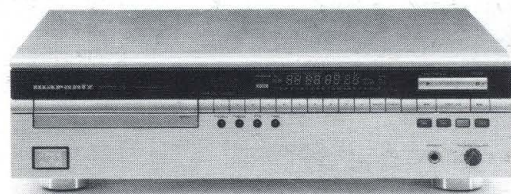


Service
Service
Service



Service Manual

COMPACT
disc
DIGITAL AUDIO

CONTENTS

- 1 Explanation of the layout
- 2 Controls and technical specification
- 3 Servicing hints
- 4 Exploded view
- 5 Measurements and adjustments
- 6 Circuit diagrams, power supply, voltage adapter
- 7 Control & display panel
- 8 Wiring diagram, Voltage adapter
- 9 Electrical parts list
- 10 List of symbols

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambio identici a quelli specificati.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

CLASS 1
LASER PRODUCT

3122 110 03420

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.

Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified. The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA
HORNYPHON
Vertriebsgesellschaft GmbH
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

CHILE
MARANTZ
DIVISION OF PHILIPS S.A.
AV. Santa Maria, 0760
Casilla 2687
Santiago
Telex: 240.239

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 København S
Denmark
Telex: 31201

FINLAND
MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex: 124811

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

GERMANY
MARANTZ GERMANY GmbH
Max-Planck-Strasse 22
6072 Dreieich 1
Germany
Telex: 529821

THE NETHERLANDS
Elpro Marantz
Wint Hontlaan 28
3526 KV Utrecht
The Netherlands
Telex: 4748

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
0680 Oslo 6
Norway
Telex: 72640

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippocrates Street 188
Athens 11471
Greece
Telex: 216.795

JAPAN
MARANTZ JAPAN, Inc.
35-1, 7-chome, Sagamino
Sagamihara-shi, Kanagawa
Japan

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 401530

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Main Road Martindale
P.O. Box. 58088
Newville 21114
South Africa

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

SWITZERLAND
DYNAVOX ELECTRONICS
Route de Villars 105
1701 Fribourg
Switzerland
Telex: 942377

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

MALTA
CACHIA & GALEA
Republic Street, 68D
Valetta
Telex: 1682

PORTUGAL
MARANTZ
Divisao philips S.A. service
Outurela-carnaxide
2795 LinDA-A-VELHA
Telex: 43906

MARANTZ INTERNATIONAL
Vestdijk 9
5600 MD Eindhoven
The Netherlands
Phone: +31/40.758290
Telefax: +31/40.75.82.99
Telex: 35000 PHTC NL routing IND NLMTFAT

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

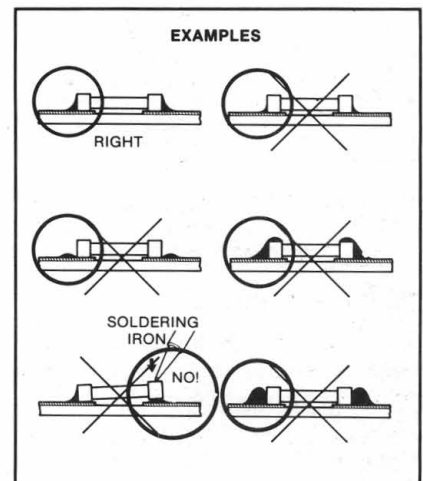
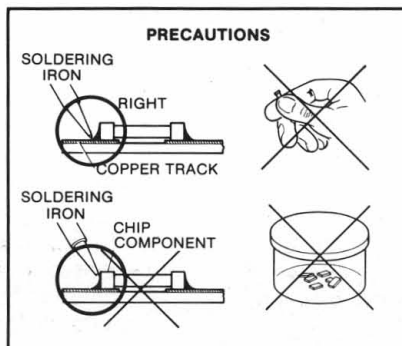
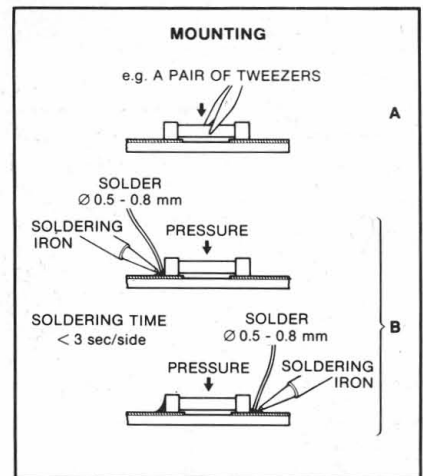
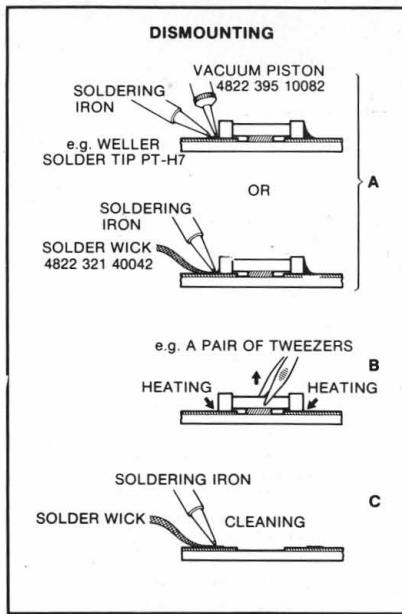
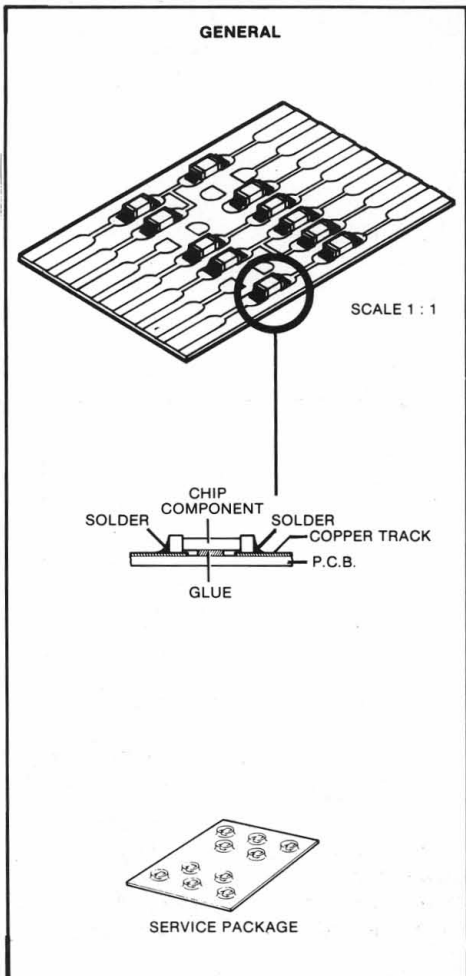
1. EXPLANATION OF THE LAYOUT OF THE DOCUMENTATION

The documentation consists of chapters.
 The number of the chapter is indicated by the first digit of the page number.
 The second digit of the page number is the sequence numbering.

If modifications or supplements require new supplementary or replacement pages, the page number is extended with a third part:

A digit behind the page number indicates that it concerns a supplementary page.
 A replacement page is indicated by a letter behind the page number.
Example

3-6 is page 6 of chapter 3
 3-6-1 is a supplementary page behind page 3-6
 3-6-a is the replacement page of page 3-6 (so page 3-6 can be removed from the documentation).

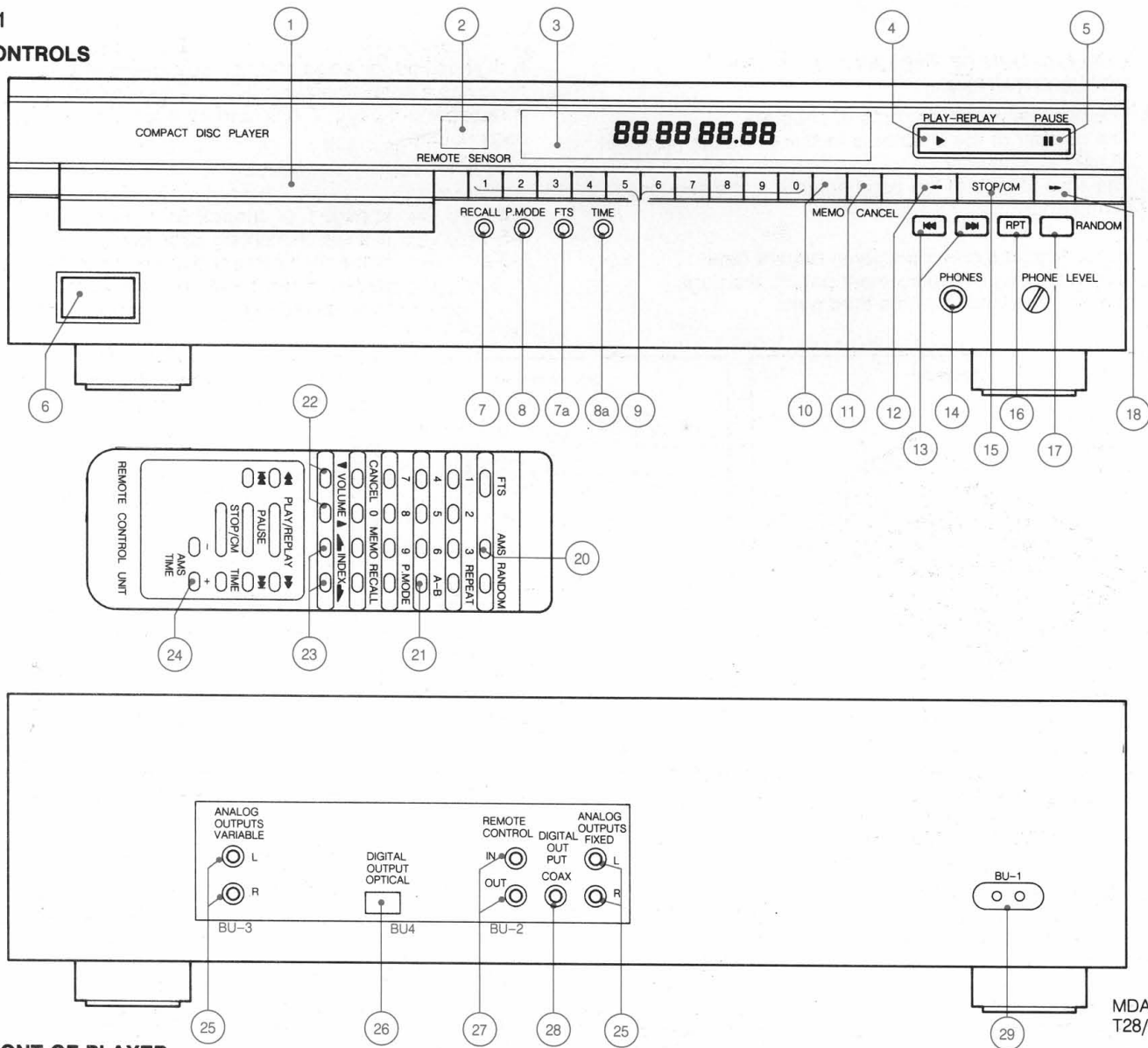


27 012C12

TECHNICAL SPECIFICATION

- System : Compact Disc Digital Audio system
- Disc diameter : 120mm/80mm
- Mainsvoltages/02/05 : 110 V, 127 V, 220 V, 240 V ± 10% (to be changed by transformer connections)
- /04 : 100 V ± 10%
- /06 : 117 V ± 10%
- /01 : 110 V, 127 V, 220 V ± 10% (to be changed by carousel switch)
- Mains frequencies : 50,60 Hz(no adaption required)
- Power consumption : ≤20 W
- Frequency range : 20 Hz + 20 kHz ±0,1 dB
- Output voltage fixed : max. 2 V_{rms}/≥10 kOhms
- Output impedance : 200 Ohms
- S/N ratio : ≥96 dB
- Channel separation : ≥93 dB
- Channel difference : ≤0,2 dB
- Total harmonic distortion : ≤-88 dB
- Intermodulation distortion : ≤-88 dB
- De-emphasis : 0 or 15/50 μs (switched by the subcode on the disc)
- Dimensions WxDxH : 454 × 118 × 288 mm (tray closed)
- Weight : approx 7 kg

CONTROLS



FRONT OF PLAYER

1 Disc tray on which the **OPEN** key is situated; the tray closes when the front is pressed briefly.

2 REMOTE SENSOR

Receives the signals from the remote control handset.

3 DISPLAY

- Informs you about the functioning of the player.
- Displays details from the disc contents list.

4 PLAY-REPLAY (▶)

- Starting play (**PLAY**)
- Returning to the beginning of a track (**REPLAY**)

5 PAUSE (II)

Interrupting play.

6 ON/OFF

Switching on and off.

7 RECALL

Reviewing a programme.

7a FTS

Activating the Favourite Track Selection circuit.

8 PROGRAM MODE

- Selecting **PROGRAM** mode when storing a program.
- Selecting **EDIT** mode to enter the recording time when making a tape recording.

8a TIME

Selecting the time information you want to see:

- **REMAIN**: The remaining playing time of a track.
- **TOTAL REMAIN**: The remaining playing time of the entire disc or a program.
- The elapsed playing time of a track.

9 '1-0' digit keys

- Selecting another track number during play.
- Selecting a track number to start play with.
- Selecting track numbers when programming.
- Entering the recording time when making a tape recording.

10 MEMO

- Storing track numbers in a program.
- Storing the recording time when making a tape recording.

11 CANCEL

- Erasing track numbers you do not wish to include in a program.
- Erasing track numbers from a program.
- Erasing favourite track selections.

12 ◀◀

Fast search for a particular passage; backwards to the beginning of the disc.

13 ▶▶

- Selecting another track number during play.
- Selecting a track number to start play with.
- Selecting track numbers when programming. (◀◀ from high to low; ▶▶ from low to high).

14 PHONES BU-5

Connecting headphones.

15 STOP/CM

- Stopping play (**STOP**).
- Erasing a program (**CM** = Clear Memory).

16 RPT

Repeating a track, the entire disc or a program (**RPT** = repeat).

17 RANDOM

Playing in a random order.

18 ►►

Fast search for a particular passage; forwards to the end of the disc.

REMOTE CONTROL FUNCTIONS

Most of the controls also appear on the remote control handset. The functions below can only be operated using the remote control handset:

20 AMS

Automatically playing the beginning of each track (AMS = Automatic Music Scan).

21 A-B

Storing the start and stop points of a passage to be repeated.

22 ▼ VOLUME ▲

Adjusting the sound level when the player is connected via the **VARIABLE**-output to an amplifier or HiFi system without its own remote control (▼ from high to low; ▲ from low to high).

23 ◀ INDEX ▶

– Selecting another index number during play.
– Selecting an index number to start play with.
(◀ from high to low; ▶ from low to high).

24 – AMS TIME +

Setting the playing time when scanning the disc.

For the best reception of the signals from the remote control you should aim it as directly as possible at the **REMOTE SENSOR**.

CONNECTIONS REAR OF PLAYER

- All connections to the rear panel should be made with the power to the entire system switched off.
- To avoid cross-connection of channels, connect one plug at a time.

25 ANALOG OUTPUTS

VARIABLE (BU-3): For connection to an amplifier of HiFi system without its own remote control.

FIXED (BU-2 Line out L/R): For connection to a **MARANTZ** amplifier of HiFi system with its own remote control.

- Insert a red plug into the 'R' socket (right-hand channel) and the other plug into the 'L' socket (left-hand channel) of the **VARIABLE** output or the **FIXED** output. In the case of connection via the **VARIABLE** output, the sound level can be adjusted with the ▼ **VOLUME** ▲ keys on the remote control.
- Insert the two other plugs into the corresponding sockets of the CD or AUX input of your amplifier. You can also use the TUNER or TAPE IN connection, but *never* the PHONO input. This is not suitable for Compact Disc reproduction.

26 DIGITAL OUTPUT OPTICAL BU-2-Digital out

This output supplies a digital signal via an optical path; for this reason it can only be connected to a Digital Analog Converter, an amplifier with an optical digital input or a digital sound processor. For this use an optical lead.

To prevent dirt entering this output, it is covered with a little cap which should only be removed when the output is in use.

27 REMOTE CONTROL IN/OUT BU-2 RC5 IN/OUT

- For connecting up the equipment when you are incorporating the player in a **MARANTZ** HiFi system with its own remote control system. For this use the RC5 cable supplied.
- For connecting the remote control receiver **RC 55**, available as an accessory, if the siting of the changer prevents its **REMOTE SENSOR** from receiving the signals from the remote control directly.

28 DIGITAL OUTPUT COAX BU-4

For digital signal processing or future applications such as CD-I.

This output supplies a digital signal and can therefore only be connected to an input which is suitable for this signal. Use here a lead with one cinch plug on either end.

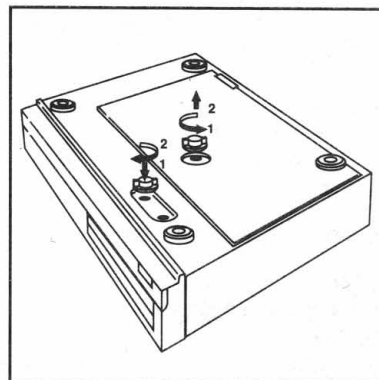
WARNING!

Never connect this socket to a non-digital input of an amplifier, such as AUX, CD, TAPE, PHONO, etc. This can damage the amplifier and the loudspeakers.

29 MAINS SOCKET

- Insert the plug of the mains lead into the Mains Socket.
- Connect the other end to your mains supply.

3



44 229 A11

REMOVING THE TRANSIT CLAMPS

The two red transit clamps on the underside of the player lock the player mechanism to secure it during transportation.

Remove these transit clamps before using the player. Store them in the recesses provided. Refit them before transporting the player.

3. SERVICING HINTS



All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can drastically reduce life expectancy.

When repairing, make sure that you are connected via a wrist wrap with resistance to the same potential as the chassis of the set. Keep components and aids also at the same potential.

When the tray mechanism and CDM-unit has been disassembled the player can be prepared for measurements by bridging the "tray detection" switch SK2 on the main panel.

Service disc hold-down

The disc should always rest properly on the turntable. To achieve this a disc hold-down has been mounted in a bracket of the tray mechanism.

If the tray mechanism has to be disassembled for servicing, a separate disc hold-down should be used. For a service disc hold-down see the figure below.

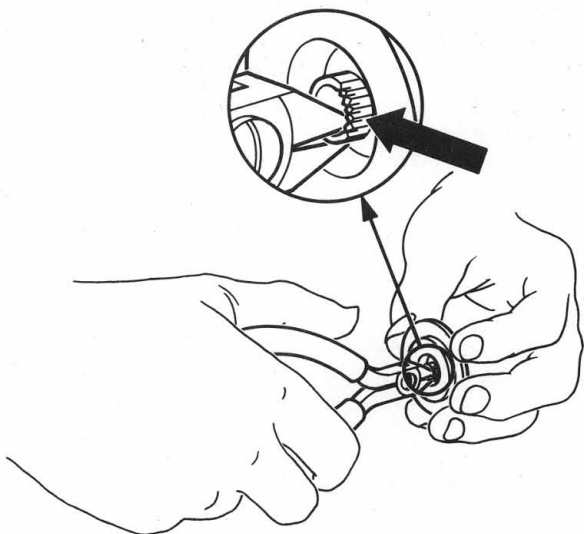
Compose a service Disc hold-down in the following way.

- Cut in the most inner ring of a disc holddown (4822 462 50383) with small and sharp nippers See fig. below.
- Enlarge the diameter of the innermost ring slightly with the hind part of a pencil or ballpoint, so that it jams onto the turntable with sufficient force.
- If the jamming force decreases after certain time of use, the diameter has to be enlarged with a pencil or ballpoint again.

Explanation of the symbols used

- = oscilloscope (ri ≥ 10 MΩ)
- = meter (voltmeter with ri ≥ 10 MΩ)
- = carry out alignment/adjustment
- = test point

SERVICE DISC-HOLDDOWN



SERVICE TOOLS

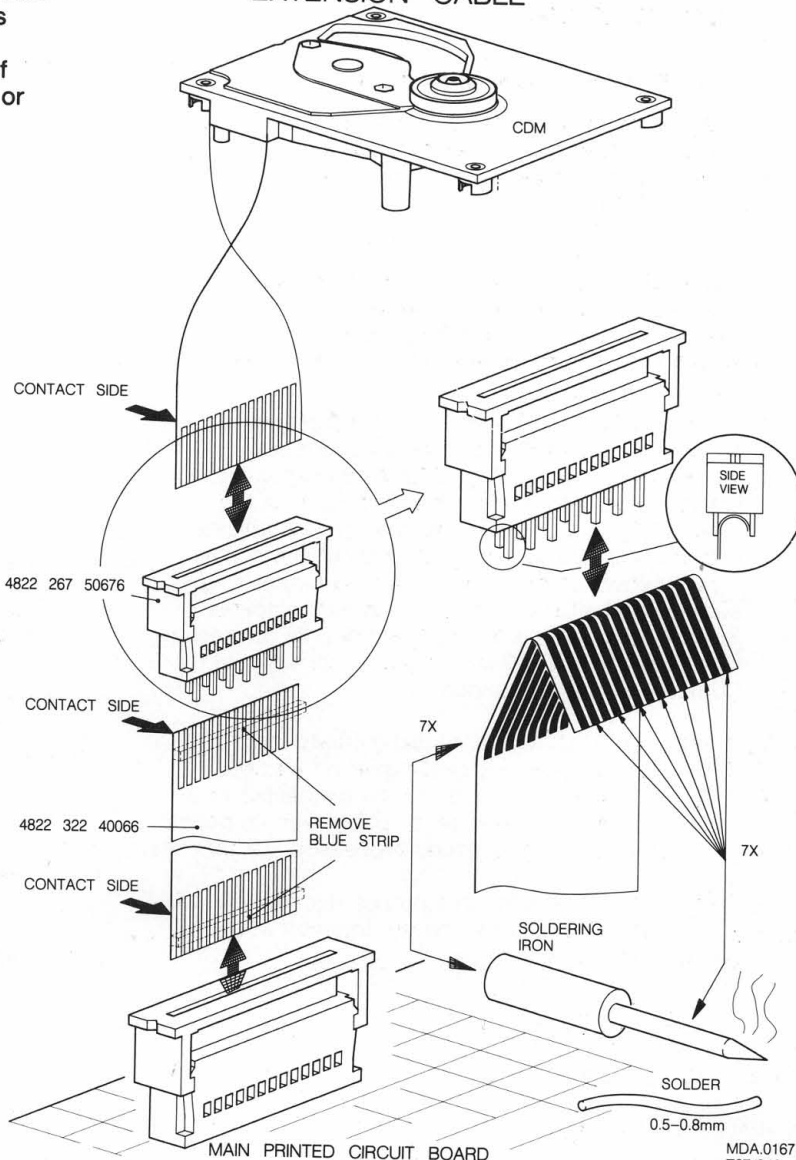
| | |
|---|----------------|
| Audio test disc 1 | 4822 397 30185 |
| Disc without errors + disc with DO errors, black spots and fingerprints | 4822 397 30096 |
| Disc (65 min, 1kHz) without pause | 4822 397 30155 |
| Maximum diameter disc | 4822 397 60141 |
| Torx screwdrivers | |
| Set (straight) | 4822 395 50145 |
| Set (square) | 4822 395 50132 |
| 13th order filter | 4822 395 30204 |

