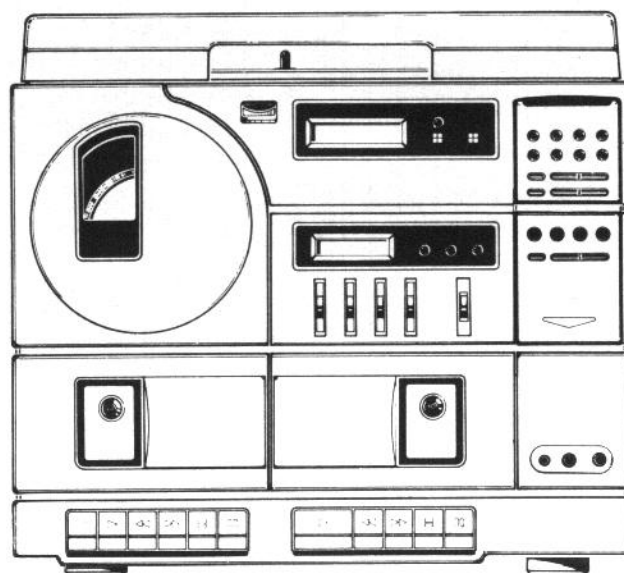




SERVICE MANUAL

MODEL : SCM - 6100

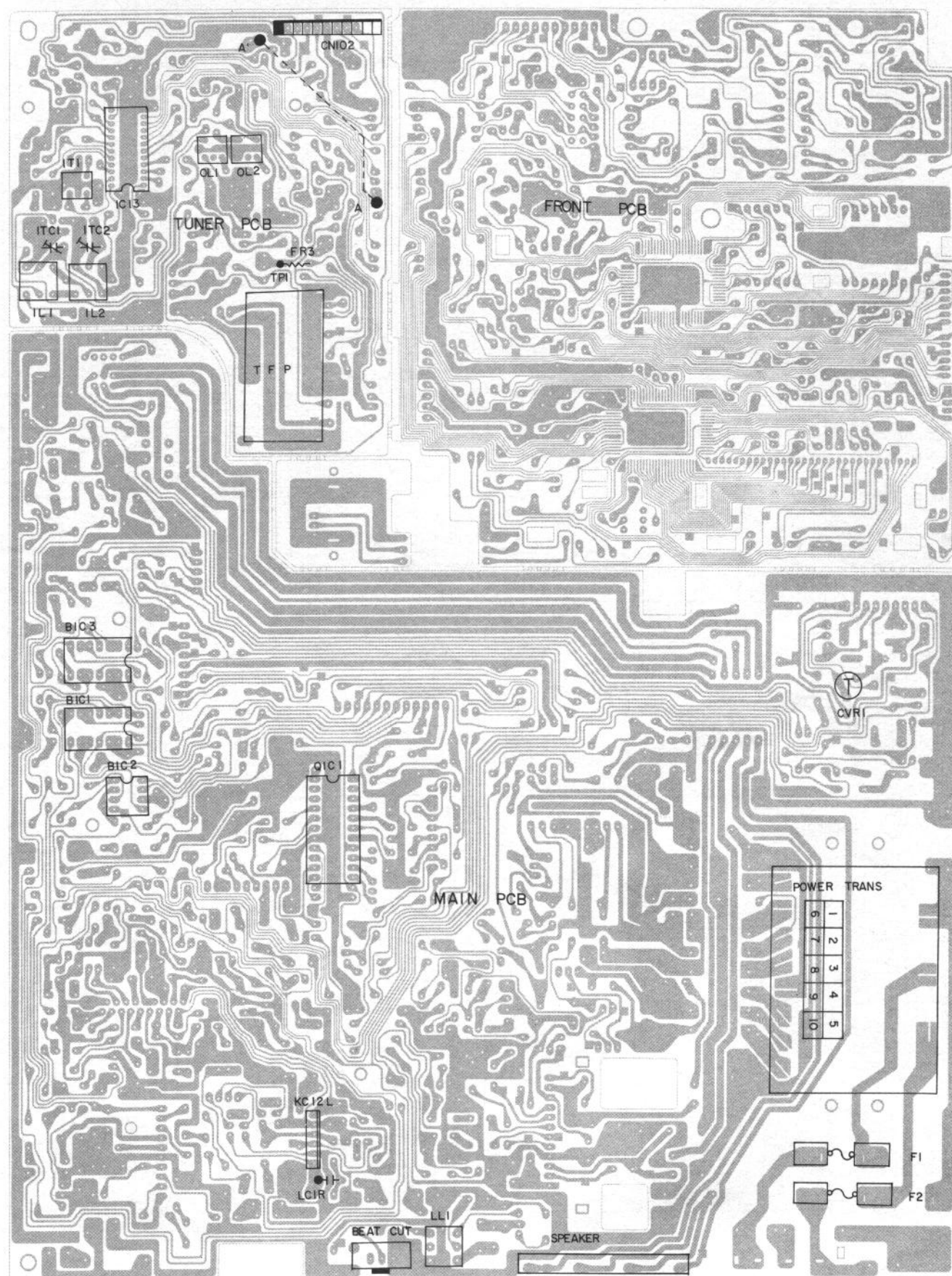
STEREO MUSIC CENTER WITH