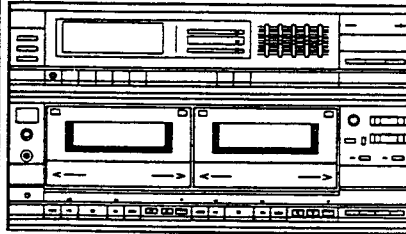


Service Manual



ORDER NO.
ARP1314

STEREO DOUBLE CASSETTE TAPE DECK AMPLIFIER **DC-X99Z**

MODEL DC-X99Z COMES IN FOUR VERSIONS DISTINGUISHED AS FOLLOWS:

Type	Power requirement	Export destination
HE	AC220V, 240V (switchable) *	European continent
HB	AC220V, 240V (switchable) *	United Kingdom
SD	AC110V, 120-127V, 220V, 240V (switchable)	General market
HEZ	AC220V, 240V (switchable) *	West Germany

* Change the primary wiring, please refer to page 44.

- This service manual is applicable to the HE, HB and SD types.
- As to the HB and SD types, please refer to pages 43-44.
- As to the HEZ type, please refer to the additional service manual (ARP1315).
- Ce manuel d'instruction se réfère au mode de réglage, en français.
- Este manual de servicio trata del método ajuste escrito en español.

CONTENTS

1. EXPLODED VIEWS	2	6. FOR HB AND SD TYPES.	43
2. P.C.BOARDS CONNECTION DIAGRAM	13	7. ADJUSTMENT.	45
3. SCHEMATIC DIAGRAM	29	RÉGRAGE	50
4. ELECTRICAL PARTS LIST	37	AJUSTE	55
5. PACKING	42		

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A. TEL: [213] 835-6177
PIONEER ELECTRONICS OF CANADA, INC. 505 Cochrane Drive, Markham, Ontario L3R 6B8 Canada TEL: [416] 479-4411
PIONEER ELECTRONIC [EUROPE] N.V. Keetberglaan 1, 2740 Beveren, Belgium TEL: 03/775-28-08
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

1. EXPLODED VIEW

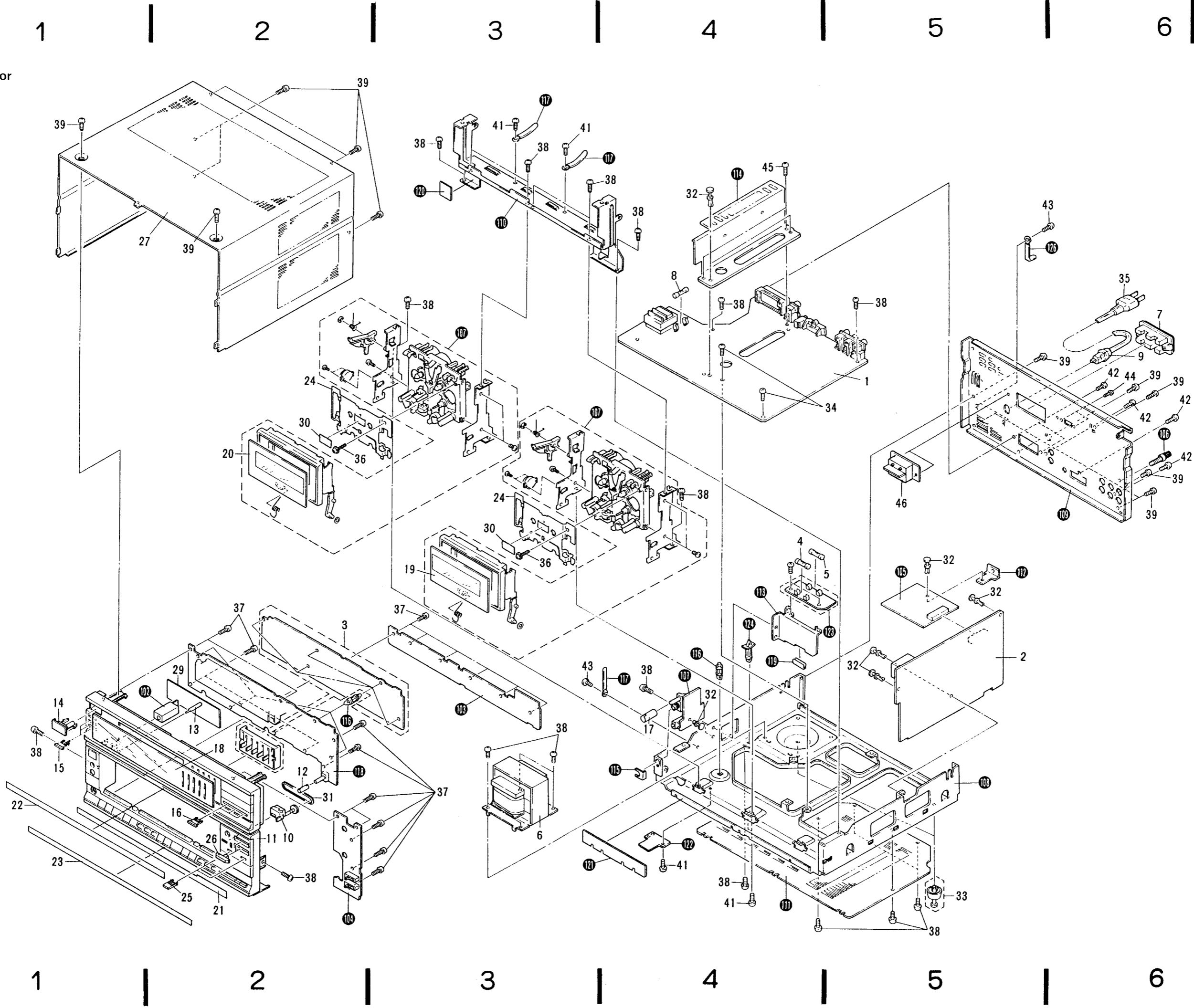
NOTES:

- Parts without part number cannot be supplied.
- The \perp 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.
- For your Parts Stock Control, the fast moving items are indicated with the marks ****** and *****.
**** GENERALLY MOVES FASTER THAN ***
 This classification should be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts marked by " \odot " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Parts List of Exterior

Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
Δ	\odot	1	AWZ1306				
	\odot	2	AWZ1230		38	BBZ30P080FMC	Screw
	\odot	3	AWZ1226		39	BBZ30P080FZK	Screw
Δ **		4	AEK-402		40		.....
Δ **		5	AEK-403		41	VCZ30P060FMC	Screw
			FU1 Fuse (T1A/250V)		42	BPZ30P080FZK	Screw
			FU3 Fuse (T2.5A/250V)		43	BCZ30P060FZK	Screw
Δ *		6	ATS1058		44	VMZ30P060FZK	Screw
			T1 Power transformer		45	ABZ30P100FMC	Screw
			(AC220/240V)				
Δ		7	AKP-502				
Δ **		8	AEK-017				
Δ		9	AEC-882	Δ **	46	ASH-501	Slide switch
		10	AAW1002			(MAIN POWER)	
			Tape counter				
		11	AMB1142				
		12	AAB-411		101		MIC headphone assembly
		13	AAD1094		102		Remote sensor assembly
		14	AAD1090		103		Tact SW assembly
		15	AAD1091		104		DOLBY SW assembly
			Knob (REC LEVEL)		105		DOLBY B/C assembly
			Knob (ADJUST)				
			Knob (POWER)		106		Terminal (GND)
			Knob E(TIMER MODO)		107		Mechanism unit
					108		Chassis
		16	AAD1092		109		Rear panel
		17	AAB1016		110		Panel stay
		18	AAK1202				
		19	AAK1198		111		Bottom plate
		20	AAK1155		112		F.E. holder
			Cassette plate		113		Transformer holder
			Cassette plate		114		Heat sink
					115		Mounting plate
		21	AAK1197				
		22	AAP1047		116		PCB holder
		23	AAP1025		117		Binder
		24	AAP1028		118		FL assembly
		25	AAV-355		119		Rubber B
			Deck panel		120		Rubber A
			Aluminum panel				
			Aluminum panel		121		Barrier
			Mechanism cover		122		Hole cover
			Push knob C (GRAPHIC EQ		123		Fuse assembly
			REC, RELAY PLAY/REC)		124		PCB holder
					125		PCB holder
		26	AAV-397				
		27	ANE1056				
		28					
		29	AAK1152				
		30	AAX1053				
			Slide knob (REVERSE MODE)				
			Bonnet case				
						
			FL filter				
			Fluorescent sheet				
		31	AEB1033				
		32	AEC-525				
		33	AEC-847				
		34					
Δ		35	ADG-041				
			AC power cord				
			(AC250V)				
		36	ATT26P120FZK		126		Binder
		37	BBZ26P080FMC				
			Screw				
			Screw				

1.1 Exterior



A

B

C

D

A

B

C

D

1

2

3

4

5

6

4

NOTES:

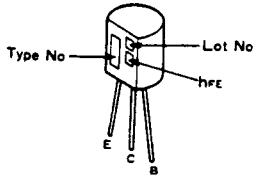
- Parts without part number cannot be supplied.
- The $\frac{1}{2}$ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- For your Parts Stock Control, the fast moving items are indicated with the marks ** and *.
**** GENERALLY MOVES FASTER THAN ***
 This classification should be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- 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 Mechanism Unit I,II

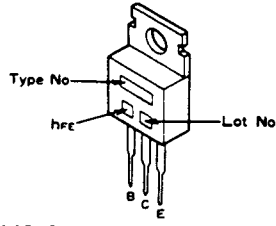
Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
	1	AXT-010	Screw with washer	**	44	AXN-036	Leaf switch (PLAY)
	2	ATX-015	Screw		45	AZB1049	Screw
**	3	AZP1011	REC/PB head		46	AZB1050	Washer
	4	AXS-123	Cushion		47	AZN1218	F/W assembly (R)
	5	AXP-049	HD base		48	AZN1219	Cam gear (E)
	6	AXV-120	Spring		49	AZN1226	Spacer
	7	AXT-016	Screw		50	AZS1025	PACK detector lever
	8	AXV-121	Spring		51	AXW-038	Motor cushion
	9	AXS-109	Adjustment nut	*	52	AZS1028	Solenoid
	10	AXS-110	Tape guide		53	PBZ26P080FMC	Screw
	11	AXS-111	Sensor holder		54		.....
	12	AXV-107	Adjustment spring (R)		55	AXV-116	Play arm spring
	13	AXV-108	Adjustment spring (L)		56	AZN1221	Play arm assembly
	14		.....	**	57	AZN1222	Main belt
	15	AXV-109	Head base spring	**	58	AZX1010	Motor assembly (MAIN)
	16	PBZ20P130FMC	Screw	**	59	AZX1009	Motor assembly (REEL)
	17	WB20FMC	Washer		60	AXS-117	Lead holder
	18	AXP-043	Pinch roller assembly (R)		61	AZS1026	REC detector lever
	19	AXV-110	Pinch roller spring (R)		62	AZS1027	Metal detector lever
	20	AZN1220	Pinch roller assembly (L)		63	AXV-117	Earth spring
	21	AXV-111	Pinch roller spring (L)		64	AXT-013	Cap
**	22	AXN-035	Push switch		65	AZN1003	Eject cam
**	23	AZS1001	Push switch		66	AZN1006	Cam spring
	24	WA16D040D020	Washer	**	67	YE20FUC	E-ring
	25	AXP-045	Reel assembly		68	AZN1216	Frame door assembly
	26	WA21D040D030	Washer		69	AZN1008	Damper assembly
	27	AXW-039	Washer		70	PBZ20P030FMC	Screw
	28	PBZ30P080FMC	Screw		71	AZN1227	Eject spring
	29	AXS-112	Spacer		72	AZN1217	F/W assembly (L)
	30		.....		73	AZN1228	Plunger
	31	AXV-112	Anti-eject spring(L)		74	AZP1010	REC/PB head assembly
	32	ANZ1214	Hold lever (C)		75	AZB1060	Washer
	33	PCZ30P040FMC	Screw		101		Head plate
	34	AZB1059	Screw with washer		102		Anti-eject spring
	35		.....		103		Chassis
	36	AZN1215	Idler assembly		104		Slide plate
	37	PBA26P035FMC	Screw		105		Lug
	38	AXV-113	Hold spring		106		Control PC assembly
	39	AXV-114	Spring		107		Wire connector
	40	ATX-012	Motor set screw		108		Wire connector
	41	AXS-114	Cap		109		Mounting plate (R)
	42		.....		110		Mounting plate (L)
	43	AXV-115	Slide Board spring		111		F/W BRACKET

External Appearance of Transistor and ICs

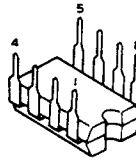
2SA970
2SC2240
2SC2878



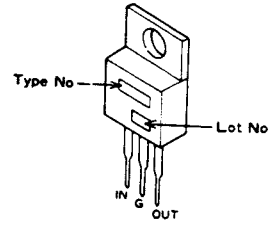
2SD836A
2SD880



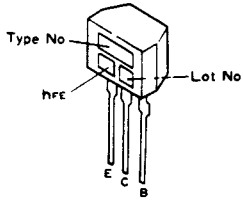
M5218P
M5218PF
M5220P



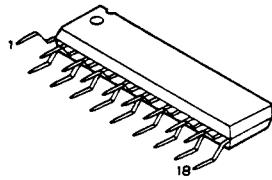
μPC78M05H



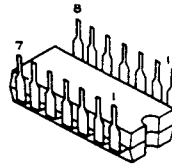
2SA933S
2SC1740S



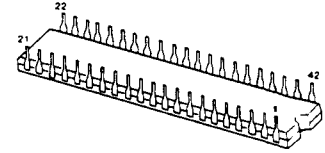
BA3812L



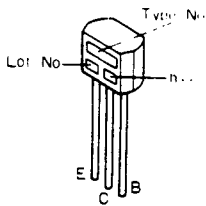
M74LS05P
TC4011BP
TC4066BP
μPD4001BC
μPD4011BC
μPD4066BC



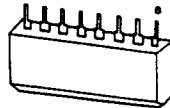
LC7570



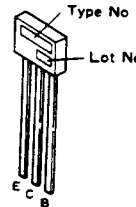
2SA1115
2SC2603



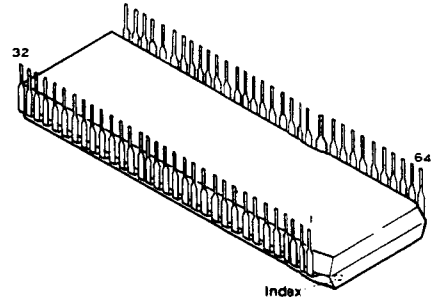
CX20106A
M5218L
M5220L
M51143AL



RN1203
RN2203



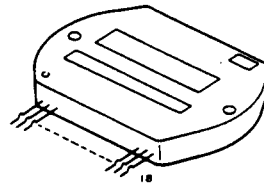
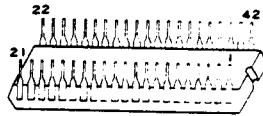
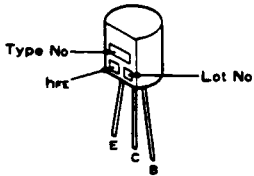
PD3081 33



2SA1515

CX20187

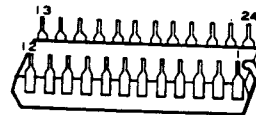
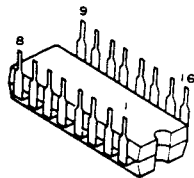
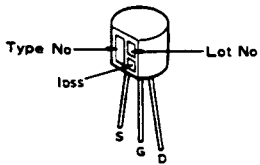
STK4141-2S



2SJ103

CXD1120P
TC4019BP
TC4052BP

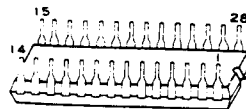
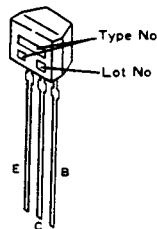
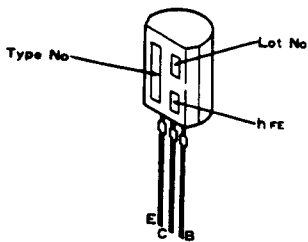
TA7780BN

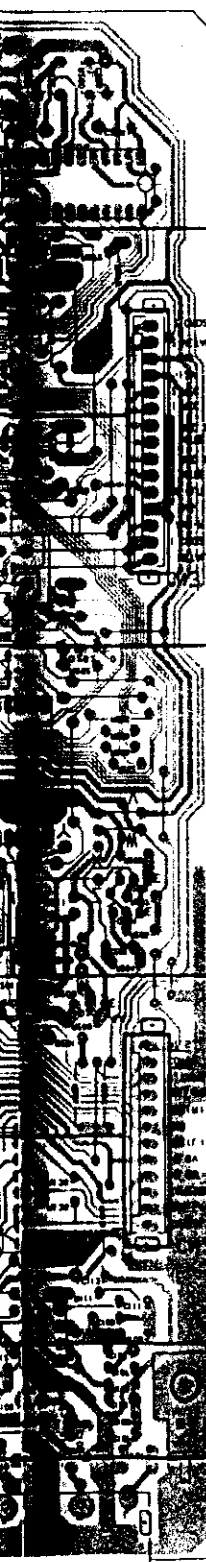


2SD438

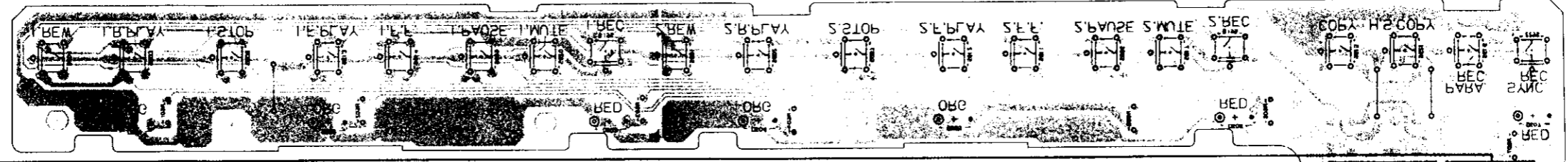
DTA124ES
DTC124ES

TC9312N



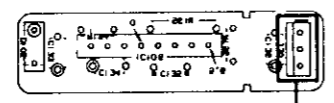
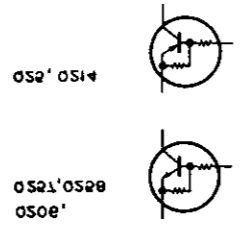


ABS21 08 0528 0511
 ABS22 08 0521 0515
 ABS23 051 08 ICS02 ICS06
 ABS24 010 02 0515 0580
 ABS25 04 01 0528
 ABS26 011 0522 0524 0528

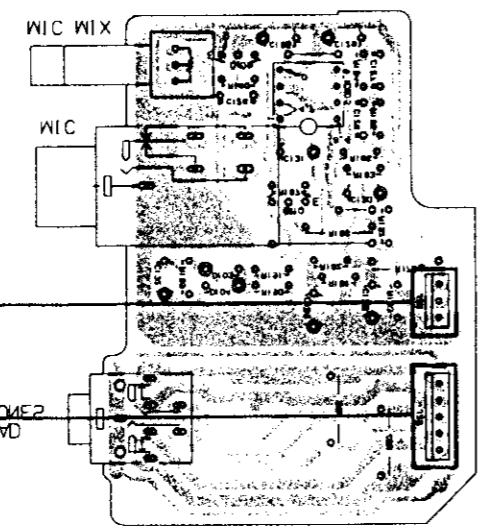


CONTACT ASSEMBLY

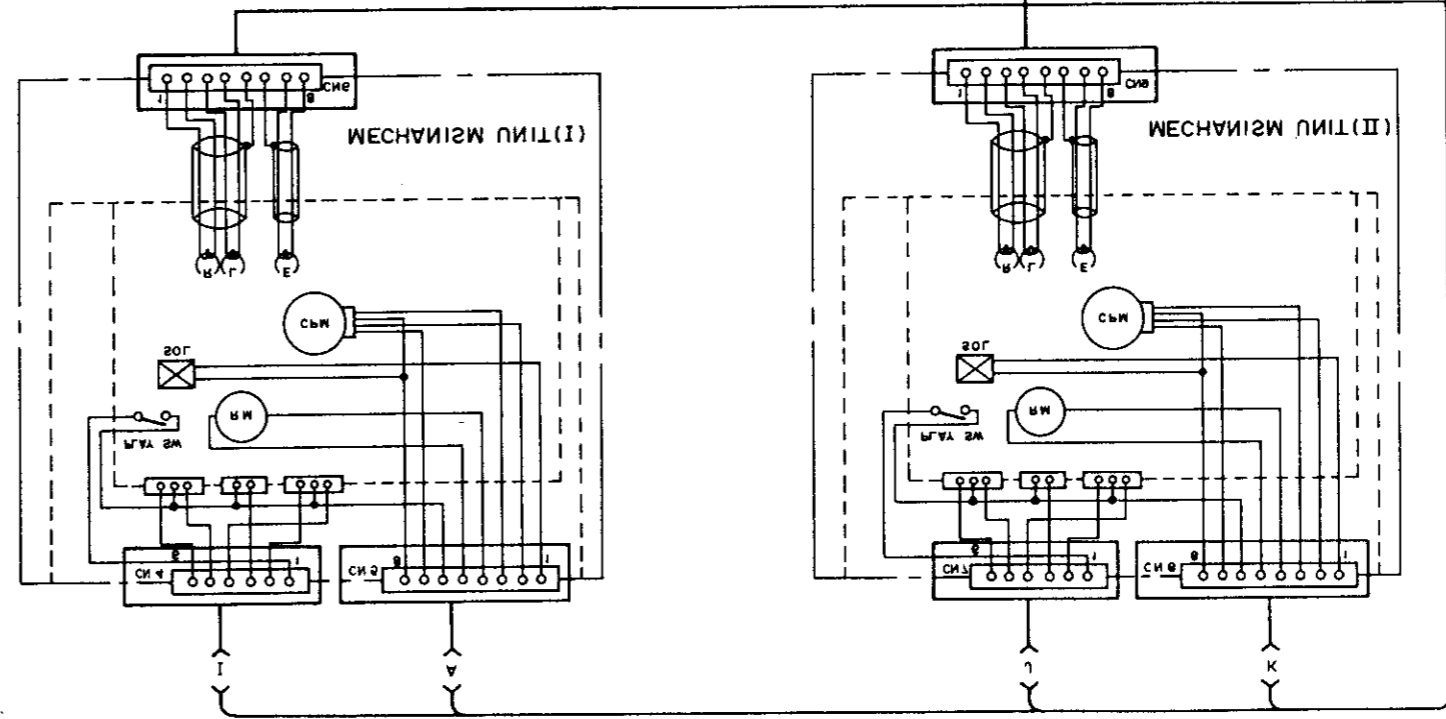
02
 05 ICS02 ICS05
 0510
 014 0508
 012 0508 0521
 052 ICS04 0523
 ICS01
 0508
 0501
 0504
 0502
 0501 0508 0502
 011
 018 050
 018 0408 ICS02
 0401 ICS05
 ICS01
 0404
 052
 055



