

Service Manual

 **PIONEER**
The Art of Entertainment

ORDER NO.
RRV1754

CD CDV LD PLAYER

CLD-D606

- Refer to the service manual RRV1693 for CLD-D406/KU.

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power requirement	Remarks
	CLD-D606		
KU/CA	○	AC120V	

CONTENTS

1. CONTRAST OF MISCELLANEOUS PARTS 2
2. SCHEMATIC DIAGRAM 8
3. PCB CONNECTION DIAGRAM 22

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

T - IZM FEB. 1997 Printed in Belgium

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES: • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Screws adjacent to ∇ mark on the product are used for disassembly.
- Ref. No. : Numbers following P and hyphen (-) indicate the page (s) and location number (s) in the RRV1693 service manual, respectively.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω $\rightarrow$ 56×10^1 $\rightarrow$ 561 RD1/4PU 5 6 1 J
 47k Ω $\rightarrow$ 47×10^3 $\rightarrow$ 473 RD1/4PU 4 7 3 J
 0.5 Ω $\rightarrow$ R50 RN2H R 5 0 K
 1 Ω $\rightarrow$ 1R0 RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω $\rightarrow$ 562×10^1 $\rightarrow$ 5621 RN1/4PC 5 6 2 1 F

■ CONTRAST TABLE

CLD-D606/KU/CA and CLD-D406/KU have the same construction except for the following :

Ref. No.	Mark	Symbol and Description	Part No.		Remarks
			CLD-D406/KU	CLD-D606/KU/CA	
		PACKING			
P3- 1	NSP	Dry Cell Battery (R6P, AA)	VEM-013	Not used	
	NSP	Dry Cell Battery (R03, AAA)	Not used	VEM-022	
P3- 2		Video Cord	VDE1036	VDE1048	
P3- 8		Operating Instructions (English)	VRB1179	VRB1182	
P3- 10		Remote Control Unit (CU-CLD134)	VXX2400	Not used	
		Remote Control Unit (CU-CLD135)	Not used	VXX2412	
P3- 11		Battery Cover	VNK2806	VNK3668	
P3- 15		Packing Case	VHG1651	VHG1672	
		EXTERIOR AND DISC TRAY SECTION			
P5- 4		Rear Cover	VNK3950	VNK4019	
P5- 18		Tray Panel	VNK3929	VNK4018	
		Laser Disc Badge	Not used	VAM1029	No. 1
		TOP VIEW SECTION			
		YCPB Assy	Not used	VWV1502 *	No. 2
		Earth Plate	Not used	VNE1518	No. 3
		FCC Plate	Not used	VNE2086	No. 4
		Flexible Cable (10P)	Not used	VDA1550	No. 5
		FRONT PANEL SECTION			
P8- 1		FLKY Assy	VWG1810	VWG1834 *	
P8- 2		KEYB Assy	VWG1811	Not used	
	NSP	KEYB Assy	Not used	VWG1836 *	
P8- 3		Name Plate	PAM1608	PAM1704	
P8- 6		Front Panel	VNK3926	VNK4017	
P8- 7		Sub Panel	VNK3931	VNK3979	
P8- 17	NSP	Getter Label	VRW1636	VRW1651	
		BOTTOM VIEW SECTION			
P9- 1		MOTHER Assy	VWS1281	VWS1304 *	
P9- 3	△	POWER SUPPLY Assy	VWR1232	VWR1269 *	
P9- 7		Rear Panel R	VNA1606	VNA1734	
P9- 14	NSP	Chassis	VNA1461	VNA1564	
P9- 15		Rear Panel L	VNA1819	VNA1846	
P9- 20		AC Inlet Assy	VKP2126	Not used	
P9- 21	NSP	Fuse Caution Label (G)	VRW-548	Not used	
P9- 22		Caution Label	VRW1486	Not used	
		Spacer	Not used	REB1171	No. 6
		F.ICP Caution Label	Not used	VRW1590	No. 7

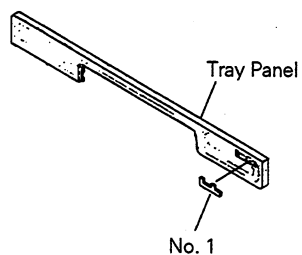
Note: • The numbers in the remarks column correspond to the numbers on "EXPLODED VIEWS". Refer to "EXPLODED VIEWS".

- Marked " *" are refer to "PCB PARTS LIST"

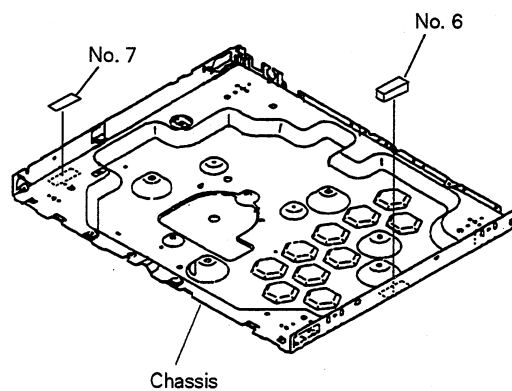
■ EXPLODED VIEWS

Note :The numbers on the exploded views correspond to the numbers in the remarks column of "CONTRAST TABLE".
Refer to "CONTRAST TABLE".

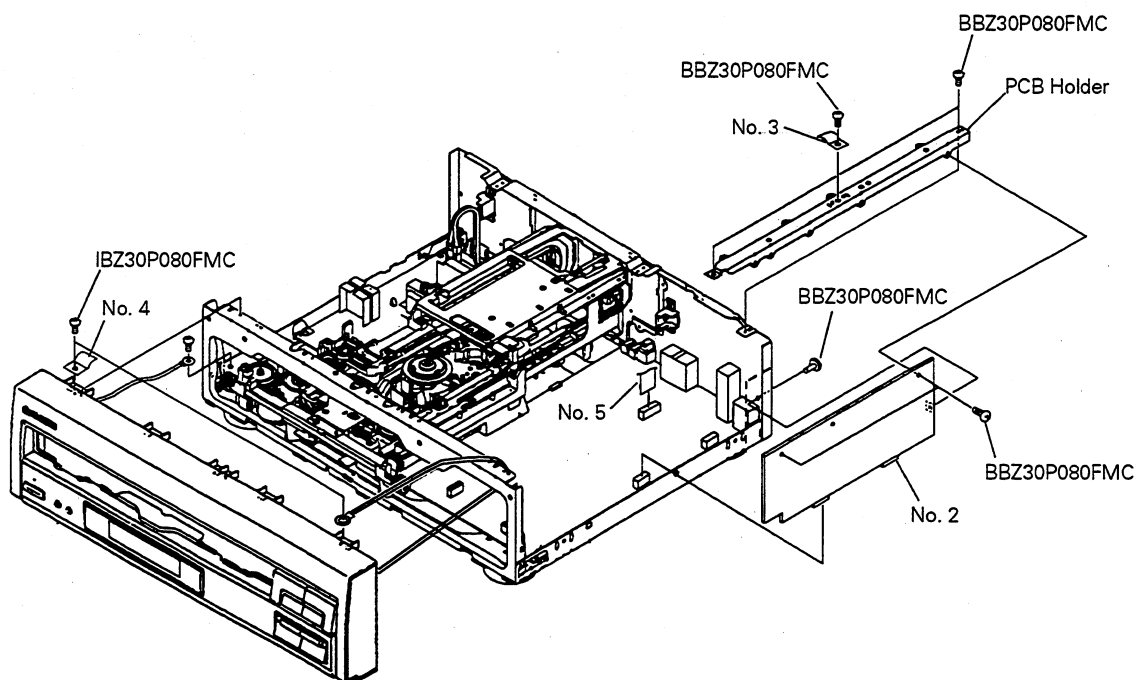
• EXTERIOR AND DISC TRAY SECTION



• BOTTOM VIEW SECTION



• TOP VIEW SECTION



■ PCB PARTS LIST

Mark	No.	Description	Part No.
LIST OF ASSEMBLIES			
△		POWER SUPPLY ASSY	VWR1269
NSP		MOTHER ASSY	VWM1754
		└ MOTHER ASSY	VWS1304
NSP		FLKB ASSY	VWM1755
		└ FLKY ASSY	VWG1834
NSP		└ KEYB ASSY	VWG1836
		YCPB ASSY	VWV1502

F F POWER SUPPLY ASSY
SEMICONDUCTORS

	IC201	HA17431P
△	IC210	ICP-N15
△	IC211	ICP-N20
	IC202	UPC358C
	Q207, Q208, Q214	2SA933S
	Q205, Q206, Q210	2SC1740S
△	Q102, Q103	2SC3377
△	Q213	2SD2007
△	Q203, Q204	T7F4S
△	Q201, Q202	T7F4T
△	Q101	VZF1037
△	Q209	VZF1040
	D206	VZF1039
△	D104	1SS270A
	D209-D212, D216	AG01Z-V0
△	D101	D2SB60F4004
△	D102	EG01C
△	D105	K1V24
△	D103	MTZJ2. 7B
	D218	MTZJ8. 2B
△	D200	PS2501L1-1M
	D207	RD33FB2
	D202, D203	S3LA20
	D204	S3S4M

RESISTORS

△	R257	(68Ω, 1/4W)	VCN1048
△	R258	(8.2Ω, 1/4W)	VCN1050
△	R256	(0.22Ω, 1/2W)	VCN1055

OTHERS

△	F101	FUSE (2A)	REK1078
△	F203	FUSE (136°C)	VEK1033
△	F201, F202	FUSE (136°C)	VEK1034
△	F204, F205	FUSE (1A/125V)	VEK1036

