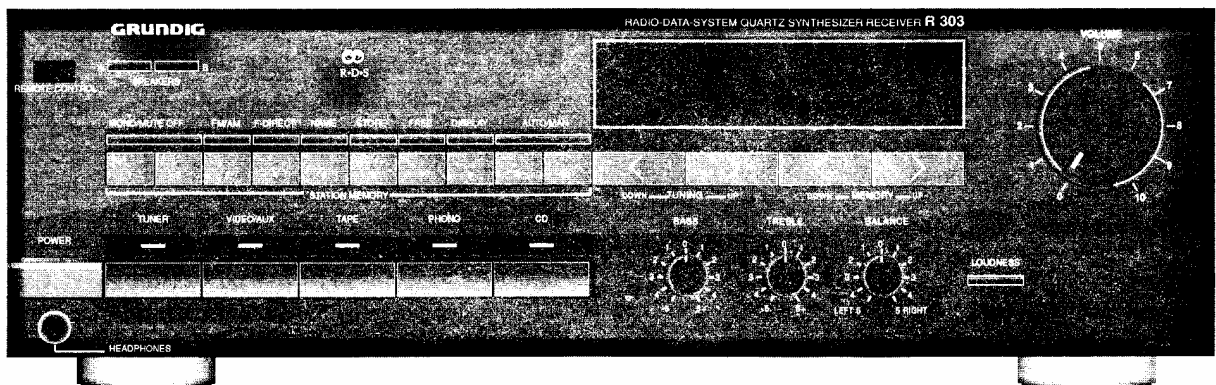


## GRUNDIG-FRANCE SERVICE DOCUMENTATION TECHNIQUE ARCHIVES

R 303

R 303 (9.55129-8151 / G.LA 0651)



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## Technische Daten

**Empfangsbereiche:**

FM	87,5...108 MHz
MW	528...1605 kHz
MW (USA-Version)	520...1620 kHz

**Abstimmraster:**

FM	Suchlauf 50 kHz/Handabstimmung 25 kHz
MW	Suchlauf 9 kHz/Handabstimmung 1 kHz
MW (USA-Version)	Suchlauf 10 kHz/Handabstimmung 1 kHz

**FM-Empfindlichkeit (75Ω, 40 kHz Hub)**

UKW-Mono:	1,1 μV für 26 dB Signal/Rausch-Abstand
UKW-Stereo:	35 μV für 46 dB Signal/Rausch-Abstand

**Stereo-Umschaltswelle:** ..... 15 μV bei 98 MHz an 75 Ω

**Muting-Schwelle:**

Muting aus/ein:	12/9 μV bei 98 MHz an 75 Ω
-----------------	----------------------------

**FM-Fremdspannungsabstand:**  
gemessen im Bereich 31,5 Hz...15000 Hz, bei 40 kHz Hub und 1 mV an 75 Ω. Spitzenwert nach DIN 45405/Effektivwert

Mono	>66/71 dB
Stereo	>64/68 dB

**FM-Geräuschspannungsabstand:**  
Bei 1 mV an 75 Ω gemessen bei 40 kHz.  
Spitzenwert nach DIN/Effektivwert über Kurve »A«:

Mono	>66/74 dB
Stereo	>61/70 dB

**Übertragungsbereich bei FM**  
von Ant. bis NF-Ausg. .... <10 Hz...< 16 kHz ≤3 dB

**Klirrfaktor**  
gemessen nach DIN 45500 bei 1 mV an 75 Ω

Mono	≤0,2% bei 1 kHz und 40 kHz Hub
Stereo	≤0,4% bei 1 kHz und 40 kHz Hub

**Dynamische Trennschärfe**  
± 300 kHz, bez. auf 40 kHz Hub, -30 dB Störspannung

Mono:	≥80 dB
Stereo:	≥70 dB

**FM-Übersprechdämpfung**  
1 mV Antennenspannung, 47,5 kHz Gesamthub:  
1 kHz selektiv gemessen ..... >40 dB

**Ausgangsleistungen (DIN 45500):**

Musikleistung an 8 Ω	2 x 130 W
Nennleistung an 8 Ω	2 x 75 W

**Klirrfaktor:**  
bei Nennleistung -1 dB ..... < 0,01%

**Intermodulation:** ..... ≤0,02%

**Dämpfungsfaktor (8Ω):** ..... ≥ 50

**Übertragungsbereich:**

Phono:	20 Hz-20 kHz (-3 dB)
Tape,CD,Video/Aux:	8 Hz-45 kHz (-3 dB)

**Übersprechdämpfung L-R (für 1 kHz):**

Phono:	≥ 65 dB
Tape,CD,Video/Aux:	≥ 75 dB

**Fremdspannungsabstand:**  
bezogen auf Nennleistung

Phono (IEC):	75 dB
Tape,CD,Video/Aux (IEC):	95 dB
Phono (DIN):	70 dB
Tape,CD,Video/Aux (DIN):	91 dB

**Geräuschspannungsabstand:**

Phono (IEC):	79 dB
Tape,CD,Video/Aux (IEC):	98 dB
Phono (DIN):	74 dB
Tape,CD,Video/Aux (DIN):	91 dB

**Eingangsempfindlichkeit (bei Nennleistung):**

Phono:	2,2 mV
Tape,CD,Video/Aux:	200 mV

**Maximale Eingangsspannung:**  
(Übersteuerungsfestigkeit)

Phono:	120 mV
Tuner,Tape,CD,Video/Aux:	10 V

**Maximale Leistungsaufnahme:** ..... ohne Signal 30 W  
..... 2x75 W/8Ω 270 W

## Specification

**Waveband Coverage:**

FM	87.5...108 MHz
MW	528...1605 kHz
MW (US version)	520...1620 kHz

**Tuning steps:**

FM	Station search 50 kHz/Manual tuning 25 kHz
MW	Station search 9 kHz/Manual tuning 1 kHz
MW (US version)	Station search 10 kHz/Manual tuning 1 kHz

**FM Sensitivity (75Ω, 40 kHz deviation)**

UKW-Mono:	1.1 μV at 26 dB signal/noise ratio
UKW-Stereo:	35 μV at 46 dB signal/noise ratio

**Switch-over Threshold:** ..... 15 μV at 98 MHz into 75 Ω

**Muting Threshold:**

Muting off/on:	12/9 μV at 98 MHz into 75 Ω
----------------	-----------------------------

**FM-Signal-to-Noise Ratio (Unweighted):**  
In the range 31.5 Hz...15000 Hz, 40 kHz deviation and 1 mV into 75 Ω.  
Peak value according to DIN 45405/rms value

Mono	≥66/71 dB
Stereo	≥64/68 dB

**FM-Signal-to-Noise Ratio (Weighted):**  
Measured at 1 mV into 75 Ω, 40 kHz deviation.  
Peak value according to DIN/rms value to curve »A«:

Mono	≥66/74 dB
Stereo	≥61/70 dB

**Frequency Response on FM**  
from Ant. to AF-Output ..... <10 Hz...< 16 kHz ≤3 dB

**Distortion Factor**  
Measured according to DIN 45500 at 1 mV into 75 Ω

Mono	≤0,2% at 1 kHz and 40 kHz deviation
Stereo	≤0,4% at 1 kHz and 40 kHz deviation

**Dynamic Selectivity**  
± 300 kHz, referred to 40 kHz deviation, -30 dB noise

Mono:	≥80 dB
Stereo:	≥70 dB

**FM Crosstalk**  
1 mV aerial voltage, 47.5 kHz total deviation:  
1 kHz measured selectively ..... >40 dB

**Output Power (DIN 45500):**

Music Power into 8 Ω	2 x 130 W
Nominal Power into 8 Ω	2 x 75 W

**Total Harmonic Distortion:**  
at nominal power -1 dB ..... < 0.01%

**Intermodulation Distortion:** ..... ≤0.02%

**Damping Factor (8Ω):** ..... ≥ 50

**Frequency Response:**

Phono:	20 Hz-20 kHz (-3 dB)
Tape,CD,Video/Aux:	8 Hz-45 kHz (-3 dB)

**Stereo Separation (for 1 kHz):**

Phono:	≥ 65 dB
Tape,CD,Video/Aux:	≥ 75 dB

**Signal-to-Noise Ratio (Unweighted):**  
at nominal power

Phono (IEC):	75 dB
Tape,CD,Video/Aux (IEC):	95 dB
Phono (DIN):	70 dB
Tape,CD,Video/Aux (DIN):	91 dB

**Weighted Signal-to-Noise Ratio:**

Phono (IEC):	79 dB
Tape,CD,Video/Aux (IEC):	98 dB
Phono (DIN):	74 dB
Tape,CD,Video/Aux (DIN):	91 dB

**Input Sensitivity (at nominal power):**

Phono:	2.2 mV
Tape,CD,Video/Aux:	200 mV


**Maximum Input Voltage:**  
(Input overload point)

Phono:	120 mV
Tuner,Tape,CD,Video/Aux:	10 V

**Maximum Power Input:** ..... without signal 30 W  
..... 2x75 W/8Ω 270 W


## Sicherheitsvorschriften / Safety requirements / Prescrizioni de sicurezza / Prescriptions de sécurité / Prescripciones de seguridad

**D** **Achtung:** Bei Eingriffen ins Gerät sind die Sicherheitsvorschriften nach VDE 701 (reparaturbezogen) bzw. VDE 0860 / IEC 65 (gerätebezogen) zu beachten!

 Bauteile nach IEC- bzw. VDE-Richtlinien! Im Ersatzfall nur Teile mit gleicher Spezifikation verwenden!


**MOS** - Vorschriften beim Umgang mit MOS - Bauteilen beachten!

**GB** **Attention:** Please observe the applicable safety requirements according to VDE 701 (concerning repairs) and VDE 0860 / IEC 65 (concerning type of product)!

 Components to IEC or VDE guidelines! Only use components with the same specifications for replacement!

Observe **MOS** components handling instructions when servicing!


**I** **Attenzione:** Osservare le corrispondenti prescrizioni di sicurezza VDE 701 (concernente servizio) e VDE 0860 / IEC 65 (concernente il tipo di prodotto)!

 Componenti secondo le norme VDE risp. te IEC! In caso di sostituzione impiegare solo componenti con le stesse caratteristiche.

Osservare le relative prescrizioni durante, lavori con componenti **MOS**!

**D**

### Sicherheitsbestimmungen

Nach Servicearbeiten ist bei Geräten der Schutzklasse II die Messung des Isolationswiderstandes und des Ableitstromes bei eingeschaltetem Gerät nach **VDE 0701 / Teil 200** bzw. der am Aufstellort geltenden Vorschrift, durchzuführen!  
Dieses Gerät entspricht der Schutzklasse II, erkennbar durch das Symbol .

Wir empfehlen die Messungen mit dem **METRATESTER 3/4** durchzuführen. (Meßgerät zur Prüfung elektrischer Geräte nach VDE 0701).  
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
Ist die Sicherheit des Gerätes nicht gegeben, weil

- eine Instandsetzung unmöglich ist
  - oder der Wunsch des Benützers besteht, die Instandsetzung nicht durchführen zu lassen,
- so muß dem Betreiber die vom Gerät ausgehende Gefahr schriftlich mitgeteilt werden.

**GB**

### Safety Standard Compliance

After service work on a product conforming to the Safety Class II, the insulating resistance and the leakage current with the product switch on must be checked according to VDE 0701 or to the specification valid at the installation location!

This product conforms to the Safety Class II, as identified by the symbol .


We recommend that the measurements are carried out using the **METRATESTER 3/4**. (Test equipment for checking electrical products to VDE 0701).

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If the safety of the product is not proved, because


- a repair and restoration is impossible
  - or the request of the user is that the restoration is not to be carried out,
- the operator of the product must be warned of the danger by a written warning.

**F** **Attention:** Priere d'observer les prescriptions de securite VDE 701 (concernant les reparations) et VDE 0860 / IEC 65 (concernant le type de produit)!

 Composants répondant aux normes VDE ou IEC. Les remplacer uniquement par des composants ayant les memes spécifications.

Lors de la manipulation des circuits **MOS**, respecter les prescriptions **MOS**!

**E** **Atención:** Recomendamos las normas de seguridad VDE u otras normas equivalentes, por ejemplo: VDE 701 para reparaciones, VDE 0860 / IEC 65 para aparatos!

 Componentes que cumplen las normas VDE/IEC. En caso de sustitución, emplear componentes con idénticas especificaciones!

Durante la reparacion observar las normas sobre componentes **MOS**!

**USA**

U.S. & Canada




**Attention:** This set can only be operated from AC mains of 120 V/60 Hz. Also observe the information given on the rear of the set.


**CAUTION**-for continued protection against risk of fire replace only with same type fuses!

**CAUTION:** to reduce the risk of electric shock, do not remove cover (or back), no user-serviceable parts inside, refer servicing to qualified service personnel. Observe **MOS** components handling instructions when servicing!

### Empfehlungen für den Servicefall


- Nur Original - Ersatzteile verwenden.  
Bei Bauteilen oder Baugruppen mit der Sicherheitskennzeichnung  sind Original - Ersatzteile zwingend notwendig.
- Auf Sollwert der Sicherungen achten.
- Zur Sicherheit beitragende Teile des Gerätes dürfen weder beschädigt noch offensichtlich ungeeignet sein.
- Dies gilt besonders für Isolierungen und Isolierteile.
- Netzleitungen und Anschlußleitungen sind auf äußere Mängel vor dem Anschluß zu prüfen. Isolation prüfen!
- Die Funktionssicherheit der Zugentlastung und von Biegeschutz-Tüllen ist zu prüfen.
- Thermisch belastete Lötstellen absaugen und neu löten.
- Belüftungen frei lassen.

### Recommendation for service repairs

- Use only original spare parts.  
With components or assemblies accompanied with the Safety Symbol  only original-spare parts are strictly to be used.
- Use only original fuse value.
- Safety compliance, parts of the product must not be visually damaged or unsuitable. This is valid especially for insulators and insulating parts.
- Mains leads and connecting leads should be checked for external damage before connection. Check the insulation!
- The functional safety of the tension relief and bending protection bushes are to be checked:
- Thermally loaded solder pads are to be suck off and re-soldered.
- Ensure that the ventilation slots are not obstructed.

**F****Prescriptions de securite**

Suite aux travaux de maintenance sur les appareils de la classe II, il convient de mesurer la résistance d'isolement et le courant de fuite sur l'appareil en état de marche, conformément à la norme VDE 0701 § 200, ou selon les prescriptions en vigueur sur le lieu de fonctionnement de l'appareil!

Cet appareil est conforme aux prescriptions de sécurité classe II, signalé par le symbole .

Pour ces mesures, nous préconisons l'utilisation du **METRA-TESTER 3/4** (instrument de mesure pour le contrôle d'appareils électriques conformes à la norme VDE 0701).

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Dans le cas où la sécurité de l'appareil n'est pas assurée pour les raisons suivantes:

- la remise en état est impossible
- l'utilisateur ne souhaite pas la remise en état de l'appareil.

L'utilisateur doit être informé par écrit du danger que représente l'utilisation de l'appareil.

**I****Norme di sicurezza**

Successivamente ai lavori di riparazione, negli apparecchi della classe di protezione II occorre effettuare la misura della resistenza di isolamento e della corrente di dispersione quando l'apparecchio è acceso, secondo le norme VDE 0701 / parte 200 e rispettivamente le norme locali!

Questo apparecchio corrisponde alla classe di protezione II ed è riconoscibile dal simbolo .

Si raccomanda di effettuare le misure con lo strumento **METRA-TESTER 3/4** (strumento di misura per il controllo di apparecchi elettrici secondo VDE 0701).

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Se la sicurezza dell'apparecchio non è raggiunta, perché

- una riparazione non è possibile
- oppure è desiderio del cliente che una riparazione non avvenga in questi casi si deve comunicare per iscritto all'utilizzatore.

la pericolosità dell'apparecchio riguardo il suo isolamento.

**E****DISPOSICIONES PARA LA SEGURIDAD**

Después de operaciones de servicio en aparatos de la clase de protección II, se llevará a cabo la medida de la resistencia de aislamiento y de la corriente derivada, con el aparato conectado, de acuerdo con VDE 0701 o de las disposiciones vigentes en el lugar de instalación.

Este aparato corresponde a la clase de protección II, reconocible por el símbolo .

Aconsejamos llevar a cabo las medidas con el **METRA-TESTER 3/4** (Instrumento de medida para la comprobación de aparatos eléctricos según VDE 0701).

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Si no se cumple la seguridad del aparato, porque

- la puesta en orden es imposible, o
- existe el deseo del usuario de no realizarla, se ha de comunicar a quien lo haga funcionar, por escrito, del peligro dimanante del aparato.

**Recommandations pour la maintenance**

- Utiliser exclusivement des pièces de rechange d'origine. Les composants et ensembles de composants signalés par le symbole  $\Delta$  doivent être impérativement remplacés par des pièces d'origine.
- Respecter la valeur nominale des fusibles.
- Veiller au bon état et la conformité des pièces contribuant à la sécurité de fonctionnement de l'appareil. Ceci s'applique particulièrement aux isollements et pièces isolantes.
- Vérifier le bon état extérieur des câbles secteur et des câbles de raccordement au point de vue isolement avant la mise sous tension.
- Vérifier le bon état des protections de gaine.
- Nettoyer les soudures avant de les renouveler.
- Dégager les voies d'aération.

**Raccomandazione per il servizio assistenza**

- Impiegare solo componenti originali:  
I componenti o i gruppi di componenti contraddistinti dall'indicazione  $\Delta$  devono assolutamente venir sostituiti con parti originale.
- Osservare il valore nominale dei fusibili.
- I componenti che concorrono alla sicurezza dell'apparecchio non possono essere né danneggiati né risultare visibilmente inadatti. Questo vale soprattutto per isolamenti e parti isolate.
- I cavi di rete e di collegamento vanno controllati prima dell'utilizzo affinché non presentino imperfezioni esteriori. Controllare l'isolamento.
- È necessario controllare la sicurezza dei fermacavi e delle guaine flessibili.
- Saldature caricate termicamente vanno rifatte.
- Lasciare libere le fessure di areazione.

**Recomendaciones para caso de servicio**

- Emplear sólo componentes originales.  
Con componentes o grupos constructivos con el indicativo de seguridad  $\Delta$  son de obligada necesidad piezas de repuesto originales.
- Las partes del aparato que contribuyan a la seguridad del mismo no deben estar deterioradas ni ser manifiestamente inadecuadas.
- Esto es especialmente válido para aislamientos o piezas aislantes.
- Los cables de red y de conexión se comprobarán, antes de conectarlos, en cuanto a defectos externos. Comprobar el aislamiento.
- Se ha de comprobar la función de seguridad de la compensación de tiro o de los manguitos de protección contra doblamientos.
- Reparar los puntos de soldadura sometidos a carga térmica.
- Mantener libres los canales aireación.

## Ausbauhinweise

### Gehäuseoberteil

- 6 Schrauben (A) herausschrauben.

### Chassisplatte

- 3 Schrauben (B) herausschrauben.
- 4 Schrauben (C) herausschrauben.
- Steckverbindungen lösen.

### Abschirmblech

- Chassisplatte ausbauen.
- 3 Schrauben (D) herausschrauben.

### Halterung für Speicherbatterien

- Chassisplatte ausbauen.
- 2 Schrauben (E) herausschrauben.
- Leitungen ablöten.

### Frontblende lösen

- Steckverbindungen abziehen.
- 2 Schrauben (F) herausschrauben.
- Rastnasen (G) ausrasten.

### LS-Schalterplatte

- 3 Schrauben (M) herausschrauben.
- Steckverbindungen abziehen.

### Bedienplatte

- Frontblende lösen.
- LS-Schalterplatte ausbauen
- 12 Schrauben (H) herausschrauben.
- Steckverbindungen abziehen.

### Potentiometerplatte und Lautstärkeplatte

- Steckverbindungen abziehen.
- Lautstärke-, Bass-, Treble- und Balanceknopf abziehen.
- 4 Muttern (I) abschrauben.

### Kopfhörerbuchsenplatte

- Frontblende lösen.
- 2 Schraube (K) herausschrauben.

### Netzschalterplatte

- Frontblende lösen.
- 2 Schrauben (L) herausschrauben.

### RDS Platte

- Steckverbindungen abziehen.
- 2 Schrauben (N) herausschrauben.

### NF-Platte

- Abschirmblech ausbauen.
- Steckverbindungen lösen.
- 4 Schrauben (O) herausschrauben.
- 2 Schrauben (P) herausschrauben.

### Inputplatte

- Abschirmblech ausbauen.
- 3 Schrauben (Q) herausschrauben.
- Masseverbindung ablöten.

### Trafo

- Steckverbindungen lösen.
- 4 Schrauben (R) herausschrauben.

### LS-Klemmplatte

- Steckverbindungen lösen.
- 2 Schrauben (S) herausschrauben.
- Masseverbindung ablöten.

### Netzausgangsbuchsen

- Leiterplatte ablöten.
- Netzbuchsen ausrasten und abnehmen.

## Disassembly Instructions

### Cabinet top

- Undo 6 screws (A).

### Chassis board

- Unscrew 3 screws (B).
- Unscrew 4 screws (C).
- Unplug the connectors.

### Metal screen

- Remove the Chassis board.
- Unscrew 3 screws (D).

### Box for the memory batteries

- Remove the Chassis board.
- Unscrew 2 screws (E).
- Unsolder the leads.

