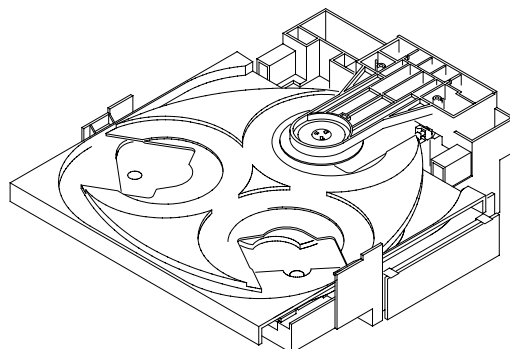




SERVICE MANUAL

DVD CD VCD MECHANISM

BASIC MECHANISM : DV32F DVD

TYPE	DVD MECHA
ZAAPA	DV32F DVD
ZAAPAM	
ZABPDM	
ZACPD	
ZACPDM	
ZBAPAM	
ZBAPAKM	
ZFAPAM	
ZCAPD	
ZCAPDM	

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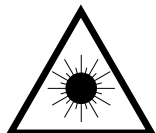
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PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylitävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

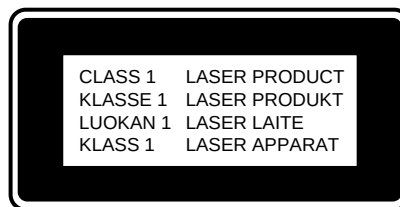
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

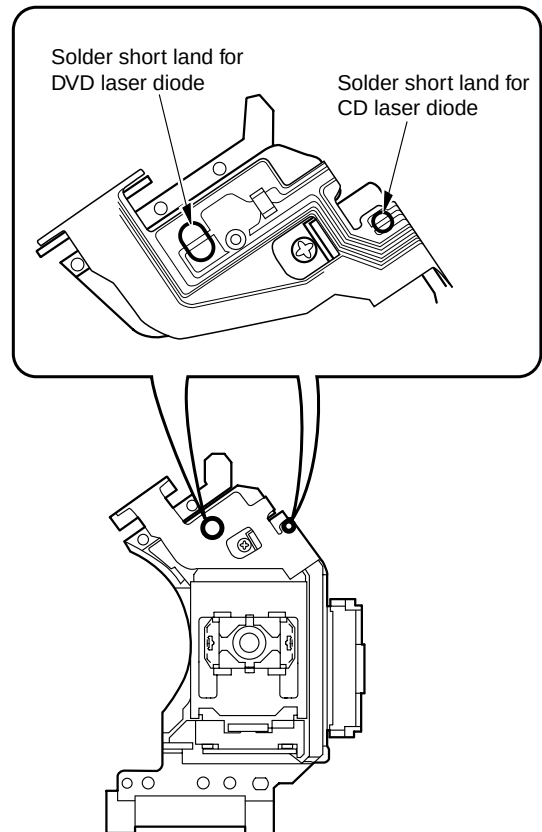
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



Precaution to replace Optical block (SF-HD3AV/HD3AVC)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

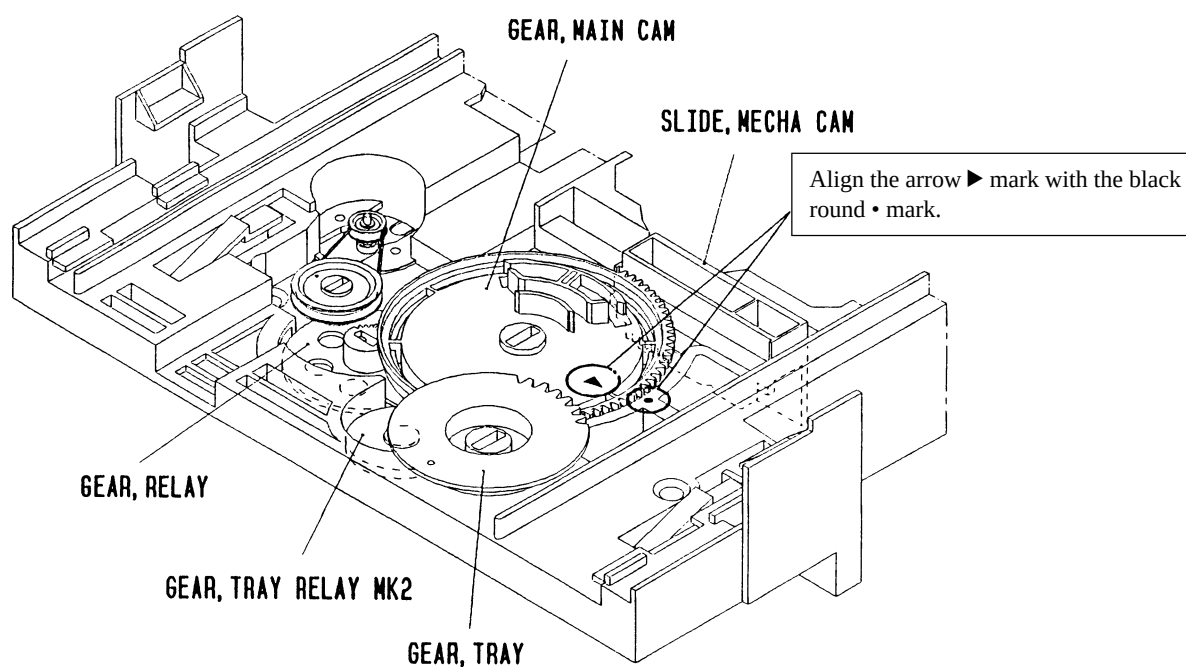
1) After the connection, remove solder shown in the right figure.



How to Adjust the Rotating Phase of the Gear, Main Cam

- 1) Push down the hooking catch of the CHAS. MECH, and remove the TRAY.
- 2) Align the arrow mark of the Gear, Main Cam with the black round mark of the CHAS, MECHA as shown below.
- 3) Confirm that the Slide, Mech Cam is located in the right position, then insert the TRAY gently.

Caution: If the rotating phase of the Gear, Main Cam is incorrectly adjusted, the chucking operation and tray movement will have malfunction.



ELECTRICAL MAIN PARTS LIST-1/6

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC					89-213-702-010		TR,2SB1370 (1.8W)
	87-A20-080-040	C-IC,TC74HC14AF			87-026-610-080		TR,KTC3198GR
	87-017-027-040	C-IC,TC7W08F			87-A30-234-080		TR,CSC4115BC
	8A-ZA7-804-010	C-IC,LC87F72C8A					<ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
	87-A21-697-040	C-IC,TC7SHU04F					
	8A-ZA7-803-010	C-IC,LC78660W		DIODE			
	8A-ZA7-802-040	C-IC,LC324265AT-25DV			87-017-779-080		C-DIODE,1SS355
	87-A21-309-040	C-IC,HD74LV74A			87-A40-384-080		C-ZENER,UDZ3.3B
	8A-ZA7-800-010	C-IC,LA9702W-MPB			87-020-027-080		CHIP-DIODE 1SS184
	87-017-917-080	IC,BU4066BCF			87-A40-758-080		ZENER,UZ8.2BSB
	8A-ZA7-801-040	C-IC,LA6556L-TE-L			87-A40-313-080		C-DIODE,MC 2840
	87-A20-905-040	C-IC,BA033FP			87-A40-614-040		C-DIODE,SFPB-72
	87-A21-304-010	IC,LB1649			87-020-465-080		DIODE,1SS133 (110MA)
	8A-ZA7-602-040	C-IC,HN58X2416FPI			87-A40-745-080		ZENER,UZ4.7BSA
	8Z-AV2-628-010	C-IC,HD6412350F20			87-A40-765-080		ZENER,UZ11BSB
	87-A20-185-040	C-IC,PST600DMT					<ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
	87-001-551-080	IC,TC7S08F		DVD C.B			
	8A-ZA7-605-010	C-IC,M27C8-AZA-7 (4) <ZABPDM,ZCAPDM>		C100	87-012-274-080		CHIP CAP,U 1000P-50B
	8A-ZA7-609-010	C-IC,M27C8-AZA-7 (5) <ZCAPD>		C101	87-016-428-080		C-CAP,E 47-16 5.5N
	8A-ZA7-607-010	C-IC,M27C8-AZA-7 (CH2) <ZACPD,ZCAPD>		C102	87-010-831-080		C-CAP,U,0.1-16F
	8A-ZA7-608-010	C-IC,M27C8-AZA-7 (CH3) <ZBAPAM,ZBAPAKM,ZFAPAM>		C103	87-010-831-080		C-CAP,U,0.1-16F
	8A-ZA7-601-010	C-IC,M27C8-AZA-7-US<ZAAPAM,ZAAPA>		C104	87-012-180-080		C-CAP,U 22P-50 CH
	8A-AV6-605-030	C-IC,UT611024LC-12<EXCEPT ZAAPAM,ZAAPA>		C105	87-012-180-080		C-CAP,U 22P-50 CH
	8Z-AV2-629-010	C-IC,W24512AT-15<ZAAPAM,ZAAPA>		C106	87-010-831-080		C-CAP,U,0.1-16F
	8Z-AV2-630-010	C-IC,L64021D		C107	87-016-428-080		C-CAP,E 47-16 5.5N
	8Z-AV2-633-110	C-IC,MB81F161622C		C108	87-010-831-080		C-CAP,U,0.1-16F
	87-A20-689-080	C-IC,PCM1723		C109	87-016-428-080		C-CAP,E 47-16 5.5N
	87-A21-613-040	C-IC,SN74LV04APW		C110	87-010-831-080		C-CAP,U,0.1-16F
	87-A21-362-040	C-IC,NJM2100M (TE2)		C111	87-012-195-080		C-CAP,U 100P-50CH
	87-A21-251-010	C-IC,MC44724A		C112	87-010-831-080		C-CAP,U,0.1-16F
	87-A21-502-010	C-IC,YSD917<ZAAPAM>		C113	87-010-848-080		C-CAP,10-16V
	87-A21-502-040	C-IC,YSD917 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM>		C114	87-010-848-080		C-CAP,10-16V
	87-A21-501-010	C-IC,YSS902 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>		C115	87-010-831-080		C-CAP,U,0.1-16F
	87-A21-503-010	C-IC,AK4527VQ <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>		C116	87-012-172-080		CAPACITOR CHIP U 10P CH
	87-017-825-010	IC,GP1F32T		C117	87-012-172-080		CAPACITOR CHIP U 10P CH
	87-017-453-080	IC,NJM2267M		C118	87-012-172-080		CAPACITOR CHIP U 10P CH
	87-017-750-080	IC,MM1041XM		C119	87-012-172-080		CAPACITOR CHIP U 10P CH
	87-A20-602-040	C-IC,M5291FP		C120	87-012-172-080		CAPACITOR CHIP U 10P CH
	87-017-022-080	IC,NJM2068M-D (T1) <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>		C121	87-012-172-080		CAPACITOR CHIP U 10P CH
				C122	87-012-172-080		CAPACITOR CHIP U 10P CH
				C123	87-012-172-080		CAPACITOR CHIP U 10P CH
				C124	87-012-172-080		CAPACITOR CHIP U 10P CH
				C125	87-012-172-080		CAPACITOR CHIP U 10P CH
				C126	87-012-286-080		CAP, U 0.01-25
				C127	87-012-286-080		CAP, U 0.01-25
				C128	87-012-286-080		CAP, U 0.01-25
				C129	87-012-286-080		CAP, U 0.01-25
	89-110-372-080	TR,2SA1037 (140MHZ 200MW)		C130	87-012-286-080		CAP, U 0.01-25
	89-211-323-080	C-TR,2SB1132R		C201	87-010-831-080		C-CAP,U,0.1-16F
	89-333-265-040	C-TR,2SC3326A <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>		C202	87-A11-031-080		C-CAP,E 100-16 M WX
	87-A30-516-040	C-FET,3LN01C-TB		C203	87-010-831-080		C-CAP,U,0.1-16F
	87-A30-435-040	C-TR,DTC144EK T146<ZCAPD,ZACPD,ZAAPA>		C205	87-010-831-080		C-CAP,U,0.1-16F
	87-026-210-080	CHIP-TR,DTC144EK <EXCEPT ZCAPD,ZACPD,ZAAPA>		C206	87-A11-031-080		C-CAP,E 100-16 M WX
	87-A30-432-040	C-TR,DTC124XKA<ZCAPD,ZACPD,ZAAPA>		C208	87-A11-031-080		C-CAP,E 100-16 M WX
	87-026-237-080	CHIP-TR,DTC124XK <EXCEPT ZCAPD,ZACPD,ZAAPA>		C209	87-016-427-080		C-CAP,E 47-6.3 5.5N
	87-A30-447-040	C-TR,DTA114EKA<ZCAPD,ZACPD,ZAAPA>		C210	87-012-286-080		CAP, U 0.01-25
	87-026-227-080	CHIP-TR,DTA114EK <EXCEPT ZCAPD,ZACPD,ZAAPA>		C211	87-010-831-080		C-CAP,U,0.1-16F
	87-A30-455-040	C-TR,DTA144EKA<ZCAPD,ZACPD,ZAAPA>		C217	87-010-831-080		C-CAP,U,0.1-16F
	87-026-211-080	TR,DTA144EK<EXCEPT ZCAPD,ZACPD,ZAAPA>		C218	87-010-831-080		C-CAP,U,0.1-16F
	89-324-123-080	C-TR,2SC2412K S		C219	87-A12-344-080		C-CAP,E 100-6.3 VC PX
	87-A30-255-010	TR,2SB1342		C220	87-012-274-080		CHIP CAP,U 1000P-50B
	87-A30-076-080	C-TR,2SC3052F		C221	87-012-274-080		CHIP CAP,U 1000P-50B
	87-A30-071-080	C-TR,RT1N 144C <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>		C222	87-010-831-080		C-CAP,U,0.1-16F
	87-A30-075-080	C-TR,2SA1235F<ZAAPAM,ZAAPA>		C224	87-012-277-080		C-CAP, U 1800P-50 B
	87-A30-072-080	C-TR,RT1P 144C		C225	87-012-274-080		CHIP CAP,U 1000P-50B
	87-A30-217-010	TR,2SB1436 (R)		C226	87-012-274-080		CHIP CAP,U 1000P-50B
				C227	87-012-274-080		CHIP CAP,U 1000P-50B

ELECTRICAL MAIN PARTS LIST-2/6

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C228	87-012-274-080		CHIP CAP,U 1000P-50B	C347	87-012-165-080		CAP 3P
C229	87-012-274-080		CHIP CAP,U 1000P-50B	C348	87-010-831-080		C-CAP,U,0.1-16F
C231	87-012-274-080		CHIP CAP,U 1000P-50B	C349	87-010-843-080		C-CAP,E 1-50 M 5.5L MV
C232	87-012-274-080		CHIP CAP,U 1000P-50B	C350	87-010-831-080		C-CAP,U,0.1-16F
C233	87-010-831-080		C-CAP,U,0.1-16F	C351	87-010-831-080		C-CAP,U,0.1-16F
C234	87-010-831-080		C-CAP,U,0.1-16F	C352	87-016-427-080		C-CAP,E 47-6.3 5.5N
C235	87-012-174-080		CAP CHIP CERA SS 12P CHJ	C353	87-016-427-080		C-CAP,E 47-6.3 5.5N
C236	87-012-174-080		CAP CHIP CERA SS 12P CHJ	C354	87-012-164-080		C-CAP,U 2P-50 CK
C237	87-010-831-080		C-CAP,U,0.1-16F	C355	87-A11-031-080		C-CAP,E 100-16 M WX
C238	87-010-829-080		CAP, U 0.047-16	C356	87-012-176-080		CAP 15P
C239	87-010-829-080		CAP, U 0.047-16	C357	87-010-831-080		C-CAP,U,0.1-16F
C240	87-010-831-080		C-CAP,U,0.1-16F	C358	87-012-274-080		CHIP CAP,U 1000P-50B
C241	87-010-831-080		C-CAP,U,0.1-16F	C359	87-012-274-080		CHIP CAP,U 1000P-50B
C242	87-012-286-080		CAP, U 0.01-25	C400	87-010-831-080		C-CAP,U,0.1-16F
C243	87-012-197-080		C-CAP,U 150P-50 CH	C401	87-016-427-080		C-CAP,E 47-6.3 5.5N
C244	87-010-831-080		C-CAP,U,0.1-16F	C402	87-010-831-080		C-CAP,U,0.1-16F
C245	87-010-831-080		C-CAP,U,0.1-16F	C403	87-010-831-080		C-CAP,U,0.1-16F
C246	87-010-831-080		C-CAP,U,0.1-16F	C404	87-A11-968-080		C-CAP,E 220-16 M UR
C247	87-010-831-080		C-CAP,U,0.1-16F	C405	87-010-831-080		C-CAP,U,0.1-16F
C248	87-010-831-080		C-CAP,U,0.1-16F	C406	87-010-831-080		C-CAP,U,0.1-16F
C249	87-010-831-080		C-CAP,U,0.1-16F	C407	87-012-199-080		CAP 220P
C250	87-010-831-080		C-CAP,U,0.1-16F	C408	87-012-199-080		CAP 220P
C251	87-010-831-080		C-CAP,U,0.1-16F	C409	87-012-199-080		CAP 220P
C252	87-010-831-080		C-CAP,U,0.1-16F	C410	87-012-199-080		CAP 220P
C253	87-010-831-080		C-CAP,U,0.1-16F	C411	87-010-831-080		C-CAP,U,0.1-16F
C254	87-010-831-080		C-CAP,U,0.1-16F	C412	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C255	87-010-831-080		C-CAP,U,0.1-16F	C413	87-A10-047-080		C-CAP,U 1-10 Z F
C256	87-012-282-080		CAP, U 4700P-50	C414	87-010-831-080		C-CAP,U,0.1-16F
C257	87-016-427-080		C-CAP,E 47-6.3 5.5N	C415	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C259	87-016-427-080		C-CAP,E 47-6.3 5.5N	C416	87-010-831-080		C-CAP,U,0.1-16F
C260	87-012-286-080		CAP, U 0.01-25	C417	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C261	87-012-286-080		CAP, U 0.01-25	C418	87-010-831-080		C-CAP,U,0.1-16F
C300	87-016-427-080		C-CAP,E 47-6.3 5.5N	C419	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C301	87-016-427-080		C-CAP,E 47-6.3 5.5N	C420	87-010-831-080		C-CAP,U,0.1-16F
C302	87-010-831-080		C-CAP,U,0.1-16F	C421	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C303	87-010-831-080		C-CAP,U,0.1-16F	C422	87-010-831-080		C-CAP,U,0.1-16F
C304	87-012-274-080		CHIP CAP,U 1000P-50B	C423	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C305	87-016-428-080		C-CAP,E 47-16 5.5N	C424	87-010-848-080		C-CAP,10-16V
C307	87-012-274-080		CHIP CAP,U 1000P-50B	C425	87-010-831-080		C-CAP,U,0.1-16F
C308	87-016-428-080		C-CAP,E 47-16 5.5N	C426	87-010-831-080		C-CAP,U,0.1-16F
C311	87-010-831-080		C-CAP,U,0.1-16F	C427	87-010-848-080		C-CAP,10-16V
C312	87-012-271-080		CAP, U 560P-50	C551	87-012-286-080		CAP, U 0.01-25
C313	87-012-271-080		CAP, U 560P-50	C552	87-A11-031-080		C-CAP,E 100-16 M WX
C314	87-012-271-080		CAP, U 560P-50	C553	87-A11-974-080		C-CAP,E 22-16 M 5.5L MV
C315	87-012-271-080		CAP, U 560P-50	C554	87-012-286-080		CAP, U 0.01-25
C316	87-012-271-080		CAP, U 560P-50	C601	87-012-286-080		CAP, U 0.01-25
C317	87-012-282-080		CAP, U 4700P-50	C602	87-012-286-080		CAP, U 0.01-25
C318	87-012-271-080		CAP, U 560P-50	C603	87-012-286-080		CAP, U 0.01-25
C319	87-012-196-080		C-CAP,U 120P-50 CH	C604	87-012-286-080		CAP, U 0.01-25
C320	87-A11-031-080		C-CAP,E 100-16 M WX	C605	87-012-286-080		CAP, U 0.01-25
C321	87-010-831-080		C-CAP,U,0.1-16F	C608	87-016-428-080		C-CAP,E 47-16 5.5N
C322	87-012-196-080		C-CAP,U 120P-50 CH	C609	87-012-286-080		CAP, U 0.01-25
C323	87-010-831-080		C-CAP,U,0.1-16F	C612	87-012-286-080		CAP, U 0.01-25
C324	87-012-197-080		C-CAP,U 150P-50 CH	C613	87-012-286-080		CAP, U 0.01-25
C330	87-012-184-080		C-CAP,U 33P-50 CH	C614	87-012-172-080		CAPACITOR CHIP U 10P CH
C332	87-012-197-080		C-CAP,U 150P-50 CH	C615	87-016-428-080		C-CAP,E 47-16 5.5N
C333	87-012-184-080		C-CAP,U 33P-50 CH	C617	87-012-172-080		CAPACITOR CHIP U 10P CH
C334	87-012-191-080		CHIP CAP 68 PF	C619	87-012-286-080		CAP, U 0.01-25
C335	87-012-199-080		CAP 220P	C620	87-012-286-080		CAP, U 0.01-25
C336	87-012-197-080		C-CAP,U 150P-50 CH	C623	87-012-286-080		CAP, U 0.01-25
C337	87-012-188-080		C-CAP,U 47P-50 CH	C624	87-012-286-080		CAP, U 0.01-25
C338	87-012-174-080		CAP CHIP CERA SS 12P CHJ	C625	87-010-848-080		C-CAP,10-16V
C339	87-012-195-080		C-CAP,U 100P-50CH	C626	87-012-286-080		CAP, U 0.01-25
C340	87-016-428-080		C-CAP,E 47-16 5.5N	C627	87-012-286-080		CAP, U 0.01-25
C341	87-012-193-080		C-CAP,U 82P-50 CH	C628	87-012-286-080		CAP, U 0.01-25
C342	87-012-180-080		C-CAP,U 22P-50 CH	C630	87-010-848-080		C-CAP,10-16V
C343	87-012-270-080		CAP, U 470P-50	C632	87-010-848-080		C-CAP,10-16V
C344	87-012-195-080		C-CAP,U 100P-50CH	C634	87-012-286-080		CAP, U 0.01-25
C345	87-012-197-080		C-CAP,U 150P-50 CH	C701	87-012-286-080		CAP, U 0.01-25
C346	87-012-196-080		C-CAP,U 120P-50 CH	C702	87-016-428-080		C-CAP,E 47-16 5.5N

