

Dual

C 818



Service-Anleitung Service Manual Instructions de Service

Technische Daten (typische Werte)	Technical data (typical value)	Caractéristiques techniques (valeur caractéristique)	
Bandgeschwindigkeit	Tape speed	Vitesse de bande	4,75 cm/s (1 7/8 ips)
Kurzzeitige Geschwindigkeitsschwankungen (Tonhöhenchwankungen) W.R.M.S. nach DIN Aufnahme/Wiedergabe	Wow and flutter Weighted RMS to DIN for recording/playback	Fluctuations instantanées de la vitesse (variations de la hauteur du son) W.R.M.S. suivant DIN enregistrement/lecture	± 0,045 % ± 0,12 %
Übertragungsbereich (bezogen auf DIN-Toleranzfeld) Fe-Band CrO ₂ -Band Reineisen-Band	Frequency response (ref. to DIN tolerances) Standard Fe tape CrO ₂ tape Pure metal tape	Bande passante (ramenée à la plage de tolérance DIN) Bande Fe Bande CrO ₂ Bande fer pur	25 - 16 000 Hz 25 - 16 000 Hz 25 - 17 000 Hz
Ruhegeräuschspannungsabstand mit Dolby NR Fe-Band CrO ₂ -Band Reineisen-Band	Signal-to-noise ratio with Dolby NR Standard Fe tape CrO ₂ tape Pure metal tape	Rapport signal/bruit avec Dolby NR Bande Fe Bande CrO ₂ Bande fer pur	Dolby NR B C 64 dB 71 dB 64 dB 71 dB 67 dB 74 dB
Übersprechdämpfung (bei 1000 Hz) zwischen zusammengehörigen Kanälen zwischen Kanälen in Gegenrichtung	Channel separation (at 1000 Hz) between stereo channels in opposite direction	Diaphonie (à 1000 Hz) en sens stéréo en sens inverse	40 dB 70 dB
Löschdämpfung bei 1000 Hz	Erase at 1000 Hz	Atténuation d'effacement à 1000 Hz	70 dB
Oszillator-Frequenz (Gegentaktoszillator)	Oscillator (push/pull oscillator)	Fréquence de l'oscillateur (oscillateur push-pull)	105 kHz
Eingänge (Empfindlichkeit für 0 dB) Mikrofon (1/4" Koaxial-Buchse) Receiver/Verstärker (DIN-Buchse) Receiver/Verstärker (RCA-Buchsen)	Inputs (sensitivity at 0 dB) Microphone (1/4" coaxial jack) Receiver/amplifier (DIN connector) Receiver/amplifier (RCA jacks)	Entrées (sensibilité pour 0 dB) Micro (prise coaxiale de 1/4") Ampli-tuner/amplificateur (prise DIN) Ampli-tuner/amplificateur (prise RCA)	0,4 mV/10 kOhm 0,25 mV/ 2,5 kOhm 80 mV/60 kOhm
Ausgänge Receiver/Verstärker (DIN-Buchse) Receiver/Verstärker (RCA-Buchsen) Kopfhörer (1/4" Koaxial-Buchse)	Outputs Receiver/amplifier (DIN connector) Receiver/amplifier (RCA jacks) Headphones (1/4 coaxial jack)	Sorties Ampli-tuner/amplificateur (prise DIN) Ampli-tuner/amplificateur (prises RCA) Casque d'écoute (prise coaxiale de 1/4")	550 mV/8 kOhm 560 mV/3 kOhm 4-2000 Ohm
Umspuzzeit für C 60 Cassette	Fast winding time for C 60 cassettes	Temps de reboinage pour cassette C 60	95 sec.
Netzspannung	Line voltage	Tension secteur	Europa Ausf. 230 V USA/Kanada Ausf. 115 V
Netzfrequenz	Line frequency	Fréquence secteur	50/60 Hz
Leistungsaufnahme	Power requirement	Consommation	25 Watt

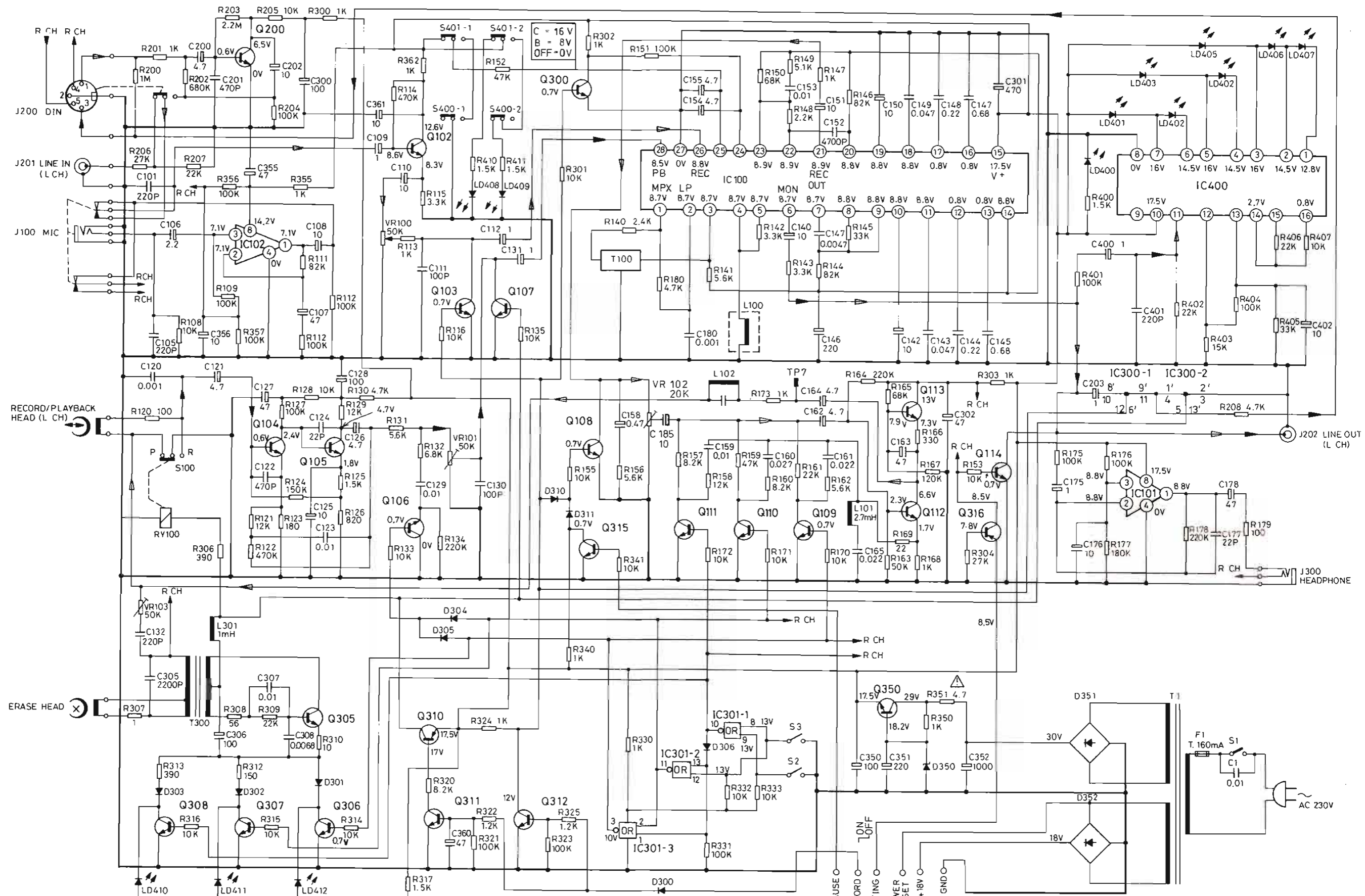
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Abgleichanleitung C 818 · Adjustment instructions C 818

