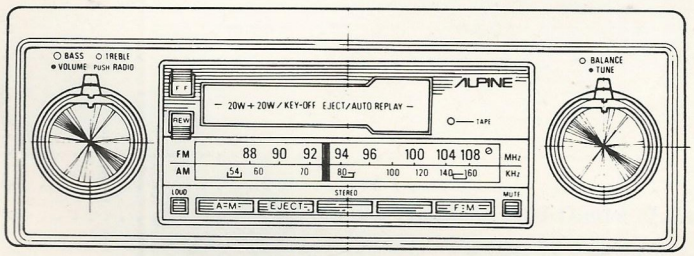
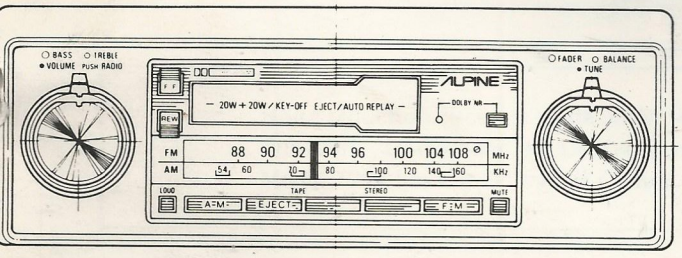
ALPINE SERVICE MANUAL

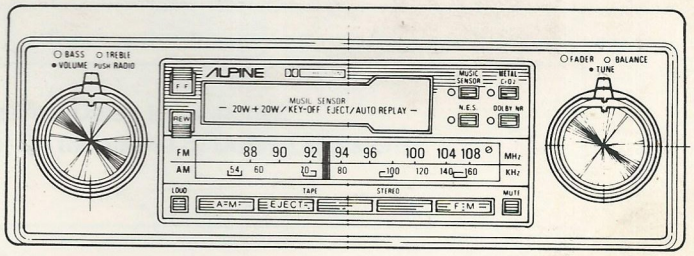
PRESET FM/AM CASSETTE CAR STEREO



Model 7204



Model 7205

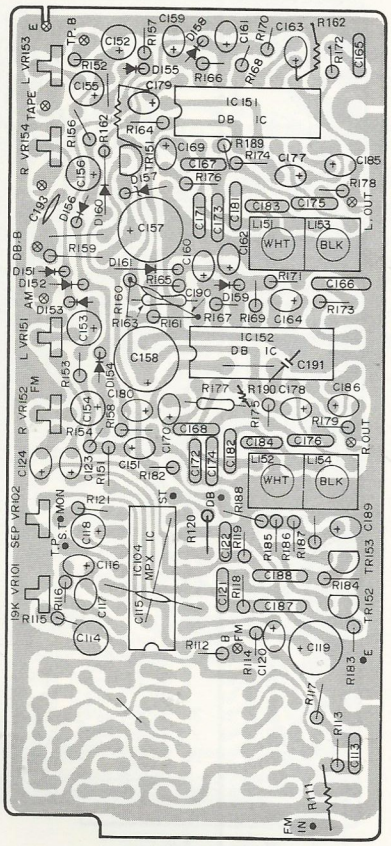


Model 7206

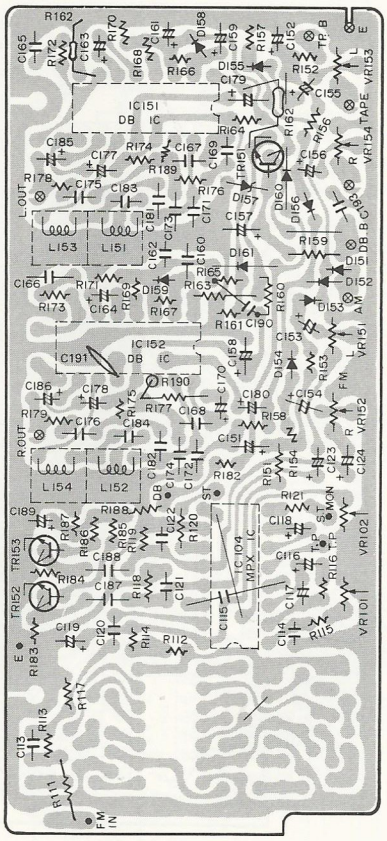
7204 7205 7206

Dolby P.C. Board 7205

- **Model 7205**



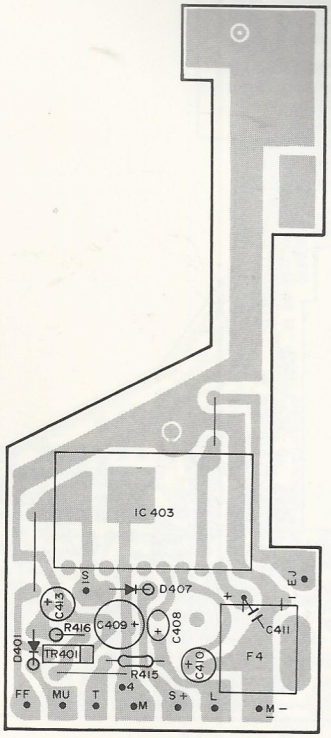
Top View



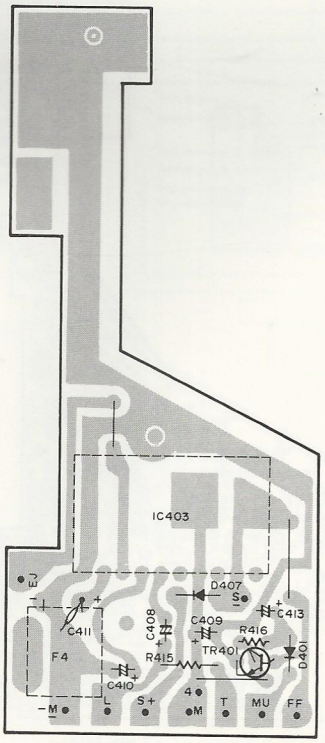
Bottom View

Deck Control P.C.Board

- **Mdoel 7205**



Top View



Bottom View

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Specifications

AM RADIO

Frequency Range	520 to 1620 KHz
Intermediate Frequency	455 KHz
Sensitivity for S/N 20 dB	600, 1000, 1400/20μV
Image Rejection	More than 50 dB
Signal to Noise Ratio	40 dB

FM RADIO

Frequency Range	88 to 108.5 MHz
Intermediate Frequency	10.7 MHz
Sensitivity for S/N 50 dB	90, 98, 106 MHz/4.5μV
Image Rejection	More than 40 dB
Stereo Separation	400, 1000, 10,000 Hz/25, 25, 20 dB
Signal to Noise Ratio	55 dB

TAPE PLAYER

Tape Speed	+3% to −1%
Signal to Noise Ratio	40 dB
Channel Separation	30 dB
Frequency Response	50 to 10000 Hz
FF/REW Time	75 sec. (C-60 g/cm)
Wow and Flutter	0.3%
Crosstalk	40 dB

GENERAL

Power Supply	14V, D.C.
Output Power	12W
Semiconductors	15 ICs, 24 Transistors, 27 Diodes, 7 Zener Diodes (Model 7206) 9 ICs, 17 Transistors, 16 Diodes (Model 7205) 7 ICs, 13 Transistors, 9 Diodes, 2 Zener Diodes (Model 7204)
Dimensions	186(W) x 183(D) x 51(H) mm
Weight	2.5 Kg

Noise reduction circuit is made under licence from Dolby Laboratories.
The word "Dolby" and the Double-D symbol are trademarks of Dolby Laboratories.
Model 7204 has not Dolby NR Circuit.

Parts Locations and Disassembly Instruction

This item is described by using photographs of Model 7206 without front views. Model 7205 and Model 7204 can be disassembled in the same procedures as Model 7206.

- **Front View of Model 7206**

Music Sensor Indicator (Amber) & Switch (Touch -On-Off)
(Not Equipped for Model 7205 & 7204)

Noise Eliminating Indicator (Amber) & Switch (Touch -On-Off)
(Not Equipped for Model 7205 & 7204)

CrO_2 Tape Select Indicator (Amber) & Switch (Touch -On-Off)
(Not Equipped for Model 7205 & 7204)

Inner Shaft: Radio Power On/Off (Push) & Volume Control .
Middle Shaft: Treble Control
Outer Shaft: Bass Control

Dolby NR Indicator (Amber) & Switch (Touch -On-Off)
(Not Equipped for Model 7204)

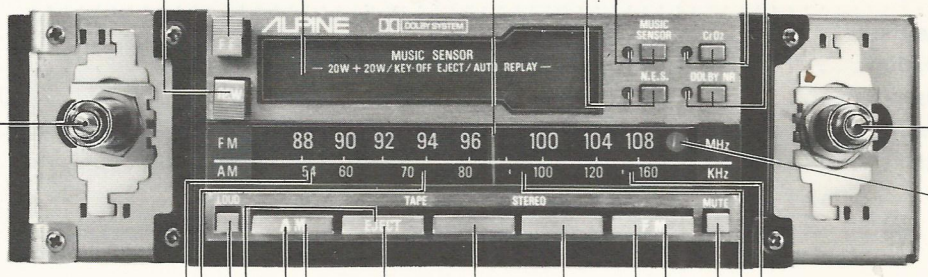
Inner Shaft: Tuning Control
Middle Shaft: Balance Control
Outer Shaft: Fader Control

Fast Forward (Push) Switch

Rewind (Push) Switch

Cassette Door

Dial Pointer



AM Indicator (Green)

Tape Run Indicator (Amber)
(Not located here for Model 7204)

Loudness (▬On) Switch

Eject (Push) Knob

AM Select (Push) Switch

Station Pre-Set Tuning Knobs

Antenna Trimmer Adjusting Screw (CT-51)

FM Indicator (Green)

Stereo Indicator (Amber)
(Not located here for Model 7204)

FM Mute (▬On) Switch

FM Select (Push) Switch

Figure 1

- **Front View of Model 7205**

Other indications of operating controls without following indications are as same as Model 7206.
(Shown in Figure 1).

Dolby NR Indicator (Amber)

Dolby NR Switch (▬On)

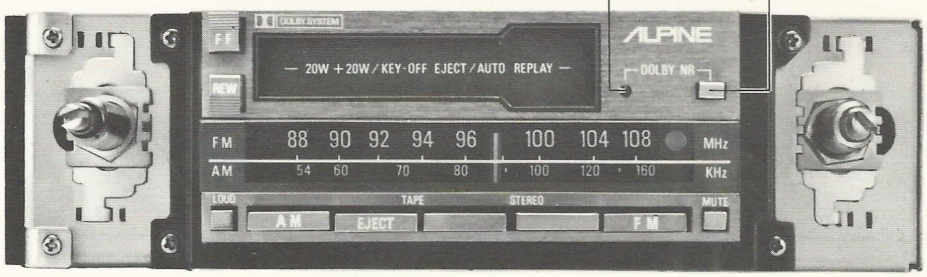


Figure 2

- **Front View of Model 7204**

Other indications of operating controls without following indications are as same as Model 7206. (Shown in Figure 1).

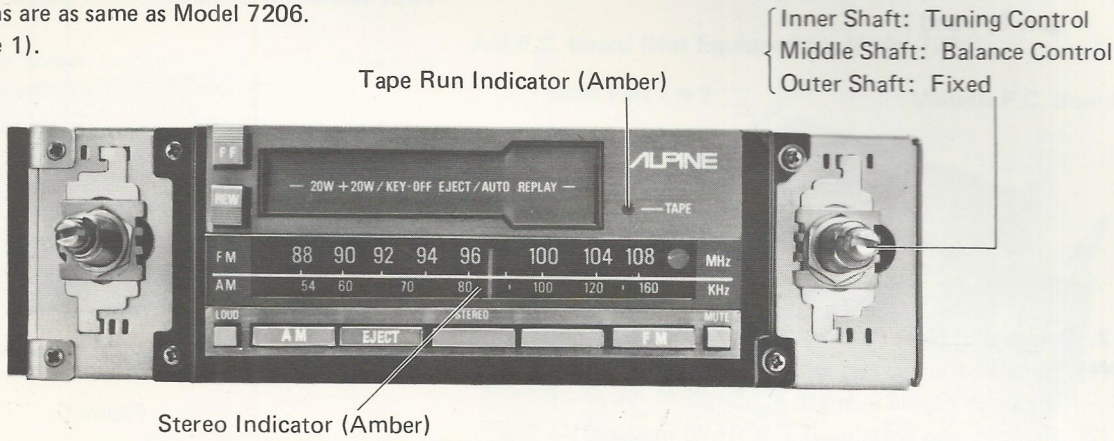


Figure 3

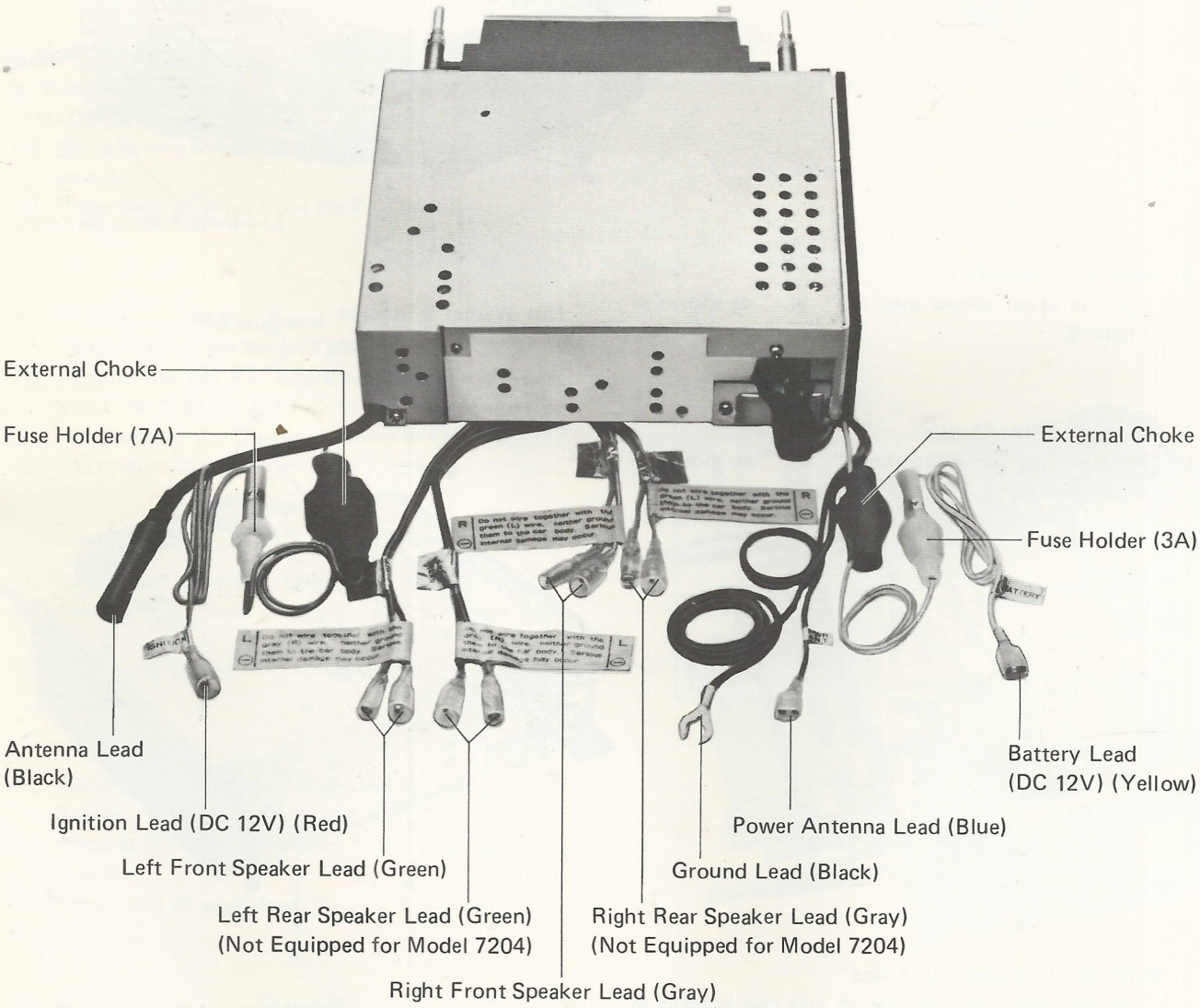


Figure 4

1. Removal of Top Cover

(1) Remove four screws marked " ☆ "as shown in Figure 5, 6 and 7.

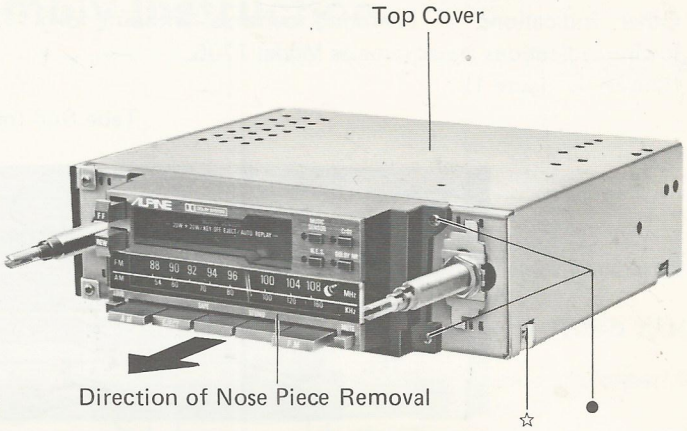


Figure 5

2. Removal of Nose Piece

(1) Remove four screws with washers marked " ● " as shown in Figure 5 and 6.

(2) Remove two switches (FF & REW) marked " △ " as shown in Figure 7.

(3) Pull out the nose piece in the arrow direction as shown in Figure 5.

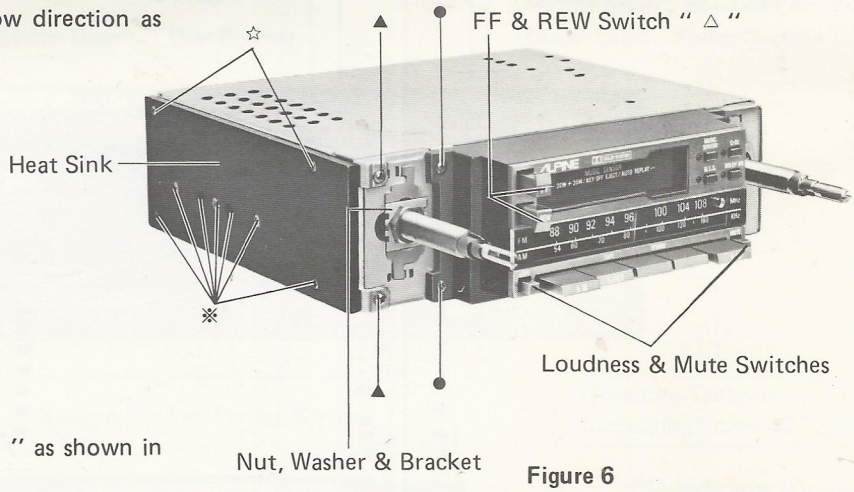


Figure 6

3. Removal of Heat Sink

(1) Remove seven screws marked " ※ " as shown in Figure 6.

4. Removal of Side Chassis

(1) Remove five screws marked " ▲ " as shown in Figure 6 and 7.

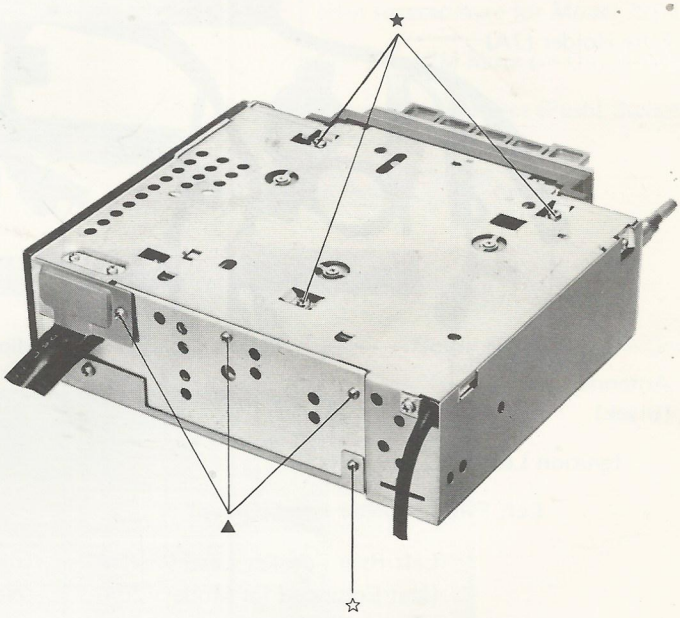


Figure 7

5. Removal of Volume P.C. Board

(1) Remove one nut, one washer and one bracket as shown in Figure 6.

(2) Disconnect all wires from the P.C. Board.

6. Removal of Control P.C. Board
(Control P.C. Board is not equipped for Model 7204 and 7205)

(1) Remove one screw marked " ▲ " as shown in Figure 8.
(2) Disconnect all wires from the P.C. Board.

7. Removal of Loudness P.C.Board

(1) Remove one screw marked " ○ " as shown in Figure 8.
(2) Disconnect all wires from the P.C. Board.

8. Removal of Pre-Main Amp P.C. Board

(1) Remove one screw marked " ☆ "as shown in Figure 8.
(2) Disconnect all wires from the P.C. Board.

9. Removal of Radio P.C. Board (For Model 7204 only) or Dolby NR P.C. Board (For Model 7205 & 7206)

(1) Remove two screws marked " □ " as shown in Figure 8.
(2) Disconnect all wires from the P.C. Board.

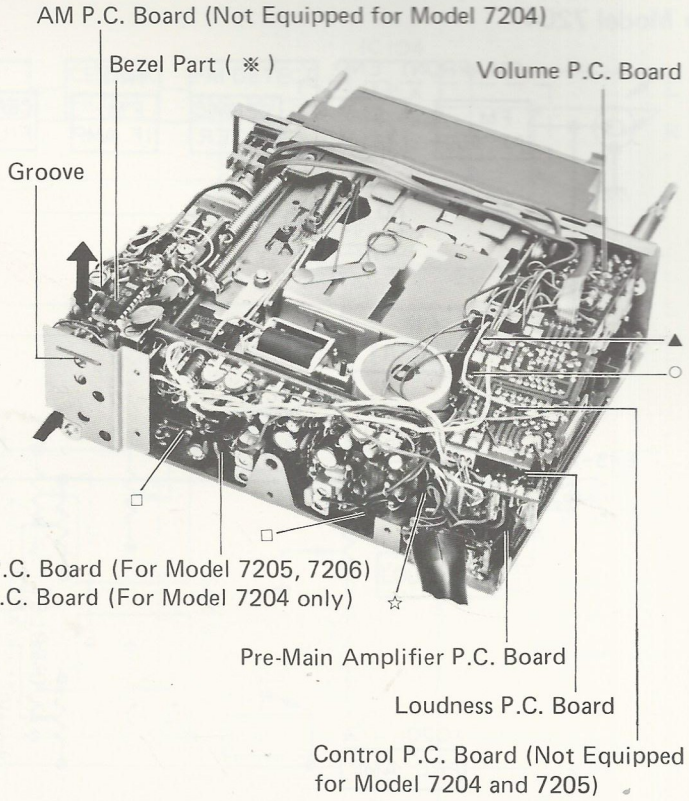


Figure 8

10. Removal of AM P.C. Board
(Not equipped for Model 7204)

(1) Remove the AM P.C. Board upwards from the bezel part (" ※ ") of the AM P.C. Board bracket and from the groove of the Chassis as shown in Figure 8.
(2) Disconnect all wires from the P.C. Board.

11. Removal of Lamp P.C. Board

(1) Remove two screws marked " ■ " as shown in Figure 9.
(2) Disconnect all wires from the P.C. Board.

12. Removal of Loudness Switch and Mute Switch P.C. Boards

(1) Remove two screws marked " # "as shown in Figure 9.
(2) Disconnect all wires from the P.C. Boards.

13. Removal of Cassette Deck

(1) Remove three screws marked " ★ " as shown in Figure 7.

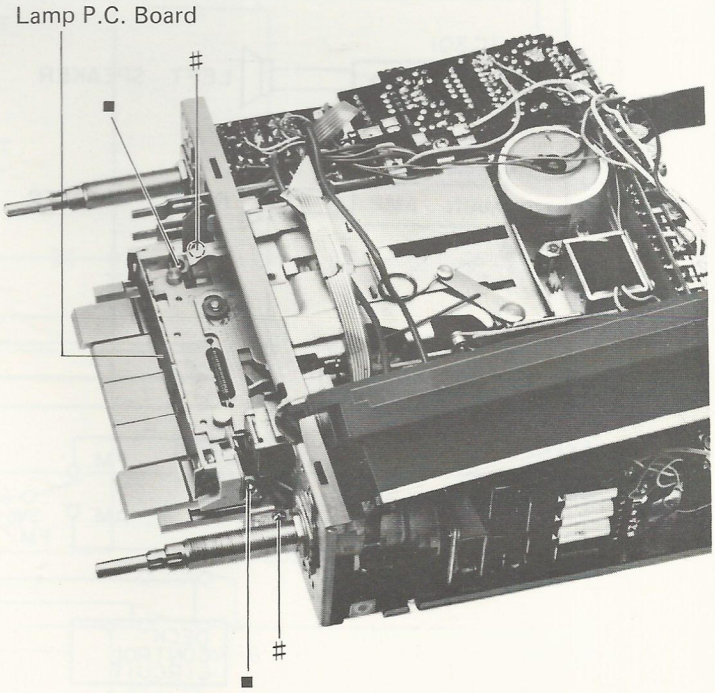
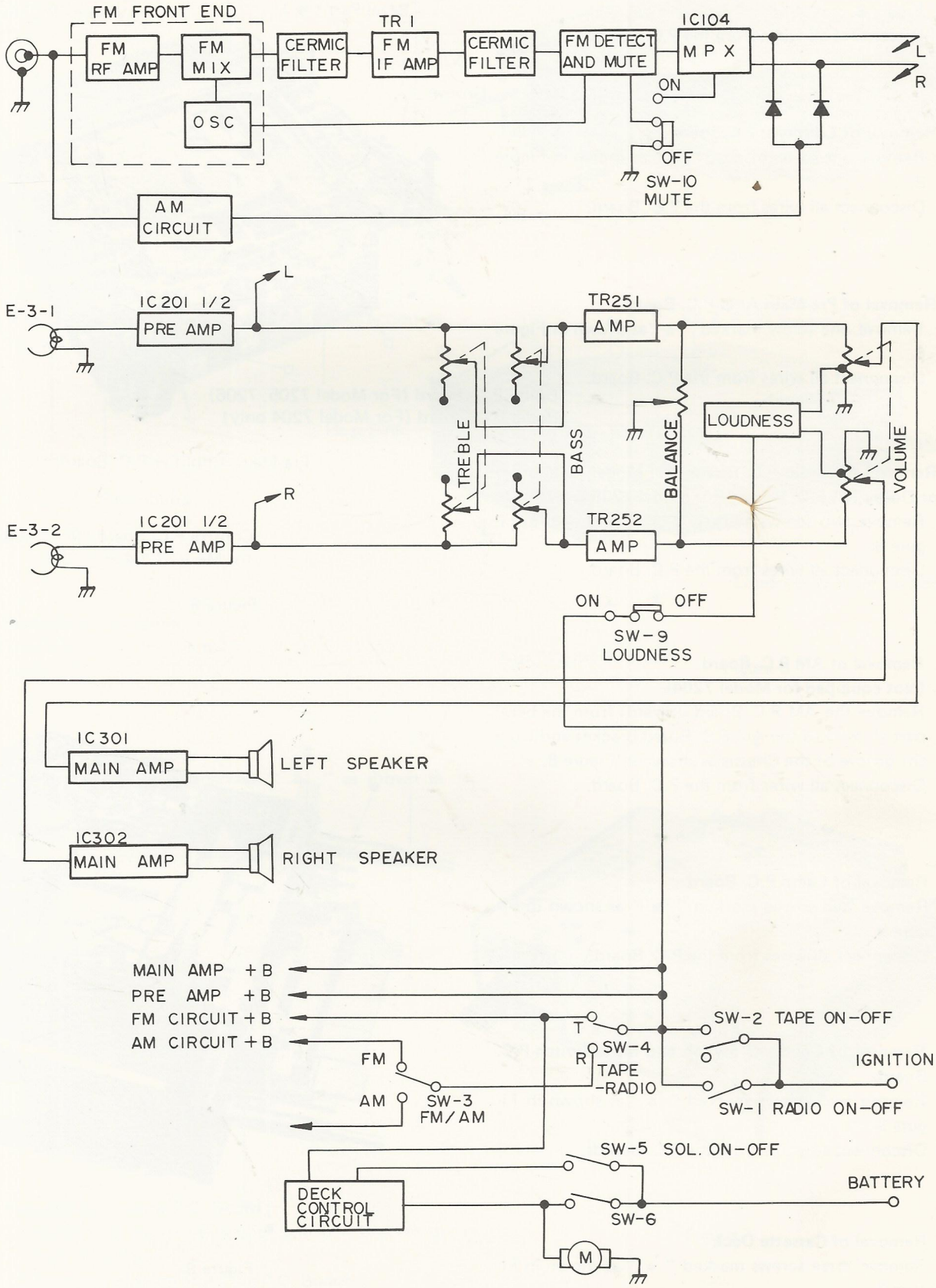