WORKING WITH THE FAULTFINDING TREE

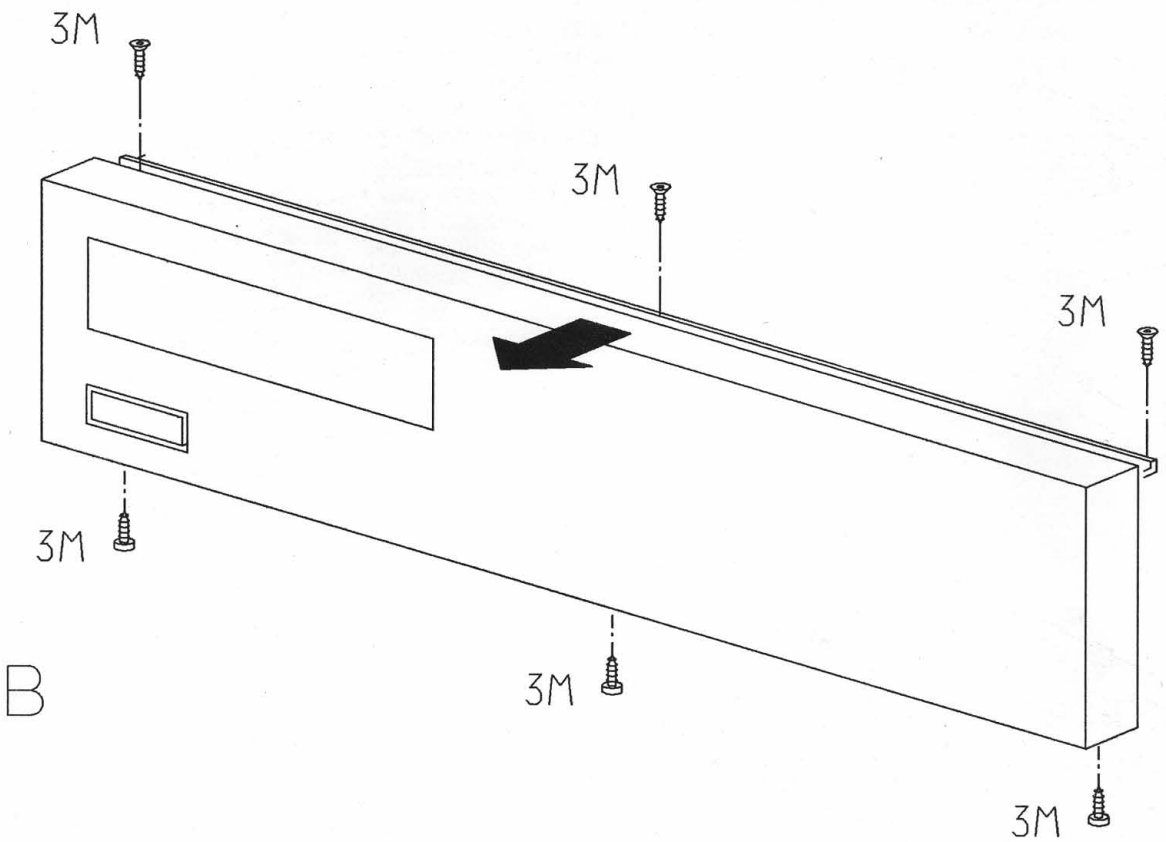
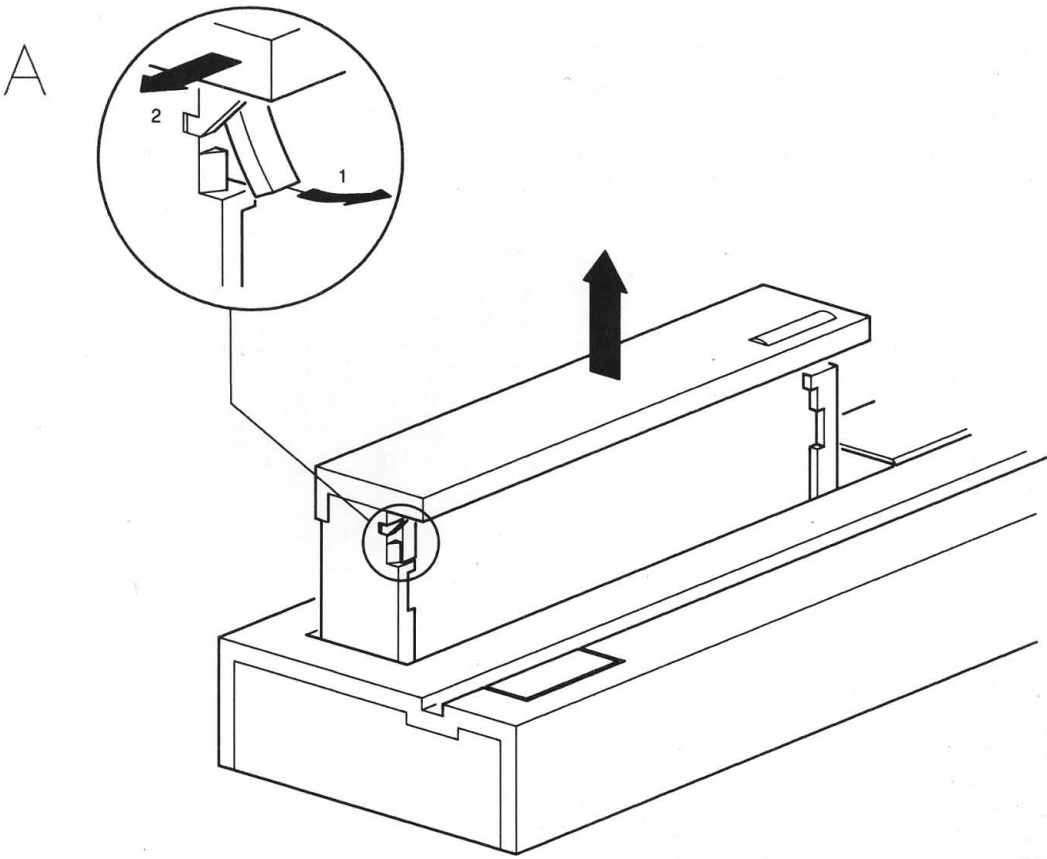
Follow the path of the faultfinding tree, beginning at the top left. Perform the actions you come across in the various blocks.

Look at the various side branches to find out if the information you see there applies to your problem. If, for instance, you find the indication display, this means that no picture appears on the display. If you establish this fault, follow the branch and perform the recommended actions. Check the components mentioned. In a number of branches further reference is made to measurements you could carry out. These measurements are explained in several tables further on in this manual.

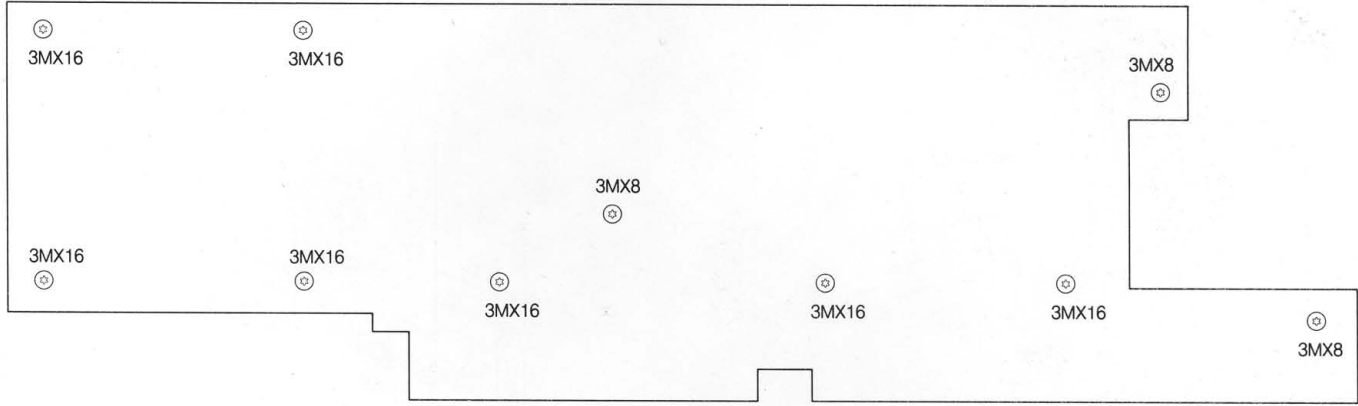
EXTENSION CABLE



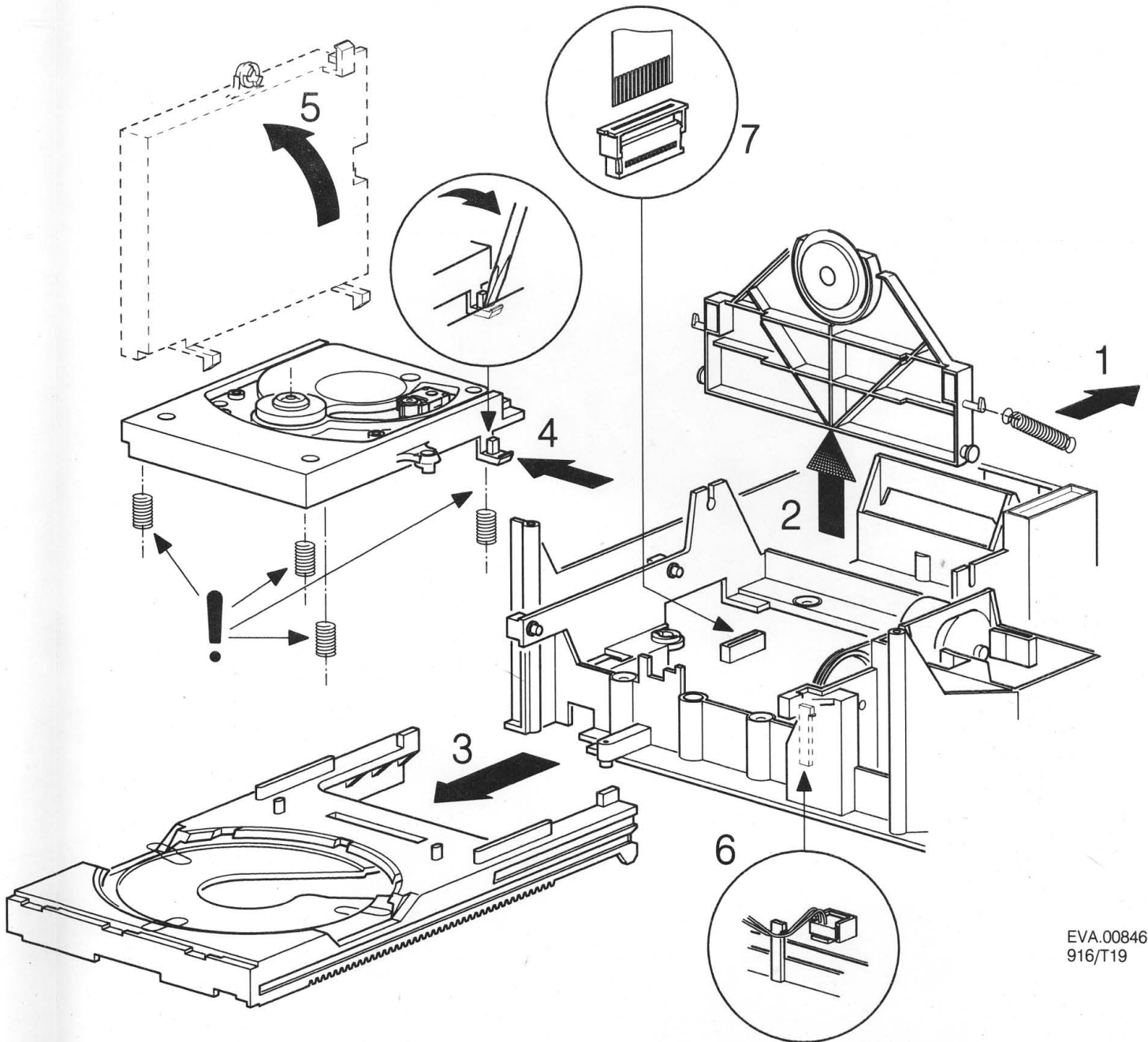
CABINET DISASSEMBLY HINTS



CONTROL+DISPLAY PANEL.



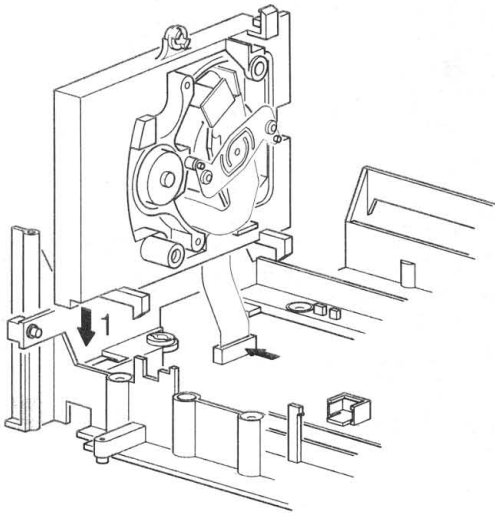
MDA.02140
916/T19



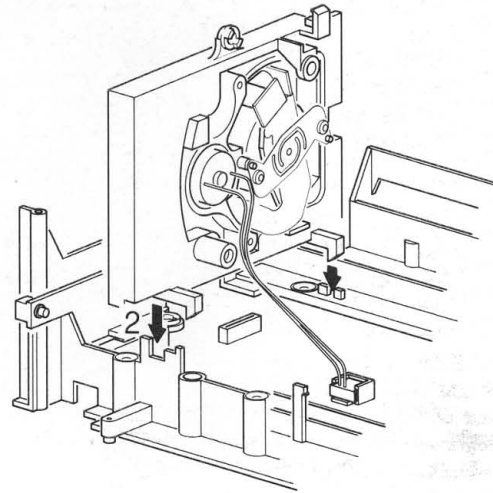
EVA.00846
916/T19

MECHANICAL

FOIL CONNECTION POSITION.

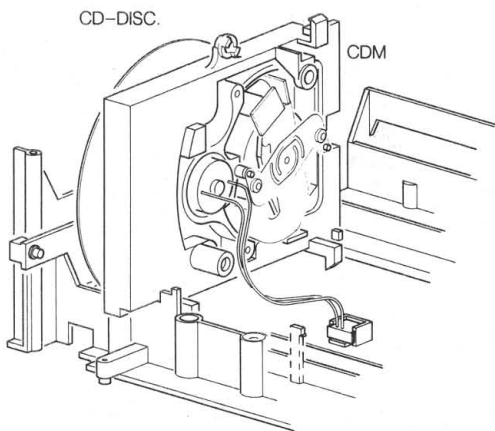


PLAY-SERVICE POSITION



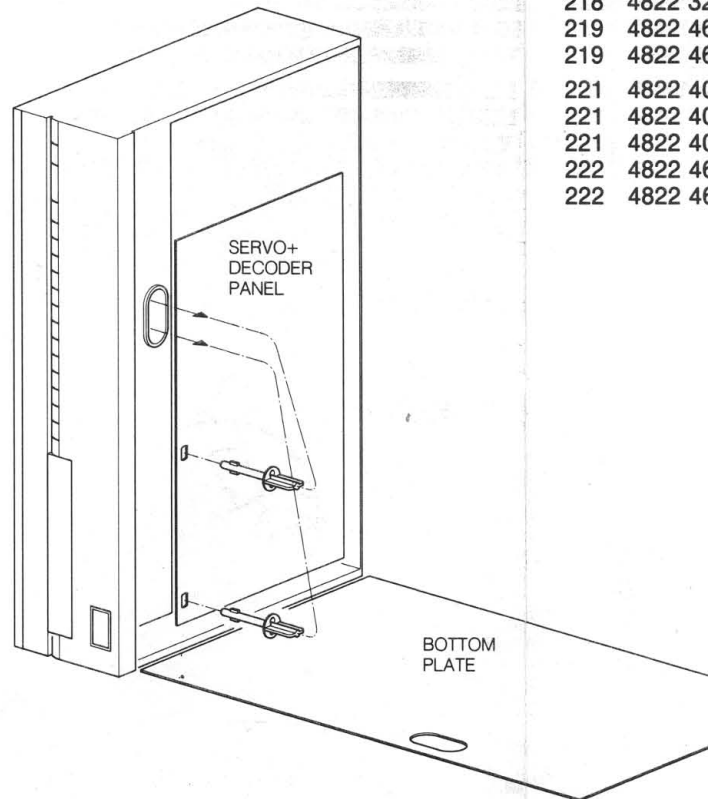
EVA.00848
916/T19

SERVICE POSITION PLAY



EVA.00849
916/T19

MEASURING AND ADJUSTMENT POSITION OF THE SET



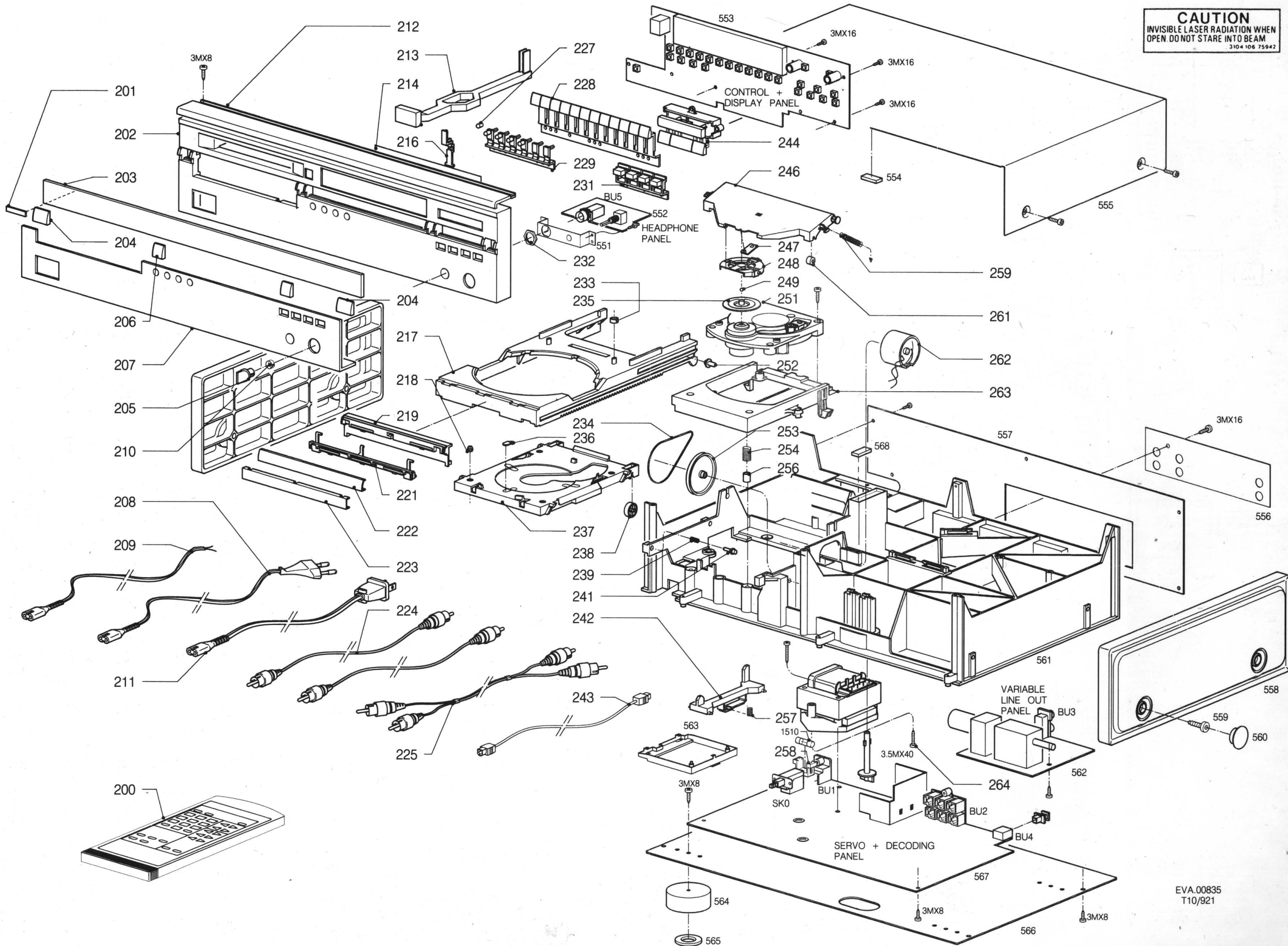
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916/T19

| | |
|-----|---------|
| 200 | 4822 21 |
| 200 | 4822 21 |
| 201 | 4822 45 |
| 201 | 4822 45 |
| 202 | 4822 44 |
| 202 | 4822 44 |
| 202 | 4822 44 |
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| 204 | 4822 46 |
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| 205 | 4822 41 |
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| 207 | 4822 44 |
| 207 | 4822 46 |
| 208 | 4822 32 |
| 209 | 4822 32 |
| 210 | 4822 49 |
| 211 | 4822 32 |
| 211 | 4822 32 |
| 212 | 4822 46 |
| 212 | 4822 46 |
| 213 | 4822 40 |
| 213 | 4822 40 |
| 214 | 4822 45 |
| 216 | 4822 40 |
| 217 | 4822 44 |
| 218 | 4822 32 |
| 219 | 4822 46 |
| 219 | 4822 46 |
| 221 | 4822 40 |
| 221 | 4822 40 |
| 221 | 4822 40 |
| 222 | 4822 46 |
| 222 | 4822 46 |

MECHANICAL PARTS

| | | | | | |
|-----|----------------|----------------------------------|-----|----------------|-----------------------|
| 200 | 4822 218 10273 | only for /01/02/04/05 | 223 | 4822 460 20657 | only for /02G/04G |
| 200 | 4822 218 10297 | only for /06 | 223 | 4822 460 20766 | only for /04B |
| 201 | 4822 459 10887 | only for /06 | 225 | 4822 321 22603 | |
| 201 | 4822 459 10747 | only for /01/02/04 | 227 | 4822 410 50169 | |
| 202 | 4822 444 40321 | FRONT ASSY only for /01B/02B/05B | 227 | 4822 410 50169 | |
| 202 | 4822 444 40322 | FRONT ASSY only for /02G/04G | 227 | 4822 410 50169 | |
| 202 | 4822 444 40308 | FRONT ASSY only for /04B | 227 | 4822 410 50169 | |
| 202 | 4822 444 40328 | FRONT ASSY only for /06B | 228 | 4822 410 60202 | only for /01B/02B/05B |
| 203 | 4822 450 61444 | WINDOW only for /06B | 228 | 4822 410 60273 | only for /02G/04G |
| 203 | 4822 450 61358 | WINDOW only for /01/02/04 | 228 | 4822 410 60115 | only for /04B |
| 204 | 4822 460 20769 | ORN. PROFILE only for /04B | 228 | 4822 410 60305 | only for /06B |
| 204 | 4822 460 20772 | only for /01B/02B/05B/06B | 229 | 4822 410 60118 | |
| 204 | 4822 460 20776 | ORN. PROFILE only for /02G/04G | 231 | 4822 410 60116 | only for /01/02/04/05 |
| 205 | 4822 411 20337 | VOLUME KNOB only for /02G/04G | 231 | 4822 410 60303 | only for /06 |
| 205 | 4822 410 60119 | only for /01B/02B/04B/06B | 232 | 4822 505 10571 | M12 X 1 |
| 206 | 4822 460 20771 | only for /01B/02B/05B/06B | 233 | 4822 532 51756 | |
| 206 | 4822 460 20768 | only for /04B | 234 | 4822 358 10115 | |
| 206 | 4822 460 20775 | only for /02G/04G | 235 | 4822 530 80503 | |
| 207 | 4822 444 40323 | only for /02G/04G | 236 | 4822 325 50176 | |
| 207 | 4822 460 20764 | only for /04B | 237 | 4822 466 92251 | |
| 208 | 4822 321 10457 | CORD SET only for /01/02 | 238 | 4822 528 90638 | |
| 209 | 4822 321 10522 | CORD SET only for /05 | 239 | 4822 492 52094 | |
| 210 | 4822 492 61974 | | 241 | 4822 402 61252 | |
| 211 | 4822 321 10445 | CORD SET only for /06 | 242 | 4822 402 50276 | |
| 211 | 4822 321 10492 | CORD SET only for /04 | 243 | 4822 323 20182 | |
| 212 | 4822 460 20774 | only for /02G/04G | 244 | 4822 276 30404 | only for /01B/02B/05B |
| 212 | 4822 460 20767 | only for /04B | 244 | 4822 410 60274 | only for /02G/04G |
| 213 | 4822 402 61297 | POWER ROD only for /02G/04G | 244 | 4822 276 30403 | only for /04B |
| 213 | 4822 402 61255 | only for /01B/02B/04B/06B | 244 | 4822 410 60304 | only for /06B |
| 214 | 4822 450 61362 | | 246 | 4822 444 60568 | |
| 216 | 4822 402 50277 | | 247 | 4822 466 92257 | |
| 217 | 4822 444 50603 | | 248 | 4822 402 61207 | |
| 218 | 4822 325 50177 | | 249 | 4822 520 40177 | |
| 219 | 4822 464 50773 | only for /01B/02B/05B/06B | 251 | 4822 691 30209 | CDM-4 complete |
| 219 | 4822 464 50764 | only for /02G/04B/04G | 252 | 4822 402 61253 | |
| 221 | 4822 402 61266 | only for /01B/02B/05B | 253 | 4822 528 81329 | |
| 221 | 4822 402 61254 | only for 02G/04B/04G | 254 | 4822 492 51902 | |
| 221 | 4822 402 61303 | only for /06B | 256 | 4822 466 61587 | |
| 222 | 4822 460 20773 | only for /02G/04G | 257 | 4822 492 51935 | |
| 222 | 4822 460 20763 | only for /04B | 258 | 4822 256 30274 | FUSE HOLDER |
| | | | 259 | 4822 492 32883 | |
| | | | 261 | 4822 528 90639 | |
| | | | 262 | 4822 361 20998 | |
| | | | 263 | 4822 402 61196 | |
| | | | 264 | 4822 535 92907 | |

