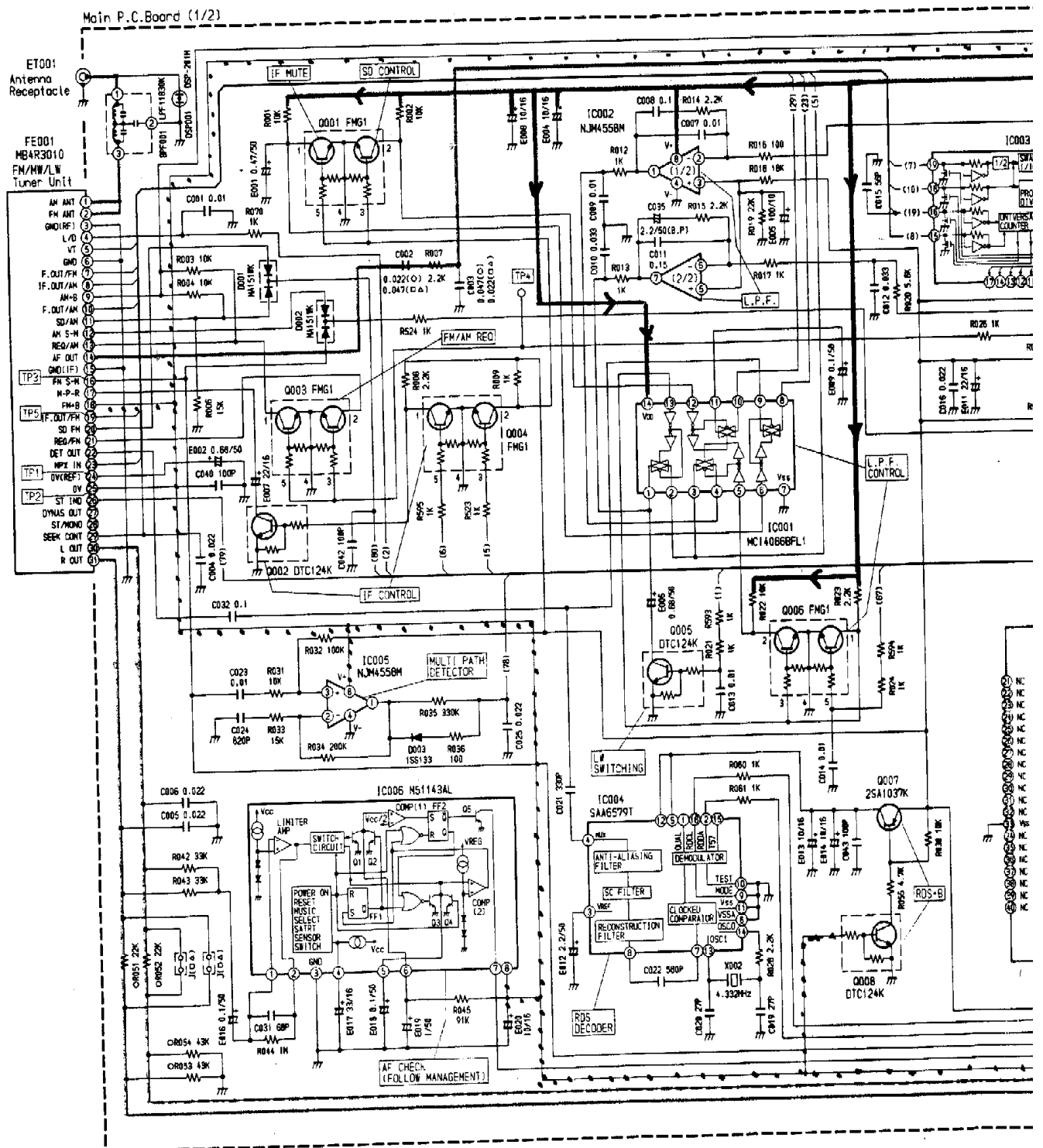
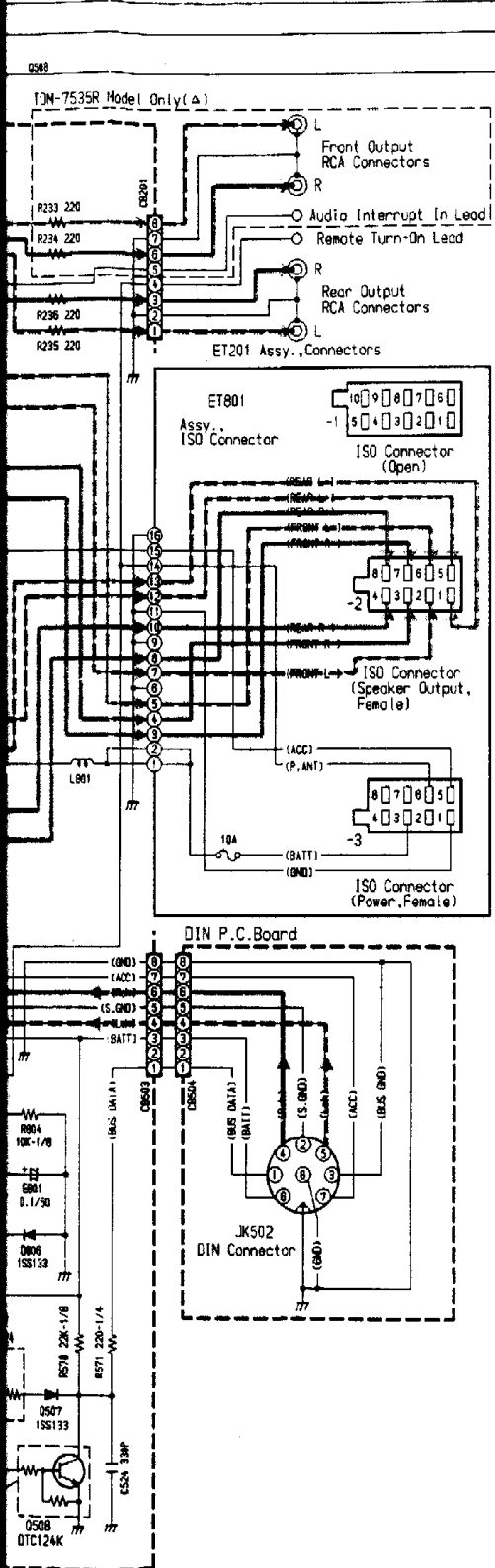


Schematic Diagram (1/3)

IC	IC005 IC006			IC002	IC001	IC003
Transistor (Q)	Q002 Q003	Q001	Q004	Q005	Q006	Q008 Q007



1
2
3
4
5



IC203

Pin	MODE	Pin	MODE
1	4.8V DATA	17	8K. CD
2	0V	18	8K. TAPE
3	8K. REAR - L	19	8K. FM
4	8K. FRONT - L	20	8K. FM
5	4.5V FM	21	4.7V FM
6	4.5V FM	22	8K. MWLW
7	4.6V FM	23	4.7V FM
8	4.5V FM	24	—
9	—	25	4.6V FM
10	4.5V FM	26	4.7V FM
11	8K. MWLW	27	4.7V FM
12	—	28	4.7V FM
13	8K. FM	29	8K. FRONT - R
14	8K. TP - ALM	30	8K. REAR - R
15	8K. TAPE	31	9.2V
16	8K. CD	32	4.8V CLK

IC204

Pin	MODE
1	4.7V FM
2	4.7V FM
3	4.7V FM
4	0V
5	4.7V FM
6	—
7	4.7V FM
8	9.4V

IC205

Pin	MODE
1	4.7V FM
2	4.7V FM
3	4.7V FM
4	0V
5	—
6	—
7	—
8	9.4V

IC210, IC211

Pin	MODE
1	—
2	8K. LIN
3	5.1V FM
4	5V STBY
5	0V
6	5.1V FM
7	8K. R IN
8	5.2V FM
9	13.8V FM
10	13.8V FM
11	8K. R OUT
12	8K. R OUT
13	0V
14	0V
15	8K. L OUT
16	8K. L OUT
17	13.8V

