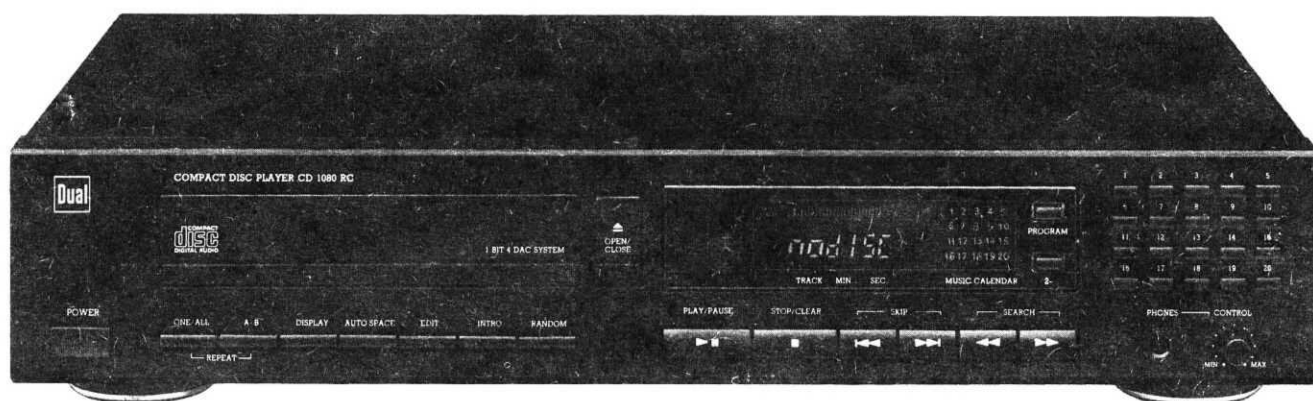


# Dual

Service-Anleitung  
Service Manual  
Instructions de Service

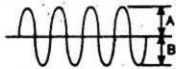
## CD 1080 RC



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 1080 RC
Frequenzbereich	Frequency response	Courbe de réponse	Banda do Frequenza	20-20 000 Hz $\pm$ 0,5 dB
Geräuschspannungsabstand	Signal to noise ratio	Rapport signal/bruit	Rapporto segnale disturbo	104 dB
Dynamikbereich	Dynamic range	Dynamique	Dinamica	98 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	< 0,005 %
Gleichlaufschwankungen	Wow and flutter	Tolérance de vites	Toleranza di velocità	< $\pm$ 0,001 %
Ausgangsspannung	Output voltage	Tension de sortie	Tensione di uscita	0,2 - 2 V
Max. programmierbare Musiktitel	Max. music title programming	Titres de musique au max. programmé	Programmazione di pezzi musicale	25
D/A Wandler	D/A Converter	D/A Convertisseur	Quantizzazione	1 Bit
Abtastsystem	Pick up	Pick up	Testina di lettura	3-Strahl-Laser 3-beam optical pick up
Leistungsaufnahme	Power consumption	Consommation	Potenza assorbita	12 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

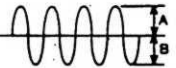
Dual GmbH · Postfach 1144 · 7742 St. Georgen/Schwarzwald

# Abgleichanleitung CD 1080

Signalquelle	Einstellung Gerät	Meßgeräteanschluß	Abgleichposition	Abgleichbemerkungen
<b>Pillips 5 A</b>	<b>PLL</b>			
	CD-Platte muß eingelesen sein	1. Frequenzzähler an CK 2. EFM und G kurzschließen	VR 5	4,321 MHz
	3. Kurzschluß entfernen			
	<b>EF Balance</b>			
	Play	1. Oszilloskop an T 1 2. T 2 mit G kurzschließen	VR 1	DC = 0 V 
	3. Kurzschluß trennen			
	<b>Focus Offset</b>			
	Play	Oszilloskop an RF	VR 2	Sauberes EFM-Signal ca. 1,2 V SS
	<b>Tracking Gain</b>			
	Play	AC-Millivoltmeter an Schleifer VR 4	VR 4	24 mV AC
<b>Focus Gain</b>				
Play	1. mit Tongenerator 800 Hz 3 Veff über 470 kΩ an F 2 2. AC Millivoltmeter an F 1 und G 3. AC Millivoltmeter an F 2 und G	VR 3	F 2 soll 1 dB größer sein als F 1	

Alle Spannungen gegen Masse gemessen

## Tuning instructions for CD 1080

Signal source	Equipment setting	Connecting of measuring instrument	Item to be tuned	Tuning remarks
<b>Pillips test disc 5 A</b>	<b>PLL</b>			
	Disc has to be read in	1. Frequency counter to CK 2. Short-circuit EFM to G	VR 5	4.321 MHz
	3. Remove short circuit			
	<b>EF balance</b>			
	Play	1. Oscilloscope to T 1 2. Short circuit T 2 to G	VR 1	DC = 0 V 
	3. Remove short circuit			
	<b>Focus offset</b>			
	Play	Oscilloscope to RF	VR 2	Clear EFM signal ca. 1.2 V SS
	<b>Tracking gain</b>			
	Play	AC-millivoltmeter to slider VR 4	VR 4	24 mV AC
<b>Focus gain</b>				
Play	1. with tone generator 800 Hz 3 Veff via 470 kΩ to F 2 2. AC millivoltmeter to F 1 and G 3. AC millivoltmeter to F 2 and G	VR 3	F 2 = F 1 + 1 dB	