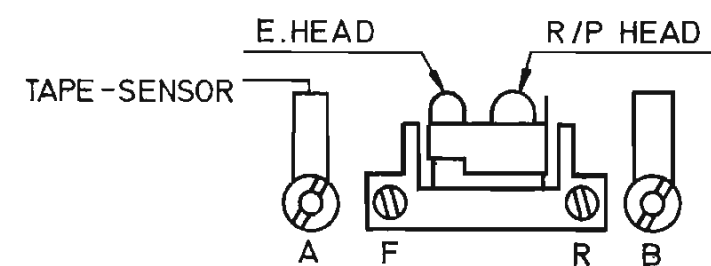
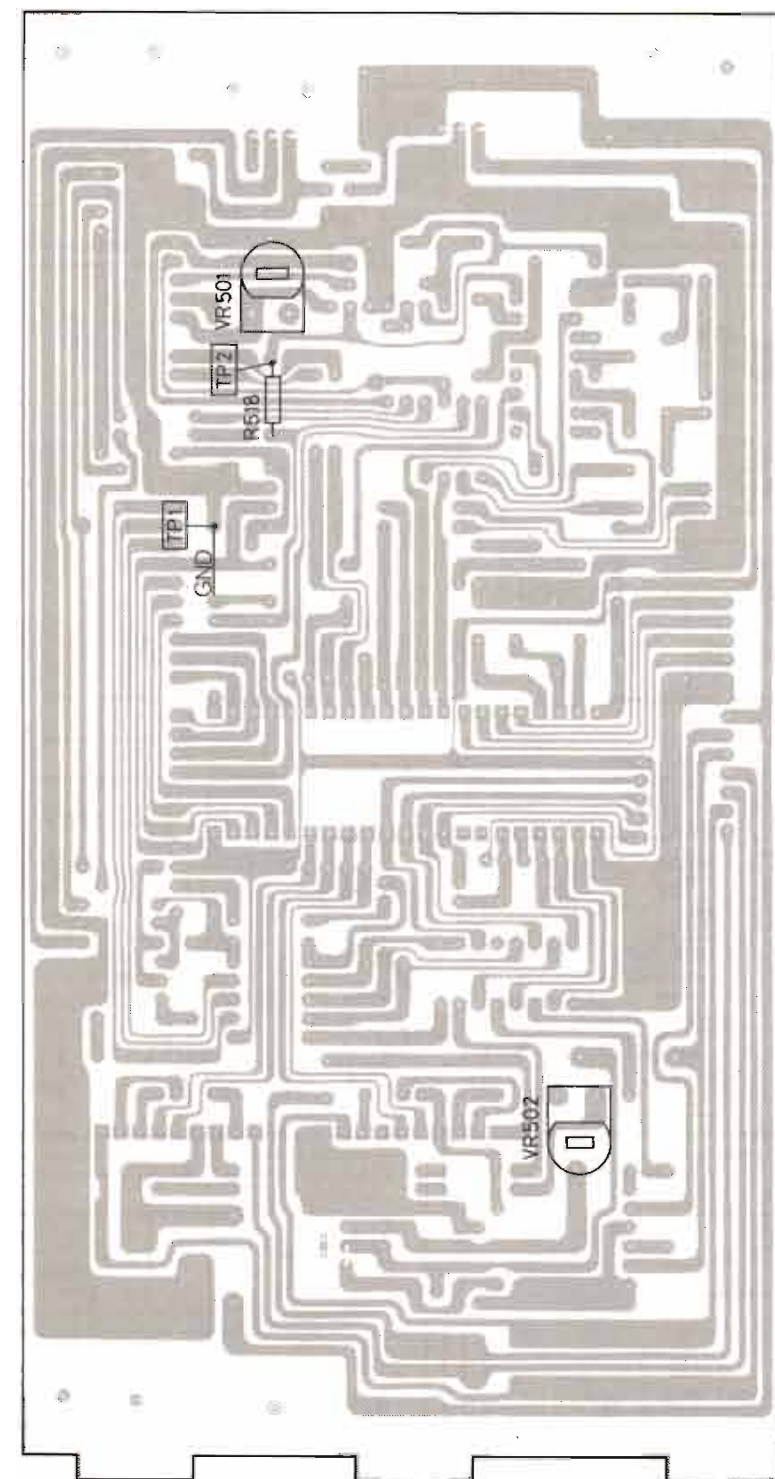
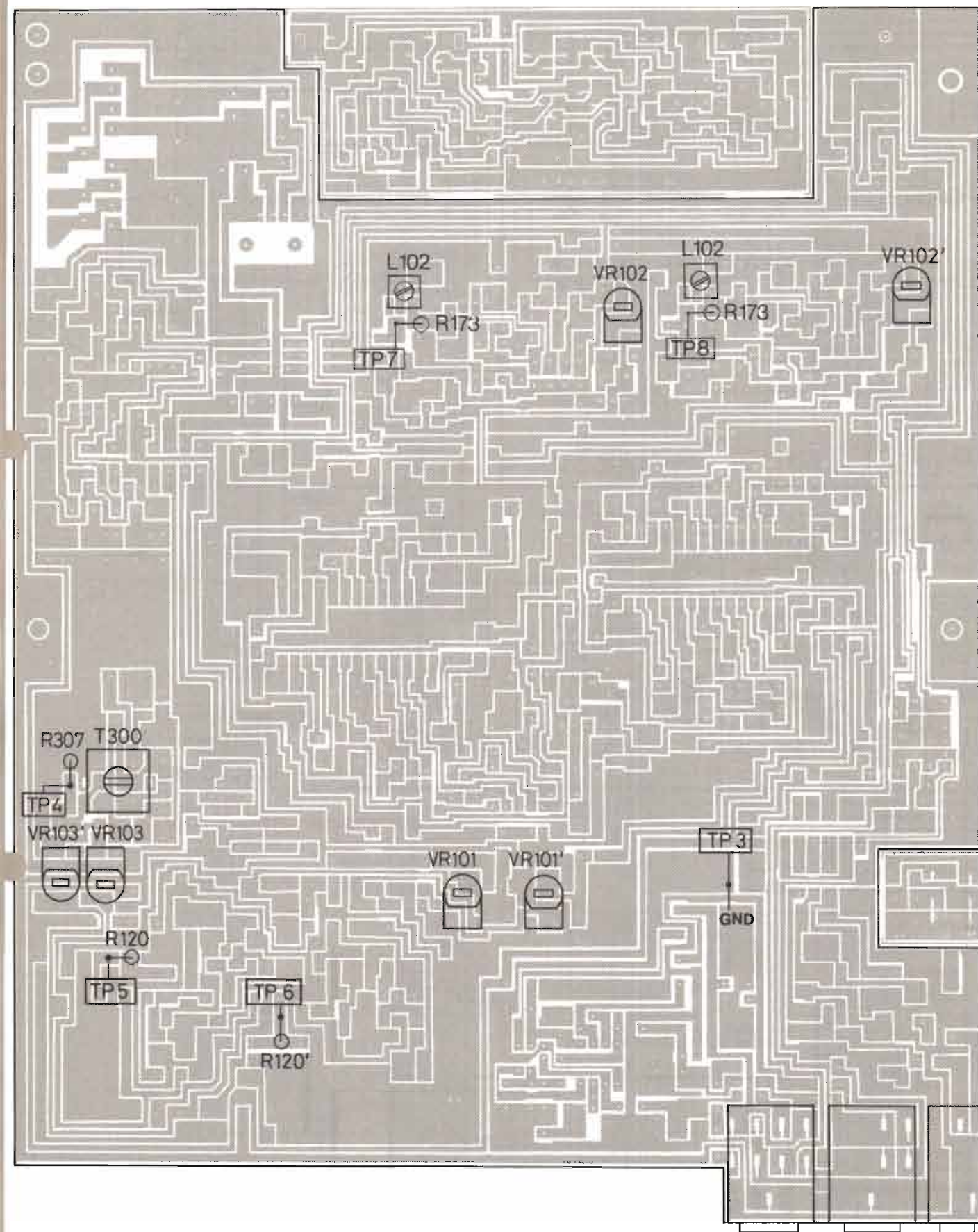
Signalquelle Signal source	Einstellung Signalquelle Signal source adjustment	Einstellung Gerät Unit adjustment	Meßgerät-Anschluß Testgear connection	Abgleichposition Adjustment position	Abgleich, Bemerkung Adjustment, Remarks
Bandlauf · Tape Run					
Spiegelkassette Mirror cassette				Schrauben A u. B Screws A a. B	Bandlauf prüfen Check tape run
Tape Sensor					
Meßkassette 2 Test cassette 2		Play Forward: ON	DC-Voltmeter an DC-voltmeter to TP 2 (R 518)	VR 501	1,0–1,5 V DC
Bandzug · Tape Tension					
Bandzugmeßkassette Torque Meter cassette		Play Forward: ON		VR 502	55 ± 5 p/cm
Bandgeschwindigkeit · Tape Speed					
Meßkassette 1 Test cassette 1	3150 Hz	Play Forward: ON	Frequenzzähler an Frequency counter to OUTPUT L/R	Steller Motor Motor screw	3150 Hz, – 0,5 %
Azimut · Azimuth					
Meßkassette 21 Test cassette 21	10 kHz	Play Forward: ON	NF-Voltmeter an AF-voltmeter to Output L/R	Azimuthschraube F Azimuth screw F	Maximum mit Lack sichern Lock with Lacquer
		Play Reverse: ON		Azimuthschraube R Azimuth screw R	
Wiedergabepegel · Playback Level					
Meßkassette 21 Test cassette 21	400 Hz Dolby	Dolby B: ON	NF-Voltmeter an AF-voltmeter to OUTPUT L/R	VR 101 VR 101'	560 mV
Oszillator, HF-Sperrkreis · Oscillator, RF-trap					
IEC IV-Kassette IEC IV-cassette		Met: ON Record: ON	Frequenzzähler an Frequency counter to TP 4 (R 307)	T 300	105 kHz ± 1 kHz
			NF-Voltmeter an AF-voltmeter to TP 7 TP 8	L 102 L 102'	Minimum HF Minimum RF
Aufnahmepegel · Record Level					
NF-Generator an AF-generator to INPUT L/R	400 Hz ca. 150 mV BASF S 4592 A IEC II	Cr: ON Record: ON	NF-Voltmeter an AF-voltmeter to OUTPUT L/R	Record Level	560 mV OUTPUT L/R, 0 db LED Meter
				VR 102 VR 102'	560 mV
HF-Vormagnetisierung · RF-Magnetic-Biasing					
		Cr: ON Record: ON	NF-Voltmeter an AF-voltmeter to TP 5 (R 120) TP 6 (R 120')	VR 103 VR 103'	Vorpegel ca. 60 mV Pre Level appr. 60 mV
NF-Generator an AF-generator to INPUT L/R	400 Hz, 10 kHz 100 mV BASF S 4592 A IEC II		NF-Voltmeter an AF-voltmeter to OUTPUT L/R	Record Level	VR 103 VR 103'
					Bei Wiedergabe muß der 10 kHz Fegel dem 400 Hz Pegel entsprechen. Mehr Höhen = gegen den Uhrzeigersinn drehen. Adjust to level symmetry on playback test frequency, at treble emphasis: turn counter clockwise
Meßkassette 1: Gleichlaufkassette 3150 Hz Meßkassette 2: Schwarzes Leergehäuse ohne Vortauf- und Magnetband Meßkassette 21: 400 Hz Dolby-Pegel, 200 nWb/m 400 Hz – 20 dB, 10 kHz – 20 dB Bezeichnung: VR 103 = linker Kanal VR 103' = rechter Kanal			Test cassette 1: Tape speed test cassette 3150 Hz Test cassette 2: Empty black cassette housing without Leader- and magnetic tape Test cassette 21: 400 Hz Dolby-Level, 200 nWb/m 400 Hz – 20 dB, 10 kHz – 20 dB Signification: VR 103 = left channel VR 103' = right channel		Bandsorten: IEC I BASF LH Super I IEC II BASF Cr Super II IEC IV TDK MA

