

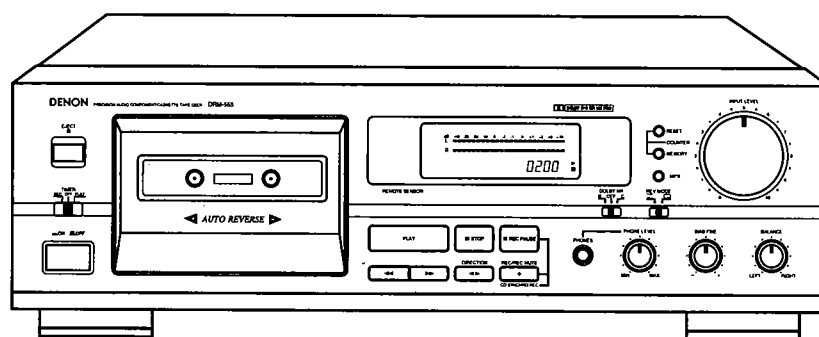
# DENON

Hi-Fi Component

## SERVICE MANUAL

# MODEL DRM-555

### STEREO CASSETTE TAPE DECK



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● Some illustrations using in this service manual are slightly different from the actual set.

## NIPPON COLUMBIA CO., LTD.

## SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

### LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

## SPECIFICATIONS

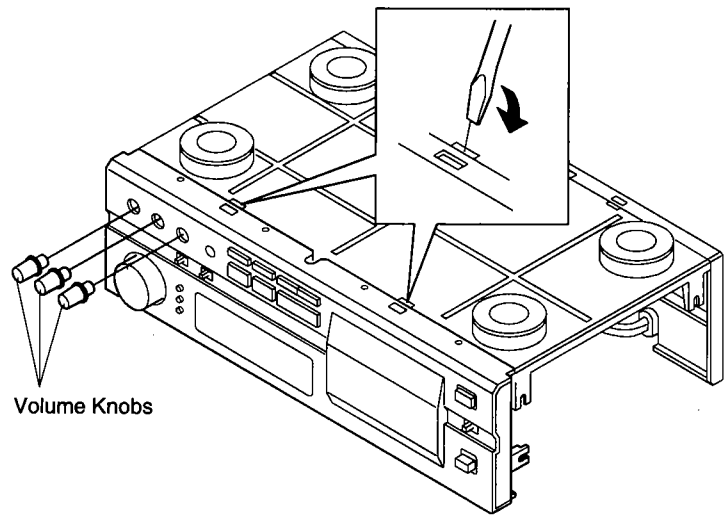
<b>Type:</b>	Vertical tape loading; 4-track 2-channel stereo cassette tape deck
<b>Heads:</b>	Play back head x 1 recording/playback head x 1 Erase head (Double-gap ferrite) x 1
<b>Motors:</b>	DC servo motor x 1
<b>Tape speed:</b>	4.8 cm/sec.
<b>Fast Forward, Rewind Time:</b>	Approx. 110 sec. with a C-60 cassette
<b>Recording Bias:</b>	Approx. 105 kHz
<b>Overall S/N Ratio (at 3% THD level):</b>	Dolby C NR on: more than 74 dB (CCIR/ARM)
<b>Overall Frequency Response:</b>	20~17,000 Hz $\pm 3$ dB (at -20 dB, Metal tape)
<b>Channel Separation:</b>	More than 40 dB (at 1 kHz)
<b>Wow &amp; Flutter:</b>	0.08 % WRMS, $\pm 0.14$ % w. peak
<b>Inputs</b>	
<b>LINE:</b>	80 mV (-20 dBm) input level at maximum Input impedance: 50 k $\Omega$ /kohms unbalanced
<b>Outputs</b>	
<b>LINE:</b>	775 mV (0 dB) output level at maximum (with 47 k $\Omega$ /kohms load, recorded level of 200 pwb/mm)
<b>PHONES:</b>	1.2 mW output level at maximum (optimum load impedance 8 $\Omega$ /ohms~1.2k $\Omega$ /kohms)
<b>Power supply:</b>	AC 120 V, 60 Hz (U.S.A. & Canada models) AC 230 V, 50 Hz (Europe, U.K. & Asia models)
<b>Power Consumption:</b>	12 W
<b>Dimensions:</b>	434 (W) x 135 (H) x 270 (D) mm
<b>Weight:</b>	3.6 kg

# DISASSEMBLY

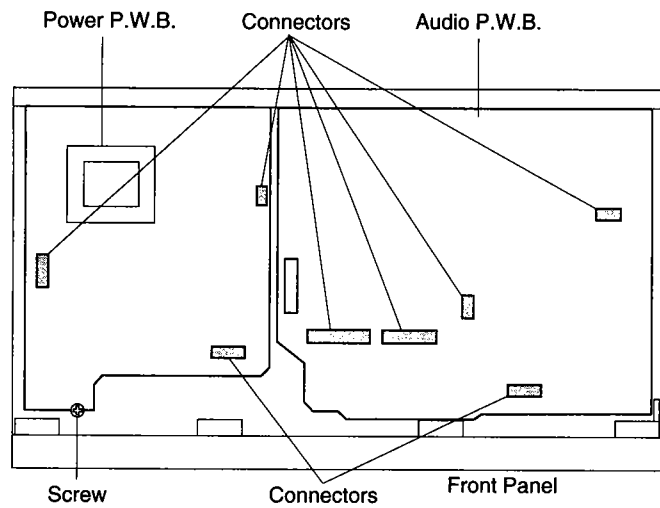
(Follow the procedure below in reverse order when reassembling)

## 1. Front Panel

- (1) Take off the Top Cover after removing 6 screws.
- (2) Remove 1 screw on the Power P.W.B.
- (3) Disconnect all lead connectors coupling from Front Panel to Audio and Power P.W.B.
- (4) Remove 3 Volume Knobs.
- (5) Release 2 hooks on the bottom edge of the Front Panel, and detach it.

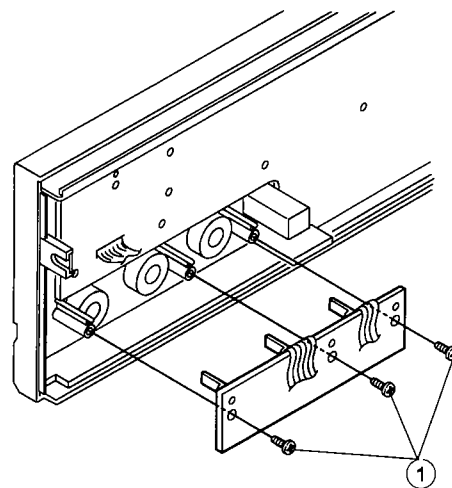


Volume Knobs



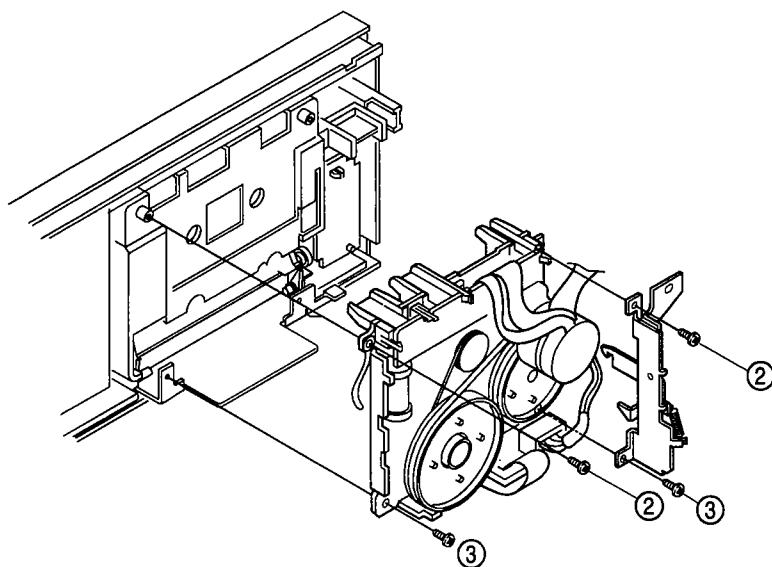
## 2. H/P VR P.W.B.

Remove 3 screws ①.



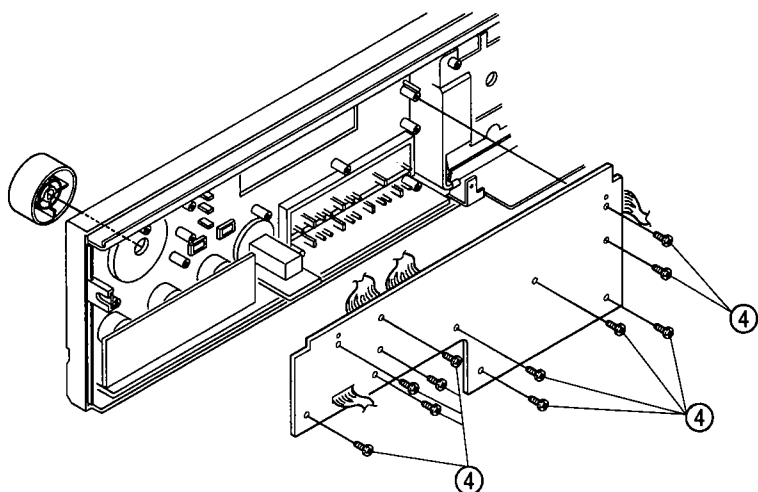
### 3. Cassette Mecha. Ass'y

Remove 2 screws ② and 2 screws ③.



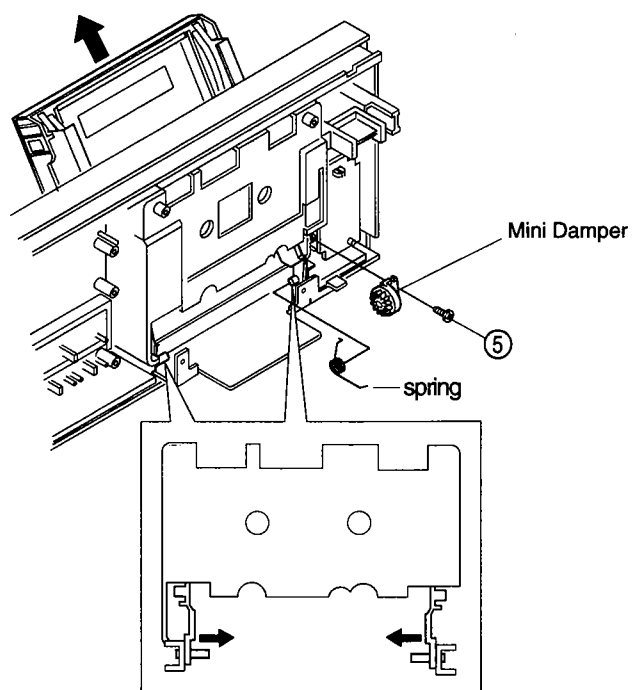
### 4. Display P.W.B.

Remove 11 screws ④.



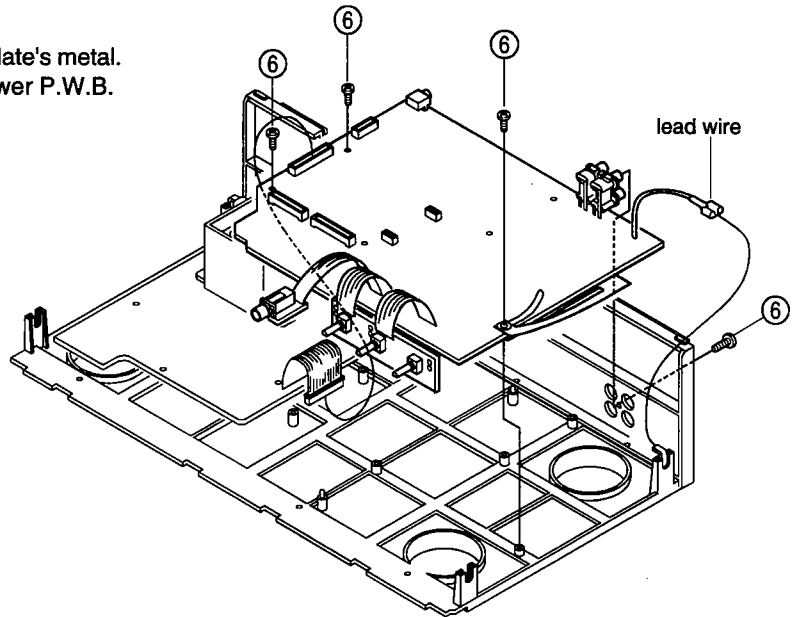
### 5. Cassette Door

- (1) Take off Mini Damper by removing 1 screw ⑤.
- (2) Detach the Cassette Door and spring with pressing the shaft on both sides inward.



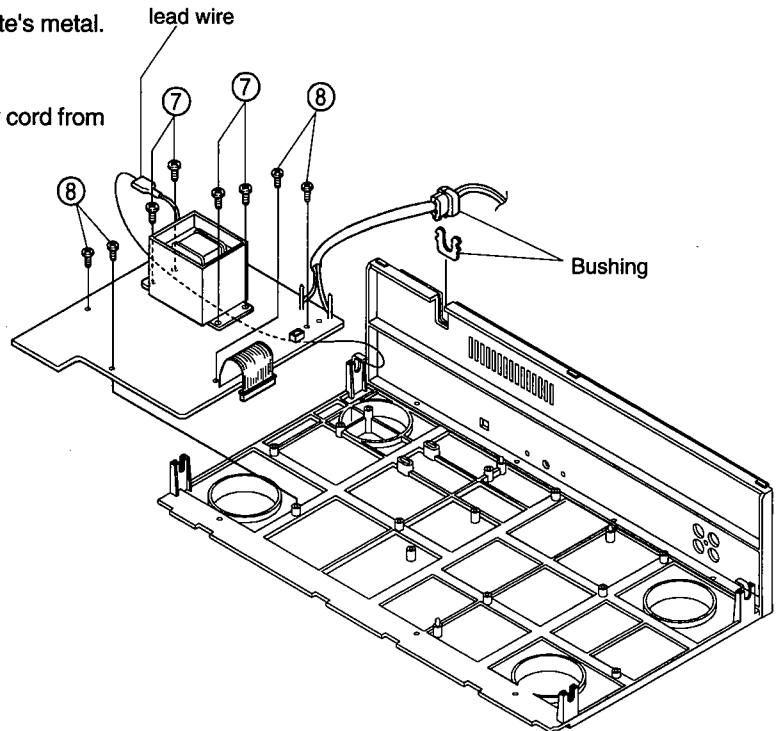
**6. Audio P.W.B.**

- (1) Disconnect lead wire coupling with Bottom Plate's metal.
- (2) Disconnect lead connector coming from Power P.W.B.
- (3) Remove 4 screws ⑥.



