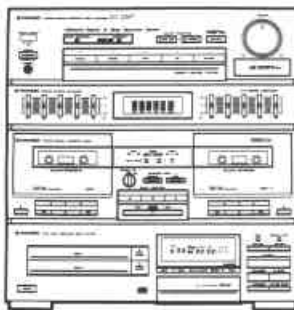


Service Manual

PIONEER
The Art of Entertainment



ORDER NO.
ARP2136

STEREO TWIN CD CASSETTE DECK AMPLIFIER

XD-Z54T

MODEL XD-Z54T HAS FOLLOWING VERSIONS :

Type	Power requirement	Export destination
HE	AC220V, 240V (Switchable) *	European continent
HB	AC220V, 240V (Switchable) *	United Kingdom
HEWZIW	AC220V, 240V (Switchable) *	Germany and Italy

* Change the jumper wires of assembly board.

- This manual is applicable to the XD-Z54T/HE and HB types.
- As to the HB type, refer to page 77.
- As to the other type, refer to applicable service manual.
- This product is a component of a system. As to the system composition, refer to the system manual.
- As to the MECHANISM DESCRIPTION, refer to the PD-Z74T service guide (ARP2144).
- For adjustment refer to ADJUSTMENTS FOR XD-Z54T, XD-Z84T, DC-Z94, DC-Z84 and DC-Z74 (ARP2140).

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YV DEC. 1990 Printed in Japan.

1. SAFETY INFORMATION

(FOR EUROPEAN MODEL ONLY)

VARO!
AVATTAESSA JA SUOJALUKITUS
OHITETTAESSA OLET ALTTIINA
NAKYMATTOMALLE LASERSÄTEILYLLE.
ALÄ KATSO SÄTEESEEN.

ADVERSEL
USYNLIG LASERSTRÅLING VED
ÅBNING NÅR SIKKERHEDSÅFBRYDERE ER UDE AF
FUNKTION. UNDGÅ UDSÆTTELSE FOR
STRÅLING.

VARNING!
OSYNLIG LASERSTRÅLNING NAR DENNA
DEL ÄR ÖPPNAD OCH SPÄRREN
ÄR URKOPPLAD. BETRakta EJ STRÅLEN.



LASER
Kuva 1
Lasersäteilyn
varoituserkki

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.

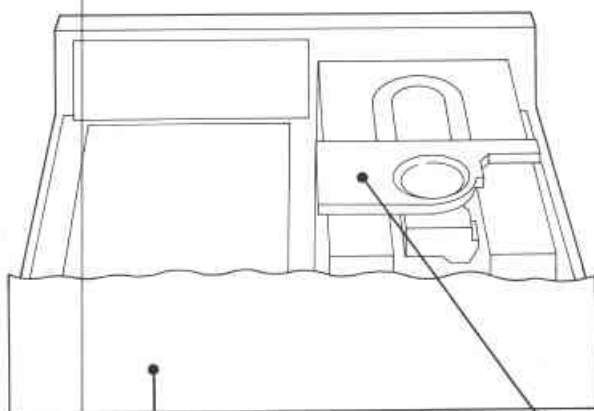


LASER
Picture 1
Warning sign for
laser radiation

IMPORTANT
THIS PIONEER APPARATUS CONTAINS
LASER OF HIGHER CLASS THAN 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

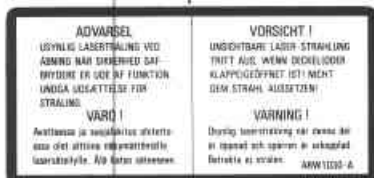
LABEL CHECK (TWIN type)



HE, HEWZIW and HB types

Additional Laser Caution

- Laser Interlock Mechanism**
The ON/OFF (ON : low level/OFF : high level) status of the U (S601) and L (S603) switches for detecting the disc clamp state is detected by the system microprocessor, and the design prevents laser diode oscillation when both switches U and L are OFF (high level).
Thus, the interlock will no longer function if switches U (S601) and L (S603) are deliberately shorted. Laser diode oscillation will continue if pins 2 and 3 of CXA1471S (IC101) are connected to ground or pin 20 is connected to high level (ON) or the terminals of Q101 are shorted to each other (fault condition).
- When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 or higher laser beam.



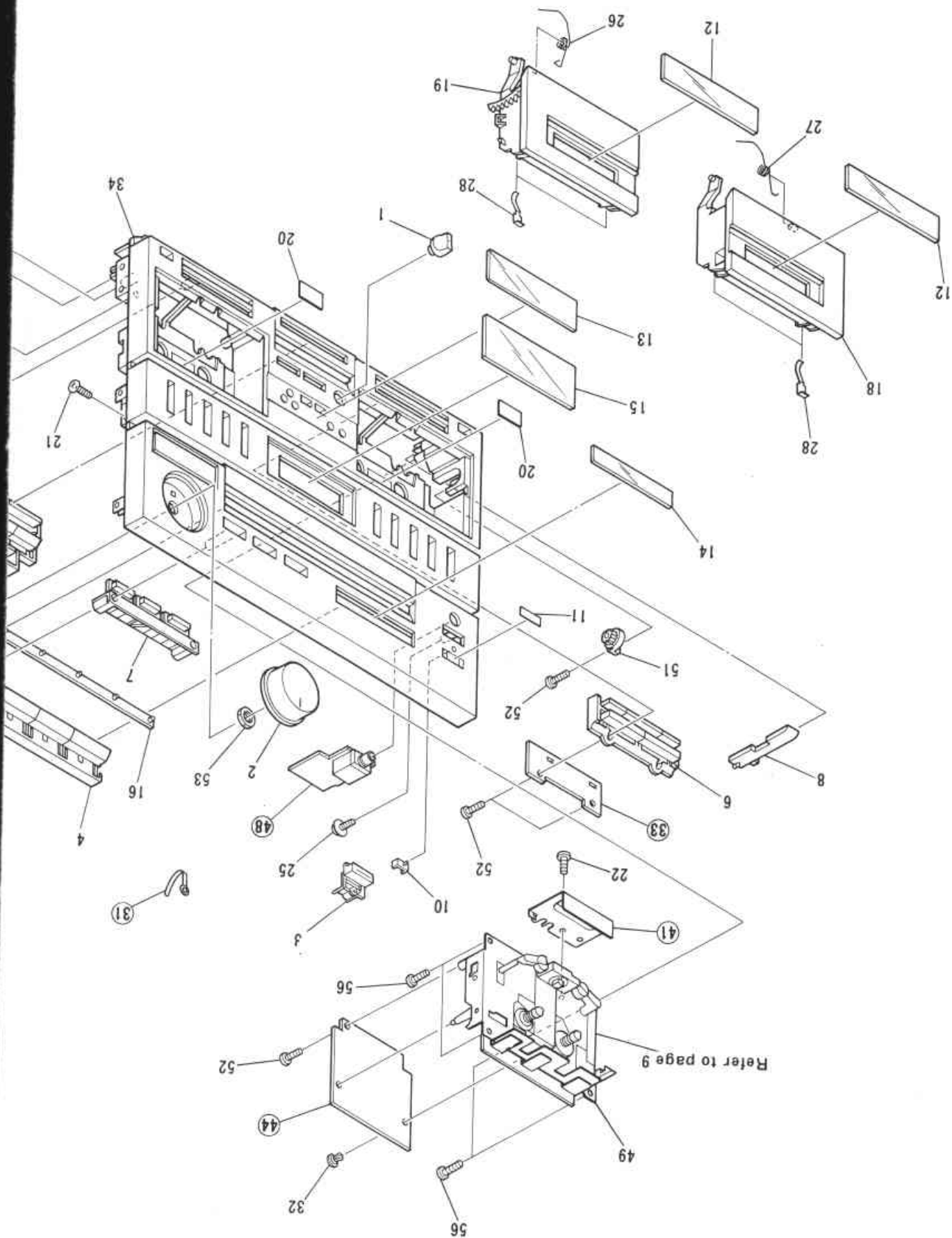
HE and HEWZIW types



HB type



HE, HB and HEWZIW types



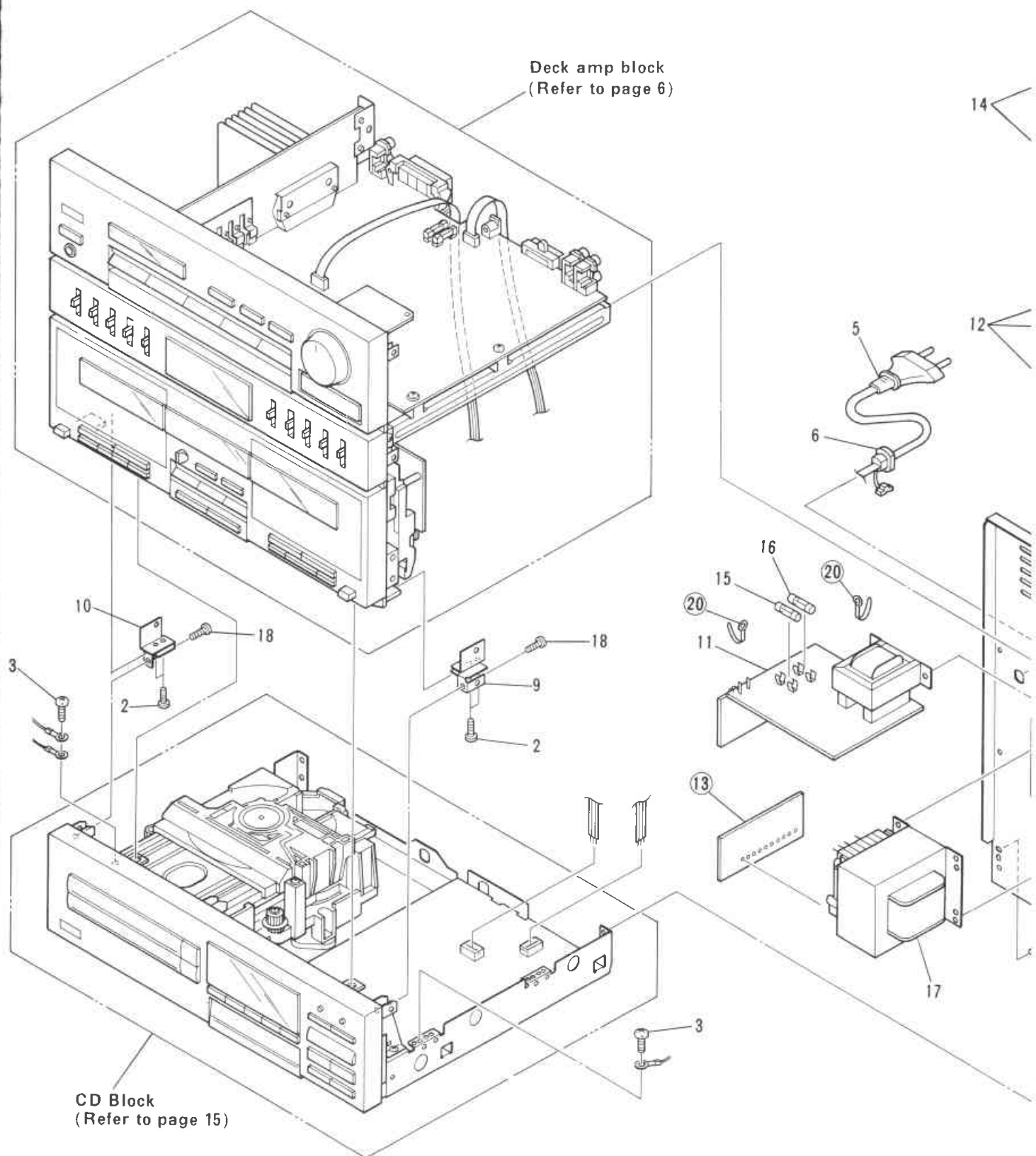
2.3 DECK AMP BLOCK

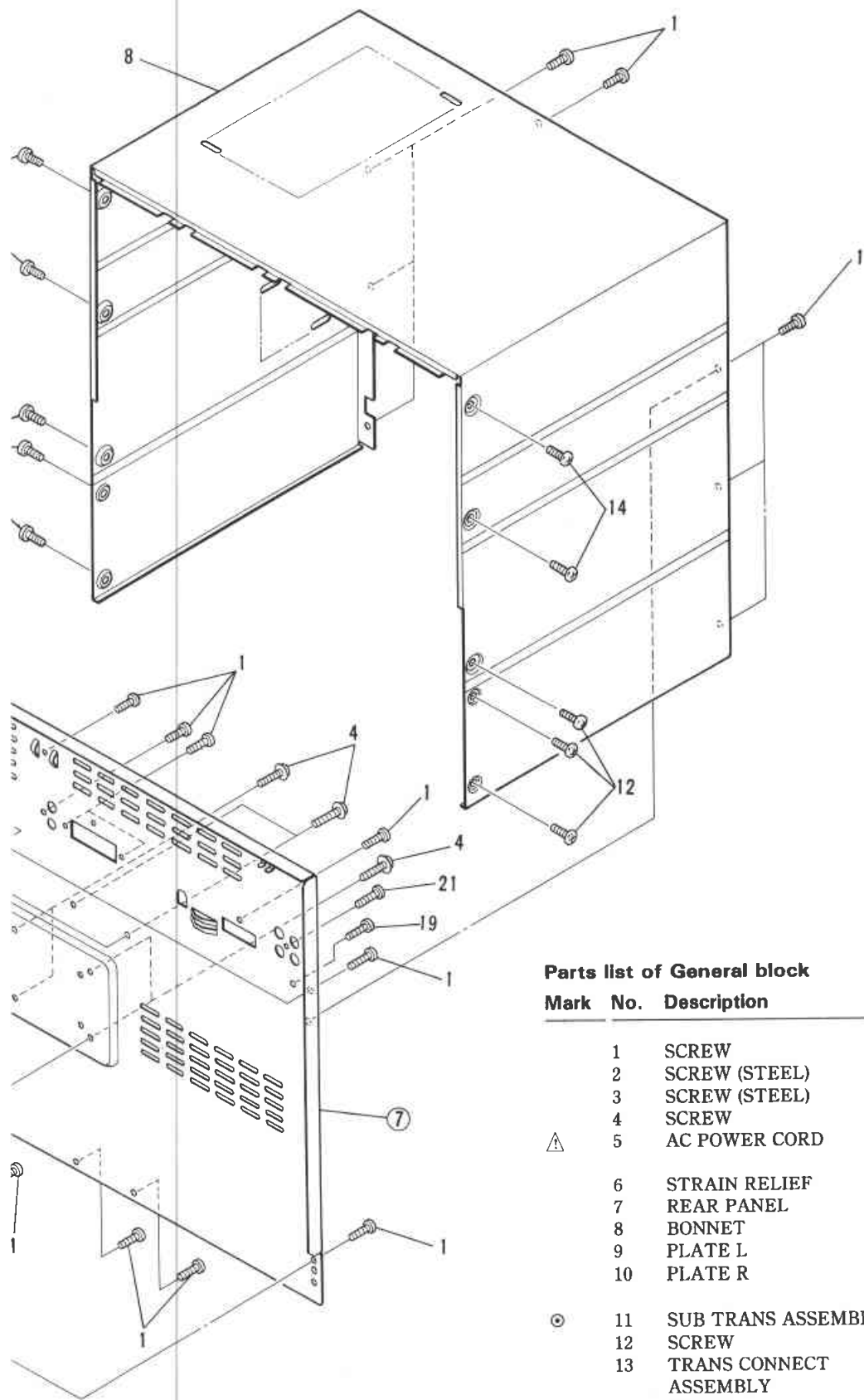
Parts list of Deck amp block

Mark No.	Description	Parts No.
1	ROTARY KNOB (DOLBY NR)	AAB1136
2	VOL KNOB (VOLUME)	AAB1200
3	POWER BUTTON	AAD1674
4	FUNCTION BUTTON (PLS)	AAD1894
5	REC. COPY BUTTON (PLS)	AAD1895
6	DECK PLAY BUTTON (PLS)	AAD1896
7	AI BUTTON (PLS)	AAD1897
8	EJECT BUTTON L (PLS)	AAD1898
9	EJECT BUTTON R (PLS)	AAD1922
10	LENS (POWER IND)	AAK1800
11	FILTER (REMOTE SENSOR)	AAK1812
12	DECORATIVE PLATE (DOOR)	AAK2065
13	DECORATIVE PLATE A	AAK2067
14	AI DECORATIVE PLATE (DECK)	AAK2068
15	DECORATIVE PLATE (GEQ)	AAK2069
16	INDICATOR LENS	AAK2075
17	DISPLAY ASSEMBLY	AWZ3350
18	CASSETTE DOOR (R)	AAAN1250
19	CASSETTE DOOR (L)	AAAN1251
20	FABEL (PAPER)	AAAX1301
21	SCREW	ABA-298
22	SCREW (STEEL)	ABA1009
23	SCREW (STEEL)	ABA1011
24	SCREW	ABA1018
25	SCREW (STEEL)	ABA1095
26	DOOR SPRING L	ABH1068
27	DOOR SPRING R	ABH1069
28	KEEP PLATE	ABK1016
29	GROUND LEAD	
30	GROUND LEAD	
31	NYLON BINDER	
32	NYLON RIVET	AEC1160
33	1 MECHA SW ASSEMBLY	
34	FRONT PANEL	AMB1744
35	PACK HOLDER	
36	HEAT SINK HOLDER B	
37	HEAT SINK HOLDER A	
38	PLATE	
39	PLATE	
40	HEAT SINK	
41	SHIELD PLATE (MECHA)	
42	SHIELD PLATE	
43	2 MECHA SW ASSEMBLY	
44	1 MECHA ASSEMBLY	
45	2 MECHA ASSEMBLY	

Mark No.	Description	Parts No.
46	AF ASSEMBLY	AWZ3333
47	VR ASSEMBLY	
48	HEAD PHONE ASSEMBLY	
49	1 MECHA UNIT	EXK2020
50	2 MECHA UNIT	EXK2010
51	DAMPER ASSEMBLY	AXA1008
52	SCREW	BPZ26P080FMC
53	NUT	NK90FUC
54	SCREW	PCZ30P040FMC
55	SCREW	VBZ35P080FZK
56	SCREW	VPZ30P080FMC
57	FUSE (T1.6A, FU151)	AEK-405
58	FUSE (T1.6A, FU152)	AEK-405

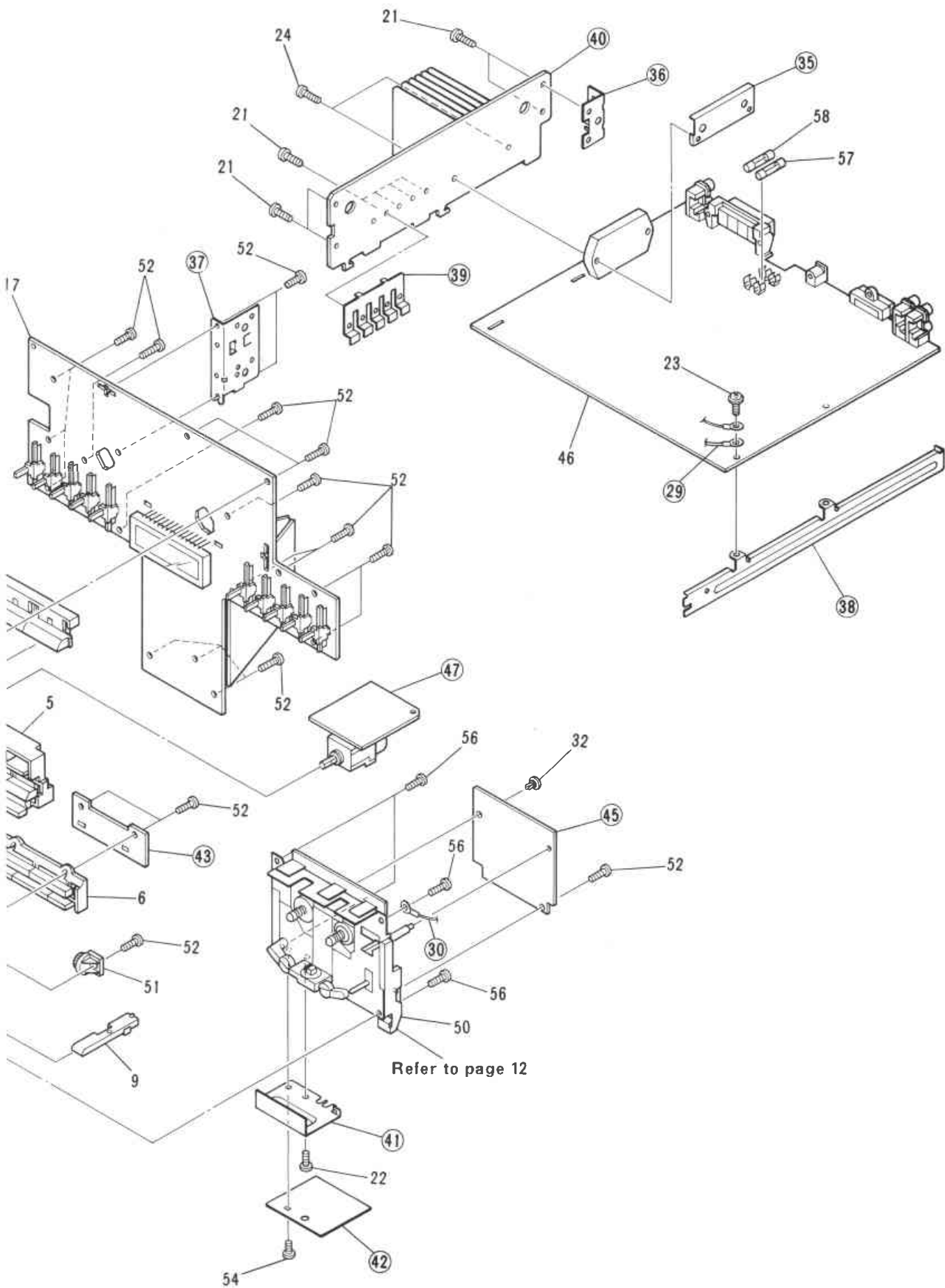
2.2 GENERAL BLOCK





Parts list of General block

Mark	No.	Description	Parts No.
	1	SCREW	ABA - 298
	2	SCREW (STEEL)	ABA1007
	3	SCREW (STEEL)	ABA1009
	4	SCREW	ABA1082
⚠	5	AC POWER CORD	ADG1049
	6	STRAIN RELIEF	AEC - 882
	7	REAR PANEL	
	8	BONNET	ANE1275
	9	PLATE L	ANG1536
	10	PLATE R	ANG1537
⊙	11	SUB TRANS ASSEMBLY	AWR1056
	12	SCREW	BBZ30P080FZK
	13	TRANS CONNECT ASSEMBLY	
	14	SCREW	VPZ30P080FZK
⚠	15	FUSE (T1.6A, FU101)	AEK - 405
⚠	16	FUSE (T1.25A, FU102)	AEK - 018
⚠	17	POWER TRANSFORMER (T102)	ATS1317
	18	SCREW	VPZ30P080FMC
	19	SCREW	VBZ35P080FZK
	20	NYLON BINDER	



EXPLODED VIEWS, PACKING AND PARTS LIST

1 PACKING

NOTES:

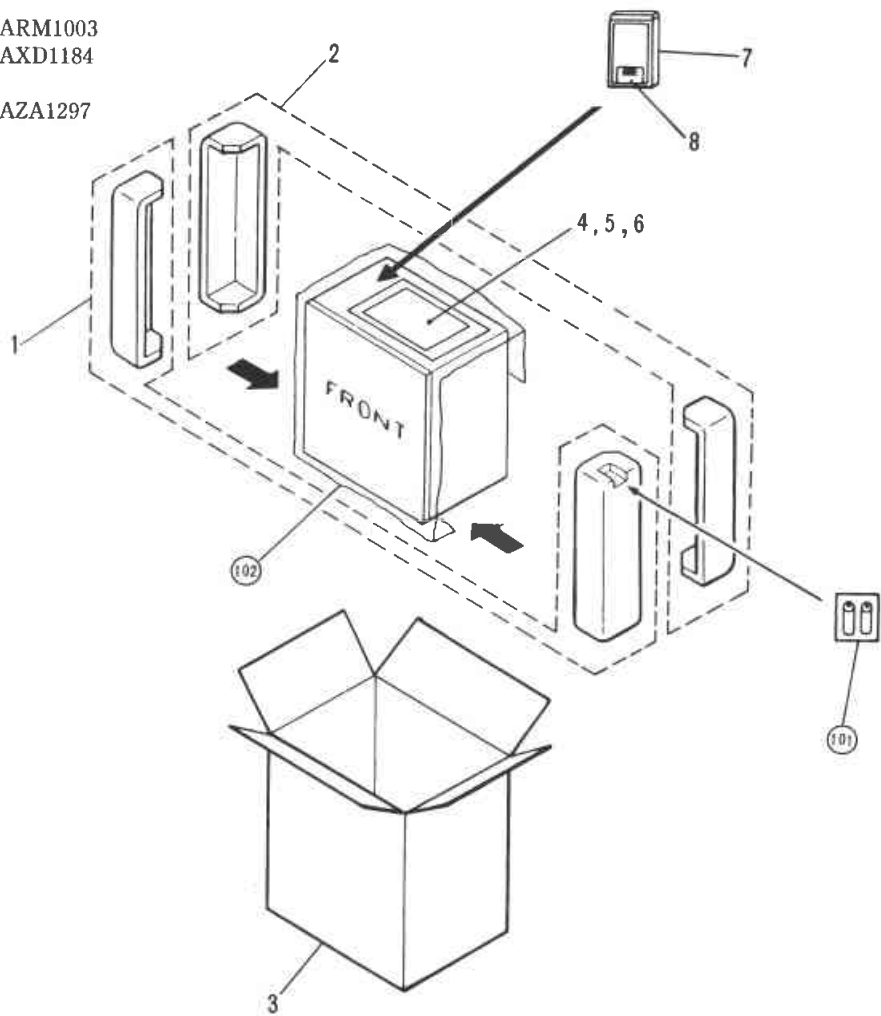
Parts without part number cannot be supplied.

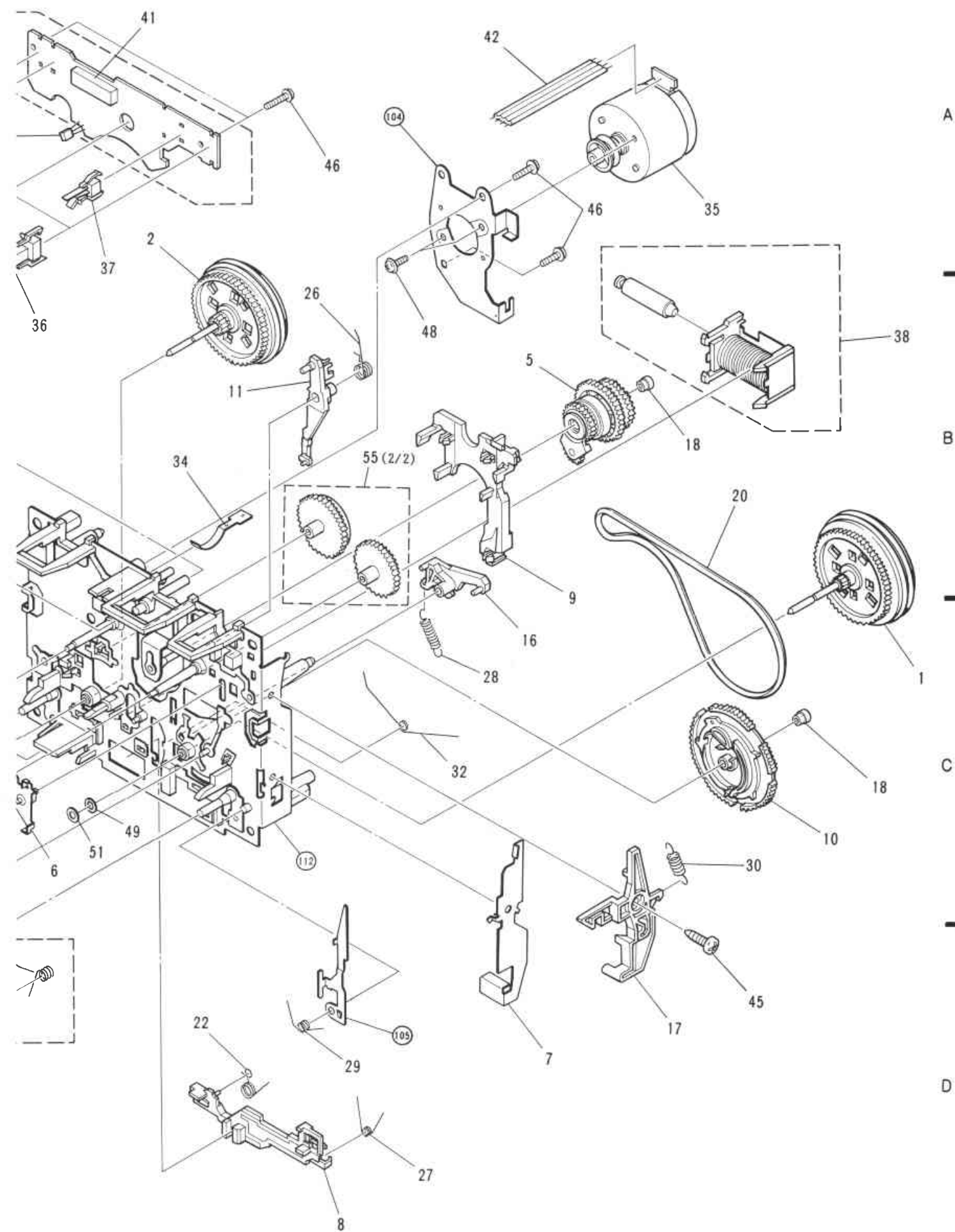
The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Parts list of Packing

Mark	No.	Description	Parts No.
	1	FRONT PAD L, R	AHA1406
	2	REAR PAD L, R	AHA1407
	3	PACKING CASE	AHD1967
	4	OPERATIONG INSTRUCTIONS (Nederlands, Svenska, Español, Português)	ARC1241
	5	OPERATIONG INSTRUCTIONS (English, Deutsch, Français, Italiano)	ARE1171
	6	CAUTION CARD	ARM1003
	7	REMOTE CONTROL UNIT (CU-DC021)	AXD1184
	8	BATTERY COVER	AZA1297
101		DRY CELL BATTERY (R03, AAA)	
102		SHEET	

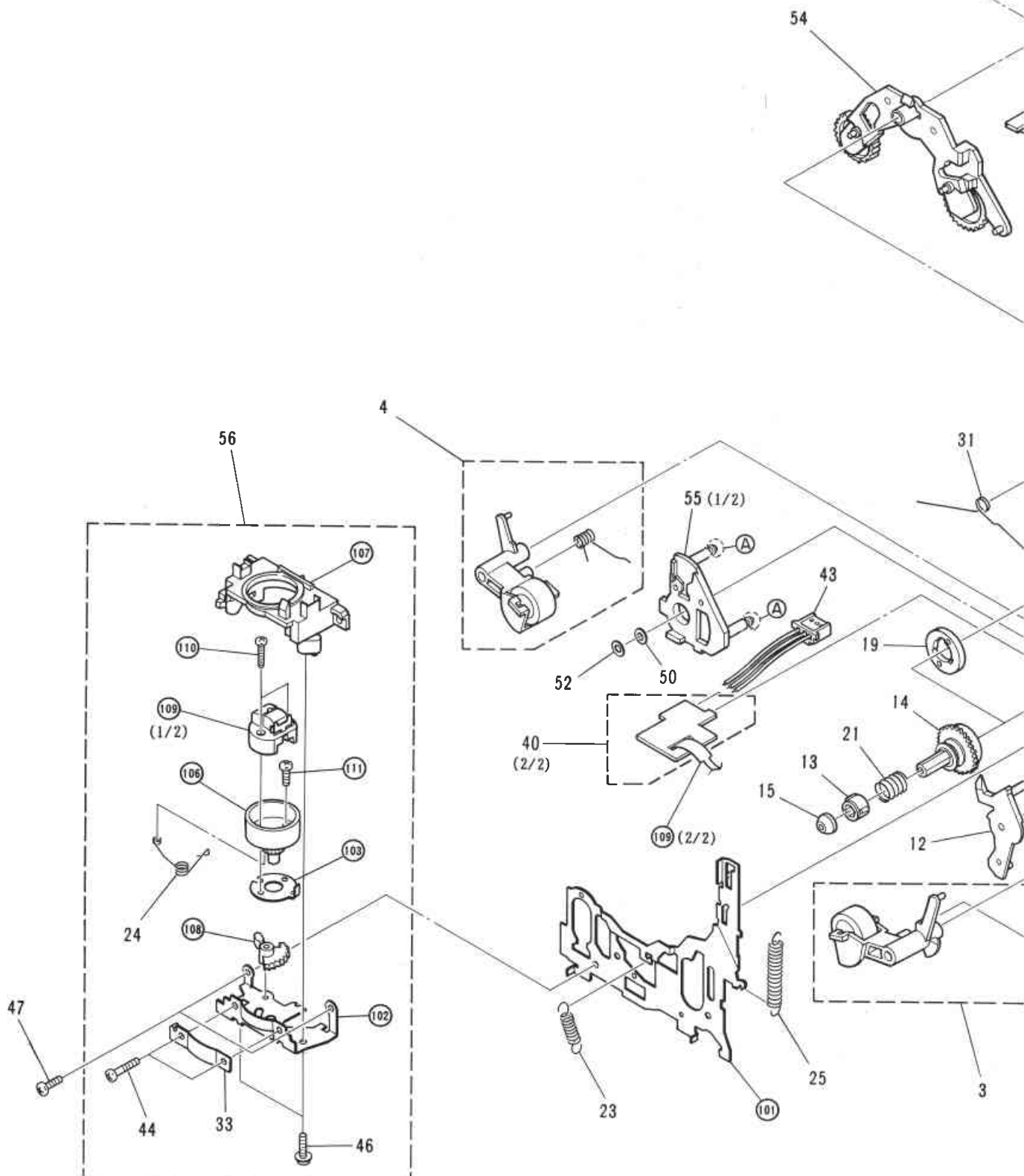




Note :

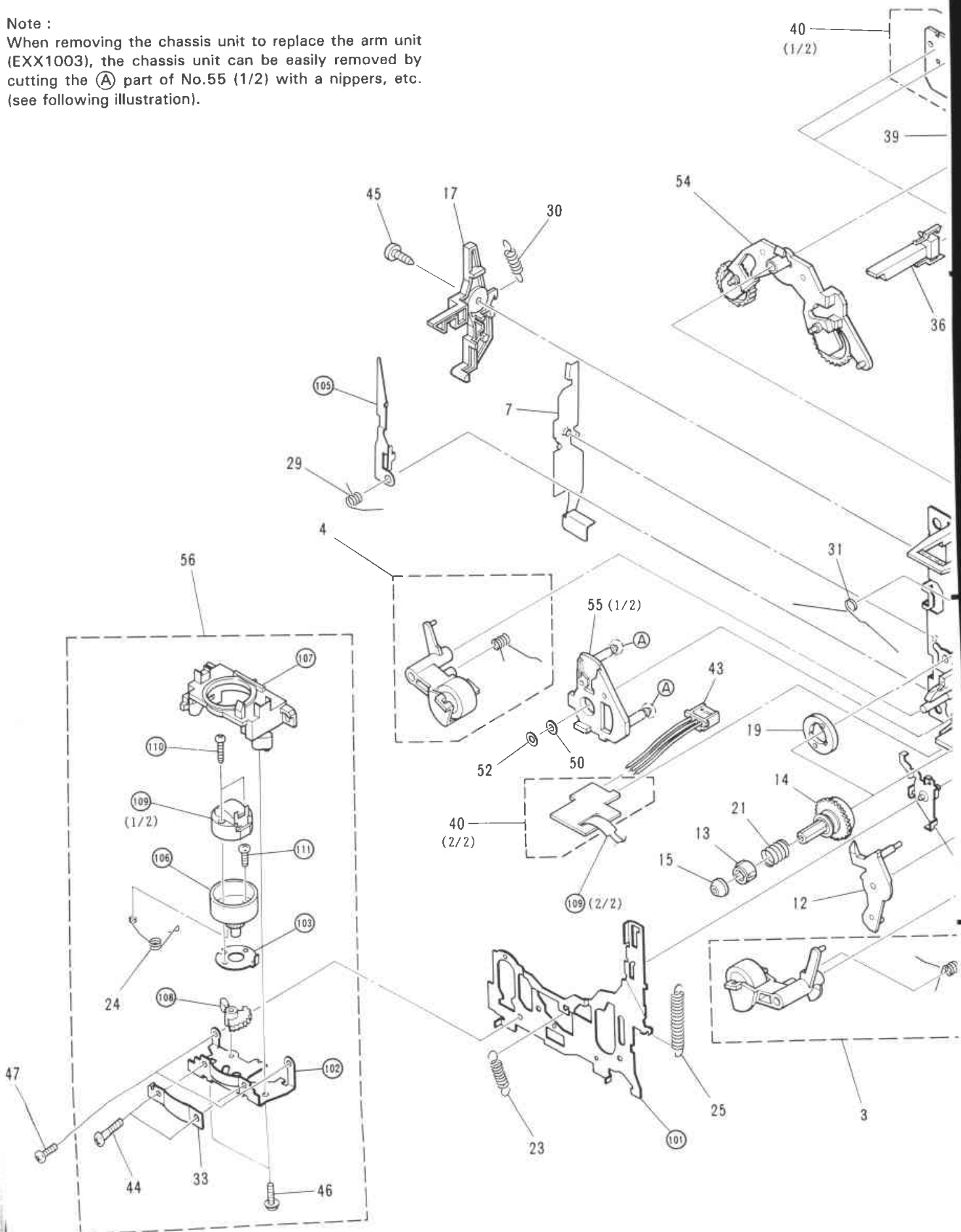
When removing the chassis unit to replace the arm unit (EXX1003), the chassis unit can be easily removed by cutting the (A) part of No.55 (1/2) with a nippers, etc. (see following illustration).