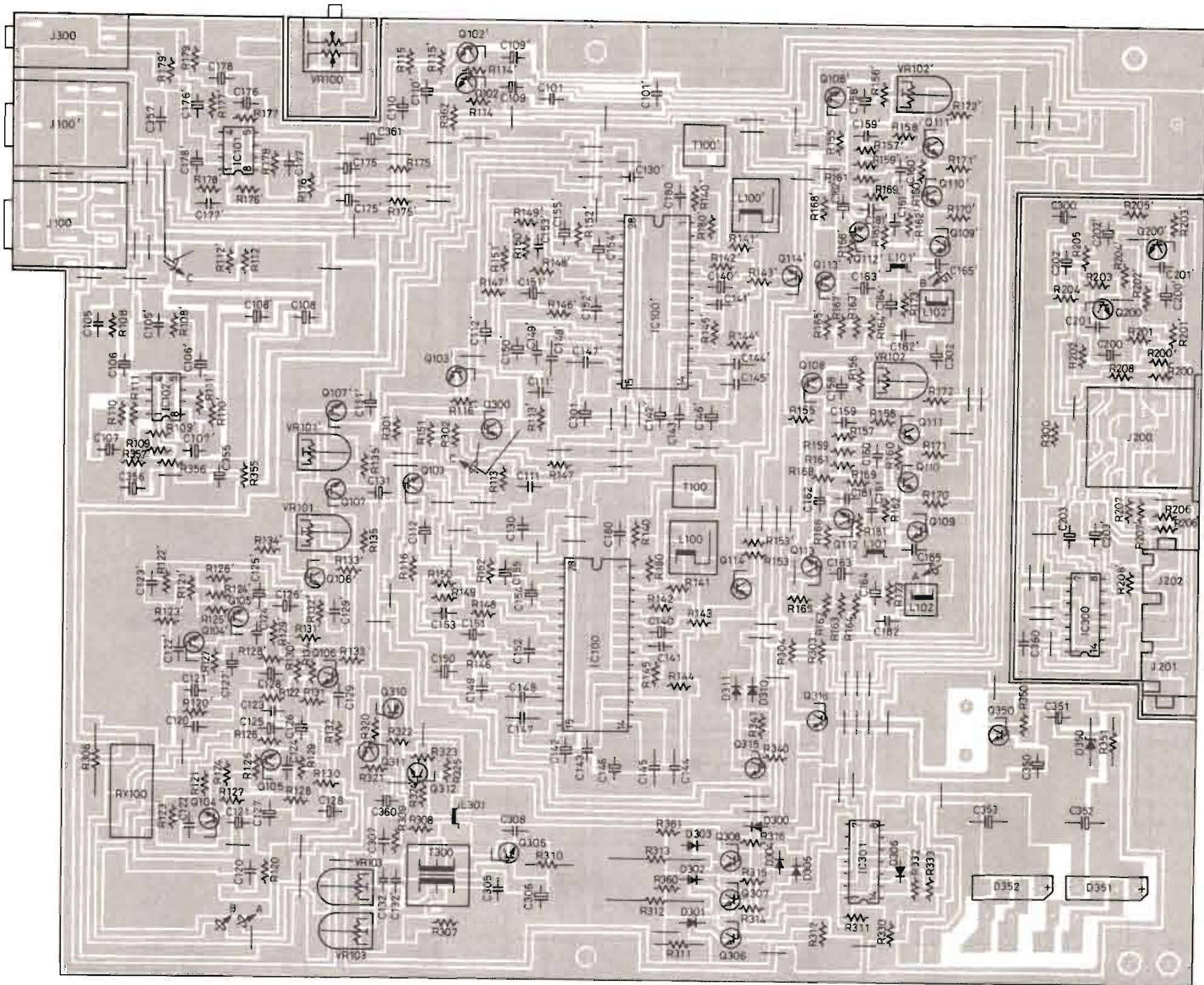


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|-----------------------------|-----------------------------|---|
| IC100 ---- TEA0665 | Q114,114',300 --- 2SD1302-T | LD406,406',407,407'---GL-9PR24 |
| IC101,102 --- AN6556 | Q305 ----- 2SC1384-S | LD408,409 ----- GL-9HY24 |
| IC300 ---- TC4066BP | Q306 ----- 2SD592-S | |
| IC301 ---- TC4001BP | Q310 ----- 2SA684-S | |
| IC400 ---- AN6882 | Q316 ----- 2SA564-R | |
| | Q350 ----- 2SD886-Y | |
| Q102,102',104,304,105,105', | D300~306,310,311-MA150 | S1 --- POWER ON/OFF SWITCH (OFF POSITION) |
| 112,112',113,113',200, | D350 ----- HZ18-2 | S2 --- AUTO TAPE SWITCH |
| 200 ----- 2SC2634-T | D351,352 ----- SVB10-100 | S100 --- RECORD/PLAYBACK SWITCH (PLAYBACK POSITION) |
| Q103,103',106~111,106~111', | LD400~405,400~405', | S400 --- DOLBY-B SWITCH (OFF POSITION) |
| 301,307,308,311,312, | 410~412 ----- GL-9NG24 | S401 --- DOLBY-C SWITCH (OFF POSITION) |
| 315 ----- 2SC1685-S | | |