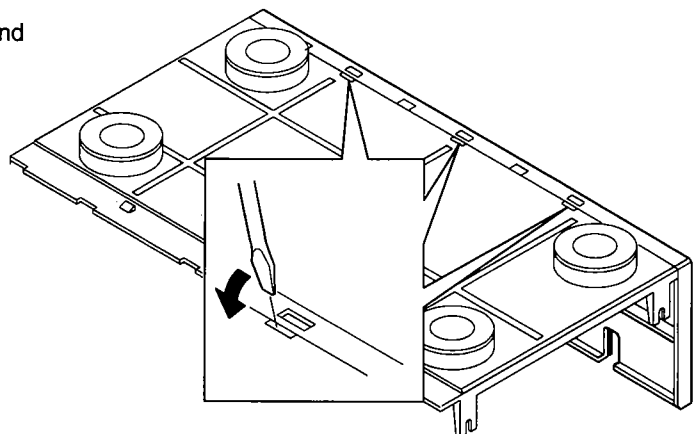
**7. Power P.W.B.**

- (1) Disconnect lead wire coupling with Bottom Plate's metal.
- (2) Remove 4 screws ⑦ fixing Power Trans.
- (3) Remove 4 screws ⑧.
- (4) Remove the bushing that is fixing power supply cord from rear panel.



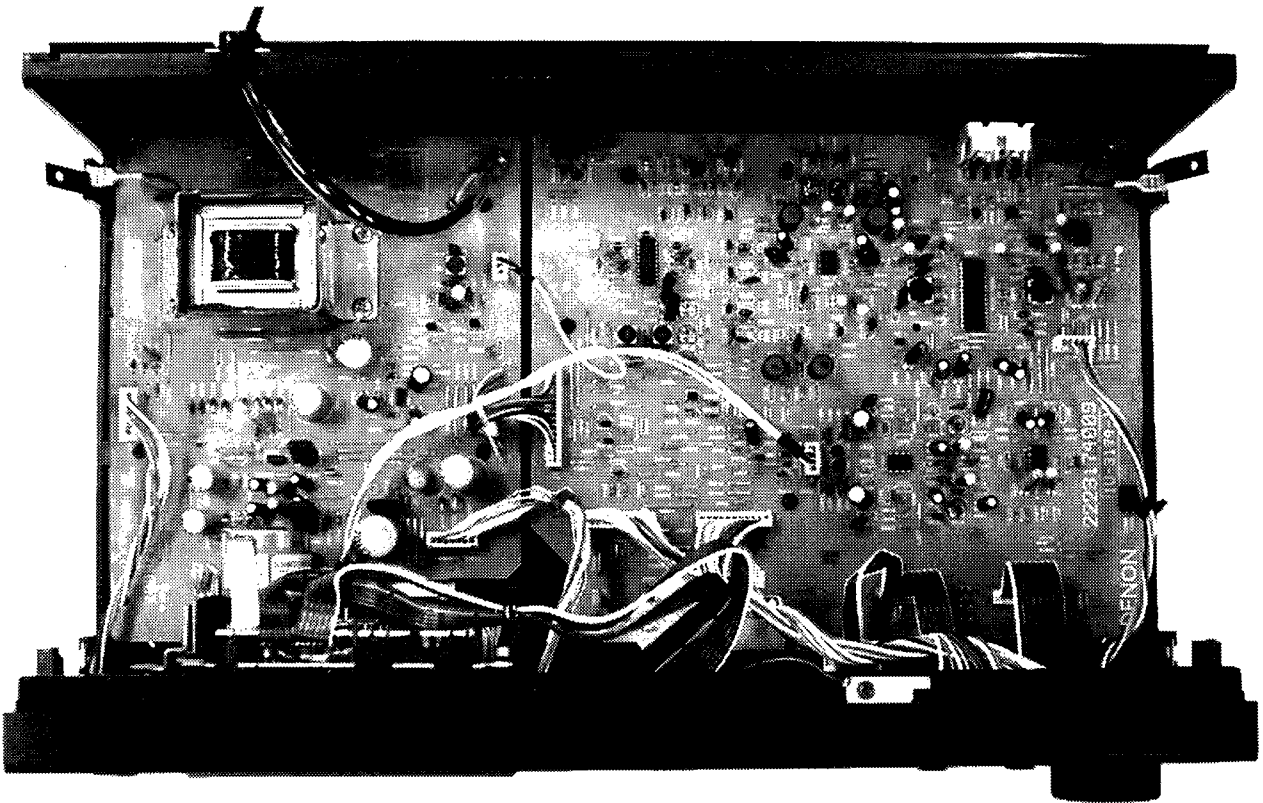
**8. Rear Panel**

Remove 3 hooks on the bottom edge of the Rear Panel, and detach it.



## BUNDLE DIAGRAM

In case of wires require unclasping or loosening to move the location to perform adjustment or part replacement, be sure to rearrange them neatly to restore properly in the same location as they were originally placed, or causing to produce a noise may occasionally occur.



## ALIGNMENT AND ADJUSTMENT

### 1. Replacing the Pinch Roller

Before replacing the pinch roller, clean the tape contact surface of the pinch roller and the capstan shaft.

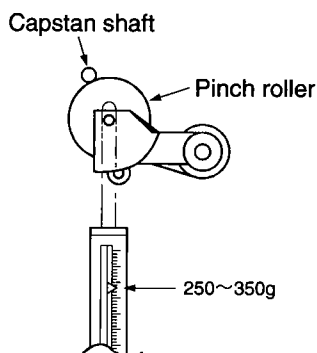
Most causes of poor tape transport can be traced to dirty pinch roller and capstan shaft.

Remove the clips that press the pinch roller and pull the pinch roller forward to remove it.

After replacing, run a padless C-90 tape to check for tape curls at the tape guide section of the head.

### 2. Checking the Pressure Force of the Pinch Roller

In the playback mode, hook a spring weight onto the bracket at the center of the pinch roller. After separating the pinch roller from the capstan shaft, allow the pinch roller to contact the capstan shaft again. Check to make sure the spring weight reads between 250~350 g when the pinch roller starts to rotate. Replace the pinch roller when it does not conform to the standard specification values.



### 5. Checking the FF and REW Torques

Load the cassette type torque meter (SONY TW2231). Check to make sure the torque meter indicates within 80~170 g-cm at the end of FF and REW.

### 6. Checking the Back Tension Torque During Record/Playback

Load the cassette type torque meter (SONY TW2111); check to make sure the torque meter reads between 2~6 g-cm during playback and that there is no unevenness.

If it is not within this range, replace the reel ass'y or Washer.

### 7. Checking the FF and REW Times

Load a C-60 cassette type (DENON GR-2/60); check to make sure the tape is fast forwarded or rewound within 120 seconds.

If it is not within this range, check sections 5 and 6.

### 8. Checking the Existence of a Cassette Housing and Operation of the Erase Prevention, Metal and Chrome Switch

Confirm that the sensor arm properly detecting the tape type detection holes on the cassette housing.

### 3. Replacing the Record/Playback Head

(1) How to remove the R/P HEAD.

- 1) Remove securing screw and azimuth adjusting screw from the record/playback head.
- 2) Remove the soldered head wire and disassemble the mechanical unit to remove the record/playback head.

(2) How to assemble the R/P HEAD.

Reverse the above (1) procedures for removing the R/P HEAD.

\*Solder the HEAD WIRE according to the diagram.

### 4. Checking the Take-up Torque

Load the cassette type torque meter (SONY TW2111).

Check to make sure that the average torque meter reading is within 30-70 g-cm during playback.

## ADJUSTING THE ELECTRICAL SECTIONS

### Measuring instruments necessary for adjustments

- (1) Audio signal generator
- (2) Variable resistance attenuator
- (3) Electronic voltmeter
- (4) Oscilloscope
- (5) Frequency counter
- (6) Adjustment screwdriver
- (7) Trap coil adjustment square stick
- (8) Test tapes (SONY TY-224)  
(A-BEX TCC-130, TCC-153, TCC-262B/162B)  
(TDK-AC-514 (TYPE II))
- (9) Transport Check cassette tape (A-BEX TCC-902)
- (10) Lead line with alligator clip

### Caution on adjusting

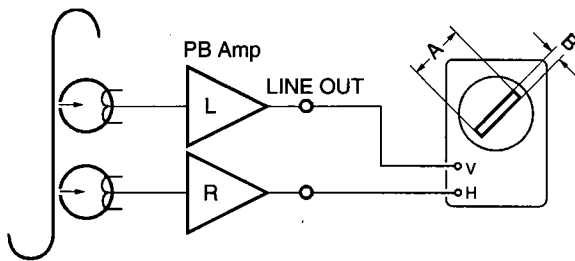
- (1) Before adjusting, clean the head surface, capstan and the pinch roller with a gauze or a cotton swab moistened with alcohol.
- (2) Demagnetize the R/P HEAD and the E. HEAD with a head eraser.
- (3) Completely demagnetize the adjustment screwdriver.
- (4) Unless instructed otherwise, set the various controls as follows:
  - INPUT volume ..... maximum
  - DOLBY NR switch ..... OFF
  - BIAS volume ..... Center click position

### 1. Tape Transport Check

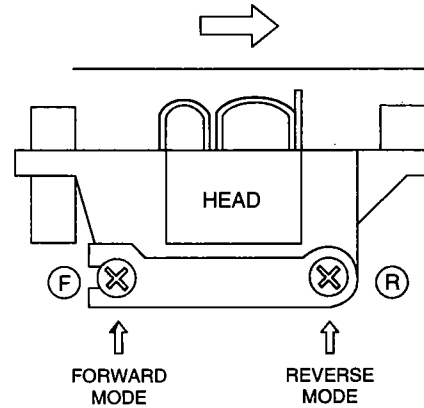
Load the transport check cassette. In the operational mode, illuminate the fixing guides of the R/P HEAD with a lamp and check to make sure the tape edge does not come in contact with the tape guide section. The tape transport is the most important element in determining the performance of a cassette deck. Avoid moving the various adjustment screws, nuts, etc., as much as possible. Refer to the pages on "Adjusting and Checking the Mechanism Section" when replacing or adjusting the R/P HEAD.

### 2. Adjusting the Azimuth

- (1) After completing the tape transport check, load the test tape (A-BEX TCC-153).
- (2) Playback the test tape; adjust the azimuth screw so that section A of the Lissajous wave form is maximum and section B is minimum.

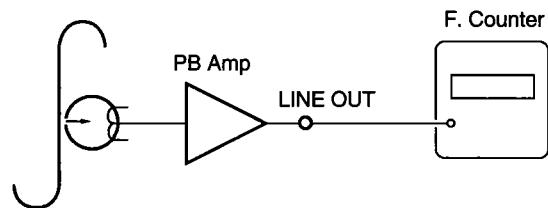


A-BEX TCC-153



### 3. Checking and Adjusting the Tape Speed

- (1) Connect the frequency counter to the LINE OUT terminal and load test tape (SONY TY-224).
- (2) Playback FWD side of the test tape. At about halfway through the tape, where the tape transport is stable, adjust the tape speed with adjusting screw on the motor so that the frequency counter will have a reading within the range of 3,000 Hz @ 10 Hz.
- (3) Check REV side also that the counter reading indicates within 2955~3045 Hz.  
Note: Adjust within 30 seconds, after pre-heating (Play) or 20 min, or more.



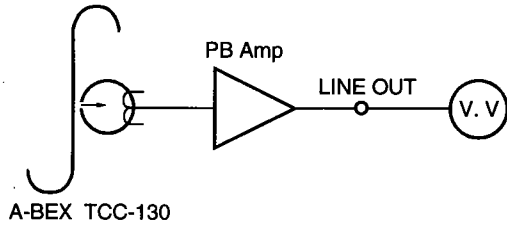
SONY TY-224



### 4. Adjusting the Playback Section

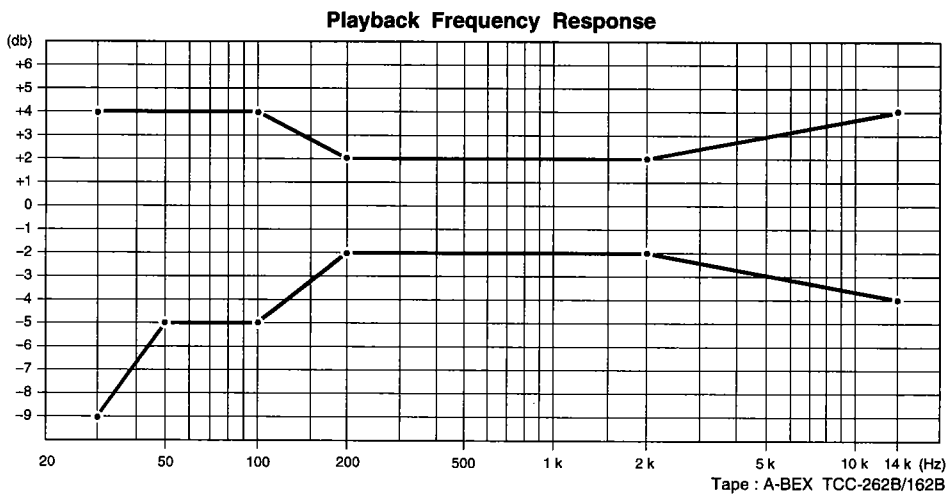
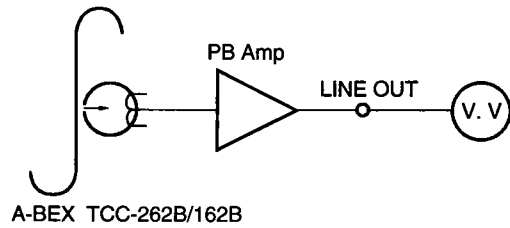
(1) Adjusting the playback level

Playback the Dolby standard level test tape (A-BEX TCC-130) and adjust RT-101 (Lch), RT-201 (Rch) so that the LINE OUT voltage becomes 0 dB (775 mV).



(2) Adjusting the playback frequency response

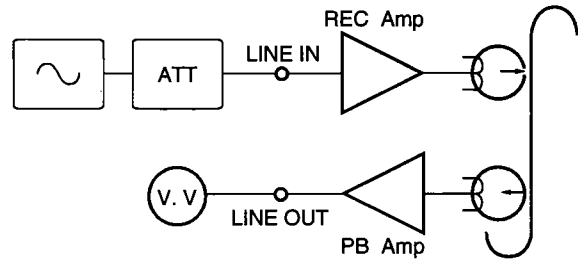
Playback the test tape (A-BEX TCC-262B/162B) and check to make sure that the frequency response meets the specifications in the diagram.