### Removing the front panel

- Pull out the plug connections.
- Unscrew 2 screws (F).
- Disengage catch (G).

### LS-Switch Board

- Unscrew 3 screws (M).
- Pull out the plug connections.

### Keyboard control board

- Loosen the front panel.
- Remove the LS switch board.
- Unscrew 12 screws (H).
- Pull out the plug connections.

### Potentiometer board and Volume board

- Pull out the plug connections.
- Pull off the Volume, Bass, Treble and the Balance knobs.
- Unscrew 4 nuts (I).

### Headphone socket board

- Loosen the front panel.
- Unscrew 2 screws (K).

### Power Switch board

- Loosen the front panel.
- Unscrew 2 screws (L).

### RDS Board

- Pull out the plug connections.
- Unscrew 2 screws (N).

### AF board

- Remove the metal screen.
- Pull out the plug connections.
- Unscrew 4 screws (O).
- Unscrew 2 screws (P).

### Input Board

- Remove the metal screen.
- Unscrew 3 screws (Q).
- Unsolder the ground connection.

### Transformer

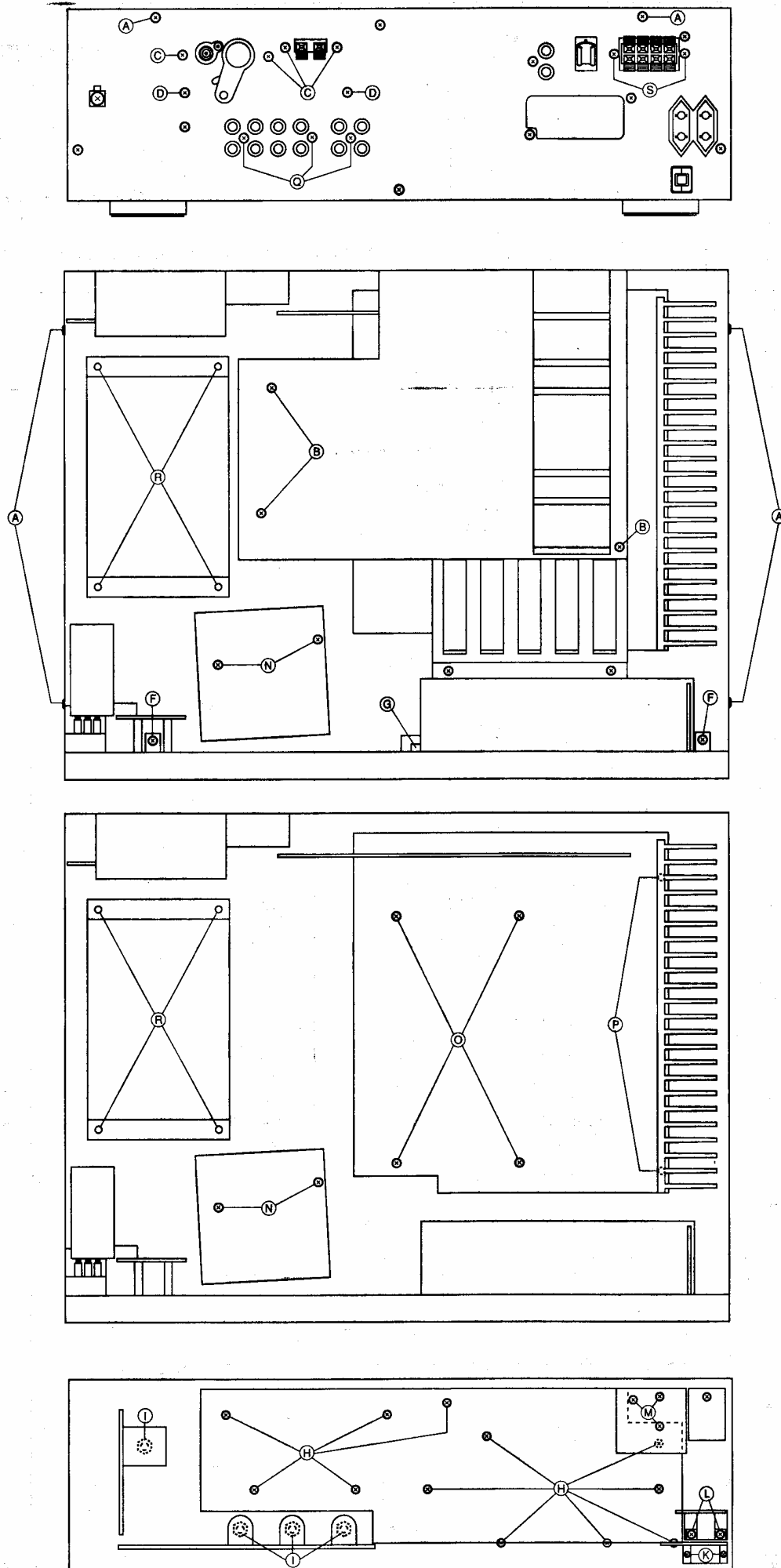
- Unplug the connectors.
- Undo 4 screws (R).

### LS-Clamp Board

- Unplug the connectors.
- Undo 4 screws (S).
- Unsolder the ground connection.

### Mains output sockets

- Unsolder the circuit board.
- Disengage the mains sockets and take them out.



# GRUNDIG

## Ersatzteilliste List of spare parts

HIFI

**D** Btx \* 32700 #

10 / 91

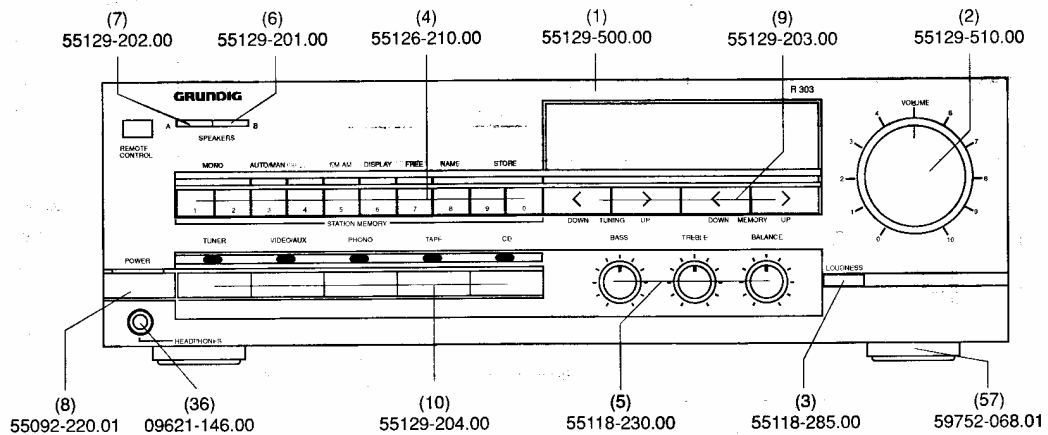
**R 303 RDS**









SACH-NR. / PART NO.: 9.55129-8151 SCHWARZ/BLACK  
BESTELL-NR. / PART NO.: G.LA 0651









POS. NR. POS. NO.	ABB. NR. FIG. NO.	SACHNUMMER PART NUMBER	ANZ. QUA.	BEZEICHUNG	DESCRIPTION
0001.000	1	55129-500.00		GEHAEUSE FRONT KPL	FRONT CABINET ASSY.
0002.000	1	55129-510.00		DREHKNOPF KPL	ROTARY KNOB CPL.
0003.000	1	55118-285.01		DRUCKTASTE / LOUDNES	KEY VOLUME
0004.000	1	55126-210.00		MEMORYKNOPF	MEMORY BUTTON
0005.000	1	55118-230.00	3	KNOPF / BASS / BALANCE / TREBLE	KNOB
0006.000	1	55129-201.00		TASTE / SPEAKER	KEY
0007.000	1	55129-202.00		TASTE / SPEAKER	KEY
0008.000	1	55092-220.01		NETZTASTE	POWER KEY
0008.100	△	59400-321.00		NETZSCHALTER TYP SDL CIP	POWER SUPPLY SWITCH
0009.000	1	55129-203.00	2	TASTENSATZ / MEMORI / TUNING	BUTTON
0010.000	1	55129-204.00		TASTE SELEKT	SELECT BUTTON
0021.000		8134-020-180	27	TASTSCHALTER /BEDIENPL.	FEATHER TOUCH SWITCH
0024.000		59400-311.00		SCHALTER (SUL 192 S) POTIPL.	SWITCH
0026.000		59401-009.00	2	SCHALTER 2 POL. / LS SCHALTERPL.	SWITCH 2 PLS.
0031.000		09623-363.00	2	KOAXIALBUCHSE	COAXIAL-SOCKET
0032.000		09623-429.00		CINCHBUCHSE 8-FACH	CINCH SOCKET 8 FOLD
0033.000		09623-431.00		CINCHBUCHSE 4-FACH	CINCH SOCKET 4 FOLD
0034.000		09623-437.01		CINCHBUCHSE	CINCH SOCKET
0036.000		09621-146.00		STEREO-KOPFHOERERBUCHSE	STEREO-HEAD SET SOCKET
0037.000		09621-236.01		SCHALTERTERMINAL	PUSH TERMINAL
0038.000		09623-404.00		EURO-EINBAUSTECKDOSE	AC-OUTLET
0039.000		55110-210.00		ANTENNENSELEKTOR	ARIAL SELECTOR
0041.000	△	55129-815.01		TRAFO KPL	TRANSFORMER ASSY.
0041.100		09602-298.00	4	SICHERUNGSHALTER / TRAFOPL.	FUSE HOLDER
0041.200	△	09623-399.00		THERMOSCHALTER 110GRAD /TR.PL.	THERMAL CUT OUT 110 DEGR.
0042.000	△	55114-600.00		NETZKABEL M.STECKERBUCHSE	MAINS CABLE ASSY.W.SOCKET
0043.000		09623-317.01		THERMOSCHUTZSCHALTER / NF PL.	TEMPERATURE SAFTY SWITCH NF PL.
0044.000		09621-113.02	2	SICHERUNGSHALTER / NF PL.	FUSE HOLDER / NF PL.
0051.000		59600-071.00		AM-SCHLEIFANTENNE	AM-LOOP-AERAL
0052.000		59600-072.00		ANTENNENHALTER	AERIAL HOLDER
0054.000		59800-099.01		BATTERIEDECKEL	BATTERY COVER
0055.000		59800-113.01		BATTERIEKASTEN KPL	BATTERY CASE
0057.000		59752-068.01	4	FUSS	FOOT
0058.000		59752-069.00	4	ANTI-RUTSCH FILZ	ANTI SLIP FELT
0065.000		59800-787.00		IR-EMPFAENGER	IR-RECEIVER
0066.000		59800-767.00	X	FERNBEDIENUNG RC 2	REMOTE CONTROL RC 2
		55129-941.01		BEDIENUNGSANLEITUNG	INSTRUCTION MANUAL
		72010-720.80		SERVICE MANUAL	SERVICE MANUAL

X = SIEHE GESONDERTE E-LISTE

X = SEE SEPARATE PARTS LIST



POS. NR. POS. NO.	SACHNUMMER PART NUMBER	BEZEICHNUNG DESCRIPTION	(D) (GB)
			
C 2	8699-999-345	TR.13 4,5/20PF VCT 56	
C 305	8699-999-345	TR.13 4,5/20PF VCT 56	
C 311	8699-999-335	TR.12 3/10PF VCT 56	
C 325	8699-999-345	TR.13 4,5/20PF VCT 56	
C 327	8699-999-345	TR.13 4,5/20PF VCT 56	
C 542	8443-306-117	ELKO 6800UF 63V	
C 543	8443-306-117	ELKO 6800UF 63V	
C 551	8452-996-150	ELKO CB 2200UF 25V	
C 651 $\Delta$	8660-097-241	SI-KERKO.B-SG 3300PF 20%	
C 801 $\Delta$	8660-097-241	SI-KERKO.B-SG 3300PF 20%	
			
D 1	8309-720-043	Z DIODE 4,3 C 0,5W	
D 2	8309-703-218	Z DIODE ZPY 18 ITT	
D 4	8309-217-321	DIODE SVC 321 SP-A/B/C/D	
D 9	8309-217-321	DIODE SVC 321 SP-A/B/C/D	
D 31	8309-215-006	DIODE 1 N 4001 -GA	
D 32	8309-215-006	DIODE 1 N 4001 -GA	
D 101	8309-215-148	DIODE 1 N 4148 WW.	
D 102	8309-720-056	Z DIODE 5,6 C 0,5W	
D 103	8309-921-324	LE DIODE TLHY 4213 TFK	
D 104	8309-921-324	LE DIODE TLHY 4213 TFK	
D 105	8309-921-324	LE DIODE TLHY 4213 TFK	
D 106	8309-921-324	LE DIODE TLHY 4213 TFK	
D 107	8309-921-324	LE DIODE TLHY 4213 TFK	
D 111	8309-215-045	DIODE 1 N 4148 ITT/TID	
D 112	8309-215-045	DIODE 1 N 4148 ITT/TID	
D 113	8309-215-045	DIODE 1 N 4148 ITT/TID	
D 121	8309-198-042	DIODE BAT 42 THO	
D 131	8309-720-056	Z DIODE 5,6 C 0,5W	
D 140	8309-198-042	DIODE BAT 42 THO	
D 307	8309-251-310	DIODE KV 1310	
D 308	8309-251-310	DIODE KV 1310	
D 309	8309-251-310	DIODE KV 1310	
D 311	8309-251-310	DIODE KV 1310	
D 469	8309-922-439	LE DIODE TLSY 4290 TFK	
D 500	8309-215-148	DIODE 1 N 4148 WW.	
D 511	8309-712-752	DIODE MR 752 MOT	
D 512	8309-712-752	DIODE MR 752 MOT	
D 513	8309-712-752	DIODE MR 752 MOT	
D 514	8309-712-752	DIODE MR 752 MOT	
D 590	8309-721-030	Z DIODE 5,6 C 1,3W	
D 651	8309-215-148	DIODE 1 N 4148 WW.	
D 652	8309-215-148	DIODE 1 N 4148 WW.	
D 801	8309-215-043	DIODE 1 N 4151 PHI/TFK/	
D 802	8309-215-043	DIODE 1 N 4151 PHI/TFK/	
DLE 000	8309-925-024	LE DIODE GL-9 HD 23 SHARP	
DP 000	59720-027.00	FLUORESZENZ-ANZEIGE	
			
F 5	07202-730.10	FM-DEM.II	
F 6	07202-729.10	FM-DEM.I	
F 7	19203-124.14	AM-ZF SFL 450 J3	
F 8	19202-705.12	FILTER (NACHBARKANAL)	
F 9	19202-704.12	FILTER (PILOT) LPF-V20	
F 10	19202-704.12	FILTER (PILOT) LPF-V20	
F 1/4	19203-126.97	KERAMIKF.SATZ 2XSFE 10,7	
			
IC 1	8305-204-834	IC LM 833 N ELLI 580NSC EING.PL	
IC 2	8305-262-821	IC LC 7821 MOS / EING.PL.	
IC 3	8305-260-166	IC LA 1266	
IC 4	8305-205-765	IC 7812 3% FAI/NEC/SGS/	
IC 01	8305-260-223	IC LA 2231 B DIP/24S / RDS PL.	
IC 02	8305-260-340	IC LA 3401 / CHASS.PL.	

POS. NR. POS. NO.	SACHNUMMER PART NUMBER	BEZEICHNUNG DESCRIPTION	(D) (GB)
IC 001	8305-262-217	IC LC 7217 MOS	
IC 101	8305-208-381	IC M 38112 M4-XXX SP	
IC 339	8305-204-339	IC LM 339 N RAY/NSC/TID	
IC 501	8305-574-040	IC STK 4040 X SANYO	
IC 502	8305-574-040	IC STK 4040 X SANYO	
IC 504	8305-205-701	IC 78 M 05 MOT	
			
L 1	07202-710.97	SPULE 7X7	
L 2	07202-710.97	SPULE 7X7	
L 4	07202-727.12	SPULE (MW-OSZ.)	
L 5	8140-526-862	DROSSEL 39 MH 5%	
L 01	19202-702.12	MW-VORKR.	
L 305	8140-530-260	UKW-SPULE 7/115/A	
L 306	8140-530-240	UKW-SPULE 1/3/A	
L 307	09218-017.01	HF-DROSSEL	
L 308	8140-530-259	UKW-SPULE 7/113/A	
L 309	8140-530-259	UKW-SPULE 7/113/A	
L 501	09238-197.01	HF-DROSSEL	
			
Q 1	8602-331-011	KER.RES.11 CSB 456 F15	
Q 2	8602-331-001	KER.RES.10 CSB 456 F11	
Q 101	8602-331-087	KER.RES.87 4,19 MHZ	
Q 102	8382-200-897	SCHWINGQUARZ 32,768 KHZ	
Q 1+312	8382-312-072	QUARZ 7,2 MHZ	
			
R 66	8790-050-064	ESTR.SK10-A 100 KOHM LIN	
R 67	8790-050-064	ESTR.SK10-A 100 KOHM LIN	
R 69	8790-050-064	ESTR.SK10-A 100 KOHM LIN	
R 302	59703-380.00	LAUTSTAERKEREGLER	
R 336	59713-002.00	POTI 100 KOHM / BALANCE	
R 348	59713-003.00	POTI 2X10 KOHM / BASS	
R 350 $\Delta$	8701-118-033	KSW SI B 22 OHM 5% -GA	
R 352	59713-003.00	POTI 2X10 KOHM / HÖHEN	
R 512 $\Delta$	8700-199-049	KSW AX 0204-GA NB	
R 513 $\Delta$	8700-199-049	KSW AX 0204-GA NB	
R 552 $\Delta$	8701-118-039	KSW SI B 39 OHM 5%-GA	
R 553 $\Delta$	8701-118-047	KSW SI B 82 OHM 5%-GA	
			
REL 651 $\Delta$	8312-003-230	RELAIS G2R-117P-V-US-SV	
			
SI 1 $\Delta$	8315-616-003	FS.800 MA/T	
SI 2 $\Delta$	8315-620-003	FS. 2 A/T	
SI 4 $\Delta$	8315-620-003	FS. 2 A/T	
			
T 1	8303-205-550	TRANS.BC 550 B	
T 2	8303-205-550	TRANS.BC 550 B	
T 101	8303-205-558	TRANS.BC 558 B	
T 102	8303-205-558	TRANS.BC 558 B	
T 103	8303-205-548	TRANS.BC 548 B	
T 104	8303-271-338	TRANS.BC 338-16	
T 105	8303-271-328	TRANS.BC 328-16	
T 106	8303-271-328	TRANS.BC 328-16	
T 107	8303-271-338	TRANS.BC 338-16	
T 108	8303-205-548	TRANS.BC 548 B	
T 301	8302-991-044	FE-TRANS.2 SK 544 E MOS	
T 302	8302-220-987	TRANS.BF 987 E7715 SIE MOS	
T 303	8302-220-025	TRANS.BF 240 SIE/VAL	
T 304	8302-991-044	FE-TRANS.2 SK 544 E MOS	
T 514	8302-210-837	TRANS.BD 827-10B VAL/SIE	
T 515	8302-210-838	TRANS.BD 828-10B VAL/SIE	
T 518	8302-218-078	TRANS.BDX 78 VAL	
T 801	8303-207-548	TRANS.BC 548 C	



# GRUNDIG

## Ersatzteilliste List of spare parts

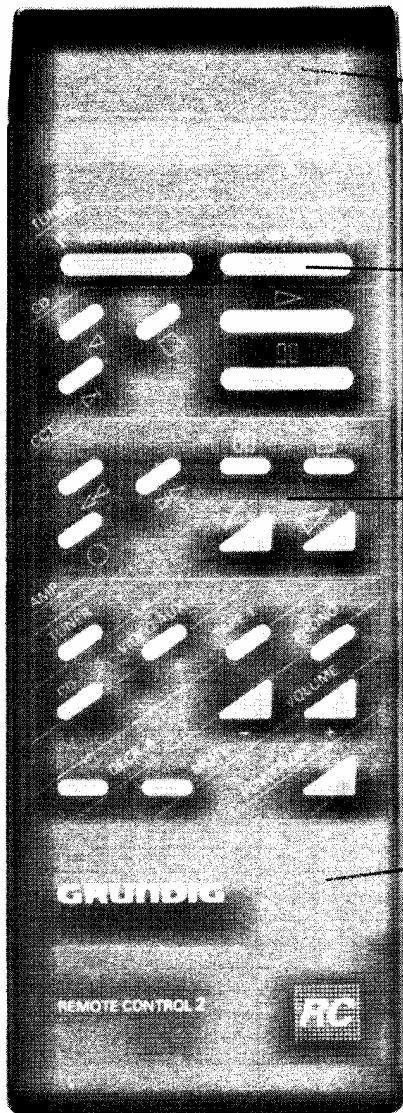


ⓓ Btx ★ 32700 #

### RC 2

SACH-NR. / PART NO.: 59800-767.00

POS. NR. POS. NO.	ABB. NR. FIG. NO.	SACHNUMMER PART NUMBER	ANZ. QUA.	BEZEICHUNG <span style="float: right;">ⓓ</span>	DESCRIPTION <span style="float: right;">ⓖⓑ</span>
0001.000		75987-531.90		GEHAEUSEOBERTEIL	CABINET TOP
0002.000		75987-531.91		BLENDE	PANEL
0003.000		75987-531.92		TASTENSATZ	KEYS SET
0004.000		75987-531.93		BATTERIEDECKEL	BATTERY LID
0005.000		75987-531.94		BATTERIEFEDER (+)	BATTERY SPRING
0006.000		75987-531.95		BATTERIEFEDER (-)	BATTERY SPRING
0007.000		75987-531.96		BATTERIEFEDER (+-)	BATTERY SPRING
0008.000		75987-531.88		INFRA-SCHEIBE	INFRA-WASHER
0010.000		59800-767.00		IR-SENDER	IR-TRANSMITTER



