

SERVICE MANUAL



FISHER

AM/FM DIGITAL SYNTHESIZER
STEREO RECEIVER WITH
RRS-Z1 WIRELESS REMOTE
CONTROL

RS-Z1

(EUROPE)



132 347 40 (EUROPE)
132 347 41 (SWISS)
132 347 42 (SWEDEN)

SPECIFICATIONS

Remote Control (RRS-Z1) 46-function,
Wireless Remote Control

AMPLIFIER SECTION

Minimum RMS sine wave power per channel within stated
bandwidth at no more than stated
distortion and with 8 Ω load 100 Watts
distortion and with 4 Ω load 150 Watts
Power Bandwidth 20 Hz ~ 20 kHz
Total Harmonic Distortion
(100 W/8 Ω) 0.007%
(150 W/4 Ω) 0.015%
I.M. Distortion
(100 W/8 Ω) 0.007%
(150 W/4 Ω) 0.015%
Load Impedance for Speakers
A or B 4 ~ 8 Ω
A + B 8 ~ 16 Ω
Speaker Damping > 50
Slew Factor 3
Overall Frequency Response
Phono (RIAA) (20 Hz ~ 20 kHz) ± 1.0 dB
Aux/CD/Tape (20 Hz ~ 20kHz) ± 0.5 dB

Input Sensitivity and Impedance

Phono MC
(100 W/8 Ω) 250 μ V/100 Ω
(1 W/8 Ω) 20.4 μ V/100 Ω
Phono MM
(100 W/8 Ω) 2.5 mV/50 k Ω
(1 W/8 Ω) 204 μ V/50 k Ω
Aux/CD/Tape
(100 W/8 Ω) 150 mV/50 k Ω
(1 W/8 Ω) 12 mV/50 k Ω
Output Level and Impedance
Tape Rec Out 150 mV/ < 1 k Ω
Headphones 330 mV (8 Ω)/100 Ω
Volume Control Attenuation 115 dB
Balance Control Attenuation 45 dB
Tone Controls
Bass ± 10 dB
Treble ± 10 dB
Subsonic Filter (15 Hz, -3 dB) 12 dB/Oct
Loudness Contour (-30 dB)
(100 Hz/10 kHz) +8 dB/+4 dB
Input Overload Capability
Phono MC 16 mV
Phono MM 160 mV
Aux/CD/Tape 8 V

- Specifications and design are subject to change without notice. -

REFERENCE No. WM-570346

SPECIFICATIONS (Continued)

Signal-to-Noise Ratio (IHF, A-Network)		Total Harmonic Distortion (46 dB Quieting)	
Phono MC	70 dB	Mono	0.5%
Phono MM	80 dB	Stereo	0.6%
Aux/CD/Tape	100 dB	Total Harmonic Distortion (60 dBμ)	
Crosstalk (20 Hz ~ 10 kHz)		Mono (100 Hz/1 kHz/6 kHz)	
Between Left and Right Channels	60 dB	Wide	0.05/0.05/0.1%
Between Functions	75 dB	Stereo (100 Hz/1 kHz/6 kHz)	
Speakers Selector	A, B, A + B, OFF	Wide	0.1/0.1/0.1%
Display	FL with 3-step Dimmer	Stereo Separation	
Timer	30/60 minutes	Wide (100 Hz/1 kHz/10 kHz)	45/45/35 dB
Audio Muting	-50 dB	Capture Ratio	
DIGITAL SECTION		Wide	1.3 dB
Sampling Frequency	32/44.1/48 kHz	Narrow	3.0 dB
D/A Conversion	Full-time 18-bit Linear	Selectivity	
	2 D/A Converters	Wide	40 dB
Input/Output Terminals		Narrow	80 dB
CD Input	Optical	Image Response Ratio	120 dB
Aux (Front/Rear) Input	Coaxial	Spurious Response Ratio	120 dB
DAT Input/Output	Optical	IF Response Ratio	120 dB
Optical Input	-15 dBm ~ -24 dBm	AM Suppression Ratio	60 dB
Optical Output	-15 dBm ~ -21 dBm	Audio Frequency Response	
Coaxial Input	500 mVp-p/75 Ω ±20%	(20 Hz - 15 kHz)	±0.5 dB
Filters	8-times Oversampling Digital Filter, 3rd Order Linear Phase Low Pass Filter	Sub-Carrier Rejection (19 kHz/38 kHz)	80/90 dB
Frequency Response (20 Hz ~ 20 kHz)	±0.3 dB	Stereo Threshold	19.17 dBf
Signal-to-Noise Ratio	115 dB	AM SECTION	
Dynamic Range	97 dB	Tuning Range	522 kHz ~ 1611 kHz
Total Harmonic Distortion (1 kHz)	0.004%	IHF Usable Sensitivity	
Channel Separation (1 kHz)	90 dB	External Antenna	100 μV
FM SECTION		Loop Antenna	400 μV/m
Tuning Range	87.50 MHz ~ 108.00 MHz	Signal Seeker Stop Sensitivity	500 μV/m
Antenna Terminals	(2) 75 Ω	Signal-to-Noise Ratio	55 dB
Usable Sensitivity		Image Response Ratio	40 dB
Mono	0.9 μV	IF Response Ratio	65 dB
Stereo	5.0 μV	Selectivity (±9 kHz)	50 dB
46 dB Quieting Sensitivity		Volume Sensitivity	150 μV/m
Mono	2.5 μV	Total Harmonic Distortion	0.3%
Stereo	30 μV	Frequency Response (-3 dB)	2.5 kHz
Signal Seeker Stop Sensitivity	5.0 μV	GENERAL	
Signal-to-Noise Ratio		Power Requirements	AC 220V
Mono	75 dB	(50 Hz)	400 Watts
Stereo	70 dB	AC Outlets	3
		Dimensions (WxHxD)	480 x 165 x 440cm
		Weight (approx.)	21kg

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FM TUNER ALIGNMENT

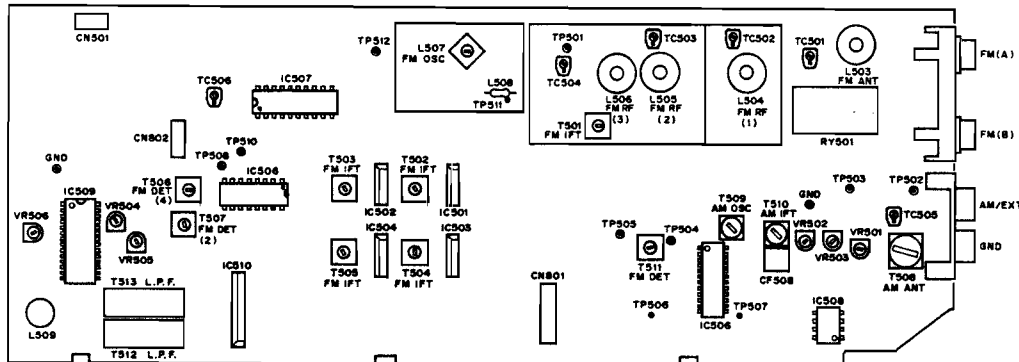
FM ALIGNMENT - Band Selector switch to FM/ST(MUTE) position.
Note is almost unnecessary to adjust coil in Front End as perfectly adjusted.

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
1. FRONT END FREQUENCY COVER ALIGNMENT (108MHz)	Do not connect generator.	Front Panel DIGITAL Counter Display Set to 108MHz.	Connect DC Voltmeter to TP512 and ground lead to chassis.	Adjust FM OSC Coil (L507) until DC Voltmeter reads 25.0V ±0.2V.
2. (87.5MHz)	Same as above.	DIGITAL Counter Display Set to 87.5MHz.	Same as above.	Check DC Voltmeter for Indication 3.5V ~ 4.0V.
Note: Repeat the adjustments in Items 1 and 2. Then, confirm that each voltage becomes 3.5V to 25.0V at receiving frequency of 87.5MHz to 108MHz.				
3. FM RF TRACKING ALIGNMENT (88.0MHz)	Connect Spectrum analyzer (with FM RF Tracking generator) output to FM Antenna terminals. Set generator to 88.0MHz. Modulate with 1kHz to provide 2MHz deviation. Setting generator with attenuator output level for 60dBμV.	DIGITAL Counter Display Set to 88.0MHz.	Connect Spectrum analyzer input to TP501 and ground lead to chassis.	Adjust FM ANT Coil (L503) and FM RF Coil (L504 ~ L506) so that S-wave from becomes symmetrical.
4. (108MHz)	Change generator Setting to 108MHz.	Change DIGITAL Counter Display Set to 108MHz.	Same as above.	Adjust FM ANT Trimmer (TC501) and FM RF Trimmer (TC502 ~ TC504) so that S-wave from becomes Symmetrical.
Note: Repeat the adjustments in Items 3 and 4. Then, confirm there is no tracking error.				
5. REFERENCE PLL OSC ALIGNMENT	Change generator Setting to 98MHz.	Change DIGITAL Counter Display Set to 98MHz.	Connect Frequency Counter to TP511 and ground lead to chassis.	Adjust PLL OSC Trimmer (TC506) of IC507 LM7000 Side) until Frequency Counter reads 108.700MHz ±1kHz.
6. FM CENTER VOLTAGE (DETECTOR) ALIGNMENT	Same as above. Adjust attenuator output level to 60dBμV (1kHz, 40kHz deviation) /MONO Mode.	Same as above.	Connect DC Voltmeter across TP504 and TP505.	Adjust FM DET Coil (T511) until DC Voltmeter reads 0V ±20mV.
7. FM MUTING AUTO STOP SENSITIVITY ADJUSTMENT	Set generator to 98MHz. Adjust attenuator output level to 14dBμV.	Same as above.	Front panel TUNED Indicator Display.	Set Mode Switch to ST(MUTE). Adjust VR503 until the TUNED Indicator partly light up.
Note: Decrease the output level (10dBμV) of ATT and confirm that the wave form disappears. Increase the output level (20dBμV) of ATT again and confirm that the input level meets the specifications sufficiently when the wave form has appeared.				
8. FM CENTER VOLTAGE ALIGNMENT	Same as above. Adjust attenuator output level to 60dBμV /MONO Mode.	Same as above.	Connect DC Voltmeter across TP508 and TP509.	Adjust FM DET (1) Coil (T506) until DC Voltmeter reads 0V ±50mV.
9. DETECTOR ALIGNMENT (MINIMUM T.H.D.)	Same as above. (IF BAND Switch to WIDE)	Same as above.	Connect Harmonic Distortion Analyzer to Audio output (CN108).	Adjust FM DET (2) Coil (T507) and FM IFT Coil (T503, T504) for minimum gain and best linearity.
Note: Repeat Step 8 (FM DET 1 Coil T506) and 9 (FM DET 2 Coil T507 and FM IFT coil T503, T504) until optimum alignment is reached				
10. DETECTOR ALIGNMENT (MINIMUM T.H.D.)	Same as above. (Change IF BAND Switch to NARROW) Modulate with 100Hz Stereo Signal (L-R).	Same as above. Set Tuning Switch to (AUTO) ON position.	Same as above.	Adjust FM IFT (T504, T505) for minimum gain and best linearity.
Notes: Set the Modulate Signal of the FM stereo signal SG to 6 kHz (L - R) and make sure that the Distortion Analyzer indicators within the specifications. (If the distortion level at 100 Hz is wrong, adjust C609). When adjusting, do not touch the FM DET (1) coil (T506) and FM DET (2) coil (T507) adjusted in step 8 and 9.				

FM TUNER ALIGNMENT (Continued)

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
11. MPX PILOT CANCELLOR ADJUSTMENT	As this adjustment is to be fully attenuated by the backward L.P.F. (T513 and T512), turn the VR506 fully clockwise.			
12. FM STEREO SIGNAL SEPARATION CONTROL	Connect FM Stereo SG to FM Antenna terminals. 19kHz signal ON. Main channel, Sub channel signal ON. Apply 1000Hz signal from LEFT channel.	Same as above. Set Mode switch to ST(MUTE) position. (IF BAND Switch to WIDE)	Connect AC VTVM and Oscilloscope to RIGHT REC OUT.	Adjust VR505 for minimum output.
	Same as above for RIGHT channel.		Connect AC VTVM and Oscilloscope to LEFT REC OUT.	Adjust VR504 for minimum output.
13. HI - BLEND CHECKING	First receive the stereo signal and then make sure that the separation at 1 kHz shows about 16 dB in the HI - BLEND switch "ON" mode.			
14. ANT. A/B SEPARATION CHECKING	A/B Input the signal into either ANTENNA FM A or B and change the ANTENNA A or B switch. Make sure isolation at more than 35 dB can be obtained by the output difference of signal generation.			

TUNER P.C.BOARD ADJUSTMENT POINT (TOP VIEW)



AM TUNER ALIGNMENT

AM ALIGNMENT - Band Selector switch to AM position.
Maintain generator output as low as possible for suitable indication.

Note: Perform this alignment after FM Tuner Alignment.

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
1. AM RF FREQUENCY COVER ALIGNMENT (1622kHz)	Do not connect generator.	Front Panel DIGITAL Counter Display Set to 1622kHz.	Connect DC Voltmeter to TP503 and ground lead to chassis.	Check DC Voltmeter for indication 7.0V ~ 12.0V. Do not adjust the AM OSC coil (T509).
2. (522kHz)	Same as above.	DIGITAL Counter Display Set to 522kHz.	Same as above.	Check DC Voltmeter for indication 1.0V ~ 1.5V.
Note: Repeat the adjustments in Items 1 and 2. Then, confirm that each voltage becomes 1.0V to 11.0V at receiving frequency of 522kHz to 1622kHz.				
3. AM IF ALIGNMENT	Connect 450kHz Radio IF Genescope output to AM antenna terminal. Adjust output level to 70dB μ V.	DIGITAL Counter Display Set to 999kHz.	Connect Radio IF Genescope input to TP507 and ground lead to chassis.	Adjust AM IFT (T510) for maximum gain and best symmetry. Keep signal low enough for noise on response.
4. MW RF TRACKING ALIGNMENT (603kHz)	Connect AM RF Signal Generator through AM Dummy Antenna to AM Antenna terminals. Use 4.7k Ω resistor in series with AM Dummy Antenna output lead and Connect Loop antenna (Unit) to antenna terminal. Generator Setting to 603kHz or 1404kHz. Modulate with 400Hz (30 % modulation).	Change DIGITAL Counter Display Set to 603kHz.	Connect AC VTVM and Oscilloscope to REC OUT.	Adjust AM ANT Coil (T508) for maximum gain output.
5. (1404kHz)	Same as above.	Change DIGITAL Counter Display Set to 1404kHz.	Same as above.	Adjust AM ANT Trimmer (TC505) for maximum gain output.
Note: Repeat the adjustments in Items 4 and 5. Then, confirm there is no tracking error.				
6. AM TUNED INDICATOR ADJUSTMENT	Same as above. Change generator Setting to 999kHz. and output level to 54dB μ V.	Change DIGITAL Counter Display Set to 999kHz.	Front Panel TUNED Indicator Display.	Adjust VR502 until the Indicator partly light up.
Note: After adjustment, adjust the output of SG and make sure that AUTO STOP is completed at 60 dB μ V and not completed at 50 dB μ V.				
7. AGC LEVEL ADJUSTMENT	Same as above. Adjust attenuator output level to 120dB μ V.	Same as above.	Connect DC Voltmeter to TP502 and ground lead to chassis.	Adjust VR501 until DC Voltmeter reads 1.8V \pm 0.5V. Do not adjust the VR503.
Note: Make sure that the Signal Meter lights all LEDs at 100 dB μ V and over 4 LEDs at 80 dB μ V. However, if the position of the VR 501 for the AGC adjustment is not fixed (unstable), all LEDs may not light up. Therefore, check the AUTO STOP and SIGNAL METER after the AGC adjustment.				

POWER AMPLIFIER ADJUSTMENT

BEFORE ADJUSTMENT

Unplug the AC power cord and set the front panel controls as follows:

- Power Switch to OFF position.
- Set the SPEAKERS Switch to OFF position.
- Turn the MASTER VOLUME Control to minimum position.
- IDLING CURRENT ADJUSTMENT VR301/VR401 (on the Left & Right Main Amplifier P.C.Board) setting to mechanical center position.
- Connect the AC power cord and Power Switch to ON position.

IDLING CURRENT ADJUSTMENT

This adjustment is very sensitive to changes in ambient temperature. Allow set to operate for 2 minutes before attempting this alignment.

LEFT AMPLIFIER

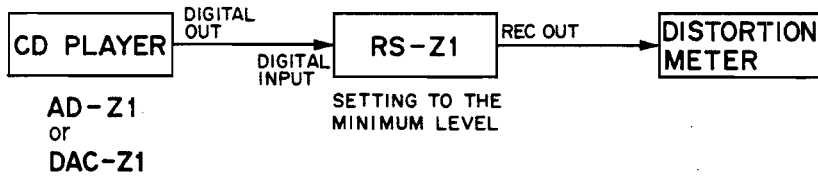
1. Connect the DC Voltmeter to the BIAS terminal on the Main Left Amplifier P.C.Board.
2. Adjust the VR301 for an indication of $15\text{ mV} \pm 5\text{ mV}$ on the DC Voltmeter.

RIGHT AMPLIFIER

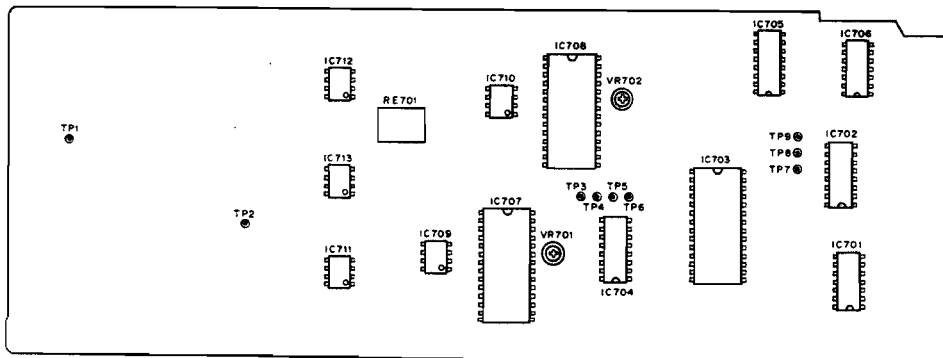
1. Connect the DC Voltmeter to the BIAS terminal on the Main Right Amplifier P.C.Board.
2. Adjust the VR401 for an indication of $15\text{ mV} \pm 5\text{ mV}$ on the DC Voltmeter.

MSB (Most Significant Bit) ADJUSTMENT (DAC P.C.BOARD)

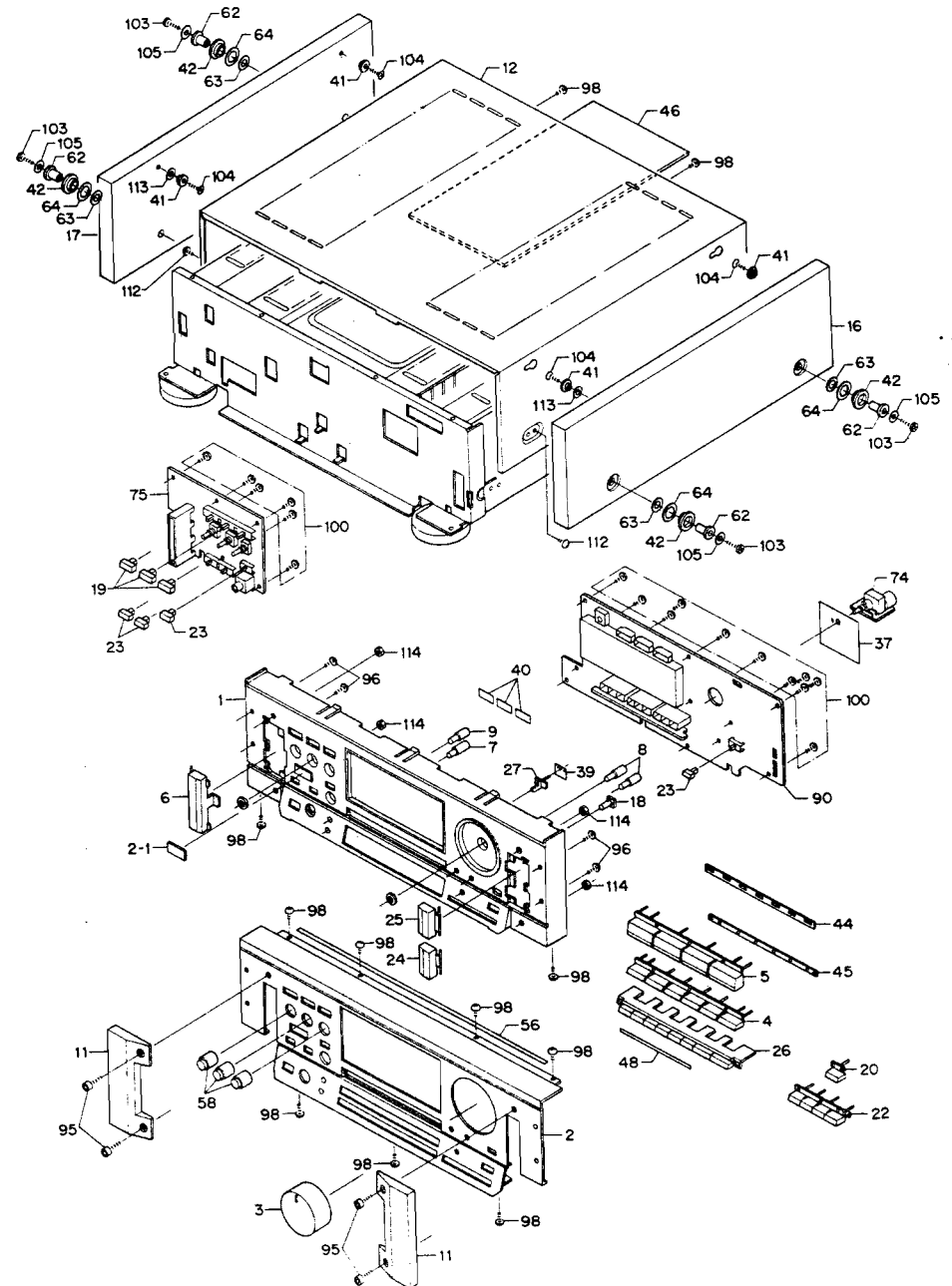
1. Connect the Digital CD Input of the AD-Z1 or DAC-Z1 to the Digital CD Input of this unit (RS-Z1) and connect the Harmonic Distortion Meter to the REC OUT jack. (See Figure)
2. Set the test disc CD-1 (CBS RECORDS) into the CD player and play back No.1. (0 dB, 1 kHz) and adjust the DAC P.C.Board VR701 (left channel) and VR702 (right channel) so that distortion is at a minimum level.