IC206

Pin	MODE	Pin	MODE
1	8K. CD	5	8K. CD
2	8K. CD	6	8K. CD
3	8K. CD	7	8K. CD
4	0V	8	9.4V

IC501

Pin	MODE	Pin	MODE	Pin	MODE	Pin	MODE
1	2.5V SW NOISE ON/OFF	21	—	41	5V SW ON/OFF	61	0V
2	4.8V	22	5V SW POW ON/OFF	42	5V LCD CLK	62	0V
3	4.9V	23	5V SW POW ON/OFF	43	0V SW GRNORG	63	0V
4	4.8V	24	5V SW MUTE ON/OFF	44	5V LCD DATA	64	0V
5	4.8V	25	—	45	5V LCD INH	65	0V
6	4.9V TAPE	26	—	46	5V DTS MUTE	66	0V
7	4.9V EJECT	27	—	47	5V ACC-B	67	0V
8	4.9V EJECT	28	5.7V SW IN-INT ON/OFF	48	0V CHANG IN	68	0V
9	5V TAPE	29	0V CHANG OUT	49	5V REMOCON	69	0V
10	5V TAPE	30	5V EV-CLK	50	5V DTS STS	70	0V
11	5V SW POWREV	31	5V EV-DATA	51	0V DTS CMD	71	0V
12	0V SW PLAYFF - REV	32	—	52	5V DTS SCK	72	0V
13	5V PACK IN	33	0V	53	5V BATT+3	73	0V
14	5V M.S.	34	—	54	0V	74	0V
15	0V	35	0V DOLBY-C	55	0V FM	75	0V
16	0V	36	0V DOLBY-S	56	—	76	5V TAPE
17	0V	37	5V LCD CE	57	0V	77	2.5V FF
18	0V	38	5V DTS CE	58	5V XTAL	78	5V
19	0V	39	5V DTS START	59	5V XTAL	79	5V
20	5V TP. OFF ALM	40	5V NOISE POW	60	0V SW RESET ON/OFF	80	5V

Q501

Pin	MODE
1	—
2	13.8V MUTE ON/OFF
3	13.8V MUTE ON/OFF
4	5V MUTE ON/OFF
5	0V

Q502

Pin	MODE
1	—
2	13.8V IF MUTE ON/OFF
3	13.8V IF MUTE ON/OFF
4	5V IF MUTE ON/OFF
5	0V

△Q505

Pin	MODE
1	—
2	0V SW GRNORG
3	9.2V SW GRNORG
4	0V SW GRNORG
5	0V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : FM : 98.1MHz, 1W Output
MW : 999kHz, 0.16W Output
LW : 216kHz, 0.16W Output
TAPE : MTT-212, 1W Output

IC506

Pin	MODE
1	5V SW RESET OFF/ON
2	5V SW RESET OFF/ON
3	0V

Q802

Pin	MODE
1	—
2	5V ACC ON/OFF
3	5V ACC ON/OFF
4	5V ACC ON/OFF
5	0V

Q803

Pin	MODE
1	—
2	5V SW POW ON/OFF
3	5V SW POW ON/OFF
4	5V SW POW ON/OFF
5	0V

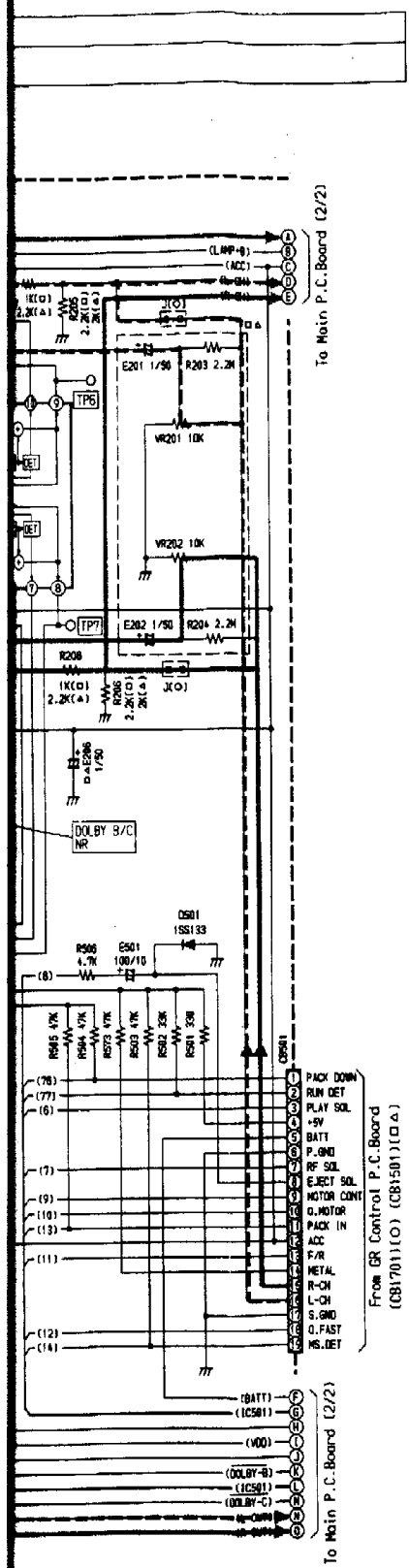
IC801

Pin	MODE
1	5V FM
2	5V FM
3	0V

B	C	E	MODE	B	C	E	MODE
△Q802	0V/13.8V	0V/0V	0V/0V MUTE ON/OFF	Q811	4.8V	5V	5V
△Q803	0V/13.8V	0V/0V	0V/0V MUTE ON/OFF	Q812	4.8V	0V	0V
Q804	0V/13.8V	0V/0V	0V/0V MUTE ON/OFF	Q801	5.5V	13.8V	5.6V
Q805	0V/13.8V	0V/0V	0V/0V MUTE ON/OFF	Q804	13.7V	0V	13.7V
Q806	0V/13.8V	0V/0V	0V/0V MUTE ON/OFF	Q808	0V	13.6V	0V
Q807	0V/13.8V	0V/0V	0V/0V MUTE ON/OFF	Q809	13V	13.6V	13.6V
Q808	0V/13.8V	0V/0V	0V/0V MUTE ON/OFF	Q807	0V	7V	0V
Q809	0V/13.8V	0V/0V	0V/0V MUTE ON/OFF	Q808	9.8V	13.8V	9.2V
Q805	PS	4.9V	0V CHANG IN	Q809	4.1V	0V	0V
Q807	PS	0V	5V CHANG IN	Q810	13V	13.6V	13.7V
Q808	PS	0V	0V CHANG IN	Q811	10V	13.8V	9.5V

NOTES:

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



IC001

Pin	Mode	Pin	Mode
1	2.2V/4.2V RDS ON/OFF	8	2.4V FM
2	4.2V VT	9	2.4V FM
3	4.2V	10	0V/2.3V SEEK ON/OFF
4	2.2V/5.1V RDS ON/OFF	11	0V FM
5	9.4V/0V RDS ON/OFF	12	9.4V FM
6	9.4V FM	13	0V/8.5V FM/AM
7	0V	14	9.4V

IC002

Pin	Mode	Pin	Mode
1	4.2V FM	11	0V
2	2.7V FM	12	2.7V FM
3	2.7V FM	13	2.7V FM
4	0V	14	2.7V FM
5	2.7V FM	15	2.7V FM
6	2.7V FM	16	2.7V FM
7	2.2V/4.2V RDS ON/OFF	17	2.4V FM
8	9.4V	18	2.4V FM

IC004

Pin	Mode	Pin	Mode
1	—	9	0V
2	9V FM	10	0V
3	2.4V FM	11	0V
4	2.4V FM	12	4.9V
5	4.8V	13	2.3V XTAL
6	0V	14	2.4V XTAL
7	2.4V FM	15	—
8	2.4V FM	16	4.8V FM

IC003

Pin	Mode	Pin	Mode
1	0V XTAL	13	—
2	4.9V SEEK ON	14	—
3	4.9V SEEK ON	15	2.8V MW/LW
4	4.9V SEEK ON	16	0V FM
5	4.7V SEEK ON	17	—
6	—	18	2.5V MW/LW
7	4.8V FM	19	2.8V FM
8	0V	20	4.8V
9	—	21	2.7V FM
10	4.8V FM	22	2.7V FM
11	—	23	0V
12	—	24	2.5V XTAL

