the range of "b".
3. If the part "a" is out of the range, turn the pin "c" to adjust the position.

2.3 SERVICE NOTE

Use the following chart to manage mechanism parts that are removed for disassembling the mechanism.



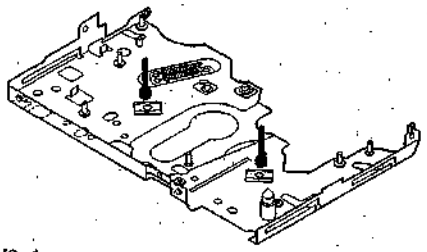
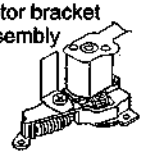
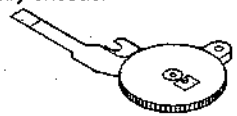
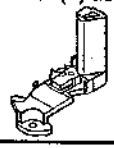
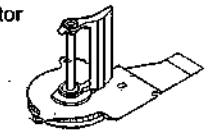
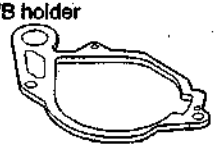
6	Ⓑ Slide deck assembly  W6×1	7	(7a) Loading brake assembly  W7×1 P7a×1	(7b) Guide pin (SUPPLY)  S7a×1	(7c) Pad arm assembly  W7×1 P7b×1	(7d) Slide guide plate assembly  S7b×1 W7×1
			(7e) Collar 	(7f) Collar 	(7g) Sub brake assembly  W7×1 P7c×1	(7h) Control plate assembly  W7×2 P7d×1
8	(8a) Tension lever assembly 		(8b) Slide lever assembly 		(8c) Brake control lever assembly 	
9	(9a) Loading guide  S9×1	(9b) Timing belt 	(9c) Center gear assembly 	(9d) Motor bracket assembly  S9×2	(9e) Worm wheel  W9×1	(9f) Gear holder  S9×1
10	(10a) Main cam gear  S10×1	(10b) Brake control plate 	(10c) Rotary encoder  S10×1 W10a×1		(10d) Connect gear  W10a×1	(10e) Reel drive pulley assembly  W10b×1
11	(11a) Catcher (T) assembly  S11×2	(11b) Capstan motor  S11×2	(11c) Charge arm assembly  W11×1	(11d) Sub cam gear  S11×1	(11e) PWB holder  S11×2	

Table 2-3-1

SECTION 3
ELECTRICAL ADJUSTMENT

3.1 PREPARATION BEFORE ADJUSTMENT

3.1.1 Precautions

Both the deck and camera sections of this model are designed to be adjustment-free. However, if the following part is replaced, the set must be brought into a service center having a complete set of service equipment, because it needs special adjustment with a personal computer in such a case.

- OP block
- E²PROM (IC1003 on MAIN board)
- MONITOR
- E²PROM (IC7210 on MONITOR board)

When there is some trouble with the electric circuit, it is required to detect the part of the failure with specified test instruments first and then to proceed to adjustment, repair or replacement. Matters that require attention:

(1) When checking at a chip test point, be sure to use an IC clip or the like not to apply it any stress.
When replacing a chip part (IC in particular), completely remove solder from it and its periphery before replacement (to avoid exfoliation of the pattern).
(2) Carefully connect/disconnect a connector because it is apt to get damaged.

3.1.2 Required test equipment

(1) Personal computer (operated on Windows OS)
(2) Color video monitor
(3) Oscilloscope (dual-trace type, observable 100 MHz or higher frequency)
* It is recommended to use one observable 300 MHz or higher frequency.
(4) Digital voltmeter
(5) DC power supply
(6) Frequency counter (with threshold level adjustment)

3.1.3 Jigs necessary for electrical adjustment

For jigs necessary for electrical adjustment, refer to pages 2 and 3 of the Section 1.

3.1.4 Setup

Note: *For adjustment with a personal computer, basically use the JLIP terminal of the set for connecting the personal computer.*

1. For connecting personal computer directly to the set.
(For checking the set status before disassembling.)

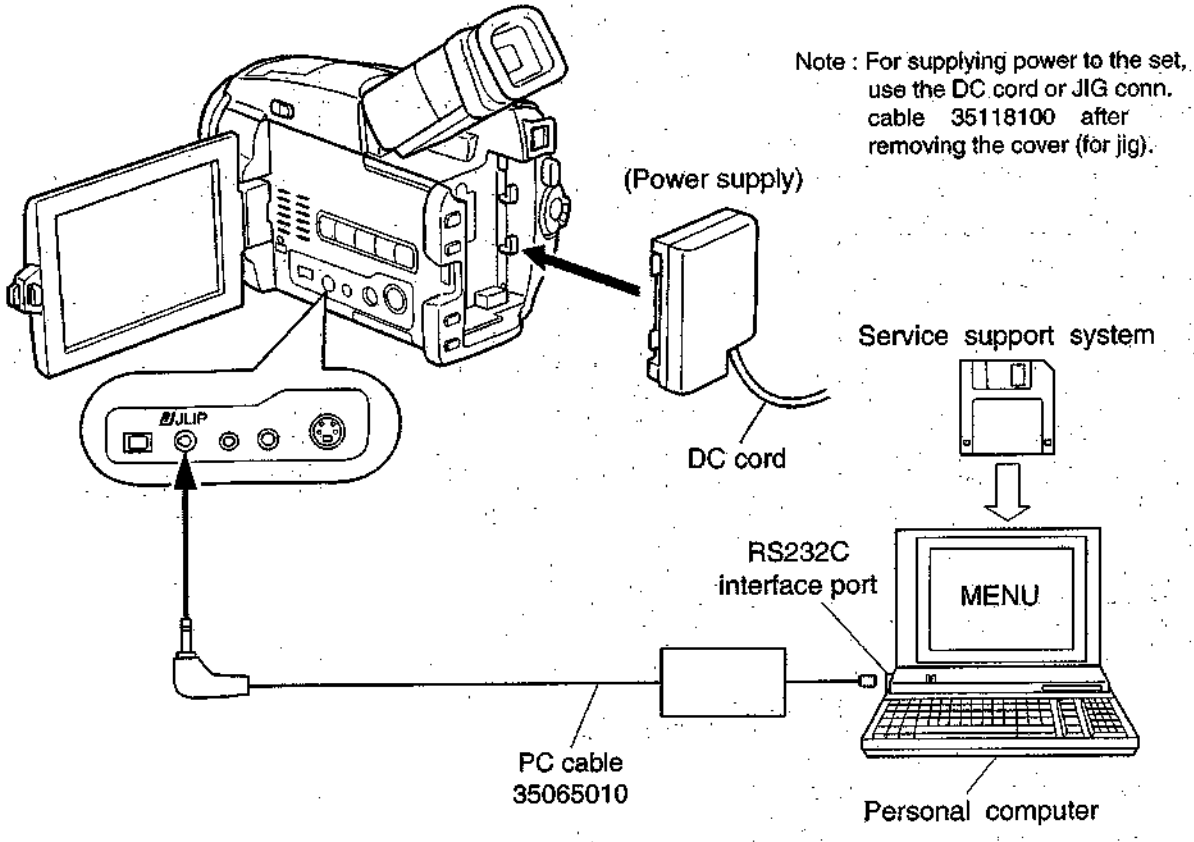


Fig. 3-1-1 Setup for electrical adjustment with personal computer (I)

2. Setup with patch cords and jig connector cables

NOTE:

Fig. 3-1-2 shows an example of expansion setup that facilitates inspection of major boards because main components are connected by means of patch cords and jig cables. For proceeding to electrical adjustment in such the setup, disassemble the set at a certain level required for the current adjustment objectives referring to the section 1 "DISASSEMBLY" and properly set up the expanded set and test instruments.

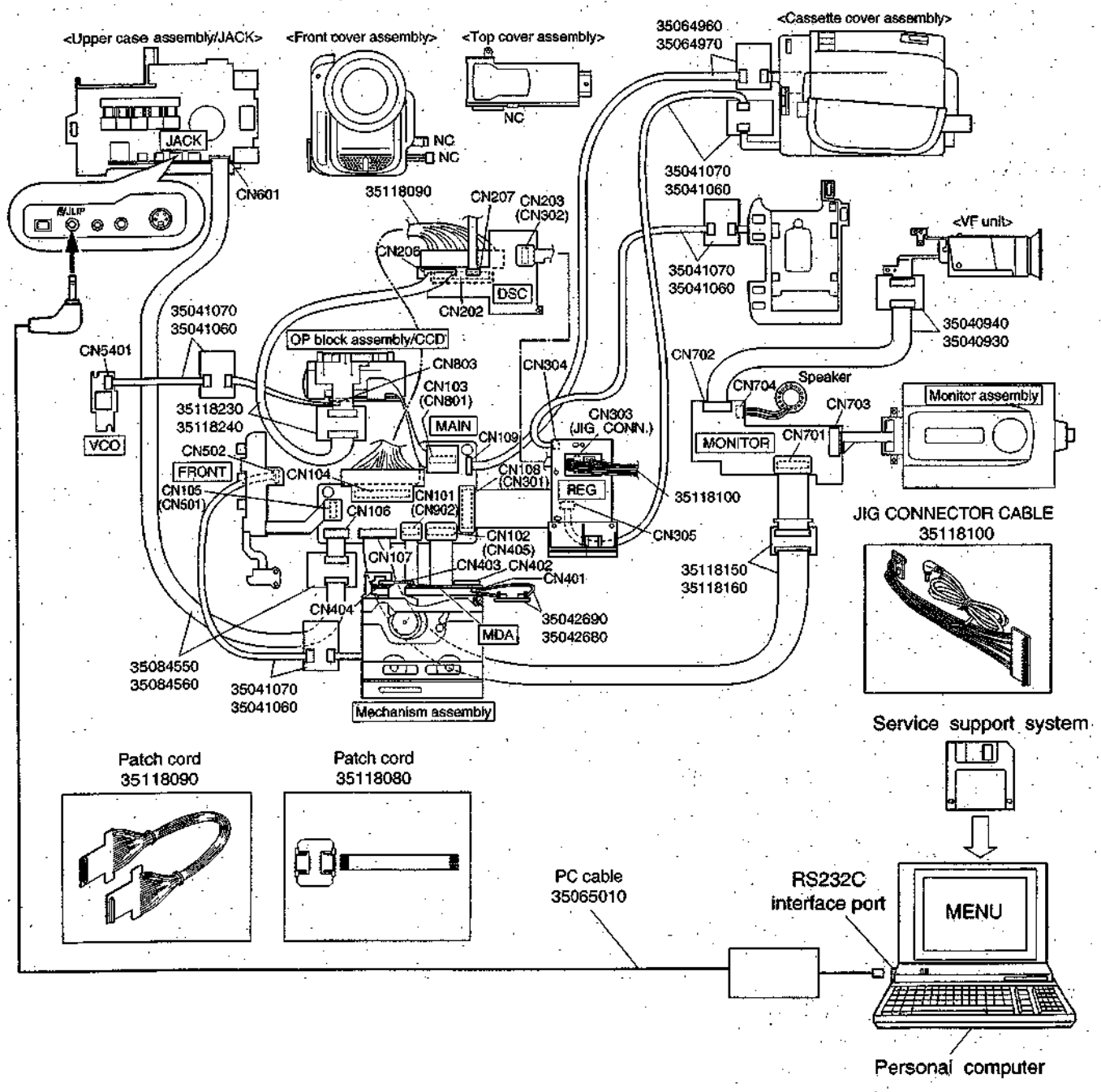


Fig. 3-1-2 Setup for electrical adjustment with personal computer (II)

3.2 MONITOR ADJUSTMENT

Note: *Unless otherwise specified, all measurement points and adjustment parts are located on MONITOR board.*

3.2.1 PLL (MONI)

Subject	• Camera picture • Gray scale
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• IC7300 pin 24 (RPD)
Adjustment part	• R7338 (PLL MONI)
Specification	• A = B

1) Observe waveform at pin 24 of the IC7300.
2) For the waveform shown in the waveform chart (Fig. 3-2-2), equalize the width of A and B with each other by adjusting R7338.

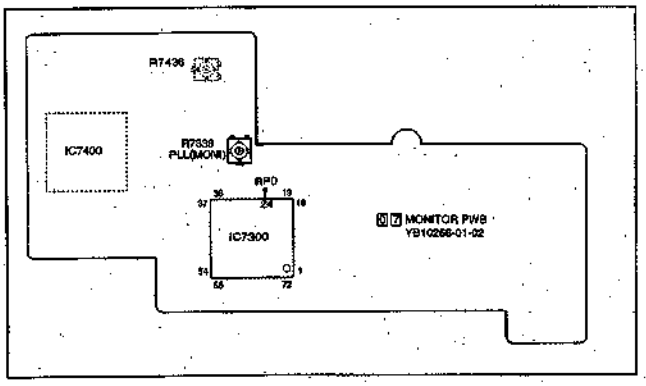


Fig. 3-2-1 MONITOR board (FOIL SIDE)

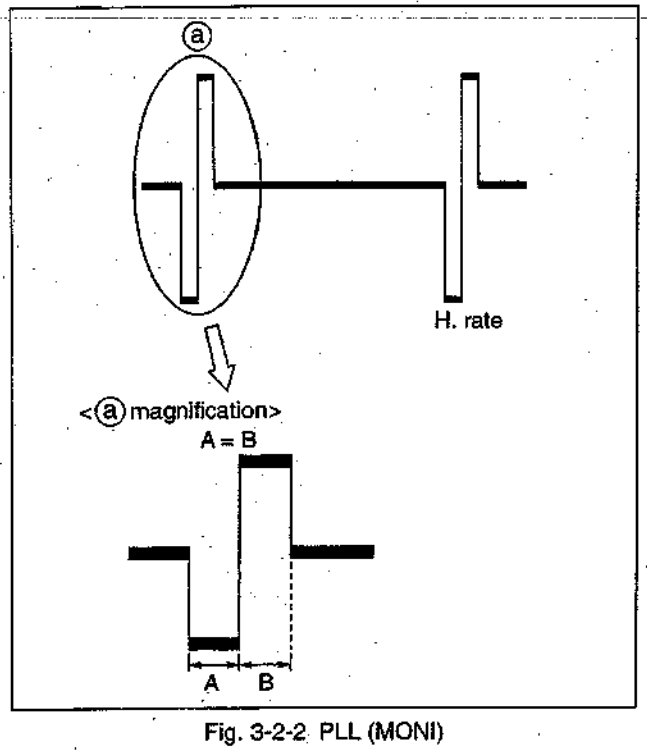


Fig. 3-2-2 PLL (MONI)

3.3 ELECTRONIC VIEWFINDER (E. VF) ADJUSTMENT

Note: *Unless otherwise specified, all measurement points and adjustment parts are located on MONITOR board.*

3.3.1 PLL (VF)

Subject	• Camera picture • Gray scale
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• IC7400 pin 24 (RPD)
Adjustment part	• R7436 (PLL VF)
Specification	• A = B

1) Observe waveform at pin 24 of the IC7400.
2) For the waveform shown in the waveform chart (Fig. 3-3-2), equalize the width of A and B with each other by adjusting R7436.

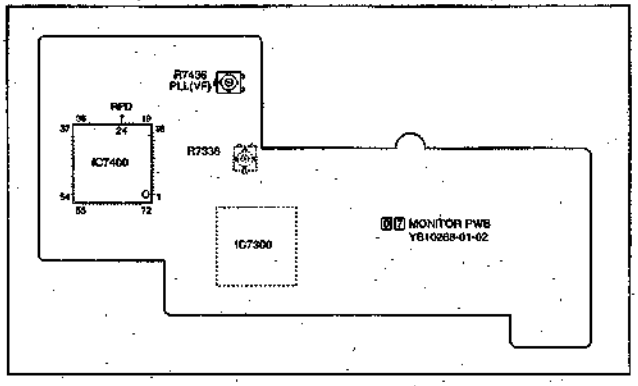


Fig. 3-3-1 MONITOR board (FOIL SIDE)

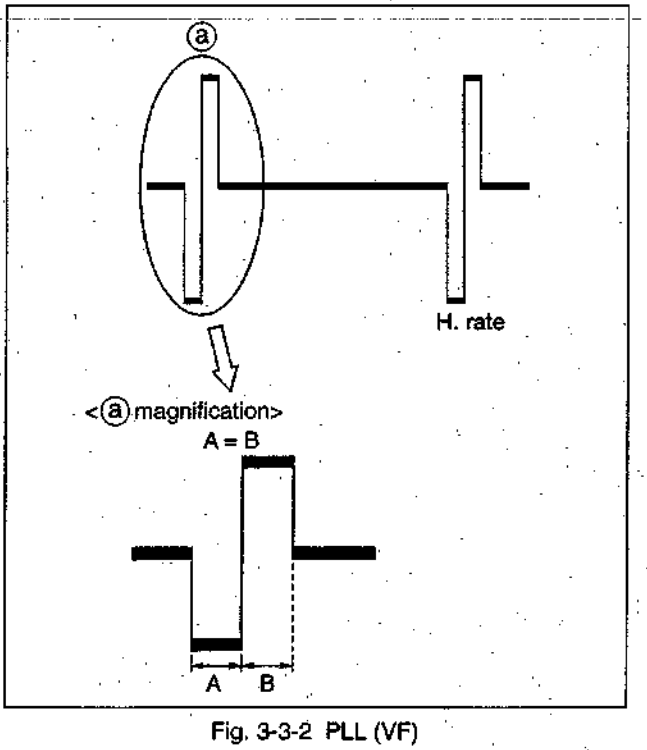


Fig. 3-3-2 PLL (VF)

3.4 MPL ADJUSTMENT

Notes: • *This adjustment minimizes vertical line noise that appears at a low illuminance.*
- *Unless otherwise specified, all measurement points and adjustment parts are located on MPL board.*
- *Set the switches as shown below unless otherwise specified on the relevant adjustment chart. The switches that are not listed below can be set as desired.*

GAIN UP	AGC (ON)
SHUTTER SPPED	1/50

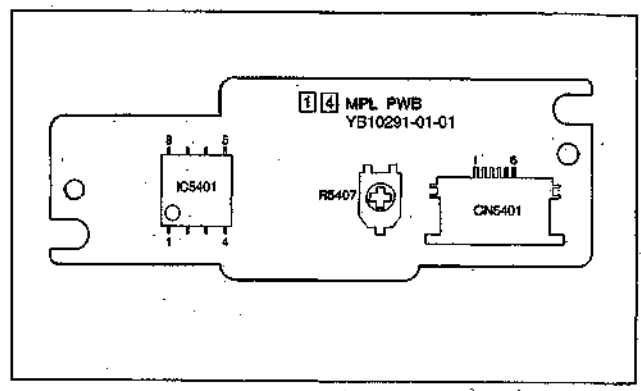


Fig. 3-4-1 MPL board (COMPONENT SIDE)

3.4.1 MPL

Subject	• Camera picture
Mode	• EE
Equipment	• –
Measurement point	• TV monitor
Adjustment part	• R5407 (MPL)
Specification	• Minimum level

1) While looking through the TV monitor, adjust the R5407 so that the vertical line noise is minimized.

3.5 FUSE LOCATION

3.5.1 REG PWB (FOIL SIDE)

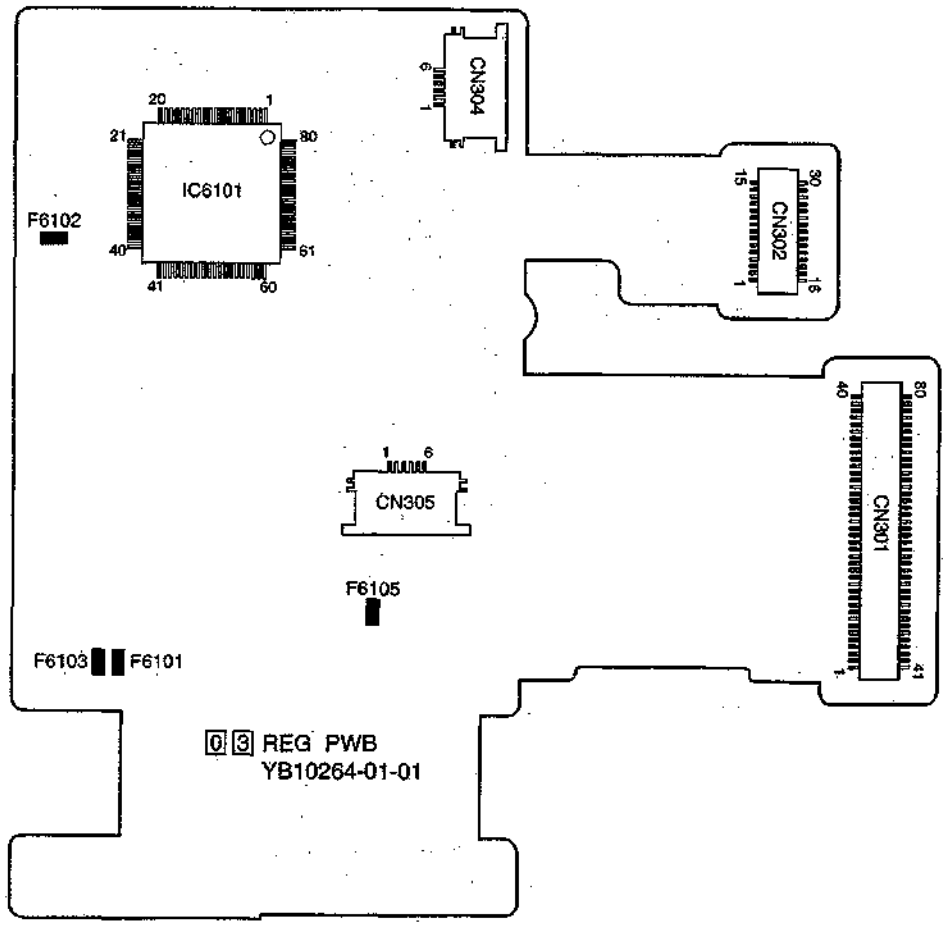


Fig. 3-5-1 Fuse location for REG board assembly

3.5.2 MONITOR PWB (FOIL SIDE)

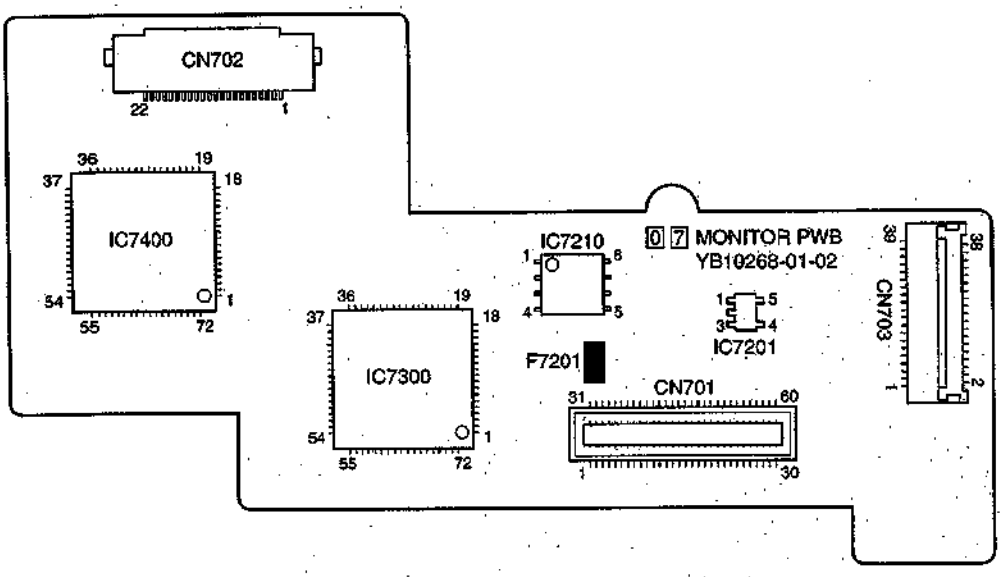


Fig. 3-5-2 Fuse location for MONITOR board assembly

3.5.3 MONITOR PWB (COMPONENT SIDE)

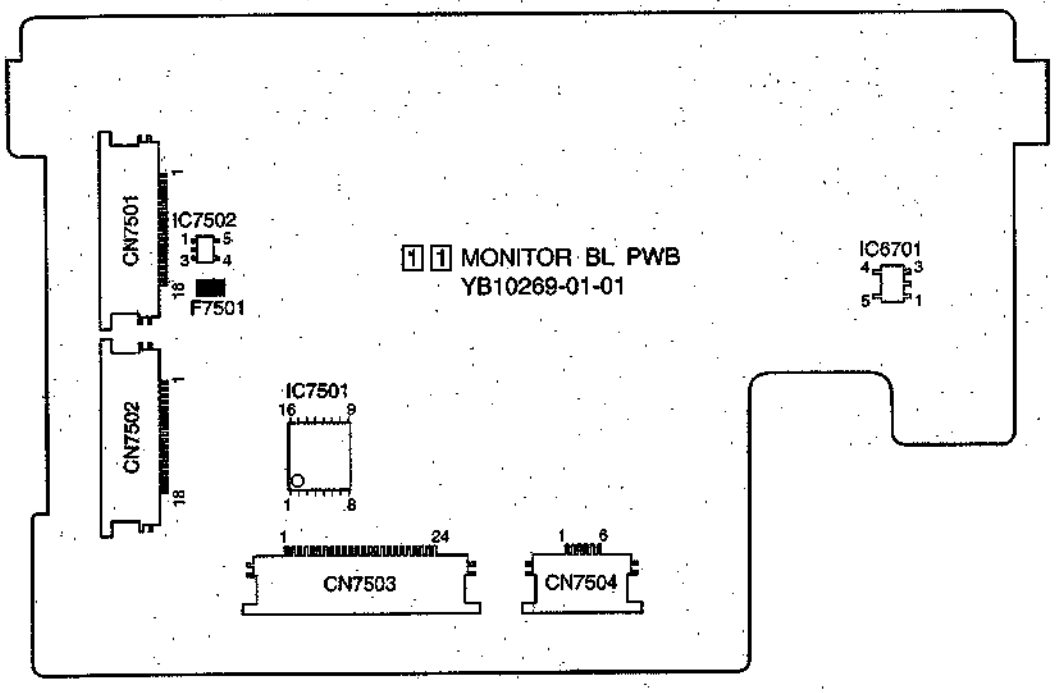


Fig. 3-5-3 Fuse location MONITOR BL board assembly

SECTION 4
CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

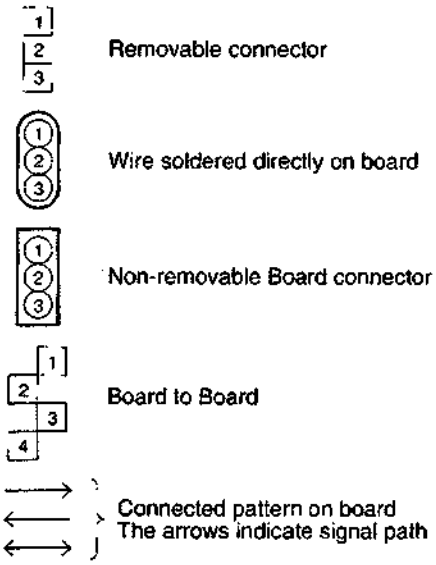
1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in μF, (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high

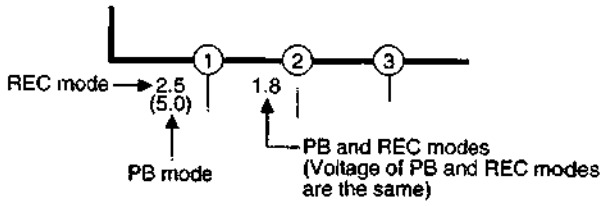
$\overline{AUX}$ or AUX(L) : Active at low

3. Interpreting Connector indications



4. Voltage measurement

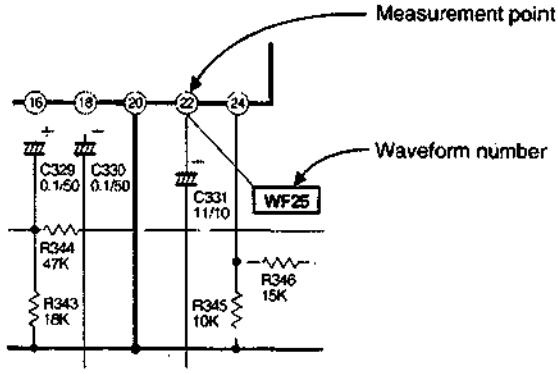
1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
   — : Unmeasurable or unnecessary to measure
2) Audio circuits
   REC : 1KHz, −8 dBs sine wave signal in SP mode, Normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



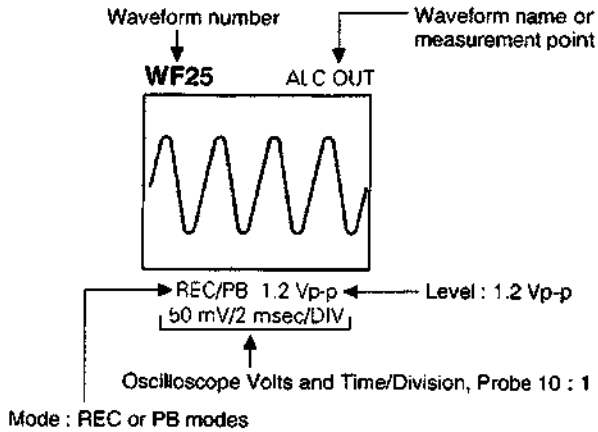
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
2) Audio circuits
   REC : 1KHz, −8 dBs sine wave signal in SP mode, normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test chatrs in the E-E mode
4) Indication on schematic diagram
   Waveform indications on the schematic diagram are as shown below.



5) Waveform indications



6. Signal path Symbols

The arrows indicate the signal path as follows.

Playback signal path

Playback and recording signal path

Recording signal path
(including E-E signal path)

Capstan servo path

Drum servo path

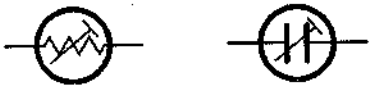
(Example)

R-Y Playback R-Y signal path

Y Recording Y signal path

7. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



8. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.

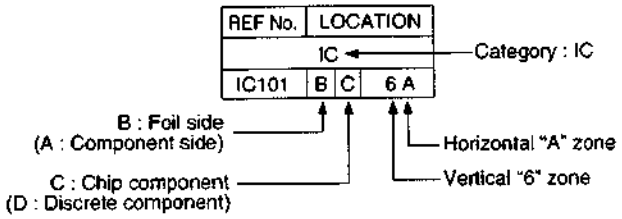
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

Parts location are indicated by guide scale on the circuit board.

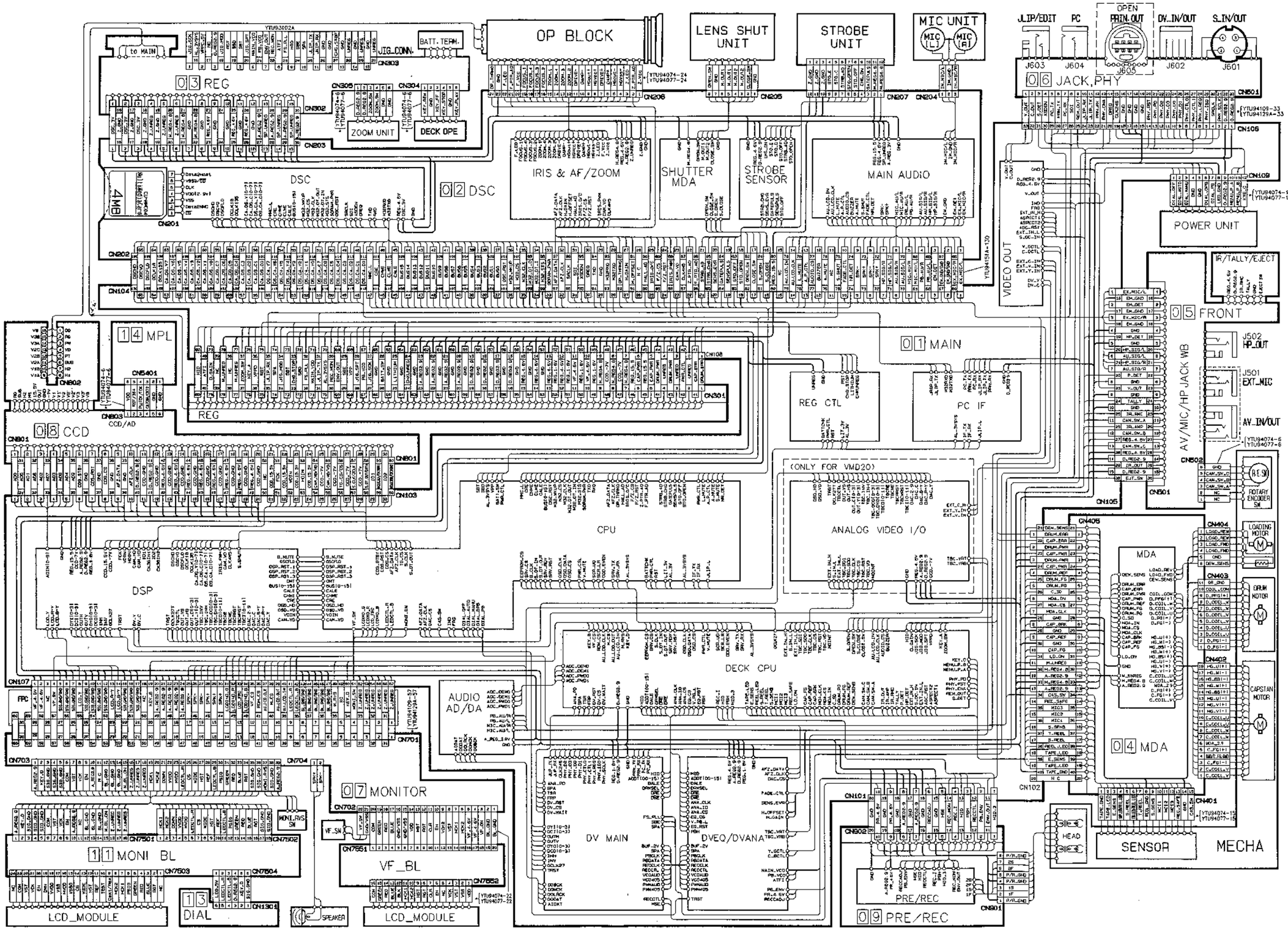


Note:

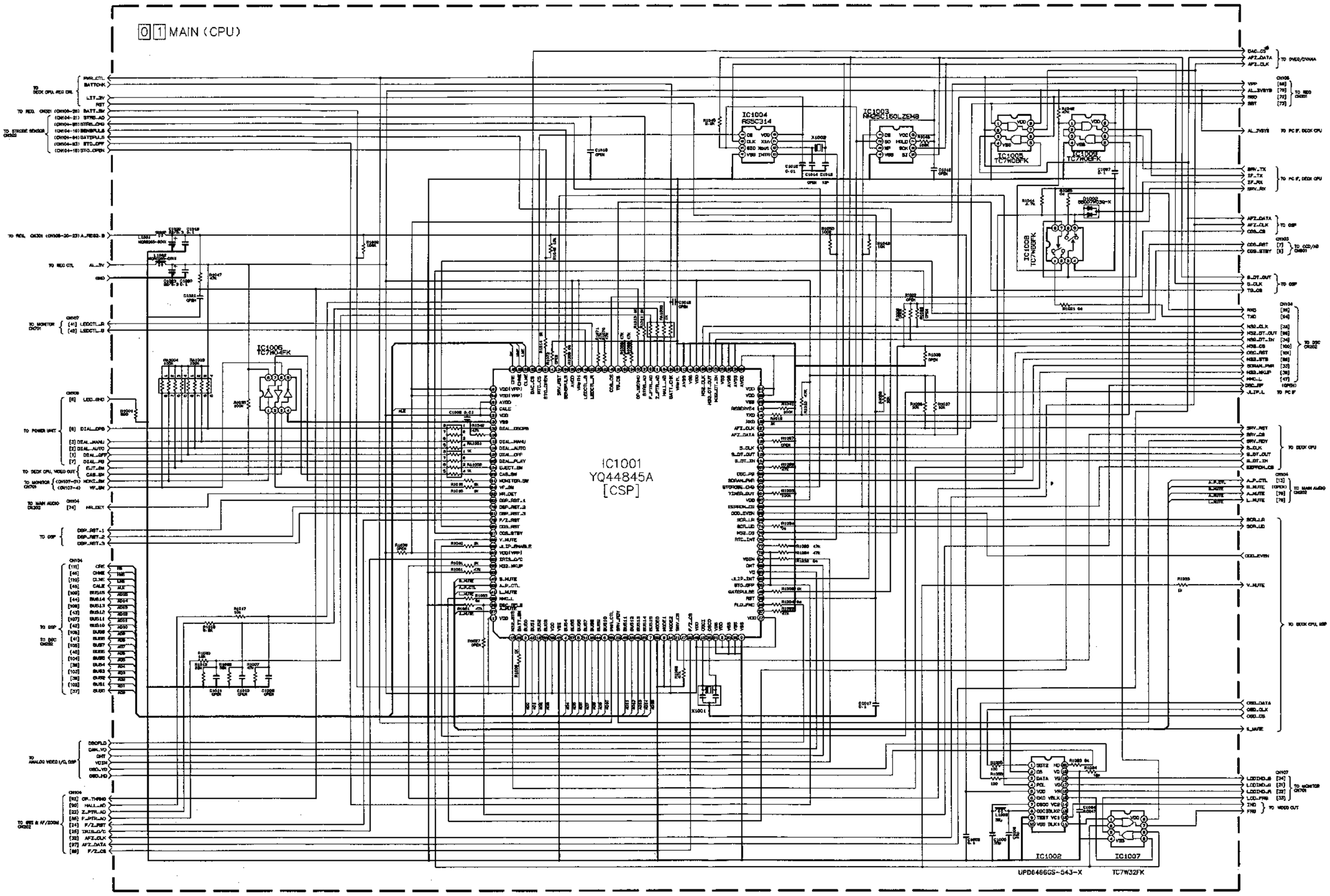
For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS

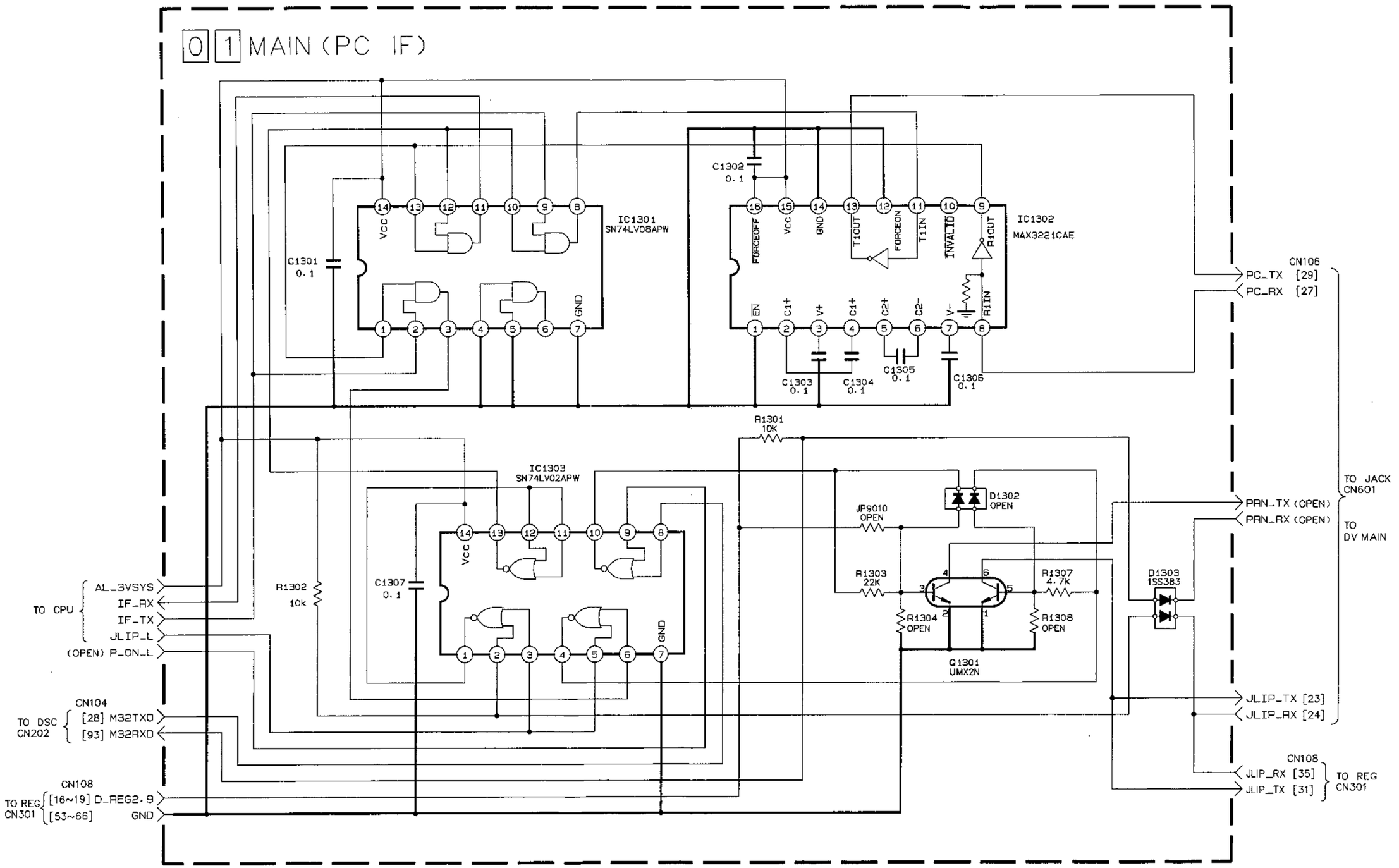
NOTE) * : The number of patch cords are indicated by interconnected.