MOTHER ASSY**OTHERS**

PC BOARD MOTHER	VNP1554
-----------------	---------

Mark	No.	Description	Part No.
G F MOTHER ASSY			
SEMICONDUCTORS			
	IC351		CA0002AM
	IC803		LA6510
	IC400		LA7134M
	IC901		LA9420M
	IC801		LA9425
	IC802		LC78620E
	IC703		MC14577CP
	IC500		PD0234A
	IC101		PD0245A2
	IC902		TA8410AK

	IC804	TC4W53F
	IC502	UPD42280GU-30
	IC904	XLA10393F
	IC202, IC903, IC905	XLA4560F
	Q1001, Q102, Q753, Q916	2PB709A
	Q201, Q202, Q391, Q393, Q394	2PD601A
	Q451, Q475, Q805, Q9001	2PD601A
	Q903, Q904, Q907, Q908, Q915	2PD601A
	Q917	2PD601A
	Q834	2SA854S

	Q411, Q803	2SC2412K
	Q152	2SC3802K
	Q204, Q205	2SD2144S
	Q208, Q301, Q302, Q392, Q918	DTA124EK
	Q103, Q303, Q901, Q910	DTC124EK

	Q840	FMY1A
	D102, D180, D801, D901, D902	1SS254
	D905, D963	1SS254
	D301, D303, D304, D802	1SS355
	D805	KV1851
	D110	MTZJ5. 1B

COILS AND FILTERS

F113, F198, F199, F500, F503	DTF1069
CHIP BEAD	
F505, F507-F509, F547, F548	DTF1069
CHIP BEAD	
F5553-F5555, F561-F568	DTF1069
CHIP BEAD	

L413	LAU100J
L410	LAU101J
L351, L802-L804	LAU181J
L100, L352, L412, L461, L470	LAU220J
L700, L800, L801, L806-L809	LAU220J

L411, L571	LAU270J
L420, L421, L580	LAU430J
L462	LAU560J
L414, L5004	LAU8R2J
L460	LFA561J

F501	14.3MHz FILTER	VTF1055
------	----------------	---------

Mark No.	Description	Part No.
CAPACITORS		
C420, C421, C438, C466, C583 C111, C112, C202, C370, C393 C5007, C5009, C5550-C5554 C6001, C6002, C710, C719-C721 C810, C846, C848, C891, C944		CCSQCH100D50 CCSQCH101J50 CCSQCH101J50 CCSQCH101J50 CCSQCH101J50
C434, C437, C474, C579 C416 C415, C418, C475, C5010 C161, C258, C259, C353, C812 C352, C552		CCSQCH120J50 CCSQCH121J50 CCSQCH150J50 CCSQCH151J50 CCSQCH180J50
C5011, C813, C823, C950 C162, C417, C591, C935 C371, C419, C433, C467, C931 C106, C107, C354, C435, C452 C553, C563, C580		CCSQCH220J50 CCSQCH221J50 CCSQCH270J50 CCSQCH330J50 CCSQCH330J50
C351, C425, C476 C260-C263, C464, C468 C562 C375, C561, C806 C436, C809, C811		CCSQCH390J50 CCSQCH470J50 CCSQCH5R0C50 CCSQCH680J50 CCSQCH7R0D50
C374, C814 C460, C462 C895 C588, C763, C844 C363, C765, C836		CCSQCH820J50 CCSQCH910J50 CEAL101M6R3 CEAL470M10 CEAL470M6R3
C838 C972 C450 C274, C275, C367, C439 C101, C270, C271, C364, C412		CEALNP470M6R3 CEANP220M10 CEANP470M6R3 CEAS100M50 CEAS101M10
C424, C493, C530, C538, C550 C585, C700, C701, C801, C803 C820, C833, C882, C890, C893 C898, C917, C927, C933 C974, C975		CEAS101M10 CEAS101M10 CEAS101M10 CEAS101M10 CEAS101M10
C227, C281, C904 C821, C922, C967 C845, C870, C902, C926 C225, C226, C369, C5004, C534 C842		CEAS1R0M50 CEAS220M25 CEAS2R2M50 CEAS470M10 CEAS470M10
C368, C943 C968, C987 C491 C484 C850		CEASR47M50 CEHAQ220M50 CEJA221M6R3 CEJA331M6R3 CEJA4R7M35
C256, C490, C907 C5002, C5003, C551, C915, C981 C919 C361, C362 C355-C358, C377, C909		CKSQYB102K50 CKSQYB104K25 CKSQYB332K50 CKSQYB392K50 CKSQYB472K50
C110, C122, C160, C196-C198 C372, C373, C376, C451, C454 C532, C533, C570, C577, C578 C581, C802, C804, C807, C819 C822, C831, C832, C834, C835		CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50
C843, C876, C883, C884 C888, C889, C892, C896, C897 C918, C928, C929, C932 C937, C938, C941, C961, C962 C964, C971, C982		CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50

Mark	No.	Description	Part No.
	C102, C103, C151, C284, C285 C365, C366, C391, C413 C422, C423, C453, C457, C458 C485, C492, C494, C500, C5006 C501, C502, C531, C539, C574		CKSQYF104Z25 CKSQYF104Z25 CKSQYF104Z25 CKSQYF104Z25 CKSQYF104Z25
	C582, C587, C589, C592 C725, C726, C756, C758, C762 C764, C766, C827, C828 C840, C841, C847, C872-C874 C901, C910-C912, C976, C983		CKSQYF104Z25 CKSQYF104Z25 CKSQYF104Z25 CKSQYF104Z25 CKSQYF104Z25
	C837, C921, C930 C359, C360, C905, C951 C465, C808, C815, C875, C877 C924, C925 C942		CKSQYF223Z50 CKSQYF224Z25 CKSQYF473Z25 CKSQYF473Z25 COMA103J50
	C913, C920 C479, C908, C973 C903 C278, C282 C923		COMA104J50 COMA154J50 COMA222J50 COMA332J50 COMA473J50
	C934 C483 C871 (10μF/16V NP) VC901 (20pF)		COMA681J50 COMA683J50 VCH1152 VCM-008

RESISTORS

R420 R625, R626, R755-R758 R762, R765 R490, R987, R989 R880, R883	RD1/4PU470J RN1/10SC75R0D RN1/10SE1001D RN1/10SE1002D RN1/10SE1003D
R763, R766 R753, R754 R752 R879, R986, R990 R259-R262, R881, R882	RN1/10SE2001D RN1/10SE2201D RN1/10SE3301D RN1/10SE3302D RN1/10SE4702D
R927 VR450 (2.2kΩ) VR603 (4.7kΩ) VR604, VR607, VR608 (47kΩ) Other Resistors	RN1/4PC5101F PCP1025 RCP1020 RCP1047 RS1/10S□□□J

OTHERS

CN703 CN108 CN121 CN102 CN106	10P FFC CONNECTOR 12P FFC CONNECTOR 16P FFC CONNECTOR 21P FFC CONNECTOR 11P TOP POST	52045-1045 52045-1245 52045-1645 52045-2145 B11P-SHF-1AA
CN503, CN701 J50 JA8 JA3, JA4	B TO B CONNECTOR BOARD IN JUMPER OPTICAL OUTPUT MODULE REMOTE CONTROL JACK PCB BINDER	12P BTFN12S-3SB7 DB912NSO GP1F32T PKN1004 VEF1040
JA6 JA15 CN103	4P PIN JACK 3P PIN JACK S TERMINAL (8P) 23P FFC CONNECTOR	VKB1065 VKB1093 VKN1134 VKN1199 VNE1948
KN101, KN102 X101 X801 X550	EARTH METAL FITTING CERAMIC RESONATOR(9.00MHz) CRYSTAL RESONATOR(16MHz) CRYSTAL RESONATOR (28.636MHz)	VNF1084 VSS1040 VSS1081 VSS1093

CLD-D606

Mark	No.	Description	Part No.
------	-----	-------------	----------

FLKB ASSY

OTHERS

PC BOARD FLKB	VNP1602
---------------	---------

FLKY ASSY

SEMICONDUCTORS

IC101	PD3360B
IC141	S-806D
Q142	DTA144ES
Q141	DTC114ES
D141	1SS254
D301	SLR-342DUT31
D302	SLR-342MCT31
D303	SLR-342VCT31

SWITCHES

S301-S303	ASG1034
-----------	---------

CAPACITORS

C142, C301	CEAL100M16
C101	CEAL470M6R3
C901, C902	CKPUYB151K50
C111, C141	CKPUYF223Z25
C143	CKPUYY103M16

RESISTORS

All Resistors	RD1/4PU□□□J
---------------	-------------

OTHERS

CN101	21P FFC CONNECTOR	52044-2145
X101	CERAMIC RESONATOR(8MHz)	EFOEC8004A4
	REMOTE RECEIVER UNIT	GP1U28X
V101	FL TUBE	VAW1041
	SPACER	VEC1599
	FL HOLDER	VNF1087

KEYB ASSY

SWITCHES

S201-S208	ASG1034
-----------	---------

CAPACITORS

C500	CKPUYF223Z25
------	--------------

RESISTORS

All Resistors	RD1/4PU□□□J
---------------	-------------

OTHERS

CN203	FFC BOTTOM CONNECTOR 16P	52492-1620
CN201	FFC BOTTOM CONNECTOR 21P	52492-2120

Mark	No.	Description	Part No.
------	-----	-------------	----------

YCPB ASSY

SEMICONDUCTORS

IC701	CXD2046Q
IC3002	NJM2209S
IC3001	TC74HC4053AF
IC3003	TC7W74F
Q3017, Q3022, Q3025, Q3062, Q750	2PB709A
Q3018-Q3021, Q3023, Q3024, Q3061	2PD601A
Q3063, Q702, Q703	2PD601A
Q3001	DTA124EK
Q3002	DTC124EK

COILS AND FILTERS

F701, F731, F771-F773	CHIP BEAD	DTF1069
F777, F778	CHIP BEAD	DTF1069
L3002		LFA121J
L3003, L750, L751		LFA220J
L3001		LFA221J