40
(1/2)



Note :

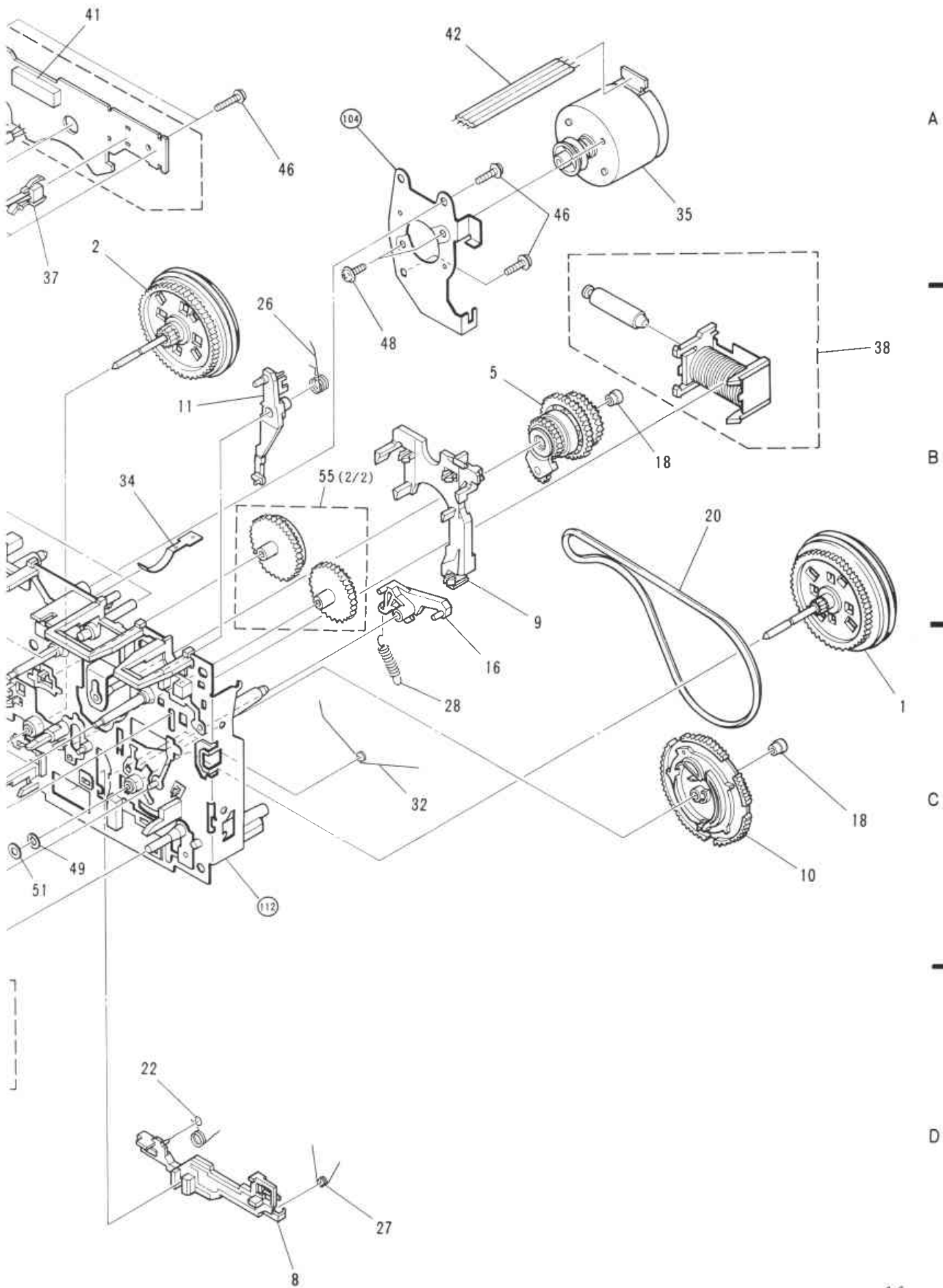
When removing the chassis unit to replace the arm unit (EXX1003), the chassis unit can be easily removed by cutting the (A) part of No.55 (1/2) with a nippers, etc. (see following illustration).



1 MECHA UNIT (EXK2020)

Parts list of 1 Mecha unit

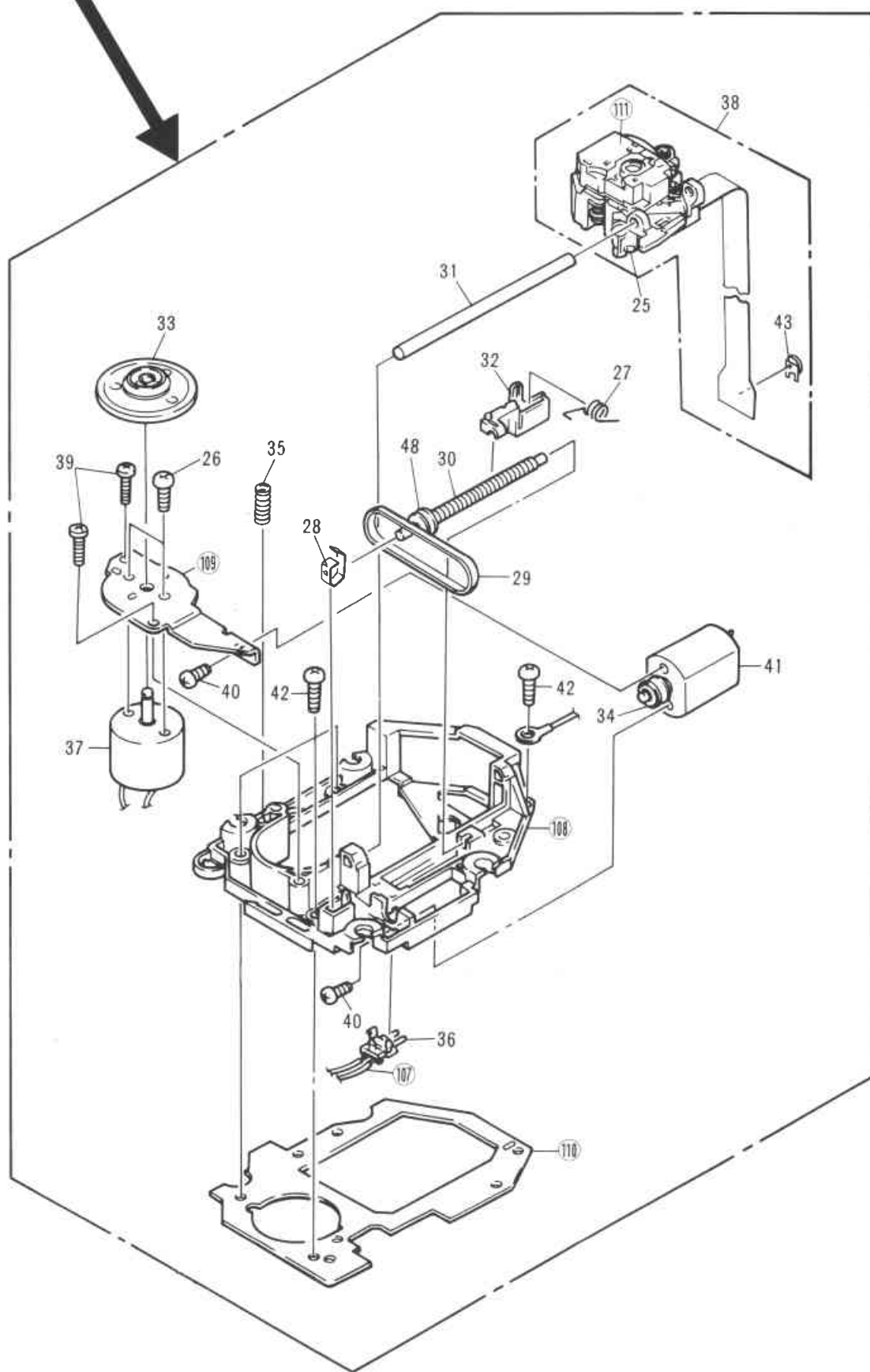
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	FLYWHEEL UNIT (FWD)	EXA1102		46	SCREW (M2×8)	ATZ20P080FMC
	2	FLYWHEEL UNIT (RVS)	EXA1103		47	SCREW	BSZ20P050FMC
	3	ROLLER UNIT (FWD)	EXA1104		48	SCREW	PMS26P025FCU
	4	ROLLER UNIT (RVS)	EXA1105		49	WASHER	EBF1008
	5	LIMITER UNIT	EXA1106		50	WASHER	EBF1009
	6	LEVER UNIT	EXA1107		51	WASHER	EBF1010
	7	ARM	AZN2063		52	WASHER	EBF1011
	8	NR LEVER	ENV1155		53	ARM UNIT	EXX1002
	9	BRAKE	ENV1157		54	ARM UNIT	EXX1003
	10	CAM GEAR	ENV1158		55	ARM UNIT	EXX1005
	11	LOCK ARM	ENV1159		56	P HEAD ASSEMBLY	EXX1005
	12	NR ARM	ENV1163				
	13	REEL COLLAR	ENV1164				
	14	REEL	ENV1170				
	15	REEL BUSH	ENV1178				
	16	ARM	ENV1181		101	HEAD BASE	
	17	ARM	AZN2069		102	BRACKET	
	18	BUSH	ENV1184		103	PLATE	
	19	MAGNET	ENV1185		104	BRACKET	
	20	BELT	ENT1015		105	ARM	
	21	SPRING	EBH1201		106	HOLDER	
	22	SPRING	EBH1202		107	HOLDER	
	23	SPRING	EBH1203		108	GEAR	
	24	SPRING	EBH1204		109	P HEAD UNIT	
	25	SPRING	EBH1208		110	SCREW	
	26	SPRING	EBH1209		111	SCREW	
	27	SPRING	EBH1210		112	CHASSIS UNIT	
	28	SPRING	EBH1211				
	29	SPRING	EBH1255				
	30	SPRING	EBH1213				
	31	SPRING	EBH1220				
	32	SPRING	EBH1256				
	33	SPRING	EBL1013				
	34	SPRING	EBL1014				
	35	MOTOR UNIT	EXA1108				
	36	SWITCH (Detect)	ESN1003				
	37	SWITCH (Mode)	ESN1004				
	38	SOLENOID	EXP1005				
	39	HALL IC	DN6847SE				
	40	P.C.BOARD	ENX1002				
	41	CONNECTOR	EKS1013				
	42	LEAD WIRE	EDD1003				
	43	CONNECTOR	EDE1009				
	44	SCREW	EBA1020				
	45	SCREW	EBA1021				



2.5 2 MECHA UNIT (EXK2010)

Parts list of 2 Mecha unit

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	FLYWHEEL UNIT (FWD)	EXA1102		51	WASHER	EBF1010
	2	FLYWHEEL UNIT (RVS)	EXA1103		52	WASHER	EBF1011
	3	ROLLER UNIT (FWD)	EXA1104		53	*****	
	4	ROLLER UNIT (RVS)	EXA1105		54	ARM UNIT	EXX1002
	5	LIMITER UNIT	EXA1106		55	ARM UNIT	EXX1003
	6	LEVER UNIT	EXA1107		56	R/P HEAD ASSEMBLY	EXX1004
	7	ARM	AZN2064				
	8	NR LEVER	ENV1155				
	9	BRAKE	ENV1157				
	10	CAM GEAR	ENV1158				
	11	LOCK ARM	ENV1159		101	HEAD BASE	
	12	NR ARM	ENV1163		102	BRACKET	
	13	REEL COLLAR	ENV1164		103	PLATE	
	14	REEL	ENV1170		104	BRACKET	
	15	REEL BUSH	ENV1178		105	ARM	
	16	ARM	ENV1181		106	HOLDER	
	17	ARM	AZN2070		107	HOLDER	
	18	BUSH	ENV1184		108	GEAR	
	19	MAGNET	ENV1185		109	R/P HEAD UNIT	
	20	BELT	ENT1015		110	SCREW	
	21	SPRING	EBH1201		111	SCREW	
	22	SPRING	EBH1202		112	CHASSIS UNIT	
	23	SPRING	EBH1203				
	24	SPRING	EBH1204				
	25	SPRING	EBH1208				
	26	SPRING	EBH1209				
	27	SPRING	EBH1210				
	28	SPRING	EBH1211				
	29	SPRING	EBH1254				
	30	SPRING	EBH1213				
	31	SPRING	EBH1220				
	32	SPRING	EBH1256				
	33	SPRING	EBL1013				
	34	SPRING	EBL1014				
	35	MOTOR UNIT	EXA1108				
	36	SWITCH (Detect)	ESN1003				
	37	SWITCH (Mode)	ESN1004				
	38	SOLENOID	EXP1005				
	39	HALL IC	DN6847SE				
	40	P.C.BOARD	ENX1002				
	41	CONNECTOR	EKS1012				
	42	LEAD WIRE	EDD1003				
	43	CONNECTOR	EDE1008				
	44	SCREW	EBA1020				
	45	SCREW	EBA1021				
	46	SCREW (M2 × 8)	ATZ20P080FMC				
	47	SCREW	BSZ20P050FMC				
	48	SCREW	PMS26P025FCU				
	49	WASHER	EBF1008				
	50	WASHER	EBF1009				

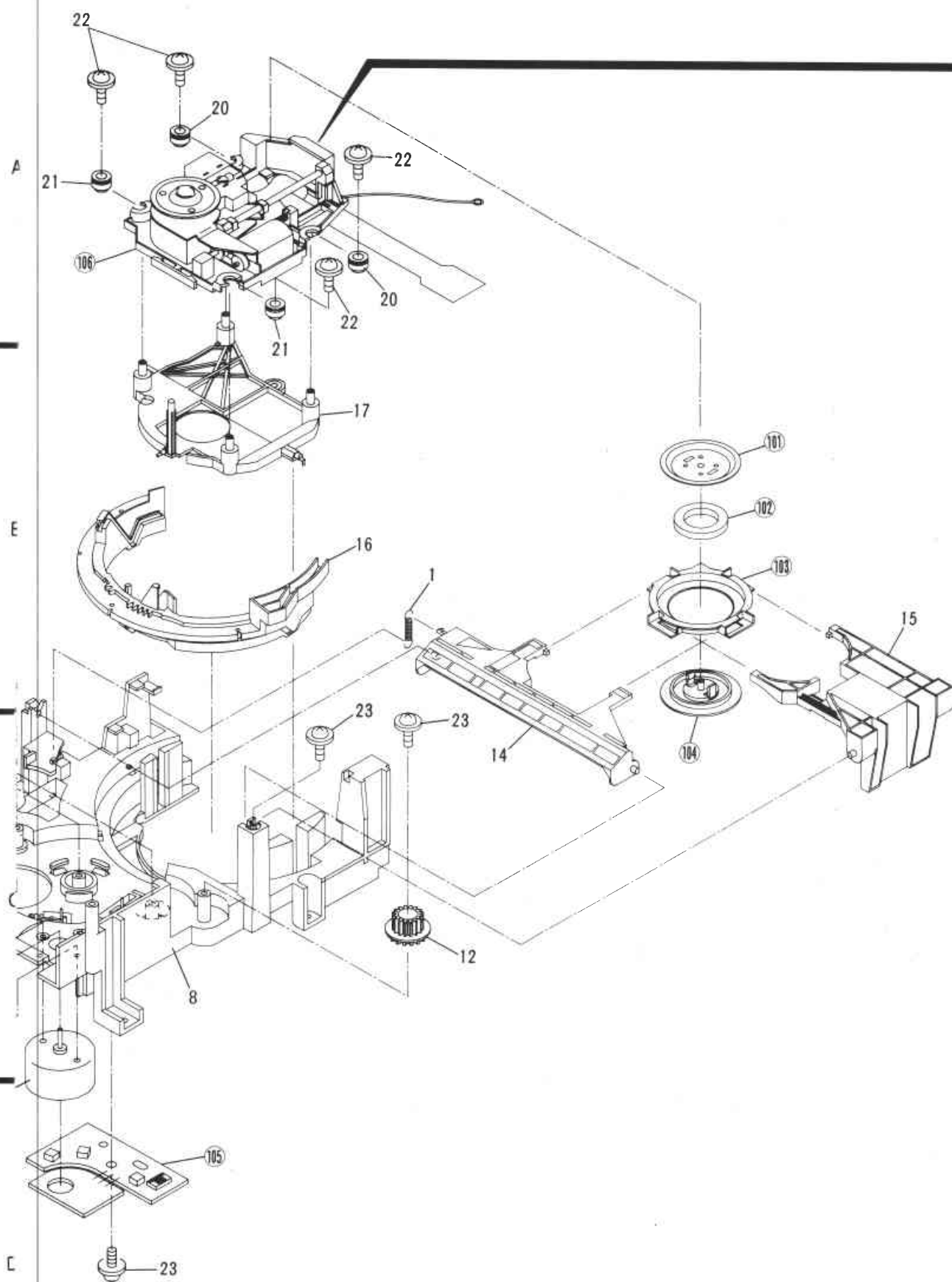


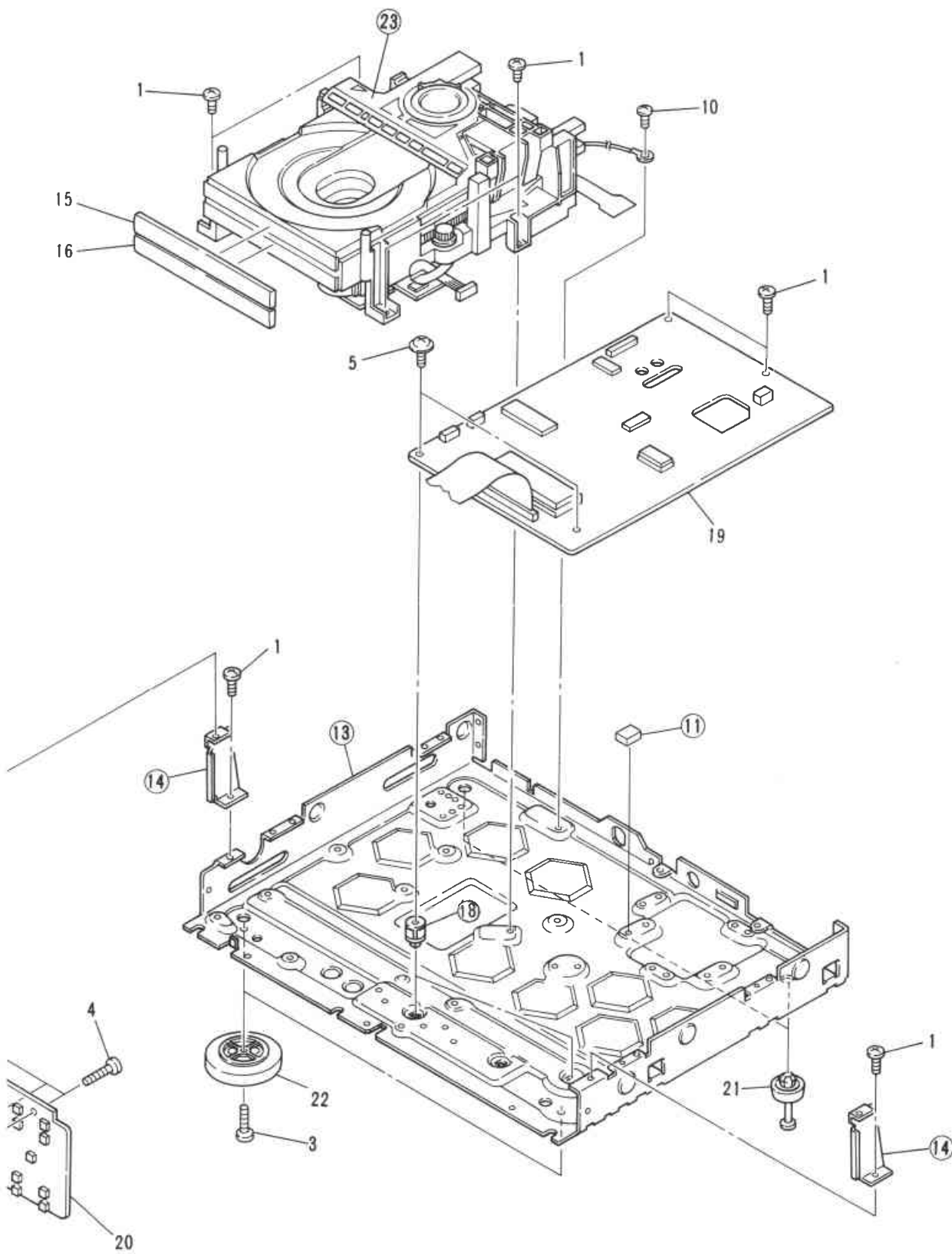
A

B

C

D





A A

B B

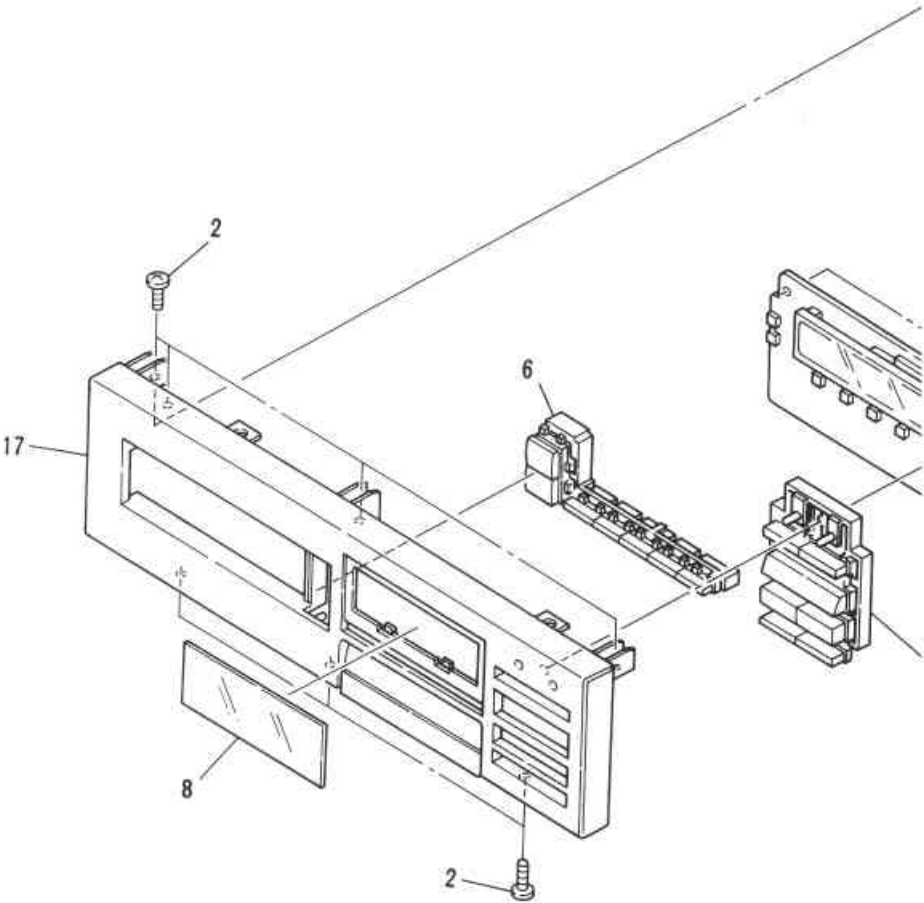
C C

D D

2.6 CD BLOCK

Parts list of CD block

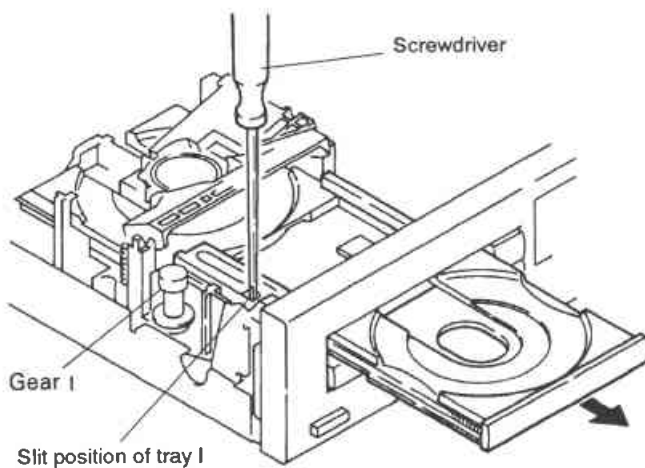
Mark	No.	Description	Parts No.
A	1	SCREW	BBZ30P060FMC
	2	SCREW	BBZ30P080FZK
	3	SCREW	BBZ30P100FMC
	4	SCREW	BBZ30P120FMC
	5	SCREW	IBZ30P150FMC
	6	DISC BUTTON	PAC1522
	7	PLAY BUTTON	PAC1524
	8	WINDOW	PAM1454
	9	30P F•F•C/30V	PDD1049
	10	SCREW	PDZ30P050FMC
	11	SPACER	
	12	*****	
	13	UNDER BASE	
	14	ANGLE	
	15	NAME PLATE 1	PNW1866
B	16	NAME PLATE 2	PNW1867
	17	FUNCTION PANEL	PNW1885
	18	PCB SPACER	
	19	MOTHER P.C.B ASSEMBLY	PWM1349
	20	SUB P.C.B ASSEMBLY	PWX1143
C	21	FOOT ASSEMBLY	PXA1201
	22	INSULATOR ASSEMBLY	PXA1343
	23	TWIN TORAY MECHA ASSEMBLY	



2.7 REMOVING AND MOUNTING EACH BLOCK

● REMOVAL OF TRAY I AND TRAY II

1. Open the tray I.
2. Insert the flat blade screwdriver into the slit in the left of tray I. Pull out the tray I by pushing the screwdriver.



* When remove the tray II, open it first, insert the flat blade screwdriver into the slit in the right of tray II, and pull out the tray by pushing the screwdriver.

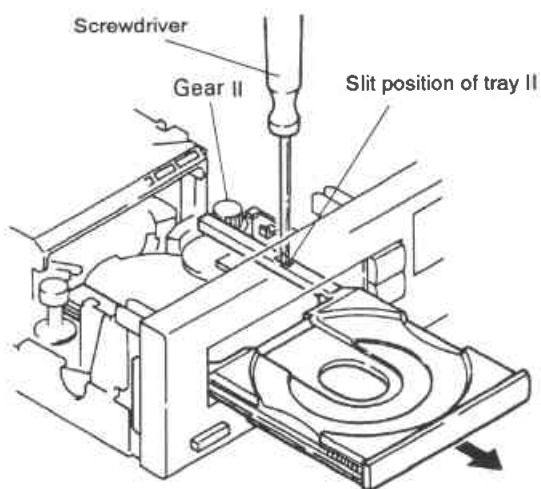


Fig. 1

● MOUNTING OF TRAY I

1. Set the disc II to the clamp position and open the tray I.
2. Align the 1st tooth of tray I to ungrooved portion of gear I, and insert the tray I.

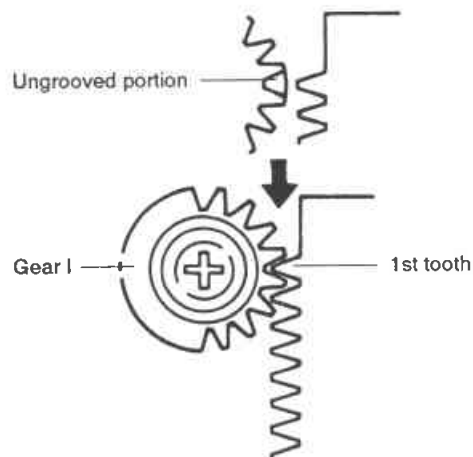


Fig. 2

● MOUNTING OF TRAY II

1. Set the disc I to the clamp position and open the tray II.
2. Align the 1st tooth of tray II to □ marked position of gear II, and insert the tray II.

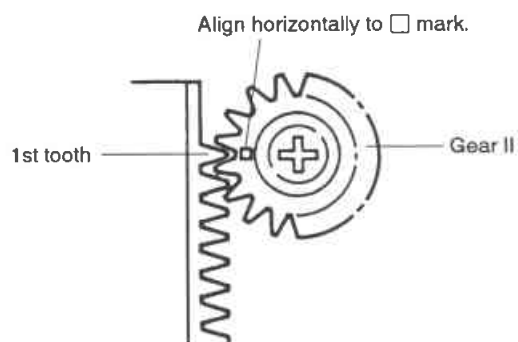


Fig. 3

● MOUNTING AND POSITIONING OF MAIN CAM, FOLLOW GEAR, GEAR I AND GEAR II

Set the following gears to the position as shown by arrows.

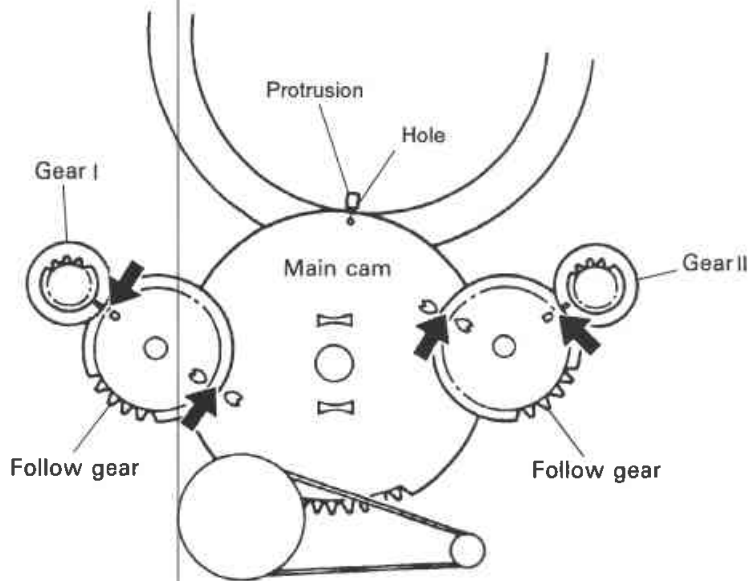


Fig. 4

● MOUNTING OF CLAMPER ASSEMBLY

Mount the clasper assembly by aligning the protrusion portion as shown in the figure.

