

# Dual

Service-Anleitung  
Service Manual  
Instructions de Service

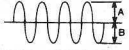
## CD 3700



Technische Daten Meßwerte = typische Werte	Technical data Measured values = typical values	Caractéristiques techniques Valeurs mesurées = valeurs typiques	Dati tecnici Valori di misuri = valori tipici	Dual CD 3700
Frequenzbereich	Frequency response	Courbe de réponse	Banda do Frequenza	20-20 000 Hz $\pm$ 0,7 dB
Geräuschspannungsabstand	Signal to noise ratio	Rapport signal/bruit	Rapporto segnale disturbo	100 dB
Dynamikbereich	Dynamic range	Dynamique	Dinamica	94 dB
Übersprechdämpfung (1 kHz)	Crosstalk (1 kHz)	Diaphonie (1 kHz)	Diafonia	92 dB
Klirrfaktor (1 kHz)	Harmonic distortion (1 kHz)	Distorsion harmonique (1 kHz)	Distorsione armonica	< 0,05 %
Gleichlaufschwankungen	Wow and flutter	Tolérance de vites	Toleranza di velocità	< $\pm$ 0,001 %
Ausgangsspannung	Output voltage	Tension de sortie	Tensione di uscita	2 V
Max. programmierbare Musiktitel	Max. music title programming	Titres de musique au max. programmé	Programmazione di pezzi musicale	20
D/A Wandler	D/A Converter	D/A Convertisseur	Quantizzazione	16 Bit
Abtastfrequenz	Sampling frequency	Fréquence de pick-up	Frequenza di campionatura	352,8 kHz
Abtastsystem	Pick up	Pick up	Testina di lettura	3-Strahl-Laser 3-beam optical pick up
Leistungsaufnahme	Power consumption	Consommation	Potenza assorbita	15 W
Netzspannung Model Europa Model USA/Kanada	Mains voltage European model US/Canadian model	Voltage secteur Modèle Europe Modèle USA/Canada	Tensione di rete modello Europa modello Stati Uniti/Canada	230 V/50 Hz 115 V/60 Hz

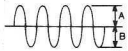
Dual GmbH · Postfach 1144 · 7742 St. Georgen/Schwarzwald

## Abgleichanleitung CD 3700

Signalquelle	Einstellung Gerät	Meßgeräteanschluß	Abgleichposition	Abgleichbemerkungen
<b>Phillips 5 A</b>	<b>1) PLL</b>			
	Stop	Frequenzzähler 1. an PLCK (TP 103) 2. Kurzschluß TP 102-Gnd 3. Kurzschluß trennen	VR 105	4,7 MHz $\pm$ 10 kHz
	<b>2) Tracking Balance</b>			
	Play	1. Osci an TEO (TP 104) 2. VR 104 auf Linksanschl. 3. VR 104 in Mittelstellung	VR 101	A = B 0 V DC 
	<b>3) Focus offset</b>			
	Stop	DC-Voltmeter an FEO (TP 104)	VR 102	0 V DC
	<b>4) Focus gain</b>			
	Play	Millivoltmeter AC an Stecker PN 102 (Pin 1)	VR 103	Maximum ermitteln zwischen Anfang und Ende der Disc. 300 mV AC bei Maximum
	<b>5) Tracking gain</b>			
	Play	Millivoltmeter AC an Stecker PN 102 (Pin 3)	VR 104	140 mV AC

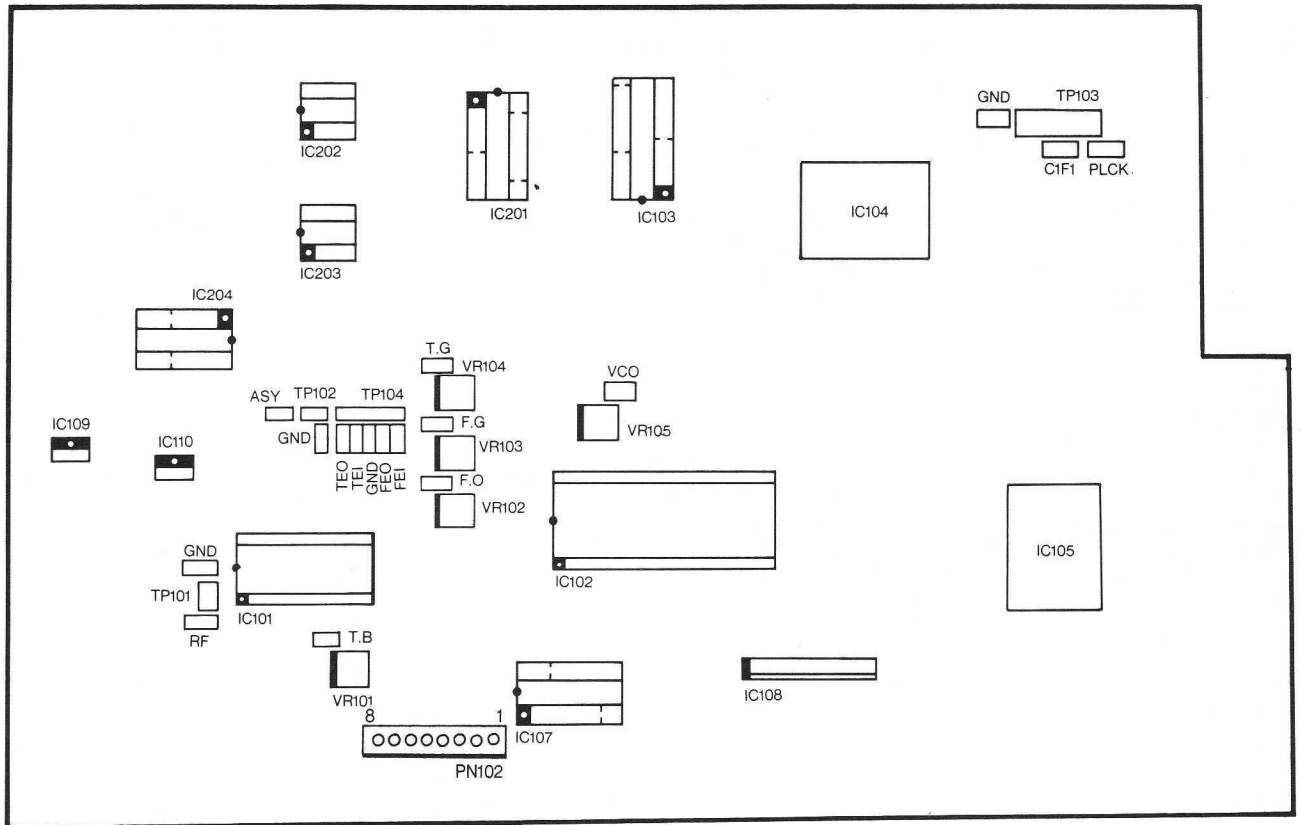
EFM-Signal an TP 101 (RF) 1,3 V SS  
 Alle Spannungen gegen Masse (Gnd) gemessen.  
 Nur wenn Gerät nicht anläuft: Alle Regler in Mittelstellung.

