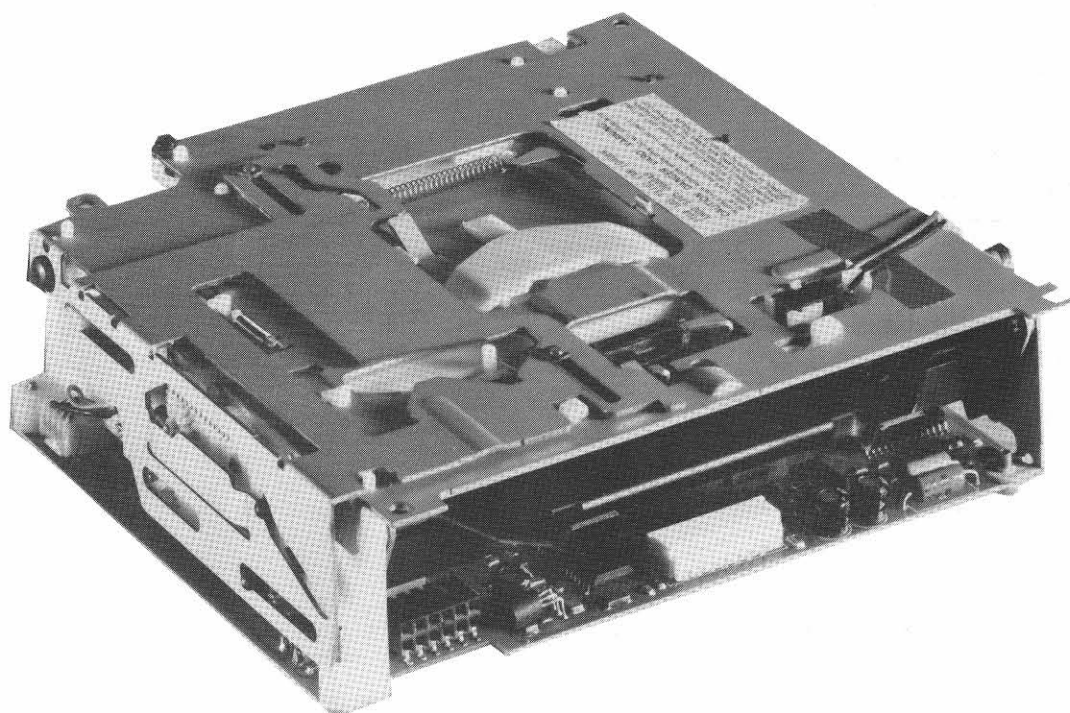


Service
Service
Service

Service Manual

12 V 



**CLASS 1
LASER PRODUCT**

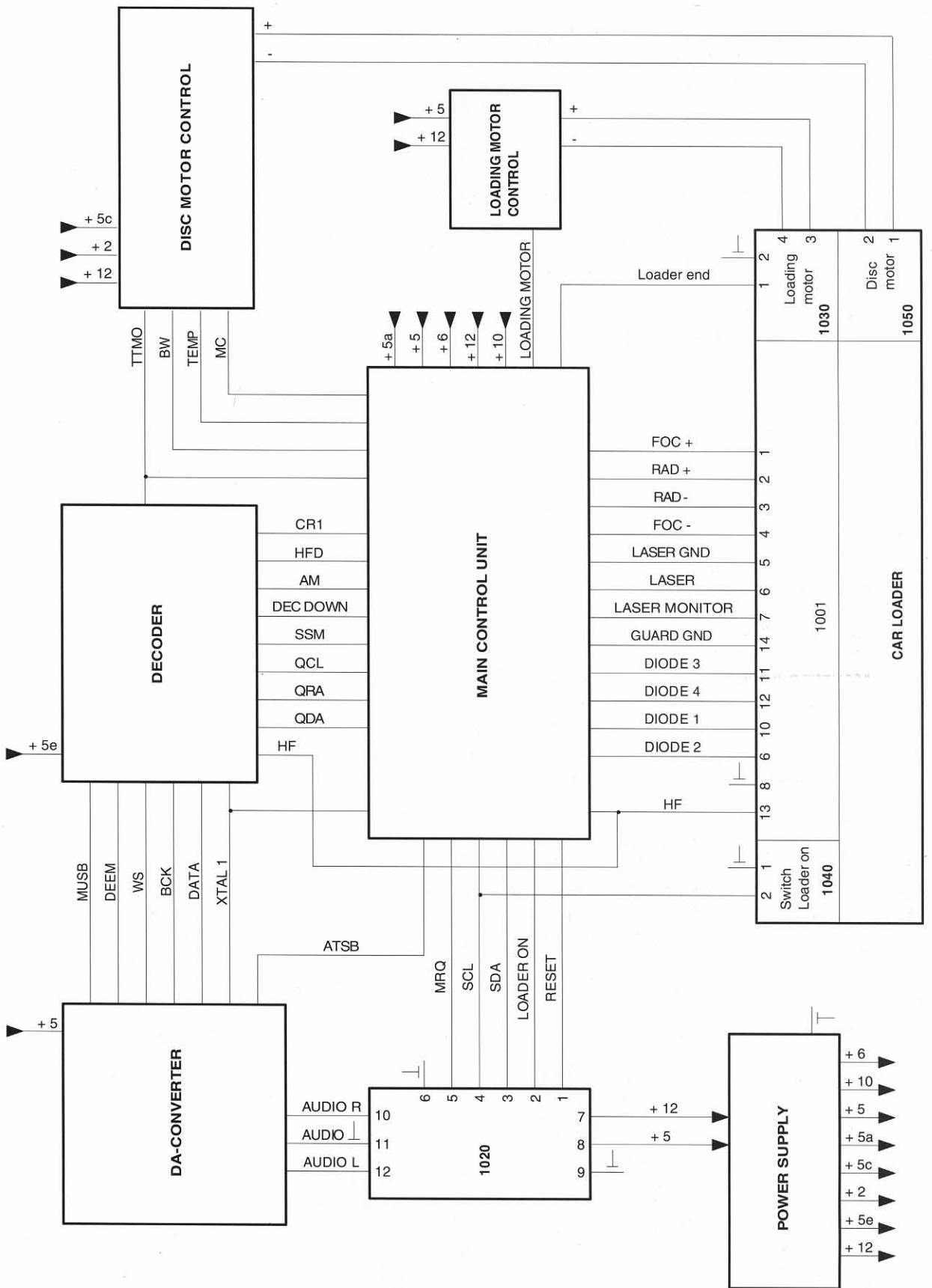
page . . . Contents

2 Contents / Specification
3 Wiring diagram
4 Measurements
5 Oszillograms
6 PCB - Layout
7 Decoder
8 DA-converter
9 Discmotor control / Loadingmotor control
10 Power supply
11 Main control unit
12 Exploded view / Lubricating instructions
13 Partslist
14 Partslist
15 Partslist

Specification

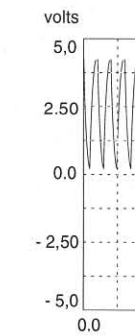
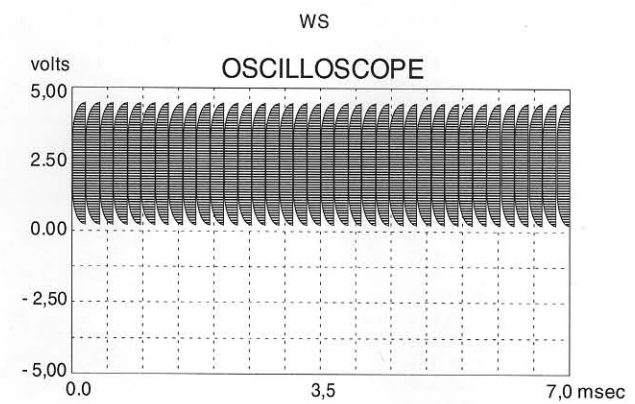
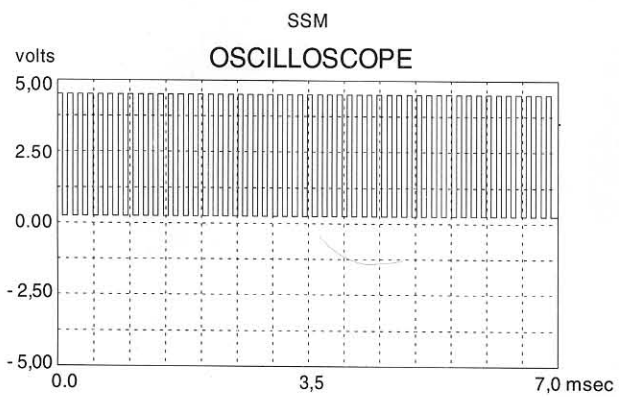
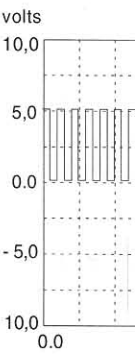
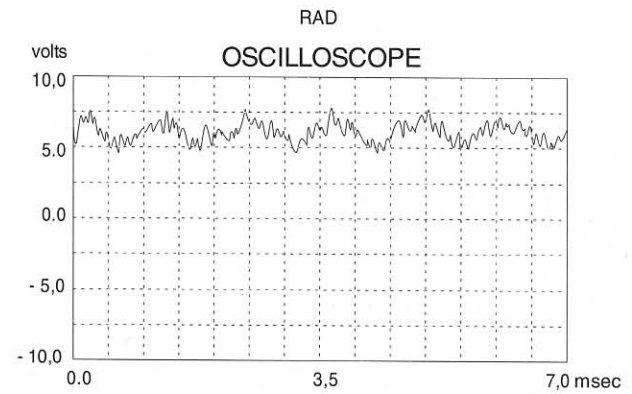
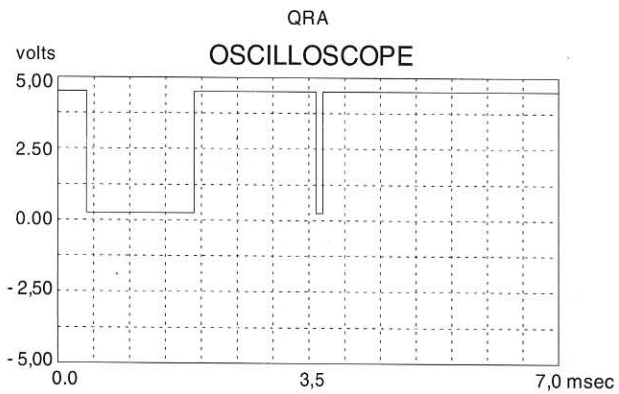
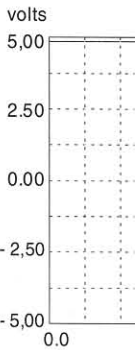
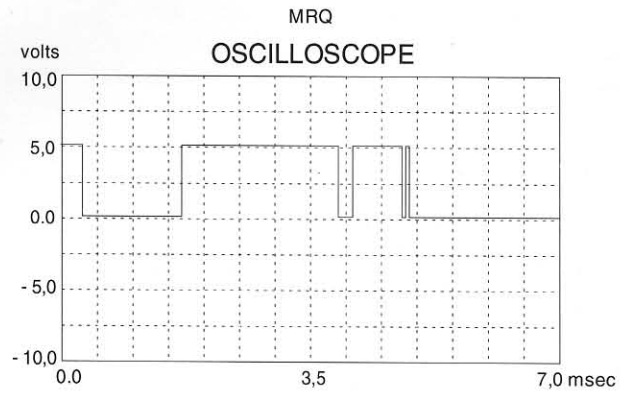
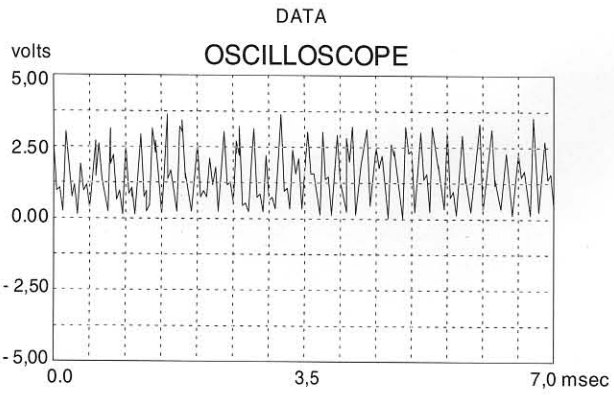
Operating voltage: 10 V - 16 V
Operating temperature: -15°C - +70°C
Mounting Angle: -10°C - +20°C
Playability: scratches - 900 µm
blackdots - 800 µm
Accesstime: max. 2sec (inner to outertrack)
Load/eject time: ca 4sec