(8) 75987-531.88

(3) 75987-531.92

(2) 75987-531.91

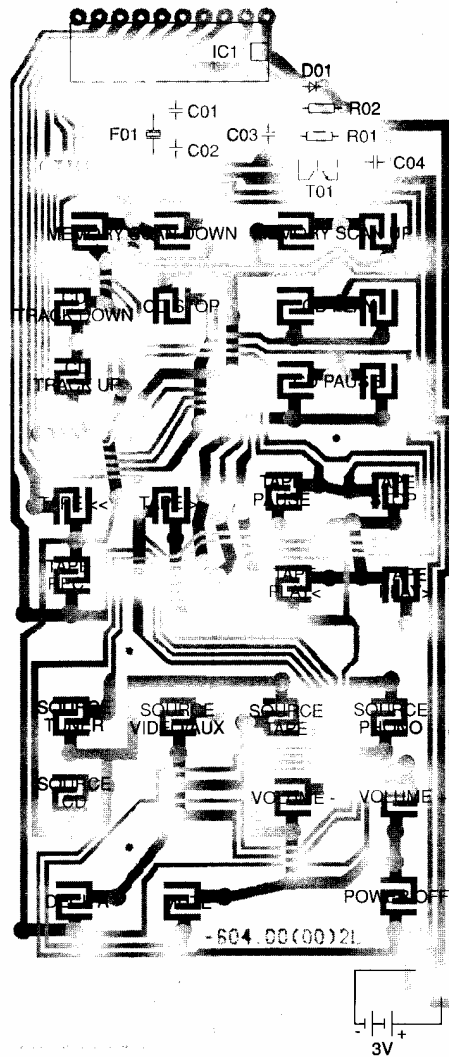
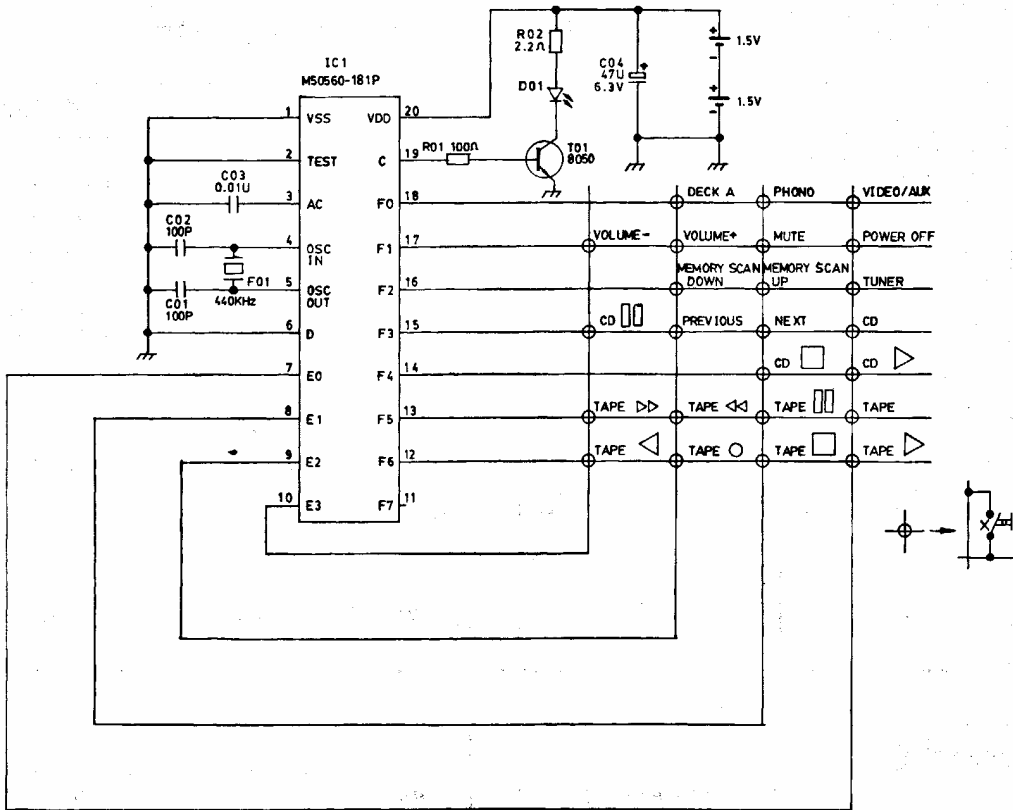
(1) 75987-531.90

POS. NR. POS. NO.	SACHNUMMER PART NUMBER	BEZEICHUNG DESCRIPTION
 001.000	75987-531.97	IC M 50560-181 P
 002.000	75987-531.98	TRANS.JE 8050 D
 003.000	75987-531.99	LE DIODE TSUS 5202
 004.000	75987-531.89	QUARZ

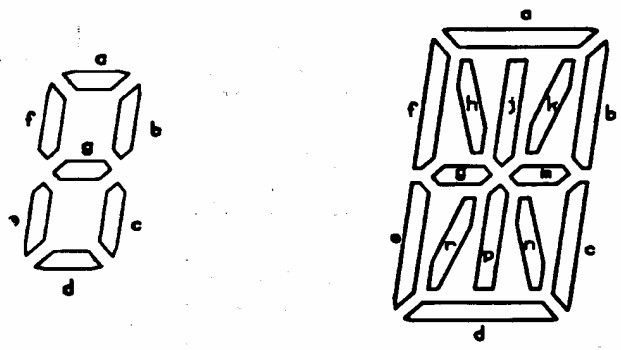
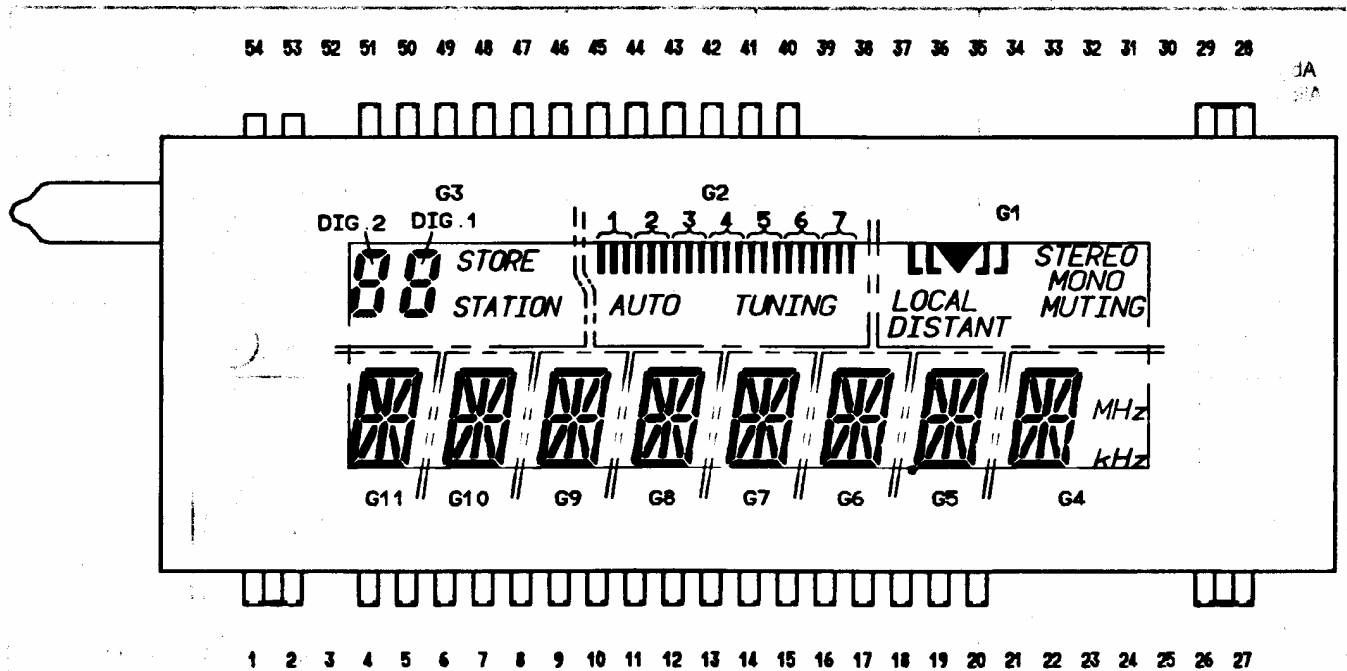
Änderungen vorbehalten / Alterations reserved

# IR-Fernbedienung RC 2

# IR Transmitter RC 2



# Display

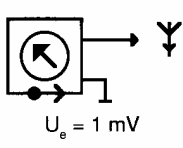
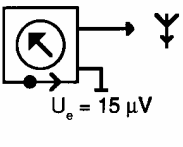
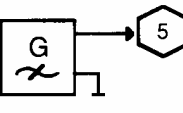
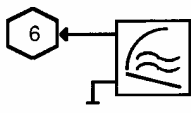
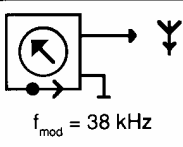
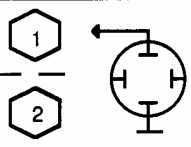
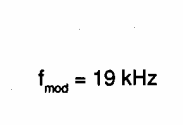
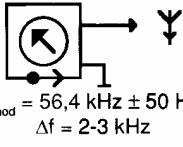
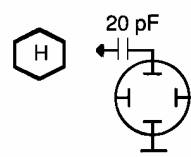
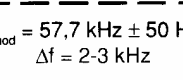




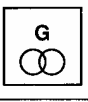

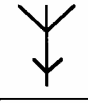
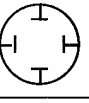




IC601 PIN-NR.	DISPL. PIN-NR.		IC601 PIN-NR.	DISPL. PIN-NR.	
	1	FILAMENT		28	FILAMENT
	2	FILAMENT		29	FILAMENT
	3	NO PIN		30	NO PIN
22	4	G11		31	NO PIN
23	5	G10		32	NO PIN
24	6	G9		33	NO PIN
25	7	G8		34	NO PIN
26	8	G7		35	NO PIN
27	9	G6		36	NO PIN
	10	G5		37	NO PIN
	11	G4		38	NO PIN
30	12	S 12		39	NO PIN
34	13	S 8		40	IC
31	14	S 11	20	41	S 1
32	15	S 10	19	42	S 2
33	16	S 9	18	43	S 3
35	17	S 7	17	44	S 4
36	18	S 6	16	45	G3
37	19	S 5	15	46	G2
	20	IC	14	47	G1
	21	NO PIN	9	48	S 13
	22	NO PIN	6	49	S 16
	23	NO PIN	8	50	S 14
	24	NO PIN	7	51	S 15
	25	NO PIN		52	NO PIN
	26	FILAMENT		53	NO PIN
	27	FILAMENT		54	NO PIN

	G1 PIN47	G2 PIN46	G3 PIN45	G4 PIN44	G5 PIN43	G6 PIN42	G7 PIN41	G8 PIN40	G9 PIN39	G10 PIN38	G11 PIN37
S 1 PIN 41	STEREO	1	DIG. 2 a	a	a	a	a	a	a	a	a
S 2 PIN 42	MONO	2	b	b	b	b	b	b	b	b	b
S 3 PIN 43	MUTING	3	c	c	c	c	c	c	c	c	c
S 4 PIN 44	TUNED TRIANGLE	4	d	d	d	d	d	d	d	d	d
S 5 PIN 19	L J	5	e	e	e	e	e	e	e	e	e
S 6 PIN 18	L J	6	f	f	f	f	f	f	f	f	f
S 7 PIN 17	LOCAL	7	g	g	g	g	g	g	g	g	g
S 8 PIN 13		AUTO	STAT.	M-HZ	DP						
S 9 PIN 16	DIST		DIG. 1 e	h	h	h	h	h	h	h	h
S 10 PIN 15			b	j	j	j	j	j	j	j	j
S 11 PIN 14			o	k	k	k	k	k	k	k	k
S 12 PIN 12			d	w	w	w	w	w	w	w	w
S 13 PIN 48			e	n	n	n	n	n	n	n	n
S 14 PIN 50			f	p	p	p	p	p	p	p	p
S 15 PIN 51			g	r	r	r	r	r	r	r	r
S 16 PIN 49		TUN	STORE	KHZ							

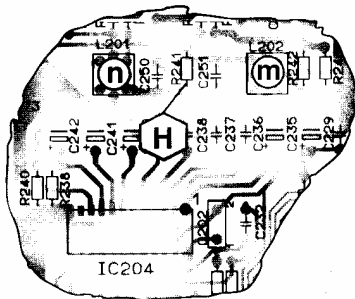
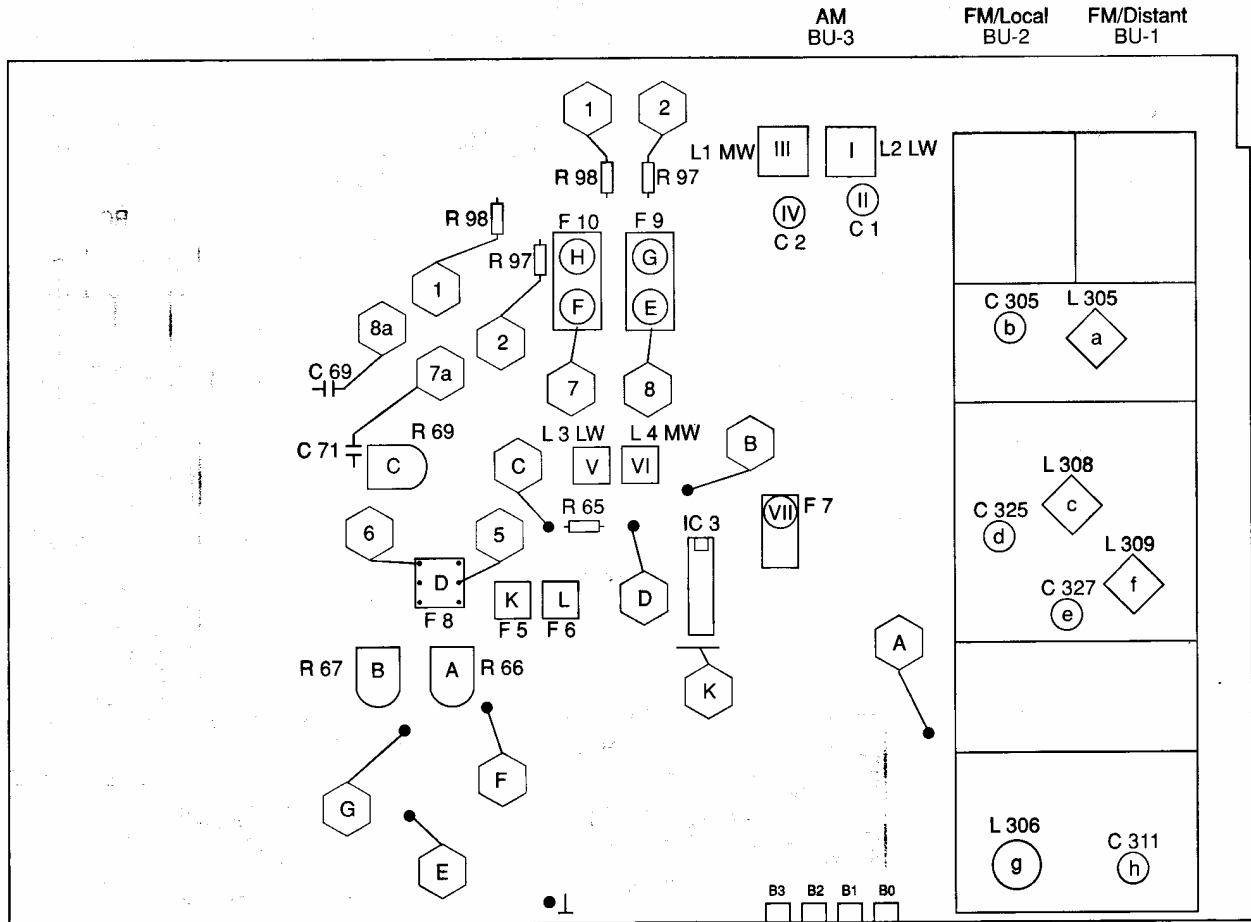
# Abgleich / Alignment

Abgleich Alignment	Einspeisung Feeding	Meßpunkt Testpoint	Hinweise Notes	Band	f	Abgleichpunkt Alignment point	Einstellung Adjustment
Oszillator Oscillator				FM	108 MHz	C 311 (h)	8,5 V
					87,5 MHz	L 306 (g)	2,5 V
				MW	531 kHz	L 4 (VI)	1,1 V
Vor-u. Zwischenkreis Aerial band pass cct.	 $U_e <$ ; $\Delta f = 40 \text{ kHz}$ $f_{\text{mod}} = 1 \text{ kHz}$			FM	106 MHz	C 305 (b)	max.
						C 325 (d)	
	C 327 (e)						
	88 MHz				L 305 (a)	max.	
L 308 (c)							
 $U_e <$ ; $m = 30 \%$ $f_{\text{mod}} = 1 \text{ kHz}$				MW	1449 kHz	C 2 (IV)	max.
					558 kHz	L 1 (III)	max.
ZF IF	Abgleich nach Rauschen Alignment by noise			FM	108 MHz	F 6 (i)	max.
						F 5 (k)	min.
	 $U_e <$ $m = 30 \%$ $f_{\text{mod}} = 1 \text{ kHz}$						MW
Stereo-Übersprechdämpfung Stereo crosstalk attenuation	 L mod. 19 kHz Pilot			FM		R 69 (C)	 Minimum
	R mod.						

Abgleich Alignment	Einspeisung Feeding	Meßpunkt Testpoint	Hinweise Notes	Band	f	Abgleichpunkt Alignment point	Einstellung Adjustment
Feldstärke- pegel Field strength level	 $U_e = 1 \text{ mV}$	Display		FM	98 MHz	R 67 (B)	Einstellen, daß letztes Segment gerade aufleuchtet  Adjust that the last segment just lights up
Suchlaufpegel Self seek level	 $U_e = 15 \mu\text{V}$		$U_e < 15 \mu\text{V} \rightarrow$ kein Stopp / no stop  $U_e \geq 15 \mu\text{V} \rightarrow$ Stopp / stop	FM	106 MHz	R 66 (A)	Suchlaufstopp Self seek stop
Nachbar- kanalfilter Adjacent channel filter	 114 kHz, 100 mV		Das Filter ist vorabgeglichen  The filter is preadjusted			F 8 (D)	Minimum
Pilot-und Hilfsträger Pilotcarrier and subcarrier	 $f_{\text{mod}} = 38 \text{ kHz}$					F 9 (E) F 10 (F)	Minimum
	 $f_{\text{mod}} = 19 \text{ kHz}$					F 9 (G) F 10 (H)	Minimum
RDS	 $f_{\text{mod}} = 56,4 \text{ kHz} \pm 50 \text{ Hz}$ $\Delta f = 2-3 \text{ kHz}$					L 202 (m)	max.
	 $f_{\text{mod}} = 57,7 \text{ kHz} \pm 50 \text{ Hz}$ $\Delta f = 2-3 \text{ kHz}$					L 201 (n)	
<b>Zeichen- erklärung</b>  Legende Légende Simbologia Aclaración		Meßsender/Testgenerator Générateur/Generatore di misura Generador frecuencias		NF-Voltmeter/AF-Voltmeter Voltmètre BF/Voltmetro BF Voltmetro de BF			
		NF-Generator/AF-Generator Générateur BF/Generatore BF Generador de BF		Digitalvoltmeter/Digital voltage meter Voltmètre digital/Voltmetro digitale Voltmetro digital			
		Stereogenerator/Stereo-Generator Générateur de Stéréo/Generatore di Stereo Generador de Stereo		Gleichspannungsmeßgerät/DC voltage meter Voltmètre DC/Misuratore tensione continua Medidor de tensión continua			
		Antenne/Aerial Cadre/Antenna Antena		Oszilloskop/Oscilloscop Oscilloscope/Oscilloscopio Osciloscopio			
		Rahmenantenne/Frame aerial Cadre/Antenna a telaio Antena de cuadro		Einstellung wiederholen/To repeat the adjustment Répéter le réglage/Ripetere la regolazione Repetir el ajuste			