## Tuning Instructions for CD 3700

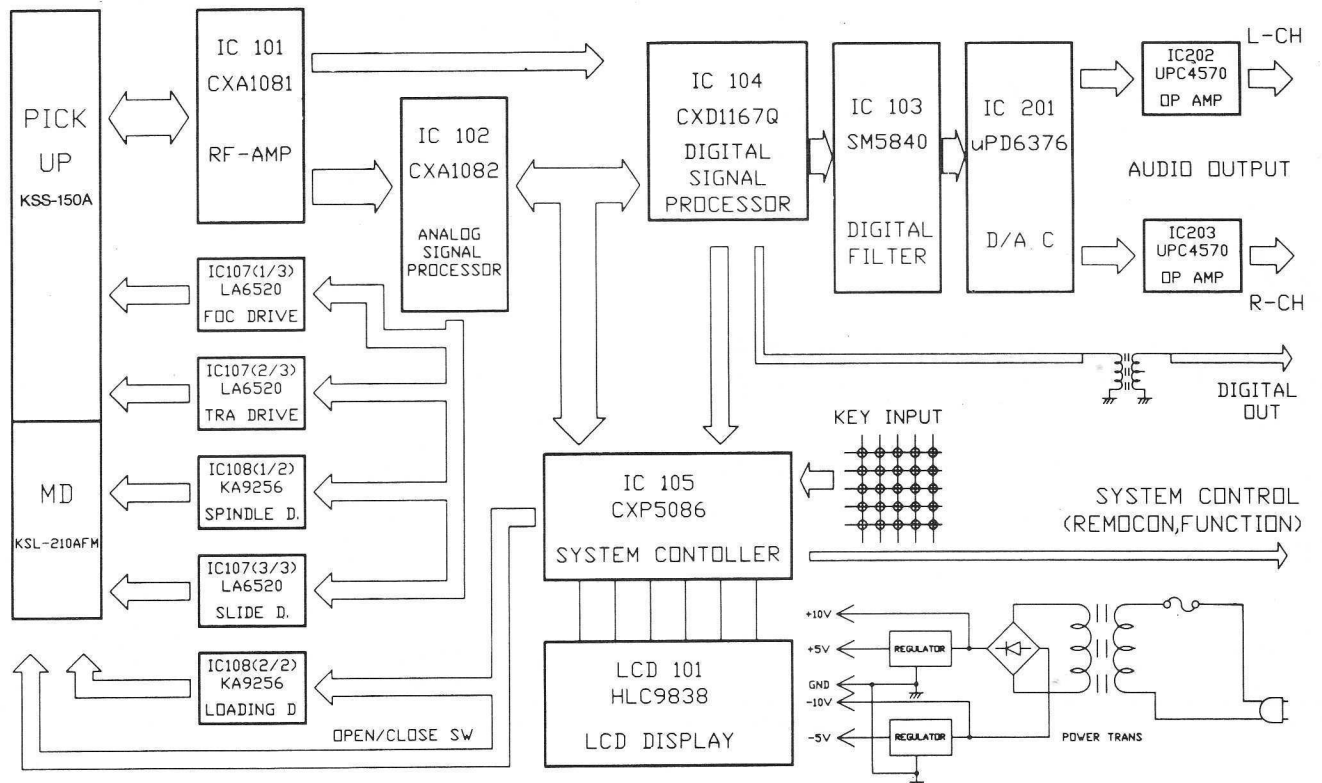
Signal source	Equipment setting	Connection of measuring instrument	Item to be tuned	Tuning, Remarks
<b>Phillips 5 A</b>	<b>1) PLL</b>			
	Stop	1. Frequency counter to PLCK (TP 103) 2. Short-circuit TP 102-Gnd 3. Remove short-circuit	VR 105	4.7 MHz $\pm$ 10 kHz
	<b>2) Tracking balance</b>			
	Play	1. Oscilloscope to TEO (TP 104) 2. VR 104 to lefthand stop 3. VR 104 in mid-position	VR 101	A = B 0 V DC 
	<b>3) Focus offset</b>			
	Stop	DC voltmeter to FEO (TP 104)	VR 102	0 V DC
	<b>4) Focus gain</b>			
	Play	Millivoltmeter AC to plug PN 102 (Pin 1)	VR 103	Maximum between start and end of disc. 300 mV AC (at Maximum)
	<b>5) Tracking gain</b>			
	Play	Millivoltmeter AC to plug PN 102 (Pin 3)	VR 104	140 mV AC

EFM Signal to TP 101 (RF) 1.3 V SS  
 All voltages measured against earth (Gnd).  
 Only when the equipment not starts working: All controls in mid-position.