COMPACT DISC PLAYER



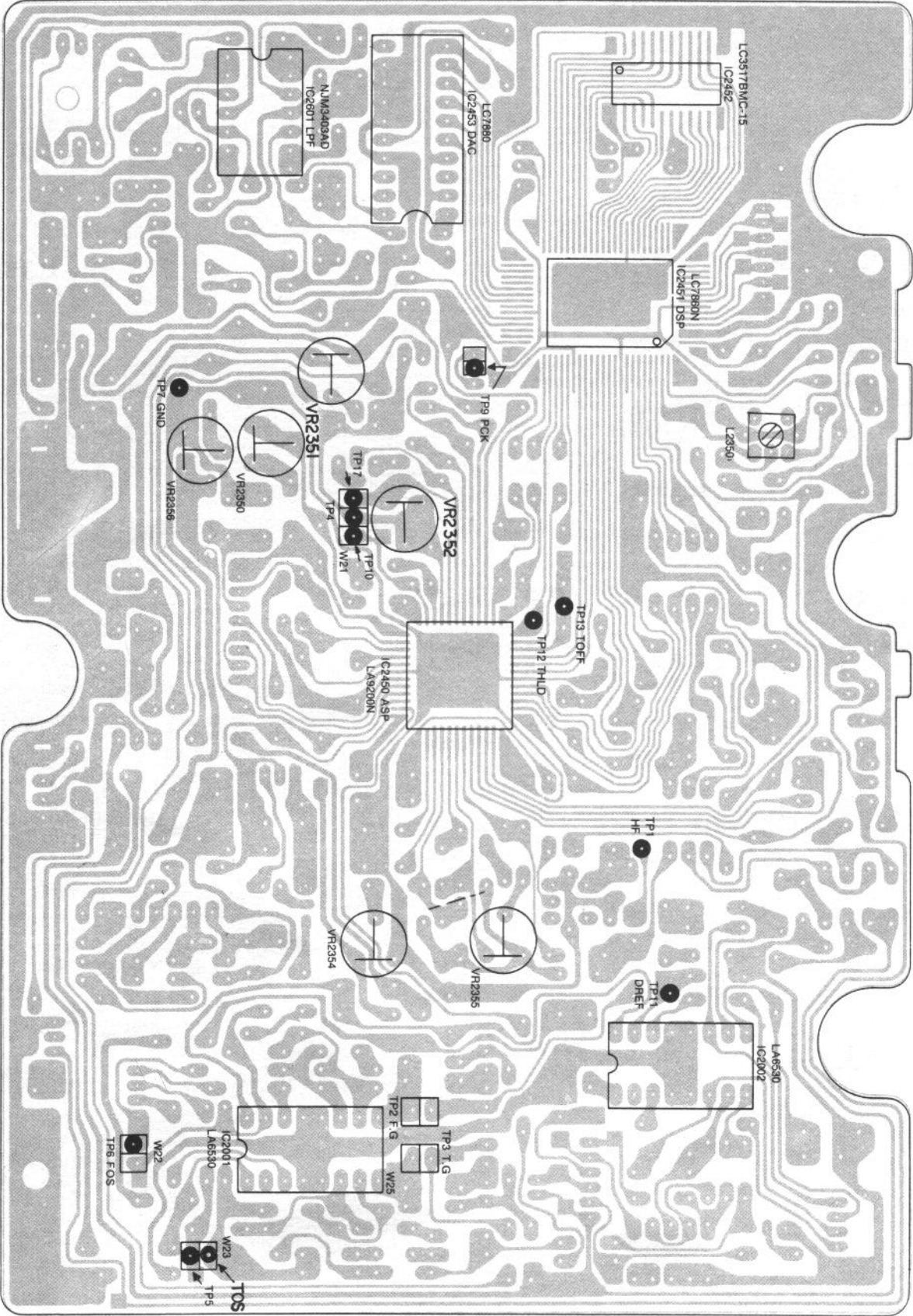
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5. ALIGNMENT POINT LOCATION

