

GRUNDIG SERVICE MANUAL

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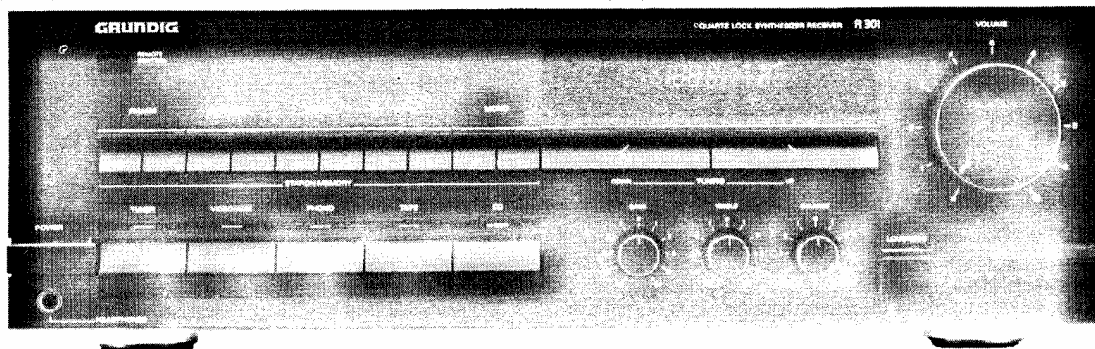
Service
Manual

GRUNDIG-FRANCE SERVICE DOCUMENTATION TECHNIQUE ARCHIVES

Ⓛ Btx * 32700 #

R 301

R 301 (9.55128-8151)



D

Bei Eingriffen Schutzmaßnahmen für MOS-Bauteile beachten!

Das Gerät muß auch nach der Reparatur den Sicherheitsbestimmungen nach DIN/IEC 65 VDE 0860 entsprechen.

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GB

N.B. When carrying out repairs, observe MOS precautions!

After the unit has been repaired, it should still meet the DIN/IEC 65 VDE 0860 safety requirements.

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Technische Daten

Empfangsbereiche:

FM	87,5...108 MHz
MW	528...1605 kHz
MW (USA-Version)	520...1620 kHz
LW	153...281 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
LW	Suchlauf 1 kHz
Suchlauffenster FM	15 kHz
Suchlauffenster FM-USA	25 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-Umschaltsschwelle: 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	≥65/69 dB
Stereo	≥62/66 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:	≥65 dB
Stereo:	≥60 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 55 W
Nennleistung an 8 Ω	2 x 30 W

Klirrfaktor:

bei Nennleistung -1 dB < 0,03%

Intermodulation:

bei Nennleistung -1 dB ≤0,1%

Dämpfungsfaktor (8Ω): ≥ 50

Übertragungsbereich:

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

Übersprechdämpfung L-R (für 1 kHz):

Phono:	≥ 60 dB
Tuner,Tape,CD,Video/Aux:	≥ 60 dB

Fremdspannungsabstand:

bezogen auf Nennleistung

Phono (IEC):	74 dB
Tuner,Tape,CD,Video/Aux (IEC):	91 dB
Phono (DIN):	70 dB
Tuner,Tape,CD,Video/Aux (DIN):	87 dB

Geräuschspannungsabstand:

Phono (IEC):	79 dB
Tuner,Tape,CD,Video/Aux (IEC):	96 dB
Phono (DIN):	74 dB
Tuner,Tape,CD,Video/Aux (DIN):	91 dB

Eingangsempfindlichkeit (bei Nennleistung):

Phono:	2,2 mV
Tuner,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
2x30 W/8Ω 170 W

Technical Data

Waveband Coverage:

FM	87,5...108 MHz
MW	528...1605 kHz
MW (US version)	520...1620 kHz
LW	153...281 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
LW	Station search 1 kHz
FM Station search window	15 kHz
FM Station search window (US version)	25 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	≥65/69 dB
Stereo	≥62/66 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:	>65 dB
Stereo:	>60 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 55 W
Nominal Power into 8 Ω	2 x 30 W

Total Harmonic Distortion:

at nominal power -1 dB < 0.03%

Intermodulation Distortion:

at nominal power -1 dB 0.1%

Damping Factor (8Ω): ≥ 50

Frequency Response:

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

Stereo Separation (for 1 kHz):

Phono:	≥ 60 dB
Tuner,Tape,CD,Video/Aux:	≥ 60 dB

Signal-to-Noise Ratio (Unweighted):

at nominal power

Phono (IEC):	74 dB
Tuner,Tape,CD,Video/Aux (IEC):	91 dB
Phono (DIN):	70 dB
Tuner,Tape,CD,Video/Aux (DIN):	87 dB

Weighted Signal-to-Noise Ratio:

Phono (IEC):	79 dB
Tuner,Tape,CD,Video/Aux (IEC):	96 dB
Phono (DIN):	74 dB
Tuner,Tape,CD,Video/Aux (DIN):	91 dB

Input Sensitivity (at nominal power):

Phono:	2,2 mV
Tuner,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
2x30 W/8Ω 170 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**!

F **Attention:** Prieze 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 **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!

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** 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**. (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.

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 **METRATESTER 3** (instrument de mesure pour le contrôle d'appareils électriques conformes à la norme VDE 0701).

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Geschäftsstelle Bayern
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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 **METRATESTER 3** (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 **METRATESTER 3** (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  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 isolements 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  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 termicam. 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  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.
- Repasar los puntos de soldadura sometidos a carga térmica.
- Mantener libres los canales aireación.

Ausbauhinweise

Gehäuseoberteil

- 6 Schrauben **a** herauserschrauben.
- Gehäuseoberteil abnehmen.

Chassisplatte

- 3 Schrauben **n** herauserschrauben.
- 4 Schrauben **o** herauserschrauben.
- Steckverbindungen lösen.
- Chassisplatte herausnehmen.

Abschirmblech

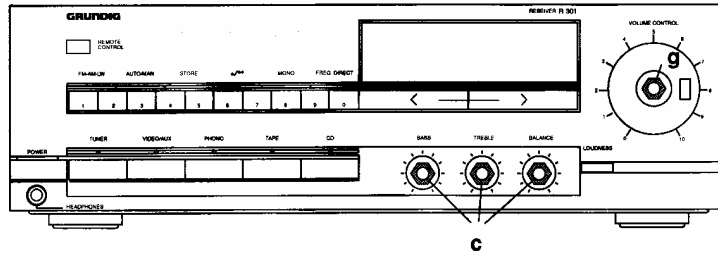
- Chassisplatte ausbauen.
- 3 Schrauben **p** herauserschrauben.
- Abschirmblech herausnehmen.

Halterung für Speicherbatterien

- Chassisplatte ausbauen.
- 2 Schrauben **r** herauserschrauben.
- Leitungen ablöten.

Frontblende lösen

- Steckverbindungen zur Trafo-, Chassis- und zur NF-Platte lösen.
- 2 Schrauben **b** lösen.
- Bass-, Treble- und Balanceknopf abziehen.
- 3 Muttern **c** abschrauben.
- 3 Rastnasen **d** austrasten.
- Front nach vorne ziehen.