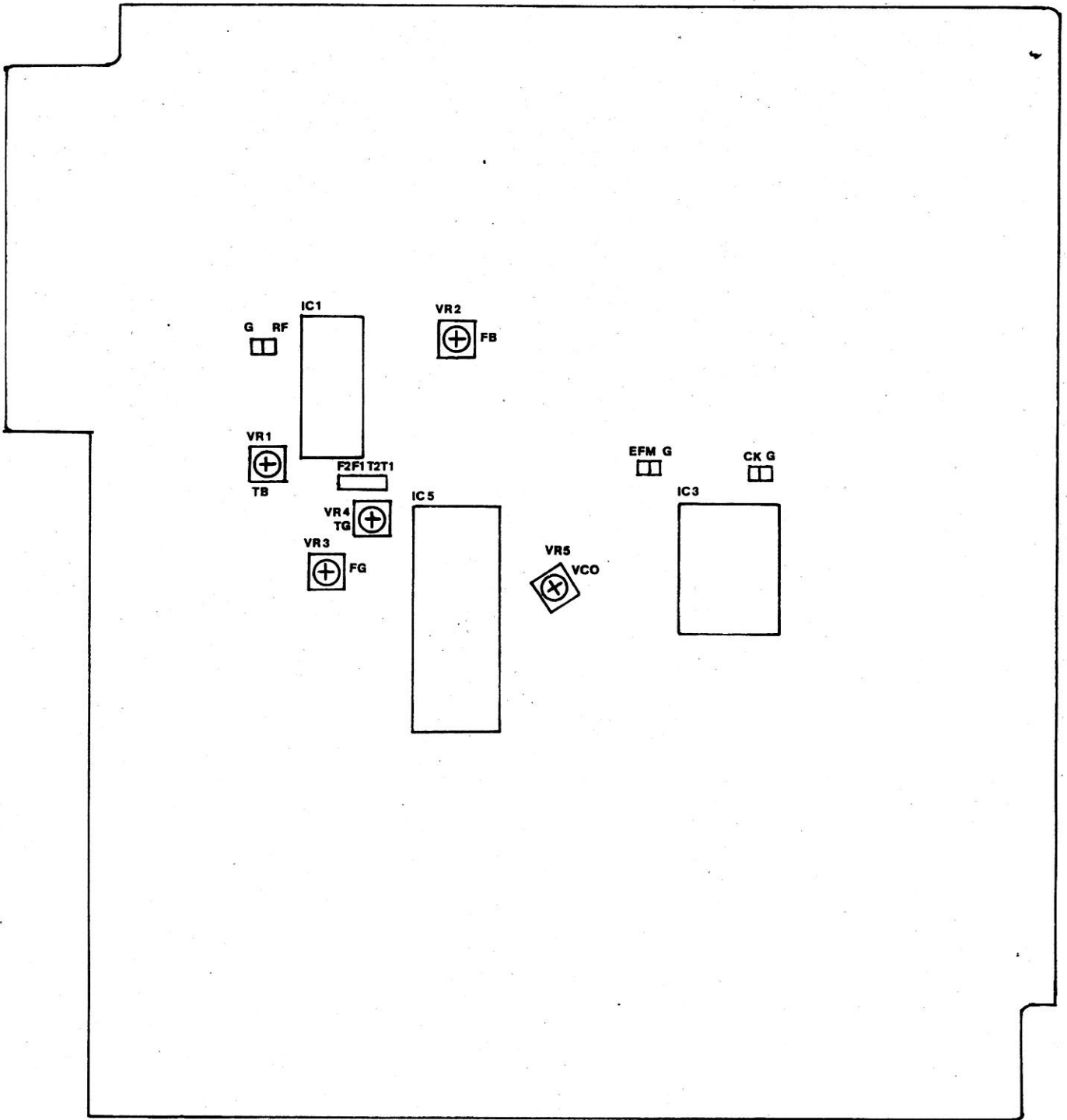
All voltages are measured against earth

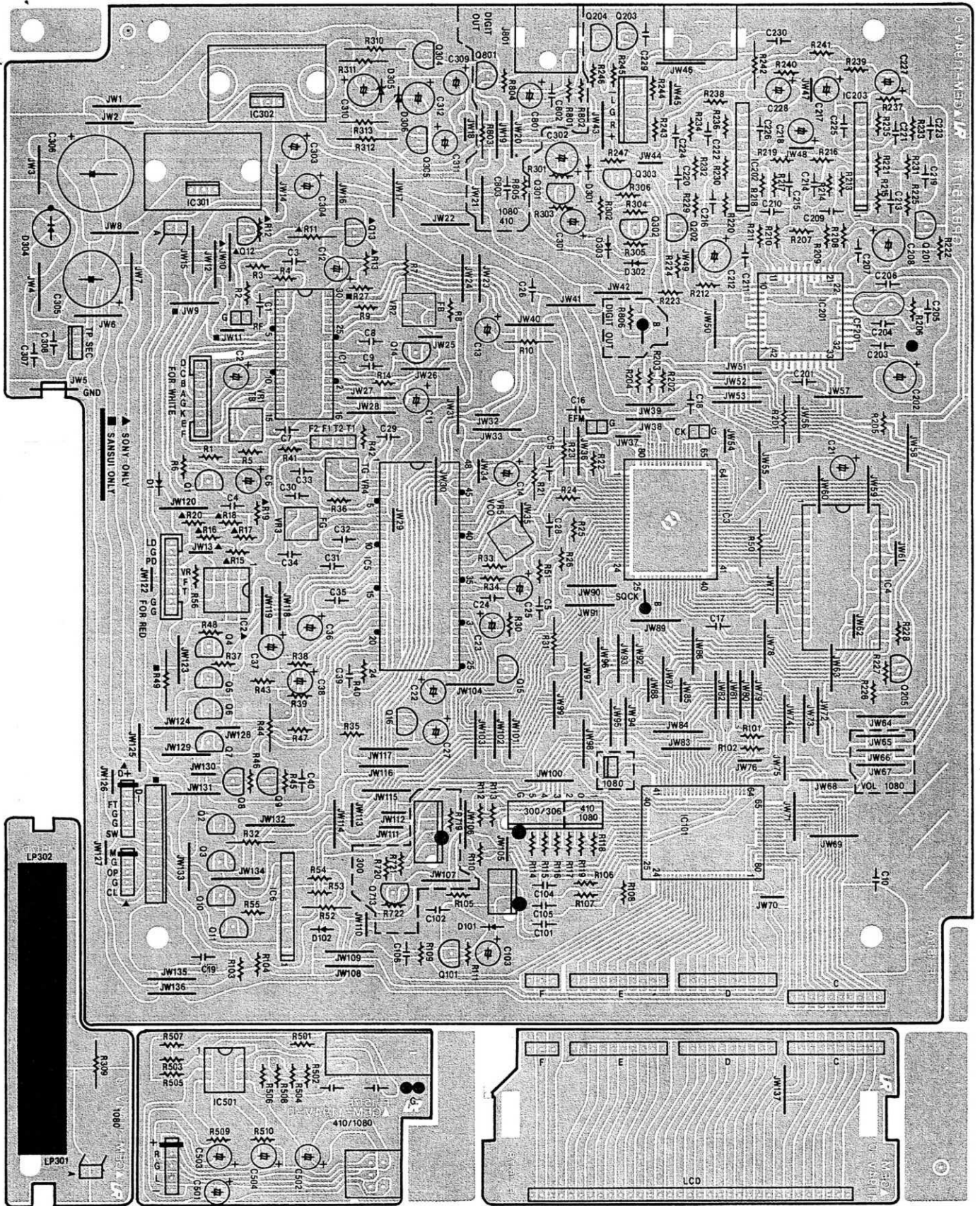
### Vorsicht!

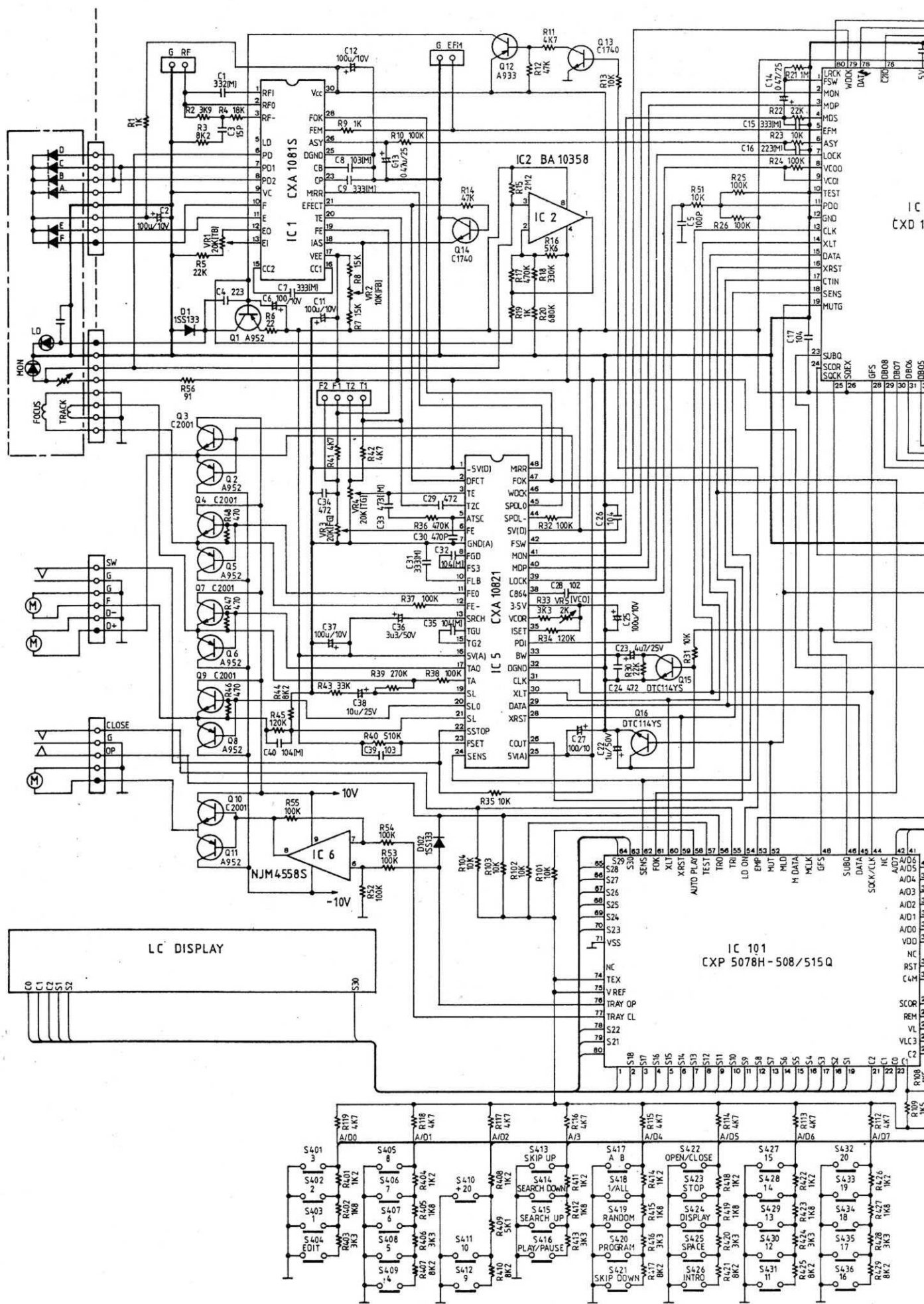
Dieser Disc-Spieler arbeitet mit unsichtbarem Laserlicht. Bei geöffnetem Gerät tritt unterhalb des Plattenhaltungsarmes Laserstrahlung aus. Nicht in den Strahl blicken und nicht dem Strahl aussetzen!  
Laserstrahlung im Innern des Gerätes. Öffnen des Gehäuses zur Vermeidung von Strahlungsschäden nur durch qualifiziertes Fachpersonal zulässig. Informationsetikett auf Geräterückseite.  
Warnetikett innen am Plattenschacht.