CAPACITORS

C771, C772, C777	CCSQCH101J50
C3010	CCSQCH151J50
C3014, C3061, C750, C753	CCSQCH220J50
C3011	CCSQCH221J50
C754	CCSQCH470J50

C752	CCSQCH560J50
C751	CCSQCH6R0D50
C3064	CCSQCH910J50
C3016, C3017	CEAS100M16
C3005, C3006	CEAS101M10

C3007, C7001-C7003, C704	CEAS470M10
C705	CKSQYB102K50
C706, C707, C722	CKSQYB104K25
C3002	CKSQYB122K50
C3001, C3013	CKSQYB472K50

C3012, C3062	CKSQYF103Z50
C3003, C3004, C3008, C3009, C7004	CKSQYF104Z25
C711, C713, C714, C716, C717	CKSQYF104Z25
C724, C770, C773-C776	CKSQYF104Z25

RESISTORS

R3037	RN1/10SE1001D
R3036	RN1/10SE1301D
R3022	RN1/10SE2001D
R3021	RN1/10SE2201D
R704, R705	RN1/10SE2700D

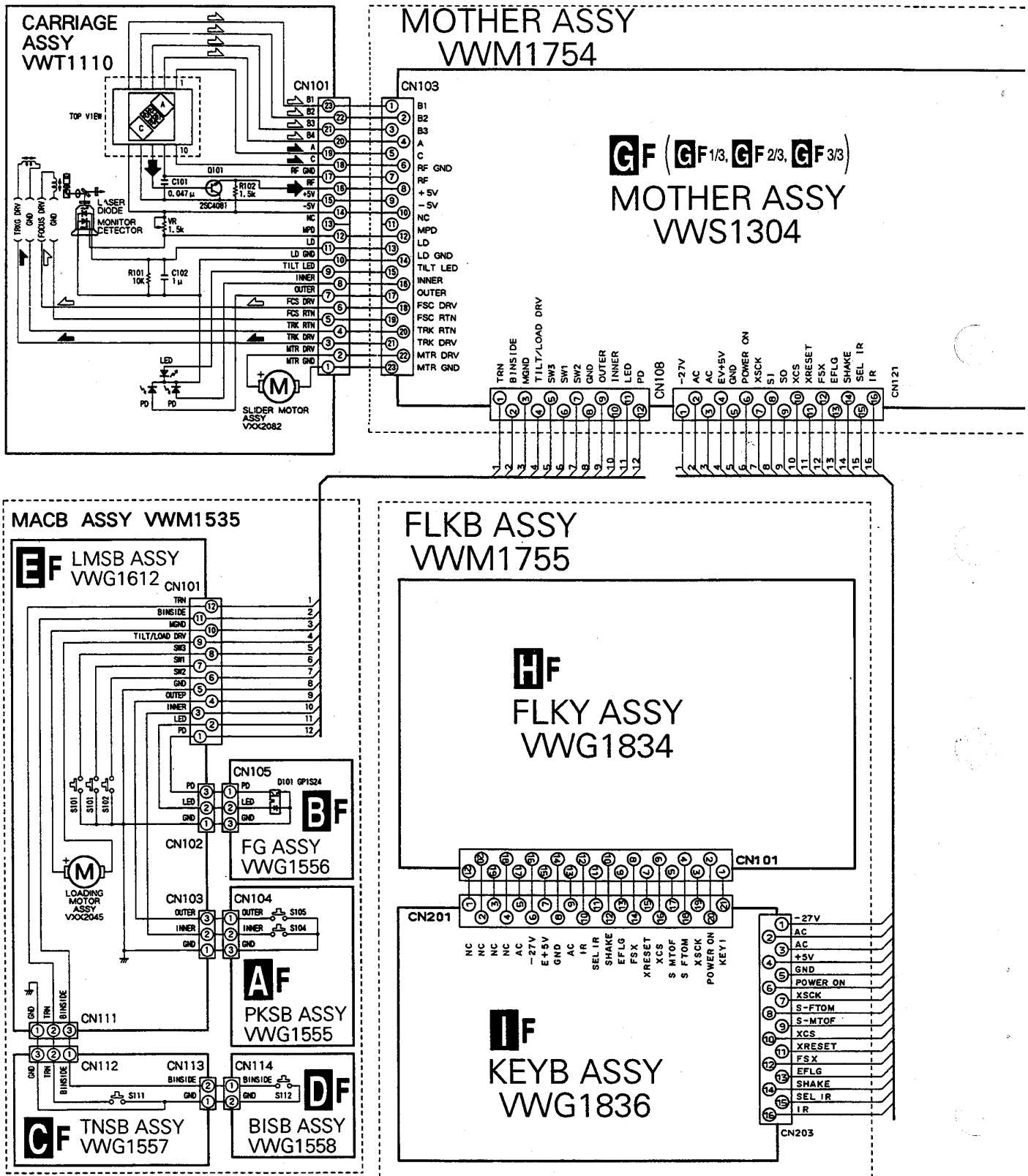
R703, R707	RN1/10SE3301D
R702	RN1/10SE3901D
R701, R708	RN1/10SE4701D
R706	RN1/10SE5601D
Other Resistors	RS1/10S□□□J

OTHERS

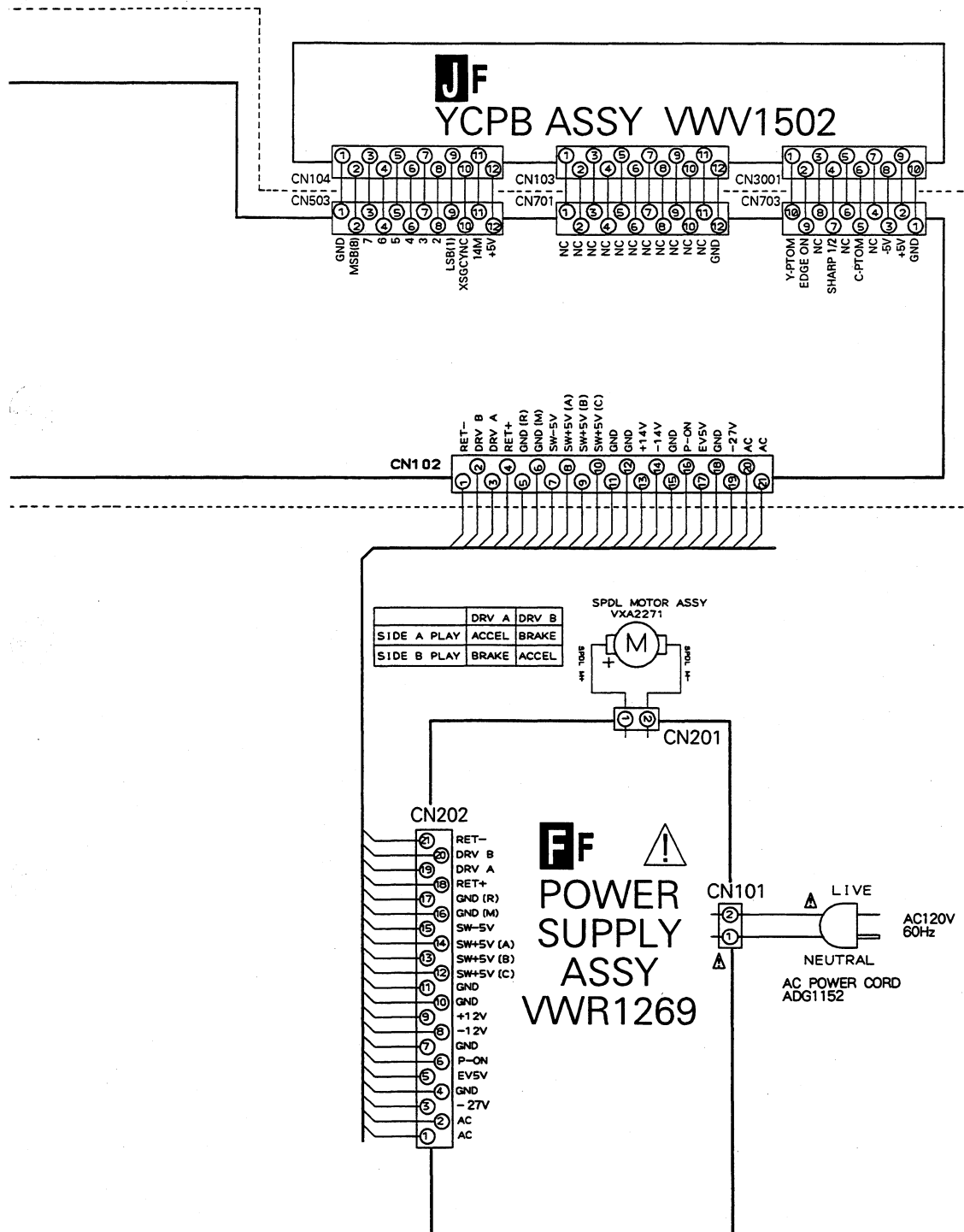
CN3001	10P FFC CONNECTOR	52045-1045
CN103, CN104		BTFN12P-3RD7
	B TO B CONNECTOR 12P	
	SCREW TERMINAL	VNE1948
	PC BOARD YCPB	VNP1589

2. SCHEMATIC DIAGRAM

2.1 OVERALL CONNECTIONS, PKSB, FG, TNSB, BISB, LMSB AND CARRIAGE ASSEMBLIES



Note : When ordering service parts, be sure to refer to
"CONTRAST TABLE" or "PCB PARTS LIST"