ELECTRICAL MAIN PARTS LIST-3/6

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C703	87-A11-031-080	C-CAP,E 100-16 M WX		C844	87-012-168-080	C-CAP,U 6P-50 CH	
C704	87-012-286-080	CAP, U 0.01-25		C900	87-010-848-080	C-CAP,10-16V	
C705	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C706	87-012-286-080	CAP, U 0.01-25		C901	87-010-848-080	C-CAP,10-16V	
C707	87-012-278-080	C-CAP,U 2200P-50 B				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C708	87-012-286-080	CAP, U 0.01-25		C902	87-010-848-080	C-CAP,10-16V	
C709	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C710	87-016-428-080	C-CAP,E 47-16 5.5N		C903	87-010-848-080	C-CAP,10-16V	
C711	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C712	87-012-286-080	CAP, U 0.01-25		C904	87-010-848-080	C-CAP,10-16V	
C713	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C714	87-012-286-080	CAP, U 0.01-25		C905	87-010-848-080	C-CAP,10-16V	
C715	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C716	87-012-286-080	CAP, U 0.01-25		C906	87-012-172-080	CAPACITOR CHIP U 10P CH	
C717	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C718	87-012-286-080	CAP, U 0.01-25		C907	87-010-831-080	C-CAP,U,0.1-16F	
C719	87-012-286-080	CAP, U 0.01-25		C908	87-012-172-080	CAPACITOR CHIP U 10P CH	
C720	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C721	87-012-286-080	CAP, U 0.01-25		C909	87-A11-031-080	C-CAP,E 100-16 M WX	
C722	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C723	87-012-286-080	CAP, U 0.01-25		C910	87-012-282-080	CAP, U 4700P-50	
C724	87-012-286-080	CAP, U 0.01-25		C911	87-010-831-080	C-CAP,U,0.1-16F	
C725	87-012-170-080	C-CAP,U 8P-50 CH		C912	87-010-831-080	C-CAP,U,0.1-16F	
C726	87-012-196-080	C-CAP,U 120P-50 CH		C913	87-A11-031-080	C-CAP,E 100-16 M WX	
C727	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C728	87-012-286-080	CAP, U 0.01-25		C914	87-010-831-080	C-CAP,U,0.1-16F	
C729	87-012-286-080	CAP, U 0.01-25		C915	87-016-428-080	C-CAP,E 47-16 5.5N	
C731	87-010-848-080	C-CAP,10-16V				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C732	87-012-286-080	CAP, U 0.01-25		C916	87-012-270-080	CAP, U 470P-50	
C733	87-012-196-080	C-CAP,U 120P-50 CH				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C734	87-012-170-080	C-CAP,U 8P-50 CH		C917	87-010-831-080	C-CAP,U,0.1-16F	
C735	87-010-831-080	C-CAP,U,0.1-16F		C918	87-016-428-080	C-CAP,E 47-16 5.5N	
C736	87-010-848-080	C-CAP,10-16V				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C737	87-010-848-080	C-CAP,10-16V		C919	87-010-831-080	C-CAP,U,0.1-16F	
C738	87-012-196-080	C-CAP,U 120P-50 CH		C920	87-010-831-080	C-CAP,U,0.1-16F	
C739	87-010-831-080	C-CAP,U,0.1-16F		C921	87-010-831-080	C-CAP,U,0.1-16F	
		<ZAAPAM, ZBAPDM, ZCAPDM, ZCAPD, ZAAPA>		C922	87-010-831-080	C-CAP,U,0.1-16F	
C741	87-010-831-080	C-CAP,U,0.1-16F		C923	87-010-831-080	C-CAP,U,0.1-16F	
C744	87-010-831-080	C-CAP,U,0.1-16F		C924	87-A11-031-080	C-CAP,E 100-16 M WX	
C745	87-010-831-080	C-CAP,U,0.1-16F				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C751	87-010-848-080	C-CAP,10-16V		C925	87-010-831-080	C-CAP,U,0.1-16F	
C752	87-010-848-080	C-CAP,10-16V		C926	87-010-831-080	C-CAP,U,0.1-16F	
C758	87-012-286-080	CAP, U 0.01-25<EXCEPT ZAAPAM, ZAAPA>		C927	87-A11-977-080	C-CAP,E 2.2-35 M 5.5L MV	
C759	87-010-848-080	C-CAP,10-16V				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C760	87-010-848-080	C-CAP,10-16V		C928	87-010-831-080	C-CAP,U,0.1-16F	
C763	87-010-831-080	C-CAP,U,0.1-16F				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
		<ZAAPAM, ZBAPDM, ZCAPDM, ZACPD, ZAAPA>		C929	87-010-848-080	C-CAP,10-16V	
C766	87-012-286-080	CAP, U 0.01-25				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C767	87-012-286-080	CAP, U 0.01-25		C930	87-010-831-080	C-CAP,U,0.1-16F	
C800	87-012-286-080	CAP, U 0.01-25		C931	87-A11-031-080	C-CAP,E 100-16 M WX	
C801	87-016-428-080	C-CAP,E 47-16 5.5N				<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	
C802	87-016-428-080	C-CAP,E 47-16 5.5N		C932	87-010-831-080	C-CAP,U,0.1-16F	
C803	87-010-831-080	C-CAP,U,0.1-16F		C933	87-012-286-080	CAP, U 0.01-25	
C804	87-010-831-080	C-CAP,U,0.1-16F		C934	87-010-831-080	C-CAP,U,0.1-16F	
C806	87-010-831-080	C-CAP,U,0.1-16F		C935	87-010-831-080	C-CAP,U,0.1-16F	
C807	87-012-286-080	CAP, U 0.01-25		C936	87-010-831-080	C-CAP,U,0.1-16F	
C810	87-012-286-080	CAP, U 0.01-25		C942	87-010-831-080	C-CAP,U,0.1-16F	
C811	87-016-428-080	C-CAP,E 47-16 5.5N		C950	87-012-286-080	CAP, U 0.01-25	
C812	87-012-286-080	CAP, U 0.01-25		C951	87-010-848-080	C-CAP,10-16V	
C813	87-010-831-080	C-CAP,U,0.1-16F		C952	87-010-846-080	C-CAP,E 4.7-35V	
C815	87-010-831-080	C-CAP,U,0.1-16F		C953	87-A11-974-080	C-CAP,E 22-16 M 5.5L MV	
C817	87-010-848-080	C-CAP,10-16V		C954	87-A11-031-080	C-CAP,E 100-16 M WX	
C818	87-012-286-080	CAP, U 0.01-25		C955	87-012-286-080	CAP, U 0.01-25	
C819	87-012-186-080	C-CAP,U 39P-50 CH		C956	87-010-846-080	C-CAP,E 4.7-35V	
C820	87-012-182-080	C-CAP,U 27P-50 CH		C957	87-A11-974-080	C-CAP,E 22-16 M 5.5L MV	
C834	87-012-184-080	C-CAP,U 33P-50 CH		C958	87-A11-031-080	C-CAP,E 100-16 M WX	
C835	87-012-174-080	CAP CHIP CERA SS 12P CHJ		C959	87-012-286-080	CAP, U 0.01-25	
C836	87-012-178-080	C-CAP,U 18P-50 CH		C960	87-010-831-080	C-CAP,U,0.1-16F	
C837	87-012-184-080	C-CAP,U 33P-50 CH		C961	87-010-831-080	C-CAP,U,0.1-16F	
C838	87-012-174-080	CAP CHIP CERA SS 12P CHJ		C966	87-012-286-080	CAP, U 0.01-25	
				C967	87-012-286-080	CAP, U 0.01-25	
				CN100	87-A61-476-080	C-CONN,10P V WHT BM10B-SRSS-TB	
				CN300	87-A61-332-080	C-CONN,33P V WHT FH12	

ELECTRICAL MAIN PARTS LIST-4/6

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
CN401	87-A61-333-080		C-CONN,12P H WHT PH-SM3-TB	X900	87-A70-281-080		C-VIB,XTAL 24.576MHZ HC-49/U03 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
CN402	87-A61-337-080		C-CONN,9P V WHT PH-SM3-TB				
CN551	87-A61-336-080		C-CONN,13P H BLK 6232T				
CN552	87-A61-221-080		C-CONN,5P V FMN-BMTTN-TF				
CN702	87-A61-334-080		C-CONN,5P H BLK 6232T	AC3	C.B<ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>		
CN900	87-A60-960-080		C-CONN,16P H 6232T <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	C117	87-010-549-040		CAP,E 47-6.3 GAS <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB201	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T	C118	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB400	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T	C121	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB401	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T	C122	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB402	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T	C123	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB403	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T				
FB404	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T	C124	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB406	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T	C125	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB407	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T	C126	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB731	87-A91-480-080		C-F-BEAD, BK1608 HS121	C127	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB733	87-A91-875-080		C-F-BEAD, BK1608LL680	C128	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB737	87-A91-480-080		C-F-BEAD, BK1608 HS121				
FB739	87-A91-480-080		C-F-BEAD, BK1608 HS121	C129	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB900	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	C130	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB902	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	C133	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB903	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	C134	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB904	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	C136	87-A10-189-040		CAP,E 220-10 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
FB905	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>				
FB906	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>	C141	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
J606	87-A61-145-010		C-SOCKET,IC 2-44P IC179-44600	C142	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
J950	87-A60-127-010		JACK,Y/CYKF51.5504	C143	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
J951	87-A61-284-010		JACK,PIN 1P YEL YKC-21 TYPE C	C144	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L100	87-A50-667-080		C-COIL, 1.0UH K FLC32	C145	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L201	87-A50-395-080		C-COIL,100UHD73C-636CY				
L202	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T	C146	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L203	87-A50-668-080		C-COIL, 2.2UH K FLC32	C147	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L300	87-A50-395-080		C-COIL,100UHD73C-636CY	C148	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L301	87-005-811-080		C-COIL,10UH J FLC32	C149	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L302	87-005-811-080		C-COIL,10UH J FLC32	C150	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L400	87-A50-667-080		C-COIL, 1.0UH K FLC32				
L600	87-A50-667-080		C-COIL, 1.0UH K FLC32	C153	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L601	87-A50-667-080		C-COIL, 1.0UH K FLC32	C154	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L602	87-A50-667-080		C-COIL, 1.0UH K FLC32	C161	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L700	87-A50-667-080		C-COIL, 1.0UH K FLC32	C162	87-010-197-080		CAP, CHIP 0.01 DM <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L701	87-A50-667-080		C-COIL, 1.0UH K FLC32	C163	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L702	87-A50-668-080		C-COIL, 2.2UH K FLC32	C164	87-010-596-080		CAP, S 0.047-16 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L704	87-A50-668-080		C-COIL, 2.2UH K FLC32	C165	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L705	87-005-815-080		C-COIL, 22UH J FLC32	C166	87-010-596-080		CAP, S 0.047-16 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L800	87-A50-668-080		C-COIL, 2.2UH K FLC32	C167	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L801	87-005-815-080		C-COIL, 22UH J FLC32	C168	87-010-596-080		CAP, S 0.047-16 <ZAAPAM, ZBAPAM, ZBAPAKM, ZFAPAM, ZAAPA>
L802	87-005-811-080		C-COIL,10UH J FLC32				
L803	87-005-817-080		C-COIL, 33UH J FLC32				
L805	87-005-816-080		C-COIL, 27UH J FLC32				
L806	87-005-816-080		C-COIL, 27UH J FLC32				
L810	87-005-816-080		C-COIL, 27UH J FLC32				
L811	87-005-816-080		C-COIL, 27UH J FLC32				
L950	87-005-815-080		C-COIL, 22UH J FLC32				
M500	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)				
R768	87-A91-878-080		C-F-BEAD, BK1608HS241				
R919	87-A91-878-080		C-F-BEAD, BK1608HS241 <ZBAPAM, ZBAPAKM, ZFAPAM>				
S551	87-A90-947-080		C-SW,MICRO SPPB63				
S552	87-A90-947-080		C-SW,MICRO SPPB63				
S950	87-A91-572-010		SW,SL 1-1-3 SSSF L9 <ZACPD, ZBAPAM, ZBAPAKM, ZFAPAM, ZACPD>				
X100	87-A70-284-080		C-VIB,XTAL 10MHZ HC-49/U03C				
X200	87-A70-283-080		C-VIB,XTAL 16.9344MHZ HC-49/U0				
X600	87-A70-194-080		C-VIB,XTAL 20MHZ HC-49/U03C				
X700	87-A70-195-080		C-VIB,XTAL 27MHZ HC-49/U03C				

ELECTRICAL MAIN PARTS LIST-5/6

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C169	87-012-153-080		C-CAP,S 120P-50 CH <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C372	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C170	87-010-596-080		CAP, S 0.047-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C375	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C173	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C401	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C174	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C402	87-016-044-040		CAP,E 100-16 GAS <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C225	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C404	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C226	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C405	87-010-322-080		C-CAP,S 100P-50 CH <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C227	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	CN101	87-A61-367-010		CONN,16P V BLK FMN-BTRK <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C228	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	CN103	87-099-028-010		CONN,11P 6216 H <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C306	87-010-787-080		CAP, U 0.022-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	JR105	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C308	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	R304	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>
C309	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	R382	87-016-118-080		C-CAP,U0.022-25BJ<ZAAPA>
C321	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	R382	87-010-787-080		CAP, U 0.022-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM>
C322	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	P-SUPPLY C.B			
C323	87-010-314-080		C-CAP,S 22P-50V <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C3	87-010-196-080		CHIP CAPACITOR,0.1-25
C324	87-010-314-080		C-CAP,S 22P-50V <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C4	87-010-380-080		CAP, ELECT 47-16V
C327	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C5	87-010-380-080		CAP, ELECT 47-16V
C328	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C6	87-010-196-080		CHIP CAPACITOR,0.1-25
C329	87-010-805-080		CAP, S 1-16<ZBAPAKM>	C7	87-010-263-080		CAP, ELECT 100-10V<ZAAPAM,ZAAPA>
C330	87-010-805-080		CAP, S 1-16<ZBAPAKM>	C8	87-010-235-080		CAP,E 470-16 SME
C331	87-016-044-040		CAP,E 100-16 GAS <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C9	87-010-235-080		CAP,E 470-16 SME
C332	87-A10-189-040		CAP,E 220-10 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C10	87-010-196-080		CHIP CAPACITOR,0.1-25
C335	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C11	87-010-196-080		CHIP CAPACITOR,0.1-25
C341	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C12	87-012-157-080		C-CAP,S 330P-50 CH
C342	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C13	87-010-196-080		CHIP CAPACITOR,0.1-25
C343	87-010-319-080		C-CAP,S 56P-50 CH <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C14	87-010-101-080		CAP, ELECT 220-16
C344	87-010-319-080		C-CAP,S 56P-50 CH <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C15	87-010-196-080		CHIP CAPACITOR,0.1-25
C347	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C16	87-A12-311-080		CAP,AS 100U-16 M FA
C348	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C17	87-010-196-080		CHIP CAPACITOR,0.1-25
C349	87-010-805-080		CAP, S 1-16<ZBAPAKM>	C19	87-A12-311-080		CAP,AS 100U-16 M FA
C350	87-010-805-080		CAP, S 1-16<ZBAPAKM>	C20	87-010-182-080		C-CAP,S 220P-50 B
C355	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C22	87-010-322-080		C-CAP,S 100P-50 CH
C356	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C23	87-010-805-080		CAP, S 1-16
C361	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C24	87-010-178-080		CHIP CAP 1000P
C363	87-010-319-080		C-CAP,S 56P-50 CH <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C25	87-010-196-080		CHIP CAPACITOR,0.1-25
C364	87-010-319-080		C-CAP,S 56P-50 CH<ZBAPAKM>	C26	87-010-248-080		CAP, ELECT 220-10V
C367	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C27	87-010-322-080		C-CAP,S 100P-50 CH
C368	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C29	87-010-178-080		CHIP CAP 1000P
C369	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C30	87-010-263-080		CAP, ELECT 100-10V
C370	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C31	87-010-196-080		CHIP CAPACITOR,0.1-25
C371	87-010-805-080		CAP, S 1-16 <ZAAPAM,ZBAPAM,ZBAPAKM,ZFAPAM,ZAAPA>	C33	87-010-178-080		CHIP CAP 1000P
				C34	87-010-263-080		CAP, ELECT 100-10V
				C35	87-010-196-080		CHIP CAPACITOR,0.1-25
				C45	87-010-402-080		CAP, ELECT 2.2-50V
				CN1	8A-ZGD-612-010		CONN ASSY,3P <EXCEPT ZBAPAM,ZBAPAKM,ZFAPAM>
				CN1	8A-SVM-614-010		CONN ASSY,3P EH<ZFAPAM>
				CN1	8A-DJT-624-010		CONN ASSY,3P EH#22<ZBAPAM,ZBAPAKM>
				CNA1	8A-ZGD-608-010		CONN ASSY,12P PH#24
				FB1	87-008-372-080		FILTER, EMI BL OIRNI
				FB2	87-008-372-080		FILTER, EMI BL OIRNI
				FB3	87-008-372-080		FILTER, EMI BL OIRNI
				FB4	87-008-372-080		FILTER, EMI BL OIRNI
				FB5	87-008-372-080		FILTER, EMI BL OIRNI
				FB8	87-008-474-080		F-BEAD,EMI BL02RN1
				L2	87-A50-517-080		COIL,10UHK FLR88
				L3	87-A50-517-080		COIL,10UHK FLR88
				L6	87-A50-549-010		COIL,68UH RCH110
				R7	87-A00-773-080		RES,M/F 2.7-1W J<ZAAPAM,ZAAPA>
				R13	87-A00-769-080		RES,M/F 0.27-1W J<ZAAPAM,ZAAPA>

ELECTRICAL MAIN PARTS LIST-6/6

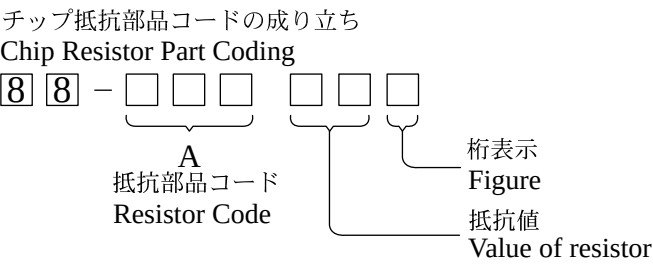
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
R16	87-A00-440-050		RES,220-1/2W J RP<EXCEPT ZBAPAKM>
R17	87-A00-440-050		RES,220-1/2W J RP<EXCEPT ZBAPAKM>
R19	87-A00-257-080		RES,M/F 0.15-1W J<ZAAPA,ZCAPD>

D-SENS C.B

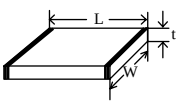
C401	87-A11-148-080	CAP,TC U 0.1-50 Z F
CN401	87-A61-373-010	CONN,5P H GRY FMN-SSTK
M401	87-045-364-010	MOTOR(BCH3B14)
PS401	87-026-573-010	SNSR,PHOTO GP1S53V

- Regarding connectors, they are not stocked as they are not the initial order items.
The connectors are available after they are supplied from connector manufacturers upon the order is received.