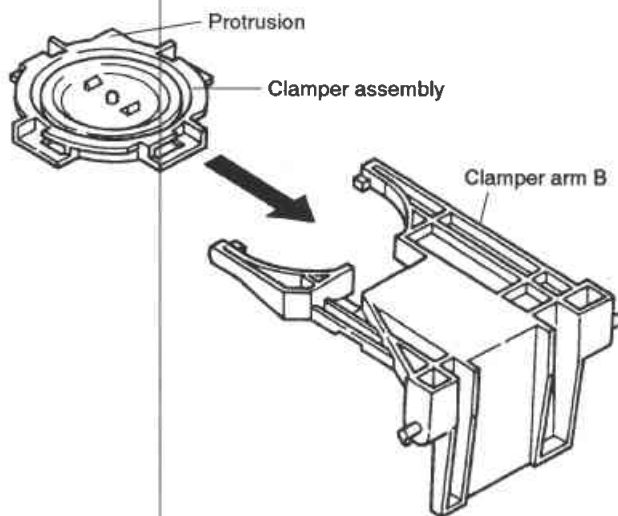


Fig. 5

2.8 CD MECHA UNIT

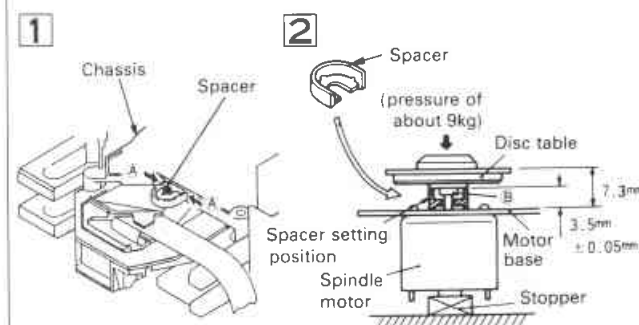
Parts List of Mechanism Section

Mark	No.	Symbol & Description	Part No.
	1	Clamp spring	PBH1103
	2	Lever spring	PBH1104
	3	Belt	PEB1106
	4	Motor pulley	PNW1634
	5	Tray 1	PNW1839
	6	Tray 2	PNW1840
	7	Sub tray	PNW1841
	8	Loading base	PNW1842
	9	Main cam	PNW1843
	10	Follow gear	PNW1844
	11	Gear 1	PNW1845
	12	Gear 2	PNW1846
	13	Idler gear	PNW1847
	14	Clamper arm U	PNW1850
	15	Clamper arm B	PNW1851
	16	Clamp cam	PNW1852
	17	Float base	PNW1853
	18	Lock lever	PNW1854
	19	Motor	PXM1010
	20	Floating rubber	PEB1014
	21	Floating rubber	PEB1132
	22	Screw	PBA1048
	23	Screw	IPZ30P080FMC
	24	Screw	IPZ20P080FMC
	25	Chip capacitor	CKSYF105Z16
	26	Screw	JFZ20P025FMC
	27	Drive spring	PBH1084
	28	Plate spring	PBK1057
	29	Belt	PEB1072
	30	Drive screw	PLA1003
	31	Guide bar	PLA1071
	32	Half nut	PNW1605
	33	Disc table	PNW1608
	34	Pulley	PNW1634
	35	Earth spring	PBH1009
	36	Push switch	DSG1014
	37	Spindle motor assembly (with oil)	PEA1028
	38	Pick-up assembly	PEA1030
	39	Screw	BPZ20P080FZK
	40	Screw	PMZ20P030FMC
	41	Motor (CARRIAGE)	PXM1013
	42	Screw	PBZ30P080FMC
	43	Semi-fixed resistor	PCP1008
	44	Screw	PMZ26P040FMC
	45	Gear pulley	PNW1848
	46	Push spring	PBH1105
	47	Screw	IBZ30P200FMC
	48	Pulley	PNW1066
	49	Screw	IPZ30P120FMC

Mark	No.	Symbol & Description	Part No.
	101	Yoke	
	102	Magnet	
	103	Clamper holder	
	104	Clamper S	
	105	Mechanism P.C.B assembly	
	106	Servo mechanism assembly	
	107	Connector assembly (6P)	
	108	Mechanism chassis	
	109	Motor base	
	110	Mechanism base	
	111	Actuator cover	
	112	Sub panel plate	

• How to install the disc table

- 1 Use nippers or other tool to cut the two sections marked (A) in figure 1. Then remove the spacer.
- 2 While supporting the spindle motor shaft with the stopper, put spacer on top of the motor base (angled so it doesn't touch section (B)), and stick the disc table on top (takes about 9kg pressure). Take off the spacer.

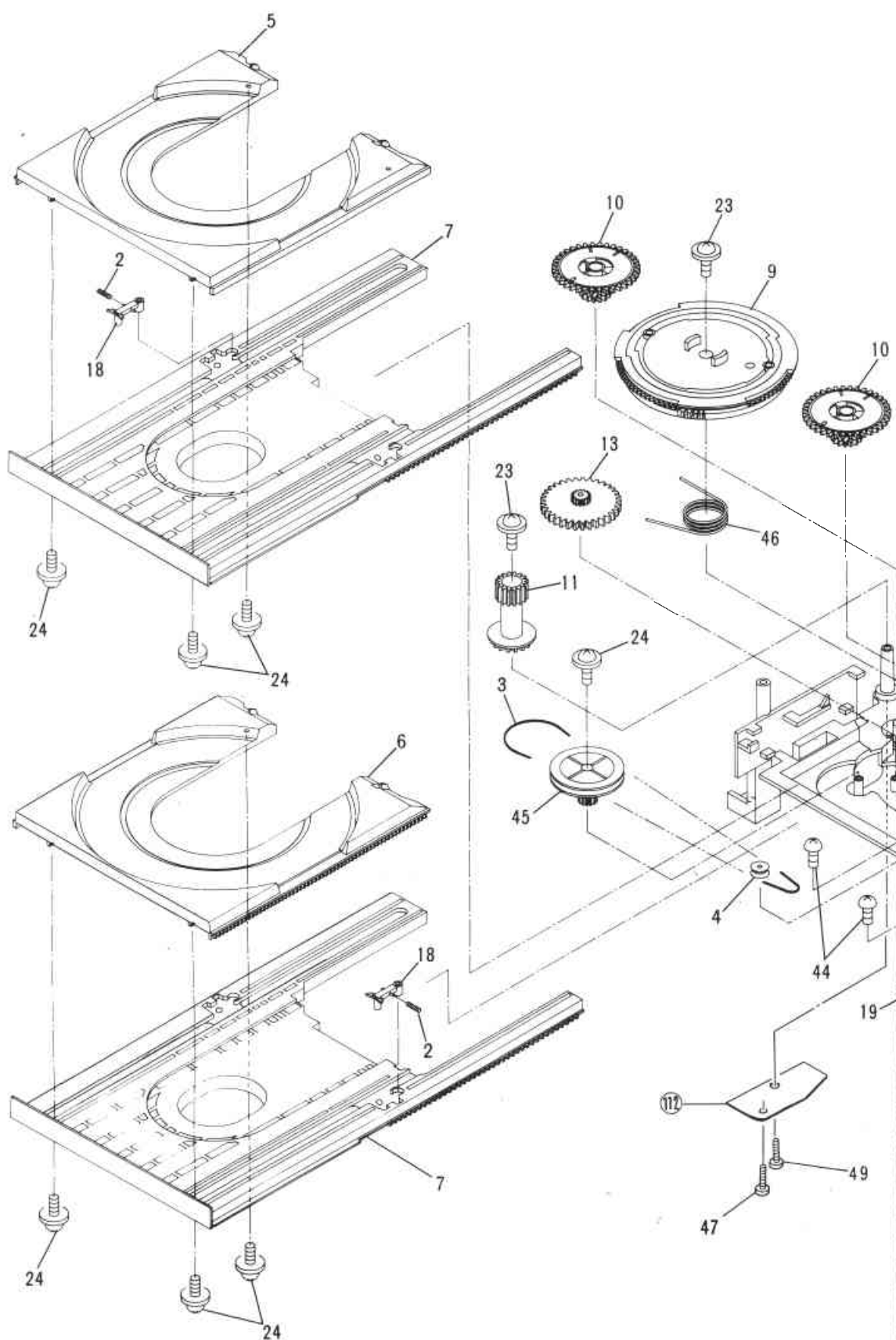


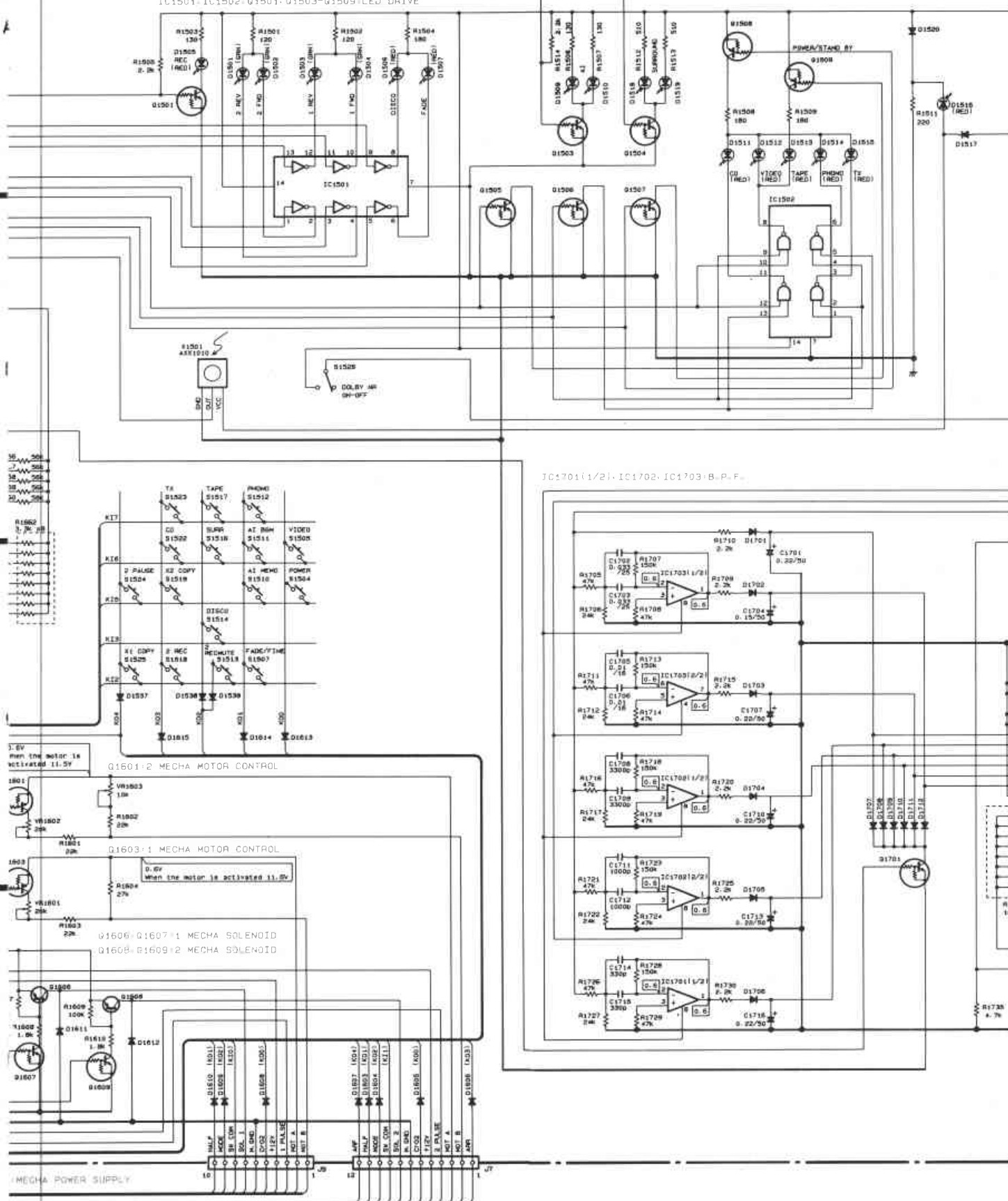
A

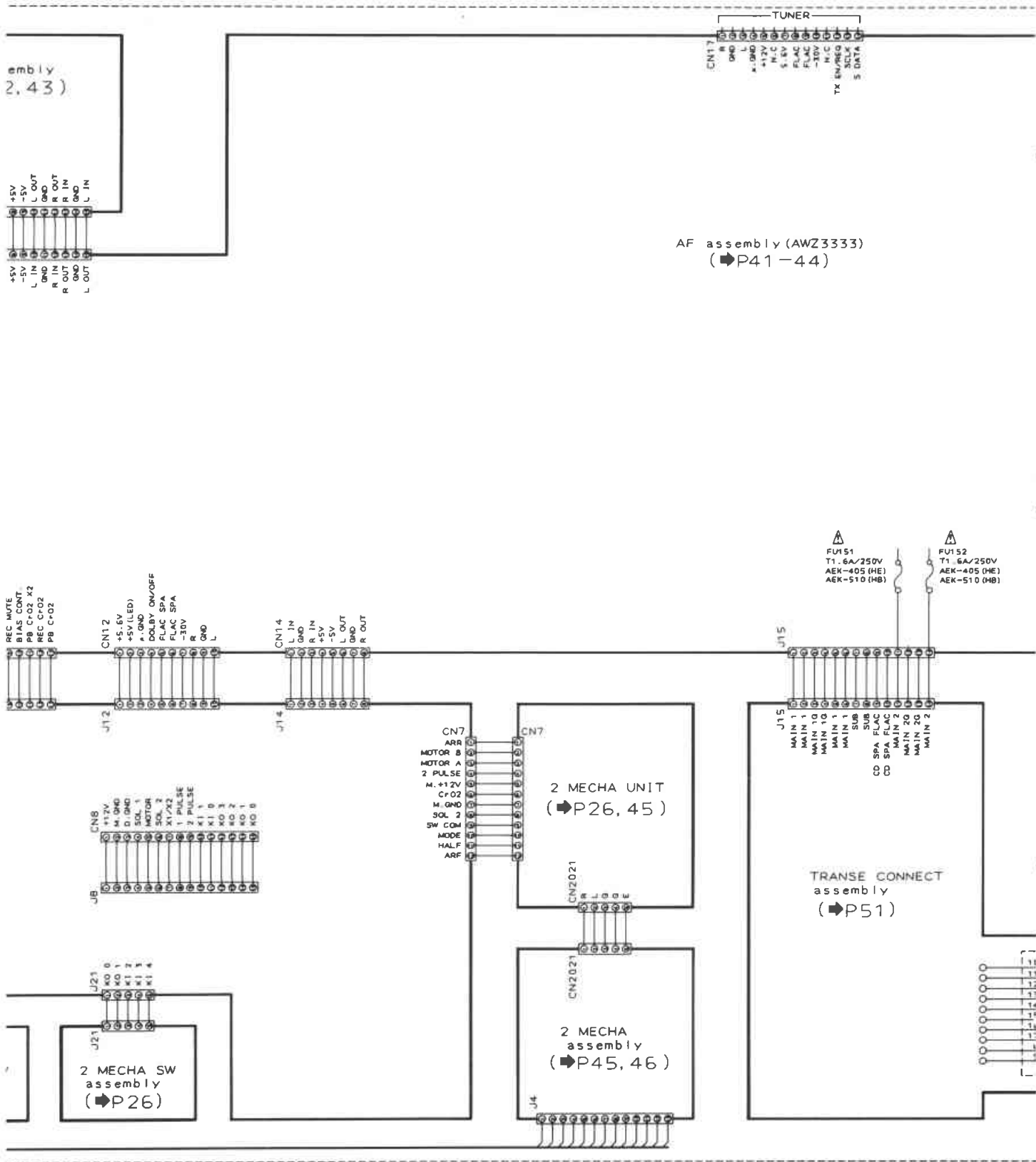
B

C

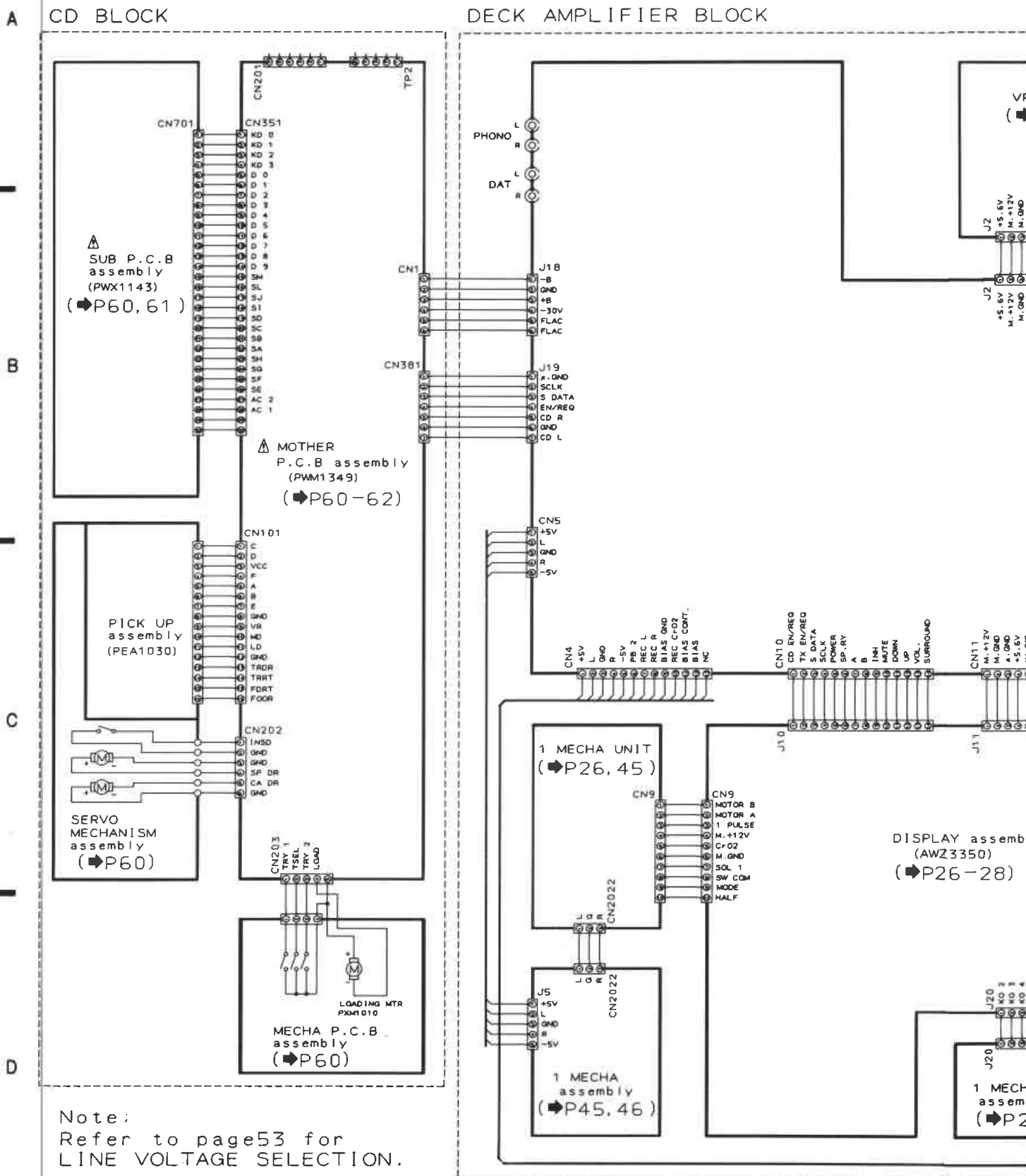
D







3. SCHEMATIC DIAGRAM AND P.C.BOARDS CONNECTION DIAGRAM
3.1 OVER ALL SCHEMATIC DIAGRAM



1. RESISTORS:

Indicated in Ω , $\frac{1}{4}W$, $\frac{1}{2}W$, $\pm 5\%$ tolerance unless otherwise noted k: k Ω ,
M: M Ω , (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$ (M): $\pm 20\%$ tolerance

2. CAPACITORS:

Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:

 : Signal voltage at (33W + 33W 8 Ω) output (1kHz) A
 : DC voltage (V) at no input signal

Value in () is DC voltage at rated power.

$\leftarrow$ mA: DC current at no input signal

4. OTHERS:

$\Rightarrow$: Signal route.

$\odot$: Adjusting point.

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.

* marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

SWITCHES:

DISPLAY assembly

S1504 POWER
S1505 VIDEO
S1507 FADE/FINE
S1510 AI MEMO
S1511 AI BGM
S1512 PHONO
S1513 2 REC MUTE
S1514 DISCO
S1516 SURR
S1517 TAPE
S1518 2 REC
S1519 X2 COPY
S1522 CD
S1523 TX
S1524 2 PAUSE
S1525 X1 COPY
S1528 DOLBY NR ON/OFF

1 MECHA SW assembly

S1551 1 REV
S1552 1 PLAY
S1553 1 STOP
S1554 1 REV
S1555 1 FF

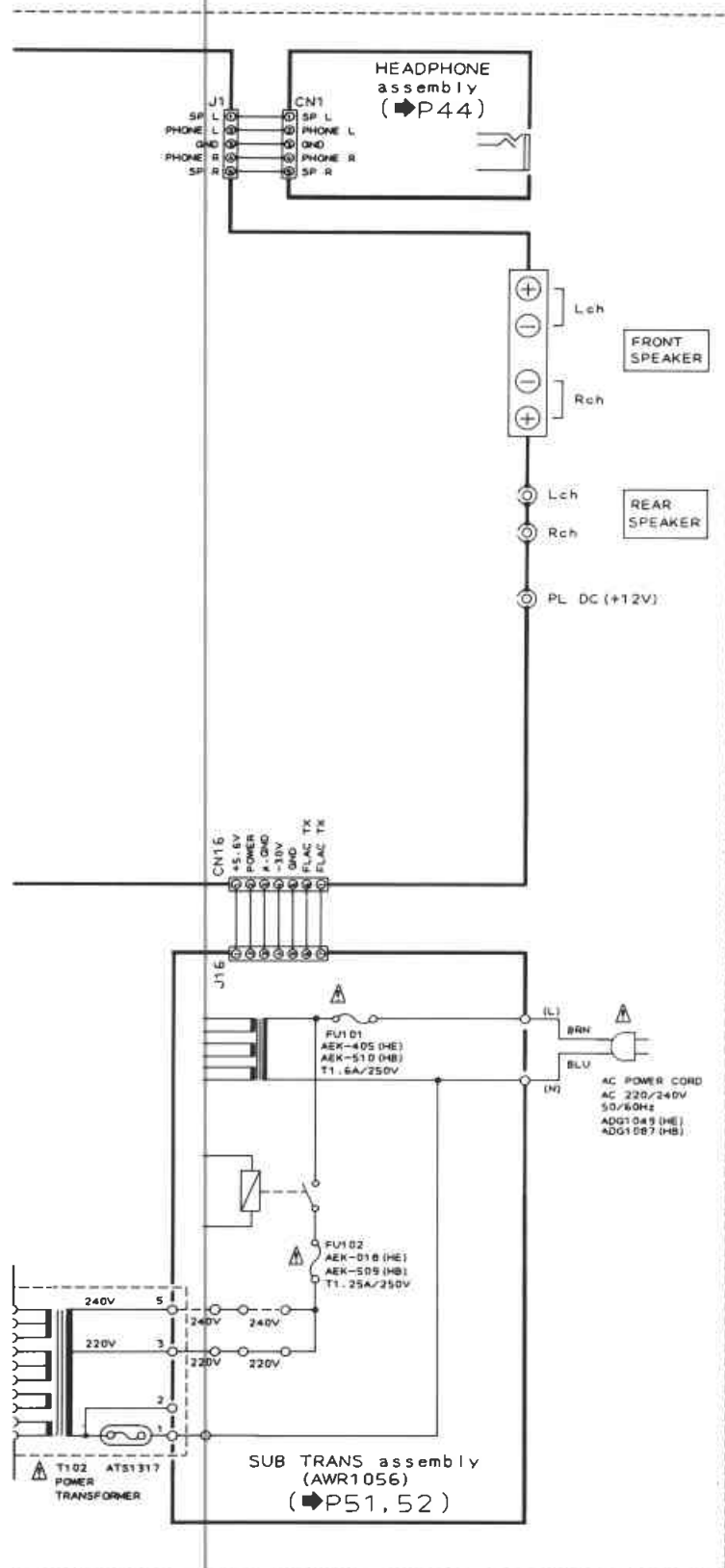
2 MECHA SW assembly

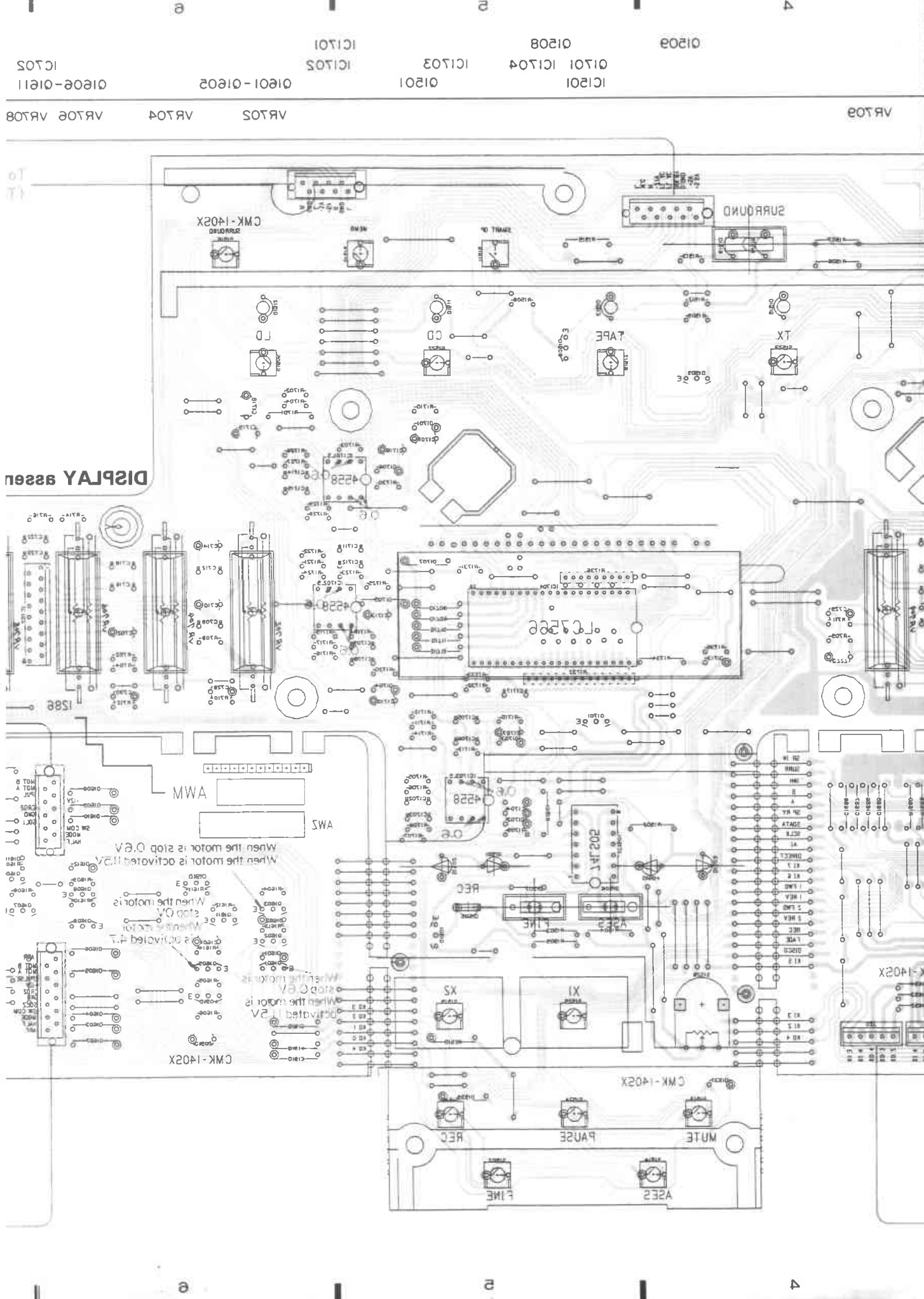
S1556 2 STOP
S1557 2 REV
S1558 2 PLAY
S1559 2 REV
S1560 2 FF

B

C

D

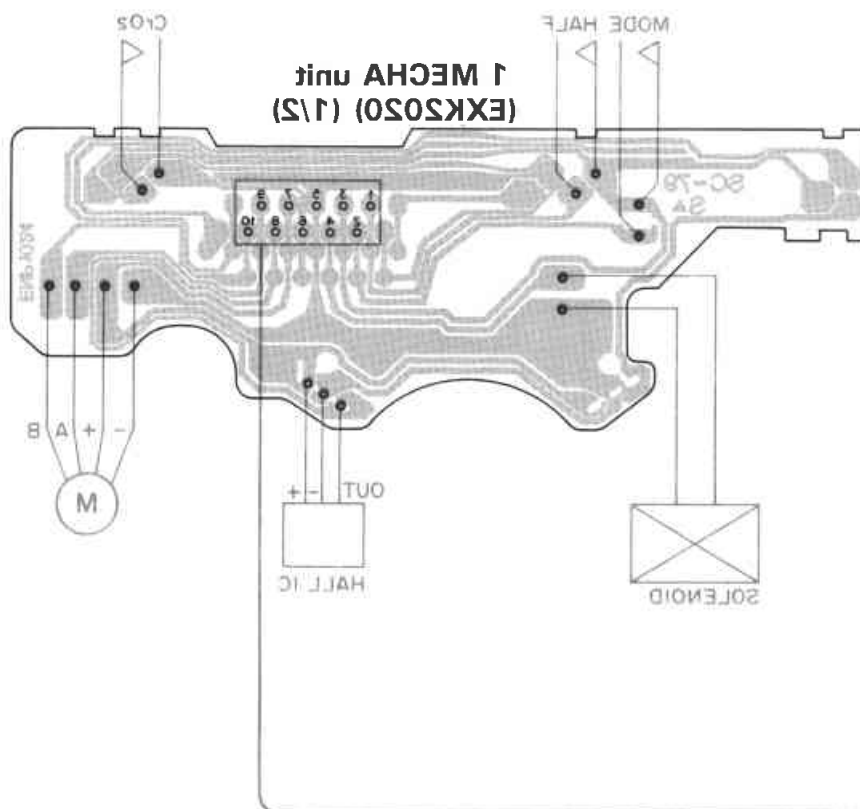




DISPLAY assem

VR708 VR705 VR704 VR703 VR702 VR701 VR700 VR699 VR698 VR697 VR696 VR695 VR694 VR693 VR692 VR691 VR690 VR689 VR688 VR687 VR686 VR685 VR684 VR683 VR682 VR681 VR680 VR679 VR678 VR677 VR676 VR675 VR674 VR673 VR672 VR671 VR670 VR669 VR668 VR667 VR666 VR665 VR664 VR663 VR662 VR661 VR660 VR659 VR658 VR657 VR656 VR655 VR654 VR653 VR652 VR651 VR650 VR649 VR648 VR647 VR646 VR645 VR644 VR643 VR642 VR641 VR640 VR639 VR638 VR637 VR636 VR635 VR634 VR633 VR632 VR631 VR630 VR629 VR628 VR627 VR626 VR625 VR624 VR623 VR622 VR621 VR620 VR619 VR618 VR617 VR616 VR615 VR614 VR613 VR612 VR611 VR610 VR609 VR608 VR607 VR606 VR605 VR604 VR603 VR602 VR601 VR600 VR599 VR598 VR597 VR596 VR595 VR594 VR593 VR592 VR591 VR590 VR589 VR588 VR587 VR586 VR585 VR584 VR583 VR582 VR581 VR580 VR579 VR578 VR577 VR576 VR575 VR574 VR573 VR572 VR571 VR570 VR569 VR568 VR567 VR566 VR565 VR564 VR563 VR562 VR561 VR560 VR559 VR558 VR557 VR556 VR555 VR554 VR553 VR552 VR551 VR550 VR549 VR548 VR547 VR546 VR545 VR544 VR543 VR542 VR541 VR540 VR539 VR538 VR537 VR536 VR535 VR534 VR533 VR532 VR531 VR530 VR529 VR528 VR527 VR526 VR525 VR524 VR523 VR522 VR521 VR520 VR519 VR518 VR517 VR516 VR515 VR514 VR513 VR512 VR511 VR510 VR509 VR508 VR507 VR506 VR505 VR504 VR503 VR502 VR501 VR500 VR499 VR498 VR497 VR496 VR495 VR494 VR493 VR492 VR491 VR490 VR489 VR488 VR487 VR486 VR485 VR484 VR483 VR482 VR481 VR480 VR479 VR478 VR477 VR476 VR475 VR474 VR473 VR472 VR471 VR470 VR469 VR468 VR467 VR466 VR465 VR464 VR463 VR462 VR461 VR460 VR459 VR458 VR457 VR456 VR455 VR454 VR453 VR452 VR451 VR450 VR449 VR448 VR447 VR446 VR445 VR444 VR443 VR442 VR441 VR440 VR439 VR438 VR437 VR436 VR435 VR434 VR433 VR432 VR431 VR430 VR429 VR428 VR427 VR426 VR425 VR424 VR423 VR422 VR421 VR420 VR419 VR418 VR417 VR416 VR415 VR414 VR413 VR412 VR411 VR410 VR409 VR408 VR407 VR406 VR405 VR404 VR403 VR402 VR401 VR400 VR399 VR398 VR397 VR396 VR395 VR394 VR393 VR392 VR391 VR390 VR389 VR388 VR387 VR386 VR385 VR384 VR383 VR382 VR381 VR380 VR379 VR378 VR377 VR376 VR375 VR374 VR373 VR372 VR371 VR370 VR369 VR368 VR367 VR366 VR365 VR364 VR363 VR362 VR361 VR360 VR359 VR358 VR357 VR356 VR355 VR354 VR353 VR352 VR351 VR350 VR349 VR348 VR347 VR346 VR345 VR344 VR343 VR342 VR341 VR340 VR339 VR338 VR337 VR336 VR335 VR334 VR333 VR332 VR331 VR330 VR329 VR328 VR327 VR326 VR325 VR324 VR323 VR322 VR321 VR320 VR319 VR318 VR317 VR316 VR315 VR314 VR313 VR312 VR311 VR310 VR309 VR308 VR307 VR306 VR305 VR304 VR303 VR302 VR301 VR300 VR299 VR298 VR297 VR296 VR295 VR294 VR293 VR292 VR291 VR290 VR289 VR288 VR287 VR286 VR285 VR284 VR283 VR282 VR281 VR280 VR279 VR278 VR277 VR276 VR275 VR274 VR273 VR272 VR271 VR270 VR269 VR268 VR267 VR266 VR265 VR264 VR263 VR262 VR261 VR260 VR259 VR258 VR257 VR256 VR255 VR254 VR253 VR252 VR251 VR250 VR249 VR248 VR247 VR246 VR245 VR244 VR243 VR242 VR241 VR240 VR239 VR238 VR237 VR236 VR235 VR234 VR233 VR232 VR231 VR230 VR229 VR228 VR227 VR226 VR225 VR224 VR223 VR222 VR221 VR220 VR219 VR218 VR217 VR216 VR215 VR214 VR213 VR212 VR211 VR210 VR209 VR208 VR207 VR206 VR205 VR204 VR203 VR202 VR201 VR200 VR199 VR198 VR197 VR196 VR195 VR194 VR193 VR192 VR191 VR190 VR189 VR188 VR187 VR186 VR185 VR184 VR183 VR182 VR181 VR180 VR179 VR178 VR177 VR176 VR175 VR174 VR173 VR172 VR171 VR170 VR169 VR168 VR167 VR166 VR165 VR164 VR163 VR162 VR161 VR160 VR159 VR158 VR157 VR156 VR155 VR154 VR153 VR152 VR151 VR150 VR149 VR148 VR147 VR146 VR145 VR144 VR143 VR142 VR141 VR140 VR139 VR138 VR137 VR136 VR135 VR134 VR133 VR132 VR131 VR130 VR129 VR128 VR127 VR126 VR125 VR124 VR123 VR122 VR121 VR120 VR119 VR118 VR117 VR116 VR115 VR114 VR113 VR112 VR111 VR110 VR109 VR108 VR107 VR106 VR105 VR104 VR103 VR102 VR101 VR100 VR99 VR98 VR97 VR96 VR95 VR94 VR93 VR92 VR91 VR90 VR89 VR88 VR87 VR86 VR85 VR84 VR83 VR82 VR81 VR80 VR79 VR78 VR77 VR76 VR75 VR74 VR73 VR72 VR71 VR70 VR69 VR68 VR67 VR66 VR65 VR64 VR63 VR62 VR61 VR60 VR59 VR58 VR57 VR56 VR55 VR54 VR53 VR52 VR51 VR50 VR49 VR48 VR47 VR46 VR45 VR44 VR43 VR42 VR41 VR40 VR39 VR38 VR37 VR36 VR35 VR34 VR33 VR32 VR31 VR30 VR29 VR28 VR27 VR26 VR25 VR24 VR23 VR22 VR21 VR20 VR19 VR18 VR17 VR16 VR15 VR14 VR13 VR12 VR11 VR10 VR9 VR8 VR7 VR6 VR5 VR4 VR3 VR2 VR1 VR0