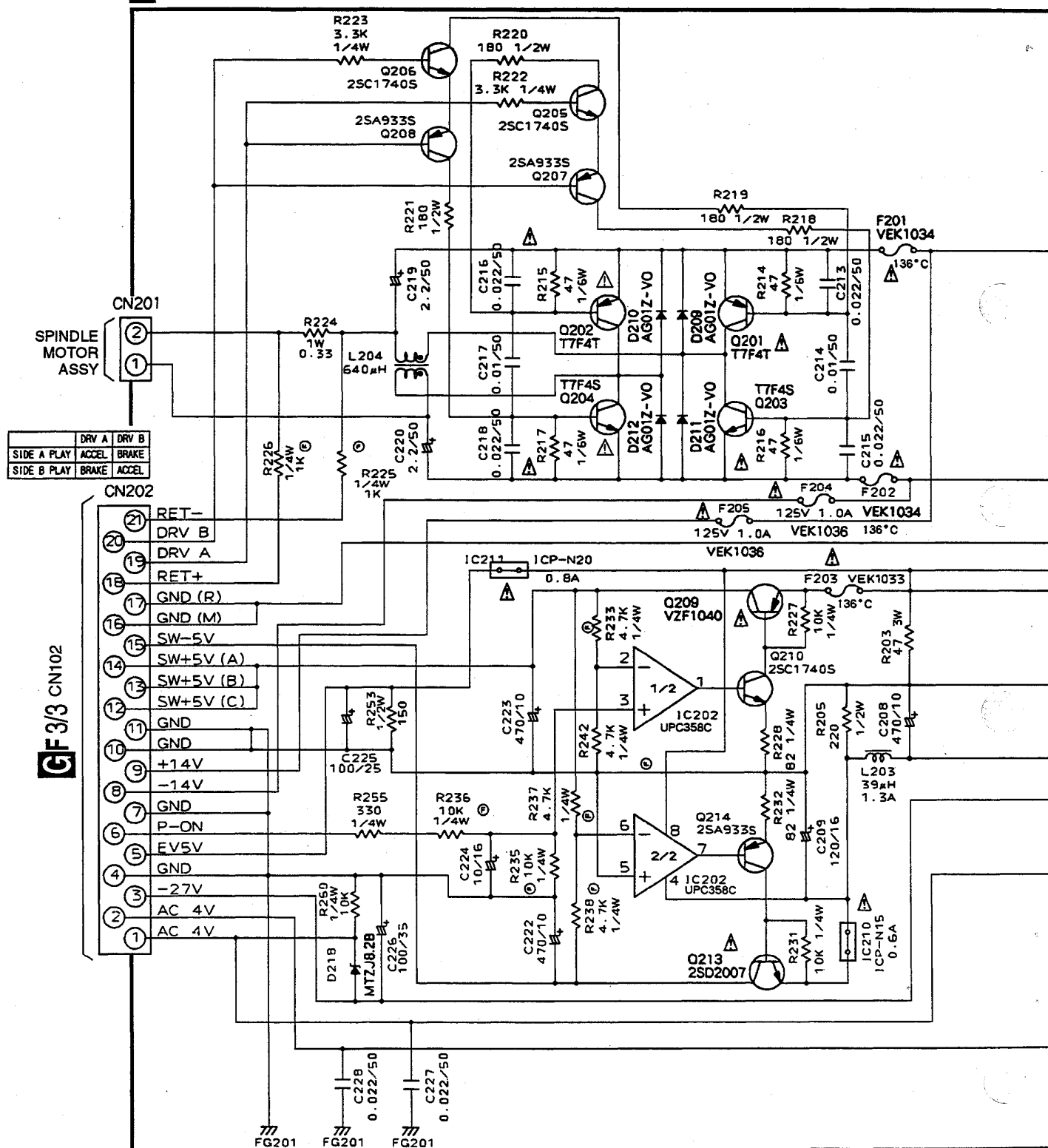


SIGNAL ROUTE

- ➡: RF SIGNAL ROUTE
- ⇄: FOCUS SERVO LOOP LINE
- ▲: TRACKING SERVO LOOP LINE

2.2 POWER SUPPLY ASSY

FF POWER SUPPLY ASSY (VWR1269)



CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N20, MFD BY ROHM CO., LTD. FOR IC211.

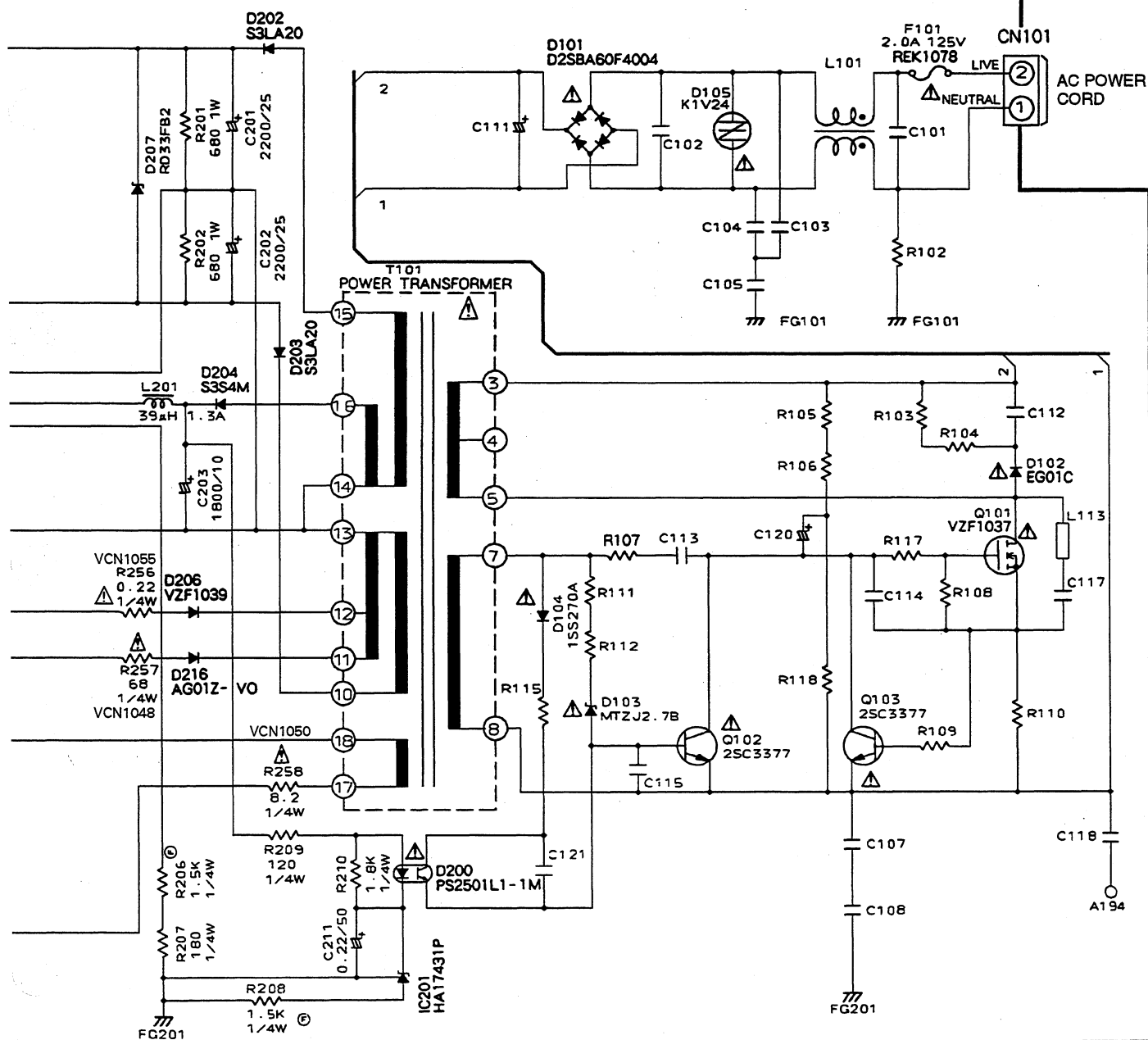
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N15, MFD BY ROHM CO., LTD. FOR IC210.

《 NOTE OF SPARE PARTS IN POWER SUPPLY (SYPS) ASSY 》

- In case of repairing, use the described parts only to prevent an accident.
- Please write the red ✓ mark on the board when the primary section of POWER SUPPLY (SYPS) Assy is repaired.
- Please take care to keep the space, not touching other parts when replacing the parts.

