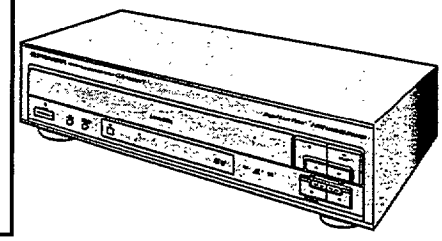
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
RRV1704

CD/VIDEO CD/LD PLAYER

CLD-S500VT

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

Type	Model	Power Requirement	Remarks
	CLD-S500VT		
TD	O	AC110 – 240V	

CONTENTS

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-FZB NOV. 1996 Printed in Japan

1. SAFETY INFORMATION

VARO!
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVERSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING!
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

LASER
Kuva 1
Lasersateilyn varoitusmerkki

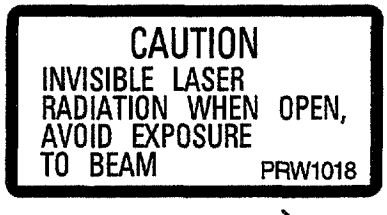
WARNING!
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

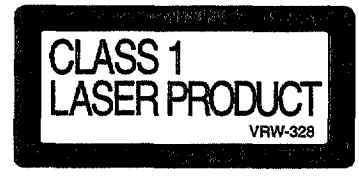
IMPORTANT
THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

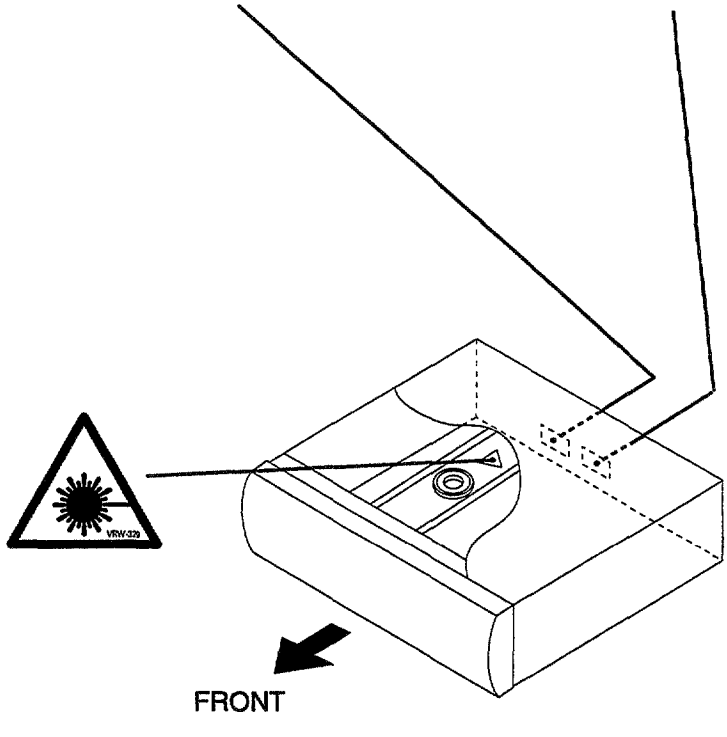
LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780-785 nm

LASER
Picture 1
Warning sign for laser radiation

LABEL CHECK







Additional Laser Caution

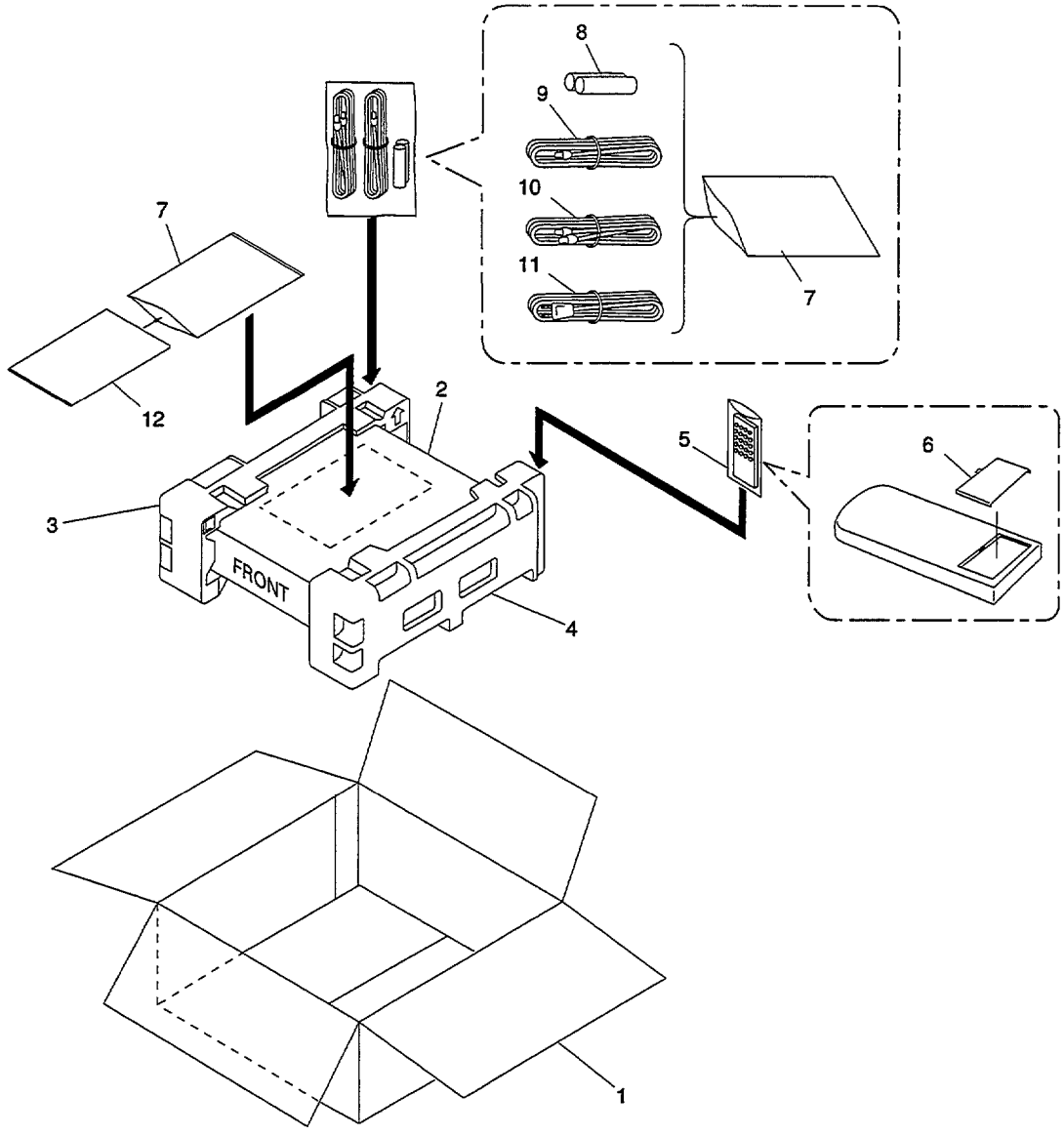
1. The ON/OFF statuses of the slider-position detection switches (PARK INNER, PARK OUTER on the PKSB assy), loading-status detection switches (SW 1, 2 and 3 on LMSB assy) are detected by the microprocessor (IC101 in the MOTHER assy). To permit the laser diode to oscillate, it is required to set the slider-position detection switch for the LD ACTIVE status (PARK INNER : OFF, PARK OUTER : OFF), and to set the loading-status detection switch for tilt neutral state (SW1 : OFF, SW2 : OFF, SW3 : ON). As long as these requirements are not satisfied, the laser diode will not oscillate. When the requirements are met in any way, the laser diode can oscillate. The laser diode oscillation will continue it pin 13 of IC801 is shorted to GND or the emitter and collector of Q834 are shorted each other (fault condition) in MOTHER assy.
   In test mode ✻, the laser diode oscillates when microprocessor detects a PLAY signal, or when the PLAY key is pressed (S205 ON on the KEYB assy), with the above requirements satisfied.
2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

✻ : Refer to page 37.

2. EXPLODED VIEWS AND PARTS LIST

NOTES: • *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
• *The ⚠ 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 product are used for disassembly.*

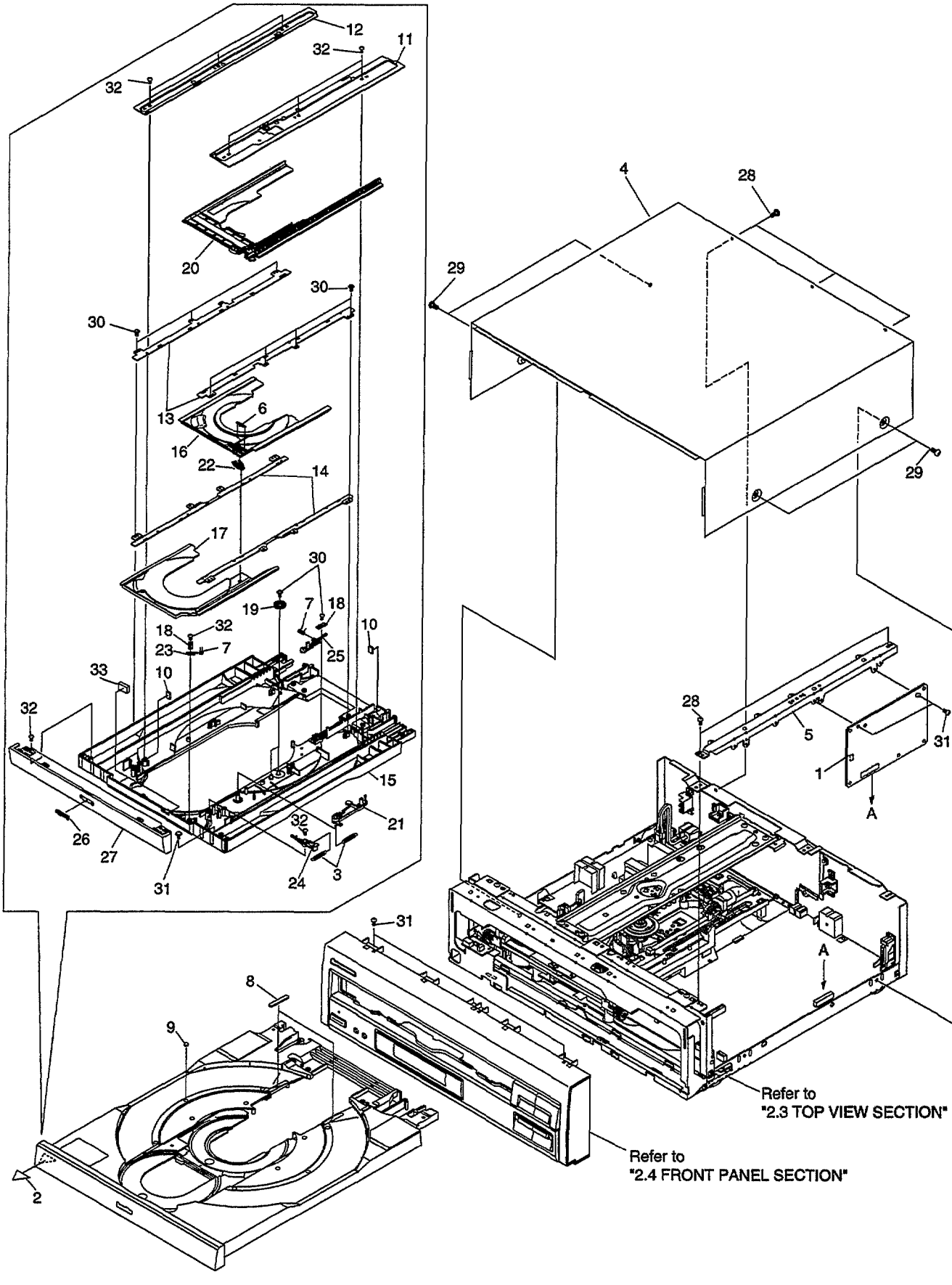
2.1 PACKING



Parts List

Mark	No.	Description	Parts No.
	1	Packing Case	VHG1656
	2	Mirror Mat Sheet	DHL1006
	3	Pad L	VHA1187
	4	Pad R	VHA1188
	5	Remote Control Unit (CU – CLD147)	VXX2503
	6	Battery Cover	VNK3703
	7	Polyethylene Bag(0.03X230X340)	Z21 – 038
NSP	8	Dry Cell Battery (R6P, AA)	VEM – 013
	9	Video Cord (L=1.5m)	VDE1050
	10	Audio Cord (L=1.5m)	VDE1049
⚠	11	Power Code	ADG1158
	12	Operating Instructions (English/ChineseX2)	VRE1063

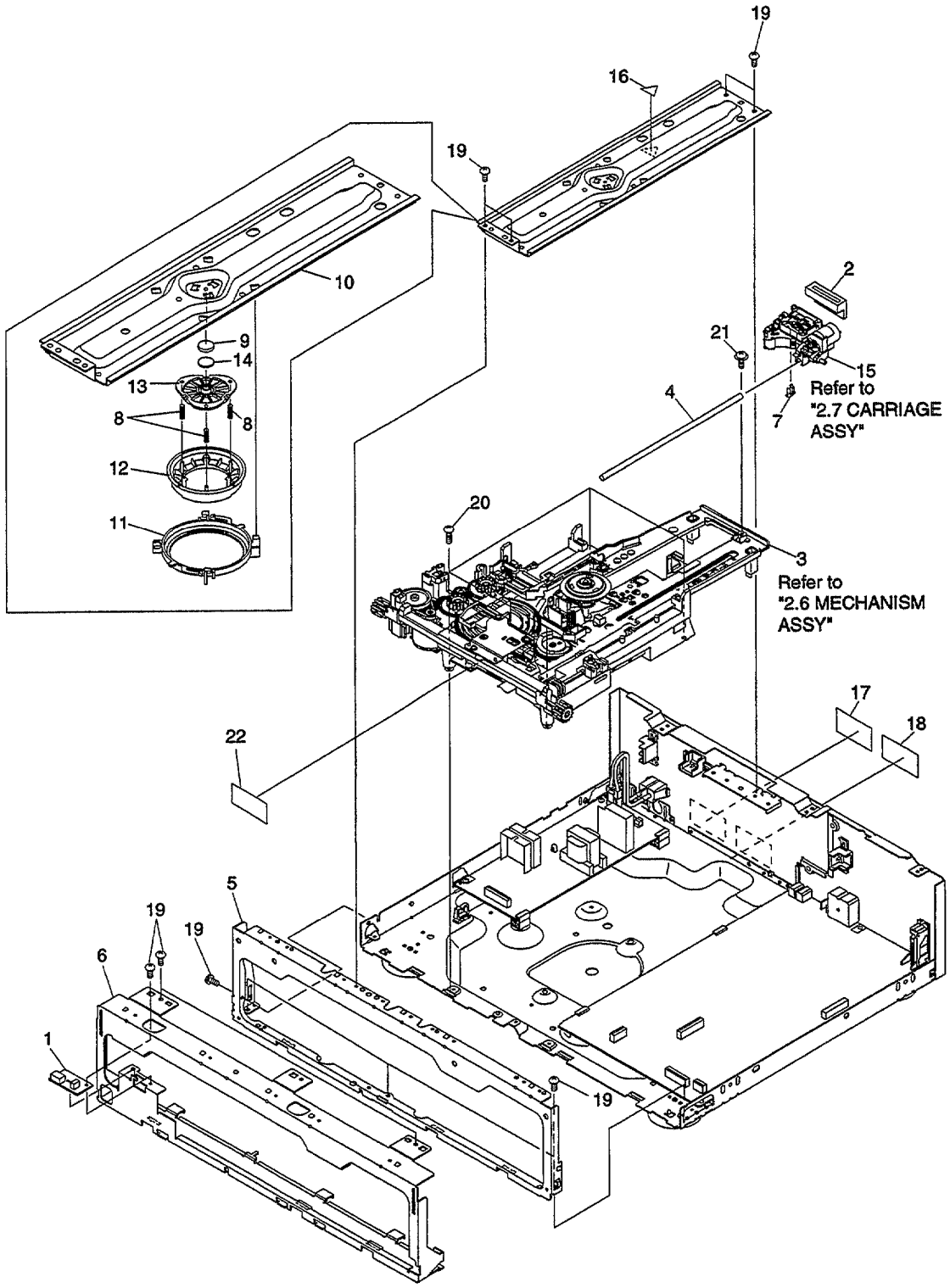
2.2 EXTERIOR AND DISC TRAY SECTION



Parts List

Mark	No.	Description	Parts No.
	1	VCDB Assy	VWV1508
NSP	2	Getter B	VRW1645
	3	Lock Plate Spring	VBH1188
	4	Bonnet Case S	VXX2515
NSP	5	PCB Holder	VNE2087
	6	Lock Pin Spring	VBH1292
	7	Valve Spring	VBH1293
	8	Disc Pad (C)	VEC1380
	9	Cushion	VEC1682
	10	Damp Cushion	VEC1683
	11	Guide Plate (L)	VNE2100
	12	Guide Plate (R)	VNE2101
	13	CD Guide I	VNE2102
	14	CD Guide Z	VNE2103
	15	LD Tray	VNK3968
	16	CD Tray A	VNK3969
	17	CD Tray B	VNK3970
	18	Door Holder	VNL1697
	19	T18 Gear	VNL1772
	20	Tray Base	VNL1773
	21	Lock Plate	VNL1774
	22	Lock Pin	VNL1775
	23	Cam Valve	VNL1776
	24	Change Lever	VNL1777
	25	Center Lock	VNL1778
	26	LD Name Plate	VAM1006
	27	Tray Panel	VNK3972
	28	Screw	BBZ30P080FMC
	29	Screw	BCZ40P060FZK
	30	Screw	IPZ20P060FMC
	31	Screw	IBZ30P080FMC
	32	Screw	BPZ30P080FMC
NSP	33	Cushion	VEC1928

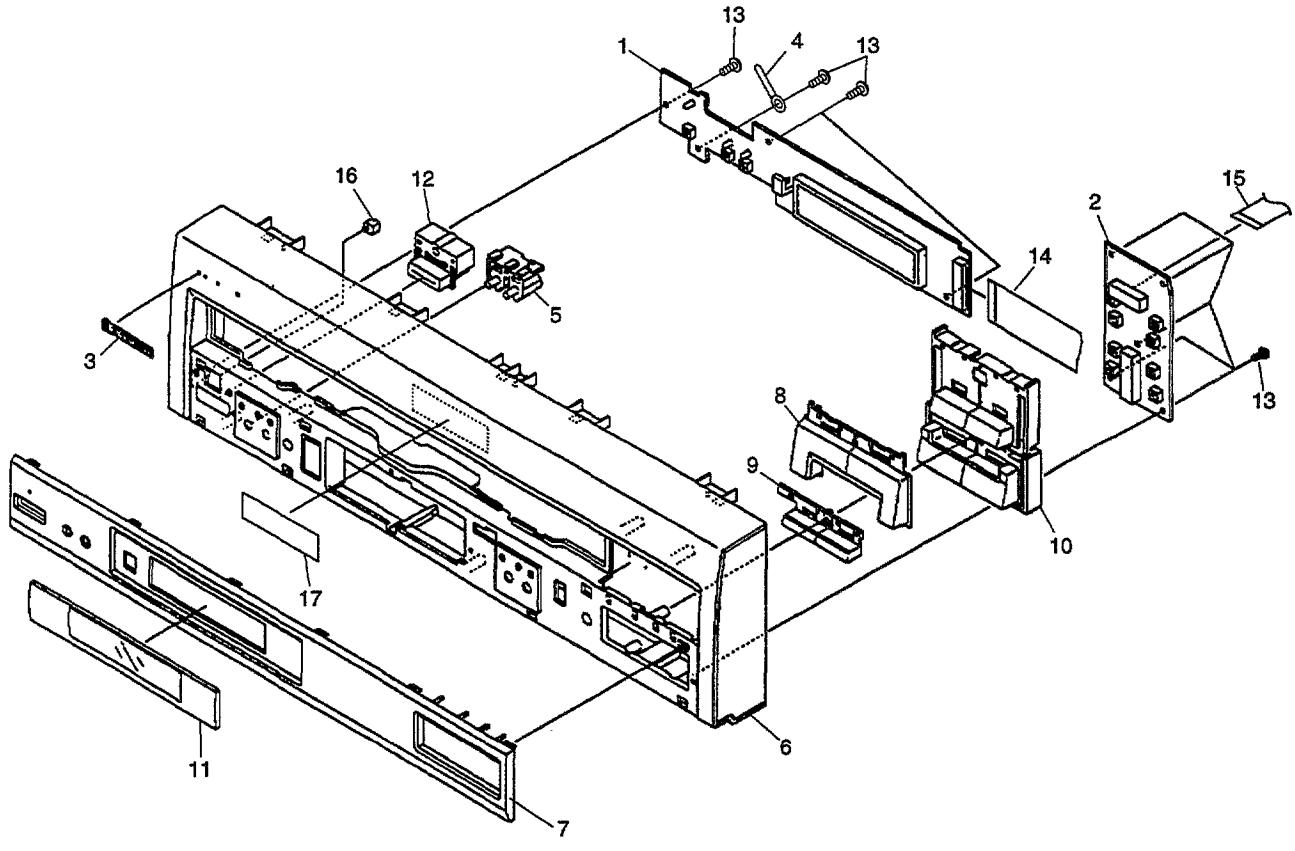
2.3 TOP VIEW SECTION



Parts List

Mark	No.	Description	Parts No.
NSP	1	MSWB Assy	VWV1530
	2	FFC Holder	VNL1706
NSP	3	Mechanism Assy	VWT1109
	4	Shaft	VLL1481
NSP	5	Panel Holder	VNA1835
NSP	6	Plus Holder	VNE2105
	7	CA Hook	VNL1698
	8	Clamper Spring	VBH1192
	9	Rubber Mat	VEB1114
	10	Clamper Arm	VNE2022
	11	Clamper Holder	VNL1636
	12	Clamper	VNL1648
	13	Clamper Head	VNL1649
	14	Thrust Holder	VNL1663
	15	Carriage Assy	VWT1110
	16	Caution Label (G)	VRW – 329
	17	Caution Label	PRW1018
NSP	18	Caution Label (F)	VRW – 328
	19	Screw	BBZ30P080FMC
	20	Screw	BBZ30P100FMC
	21	Screw	IBZ30P080FMC
NSP	22	Sheet	VEC1927