5-1. MAIN SECTION



5-2. CD SECTION



6. ALIGNMENT PROCEDURE

6-1. TUNER SECTION

A. MW (AM) IF ADJUSTMENT [FIG. 1]

STEP	SIGNAL SOURCE CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR CONNECT TO	SET TUNING TO	ADJUST	ADJUST FOR
1	AM SIGNAL GEN AM LOOP ANT.	450KHz	OSCILLOSCOPE	522KHz (MW) 530KHz (AM)	IT 1	MAXIMUM
			AM DET.OUTPUT OR SPEAKER TERMINAL			

B. MW(AM) RF ADJUSTMENT [FIG. 1]

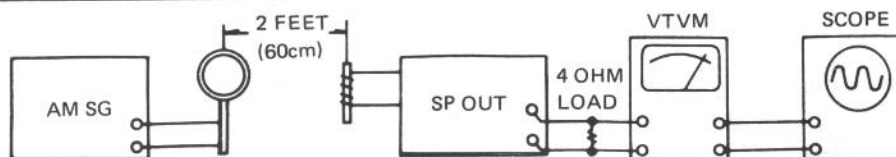
STEP	SIGNAL SOURCE CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR CONNECT TO TP1	SET TUNING TO	ADJUST	ADJUST FOR
1	NOT USED	NOT USED	DIGITAL DC VOLT METER TEST POINT TP1	522 KHz (MW) 530KHz (AM) (LOW END)	OL 1 (AM OSC COIL)	0.9V $\pm$ 0.05 (MW) 1.0V $\pm$ 0.05 (AM)
2	NOT USED	NOT USED	DIGITAL DC VOLT METER TEST POINT TP 1	1611KHz (MW) 1610KHz (AM) (HIGH END)	OTC 1 (AM OSC TRIMMER)	9V $\pm$ 0.05
3	REPEAT STEPS 1 AND 2 TO OBTAIN BEST FREQUENCY RANGE.					
4	AM SIGNAL GEN. AM LOOP ANT.	603KHz (MW) 600KHz (AM) (MODULATED)	AM DET. OUTPUT OR SPEAKER TERMINAL	603KHz (MW) 600KHz (AM)	IL 1 (AM ANT. COIL)	MAXIMUM GAIN
5	AM SIGNAL GEN. AM LOOP ANT.	1404KHz (MW) 1400KHz (AM) (MODULATED)	AM DET.OUTPUT OR SPEAKER TERMINAL	1404KHz (MW) 1400KHz (AM)	ITC1 (AM ANT. TRIMMER)	MAXIMUM GAIN
6	REPEAT STEPS 4 AND 5 TO MINIMIZE TRACKING ERROR AND ALSO REPEAT STEP 3 IF NECESSARY.					

C. LW RF ADJUSTMENT [FIG. 1]

STEP	SIGNAL SOURCE CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR CONNECT TO	SET TUNING TO	ADJUST	ADJUST FOR
1	NOT USED	NOT USED	DIGITAL DC VOLT METER TEST POINT TP	146KHz (LOW END)	OL 2 (LW OSC COIL)	1.2V $\pm$ 0.05
2	NOT USED	NOT USED	DIGITAL DC VOLT METER TEST POINT TP1	290 KHz (HIGH END)	IL 2 (LW OSC TRIMMER)	5.2V $\pm$ 0.05
3	REPEAT STEPS 1 AND 2 TO OBTAIN BEST FREQUENCY RANGE.					
4	AM SIGNAL GEN. AM LOOP ANT.	155 KHz (MODULATED)	VTVM AM DET. OUTPUT OR SPEAKER TERMINAL	155 KHz	IL 2 (LW ANT. COIL)	MAXIMUM GAIN
5	AM SIGNAL GEN. AM LOOP ANT.	272 KHz (MODULATED)	VTVM AM DET. OUTPUT OR SPEAKER TERMINAL	272 KHz	ITC 2 (LW ANT. TRIMMER)	MAXIMUM GAIN
6	REPEAT STEPS 4 AND 5 TO MINIMIZE TRACKING ERROR AND ALSO REPEAT STEP 3 IF NECESSARY.					

D. FM LOW COVER ADJUSTMENT

STEP	SIGNAL SOURCE CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR CONNECT TO	SET TUNING TO	ADJUST	ADJUST FOR
1	NOT USED	NOT USED	DIGITAL DC VOLTMETER TP1	87.5MHz (3BAND) 87.9MHz(2BAND)	FRONT END OR 1	1.5V $\pm$ 0.05(3 BAND) 1.6 $\pm$ 0.05(2 BAND)



[FIG. 1]

* No adjustment is required for FM IF, RF or STEREO.