- Note: Switch off power supply before connect and disconnect CDM-9 module and set (danger of shortcircuit)!
- Note: Use the coded plugs and sockets to build the needed extension cables.
- Note: The chassis of CDM-9 is not grounded when seperated from the set.
- Note: Only PLAY but no LOAD and EJECT can be realized in upside-down position.
- Note: For handling of Flat Pack IC's see Service Information **A 86 - 1000** dated 1986-07-01.



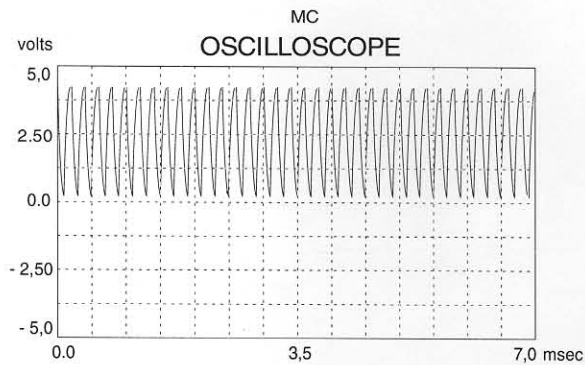
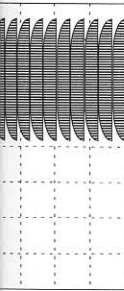
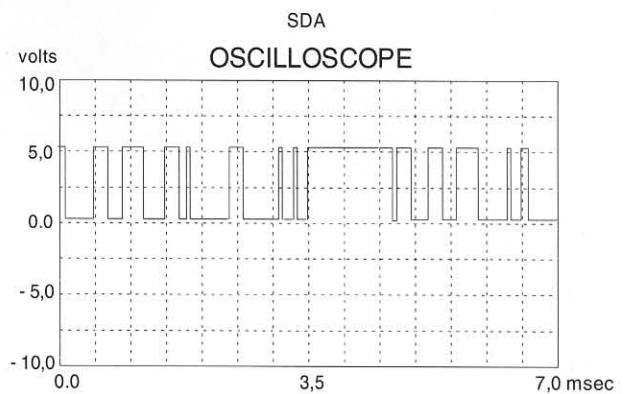
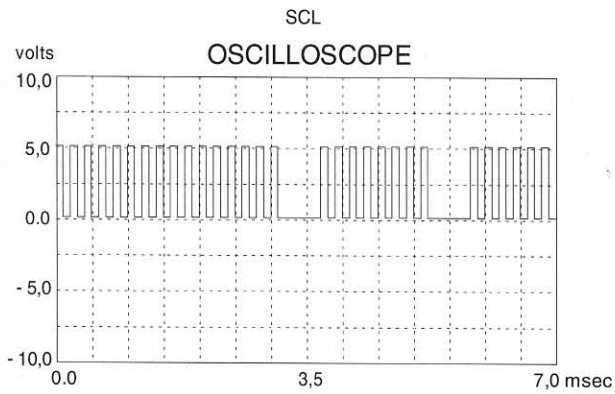
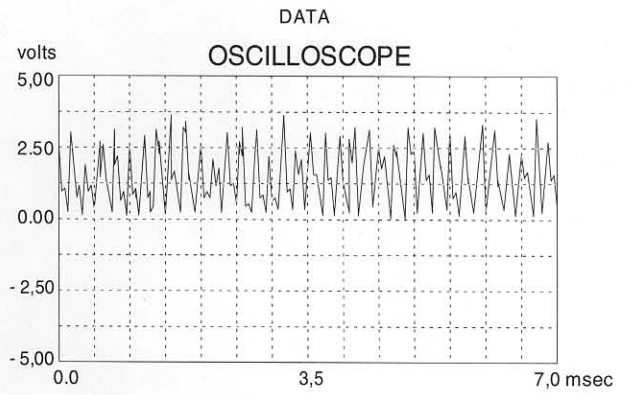
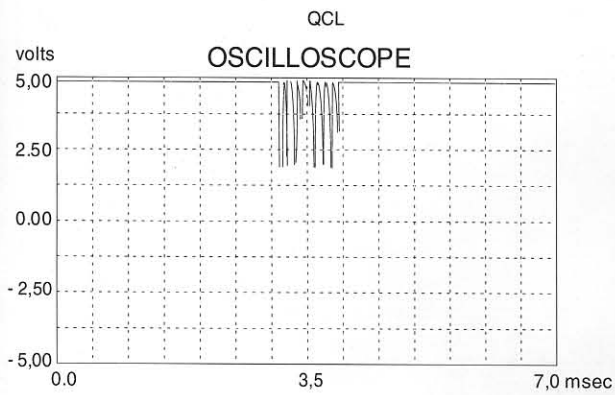
all values measured in PLAY (P)
DC - GND

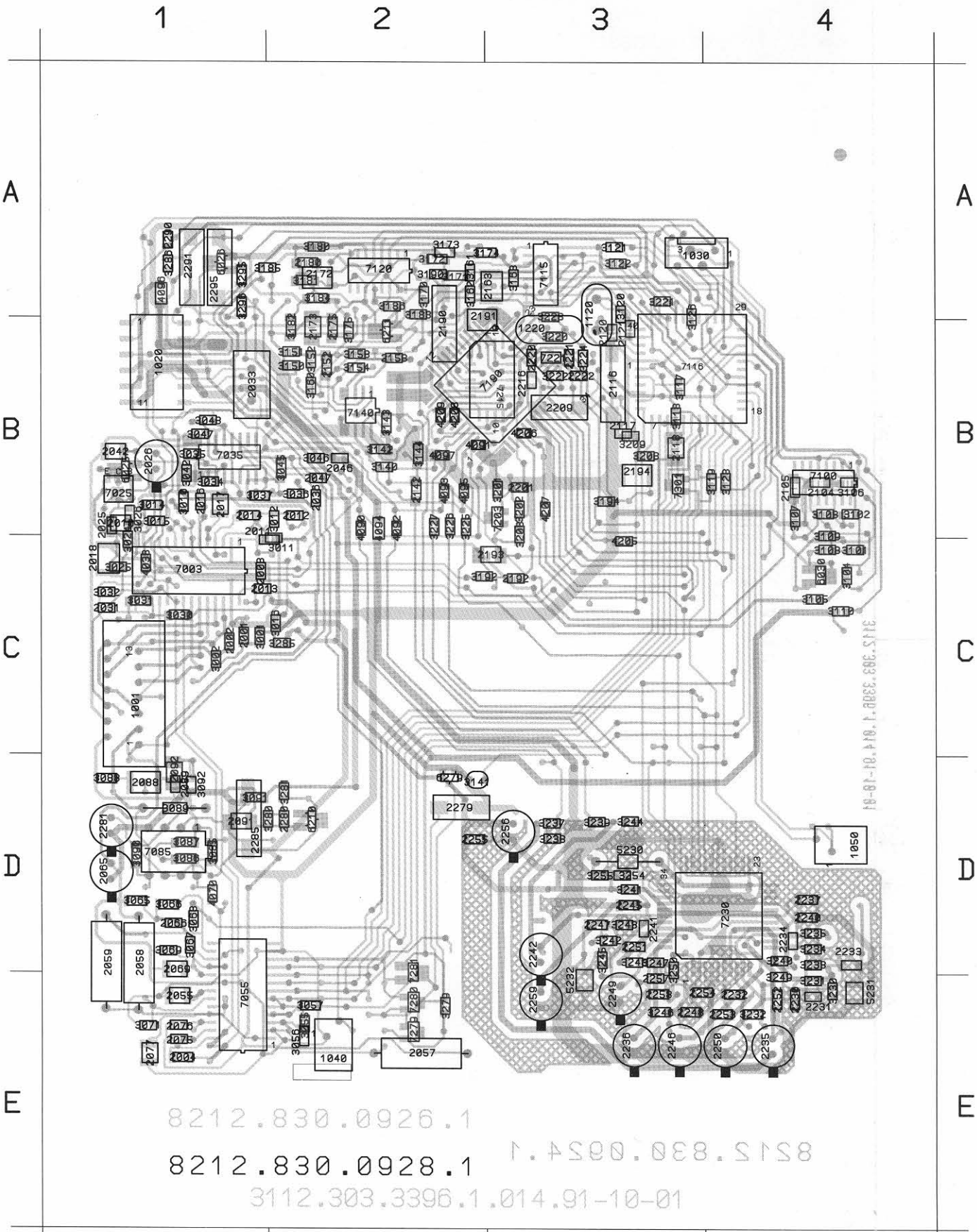
+ 2	= 2,5 V
+ 5	= 5,0 V
+ 5a	= 4,7 V
+ 5c	= 5,2 V
+ 5e	= 5,0 V
+ 6	= 6,0 V
+10	= 8,4 V
+12	= 12,0 V
AUDIO-LEVEL (L+R)	= 0,0 V
MRQ	= see oscillogram MRQ
SCL	= see oscillogram SCL
SDA	= see oscillogram SDA
LOADER ON	= 5,0 V
RESET	= 30 mV
ATSB	= 5,0 V
MUSB	= 5,0 V (0,0 V MUTE)
DEEM	= 19 mV
WS	= see oscillogram WS
BCK	= 2,5 V
DATA	= see oscillogram DATA
XTAL1	= 1,5 V
HF	= 3,1 V (Pos.1001, Pin 13)
QDA	= see oscillogram QDA
QRA	= see oscillogram QRA
QCL	= see oscillogram QCLSM
SSM	= see oscillogram SSM
DEC. DOWN	= 0,0 V
AM	= 5,0 V
HFD	= 3,9 V
CR1	= 5,0 V
MC	= see oscillogram MC
TEMP	= 3,9 V
BW	= 5,0 V
TTMO	= 5,0 V
DISC MOTOR +	= 5,4 V
DISC MOTOR -	= 4,8 V
LOADING MOTOR	= 3,4 V (5,0 V load, 0,0 V eject)
LOADING MOTOR +	= 3,7 V (0,9 V load, 6,3 V eject)
LOADING MOTOR -	= 3,7 V (6,3 V load, 0,9 V eject)
LOADER END	= 0,0 V (5,0 V CD OFF)
FOC +	= 2,4 V
FOC -	= 2,6 V
RAD +	= see oscillogram RAD
RAD -	= see oscillogram RAD
LASER GND	= 0,0 V
LASER	= 2,0 V
LASER MONITOR	= 0,2 V
GUARD GND	= 0,0 V
DIODE 1	= 1,3 V
DIODE 2	= 1,3 V
DIODE 3	= 1,3 V
DIODE 4	= 1,3 V