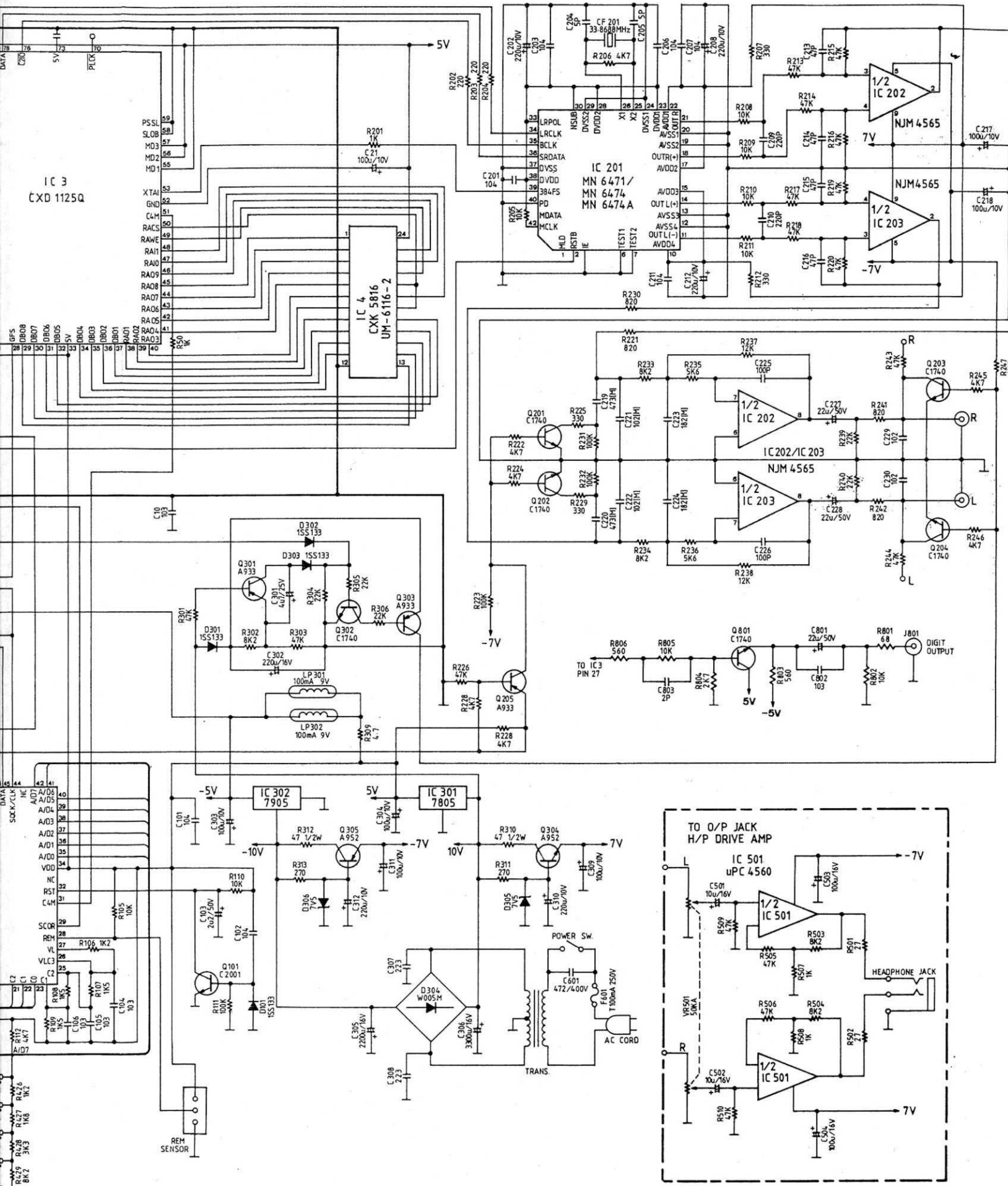
**VORSICHT!**  
**UNSIHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET IST. BESTRAHLUNG VON AUGE ODER HAUT DIREKT ODER DURCH STREUSTRABUNG VERMEIDEN.**  
**LASER KLASSE 1**  
**CAUTION - INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM CLASS 1 LASER PRODUCT.**