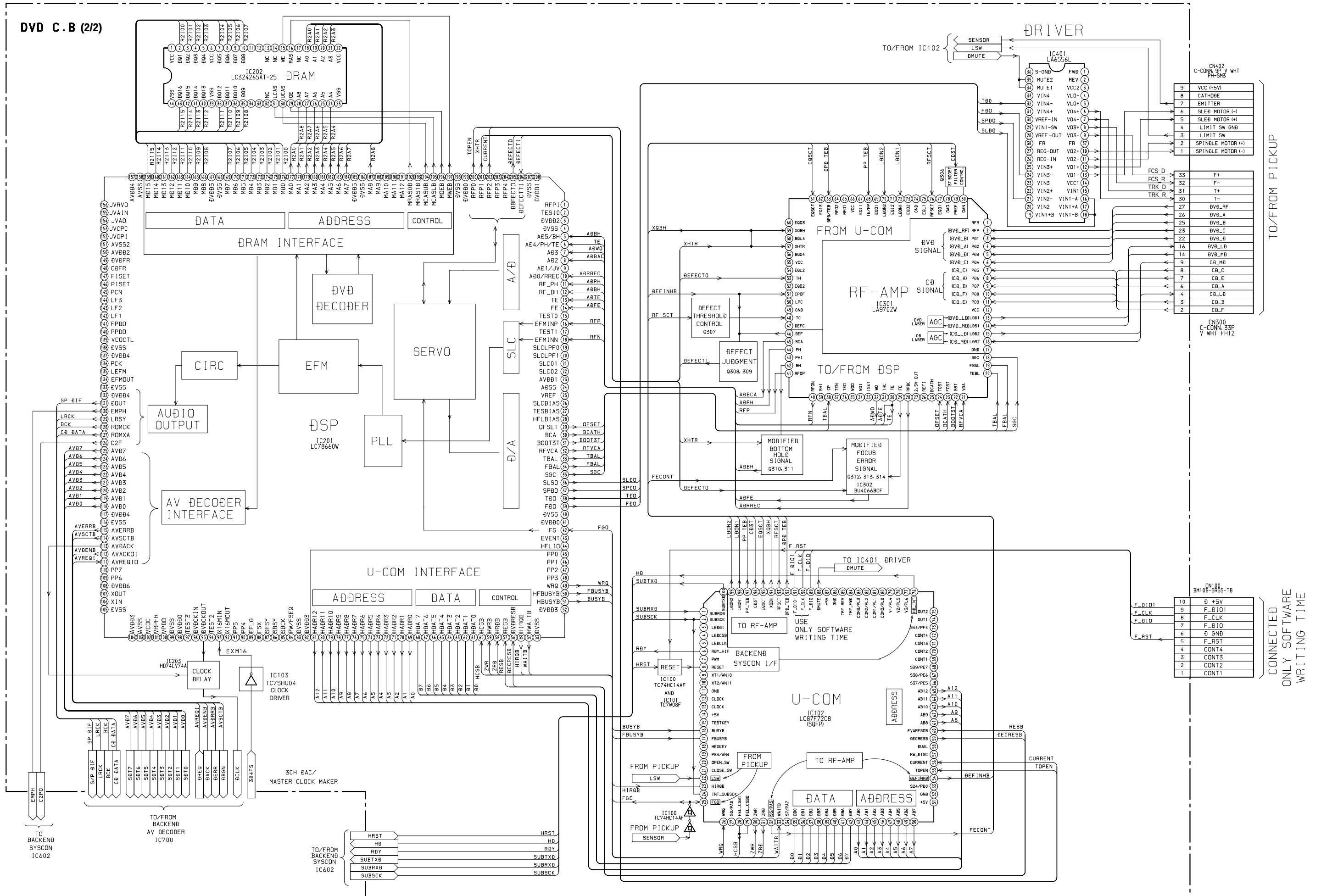
○チップ抵抗部品コード／CHIP RESISTOR PART CODE



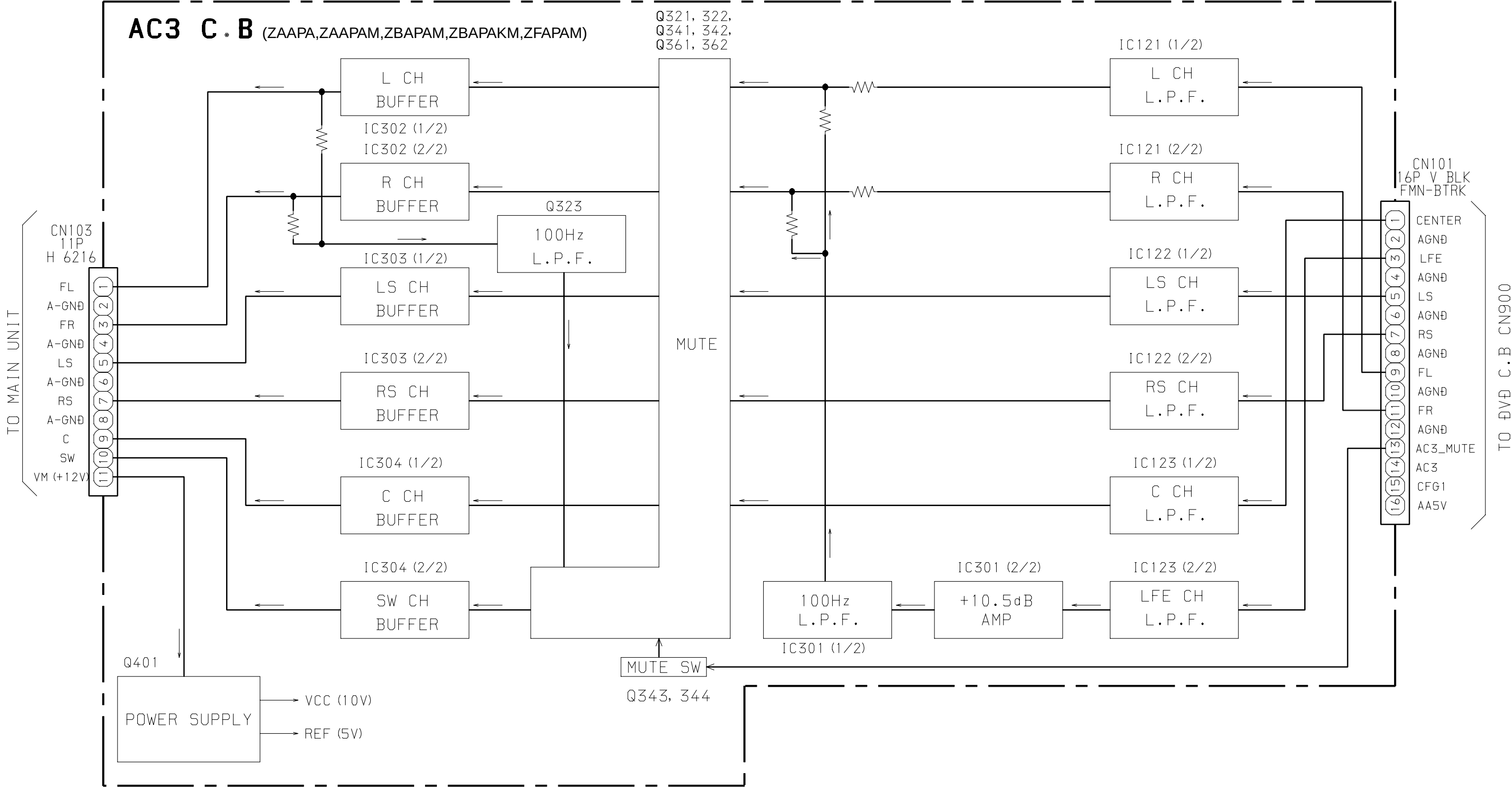
チップ抵抗
Chip resistor

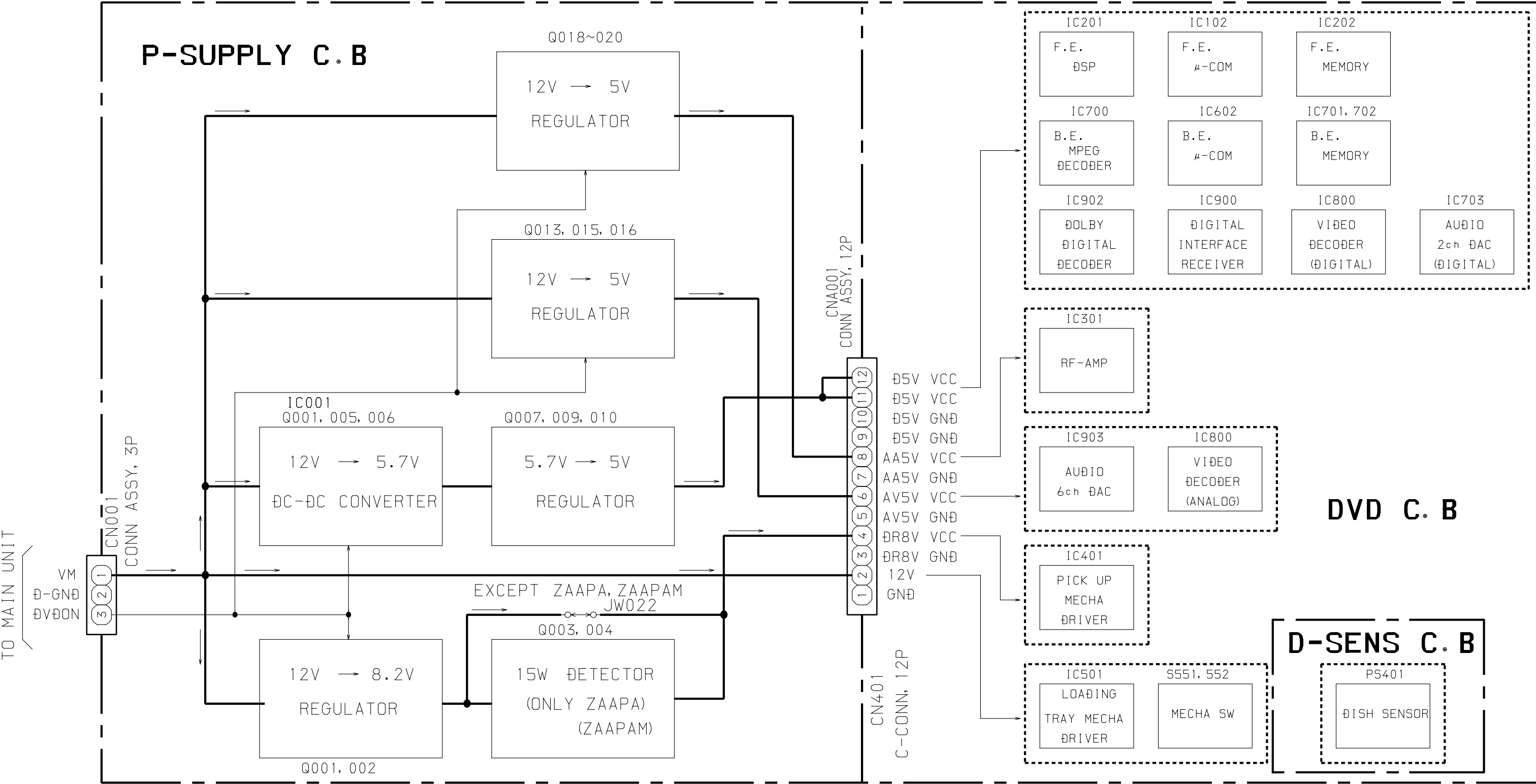
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形／Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

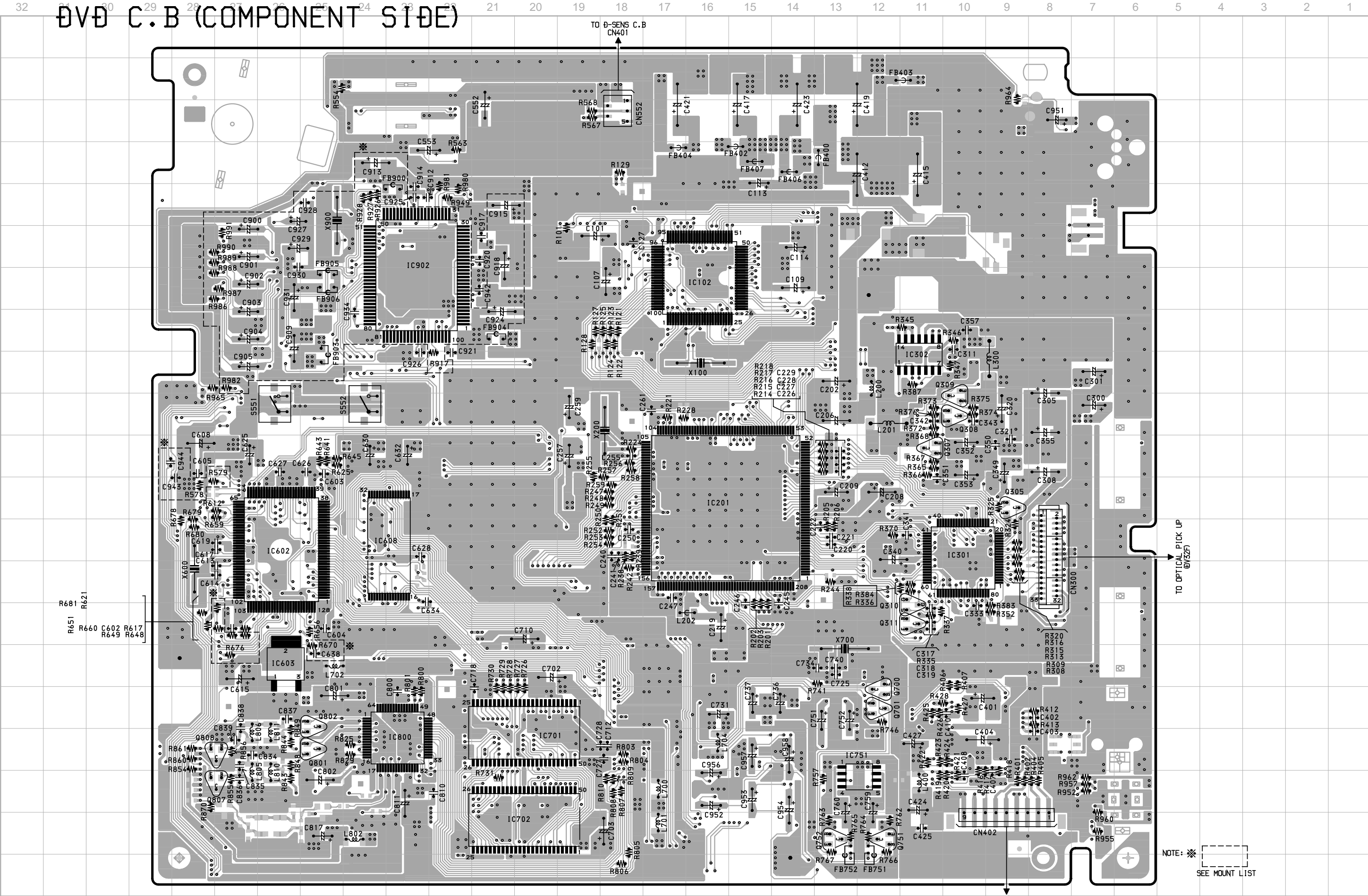
BLOCK DIAGRAM-2/4 (DVD2/2: FRONT END)



BLOCK DIAGRAM-3/4 (AC3)







DVD C.B MOUNT LIST-1/2 (COMPONENT SIDE)

DVD C.B (COMPONENT SIDE)

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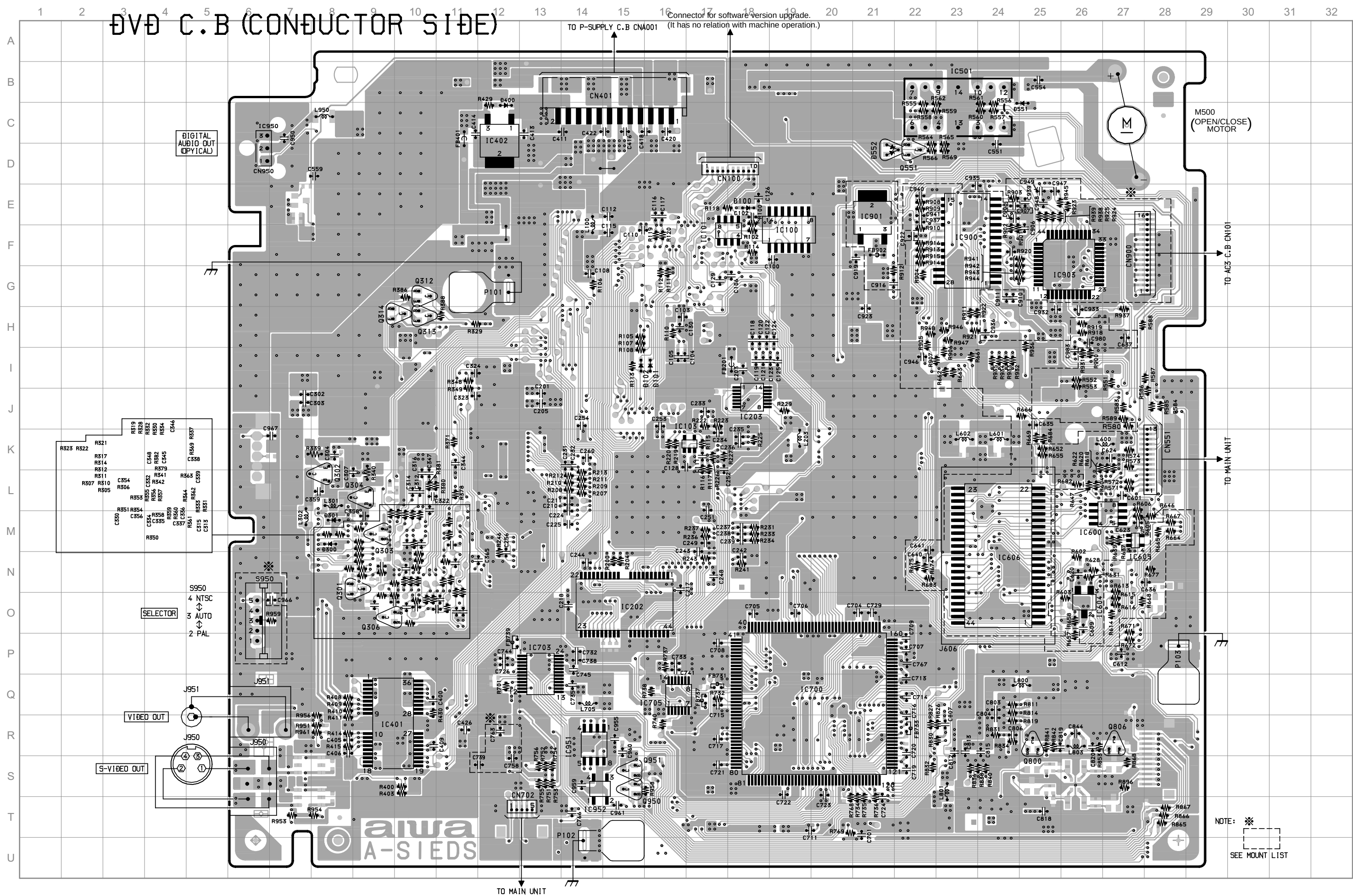
REF NO.	ZABPDM, ZCAPDM	ZACPDM	ZAAPAM	ZFAPAM	ZBAPAM, ZBAPAKM	ZAAPA	ZCAPD	ZACPD
C638	JW	JW	NM	NM	NM	NM	JW	JW
C900	NM	NM	O	O	O	O	NM	NM
C901	NM	NM	O	O	O	O	NM	NM
C902	NM	NM	O	O	O	O	NM	NM
C903	NM	NM	O	O	O	O	NM	NM
C904	NM	NM	O	O	O	O	NM	NM
C905	NM	NM	O	O	O	O	NM	NM
C909	NM	NM	O	O	O	O	NM	NM
C913	NM	NM	O	O	O	O	NM	NM
C915	NM	NM	O	O	O	O	NM	NM
C918	NM	NM	O	O	O	O	NM	NM
C924	NM	NM	O	O	O	O	NM	NM
C927	NM	NM	O	O	O	O	NM	NM
C929	NM	NM	O	O	O	O	NM	NM
C931	NM	NM	O	O	O	O	NM	NM
C943	JW	JW	NM	NM	NM	NM	JW	JW
C944	JW	JW	NM	NM	NM	NM	JW	JW
FB900	JW	JW	O	O	O	O	JW	JW
FB903	JW	JW	O	O	O	O	JW	JW
FB904	JW	JW	O	O	O	O	JW	JW
FB905	JW	JW	O	O	O	O	JW	JW
FB906	JW	JW	O	O	O	O	JW	JW
IC902	NM	NM	O	O	O	O	NM	NM
R578	JW	O	JW	O	O	JW	JW	O
R579	JW	O	JW	O	O	JW	JW	O
R621	NM	O	NM	O	O	NM	NM	O
R648	NM	NM	O	O	O	O	NM	NM
R649	O	O	NM	NM	NM	NM	O	O
R660	O	NM	NM	NM	NM	NM	O	NM
R670	NM	NM	JW	JW	JW	JW	NM	NM
R676	NM	NM	JW	JW	JW	JW	NM	NM
R917	NM	NM	O	O	O	O	NM	NM
R926	NM	NM	O	O	O	O	NM	NM
R927	NM	NM	O	O	O	O	NM	NM
R928	NM	NM	O	O	O	O	NM	NM
R982	NM	NM	JW	JW	JW	JW	NM	NM
R986	NM	NM	O	O	O	O	NM	NM
R987	NM	NM	O	O	O	O	NM	NM
R988	NM	NM	O	O	O	O	NM	NM
R989	NM	NM	O	O	O	O	NM	NM
R990	NM	NM	O	O	O	O	NM	NM
R991	NM	NM	O	O	O	O	NM	NM
S950	NM	O	NM	O	O	NM	NM	O
X900	NM	NM	O	O	O	O	NM	NM

Note

NM: NO MOUNT

O: MOUNT

JW: JUMPER



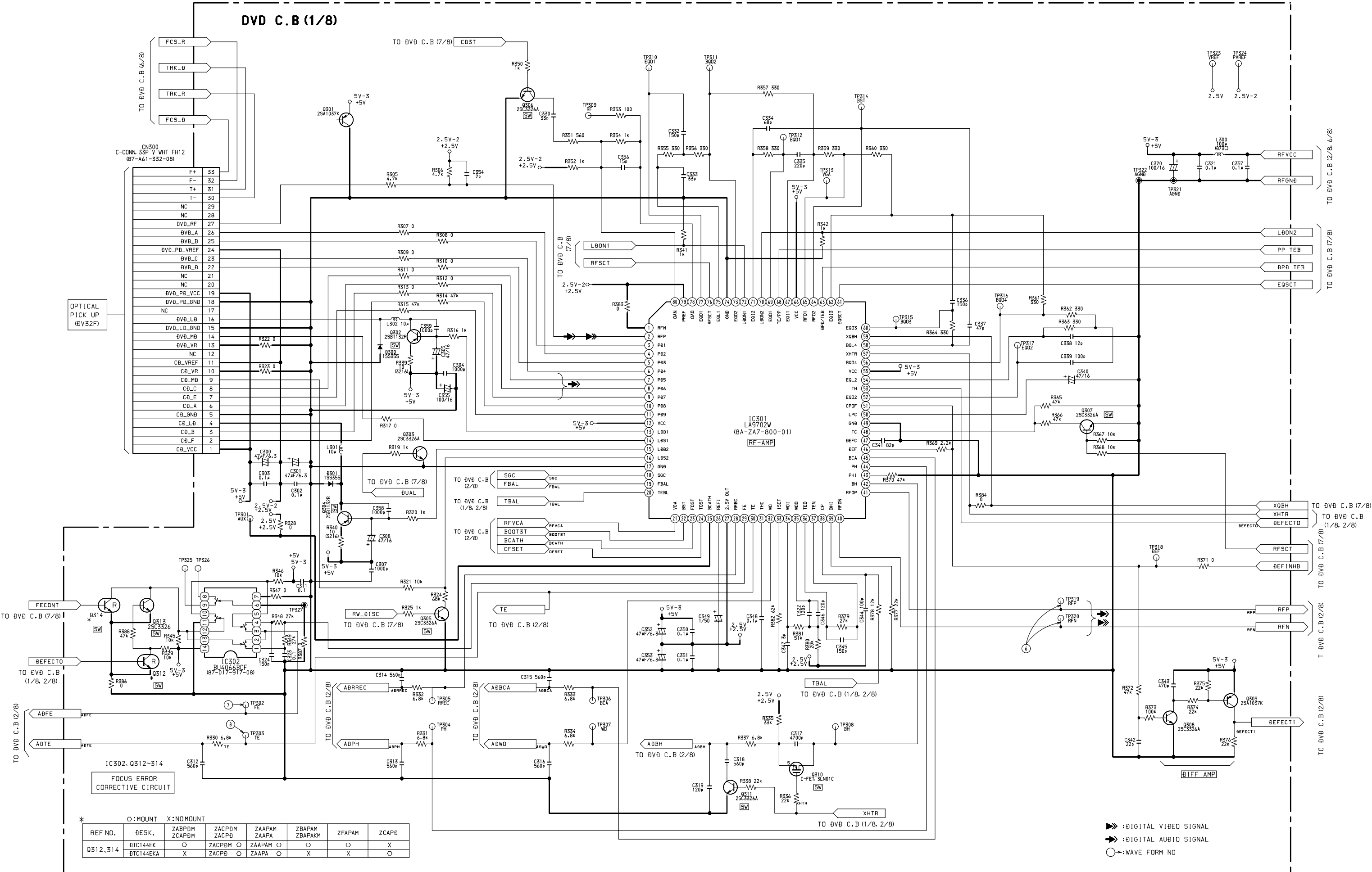
DVD C.B MOUNT LIST-2/2 (CONDUCTOR SIDE)
DVD C.B (CONDUCTOR SIDE)

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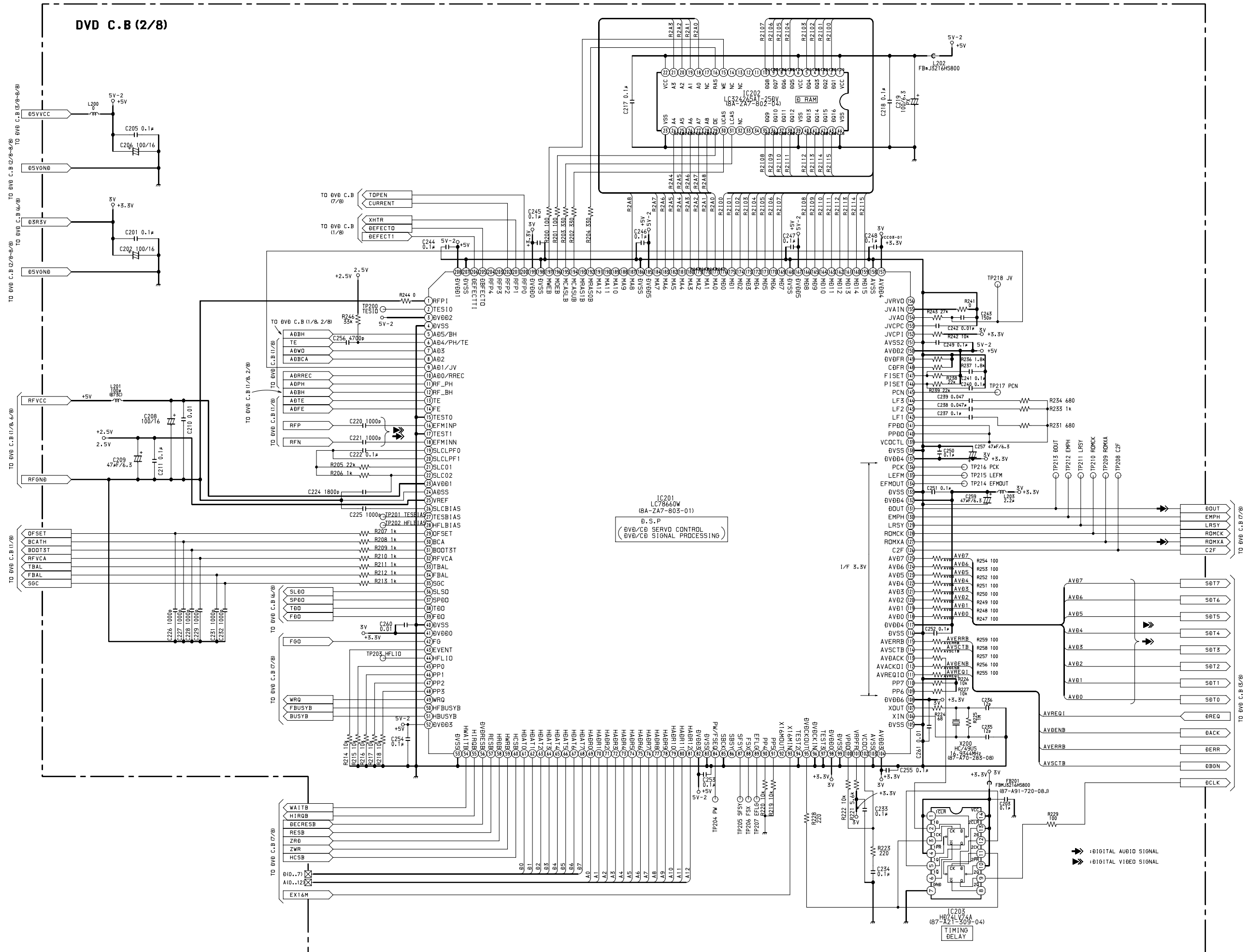
REF NO.	ZABPDM, ZCAPDM	ZACPDM	ZAAPAM	ZFAPAM	ZBAPAM, ZBAPAKM	ZAAPA	ZCAPD	ZACPD
C635	JW	JW	NM	NM	NM	NM	JW	JW
C636	JW	JW	NM	NM	NM	NM	JW	JW
C637	JW	JW	NM	NM	NM	NM	JW	JW
C640	JW	JW	NM	NM	NM	NM	JW	JW
C641	JW	JW	NM	NM	NM	NM	JW	JW
C739	O	NM	O	NM	NM	O	O	NM
C758	O	O	NM	O	O	NM	O	O
C763	O	NM	O	NM	NM	O	O	NM
C906	NM	NM	O	O	O	O	NM	NM
C908	NM	NM	O	O	O	O	NM	NM
C916	NM	NM	O	O	O	O	NM	NM
C937	JW	JW	NM	NM	NM	NM	JW	JW
C939	JW	JW	NM	NM	NM	NM	JW	JW
C940	JW	JW	NM	NM	NM	NM	JW	JW
C941	JW	JW	NM	NM	NM	NM	JW	JW
C945	JW	JW	NM	NM	NM	NM	JW	JW
C946	JW	JW	NM	NM	NM	NM	JW	JW
C947	JW	JW	NM	NM	NM	NM	JW	JW
C948	JW	JW	NM	NM	NM	NM	JW	JW
C949	JW	JW	NM	NM	NM	NM	JW	JW
C980	JW	JW	NM	NM	NM	NM	JW	JW
C983	JW	JW	NM	NM	NM	NM	JW	JW
CN900	NM	NM	O	O	O	O	NM	NM
FB902	JW	JW	O	O	O	O	JW	JW
IC606	O	O	O	O	O	O	NM	O
IC900	NM	NM	O	O	O	O	NM	NM
IC901	NM	NM	O	O	O	O	NM	NM
IC903	NM	NM	O	O	O	O	NM	NM
R580	NM	JW	NM	JW	JW	NM	NM	JW
R613	NM	NM	O	NM	NM	O	NM	NM
R614	O	O	NM	O	O	NM	O	O
R615	O	O	O	NM	O	O	O	O
R616	O	O	NM	O	O	NM	O	O
R657	X	O	O	O	O	NM	NM	NM
R661	JW	JW	NM	NM	NM	NM	JW	JW
R662	JW	JW	NM	NM	NM	NM	JW	JW
R663	JW	JW	NM	NM	NM	NM	JW	JW
R664	NM	NM	JW	JW	JW	JW	NM	NM
R665	NM	NM	JW	JW	JW	JW	NM	NM
R666	NM	NM	JW	JW	JW	JW	NM	NM
R667	NM	NM	JW	JW	JW	JW	NM	NM
R668	NM	NM	JW	JW	JW	JW	NM	NM
R669	NM	NM	JW	JW	JW	JW	NM	NM
R674	NM	NM	JW	JW	JW	JW	NM	NM
R675	NM	NM	JW	JW	JW	JW	NM	NM
R677	JW	JW	NM	NM	NM	NM	JW	JW
R682	NM	NM	JW	JW	JW	JW	NM	NM