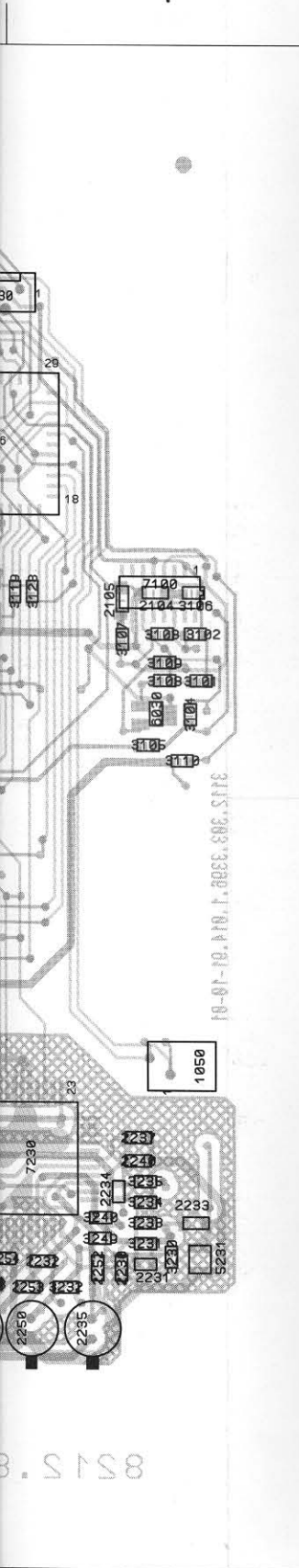
7,0 msec





8212.830.0926.1
 8212.830.0928.1 1.4590.038.S1S8
 3112.303.3396.1.014.91-10-01

19-01-10, P.10, I. 0832, 086, S.116



2001	C	1	3208	B	3	2254	E	4	3034	B	1
2002	C	1	3209	B	3	2042	B	1	da08	D	3
2025	B	1	3220	B	3	2255	D	2	3035	B	1
2091	D	1	3221	A	3	2046	B	2	da09	D	2
2092	D	1	3223	A	3	2256	D	3	3036	B	2
2104	B	4	3225	B	2	2047	B	2	da10	D	2
2105	B	4	3226	B	2	2257	E	3	3037	B	1
2118	B	3	3227	B	2	2055	E	1	da11	D	3
2120	B	3	3279	E	2	2258	E	3	3042	B	1
2121	B	3	3280	D	1	2057	E	2	da12	D	3
2142	B	2	3281	D	2	2259	E	3	3046	B	2
2152	B	2	3285	C	2	2058	E	1	da13	D	4
2153	B	2	4033	C	1	3230	E	4	3047	B	1
2173	B	2	4070	D	1	2059	E	1	3048	B	1
2175	B	2	4090	B	2	3231	E	4	3050	E	2
2180	A	2	4092	B	2	2065	D	1	3057	E	2
2192	C	3	4093	B	2	3232	E	4	3065	D	1
2193	C	2	4094	B	2	2066	D	1	3066	D	1
2201	B	3	4095	B	2	3233	D	4	3067	D	1
2280	D	2	4096	A	1	2069	D	1	3068	D	1
3001	C	1	4097	B	2	3234	D	4	3069	D	1
3002	C	1	4205	C	3	2075	E	1	3071	E	1
3011	C	1	4207	B	3	3235	D	4	3088	D	1
3016	C	2	6025	B	1	2076	E	1	3089	D	1
3024	B	1	6026	A	1	3237	D	3	3092	D	1
3025	C	1	6030	C	4	2077	E	1	3120	B	3
3026	B	1	6210	D	2	3238	D	3	3121	A	3
3030	C	1	6211	B	2	2088	D	1	3141	D	2
3031	C	1	7035	B	1	3239	D	3	3161	A	2
3045	B	2	7140	B	2	2089	D	1	3162	A	2
3055	E	2	7190	B	2	3240	D	4	3163	A	3
3085	D	1	7203	B	3	2116	B	3	3173	A	2
3086	D	1	7279	E	2	3241	D	3	3174	A	3
3087	D	1	7280	E	2	2117	B	3	3185	A	2
3090	D	1	7281	E	2	3242	D	3	3190	A	2
3091	D	1	7301	B	3	2163	A	3	3222	B	3
3101	C	4	1001	C	1	3243	D	3	3224	B	3
3102	B	4	2230	E	4	2172	A	2	3286	A	1
3103	B	4	1020	B	1	3244	D	3	3295	A	1
3104	C	4	2231	E	4	2190	B	2	3296	A	1
3105	C	4	1030	A	4	3245	D	3	4091	B	2
3106	B	4	2232	E	4	2191	B	2	4206	B	3
3107	B	4	1040	E	2	3246	E	3	4208	B	2
3108	C	4	2233	D	4	2194	B	3	4209	B	2
3109	B	4	1050	D	4	3247	D	3	6279	D	2
3110	C	4	2234	D	4	2209	B	3	7003	C	1
3117	B	3	1120	B	3	3248	D	3	7025	B	1
3118	B	3	2235	E	4	2216	B	3	7055	E	2
3119	B	4	1220	B	3	3249	E	4	7085	D	1
3122	A	3	2236	E	3	2220	B	3	7100	B	4
3123	B	4	2003	C	1	3250	E	3	7115	A	3
3126	B	3	2237	D	4	2221	B	3	7116	B	3
3140	B	2	2004	E	1	3254	D	3	7120	A	2
3142	B	2	2240	D	4	2222	B	3	7215	B	3
3143	B	2	2010	B	1	3255	D	3	7221	B	3
3144	B	2	2241	D	3	2279	D	2	da01	D	3
3150	B	2	2011	C	1	5230	D	3	da02	D	4
3151	B	2	2242	D	3	2281	D	1	da03	D	3
3152	B	2	2012	B	2	5231	E	4	da04	D	3
3153	B	2	2245	D	3	2285	D	1	da05	D	3
3154	B	2	2013	C	1	5232	E	3	da06	D	3
3160	B	2	2246	E	3	2290	A	1	da07	D	3
3170	A	2	2014	B	1	7230	D	3	da08	D	3
3171	A	2	2247	D	3	2291	A	1	da09	D	2
3172	A	2	2016	B	1	da01	D	3	da10	D	2
3175	B	2	2248	E	3	2295	A	1	da11	D	3
3180	A	2	2017	B	1	da02	D	4	da12	D	3
3181	A	2	2249	E	3	3010	B	1	da13	D	4
3182	B	2	2018	C	1	da03	D	3			
3183	A	2	2250	E	4	3012	B	2			
3184	A	2	2026	B	1	da04	D	3			
3186	A	2	2251	D	3	3014	B	1			
3192	C	2	2031	C	1	da05	D	3			
3194	B	3	2252	E	4	3015	B	1			
3201	B	3	2033	B	1	da06	D	3			
3202	B	3	2253	E	4	3032	C	1			
3203	C	3	2036	B	2	da07	D	3			

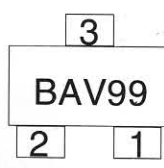
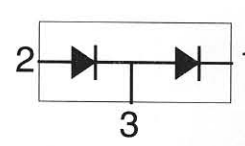
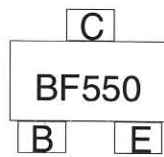
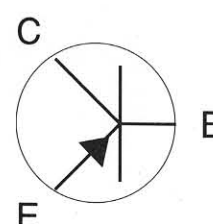
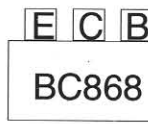
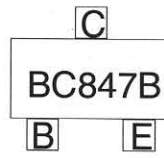
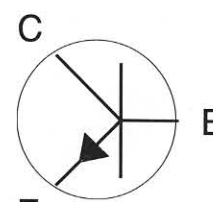
A

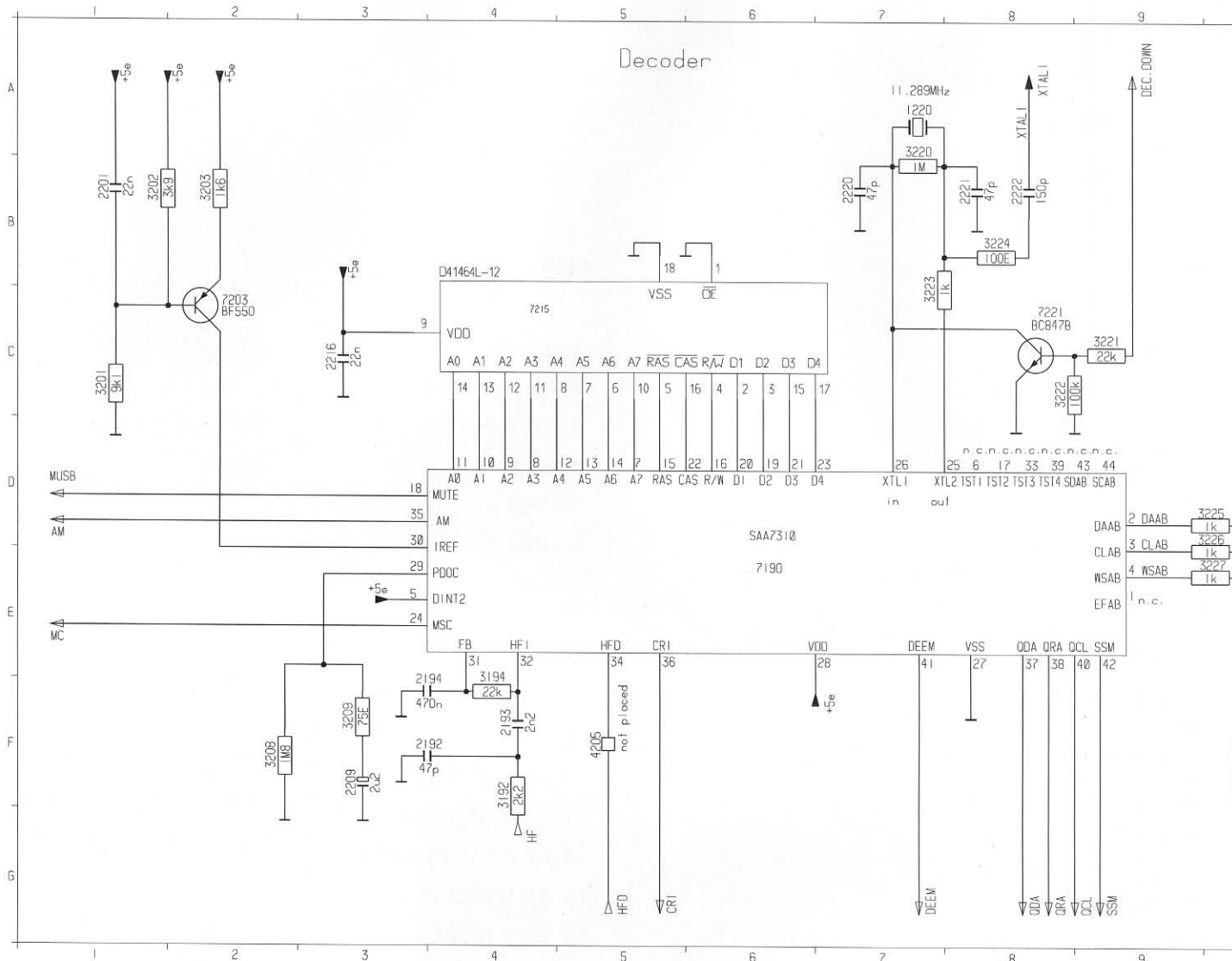
B

C

D

E





POS. 7215 D 41464L-12

- | | |
|--------------|---------------|
| 1: GND | 10: data |
| 2: data | 11: data |
| 3: data | 12: data |
| 4: data | 13: data |
| 5: 0,8 V (P) | 14: data |
| 6: data | 15: data |
| 7: data | 16: 2,5 V (P) |
| 8: data | 17: data |