6-2. DECK SECTION

A. TAPE SPEED ADJUSTMENT

- 1) CONNECT THE FREQUENCY COUNTER TO SPEAKER OUTPUT TERMINAL.
- 2) PUT OFF HIGH SPEED BUTTON.
- 3) PLAYBACK A 3KHz TEST TAPE.
- 4) ADJUST SEMIFIXED RESISTER (CVR1) FOR FREQUENCY COUNTER INDICATED 3KHz.

B. HEAD HEIGHT/AZIMUTH ADJUSTMENT

1) PURPOSE

THE PURPOSE OF THIS ADJUSTMENT IS TO OBTAIN GOOD FREQUENCY RESPONSE AND TO IMPROVE CHANNEL BALANCE BY ADJUSTING HEAD TO THE PROPEREST POSITION

2) METHOD

THE HEAD HEIGHT/AZIMUTH ADJUSTMENT SCREW IS LOCATED ON THE LEFT SIDE OF R/P HEAD (SEE FIGURE). BEFORE ADJUSTING, SEMI-FIXED RESISTOR SHOULD BE LOCATED AT THE MAXIMUM CON-
DITION.

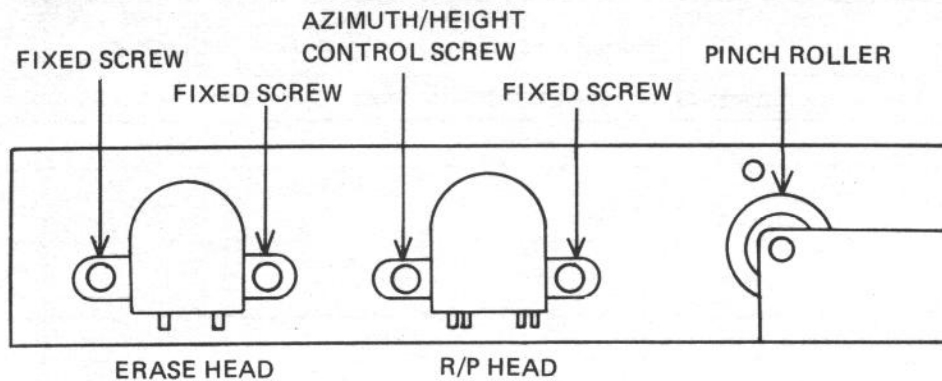
3) ADJUST HEAD AS FOLLOWS

A) CONNECT 2CH VOLTMETER AND/OR OSCILLOSCOPE TO THE TPAE OUTPUT TERMINAL OF BOTH R CHANNEL AND L CHANNEL.

B) PLAY 10kHz AZIMUTH TEST TAPE.

C) WITH A SCREW DRIVER TURN ADJUSTMENT SCREW SLOWLY FOR THE MAXIMUM OUTPUT OF LEFT CHANNEL AND AT THE SAME TIME ALSO FOR THE SAME PHASE OF BOTH CHANNEL.

D) SEAL ADJUSTMENT SCREW WITH GLYPTAL OR OTHER SIMILAR NON-HARDENING CEMENT.



(FRONT VIEW)

C. BIAS FREQUENCY ADJUSTMENT

1) PURPOSE

PURPOSE OF THIS ADJUSTMENT IS TO OBTAIN STABLE FREQUENCY RESPONSE, GOOD ERASING EFFECT AND LOW DISTORTION BY KEEPING CONSTANT BIAS FREQUENCY AND OSCILLATING FREQUENCY.

2) METHOD

A) PRESS RECORD BUTTON.

B) INPUT SIGNAL IS NOT NECESSARY FOR THIS ADJUSTMENT.

C) CONNECT A FREQUENCY COUNTER BETWEEN "LCIR" MARKING POINT AND GROUND.

D) ADJUST "LLI" FOR READING OF 85KHz ON THE FREQUENCY COUNTER.

6-3. COMPACT DISC PLAYER SECTION

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE (THAN 30 cm) FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

FOCUS OFFSET ADJUSTMENT

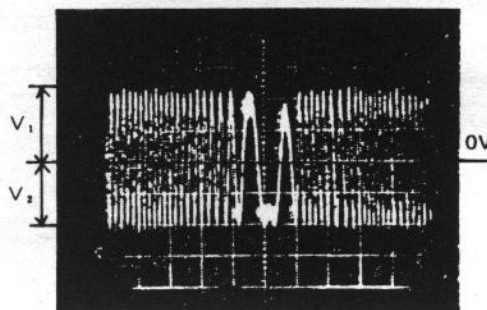
- Power "ON" and set "STOP" position.
- Connect Oscilloscope to Test pin "TP 11 (DREF) and TP6 (FOS)". TP11 is common, TP6 is Test point.
- Adjust VR2354 so that the Voltage measure 0V (DC).