REMOTE SENSOR ASSEMBLY



MIC HEADPHONE ASSEMBLY



C

B

V

7

8

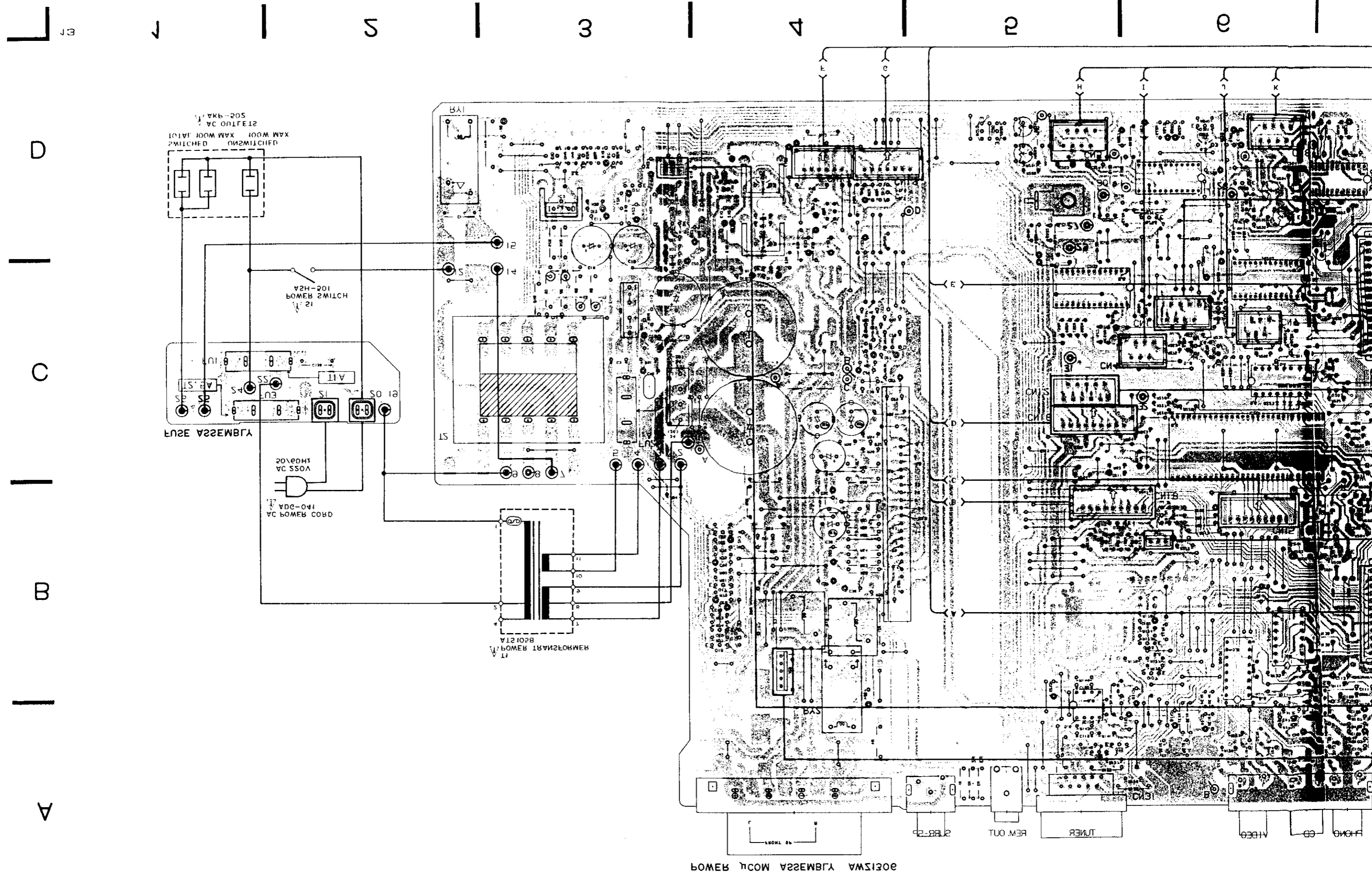
9

10

11

12

MAINBOARD CONNECTION DIAGRAM



13

5

3

4

2

6

D

C

B

A

POWER COM ASSEMBLY 140-041

2 BR-2

TUNER

REM. OUT

FLYING

ADBE

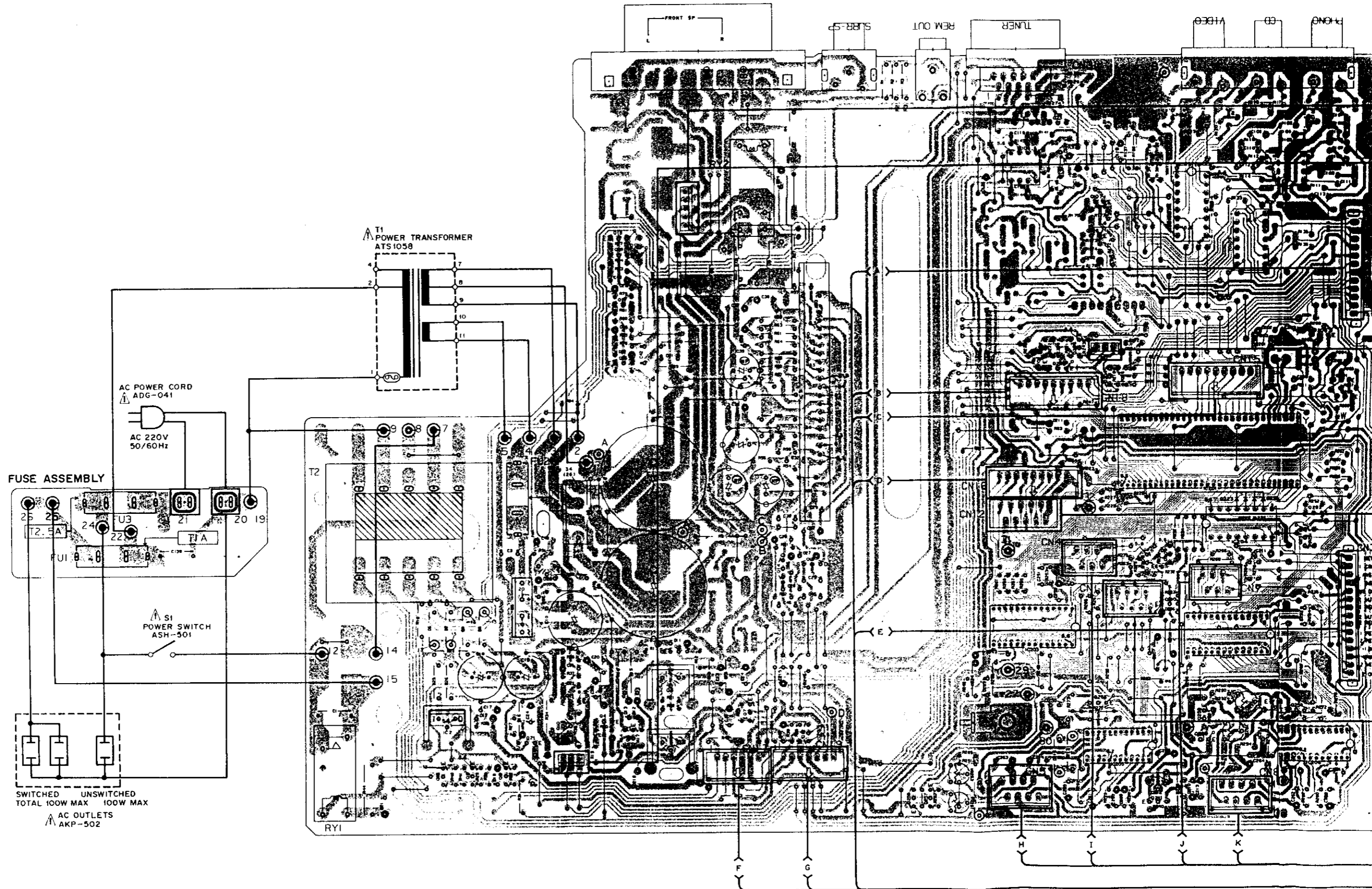
FLYING

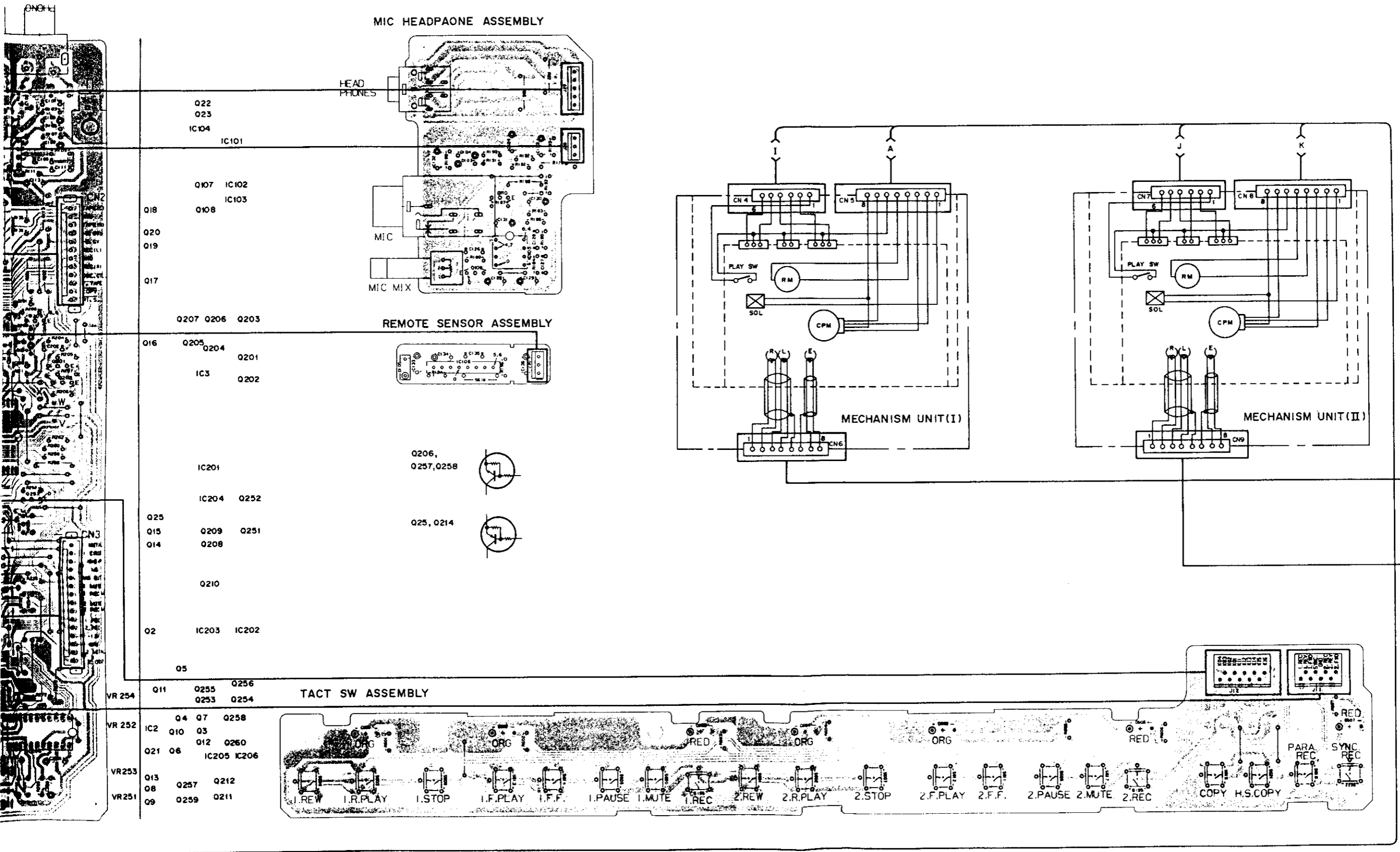
FLYING

2. P.C.BOARDS CONNECTION DIAGRAM

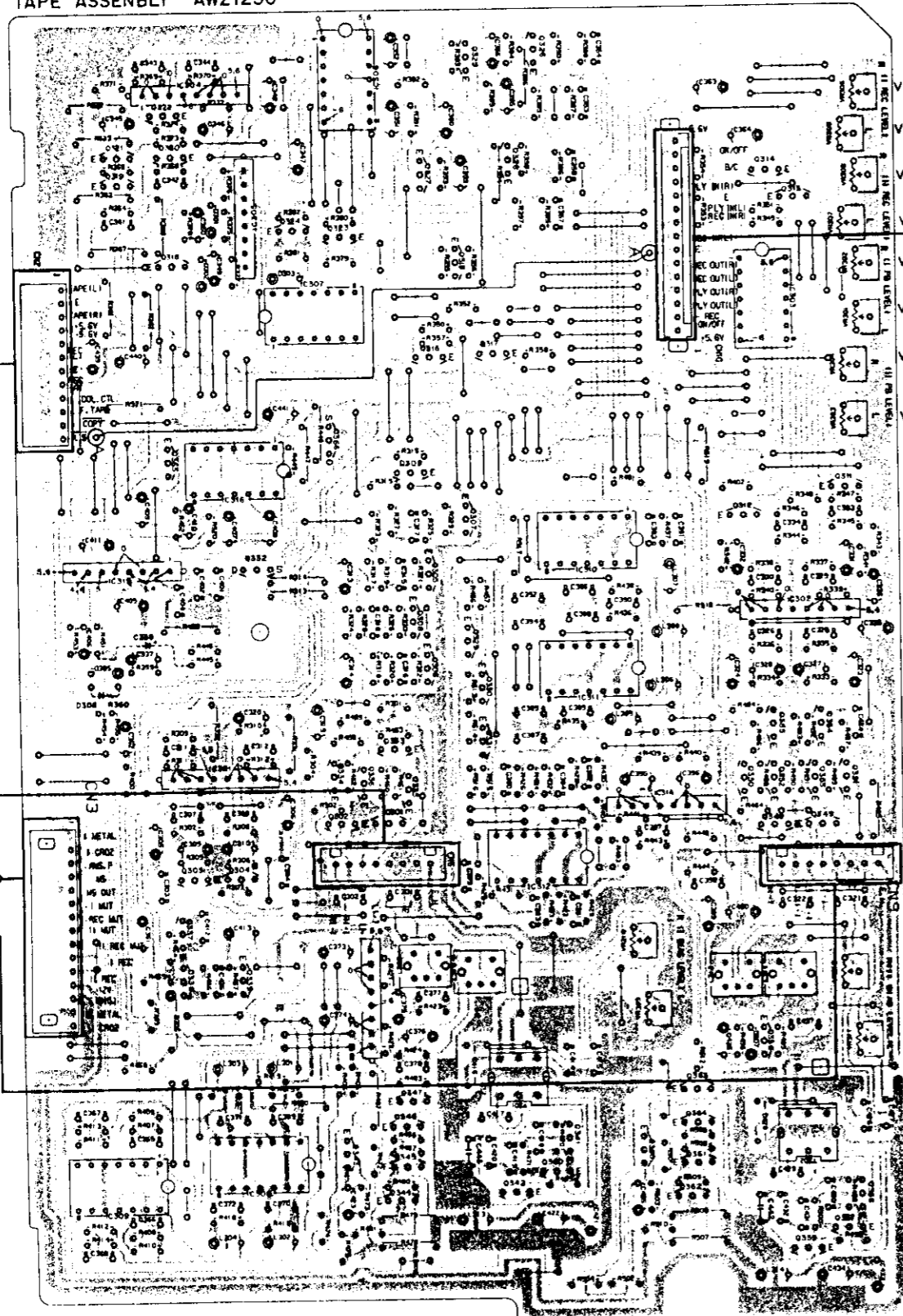
POWER μ COM ASSEMBLY AWZ1306

A
B
C
D

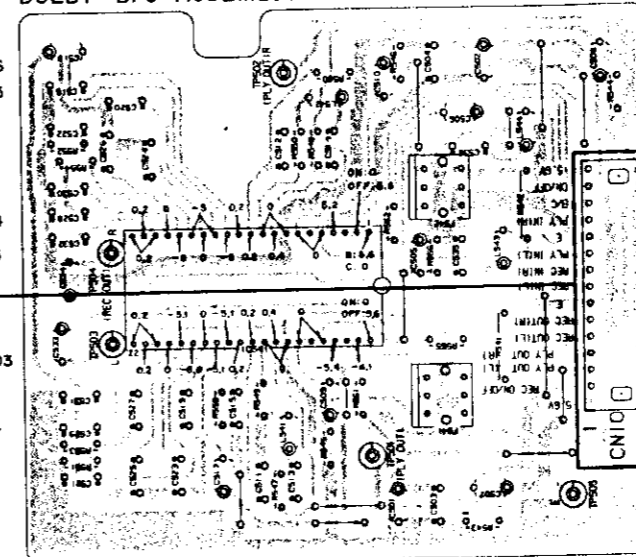




TAPE ASSEMBLY AWZ1230

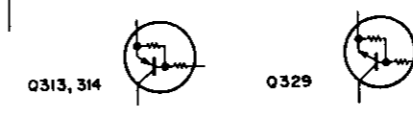


DOLBY B/C ASSEMBLY

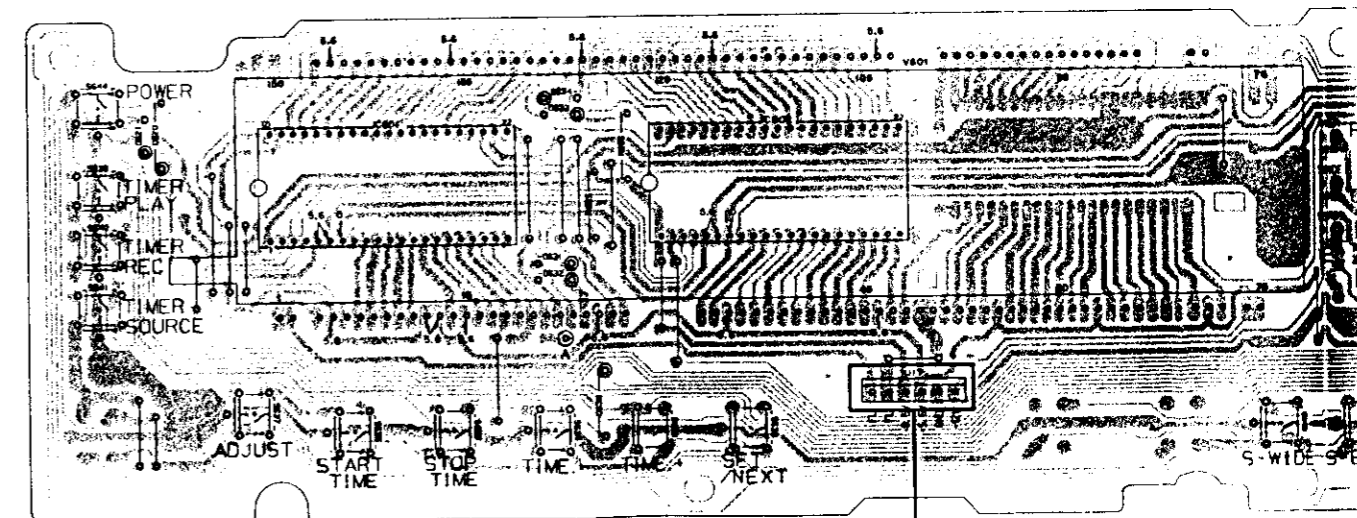


IC541 CX20187

- IC304 Q326
- IC306 Q325
- Q322
- Q321 Q320
- Q328 Q314
- Q319 Q327 Q313
- VR306
- VR305
- VR308
- VR307 IC305 Q324
- VR302 Q323
- Q318 Q315
- IC307 IC303
- VR301
- VR304 Q316 Q317
- VR303
- Q365 Q366
- Q309 Q311
- IC316
- Q307 Q312
- IC315 IC310
- Q332 Q305
- IC302
- Q308
- Q329
- Q306
- Q330 IC311
- Q354
- Q333 Q331 Q355
- Q351
- IC301 Q334 Q353
- IC314 Q336 Q352
- Q335 Q350
- Q302 Q302 Q348
- Q303 Q301 Q349
- Q304 IC312
- Q337
- VR310
- VR312 Q338 Q339
- VR309 IC313
- VR311
- Q356
- Q363
- Q347
- Q346 Q364
- Q343 Q341
- Q345 Q340
- Q361
- Q360
- Q342 Q362
- IC308 Q344 Q358
- IC309
- Q357
- Q359

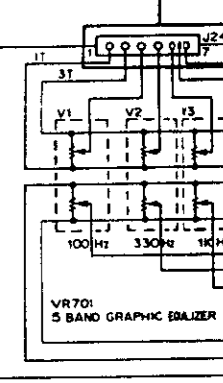
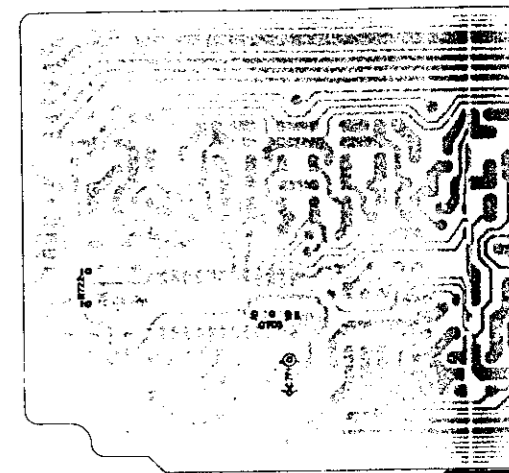


FL ASSEMBLY AWZ1225



IC601

IC602



19

20

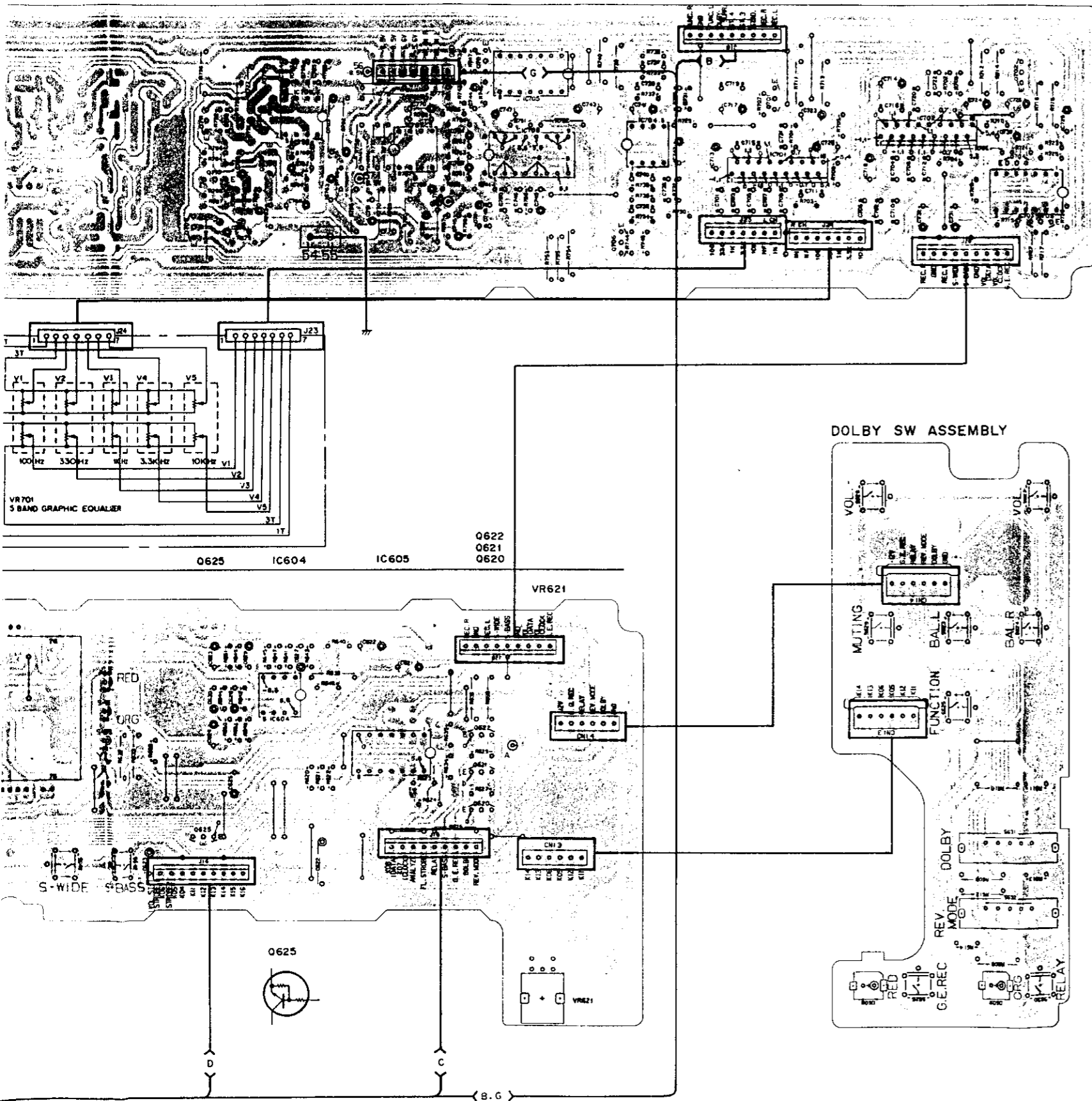
21

22

23

AWZ 1226

Q711 IC708
Q710 Q709
Q708
IC707
Q707 IC705
IC706
IC704
Q706
Q701 IC701
IC702
Q702 Q704
IC703 Q705



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 ⊕ (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.