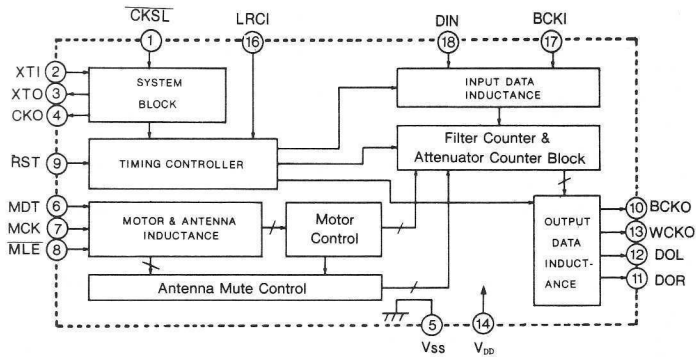
## 2. TEST AND ADJUSTMENT POINTS



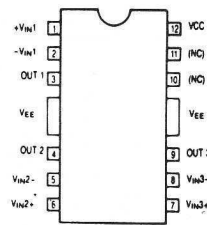
## BLOCK DIAGRAM



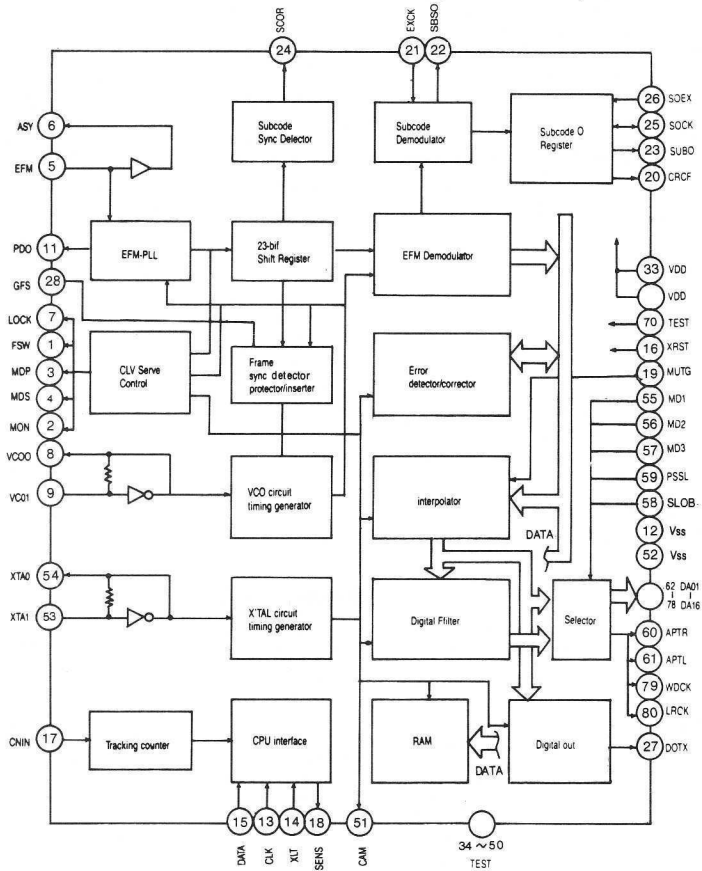
### IC103 SM5840D (Digital Filter)



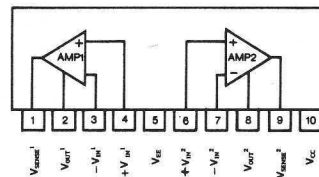
### IC107 LA6520 (Drive)



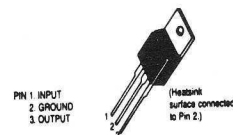
### IC104 CXD1167Q (CD Digital Signal Processor)



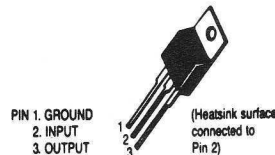
### IC108 KA9256 (Dual Power Operational Amplifier)



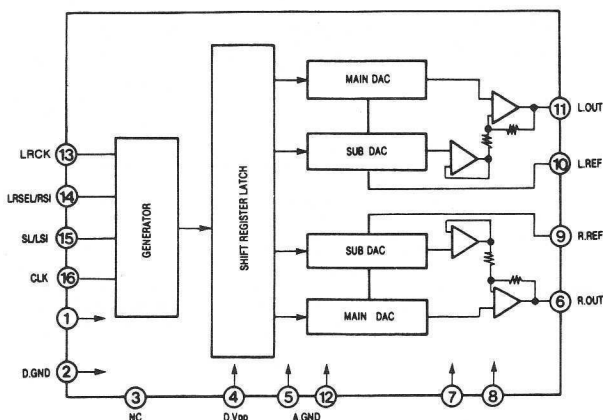
### IC109 MC7805 (Regulator)



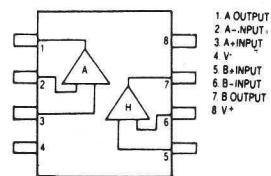
### IC110 MC7905 (Regulator)