**LASER KLASSE 1**  
**CLASS 1**  
**LASER PRODUCT**

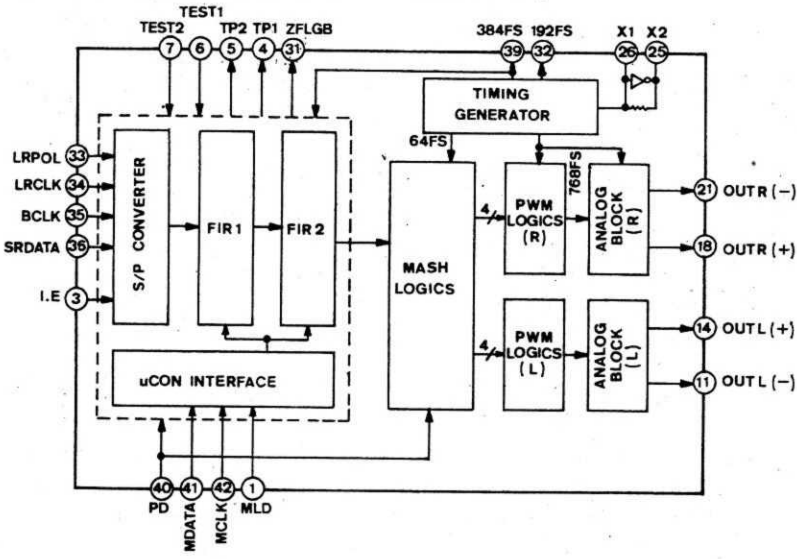




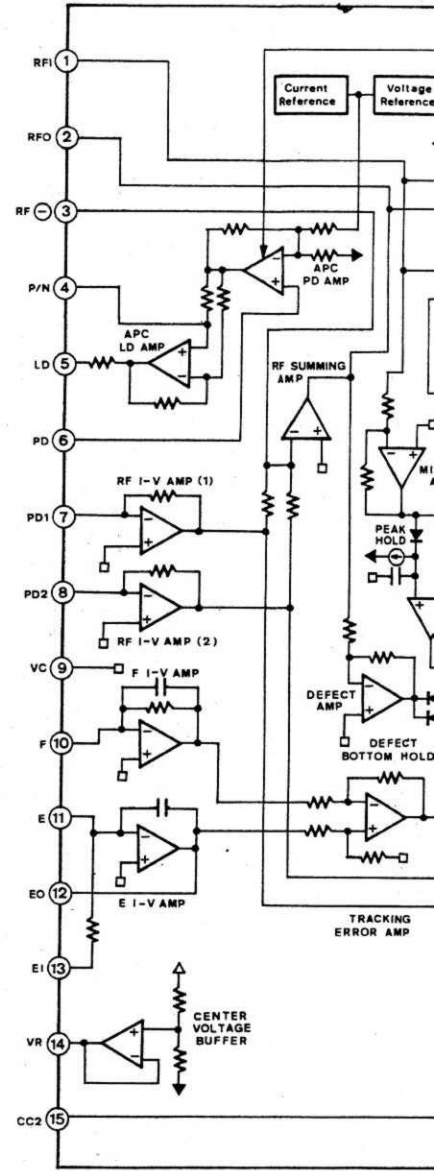




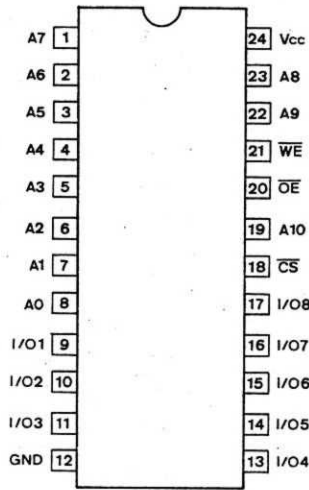
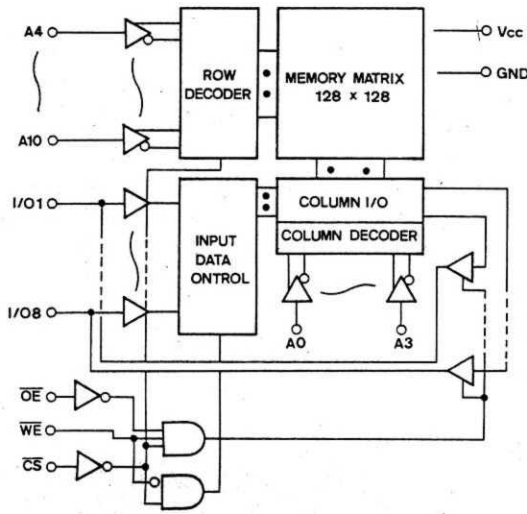
**MN6471/6474 (Digital Filter With D/A Converter)**



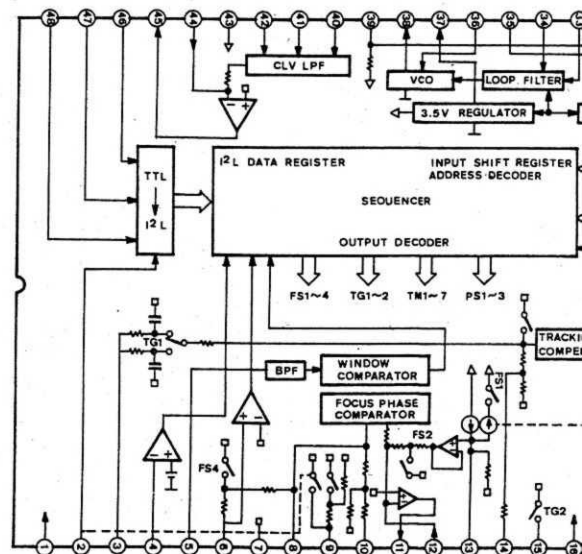
**CXA1081S (RF Amplifier)**

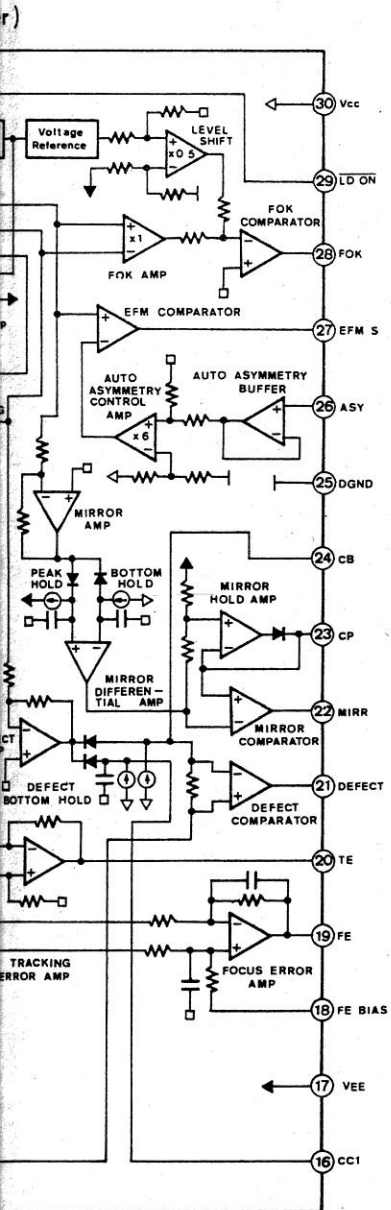


**UM 6116/CXK5816PN (SRAM)**

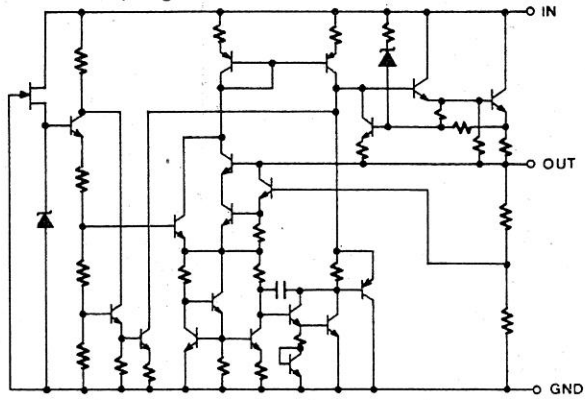


**CXA1082 (Servo Signal Processor)**

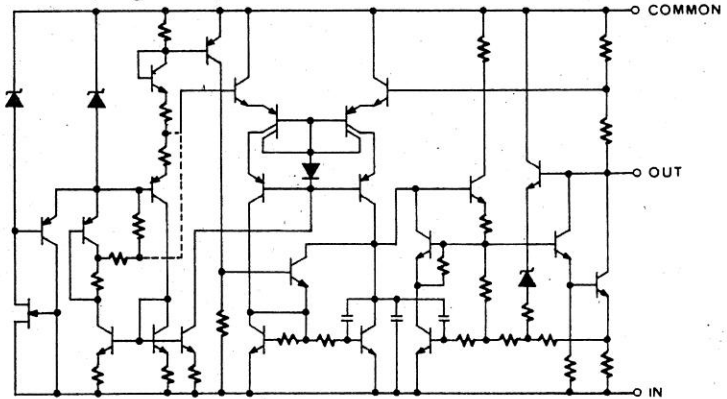




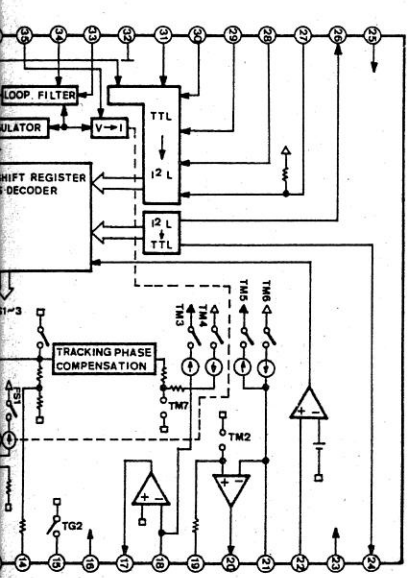
78005AP (Regulator)



7905 (Regulator)