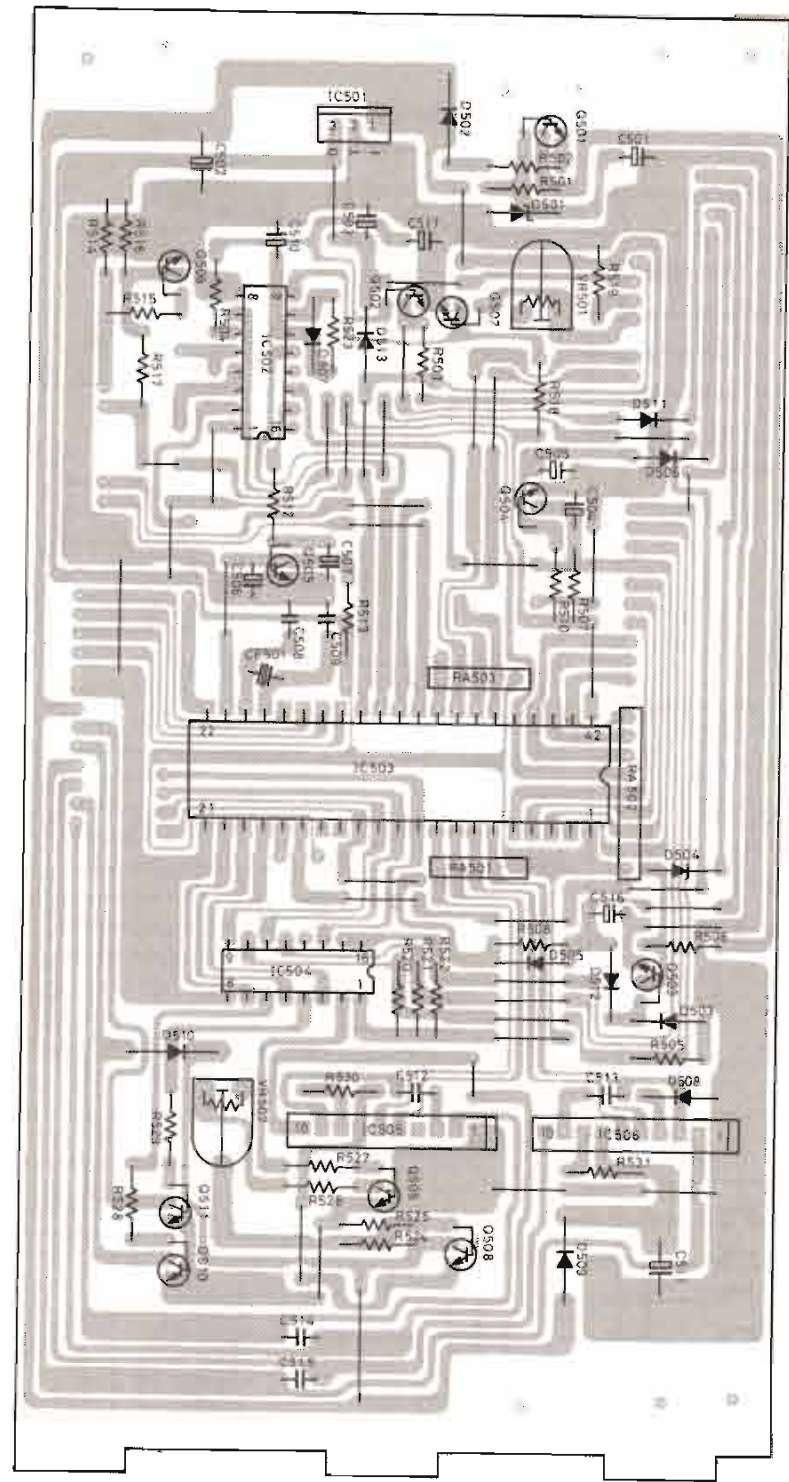
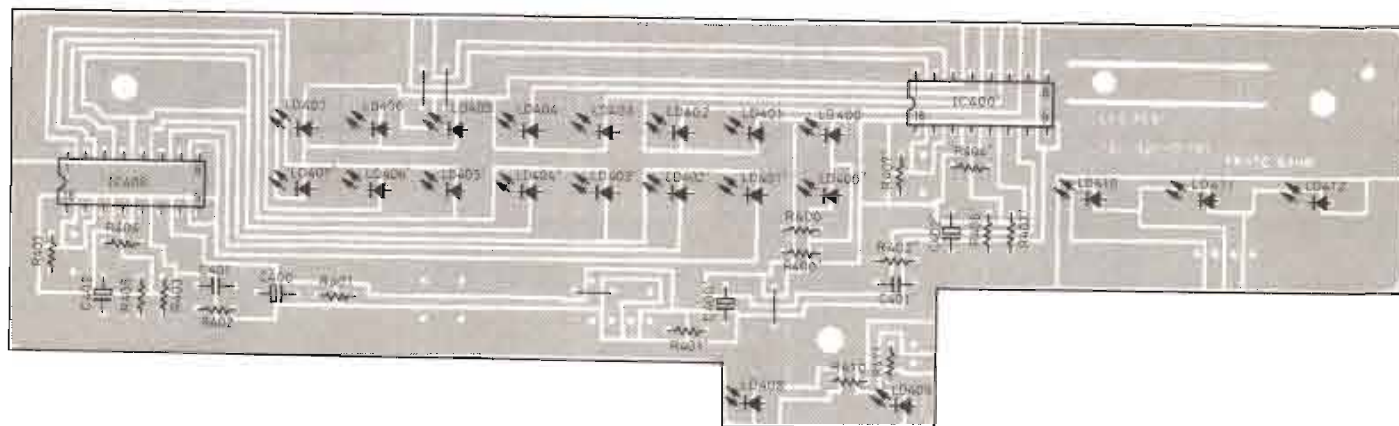
▷ SIGNAL BUS RECORD
 ◀ SIGNAL BUS PLAY

PAUSE O
 RECORD O
 MUTING O
 POWER RESET
 +18V O
 GND O

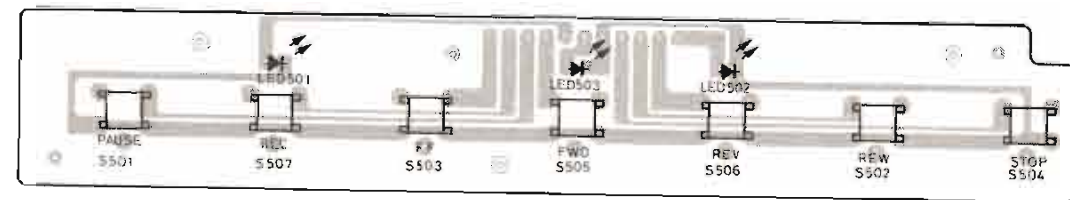




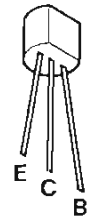
LED-Platte / LED board / Plaque de LED L



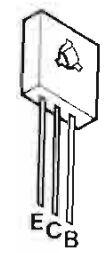
Tasterplatte / Key board / Plaque de touche L



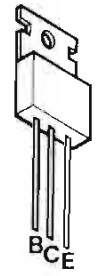
L = Leiterseite / Wiring side / Côté de conducteur



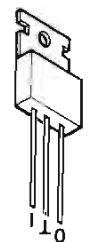
- 2 SC 2634-T
- 2 SC 1685-S
- 2 SD 1302-T
- 2 SC 1384-S
- 2 SD 592-S
- 2 SA 684-S
- 2 SA 564-R
- 2 SD 893 A-R