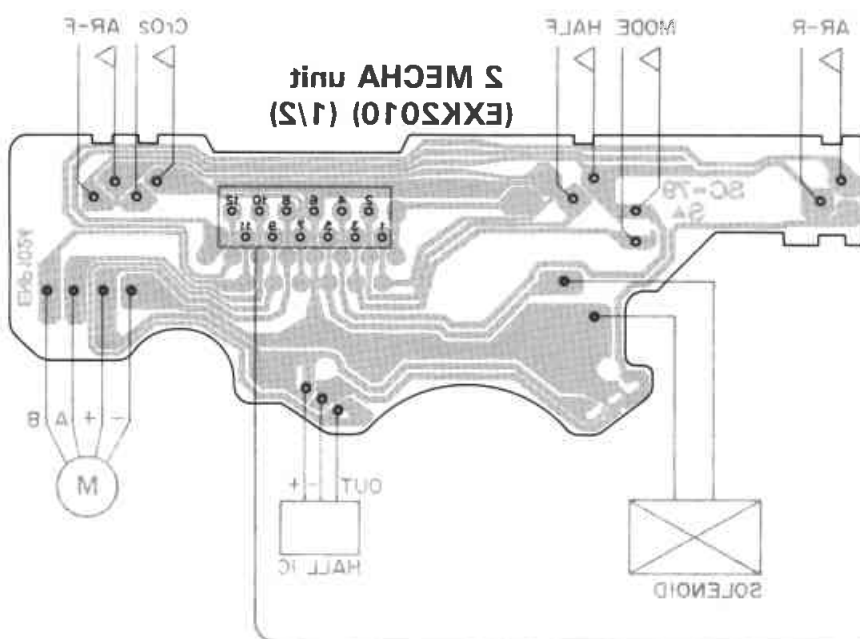
A



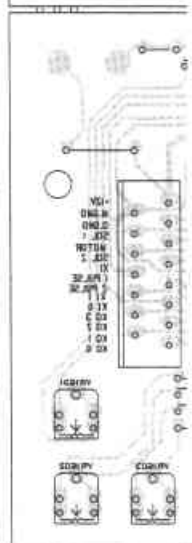
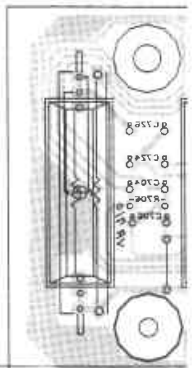
B

C

D



(AW3350)

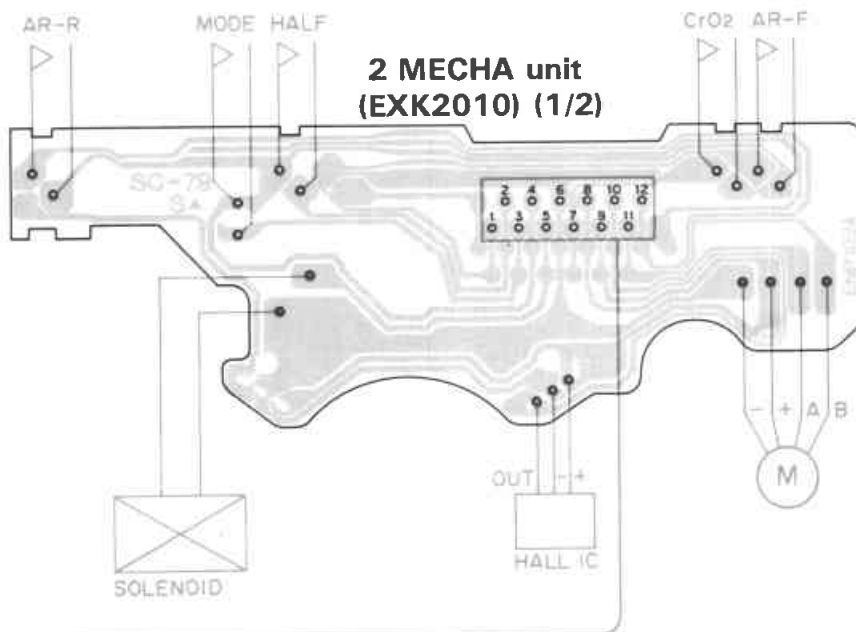
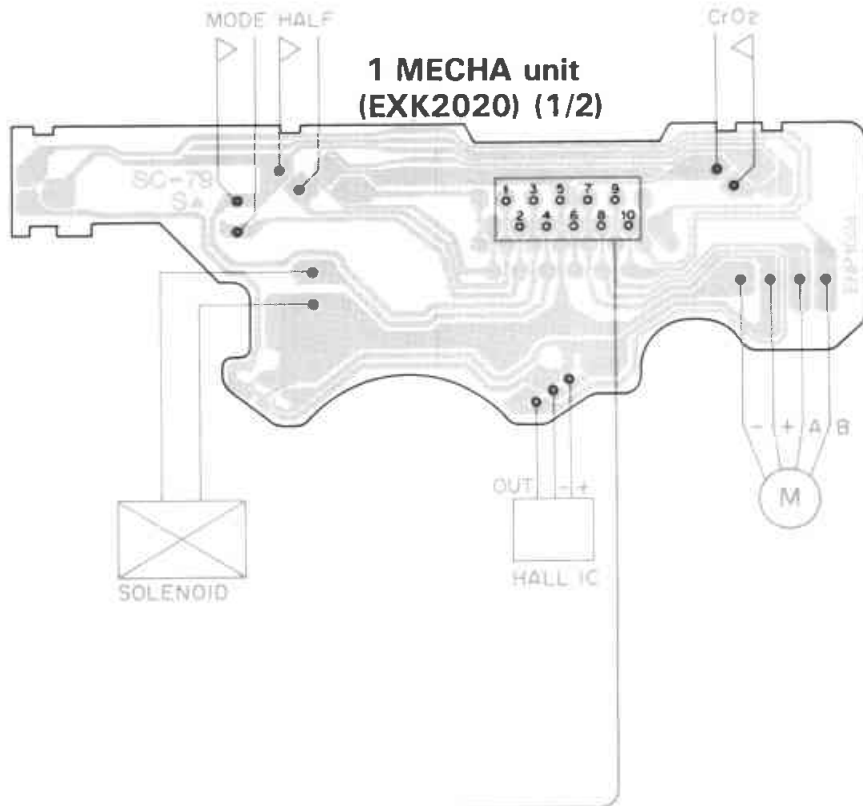
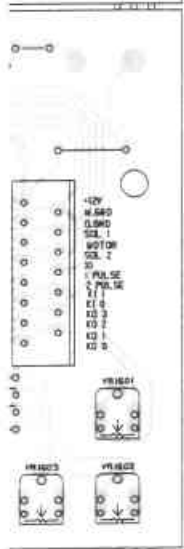
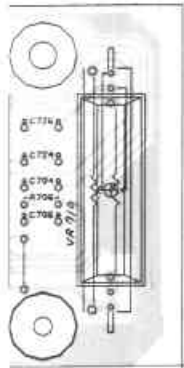


01-VR1603 VR710

To AF assembly CN12
(To page 39)

assembly CN14
(To page 39)

(AWZ3350)



A

B

C

D

Q1509

Q1508

IC1701

Q1701 IC1704

IC1703

IC1702

IC702

IC1501

Q1501

Q1601-Q1605

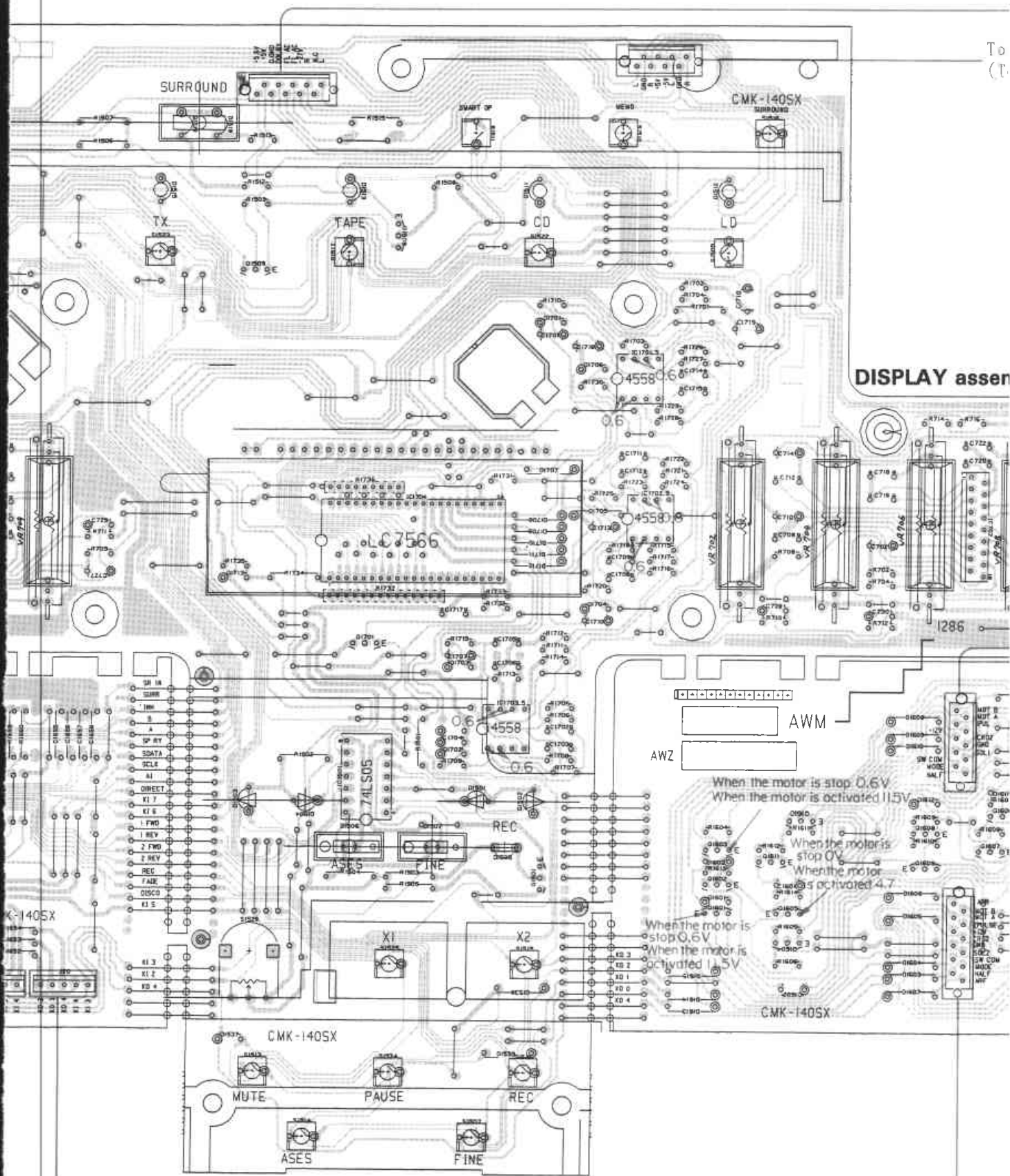
Q1606-Q1611

VR709

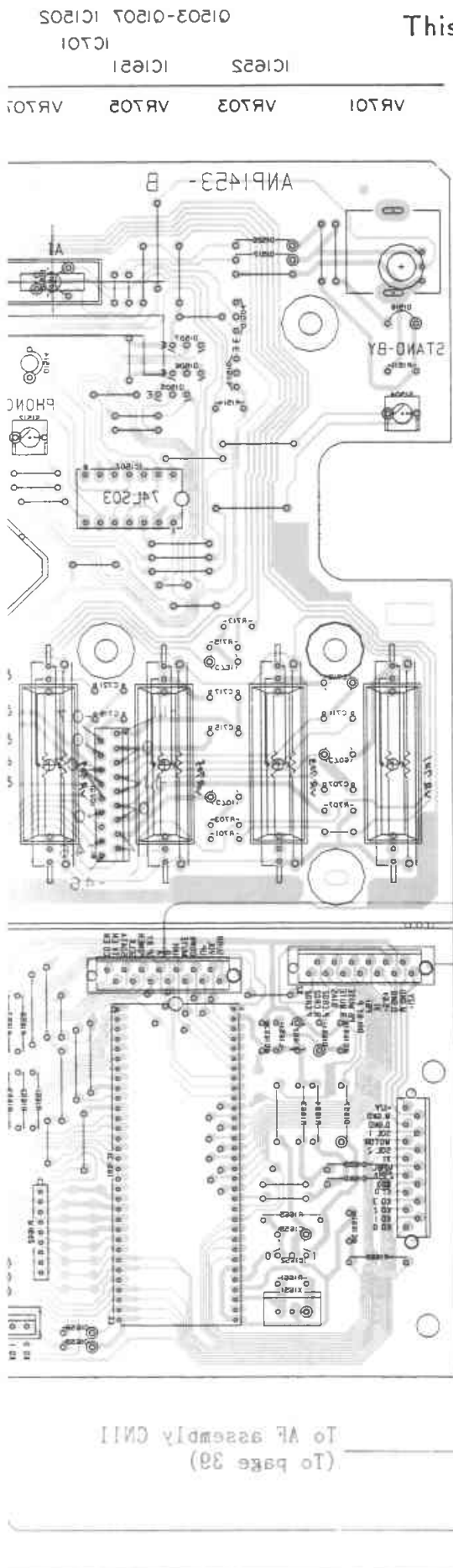
VR702

VR704

VR706 VR708

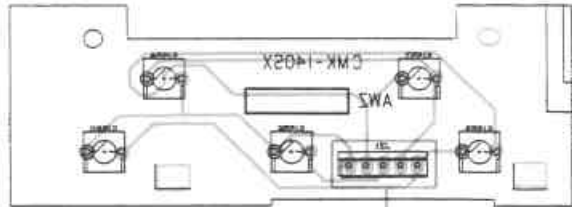


This P.C.B. connection diagram is viewed from the foil side.

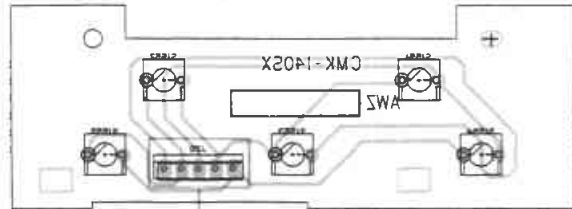


To AF assembly CN10
(To page 39)

2 MECHA SW assembly



1 MECHA SW assembly

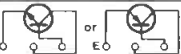
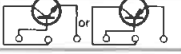
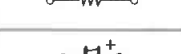


To AF assembly CN11
(To page 39)

A

NOTE

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

B

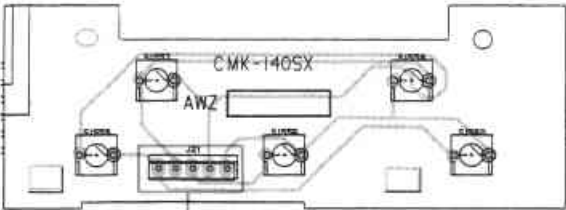
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

1. The capacitor terminal marked with ⊕ (double circles) shows negative terminal.
4. The diode terminal marked with ⊕ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

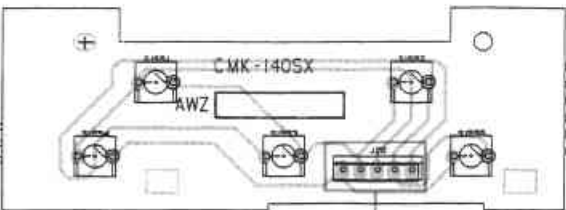
To AF assembly CN10
(To page 39)

2 MECHA SW assembly

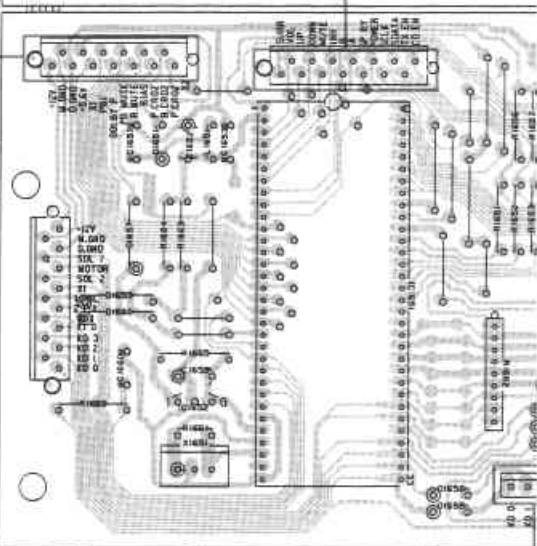
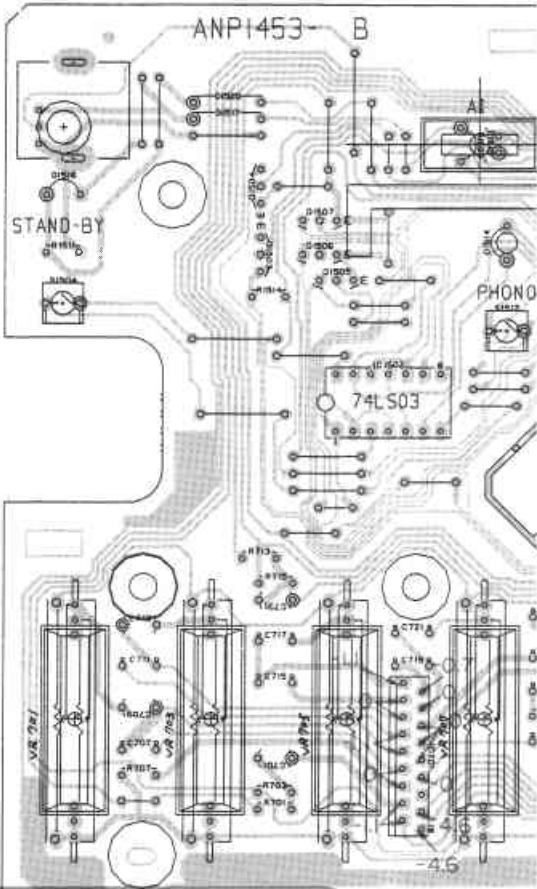


C

1 MECHA SW assembly



D



To AF assembly CN11
(To page 39)

3.3 AF (AWZ3333), HEAD PHONE and VR assembly

AF assembly (AWZ33

A

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

B

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ⊕ (double circles) shows negative terminal.
4. The diode terminal marked with ⊕ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

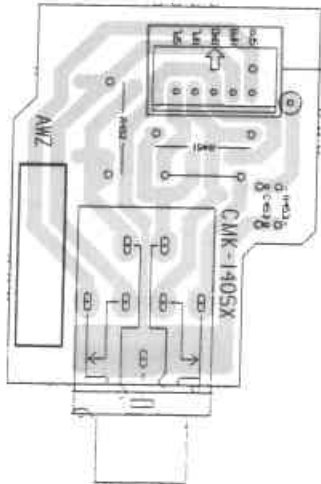
To MOTHER PCB assembly
CN1 (To page 61)

To SUB TRANS assembly CN16
(To page 54)

C

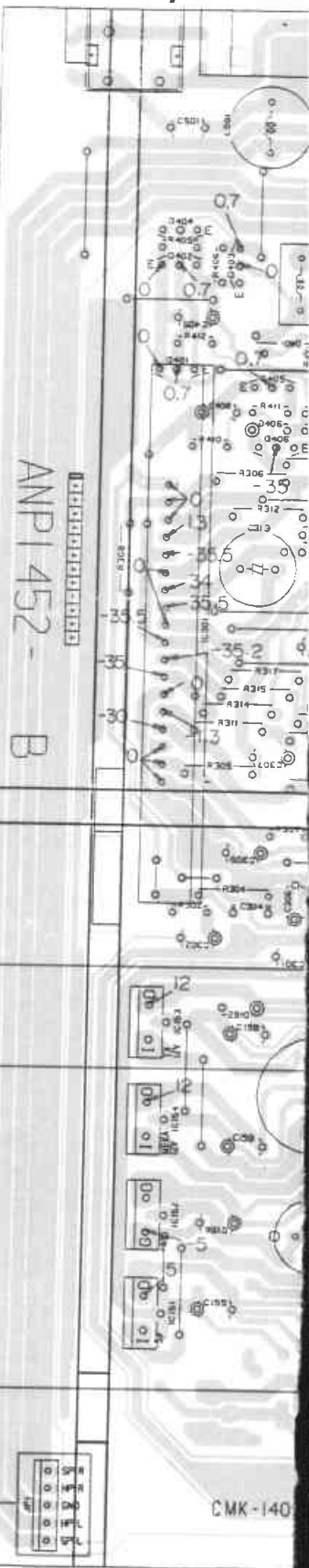
To DISPLAY assembly J12
(To page 30)

HEAD PHONE assembly



D

To DISPLAY assembly J11
(To page 29)



A

B

C

D

37

HEAD PHONE assembly



(To page 29)
To DISPLAY assembly 111

(To page 30)
To DISPLAY assembly 112

(To page 24)
To SUB TRANS assembly CMI6

CMI (To page 61)
To MOTHER PCB assembly

VMB1425 - B

AF assembly (AW333)

IC125 IC121

IC123 IC124

IC301

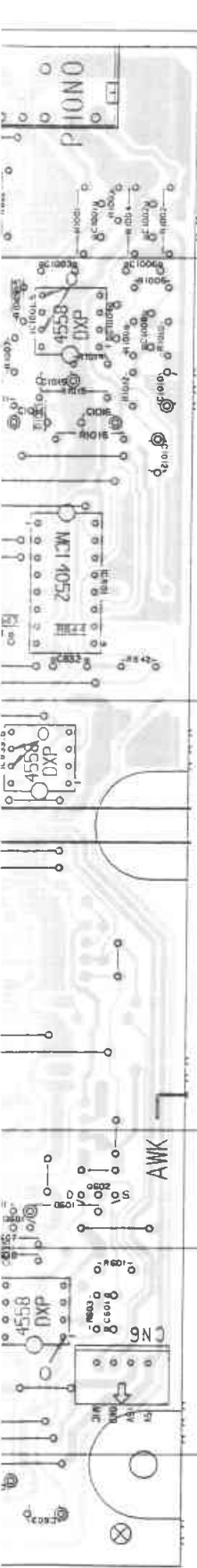
0401-0406

3

2

1

IC1001
IC833 IC801
Q601 Q602
IC601



To TRANS CONNECT assembly J15
(To page 53)

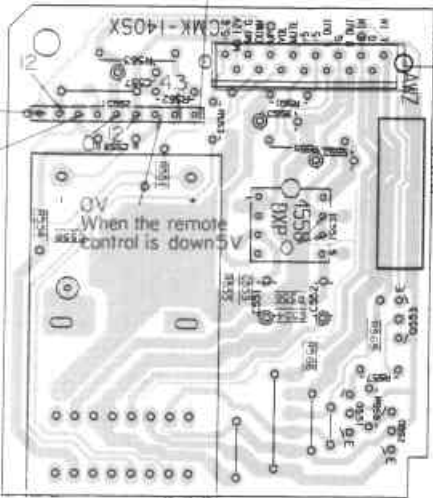
To MOTHER P.C.B assembly CN381
(To page 61)

0V
When the remote control is down 4.7

0V
When the remote control is up 4.7V

0V
When the remote control is up 5V

0V
When the remote control is down 5V



VR assembly

To DISPLAY assembly J14
(To page 30)

To 1MECHA assembly J5
(To page 47)

To 2MECHA assembly J4
(To page 48)

To DISPLAY assembly J10
(To page 29)

IC155

IC2202 IC2201 Q2203 Q2204

IC2302

Q801

IC802

Q2201 Q2202 Q2351 Q2007

Q2001-Q2009

IC2001

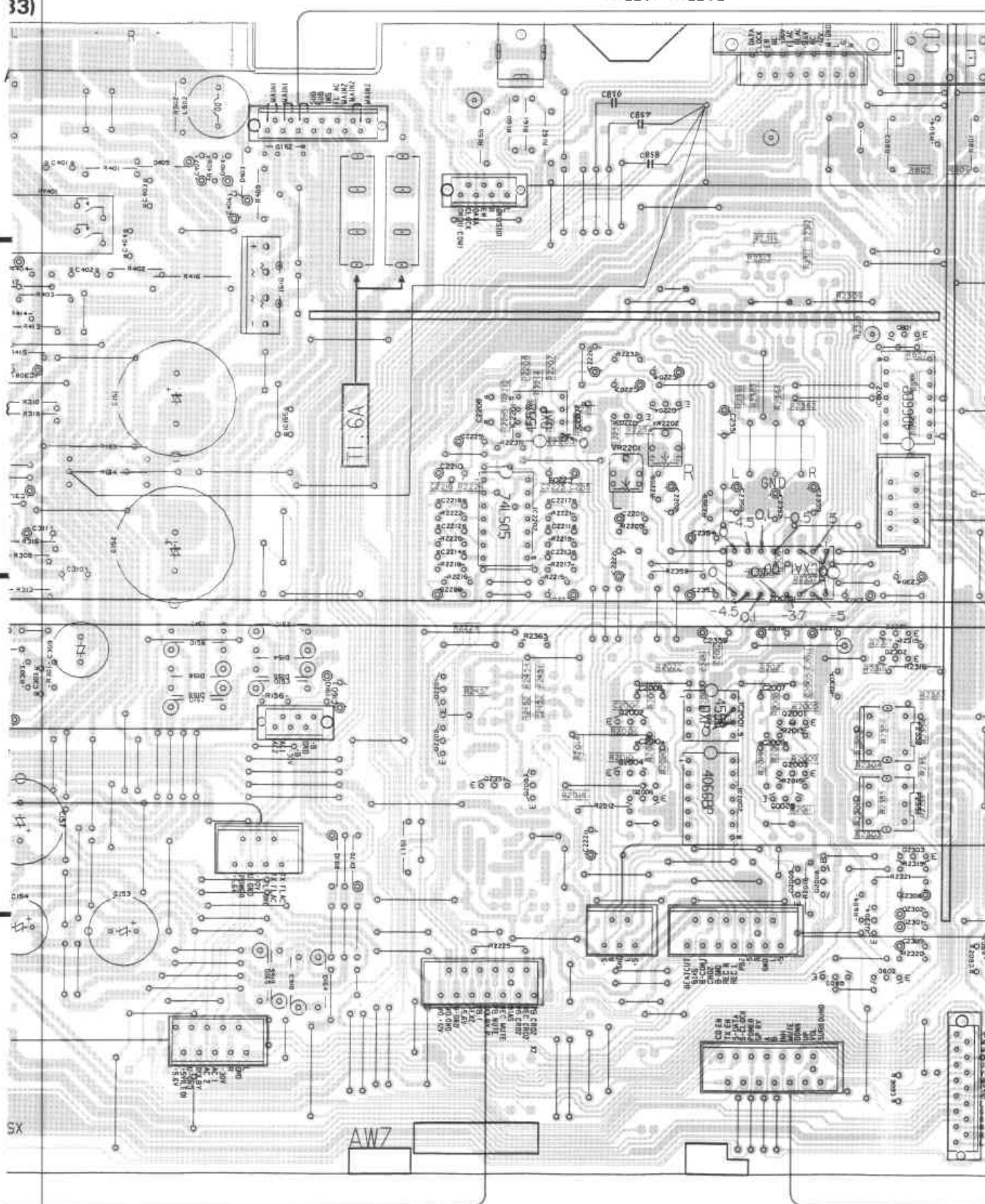
Q2301-Q2304

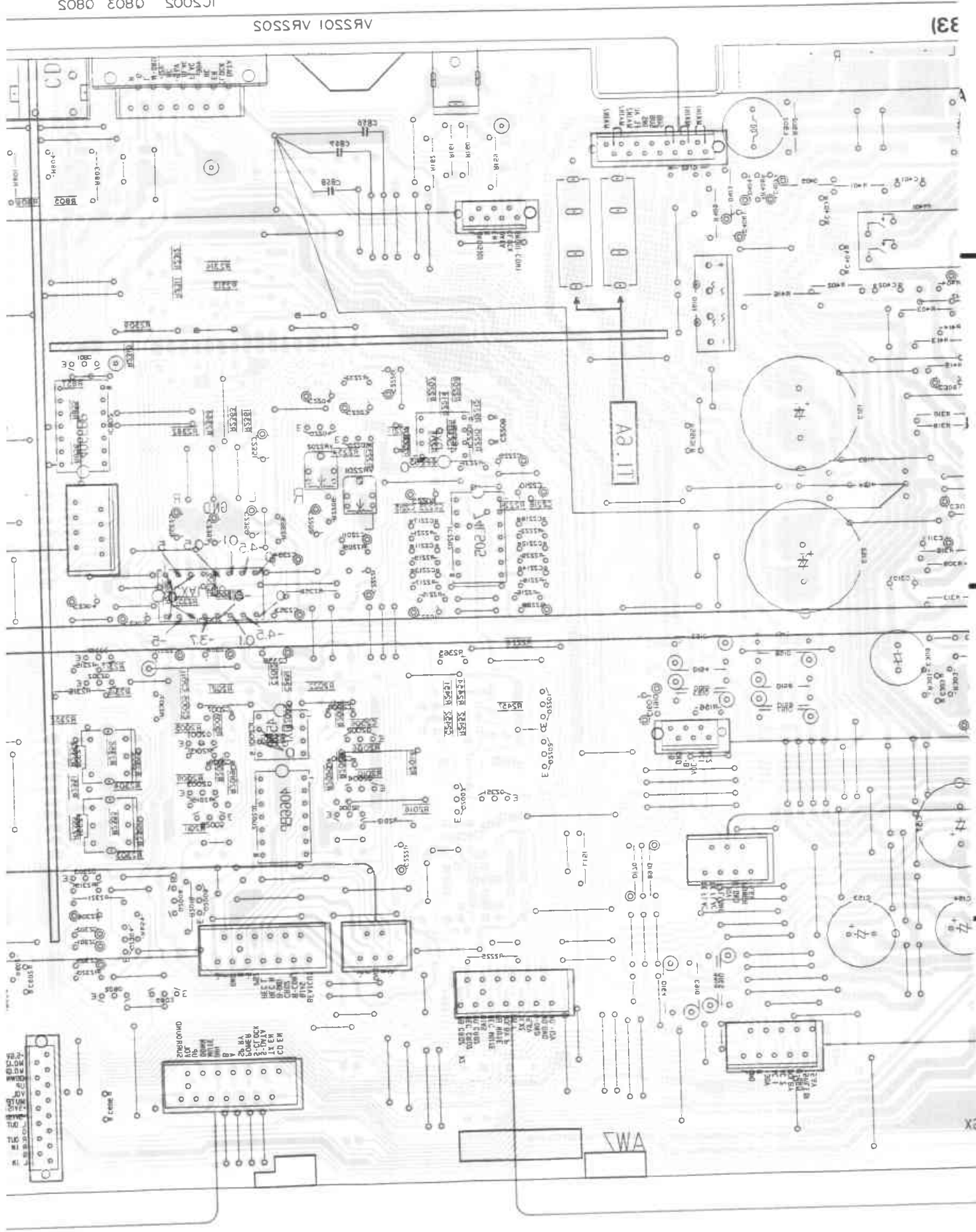
IC2002

Q803 Q802

VR2201 VR2202

33)