CAUTION
INVISIBLE LASER RADIATION WHEN
OPEN. DO NOT STARE INTO BEAM.
3104 106 75942



EVA.00835
T10/921

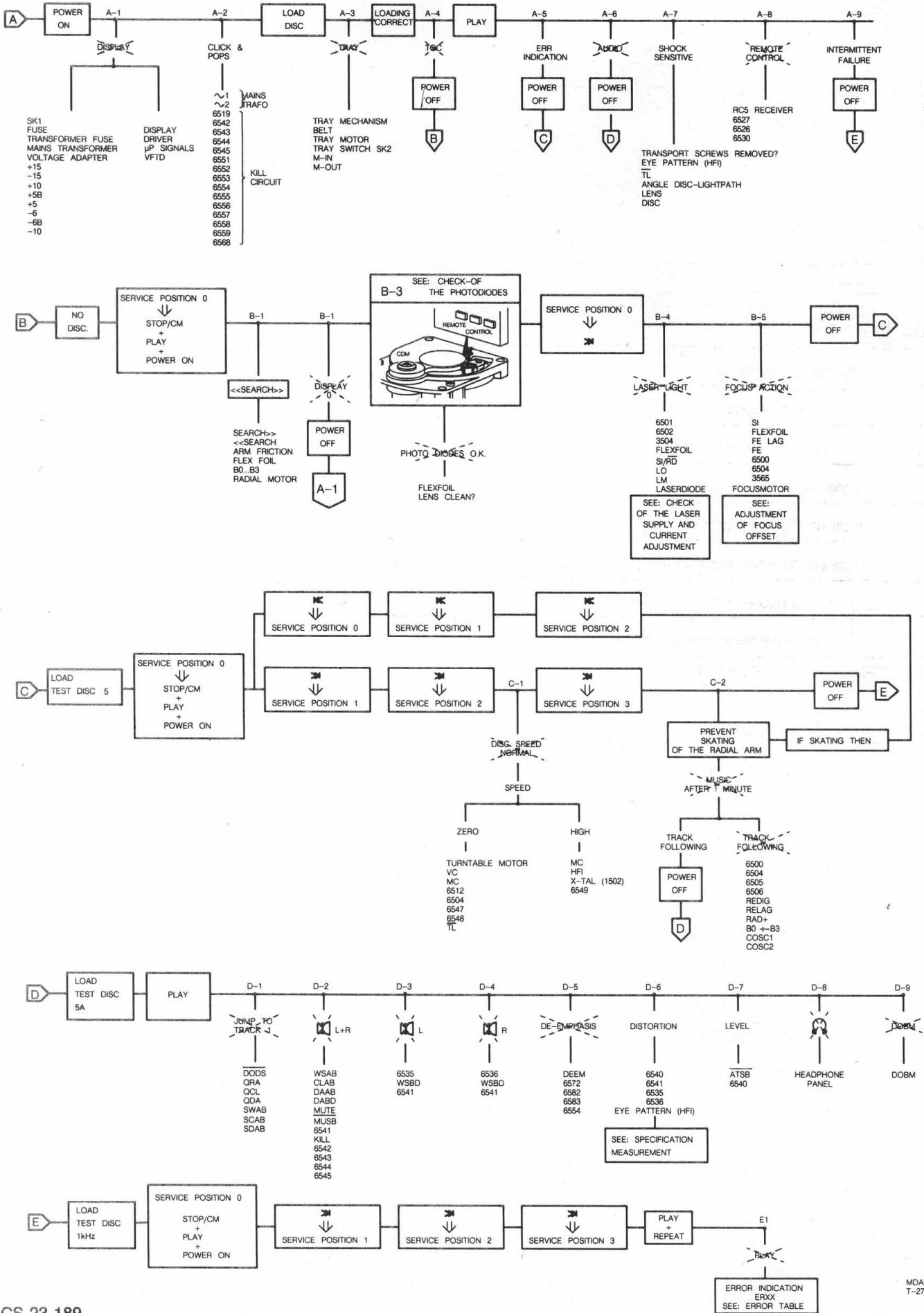
MEASUREMENTS AND ADJUSTMENTS

TROUBLE SHOOTING (FAULT FINDING TREE)

START-UP PROCEDURE

Follow the path of the faultfinding tree beginning at the top left. Perform the actions you come across in the various blocks. Look at the various side branches to find out if the information you see there applies to your problem. If, for instance, you find the indication **display**, this means that no picture appears on the display.

If you establish this fault, follow the branch and perform the recommended actions. Check the signals mentioned. In a number of branches further reference is made to measurements you could carry out. These measurements are explained in several tables further on in this manual.



A-1 μP - SIGNALS

| Signal | Mode | | | | Remarks |
|--------------------------|-----------------------------|-----|--|--------------|--------------------------------------|
| Reset | Power on | 100 | | Pulse "high" | |
| X-TAL | Stand-by | 101 | | 4 MHz | |
| TRAY IN/OUT | 2,5 Vdc when tray is inside | 83 | | 2,5 Vdc | "low" when tray is opening |
| | | | | 2,5 Vdc | "high" when tray is closing |
| $\overline{\text{ATSB}}$ | DISC, SEARCH | 89 | | "low" | |
| $\overline{\text{MUTE}}$ | Play | 67 | | "high" | pulses low in position pause |
| $\overline{\text{BWS}}$ | 8 cm disc | 17 | | "high" | only when a 8 cm disc has been used. |

B-2 B0, B1, B2, B3 SIGNALS

T-22387A

| Signal | Mode | | | | Remarks |
|--------|------------------------------------|----|--|--------|---------|
| B0 | Service position 0 or 1; search >> | 36 | | "low" | |
| | Service position 0 or 1; search << | 36 | | "low" | |
| B1 | Service position 0 or 1; search >> | 34 | | "high" | |
| | Service position 0 or 1; search << | 34 | | "high" | |
| B2 | Service position 0 or 1; search >> | 33 | | "low" | |
| | Service position 0 or 1; search << | 33 | | "high" | |
| B3 | Service position 0 or 1; search >> | 32 | | "high" | |
| | Service position 0 or 1; search << | 32 | | "high" | |

B-3 CHECK OF THE PHOTODIODES

T-22387B

| Step | Signal | Mode | | | | Remarks |
|------|--------|----------|--|---|---|---|
| 1 | - | power on | | - | - | See drawing 38314A12 Signal depends on Distance lens ↔ IR LED of remote control |

B-4 CHECK OF LASER SUPPLY

T-22387C








The laser, the lasersupply plus the monitor diode form a feedback system.

A defect in the lasersupply may result in the destruction of the laser. If, in that case, the laser is replaced, (= complete C.D.M.-unit) the new laser will also become defective. However, it is impossible to check and repair a feedback system if a link is missing. For this reason the laser supply can be checked with the replacement circuit for laser assembly.

| Step | Signal | Mode | | | | Remarks |
|------|--------|--------------------|--|---|----------------|----------|
| 1 | LO | serv. pos. 2 SK | | - | 1.8 < V < 2.3 | PRS05539 |
| | LM | | | - | 170 < mV < 220 | |
| 2 | LO | serv. pos. 2 SK | | - | 1.8 < V < 2.3 | PRS05540 |
| | LM | | | - | 170 < mV < 220 | |
| 3 | LO | Power on | | - | 0V ± 0.2V | No light |





T-22387D

B-4 LASER CURRENT ADJUSTMENT (see drawing MDA02138 measuring and adjustment position)

| Step | Signal | Mode |  |  |  |  | Remarks |
|------|--|---------------------------------|---|---|--|---|---------------------------------------|
| 1 | - | Power off |  | R3520 | 1kΩ | - | Pre-adjustment Ohmic value |
| 2 | Eye-pattern HFI | Power on Test disc 5 play |  | - | - | See drawing 37017B8 | IF no signal see "start up procedure" |
| 3 | laser current = voltage across R3508 | Test disc 5 play track 1 |  | R3520 | 50 mV DC | - | use a high-ohmic voltmeter |




T-22387E

B-5 ADJUSTMENT OF FOCUS-OFFSET (see drawing MDA02138 measuring and adjustment position)

| Step | Signal | Mode |  |  |  |  | Remarks |
|------|--------|--------------------------------|---|---|--|---|--|
| 1 | - | Power on | - | R3568 | - | - | adjust for optical mid-position of the focus motor |
| 2 | FE LAG | Play Test disc 5 Track 1 | 27 | R3568 | 400mV ± 40 mV DC | - | fine adjustment |




T-22387F

B-5 FOCUS ACTION

| Signal | Mode |  |  |  | Remarks |
|--------|--|--|---|--|--------------------------------|
| SI/RD | Service position 1 when repeating focus start up | 21 | | | See drawing MDA.01403 |
| FE | Service position 1, no disc | 26 | | | See drawing MDA.01413 |
| FE-LAG | Test disc 5A, play | 27 | | | See adjustment of focus-offset |




T-22387G

C-1 HIGH SPEED DISC ROTATION

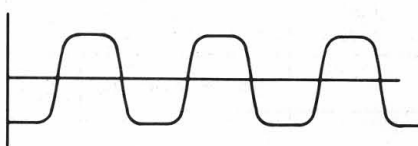
| Signal | Mode |  |  |  | Remarks |
|--------|--|---|---|---|--|
| TL | Test disc 5, play or service position 2 | 13 | | Pulses "low" | TL indicates that the track has been found |
| HFI | Test disc 5, play or service position 2 | 65 | | | See drawing: 37017B8 |
| X-tal | Test disc 5A, play or service position 2 | 70 | | 11.28 MHz | |
| MC | Test disc 5, play or service position 2 | 81 | | | See drawing: 38849A12 |
| | | 12 | | | |

T-22387H

C-2 TRACK FOLLOWING

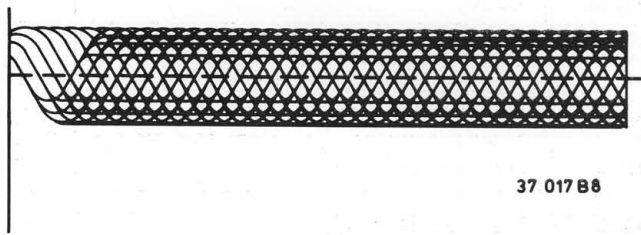
| Signal | Mode |  |  |  | Remarks |
|---------|---|---|---|---|-----------------------------------|
| RE dig | Test disc 5, play or service position 3 | 37 | | | |
| RE lag | Test disc 5, play or service position 3 | 41 | ≈ 2.5 Vdc | | |
| C osc1 | Test disc 5, play or service position 3 | 30 | | ≈ 650 Hz | |
| C osc2 | Test disc 5, play or service position 3 | 31 | | ≈ 650 Hz | |
| RAD+ | Test disc 5A, service position 1 | 40 | | | Arm inside: 1V Arm inside: -1V |
| RE lead | Position stand-by | 35 | | ≈ 650 Hz | |

T-22387I



38 314 A12

HF-SIGNAL



37 017 B8

MC-SIGNAL



POSITION: STAND BY.

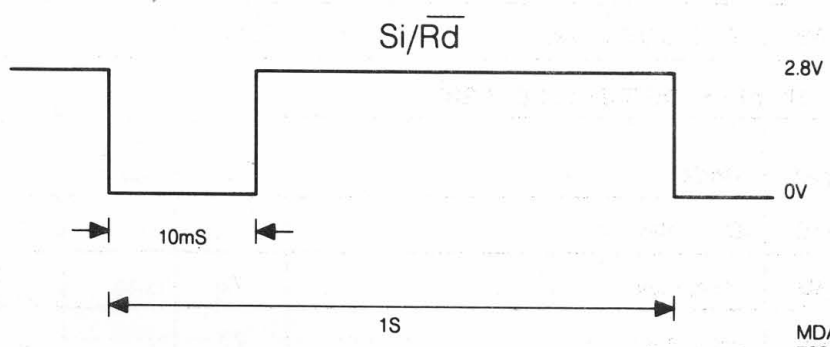


POSITION: PLAY (BEGINNING)



POSITION: PLAY (NORMAL)

38 849 A12



2.8V

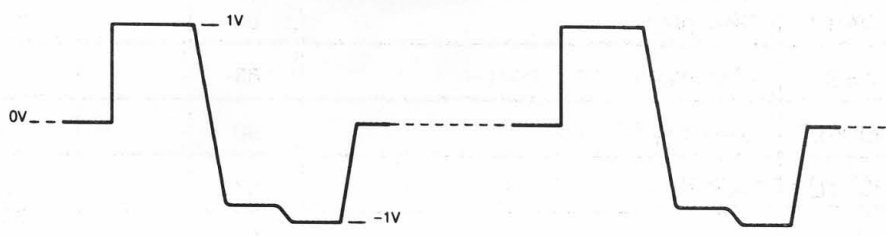
0V

10ms

1S

MDA.01403
T33/821

FE-SIGNAL



1V

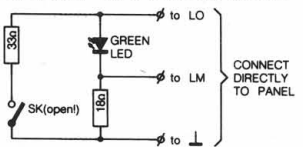
0V

-1V

MDA.01413
T33/823

DOSD-SIGNAL

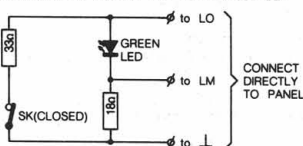
REPLACEMENT CIRCUIT FOR LASER ASSEMBLY



THE LED EMITS LITTLE LIGHT
LED GREEN e.g. CQY94 5322 130 32182

PRS.05539
T28/845

REPLACEMENT CIRCUIT FOR LASER ASSEMBLY






The feedback system sees to it that the same amount of current flows through the LED. When SK is open and when SK is closed the LED emits little light.

PRS.05540
T28/845

| POSITION PLAYER | POWER ON | SERVICE POSITION 3 | PLAY | SEARCH, PAUSE |
|---|----------|--------------------|------|---------------|
| $\overline{\text{DOSD}} \text{ SIGNAL}$ | LOW | HIGH | HIGH | |




MDA.01143
T12 -651

D1 JUMP TO TRACK 1

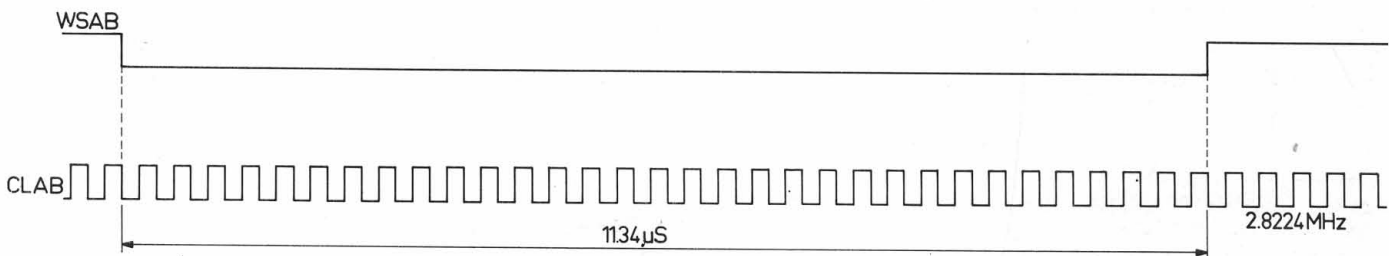
| Signal | Mode |  |  |  | Remarks |
|----------|-------------------------------------|---|---|---|-------------------------|
| DODS | Test disc 5A search >> or search << | 19 | | | See drawing MDA.01143 |
| QRA | Test disc 5A, play | 75 | | | } See drawing MDA.00453 |
| QDA | Test disc 5A, play | 77 | | | |
| QCL | Test disc 5A, play | 76 | | | |
| SWAB/SSM | Test disc 5A, play | 78 | | | See drawing MDA.00239 |
| SCAB | Test disc 5A, play | 79 | | | See drawing MDA.00239 |
| SDAB | Test disc 5A, play | 80 | | | See drawing MDA.00239 |

T-22387J

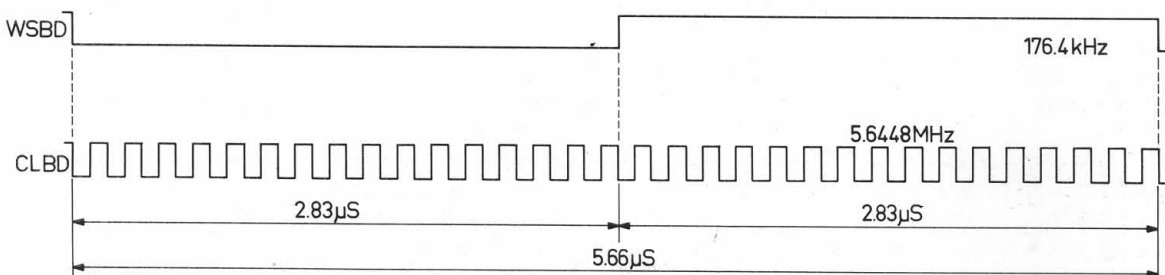
D-2 NO AUDIO OUTPUT LEFT+RIGHT

| Signal | Mode |  |  |  | Remarks |
|--------|-------------|---|---|---|--|
| WSAB | Disc, play | 71 | | | } See drawing 38847C12 |
| CLAB | Disc, play | 72 | | | |
| DAAB | Disc, play | 73 | | activity | |
| EFAB | Testdisc 5A | 74 | | pulses "high" | When the disc is slowly braked by hand |
| CLBD | Disc, play | 87 | | | } See drawing 38848C12 |
| DABD | Disc, play | 86 | | activity | |
| WSBD | Disc, play | 85 | | | |
| MUSB | Disc, play | 90 | | "high" | Pause, next, prev, stop: "low" |
| MUTE | Disc, play | 67 | | "high" | Pulses low during pause |
| AM | Disc, play | 67 | | "high" | AM = additional mute |

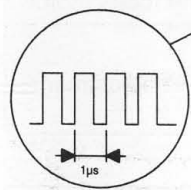
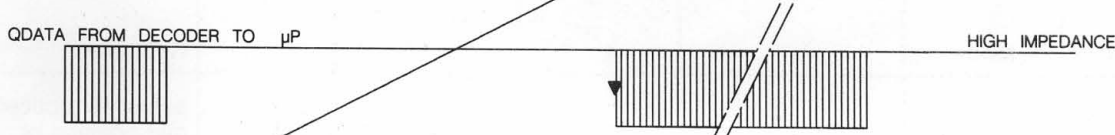
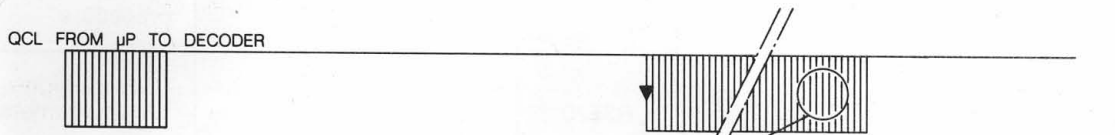
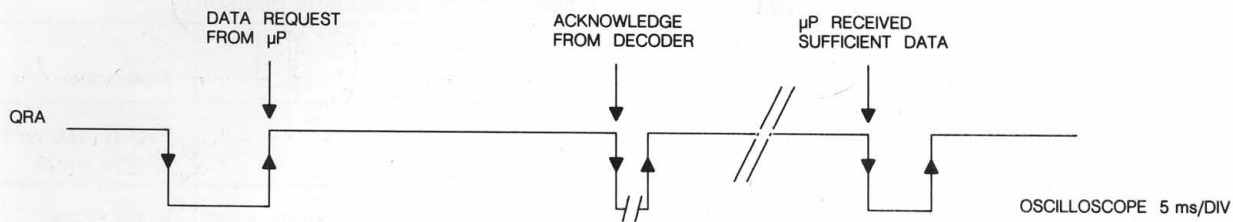
T-22387K



38 847 C12

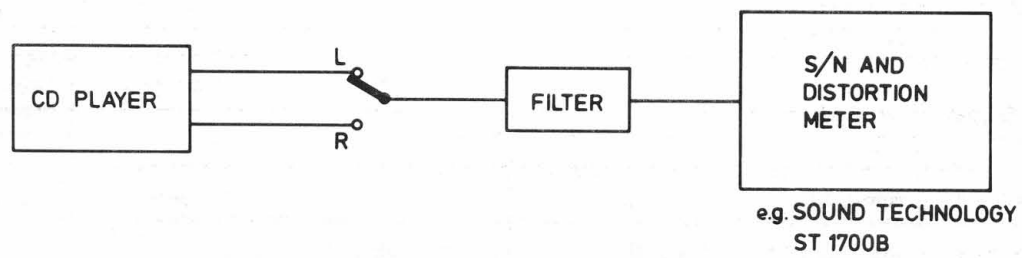


38 848 C12

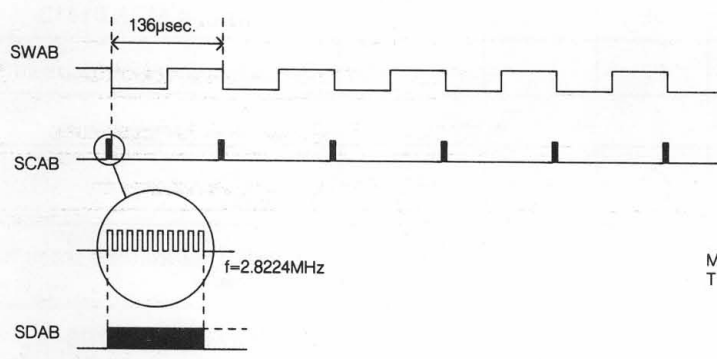


DATA ENABLE BY DECODER

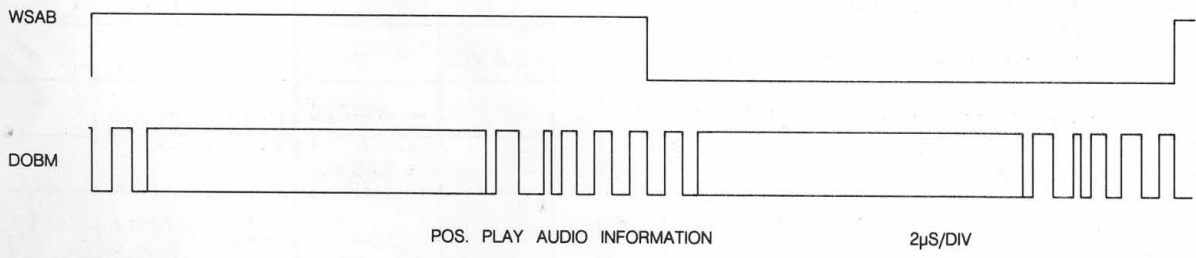
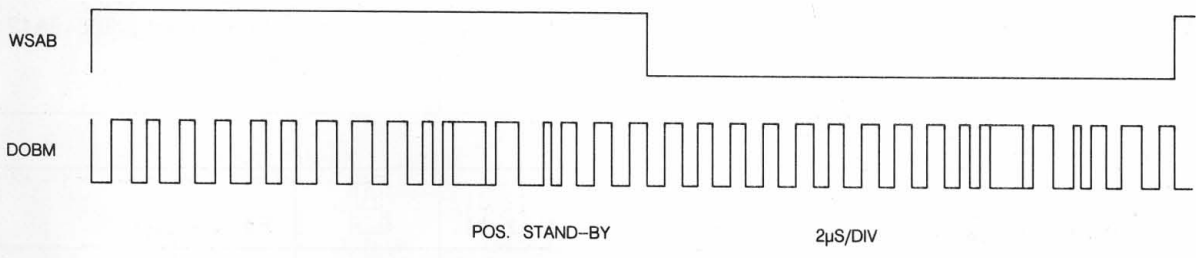
MDA.00453
T27/840