Bedienplatte

- Frontblende lösen.
- 12 Schrauben **e** herauserschrauben.
- 2 Rastnasen **s** austrasten.
- Steckverbindungen abziehen.
- Die Bedienplatte herausnehmen.

Kopfhörerbuchsenplatte

- Frontblende lösen.
- 2 Schraube **f** herauserschrauben.
- Kopfhörerbuchsenplatte herausnehmen.

Lautstärkeregerplatte

- Frontblende lösen.
- Alle Steckverbindungen auf der Lautstärkeregerplatte lösen.
- Drehknopf abziehen.
- Mutter **g** abschrauben.
- Lautstärkeregerplatte herausnehmen.

Power-LED-Platte

- Frontblende lösen.
- 2 Schrauben **h** herauserschrauben.
- Power-LED-Platte herausnehmen.

NF-Platte

- Chassisplatte ausbauen.
- Frontblende lösen.
- Steckverbindungen lösen.
- 7 Schrauben **k** herauserschrauben.
- 2 Schrauben **l** herauserschrauben.
- C 250 ablöten.
- NF-Platte herausnehmen.

Trafo

- Steckverbindungen lösen.
- 3 Schrauben **m** herauserschrauben.
- Trafo herausnehmen.

Netzausgangsbuchsen

- Leiterplatte ablöten.
- Netzbuchsen austrasten und abnehmen.

Disassembly Instructions

Cabinet top

- Undo 6 screws **a**.
- Remove the top of the cabinet.

Chassis board

- Unscrew 3 screws **n**.
- Unscrew 4 screws **o**.
- Unplug the connectors.
- Remove the Chassis board.

Metal screen

- Remove the Chassis board.
- Unscrew 3 screws **p**.
- Remove the metal screen.

Box for the memory batteries

- Remove the Chassis board.
- Unscrew 2 screws **r**.
- Unsolder the leads.

Removing the front panel

- Unplug the connections to the transformer, chassis, and AF boards.
- Undo 2 screws **b**.
- Pull off the "Bass", the "Treble" and the "Balance" knobs.
- Unscrew 3 nuts **c**.
- Disengage 3 catches **d**.
- Remove the panel pulling it towards the front.

Keyboard control board

- Loosen the front panel.
- Unscrew 12 screws **e**.
- Disengage 2 catches **s**.
- Pull out the plug connections.
- Take out the keyboard control board.

Headphone socket board

- Loosen the front panel.
- Unscrew 2 screws **f**.
- Remove the headphone socket board.

Volume control board

- Loosen the front panel.
- Pull out all connectors plugged into the volume control board.
- Pull out the rotary knob.
- Unscrew nut **g**.
- Take out the volume control board.

Power LED board

- Loosen the front panel.
- Unscrew 2 screws **h**.
- Remove the power LED board.

AF board

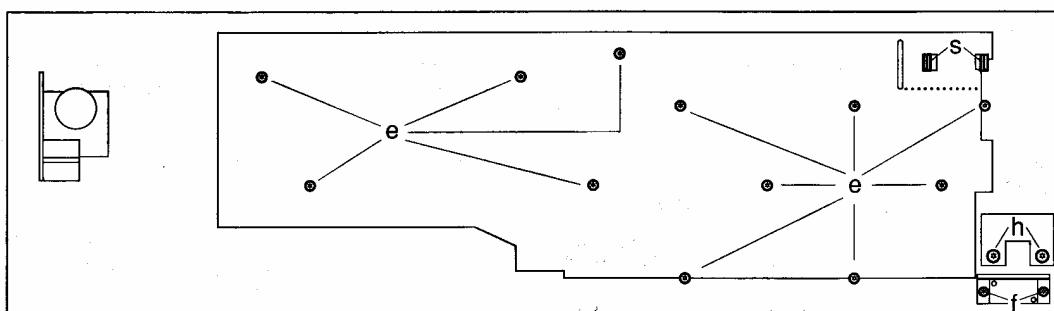
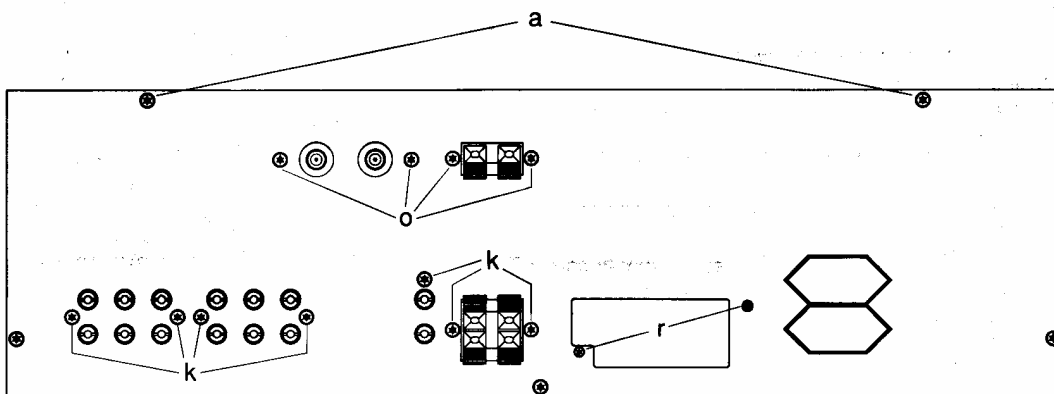
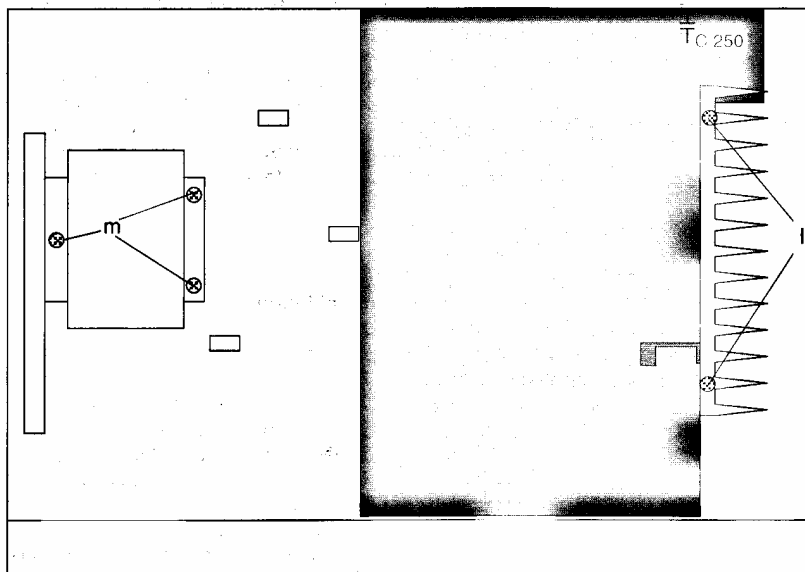
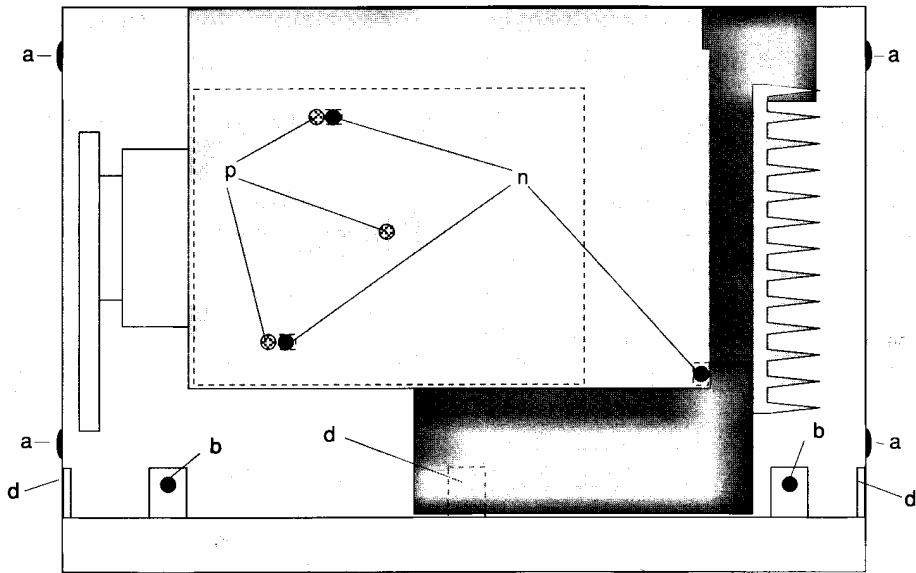
- Remove the Chassis board.
- Loosen the front panel.
- Pull out the plug connections.
- Undo 7 screws **k**.
- Undo 2 screws **l**.
- Unsolder C 250.
- Remove the AF board.