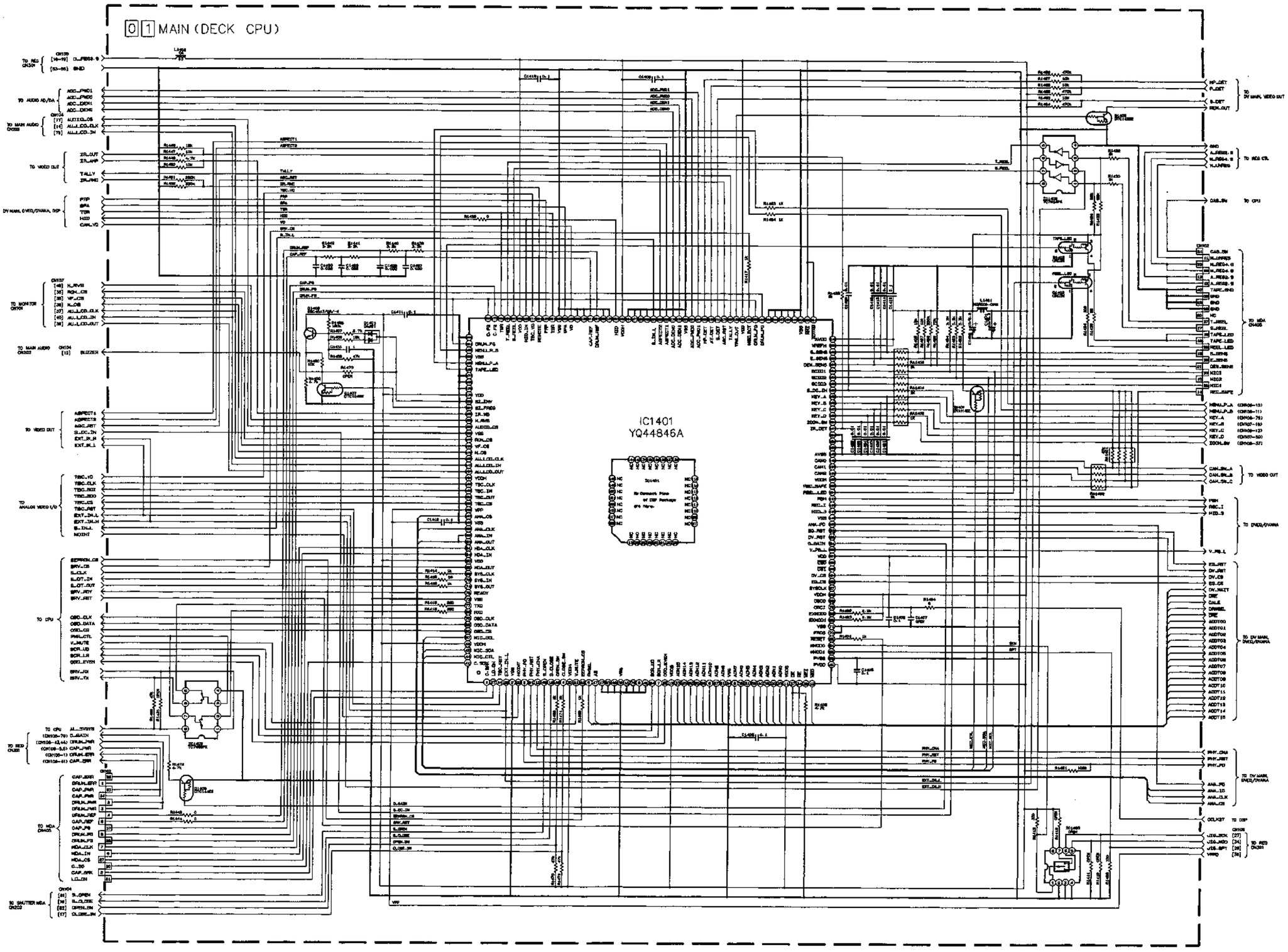
4.2 CPU SCHEMATIC DIAGRAM



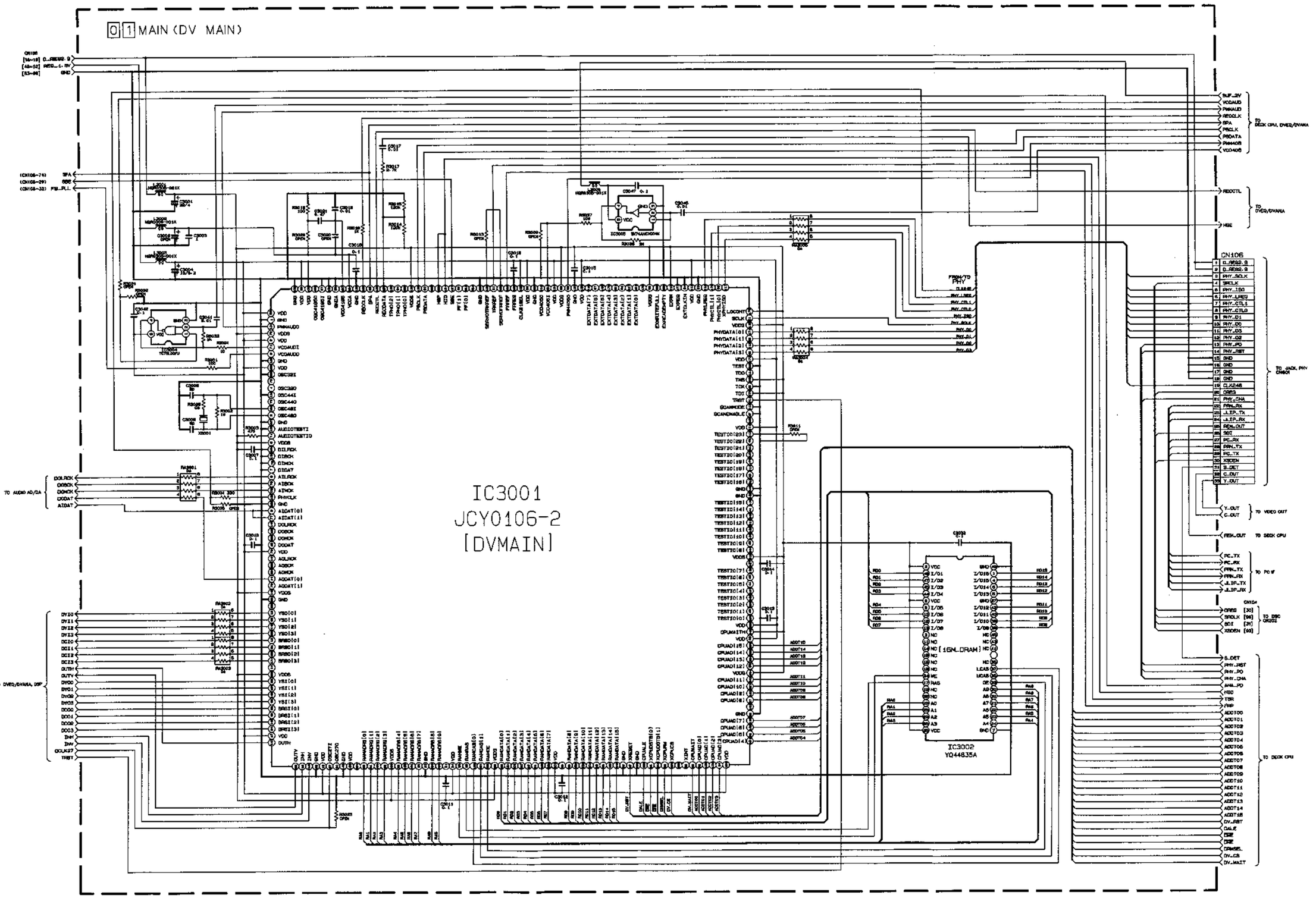
4.3 PC IF SCHEMATIC DIAGRAM



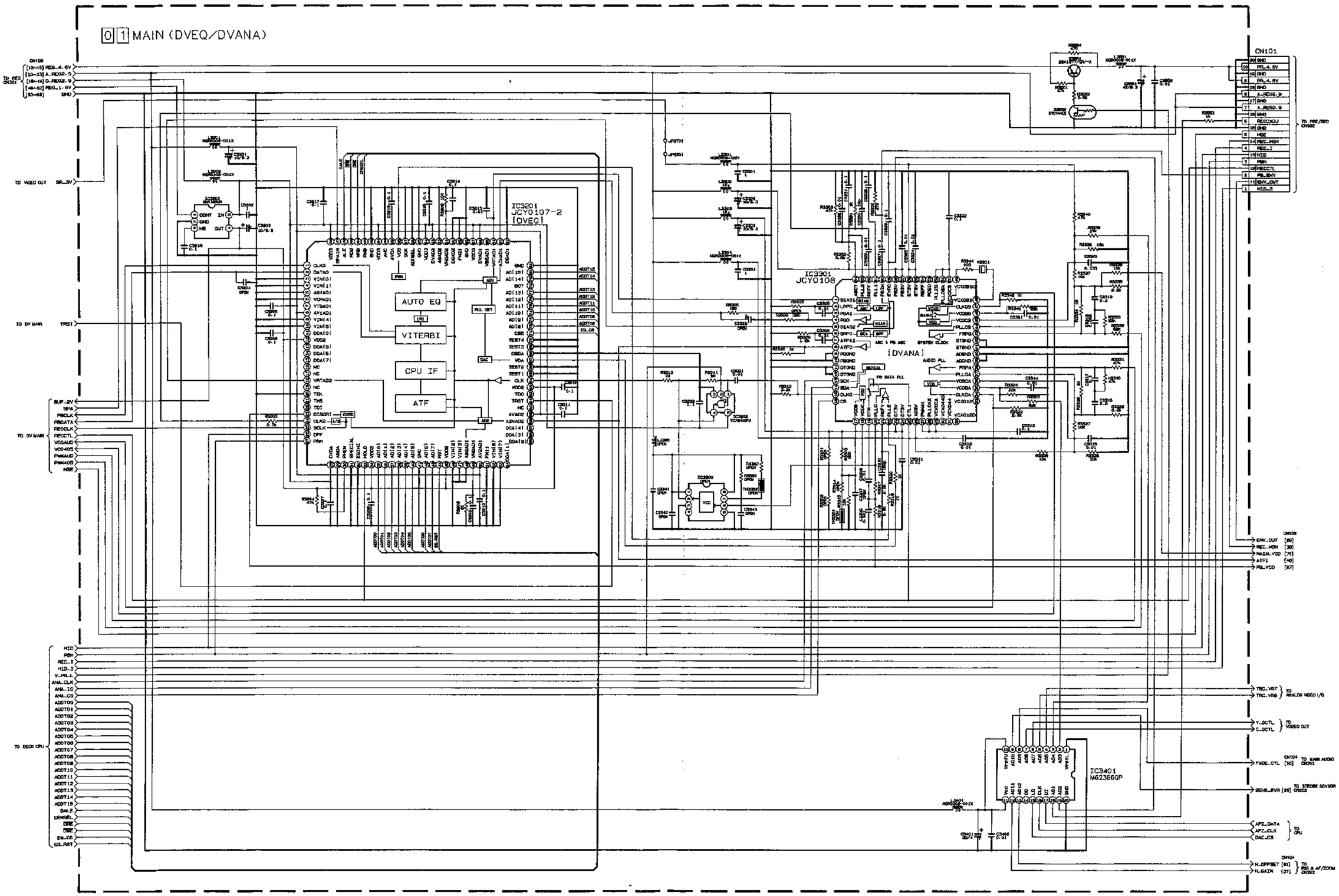
4.4 DECK CPU SCHEMATIC DIAGRAM



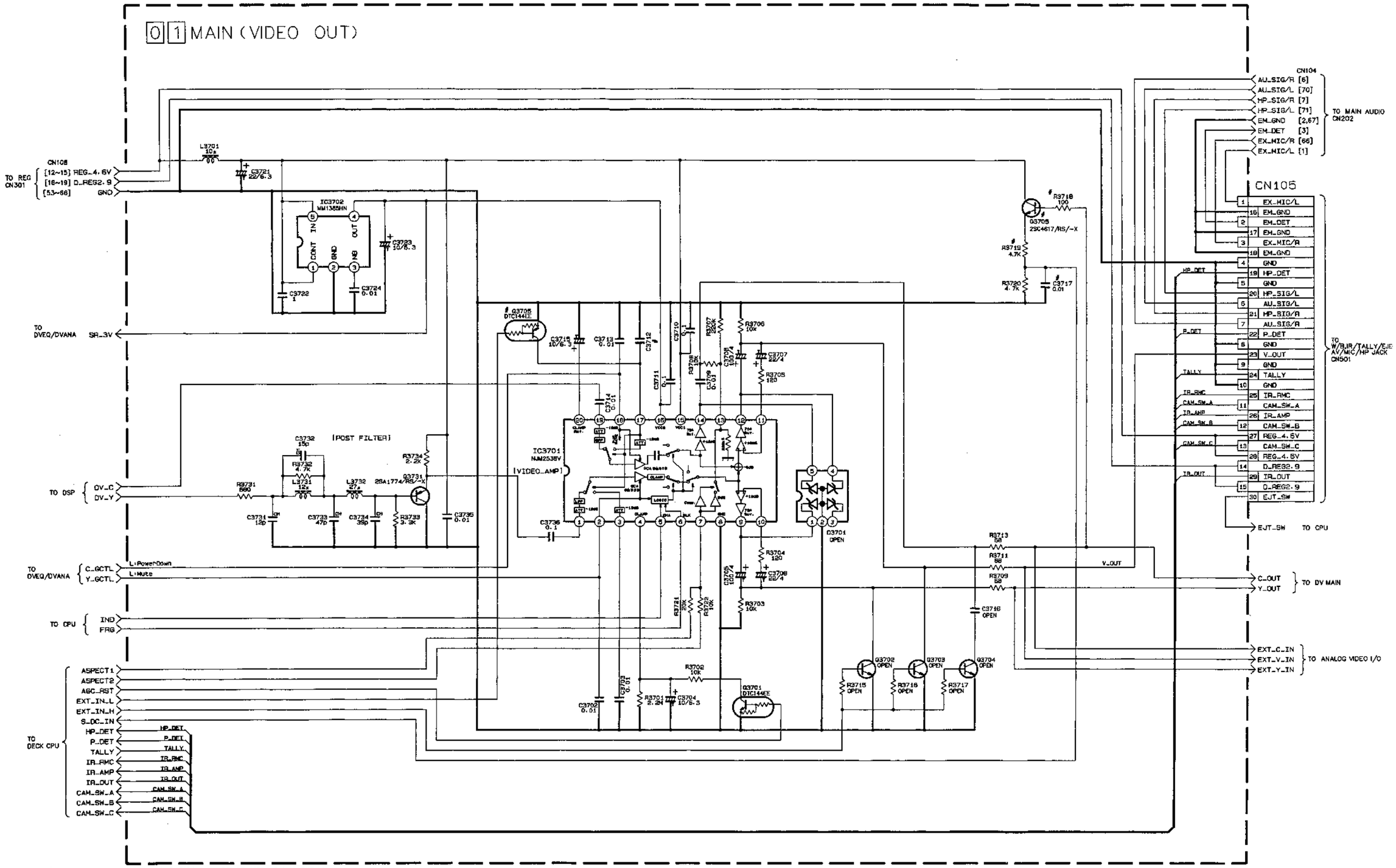
4.5 DV MAIN SCHEMATIC DIAGRAM



4.6 DVEQ/DVANA SCHEMATIC DIAGRAM



4.7 VIDEO OUT SCHEMATIC DIAGRAM

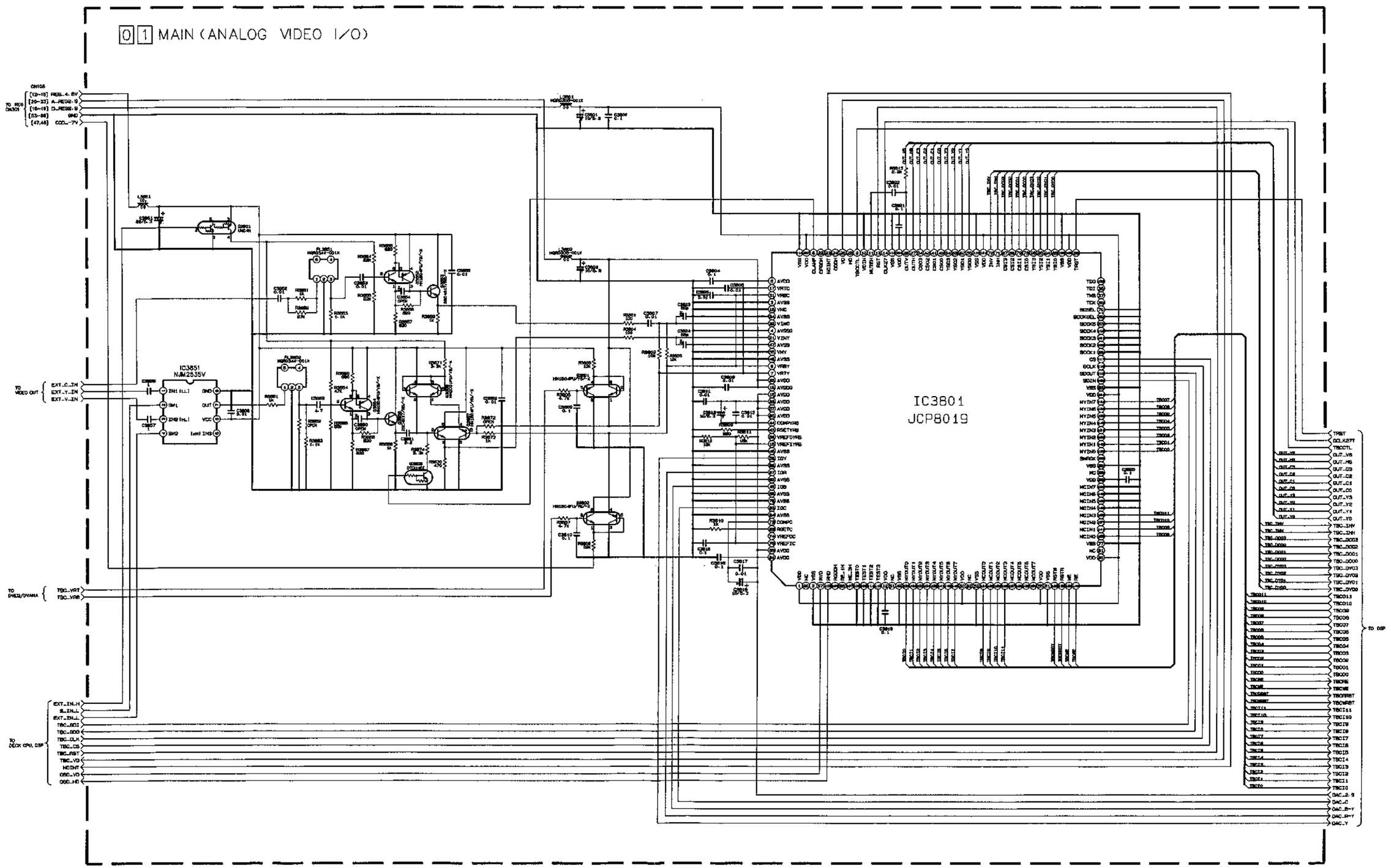


NOTE : COMPARISON CHART OF MODELS & MARKS (#).

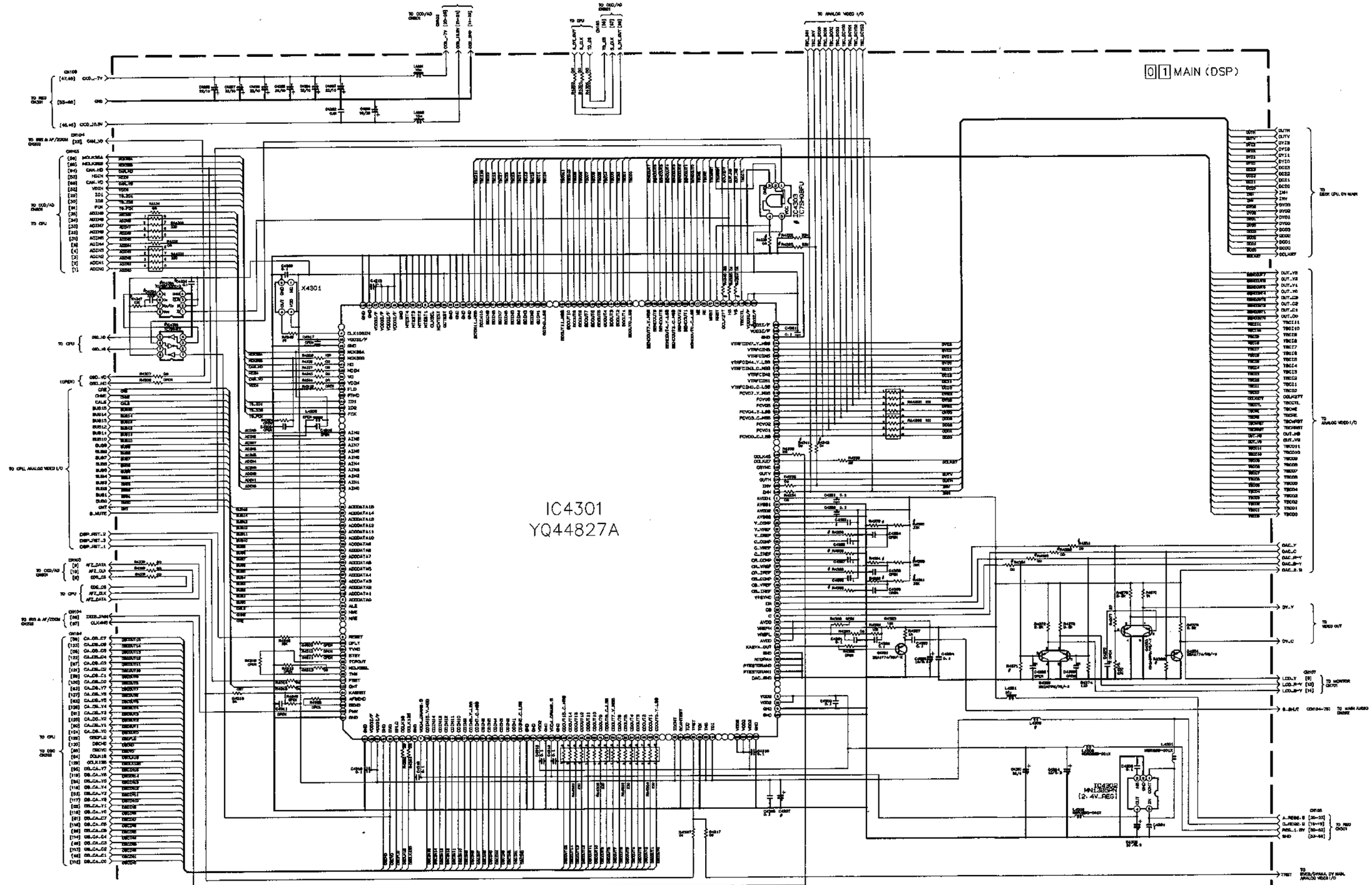
REF No. / MODELS	Q3705 Q3706	R3718 R3719	C3712	C3717
VMD10	OPEN	OPEN	0Ω	OPEN
VMD20	USED	USED	0.01	USED

4.8 ANALOG VIDEO I/O SCHEMATIC DIAGRAM

(For VMD20)



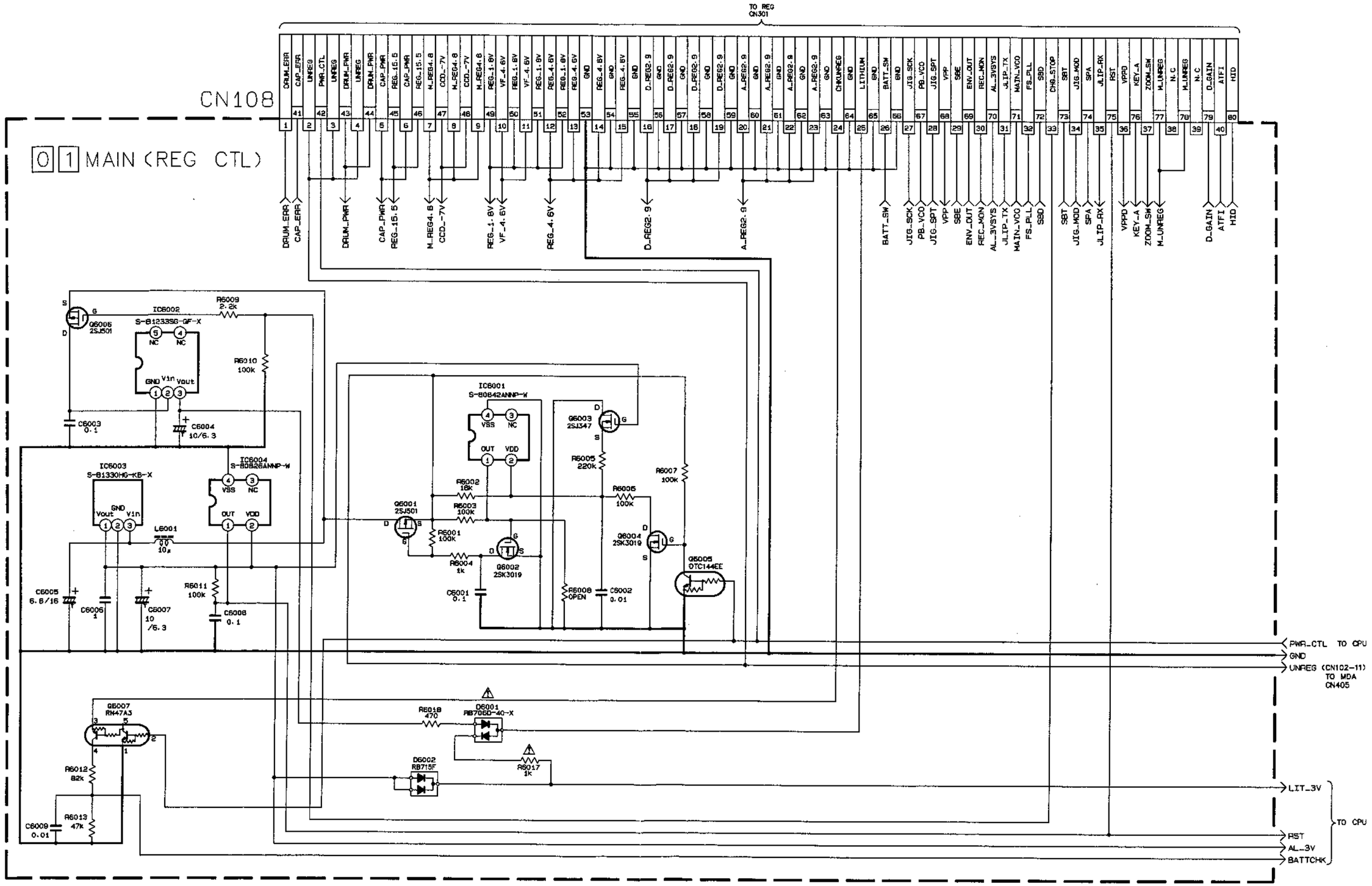
4.9 DSP SCHEMATIC DIAGRAM



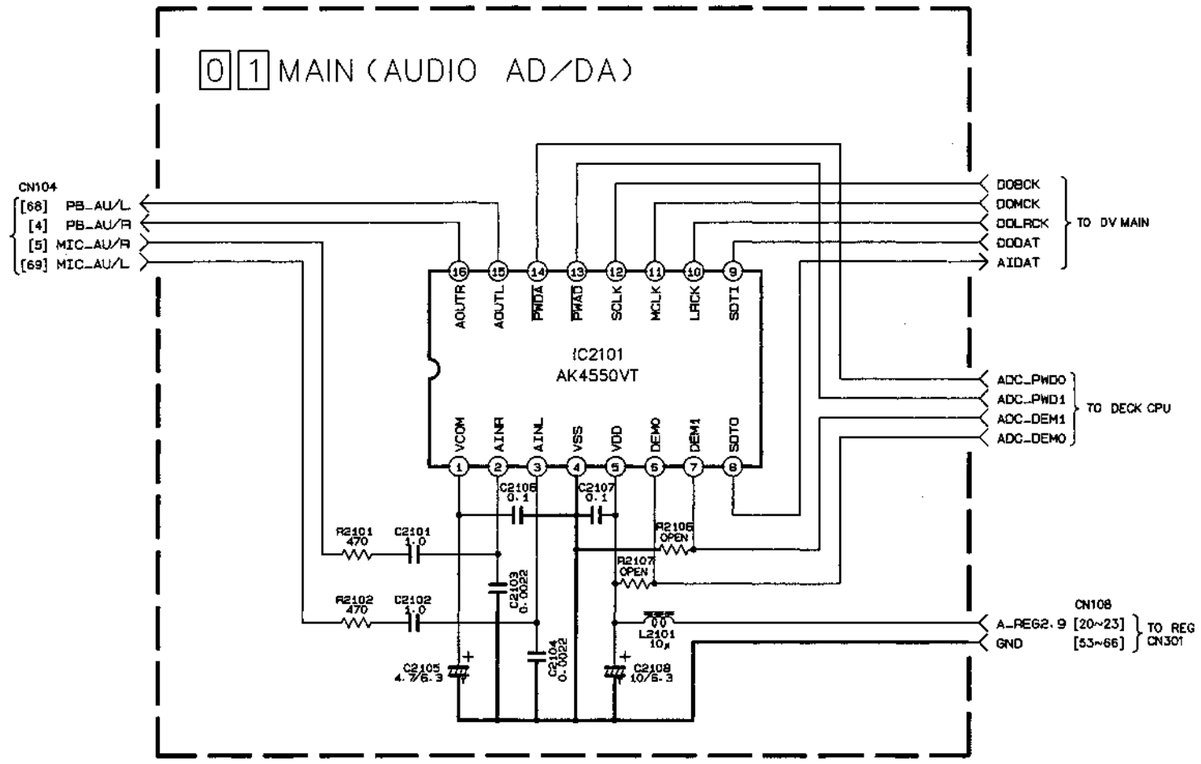
NOTE : COMPARISON CHART OF MODELS & MARKS (●)

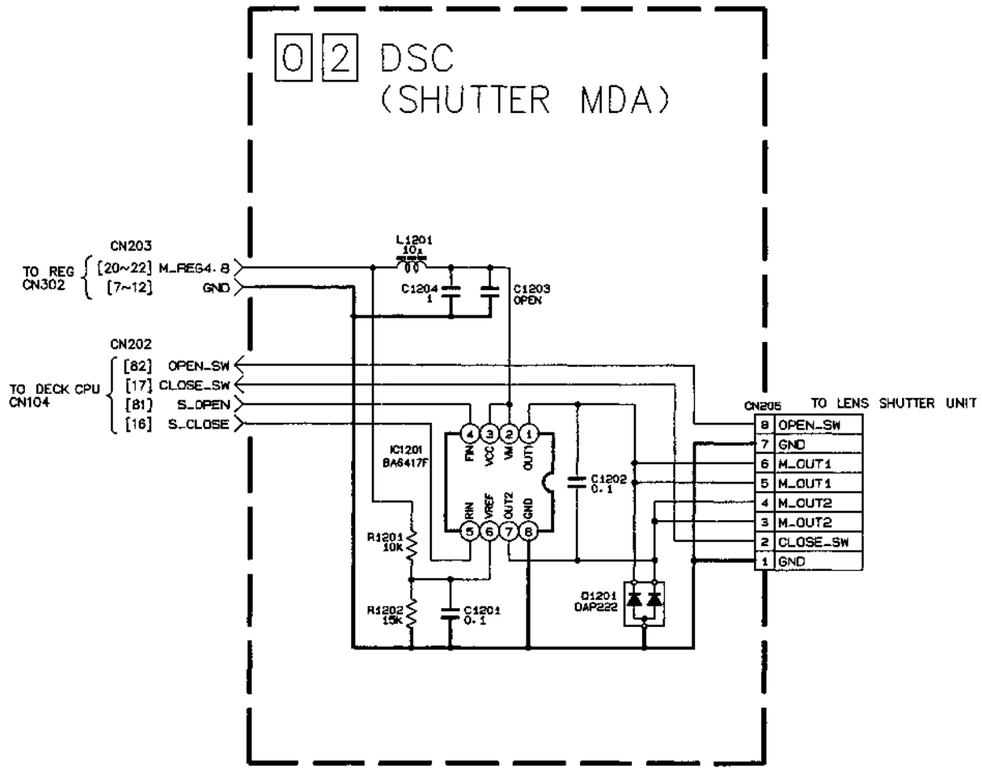
REF No. / MODELS	IC4303	IC4304 IC4305	R4322 R4324	R4326	R4340 R4342	R4347	R4351 R4353	R4356	R4358	R4359 R4361	R4360	R4362	R4369	R4371	R4378	R4381	R4382	C4307	C4323 C4324	L4305
VM010	OPEN	USED	OPEN	USED	OPEN	USED	USED	33K	15K	USED	18K	15K	100	130	27K	33K	27K	22/4	USED	NOR0251-004X
VM020	USED	OPEN	USED	OPEN	USED	OPEN	OPEN	2.7K	2.7K	OPEN	2.7K	2.7K	100	150	33K	27K	33K	10/6.3	OPEN	NOR0256-001X