POS. 7203 BF 550

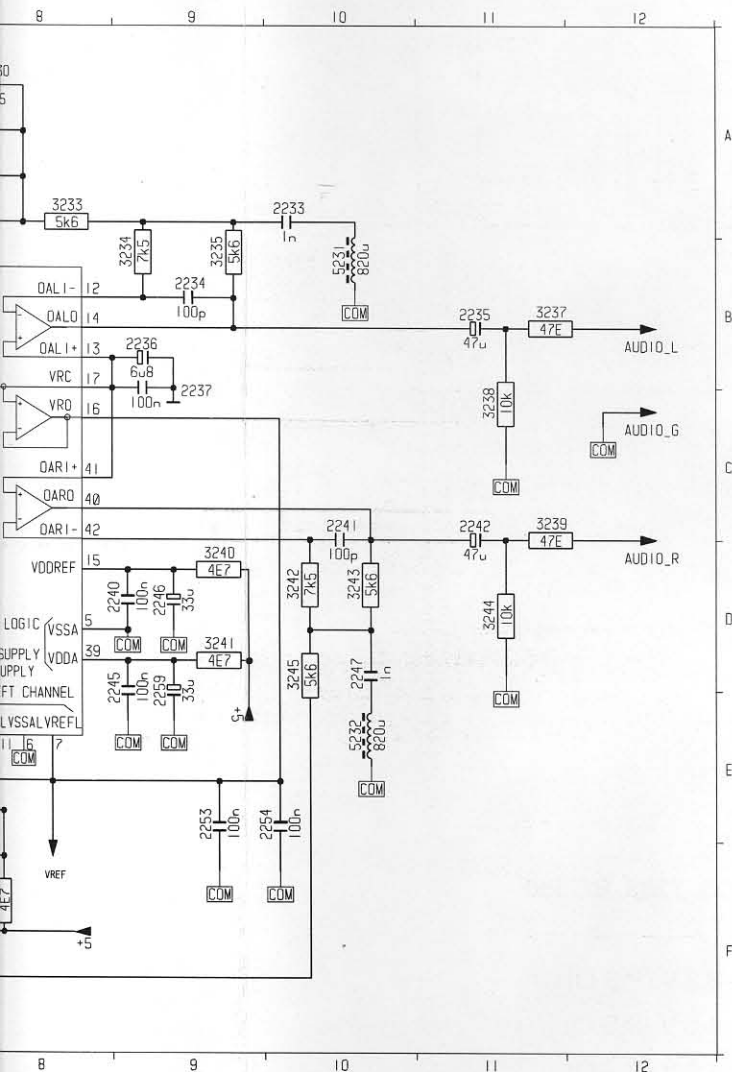
- B: 3,2 V (P,S,O)
- C: 1,5 V (P,S,O)
- E: 4,0 V (P,S,O)

POS. 7221 BC 847B

- B: 0,0 V (P) / 0,7 V (S,O)
- C: 2,0 V (P) / 0,0 V (S,O)
- E: GND

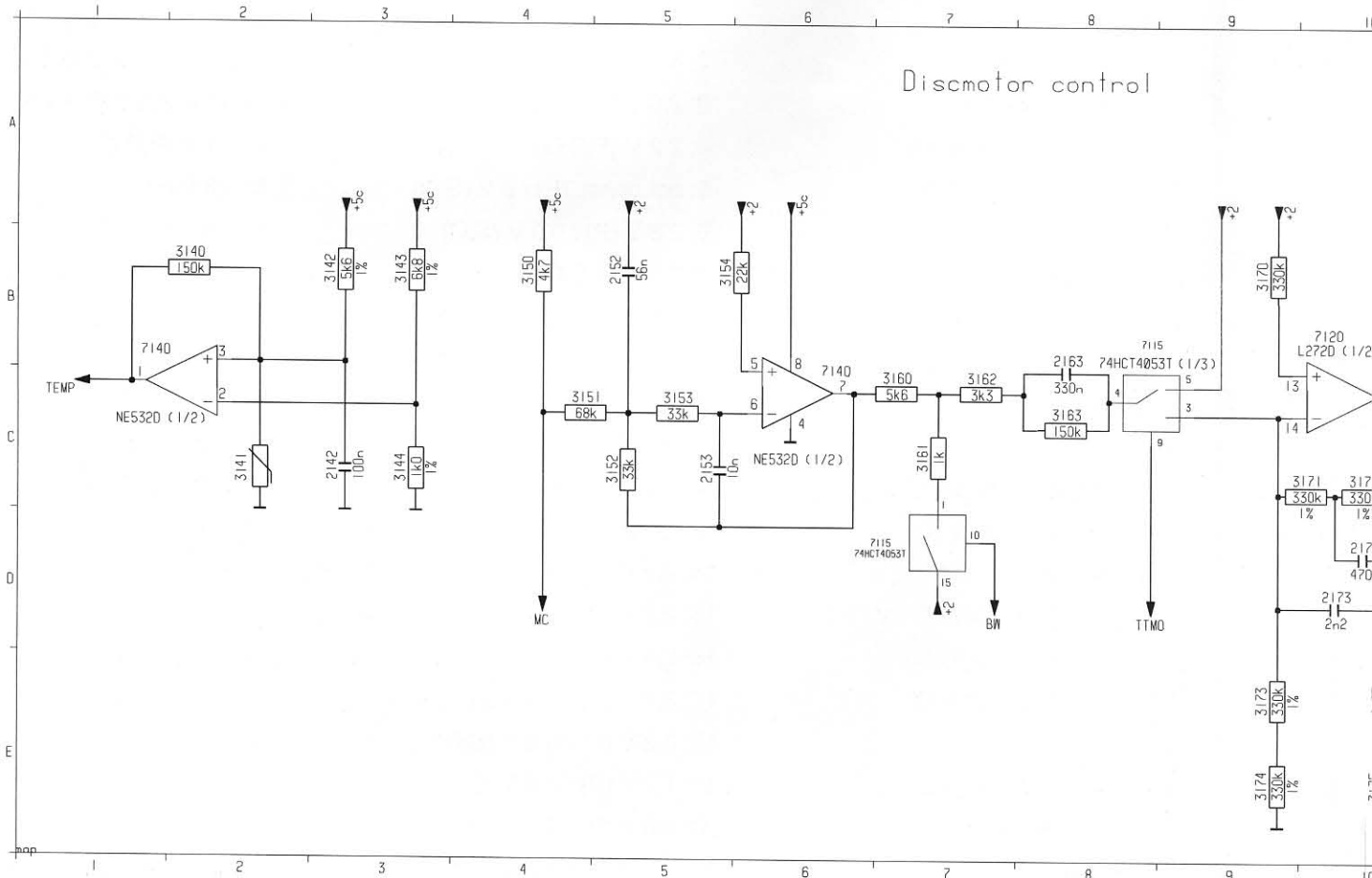
3238 C11 3241 D 9 3244 D11 3247 F 6 3250 F 6 5230 B 2 7230 B 5
 3239 C11 3242 D10 3245 D10 3248 F 7 3254 B 2 5231 B10
 3240 D 9 3243 D10 3246 F 6 3249 F 8 3255 B 2 5232 E10

POS. 7230 SAA 7320



- | | |
|--------------------------------|--------------------------------|
| 1: 2,6 V (P,S,O) | 23: 5,0 V (P,S,O) |
| 2: AF (P) / 1,3 V (S,O) | 24: nc |
| 3: 2,6 V (P,S,O) | 25: 1,5 V (P) / 0,0 V (S,O) |
| 4: GND | 26: nc |
| 5: GND | 27: GND |
| 6: GND | 28: GND |
| 7: 2,6 V (P,S,O) | 29: GND |
| 8: AF (P) / 1,3 V (S,O) | 30: see WS (P) / 0,0 V (S,O) |
| 9: 2,6 V (P,S,O) | 31: 2,5 V (P) / 5,0 V (S,O) |
| 10: AF 2,5 V (P) / 2,5 V (S,O) | 32: see DATA (P) / 5,0 V (S,O) |
| 11: 5,0 V (P,S,O) | 33: nc |
| 12: 2,5 V (P,S,O) | 34: 19 mV (P) / 0,0 V (S,O) |
| 13: 2,4 V (P,S,O) | 35: 5,0 V (P) / 0,0 V (S,O) |
| 14: AF 2,5 V (P) / 2,5 V (S,O) | 36: 5,0 V (P,S,O) |
| 15: 5,0 V (P,S,O) | 37: nc |
| 16: 2,6 V (P,S,O) | 38: nc |
| 17: 2,4 V (P,S,O) | 39: 5,0 V (P,S,O) |
| 18: nc | 40: AF 2,5 V (P) / 2,5 V (S,O) |
| 19: nc | 41: 2,4 V (P,S,O) |
| 20: nc | 42: 2,5 V (P,S,O) |
| 21: nc | 43: 5,0 V (P,S,O) |
| 22: 5,0 V (P,S,O) | 44: AF 2,5 V (P) / 2,5 V (S,O) |

1050 A10 2152 B 5 2172 D10 2180 E11 3142 C14 3150 B 4 3153 C15 3161 C 7 3170 B 9 3173 F 9 3180 E11 3183 B12 3186 C12 7115 B 8 7140 C 10
 1050 A11 2153 C 5 2173 D10 3140 C14 3143 C14 3151 B 4 3152 C15 3162 C 7 3171 C10 3174 F 10 3181 D11 3184 E11 3185 B11 3186 C11 7115 D 6 7120 B10 7140 B



POS. 7120 L 272D

- 1: nc
- 2: nc
- 3: 5,4 V (P) / 5,2 V (S,O)
- 4: 12,0 V (P,S,O)
- 5: 4,8 V (P) / 5,2 V (S,O)
- 6: GND
- 7: nc
- 8: nc
- 9: nc
- 10: nc
- 11: 2,6 V (P,S,O)
- 12: 2,6 V (P,S,O)
- 13: 2,1 V (P,S,O)
- 14: 2,7 V (P,S,O)
- 15: nc
- 16: nc