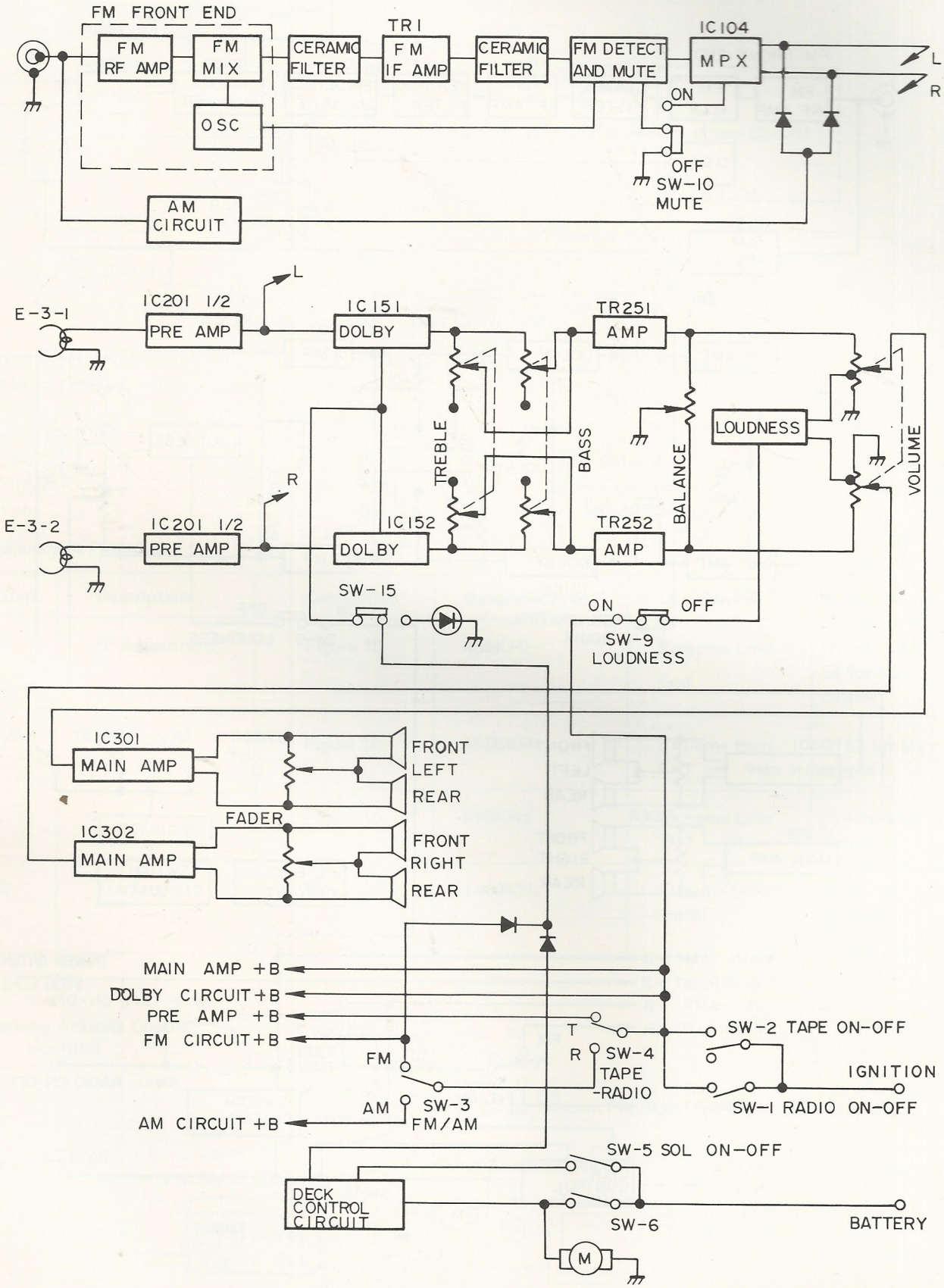
Figure 9

Block Diagrams

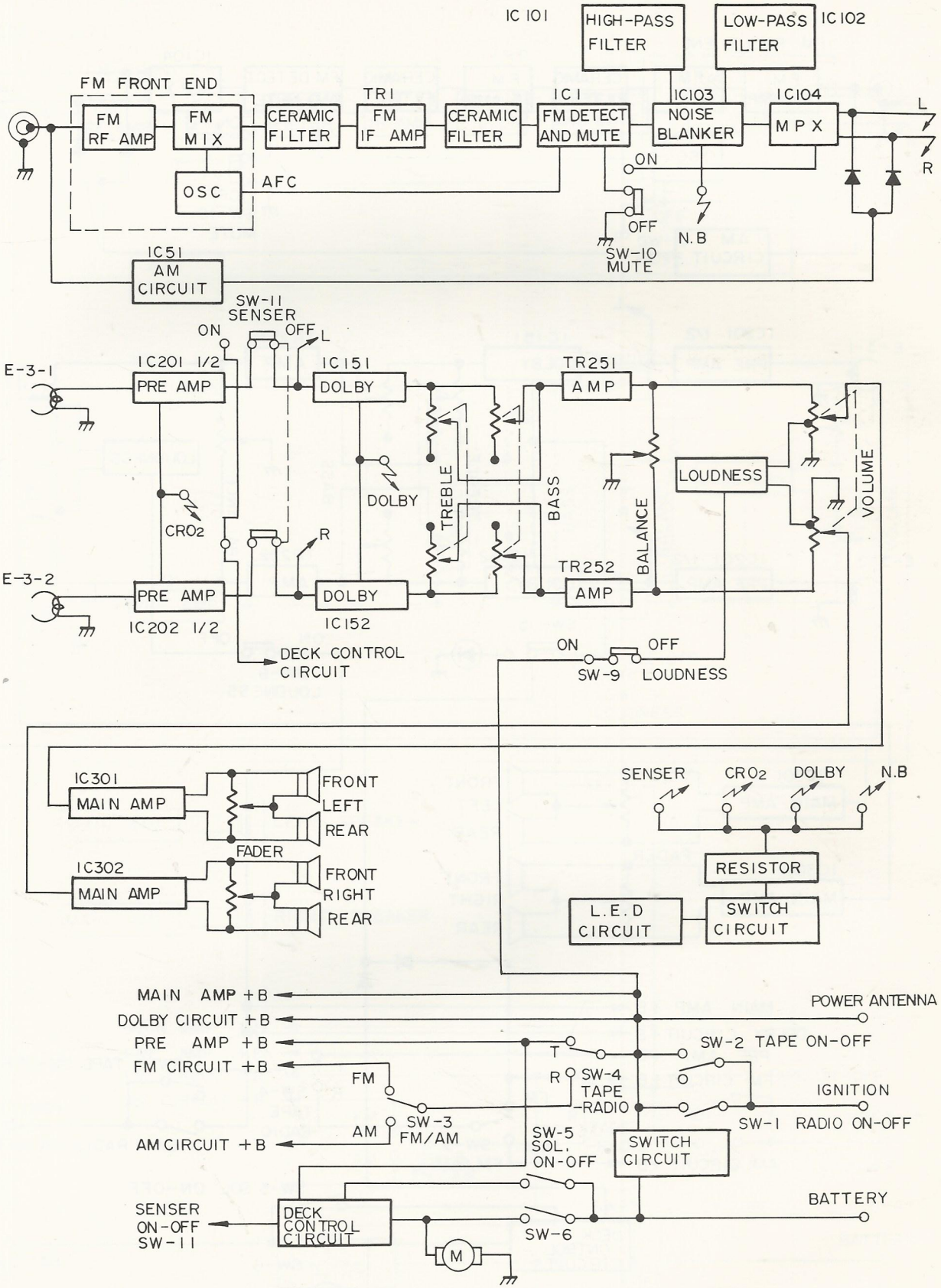
- **Model 7204**



• **Model 7205**


FM FRONT END
FM RF AMP
FM MIX
OSC
CERAMIC FILTER
TR1
FM IF AMP
CERAMIC FILTER
FM DETECT AND MUTE
IC104
MPX
L
R
ON
OFF
SW-10 MUTE
AM CIRCUIT
E-3-1
IC201 1/2
PRE AMP
L
IC151
DOLBY
TR251
AMP
TREBLE
BASS
BALANCE
LOUDNESS
VOLUME
E-3-2
IC201 1/2
PRE AMP
R
IC152
DOLBY
TR252
AMP
SW-15
ON
OFF
SW-9 LOUDNESS
IC301
MAIN AMP
FRONT LEFT
REAR
FADER
IC302
MAIN AMP
FRONT RIGHT
REAR
MAIN AMP +B
DOLBY CIRCUIT+B
PRE AMP +B
FM CIRCUIT+B
T
R
SW-4 TAPE -RADIO
SW-2 TAPE ON-OFF
FM
IGNITION
AM
SW-3 FM/AM
SW-1 RADIO ON-OFF
AM CIRCUIT +B
SW-5 SOL ON-OFF
DECK CONTROL CIRCUIT
SW-6
BATTERY
M

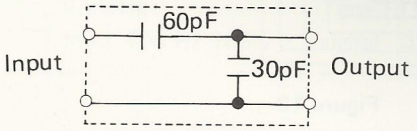
• **Model 7206**


IC 101
HIGH-PASS FILTER
LOW-PASS FILTER
IC 102
FM FRONT END
FM RF AMP
FM MIX
OSC
AFC
CERAMIC FILTER
TR1
FM IF AMP
CERAMIC FILTER
IC1
FM DETECT AND MUTE
IC103
NOISE BLANKER
IC104
MPX
L
R
ON
OFF
N.B
SW-10 MUTE
IC51
AM CIRCUIT
SW-11 SENSER
ON
OFF
L
E-3-1
IC201 1/2
PRE AMP
IC151
DOLBY
TR251
AMP
DOLBY
TREBLE
BASS
BALANCE
LOUDNESS
VOLUME
CRO2
R
E-3-2
PRE AMP
IC202 1/2
DOLBY
IC152
TR252
AMP
DECK CONTROL CIRCUIT
ON
OFF
SW-9
LOUDNESS
IC301
MAIN AMP
FRONT
LEFT
REAR
FADER
IC302
MAIN AMP
FRONT
RIGHT
REAR
SENSER
CRO2
DOLBY
N.B
RESISTOR
L.E.D CIRCUIT
SWITCH CIRCUIT
MAIN AMP +B
DOLBY CIRCUIT +B
PRE AMP +B
FM CIRCUIT +B
AM CIRCUIT +B
POWER ANTENNA
SW-2 TAPE ON-OFF
T
R
SW-4 TAPE -RADIO
FM
AM
SW-3 FM/AM
IGNITION
SW-1 RADIO ON-OFF
SW-5 SOL. ON-OFF
SWITCH CIRCUIT
BATTERY
SENSER ON-OFF SW-11
DECK CONTROL CIRCUIT
SW-6
M

Adjustment Procedures

AM SECTION

(1) Dummy Antenna Circuit



for 50 ohm AM Signal Generator (Open Circuit)

(2) Connection

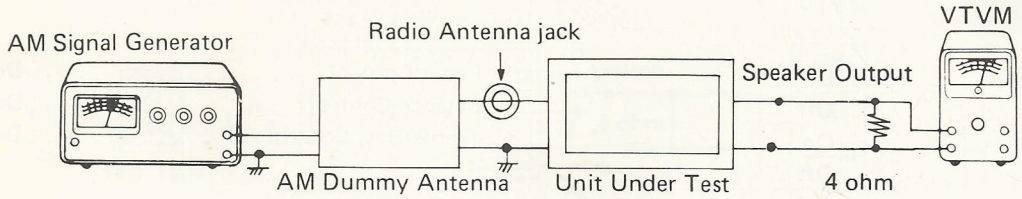


Figure 10

(3) Location of Adjustment Parts

Refer to "Adjustment Locations on page 13 and 14.

(4) Control Setting

Radio . . . . . On
FM/AM . . . . . AM
Others. . . . . Off

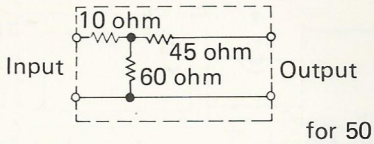
Fader Control. . . . . Detent
Balance Control . . . . . Detent
Treble/Bass Control . . . . . Detent

(5) Adjustment Procedures

Step	Description	Connection	Generator Freq.	Dial Control	Adjust
1	IF Adjustment	Figure 10	455KHz	Extreme Low End	IFT51, 52, 53 54 for Max. output
2	Band Ends	Figure 10	1650KHz	Extreme High End	CT53 for Max. output
		Figure 10	510KHz	Extreme Low End	L53 for Max. output
3	Tracking	Figure 10	1400KHz	Tune to 1400KHz Signal	CT52, CT51 for Max. output

FM SECTION

(1) Dummy Antenna Circuit



for 50 ohm FM Signal Generator (Open Circuit)

(2) Connection

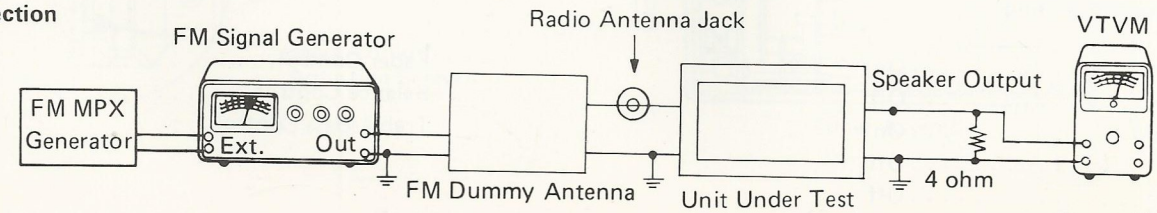


Figure 11

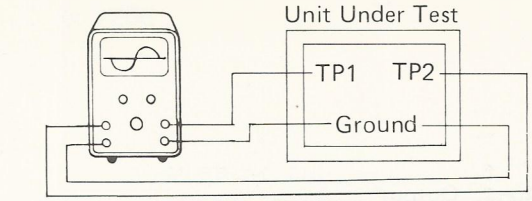


Figure 12

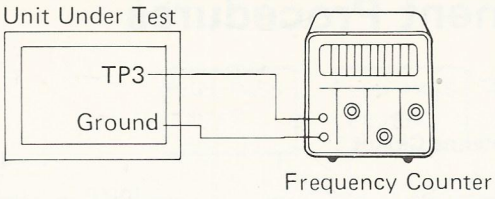


Figure 13

(3) Location of Adjustment Points

Refer to "Adjustment Locations" on page 13 and 14.

(4) Control Setting

Radio . . . . . .On
N.E.S. . . . . .Off
FM/AM . . . . . .On
Mute . . . . . .Off
Others . . . . . .Off

Fader Control . . . . . Detent
Balance Control . . . . . Detent
Treble/Bass Control . . . . . Detent

(5) Adjustment Procedures

Step	Description	Connection	Generator Freq.	Dial Control	Adjust
1	IF Adjustment	Figure 12	Center Freq. of Ceramic Filters* Approx.10.7 MHz	Point of non-interference	IFT, IFT1 for Optimum "S" Curve
2	Free-Running Freq. Adjustment	Figure 13	No Signal	Mute: ON	VR101 for 19 KHz
3	Stereo Separation Adjustment	Figure 11	98 MHz (Mod. 1 KHz Stereo Signal)	Tune to 98 MHz Signal	VR102 for Max. Separation
4	Band Ends	Figure 11	109.5 MHz	Extreme High End	CT for Max. Output
5	Muting Adjustment	Figure 11	98 MHz	Tune to 98 MHz Signal Mute: ON	VR1 for Faint Wave Coming

Note: * Ceramic Filters for FM IF Adjustment are different in their center frequencies as shown below.
Red=10.7 MHz, Orange=10.73 MHz, Blue=10.67 MHz, Black=10.64 MHz, White=10.76 MHz

DOLBY NR CIRCUIT SECTION

(This item makes no reference to Model 7204 except "Head Azimuth Adjustment".)

(A) FM Mode

(1) Connection

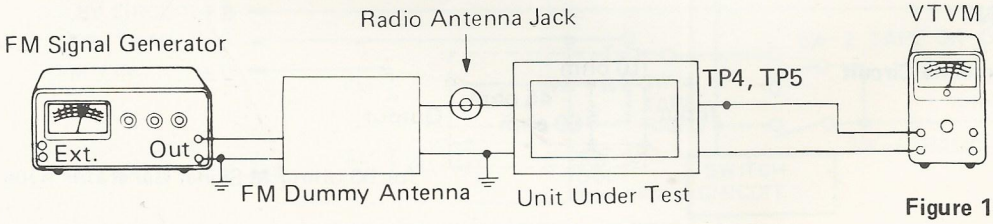


Figure 14

(2) Control Setting

Radios. . . . . On
N.E.S. . . . . Off
FM/AM . . . . . On
Mute . . . . . Off
Others . . . . . Off

Fader Control . . . . . Detent
Balance Control . . . . . Detent
Treble/Bass Control . . . . . Detent

(3) Adjustment Procedures

Step	Description	Connection	Generator Freq.	Dial Control	Adjust
1	Dolby Level Adjustment	Figure 15	98 MHz Mod. 400 Hz 100%	Tune to 98 MHz signal	VR151, 152 for 580mV

(B) Cassette Tape Mode

(1) Connection

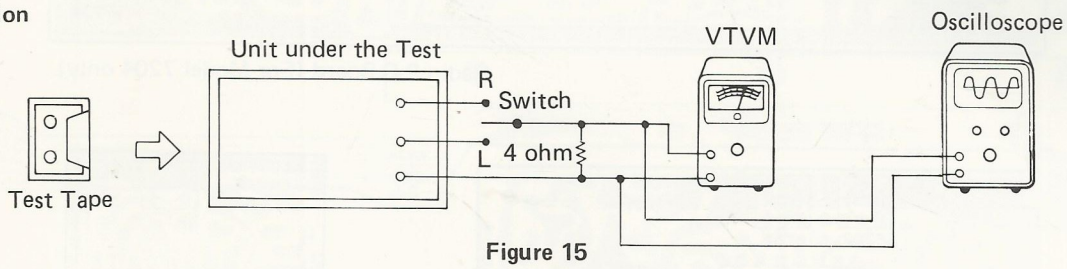


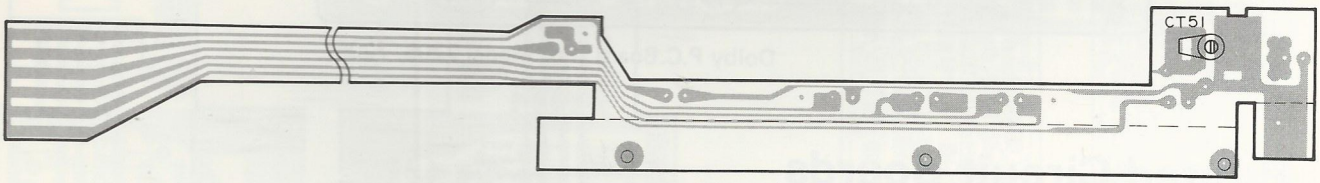
Figure 15

(2) Adjustment Procedures

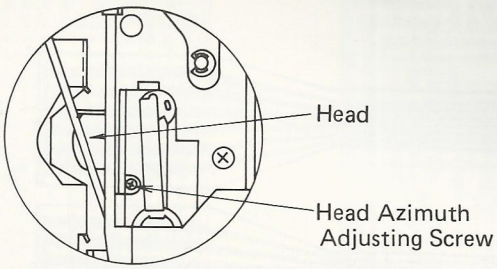
Step	Description	Test Tape	Adjustment Point	Test Point	Remarks
1	Head Azimuth Adjustment	MTT-114	Azimuth Screw	Audio Output	VTVM: Max.
2	Dolby Level Adjustment	MTT-150	VR153 VR154	TP4 TP5	VTVM: 580mV

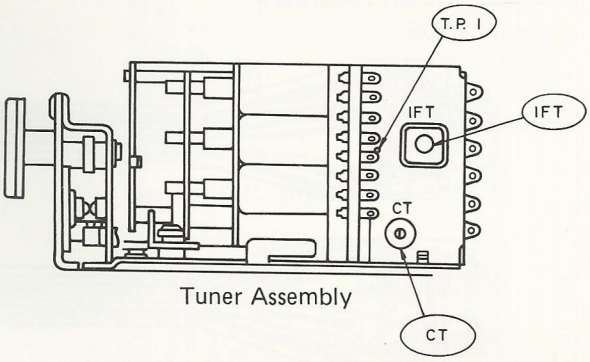
Adjustment Locations

Note: Antenna trimmer adjusting screw (CT51) locates on the nose piece as shown in Figure 1 on page 4.

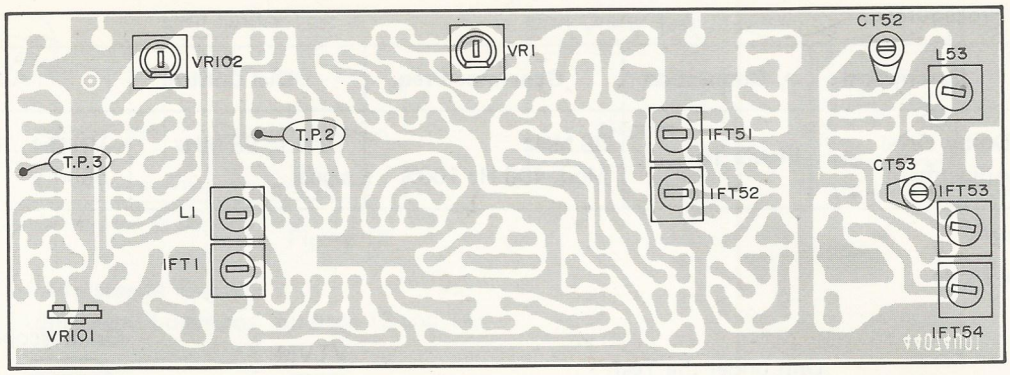


Lamp P.C.Board

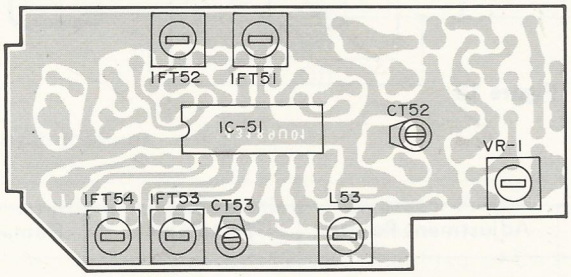




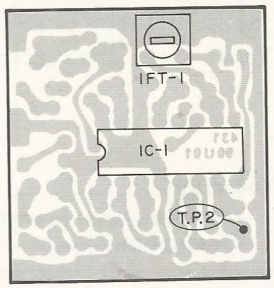
Tuner Assembly



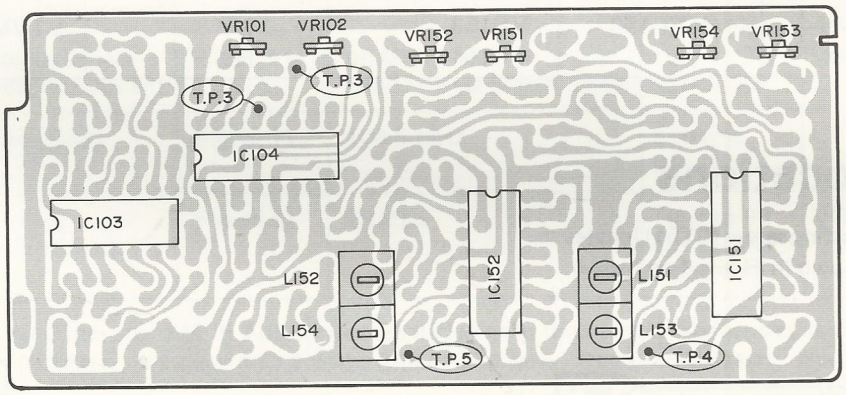
Radio P.C.Board (For Model 7204 only)



AM P.C.Board (For Model 7205, 7206)



FM P.C.Board (For Model 7205, 7206)

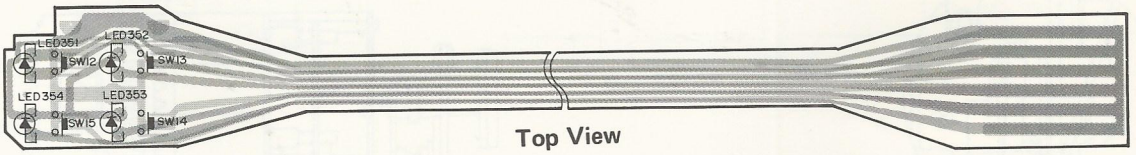


Dolby P.C.Board (For Model 7205, 7206)