4.10 REG CTL SCHEMATIC DIAGRAM

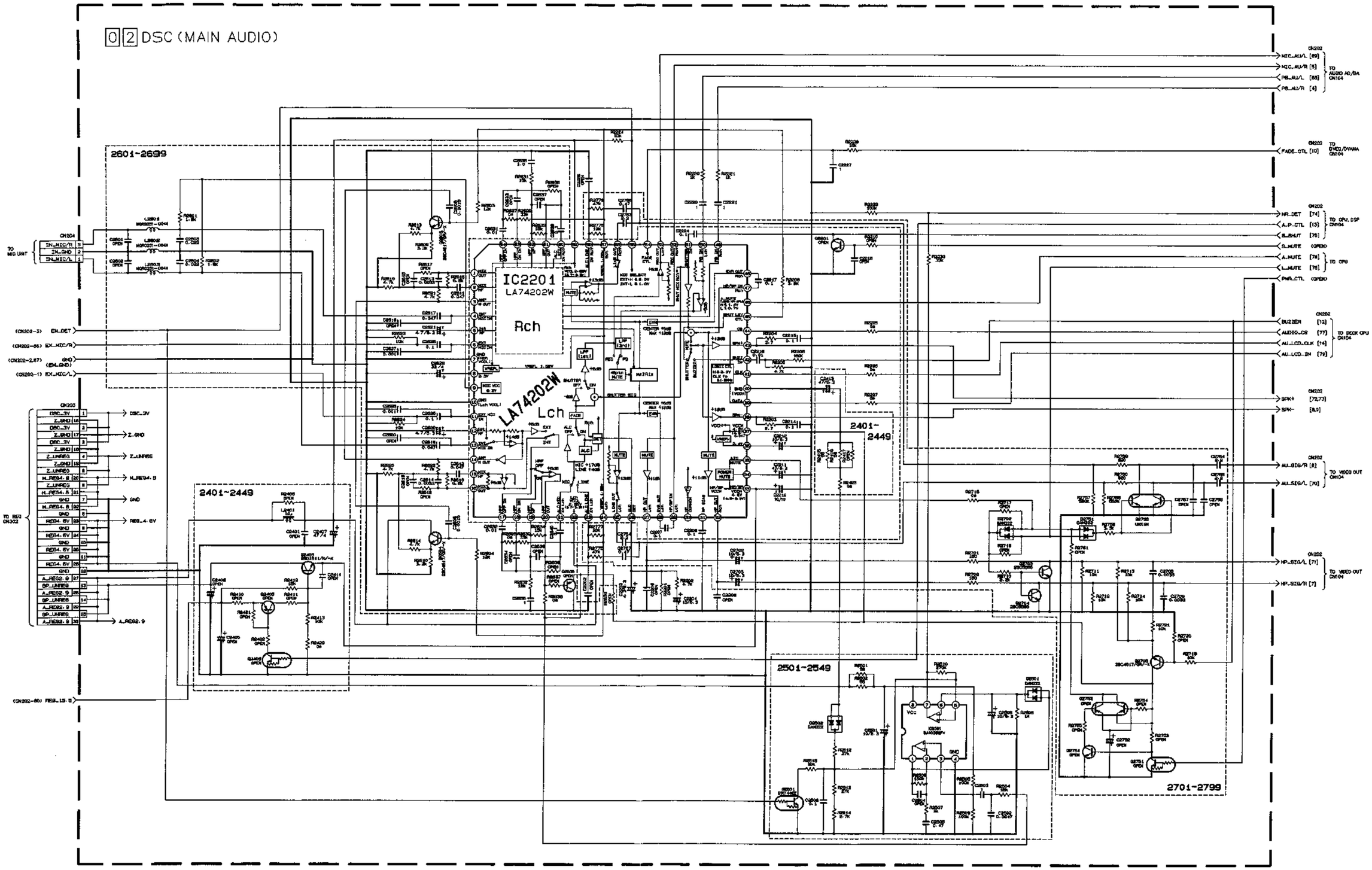


4.11 AUDIO AD/DA AND SHUTTER MDA SCHEMATIC DIAGRAM

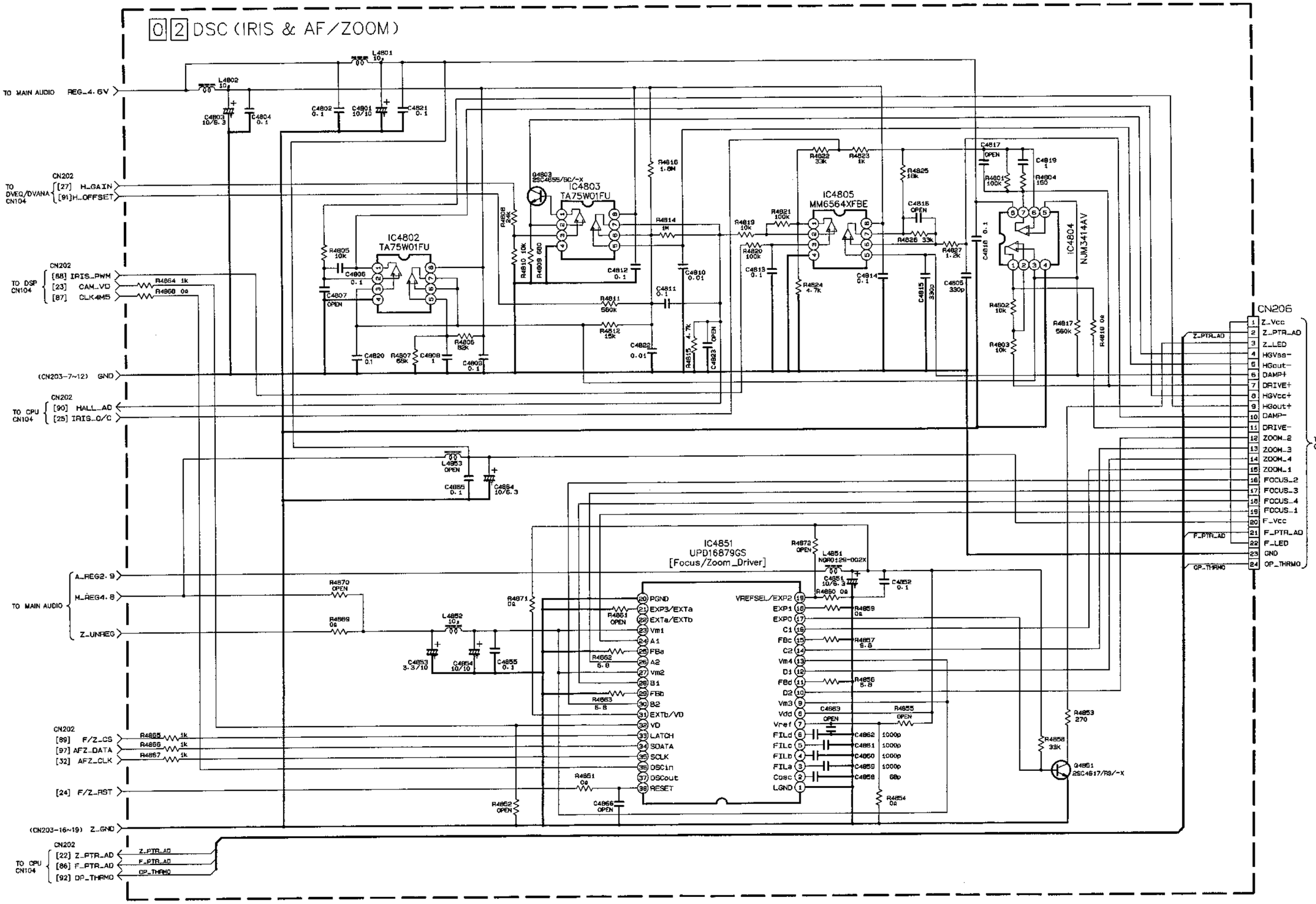




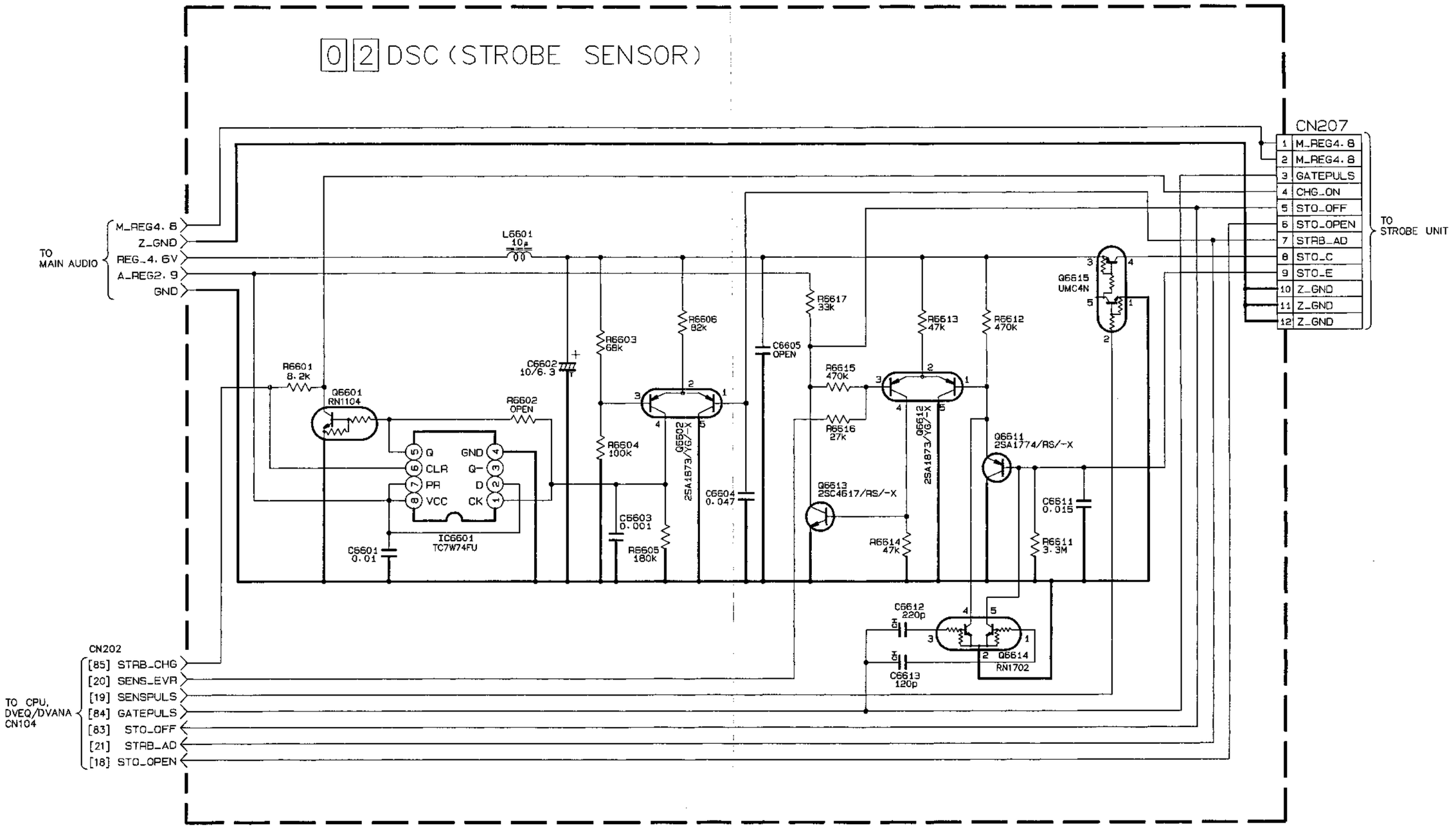
4.12 MAIN AUDIO SCHEMATIC DIAGRAM



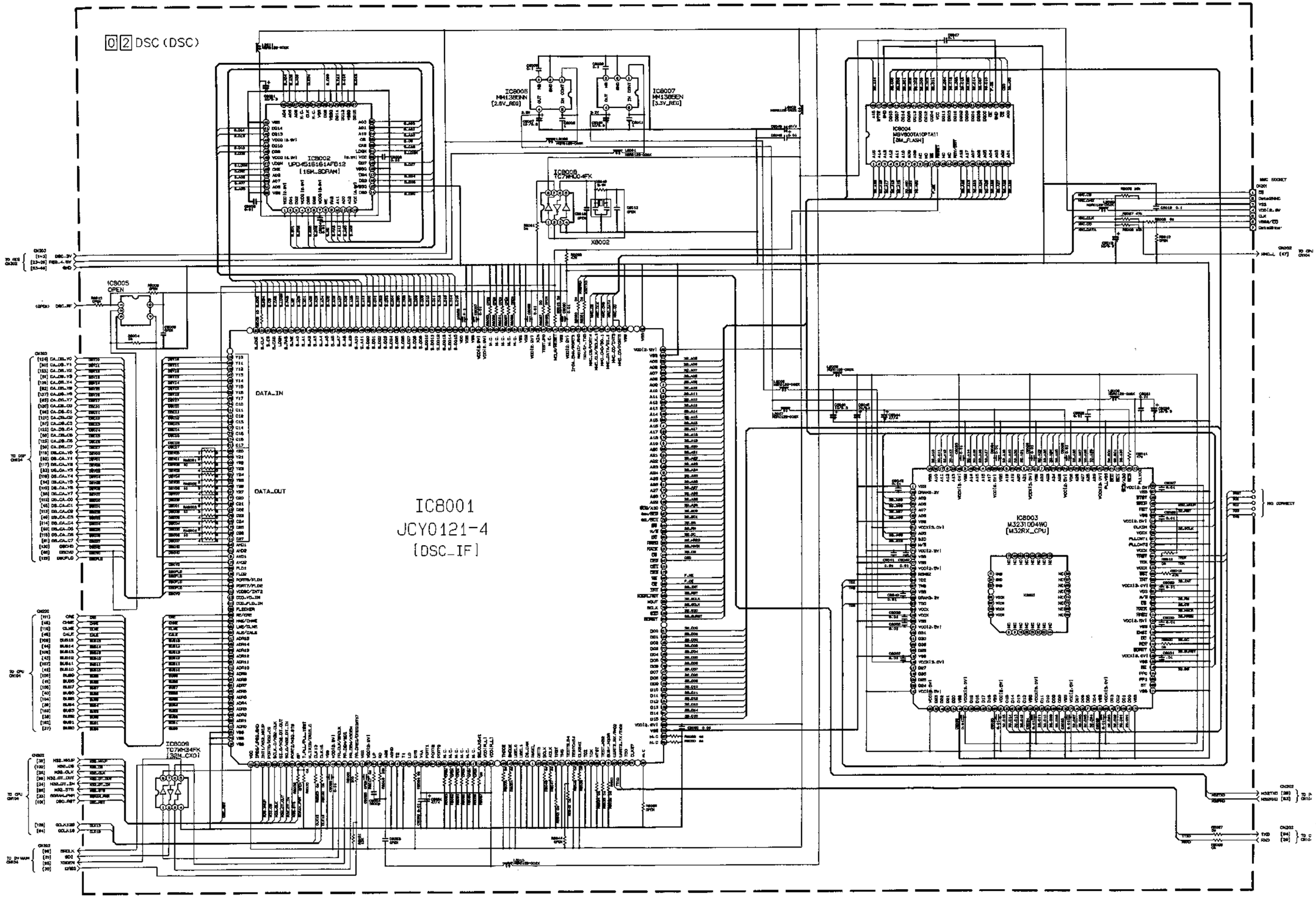
4.13 IRIS & AF/ZOOM SCHEMATIC DIAGRAM



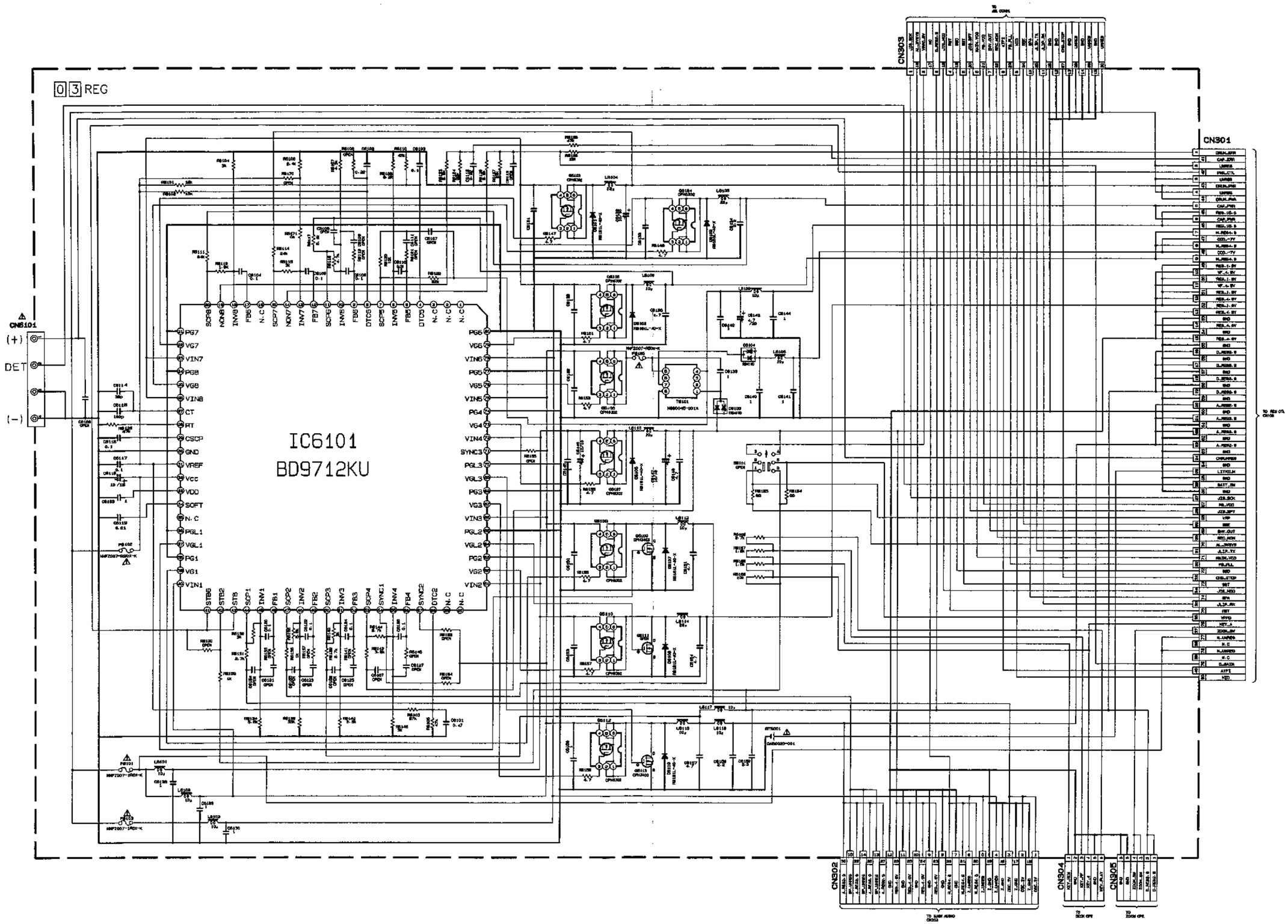
4.14 STROBE SENSOR SCHEMATIC DIAGRAM



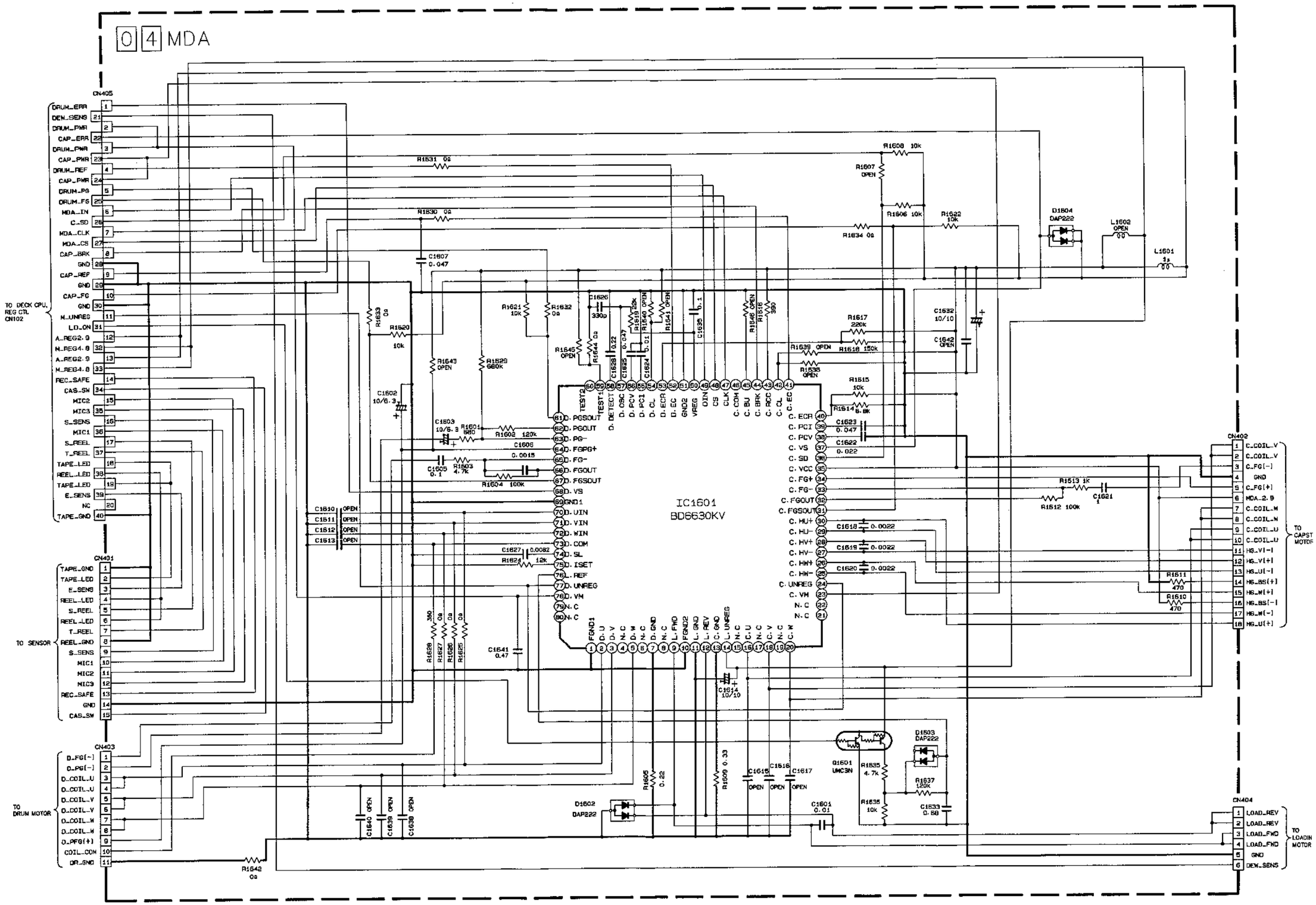
4.15 DSC SCHEMATIC DIAGRAM



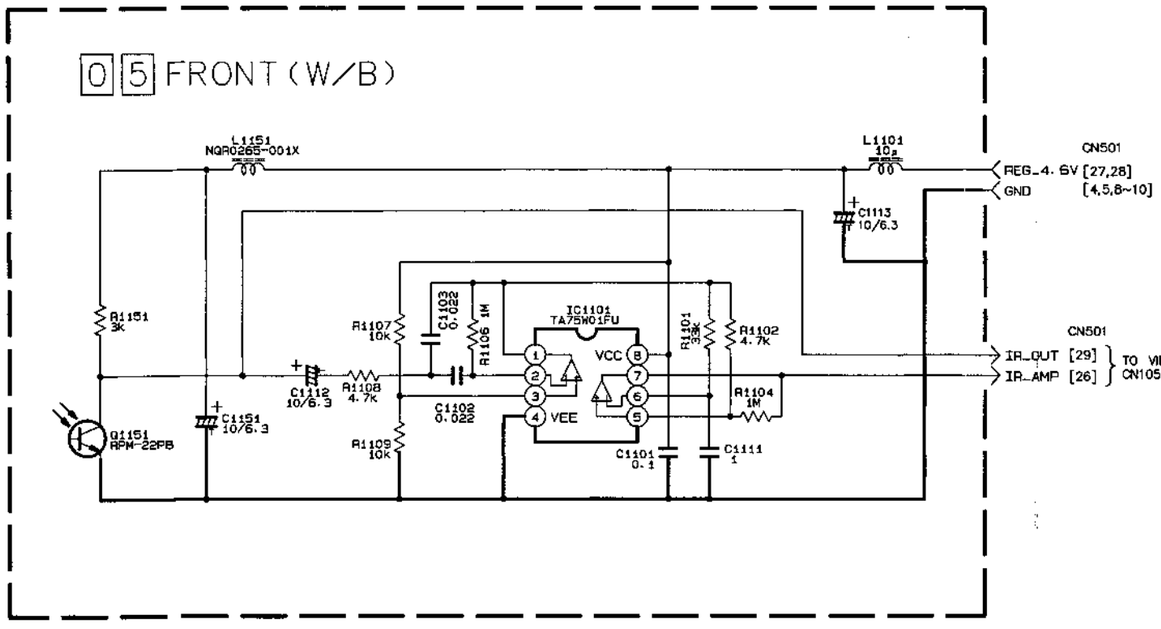
4.16 REGULATOR SCHEMATIC DIAGRAM

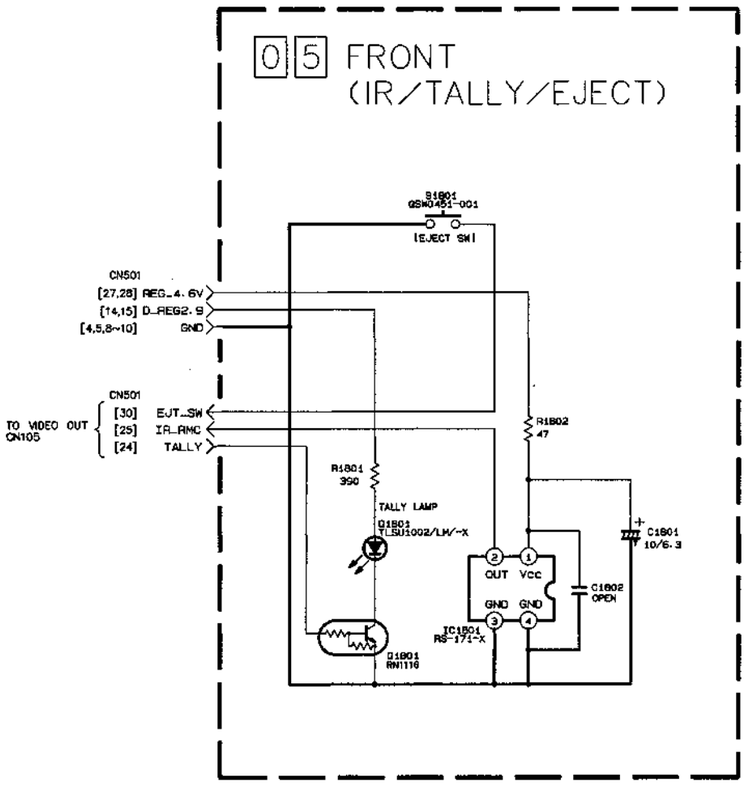


4.17 MDA SCHEMATIC DIAGRAM

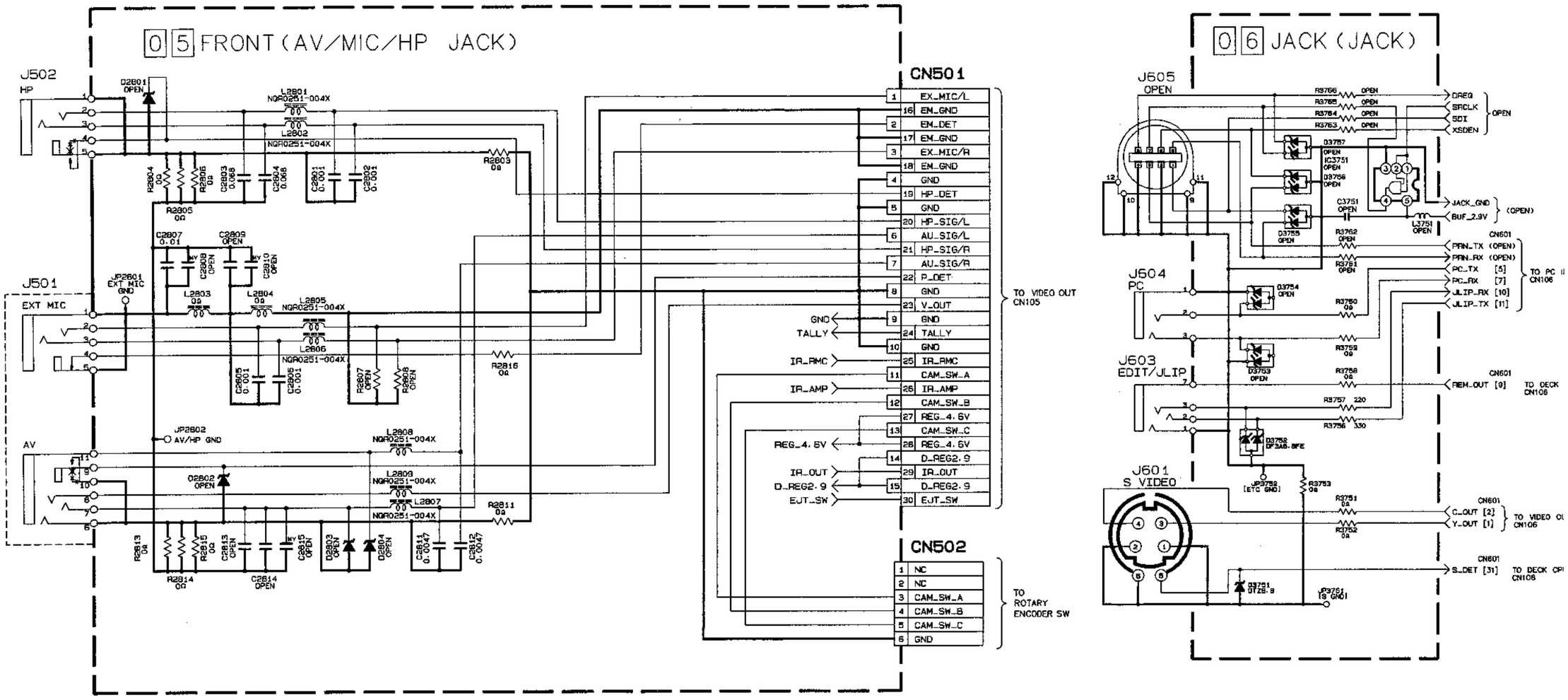


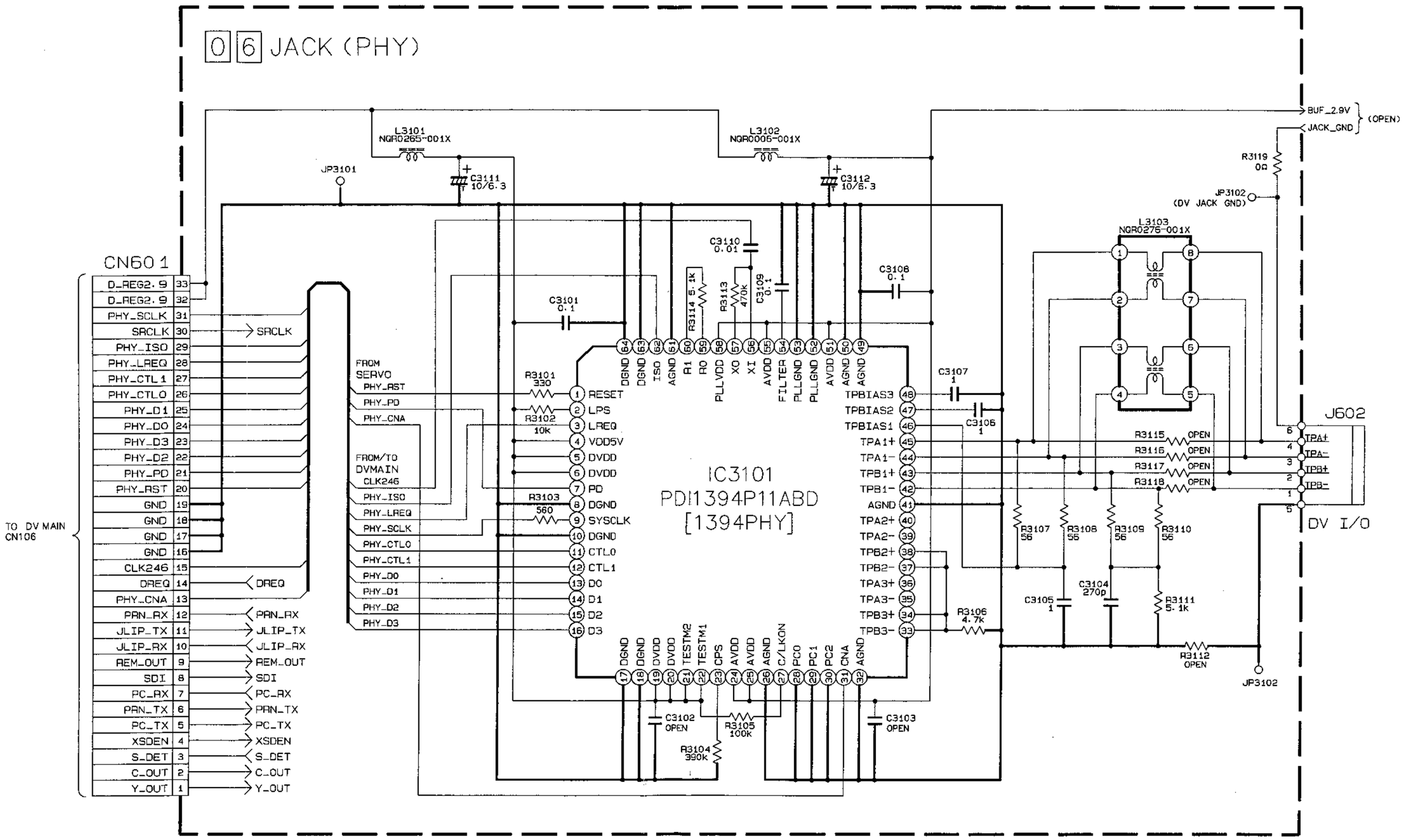
4.18 W/B AND IR/TALLY/EJECT SCHEMATIC DIAGRAMS