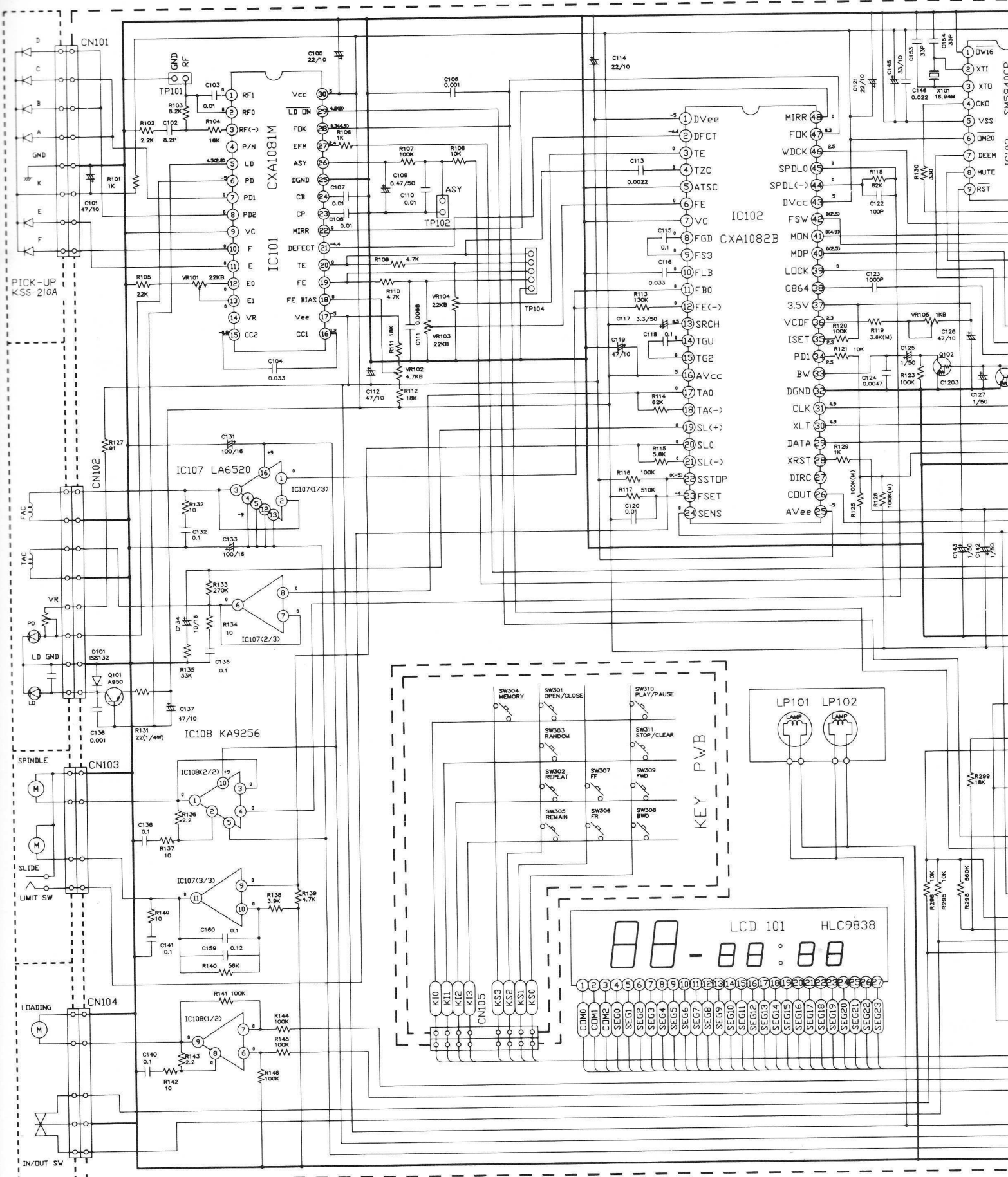


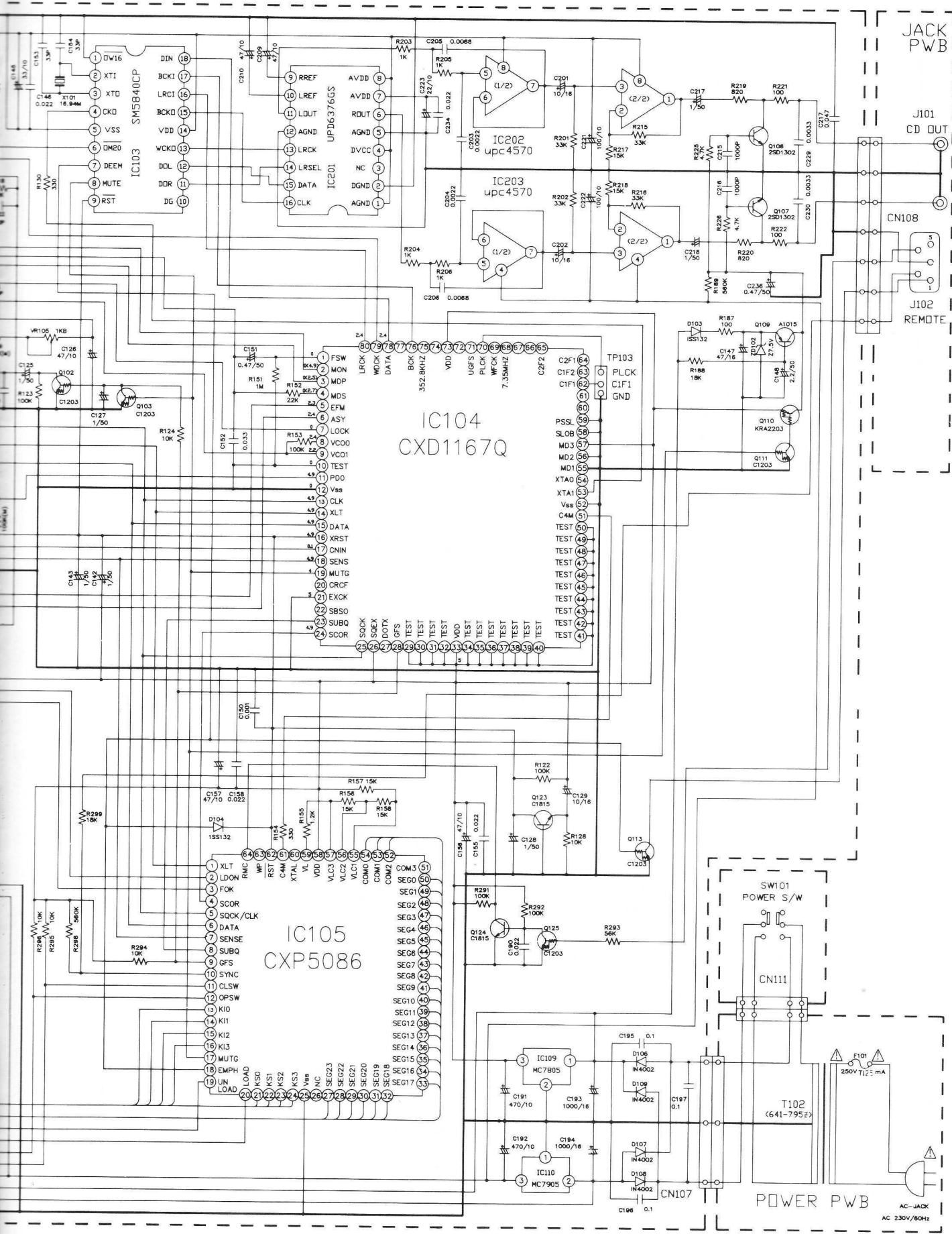
### IC201 $\mu$ PD6376



### IC202,203 $\mu$ PC4570 (Dual OP Amp)







JACK PWB

J101 CD OUT

CN108

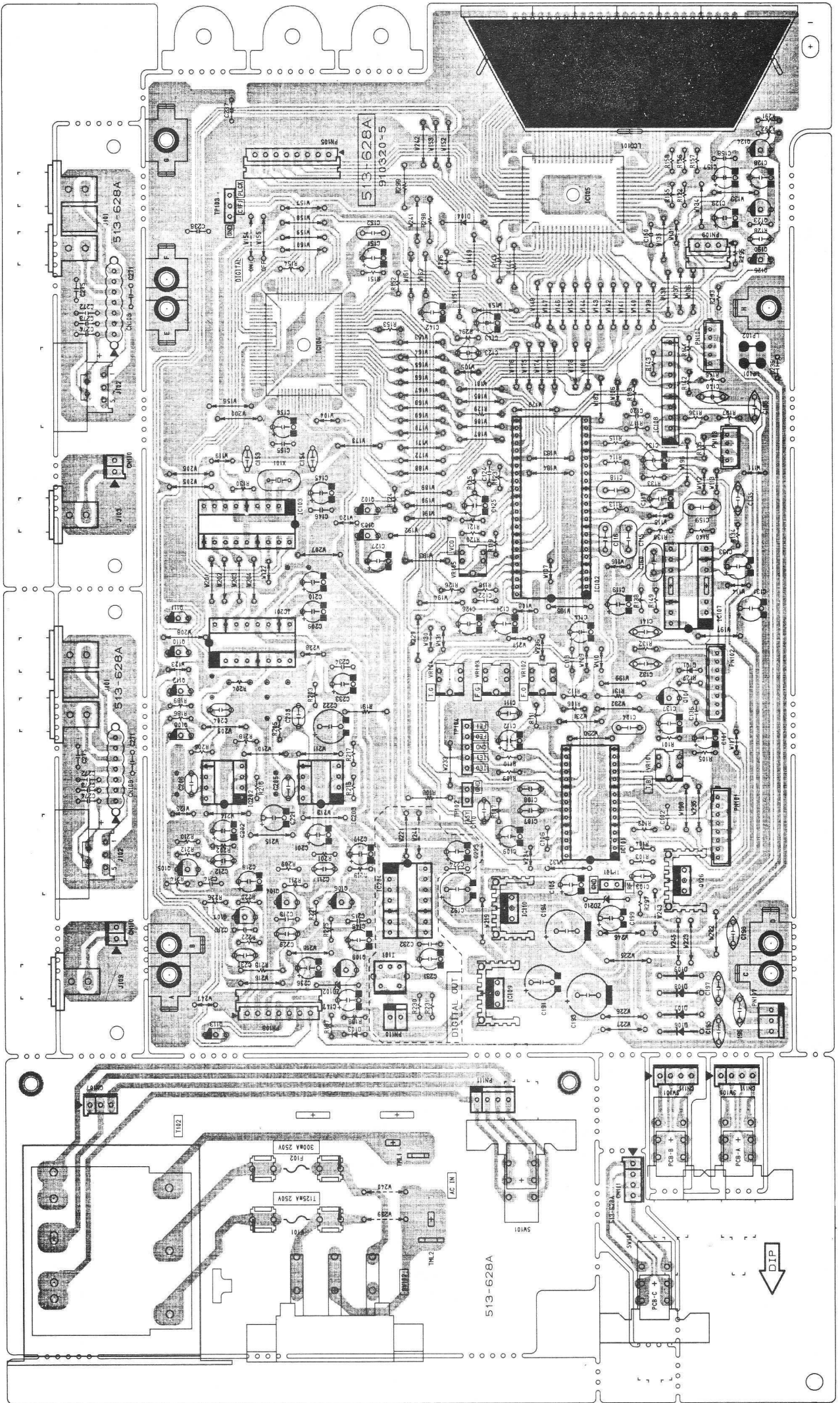
J102 REMOTE