• NOTE FOR FUSE REPLACEMENT

CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

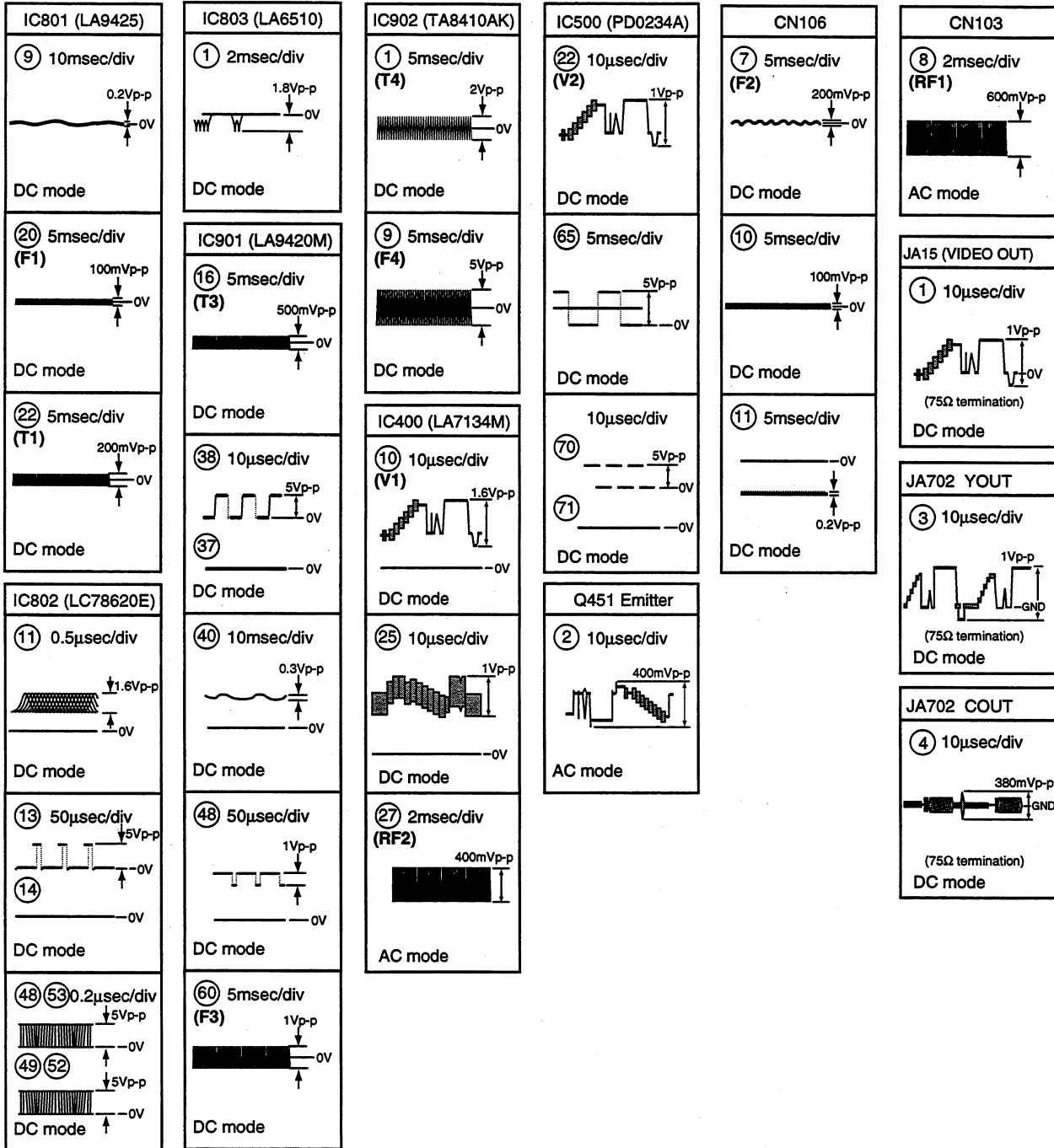


2.3 MOTHER ASSY

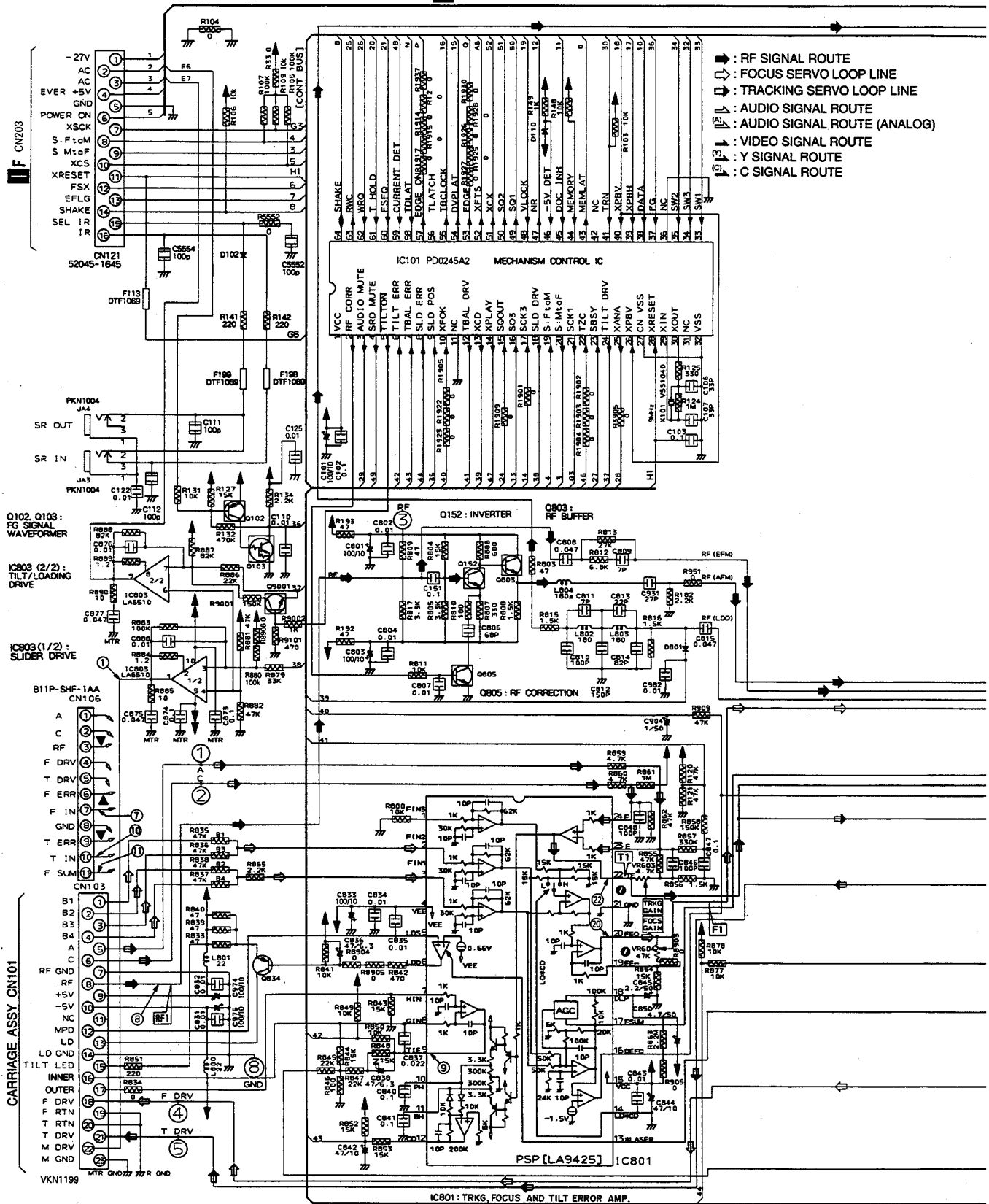
• WAVEFORMS AND VOLTAGE OF THE MOTHER ASSY

Note : (No.) in the table correspond to the pin number.

Measurement condition : In case when (D.audio) is written, at time when disc that has digital audio recording is played.