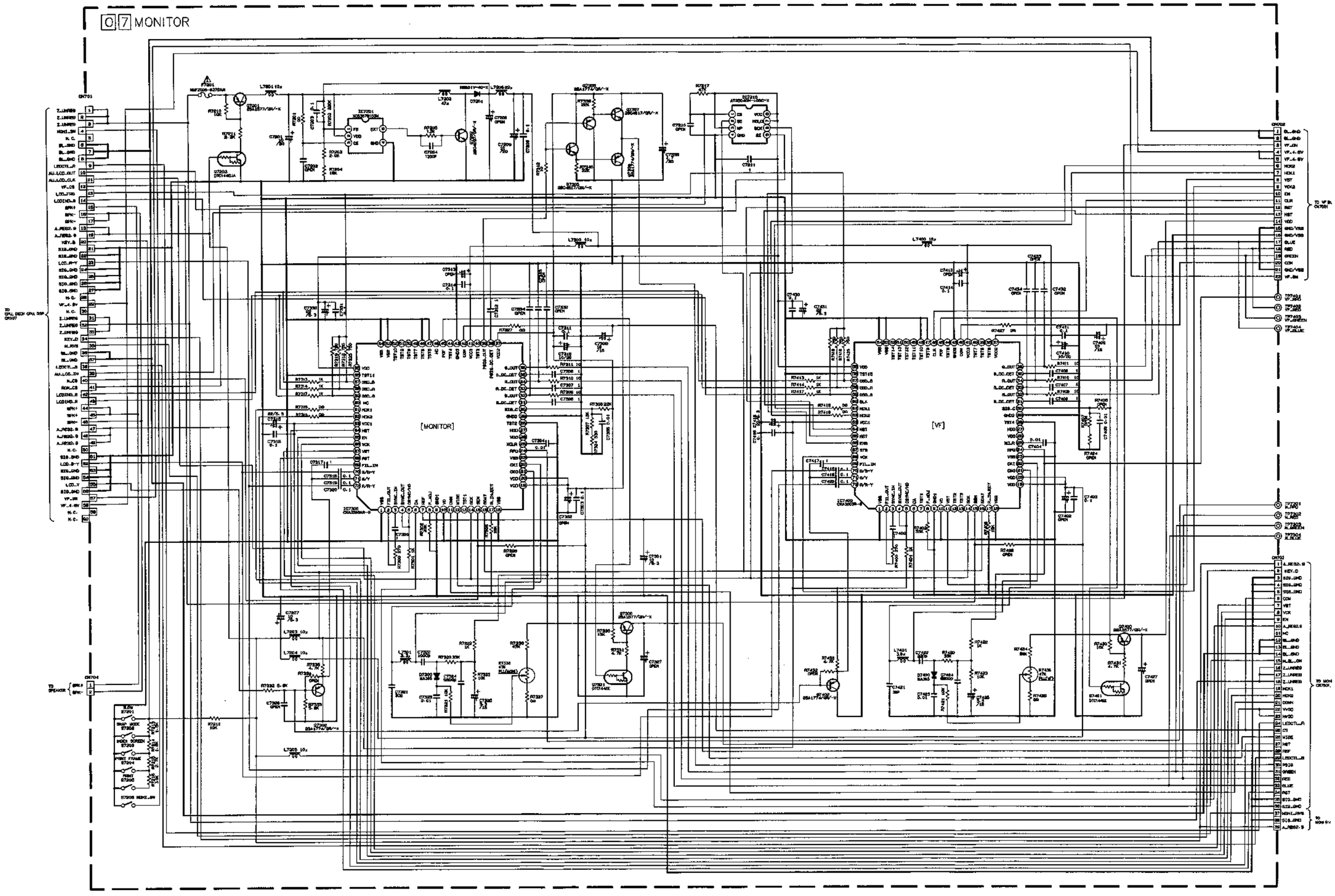


4.19 AV/MIC/HP JACK AND JACK SCHEMATIC DIAGRAMS

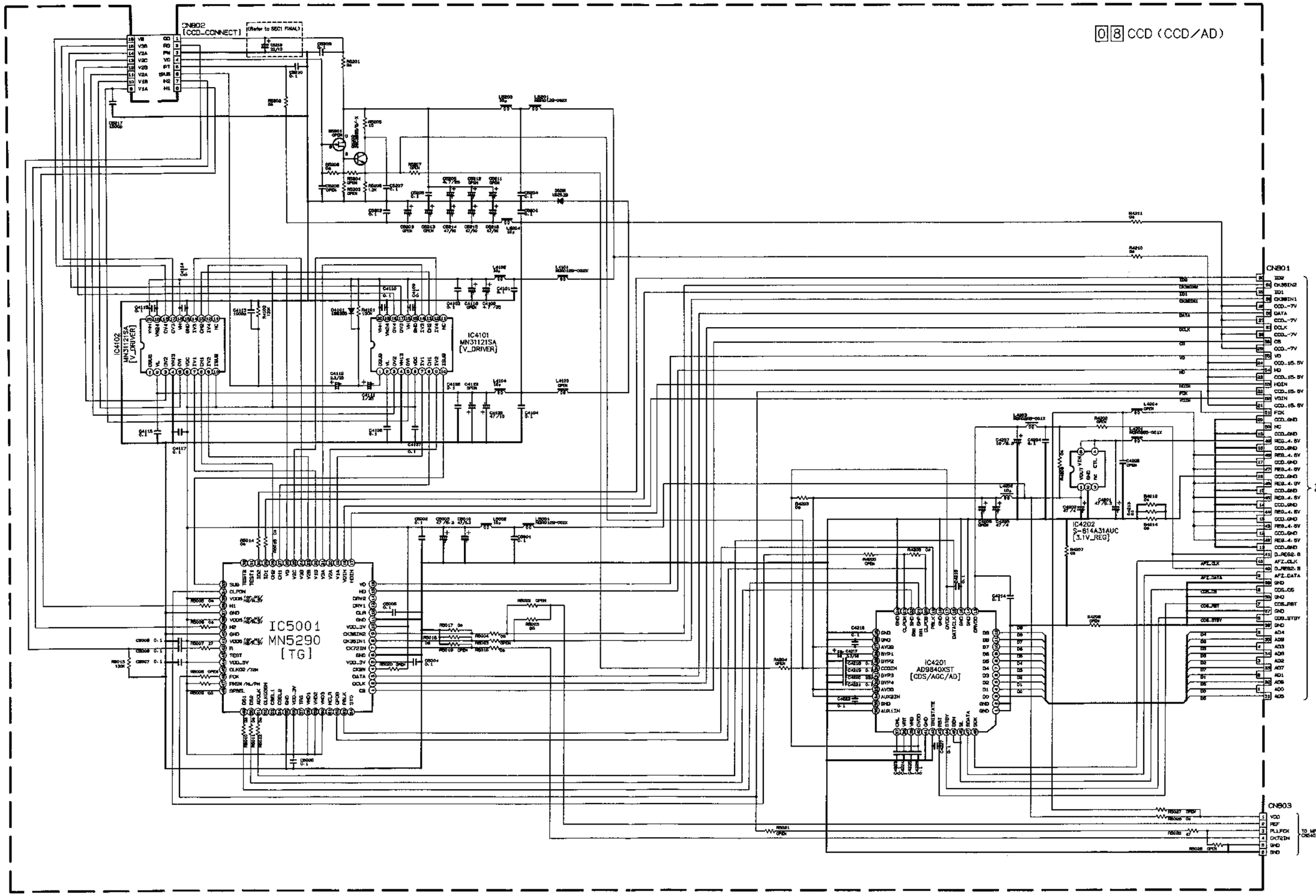



06 JACK (PHY)
CN601
D_REG2.9 33
D_REG2.9 32
PHY_SCLK 31
SRCLK 30
PHY_ISO 29
PHY_LREQ 28
PHY_CTL1 27
PHY_CTL0 26
PHY_D1 25
PHY_D0 24
PHY_D3 23
PHY_D2 22
PHY_PD 21
PHY_RST 20
GND 19
GND 18
GND 17
GND 16
CLK246 15
DREQ 14
PHY_CNA 13
PRN_RX 12
JLIP_TX 11
JLIP_RX 10
REM_OUT 9
SDI 8
PC_RX 7
PRN_TX 6
PC_TX 5
XSDEN 4
S_DET 3
C_OUT 2
Y_OUT 1
TO DV MAIN CN106
SRCLK
DREQ
PRN_RX
JLIP_TX
JLIP_RX
REM_OUT
SDI
PC_RX
PRN_TX
PC_TX
XSDEN
S_DET
C_OUT
Y_OUT
FROM SERVO
PHY_RST
PHY_PD
PHY_CNA
FROM/TO DVMAIN
CLK246
PHY_ISO
PHY_LREQ
PHY_SCLK
PHY_CTL0
PHY_CTL1
PHY_D0
PHY_D1
PHY_D2
PHY_D3
JP3101
L3101 NQR0265-001X
L3102 NQR0006-001X
C3111 10/6.3
C3112 10/6.3
C3101 0.1
C3110 0.01
C3109 0.1
C3108 0.1
R3114 5.1K
R3113 470k
R3101 330
R3102 10k
R3103 560
C3107 1
C3106 1
R3106 4.7k
C3102 OPEN
C3103 OPEN
R3104 390k
R3105 100k
IC3101
PDI1394P11ABD
[1394PHY]
1 RESET
2 LPS
3 LREQ
4 VDD5V
5 DVDD
6 DVDD
7 PD
8 DGND
9 SYSCLK
10 DGND
11 CTL0
12 CTL1
13 D0
14 D1
15 D2
16 D3
17 DGND
18 DGND
19 DVDD
20 DVDD
21 TESTM2
22 TESTM1
23 CPS
24 AVDD
25 AVDD
26 AGND
27 C/LKON
28 PC0
29 PC1
30 PC2
31 CNA
32 AGND
48 TPBIAS3
47 TPBIAS2
46 TPBIAS1
45 TPA1+
44 TPA1-
43 TPB1+
42 TPB1-
41 AGND
40 TPA2+
39 TPA2-
38 TPB2+
37 TPB2-
36 TPA3+
35 TPA3-
34 TPB3+
33 TPB3-
BUF_2.9V
JACK_GND
(OPEN)
R3119 0Ω
JP3102 (DV JACK GND)
L3103 NQR0276-001X
J602
R3115 OPEN
R3116 OPEN
R3117 OPEN
R3118 OPEN
TPA+
TPA-
TPB+
TPB-
DV I/O
R3107 56
R3108 56
R3109 56
R3110 56
C3105 1
C3104 270p
R3111 5.1k
R3112 OPEN
JP3102

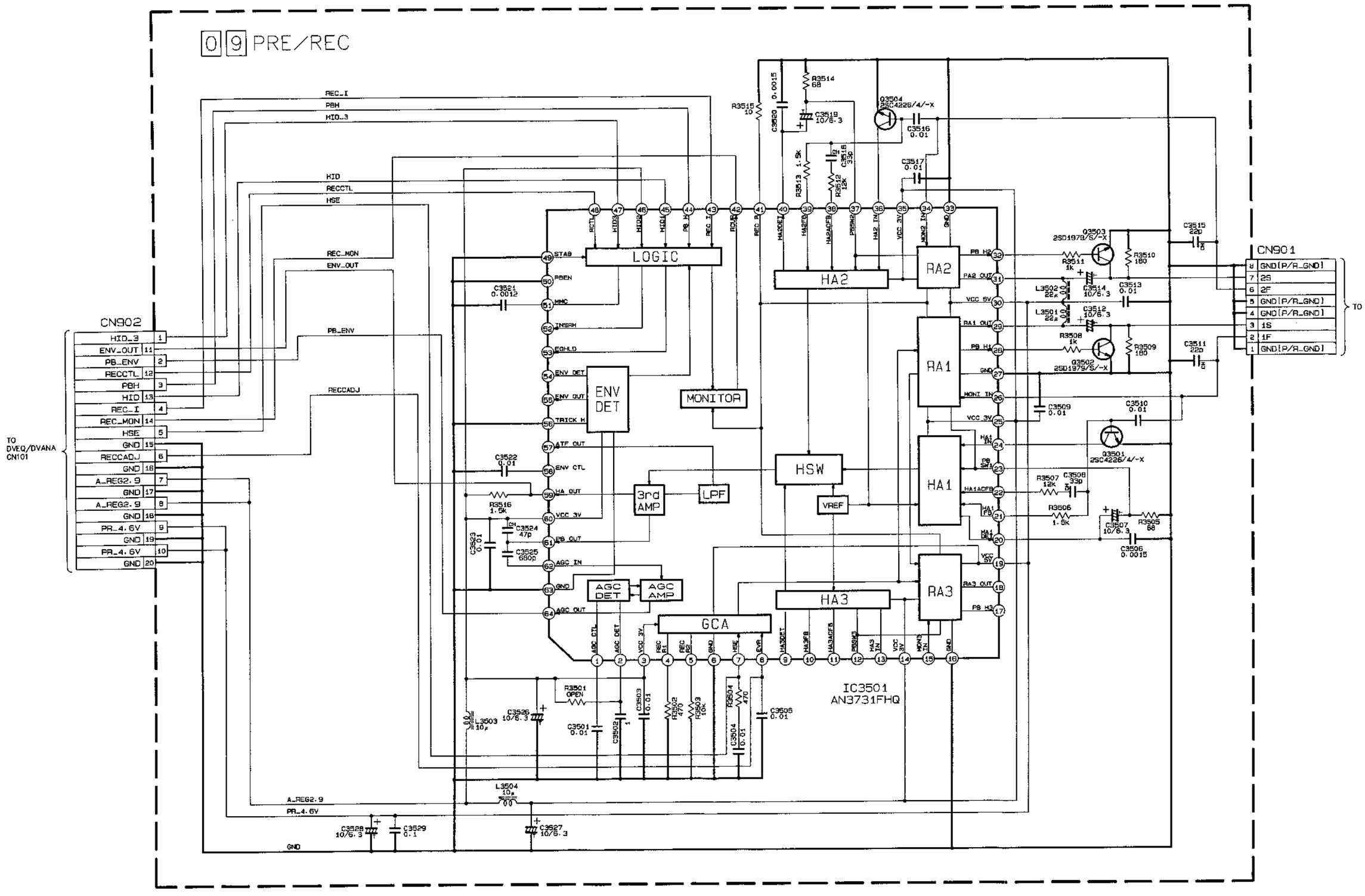
4.21 MONITOR SCHEMATIC DIAGRAM

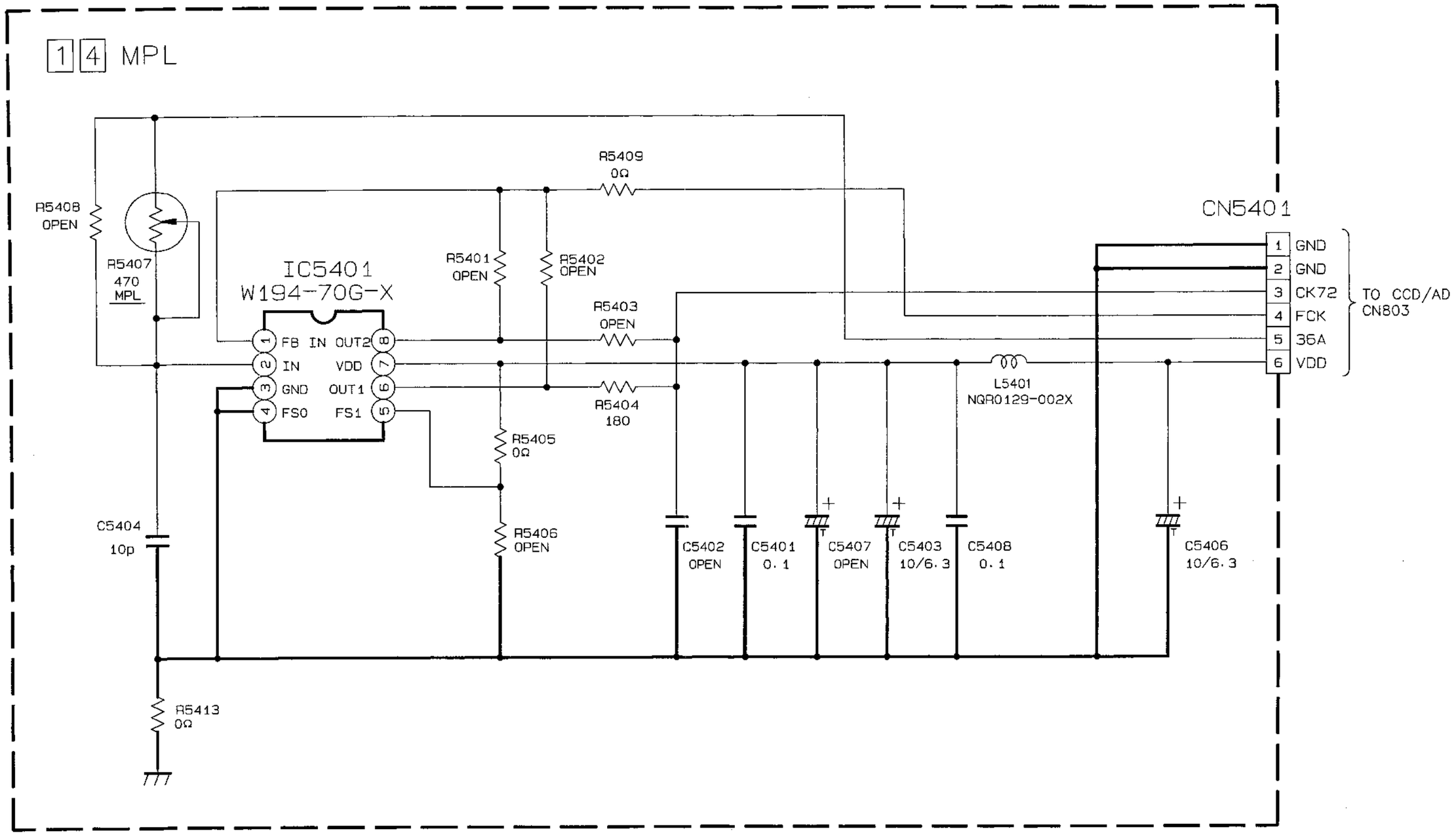


4.22 CCD/AD SCHEMATIC DIAGRAM

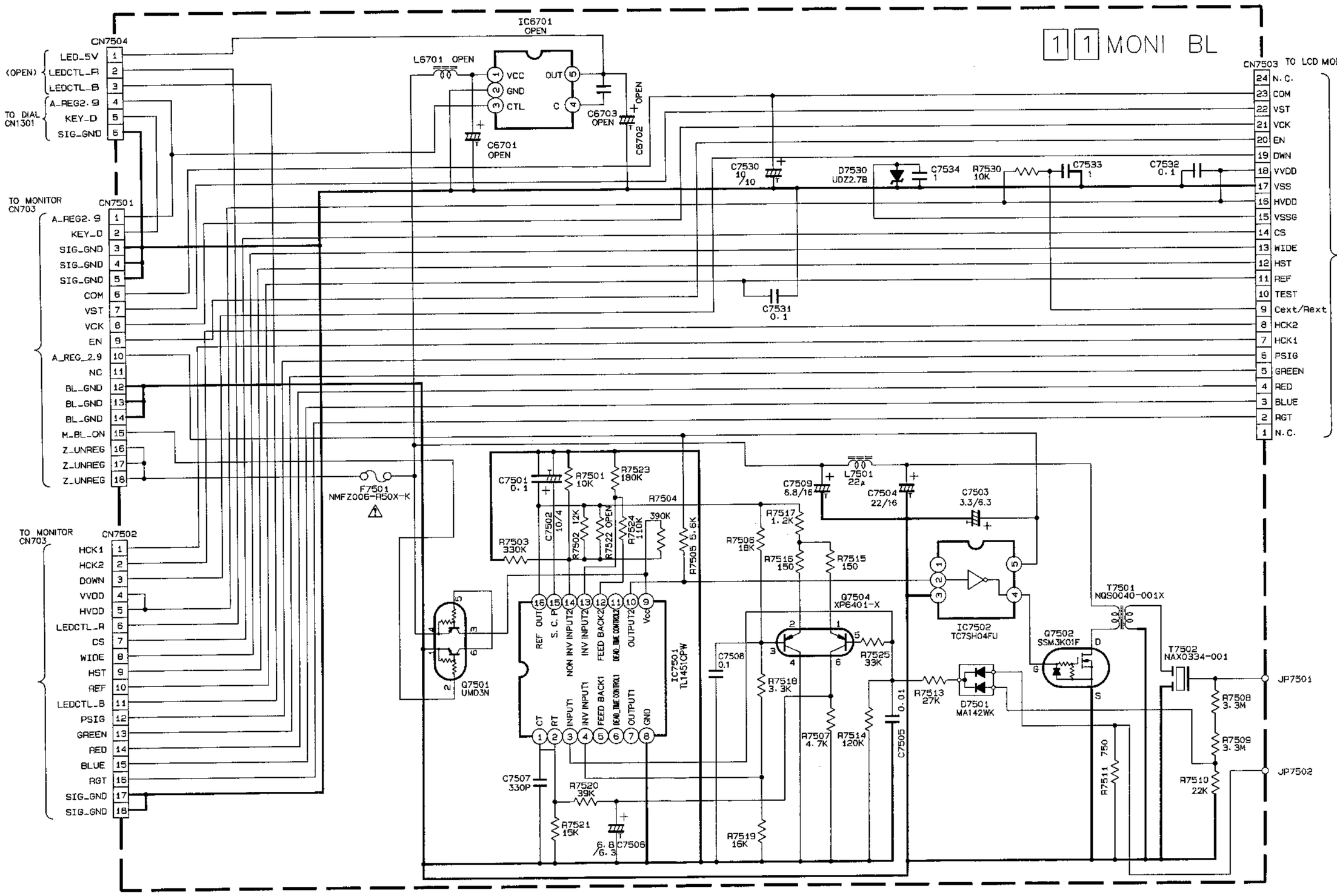


4.23 PRE/REC SCHEMATIC DIAGRAM

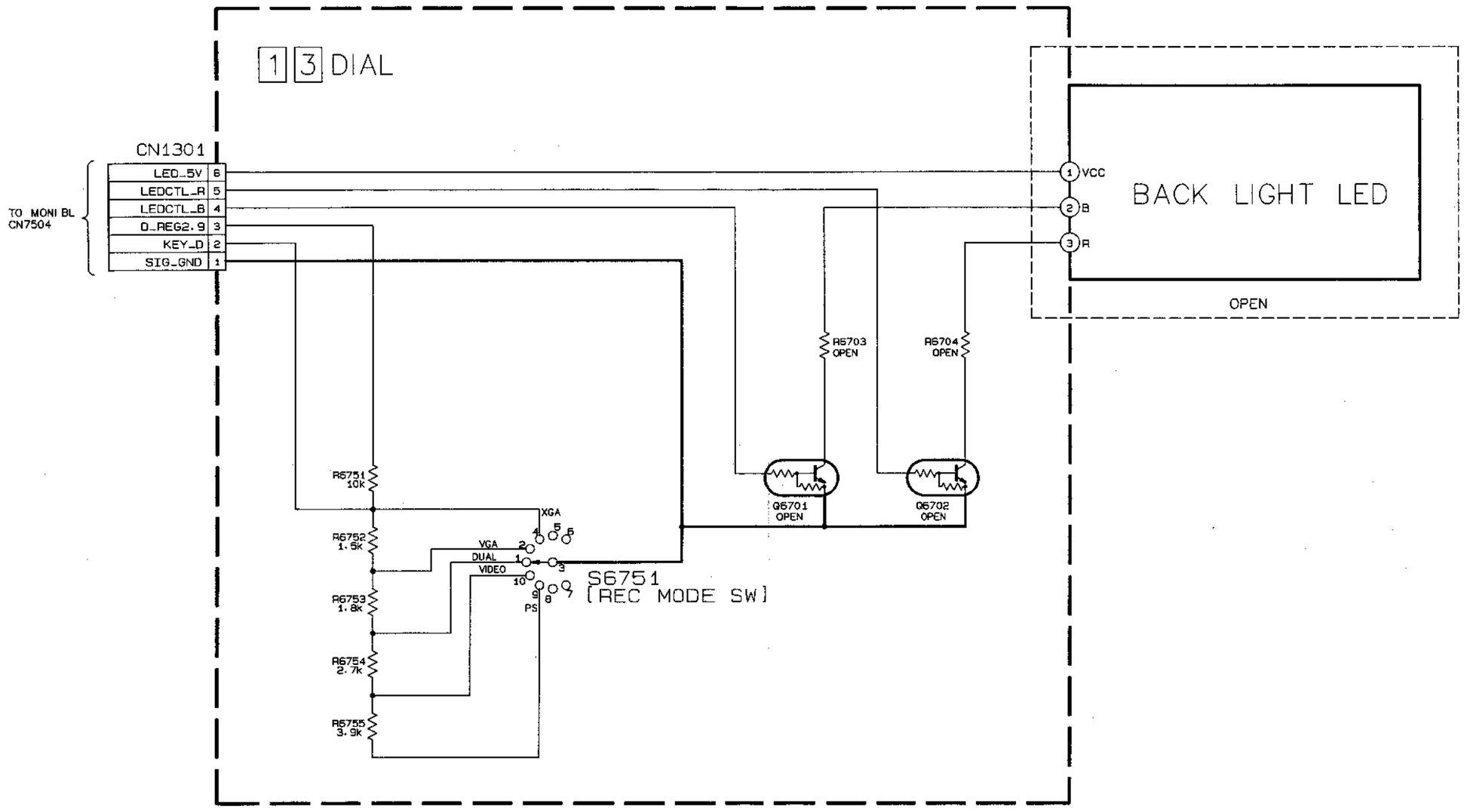



14 MPL
R5408
OPEN
R5407
470
MPL
R5409
0Ω
IC5401
W194-70G-X
R5401
OPEN
R5402
OPEN
R5403
OPEN
R5404
180
R5405
0Ω
R5406
OPEN
FB
IN
GND
FS0
OUT2
VDD
OUT1
FS1
C5404
10p
R5413
0Ω
C5402
OPEN
C5401
0.1
C5407
OPEN
C5403
10/6.3
C5408
0.1
C5406
10/6.3
L5401
NQR0129-002X
CN5401
1 GND
2 GND
3 CK72
4 FCK
5 36A
6 VDD
TO CCD/AD
CN803

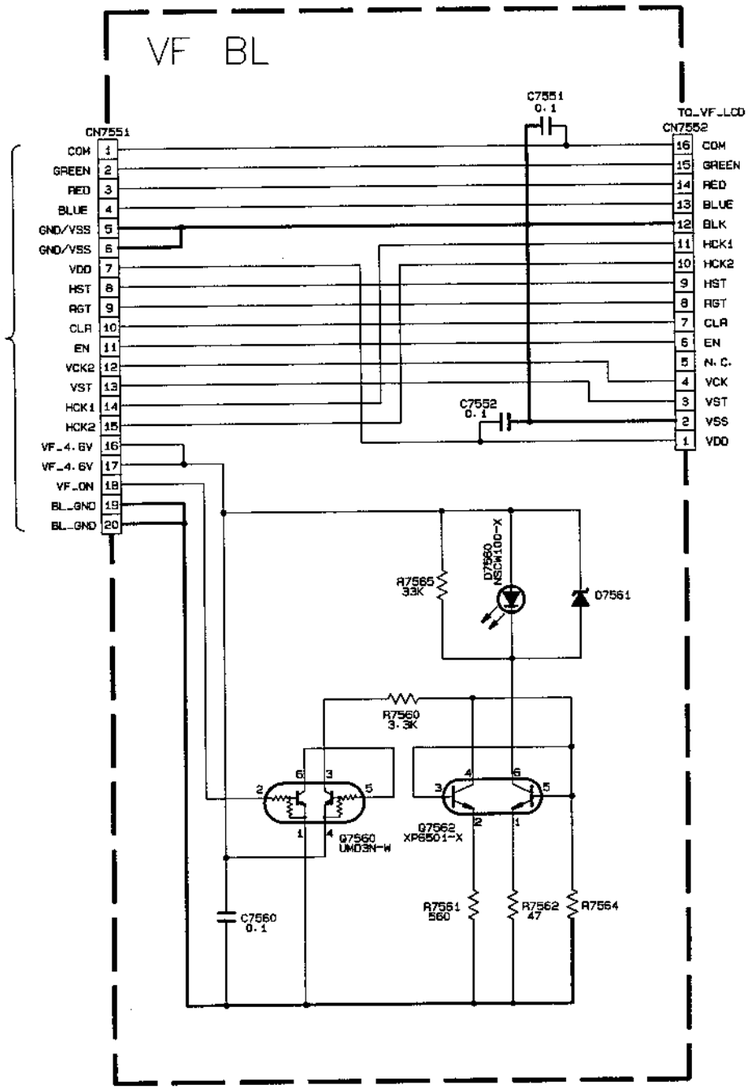
4.25 MONITOR BL SCHEMATIC DIAGRAM

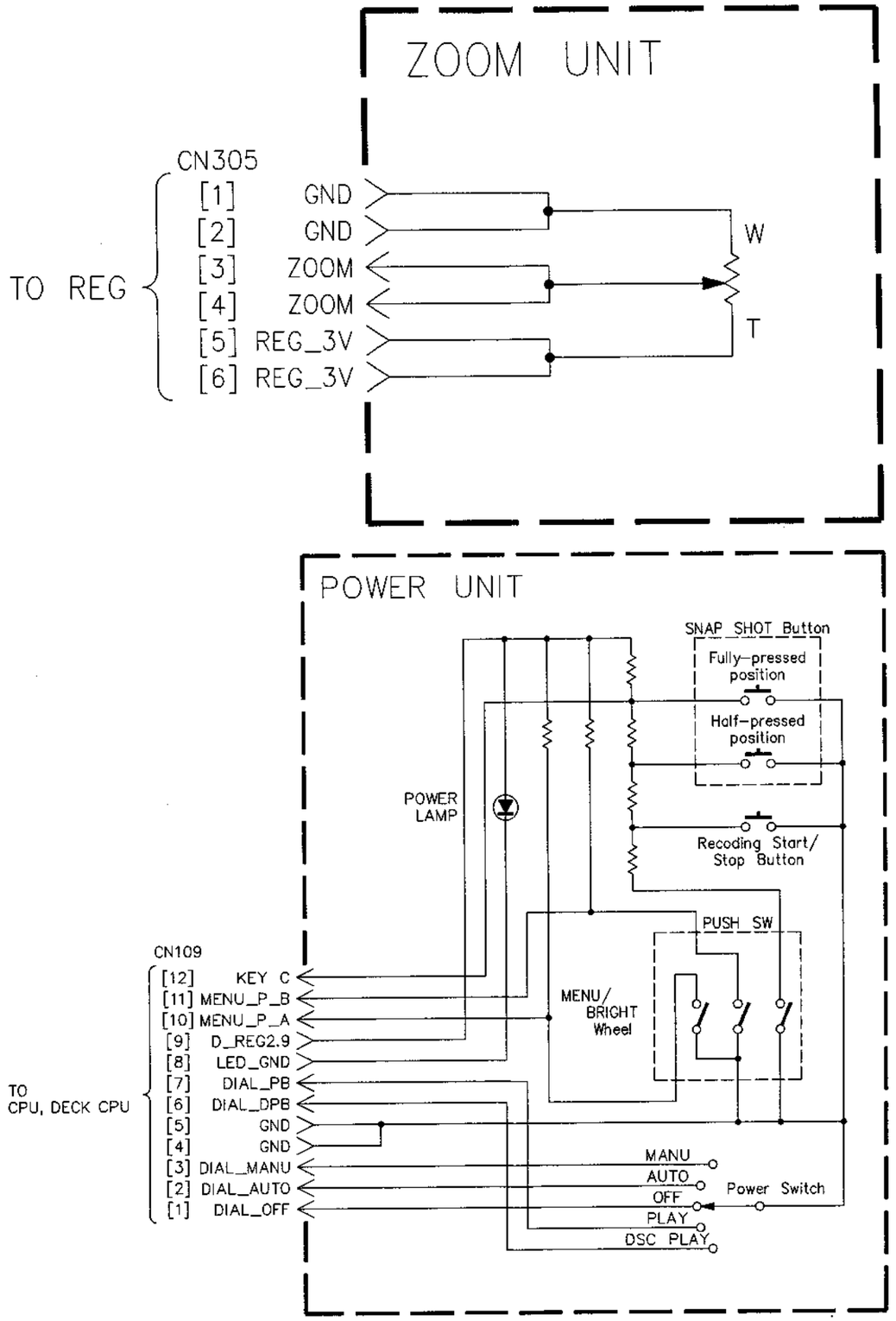


4.26 DIAL SCHEMATIC DIAGRAM

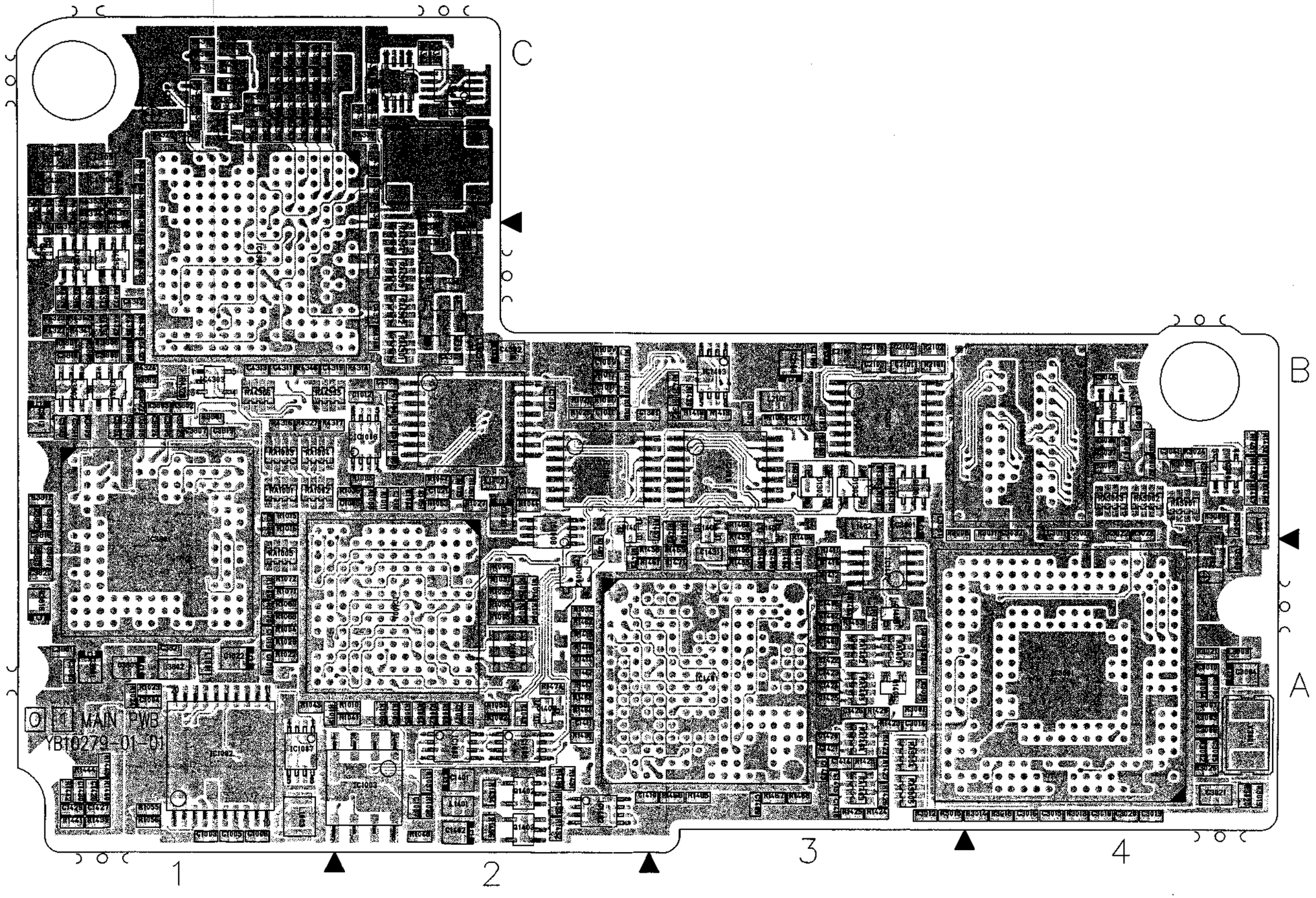


4.27 VF BL, ZOOM UNIT AND POWER UNIT SCHEMATIC DIAGRAMS





FOIL SIDE (B)



COMPONENT PARTS LOCATION GUIDE (MAIN)

REF.No.	LOCATION		
CAPACITOR			
C1003	B	C	1A
C1004	B	C	1A
C1005	B	C	1A
C1006	B	C	1A
C1007	B	C	2A
C1008	B	C	2B
C1009	B	C	2B
C1010	B	C	2B
C1011	B	C	2B
C1012	B	C	2B
C1013	A	C	2C
C1014	A	C	2C
C1015	A	C	2C
C1016	B	C	1A
C1017	B	C	2A
C1018	B	C	2B
C1019	B	C	1A
C1020	B	C	2B
C1021	B	C	2B
C1022	B	C	1A
C1023	B	C	2B
C1301	B	C	2B
C1302	B	C	2B
C1303	B	C	2B
C1304	B	C	2B
C1305	B	C	2B
C1306	B	C	2B
C1307	B	C	3B
C1401	B	C	2A
C1402	B	C	2A
C1405	B	C	3A
C1406	B	C	3A
C1407	B	C	3A
C1408	B	C	3A
C1409	B	C	3A
C1410	B	C	2A
C1411	B	C	2A
C1412	B	C	2A
C1413	B	C	3A
C1414	B	C	3A
C1415	B	C	3A
C1416	B	C	3A
C1420	B	C	3A
C1421	B	C	3A
C1422	B	C	3A
C1423	B	C	3A
C1424	B	C	3A
C1425	B	C	3A
C1426	B	C	3A
C1427	B	C	1A
C1428	B	C	1A
C1429	B	C	1A
C1430	B	C	1A
C1431	B	C	3A
C2101	B	C	3B
C2102	B	C	3B
C2103	B	C	3B
C2104	B	C	3B
C2105	B	C	3B
C2106	B	C	3B
C2107	B	C	3B
C2108	B	C	3B
C3001	B	C	3A
C3002	B	C	4A
C3003	B	C	4A
C3004	B	C	4A
C3005	B	C	4A
C3006	B	C	4A
C3007	B	C	4A
C3010	B	C	4A
C3011	B	C	4A
C3012	B	C	4A
C3013	B	C	3A
C3014	B	C	3A
C3015	B	C	4A
C3016	B	C	4A
C3017	A	C	2A
C3018	B	C	4A
C3019	B	C	4A
C3020	B	C	4A
C3021	B	C	4A
C3032	B	C	4A
C3041	B	C	4B
C3042	B	C	4B