TRACKING OFFSET ADJUSTMENT

- Power "ON" and set stop position.
- Connect oscilloscope to the test pin TP5 and TOS. TP5 is common, TOS is Testpoint.
- Adjust VR2356 so that the voltage measure 0V (DC).
- Short between TP7 (GND) and TP13 (TOFF).
- Adjust VR2351 so that the voltage measure 0V.
- After adjustment, separate the pattern bridge made in step "B" and "E".

E-F BALANCE ADJUSTMENT

- Power "ON" and play.
- Connect oscilloscope to the test pin TP4 (VREF) and TP10 (TE1). TP4 is common, TP10 is testpoint.
- Short between TP4 (VREF) and TP17 (E-FS).
- Set the range of oscilloscope Volt/Div 0.5V and Time/Div 12ms.
- Adjust VR2350 so that the waveform is as shown in the figure [A].

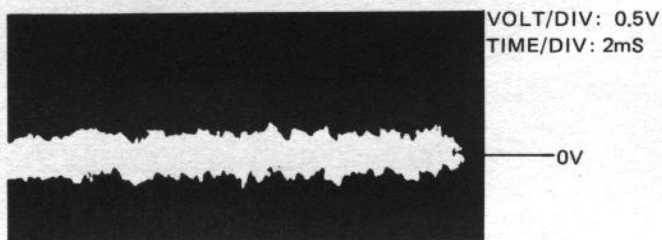


[FIG. [A]]

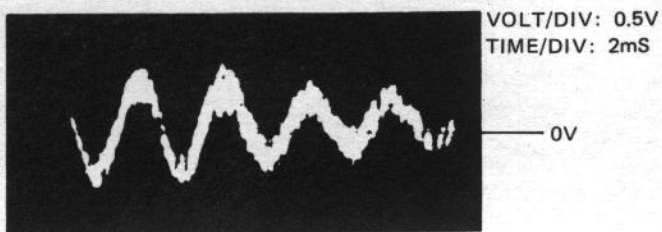
TRACKING GAIN ADJUSTMENT

- Power "ON" and play.
- Connect Oscilloscope to Test pin "TP4 (VREF) and TP10 (TE). TP 4 is common, TP10 is test point.
- Set the range of oscilloscope to VOLT/DIV (0.5V) and TIME/DIV (2mS).
- Adjust VR2352 so that the waveform is as shown in the figure below.

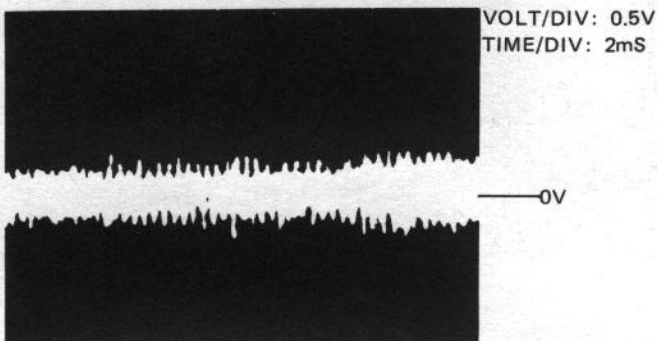
[NORMAL WAVEFORM]



[LOW TRACKING GAIN]



[HIGH TRACKING GAIN]



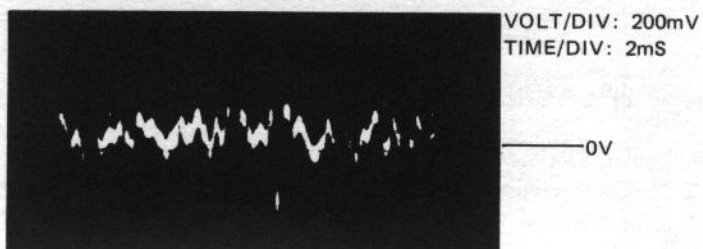
FOCUS GAIN ADJUSTMENT

- Power "ON" and play.
- Connect Oscilloscope to Test pin "TP5 (DREF) and TP6 (FOS)". TP5 is common, TP6 is test point.
- Set the range of oscilloscope to VOLT/DIV (200mV) and TIME/DIV (2mS).
- Adjust VR2355 so that the waveform is as shown in the figure below.