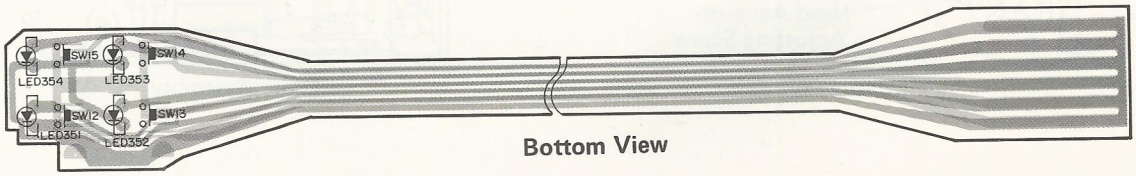
Printed Circuit Boards

Switch & LED P.C. Board

- **Model 7206**



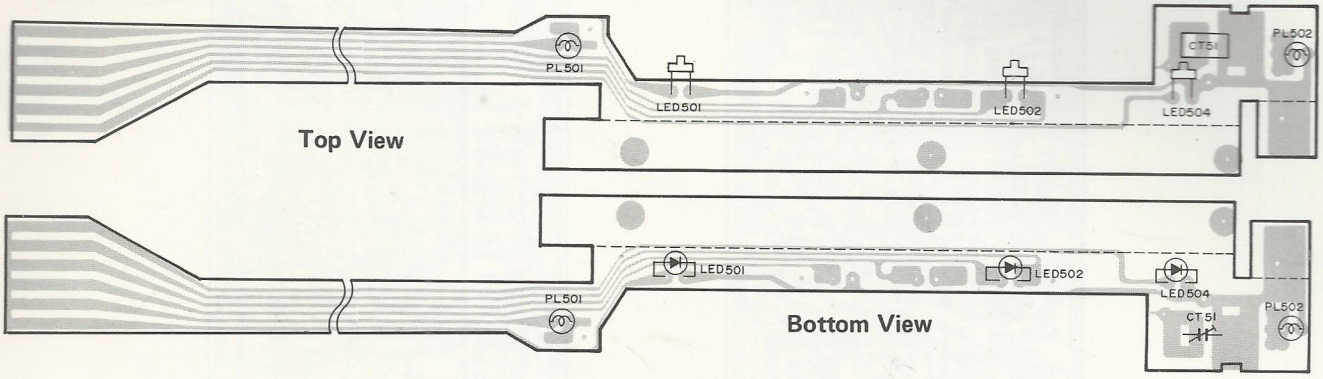
Top View



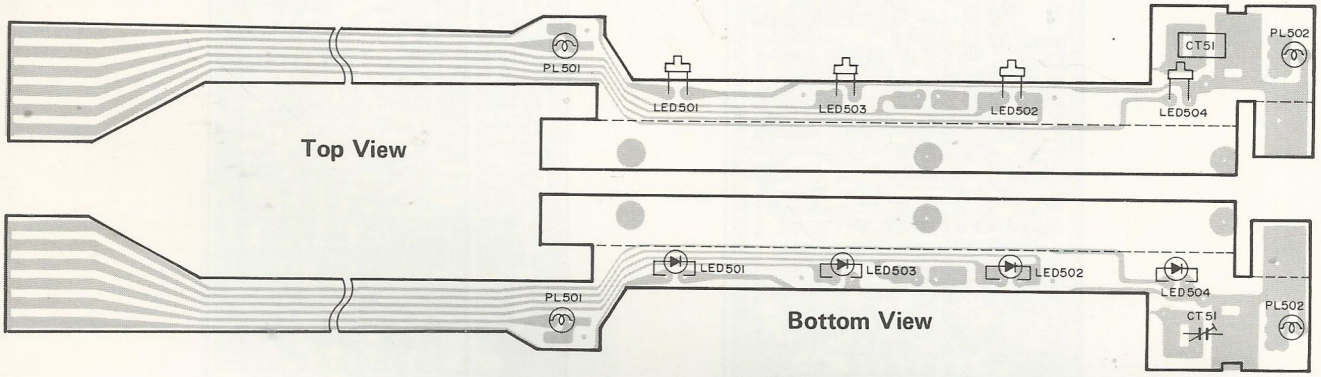
Bottom View

Lamp P.C. Board

• Model 7204

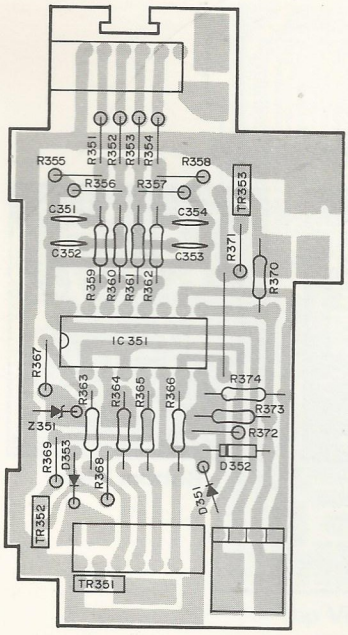


• Mdoel 7205 • Model 7206

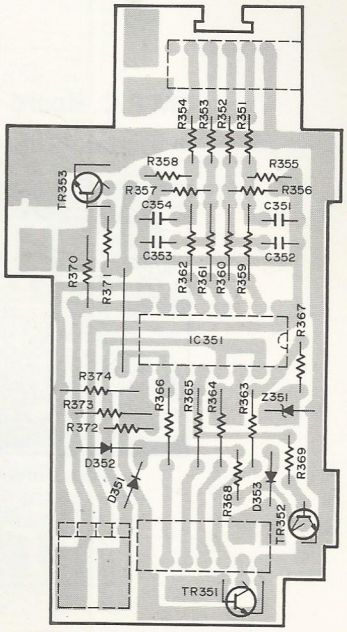


Control P.C. Board

• Model 7206

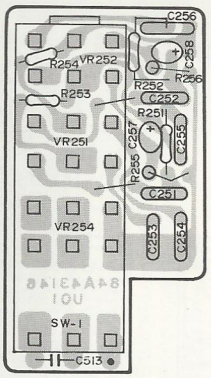


Top View

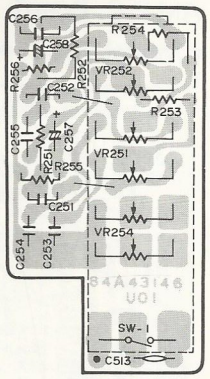


Bottom View

Volume P.C. Board



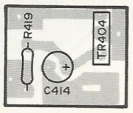
Top View



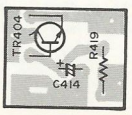
Bottom View

Sensor P.C. Board

• Model 7206



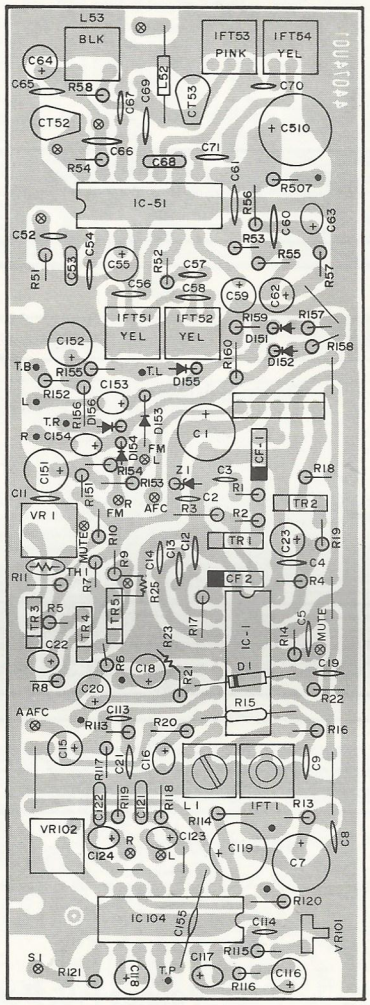
Top View



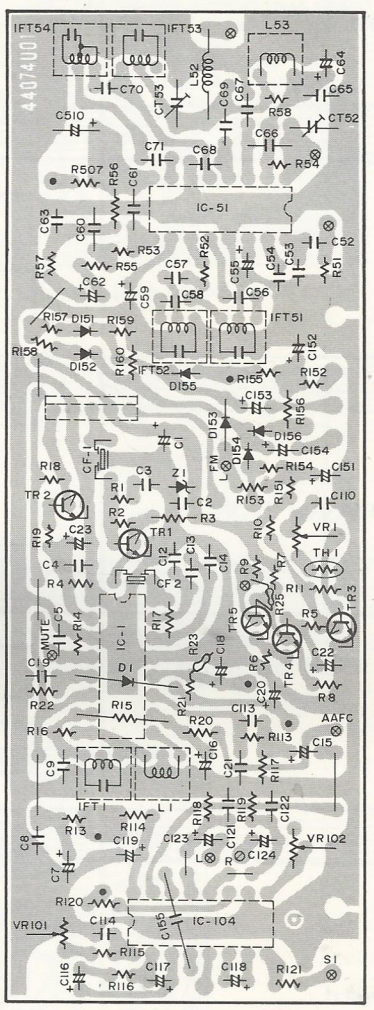
Bottom View

Radio P.C. Board

- **Model 7204**



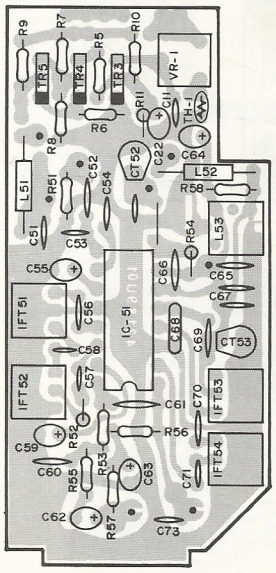
Top View



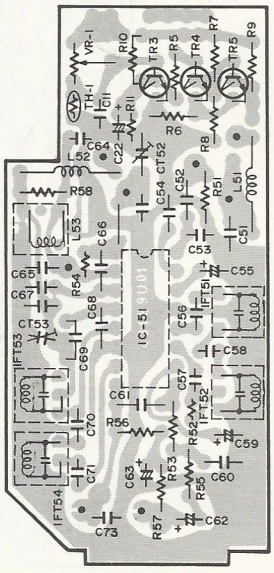
Bottom View

AM P.C. Board

- **Model 7205** • **Model 7206**



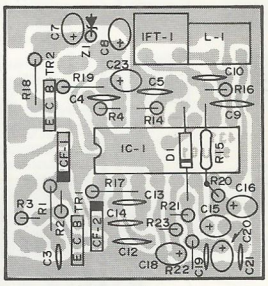
Top View



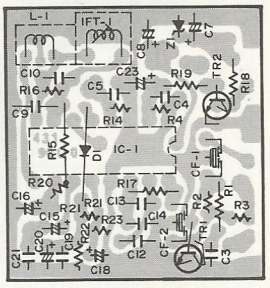
Bottom View

FM P.C. Board

- **Model 7205** • **Model 7206**



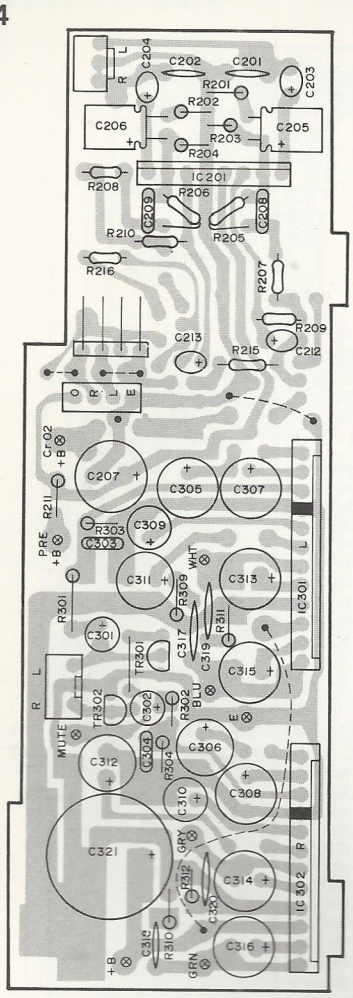
Top View



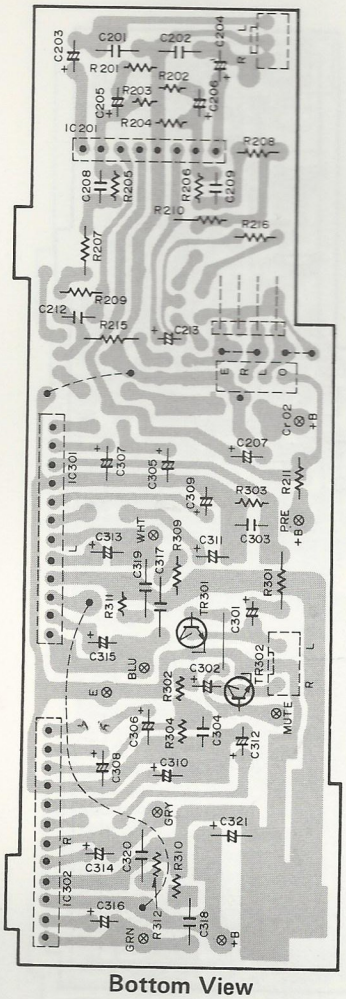
Bottom View

Pre-Main Amplifier P.C. Board

- **Model 7204**



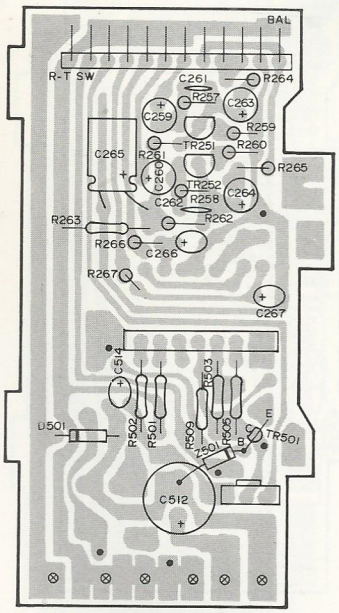
Top View



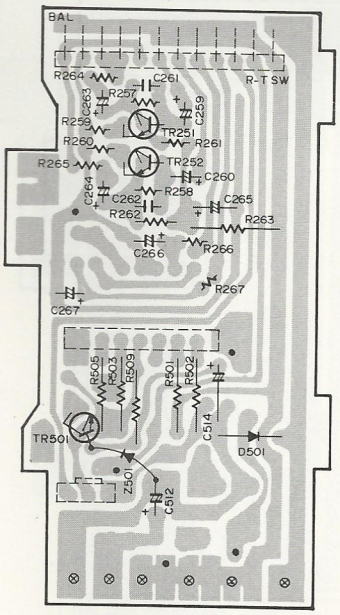
Bottom View

Loudness P.C. Board

- **Model 7204**



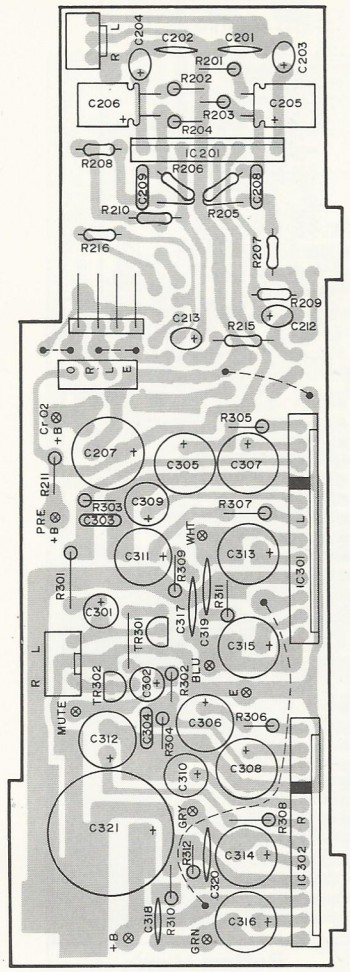
Top View



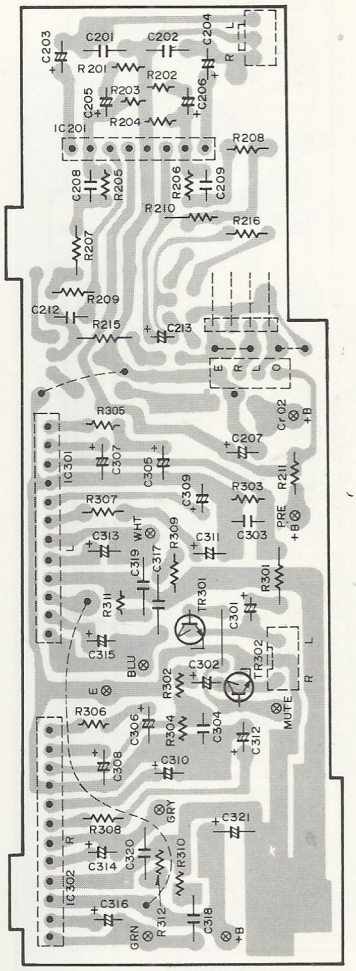
Bottom View

Pre-Main Amplifier P.C.Board

- **Model 7205**



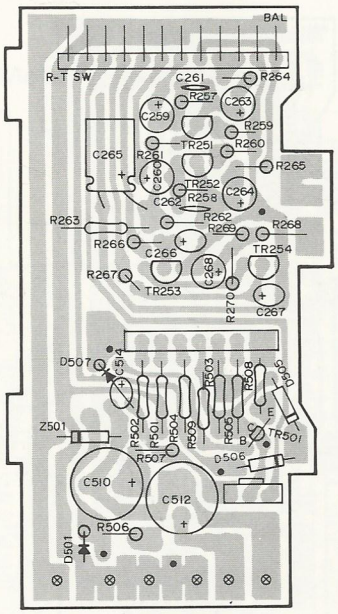
Top View



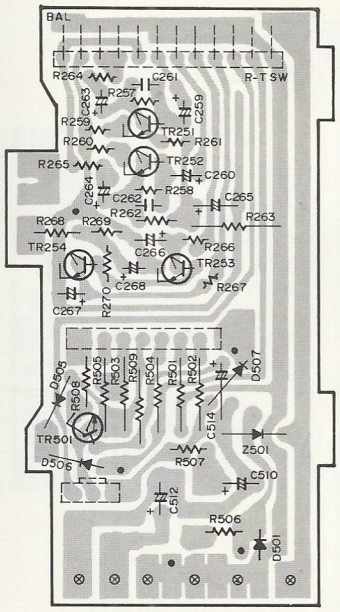
Bottom View

Loudness P.C.Board

- **Model 7205**



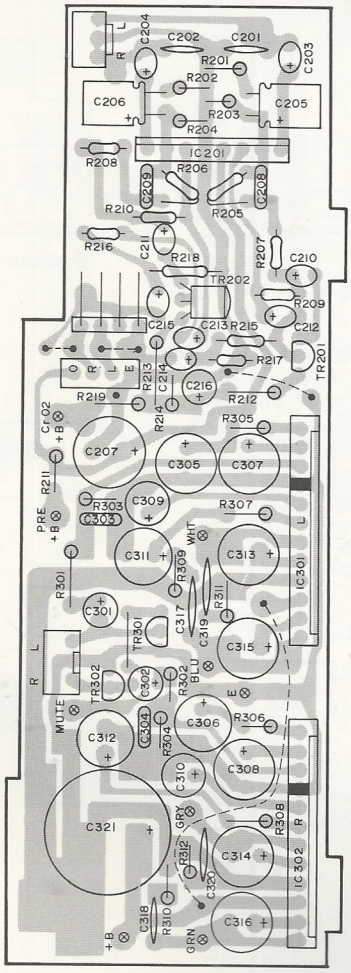
Top View



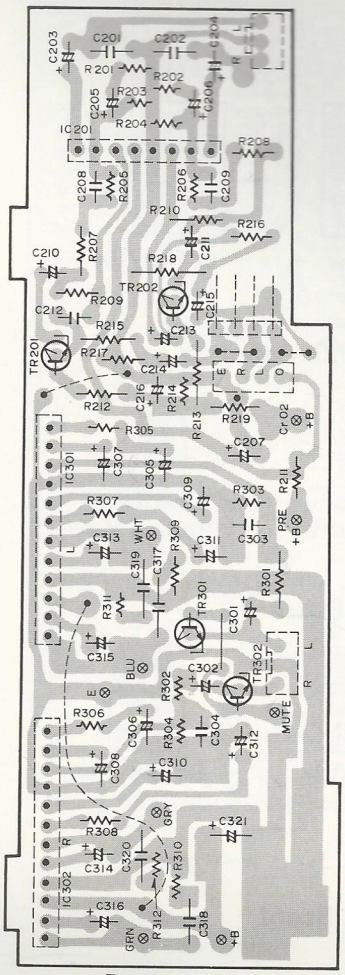
Bottom View

Pre-Main Amplifier P.C. Board

• Model 7206



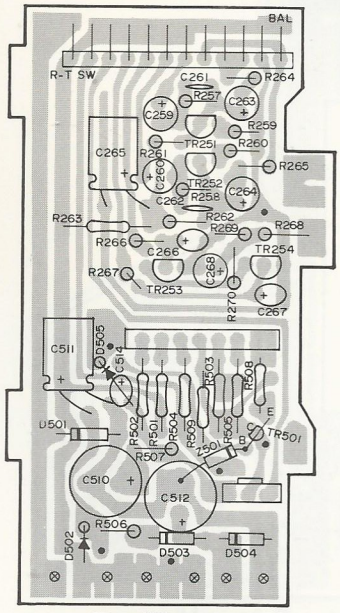
Top Vew



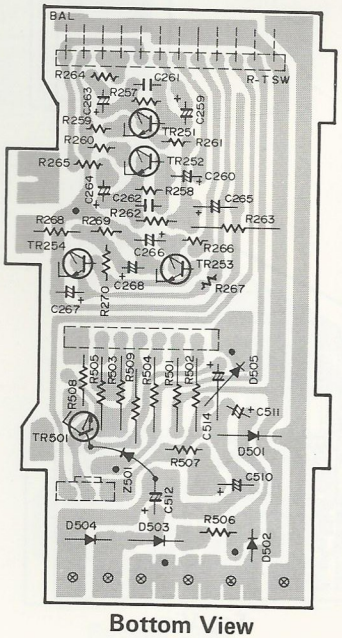
Bottom View

Loudness P.C.Board

• Model 7206



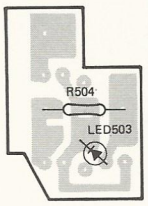
Top View



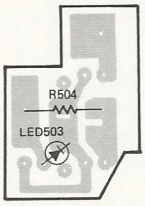
Bottom View

LED (Tape Run) P.C. Board

• Model 7204



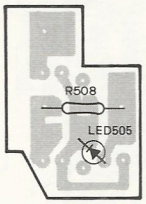
Top View



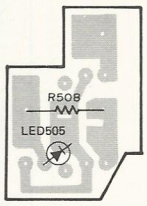
Bottom View

LED (Dolby NR) P.C. Board

• Model 7205

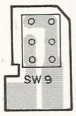


Top View

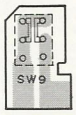


Bottom View

Loudness Switch P.C. Board

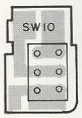


Top View

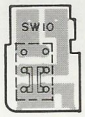


Bottom View

Mute Switch P.C. Board

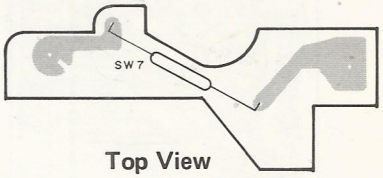


Top View

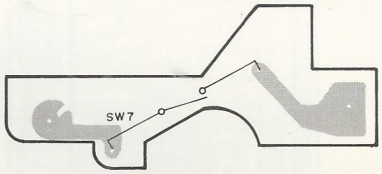


Bottom View

Lead Switch P.C. Board



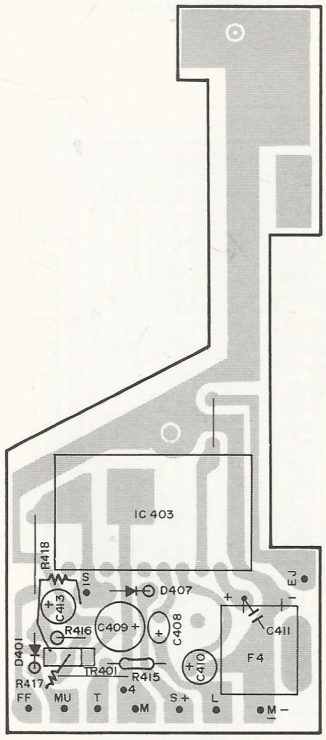
Top View



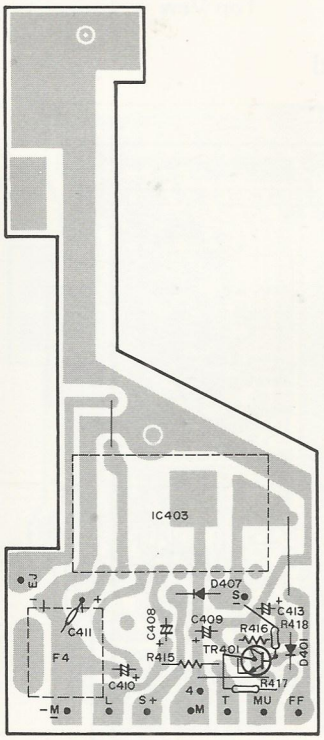
Bottom View

Deck Control P.C. Board

• Model 7204



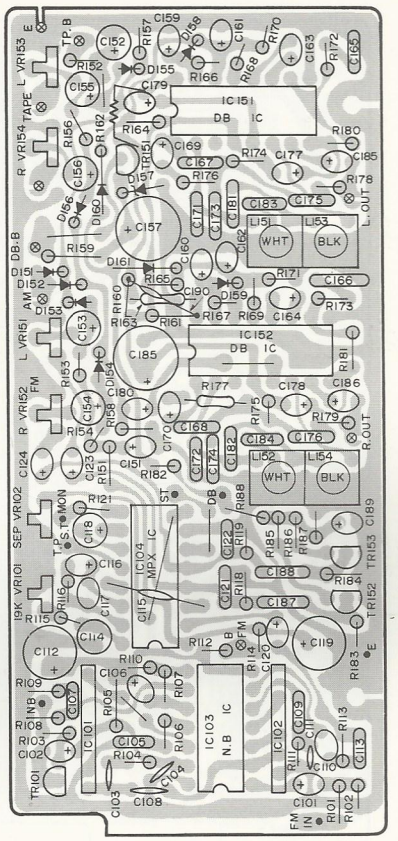
Top View



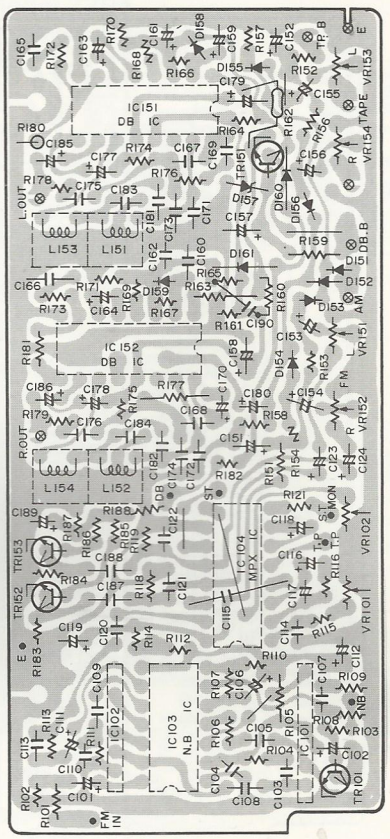
Bottom View

Dolby P.C. Board 7206

- **Model 7206**



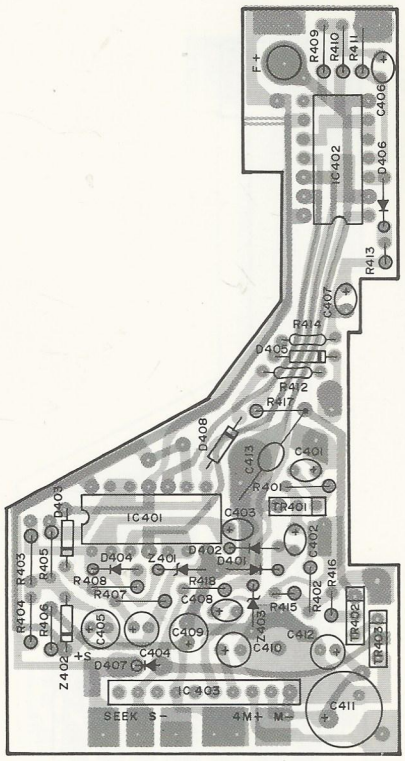
Top View



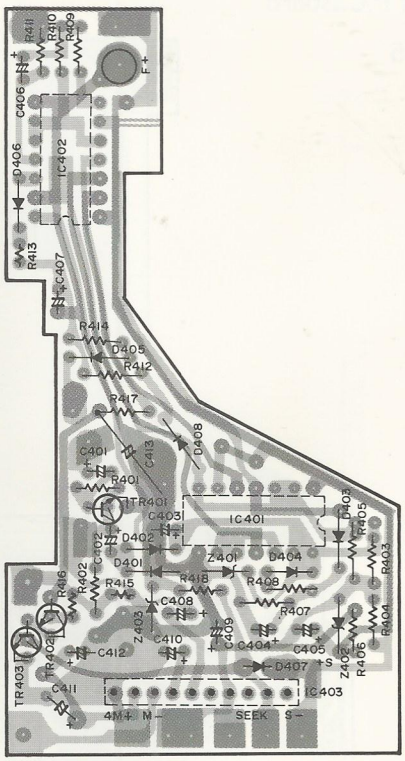
Bottom View

Deck Control P.C.Board

- **Model 7206**



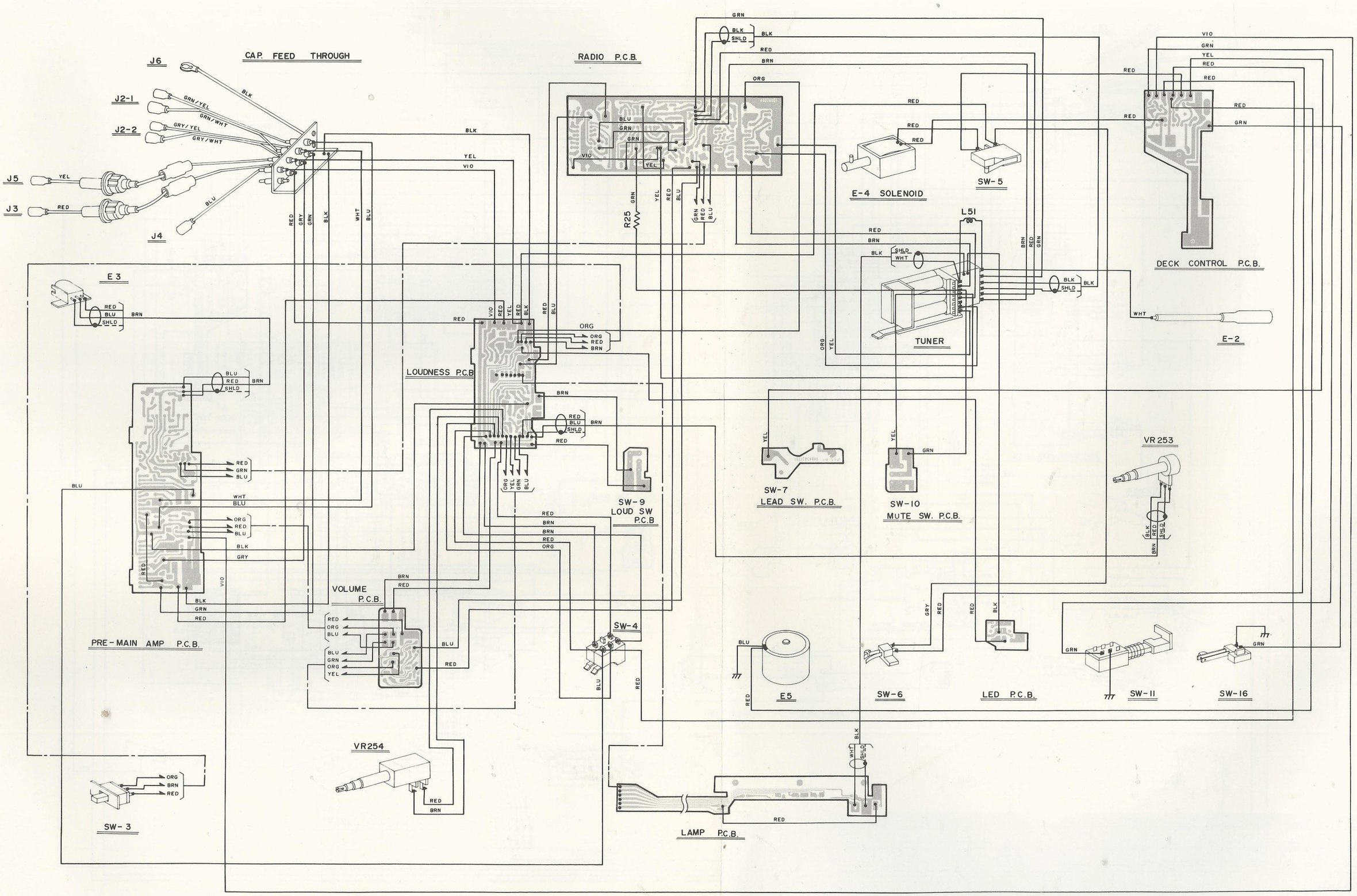
Top View

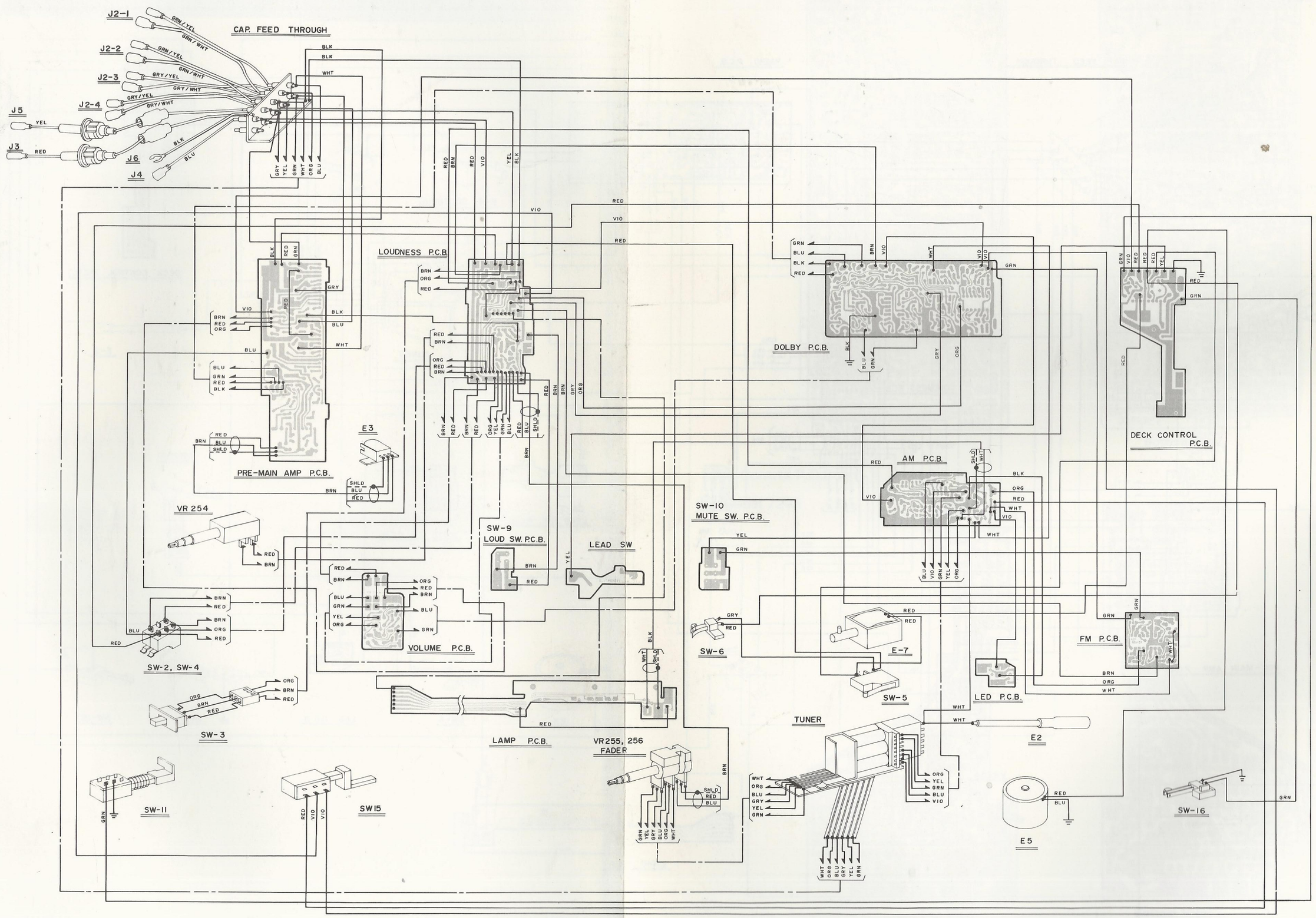


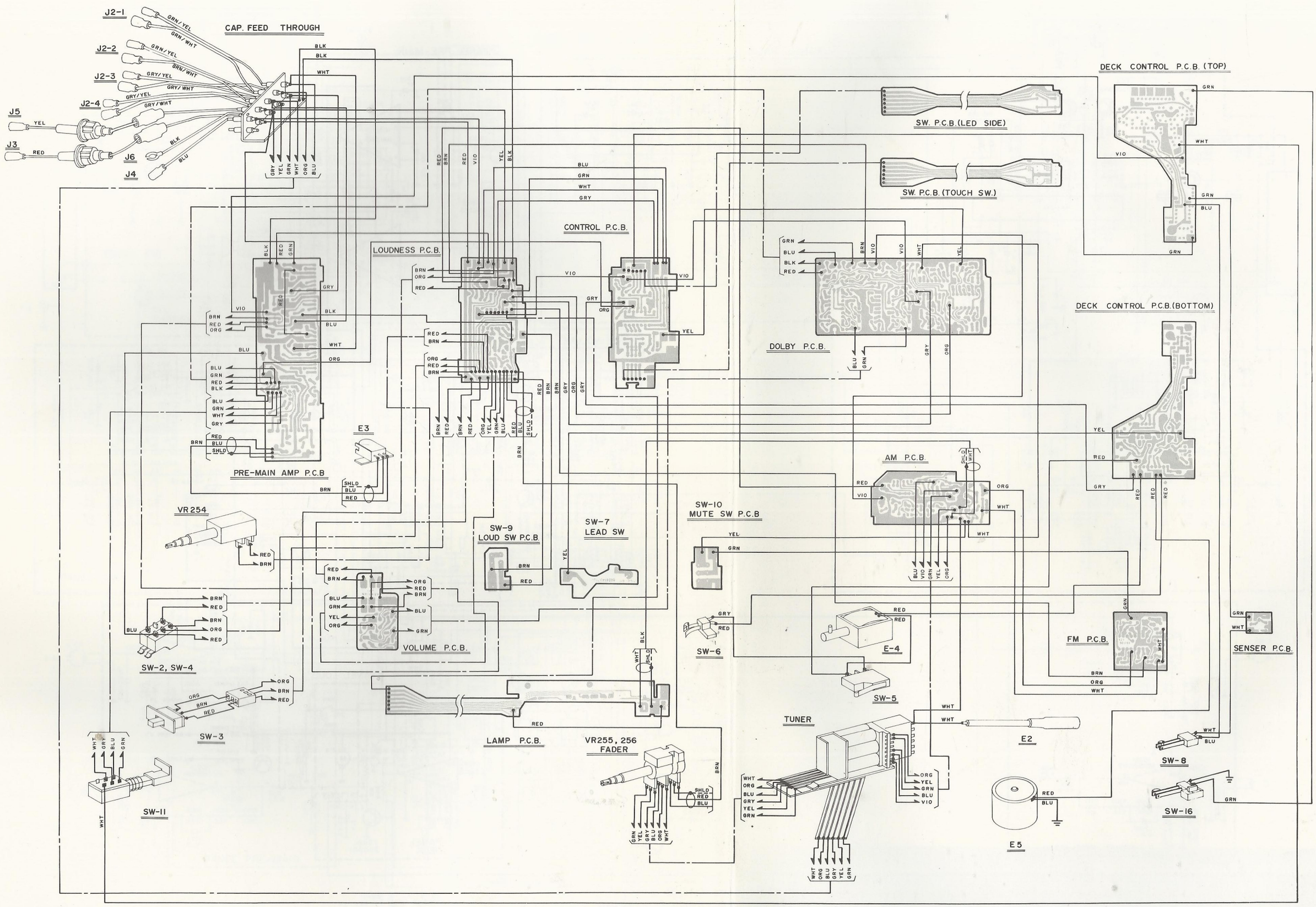
Bottom View

Wiring Diagrams

• Model 7204

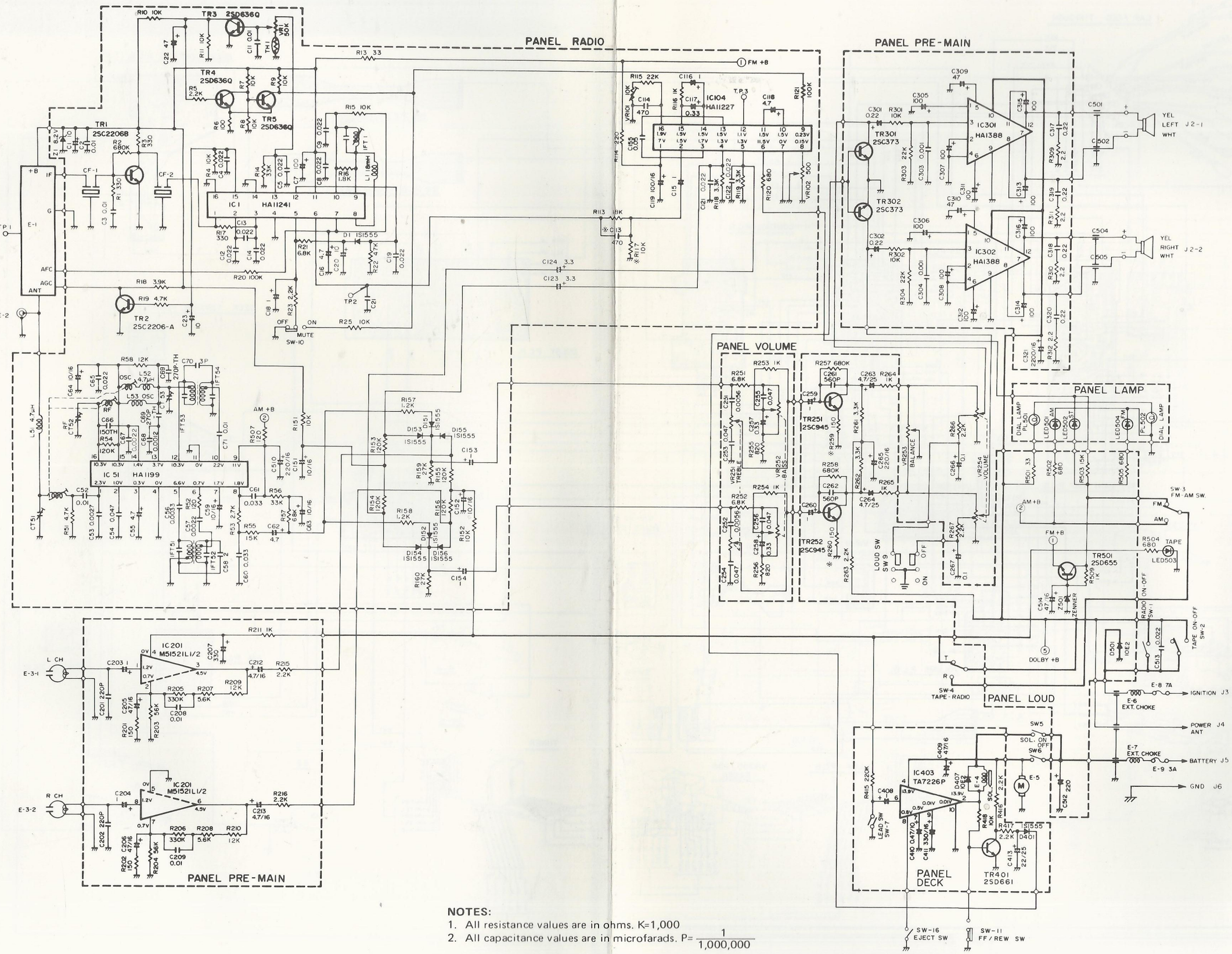



CAP. FEED THROUGH
J2-1
J2-2
J2-3
J2-4
J5
J3
J6
J4
LOUDNESS P.C.B.
DOLBY P.C.B.
DECK CONTROL P.C.B.
PRE-MAIN AMP P.C.B.
E3
VR 254
SW-9
LOUD SW. P.C.B.
LEAD SW
SW-10
MUTE SW. P.C.B.
AM P.C.B.
VOLUME P.C.B.
SW-2, SW-4
SW-3
SW-6
E-7
SW-5
FM P.C.B.
LED P.C.B.
LAMP P.C.B.
VR255, 256
FADER
TUNER
E2
E5
SW-11
SW15
SW-16