19

20

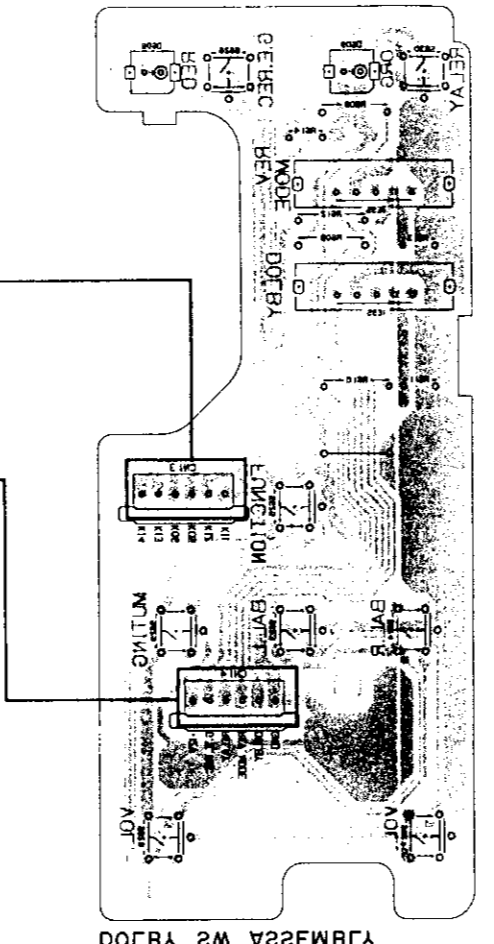
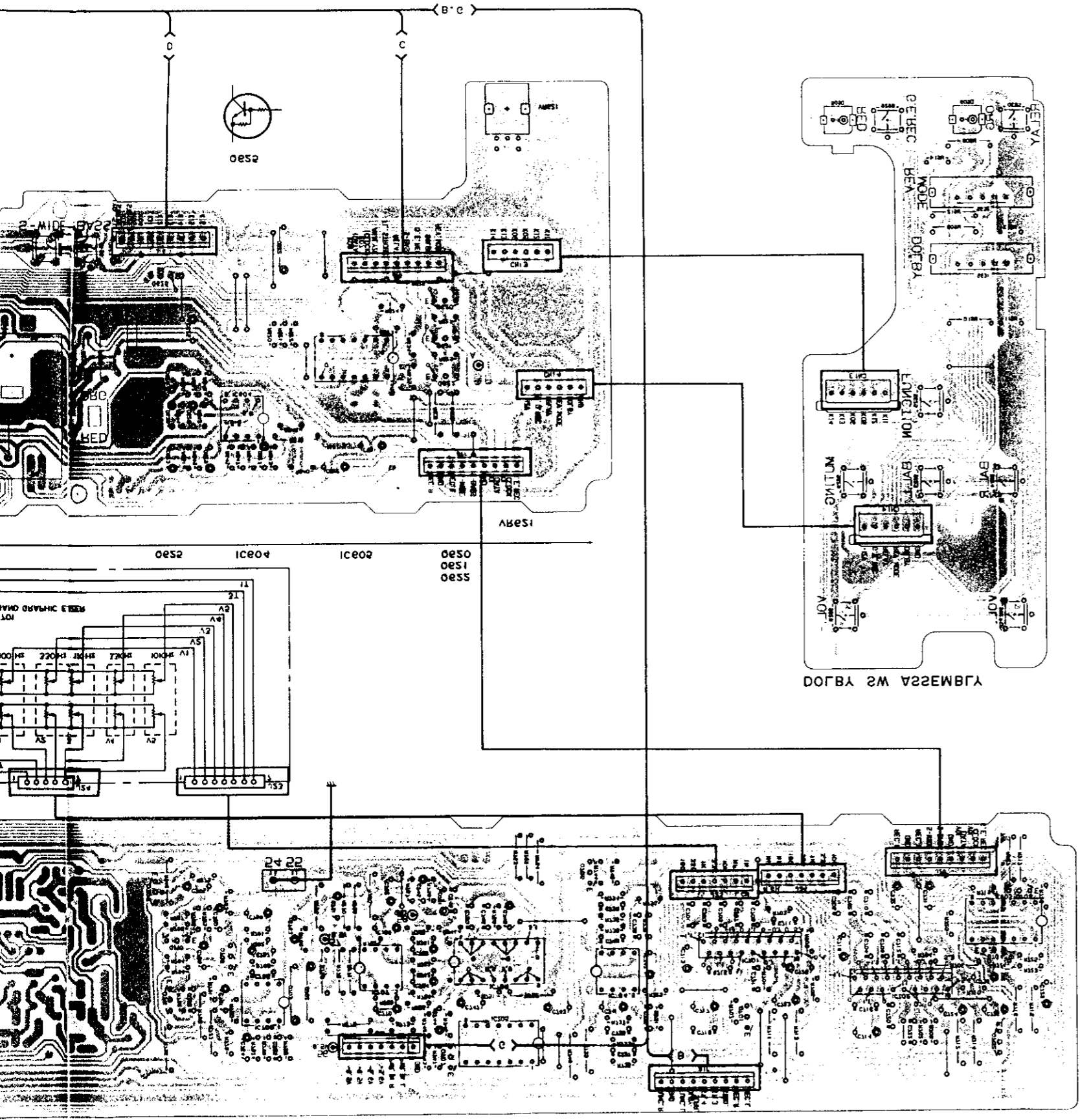
21

22

23

24

20



Laminier switzen jeweils nachfolgendes Teil
4. Diese Bauteile sind durch die Laminier switzen zu ersetzen.
5. Laminier switzen sind durch die Laminier switzen zu ersetzen.

Symbol	Component
(Symbol)	IC
(Symbol)	IC
(Symbol)	IC
(Symbol)	IC
(Symbol)	IC

Symbol	Component	Notes
(Symbol)	Resistor	Resistor
(Symbol)	Diode	Diode
(Symbol)	Capacitor	Capacitor
(Symbol)	Capacitor	Capacitor
(Symbol)	Capacitor	Capacitor
(Symbol)	Capacitor	Capacitor
(Symbol)	Capacitor	Capacitor
(Symbol)	Capacitor	Capacitor
(Symbol)	Capacitor	Capacitor
(Symbol)	Capacitor	Capacitor

Bitte beachten Sie die folgende Hinweise:
1. Die Bauteile sind durch die Laminier switzen zu ersetzen.
2. Die Bauteile sind durch die Laminier switzen zu ersetzen.
3. Die Bauteile sind durch die Laminier switzen zu ersetzen.
4. Die Bauteile sind durch die Laminier switzen zu ersetzen.
5. Die Bauteile sind durch die Laminier switzen zu ersetzen.

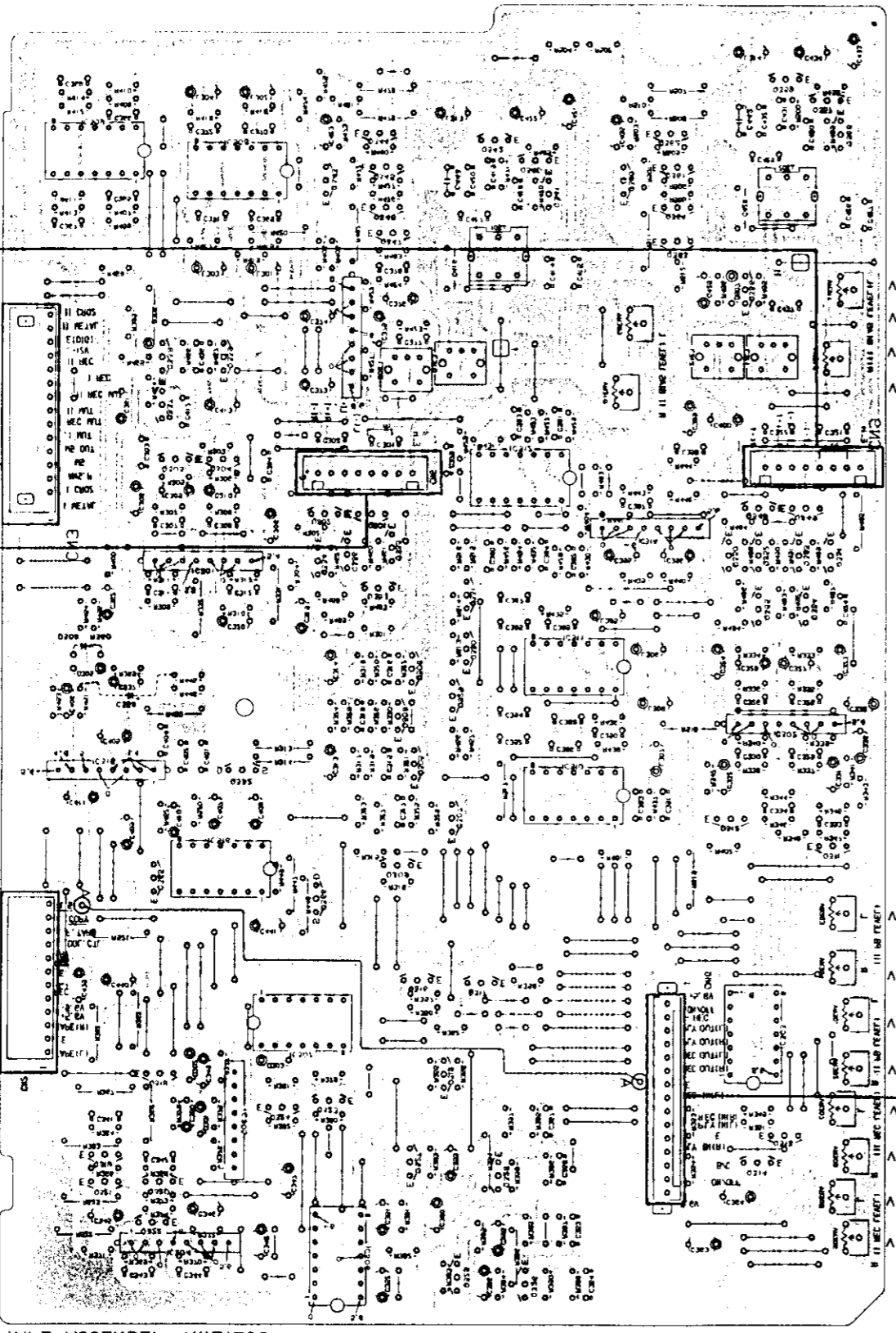
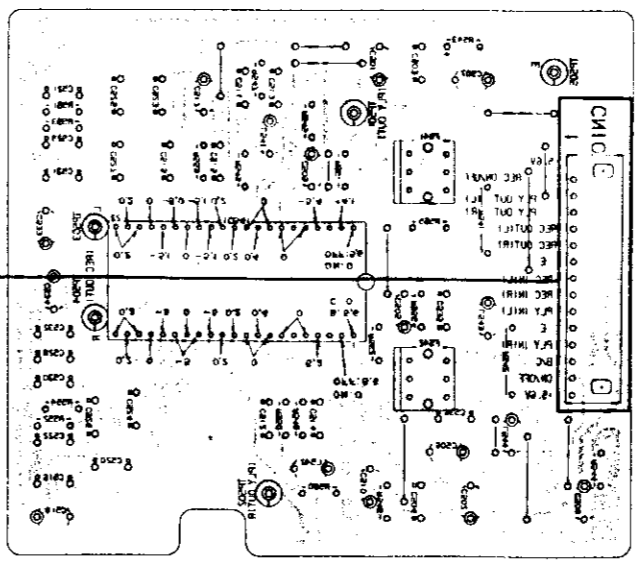
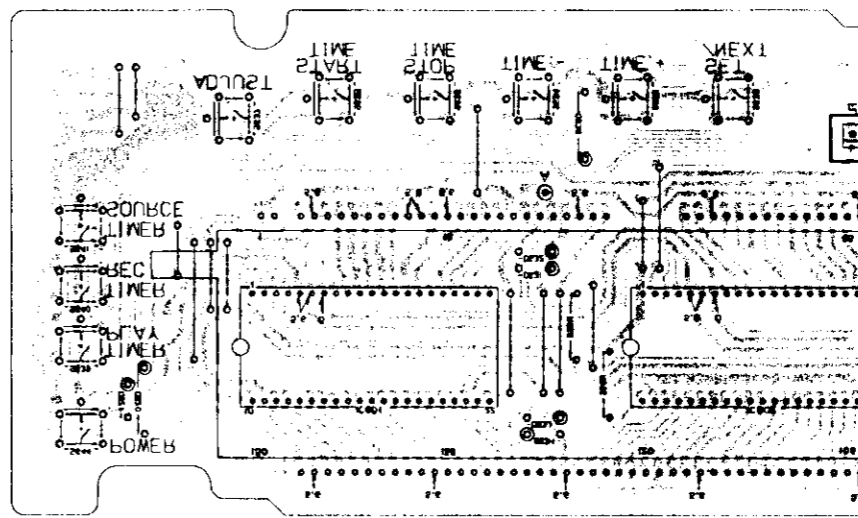
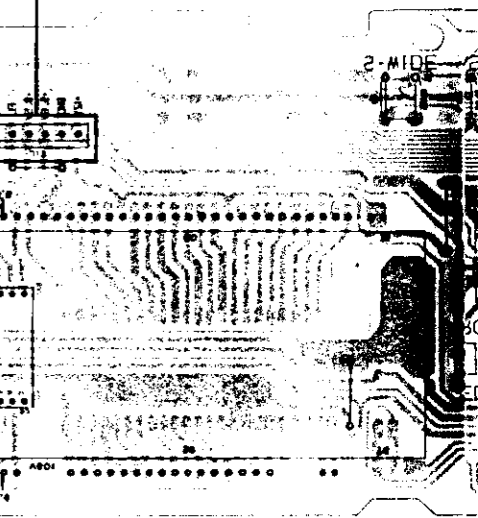
3531 SW
8070
8071
8072
8073
8074
8075
8076
8077
8078
8079
8080

A

B

C

D



IC208	0228
0244	0228
0245	0228
0246	0228
0247	0228
0248	0228
0249	0228
0250	0228
0251	0228
0252	0228
0253	0228
0254	0228
0255	0228
0256	0228
0257	0228
0258	0228
0259	0228
0260	0228
0261	0228
0262	0228
0263	0228
0264	0228
0265	0228
0266	0228
0267	0228
0268	0228
0269	0228
0270	0228
0271	0228
0272	0228
0273	0228
0274	0228
0275	0228
0276	0228
0277	0228
0278	0228
0279	0228
0280	0228
0281	0228
0282	0228
0283	0228
0284	0228
0285	0228
0286	0228
0287	0228
0288	0228
0289	0228
0290	0228
0291	0228
0292	0228
0293	0228
0294	0228
0295	0228
0296	0228
0297	0228
0298	0228
0299	0228
0300	0228
0301	0228
0302	0228
0303	0228
0304	0228
0305	0228
0306	0228
0307	0228
0308	0228
0309	0228
0310	0228
0311	0228
0312	0228
0313	0228
0314	0228
0315	0228
0316	0228
0317	0228
0318	0228
0319	0228
0320	0228
0321	0228
0322	0228
0323	0228
0324	0228
0325	0228
0326	0228
0327	0228
0328	0228
0329	0228
0330	0228
0331	0228
0332	0228
0333	0228
0334	0228
0335	0228
0336	0228
0337	0228
0338	0228
0339	0228
0340	0228
0341	0228
0342	0228
0343	0228
0344	0228
0345	0228
0346	0228
0347	0228
0348	0228
0349	0228
0350	0228
0351	0228
0352	0228
0353	0228
0354	0228
0355	0228
0356	0228
0357	0228
0358	0228
0359	0228
0360	0228
0361	0228
0362	0228
0363	0228
0364	0228
0365	0228
0366	0228
0367	0228
0368	0228
0369	0228
0370	0228
0371	0228
0372	0228
0373	0228
0374	0228
0375	0228
0376	0228
0377	0228
0378	0228
0379	0228
0380	0228
0381	0228
0382	0228
0383	0228
0384	0228
0385	0228
0386	0228
0387	0228
0388	0228
0389	0228
0390	0228
0391	0228
0392	0228
0393	0228
0394	0228
0395	0228
0396	0228
0397	0228
0398	0228
0399	0228
0400	0228