IC104  
CXD1167Q

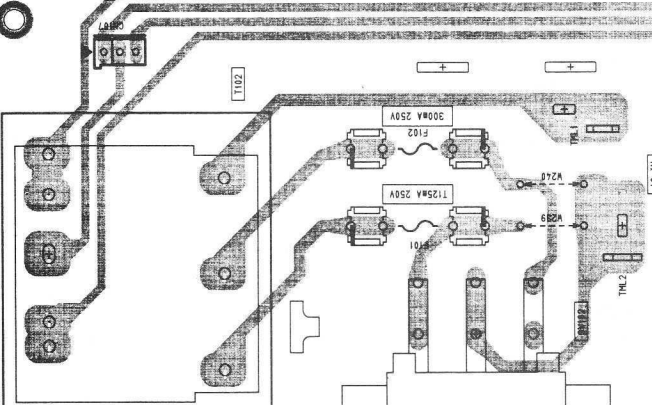
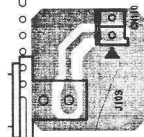
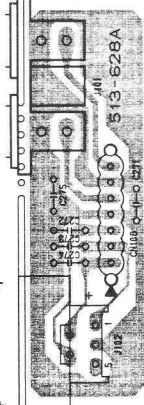
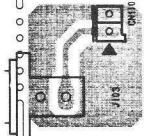
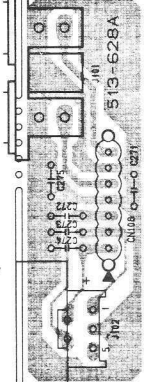
IC105  
CXP5086