# Abgleichlageplan

# Alignment Layout



## Tabelle für ZF-Programmierung

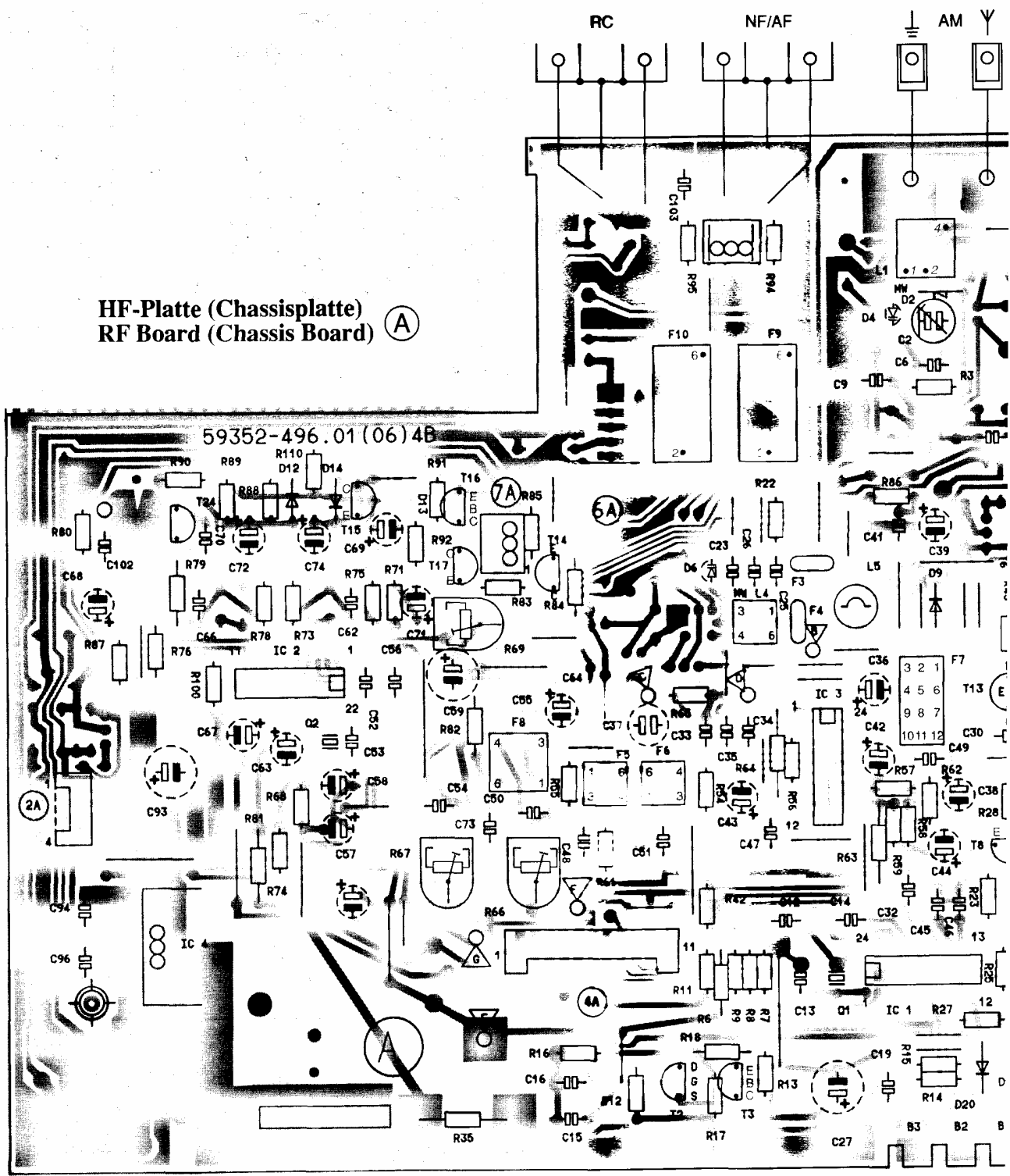
0 = Brücke geöffnet  
1 = Brücke geschlossen

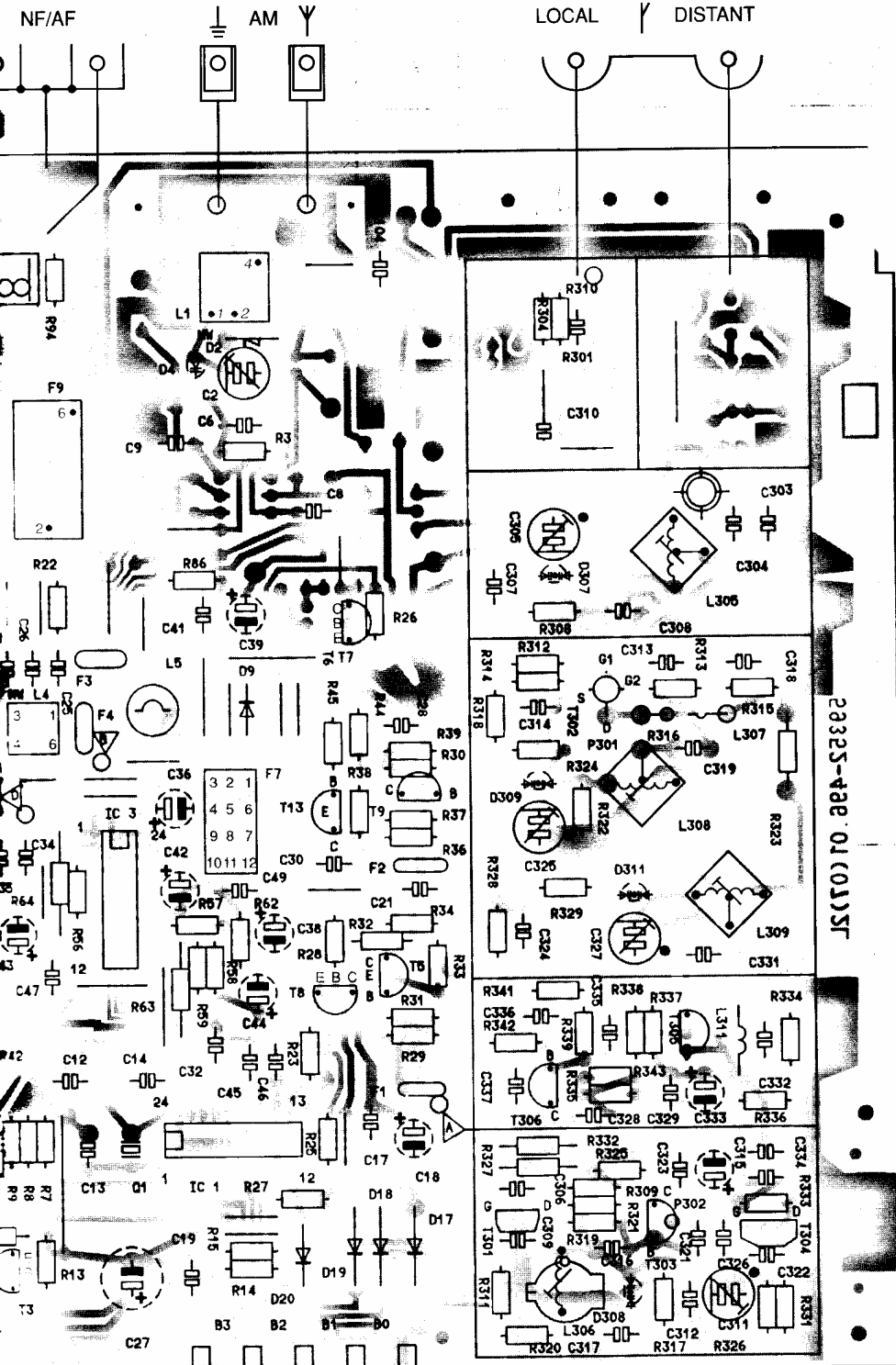
## Table for IF-Programming

0 = Bridge opened  
1 = Bridge closed

ZF (MHz) IF (MHz)	B3	B2	B1	B0	ZF/IF Filter Kennbuchstabe Ident. letter	ZF/IF Filter Farbe Colour
10,6000	0	0	0	0		
10,6125	0	0	0	1		
10,6250	0	0	1	0		
10,6375	0	0	1	1		
10,6500	0	1	0	0	D	schwarz/black
10,6625	0	1	0	1		
10,6750	0	1	1	0	B	blau/blue
10,6875	0	1	1	1		
10,7000	1	0	0	0	A	rot/red
10,7125	1	0	0	1		
10,7250	1	0	1	0	C	orange
10,7375	1	0	1	1		
10,7500	1	1	0	0	E	weiß/white
10,7625	1	1	0	1		
10,7750	1	1	1	0		
10,7875	1	1	1	1		

HF-Platte (Chassisplatte)  
RF Board (Chassis Board) (A)

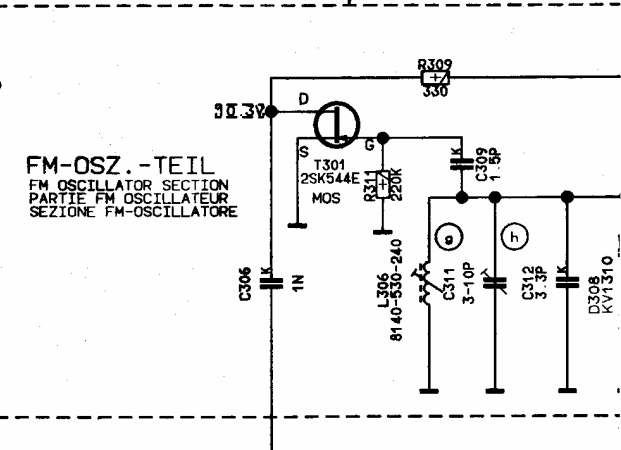
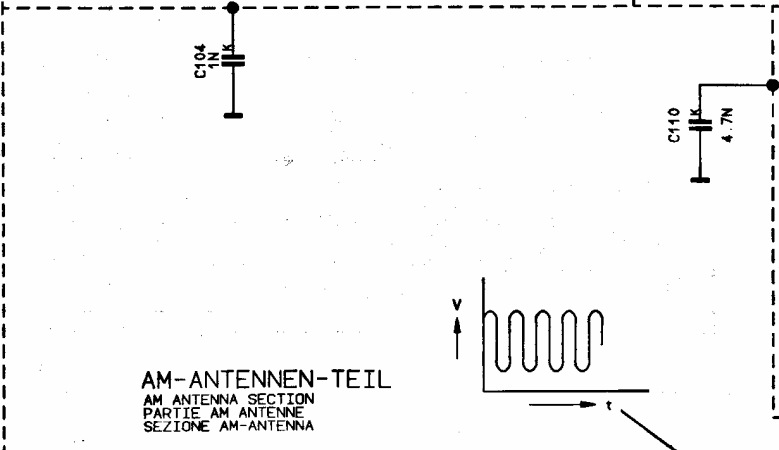
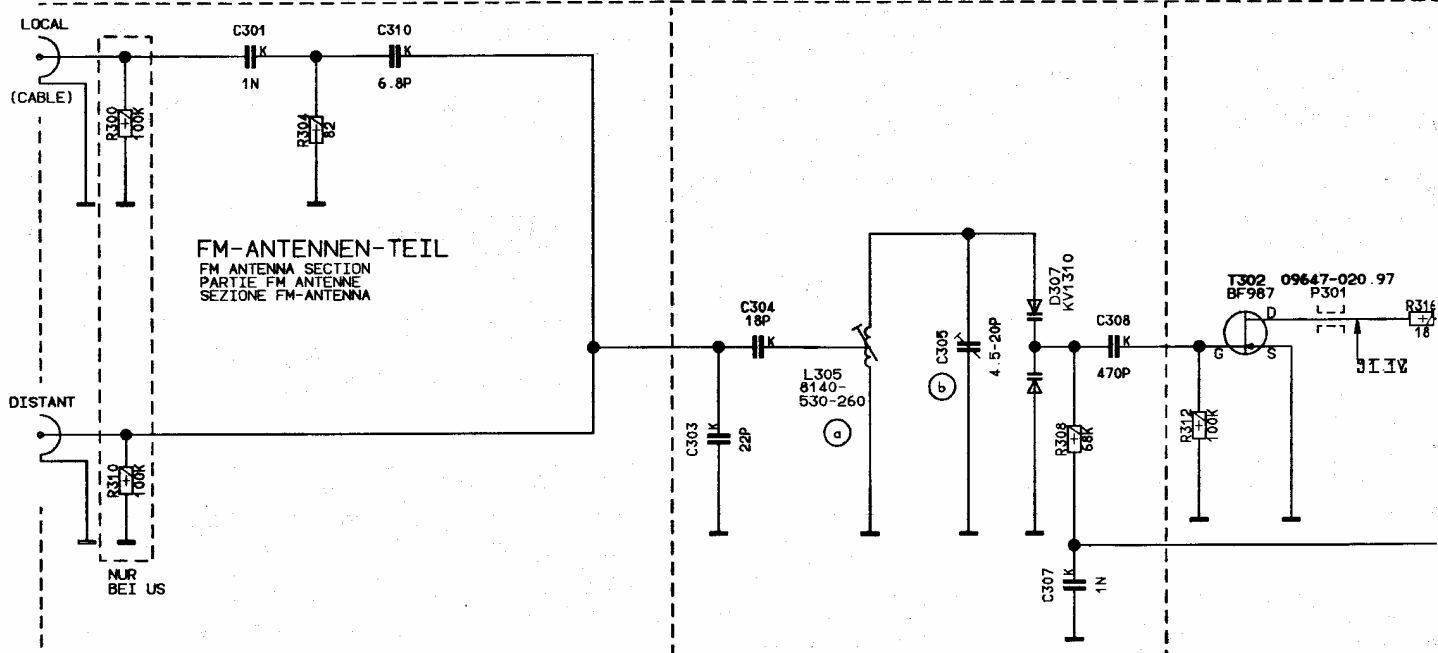




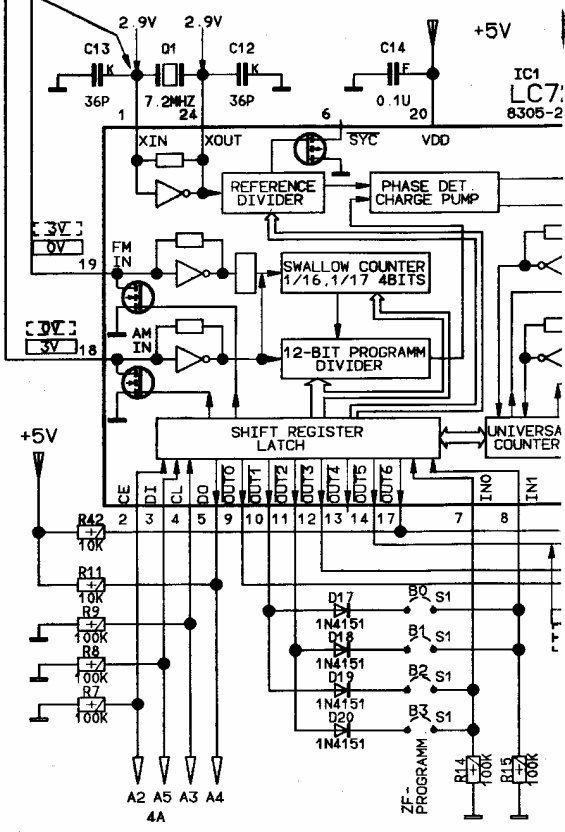


# IPC-SYSTEM

R303 ,S01A-S03A  
 R303 ,RA1  
 R303 ,SCH

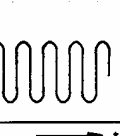


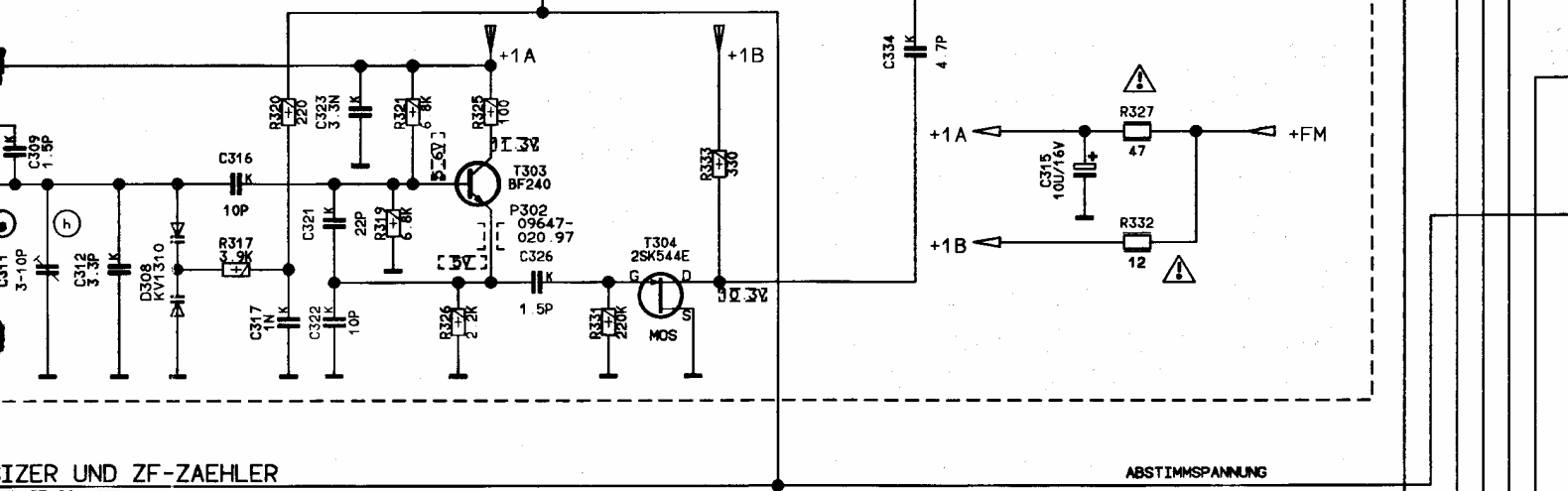
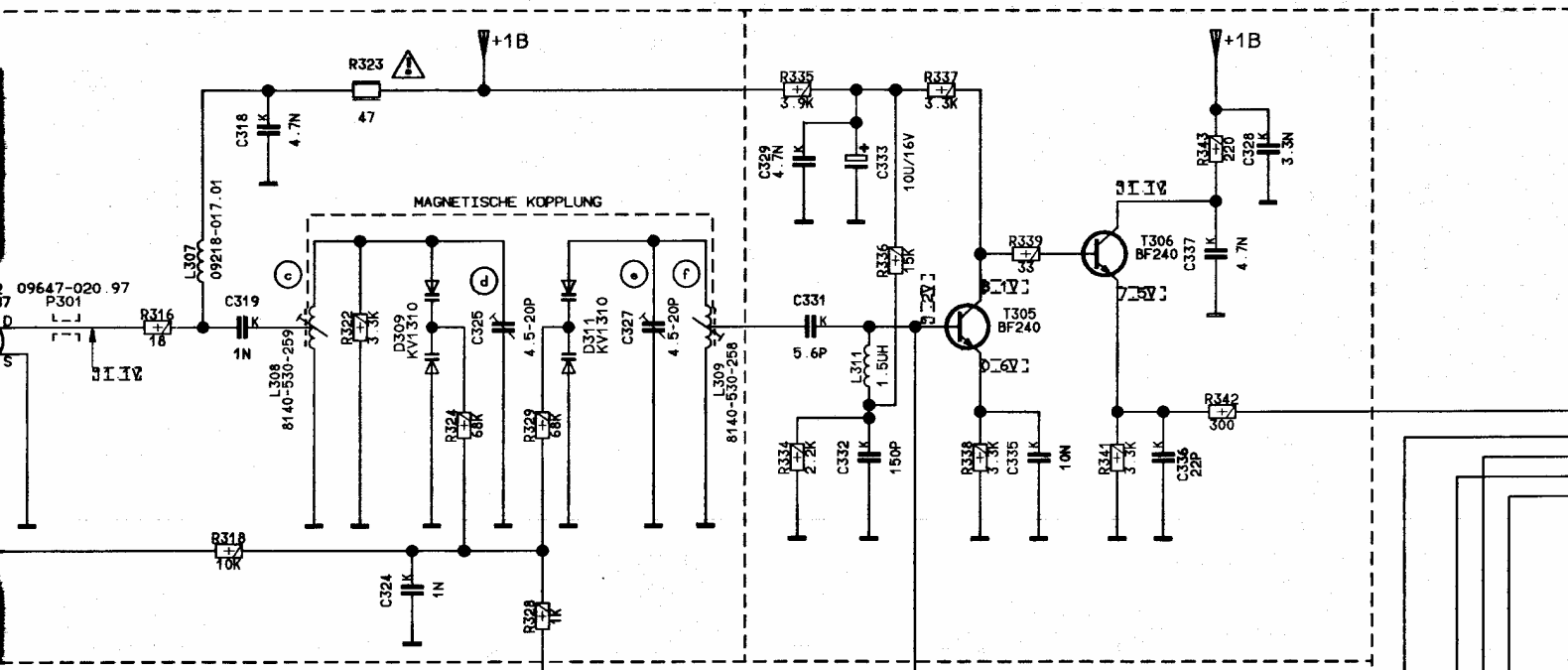
**PLL-SYNTHESIZER UND ZF-**  
 PLL SYNTHESIZER AND IF COUNTER  
 PLL SYNTHETISEUR ET COMPTEUR FI  
 PLL SINTETTIZZ. E CONTANASTRO FI