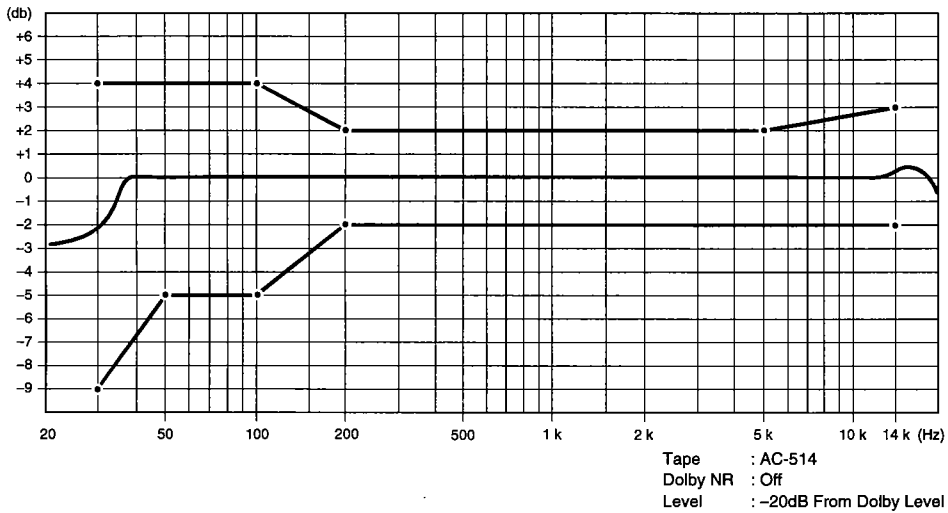
## 5. Adjusting the Recording Section

(1) Adjusting the record/playback overall frequency response.  
(CrO<sub>2</sub>)

- 1) Load the test tape AC-514, record a signal with an input level of -40 dB, 1 kHz at the LINE IN terminal; playback this recording.
- 2) Change the frequency of the input signal to 10 kHz, record and playback; adjust RT-105 (Lch), RT-205 (Rch) so that the characteristic standards meet the following diagram when compared to the 1 kHz signal output level.  
(The other TAPE POSITIONS will automatically be adjusted by finishing of the foregoing adjustments.)



**Record/Playback Overall Frequency Response**



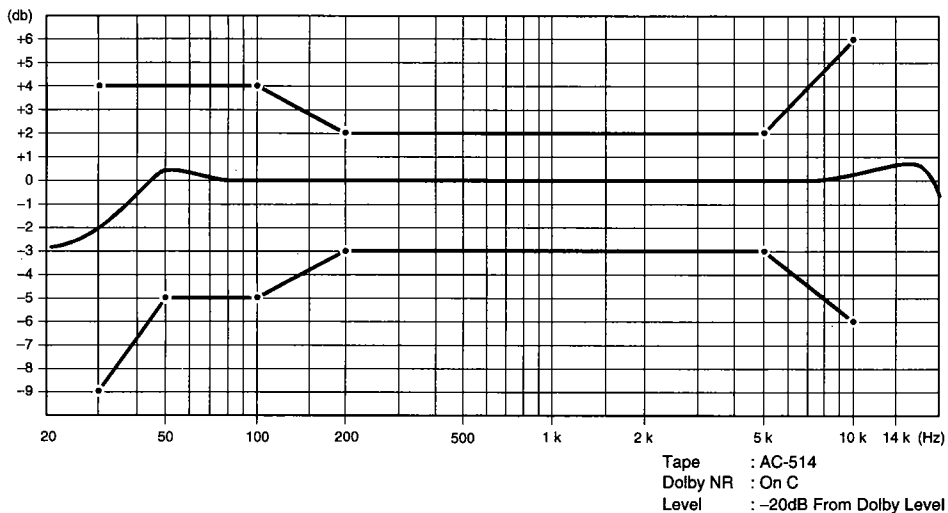
(2) Adjusting the record /playback levels (CrO<sub>2</sub>)

- 1) Load a AC-514 tape and after having recorded a signal of 1 kHz (-20 dB), play it back.
- 2) Adjust RT-103 (L ch) and RT-203 (R ch) so that the output from the line out terminal has the same value as the output when monitoring the recording.

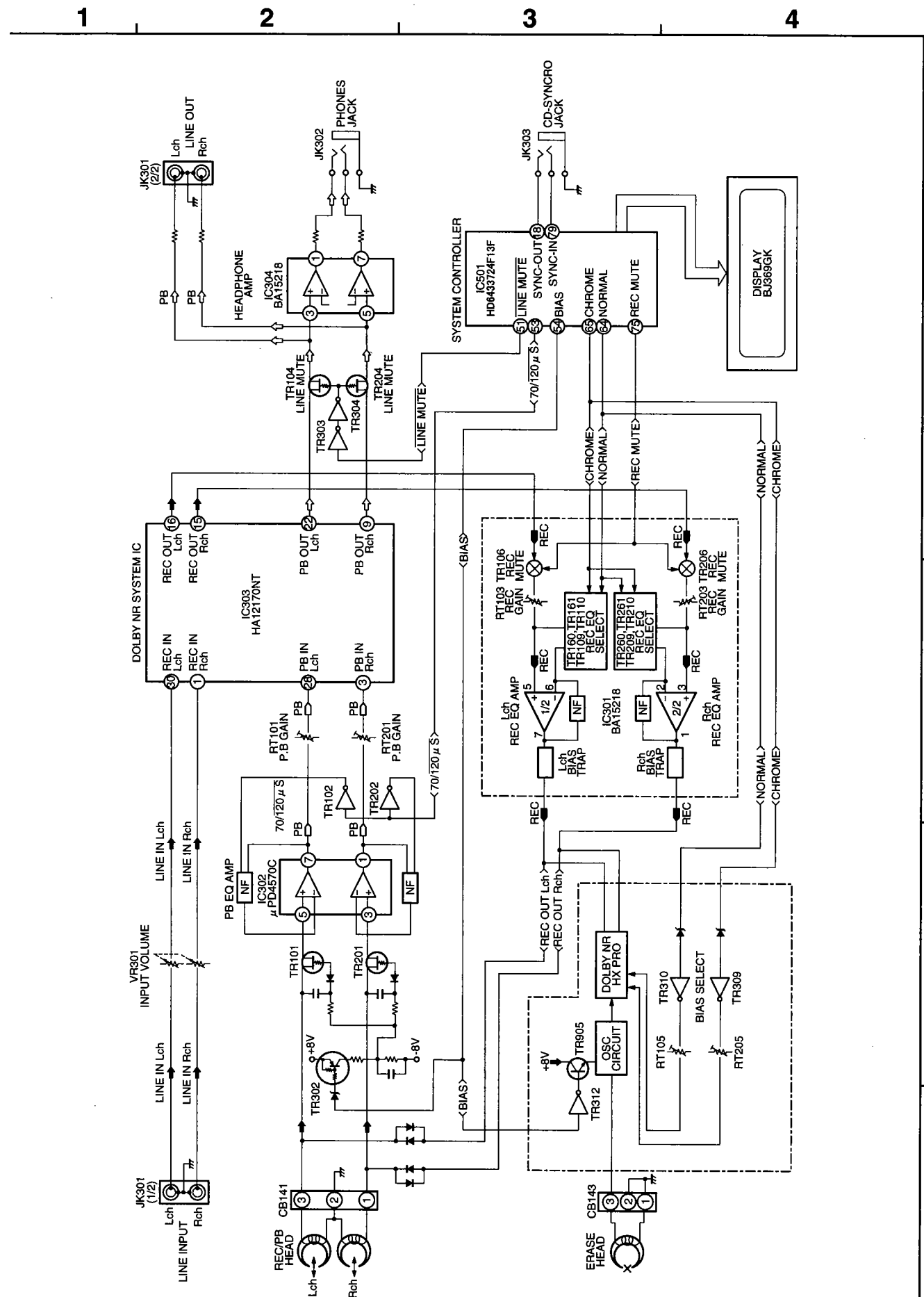
(3) Checking the Dolby C record/playback overall frequency response

- 1) Set the DOLBY NR switch to the "C" position.
- 2) Using the test tapes AC-514, perform record/playback in the same manner as 5-(1).
- 3) Check to make sure that the record/playback overall frequency response meets the specifications in the diagram.

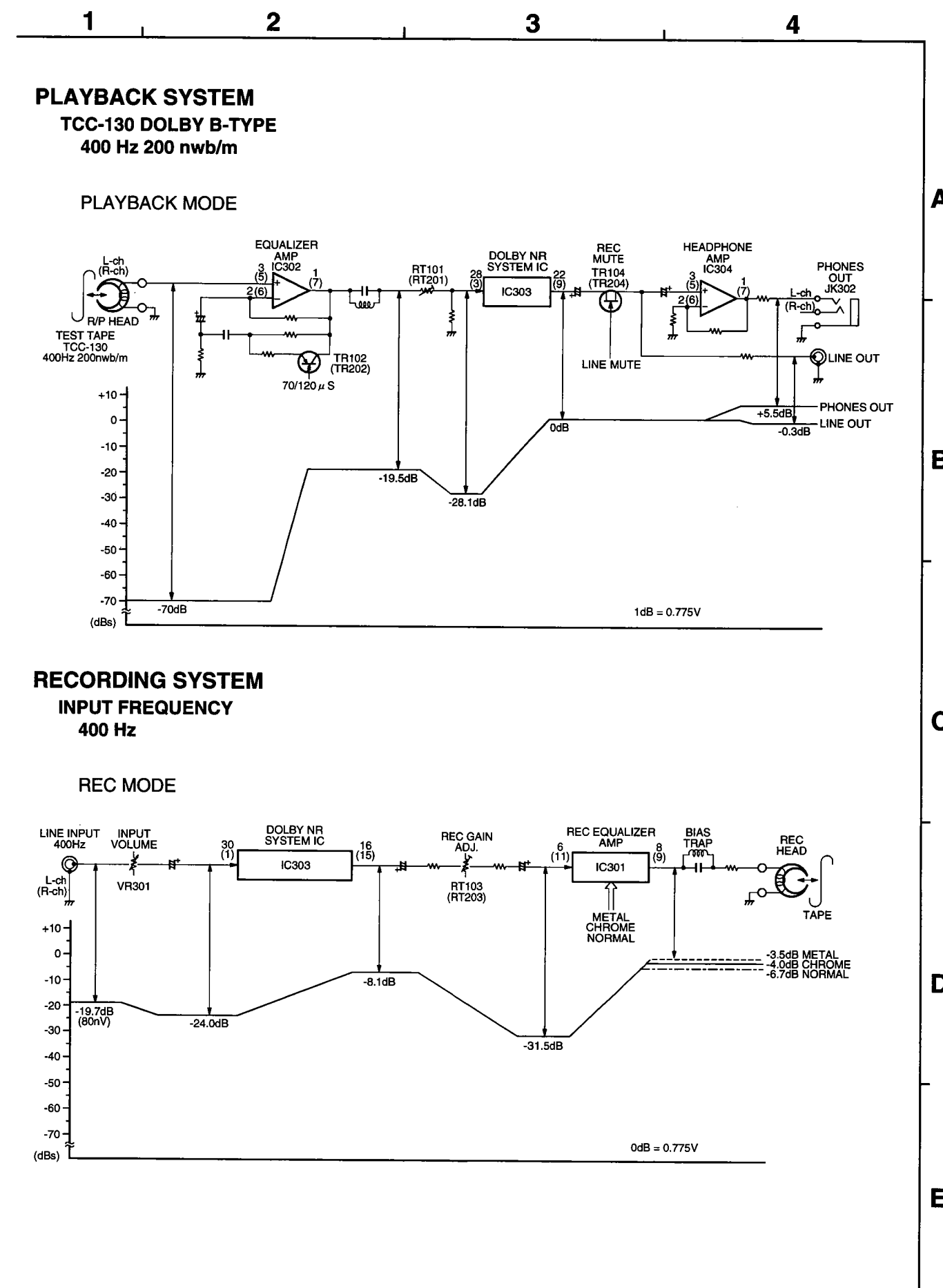
**Dolby C Record/Playback Overall Frequency Response**



**BLOCK DIAGRAM**



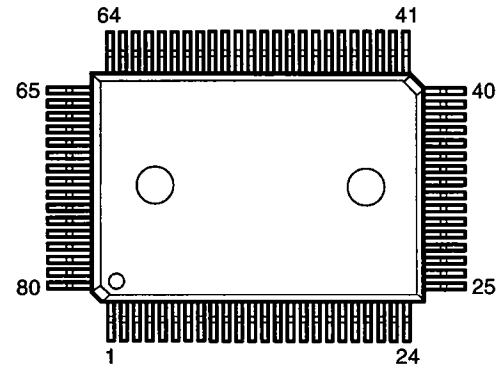
**LEVEL DIAGRAM**



SEMICONDUCTORS

● IC's

HD6433724F13F (IC501)

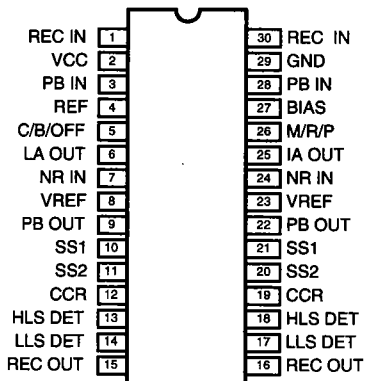
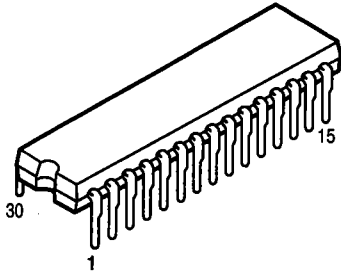


HD6433724F13F Terminal Function

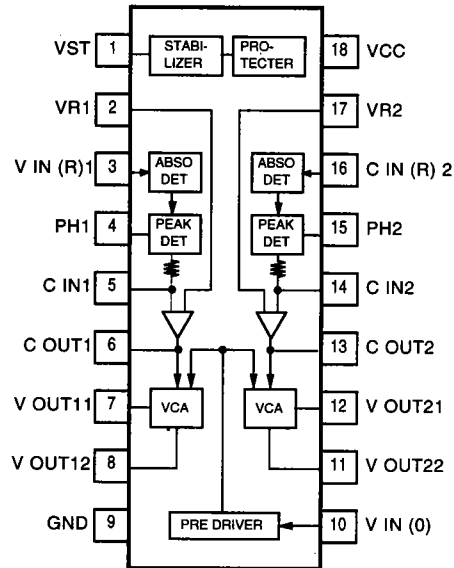
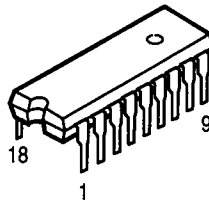
Pin No.	Symbol	Name	I/O	Int.	Act.	Function	Connection
1	AN4	KEYIN-0	I	-	-	Key scan IN 0 (A/D conversion)	Display PCB
2	AN5	KEYIN-1	I	-	-	Key scan IN 1 (A/D conversion)	Display PCB
3	AN6	KEYIN-2	I	-	-	Key scan IN 2 (A/D conversion)	Display PCB
4	AN7	MSVLU	I	-	-	Constant input for skip search (A/D conversion)	
5	AVSS	A/D VSS	-	-	-	GND for A/D converter	A/D GND
6	TEST	NC	-	-	-		GND
7	X2	X2	-	-	-	Sub clock (32.768kHz)	
8	X1	X1	-	-	-	Sub clock osc. terminal	
9	VSS	VSS	-	-	-	GND	
10	OSC1	OSC1	-	-	-	System clock osc. terminal	
11	OSC2	OSC2	-	-	-	System clock (4MHz)	
12	RES	RESET IN	I	-	L	System reset input terminal	Reset IC
13	IRQ0						
14	IRQ1	PLS-B	I	-	H	B-mecha. pulse input	
15	P12	METAL-B 0	O	L	H	Metal output (not used)	Audio PCB
16	P13	POWER-OFF	I	-	H	Power OFF input	Power SW
17	IRQ4	REMOCON	I	H	L	Remo-cont. receive terminal	Display PCB
18	P15	SYNC-OUT	O	L	H	CD sync. signal output	CD Unit
19	P16						
20	P33	TREC IN	I	H	L	Timer rec. SW detection	Display PCB
21	P32	TPLY IN	I	H	L	Timer play SW detection	Display PCB
22	P31	REV IN	I	H	L	Reverse mode SW detection	Display PCB
23	P30					NC Ground	
24	FS23	A1	O	L	H	FL tube driving segment output	FL Tube
25	FS22	B1	O	L	H	FL tube driving segment output	FL Tube
26	FS21	C1	O	L	H	FL tube driving segment output	FL Tube
27	FS20	D1	O	L	H	FL tube driving segment output	FL Tube
28	FS19	E1	O	L	H	FL tube driving segment output	FL Tube
29	FS18	F1	O	L	H	FL tube driving segment output	FL Tube
30	FS17	G1	O	L	H	FL tube driving segment output	FL Tube
31	FS16	H1	O	L	H	FL tube driving segment output	FL Tube
32	FS15	A2	O	L	H	FL tube driving segment output	FL Tube
33	FS14	B2	O	L	H	FL tube driving segment output	FL Tube
34	FS13	C2	O	L	H	FL tube driving segment output	FL Tube