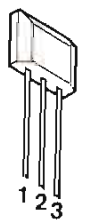
- 2 SD 549



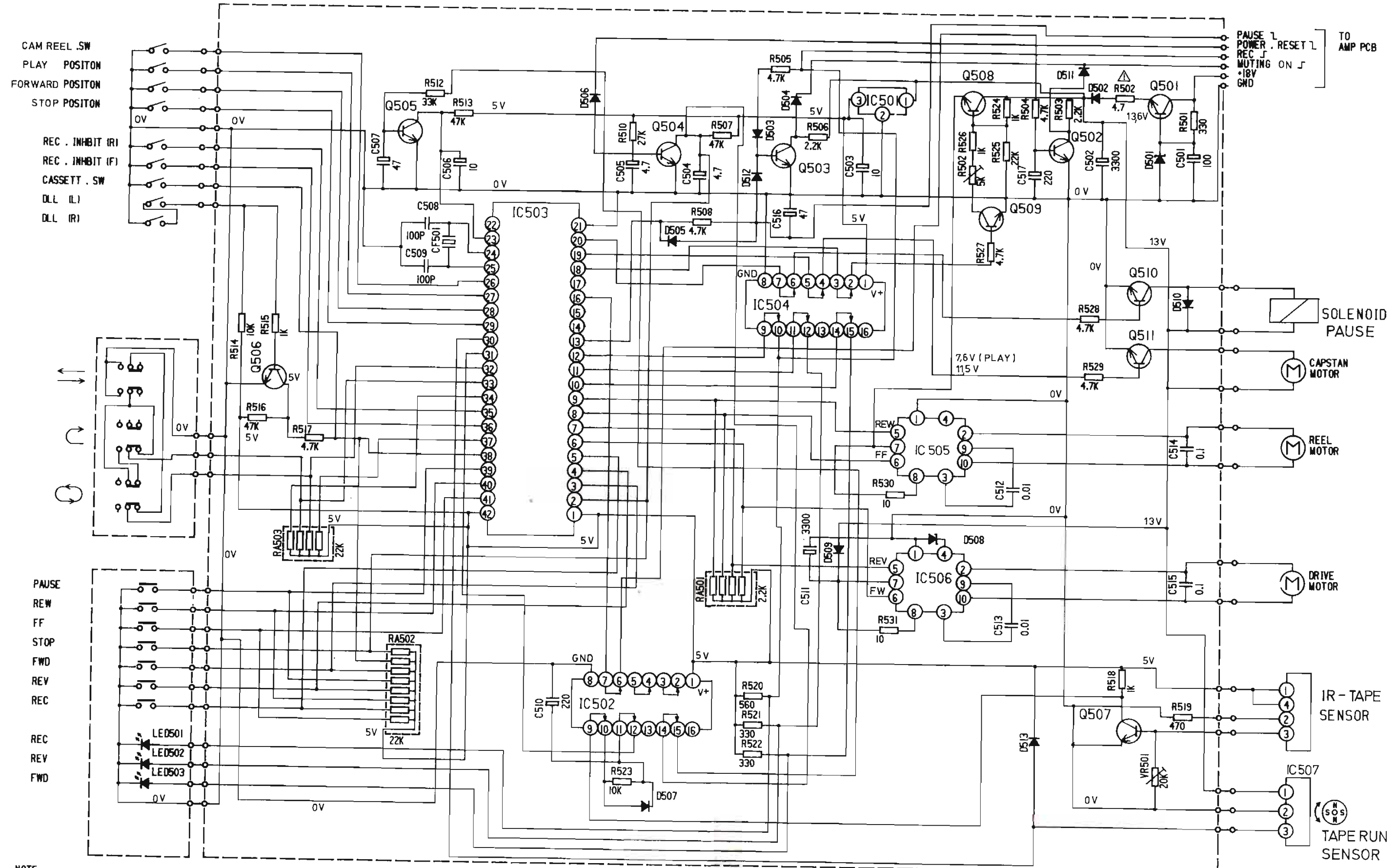
- 2 SD 886-Y



- µA 78 MO5 UC

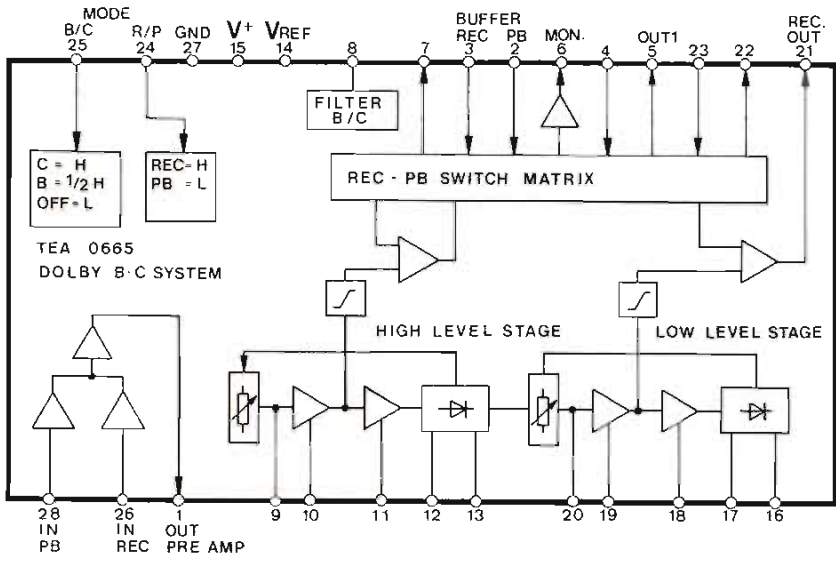


- DN 6838

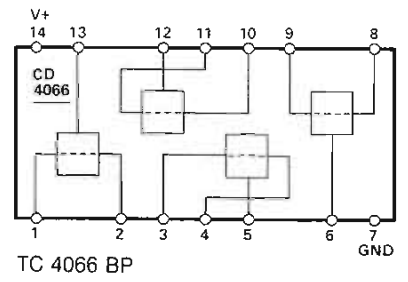


NOTE

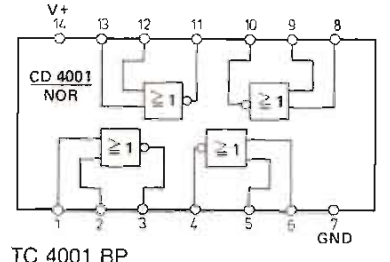
(IC)	(TR)	(DI)	(LED)
IC501 : UA78M05UC	Q501, 508 : 2SD549	D501 : HZ15-3	LED501 : GL-9PR24
IC502, 504 : TD4049BP	Q502, 503, 504, 505 : 2SC1685-S	D502, 509, 510 : SR1S-2	LED502, 503 : GL-9NG24
IC503 : TMP432IP	Q506, 507, 509	D503, 504, 505, 506, 507 : MA150	
IC505, 506 : BA6109	Q510, 511 : 2SD893A-R	511, 512, 513	
IC507 : DN 6838		D508 : GZA6.8X	