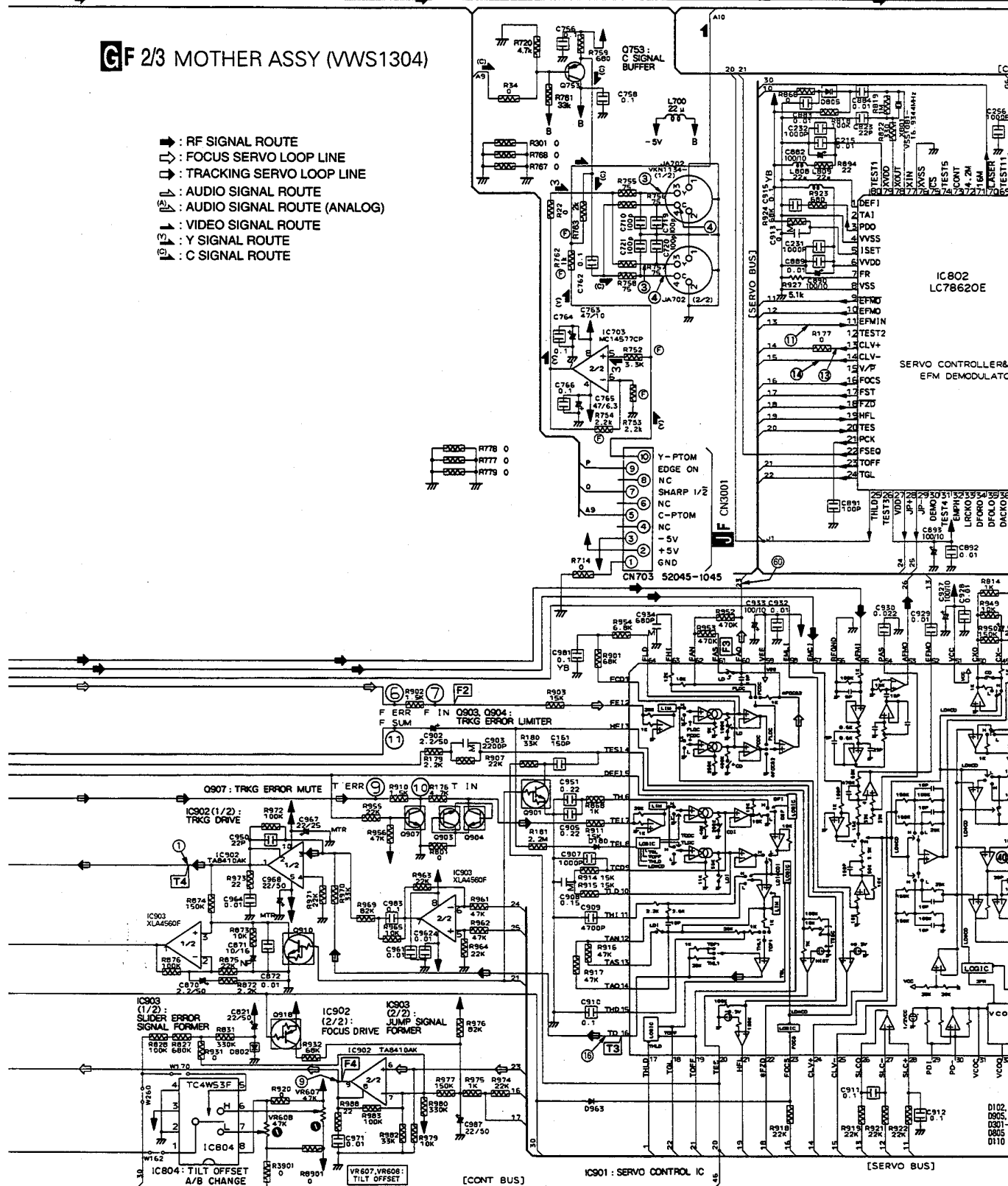


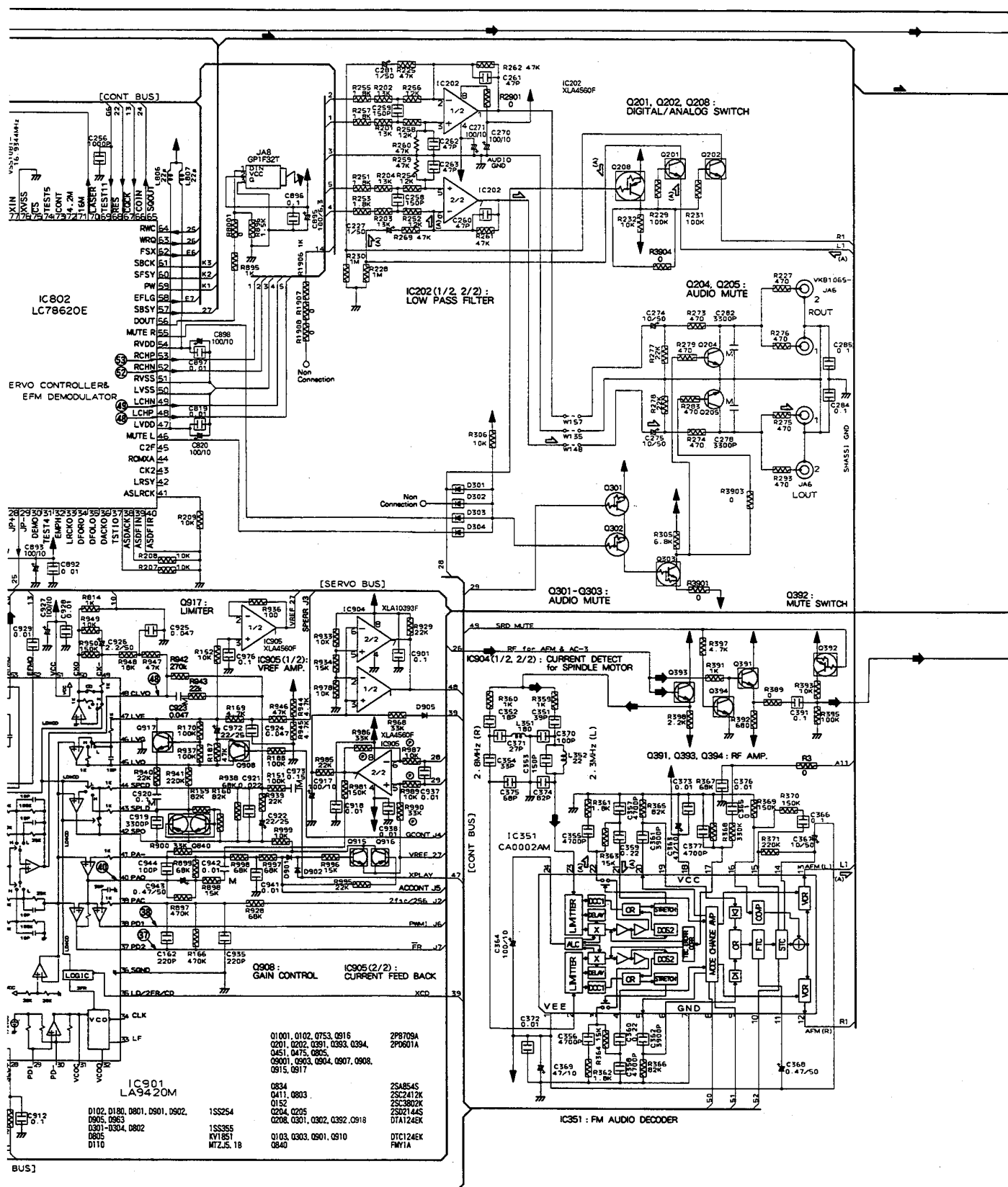
GF 1/3 MOTHER ASSY (VWS1304)



GF 2/3 MOTHER ASSY (VWS1304)

- ➡ : RF SIGNAL ROUTE
- ⇨ : FOCUS SERVO LOOP LINE
- ⇨ : TRACKING SERVO LOOP LINE
- 🔊 : AUDIO SIGNAL ROUTE
- 🔊 : AUDIO SIGNAL ROUTE (ANALOG)
- 📺 : VIDEO SIGNAL ROUTE
- 📺 : Y SIGNAL ROUTE
- 📺 : C SIGNAL ROUTE



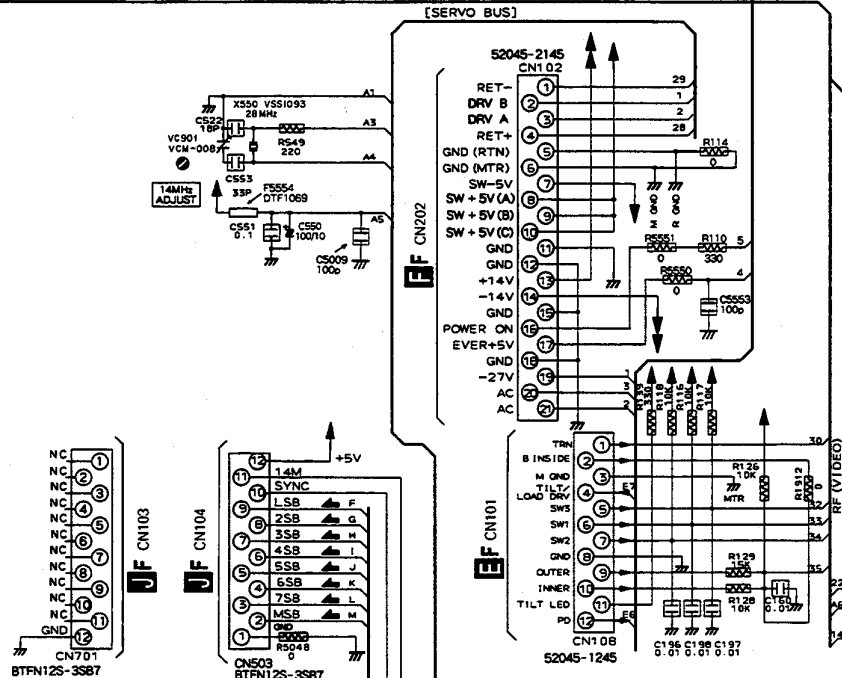


GF 3/3 MOTHER ASSY (VWS1304)

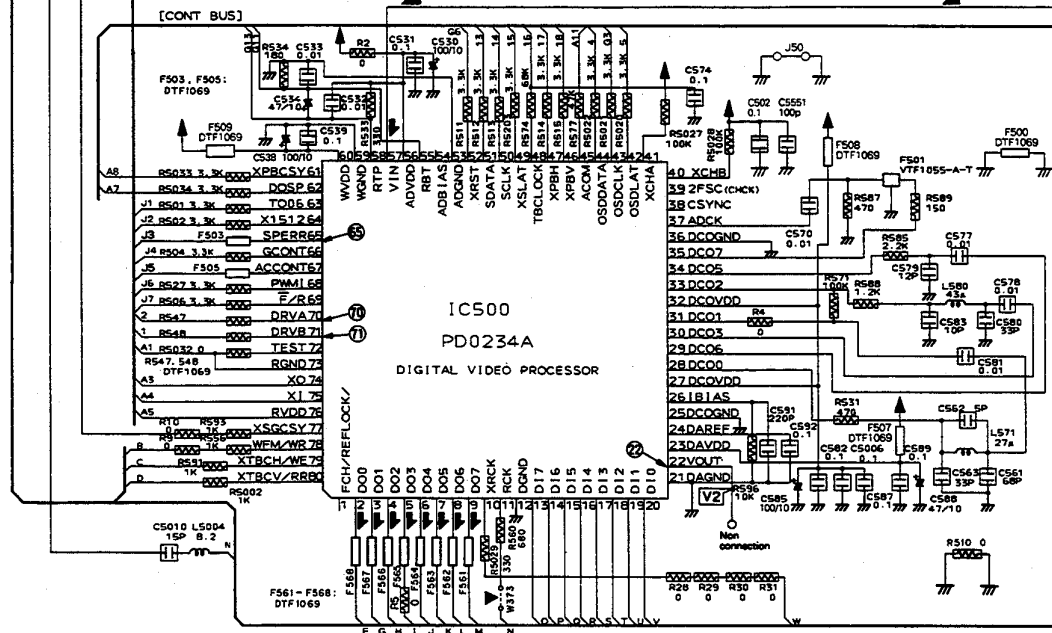
[CONT BUS]

	DRV A	DRV B
SIDE A PLAY	ACCEL	BRAKE
SIDE B PLAY	BRAKE	ACCEL

[SERVO BUS]