(A) CHASSISPLATTE  
 CHASSIS BOARD  
 C.I. CHASSIS  
 PIASTRA CHASSIS  
 PLACA DEL CHASSIS  
 59352-918 94

IC1  
 LC7  
 8305-2





IC1 LC7217 8305-262-217

PHASE DET. CHARGE PUMP

COUNTER BITS

RAMM

UNIVERSAL COUNTER

VDD

PD1 21

PD2 22

HCTR 16 0V

LCTR 15 0V

VSS 23

INO 7

IM1 8

MONO STEREO

3V

9V

9V

R14 100K

R15 100K

R16 100K

10.7MHz

450KHz

COUNT

COUNT

VCC STOP

+12V

+MW

+12V

+12V

+FM

T7 BC558B

T8 BC558B

R23 10K

R24 4.7K

R25 4.7K

R26 4.7K

R27 10K

R28 4.7K

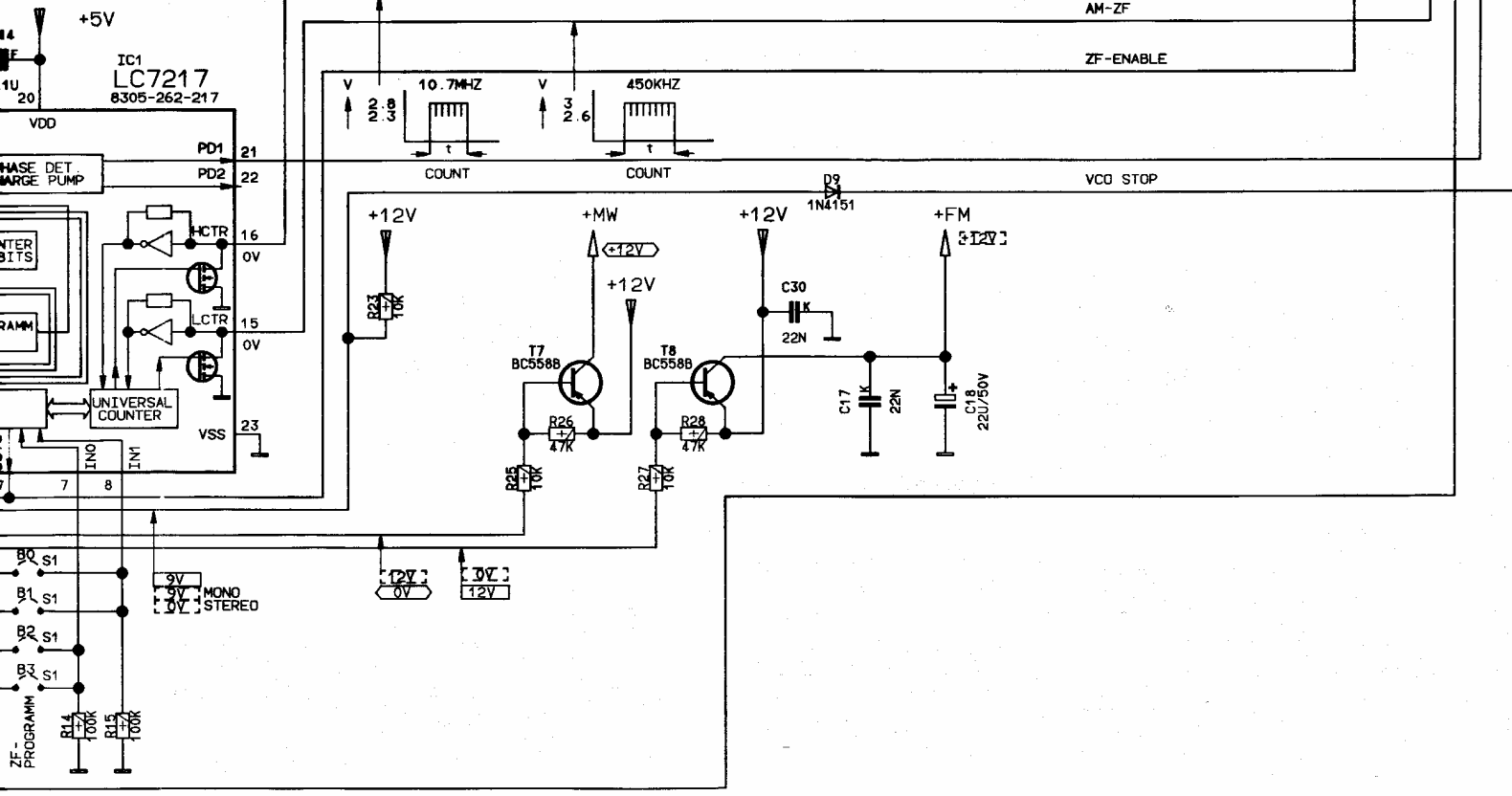
R29 10K

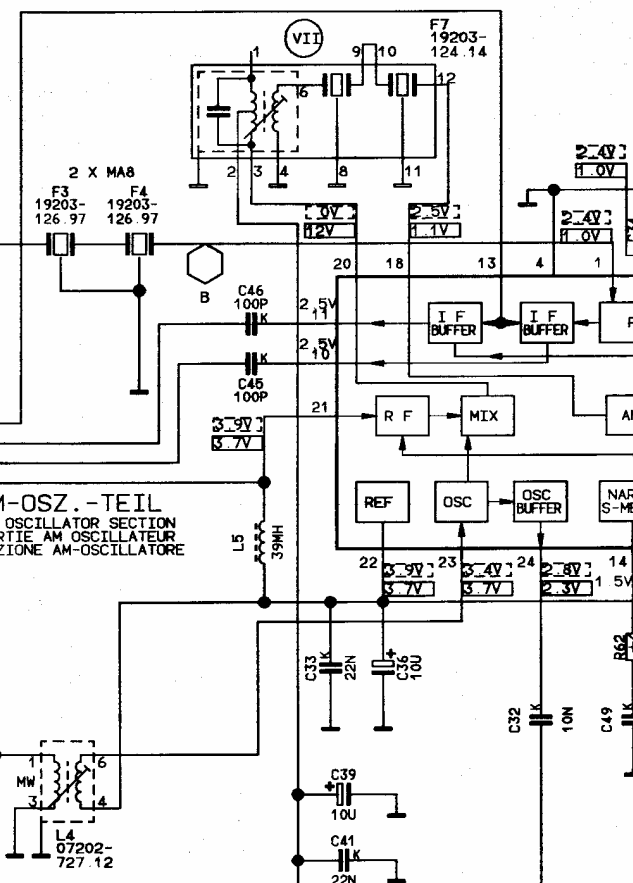
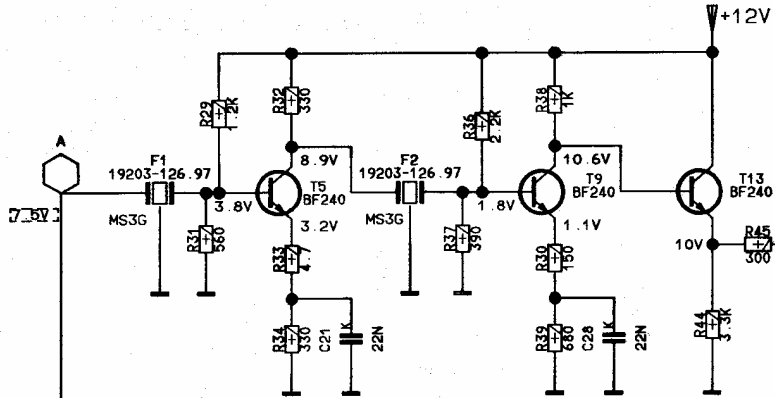
C17 22N

C18 220/50V

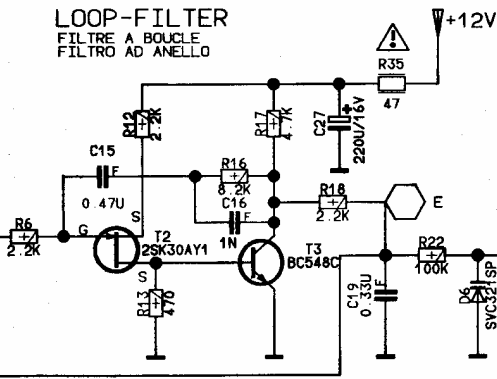
D9 1N4151

C30 22N





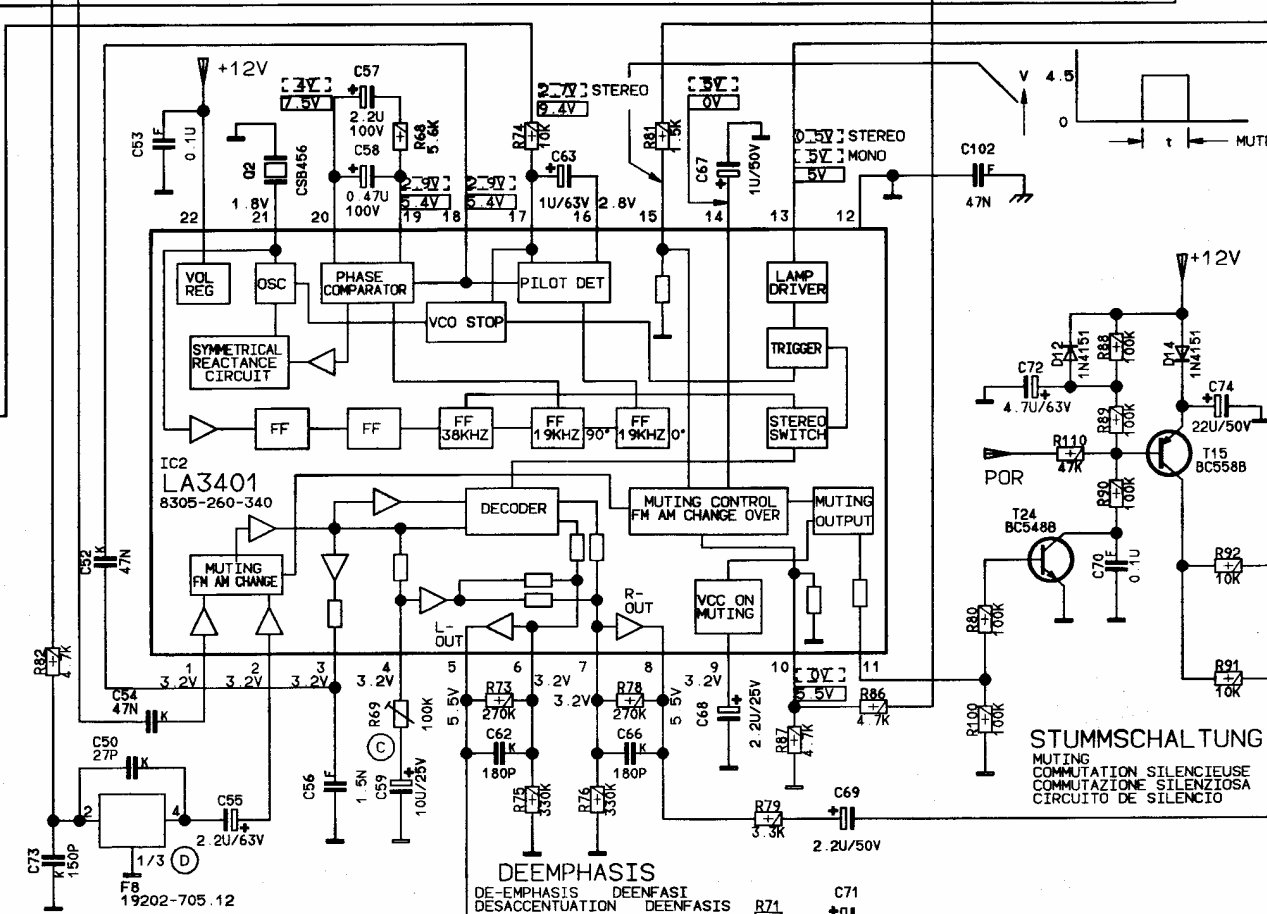
LOOP-FILTER  
FILTRE A BOUCLE  
FILTRIO AD ANELLO



AM-OSS.-TEIL  
AM OSCILLATOR SECTION  
PARTIE AM OSCILLATEUR  
SEZIONE AM-OSCILLATORE

STEREO-DECODER

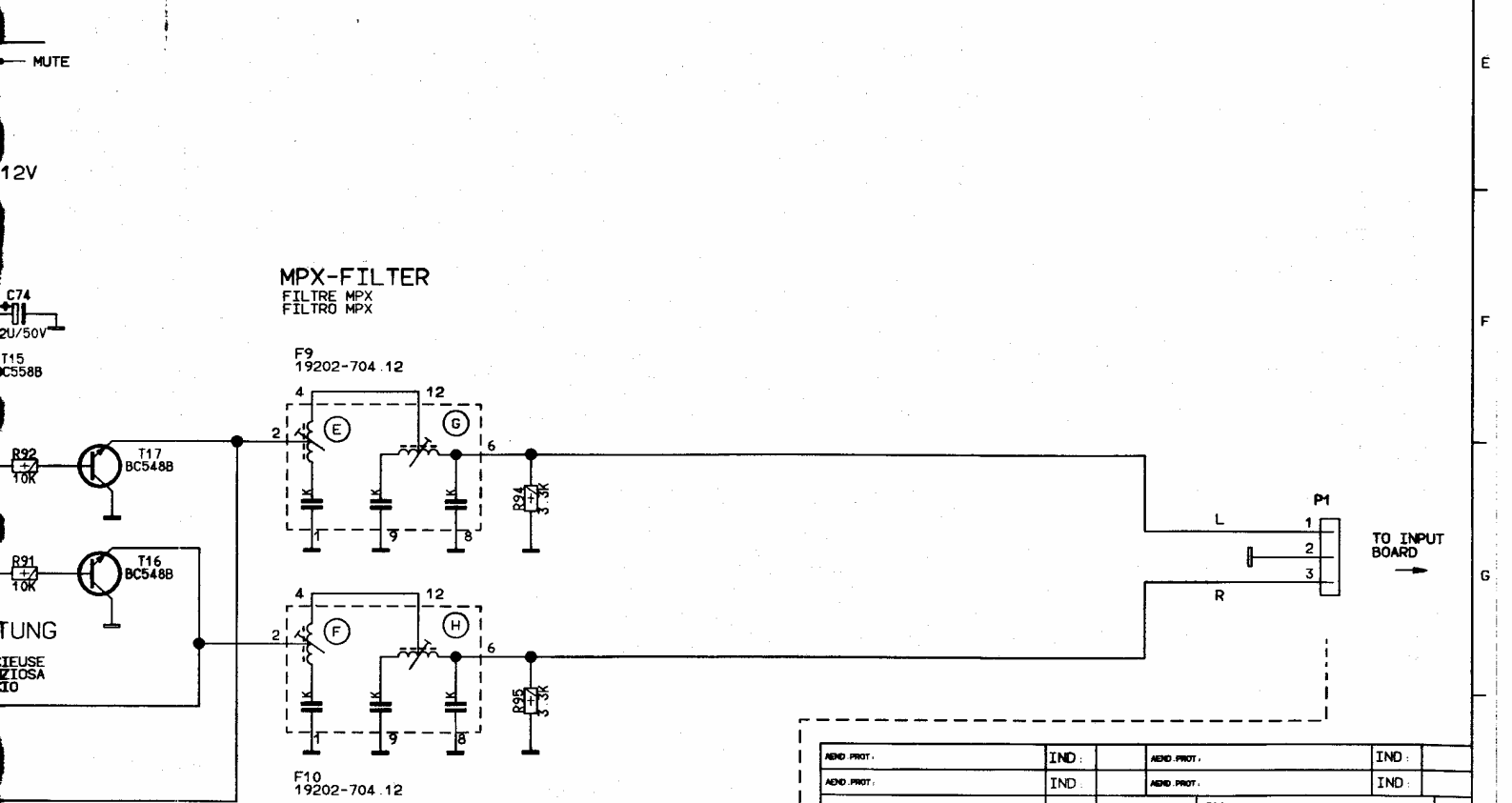
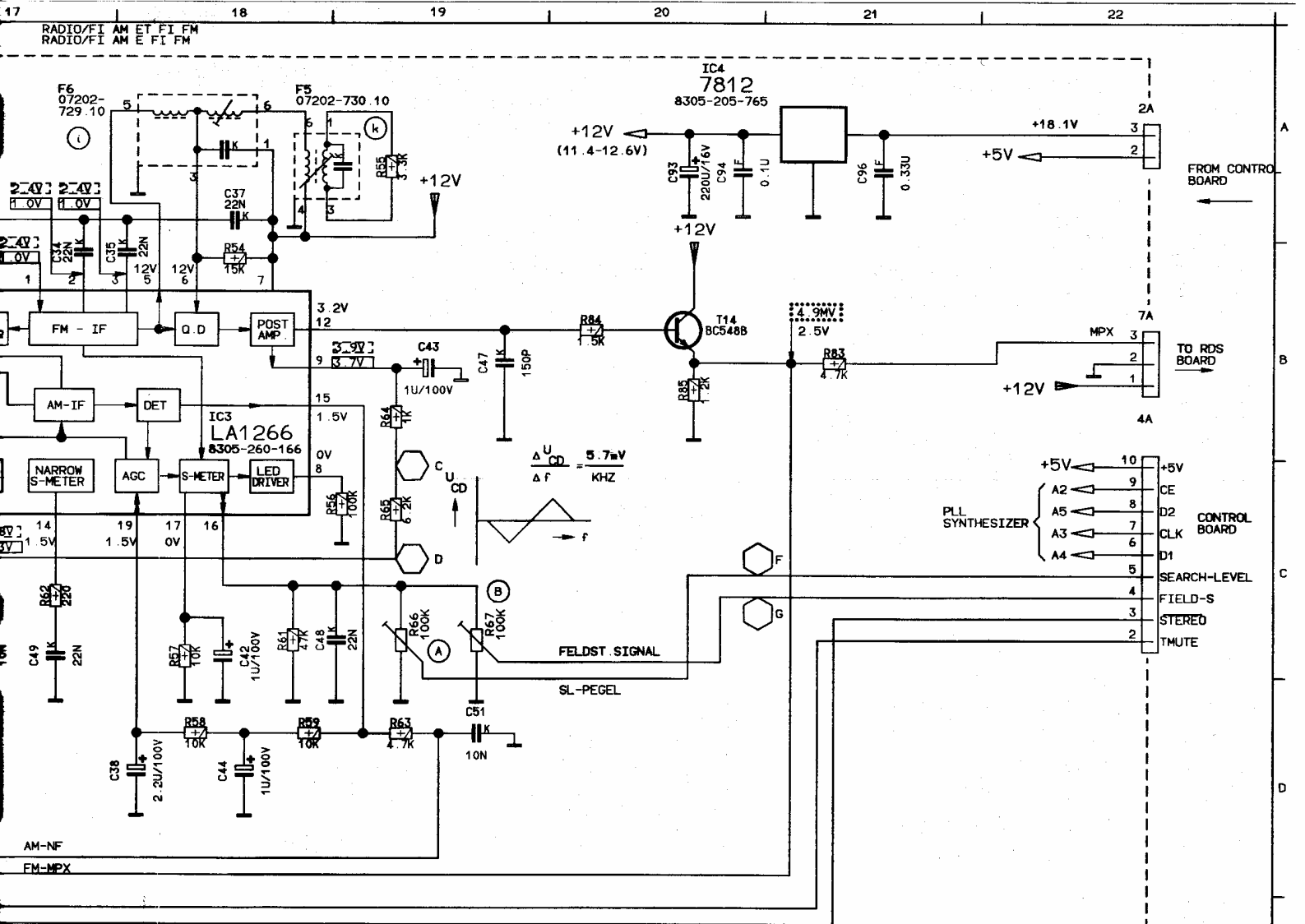
DECODEUR STEREO  
DECODER STEREO