IC005

Pin	Mode	Pin	Mode
1	4.8V FM	11	4.8V FM
2	4.8V FM	12	4.8V FM
3	4.8V FM	13	4.8V FM
4	0V	14	0V
5	—	15	—
6	—	16	—
7	—	17	—
8	9V	18	9V

IC006

Pin	Mode	Pin	Mode
1	1.4V FM	11	1.4V FM
2	1.4V FM	12	1.4V FM
3	0V	13	0V
4	1.3V FM	14	1.3V FM
5	0V FM	15	0V FM
6	0V/8.5V MOD. ON/OFF	16	0V/8.5V MOD. ON/OFF
7	0V/8.5V MOD. ON/OFF	17	0V/8.5V MOD. ON/OFF
8	9V	18	9V

IC201

Pin	Mode	Pin	Mode
1	—	11	—
2	9.2V	12	9.2V
3	9.2V R OUT	13	9.2V R OUT
4	4.7V TAPE	14	4.7V TAPE
5	3.8V/0V DOLBY OFF/B	15	3.8V/0V DOLBY OFF/B
6	9.2V R OUT	16	9.2V R OUT
7	3.8V/0.59V DOLBY OFF/B	17	3.8V/0.59V DOLBY OFF/B
8	4.9V TAPE	18	4.9V TAPE
9	4.9V TAPE	19	4.9V TAPE
10	3.8V/0.7V DOLBY OFF/B	20	3.8V/0.7V DOLBY OFF/B
11	9.5V	21	9.5V
12	9.5V	22	9.5V
13	1.2V TAPE	23	1.2V TAPE
14	9.5V L OUT	24	9.5V L OUT
15	0V	25	0V
16	—	26	—

Δ IC202

Pin	Mode	Pin	Mode
1	1.2V TAPE	13	—
2	9.4V R OUT	14	9.4V
3	—	15	0V
4	—	16	4.7V TAPE
5	—	17	0.38V/0.84V/0.7V DOLBY NR/B/C
6	9.4V R OUT	18	0.38V/0.84V/0.7V DOLBY NR/B/C
7	0.38V/0.84V/0.7V DOLBY NR/B/C	19	9.4V L OUT
8	0.38V/0.84V/0.7V DOLBY NR/B/C	20	—
9	4.7V TAPE	21	—
10	0V/4.9V/8.3V DOLBY NR/B/C	22	—
11	0V	23	9.4V LIN
12	—	24	4.7V TAPE

IC504

Pin	Mode	Pin	Mode
1	5V LW	63	5V FM
2	5V/0V LDEX	64	—
3	—	65	—
4	0V	66	—
5	3V FM	67	3V/0V RDS ON/OFF
6	0V FM	68	5V
7	5V FM	69	PS XTAL
8	5V FM	70	PS XTAL
9	— FM	71	0V
10	— FM	72	—
11-18	0V-8V FM	73	4.7V SEEK ON
19-32	—	74	5V
33	0V	75	5V
34-67	—	76	0V FM
68	5V/0V FM/AM	77	5V FM
69	5V A-IN	78	5V FM
80	0V/5V RESET ON/OFF	79	0V/8V STEREO
81	5V FM	80	0V FM
82	5V FM	81	5V FM

IC	B	C	E	Mode
Q002	3.5V	0V	0V	FM
Q005	4.7V/0V	0V/0V	0V/0V	LW ON/OFF
Q007	4.2V	4.8V	4.9V	FM
Q008	9V	0V	0V	FM
Q009	0.8V	8.8V	0V	FM
Q010	4.8V	0V	4.8V	FM
Q012	9V/8.5V	0V/8V	8.1V/8.1V	FM/AM
Q013	8.4V/8.1V	9V/0.7V	9V/8.1V	FM/AM
Q014	4.8V/0V	0V/8V	0V/0V	FM/AM
Q015	9.8V	13.8V	9.1V	TUNER
Q016	5.5V	13.8V	4.8V	TUNER

Q001

Pin	Mode
1	0V/8.5V SEEK ON/OFF
2	0V/8.5V SEEK ON/OFF
3	3V/0V SEEK ON/OFF
4	0V
5	3V/0V SEEK ON/OFF

Q003

Pin	Mode
1	7.8V/0V REG ON/OFF
2	1V/8V REG ON/OFF
3	0V/4.5V REG ON/OFF
4	0V
5	0V/4.5V REG ON/OFF

Q004

Pin	Mode
1	0V/4V IF MUTE ON/OFF
2	3V/0V SEEK ON/OFF
3	0V/5V SEEK ON/OFF
4	0V
5	4.2V/0V IF MUTE ON/OFF

Q006

Pin	Mode
1	0V/8.7V RDS ON/OFF
2	8.5V/0V RDS ON/OFF
3	0V/8.7V RDS ON/OFF
4	0V
5	4.7V/0V RDS ON/OFF

Δ Q201

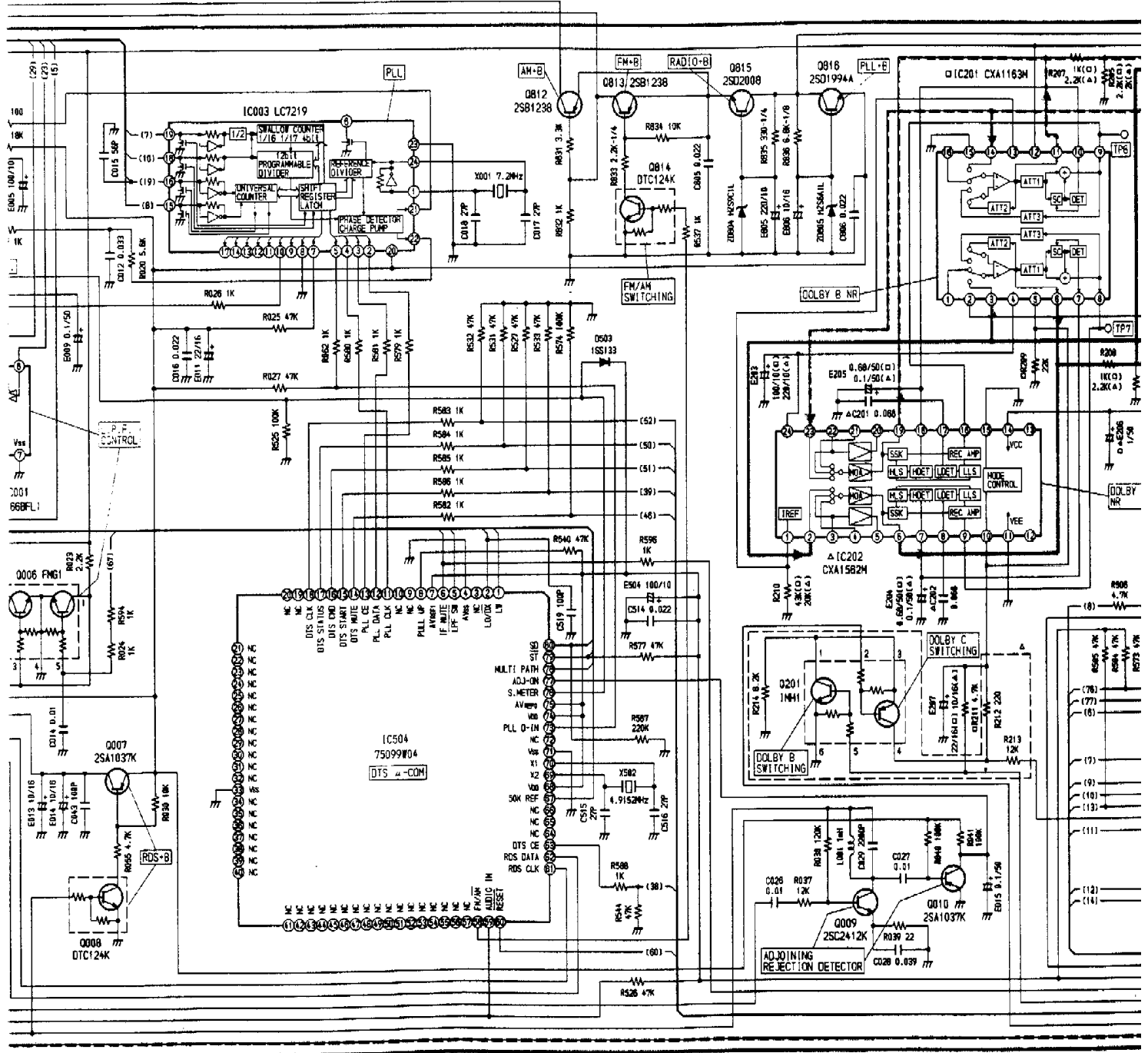
Pin	Mode
1	0V/3.7V/0V DOLBY OFF/B/C
2	4.9V/4.9V/0V DOLBY OFF/B/C
3	0V/4.2V/8.2V DOLBY OFF/B/C
4	3V/0V/5V DOLBY OFF/B/C
5	0V DOLBY OFF/B/C
6	0V