POS. 7140 NE 532D

- 1: 3,9 V (P,S,O)
- 2: 0,6 V (P,S,O)
- 3: 2,3 V (P,S,O)
- 4: GND
- 5: 2,5 V (P,S,O)
- 6: 2,6 V (P,S,O)
- 7: 2,6 V (P) / 3,7 V (S,O)
- 8: 5,2 V (P,S,O)

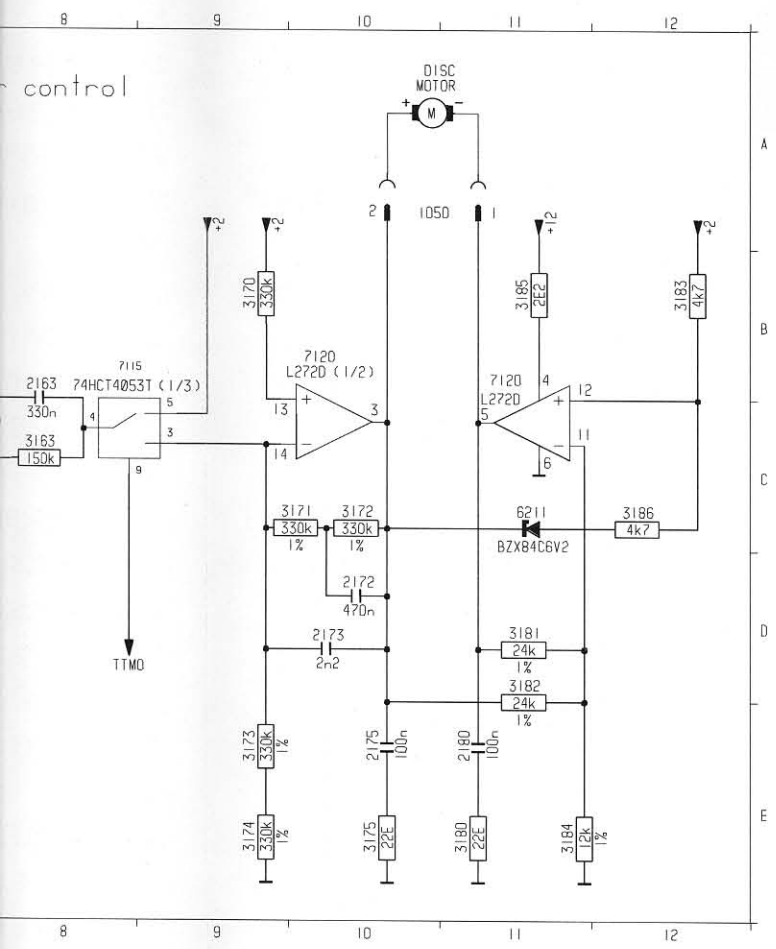
POS. 7100

- 1: nc
- 2: nc
- 3: 3,7 V (P)
- 4: 12,0 V (P,S,O)
- 5: 3,7 V (P)
- 6: GND
- 7: nc
- 8: nc
- 9: nc
- 10: nc
- 11: 3,6 V (P)
- 12: 3,6 V (P)
- 13: 3,6 V (P)
- 14: 3,6 V (P)
- 15: nc
- 16: nc

POS. 6030 BAV 99

- B: 3,7 V (P,S,O)
- C: 3,4 V (P,S,O)
- E: 3,7 V (P,S,O)

3183 B12 3186 C12 7115 B 8 7140 C 6
 3184 E11 6211 C11 7120 B10 7140 B 1
 3185 B11 7115 D 6 7120 B11



POS. 7115 74HCT 4053T

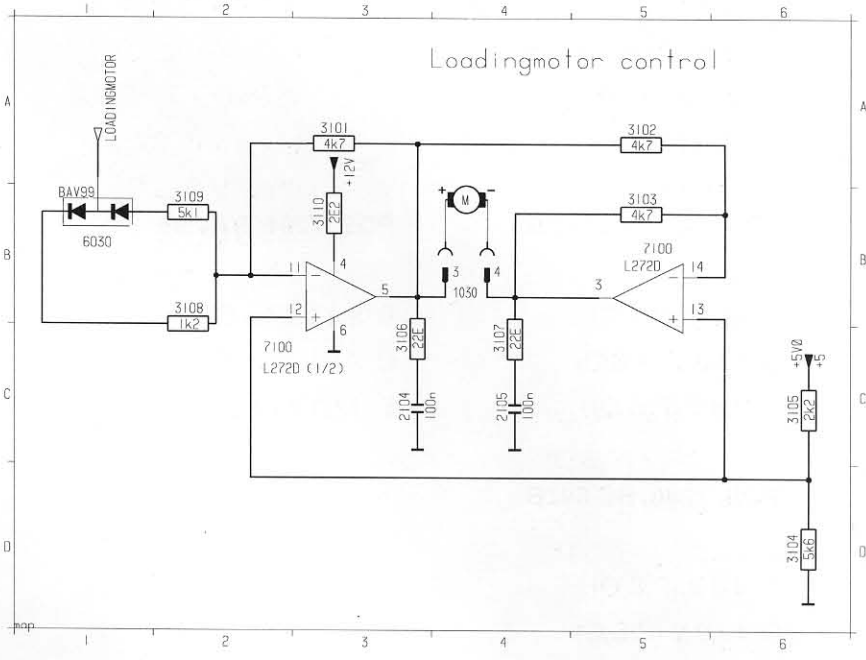
- 1: 2,5 V (P) / 3,7 V (S,O)
- 2: nc
- 3: 2,7 V (P,S,O)
- 4: 2,6 V (P,S,O)
- 5: 2,5 V (P,S,O)
- 6: GND
- 7: GND
- 8: GND
- 9: 5,0 V (P) / 0,0 V (S,O)
- 10: 5,0 V (P) / 0,0 V (S,O)
- 11: 4,5 V (P,S,O)
- 12: 2,3 V (P) / 5,0 V (S,O)
- 13: 4,7 V (P) / 5,0 V (S,O)
- 14: 4,7 V (P) / 5,0 V (S,O)
- 15: 2,5 V (P,S,O)
- 16: 5,0 V (P,S,O)

POS. 7100 L 272D

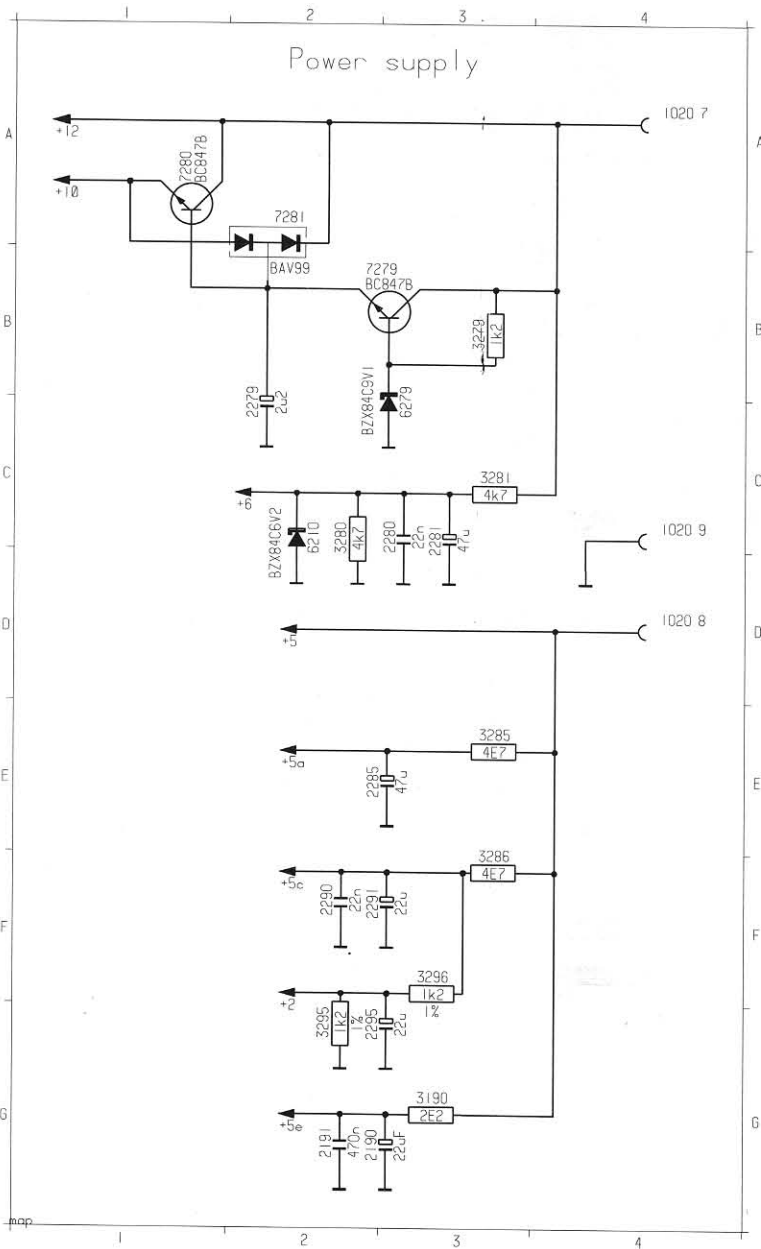
- 1: nc
- 2: nc
- 3: 3,7 V (P) / 3,6 V (S,O)
- 4: 12,0 V (P,S,O)
- 5: 3,7 V (P) / 3,6 V (S,O)
- 6: GND
- 7: nc
- 8: nc
- 9: nc
- 10: nc
- 11: 3,6 V (P,S,O)
- 12: 3,6 V (P,S,O)
- 13: 3,6 V (P,S,O)
- 14: 3,6 V (P,S,O)
- 15: nc
- 16: nc

BAV 99
 S,O)
 S,O)
 S,O)

1030 B 4 2104 C 3 3101 A 3 3103 B 5 3105 C 6 3107 C 4 3109 B 2 6030 B 1 7100 C 2
 1030 B 4 2105 C 4 3102 A 5 3104 D 6 3106 C 3 3108 B 2 3110 B 3 7100 B 5



POS. 7116 MC 68HC05C8



1020
1020
1020
2190
2191
2279
2280
2281
2285
2290
2291
2295
3190
3279
3280
3281
3285
3286
3295
3296
6210
6279
7279
7280
7281

- 1: 5,0 V (P,S,O)
- 2: see MRQ (P) / 5,0 V (S,O)
- 3: nc
- 4: 5,0 V (P,S,O)
- 5: see MRQ (P) / 5,0 V (S,O)
- 6: 2,8 V (P) / 0,0 V (S,O)
- 7: see SSM (P) / 40 mV (S,O)
- 8: 0,0 V (P,S,O)
- 9: 5,0 V (P) / 0,0 V (S,O)
- 10: 5,0 V (P,S,O)
- 11: 5,0 V (P,S,O)
- 12: 2,3 V (P,S,O)
- 13: see QRA (P) / 40 mV (S,O)
- 14: see QCL (P) / 5,0 V (S,O)
- 15: see QDA (P) / 0,0 V (S,O)
- 16: 3,9 V (P) / 70 mV (S,O)
- 17: 5,0 V (P,S,O)
- 18: nc
- 19: 5,0 V (P) / 0,0 V (S,O)
- 20: 5,0 V (P,S,O)
- 21: nc
- 22: GND