STUMMSCHALTUNG  
MUTING  
COMMUTAZIONE SILENZIOSA  
CIRCUITO DE SILENCIO

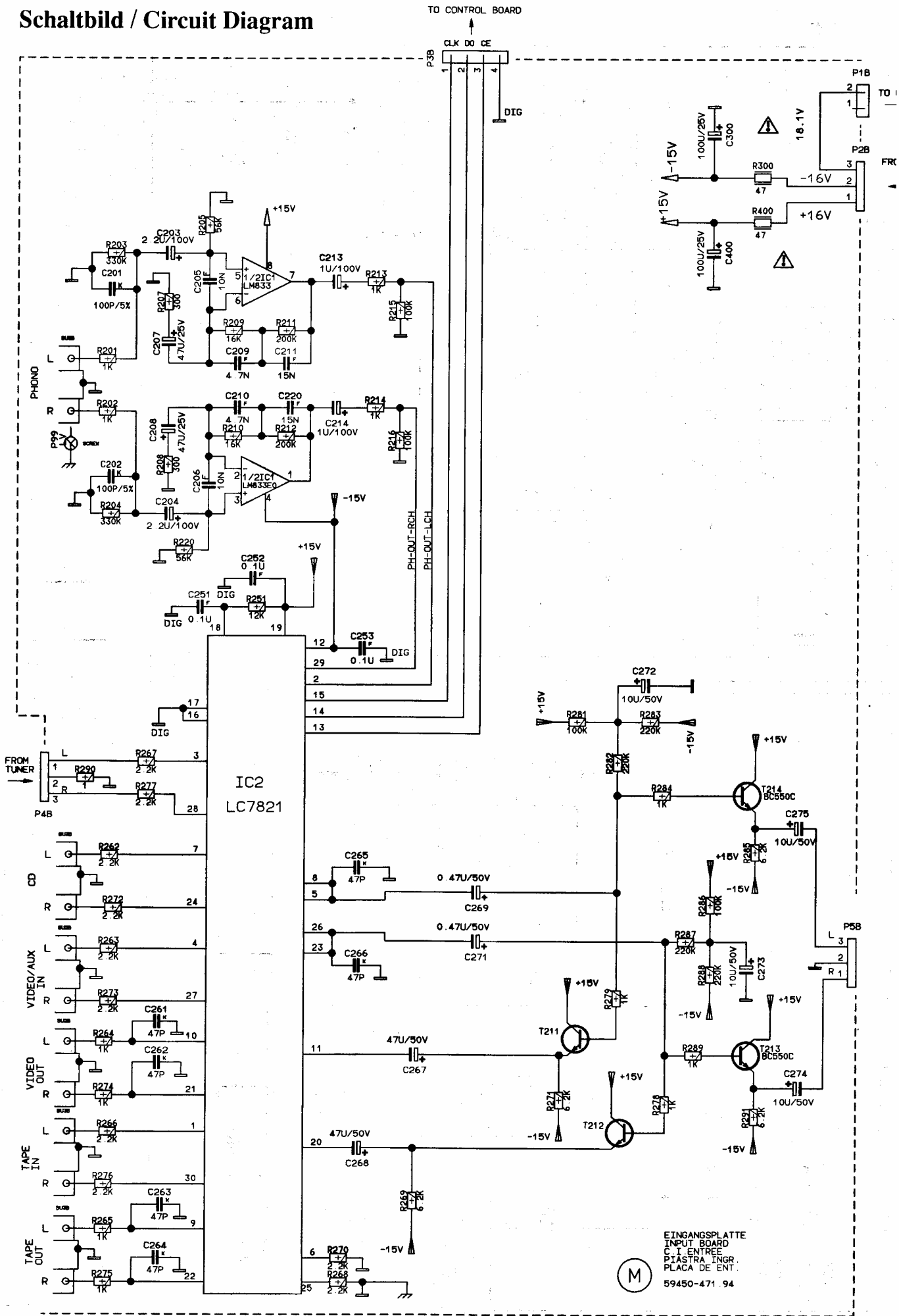
DEEMPHASIS  
DE-EMPHASIS DEENFASI  
DESACCENTUATION DEENFASIS

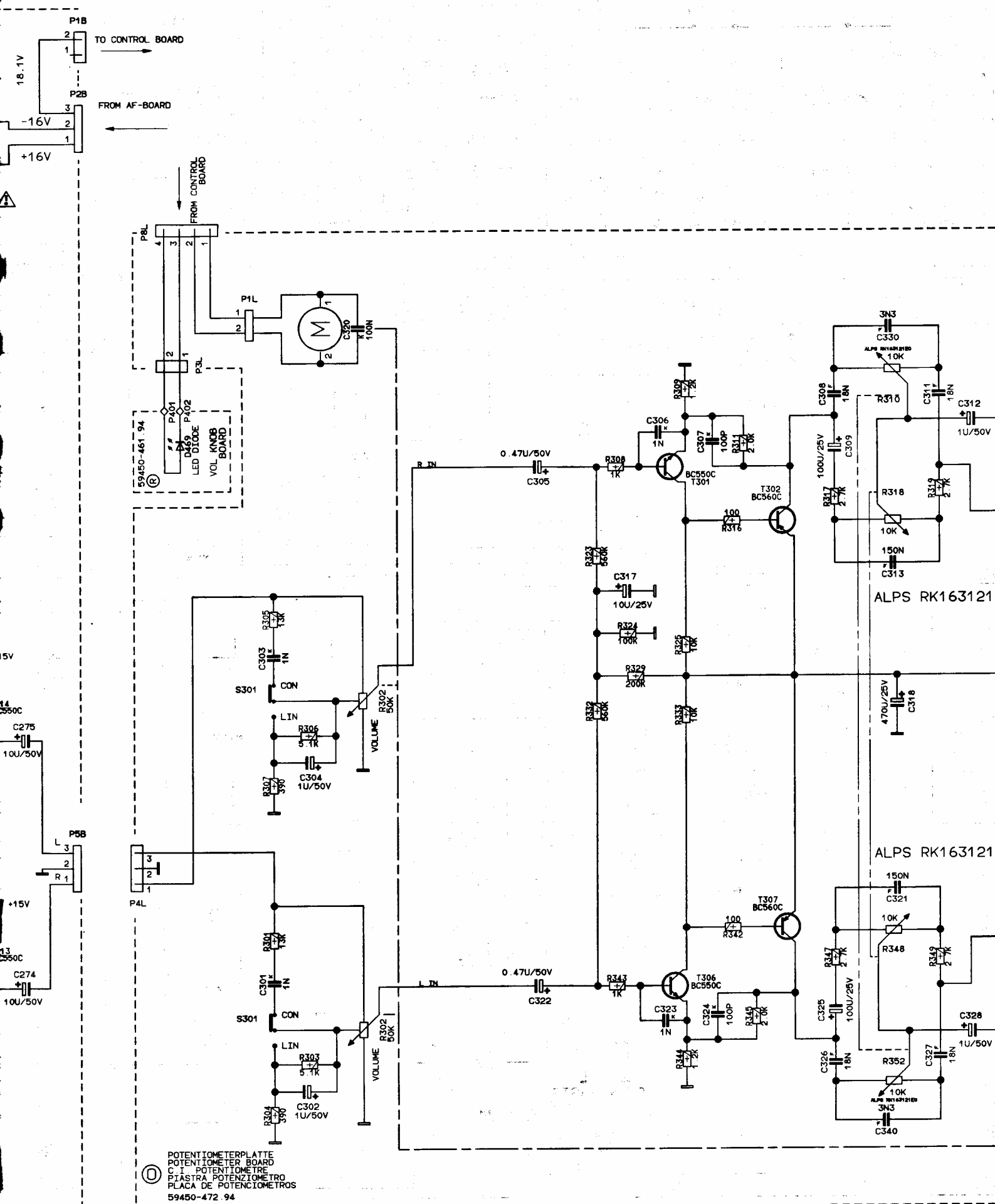
DE-EMPHASIS FOR	R73/R78	R75/R76	C62/C66
EURO	270K	330K	180P
GB	270K	330K	180P
USA	270K	330K	270P

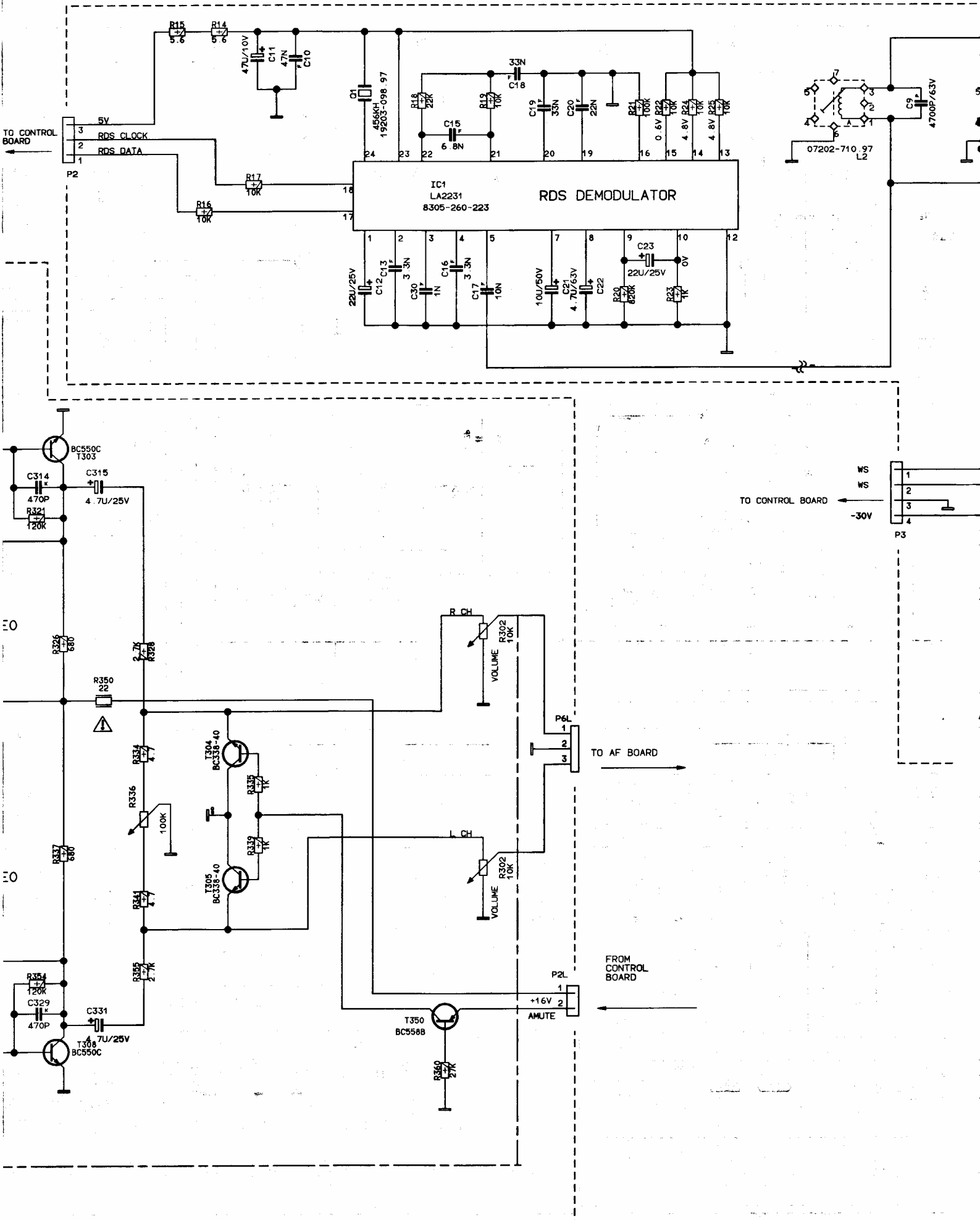


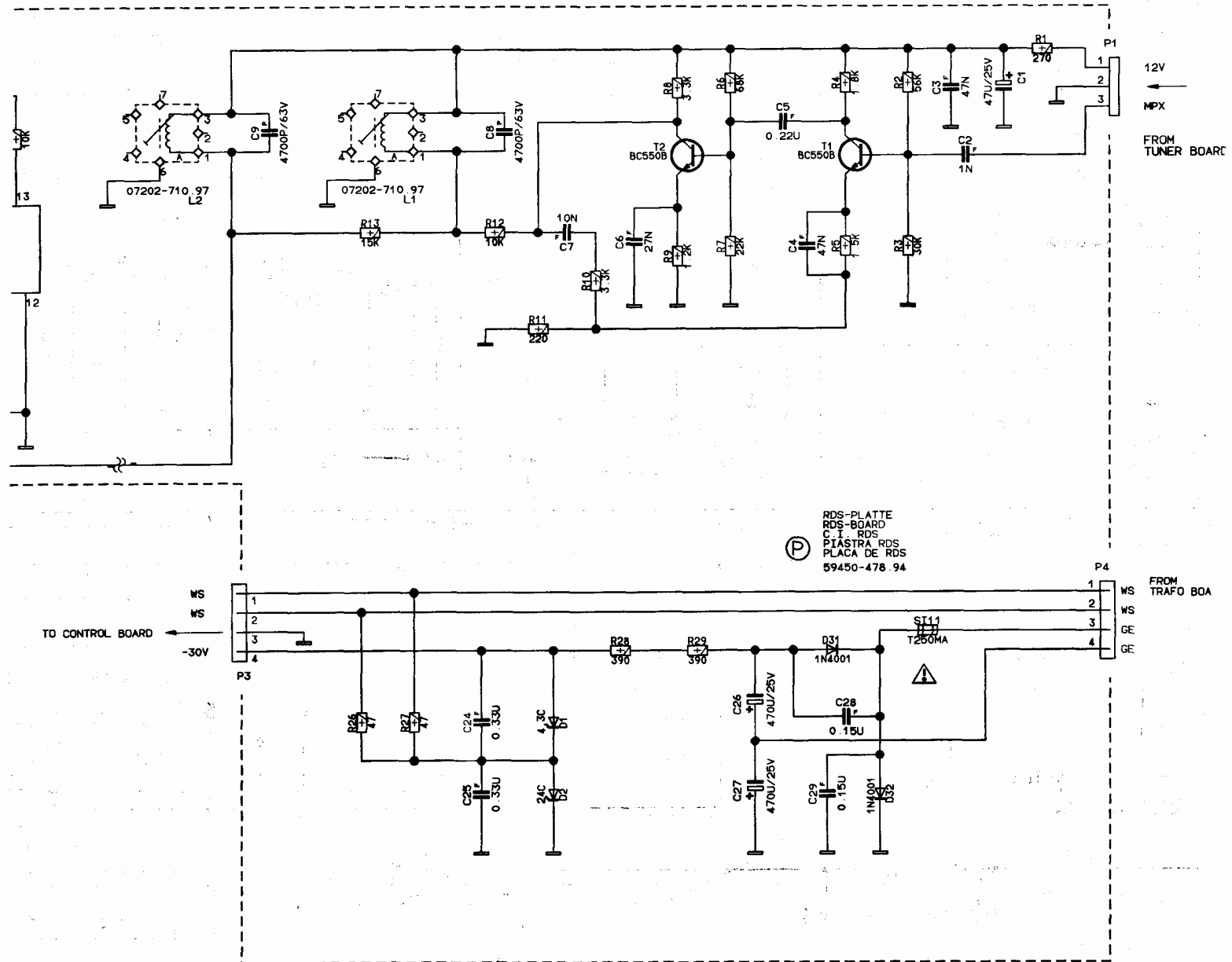
AEND. PROT.	IND.	AEND. PROT.	IND.
AEND. PROT.	IND.	AEND. PROT.	IND.
GEZ:	FOERSTER	SN:	IND.
DAT:	18.01.91	55129-906.01	
GEPR:	<i>25.9.91</i>		
R303			
GRUNDIG			BL 1 BL1-4
SERIEN R303		LUB A2	

# Schaltbild / Circuit Diagram

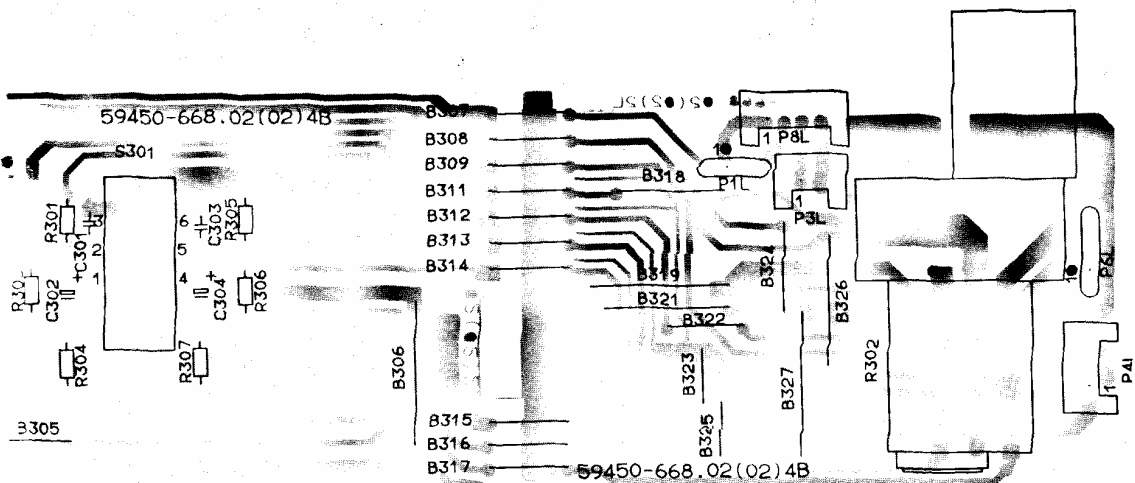
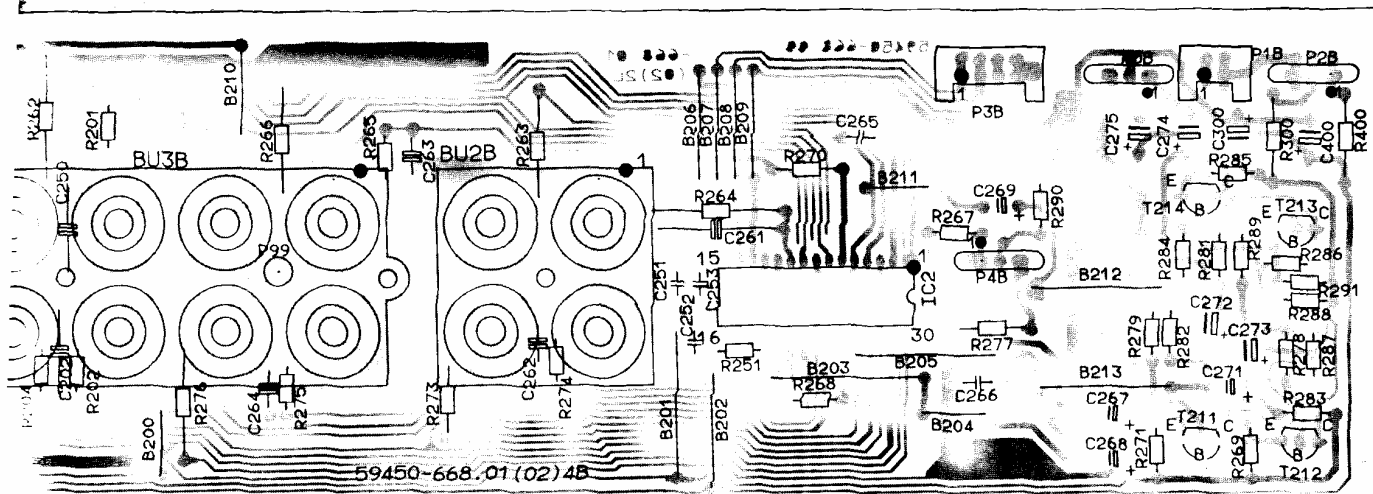




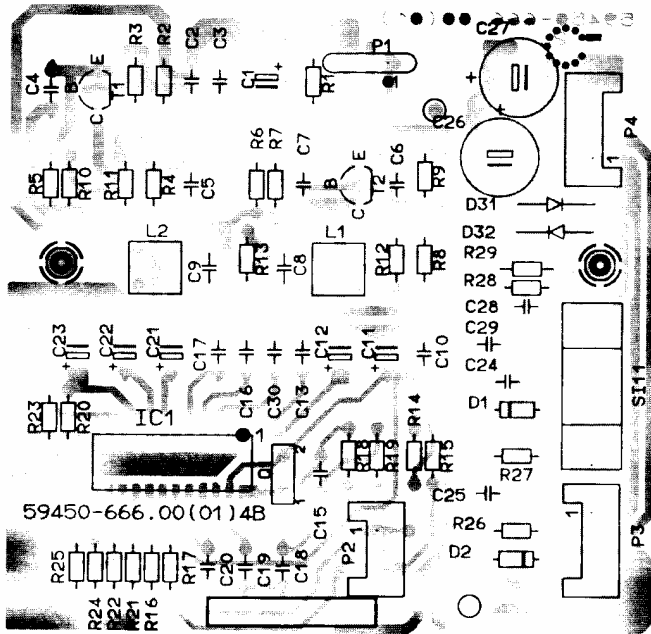




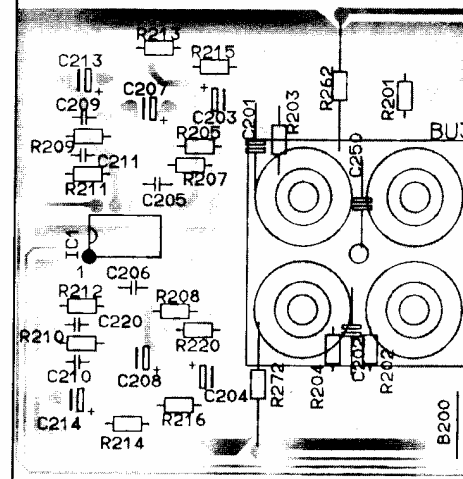




RDS-Platte  
RDS Board (P)

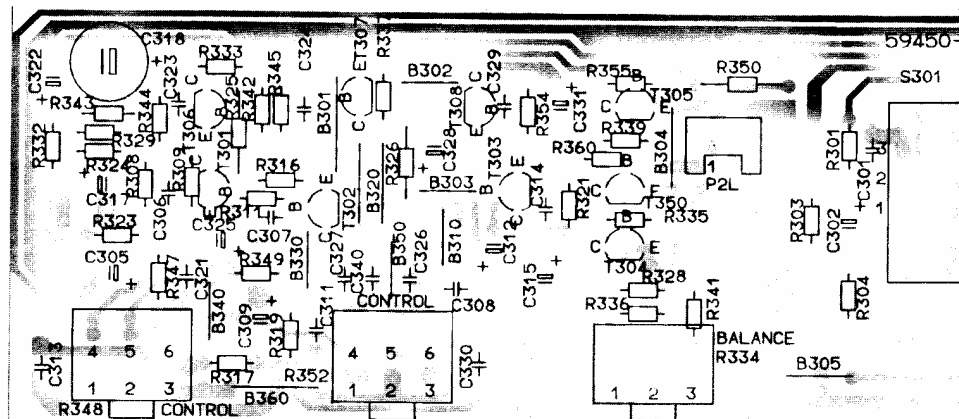
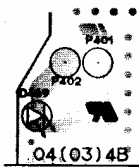


Input-Platte  
Input Board (M)