REF NO.	ZABPDM, ZCAPDM	ZACPDM	ZAAPAM	ZFAPAM	ZBAPAM, ZBAPAKM	ZAAPA	ZCAPD	ZACPD
R683	O	O	NM	NM	NM	NM	O	O
R684	JW	JW	NM	NM	NM	NM	JW	JW
R901	NM	NM	O	O	O	O	NM	NM
R902	NM	NM	O	O	O	O	NM	NM
R903	NM	NM	O	O	O	O	NM	NM
R904	JW	JW	O	O	O	O	JW	JW
R905	JW	JW	O	O	O	O	JW	JW
R906	JW	JW	O	O	O	O	JW	JW
R907	JW	JW	O	O	O	O	JW	JW
R908	NM	NM	O	O	O	O	NM	NM
R909	NM	NM	O	O	O	O	NM	NM
R910	NM	NM	O	O	O	O	NM	NM
R911	NM	NM	O	O	O	O	NM	NM
R912	NM	NM	O	O	O	O	NM	NM
R913	NM	NM	O	O	O	O	NM	NM
R914	NM	NM	O	O	O	O	NM	NM
R915	NM	NM	O	O	O	O	NM	NM
R916	NM	NM	O	O	O	O	NM	NM
R918	JW	JW	NM	NM	NM	NM	JW	JW
R919	NM	NM	JW	O	O	JW	NM	NM
R920	JW	JW	NM	NM	NM	NM	JW	JW
R921	NM	NM	O	O	O	O	NM	NM
R922	NM	NM	O	O	O	O	NM	NM
R923	NM	NM	O	O	O	O	NM	NM
R924	NM	NM	O	O	O	O	NM	NM
R925	NM	NM	O	O	O	O	NM	NM
R932	JW	JW	O	O	O	O	JW	JW
R933	JW	JW	O	O	O	O	JW	JW
R934	JW	JW	O	O	O	O	JW	JW
R935	JW	JW	O	O	O	O	JW	JW
R936	JW	JW	O	O	O	O	JW	JW
R938	NM	NM	O	O	O	O	NM	NM
R939	NM	NM	O	O	O	O	NM	NM
R941	NM	NM	O	O	O	O	NM	NM
R942	NM	NM	O	O	O	O	NM	NM
R943	NM	NM	O	O	O	O	NM	NM
R944	NM	NM	O	O	O	O	NM	NM
R945	NM	NM	O	O	O	O	NM	NM
R946	JW	JW	NM	NM	NM	NM	JW	JW
R947	JW	JW	NM	NM	NM	NM	JW	JW
R948	JW	JW	NM	NM	NM	NM	JW	JW
R959	NM	O	NM	O	O	NM	NM	O

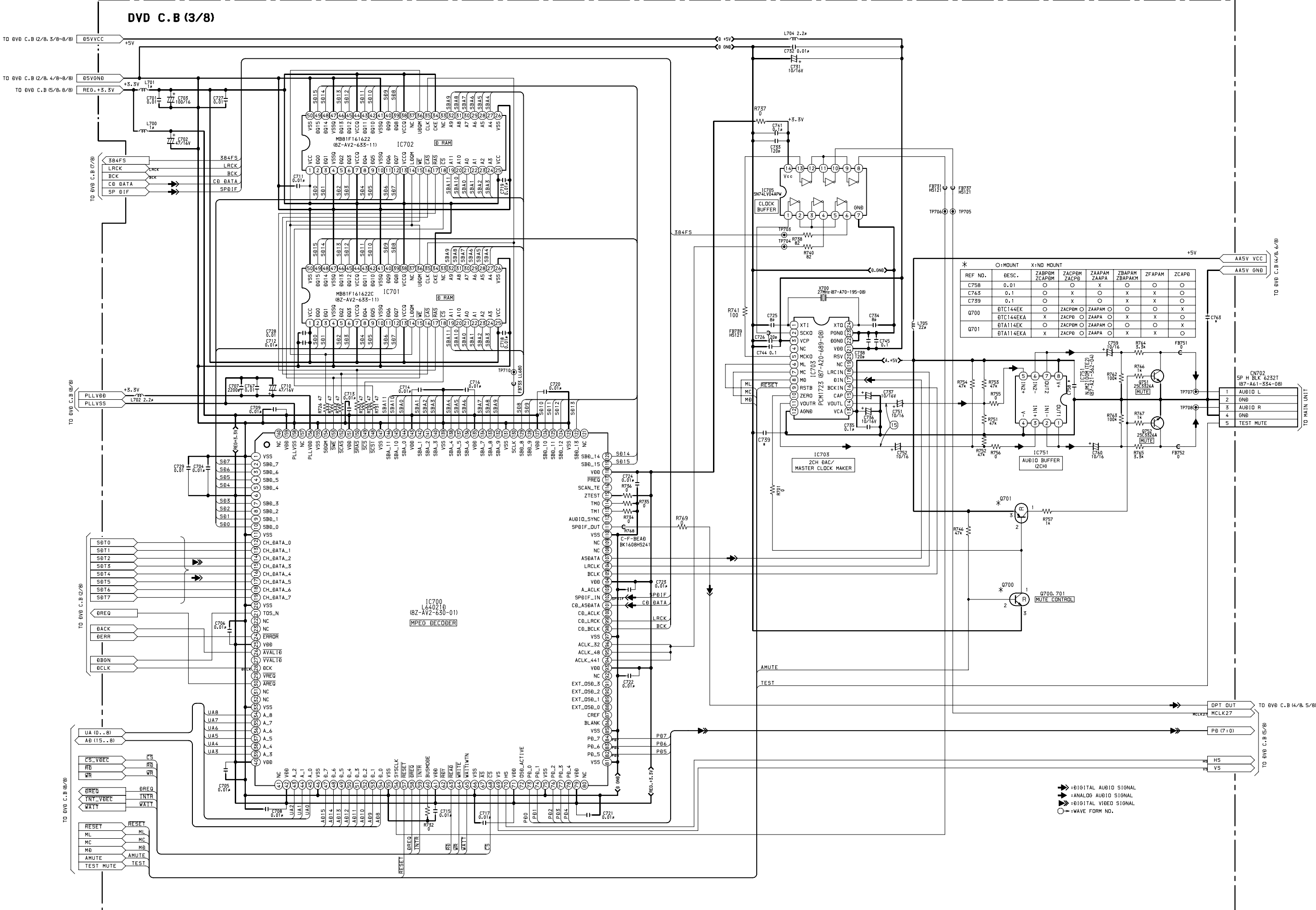
Note
NM: NO MOUNT
O: MOUNT
JW: JUMPER



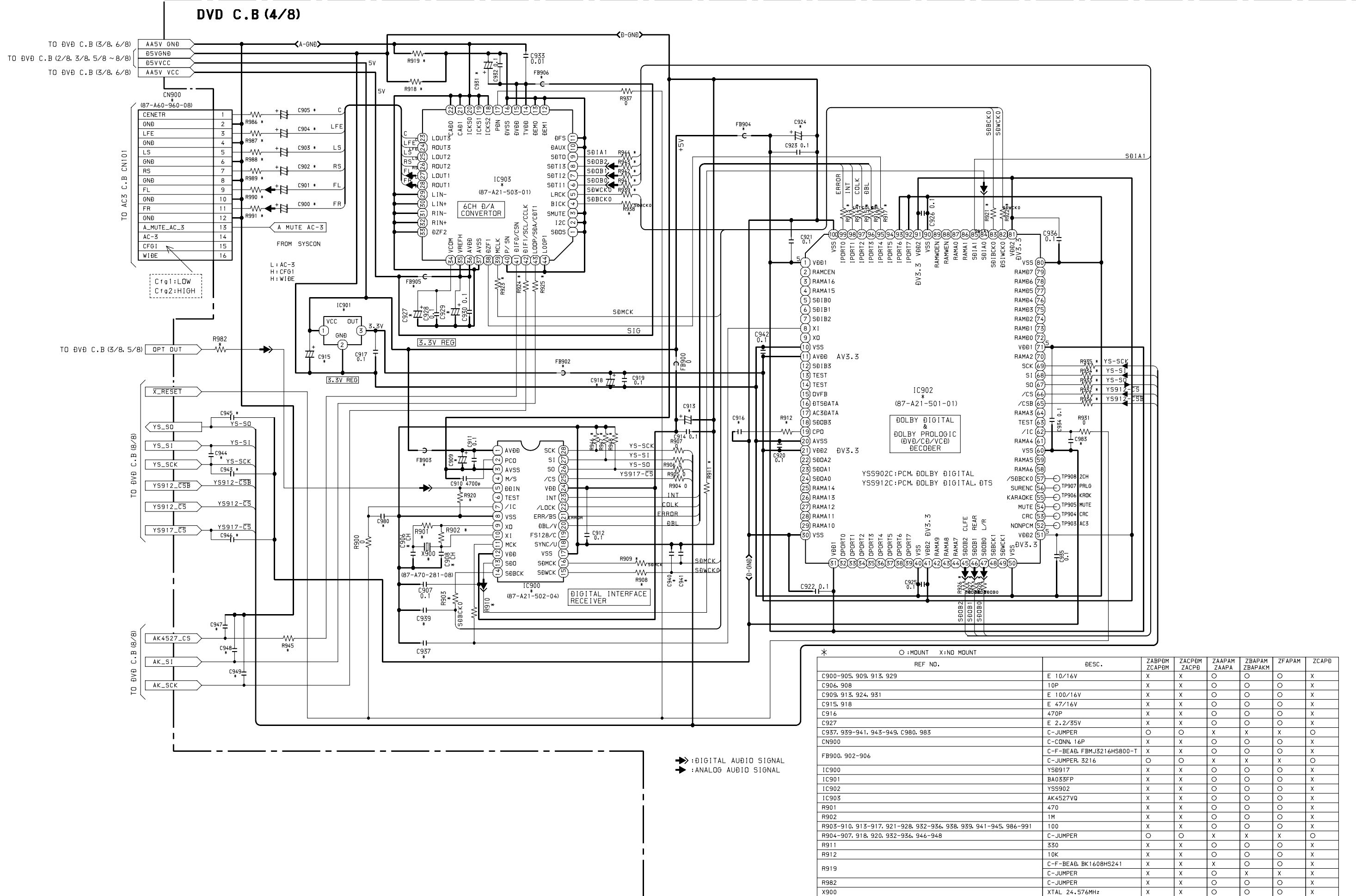
SCHEMATIC DIAGRAM-2/11 (DVD: DSP)



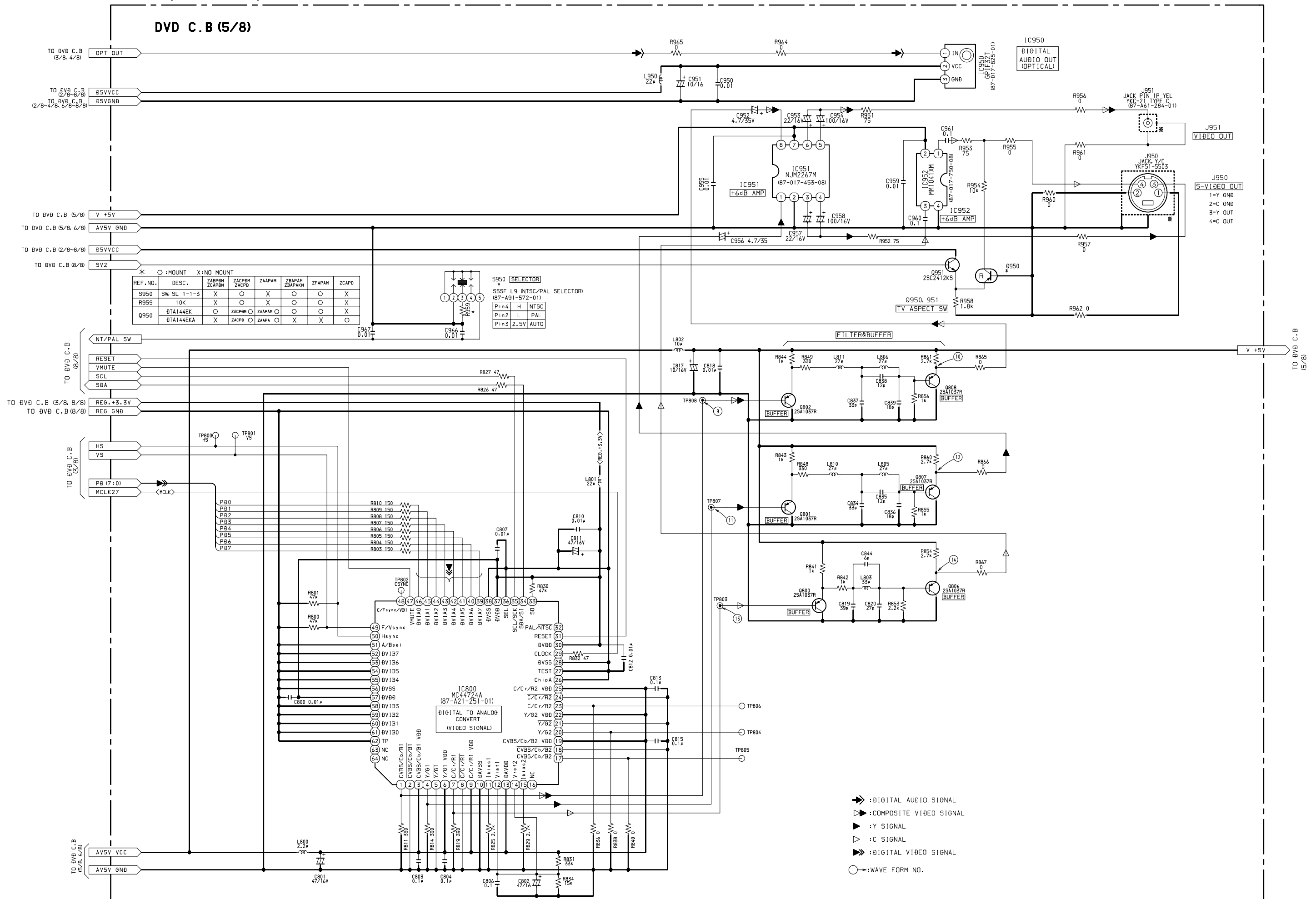
SCHEMATIC DIAGRAM-3/11 (DVD: AV DECODER)



SCHEMATIC DIAGRAM-4/11 (DVD: 5.1CH DECODER)



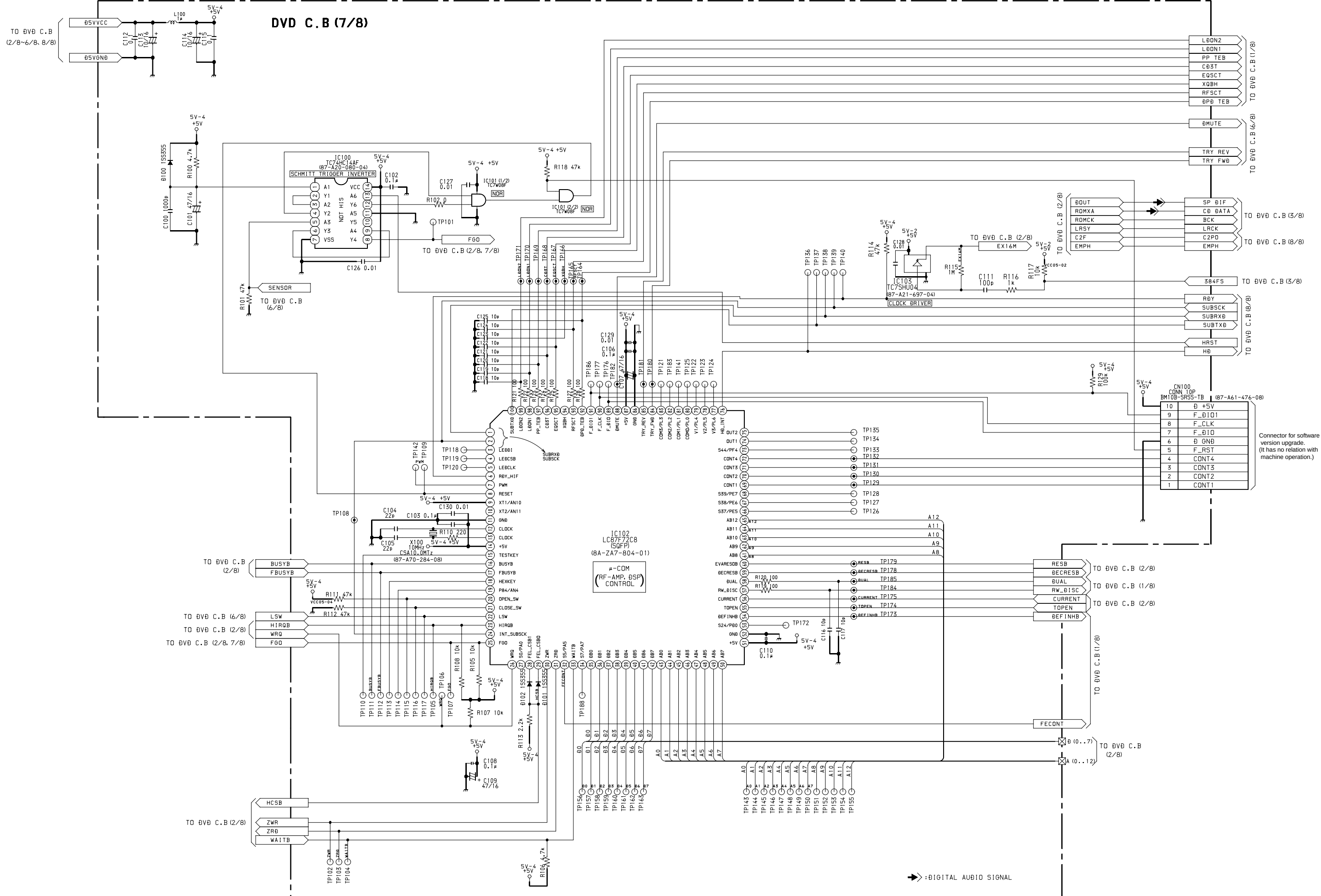
SCHEMATIC DIAGRAM-5/11 (DVD: VIDEO)



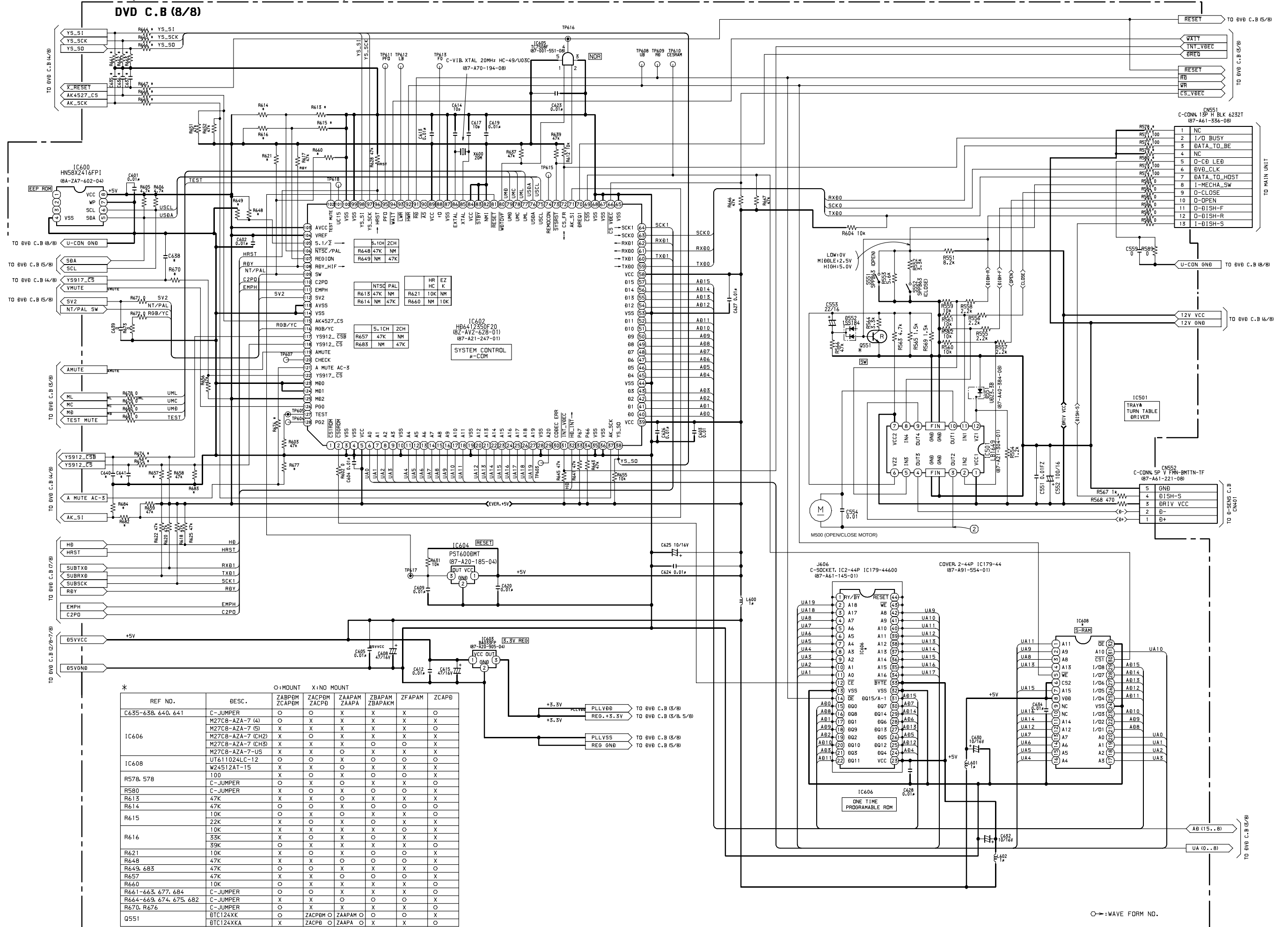
DVD C.B (6/8)