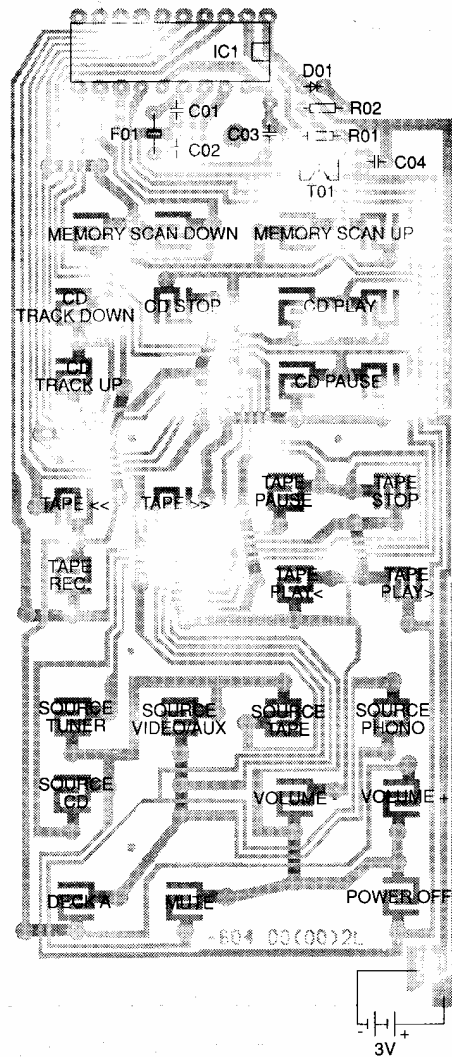
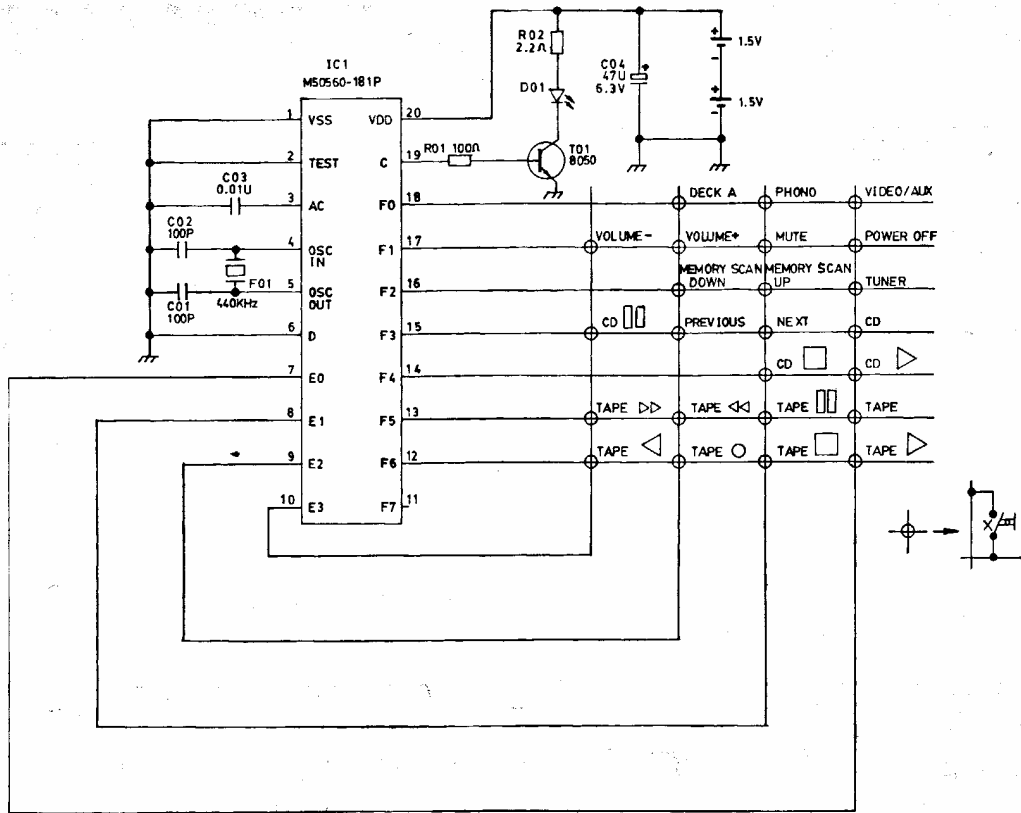
Transformer

- Unplug the connectors.
- Undo 3 screws **m**.
- Take out the transformer.