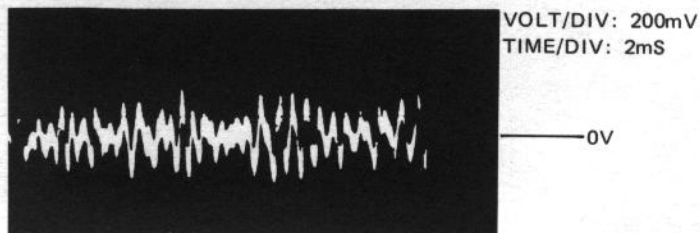
[NORMAL WAVEFORM]



[LOW FOCUS GAIN]



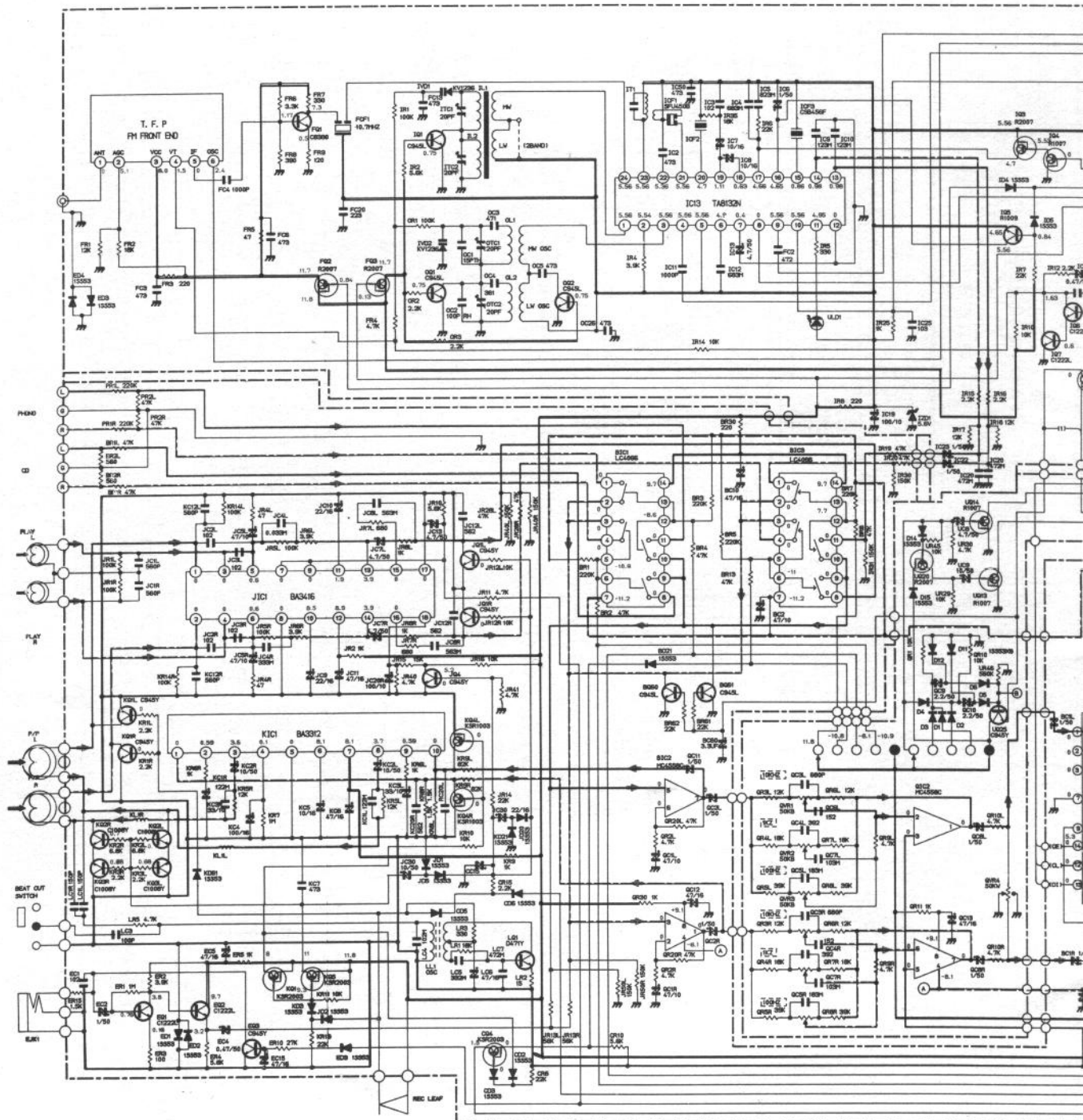
[HIGH FOCUS GAIN]