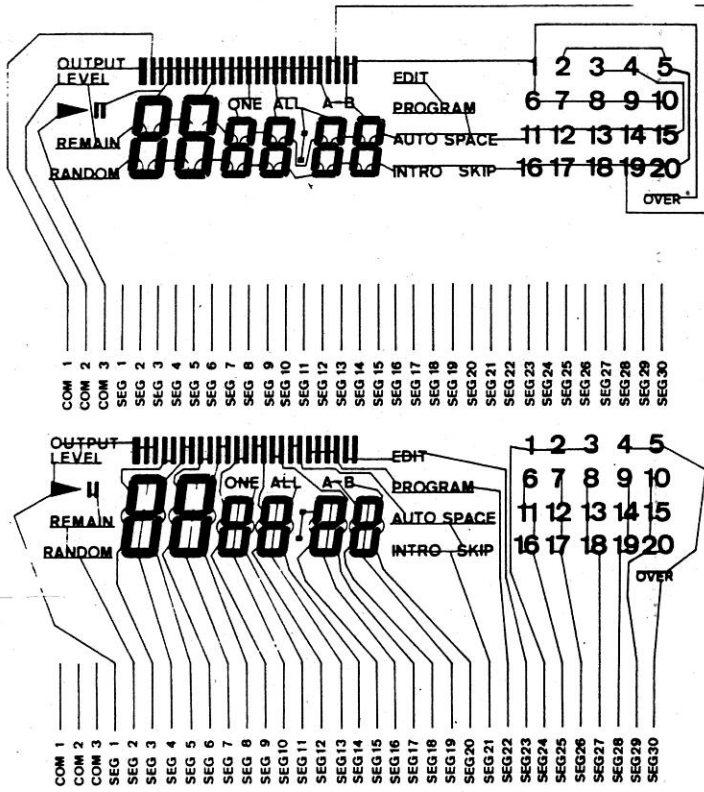


CXD 1130Q/CXD1125Q (Digital Signal Processor)

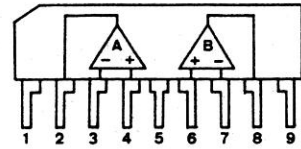




LC DISPLAY

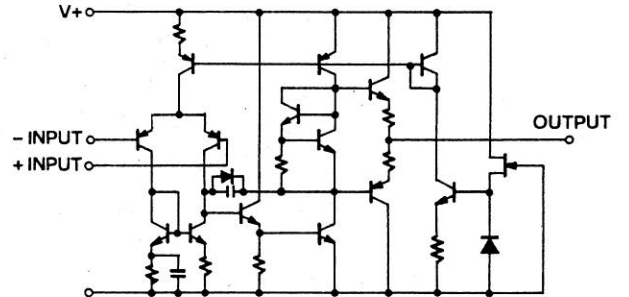


M4558S (ANALOG FILTER)

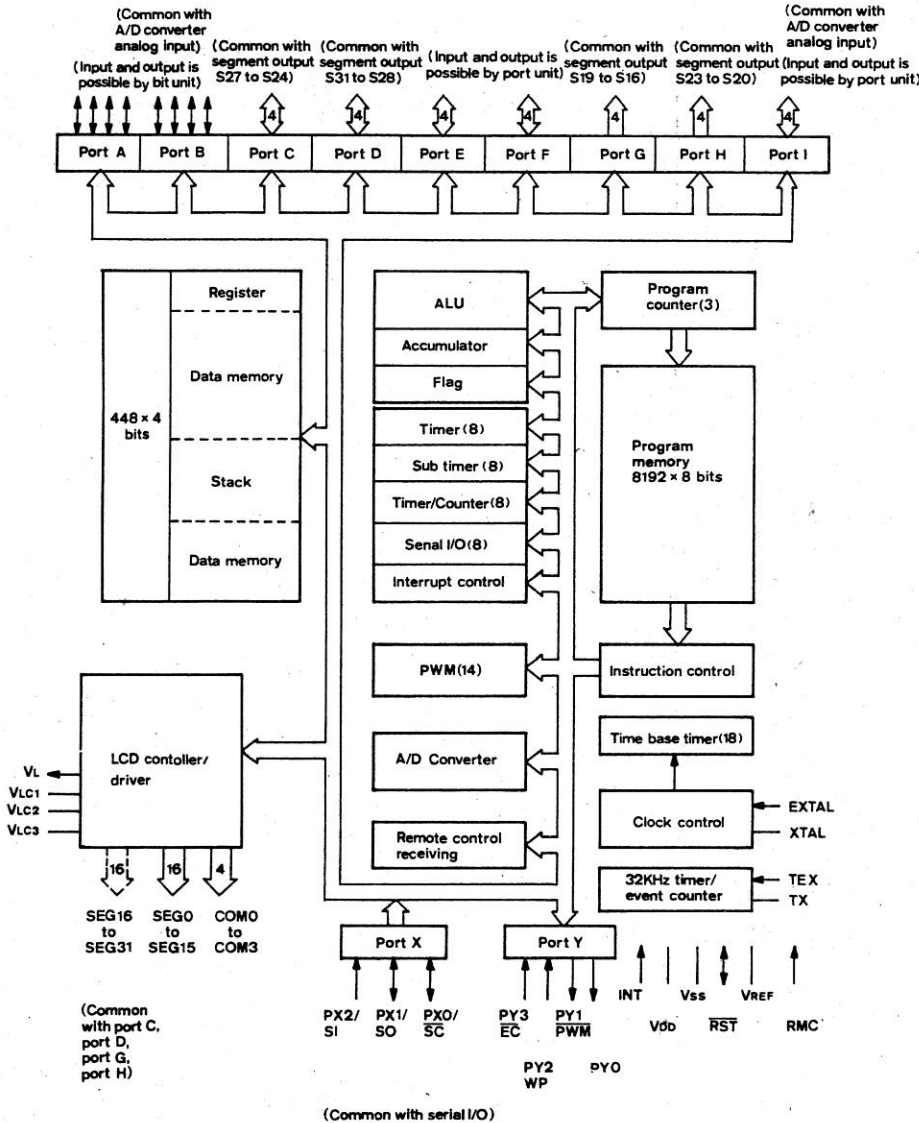


- 1 V+
- 2 A OUTPUT
- 3 A- INPUT
- 4 A+ INPUT
- 5 V-
- 6 B+ INPUT
- 7 B- INPUT
- 8 B OUTPUT
- 9 V+

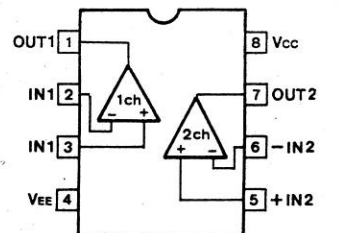
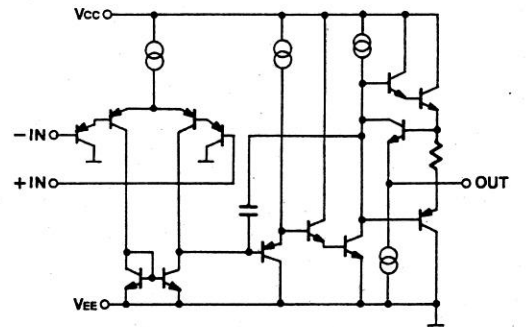
NJM4565 (Dual OP. Amp.)