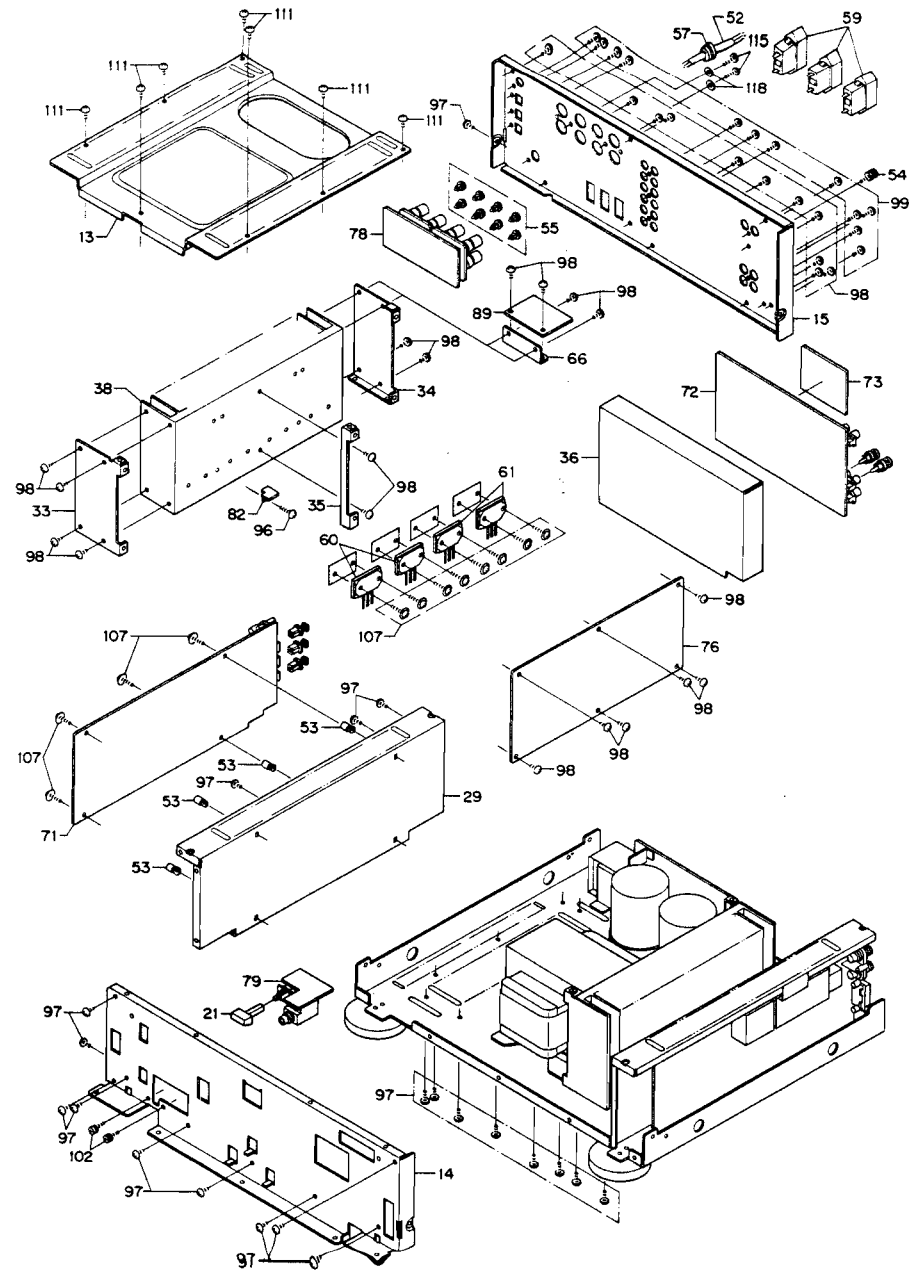
DAC P.C.BOARD ADJUSTMENT POINTS (TOP VIEW)



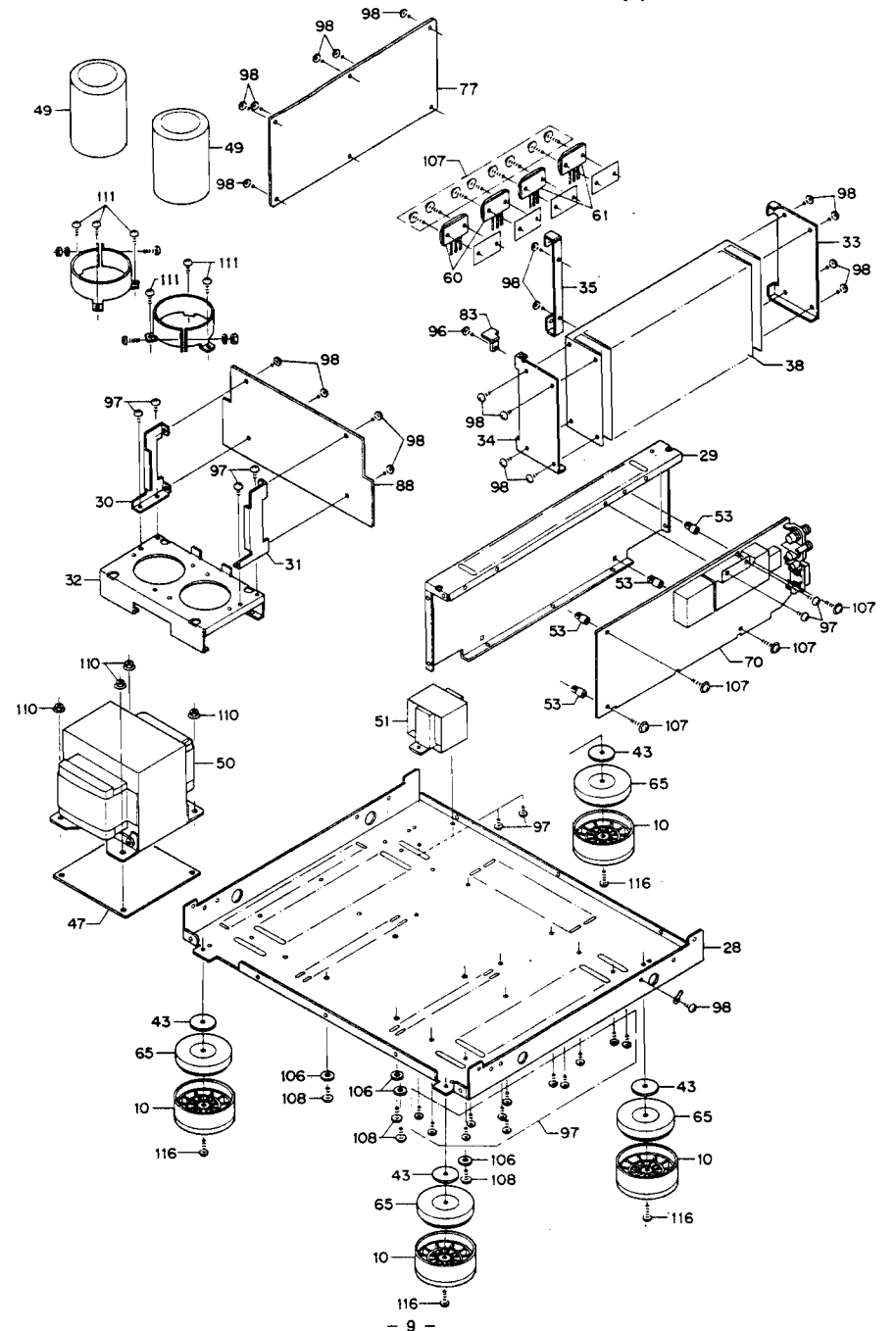
CABINET & CHASSIS EXPLODED VIEW (1)



CABINET & CHASSIS EXPLODED VIEW (2)



CABINET & CHASSIS EXPLODED VIEW (3)



P.C. BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
D529	407 008 0405	DIODE GMB01-BT	1	C577	403 069 8404	CERAMIC 0.01U Z 50V	1
D530	407 008 0405	DIODE GMB01-BT	1	C578	403 040 4807	ELECT 220U M 10V	1
D532	407 050 0408	ZENER DIODE GZA27Y-BT	1	C579	403 074 2701	CERAMIC 0.047U Z 50V	1
D533	407 005 1306	DIODE DS135C	1	C580	403 069 8404	CERAMIC 0.01U Z 50V	1
D534	407 005 1306	DIODE DS135C	1	C581	403 057 0601	POLYESTER 0.01U K 50V	1
D535	407 003 9205	DIODE DBB10C	1	C582	403 067 5603	MT-COMPO 0.1U J 50V	1
D536	407 050 7704	ZENER DIODE GZA9.1Y	1	C583	403 061 7801	POLYESTER 4700P J 50V	1
D537	407 005 4703	DIODE DS446-BT	1	C584	403 067 7706	MT-COMPO 0.047U J 50V	1
C501	403 069 8404	CERAMIC 0.01U Z 50V	1	C585	403 022 5907	CERAMIC 33P J 50V	1
C502	403 069 8404	CERAMIC 0.01U Z 50V	1	C586	403 022 5907	CERAMIC 33P J 50V	1
C503	403 069 8404	CERAMIC 0.01U Z 50V	1	C587	403 074 2701	CERAMIC 0.047U Z 50V	1
C506	403 069 8404	CERAMIC 0.01U Z 50V	1	C588	403 041 3904	ELECT 47U M 10V	1
C507	403 048 3109	ELECT 0.22U M 50V	1	C589	403 047 9607	ELECT 0.1U M 50V	1
C508	403 069 8404	CERAMIC 0.01U Z 50V	1	C590	403 042 0302	ELECT 10U M 16V	1
C511	403 006 4209	CERAMIC 1P C 50V	1	C591	403 049 1609	ELECT 1U M 50V	1
C512	403 006 4209	CERAMIC 1P C 50V	1	C592	403 049 1609	ELECT 1U M 50V	1
C513	403 069 8404	CERAMIC 0.01U Z 50V	1	C593	403 057 0601	POLYESTER 0.01U K 50V	1
C514	403 069 8404	CERAMIC 0.01U Z 50V	1	C594	403 054 1304	ELECT 47U M 35V	1
C515	403 012 4002	CERAMIC 15P J 50V	1	C595	403 054 1304	ELECT 47U M 35V	1
C516	403 022 5907	CERAMIC 33P J 50V	1	C596	403 047 9607	ELECT 0.1U M 50V	1
C517	403 008 5709	CERAMIC 10P D 50V	1	C597	403 057 0601	POLYESTER 0.01U K 50V	1
C518	403 031 8401	CERAMIC 7P D 50V	1	C598	403 028 5408	CERAMIC 47P K 50V	1
C519	403 006 4209	CERAMIC 1P C 50V	1	C599	403 047 1502	ELECT 4.7U M 25V	1
C520	403 006 4209	CERAMIC 1P C 50V	1	C600	403 050 1209	ELECT 2.2U M 50V	1
C521	403 044 0300	ELECT 47U M 16V	1	C601	403 047 1502	ELECT 4.7U M 25V	1
C522	403 069 8404	CERAMIC 0.01U Z 50V	1	C602	403 047 1502	ELECT 4.7U M 25V	1
C523	403 069 8404	CERAMIC 0.01U Z 50V	1	C603	403 069 0705	CERAMIC 1000P K 50V	1
C524	403 072 2703	CERAMIC 0.022U Z 50V	1	C604	403 023 5807	CERAMIC 330P K 50V	1
C525	403 072 2703	CERAMIC 0.022U Z 50V	1	C605	403 009 8105	CERAMIC 100P K 50V	1
C526	403 069 8404	CERAMIC 0.01U Z 50V	1	C606	403 023 5807	CERAMIC 330P K 50V	1
C527	403 069 8404	CERAMIC 0.01U Z 50V	1	C607	403 061 7801	POLYESTER 4700P J 50V	1
C528	403 069 8404	CERAMIC 0.01U Z 50V	1	C608	403 067 7706	MT-COMPO 0.047U J 50V	1
C529	403 069 8404	CERAMIC 0.01U Z 50V	1	C609	403 023 5807	CERAMIC 330P K 50V	1
C530	403 069 8404	CERAMIC 0.01U Z 50V	1	C610	403 049 1609	ELECT 1U M 50V	1
C531	403 069 8404	CERAMIC 0.01U Z 50V	1	C611	403 048 7802	ELECT 0.47U M 50V	1
C532	403 069 8404	CERAMIC 0.01U Z 50V	1	C612	403 049 1609	ELECT 1U M 50V	1
C533	403 069 8404	CERAMIC 0.01U Z 50V	1	C613	403 049 1609	ELECT 1U M 50V	1
C534	403 069 8404	CERAMIC 0.01U Z 50V	1	C614	403 057 0601	POLYESTER 0.01U K 50V	1
C535	403 069 8404	CERAMIC 0.01U Z 50V	1	C615	403 040 4807	ELECT 220U M 10V	1
C536	403 069 8404	CERAMIC 0.01U Z 50V	1	C616	403 043 7102	ELECT 330U M 16V	1
C537	403 069 8404	CERAMIC 0.01U Z 50V	1	C617	403 088 7907	STYRENE 820P J 50V	1
C538	403 069 8404	CERAMIC 0.01U Z 50V	1	C618	403 088 7907	STYRENE 820P J 50V	1
C539	403 069 8404	CERAMIC 0.01U Z 50V	1	C619	403 042 0302	ELECT 10U M 16V	1
C540	403 072 2703	CERAMIC 0.022U Z 50V	1	C620	403 042 0302	ELECT 10U M 16V	1
C541	403 072 2703	CERAMIC 0.022U Z 50V	1	C621	403 047 1502	ELECT 4.7U M 25V	1
C542	403 047 1502	ELECT 4.7U M 25V	1	C622	403 047 1502	ELECT 4.7U M 25V	1
C544	403 072 2703	CERAMIC 0.022U Z 50V	1	C623	403 008 5204	CERAMIC 10P D 50V	1
C545	403 043 1100	ELECT 220U M 16V	1	C624	403 008 5204	CERAMIC 10P D 50V	1
C546	403 072 2703	CERAMIC 0.022U Z 50V	1	C625	403 028 5408	CERAMIC 47P K 50V	1
C547	403 040 0403	ELECT 1000U M 10V	1	C626	403 028 5408	CERAMIC 47P K 50V	1
C548	403 028 5408	CERAMIC 47P K 50V	1	C627	403 044 0201	ELECT 47U M 16V	1
C549	403 042 3600	ELECT 100U M 16V	1	C628	403 044 0201	ELECT 47U M 16V	1
C550	403 057 5804	POLYESTER 1200P J 50V	1	C629	403 042 0302	ELECT 10U M 16V	1
C551	403 074 2701	CERAMIC 0.047U Z 50V	1	C630	403 042 0302	ELECT 10U M 16V	1
C552	403 026 9406	CERAMIC 5P C 50V	1	C631	403 057 7204	POLYESTER 0.012U J 50V	1
C553	403 067 5603	MT-COMPO 0.1U J 50V	1	C632	403 067 5603	MT-COMPO 0.1U J 50V	1
C554	403 026 9406	CERAMIC 47P K 50V	1	C633	403 039 7901	ELECT 100U M 10V	1
C555	403 074 2701	CERAMIC 0.047U Z 50V	1	C635	403 042 3600	ELECT 100U M 18V	1
C556	403 074 2701	CERAMIC 0.047U Z 50V	1	C636	403 042 3600	ELECT 100U M 18V	1
C557	403 069 8404	CERAMIC 0.01U Z 50V	1	C637	403 053 1400	ELECT 22U M 35V	1
C558	403 069 8404	CERAMIC 0.01U Z 50V	1	C638	403 052 8905	ELECT 10U M 35V	1
C559	403 074 2701	CERAMIC 0.047U Z 50V	1	C639	403 045 2907	ELECT 1000U M 25V	1
C560	403 074 2701	CERAMIC 0.047U Z 50V	1	C640	403 053 3101	ELECT 220U M 35V	1
C561	403 069 0705	CERAMIC 1000P K 50V	1	C641	403 049 7304	ELECT 100U M 50V	1
C562	403 069 8404	CERAMIC 0.01U Z 50V	1	C642	403 051 3905	ELECT 47U M 50V	1
C563	403 038 2402	ELECT 100U M 6.3V	1	C643	403 054 1304	ELECT 47U M 35V	1
C564	403 008 5105	CERAMIC 10P D 50V	1	C644	403 069 8404	CERAMIC 0.01U Z 50V	1
C565	403 087 3603	STYRENE 120P J 50V	1	C645	403 069 8404	CERAMIC 0.01U Z 50V	1
C566	403 088 4906	STYRENE 470P J 50V	1	C646	403 069 8404	CERAMIC 0.01U Z 50V	1
C567	403 088 4906	STYRENE 470P J 50V	1	C647	403 069 8404	CERAMIC 0.01U Z 50V	1
C568	403 008 5105	CERAMIC 10P D 50V	1	C648	403 069 8404	CERAMIC 0.01U Z 50V	1
C569	403 022 5907	CERAMIC 33P J 50V	1	C649	403 069 8404	CERAMIC 0.01U Z 50V	1
C570	403 042 0302	ELECT 10U M 16V	1	C650	403 048 7802	ELECT 0.47U M 50V	1
C571	403 047 1502	ELECT 4.7U M 25V	1	C651	403 057 5804	POLYESTER 1200P J 50V	1
C572	403 050 7706	ELECT 3.3U M 25V	1	C652	403 057 5804	POLYESTER 1200P J 50V	1
C573	403 047 1502	ELECT 4.7U M 25V	1	C661	403 072 4509	CERAMIC 270P K 50V	1
C574	403 048 1602	ELECT 0.47U M 50V	1	C663	403 070 3900	CERAMIC 120P K 50V	1
C575	403 074 2701	CERAMIC 0.047U Z 50V	1	C664	403 070 3900	CERAMIC 120P K 50V	1
C576	403 069 8404	CERAMIC 0.01U Z 50V	1	R501	401 024 8001	CARBON 1M JA 1/6W	1