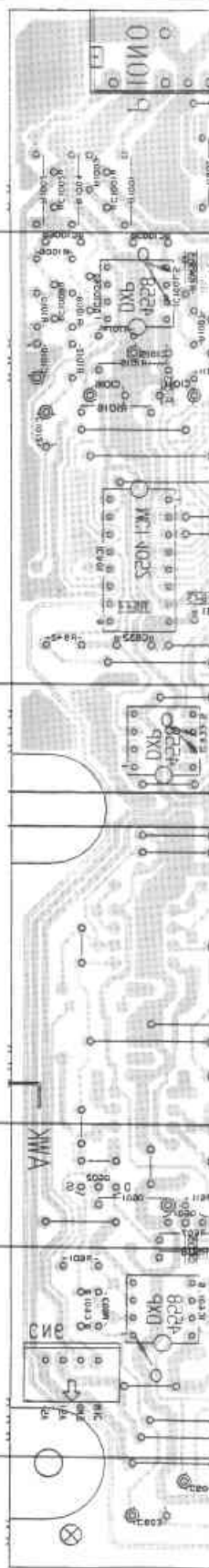


IC5005 0803 0805
05301-05304 IC5001
05001-05004 IC5001
05301-05304 IC5005
0801 IC805
0801 IC805

VR5001 VR5005

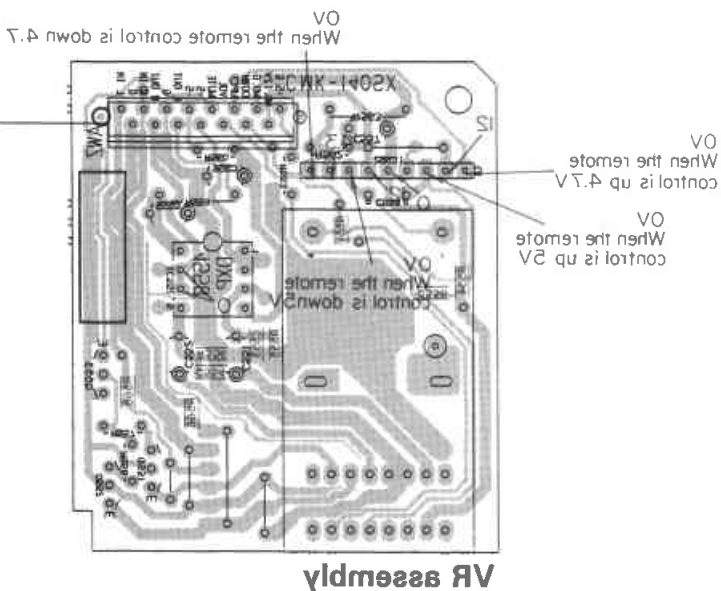
331

4



(To page 23)
To TRANS CONNECT assembly 112

(To page 61)
To MOTHER P.C.B assembly CM381



(To page 30)
To DISPLAY assembly 114

(To page 47)
To IMCCHA assembly 12

(To page 48)
To SMECHA assembly 14

(To page 29)
To DISPLAY assembly 110

A

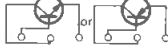
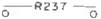
B

C

D

NOTE

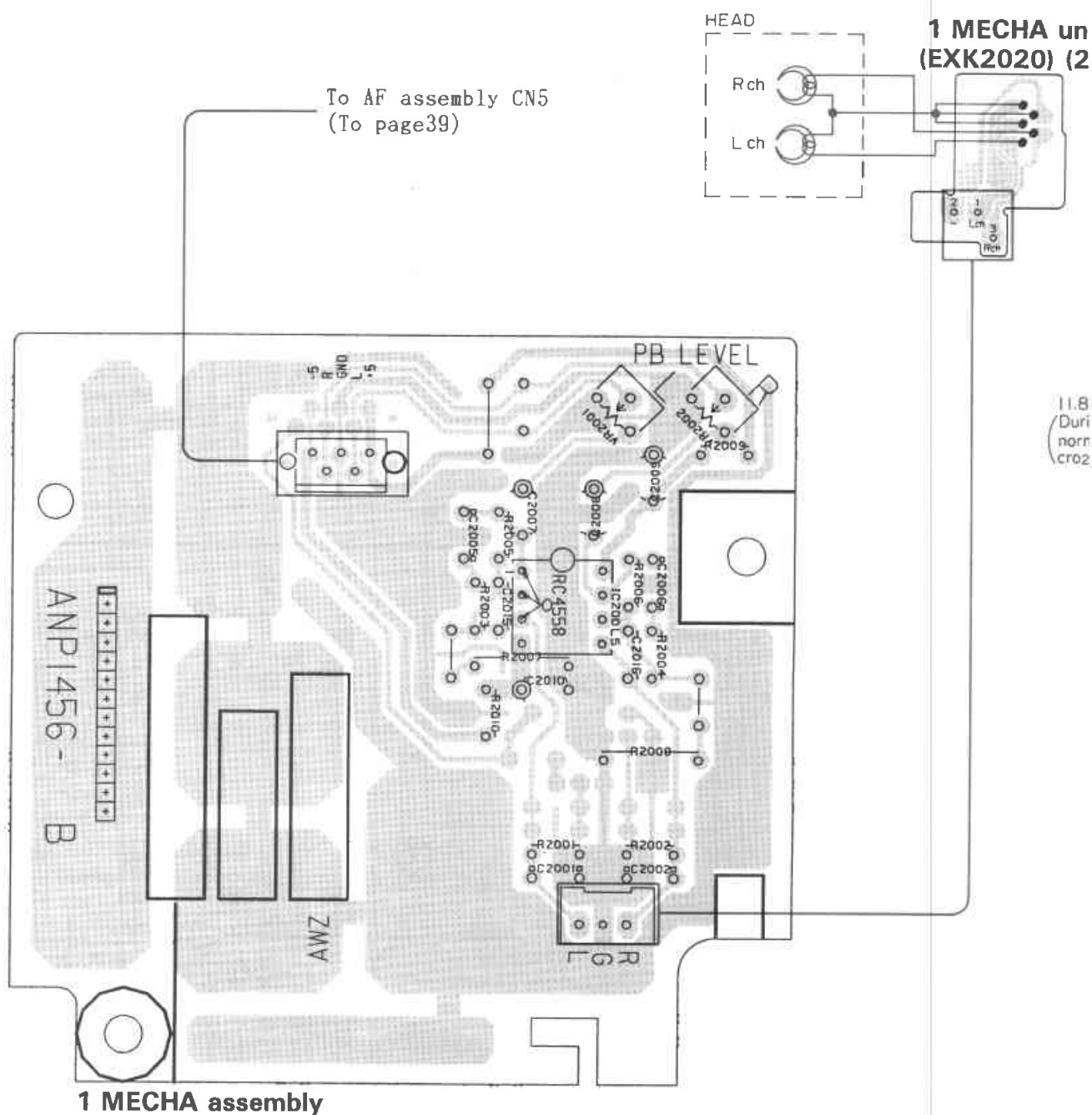
1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

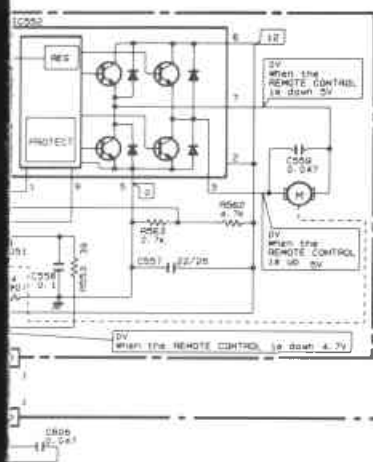
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

Others

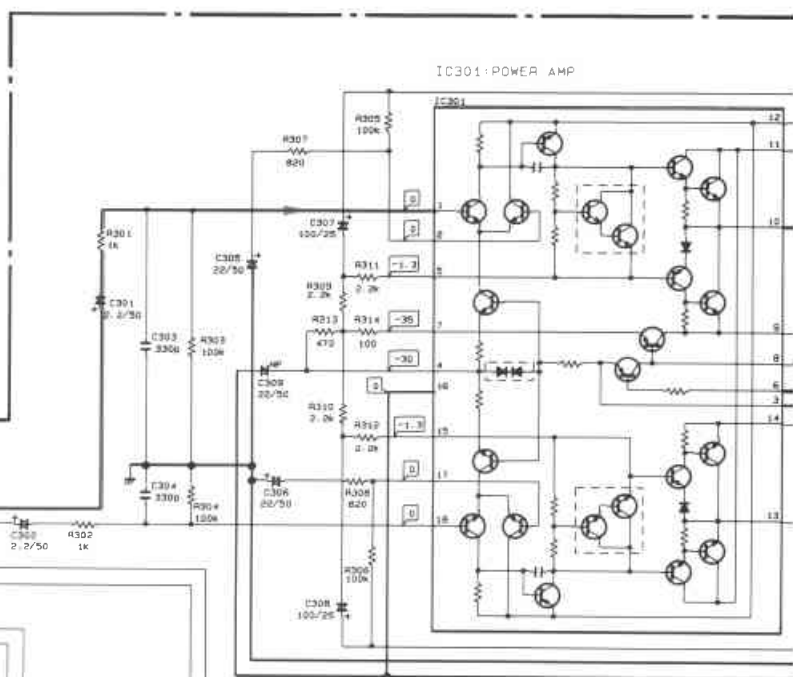
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with $\ominus$ (double circles) shows negative terminal.
4. The diode terminal marked with $\ominus$ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

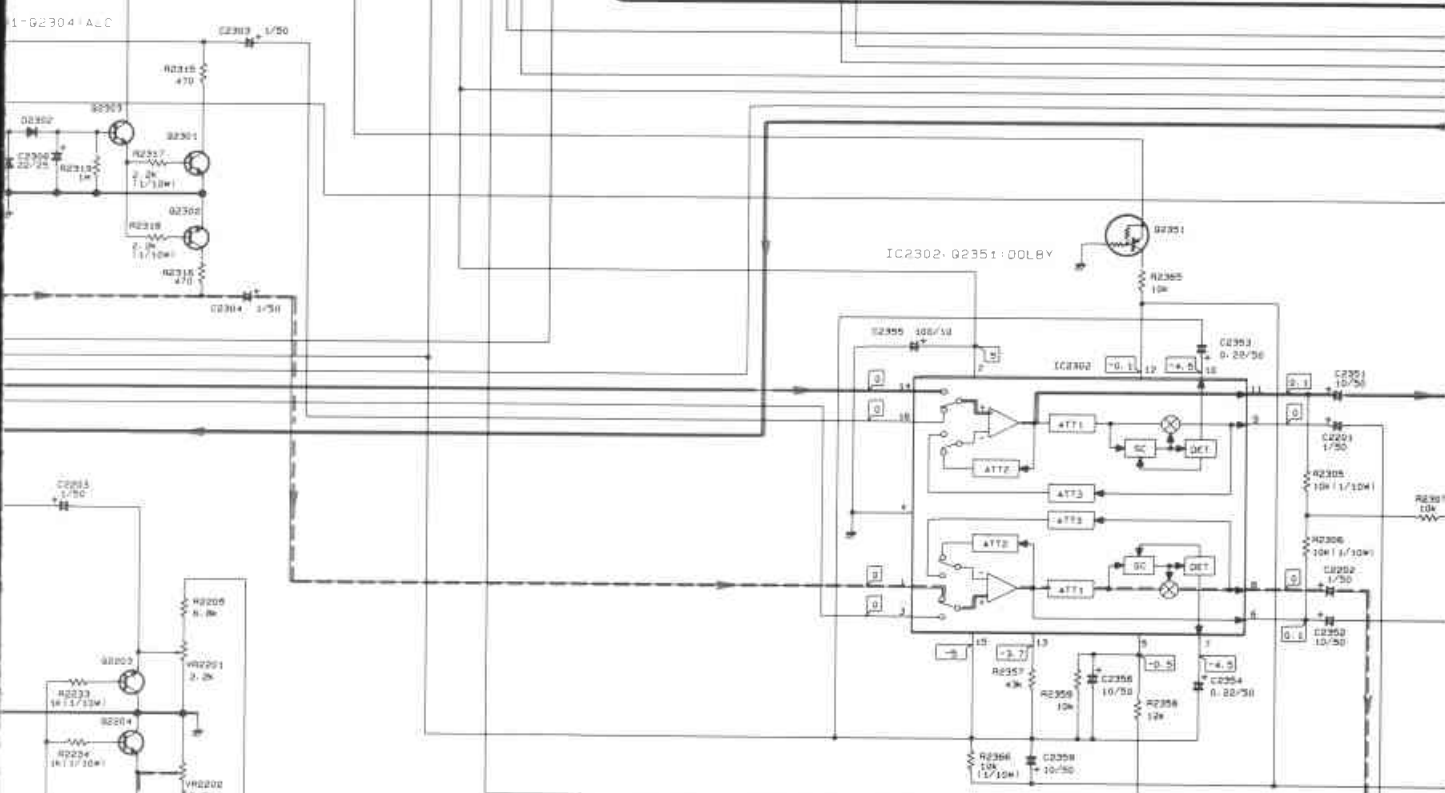




To DISPLAY assembly J12
(To page 28)



1-023041ALC



IC2302
IC155
IC801
IC153: 154
IC151
IC152
IC601
IC833: 1001, 2001
IC2201
IC2202
IC301
IC802: 2002

CXA1100P
ICP-N75
MC14052BCP
MC7812CT
NJM79M05FA
NJM79M05FA
RC45580XP
SN74LS05N
STK4142-26P
TC4056BP

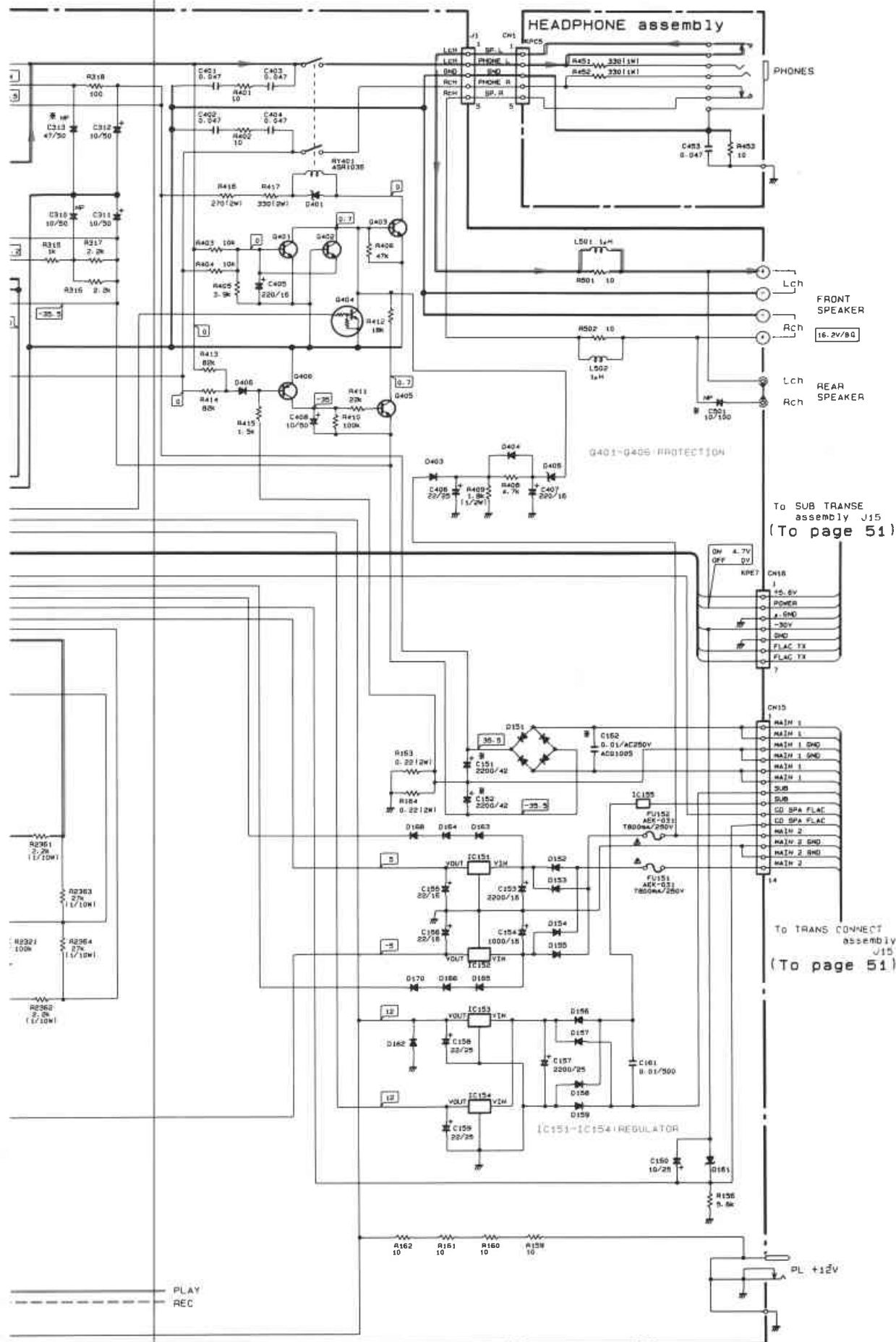
Q2009: 2201
Q404: 802
Q2008
Q601: 601, 803
Q2007: 2202, 2351
Q406
Q401: 403, 405
Q2001-2004
Q2301-2304
Q2005: 2006-2203, 2502B7B
Q2204
Q502

RN1201
RN1203
RN2201
RN2203
25A104B
25C245B
25C287B
25N245

D151
D401
D161
D161: 405
D152-159: 403
D163-166, 168, 170
D162: 404, 406
D2402: 2451, 2452

D35BA20
RD22EB
R08: 2ESB2
R06: 6ESB2
1SR139-400
1SS252

REC MUTE
NTROL



A

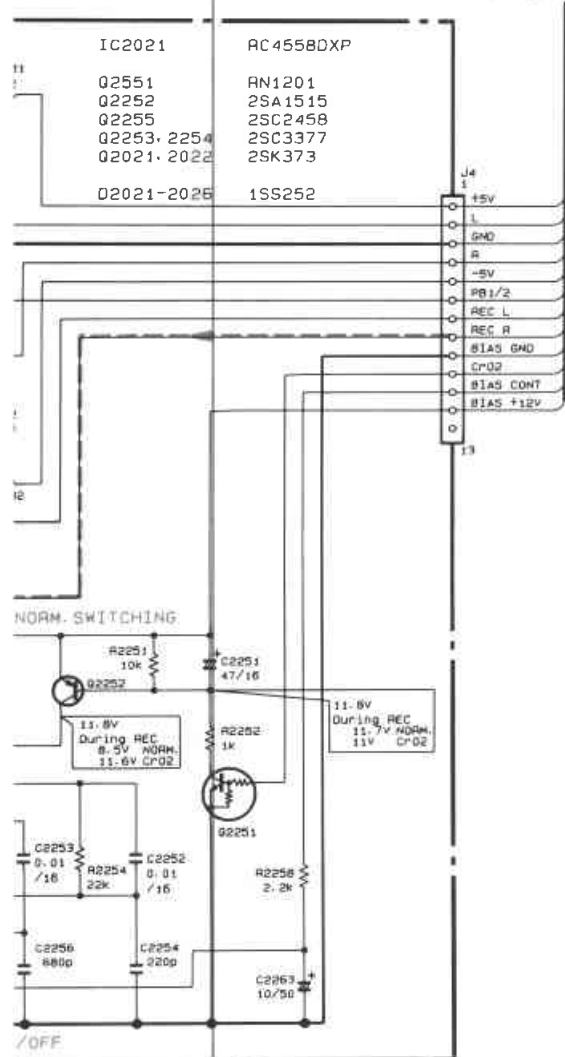
B

C

D

To AF assembly
CN4
(To page 41)

PLAY
REC



To AF assembly
CN5
(To page 41)

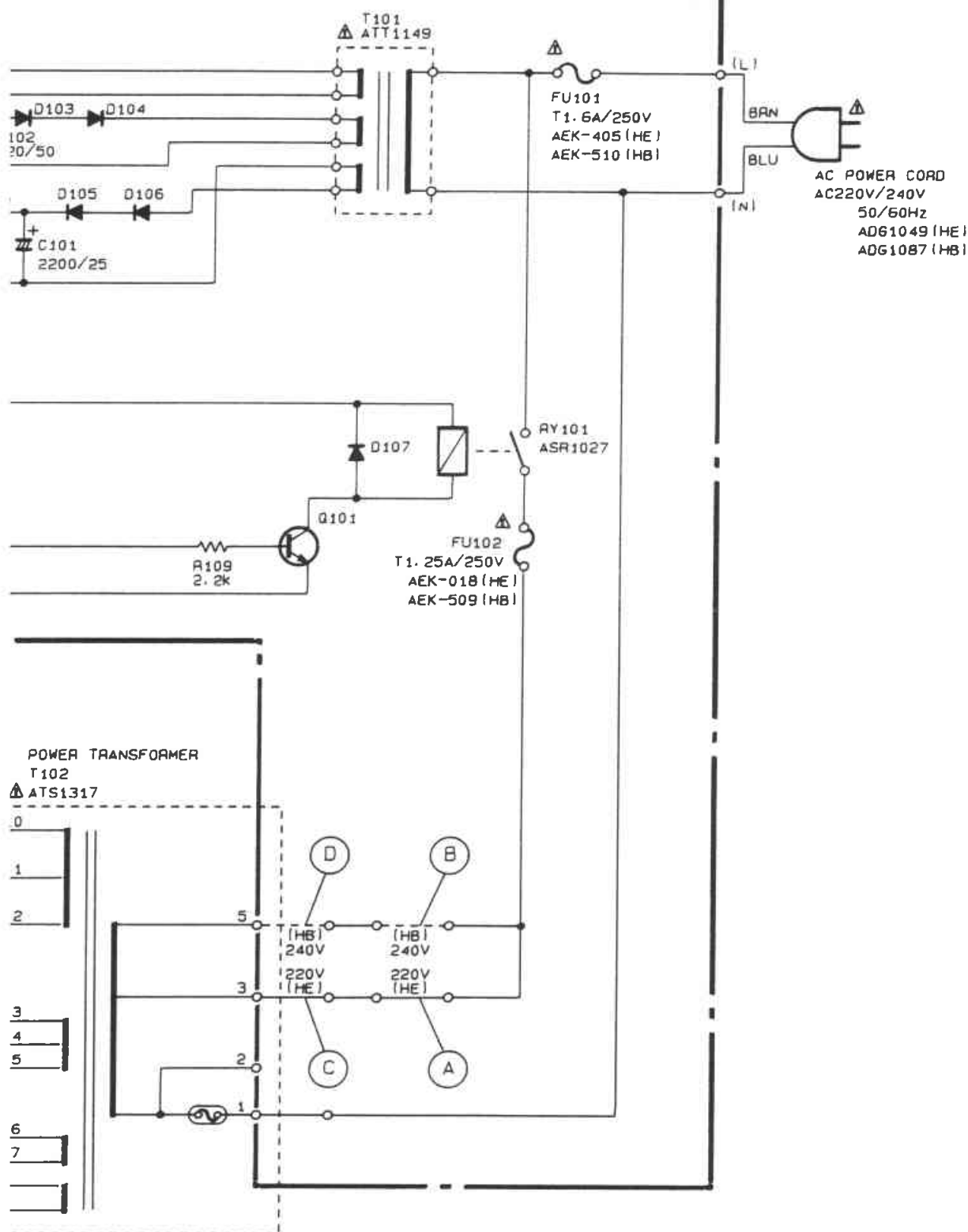
A

B

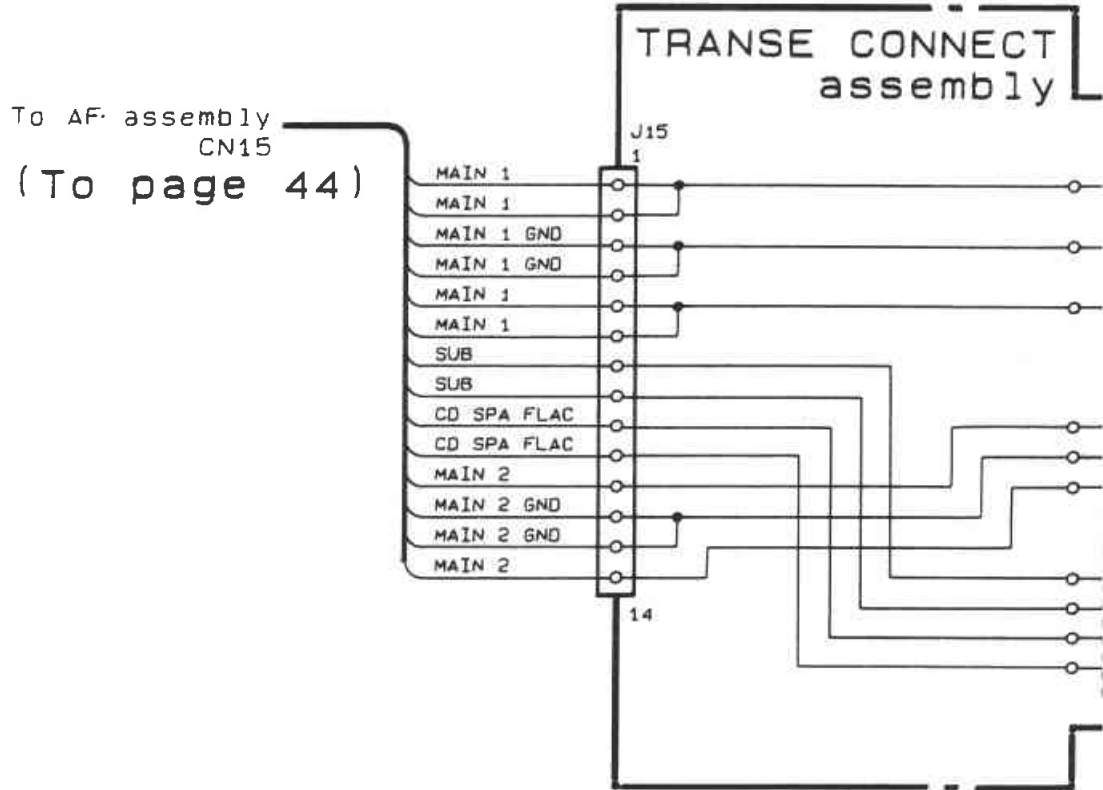
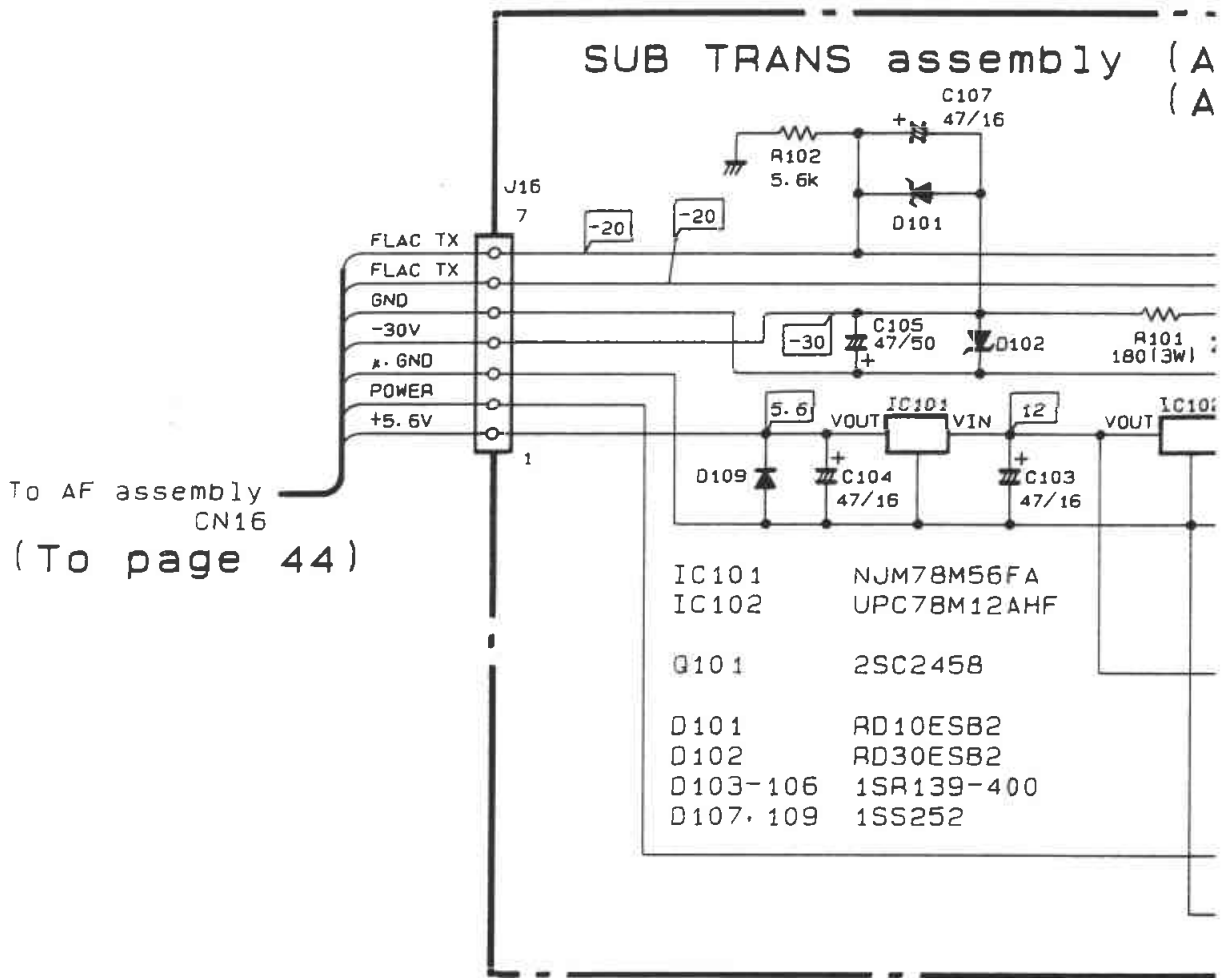
C

D

R1056:HE)
R1055:HB)



3.5 SUB TRANS (AWR1056) and TRANS CONNECT assembly



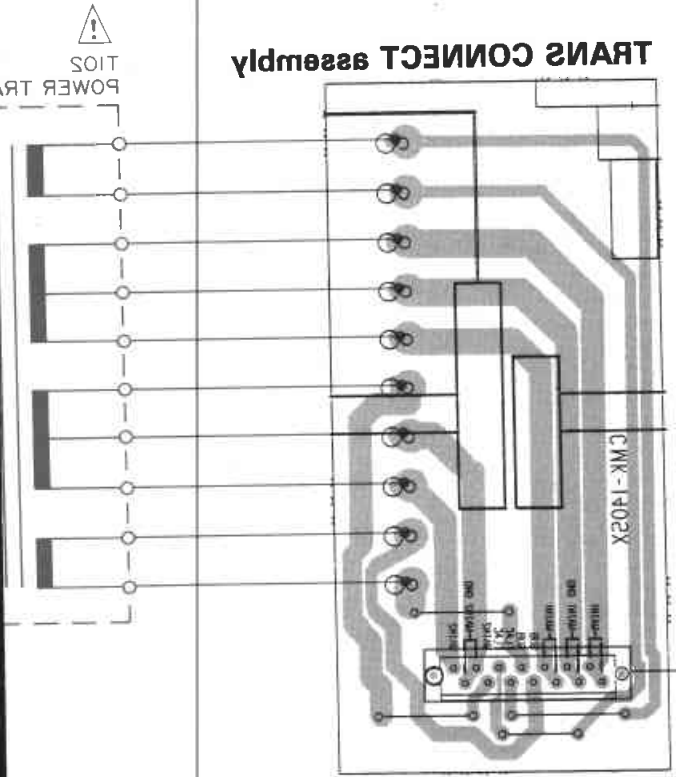
A

B

C

D

TRANS CONNECT assembly



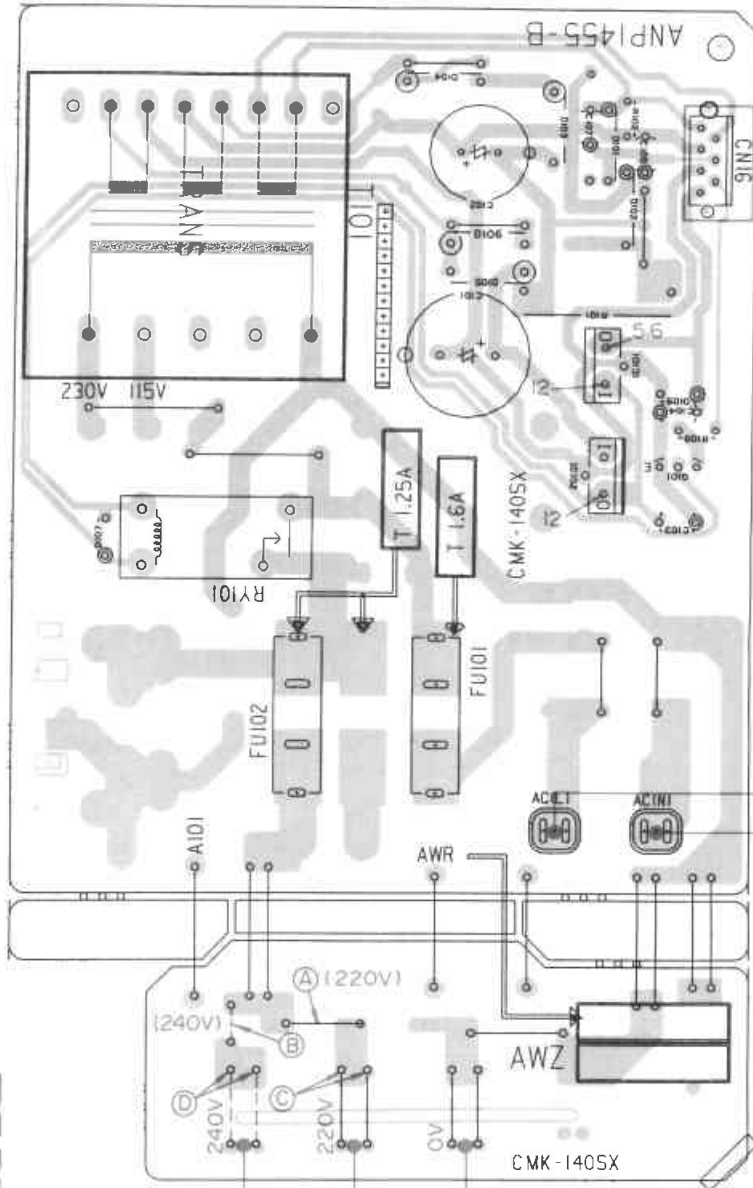
To AF assembly 112
(To page 39)



POWER TRAY

TIOS

SUB TRANS assembly (AWR1056)



A

B

C

D

Line Voltage Selection
(For HE, HB and HEWZIW types)

Line voltage can be changed with the following steps.