Mains output sockets

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





Display

Display

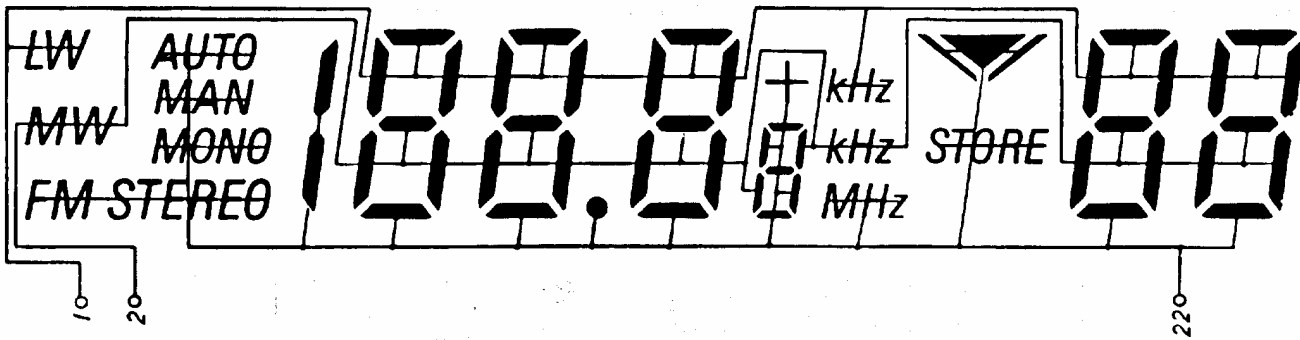
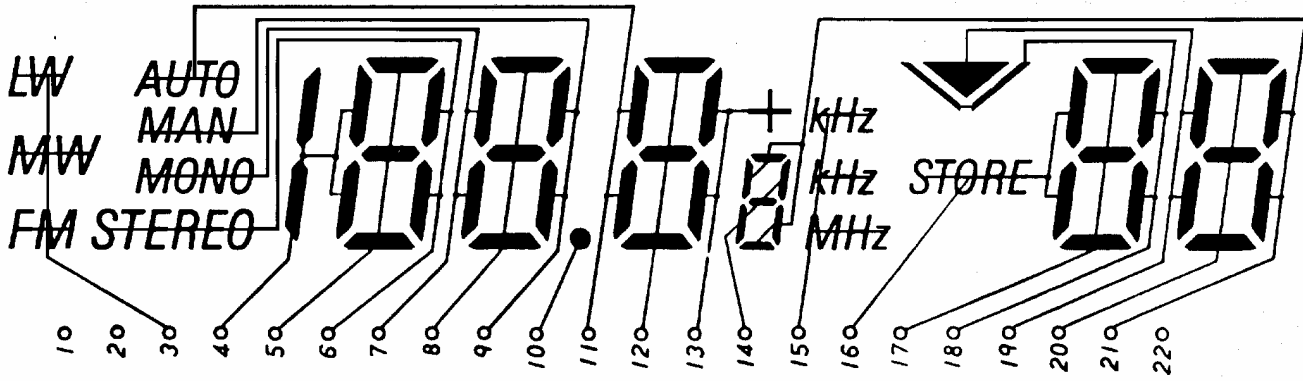


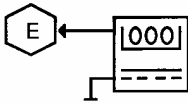
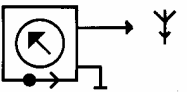
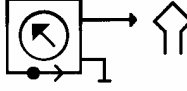
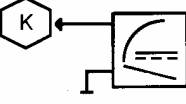
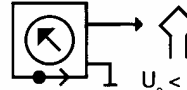
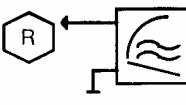
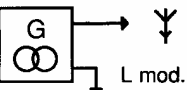
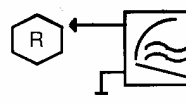
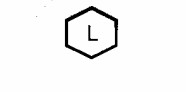
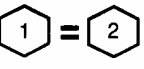
Tabelle für ZF-Programmierung