C
B
A

C
B
A

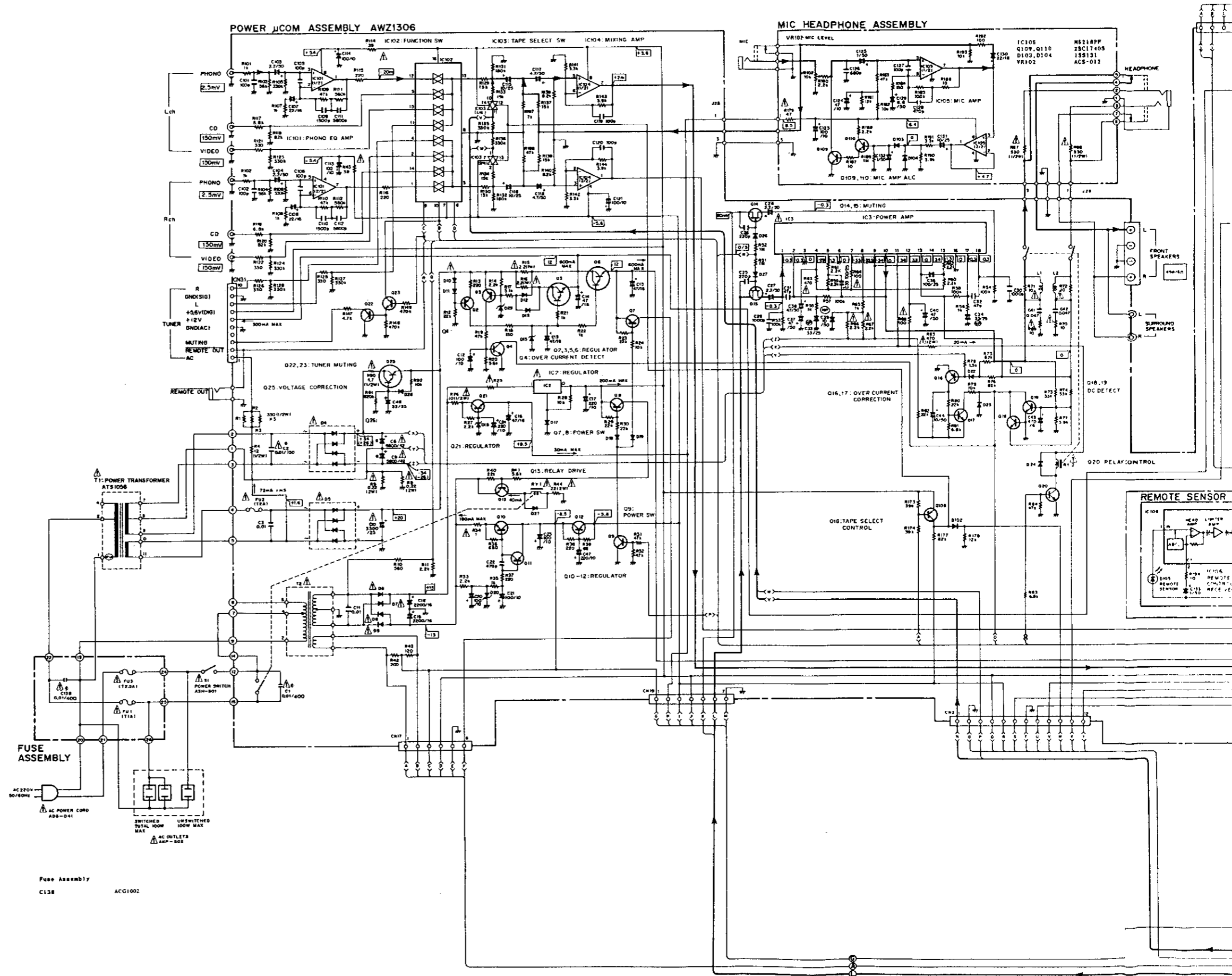
3. SCHEMATIC DIAGRAM

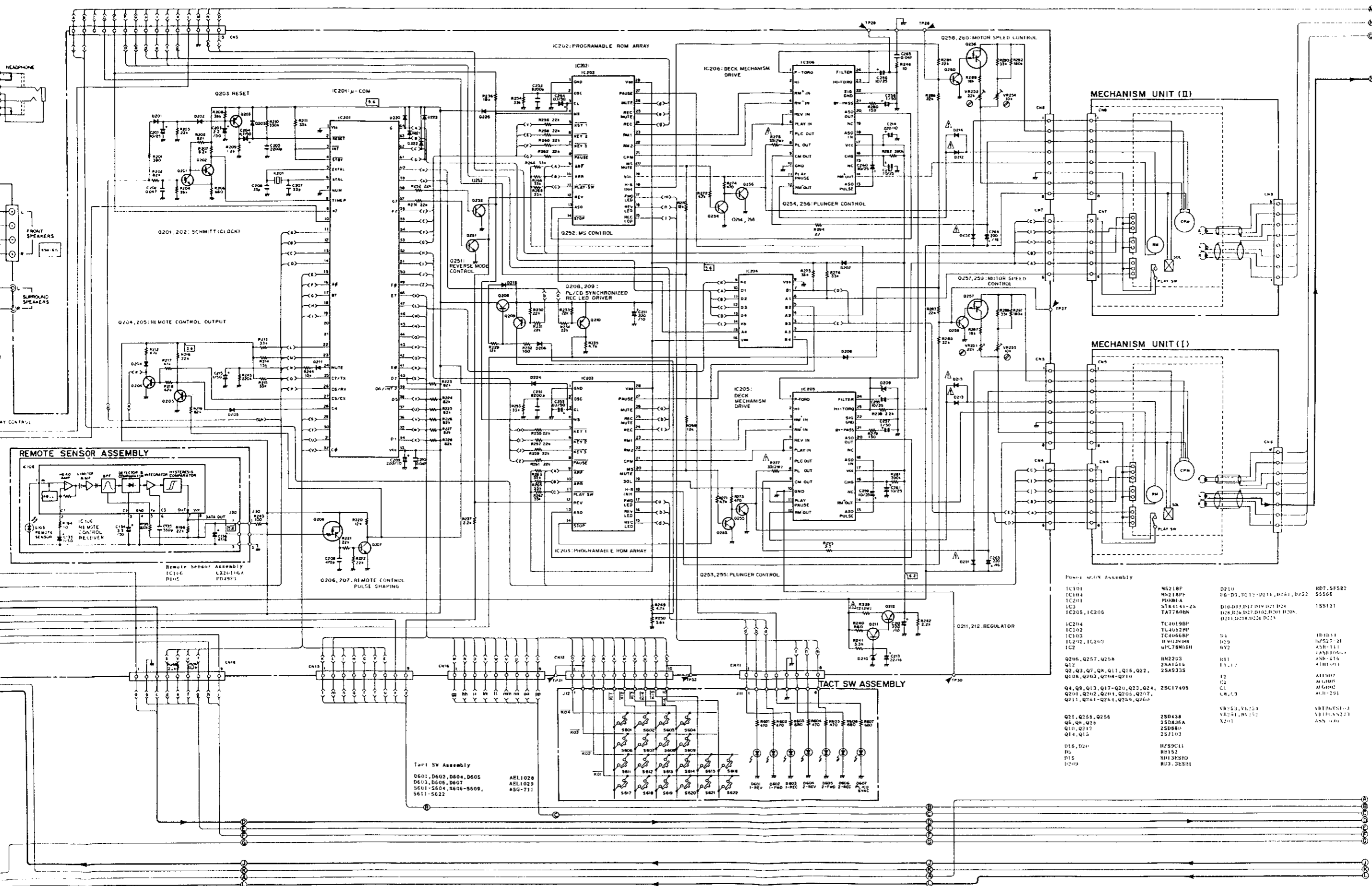
A

B

C

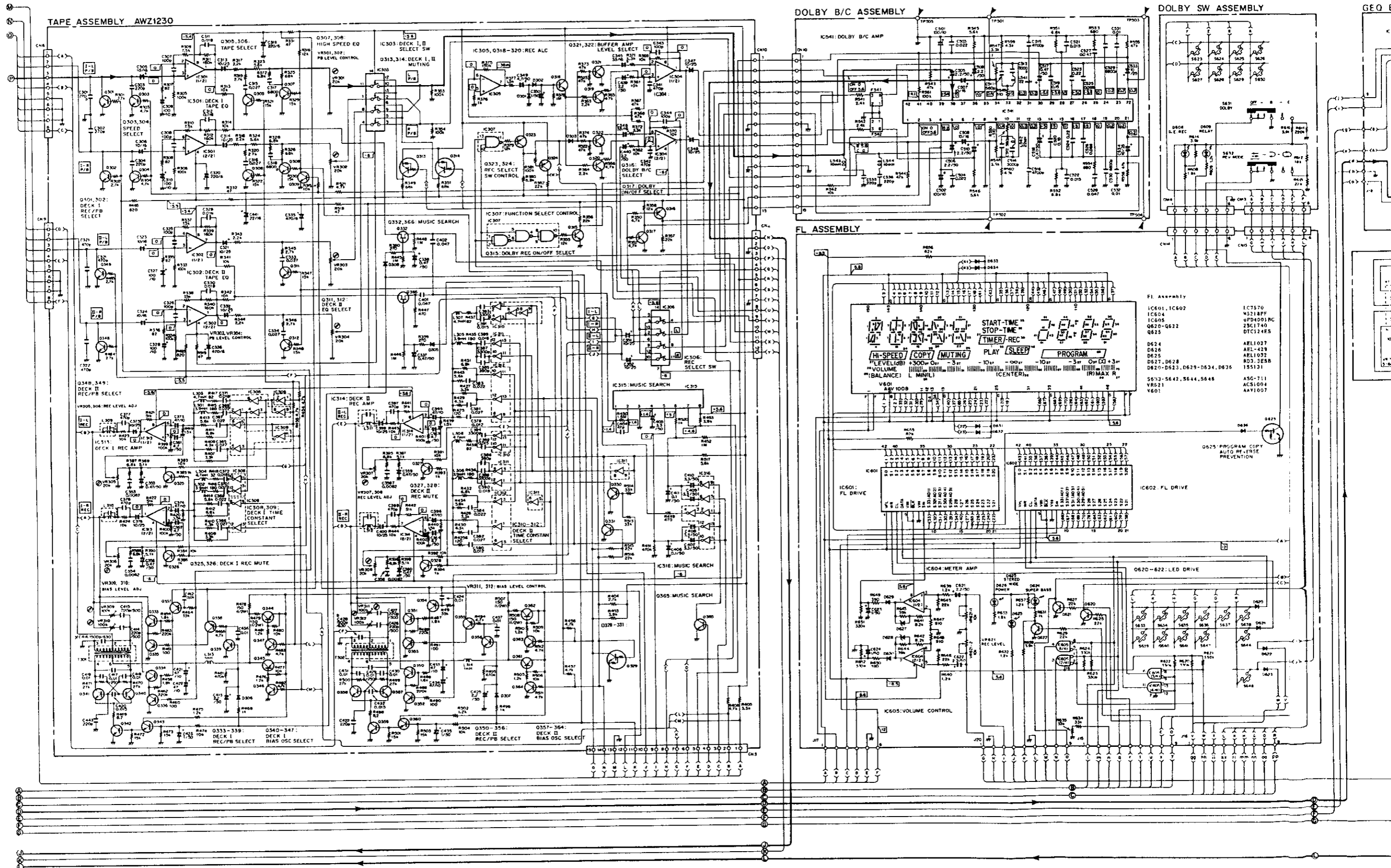
D





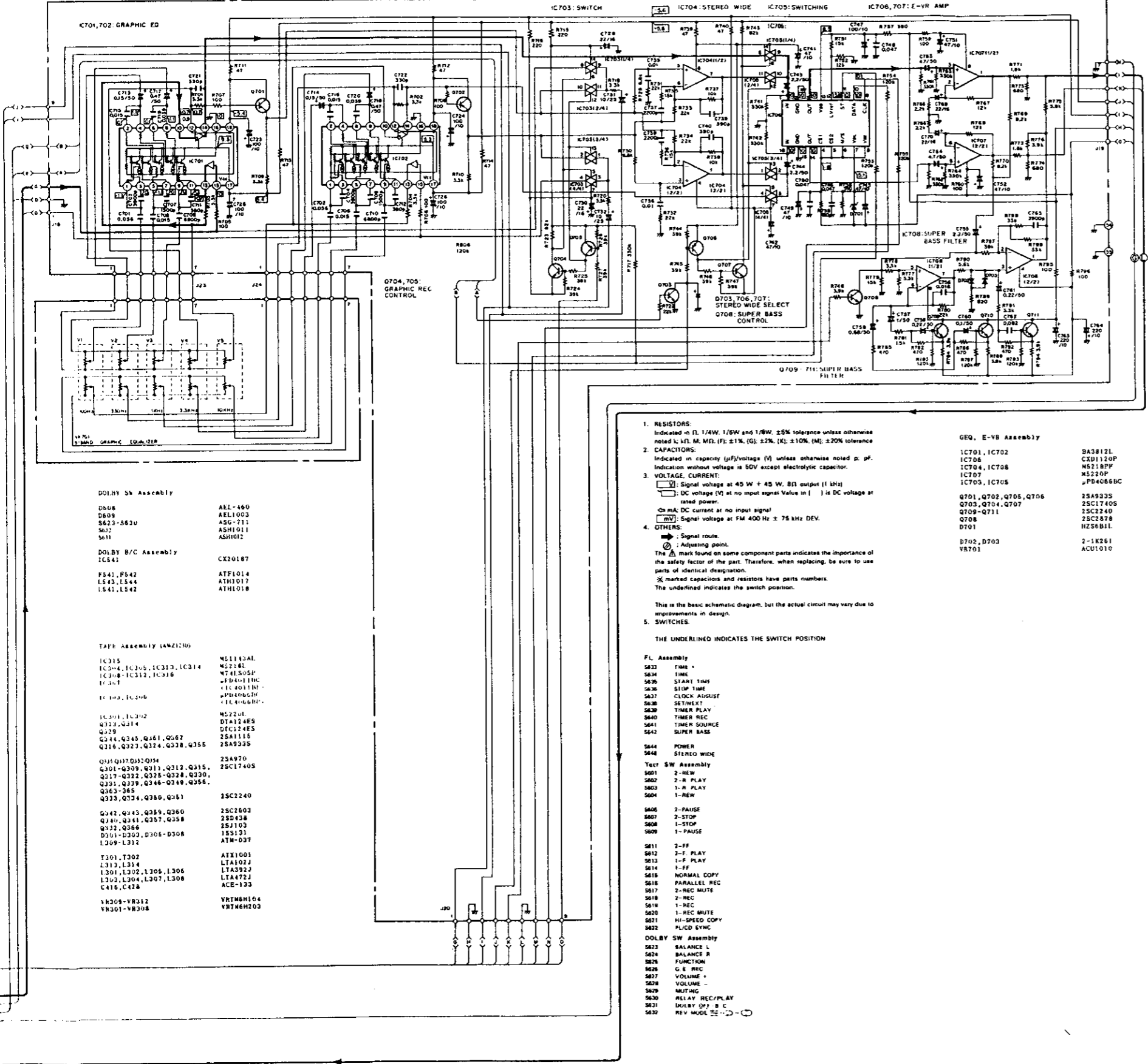
Power Section Assembly

IC104	MS218P	Q210	BDT-5FSB2
IC104A	MS218PF	Q211-Q212, Q213-Q214, Q215, Q252	S5566
IC201	PO808A		
IC2	STR4341-2S	D16-D18, D19, D21, D22	1SS131
IC205, IC206	TAT7A08N	D24, D25, D27, D28, D30, D31, D32, D33, D34, D35, D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D48, D49, D50, D51, D52, D53, D54, D55, D56, D57, D58, D59, D60, D61, D62, D63, D64, D65, D66, D67, D68, D69, D70, D71, D72, D73, D74, D75, D76, D77, D78, D79, D80, D81, D82, D83, D84, D85, D86, D87, D88, D89, D90, D91, D92, D93, D94, D95, D96, D97, D98, D99, D100	
IC204	TC4019BP		
IC102	TC4052BP		
IC103	TC4066BP		
IC202, IC203	TR412N04A		
IC2	WPC78M08H		
Q205, Q257, Q258	KN2203	RY1	ATH107
Q12	2SA1616	RY2	ATH107
Q2, Q3, Q7, Q8, Q11, Q16, Q22, Q108, Q202, Q208, Q210, Q211, Q251-Q254, Q259, Q260	2SA933S	RY3	ATH107
Q4, Q9, Q13, Q17-Q20, Q23, Q24, Q211, Q212, Q214, Q215, Q216, Q217, Q218, Q219, Q220, Q221, Q222, Q223, Q224, Q225, Q226, Q227, Q228, Q229, Q230, Q231, Q232, Q233, Q234, Q235, Q236, Q237, Q238, Q239, Q240, Q241, Q242, Q243, Q244, Q245, Q246, Q247, Q248, Q249, Q250, Q251, Q252, Q253, Q254, Q255, Q256, Q257, Q258, Q259, Q260	2SC1740S	RY4	ATH107
Q21, Q255, Q256		RY5	ATH107
Q5, Q6, Q25		RY6	ATH107
Q10, Q17		RY7	ATH107
Q14, Q15		RY8	ATH107
D16, D24		RY9	ATH107
D9		RY10	ATH107
D15		RY11	ATH107
D209		RY12	ATH107
		RY13	ATH107
		RY14	ATH107
		RY15	ATH107
		RY16	ATH107
		RY17	ATH107
		RY18	ATH107
		RY19	ATH107
		RY20	ATH107
		RY21	ATH107
		RY22	ATH107
		RY23	ATH107
		RY24	ATH107
		RY25	ATH107
		RY26	ATH107
		RY27	ATH107
		RY28	ATH107
		RY29	ATH107
		RY30	ATH107
		RY31	ATH107
		RY32	ATH107
		RY33	ATH107
		RY34	ATH107
		RY35	ATH107
		RY36	ATH107
		RY37	ATH107
		RY38	ATH107
		RY39	ATH107
		RY40	ATH107
		RY41	ATH107
		RY42	ATH107
		RY43	ATH107
		RY44	ATH107
		RY45	ATH107
		RY46	ATH107
		RY47	ATH107
		RY48	ATH107
		RY49	ATH107
		RY50	ATH107
		RY51	ATH107
		RY52	ATH107
		RY53	ATH107
		RY54	ATH107
		RY55	ATH107
		RY56	ATH107
		RY57	ATH107
		RY58	ATH107
		RY59	ATH107
		RY60	ATH107
		RY61	ATH107
		RY62	ATH107
		RY63	ATH107
		RY64	ATH107
		RY65	ATH107
		RY66	ATH107
		RY67	ATH107
		RY68	ATH107
		RY69	ATH107
		RY70	ATH107
		RY71	ATH107
		RY72	ATH107
		RY73	ATH107
		RY74	ATH107
		RY75	ATH107
		RY76	ATH107
		RY77	ATH107
		RY78	ATH107
		RY79	ATH107
		RY80	ATH107
		RY81	ATH107
		RY82	ATH107
		RY83	ATH107
		RY84	ATH107
		RY85	ATH107
		RY86	ATH107
		RY87	ATH107
		RY88	ATH107
		RY89	ATH107
		RY90	ATH107
		RY91	ATH107
		RY92	ATH107
		RY93	ATH107
		RY94	ATH107
		RY95	ATH107
		RY96	ATH107
		RY97	ATH107
		RY98	ATH107
		RY99	ATH107
		RY100	ATH107



NOTE: The indicated semiconductors are representative ones only. Other alternative semiconductors may be used and are listed in the parts list.

GEO E-VR ASSEMBLY AWZ1226



DOLBY SW Assembly

D806	AE1-460
D809	AE11003
S623-S624	ASG-711
S62	ASH1011
S611	ASH1012

DOLBY B/C Assembly

IC541	CK20187
F341, F542	ATF1014
L543, L544	ATM1017
L541, L542	ATH1018

TAPE Assembly (AWZ1226)

IC315	NE112AL
IC304, IC305, IC310, IC314	NS2181
IC308-IC312, IC316	NT41505P
IC307	WFDK11HC
IC302, IC306	IC4011HO
	SPY460CM
	ICL4166HC

IC301, IC302	NS2201
Q319, Q314	DTA124E9
Q29	DFC124E5
Q24, Q345, Q361, Q367	2SA1115
Q316, Q327, Q374, Q338, Q355	2SA933S

Q355, Q357, Q358, Q359	2SA970
Q301-Q309, Q311, Q312, Q315	2SC1740S
Q217, Q232, Q235, Q238, Q230	
Q231, Q239, Q246, Q249, Q256, Q263-265	
Q233, Q234, Q250, Q251	2SC2240

Q342, Q343, Q359, Q360	2SC2603
Q240, Q241, Q257, Q258	2SD438
Q232, Q266	2S1103
D301-D302, D306-D308	1S5131
L309-L312	ATM-037

T301, T302	ATX1001
L312, L314	LTA1022
LTA323	LTA323
L301, L302, L305, L306	LTA4721
L303, L304, L307, L308	ACE-133
C416, C428	

VK305-VK312
VK301-VK308

VK305-VK312	VK3M8H104
VK301-VK308	VK3M8H203

- RESISTORS:
Indicated in Ω, 1/4W, 1/8W and 1/16W, 25% tolerance unless otherwise noted; K: 1% M, F: ±1%, G: ±2%, J: ±10%, M: ±20% tolerance
- CAPACITORS:
Indicated in capacity (pF)/voltage (V) unless otherwise noted; p: pF. Indication without voltage is 50V except electrolytic capacitor.
- VOLTAGE, CURRENT:
[V]: Signal voltage at 45 W ± 45 W, 8Ω output (1 kHz)
[DC]: DC voltage (V) at no input signal value in [] is DC voltage at rated power.
[mA]: DC current at no input signal
[FM]: Signal voltage at FM 400 Hz ± 75 kHz DEV.
- OTHERS:
[S]: Signal route.
[A]: 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.
The underlined indicates the switch position.

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

5. SWITCHES

- THE UNDERLINED INDICATES THE SWITCH POSITION
- FL Assembly
- 5623 TIME +
 - 5624 TIME
 - 5626 START TIME
 - 5628 STOP TIME
 - 5627 CLOCK ADJUST
 - 5629 SET/EXIT
 - 5629 TIMER PLAY
 - 5629 TIMER REC
 - 5641 TIMER SOURCE
 - 5642 SUPER BASS
- 5644 POWER
- 5648 STEREO WIDE
- Tact SW Assembly
- 5601 2-NEW
 - 5602 2-R PLAY
 - 5603 1-R PLAY
 - 5604 1-NEW
- 5606 2-PAUSE
- 5607 2-STOP
- 5608 1-STOP
- 5609 1-PAUSE
- 5611 2-FF
- 5612 2-F PLAY
- 5613 1-F PLAY
- 5614 1-FF
- 5615 NORMAL COPY
- 5616 PARALLEL REC
- 5617 2-REC MUTE
- 5618 2-REC
- 5619 1-REC
- 5620 1-REC MUTE
- 5621 HI-SPEED COPY
- 5622 PL/CD SYNC
- DOLBY SW Assembly
- 5623 BALANCE L
 - 5624 BALANCE R
 - 5626 FUNCTION
 - 5628 G.E. REC
 - 5627 VOLUME +
 - 5628 VOLUME -
 - 5629 MUTING
 - 5630 RELAY REC/PLAY
 - 5631 DOLBY OFF B/C
 - 5632 REV. MOD.