P.C. BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
R502	401 024 8001	CARBON 1M JA 1/6W	1	R581	401 024 7400	CARBON 10K JA 1/6W	1
R503	401 025 7805	CARBON 2.2K JA 1/6W	1	R582	401 024 9701	CARBON 12K JA 1/6W	1
R504	401 025 7805	CARBON 2.2K JA 1/6W	1	R583	401 027 3003	CARBON 56K JA 1/6W	1
R505	401 028 4605	CARBON 33K JA 1/6W	1	R584	401 027 3003	CARBON 56K JA 1/6W	1
R506	401 028 4605	CARBON 33K JA 1/6W	1	R585	401 025 8208	CARBON 22K JA 1/6W	1
R507	401 015 1608	CARBON 180 JA 1/4W	1	R586	401 024 7707	CARBON 100K JA 1/6W	1
R508	401 024 7707	CARBON 100K JA 1/6W	1	R587	401 025 1902	CARBON 15K JA 1/6W	1
R509	401 024 7707	CARBON 100K JA 1/6W	1	R588	401 024 7004	CARBON 1K JA 1/6W	1
R510	401 024 7707	CARBON 100K JA 1/6W	1	R589	401 024 7004	CARBON 1K JA 1/6W	1
R511	401 027 3003	CARBON 56K JA 1/6W	1	R590	401 024 7004	CARBON 1K JA 1/6W	1
R512	401 025 8208	CARBON 22K JA 1/6W	1	R591	401 026 9907	CARBON 22K JA 1/6W	1
R513	401 026 7408	CARBON 39K JA 1/6W	1	R592	401 027 2600	CARBON 5.6K JA 1/6W	1
R514	401 024 6700	CARBON 100 JA 1/6W	1	R593	401 027 2600	CARBON 5.6K JA 1/6W	1
R515	401 025 7102	CARBON 22 JA 1/6W	1	R594	401 012 5708	CARBON 1K JA 1/4W	1
R516	401 024 7707	CARBON 100K JA 1/6W	1	R595	401 024 7004	CARBON 1K JA 1/6W	1
R517	401 024 7707	CARBON 100K JA 1/6W	1	R596	401 027 6103	CARBON 680K JA 1/6W	1
R518	401 024 6700	CARBON 100 JA 1/6W	1	R597	401 026 7002	CARBON 3.9K JA 1/6W	1
R519	401 024 7707	CARBON 100K JA 1/6W	1	R598	401 026 9600	CARBON 470 JA 1/6W	1
R520	401 026 1000	CARBON 2.7K JA 1/6W	1	R599	401 024 9305	CARBON 1.2K JA 1/6W	1
R521	401 024 7400	CARBON 10K JA 1/6W	1	R600	401 012 5708	CARBON 1K JA 1/4W	1
R522	401 024 7400	CARBON 10K JA 1/6W	1	R601	401 018 1508	CARBON 22 JA 1/4W	1
R523	401 025 7409	CARBON 220 JA 1/6W	1	R602	401 024 7004	CARBON 1K JA 1/6W	1
R524	401 025 8703	CARBON 220K JA 1/6W	1	R603	401 024 7004	CARBON 1K JA 1/6W	1
R525	401 026 9907	CARBON 4.7K JA 1/6W	1	R604	401 024 7004	CARBON 1K JA 1/6W	1
R526	401 025 7409	CARBON 220 JA 1/6W	1	R605	401 024 7004	CARBON 1K JA 1/6W	1
R527	401 025 8703	CARBON 220K JA 1/6W	1	R606	402 037 7005	FUSIBLE RES 47 JA 1/4W	1
R528	401 027 5205	CARBON 680 JA 1/6W	1	R607	401 026 4308	CARBON 3.3K JA 1/6W	1
R529	401 027 5205	CARBON 680 JA 1/6W	1	R608	401 012 7009	CARBON 10K JA 1/4W	1
R530	401 027 5205	CARBON 680 JA 1/6W	1	R609	401 027 0309	CARBON 47K JA 1/6W	1
R531	401 025 7409	CARBON 220 JA 1/6W	1	R610	401 027 0309	CARBON 47K JA 1/6W	1
R532	401 026 3905	CARBON 330 JA 1/6W	1	R611	401 026 4308	CARBON 3.3K JA 1/6W	1
R533	401 026 3905	CARBON 330 JA 1/6W	1	R612	401 026 4308	CARBON 3.3K JA 1/6W	1
R534	401 026 3905	CARBON 330 JA 1/6W	1	R613	401 027 2600	CARBON 5.6K JA 1/6W	1
R535	401 026 3905	CARBON 330 JA 1/6W	1	R614	401 027 2600	CARBON 5.6K JA 1/6W	1
R536	401 018 2800	CARBON 330 JA 1/4W	1	R615	401 024 7707	CARBON 100K JA 1/6W	1
R537	401 026 3905	CARBON 330 JA 1/6W	1	R616	401 024 7707	CARBON 100K JA 1/6W	1
R538	401 026 3905	CARBON 330 JA 1/6W	1	R617	401 024 7707	CARBON 100K JA 1/6W	1
R539	401 024 7004	CARBON 1K JA 1/6W	1	R618	401 024 7707	CARBON 100K JA 1/6W	1
R540	401 024 7004	CARBON 1K JA 1/6W	1	R619	401 024 7707	CARBON 100K JA 1/6W	1
R541							

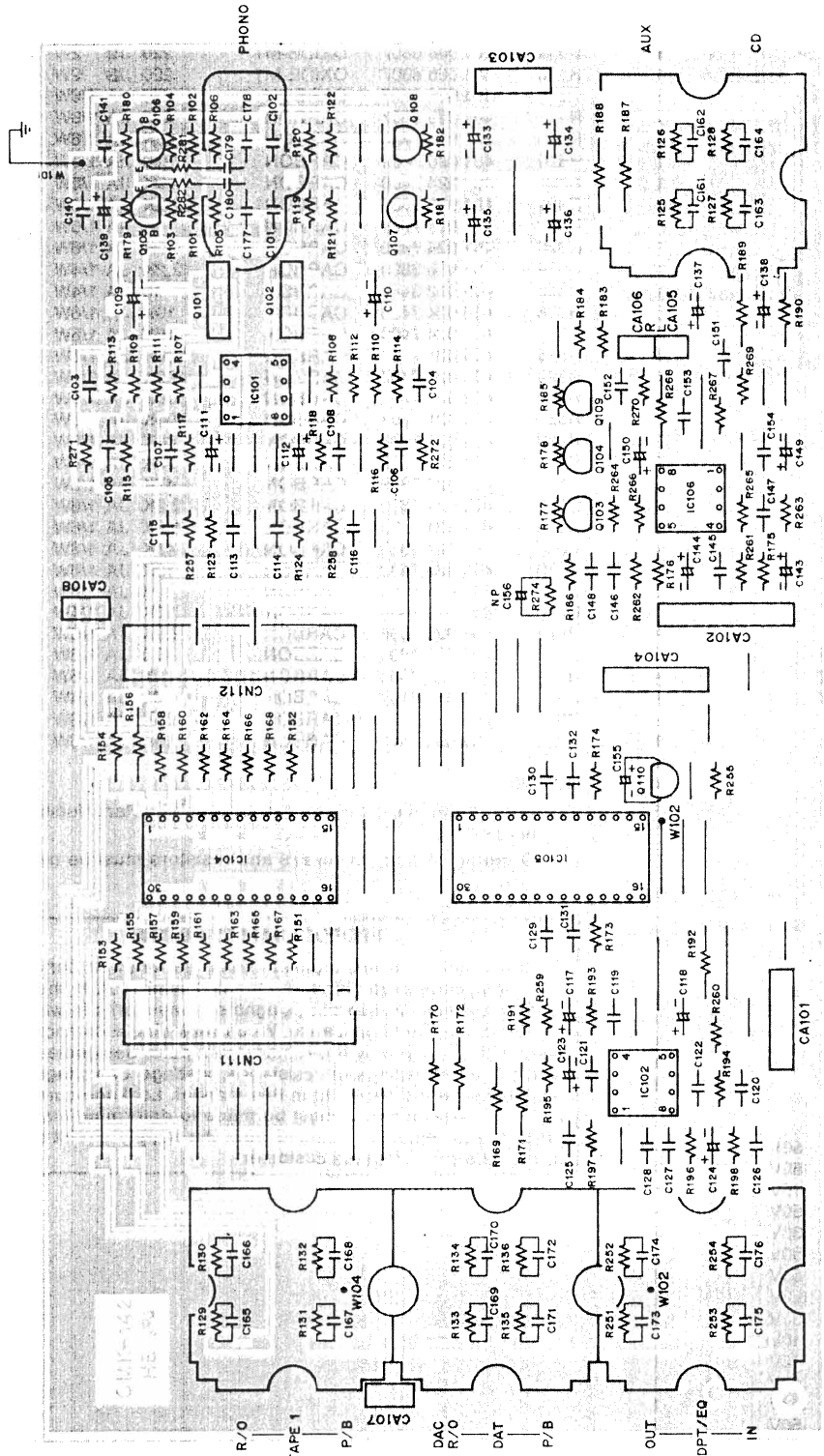
P.C.BOARD PARTS LIST (Continued)

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
CN204	620 021 8405	Plug 8P	1	C705	404 028 9302	CERAMIC 0.1U Z 50V	1
CN701	620 021 5923	Plug 3P	1	C706	403 177 1007	ELECT 100U M 6.3V	1
CN901	620 021 8597	Plug 4P	1	C707	404 028 9302	CERAMIC 0.1U Z 50V	1
EM11	620 197 9442	Inductor 470UH K	1	C708	404 028 9302	CERAMIC 0.1U Z 50V	1
EM12	620 197 9442	Inductor 470UH K	1	C709	403 177 1007	ELECT 100U M 6.3V	1
EM13	620 196 5016	Inductor,Ferrite BL03	1	C710	403 089 5205	CERAMIC 0.01U K 50V	1
FB701	620 196 5009	Inductor,Ferrite BL01	1	C711	403 057 0304	POLYESTER 0.01U J 50V	1
FB702	620 196 5016	Inductor,Ferrite BL03	1	C712	403 067 5603	MT-COMPO 0.1U J 50V	1
FB703	620 196 5009	Inductor,Ferrite BL01	1	C713	403 009 1700	CERAMIC 10P J 50V	1
J701	620 196 1584	Jack,RCA,1P,Horizon	1	C714	403 028 3402	CERAMIC 56P J 50V	1
L701	620 196 9504	Inductor 47UH K	1	C715	403 177 2509	ELECT 22U M 6.3V	1
L702	620 196 9504	Inductor 47UH K	1	C716	403 177 1106	ELECT 10U M 16V	1
L703	620 196 9504	Inductor 47UH K	1	C717	404 028 9302	CERAMIC 0.1U Z 50V	1
L704	620 196 9504	Inductor 47UH K	1	C720	404 028 9302	CERAMIC 0.1U Z 50V	1
L705	620 196 9504	Inductor 47UH K	1	C721	403 177 2509	ELECT 22U M 6.3V	1
L706	620 196 9504	Inductor 47UH K	1	C722	403 067 5603	MT-COMPO 0.1U J 50V	1
L708	620 196 9504	Inductor 47UH K	1	C725	404 028 9302	CERAMIC 0.1U Z 50V	1
L709	620 196 9504	Inductor 47UH K	1	C726	403 177 1304	ELECT 1U M 50V	1
L710	620 196 9504	Inductor 47UH K	1	C727	403 177 1403	ELECT 3.3U M 50V	1
L797	620 197 9466	Inductor 0.22UH M	1	C728	403 177 1403	ELECT 3.3U M 50V	1
L798	620 197 9244	Inductor 2.2UH M	1	C729	403 177 1403	ELECT 3.3U M 50V	1
L799	620 197 9244	Inductor 2.2UH M	1	C730	403 177 1403	ELECT 3.3U M 50V	1
VR701	620 196 9887	Potentiometer,100KB	1	C731	403 177 1403	ELECT 3.3U M 50V	1
VR702	620 196 9887	Potentiometer,100KB	1	C732	403 177 1403	ELECT 3.3U M 50V	1
X701	620 196 1560	Resonator,Xtal,20MHz	1	C733	403 177 1403	ELECT 3.3U M 50V	1
IC701	409 031 5600	IC MC74HC04N	1	C734	403 177 1403	ELECT 3.3U M 50V	1
IC702	409 166 3502	IC MC74HC4053N	1	C735	403 177 1403	ELECT 3.3U M 50V	1
IC703	409 161 4504	IC YM3623B	1	C736	403 177 1403	ELECT 3.3U M 50V	1
IC704	409 180 3007	IC YM3434	1	C737	403 177 1403	ELECT 3.3U M 50V	1
IC705	410 066 5404	IC UPD74HC123AC	1	C738	403 177 1403	ELECT 3.3U M 50V	1
IC706	409 060 5701	IC UPD74HC00C	1	C739	403 177 1403	ELECT 3.3U M 50V	1
IC707	409 171 1500	IC PCMS58P	1	C740	403 177 1403	ELECT 3.3U M 50V	1
IC708	409 171 1500	IC PCMS58P	1	C743	403 177 1601	POLYPRO 220P J 50V	1
IC709	409 180 3304	IC NJM5532D	1	C744	403 177 1601	POLYPRO 220P J 50V	1
IC710	409 180 3304	IC NJM5532D	1	C745	403 084 1609	OS-SOLID 3.3U M 16V	1
IC711	409 180 3304	IC NJM5532D	1	C746	403 084 1609	OS-SOLID 3.3U M 16V	1
IC712	409 180 3304	IC NJM5532D	1	C747	403 177 1106	ELECT 10U M 16V	1
IC713	409 180 3205	IC NJM4580D	1	C748	403 177 1106	ELECT 10U M 16V	1
IC714	409 140 0503	IC NJM78M12FA	1	C749	403 177 1106	ELECT 10U M 16V	1
IC715	409 140 0404	IC NJM79M12FA	1	C750	403 177 1106	ELECT 10U M 16V	1
IC716	409 039 9204	IC NJM78L05FA	1	C751	403 177 1502	POLYPRO 0.01U J 50V	1
IC717	409 169 7804	IC NJM78M05FA	1	C752	403 177 1502	POLYPRO 0.01U J 50V	1
Q701	405 034 8907	TR DTC114-ES-TP	1	C753	403 177 1106	ELECT 10U M 16V	1
Q702	405 034 8907	TR DTC114-ES-TP	1	C754	403 177 1106	ELECT 10U M 16V	1
Q703	405 034 8907	TR DTC114-ES-TP	1	C755	403 177 1700	POLYPRO 2200P J 50V	1
Q704	405 034 8907	TR DTC114-ES-TP	1	C756	403 177 1700	POLYPRO 2200P J 50V	1
Q705	405 034 6804	TR DTA114-ES-TP	1	C757	403 177 1700	POLYPRO 2200P J 50V	1
Q706	405 034 6804	TR DTA114-ES-TP	1	C758	403 177 1700	POLYPRO 2200P J 50V	1
Q707	405 039 5802	TR 2SC3792	1	C759	403 177 1700	POLYPRO 2200P J 50V	1
Q708	405 039 5802	TR 2SC3792	1	C760	403 177 1700	POLYPRO 2200P J 50V	1
Q709	405 039 5802	TR 2SC3792	1	C761	403 177 1106	ELECT 10U M 16V	1
Q710	405 039 5802	TR 2SC3792	1	C762	403 177 1106	ELECT 10U M 16V	1
Q711	405 034 8907	TR DTC114-ES-TP	1	C763	403 177 1106	ELECT 10U M 16V	1
Q712	405 034 6804	TR DTA114-ES-TP	1	C764	403 177 1106	ELECT 10U M 16V	1
Q713	405 009 6907	TR 2S8985-S	1	C765	403 177 1106	ELECT 10U M 16V	1
or	405 009 7003	TR 2S8985-T	1	C767	403 177 1106	ELECT 10U M 16V	1
Q714	405 095 4504	TR 2SD1347S	1	C768	403 177 3902	CERAMIC 0.01U Z 500V	1
or	405 095 4603	TR 2SD1347T	1	C769	403 177 3902	CERAMIC 0.01U Z 500V	1
Q715	405 034 8907	TR DTC114-ES-TP	1	C770	403 177 3902	CERAMIC 0.01U Z 500V	1
Q716	405 034 8907	TR DTC114-ES-TP	1	C771	403 177 3902	CERAMIC 0.01U Z 500V	1
D701	407 008 0405	DIODE GMB01-BT	1	C772	620 197 8230	Capacitor,1000U 35V KV	1
D702	407 008 0405	DIODE GMB01-BT	1	C773	620 197 8230	Capacitor,1000U 35V KV	1
D703	407 008 0405	DIODE GMB01-BT	1	C774	620 197 8230	Capacitor,1000U 35V KV	1
D704	407 008 0405	DIODE GMB01-BT	1	C775	620 197 8230	Capacitor,1000U 35V KV	1
D705	407 088 6502	DIODE MPG06D-PKG3	1	C784	403 001 2309	CERAMIC 0.01U N 16V	1
D706	407 088 6502	DIODE MPG06D-PKG3	1	C785	403 089 0705	CERAMIC 100P K 50V	1
D707	407 088 6502	DIODE MPG06D-PKG3	1	C786	403 088 9105	CERAMIC 100P K 50V	1
D708	407 088 6502	DIODE MPG06D-PKG3	1	C787	403 088 9105	CERAMIC 100P K 50V	1
D709	407 049 5506	ZENER DIODE GZA10Y	1	C788	403 088 9105	CERAMIC 100P K 50V	1
D795	407 089 7409	DIODE SD104G	1	C789	403 074 2701	CERAMIC 0.047U Z 50V	1
or	407 075 4900	DIODE SD184-1	1	C790	403 072 4509	CERAMIC 270P K 50V	1
D796	407 008 0405	DIODE GMB01-BT	1	C791	403 028 0808	CERAMIC 47P J 50V	1
D797	407 008 0405	DIODE GMB01-BT	1	C792	403 028 0809	CERAMIC 47P J 50V	1
D798	407 008 0405	DIODE GMB01-BT	1	C793	403 028 0809	CERAMIC 47P J 50V	1
D799	407 088 6502	DIODE MPG06D-PKG3	1	C794	403 028 0809	CERAMIC 47P J 50V	1
C701	404 028 9302	CERAMIC 0.1U Z 50V	1	C795	403 072 4509	CERAMIC 270P K 50V	1
C702	403 177 1007	ELECT 100U M 6.3V	1	C796	403 069 5205	CERAMIC 0.01U K 50V	1
C703	404 028 9302	CERAMIC 0.1U Z 50V	1	C797	403 028 0809	CERAMIC 47P J 50V	1
C704	403 177 1007	ELECT 100U M 6.3V	1	C798	403 068 9105	CERAMIC 100P K 50V	1

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
C799	403 177 2509	ELECT 22U M 6.3V	1	CN111	620 196 2512	Connector-P.TYC-B15P-F1	1
R701	401 025 1308	CARBON 150 JA 1/8W	1	CN112	620 196 2512	Connector-P.TYC-B15P-F1	1
R702	401 025 1308	CARBON 150 JA 1/8W	1	L101	620 197 9275	Inductor 22UH K	1
R703	401 026 7408	CARBON 39K JA 1/8W	1	L102	620 197 9275	Inductor 22UH K	1
R704	401 025 7805	CARBON 2.2K JA 1/8W	1	IC101	409 180 3205	IC NJM4580D	1
R705	401 026 7408	CARBON 39K JA 1/8W	1	IC102	409 180 3205	IC NJM4580D	1
R706	401 025 7805	CARBON 2.2K JA 1/8W	1	IC104	409 109 5105	IC LC7821	1
R707	401 024 7400	CARBON 10K JA 1/8W	1	IC105	409 109 5303	IC LC7823	1
R708	401 027 8602	CARBON 8.2K JA 1/8W	1	IC106	409 180 3205	IC NJM4580D	1
R709	401 020 0801	CARBON 470 JA 1/4W	1	Q101	405 027 4909	TR 2SK386-BL	1
R710	401 025 1308	CARBON 150 JA 1/8W	1	or	405 027 5005	TR 2SK388-GR	1
R711	401 025 1308	CARBON 150 JA 1/8W	1	Q102	405 027 4909	TR 2SK388-BL	1
R712	401 024 7707	CARBON 100K JA 1/8W	1	or	405 027 5005	TR 2SK388-GR	1
R713	401 024 7400	CARBON 10K JA 1/8W	1	Q103	405 039 5802	TR 2SC3792-AA	1
R714	401 025 2305	CARBON 150K JA 1/8W	1	Q104	405 039 5802	TR 2SC3792-AA	1
R716	401 025 8703	CARBON 220K JA 1/8W	1	Q105	405 039 5802	TR 2SC3792-AA	1
R717	401 024 7707	CARBON 100K JA 1/8W	1	Q106	405 039 5802	TR 2SC3792-AA	1
R718	401 024 7707	CARBON 100K JA 1/8W	1	Q107	405 039 5802	TR 2SC3792-AA	1
R719	401 026 4902	CARBON 330K JA 1/8W	1	Q108	405 039 5802	TR 2SC3792-AA	1
R720	401 026 4902	CARBON 330K JA 1/8W	1	Q109	405 004 3901	TR 2SA908-E-NP-AA	1
R721	401 026 4308	CARBON 3.3K JA 1/8W	1	or	405 004 4502	TR 2SA908-F-NP-AA	1
R722	401 018 3807	CARBON 3.3K JA 1/4W	1	Q110	405 034 8907	TR DTC114-ES-TP	1
R723	401 026 4605	CARBON 33K JA 1/8W	1	C101	403 073 7004	CERAMIC 470P K 50V	1
R724	401 026 4605	CARBON 33K JA 1/8W	1	C102	403 073 7004	CERAMIC 470P K 50V	1
R725	401 026 7002	CARBON 3.9K JA 1/8W	1	C103	405 066 7809	POLYESTER 1000P J 50V	1
R726	401 026 7002	CARBON 3.9K JA 1/8W	1	C104	403 056 7809	POLYESTER 1000P J 50V	1
R727	401 027 9302	CARBON 820K JA 1/8W	1	C105	403 177 2301	POLYPRO 0.018U J 50V	1
R728	401 027 9302	CARBON 820K JA 1/8W	1	C106	403 177 2301	POLYPRO 0.018U J 50V	1
R729	401 025 1605	CARBON 1.5K JA 1/8W	1	C107	403 177 2400	POLYPRO 4700P J 50V	1
R730	401 025 1605	CARBON 1.5K JA 1/8W	1	C108	403 177 2400	POLYPRO 4700P J 50V	1
R731	401 027 0309	CARBON 47K JA 1/8W	1	C109	620 197 0739	Capacitor,2200U 6.3V KV	1
R732	401 027 0309	CARBON 47K JA 1/8W	1	C110	620 197 0739	Capacitor,2200U 6.3V KV	1
R733	401 025 7805	CARBON 2.2K JA 1/8W	1	C111	403 177 1106	ELECT 10U M 16V	1
R734	401 025 7805	CARBON 2.2K JA 1/8W	1	C112	403 177 1106	ELECT 10U M 16V	1
R735	401 025 1605	CARBON 1.5K JA 1/8W	1	C113	404 028 9302	CERAMIC 0.1U Z 50V	1
R736	401 025 1605	CARBON 1.5K JA 1/8W	1	C114	404 028 9302	CERAMIC 0.1U Z 50V	1
R737	401 025 1605	CARBON 1.5K JA 1/8W	1	C115	403 061 8006	POLYESTER 4700P J 50V	1
R738	401 014 4105	CARBON 1.5K JA 1/4W	1	C116	403 061 8006	POLYESTER 4700P J 50V	1
R739	401 025 1605	CARBON 1.5K JA 1/8W	1	C117	403 177 1106	ELECT 10U M 16V	1
R740	401 025 1605	CARBON 1.5K JA 1/8W	1	C118	403 177 1106	ELECT 10U M 16V	1
R741	401 020 7909	CARBON 510 JA 1/4W	1	C119	403 068 9402	CERAMIC 100P K 50V	1
R742	401 027 1306	CARBON 510 JA 1/8W	1	C120	403 068 9402	CERAMIC 100P K 50V	1
R743	401						