30 459 A12



MDA.00239
T12/638






D-5 DEEM CIRCUIT

| Signal | Mode |  |  |  | Remarks |
|--------------|--|---|---|--|---|
| DEEM | Test disc 5A: track 14 PLAY track 15 PLAY | 84 | | "low" "high" | See testpoint 92 and 91 on DEEM circuit |
| Testpoint 92 | Test disc 5A track 14 | 92 | | LF signal | |
| Testpoint 92 | Test disc 5A track 15 | 92 | | No signal | |
| Testpoint 91 | Test disc 5A track 14 | 91 | | LF signal | |
| Testpoint 91 | Test disc 5A track 15 | 91 | | No signal | |

T-22387L




D-6 SPECIFICATIONS MEASUREMENT

| Signal | Mode |  |  |  | Remarks |
|--------|--|---|---|--|----------------------|
| BU2-L | Test disc 3, play, total harmonic distortion | filter output | See technical data | | See drawing 30459A12 |
| BU2-R | Test disc 3, play, total harmonic distortion | filter output | See technical data | | See drawing 30459A12 |
| BU2-L | Test disc 3, play signal-to-noise ratio | filter output | See technical data | | See drawing 30459A12 |
| BU2-R | Test disc 3, play signal-to-noise ratio | filter output | See technical data | | See drawing 30459A12 |

T-22387M

Filter = 13th order filter 4822 395 30204

D-9 DOBM DIGITAL OUTPUT

| Signal | Mode |  |  |  | Remarks |
|--------|--------------|---|---|--|-----------------------|
| DOBM | Test disc 5A | 88 | | | See drawing MDA.00238 |

T-22387N

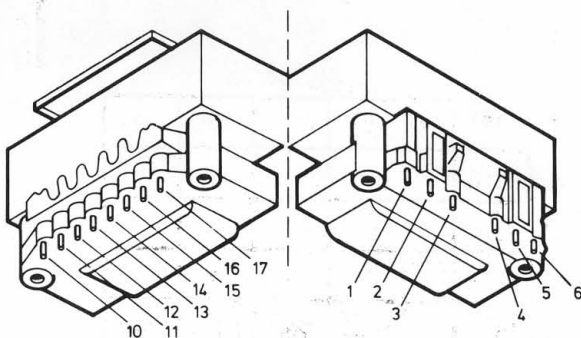
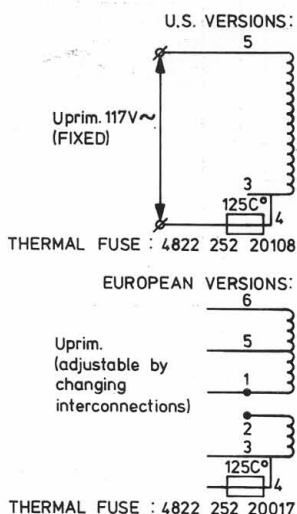
ERROR TABLE

System errors

| Indication | Cause | Check |
|------------|---|--|
| Er 02 | No \overline{TL} pulse at start-up | } \overline{Si} , Sc, RD, Photodiode signal processor \overline{TL} , HFI, CD disc present? |
| Er 03 | No lead-in track found | |
| Er 06 | No \overline{TL} pulse within 0.5 sec. during track jumping | RE-lag circuit, \overline{TL} , REdig |
| Er 07 | Subcoding error during PLAY | HFI |
| Er 08 | TOC error | CD disc, turntable motor control, radial arm position |

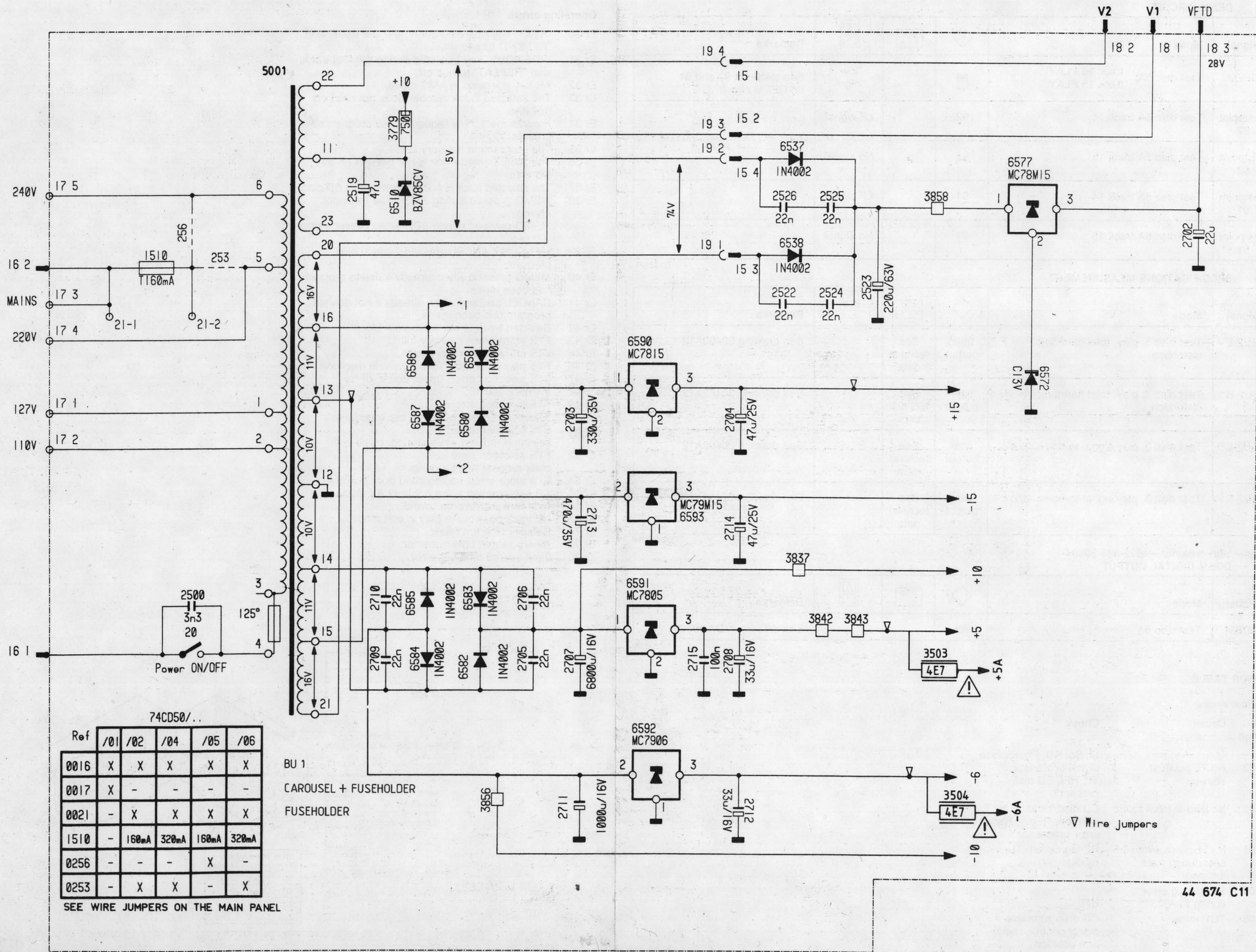
Operating errors

- Er 30 "NEXT" key operated during the last track, with "REPEAT" turned off.
- Er 31 "PREVIOUS" key operated during the first track, with "REPEAT" turned off.
- Er 32 AB key operated in AMS mode.
- Er 33 The selected index number does not exist on this disc.
- Er 34 Programme survey requested; no programme present.
- Er 35 The programme memory is full.
- Er 36 The programmed track is not present on this CD disc.
- Er 37 The selected track is not present on this CD disc.
- Er 38 MEMO pressed during AMS while track not known.
MEMO pressed during EDIT while cassette time = 0 sec.
- Er 39 MEMO or CANCEL pressed while in play program.
- Er 40 MEMO pressed when already a delete program has been made.
- Er 41 CANCEL pressed when already a not deleted program has been made.
- Er 42 Selected track is not a program block.
- Er 43 FTS store error: memory full.
- Er 44 FTS store error: no program.
- Er 46 FTS play error: no FTS program in memory.
- Er 47 FTS selection error: upper bound of fts memory. (next).
- Er 49 FTS selection error:
selection request while storing. (next/prev).
- Er 51 FTS selection error:
selection request while storing. (review).
- Er 52 FTS selection clear error:
clear request while storing.
- Er 54 FTS store error: no record id (toc) available.
- Er 56 AB key pressed when not in PLAY mode.
- Er 60 Fast forward/reverse bound.
- Er 63 No track possible to play in edit mode.
- Er 74 Relative time not found.
- Er 75 Binary search time out error.
- Er 76 Time search time out error.



| Uprim. (V) ~ | Winding | Inter-connect |
|--------------|---------|---------------|
| 110 | 4-1 | 3-1/5-2 |
| 127 | 4-6 | 3-1/5-2 |
| 220 | 4-5 | 1-2 |
| 240 | 4-6 | 1-2 |

44 577 A11



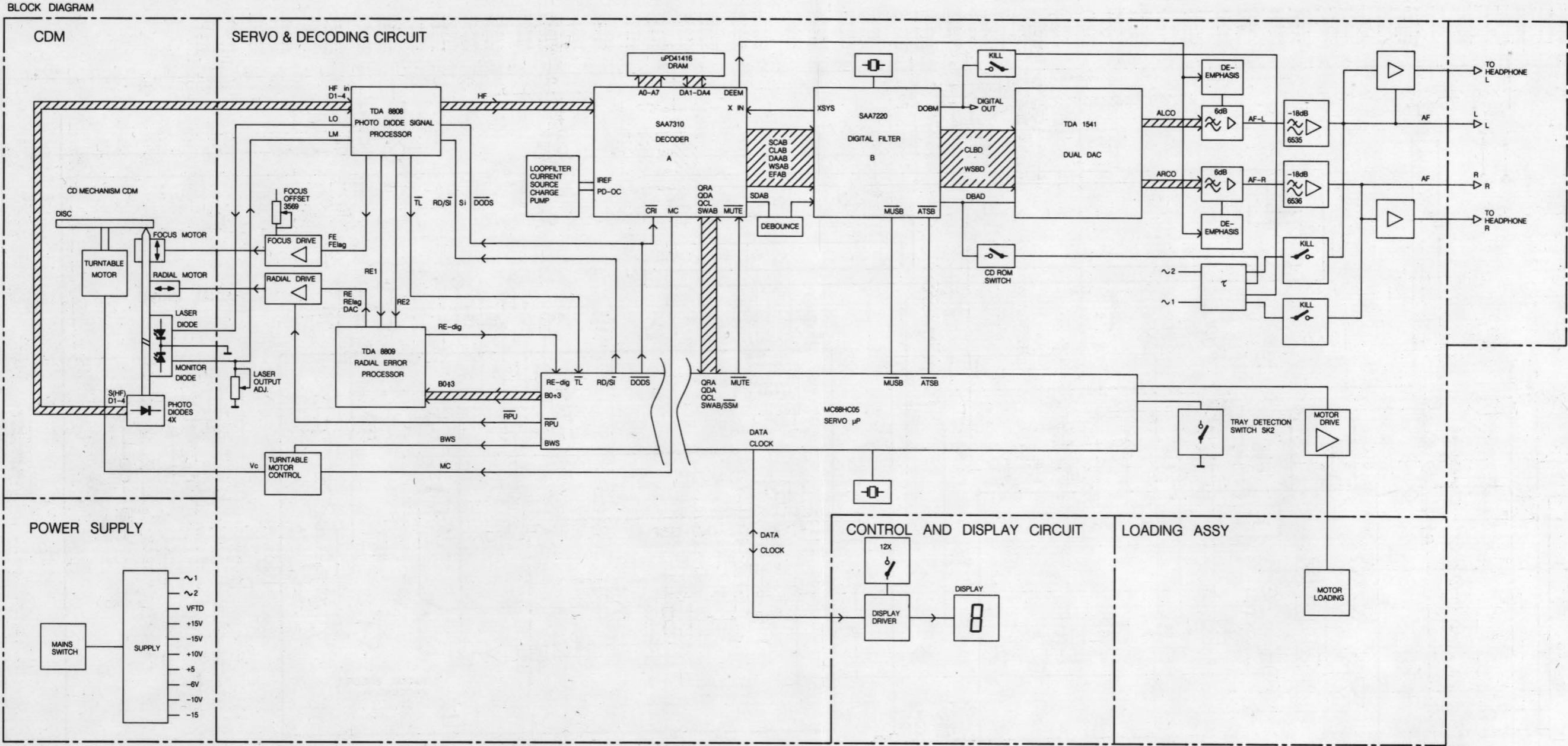
74CD50/..

| Ref | /01 | /02 | /04 | /05 | /06 |
|------|-----|-------|-------|-------|-------|
| 0016 | X | X | X | X | X |
| 0017 | X | - | - | - | - |
| 0021 | - | X | X | X | X |
| 1510 | - | 160mA | 320mA | 160mA | 320mA |
| 0256 | - | - | - | X | - |
| 0253 | - | X | X | - | X |

BU 1
CAROUSEL + FUSEHOLDER
FUSEHOLDER

▽ Wire Jumpers

SEE WIRE JUMPERS ON THE MAIN PANEL



DECODING SIGNALS

- ATSB - Attenuation of Audio level in search position (Cueing)
- CD ROM switch - Digital Data information on disc signal
- CEFM - Clock Eight-to-Fourteen Modulator
- CLAB - Clock signal Decoder-A to Filter-B
- CLBD - Clock signal Filter-B to DAC
- CREF - Reference Current
- CRI - Counter Reset Inhibit
- DAAB - Data signal Decoder-A to Filter-B
- DABD - Data signal Filter-B to DAC
- DEEM - Deemphasis
- DOBM - Digital out signal
- EFAB - Error flag Decoder-A to Filter-B
- MUTE - Mute signal
- MUSB - Soft Mute signal
- PD/OC - Phase detector - oscillator control
- QCL - Q-channel Clock signal
- QDA - Q-channel Data signal
- QRA - Q-channel Request Acknowledge
- SCAB - Subcode clock Decoder-A to Filter-B
- SDAB - Subcode data Decoder-A to Filter-B
- SWAB/SSM - Subcode Word/Start-stop motor signal
- WSAB - Word select Decoder-A to Filter-B
- WSBD - Word select Filter-B to DAC
- XIN - Oscillator signal in Decoder-A
- XSYS - Oscillator signal out Filter-B

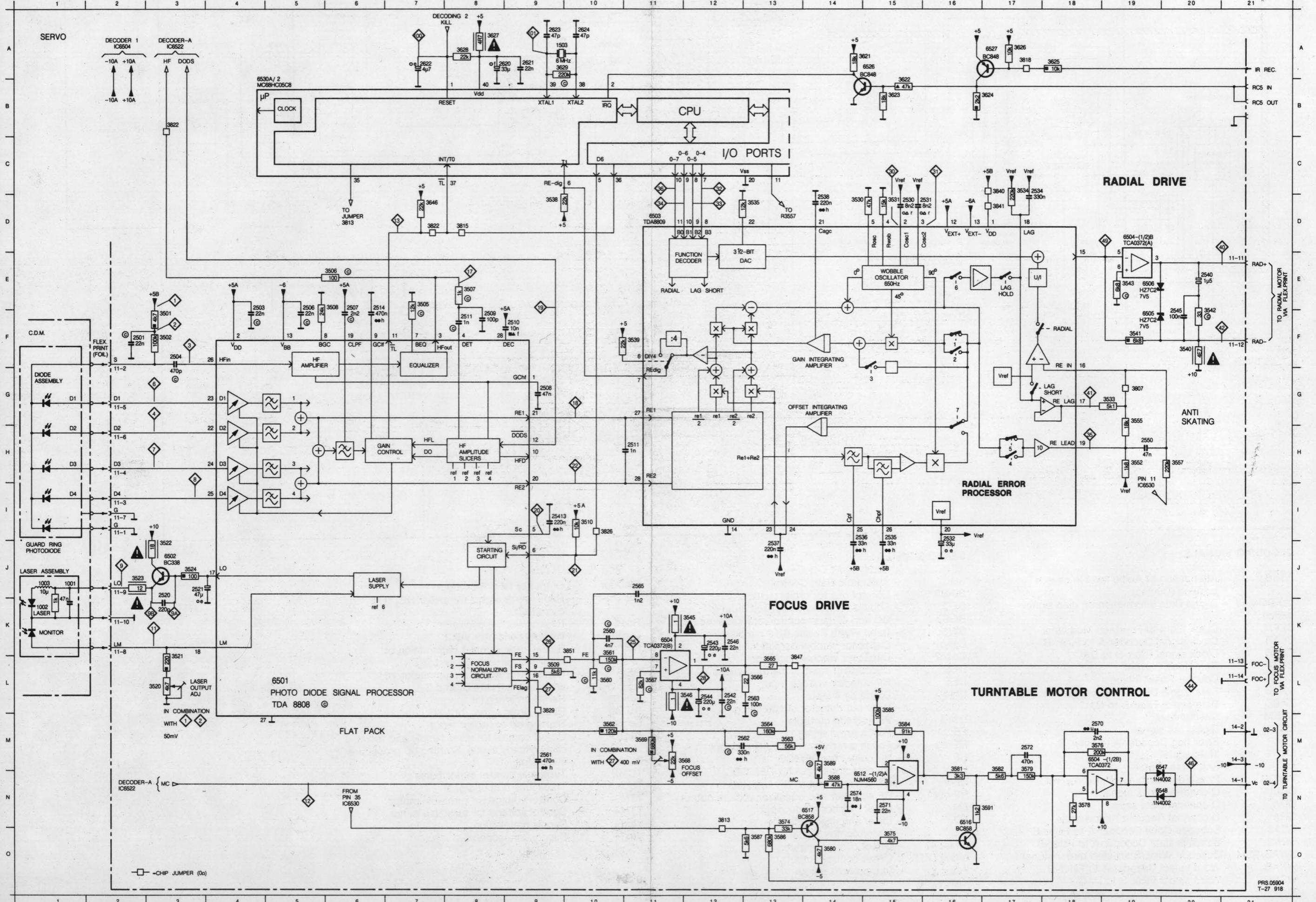
SERVO SIGNALS

- AGC - Automatic Gain Control
- B0-B3 - Control bits for radial circuit
- BEQ - Equalizer reference current input
- BGC - DC and LF gain control reference input
- BWS - Band Width Switch 8/12 cm disc
- Cosc1 - Capacitor wobble oscillator
- Cosc2 - Capacitor wobble oscillator
- DEC - Decoupling input of inkruat bypass
- DET - HF detector voltage input
- DIV4 - Divide by 4 input
- DODS - Drop out detector suppression
- D1+4 - Photodiode currents
- FE - Focus error signal
- FE lag - Focus error signal for LAG network
- HF - HF output for DEMOD
- HFD - HF detector output for DEMOD
- HF-in - HF current input to HF amplifier
- HF-out - HF amplifier and equalizer voltage output
- LM - Laser monitor diode input
- LO - Laser amplifier current output
- MC - Motor control signal
- offset IN - Offset control output
- offset OUT - Offset control output
- PLLH - PLL on hold output

- RADout - Output of RE2-RE1 input
- RE - Radial error signal (Amplifier RE₂-RTE₁ currents)
- Rosc - Resistor wobble oscillator
- Rwob - Wobble generator input
- RE1 - Radial error signal 1 (summation of amplified currents D₃ and D₄)
- RE2 - Radial error signal 2 (summation of amplified currents D₁ and D₂)
- RE dig - Radial error digital
- RE lag - Radial error signal for LAG network
- Sc - Starting up capacitor input
- SI/RD - On/off control for laser supply and focus circuit. Ready signal, Starting up procedure succesfull.
- TCMP - Turntable control motor pulse
- TL - Track loss output signal
- TTM- - Control voltage for turntable motor
- TTM+ - Control voltage for turntable motor
- Vext- - Supply connection
- Vext+ - Supply connection