0 = Brücke geöffnet
1 = Brücke geschlossen

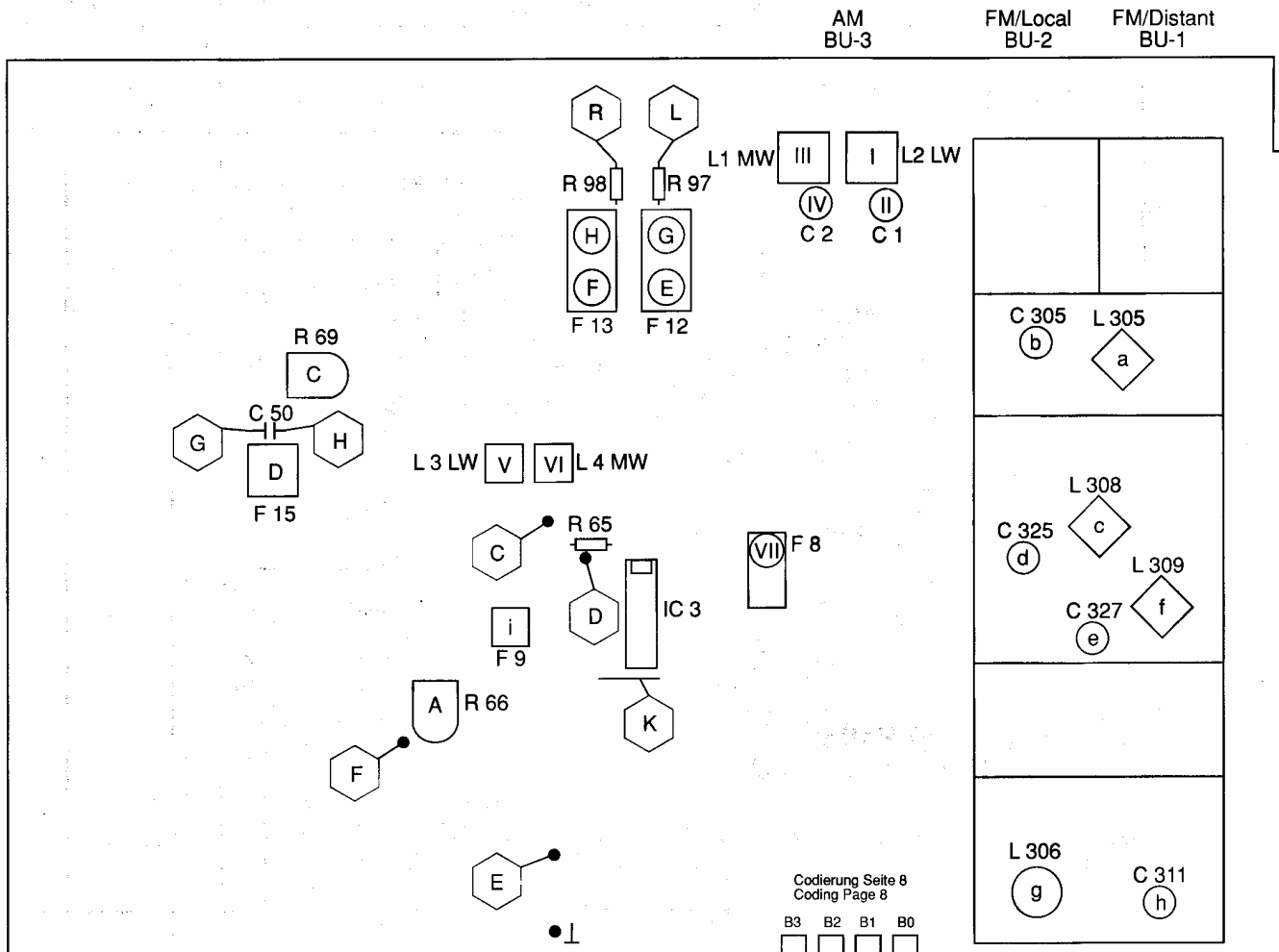
Table for IF-Programming

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		

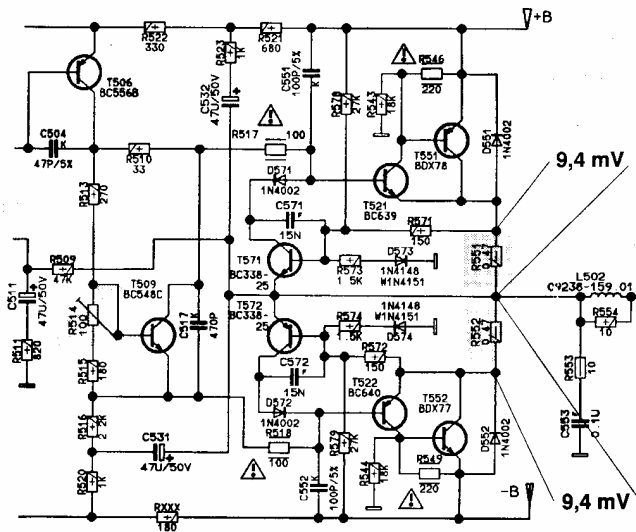
<ul style="list-style-type: none"> • Abgleich • Alignment • Alignement • Taratura • Ajuste 	<ul style="list-style-type: none"> • Einspeisung • Feeding • Injection • Alimentazione • Aplicación de señal 	<ul style="list-style-type: none"> • Meßpunkt • Testpoint • Point de mesure • Punto di misura • Punto de medida 	<ul style="list-style-type: none"> • Hinweise • Notes • Observation • Note • Advertencias 	<ul style="list-style-type: none"> • Band • Band • Bande • Gamma • Banda 	<p>f</p>	<ul style="list-style-type: none"> • Abgleichpunkt • Alignment point • Point d'alignement • Punto di taratura • Punto de ajuste 	<ul style="list-style-type: none"> • Einstellung • Adjustment • Réglage • Regolazione • Ajuste
<ul style="list-style-type: none"> • Oszillator • Oscillator • Oscillateur • Oscillatore • Oscilador 				<ul style="list-style-type: none"> FM MW LW 	<p>108 MHz 87,5 MHz 531 kHz 153 kHz</p>	<p>(h) (g) (VI) (V)</p>	<p>8,5 V 2,5 V 1,1 V 1,8 V</p>
<ul style="list-style-type: none"> • Vor-u. Zwischenkreis • Aerial band pass cct. • Circuits préliminaire et intermédiaire • Circuito ingresso ed intermedio • Circuitos de antena e intermedio 	 <p>$U_a <$; $\Delta f = 40 \text{ kHz}$ $f_{\text{mod}} = 1 \text{ kHz}$</p>  <p>$U_a <$; $m = 30 \%$ $f_{\text{mod}} = 1 \text{ kHz}$</p>			<ul style="list-style-type: none"> FM MW LW 	<p>106 MHz 88 MHz 1449 kHz 558 kHz 261 kHz 162 kHz</p>	<p>(b) (d) (e) (a) (c) (f) (IV) (III) (II) (I)</p>	<p>max. max. max. max.</p>
<ul style="list-style-type: none"> • ZF • IF • FI 	<ul style="list-style-type: none"> • Abgleich nach Rauschen • Alignment by noise  <p>$U_a <$ $m = 30 \%$ $f_{\text{mod}} = 1 \text{ kHz}$</p>			<ul style="list-style-type: none"> FM MW 	<p>108 MHz 1449 kHz</p>	<p>(i) (VII)</p>	<p>max. max.</p>
<ul style="list-style-type: none"> • Stereo-Übersprechdämpfung • Stereo crosstalk attenuation • Atténuation de la diaphonie • Attenuazione della diafonia stereo • Atenuación de diafonía stereo 	 <p>L mod. 19 kHz Pilot</p> <p>R mod.</p>	 		<ul style="list-style-type: none"> FM 		<p>(C)</p>	 <ul style="list-style-type: none"> • Minimum • Minimum • Minimum • Mínimo • Mínimo

<ul style="list-style-type: none"> • Abgleich • Alignment • Alignement • Taratura • Ajuste 	<ul style="list-style-type: none"> • Einspeisung • Feeding • Injection • Alimentazione • Aplicación de señal 	<ul style="list-style-type: none"> • Meßpunkt • Testpoint • Point de mesure • Punto di misura • Punto de medida 	<ul style="list-style-type: none"> • Hinweise • Notes • Observation • Note • Advertencias 	<ul style="list-style-type: none"> • Band • Band • Bande • Gamma • Banda 	f	<ul style="list-style-type: none"> • Abgleichpunkt • Alignment point • Point d'alignement • Punto di taratura • Punto de ajuste 	<ul style="list-style-type: none"> • Einstellung • Adjustment • Réglage • Regolazione • Ajuste
<ul style="list-style-type: none"> • Suchlaufpegel • Self seek level • Niveau en recherche automatique • Livello ricerca automatica • Nivel de exploración de sintonía 	<p>$U_e = 15 \mu V$</p>		<p>$U_e < 15 \mu V \rightarrow$ kein Stopp / no stop / pas / manca stop / no para</p> <p>$U_e \geq 15 \mu V \rightarrow$ Stopp / stop / arrêt / stop / para</p>	FM	106 MHz	(A)	0,7 V + 0,05V
<ul style="list-style-type: none"> • Nachbarkanalfilter • Adjacent channel filter • Filtre canal adjacent • Filtro per canale adiacente • Filtro del canal adyacente 	<p>114 kHz, 100 mV</p>		<ul style="list-style-type: none"> • Das Filter ist vorabgeglichen • The filter is preadjusted • Le filtre est pré réglé • Il filtro e' prearato • Este filtro viene preajustado 			(D)	<ul style="list-style-type: none"> • Minimum • Minimum • Minimum • Mínimo • Mínimo
<ul style="list-style-type: none"> • Pilot- und Hilfsträger • Pilotcarrier and subcarrier • Porteuse pilote et sous-porteuse • Portante pilota e ausiliaria • Portadoras piloto y auxiliar 	<p>19 kHz</p>					(E)	<ul style="list-style-type: none"> • Minimum • Minimum • Minimum • Mínimo • Mínimo
	<p>38 kHz</p>					(G)	
						(H)	



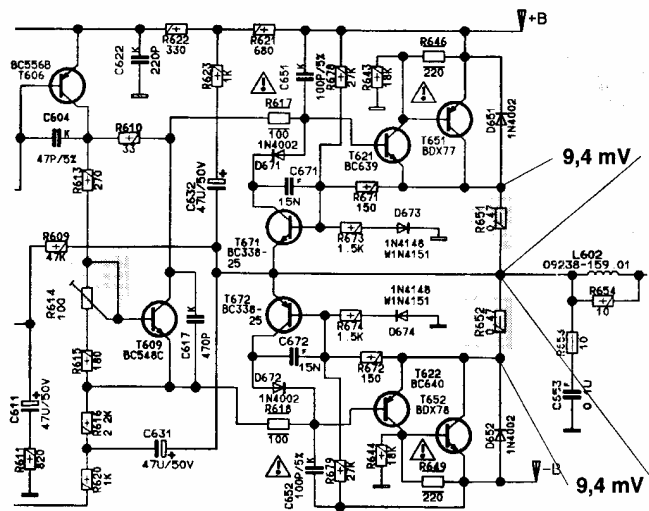
Ruhestromabgleich

Verstärker nicht angesteuert, Ausgänge mit 8 Ω belastet.
Die Spannung über den einzelnen Widerständen R 551, R 552 mit R 514 und R 651, R 652 mit R 614 auf 9,4 mV einstellen.