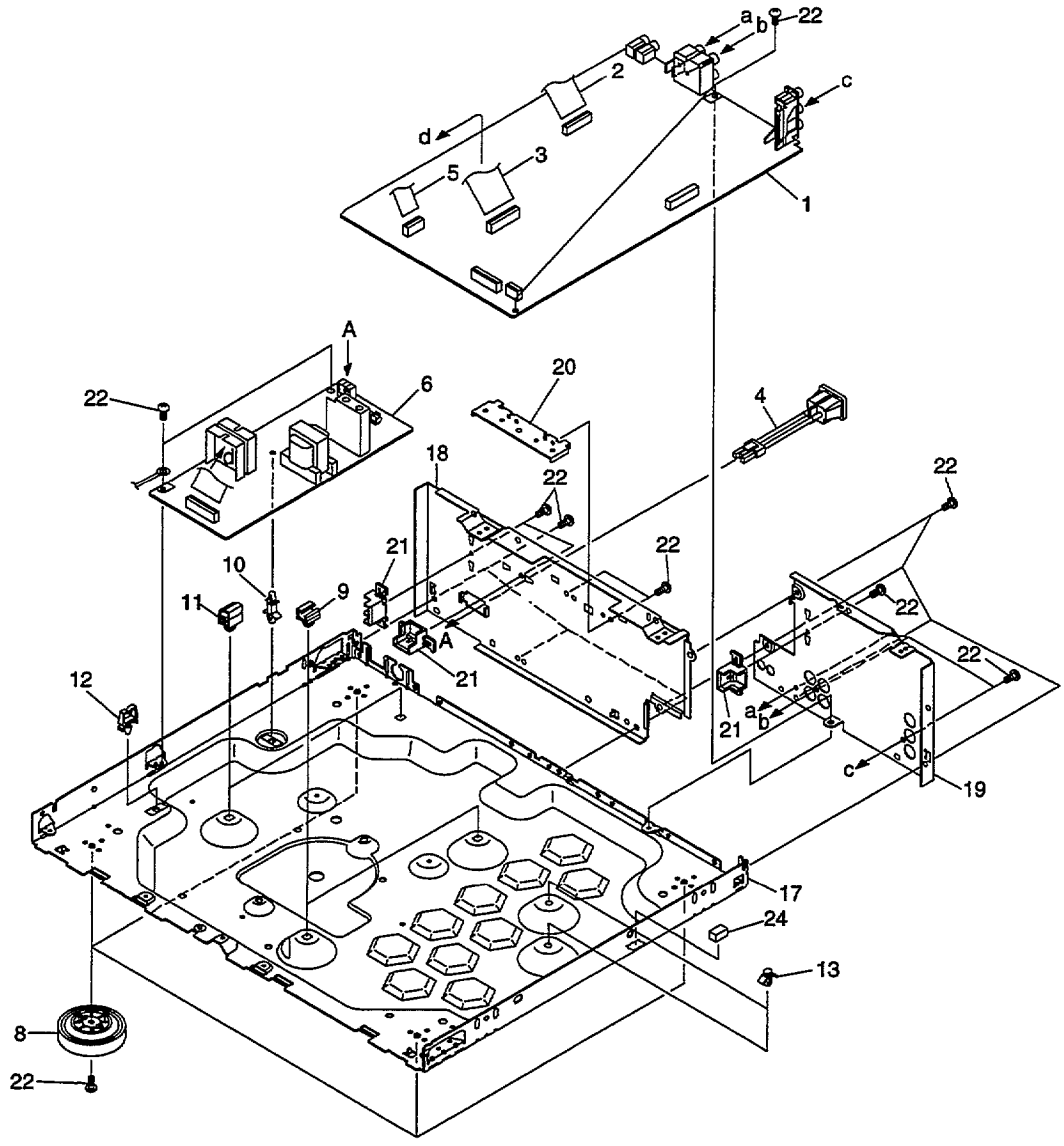
2.4 FRONT PANEL SECTION



Parts List

Mark	No.	Description	Parts No.
	1	FLKY Assy	VWG1822
NSP	2	KEYB Assy	VWG1821
	3	Name Plate	PAM1608
NSP	4	Cord Stopper	ZCB – 069Z
	5	L Key C	VNK3070
	6	Front Panel	VNK3971
	7	Sub Panel	VNK3996
	8	Open Key	VNK4002
	9	Skip Key	VNK3935
	10	Main Key	VNK3965
	11	FL Lens	VEC1903
	12	Power Button	VNK2329
	13	Screw	BBZ30P080FMC
	14	Flexible Cable (21P) (FLKY CN101 – KEYB CN201)	VDA1567
	15	Flexible Cable (22P) (KEYB CN202 – MOTHER CN104)	VDA1551
	16	LED Lens	PNW2019
NSP	17	Getter A	VRW1644

2.5 BOTTOM VIEW SECTION

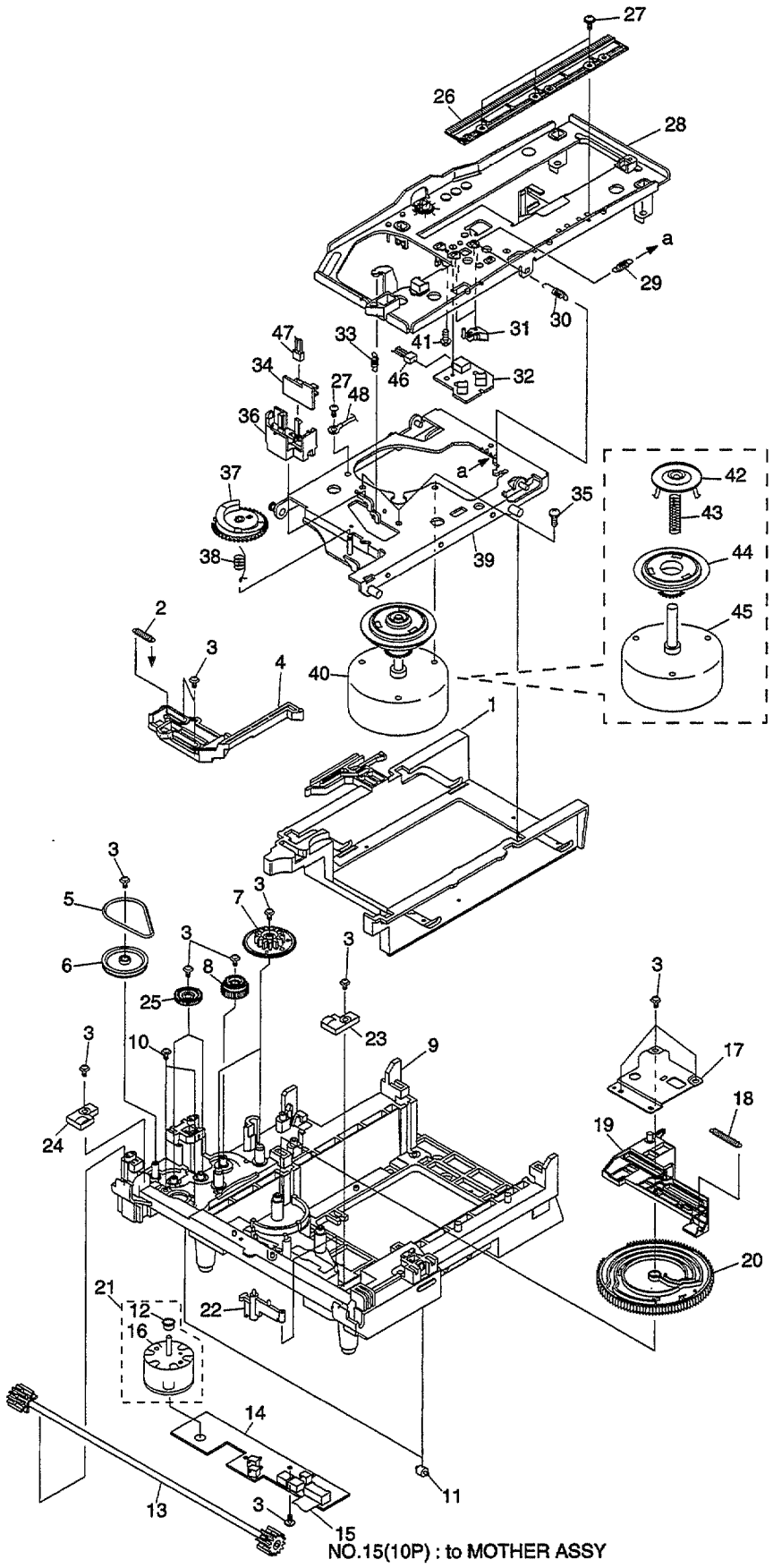


Parts List

Mark	No.	Description	Parts No.
	1	MOTHER Assy	VWS1296
	2	Flexible Cable (23P)	VDA1464
		(MOTHER CN103 – CARRIAGE CN101)	
	3	Flexible Cable (21P)	VDA1465
		(MOTHER CN102 – POWER SUPPLY CN3)	
⚠	4	AC Inlet Assy	VKP2116
	5	Connector Assy	VKP2133
⚠	6	Power Supply Assy	VWR1267
	7	.....	
	8	Insulator	PNW1912
NSP	9	P Plate Holder	PNY – 405
NSP	10	PC Support	VEC – 269
	11	PCB Hinge	VEC1174
NSP	12	Wire Clip (H)	VEC1181
	13	Card Spacer	VEC1708

Mark	No.	Description	Parts No.
	14	.....	
	15	.....	
	16	.....	
NSP	17	Chassis	VNA1461
	18	Rear Panel R	VNA1824
	19	Rear Panel L	VNA1834
	20	Rear Angle	VNE2024
	21	Tray Stopper	VNL1657
	22	Screw	BBZ30P080FMC
	23	.....	
	24	FL Spacer	REB1171

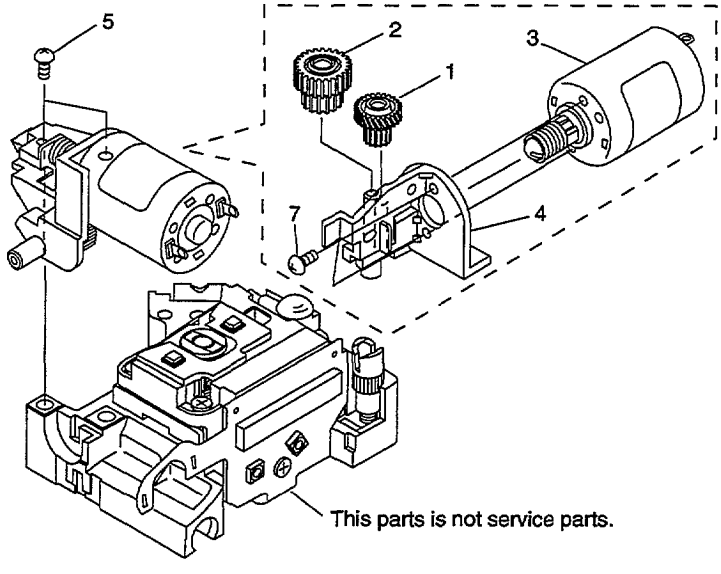
2.6 MECHANISM ASSY



Parts List

Mark	No.	Description	Parts No.
	1	Clamp Cam	VNL1633
	2	CDP Spring	VBH1191
	3	Screw	Z39 – 019
	4	CD Plate	VNL1632
	5	Rubber Belt	VEB1184
	6	Gear Pulley	VNL1662
	7	Twin Gear	VNL1626
	8	Center Gear	VNL1660
	9	Mechanism Base	VNK3239
	10	Screw	BMZ26P040FMC
	11	Roller	VNL1042
NSP	12	Motor Pulley	VNL1630
	13	Synchro Gear Assy	VXA2105
NSP	14	LMSB Assy	VWG1554
	15	Flexible Cable (10P)	VDA1466
	16	Carriage Motor	VXM1033
	17	Shaft Holder	VNE1942
	18	CAS Spring	VBH1190
	19	Cam Plate	VNL1631
	20	Cam Gear	VNL1625
	21	Loading Motor Assy	VXX2045
	22	MB – Switch Lever	VNL1664
	23	Slider (R)	VNL1666
	24	Slider (L)	VNL1665
	25	Double Gear	VNL1661
	26	CA Rack	VNL1647
	27	Screw	IBZ26P060FMC
	28	Tilt Base	VNL1642
	29	Radial Spring	VBH1246
	30	Thrust Spring	VBH1245
	31	CA – Switch Lever	VNL1644
NSP	32	PKSB Assy	VWG1555
	33	Tilt Tension Spring	VBH1244
NSP	34	FG Assy	VWG1556
	35	Screw	PMA30P050FMC
	36	FG Base	VNL1781
	37	Tilt Cam	VNL1643
	38	Tilt Cam Spring	VBH1243
	39	Motor Base	VNE1941
	40	Spindle Motor Assy	VXA2125
	41	Screw	IBZ26P120FMC
	42	Centering Hab	VNL1623
	43	Centering Spring	VBH1083
NSP	44	R – Turn Table Assy	VXA2216
NSP	45	Spindle Motor	VXM1057
	46	Housing ASSY(3P:blue)	VKP2045
	47	Housing ASSY(3P:yellow)	VKP2046
NSP	48	Earth Lead Unit	XDF – 507

2.7 CARRIAGE ASSY

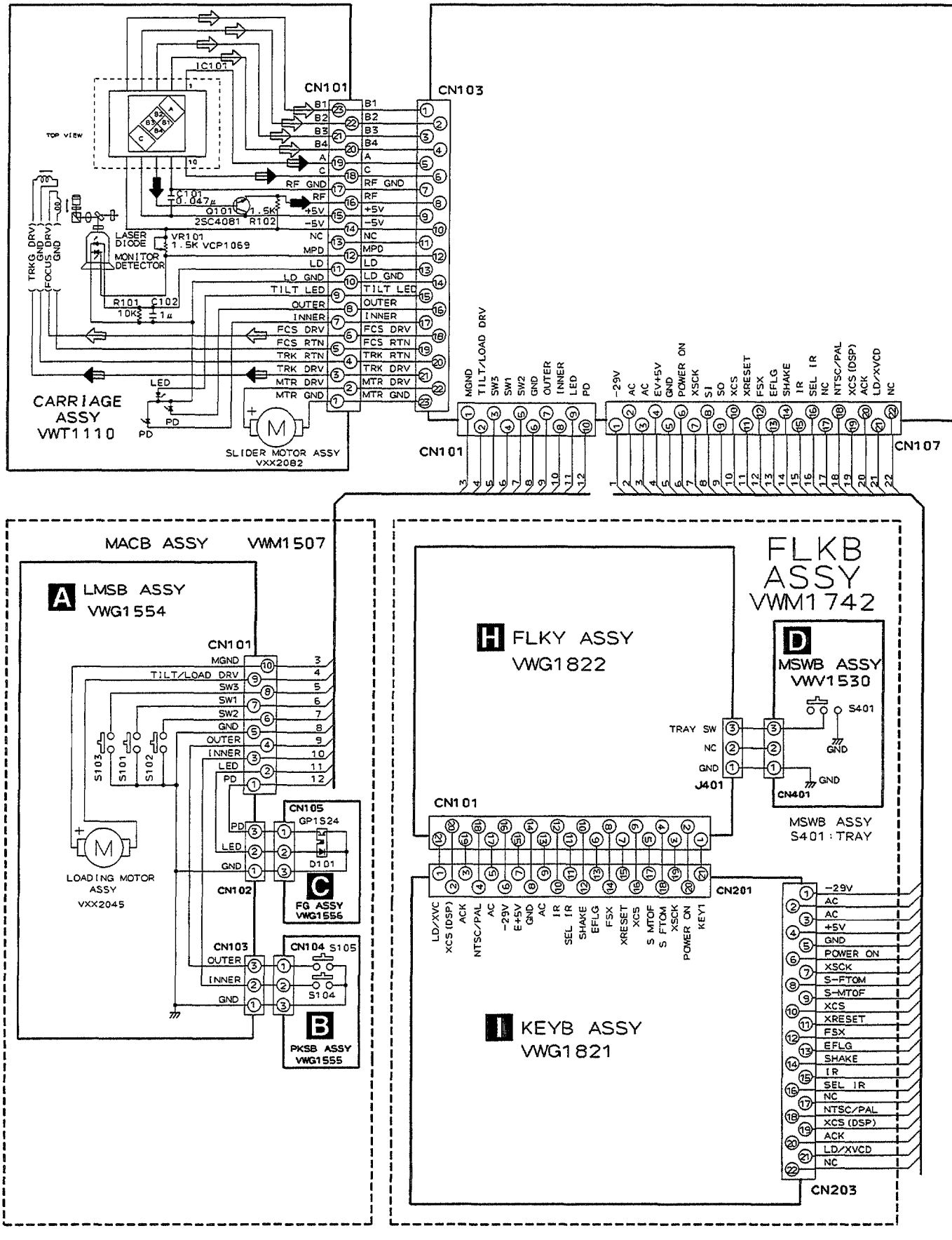


Parts List

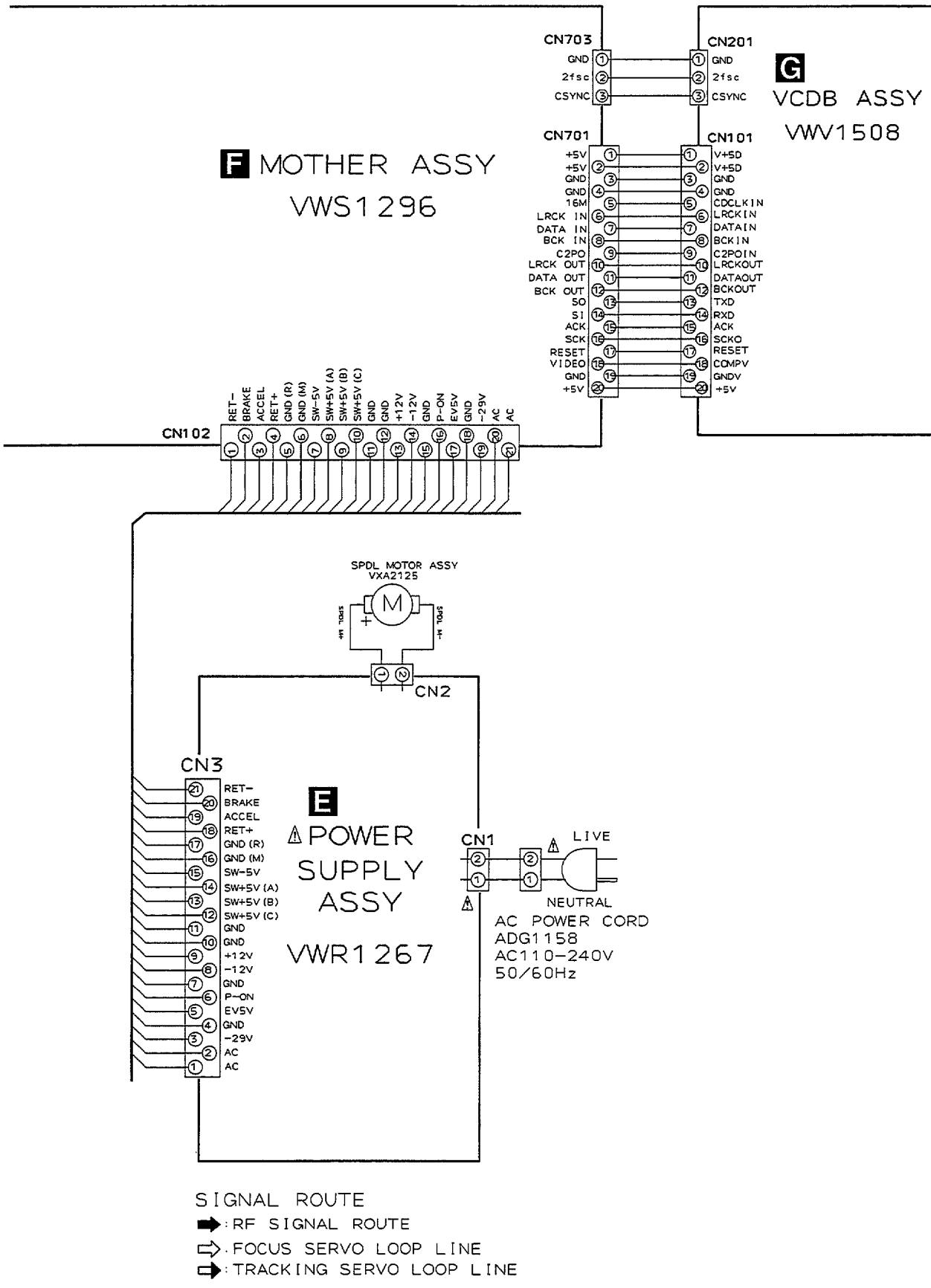
Mark	No.	Description	Parts No.
	1	CA Gear (A)	VNL1638
	2	CA Gear (B)	VNL1639
	3	Slider Motor Assy	VXX2082
	4	Motor Holder	VNL1700
	5	Screw	PBZ20P050FMC
	6	.....	
	7	Screw	PMZ20P030FMC

3. SCHEMATIC DIAGRAM

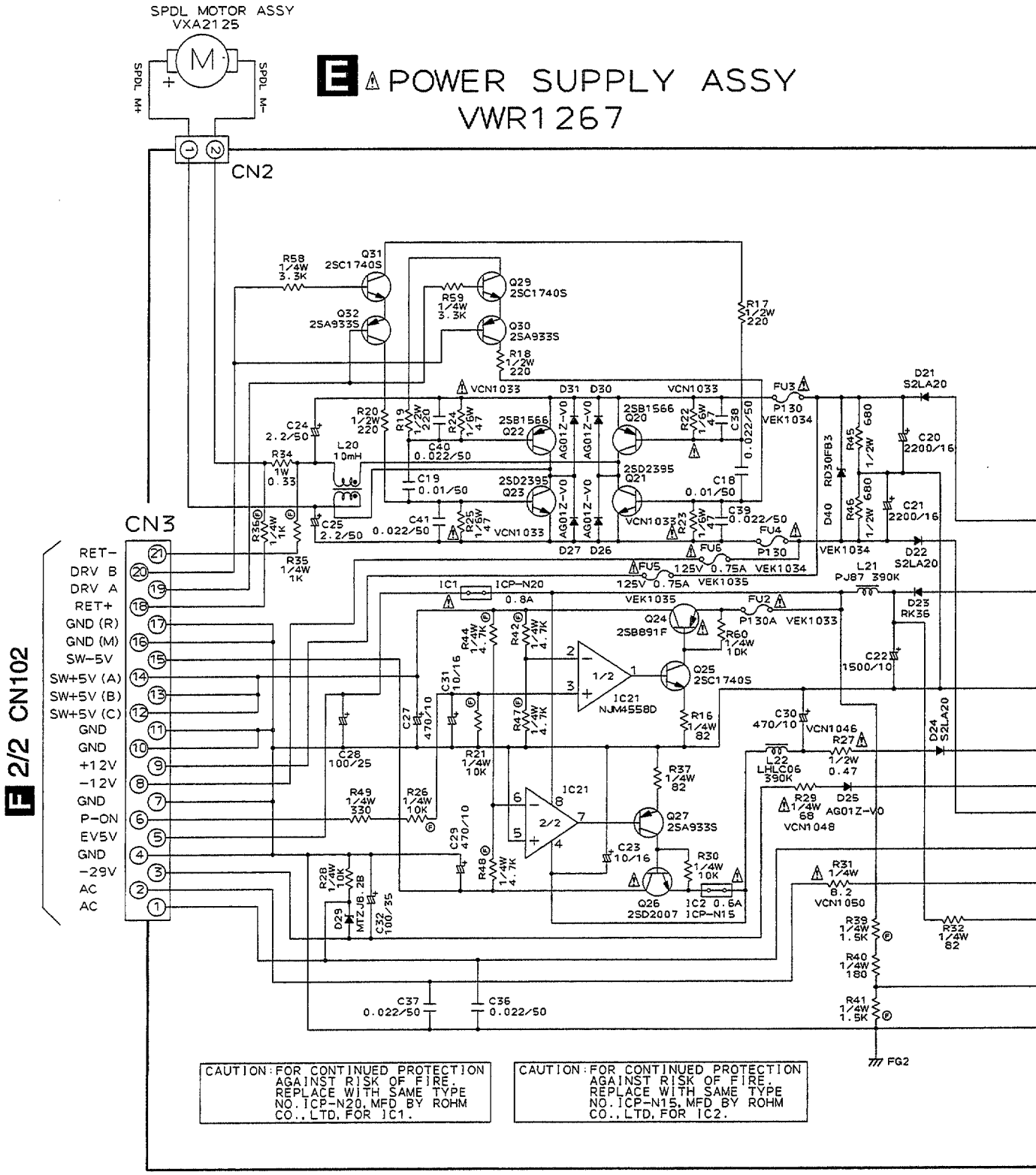
3.1 OVERALL CONNECTION, LMSB, PKSB, FG AND MSWB ASSY



Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST".