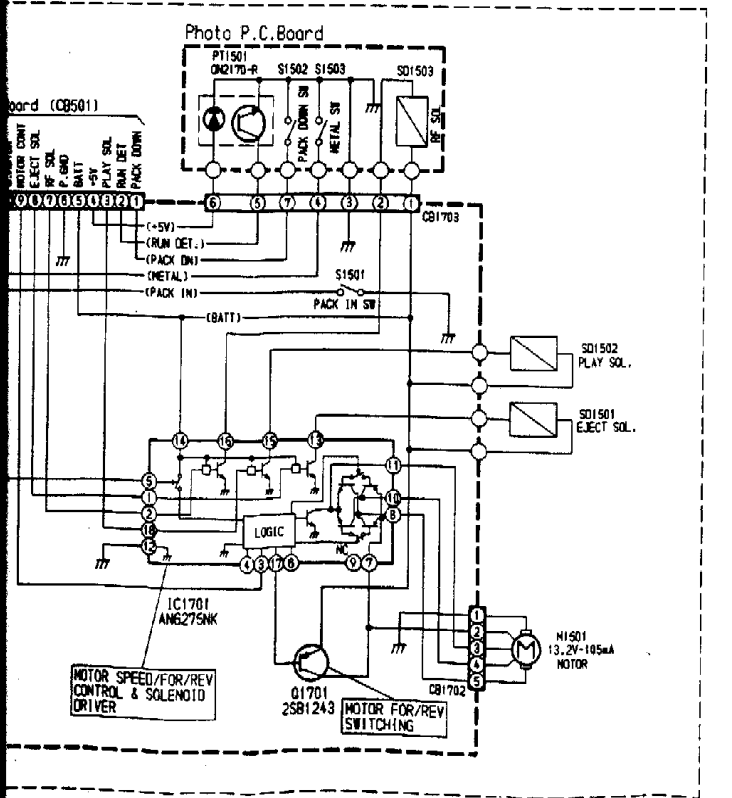
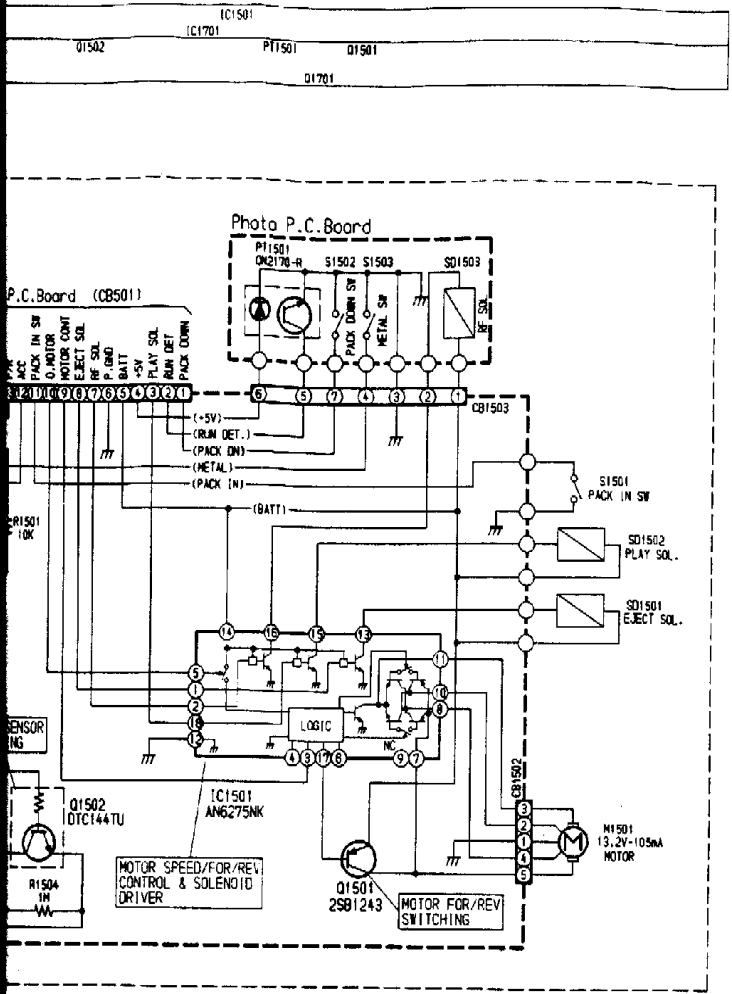
[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : FM : 98.1MHz, 1W Output
MW : 998kHz, 0.16W Output
LW : 218kHz, 0.16W Output
TAPE : MTT-212, 1W Output

Note : ○ : For TDM-7531R Model Only,
□ : For TDM-7532R Model Only,
△ : For TDM-7535R Model Only,
Others : Common.

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





IC401

	MODE
1-55	PS
56	5.5V
57	0V-5V IMH
58	-
59	-
60	0V
61	PS OSC
62	0V-5V CE
63	0V-5V CLK
64	0V-5V DATA

IC402

1	0V-5V
2	0V
3	5V

□IC1201

1	13.1V	9	2.9V
2	3.1V	10	-
3	4.9V	11	2.9V
4	3.1V	12	2.9V
5	2.9V	13	2.9V
6	2.9V	14	3.1V
7	2.9V	15	0.1V
8	0V	16	3.1V

○IC1201

1	10.8V	9	2.9V
2	3V	10	-
3	5.1V	11	2.9V
4	3V	12	2.9V
5	2.9V	13	2.9V
6	2.9V	14	3V
7	2.9V	15	0V
8	0V	16	3V

□IC1501

1	0V	10	13.9V
2	0V	11	8.1V
3	5.1V	12	0V
4	-	13	14V
5	3.1V	14	14V
6	-	15	0.2V
7	13.9V	16	14V
8	8.2V	17	13.2V
9	-	18	5.1V

□IC1502

1	1.41V
2	1.38V
3	0V
4	1.31V
5	0.02V
6	0.02V
7	0.05V
8	14.01V

○IC1701

1	0V	10	11.9V
2	0V	11	5.7V
3	5.1V	12	0V
4	-	13	12V
5	5.1V	14	12V
6	-	15	0.2V
7	11.9V	16	12V
8	5.7V	17	11.3V
9	-	18	5.1V

	B	C	E	MODE
△Q451	0V/4.3V	9.2V/0V	0V/0V	GRN/ORG
△Q452	9.1V/0V	0V/9.2V	0V/0V	GRN/ORG
△Q453	0V/4.3V	13.8V/0V	0V/0V	GRN/ORG
△Q454	13.7V/0V	0V/13.8V	0V/0V	GRN/ORG
△Q455	0V/4.3V	13.8V/0V	0V/0V	GRN/ORG
△Q456	13.7V/0V	0V/13.8V	0V/0V	GRN/ORG
□Q1501	13.6V	13.8V	14V	
□Q1502	3.8V	0.4V	0V	
○Q1701	11.3V	11.9V	12V	

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : FM : 98.1MHz, 1W Output
MW : 999kHz, 0.16W Output
LW : 216kHz, 0.16W Output
TAPE : MTT-212, 1W Output

Note : ○ : For TDM-7531R Model Only,
□ : For TDM-7532R Model Only,
△ : For TDM-7535R Model Only,
Others : Common.