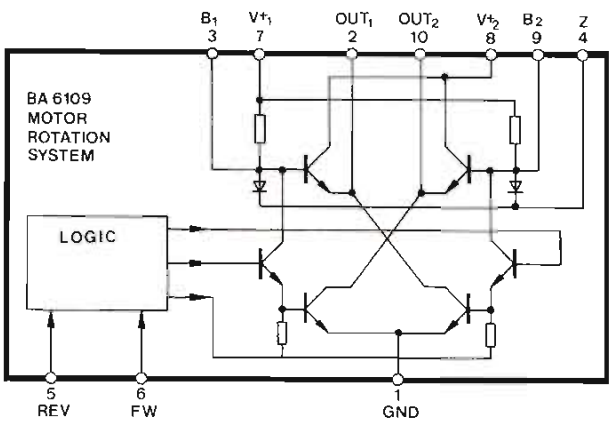
TEA 0665



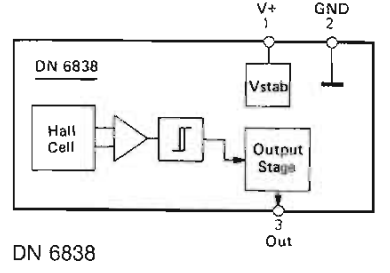
TC 4066 BP



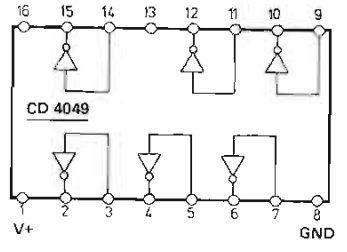
TC 4001 BP



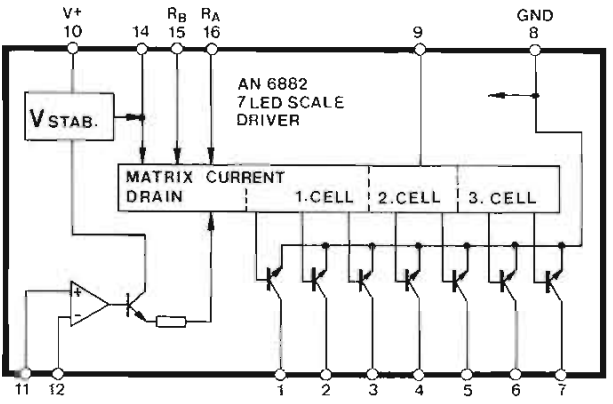
BA 6109



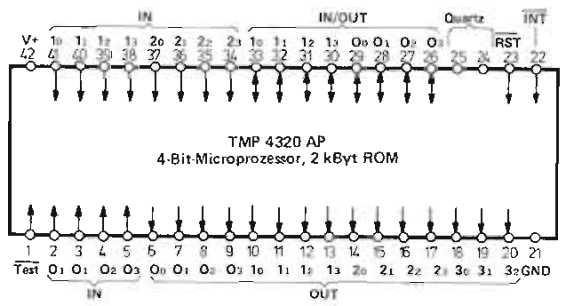
DN 6838



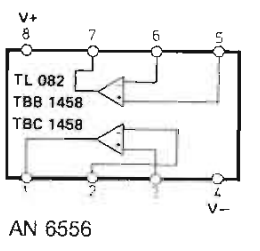
TC 4049 BP



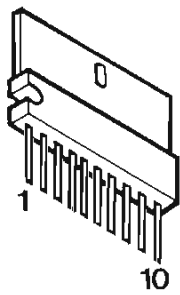
AN 6882



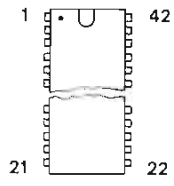
TMP 4321 P



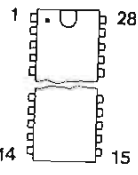
AN 6556



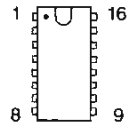
BA 6109



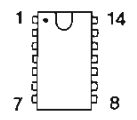
TMP 4321 P



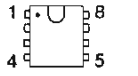
TEA 0665



TC 4049 BP



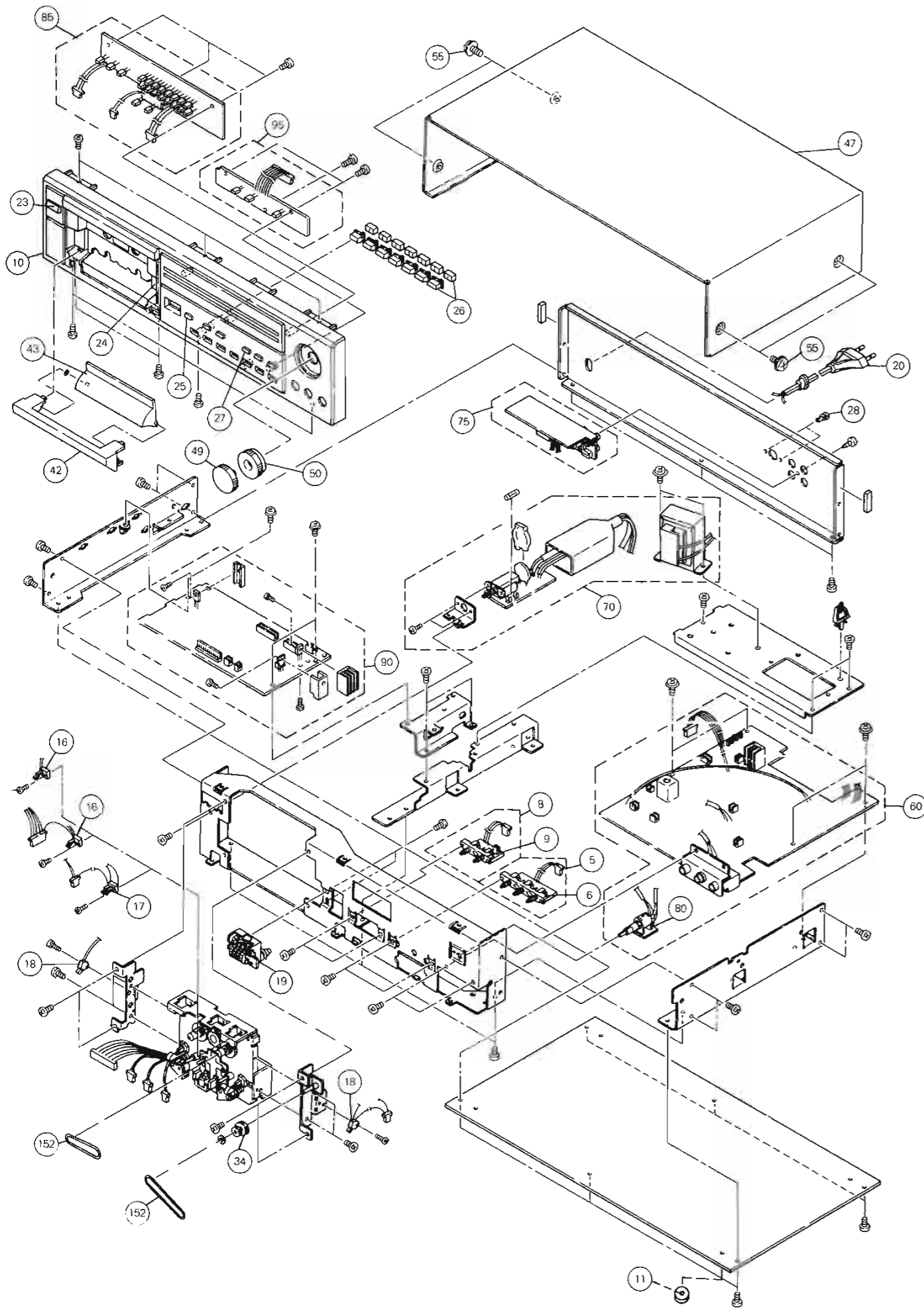
TC 4066 BP



AN 6556

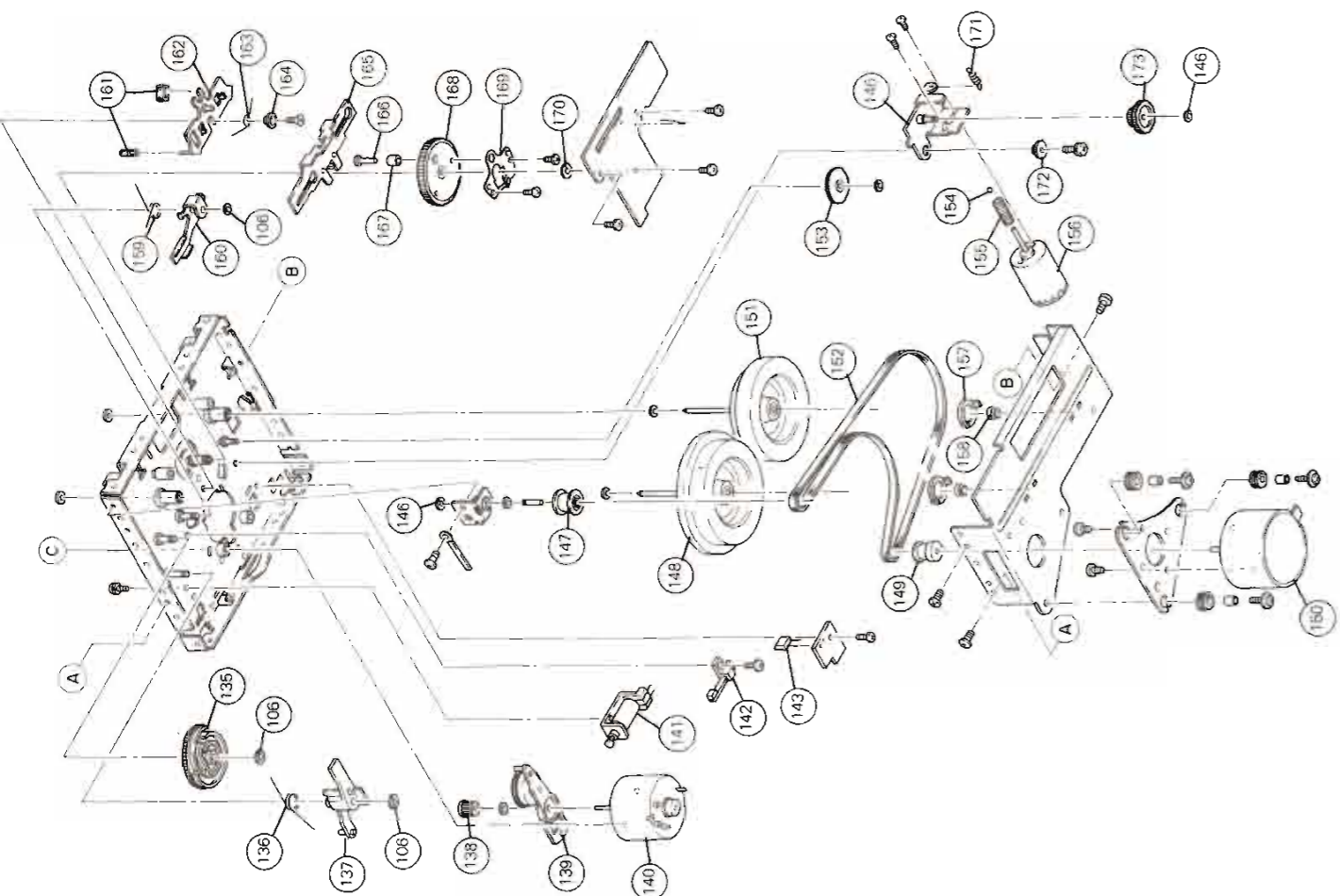
AN 6882

TC 4001 BP



Pos.	Art.-Nr.	Stck	Bezeichnung
5	278 063	1	Modeschalterplatte
6	278 089	1	Schalter
8	278 064	1	Dolbyplatte
9	278 090	1	Schalter
10	278 065	1	Frontblende kpl. SM
10	278 593	1	Frontblende kpl. AM
11	268 315	4	Fuß
15	278 070	1	Schalter
16	278 325	1	Schalter
17	278 326	1	Schalter
18	278 071	2	Schalter
19	278 072	1	Zähler
20	243 750	1	Netzkabel Europa
23	278 331	1	Powertaste kpl. SM
23	275 903	1	Powertaste kpl. AM
24	278 332	2	Taste kpl. SM
24	278 792	2	Taste kpl. AM
25	272 470	1	Zählerknopf SM
25	275 902	1	Zählerknopf AM
26	278 333	7	Taste kpl. SM
26	278 594	7	Taste kpl. AM
27	274 056	5	Taste SM
27	278 792	5	Taste AM
28	264 063	2	Befestigungsteil
34	278 076	1	Antriebsrolle
42	278 077	1	Kopfabdeckung
42	278 590	1	Kopfabdeckung AM
43	278 078	1	Kopfvorsier
47	272 671	1	Gehäuseblech SM
47	275 896	1	Gehäuseblech AM
49	272 326	1	Volumeknopf L SM
49	278 591	1	Volumeknopf L AM
50	278 079	1	Volumeknopf R SM
50	278 592	1	Volumeknopf R AM
55	272 673	4	Schraube 4x6 SM
55	275 907	4	Schraube 4x6 AM
D 60	278 081	1	Grundplatte
D 300	264 086	9	Diode MA 150
bis			
D 306	264 086	9	Diode MA 150
D 310	264 086	9	Diode MA 150
D 311	264 086	9	Diode MA 150
D 350	269 103	1	Diode Hz 18-2
D 351	263 037	2	Diode SVB 10-100
D 352	263 037	2	Diode SVB 10-100
J 100	272 949	1	Buchse MIC L
J 101	274 443	1	Buchse MIC R
J 300	273 422	1	Buchse Phones
L 100	273 776	2	Spule
L 101	271 071	2	Spule 2,2 MH
L 102	268 338	2	Spule
L 301	273 777	1	Spule 1 MH
Q 102	271 130	10	Transistor 2 SC 2634 T
Q 103	273 779	18	Transistor 2 SC 1685 S
Q 104	271 130	10	Transistor 2 SC 2634 T
Q 105	271 130	10	Transistor 2 SC 2634 T
Q 106	273 779	18	Transistor 2 SC 1685 S
bis			
Q 111	273 779	18	Transistor 2 SC 1685 S
Q 112	271 130	10	Transistor 2 SC 2634 T
Q 113	271 130	10	Transistor 2 SC 2634 T
Q 114	274 774	3	Transistor 2 SD 1302 T
Q 300	274 774	3	Transistor 2 SD 1302 T
Q 301	265 578	1	Transistor 2 SA 564
Q 305	271 013	1	Transistor 2 SC 1384 S
Q 306	263 028	1	Transistor 2 SD 592 NC-S
Q 307	273 779	18	Transistor 2 SC 1685 S
Q 308	273 779	18	Transistor 2 SC 1685 S
Q 310	265 579	1	Transistor 2 SA 684
Q 311	273 779	18	Transistor 2 SC 1685 S