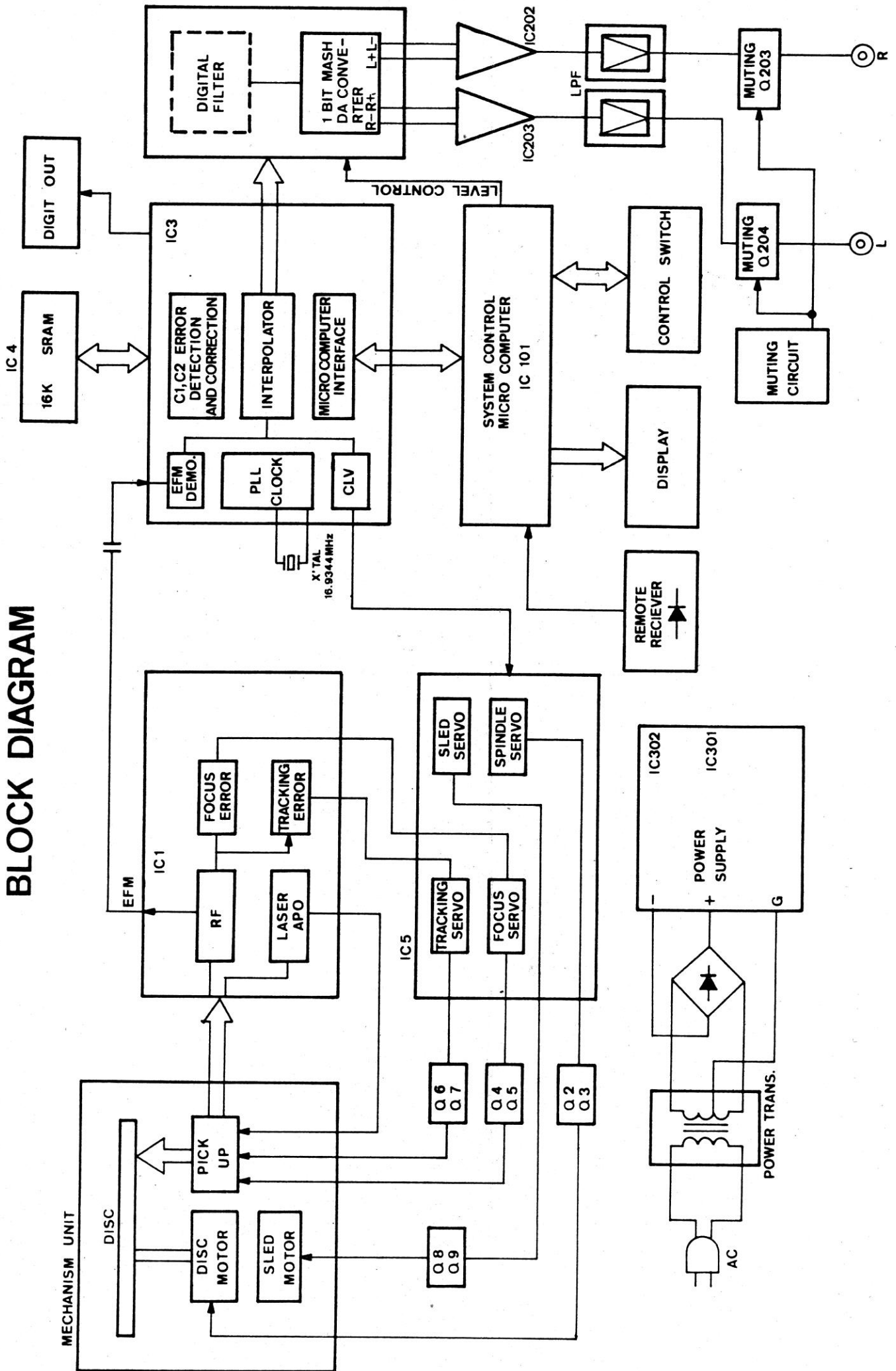
CXP5078H508Q (Micro Control)

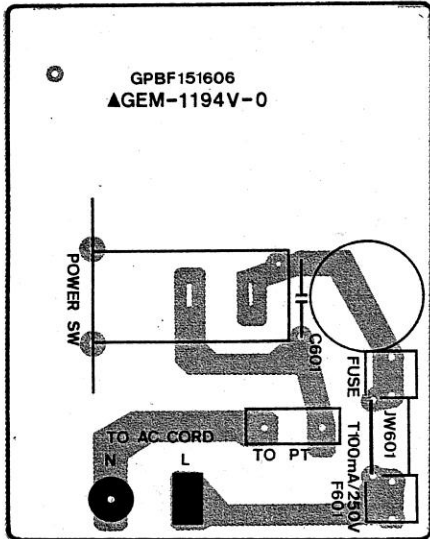
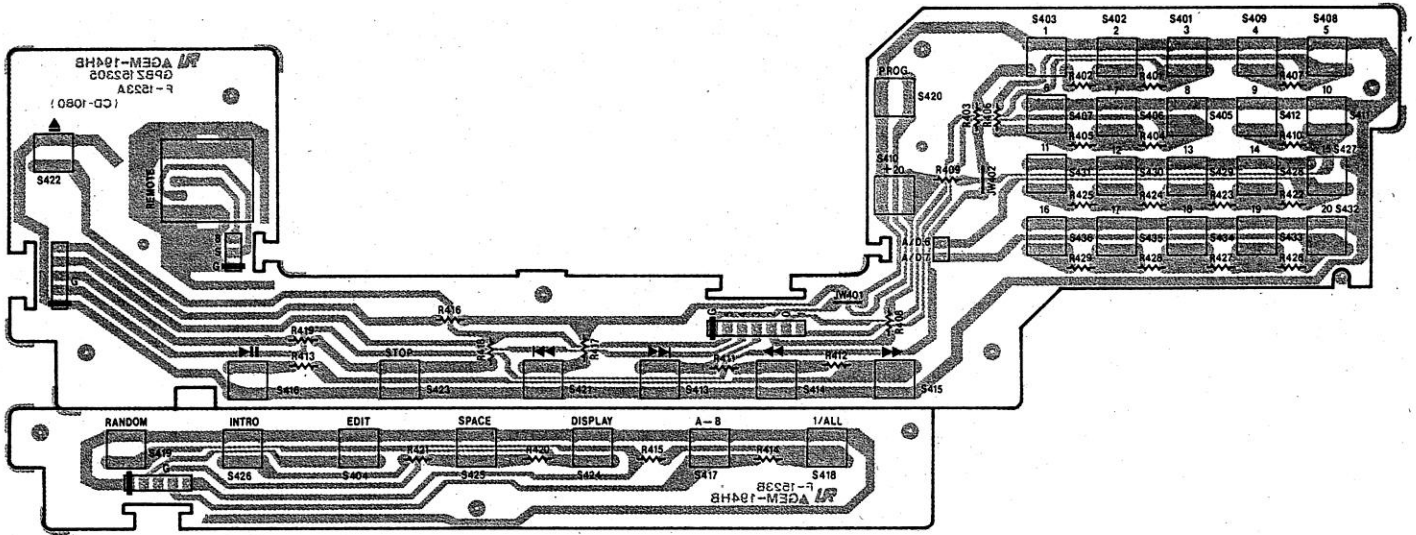