REF.No.	LOCATION		
C3046	B	C	4B
C3047	B	C	4B
C3201	A	C	1A
C3202	A	C	1A
C3203	A	C	1A
C3204	A	C	1A
C3205	A	C	1B
C3206	A	C	1B
C3207	A	C	2A
C3208	A	C	2A
C3209	A	C	1A
C3210	A	C	1A
C3211	A	C	1B
C3212	A	C	2B
C3213	A	C	1A
C3214	A	C	1B
C3215	A	C	1B
C3216	A	C	2A
C3217	A	C	1A
C3218	A	C	2A
C3221	A	C	2B
C3222	A	C	2B
C3301	A	C	3A
C3302	A	C	2A
C3303	A	C	2B
C3304	A	C	3B
C3305	A	C	2A
C3306	A	C	2A
C3307	A	C	2B
C3308	A	C	2B
C3309	A	C	2B
C3310	A	C	2B
C3311	A	C	2B
C3312	A	C	2B
C3313	A	C	2B
C3314	A	C	3B
C3315	A	C	3B
C3316	A	C	3B
C3317	A	C	3A
C3318	A	C	3A
C3319	A	C	3A
C3320	A	C	3A
C3321	A	C	3A
C3322	A	C	2A
C3323	A	C	2A
C3324	A	C	2A
C3325	A	C	2A
C3326	A	C	2A
C3327	A	C	2A
C3328	A	C	2A
C3329	A	C	2A
C3330	A	C	2A
C3331	A	C	2A
C3332	A	C	2A
C3341	A	C	2B
C3342	A	C	2B
C3343	A	C	2B
C3401	A	C	2B
C3402	A	C	1B
C3551	A	C	2A
C3552	A	C	2A
C3702	A	C	4B
C3703	A	C	4B
C3704	A	C	4B
C3705	A	C	4A
C3706	A	C	4A
C3707	A	C	4A
C3708	A	C	4A
C3709	A	C	4A
C3710	A	C	4A
C3711	A	C	4A
C3712	A	C	4A
C3713	A	C	4A
C3714	A	C	4B
C3715	A	C	4A
C3716	A	C	4A
C3717	A	C	4A
C3721	A	C	4B
C3722	A	C	4B
C3723	A	C	4B
C3724	A	C	4B
C3731	A	C	4B
C3732	A	C	4B
C3733	A	C	4B
C3734	A	C	4B

REF.No.	LOCATION		
C3735	A	C	4B
C3736	A	C	4B
C3801	B	C	1A
C3802	B	C	1A
C3803	B	C	1A
C3804	B	C	1B
C3805	B	C	1B
C3806	B	C	1B
C3807	B	C	1B
C3808	B	C	1B
C3809	B	C	1B
C3810	B	C	1B
C3811	B	C	1B
C3812	B	C	1B
C3813	B	C	1B
C3815	B	C	1B
C3816	B	C	1A
C3817	B	C	1A
C3818	B	C	1A
C3819	B	C	1B
C3820	B	C	1A
C3821	B	C	1A
C3822	B	C	1B
C3823	B	C	1B
C3824	B	C	1B
C3851	A	C	3A
C3852	A	C	3A
C3853	A	C	3A
C3854	A	C	3A
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C3856	A	C	4A
C3857	A	C	3A
C3858	A	C	3A
C3859	A	C	3B
C3860	A	C	3B
C3861	A	C	3B
C3862	A	C	3A
C4281	A	C	1B
C4282	A	C	1B
C4283	A	C	1C
C4284	A	C	1C
C4285	A	C	1C
C4286	A	C	1C
C4287	A	C	1C
C4288	A	C	2B
C4301	B	C	2B
C4302	B	C	2B
C4303	B	C	2B
C4304	B	C	1C
C4307	B	C	2B
C4308	B	C	2B
C4309	B	C	2C
C4310	B	C	1C
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C4312	B	C	1B
C4313	B	C	1B
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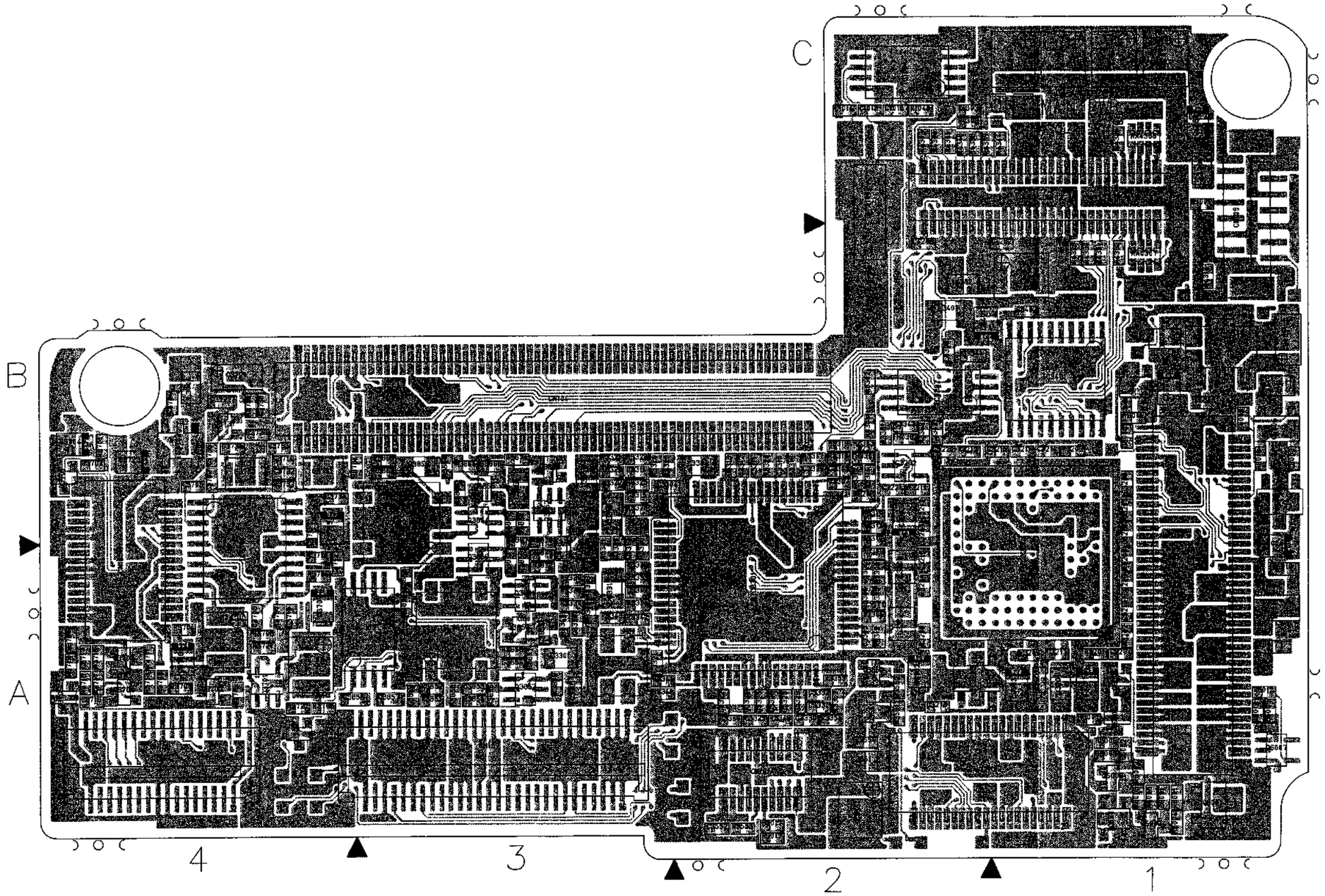
C4319	B	C	1B
C4320	B	C	2B
C4321	B	C	1B
C4323	B	C	2C
C4324	B	C	2C
C4351	B	C	2C
C4352	B	C	1C
C4353	B	C	1C
C4354	B	C	1C
C4355	B	C	1C
C4357	B	C	1C
C4358	B	C	1C
C4359	B	C	1C
C4360	B	C	1C
C4361	B	C	1C
C4362	B	C	1C
C4363	B	C	1C
C4364	B	C	1C
C4365	B	C	1C
C4368	B	C	1B
C4369	B	C	1B
C4370	B	C	1B
C6001	A	C	1A
C6002	A	C	1A

REF.No.	LOCATION		
C6003	A	C	1B
C6004	A	C	1A
C6005	A	C	1B
C6006	A	C	1B
C6007	A	C	1B
C6008	A	C	1B
C6009	A	C	1A
CONNECTOR			
CN101	A	C	2A
CN102	A	C	2A
CN103	A	C	1B
CN104	A	C	4B
CN105	A	C	4B
CN106	A	C	4A
CN107	A	C	3A
CN108	A	C	1A
CN109	A	C	1B
DIODE			
D1002	B	C	2A
D1302	B	C	3B
D1303	B	C	3B
D1401	B	C	2A
D3701	A	C	4A
D6001	A	C	1A
D6002	A	C	1B
IC			
IC1001	B	C	2A
IC1002	B	C	1A
IC1003	B	C	2A
IC1004	A	C	2C
IC1005	B	C	2A
IC1006	B	C	2B
IC1007	B	C	1A
IC1008	B	C	2A
IC1009	B	C	2A
IC1301	B	C	2B
IC1302	B	C	2B
IC1303	B	C	3B
IC1401	B	C	3A
IC1402	B	C	2A
IC1403	B	C	3B
IC1405	B	C	3A
IC2101	B	C	3B
IC3001	B	C	4A
IC3002	B	C	4B
IC3004	B	C	4B
IC3005	B	C	4B
IC3201	A	C	1A
IC3202	A	C	2B
IC3203	A	C	2A
IC3301	A	C	2A
IC3302	A	C	2B
IC3401	A	C	1B
IC3701	A	C	4A
IC3702	A	C	4B
IC3801	B	C	1A
IC3851	A	C	3A
IC4301	B	C	1B
IC4302	B	C	2B
IC4303	B	C	1B
IC4304	B	C	2C
IC4305	B	C	2C
IC6001	A	C	1A
IC6002	A	C	1B
IC6003	A	C	1B
IC6004	A	C	1B
COIL			
L1001	B	C	1A
L1002	B	C	2B
L1003	B	C	1A
L1401	B	C	2A
L1402	B	C	3A
L2101	B	C	3B
L3001	B	C	3A
L3002	B	C	4A
L3003	B	C	4A
L3005	B	C	4B
L3201	A	C	1A
L3202	A	C	1A
L3301	A	C	3A
L3302	A	C	2A

REF.No.	LOCATION		
L3303	A	C	2A
L3304	A	C	2B
L3305	A	C	2B
L3401	A	C	2B
L3551	A	C	2A
L3701	A	C	4B
L3731	A	C	4B
L3732	A	C	4B
L3801	B	C	1A
L3802	B	C	1A
L3851	A	C	3B
L4281	A	C	1C
L4282	A	C	2B
L4301	B	C	2B
L4302	B	C	2B
L4303	B	C	1C
L4305	B	C	2B
L4351	B	C	1C
L6001	A	C	1B
TRANSISTOR			
Q1301	B	C	3B
Q1401	B	C	3A
Q1402	B	C	2A
Q1403	B	C	2A
Q1405	B	C	3A
Q1406	B	C	3A
Q1407	B	C	3A
Q1408	B	C	2A
Q3551	A	C	2A
Q3552	A	C	2A
Q3701	A	C	4B
Q3702	A	C	4A
Q3703	A	C	4A
Q3704	A	C	4A
Q3705	A	C	4A
Q3706	A	C	4A
Q3731	A	C	4B
Q3801	B	C	1B
Q3802	B	C	1B
Q3851	A	C	3A
Q3852	A	C	3A
Q3853	A	C	3A
Q3854	A	C	3B
Q3855	A	C	3B
Q3856	A	C	3A
Q3857	A	C	3B
Q3858	A	C	3B
Q4351	B	C	1C
Q4352	B	C	1B
Q4353	B	C	1B
Q4354	B	C	1B
Q6001	A	C	1A
Q6002	A	C	1A
Q6003	A	C	1A
Q6004	A	C	1A
Q6005	A	C	1A
Q6006	A	C	1B
Q6007	A	C	1A
RESISTOR			
R1001	A	C	1C
R1002	B	C	2A
R1003	B	C	2A
R1004	B	C	1A
R1005	B	C	2A
R1006	B	C	2A
R1007	B	C	2B
R1008	B	C	2A
R1009	B	C	2B
R1010	B	C	2A
R1011	B	C	2B
R1012	B	C	2B
R1013	B	C	2B
R1014	B	C	2A
R1015	B	C	1B
R1016	B	C	1A
R1017	B	C	2B
R1018	B	C	2B
R1019	B	C	1A
R1020	B	C	2B
R1021	B	C	2B
R1022	B	C	1A
R1023	B	C	1A
R1024	B	C	1A

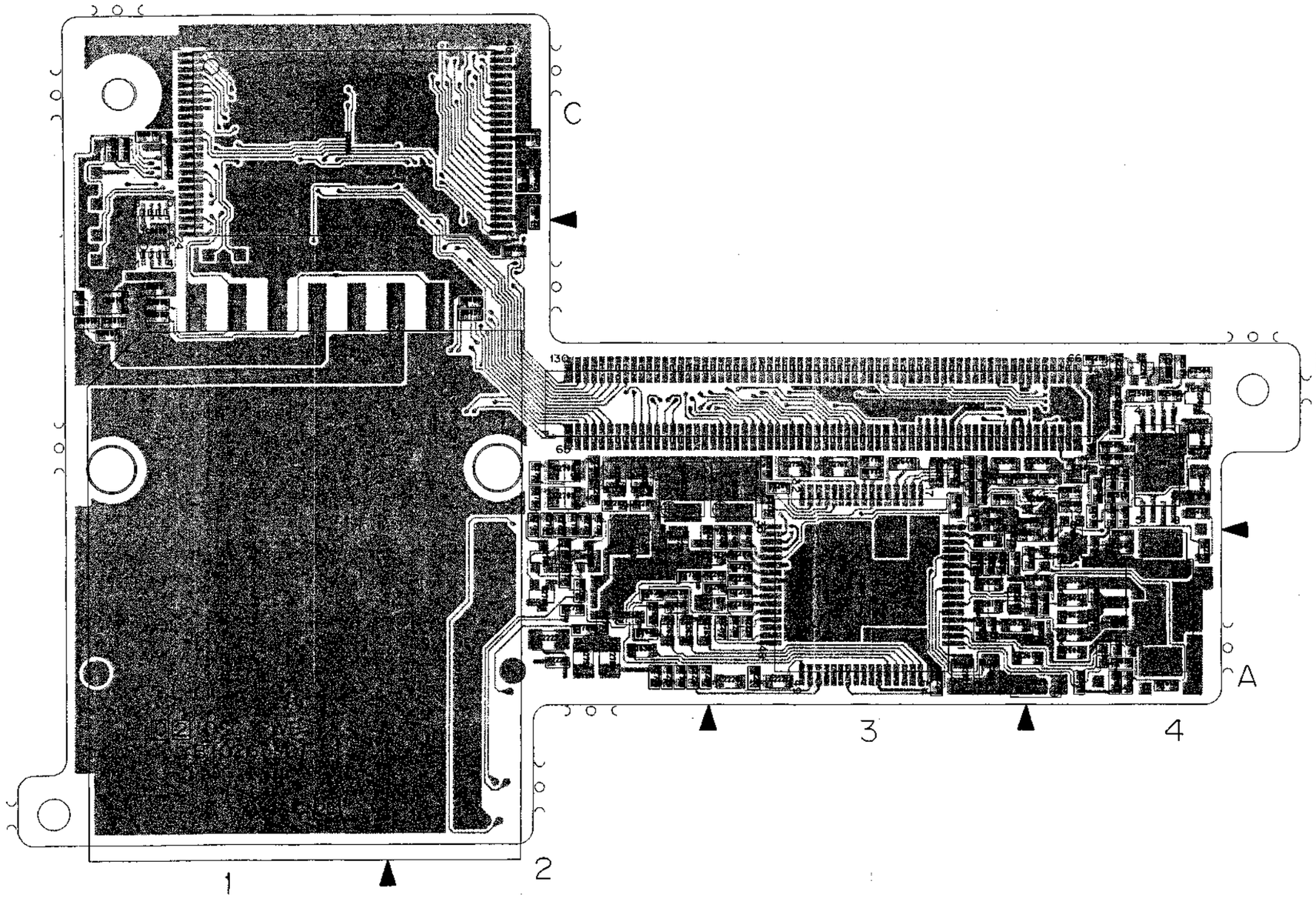
REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION		
R1025	B	C	2B	R1447	B	C	4B	R3317	A	C	2B	R3862	A	C	3B	R4377	B	C	1B
R1026	B	C	2A	R1448	B	C	4B	R3318	A	C	2B	R3863	A	C	3B	R4378	B	C	1B
R1027	B	C	2B	R1449	B	C	4B	R3319	A	C	2B	R3864	A	C	3B	R4379	B	C	1C
R1029	B	C	1A	R1450	B	C	4B	R3320	A	C	2B	R3865	A	C	3B	R4381	B	C	1C
R1031	B	C	2A	R1451	B	C	4B	R3321	A	C	3B	R3866	A	C	3B	R4382	B	C	1C
R1032	B	C	2A	R1452	B	C	4B	R3322	A	C	3B	R3867	A	C	3A	R6001	A	C	1A
R1033	B	C	2A	R1453	B	C	3A	R3323	A	C	3B	R3868	A	C	3B	R6002	A	C	1A
R1034	B	C	2A	R1454	B	C	3A	R3324	A	C	3B	R3869	A	C	3B	R6003	A	C	1A
R1035	B	C	2B	R1455	B	C	3A	R3325	A	C	3B	R3870	A	C	3A	R6004	A	C	1A
R1036	B	C	2B	R1456	B	C	3A	R3326	A	C	3B	R3871	A	C	3A	R6005	A	C	1A
R1037	B	C	2A	R1457	B	C	3A	R3327	A	C	3B	R3872	A	C	3A	R6006	A	C	1A
R1038	B	C	2A	R1458	B	C	2A	R3328	A	C	3B	R3873	A	C	3A	R6007	A	C	1A
R1040	B	C	2B	R1459	B	C	3A	R3329	A	C	3A	R3874	A	C	3B	R6008	A	C	1A
R1041	B	C	2A	R1460	B	C	3A	R3330	A	C	3A	R4301	B	C	1C	R6009	A	C	1B
R1042	B	C	2A	R1461	B	C	2A	R3331	A	C	3A	R4302	B	C	1C	R6010	A	C	1B
R1043	B	C	1A	R1462	B	C	2A	R3332	A	C	3A	R4303	A	C	2C	R6011	A	C	1B
R1044	B	C	2B	R1463	B	C	2A	R3333	A	C	3A	R4304	A	C	2C	R6012	A	C	1A
R1045	A	C	2C	R1464	B	C	2A	R3334	A	C	3A	R4305	A	C	2C	R6013	A	C	1A
R1046	B	C	2A	R1465	B	C	3A	R3335	A	C	3A	R4307	A	C	2C	R6017	A	C	1A
R1047	B	C	2B	R1466	B	C	3A	R3336	A	C	3A	R4308	A	C	2C	R6018	A	C	1A
R1048	B	C	2A	R1467	B	C	3A	R3337	A	C	3A	R4309	B	C	1C	RA1001	B	C	1B
R1049	B	C	1A	R1468	B	C	3A	R3338	A	C	3A	R4310	B	C	1C	RA1002	B	C	1B
R1050	B	C	2A	R1469	B	C	3A	R3339	A	C	3A	R4311	B	C	1C	RA1003	B	C	1B
R1051	B	C	2B	R1470	B	C	3A	R3340	A	C	3A	R4312	B	C	2C	RA1004	B	C	1B
R1052	B	C	2A	R1471	B	C	3A	R3341	A	C	3A	R4313	B	C	2C	RA1005	B	C	1A
R1053	B	C	2B	R1472	B	C	3A	R3342	A	C	3A	R4314	B	C	2B	RA1401	B	C	3A
R1055	B	C	1A	R1473	B	C	2A	R3343	A	C	3A	R4315	B	C	1B	RA1402	B	C	3A
R1056	B	C	1A	R1474	B	C	2A	R3344	A	C	3A	R4316	B	C	1B	RA1403	B	C	3A
R1058	B	C	2B	R2101	B	C	3B	R3349	A	C	2A	R4317	B	C	1B	RA1404	B	C	3A
R1061	B	C	2B	R2102	B	C	3B	R3350	A	C	2A	R4318	A	C	1B	RA1405	B	C	3A
R1062	B	C	2A	R2103	B	C	3B	R3351	A	C	2A	R4319	B	C	2C	RA3001	B	C	4B
R1063	B	C	2A	R2106	B	C	3B	R3352	A	C	2A	R4320	B	C	1B	RA3002	B	C	4B
R1064	B	C	2A	R2107	B	C	3B	R3353	A	C	2A	R4321	B	C	1B	RA3003	B	C	4B
R1065	B	C	2A	R3001	B	C	3A	R3361	A	C	2B	R4322	B	C	1B	RA3004	B	C	3A
R1066	B	C	2A	R3002	B	C	4A	R3362	A	C	2B	R4323	B	C	1B	RA3005	B	C	3A
R1068	B	C	1A	R3003	B	C	4A	R3551	A	C	2A	R4324	B	C	1B	RA4301	B	C	2B
R1069	B	C	1A	R3004	B	C	4A	R3552	A	C	2A	R4325	B	C	1B	RA4302	B	C	2B
R1070	B	C	1A	R3005	B	C	4A	R3553	A	C	2A	R4326	B	C	1B	RA4303	B	C	2B
R1071	B	C	1A	R3006	B	C	4B	R3554	A	C	2A	R4327	B	C	1B	RA4304	B	C	2B
R1072	B	C	1A	R3007	B	C	4A	R3701	A	C	4B	R4328	B	C	1C	RA4305	B	C	1B
R1301	B	C	3B	R3008	B	C	3A	R3702	A	C	4B	R4329	A	C	1B	RA4306	B	C	1B
R1302	B	C	3B	R3009	B	C	4B	R3703	A	C	4A	R4330	A	C	1B	RA4307	A	C	1B
R1303	B	C	3B	R3010	B	C	3A	R3704	A	C	4A	R4331	A	C	1B	RA4308	A	C	1C
R1304	B	C	3B	R3011	B	C	4A	R3705	A	C	4A	R4332	A	C	1B				
R1307	B	C	3B	R3012	B	C	3A	R3706	A	C	4A	R4333	A	C	1C	OTHER			
R1308	B	C	3B	R3013	B	C	4A	R3707	A	C	4A	R4334	B	C	1B				
R1401	B	C	2A	R3014	B	C	4A	R3708	A	C	4A	R4335	B	C	1B	FL3851	A	C	3A
R1402	B	C	3A	R3015	B	C	3A	R3709	A	C	4A	R4336	A	C	2C	FL3852	A	C	3B
R1403	B	C	3A	R3016	B	C	4A	R3711	A	C	4A	R4337	A	C	2C	JP3201	B	C	1A
R1404	B	C	3A	R3017	A	C	2A	R3713	A	C	4A	R4338	B	C	1C	JP4301	B	C	1C
R1408	B	C	3A	R3018	B	C	3A	R3715	A	C	4A	R4339	B	C	2C	TH3301	A	C	2B
R1409	B	C	3A	R3019	B	C	4A	R3716	A	C	4A	R4340	B	C	1B	TH3302	A	C	2B
R1410	B	C	3A	R3020	B	C	4A	R3717	A	C	4A	R4341	B	C	1B	X1001	B	C	2A
R1411	B	C	3A	R3021	B	C	4A	R3718	A	C	4A	R4342	B	C	1B	X1002	A	C	2C
R1412	B	C	3A	R3022	B	C	4A	R3719	A	C	4A	R4343	A	C	2C	X3001	B	C	4A
R1413	B	C	3A	R3023	B	C	4A	R3720	A	C	4A	R4344	A	C	1C	X3301	A	C	3A
R1414	B	C	2A	R3024	B	C	4B	R3721	A	C	4A	R4345	B	C	2B	X4301	B	C	2C
R1415	B	C	2A	R3026	B	C	4A	R3722	A	C	4A	R4346	B	C	1B				
R1416	B	C	2A	R3031	B	C	4B	R3731	A	C	4B	R4347	B	C	2C				
R1417	B	C	2A	R3032	B	C	4B	R3732	A	C	4B	R4348	B	C	2B				
R1418	B	C	3B	R3033	B	C	4B	R3733	A	C	4B	R4351	B	C	1B				
R1419	B	C	3B	R3036	B	C	4B	R3734	A	C	4B	R4352	B	C	1B				
R1420	B	C	3B	R3037	B	C	4B	R3801	B	C	1B	R4353	B	C	1C				
R1421	B	C	3B	R3201	A	C	1A	R3802	B	C	1B	R4354	B	C	1C				
R1422	B	C	3A	R3202	A	C	1A	R3803	B	C	1B	R4355	B	C	1C				
R1423	B	C	3A	R3203	A	C	2B	R3804	B	C	1A	R4356	B	C	1C				
R1424	B	C	3A	R3204	A	C	2A	R3805	B	C	1B	R4358	B	C	1C				
R1425	B	C	3A	R3208	A	C	1A	R3806	B	C	1B	R4359	B	C	1C				
R1426	B	C	3A	R3209	A	C	1B	R3807	B	C	1B	R4360	B	C	1C				
R1427	B	C	3A	R3211	A	C	2B	R3808	B	C	1B	R4361	B	C	1C				
R1428	B	C	3A	R3212	A	C	2B	R3809	B	C	1B	R4362	B	C	1C				
R1429	B	C	3A	R3301	A	C	2B	R3810	B	C	1A	R4363	B	C	1C				
R1430	B	C	2A	R3302	A	C	2B	R3811	B	C	1B	R4364	B	C	1C				
R1431	B	C	2A	R3303	A	C	2B	R3812	B	C	1B	R4365	B	C	1C				
R1432	B	C	2A	R3305	A	C	2A	R3813	B	C	1B	R4366	B	C	1C				
R1433	B	C	2A	R3306	A	C	2A	R3851	A	C	3A	R4367	B	C	1C				
R1434	B	C	2A	R3308	A	C	2A	R3852	A	C	3A	R4368	B	C	1C				
R1436	B	C	2A	R3309	A	C	2A	R3853	A	C	3A	R4369	B	C	1B				
R1438	B	C	2A	R3310	A	C	2A	R3854	A	C	3A	R4370	B	C	1B				
R1439	B	C	1A	R3311	A	C	2B	R3855	A	C	3A	R4371	B	C	1B				
R1440	B	C	1A	R3312	A	C	2A	R3856	A	C	3A	R4372	B	C	1B				
R1441	B	C	1A	R3313	A	C	2A	R3857	A	C	3A	R4373	B	C	1B				
R1442	B	C	1A	R3314	A	C	2B	R3858	A	C	3A	R4374	B	C	1B				
R1443	B	C	1A	R3315	A	C	2B	R3859	A	C	3A	R4375	B	C	1B				
R1444	B	C	1A	R3316	A	C	2B	R3861	A	C	3A	R4376	B	C	1B				

COMPONENT SIDE (A)



4.29 DSC CIRCUIT BOARD

FOIL SIDE (B)



COMPONENT PARTS LOCATIONGUIDE (DSC)

REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION		
CAPACITOR				C4802	A	C	3B	C8045	A	C	1A
C1201	A	C	3A	C4803	A	C	3A	C8046	A	C	1A
C1202	A	C	3A	C4804	A	C	3A	C8048	A	C	1C
C1203	A	C	3A	C4805	A	C	4B	C8049	A	C	1C
C1204	A	C	3A	C4806	A	C	4B	C8050	A	C	2C
C2202	B	C	3B	C4807	A	C	4B	C8051	A	C	2C
C2203	B	C	2B	C4808	A	C	4B	C8052	A	C	2C
C2204	B	C	2B	C4809	A	C	4B	C8053	A	C	2C
C2205	B	C	2B	C4810	A	C	4B	C8054	A	C	2C
C2206	B	C	2B	C4811	A	C	4B	C8055	A	C	2B
C2207	B	C	3B	C4812	A	C	4B	C8056	A	C	2C
C2208	B	C	3B	C4813	A	C	3A	C8057	A	C	1B
C2210	B	C	3B	C4814	A	C	4B	C8058	A	C	2B
C2211	B	C	2B	C4815	A	C	3B	C8059	A	C	1C
C2212	B	C	2A	C4816	A	C	4B	C8060	A	C	1C
C2214	B	C	3A	C4817	A	C	3B				
C2215	B	C	3A	C4818	A	C	3B	CONNECTOR			
C2216	B	C	3A	C4819	A	C	3B	CN201	B	C	1A
C2217	B	C	3A	C4820	A	C	4B	CN202	B	C	4B
C2218	B	C	4B	C4821	A	C	3B	CN203	A	C	1B
C2220	B	C	3A	C4822	A	C	4B	CN204	B	C	4A
C2221	B	C	3A	C4823	A	C	4B	CN205	A	C	4A
C2224	B	C	2A	C4851	A	C	3A	CN206	A	C	4B
C2225	B	C	2A	C4852	A	C	3A	CN207	A	C	3B
C2227	B	C	2A	C4853	A	C	3A				
C2401	A	C	2A	C4854	A	C	2A	DIODE			
C2405	A	C	2A	C4855	A	C	3A	D1201	A	C	3A
C2406	A	C	2A	C4858	A	C	3B	D2501	B	C	4B
C2407	A	C	2A	C4859	A	C	3B	D2502	B	C	4A
C2411	A	C	2A	C4860	A	C	3A	D2702	A	C	2A
C2413	B	C	2A	C4861	A	C	3A	D2751	A	C	2A
C2501	B	C	4B	C4862	A	C	3A				
C2502	B	C	4B	C4863	A	C	3A	IC			
C2503	B	C	4B	C4864	A	C	2A	IC1201	A	C	4A
C2504	B	C	4B	C4865	A	C	3A	IC2201	B	C	3A
C2505	B	C	4B	C4866	A	C	3B	IC2501	B	C	4B
C2506	B	C	4B	C6601	A	C	2B	IC4802	A	C	4B
C2508	B	C	4B	C6602	A	C	3B	IC4803	A	C	4B
C2601	B	C	4A	C6603	A	C	2B	IC4804	A	C	3B
C2602	B	C	4A	C6604	A	C	2B	IC4805	A	C	3B
C2603	B	C	4A	C6605	A	C	2B	IC4851	A	C	3A
C2604	B	C	4A	C6611	A	C	2B	IC6601	A	C	2B
C2605	B	C	3A	C6612	A	C	3B	IC8001	A	C	2C
C2606	B	C	4B	C6613	A	C	3B	IC8002	A	C	2A
C2611	B	C	4A	C8001	A	C	2B	IC8003	A	C	1B
C2612	B	C	3A	C8002	A	C	2B	IC8004	B	C	1C
C2613	B	C	4A	C8003	A	C	2B	IC8005	A	C	2B
C2614	B	C	3B	C8004	A	C	2B	IC8006	A	C	2A
C2615	B	C	4A	C8005	A	C	2B	IC8007	A	C	1A
C2616	B	C	3B	C8006	A	C	2A	IC8008	A	C	1C
C2617	B	C	3A	C8007	A	C	1A	IC8009	B	C	1B
C2618	B	C	3A	C8008	A	C	2A				
C2619	B	C	3A	C8009	A	C	1A	COIL			
C2620	B	C	3A	C8010	A	C	1A	L1201	A	C	3A
C2621	B	C	3A	C8011	A	C	1A	L2401	A	C	2A
C2622	B	C	3A	C8012	A	C	1C	L2601	B	C	4A
C2625	B	C	3A	C8013	A	C	1C	L2602	B	C	4A
C2626	B	C	3A	C8017	B	C	2C	L2603	B	C	4A
C2627	B	C	3A	C8018	B	C	1B	L4801	A	C	3B
C2628	B	C	3A	C8019	B	C	1B	L4802	A	C	4A
C2629	B	C	4A	C8020	A	C	1A	L4851	A	C	3A
C2631	B	C	3A	C8021	A	C	1A	L4852	A	C	3A
C2632	B	C	3B	C8022	A	C	1A	L4853	A	C	2A
C2633	B	C	2A	C8023	A	C	1A	L6601	A	C	3B
C2634	B	C	3B	C8024	A	C	1A	L8001	A	C	1A
C2635	B	C	2A	C8025	A	C	1A	L8002	A	C	2A
C2636	B	C	4B	C8026	A	C	1B	L8003	A	C	1C
C2637	B	C	2A	C8027	A	C	1A	L8005	A	C	1A
C2638	B	C	3B	C8028	A	C	1A	L8006	A	C	1A
C2639	B	C	2A	C8029	A	C	1B	L8007	A	C	1A
C2640	B	C	3B	C8030	A	C	1B	L8008	A	C	1A
C2702	B	C	2B	C8031	A	C	1B	L8009	B	C	1B
C2703	B	C	2B	C8032	A	C	1B	L8010	A	C	2C
C2708	B	C	2B	C8033	A	C	1B	L8011	A	C	2B
C2709	B	C	2B	C8034	A	C	1B				
C2752	A	C	2A	C8035	A	C	1B	TRANSISTOR			
C2753	B	C	2A	C8036	A	C	1B	Q2201	B	C	4B
C2754	B	C	3B	C8037	A	C	1B	Q2403	A	C	2A
C2756	A	C	2A	C8038	A	C	1B	Q2405	A	C	2A
C2757	A	C	2A	C8039	A	C	1B	Q2406	A	C	2A
C2764	A	C	2A	C8040	A	C	1B	Q2501	B	C	4B
C2765	A	C	2A	C8041	A	C	1B	Q2603	B	C	4A
C2766	B	C	2A	C8042	A	C	1A	Q2604	B	C	4A
C2767	B	C	3B	C8043	A	C	1A	Q2605	B	C	4B
C4801	A	C	3B	C8044	A	C	1A	Q2703	B	C	2A

COMPONENT SIDE(A)

REF.No.	LOCATION		
Q2704	B	C	2A
Q2705	B	C	2A
Q2751	A	C	2A
Q2752	A	C	2A
Q2754	A	C	2A
Q2755	A	C	2A
Q4803	A	C	4B
Q4851	A	C	3A
Q6601	A	C	2B
Q6602	A	C	2B
Q6611	A	C	3B
Q6612	A	C	2B
Q6613	A	C	2B
Q6614	A	C	3B
Q8615	A	C	2B
RESISTOR			
R1201	A	C	3A
R1202	A	C	3A
R2201	B	C	2B
R2202	B	C	2B
R2203	B	C	3A
R2204	B	C	3A
R2205	B	C	3A
R2206	B	C	3A
R2208	B	C	3A
R2210	B	C	4B
R2220	B	C	3A
R2221	B	C	3A
R2224	B	C	3A
R2225	B	C	3A
R2226	B	C	3A
R2227	B	C	3A
R2228	B	C	2A
R2229	B	C	4B
R2230	B	C	4A
R2408	A	C	2A
R2410	A	C	2A
R2411	A	C	2A
R2412	A	C	2A
R2413	A	C	2A
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R2623	B	C	4A
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R2627	B	C	2A
R2628	B	C	3B
R2629	B	C	2A
R2630	B	C	3B
R2631	B	C	2A
R2632	B	C	4B

REF.No.	LOCATION		
R2633	B	C	2A
R2634	B	C	3B
R2635	B	C	2A
R2636	B	C	3B
R2637	B	C	4B
R2638	B	C	3B
R2639	B	C	3B
R2701	B	C	2B
R2702	B	C	2B
R2710	B	C	2A
R2711	B	C	2B
R2712	B	C	2B
R2713	B	C	2B
R2714	B	C	2B
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R2778	B	C	2A
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R4803	A	C	3B
R4804	A	C	3B
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R4806	A	C	4B
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R4868	A	C	3B
R4869	A	C	2A
R4870	A	C	2A
R4871	A	C	3A
R4872	A	C	3A
R6601	A	C	2B
R6602	A	C	2B
R6603	A	C	2B
R6604	A	C	2B