Q 312	273 779	18	Transistor 2 SC 1685 S
Q 315	273 779	18	Transistor 2 SC 1685 S
Q 350	263 157	1	Transistor 2 SD 880 Y
T 100	270 140	2	Spule MPX
T 300	273 778	1	Oszillatorschule
IC 100	278 162	1	IC TEA 0665
IC 101	260 189	1	IC TBB 1458 B
IC 301	273 840	1	IC TC 4001 BP
RY 100	278 160	1	Relais
VR 101	270 142	2	Steller 50 kΩ
VR 102	263 041	2	Steller 20 kΩ
VR 103	270 142	2	Steller 50 kΩ
R 310	278 596	1	Sicherungswiderstand 10/0,25 W
R 351	273 785	1	Sicherungswiderstand 4,7/0,25 W

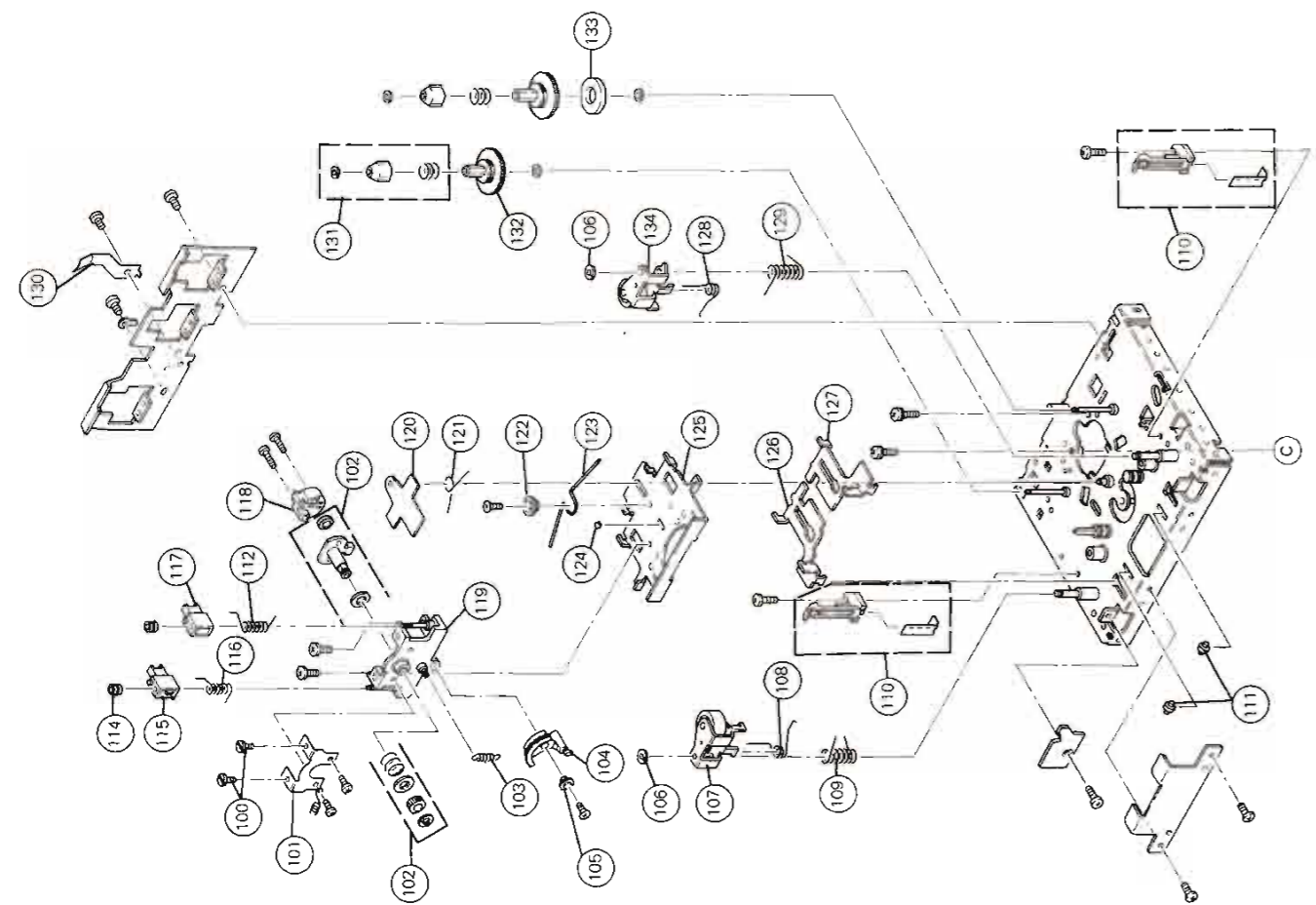
Pos.	Art.-Nr.	Stck	Bezeichnung
70	278 059	1	Netzschalterplatte kpl.
F 1	221 269	1	Sicherung 0,16 A/250 V T
S 1	277 989	1	Schalter
T 1	278 084	1	Netztrafo kpl. (230 V)
T 1	278 598	1	Netztrafo kpl. (115 V)
75	278 082	1	Buchsenplatte
J 200	278 163	1	Buchse DIN
J 201	278 327	1	Anschlußbuchsen Cinch
Q 200	271 130	2	Transistor 2 SC 2634 T
IC 300	242 303	1	IC MC 14069 BCP MOS
80	278 083	1	Volumenplatte
81	274 444	1	Volumen-Steller 5 kΩ
85	278 060	1	LED-Platte kpl.
IC 400	278 085	1	IC AN 6882
LD 400	273 786	9	LED GL 9 NG 24
bis			
LD 405	273 786	9	LED GL 9 NG 24
LD 406	274 417	2	LED GL 9 PR 24
LD 407	274 417	2	LED GL 9 PR 24
LD 408	278 086	1	LED GL 9 HY 24
LD 409	278 086	2	LED GL 9 HY 24
LD 410	273 786	9	LED GL 9 NG 24
bis			
LD 412	273 786	9	LED GL 9 NG 24
90	278 061	1	Controlplatte
D 501	264 089	1	Diode HZ 15-3
D 502	271 098	3	Diode SR 1 S 2
D 503	264 086	9	Diode MA 150
bis			
D 507	264 086	9	Diode MA 150
D 508	278 088	1	Diode GZA 6,8 X
D 509	271 098	1	Diode SR 1 S 2
D 510	264 086	9	Diode MA 150
bis			
D 514	264 086	9	Diode MA 150
Q 501	269 488	2	Transistor 2 SD 549
Q 502	273 779	7	Transistor 2 SC 1685 S
bis			
Q 507	273 779	7	Transistor 2 SC 1685 S
Q 508	269 488	2	Transistor 2 SD 549
Q 509	273 779	7	Transistor 2 SC 1685 S
Q 510	271 104	2	Transistor 2 SD 893 R
Q 511	271 104	2	Transistor 2 SD 893 R
CF 501	271 101	1	Keramik-Filter
IC 501	244 419	1	IC MA 78 MO 5 C
IC 502	248 765	2	IC MC 14049 BCP MOS
IC 503	278 087	1	Micro Computer
IC 504	248 765	2	IC MC 14049 BCP MOS
IC 505	278 226	1	IC BA 6209
IC 506	278 226	1	IC BA 6209
VR 501	270 142	1	Steller 50 kΩ
VR 502	270 193	1	Steller 5 kΩ
R 502	273 785	1	Sicherungswiderstand 4,7/0,25 W
95	278 062	1	Tasterplatte
S 501	274 447	7	Taster
bis			
S 507	274 447	7	Taster
LD 501	274 417	1	LED GL 9 PR 24
LD 502	273 786	2	LED GL 9 NG 24
LD 503	273 786	2	LED GL 9 NG 24
100	278 387	2	Azimuthschraube
101	278 401	1	Federplatte
102	278 407	1	Kopfbefestigungsteile
103	278 355	1	Zugfeder
104	278 374	1	Revershebel
105	278 386	1	Distanzrolle
107	278 336	1	Andruckrolle kpl.
108	278 360	1	Schenkelfeder
109	278 362	1	Schenkelfeder
110	278 358	2	Cassettenhalter
111	278 392	2	Gleitrolle
112	278 356	1	Schenkelfeder
114	278 391	2	Mutter
115	278 339	1	Fotosensor SPI 305
116	278 357	1	Schenkelfeder
117	278 382	1	Bandführung
118	278 029	1	Controlplatte
119	278 342	1	Kopfträger
120	278 397	1	Support
121	278 353	1	Schenkelfeder