Pin No.	Symbol	Name	I/O	Int.	Act.	Function	Connection
35	FS12	D2	O	L	H	FL tube driving segment output	FL Tube
36	FS11	E2	O	L	H	FL tube driving segment output	FL Tube
37	FS10	F2	O	L	H	FL tube driving segment output	FL Tube
38	FS9	G2	O	L	H	FL tube driving segment output	FL Tube
39	FS8	H2	O	L	H	FL tube driving segment output	FL Tube
40	Vdisp	Vdisp	-	-	-	Negative power for FL tube	
41	FD0	G1	O	L	H	FL tube digit output terminal	FL Tube
42	FD1	G2	O	L	H	FL tube digit output terminal	FL Tube
43	FD2	G3	O	L	H	FL tube digit output terminal	FL Tube
44	FD3	G4	O	L	H	FL tube digit output terminal	FL Tube
45	FD4	G5	O	L	H	FL tube digit output terminal	FL Tube
46	FD5	G6	O	L	H	FL tube digit output terminal	FL Tube
47	FD6	G7	O	L	H	FL tube digit output terminal	FL Tube
48	FD7	G8	O	L	H	FL tube digit output terminal	FL Tube
49	FD8	NC	-	-	-		
50	FD9	REC OUT	O	L	H	REC OUT	Audio PCB
51	P72	LINE-MUTE	O	L	L	LINE MUTE output	Audio PCB
52	P73	DOLBY R/P	O	H	-	Dolby REC/PLAY output	Audio PCB
53	P74	70/120	O	H	L	Equalizer switching output	Audio PCB
54	P75	BIAS	O	L	H	Bias osc. output	Audio PCB
55	P76	A/B	O	L	-	A/B deck switching output	Audio PCB
56	P77	NC	-	-	-	Open	
57	VCC	VCC	-	-	-	Power +5V	
58	P80	NC	-	-	-	Open	
59	P81	NC	-	-	-	Open	
60	P82	NC	-	-	-	Open	
61	P83	NC	-	-	-	Ground	
62	P84						
63	P85	MPX	O			MPX filter output	Audio PCB
64	P86	NORMAL	O	L	H	Normal tape output	Audio PCB
65	P87	CRM-B 0	O	L	H	Chrome tape output	Audio PCB
66	P90	CAPSTAN-B	O	L	H	B-mecha. capstan control output	B-mecha.
67	P91	SOL-B	O	L	H	B-mecha. solenoid output	B-mecha.
68	P92	CAS-B	I	H	L	B-mecha. cassette exist detection	B-mecha.
69	P93	PLSW-IN-B	I	H	L	B-mecha PLAY SW input	B-mecha.
70	P94	CRM-B I	I	-	H	B-mecha chrome detection	B-mecha.
71	P95	MTL-B	I	-	H	B-mecha metal detection	B-mecha.
72	P96	ARF-B	I	H	L	F-REC SW detection	B-mecha.
73	P97	ARR-B	I	H	L	R-REC SW detection	B-mecha.
74	PA0	NC	-	-	-	Open	
75	PA1	REC MUTE	O	H	H	Rec. mute output	Audio PCB
76	AVCC	A/D-VCC	-	-	-	Power for A/D converter	+5V
77	AN0	AD-IN-L	I	-	H	L ch signal for level meter	Audio PCB
78	AN1	AD-IN-R	I	-	H	R ch signal for level meter	Audio PCB
79	P02	SYNC-IN	I	-	H	CD sync. signal input	CD Unit
80	P03	DOLBY IN	I	H	L	DOLBY ON/OFF input	Audio PCB

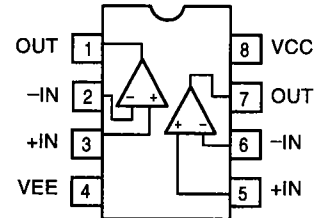
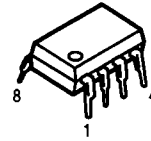
HA12170NT (IC303)



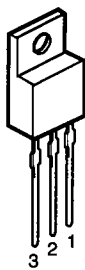
uPC1297CA (IC308)



BA15218 (IC301,304,305)  
uPC4570C (IC302)



NJM7806FA (IC903)



1 OUTPUT  
2 GND  
3 INPUT

● TRANSISTORS

2SA933S  
2SC1740S



B (Base)  
C (Collector)  
E (Emitter)

2SK373 (Y)



D (Drain)  
G (Gate)  
S (Source)

2SK184GR



D (Drain)  
G (Gate)  
S (Source)

2SB1237Q/R  
2SD1858Q/R



B (Base)  
C (Collector)  
E (Emitter)

DTA124ES  
DTA114ES  
DTA114TS  
DTA144WS  
DTC114ES  
DTC114TS  
DTC124XS  
DTC144ES  
DTC323TS  
DTC143ES



B (Base)  
C (Collector)  
E (Emitter)

2SB562

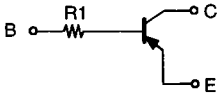


B (Base)  
C (Collector)  
E (Emitter)

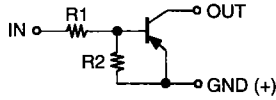
2SB1185Q/R  
2SD1762E/F



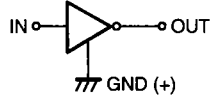
E (Emitter)  
C (Collector)  
B (Base)



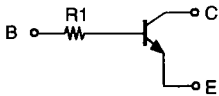
	R1
DTA114TS	10kohm



	R1	R2
DTA114ES	10kohm	10kohm
DTA144WS	47kohm	22kohm
DTA124ES	22kohm	22kohm



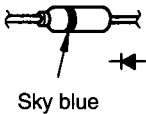
	R1	R2
DTC114ES	10kohm	10kohm
DTC124XS	22kohm	47kohm
DTC144ES	47kohm	47kohm
DTC143ES	4.7kohm	4.7kohm



	R1
DTC323TS	2.2kohm
DTC114TS	10kohm

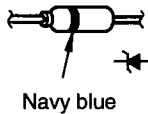
● DIODES

1SS270A



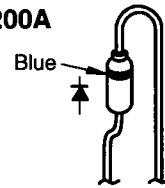
Sky blue

HZS4C-1  
HZS5C-1  
HZS6A-1  
HZS9A-1  
HZS20-1  
HZS16-1



Navy blue

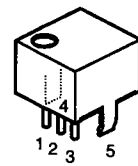
1SR35-200A



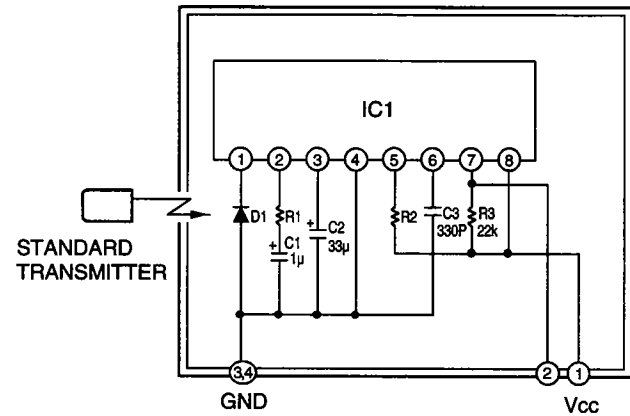
Blue

● REMOTE SENSOR

SBX1910-52

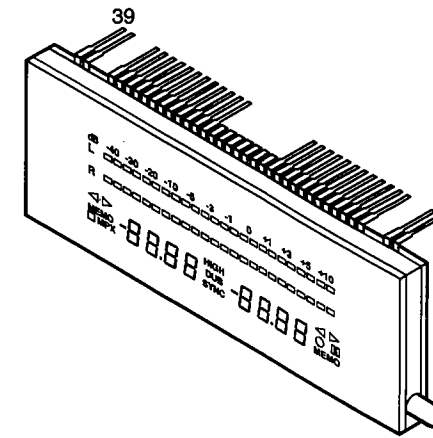


- 1. Vcc
- 2. Output
- 3. GND
- 4. Case Fin
- 5. Case Fin



- IC1 : CX20106A Chip
- D1 : PIN Photo Diode Chip
- C1, C2 : Aluminium Electrolytic Capacitor
- C3 : SL Characteristic ±5%
- R1 : Gain Adjuster
- R2 : fo Adjust ±1% USE
- R3 : ±5%

● FL DISPLAY (F501)

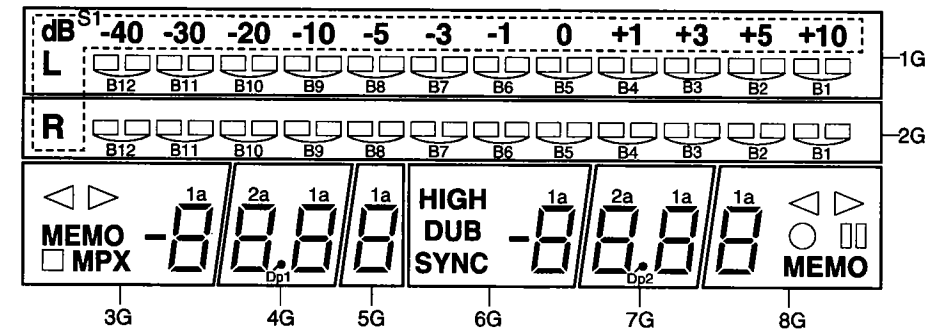


Pin Connection

PIN No.	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3		
Connection	F	F	N	N	N	8	7	6	5	4	3	2	1	P	P	P	N	N	N	N	N	N	N	P	P	P	P	P	1	1	1	1	1	1	N	N	F	F

- Note : F1, F2 : Filament
- NP : No pin
- NX : No extend pin
- DL : Datum Line
- 1G - 8G : Grid

Grid Assignment

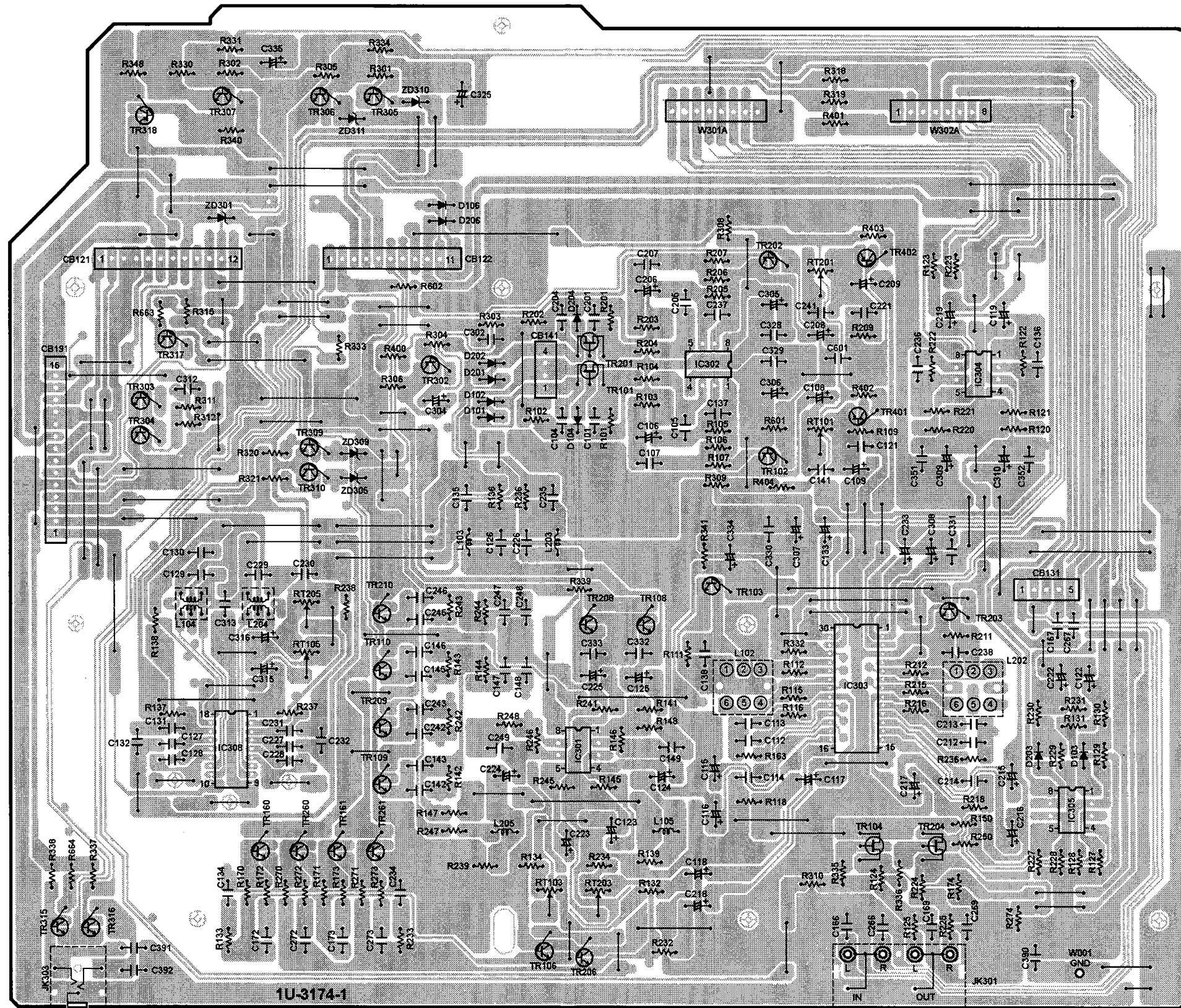


Anode Connection

	8G	7G	6G	5G	4G	3G	2G	1G
P1	1a	1a	1a	1a	1a	1a	B1	B1
P2	1b	1b	1b	1b	1b	1b	B2	B2
P3	1f	1f	1f	1f	1f	1f	B3	B3
P4	1g	1g	1g	1g	1g	1g	B4	B4
P5	1c	1c	1c	1c	1c	1c	B5	B5
P6	1e	1e	1e	1e	1e	1e	B6	B6
P7	1d	1d	1d	1d	1d	1d	B7	B7
P8	—	Dp2	—	—	Dp1	—	B8	B8
P9	▷	2a	HIGH	—	2a	▷	B9	B9
P10	◁	2b	DUB	—	2b	◁	B10	B10
P11	MEMO	2f	SYNC	—	2f	MEMO	B11	B11
P12	○	2g	—	—	2g	□	B12	B12
P13	▯	2c	—	—	2c	MPX	—	—
P14	—	2e	—	—	2e	—	—	—
P15	—	2d	—	—	2d	—	—	—
P16	—	—	—	—	—	—	S1	S1