CAP. FEED THROUGH
J2-1
J2-2
J2-3
J2-4
J5
J3
J6
J4
DECK CONTROL P.C.B. (TOP)
SW. P.C.B.(LED SIDE)
SW. P.C.B.(TOUCH SW.)
CONTROL P.C.B.
LOUDNESS P.C.B.
DECK CONTROL P.C.B.(BOTTOM)
DOLBY P.C.B.
PRE-MAIN AMP P.C.B
E3
AM P.C.B
VR254
SW-9
LOUD SW P.C.B.
SW-7
LEAD SW
SW-10
MUTE SW P.C.B
SW-6
E-4
SW-5
FM P.C.B.
SENSER P.C.B.
VOLUME P.C.B.
SW-2, SW-4
SW-3
LAMP P.C.B.
VR255, 256
FADER
TUNER
E2
SW-8
SW-11
SW-16
E5

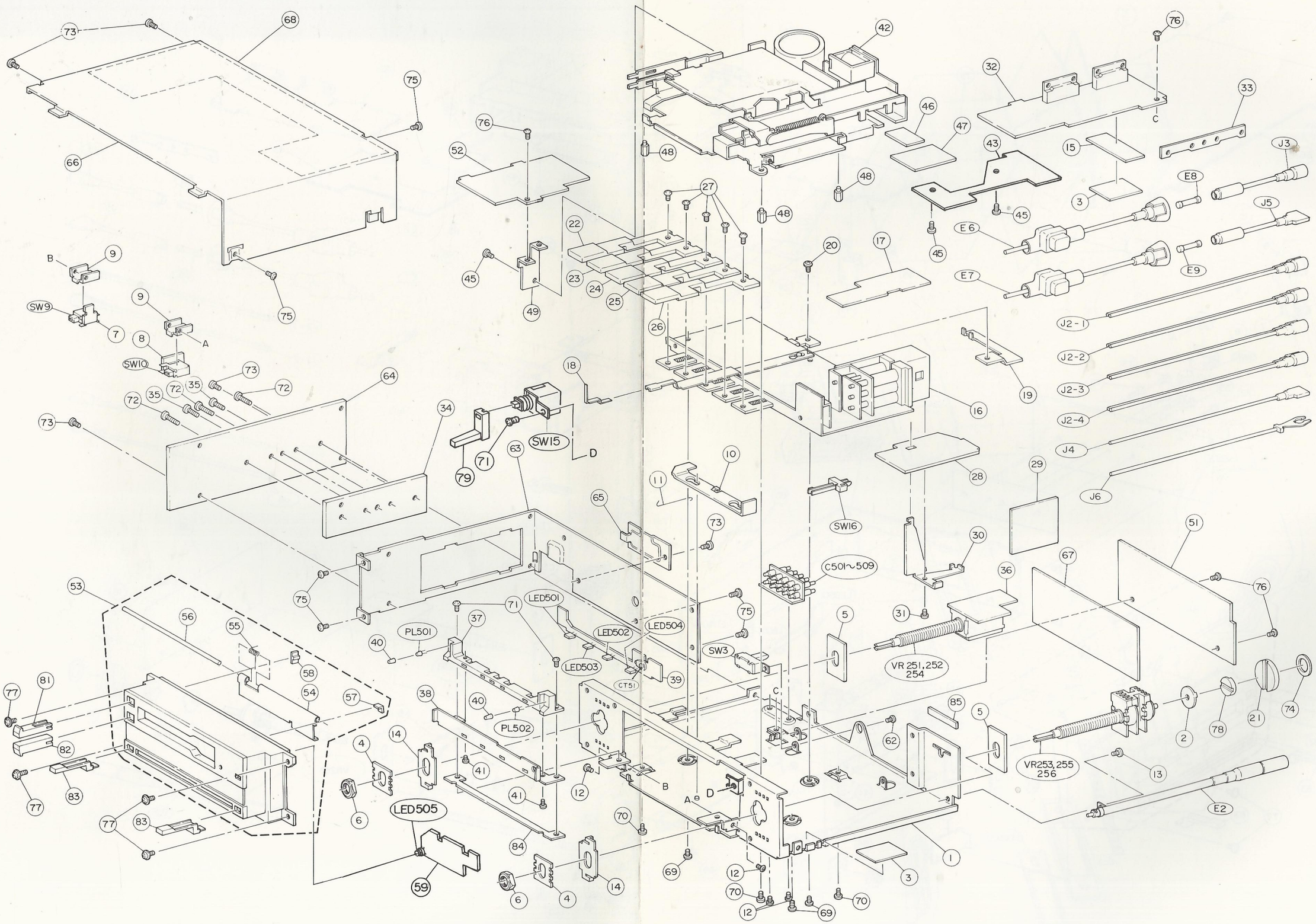
Schematic Diagrams

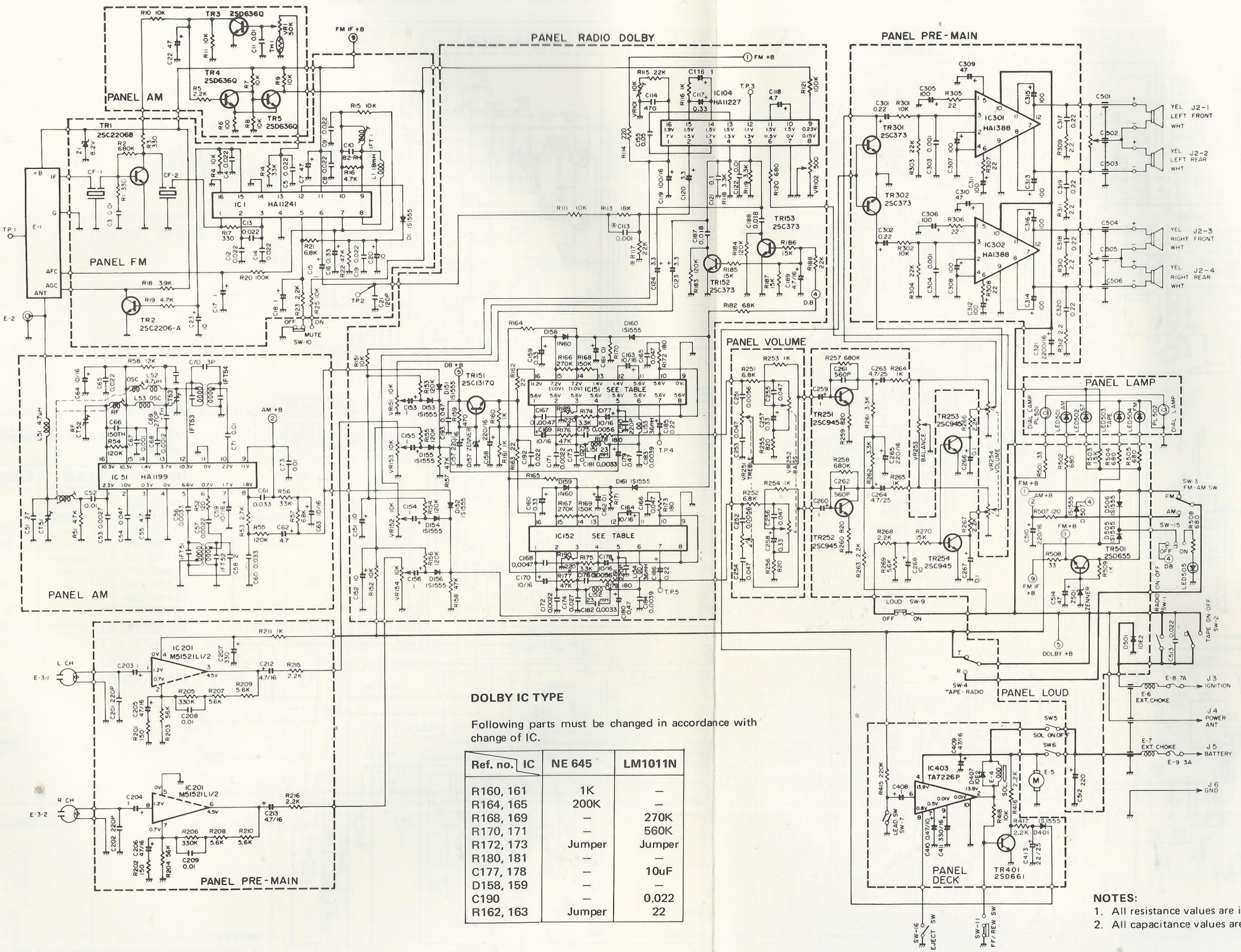
- **Model 7204**



NOTES:

1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1,000,000}$


SW9
SW10
SW15
SW16
SW3
LED501
LED502
LED503
LED504
LED505
PL501
PL502
CT51
C501~509
VR 251,252
254
VR253,255
256
J2-1
J2-2
J2-3
J2-4
J3
J4
J5
J6
E2
E6
E7
E8
E9



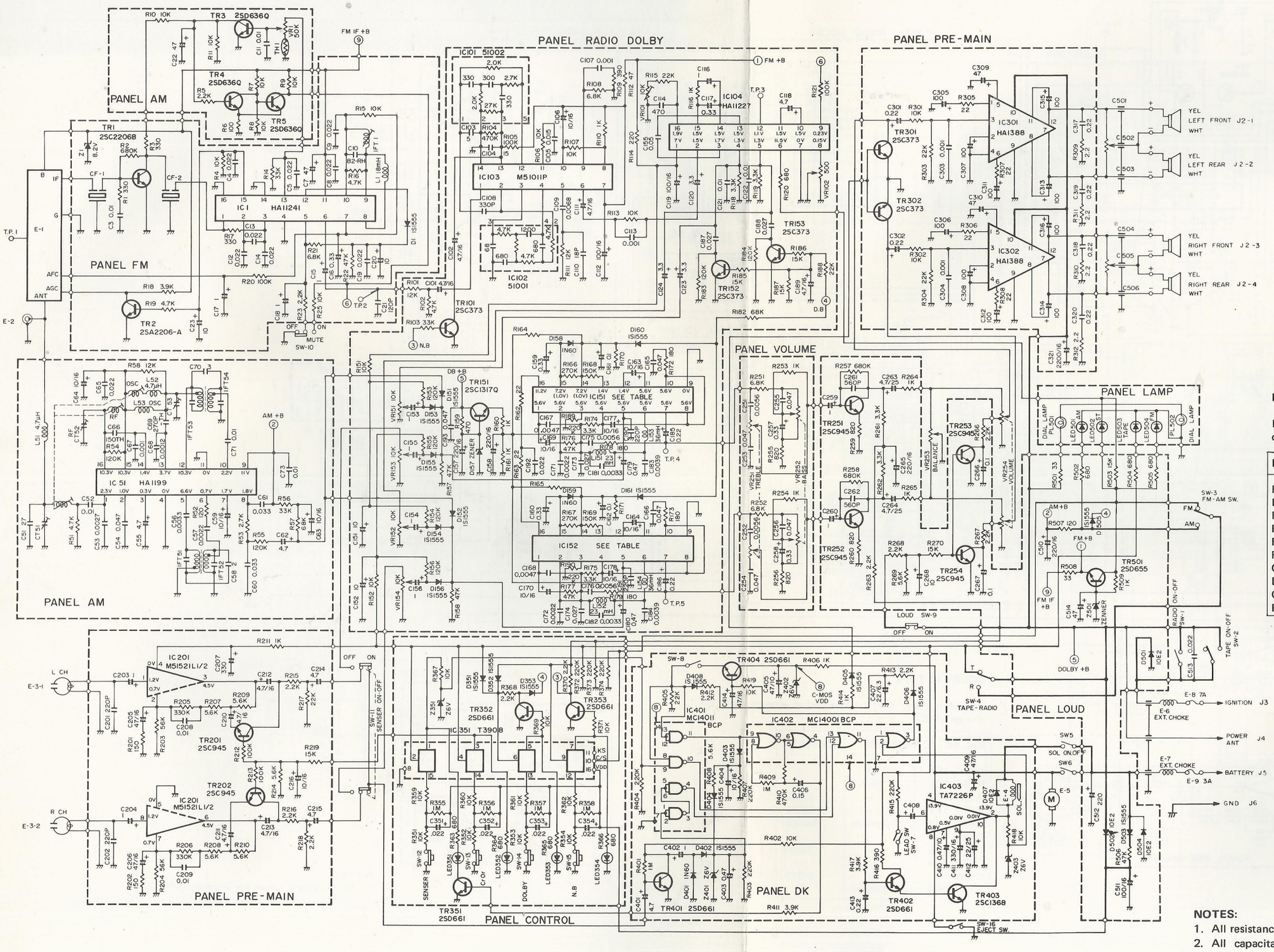
DOLBY IC TYPE

Following parts must be changed in accordance with change of IC.

Ref. no. \ IC	NE 645	LM1011N
R160, 161	1K	—
R164, 165	200K	—
R168, 169	—	270K
R170, 171	—	560K
R172, 173	Jumper	Jumper
R180, 181	—	—
C177, 178	—	10uF
D158, 159	—	—
C190	—	0.022
R162, 163	Jumper	22

NOTES:

1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. P= $\frac{1}{1,000,000}$



DOLBY IC TYPE

Following parts must be changed in accordance with change of IC.

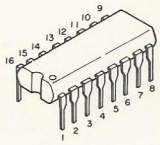
Ref. no. \ IC	NE 645	LM1011N
R160, 161	1K	—
R164, 165	200K	—
R168, 169	—	270K
R170, 171	—	560K
R172, 173	Jumper	Jumper
R180, 181	—	—
C177, 178	—	10uF
D158, 159	—	—
C190	—	0.022
R162, 163	Jumper	22

NOTES:

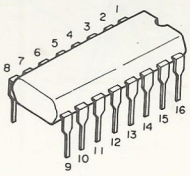
1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1.000.000}$

Semi-Conductor Lead Identifications

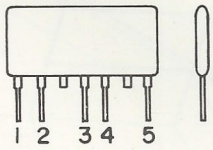
IC1: HA12411



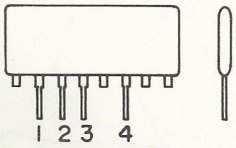
IC51: HA1199



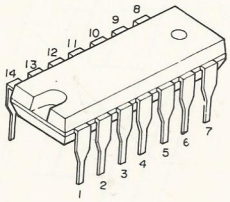
IC101: 5100-2



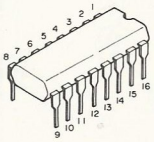
IC102: 5100-1



IC103: M51011P

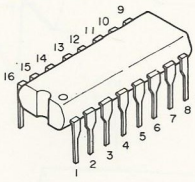


IC104: HA11227

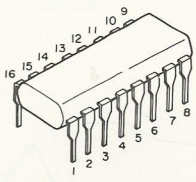


IC151, IC152:

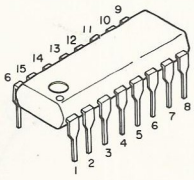
NE645B



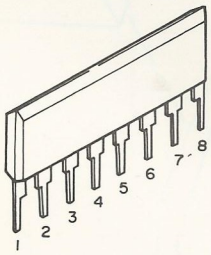
NE545



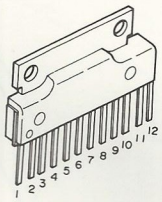
LM1011N



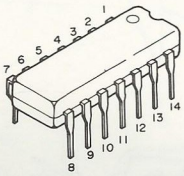
IC201: M51521U



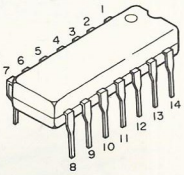
IC301, IC302: HA1388



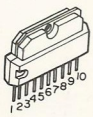
IC401: MC14011BCN or CD4011BCN



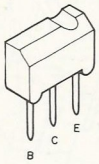
IC402: MC14001BCN



IC403: TA7226P or CD4001BCN

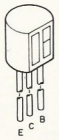


TR1, TR2: 2SC2206 (A) (B)
TR3, TR4, TR5: 2SD636
TR351, TR352, TR353
TR401, TR402, TR404: 2SD661 (U)

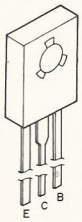


TR101, TR152, TR153,
TR301, TR302: 2SC373
TR151: 2SC1317 (Q)

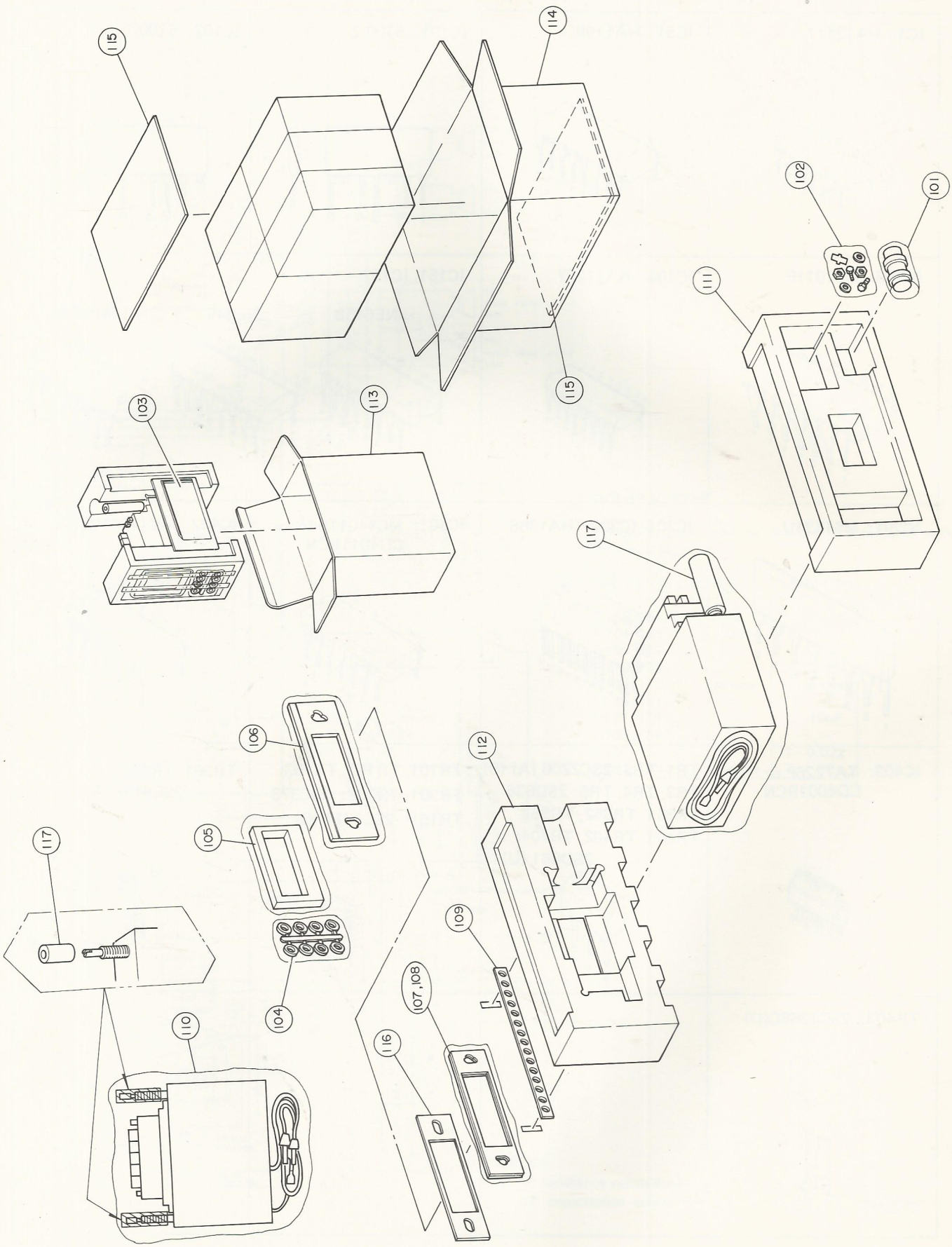
TR201, TR202: 2SC945L (M)



TR403: 2SC1368C(D)

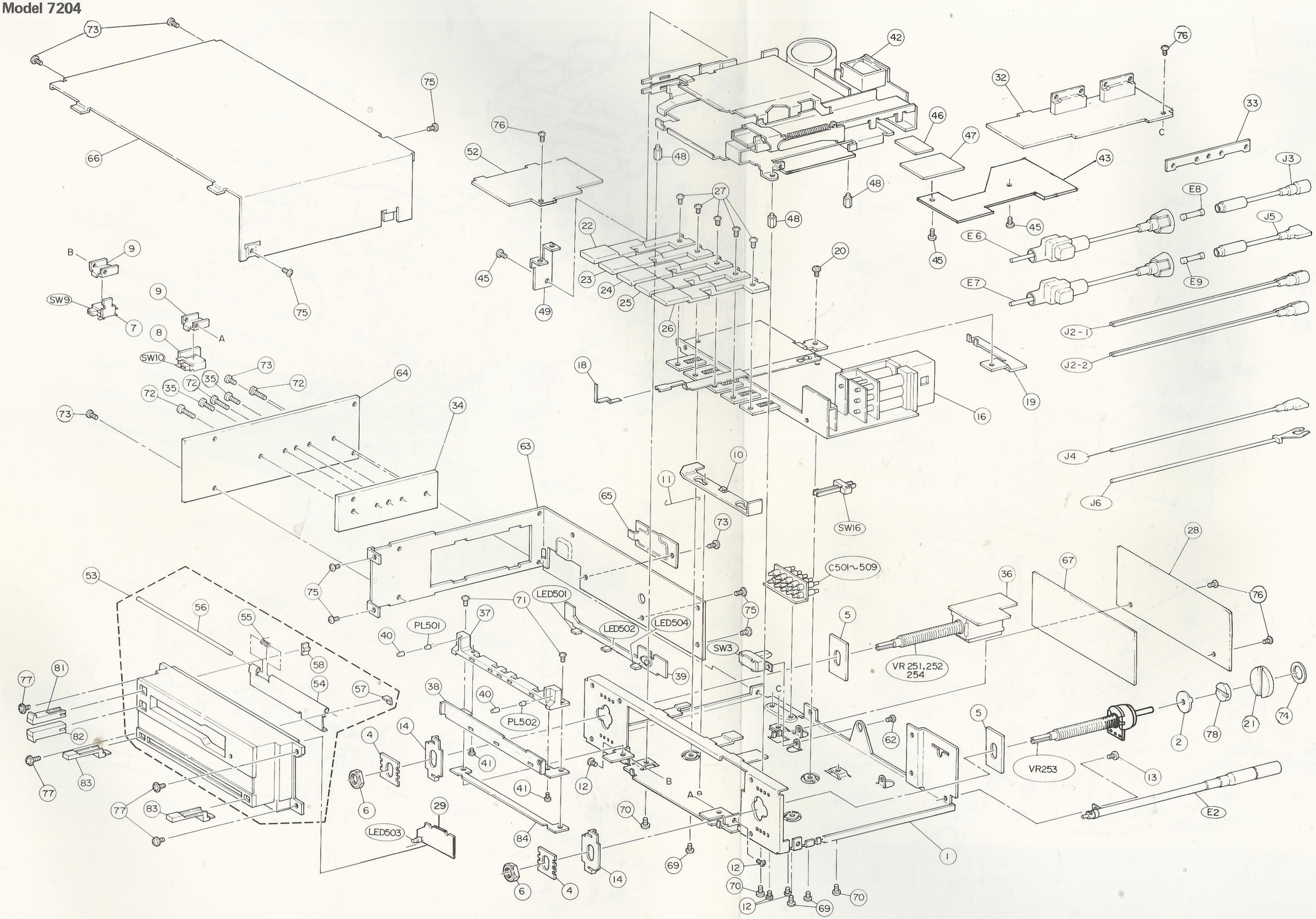


Packing Method View

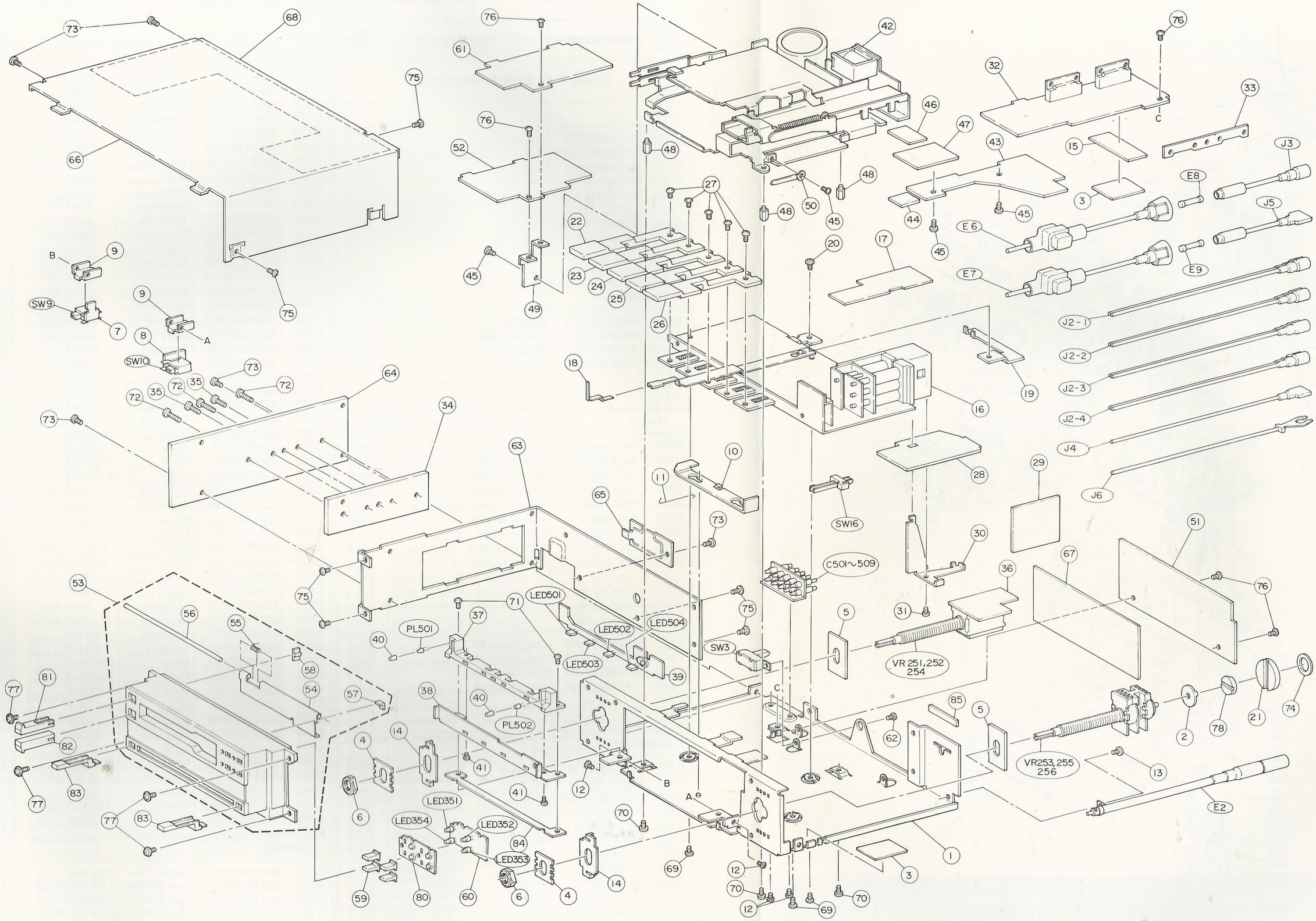


Exploded Views (General)

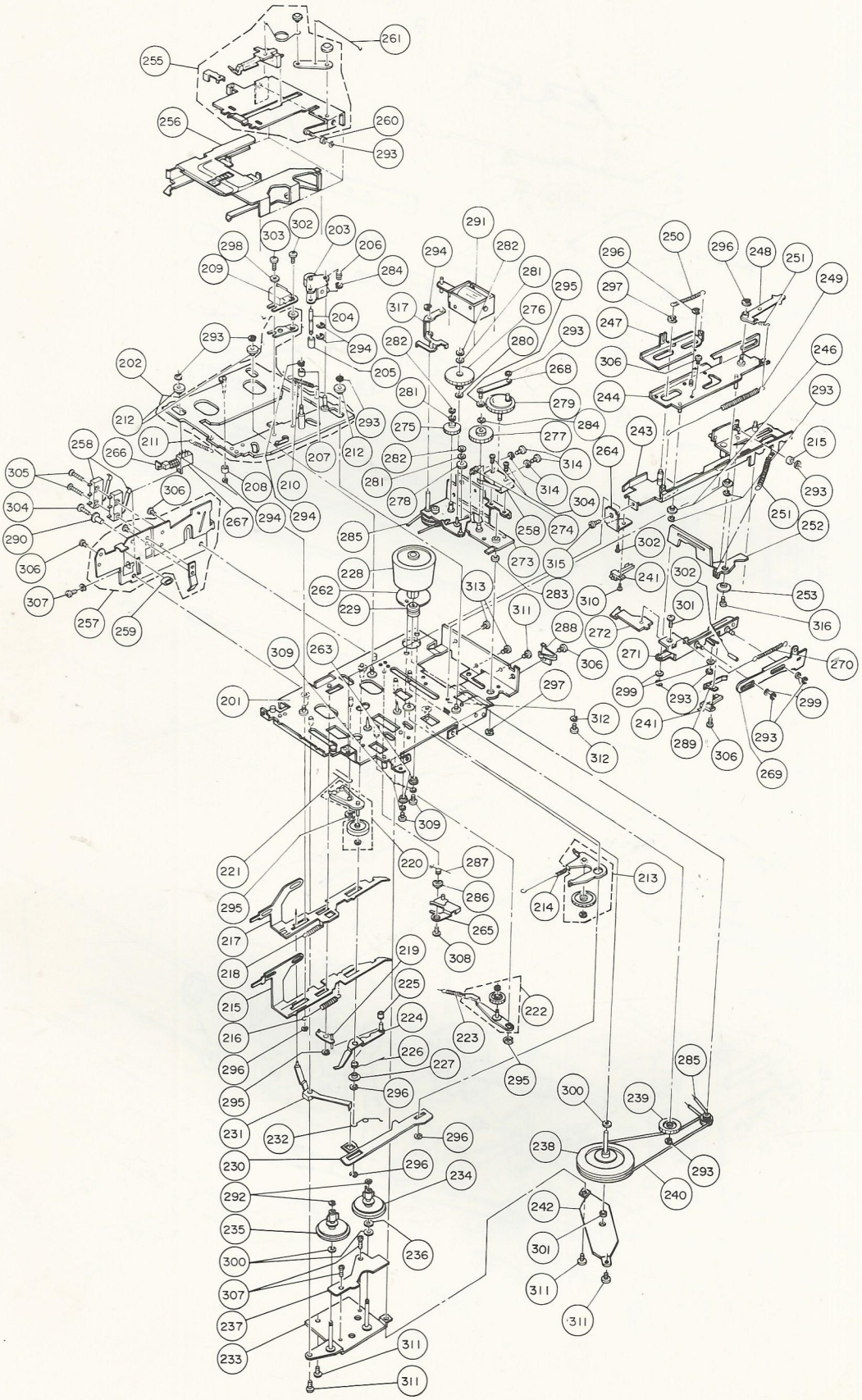
- **Model 7204**



• Model 7206


SW9
SW10
SW16
SW3
PL501
PL502
LED501
LED502
LED503
LED504
LED351
LED352
LED353
LED354
C501~509
VR 251, 252 254
VR253, 255 256
J3
J5
J2-1
J2-2
J2-3
J2-4
J4
J6
E6
E7
E8
E9
E2

Exploded View (Mechanism)



Parts List

● Parts without "○" mark are not used for its Model.