Pos.	Art.-Nr.	Stck	Bezeichnung
122	278 385	1	Distanzrolle
123	278 352	1	Schenkelfeder
124	209 355	1	Kugel 2,5
125	278 396	1	Kopffragerplatte
126	278 399	1	Schaltarm
127	278 398	1	Schaltarm
128	278 359	1	Schenkelfeder
129	278 361	1	Schenkelfeder
130	278 406	1	Blattfeder
131	278 414	2	Mitnehmer kpl.
132	278 370	2	Mitnehmerrad
133	278 338	1	Magnetring
134	278 335	1	Andruckrolle kpl.
135	278 378	1	Kurvenrad
136	278 364	1	Schenkelfeder
137	278 379	1	Schalthebel
138	278 372	1	Antriebsrad
139	278 334	1	Kupplung
140	278 067	1	Motor kpl.
141	278 345	1	Zugmagnet
142	278 368	1	Schalter
143	263 029	1	IC DN 6838 (IC 507)
146	278 409	1	Scheibe
147	278 394	1	Antriebsrolle
148	278 341	1	Schwunzscheibe
149	278 395	1	Antriebsrolle
150	278 066	1	Motor kpl.
151	278 340	1	Schwunzscheibe

Pos.	Art.-Nr.	Stck	Bezeichnung
152	278 526	1	Riemensatz
153	278 377	1	Getrieberad
154	209 353	1	Kugel 2,0
155	278 381	1	Getrieberad
156	278 068	1	Motor kpl.
157	278 369	2	Lager
158	278 346	2	Druckfeder
159	278 365	1	Schenkelfeder
160	278 404	1	Schalthebel
161	278 376	2	Bremsbelag
162	278 344	1	Bremsarm
163	278 363	1	Schenkelfeder
164	278 390	1	Distanzrolle
165	278 403	1	Schalthebel
166	278 389	1	Schaft
167	278 358	1	Distanzrolle
168	278 375	1	Getrieberad
169	278 402	1	Gleiter
170	278 410	1	Scheibe
171	278 366	1	Zugfeder
172	278 393	1	Distanzrolle
173	278 380	1	Getrieberad
	277 965	1	Bedienungsanleitung C 618
	278 080	1	Verpackungskarton SM
	278 595	1	Verpackungskarton AM
	278 326	1	Seitentell L
	278 329	1	Seitentell R
	278 330	1	Seitentell F

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



Prozessor TMP 4321 P (IC 503) · Pinbelegung

Pin Signal

1	⌋	+ 5 V
2	← ⌋	Stop Switch, Power OFF
3	← ⌋	Play Switch Forward ▶
4	← ⌋	Play Switch Reverse ◀
5	← ⌋	Record Switch
6	→ ⌈	Drive Motor Forward ON
7	→ ⌈	Drive Motor Reverse ON
8	→ ⌋	Reel Motor Forward ON
9	→ ⌋	Reel Motor Reverse ON
10	→ ⌋	LED Play Forward ▶
11	→ ⌋	LED Play Reverse ◀
12	→ ⌋	LED Record, Relay RL 100 ON
13	→ ⌋	Muting ON, Muting Record Amp
14		
15		
16	→ ⌋	Muting OFF
17		
18	→ ⌋	Reel Motor Tape Tension Level ON (Bandzug-Pegel)
19	→ ⌋	Capstan Motor ON
20	→ ⌈	Solenoid Pause
21		GND
22		
23	← ⌋	Reset
24		} Quartz
25		
26	← ⌋	Cam Wheel Switch (Kurvenradschalter)
27	← ⌋	R/P Head in Pos. Play
28	← ⌋	R/P Head in Pos. Forward
29	← ⌋	R/P Head in Pos. Stop
30	← ⌈⌈⌈	Tape Run Sensor
31	← ⌋	Tape Sensor: Magnetic Tape End (Magnetbandende)
32	← ⌋	Mode Continious Play
33	← ⌋	Mode Reverse
34		+ 5 V
35	← ⌋	Record Safety Switch Reverse
36	← ⌋	Record Safety Switch Forward
37		+ 5 V
38	← ⌋	Cassette Switch, DLL ON
39	← ⌋	Pause Switch
40	← ⌋	Rewind Switch ◀◀
41	← ⌋	Fast Forward Switch ▶▶
42		UBAT + 5 V

In Function by:

Play Forward, Stop Reverse
Play Reverse, Stop Forward
Forward, Fast Forward
Reverse, Rewind
Play Forward
Play Reverse
Record SB, Record
Pause
Record SB, Record, Play, Pause
Play Forward, Play Reverse
alle Funktionen, all functions
Pause
Stop ON, Power OFF
Pause, Fast Forward, Rewind
Tonkopfschlitten in Pos. Play
Tonkopf in Pos. Forward
Tonkopfschlitten in Pos. Stop
Play Forward, Play Reverse
↔ Switch
↔ Switch
Musicassette
Musicassette
Kassette entfernt, without a cassette

Bezeichnung, Signification:

- 2 ← Input
- 7 → Output
- ⌈ Signal HIGH active
- ⌋ Signal LOW active
- Record SB = Record Stand By