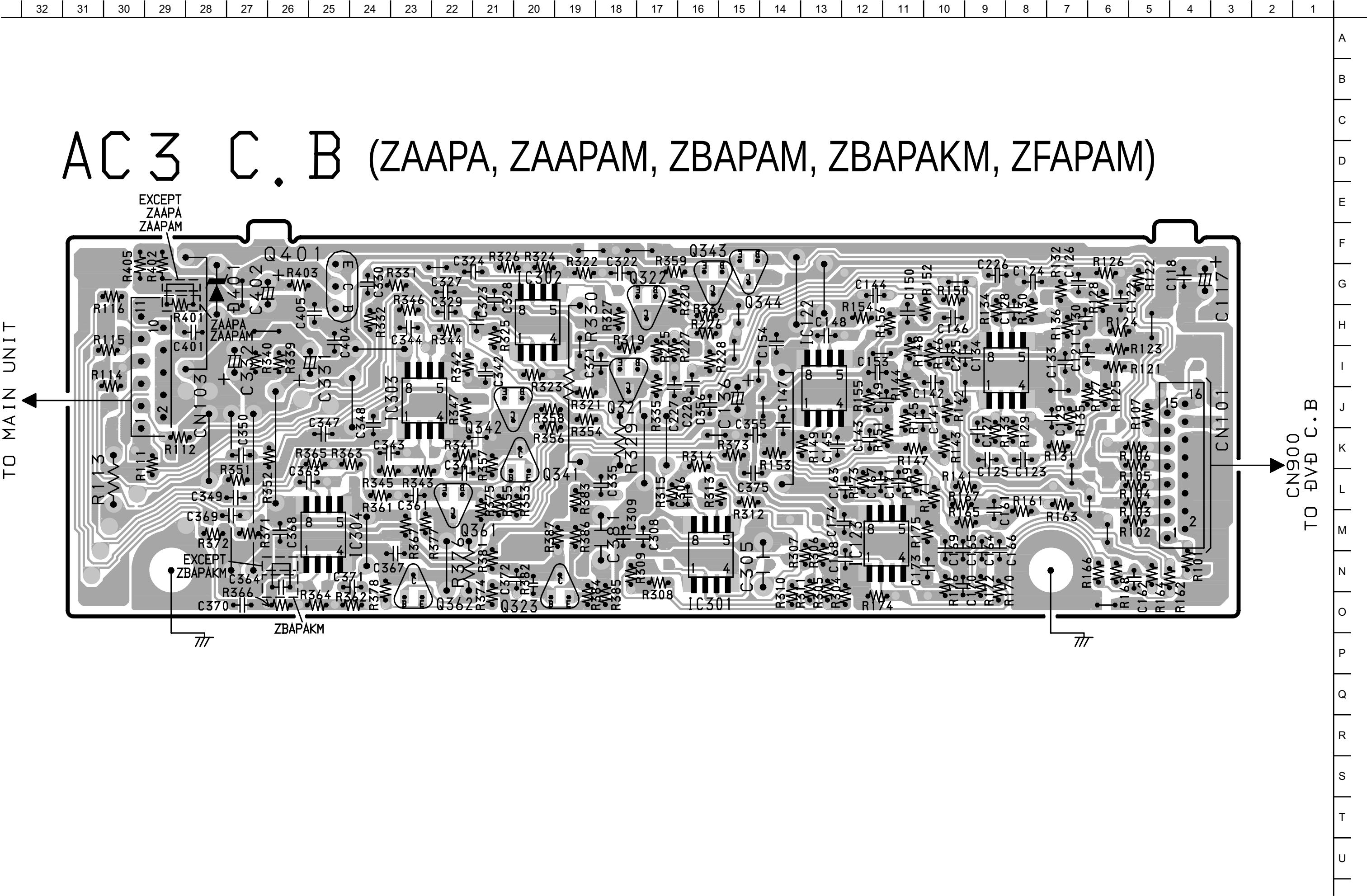


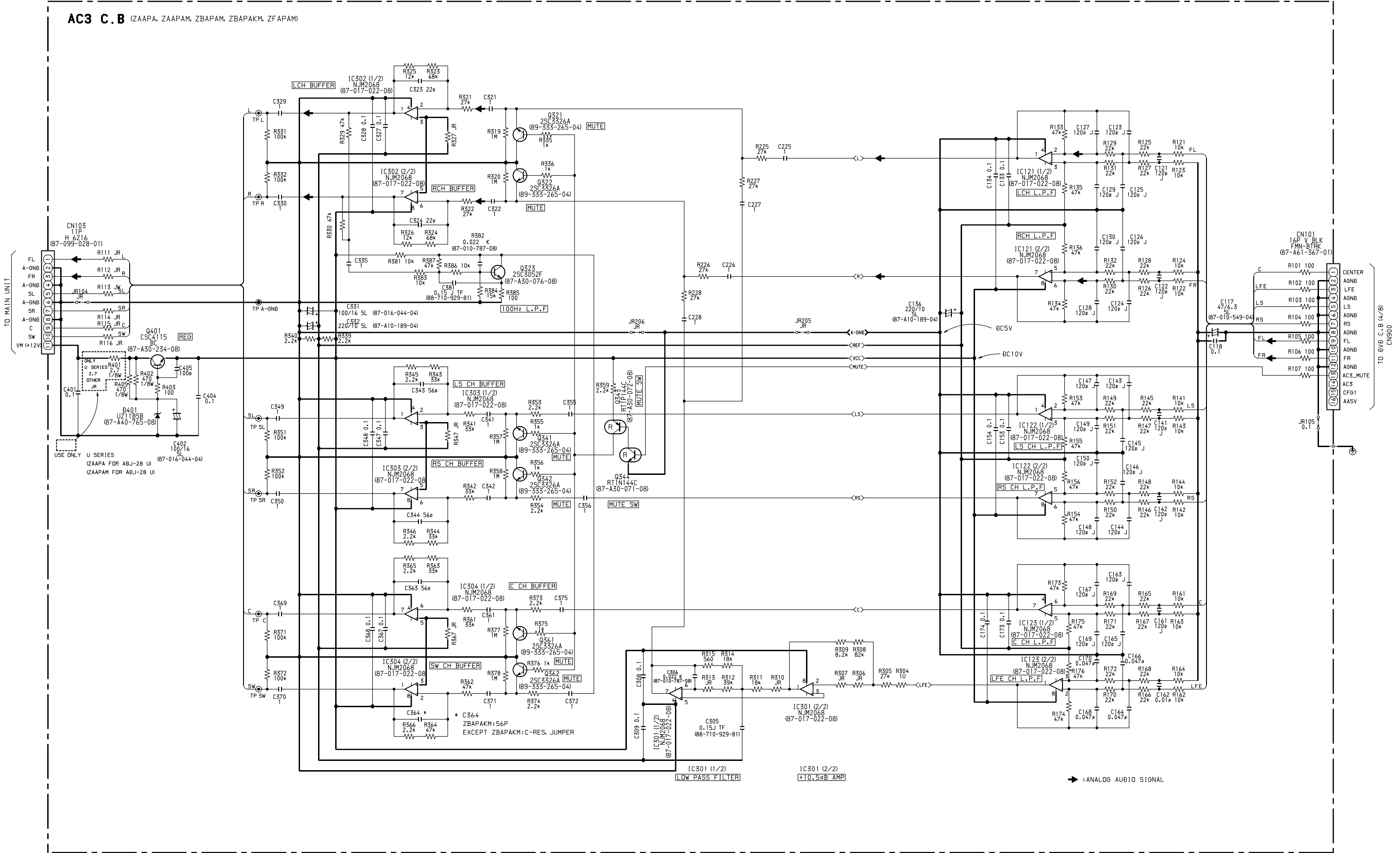
SCHEMATIC DIAGRAM-7/11 (DVD: μ -COM)

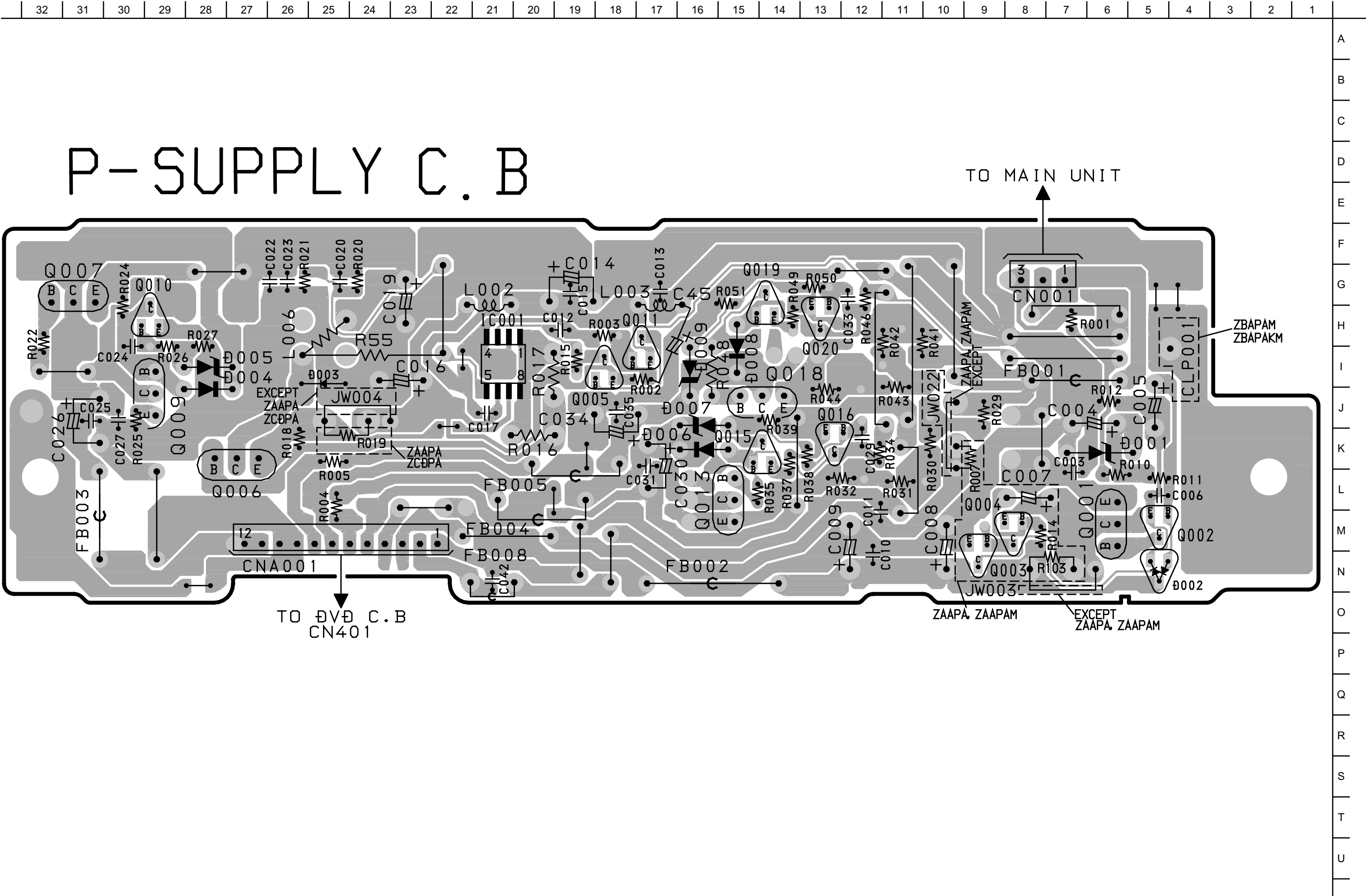


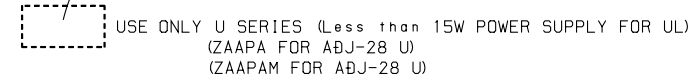
SCHEMATIC DIAGRAM-8/11 (DVD: SYSCON/TRAY DRIVER)



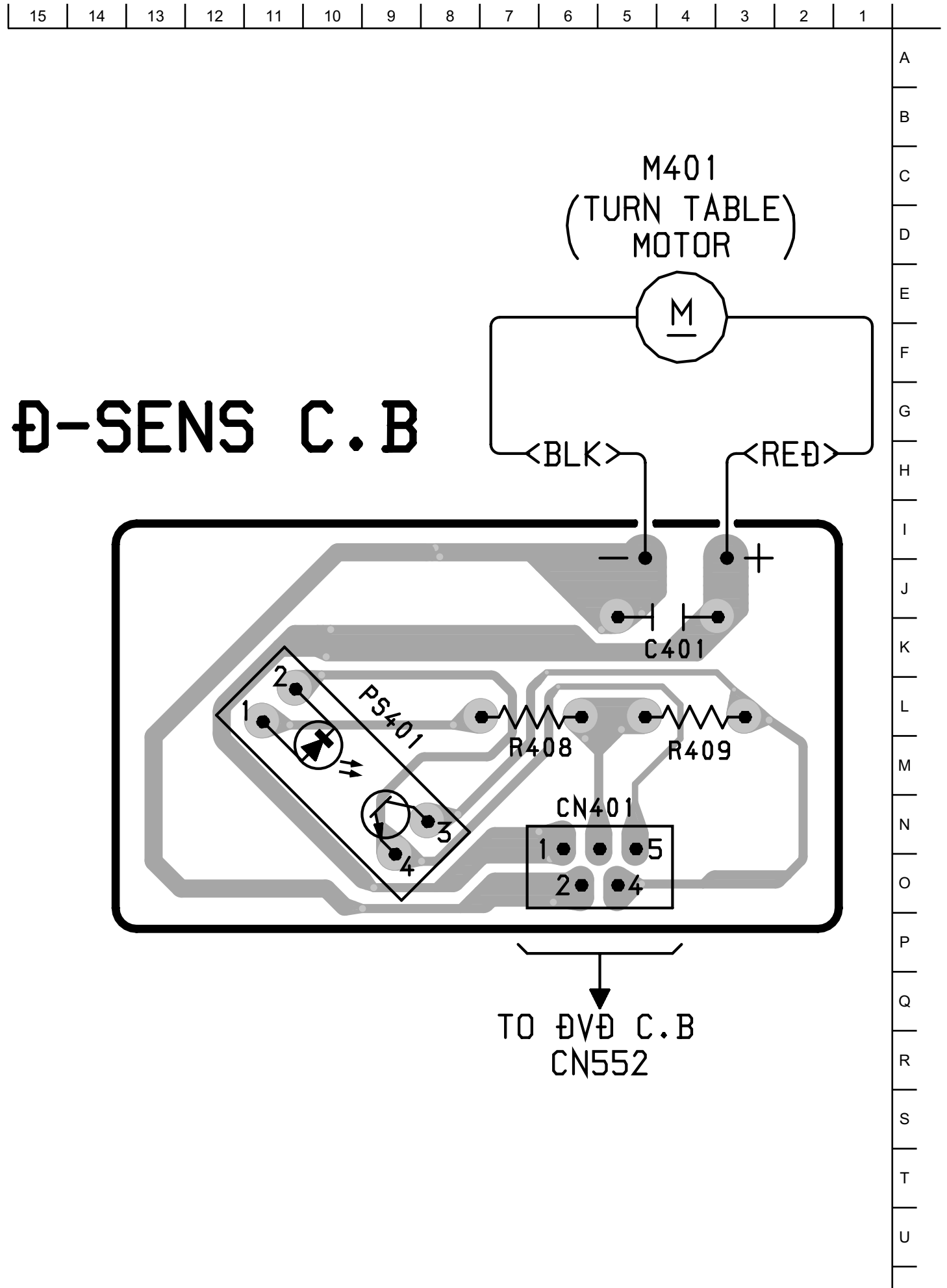


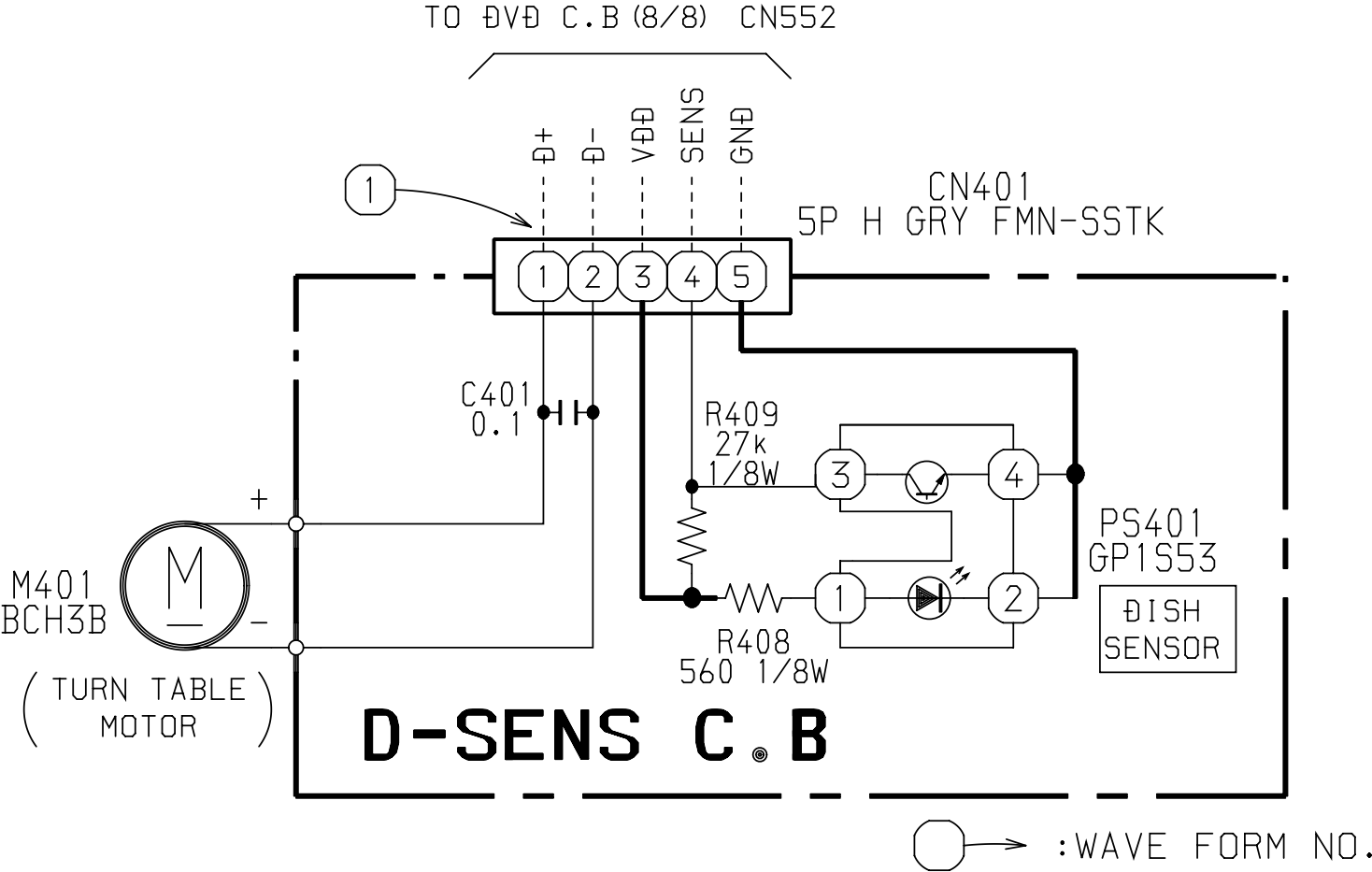




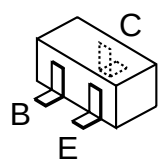
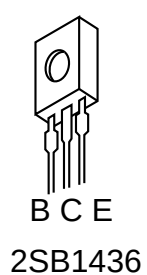


C

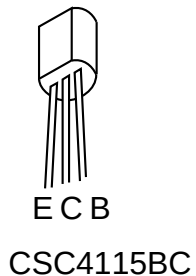
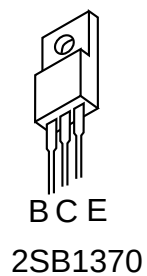
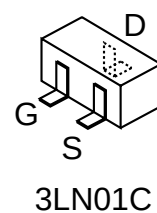
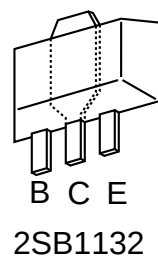




TRANSISTOR ILLUSTRATION-1/1

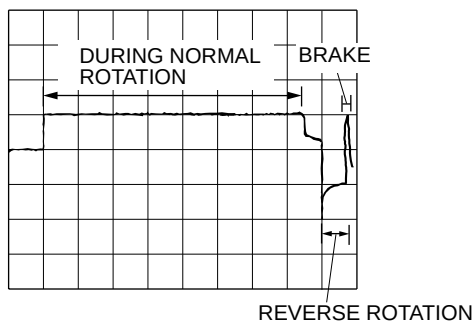


2SA1037
2SA1235
2SC2412K
2SC3052F
2SC3326A
DTA114EK
DTA144EK
DTC124XK
DTC144EK
RT1N144C
RT1P144C

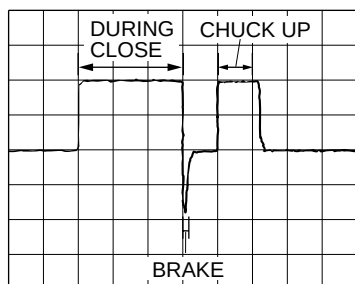


WAVE FORM-1/3

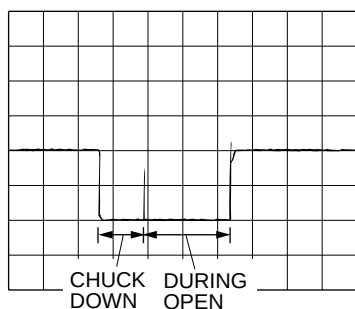
- ① M401 (TURN TABLE MOTOR) VOLT/DIV: 2V
(M-Side is the reference) TIME/DIV: 200mS