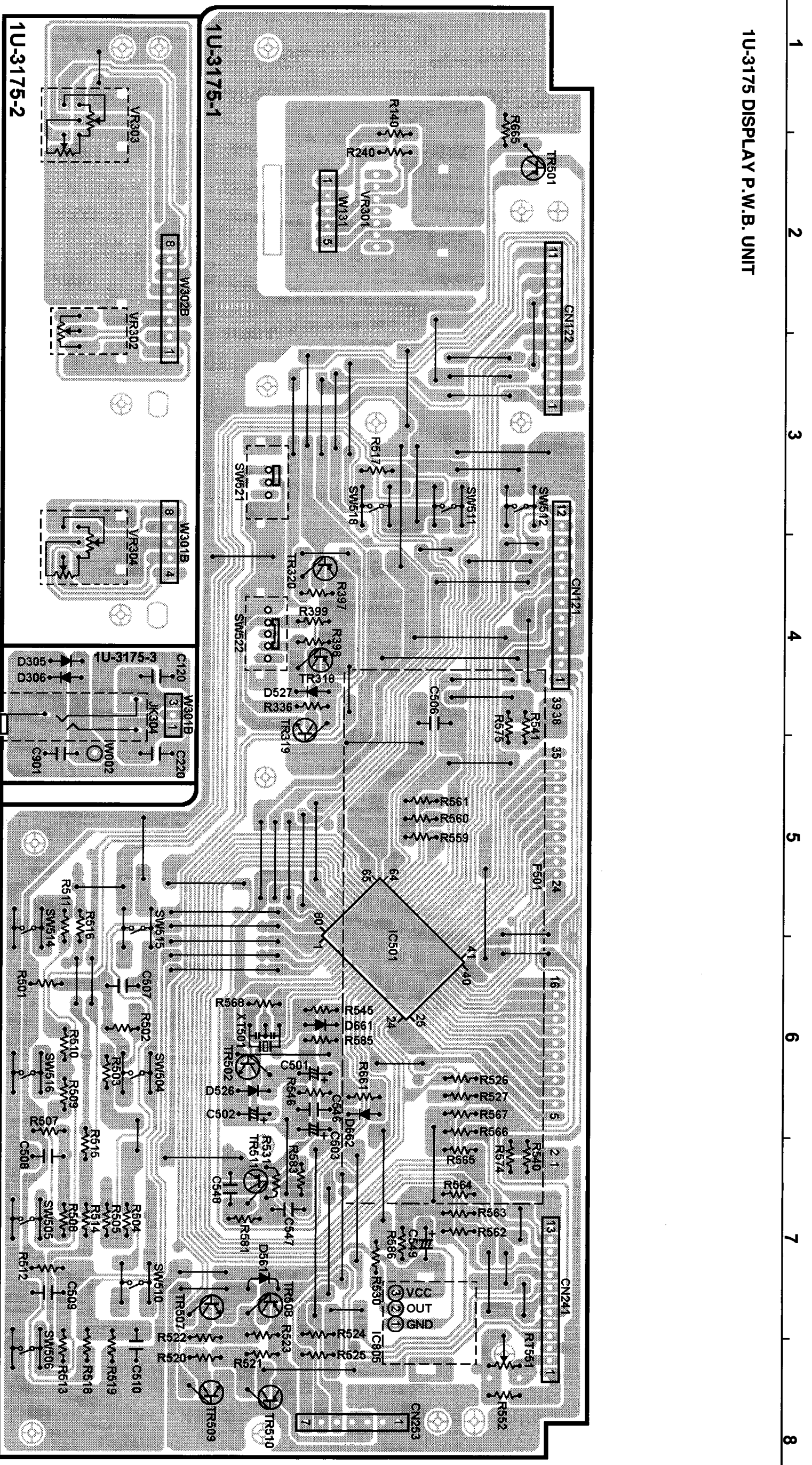
PRINTED WIRING BOARDS

1U-3174 AUDIO P.W.B. UNIT



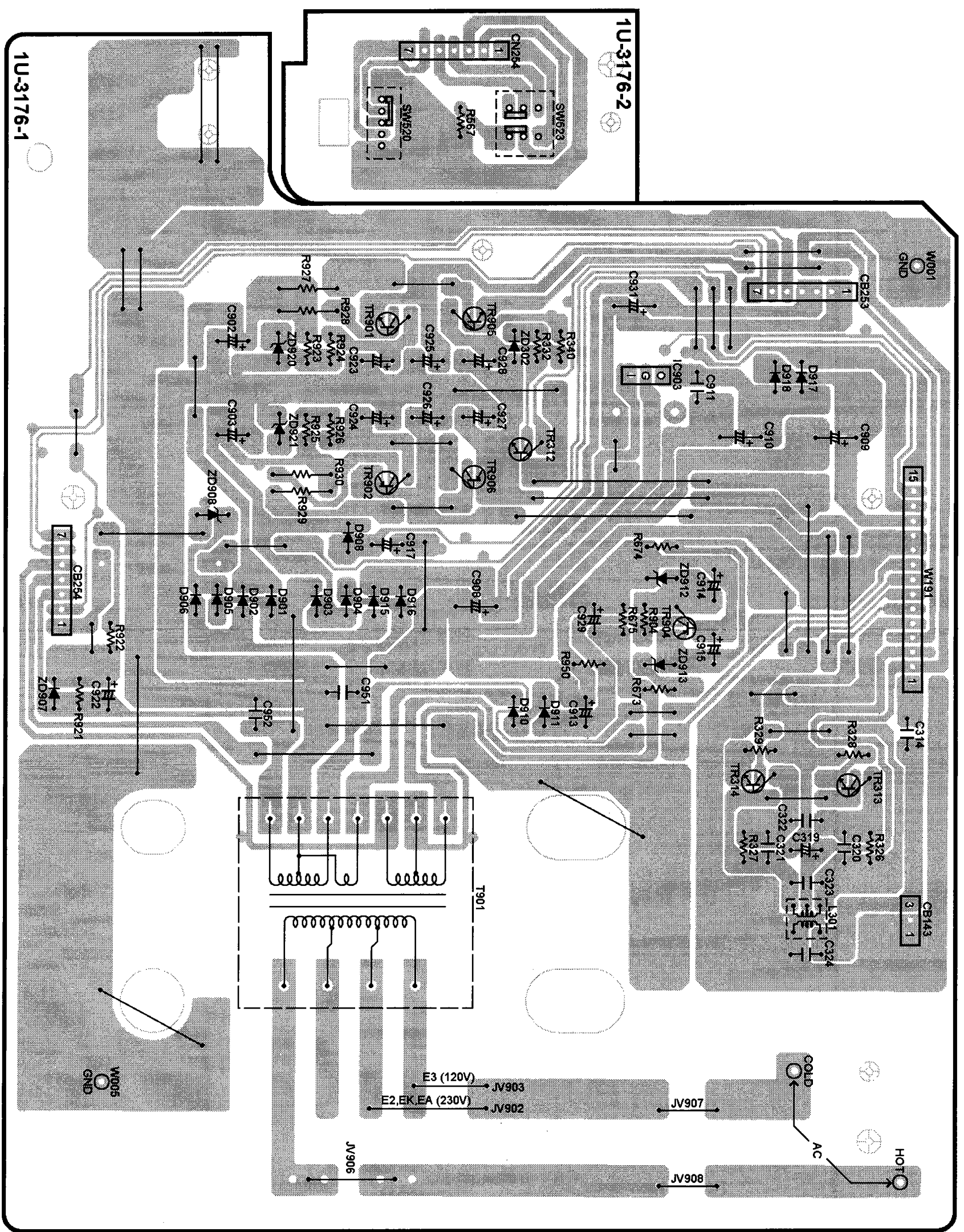


1U-3175 DISPLAY P.W.B. UNIT



1 2 3 4 5 6 7 8

1U-3176 POWER P.W.B. UNIT



1 2 3 4 5 6 7 8

A B C D E

# NOTE FOR PARTS LIST

- Part indicated with the mark "⊙" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "1" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

**WARNING:**

Parts marked with this symbol  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

● **Resistors**

Ex.: RN 14K 2E 182 G FR  
 Type Shape Power Resist- Allowable Others  
 performance ance error

RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

\* **Resistance**

1 8 2 ⇒ 1800 ohm = 1.8 kohm  
 Indicates number of zeros after effective number.  
 2-digit effective number.

• Units: ohm

1 R 2 ⇒ 1.2 ohm  
 1-digit effective number.  
 2-digit effective number, decimal point indicated by R.

• Units: ohm

● **Capacitors**

Ex.: CE 04W 1H 2R2 M BP  
 Type Shape Dielectric Capacity Allowable Others  
 performance strength error

CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CQ : Film	1E : 25V	K : ±10%	DL : For charge and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high frequency
CC : Ceramic	1H : 50V	Z : +80%	U : UL part
CP : Oil	2A : 100V	-20%	C : CSA part
CM : Mica	2B : 125V	P : +100%	W : UL-CSA type
CF : Metallized	2C : 160V	-0%	F : Lead wire forming
CH : Metallized	2D : 200V	C : ±0.25pF	
	2E : 250V	D : ±0.5pF	
	2H : 500V	= : Others	
	2J : 630V		

\* **Capacity (electrolyte only)**

2 2 2 ⇒ 2200μF  
 Indicates number of zeros after effective number.  
 2-digit effective number.

• Units: μF.

2 R 2 ⇒ 2.2μF  
 1-digit effective number.  
 2-digit effective number, decimal point indicated by R.

• Units: μF.

\* **Capacity (except electrolyte)**

2 2 2 ⇒ 2200pF=0.0022μF  
 (More than 2)—Indicates number of zeros after effective number.  
 2-digit effective number.

• Units: μF.

2 2 1 ⇒ 220pF  
 (0 or 1) —Indicates number of zeros after effective number.  
 2-digit effective number.

• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

**PARTS LIST OF P.W.B. UNIT**  
**1U-3174 AUDIO P.W.B. UNIT ASS'Y**

Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
IC301	263 0565 007	IC BA15218	
IC302	262 0864 006	IC $\mu$ PC4570C	
IC303	263 0720 004	IC HA12170NT	
IC304,305	263 0565 007	IC BA15218	
IC308	263 0354 001	IC $\mu$ PC1297CA	
TR101	275 0042 002	Transistor 2SK373(Y)	
TR102	269 0080 904	Transistor DTA114TS	Built in resistor
TR103	269 0015 908	Transistor DTC124XS	Built in resistor
TR104	275 0055 002	Transistor 2SK184GR	
TR106	273 0303 004	Transistor 2SC1740S	
TR108	269 0072 909	Transistor DTC323TS	Built in resistor
TR109,110	269 0074 907	Transistor DTC114TS	Built in resistor
TR161	269 0074 907	Transistor DTC114TS	Built in resistor
TR201	275 0042 002	Transistor 2SK373(Y)	
TR202	269 0080 904	Transistor DTA114TS	Built in resistor
TR203	269 0015 908	Transistor DTC124XS	Built in resistor
TR204	275 0055 002	Transistor 2SK184GR	
TR206	273 0303 004	Transistor 2SC1740S	
TR208	269 0072 909	Transistor DTC323TS	Built in resistor
TR209,210	269 0074 907	Transistor DTC114TS	Built in resistor
TR261	269 0074 907	Transistor DTC114TS	Built in resistor
TR302	269 0046 906	Transistor DTA114ES	Built in resistor
TR303	269 0015 908	Transistor DTC124XS	Built in resistor
TR304	269 0016 907	Transistor DTA144WS	Built in resistor
TR305-307	269 0040 902	Transistor DTC144ES	Built in resistor
TR309,310	269 0015 908	Transistor DTC124XS	Built in resistor
TR315,316	269 0020 906	Transistor DTC114ES	Built in resistor
TR317	269 0080 904	Transistor DTA114TS	Built in resistor
TR318	269 0046 906	Transistor DTA114ES	Built in resistor
TR401,402	271 0192 002	Transistor 2SA933S	
D101-104	276 0432 000	Diode 1SS270A	
D106	276 0432 000	Diode 1SS270A	
D201-204	276 0432 000	Diode 1SS270A	
D206	276 0432 000	Diode 1SS270A	
D305,306	276 0432 000	Diode 1SS270A	
ZD301	276 0461 000	Zener diode HZS6A-1	
ZD305	276 0467 004	Zener diode HZS9A-1	
ZD309	276 0467 004	Zener diode HZS9A-1	

Ref. No.	Part No.	Part Name	Remarks
<b>RESISTORS GROUP</b>			
RT101	DRM 5552 002	Semi fixed resistor 50kohm	V06PB503
RT103	211 6047 049	Semi fixed resistor 22kohm	V06PB223
RT105	DRM 5552 002	Semi fixed resistor 50kohm	V06PB503
RT201	DRM 5552 002	Semi fixed resistor 50kohm	V06PB503
RT203	211 6047 049	Semi fixed resistor 22kohm	V06PB223
RT205	DRM 5552 002	Semi fixed resistor 50kohm	V06PB503
VR302	211 0880 008	Variable resistor 1kohm	V09P25FB102K
VR303	211 0881 007	Variable resistor 100kohm	V0920P25FW104
VR304	211 0882 006	Variable resistor 10kohm	V0920P25FA103