A

B

C

D

4. ELECTRICAL PARTS LIST

NOTES:

- 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.....RD½PS	567 J
47kΩ	47 × 10 ³	473.....RD½PS	473 J
0.5Ω	0R5	.....RN2H	055 K
1Ω	010	.....RS1P	010 K

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

5.62kΩ	562 × 10 ¹	5621....RN½SR	562 F
--------	-----------------------	---------------	-------

- 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.
- For your Parts Stock Control, the fast moving items are indicated with the marks ** and *.
- ** GENERALLY MOVES FASTER THAN *
This classification should be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

**Miscellaneous Parts
P.C BOARD ASSEMBLIES**

Mark	Symbol & Description	Part No.
Δ ⊙	Power μ COM assembly	AWZ1306
⊙	GEQ E-VR assembly	AWZ1226
⊙	TAPE assembly	AWZ1230
	FL assembly	Non supply
	MIC headphone assembly	Non supply
	Remote sensor assembly	Non supply
	Tact SW assembly	Non supply
	DOLBY SW assembly	Non supply
	DOLBY B/C assembly	Non supply
	Fuse assembly	Non supply

OTHERS

Mark	Symbol & Description	Part No.
Δ *	T1 Power transformer (AC220/240V)	ATS1058
Δ **	S1 Slide switch (POWER)	ASH-501
Δ **	FU1 Fuse (T1A/250V)	AEK-402
Δ **	FU2 Fuse (T2A/250V)	AEK-017
Δ **	FU3 Fuse (T2.5A/250V)	AEK-403
Δ	AC power cord (AC/250V)	ADG-041
Δ	AC socket (AC OUTLETS)	AKP-502
	Remote control unit	AXD1016
**	REC/PB head (HADKH5515A)	AZP1011
**	Push switch	AXN-035
**	Push switch	AZS1001
**	Leaf switch (PLAY)	AXN-036
*	Solenoid	AZS1028
**	Motor assembly(Main)	AZX1010
**	Motor assembly(Reel)	AZX1009

**Power μ COM Assembly (AWZ1306)
SEMICONDUCTORS**

Mark	Symbol & Description	Part No.
**	IC101	M5218P
**	IC104	M5218PF
**	IC201	PD3081-A
Δ **	IC3	STK4141-2S
**	IC205, IC206	TA77808N
**	IC204	TC40198P
**	IC102	TC40528P
**	IC103	TC40668P
**	IC202, IC203	TC9312N-048
Δ **	IC2	μ PC78M05 H
**	Q206, Q257, Q258	RN2203
**	Q12	2SA1515
**	Q2, Q3, Q7, Q8, Q11, Q16, Q22, Q108, Q203, Q208—Q210	2SA933S
**	Q4, Q9, Q13, Q17—Q20, Q23, Q201, Q202, Q204, Q205, Q207, Q211, Q251—Q254, Q259, Q260	2SC1740S
**	Q21, Q255, Q256	2SD438
**	Q5, Q6, Q25	2SD836A
**	Q10, Q212	2SD880
**	Q14, Q15	2SJ103
*	D16, D20	HZS9CIL
Δ *	D5	RB152
*	D15	RD13ESB3
*	D209	RD3.3ESB1
*	D210	RD7.5ESB2
Δ *	D6—D9, D212—D215, D251, D252	S5566

★ D10—D13, D17—D19,
D21—D24, D26—D28,
D102, D201—D208, D211,
D220—D225

1SS131

△ ★ D4
★ D29

4D4B44
HXS27-2L

C210
C202, C265
C109, C110
C41, C42
C111, C112

CKCYF473Z50
CKCYX473M25
CQMA152K50
CQMA473K50
CQMA562K50

C29, C30

CQMXA102J100

RELAY

Mark	Symbol & Description	Part No.
★★	RY2	ASR-111 (ASR1005)
△ ★★	RY1	ASR-516

COILS & TRANSFORMER

Mark	Symbol & Description	Part No.
△ ★	L1, L2 AF choke coil T2 Power transformer	ATH1004 ATT1037

CAPACITORS

Mark	Symbol & Description	Part No.
△	C2 (0.01μF/AC150V)	ACG1005
△	C1 (0.01μF/AC400V)	ACG1002
△	C8, C9 (5600μF/42V)	ACH-291
	C206, C207	CCCCH330J50
	C101, C102, C105, C106, C119, C120	CCCSL101J50
	C25, C26	CCCSL221J50
	C31, C32	CCCSL470J50
	C39	CEANP100M50
	C215, C257, C258	CEAS010M50
	C201, C255, C256, C259—C262	CEAS100M25
	C253, C254	CEAS0R1M50
	C44	CEAS100M50
	C12, C20, C21, C23, C113, C144, C121	CEAS101M10
	C103, C104, C203	CEAS2R2M50
	C107, C108, C213	CEAS220M16
	C43	CEAS471M6
	C17, C24, C47, C209, C211, C212, C214	CEAS221M10
	C263, C264	CEAS221M16
	C18, C19	CEAS222M16
△	C48	CEHAQ330M35
	C10	CEAS332M25
	C204	CEAS4R7M50
	C13—C16	CEAS470M16
	C37, C38	CEAS470M50
	C115, C116	CEYA100M25
	C33, C34	CEYANP330M25
	C35, C36	CEYA101M25
	C117, C118	CEYA4R7M50
	C27, C28	CEYA2R2M50
	C40	CEYA470M50
	C205	CKCYB222K50
	C22, C208	CKCYB471K50
	C251, C252	CKCYB822K50
	C3, C11	CKCYF103Z50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
△	R26, R90	RD1/2PMF□□□J
	R1—R4	RD1/2PM□□□J
△	R63, R64, R66—R70	RD1/4PMFL□□□J
△	R25, R34, R71, R72, R113, R114	RD1/4PMF□□□J
	R10, R11, R42, R43, R59—R62, R65	RD1/4PM□□□J
△	R85	RS1LMF681J
△	R15, R16	RS1LMF2R2J
△	R8, R44, R239, R277, R278, R9	RS2LMF□□□J
★	VR253, VR254 Semi-fixed(10k)	VRTB6VS103
★	VR251, VR252 Semi-fixed(22k)	VRTB6VS223
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Jack 2P (SURROUND SPEAKERS)	AKB-093
	Jack 6P (PHONO, CD, VIDEO)	AKB-095
	Jack (REMOTE OUT)	AKN-207
	X201 Ceramic resonator	ASS-030
	Terminal 4P (FRONT SPEAKERS)	AKE-109

FL Assembly SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC601, IC602	LC7570
★★	IC604	M5218PF
★★	IC605	μPD4001BC
★★	Q620—Q622	2SC1740S
★★	Q625	DTC124ES
★	D624	AEL1027
★	D626	AEL-429
★	D625	AEL1032
★	D627, D628	RD3.3ESB
★	D620—D623, D629—D634, D636	1SS131

SWITCHES

Mark	Symbol & Description	Part No.
★★	S633—S642, S644, S648 Tact switch (TIME(+), TIME(-), START TIME, STOP TIME, CLOCK ADJUST, SET/NEXT, TIMER PLAY, TIMER REC, TIMER SOURCE, SUPER BASS, POWER, STEREO WIDE,)	ASG-711

CAPACITORS

Mark	Symbol & Description	Part No.
	C623, C624	CEJA010M50
	C621, C622	CEJA2R2M50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
*	VR621 Variable resistor (10k) (REC LEVEL)	ACS1004
	R631—R633	RD1/4PM□□□J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
*	V601 FL indicator	AAV1007

GEQ, E-VR Assembly(AWZ1226)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
**	IC701, IC702	BA3812L
**	IC706	CXD1120P
**	IC704, IC708	M5218PF
**	IC707	M5220P
**	IC703, IC705	μPD4066BC
**	Q701, Q702, Q705, Q706	2SA933S
**	Q703, Q704, Q707	2SC1740S
**	Q709—Q711	2SC2240
**	Q708	2SC2878
*	D701	HZS6B1L
*	D702, D703	2-1K261

CAPACITORS

Mark	Symbol & Description	Part No.
	C713, C714	CEASR15M50
	C758, C761	CEASR22M50
	C717, C718	CEASR47M50
	C759	CEASR68M50
	C760	CEASOR1M50
	C757	CEAS010M50
	C731, C732, C771	CEAS100M25
	C723—C726, C747	CEAS101M10
	C755	CEAS2R2M50
	C729, C730	CEAS220M16
	C763, C764	CEAS221M10
	C741, C742, C749, C751, C752, C745	CEAS470M10
	C743, C744	CEYA2R2M50
	C753, C754	CEYA4R7M50
	C735, C736	CKCYB103K50
	C769, C770	CEYA220M16
	C707, C708	CKCYB152K50
	C737, C738	CKCYB222K50
	C721, C722	CKCYB331K50
	C711, C712, C739, C740	CKCBBY391K50

C703, C704, C765	CKCYB392K50
C709, C710	CKCYB682K50
C705, C706, C715, C716	CKCYX153M25
C756	CKCYX183M25
C719, C720	CKCYX393M25

C746, C748, C750	CKCYX473M25
C701, C702	CKCYX563M25
C762	CQMA823K50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
*	VR701 Variable resistor (GEQ, E-Volume)	ACU1010
	R759, R760, R795, R796, R711—R714, R739, R740	RD1/4PM□□□J
	Other resistors	RD1/8PM□□□J

TAPE Assembly (AWZ1230)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
**	IC315	M51143AL
**	IC304, IC305, IC313, IC314	M5218L
**	IC308—IC312, IC316	M74LS05P
**	IC307	μPD4011BC (TC4011BP)
**	IC303, IC306	μPD4066BC (TC4066BP)
**	IC301, IC302	M5220L
**	Q313, Q314	DTA124ES
**	Q329	DTC124ES
**	Q344, Q345, Q361, Q362	2SA1115
**	Q316, Q323, Q324, Q338, Q355	2SA933S
**	Q335—Q337, Q352—Q354	2SA970
**	Q301—Q309, Q311, Q312, Q315, Q317—Q322, Q325—Q328, Q330, Q331, Q339, Q346—Q349, Q356, Q363—365	2SC1740S
**	Q333, Q334, Q350, Q351	2SC2240
**	Q342, Q343, Q359, Q360	2SC2603
**	Q340, Q341, Q357, Q358	2SD438
**	Q332, Q366	2SJ103
*	D301—D303, D305—D308	1SS131

COILS & TRANSFORMERS

Mark	Symbol & Description	Part No.
	L309—L312 Trap coil	ATM-037
	T301, T302	ATX1001
	Bias OSC transformer	
	L313, L314 Inductor	LTA102J
	L301, L302, L305, L306	LTA392J
	Inductor	
	L303, L304, L307, L308	LTA472J
	Inductor	

CAPACITORS

Mark	Symbol & Description	Part No.
	C416, C428	ACE-133
	C307, C308, C325, C326, C343, C344	CCCSL101 J50
	C303, C304, C442, C443	CCCSL221 J50
	C414, C415, C426, C427	CCCSL221 K500
	C301, C302	CCCSL271 J50
	C404	CCCSL470 J50
	C305, C306, C323, C324	CEANL100M16
	C337, C338, C355, C356, C359, C360	CEASR47 M50
	C406, C411	CEAS0R1 M50
	C350, C423, C435	CEAS010M50
	C313, C314, C331, C332, C347, C348, C351, C352, C375, C376, C399, C400	CEAS100M25
	C309, C310, C327, C328	CEAS101 M10
	C413, C425, C439, C440	CEAS2R2M50
	C441	CEAS220M16
	C319, C320, C335, C336	CEAS471 M6
	C405, C407—C410	CEAS3R3M50
	C345, C346	CEAS330M16
	C349, C361—C364	CEAS4R7 M50
	C373, C374, C395, C396, C421, C422, C433, C434	CEAS470M10
	C385, C386	CKCVB391 K50
	C321, C322, C341, C342, C377, C378, C397, C398	CKCYB471 K50
	C412, C424, C426, C437	KCKYF103Z50
	C418, C419, C430, C431	CQMA103J50
	C417, C429	CQMA103K250
	C379, C380	CQMA123J50
	C391, C392, C420, C432	CQMA153J50
	C311, C312, C329, C330, C371, C372, C389, C390	CQMA183J50
	C367—C370, C383, C384	CQMA223J50
	C315, C316, C333, C334, C365, C366, C381, C382	CQMA273J50
	C387, C388, C393, C394	CQMA332J50
	C401, C402	CQMA473J50
	C317, C318	CQMA683J50
	C353, C354, C357, C358	CQMA822J50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R478, R479, R507, R508	RD1/2PM□□□J
	R331, R332, R518, R519	RD1/4PMF470J
	R450	RD1/4PM155J
★	VR309—VR312 (Semi-fixed)	VRTM6H104
★	VR301—VR308 (Semi-fixed)	VRTM6H203
	Other resistors	RD1/8PM□□□J

MIC Headphone Assembly SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC105	M5218PF
★★	Q109, Q110	2SC1740S
★	D103, D104	1SS131

CAPACITORS

Mark	Symbol & Description	Part No.
	C127	CCCSL101 J50
	C125	CEANL101 M50
	C129	CEAS6R8M50
	C132	CEJA010M50
	C131	CEJA100M25
	C123	CEJA101 M10
	C130	CEJA220M16
	C124	CEJA470M10
	C128	CKCYB471 K50
	C126	CKCYB681 K50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR102 (Semi-fixed) 10k	ACS-012
△	R86, R87	RD1/2PMF331J
△	R179	RD1/4PMF470J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Jack (MIC)	AKN1004
	Jack (HEADPHONE)	AKN1005

Remote Sensor Assembly SEMIDONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC106	CX20106A
★	D105	PD49P1

CAPACITORS

Mark	Symbol & Description	Part No.
	C133	CEJA010M50
	C134	CEJA010M50
	C136	CEJA3R3M50
	C135	CKCYB331 K50

RESISTORS

Mark	Symbol & Description	Part No.
	R195	RN1/4PQ2003F
	R194	RD1/8PM100J
	R196	RD1/8PM223J

OTHERS

Mark	Symbol & Description	Part No.
	Shield plate	ANK1021

**Tact SW Assembly
SEMICONDUCTORS**

Mark	Symbol & Description	Part No.
*	D601, D602, D604, D605	AEL1028
*	D603, D606, D607	AEL1029

SWITCHES

Mark	Symbol & Description	Part No.
**	S601—S604, S606—S609, S611—S622 Tact switch (1-2 REW, 2-R.PLAY, 1-R.PLAY, 1-REW, 2-PAUSE, 2-1-STOP, 1-PAUSE, 2-FF, 2-F PALY, 1-F PLAY, 1-FF, NORMAL COPY, PARALLEL REC 2, REC MUTE, 2-REC, 1-REC, 1-REC MUTE, HI-SPEED COPY, PL/CD SYNC.)	ASG-711

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	All resistors	RD1/8PM□□□J

**DOLBY SW Assembly
SEMICONDUCTORS**

Mark	Symbol & Description	Part No.
*	D608	AEL-460
*	D609	AEL1003

SWITCHES

Mark	Symbol & Description	Part No.
**	S623—S630 Tact switch (BALANCE, (L), BALANCE (R), FUNCTION, G, E, REC, VOLUME (+), VOLUME(-), MUTING, RELAY PLAY/REC)	ASG-711
**	S632 Slide switch (REV MODE)	ASH1011
**	S631 Slide switch (DOLBY)	ASH1012

RESISTORS

Mark	Symbol & Description	Part No.
	R608, R609	RD1/4PM□□□J
	Other resistors	RD1/8PM□□□J

**DOLBY B/C Assembly
SEMICONDUCTORS**

Mark	Symbol & Description	Part No.
**	IC541	CX20187

FILTERS & COILS

Mark	Symbol & Description	Part No.
	F541, F542 DOLBY filter	ATF1014
	L543, L544 Inductor	ATH1017
	L541, L542 Inductor	ATH1018

CAPACITORS

Mark	Symbol & Description	Part No.
	C535, C536	CCCSL221J50
	C517, C518	CEASR47M50
	C533, C543	CEAS100M25
	C501, C502	CEAS101M10
	C509, C510	CEAS2R2M50
	C507, C508	CEYA100M16
	C505, C506	CEYA2R2M50
	C511, C512	CKCYB551K50
	C503, C504	CKCYF223Z50
	C531, C532	CQMA103J50
	C521, C522	CQMA153J50
	C519, C520	CQMA154J50
	C523, C524	CQMA224J50
	C513, C514	CQMA302J50
	C515, C516	CQMA472J50
	C527, C528	CQMA473J50
	C529, C530	CQMA682J50
	C525, C526	CQMA683J50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	All resistors	RD1/8PN□□□J

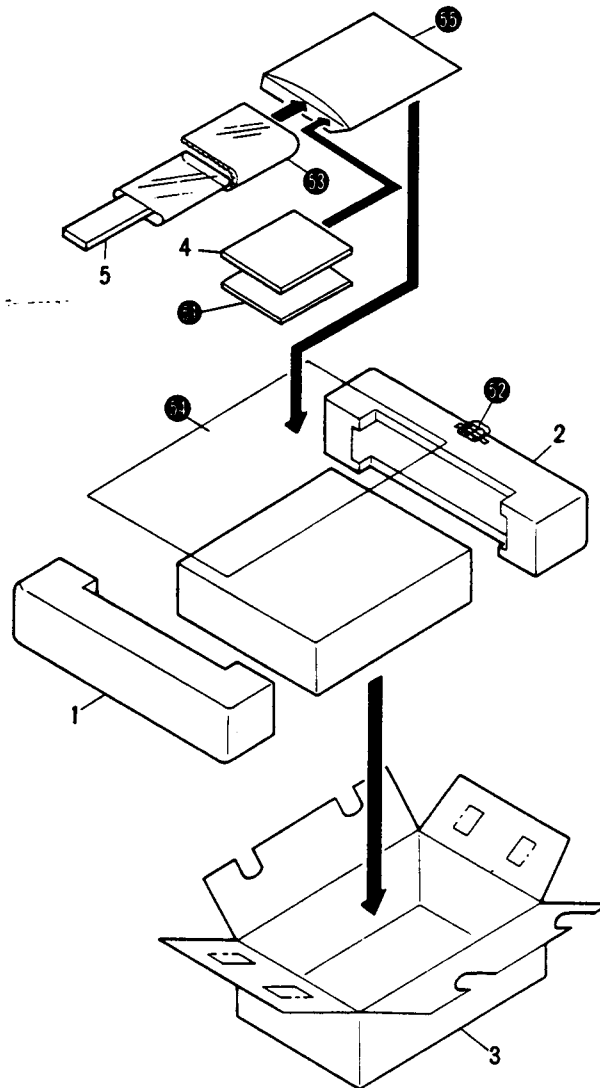
**Fuse Assembly
CAPACITOR**

Mark	Symbol & Description	Part No.
△	C138 (0.01μF/AC400V)	ACG1002

5. PACKING

Parts List

Mark	No.	Part No.	Description
	1	AHA1038	Front pad
	2	AHA1039	Rear pad
	3	AHD1170	Packing case
	4	ARE1040	Operating instructions (English/German/French/ Italian)
	5	AXD1016	Remote control unit
	51		Warranty card
	52		Battery assembly
	53		Air cap
	54		Packing sheet
	55		Envelope



6. FOR HB AND SD TYPES

CONTRAST OF MISCELLANEOUS PARTS

The DC-X99Z/HB and SD types are the same as the DC-X99Z/HE type with the exception of the following sections.

Mark	Symbol & Description	Part No.			Remarks
		DC-X99Z			
		HE type	HB type	SD type	
⚠ ⊙	Power μ COM Assembly	AWZ1306	AWZ1306	AWZ1331	
⚠	Fuse Assembly	Non supply	Non supply	Non supply	
⚠	AC power cord	ADG-041	ADG-051	ADG1015	
⚠	Strain relief	AEC-882	AEC-882	.....
⚠	AC socket (AC OUTLET)	AKP-502	AKP-505	AKP-515	
	MIC headphone assembly	Non supply	Non supply	Non supply	
⚠ **	F1 Fuse (T1A/250V)	AEK-402	AEK-508	.....
⚠ **	F1 Fuse (T1.6A/250V)	.....	.....	AEK-405	
⚠ **	F2 Fuse (T2A/250V)	AEK-017	AEK-511	AEK-017	
⚠ **	F3 Fuse (T2.5A/250V)	AEK-403	AEK-512	.....
⚠ **	F3 Fuse (T1.6A/250V)	.....	.....	AEK-405	
⚠ *	T1 Power transformer (AC220/240V)	ATS1058	ATS1058	.....
⚠ *	T1 Power transformer (AC110/120-127/220/240V)	.....	.....	ATS1057	
⚠ **	S2 Voltage selector (AC110/120-127/220/240V)	.....	.....	AKX-507	
⚠ **	S3 Voltage selector (AC110/120-127/220/240V)	.....	.....	AKX1007	
	Screw	.....	.....	VBZ30P100FMC	
	Cushion rubber	.....	.....	AEB1003	
	Operating instructions (English, German, French, Italian)	ARE1040	.....	.....
	Operating instructions (English)	.....	ARB1049	ARB1055	
	Operating instructions (Spanish-auxiliary)	.....	.....	ARC1030	
	Rear panel	Non supply	Non supply	Non supply	
	Heat sink	.....	.....	Non supply	
	Heat-sink holder	.....	.....	Non supply	

POWER μ COM ASSEMBLY (AWZ1331)

The power μ COM assembly (AWZ1331) is the same as the power μ COM assembly (AWZ1306) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		AWZ1306 HE/HB types	AWZ1331 SD type	
⚠ **	IC3	STK4141-2S	STK4191-5S	
⚠	R90	RD1/2PMF4R7J	RD1/2PMF100J	
	R55, R56	RD1/8PM102J	RD1/8PM911J	
⚠	R85	RS2LMF471J	RS2LMF911J	
⚠	C8, C9	ACH-291	ACH-258	
⚠ *	T2	ATT1037	ATT1036	
⚠ **	RY2	ASR-111	ASR-109	
	C49, C50	(ASR1005)	(ASR-112)	
		.....	CCCSL010C50	

FUSE ASSEMBLY

The fuse assembly for SD type is the same as the fuse assembly for HE/HB types with the exception of the following sections.

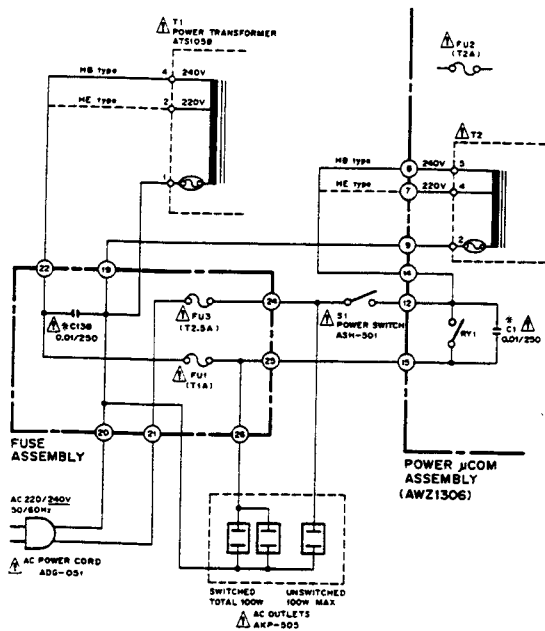
Mark	Symbol & Description	Part No.		Remarks
		HE/HB types	SD type	
	Terminal	Non supply	.....

MIC HEADPHONE ASSEMBLY

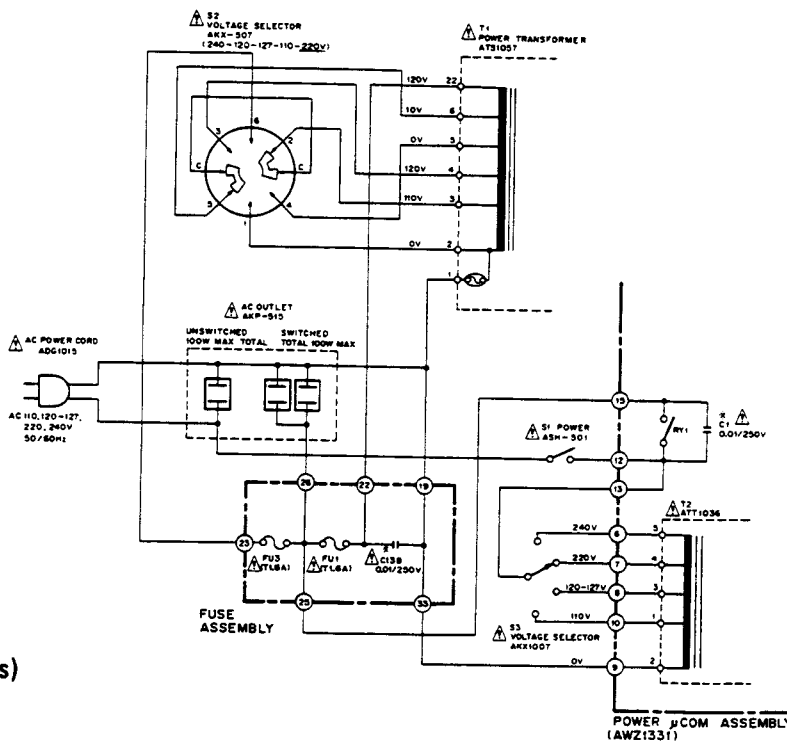
The MIC headphone assembly for SD type is the same as the MIC headphone assembly for HE/HB types with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		HE/HB types	SD type	
△ △	R86, R87 R88, R89	RD1/2PMF331J	RD1/2PMF681J RD1/2PMF681J	

Schematic Diagram of HB type



Schematic Diagram of SD type



Line Voltage Selection (For HE and HB types)

Line voltage can be changed with following steps.

1. Disconnect the AC Power cord.
2. Remove the Bonnet case.
3. Change the connection of the primary lead wires.
(Connect as shown in Fig. above (left).)
4. Stick the line voltage label on the rear panel.