- ② IC501 Pin③ (OUT2) VOLT/DIV: 2V
(OPEN/CLOSE MOTOR) TIME/DIV: 500mS

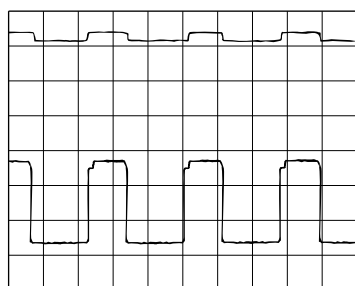


VOLT/DIV: 2V
TIME/DIV: 500mS



- ③ IC001 Pin ① (SW.C) VOLT/DIV: 5V
TIME/DIV: 5μS

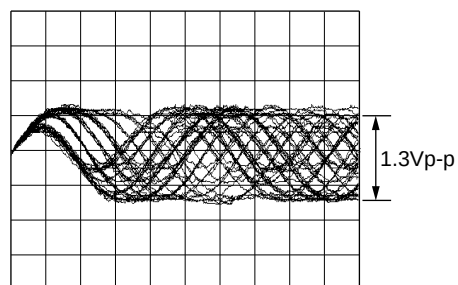
- ④ Q006 BASE



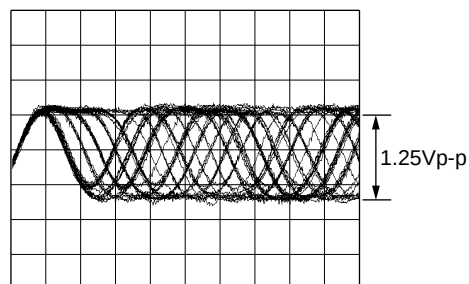
- ⑤ Q006 (VBE) VOLT/DIV: 500mV
TIME/DIV: 5μS



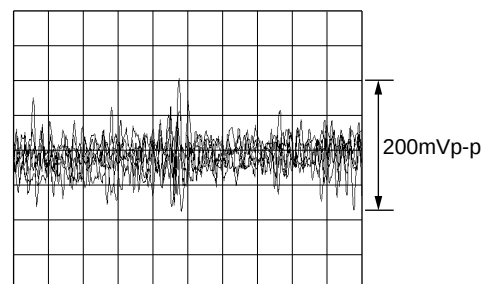
- ⑥ TP319 (RFP), TP320 (RFN) VOLT/DIV: 500mV
(DVD) TIME/DIV: 50nS



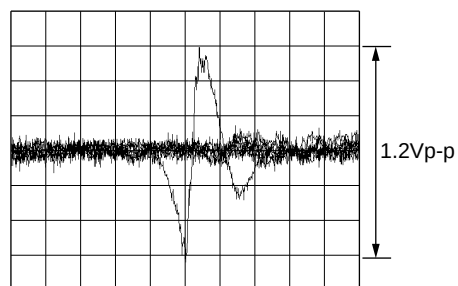
- TP319 (RFP), TP320 (RFN) VOLT/DIV: 500mV
(CD) TIME/DIV: 500nS



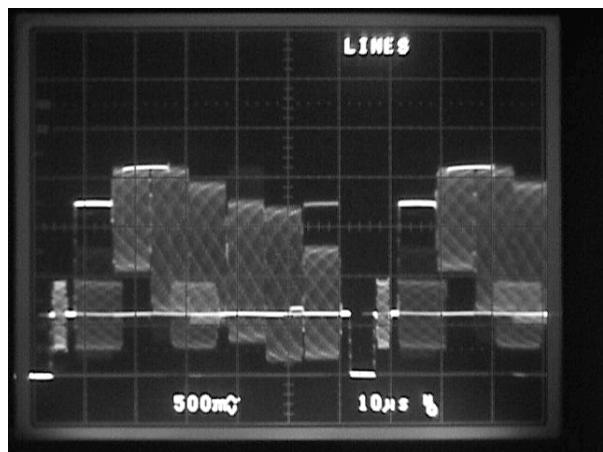
- ⑦ TP302 (FE) VOLT/DIV: 50mV
TIME/DIV: 50nS



- ⑧ TP303 (TE) VOLT/DIV: 200mV
TIME/DIV: 200μS

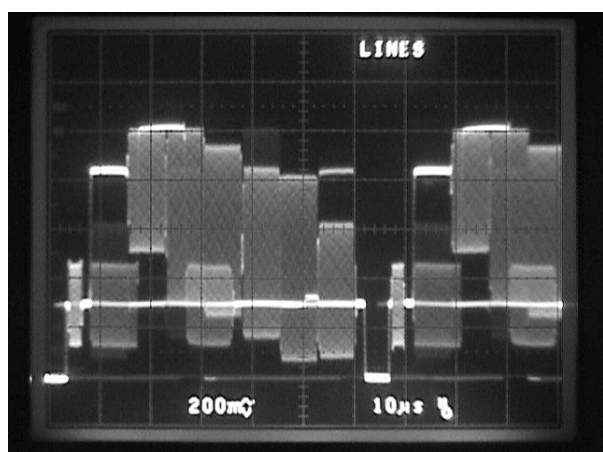


WAVE FORM-2/3



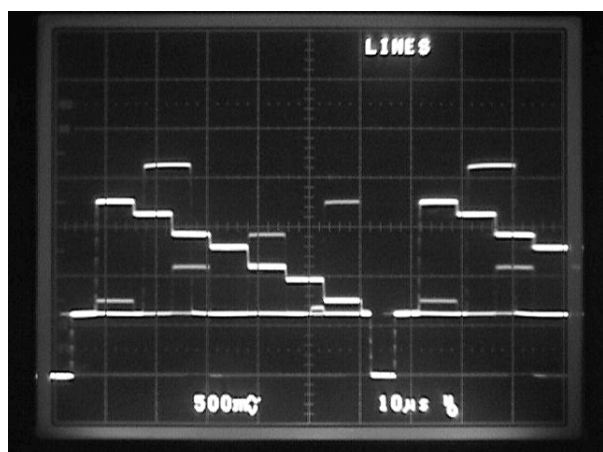
9 Q802 (B)
PLAY: NTSC COLOR BAR
SOFT: A.BEX (PTD1-NOR)

VOLT/DIV: 500mV
TIME/DIV: 10μS



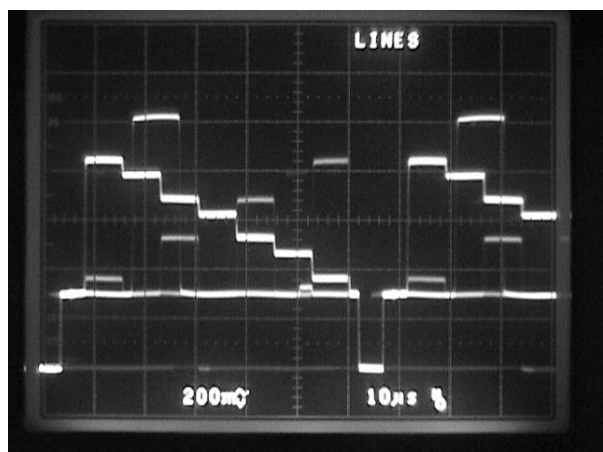
10 Q808 (E)
J951: V OUT (75 TERMINATED)
PLAY: NTSC COLOR BAR
SOFT: A.BEX (PTD1-NOR)

VOLT/DIV: 200mV
TIME/DIV: 10μS



11 Q801 (B)
PLAY: NTSC COLOR BAR
SOFT: A.BEX (PTD1-NOR)

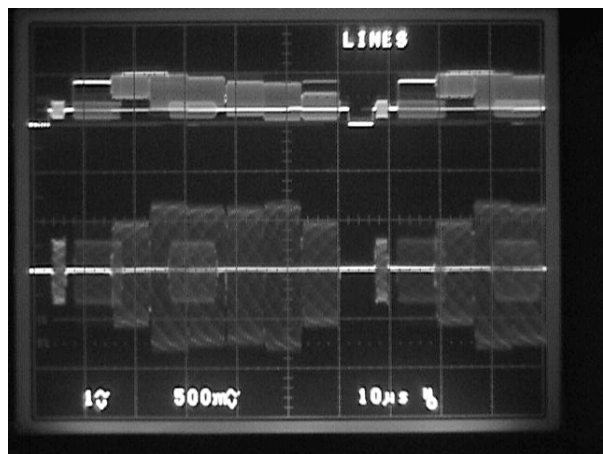
VOLT/DIV: 500mV
TIME/DIV: 10μS



12 Q807 (E)
J950: Y OUT (75 TERMINATED)
PLAY: NTSC COLOR BAR
SOFT: A.BEX (PTD1-NOR)

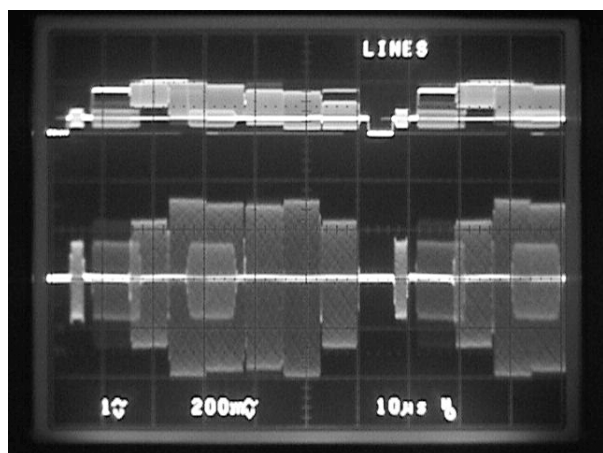
VOLT/DIV: 200mV
TIME/DIV: 10μS

WAVE FORM-3/3



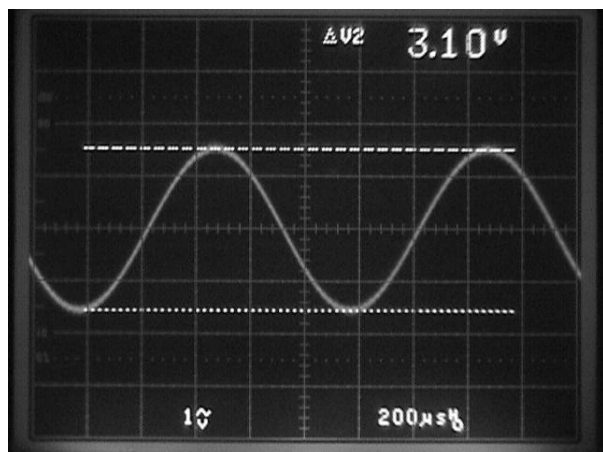
- ⑩ Q808 (E)
PLAY: NTSC COLOR BAR
SOFT: A.BEX (PTD1-NOR) VOLT/DIV: 1V
TIME/DIV: 10µS

- ⑬ Q800 (B)
PLAY: NTSC COLOR BAR
SOFT: A.BEX (PTD1-NOR) VOLT/DIV: 500mV
TIME/DIV: 10µS



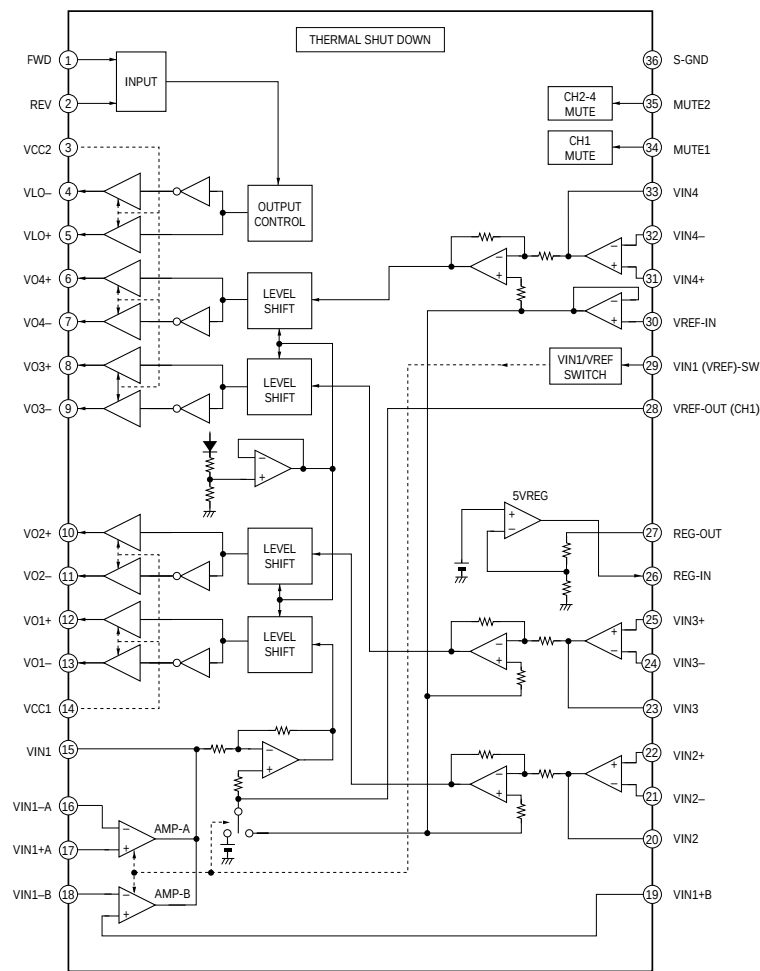
- ⑩ Q808 (E)
PLAY: NTSC COLOR BAR
SOFT: A.BEX (PTD1-NOR) VOLT/DIV: 1V
TIME/DIV: 10µS

- ⑭ Q806 (E)
J950: C OUT (75 TERMINATED)
PLAY: NTSC COLOR BAR
SOFT: A.BEX (PTD1-NOR) VOLT/DIV: 200mV
TIME/DIV: 10µS

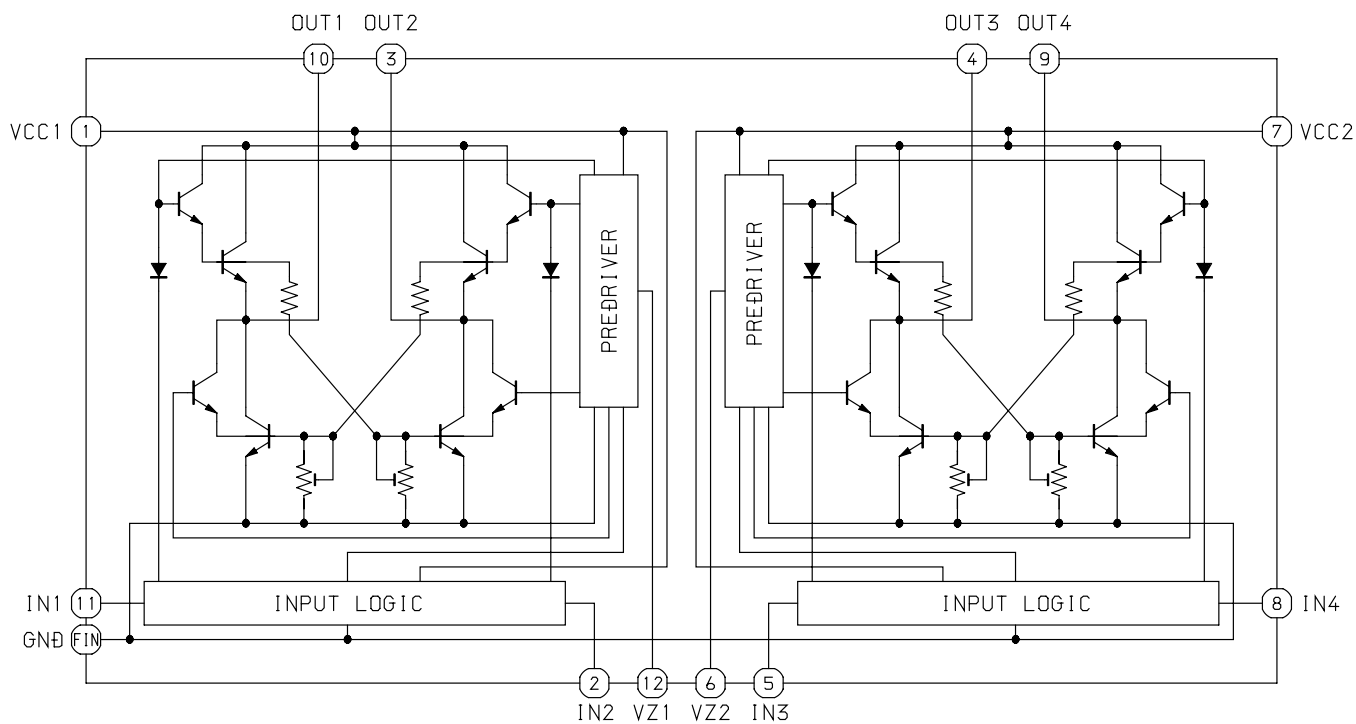


- ⑮ IC703 Pin ⑪ (VOUTR)
IC703 Pin ⑭ (VOUTL)
PLAY: NTSC COLOR BAR VOLT/DIV: 1V
TIME/DIV: 200µS

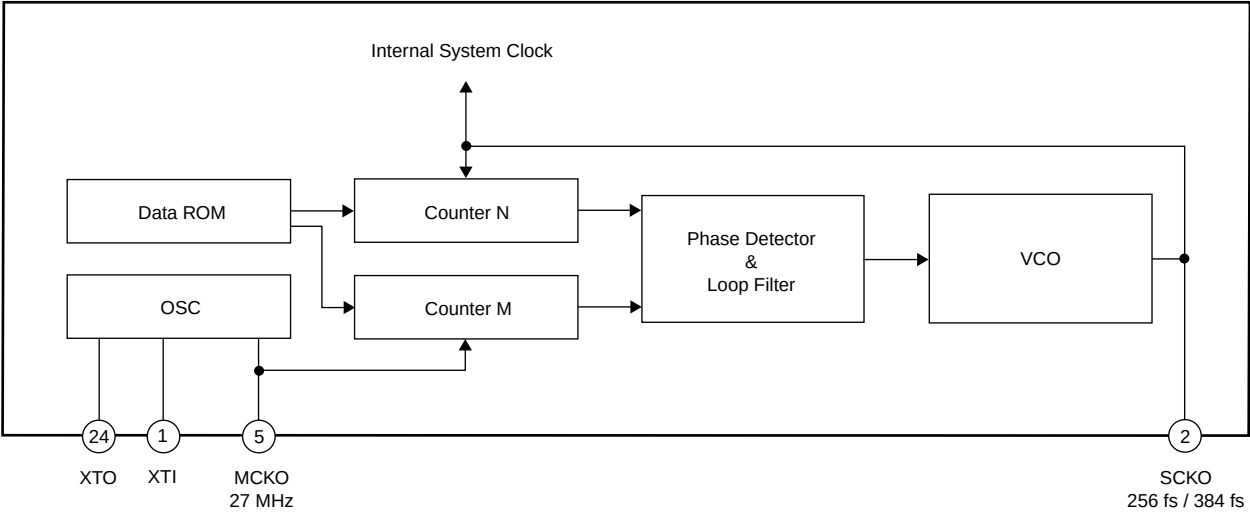
IC BLOCK DIAGRAM-1/3
IC, LA6556L



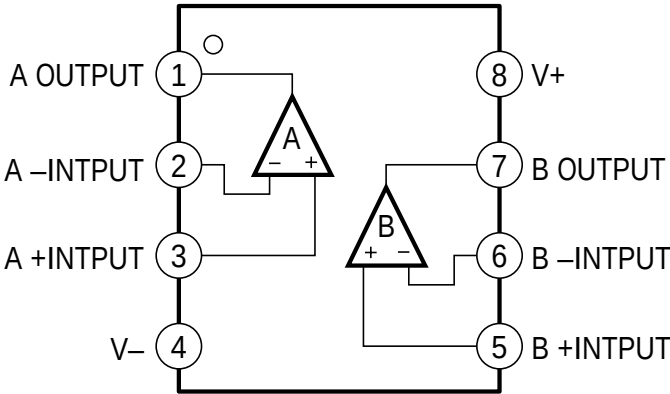
IC, LB1649



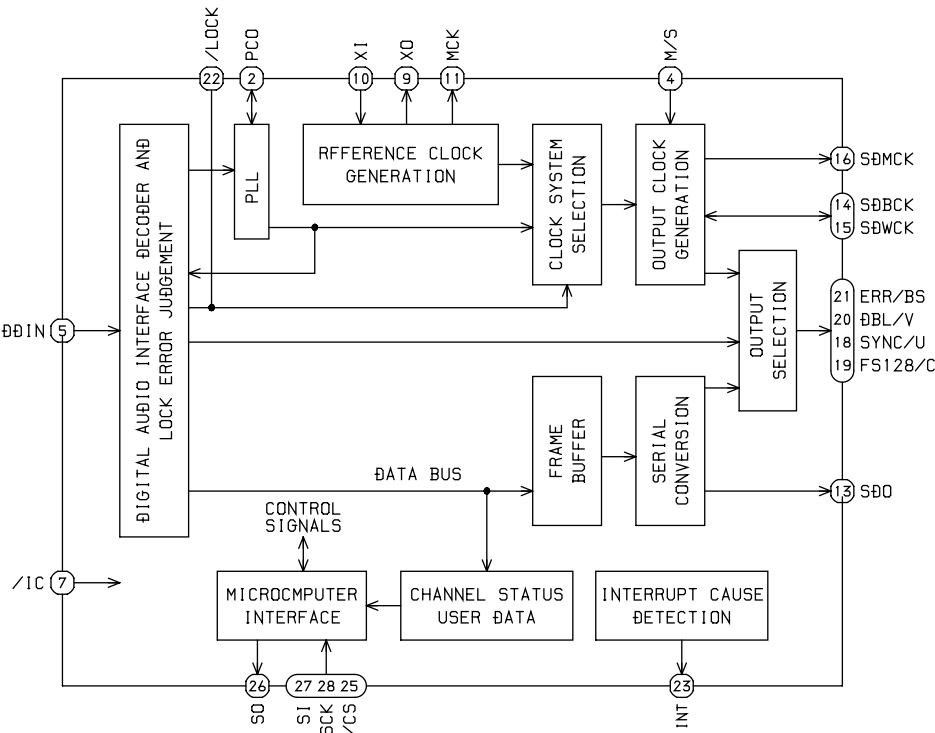
IC BLOCK DIAGRAM-2/3
IC, PCM1723



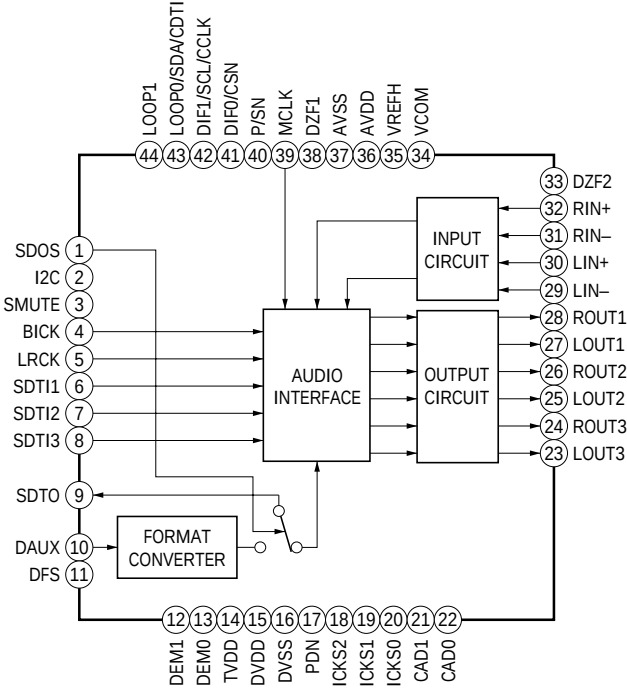
IC, NJM2100



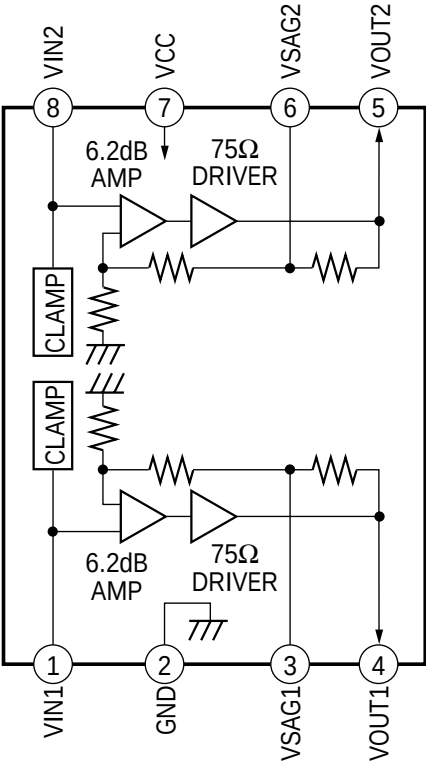
IC, YSD917



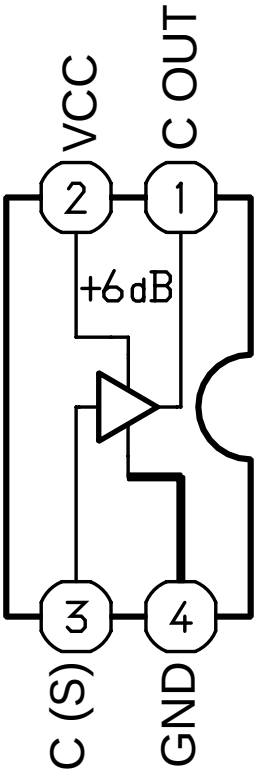
IC BLOCK DIAGRAM-3/3
IC, AK4527



IC, NJM2267M



IC, MM1041XM



IC DESCRIPTION-1/7 (LC87F72C8A)-1/2

Pin No.	Pin Name	I/O	Description
1	SUBRXD	O	DATA output terminal for LOADER serial communication control.
2	SUBSCK	I	Clock input terminal for LOADER serial communication control.
3	LEDD1	O	Detection of LEDD1.
4	LEDCSB	O	Detection of LEDCSB.
5	LEDCLK	O	Detection of LEDCLK.
6	RDY_HIF	O	LOADER READY signal output terminal.
7	PWM	O	Detection of PWM.
8	RESET	I	Reset signal input terminal.
9	XT1/AN10	O	Power supply 5V.
10	XT2/AN11	O	Out put for crystal oscillation. (Not Connected)
11	GND	—	GND.
12	CLOCK	I	In put for 10MHZ crystal oscillation.
13	CLOCK	O	Out put for 10MHZ crystal oscillation.
14	5V	—	Power supply 5V.
15	TESTKEY	O	TESTKEY output pin.
16	BUSYB	I	DSP command dispose busy signal input pin.
17	FBUSYB	I	DSP command receiver busy signal input pin.
18	HEXKEY	O	Detection of HEXKEY.
19	P84/AN4	O	Detection of P84/AN4.
20	OPEN_SW	O	Detection of OPEN SW.
21	CLOSE_SW	O	Detection of CLOSE SW pin.
22	LSW	I	LIMIT SW input pin.
23	HIRQB	I	Interrupt signal input pin.
24	INT_SUBSCK	I	Clock input terminal for LOADER serial communication control.
25	FGO	I	SENDER input.
26	WRQ	I	Subcode Q read ready monitor input.
27	S0/PA0	O	LCD display segment output. (Not Connected)
28	FEL_CSBI	O	Chip select signal output pin.
29	FEL_CSBO	O	Chip select signal output pin.
30	ZWR	O	Write signal output pin.
31	ZRD	O	Read signal output pin.
32	S5/PA5	I/O	FECONT control output pin.
33	WAITB	I	Wait signal input pin.
34	S7/PA7	I/O	Detection of S7/PA7.
35-42	DB0-7	I/O	Data 0-7.
43-50	AB0-7	O	Address 0-7.
51	5V	—	Power supply 5V.
52	GND	—	GND.
53	S24/PD0	O	Detection of S24/PD0.
54	DEFINHB	O	DEFINHB control output.
55	TOPEN	I	RF general-purpose port output pin 0.