Symbol No.	Parts Number	Description	7206	7205	7204
Dolby P.C. Board Assembly					
ICs					
IC101	51T40960T01	Hybrid IC, 5100-2	○		
IC102	51T40961T01	Hybrid IC, 5100-1	○		
IC103	51T40064T01	M51011P	○		
IC104	51T40170U01	HA11227	○	○	
IC151	51T40114T01or	NE645B	○	○	
	51T40113T01	Dolby	○	○	
IC152	51T40114T01or	NE645B	○	○	
	51T40113T01	Dolby	○	○	
Transistors					
TR101	48S40170G01	2SC373	○		
TR151	48S44886G01	2SC1317 (Q)	○	○	
TR152	48S40170G01	2SC373	○	○	
TR153	48S40170G01	2SC373	○	○	
Diodes					
D151	48S134816	Silicon 1S1555	○	○	
D152	48S134816	Silicon 1S1555	○	○	
D153	48S134816	Silicon 1S1555	○	○	
D154	48S134816	Silicon 1S1555	○	○	
D155	48S134816	Silicon 1S1555	○	○	
D156	48S134816	Silicon 1S1555	○	○	
D157	48T40059U34	Zenner HZ34	○	○	
D160	48S134816	Silicon 1S1555	○	○	
D161	48S134816	Silicon 1S1555	○	○	
Coils					
L151	24T42241U01	Coil, Dolby 23	○	○	
L152	24T42241U01	Coil, Dolby 23	○	○	
L153	24T42242U01	Coil, Dolby 36	○	○	
L154	24T42242U01	Coil, Dolby 36	○	○	
Capacitors	uF=μF (Microfarads) C=±0.25pF, J=±5%, M=±20%, Z=+80%−20%				
C101	23S41059P18	Tantalum 4.7uF 16V	○		
C102	23S41059P18	Tantalum 4.7uF 16V	○		
C103	21C45322G05	Ceramic 5pF 50V (C)	○		
C104	21C45322G12	Ceramic 15pF 50V (J)	○		
C105	8C44833J15	Mylar 0.015uF	○		
C106	23S41059P26	Tantalum 10uF 16V	○		
C107	8C44833J01	Mylar 0.001uF	○		
C108	21C45322G26	Ceramic 330pF 50V (M)	○		
C109	8C44833J11	Mylar 0.0068uF	○		
C110	21C45322G13	Mylar 18pF 50V (J)	○		
C111	23S41059P18	Tantalum 4.7uF 16V	○		
C112	23B44780P02	Electrolytic 100uF 16V	○		
C113	8C44833J01	Mylar 0.001uF	○	○	
C114	8C42195G07	Fixed PS 470uF	○	○	
C115	21B41870J01	Ceramic 0.05uF	○	○	
C116	23S41059P07	Tantalum 1uF 35V	○	○	
C117	23S41059P04	Tantalum 0.33uF	○	○	
C118	23D44333G05	Electrolytic 4.7uF 25V	○	○	
C119	23B44780P02	Electrolytic 100uF 16V	○	○	
C120	23S41059P14	Tantalum 3.3uF 16V	○	○	
C121	8C44833J13	Mylar 0.01uF	○	○	
C122	8C44833J13	Mylar 0.01uF	○	○	
C123	23S41059P14	Tantalum 3.3uF 16V	○	○	
C124	23S41059P14	Tantalum 3.3uF 16V	○	○	
C151	23D44333G08	Electrolytic 10uF 16V	○	○	
C152	23D44333G08	Electrolytic 10uF 16V	○	○	
C153	23D44333G01	Electrolytic 1uF 50V	○	○	
C154	23D44333G01	Electrolytic 1uF 50V	○	○	
C155	23D44333G01	Electrolytic 1uF 50V	○	○	
C156	23D44333G01	Electrolytic 1uF 50V	○	○	
C157	23B44780P03	Electrolytic 220uF 16V	○	○	
C158	23B44780P03	Electrolytic 220uF 16V	○	○	
C159	23S41059P04	Tantalum 0.33uF	○	○	
C160	23S41059P04	Tantalum 0.33uF	○	○	
C161	23S41059P01	Tantalum 0.1uF	○	○	
C162	23S41059P01	Tantalum 0.1uF	○	○	
C163	23S41059P26	Tantalum 10uF 16V	○	○	
C164	23S41059P26	Tantalum 10uF 16V	○	○	
C165	8S44503P21	Mylar 0.047uF	○	○	
C166	8S44503P21	Mylar 0.047uF	○	○	
C167	8S44503P09	Mylar 0.0047uF	○	○	
C168	8S44503P09	Mylar 0.0047uF	○	○	
C169	23S41059P26	Tantalum 10uF 16V	○	○	
C170	23S41059P26	Tantalum 10uF 16V	○	○	
C171	8S44503P05	Mylar 0.0022uF	○	○	
C172	8S44503P05	Mylar 0.0022uF	○	○	
C173	8S44503P18	Mylar 0.027uF 50V	○	○	
C174	8S44503P18	Mylar 0.027uF 50V	○	○	
C175	8S44503P10	Mylar 0.0056uF	○	○	
C176	8S44503P10	Mylar 0.0056uF	○	○	
C177	23S41059P26	Tantalum 10uF 16V	○	○	
C178	23S41059P26	Tantalum 10uF 16V	○	○	
C179	23S41059P05	Tantalum 0.47uF	○	○	
C180	23S41059P05	Tantalum 0.47uF	○	○	
C181	8S44503P07	Mylar 0.0033uF	○	○	
C182	8S44503P07	Mylar 0.0033uF	○	○	
C183	8S44503P08	Mylar 0.0039uF	○	○	
C184	8S44503P08	Mylar 0.0039uF	○	○	
C185	23S41059P03	Tantalum 0.22uF	○	○	
C186	23S41059P03	Tantalum 0.22uF	○	○	
C187	8C44833J18	Mylar 0.027uF	○	○	
C188	8C44833J18	Mylar 0.027uF	○	○	
C189	23S41059P18	Tantalum 4.7uF 16V	○	○	
C190	8S44505P41 or	Ceramic 220pF		○	
	21C45322G32	Ceramic 22000pF 50V (Z)		○	
C191	8S44505P41	Ceramic 220pF		○	
Resistors					
R101	6S41801P45	Carbon Film 12K ohm 1/4W	○		
R102	6S41801P40	Carbon Film 4.7K ohm 1/4W	○		
R103	6S41801P50	Carbon Film 33K ohm 1/4W	○		
R104	6S41801P64	Carbon Film 470K ohm 1/4W	○		
R105	6S41801P56	Carbon Film 100K ohm 1/4W	○		

Symbol No.	Parts Number	Description	7206	7205	7204
R106	6S41801P44	Carbon Film 10K ohm 1/4W	○		
R107	6S41801P44	Carbon Film 10K ohm 1/4W	○		
R108	6S41801P42	Carbon Film 6.8K ohm 1/4W	○		
R109	6S41801P27	Carbon Film 390 ohm 1/4W	○		
R110	6S41801P32	Carbon Film 1K ohm 1/4W	○		
R111	6S41801P45	Carbon Film 12K ohm 1/4W	○		
	6S41801P44	Carbon Film 10K ohm 1/4W		○	
R112	6S41801P16	Carbon Film 47 ohm 1/4W	○		
R113	6S41801P44	Carbon Film 10K ohm 1/4W	○	○	
R114	6S41801P24	Carbon Film 220 ohm 1/4W	○	○	
R115	6S41801P48	Carbon Film 22K ohm 1/4W	○	○	
R116	6S41801P32	Carbon Film 1K ohm 1/4W	○	○	
R117		– Not Used –			
R118	6S41801P38	Carbon Film 3.3K ohm 1/4W	○	○	
R119	6S41801P38	Carbon Film 3.3K ohm 1/4W	○	○	
R120	6S41801P30	Carbon Film 680 ohm 1/4W	○	○	
R121	6S41801P56	Carbon Film 100K ohm 1/4W	○	○	
R151	6S41801P44	Carbon Film 10K ohm 1/4W	○	○	
R152	6S41801P44	Carbon Film 10K ohm 1/4W	○	○	
R153	6S41801P57	Carbon Film 120K ohm 1/4W	○	○	
R154	6S41801P57	Carbon Film 120K ohm 1/4W	○	○	
R155	6S41801P57	Carbon Film 120K ohm 1/4W	○	○	
R156	6S41801P57	Carbon Film 120K ohm 1/4W	○	○	
R157	6S41801P52	Carbon Film 47K ohm 1/4W	○	○	
R158	6S41801P52	Carbon Film 47K ohm 1/4W	○	○	
R159	6S41801P28	Carbon Film 470 ohm 1/4W	○	○	
R160	6S41801P32	Carbon Film 1K ohm 1/4W	○	○	
R161	6S41801P32	Carbon Film 1K ohm 1/4W	○	○	
R162	6S40150T25	Carbon Film 22 ohm 1/4W	○	○	
R163	6S40150T25	Carbon Film 22 ohm 1/4W	○	○	
R164	6S40151T21	Carbon Film 200K ohm 1/4W	○	○	
R165	6S40151T21	Carbon Film 200K ohm 1/4W	○	○	
R166	6S41801P61	Carbon Film 270K ohm 1/4W	○	○	
R167	6S41801P61	Carbon Film 270K ohm 1/4W	○	○	
R168	6S41801P61	Carbon Film 270K ohm 1/4W	○	○	
R169	6S41801P61	Carbon Film 270K ohm 1/4W	○	○	
R170	6S41801P65	Carbon Film 560K ohm 1/4W	○	○	
R171	6S41801P65	Carbon Film 560K ohm 1/4W	○	○	
R172		– Not Used –			
R173		– Not Used –			
R174	6S41801P38	Carbon Film 3.3K ohm 1/4W	○	○	
R175	6S41801P38	Carbon Film 3.3K ohm 1/4W	○	○	
R176	6S41801P52	Carbon Film 47K ohm 1/4W	○	○	
R177	6S40151T06	Carbon Film 47K ohm 1/4W	○	○	
R178	6S41801P23	Carbon Film 180 ohm 1/4W	○	○	
R179	6S41801P23	Carbon Film 180 ohm 1/4W	○	○	
R180		– Not Used –			
R181		– Not Used –			
R182	6S41801P54	Carbon Film 68K ohm 1/4W	○	○	
R183	6S41801P57	Carbon Film 120K ohm 1/4W	○	○	
R184	6S41801P57	Carbon Film 120K ohm 1/4W	○	○	
R185	6S41801P46	Carbon Film 15K ohm 1/4W	○	○	
R186	6S41810P46	Carbon Film 15K ohm 1/4W	○	○	
R187	6S41801P46	Carbon Film 15K ohm 1/4W	○	○	
R188	6S41801P48	Carbon Film 22K ohm 1/4W	○	○	
R189	6S41043U22	Carbon Film 220K ohm 1/8W	○	○	
R190	6S41043U22	Carbon Film 220K ohm 1/8W	○	○	
VR101	18C42061J04	Variable	○	○	
VR102	18C42061J21	Variable	○	○	
VR151	18C42061J04	Variable	○	○	
VR152	18C42061J04	Variable	○	○	
VR153	18C42061J04	Variable	○	○	
VR154	18C42061J04	Variable	○	○	

Pre-Main Amp P.C. Board Assembly

ICs

Symbol No.	Parts Number	Description	7206	7205	7204
IC201	51S42211P01	M51521L	○	○	○
IC301	51T43199U01	Power, HA1388	○	○	○
IC302	51T43199U01	Power, HA1388	○	○	○

Transistors

Symbol No.	Parts Number	Description	7206	7205	7204
TR201	48S44578J01	2SC945L (M)	○		
TR202	48S44578J01	2SC945L (M)	○		
TR301	48S40170G01	2SC373	○	○	○
TR302	48S40170G01	2SC373	○	○	○

Capacitors uF=μF (Microfarads)

Symbol No.	Parts Number	Description	7206	7205	7204
C201	21C45322G25	Ceramic 220pF 50V	○	○	○
C202	21C45322G25	Ceramic 220pF 50V	○	○	○
C203	23S41059P07	Tantalum 1uF 35V	○	○	○
C204	23S41059P07	Tantalum 1uF 35V	○	○	○
C205	23B44780P01	Electrolytic 47uF 16V	○	○	○
C206	23B44780P01	Electrolytic 47uF 16V	○	○	○
C207	23B44780P04	Electrolytic 330uF	○	○	○
C208	8C44833J13	Mylar 0.01uF	○	○	○
C209	8C44833J13	Mylar 0.01uF	○	○	○
C210	23S41059P18	Tantalum 4.7uF 16V	○		
C211	23S41059P18	Tantalum 4.7uF 16V	○		
C212	23S41059P18	Tantalum 4.7uF 16V	○	○	
C213	23S41059P18	Tantalum 4.7uF 16V	○	○	
C214	23S41059P18	Tantalum 4.7uF 16V	○	○	
C215	23S41059P18	Tantalum 4.7uF 16V	○	○	
C216	23B44780P01	Electrolytic 47uF 16V	○		
C301	23C42909J01	Electrolytic 0.22uF	○	○	○
C302	23C42909J01	Electrolytic 0.22uF	○	○	○
C303	8C44833J01	Mylar 0.001uF	○	○	○
C304	8C44833J01	Mylar 0.001uF	○	○	○
C305	23B44780P02	Electrolytic 100uF 16V	○	○	○
C306	23B44780P02	Electrolytic 100uF 16V	○	○	○
C307	23B44780P02	Electrolytic 100uF 16V	○	○	○
C308	23B44780P02	Electrolytic 100uF 16V	○	○	○
C309	23B44780P01	Electrolytic 47uF 16V	○	○	○
C310	23B44780P01	Electrolytic 47uF 16V	○	○	○
C311	23B44780P02	Electrolytic 100uF 16V	○	○	○
C312	23B44780P02	Electrolytic 100uF 16V	○	○	○
C313	23B44780P02	Electrolytic 100uF 16V	○	○	○
C314	23B44780P02	Electrolytic 100uF 16V	○	○	○
C315	23B44780P02	Electrolytic 100uF 16V	○	○	○
C316	23B44780P02	Electrolytic 100uF 16V	○	○	○
C317	21B41870J03	Ceramic 0.2uF	○	○	○
C318	21B41870J03	Ceramic 0.2uF	○	○	○

Symbol No.	Part Number	Description	7206	7205	7204
C319	21B41870J03	Ceramic 0.2uF	○	○	○
C320	21B41870J03	Ceramic 0.2uF	○	○	○
C321	23T43707U01	Electrolytic 2200uF 16V	○	○	○
Resistors					
R201	6S41040U45	Carbon Film 150 ohm 1/8W	○	○	
	6S41040U43	Carbon Film 120 ohm 1/8W			○
R202	6S41040U45	Carbon Film 150 ohm 1/8W	○	○	
	6S41040U43	Carbon Film 120 ohm 1/8W			○
R203	6S41041U08	Carbon Film 56K ohm 1/8W	○	○	○
R204	6S41041U08	Carbon Film 56K ohm 1/8W	○	○	○
R205	6S41041U26	Carbon Film 330K ohm 1/8W	○	○	○
R206	6S41041U26	Carbon Film 330K ohm 1/8W	○	○	○
R207	6S41042U83	Carbon Film 5600 ohm 1/8W	○	○	○
R208	6S41042U83	Carbon Film 5600 ohm 1/8W	○	○	○
R209	6S41042U83	Carbon Film 5600 ohm 1/8W	○	○	
	6S41042U91	Carbon Film 12K ohm 1/8W			○
R210	6S41042U83	Carbon Film 5600 ohm 1/8W	○	○	
	6S41042U91	Carbon Film 12K ohm 1/8W			○
R211	6S41801P32	Carbon Film 1K ohm 1/4W	○	○	○
R212	6S41801P56	Carbon Film 100K ohm 1/4W	○		
R213	6S41801P56	Carbon Film 100K ohm 1/4W	○		
R214	6S41801P41	Carbon Film 5.6K ohm 1/4W	○		
R215	6S41042U73	Carbon Film 2.2K ohm 1/8W	○	○	○
R216	6S41042U73	Carbon Film 2.2K ohm 1/8W	○	○	○
R217	6S41042U97	Carbon Film 22K ohm 1/8W	○		
R218	6S41042U97	Carbon Film 22K ohm 1/8W	○		
R219	6S41801P46	Carbon Film 15K ohm 1/4W	○		
R301	6S41801P44	Carbon Film 10K ohm 1/4W	○	○	○
R302	6S41801P44	Carbon Film 10K ohm 1/4W	○	○	○
R303	6S41801P48	Carbon Film 22K ohm 1/4W	○	○	○
R304	6S41801P48	Carbon Film 22K ohm 1/4W	○	○	○
R305	6S41801P12	Carbon Film 22 ohm 1/4W	○	○	
R306	6S41801P12	Carbon Film 22 ohm 1/4W	○	○	
R307	6S41801P12	Carbon Film 22 ohm 1/4W	○	○	
R308	6S41801P12	Carbon Film 22 ohm 1/4W	○	○	
R309	6S40150T01	Carbon Film 2.2K ohm 1/4W	○	○	○
R310	6S40150T01	Carbon Film 2.2K ohm 1/4W	○	○	○
R311	6S40150T01	Carbon Film 2.2K ohm 1/4W	○	○	○
R312	6S40150T01	Carbon Film 2.2K ohm 1/4W	○	○	○

Loudness P.C. Board Assembly

Symbol No.	Parts Number	Description	7206	7205	7204
Transistors					
TR251	48S44578J01	2SC945L (M)	○	○	○
TR252	48S44578J01	2SC945L (M)	○	○	○
TR253	48S44578J01	2SC945L (M)	○	○	
TR254	48S44578J01	2SC945L (M)	○	○	
TR501	48T41364U01	2SD655	○	○	○
Diodes					
D501	48C40235G02or	10E2	○	○	○
	48T40477U01	IN4003		○	○
D502	48C40235G02	10E2	○		
D503	48S134816	Silicon 1S1555	○		
D504	48C40235G02or	10E2	○		○
	48T40477U01	IN4003			○
D505	48S134816	Silicon 1S1555		○	
D506	48S134816	Silicon 1S1555		○	
D507	48S134816	Silicon 1S1555	○	○	
Z501	48T40059U34	Zener 1N4003	○	○	○
Capacitors uF=μF (Microfarads)					
C259	23D44333G01	Electrolytic 1uF 50V	○	○	○
C260	23D44333G01	Electrolytic 1uF 50V	○	○	○
C261	21C45322G40	Ceramic 560pF	○	○	○
C262	21C45322G40	Ceramic 560pF	○	○	○
C263	23D44333G05	Electrolytic 4.7uF 25V	○	○	○
C264	23D44333G05	Electrolytic 4.7uF 25V	○	○	○
C265	23D44780P03	Electrolytic 220uF 16V	○	○	○
C266	23S41059P01	Tantalum 0.1uF	○	○	○
C267	23S41059P01	Tantalum 0.1uF	○	○	○
C268	23D44333G08	Electrolytic 10uF 16V	○	○	○
C510	23B44780P03	Electrolytic 220uF 16V	○	○	
C511	23B44780P02	Electrolytic 100uF 16V	○	○	
C514	23B44780P01	Electrolytic 47uF 16V	○	○	○
Resistors					
R257	6S41801P66	Carbon Film 680K ohm 1/4W	○	○	○
R258	6S41801P66	Carbon Film 680K ohm 1/4W	○	○	○
R259	6S41801P31	Carbon Film 820 ohm 1/4W	○	○	
	6S41801P22	Carbon Film 150 ohm 1/4W			○
R260	6S41801P31	Carbon Film 820 ohm 1/4W	○	○	
	6S41801P22	Carbon Film 150 ohm 1/4W			○
R261	6S41801P38	Carbon Film 3.3K ohm 1/4W	○	○	○
R262	6S41801P38	Carbon Film 3.3K ohm 1/4W	○	○	○
R263	6S40150T73	Carbon Film 2.2K ohm 1/4W	○	○	○
R264	6S41801P32	Carbon Film 1K ohm 1/4W	○	○	○
R265	6S41801P32	Carbon Film 1K ohm 1/4W	○	○	○
R266	6S41801P36	Carbon Film 2.2K ohm 1/4W	○	○	○
R267	6S41801P36	Carbon Film 2.2K ohm 1/4W	○	○	○
R268	6S41801P36	Carbon Film 2.2K ohm 1/4W	○	○	○
R269	6S41801P41	Carbon Film 5.6K ohm 1/4W	○	○	○
R270	6S41801P46	Carbon Film 15K ohm 1/4W	○	○	
R501	6S40150T29	Carbon Film 33 ohm 1/4W	○	○	○
R502	6S40150T61	Carbon Film 680 ohm 1/4W	○	○	○
R503	6S40150T93	Carbon Film 15K ohm 1/4W	○	○	○
R504	6S40150T61	Carbon Film 680 ohm 1/4W	○	○	
R505	6S40150T61	Carbon Film 680 ohm 1/4W	○		○
R506	6S41801P52	Carbon Film 47K ohm 1/4W	○		
	6S40150T61	Carbon Film 680 ohm 1/4W		○	
R507	6S41801P21	Carbon Film 120 ohm 1/4W	○	○	
R508	6S40150T29	Carbon Film 33 ohm 1/4W	○	○	
R509	6S40150T65	Carbon Film 1K ohm 1/4W	○	○	○

Symbol No.	Parts Number	Description	7206	7205	7204
AM P.C. Board Assembly					
IC, Transistors & Thermistor					
IC51	51T44774P01	AM IC, HA1199	○	○	
TR3	48T40627U01	Transistor, 2SD636	○	○	
TR4	48T40627U01	Transistor, 2SD636	○	○	
TR5	48T40627U01	Transistor, 2SD636	○	○	
TH1	48T40137T01	Thermistor, D33A	○	○	
Coils					
IFT51	24T44151U01	Coil AM IF (Yel.)	○	○	
IFT52	24T44152U01	Coil, AM IF (Grn.)	○	○	
IFT53	24T44153U01	Coil, AM IF (Pnk.)	○	○	
IFT54	24T44151U01	Coil, AM IF (Yel.)	○	○	
L51	24T41518U01	Coil, Inductor 4.7mH	○	○	
L52	24T41518U01	Coil, Inductor 4.7mH	○	○	
L53	24T44154U01	Coil, AM OSC (Red)	○	○	
Capacitors uF=μF (Microfarads), J=±5%, C=±0.25pF					
C11	8T44979P08	Ceramic 10000pF	○	○	
C22	23S41059P18	Tantalum 4.7uF 16V	○	○	
C51	21C45322G15	Ceramic 27pF 50V (J)	○	○	
C52	8T44979P08	Ceramic 10000pF	○	○	
C53	8T44979P04	Ceramic 2200pF	○	○	
C54	8T44979P10	Ceramic 2200pF	○	○	
C55	23S41059P18	Tantalum 4.7uF 16V	○	○	
C56	8T44979P05	Ceramic 3300pF	○	○	
C57	8T44979P04	Ceramic 2200pF	○	○	
C58	21C45322G02	Ceramic 2pF 50V (C)	○	○	
C59	23S41059P26	Tantalum 10uF 16V	○	○	
C60	8T44979P11	Ceramic 33000pF	○	○	
C61	8T44979P11	Ceramic 33000pF	○	○	
C62	23S41059P18	Tantalum 4.7uF 16V	○	○	
C63	23S41059P26	Tantalum 10uF 16V	○	○	
C64	23S41059P26	Tantalum 10uF 16V	○	○	
C65	8T44979P10	Ceramic 2200pF	○	○	
C66	21C41701J31	Ceramic 150pF	○	○	
C67	8T44979P01	Ceramic 1000pF	○	○	
C68	8C44833J01	Mylar 0.001uF	○	○	
C69	21C41701J35	Ceramic 270pF	○	○	
C70	21C45322G03	Ceramic 3pF 50V (C)	○	○	
C71	8T44979P08	Ceramic 10000pF	○	○	
C72	21C41701J30	Ceramic 33pF		○	
C73	8T44979P08	Ceramic 10000pF	○	○	
CT52	20T44156U01	Trimmer 40pF	○	○	
CT53	20T44156U01	Trimmer 40pF	○	○	

Symbol No.	Parts mumber	Description	7206	7205	7204
Resistors					
R5	6S41042U73	Carbon Film 2.2K ohm 1/8W	○	○	
R6	6S41042U41	Carbon Film 100 ohm 1/8W	○	○	
R7	6S41042U89	Carbon Film 10K ohm 1/8W	○	○	
R8	6S41042U89	Carbon Film 10K ohm 1/8W	○	○	
R9	6S41042U89	Carbon Film 10K ohm 1/8W	○	○	
R10	6S41042U89	Carbon Film 10K ohm 1/8W	○	○	
R11	6S41042U89	Carbon Film 10K ohm 1/8W	○	○	
R51	6S41042U81	Carbon Film 4.7K ohm 1/8W	○	○	
R52	6S41040U43	Carbon Film 120 ohm 1/8W	○	○	
R53	6S41042U75	Carbon Film 2.7K ohm 1/8W	○	○	
R54	6S41041U16	Carbon Film 120K ohm 1/8W	○	○	
R55	6S41043U16	Carbon Film 120K ohm 1/8W	○	○	
R56	6S41043U02	Carbon Film 33K ohm 1/8W	○	○	
R57	6S41043U10	Carbon Film 68K ohm 1/8W	○	○	
R58	6S41042U91	Carbon Film 12K ohm 1/8W	○	○	
VR1	18T42186U02	Variable 50K ohm 1/8W	○	○	
FM P.C. Board Assembly					
IC, Transistor & Diodes					
IC1	51T44157U01	IC, HA12411	○	○	
TR1	48T44160U02	Transistor, 2SC2206 (B)	○	○	
TR2	48T44160U01	Transistor, 2SC2206 (A)	○	○	
D1	48S134816	Diode, Silicon 1S1555	○	○	
Z1	48S41873J01	Diode, Zener	○	○	
Coils & Filters					
IFT1	24T44158U01	Coil, IF AM	○	○	
L1	24T44159U01	Coil, 18mH	○	○	
CF1	91T40309T02or	Filter, Ceramic	○	○	
	91T40309T03or	Filter, Ceramic	○	○	
	91T40309T04	Filter, Ceramic	○	○	
CF2	91T40309T02or	Filter, Ceramic	○	○	
	91T40309T03or	Filter, Ceramic	○	○	
	91T40309T04	Filter, Ceramic	○	○	
Capacitors uF=μF (Microfarads)					
C3	8T44979P08	Ceramic 10000pF	○	○	
C4	8T44979P01	Ceramic 22000pF	○	○	
C5	8T44979P10	Ceramic 22000pF	○	○	
C7	23S41198U26	Minimum 47uF 10V	○	○	
C8	8T44979P10	Ceramic 22000pF	○	○	
C9	8T44979P10	Ceramic 22000pF	○	○	
C10	21C41701J77	Ceramic 82pF (RH)	○	○	
C12	8T44979P10	Ceramic 22000pF	○	○	
C13	8T44979P10	Ceramic 22000pF	○	○	
C14	8T44979P10	Ceramic 22000pF	○	○	
C15	23S41059P07	Tantalum 1uF 35V	○	○	
C16	23S41059P18	Tantalum 4.7uF 16V	○	○	
C18	23S41059P07	Tantalum 1uF 35V	○	○	

Symbol No.	Parts Number	Description	7206	7205	7204
C19	8T44979P10	Ceramic 22000pF	○	○	
C20	23S41059P26	Tantalum 10uF 16V	○	○	
C21	21C45322G23	Ceramic 120pF	○	○	
C23	23S41059P26	Tantalum 10uF 16V	○	○	
Resistors					
R1	6S41042U53	Carbon Film 330 ohm 1/8W	○	○	
R2	6S41041U34	Carbon Film 680K ohm 1/8W	○	○	
R3	6S41040U53	Carbon Film 330 ohm 1/8W	○	○	
R4	6S41040U89	Carbon Film 10K ohm 1/8W	○	○	
R14	6S41041U02	Carbon Film 33K ohm 1/8W	○	○	
R15	6S40170T93	Carbon Film 15K ohm 1/8W	○	○	
R16	6S41040U81	Carbon Film 4.7K ohm 1/8W	○	○	
R17	6S41042U53	Carbon Film 330 ohm 1/8W	○	○	
R18	6S41042U79	Carbon Film 3900 ohm 1/8W	○	○	
R19	6S41042U81	Carbon Film 4.7K ohm 1/8W	○	○	
R20	6S41043U14	Carbon Film 100K ohm 1/8W	○	○	
R21	6S41040U91	Carbon Film 12K ohm 1/8W	○	○	
R22	6S41041U06	Carbon Film 47K ohm 1/8W	○	○	
R23	6S40150T91	Carbon Film 12K ohm 1/8W	○	○	
Radio P.C. Board Assembly (For Model 7204 only)					
ICs & Diodes					
IC1	51T44157U01	IC, HA12411			○
IC51	51T44774P01	IC-AM, HA1199			○
IC104	51T40170U01	IC, HA11227			○
D1	48S134816	Diode, Silicon 1S1555			○
D151	48S134816	Diode, Silicon 1S1555			○
D152	48S134816	Diode, Silicon 1S1555			○
D153	48S134816	Diode, Silicon 1S1555			○
D154	48S134816	Diode, Silicon 1S1555			○
D155	48S134816	Diode, Silicon 1S1555			○
D156	48S134816	Diode, Silicon 1S1555			○
Z1	48S41873J01	Diode, Zenner			○
Transistors & Thermistor					
TR1	48T44160U02	Transistor, 2SC2206-B			○
TR2	48T44160U01	Transistor, 2SC2206-A			○
TR3	48T40627U01	Transistor, 2SD636			○
TR4	48T40627U01	Transistor, 2SD636			○
TR5	48T40627U01	Transistor, 2SD636			○
TH1	48T40137T01	Thermistor, D33A			○
Coils & Filters					
IFT1	24T40379U01	Coil, IF FM (Blk.)			○
IFT51	24T40283U01	Coil, IF AM (Yel.)			○