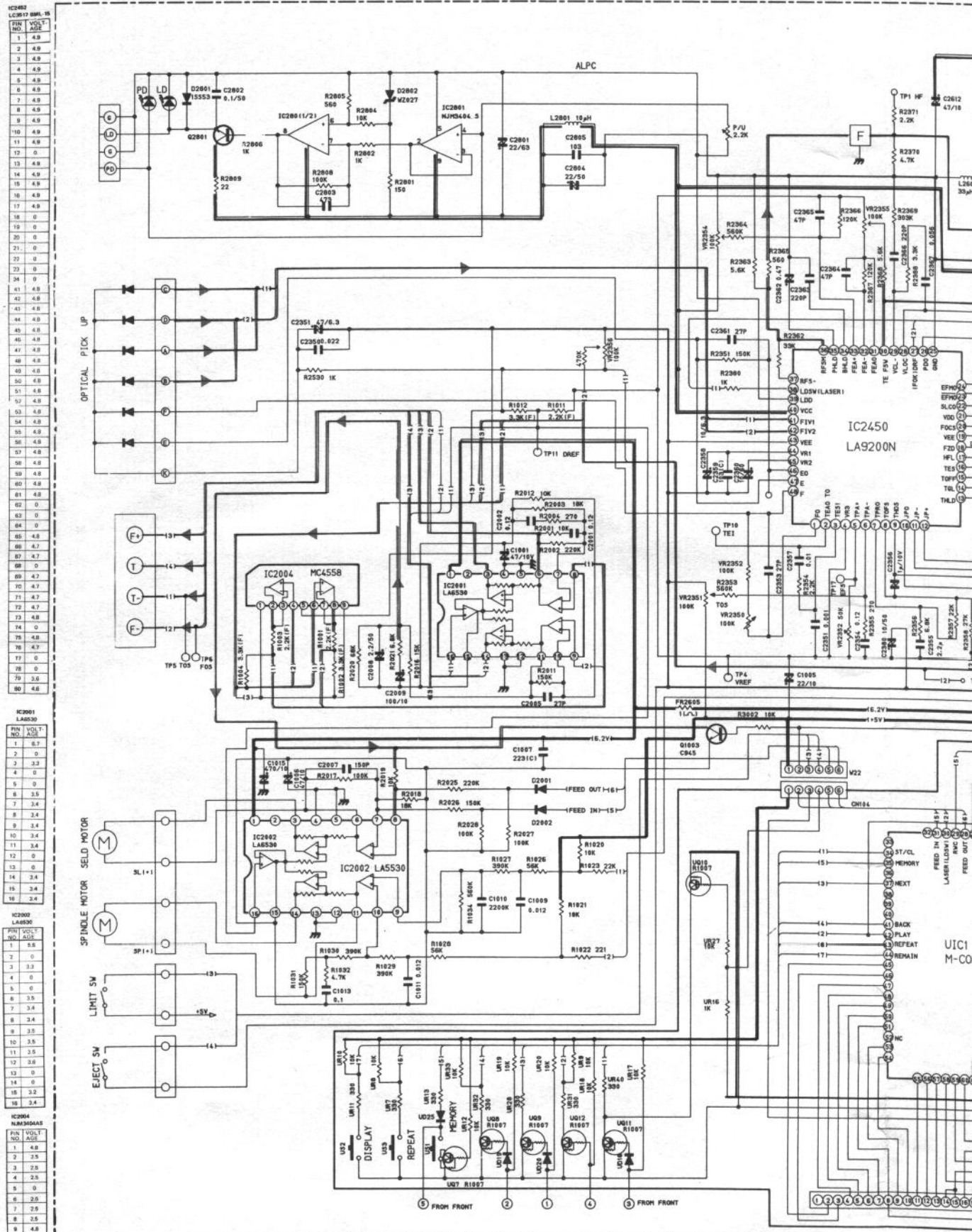
* Use clean (flautless) disc when you adjust gain. (at center track)