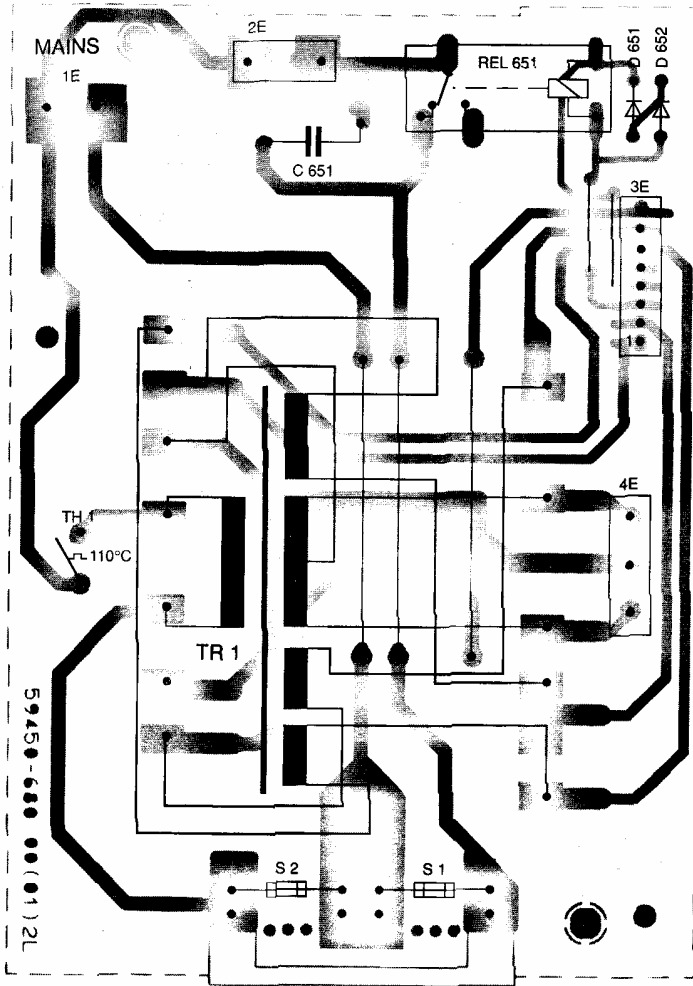


Potentiometerplatte  
Potentiometer Board (O)

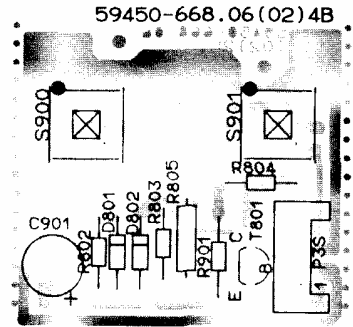
LS-LED-Platte  
LS-LED Board (R)



**Trafoplatte**  
**Transformer Board** (E)



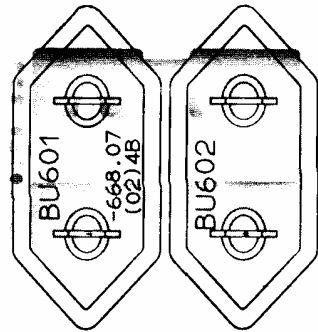
**LS-Schalterplatte**  
**LS Switch Board** (W)



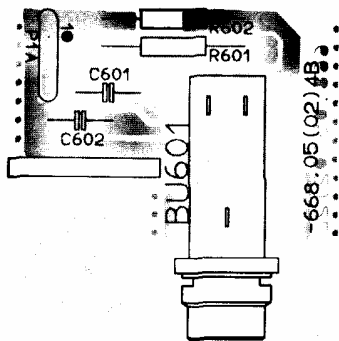
NF-PI  
AF Bc



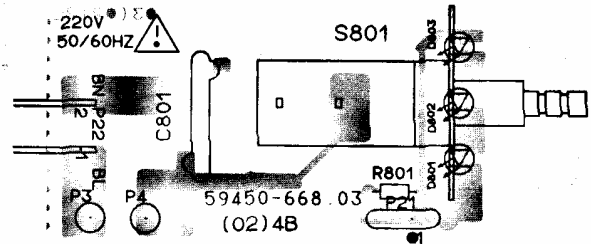
**Netzbuchsenplatte**  
**Mains Socket Board** (Z)



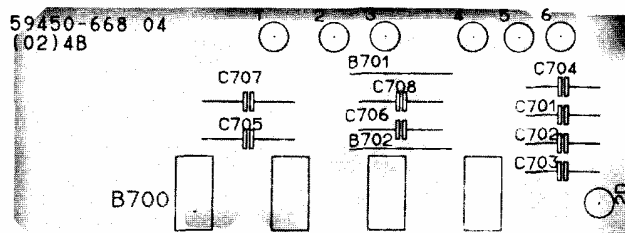
**Kopfhörerplatte**  
**Headphone Board** (X)



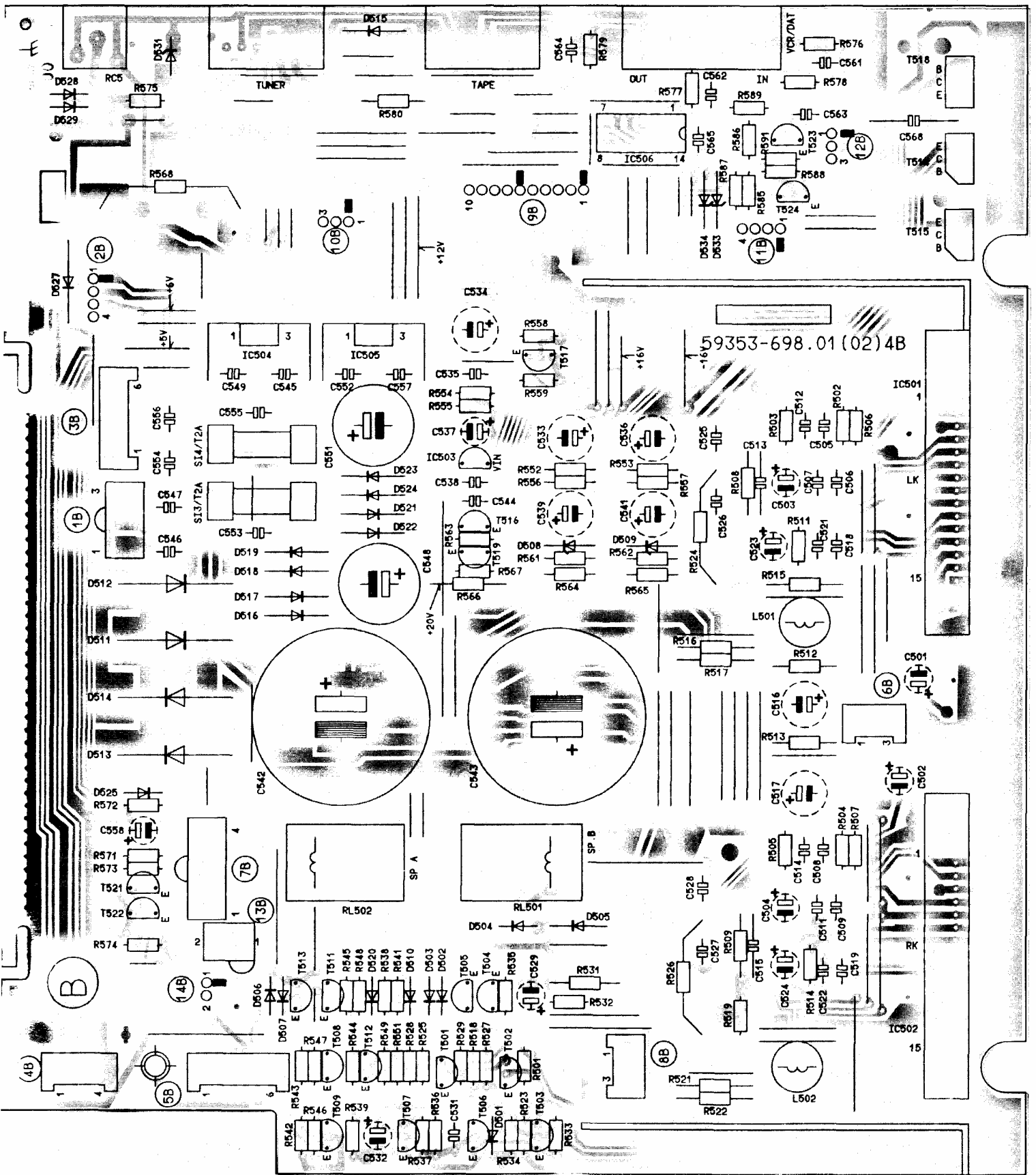
**Netzschalterplatte**  
**Mains Switch Board** (S)



**LS-Anschlußplatte**  
**LS Clamp Board** (D)

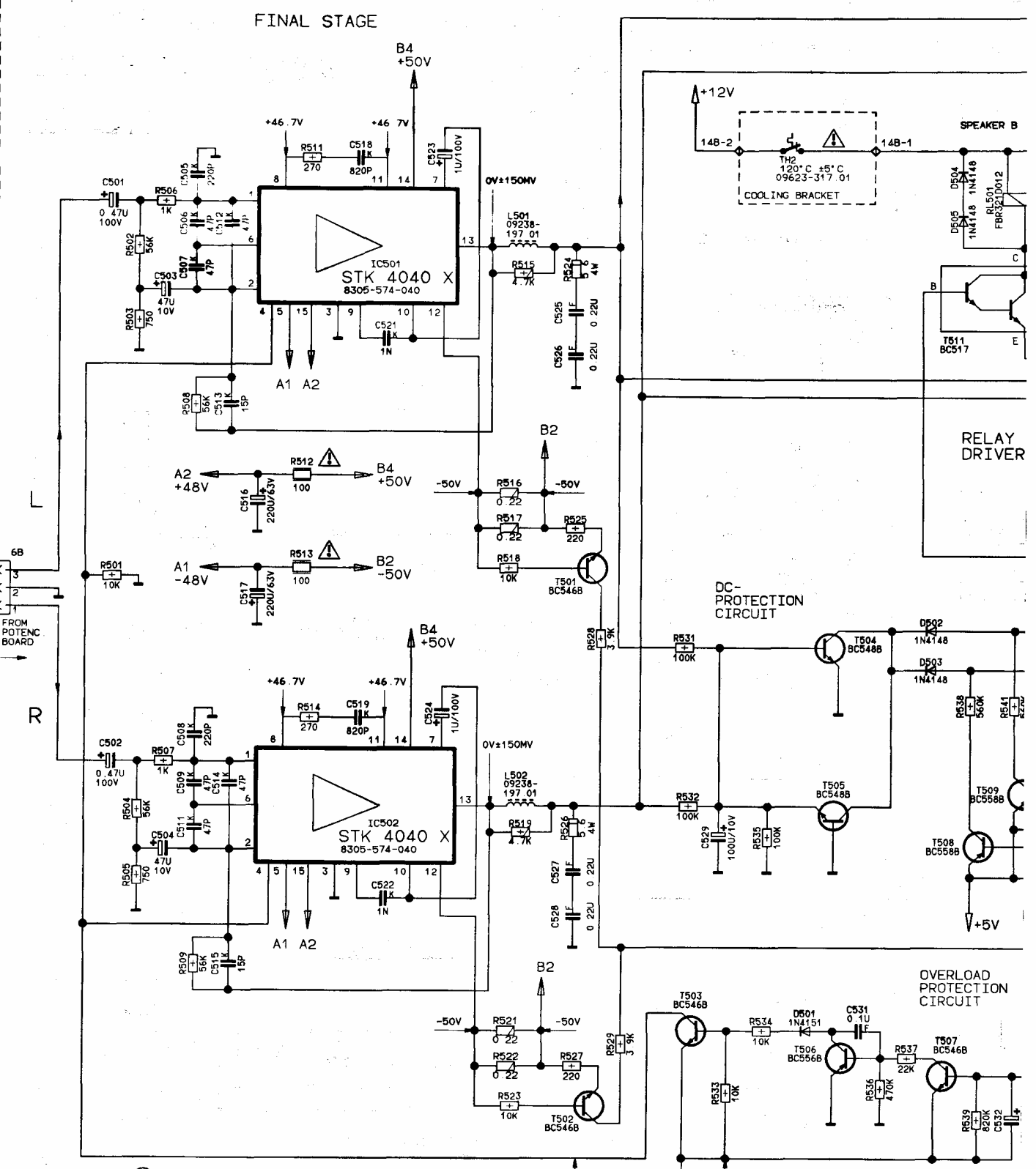


NF-Platte  
AF Board (B)