Symbol No.	Parts Number	Description	7206	7205	7204
IFT52	24T40283U01	Coil, IF AM (Yel.)			○
IFT53	24T40283U02	Coil, IF AM (Pink.)			○
IFT54	24T40283U01	Coil, IF AM (Yel.)			○
L1	24T40380U01	Coil, FM 18			○
L52	24T41518U01	Coil, Inductor 4.7mH			○
L53	24T40283U03	Coil, OSC AM (Blk.)			○
CF1	91T40309T02	Filter, Ceramic			○
	91T40309T03	Filter, Ceramic			○
	91T40309T04	Filter, Ceramic			○
CF2	91T40309T02	Filter, Ceramic			○
	91T40309T03	Filter, Ceramic			○
	91T40309T04	Filter, Ceramic			○
Capacitors uF=μF (Microfarads), C=±0.25pF, M=±20%					
C1	23B44780P02	Electrolytic 100uF 16V			○
C2	8T44979P08	Ceramic 10000pF			○
C3	8T44979P08	Ceramic 10000pF			○
C4	8T44979P10	Ceramic 22000pF			○
C5	8T44979P10	Ceramic 22000pF			○
C6		– Not Used –			
C7	23B44780P02	Electrolytic 100uF 16V			○
C8	8T44979P10	Ceramic 22000pF			○
C9	8T44979P10	Ceramic 22000pF			○
C10		– Not Used –			
C11	8T44979P08	Ceramic 10000pF			○
C12	8T44979P10	Ceramic 22000pF			○
C13	8T44979P10	Ceramic 22000pF			○
C14	8T44979P10	Ceramic 22000pF			○
C15	23D44333G01	Electrolytic 1uF 50V			○
C16	23S41059P18	Tantalum 4.7uF 16V			○
C17		– Not Used –			
C18	23D44333G01	Electrolytic 1uF 50V			○
C19	8T44979P10	Ceramic 22000pF			○
C20	23D44333G08	Electrolytic 10uF 16V			○
C21	21C45322G40	Ceramic 560pF 50V			○
C22	23S41059P18	Tantalum 4.7uF 16V			○
C23	23D44333G08	Electrolytic 10uF 16V			○
C52	8T44979P08	Ceramic 10000pF			○
C53	8C44833J06	Mylar 0.0027uF			○
C54	8T44979P12	Ceramic 47000pF			○
C55	23D44333G05	Electrolytic 4.7uF 25V			○
C56	8T44979P05	Ceramic 3300pF			○
C57	8T44979P04	Ceramic 2200pF			○
C58	21C45322G02	Ceramic 2uF 50V (C)			○
C59	23D44333G08	Electrolytic 10uF 16V			○
C60	8T44979P11	Ceramic 33000pF			○
C61	8T44979P11	Ceramic 33000pF			○
C62	23D44333G05	Electrolytic 4.7uF 25V			○
C63	23S41059P26	Tantalum 10uF 16V			○
C64	23D44333G08	Electrolytic 10uF 16V			○
C65	8T44979P10	Ceramic 22000pF			○
C66	21C41701J31	Ceramic 150pF			○
C67	8T44979P04	Ceramic 2200pF			○
C68	8C44833J01	Mylar 0.001uF			○
C69	21C41701J35	Ceramic 270pF			○
C70	21C45322G03	Ceramic 3uF 50V (C)			○
C71	8T44979P08	Ceramic 10000pF			○
C113	21C45322G27	Ceramic 470uF 50V (M)			○
C114	8C42195G07	PS 470uF			○

Symbol No.	Part Number	Description	7206	7205	7204
C115		– Not Used –			
C116	23D44333G01	Electrolytic 1uF 50V			○
C117	23S41059P04	Tantalum 0.33uF			○
C118	23D44333G05	Electrolytic 4.7uF 25V			○
C119	23B44780P02	Electrolytic 100uF 16V			○
C120		– Not Used –			
C121	8C44833J17	Mylar 0.022uF			○
C122	8C44833J17	Mylar 0.022uF			○
C123	23S41059P14	Tantalum 3.3uF 16V			○
C124	23S41059P14	Tantalum 3.3uF 16V			○
C151	23D44333G08	Electrolytic 10uF 16V			○
C152	23D44333G08	Electrolytic 10uF 16V			○
C153	23S41059P07	Tantalum 1uF 35V			○
C154	23S41059P07	Tantalum 1uF 35V			○
C155	21B41870J01	Ceramic 0.05uF			○
C510	23B44780P03	Electrolytic 220uF 16V			○
CT52	20T44156U01	Trimmer 40pF			○
CT53	20T44156U01	Trimmer 40pF			○

Resistors

Symbol No.	Part Number	Description	7206	7205	7204
R1	6S41801P26	Carbon Film 330pF 1/4W			○
R2	6S41801P66	Carobn Film 680K ohm 1/4W			○
R3	6S41801P26	Carbon Film 330 ohm 1/4W			○
R4	6S41801P44	Carbon Film 10K ohm 1/4W			○
R5	6S41801P36	Carbon Film 2.2K ohm 1/4W			○
R6	6S41801P20	Carbon Film 100 ohm 1/4W			○
R7	6S41801P44	Carbon Film 10K ohm 1/4W			○
R8	6S41801P44	Carbon Film 10K ohm 1/4W			○
R9	6S41801P44	Carbon Film 10K ohm 1/4W			○
R10	6S41801P44	Carbon Film 10K ohm 1/4W			○
R11	6S41801P44	Carbon Film 10K ohm 1/4W			○
R12		–Not used–			
R13	6S41801P14	Carbon Film 33K ohm 1/4W			○
R14	6S41801P50	Carbon Film 33K ohm 1/4W			○
R15	6S40107T93	Carbon Film 15K ohm 1/4W			○
R16	6S41801P42	Carbon Film 6.8K ohm 1/4W			○
R17	6S41801P26	Carbon Film 330 ohm 1/4W			○
R18	6S41801P39	Carbon Film 3.9K ohm 1/4W			○
R19	6S41801P40	Carbon Film 4.7K ohm 1/4W			○
R20	6S41801P56	Carbon Film 100K ohm 1/4W			○
R21	6S41801P42	Carbon Film 6.8K ohm 1/4W			○
R22	6S41801P52	Carbon Film 47K ohm 1/4W			○
R23	6S40150T73	Carbon Film 2.2K ohm 1/4W			○
R24		– Not Used –			
R25	6S40150T87	Carbon Film 10K ohm 1/4W			○
R51	6S41801P40	Carbon Film 4.7K ohm 1/4W			○
R52	6S41801P21	Carbon Film 120 ohm 1/4W			○
R53	6S41801P37	Carbon Film 2.7K ohm 1/4W			○
R54	6S41801P57	Carbon Film 120K ohm 1/4W			○
R55	6S41801P46	Carbon Film 15K ohm 1/4W			○
R56	6S41801P50	Carbon Film 33K ohm 1/4W			○
R57	6S41801P54	Carbon Film 68K ohm 1/4W			○
R58	6S41801P45	Carbon Film 12K ohm 1/4W			○
R113	6S41801P47	Carbon Film 18K ohm 1/4W			○
R114	6S41801P24	Carbon Film 220 ohm 1/4W			○
R115	6S41801P48	Carbon Film 22K ohm 1/4W			○
R116	6S41801P32	Carbon Film 1K ohm 1/4W			○
R117	6S41801P48 or	Carbon Film 22K ohm 1/4W			○
	6S41801P44	Carbon Film 10K ohm 1/4W			○
R118	6S41801P38	Carbon Film 3.3K ohm 1/4W			○
R119	6S41801P38	Carbon Film 3.3K ohm 1/4W			○
R120	6S41801P30	Carbon Film 680 ohm 1/4W			○
R121	6S41801P56	Carbon Film 100K ohm 1/4W			○
R151	6S41801P44	Carbon Film 10K ohm 1/4W			○
R152	6S41801P44	Carbon Film 10K ohm 1/4W			○
R153	6S41801P57	Carbon Film 120K ohm 1/4W			○
R154	6S41801P57	Carbon Film 120K ohm 1/4W			○
R155	6S41801P57	Carbon Film 120K ohm 1/4W			○
R156	6S41801P57	Carbon Film 120K ohm 1/4W			○
R157	6S40150T67	Carbon Film 1.2K ohm 1/4W			○
R158	6S40150T67	Carbon Film 1.2K ohm 1/4W			○
R159	6S41801P49	Carbon Film 27K ohm 1/4W			○
R160	6S41801P49	Carbon Film 27K ohm 1/4W			○
R507	6S41801P21	Carbon Film 120 ohm 1/4W			○
VR1	18T42186U02	Variable 50K ohm 1/4W			○
VR101	18C42061J04	Variable 50K ohm 1/4W			○
VR102	18T42186U03	Variable 500 ohm 1/4W			○

Deck Control P.C. Board Assembly

ICs

Symbol No.	Part Number	Description	7206	7205	7204
IC401	51T40242T01or	MC14011BCD	○		
	51T40167F02	CD4011BCN	○		
IC402	51T40243T01	MC14001BCN	○		
IC403	51T42265U01or	TA7226P	○	○	○
	51T40167F01	CD4001BCN	○		

Transistors

Symbol No.	Part Number	Description	7206	7205	7204
TR401	48T42182U01	2SD661 (U)	○	○	○
TR402	48T42182U01	2SD661 (U)	○		
TR403	48S41784J03 or	2SC1368C	○		
	48S41784J04	2SC1368D	○		

Diodes

Symbol No.	Part Number	Description	7206	7205	7204
D401	48B41768G02	IN60	○		
	48S134816	Silicon 1S1555		○	○
D402	48S134816	Silicon 1S1555	○		
D403	48S134816	Silicon 1S1555	○		
D404	48S134816	Silicon 1S1555	○		
D405	48S134816	Silicon 1S1555	○		
D406	48S134816	Silicon 1S1555	○		
D407	48C40235G02	10E2	○	○	○
D408	48S134816	Silicon 1S1555	○		
Z401	48T40059U06	Zener, HZ6B-3L	○		
Z402	48T40059U06	Zener, HZ6B-3L	○		
Z403	48T40059U06	Zener, HZ6B-3L	○		

Symbol No.	Part Number	Description	7206	7205	7204
Capacitors uF=μF (Microfarads)					
C401	23S41059P17	Tantalum 4.7uF 6.3V	○		
C402	23S41059P07	Tantalum 1uF 35V	○		
C403	23S41059P05	Tantalum 0.47uF	○		
C404	23D44333G08	Electrolytic 10uF 16V	○		
C405	23S41198U26	Minimum 47uF 10V	○		
C406	23S41059P02	Tantalum 0.15uF	○		
C407	23S41059P31	Tantalum 22uF 6.3V	○		
C408	23S41059P07	Tantalum 1uF 35V	○	○	○
C409	23S41198U27	Minimum 47uF 16V	○	○	○
C410	23S41198U26	Minimum 47uF 10V	○		
	23S41198U27	Minimum 47uF 16V		○	○
C411	23S41198U47	Minimum 330uF 10V	○	○	○
C412	23S41198U15	Minimum 22uF 25V	○		
C413	23S41059P03	Tantalum 0.22uF	○		
	23S41198U15	Electrolytic 22uF 25V		○	○
Resistors					
R401	6S41043U38	Carbon Film 1M ohm 1/8W	○		
R402	6S41042U89	Carbon Film 10K ohm 1/8W	○		
R403	6S41043U30	Carbon Film 470K ohm 1/8W	○		
R404	6S41043U22	Carbon Film 220K ohm 1/8W	○		
R405	6S41042U97	Carbon Film 22K ohm 1/8W	○		
R406	6S41042U65	Carbon Film 1K ohm 1/8W	○		
R407	6S41043U22	Carbon Film 220K ohm 1/8W	○		
R408	6S41042U83	Carbon Film 5600 ohm 1/8W	○		
R409	6S41043U38	Carbon Film 1M ohm 1/8W	○		
R410	6S41043U30	Carbon Film 470K ohm 1/8W	○		
R411	6S41042U79	Carbon Film 3900 ohm 1/8W	○		
R412	6S41042U73	Carbon Film 2.2K ohm 1/8W	○		
R413	6S41040U73	Carbon Film 2.2K ohm 1/8W	○		
R414	6S41042U65	Carbon Film 1K ohm 1/8W	○		
R415	6S41041U22	Carbon Film 220K ohm 1/8W	○		
	6S41802P60	Carbon Film 220K ohm 1/4W		○	○
R416	6S41801P27	Carbon Film 390 ohm 1/4W	○		
	6S41801P36	Carbon Film 2.2K ohm 1/4W		○	○
R417	6S41042U79	Carbon Film 3900 ohm 1/8W	○		
	6S41802P44	Carbon Film 10K ohm 1/4W		○	○
R418	6S41042U89	Carbon Film 10K ohm 1/8W	○		
	6S41801P44	Carbon Film 10K ohm 1/4W		○	○

Control P.C. Board Assembly

Symbol No.	Parts Number	Description	7206	7205	7204
IC, Transistors & Diodes					
IC351	51T43196U01	IC, Touch Switch	○		
TR351	48T42182U01	Transistor, 2SD661-U	○		
TR352	48T42182U01	Transistor, 2SD661-U	○		
TR353	48T42182U01	Transistor, 2SD661-U	○		
D351	48S134816	Diode, Silicon 1S1555	○		
D352	48S134816	Diode, Silicon 1S1555	○		
D353	48S134816	Diode, Silicon 1S1555	○		
Z351	48T40059U06	Diode, Zener HZ6B-3L	○		
Capacitors					
C351	8T44979P10	Ceramic 22000pF	○		
C352	8T44979P10	Ceramic 22000pF	○		
C353	8T44979P10	Ceramic 22000pF	○		
C354	8T44979P10	Ceramic 22000pF	○		
Resistors					
R351	6S41042U89	Carbon Film 10K ohm 1/8W	○		
R352	6S41042U89	Carbon Film 10K ohm 1/8W	○		
R353	6S41042U89	Carbon Film 10K ohm 1/8W	○		
R354	6S41042U89	Carbon Film 10K ohm 1/8W	○		
R355	6S41043U38	Carbon Film 1M ohm 1/8W	○		
R356	6S41043U38	Carbon Film 1M ohm 1/8W	○		
R357	6S41043U38	Carbon Film 1M ohm 1/8W	○		
R358	6S41043U38	Carbon Film 1M ohm 1/8W	○		
R359	6S41802P44	Carbon Film 10K ohm 1/4W	○		
R360	6S41802P44	Carbon Film 10K ohm 1/4W	○		
R361	6S41802P44	Carbon Film 10K ohm 1/4W	○		
R362	6S41802P44	Carbon Film 10K ohm 1/4W	○		
R363	6S41802P30	Carbon Film 680 ohm 1/4W	○		
R364	6S41802P30	Carbon Film 680 ohm 1/4W	○		
R365	6S41802P30	Carbon Film 680 ohm 1/4W	○		
R366	6S41802P30	Carbon Film 680 ohm 1/4W	○		
R367	6S41042U89	Carbon Film 10K ohm 1/8W	○		
R368	6S41042U73	Carbon Film 2.2K ohm 1/8W	○		
R369	6S41042U89	Carbon Film 10K ohm 1/8W	○		
R370	6S41802P36	Carbon Film 2.2K ohm 1/4W	○		
R371	6S41042U89	Carbon Film 10K ohm 1/8W	○		
R372	6S41043U22	Carbon Film 220K ohm 1/8W	○		
R373	6S41802P60	Carbon Film 220K ohm 1/4W	○		
R374	6S41802P60	Carbon Film 220K ohm 1/4W	○		

Volume P.C. Board Assembly

Symbol No.	Parts Number	Description	7206	7205	7204
Capacitors uF=μF (Microfarads), Z=+80%, −20%					
C251	8C44833J10	Mylar 0.0056uF	○	○	○
C252	8C44833J10	Mylar 0.0056uF	○	○	○
C253	8C44833J21	Mylar 0.047uF	○	○	○
C254	8C44833J21	Mylar 0.047uF	○	○	○
C255	8C44833J21	Mylar 0.047uF	○	○	○
C256	8C44833J21	Mylar 0.047uF	○	○	○
C257	23S41059P04	Tantalum 0.33uF	○	○	○
C258	23S41059P04	Tantalum 0.33uF	○	○	○
C513	21C45322G32	Ceramic 22000pF 50V (Z)	○	○	○
Resistors					
R251	6S41042U85	Carbon Film 6.8K ohm 1/8W	○	○	○
R252	6S41042U85	Carbon Film 6.8K ohm 1/8W	○	○	○
R253	6S41042U65	Carbon Film 1K ohm 1/8W	○	○	○
R254	6S41042U65	Carbon Film 1K ohm 1/8W	○	○	○
R255	6S41040U63	Carbon Film 820 ohm 1/8W	○	○	○
R256	6S41040U63	Carbon Film 820 ohm 1/8W	○	○	○

Symbol No.	Part Number	Description	7206	7205	7204
VR251 VR252 VR254	18T43145U01	Variable (Volume Control)	○	○	○

Miscellaneous Parts

Symbol No.	Part Number	Description	7206	7205	7204
CT51	20C43248J01	Cap., Variable	○	○	○
C414	23S41059P26	Cap., Tantalum 10uF 16V	○		
C501 ∿ C509	8T43140U01	Cap., Feed Through	○	○	
C501 C502 C504 C505	8T43140U02	Cap., Feed Through			○
E2	9C40957T10	Receptacle, Antenna	○	○	○
E6	25T43197U01	Choke, External	○	○	○
E7	25T43198U01	Choke, External	○	○	○
E8	65A40348G10	Fuse	○	○	○
E9	65A40348G04	Fuse, 3A	○	○	○
J2-1	30T40337U13	Cord, Speaker			○
	30T40337U09	Cord, Speaker	○	○	
J2-2	30T40337U10	Cord, Speaker	○	○	
	30T40337U04	Cord, Speaker			○
J2-3	30T40337U11	Cord, Speaker	○	○	
J2-4	30T40337U12	Cord, Speaker	○	○	
J3	1T43752U01	Assembly, Fuse Holder	○	○	○
J4	1B42187J13	Assembly, Lug Push On	○	○	○
J5	1T43751U01	Assembly, Fuse Holder	○	○	○
J6	30T40438U01	Wire, Ground	○	○	○
LED351	48T40502U02	LED	○		
LED352	48T40502U02	LED	○		
LED353	48T40502U02	LED	○		
LED354	48T40502U02	LED	○		
LED501	48T42247U01	LED	○	○	○
LED502	48T42247U02	LED	○	○	○
LED503	48T42247U02	LED	○	○	○
LED504	48T42247U01	LED	○	○	○
LED505	48T40502U02	LED		○	
PL501	65B43447J01	Lamp, Indicator	○	○	○
PL502	65B43447J01	Lamp, Indicator	○	○	○
R419	6S41042U89	Res., Carbon Film 10K ohm 1/8W	○		
R504	6S40150T61	Res., Carbon Film 680 ohm 1/8W			○
R508	6S40150T61	Res., Carbon Film 680 ohm 1/8W		○	
SW3	40T43143U01	Switch, Slide	○	○	○
SW9	40T43142U01	Switch, Push	○	○	○
SW10	40T43142U01	Switch, Push	○	○	○
SW15	40T43144U01	Switch, Push		○	
SW16	40T43740U01	Switch, Leaf	○	○	○
TR404	48T42182U01	Transistor, 2SD661-L	○		
VR253	18T43147U01	Control, Fader		○	
	18T43148U01	Control, Balance			○
VR255	18T43147U01	Control, Fader	○	○	
VR256	18T43147U01	Control, Fader	○	○	
L51	24B43247J01	Coil, Choke			○

General Assembly Parts

Symbol No.	Parts Number	Description	7206	7205	7204
1	27D43136U06	Chassis Base	○		
	27D43136U01	Chassis Base		○	○
2	45A40198F01	Arm, Orudamu A	○	○	○
3	14B40012F03	Insulator, Fiber	○	○	
4	7B42222U02	Bracket, Volume	○	○	○
5	7B42222U03	Bracket, Volume	○	○	○
6	2S40000G06	Nut, Hex.	○	○	○
7	84A43201U02	Panel, Switch	○	○	○
8	84A43201U01	Panel, Switch	○	○	○
9	7A43163U01	Bracket, Switch	○	○	○
10	7A43227U01	Bracket, Eject	○	○	○
11	41A43741U01	Spring, Eject	○	○	○
12	3S40011G31	Screw, Machine (M2.6 x 0.45 x 4)	○	○	○
13	3S44205G05	Screw, Tapping (M3 x 0.5 x 5)	○	○	○
14	7B42222U01	Bracket, Volume	○	○	○
15	14B40012F02	Insulator, Fiber	○	○	
16	77T43188U01	Tuner Unit	○	○	○
17	14B40012F01	Insulator, Fiber	○	○	
18	52A43171U01	Pointer	○	○	○
19	7A43165U01	Bracket, Band Switch	○	○	○
20	3C40014G12	Screw, Machine (M2.6 x 4)	○	○	○
21	45A44161U01	Arm, Orudamu A	○	○	○
22	36C43166U01	Knob, Push Button	○	○	○
23	36C43166U02	Knob, Push Button	○	○	○
24	36C43166U03	Knob, Push Button	○	○	○
25	36C43166U04	Knob, Push Button	○	○	○
26	36C43166U05	Knob, Push Button	○	○	○
27	3S43997P36	Screw, Machine Bind (M2.6 x 3)	○	○	
	3S40011G92	Screw, Machine (M2.6 x 0.45 x3)			○
28	1V42300U40	Assembly, AM Panel	○	○	
	1V42900U29	Assembly, Radio Panel			○
29	1V42300U41	Assembly, FM Panel	○	○	
	84A43162U01	Panel L.E.D.			○
30	7A43876U01	Bracket, AM Panel	○	○	
31	3S40011G69	Screw, Machine (M2 x 0.4 x 4)	○	○	
32	1V42300U42	Assembly, Pre-Main Amp Panel	○		
	1V42900U14	Assembly, Pre-Main Amp Panel		○	
	1V43200U24	Assembly, Pre-Main Amp Panel			○
33	7A43139U01	Bracket, IC	○	○	○
34	7A44553U01	Bracket, Heat Sink A	○	○	○
35	3S43997P09	Screw, Machine	○	○	○
36	1V42300U43	Assembly, Volume	○	○	○
37	35B43149U01	Scale, Back	○	○	○
38	35B43150U01	Plate, Back	○	○	
	35B43150U02	Plate, Back			○
39	84B43151U01	Panel, Lamp	○	○	○
40	43A41728U02	Bush, Lamp	○	○	○
41	3S40012G58	Screw, Tapping (M2 x 5)	○	○	○
42	1U42500U10	Cassette Deck	○		○
	1U42500U11	Cassette Deck		○	
43	1V42300U46	Assembly, Deck Control Panel	○		
	1V42900U16	Assembly, Deck Control Panel		○	○
44	84A40606F01	Panel, Sensor	○		

Symbol No.	Parts Number	Description	7206	7205	7204
45	3C40014G06	Screw, Machine (M2.6 x 6)	○	○	○
46	14A40443G10	Insulator, Pre Amp	○	○	○
47	14A44462U01	Insulator, Fiber	○	○	○
48	46A42442U02	Stud	○	○	○
49	7A43172U01	Bracket, Panel	○	○	○
50	29A737272	Lug, Wrap Around	○		
51	1V42300U47	Assembly, Dolby Noise Reduction	○		
	1V42900U17	Assembly, Dolby Noise Reduction		○	
52	1V42300U48	Assembly, Loudness Panel	○		
	1V42900U18	Assembly, Loudness Panel		○	
	1V42900U31	Assembly, Loudness Panel			○
53	13C43743U01	Nose Piece	○		
	13C43743U02	Nose Piece		○	
	13C43743U03	Nose Piece			○
54	15B43158U01	Cover, Dust	○		
	15B43158U02	Cover, Dust		○	○
55	41A43598P01	Spring, Dust Cover	○	○	○
56	47A43599P02	Shaft, Dust Cover	○	○	○
57	13D43152U02	Nose Piece	○	○	○
58	13D43152U03	Nose Piece B	○	○	○
59	36A41418U01	Knob, Program	○		
	84A43162U01	Panel LED		○	
60	84B43160U01	Panel, Switch	○		
61	1V42300U50	Assembly, Control Panel	○		
62	3S40011G33	Screw, Machine (M2 x 0.4 x 4)	○	○	○
63	27C43137U01	Chassis, Side	○	○	○
64	7B44544U01	Bracket, Heat Sink B	○	○	○
65	7B43164U01	Bracket, Cord Holder	○	○	○
66	15C43138U01	Cover, Top	○	○	○
67	14B40012F04	Insulator, Fiber	○	○	○
68	14B40886F01	Insulator, Fiber	○	○	
69	3S40011G95	Screw, Machine (M2.6 x 0.45 x 4)	○	○	○
70	3S40011G21	Screw, Machine (M3 x 0.5 x 4)	○	○	○
71	3S40011G90	Screw, Machine (M2.6 x 0.45 x 4)	○	○	○
72	3S43997P27	Screw, Machine (M2.6 x 12, Bind)	○	○	○
73	3S40012G47	Screw, Tapping (M2.6 x 8)	○	○	○
74	4S40075G18	Washer, S.T.W.	○	○	○
75	3S40012G51	Screw, Tapping (M2.6 x 5)	○	○	○
76	3S44205G07	Screw, Tapping (M2.6)	○	○	○
77	3C40014G29	Screw, Machine	○	○	○
78	45A41744U01	Arm, Orudamu B	○	○	○
79	36A43170U01	Knob, Push		○	
80	40B43161U01	Switch, Rubber	○		
81	36B43168U01	Knob, F.F./Rew.	○	○	○
82	36B43168U02	Knob, F.F./Rew.	○	○	○
83	36B43167U01	Knob, Push	○	○	○
84	7B40370F01	Bracket, Pointer Guide	○	○	○
85	7A40846F01	Bracket, Plate	○	○	

Packing Assembly Parts

Symbol No.	Parts Number	Description	7206	7205	7204
101	1V42900U23	Assembly, Knob Control	○	○	○
101-1	36C42201U01	Knob, Control A	○	○	○
2	36B42202U04	Knob, Control B	○	○	○
3	36B42203U04	Knob, Control C	○	○	○
4	56B40230G27	Sack, Polyethylene	○	○	○
102	1V41600U57	Assembly, Kit Installation	○	○	○
102-1	2S40000G32	Nut, Nex.	○	○	○
2	3S40012G39	Screw, Tapping (M5 x 20)	○	○	○
3	3S40012G45	Screw, Tapping (M5 x 10)	○	○	○
4	4S40072G12	Washer, Tooth Lock	○	○	○
5	3A43315G02	Screw, Machine	○	○	○
6	2S40000G13	Washer	○	○	○
7	45A41684U01	Arm, Adaptor	○	○	○
8	65A40348G04	Fuse, 3A	○	○	○
9	65A40348G10	Fuse	○	○	○
10	3A43315G03	Screw, Machine	○	○	○
11	56B40230G27	Sack, Polyethylene	○	○	○
12	4A43020G11	Washer			○
103	1V42300U53	Assembly, Pamphlet	○	○	
	1V42900U35	Assembly, Pamphlet			○
103-1	68P44550U16	Owner's Manual	○	○	○
2	56B40230G12	Sack, Polyethylene	○	○	○
104	4C42206U01	Washer, Volume	○	○	○
105	32B42183P01	Gasket, Nose	○	○	○
106	33C42216U06	Plate, Face	○	○	
	33C42216U07	Plate, Face			○
107	33B43302U09	Plate, Accessory	○	○	
	33B43302U11	Plate, Accessory			○
108	33B43302U10	Plate, Accessory	○	○	
	33B43302U12	Plate, Accessory			○
109	42B40994G05	Strap, Receiver Mounting	○	○	○
110	56B40230G07	Sack, Polyethylene	○	○	○
111	56D43178U01	Tray, Packing	○	○	○
112	56D43178U02	Tray, Packing	○	○	○
113	56C43179U01	Carton, Packing (Individual)	○	○	
	56C43179U03	Carton, Packing (Individual)			○
114	56D42220U05	Carton , Packing (Master)	○	○	
	56D42220U07	Carton , Packing (Master)			○
115	56D41118J37	Pad, Packing	○	○	○
116	64B42217U01	Plate, Front	○	○	○
117	56A40845F01	Spacer, Packing	○	○	○

Tape Mechanism Assembly Parts

Symbol No.	Parts Number	Description	7206	7205	7204
201	GG-A009	Assembly, Chassis		○	○
	GG-A005	Assembly, Chassis	○		
202	GGA006	Assembly, Sub Chassis	○	○	○
203	CG-A016	Assembly, Pinch Roller	○	○	○
204	CG-H010	Drive Shaft, Pinch Roller	○	○	○
205	5500-E003	Pinch Roller	○	○	○
206	CG-S009	Spring, Pinch Roller (Right)	○	○	○
207	5500-H020	Collar, Head Chassis Return	○	○	○
208	50P-H012	Collar, Head Chassis Return	○	○	○
209	88T40782T01	Head	○	○	○
210	CG-S011	Spring (A), Sub Chassis	○	○	○
211	CG-S012	Spring (B), Sub Chassis	○	○	○
212	5500-E016	Roller, Guide	○	○	○
213	CG-A014	Assembly, Play Idler Lever (A)	○	○	○
214	GG-S002	Spring, Play Idler	○	○	○
215	50P-P013	Lever, Fast Forward	○	○	○
216	50P-S002	Spring, Fast Forward Lever	○	○	○
217	50P-P014	Lever, Rewind	○	○	○
218	50P-S003	Spring, Rewind Lever	○	○	○
219	50P-A001	Assembly, R/F Plate	○	○	○
220	50P-A002	Assembly, R/F Idler	○	○	○