POWER PWB

AC-JACK  
AC 230V/50Hz

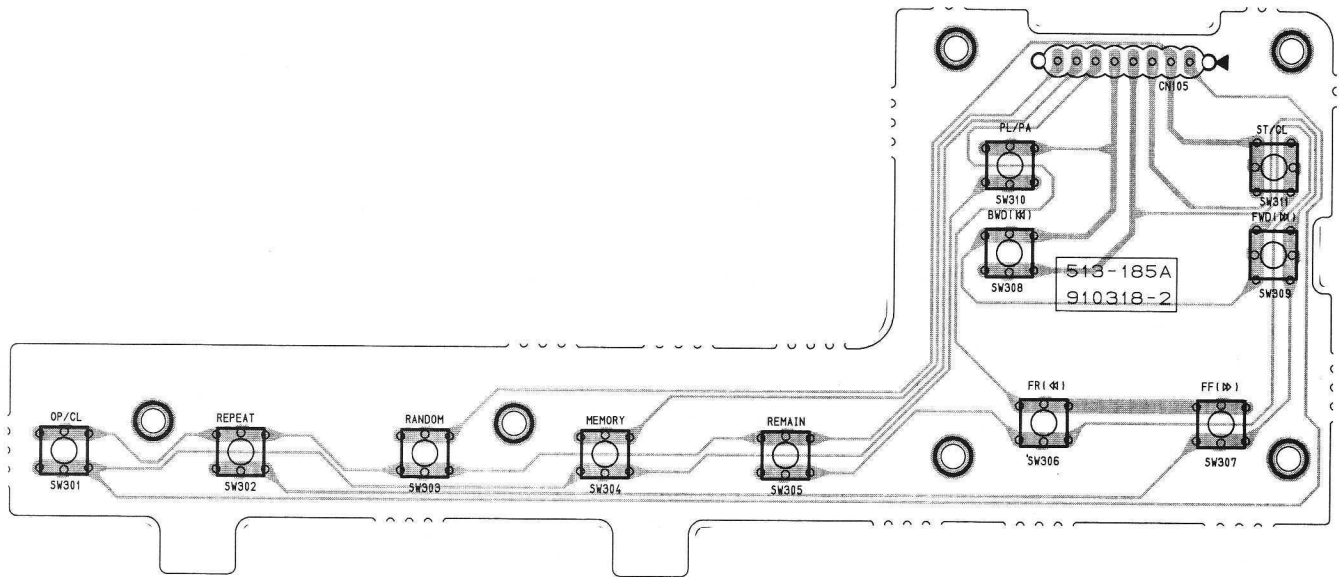


513-628A  
910320-5

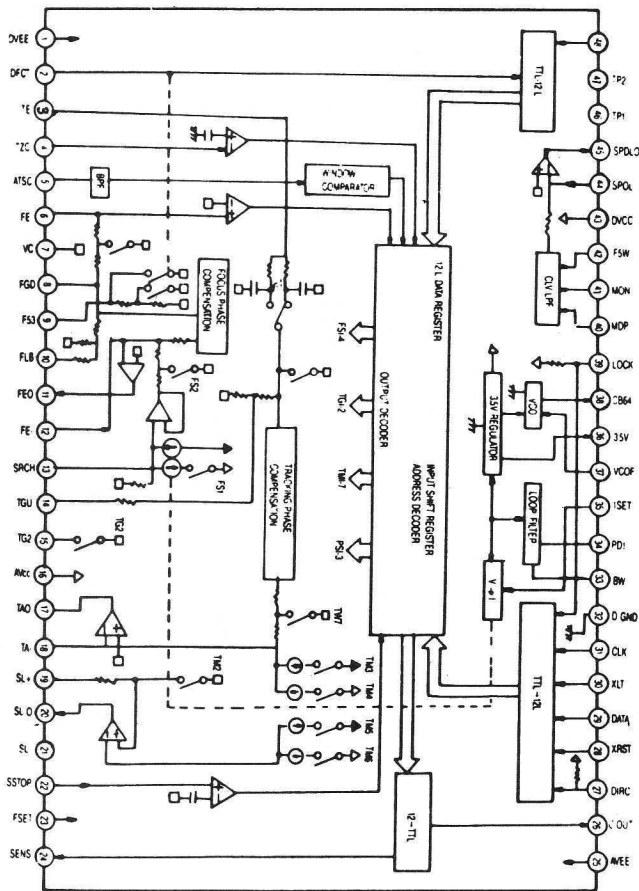