INPUT P.C. BOARD (BOTTOM VIEW)



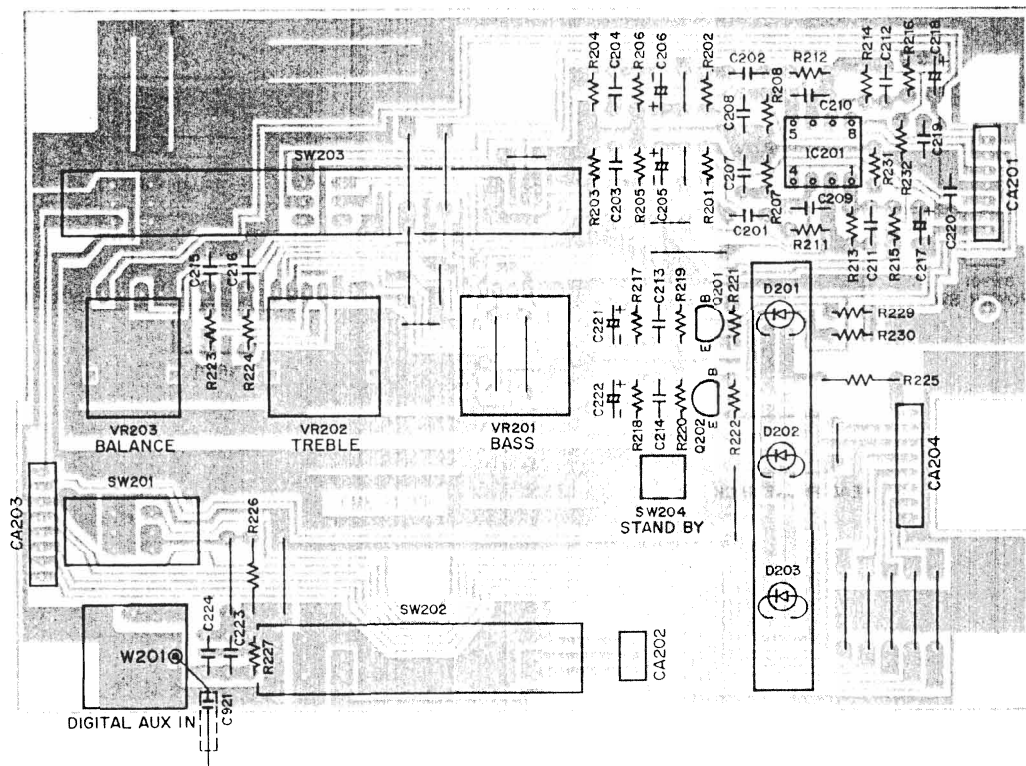
IC PIN NUMBERS DC VOLTAGES

Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC101	NJM4580	0V	8.4V	8.4V	-16.2V	8.4V	8.4V	0V	15.2V	-	-	-	-	-	-	-	-	-	-	-	-
IC102	NJM4580	0V	0V	0V	-14.7V	0V	0V	0V	13.7V	-	-	-	-	-	-	-	-	-	-	-	-
IC103	LC7821	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	-18.2V	0V	0V	0V	0V	0V	16.9V	17.2V	0V
IC104	LC7821	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
IC105	LC7823	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V
IC106	NJM4580	0V	0V	0V	-14.7V	0V	0V	0V	13.7V	-	-	-	-	-	-	-	-	-	-	-	-

TRANSISTOR DC VOLTAGES

Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q103	2SC3792	-1.7V	0V	0V	Q107	2SC3792	0V	0V	0V
Q104	2SC3792	-1.7V	0V	0V	Q108	2SC3792	0V	0V	0V
Q105	2SC3792	0V	0V	0V	Q109	2SA608	5.7V	-1.7V	4.2V
Q106	2SC3792	0V	0V	0V	Q110	2SC536	0.4V	16.9V	0V
					Q101	2SK389	0V	8.4V	0.3V
					Q102	2SK389	0V	8.4V	0.3V

TONE P.C.BOARD (BOTTOM VIEW)



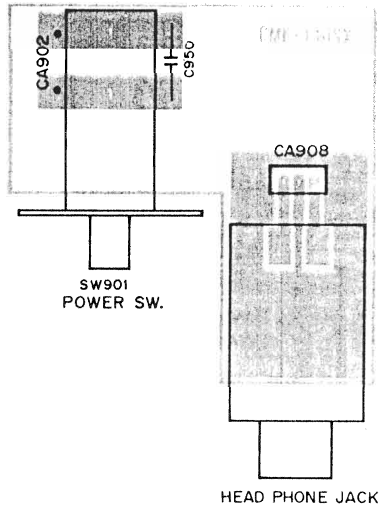
IC PIN NUMBERS DC VOLTAGES

Ref. No.	DEVICE	1	2	3	4	5	6	7	8
IC201	NJM4580	0V	0V	0V	-15.7V	0V	0V	0V	14.8V

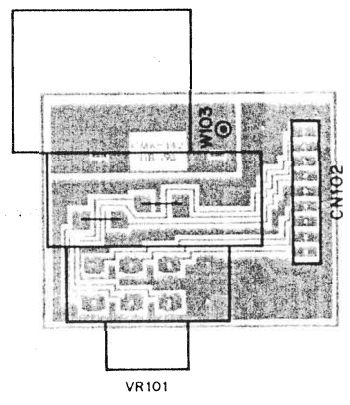
TRANSISTOR DC VOLTAGES

Ref. No.	DEVICE	B	C	E
Q201	2SC1570	-0.6V	12.7V	-1.2V
Q202	2SC1570	-0.6V	12.7V	-1.2V

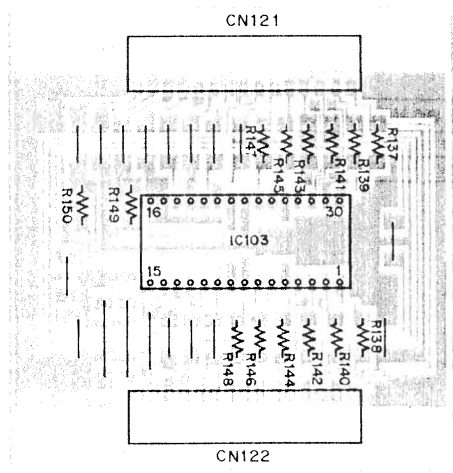
**POWER SW. P.C.BOARD
(BOTTOM VIEW)**



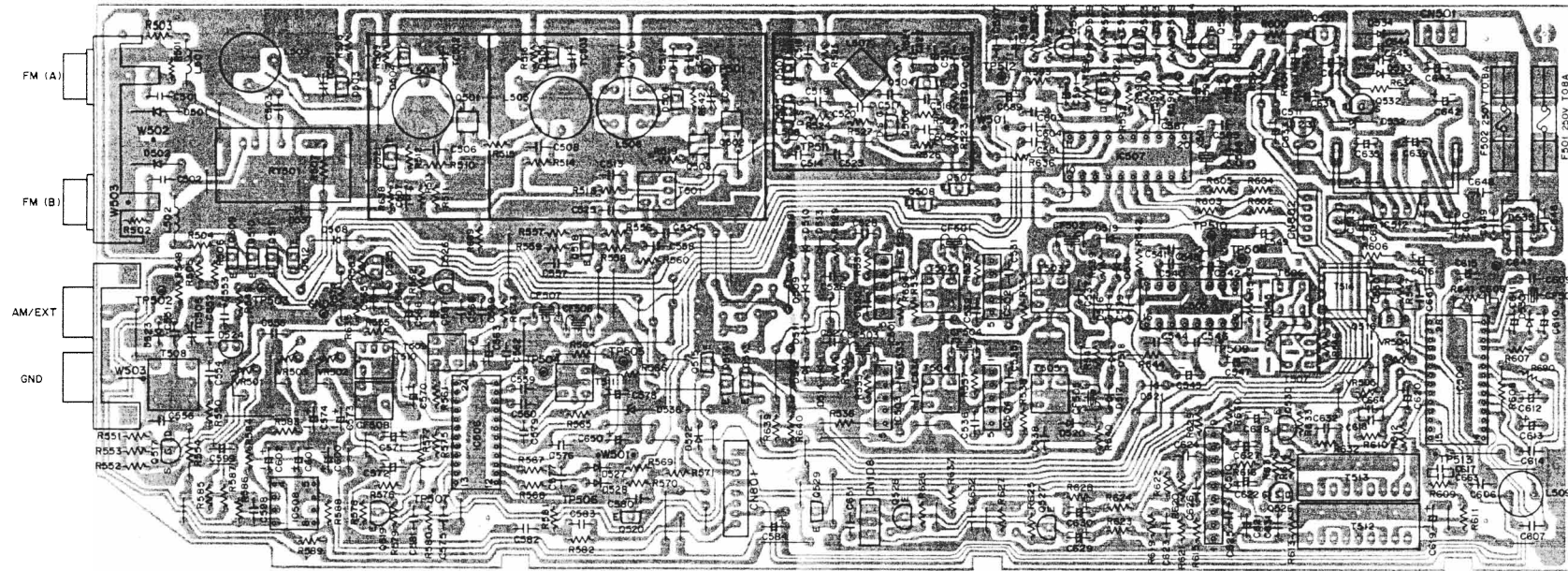
**MAIN VOLUME P.C.BOARD
(BOTTOM VIEW)**



**INPUT SELECTOR P.C.BOARD
(BOTTOM VIEW)**



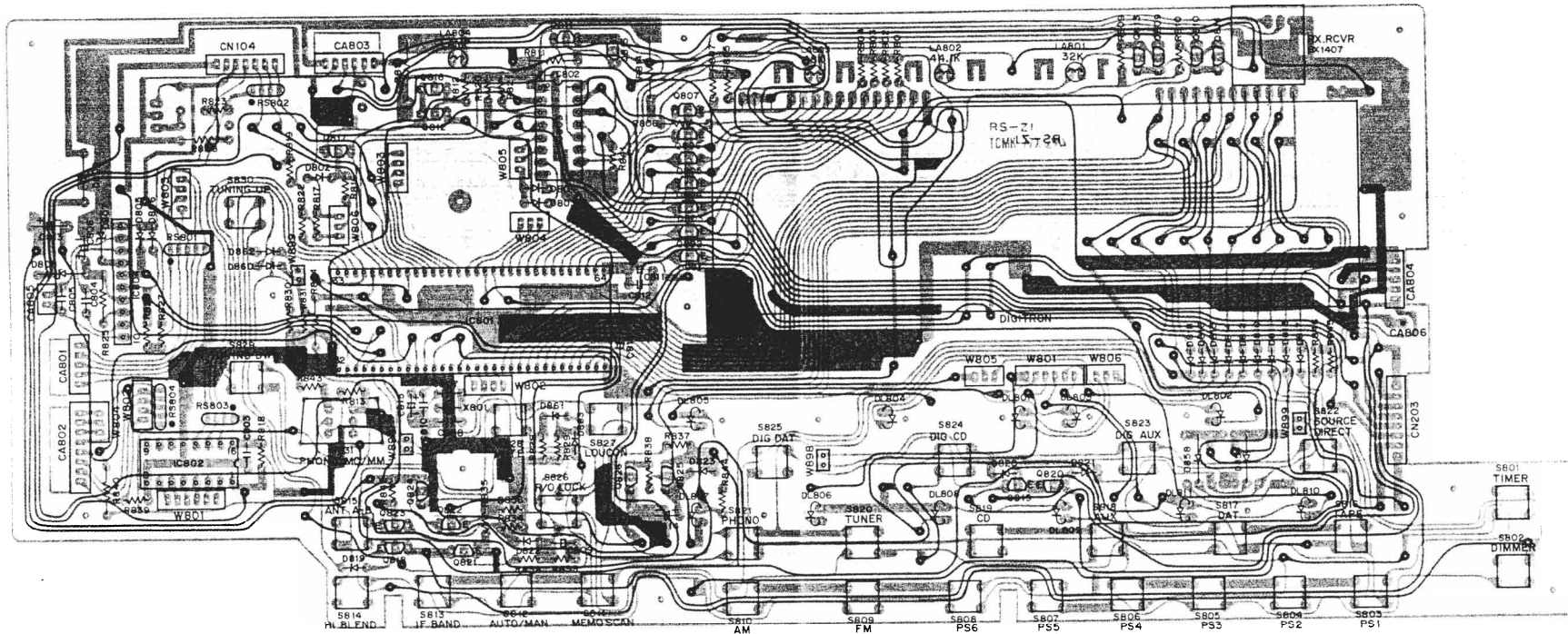
TUNER PRINTED CIRCUIT BOARD (BOTTOM VIEW)



IC PIN NUMBERS DC VOLTAGES																							
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
IC501	TA7060AP	1.4V	1.4V	0V	12.4V	12.4V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
IC502	TA7060AP	1.4V	1.4V	0V	12.4V	12.4V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
IC503	TA7060AP	1.4V	1.4V	0V	12.4V	12.4V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
IC504	TA7060AP	1.4V	1.4V	0V	12.4V	12.4V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
IC505	LA1235	2.9V	2.9V	2.9V	0V	0V	6.2V	6.2V	6.2V	6.2V	6.2V	13.0V	--	--	0V	--	--	--	--	--	--	--	
IC506	LA1266	2.6V	2.6V	2.6V	0V	9.7V	9.6V	9.6V	5.0V	4.0V	2.5V	2.8V	3.2V	9.6V	1.3V	1.5V	0V	0V	1.0V	1.5V	9.5V	--	
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	--	--
IC507	LM7000	3.6V	3.6V	3.6V	2.3V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1.5V	0V	0V	0V	5.4V	--	--	15.0V	9.5V	--	--	--	--	5.2V	5.2V	--	--	--	0V	1.5V	--	--
IC508	LA6458	-9.0V	0.4V	0V	-11.0V	12.3V	12.3V	--	12.3V	--	--	--	--	--	--	--	--	--	--	--	--	--	--
IC509	LA3450	5.5V	3.3V	2.6V	2.6V	2.6V	2.6V	2.6V	2.6V	2.6V	2.6V	0V	5.6V	4.7V	0.6V	0V	--	--	5.5V	5.5V	5.5V	5.5V	--
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	--	--
IC510	LA6458	5.5V	5.5V	5.5V	5.5V	0V	9.7V	5.5V	13.8V	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0V	0V	0V	-13.0V	0V	0V	0V	13.0V	--	--	--	--	--	--	--	--	--	--	--	--	--
IC511	NJM78L05	5.6V	0V	15.0V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
IC512	NJM78M15	15.0V	0V	21.0V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
IC513	NJM79L15	0V	-23.0V	-15.0V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

TRANSISTOR DC VOLTAGES														
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q504	2SC2999	7.1V	14.4V	8.5V	Q515	2SC3399	-30.0V	0V	0V	Q531	2SC2274	27.5V	40.0V	27.5V
Q507	2SA1345	15.0V	15.0V	15.0V	Q518	2SC2839	2.6V	13.3V	1.7V					
Q508	2SA1345	9.5V	0V	9.5V	Q519	2SA608	0V	1.5V	1.5V			G	D	8
Q509	2SA1345	-0.8V	-11.0V	15.0V	Q520	2SC3399	0V	15.0V	0V	Q505	2SK241	0V	15.0V	0V
Q510	2SA1345	0V	-0.8V	15.0V	Q527	2SC3792	-14.9V	0V	0V	Q506	2SK241	0V	13.4V	0V
Q511	2SA1345	0V	12.0V	15.0V	Q528	2SC3792	-14.9V	0V	0V	Q516	2SK583	-0.4V	0V	5.5V
Q512	2SC3399	4.8V	0V	0V	Q529	2SA1345	--	-14.9V	5.6V	Q517	2SK248	4.0V	13.0V	6.5V
Q513	2SA1345	15.0V	15.0V	15.0V	Q530	2SA1345	4.0V	-7.4V	5.6V	Q532	2SK248	27.5V	27.5V	40.0V
Q514	2SA1345	-30.0V	-0.4V	15.0V										

MICRO COMPUTER PRINTED CIRCUIT BOARD (BOTTOM VIEW)



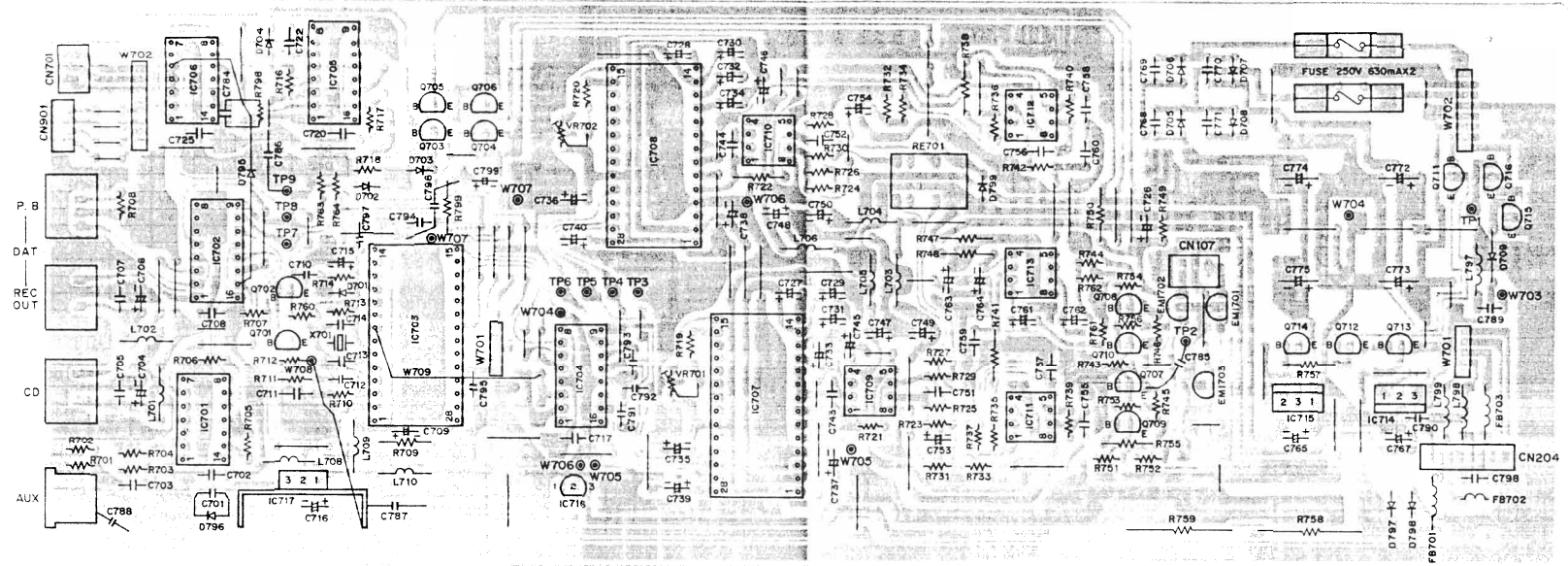
IC PIN NUMBERS DC VOLTAGES

Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
IC801	TMP47P870N	-34.0V	0V	0V	-1.0V	-13.0V	0V	-34.0V	-1.8V	-34.0V	-21.0V	-10.0V	0V	-34.0V	0.2V	5.3V	5.3V	5.3V	0V	2.2V	2.2V	
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
		4.7V	5.6V	5.2V	0V	8V	0V	0V	5.4V	5.6V	0V	0V	0V	5.6V	5.6V	0V	3.8V	3.7V	0V	0V		
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
		5.5V	0V	0V	0V	0V	0V	4.7V	-34.0V	-7.0V	4.7V	4.7V	-32.0V	-32.0V	-32.0V	-32.0V	-32.0V	-32.0V	-32.0V	-32.0V		
		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
		-32.0V	-32.0V	-32.0V	4.8V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		IC802	SN74LS145N	0V	1.3V	1.3V	1.3V	1.3V	0.3V	0V	0V	0V	0V	0V	5.6V	5.6V	0V	5.6V	-	-	-	-
		IC803	SN74LS139N	3.6V	0V	0V	4.1V	4.1V	5.0V	4.1V	0V	5.0V	5.0V	5.0V	5.0V	0V	3.7V	5.4V	5.6V	-	-	-
		IC804	LB1641	0V	0.5V	0.7V	0.45V	0V	0V	16.5V	5.0V	0.7V	0.5V	-	-	-	-	-	-	-	-	-