Quiescent Current

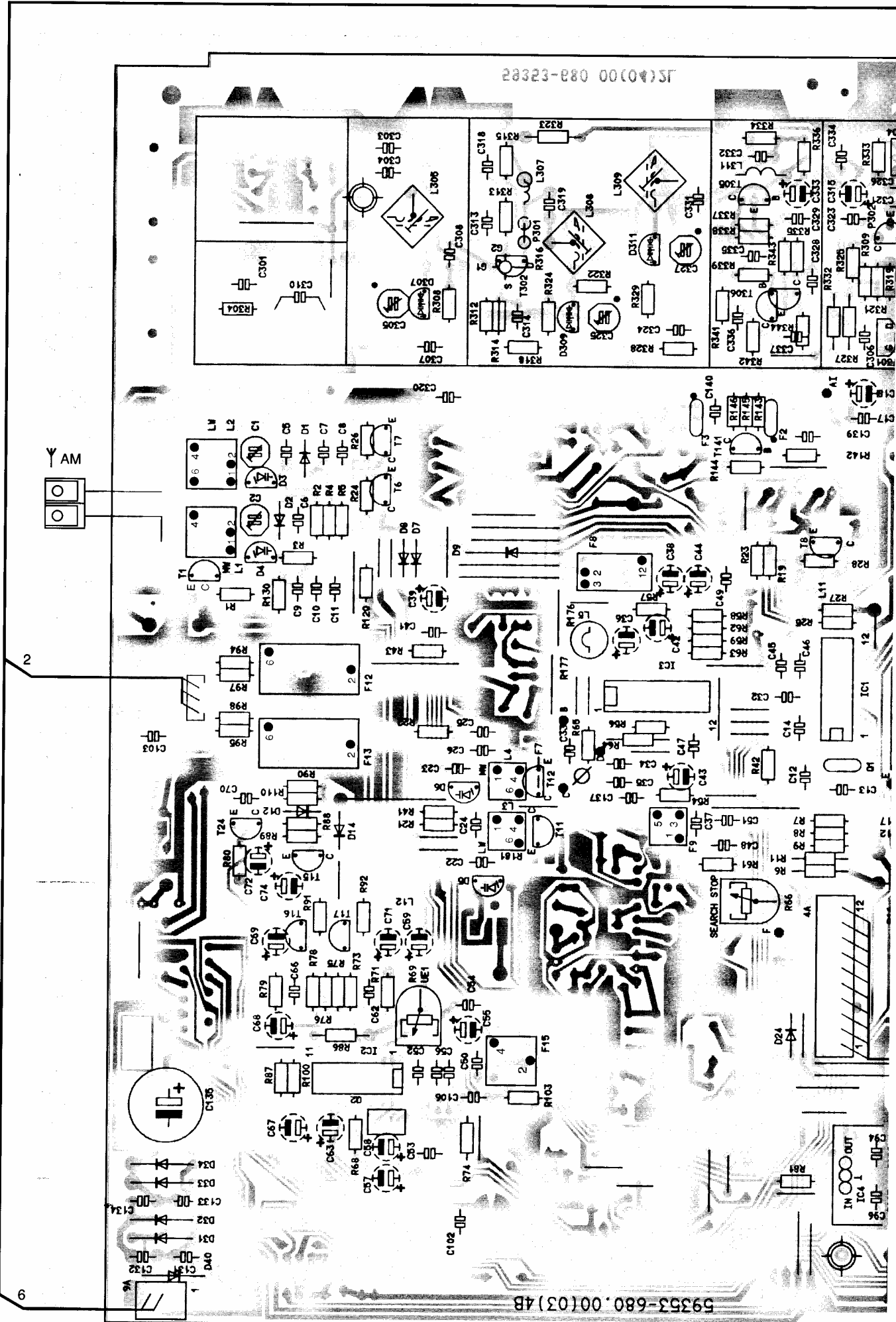
Amplifier undriven, Outputs loaded with 8 Ω.
Adjust the voltages across the separate resistors R 551, R 552 with R 514 and R 651, R 652 with R 614 to 9,4 mV.



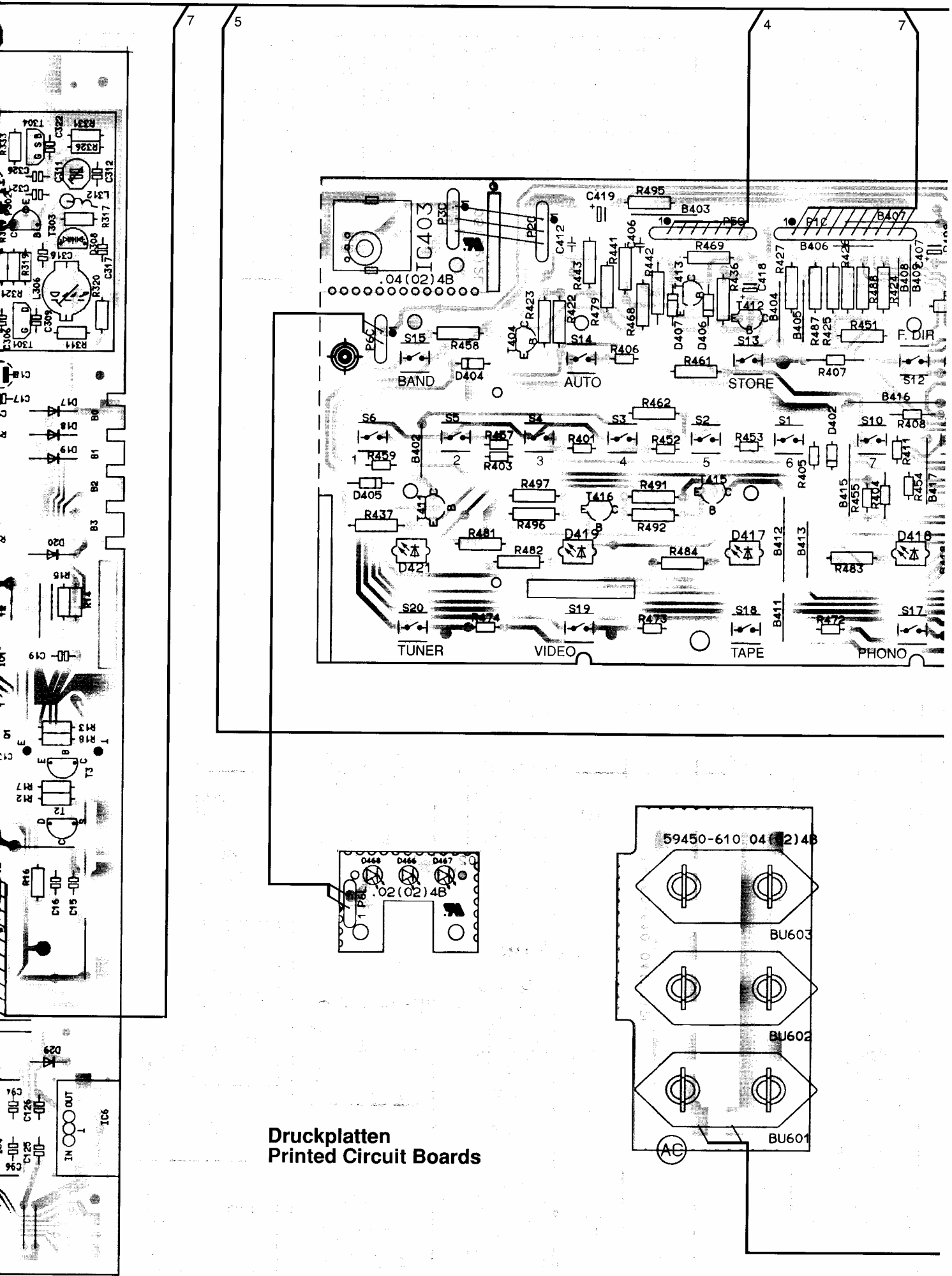
Zeichenerklärung / Legende / Légende / Simbologia / Aclaración