513-628A

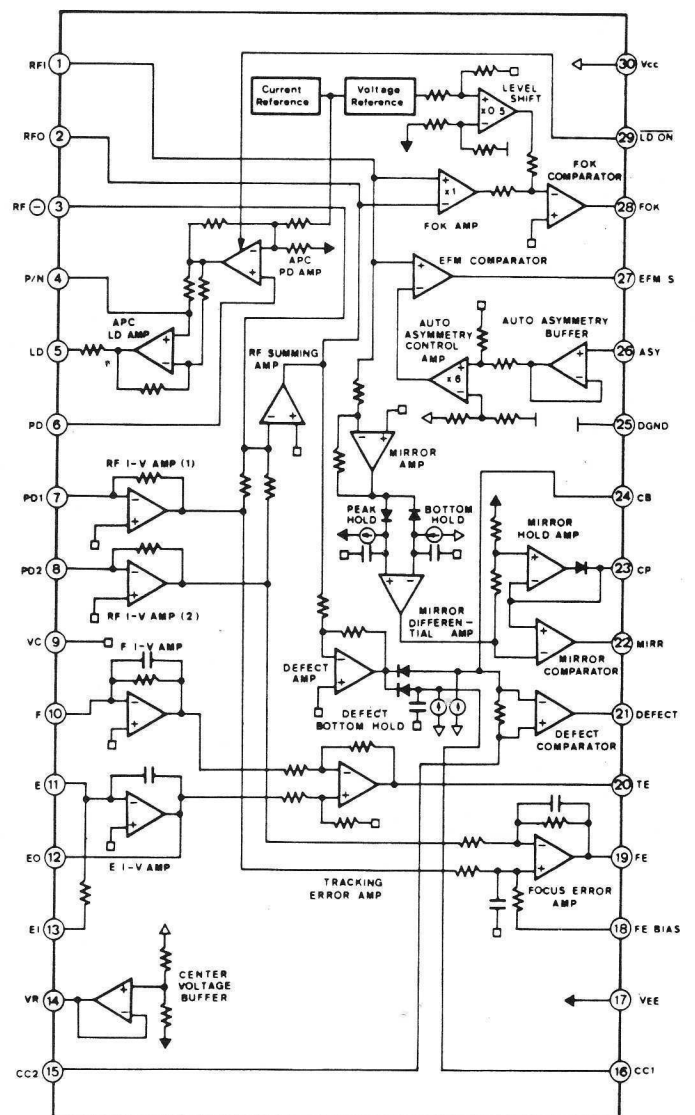
DIP



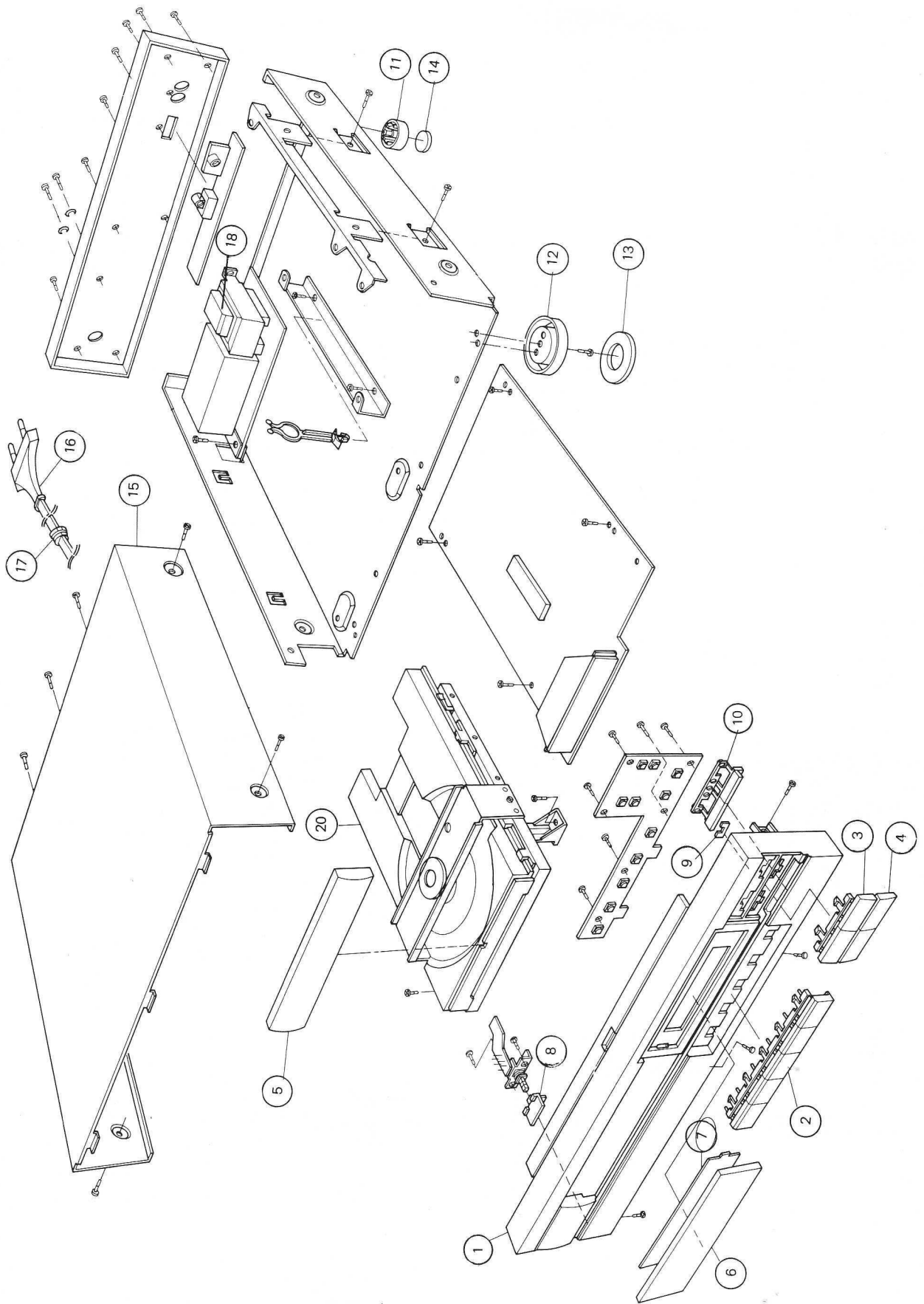
CXA 1082