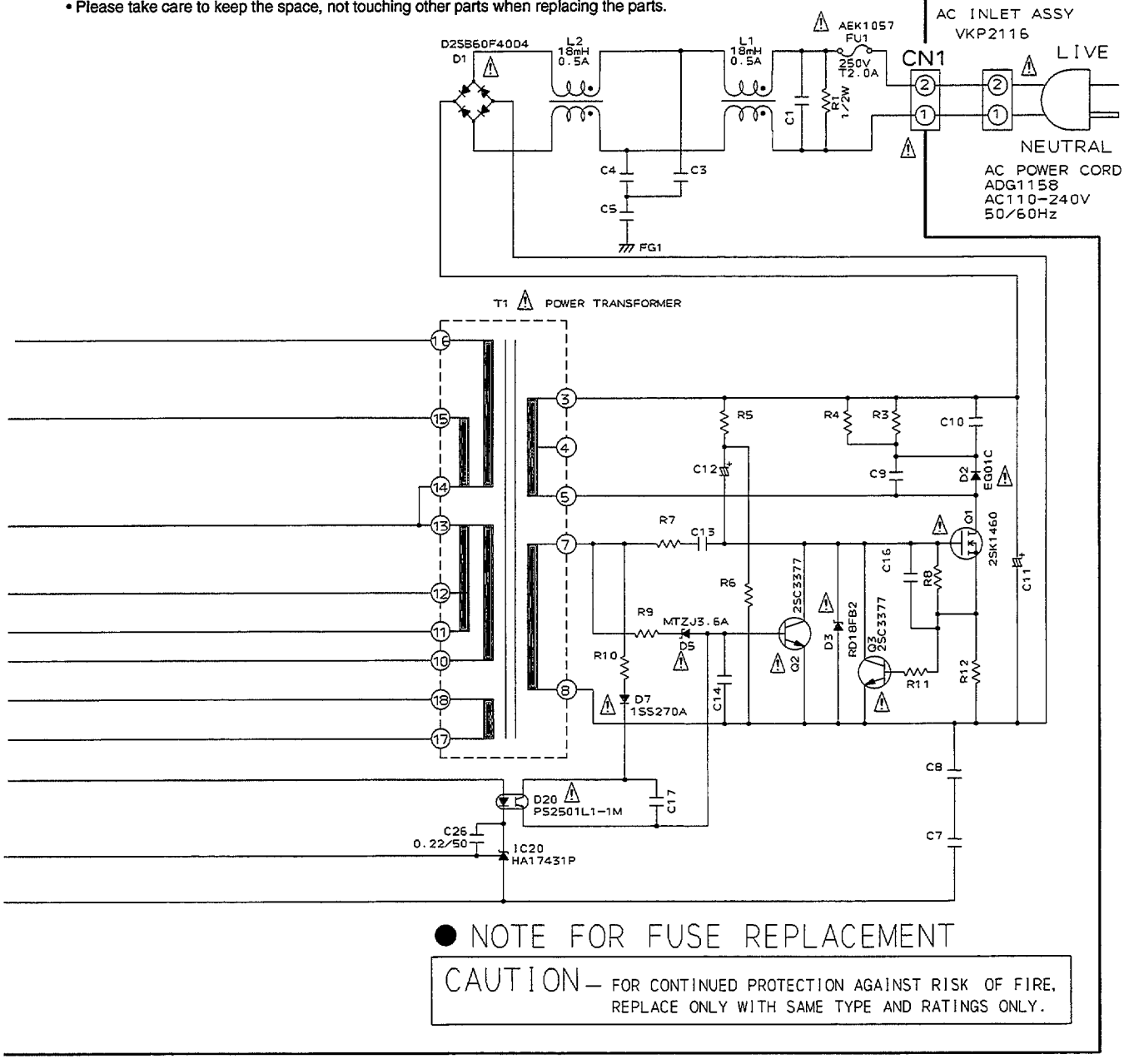


3.2 POWER SUPPLY ASSY



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

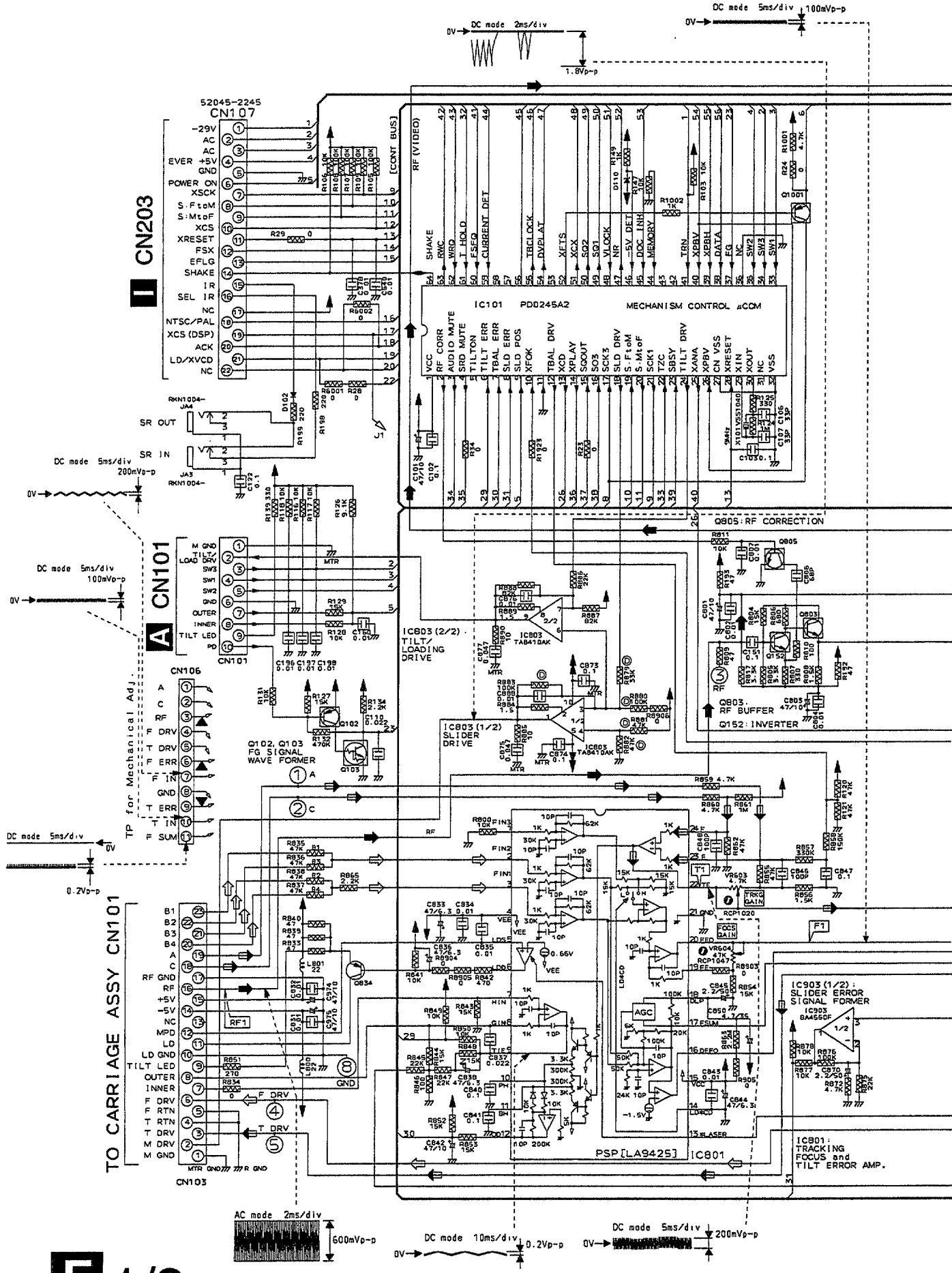
- In case of repairing, use the described parts only to prevent an accident.
- Please write the red✓ mark on the board when the primary section of POWER SUPPLY (SYPS) Assy is repaired.
- Please take care to keep the space, not touching other parts when replacing the parts.

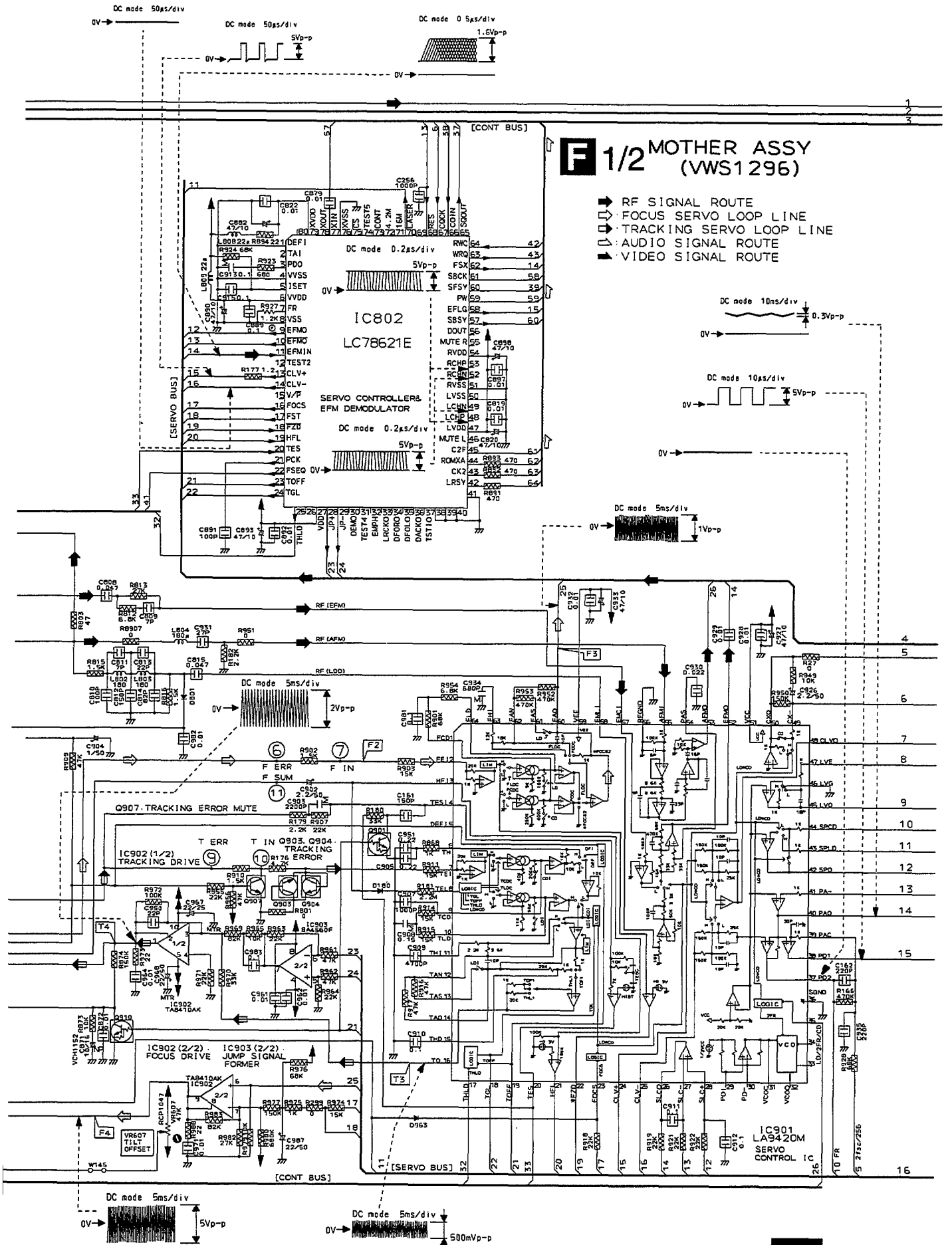


● NOTE FOR FUSE REPLACEMENT

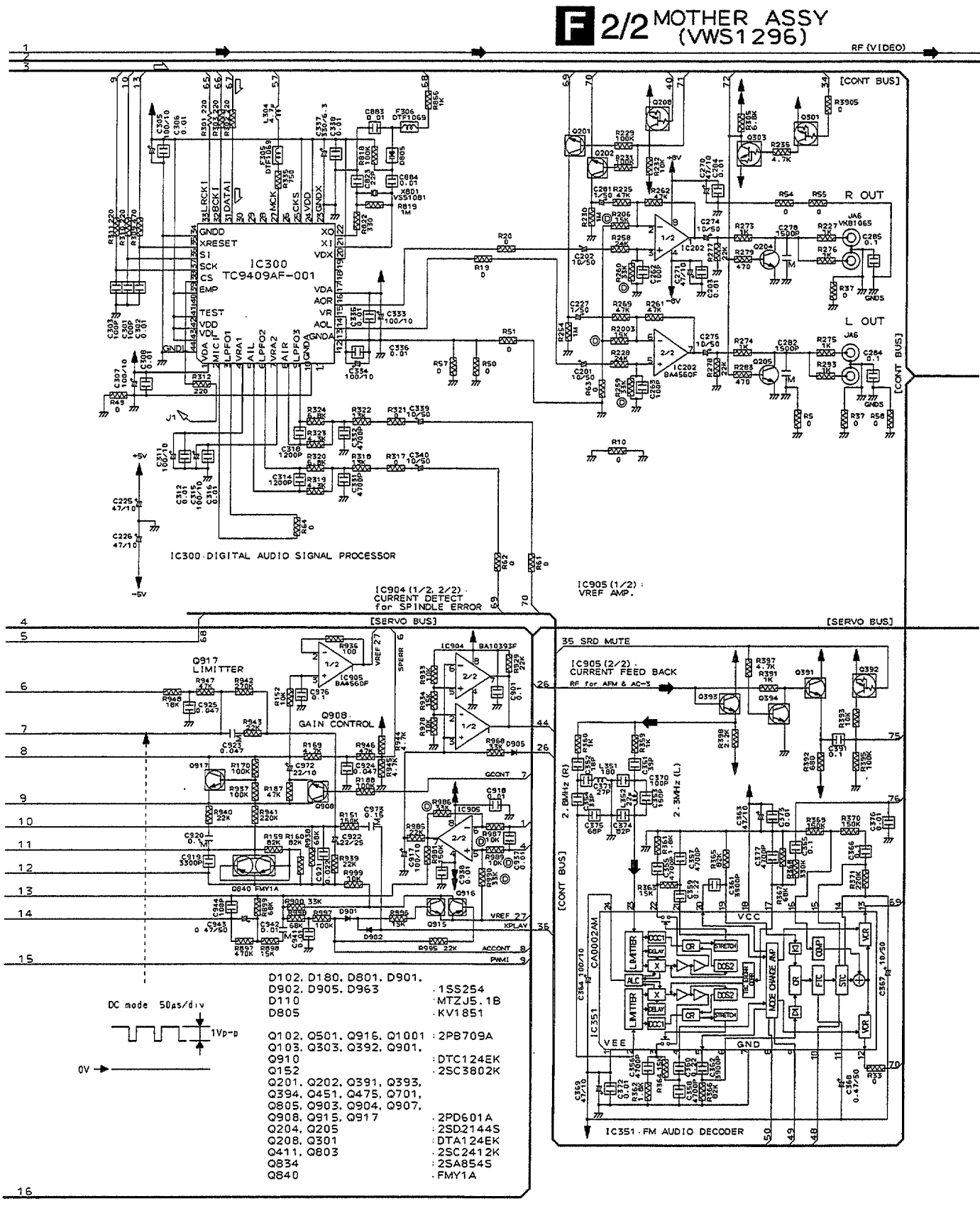
CAUTION— FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

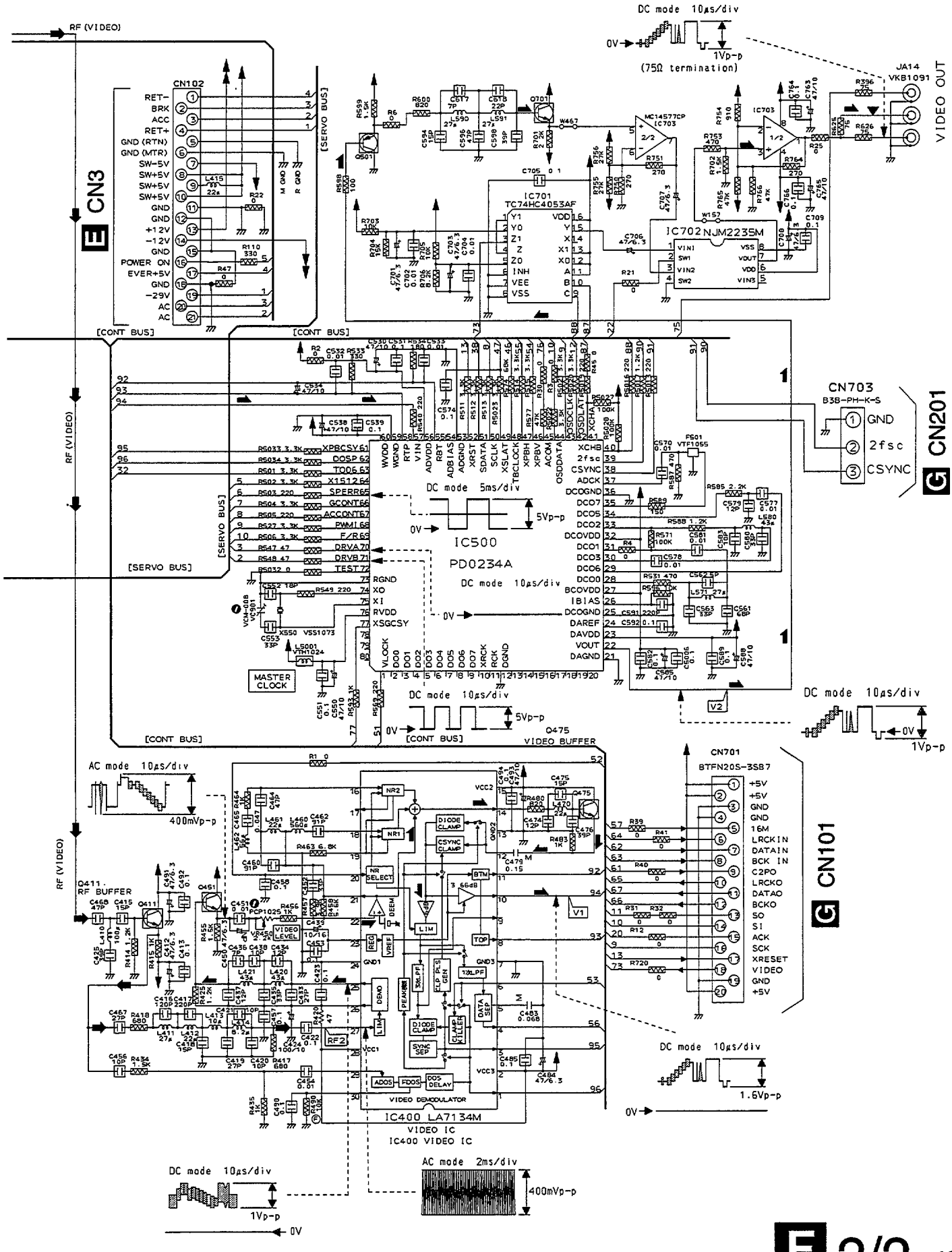
3.3 MOTHER ASSY(1/2)



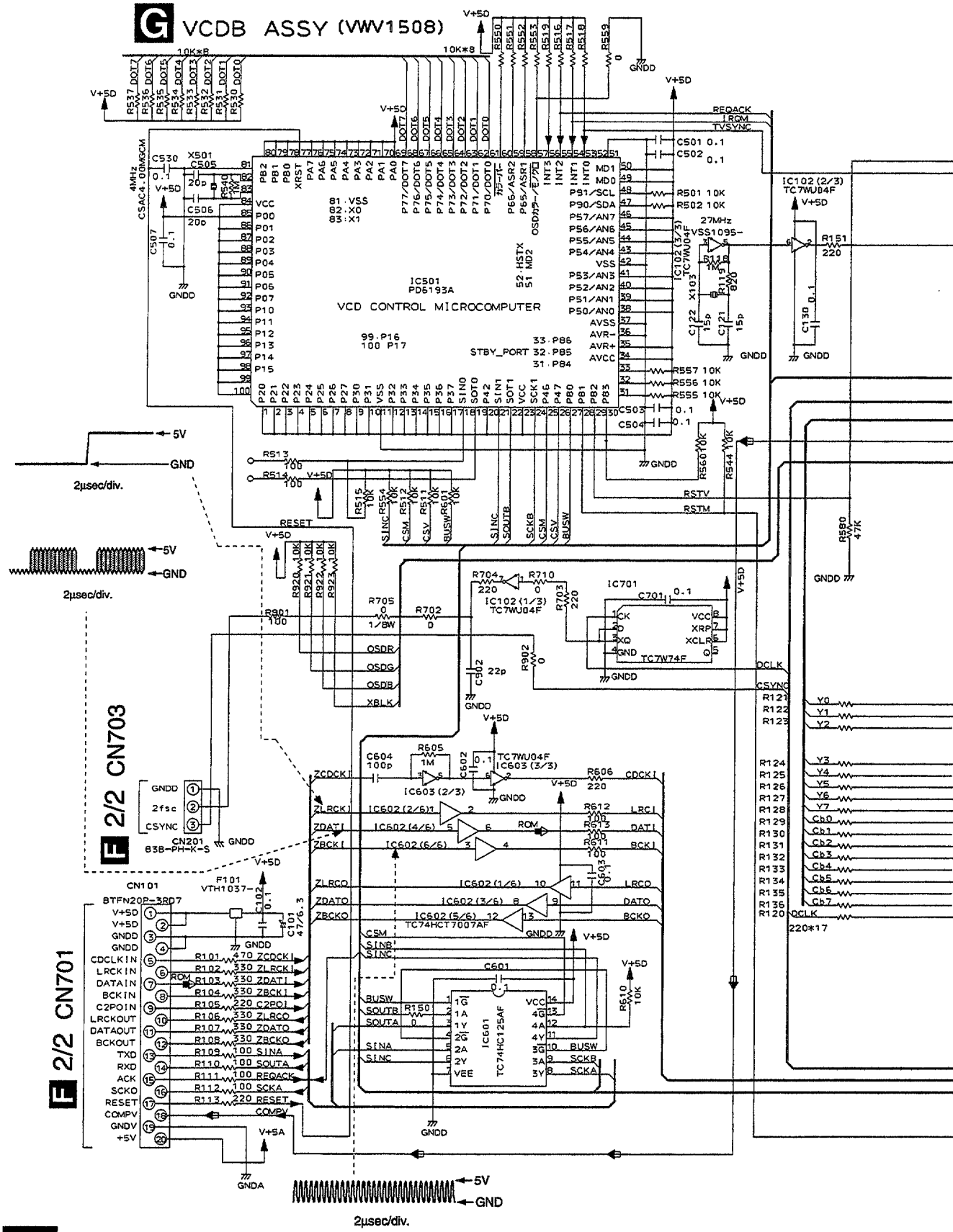

F 1/2 MOTHER ASSY (VWS1296)
RF SIGNAL ROUTE
FOCUS SERVO LOOP LINE
TRACKING SERVO LOOP LINE
AUDIO SIGNAL ROUTE
VIDEO SIGNAL ROUTE
IC802
LC78621E
SERVO CONTROLLER& EFM DEMODULATOR
IC901
LA9420M
SERVO CONTROL IC
[CONT BUS]
[SERVO BUS]
Q907 TRACKING ERROR MUTE
IC902(1/2) TRACKING DRIVE
IC902(2/2) FOCUS DRIVE
IC903(2/2) JUMP SIGNAL FORMER
VR607 TILT OFFSET
F ERR
F IN
F SUM
T ERR
T IN Q903, Q904 TRACKING ERROR
RF (EFM)
RF (AFM)
RF (LOD)
DC mode 50µs/div
DC mode 0.5µs/div
DC mode 0.2µs/div
DC mode 10ms/div
DC mode 10µs/div
DC mode 5ms/div
DC mode 5ms/div
DC mode 5ms/div