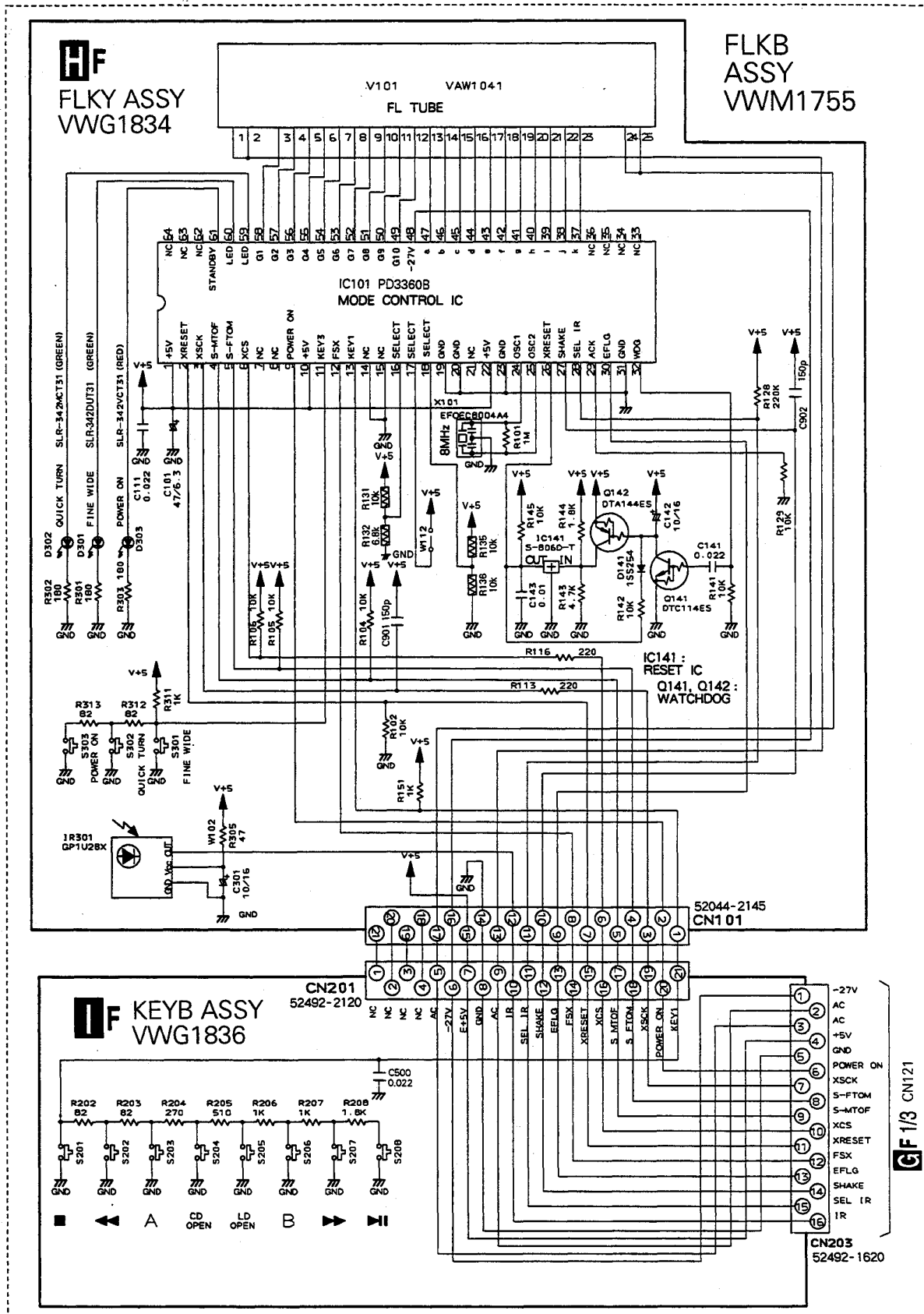


[CONT BUS]

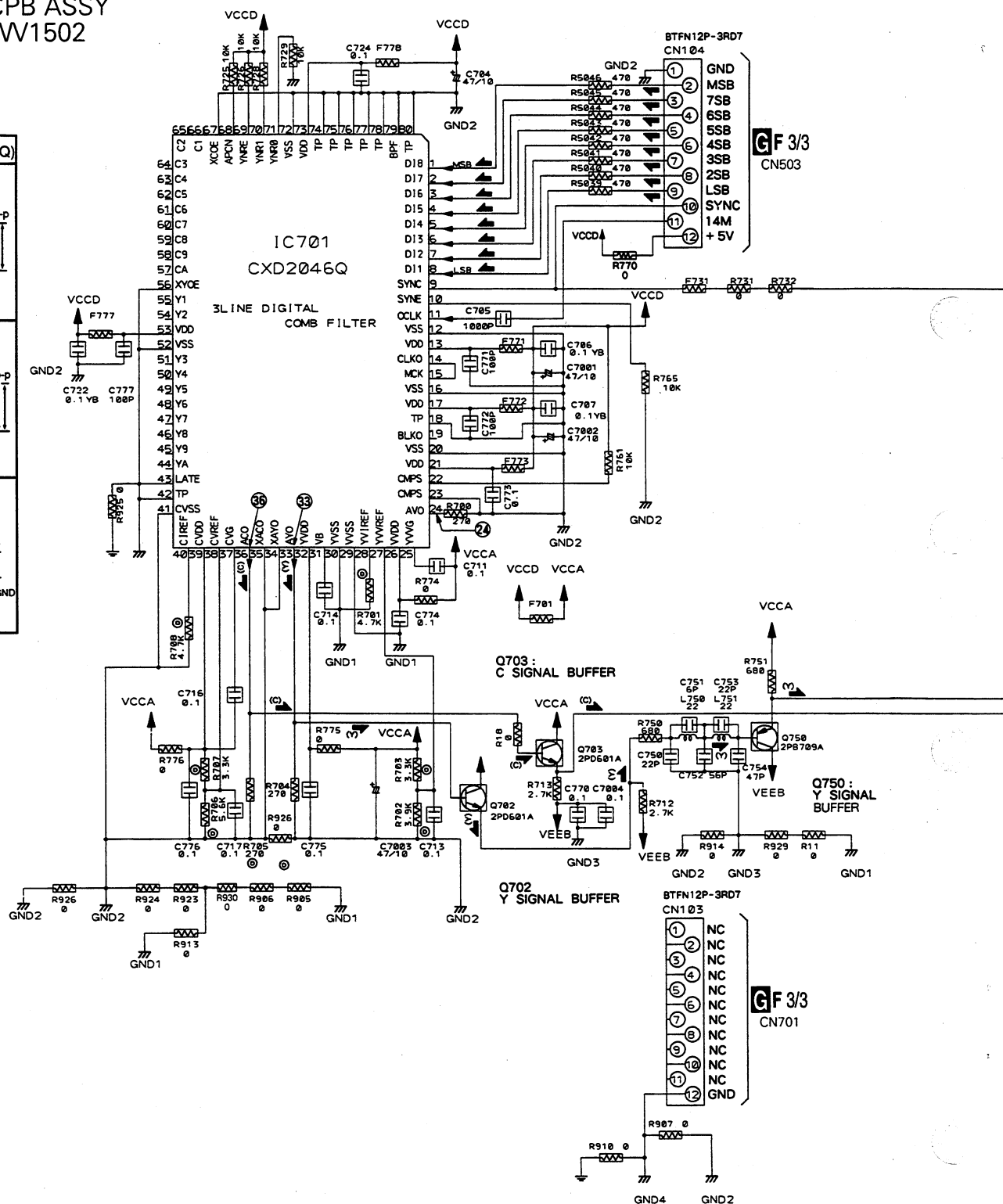


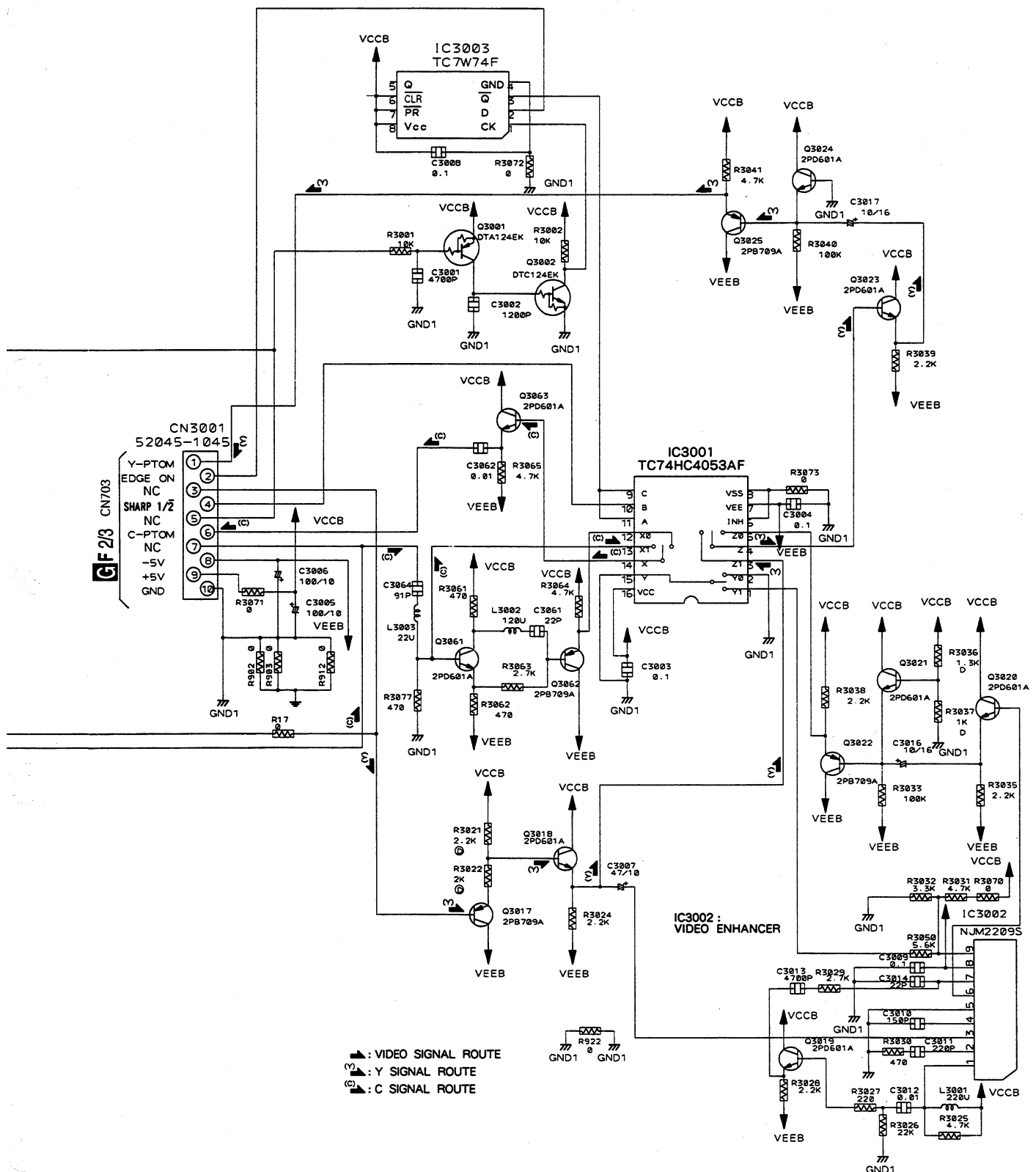


2.4 FLKY AND KEYB ASSEMBLIES



YCPB ASSY
VWV1502

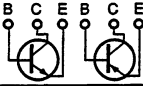
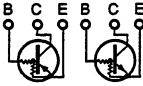
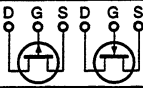
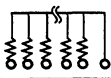