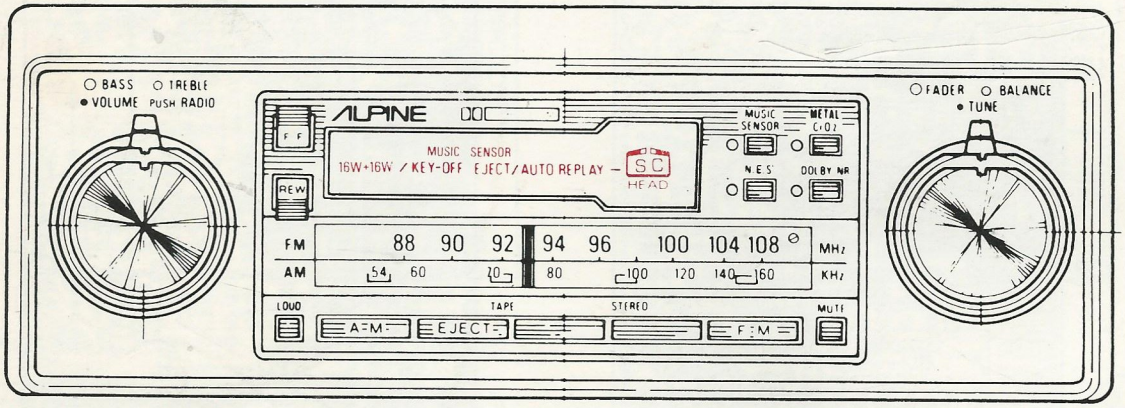
Symbol No.	Part Number	Description	7206	7205	7204
221	50P-S001	Spring, R/F Idler Arm	○	○	○
222	GG-A003	Assembly, Rewind Idler	○	○	○
223	50P-S004	Spring, Rewind Idler	○	○	○
224	CG-A006	Assembly, R/F Lock Lever	○	○	○
225	GG-H005	Collar, R/F Lock	○	○	○
226	CG-S002	Spring, R/F Lock Lever	○	○	○
227	50P-H003	Metal, R/F Lock Lever	○	○	○
228	59T41505U02	Motor	○	○	○
229	AEJ-G001	Pulley, Motor		○	○
	50P-H011	Pulley, Motor	○		
230	50P-A004	Assembly, M.S. Drive	○		
231	50P-A005	Assembly, M.S. Arm	○		
232	50P-S005	Spring, M.S. Drive	○		
233	50P-A006	Assembly, Reel Mounting Bracket	○	○	○
234	CG-A008	Assembly, Reel	○	○	○
235	5800-A001	Assembly, Reel	○	○	○
236	5500-Y002	Magnet	○	○	○
237		Assembly, Lead Switch Panel	○	○	○
238	CG-H018	Flywheel		○	○
238	50P-H008	Flywheel	○		
239	CG-H041	Pulley, Middle	○	○	○
240	GG-E001	Belt, Drive	○	○	○
241	MSW-0026T	Switch, Leaf	○		
242	50P-P012	Holder, Flywheel	○	○	○
243	50P-A007	Assembly, Eject Mounting Bracket	○	○	○
244	AEJ-A006	Assembly, Eject Lever (A)	○	○	○
245	CG-H039	Collar (C), Eject Lever	○	○	○
246	CG-H040	Collar (D), Eject Lever	○	○	○
247	AEJ-P010	Lever (B), Eject	○	○	○
248	CG-A010	Assembly, Lock Lever	○	○	○
249	CG-S004	Spring (A), Eject Lever	○	○	○
251	CG-S006	Spring, Lock Lever	○	○	○
252	CG-P014	Lever, Lock Release	○	○	○
253	CG-H026	Metal, Release Lever	○	○	○
254	CG-S015	Spring, Release Lever	○	○	○
255	50P-A008	Assembly, Cassette Drive Arm	○	○	○
256	CG-A025	Assembly, Cassette Case	○	○	○
257	50P-A009	Assembly, Cassette Guide Plate	○	○	○
258	40C42625P01	Switch, Micro	○	○	○
259	5500-E010	Rubber, Cushion	○	○	○
260	CG-H031	Roller Shaft, Drive Arm	○	○	○
261	CG-H032	Link, Connection	○	○	○
262	CG-P020	Insulator	○	○	○
263	965S-G008	Collar, Mold	○	○	○
264	50P-P020	Support, Eject Mounting Bracket	○	○	○
265	50P-A010	Assembly, Lock Release Lever	○	○	○
266	50P-G002	Part, Push Switch	○	○	○
267		Push Switch	○	○	○
268	AEJ-A007	Assembly, Eject Drive Lever (A)	○	○	○
269	AEJ-P006	Assembly, Eject Drive Lever (B)	○	○	○
270	AEJ-S001	Spring, Eject Drive	○	○	○
271	AEJ-A008	Assembly, Eject Drive Lever (C)	○	○	○
272	AEJ-P008	Arm, Eject	○	○	○
273	AEJ-P001	Plate, Gear	○	○	○
274	TEJ-H007	Spring, Sensor	○	○	○
275	AEJ-G004	Gear (2nd)	○	○	○
276	AEJ-G005	Gear (3rd)	○	○	○
277	AEJ-G007	Gear (4th)	○	○	○
278	AEJ-G006	Gear, Drive	○	○	○
279	AEJ-G008	Gear, Eject Cam	○	○	○
280		Washer, Polyester (1.7 x 4 x 0.13)	○	○	○
281		Washer, Polyester (1.7 x 4 x 0.25)	○	○	○
282		Ring, "E" (Ø 1.2)	○	○	○
283		Ring, "E" (Ø 1.9)	○	○	○
284		Ring, "E" (Ø 2.3)	○	○	○
285	AEJ-G009	Belt, Drive	○	○	○
286	50P-H020	Metal, Lock Release Lever	○	○	○
287	AEJ-S002	Spring, Lock Release Lever	○	○	○
288	AEJ-P012	Spring Plate, Gear	○	○	○
289	AEJ-P014	Plate, Push Switch	○	○	○
290	50P-H013	Metal, Lever	○	○	○
291	AEJ-Y001	Solenoid	○	○	○
292		Ring, "E" (Ø 1.2)	○	○	○
293		Ring, "E" (Ø 1.5)	○	○	○
294		Ring, "E" (Ø 1.9)	○	○	○
295		Ring, "E" (Ø 2.3)	○	○	○
296		Ring, "E" (Ø 3.2)	○	○	○
297		Ring, "E" (Ø 4)	○	○	○
298		Washer, Flat (Ø2.1 x Ø 6 x 3t)	○	○	○
299		Washer, Flat (Ø 2.1 x Ø 6 x 0.5t)	○	○	○
300		Washer, Polyester	○	○	○
		(Ø 2.1 x Ø 4 x 0.25t)	○	○	○
301		Washer, Polyester (Ø 6 x 0.5t)	○	○	○
302		Tube, Vinyl	○	○	○
303		Schew, Pan Head (M2 x 3)	○	○	○
304		Screw, Pan Head (M2 x 5)	○	○	○
305		Screw, Pan Head (M2 x 8)	○	○	○
306		Screw, Pan Head (M2.3 x 14)	○	○	○
307		Screw, Pan Head (M2.6 x 4)	○	○	○
308		Screw, Pan Head (M2.6 x 3)	○	○	○
309		Screw, Truss Head (M2.6 x 5)	○	○	○
310		Screw, Sems (M2.6 x 5)	○	○	○
311		Screw, Flat Countersunk(M2.6 x 5)	○	○	○
312		Screw, Flat Countersunk(M2.6 x 4)	○	○	○
313		Screw, Sems (M3 x 5)	○	○	○
314		Screw, Flat Countersunk (M3 x 5)	○	○	○
315		Screw, Sems (M3 x 4)	○	○	○
316		Screw, Flat Countersunk (M2 x 4)	○	○	○
317		Screw, Pan Head (M2 x 5)	○	○	○
318	AEJ-P002	Lever, Drive	○	○	○

ALPINE SERVICE MANUAL

PRESET FM/AM CASSETTE CAR STEREO

CORRECTION

This Service Manual is applicable to manufacture's Serial Numbers after 10238005.

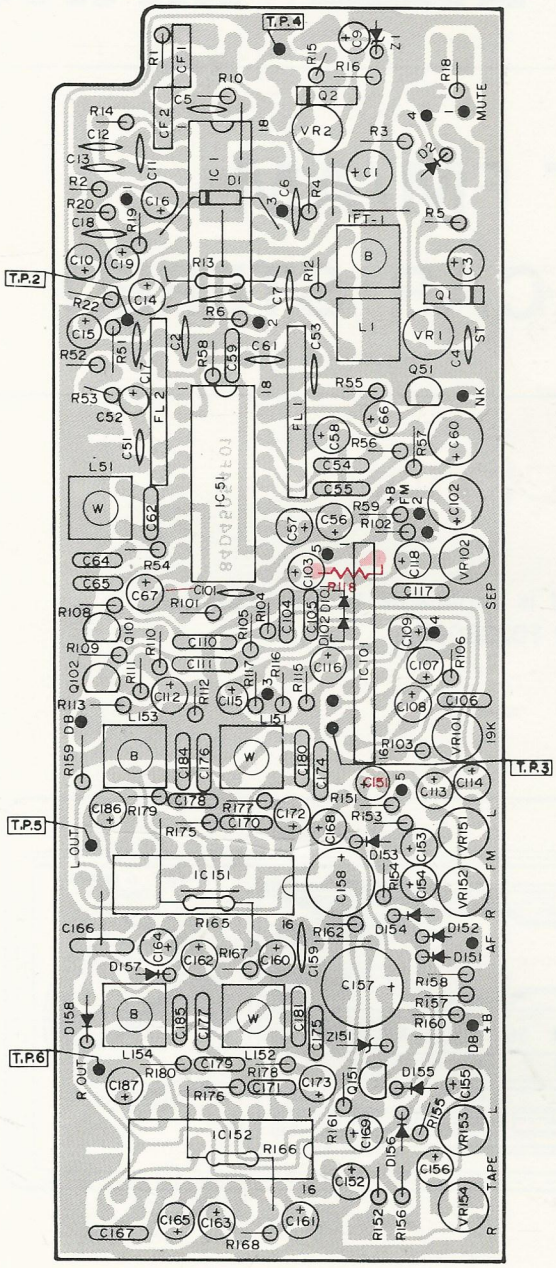


7206

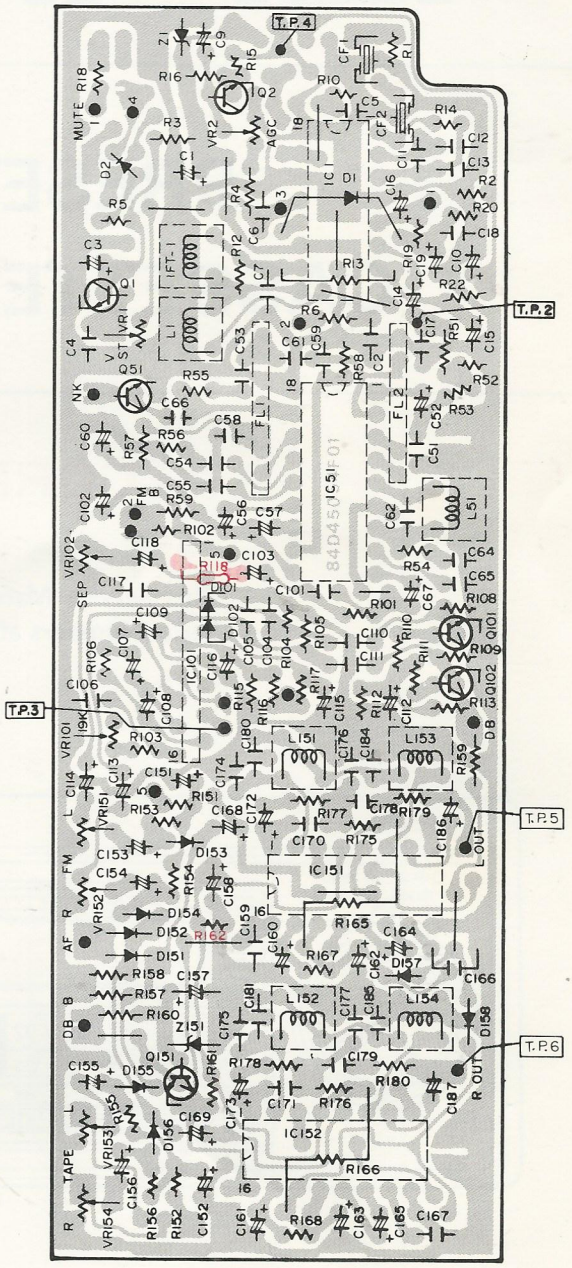
CODE 02

Parts Layout on P.C. Boards • Page 11

FM & Dolby Switch P.C. Board

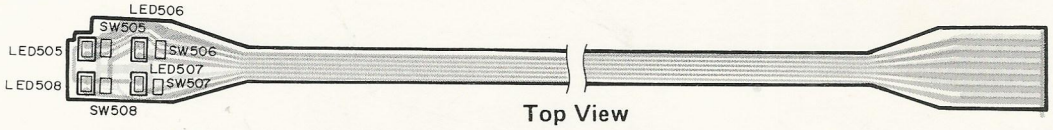


Top View

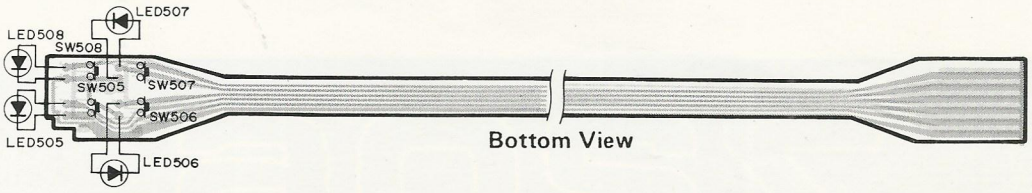


Bottom View

LED P.C.Board



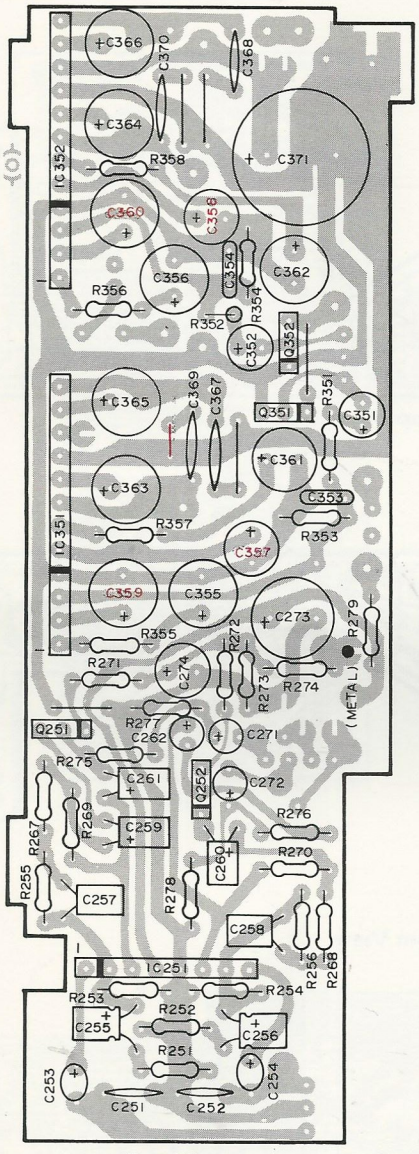
Top View



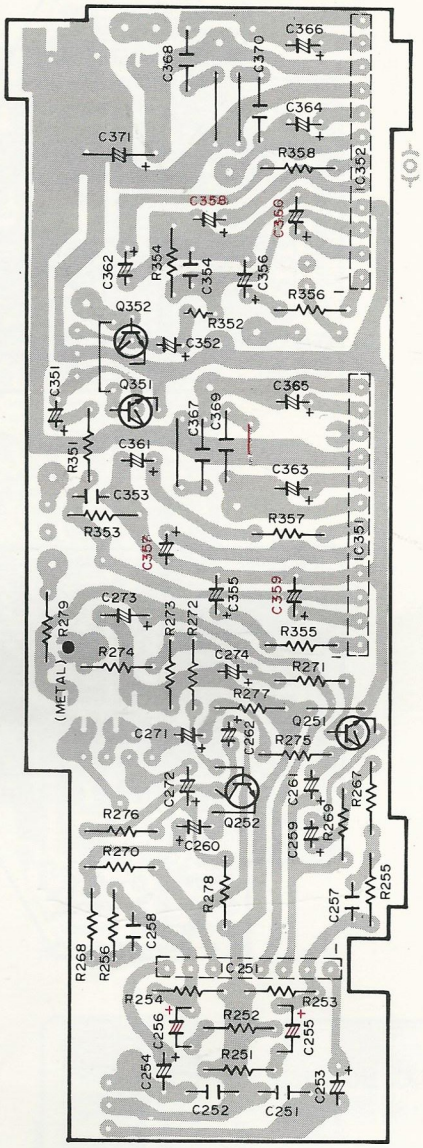
Bottom View

Pre-Main P.C. Board

● Page 12

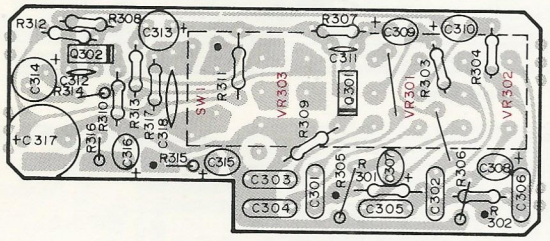


Top View

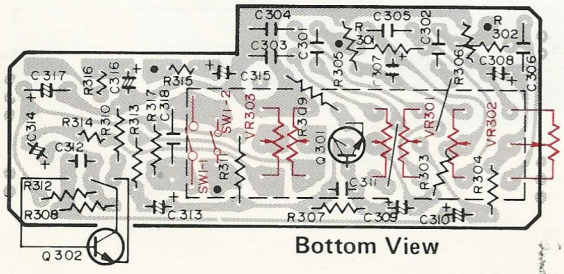


Bottom View

Volume P.C. Board

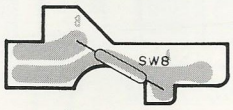


Top View

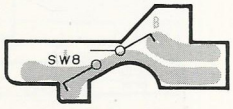


Bottom View

Reed Switch P.C. Board

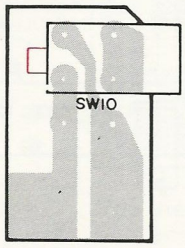


Top View

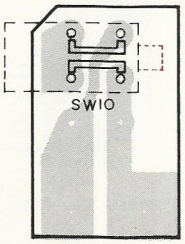


Bottom View

Loudness Switch P.C. Board

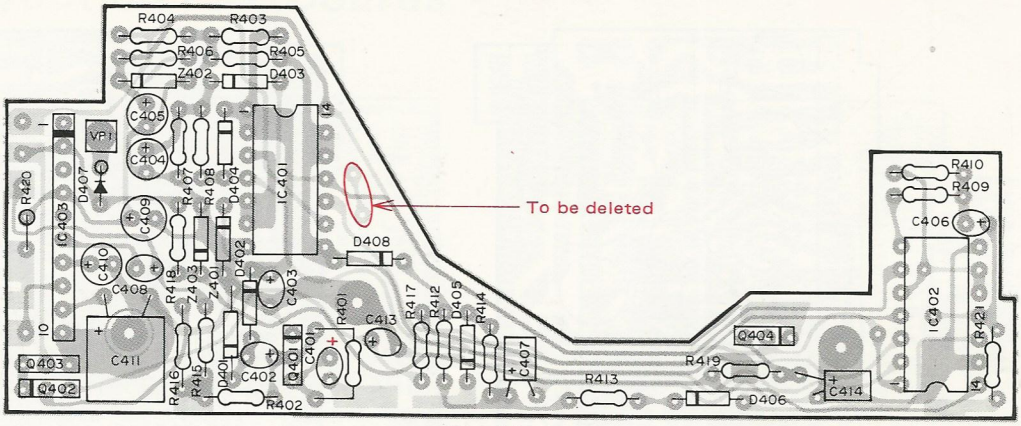


Top View

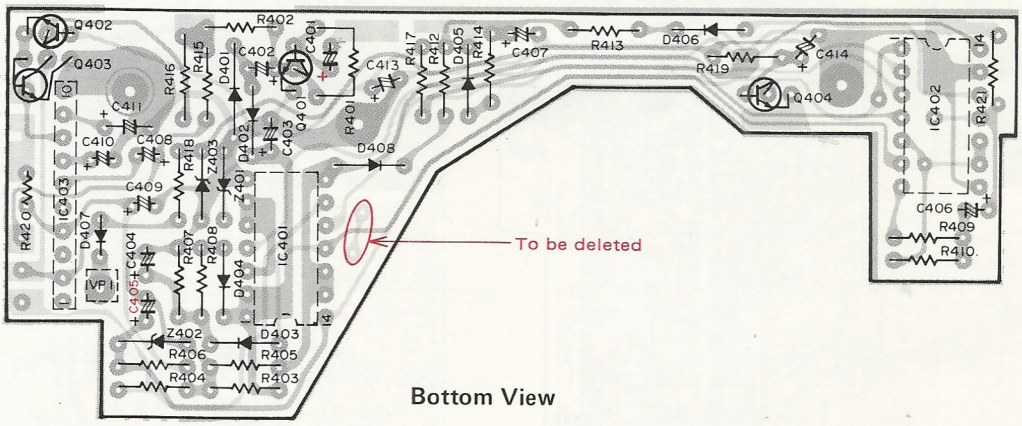


Bottom View

Deck Control P.C. Board • Page 13

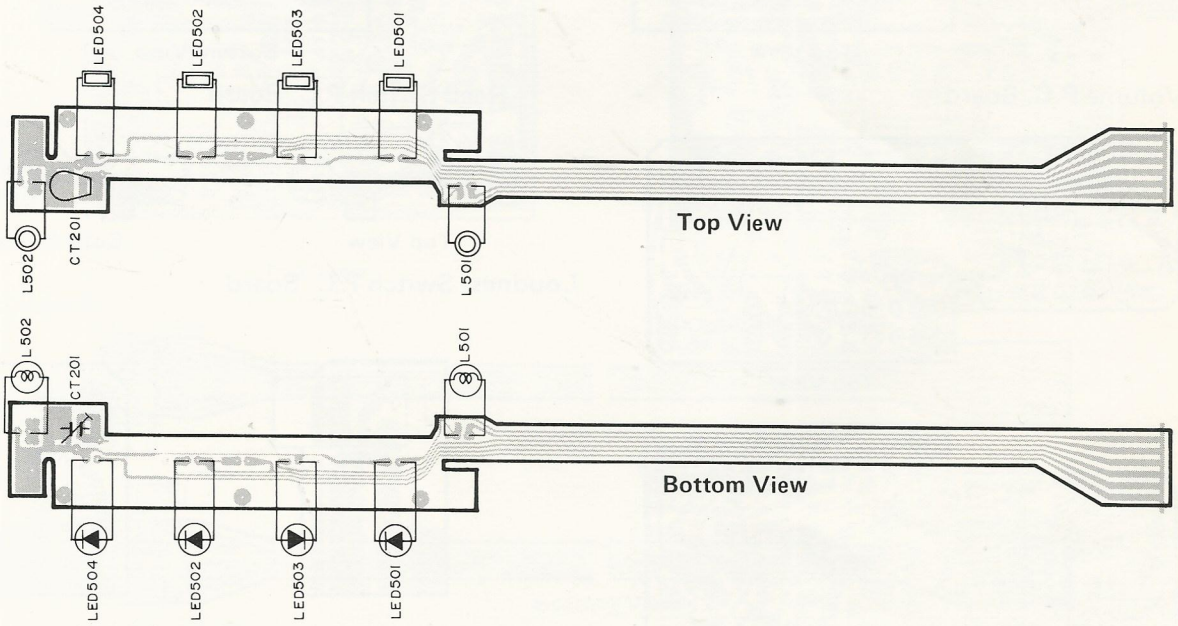


Top View



Bottom View

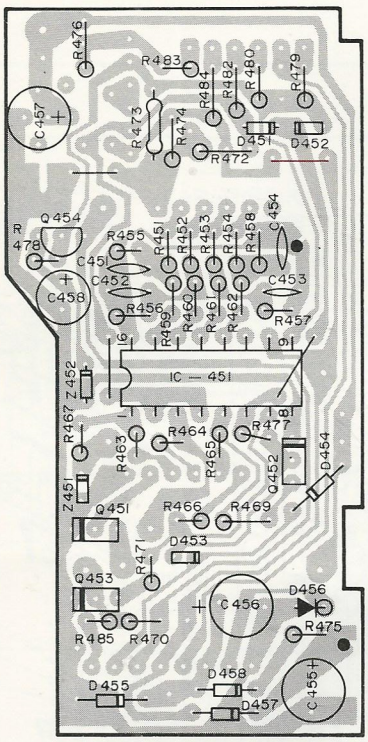
Lamp P.C. Board



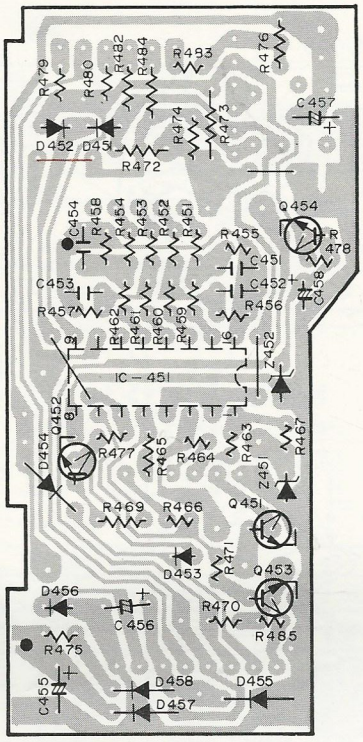
Top View

Bottom View

Control P.C. Board • Page 14



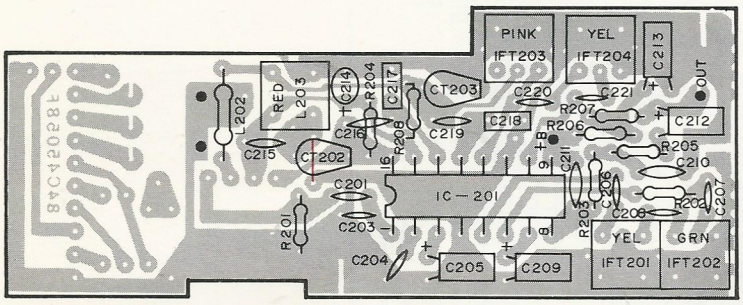
Top View



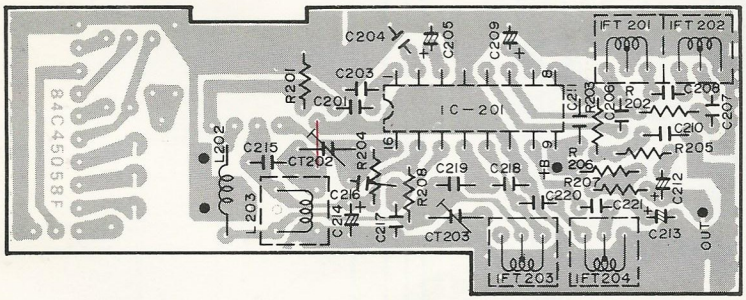
Top View

Bottom View

AM P.C. Board

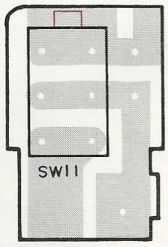


Top View

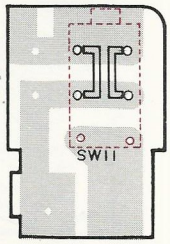


Bottom View

Mute Switch P.C. Board

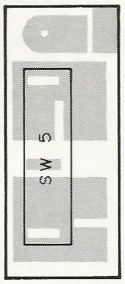


Top View

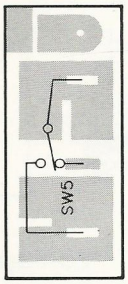


Bottom View

Micro Switch P.C.Board

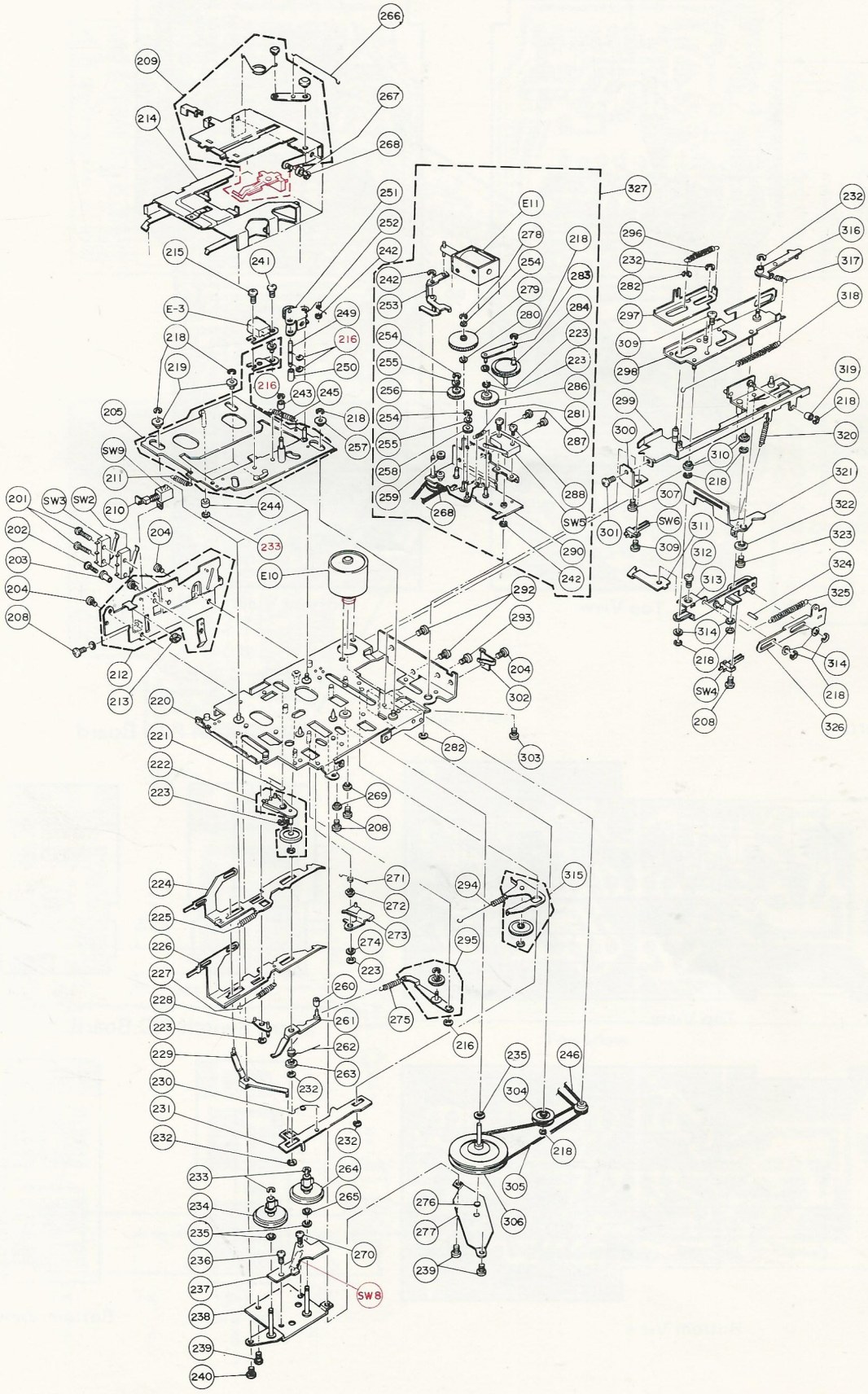


Top View



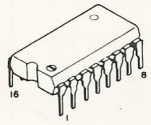
Bottom View

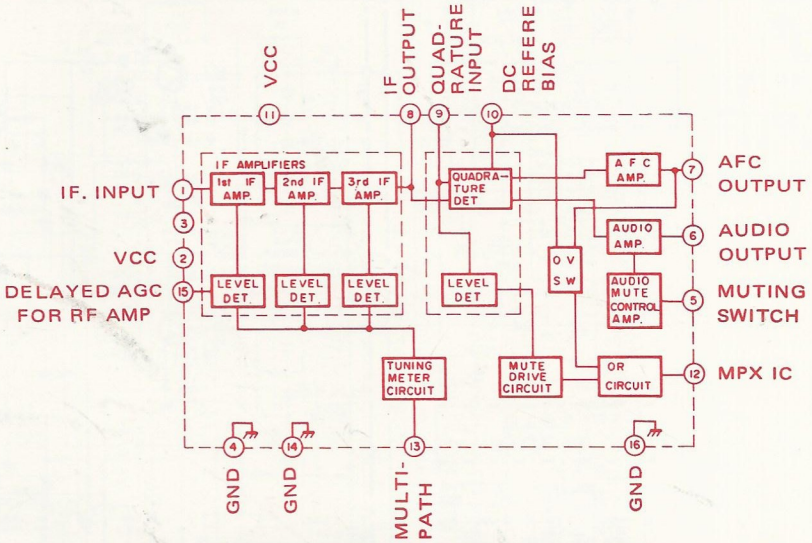
Exploded View (Tape Mechanism) • Page 21



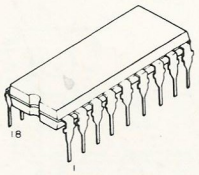
Semi-Conductor Lead Identifications • Page 22