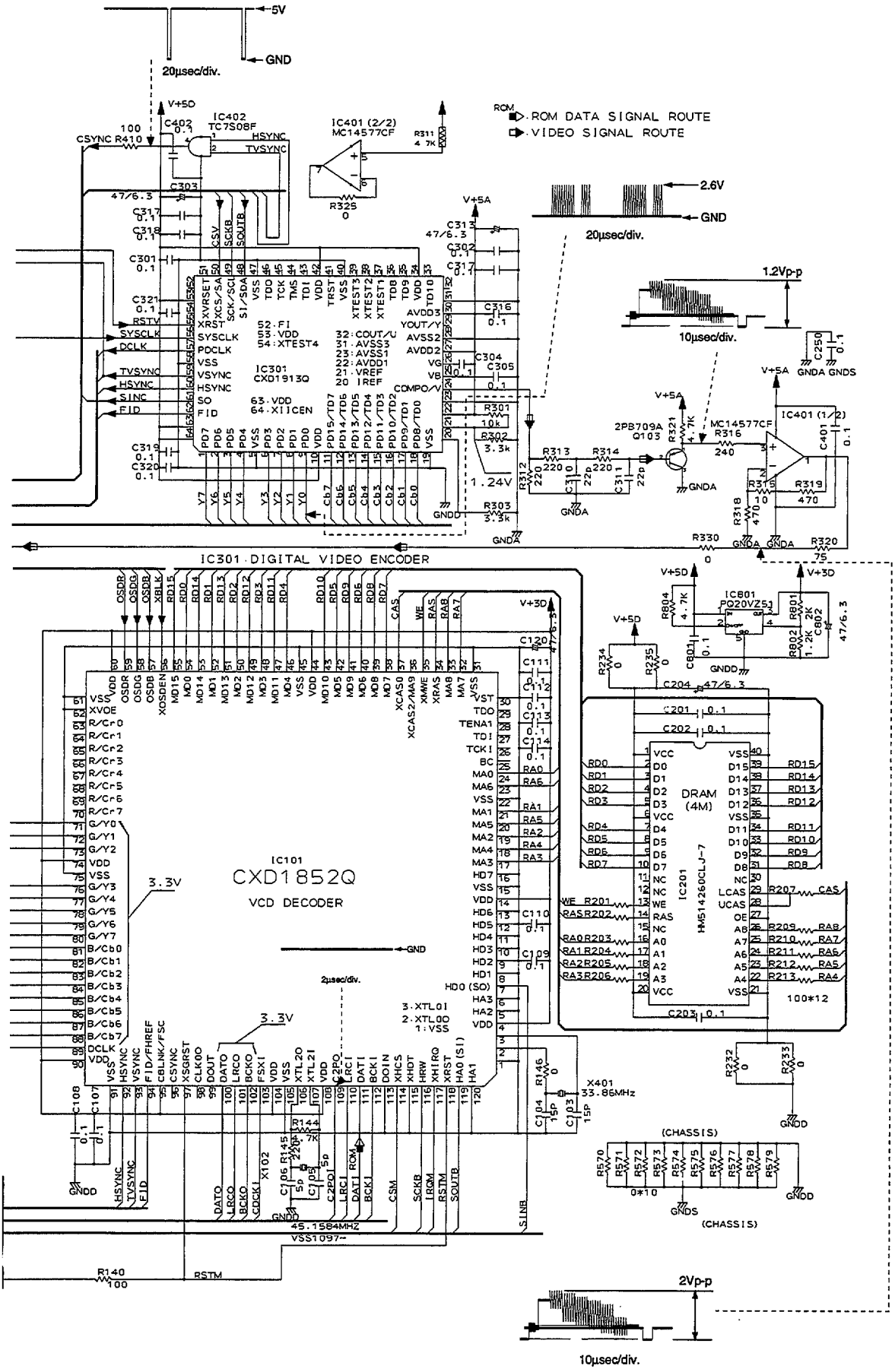
3.4 MOTHER ASSY(2/2)



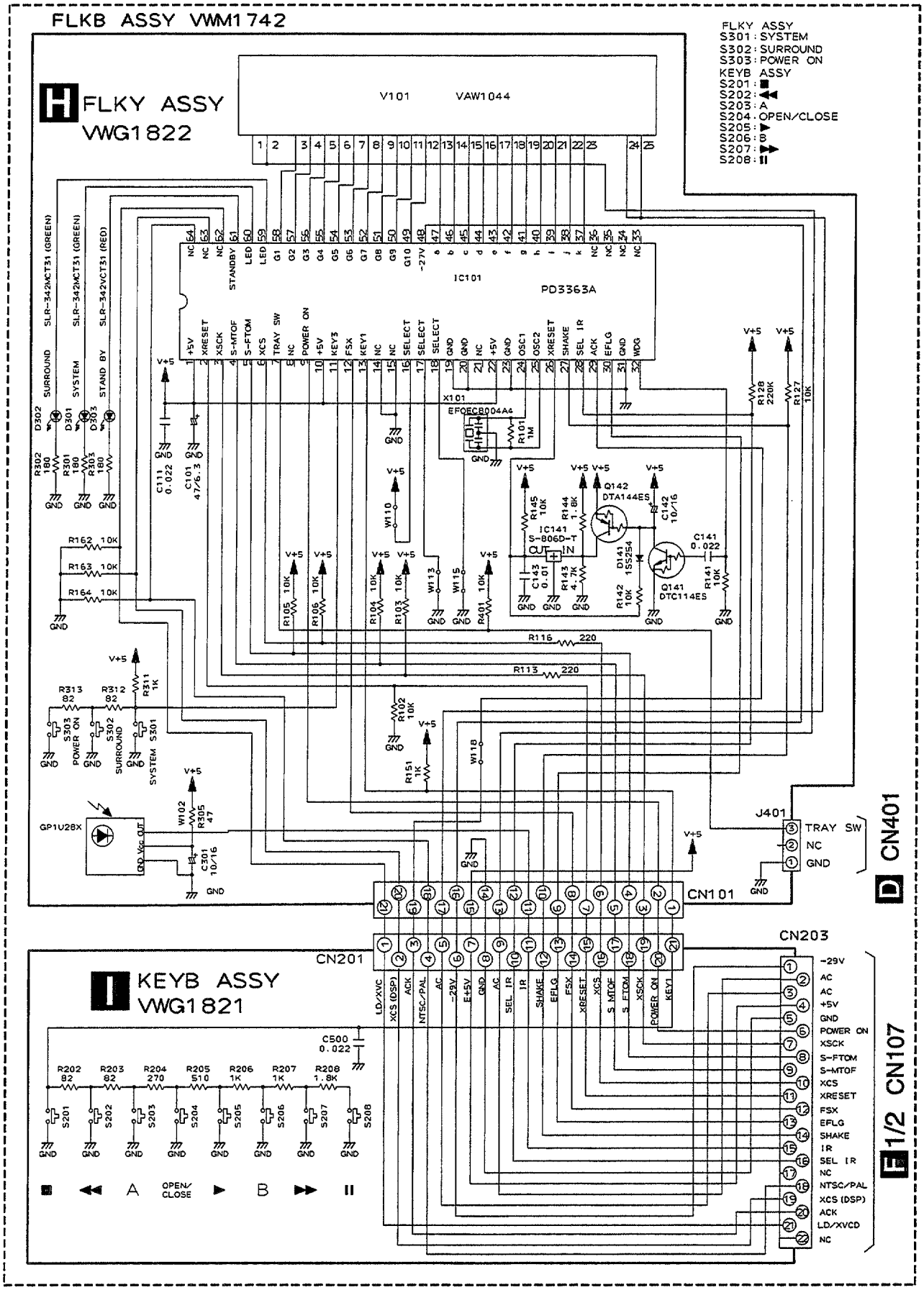

RF (VIDEO)
CN102
RET-
BRK
ACC
RET+
GND (RTN)
GND (MTR)
SW+5V
SW+5V
SW+5V
SW+5V
GND
GND
+12V
-12V
GND
POWER ON
EVER+5V
GND
-29V
AC
AC
E CN3
[SERVO BUS]
[CONT BUS]
DC mode 10µs/div
0V
1Vp-p
(75Ω termination)
JA14
VKB1091
VIDEO OUT
IC701
TC74HC4053AF
IC702 NJM2235M
CN703
B3B-PH-K-S
GND
2fsc
CSYNC
G CN201
DC mode 5ms/div
5Vp-p
IC500
PD0234A
DC mode 10µs/div
MASTER CLOCK
[CONT BUS]
Q475
VIDEO BUFFER
AC mode 10µs/div
400mVp-p
Q411
RF BUFFER
CN701
BTFN20S-3SB7
+5V
+5V
GND
GND
16M
LRCKIN
DATAIN
BCK IN
C2PO
LRCKO
DATAO
BCKO
SO
SI
ACK
SCK
XRESET
VIDEO
GND
+5V
G CN101
DC mode 10µs/div
1.6Vp-p
IC400 LA7134M
VIDEO IC
IC400 VIDEO IC
AC mode 2ms/div
400mVp-p
DC mode 10µs/div
1Vp-p
F 2/2

3.5 VCDB ASSY


VCDB ASSY (VWV1508)
IC501
PD6193A
VCD CONTROL MICROCOMPUTER
IC701
TC7W74F
IC102 (1/3) TC7WU04F
IC102 (2/3) TC7WU04F
IC102 (3/3) TC7WU04F
IC603 (3/3)
IC603 (2/3)
IC602 (2/6)
IC602 (4/6)
IC602 (6/6)
IC602 (1/6)
IC602 (3/6)
IC602 (5/6) TC74HCT7007AF
IC601 TC74HC125AF
CN101 BTFN20P-3RD7
CN201 838-PH-K-S
F101 VTH1037-
X501
X103
27MHz
2µsec/div.
5V
GND
F 2/2 CN703
F 2/2 CN701
RESET
RSTV
RSTM
OSDR
OSDG
OSDB
XBLK
ZCDCKI
ZLRCKI
ZDATI
ZBCKI
ZLRCO
ZDATO
ZBCKO
CDCLKIN
LRCKIN
DATAIN
BCKIN
C2POIN
LRCKOUT
DATAOUT
BCKOUT
TXD
RXD
ACK
SCKO
RESET
COMPV
GNDV
+5V
REQACK
LRQM
TVSYNC
DCLK
CSYNC
220*17


5V
GND
20µsec/div.
V+5D
V+5A
V+3D
IC402
TC7S08F
HSYNC
TVSYNC
CSYNC
R410
100
IC401 (2/2)
MC14577CF
R329
0
ROM
ROM DATA SIGNAL ROUTE
VIDEO SIGNAL ROUTE
2.6V
GND
20µsec/div.
1.2Vp-p
10µsec/div.
IC301
CXD1913Q
IC301 DIGITAL VIDEO ENCODER
IC101
CXD1852Q
VCD DECODER
3.3V
2µsec/div.
IC601
PQ20VZ51
IC401 (1/2)
MC14577CF
2PB709A
Q103
DRAM
(4M)
IC201
HM514260CLJ-7
100*12
X401
33.86MHz
45.1584MHZ
(CHASSIS)
GNDD
GNDS
GNDA
2Vp-p
10µsec/div.

3.6 FLKY AND KEYB ASSY



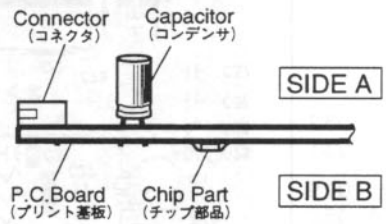
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS

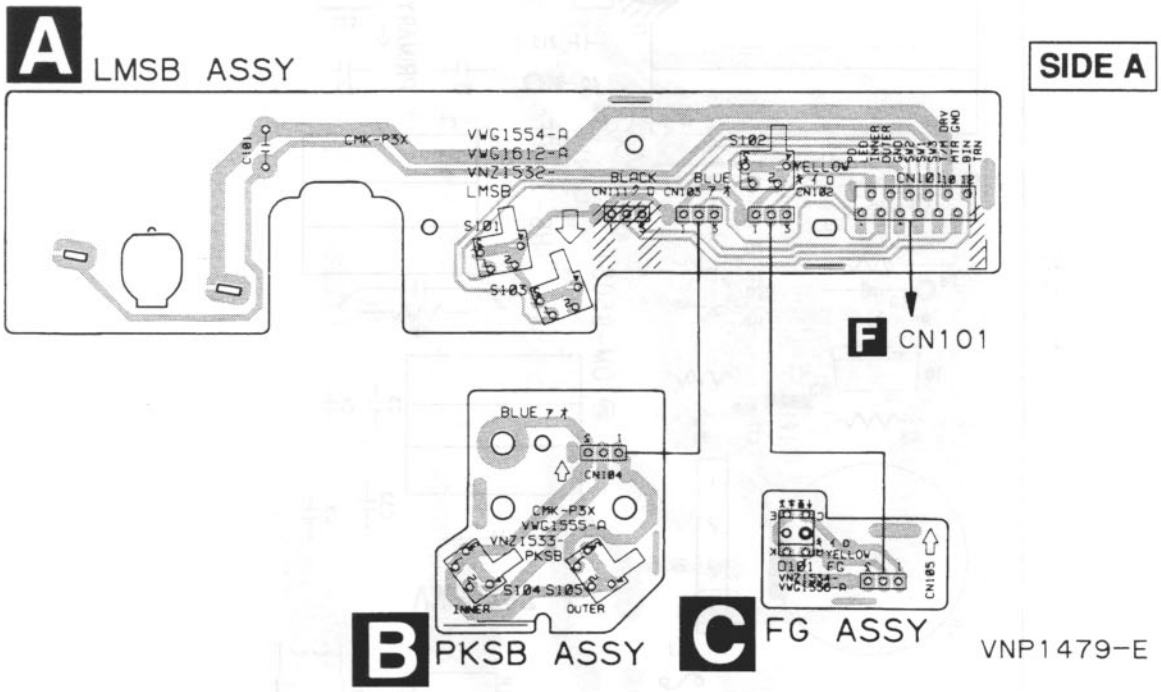
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

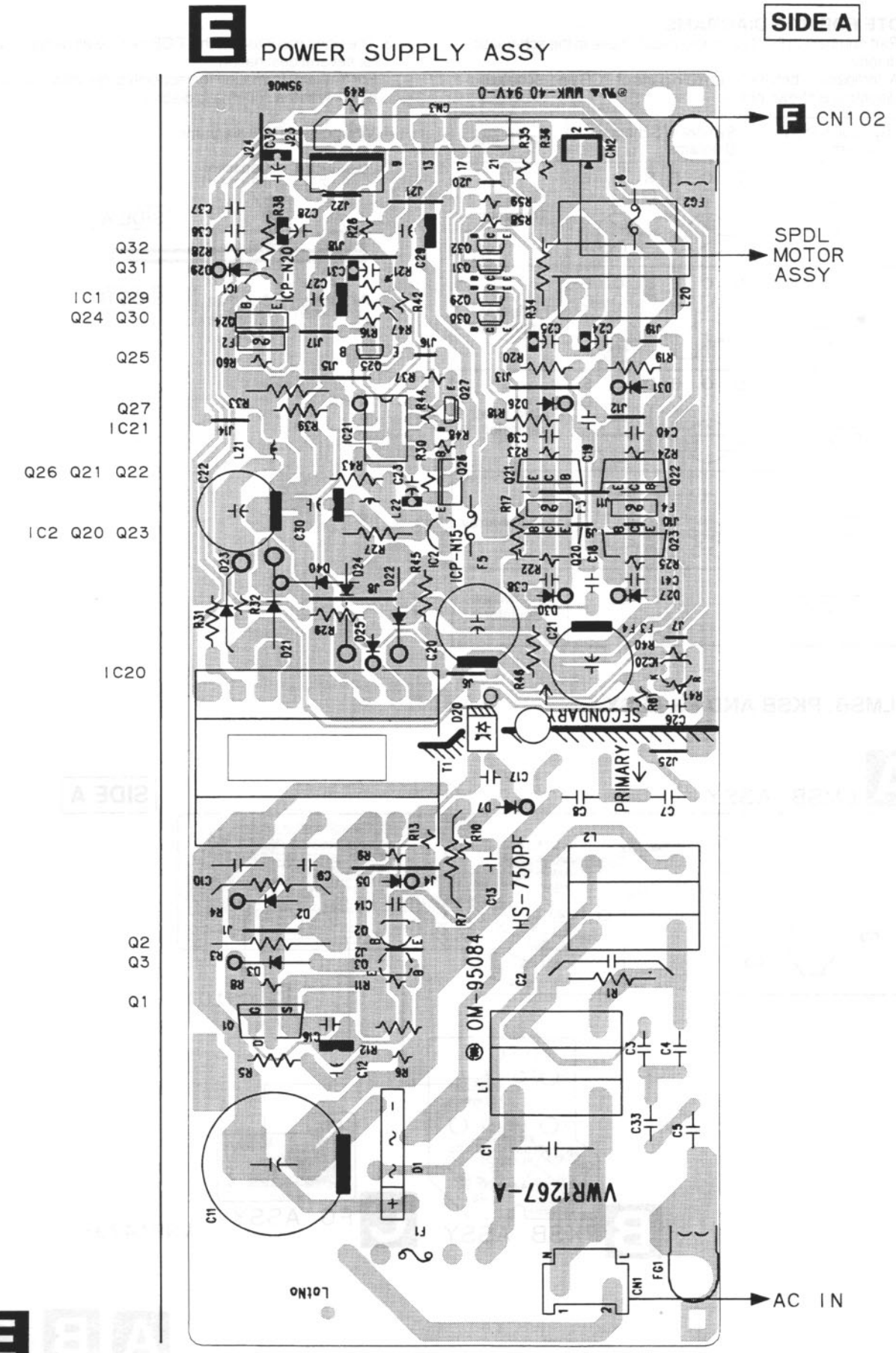
3. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respecitve destinations, be sure to check with the schematic diagram.
4. Viewpoint of PCB diagrams