# Schaltbild / Circuit Diagram

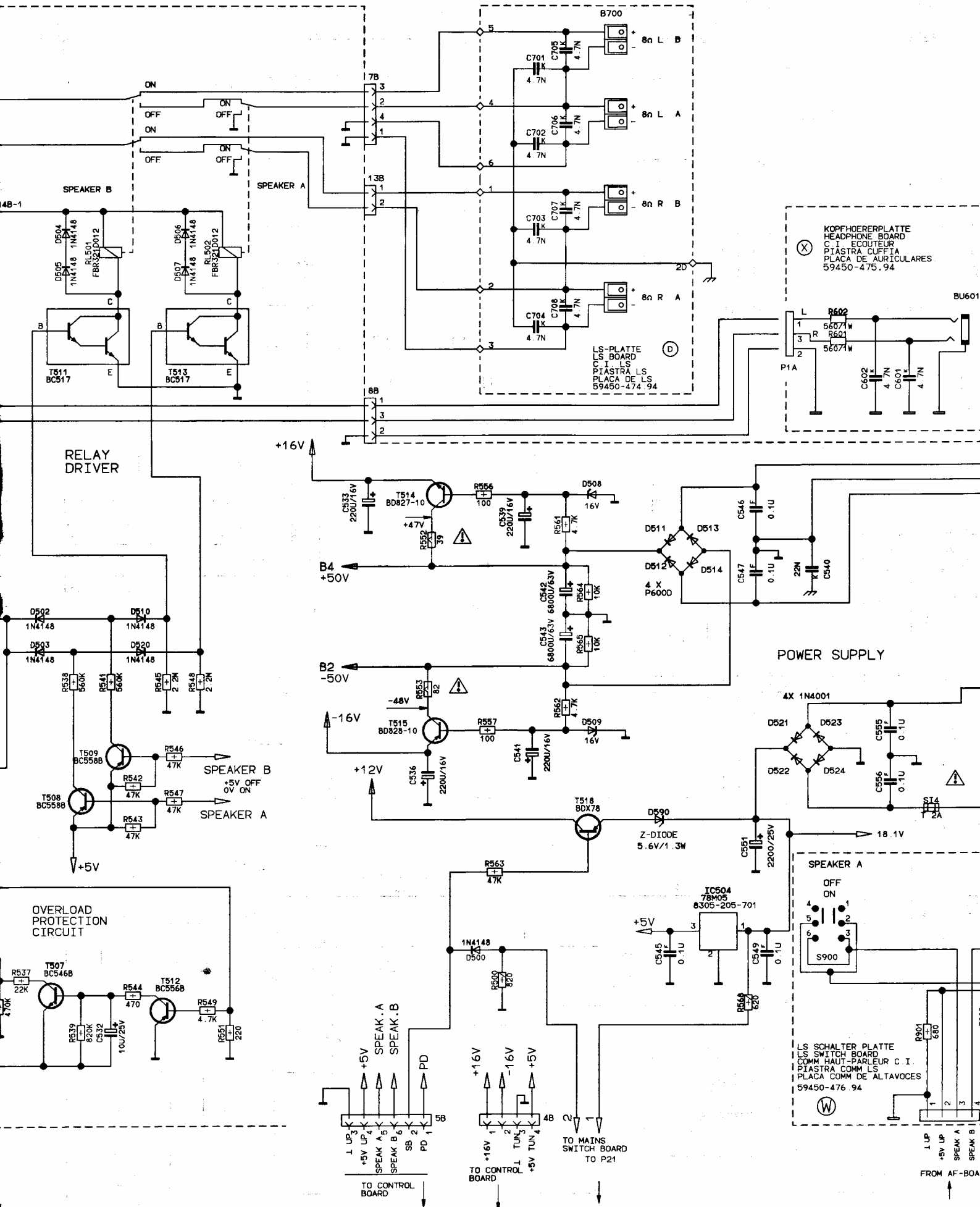
## FINAL STAGE

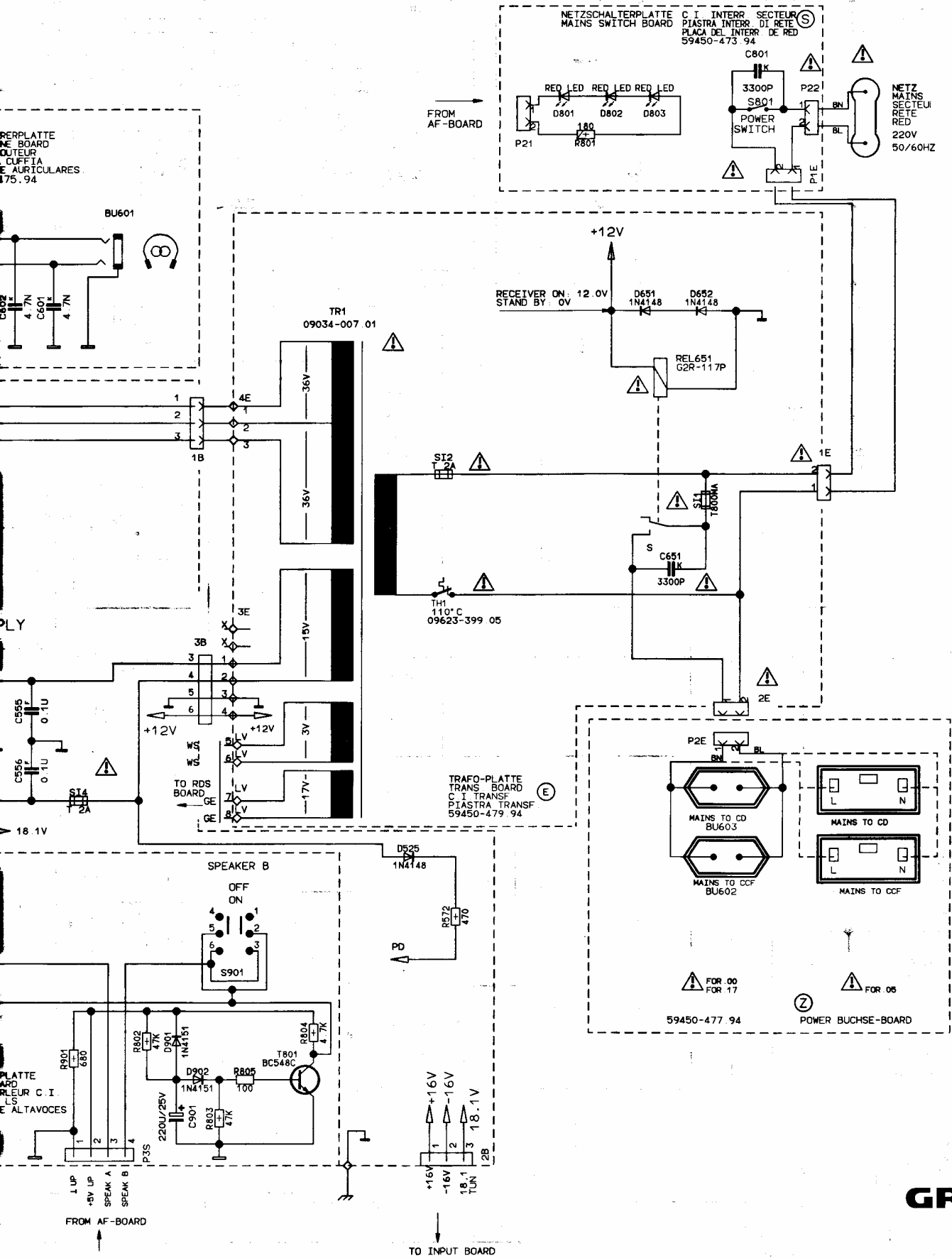


(B) NF-PLATTE  
 AF BOARD  
 C I BF  
 PLASTRA BF  
 PLACA BF  
 59450-481 94

NORMAL -47.1V  
 OVERLOAD -47.8V

NORMAL -48.2V  
 OVERLOAD -48.8V

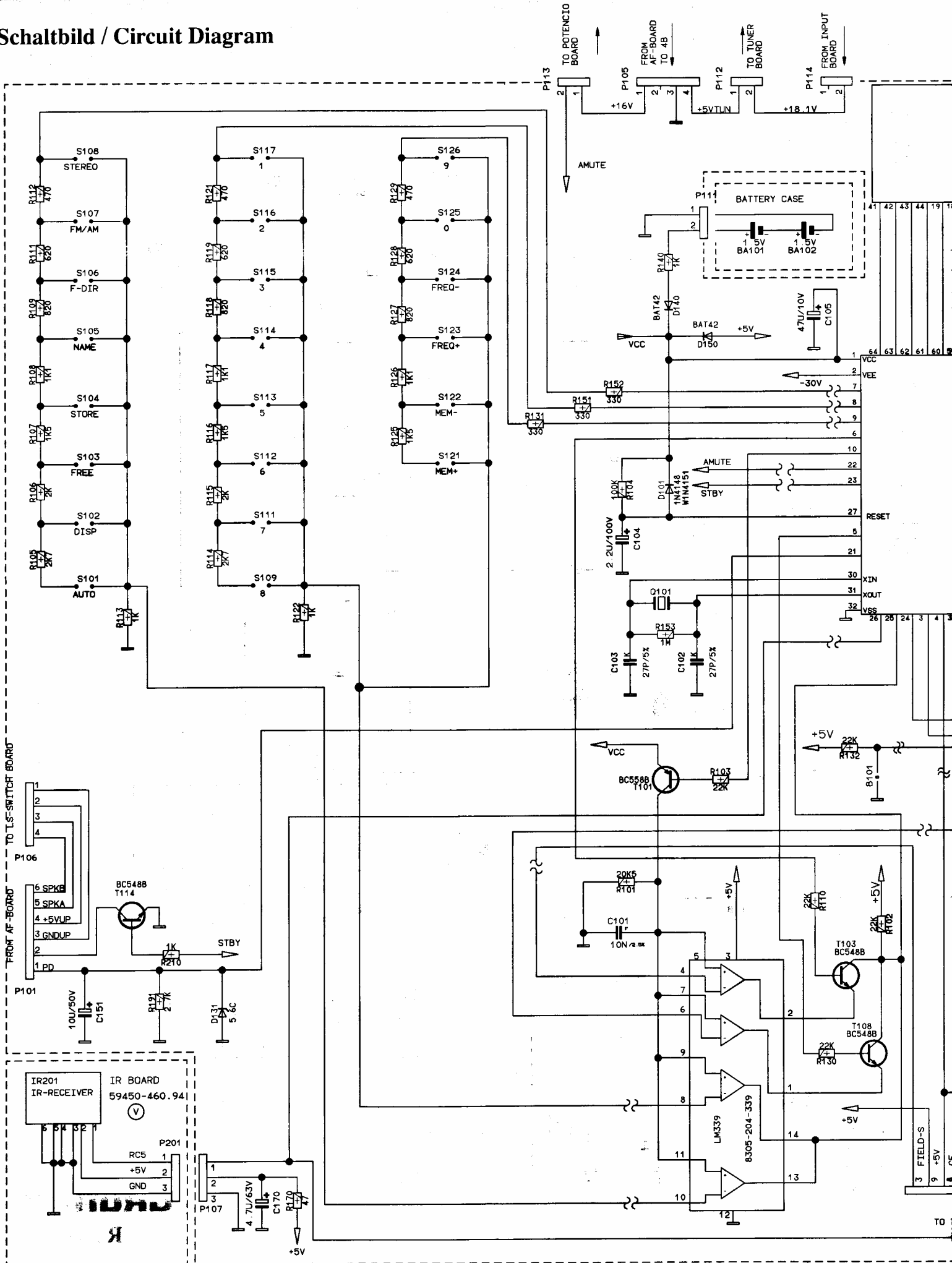




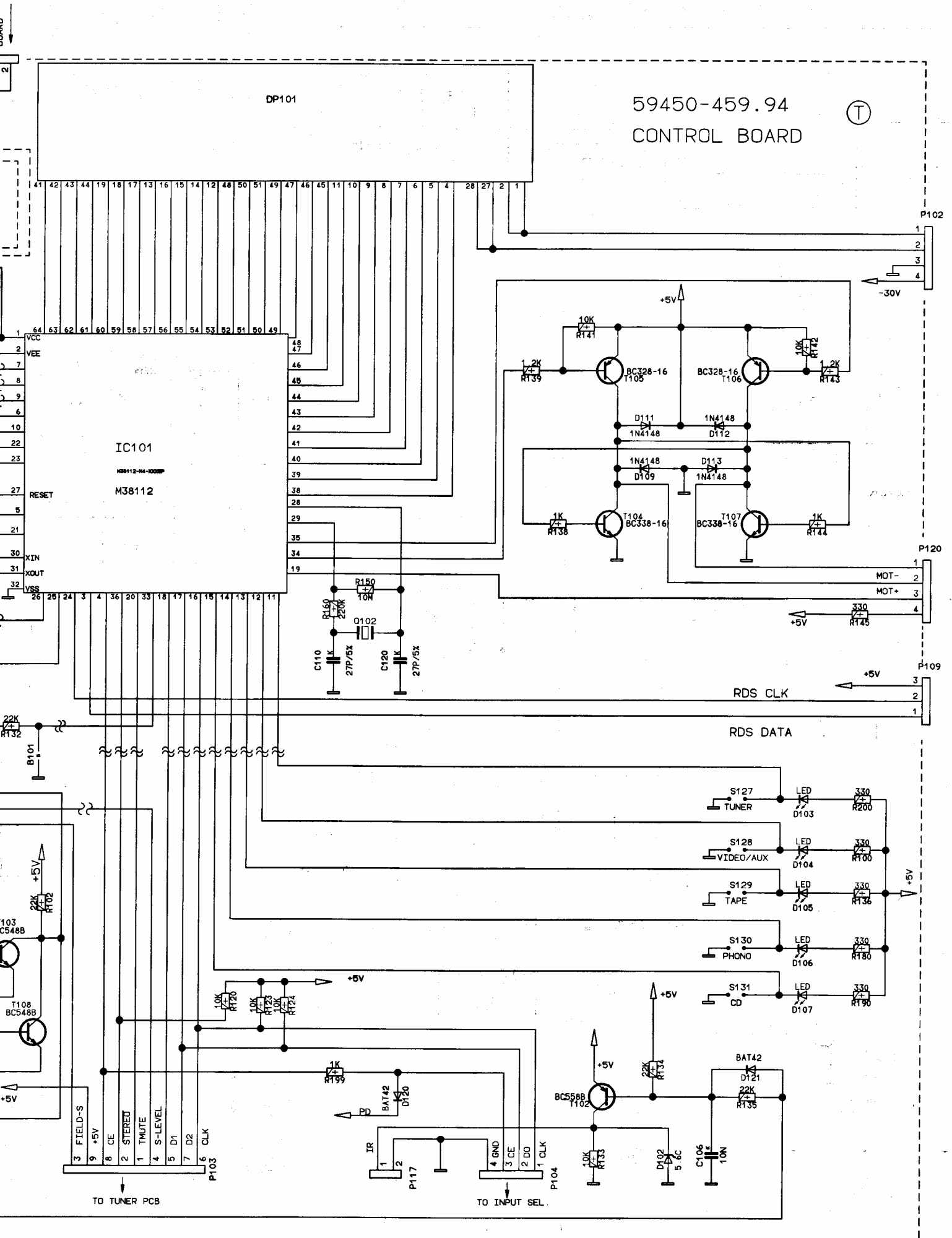
GRUNDIG

R 303

# Schaltbild / Circuit Diagram







AENDERUNGEN VORBEHALTEN  
 SUBJECT TO ALTERATION  
 SOUS RESERVE DE MODIFIC.  
 CON RISERVA DI MODIFICA  
 RES. EL DERECHO DE MODIFIC.

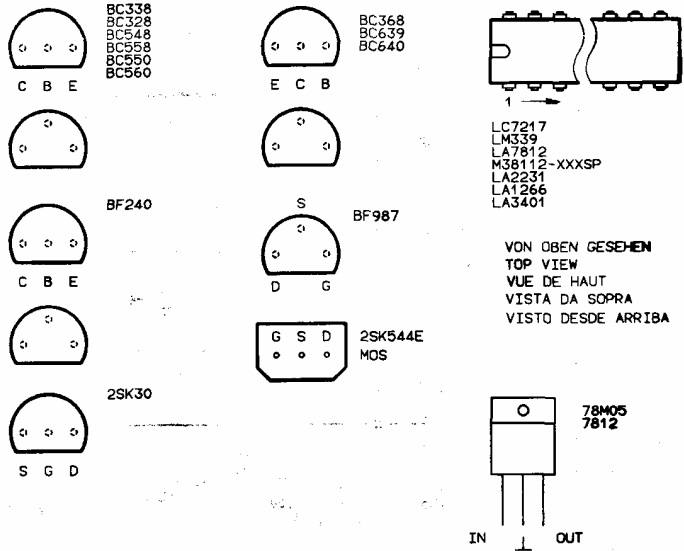
⚠ FÜR DIE GERÄTESICHERHEIT ABSOLUT NOTWENDIG UND ENTSPRECHEND DEN RICHTLINIEN DES VDE BZW. IEC IM ERSATZFALL DÜRFEN NUR BAUTEILE MIT GLEICHER SPEZIFIKATION VERWENDET WERDEN.  
 ⚠ ABSOLUTELY NECESSARY FOR THE SAFETY OF THE SET, THESE COMPONENTS MEET THE SAFETY REQUIREMENTS ACCORDING TO VDE OR IEC, RESP. AND MUST BE REPLACED BY PARTS OF SAME SPECIFICATION ONLY.  
 ⚠ ABSOLUMENT NECESSAIRE POUR LA SECURITE DE L'APPAREIL ET CONFORME AUX REGULATIONS VDE ET IEC EN CAS DE REMPLACEMENT N'UTILISER QUE DES COMPOSANTS AVEC LES MEMES SPECIFICATIONS.  
 ⚠ NECESSARI PER LA SICUREZZA DELL' APPARECCHIO E SONO CONFORMI ALLE NORME DI SICUREZZA VDE E IEC. IN CASA DI SOSTITUZIONE IMPIEGARE QUINDI SOLTANTO PEZZI IN RICAMBIO ORIGINALI.  
 ⚠ ABSOLUTAMENTE NECESARIO PARA LA SEGURIDAD DEL APARATO Y DE ACUERDO CON LAS NORMAS DE SEGURIDAD VDE O IEC EN CASO DE SUSTITUCION SUSTITUCION SOLO DEBEN EMPLEARSE COMPONENTES CON LA MISMA ESPECIFICACION.

WIDERSTAND/RESISTOR  
 RESISTANCE/RESISTENZA/RESISTENCIA

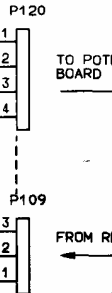
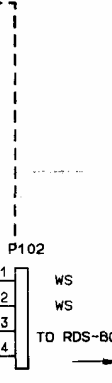
- KSW 0204 DIN DRAHT WIRE BOBINÉE A FILD BOBINADA
- MSW 0204 DIN
- KSW 0207 DIN METALLOXYDSCHICHT METAL OXIDE AD OSSIDO METALLICO DE CAPA DE OXIDO METALICO
- MSW 0207 DIN
- KSW 0309 DIN RAUSCHARM LOW NOISE A SOUFFLE REDUIT A BASSO RUMORE DE BAJO RUIDO
- KSW 0411 DIN
- MSW 0617 DIN
- MSW 0309 DIN SCHWER ENTFLAMMBAR LOW FLAMMABILITY PEU INFLAMMABLE A BASSA INFLAMMABILITA DIFFICILMENTE INFLAMMABLE
- MSW 0414 DIN SICHERUNGSWIDERSTAND SAFETY RESISTOR FUSIBLE DI SICUREZZA RESISTENCIA FUSIBLE

KONDENSATOR/CAPACITOR  
 CONDENSATEUR/CONDENSATORE/CONDENSADOR

- ELKO ELECTROLYTIC ELECTROLYTIQUE ELETTROLITICO ELECTROLITICO
- TANTALUM ELKO ELECTROLYTIC ELECTROLYTIQUE AU TANTALE ELETTROLITICO AL TANTALIO ELECTROLITICO DE TANTALO
- FOLIE FOIL A FEUILLE A FOGLIA DELAMINA
- KERAMIK CERAMIC CERAMIQUE A CERAMICA CERAMICO
- GLIMMER MICA AU MICA A MICA DE MICA
- VIELSCHICHT MULTILAYER A COUCHES MULTIPLES A PIU' STRATI MULTICAPA
- POLYPROPYLEN DE POLIPROPILENO (KS-KP)

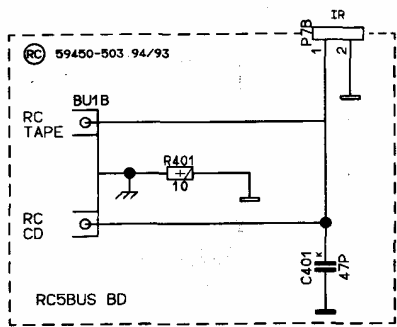


VON OBEN GEGEHEN  
 TOP VIEW  
 VUE DE HAUT  
 VISTA DA SOPRA  
 VISTO DESDE ARRIBA



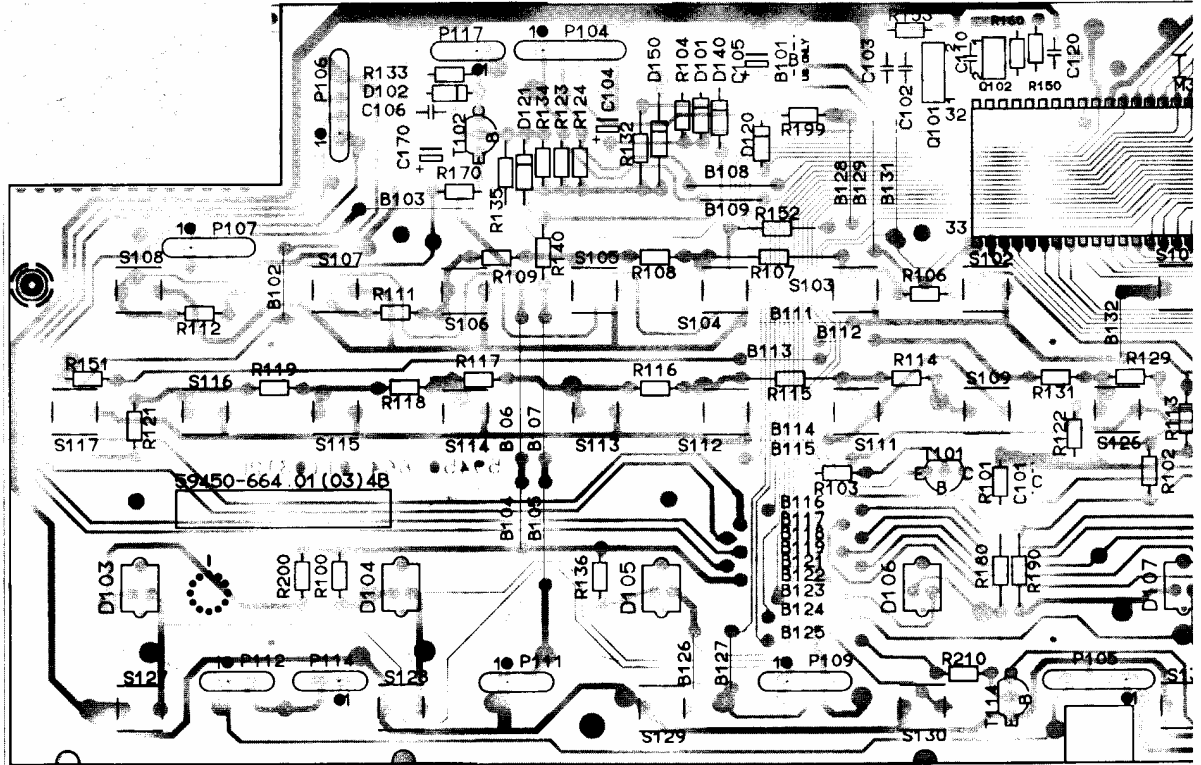
ACHTUNG!  
 VORSCHRIFTEN BEIM UMGANG MIT MOS-BAUTEILEN BEACHTEN!  
 ATTENTION!  
 OBSERVE MOS COMPONENTS HANDLING INSTRUCTIONS WHEN SERVICING!  
 ATTENTION!  
 LORS DE LA MANIPULATION DES CIRCUITS MOS, RESPECTER LES PRESCRIPTIONS MOS!  
 ATTENZIONE!  
 OSSERVARE LE RELATIVE PRESCRIZIONI DURANTE I LAVORI CON COMPONENTI MOS!  
 ATENCION!  
 RESPETAR EL TRATAMIENTO DE COMPONENTS MOS

SPANNUNGEN MIT VOLTMESSER (RI=10M $\Omega$ ), FALLS NICHT ANDERS ANGEZEIGT, GEGEN MASSE GEMESSEN. MESSWERTE GELTEN BEI 220V NETZSPANNUNG.  
 IF NOT OTHERWISE INDICATED ALL VOLTAGES ARE MEASURED AGAINST CHASSIS WITH A VOLTMETER (RI=10M $\Omega$ ). THE VALUES ARE VALID FOR 220V AC MAINS VOLTAGES.  
 SAUF INDICATION CONTRAIRE, LES TENSIONS SONT MEASUREES PAR RAPPORT AU CHASSIS AVEC UN VOLTMETRE (RI=10M $\Omega$ ). LES VALEURS SONT VALABLES POUR UNE TENSION SECTEUR DE 220V CA.  
 TENSIONI MISURATE CON VOLTMESSER (RI=10M $\Omega$ ), SALVE ALTRE INDICAZIONI, RIFERITE A MASSA. I VALORI DI MISURA VALGONO CON TENSIONE DI RETE DI 220V.  
 LAS TENSIONES, SIEMPRE QUE NO SE INDIQUE OTRA COSA, SE MIDEN CON RESPECTO A MASA CON VOLTMETRO (RI=10M $\Omega$ ). LOS VALORES DE MEDIDA SON VALIDOS CON 220V DE TENSION DE RED.

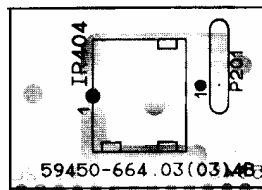


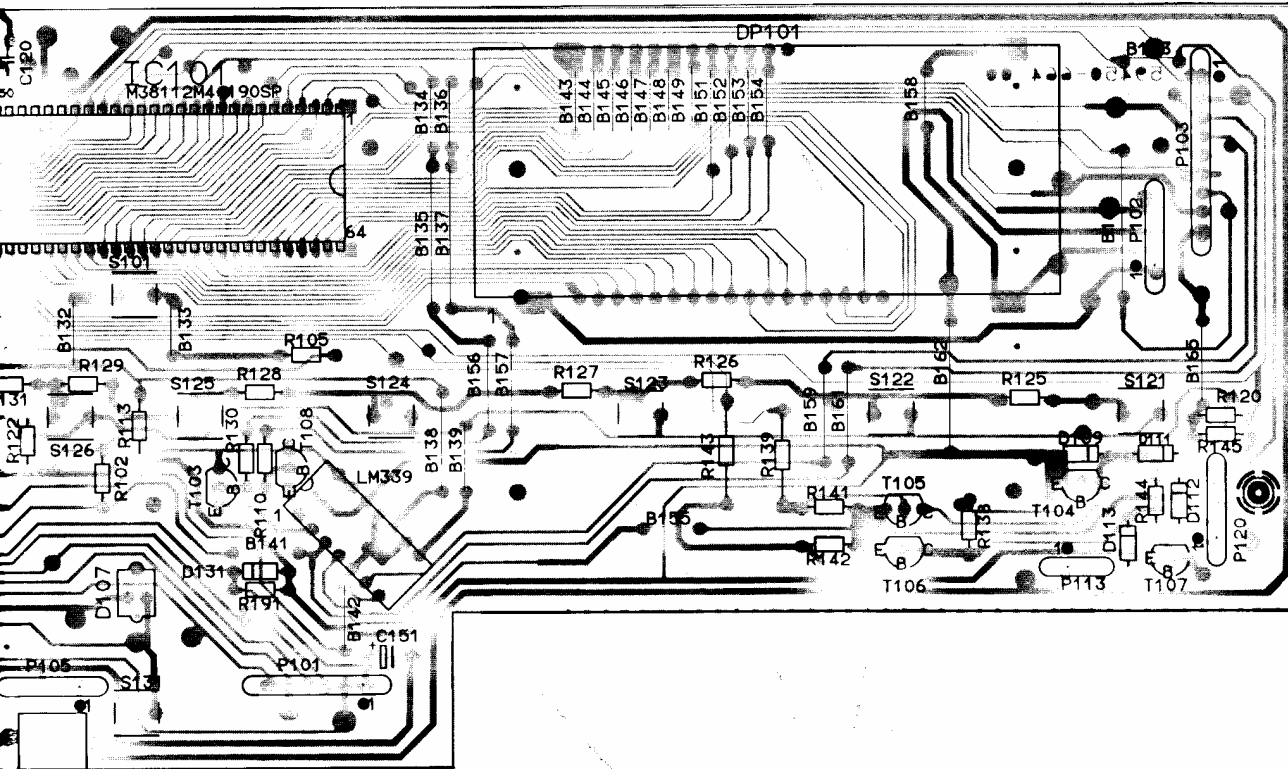
**GRUNDIG**  
 R 303

### Controlplatte Control Board (T)

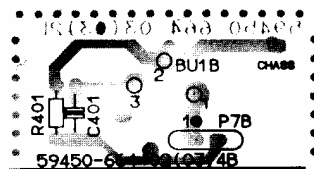


### IR-Platte IR Board (V)





RC-5-Platte  
RC 5 Board



# Leiterplattenverbindungen / Connections of Printed Boards

- Ⓐ HF-Platte (Chassisplatte) / RF Board (Chassis Board)
- Ⓜ Inputplatte / Input Board
- ⓐ Potiplatte / Potentiometer Board
- Ⓟ RDS-Platte / RDS Board
- Ⓑ NF-Platte / AF Board
- Ⓔ Trafoplatte / Transformer Board
- Ⓦ LS-Schalterplatte / LS-Switch Board
- Ⓢ Netzschalterplatte / Mains Switch Board
- ⓧ Kopfhörerplatte / Headphone Board
- Ⓓ LS-Anschlußplatte / LS Clamp Board
- Ⓩ Netzbuchsenplatte / Mains Socket Board
- Ⓥ IR-Platte / IR Board
- Ⓣ Control - Platte / Control Board
- ⓇⓈ RC 5 - Platte / RC 5 Board