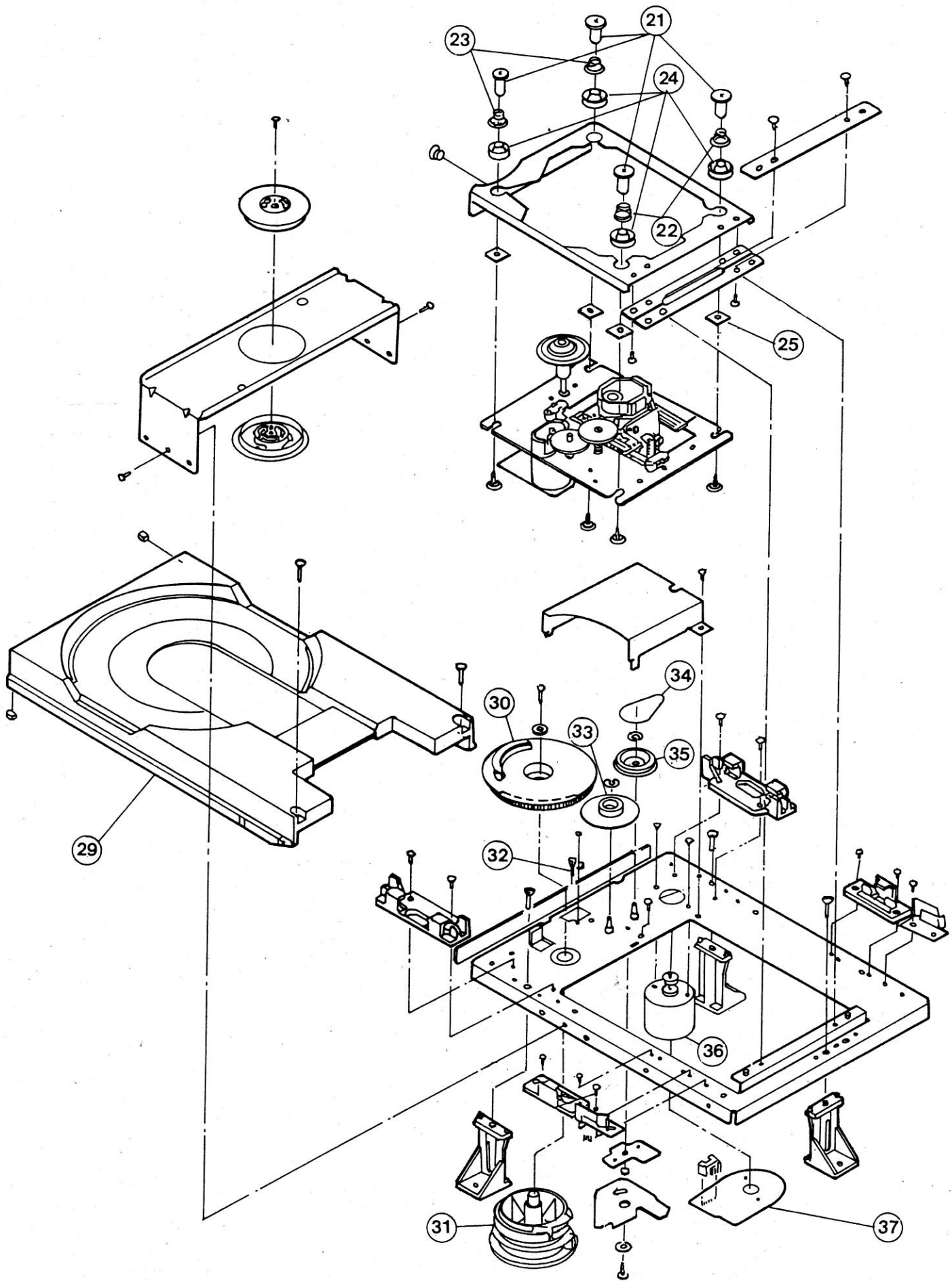
BA 10358F (APC)