TRANSISTOR DC VOLTAGES

Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q801	2SC2021	-32.0V	5.6V	-32.0V	Q811	DTC114E	4.1V	0V	0V	Q819	DTA114	5.6V	0V	3.5V
Q802	2SC2021	-32.0V	5.6V	-32.0V	Q812	DTC114E	-7.0V	0.7V	0V	Q820	DTA114	5.6V	0V	3.5V
Q803	2SC2021	-32.0V	5.6V	-32.0V	Q813	2SC2021	0V	26.0V	0V	Q821	DTA114	5.6V	0V	5.6V
Q804	2SC2021	-32.0V	5.6V	-32.0V	Q814	2SC2021	0V	26.0V	0V	Q822	2SC2021	0V	4.7V	0V
Q805	2SC2021	-32.0V	5.6V	-32.0V	Q815	2SC2021	0V	26.0V	0V	Q823	2SC2021	5.6V	4.8V	4.8V
Q806	2SC2021	-32.0V	5.6V	-32.0V	Q816	2SC2021	0.7V	0V	0V	Q824	2SA937	4.8V	0V	2.3V
Q807	2SC2021	-32.0V	5.6V	-32.0V	Q817	DTC114	3.7V	0.4V	0V	Q825	2SA937	5.6V	0V	5.4V
Q808	DTC114E	4.1V	0V	0V	Q818	DTA114	5.6V	0V	3.2V	Q826	DTC114	0V	5.6V	0V
Q810	DTC114E	4.1V	0V	0V										

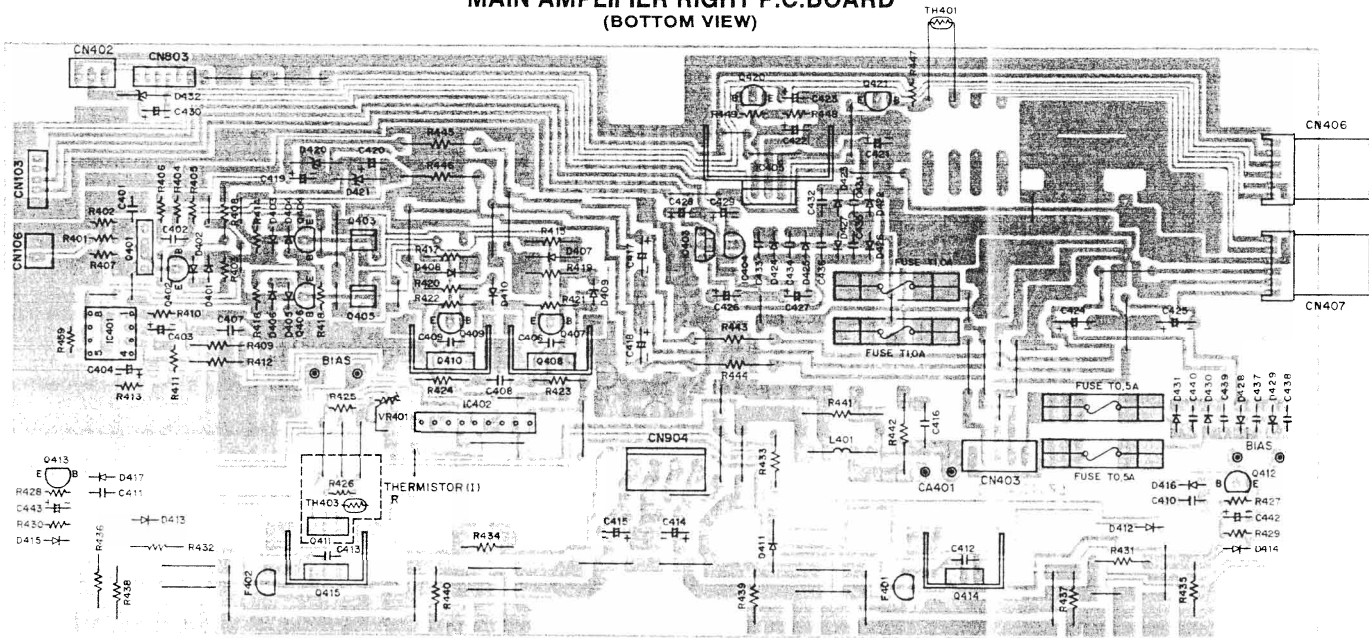
DAC PRINTED CIRCUIT BOARD (BOTTOM VIEW)



IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC701	MC74HC04	2.12V	2.12V	2.12V	2.5V	2.5V	0.42V	0V	0.23V	2.93V	2.93V	2.1V	2.1V	2.1V	5.0V	-	-	-	-	-	-
IC702	MC74HC4053	0.33V	0.35V	0.34V	0.35V	0.42V	0V	0V	0V	3.85V	0.11V	5.0V	0.23V	0.42V	0.35V	5.0V	-	-	-	-	-
IC703	YM3623F	5.1V	0V	5.1V	0V	2.3V	2.3V	6.1V	2.12V	1.22V	5.1V	5.1V	1.97V	4.92V	0V	2.54V	0V	0V	2.5V	1.27V	1.27V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
IC704	YM3434	4.84V	5.1V	0V	0.1V	0V	5.1V	0V	0.35V	-	-	-	-	-	-	-	-	-	-	-	-
IC705	UPD74HC123	0V	0V	5.0V	5.0V	0V	0V	5.0V	0V	0V	0V	4.8V	4.8V	0V	5.0V	5.0V	5.0V	-	-	-	-
IC706	UPD74HC00	5.0V	0V	5.0V	5.0V	5.0V	0V	0V	0V	4.8V	4.8V	0V	5.0V	5.0V	5.0V	-	-	-	-	-	-
IC707,708	PCM58P	2.4V	5.0V	-6.2V	2.95V	0V	0V	0V	-11.7V	0V	0V	-	-	-	-	-	-	-	-	-	-
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
IC709,710	NJM5532D	0V	0V	0V	-11.7V	0V	0V	0V	11.8V	-	-	-	-	-	-	-	-	-	-	-	-
IC711,712	NJM532D	0V	-0.18V	0V	-11.7V	0V	-0.16V	0V	11.8V	-	-	-	-	-	-	-	-	-	-	-	-
IC713	NJM4380D	10.3V	0V	0V	0V	0V	0V	0V	0V	-	-	-	-	-	-	-	-	-	-	-	-
IC714	NJM79M12	17.0V	0V	11.8V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IC715	NJM79M12	0V	-11.7V	-20.3V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IC716	NJM79M05	11.5V	0V	5.0V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IC717	NJM79M05	5.1V	0V	11.5V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TRANSISTOR DC VOLTAGES															
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	
Q701	DTC114	-	-	-	Q707	2SC3792	0.7V	0V	0V	Q712	DTA114	0V	16.6V	16.5V	
Q702	DTC114	-	-	-	Q708	2SC3792	0.7V	0V	0V	Q713	2SB560	16.5V	17.0V	17.6V	
Q703	DTC114	3.6V	0V	0V	Q709	2SC3792	0.65V	0V	0V	Q714	2SD438	-19.8V	-20.3V	-20.5V	
Q704	DTC114	0V	11.8V	0V	Q710	2SC3792	0.65V	0V	0V	Q715	DTC114	7.5V	0V	0V	
Q705	DTA114	0V	11.8V	11.8V	Q711	DTC114	2.6V	0V	0V	Q716	DTC114	0V	3.6V	0V	
Q706	DTA114	11.8V	-11.7V	11.8V											

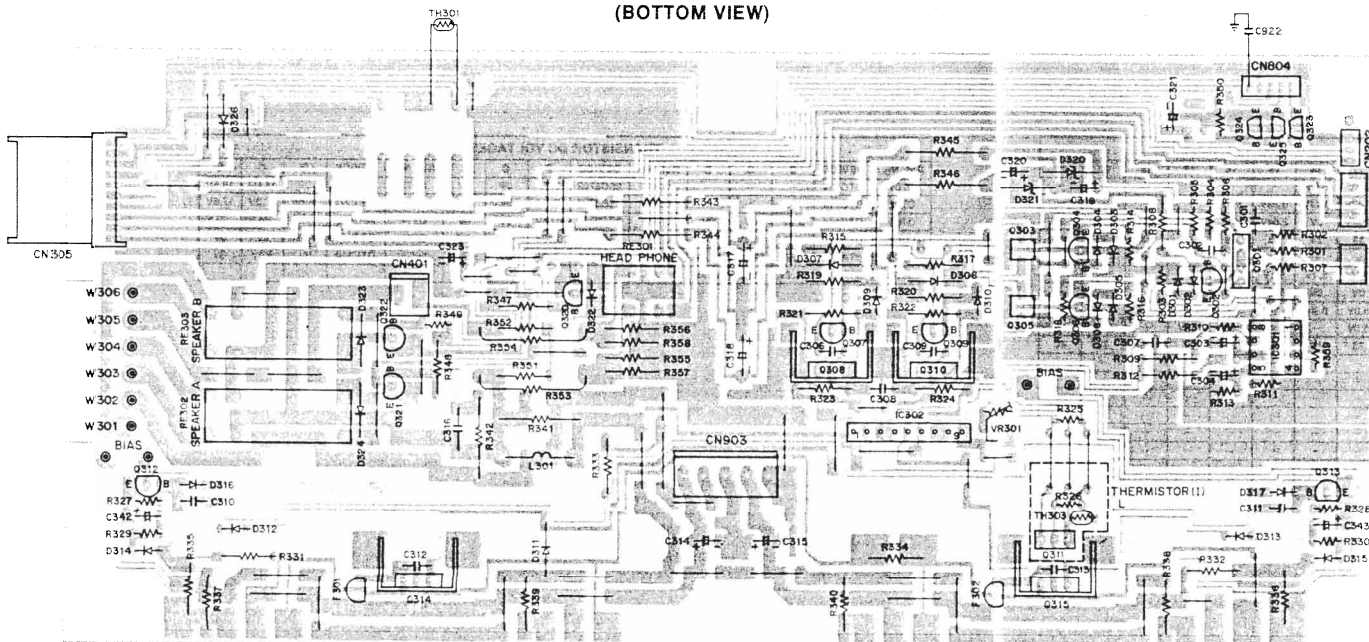
MAIN AMPLIFIER RIGHT P.C. BOARD (BOTTOM VIEW)



TRANSISTOR DC VOLTAGES									
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q402	2SC1570	-17.1V	0.3V	-17.7V	Q414	2SC3117	1.1V	69.3V	0.6V
Q403	2SC3067	9.9V	66.4V	9.4V	Q415	2SA1249	-1.1V	-69.3V	-0.6V
Q404	2SC1570	-17.1V	9.4V	-17.7V	Q416	2SC2922	0.6V	69.3V	0V
Q405	2SA1240	-	-	-	Q417	2SC2922	0.6V	69.3V	0V
Q406	2SA929	-	-	-	Q418	2SA1216	-0.6V	-69.3V	0V
Q407	2SA929	66.3V	62.6V	66.8V	Q419	2SA1216	-0.6V	-69.3V	0V
Q408	2SA1209	62.0V	1.3V	62.6V	Q420	2SA606	5.3V	5.7V	6.1V
Q409	2SC1570	-	-	-	Q421	2SC536	0V	5.7V	0V
Q410	2SC2911	-	-	-					
Q411	2SD1682	0.1V	0.4V	0V			G	D	S
Q412	2SC3330	0V	1.0V	0V	Q401	2SK389	0V	9.9V	0.3V
Q413	2SA1317	0V	-1.0V	0V					

IC PIN NUMBERS DC VOLTAGES											
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10
IC401	LA6458	0V	0V	0V	-18.3V	0V	0V	0V	18.5V	-	-
IC402	LA2500	1.1V	0.4V	1.0V	1.0V	-1.1V	0V	-0.5V	-0.5V	-0.4V	-
IC403	NJM78L18A	17.2V	0V	27.6V	-	-	-	-	-	-	-
IC404	NJM78L18A	0V	-28.6V	-18.2V	-	-	-	-	-	-	-
IC405	NJM79M06	6.1V	0V	26.9V	-	-	-	-	-	-	-

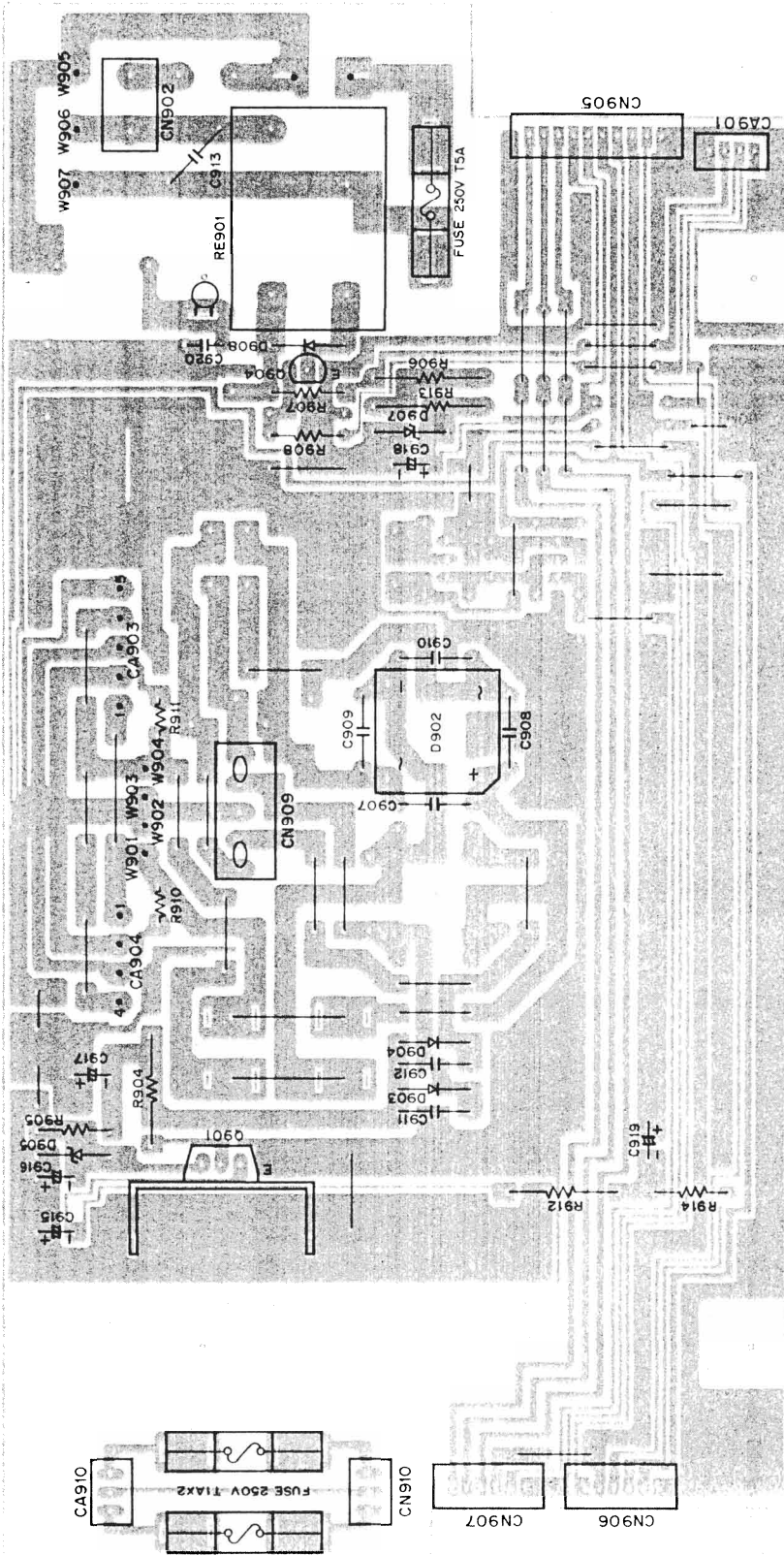
MAIN AMPLIFIER LEFT P.C. BOARD (BOTTOM VIEW)



TRANSISTOR DC VOLTAGES									
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q302	2SC1570	-17.1V	0.3V	-17.7V	Q316	2SC2922	0.6V	69.3V	0V
Q303	2SC3067	9.9V	66.4V	9.4V	Q317	2SC2922	0.6V	69.3V	0V
Q304	2SC1570	1.0V	9.4V	-17.7V	Q318	2SA1216	-0.6V	-69.3V	0V
Q305	2SA1240	9.9V	-66.4V	10.5V	Q319	2SA1216	-0.6V	-69.3V	0V
Q306	2SA929	17.3V	10.5V	17.9V	Q320	2SC536	0.6V	0V	0V
Q307	2SA929	66.3V	62.0V	66.8V	Q321	2SC536	0.6V	0V	0V
Q308	2SA1209	62.0V	1.3V	62.0V	Q322	2SC536	0V	26.8V	0V
Q309	2SC1570	-66.3V	-62.6V	-66.8V	Q323	DTA114	5.7V	0V	5.7V
Q310	2SC2911	-62.0V	-1.1V	62.6V	Q324	2SC536	0V	5.7V	0V
Q311	2SD1682	0.1V	0.4V	-0.4V	Q325	2SC536	0V	5.7V	0V
Q312	2SC3330	0V	1.0V	0V					
Q313	2SA1317	0V	-1.0V	0V			G	D	S
Q314	2SC3117	1.3V	69.3V	0.6V	Q301	2SK389	0V	9.9V	0.3V
Q315	2SA1249	-1.1V	-69.3V	-0.6V					

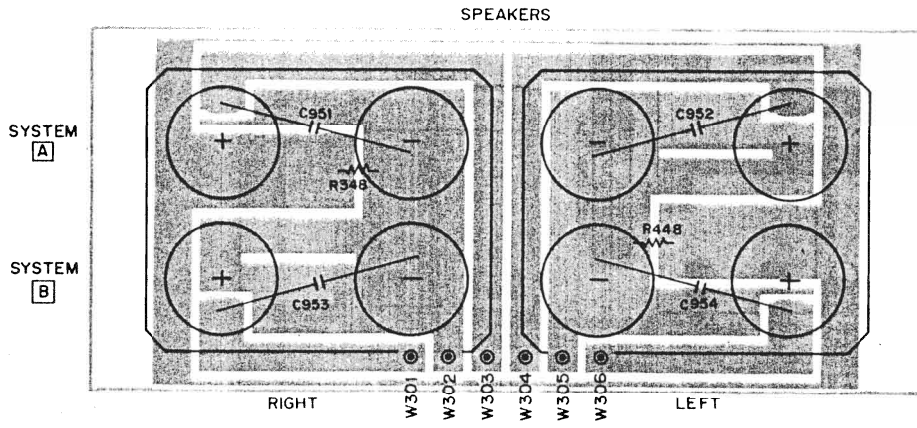
IC PIN NUMBERS DC VOLTAGES											
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10
IC301	LA6458	0V	0V	0V	-18.3V	0V	0V	0V	18.5V	-	-
IC302	LA2500	1.1V	0.4V	1.0V	1.0V	-1.1V	0V	-0.5V	-0.5V	-0.4V	-

POWER SUPPLY P.C.BOARD (BOTTOM VIEW)



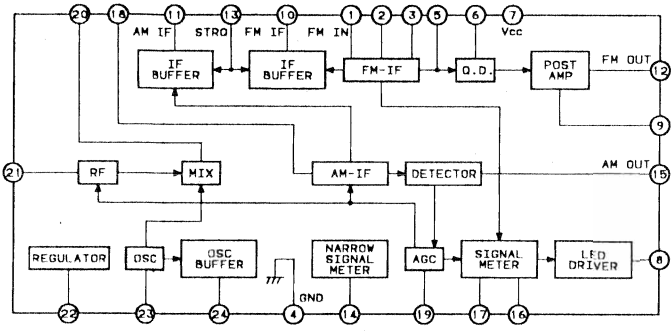
TRANSISTOR DC VOLTAGES									
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q901	2SC1274	-36.0V	-52.4V	-35.4V	Q903	2SC536	0V	0.7V	0V
Q902	2SC536	0.7V	0.1V	0V	Q904	2SC2274	0.7V	0.1V	0V

SPEAKER TERMINAL P.C.BOARD (BOTTOM VIEW)