	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 Oscilloscopio
	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

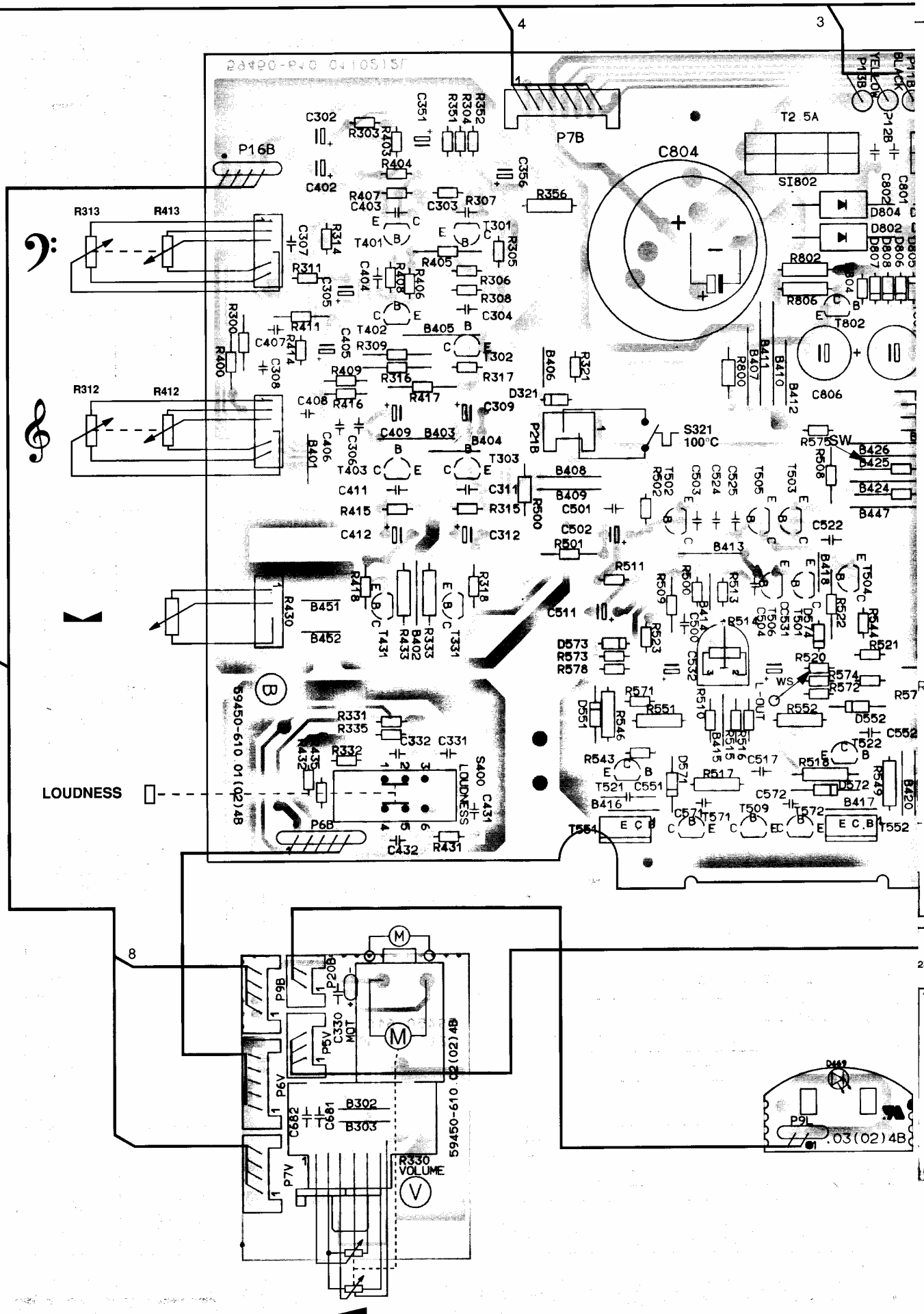
29323-880 00(03)48