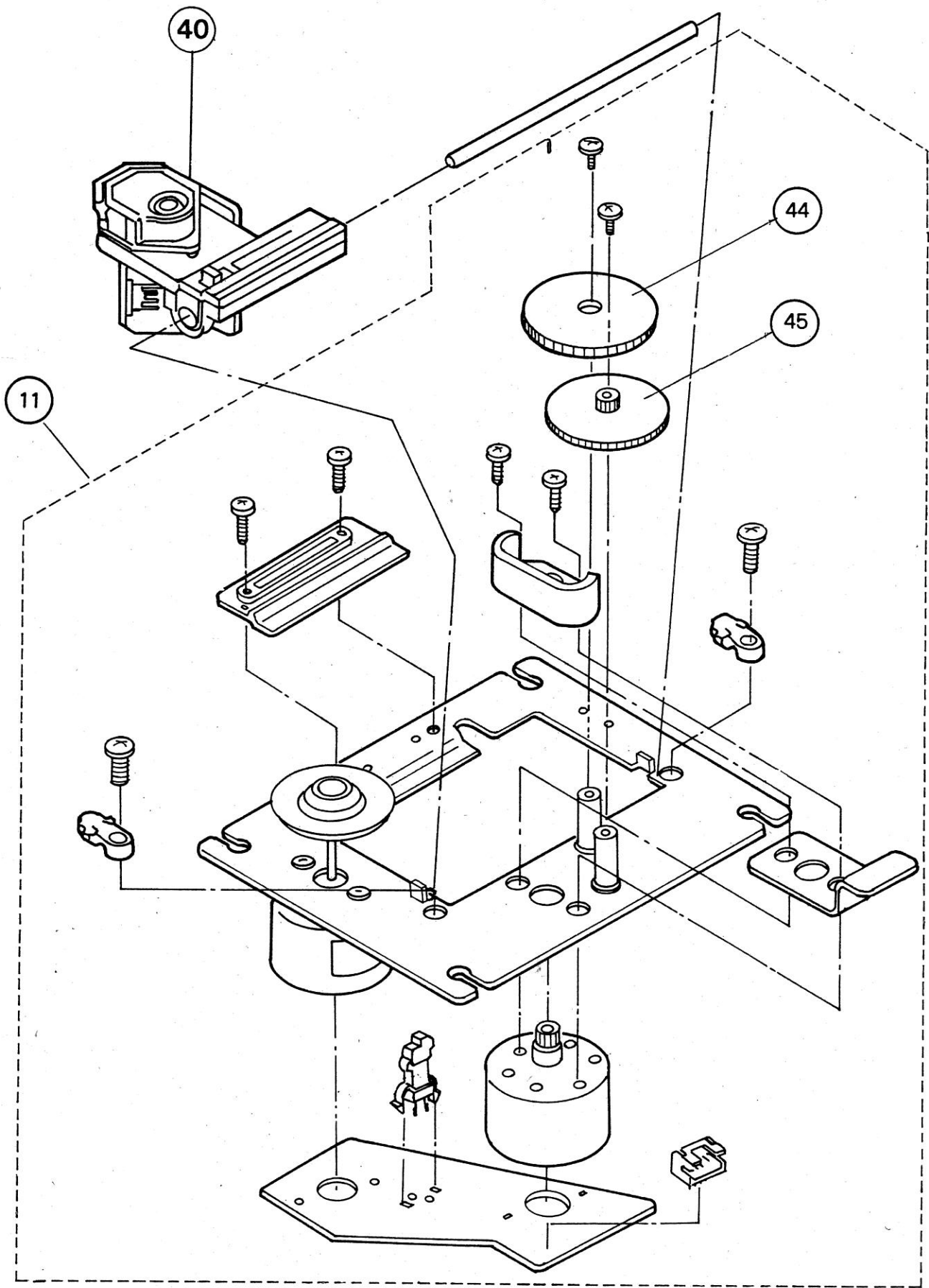


# BLOCK DIAGRAM

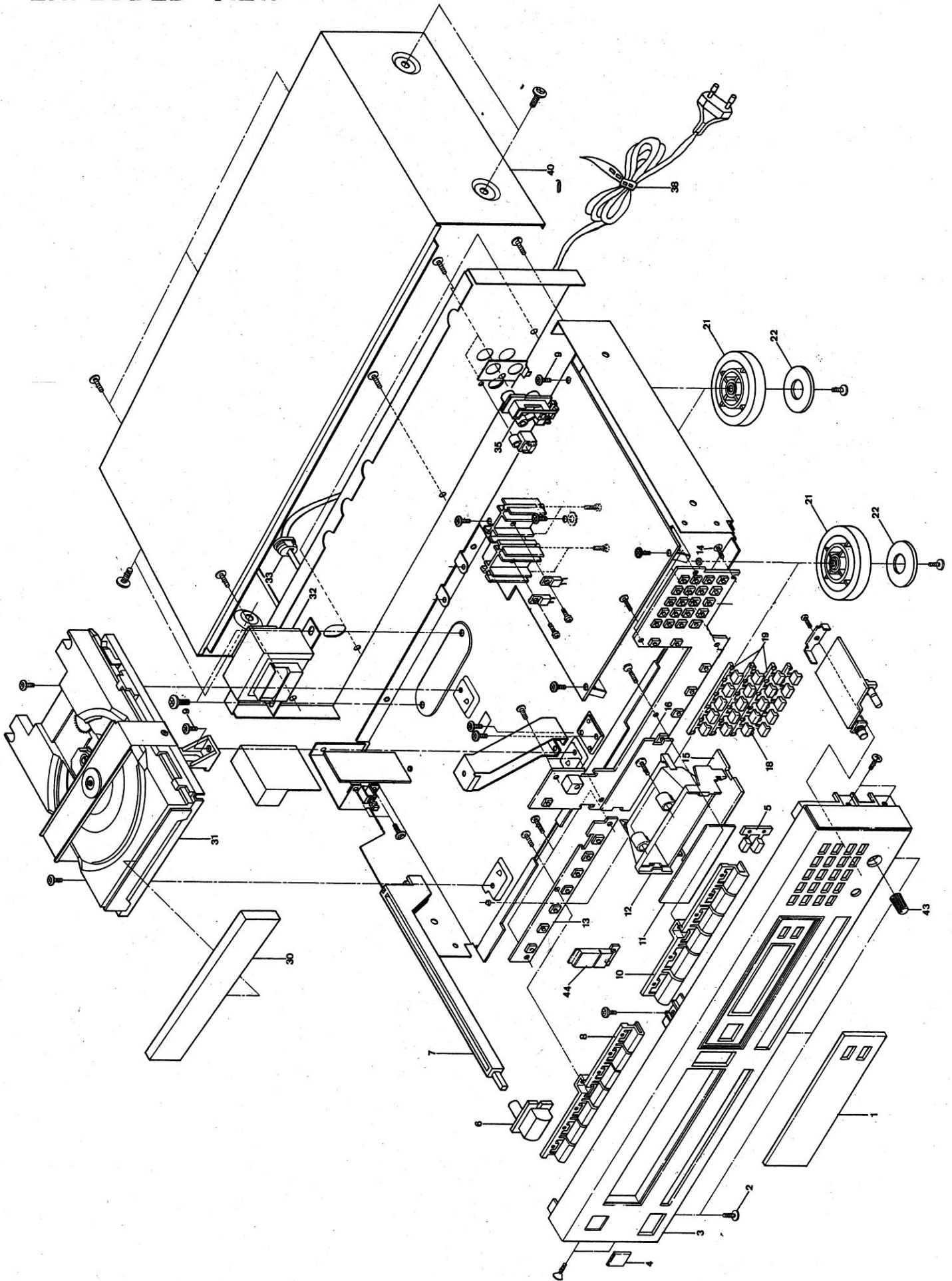








# EXPLODED VIEW



Ersatzteile · Replacement parts · Pièces détachées · CD 1080

Pos.	Art.-Nr.	Bezeichnung
1	289 511	Fenster
3	289 512	Frontblende
4	283 750	DUAL-Zeichen
5	289 513	Taste 2-fach (Programm)
6	289 514	Knopf Power
7	289 515	Tastenverlängerung
8	289 516	Taste 7-fach (One/All-Random)
10	289 517	Taste 6-fach (Play/Pause-Search)
18	289 518	Taste 5-fach (11-20)
19	289 519	Taste 5-fach (1-10)
21	289 520	Fuß
22	289 521	Fußplatte
30	289 522	Abdeckung
32	286 878	Netztrafo
33	237 548	Kabeldurchführung
35	289 524	Cinchbuchsen
38	232 996	Netzkabel Europa
40	289 525	Gehäuseblech
43	289 526	Drehknopf
44	289 527	Knopf Open/Close
	289 528	RC 1080 Remote Control
<b>CD-Mechanik</b>		
11	287 828	Mechanik
21	284 813	Dämpferachse
22	284 817	Feder V
23	284 818	Feder M
24	284 815	Gummipuffer
25	284 814	Halter
29	284 804	Schubblade
30	284 808	Laderad
31	284 809	Kurvenrad
32	283 736	Schalter
33	284 807	Zahnrad
34	284 315	Riemen
35	284 806	Antriebsrad
36	283 709	Motor (Load)
37	284 819	Motorplatte
40	286 958	Pick-up
44	289 529	Zahnrad
45	289 530	Zahnrad
<b>Elektronik</b>		
IC 1	283 143	IC CXA 1081 M
IC 2	286 838	IC BA 10358
IC 3	287 821	IC CXD 1125 Q
IC 4	287 822	IC CXK 5816 PN
IC 5	283 144	IC CXA 1082 Q
IC 6	273 253	IC NJM 4558 D-D
IC 101	289 500	IC CXP 5078 H 515
IC 201	289 501	IC MN 6471
IC 202	287 825	IC NJM 4565 S

Pos.	Art.-Nr.	Bezeichnung
IC 203	287 825	IC NJM 4565 S
IC 301	286 809	IC KIA 78005
IC 302	286 910	Spule 0,5 UH
Q 1	275 200	Transistor 2 SA 952 K
Q 2	275 200	Transistor 2 SA 952 K
Q 5	275 200	Transistor 2 SA 952 K
Q 6	275 200	Transistor 2 SA 952 K
Q 8	275 200	Transistor 2 SA 952 K
Q 11	275 200	Transistor 2 SA 952 K
Q 305	275 200	Transistor 2 SA 952 K
Q 3	275 261	Transistor 2 SC 2001 L
Q 4	275 261	Transistor 2 SC 2001 L
Q 7	275 261	Transistor 2 SC 2001 L
Q 9	275 261	Transistor 2 SC 2001 L
Q 10	275 261	Transistor 2 SC 2001 L
Q 101	275 261	Transistor 2 SC 2001 L
Q 304	275 261	Transistor 2 SC 2001 L
Q 13	247 648	Transistor 2 SC 1740
Q 14	247 648	Transistor 2 SC 1740
Q 201	247 648	Transistor 2 SC 1740
Q 202	247 648	Transistor 2 SC 1740
Q 203	247 648	Transistor 2 SC 1740
Q 204	247 648	Transistor 2 SC 1740
Q 302	247 648	Transistor 2 SC 1740
Q 15	283 699	Transistor DTC 114 YS
Q 16	283 699	Transistor DTC 114 YS
Q 12	281 505	Transistor 2 SA 933 S
Q 205	281 505	Transistor 2 SA 933 S
Q 301	281 505	Transistor 2 SA 933 S
Q 303	281 505	Transistor 2 SA 933 S
D 1	281 494	Diode 1 SS 133 HV
D 101	281 494	Diode 1 SS 133 HV
D 102	281 494	Diode 1 SS 133 HV
D 301	281 494	Diode 1 SS 133 HV
D 302	281 494	Diode 1 SS 133 HV
D 303	281 494	Diode 1 SS 133 HV
D 304	286 782	Diode W 005 H
CF 201	289 502	Quarz 33,8688 mHz
	286 821	Chinchbuchse 2-fach
	289 532	LC Display
LP 301	286 844	Lampe 9 V
LP 302	286 844	Lampe 9 V
J 501	289 503	Kopfhörerbuchse
VR 501	289 504	Steller 50 K X 2
S 401	287 569	Schalter/Switch
bis		
S 436	287 569	Schalter/Switch
	286 845	IR-Receiver
PF 1	283 425	Schalter (Power)

Änderungen vorbehalten! Subject to change! Sous réserve de modification!

**Achtung:**

Vor Ausbau des Pick-up bezeichnete Anschlußpunkte durch Verlöten kurzschließen.  
Nach Einbau des reparierten bzw. neuen Pick-up Kurzschluß wieder trennen.

■ **Cautions when removing the laser pick-up for repairing.**

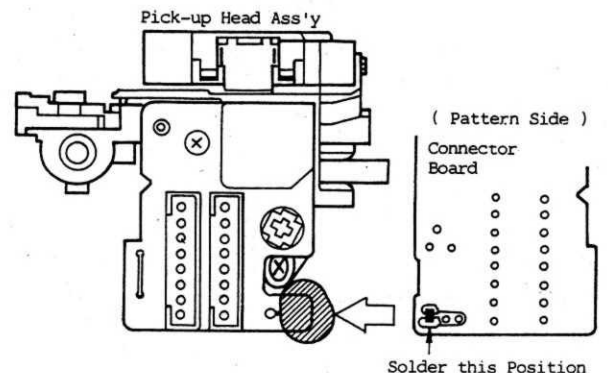
Before removing the laser pick-up, short-circuit the terminals by soldering.  
This is to prevent damage to the pick-up during removal operation.

1. Solder the pick-up terminals.
2. Detach 2 lead connectors.

■ **Cautions when replacing the laser pick-up.**

1. Insert the 2 pick-up lead connectors into the connector PCB.
2. Detach the short-circuited pick-up terminal soldering.

\* The terminal is factory soldered for protection, so use the same procedure when replacing the pick-up when a new one.



# OVERALL WIRING