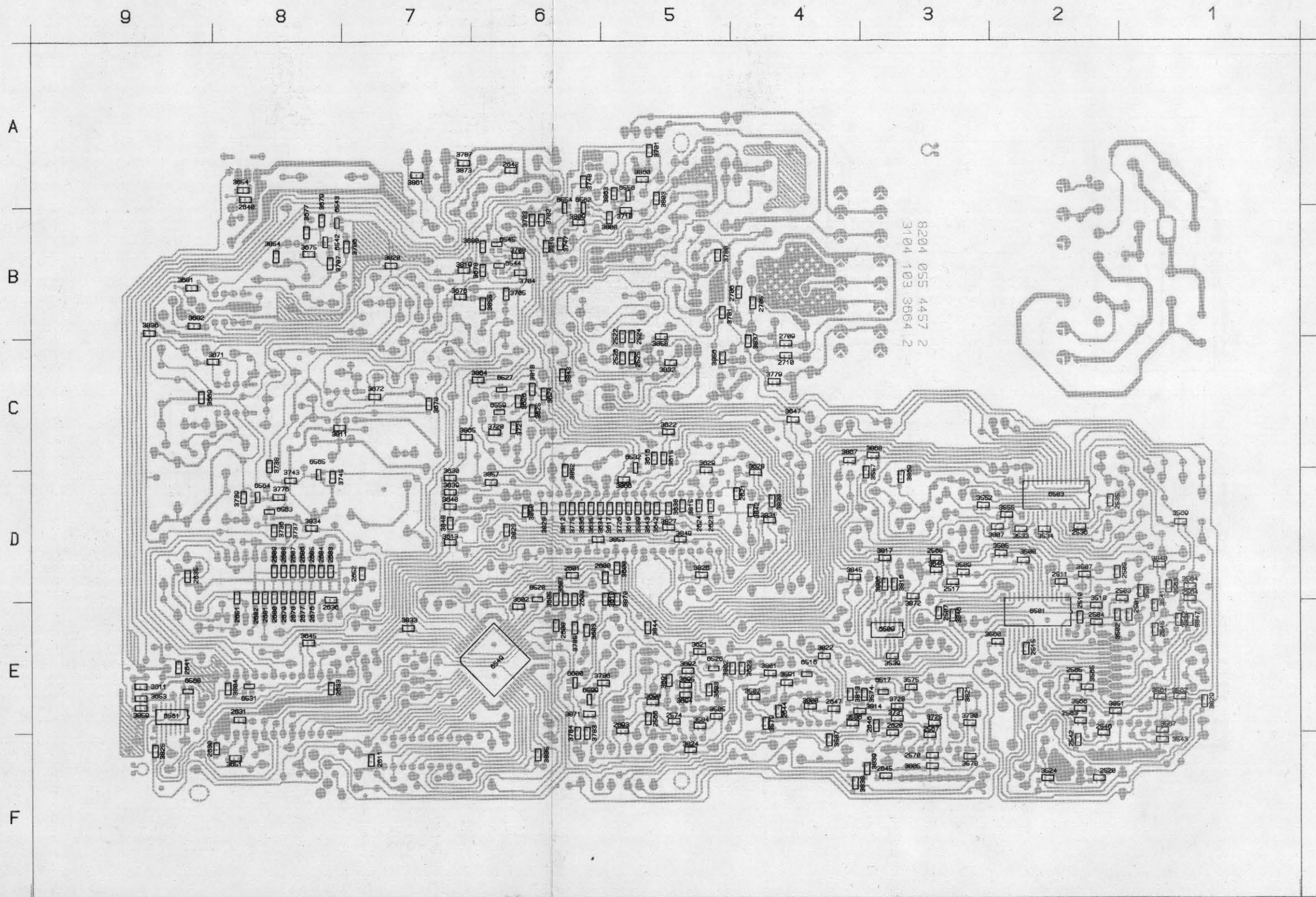
PRS 05908
T-27/918

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1001 J 1 | 2503 E 4 | 2509 F 8 | 2520 J 3 | 2534 C17 | 2540 E20 | 2545 F20 | 2562 M13 | 2572 M17 | 2623 A 9 | 3506 E 6 | 3520 L 3 | 3530 D14 | 3538 D 9 | 3543 E19 | 3557 H20 | 3564 M13 | 3569 M11 | 3579 M17 | 3585 L15 | 3591 N17 | 3625 A18 | 3646 D 7 | 3822 D 7 | 3841 D17 | 6504 D19 | 6512 N14 | 6548 N20 |
| 1002 K 1 | 2504 F 3 | 2510 F 9 | 2521 J 3 | 2535 I15 | 25413 I 9 | 2546 K12 | 2563 L13 | 2574 N14 | 2624 A10 | 3507 E 8 | 3521 L 3 | 3531 D15 | 3539 F11 | 3545 K12 | 3560 L10 | 3565 L13 | 3574 N13 | 3580 O14 | 3586 O13 | 3621 A15 | 3626 A17 | 3807 G19 | 3822 B 3 | 3847 L13 | 6504 K11 | 6516 N16 | |
| 1003 J 1 | 2506 E 5 | 2511 F 8 | 2530 D15 | 2536 I15 | 2542 L12 | 2550 H19 | 2565 J11 | 2620 A 9 | 3501 F 3 | 3508 E 6 | 3522 J 3 | 3533 G19 | 3540 F20 | 3546 L12 | 3561 K10 | 3566 L13 | 3575 O15 | 3581 M16 | 3587 O13 | 3622 B15 | 3627 A 8 | 3813 N12 | 3826 I10 | 3851 K10 | 6504 M18 | 6517 N14 | |
| 1503 A 9 | 2507 E 6 | 2511 H11 | 2531 D16 | 2537 J13 | 2543 K12 | 2560 K10 | 2570 M18 | 2621 A 9 | 3502 F 3 | 3509 L 9 | 3523 J 2 | 3534 C17 | 3541 F19 | 3552 H19 | 3562 M10 | 3567 L11 | 3576 M18 | 3582 M17 | 3588 N14 | 3623 B15 | 3628 A 8 | 3815 D 8 | 3829 L 9 | 6502 J 3 | 6505 F19 | 6530 A 5 | |
| 2501 F 2 | 2508 G 9 | 2514 E 6 | 2532 I16 | 2538 D14 | 2544 L12 | 2561 M 9 | 2571 N15 | 2622 A 7 | 3505 E 7 | 3510 I10 | 3524 J 3 | 3535 D13 | 3542 F20 | 3555 G19 | 3563 M13 | 3568 M12 | 3578 N18 | 3584 M15 | 3589 M14 | 3624 B17 | 3629 A 9 | 3818 A17 | 3840 C17 | 6503 D11 | 6506 E19 | 6547 M20 | |

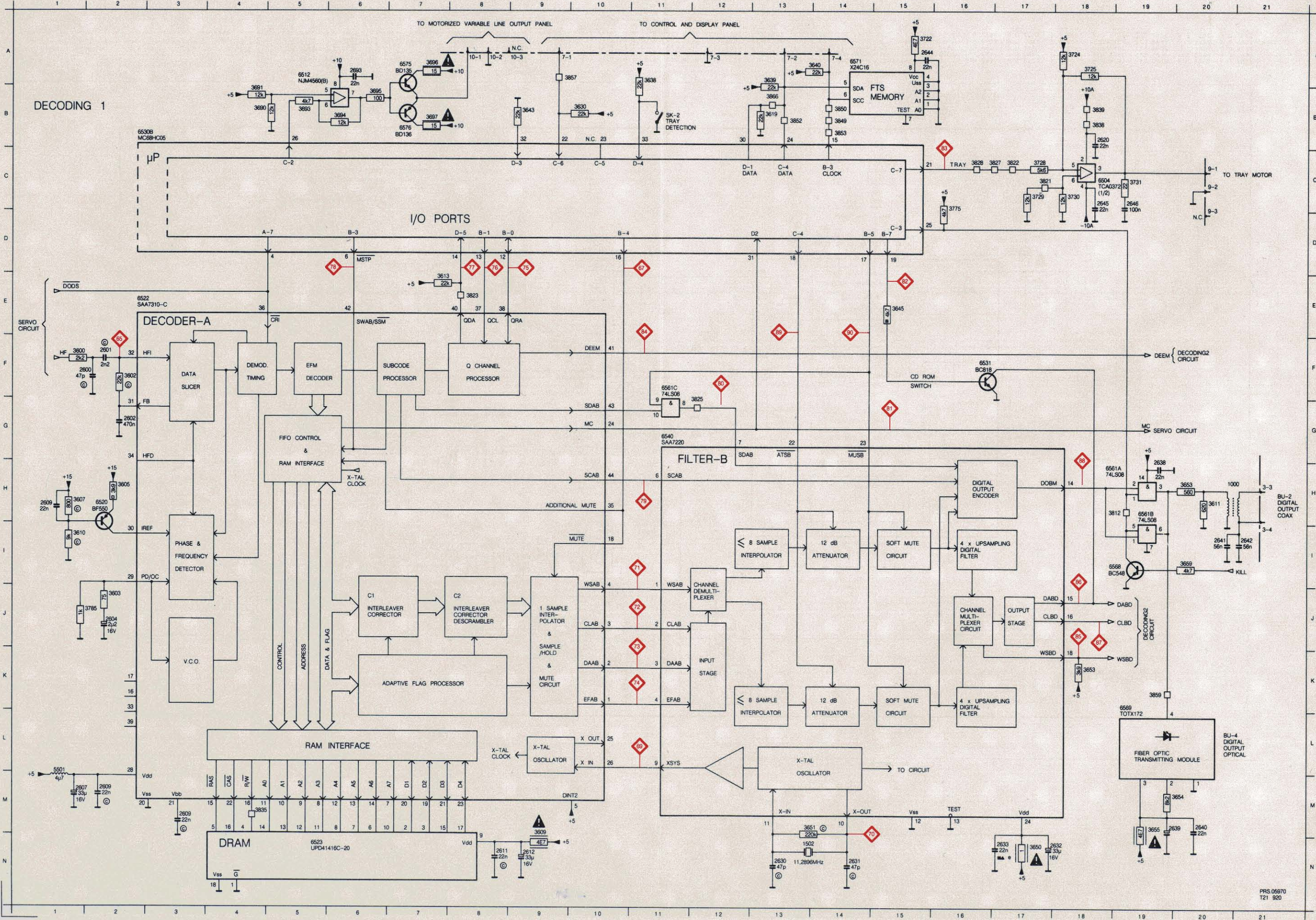


SERVO + DECODER PANEL

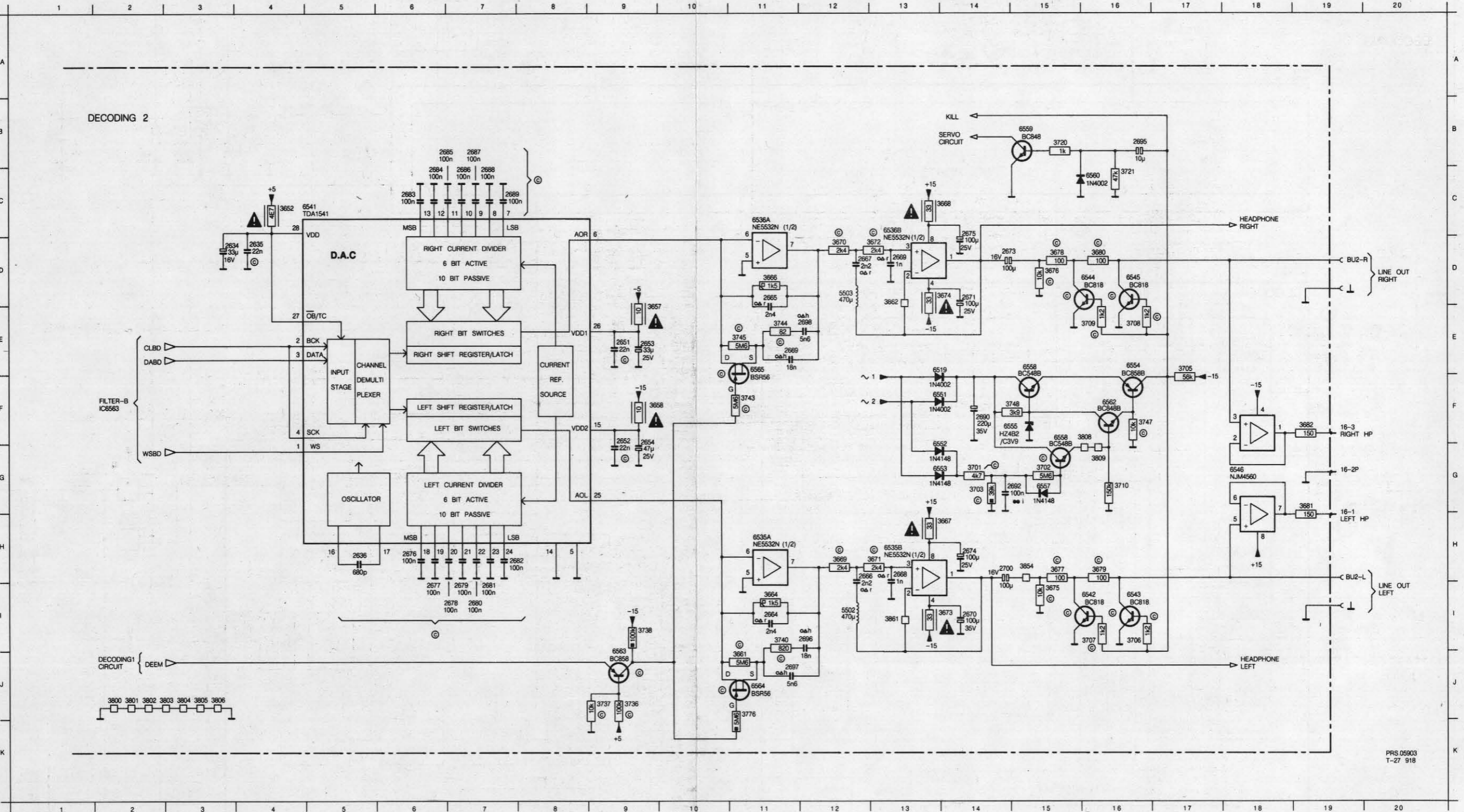
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
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| 11 | E 2 | 164 | D 9 | 188 | D 3 | 212 | E 7 | 236 | B 4 | 1502 | F 8 | 2526 | C 5 | 2570 | F 4 | 2636 | D 8 | 2673 | B 5 | 2698 | D 7 | 3507 | D 2 | 3558 | E 3 | 3596 | E 4 | 3630 | D 7 | 3668 | C 8 | 3703 | B 6 | 3742 | C 8 | 3810 | C 7 | 3834 | F 6 | 3859 | A 5 | 6508 | C 4 | 6544 | B 6 | 6572 | B 5 | | |
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| 14 | F 4 | 166 | E 4 | 190 | F 7 | 214 | B 7 | 238 | D 5 | 1516 | B 1 | 2530 | D 1 | 2574 | E 5 | 2639 | B 9 | 2675 | C 9 | 2700 | B 8 | 3509 | D 3 | 3560 | E 1 | 3598 | D 5 | 3632 | D 5 | 3670 | C 8 | 3705 | A 5 | 3744 | D 7 | 3812 | B 6 | 3836 | B 9 | 3861 | A 7 | 6510 | C 4 | 6546 | B 8 | 6574 | E 5 | | |
| 15 | B 5 | 167 | D 6 | 191 | E 2 | 215 | C 7 | 239 | D 5 | 2500 | B 1 | 2531 | D 1 | 2680 | D 5 | 2640 | A 9 | 2676 | E 8 | 2701 | B 8 | 3510 | E 2 | 3561 | D 1 | 3599 | E 2 | 3633 | E 2 | 3671 | C 7 | 3706 | B 7 | 3745 | C 8 | 3813 | C 7 | 3837 | D 6 | 3862 | B 9 | 6511 | C 4 | 6547 | B 8 | 6575 | E 5 | | |
| 16 | A 1 | 168 | D 3 | 192 | C 4 | 216 | C 3 | 240 | E 4 | 2581 | E 1 | 2532 | C 1 | 2681 | D 6 | 2641 | C 9 | 2677 | E 8 | 2702 | C 5 | 3511 | E 3 | 3562 | E 2 | 3600 | D 6 | 3634 | D 6 | 3672 | C 7 | 3707 | B 7 | 3746 | A 7 | 3814 | E 3 | 3838 | F 4 | 3863 | C 6 | 6512 | C 6 | 6548 | F 4 | 6576 | C 5 | | |
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| 20 | B 1 | 171 | F 7 | 195 | C 5 | 219 | C 6 | 243 | B 8 | 2584 | E 2 | 2535 | D 2 | 2684 | E 6 | 2644 | E 4 | 2680 | E 8 | 2705 | B 4 | 3514 | E 2 | 3565 | E 2 | 3603 | F 7 | 3637 | D 5 | 3675 | B 8 | 3710 | C 5 | 3749 | C 4 | 3817 | C 3 | 3842 | D 4 | 3867 | C 4 | 6515 | A 5 | 6551 | A 5 | 6581 | A 5 | | |
| 23 | D 5 | 172 | B 4 | 196 | E 0 | 220 | D 4 | 244 | B 5 | 2585 | F 3 | 2537 | D 1 | 2685 | E 6 | 2645 | F 3 | 2681 | E 8 | 2706 | B 4 | 3515 | F 2 | 3566 | C 3 | 3604 | E 5 | 3642 | D 5 | 3676 | B 7 | 3720 | C 6 | 3750 | B 5 | 3818 | C 6 | 3843 | C 6 | 3868 | C 3 | 6516 | D 6 | 6552 | A 5 | 6582 | B 4 | | |
| 26 | E 7 | 173 | E 3 | 197 | F 6 | 221 | D 4 | 245 | B 7 | 2586 | D 2 | 2538 | D 1 | 2686 | D 6 | 2646 | F 3 | 2682 | E 8 | 2707 | B 4 | 3516 | C 2 | 3567 | D 1 | 3605 | E 1 | 3643 | E 9 | 3677 | B 8 | 3721 | C 6 | 3751 | B 5 | 3819 | B 7 | 3844 | E 5 | 3869 | D 3 | 6517 | F 7 | 6553 | A 5 | 6583 | B 4 | | |
| 150 | F 1 | 174 | D 9 | 198 | E 7 | 222 | C 5 | 246 | F 8 | 2587 | D 2 | 2540 | E 1 | 2610 | C 4 | 2647 | E 4 | 2683 | D 8 | 2708 | B 5 | 3517 | C 2 | 3574 | E 3 | 3613 | D 7 | 3645 | D 3 | 3678 | B 6 | 3722 | E 4 | 3753 | F 6 | 3820 | B 7 | 3845 | D 4 | 3870 | E 5 | 6518 | E 5 | 6554 | B 6 | 6584 | C 4 | | |
| 151 | E 7 | 175 | B 7 | 199 | F 0 | 223 | E 7 | 247 | A 4 | 2510 | E 2 | 2542 | F 2 | 2611 | F 7 | 2651 | D 8 | 2684 | D 8 | 2709 | C 4 | 3518 | D 2 | 3575 | E 3 | 3615 | C 6 | 3647 | C 4 | 3679 | B 8 | 3723 | E 3 | 3754 | F 6 | 3821 | E 8 | 3846 | E 3 | 3871 | E 6 | 6519 | C 6 | 6555 | B 6 | 6585 | C 4 | | |
| 152 | F 9 | 176 | F 5 | 200 | D 9 | 224 | B 7 | 248 | E 1 | 2511 | D 2 | 2545 | E 1 | 2612 | F 7 | 2652 | D 7 | 2685 | D 8 | 2710 | C 4 | 3519 | D 2 | 3576 | F 3 | 3616 | C 5 | 3648 | C 8 | 3680 | B 6 | 3724 | E 3 | 3755 | E 6 | 3822 | E 4 | 3847 | E 1 | 3872 | D 3 | 6520 | C 8 | 6556 | A 5 | 6586 | A 4 | | |
| 153 | D 6 | 177 | F 2 | 201 | B 8 | 225 | D 3 | 249 | E 2 | 2513 | D 2 | 2546 | F 2 | 2620 | F 4 | 2653 | E 9 | 2686 | D 8 | 2711 | B 4 | 3520 | D 2 | 3577 | F 3 | 3617 | D 5 | 3651 | F 8 | 3683 | B 9 | 3725 | D 5 | 3756 | E 0 | 3823 | D 6 | 3848 | D 7 | 3873 | A 7 | 6521 | D 5 | 6557 | B 6 | 6587 | A 4 | | |
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| 155 | F 8 | 179 | E 9 | 203 | E 2 | 227 | A 4 | 251 | D 6 | 2515 | E 2 | 2560 | E 1 | 2622 | D 4 | 2664 | D 9 | 2698 | D 8 | 2713 | A 4 | 3522 | E 1 | 3579 | E 9 | 3619 | D 5 | 3653 | E 9 | 3690 | E 5 | 3729 | E 9 | 3801 | E 4 | 3825 | F 9 | 3850 | D 6 | 6523 | C 7 | 6559 | C 6 | 6591 | B 6 | | | | |
| 156 | E 5 | 180 | B 7 | 204 | D 3 | 228 | D 4 | 252 | D 8 | 2517 | D 3 | 2561 | E 1 | 2623 | D 5 | 2665 | D 8 | 2699 | D 8 | 2714 | A 5 | 3523 | E 1 | 3581 | E 4 | 3622 | C 5 | 3654 | A 8 | 3691 | E 5 | 3730 | E 3 | 3802 | E 5 | 3826 | D 5 | 3851 | E 1 | 6524 | E 2 | 6560 | C 8 | 6591 | E 9 | 6592 | B 5 | | |
| 157 | C 6 | 181 | F 5 | 205 | C 4 | 229 | C 4 | 253 | B 1 | 2519 | C 4 | 2562 | D 1 | 2624 | D 5 | 2666 | C 9 | 2698 | A 5 | 2715 | B 5 | 3524 | E 1 | 3582 | E 4 | 3623 | E 4 | 3655 | A 8 | 3692 | E 5 | 3731 | E 3 | 3803 | A 5 | 3827 | D 5 | 3852 | D 6 | 6525 | D 2 | 6536 | C 8 | 6562 | B 6 | 6593 | A 5 | | |



| | | | | | | | | | | | | | | | | | | | | | | | | |
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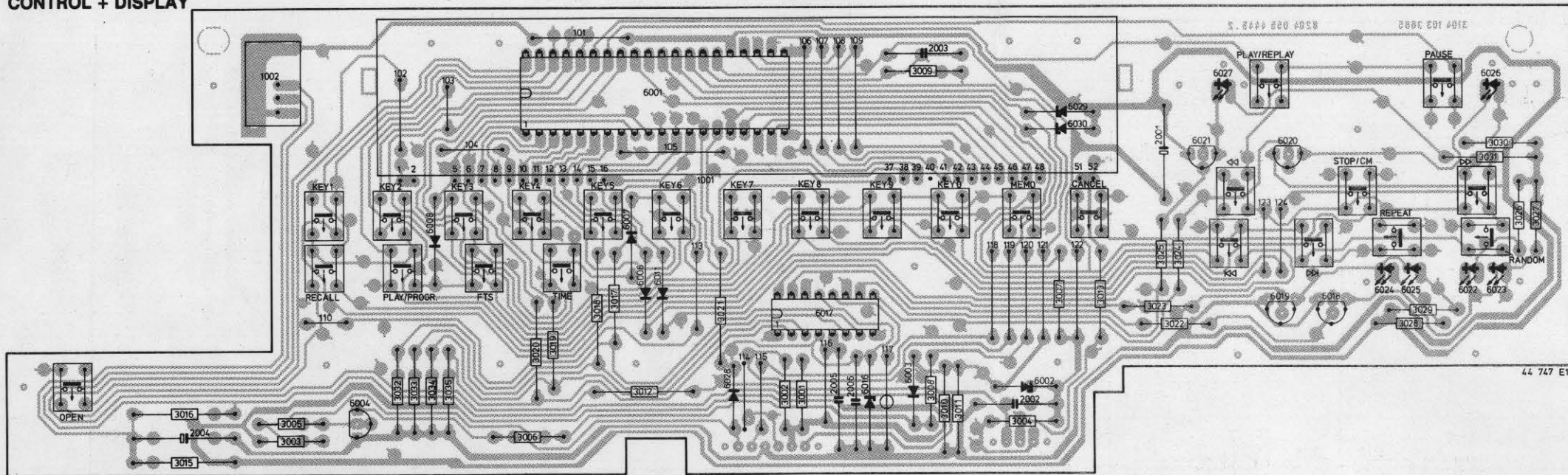