1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the position of the jumper wires (A) - (D) as follows ;

Jumper wire	Voltage	
	220V	240V
(A)	○	×
(B)	×	○
(C)	○	×
(D)	×	○

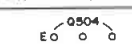
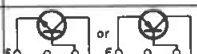
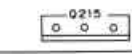
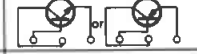
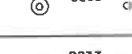
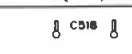
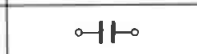
○ : Be needed
× : Be needless

4. Stick the line voltage label on the rear panel.

Description	Part No.
220V label	AAX-193
240V label	AAX-192

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

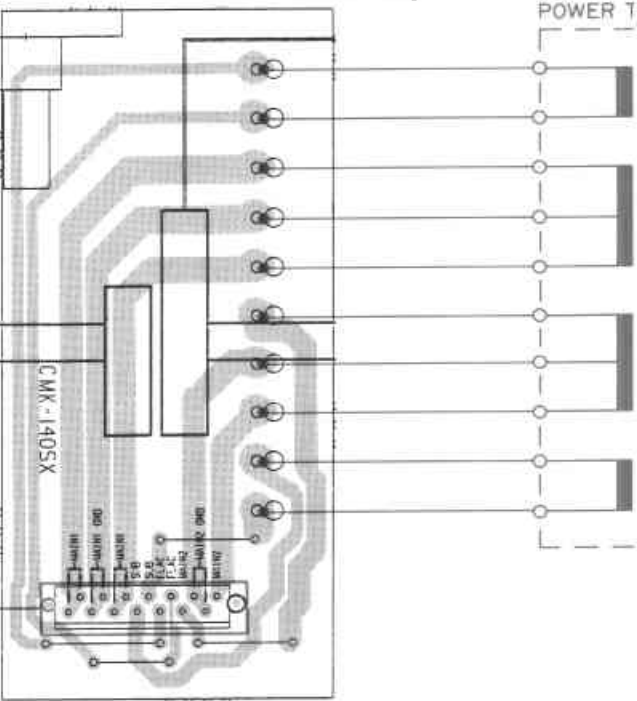
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

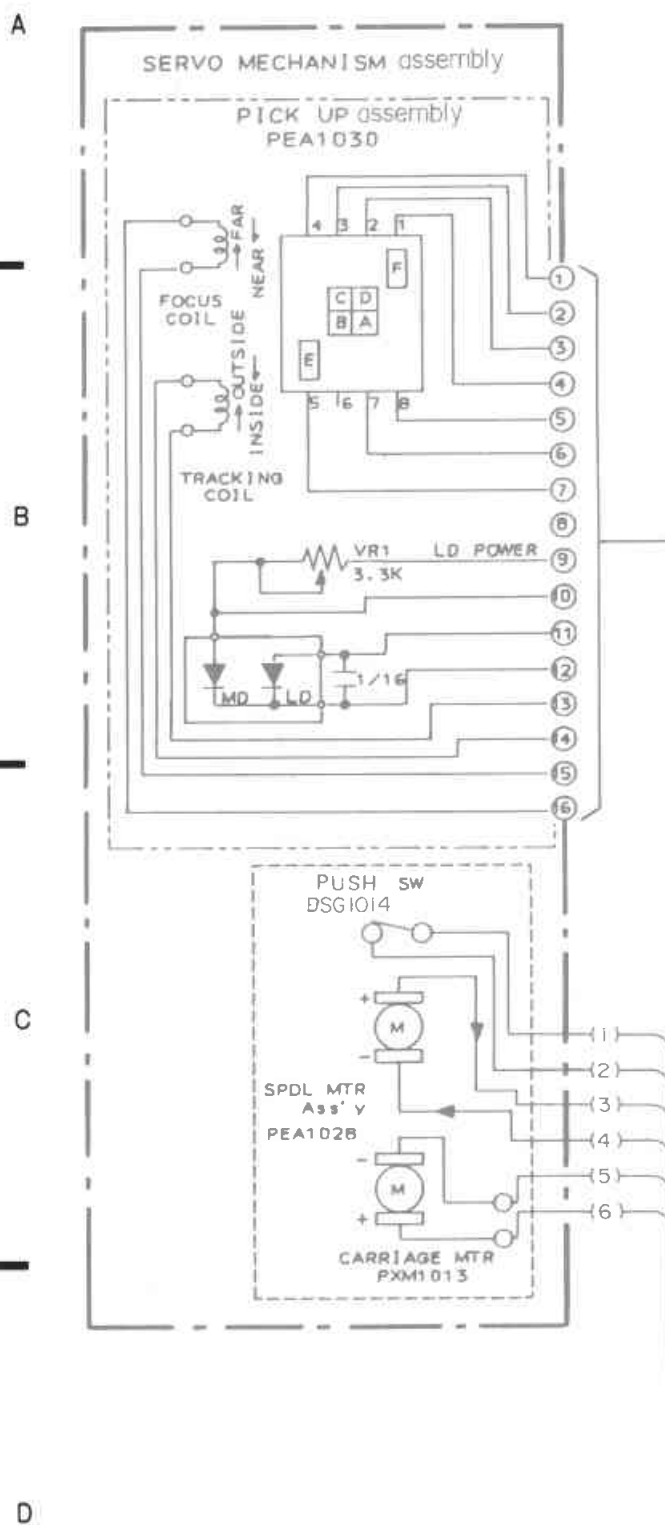
3. The capacitor terminal marked with ⊕(double circles) shows negative terminal.
4. The diode terminal marked with ⊕(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

TRANS CONNECT assembly



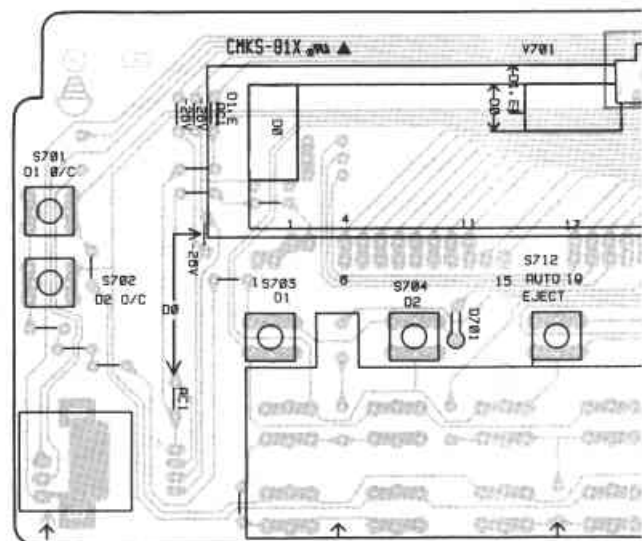
To AF assembly J15
(To page 39)

3.6 SCHEMATIC AND P.C.BOARDS CONNECTION DIAGRAM (CD BLOCK)



Note :

See pages 63,64 for the semiconductors without voltage indication.



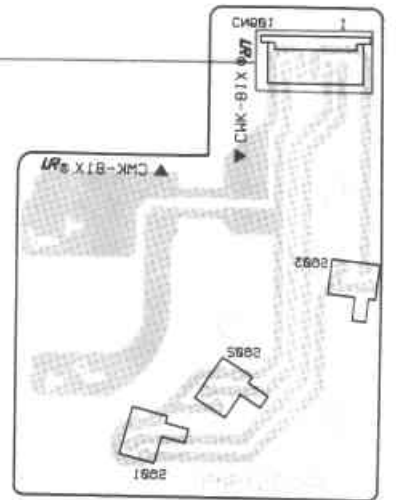
SUB P.C.B assembly (PWX1143)



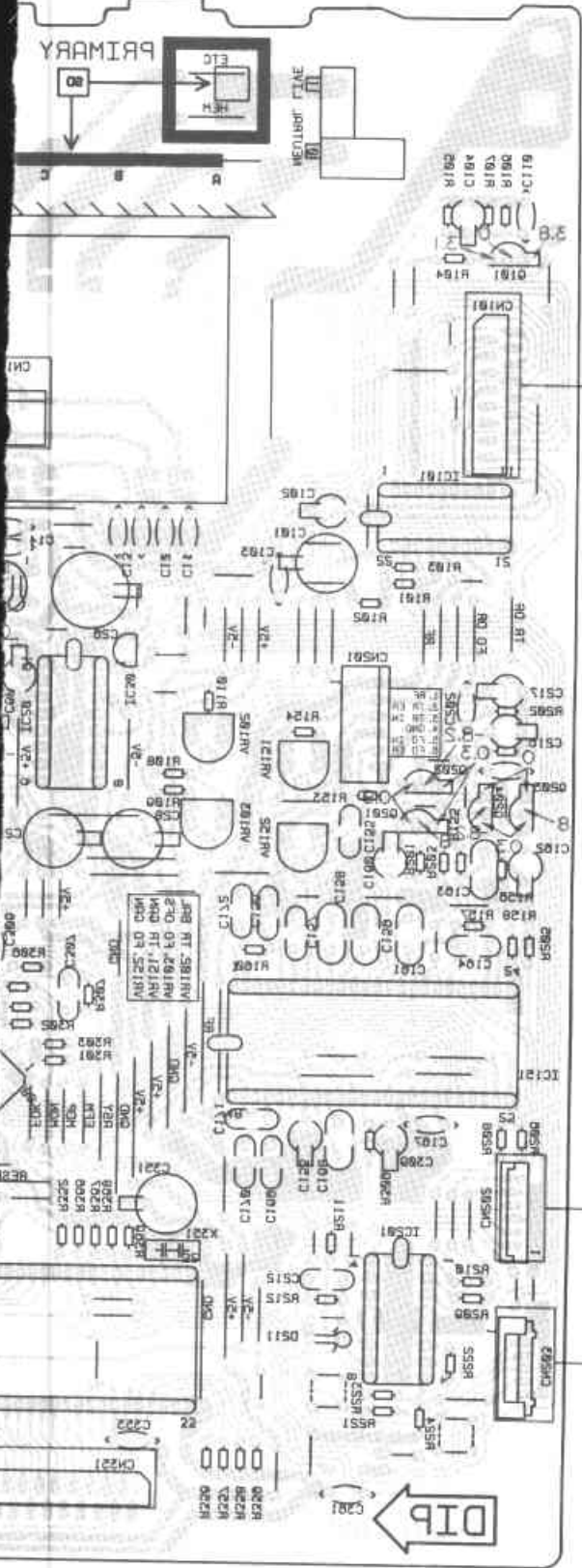
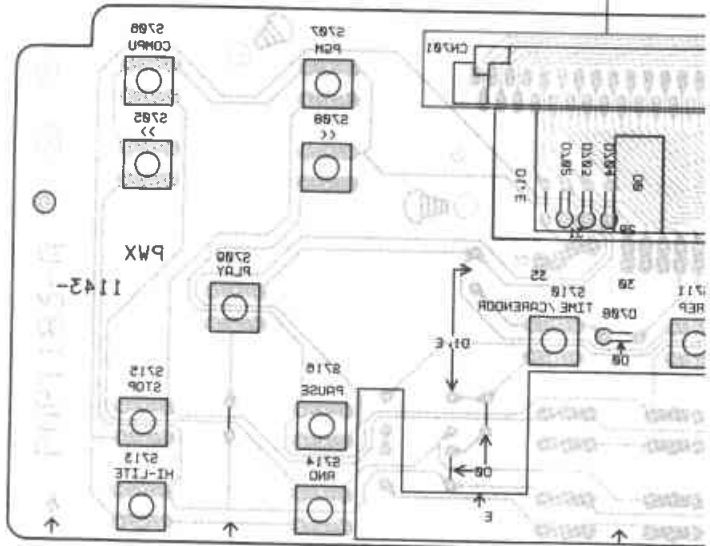
59



Note:



MECHA P.C.B assembly



MOTHER P.C.B assembly (P.W.M.1349)

(To page 38)

To AF assembly 118

IC20
M5298P

Pin No.	Volts
1	-8. 2
2	N. C
3	-5
4	0
5	-8. 2
6	N. C
7	N. C
8	N. C
9	5
10	N. C
11	0. 7
12	5
13	8
14	5
15	1. 2
16	8

IC201
LA6520

Pin No.	Volts
1	0
2	0
3	-0. 7
4	0
5	0
6	0
7	1. 7
8	1. 7
9	0. 7
10	0
11	0
12	8
FIN	-8. 2

IC351
PD4305A

Pin No.	Volts	Pin No.	Volts	Pin No.	Volts	Pin No.	Volts
1	-1 0	17	1. 8	33	0	49	-2 2
2	-13. 5	18	0	34	5	50	0
3	-5. 5	19	5	35	0	51	5
4	-10. 5	20	0. 5	36	0	52	0
5	2. 1	21	5	37	0	53	0
6	4. 8	22	0	38	0	54	-2 6
7	4. 5	23	0	39	5	55	-2 6
8	3. 9	24	0	40	-2 2	56	-2 6
9	2. 3	25	5	41	-2 2	57	-5
10	0	26	5	42	-2 2	58	-9
11	5	27	5	43	-2 2	59	-1 1
12	2. 5	28	5	44	-2 2	60	5
13	5	29	5	45	-2 2	61	-2. 5
14	5	30	2. 5	46	-2 2	62	2
15	5	31	2. 5	47	-2 2	63	-2. 5
16	0	32	0	48	-2 2	64	5

IC301
CXD2500Q

Pin No.	Volts	Pin No.	Volts	Pin No.	Volts
1	5	31	N. C	61	N. C
2	N. C	32	2. 5	62	N. C
3	5	33	5	63	0
4	2. 6	34	2. 5	64	N. C
5	N. C	35	2. 5	65	0
6	5	36	N. C	66	3.3~4.6
7	N. C	37	N. C	67	5
8	N. C	38	N. C	68	0
9	0	39	N. C	69	2.1~3
10	0	40	N. C	70	5
11	N. C	41	N. C	71	5
12	0	42	5	72	5
13	N. C	43	N. C	73	5
14	N. C	44	N. C	74	5
15	N. C	45	N. C	75	5
16	N. C	46	4. 4	76	0
17	0	47	0	77	5
18	2. 5	48	0	78	5
19	2. 4	49	0~0.3	79	5
20	2. 4	50	N. C	80	0
21	0	51	N. C		
22	2. 5	52	0		
23	5	53	2. 5		
24	2. 5	54	N. C		
25	N. C	55	0		
26	0	56	N. C		
27	2. 5	57	N. C		
28	0	58	N. C		
29	N. C	59	0		
30	0	60	N. C		

IC404
NJM4558D-D

Pin No.	Volts
1	-0. 2
2	1
3	1
4	-5
5	1
6	1
7	-0. 2
8	5

IC401
TC9237N

Pin No.	Volts
1	5
2	0
3	5
4	5. 5
5	2. 5
6	2. 5
7	0
8	0
9	2. 5
10	2. 5
11	5
12	0
13	N. C
14	0
15	0
16	1. 9
17	1. 9
18	5
19	2
20	0
21	0
22	0
23	0
24	5
25	2. 5
26	2. 5
27	2. 5
28	5

1. RESISTORS:

Indicated in Ω, ¼W, ½W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:

Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:

 : DC voltage (V) at play state.
Value in () is DC voltage at rated power.

 mA : DC current at no input signal

4. OTHERS:

 : Signal route.

 : Adjusting point.

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.

※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCH

MECHA PCB Assembly

- S601 U
- S602 S
- S603 L

SUB PCB Assembly

- S701 O/C D1
- S702 O/C D2
- S703 D1
- S704 D2
- S705  ()
- S706 COMPU
- S707 PGM
- S708  ()
- S709 
- S710 TIME/CALENDER
- S711 REP
- S712 AUTO EJECT
- S713 HI LITE
- S714 RND
- S715 STOP
- S716 PAUSE

List of semiconductor terminal voltage

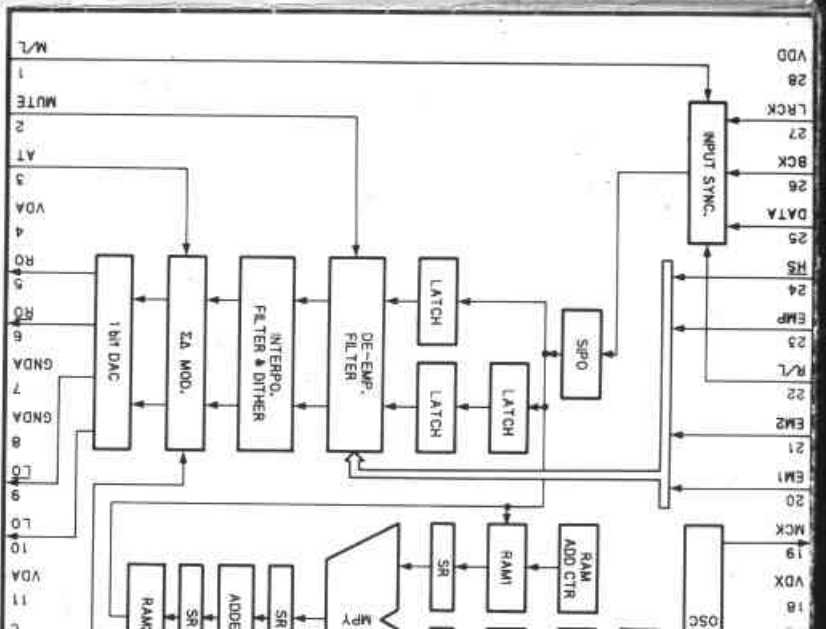
Note: All terminal voltages are measured in the PLAY mode.

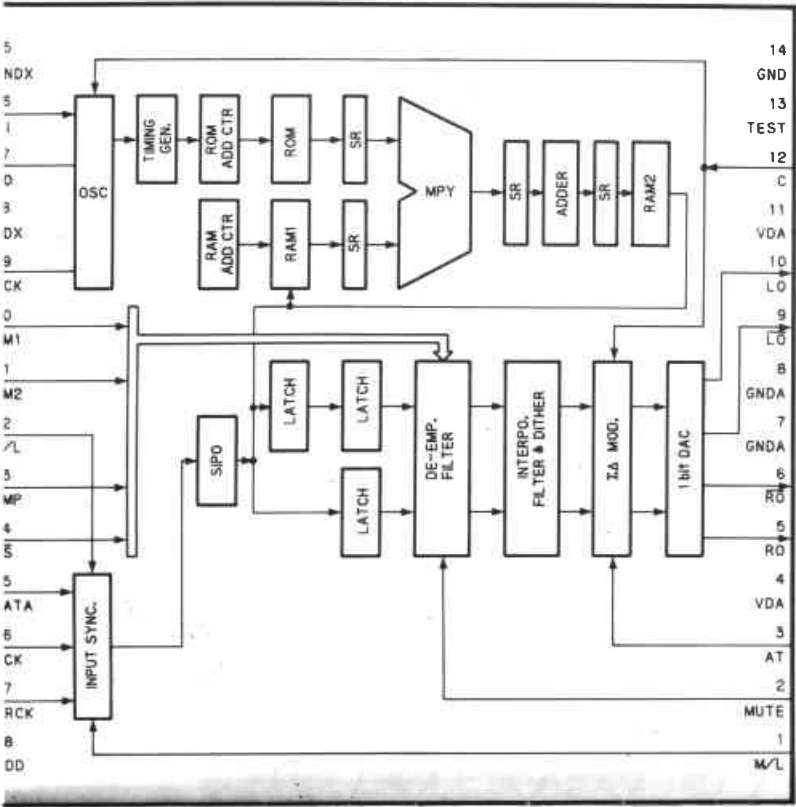
IC151
CXA1372S

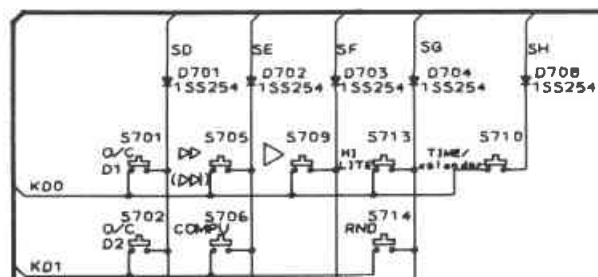
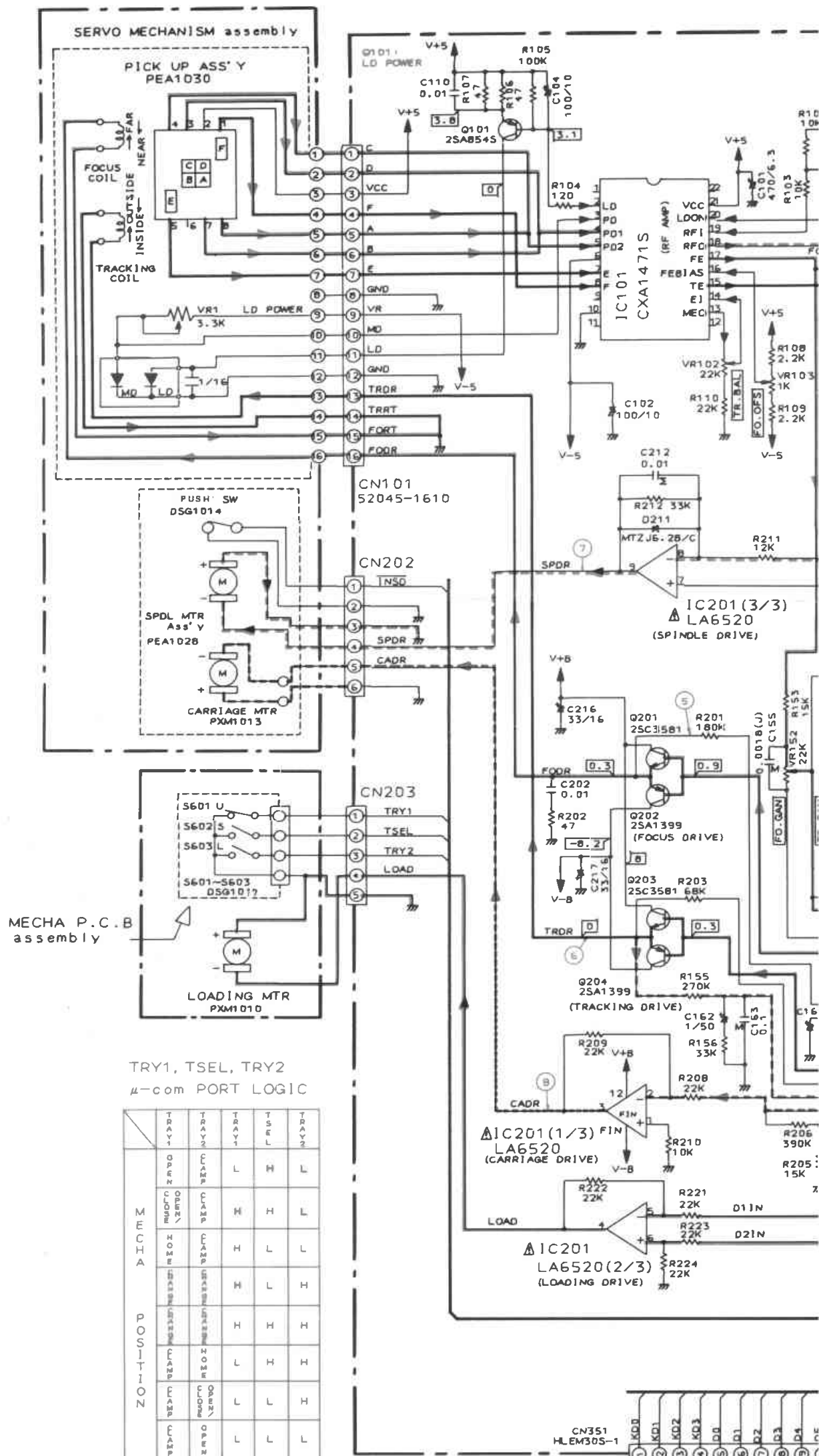
Pin No.	Volts	Pin No.	Volts
1	0	25	-5
2	0	26	5
3	0	27	5
4	0	28	5
5	0	29	5
6	0	30	5
7	0	31	5
8	0	32	0
9	0	33	5
10	0	34	0
11	-1	35	0
12	0	36	N. C
13	0.2	37	2.5
14	0	38	2.5
15	0	39	5
16	5	40	-1.5
17	0	41	-1.7
18	0	42	5
19	0	43	-0.7
20	0.2~0.8	44	-1.6
21	0	45	0
22	-4	46	0.8
23	1.3	47	-5
24	0	48	0

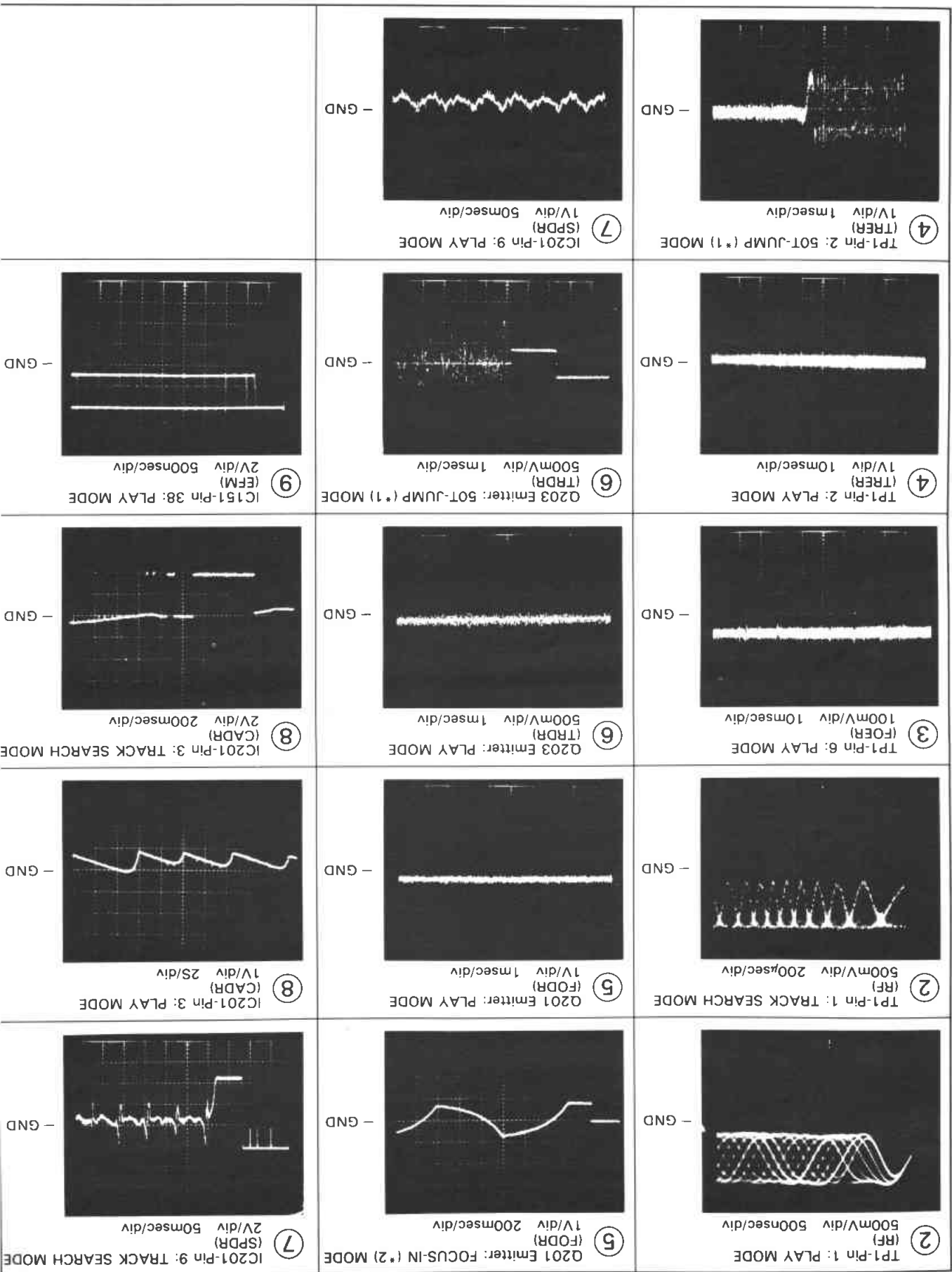
IC101
CXA1471S

Pin No.	Volts	Pin No.	Volts
1	N. C	16	0
2	2.9	17	0
3	-4.7	18	0.8
4	0	19	0
5	0	20	5
6	-5	21	5
7	0	22	N. C
8	0		
9	N. C		
10	0		
11	N. C		
12	N. C		
13	-0.9		
14	-0.7		
15	0		







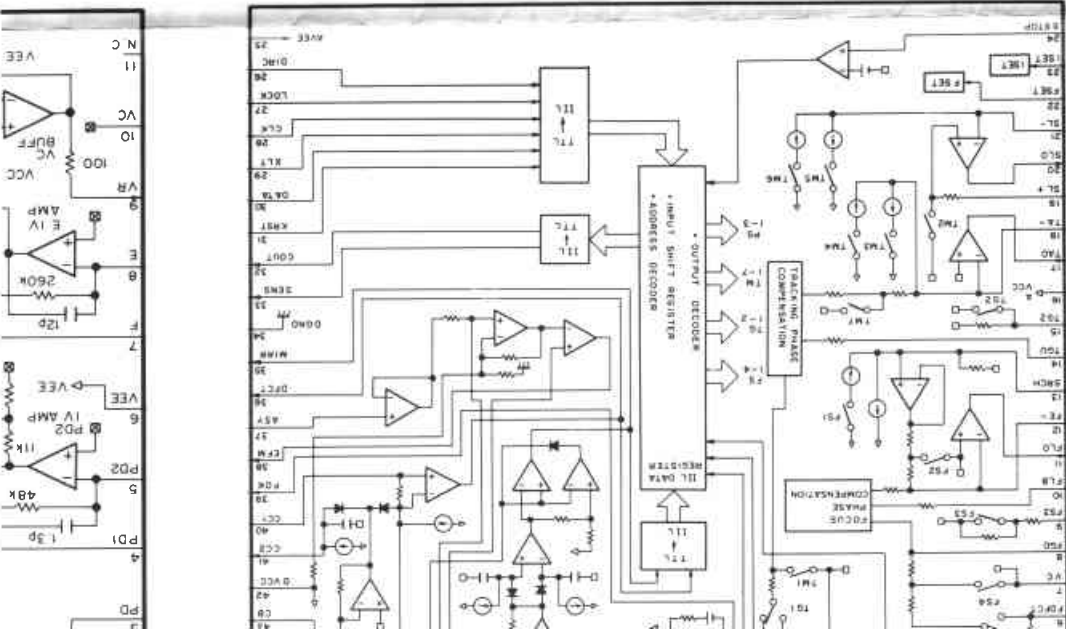


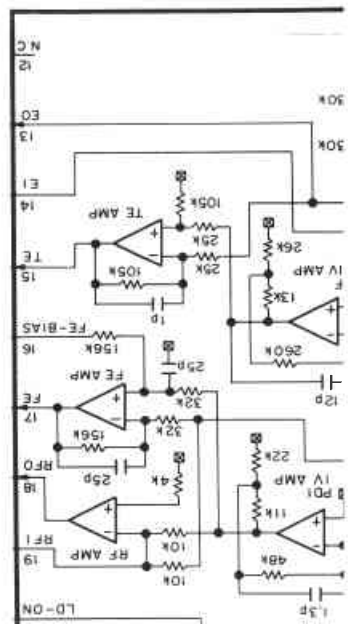
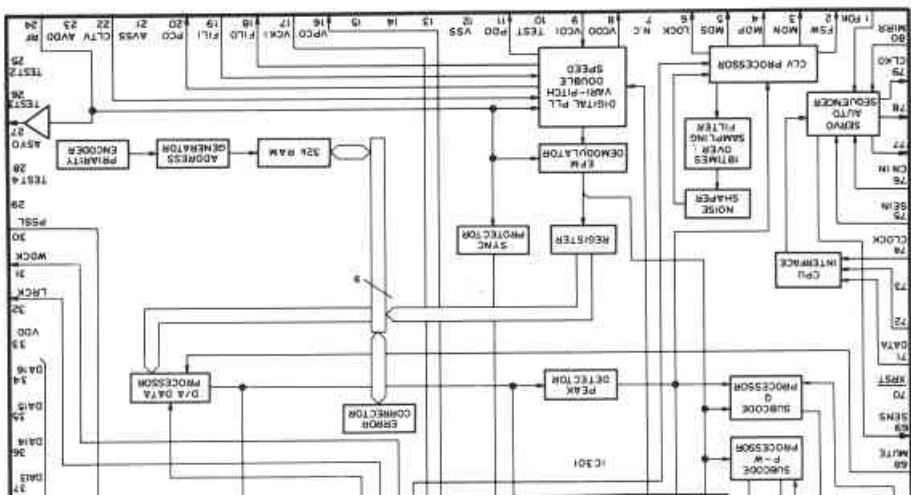
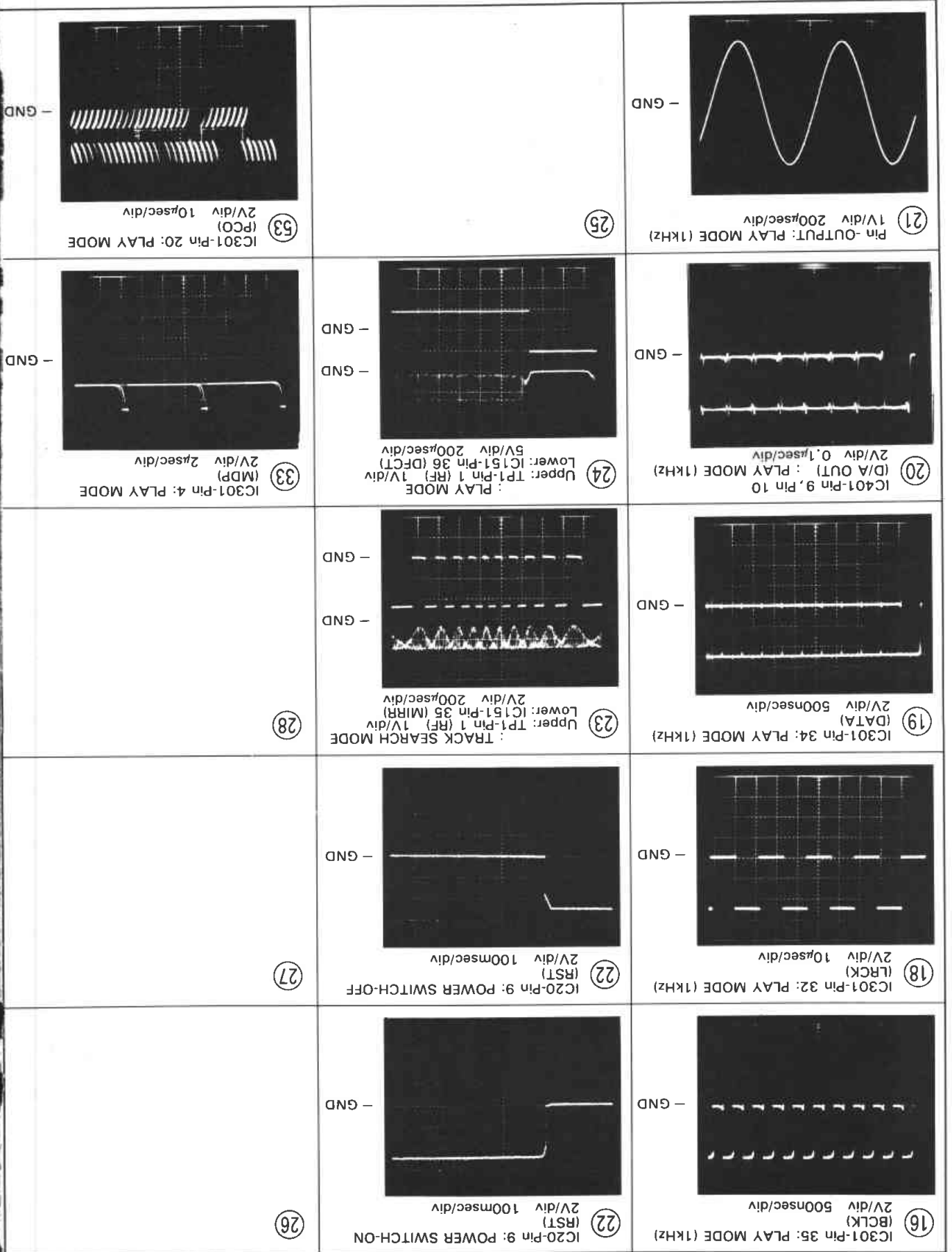
Note: The encircled numbers denote measuring points in the schematic diagram.