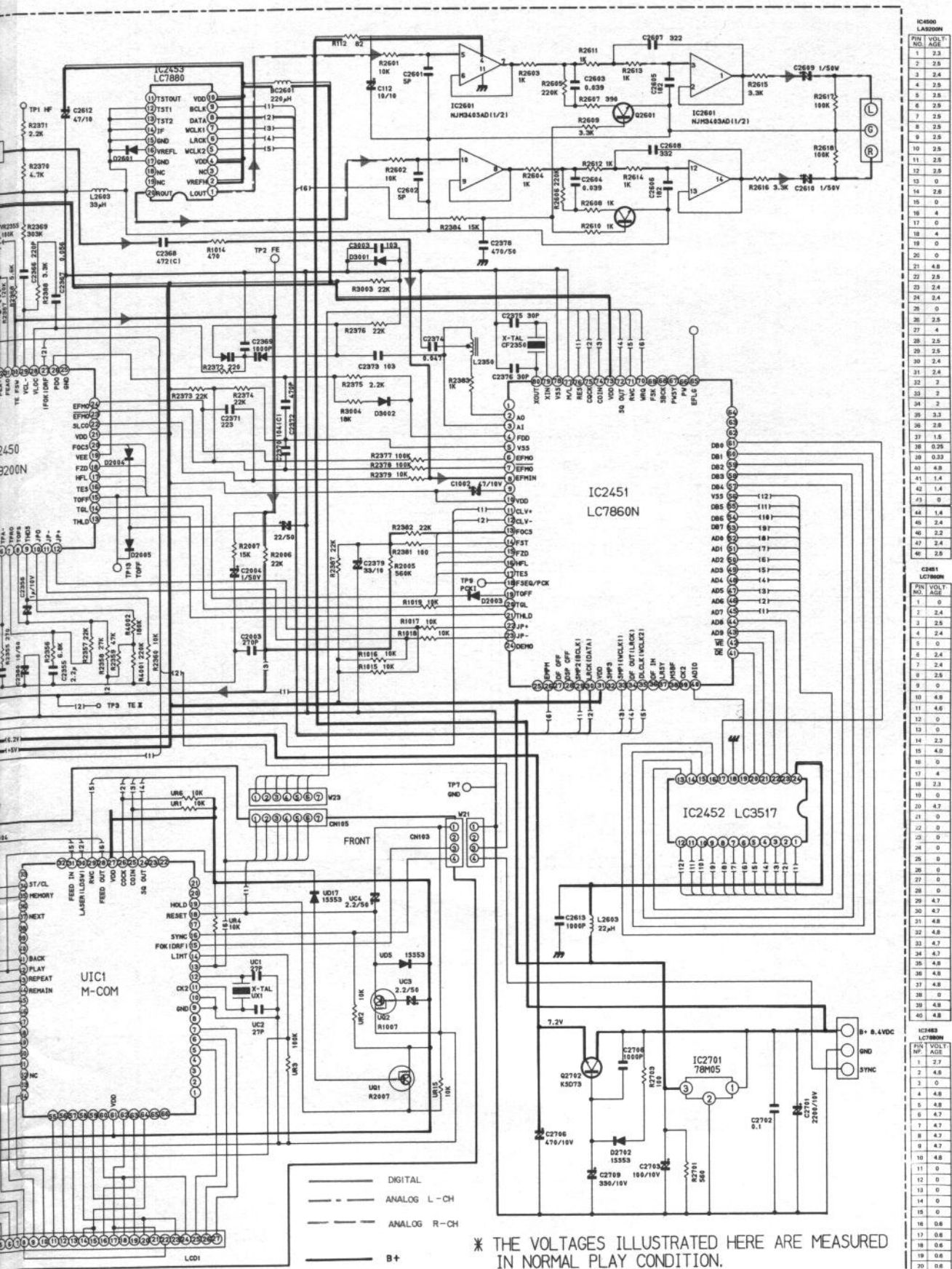
7. SCHEMATIC DIAGRAM

7-1. MAIN SECTION



7-2. CD SECTION





IC4500	
PIN NO.	VOLT. AGE
1	2.3
2	2.3
3	2.4
4	2.5
5	2.5
6	2.5
7	2.5
8	2.5
9	2.5
10	2.5
11	2.5
12	2.5
13	0
14	2.5
15	0
16	4
17	0
18	4
19	0
20	0
21	4.8
22	2.5
23	2.4
24	2.4
25	0
26	2.5
27	4
28	2.5
29	2.5
30	2.4
31	2.4
32	2
33	2
34	2
35	3.3
36	2.5
37	1.5
38	0.25
39	0.33
40	4.8
41	1.4
42	1.4
43	0
44	1.4
45	2.4
46	3.2
47	3.4
48	2.5

IC3481	
PIN NO.	VOLT. AGE
1	0
2	2.4
3	2.5
4	2.4
5	0
6	3.4
7	2.4
8	2.5
9	0
10	4.8
11	4.6
12	0
13	0
14	2.3
15	4.0
16	0
17	4
18	2.3
19	0
20	4.7
21	0
22	0
23	0
24	0
25	0
26	0
27	4.8
28	0
29	4.7
30	4.7
31	4.8
32	4.8
33	4.8
34	4.8
35	4.8
36	4.8
37	4.8
38	0
39	4.8
40	4.8

IC3485	
PIN NO.	VOLT. AGE
1	2.7
2	4.8
3	0
4	4.8
5	4.8
6	4.7
7	4.7
8	4.7
9	4.7
10	4.8
11	0
12	0
13	0
14	0
15	0
16	0.6
17	0.6
18	0.6
19	0.6
20	0.6