IC DESCRIPTION-1/7 (LC87F72C8A)-2/2

Pin No.	Pin Name	I/O	Description
56	CURRENT	I	RF general-purpose port output pin 2.
57	RW_DISC	O	RW DISC control output pin.
58	DUAL	O	DUAL control output pin.
59	DECRESB	O	Decoder reset output pin.
60	EVARESOB	O	System reset output pin.
61-65	AB8-12	O	Address 8-12.
66-68	S37-39/PE5-7	O	Detection of S37-39/PE5-7.
69-72	CONT1-4	O	CONT1-4 output pin.
73	S44/PF4	O	Detection of S44/PF4.
74, 75	OUT 1, 2	O	Detection of OUT 1, 2.
76	HD_INT	O	Interropt signal for AV DECODER IC/TEST PIN.
77-79	V3-1/PL6-4	O	Detection of V3-1/PL6-4.
80-83	COM0-3/PL0-	O	Detection of COM0-3/PL0-3.
84	3TRY_FWD	O	TRY control output.
85	TRY_REV	O	TRY control output.
86	GND	—	GND.
87	5V	—	Power supply pin. (+)
88	DMUTE	O	MUTE output pin.
89	F_DIO	O	F_DIO output pin.
90	F_CLK	O	F_CLK output pin.
91	F_DIOI	O	F_DIOI output pin.
92	DPD_TEB	O	DPD_TEB output.
93	RFSCCT	O	RFSCCT control output.
94	XQBH	O	XQBH out put. (Not Connected)
95	EQSCT	O	EQSCT output.
96	CD3T	O	CD3T control output.
97	PP_TEB	O	PP TEB output.
98, 99	LDON1, 2	O	LDON 1, 2 output.
100	SUBTXD	O	DATA output terminal for LOADER serial communication control.

IC DESCRIPTION-2/7 (LC78660W)-1/4

Pin No.	Pin Name	I/O	Description
1	RFPI	I	RF input port pin. (Pull down)
2	TEST0	I/O	Tracking margin signal I/O pin.
3	DVDD2	—	A/D D/A internal logic power supply. [Digital 5V]
4	DVSS	—	Digital GND.
5	AD5/BH	I	Servo A/D input pin. (AD5: Assistant input 5)
6	AD4/PH/TE	I	Servo A/D input pin. (AD4: Assistant input 4)
7	AD3	I	Servo A/D input pin. (AD3: Assistant input 3)
8	AD2	I	Servo A/D input pin. (AD2: Assistant input 2)
9	AD1/JV	I	Servo A/D input pin. (AD1: Assistant input 1)
10	AD0/RREC	I	Servo A/D input pin. (AD0: Assistant input 0)
11	RF_PH	I	Servo A/D input pin. (RF_PH: RF peak hold signal)
12	RF_BH	I	Servo A/D input pin. (RF_BH: RF bottom hold signal)
13	TE	I	Servo A/D input pin. (TE: Tracking error signal)
14	FE	I	Servo A/D input pin. (FE: Focus error signal)
15	TEST0	I	Test input pin 0. (L Fixed)
16	EFMINP	I	EFM/EFM+input pin.
17	TEST1	I	Test input pin 1. (L Fixed)
18	EFMINN	I	EFM-input pin.
19	SLCLPF0	—	SLC LPF pin.
20	SLCLPF1	—	SLC LPF pin.
21	SLC01	—	SLC control pin.
22	SLC02	—	SLC control pin.
23	AVDD1	—	A/D D/A SLC power supply. [Analog 5V]
24	ADSS	—	Analog GND.
25	VREF	O	Servo D/A standard voltage.
26	SLCBIAS	O	Servo D/A output pin. (SLCBIAS: SLC standard voltage signal)
27	TESBIAS	O	Servo D/A output pin. (TESBIAS: TES standard voltage signal)
28	HFLBIAS	O	Servo D/A output pin. (HFLBIAS: HFL standard voltage signal)
29	OFFSET	O	Servo D/A output pin. (OFFSET: Assistant signal)
30	BCA	O	Servo D/A output pin. (BCA: Assistant signal)
31	BOOT3T	O	Servo D/A output pin. (BOOT3T: Assistant signal)
32	RFVCA	O	Servo D/A output pin. (RFVCA: Assistant signal)
33	TBAL	O	Servo D/A output pin. (TBAL: Tracking balance control signal)
34	FBAL	O	Servo D/A output pin. (FBAL: Focus balance control signal)
35	SGC	O	Servo D/A output pin. (SGC: Assistant signal)
36	SLSO	O	Servo D/A output pin. (SLSO: Thread control signal)
37	SPDO	O	Servo D/A output pin. (SPDO: Spindle control signal)
38	TDO	O	Servo D/A output pin. (TDO: Tracking control signal)
39	FDO	O	Servo D/A output pin. (FDO: Focus control signal)
40	DVSS	—	Digital GND.
41	DVDD0	—	Internal logic power supply. [Digital 3.3V]

IC DESCRIPTION-2/7 (LC78660W)-2/4

Pin No.	Pin Name	I/O	Description
42	FG	I	FG counter input pin.
43	EVENT	I	EVENT counter input pin. (Pull down)
44	HFLIO	I/O	Mirror detest signal I/O pins.
45-48	PP0-3	I/O	General-purpose port 0-3. (Pull down)
49	WRQ	O	Subcode Q read ready monitor pin.
50	HFBUSYB	O	DSP command dispose busy signal output pin.
51	HBUSYB	O	DSP command receiver busy signal output pin.
52	DVDD3	—	I/O power supply. [Digital 5V]
53	DVSS	—	Digital GND.
54	HWAITB	O	Wait signal output pin.
55	HIRQB	O	Interrupt signal output pin.
56	DVDRESB	I	Decoder reset input pin.
57	RESB	I	System reset input pin.
58	HRDB	I	Read signal input pin.
59	HWRB	I	Write signal input pin.
60	HCSB	I	Chip select signal input pin.
61-68	HDATA0-7	I/O	Data0-7.
69-81	HADR0-12	I	Address0-12.
82	DVDD3	—	I/O power supply. [Digital 5V]
83	DVSS	—	Digital GND.
84	PW/FSEQ	O	Subcode [P, Q, R, S, T, U, V and W] data output pin.
85	SBCK	I	Subcode data readout shift clock input pin. (Connected to GND)
86	SBSY	O	Subcode block synchronization signal output pin. (No connected)
87	SFSY	O	Subcode frame synchronization signal output pin.
88	FSX	O	CD1 frame synchronization signal.
89	EFLG	O	Error correction C1, C2 correction conditions monitor pins.
90, 91	PP4, 5	I/O	General-purpose port4, 5. (Pull down)
92	X16MOUT	O	Internal 16MHz output pin. (No connected)
93	X16MIN	I	External 16MHz input pin.
94	TEST2	I	Test input pin2. (L Fixed)
95	DVDCKOUT	O	Internal DVD clock output pin.
96	DVDCKIN	I	External DVD clock input pin. (Pull down)
97	TEST3	I	Test input pin3. (L Fixed)
98	DVDD0	—	Internal logic power supply. [Digital 3.3V]
99	DVSS	—	Digital GND.
100	VPDO	—	SYSTEM PLL filter connection pin.
101	VRPFR	—	SYSTEM PLL VCO oscillator range adjustment pin.
102	VCOC	—	SYSTEM PLL filter connection pin.
103	AVSS	—	Analog GND.
104	AVDD3	—	SYSTEM VCO power supply. [Analog 3.3V]
105	DVSS	—	Digital GND.

IC DESCRIPTION-2/7 (LC78660W)-3/4

Pin No.	Pin Name	I/O	Description
106	XIN	I	Oscillator circuit input pin.
107	XOUT	O	Oscillator circuit output pin.
108	DVDD6	—	Oscillator circuit power supply. [Digital 3.3V]
109, 110	PP6, 7	I/O	General-purpose port6, 7. (Pull down)
111	AVREQIO	I/O	AV data demand flag I/O pins.
112	AVACKOI	I/O	AV data read strobe output pin.
113	AVDACK	O	AV data read (Clock/Enable) output pins.
114	AVSCTB	O	AV output sector synchronization output pin.
115	AVERRB	O	AV data reliable flag output pin.
116	DVSS	—	Digital GND.
117	DVDD4	—	I/O power supply. [Digital 3.3V or 5V]
118-125	AVD0-7	O	AV data0-7.
126	C2F	O	C2 flag output pin.
127	ROMXA	O	CD data output pin.
128	ROMCK	O	CD data output shift lock output pin.
129	LRSY	O	CD data output L/R clock output pin.
130	EMPH	O	Deemphasis monitor pin.
131	DOUT	O	Audio EIAJ data output pin.
132	DVDD4	—	I/O power supply. [Digital 3.3V or 5V]
133	DVSS	—	Digital GND.
134	EFMOUT	O	EFM 2 value signal output pin.
135	LEFM	O	Output pin for the signal picked out from EFM binary signal with PCK.
136	PCK	O	EFM playback shift clock output pin.
137	DVDD4	—	Inner logic power supply. [Digital 3.3V]
138	DVSS	—	Digital GND.
139	VCOCTL	—	VCO filter connection pin.
140	PPDO	—	Phase comparison filter connection pin.
141	FPDO	—	Frequency comparison filter connection pin.
142-144	LF1-3	—	Filter connection pin1-3.
145	PCN	—	Voltage monitor pin. (Phase comparison charge pump PCH control voltage)
146	PISET	—	Current setting pin for the constant-current phase comparison charge pump.
147	FISSET	—	Current setting pin for the constant-current frequency comparison charge pump.
148	CDFR	—	EFM playback VCO oscillator range setting pin. [For CD] (Pull down)
149	DVDFR	—	EFM playback VCO oscillator range setting pin. [For DVD] (Pull down)
150	AVDD2	—	EFM PLL JV power supply. [Analog 5V]
151	AVSS	—	Analog GND.
152, 153	JVCPI, JVCPC	—	JV control pin.
154	JVAO	O	EFM playback PLL clock jitter output pin.
155	JVAIN	—	JV control pin. (Pull down)
156	JVRVO	—	JV control pin. (No connected)
157	AVDD4	—	SYSTEM PLL power supply. [Analog 3.3V]

IC DESCRIPTION-2/7 (LC78660W)-4/4

Pin No.	Pin Name	I/O	Description
158	AVSS	—	Analog GND.
159-166	MD15-8	I/O	DRAM data15-8.
167	DVDD5	—	I/O power supply. [Digital 5V]
168	DVSS	—	Digital GND.
169-176	MD7-0	I/O	DRAM data7-0.
177-184	MA0-7	O	DRAM address0-7.
185	DVDD5	—	I/O power supply. [Digital 5V]
186	DVSS	—	Digital GND.
187	MA8	O	DRAM address8.
188-191	MA9-12	O	DRAM address9-12. (No connected)
192	MRAS0B	O	RAS output pin0.
193	MRAS1B	O	RAS output pin1. (No connected)
194	MCASUB	O	CAS output pin. (Upper Byte)
195	MCASLB	O	CAS output pin. (Lower Byte)
196	MOEB	O	OE output pin.
197	MWEB	O	WE output pin.
198	DVSS	—	Digital GND.
199	DVDD0	—	Inner logic power supply. [Digital 3.3V]
200-204	RFP0-4	O	RF general-purpose port output pin0-4.
205	DBFECTO	O	Defect signal output pin.
206	DEFECTTI	I	Defect signal input pin.
207	DVSS	—	Digital GND.
208	DVDD1	—	I/O power supply. [Digital 5V]

IC DESCRIPTION-3/7(LA9702W)-1/2

Pin No.	Pin Name	I/O	Description
1	RFM	I	RF signal - input. (Pull down)
2	RFP	I	RF signal + input.
3	PD1	I	Pickup signal input.
4	PD2	I	Pickup signal input.
5	PD3	I	Pickup signal input.
6	PD4	I	Pickup signal input.
7	PD5	I	Pickup signal input.
8	PD6	I	Pickup signal input.
9	PD7	I	Pickup signal input.
10	PD8	I	Pickup signal input.
11	PD9	I	Pickup signal input.
12	VCC	—	Power supply. (Servo signal system)
13	LDD1	O	APC1 output.
14	LDS1	I	APC1 monitor voltage input.
15	LDD2	O	APC2 output.
16	LDS2	I	APC2 monitor voltage input.
17	GND	—	Ground. (Servo signal system)
18	SGC	I	Servo gain control terminal. (RREC, FE, TE)
19	FBAL	I	Focus balance adjustment terminal.
20	TEBL	I	Tracking balance adjustment terminal.
21	VGA	I	RF gain adjustment terminal.
22	BST	I	Equalizer boost adjustment terminal.
23	FOST	I	Focus offset adjustment terminal.
24	TOST	I	Tracking offset adjustment terminal.
25	BCATH	I	BCA threshold adjustment terminal.
26	REF1	I	Reference voltage setting terminal.
27	2.5V OUT	O	Reference voltage output for servo signal.
28	RRBC	O	Reflection output.
29	FE	O	Focus error output.
30	TE	O	Tracking error output.
31	THC	—	External capacitor for setting TE hold time constant is connected to this terminal.
32	WO	O	Warble output terminal.
33	ISSET	—	External resistor for setting BPF center frequency is connected to this terminal. (Pull down)
34	WOI	I	Push-pull signal input.
35	WOO	O	Push-pull signal output.
36	TEO	—	TE gain setting terminal for 3 beam.
37	TEN	—	TE gain setting terminal for 3 beam.
38	CP	—	External resistor and capacitor for setting charge pump gain, are connected to this terminal.
39	BHI	—	External resistor for setting bottom hold detection constant, is connected to this terminal. (Pull down)
40	RFON	O	RF - output.

IC DESCRIPTION-3/7 (LA9702W)-2/2

Pin No.	Pin Name	I/O	Description
41	RFOP	O	RF + output.
42	BH	O	RF bottom detection output.
43	PHI	—	External resistor for setting peak hold detection constant, is connected to this terminal. (Pull down).
44	PH	O	RF peak detection output.
45	BCA	O	BCA output.
46	DEF	O	Defect output. (H: Defect detection)
47	DEFC	—	External resistor for defect detection is connected to this terminal.
48	TC	—	External resistor for setting defect detection constant is connected to this terminal.
49	GND	—	Ground. (DPD system)
50	LPC	—	External capacitor for RF DC servo is connected to this terminal.
51	CPOF	I	Charge pump OFF terminal. (H: OFF)
52	EQO2	—	RF equalizer setting terminal.
53	TH	I	Tracking hold. (H: Hold)
54	EQL2	I	RF equalizer setting terminal.
55	VCC	—	Power supply. (DPD system)
56	EQO4	O	RF equalizer setting terminal.
57	XHTR	I	Tracking bottom detection band switch. (L: High band)
58	BQL4	I	RF equalizer setting terminal.
59	XQBH	I	Bottom detection constant switch. (L: High speed)
60	EQO3	O	RF equalizer setting terminal.
61	EQSCT	I	Equalizer switcher. (H: 77-pin selection, L: 52-pin selection)
62	EQI3	I	RF equalizer setting terminal.
63	DPD/TEB	I	DPD 3-beam tracking switcher. (H: DPD)
64	RFO2	O	RF output.
65	RFO1	O	RF output.
66	VCC	—	Power supply. (RF system)
67	EQI1	I	RF equalizer setting terminal.
68	TE/PP	I	3-beam push-pull tracking switcher. (L: 3-beam)
69	EQO1	O	RF equalizer setting terminal.
70	LDON2	I	APC2 laser ON terminal. (H: ON)
71	EQI2	I	RF equalizer setting terminal.
72	LDON1	I	APC1 laser ON terminal. (H: ON)
73	EQO2	O	RF equalizer setting terminal.
74	GND	—	Ground. (RF system)
75	EQL1	I	RF equalizer setting terminal.
76	RFSCCT	I	RF input switcher. (H: RF different input, PP error)
77	EQO1	O	RF equalizer setting terminal.
78	CAO	O	Customer amplifier output.
79	PREF	—	Reference voltage output. (for pick)
80	OAN	I	Customer amplifier input.

IC DESCRIPTION-4/7 (HD6412350F20)-1/3

Pin No.	Pin Name	I/O	Description
1	$\overline{\text{CS1ROM}}$	O	Not used.
2	$\overline{\text{CS0ROM}}$	O	Chip select output terminal for ROM.
3, 4	VSS	—	GND.
5	VCC	—	Power input terminal. EVER 5 V.
6-9	A0-3	O	Address bus output terminal.
10	VSS	—	GND.
11-18	A4-11	O	Address bus output terminal.
19	VSS	—	GND.
20-27	A12-19	O	Address bus output terminal.
28	VSS	—	GND.
29	A20	O	Not used.
30	CODEC_ERR	—	
31	$\overline{\text{INT_VDEC}}$	I	Interrupt signal for AV DECODER IC.
32	$\overline{\text{HD_INT}}$	I	Interrupt signal from LOADER.
33, 34	P67, 66	I	Not used.
35, 36	VSS	—	GND.
37	AK_SCK	O	AK_SCK output pin.
38	YS_SO	I	Microprocessor interface serial data input pin.
39	VCC	—	Power input terminal. EVER 5 V.
40-43	D0-3	I/O	Data bus input/output terminal.
44	VSS	—	GND.
45-52	D4-11	I/O	Data bus input/output terminal.
53	VSS	—	GND.
54-57	D12-15	I/O	Data bus input/output terminal.
58	VCC	—	Power input terminal. EVER 5 V.
59	TXD0	O	Data output terminal for FL DRIVER IC serial communication control.
60	TXD1	O	Data output terminal for LOADER serial communication control.
61	RXD0	I	Data input terminal for FL DRIVER IC serial communication control.
62	RXD1	I	Data input terminal for LOADER serial communication control.
63	SCK0	O	Clock output terminal for FL DRIVER IC serial communication control.
64	SCK1	O	Clock output terminal for LOADER serial communication control.
65	VSS	—	GND.
66	$\overline{\text{CS VDEC}}$	O	Chip select output terminal for AV DECODER IC.
67, 68	VSS	—	GND.
69	$\overline{\text{CS5}}$	O	Chip select output terminal for SRAM.
70	DREQ1	I	DMA transfer request.
71	AK_SI	O	AK_SI output pin.
72	CS_FR	O	FL DRIVER IC chip select output terminal.
73	$\overline{\text{SYSRST}}$	O	System reset signal output terminal.
74	REMOCON	I	Remote control signal input terminal.
75	USCL	O	I ² C clock output terminal for EEROM, video encoder IC.

IC DESCRIPTION-4/7 (HD6412350F20)-2/3

Pin No.	Pin Name	I/O	Description
76	USDA	I/O	I ² C data input/output terminal for EEROM, video encoder IC.
77	UML	O	Data enable signal output terminal for AUDIO DAC IC control.
78	UMC	O	Clock for AUDIO DAC IC control.
79	UMD	O	Data output terminal for AUDIO DAC IC control.
80	WDTOVF	O	Watch dog timer overflow signal output terminal.
81	RESET	I	Micro processor reset input terminal.
82	NMI	I	Fixed is to “H”.
83	STBY	I	
84	VCC	—	Power input terminal. EVER 5 V.
85	XTAL	I	Crystal oscillator input terminal. 20 MHz.
86	EXTAL	I	
87	VSS	—	GND.
88	fO	O	Not used. (System clock output for external device)
89	VCC	—	Power input terminal. EVER 5 V.
90	AS	—	Not used. (Address strobe)
91	RD	O	Lead signal output terminal for bus control.
92	HWR	O	“H” write signal output terminal for bus control.
93	LWR	O	“L” write signal output terminal for bus control.
94	WAIT	O	Bus request output terminal.
95	PFO	O	Not used. (Bus request acknowledge)
96	HRST	O	Reset signal output terminal for LOADER.
97	YS_SCK	O	Microprocessor interface/Sub DSP clock output.
98	YS_SI	O	Microprocessor interface/Sub DSP serial data output.
99, 100	VSS	—	GND.
101	UC15	O	Detection of UC 15.
102	TEST MUTE	O	Not used.
103	AVCC	—	Power supply input terminal for A/D. EVER 5V.
104	VREF	I	Reference voltage input terminal for A/D. EVER 5V.
105	5.1/z	I	5.1/z INPUT PIN.
106	NTSC/PAL	I	NTSC/PAL INPUT PIN.
107	REGION	I	REGION INPUT PIIN.
108	RDY_HIF	I	LOADER READY signal input terminal.
109	SW	I	NT/PAL sw input pin.
110	C2PO	I	C2 Flag inputpin.
111	EMPH	I	Deemphasis monitor input pin.
112	SV2	O	Voltage output for S2 terminal. S1 = 5V S2 = 2.5 V Normally = 0 V.
113	AVSS	—	GND.
114	VSS	—	
115	AK4527_CS	O	AK4527_CS output pin.
116	RGB/YC	I	GND.
117	YS912_CSB	O	Sub DSP Chip select output pin.