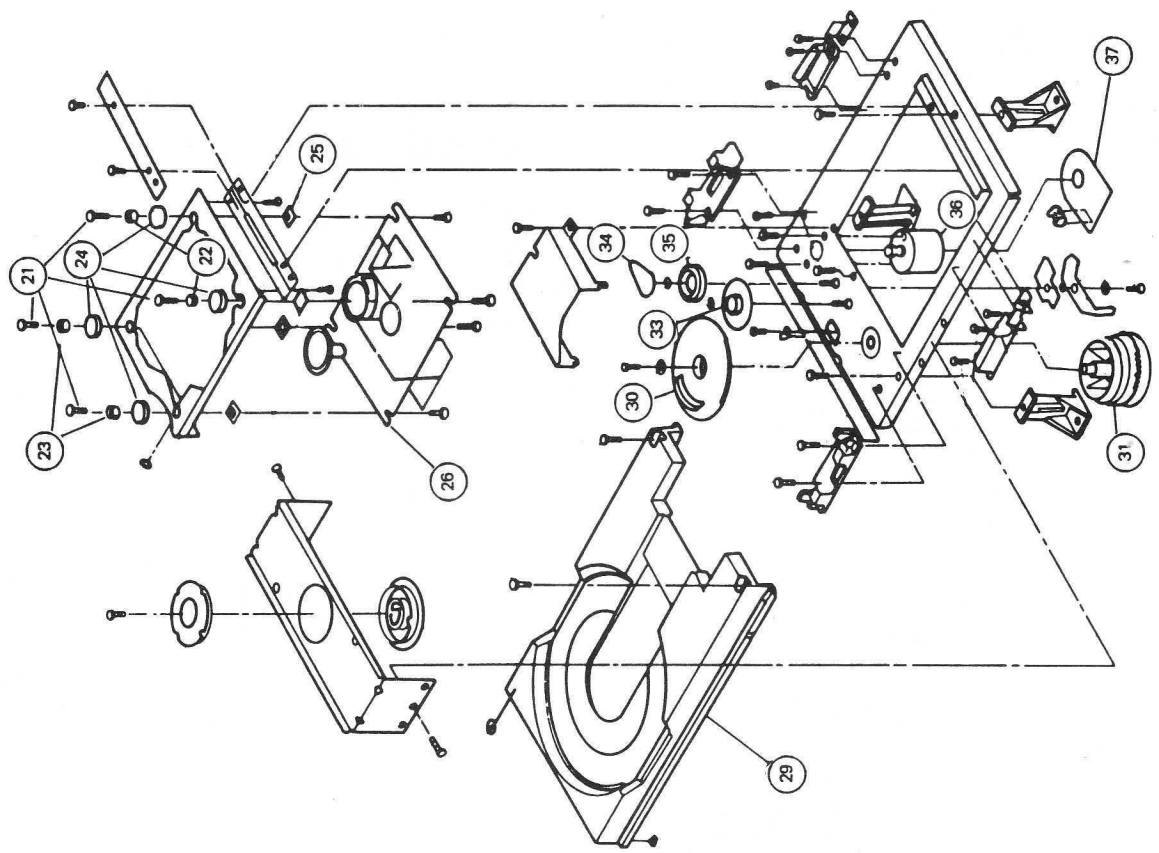
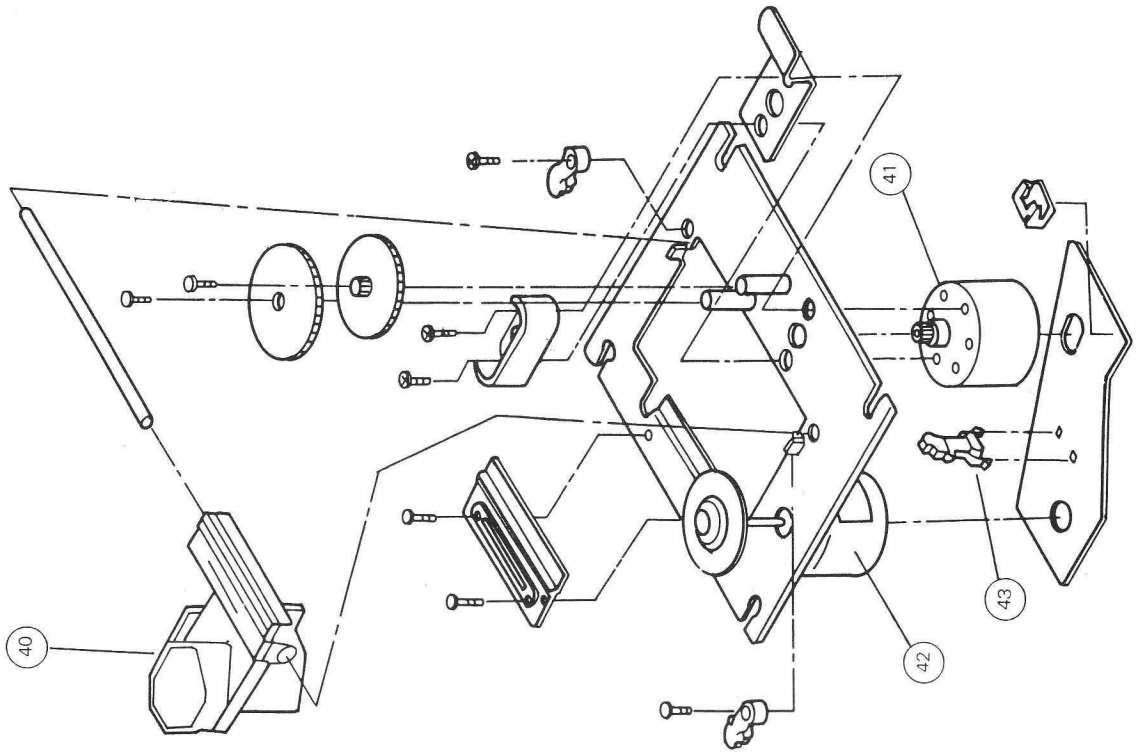


CXA 1081S (RF Amplifier)









# WIRING DIAGRAM