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

7. ADJUSTMENTS

7.1 MECHANICAL SECTION ADJUSTMENT

1. Tape speed adjustment (Normal-speed adjustment after double-speed adjustment is performed.)			
Mode	Test tape	Adjusting points	Specifications/Ratings (playback frequency)
PLAY	Play back 3kHz section of STD-301 (DECK-I)	VR253 (double speed) VR251 (normal speed)	Adjust so that it becomes 6030Hz. (Short-circuit TP27 and TP29 after playback.) Adjust so that it becomes 3015Hz. (Press the PLAY switch.)
	Play back 3kHz section of STD-301 (DECK-II)	VR254 (double speed) VR252 (normal speed)	Adjust so that it becomes 6030Hz. (Short-circuit TP28 and TP29 after playback.) Adjust so that it becomes 3015Hz. (Press the PLAY switch.)
2. Tape path adjustment			
Mode	Adjusting points		Specifications
FWD REV	FWD azimuth adjustment screw REV azimuth adjustment screw		Playback 10kHz, -20dB with STD-331 test tape. Adjust so that the signal output at test points of TP501 and TP502 becomes maximum.
Load the cassette, then lift the head base with your hand so that tape contacts the tape guide.			
STOP	Height adjustment screws (left and right)		Visually check whether tape is on tape guide center.
FWD PLAY	FWD height adjustment screw		Adjust primary tape guide so that tape is not curled.
REV PLAY	REV height adjustment screw		

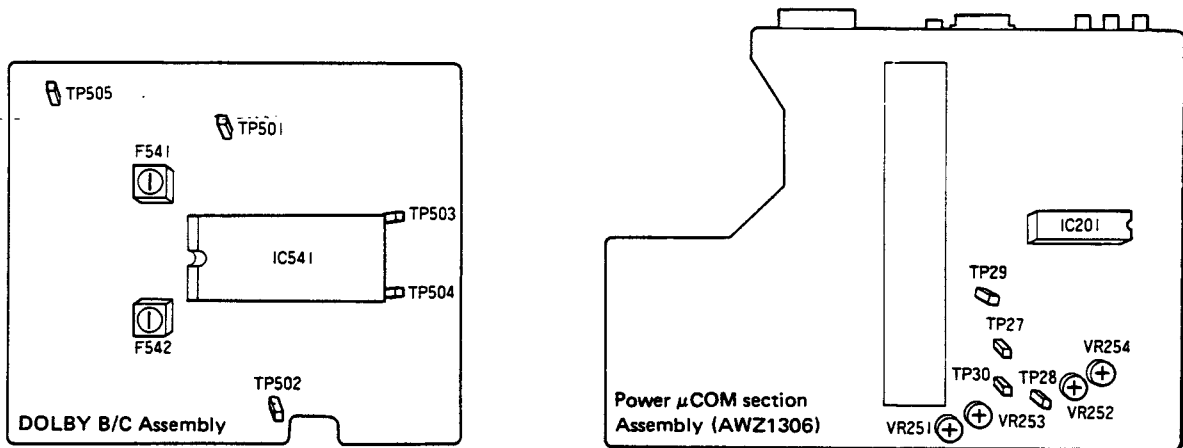


Fig. 7-1 Tape speed adjustment

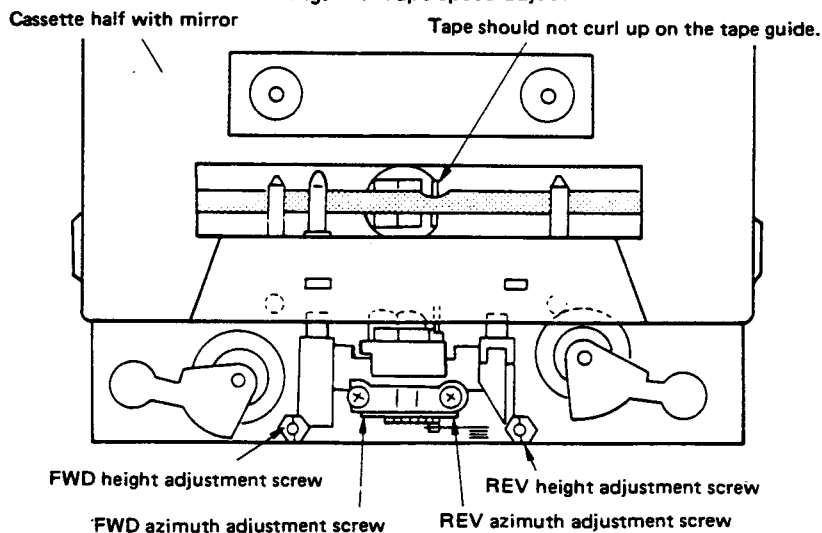


Fig. 7-2 Tape path adjustment

7.2 ELECTRICAL ADJUSTMENT

Adjustment Conditions

1. Mechanism section adjustment should have been completed first.
2. Heads should be cleaned and demagnetized.
3. Aging of deck should be performed for at least 2-3 minutes before starting electrical adjustment.
4. Reference signal should be set to 0dB=1Vrms.
5. The following switch setting should not be changed, unless otherwise indicated:
DOLBY NR: OFF

Test Tapes

- STD-331B: Playback adjustment (See Fig. 7-3.)
 STD-608A: Blank normal tape
 STD-620: Blank chrome tape
 STD-610: Blank metal tape

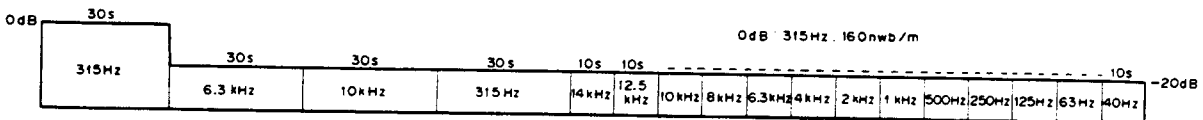


Fig. 7-3 STD-331B test tape

Deck I

1. Head angle adjustment
2. Playback level adjustment
3. Recording/playback frequency characteristics adjustment
4. Recording level adjustment

Deck II

1. Head angle adjustment
2. Playback level adjustment
3. Recording/playback frequency characteristics adjustment
4. Recording level adjustment

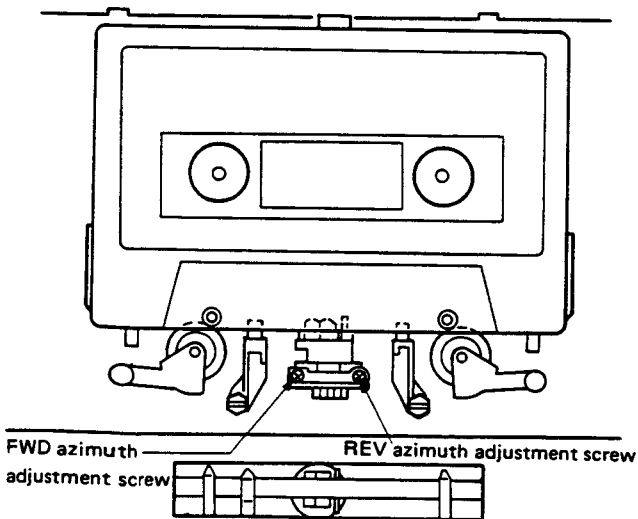


Fig. 7-4 Head azimuth adjustment

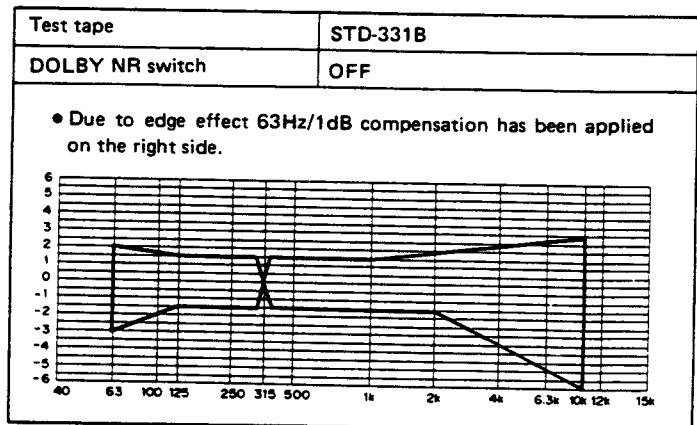


Fig. 7-5 Playback frequency-response allowance range

● Deck I adjustment							
• This unit incorporates auto tape selector.							
1. Head angle adjustment							
• Turn VR301 and VR302 (playback level adjustment VRs) fully clockwise (MAX. position).							
Tape selector	Mode	Input signal/test tape		Adjusting point	Measuring points	Adjusting value	Remarks
NORM	PLAY	Play back 10kHz, -20dB with STD-331B test tape		Head angle adjustment screw (Fig. 7-4)	TP501 (L) TP502(R)	Maximum playback signal level	Lock screw after completion of adjustment.
2. Playback level adjustment							
• This adjustment is set Dolby level during playback, so the adjustment should be performed carefully.							
Tape selector	Mode	Input signal/test tape		Adjusting point	Measuring points	Adjusting value	Remarks
NORM	PLAY	Play back 315Hz, 0dB with test tape STD-331B		VR301 (L) VR302(R)	TP501 (L) TP502(R)	-10.2dBV (309mV)	
3. Recording/Playback frequency characteristics adjustment							
• This adjustment is set to recording bias, so care should be taken to avoid distortion factor deterioration due to under-bias operation.							
Tape selector	Mode	Input signal/test tape		Adjusting point	Measuring points	Adjusting value	Remarks
NORM	REC	Input 315Hz signal to VIDEO terminal.	1	Input signal level	TP501 (L) TP502(R)	-30.2dBV (31mV)	Set recording level VR to center position.
NORM	REC/PLAY	Record and play back 315Hz, 10kHz with STD-608A test tape	2	VR309 (L) VR310(R)	TP501 (L) TP502(R)	Record and play back repeatedly, making corrections so as to obtain a 0 ± 0.5 dB 10kHz playback level of the recorded 315Hz signal.	
• Select test tape/DOLBY NR switch, and frequency characteristics zone shown in Fig. 7-7 should be satisfied.							
4. Recording level adjustment							
Tape selector	Mode	Input signal/test tape		Adjusting point	Measuring points	Adjusting value	Remarks
NORM	REC	Input 315Hz signal to VIDEO terminal	1	Input signal level	TP501 (L) TP502(R)	-10.2dBV (309mV)	
NORM	REC/PLAY	Perform recording and playback of 315Hz to STD-608A test tape	2	VR305 (L) VR306(R)	TP501 (L) TP502(R)	Record and playback repeatedly, making corrections so that playback level of the 315Hz signal is -10.2dBV (309mV).	
METAL	REC/PLAY	Perform recording and playback of 315Hz to STD-610 test tape	3		TP501 (L) TP502(R)	Confirm that playback level of the 315Hz signal is -10.2dBV ± 2 dB.	
● Deck II adjustment							
• This unit incorporates auto tape selector.							
1. Head angle adjustment							
• Turn VR303 and VR304 (playback level adjustment VRs) fully clockwise (MAX. position).							
Tape selector	Mode	Input signal/test tape		Adjusting points	Measuring points	Adjustment value	Remarks
NORM	PLAY	Playback 10kHz, -20dB with STD-331B test tape		Head angle adjustment screw (Fig. 7-4)	TP501 (L) TP502(R)	Maximum playback signal level	Lock screw after completion of adjustment
2. Playback level adjustment							
• This adjustment sets Dolby level during playback, so should be performed carefully.							
Tape selector	Mode	Input signal/test tape		Adjusting points	Measuring points	Adjustment value	Remarks
NORM	PLAY	Playback 315Hz, 0dB with STD-331B test tape		VR303 (L) VR304(R)	TP501 (L) TP502(R)	-10.2dBV (309mV)	
3. Recording/Playback frequency characteristics adjustment							
• This adjustment is set to recording bias, so care should be taken to avoid distortion factor deterioration due to under-bias operation.							
Tape selector	Mode	Input signal/test tape		Adjusting points	Measuring points	Adjustment value	Remarks
NORM	REC	Input 315Hz signal to VIDEO terminal	1	Input signal level	TP501 (L) TP502(R)	-30.2dBV (31mV)	Set recording level VR to center position.
NORM	REC/PLAY	Record (315Hz) and playback 315Hz, 10kHz to STD-608A test tape	2	VR311 (L) VR312(R)	TP501 (L) TP502(R)	Record and playback repeatedly, making corrections so as to obtain 0 ± 0.5 dB 10kHz playback level of the recorded 315Hz signal.	
• Select test tape, DOLBY NR switch and frequency characteristics zone shown in Fig. 7-7 should be satisfied.							

4. Recording level adjustment

Tape selector	Mode	Input signal/test tape		Adjusting points	Measuring points	Adjustment value	Remarks
NORM	REC	Input 315Hz signal to VIDEO terminal	1	Input signal level	TP501 (L) TP502(R)	-10.2dBV (309mV)	
NORM	REC/PLAY	Perform recording and playback of 315Hz of STD-608A test tape	2	VR307(L) VR308(R)	TP501 (L) TP502(R)	Record and playback repeatedly, making corrections so that the playback of 315Hz signal is -10.2dBV (309mV).	
METAL	REC/PLAY	Perform recording and playback of 315Hz to STD-610 test tape	3		TP501 (L) TP502(L)	Confirm that playback level of the 315Hz signal is -10.2dBV±2dB.	

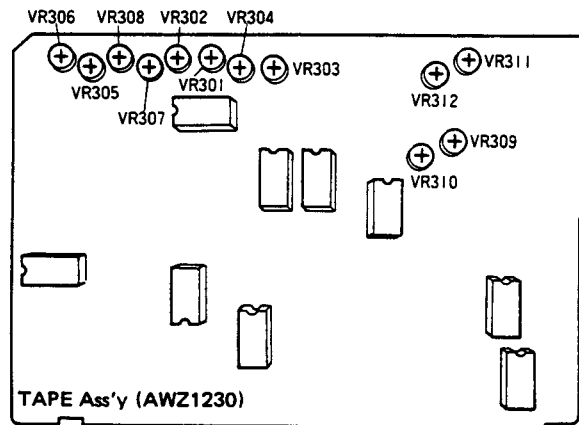


Fig. 7-6 Deck I, Deck II adjustment

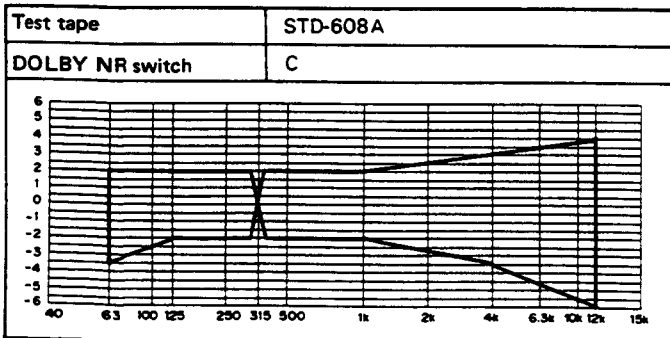
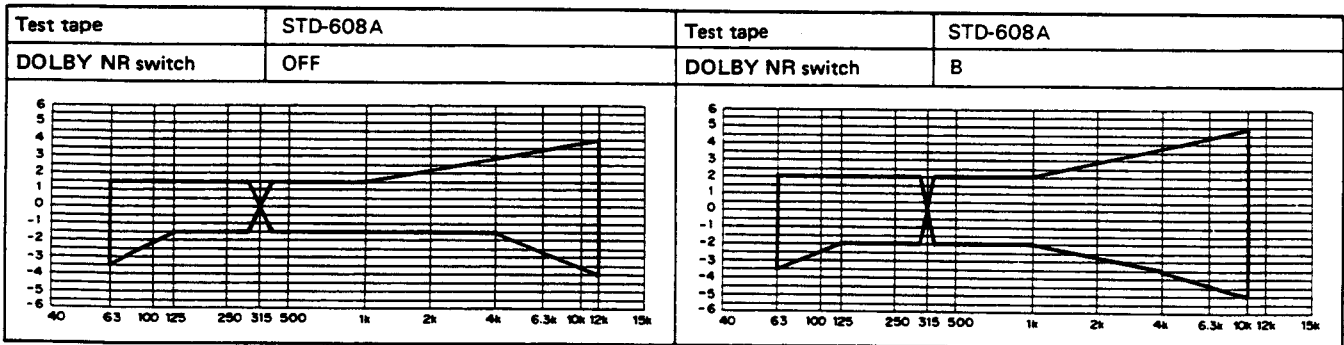


Fig. 7-7-1 Recording/Playback frequency-response allowance range (NORM)

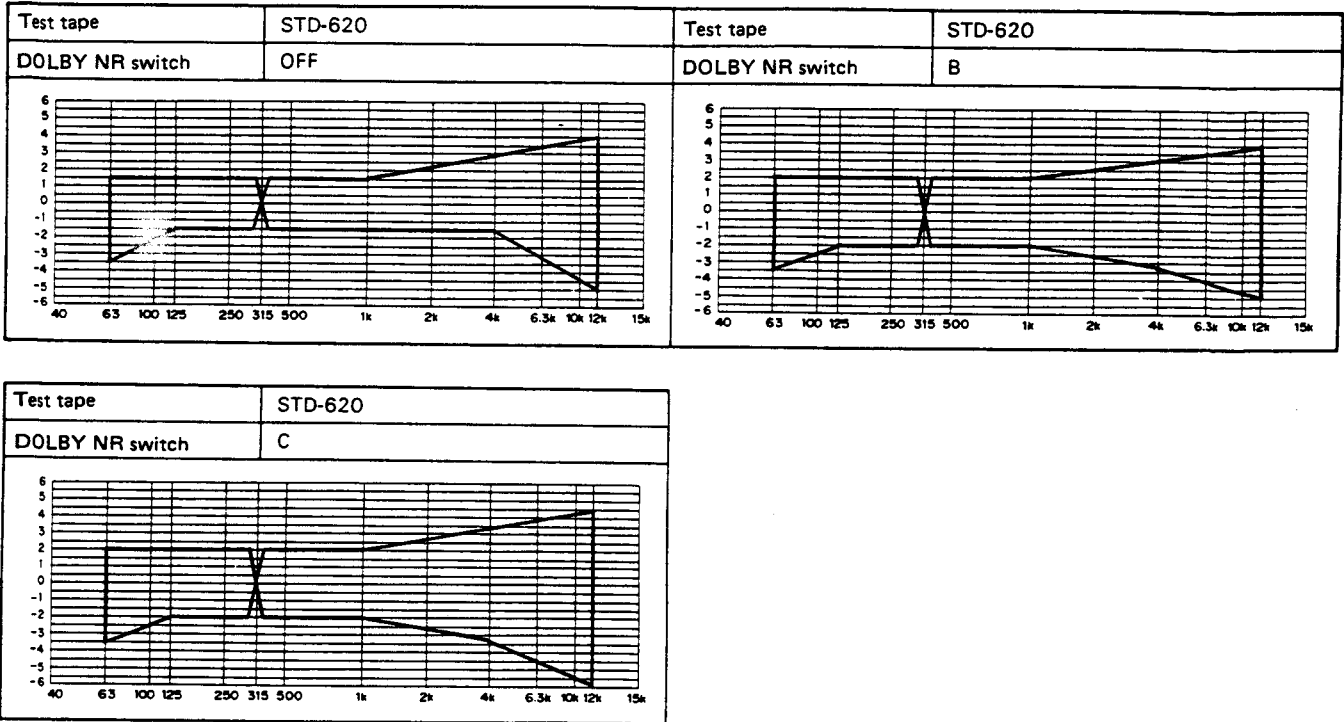


Fig. 7-7-2 Recording/Playback frequency-response allowance range (CrO₂)

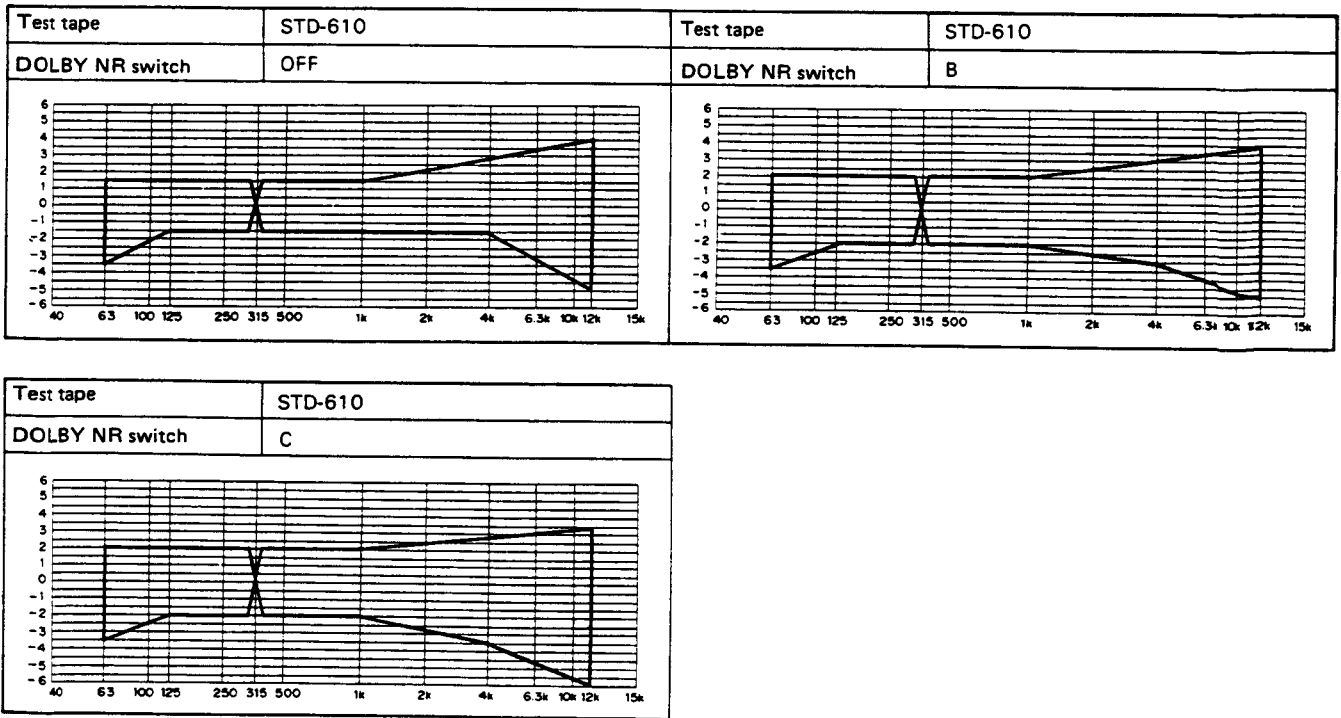


Fig. 7-7-3 Recording/Playback frequency-response allowance range (METAL)