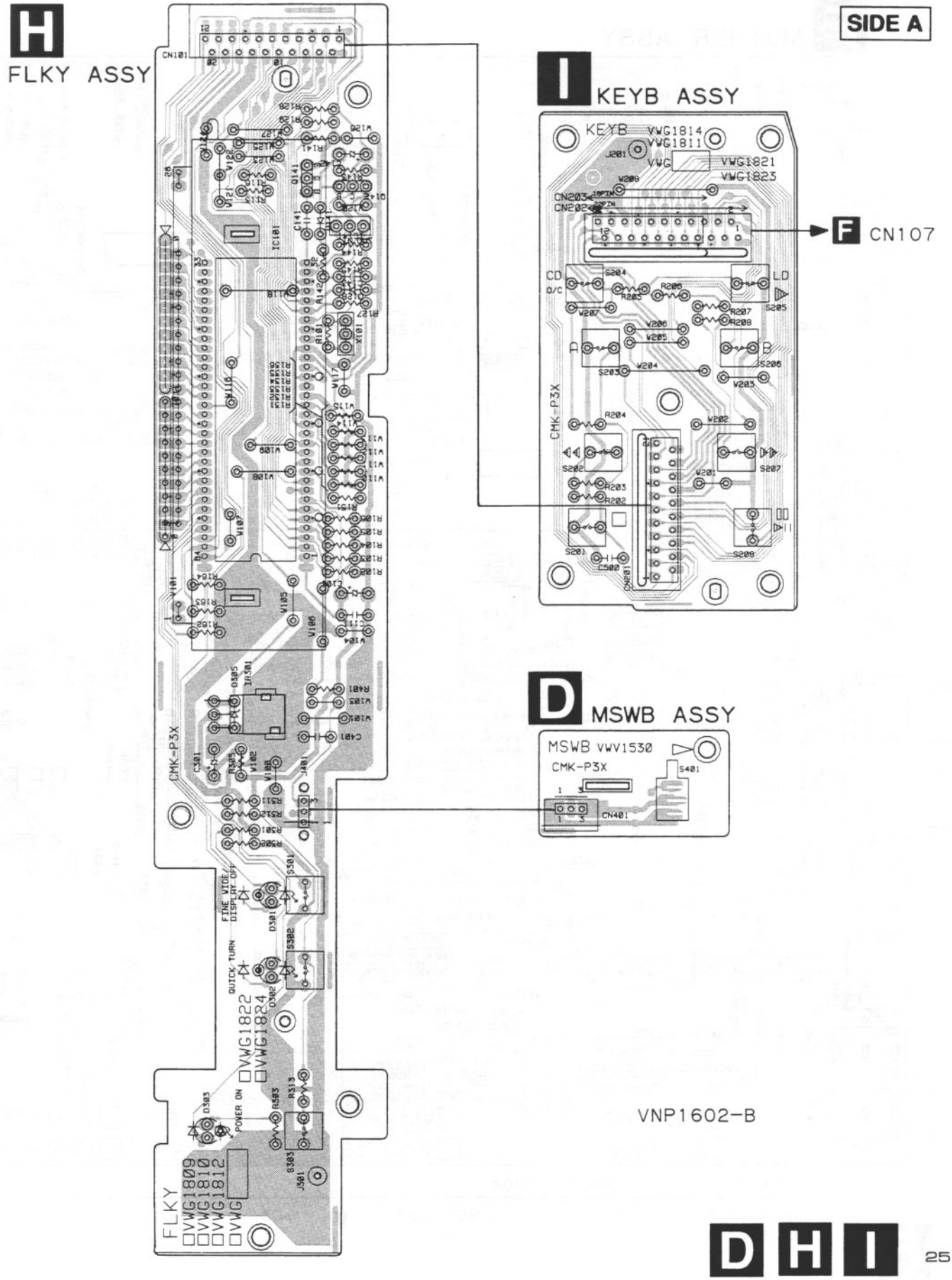
4.1 LMSB, PKSB AND FG ASSY



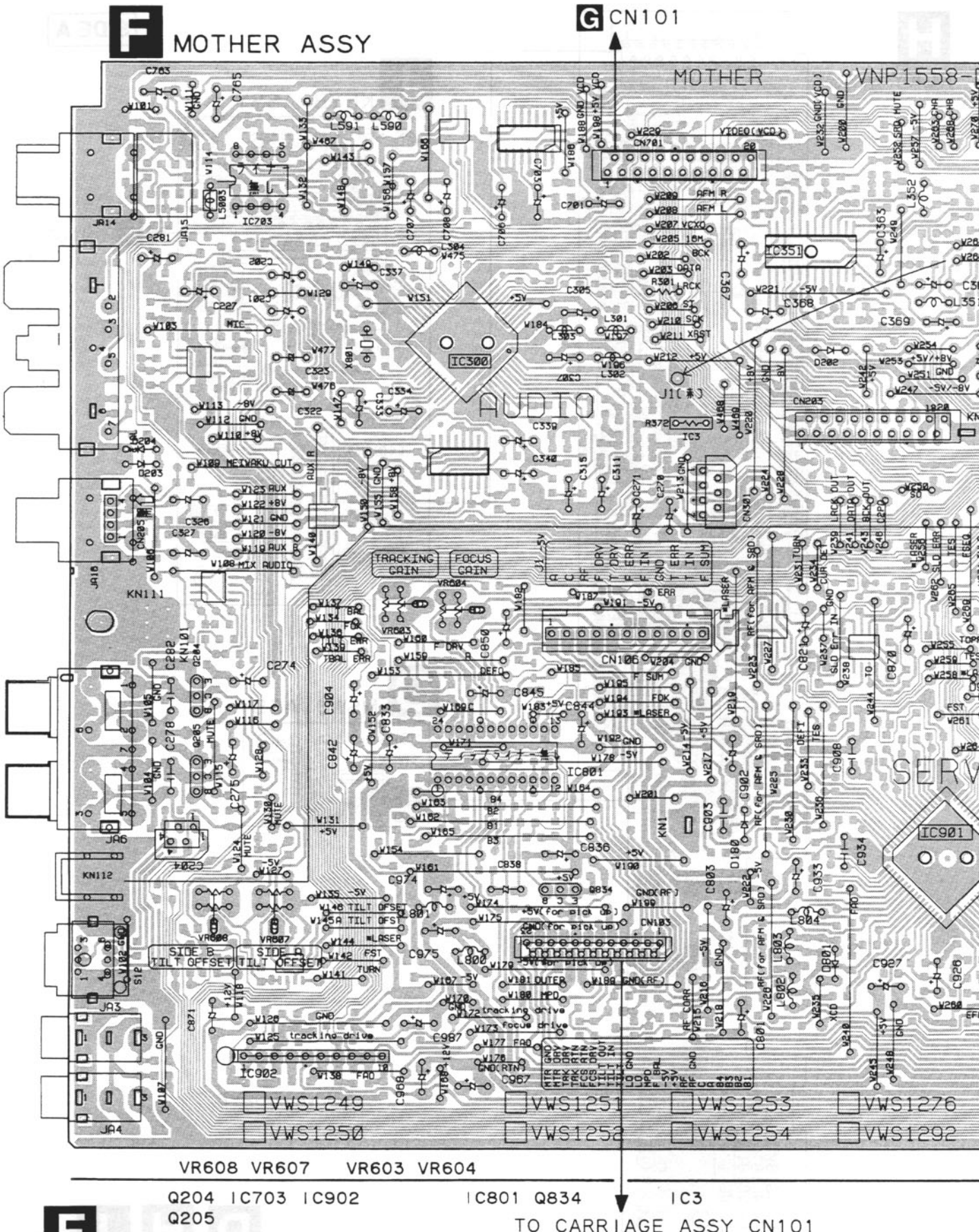
4.2 POWER SUPPLY ASSY



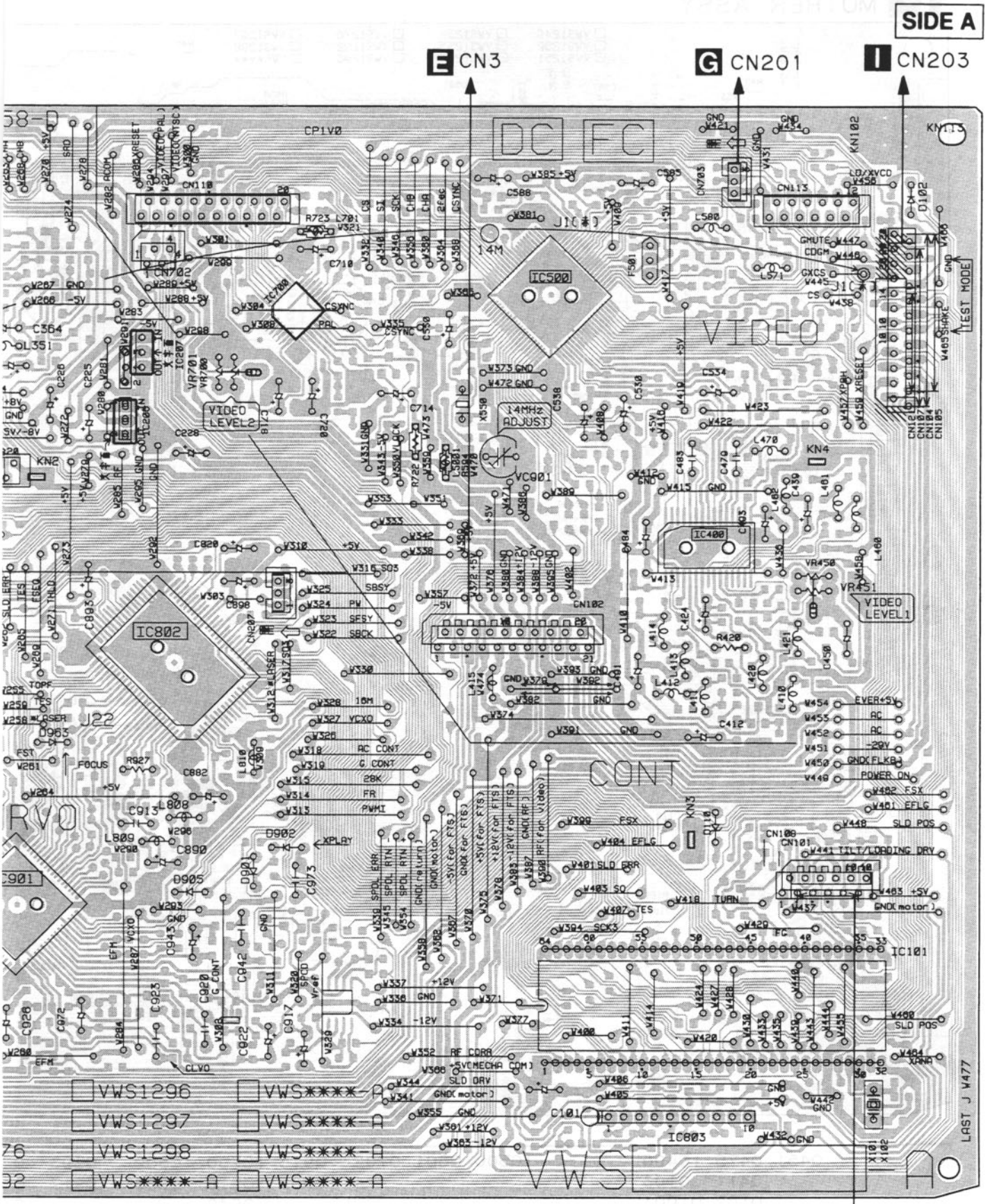
4.3 FLKY, KEYB AND MSWB ASSY



4.4 MOTHER ASSY



SIDE A

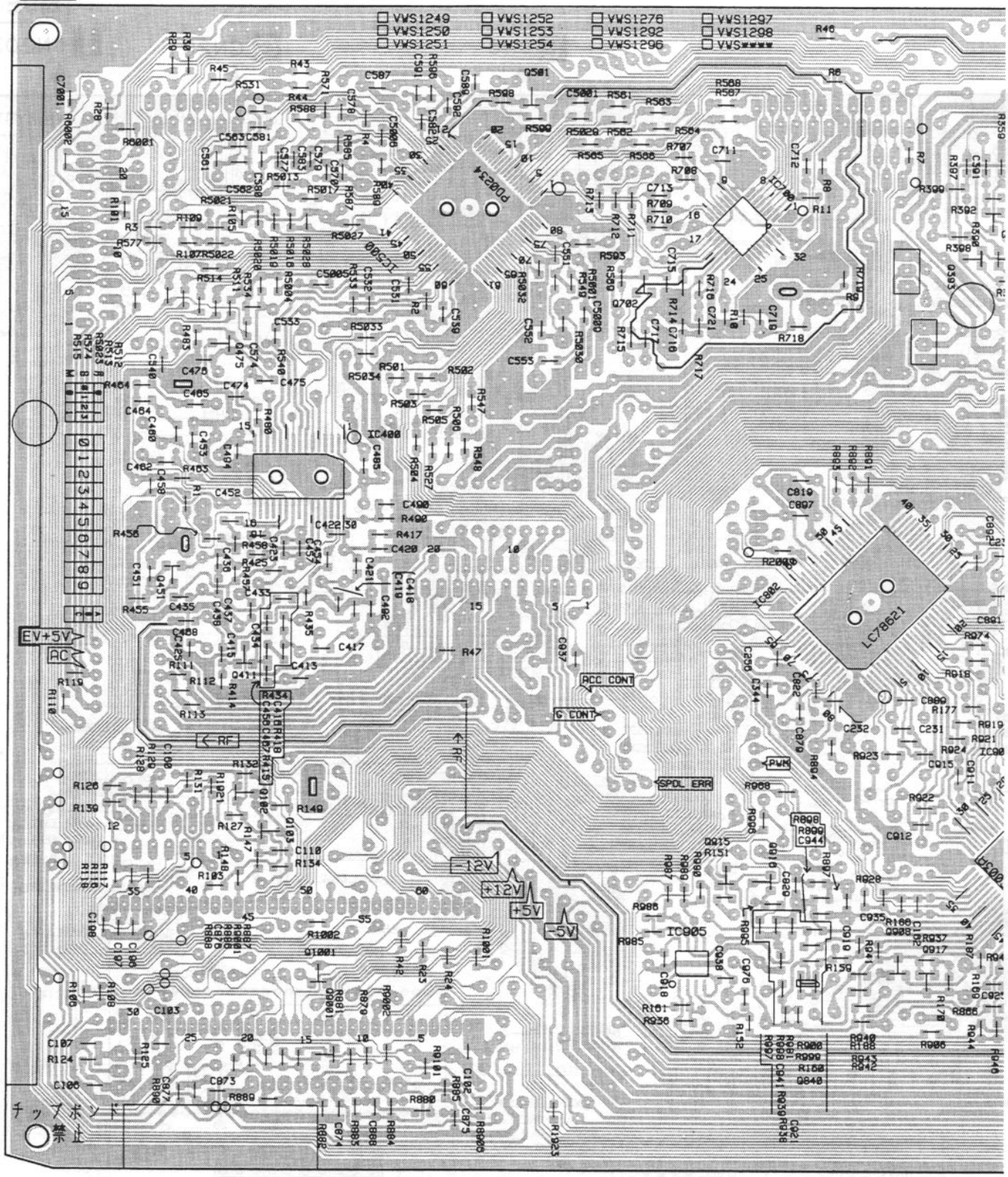


VR701 VR700 VC901 VR450 VR451

IC206 IC207 IC101 IC803

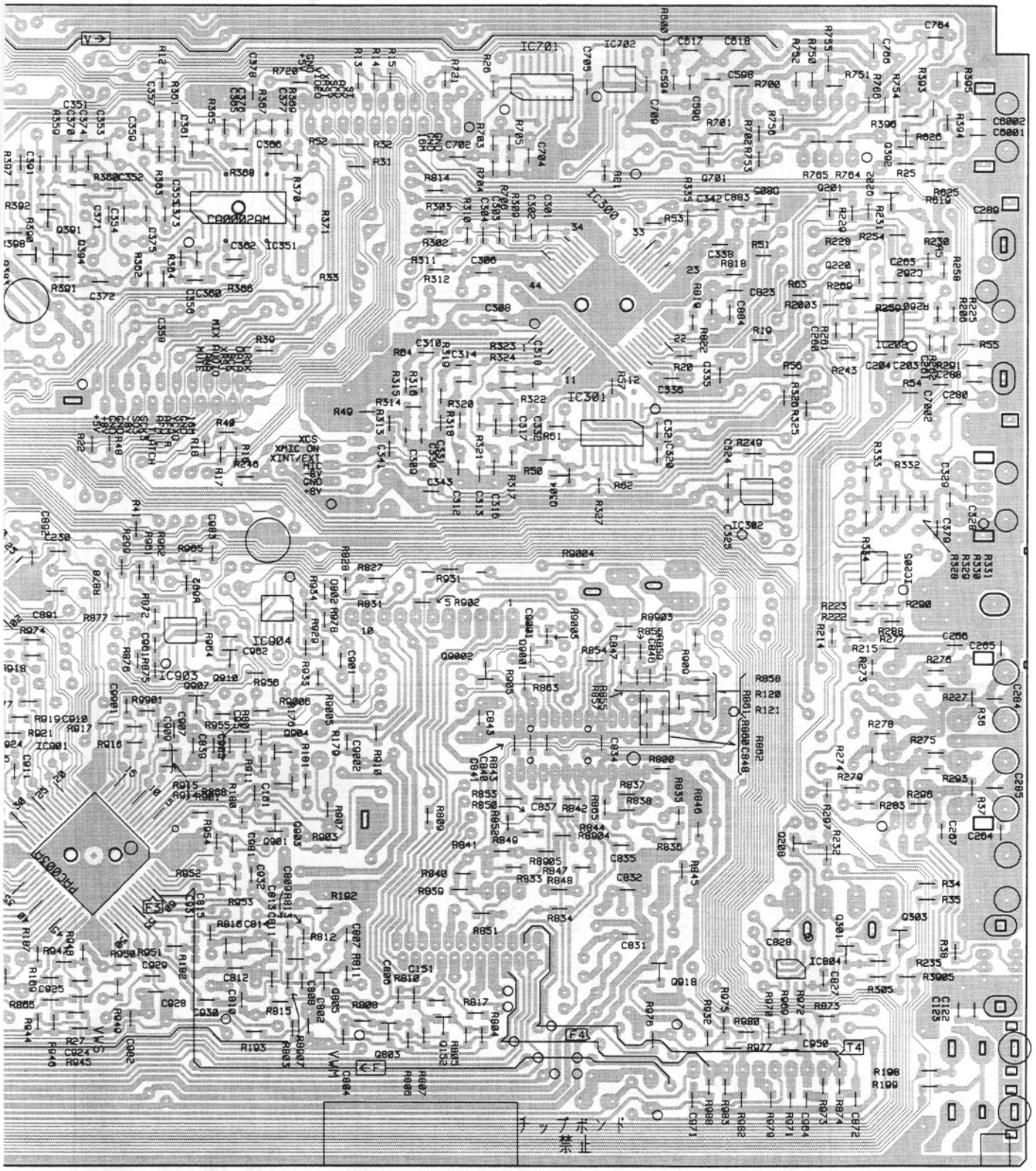
A CN101

F MOTHER ASSY



Q451 Q475 IC400 Q411 Q103 Q102 Q1001 Q9001 IC500 Q501 Q702 Q915 IC905 IC700 Q916 Q840 IC802 Q908 Q393 Q917 Q IC

SIDE B



VNP1558-D

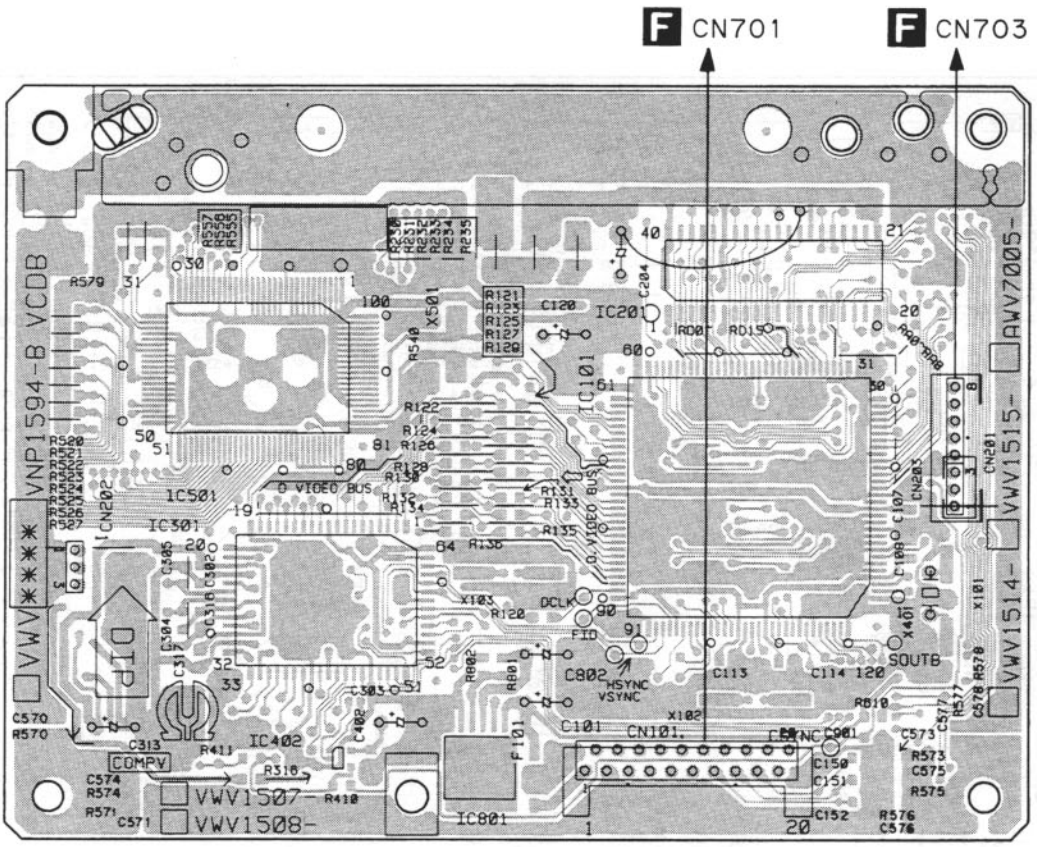
93	Q391	IC903	IC351	Q805	Q9002	IC701	IC702	Q701	Q201	Q392	Q303			
17	Q394	Q910	IC904	Q803	Q152	Q304	IC300	IC302	Q220	Q202				
	IC901	Q907	Q904				IC301	Q918	Q208	IC202				
			Q903						IC804	IC205				
			Q901							Q301				

4.5 VCDB ASSY

G

VCDB ASSY

SIDE A

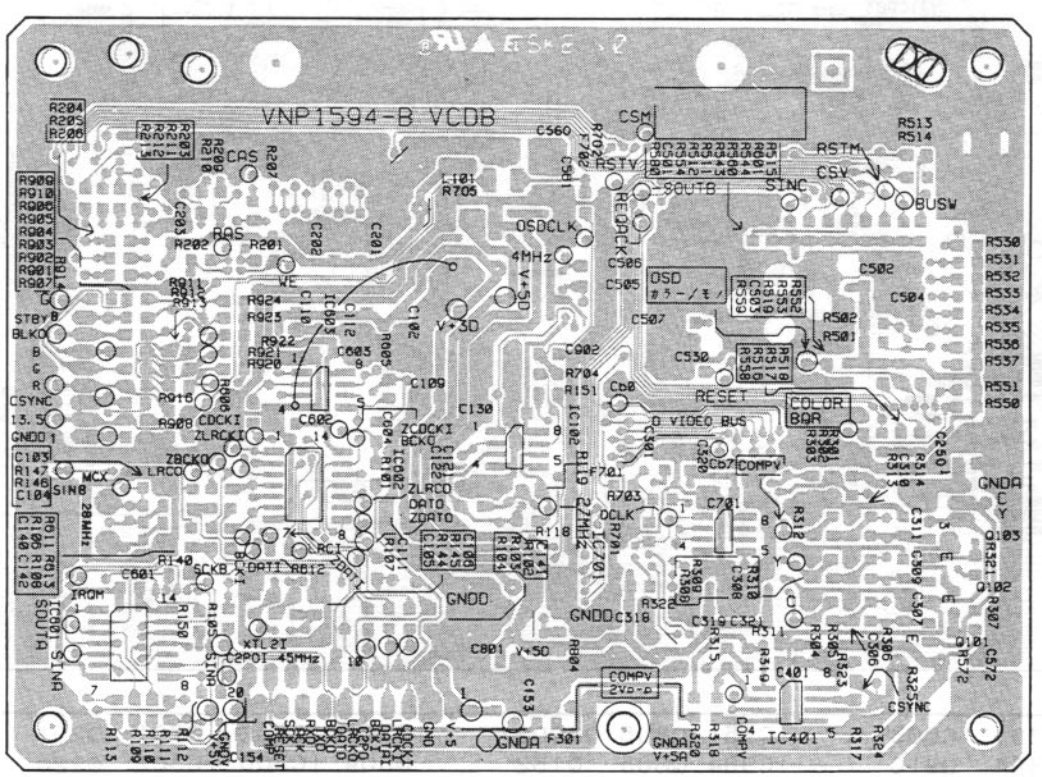


IC501 IC301 IC402 IC801 IC101 IC201

G

VCDB ASSY

SIDE B



IC601 IC603 IC602 IC102 IC701 IC401 Q103 Q102 Q101

5. PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ 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.*
- *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%).

560Ω	→	*56 × 10¹* →	*561*	*RD1/4PU561J*
47kΩ	→	*47 × 10³* →	*473*	*RD1/4PU473J*
0.5Ω	→	*0R5*		*RN2H0R5K*
1Ω	→	*1R0*		*RS1P1R0K*

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

5.62kΩ	→	*562 × 10¹* →	*5621*	*RN1/4PC5621F*

Mark	No.	Description	Parts No.
LIST OF ASSEMBLIES			
NSP		MACB ASSY	VWM1507
NSP		├ LMSB ASSY	VWG1554
NSP		├ PKSB ASSY	VWG1555
NSP		└ FG ASSY	VWG1556
NSP		FLKB ASSY	VWM1742
NSP		├ KEYB ASSY	VWG1821
		├ FLKY ASSY	VWG1822
NSP		└ MSWB ASSY	VWV1530
		MOTHER ASSY	VWS1296
		VCDB ASSY	VWV1508
⚠		POWER SUPPLY ASSY	VWR1267
MACB ASSY			
OTHERS			
		PCB(MACB)	VNP1479
A LMSB ASSY			
SWITCHES AND RELAYS			
	S101 – S103		DSG1017
OTHERS			
	CN101	10P CONNECTOR	52044 – 1045
B PKSB ASSY			
SWITCHES AND RELAYS			
	S104, S105		DSG1017
C FG ASSY			
SEMICONDUCTORS			
	D101		GP1S24
FLKB ASSY			
OTHERS			
		PCB(FLKB)	VNP1602
I KEYB ASSY			
SWITCHES AND RELAYS			
	S201 – S208		ASG1034
CAPACITORS			
	C500		CKPUYF223Z25

Mark	No.	Description	Parts No.
RESISTORS			
	All Resistors		RD1/4PU□□□J
OTHERS			
	CN201	CONNECTOR 21P	52492 – 2120
	CN203	CONNECTOR 22P	52492 – 2220
H FLKY ASSY			
SEMICONDUCTORS			
	IC101		PD3363A
	IC141		S – 806D
	Q142		DTA144ES
	Q141		DTC114ES
	D141		1SS254
	D301, D302	(GREEN)	SLR – 342MCT31
	D303	(RED)	SLR – 342VCT31
SWITCHES AND RELAYS			
	S301 – S303		ASG1034
CAPACITORS			
	C142		CEAL100M16
	C101		CEAL470M6R3
	C301		CEJA100M16
	C111, C141		CKPUYF223Z25
	C143		CKPUYY103M16
RESISTORS			
	All Resistors		RD1/4PU□□□J
OTHERS			
		3P HOLDER	51048 – 0300
	CN101	21P CONNECTOR	52044 – 2145
	J401	JUMPER WIRE	D20PYY0320E
	X101	CERAMIC RESONATOR	EFOEC8004A4
		REMOTE RECEIVER UNIT	GP1U28X
	V101	FL TUBE	VAW1044
		SPACER	VEC1599
		HOLDER	VNF1087
D MSWB ASSY			
SWITCHES AND RELAYS			
	S401		VSH1017

Mark	No.	Description	Parts No.
F	**MOTHER ASSY**		
	SEMICONDUCTORS		
	IC904		BA10393F
	IC202, IC903, IC905		BA4560F
	IC351		CA0002AM
	IC400		LA7134M
	IC901		LA9420M
	IC801		LA9425
	IC802		LC78621E
	IC703		MC14577CP
	IC702		NJM2235M
	IC500		PD0234A
	IC101		PD0245A2
	IC803, IC902		TA8410AK
	IC701		TC74HC4053AF
	IC300		TC9409AF – 001
	Q1001, Q102, Q501, Q916		2PB709A
	Q201, Q202, Q391, Q393, Q394		2PD601A
	Q451, Q475, Q701, Q805		2PD601A
	Q903, Q904, Q907, Q908, Q915		2PD601A
	Q917		2PD601A
	Q834		2SA854S
	Q411, Q803		2SC2412K
	Q152		2SC3802K
	Q204, Q205		2SD2144S
	Q208, Q301, Q392		DTA124EK
	Q103, Q303, Q901, Q910		DTC124EK
	Q840		FMY1A
	D102, D180, D801, D901, D902		1SS254
	D905, D963		1SS254
	D805		KV1851
	D110		MTZJ5.1B
	COILS AND FILTERS		
	F305, F306	(CHIP BEADS)	DTF1069
	L413		LAU100J
	L410		LAU101J
	L351, L802 – L804		LAU181J
	L352, L412, L415, L461, L470		LAU220J
	L800, L801, L808, L809		LAU220J
	L411, L571, L590, L591		LAU270J
	L420, L421, L580		LAU430J
	L304		LAU4R7J
	L462		LAU560J
	L414		LAU8R2J
	L460		LFA561J
	F501	(14.3MHz FILTER)	VTF1055
	L5001	(FERRITE BEADS)	VTH1024
	CAPACITORS		
	C562		CCSQCH050C50
	C436, C617, C809, C811		CCSQCH070D50
	C420, C421, C438, C456, C583		CCSQCH100D50
	C262, C263, C301, C303, C370		CCSQCH101J50
	C810, C846, C848, C891, C944		CCSQCH101J50

Mark	No.	Description	Parts No.
	C434, C437, C474, C579		CCSQCH120J50
	C416		CCSQCH121J50
	C415, C418, C475, C594		CCSQCH150J50
	C161, C353, C812		CCSQCH151J50
	C352, C552		CCSQCH180J50
	C618, C813, C823, C950		CCSQCH220J50
	C162, C417, C591, C935		CCSQCH221J50
	C371, C419, C433, C467, C931		CCSQCH270J50
	C106, C107, C354, C435, C452		CCSQCH330J50
	C553, C563, C580		CCSQCH330J50
	C351, C425, C476, C598		CCSQCH390J50
	C464, C468, C596		CCSQCH470J50
	C375, C561, C806		CCSQCH680J50
	C374, C814		CCSQCH820J50
	C460, C462		CCSQCH910J50
	C439		CEAL100M16
	C412, C484, C491, C701, C703		CEAL470M6R3
	C706 – C708, C833, C836, C844		CEAL470M6R3
	C838		CEALNP470M6R3
	C972		CEANP220M10
	C450		CEANP470M6R3
	C227, C281, C904		CEAS010M50
	C201, C202, C274, C275		CEAS100M50
	C339, C340, C367		CEAS100M50
	C305, C307, C311, C315		CEAS101M10
	C333, C334, C364, C424, C917		CEAS101M10
	C922, C967		CEAS220M25
	C845, C870, C902, C926		CEAS2R2M50
	C337		CEAS331M6R3
	C101, C225, C226, C363, C369		CEAS470M10
	C493, C530, C534, C538, C550		CEAS470M10
	C585, C588, C763, C765, C801		CEAS470M10
	C803, C820, C842, C882, C890		CEAS470M10
	C893, C898, C927, C933		CEAS470M10
	C974, C975		CEAS470M10
	C368, C943		CEASR47M50
	C968, C987		CEHAQ220M50
	C270, C271		CEJA470M10
	C850		CEJA4R7M35
	C256, C490, C907		CKSQYB102K50
	C203, C204, C308, C335, C336		CKSQYB103K50
	C338, C879		CKSQYB103K50
	C915, C981		CKSQYB104K25
	C314, C318		CKSQYB122K50
	C919		CKSQYB332K50
	C361, C362		CKSQYB392K50
	C331, C332, C355 – C358, C377		CKSQYB472K50
	C909		CKSQYB472K50
	C122, C160, C196 – C198, C302		CKSQYF103Z50
	C306, C312, C316, C372, C373		CKSQYF103Z50
	C376, C378, C451, C454		CKSQYF103Z50
	C532, C533, C540, C570		CKSQYF103Z50
	C577, C578, C581, C702, C704		CKSQYF103Z50
	C802, C804, C807, C819, C822		CKSQYF103Z50
	C831, C832, C834, C835, C843		CKSQYF103Z50