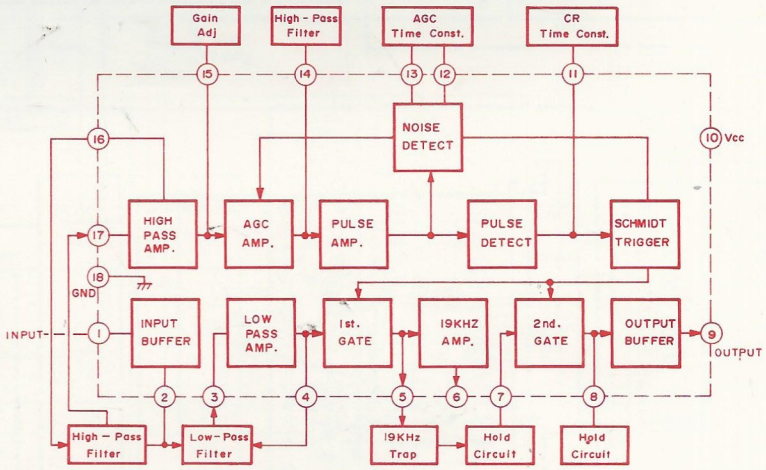
HA12411: IC1



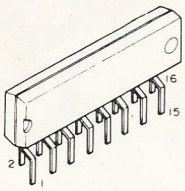


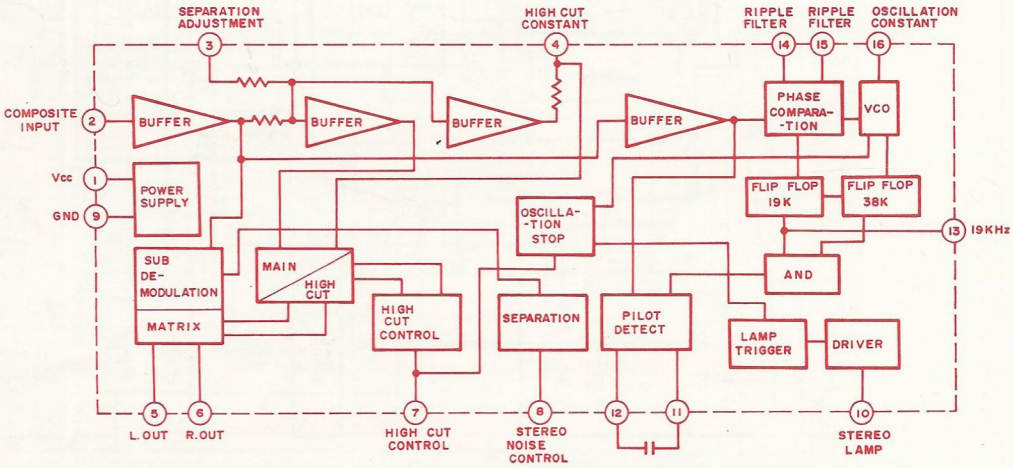
AN6130: IC51



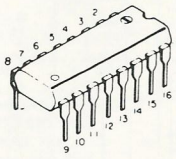


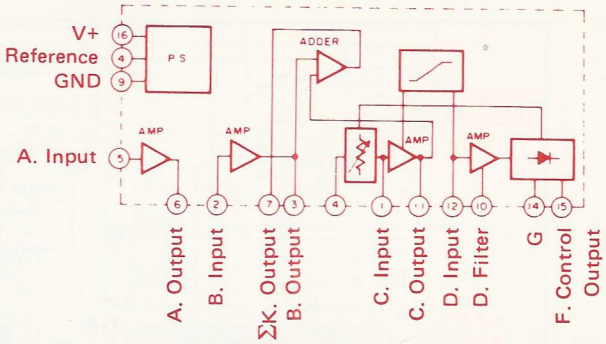
LA3370: IC101



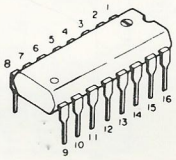


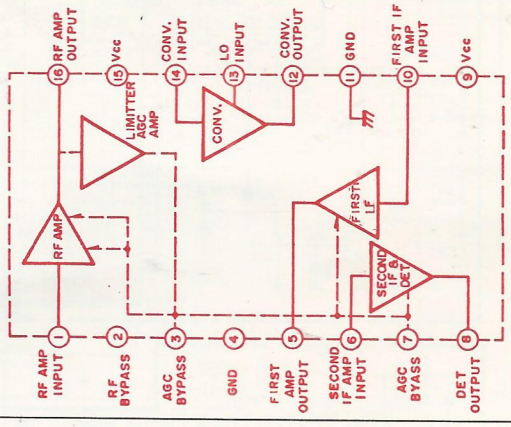
NE645N: IC151, 152



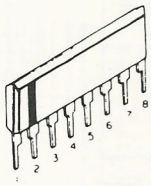


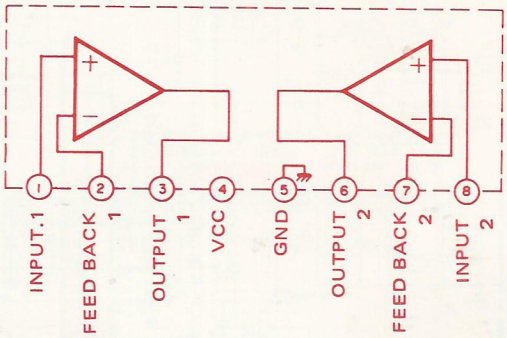
HA1199: IC201



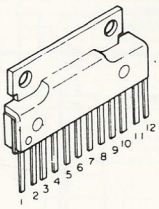


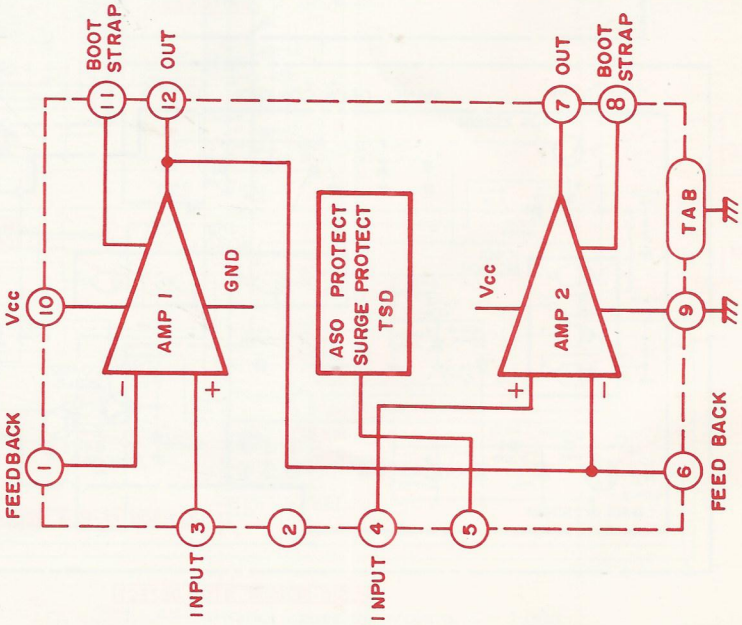
M51521L: IC251



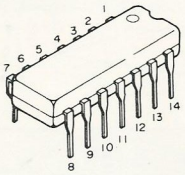


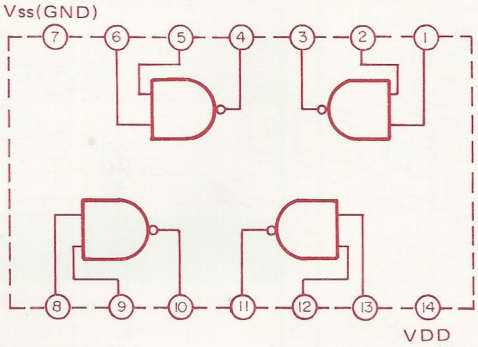
HA1388: IC351, 352



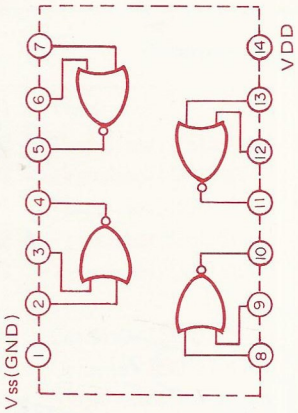


MC14011BCP: IC401
(CD4011BCN)

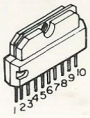


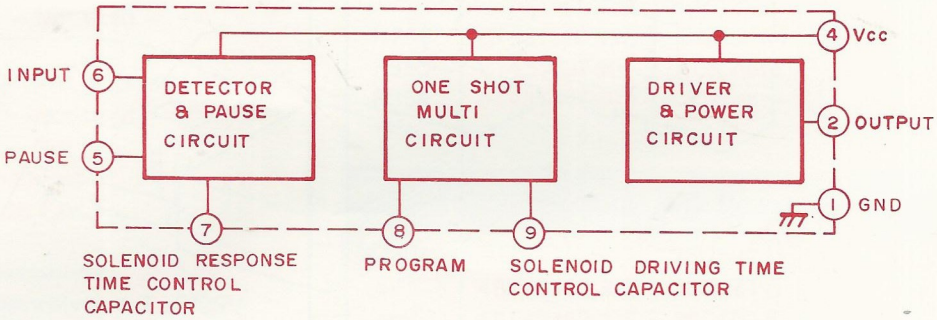


CD4001BCN: IC402
(MC14001BCP)

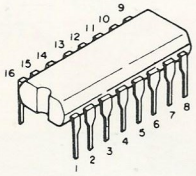


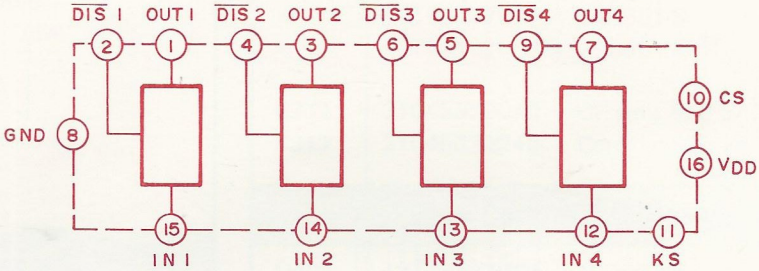
TA7226P: IC403



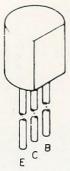


Touch Switch: IC451

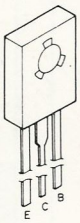




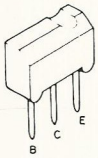
2SC1317-Q: Q151
2SC373: Q1, 101, 102
2SD655F: Q454
(2SD655E)



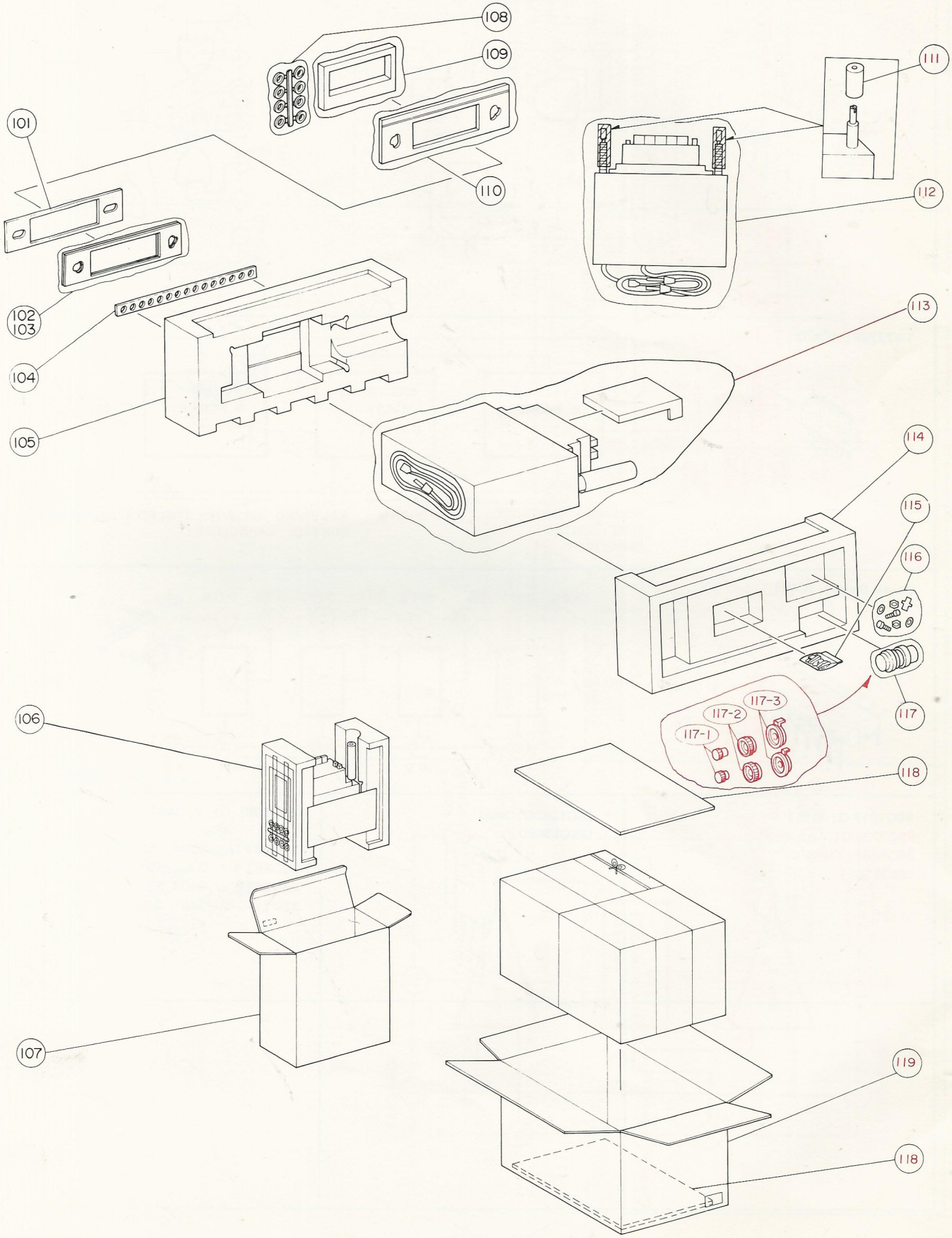
2SC1368C: Q403
(2SC1368D)



2SD636: Q1, 2, Q451, 452, 453
2SD661-U: Q251, 252, 301
2SD661-S Q302, 401, 402
2SD661-T Q404, 351, 352
2SD1199-S: Q401, 402, 403



Packing Method View • Page 22



Parts List • page 23 to 32

Symbol No.	Part No.	Description
AM P.C. Board		
IC201	51S44774P01	HA1199
FM & Dolby P.C. Board		
IC151	51S40114T01	IC, NE645N
IC152	51S40114T01	IC, NE645N
Z151	48T40059U26	Zener, HZ9C-2L
CF1	91T40309T07	Ceramic, 10.7 MHz
or	—	— Not Used —
or	—	— Not Used —
CF2	91T40309T07	Ceramic, 10.7 MHz
or	—	— Not Used —
or	—	— Not Used —
FL1	91T44879F03	High Pass
FL2	91T44879F01	Low Pass
C10	23T43247F05	Electrolytic 1 uF/50V
C14	23T43247F08	Electrolytic 4.7 uF/25V
C117	23T43247F05	Electrolytic 1 uF/50V
R114	—	— Not Used —
R118	6S41042U73	2.2K ohm 1/8W
IC1	51S44157U01	HA12411
IC51	51S44283F01	AN6130
IC101	51S42261F01	LA3370
Q1	48S40627U01	2SD636Q
Q2	48S40627U01	2SD636Q
Control P.C. Board		
Q451	48S40627U01	2SD636Q
Q452	48S40627U01	2SD636Q
Q453	48S40627U01	2SD636Q
D455	48S40477U01	1N4003
D456	48S40477U01	1N4003
D457	48S40477U01	1N4003
Pre-Main P.C. Board		
Q251	48T42182U01	Transistor, 2SD661-U
or	48T42182U02	Transistor, 2SD661-S
or	48T42182U03	Transistor, 2SD661-T
Q252	48T42182U01	Transistor, 2SD661-U
or	48T42182U02	Transistor, 2SD661-S
or	48T42182U03	Transistor, 2SD661-T

Symbol No.	Part No.	Description
Q351	48T42182U01	Transistor, 2SD661-U
or	48T42182U02	Transistor, 2SD661-S
or	48T42182U03	Transistor, 2SD661-T
Q352	48T42182U01	Transistor, 2SD661-U
or	48T42182U02	Transistor, 2SD661-S
or	48T42182U03	Transistor, 2SD661-T
C251	21C45322G24	Ceramic 150 pF/50V
C252	21C45322G24	Ceramic 150 pF/50V
R255	6T43160F28	390K ohm
R256	6T43160F28	390K ohm
R267	6T43159F83	5.6K ohm
R268	6T43159F83	5.6K ohm
R353	6T43159F89	10K ohm
R354	6T43159F89	10K ohm
Volume P.C. Board		
Q301	48T42182U01	2SD661-U
or	48T42182U02	2SD661-S
or	48T42182U03	2SD661-T
Q302	48T42182U01	2SD661-U
or	48T42182U02	2SD661-S
or	48T42182U03	2SD661-T
C311	21C45322G40	Ceramic 560 pF/50V
C312	21C45322G40	Ceramic 560 pF/50V
Deck Control P.C. Board		
Q401	48T42182U01	2SD661-U
or	48T42182U02	2SD661-S
or	48T42182U03	2SD661-T
or	48T50767F03	2SD1199-S
Q402	48T42182U01	2SD661-U
or	48T42182U02	2SD661-S
or	48T42182U03	2SD661-T
or	48T50767F03	2SD1199-S
Q404	48T42182U01	2SD661-U
or	48T42182U02	2SD661-S
or	48T42182U03	2SD661-T
or	48T50767F03	2SD1199-S
D407	48C40235G02	10E2
or	48S4077U01	1N4003
R416	6S40150T55	390 ohm ¼W
C406	23T43247F02	Bipolar 0.15 uF/50V
C407	23T43247F09	Electrolytic 10 uF/16V

Symbol No.	Part No.	Description
Miscellaneous Parts		
E3	FU174-11	Head
SW7	40T43740U01	Switch, Leaf (Eject)
SW8	FE147-12	Switch, Reed
SW10	40T43142U01	Switch, Push (Loudness)
SW11	40T43142U01	Switch, Push (Mute)
SW12	40T43143U01	Switch, Slide (FM/AM)
LED501	48T42247U01	LED (GRN)
LED502	48T42247U02	LED (YEL)
LED503	48T42247U02	LED (YEL)
LED504	48T42247U01	LED (GRN)
LED505	–	Included in Symbol No. 6 on General Assembly Parts
LED506	–	
LED507	–	
LED508	–	
General Assembly Parts		
6	1V46200F76	Assembly, Nosepiece (Includes Symbol No. SW505 to 508 and LED505 to 508)
14	–	– Not Used –
15	–	– Not Used –
18	1V51100F63	Assembly, Pre-Main Panel
19	–	– Not Used –
20	–	– Not Used –
22	–	– Not Used –
25	–	– Not Used –
36	3S40011G05	Screw, Machine (M2.6 x 5)
39	–	– Not Used –
56	3S43997P36	Screw, Bind (M2.6 x 3)
62	81D42699F01	Deck, Cassette (GG75B91A)
64	–	– Not Used –
65	14A50623F01	Insulator, Fiber
77	14B40012F02	Insulator, Fiber
81	14B40012F06	Insulator, Fiber
82	–	– Not Used –
91	3S40011G58	Screw, Machine (M2.6 x 3)
93	14A47070F01	Insulator, Fiber
94	75A42096P02	Cushion
95	54A44437U01	Label, Sheet
96	3S40011G95	Screw, Machine (M2.6 x 4)

Symbol No.	Part No.	Description
Packing Assembly Parts		
111	56A40845F01	Packing, Spacer
112	56B40230G07	Sack, Polyethylene
113	64B43136F01	Panel, Cassette
114	56D43178U01	Tray, Packing
115	1D45256F01	Assembly, Kit Wire
116	1V44100F21	Assembly, Kit Installation
116-1	※	Nut, Hexagon
116-2	3S40012G39	Screw, Tapping (M5 x 20)
116-3	3S40012G45	Screw, Tapping (M5 x 10)
116-4	4S40072G12	Washer, Tooth Lock
116-5	3A43315G02	Screw, Machine
116-6	4A43020G11	Washer
116-7	45A41684U01	Arm, Adapter
116-8	65A40348G04	Fuse (3A)
116-9	65A40348G10	Fuse (7A)
116-10	2S40000G13	Nut, Hexagon (M5 x 0.8)
116-11	56B40230G27	Sack, Polyethylene
116-12	46A42363F01	Bolt, Stud
117	1V42900U23	Assembly, Control Knob
117-1	36C42201U01	Knob, Control (A) (VOLUME, TUNE)
117-2	36B42202U04	Knob, Control (B) (TREBLE, BALANCE)
117-3	36C42203U04	Knob, Control (C) (BASS, FADER)
117-4	※	Sack, Polyethylene
118	※	Pad, Packing
119	※	Carton Packing (Master)
Tape Mechanism Assembly Parts		
203	FM253-11	Lever, Metal
210	FR194-11	Clip, Push Switch
237	FC665-14	Panel, Reed Switch
239	FG138-13	Screw, Flat (M2.6 x 5)
240	FG179-11	Screw, Flat (M2.6 x 4)
248	–	– Not Used –
292	FG178-18	Screw, Flat (M3 x 6)
301	FG138-17	Screw, Flat (M2 x 4)
303	FG114-17	Screw, Flat (M3 x 5)
306	FR90K-14	Assembly, Flywheel
315	F017-034	Assembly, Idler

NOTE: ※ The parts without part numbers are not supplied.

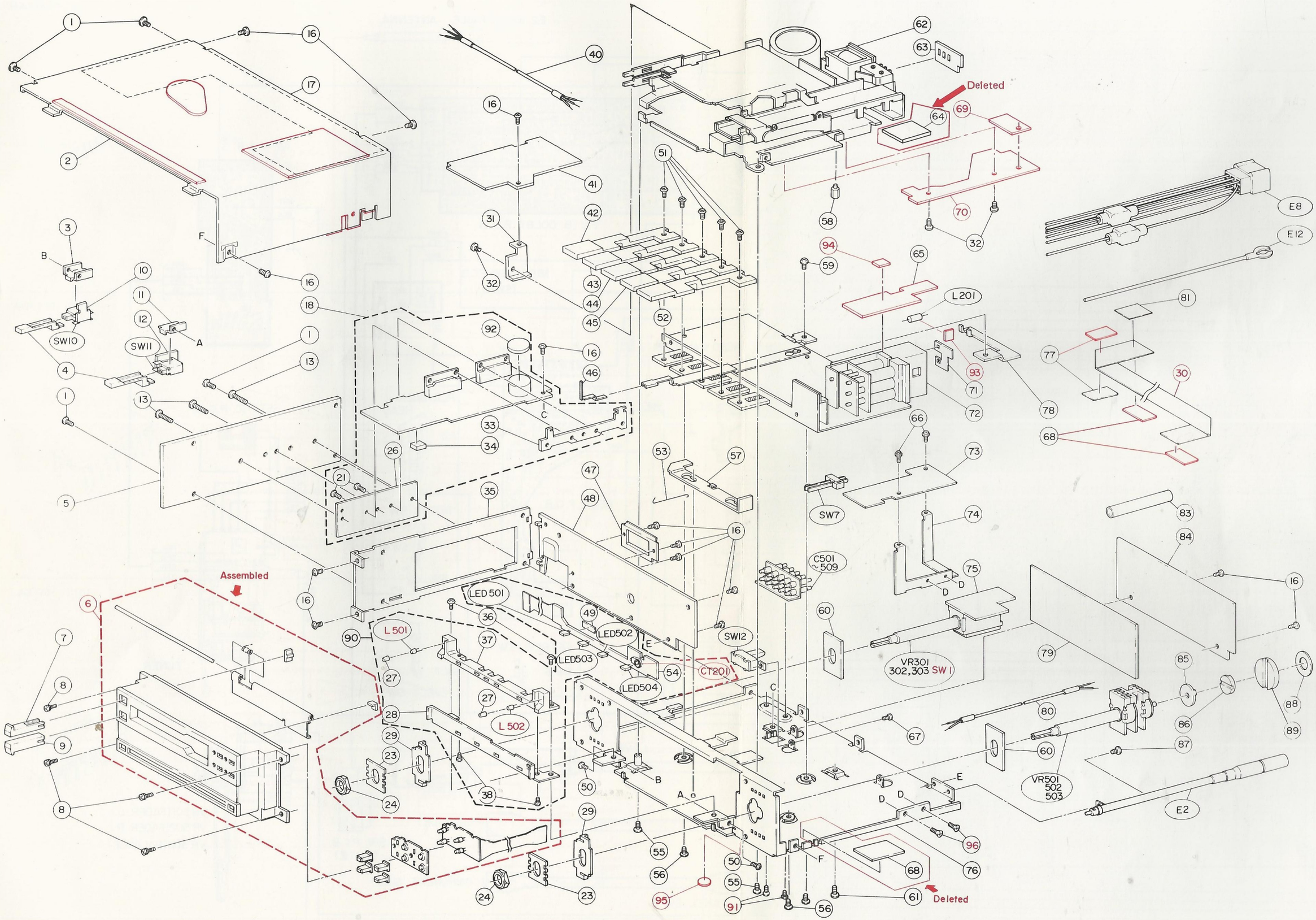
Symbol No.	Part No.	Description
Labels		
	54A50396F01	Label, Dolby (Top Cover)
	54A50889F01	Label, Music Sensor (Chassis Base)
	54B47804F04	Label, Composite (Chassis Base)
	54B42124G01	Label, Serial No. (Individual Carton)
	※	Label, Serial No. (Master Carton)
	※	Label, Date Code (Master Carton)

Symbol No.	Part No.	Description

NOTE: ※ The parts without part numbers are not supplied.

Exploded View (General)

● Page 19 to 20



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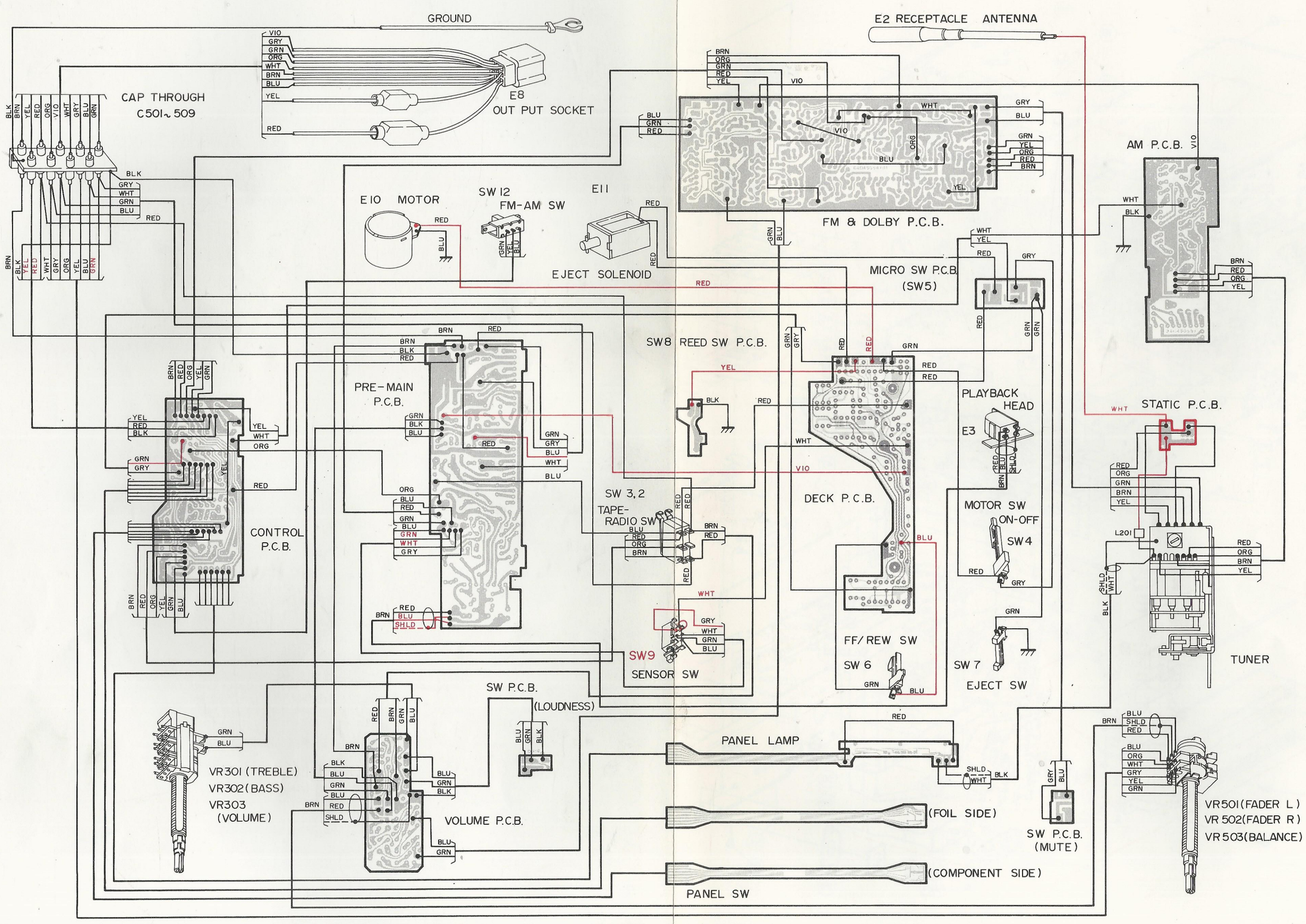
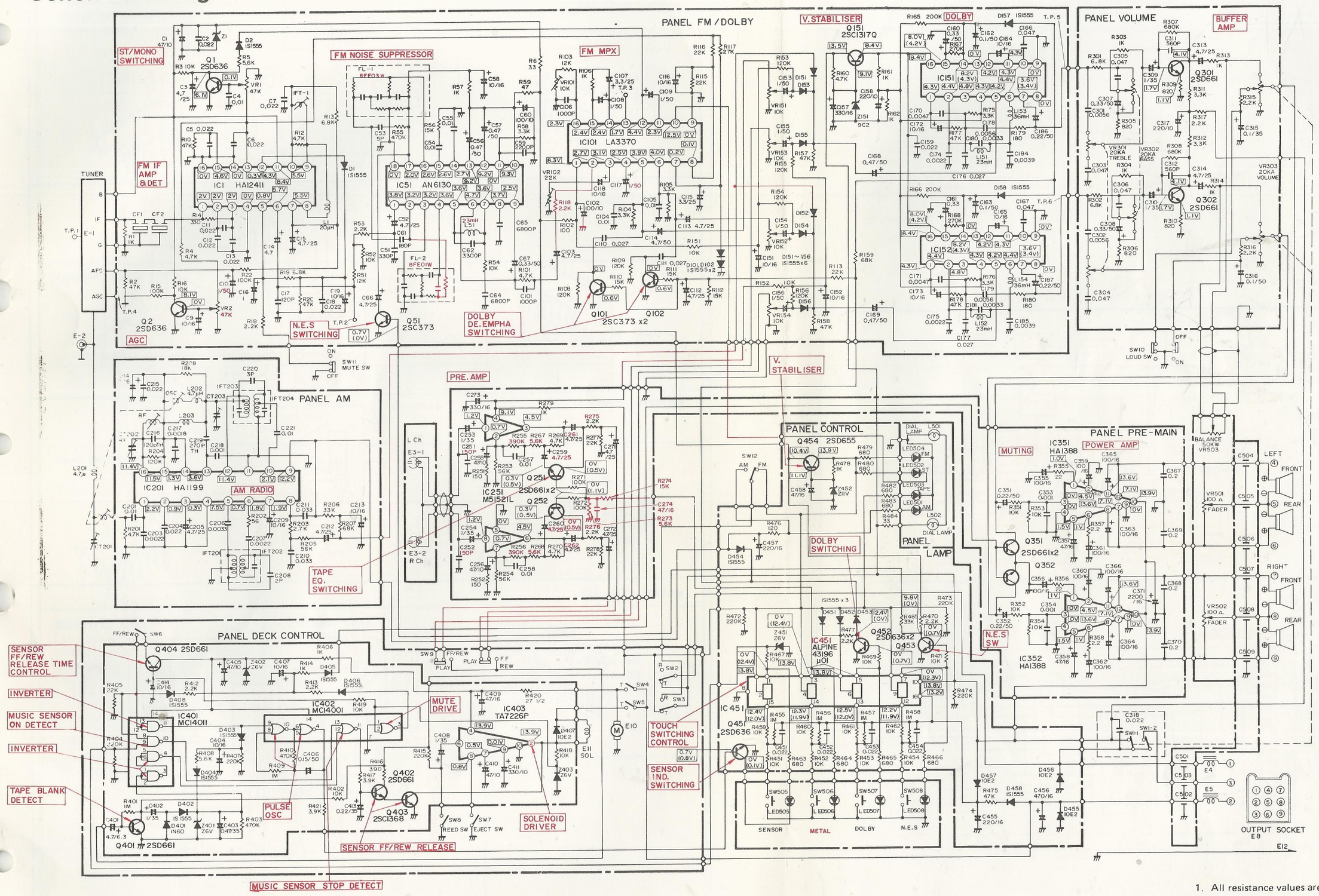
Wiring Diagram

• Page 15 to 16



Schematic Diagram • Page 17 to 18



1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. P = $\frac{1}{1.000.000}$