IC DESCRIPTION-4/7 (HD6412350F20)-3/3

Pin No.	Pin Name	I/O	Description
118	YS912_ $\overline{\text{CS}}$	O	Microprocessor interface chip select output pin.
119	AMUTE	O	Audio signal (analog audio) output mute control terminal ON = H OFF = L.
120	CHECK	O	Detection of check.
121	A MUTE AC-3	O	Mute output pin.
122	YS917_ $\overline{\text{CS}}$	O	CS output pin.
123, 124	MD0, 1	I	Operation mode control Fixed to L.
125	MD2	I	Operation mode control Fixed to H.
126	PG0	O	Video mute output pin.
127	TEST	O	Detection of TEST.
128	PG2	O	Detection of PG2.

IC DESCRIPTION-5/7 (L64021D)-1/3

Pin No.	Pin Name	I/O	Description
1	VSS	—	Ground.
2-5	SBD_7-4	I/O	SDRAM data bus 7-4.
6	VDD	—	Power. (3.3V)
7-10	SBD_3-0	I/O	SDRAM data bus 3-0.
11	VSS	—	Ground.
12-19	CH_DATA_0-7	I	Channel data bus 0-7.
20	VSS	—	Ground.
21	TOS_N	I	Top of sector.
22, 23	NC	I	Not connected.
24	ERROR_N	I	Error.
25	VDD	—	Power. (3.3V)
26	AVALID_N	I	Audio data valid.
27	VVALID_N	I	Video data valid. (Not connected)
28	DCK	I	Data clock.
29	VREQ_N	O	Video transfer request. (Not connected)
30	AREQ_N	O	Audio transfer request.
31, 32	NC	—	Not connected.
33	VSS	—	Ground.
34-39	A_8-3	I	Address 8-3.
40	VDD	—	Power. (3.3V)
41	NC	—	Not connected.
42	VDD	—	Power. (3.3V)
43-45	A_2-0	I	Address 2-0.
46	VSS	—	Ground.
47-54	D_7-0	I/O	Host data bus 7-0.
55	VSS	—	Ground.
56	SYSCLK	I	System clock.
57	RESET_N	I	Reset.
58	DREQ_N	O	DMA transfer request.
59	INTR_N	O	Interrupt.
60	BUSMODE	I	Busmode.
61	VDD	—	Power. (3.3V)
62	RDY_N	O	Ready. (Not connected)
63	READ_N	I	Read indicator.
64	WRITE_N	I	Write indicator.
65	WAIT_N/WTN	I/O	Wait.
66	VSS	—	Ground.
67	NC	—	Not connected.
68	CS_N	I	Chip select.
69	VS	O	Vertical synchronization.
70	HS	O	Horizontal synchronization.

IC DESCRIPTION-5/7 (L64021D)-2/3

Pin No.	Pin Name	I/O	Description
71	VDD	—	Power. (3.3V)
72	OSD_ACTIVE	O	On screen display active. (Not connected)
73, 74	PD_0, 1	O	Pixel data output bus 0, 1.
75	VSS	—	Ground.
76-78	PD_2-4	O	Pixel data output bus 2-4.
79	VDD	—	Power. (3.3V)
80	NC	—	Not connected.
81	VSS	—	Ground.
82-84	PD_5-7	O	Pixel data output bus 5-7.
85	VSS	—	Ground. (Not connected)
86	BLANK	O	Blank. (composite)
87	CREF	O	Chroma reference for pixel data. (Not connected)
88-91	EXT_OSD_0-3	I	External OSD palette selection bus 0-3. (Not connected)
92	NC	O	Not connected.
93	VDD	—	Power. (3.3V)
94	ACLK_441	I	Audio input clock for 44.1kHz*N.
95	ACLK_48	I	Audio input clock for 48kHz*N.
96	ACLK_32	I	Audio input clock for 32kHz*N.
97	VSS	—	Ground.
98	CD_BCLK	I	CD-Serial DAC bit clock.
99	CD_LRCLK	I	CD-Left right clock.
100	CD_ACLK	I	CD-External audio clock. (Not connected)
101	CD_ASDATA	I	CD-Audio serial data line.
102	SPDIF_IN	I	Sony/Philips data interface-input.
103	A_ACLK	O	Output audio clock. (Not connected)
104	VDD	—	Power. (3.3V)
105	BCLK	O	Serial DAC bit clock. (Not connected)
106	LRCLK	O	Serial DAC left right clock. (Not connected)
107	ASDATA	O	Audio serial data line. (Not connected)
108, 109	NC	O	Not connected.
110	VSS	—	Ground.
111	SPDIF_OUT	O	Sony/Philips data interface output.
112	AUDIO_SYNC	O	Audio sync strobe. (Not connected)
113, 114	TM1, TM0	I	Test mode 1, 0.
115	ZTEST	I	Test mode pin.
116	SCAN_TE	I	Scan test mode pin. (Not connected)
117	PREQ_N	O	PCM FIFO request. (Not connected)
118	VDD	—	Power. (3.3V)
119, 120	SBD_15, 14	I/O	SDRAM data bus 15, 14.
121	NC	—	Not connected.
122	SBD_13	I/O	SDRAM data bus 13.

IC DESCRIPTION-5/7 (L64021D)-3/3

Pin No.	Pin Name	I/O	Description
123	VSS	—	Ground.
124-126	SBD_12-10	I/O	SDRAM data bus 12-10.
127	VDD	—	Power. (3.3V)
128, 129	SBD_9, 8	I/O	SDRAM data bus 9, 8.
130	SCLK	I/O	SDRAM 81MHz clock.
131	VSS	—	Ground.
132-134	SBA_9-7	O	SDRAM address bus 9-7.
135	VDD	—	Power. (3.3V)
136-138	SBA_6-4	O	SDRAM address bus 6-4.
139	VSS	—	Ground.
140-142	SBA_3-1	O	SDRAM address bus 3-1.
143	VDD	—	Power. (3.3V)
144	SBA_0	O	SDRAM address bus 0.
145, 146	SBA_10, 11	O	SDRAM address bus 10, 11.
147	VSS	—	Ground.
148	SCS1_N	O	Chip select for second DRAM.
149	SCS_N	O	Chip select for SDRAM.
150	SRAS_N	O	SDRAM row address strobe.
151	VDD	—	Power. (3.3V)
152	SCAS_N	O	SDRAM column address strobe.
153	SWE_N	O	SDRAM write enable.
154	SDQM	O	SDRAM control pin.
155	VSS	—	Ground.
166	PLLVDD	I	Power-phase locked loop for SDRAM.
157	NC	—	Not connected.
158	PLLVSS	I	Phase locked-loop ground pin.
159	VDD	—	Power. (3.3V)
160	NC	—	Not connected.

IC DESCRIPTION-6/7 (MC44724A)-1/2

Pin No.	Pin Name	I/O	Description
1	CVBS/Cb/B1	O	Analog composite video signal output or Cb or B signal output current drive. (positive)
2	$\overline{\text{CVBS/Cb/B1}}$	O	Analog composite video signal output or Cb or B signal output current drive. (negative)
3	CVBS/Cb/B1Vdd	—	Power Supply for CVBS/Cb/B DAC1 circuit.
4	Y/G1	O	Analog luminance or G signal output drive. (positive)
5	$\overline{\text{Y/G1}}$	O	Analog luminance or G signal output drive. (negative)
6	Y/G1Vdd	—	Power Supply for Y/G DAC1 circuit.
7	C/Cr/R1	O	Analog chrominance signal output or Cr or R signal output current drive. (positive)
8	$\overline{\text{C/Cr/R1}}$	O	Analog chrominance signal output or Cr or R signal output current drive. (negative)
9	C/Cr/R1Vdd	—	Power Supply for C/Cr/R DAC1 circuit.
10	DAVss	—	Ground for DAC circuit.
11	Ibias1	O	Reference current for the 1st set of 3 DACs.
12	Vref1	I	Reference full scale voltage for the 1st set of 3 DACs.
13	DAVdd	I	Power Supply for the DACs.
14	Vref2	I	Reference full scale voltage for the 2nd set of 3 DACs.
15	Ibias2	O	Reference current for the 2nd set of 3 DACs.
16	NC	—	No Connect to pin.
17	CVBS/Cb/B2	O	Analog composite video signal output or Cb or B signal output current drive. (positive)
18	$\overline{\text{CVBS/Cb/B2}}$	O	Analog composite video signal output or Cb or B signal output current drive. (negative)
19	CVBS/Cb/B2Vdd	—	Power Supply for CVBS/Cb/B DAC2 circuit.
20	Y/G2	O	Analog luminance or G signal output current drive. (positive)
21	$\overline{\text{Y/G2}}$	O	Analog luminance or G signal output current drive. (negative)
22	Y/G2Vdd	—	Power supply for Y/G DAC2 circuit.
23	C/Cr/R2	O	Analog chrominance signal output or Cr or R signal output current drive. (positive)
24	$\overline{\text{C/Cr/R2}}$	O	Analog chrominance signal output or Cr or R signal output current drive. (negative)
25	C/Cr/R2Vdd	—	Power Supply for C/Cr/R DAC2 circuit.
26	ChipA	I	I ² C chip address select. {0 : 40 (hex) /41 (hex) 1 : 1D (hex) /1E (hex)}
27	TEST	I	TEST pin. (Grounded)
28	DVss	—	Ground for Digital circuit.
29	CLOCK	I	27MHz clock input.
30	DVdd	—	Power Supply for Digital circuit.
31	Reset	I	Reset signal, active LOW.
32	$\overline{\text{PAL/NTSC}}$	I	NTSC/PAL select. This pin is sampled only at Reset. (NTSC : Low PAL : High)
33	SO	O	IN SPI mode, serial data output/In I2C mode, Grounded.
34	SDA/SI	I/O	Serial data input, Open drain output/ If SPI mode, serial data input.
35	SCL/SCK	I	Serial clock.
36	SEL	I	Connect to Ground/If SPI mode, this pin is chip select.
37	DVdd	—	Power Supply for Digital circuit.
38	DVss	—	Ground for Digital circuit.

IC DESCRIPTION-6/7 (MC44724A)-2/2

Pin No.	Pin Name	I/O	Description
39-46	DVIA7-0	I/O	8-bit Multiplexed 4:2:2 data (ITU Rec656/601) input (DVIA), or Multiplexed Y data (ITU Rec656/601) input in 16-bit input mode.
47	Vmute	I	Video mute on Reset. (0: normal, I: mute)
48	C/Fsync/VBI	I/O	Csync/Frame sync output, or external VBI information input.
49	F/Vsync	I/O	Frame sync or Vertical sync input/output.
50	Hsync	I/O	Horizontal sync input/output.
51	A/B sel	I	Switch control for 8-bit x 2 Multiplexed 4:2:2 (ITU Rec656/601) input (DVIA) or (DVIB).
52-55	DVIB7-4	I/O	8-bit Multiplexed 4:2:2 data (ITU Rec656/601) input (DVIB), or Multiplexed Cr/Cb data (ITU Rec656/601) input in 16-bit input mode.
56	DVss	—	Ground for Digital circuit.
57	DVdd	—	Power Supply for Digital circuit.
58-61	DVIB3-0	I/O	Multiplexed 4:2:2 data (ITU Rec656/601) input (DVIB), or Multiplexed Cr/Cb data (ITU Rec656/601) input in 16-bit input mode.
62	TP	I/O	Test data input/output. (Grounded)
63, 64	NC	—	No connect to pin (Grounded)

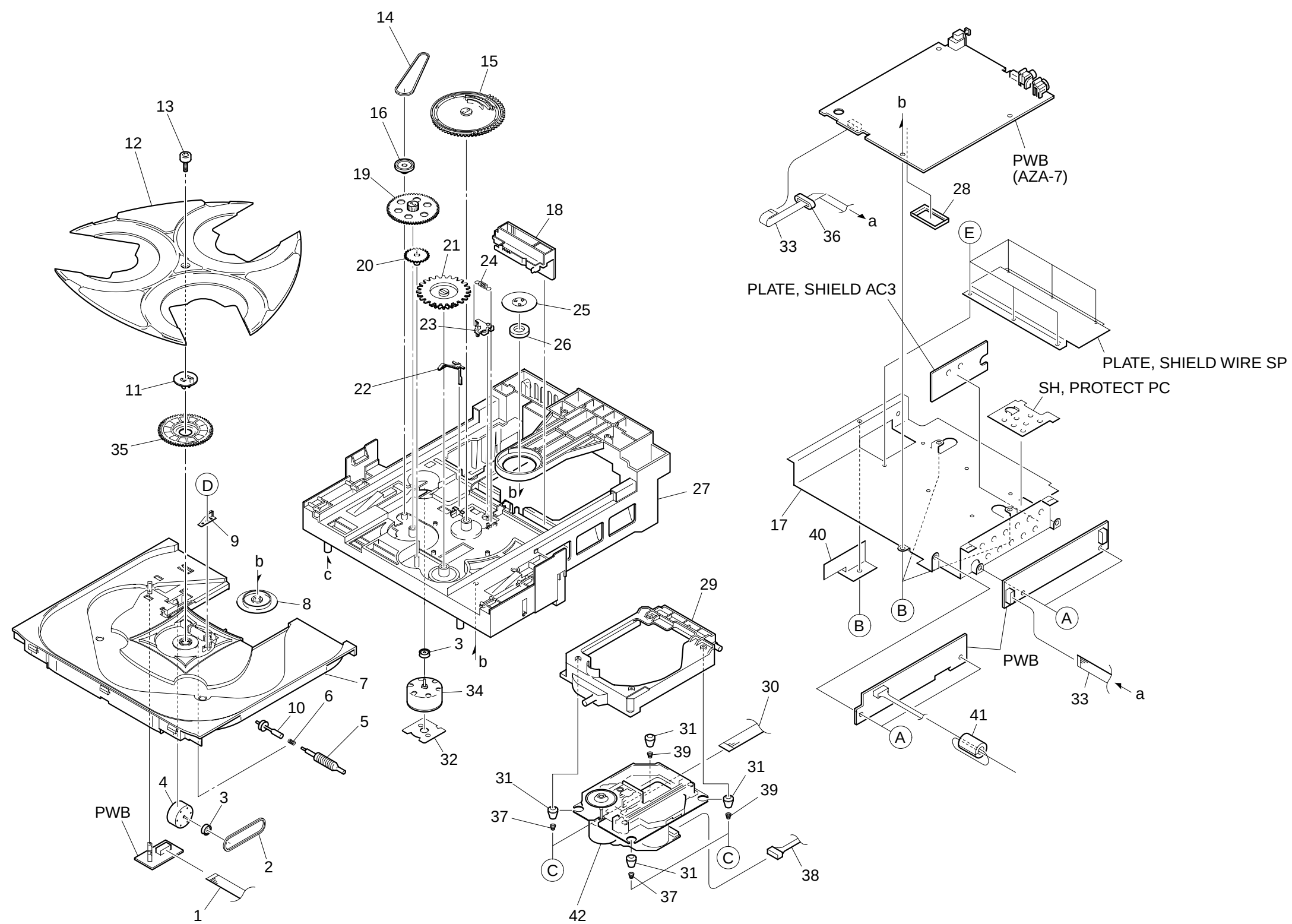
Note: Power Supply Group Digital→ 30pin, 37pin, 57pin
 Analog→ 3pin, 6pin, 9pin, 13pin, 19pin, 22pin, 25pin

IC DESCRIPTION-7/7 (YSS902)-1/2

Pin No.	Pin Name	I/O	Description
1	VDD1	—	+5V power supply. (for I/Os)
2	RAMCEN	O	External SRAM Interface /CE. (Not connected)
3	RAMA16	O	External SRAM Interface addresss 16. (Not connected)
4	RAMA15	O	External SRAM Interface addresss 15. (Not connected)
5	SDIB0	I	PCM input 0 to Sub DSP. (Not connected)
6	SDIB1	I	PCM input 1 to Sub DSP. (Not connected)
7	SDIB2	I	PCM input 2 to Sub DSP. (Not connected)
8	XI	I	Crystal oscillator connection or input external clock. (6.125MHz-50.0MHz)
9	XO	O	Crystal oscillator connection .
10	VSS	—	Ground.
11	AVDD	—	+3.3V power supply. (for PLL circuit)
12	SDIB3	O	Test terminal. (Not connected)
13	TEST	O	Test terminal. (Not connected)
14	TEST	O	Test terminal. (Not connected)
15	OVFB	O	Detection of overflow at Sub DSP.
16	DTSDATA	O	Test terminal. (Not connected)
17	AC3DATA	O	Test terminal. (Not connected)
18	SDOB3	O	Test terminal. (Not connected)
19	CPO	O	Output terminal for PLL.
20	AVSS	—	Ground. (for PLL circuit)
21	VDD2	—	+3.3V power supply. (for core logic)
22	SDOA2	O	PCM output from Main DSP. (C, LFE) (Not connected)
23	SDOA1	O	PCM output from Main DSP. (LS, RS) (Not connected)
24	SDOA0	O	PCM output from Main DSP. (L, R) (Not connected)
25-29	RAMA14-10	O	External SRAM Interface address14-10. (Not connected)
30	VSS	—	Ground.
31	VDD1	—	+5V power supply. (for I/Os)
32-39	OPORT0-7	O	Output port for general purpose. (Not connected)
40	VSS	—	Ground.
41	VDD2	—	+3.3V power supply. (for core logic)
42-44	RAMA9-7	O	External SRAM Interface address 9-7.
45-47	SDOB2-0	O	PCM output from Sub DSP.
48	SDBCK1	I	Bit clock input for SDOA, SDIB, SDOB. (Not connected)
49	SDWCK1	I	Word clock input for SDOA, SDIB, SDOB. (Not connected)
50	VSS	—	Ground.
51	VDD2	—	+3.3V power supply. (for core logic)
52	NONPCM	O	Detection of non-PCM data.
53	CRC	O	Detection of CRC error.
54	MUTE	O	Detection of auto mute.
55	KARAOKE	O	Detection of AC-3 karaoke data.
56	SURENC	O	Detection of AC-3 2/0 mode Dolby surround encoded input.

IC DESCRIPTION-7/7 (YSS902)-2/2

Pin No.	Pin Name	I/O	Description
57	/SDBCK0	O	Inverted SDBCK0 clock output. (refer to Block diagram)
58, 59	RAMA6, 5	O	External SRAM Interface address6, 5. (Not connected)
60	VSS	—	Ground.
61	RAMA4	O	External SRAM Interface address4. (Not connected)
62	/IC	I	Initial clear.
63	TEST	O	Test terminal. (Not connected)
64	RAMA3	O	External SRAM Interface address3. (Not connected)
65	/CSB	I	Sub DSP Chip select.
66	/CS	I	Microprocessor interface Chip select.
67	SO	O	Microprocessor interface Serial data output.
68	SI	I	Microprocessor interface/Sub DSP Serial data input.
69	SCK	I	Microprocessor interface/Sub DSP clock input.
70	RAMA2	O	External SRAM Interface address2. (Not connected)
71	VDD1	—	+5V power supply. (for I/Os)
72-79	RAMD0-7	I/O	External SRAM Interface data. (STREAM0-7 output when External SRAM is not in use) (Not connected)
80	VSS	—	Ground.
81	VDD2	—	+3.3V power supply. (for core logic)
82	SDWCK0	I	Word clock input for SDIA, SDOA, SDIB, SDOB.
83	SDBCK0	I	Bit clock input for SDIA, SDOA, SDIB, SDOB.
84	SDIA0	I	AC-3 bitstream (or PCM) data input for Main DSP.
85	SDIA1	I	AC-3 bitstream (or PCM) data input for Main DSP.
86, 87	RAMA1, 0	O	External SRAM Interface address1, 0. (Not connected)
88	RAMWEN	O	External SRAM Interface /WE. (Not connected)
89	RAMOEN	O	External SRAM Interface /OE. (Not connected)
90	VSS	—	Ground.
91	VDD2	—	+3.3V power supply. (for core logic)
92, 93	IPORT7, 6	I	Input port for general porpose.
94	IPORT5	I	Input port for general porpose. (Not connected)
95, 99	IPORT4, 0	I	Input port for general porpose.
100	VSS	—	Ground.



MECHANICAL PARTS LIST-1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-ZGD-611-010		FF-CABLE,5P 1.0 202MM
2	84-ZG1-225-010		BELT,SQ1.0-63.3
3	84-ZG1-267-010		PULLEY,LOAD MO 8
4	87-045-364-010		MOTOR(BCH3B14)
5	84-ZG1-238-010		GEAR,WORM N
6	84-ZG1-248-010		SPR-C,WORM
7	8A-ZG1-001-010		TRAY,NO3 BLU
8	8A-ZGD-202-010		HLD, MAGNET DVD
9	84-ZG1-259-010		SPR-P,WORM
10	84-ZG1-239-210		PULLY,WORM N
11	84-ZG1-224-010		LEVER,TT
12	8A-ZGD-001-010		TURN TABLE,DVD BLU
13	81-ZG1-239-010		S-SCREW,TT
14	84-ZG1-209-010		BELT,SQ1.8-117.7
15	84-ZG1-215-410		GEAR,MAIN CAM BLU
16	84-ZG1-207-010		PULLEY,RELAY
17	8A-ZGD-209-110		HLD, POWER AC3 PWB<ZACPD>
18	84-ZG1-216-310		SLIDE,MECHA CAM YEL
19	84-ZG1-274-010		GEAR,RELAY 8
20	81-ZG1-291-110		GEAR,TRAY RELAY NO3
21	84-ZG1-205-210		GEAR,TRAY (*)
22	8A-ZGD-212-010		LEVER,SW GRA
23	84-ZG1-266-010		LEVER,CAN 8
24	84-ZG1-211-010		SPR-E CAM S
25	81-ZG1-255-110		PLATE,MAGNET MK2

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
26	83-ZG3-604-010		RING,MAG 2
27	84-ZG1-249-510		CHAS,MECHA F
28	87-A91-554-010		COVER,2-44P IC179-44600
29	8A-ZGD-201-010		HLD, MECHA DVD
30	8A-ZGD-605-010		FF-CABLE,33P 0.5 65MM
31	8A-ZGD-206-010		DMPR,MECHA DVD
32	84-ZG1-231-010		SHILD CORE MOT S
33	8A-ZGD-616-010		FF-CABLE,16P 1.0 270MM HARD
33	8A-ZGD-613-010		FF-CABLE,16P 1.0 270MM SHIELD
34	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
35	84-ZG1-269-010		GEAR,MAIN TT 4
36	87-A90-762-010		F-BEAD, 3407MFT<ZAAPAM,ZAAPA>
37	8A-ZGD-207-010		SPR-C,DVD A
38	8A-ZGD-607-010		CONN ASSY,9P PH
39	8A-ZGD-208-010		SPR-C,DVD B
40	8A-ZGD-216-010		HLD, P-LOG(2) 25M
41	80-XM5-607-010		<ZAAPAM,ZABPDM,ZACPDM,ZAAPA,ZACPD>
42	M8-AZK-J90-000		CORE,Z CAT 1518-0730<ZAAPAM,ZAAPA>
A	87-067-688-010		MECHA,DV32F DVD
B	87-067-703-010		BVTT+3-6
C	8A-ZGD-205-010		TAPPING SCREW, BVT2+3-10
D	87-067-981-010		S-SCREW,MECHA DVD
E	87-571-032-410		BVT2+3-6 BLK
			VIT+2-3<ZAAPAM,ZCAPDM,ZAAPA,ZCAPD>

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green		