NOTES:

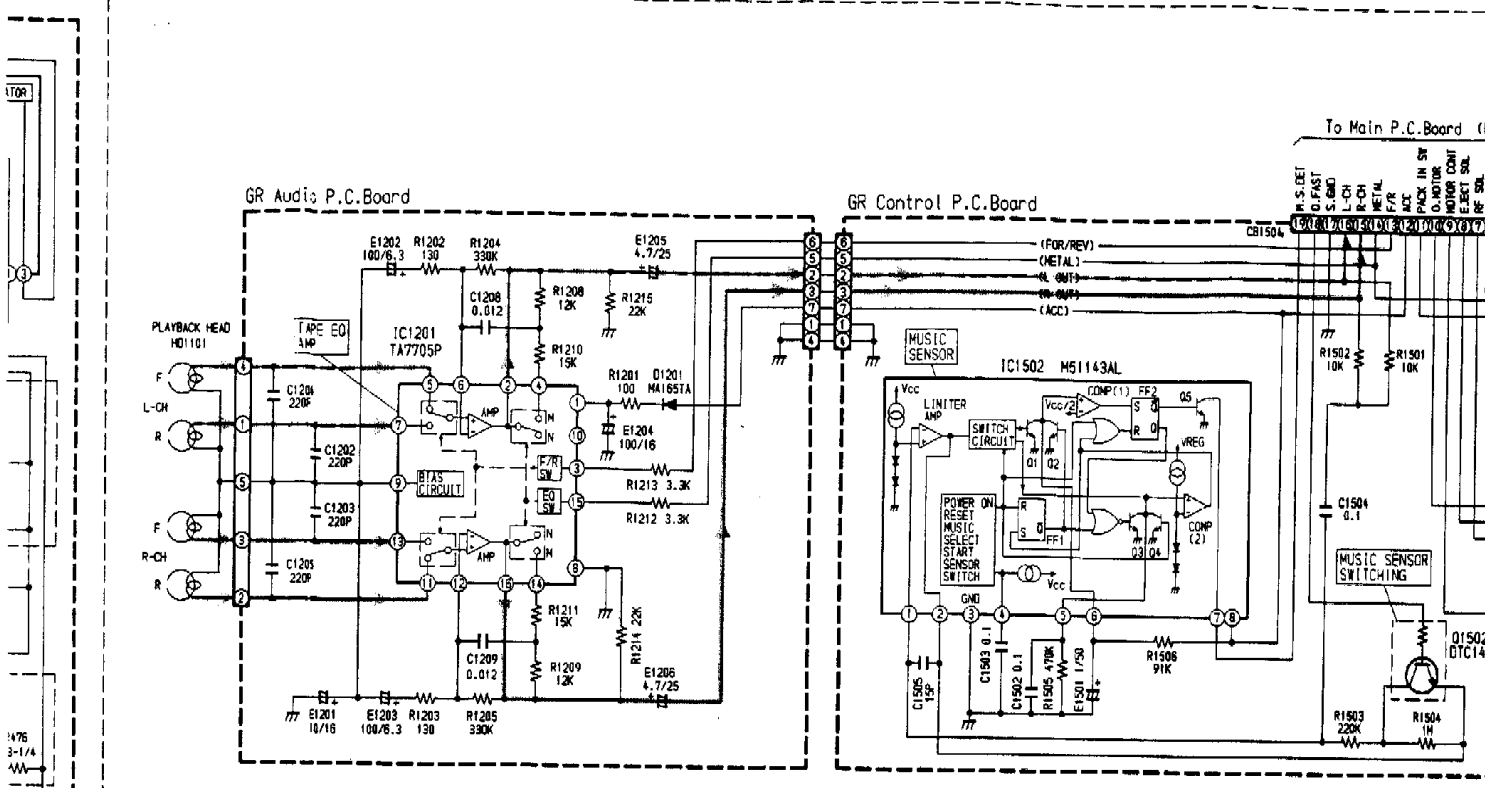
- All resistance values are in ohms. K = 1,000
- All capacitance values are in microfarads. P = $\frac{1}{1,000,000}$

IC1201(□)

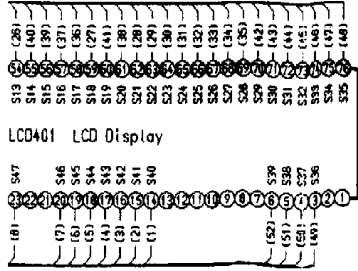
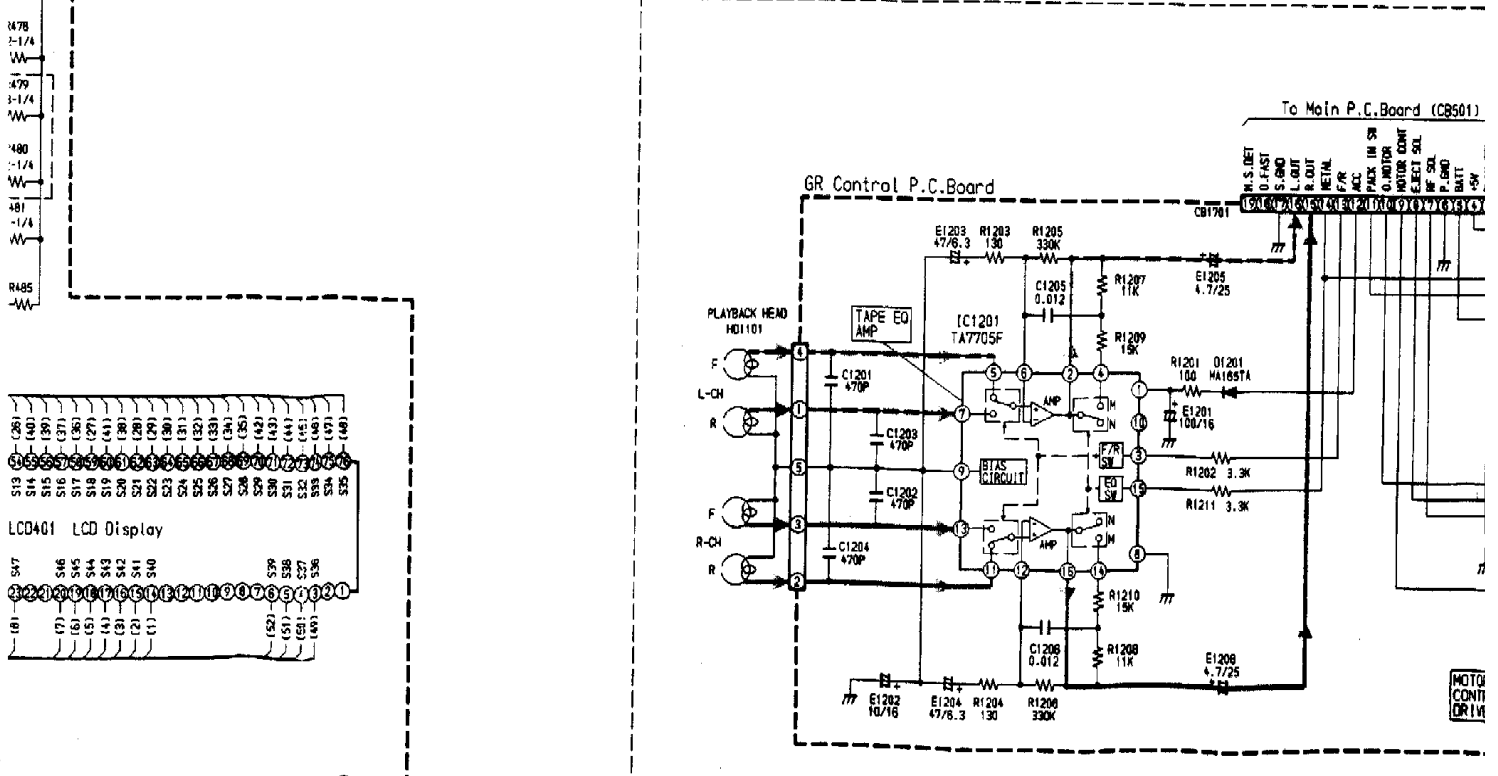
IC1502
IC1201(○)

0150

TDM-7532R(□), TDM-7535R(△) Model Only



TDM-7531R(○) Model Only



D

E

F - 40 -

G

IC1201(DA)

IC1502
IC1201(O)