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| 2634 D 4 | 2653 E 9 | 2667 D12 | 2671 D14 | 2677 I 6 | 2682 H 8 | 2687 B 7 | 2695 B16 | 3652 C 4 | 3666 D11 | 3671 H13 | 3676 D15 | 3681 G19 | 3705 E17 | 3710 G16 | 3738 I 9 | 3747 F16 | 3802 J 2 | 3808 F16 | 5502 I12 | 6536A C11 | 6544 D16 | 6553 G14 | 6558 F15 | 6564 J11 |
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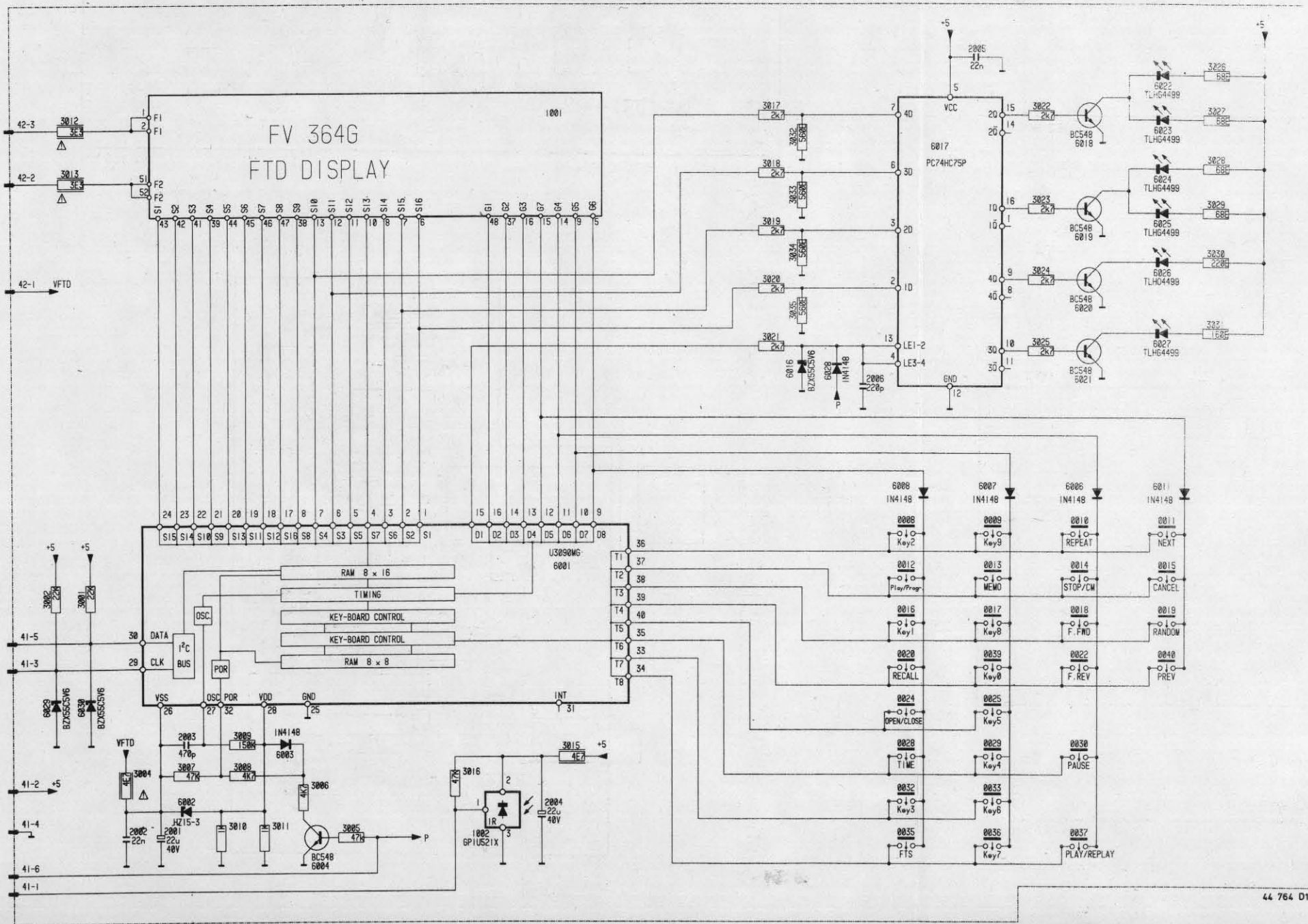


PRS 05903
T-27 918

CONTROL + DISPLAY

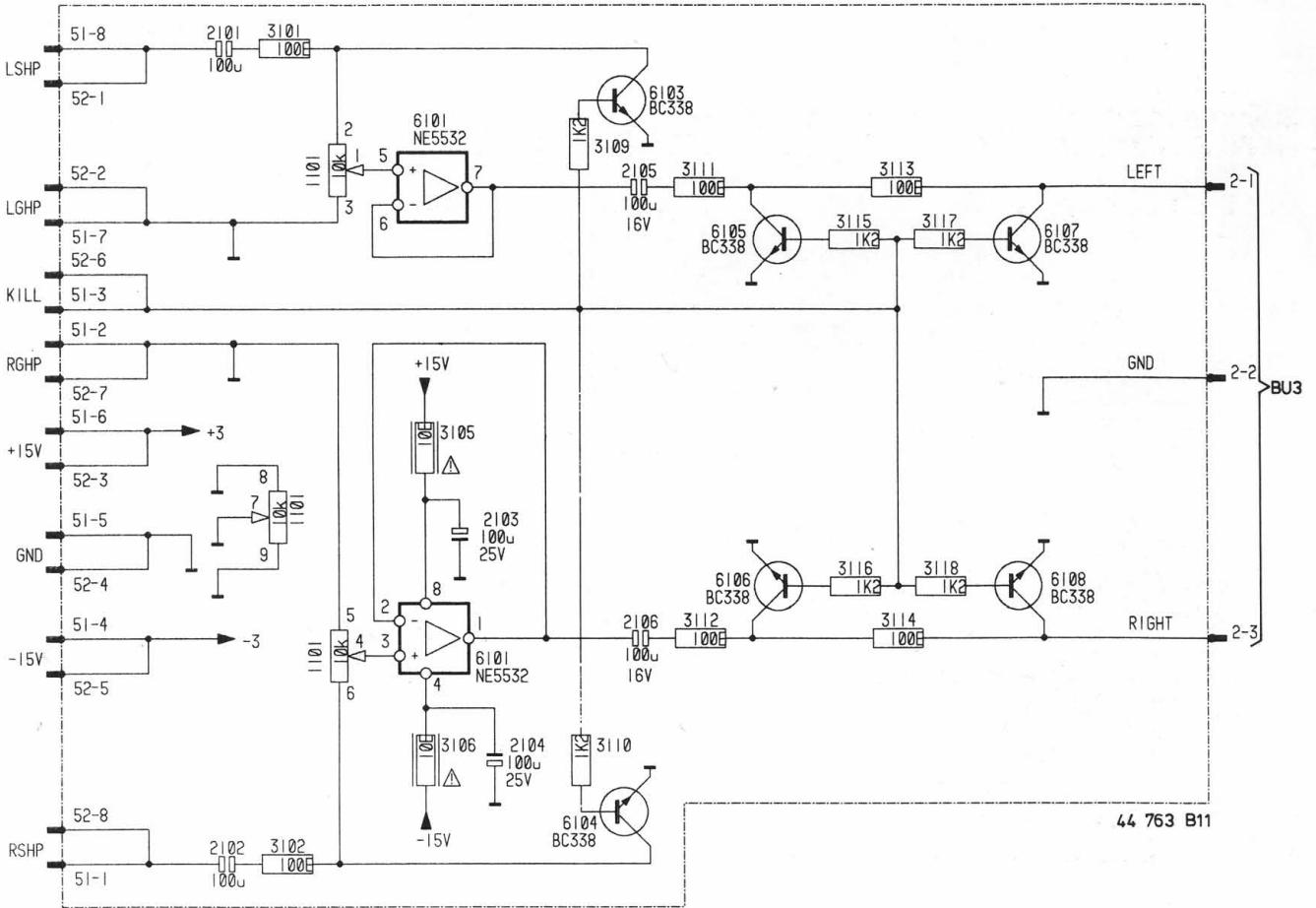


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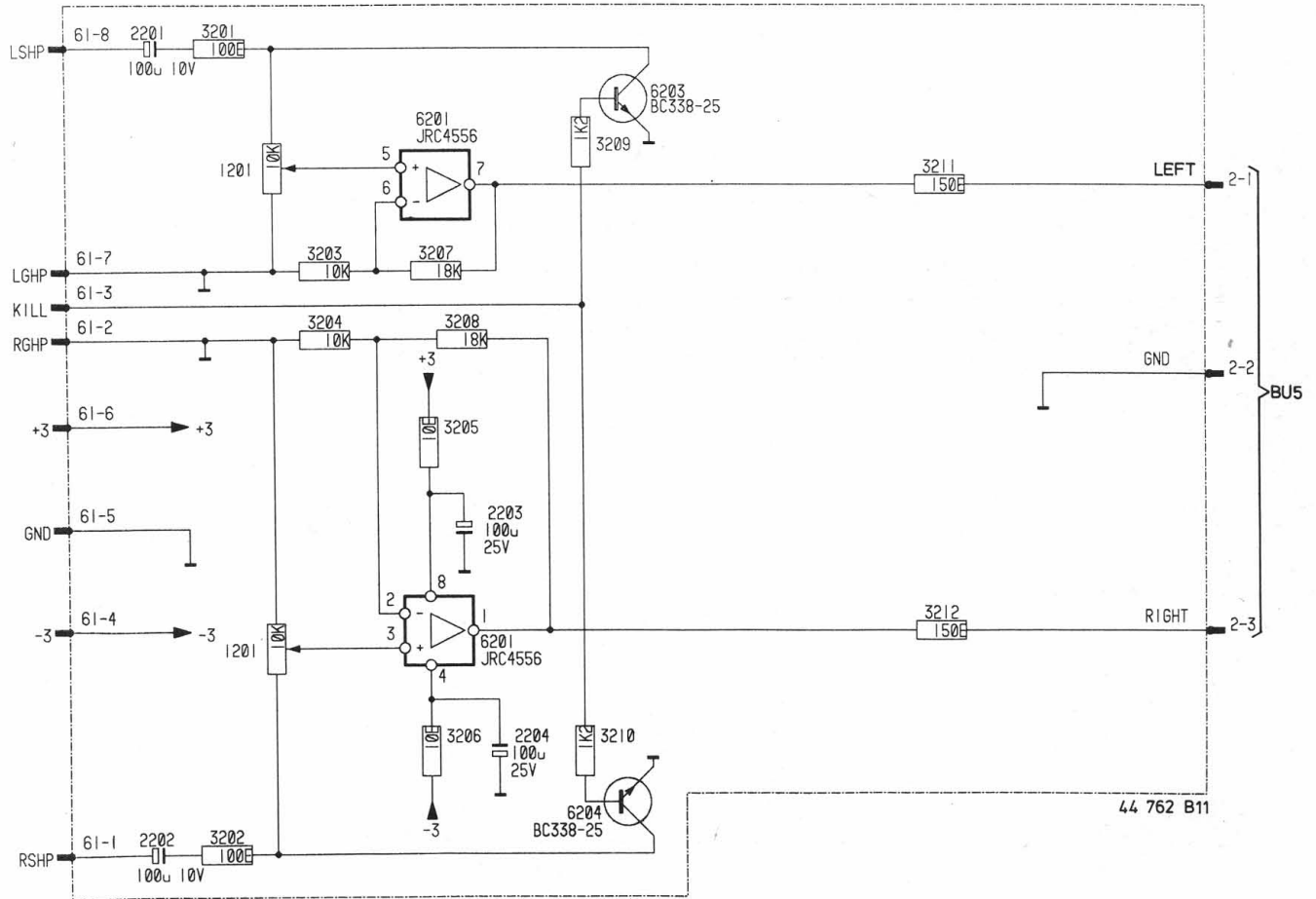


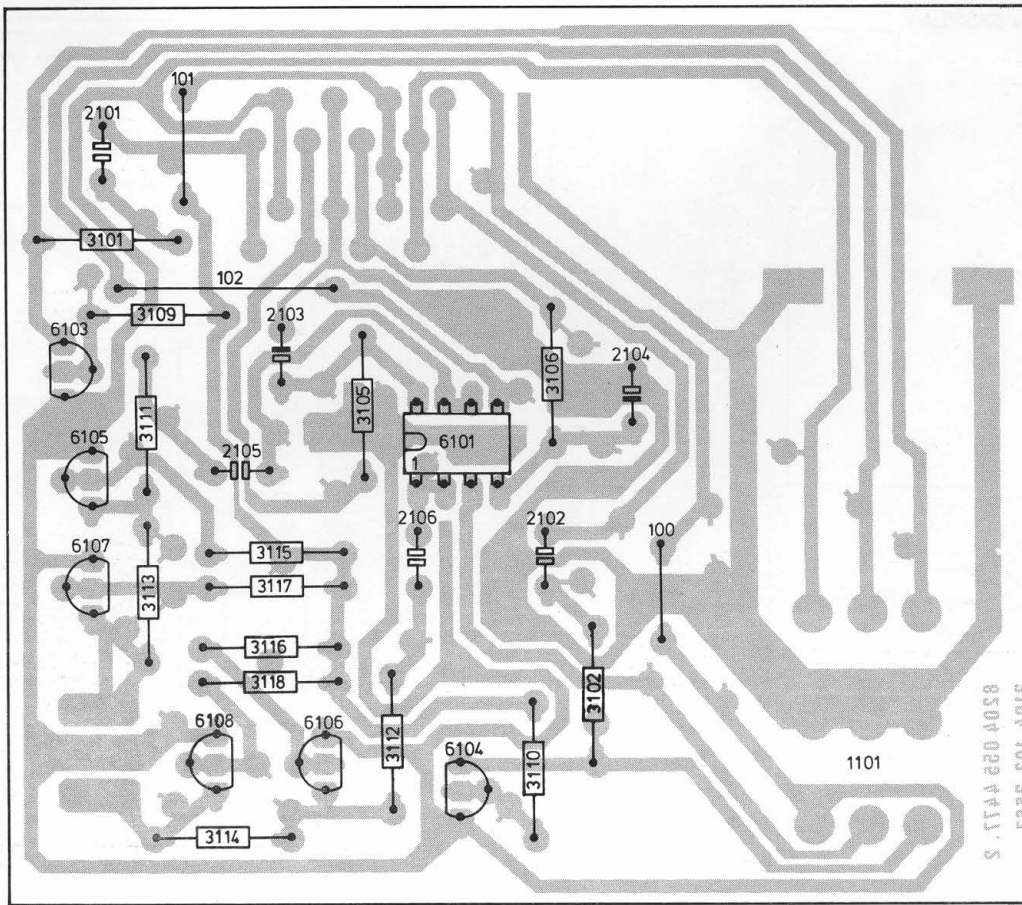
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VARIABLE LINE OUT

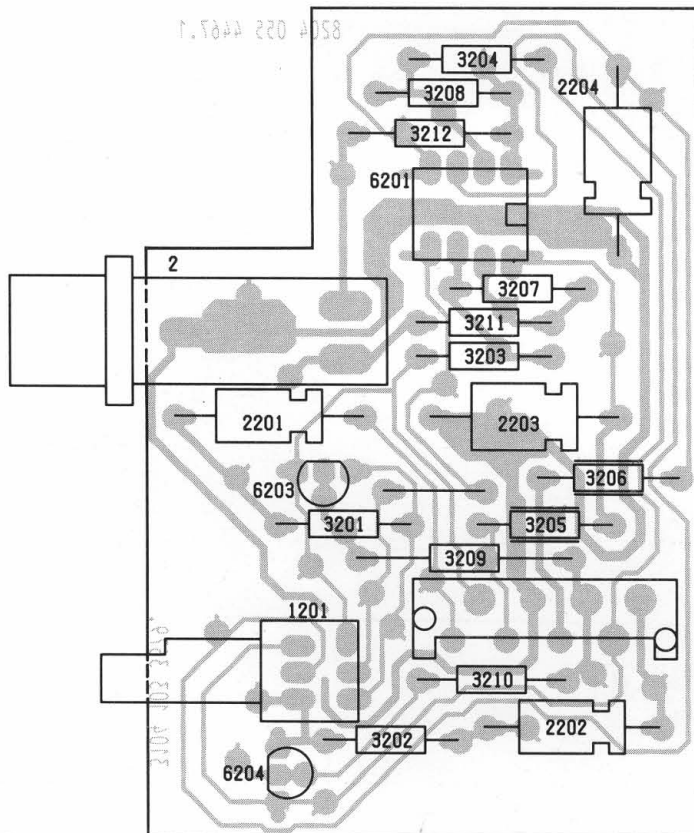


HEADPHONE PANEL



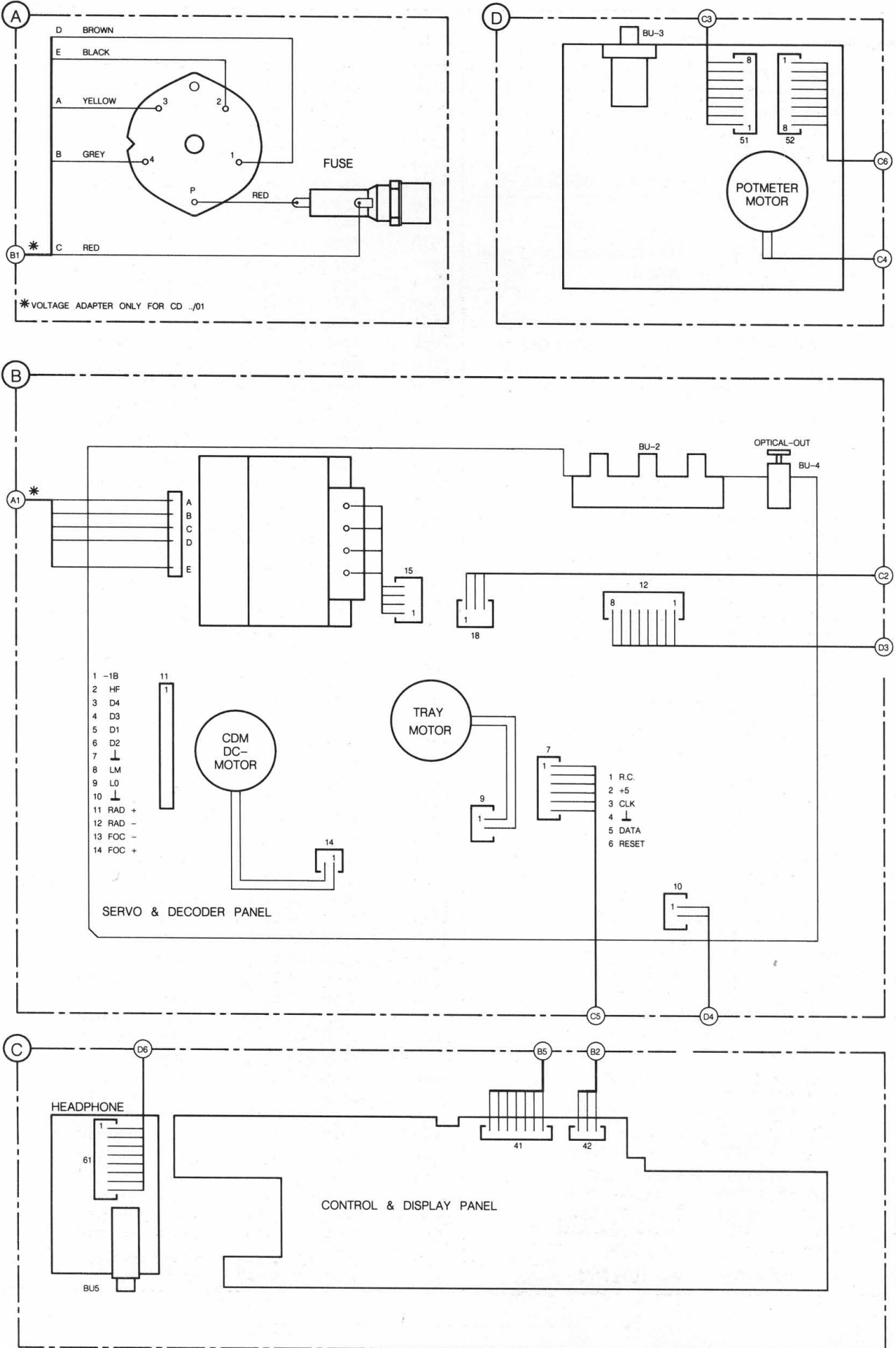


44 766 B11



44 772 B11

WIRING DIAGRAM



ELECTRICAL PARTSLIST SERVO & DECODER PANEL

| | | | | | |
|-----------------------|----------------|-----------------------------------|-------------|----------------|-----------------------|
| Miscellaneous | | | — — | | |
| BU-1 | 4822 265 20291 | Mains inlet | 2572 | 5322 121 42661 | 330nF 5% 63V |
| BU-2 | 4822 267 20368 | Cinch socket 5P | 2574 | 4822 122 31759 | 18nF 10% |
| SK-1 | 4822 276 11309 | Mains switch | 2600 | 4822 122 31772 | 47pF 5% 50V |
| SK-2 | 4822 276 12523 | Tact switch (4.3mm) | 2601 | 4822 122 31644 | 2n2 10% 63V |
| | 4822 256 30274 | Fuse holder | 2602 | 4822 121 51252 | 470nF 5% 100V |
| | 4822 492 63076 | Clamping spring | 2604 | 4822 124 41576 | 2μ2 20% 50V |
| | | | 2607 | 4822 124 40272 | 33μF20% 16V |
| | | | 2608 | 4822 122 33147 | 22nF 20% |
| | | | 2609 | 4822 122 33147 | 22nF 20% |
| | | | 2610 | 4822 124 20688 | 33μF 50% 16V |
| | | | 2611 | 4822 122 33147 | 22nF 20% |
| | | | 2612 | 4822 124 40272 | 33μF 20% 16V |
| | | | 2620 | 4822 122 33147 | 22nF 20% |
| | | | 2621 | 4822 122 33147 | 22nF 20% |
| | | | 2622 | 4822 124 22031 | 4μ7 20% 63V |
| | | | 2623 | 4822 122 31772 | 47pF 5% 50V |
| | | | 2624 | 4822 122 31772 | 47pF 5% 50V |
| | | | 2630 | 4822 122 31772 | 47pF 5% 50V |
| | | | 2631 | 4822 122 31772 | 47pF 5% 50V |
| | | | 2632 | 4822 124 40272 | 33μF 20% 16V |
| | | | 2633 | 4822 122 33147 | 22nF 20% |
| | | | 2634 | 4822 124 40272 | 33μF 20% 16V |
| | | | 2635 | 4822 122 33147 | 22nF 20% |
| | | | 2636 | 4822 122 31775 | 680pF 5% 50V |
| | | | 2638 | 4822 122 10166 | 22nF 30% 16V |
| | | | 2640 | 4822 122 33147 | 22nF 20% |
| | | | 2641 | 4822 122 32183 | 56nF 10% 50V |
| | | | 2642 | 4822 122 32183 | 56nF 10% 50V |
| | | | 2644 | 4822 122 33147 | 22nF 20% |
| | | | 2645 | 4822 122 33147 | 22nF 20% |
| | | | 2646 | 4822 122 33104 | 100nF10% 63V |
| | | | 2651 | 4822 122 33147 | 22nF 20% |
| | | | 2652 | 4822 122 33147 | 22nF 20% |
| | | | 2653 | 4822 124 40272 | 33μF 20% 16V |
| | | | 2654 | 4822 124 41527 | 47μF 25V |
| | | | 2664 | 4822 121 51111 | 2n4 2% 250V |
| | | | 2665 | 4822 121 51111 | 2n4 2% 250V |
| | | | 2668 | 4822 121 43066 | 1nF 1% 400V |
| | | | 2669 | 4822 121 43066 | 1nF 1% 400V |
| | | | 2670 | 4822 124 41528 | 100μF 25V |
| | | | 2671 | 4822 124 41528 | 100μF 25V |
| | | | 2673 | 4822 124 22339 | 100μF 20% 16V Bipolar |
| | | | 2674 | 4822 124 41528 | 100μF 25V |
| | | | 2675 | 4822 124 41528 | 100μF 25V |
| | | | 2676 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2677 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2678 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2679 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2680 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2681 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2682 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2683 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2684 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2685 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2686 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2687 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2688 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2689 | 4822 122 33104 | 100nF 10% 63V |
| | | | 2690 | 4822 124 41573 | 470μF 20% 35V |
| | | | 2691 | 4822 121 51252 | 470nF 5% 100V |
| | | | 2692 | 5322 121 42386 | 100nF 5% 63V |
| | | | 2693 | 4822 122 33147 | 22nF 20% |
| HF-transformer | | | — — | | |
| 1000 | 4822 148 80281 | HF-transformer for Digital output | | | |
| Crystal | | | — — | | |
| 1502 | 4822 242 71349 | 11.289 600 MHz Quartz Crystal | | | |
| 1503 | 4822 242 70831 | 4.00 MHz Ceramic Resonator | | | |
| — — | | | — — | | |
| 2500 | 4822 126 10005 | 3n3 400V 20% Ceramic disc cap. | | | |
| 2501 | 4822 122 33147 | 22nF 20% | | | |
| 2503 | 4822 122 33147 | 22nF 20% | | | |
| 2504 | 4822 122 31727 | 470pF 5% 63V | | | |
| 2506 | 4822 122 10166 | 22nF 30% 16V | | | |
| 2507 | 4822 122 31644 | 2n2 10% 63V | | | |
| 2508 | 5322 121 42491 | 47nF 5% 100V | | | |
| 2509 | 4822 122 31765 | 100pF 5% 50V | | | |
| 2510 | 4822 122 32442 | 10nF 50V | | | |
| 2511 | 4822 122 31746 | 1000pF 5% 50V | | | |
| 2513 | 4822 121 42245 | 220nF 10% 63V | | | |
| 2514 | 4822 121 51252 | 470nF 5% 100V | | | |
| 2515 | 4822 122 31746 | 1000pF 5% 50V | | | |
| 2519 | 4822 124 22027 | 47μF 20% 25V | | | |
| 2520 | 4822 122 31965 | 220pF 5% 63V | | | |
| 2521 | 4822 124 41527 | 47μF 25V | | | |
| 2522 | 4822 122 33147 | 22nF 20% | | | |
| 2523 | 4822 124 40257 | 220μF 20% 63V | | | |
| 2524 | 4822 122 33147 | 22nF 20% | | | |
| 2525 | 4822 122 33147 | 22nF 20% | | | |
| 2526 | 4822 122 33147 | 22nF 20% | | | |
| 2530 | 4822 121 51321 | 8μ2 1% 63V | | | |
| 2531 | 4822 121 51321 | 8μ2 1% 63V | | | |
| 2532 | 4822 124 40272 | 33μF 20% 16V | | | |
| 2534 | 5322 121 42661 | 330nF 5% 63V | | | |
| 2535 | 5322 122 31848 | 33nF 10% 63V | | | |
| 2536 | 5322 122 31848 | 33nF 10% 63V | | | |
| 2537 | 4822 121 42245 | 220nF 10% 63V | | | |
| 2538 | 4822 121 42245 | 220nF 10% 63V | | | |
| 2540 | 4822 124 41583 | 0μ68 Bipolar Elco | | | |
| 2542 | 4822 122 33147 | 22nF 20% | | | |
| 2545 | 4822 122 33104 | 100nF 10% 63V | | | |
| 2546 | 4822 122 33147 | 22nF 20% | | | |
| 2550 | 5322 121 42491 | 47nF 5% 100V | | | |
| 2560 | 4822 121 51314 | 4n7 5% 50V | | | |
| 2561 | 4822 121 51252 | 470nF 5% 100V | | | |
| 2562 | 5322 121 42661 | 330nF 5% 63V | | | |
| 2563 | 4822 122 33104 | 100nF 10% 63V | | | |
| 2566 | 4822 122 33147 | 22nF 20% | | | |
| 2570 | 4822 122 31644 | 2n2 10% 63V | | | |