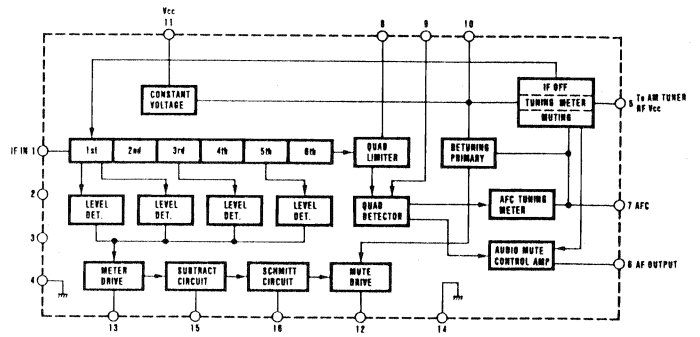


IC BLOCK DIAGRAM

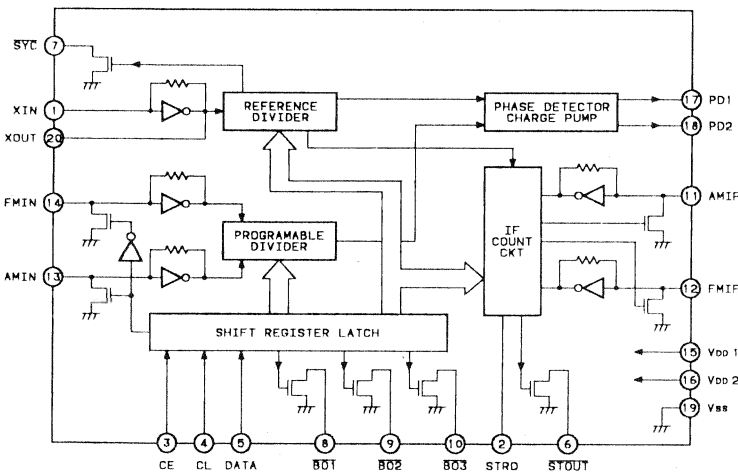
LA1266 BLOCK DIAGRAM



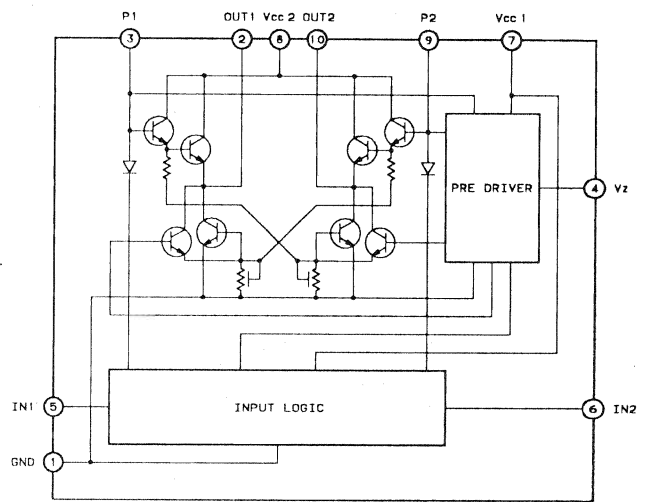
LA1235 BLOCK DIAGRAM



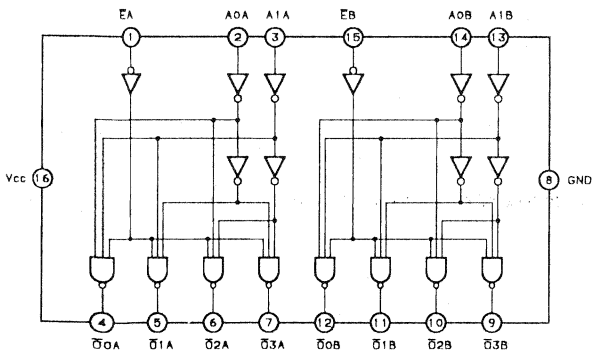
LM7000 BLOCK DIAGRAM



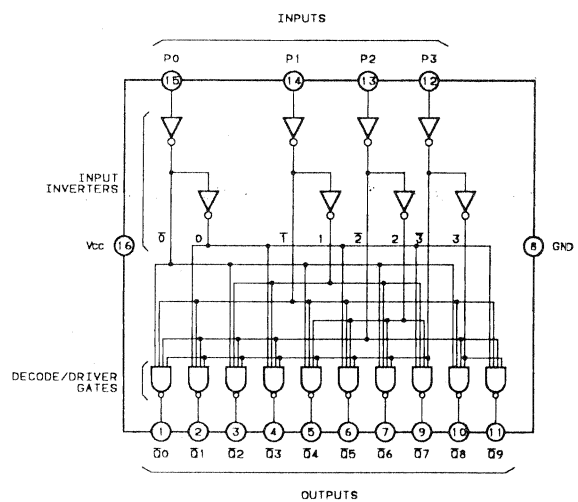
LB1641 BLOCK DIAGRAM



SN74LS139N BLOCK DIAGRAM

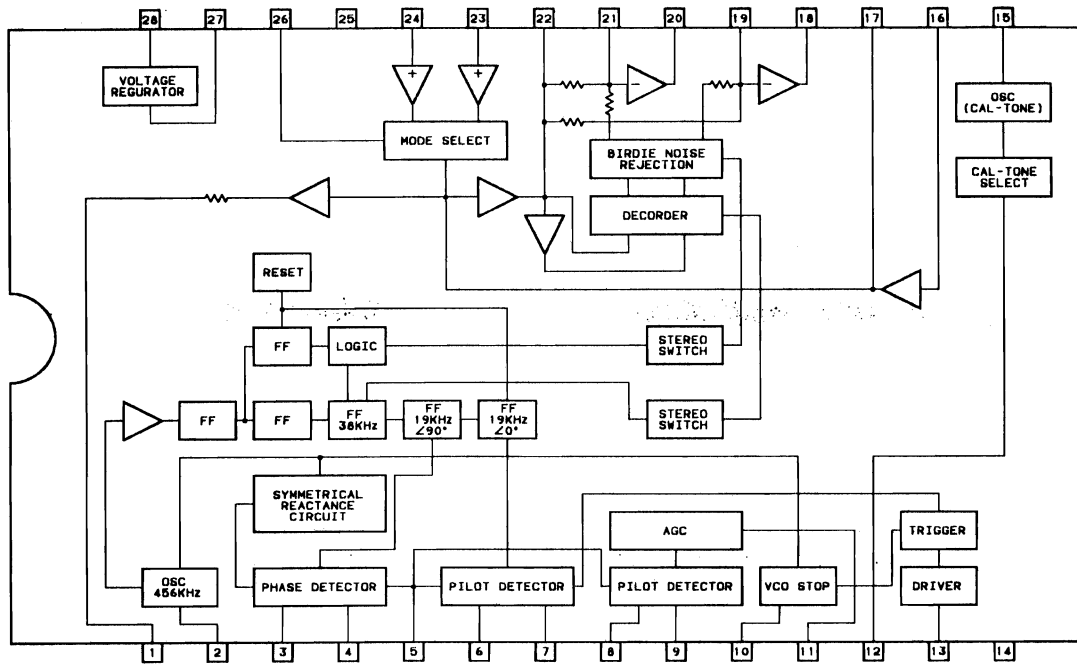


SN74LS145N BLOCK DIAGRAM

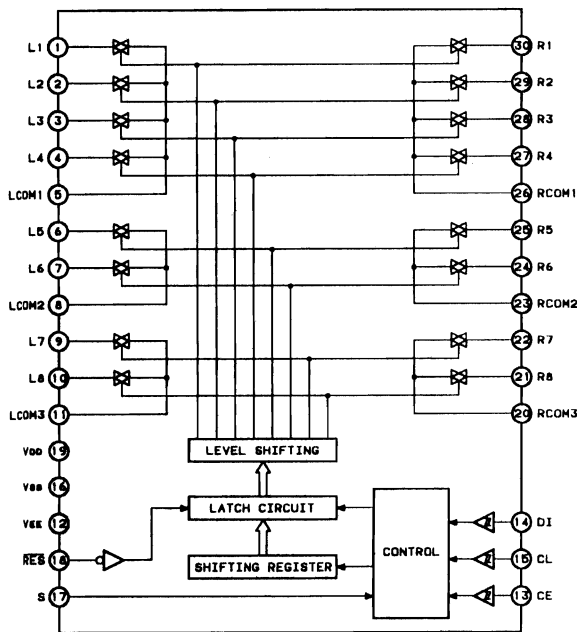


IC BLOCK DIAGRAM (Continued)

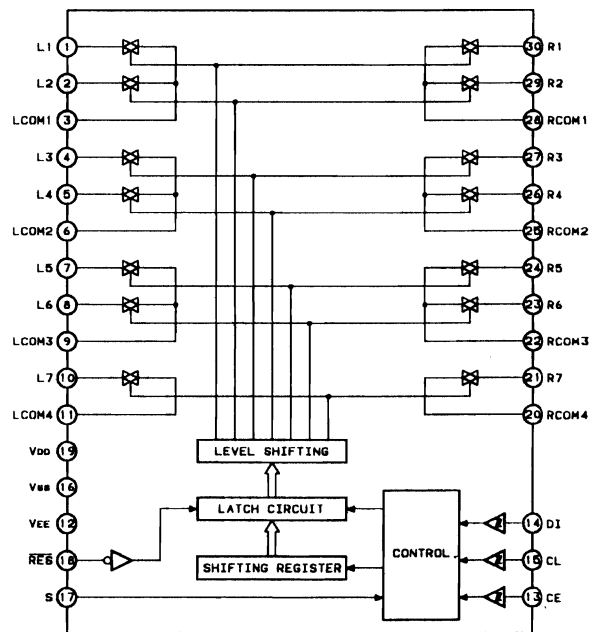
LA3450 BLOCK DIAGRAM



LC7821 BLOCK DIAGRAM

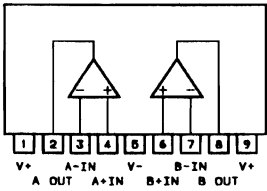


LC7823 BLOCK DIAGRAM

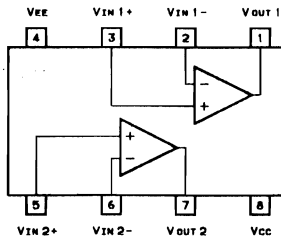


IC BLOCK DIAGRAM (Continued)

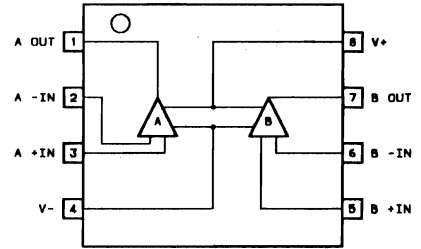
LA6458SS BLOCK DIAGRAM



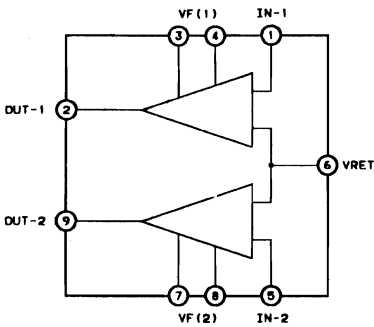
**LA6458D BLOCK DIAGRAM
LA6458DS BLOCK DIAGRAM**



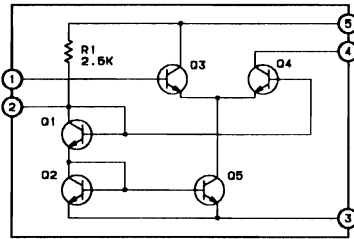
**NJM4580D BLOCK DIAGRAM
NJM5532D BLOCK DIAGRAM**



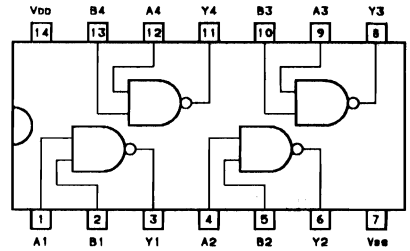
LA2500 BLOCK DIAGRAM



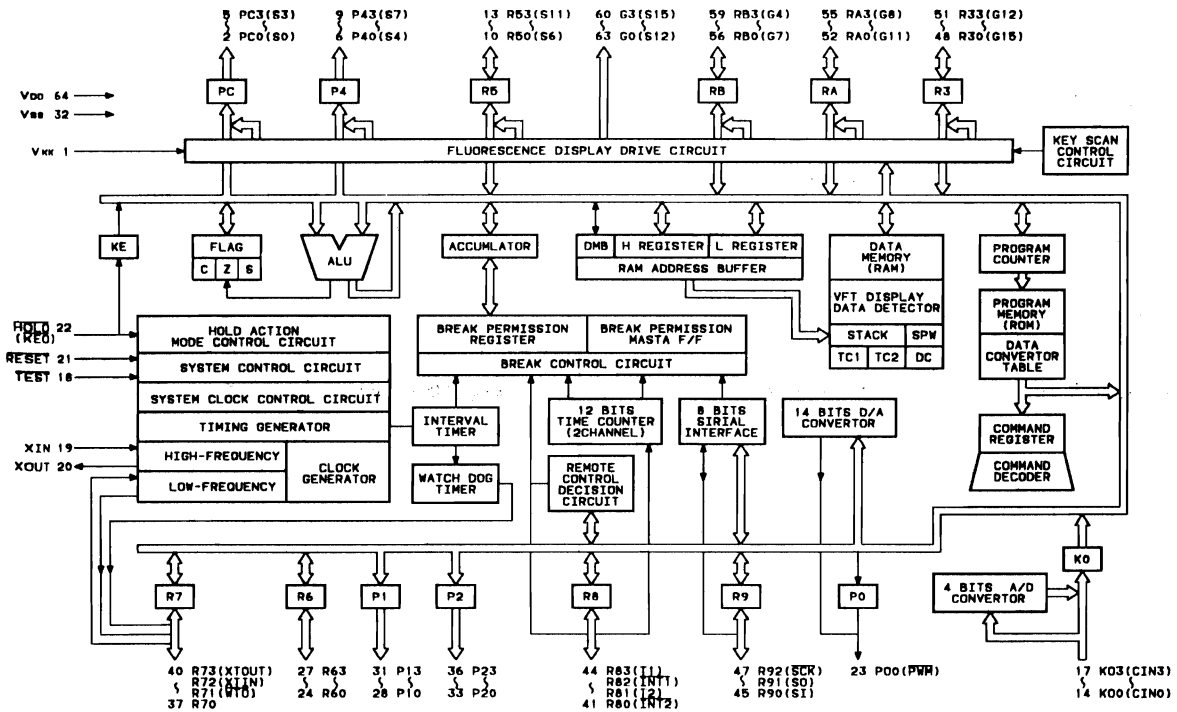
TA7060AP BLOCK DIAGRAM



UPD74HC00C BLOCK DIAGRAM

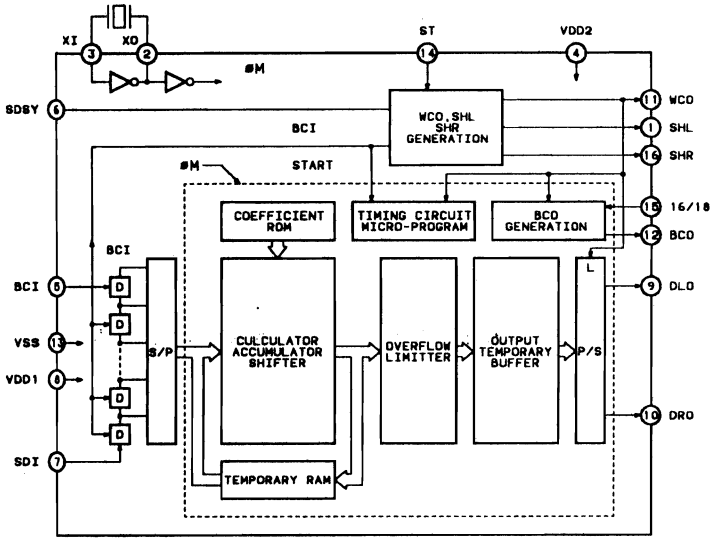


TMP47P870N-RS-Z1 BLOCK DIAGRAM

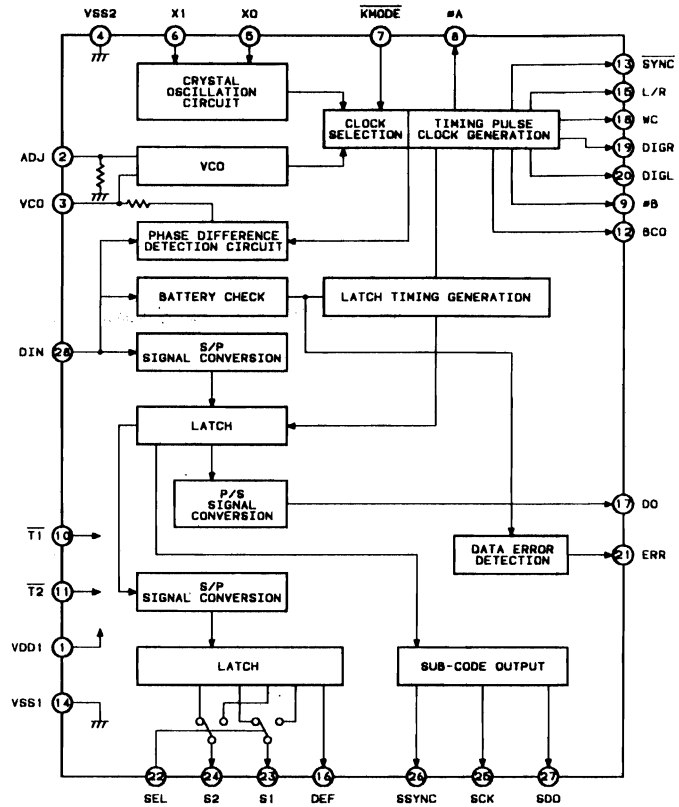


IC BLOCK DIAGRAM (Continued)

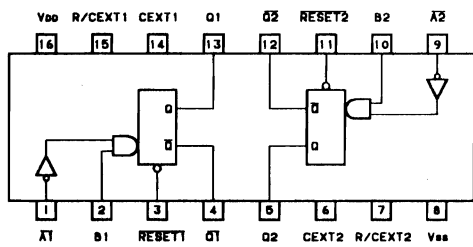
YM3434 BLOCK DIAGRAM



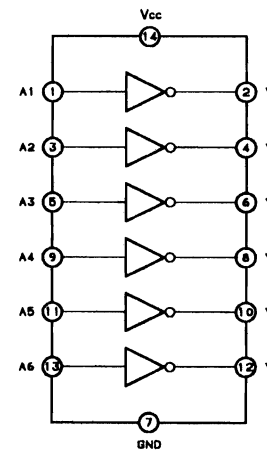
YM3623B BLOCK DIAGRAM



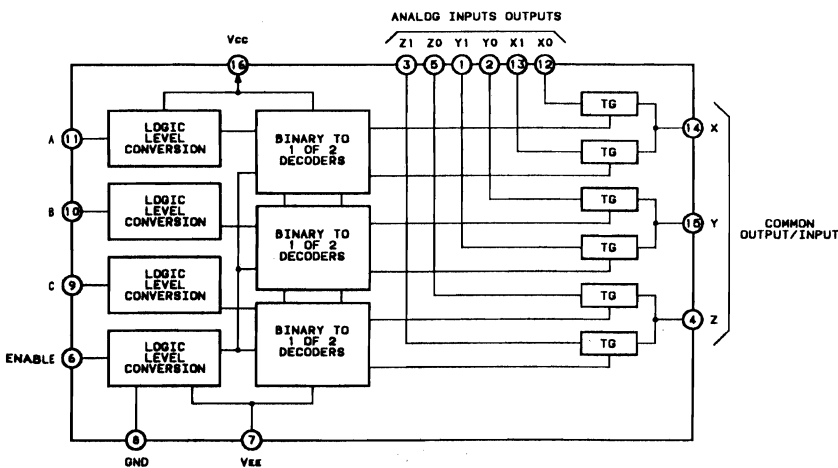
UPD74HC123AC BLOCK DIAGRAM



MC74HC04N BLOCK DIAGRAM

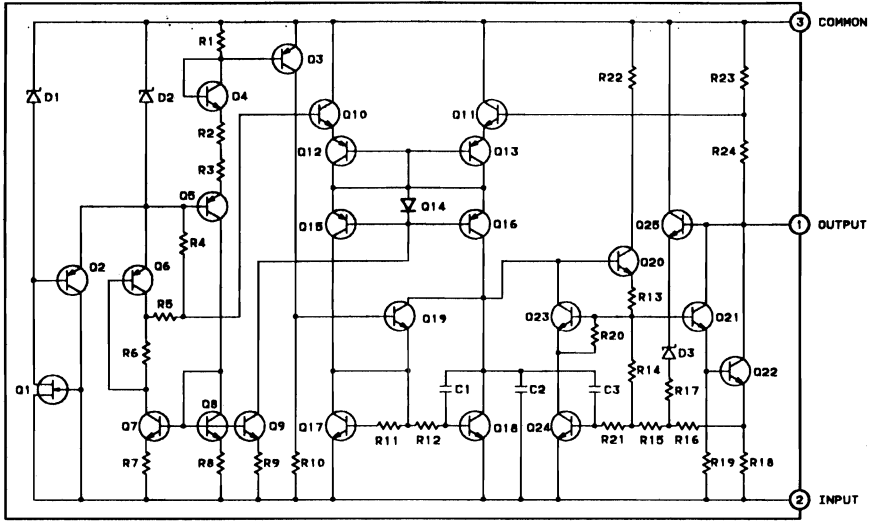


MC74HC4053N BLOCK DIAGRAM

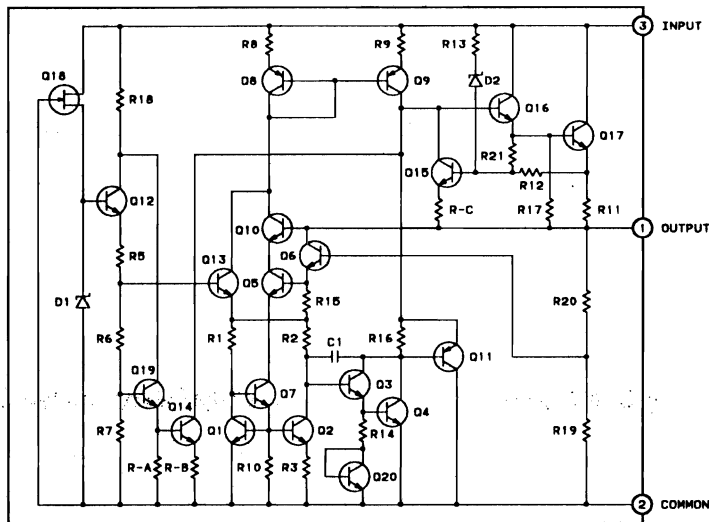


IC BLOCK DIAGRAM (Continued)