7. RÉGLAGE

7.1 PROCEDURES DE RÉGLAGE

1. Réglage de la vitesse de défilement de la bande (effectuer le réglage de la vitesse double avant le réglage de la vitesse normale)			
Mode	Bande test	Points de réglage	Spécifications/valeurs (fréquence de lecture)
PLAY	Section 3 kHz de la bande STD-301 (Platine I)	VR253 (vitesse double) VR251 (vitesse normale)	Régler sur 6030 Hz (court-circuiter TP27 et TP29 après la lecture) Régler sur 3015 Hz (appuyer sur la touche PLAY)
	Section 3 kHz de la bande STD-301 (Platine II)	VR254 (vitesse double) VR252 (vitesse normale)	Régler sur 6030 Hz (court-circuiter TP28 et TP29 après la lecture) Régler sur 3015 Hz (appuyer sur la touche PLAY)
2. Réglage du parcours de la bande			
Mode	Points de réglage		Spécifications
FWD	Vis de réglage de l'azimuth lors de l'avance rapide		Lecture d'une tonalité de 10 kHz à -20 dB en utilisant la bande test STD-331.
REV	Vis de réglage de l'azimuth lors du rebobinage		Régler pour obtenir un niveau de sortie maximum sur les points test TP501 et TP502.
Mettre en place une cassette, soulever ensuite la bass de la tête avec le doigt de manière à ce que la bande entre en contact avec le guide de bande.			
STOP	Vis de réglage de hauteur (gauche et droit)		Vérifier visuellement que la bande se trouve au centre du guide de bande.
FWD PLAY	Vis de réglage de la hauteur lors de l'avance rapide		Régler le guide bande primaire de manière à ce que la bande n'ondule pas.
REV PLAY	Vis de réglage de la hauteur lors du rebobinage		

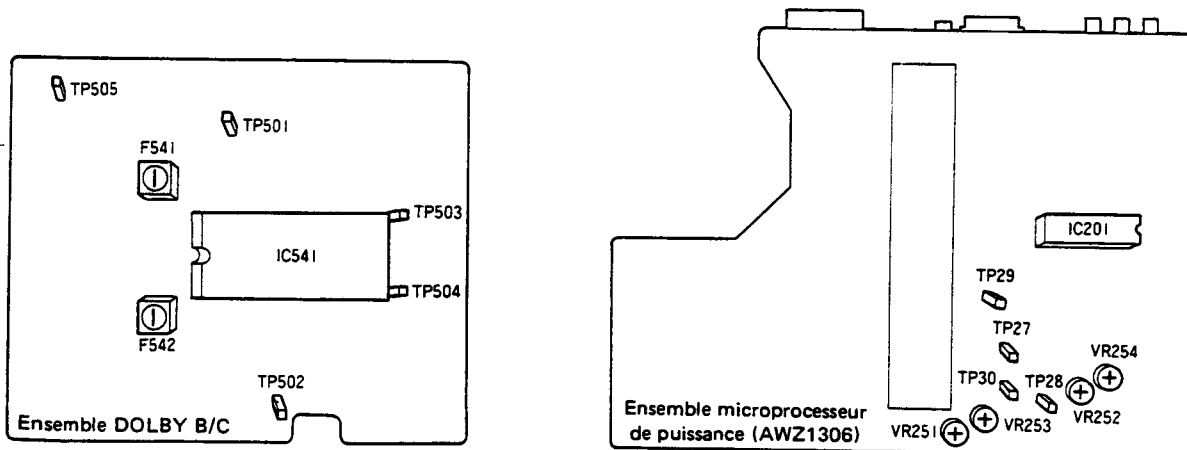


Fig. 7-1 Réglage de la vitesse de défilement de la bande

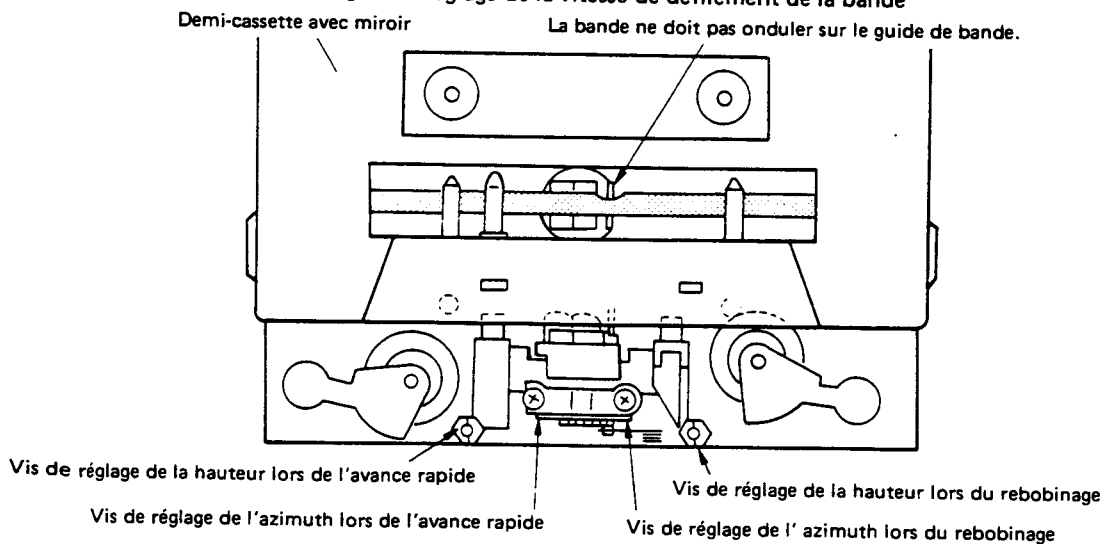


Fig. 7-2 Réglage du parcours de la bande

7.2 RÉGLAGES ELECTRIQUES

Conditions de réglage

1. Effectuer en premier lieu les réglages mécaniques.
2. Les têtes doivent être propres et démagnétisées.
3. La platine doit être sous tension depuis 2 à 3 minutes minimum avant de commencer les réglages électriques.
4. Il faut utiliser un signal de référence de 0 dB, 1V off.
5. Ne pas modifier la position du commutateur suivant, sauf mention contraire:
DOLBY NR: sur la position OFF

Bandes test

- STD-331B: Réglage de la lecture (se reporter à la Fig. 7-3)
 STD-608A: Bande vierge de type normal
 STD-620: Bande vierge de type chrome
 STD-610: Bande vierge de type métal

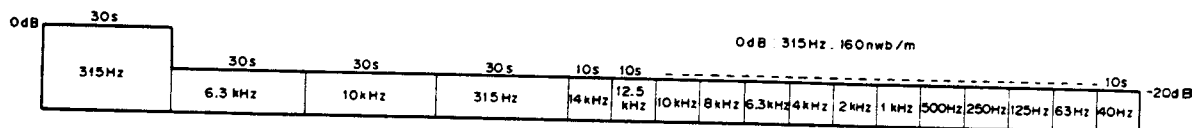
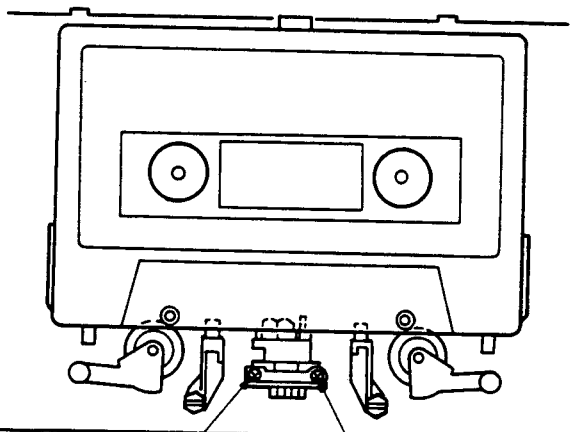


Fig. 7-3 Bande test STD-331B



Vis de réglage de l'azimuth lors de l'avance rapide Vis de réglage de l'azimuth lors du rebobinage

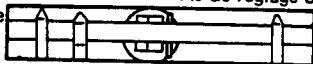


Fig. 7-4 Réglage de l'azimuth de la tête

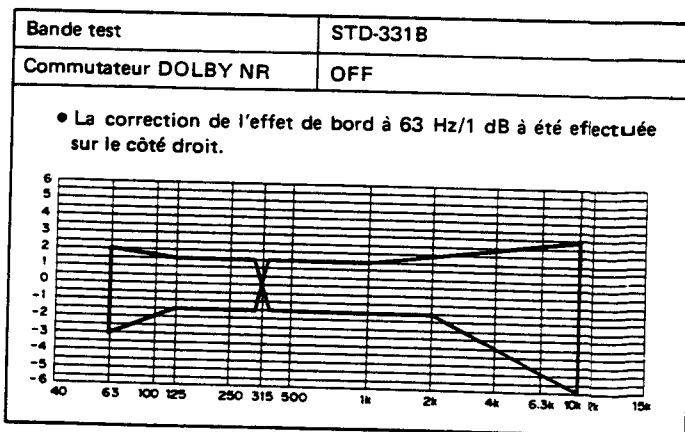


Fig. 7-5 Tolérance de la réponse en fréquence lors de la lecture

● **Réglage de la platine I** • Cet appareil est équipé d'un sélecteur automatique de type de bande.

1. Réglage de l'inclinaison de la tête

- Tourner VR301 et VR302 (résistances variables de réglage du niveau de lecture) à fond dans le sens des aiguilles d'une montre (position MAX.).

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test	Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	PLAY	10 kHz, -20 dB (lecture)/STD-331B	Vis de réglage de l'inclinaison de la tête (Fig. 7-4)	TP501 (L) TP502(R)	Niveau maximum du signal de lecture	Bloquer la vis après réglage.

2. Réglage du niveau de lecture

- Ce réglage agit sur le niveau de lecture Dolby et doit donc être effectué avec soin.

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test	Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	PLAY	315 kHz, 0 dB (lecture)/STD-331B	VR301 (L) VR302(R)	TP501 (L) TP502(R)	-10,2dBV (309mV)	

3. Réglage de la fréquence d'enregistrement/lecture

- Ce réglage agit sur la polarisation pour enregistrement et doit donc être effectué avec soin pour éviter la distorsion provoquée lors du fonctionnement avec polarisation trop faible.

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test	Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	REC	315 kHz sur la prise VIDEO	1 Niveau du signal d'entrée	TP501 (L) TP502(R)	-30,2dBV (31mV)	Placer la résistance ajustable de réglage du niveau d'enregistrement en position médiane.
NORM	REC/PLAY	315 Hz (enregistrement) et 10 kHz (lecture)/STD-608A	2 VR309 (L) VR310(R)	TP501 (L) TP502(R)		Enregistrer et effectuer la lecture de façon répétée, en faisant des corrections de manière à ce que le niveau de lecture soit de $0 \pm 0,5$ dB à 10 kHz correspondant au signal de 315 Hz enregistré.

- Les courbes de fréquence de la Fig. 7-7 doivent être atteintes pour chaque combinaison de bande test/position du commutateur DOLBY NR.

4. Réglage du niveau d'enregistrement

Sélecteur de type de bande	Mode	Signal d'entrés/ bande test	Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	REC	315 kHz sur la prise VIDEO	1 Niveau du signal d'entrée	TP501 (L) TP502(R)	-10,2dBV (309mV)	
NORM	REC/PLAY	315 Hz (enregistrement & lecture)/STD-608A	2 VR305 (L) VR306(R)	TP501 (L) TP502(R)		Enregistrer et effectuer la lecture de façon répétée, en effectuant des corrections de manière à ce que le niveau de lecture soit de -10,2dBV (309mV) pour le signal 315 Hz.
METAL	REC/PLAY	315 Hz (enregistrement & lecture)/STD610	3	TP501 (L) TP502(R)		Vérifier que le niveau de lecture du signal de 315 Hz est de -10,2 dBV b 2 dB.

● **Réglage de la platine II** • Cet appareil est équipé d'un sélecteur automatique de type de bande.

1. Réglage de l'inclinaison de la tête

- Tourner VR303 et VR304 (résistances variables de réglage du niveau de lecture) à fond dans le sens des aiguilles d'une montre (position MAX.).

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test	Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	PLAY	10 kHz, -20 dB (lecture)/STD-331B	Vis de réglage de l'inclinaison de la tête (Fig. 7-4)	TP501 (L) TP502(R)	Niveau maximum du signal de lecture	Bloquer la vis après réglage.

2. Réglage du niveau de lecture

- Ce réglage agit sur le niveau de lecture Dolby et doit donc être effectué avec soin.

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test	Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	PLAY	315 kHz, 0 dB (lecture)/STD-331B	VR303 (L) VR304(R)	TP501 (L) TP502(R)	-10,2dBV (309mV)	

3. Réglage de la fréquence d'enregistrement/lecture

• Ce réglage agit sur la polarisation pour enregistrement et doit donc être effectué avec soin pour éviter la distorsion provoquée lors du fonctionnement avec polarisation trop faible.

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test	Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	REC	315 kHz sur la prise VIDEO	1	Niveau du signal d'entrée	TP501 (L) TP502(R)	-30,2dBV (31mV) Placer la résistance ajustable de réglage du niveau d'enregistrement en position médiane.
NORM	REC/PLAY	315 Hz (enregistrement) et 10 kHz (lecture)/ STD-608A	2	VR311 (L) VR312(R)	TP501 (L) TP502(R)	Enregistrer et effectuer la lecture de façon répétée, en faisant des corrections de manière à ce que le niveau de lecture soit de $0 \pm 0,5$ dB à 10 kHz correspondant au signal de 315 Hz enregistré.

• Les courbes de fréquence de la Fig. 7-7 doivent être atteintes pour chaque combinaison de bande test/position du commutateur DOLBY NR.

4. Réglage du niveau d'enregistrement

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test	Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	REC	315 kHz sur la prise VIDEO	1	Niveau de signal d'entrée	TP501 (L) TP502(R)	-10,2dBV (309mV)
NORM	REC/PLAY	315 Hz (enregistrement & lecture)/STD-608A	2	VR307 (L) VR308(R)	TP501 (L) TP502(R)	Enregistrer et effectuer la lecture de façon répétée, en effectuant des corrections de manière à ce que le niveau de lecture soit de -10,2dBV (309mV) pour le signal 315 Hz.
METAL	REC/PLAY	315 Hz (enregistrement & lecture)/STD-610	3		TP501 (L) TP502(R)	Vérifier que le niveau de lecture du signal de 315 Hz est de -10,2 dBV ± 2 dB.

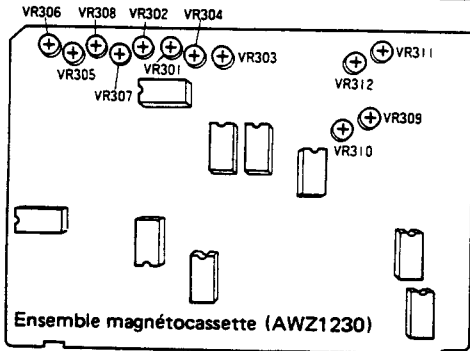


Fig. 7-6 Réglage de la platine I, platine II

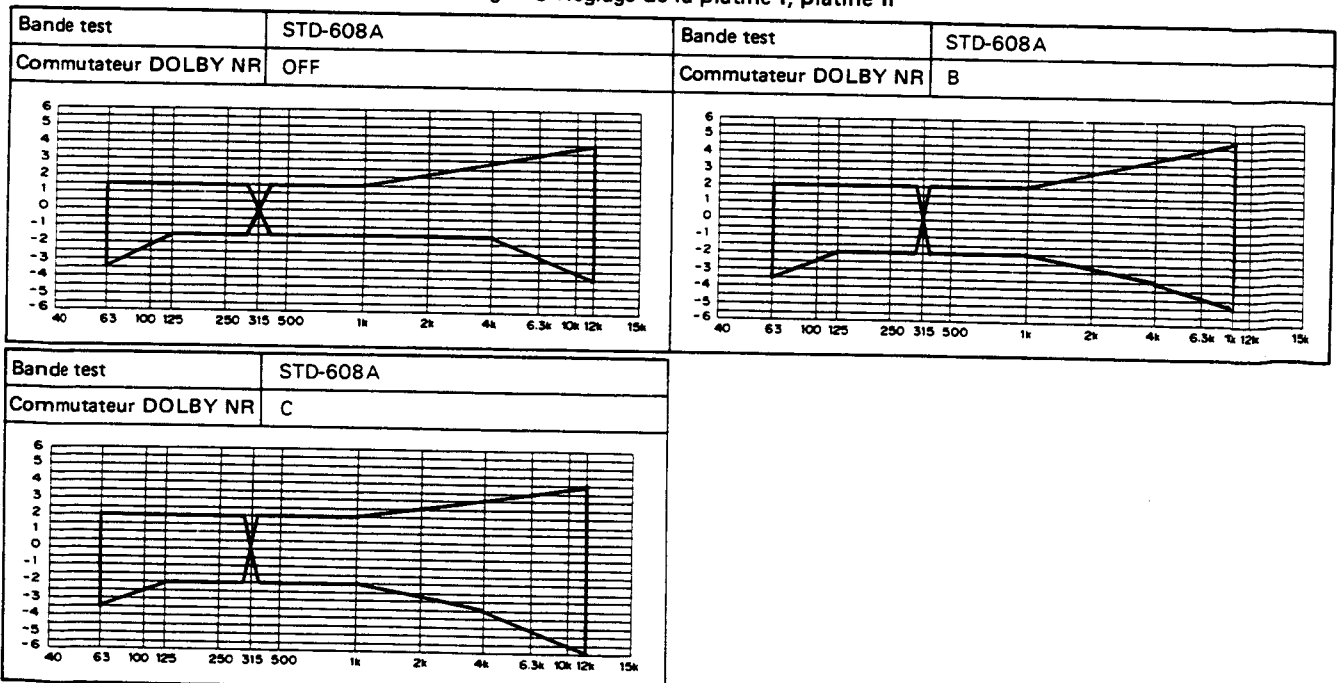


Fig. 7-7-1 Tolérance de la réponse en fréquence d'enregistrement/lecture (NORM)

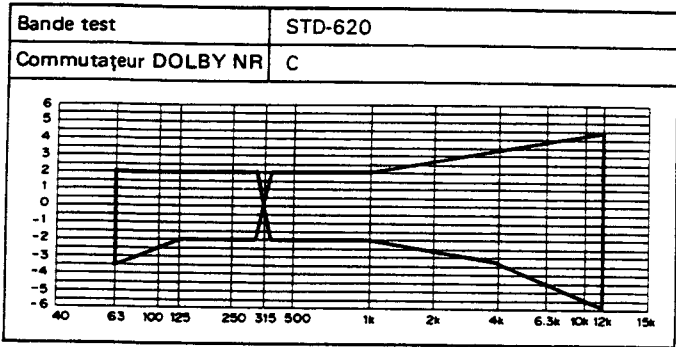
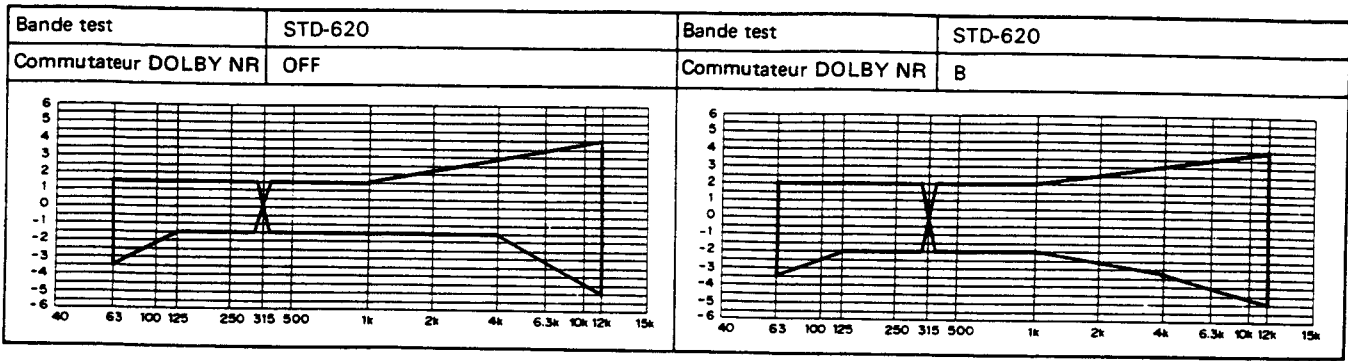


Fig. 7-7-2 Tolérance de la réponse en fréquence d'enregistrement/lecture (CrO₂)

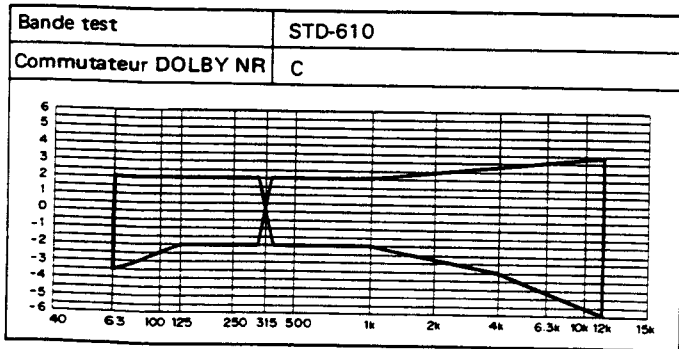
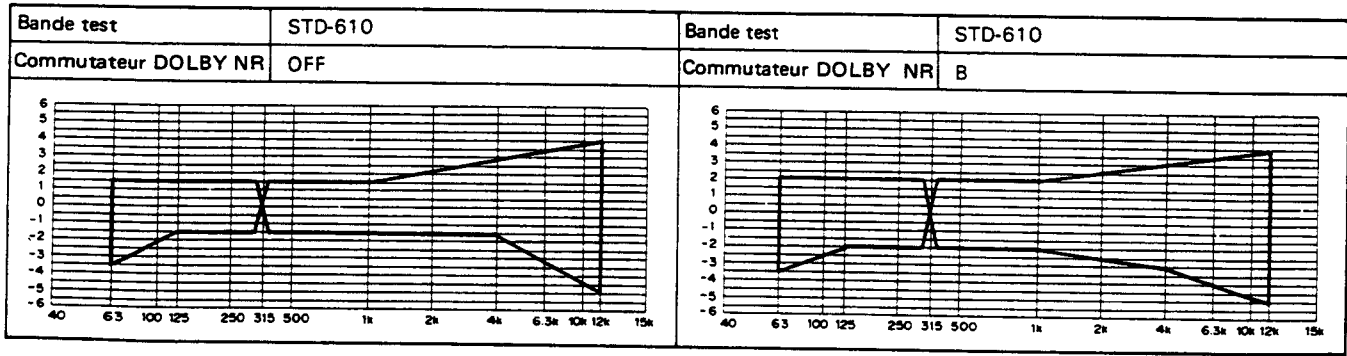


Fig. 7-7-3 Tolérance de la réponse en fréquence d'enregistrement/lecture (METAL)