| | | |
|------|----------------|-----------------------|
| 2695 | 4822 124 41558 | 10µF 20% 25V Bipolar |
| 2696 | 4822 121 51225 | 18nF 2% 63V |
| 2697 | 4822 121 51361 | 5n6 2% 160V |
| 2698 | 4822 121 51361 | 5n6 2% 160V |
| 2699 | 4822 121 51225 | 18nF 2% 63V |
| 2700 | 4822 124 22339 | 100µF 20% 16V Bipolar |
| 2702 | 4822 124 22337 | 22µF 20% 63V |
| 2703 | 4822 124 41594 | 330µF 20% 35V |
| 2704 | 4822 124 41527 | 47µF 25V |
| 2705 | 4822 122 33147 | 22nF 20% |
| 2706 | 4822 122 33147 | 22nF 20% |
| 2707 | 4822 124 41591 | 6800µF 20% 16V |
| 2708 | 4822 124 40272 | 33µF 20% 16V |
| 2709 | 4822 122 33147 | 22nF 20% |
| 2710 | 4822 122 33147 | 22nF 20% |
| 2711 | 4822 124 41571 | 1000µF 20% 16V |
| 2712 | 4822 124 40272 | 33µF 20% 16V |
| 2713 | 4822 124 41573 | 470µF 20% 35V |
| 2714 | 4822 124 41527 | 47µF 25V |
| 2715 | 5322 121 42386 | 100nF 5% 63V |



| | | |
|------|----------------|---------------------------|
| 3501 | 5322 111 90111 | 4k7 2% 0,125W |
| 3502 | 4822 111 90214 | 100k 2% 0,125W |
| 3503 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3504 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3505 | 4822 111 90253 | 12k 2% 0,125W |
| 3506 | 4822 116 52389 | 100Ω 5% 0,5W |
| 3507 | 5322 111 90092 | 1k 2% 0,125W |
| 3508 | 4822 111 90512 | 24k 2% 0,125W |
| 3509 | 4822 111 90572 | 5k6 2% 0,125W |
| 3510 | 4822 111 90249 | 10k 2% 0,125W |
| 3520 | 4822 101 10685 | 4k7 20% lin 0,05W trimpot |
| 3521 | 4822 116 52407 | 220Ω 5% 0,5W |
| 3522 | 4822 111 30515 | 18Ω 5% 0,33W |
| 3523 | 4822 111 30511 | 12Ω 5% 0,33W |
| 3524 | 5322 111 90091 | 100Ω 2% 0,125W |
| 3533 | 5322 111 90268 | 5k1 2% 0,125W |
| 3534 | 4822 111 90197 | 220k 2% 0,125W |
| 3535 | 4822 116 53081 | 12k 1% 0,6W |
| 3539 | 4822 111 90251 | 22k 2% 0,125W |
| 3540 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3541 | 4822 111 90544 | 6k8 2% 0,125W |
| 3542 | 4822 111 90357 | 33Ω 2% 0,125W |
| 3543 | 4822 111 90544 | 6k8 2% 0,125W |
| 3545 | 4822 111 30483 | 1Ω 5% 0,33W |
| 3546 | 4822 111 30483 | 1Ω 5% 0,33W |
| 3551 | 5322 111 90099 | 150k 2% 0,125W |
| 3552 | 5322 111 90101 | 1k8 2% 0,125W |
| 3555 | 4822 111 90238 | 180k 5% 0,25W |
| 3557 | 4822 111 90197 | 220k 2% 0,125W |
| 3560 | 4822 111 91494 | 11k 2% |
| 3561 | 4822 116 90417 | 150k 2% |
| 3562 | 4822 111 90568 | 120k 2% 0,125W |
| 3563 | 4822 111 90573 | 56k 2% 0,125W |
| 3564 | 4822 111 91495 | 160k 2% |
| 3565 | 5322 111 90105 | 27Ω 2% 0,125W |
| 3566 | 4822 111 90186 | 22Ω 2% 0,125W |
| 3567 | 4822 111 90575 | 82k 2% 0,125W |
| 3568 | 4822 100 20522 | 22k 20% lin 0,05W trimpot |
| 3569 | 4822 111 90368 | 680k 2% 0,125W |
| 3574 | 5322 111 90267 | 33k 2% 0,125W |
| 3575 | 5322 111 90111 | 4k7 2% 0,125W |
| 3576 | 4822 116 52848 | 200k 1% 0,6W |



| | | |
|------|----------------|----------------|
| 3578 | 4822 111 90575 | 82k 2% 0,125W |
| 3579 | 4822 116 90417 | 150k 2% |
| 3580 | 4822 116 52426 | 4k7 5% 0,5W |
| 3581 | 4822 116 53105 | 3k3 1% 0,6W |
| 3582 | 4822 111 90572 | 5k6 2% 0,125W |
| 3584 | 4822 111 91492 | 91k 2% |
| 3585 | 4822 111 90214 | 100k 2% 0,125W |
| 3586 | 4822 111 90368 | 680k 2% 0,125W |
| 3588 | 4822 116 52472 | 47k 5% 0,5W |
| 3589 | 5322 111 90111 | 4k7 2% 0,125W |
| 3591 | 5322 111 90096 | 1k2 2% 0,125W |
| 3600 | 4822 111 90248 | 2k2 2% 0,125W |
| 3602 | 4822 111 90251 | 22k 2% 0,125W |
| 3603 | 4822 111 90371 | 75Ω 2% 0,125W |
| 3604 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3605 | 5322 111 90265 | 1k6 2% 0,125W |
| 3607 | 4822 111 90571 | 3k9 2% 0,125W |
| 3609 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3610 | 4822 111 90373 | 9k1 2% 0,125W |
| 3611 | 4822 111 90366 | 620Ω 2% 0,125W |
| 3613 | 4822 111 90251 | 22k 2% 0,125W |
| 3621 | 4822 111 90238 | 180k 5% 0,25W |
| 3622 | 4822 111 90543 | 47k 2% 0,125W |
| 3623 | 4822 111 90238 | 180k 5% 0,25W |
| 3624 | 4822 111 90248 | 2k2 2% 0,125W |
| 3625 | 4822 111 90249 | 10k 2% 0,125W |
| 3626 | 4822 111 90249 | 10k 2% 0,125W |
| 3627 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3628 | 4822 111 90251 | 22k 2% 0,125W |
| 3629 | 4822 111 90197 | 220k 2% 0,125W |
| 3630 | 4822 111 90251 | 22k 2% 0,125W |
| 3638 | 4822 111 90251 | 22k 2% 0,125W |
| 3639 | 4822 111 90251 | 22k 2% 0,125W |
| 3640 | 4822 111 90251 | 22k 2% 0,125W |
| 3643 | 4822 111 90251 | 22k 2% 0,125W |
| 3645 | 5322 111 90111 | 4k7 2% 0,125W |
| 3646 | 4822 111 90251 | 22k 2% 0,125W |
| 3647 | 4822 111 90251 | 22k 2% 0,125W |
| 3650 | 4822 111 30483 | 1Ω 5% 0,33W |
| 3651 | 4822 111 90197 | 220k 2% 0,125W |
| 3652 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3653 | 4822 116 52428 | 560Ω 5% 0,5W |
| 3654 | 5322 111 90118 | 8k2 2% 0,125W |
| 3655 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3657 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3658 | 4822 111 30508 | 10Ω 5% 0,33W |
| 3659 | 4822 116 52426 | 4k7 5% 0,5W |
| 3665 | 5322 116 53478 | 1k5 1% 0,6W |
| 3666 | 5322 116 53478 | 1k5 1% 0,6W |
| 3667 | 4822 111 30522 | 33Ω 5% 0,33W |
| 3668 | 4822 111 30522 | 33Ω 5% 0,33W |
| 3669 | 4822 116 90271 | 2k4 2% |
| 3670 | 4822 116 90271 | 2k4 2% |
| 3671 | 4822 116 90271 | 2k4 2% |
| 3672 | 4822 116 90271 | 2k4 2% |
| 3673 | 4822 111 30522 | 33Ω 5% 0,33W |
| 3674 | 4822 111 30522 | 33Ω 5% 0,33W |
| 3675 | 4822 111 90249 | 10k 2% 0,125W |
| 3676 | 4822 111 90249 | 10k 2% 0,125W |
| 3677 | 5322 111 90091 | 100Ω 2% 0,125W |
| 3678 | 5322 111 90091 | 100Ω 2% 0,125W |
| 3679 | 5322 111 90091 | 100Ω 2% 0,125W |
| 3680 | 5322 111 90091 | 100Ω 2% 0,125W |
| 3690 | 4822 111 90253 | 12k 2% |



| | | |
|------|----------------|---------------------|
| 3691 | 4822 111 90253 | 12k 2% |
| 3692 | 4822 111 90253 | 12k 2% |
| 3693 | 5322 116 80445 | 4k7 5% |
| 3694 | 4822 111 90253 | 12k 2% |
| 3695 | 5322 116 80426 | 100Ω |
| 3696 | 4822 111 30513 | 15Ω Safety Resistor |
| 3697 | 4822 111 30513 | 15Ω Safety Resistor |
| 3701 | 5322 111 90111 | 4k7 2% 0,125W |
| 3702 | 4822 111 90425 | 5M6 5% 0,125W |
| 3703 | 5322 111 90108 | 39k 2% 0,125W |
| 3704 | 5322 111 90096 | 1k2 2% 0,125W |
| 3705 | 4822 111 90573 | 56k 2% 0,125W |
| 3706 | 5322 111 90096 | 1k2 2% 0,125W |
| 3707 | 5322 111 90096 | 1k2 2% 0,125W |
| 3708 | 5322 111 90096 | 1k2 2% 0,125W |
| 3710 | 5322 111 90099 | 150k 2% 0,125W |
| 3720 | 5322 111 90092 | 1k 2% 0,125W |
| 3721 | 4822 111 90543 | 47k 2% 0,125W |
| 3722 | 4822 111 30499 | 4Ω7 5% 0,33W |
| 3724 | 4822 116 53081 | 12k 1% 0,6W |
| 3725 | 4822 111 90253 | 12k 2% 0,125W |
| 3726 | 4822 111 90251 | 22k 5% |
| 3728 | 4822 111 90572 | 5k6 2% 0,125W |
| 3729 | 4822 116 53081 | 12k 0423 ER |
| 3730 | 4822 111 90253 | 12k 2% 0,125W |
| 3731 | 4822 111 90186 | 22Ω 2% 0,125W |
| 3736 | 4822 111 90214 | 100k 2% 0,125W |
| 3737 | 4822 111 90249 | 10k 2% 0,125W |
| 3738 | 4822 111 90214 | 100k 2% 0,125W |
| 3739 | 4822 111 90425 | 5M6 5% 0,125W |
| 3740 | 4822 116 52864 | 820Ω 1% 0,6W |
| 3743 | 4822 111 90425 | 5M6 5% 0,125W |
| 3744 | 4822 116 52864 | 820Ω 1% 0,6W |
| 3745 | 4822 111 90425 | 5M6 5% 0,125W |
| 3747 | 4822 111 90249 | 10k 2% 0,125W |
| 3748 | 4822 111 90571 | 3k9 2% 0,125W |
| 3750 | 4822 116 52391 | 1k 5% 0,125W |
| 3775 | 5322 111 90111 | 4k7 2% 0,125W |
| 3776 | 4822 111 90425 | 5M6 5% 0,125W |
| 3779 | 5322 111 90306 | 750Ω 2% 0,125W |

jumper

| | | |
|------|----------------|--------|
| 3801 | 4822 111 90163 | jumper |
| 3802 | 4822 111 90163 | jumper |
| 3803 | 4822 111 90163 | jumper |
| 3804 | 4822 111 90163 | jumper |
| 3805 | 4822 111 90163 | jumper |
| 3808 | 4822 111 90163 | jumper |
| 3809 | 4822 111 90163 | jumper |
| 3810 | 4822 111 90163 | jumper |
| 3811 | 4822 111 90163 | jumper |
| 3812 | 4822 111 90163 | jumper |
| 3813 | 4822 111 90163 | jumper |
| 3814 | 4822 111 90163 | jumper |
| 3818 | 4822 111 90163 | jumper |
| 3821 | 4822 111 90163 | jumper |
| 3822 | 4822 111 90163 | jumper |
| 3823 | 4822 111 90163 | jumper |
| 3824 | 4822 111 90163 | jumper |
| 3825 | 4822 111 90163 | jumper |
| 3826 | 4822 111 90163 | jumper |
| 3827 | 4822 111 90163 | jumper |
| 3828 | 4822 111 90163 | jumper |
| 3829 | 4822 111 90163 | jumper |

jumper

| | | |
|------|----------------|--------|
| 3830 | 4822 111 90163 | jumper |
| 3831 | 4822 111 90163 | jumper |
| 3833 | 4822 111 90163 | jumper |
| 3834 | 4822 111 90163 | jumper |
| 3835 | 4822 111 90163 | jumper |
| 3836 | 4822 111 90163 | jumper |
| 3837 | 4822 111 90163 | jumper |
| 3838 | 4822 111 90163 | jumper |
| 3839 | 4822 111 90163 | jumper |
| 3840 | 4822 111 90163 | jumper |
| 3841 | 4822 111 90163 | jumper |
| 3842 | 4822 111 90163 | jumper |
| 3843 | 4822 111 90163 | jumper |
| 3844 | 4822 111 90163 | jumper |
| 3845 | 4822 111 90163 | jumper |
| 3847 | 4822 111 90163 | jumper |
| 3848 | 4822 111 90163 | jumper |
| 3849 | 4822 111 90163 | jumper |
| 3850 | 4822 111 90163 | jumper |
| 3852 | 4822 111 90163 | jumper |
| 3853 | 4822 111 90163 | jumper |
| 3854 | 4822 111 90163 | jumper |
| 3855 | 4822 111 90163 | jumper |
| 3856 | 4822 111 90163 | jumper |
| 3857 | 4822 111 90163 | jumper |
| 3858 | 4822 111 90163 | jumper |
| 3859 | 4822 111 90163 | jumper |
| 3860 | 4822 111 90163 | jumper |
| 3861 | 4822 111 90163 | jumper |
| 3862 | 4822 111 90163 | jumper |



| | | |
|------|----------------|------------|
| 5502 | 4822 157 53141 | coil 470μH |
| 5503 | 4822 157 53141 | coil 470μH |

semi conductor


| | | |
|------|----------------|--|
| 6500 | 4822 209 72587 | TCA0372DP2 |
| 6501 | 4822 209 73234 | TDA8808T/C3 |
| 6502 | 4822 130 44121 | BC338 |
| 6503 | 4822 209 73235 | TDA8809T/C2 |
| 6504 | 4822 209 72587 | TCA0372DP2 |
| 6505 | 4822 130 34173 | BZX79-B5V6 |
| 6506 | 4822 130 34173 | BZX79-B5V6 |
| 6510 | 4822 130 31456 | BZV85-C5V1 |
| 6512 | 4822 209 83274 | NJM4560D |
| 6516 | 5322 130 42012 | BC858 |
| 6517 | 5322 130 42012 | BC858 |
| 6519 | 5322 130 30684 | 1N4002 |
| 6520 | 4822 130 42131 | BF550 |
| 6523 | 4822 209 70422 | MN4264-15 |
| 6526 | 4822 130 61207 | BC848 |
| 6527 | 5322 130 42012 | BC858 |
| 6530 | 4822 209 60801 | MC68HC05C9P/SC409009 for CD50, CD60 |
| 6531 | 4822 130 42675 | BC818 |
| 6535 | 5322 209 86234 | NE5532N |
| 6536 | 5322 209 86234 | NE5532N |
| 6537 | 5322 130 30684 | 1N4002 |
| 6538 | 5322 130 30684 | 1N4002 |
| 6540 | 4822 209 72545 | SAA7220P/B |
| 6541 | 4822 209 72544 | TDA1541A/N2 |
| 6542 | 4822 130 42675 | BC818 |

| semi conductor | | | semiconductor | | |
|----------------|----------------|--------------|---------------|----------------|----------------------------------|
| 6543 | 4822 130 42675 | BC818 | 6569 | 4822 218 20752 | TOTX172 optical transmitter BU-4 |
| 6544 | 4822 130 42675 | BC818 | 6571 | 4822 209 60772 | X24C16 |
| 6545 | 4822 130 42675 | BC818 | 6572 | 4822 130 34195 | BZX55-C13 |
| 6547 | 5322 130 30684 | 1N4002 | 6575 | 4822 130 40823 | BD135 |
| 6548 | 5322 130 30684 | 1N4002 | 6576 | 4822 130 40824 | BD136 |
| 6549 | 4822 209 60775 | SAA7310GP/05 | 6577 | 4822 209 80808 | MC78M15CT |
| 6550 | 5322 130 30684 | 1N4002 | 6580 | 5322 130 30684 | 1N4002 |
| 6551 | 5322 130 30684 | 1N4002 | 6581 | 5322 130 30684 | 1N4002 |
| 6552 | 4822 130 30621 | 1N4148 | 6582 | 5322 130 30684 | 1N4002 |
| 6553 | 4822 130 30621 | 1N4148 | 6583 | 5322 130 30684 | 1N4002 |
| 6554 | 4822 130 42513 | BC858C | 6584 | 5322 130 30684 | 1N4002 |
| 6555 | 4822 130 31981 | BZX55-C3V9 | 6585 | 5322 130 30684 | 1N4002 |
| 6556 | 4822 130 61207 | BC848 | 6586 | 5322 130 30684 | 1N4002 |
| 6557 | 4822 130 30621 | 1N4148 | 6587 | 5322 130 30684 | 1N4002 |
| 6558 | 4822 130 44121 | BC338 | 6590 | 4822 209 80808 | MC78M15CT |
| 6559 | 4822 130 61207 | BC848 | 6591 | 4822 209 71579 | TY40408 = MC7805CT selected |
| 6561 | 4822 209 60803 | SN74LS08D | 6592 | 5322 209 11222 | MC7905CT |
| 6562 | 4822 130 61207 | BC848 | 6593 | 5322 130 41899 | MC7915CT |
| 6563 | 5322 130 42012 | BC858 | | | |
| 6564 | 4822 130 42633 | BSR56 | | | |
| 6565 | 4822 130 42633 | BSR56 | | | |
| 6568 | 4822 130 61207 | BC848 | | | |




MISCELLANEOUS

| mains voltage | | | tools | | |
|---------------|----------------|---------------------------------------|-------|----------------|-------------------------------|
| 1501 | 4822 253 30009 | FUSE 160 mA (5X20) only for /01/02/05 | TOOLS | 4822 397 30155 | AUDIO TEST DISC 1kHz (65 min) |
| 1501 | 4822 253 30014 | FUSE 315 mA (5,2X20) only for /04 | TOOLS | 4822 397 30184 | CD AUDIO SIGNALS |
| 1501 | 4822 253 30217 | FUSE 300 mA (5X20) only for /06B | TOOLS | 4822 397 60141 | AUDIO TEST MAX DIAM |
| 5001 | 4822 146 30798 | MAINSTRANSFORMER only for /01 | TOOLS | 4822 397 30096 | AUDIO TEST DISC 5+5A |
| 5001 | 4822 146 30778 | MAINS-TRANSFORMER only for /02/05 | TOOLS | 4822 395 50145 | TORX SCREWDRIVER SET |
| 5001 | 4822 146 30782 | MAINS-TRANSFORMER only for /04 | TOOLS | 4822 395 50132 | TORX SCREW SQUARE |
| 5001 | 4822 146 30797 | MAINS-TRANSFORMER only for /06B | TOOLS | 4822 395 30204 | 13TH ORDER FILTER |
| | | | TOOLS | 4822 322 40066 | SERVICE CABLE (14P) |
| | | | TOOLS | 4822 267 50676 | SERVICE CONN (14P) |
| | | | TOOLS | 5322 130 32182 | LED GREEN CQYG11 |
| | | | TOOLS | 4822 321 21284 | SERVICE CABLE (4P) |
| miscellaneous | | | | | |
| | 4822 600 10295 | A-BOX MARANTZ only for /04 | | | |
| | 4822 600 10303 | A-BOX MARANTZ only for /01/02/05 | | | |
| | 4822 600 10302 | A-BOX PHILIPS only for /06 | | | |
| | 4822 600 10294 | EPS-CUSHION | | | |
| | 4822 263 40054 | CAROUSEL ASSY only for /01 | | | |