- 23: nc
- 24: 3,4 V (P,S)
- 25: 4,5 V (P,S)
- 26: 5,0 V (P)
- 27: 5,0 V (P)
- 28: nc
- 29: 0,0 V (P)
- 30: see SDA
- 31: see SCL
- 32: 3,9 V (P,S)
- 33: nc
- 34: see MC (P)
- 35: 0,0 V (P,S)
- 36: 5,0 V (P,S)
- 37: 2
- 38: 5,0 V (P)
- 39: 4,7 V (P)
- 40: nc
- 41: 4,7 V (P)
- 42: 2,7 V (P,S)
- 43: 2,4 V (P,S)
- 44: 5,0 V (P,S)

POS. 7279 BC 847B

- B: 9,5 V (P,S,O)
- C: 12,0 V (P,S,O)
- E: 9,0 V (P,S,O)

POS. 7281 BAV 99

- B: 8,4 V (P,S,O)
- C: 9,0 V (P,S,O)
- E: 12,0 V (P,S,O)

POS. 7280 BC 847B

- B: 9,0 V (P,S,O)
- C: 12,0 V (P,S,O)
- E: 8,4 V (P,S,O)

POS. 7085 TCA 0372DP1


- 1: 6,0 V (P,S,O)
- 2: 12,0 V (P,S,O)
- 3: 6,0 V (P,S,O)
- 4: GND
- 5: 6,0 V (P,S,O)
- 6: 6,0 V (P,S,O)
- 7: 6,0 V (P,S,O)
- 8: 6,0 V (P,S,O)

POS. 703

- 1: nc
- 2: nc
- 3: 2,6 V (P)
- 4: 12,0 V
- 5: 2,4 V (P)
- 6: GND
- 7: nc
- 8: nc
- 9: nc
- 10: nc
- 11: 2,5 V (P)
- 12: 2,5 V (P)
- 13: 2,5 V (P)
- 14: 2,5 V (P)
- 15: nc
- 16: nc

C 68HC05C8

))
) / 5,0 V (S,O)
))
) / 5,0 V (S,O)
 ,0 V (S,O)
) / 40 mV (S,O)
))
 ,0 V (S,O)
))
))
))
) / 40 mV (S,O)
) / 5,0 V (S,O)
) / 0,0 V (S,O)
 70 mV (S,O)
))
 ,0 V (S,O)
))

23: nc
 24: 3,4 V (P,S,O)
 25: 4,5 V (P,S,O)
 26: 5,0 V (P) / 0,0 V (S,O)
 27: 5,0 V (P) / 0,0 V (S,O)
 28: nc
 29: 0,0 V (P) / 5,0 V (S,O)
 30: see SDA (P) / 5,0 V (S,O)
 31: see SCL (P) / 5,0 V (S,O)
 32: 3,9 V (P,S,O)
 33: nc
 34: see MC (P) / 70 mV (S,O)
 35: 0,0 V (P,S) / 5,0 V (O)
 36: 5,0 V (P,S,O)
 37:  2,3 V (P) / 5,0 V (S,O)
 38: 5,0 V (P) / 0,0 V (S,O)
 39: 4,7 V (P) / 5,0 V (S,O)
 40: nc
 41: 4,7 V (P) / 5,0 V (S,O)
 42: 2,7 V (P,S,O)
 43: 2,4 V (P,S,O)
 44: 5,0 V (P,S,O)

CA 0372DP1

))
))
))
))
))
))
))

POS. 7035 L 272D

1: nc
 2: nc
 3: 2,6 V (P) / 2,4 V (S,O)
 4: 12,0 V (P,S,O)
 5: 2,4 V (P) / 2,6 V (S,O)
 6: GND
 7: nc
 8: nc
 9: nc
 10: nc
 11: 2,5 V (P,S,O)
 12: 2,5 V (P,S,O)
 13: 2,5 V (P,S,O)
 14: 2,5 V (P,S,O)
 15: nc
 16: nc


POS. 7003 TDA 8808T/C3

1: 2,5 V (P) / 0,4 V (S,O)
 2: 4,7 V (P) / 5,0 V (S,O)
 3: 2,0 V (P) / 2,5 V (S,O)
 4: 2,2 V (P,S,O)
 5: not const. (P) / 0 V (S,O)
 6: 2,8 V (P) / 0,0 V (S,O)
 7: 0,6 V (P,S,O)
 8: 1,3 V (P,S,O)
 9: 0,0 V (P,S,O)
 10: 4,6 V (P) / 70 mV (S,O)
 11: 4,7 V (P) / 5,0 V (S,O)
 12: 5,0 V (P) / 0,0 V (S,O)
 13: GND
 14: 2,8 V (P) / 3,8 V (S,O)
 15: 2,5 V (P,S,O)
 16: 2,5 V (P,S,O)
 17: 3,4 V (P) / 0 V (S,O)
 18: 0,2 V (P) / 0,0 V (S,O)
 19: 1,7 V (P) / 4,2 V (S,O)
 20: 2,9 V (P) / 3,7 V (S,O)
 21: 2,9 V (P) / 3,7 V (S,O)
 22: 1,3 V (P) / 0,0 V (S,O)
 23: 1,3 V (P) / 0,0 V (S,O)
 24: 1,3 V (P) / 0,0 V (S,O)
 25: 1,3 V (P) / 0,0 V (S,O)
 26: 1,4 V (P,S,O)
 27: GND
 28: 3,2 V (P) / 3,6 V (S,O)

POS. 7025 BC 868

B: 3,5 V (P) / 0 V (S,O)
 C: 3,8 V (P) / 4,7 V (S,O)
 E: 2,8 V (P) / 0 V (S,O)