REF.No.	LOCATION		
R6605	A	C	2B
R6606	A	C	2B
R6611	A	C	2B
R6612	A	C	2B
R6613	A	C	2B
R6614	A	C	2B
R6615	A	C	3B
R6616	A	C	3B
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R8007	B	C	1B
R8008	B	C	1B
R8009	B	C	1B
R8010	B	C	1B
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R8013	A	C	2B
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R8031	A	C	1B
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R8038	A	C	1B
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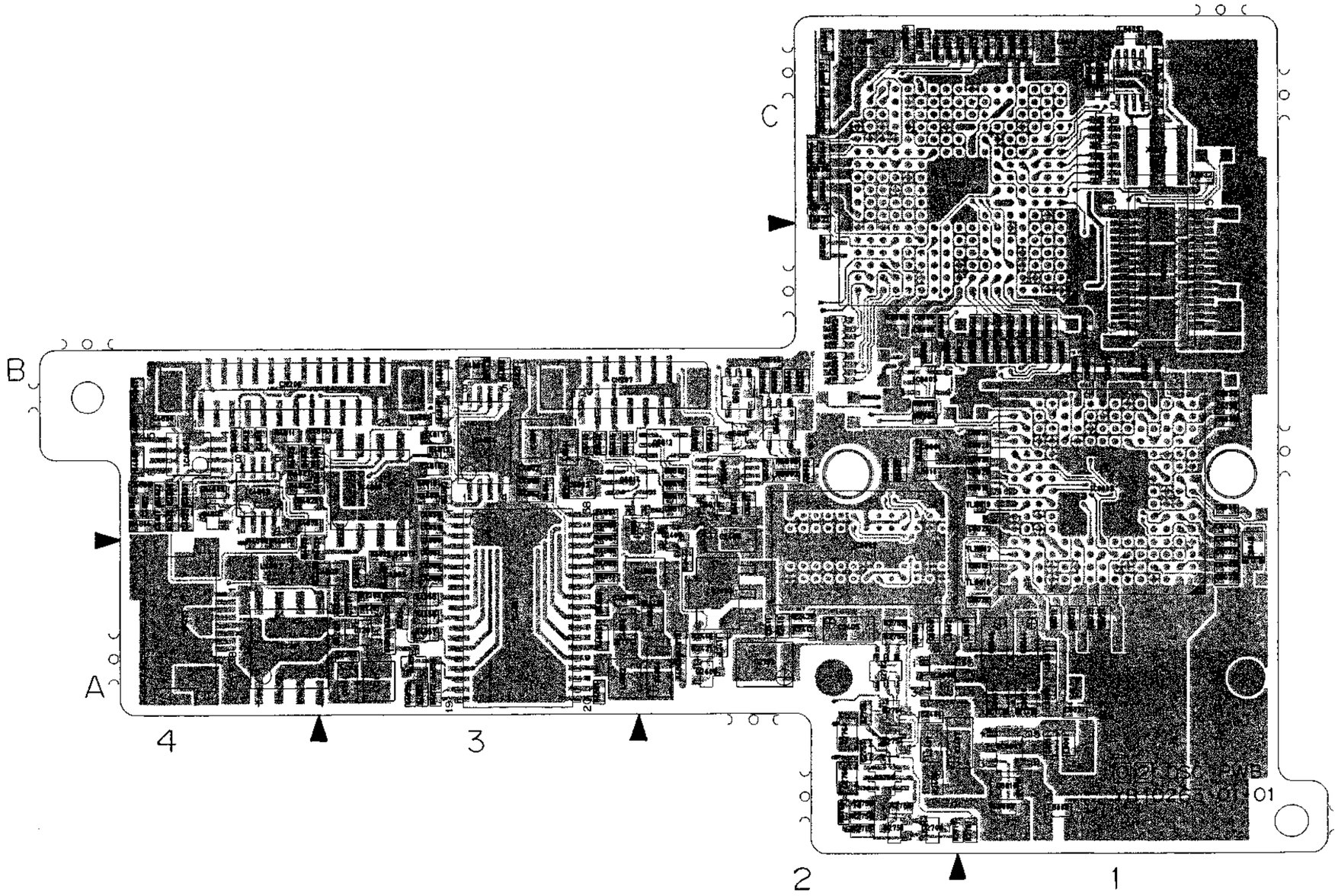
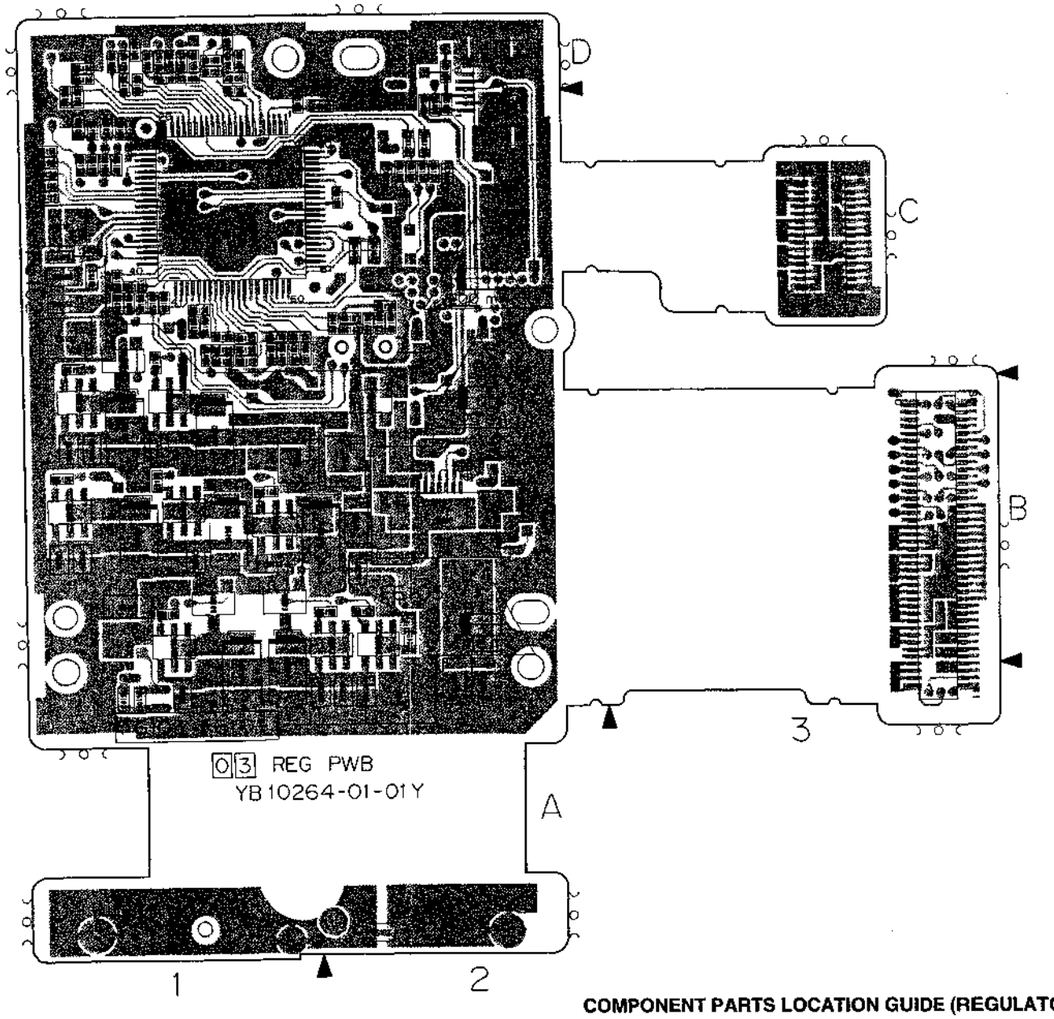
R8063	A	C	1B
R8064	A	C	2C
R8065	B	C	2C
R8066	A	C	1B
R6067	A	C	1B
RA8001	A	C	2B
RA8002	A	C	2B
RA8003	A	C	1C
RA8004	A	C	1C
COIL			
X8002	A	C	1C

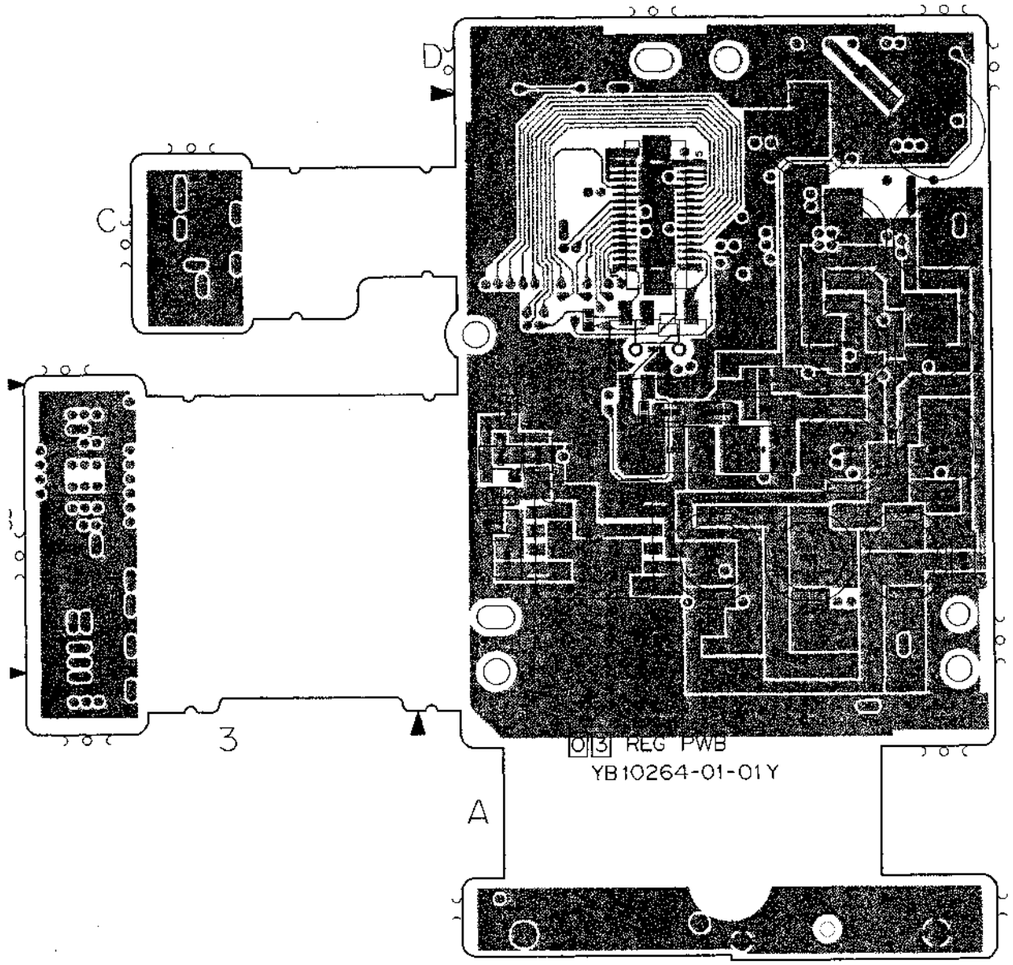


4.30 REGULATOR CIRCUIT BOARD

FOIL SIDE (B)



COMPONENT SIDE (A)



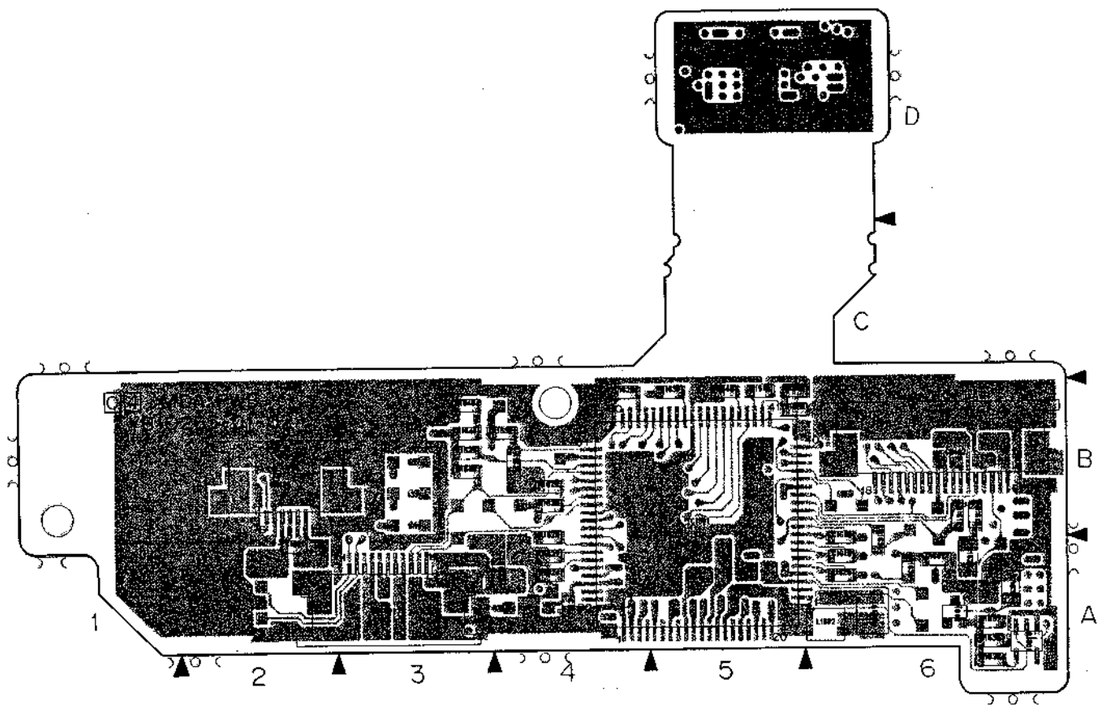
COMPONENT PARTS LOCATION GUIDE (REGULATOR)

REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION		
CAPACITOR				C6124	B	C	1C	C6150	B	C	1A	DIODE			
C6101	B	C	1C	C6125	B	C	1C	C6151	B	C	1B	D6101	B	C	1B
C6102	B	C	1C	C6126	B	C	2C	C6153	B	C	1B	D6102	B	C	2B
C6103	B	C	2C	C6127	B	C	2C	C6154	B	C	1C	D6103	B	C	1B
C6104	B	C	1D	C6128	B	C	1B	C6156	B	C	2A	D6104	A	C	2B
C6105	B	C	1D	C6129	B	C	1A	C6157	A	C	1B	D6105	B	C	2B
C6106	B	C	1D	C6130	B	C	1B	C6158	A	C	1B	D6106	B	C	1B
C6107	B	C	1D	C6131	B	C	1B	C6159	A	C	2B	D6107	B	C	1A
C6108	B	C	1D	C6132	B	C	1C	C6162	B	C	2A	D6108	B	C	1B
C6109	B	C	1D	C6133	B	C	1B	C6163	B	C	1C	D6109	B	C	1A
C6110	B	C	1D	C6134	A	C	1C	C6164	B	C	1C	IC			
C6111	B	C	1D	C6135	B	C	1B	C6165	B	C	1C	IC6101	B	C	1C
C6112	B	C	2C	C6136	A	C	1B	C6166	B	C	1C	COIL			
C6113	B	C	2C	C6138	B	C	2A	C6167	B	C	2C	L6101	A	C	1C
C6114	B	C	1C	C6139	B	C	2B	CONNECTOR				L6102	A	C	1B
C6115	B	C	1C	C6140	A	C	2B	CN301	B	C	3A	L6103	A	C	1B
C6116	B	C	1C	C6141	A	C	2B	CN302	B	C	3C	L6104	A	C	1C
C6117	B	C	1C	C6142	B	C	2A	CN303	A	C	2C	L6105	A	C	1C
C6118	B	C	1C	C6143	B	C	2A	CN304	B	C	2C	L6106	A	C	1B
C6119	B	C	1C	C6144	A	C	2B	CN305	B	C	2B	L6108	A	C	2B
C6120	B	C	1C	C6145	B	C	1B	CN6101	A	D	1A	L6109	A	C	2B
C6121	B	C	1C	C6146	B	C	1B					L6110	A	C	1C
C6122	B	C	1C	C6147	B	C	2B								
C6123	B	C	1C	C6148	B	C	2B								

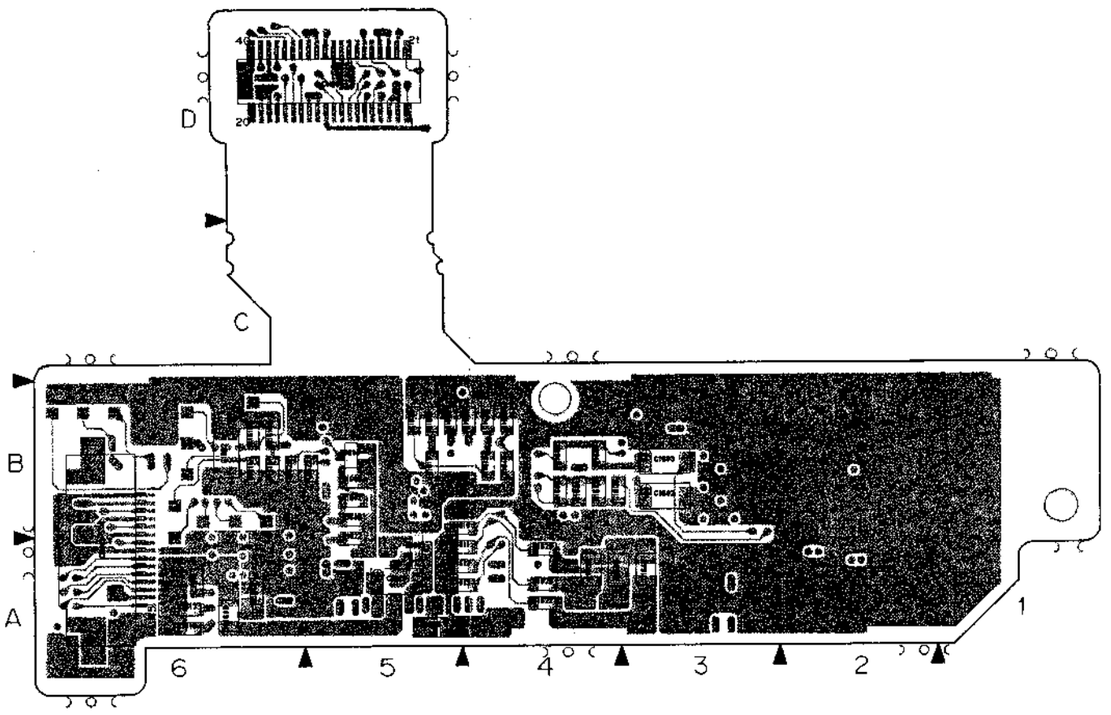
REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION		
L6112	A	C	1B	R6105	B	C	1C	R6131	B	C	1C	R6157	B	C	1C
L6114	A	C	1C	R6106	B	C	1D	R6132	B	C	1C	R6158	B	C	2B
L6116	A	C	1B	R6107	B	C	1D	R6133	B	C	1C	R6159	B	C	1C
L6117	A	C	2B	R6108	B	C	1C	R6134	B	C	1C	R6163	B	C	2C
L6118	A	C	1B	R6109	B	C	1D	R6135	B	C	1C	R6164	B	C	2C
TRANSISTOR				R6110	B	C	1C	R6136	B	C	1C	R6165	B	C	2C
Q6103	B	C	1B	R6111	B	C	1C	R6137	B	C	1C	R6166	B	C	2D
Q6104	B	C	1B	R6112	B	C	1C	R6138	B	C	1C	R6167	B	C	2C
Q6105	B	C	1B	R6114	B	C	1D	R6139	B	C	1C	R6168	B	C	2C
Q6106	B	C	2B	R6115	B	C	1D	R6140	B	C	1C	R6169	B	C	2C
Q6107	B	C	1B	R6117	B	C	1D	R6141	B	C	1C	R6170	B	C	1C
Q6108	B	C	1B	R6118	B	C	1D	R6142	B	C	1C	R6171	B	C	1D
Q6109	B	C	1B	R6119	B	C	1D	R6143	B	C	2C	OTHER			
Q6110	B	C	1B	R6120	B	C	1D	R6144	B	C	2C	BT6001	A	C	1C
Q6111	B	C	1C	R6121	B	C	1D	R6145	B	C	2C	F6101	B	C	1A
Q6112	B	C	2B	R6122	B	C	1D	R6146	B	C	2C	F6102	B	C	1C
Q6113	B	C	1B	R6123	B	C	2C	R6147	B	C	1B	F6103	B	C	1A
RESISTOR				R6124	B	C	2C	R6148	B	C	1B	F6105	B	C	2B
R6101	B	C	1C	R6125	B	C	2C	R6151	B	C	1B	S6101	A	C	2C
R6102	B	C	1C	R6126	B	C	2C	R6152	B	C	2B	T6101	A	C	2B
R6103	B	C	1C	R6127	B	C	2C	R6153	A	C	2C				
R6104	B	C	1D	R6128	B	C	2C	R6154	A	C	2B				
				R6129	B	C	1C	R6155	B	C	1C				
				R6130	B	C	1C	R6156	B	C	1B				

4.31 MDA CIRCUIT BOARD

FOIL SIDE (B)



COMPONENT SIDE (A)

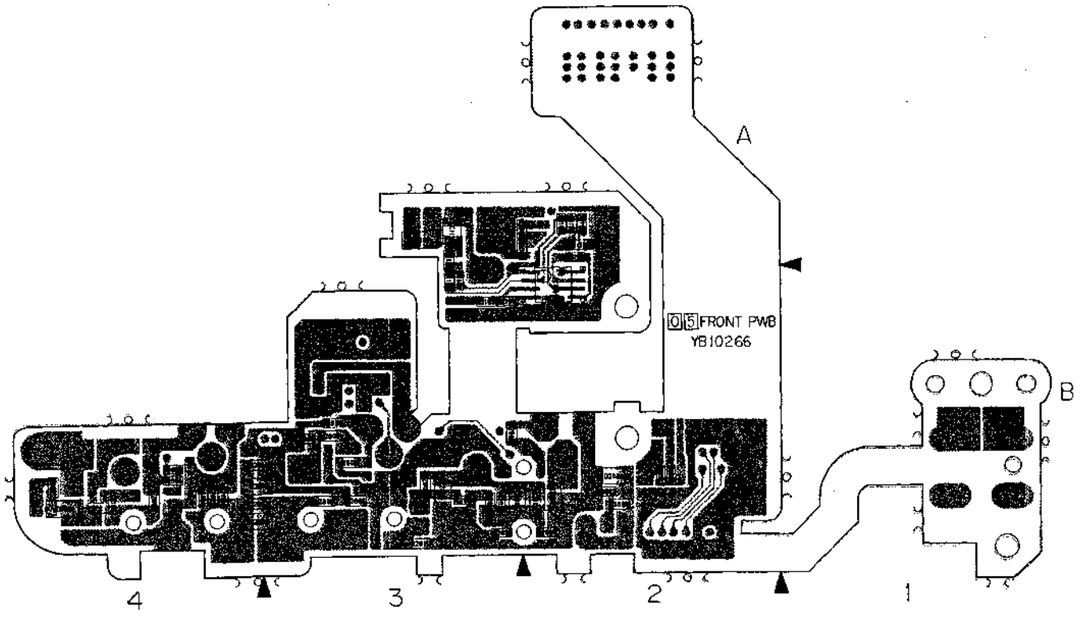


COMPONENT PARTS LOCATION GUIDE (MDA)

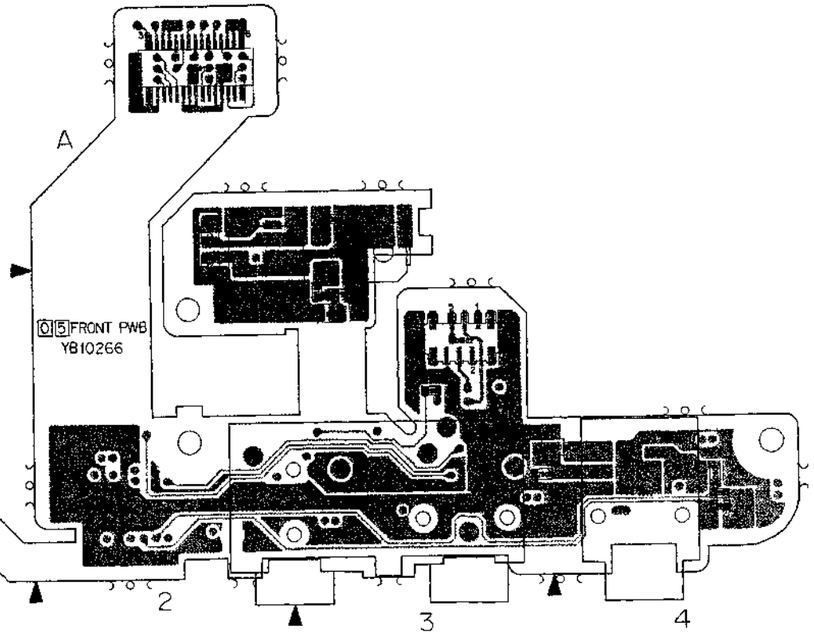
REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION
CAPACITOR		C1618	B C 6A	C1639	A C 4A	D1604	A C 5B	R1603	A C 4B	R1618	A C 5B	R1634	B C 6A
C1601	B C 2A	C1619	B C 6A	C1640	A C 3A			R1604	A C 4B	R1619	A C 4B	R1635	B C 6A
C1602	A C 3B	C1620	B C 6A	C1641	B C 4A	IC		R1605	A C 5A	R1620	B C 4B	R1636	B C 6A
C1603	A C 3B	C1621	B C 6A	C1642	A C 6A	IC1601	B C 5B	R1606	A C 5B	R1621	B C 4B	R1637	B C 6A
C1605	A C 4B	C1622	A C 5B	CONNECTOR				R1607	A C 5B	R1622	A C 5A	R1638	B C 5B
C1606	A C 4B	C1623	A C 6B			COIL		R1608	A C 5B	R1624	B C 4A	R1639	B C 5B
C1607	B C 6A	C1624	A C 5B	CN401	A C 6B	L1601	B C 6A	R1609	A C 6A	R1625	A C 4A	R1640	B C 3B
C1610	A C 5B	C1625	A C 4B	CN402	B C 6B	L1602	B C 6A	R1610	A C 6B	R1626	A C 4A	R1641	B C 3B
C1611	A C 5A	C1626	A C 4B	CN403	B C 3A			R1611	A C 6B	R1627	A C 4A	R1642	B C 4A
C1612	A C 5A	C1627	B C 4A	CN404	B C 2B	TRANSISTOR		R1612	B C 6B	R1628	B C 4B	R1643	B C 3B
C1613	A C 5A	C1628	B C 4B	CN405	A C 5D			R1613	B C 6B	R1629	B C 3B	R1644	A C 4B
C1614	A C 5A	C1632	A C 6B			Q1601	B C 6A	R1614	A C 6B	R1630	B C 6A	R1645	A C 4B
C1615	A C 6A	C1633	B C 6A	DIODE				R1615	A C 6B	R1631	B C 5B	R1646	B C 5B
C1616	A C 6A	C1635	A C 5B			RESISTOR		R1616	B C 5B	R1632	B C 4B		
C1617	A C 6A	C1638	A C 4A	D1602	A C 5A			R1617	A C 5B	R1633	B C 4B		
				D1603	B C 6A	R1601	A C 4B						
						R1602	A C 4B						

4.32 FRONT CIRCUIT BOARD

FOIL SIDE (B)



COMPONENT SIDE (A)

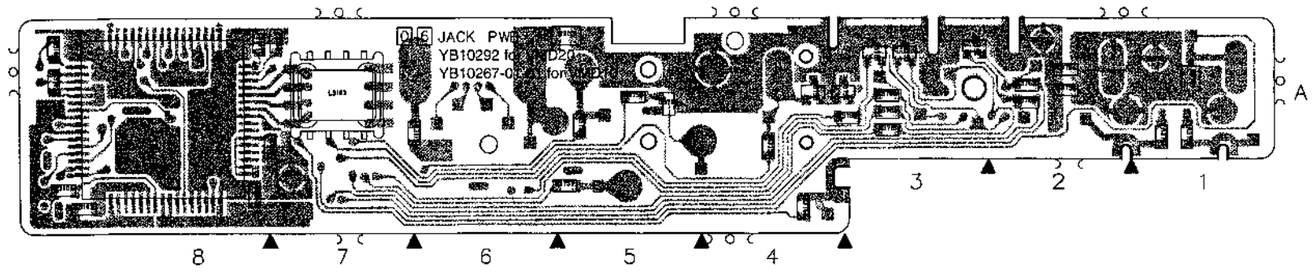


COMPONENT PARTS LOCATION GUIDE (FRONT)

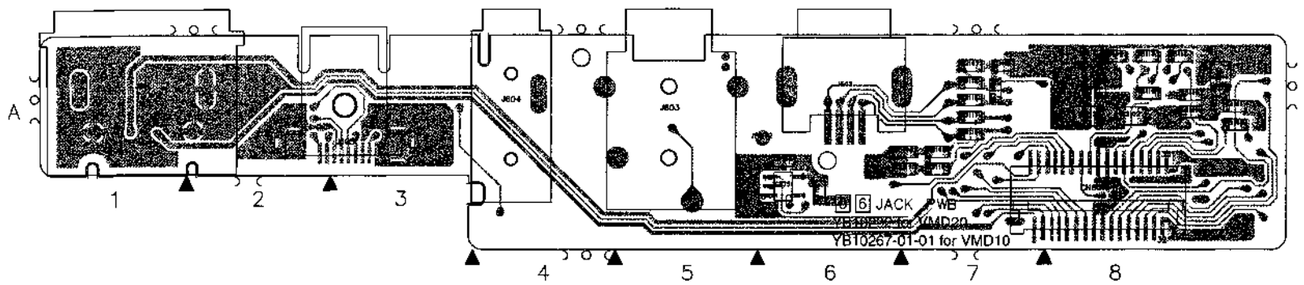
REF.No.	LOCATION		
CAPACITOR			
C1101	A	C	3A
C1102	B	C	3B
C1103	B	C	3B
C1111	B	C	2A
C1112	B	C	3A
C1113	A	C	2B
C1151	A	C	3B
C1801	A	C	2A
C1802	B	C	2A
C2801	A	C	4B
C2802	A	C	4B
C2803	B	C	4B
C2804	B	C	4B
C2805	B	C	3B
C2806	B	C	3B
C2807	B	C	4B
C2808	B	C	4B
C2809	B	C	4B
C2810	B	C	4B
C2811	B	C	3B
C2812	B	C	2B
C2813	B	C	3B
C2814	B	C	2B
C2815	B	C	3B
CONNECTOR			
CN501	A	C	2A
CN502	A	C	3B
DIODE			
D1801	B	C	4B
D2801	A	C	3B
D2802	B	C	2B
D2803	B	C	3B
D2804	B	C	2B
IC			
IC1101	B	C	2B
IC1801	A	C	2A
COIL			
L1101	B	C	3A
L1151	A	C	3B
L2801	A	C	4B
L2802	B	C	4B
L2803	B	C	3B
L2804	B	C	3B
L2805	B	C	3B
L2806	B	C	3B
L2807	B	C	3B
L2808	B	C	2B
L2809	B	C	3B
TRANSISTOR			
Q1151	A	D	3A
Q1801	B	C	4B
RESISTOR			
R1101	B	C	2A
R1102	B	C	2A
R1104	B	C	2A
R1106	B	C	2A
R1107	B	C	3B
R1108	B	C	3A
R1109	B	C	3B
R1151	A	C	3B
R1801	B	C	4B
R1802	B	C	2A
R2803	A	C	3B
R2804	B	C	4B
R2805	B	C	4B
R2806	B	C	4B
R2807	B	C	2B
R2808	B	C	2B
R2811	B	C	3B
R2813	B	C	3B
R2814	B	C	2B
R2815	B	C	3B
R2816	A	C	3B
OTHER			
J501	A	D	2B
J502	A	D	4B
S1801	A	C	1B

4.33 JACK CIRCUIT BOARD FOR VMD10 AND VMD20

FOIL SIDE (B)



COMPONENT SIDE (A)

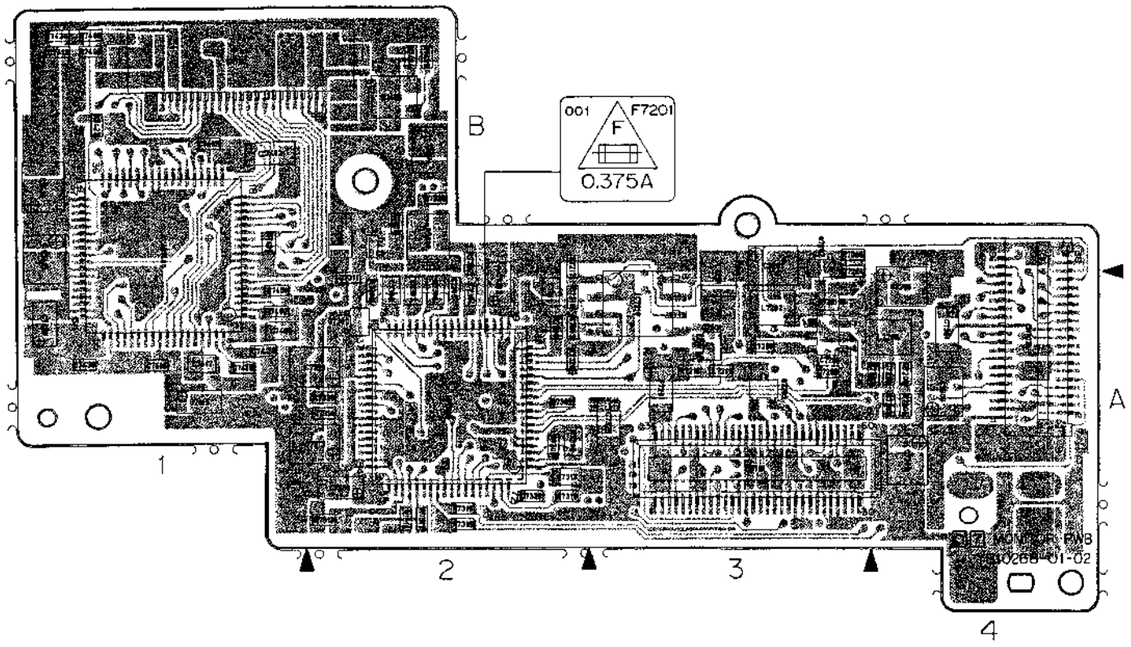


COMPONENT PARTS LOCATION GUIDE (JACK)

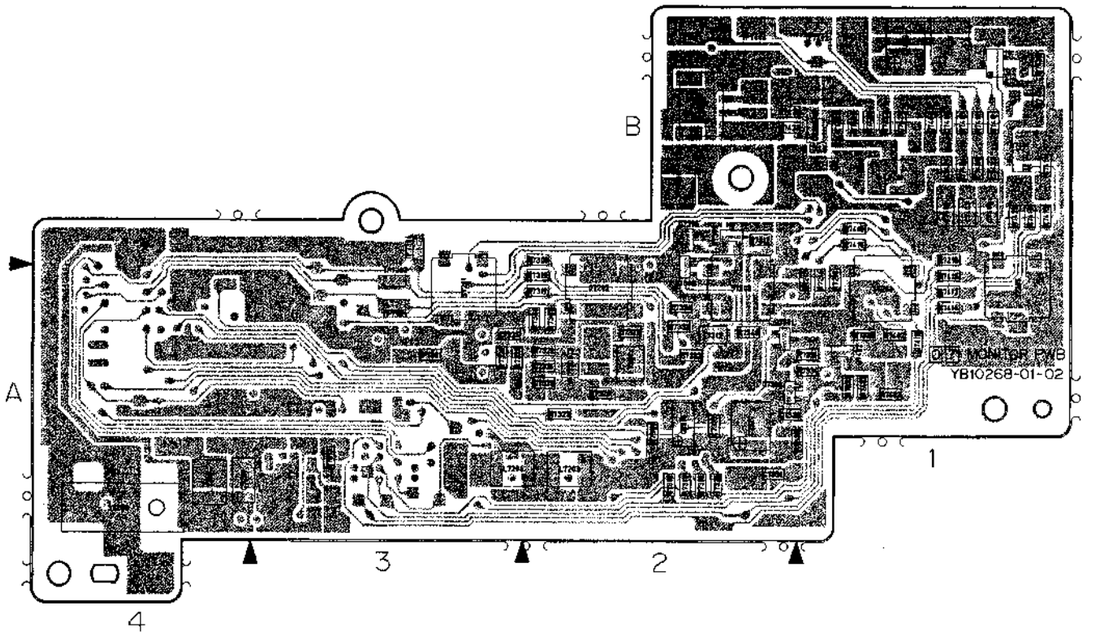
REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION
CAPACITOR		DIODE		L3751	A C 6A	R3115	A C 7A	R3764	B C 3A
C3101	A C 8A	D3751	B C 1A	RESISTOR		R3116	A C 7A	R3765	B C 3A
C3102	B C 8A	D3752	B C 5A			R3117	A C 7A	R3766	B C 3A
C3103	B C 8B	D3753	B C 4A	R3101	B C 8A	R3118	A C 7A	OTHER	
C3104	A C 7A	D3754	B C 4A	R3102	B C 8A	R3119	B C 5A		
C3105	A C 7A	D3755	B C 3A	R3103	A C 8A	R3751	B C 1A	J601	A D 1A
C3106	B C 7A	D3756	B C 3A	R3104	B C 8A	R3752	B C 1A	J602	A C 6A
C3107	B C 8A	D3757	B C 3A	R3105	A C 8A	R3753	B C 2A	J603	A D 5A
C3108	A C 8A	IC		R3106	B C 8A	R3754	B C 2A	J604	A D 4A
C3109	A C 8A	IC3101	B C 8A	R3107	A C 7A	R3756	B C 5A	J605	A C 3A
C3110	A C 8A	IC3751	A C 6A	R3108	A C 7A	R3757	B C 5A	JP3101	B C 7A
C3111	A C 8A	COIL		R3109	A C 7A	R3758	B C 5A	JP3102	A D 6A
C3112	A C 8A	L3101	A C 8A	R3110	A C 7A	R3759	B C 4A	JP3751	B C 1A
C3751	A C 6A	L3102	A C 8A	R3111	A C 7A	R3760	B C 4A	JP3752	B C 2A
CONNECTOR		L3103	B C 7A	R3112	B C 7A	R3761	B C 3A		
CN601	A C 7A			R3113	A C 8A	R3762	B C 2A		
				R3114	A C 8A	R3763	B C 2A		

4.34 MONITOR CIRCUIT BOARD

FOIL SIDE (B)



COMPONENT SIDE (A)

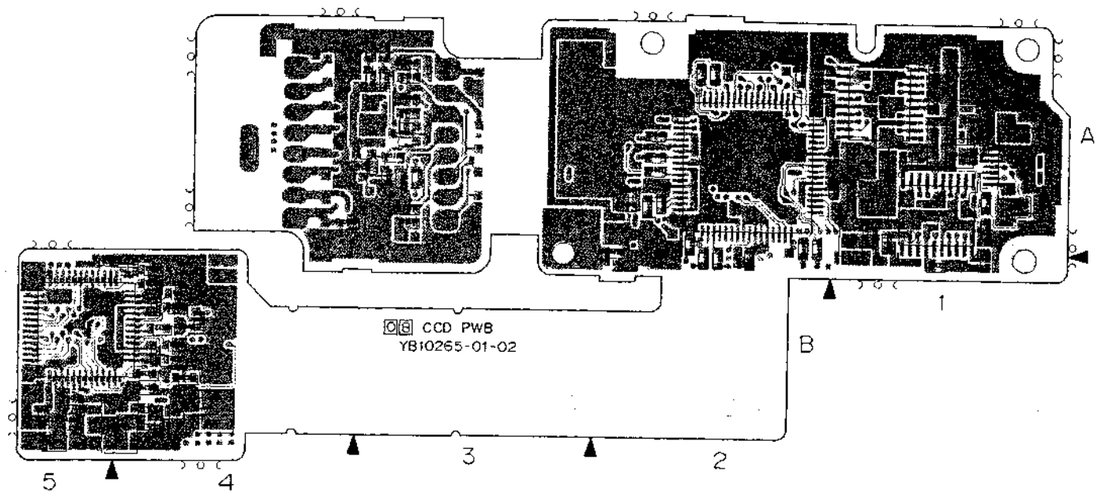


COMPONENT PARTS LOCATION GUIDE (MONITOR)