IC1501

Q1502

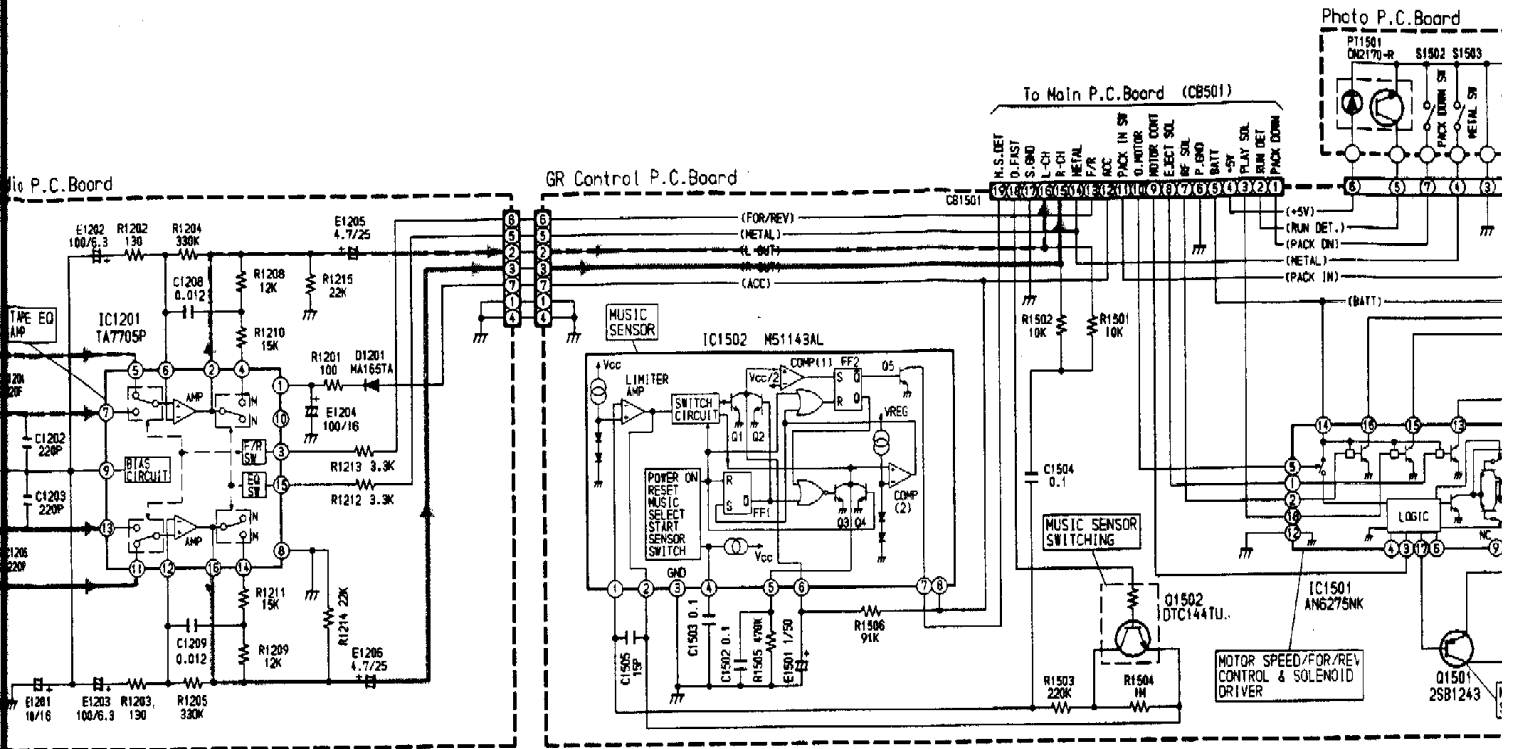
IC1701

P11501

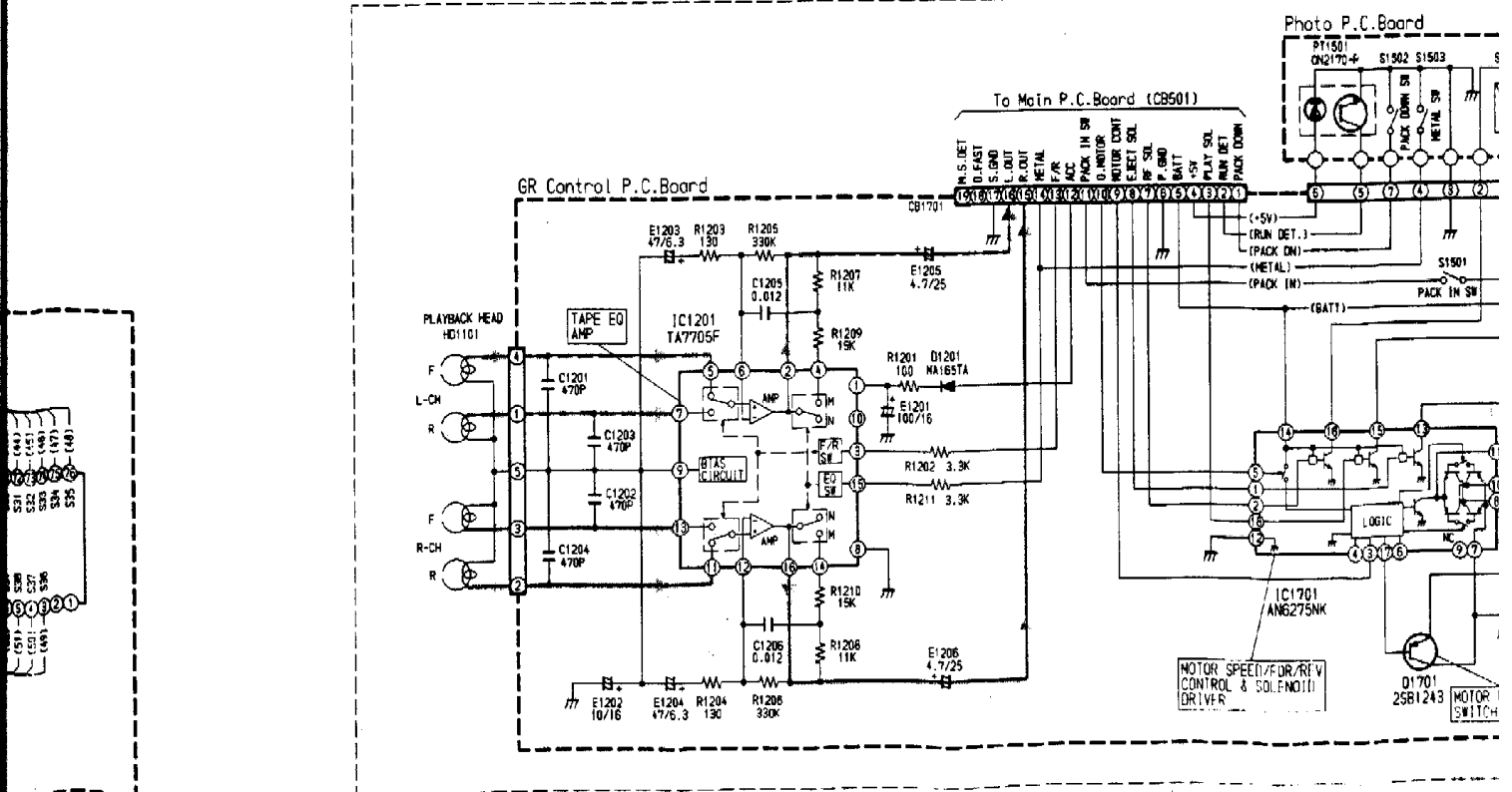
O1501

Q1701

SR(Δ) Model Only



TDM-7531R(O) Model Only



E

F - 40 -

G

H

Schematic Diagram (3/3)