Mark	No.	Description	Parts No.
	C872, C876, C883, C884		CKSQYF103Z50
	C888, C889, C892, C897, C918		CKSQYF103Z50
	C928, C929, C932, C937, C938		CKSQYF103Z50
	C941, C961, C962, C964, C971		CKSQYF103Z50
	C982		CKSQYF103Z50
	C102, C103, C151, C284, C285		CKSQYF104Z25
	C365, C366, C391, C413		CKSQYF104Z25
	C422, C423, C453, C457, C458		CKSQYF104Z25
	C485, C492, C494, C5006, C531		CKSQYF104Z25
	C539, C551, C574, C582, C589		CKSQYF104Z25
	C592, C705, C709, C764, C766		CKSQYF104Z25
	C840, C841, C847, C873, C874		CKSQYF104Z25
	C901, C910 – C912, C976, C983		CKSQYF104Z25
	C110, C837, C921, C930		CKSQYF223Z50
	C359, C360, C905, C951		CKSQYF224Z25
	C465, C808, C815, C875, C877		CKSQYF473Z25
	C924, C925		CKSQYF473Z25
	C942		CQMA103J50
	C913, C920		CQMA104J50
	C278, C282		CQMA152J50
	C479, C908, C973		CQMA154J50
	C903		CQMA222J50
	C923		CQMA473J50
	C934		CQMA681J50
	C483		CQMA683J50
	C871	(10μF/16V)	VCH1152
	VC901	(20pF)	VCM – 008

RESISTORS

	R927		RD1/4PU122J
	R301		RD1/4PU221J
	R420		RD1/4PU470J
	R625, R626		RN1/10SC750D
	R490, R987, R989		RN1/10SE103D
	R880, R883		RN1/10SE104D
	R702		RN1/10SE152D
	R2003, R206		RN1/10SE153D
	R750, R751, R764		RN1/10SE271D
	R755, R756		RN1/10SE273D
	R259, R260, R879, R986, R990		RN1/10SE333D
	R753		RN1/10SE471D
	R261, R262, R765, R766		RN1/10SE473D
	R881, R882		RN1/10SE473D
	R754		RN1/10SE911D
	R228, R258		RS1/10S243F
	VR450	(2.2kΩ, 0.1W)	PCP1025
	VR603	(4.7kΩ, 0.1W)	RCP1020
	VR604, VR607	(4.7kΩ, 0.1W)	RCP1047
	Other Resistors		RS1/10S□□□J

OTHERS

	CN101	CONNECTOR	52045 – 1045
	CN102	21P CONNECTOR	52045 – 2145
	CN107	22P CONNECTOR	52045 – 2245
	CN106	CONNECTOR	B11P – SHF – 1AA
	CN703	CONNECTOR POST	B3B – PH – K – S
	CN701	CONNECTOR	BTFN20S – 3SB7
	JA3, JA4	JACK	RKN1004
		PCB BINDER	VEF1040
	JA6	JACK	VKB1065
	JA14	JACK	VKB1091
NSP	J1	BARD IN JUMPER WIRE	DB223NS0
	CN103	23P CONNECTOR	VKN1199
		SCREW PLATE	VNE1948
	KN101, KN102	EARTH METAL FITTING	VNF1084
	X101	CERAMIC RESONATOR(9.00MHz)	VSS1040
	X550	CRYSTAL RESONATOR(14.318MHz)	VSS1073
	X801	CRYSTAL RESONATOR	VSS1081

G VCDB ASSY

SEMICONDUCTORS

	IC101		CXD1852Q
	IC301		CXD1913Q
	IC201		HM514260CLJ – 7
	IC401		MC14577CF
NSP	IC501		PD6193A9
	IC801		PQ20VZ51
	IC601		TC74HC125AF
	IC602		TC74HCT7007AF
	IC402		TC7S08F
	IC701		TC7W74F
	IC102, IC603		TC7WU04F
	Q103		2PB709A

COILS AND FILTERS

	F101	(CHIP FILTER)	VTH1037

CAPACITORS

	C105, C106		CCSQCH050C50
	C604		CCSQCH101J50
	C103, C104, C121, C122		CCSQCH150J50
	C505, C506		CCSQCH200J50
	C310, C311, C902		CCSQCH220J50
	C101, C120, C204, C303, C313		CEAL470M6R3
	C802		CEAL470M6R3
	C102, C107 – C114, C130		CKSQYF104Z25
	C201 – C203, C250, C301, C302		CKSQYF104Z25
	C304, C305, C316 – C321		CKSQYF104Z25
	C401, C402, C501 – C504, C507		CKSQYF104Z25
	C530, C601 – C603, C701, C801		CKSQYF104Z25

RESISTORS

	R320		RN1/10SC750D
	R301		RN1/10SE103D
	R802		RN1/10SE122D
	R801		RN1/10SE202D
	R312		RN1/10SE221D
	R302, R303		RN1/10SE332D
	R318, R319		RN1/10SE471D
	R705		RS1/8S000J
	Other Resistors		RS1/10S□□□J

Mark	No.	Description	Parts No.
OTHERS			
	CN201	CONNECTOR POST	B3B – PH – K – S
	CN101	CONNECTOR	BTFN20P – 3RD7
	X501	CERAMIC RESONATOR	CSAC4.00MGCM
	X401	CERAMIC RESONATOR(33.86MHz)	DSS1069
	X103	CRYSTAL RESONATOR(27.000MHz)	VSS1095
	X102	CRYSTAL RESONATOR(45.1584MHz)	VSS1097

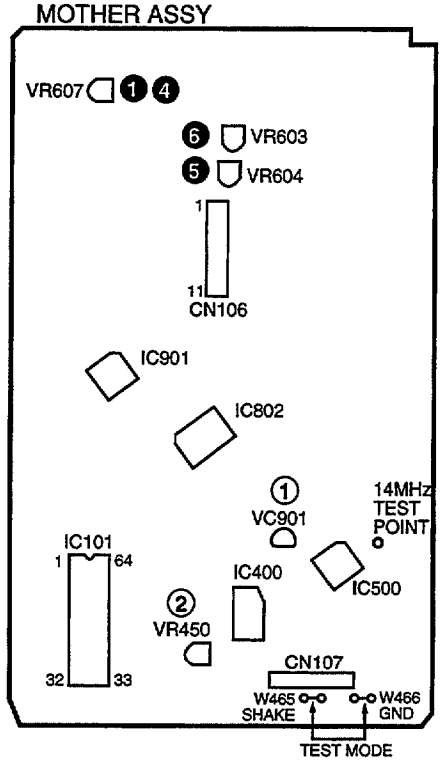
E ⚠ POWER SUPPLY ASSY

SEMICONDUCTORS			
	IC20		HA17431P
⚠	IC2		ICP – N15
⚠	IC1		ICP – N20
	IC21		NJM4558D
	Q27, Q30, Q32		2SA933S
	Q20, Q22		2SB1566
	Q24		2SB891F
	Q25, Q29, Q31		2SC1740S
⚠	Q2, Q3		2SC3377
	Q26		2SD2007
	Q21, Q23		2SD2395
⚠	Q1		2SK1460
	D25, D26, D27, D30, D31		AG01Z – VO
⚠	D1		D2SB60F4004
⚠	D2		EG01C
⚠	D5		MTZJ3.6A
	D29		MTZJ8.2B
⚠	D20		PS2501L1 – 1M
⚠	D3		RD18FB2
	D40		RD30FB3
	D23		RK36
	D21, D22, D24		S2LA20
⚠	D7		1SS270A
RESISTORS			
⚠	R22 – R25	(47Ω)	VCN1033
⚠	R27	(0.47Ω)	VCN1046
⚠	R29	(68Ω)	VCN1048
⚠	R31	(8.2Ω)	VCN1050
OTHERS			
⚠	FU1	Fuse (T2A/250V)	AEK1057
⚠	FU2	Fuse	VEK1033
⚠	FU3, FU4	Fuse	VEK1034
⚠	FU5, FU6	Fuse (0.75A/125V)	VEK1035

6. ADJUSTMENT (調整方法)

6.1 ADJUSTMENT ITEMS AND LOCATION (調整項目と調整位置)

■Adjustment Points (PCB Part)



■Adjustment Items

[Mechanical Part]

❶ Tilt Offset Adjustment
(チルトオフセット調整)

❷ Tangential Direction Angle Adjustment
(タンジェンシャル傾き調整)

❸ Spindle Motor Centering Adjustment
(スピンドル芯出し調整)

❹ Crosstalk Check and Fine Tilt Offset Adjustment for Side A
(クロストーク確認及び，チルトオフセット微調)

❺ Focus Servo Loop Gain Adjustment
(フォーカスサーボループゲイン調整)

❻ Tracking Servo Loop Gain Adjustment
(トラッキングサーボループゲイン調整)

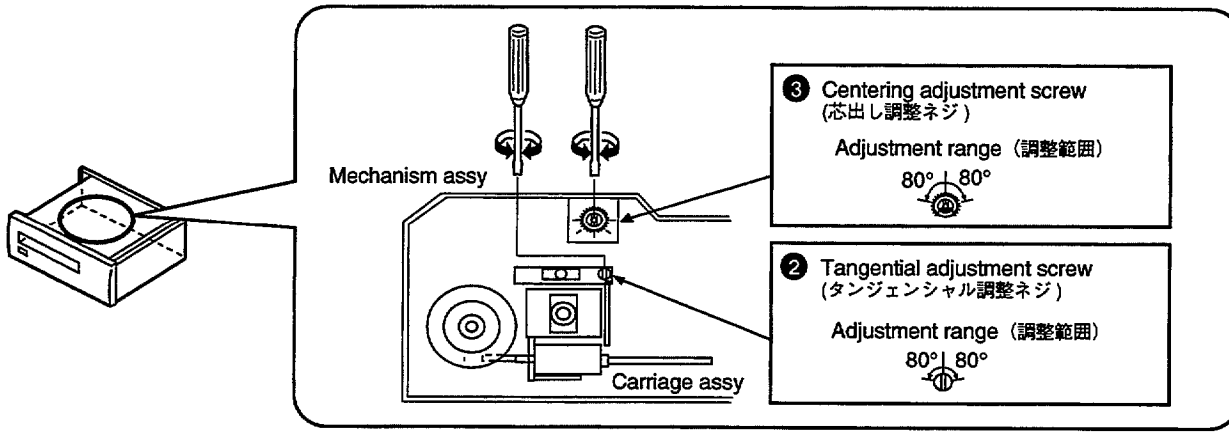
❼ RF Level Check
(RFレベル確認)

[Electrical Part]

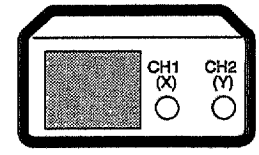
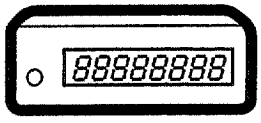
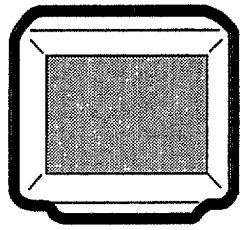
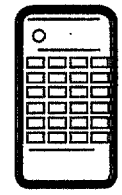
① Master Clock Adjustment
(マスタークロック調整)

② Output Video Level Adjustment
(出力ビデオレベル調整)

■Adjustment Points (Mechanism Part)

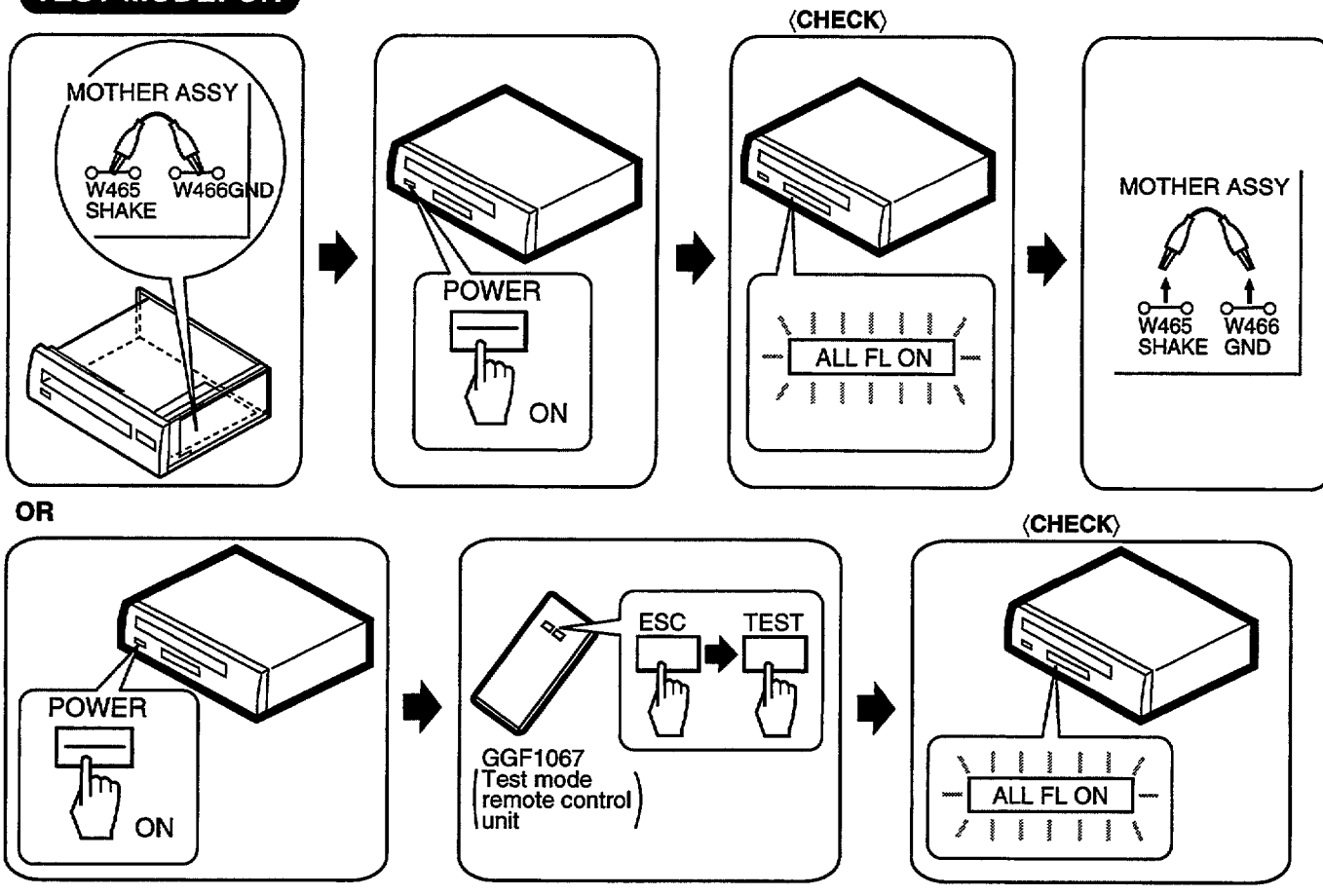


6.2 JIGS AND MEASURING INSTRUMENTS (調整に必要な治工具類)

 CD test disc (YEDS-7)	 LD test disc (GGV1012)	 ⊖ Screwdriver (medium)	 ⊖ Screwdriver (small)
 ⊖ Precise screwdriver	 ⊕ Screwdriver (large)	 ⊕ Screwdriver (medium)	 Dual-trace oscilloscope (with delay) Frequency band ≧ 40MHz
 Frequency counter Display digit ≧ 8-digit	 TV monitor	 Test mode remote control unit (GGF1067)	

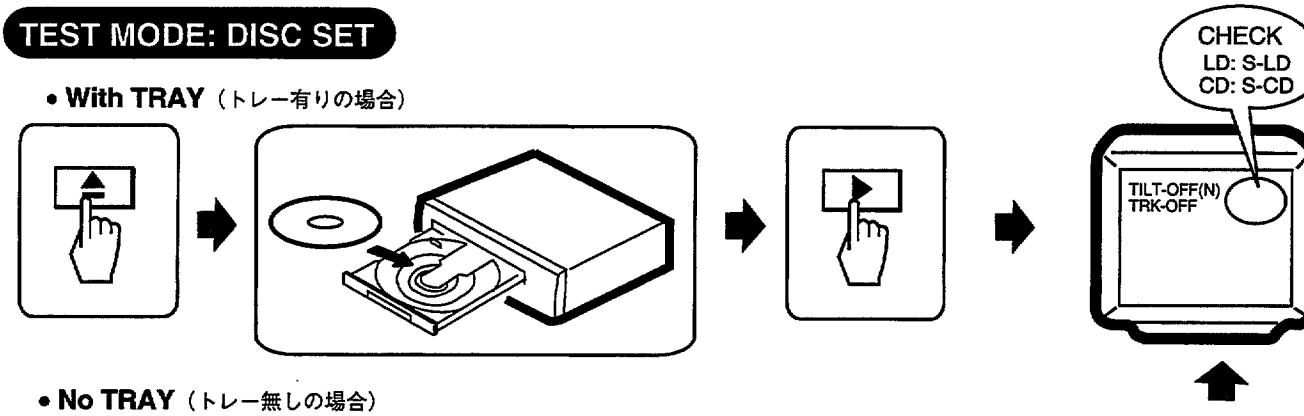
6.3 TEST MODE (テストモード)

TEST MODE: ON

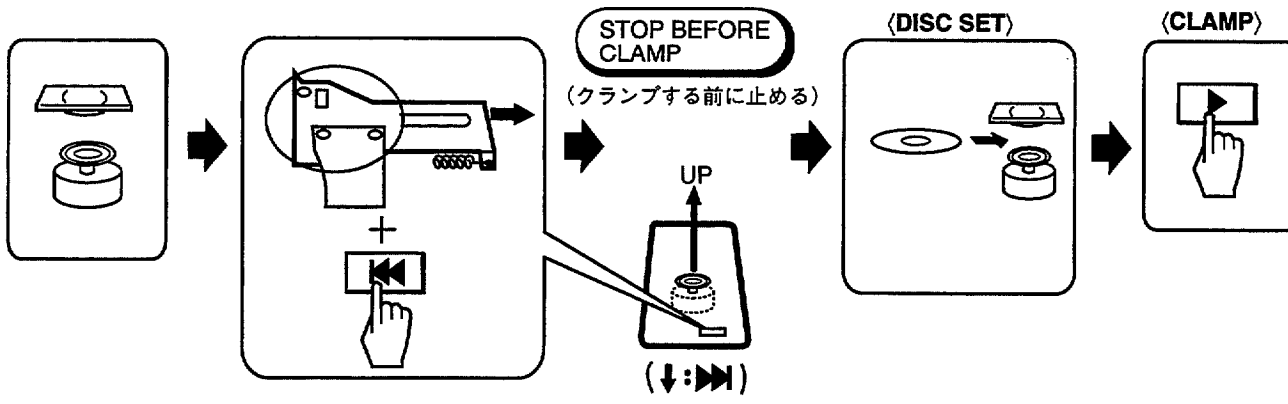


TEST MODE: DISC SET

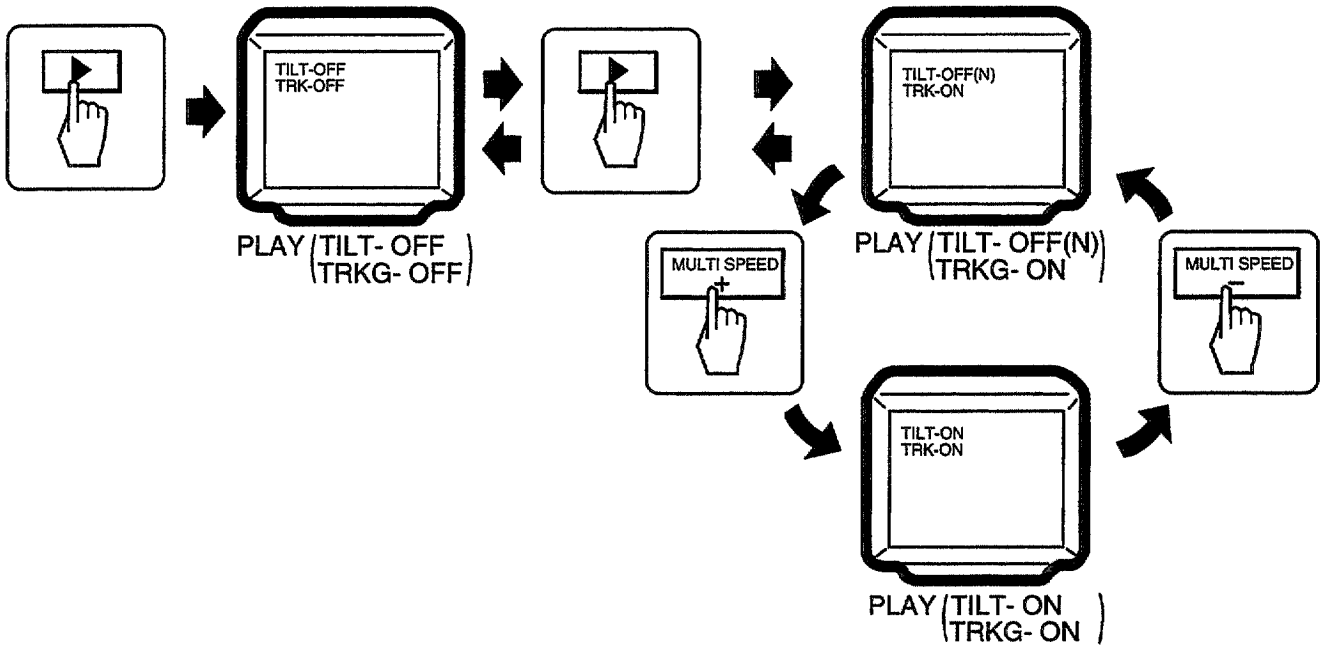
- **With TRAY** (トレー有りの場合)



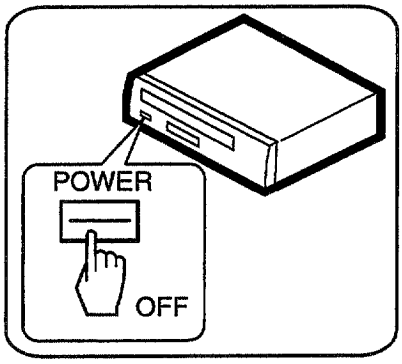
- **No TRAY** (トレー無しの場合)



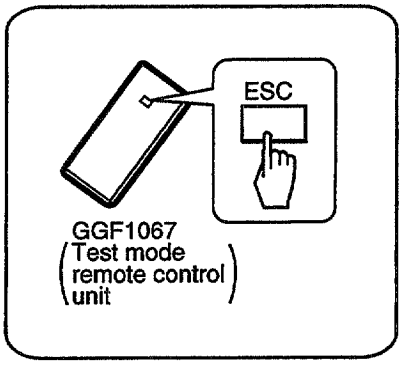
TEST MODE: PLAY



TEST MODE: OFF



OR



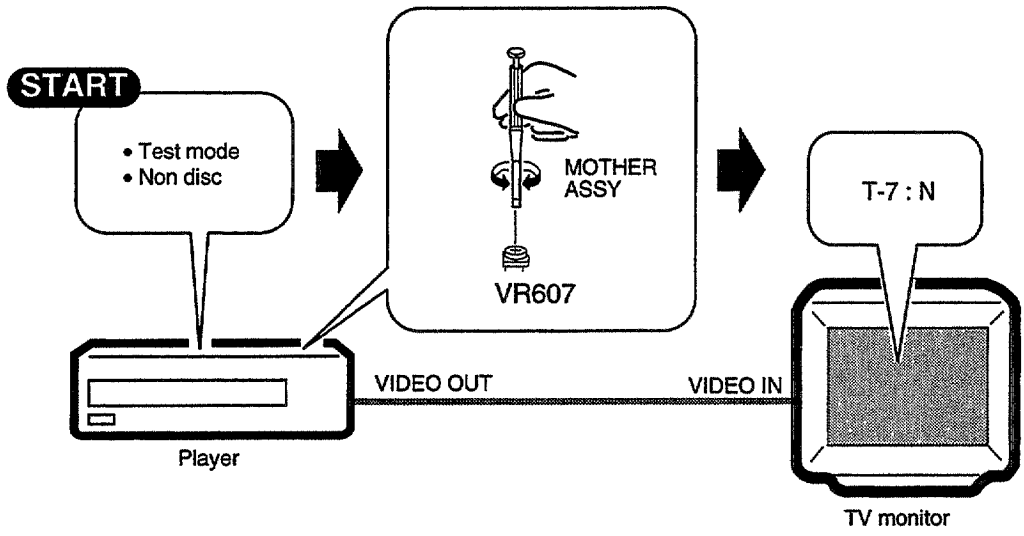
6.4 NECESSARY ADJUSTMENT POINTS（必要な調整項目）