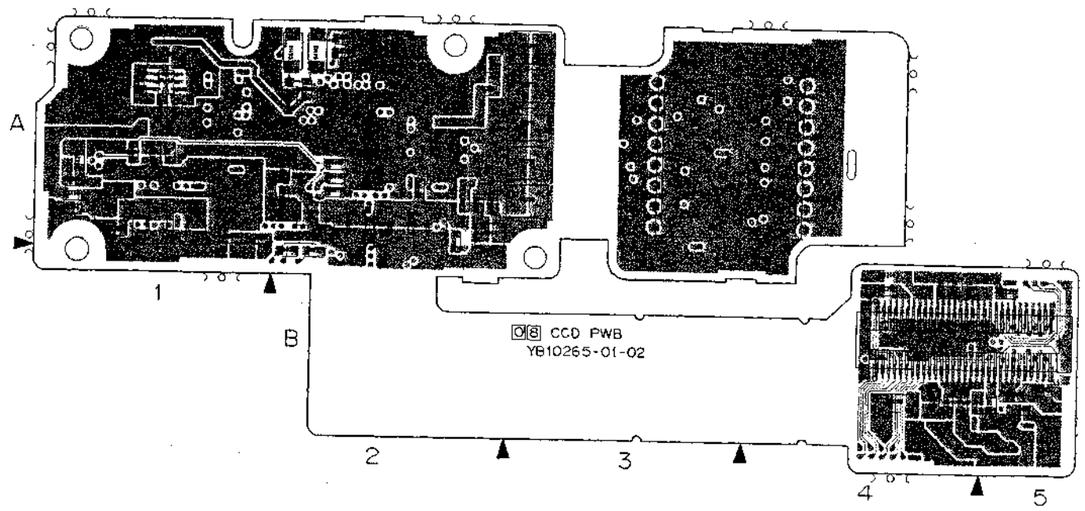
REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION		
CAPACITOR				C7314	B	C	2A	C7406	A	C	1B	CONNECTOR				L7300	B	C	2B	R7205	B	C	3B	R7319	A	C	2A	R7408	B	C	1B	R7436	B	C	2B
C7201	B	C	3B	C7315	A	C	2A	C7407	A	C	1B	CN701	B	C	3A	L7301	A	C	2A	R7210	B	C	3A	R7320	A	C	2A	R7409	A	C	1B	TEST POINT			
C7202	B	C	3A	C7316	A	C	2A	C7408	A	C	1B	CN702	B	C	2B	L7400	A	C	2B	R7211	B	C	3A	R7321	A	C	2A	R7410	A	C	1B	TP7301	A	C	3A
C7203	B	C	4A	C7317	B	C	2A	C7409	A	C	1B	CN702	B	C	3B	L7401	A	C	1B	R7212	A	C	3A	R7322	A	C	3A	R7411	A	C	1B	TP7302	A	C	3A
C7204	B	C	3A	C7318	A	C	2A	C7410	B	C	1B	CN703	B	C	4A	TRANSISTOR				R7213	A	C	1A	R7323	A	C	3A	R7413	A	C	1A	TP7303	A	C	3A
C7205	B	C	4A	C7319	B	C	2A	C7411	B	C	1B	CN704	A	C	2B	Q7201	B	C	3A	R7214	A	C	1A	R7324	A	C	2A	R7414	A	C	1A	TP7304	A	C	3B
C7206	B	C	4A	C7320	B	C	2A	C7413	B	C	1B	DIODE				Q7202	B	C	3A	R7215	A	C	1A	R7325	A	C	2A	R7415	A	C	1B	TP7401	A	C	2B
C7207	A	C	4A	C7321	A	C	2A	C7414	A	C	1B	D7201	B	C	3A	Q7203	B	C	3A	R7216	A	C	1B	R7326	B	C	2A	R7416	A	C	1B	TP7402	A	C	1B
C7209	B	C	4A	C7322	A	C	2A	C7415	B	C	1A	D7300	A	C	2A	Q7300	B	C	2A	R7217	B	C	2B	R7327	A	C	2A	R7417	A	C	1A	TP7403	A	C	1B
C7210	B	C	2A	C7323	A	C	2A	C7416	B	C	1A	D7400	A	C	1B	Q7301	A	C	2A	R7300	B	C	2A	R7330	B	C	2A	R7418	A	C	1B	TP7404	A	C	2B
C7211	B	C	2A	C7324	A	C	3A	C7417	B	C	1A	IC				Q7302	A	C	2A	R7301	A	C	2A	R7331	A	C	1A	R7419	A	C	1B	OTHER			
C7300	B	C	2A	C7325	B	C	3A	C7418	A	C	1A	IC7201	B	C	3A	Q7305	A	C	2B	R7302	B	C	2A	R7332	A	C	1A	R7420	A	C	1B	F7201	B	C	3A
C7301	B	C	4A	C7326	A	C	2A	C7419	B	C	1A	IC7210	B	C	3A	Q7306	A	C	2B	R7306	B	C	2A	R7333	A	C	1A	R7421	A	C	2B	S7201	A	C	3A
C7302	B	C	2A	C7327	A	C	2A	C7420	B	C	1A	IC7300	B	C	2A	Q7307	B	C	2B	R7307	A	C	2A	R7334	A	C	1A	R7422	A	C	1B	S7202	A	C	2A
C7303	B	C	2A	C7330	B	C	2A	C7421	A	C	1B	IC7400	B	C	1B	Q7308	A	C	2A	R7308	B	C	2A	R7335	A	C	1A	R7423	A	C	1B	S7203	A	C	2A
C7304	B	C	2A	C7331	A	C	2A	C7422	A	C	1B	COIL				Q7400	A	C	1B	R7309	A	C	2B	R7336	B	C	2B	R7424	B	C	1B	S7204	A	C	1A
C7305	B	C	2A	C7332	A	C	2A	C7423	A	C	2B	L7201	B	C	3A	Q7401	A	C	1B	R7310	A	C	2A	R7337	B	C	2B	R7425	A	C	1B	S7205	A	C	1A
C7306	B	C	2A	C7333	A	C	2A	C7424	A	C	1B	L7202	B	C	3A	Q7402	A	C	1A	R7311	A	C	2A	R7338	B	C	2B	R7426	A	C	1B	S7206	A	C	4A
C7307	B	C	2A	C7334	A	C	2A	C7425	A	C	1B	L7203	A	C	2A	RESISTOR				R7312	A	C	2B	R7339	B	C	2B	R7427	B	C	1B				
C7308	B	C	2A	C7335	B	C	2B	C7427	A	C	1B	L7204	A	C	3A	R7201	B	C	3A	R7313	B	C	2A	R7340	A	C	2A	R7430	A	C	1B				
C7309	B	C	4A	C7400	B	C	1A	C7430	B	C	1A	L7205	A	C	4A	R7202	B	C	4A	R7314	B	C	2A	R7400	B	C	1A	R7431	A	C	1B				
C7310	B	C	2A	C7402	B	C	1B	C7431	B	C	1A	L7206	B	C	4A	R7203	B	C	4A	R7315	B	C	2A	R7401	B	C	1A	R7432	A	C	1A				
C7311	B	C	2A	C7403	B	C	1B	C7432	A	C	1B					R7204	B	C	4A	R7316	B	C	2A	R7402	A	C	1A	R7433	A	C	1A				
C7312	A	C	2A	C7404	A	C	1B	C7433	A	C	1B									R7317	B	C	2A	R7406	B	C	1B	R7434	B	C	2B				
C7313	B	C	2A	C7405	A	C	1B	C7434	A	C	1B									R7318	A	C	2A	R7407	B	C	1B	R7435	B	C	2B				

4.35 CCD CIRCUIT BOARD

FOIL SIDE (B)



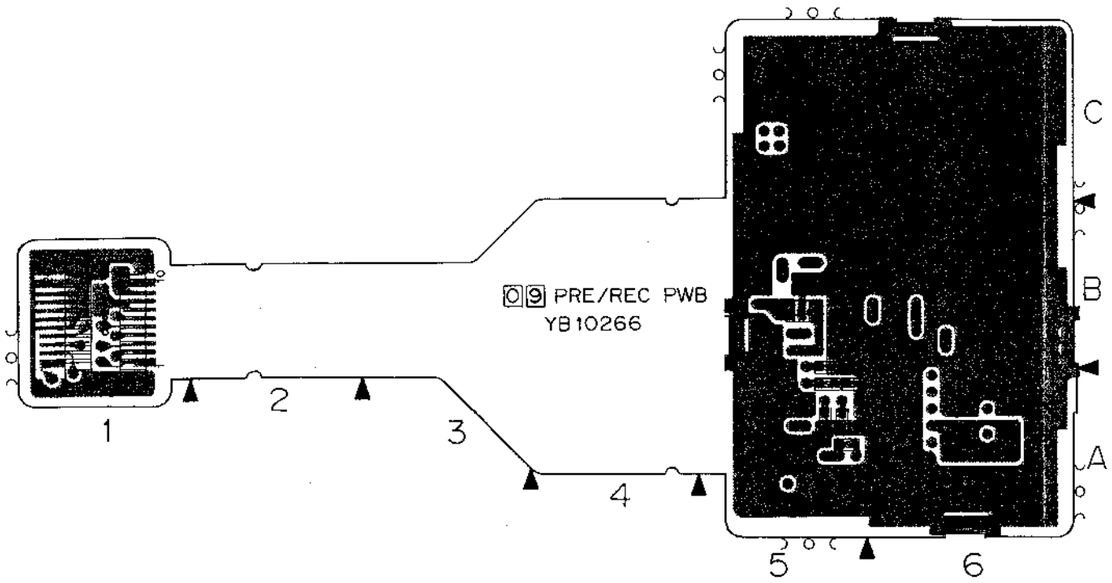
COMPONENT SIDE (A)



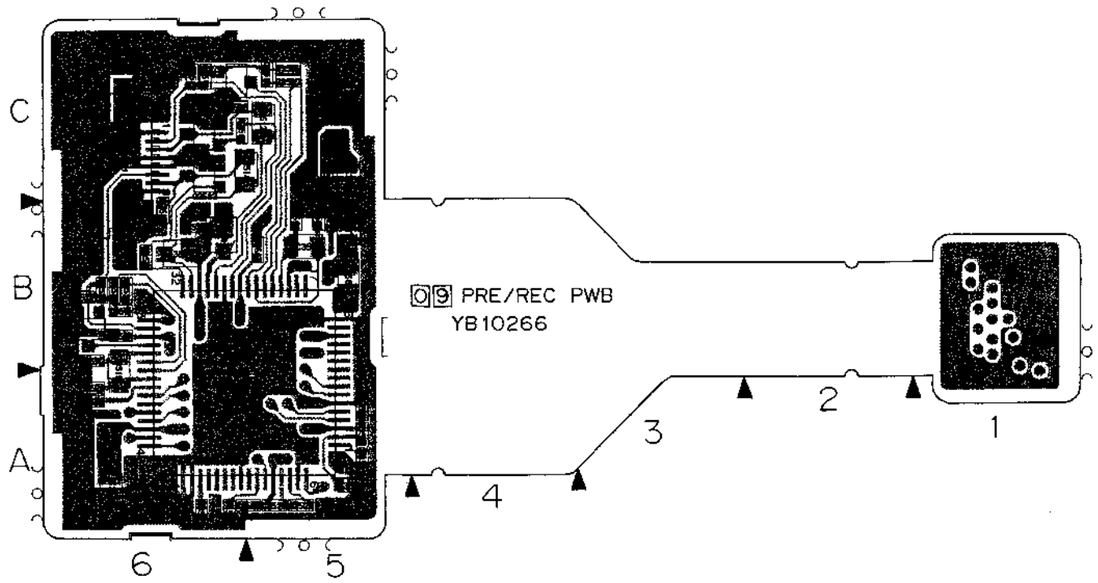
COMPONENT PARTS LOCATION GUIDE (CCD)

REF.No.	LOCATION		
CAPACITOR			
C4101	A	C	1A
C4102	B	C	1A
C4103	B	C	1A
C4104	A	C	1A
C4105	A	C	1A
C4106	A	C	1A
C4107	B	C	2A
C4108	B	C	2A
C4109	B	C	1A
C4110	B	C	1A
C4111	A	C	2A
C4112	A	C	2A
C4113	A	C	2A
C4114	B	C	1A
C4115	B	C	1A
C4116	B	C	1A
C4117	B	C	1B
C4118	B	C	1A
C4119	A	C	1A
C4120	A	C	1A
C4121	B	C	2A
C4122	B	C	1B
C4201	B	C	5B
C4202	B	C	4B
C4204	A	C	5B
C4205	B	C	4B
C4206	A	C	4B
C4207	B	C	5B
C4214	B	C	5B
C4215	B	C	5B
C4216	B	C	4B
C4217	B	C	4B
C4218	B	C	4B
C4219	B	C	4B
C4220	B	C	4B
C4221	B	C	4B
C4222	B	C	4B
C4223	B	C	4B
C4224	B	C	4B
C4225	B	C	4B
C4226	B	C	5B
C4227	A	C	5B
C4228	A	C	4B
C5001	A	C	1A
C5002	B	C	1A
C5003	B	C	1A
C5004	B	C	1A
C5005	B	C	2A
C5006	B	C	2A
C5007	B	C	2A
C5008	B	C	3A
C5009	B	C	2B
C5010	B	C	1A
C5201	A	C	2A
C5202	A	C	2A
C5203	A	C	3A
C5204	A	C	2A
C5205	A	C	2A
C5206	A	C	2A
C5207	B	C	3A
C5208	B	C	3A
C5209	B	C	3A
C5210	B	C	3A
C5211	A	C	2A
C5212	A	C	2A
C5213	A	C	3A
C5214	A	C	3A
C5215	A	C	3A
C5216	A	C	3A
C5217	B	C	4A
CONNECTOR			
CN801	A	C	5B
CN802	A	D	3A
CN803	B	C	1A
DIODE			
D4101	A	C	2A
D5201	A	C	2A
IC			
IC4101	B	C	1A
IC4102	B	C	1A
IC4201	B	C	5B
IC4202	B	C	4B
IC5001	B	C	2A
COIL			
L4101	A	C	1A
L4102	B	C	1A
L4103	A	C	1A
L4104	A	C	1A
L4201	A	C	4B
L4202	B	C	4B
L4203	A	C	5B
L4204	A	C	4B
L5001	A	C	1A
L5002	B	C	1A
L5201	A	C	2A
L5202	A	C	2A
L5203	A	C	2A
L5204	A	C	2A
TRANSISTOR			
Q4101	A	C	1A
Q5201	B	C	3A
Q5202	B	C	3A
RESISTOR			
R4101	A	C	2A
R4102	A	C	2A
R4103	A	C	1A
R4104	A	C	1A
R4105	A	C	1A
R4202	A	C	5B
R4203	B	C	4B
R4204	B	C	4B
R4205	B	C	4B
R4206	A	C	5B
R4207	A	C	5B
R4208	B	C	4B
R4209	B	C	4B
R4210	A	C	4B
R4211	A	C	4B
R4212	A	C	4B
R4213	A	C	4B
R4214	A	C	4B
R5003	B	C	2A
R5004	B	C	2A
R5005	B	C	2A
R5006	B	C	2A
R5007	B	C	2A
R5008	B	C	2A
R5009	B	C	2A
R5010	B	C	2A
R5011	B	C	2B
R5012	B	C	2B
R5013	B	C	3A
R5014	B	C	2A
R5015	B	C	2A
R5016	A	C	1A
R5017	A	C	2A
R5018	A	C	2A
R5019	A	C	2A
R5020	B	C	1A
R5021	A	C	2A
R5022	A	C	2B
R5023	A	C	2B
R5025	B	C	1A
R5026	B	C	1A
R5027	A	C	1A
R5028	A	C	1A
R5029	B	C	2B
R5201	B	C	3A
R5202	B	C	3A
R5203	B	C	3A
R5204	B	C	3A
R5205	B	C	3A
R5206	B	C	3A
R5207	B	C	3A
R5208	B	C	3A
R5210	A	C	2A

FOIL SIDE (B)



COMPONENT SIDE (A)

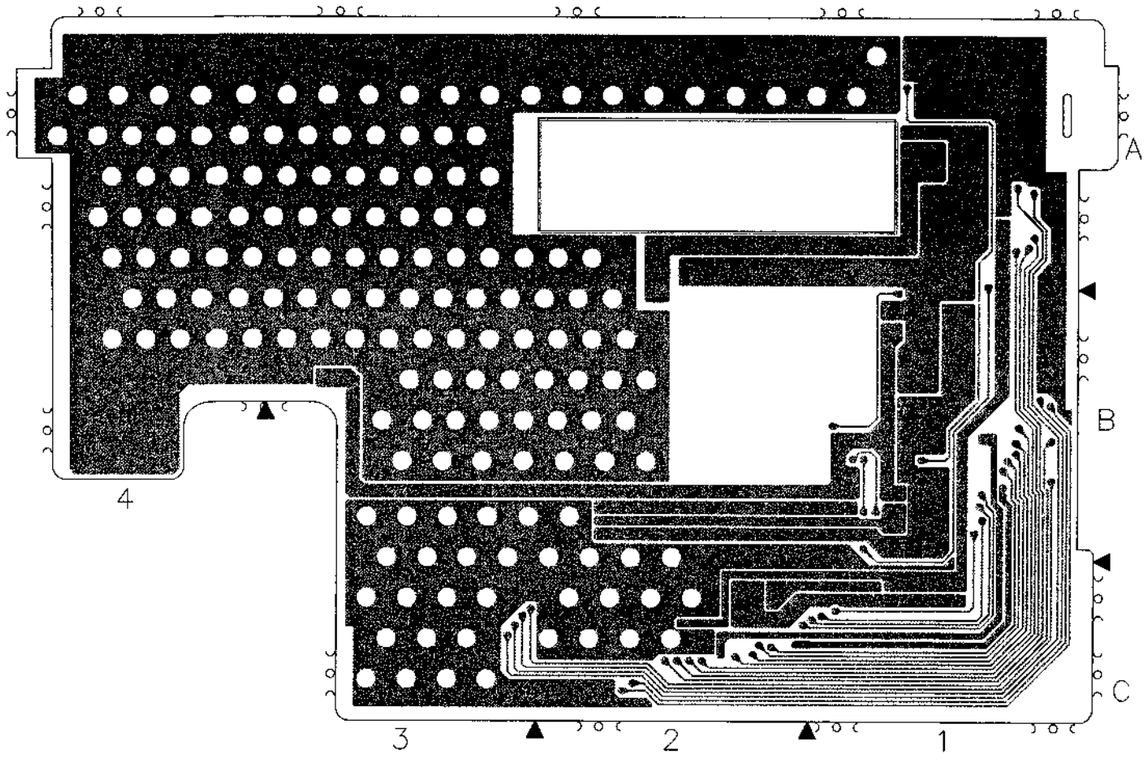


COMPONENT PARTS LOCATION GUIDE (PRE/REC)

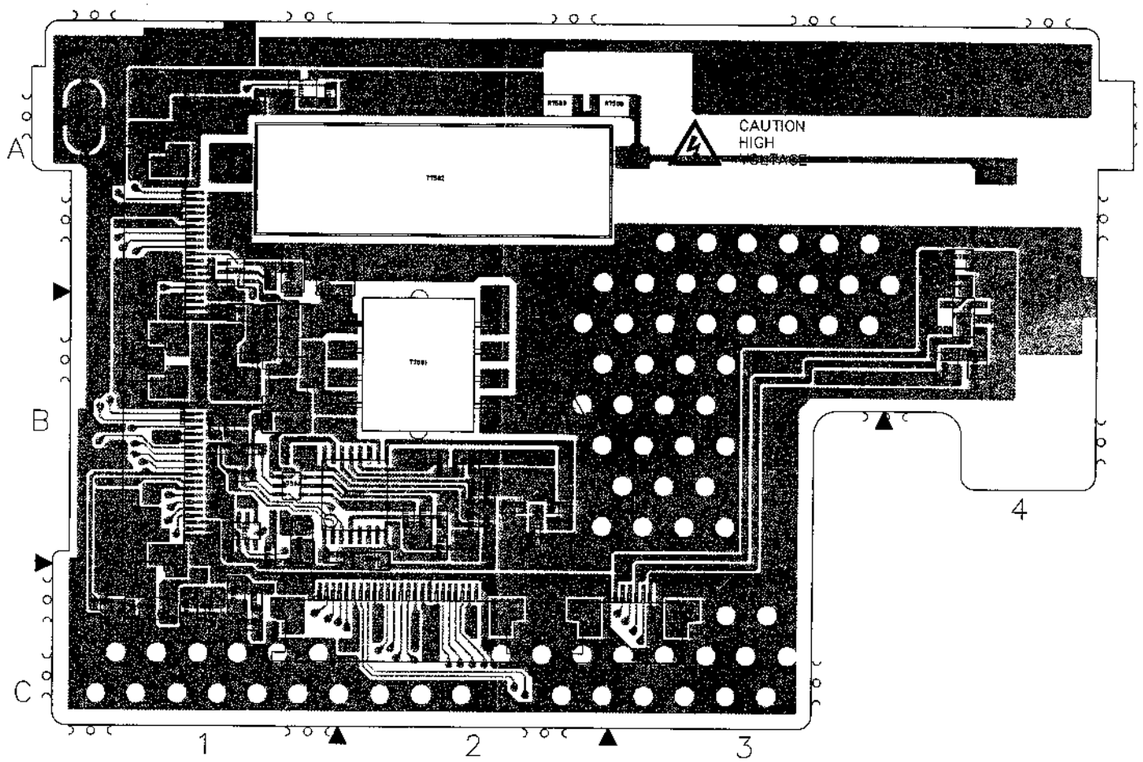
REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION		
CAPACITOR				C3514	A	C	5C	C3528	A	C	5C	L3504	A	C	5B	R3506	A	C	5C
C3501	A	C	5A	C3515	A	C	6B	C3529	A	C	5C	TRANSISTOR				R3507	A	C	5C
C3502	A	C	5A	C3516	A	C	6B	CONNECTOR								R3508	A	C	5C
C3503	A	C	5A	C3517	A	C	6B					Q3501	A	C	5C	R3509	A	C	5C
C3504	B	C	5A	C3518	A	C	6B	CN901	A	C	6C	Q3502	A	C	6C	R3510	A	C	6B
C3505	B	C	5A	C3519	A	C	6A	CN902	B	C	1B	Q3503	A	C	6C	R3511	A	C	6B
C3506	A	C	5B	C3520	A	C	6A	IC				Q3504	A	C	6B	R3512	A	C	6B
C3507	A	C	5B	C3521	A	C	6A					RESISTOR				R3513	A	C	6B
C3508	A	C	5C	C3522	A	C	5A	IC3501	A	C	5A					R3514	A	C	6B
C3509	A	C	5B	C3523	A	C	5A					R3501	A	C	5A	R3515	A	C	6A
C3510	A	C	6C	C3524	A	C	5A	COIL				R3502	B	C	5A	R3516	B	C	5A
C3511	A	C	6C	C3525	A	C	5A	L3501	A	C	5B	R3503	B	C	5A				
C3512	A	C	5C	C3526	A	C	6A	L3502	A	C	6B	R3504	B	C	5A				
C3513	A	C	6B	C3527	A	C	5B	L3503	B	C	5B	R3505	A	C	5B				

4.37 MONITOR BL CIRCUIT BOARD

FOIL SIDE (B)



COMPONENT SIDE (A)



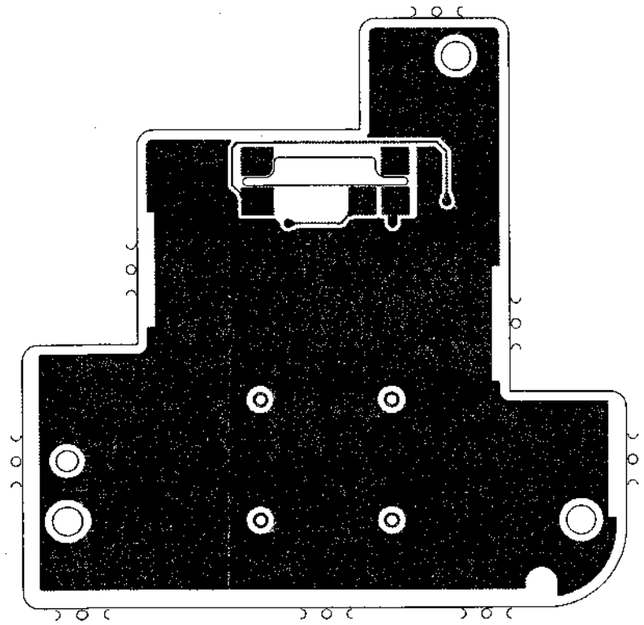
COMPONENT PARTS LOCATION GUIDE (MONITOR BL)

REF.No.	LOCATION		
CAPACITOR			
C6701	A	C	4B
C6702	A	C	4A
C6703	A	C	4A
C7501	A	C	1B
C7502	A	C	1B
C7503	A	C	1A
C7504	A	C	1A
C7505	A	C	1B
C7506	A	C	1B
C7507	A	C	1B
C7508	A	C	2B
C7509	A	C	1B
C7530	A	C	1C
C7531	A	C	1C
C7532	A	C	1C
C7533	A	C	1C
C7534	A	C	1C
CONNECTOR			
CN1301	A	C	4B
CN7501	A	C	1A
CN7502	A	C	1B
CN7503	A	C	1C
CN7504	A	C	3C
DIODE			
D6701	A	C	4B
D7501	A	C	1A
D7530	A	C	1C
IC			
IC6701	A	C	4B
IC7501	A	C	2B
IC7502	A	C	1A
COIL			
L6701	A	C	4B
L7501	A	C	1B
TRANSISTOR			
Q6701	A	C	4C
Q6702	A	C	4B
Q7501	A	C	1B
Q7502	A	C	1B
Q7504	A	C	1B
RESISTOR			
R6703	A	C	4C
R6704	A	C	4B
R6751	A	C	4C
R6752	A	C	4C
R6753	A	C	4C
R6754	A	C	4C
R6755	A	C	4C
R7501	A	C	2B
R7502	A	C	2B
R7503	A	C	2B
R7504	A	C	2B
R7505	A	C	1A
R7506	A	C	2B
R7507	A	C	2B
R7508	A	C	3A
R7509	A	C	2A
R7510	A	C	1A
R7511	A	C	1A
R7513	A	C	1A
R7514	A	C	1B
R7515	A	C	2B
R7516	A	C	2B
R7517	A	C	2B
R7518	A	C	2B
R7519	A	C	2B
R7520	A	C	1B
R7521	A	C	1B
R7522	A	C	2B
R7523	A	C	2B
R7524	A	C	2B
R7525	A	C	1B
R7530	A	C	1C
OTHER			
F7501	A	C	1B
S6751	A	C	4C
T7501	A	C	2B
T7502	A	C	2A

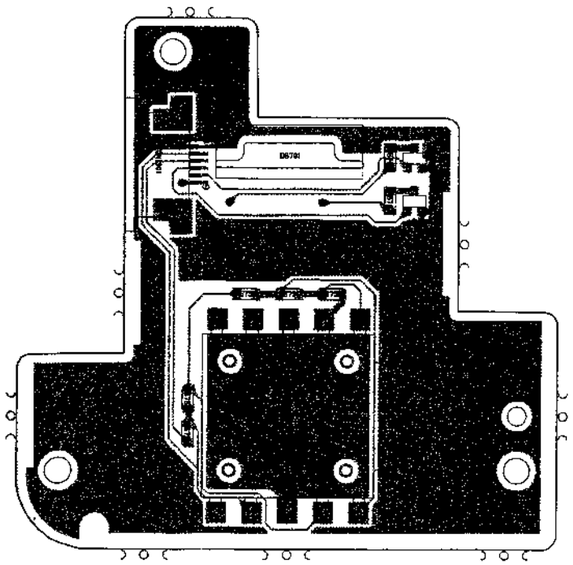
4.38 DIAL AND MPL CIRCUIT BOARDS

-DIAL-

FOIL SIDE (B)

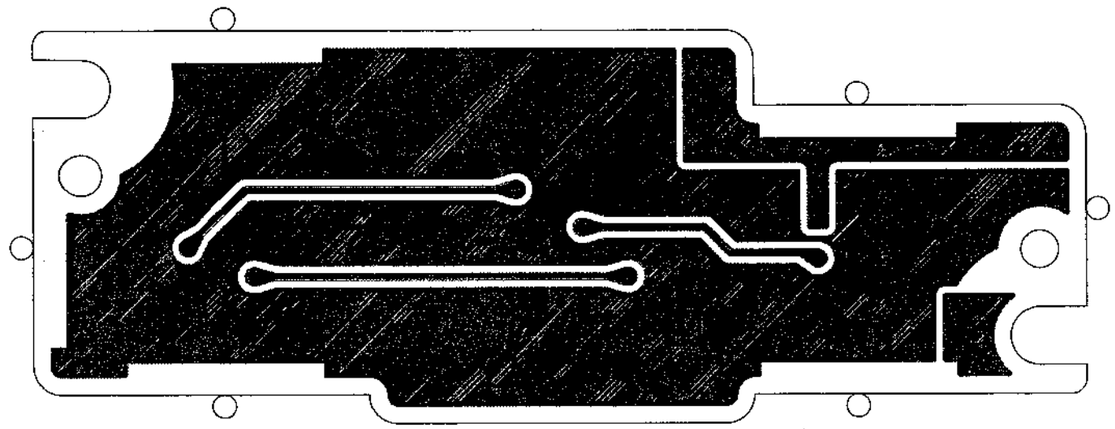


COMPONENT SIDE (A)

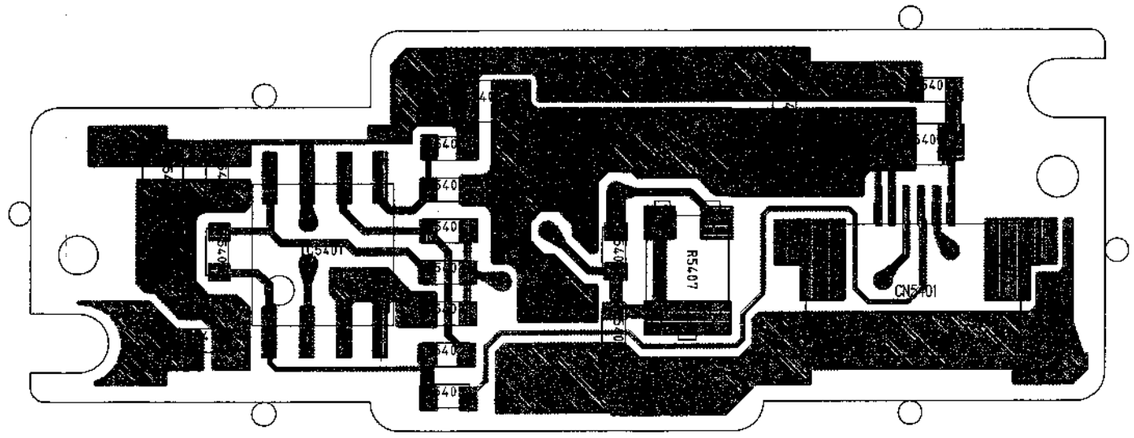


-MPL-

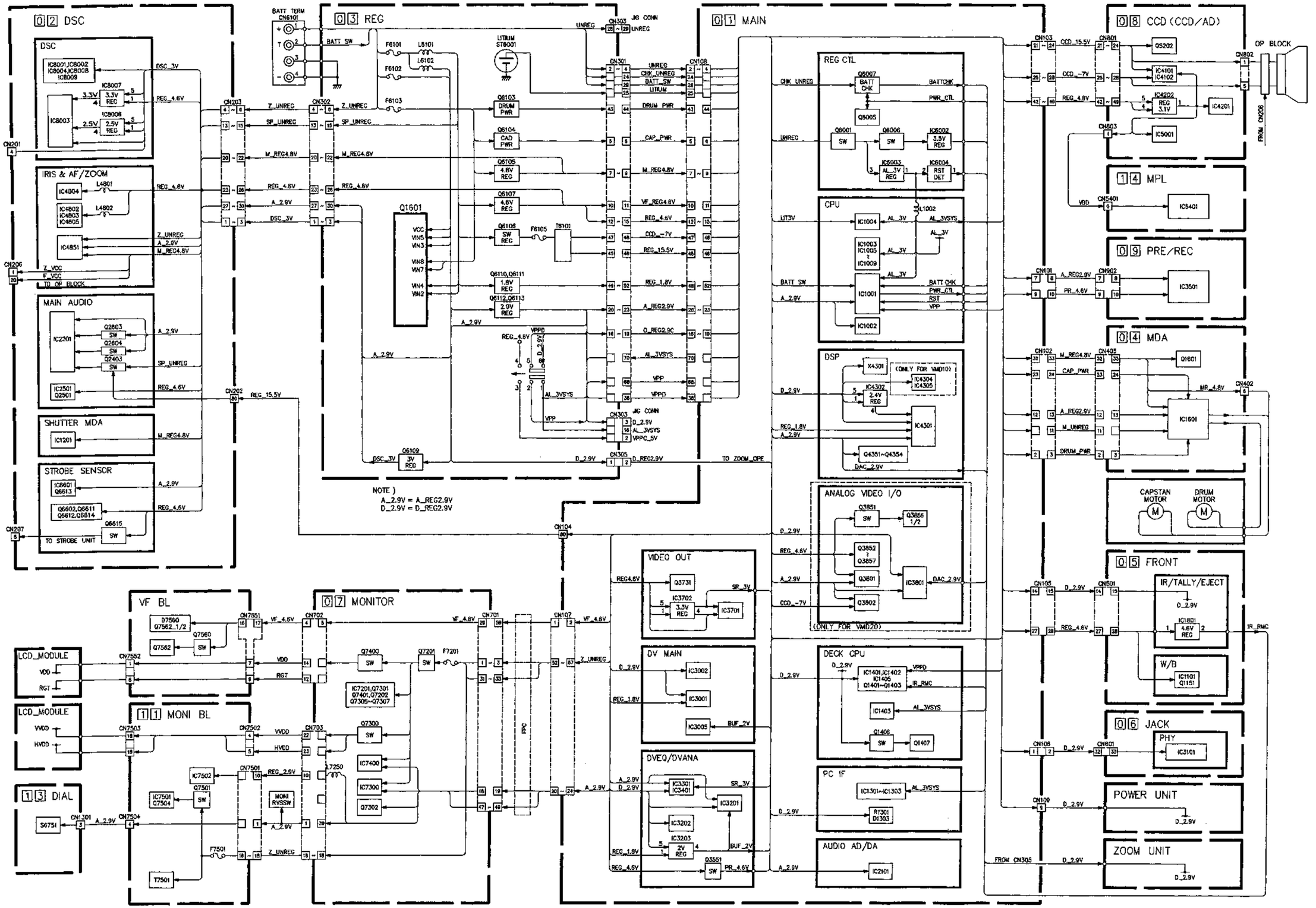
FOIL SIDE (B)



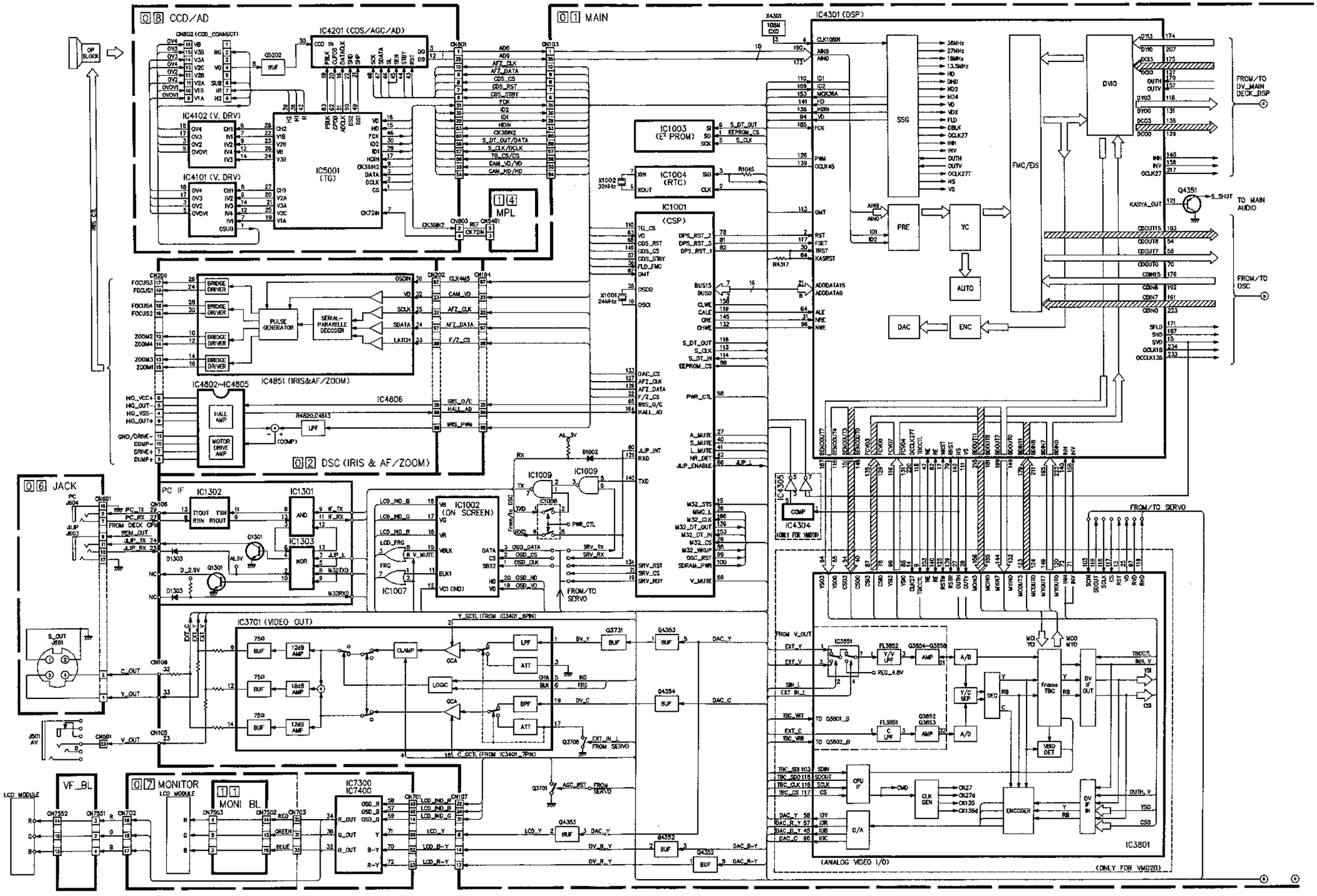
COMPONENT SIDE (A)