1

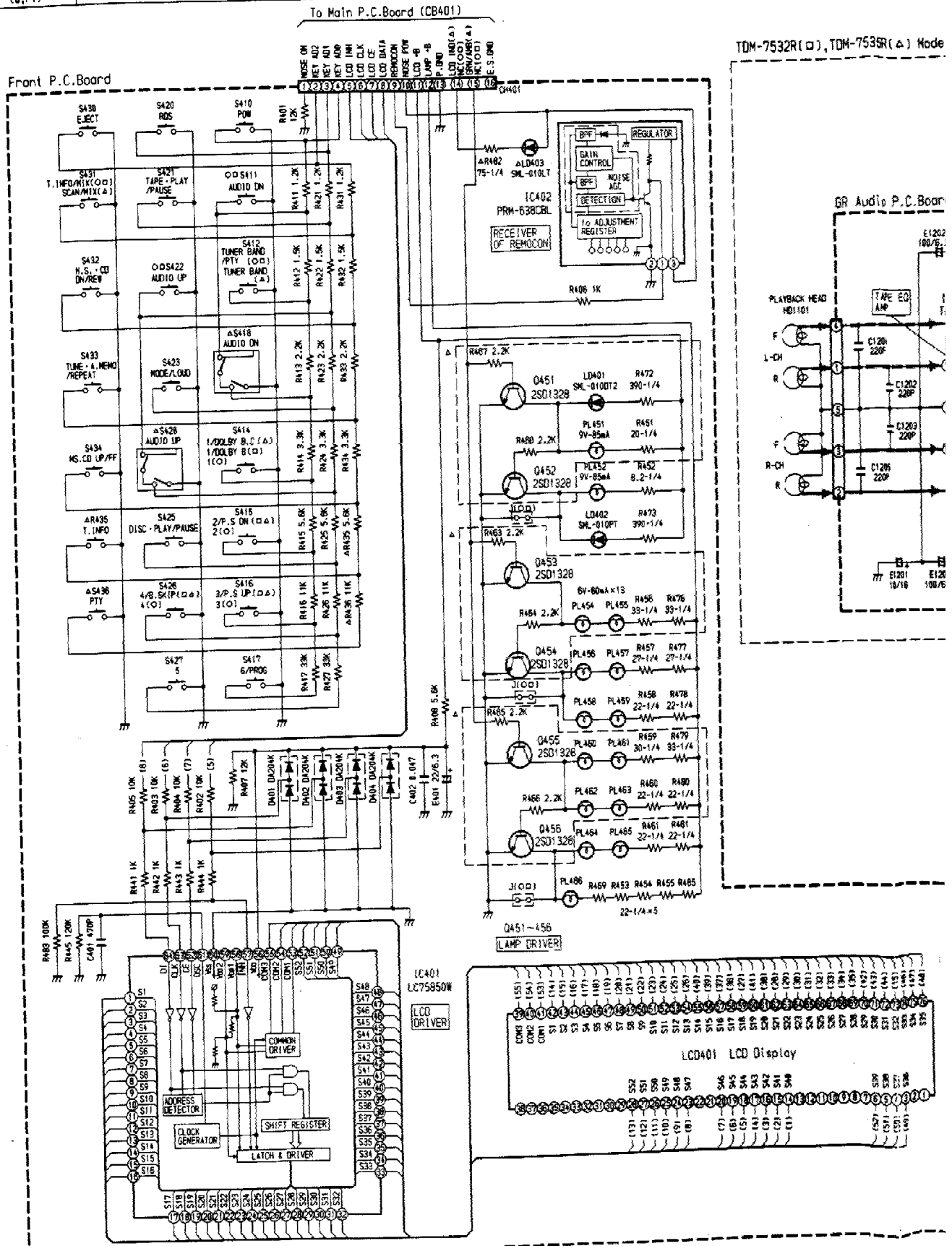
IC	IC401	IC402
Transistor (Q, PT)		Q451 Q452 Q453 Q454 Q455 Q456