When（このような時）	Adjustment Points
■ EXCHANGE MECHANISM ASSY PARTS （メカASSY部品を交換したとき）	
Exchange pickup (ピックアップを交換したとき)	Mechanical point: ❶,❷,❸,❹,❺,❻,❼ Electric point: ———
Exchange spindle motor (スピンドルモータを交換したとき)	Mechanical point: ❸ Electric point: ———
■ EXCHANGE PCB ASSY (PCB ASSYを交換したとき)	
Exchange board MOTHER ASSY (マザーボードを交換したとき)	Mechanical point: ❶,❹,❺,❻ Electric point: ———

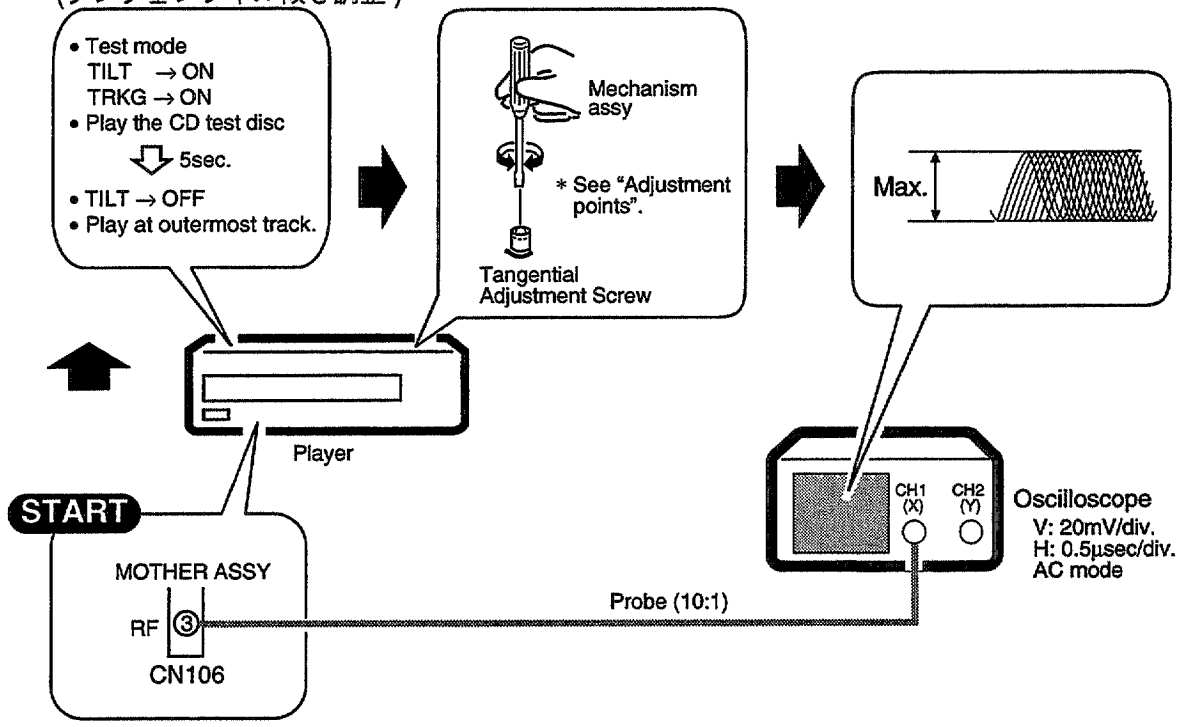
Note : ① and ② are adjusted already. (①,②は調整済)

6.5 MECHANICAL ADJUSTMENT (機構系の調整)

❶ Tilt Offset Adjustment
(チルトオフセット調整)

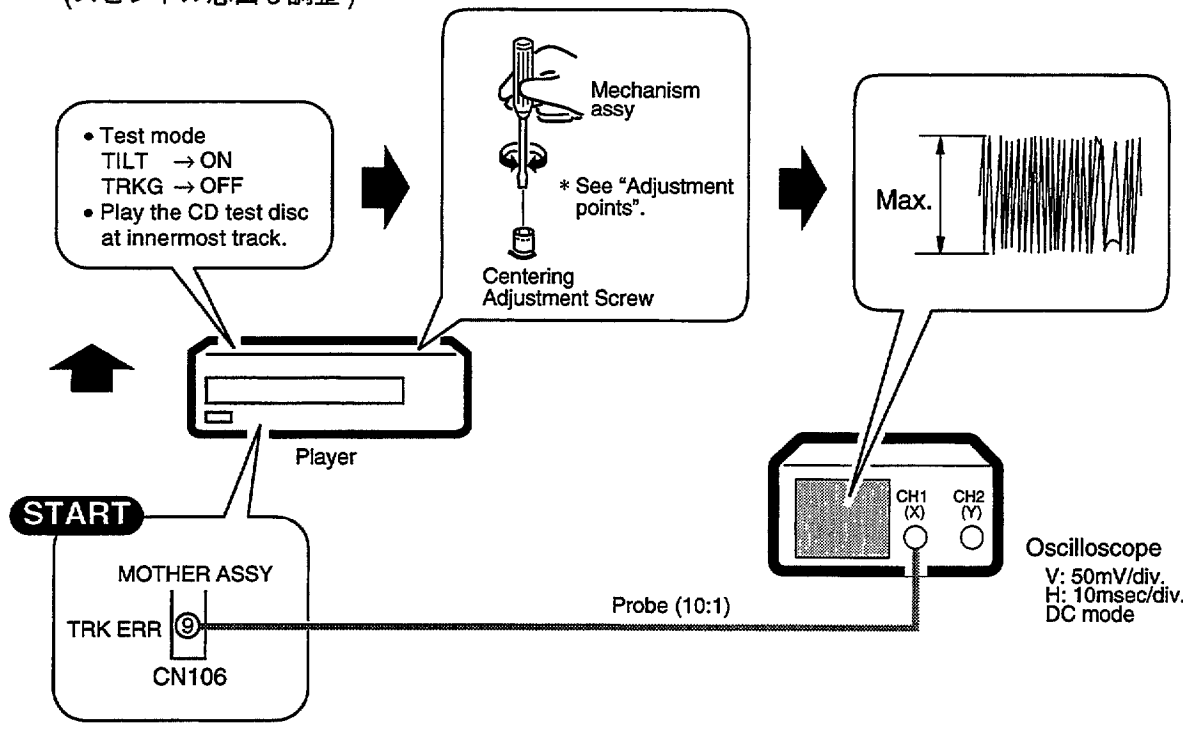


❷ Tangential Direction Angle Adjustment
(タンジェンシャル傾き調整)



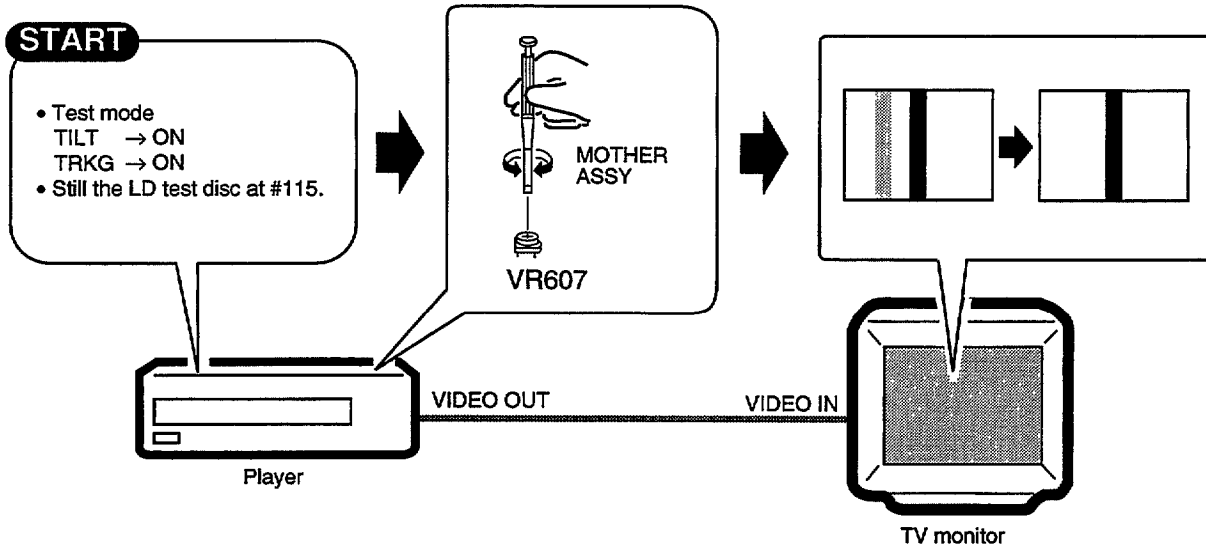
outermost : 最外周

3 Spindle Motor Centering Adjustment
(スピンドル芯出し調整)

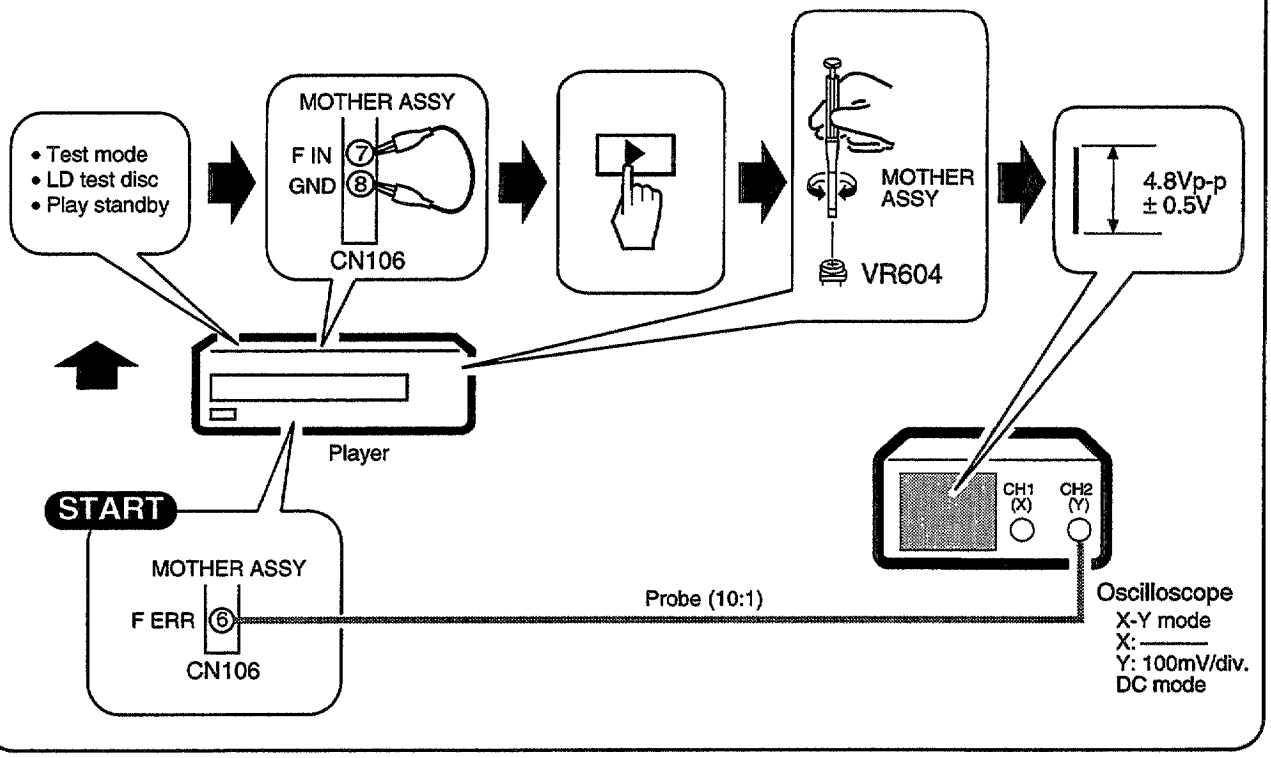


innermost : 最内周

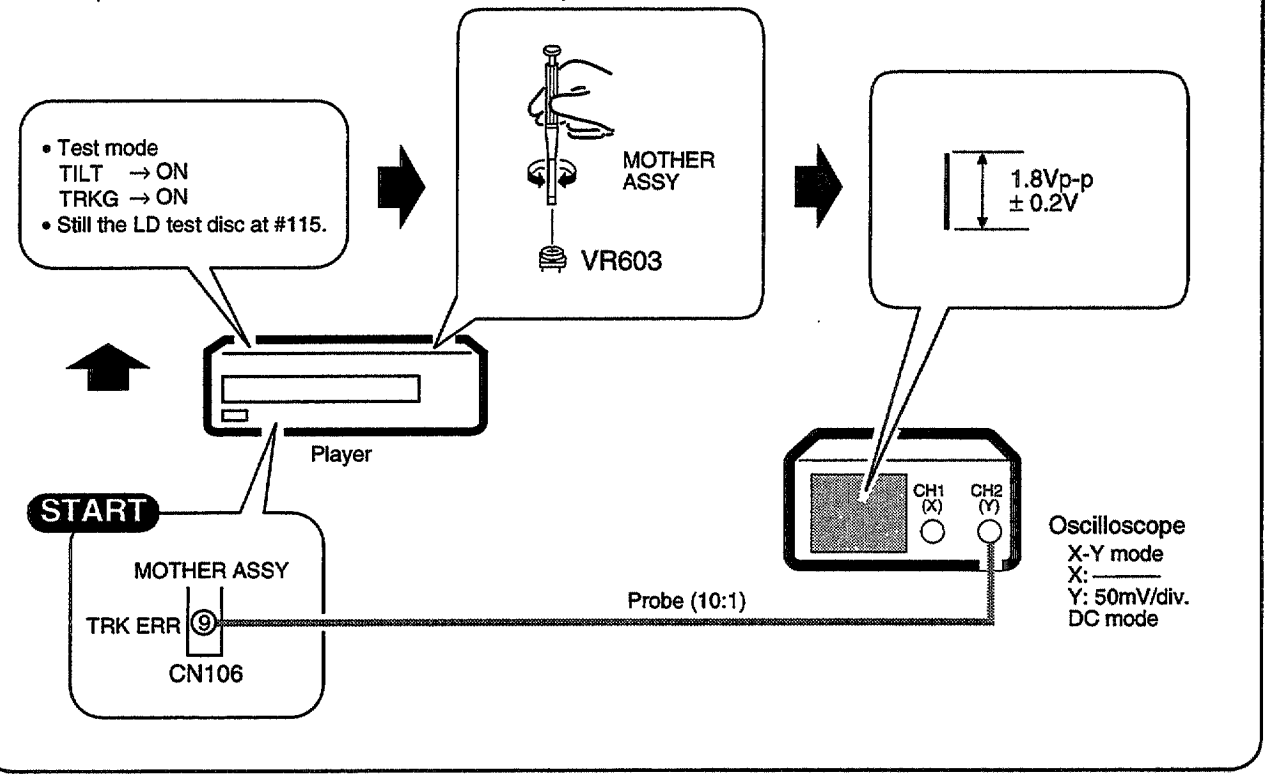
4 Crosstalk Check and Fine Tilt Offset Adjustment
(クロストーク確認及び、チルトオフセット微調)



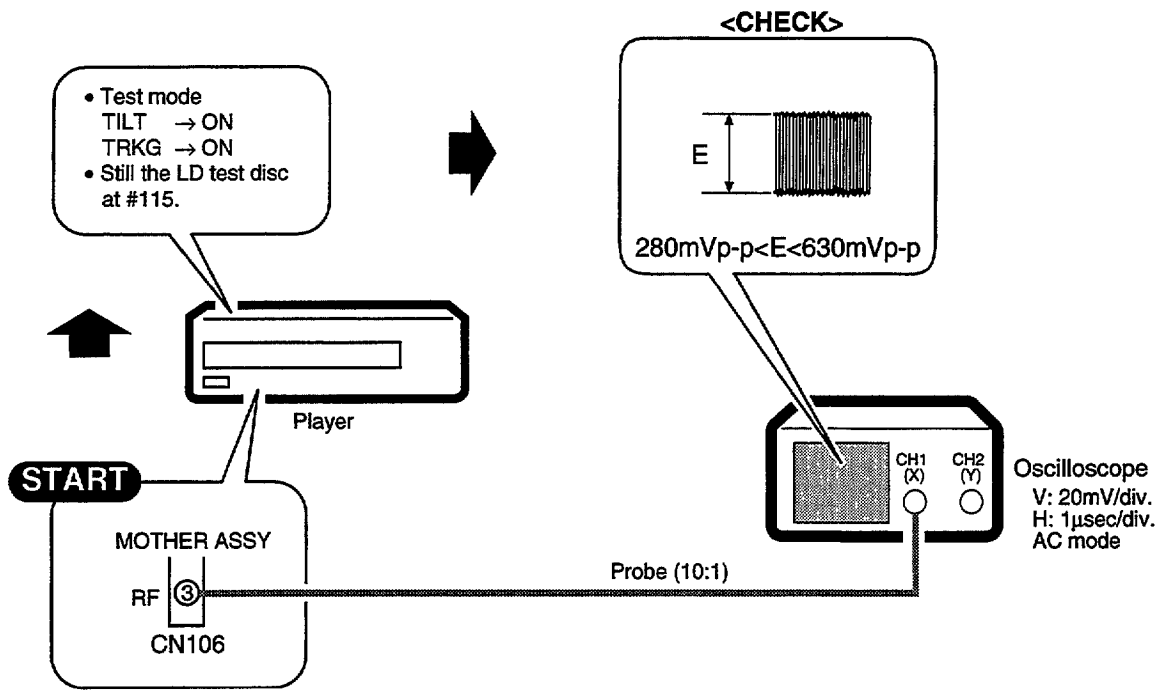
5 Focus Servo Loop Gain Adjustment
(フォーカスサーボループゲイン調整)



6 Tracking Servo Loop Gain Adjustment
(トラッキングサーボループゲイン調整)

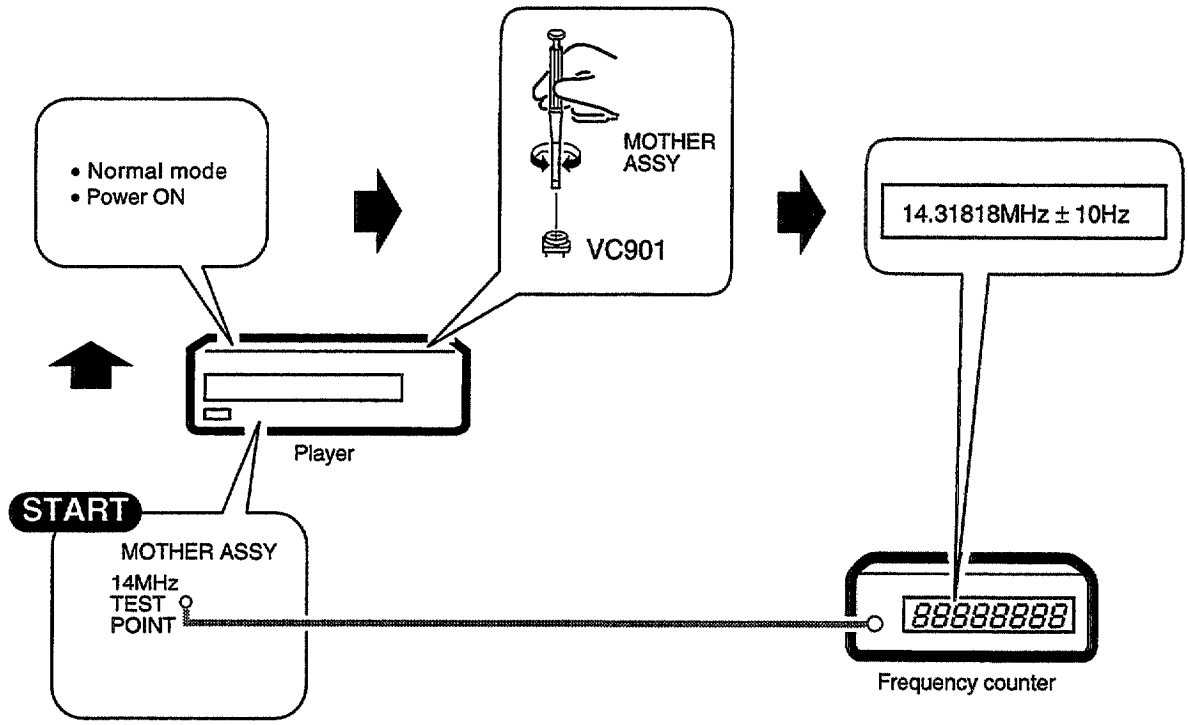


7 RF Level Check
(RFレベル確認)

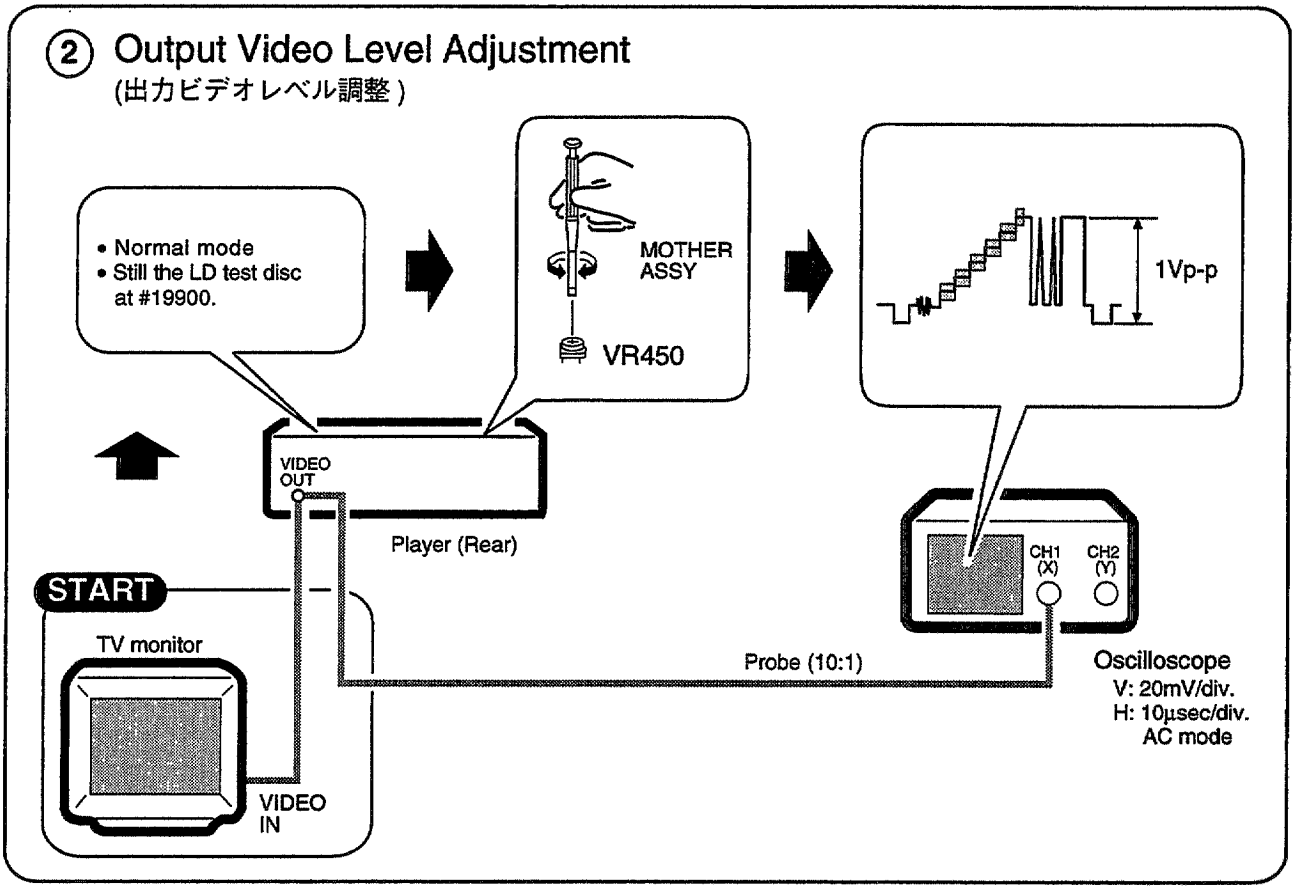


6.6 ELECTRICAL ADJUSTMENT (電気系の調整)

① Master Clock Adjustment
(マスタークロック調整)