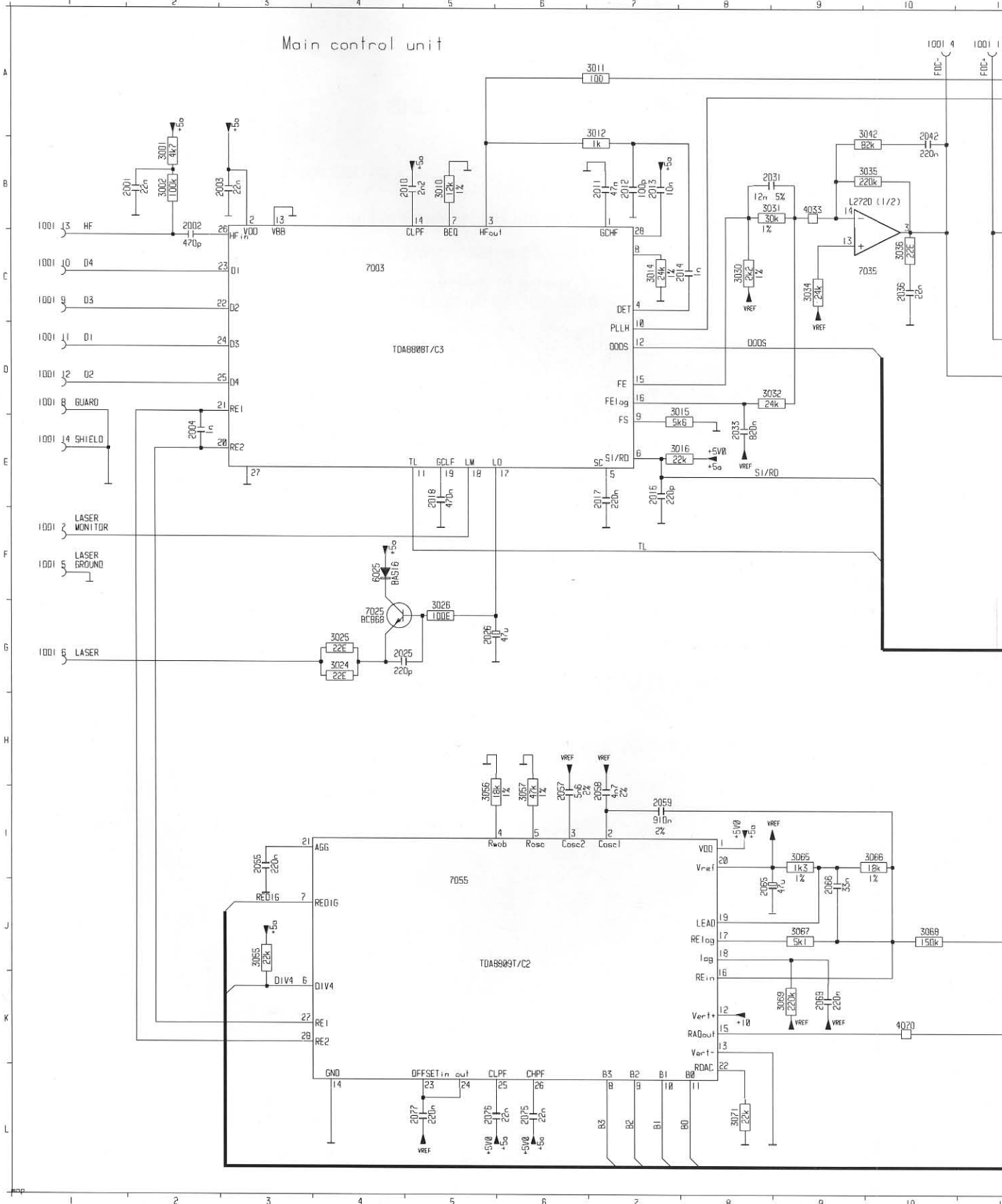
POS. 7055 TDA 8809T/C2

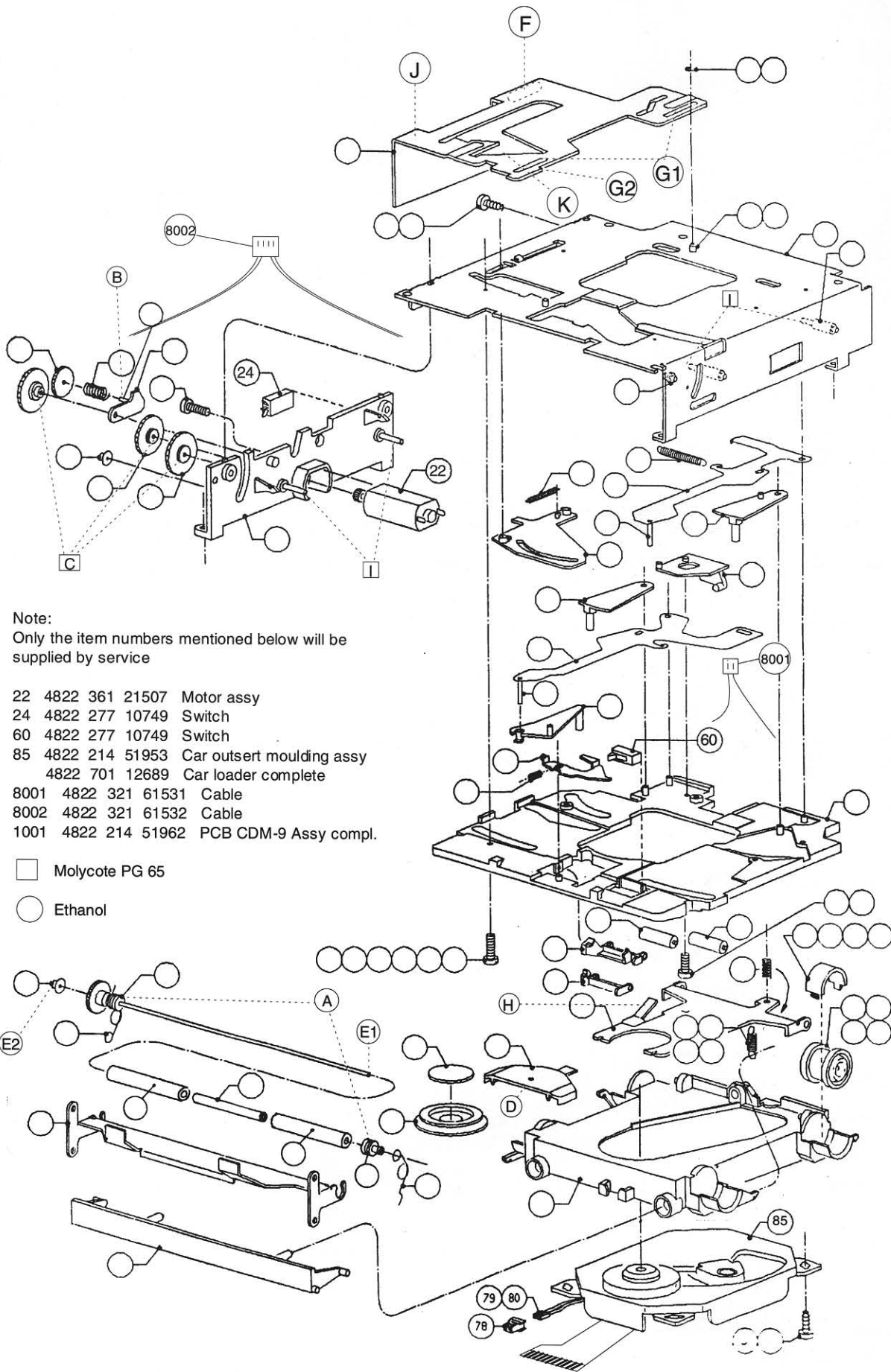
1: 4,7 V (P) / 5,0 V (S,O)
 2: sinus 2,5 V (P,S,O)
 3: sinus 2,5 V (P,S,O)
 4: 0,1 V (P,S,O)
 5: 1,3 V (P,S,O)
 6: 4,5 V (P,S,O)
 7:  2,3 V (P) / 5,0 V (S,O)
 8: 0,0 V (P,S,O)
 9: 5,0 V (P) / 0,0 V (S,O)
 10: 5,0 V (P,S,O)
 11: 5,0 V (P,S,O)
 12: 8,4 V (P,S,O)
 13: GND
 14: GND
 15: 6,0 V (P,S,O)
 16: 2,5 V (P,S,O)
 17: 2,5 V (P,S,O)
 18: 2,5 V (P,S,O)
 19: 2,5 V (P,S,O)
 20: 2,5 V (P,S,O)
 21: not const. (P) / 1,0 V (S,O)
 22: 1,2 V (P,S,O)
 23: not const. (P) / 0,6 V (S,O)
 24: not const. (P) / 0,6 V (S,O)
 25: 2,6 V (P) / 5,0 V (S,O)
 26: 2,0 V (P) / 4,3 V (S,O)
 27: 2,9 V (P) / 3,7 V (S,O)
 28: 2,9 V (P) / 3,7 V (S,O)

POS. 7301 BC 847B

B: 20 mV (P,S,O)
 C: 5,0 V (P,S,O)
 E: GND

Main control unit





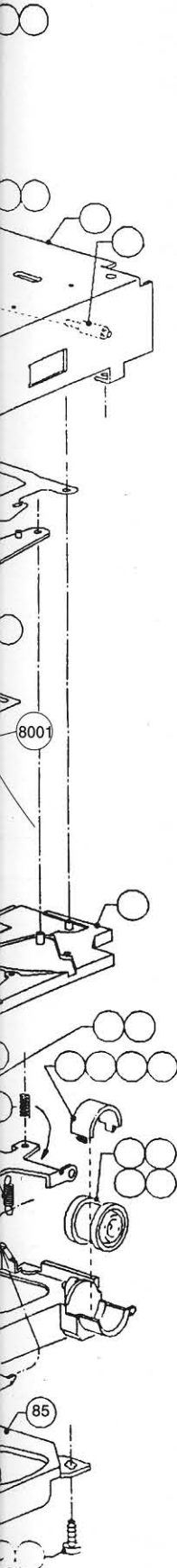
Note:

Only the item numbers mentioned below will be supplied by service

- 22 4822 361 21507 Motor assy
- 24 4822 277 10749 Switch
- 60 4822 277 10749 Switch
- 85 4822 214 51953 Car outsert moulding assy
- 4822 701 12689 Car loader complete
- 8001 4822 321 61531 Cable
- 8002 4822 321 61532 Cable
- 1001 4822 214 51962 PCB CDM-9 Assy compl.

□ Molycote PG 65

○ Ethanol



LUBRICATING INSTRUCTIONS

Car loader

- * A) The roller spindle (pos 28) : 2 x on diameter 2,5 mm.
(On the bearing points)
- * B) The spindle of the swing bracke (all lenght).
- * C) The spindles of the gearwheels (3 x all lenght).
- * D) The pivot bearing of the pivot cover (pos 69)
(in the middle of the closing plate)
- * E) E1 The roller spindle on the top on diameter 1,2 mm
E2 The metal pin on the motorplate assy (pos 15)
(Diameter 1,2 mm).
- * F) The sliding surface on the top control bracket (pos 73)
in which the plastic pen of the motorplate assy is guiding.
- * G) G1 The guiding grooves (2 x) on the control bracket in
which the guide pins of the chassis are guiding.
G2 The tag on the control bracket which actuate the switch brackets.
- * H) The tag on the pressure plate (pos 66).
- # I) The suspension pins (2 x) of the chassis.
The suspension pins (2 x) of the motorplate assy.
- * J) The teeth of the control bracket.
- * K) On the control bracket the sliding surface of the detection bracket.

* MOLYCOTE PG 65/Q5-7565 code nr. 1304 501 0841

ETHANOL code nr. 1322 506 35201



2001	5322 122 32654	22NF10%X7R 63V
2002	5322 122 32268	470PF 10% 50V
2003	5322 122 32654	22NF10%X7R 63V
2004	4822 122 31746	1NF 2%NP0 63V
2010	5322 122 33816	2,2NF 5%NP0 50V
2011	4822 122 32542	47NF10%X7R 63V
2012	5322 122 32531	100PF 5%NP0 50V
2013	4822 122 33177	10NF 20% X7R 50V
2014	4822 122 31746	1NF 2%NP0 63V
2016	4822 122 33584	220PF 5%
2017	4822 122 32916	220NF10%X7R 63V
2018	5322 122 32988	470NF10%X7R 50V
2025	4822 122 33584	220PF 5%
2026	4822 124 22646	47UF20% 16V
2031	4822 126 12104	12NF 5%
2033	4822 121 51436	820NF10% 63V
2036	5322 122 32654	22NF10%X7R 63V
2042	4822 126 12106	220NF 5%
2046	5322 122 32654	22NF10%X7R 63V
2047	4822 122 33177	10NF 20% X7R 50V
2055	4822 122 32916	220NF10%X7R 63V
2057	4822 121 51361	5,6NF 2% 160V
2058	4822 121 51051	4,7NF 1% 160V
2059	4822 121 51262	910PF 1% 400V
2065	4822 124 22646	47UF20% 16V
2066	4822 126 12105	33NF 5%
2069	4822 122 32916	220NF10%X7R 63V
2075	5322 122 32654	22NF10%X7R 63V
2076	5322 122 32654	22NF10%X7R 63V
2077	4822 122 32916	220NF10%X7R 63V
2088	4822 126 12107	390NF10%
2089	4822 122 33177	10NF 20% X7R 50V
2091	4822 122 32916	220NF10%X7R 63V
2092	4822 122 32916	220NF10%X7R 63V
2104	4822 122 33496	100NF10%X7R 63V
2105	4822 122 33496	100NF10%X7R 63V
2116	4822 124 80112	22UF-10+50% 6.3V
2117	5322 122 32654	22NF10%X7R 63V
2118	4822 122 32916	220NF10%X7R 63V
2120	5322 122 32452	47PF 5% 50V
2121	5322 122 32452	47PF 5% 50V
2142	4822 122 33496	100NF10%X7R 63V
2152	4822 122 32183	56NF10% 50V
2153	4822 122 33177	10NF 20% X7R 50V
2163	4822 122 33001	330NF 10%X7R 50V
2172	5322 122 32988	470NF10%X7R 50V
2173	5322 122 33816	2,2NF 5%NP0 50V
2175	4822 122 33496	100NF10%X7R 63V
2180	4822 122 33496	100NF10%X7R 63V
2190	4822 124 80112	22UF-10+50% 6.3V

2191	5322 122 32988	470NF10%X7R 50V
2192	5322 122 32452	47PF 5% 50V
2193	5322 122 33816	2,2NF 5%NP0 50V
2194	5322 122 32988	470NF10%X7R 50V
2201	5322 122 32654	22NF10%X7R 63V
2209	4822 124 80113	2.2UF-10+50% 40V
2216	5322 122 32654	22NF10%X7R 63V
2220	5322 122 32658	22PF 5% 50V
2221	5322 122 32658	22PF 5% 50V
2222	4822 122 33283	150PF 5%NP0 50V
2230	5322 126 10328	1500PF 5% NP0 63V
2231	5322 122 32452	47PF 5% 50V
2232	4822 122 31773	560PF 5% 50V
2233	4822 122 31746	1NF 2%NP0 63V
2234	5322 122 32531	100PF 5%NP0 50V
2235	4822 124 22646	47UF20% 16V
2236	4822 124 80111	10UF20% 50V
2237	4822 122 33496	100NF10%X7R 63V
2240	4822 122 33496	100NF10%X7R 63V
2241	5322 122 32531	100PF 5%NP0 50V
2242	4822 124 22646	47UF20% 16V
2245	4822 122 33496	100NF10%X7R 63V
2246	4822 124 23281	33UF20% 16V
2247	4822 122 31746	1NF 2%NP0 63V
2248	4822 122 31773	560PF 5% 50V
2249	4822 124 23281	33UF20% 16V
2250	4822 124 23281	33UF20% 16V
2251	4822 122 33496	100NF10%X7R 63V
2252	4822 122 33496	100NF10%X7R 63V
2253	4822 122 33496	100NF10%X7R 63V
2254	4822 122 33496	100NF10%X7R 63V
2255	4822 122 33496	100NF10%X7R 63V
2256	4822 124 23281	33UF20% 16V
2257	5322 122 32452	47PF 5% 50V
2258	5322 126 10328	1500PF 5% NP0 63V
2259	4822 124 23281	33UF20% 16V
2279	4822 124 80113	2.2UF-10+50% 40V
2280	5322 122 32654	22NF10%X7R 63V
2281	4822 124 22646	47UF20% 16V
2285	4822 124 80112	22UF-10+50% 6.3V
2290	5322 122 32654	22NF10%X7R 63V
2291	4822 124 80112	22UF-10+50% 6.3V
2295	4822 124 80112	22UF-10+50% 6.3V