ELECTRICAL PARTSLIST CONTROL & DISPLAY PANEL





| | | | | | |
|--|----------------|------------------------------|----------------------|----------------|--------------------|
| switch  | | | | | |
| SK.. | 4822 276 12465 | TACT SWITCH | 3020 | 4822 116 52413 | 2k7 5% 0,5W |
| miscellaneous | | | 3021 | 4822 116 52413 | 2k7 5% 0,5W |
| 1001 | 4822 130 90663 | DISPLAY FV364G | 3022 | 4822 116 52413 | 2k7 5% 0,5W |
| 1002 | 4822 214 51772 | IR RECEIVER GP1U521X | 3023 | 4822 116 52413 | 2k7 5% 0,5W |
| — — | | | 3024 | 4822 116 52413 | 2k7 5% 0,5W |
| 2001 | 5322 124 21643 | 22µF 20% 40V | 3025 | 4822 116 52413 | 2k7 5% 0,5W |
| 2002 | 4822 122 10166 | 22nF 30% 16V | 3026 | 4822 116 52375 | 68Ω 5% |
| 2003 | 4822 122 31435 | 470pF 10% 50V | 3027 | 4822 116 52375 | 68Ω 5% |
| 2004 | 5322 124 21643 | 22µF 20% 40V | 3028 | 4822 116 52375 | 68Ω 5% |
| 2005 | 4822 122 10166 | 22nF 30% 16V | 3029 | 4822 116 52375 | 68Ω 5% |
| 2006 | 4822 122 10172 | 220pF 10% 50V | 3030 | 4822 116 52849 | 220Ω 5% |
| □ | | | 3031 | 5322 116 53728 | 160Ω 5% |
| 3001 | 4822 116 52463 | 22k 5% 0,5W | 3032 | 4822 116 52428 | 560Ω 5% |
| 3002 | 4822 116 52463 | 22k 5% 0,5W | 3033 | 4822 116 52428 | 560Ω 5% |
| 3003 | 4822 116 52463 | 22k 5% 0,5W | 3034 | 4822 116 52428 | 560Ω 5% |
| 3004 | 4822 111 30499 | 4Ω 5% 0,33W Safety Resistor | 3035 | 4822 116 52428 | 560Ω 5% |
| 3005 | 4822 116 52472 | 47k 5% | semiconductor | | |
| 3006 | 4822 116 52426 | 4k7 5% 0,5W | 6001 | 4822 209 72226 | FTD DRIVER U3090MG |
| 3007 | 4822 116 52472 | 47k 5% 0,5W Safety Resistor | 6002 | 4822 130 33732 | BZV85-C15 |
| 3008 | 4822 116 52426 | 4k7 5% 0,5W Safety Resistor | 6003 | 4822 130 30621 | 1N4148 (FSC) |
| 3009 | 4822 116 52501 | 150k 5% 0,5W Safety Resistor | 6004 | 4822 130 40938 | BC548 |
| 3010 | 4822 116 52391 | 1k 5% 0,5W | 6006 | 4822 130 30621 | 1N4148 (FSC) |
| 3011 | 4822 116 52391 | 1k 5% 0,5W | 6007 | 4822 130 30621 | 1N4148 (FSC) |
| 3012 | 4822 111 30593 | 3Ω 5% 0,33W Safety Resistor | 6008 | 4822 130 30621 | 1N4148 (FSC) |
| 3013 | 4822 111 30593 | 3Ω 5% 0,33W Safety Resistor | 6011 | 4822 130 30621 | 1N4148 (FSC) |
| 3015 | 4822 111 30499 | 4Ω 5% 0,33W Safety Resistor | 6016 | 4822 130 34173 | BZX55-C5V6 |
| 3016 | 4822 116 52472 | 47k 5% 0,5W | 6017 | 4822 209 60774 | PC74HC75P |
| 3017 | 4822 116 52413 | 2k7 5% 0,5W | 6018 | 4822 130 40938 | BC548 |
| 3018 | 4822 116 52413 | 2k7 5% 0,5W | 6019 | 4822 130 40938 | BC548 |
| 3019 | 4822 116 52413 | 2k7 5% 0,5W | 6020 | 4822 130 40938 | BC548 |
| | | | 6021 | 4822 130 40938 | BC548 |
| | | | 6022 | 4822 130 80848 | TLHG4499 |
| | | | 6023 | 4822 130 80848 | TLHG4499 |
| | | | 6024 | 4822 130 80848 | TLHG4499 |
| | | | 6025 | 4822 130 80848 | TLHG4499 |
| | | | 6027 | 4822 130 80848 | TLHG4499 |
| | | | 6028 | 4822 130 30621 | 1N4148 (FSC) |
| | | | 6029 | 4822 130 34173 | BZX55-C5V6 |
| | | | 6030 | 4822 130 34173 | BZX55-C5V6 |

ELECTRICAL PARTSLIST MOTOR VARIABLE LINE OUT PANEL

| | | | | | |
|--|----------------|--------------------------------|---|----------------|--------------|
| BU | | |  | | |
| BU 3 | 4822 267 30878 | CINCH VARIABLE LINE OUT SOCKET | 3110 | 4822 116 52395 | 1k2 5% 0,5W |
| | | | 3111 | 4822 116 52389 | 100Ω 5% 0,5W |
| | | | 3112 | 4822 116 52389 | 100Ω 5% 0,5W |
| | | | 3113 | 4822 116 52389 | 100Ω 5% 0,5W |
| | | | 3114 | 4822 116 52389 | 100Ω 5% 0,5W |
| motor potmeter | | | 3115 | 4822 116 52395 | 1k2 5% 0,5W |
| 1101 | 4822 101 30615 | motor potmeter 10kΩ log 20% | 3116 | 4822 116 52395 | 1k2 5% 0,5W |
| | | | 3117 | 4822 116 52395 | 1k2 5% 0,5W |
| | | | 3118 | 4822 116 52395 | 1k2 5% 0,5W |
|  | | | semiconductor | | |
| 2101 | 4822 124 22339 | 100μF 20% 25V | 6101 | 5322 209 86234 | NE5532N |
| 2102 | 4822 124 22339 | 100μF 20% 25V | 6103 | 4822 130 44121 | BC338 |
| 2103 | 4822 124 41528 | 100μF 25V | 6104 | 4822 130 44121 | BC338 |
| 2104 | 4822 124 41528 | 100μF 25V | 6105 | 4822 130 44121 | BC338 |
| 2105 | 4822 124 22339 | 100μF 20% 25V | 6106 | 4822 130 44121 | BC338 |
| 2106 | 4822 124 22339 | 100μF 20% 25V | 6107 | 4822 130 44121 | BC338 |
| | | | 6108 | 4822 130 44121 | BC338 |
|  | | | | | |
| 3101 | 4822 116 52389 | 100Ω 5% 0,5W | | | |
| 3102 | 4822 116 52389 | 100Ω 5% 0,5W | | | |
| 3105 | 4822 111 30508 | 10Ω 5% 0,33W Safety Resistor | | | |
| 3106 | 4822 111 30508 | 10Ω 5% 0,33W Safety Resistor | | | |
| 3109 | 4822 116 52395 | 1k2 5% 0,5W | | | |

ELECTRICAL PARTSLIST HEADPHONE PANEL

| | | | | | |
|--|----------------|--|---|----------------|------------------------------|
| BU | | |  | | |
| BU 5 | 4822 267 31065 | HEADPHONE SOCKET only for /01B/02B/04B/05B/06B | 3206 | 4822 111 30508 | 10Ω 5% 0,33W Safety Resistor |
| BU 5 | 4822 267 31106 | HEADPHONE SOCKET only for /02G/04G | 3207 | 4822 116 52461 | 18k 5% 0,5W |
| | | | 3208 | 4822 116 52461 | 18k 5% 0,5W |
| miscellaneous | | | 3209 | 4822 116 52395 | 1k2 5% 0,5W |
| 1201 | 4822 102 10398 | dual potmeter 10kΩ log | 3210 | 4822 116 52395 | 1k2 5% 0,5W |
| | | | 3211 | 4822 116 52398 | 150Ω 5% 0,5W |
| | | | 3212 | 4822 116 52398 | 150Ω 5% 0,5W |
|  | | | semiconductor | | |
| 2201 | 5322 124 21762 | 100μF 20% 10V | 6201 | 4822 209 82362 | NJM4556D |
| 2202 | 5322 124 21762 | 100μF 20% 10V | 6203 | 4822 130 44121 | BC338 |
| 2203 | 5322 124 21711 | 100μF 20% 25V | 6204 | 4822 130 44121 | BC338 |
| 2204 | 5322 124 21711 | 100μF 20% 25V | | | |
|  | | | | | |
| 3201 | 4822 116 52389 | 100Ω 5% 0,5W | | | |
| 3202 | 4822 116 52389 | 100Ω 5% 0,5W | | | |
| 3203 | 4822 116 52452 | 10k 5% 0,5W | | | |
| 3204 | 4822 116 52452 | 10k 5% 0,5W | | | |
| 3205 | 4822 111 30508 | 10Ω 5% 0,33W Safety Resistor | | | |

| ⊗  Chips 50 V NP0 S1206 | | | ⊗  Chips 0,125 W S1206 | | | ⊗  Chips 0,125 W S1206 | | | 1U |
|---|--------|----------------|---|----|----------------|---|----|----------------|----|
| 1 pF | 5% | 4822 122 32479 | 4,7 E | 5% | 5322 111 90376 | 6,8 k | 2% | 4822 111 90544 | |
| 1,2 pF | 5% | 4822 122 33013 | 5,1 E | 5% | 4822 111 90393 | 7,5 k | 2% | 4822 111 90276 | |
| 1,5 pF | 5% | 4822 122 31792 | 5,6 E | 5% | 4822 111 90394 | 8,2 k | 2% | 5322 111 90118 | |
| 1,8 pF | 5% | 4822 122 32087 | 6,2 E | 5% | 4822 111 90395 | 9,1 k | 2% | 4822 111 90373 | |
| 2,2 pF | 5% | 4822 122 32425 | 6,8 E | 5% | 4822 111 90254 | 10 k | 2% | 4822 111 90249 | |
| 3,3 pF | 5% | 4822 122 32079 | 7,5 E | 5% | 4822 111 90396 | 11 k | 2% | 4822 111 90337 | |
| 3,9 pF | 5% | 4822 122 32081 | 8,2 E | 5% | 4822 111 90397 | 12 k | 2% | 4822 111 90253 | |
| 4,7 pF | 5% | 4822 122 32082 | 9,1 E | 5% | 4822 111 90398 | 13 k | 2% | 4822 111 90509 | |
| 5,6 pF | 5% | 4822 122 32506 | 10 E | 2% | 5322 111 90095 | 15 k | 2% | 4822 111 90196 | |
| 6,8 pF | 5% | 4822 122 32507 | 11 E | 2% | 4822 111 90338 | 16 k | 2% | 4822 111 90346 | |
| 8,2 pF | 5% | 4822 122 32083 | 12 E | 2% | 4822 111 90341 | 18 k | 2% | 4822 111 90238 | |
| 10 pF | 5% | 4822 122 31971 | 13 E | 2% | 4822 111 90343 | 20 k | 2% | 4822 111 90349 | |
| 12 pF | 5% | 4822 122 32139 | 15 E | 2% | 4822 111 90344 | 22 k | 2% | 4822 111 90251 | |
| 15 pF | 5% | 4822 122 32504 | 16 E | 2% | 4822 111 90347 | 24 k | 2% | 4822 111 90512 | |
| 18 pF | 5% | 4822 122 31769 | 18 E | 2% | 5322 111 90139 | 27 k | 2% | 4822 111 90542 | |
| 22 pF | 10% | 4822 122 31837 | 20 E | 2% | 4822 111 90352 | 30 k | 2% | 4822 111 90216 | |
| 27 pF | 5% | 4822 122 31966 | 22 E | 2% | 4822 111 90186 | 33 k | 2% | 5322 111 90267 | |
| 33 pF | 5% | 4822 122 31756 | 24 E | 2% | 4822 111 90355 | 36 k | 2% | 4822 111 90514 | |
| 39 pF | 5% | 4822 122 31972 | 27 E | 2% | 5322 111 90105 | 39 k | 2% | 5322 111 90108 | |
| 47 pF | 5% | 4822 122 31772 | 30 E | 2% | 4822 111 90356 | 43 k | 2% | 4822 111 90363 | |
| 56 pF | 5% | 4822 122 31774 | 33 E | 2% | 4822 111 90357 | 47 k | 2% | 4822 111 90543 | |
| 68 pF | 5% | 4822 122 31961 | 36 E | 2% | 4822 111 90359 | 51 k | 2% | 5322 111 90274 | |
| 82 pF | 10% | 4822 122 31839 | 39 E | 2% | 4822 111 90361 | 56 k | 2% | 4822 111 90573 | |
| 100 pF | 5% | 4822 122 31765 | 43 E | 2% | 5322 116 90125 | 62 k | 2% | 5322 111 90275 | |
| 120 pF | 5% | 4822 122 31766 | 47 E | 2% | 4822 111 90217 | 68 k | 2% | 4822 111 90202 | |
| 150 pF | 5% | 4822 122 31767 | 51 E | 2% | 4822 111 90365 | 75 k | 2% | 4822 111 90574 | |
| 180 pF | 2% | 4822 122 31794 | 56 E | 2% | 4822 111 90239 | 82 k | 2% | 4822 111 90575 | |
| 220 pF | 5% | 4822 122 31965 | 62 E | 2% | 4822 111 90367 | 91 k | 2% | 5322 111 90277 | |
| 270 pF | 5% | 4822 122 32142 | 68 E | 2% | 4822 111 90203 | 100 k | 2% | 4822 111 90214 | |
| 330 pF | 10% | 4822 122 31642 | 75 E | 2% | 4822 111 90371 | 110 k | 2% | 5322 111 90269 | |
| 390 pF | 5% | 4822 122 31771 | 82 E | 2% | 4822 111 90124 | 120 k | 2% | 4822 111 90568 | |
| 470 pF | 5% | 4822 122 31727 | 91 E | 2% | 4822 111 90375 | 130 k | 2% | 4822 111 90511 | |
| 560 pF | 5% | 4822 122 31773 | 100 E | 2% | 5322 111 90091 | 150 k | 2% | 5322 111 90099 | |
| 680 pF | 5% | 4822 122 31775 | 110 E | 2% | 4822 111 90335 | 160 k | 2% | 5322 111 90264 | |
| 820 pF | 5% | 4822 122 31974 | 120 E | 2% | 4822 111 90339 | 180 k | 2% | 4822 111 90565 | |
| 1 nF | 10% | 5322 122 31647 | 130 E | 2% | 4822 111 90164 | 200 k | 2% | 4822 111 90351 | |
| 1,2 nF | 5% | 4822 122 31807 | 150 E | 2% | 5322 111 90098 | 220 k | 2% | 4822 111 90197 | |
| 1,5 nF | 10% | 4822 122 31781 | 160 E | 2% | 4822 111 90345 | 240 k | 2% | 4822 111 90215 | |
| 1,8 nF | 10% | 4822 122 32153 | 180 E | 2% | 5322 111 90242 | 270 k | 2% | 4822 111 90302 | |
| 2,2 nF | 10% | 4822 122 31644 | 200 E | 2% | 4822 111 90348 | 300 k | 2% | 5322 111 90266 | |
| 2,7 nF | 10% | 4822 122 31783 | 220 E | 2% | 4822 111 90178 | 330 k | 2% | 4822 111 90513 | |
| 3,3 nF | 10% | 4822 122 31969 | 240 E | 2% | 4822 111 90353 | 360 k | 2% | 4822 111 90515 | |
| 3,9 nF | 10% | 4822 122 32566 | 270 E | 2% | 4822 111 90154 | 390 k | 2% | 4822 111 90182 | |
| 4,7 nF | 10% | 4822 122 31784 | 300 E | 2% | 4822 111 90156 | 430 k | 2% | 4822 111 90168 | |
| 5,6 nF | 10% | 4822 122 31916 | 330 E | 2% | 5322 111 90106 | 470 k | 2% | 4822 111 90161 | |
| 6,8 nF | 10% | 4822 122 31976 | 360 E | 1% | 4822 111 90288 | 510 k | 2% | 4822 111 90364 | |
| 10 nF | 10% | 4822 122 31728 | 360 E | 2% | 4822 111 90358 | 560 k | 2% | 4822 111 90169 | |
| 12 nF | 10% | 5322 122 31648 | 390 E | 2% | 5322 111 90138 | 620 k | 2% | 4822 111 90213 | |
| 15 nF | 10% | 4822 122 31782 | 430 E | 2% | 4822 111 90362 | 680 k | 2% | 4822 111 90368 | |
| 18 nF | 10% | 4822 122 31759 | 470 E | 2% | 5322 111 90109 | 750 k | 2% | 4822 111 90369 | |
| 22 nF | 10% | 4822 122 31797 | 510 E | 2% | 4822 111 90245 | 820 k | 2% | 4822 111 90205 | |
| 27 nF | 10% | 4822 122 32541 | 560 E | 2% | 5322 111 90113 | 910 k | 2% | 4822 111 90374 | |
| 33 nF | 10% | 4822 122 31981 | 620 E | 2% | 4822 111 90366 | 1 M | 2% | 4822 111 90252 | |
| 47 nF | 10% | 4822 122 32542 | 680 E | 2% | 4822 111 90162 | 1,1 M | 5% | 4822 111 90408 | |
| 56 nF | 10% | 4822 122 32183 | 750 E | 2% | 5322 111 90306 | 1,2 M | 5% | 4822 111 90409 | |
| 100 nF | 10% | 4822 122 31947 | 820 E | 2% | 4822 111 90171 | 1,3 M | 5% | 4822 111 90411 | |
| 180 nF | 10% | 4822 122 32915 | 910 E | 2% | 4822 111 90372 | 1,5 M | 5% | 4822 111 90412 | |
| 220 nF | 20% | 4822 122 32715 | 1 k | 2% | 5322 111 90092 | 1,6 M | 5% | 4822 111 90413 | |
| ⊗  Chips 0,125 W S1206 NP0 | | | 1,1 k | 2% | 4822 111 90336 | 1,8 M | 5% | 4822 111 90414 | |
| 0 E | jumper | 4822 111 90163 | 1,2 k | 2% | 5322 111 90096 | 2 M | 5% | 4822 111 90415 | |
| 1 E | 5% | 4822 111 90184 | 1,3 k | 2% | 4822 111 90244 | 2,2 M | 5% | 4822 111 90185 | |
| 1,1 E | 5% | 4822 111 90377 | 1,5 k | 2% | 4822 111 90151 | 2,4 M | 5% | 4822 111 90416 | |
| 1,2 E | 5% | 4822 111 90378 | 1,6 k | 2% | 5322 111 90265 | 2,7 M | 5% | 4822 111 90417 | |
| 1,3 E | 5% | 4822 111 90379 | 1,8 k | 2% | 5322 111 90101 | 3 M | 5% | 4822 111 90418 | |
| 1,5 E | 5% | 4822 111 90381 | 2 k | 2% | 4822 111 90165 | 3,3 M | 5% | 4822 111 90191 | |
| 1,6 E | 5% | 4822 111 90382 | 2,2 k | 2% | 4822 111 90248 | 3,6 M | 5% | 4822 111 90419 | |
| 1,8 E | 5% | 4822 111 90383 | 2,4 k | 2% | 4822 111 90289 | 3,9 M | 5% | 4822 111 90421 | |
| 2 E | 5% | 4822 111 90384 | 2,7 k | 2% | 4822 111 90569 | 4,3 M | 5% | 4822 111 90422 | |
| 2,2 E | 5% | 5322 111 90104 | 3 k | 2% | 4822 111 90198 | 4,7 M | 5% | 4822 111 90423 | |
| 2,4 E | 5% | 4822 111 90385 | 3,3 k | 2% | 4822 111 90157 | 5,1 M | 5% | 4822 111 90424 | |
| 2,7 E | 5% | 4822 111 90386 | 3,6 k | 2% | 5322 111 90107 | 5,6 M | 5% | 4822 111 90425 | |
| 3 E | 5% | 4822 111 90387 | 3,9 k | 2% | 4822 111 90571 | 6,2 M | 5% | 4822 111 90426 | |
| 3,3 E | 5% | 4822 111 90388 | 4,3 k | 2% | 4822 111 90167 | 6,8 M | 5% | 4822 111 90235 | |
| 3,6 E | 5% | 4822 111 90389 | 4,7 k | 2% | 5322 111 90111 | 7,5 M | 5% | 4822 111 90427 | |
| 3,9 E | 5% | 4822 111 90391 | 5,1 k | 2% | 5322 111 90268 | 8,2 M | 5% | 4822 111 90237 | |
| 4,3 E | 5% | 4822 111 90392 | 5,6 k | 2% | 4822 111 90572 | 9,1 M | 5% | 4822 111 90428 | |
| | | | 6,2 k | 2% | 4822 111 90545 | 10 M | 5% | 5322 111 91141 | |

| SYMBOL | DESCRIPTION |
|--------|---|
| | Capacitor, general |
| | Electrolytic capacitor (+ and - may be omitted) |
| | Bipolar electrolytic capacitor (+ may be omitted) |
| | Resistor, general |
| | N.T.C. resistor |
| | P.T.C. resistor |
| | Voltage divider with preset adjustment |
| | Chip jumper |
| | Pin contact |
| | Bus contact |
| | Coil, self-induction |
| | Transformer with electrically poor conducting core and adjustable pre-magnetization |
| | Diode |
| | Zener diode |
| | Stabistor |
| | Double variable capacity diode (in one envelope) |
| | Photo conductive diode |
| | L.E.D. |

| SYMBOL | DESCRIPTION |
|--------|--|
| | Transistor (N.P.N.) |
| | Transistor (P.N.P.) |
| | Direct current (DC) |
| | Alternating current (AC) |
| | Earth (functional) |
| | Frame or chassis connection |
| | Direction in which AC voltages are passed on (optional present) |
| | Interrupted line |
| | Not-connected crossing lines |
| | Connected lines |
| | Cable tree with lead-outs |
| | Changer, general (arrow is optional) |
| | Voltage Controlled Oscillator |
| | Band-pass filter |
| | Phase changing network |
| | Delay element |
| | Amplifier, general |

| SYMBOL | DESCRIPTION |
|--------|---|
| | Operational amplifier |
| | Differential amplifier |
| | Splitter |
| | Operational amplifier with open output |
| | Exclusive OR gate |
| | True/complement amplifier with high input |
| | Flip Flop |
| | AND gate |
| | OR gate |
| | Inverter with high input |

| | | | |
|--|---|--------------------|---|
| | 0.2W (CR 16) | ≧ 220kΩ ≧ 270kΩ | 5% 10% |
| | 0.33W (CR 25) | ≧ 1MΩ ≧ 1MΩ | 5% 10% |
| | 0.33W (SFR25) | | 5% |
| | 0.25W (VR 25) | ≧ 10MΩ ≧ 10MΩ | 5% 10% |
| | 0.5W (CR 37) | ≧ 1MΩ ≧ 1MΩ | 5% 10% |
| | 0.67W (CR 52) | | 5% |
| | 1.15W (CR 68) | | 5% |
| | Ceramic plate | | |
| | Polyester flat foil | | |
| | Polyester mepolesco | | |
| | Mylar (Polyester flat foil small sized) | | |
| | Micropoco | | |
| | Tubular ceramic (body colour pink or yellow/green) | | |
| | Miniature single elco | | |
| | Subminiature tantalum | | |
| | | | * a=2.5V b=4V c=6.3V d=10V e=16V f=25V g=40V h=63V i=100V j=125V l=125V m=150V n=160V q=200V r=250V s=300V t=350V u=400V v=500V w=630V x=1000V A=1.6V B=6V C=12V D=15V E=20V F=35V G=50V H=75V I=80V |