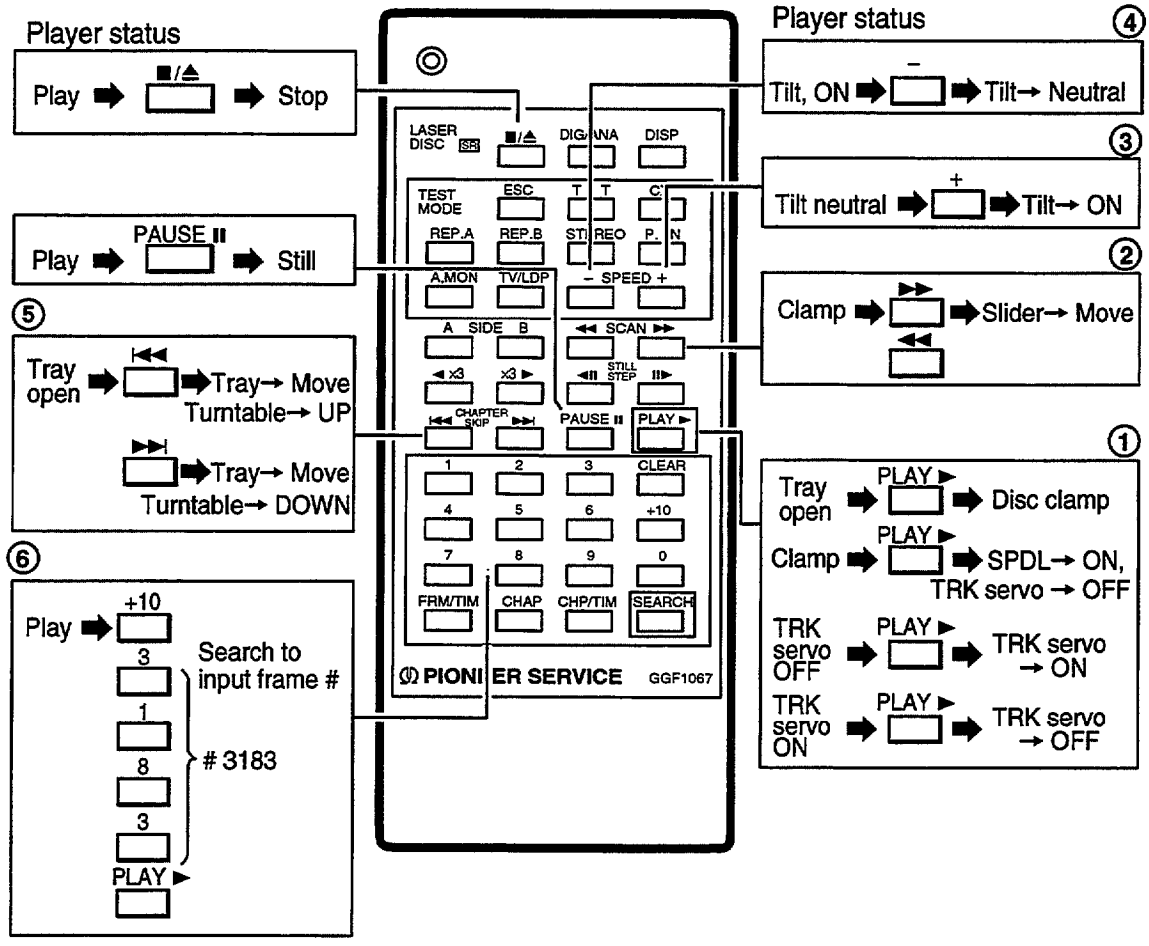


② Output Video Level Adjustment
(出力ビデオレベル調整)

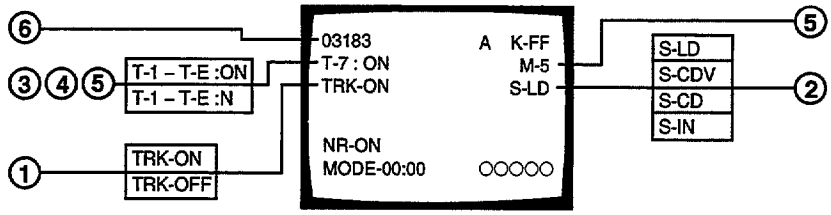


6.7 OPERATIONS IN THE TEST MODE（テストモード時のサービス用リモコン操作方法）

■ Test Mode Remote Control Unit (GGF1067)



■ TV Monitor Display



7. GENERAL INFORMATION

7.1 PARTS

7.1.1 IC

■ PD3363A (FLKY ASSY : IC101)

● MODE CONTROL IC

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

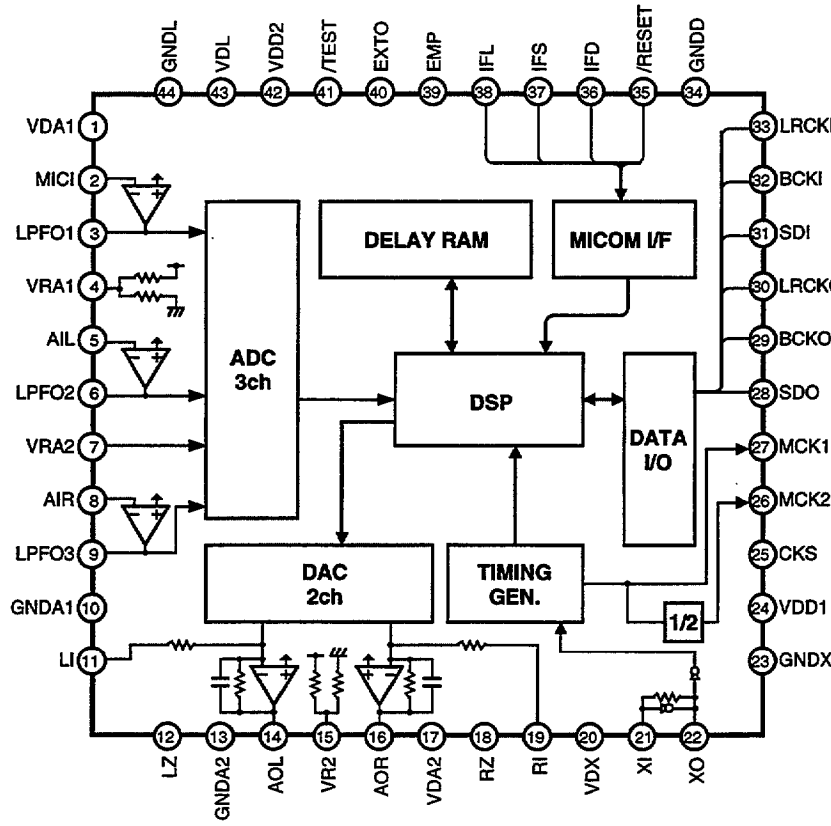
● Pin Function

No.	Symbol	Name	I/O	Function
1	VCC	-	I	+5V
2	P90	XRESET OUT	O	MOTHER ASSY reset output.
3	SCK1	XSCK	I/O	Serial communications clock (mechanism controller and character generator).
4	SI1	S-MTOF	I	Serial communications data input (mechanism controller).
5	SO1	S-FTOM	O	Serial communications data output (mechanism controller and character generator).
6	P94	XOSDCS	O	Character generator (contained in PD0234A), CS output (L: enable).
7	P95	TRAY SW	I/O	Tray position detect.
8	P96	Not used	O	Not used.
9	P97	POWER ON	O	MOTHER ASSY power supply, switching output.
10	AVCC	-	I	+5V
11	P00	KEYIN0	I	Key data input.
12	P01	FSX	I	For error-rate selection.
13	P02	KEYIN2	I	Key data input.
14	P03	Not used	I	GND
15	P04	Not used	I	GND
16	P05	MODEL SELECT 1	I	Power supply switching.
17	P06	Not used	I	Not used.
18	P07	Not used	I	Not used.
19	AVSS	-	I	GND
20	TEST	Not used	I	GND
21	X2	Not used	O	NC (open)
22	X1	Not used	I	+5V
23	VSS	GND	I	GND
24	OSC1	-	I	Main system clock oscillation (8MHz).
25	OSC2	-	O	
26	XRST	XRESET IN	I	CPU reset (L: RESET).
27	IRQ0	SHAKE	I/O	Mechanism controller serial communications request.
28	IRQ1	SEL IR	I	Remote control input.
29	P14	Not used	O	NC (open)
30	P15	EFLG	I	For error-rate selection
31	P16	Not used	I	GND
32	P47	DOGFOOD	O	Pulse output for watchdog
33	P46	Not used	O	NC (open)
34	P45	Not used	O	NC (open)
35	P44	Not used	O	NC (open)
36	P43	Not used	O	NC (open)
37	P42	SEG K	O	Display segment output.
38	P41	SEG J		
39	P40	SEG I		
40	P50	SEG H		
41	P51	SEG G		
42	P52	SEG F		
43	P53	SEG E		
44	P54	SEG D		
45	P55	SEG C		
46	P56	SEG B		
47	P57	SEG A		
48	VDISP	-29V	I	-29V
49	P60	G10	O	Display grid output.
50	P61	G9		
51	P62	G8		
52	P63	G7		
53	P64	G6		
54	P65	G5		
55	P66	G4		
56	P67	G3		
57	P70	G2		
58	P71	G1		
59	P72	LED (SURROUND)	O	LED output: surround
60	P73	LED (VCD SYSTEM)	O	LED output: video CD system
61	P74	LED (STANDBY)	O	LED output: standby
62	P75	LD/XVCD	O	LD/VCD screen switching.
63	P76	XDSPCS	O	DSP (TC9409AF) CS output (L: enable)
64	P77	Not used	O	NC (open)

■TC9409AF-001 (MOTHER ASSY : IC300)

· DIGITAL AUDIO SIGNAL PROCESSOR

•Block Diagram



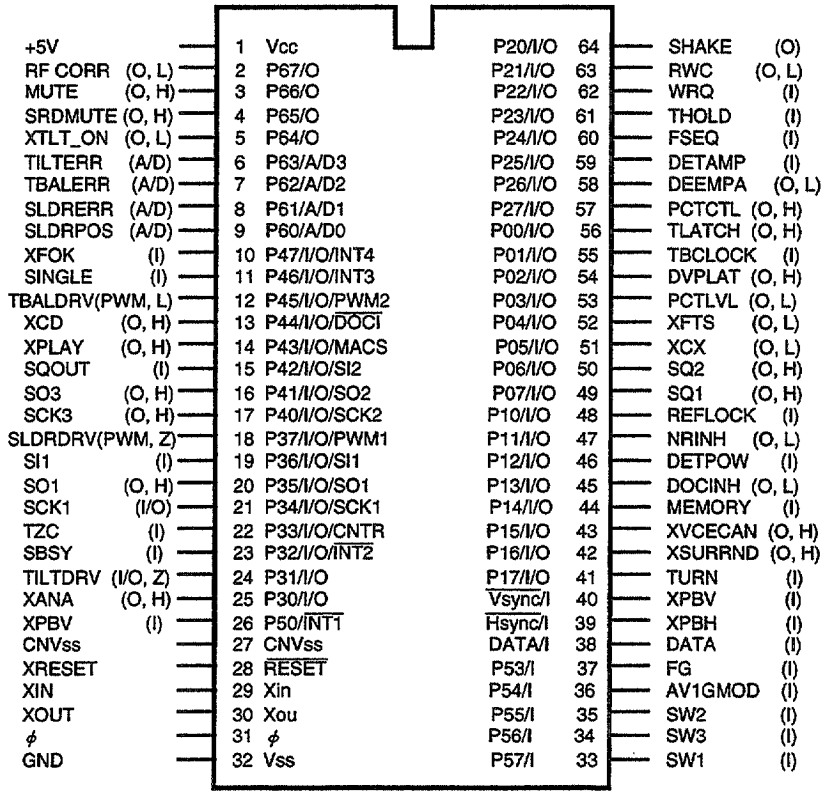
•Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	VDA1	–	ADC power supply	23	GNDX	–	Ground for oscillation section
2	MICI	I(A)	LPF input for MIC input	24	VDD1	–	Digital power supply
3	LPFO1	O(A)	LPF output for MIC input	25	CKS	I	Master clock selection (H : 256/384fs, L : 512/768fs)
4	VRA1	–	ADC reference voltage	26	MCK2	O	Oscillation clock output for frequency divided by 2
5	AIL	I(A)	LPF input for L ch line input	27	MCK1	O	Oscillation clock output
6	LPFO2	O(A)	LPF output for L ch line input	28	SDO	O	Digital audio data output
7	VRA2	–	Reference power supply for ADC	29	BCKO	O	Bit clock output
8	AIR	I(A)	LPF input for R ch line input	30	LRCKO	O	Channel clock output
9	LPFO3	O(A)	LPF output for R ch line input	31	SDI	I	Digital audio data input
10	GNDA1	–	ADC ground	32	BCKI	I	Bit clock input
11	LI	I	L ch analog adder input	33	LRCKI	I	Channel clock input
12	LZ	O	L ch digital input zero detection	34	GNDD	–	Digital ground
13	GNDA2	–	DAC ground	35	/RESET	I(UP)	Reset (Reset for L)
14	AOL	O(A)	L ch DAC output	36	IFD	I	Microcomputer I/F data input
15	VR2	–	DAC reference voltage	37	IFS	I	Microcomputer I/F data shift clock input
16	AOR	O(A)	R ch DAC output	38	IFL	I	Microcomputer I/F latch pulse input
17	VDA2	–	DAC power supply	39	EMP	I	Deemphasis setting (Deemphasis ON for H)
18	RZ	O	R ch digital input zero detection	40	EXTO	O	Expansion output
19	RI	I	R ch analog adder input	41	/TEST	I(UP)	Test mode setting (Normally, fixed for H)
20	VDX	–	Power supply for oscillation section	42	VDD2	–	Digital power supply
21	XI	I	Connect a oscillator	43	VDL	–	Digital power supply for DRAM
22	XO	O	(any of 256, 384, 512 or 768fs)	44	GNDL	–	Digital ground for DRAM

■PD0245A2 (MOTHER ASSY : IC101)

• MECHANISM CONTROL IC

• Pin Arrangement (Top View)



• Pin Function

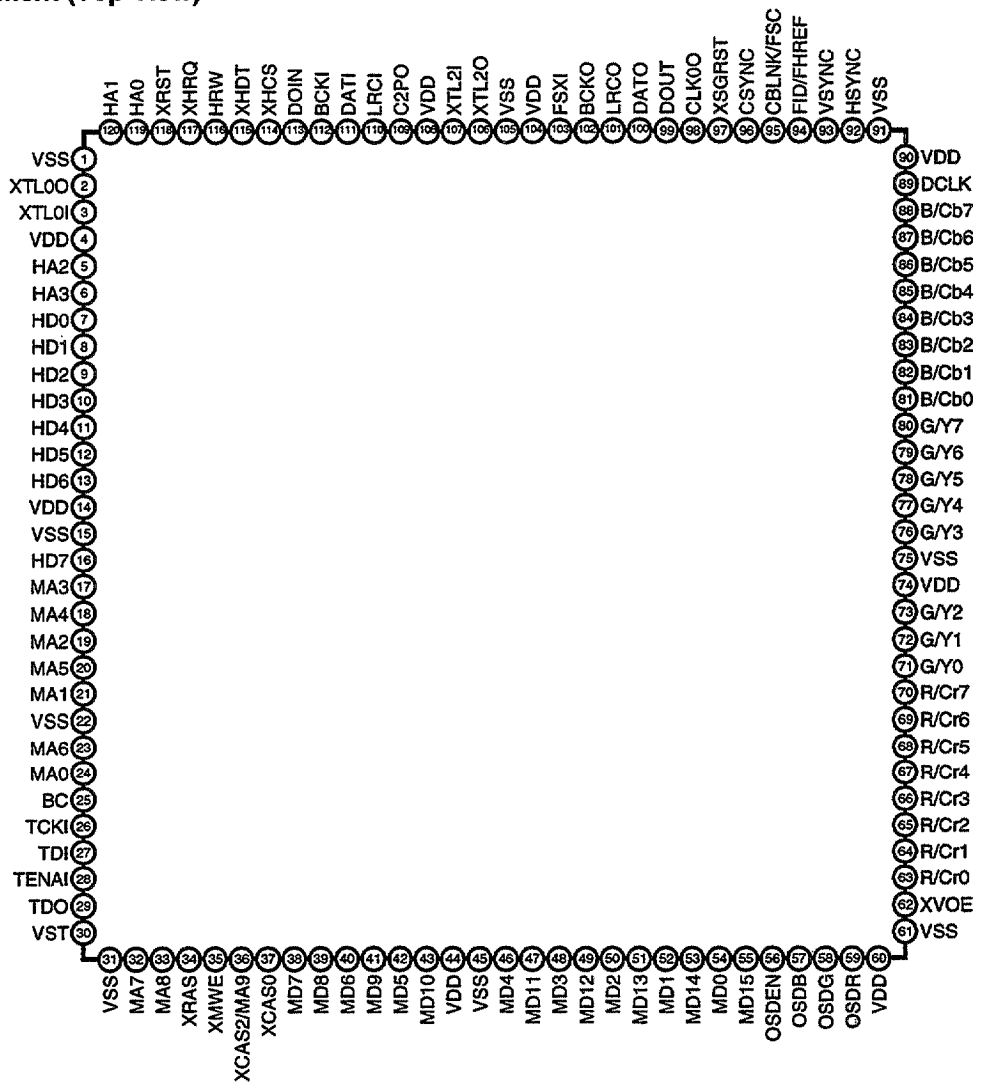
No.	Pin Name	I/O	Function
1	VCC	I	Power supply pin Apply 5V±10%
2	RFCORR	O	RF correction switch signal output H : Gain UP CD, CDV-A : Low, CAV inner circuit gain up, others are High
3	MUTE	O	Audio mute control signal output of audio system L : Release MUTE H : MUTE
4	SRDMUTE	O	Mute control signal output for AC3 Release MUTE during playback. L : Release MUTE H : MUTE
5	XTLT ON	O	Tilt operation information L : During operation In the OPEN/CLOSE, the voltage will up about 10% by using this port.
6	TILTERR	I A/D	This signal is A/D converted as the tilt servo control input. Control the tilt motor so that this signal becomes 2.5V.
7	TBALERR	I A/D	Tracking balance error signal input This signal is A/D converted as the tracking offset control input.
8	SLDERR	I A/D	This signal is A/D converted as the slider servo control input. Control the tilt motor so that this signal becomes 2.5V.
9	SLDPOS	I A/D	Pickup position detection switch input Detect the position by reading A/D input value which each switches are resistance divided.
10	XFOK	I	Focus servo lock signal input L : Lock H : Unlock Use for lock detection of focus servo.
11	SINGLE	I	This information transmit to mode control by communication. L : Port high H : Port low Use for the signal mode
12	TBALDRV	O PWM	Output the tracking offset signal to PWM output, then use for auto tracking offset. 910 μsec period, tri-state control H, L, Z
13	XCD	O	LD/CD switch signal output L : CD H : LD
14	XPLAY	O	Signal output during spindle servo L : During servo H : During acceleration, brake and stop
15	SQOUT	I	Command data input from DSP Read out SUBQ
16	SO3	O	Serial 3 data signals output Serial signals are common used and signal distinguishes from the latch signals (DVPLAT and TLAT).
17	SCK3	O	Serial 3 clock signals output
18	SLDDRV	O PWM	Slider control signal output 5V=FWD, 0V=REV, 2.5V=STOP 910 μsec period, tri-state control H, L, Z

No.	Pin Name	I/O	Function
19	SI1	I	Data input from the mode control IC
20	SO1	O	Serial data output to the mode control IC
21	SCK1	I/O	Clock for serial communication with the mode control IC Becomes input mode without communicate with the mode control IC
22	TZC	I INT	Tracking error zero cross signal input Monitor this signal when searching track count in the miss clamp detection.
23	SBSY	I	Interrupt input for reading sub-code Q data from DSP
24	TILTDRV	I/O	LOAD/TILT control output 0.5V-Tray IN, OUT/Tilt DOWN, UP 2.5V-STOP Use for tilt servo that tilt drive is PWM output.
25	XANA	O	Digital/Analog audio switch signal output L : Analog H : Digital
26	XPBV	I	Playback vertical sync. signal input of LD/CDV L : During vertical sync.
27	CNVss	I	Ground for A/D conversion
28	XRESET	I	Reset signal input L : Reset H : Release reset Mode control is controlled.
29	XIN	I	9MHz clock oscillation input
30	XOUT	O	9MHz clock oscillation output
31	N.C.	O	Not used
32	GND	I	Ground
33	SW1	I	Switch input for Loading/Tilt position detection
34	SW3		
35	SW2		
36	AV1GMOD	I	AV1 gijutu mode When this port set to H, unti-shock control will be effective by Address C-bit2 from the mode control.
37	FG	I	Spindle motor FG signal input 16 outputs per rotation Used after dividing by 2 in microprocessor
38	DATA	I	Input pin for Phillips code decoder with built in mechanism controller
39	XPBH	I	Playback H-SYNC input for Phillips code decoder
40	XPBV	I	Playback V-SYNC input for Phillips code decoder
41	TURNA	I	Turn switch input H : side A L : side B
42	XSURRND	O	Surround control H : OFF L : ON
43	XVCECAN	O	Voice cancel output H : OFF L : Cancel
44	MEMORY	I	Memory model discrimination H : Memory model L : Non-memory model
45	DOCINH	O	Control the clamp pulse and clamp killer by tri-state value
46	DETPOW	I	Use for power abnormal signal input port. L : Normal H : Abnormal
47	NRINH	O	Control output of the noise reduction switch signal output L : CX ON H : CX OFF
48	REFLOCK	I	Reference signal input from DVP L : Phase not aligned H : Phase aligned (Non-memory)
49	SQ1	O	Analog audio switch signal output 1/L L : Squelch OFF H : Squelch ON
50	SQ2	O	Analog audio switch signal output 2/R L : Squelch OFF H : Squelch ON
51	XCX	O	Analog audio CX noise reduction switch switch signal output L : CX ON H : CX OFF
52	XFTS	O	Serial command output switch signal output of DSP/others L : DSP H : others
53	PCTLVL	O	Signal output for the picture quality adjustment L : SHARP2 (strong) H : SHARP1 (weak)
54	DVPLAT	O	PD0234 serial latch signal output Latches at falling edge.
55	TBCLOCK	I	Spindle lock signal input L : Unlock H : Lock
56	TLATCH	O	DAC & digital filter PD2026B serial control latch signal output Latches at falling edge.
57	PCTCTL	O	Outline correction signal output L : Correction OFF H : Correction ON
58	DEEMPA	O	DSP deemphasis control L : OFF H : ON
59	DETAMP	I	Spindle over-current detection signal input L : Over current H : Normal
60	FSEQ	I	Subcode sync. conformity detection signal input L : Not conformity H : Conformity
61	THOLD	I	Track jump accelerating / decelerating signal input L : other H : accelerating / decelerating
62	WRQ	I	Subcode Q reading OK signal input L : NG H : OK This pin will be H when Subcode Q data passed by CRC check.
63	RWC	O	DSP read / write command signal output L : Read H : Write
64	SHAKE	I/O	Handshake signal for data communication with the mode control IC This pin is the bilateral data line and each microprocessor control the Input / Output.

■ CXD1852Q (VCDB ASSY : IC101)

• MPEG1 DECODER

• Pin Assignment (Top View)



• Block Diagram