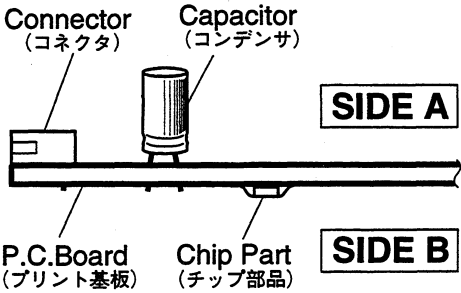
3. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

- 1. Part numbers in PCB diagrams match those in the schematic diagrams.
- 2. A comparison between the main parts of PCB and schematic diagrams is shown below.

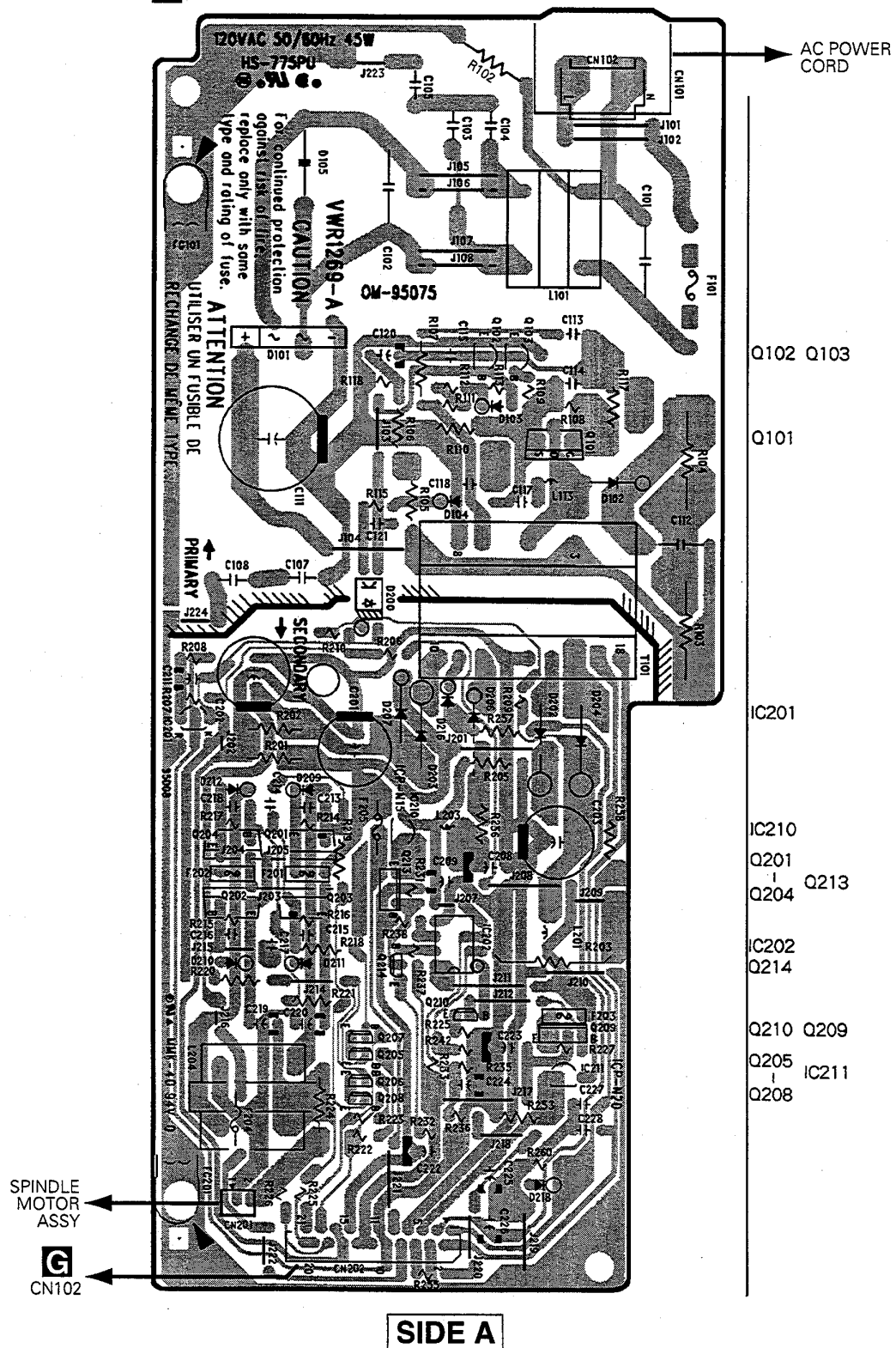
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

- 3. The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.
- 4. View point of PCB diagrams.



3.1 POWER SUPPLY ASSY

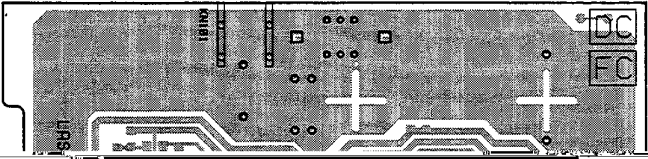
FF POWER SUPPLY ASSY



CLD-D606

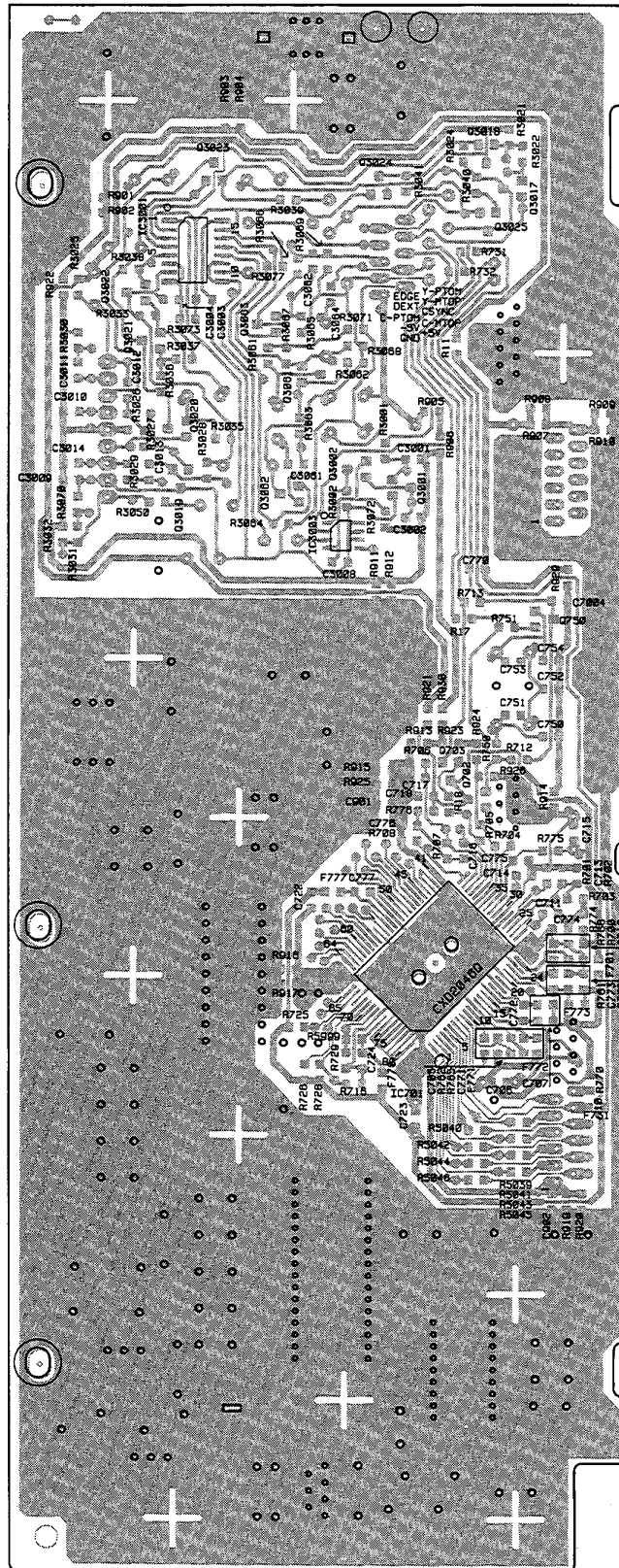
3.2 YCPB ASSY

JF YCPB ASSY



JF YCPB ASSY

Q3018
 Q3023 Q3024
 Q3017
 Q3025
 IC3001
 Q3022
 Q3063
 Q3021
 Q3061
 Q3020
 Q3002
 Q3062 Q3001
 Q3019 IC3003
 Q750
 Q703
 Q702
 IC701

**SIDE B**