Ref. No.	Part No.	Part Name	Remarks
<b>CAPACITORS GROUP</b>			
C101	253 3645 008	Ceramic 560pF/50V	CC45SL1H561J
C104	255 1264 908	Mylar film 1000pF/50V	CQ93M1H102J(B)
C105	253 3627 000	Ceramic 100pF/50V	CC45SL1H101J
C106	254 4250 042	Electrolytic 330 $\mu$ F/6.3V	CE04W0J331M
C107	255 1256 000	Mylar film 7500pF/50V	CQ92M1H752J
C108	254 4260 977	Electrolytic 4.7 $\mu$ F/50V	CE04W1H4R7M
C109	254 4260 948	Electrolytic 1 $\mu$ F/50V	CE04W1H010M
C112-114	255 1134 009	Mylar film 2200pF/50V	CQ92M1H222J
C115,116	254 4260 003	Electrolytic 0.1 $\mu$ F/50V	CE04W1H0R1M
C117	254 4260 977	Electrolytic 4.7 $\mu$ F/50V	CE04W1H4R7M
C118	254 4256 907	Electrolytic 10 $\mu$ F/25V	CE04W1E100M
C119	254 4260 977	Electrolytic 4.7 $\mu$ F/50V	CE04W1H4R7M
C120	253 1181 904	Ceramic 0.01 $\mu$ F/50V	CK45F1H103Z
C122	254 4145 005	Electrolytic 0.47 $\mu$ F/50V	CE04W1HR47M
C123	254 4260 977	Electrolytic 4.7 $\mu$ F/50V	CE04W1H4R7M
C124	254 4252 024	Electrolytic 47 $\mu$ F/10V	CE04W1A470M
C125	254 4260 977	Electrolytic 4.7 $\mu$ F/50V	CE04W1H4R7M
C126	253 3631 009	Ceramic 150pF/50V	CC45SL1H151J
C127	253 9030 989	Ceramic 0.022 $\mu$ F/25V	CK45-1E223K
C128	253 9030 992	Ceramic 0.033 $\mu$ F/25V	CK45-1E333K
C129	253 3641 002	Ceramic 390pF/500V	CC45SL2H391J
C130	253 3641 002	Ceramic 390pF/50V	CC45SL1H391J
C131	253 1181 904	Ceramic 0.01 $\mu$ F/50V	CK45F1H103Z
C132	253 9031 043	Ceramic 1200 pF/25V	CK45-1E122K
C133	254 4260 948	Electrolytic 1 $\mu$ F/50V	CE04W1H010M
C134	253 9030 002	Ceramic 1000 pF/25V	CK45-1E102K
C135	253 3645 008	Ceramic 560pF/50V	CC45SL1H561J
C136,137	253 3627 000	Ceramic 100pF/50V	CC45SL1H101J
C138	255 1135 040	Mylar film 2700pF/50V	CQ92M1H272J
C141	253 3633 007	Ceramic 180pF/50V	CC45SL1H181J
C143	253 9030 028	Ceramic 2200 pF/25V	CK45-1E222K
C146	253 9031 072	Ceramic 3900 pF/25V	CK45-1E392K
C148	255 1256 000	Mylar film 7500pF/50V	CQ92M1H752J
C149	255 1122 037	Mylar film 0.082 $\mu$ F/50V	CQ93M1H823J
C166	253 3641 002	Ceramic 390pF/50V	CC45SL1H391J
C169	253 3641 002	Ceramic 390pF/50V	CC45SL1H391J

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
C173	253 9030 950	Ceramic 6800pF/25V	CK45=1E682K	C335	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C201	253 3645 008	Ceramic 560pF/50V	CC45SL1H561J	C351,352	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z
C204	255 1264 908	Mylar film 1000pF/50V	CQ93M1H102J(B)	C390-392	253 9036 006	Ceramic 0.1μF/25V	CK45=1E104Z
C205	253 3627 000	Ceramic 100pF/50V	CC45SL1H101J	C601	253 9036 006	Ceramic 0.1μF/25V	CK45=1E104Z
C206	254 4250 042	Electrolytic 330μF/6.3V	CE04W0J331M	C901	253 9036 006	Ceramic 0.1μF/25V	CK45=1E104Z
C207	255 1256 000	Mylar film 7500pF/50V	CQ92M1H752J	<b>OTHER PARTS GROUP</b>			
C208	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7M	L102	232 0109 003	MPX filter	1
C209	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	L103	235 0020 945	Inductor 15mH	1
C212-214	255 1134 009	Mylar film 2200pF/50V	CQ92M1H222J	L104	239 0010 009	HX step up coil	1
C215,216	254 4260 003	Electrolytic 0.1μF/50V	CE04W1H0R1M	L105	235 0020 916	Inductor 8.2mH	1
C217	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7M	L202	232 0109 003	MPX filter	1
C218	254 4256 907	Electrolytic 10μF/25V	CE04W1E100M	L203	235 0020 945	Inductor 15mH	1
C219	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7M	L204	239 0010 009	HX step up coil	1
C220	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	L205	235 0020 916	Inductor 8.2mH	1
C222	254 4145 005	Electrolytic 0.47μF/50V	CE04W1HR47M	JK301	204 8498 009	4P RCA pin jack	1
C223	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7M	JK302	204 8264 026	H/P jack	1
C224	254 4252 024	Electrolytic 47μF/10V	CE04W1A470M	JK303	204 8416 007	Mini jack	1
C225	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7M	CB121	205 0981 067	12P connector base	1
C226	253 3631 009	Ceramic 150pF/50V	CC45SL1H151J	CB122	205 0981 054	11P connector base	1
C227	253 9030 989	Ceramic 0.022μF/25V	CK45=1E223K	CB131	205 0981 025	5P connector base	1
C228	253 9030 992	Ceramic 0.033μF/25V	CK45=1E333K	CB141	205 0981 012	4P connector base	1
C229	253 3641 002	Ceramic 390pF/500V	CC45SL2H391J	CB191	205 0981 096	15P connector base	1
C230	253 3641 002	Ceramic 390pF/50V	CC45SL1H391J	W001	203 0639 012	1P wire	L=45 1
C231	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	W002	DRM 5552 004	1P wire Ass'y (BK)	L=160 1
C232	253 9031 043	Ceramic 1200 pF/25V	CK45=1E122K	W131	DRM 5552 003	5P connector cord	L=190 1
C233	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	W301A	DRM 5552 001	8C ribbon wire	L=100 1
C234	253 9030 002	Ceramic 1000 pF/25V	CK45=1E102K	W302A	DRM 5552 001	8C ribbon wire	L=100 1
C235	253 3645 008	Ceramic 560pF/50V	CC45SL1H561J				
C236,237	253 3627 000	Ceramic 100pF/50V	CC45SL1H101J				
C238	255 1135 040	Mylar film 2700pF/50V	CQ92M1H272J				
C241	253 3633 007	Ceramic 180pF/50V	CC45SL1H181J				
C243	253 9030 028	Ceramic 2200 pF/25V	CK45=1E222K				
C246	253 9031 072	Ceramic 3900 pF/25V	CK45=1E392K				
C248	255 1256 000	Mylar film 7500pF/50V	CQ92M1H752J				
C249	255 1122 037	Mylar film 0.082μF/50V	CQ93M1H823J				
C266	253 3641 002	Ceramic 390pF/50V	CC45SL1H391J				
C269	253 3641 002	Ceramic 390pF/50V	CC45SL1H391J				
C273	253 9030 950	Ceramic 6800pF/25V	CK45=1E682K				
C302	255 1264 908	Mylar film 1000pF/50V	CQ93M1H102J(B)				
C304	254 4252 037	Electrolytic 100μF/10V	CE04W1A101M				
C305,306	254 4252 024	Electrolytic 47μF/10V	CE04W1A470M				
C307,308	254 4256 907	Electrolytic 10μF/25V	CE04W1E100M				
C309,310	254 4252 024	Electrolytic 47μF/10V	CE04W1A470M				
C312	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z				
C313	255 4224 903	Mylar film 0.047μF/50V	CQ92M1H473J				
C315,316	254 4256 907	Electrolytic 10μF/25V	CE04W1E100M				
C325	254 4303 957	Electrolytic 22μF/25V	CE04W1E220M(SRE)				
C328-331	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z				
C332,333	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z				
C334	254 4256 907	Electrolytic 10μF/25V	CE04W1E100M				

1U-3175 DISPLAY P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
IC501	262 2598 008	IC HD6433724F13F	
IC805	499 0295 002	IC SBX1910-52	
TR318	269 0063 905	Transistor DTA124ES(22K-22K)	
TR319	269 0018 905	Transistor DTC143ES(4.7K-4.7K)	
TR320	269 0063 905	Transistor DTA124ES(22K-22K)	
TR502	269 0040 902	Transistor DTC144ES(47K-47K)	
TR507	269 0018 905	Transistor DTC143ES(4.7K-4.7K)	
TR508	DRM 5552 012	Transistor 2SB1515	
TR509	269 0018 905	Transistor DTC143ES(4.7K-4.7K)	
TR510	DRM 5552 012	Transistor 2SB1515	
TR511	269 0063 905	Transistor DTA124ES(22K-22K)	
D526,527	276 0432 000	Diode 1SS270A	
D561	276 0432 000	Diode 1SS270A	
D661,662	276 0432 000	Diode 1SS270A	
F501	393 8022 005	FL tube	BJ369-GK
<b>RESISTORS GROUP</b>			
VR301	211 0570 004	Variable resistor 100kohm	V14V25FA104R
RT551	DRM 5552 013	Semi fixed resistor 1kohm	V06PB102
<b>CAPACITORS GROUP</b>			
C501	254 4260 964	Electrolytic 3.3μF/50V	CE04W1H3R3M
C502	254 4260 951	Electrolytic 2.2μF/50V	CE04W1H2R2M
C503	254 4252 943	Electrolytic 220μF/10V	CE04W1A221M
C506	253 9039 906	Ceramic 0.1μF/25V	CK45=1E104Z
C507-510	253 9030 905	Ceramic 1000pF/25V	CK45=1E102K
C546-548	253 9039 906	Ceramic 0.1μF/25V	CK45=1E104Z
C549	254 4252 927	Electrolytic 47μF/10V	CE04W1A470M
<b>OTHER PARTS GROUP</b>			
XT501	399 0107 007	Ceramic resonator	CST4.19MGW 1
SW504-506	212 5608 000	Tact switch	3
SW510-512	212 5608 000	Tact switch	3
SW516	212 5608 000	Tact switch	1
SW518	212 5608 000	Tact switch	1
SW521,522	212 9572 006	Slide switch	2
W121	204 6567 000	12P connector cord	L=150 1
W122	204 6566 001	11P connector cord	L=170 1
W253	DRM 5552 009	7P connector cord	L=180 1
CN241 (1/2)	DRM 5552 010	6C ribbon wire	L=300 1
CN241 (2/2)	DRM 5552 011	7C ribbon wire	L=300 1
	129 9025 002	FLD pad	2

1U-3176 POWER P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
IC903	262 1071 005	IC NJM7806FA	
TR312	269 0020 906	Transistor DTC114ES(10K-10K)	
TR313,314	273 0303 910	Transistor 2SC1740S(S)	
TR901	DRM 5552 007	Transistor 2SD1858(Q/R)	
TR902	272 0099 904	Transistor 2SB1237(Q/R)	
TR904	272 0099 904	Transistor 2SB1237(Q/R)	
TR905	274 0120 002	Transistor 2SD1762(E/F)	
TR906	272 0083 004	Transistor 2SB1185(E/F)	
D901-904	276 0553 905	Diode 1SR35-200A	
D905,906	273 0432 000	Diode 1SS270A	
D908	273 0432 000	Diode 1SS270A	
D910,911	276 0553 905	Diode 1SR35-200A	
D915-918	276 0553 905	Diode 1SR35-200A	
ZD302	276 0477 900	Zener diode HZS16-1	
ZD907	276 0643 983	Zener diode MTZJ5.1A	
ZD908	276 0457 001	Zener diode HZS4C-1	
ZD912	276 0479 908	Zener diode HZS20-1	
ZD913	276 0643 983	Zener diode MTZJ5.1A	
ZD920,921	276 0636 903	Zener diode MTZJ8.2B	
<b>RESISTORS GROUP</b>			
A1027-930	241 2313 985	Carbon film 4.7ohm 1/4W	RD14R2E4R7JPRS
<b>CAPACITORS GROUP</b>			
C314	253 4536 006	Ceramic 10pF/50V	CC45SL1H100D
C319	254 4256 046	Electrolytic 100μF/25V	CE04W1E101M
C320,321	255 1264 940	Mylar film 2200pF/50V	CQ93M1H222J(B)
C322	255 1134 025	Mylar film 0.01μF/50V	CQ92M1H103J
C323	255 1264 955	Mylar film 5600pF/50V	CQ93M1H562J(B)
C324	255 1265 907	Mylar film 6800pF/50V	CQ93M1H682J(B)
C902,903	254 4256 088	Electrolytic 1000μF/25V	CE04W1E102M
C908	254 4256 091	Electrolytic 2200μF/25V	CE04W1E222M
C909	254 4250 097	Electrolytic 4700μF/6.3V	CE04W0J472M
C910	254 4235 067	Electrolytic 470μF/10V	CE04W1A471M
C911	253 9031 014	Ceramic 0.068μF/25V	CK45=1E683K
C913	254 4261 057	Electrolytic 470μF/50V	CE04W1H471M
C914	254 4258 044	Electrolytic 47μF/35V	CE04W1V470M
C915	254 4258 950	Electrolytic 100μF/35V	CE04W1V101M
C917	254 4256 004	Electrolytic 10μF/25V	CE04W1E100M
C922	254 4260 061	Electrolytic 3.3μF/50V	CE04W1H3R3M
C923,924	254 4256 033	Electrolytic 47μF/25V	CE04W1E470M
C925,926	254 4256 004	Electrolytic 10μF/25V	CE04W1E100M
C927,928	254 4256 033	Electrolytic 47μF/25V	CE04W1E470M
C929	254 4258 044	Electrolytic 47μF/35V	CE04W1V470M
C931	254 4257 715	Electrolytic 4700μF/25V	CE04W1E472M

Ref. No.	Part No.	Part Name	Remarks	Q'ty
<b>OTHER PARTS GROUP</b>				
L301	231 0078 005	OSC coil		1
SW520	212 9572 006	Slide switch		1
SW523	212 1039 000	1P push switch		1
A 1901	233 9678 006	Power trans.	Europe/UK models	1
A 1901	233 9678 004	Power trans.	U.S.A./Canada models	1
CB143	205 0981 009	3P connector base		1
CB253,254	DRM 5552 005	7P connector base		2
W005	203 0639 012	1P wire	L=45	1
W191	204 6568 009	15P connector cord	L=80	1
W254	DRM 5552 006	7P connector cord	L=160	1