7. AJUSTE

7.1 PROCEDIMIENTOS DE AJUSTE

1. Ajuste de velocidad de cinta (realizar el ajuste de velocidad doble antes que el de velocidad normal)			
Modo	Cinta de prueba	Puntos de ajuste	Especificaciones/Valores nominales (frecuencia de reproducción)
PLAY	Sección de 3kHz del STD-301 (platina I)	VR253 (velocidad doble) VR251 (velocidad normal)	Ajustar a 6030 Hz (cortocircuitar TP27 y TP29 después de la reproducción). Ajustar a 3015 Hz (presionar el interruptor PLAY)
	Sección de 3kHz del STD-301 (platina II)	VR254 (velocidad doble) VR252 (velocidad normal)	Ajustar a 6030 Hz (cortocircuitar TP28 y TP29 después de la reproducción). Ajustar a 3015 Hz (presionar el interruptor PLAY)
2. Ajuste del recorrido de la cinta			
Modo	Puntos de ajuste		Especificaciones
FWD REV	Tornillo de ajuste de azimuth de FWD Tornillo de ajuste de azimuth de REV		Reproducción de 10kHz, -20dB con cinta de prueba STD-331. Ajustar a máxima salida de señal en los puntos de prueba TP501 y TP502.
Insertar el cassette y levantar la base de cabeza con el dedo de modo que la cinta toque la guía de cinta.			
STOP	Tornillos de ajuste de altura (izquierdo y derecho)		Verificar visualmente si la cinta está sobre la guía de cinta.
FWD PLAY	Tornillo de ajuste de altura de FWD		Ajustar la guía primaria de modo que en la cinta no se forme rizo.
REV PLAY	Tornillo de ajuste de altura de REV		

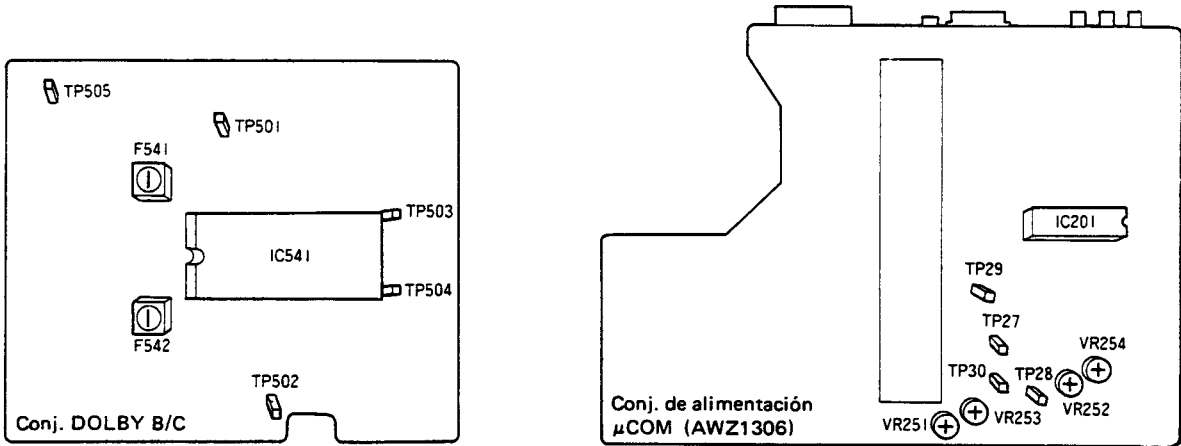


Fig. 7-1 Ajuste de velocidad de cinta

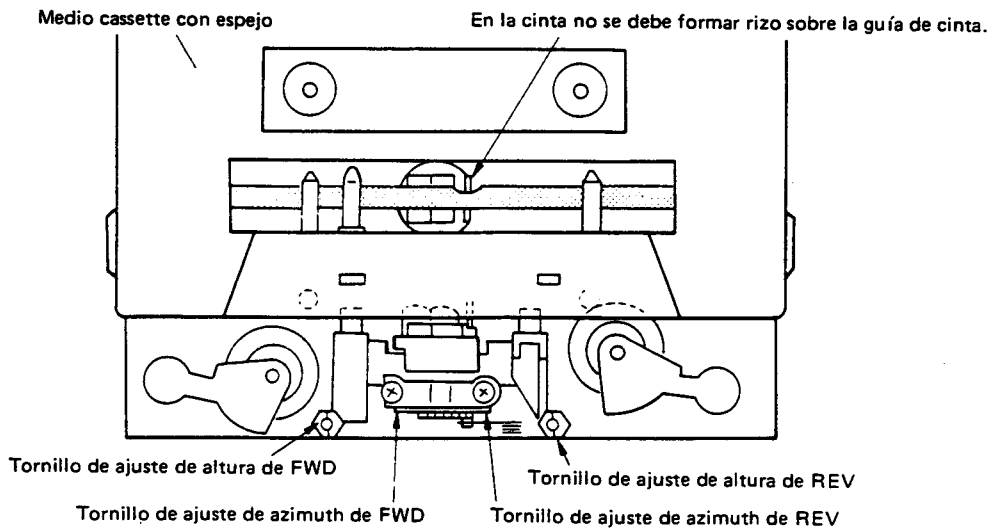


Fig. 7-2 Ajust del recorrido de la cinta

7.2 AJUSTE ELECTRICO

Condiciones de ajuste

1. El ajuste del mecanismo debe finalizarse primero.
2. Las cabezas debe estar limpias y desmagnetizadas.
3. El magnetófono debe envejecerse por al menos 2-3 minutos antes de comenzar el ajuste eléctrico.
4. Debe emplearse una señal de referencia de 0 dB, 1 Vrms.
5. La siguiente posición de conmutador no debe cambiarse, excepto cuando se indique lo contrario:
DOLBY NR: OFF

Cintas de prueba

- STD-331B: Ajuste de reproducción (ver Fig. 7-3)
 STD-608A: Cinta virgen normal
 STD-620: Cinta virgen de CrO₂
 STD-610: Cinta virgen de metal

Magnetófono I

1. Ajuste del ángulo de cabeza
2. Ajuste del nivel de reproducción
3. Ajuste de característica de frecuencia de grabación/reproducción
4. Ajuste de nivel de grabación

Magnetófono II

1. Ajuste del ángulo de cabeza
2. Ajuste del nivel de reproducción
3. Ajuste de característica de frecuencia de grabación/reproducción
4. Ajuste de nivel de grabación

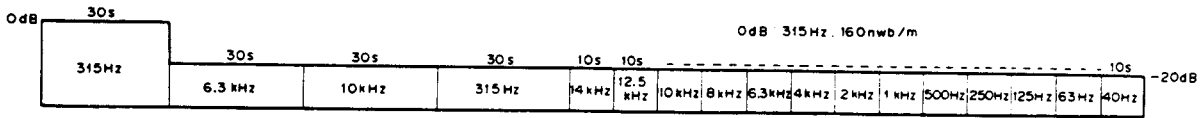


Fig. 7-3 Cinta de prueba STD-331B

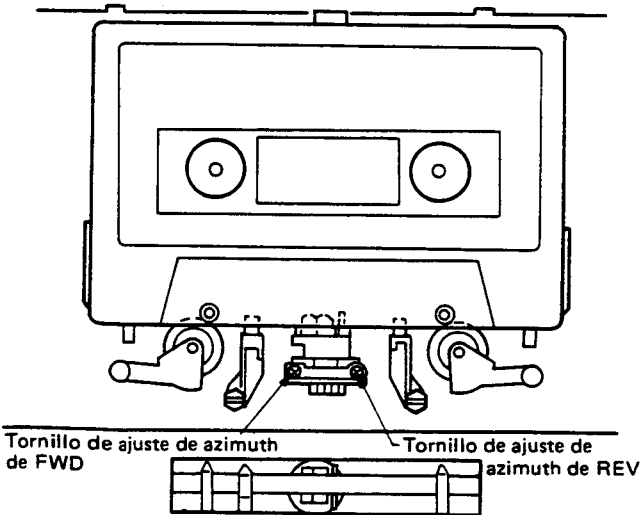


Fig. 7-4 Ajuste de azimuth de cabeza

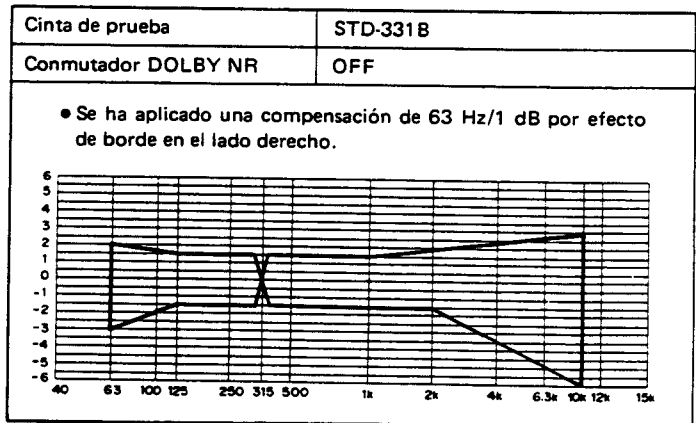


Fig. 7-5 Margen permisible de respuesta de reproducción

● Ajuste de la platina I • Esta unidad está equipada con selector automático de cinta.							
1. Ajuste del ángulo de cabeza • Girar VR301 y VR302 (RVs do ajuste de nivel de reproducción) completamente en sentido horario (posición MAX).							
Selector de cinta	Modo	Señal de entrada/ cinta de prueba	Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios	
NORM	PLAY	10kHz, -20dB (reproducción)/STD-331B	Tornillo de ajuste del ángulo de cabeza (Fig. 7-4)	TP501 (L) TP502(R)	Máximo nivel de señal de reproducción	Fijar el tornillo después del ajuste.	
2. Ajuste del nivel de reproducción • Este ajuste determina el nivel Dolby de reproducción, por lo que debe realizarse cuidadosamente.							
Selector de cinta	Modo	Señal de entrada/ cinta de prueba	Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios	
NORM	PLAY	315Hz, 0dB (reproducción)/STD-331B	VR301 (L) VR302(R)	TP501 (L) TP502(R)	-10,2dBV (309mV)		
3. Ajuste de característica de frecuencia de grabación/reproducción • Este ajuste determina la polarización de grabación, por lo que debe cuidarse evitar el deterioro del factor de distorsión debido a polarización insuficiente.							
Selector de cinta	Modo	Señal de entrada/ cinta de prueba	Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios	
NORM	REC	Entrada de 315Hz al jack VIDEO.	1	Nivel de señal de entrada	TP501 (L) TP502(R)	-30,2dBV (31mV)	Colocar el RV de nivel de grabación en la posición central.
NORM	REC/PLAY	315Hz (grabación) y 10kHz (reproducción)/STD-608A	2	VR309 (L) VR310(R)	TP501 (L) TP502(R)	Grabar y reproducir repetidamente, efectuando correcciones hasta obtener un nivel de reproducción de 10kHz igual a 0±0,5 dB de la señal de 315 Hz.	
• Las curvas de respuesta de frecuencia mostradas en Fig. 7-7 deben cumplirse para cada combinación de cinta de prueba/posición del conmutador DOLBY NR.							
4. Ajuste de nivel de grabación							
Selector de cinta	Modo	Señal de entrada/ Cinta de prueba	Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios	
NORM	REC	Entrada de 315Hz al jack VIDEO.	1	Nivel de señal de entrada	TP501 (L) TP502(R)	-10,2dBV (309mV)	
NORM	REC/PLAY	315Hz (grabación y reproducción)/STD-608A	2	VR305 (L) VR306(R)	TP501 (L) TP502(R)	Grabar y reproducir repetidamente, efectuando correcciones hasta obtener un nivel de reproducción de -10,2 dBV (309mV) de la señal de 315 Hz.	
METAL	REC/PLAY	315Hz (grabación y reproducción)/STD-610	3		TP501 (L) TP502(R)	Confirmar que el nivel de reproducción de la señal de 315 Hz sea -10,2 dBV ±2 dB.	
● Ajuste de la platina II • Esta unidad está equipada con selector automático de cinta.							
1. Ajuste del ángulo de cabeza • Girar VR303 y VR304 (RVs de ajuste de nivel de reproducción) completamente en sentido horario (posición MAX).							
Selector de cinta	Modo	Señal de entrada/ cinta de prueba	Puntos de ajuste	Puntos de medición	Valor de medición	Comentarios	
NORM	PLAY	10kHz, -20dB (reproducción)/STD-331B	Tornillo de ajuste del ángulo de cabeza (Fig. 7-4)	TP501 (L) TP502(R)	Máximo nivel de señal de reproducción	Fijar el tornillo después del ajuste.	
2. Ajuste del nivel de reproducción • Este ajuste determina el nivel Dolby de reproducción, por lo que debe realizarse cuidadosamente.							
Selector de cinta	Modo	Señal de entrada/ cinta de prueba	Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios	
NORM	PLAY	315Hz, 0dB (reproducción)/STD-331B	VR303 (L) VR304(R)	TP501 (L) TP502(R)	-10,2dBV (309mV)		
3. Ajuste de característica de frecuencia de grabación/reproducción • Este ajuste determina la polarización de grabación, por lo que debe cuidarse evitar el deterioro del factor de distorsión debido a polarización insuficiente.							
Selector de cinta	Modo	Señal de entrada/ cinta de prueba	Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios	
NORM	REC	Entrada de 315Hz al jack VIDEO.	1	Nivel de señal de entrada	TP501 (L) TP502(R)	-30,2dBV (31mV)	Coloca el RV de nivel de grabación en la posición central.
NORM	REC/PLAY	315Hz (grabación) y 10kHz (reproducción)/STD-608A	2	VR311 (L) VR312(R)	TP501 (L) TP502(R)	Grabar y reproducir repetidamente, efectuando correcciones hasta obtener un nivel de reproducción de 10 kHz igual a 0±0,5 dB de la señal de 315 Hz.	
• Las curvas de respuesta de frecuencia mostradas en Fig. 7-7 deben cumplirse para cada combinación de cinta de prueba/posición del conmutador DOLBY NR.							

4. Ajuste de nivel de grabación							
Selector de cinta	Modo	Señal de entrada/ Cinta de prueba		Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios
NORM	REC	Entrada de 315Hz al jack VIDEO.	1	Nivel de señal de entrada	TP501 (L) TP502(R)	-10,2dBV (309mV)	
NORM	REC/PLAY	315Hz (grabación y reproducción)/ STD-608A	2	VR307 (L) VR308(R)	TP501 (L) TP502(R)	Grabar y reproducir repetidamente, efectuando correcciones hasta obtener un nivel de reproducción de -10,2 dBV (309mV) de la señal de 315 Hz.	
METAL	REC/PLAY	315Hz (grabación y reproducción)/STD-610	3		TP501 (L) TP502(R)	Confirmar que el nivel de reproducción de la señal de 315 Hz sea -10,2 dBV ±2 dB.	

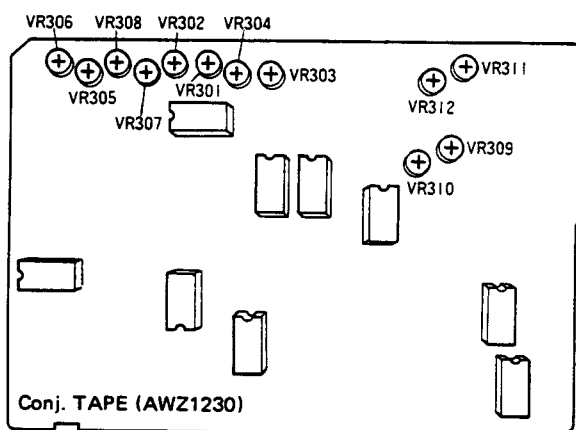


Fig. 7-6 Ajuste de las platinas I y II

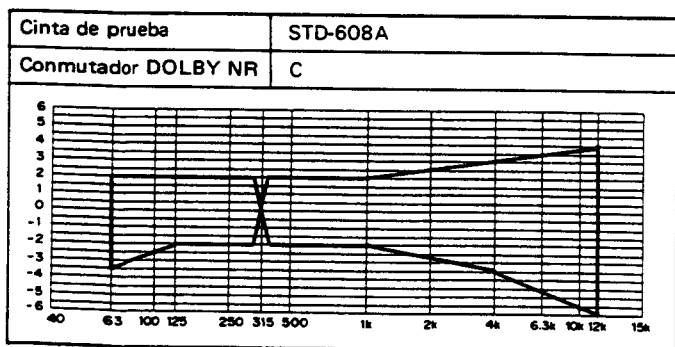
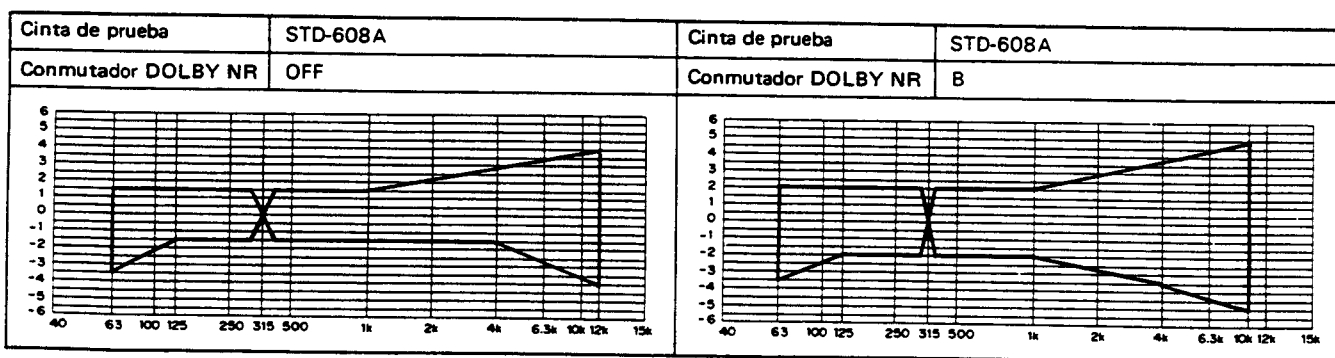


Fig. 7-7-1 Margenes permisibles de respuesta de frecuencia de grabación/reproducción (NORM)

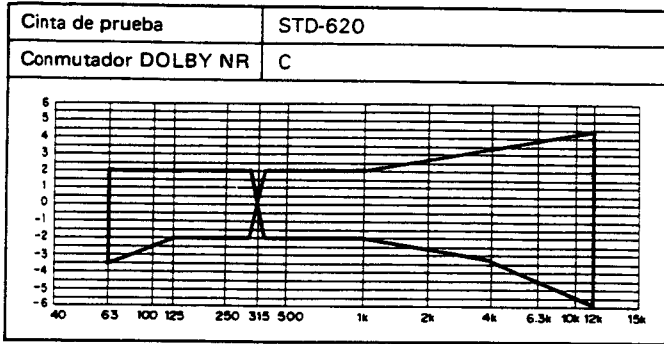
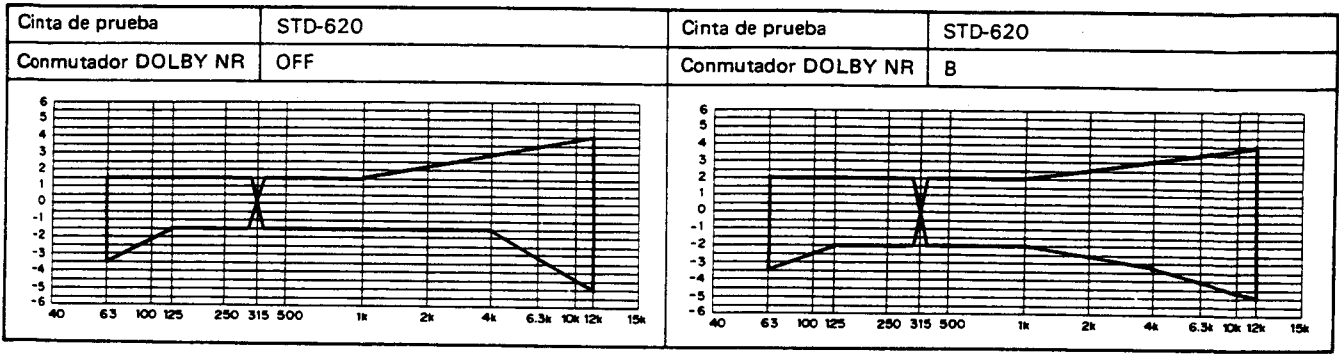


Fig. 7-7-2 Margenes permisibles de respuesta de frecuencia de grabación/reproducción (CrO₂)

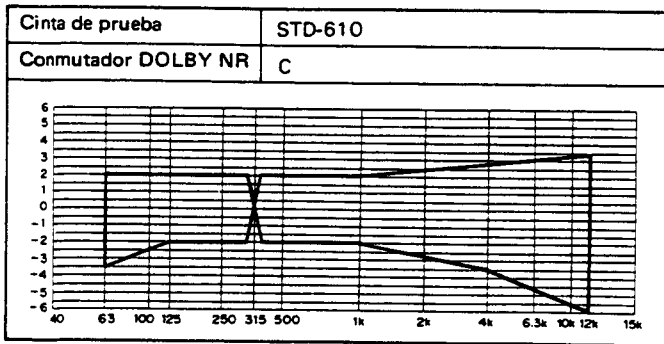
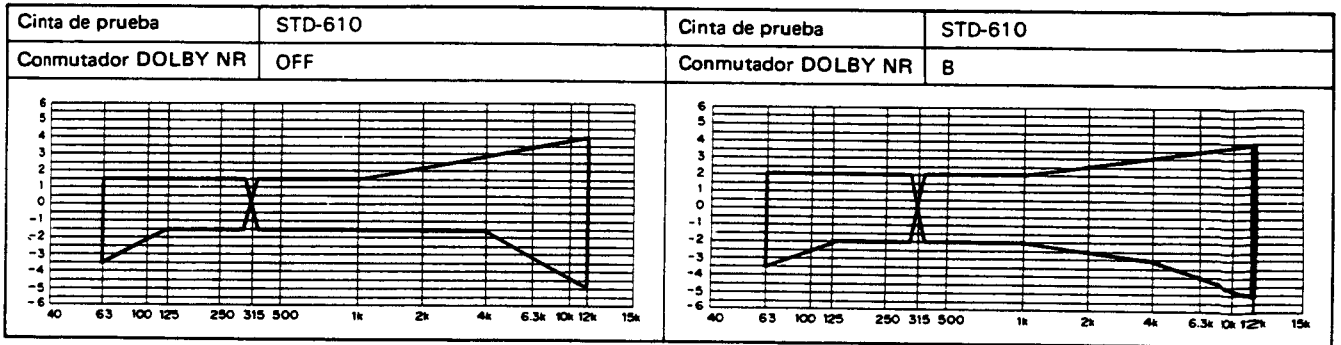


Fig. 7-7-3 Margenes permisibles de respuesta de frecuencia de grabación/reproducción (METAL)