**NJM79L15A BLOCK DIAGRAM
NJM79L18A BLOCK DIAGRAM**

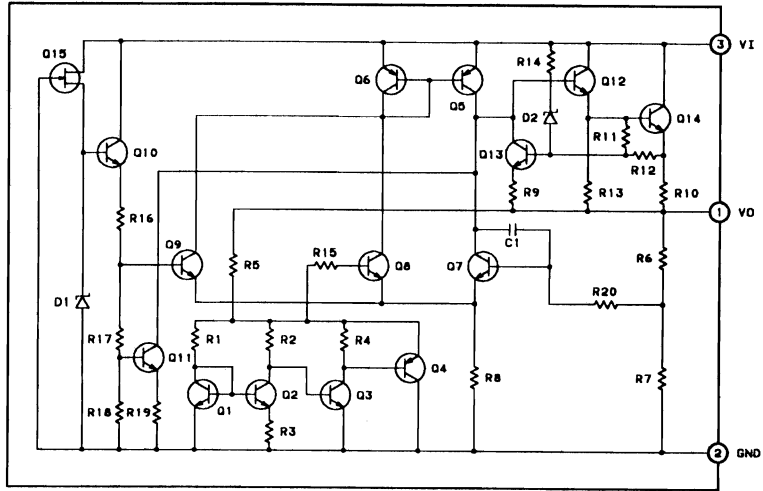


**NJM78M05FA BLOCK DIAGRAM
NJM78M06FA BLOCK DIAGRAM
NJM78M12FA BLOCK DIAGRAM
NJM78M15FA BLOCK DIAGRAM
NJM78M18FA BLOCK DIAGRAM**

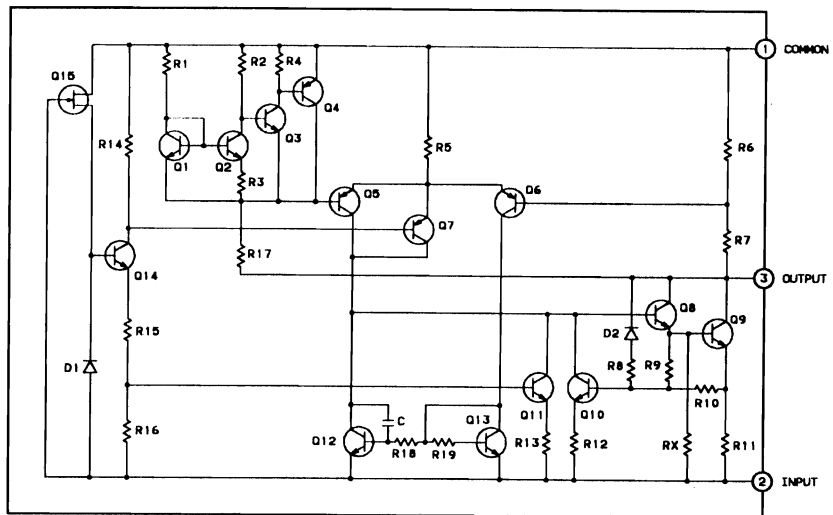


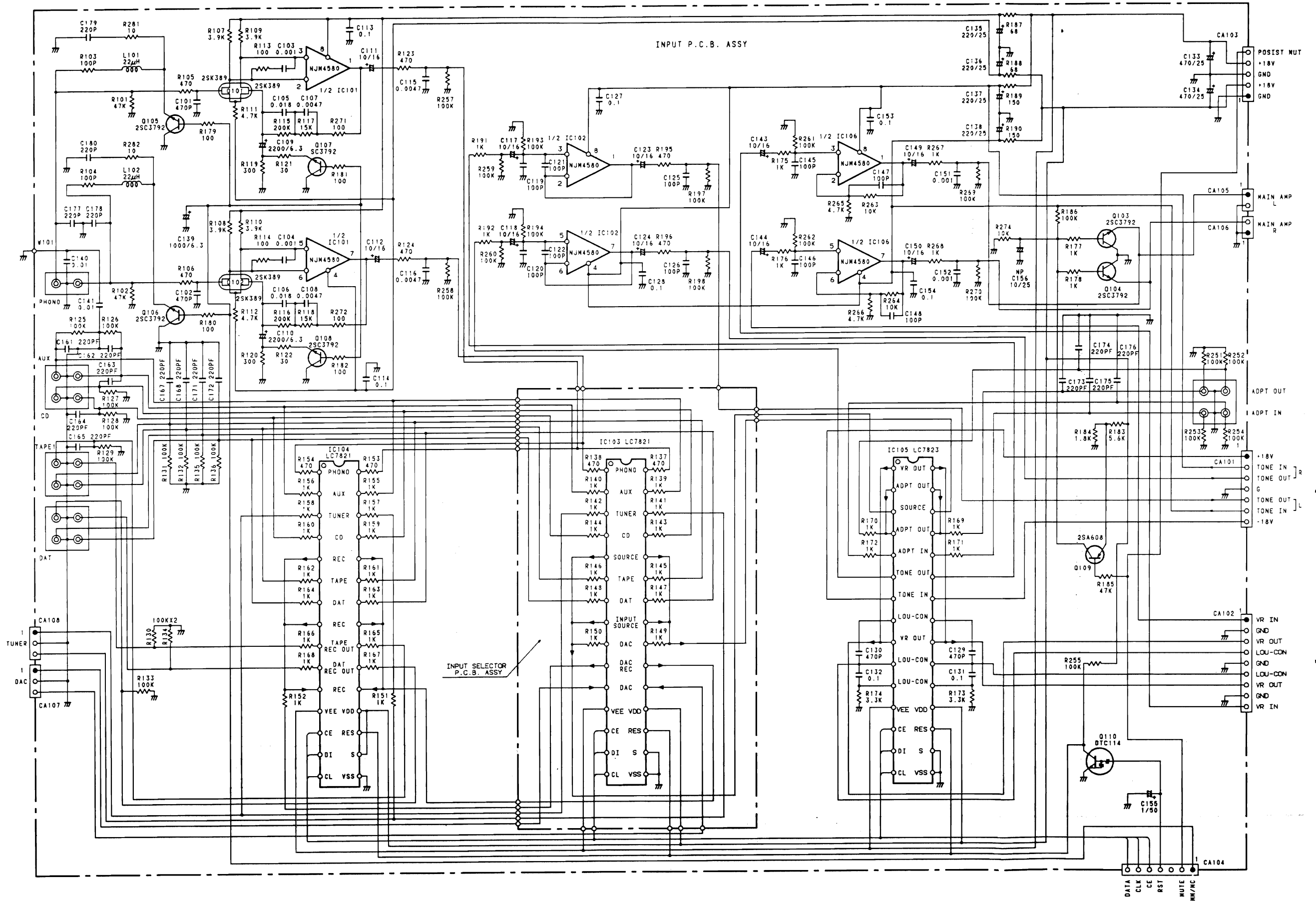
IC BLOCK DIAGRAM (Continued)

NJM78L05A BLOCK DIAGRAM



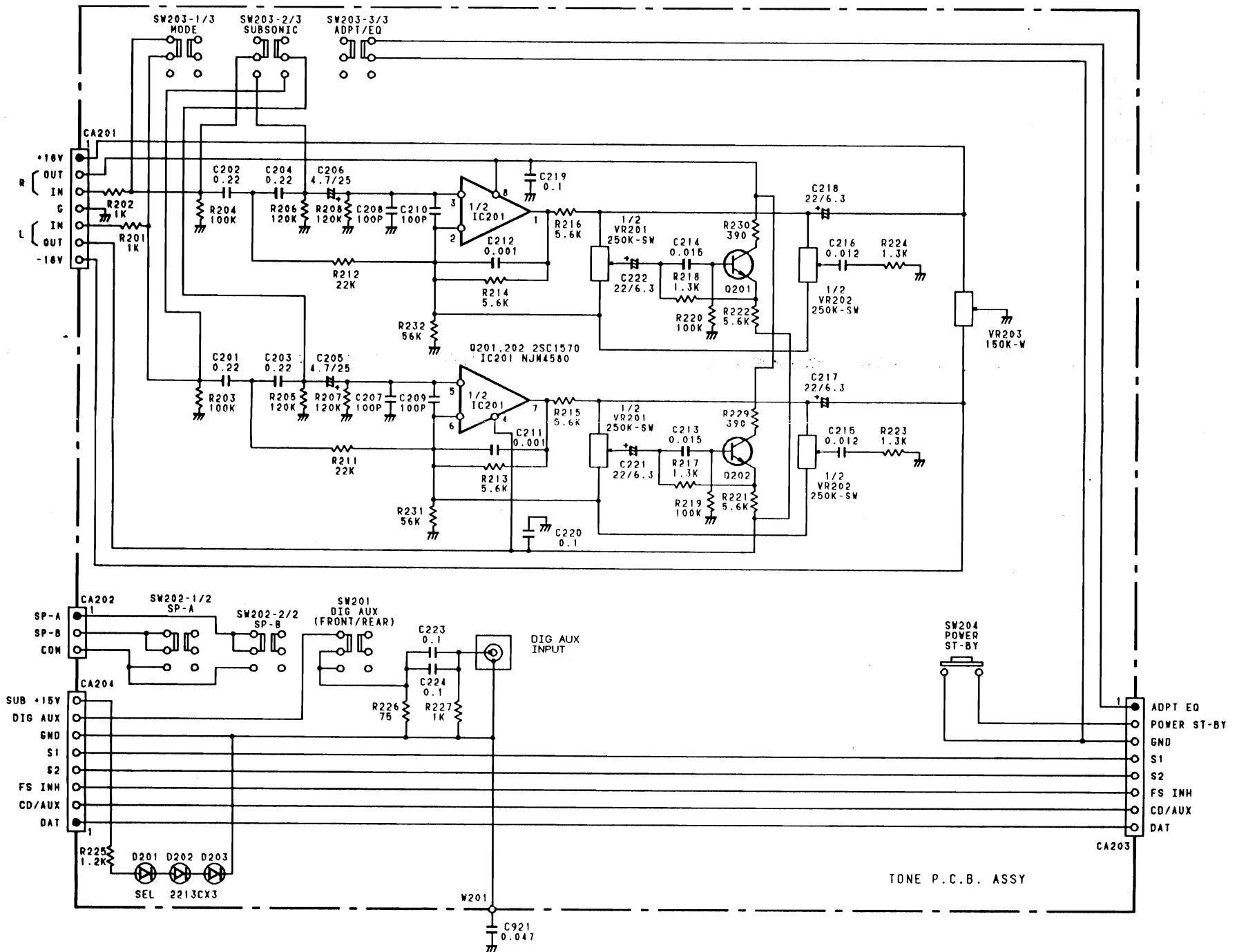
NJM79M12FA BLOCK DIAGRAM





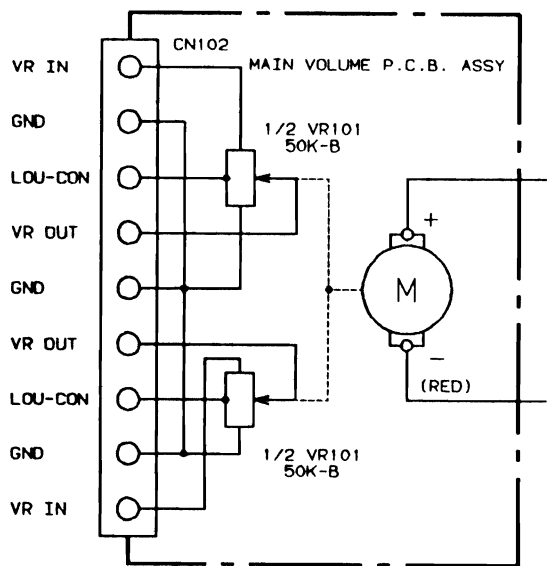
SCHEMATIC DIAGRAM (INPUT Section)

SCHEMATIC DIAGRAM (TONE CONTROL Section)

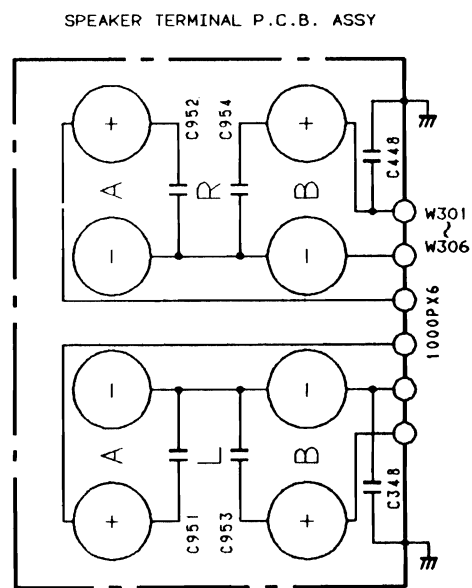


SCHEMATIC DIAGRAM

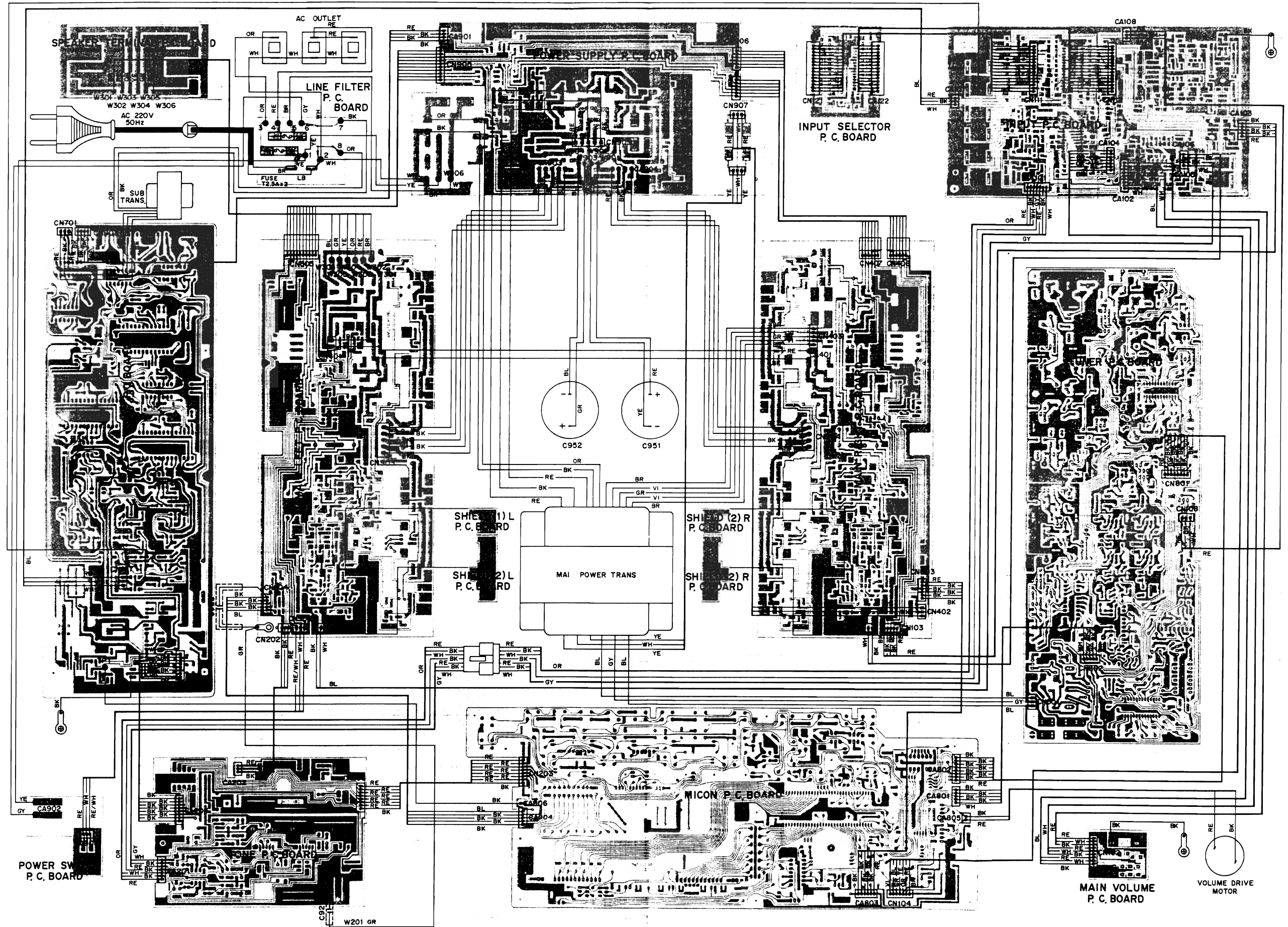
(MAIN VR P.C.B.)



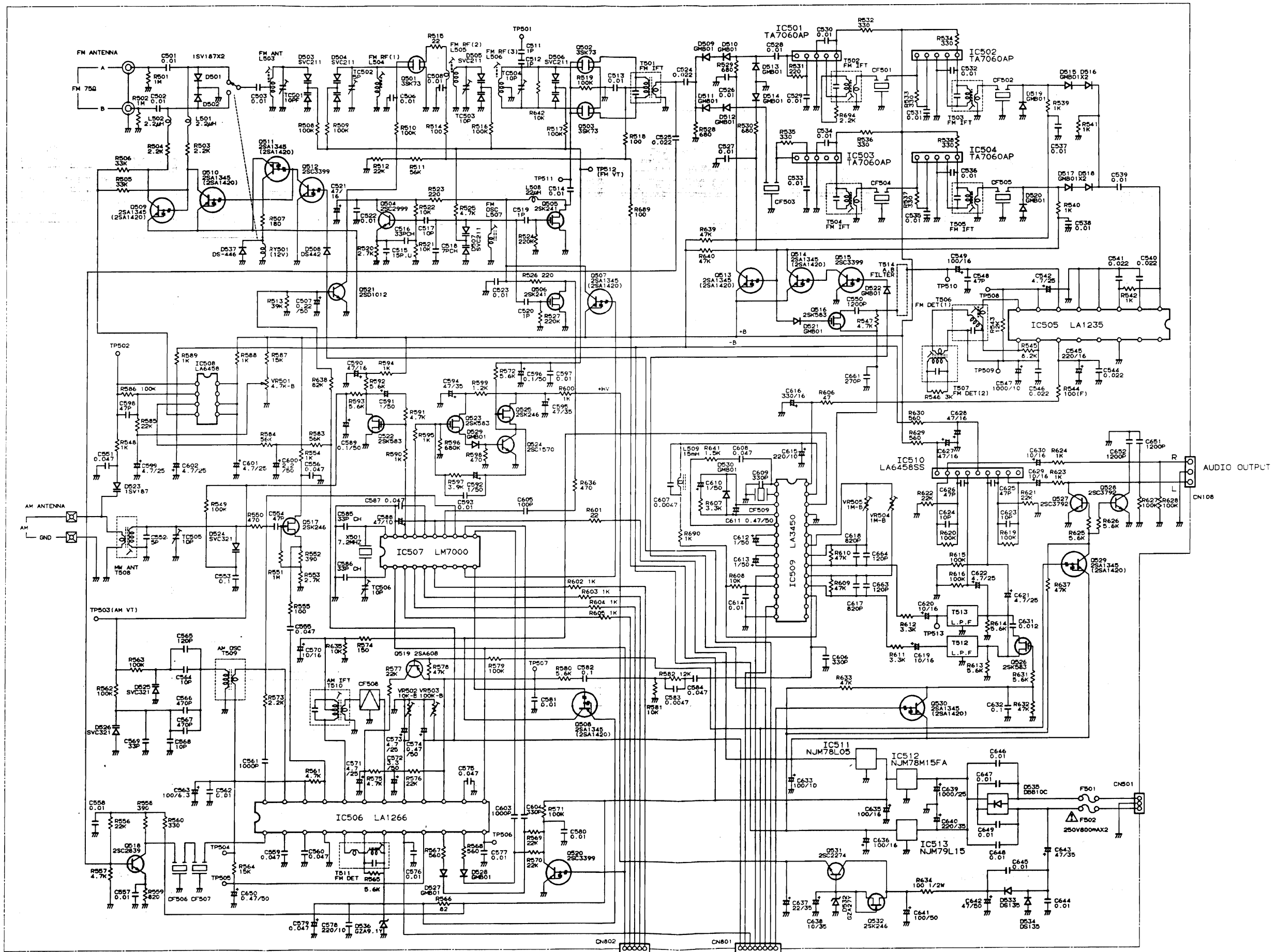
(SP. TERMINAL P.C.B.)