### PARTS LIST OF EXPLODED VIEW

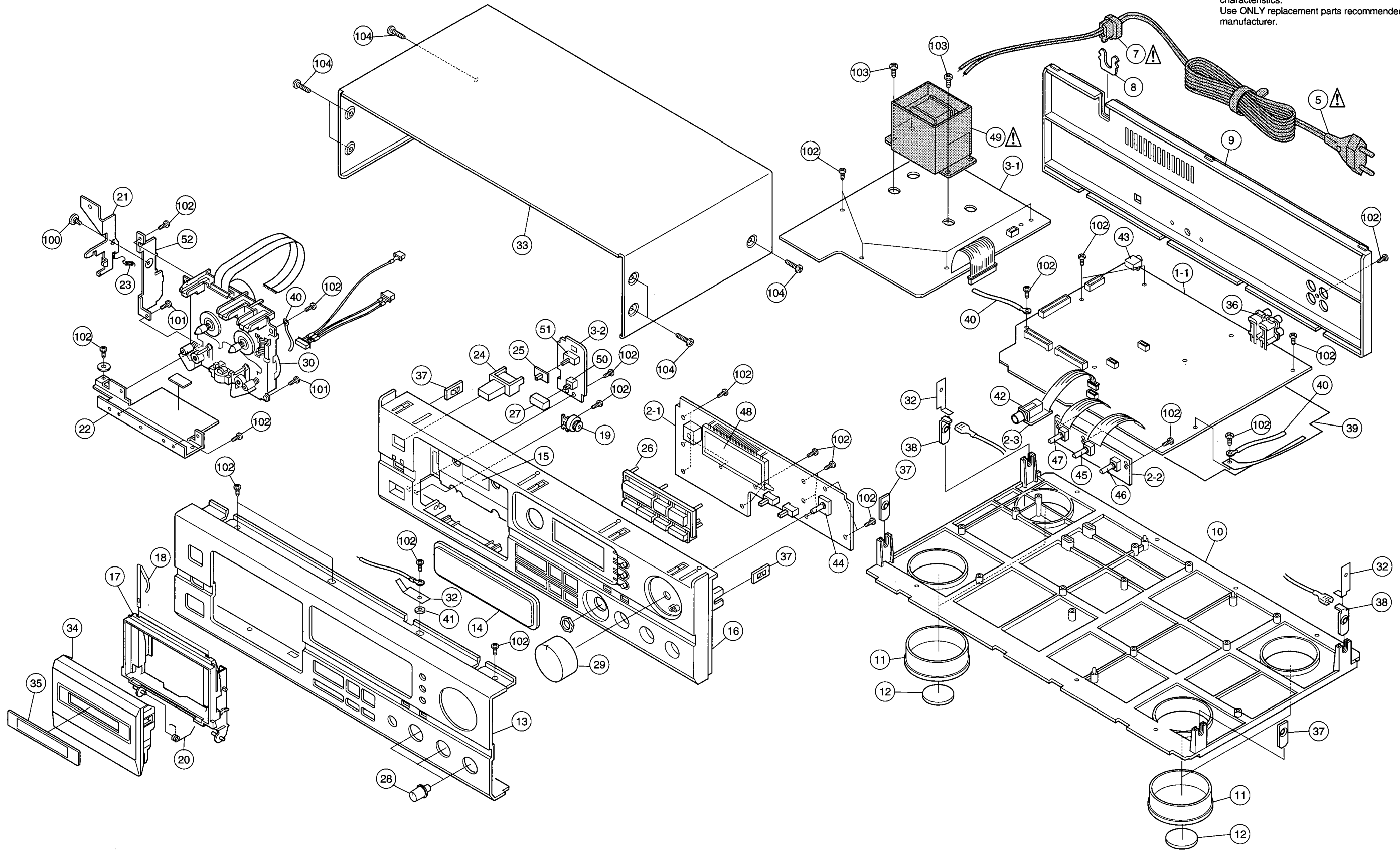
Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty	
1	1U-3174	Audio P.W.B. unit Ass'y		1	34	103 1726 035	Cassette door	Gold model	1	
1-1	1U-3174-1	Audio P.W.B. unit			35	143 1041 006	Cassette window		1	
2	1U-3175	Display P.W.B. unit Ass'y		1	36	204 8498 009	4P RCA pin jack	JK301	1	
2-1	1U-3175-1	Display P.W.B. unit			37	409 9006 008	Attach plate		4	
2-2	1U-3175-2	H/P VR P.W.B. unit			38	409 9005 009	Attach plate(B)		2	
2-3	1U-3175-3	H/P P.W.B. unit			39	414 9187 000	Shield sheet		1	
3	1U-3176Z	Power P.W.B. unit Ass'y	Europe/U.K. models	1	40	445 0048 016	Cord holder		3	
3-1	1U-3176-1	Power P.W.B. unit			41	475 3201 000	3 TWB		1	
3-2	1U-3176-2	SW P.W.B. unit			42	204 8264 026	Head phone jack	JK302	1	
3	1U-3176U	Power P.W.B. unit Ass'y	U.S.A./Canada models	1	43	204 8416 007	Mini jack	JK303	1	
3-1	1U-3176-1	Power P.W.B. unit		1	44	211 0570 004	Variable resistor	VR301	1	
3-2	1U-3176-2	SW P.W.B. unit			45	211 0880 008	Variable resistor	VR302	1	
Δ	5	206 2063 009	AC cord	1	46	211 0881 007	Variable resistor	VR303	1	
Δ	5	206 2163 006	AC cord	1	47	211 0882 006	Variable resistor	VR304	1	
Δ	5	206 2131 009	AC cord	1	48	393 8022 005	FL tube	F501	1	
Δ	7	445 0056 008	Cord bush	1	Δ	49	233 0676 006	Power trans.	Europe/U.K. models	1
					Δ	49	233 0678 004	Power trans.	U.S.A./Canada models	1
8	412 2008 012	Bushing plate		1	50	212 1039 000	1P push switch	SW523	1	
9	105 9263 305	Back panel		1	51	212 9572 006	Slide switch	SW520	1	
10	411 9142 208	Chassis		1	52	412 9449 205	Lever stay(B)		1	
11	113 1228 035	Foot cap		4	<b>SCREWS</b>					
12	461 0410 109	Rubber pad		4	100	473 8047 001	Special screw		1	
13	144 2642 009	Front panel	Black model	1	101	473 7002 021	Screw 3X8 CBTS(S)-B		2	
13	144 2642 012	Front panel	Gold model	1	102	473 7500 044	Screw 3X8 CBTS(P)-B		30	
14	143 1047 000	Window		1	103	473 7502 013	Screw 4X10 CBTS(P)-Z		4	
15	129 0163 002	Indicate sheet		1	104	473 7509 016	Screw 4X10 CBTS(P)-B	Black model	6	
16	103 1733 002	Front esc.	Black model	1	104	473 7503 041	Screw 4X10 CTTS(P)-Ni	Gold model	6	
16	103 1733 015	Front esc.	Gold model	1	<b>PACKING &amp; ACCESSORIES (Not included EXPLODED VIEW.)</b>					
17	103 1372 609	Cassette box		1	201	133 0617 007	Serial NO.label(E2)	Europe model	1	
18	463 9079 000	Cassette spring		2	202	513 1389 006	Control card		1	
19	421 9007 007	Mini damper		1	203	501 2033 002	Carton case	U.S.A./Canada/ Europe models	1	
20	463 0659 018	Box spring(R)		1	203	501 2033 028	Carton case	U.K. model	1	
21	412 4466 005	Eject lever		1	204	505 0038 030	Poly. cover		1	
22	412 4467 004	Mecha. bracket		1	205	505 8092 010	Envelope		1	
23	463 9080 002	Spring		1	206	503 9297 009	Cushion		2	
24	113 9334 109	Eject knob	Black model	1	207	511 3379 005	Instruction manual	Europe model	1	
24	113 9334 125	Eject knob	Gold model	1	207	511 3380 007	Instruction manual	U.S.A./Canada/ U.K. models	1	
25	113 9335 001	Timer knob	Black model	1	208	203 2360 004	2P pin cord		2	
25	113 9335 050	Timer knob	Gold model	1	209	203 5013 002	3P mini pulg cord		1	
26	113 1857 008	Function knob	Black model	1	210	513 9394 006	CE label	Europe model	1	
26	113 1857 011	Function knob	Gold model	1	211	517 1383 020	E2 POS label (BK)	Europe model	1	
27	113 9333 003	Power knob	Black model	1	211	517 1393 010	EK POS label (BK)	U.K. model	1	
27	113 9333 029	Power knob	Gold model	1	212	513 9111 001	Color label (Gold)	Gold model	1	
28	112 9142 000	Volume knob	Black model	3						
28	112 9142 026	Volume knob	Gold model	3						
29	112 0515 128	Volume knob	Black model	1						
29	112 0515 157	Volume knob	Gold model	1						
30	338 0182 027	Cassette mecha.(A)		1						
★	31	445 8004 007	Wire clamper	6						
	32	414 0595 015	Earth plate	3						
	33	102 9050 205	Top cover	1				Black model	1	
	33	102 9050 218	Top cover	1				Gold model	1	
	34	103 1726 022	Cassette door	1				Black model	1	



# EXPLODED VIEW

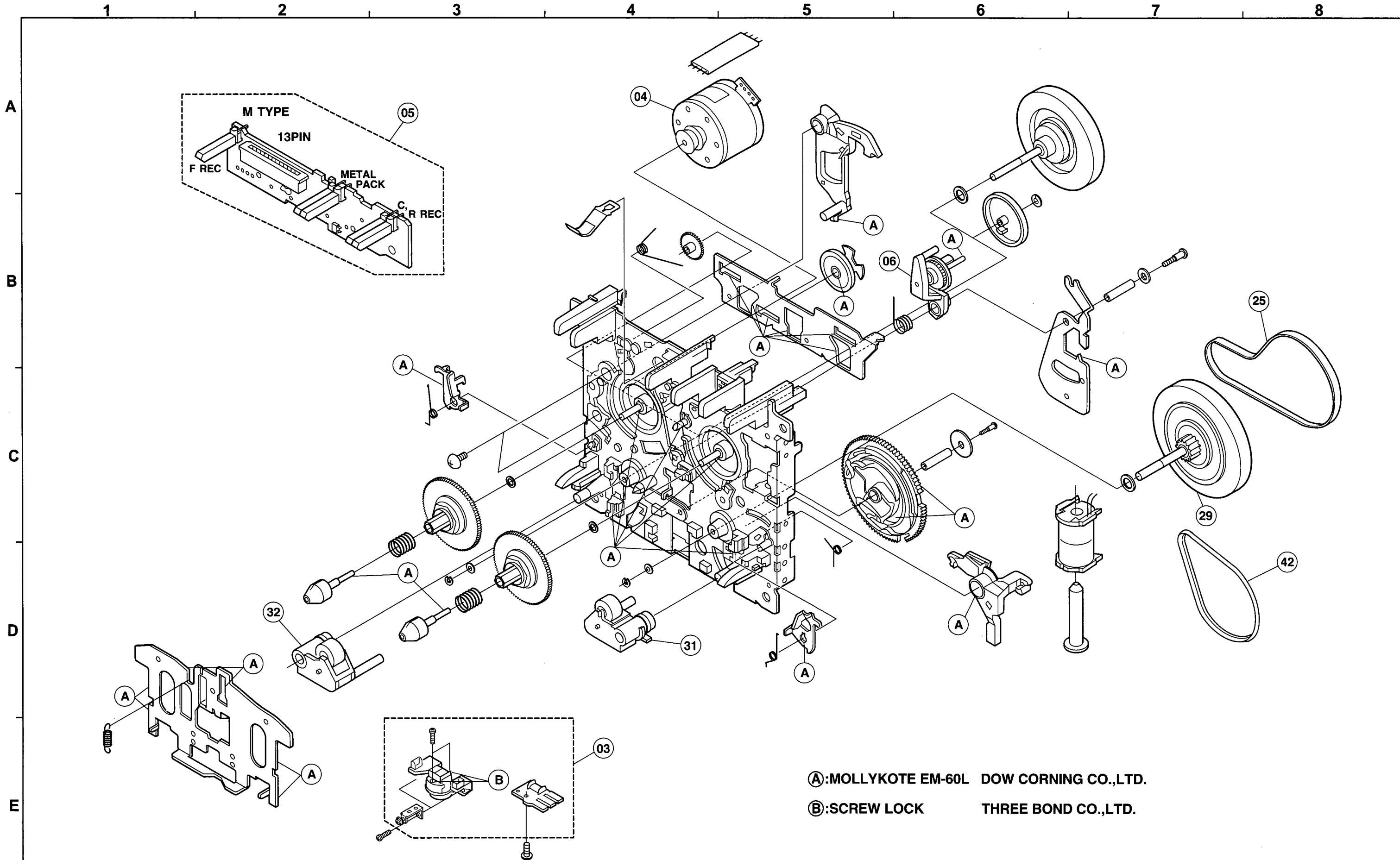
1 2 3 4 5 6 7 8

**WARNING:**  
Parts marked with this symbol  have critical characteristics.  
Use **ONLY** replacement parts recommended by the manufacturer.



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# EXPLODED VIEW OF CASSETTE MECHANISM UNIT



Ⓐ: MOLLYKOTE EM-60L DOW CORNING CO.,LTD.

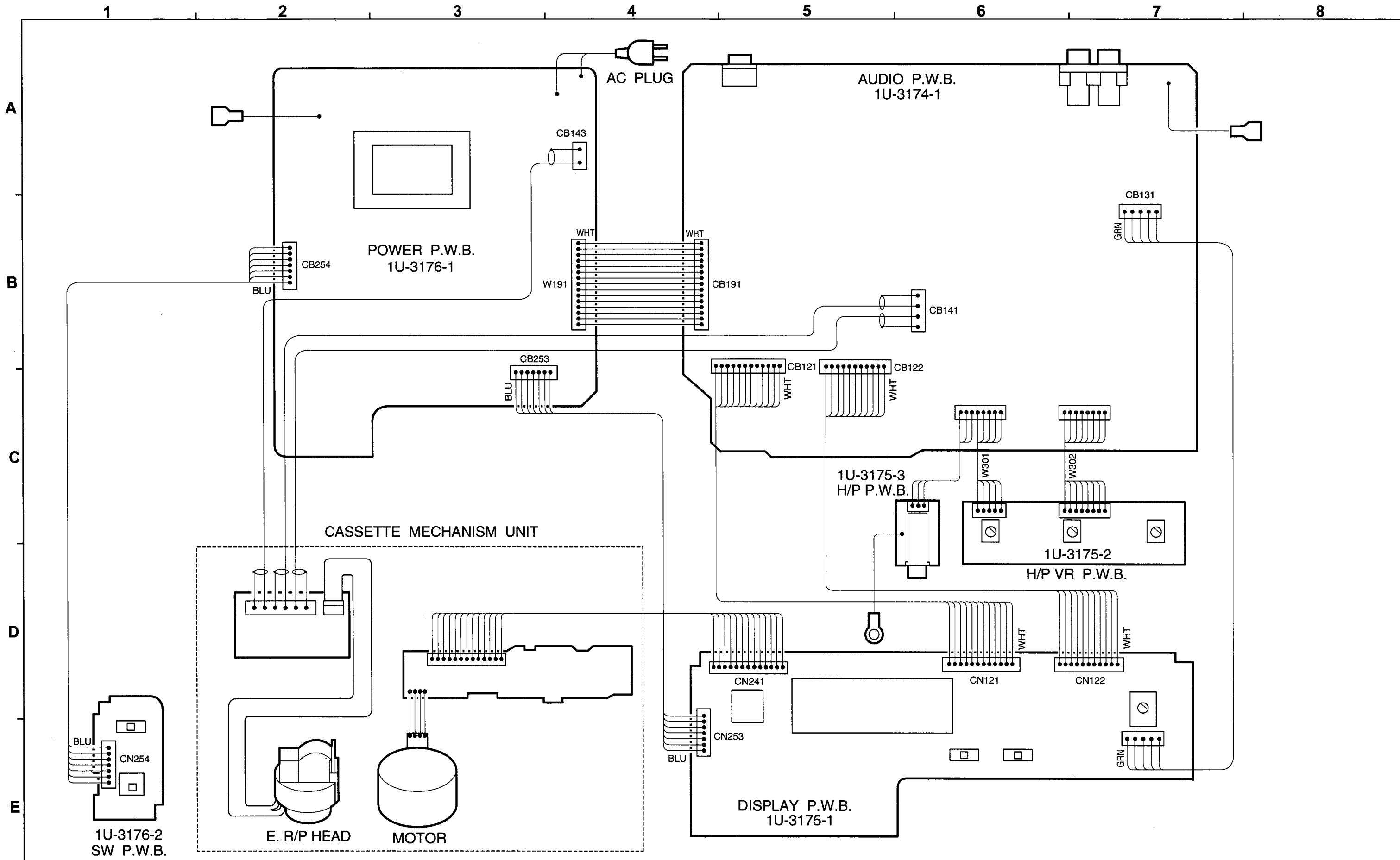
Ⓑ: SCREW LOCK THREE BOND CO.,LTD.