Wave Forms

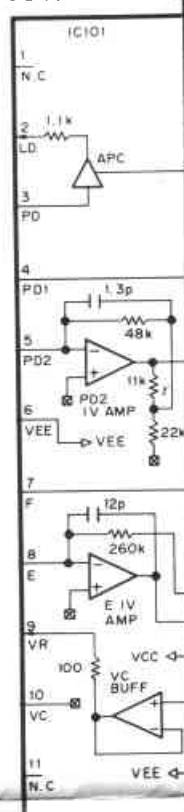
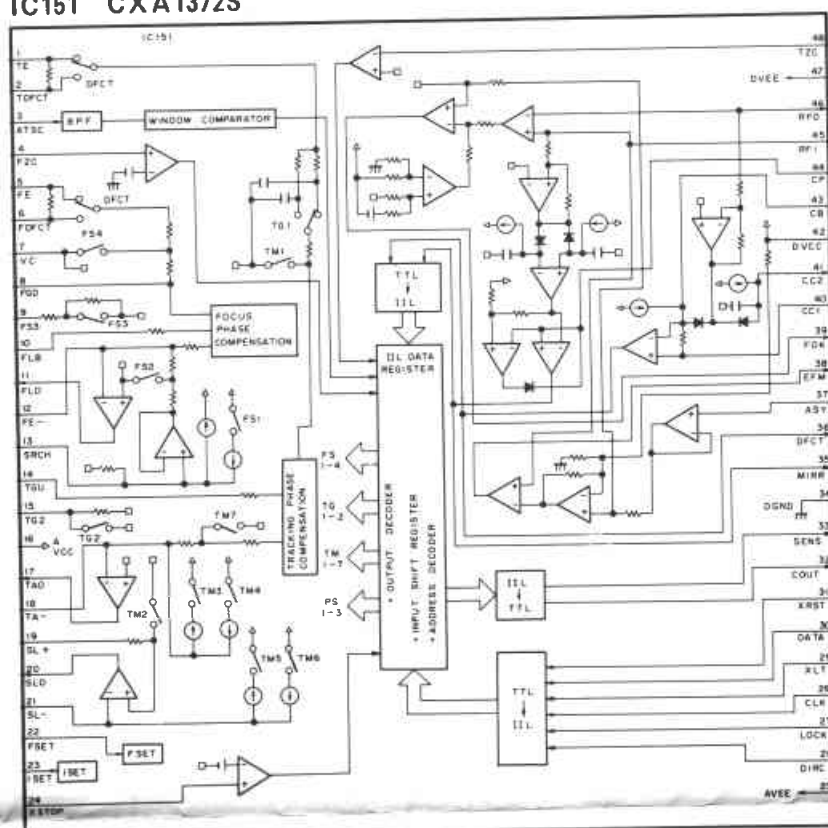
*1 50T-JUMP: After switching to the pause mode, press the manual search key.

*2 FOCUS-IN: Press the key without loading a disc.





IC101 CXA1



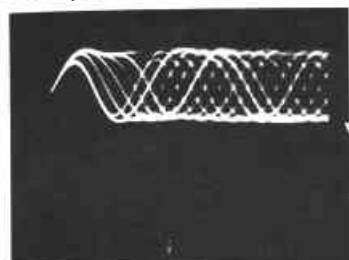
Wave Forms

Note: The encircled numbers denote measuring points in the schematic diagram.

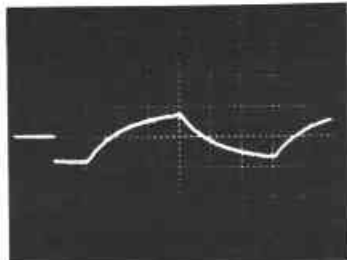
*1 50T-JUMP: After switching to the pause mode, press the manual search key.

* 2 FOCUS-IN: Press the key without loading a disc.

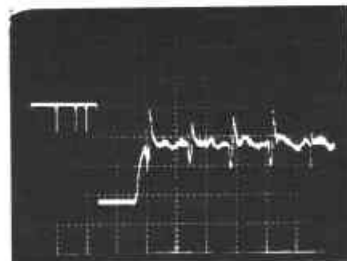
② TP1-Pin 1: PLAY MODE (RF)
500mV/div 500nsec/div



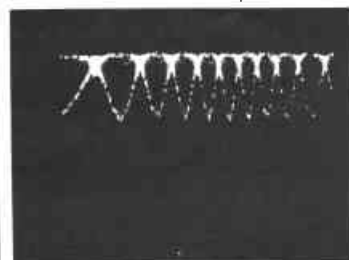
⑤ Q201 Emitter: FOCUS-IN (*2) MODE
(FODR)
1V/div 200msec/div



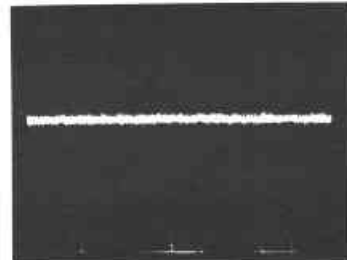
⑦ IC201-Pin 9: TRACK SEARCH MODE (SPDR)
2V/div 50msec/div



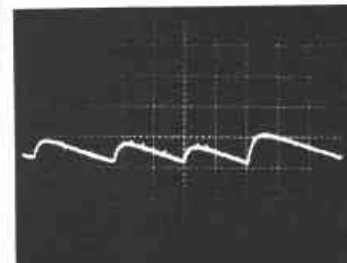
② TP1-Pin 1: TRACK SEARCH MODE (RF)
500mV/div 200μsec/div



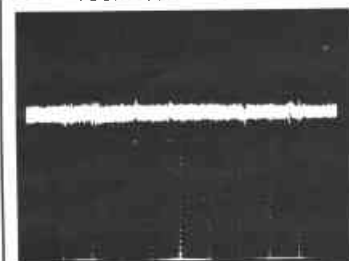
⑤ Q201 Emitter: PLAY MODE (FODR)
1V/div 1msec/div



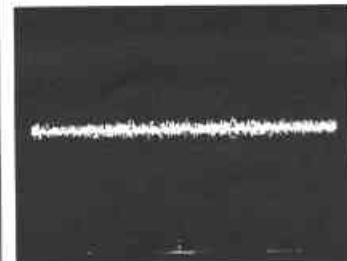
⑧ IC201-Pin 3: PLAY MODE (CADR)
1V/div 2S/div



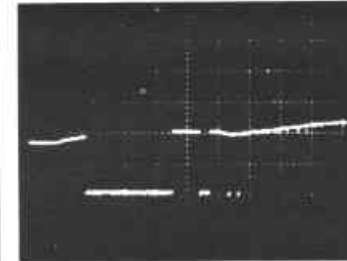
③ TP1-Pin 6: PLAY MODE (FOER)
100mV/div 10msec/div



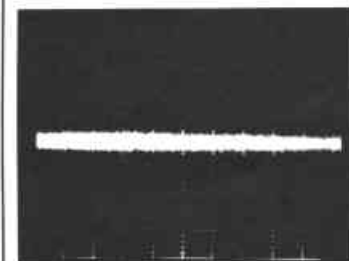
⑥ Q203 Emitter: PLAY MODE (TRDR)
500mV/div 1msec/div



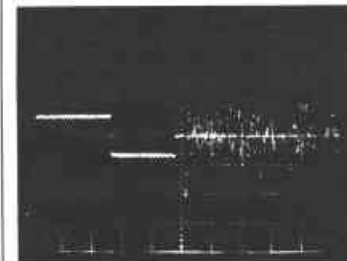
⑧ IC201-Pin 3: TRACK SEARCH MODE (CADR)
2V/div 200msec/div



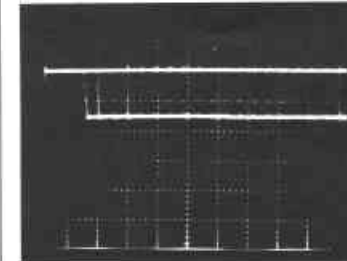
④ TP1-Pin 2: PLAY MODE (TRER)
1V/div 10msec/div



⑥ Q203 Emitter: 50T-JUMP (*1) MODE (TRDR)
500mV/div 1msec/div

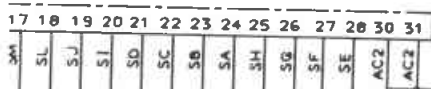


⑨ IC151-Pin 38: PLAY MODE (EFM)
2V/div 500nsec/div



④ TP1-Pin 2: 50T-JUMP (*1) MODE (TRER)

⑦ IC201-Pin 9: PLAY MODE (SPDR)



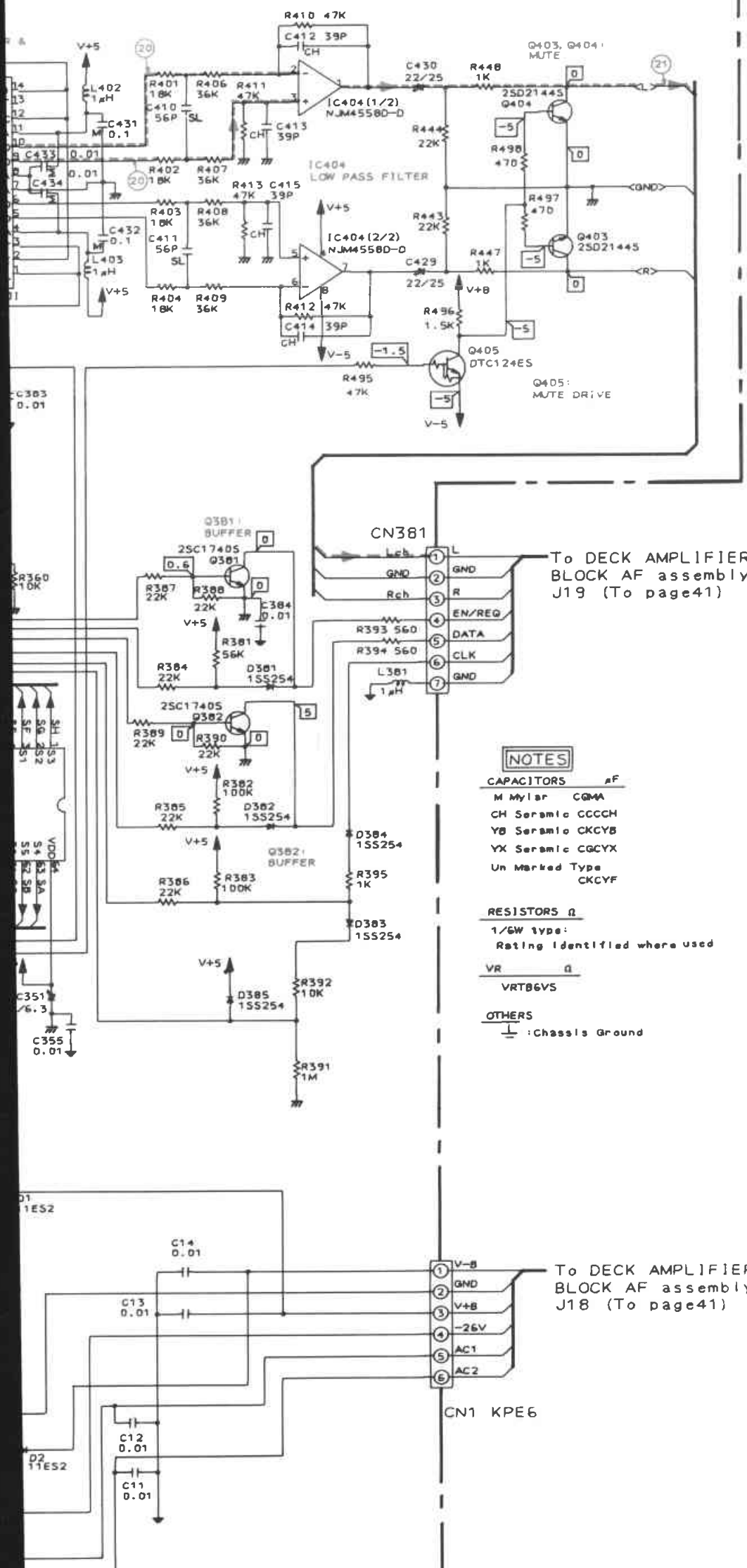
A

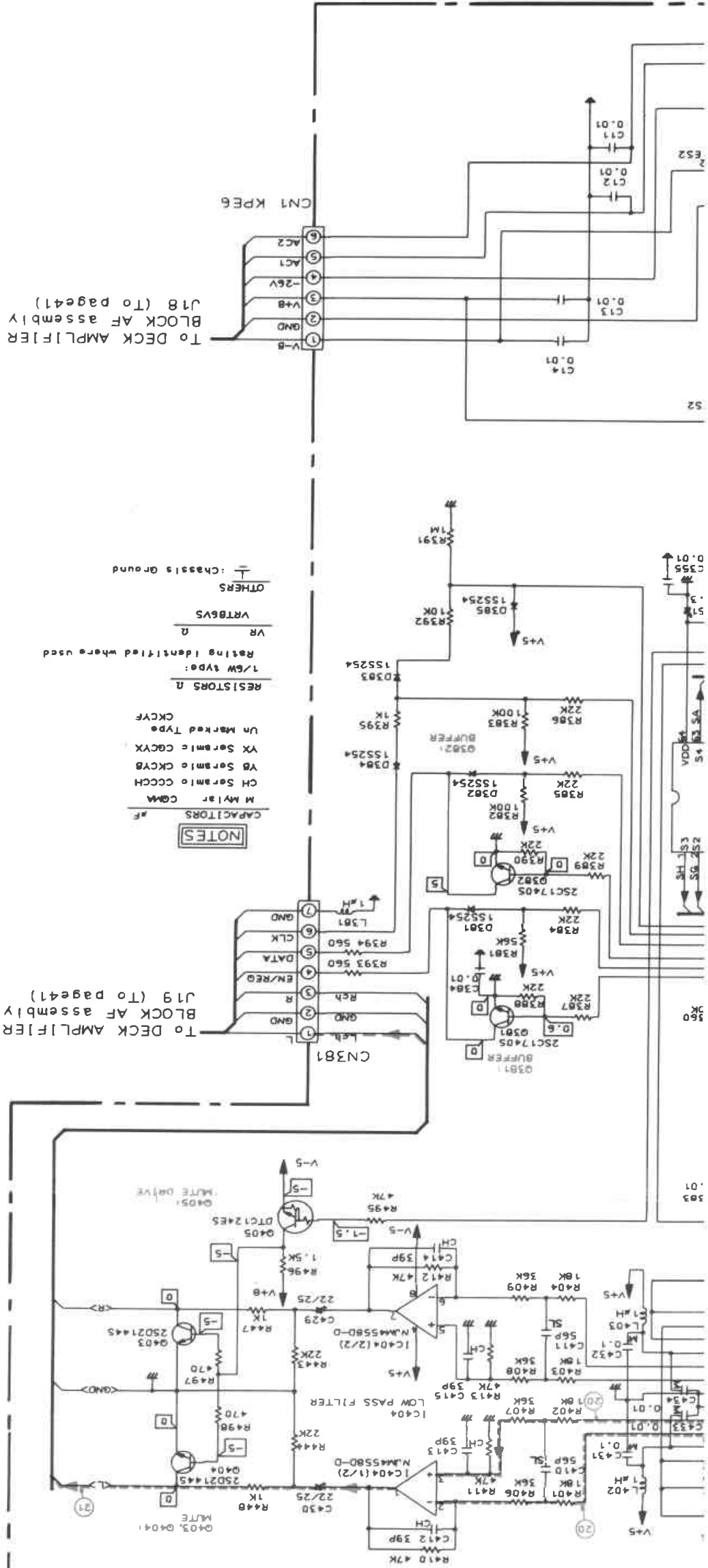
B

C

D

E





J18 (To page 41)
BLOCK AF assembly
TO DECK AMPLIFIER

J19 (To page 41)
BLOCK AF assembly
TO DECK AMPLIFIER

- NOTES**
- CAPACITORS: M Mylar, CCM, CH Ceramic, CCCH, YB Ceramic, CKCY, YX Ceramic, CKCY, Un Marked Type
 - RESISTORS: 1/4W Type, Rating identified where used
 - VR: VR8V5
 - OTHERS: Chassis Ground

ND

ND

TH

D

C

B

4. P.C.B 's PARTS LIST

NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "◎" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- 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	56×10^1	561.....	RD1/4PS 5 6 1 J
47kΩ	47×10^3	473.....	RD1/4PS 4 7 3 J
0.5Ω	0R5.....		RN2H 0 5 K
1Ω	010.....		RS1P 0 1 0 K

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

5.62kΩ	562×10^1	5621.....	RN1/4SR 5 6 2 1 F
--------	-------------------	-----------	-------------------

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
◎ AF ASSEMBLY (AWZ3333)							
SEMICONDUCTORS							
	IC1001	OP-AMP IC	RC4558DXP		D151	DIODE	D3SBA20 (A)
	IC151	REGULATOR IC	NJM78M05FA		D152-159	DIODE	1SR139-400
	IC152	REGULATOR IC	NJM79M05FA		D161	ZENER DIODE	RD8.2ESB2
	IC153, 154	REGULATOR IC	MC7812CT		D162	DIODE	1SS252
	IC155	IC PROTECTOR	ICP-N75		D163-166	DIODE	1SR139-400
	IC2001	OP-AMP IC	RC4558DXP		D168, 170	DIODE	1SR139-400
	IC2002	LOGIC IC	TC4066BP		D2301, 2302	DIODE	1SS252
	IC2201	OP-AMP IC	RC4558DXP		D401	ZENER DIODE	RD22EB
	IC2202	LOGIC IC	SN74LS05N		D403	DIODE	1SR139-400
	IC2302	DOLBY-B IC	CXA1100P		D404	DIODE	1SS252
	IC301	AUDIO IC	STK4142-2GP		D405	ZENER DIODE	RD6.8ESB2
	IC601	OP-AMP IC	RC4558DXP		D406, 601	DIODE	1SS252
	IC801	LOGIC IC	MC14052BCP				
	IC802	LOGIC IC	TC4066BP	RELAY			
	IC833	OP-AMP IC	RC4558DXP		RY401	RELAY	ASR1035
	Q2001-2004	TRANSISTOR	2SC2458	COILS			
	Q2005, 2006	TRANSISTOR	2SC2878		L151	AXIAL INDUCTOR	LAU2R2K
	Q2007	TRANSISTOR	RN2203		L2201, 2202	INDUCTOR	LTA392J
	Q2008	TRANSISTOR	RN2201		L501, 502	COIL	ATH-133
	Q2009, 2201	TRANSISTOR	RN1201		F2351-2352	DOLBY FILTER	ATF1064
	Q2202	TRANSISTOR	RN2203	CAPACITORS			
	Q2203, 2204	TRANSISTOR	2SC2878		C1001-1004	CERAMIC CAPACITOR	CCMSL101J50
	Q2301-2304	TRANSISTOR	2SC2458		C1005	CERAMIC CAPACITOR	CKSQYB152K50
	Q2351	TRANSISTOR	RN2203		C1006	CERAMIC CAPACITOR	CKDYB152K50
	Q401-403	TRANSISTOR	2SC2458		C1007, 1008	CERAMIC CAPACITOR	CKDYB562K50
	Q404	TRANSISTOR	RN1203		C1009-1012	ELECTR.CAPACITOR	CEAS2R2M50
	Q405	TRANSISTOR	2SC2458		C1015, 1016	ELECTR.CAPACITOR	CEAS470M16
	Q406	TRANSISTOR	2SA1048		C151, 152	ELECTROLYTIC CAPACIT	ACH1109
	Q601	TRANSISTOR	RN2203		C153	ELECTR.CAPACITOR	CEAS222M16
	Q602	N-FET	2SK246		C154	ELECTR.CAPACITOR	CEAS102M16
	Q801	TRANSISTOR	RN2203		C155, 156	ELECTR.CAPACITOR	CEAS220M16
	Q802	TRANSISTOR	RN1203		C157	ELECTR.CAPACITOR	CEAS222M25
	Q803	TRANSISTOR	RN2203		C158, 159	ELECTR.CAPACITOR	CEAS220M25

Mark	No.	Description	Parts No.
C160		ELECTR.CAPACITOR	CEAS100M25
C161		CERAMIC CAPACITOR	CKDYB103K500
C162		CKA (0.01/AC250V)	ACG1005
C2007, 2008		MYLOR FILM	CQMA273J50
		CAPACITOR	
C2009, 2010		MYLOR FILM	CQMA183J50
		CAPACITOR	
C2011, 2012		CERAMIC CAPACITOR	CKSQYB152K50
C2201—2204		ELECTR.CAPACITOR	CEAS010M50
C2205, 2206		CHIP CAPACITOR	CKSQYB222K50
C2207, 2208		AUDIO FILM	CFTXA104J50
		CAPACITOR	
C2209, 2210		ELECTR.CAPACITOR	CEAS330M16
C2211, 2212		CERAMIC CAPACITOR	CKCYX183M25
C2213, 2214		MYLOR FILM	CQMA752J50
		CAPACITOR	
C2215, 2216		CERAMIC CAPACITOR	CKSQYB562K50
C2217, 2218		MYLOR FILM	CQMA273J50
		CAPACITOR	
C2221, 2222		ELECTR.CAPACITOR	CEAS2R2M50
C2225, 2226		ELECTR.CAPACITOR	CEAS470M16
C2303, 2304		ELECTR.CAPACITOR	CEAS010M50
C2305		ELECTR.CAPACITOR	CEAS220M16
C2306		ELECTR.CAPACITOR	CEAS220M25
C2351, 2352		ELECTR.CAPACITOR	CEAS100M50
C2353, 2354		ELECTR.CAPACITOR	CEASR22M50
C2355		ELECTR.CAPACITOR	CEAS101M10
C2356—2359		ELECTR.CAPACITOR	CEAS100M50
C301, 302		ELECTR.CAPACITOR	CEAS2R2M50
C303, 304		CERAMIC CAPACITOR	CKMYB331K50
C305, 306		ELECTR.CAPACITOR	CEAS220M50
C307, 308		ELECTR.CAPACITOR	CEAS101M25
C309		ELECTR.CAPACITOR	CEANP220M50
C310		ELECTR.CAPACITOR	CEANP100M50
C311, 312		ELECTR.CAPACITOR	CEAS100M50
C313		ELECTROLYTIC	ACH1143
C401—404		CERAMIC CAPACITOR	CKCYF473Z50
C405		ELECTR.CAPACITOR	CEAS221M16
C406		ELECTR.CAPACITOR	CEAS220M25
C407		ELECTR.CAPACITOR	CEAS221M16
C408		ELECTR.CAPACITOR	CEAS100M50
C501		ELECTR.CAPACITOR	ACH1144
C601, 602		CERAMIC CAPACITOR	CKMYB471K50
C603, 604		ELECTR.CAPACITOR	CEAS2R2M50
C605		CERAMIC CAPACITOR	CKSQYB681K50
C606		CERAMIC CAPACITOR	CKCYF473Z50
C831, 832		CERAMIC CAPACITOR	CCMSL101J50
C856—858		CERAMIC CAPACITOR	CKMYB471K50
RESISTORS			
VR2201, 2202	VR		VRTB6VS222
R1013		CHIP RESISTOR	RS1/10S104J
R159—162		CARBON FILM	RD1/4PM100J
		RESISTOR	
R163, 164		METAL OXIDE	RS2LMFR22J
		RESISTOR	

Mark	No.	Description	Parts No.
R2003, 2004		CHIP RESISTOR	RS1/10S122J
R2005, 2006		CHIP RESISTOR	RS1/10S105J
R2007, 2008		CHIP RESISTOR	RS1/10S332J
R2009, 2010		CHIP RESISTOR	RS1/10S105J
R2011		CHIP RESISTOR	RS1/10S472J
R2014		CHIP RESISTOR	RS1/10S472J
R2016		CHIP RESISTOR	RS1/10S472J
R2019, 2020		CHIP RESISTOR	RS1/10S154J
R2021, 2022		CHIP RESISTOR	RS1/10S222J
R2207, 2208		CHIP RESISTOR	RS1/10S104J
R2209, 2210		CHIP RESISTOR	RS1/10S683J
R2211, 2212		CHIP RESISTOR	RS1/10S223J
R2213, 2214		CHIP RESISTOR	RS1/10S333J
R2223, 2224		CHIP RESISTOR	RS1/10S471J
R2226		CHIP RESISTOR	RS1/10S681J
R2233, 2234		CHIP RESISTOR	RS1/10S102J
R2301, 2302		CHIP RESISTOR	RS1/10S273J
R2303, 2304		CHIP RESISTOR	RS1/10S362J
R2305, 2306		CHIP RESISTOR	RS1/10S103J
R2317, 2318		CHIP RESISTOR	RS1/10S222J
R2351, 2352		CHIP RESISTOR	RS1/10S242J
R2355, 2356		CHIP RESISTOR	RS1/10S682J
R2357		CHIP RESISTOR	RS1/10S433J
R2361, 2362		CHIP RESISTOR	RS1/10S222J
R2363, 2364		CHIP RESISTOR	RS1/10S273J
R2366		CHIP RESISTOR	RS1/10S103J
R305, 306		CARBON FILM	RD1/4PM104J
		RESISTOR	
R309—312		CARBON FILM	RD1/4PM222J
		RESISTOR	
R313		CARBON FILM	RD1/4PMFL471J
		RESISTOR	
R314		CARBON FILM	RD1/4PMFL101J
		RESISTOR	
R315		CARBON FILM	RD1/4PM102J
		RESISTOR	
R316, 317		CARBON FILM	RD1/4PMFL222J
		RESISTOR	
R318		CARBON FILM	RD1/4PMFL101J
		RESISTOR	
R401, 402		CARBON FILM	RD1/4PM100J
		RESISTOR	
R409		CARBON FILM	RD1/2PM182J
		RESISTOR	
R416		METAL OXIDE	RS2LMF271J
		RESISTOR	
R417		METAL OXIDE	RS2LMF331J
		RESISTOR	
R501, 502		CARBON FILM	RD1/4PMFL100J
		RESISTOR	
R805, 806		CHIP RESISTOR	RS1/10S273J
R843, 844		CHIP RESISTOR	RS1/10S223J
R855, 856		CHIP RESISTOR	RS1/10S332J
R857		CHIP RESISTOR	RS1/10S104J
R858		CHIP RESISTOR	RS1/10S000J
		Other resistors	RD1/8PM□□□J

Mark	No.	Description	Parts No.
OTHERS			
		PIN JACK (4P)	AKB1124
		2P PIN JACK	AKB1146
		SPEAKER TERMINAL 4-P	AKE--109
		JACK	AKN-203
		SOCKET (14P)	AKP1048
CN10		CONNECTOR (14P)	KPE14
CN11		CONNECTOR (13P)	KPE13
CN12		CONNECTOR (10P)	KPE10
CN14		CONNECTOR (8P)	KPE8
CN16		CONNECTOR (7P)	KPE7
CN4		CONNECTOR (13P)	KPE13
CN5		CONNECTOR (5P)	KPE5
VR ASSEMBLY			
SEMICONDUCTORS			
IC551		OP-AMP IC	RC4558DXP
IC552		MECHANISM DRIVER IC	TA7291S
Q551, 552		TRANSISTOR	2SC2878
Q553		TRANSISTOR	RN2203
CAPACITORS			
C551, 552		ELECTR.CAPACITOR	CEAS4R7M50
C553, 554		CHIP CAPACITOR	CCSQCH101J50
C555, 556		ELECTR.CAPACITOR	CEAS101M16
C557		ELECTR.CAPACITOR	CEAS220M25
C558		CERAMIC CAPACITOR	CKSQYF104Z50
C559		CERAMIC CAPACITOR	CKCYF473Z50
RESISTORS			
VR551		VARIABLE RESISTOR	ACX1051
R554		CHIP RESISTOR	RS1/10S000J
R555, 556		CHIP RESISTOR	RS1/10S104J
R561		CHIP RESISTOR	RS1/10S000J
R565, 566		CHIP RESISTOR	RS1/10S102J
		Other resistors	RD1/8PM□□□J
HEAD PHONE ASSEMBLY			
CAPACITORS			
C453		CERAMIC CAPACITOR	CKDYF473Z50
RESISTORS			
R451, 452		METAL OXIDE RESISTOR	RS1LMF331J
R453		CARBONFILM RESISTOR	RD1/8PM100J

Mark	No.	Description	Parts No.
OTHERS			
		JACK (HEAD PHONE)	AKN1010
CN1		CONNECTOR (5P)	KPC5
TRANS CONNECT ASSEMBLY			
No parts are supplied with the TRANS CONNECT ASSEMBLY.			
◎ DISPLAY ASSEMBLY (AWZ3350)			
SEMICONDUCTORS			
IC1501		LOGIC IC	SN74LS05N
IC1502		LOGIC IC	SN74LS03N
IC1651		SYSTEM CONT.μ-COM	PD5147B
IC1652		RESET IC	M51951BSL
IC1701-1703		OP-AMP IC	RC4558DXP
IC1704		GEQ FL DRIVER IC	LC7566
IC701, 702		AUDIO IC	BA3812L
Q1501		TRANSISTOR	RN1201
Q1503, 1504		TRANSISTOR	RN1201
Q1505-1507		TRANSISTOR	RN1203
Q1508, 1509		TRANSISTOR	RN2201
Q1601		TRANSISTOR	RN2204
Q1602		TRANSISTOR	RN1203
Q1603		TRANSISTOR	RN2204
Q1604		TRANSISTOR	2SA1515
Q1605		TRANSISTOR	RN1203
Q1606		TRANSISTOR	2SA1515
Q1607		TRANSISTOR	RN1203
Q1608		TRANSISTOR	2SA1515
Q1609		TRANSISTOR	RN1203
Q1610		TRANSISTOR	2SA1515
Q1611		TRANSISTOR	RN1203
Q1701		TRANSISTOR	RN1201
D1501-1504		LED (GREEN)	AEL1130
D1505		LED (RED)	AEL1119
D1506, 1507		LED (RED)	AEL1126
D1509		LED	AEL1128
D1510		LED (GREEN)	AEL1129
D1511-1516		LED (RED)	AEL1108
D1517		DIODE	1SS252
D1518, 1519		LED (RED)	AEL1065
D1520		DIODE	1SS252
D1537-1539		DIODE	1SS252
D1601-1615		DIODE	1SS252
D1651-1657		DIODE	1SS252
D1659, 1660		DIODE	1SS252
D1701-1713		DIODE	1SS252