3001	4822 051 20472	4K70 5% 0,1W
3002	4822 051 20104	100K00 5% 0,1W
3010	4822 051 51203	12K00 1% 0,125W
3011	4822 051 20101	100R00 5% 0,1W
3012	4822 051 20102	1K00 5% 0,1W
3014	4822 051 52403	24K00 1% 0,125W
3015	4822 051 20562	5K60 5% 0,1W
3016	4822 051 20223	22K00 5% 0,1W

3024	4822 051 20229	22R00	5%	0,1W
3025	4822 051 20229	22R00	5%	0,1W
3026	4822 051 20101	100R00	5%	0,1W
3030	4822 051 52202	2K20	1%	0,125W
3031	4822 051 53003	30K00	1%	0,125W
3032	4822 051 20243	24K00	5%	0,1W
3034	4822 051 20243	24K00	5%	0,1W
3035	4822 051 20224	220K00	5%	0,1W
3036	4822 051 20229	22R00	5%	0,1W
3037	4822 051 51203	12K00	1%	0,125W
3042	4822 051 20823	82K00	5%	0,1W
3045	4822 051 51803	18K00	1%	0,125W
3046	4822 051 20229	22R00	5%	0,1W
3047	4822 051 20478	4R70	5%	0,1W
3048	4822 051 20912	9K10	5%	0,1W
3055	4822 051 20223	22K00	5%	0,1W
3056	4822 051 51803	18K00	1%	0,125W
3057	4822 051 54703	47K00	1%	0,125W
3065	4822 051 51302	1K30	1%	0,125W
3066	4822 051 51803	18K00	1%	0,125W
3067	4822 051 20512	5K10	5%	0,1W
3068	4822 051 20154	150K00	5%	0,1W
3069	4822 051 20224	220K00	5%	0,1W
3071	4822 051 20223	22K00	5%	0,1W
3085	4822 116 83634	5K6	0,25%	0,25W
3086	4822 116 83634	5K6	0,25%	0,25W
3087	4822 116 83634	5K6	0,25%	0,25W
3088	4822 051 10829	82R00	2%	0,25W
3089	4822 050 22208	2R20	1%	0,6W
3090	4822 116 83634	5K6	0,25%	0,25W
3091	4822 051 10228	2R20	5%	0,25W
3092	4822 051 20229	22R00	5%	0,1W
3101	4822 051 20472	4K70	5%	0,1W
3102	4822 051 20472	4K70	5%	0,1W
3103	4822 051 20472	4K70	5%	0,1W
3104	4822 051 20562	5K60	5%	0,1W
3105	4822 051 20222	2K20	5%	0,1W
3106	4822 051 20229	22R00	5%	0,1W
3107	4822 051 20229	22R00	5%	0,1W
3108	4822 051 20122	1K20	5%	0,1W
3109	4822 051 20512	5K10	5%	0,1W
3110	4822 051 20228	2R20	5%	0,1W
3117	4822 051 20223	22K00	5%	0,1W
3118	4822 051 20101	100R00	5%	0,1W
3119	4822 051 20334	330K00	5%	0,1W
3120	4822 051 20224	220K00	5%	0,1W
3121	4822 051 20223	22K00	5%	0,1W
3122	4822 051 20223	22K00	5%	0,1W
3123	4822 051 20104	100K00	5%	0,1W
3126	4822 051 20228	2R20	5%	0,1W
3140	4822 051 20154	150K00	5%	0,1W
3141	4822 116 30426	4K7	3%	0,1W
3142	4822 051 55602	5K60	1%	0,125W

3143	4822 051 56802	6K80	1%	0,125W
3144	4822 051 51002	1K00	1%	0,125W
3150	4822 051 20472	4K70	5%	0,1W
3151	4822 051 20683	68K00	5%	0,1W
3152	4822 051 20333	33K00	5%	0,1W
3153	4822 051 20333	33K00	5%	0,1W
3154	4822 051 20223	22K00	5%	0,1W
3160	4822 051 20562	5K60	5%	0,1W
3161	4822 051 20102	1K00	5%	0,1W
3162	4822 051 20332	3K30	5%	0,1W
3163	4822 051 20154	150K00	5%	0,1W
3170	4822 051 20334	330K00	5%	0,1W
3171	4822 051 53304	330K00	1%	0,125W
3172	4822 051 53304	330K00	1%	0,125W
3173	4822 051 53304	330K00	1%	0,125W
3174	4822 051 53304	330K00	1%	0,125W
3175	4822 051 20229	22R00	5%	0,1W
3180	4822 051 20229	22R00	5%	0,1W
3181	4822 051 52403	24K00	1%	0,125W
3182	4822 051 52403	24K00	1%	0,125W
3183	4822 051 20472	4K70	5%	0,1W
3184	4822 051 51203	12K00	1%	0,125W
3185	4822 051 20228	2R20	5%	0,1W
3186	4822 051 20472	4K70	5%	0,1W
3190	4822 051 20228	2R20	5%	0,1W
3192	4822 051 20222	2K20	5%	0,1W
3194	4822 051 20223	22K00	5%	0,1W
3201	4822 051 20912	9K10	5%	0,1W
3202	4822 051 20392	3K90	5%	0,1W
3203	4822 051 20162	1K60	5%	0,1W
3208	4822 051 20185	1M80	5%	0,1W
3209	4822 051 20759	75R00	5%	0,1W
3220	4822 051 20105	1M00	5%	0,1W
3221	4822 051 20223	22K00	5%	0,1W
3222	4822 051 20104	100K00	5%	0,1W
3223	4822 051 20102	1K00	5%	0,1W
3224	4822 051 20101	100R00	5%	0,1W
3225	4822 051 20102	1K00	5%	0,1W
3226	4822 051 20102	1K00	5%	0,1W
3227	4822 051 20102	1K00	5%	0,1W
3230	4822 051 20103	10K00	5%	0,1W
3231	4822 051 20105	1M00	5%	0,1W
3232	4822 051 53003	30K00	1%	0,125W
3233	4822 051 20562	5K60	5%	0,1W
3234	4822 051 20752	7K50	5%	0,1W
3235	4822 051 20562	5K60	5%	0,1W
3237	4822 051 20479	47R00	5%	0,1W
3238	4822 051 20103	10K00	5%	0,1W
3239	4822 051 20479	47R00	5%	0,1W
3240	4822 051 20478	4R70	5%	0,1W
3241	4822 051 20478	4R70	5%	0,1W
3242	4822 051 20752	7K50	5%	0,1W
3243	4822 051 20562	5K60	5%	0,1W

3244	4822 051 20103	10K00	5%	0,1W
3245	4822 051 20562	5K60	5%	0,1W
3246	4822 051 53003	30K00	1%	0,125W
3247	4822 051 20105	1M00	5%	0,1W
3248	4822 051 20478	4R70	5%	0,1W
3249	4822 051 20478	4R70	5%	0,1W
3250	4822 051 20103	10K00	5%	0,1W
3254	4822 051 20339	33R00	5%	0,1W
3255	4822 051 20478	4R70	5%	0,1W
3279	4822 051 20122	1K20	5%	0,1W
3280	4822 051 20472	4K70	5%	0,1W
3281	4822 051 20472	4K70	5%	0,1W
3285	4822 051 20228	2R20	5%	0,1W
3286	4822 051 20478	4R70	5%	0,1W
3295	4822 051 51202	1K20	1%	0,125W
3296	4822 051 51202	1K20	1%	0,125W



4033	4822 051 20008	0R00	5%	0,1W
4070	4822 051 20008	0R00	5%	0,1W
4090	4822 051 20008	0R00	5%	0,1W
4092	4822 051 20008	0R00	5%	0,1W
4094	4822 051 10008	0R00	5%	0,25W
4096	4822 051 10008	0R00	5%	0,25W
4207	4822 051 20008	0R00	5%	0,1W
4208	4822 051 20008	0R00	5%	0,1W
5230	4822 157 60122			
5231	4822 157 63866	820UH	20%	
5232	4822 157 63866	820UH	20%	



6025	5322 130 31928	BAS16		
6026	5322 130 31928	BAS16		
6030	5322 130 34337	BAV99		
6210	5322 130 33671	BZX84-C6V2		
6211	5322 130 33671	BZX84-C6V2		
6279	4822 130 33996	BZX84-C9V1		



7003	4822 209 73234	TDA8808T/C3		
7025	5322 130 61569	BC868		
7035	4822 209 31131	L272D		
7055	4822 209 73235	TDA8809T/C2		
7085	4822 209 62059	TCA0372DP1		
7100	4822 209 31131	L272D		
7115	5322 209 14481	HEF4053BT		
7116	4822 209 31127	MC68HC705C8CFM		
		-PROG.		
7120	4822 209 31131	L272D		
7140	5322 209 71553	NE532D		
7190	4822 209 61759	SAA7310GP/H5		
7203	4822 130 42131	BF550		
7215	4822 209 31128	UPD41464L-10		
7221	4822 130 60511	BC847B		
7230	4822 209 63997	SAA7323GP		

7279	4822 130 60511	BC847B		
7280	4822 130 60511	BC847B		
7281	5322 130 34337	BAV99		
7301	4822 130 60511	BC847B		

Miscellaneous

1	4822 502 11751	M2,5X5PAN ZNBK		
2	4822 502 30541	2,2X8PT/PAN+STZN		
1001	4822 214 51962	BOARD PRINTED		
1001	4822 267 50838	14 PIN		
1020	4822 265 41209	12 P		
1030	4822 265 30957	4 P		
1040	4822 265 30956	2 P		
1050	4822 265 30958	2 P		
1120	4822 242 70831	CSA4,00MG		
1220	4822 242 81164	AT-51(11.2896MHZ)		
85	4822 214 51953	CAR OUTSERT		
		MOULDING		
1002	4822 691 10366	MECH.UNIT CD-PL		
22	4822 361 21507	MOTOR ASSY		
60	4822 277 10749	SWITCH		
8002	4822 321 61532	RFK 5 ASSY L80 4P		
8 1 1	4822 529 10277	DAMPER		
8001	4822 321 61531	RFK 5 ASSY L80 2P		
9 1 1	4822 529 10277	DAMPER		
10 1 1	4822 529 10277	DAMPER		
11 1 1	4822 529 10277	DAMPER		
22 1 1	4822 361 21507	MOTOR		
24 1 1	4822 277 10749	SWITCH		
60 1 1	4822 277 10749	SWITCH		
8001 1	4822 321 61531	CABLE, CONNECT		
3 8001	4822 267 30871	CONNECTOR 2P		
8002 1	4822 321 61532	CABLE, CONNECT		
5 8002	4822 267 40672	DISC 4POL		
81 1	4822 691 30275	MECH. UNIT CDM-9		
8 81 1	4822 701 10425	M 2 X10T/PAN	ZNBK	
9 81 1	4822 701 10425	M 2 X10T/PAN	ZNBK	
2001	4822 122 33496	100NF10%X7R	63V	
1003	4822 267 51146	CONNECTOR		