**PARTS LIST OF CASSETTE MECHANISM EXPLODED VIEW**

**338 0182 027 CASSETTE MECHA CMAL2Z099A REC/PLAY BACK**

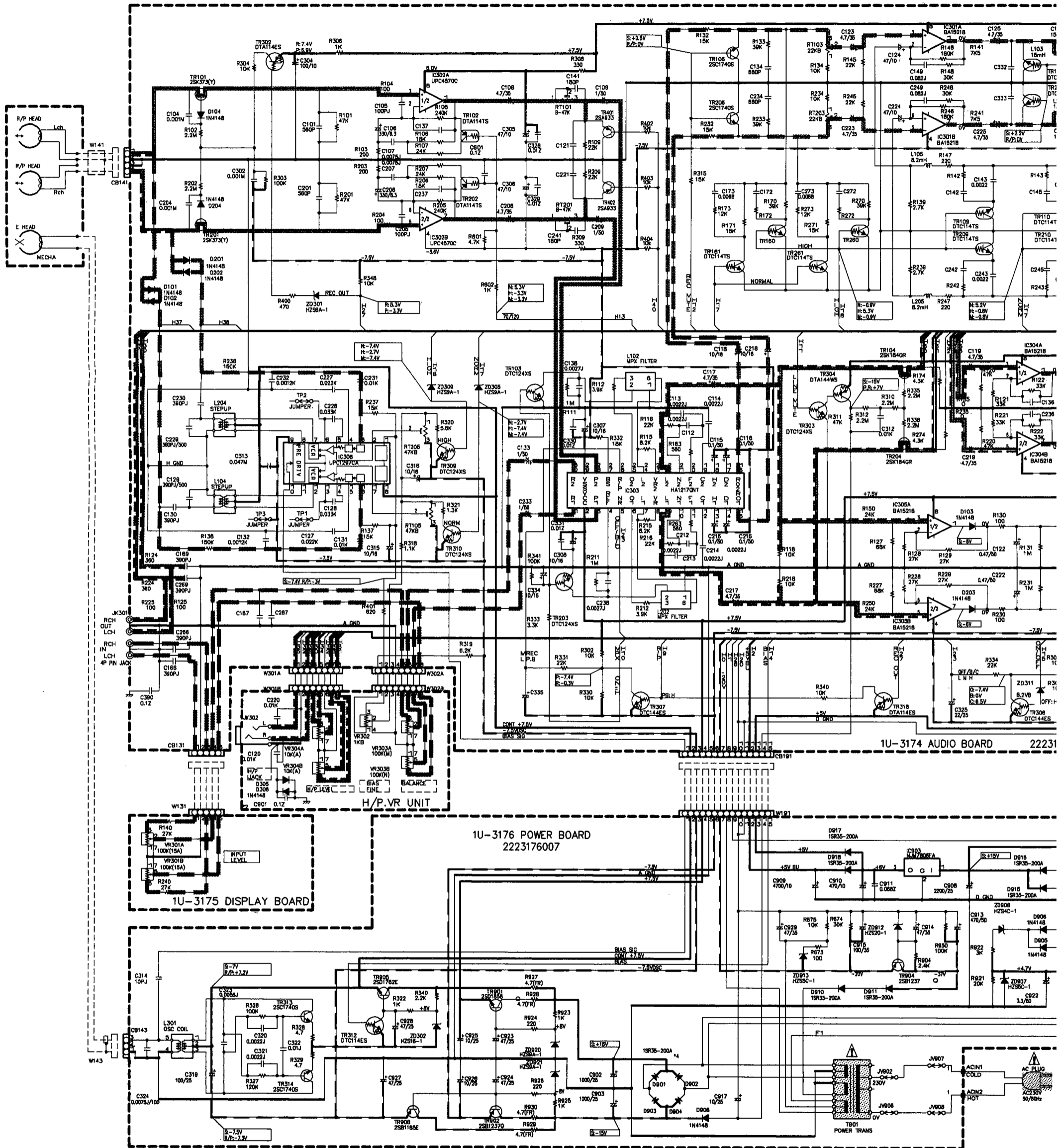
Ref. No.	Part No.	Part Name	Remarks	Q'ty
03	9DF 5138 10	Plate HD BLK		1
04	9DF 5253 04	MTR main BLK		1
05	9DF 5675 89	P.W.B. control BLK		1
06	9DF 5220 37	Clutch Ass'y		1
25	9DF F17G 31	Belt main		1
29	9DF 5220 31	Clutch Ass'y		1
31	9DF 5141 29	Roller pinch BLK		1
32	9DF 5141 30	Roller pinch BLK		1
42	9DF F18W 12	F/R belt		1

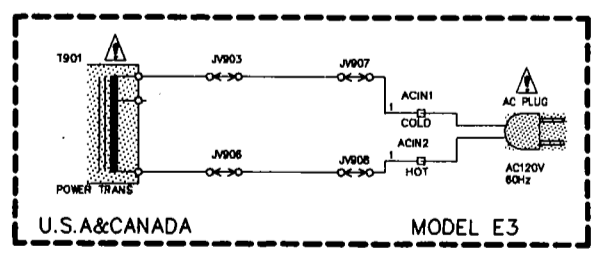
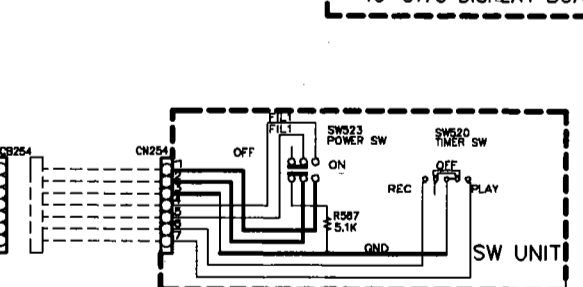
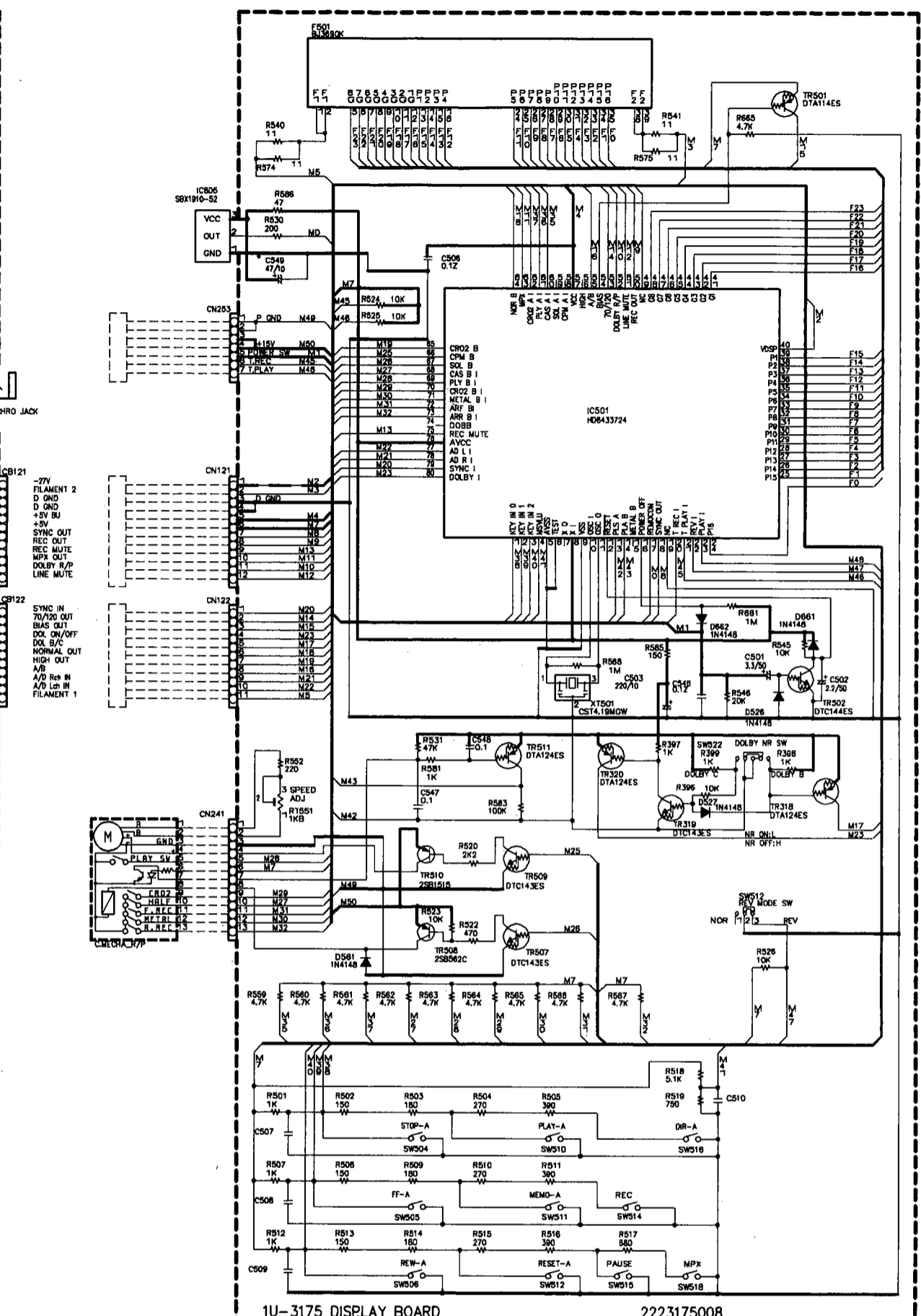
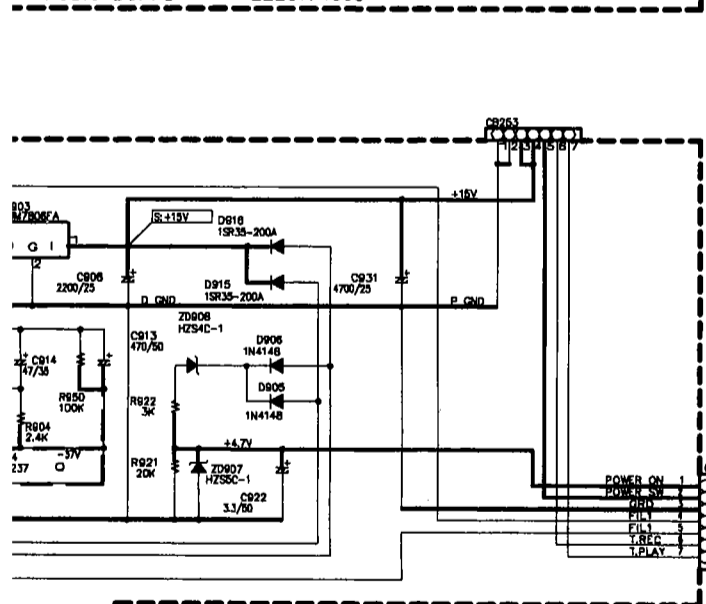
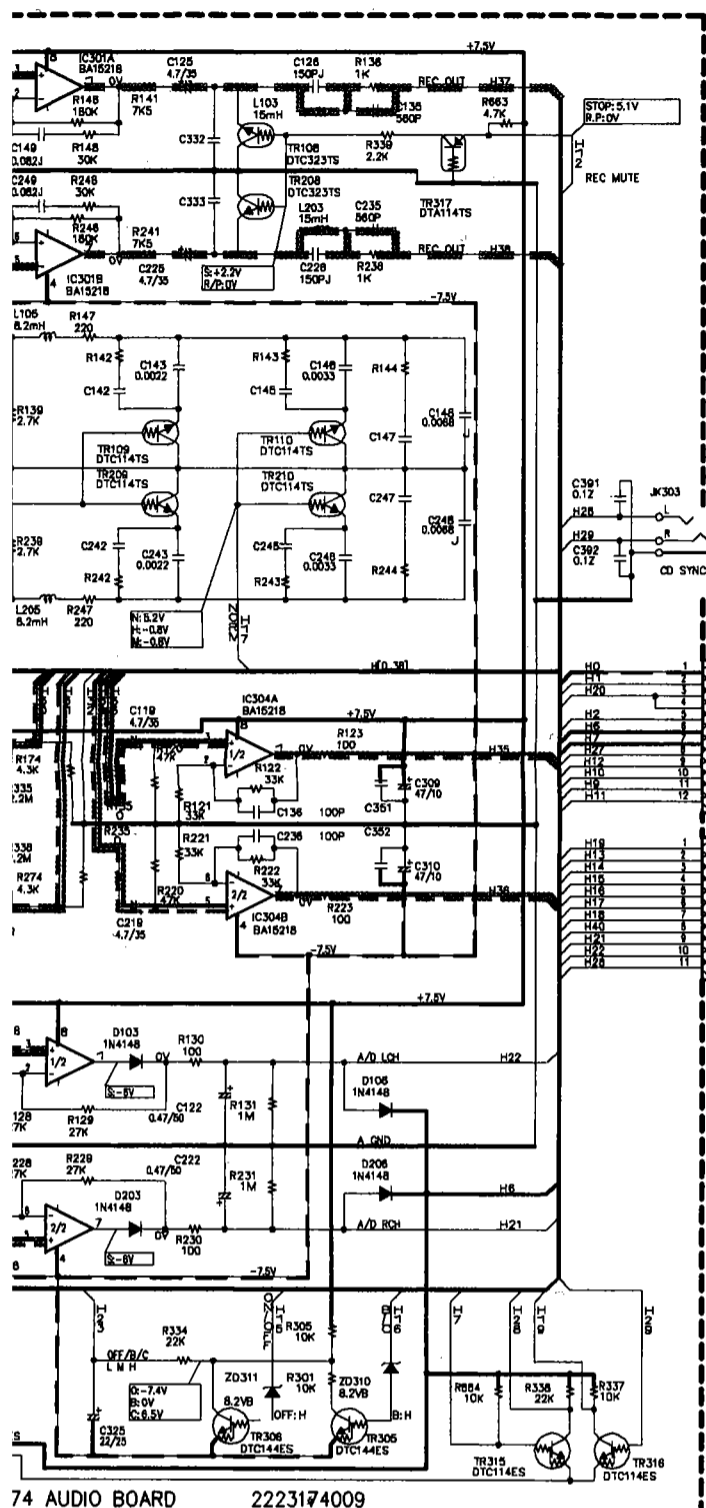
# WIRING DIAGRAM



# SCHEMATIC DIAGRAM

1 2 3 4 5 6



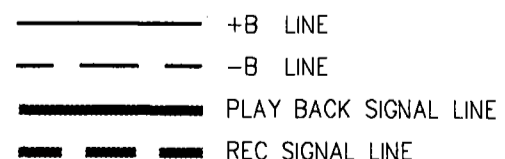


**NOTICE**  
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

**WARNING:**  
 Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and corrected.



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