2

3

4

5



A

B - 39 -

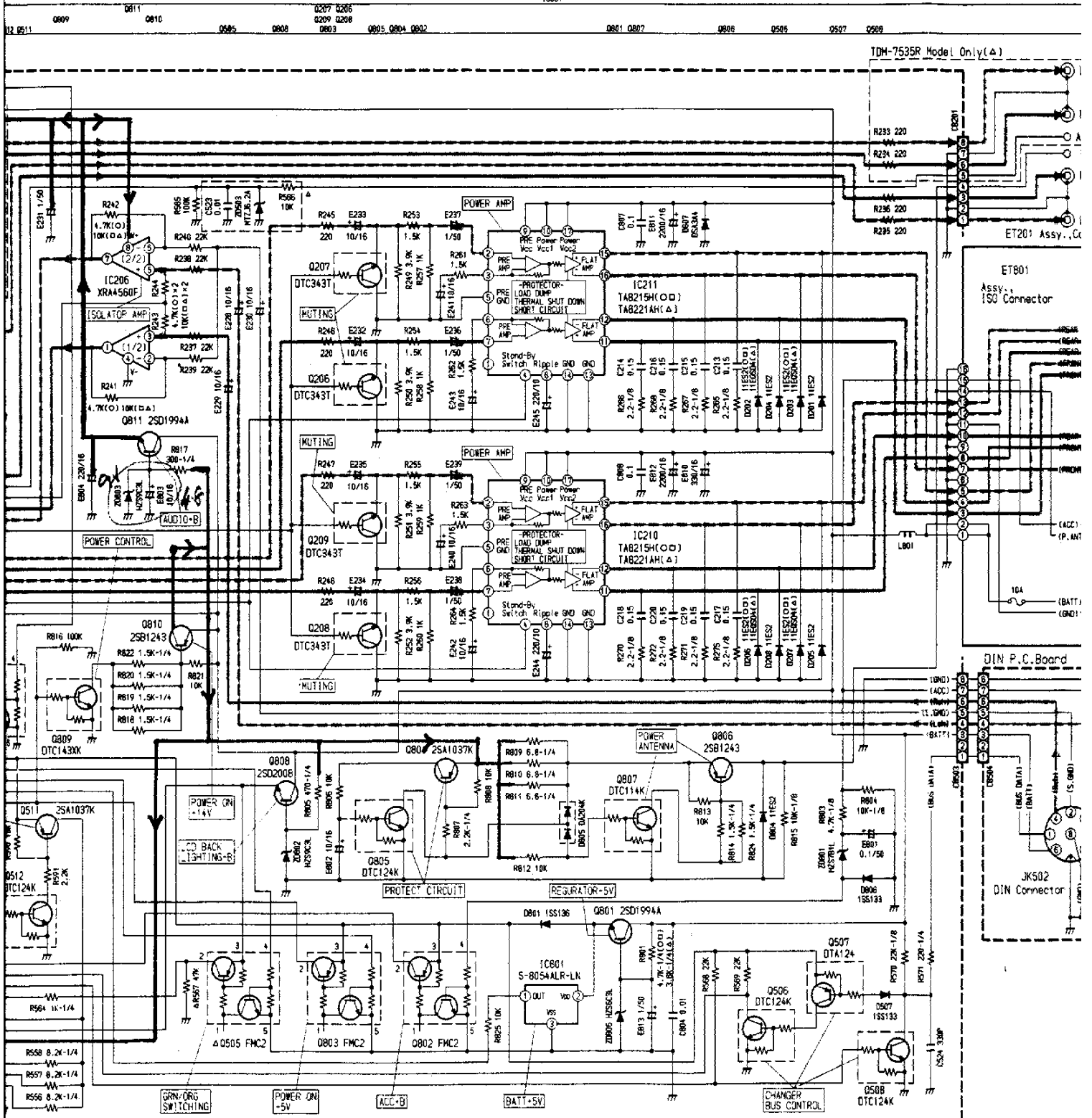
C

D

IC206

IC801

IC211 IC216



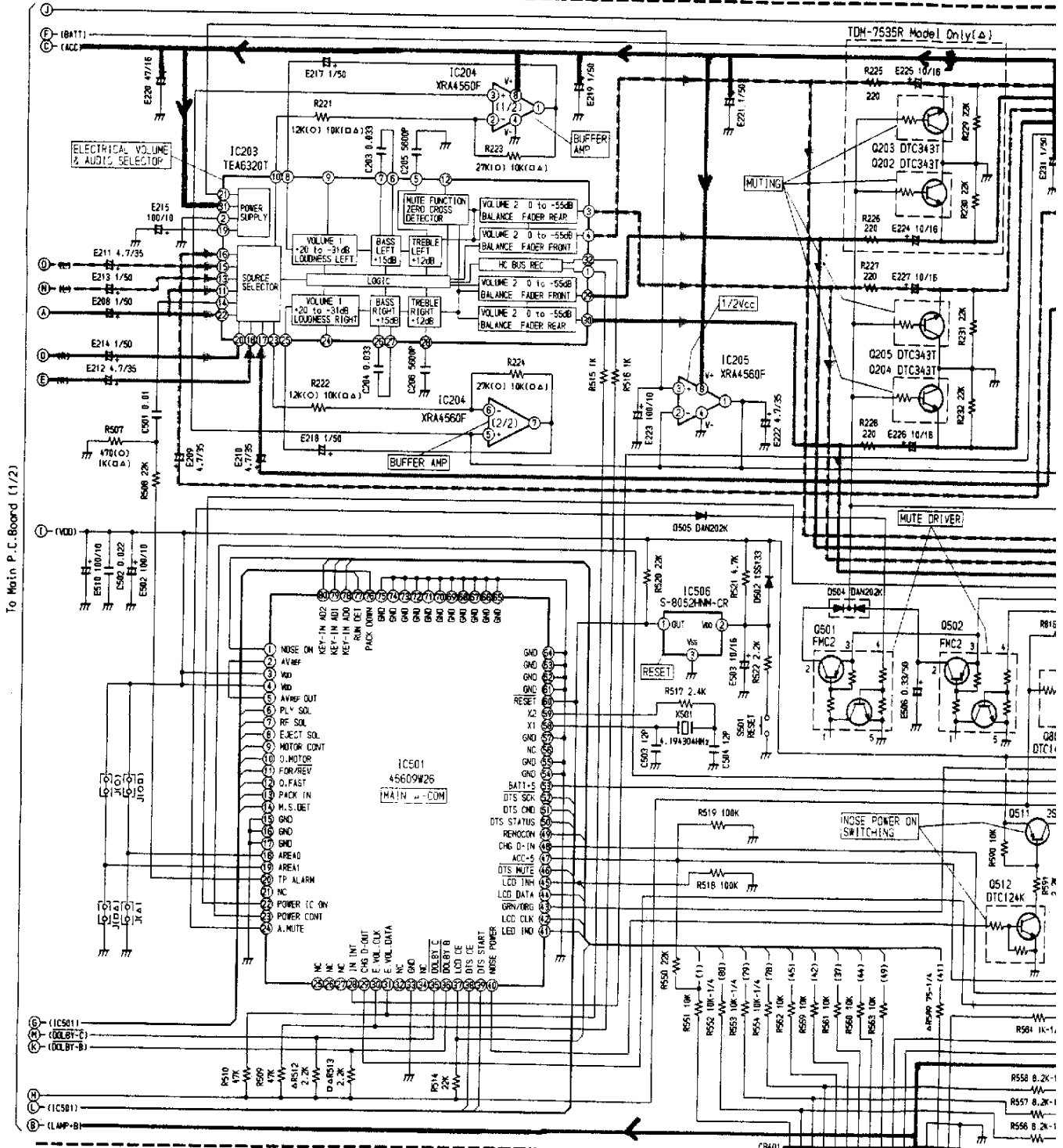
Schematic Diagram (2/3)

1

IC	IC203	IC204	IC205
Transistor (Q)		Q501	Q502
		Q203 Q202 Q205 Q204	Q512 Q511

Main P.C. Board (2/2)

2



3

4

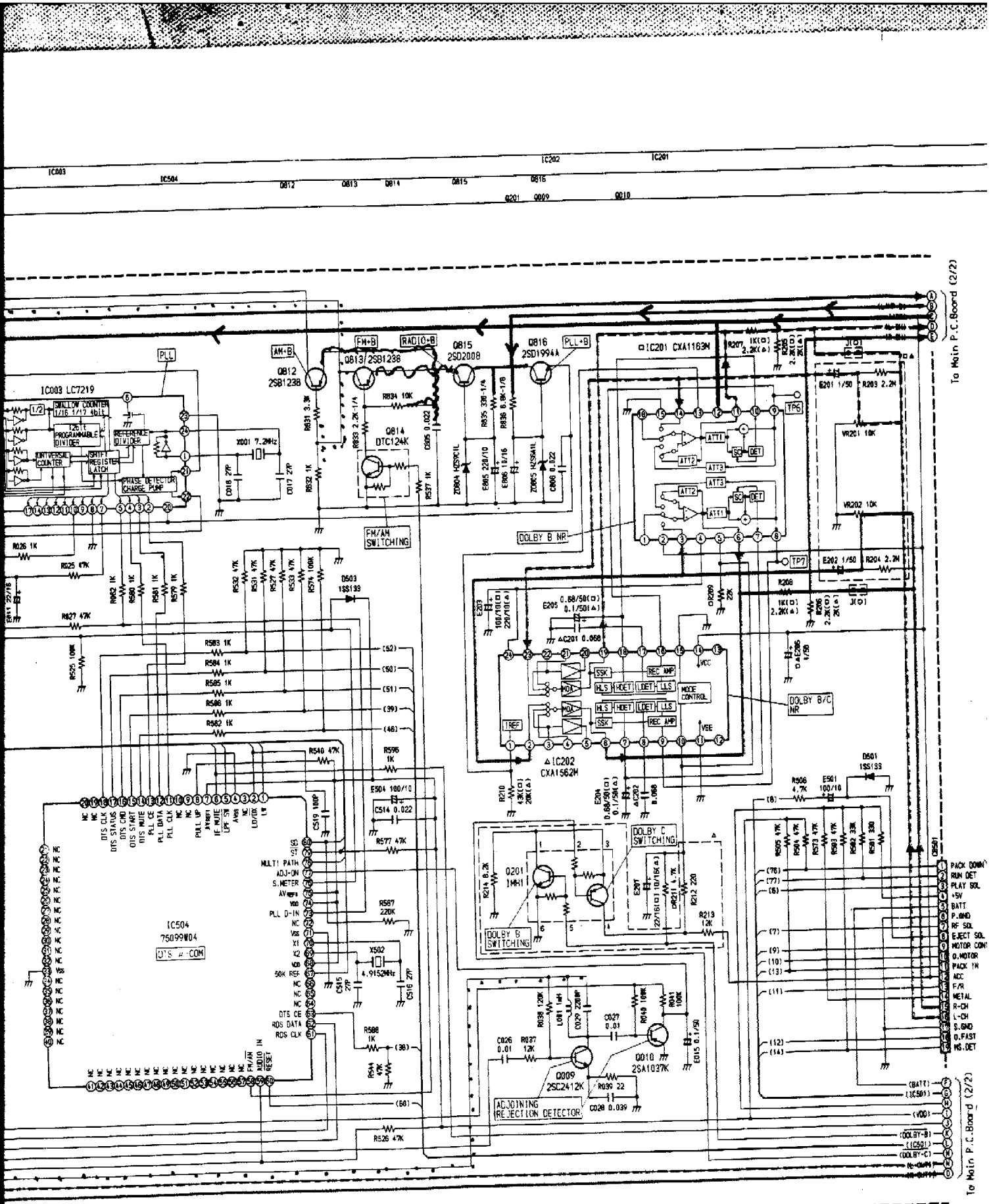
5

A

B - 36 -

C

D



To Main P.C. Board (2/2)

To Main P.C. Board (2/2)

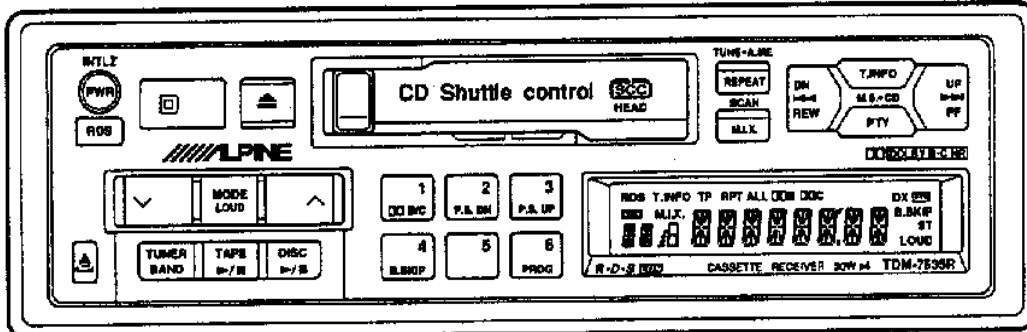
ALPINE

SERVICE MANUAL

FM/MW/LW/RDS Cassette Receiver

CD Shuttle Controller

- For the cassette deck mechanism parts (GR75H110/120) of this model, refer to the Service Manual • GR/GR-Y Series (68P20504W07).



TDM-7531R/TDM-7532R
TDM-7535R