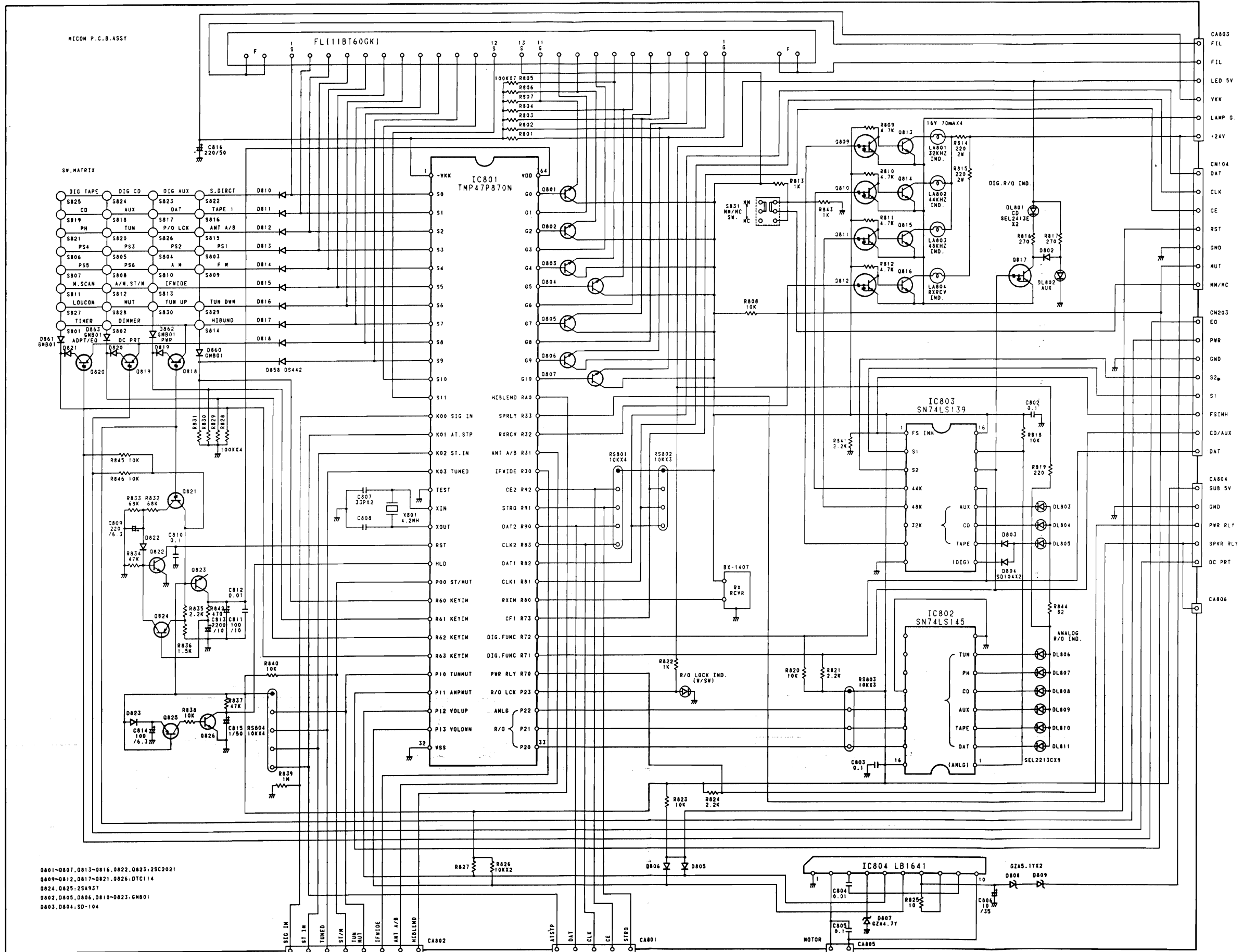
POINT TO POINT WIRING DIAGRAM



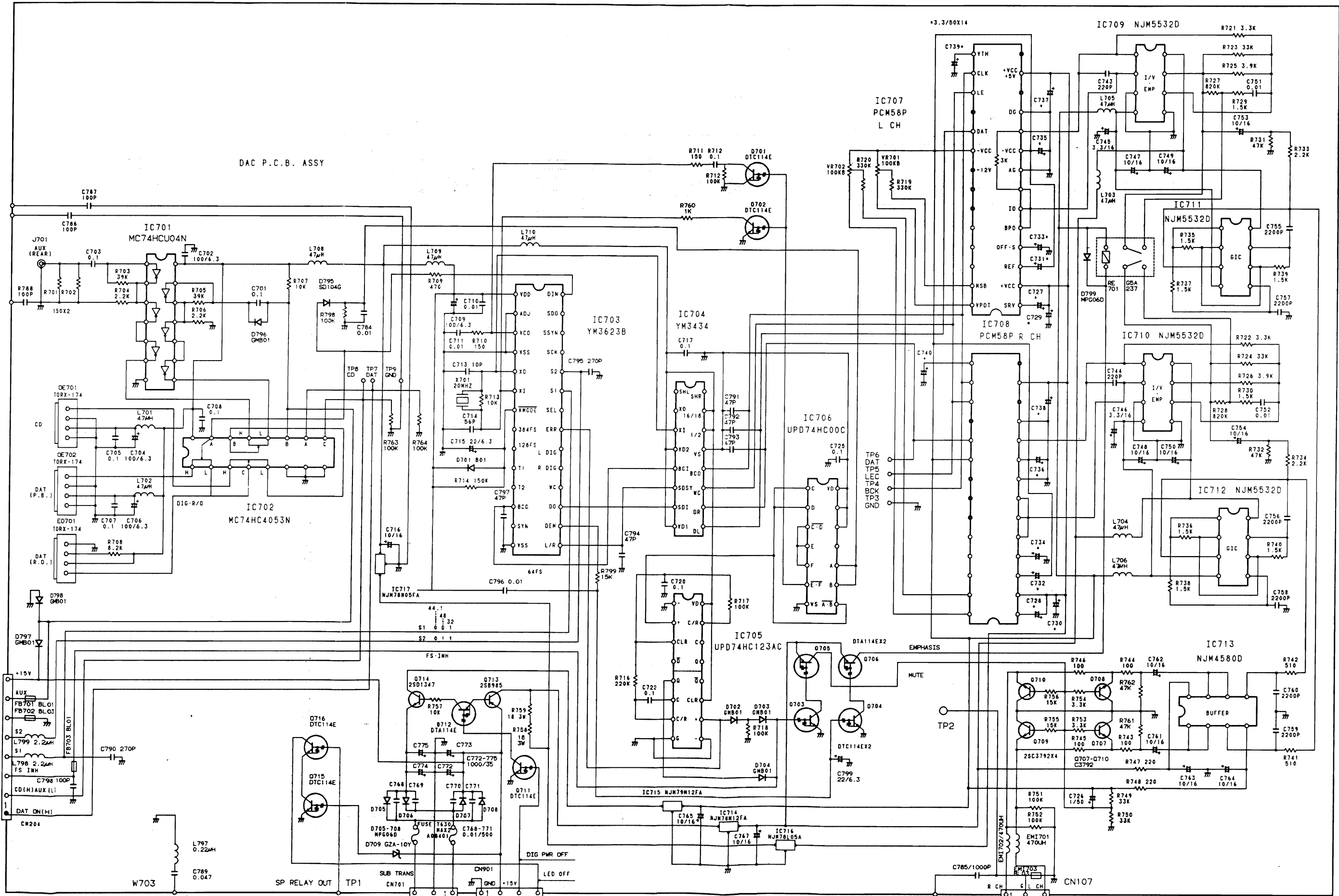
SCHEMATIC DIAGRAM (TUNER Section)



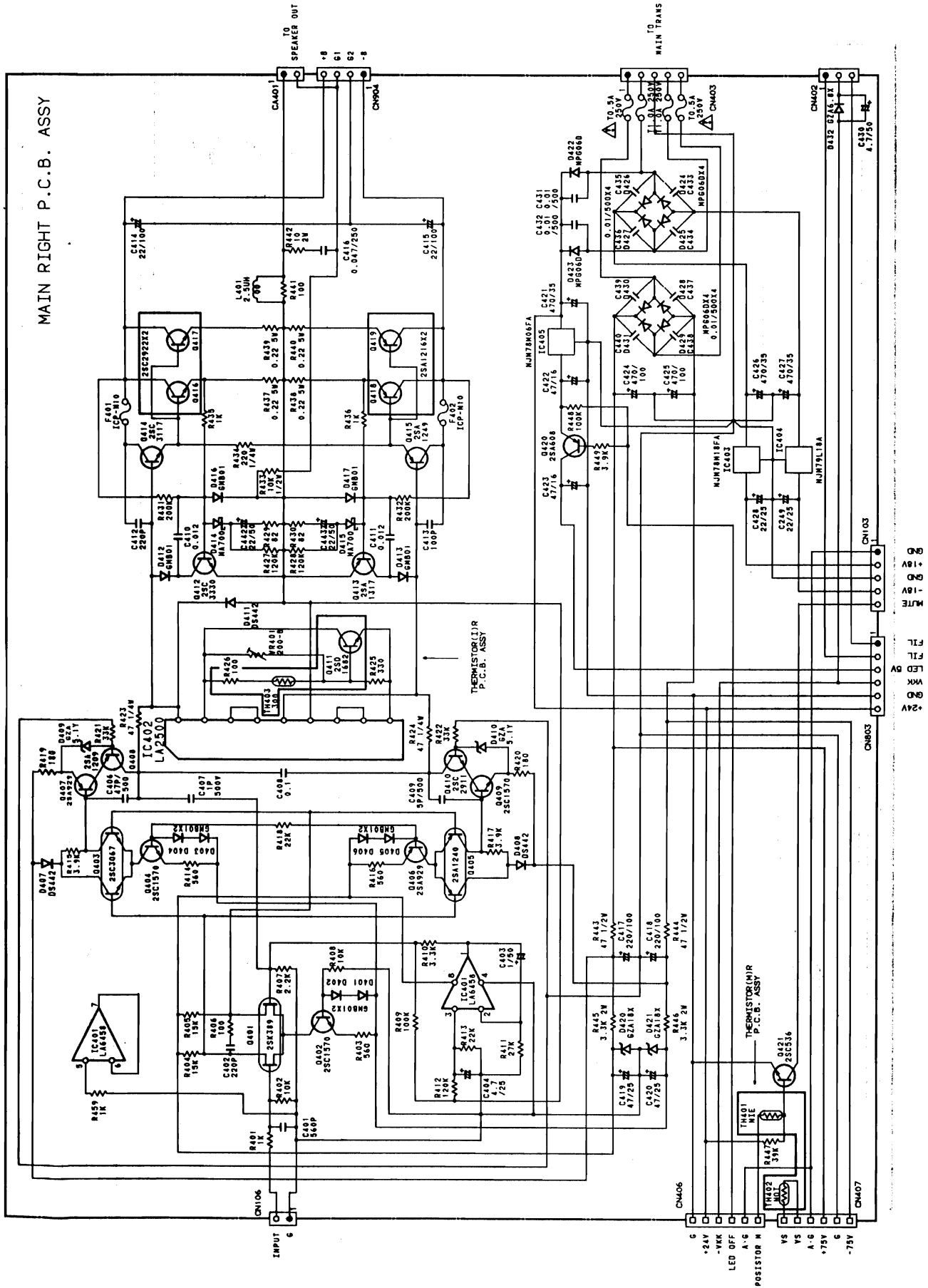
SCHEMATIC DIAGRAM (FUNCTION SELECTOR Section)



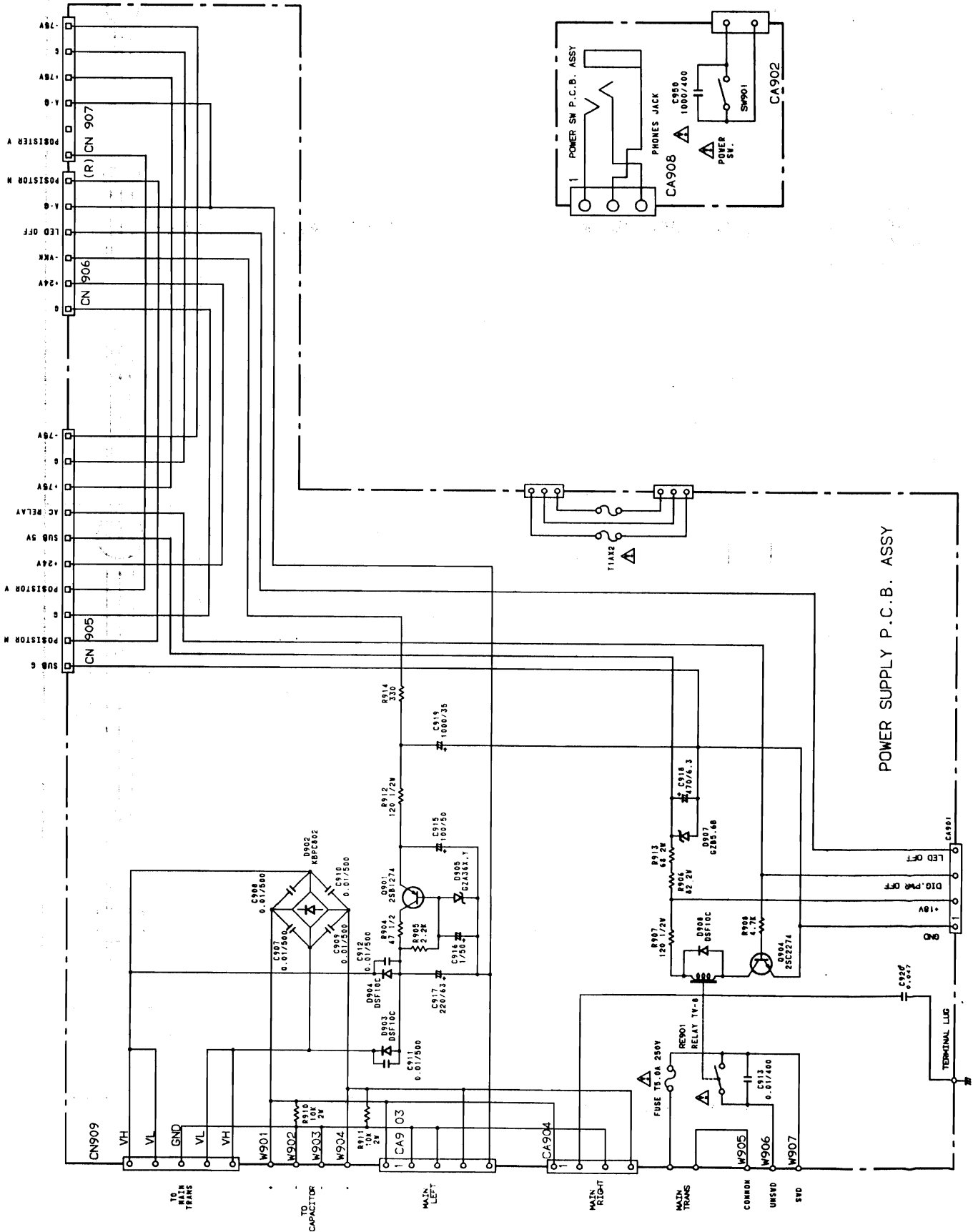
SCHEMATIC DIAGRAM (DIGITAL/ANALOG CONVERTER Section)








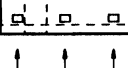












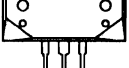





SCHEMATIC DIAGRAM (MAIN AMP. Right Section)



SCHEMATIC DIAGRAM (POWER SW./SUPPLY Section)



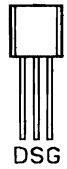

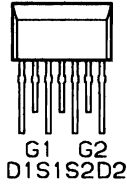

IC & TRANSISTOR LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW	TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SA608 2SA929 2SC1570 2SC2274 2SC3792 2SC536	 ECB	 ECB	2SB985 2SD1347	 ECB	 ECB
DTA114 DTC114 2SA937 2SC2021	 E C B	 E C B	2SA1209 2SA1249 2SC2911 2SC3117	 ECB	 ECB
2SB1274	 BCE	 BCE	DTA114 DTC114 2SA1317 2SA1345 2SC2839 2SC2999 2SC3330 2SC3399 2SC536 2SD1012	 ECB	 ECB
2SK241	 DSG	 DSG	2SK246	 SGD	 SGD
2SA1240 2SC3067	 ECB	 ECB	2SA1216 2SC2922	 BCE	 BCE
2SD1682	 ECB	 ECB	3SK73	 D G	 D G

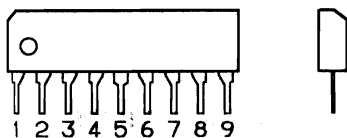
TERMINAL NAME

B → BASE	S → SOURCE
C → COLLECTOR	G → GATE
E → EMITTER	D → DRAIN

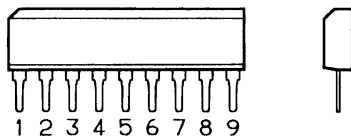
IC & TRANSISTOR LEAD IDENTIFICATION (Continued)

TRANSISTOR	FRONT VIEW	BOTTOM VIEW	TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SK583			2SK389		
TERMINAL NAME					
B → BASE C → COLLECTOR E → EMITTER			S → SOURCE G → GATE D → DRAIN		

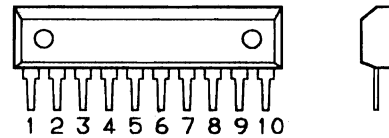
LA6458SS FRONT/SIDE VIEWS



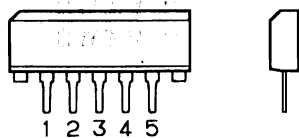
LA2500 FRONT/SIDE VIEWS



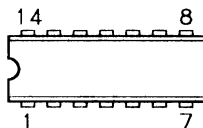
LB1641 FRONT/SIDE VIEWS



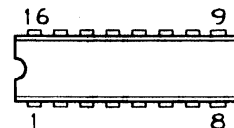
TA7060AP FRONT/SIDE VIEWS



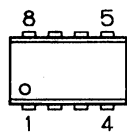
UPD74HC00C TOP VIEW



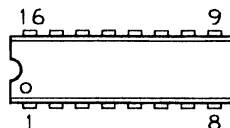
UPD74HC123AC TOP VIEW



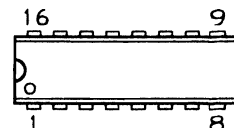
**LA6458D TOP VIEW
LA6458DS TOP VIEW
NJM4580D TOP VIEW
NJM5532D TOP VIEW**



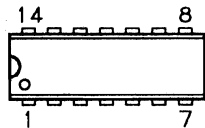
**SN74LS139N TOP VIEW
SN74LS145N TOP VIEW**



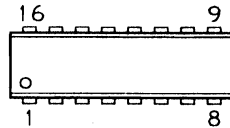
**LA1235 TOP VIEW
MC74HC4053N TOP VIEW**



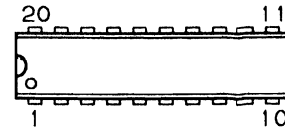
MC74HCU04N TOP VIEW



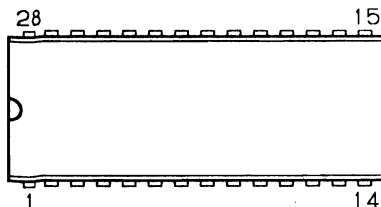
YM3434 TOP VIEW



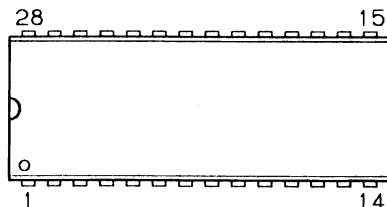
LM7000 TOP VIEW



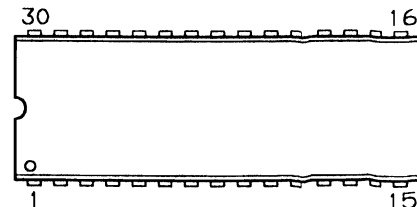
**PCM58P TOP VIEW
YM3623B TOP VIEW**



LA3450 TOP VIEW

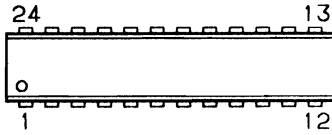


LC7823 TOP VIEW

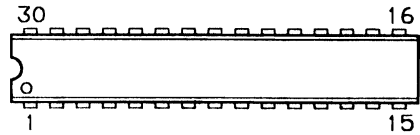


IC & TRANSISTOR LEAD IDENTIFICATION (Continued)

LA1266 TOP VIEW



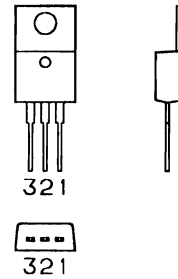
LC7821 TOP VIEW



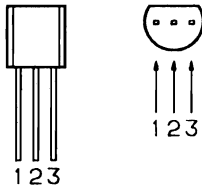
TMP47P870N-RS-Z1 TOP VIEW



NJM78M05FA TOP/SIDE VIEWS



**NJM78L05A TOP/SIDE VIEWS
NJM79M12FA TOP/SIDE VIEWS**



**NJM78M06FA TOP/SIDE VIEWS
NJM78M12FA TOP/SIDE VIEWS
NJM78M15FA TOP/SIDE VIEWS
NJM78M18FA TOP/SIDE VIEWS
NJM79L15A TOP/SIDE VIEWS
NJM79L18A TOP/SIDE VIEWS**