Mark	No.	Description	Parts No.
SWITCHES			
	S1504, 1505	SWITCH	ASG1034
	S1507	SWITCH	ASG1034
	S1510 — 1514	SWITCH	ASG1034
	S1516 — 1519	SWITCH	ASG1034
	S1522 — 1525	SWITCH	ASG1034
	S1528	SWITCH	ASD1012
COIL			
	L1651	AXIAL INDUCTOR	LAU220K
CAPACITORS			
	C1601	ELECTR.CAPACITOR	CEAS470M16
	C1602	ELECTR.CAPACITOR	CEASR33M50
	C1651	CERAMIC CAPACITOR	CKDYX473M16
	C1652	ELECTR.CAPACITOR	CEAS101M16
	C1653	CERAMIC CAPACITOR	CKCYF473Z50
	C1655 — 1658	CERAMIC CAPACITOR	ACG1020
	C1659	ELECTR.CAPACITOR	CEAS010M50
	C1660	CERAMIC CAPACITOR	CCDSL100D50
	C1701	ELECTR.CAPACITOR	CEASR22M50
	C1702, 1703	CERAMIC CAPACITOR	CKDYX333M25
	C1704	ELECTROLYTIC CAPACIT	CEASR15M50
	C1705, 1706	CERAMIC CAPACITOR	CKDYX103M16
	C1707	ELECTROLYTIC CAPACIT	CEJAR22M50
	C1708, 1709	CERAMIC CAPACITOR	CKCYB332K50
	C1710	ELECTR.CAPACITOR	CEASR22M50
	C1711, 1712	CERAMIC CAPACITOR	CKMYB102K50
	C1713	ELECTR.CAPACITOR	CEASR22M50
	C1714, 1715	CERAMIC CAPACITOR	CKMYB331K50
	C1716	ELECTR.CAPACITOR	CEASR22M50
	C1717	CERAMIC CAPACITOR	CKMYB152K50
	C1718, 1719	ELECTR.CAPACITOR	CEAS010M50
	C701, 702	ELECTR.CAPACITOR	CEAS4R7M50
	C703, 704	CERAMIC CAPACITOR	CKMYB331K50
	C705, 706	CERAMIC CAPACITOR	CCDSL101J50
	C707, 708	CERAMIC CAPACITOR	CKDYX393M16
	C709, 710	ELECTR.CAPACITOR	CEASR68M50
	C711, 712	CERAMIC CAPACITOR	CKDYX183M16
	C713, 714	ELECTROLYTIC CAPACIT	CEJAR15M50
	C715, 716	CERAMIC CAPACITOR	CGMYX392M25
	C717, 718	CERAMIC CAPACITOR	CKDYX683M16
	C719, 720	CERAMIC CAPACITOR	CGMYB182M50
	C721, 722	CERAMIC CAPACITOR	CKDYX153M16
	C723, 724	CERAMIC CAPACITOR	CKMYB391K50
	C725, 726	CERAMIC CAPACITOR	CGMYX682M25
	C727, 728	ELECTR.CAPACITOR	CEAS470M16
	C729, 730	ELECTROLYTIC CAPACIT	CEJA470M16
	C731, 732	ELECTROLYTIC CAPACIT	CEJA4R7M50

Mark	No.	Description	Parts No.
RESISTORS			
	VR1601, 1602	VR	VRTM6V203
	VR1603	VR	VRTM6V103
	VR701 — 710	VR	ACU1034
	R1515	CARBON FILM RESISTOR	RD1/2PM6R8J
	R1662	RESISTOR ARRAY (3.3k)	RA8T332J
	R1736	RESISTOR ARRAY (100k)	RA8T104J
	R1737	RESISTOR ARRAY (100k)	RA13T104J
		Other resistors	RD1/8PM□□□J
OTHERS			
		REMOTE RECEIVER UNIT	AXX1010
	V1701	FL TUBE	AAV1117
	X1651	CERAMIC RESONATOR	ASS1025
	CN8	CONNECTOR (15P)	KPE15
1 MECHA SW ASSEMBLY			
SWITCHES			
	S1551 — 1555	SWITCH	ASG1034
2 MECHA SW ASSEMBLY			
SWITCHES			
	S1556 — 1560	SWITCH	ASG1034
◎ SUB TRANS ASSEMBLY (AWR1056)			
SEMICONDUCTORS			
	IC101	REGULATOR IC	NJM78M56FA
	IC102	REGULATOR IC	UPC78M12AHF
	Q101	TRANSISTOR	2SC2458
	D101	ZENER DIODE	RD10ESB2
	D102	ZENER DIODE	RD30ESB2
	D103 — 106	DIODE	1SR139 — 400
	D107, 109	DIODE	1SS252
RELAY			
	RY101	RELAY	ASR1027
TRANSFORMER			
	T101	POWER TRANSFORMER	ATT1149

Mark	No.	Description	Parts No.
CAPACITORS			
	C101	ELECTR.CAPACITOR	CEAS222M25
	C102	ELECTR.CAPACITOR	CEAS221M50
	C103, 104	ELECTR.CAPACITOR	CEAS470M16
	C105	ELECTR.CAPACITOR	CEAS470M50
	C107	ELECTR.CAPACITOR	CEAS470M16
RESISTORS			
	R101	METAL OXIDE RESISTOR	RS3LMF181J
	R102	CARBONFILM RESISTOR	RD1/8PM562J
	R109	CARBONFILM RESISTOR	RD1/8PM222J
1 MECHA ASSEMBLY			
CAPACITORS			
	C2001, 2002	CERAMIC CAPACITOR	CKMYB391K50
	C2005, 2006	AUDIO FILM CAPACITOR	CFTXA223J50
	C2007, 2008	ELECTR.CAPACITOR	CEAS4R7M50
	C2009, 2010	ELECTR.CAPACITOR	CEAS470M10
RESISTORS			
	VR2001, 2002	VR	VRTM6H202
		Other resistors	RD1/8PM□□□J
2 MECHA ASSEMBLY			
SEMICONDUCTORS			
	IC2001, 2021	OP-AMP IC	RC4558DXP
	Q2021, 2022	N-FET	2SK373
	Q2251	TRANSISTOR	RN1201
	Q2252	TRANSISTOR	2SA1515
	Q2253, 2254	TRANSISTOR	2SC3377
	Q2255	TRANSISTOR	2SC2458
	D2021 — 2026	DIODE	1SS252
COILS & TRANSFORMER			
	L2204, 2205	INDUCTOR	LTA822J
	T2251	OSC TRANSFORMER	ATX — 043
CAPACITORS			
	C2021, 2022	CERAMIC CAPACITOR	CCMSL100D50
	C2023, 2024	CERAMIC CAPACITOR	CKMYB391K50
	C2027, 2028	AUDIO FILM CAPACITOR	CFTXA223J50
	C2029, 2030	ELECTR.CAPACITOR	CEAS4R7M50
	C2031, 2032	ELECTR.CAPACITOR	CEAS470M10
	C2219, 2220	CERAMIC CAPACITOR	CCDSL271K500
	C2223, 2224	CERAMIC CAPACITOR	CKDYB681K50
	C2251	ELECTR.CAPACITOR	CEAS470M16

Mark	No.	Description	Parts No.
	C2252, 2253	CERAMIC CAPACITOR	CGMYX103M16
	C2254	CERAMIC CAPACITOR	CKMYB221K50
	C2255	MYLOR FILM CAPACITOR	CQMA153K50
	C2256	CERAMIC CAPACITOR	CKMYB681K50
	C2257	MYLOR FILM CAPACITOR	CQMA123K250
	C2258	ELECTR.CAPACITOR	CEAS4R7M50
	C2259, 2260	CERAMIC CAPACITOR	CCCSL101K500
	C2261	MYLOR FILM CAPACITOR	CQMA562K400
	C2262	CQPA (2000p/630V)	ACE1020
	C2263	ELECTR.CAPACITOR	CEAS100M50
RESISTORS			
	VR2021, 2022	VR	VRTM6V202
	VR2251, 2252	VR	VRTM6H204
	R2253	CARBON FILM RESISTOR	RD1/2PM360J
		Other resistors	RD1/8PM□□□J
◎ MOTHER P.C.B ASSEMBLY (PWM1349)			
SEMICONDUCTORS			
	IC101	PRE AMP IC	CXA1471S
	IC151	SERVO IC	CXA1372S
⚠	IC20	REGULATOR IC	M5298P
⚠	IC201	POWER OP — AMP, IC	LA6520
⚠	IC30	IC PROTECTOR	ICP — N10
	IC301	EFM DEMODULATION IC	CXD2500Q
	IC351	MICROCOMPUTER	PD4305B
	IC401	8FS DF DA CONVERTER IC	TC9237N
	IC404	OP — AMP IC	NJM4558D — D
	Q101	TRANSISTOR	2SA854S
	Q201	TRANSISTOR	2SC3581
	Q202	TRANSISTOR	2SA1399
	Q203	TRANSISTOR	2SC3581
	Q204	TRANSISTOR	2SA1399
	Q381, 382	TRANSISTOR	2SC1740S
	Q403, 404	TRANSISTOR	2SD2144S
	Q405	TRANSISTOR	DTC124ES
	Q62	TRANSISTOR	2SC1740S
⚠	D1, 2	DIODE	11ES2
	D211	ZENNER DIODE	MTZJ6.2B/C
	D381 — 385	DIODE	1SS254
COILS			
	L381	AXIAL INDUCTOR	LAU010K
	L401	AXIAL COIL	LAUR22K
	L402, 403	AXIAL INDUCTOR	LAU010K

Mark	No.	Description	Parts No.
CAPACITORS			
C101		ELECTROLYTIC CAPACIT	CEAS471M6R3
C102		ELECTR.CAPACITOR	CEAS101M10
C103		CERAMIC CAPACITOR	CCCCH180J50
C104		ELECTR.CAPACITOR	CEAS101M10
C11, 110		CERAMIC CAPACITOR	CKCYF103Z50
C12 – 14		CERAMIC CAPACITOR	CKCYF103Z50
C153		ELECTR.CAPACITOR	CEAS101M10
C155		MYLOR FILM CAPACITOR	CQMA182J50
C156		MYLOR FILM CAPACITOR	CQMA333K50
C157		MYLOR FILM CAPACITOR	CQMA103K50
C158, 159		MYLOR FILM CAPACITOR	CQMA104K50
C160		ELECTR.CAPACITOR	CEAS4R7M50
C161		MYLOR FILM CAPACITOR	CQMA104K50
C162		ELECTR.CAPACITOR	CEAS010M50
C163		MYLOR FILM CAPACITOR	CQMA104K50
C164		MYLOR FILM CAPACITOR	CQMA103K50
C167		CERAMIC CAPACITOR	CKCYF103Z50
C168		MYLOR FILM CAPACITOR	CQMA333K50
C169		MYLOR FILM CAPACITOR	CQMA103K50
C170		MYLOR FILM CAPACITOR	CQMA332J50
C171		MYLOR FILM CAPACITOR	CQMA472J50
C172		MYLOR FILM CAPACITOR	CQMA472K50
C202		CERAMIC CAPACITOR	CKCYF103Z50
C212		MYLOR FILM CAPACITOR	CQMA103K50
C216, 217		ELECTR.CAPACITOR	CEAS330M16
C27		ELECTROLYTIC CAPACIT	CEAS471M6R3
C28		ELECTR.CAPACITOR	CEAS101M10
C301		MYLOR FILM CAPACITOR	CQMA104K50
C306		CERAMIC CAPACITOR	CKCYB152K50
C307		MYLOR FILM CAPACITOR	CQMA473J50
C308		MYLOR FILM CAPACITOR	CQMA103K50
C309		ELECTR.CAPACITOR	CEASR47M50
C351		ELECTROLYTIC CAPACIT	CEAS471M6R3
C353, 355		CERAMIC CAPACITOR	CKCYF103Z50
C361		CERAMIC CAPACITOR	CKCYF103Z50

Mark	No.	Description	Parts No.
C383, 384		CERAMIC CAPACITOR	CKCYF103Z50
C401		CERAMIC CAPACITOR	CKCYF103Z50
C403, 404		CERAMIC CAPACITOR	CCCCH470J50
C410, 411		CERAMIC CAPACITOR	CCCSL560J50
C412 – 415		CERAMIC CAPACITOR	CCCCH390J50
C420		ELECTR.CAPACITOR	CEAS330M16
C421		CERAMIC CAPACITOR	CKCYF473Z50
C422		CERAMIC CAPACITOR	CKCYF103Z50
C429, 430		ELECTR.CAPACITOR	CEAS220M25
C431, 432		MYLOR FILM CAPACITOR	CQMA104K50
C433, 434		MYLOR FILM CAPACITOR	CQMA103K50
C435		CERAMIC CAPACITOR	CKCYF103Z50
C60		ELECTR.CAPACITOR	CEAS010M50
RESISTORS			
VR102	VR		RCP1046
VR103	VR		RCP1044
VR151, 152	VR		RCP1046
	Other resistors		RD1/6PM□□□J
OTHERS			
CN1	CONNECTOR (6P)		KPE6
CN101	CONNECTOR		52045 – 1610
CN351	CONNECTOR		HLEM30S – 1
CN381	CONNECTOR (7P)		KPE7
X351	CERAMIC RESONATOR		VSS1014
X401	XTAL RES (OSC)		PSS1006
◎ SUB P.C.B ASSEMBLY (PWX1143)			
SEMICONDUCTORS			
D701 – 704	DIODE		1SS254
D708	DIODE		1SS254
SWITCHES			
S701 – 716	SWITCH		PSG1006
OTHERS			
CN701	CONNECTOR		HLEM30R-1
V701	FL INDICATOR TUBE		PEL1050
MECHA P.C.B ASSEMBLY			
SWITCHES			
S601 – 603	SWITCH		DSG1017

5. FOR HB TYPE

NOTES:

- Parts without part number cannot be supplied.
- 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.
- Parts marked by “” are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

5.1 CONTRAST OF MISCELLANEOUS PARTS

The XD – Z54T/HB type is the same as the XD – Z54T/HE type with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		HE type	HB type	
	SUB TRANS assembly	AWR1056	AWR1055	
	FU101, FU151, FU152 (T1.6A/250V)	AEK – 405	AEK – 510	
	FU102 (T1.25A/250V)	AEK – 018	AEK – 509	
	AC Power cord	ADG1049	ADG1087	
	Operating instructions (Nederlands, Svenska, Español, Português	ARC1241		
	Operating instructions (English, Deutsch, Français, Italiano)	ARE1171		
	Operating instructions (English)		ARB1282	

5.2 SUB TRANS assembly (AWR1055)

The difference in parts between the SUB TRANS assemblies of the HB type (AWR1055) and the HE type (AWR1056) is the jumper wire (220V and 240V).

For details, refer to LINE VOLTAGE SELECTION (See page 53).

6. SPECIFICATIONS

Twin CD cassette deck amplifier: XD-Z54T

Amplifier Section

DIN music power	50 W + 50 W (1 kHz, T.H.D. 1 %, 8 ohms)
Continuous Power Output (DIN)	33 W + 33 W (1 kHz, T.H.D. 1 %, 8 ohms)
Graphic equalizer frequency band	100 Hz, 330 Hz, 1 kHz, 3.3 kHz, 10 kHz, ± 7 dB
S/N (DIN, continuous Power/50 mW)	
PHONO	68 dB/60 dB
Total Harmonic Distortion (40 Hz to 20,000 Hz, 15 W, 8 ohms)**	No more than 0.2 %
Input sensitivity/impedance	
PHONO (MM)	2.5 mV/47 k Ω
VIDEO	150 mV/22 k Ω

Tape Deck Section

Systems	4 track, 2-channel stereo
Heads	Recording/playback head $\times$ 1 Playback head $\times$ 1 Erasing head $\times$ 1
Motor	DC servo 2 speed motor $\times$ 2
Wow and Flutter	No more than 0.09 % (WRMS)
Fast Winding Time	Approximately 95 seconds (C-60 tape)
Frequency Response (–20 dB recording):	
Normal tape	35 Hz to 14,000 Hz ± 6 dB (EIAJ)
CrO ₂ tape	35 Hz to 15,000 Hz ± 6 dB (EIAJ)
Signal-to-Noise ratio	
Dolby NR OFF	56 dB (EIAJ)
Noise Reduction Effect	
Dolby B type NR ON	More than 10 dB (at 5 kHz)

CD Section

Type	Compact disc digital audio system
Operating temperature	+5°C - +35°C
Frequency Response	2 Hz - 20 kHz
S/N	100 dB or more (EIAJ)
Wow and Flutter	Limit of measurement ($\pm 0.001\%$ W.PEAK) or less (EIAJ)
Number of channels	2 channels (stereo)

Miscellaneous

Power requirements	a.c. 220 Volts $\sim$, 50/60 Hz
Power Consumption	240 W
Dimensions	360 (W) $\times$ 375.5 (H) $\times$ 307 (D) mm
Weight (without package)	9.5 kg

Furnished Parts

Operating Instructions	1
Remote control unit	1
Dry cell batteries	2

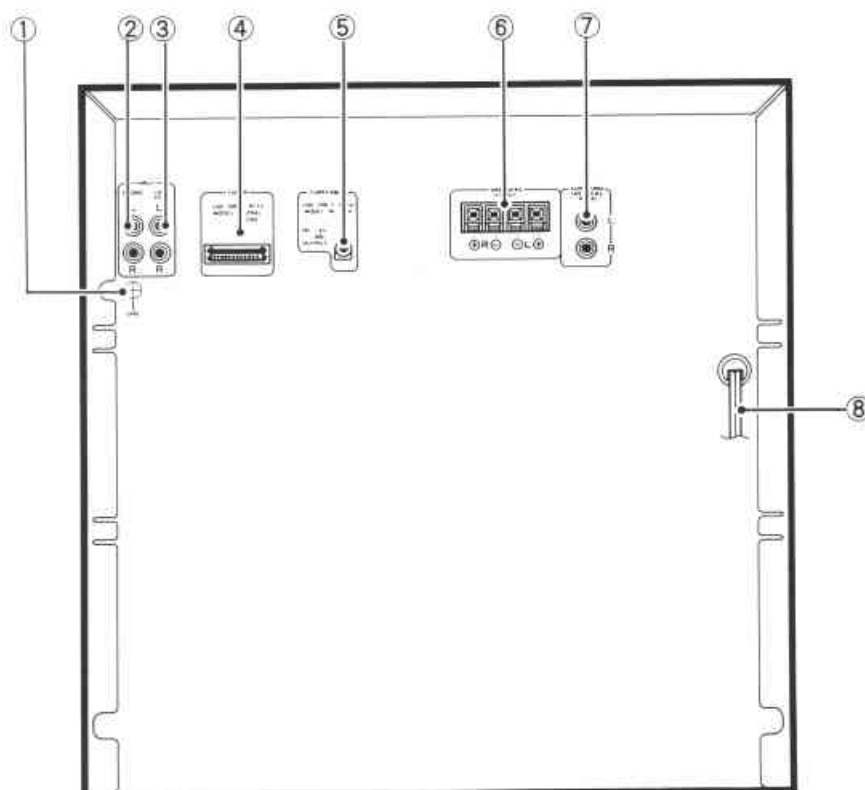
• Specifications and design subject to possible modification without notice due to improvement.

** Measured By Audio Spectrum Analyzer.

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7. PANEL FACILITIES

REAR PANEL FACILITIES



① **Ground terminal (GND)**

Use a screwdriver to connect with the ground terminal (except for PL-Z94).

② **PHONO input jacks**

Connect the output cord of the turntable to these jacks.

③ **LD/VCR input jacks**

Connect to audio output jacks of LD player or VCR, etc.

④ **TUNER jacks**

Connect the tuner input/output cord here.

⑤ **TURNTABLE (DC 12 V OUTPUT) jack**

This jack supplies power to the turntable (PL-Z94).

⑥ **SPEAKERS terminals**

L: Connect the left speaker system as seen from the listening position.

R: Connect the right speaker system as seen from the listening position.

NOTE:

Connect a speaker system with a nominal impedance of between 6Ω to 16Ω

⑦ **SURROUND (Rear) SPEAKER jack**

Connect the surround (rear) speaker systems.

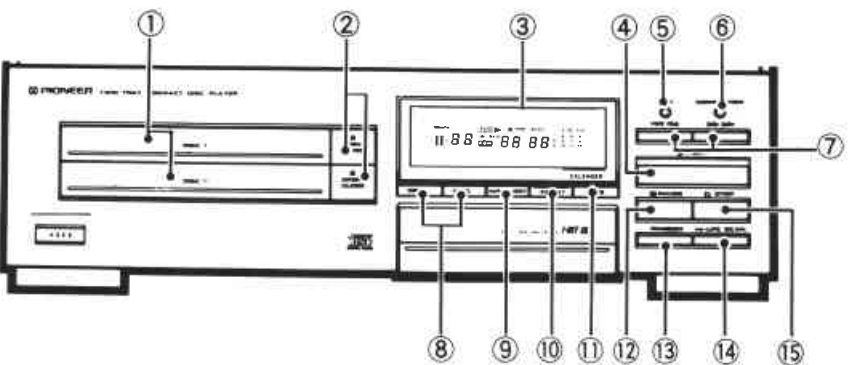
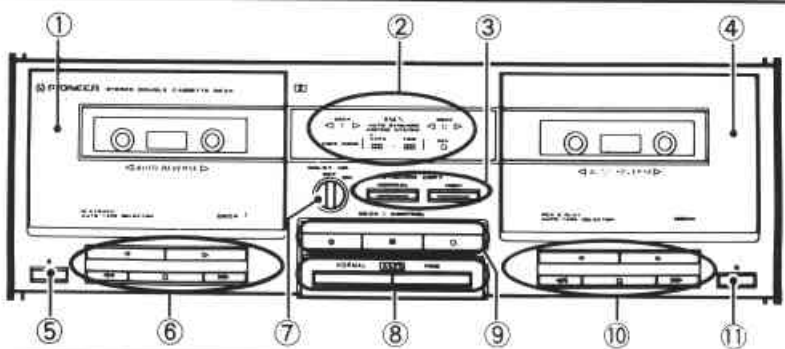
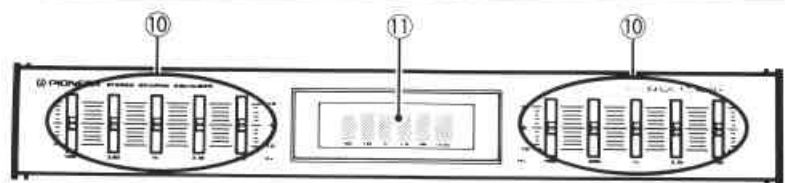
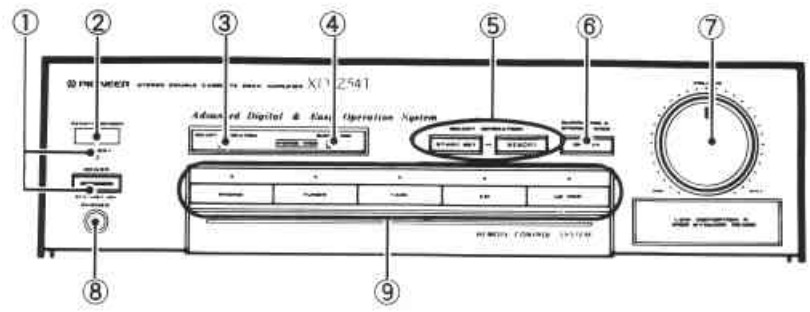
NOTE:

Connect a speaker system with a nominal impedance of 16Ω or more.

⑧ **Power cord**

Connect this to the AC wall socket.

FRONT PANEL FACILITIES



- Tapes can be played back on Deck I; tapes can be played back and recorded on Deck II.
- Sound can be recorded as adjusted by the graphic equalizer (excluding synchro copy).

■ Amplifier section/Graphic equalizer section

① POWER STANDBY/ON button/indicator

This is the button for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

The tuner section display indicates only the time. The STANDBY indicator lights when the power is STANDBY, and goes out during ON.

② REMOTE SENSOR window

③ SMART OPERATION indicator

Blinks when the SMART OPERATION mode is set to ON.

④ SURROUND indicator

Lights when the SURROUND & STEREO WIDE is set to ON.

⑤ SMART OPERATION buttons

[START/SET]

To operate the SMART OPERATION function and set the data.

[MEMORY]

To set the data for SMART OPERATION.

⑥ SURROUND & STEREO WIDE button

In ON position, you can enjoy SURROUND sound reproduction when the rear speakers are used.

In ON position, when the rear speakers are not used, you can enjoy STEREO WIDE sound reproduction with wider left-right spread.

NOTE:

SURROUND & STEREO WIDE effects cannot be obtained with a monaural signal source.

⑦ VOLUME control

⑧ PHONES (Headphone) jack

For stereo headphones.

NOTE:

There is no speaker output when headphones are plugged into the PHONES jack.

⑨ Input selector buttons/indicators

[PHONO] Press to play records on a turntable connected to the PHONO jacks.

[TUNER] Press to listen to radio broadcast.

[TAPE] Press to listen to cassette tape.

[CD] Press to listen to a compact disc.

[LD/VCR] Press to listen to stereo component connected to the LD/VCR jacks.

⑩ Graphic equalizer controls

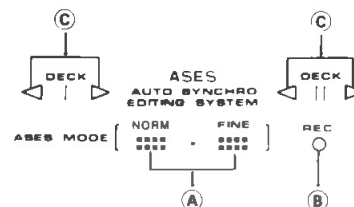
Fine adjustments in sound quality are possible using the 5 controls on the graphic equalizer.

⑪ DISPLAY section

■ Cassette Deck Section

① DECK I cassette door

② Operation indicators



Ⓐ ASES (NORM, FINE): Lights when the A.S.E.S. (Auto Synchro Editing System) is operating.

Ⓑ REC: Lights when recording. Flashes when copying a tape.

Slow flashing = Normal copy

Rapid flashing = High speed copy

Ⓒ Direction (<, >): Shows direction of tape travel.

③ SYNCHRO COPY buttons

Used for tape copying.

NORMAL: Copying from the Deck I tape to the Deck II tape at normal recording/playback speed.

HIGH: Copying at about twice normal tape speed. (Copies can be made in about half the NORMAL time.)

④ DECK II cassette door

⑤ Deck I eject button

⑥ Deck I Operation buttons

▷ PLAY (FWD) For playing back a tape in the forward mode.

<◁ PLAY (REV) For playing back a tape in the reverse mode.

□ STOP For stopping the tape.

▶▶ FAST Fast forward in forward mode, rewind in reverse mode.

◀◀ FAST Rewind in forward mode, fast forward in reverse mode.

⑦ DOLBY* NR switch

- Set this switch to the ON position to activate the DOLBY NR system.
- Tapes recorded using Dolby noise reduction should always be played back with the noise reduction system on. Sound quality will be adversely affected if played back with the system off, or if tapes recorded using a different noise reduction system are played back with the Dolby NR system on.
 - It is recommended that tapes recorded with Dolby B type NR be so marked on the label. This will help prevent incorrect setting of the noise reduction button during playback.

*

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

⑧ ASES (NORMAL, FINE) button

Used for automatically recording a CD on cassette tape.

⑨ DECK II CONTROL buttons

- REC MUTE ()** Used for creating a blank space between songs. Pressing this button once creates an unrecorded 4-second space.
The unrecorded space is created for as long as this button is kept pressed during recording.
- PAUSE ()** Temporarily stops tape travel. Cancels pause mode when pressed again.
- REC ()** To set to recording standby mode. Recording begins when you press the PLAY button ( or ).

⑩ Deck II Operation buttons:

Same as Deck I operation buttons ⑥.

⑪ Deck II eject button

■ CD player section

① DISC (I, II)

This is where the disc is set. When power is switched ON and the OPEN/CLOSE button is pressed, the tray is ejected forward.
To insert the tray, press the OPEN/CLOSE button, or lightly push the tray in with your finger. With the disc tray open, press the play button to close the disc tray and start playback.

② OPEN/CLOSE buttons (I, II)

Press when you wish to eject or load a disc. Each time the button is pressed, the tray is alternately pushed out or pulled in.
I: Opens and closes DISC I.
II: Opens and closes DISC II.

③ Indicators

- COMPU PGM:** Display when COMPU PGM editing is set or used.
- AUTO EJECT :** Lights during auto eject playback.
- PGM :** Lights after programming (after program has been memorized).
- RND :** Lights during random playback.
- SCAN:** Lights during HI-LITE scan playback.
- I, II :** Displays the disc number (I or II) of the disc to be played.
- ▷ :** Lights during playback.
- :** Lights during temporarily interrupted playback.
- 1 ► REP :** Lights during repeat playback of one track.
- REP :** Lights during repeat play.
- TRACK (figure):** Displays the current track number (during normal playback and programmed playback) or the track being programmed (during programming operation).
- MINUTES (figure) :** Displays the minutes of the elapsed time, total playback time, and remaining time.
- SECOND (figure) :** Displays the seconds of the elapsed time, total playback time, and remaining time.
- Display change**
Changes each time the TIME (CALENDER) button is pressed.
- **TIME :** Displays the track number of the track being played (TRACK) and the elapsed time (minutes and seconds).
 - **REM :** Displays the remaining time on the track being played.
When the TIME button is pressed again, the remaining time on the disc being played will be displayed.
 - **TOTAL :** Displays the total number of tracks on the disc (TRACK) and the overall playback time (minutes and seconds) of disc I.
When the TIME button is pressed again, the total number of tracks on the disc (TRACK) and the overall playback time of disc II will be displayed.
During playback, the display goes on for about 5 seconds before changing to the TIME display.
- Music calender changes A to B (B to A) by holding down TIME (CALENDER) button.**
- **I/II:** Only the numbers of the track recorded on DISC I (DISC II) will light.
 - (music calender) When inputing a program and when playing, only the programed track number will light.
The track will go out one by one or the tracks are played.
 - **A/B** TAPE SIDE A/TAPE SIDE B
 - (music calender) After editing, the track numbers that can be recorded on the A (B) side of the tape will light.
- DISC I :** Displays DISC I.
- DISC II :** Displays DISC II.

NOTE:

The music calendar displays only the track of a single disc. Switchover (Disc I, II) is executed manually; it cannot be done automatically.

④ PLAY button (▶)

Press to begin playback, and to cancel the pause mode.

⑤ PGM button (PROGRAM)

Use to program a sequence of tracks.

- Press this button after selecting a desired disc and track with DISC SELECT and track search buttons. Tunes will be added to the program in the order in which they are specified.

⑥ COMPU PGM button

By pressing this button and specifying the recording time of the tape (how many minutes), the CD player automatically selects the tracks according to their running time and programs them for optimum recording so that the blank portion of the end of the tape will be as short as possible.

⑦ Manual/Track search buttons (◀◀ ◀▶, ▶▶ ▶▶)

To perform track search in normal playback, programmed playback or PAUSE mode.

You can advance to the next track or go back to the previous one by using the Manual/Track search buttons. The fast forward or fast reverse function will be activated by holding down these buttons.

⑧ DISC SELECT buttons

DISC I: Use to select DISC I for playback or programming.

DISC II: Use to select DISC II for playback or programming.

- During playback, when the disc select button for the disc not being played is pressed, the current playback will stop and playback of that disc will begin.

⑨ AUTO EJECT button

Press to perform auto eject playback.

When a disc is finished playing, the disc tray will automatically eject. The other disc tray will close and playback will start. By replacing discs, continuous playback can be maintained.

⑩ REPEAT button

Press this button for repeat playback. Pressing the button once, twice, or three times will change the repeat mode from single track repeat, all tracks repeat, and repeat playback cancellation.

⑪ TIME (CALENDER) button

This button selects the display mode. Each time the button is pressed, the indicator changes from TIME, REMAIN to TOTAL in that order. By keeping this button depressed, the calendar display can be switched over. (For details concerning the display contents, refer to the explanation about the indicators.)

⑫ PAUSE button (⏸)

Press to temporarily interrupt playback. When pressed again, the pause mode is cancelled and playback resumes.

⑬ RANDOM button

Press to begin random playback.

⑭ HI-LITE SCAN button

Every track of a CD is played back for 10 seconds, starting at a point one minute from the beginning of each song.

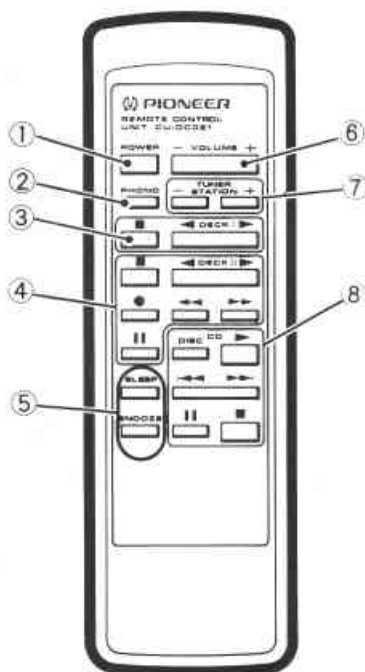
To set a new starting time for HI-LITE SCAN, press the HI-LITE SCAN button at any desired point during playback of a track. This point will be set as the new starting time. After that, each track is played back for 10 seconds beginning at the new starting time.

⑮ STOP button (■)

Press to stop playback. When pressed, the player goes into stop mode and all operations stop.

Press to clear a program. When pressed during stop mode, the program stored in memory is cleared.

Remote control unit



① POWER button

② PHONO button

Sets function to PHONO.

③ Deck I operation buttons

- ▶ Forward play
- ◀ Reverse play
- Stop

④ DECK II operation buttons

Same as Deck II operation buttons and DECK II CONTROL buttons on the CD cassette deck amplifier (Except for REC MUTE).

⑤ Timer operation buttons

- SLEEP:** Sets the sleep timer.
- SNOOZE:** Turns off power if pressed after timer playback begins. Timer playback begins again approx. 5 minutes later.

⑥ VOLUME + (UP)/— (DOWN) buttons

When pressed, VOLUME on the amplifier is actually moved by a motor.

⑦ TUNER STATION buttons

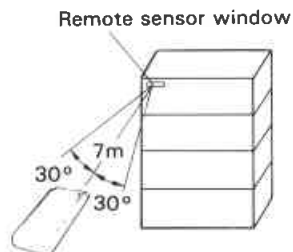
- Before operation, memorize broadcast stations in the STATION CALL buttons.
- + Stations change in order in the upward direction.
- Stations change in order in the downward direction.

⑧ CD operation buttons

- ▶ Play
- DISC DISC selection
- Stop
- Pause
- ◀, ▶ Track search

The amplifier input selector automatically switches to the music source being operated when you press the CD playback (▶), cassette deck playback (◀, ▶), or tuner station controls.

Range of remote control



When the remote control unit is pointed at the remote sensor window on the amplifier and any of its buttons is pressed, the tuner and other components can be operated by remote control.

Distance: Within a range of approx. 7 meters from the remote sensor window.

Angle: Within approx. 30 degrees from the center of the remote sensor window.

Remote control will not be possible if there is an obstacle between the remote control unit itself and the remote sensor window.

Performance of the remote control unit is adversely affected by strong fluorescent light. Keep such lights away, especially from the sensor window.