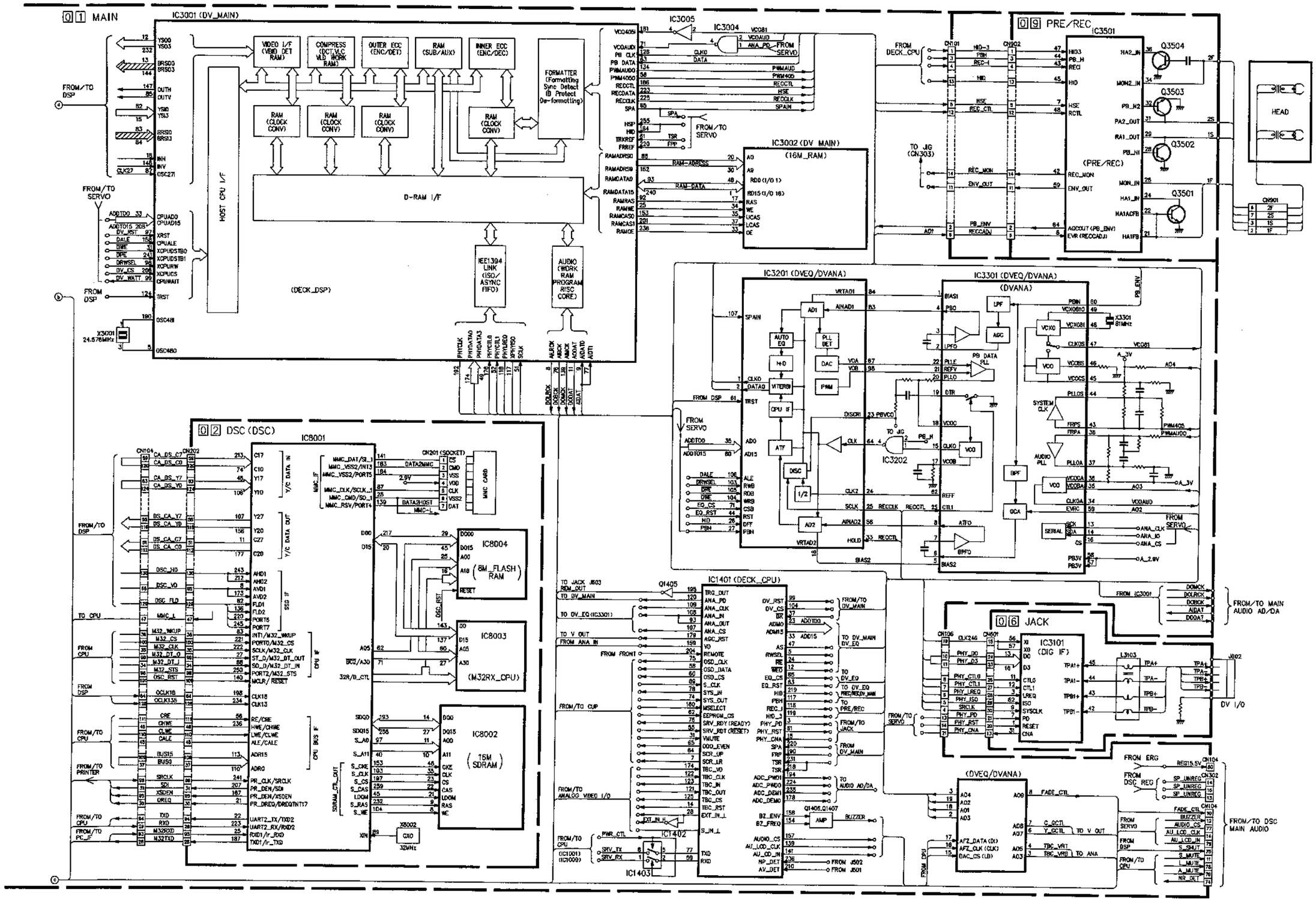


4.39 POWER SYSTEM BLOCK DIAGRAM

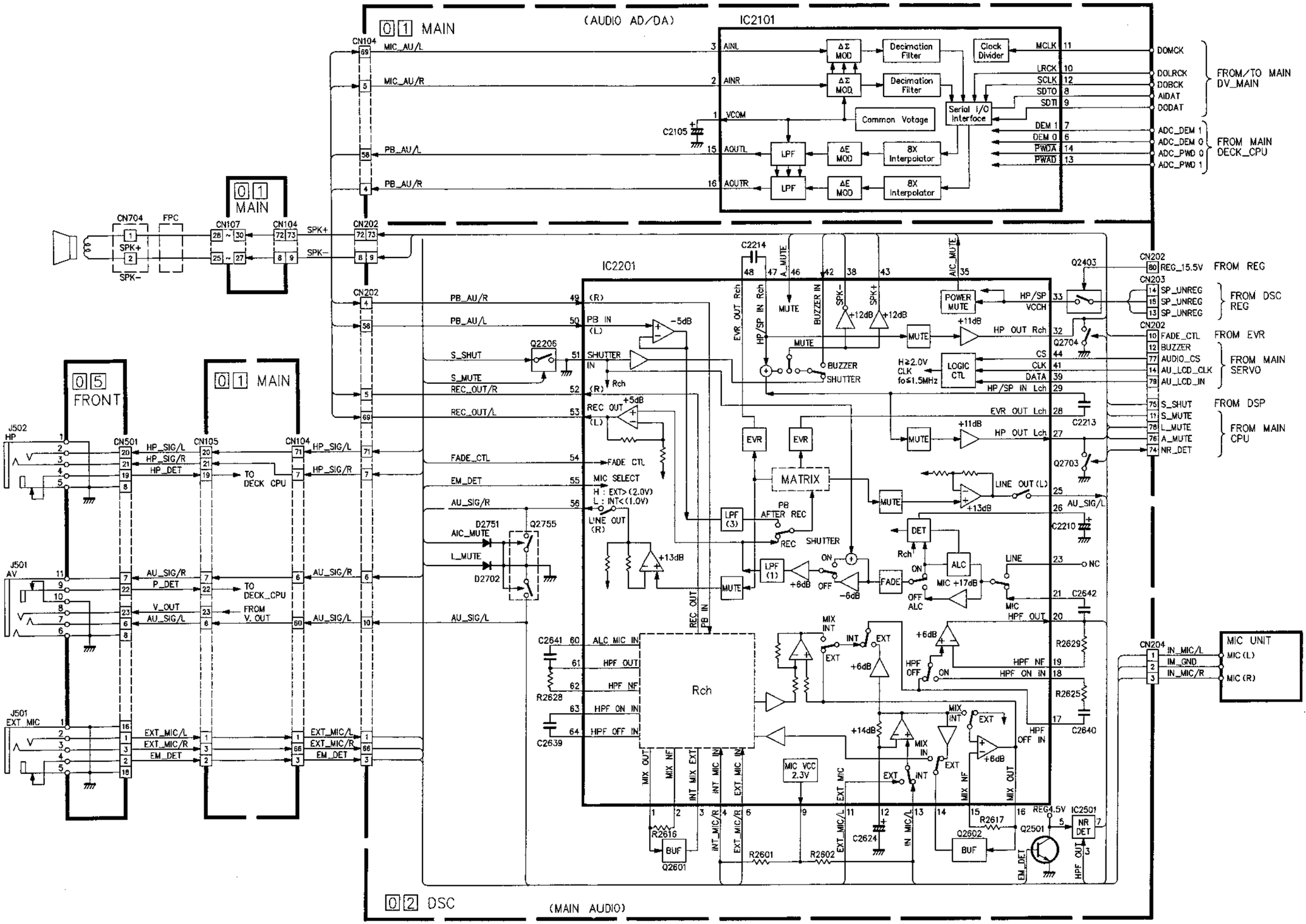


4.40 VIDEO SYSTEM BLOCK DIAGRAM

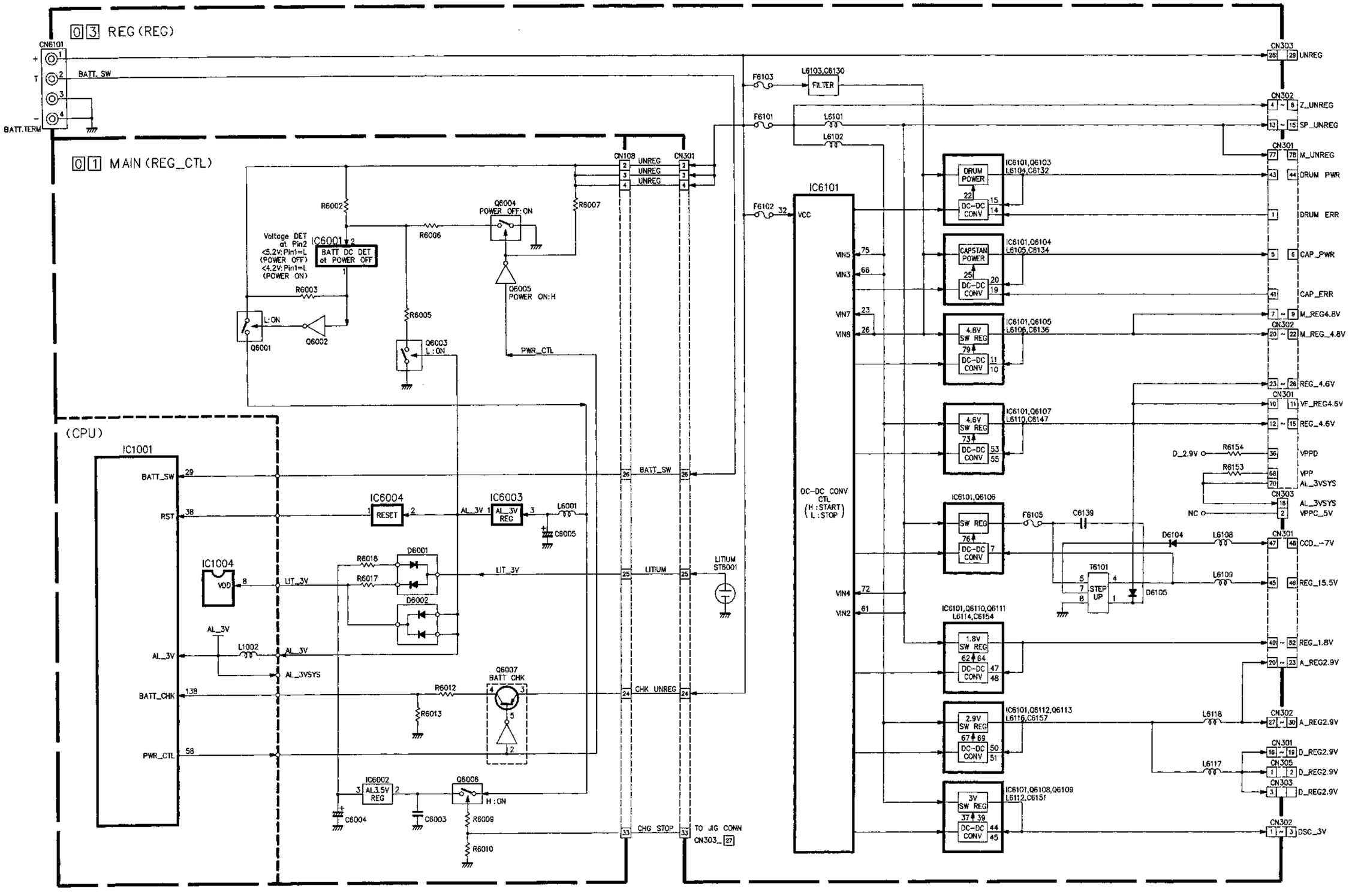



01 MAIN
IC3001 (DV_MAIN)
VIDEO I/F (VBID_DET RAM)
COMPRESS (DCT,VLC VLD WORK RAM)
OUTER ECC (ENC/DET)
RAM (SUB/AUX)
INNER ECC (ENC/DEC)
FORMATTER (Formatting Sync Detect (I) Protect De-formatting)
RAM (CLOCK CONV)
HOST CPU I/F
D-RAM I/F
(DECK_DSP)
IEE1394 LINK (ISO/ ASYNC FIFO)
AUDIO (WORK RAM PROGRAM RISC CORE)
FROM/TO DSP
FROM/TO SERVO
FROM DSP
X3001 24.576MHz
IC3005
IC3004
VCO
FROM SERVO
IC3002 (DV MAIN)
(16M_RAM)
RAM-ADDRESS
RAM-DATA
09 PRE/REC
IC3501
(PRE/REC)
FROM DECK_CPU
TO JIG (CN303)
Q3504
Q3503
Q3502
Q3501
HEAD
CN901
IC3201 (DVEQ/DVANA)
IC3301 (DVEQ/DVANA)
(DVANA)
AUTO EQ
VITERBI
CPU IF
ATF
DSC
PLL DET
DAC
PWM
LPF
AGC
PB DATA PLL
VCO
BPF
SCA
IC3202
X3301 81MHz
SYSTEM CLK
AUDIO PLL
SERIAL
TO JIG
FROM SERVO
02 DSC (DSC)
IC8001
IC8004 (8M_FLASH RAM)
IC8003 (M32RX_CPU)
IC8002 (16M SDRAM)
CN104
CN202
CN201 (SOCKET)
MMC CARD
X8002 32MHz
Y/C DATA IN
Y/C DATA OUT
SSG I/F
CPU I/F
CPU BUS I/F
FROM/TO DSP
FROM/TO CPU
FROM CPU
FROM/TO PRINTER
FROM/TO PC_I/F
TO CPU
IC1401 (DECK_CPU)
Q1405
IC1402
IC1403
Q1406,Q1407
BUZZER
TO JACK J503
TO DV_MAIN
TO DV_EQ (IC3301)
TO V OUT
FROM ANA IN
FROM FRONT
FROM/TO CUP
FROM/TO ANALOG VIDEO I/O
(IC1001) (IC1009)
FROM/TO DV_MAIN
TO DV_MAIN DV_EQ
TO DV_EQ
TO DV_EQ PREC/RECDV_MAIN
TO PRE/REC
FROM/TO JACK
FROM DV_MAIN
TO AUDIO AD/DA
FROM/TO SERVO
FROM IC3001
FROM/TO MAIN AUDIO AD/DA
06 JACK
IC3101 (DIG IF)
L3103
J802
DV I/O
(DVEQ/DVANA)
FROM ERG
FROM DSC_REG
FROM SERVO
FROM DSC
FROM/TO CPU
FROM/TO DSC MAIN AUDIO

4.41 AUDIO SYSTEM BLOCK DIAGRAM



4.42 REGULATOR SYSTEM BLOCK DIAGRAM



4.43 VOLTAGE CHARTS

Note: Parts whose data cannot be obtained (for example, CSP IC, etc.) are omitted from the following chart in some cases.

<CPU>

MODE PIN NO.	REC	PLAY
IC1002		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
IC1003		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC1004		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC1005		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC1006		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC1007		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC1008		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC1009		
1	-	-
2	-	-
3	-	-
4	-	-

MODE PIN NO.	REC	PLAY
5	-	-
6	-	-
7	-	-
8	-	-

<DV MAIN>

MODE PIN NO.	REC	PLAY
IC3004		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
IC3005		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-

<DVEQ/DVANA>

MODE PIN NO.	REC	PLAY
IC3202		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
IC3203		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
IC3301		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-

MODE PIN NO.	REC	PLAY
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
56	-	-
57	-	-
58	-	-
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-
IC3401		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
Q3551		
E	-	-
C	-	-
B	-	-
Q3552		
E	-	-
C	-	-
B	-	-

<VIDEO OUT>

MODE PIN NO.	REC	PLAY
IC3701		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-

MODE PIN NO.	REC	PLAY
18	-	-
19	-	-
20	-	-
IC3702		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
Q3701		
E	0	0
C	0	0
B	2.9	2.9
Q3705		
E	0	0
C	4.8	4.7
B	0	0
Q3706		
E	0	0
C	0	0
B	3	2.9
Q3731		
E	-	-
C	-	-
B	-	-

<ANALOG VIDEO I/O>

MODE PIN NO.	REC	PLAY
IC3851		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
Q3801		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
Q3802		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
Q3851		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
Q3852		
1	0	0
2	0	0
3	0	0
4	4.8	0
5	4.8	4.8
6	4.8	4.8
Q3853		
E	-	-
C	-	-
B	-	-
Q3854		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-

MODE PIN NO.	REC	PLAY
Q3855		
E	-	-
C	-	-
B	-	-
Q3856		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
Q3857		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
Q3858		
E	-	-
C	-	-
B	-	-

<DSP>

MODE PIN NO.	REC	PLAY
IC4302		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
IC4303		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
IC4304		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC4305		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
Q4351		
E	-	-
C	-	-
B	-	-
Q4352		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
Q4353		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
Q4354		
E	-	-
C	-	-
B	-	-

<AUDIO AD/DA>

MODE PIN NO.	REC	PLAY
IC2101		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-

<REG CTL>

MODE PIN NO.	REC	PLAY
IC2201		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-

MODE PIN NO.	REC	PLAY
56	-	-
57	-	-
58	-	-
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-
IC2501		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
Q2403		
E	5.4	0
C	6.7	6.7
B	6.1	6
Q2501		
E	-	-
C	-	-
B	-	-
Q2603		
E	-	-
C	-	-
B	-	-
Q2604		
E	-	-
C	-	-
B	-	-
Q2703		
E	-	-
C	-	-
B	-	-
Q2704		
E	-	-
C	-	-
B	-	-
Q2705		
E	-	-
C	-	-
B	-	-
Q2755		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

<SHUTTER MDA>

MODE PIN NO.	REC	PLAY
IC1201		
1	0.3	-
2	4.9	4.9
3	4.9	4.9
4	0	-
5	0	0
6	0.9	3
7	1.5	-
8	0	0

<MAIN AUDIO>

MODE PIN NO.	REC	PLAY
IC2201		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
56	-	-
57	-	-
58	-	-
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-
IC2501		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
Q2403		
E	5.4	0
C	6.7	6.7
B	6.1	6

MODE PIN NO.	REC	PLAY
Q2501		
E	-	-
C	-	-
B	-	-
Q2603		
E	-	-
C	-	-
B	-	-
Q2604		
E	-	-
C	-	-
B	-	-
Q2703		
E	-	-
C	-	-
B	-	-
Q2704		
E	-	-
C	-	-
B	-	-
Q2705		
E	-	-
C	-	-
B	-	-
Q2755		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

<IRIS&AF/ZOOM>

MODE PIN NO.	REC	PLAY
IC4802		
1	3.9	0
2	3.8	0
3	2.2	2.1
4	0	0
5	0	2.1
6	0	2.2
7	2.1	2.2
8	4.8	4.8
IC4803		
1	1.1	0
2	0.4	0.4
3	0.4	0.4
4	0	0
5	3.9	3.7
6	2.1	2.2
7	3.4	3.5
8	4.8	4.8
IC4804		
1	0.7	0.7
2	2.3	2.4
3	2.2	2.2
4	0	0
5	0	2.2
6	1.7	1.7
7	4	0
8	4.7	4.7
IC4805		
1	0	0
2	3.2	3.2
3	0	0
4	0	0
5	2.1	2
6	2.5	2.4
7	2.1	2.1
8	4.8	4.8
IC4851		
1	0	0
2	0.5	0.4
3	0	0
4	0	0
5	0	0

MODE PIN NO.	REC	PLAY
6	0	0
7	0	0
8	3	3
9	6.7	6.7
10	3	0
11	0	0
12	3.1	0
13	6.7	6.8
14	2.9	0
15	0	0
16	3	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0.7	0
22	0	0
23	6.7	6.7
24	1.4	0
25	0	0
26	3.3	0
27	6.7	6.7
28	1.4	0.4
29	0	0
30	-	0
31	3	3
32	0	0
33	0	0
34	2.9	2.9
35	2.9	2.9
36	1.5	1.4
37	1.5	1.4
38	2.9	2.9
Q4803		
E	0.4	0.4
C	3.7	3.7
B	1.1	1.1
Q4851		
E	0	0
C	3.7	1
B	0	0

<STROBE SENSOR>

MODE PIN NO.	REC	PLAY
IC6601		
1	2.3	0
2	3	2.9
3	3	3
4	0	0
5	0	0
6	0	0
7	0	3
8	3	3
Q6601		
E	0	0
C	0.9	0
B	0	0
Q6602		
1	1.2	1.8
2	3.3	3.3
3	2.8	2.8
4	2.3	2.3
5	0	0
Q6611		
E	0.5	0.5
C	0.8	0
B	0	0
Q6612		
1	1.1	0
2	1.2	1
3	1.1	0
4	0	0
5	0	0
Q6613		
E	1.5	0
C	1.7	1.7
B	0	0
Q6614		
1	0	0
2	0	0
3	0	0
4	0.5	0.5
5	1.8	0
Q6615		
1	0.9	0
2	0	0
3	4.8	4.8
4	0.4	0
5	4.8	4.8

<DSC>

MODE PIN NO.	REC	PLAY
IC8004		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-

MODE PIN NO.	REC	PLAY
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
IC8006		
1	1.4	0
2	0	0
3	1.4	1.2
4	2.5	2.5
5	3	0
IC8007		
1	4.8	4.8
2	0	0
3	1.3	1.2
4	3.3	3.3
5	4.8	4.8
IC8008		
1	1.8	1.4
2	1.5	0
3	0	0
4	0	0
5	3	3
6	1.4	0
7	1.4	1.3
8	3	3
IC8009		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-

<REG>

MODE PIN NO.	REC	PLAY
IC6101		
1	0	0
2	0.8	0
3	0.8	0
4	0.9	0
5	1.1	1
6	1.2	1.5
7	1.2	4.2
8	1.3	0
9	1.2	0
10	1.2	0
11	3.1	3.2
12	1.2	0.4
13	1.1	0.4
14	0	0
15	1.1	0
16	1.1	0
17	0.7	0
18	1.1	0
19	1.2	0
20	1.1	0
21	0	0

MODE PIN NO.	REC	PLAY
22	4.8	4.9
23	6.7	6.8
24	0	0
25	5.6	5.6
26	6.7	6.7
27	1.3	1.3
28	0.5	0.5
29	0	0
30	0	0
31	0	0
32	6.7	6.7
33	0	3.9
34	0	2.1
35	0.4	0
36	0	0
37	1.8	1.8
38	0	0
39	4	0
40	6.6	6.7
41	0.6	2.9
42	0.5	3
43	0.4	2.9
44	2.3	2.3
45	1.5	0
46	0.4	0.9
47	1.8	1.8
48	1.5	0
49	0.8	0
50	2.3	2.3
51	1.5	1.5
52	1	0.9
53	2.9	2.9
54	0.5	0
55	1.5	1.5
56	1.1	1
57	0	0
58	1	0
59	0	0
60	0	0
61	6.7	6.7
62	4.7	4.7
63	0	0
64	2.2	2.3
65	0	0
66	6.7	6.7
67	3.6	3.5
68	0	0
69	0	0
70	0	0
71	0	0
72	0.4	0
73	1.8	0
74	0.8	0
75	6.7	6.7
76	2.6	2.6
77	0	0
78	6.7	6.8
79	6.6	-
80	0	0
Q6103		
1	1.8	1.8
2	1.8	1.8
3	4.9	4.8
4	6.8	6.7
5	1.8	0
6	1.8	1.8
Q6104		
1	1	1
2	1	0
3	5.6	0
4	6.8	6.7
5	0	1
6	0	1
Q6105		
1	4.9	0
2	4.9	0
3	6.6	0
4	6.7	6.7
5	4.9	4.9

MODE PIN NO.	REC	PLAY
6	4.9	5
Q6106		
1	0	0
2	0	0
3	2.6	2.6
4	6.7	6.7
5	0	0
6	0	0
Q6107		
1	4.8	4.8
2	4.8	4.8
3	1.8	0
4	6.7	6.7
5	4.8	4.8
6	4.8	4.8
Q6108		
1	4.9	0
2	4.9	3
3	6.7	4
4	6.8	6.7
5	5	3
6	4.9	3
Q6110		
1	1.8	0
2	0	1.8
3	4.7	0
4	6.7	6.7
5	1.8	1.8
6	0	1.8
Q6109		
G	0	1.8
D	3	0
S	0	0
Q6112		
1	3.1	0
2	3.1	3.1
3	0	0
4	6.7	6.7
5	3.1	3.1
6	3.1	3.1
Q6113		
G	1.6	1.5
D	3.1	3.1
S	0	0

<MDA>

MODE PIN NO.	REC	PLAY
IC1601		
1	0	0
2	0.9	0
3	0.9	0.9
4	0	0
5	0.9	0.9
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	5	5
15	0	0
16	0.4	0
17	0	0
18	0.5	0
19	0	0
20	0.5	0
21	0	0
22	0	0
23	0	0
24	6.7	6.7
25	1.5	1.5
26	0	-
27	1.5	1.5
28	1.5	1.5

MODE PIN NO.	REC	PLAY
29	0	0
30	1.5	0
31	0	1.5
32	1.5	0
33	1.5	1.5
34	1.5	1.5
35	3	3
36	3	3
37	0	0
38	0.7	0.7
39	0.7	0
40	1.2	1.2
41	0	0
42	0	0.4
43	3	0
44	0	0
45	0	0
46	0	0
47	3	0
48	0	3
49	0	0
50	0	0
51	0	0
52	0	0
53	0	0
54	0.4	0
55	0.7	0
56	0.7	0.7
57	0	1
58	0.6	0.6
59	0	0
60	1	1.1
61	2.7	2.7
62	1.2	0
63	1.5	0
64	0	1.5
65	1.5	1.5
66	0	0
67	1.5	1.5
68	0	0.5
69	0	0
70	0.9	0.9
71	0.8	0.9
72	0.9	0.8
73	0.9	0
74	1.2	1.1
75	0.4	0.4
76	0	0
77	6.9	6.9
78	0	1.8
79	1.8	0
80	0	0
Q1601		
1	0	0
2	0	0
3	0	4.9
4	0	0
5	0	4.9

<W/B>

MODE PIN NO.	REC	PLAY
IC1101		
1	0	2.4
2	2.4	2.4
3	2.4	0
4	0	0
5	2.4	0
6	2.4	2.3
7	1.5	0
8	4.8	4.8
Q1151		
E	0	0
C	4.3	4.3
B	-	-

<IR/TALLY/EJECT>

MODE PIN NO.	REC	PLAY
IC1801		
1	4.5	4.8
2	4	0
3	0	0
4	0	0
Q1801		
E	0	0
C	0	0
B	0	0

<JACK>

MODE PIN NO.	REC	PLAY
IC3751		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-

<PHY>

MODE PIN NO.	REC	PLAY
IC3101		
1	0.6	0
2	0	0
3	0	0
4	2.9	2.9
5	0.4	2.9
6	2.9	2.9
7	0.4	1.3
8	0	0
9	1.2	1.3
10	0	0
11	0.4	1.3
12	0.4	1.3
13	0.4	1.3
14	0.5	1.4
15	0.5	1.4
16	0.4	1.4
17	0	0
18	0	0
19	0.4	0.4
20	0.4	0.4
21	0	0
22	0.4	0.4
23	0	0
24	0	0.4
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0

MODE PIN NO.	REC	PLAY
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	0.6	0
36	0.6	0
37	0	0
38	0	0
39	0.7	0
40	0.7	0
41	0	0
42	0	0
43	0	0
44	1.8	0
45	1.9	0
46	1.9	0
47	1.8	0
48	1.9	0
49	0	0
50	0	0
51	2.9	0.4
52	0	0
53	0	0
54	3	0
55	3	0
56	1.4	0
57	1.5	0
58	3	0
59	0	0
60	0.6	0
61	0	0
62	0.6	0
63	0	0
64	0	0

<MONITOR>

MODE PIN NO.	REC	PLAY
IC7201		
1	1	1
2	6.7	6.7
3	6.7	6.7
4	0	0
5	0	1.2
IC7210		
1	2.9	2.9
2	1.3	1.8
3	2.9	2.9
4	0	0
5	0	0
6	0	0
7	0	0
8	3	2.9
IC7300		
1	0	0
2	3	2.9
3	-	-
4	3	2.9
5	3	3
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	3	2.8
15	2.9	2.9
16	1.8	1.7
17	0.7	0.7
18	0	0
19	3	2.9
20	3	2.9
21	1.4	1.4
22	1.5	1.5

MODE PIN NO.	REC	PLAY
23	0	0
24	0	0
25	0	2.9
26	0	0
27	0	0
28	0	0
29	0	0
30	5.4	5.4
31	1.2	0
32	0	0
33	1.3	1.2
34	0	0
35	1.3	0.9
36	0	0
37	11.8	0
38	1.1	-
39	0	0
40	0	0
41	11.8	11.8
42	0	0
43	0	0
44	0	0
45	0	0
46	0	0
47	0	0
48	0	0
49	0	0
50	0	0
51	0	0
52	0	0
53	0	0
54	0	0
55	3	2.9
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	3	2.9
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	-	-
70	0	0
71	0	0
72	0	0
IC7400		
1	0	0
2	2.3	2.4
3	1.7	1.7
4	0.4	0.4
5	0.4	0.4
6	2.9	2.9
7	1.3	1.3
8	1.1	1.1
9	0	0
10	0	0
11	0	0
12	0	0
13	2.9	2.8
14	2.9	2.9
15	2.9	2.9
16	2	1.8
17	0.7	0.7
18	0	0
19	3	2.9
20	3	0
21	1.4	0
22	1.5	1.4
23	0	0
24	1.6	1.6
25	2.9	2.9
26	0	0
27	0	0
28	0	-

MODE PIN NO.	REC	PLAY
29	0	0
30	5.8	5.9
31	-	1.7
32	0	5.9
33	0	1.7
34	0	5.9
35	0	1.7
36	0	5.9
37	11.8	11.8
38	1	2.2
39	0	0
40	0	0
41	11.8	11.8
42	0	5.8
43	0	0
44	1.5	1.4
45	3	3
46	0	0
47	0	0
48	0	0
49	1.3	1.3
50	3	2.9
51	1.3	1.3
52	1.3	1.3
53	0	0
54	0	0
55	3	2.9
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	1.5	1.5
62	1.5	1.5
63	3	2.9
64	0	0
65	3	2.9
66	3	3
67	0	0
68	1.5	1.5
69	1.2	0
70	0	2.1
71	0	0
72	0	0
Q7201		
E	0	6.7
C	0	6.7
B	0	6
Q7202		
E	0	0
C	6.7	6.7
B	-0.5	0
Q7203		
E	0	0
C	0	0
B	3	3
Q7300		
E	11.8	11.8
C	0	0
B	11.8	11.8
Q7301		
E	0	0
C	0	0
B	0	2.9
Q7302		
E	0	1.2
C	0	0
B	0	0
Q7305		
E	0	0
C	0	11.8
B	0	5.4
Q7306		
E	0	6
C	0	0
B	0	0

MODE PIN NO.	REC	PLAY
Q7307		
E	0	0
C	0	11.8
B	0.7	0.6
Q7308		
E	0	5.4
C	0	0
B	0	4.9
Q7400		
E	0	0
B	0	0
C	11.8	11.8
Q7401		
E	0	0
C	0	11.8
B	0	0
Q7402		
E	0	1.2
C	0	0
B	0	0.6

<CCD/AD>

MODE PIN NO.	REC	PLAY
IC4101		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
IC4102		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
IC4201		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-

MODE PIN NO.	REC	PLAY
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
IC4202		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
IC5001		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-

MODE PIN NO.	REC	PLAY
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
56	-	-
57	-	-
58	-	-
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-
Q5201		
E	-	-
C	-	-
B	-	-

<PRE/REC>

MODE PIN NO.	REC	PLAY
IC3501		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-

MODE PIN NO.	REC	PLAY
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
56	-	-
57	-	-
58	-	-
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-
Q3501		
E	-	-
C	-	-
B	-	-
Q3502		
E	-	-
C	-	-
B	-	-
Q3503		
E	-	-
C	-	-
B	-	-
Q3504		
E	-	-
C	-	-
B	-	-

<MPL>

MODE PIN NO.	REC	PLAY
IC5401		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-

<MONITOR BL>

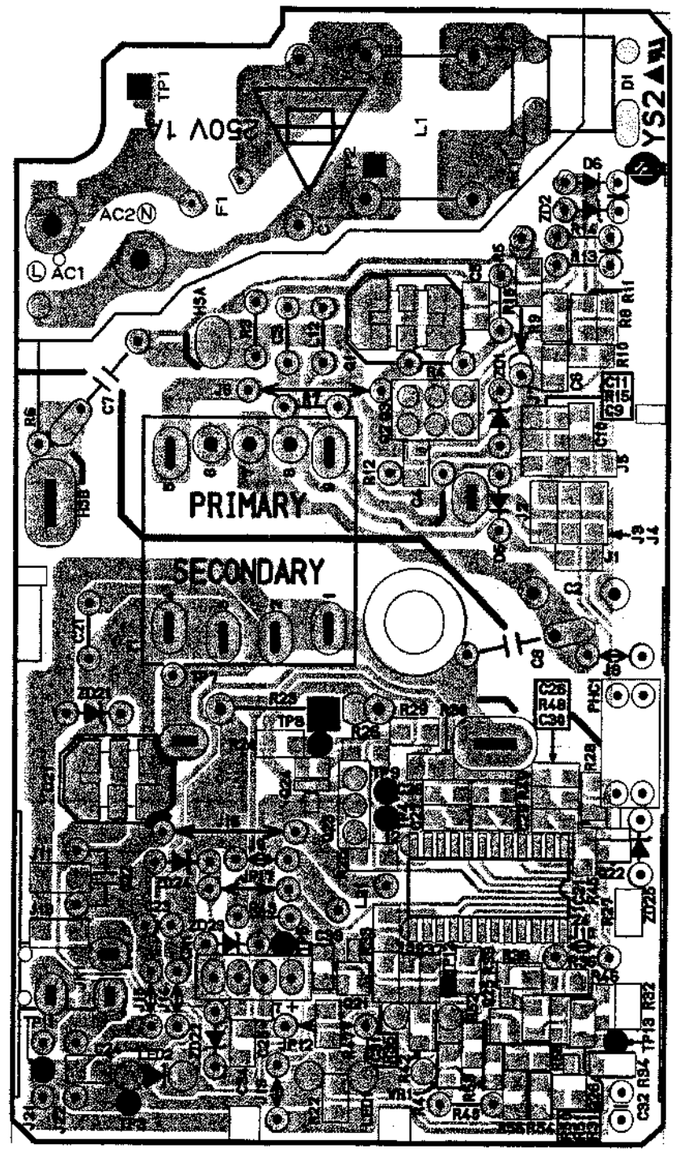
MODE PIN NO.	EE
IC6701	
1	6.7
2	0
3	3
4	1.3
5	5.1
IC7501	
1	1
2	1
3	0
4	0
5	0
6	0.9
7	1.4
8	0
9	6.7
10	2.1
11	0
12	1.9
13	1.2
14	1.2
15	0
16	0
IC7502	
1	0
2	2.1
3	0
4	0
5	2.9
Q6701	
E	0
C	0
B	3
Q6702	
E	0
C	0
B	0
Q7501	
1	0
2	2.9
3	0
4	0
5	0
6	0
Q7502	
G	0.8
D	6.6
S	0
Q7504	
1	1.9
2	1.9
3	1.3
4	0
5	1.4
6	0.8

<DIAL>

MODE PIN NO.	EE
Q6701	
E	0
C	0
B	3
Q6702	
E	0
C	0
B	0

SECTION 5
AC POWER ADAPTER

5.1 CIRCUIT BOARD



5.2 SCHEMATIC DIAGRAM

NOTE: *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

Safety precautions
The components identified by the symbol ! are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.