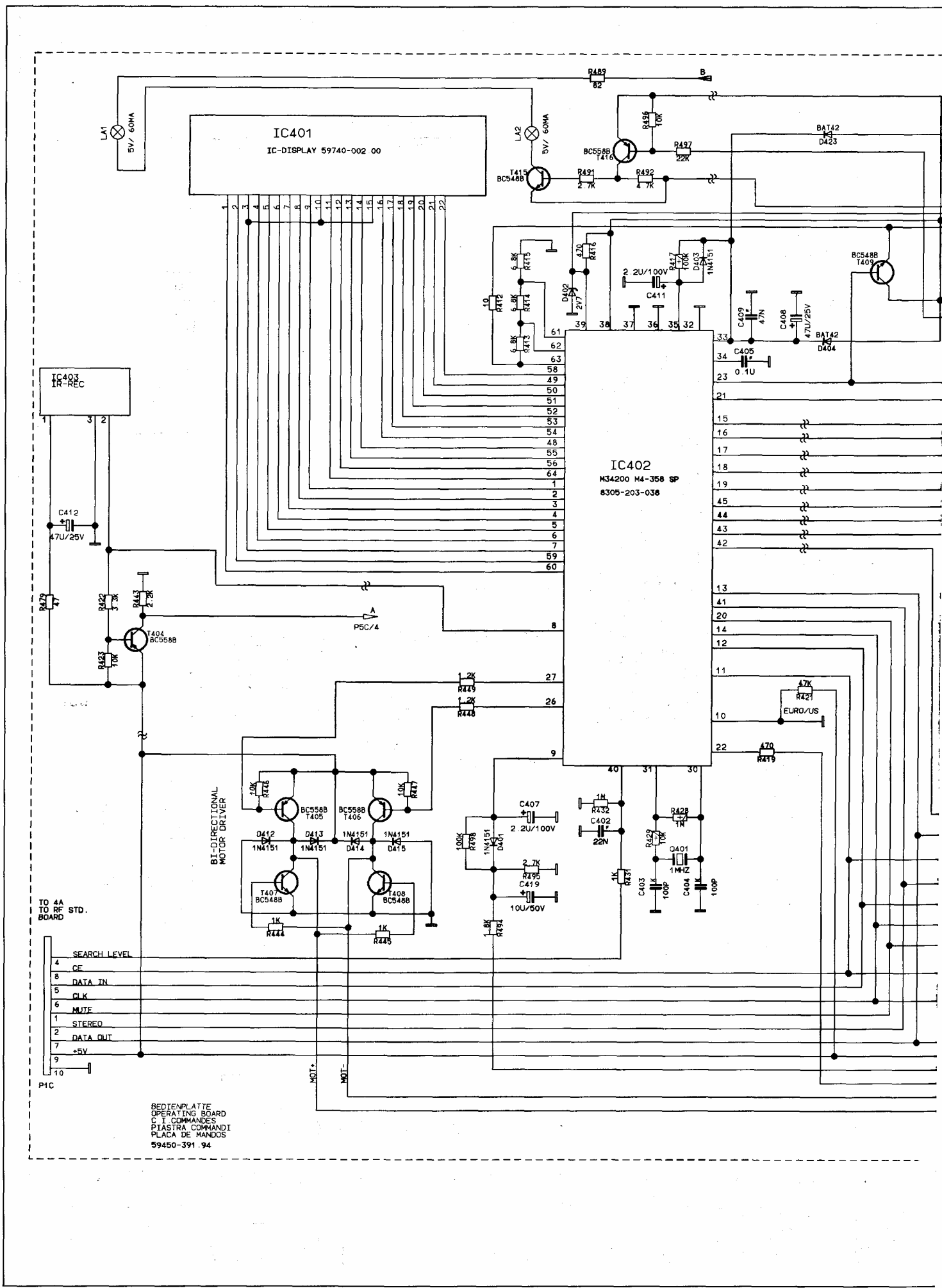


59353-680.00(03)48

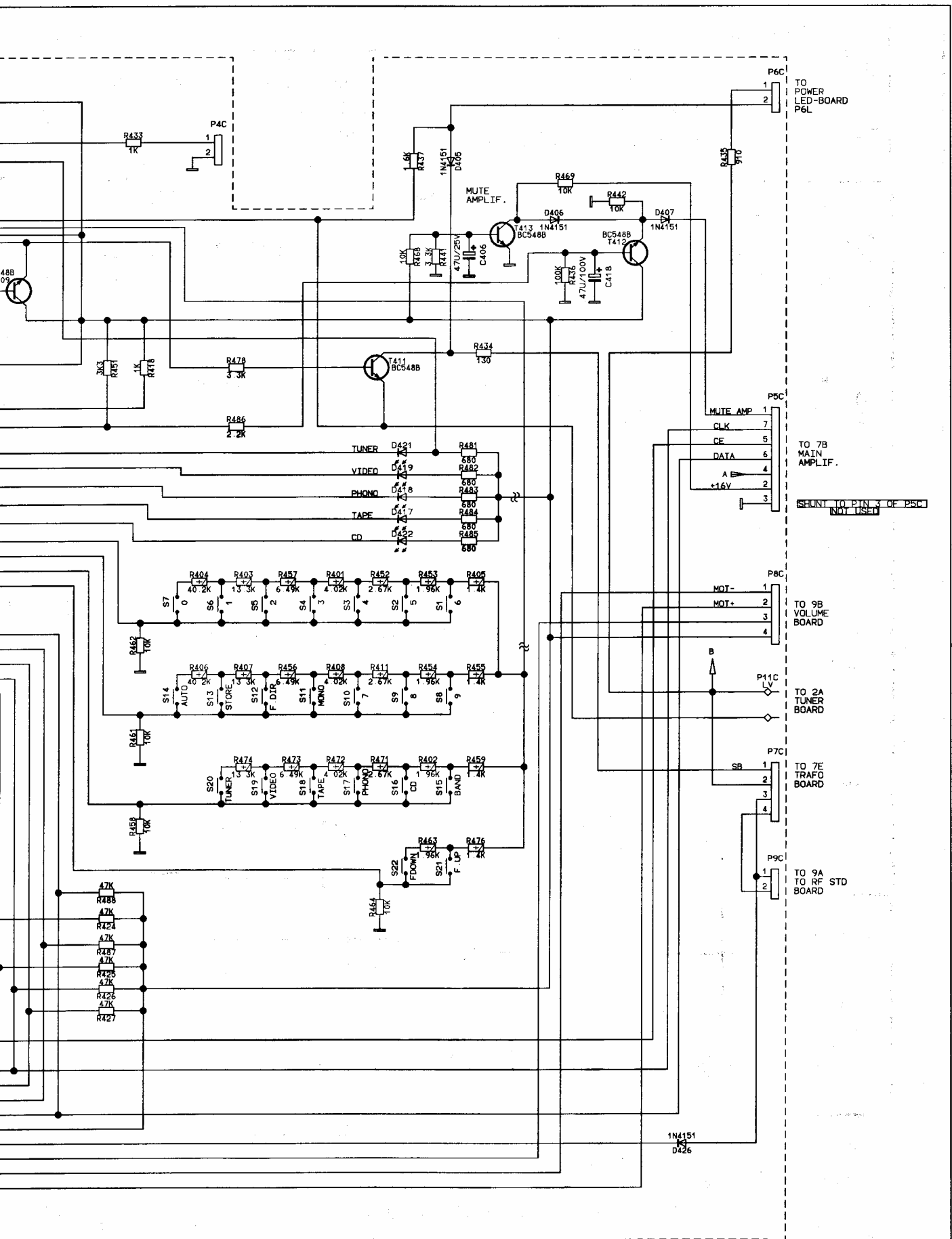


Druckplatten
Printed Circuit Boards



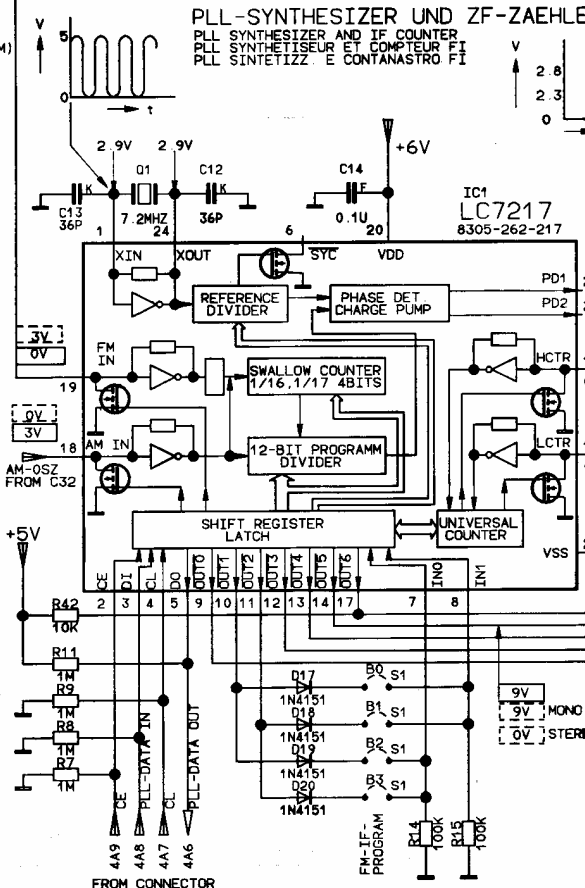
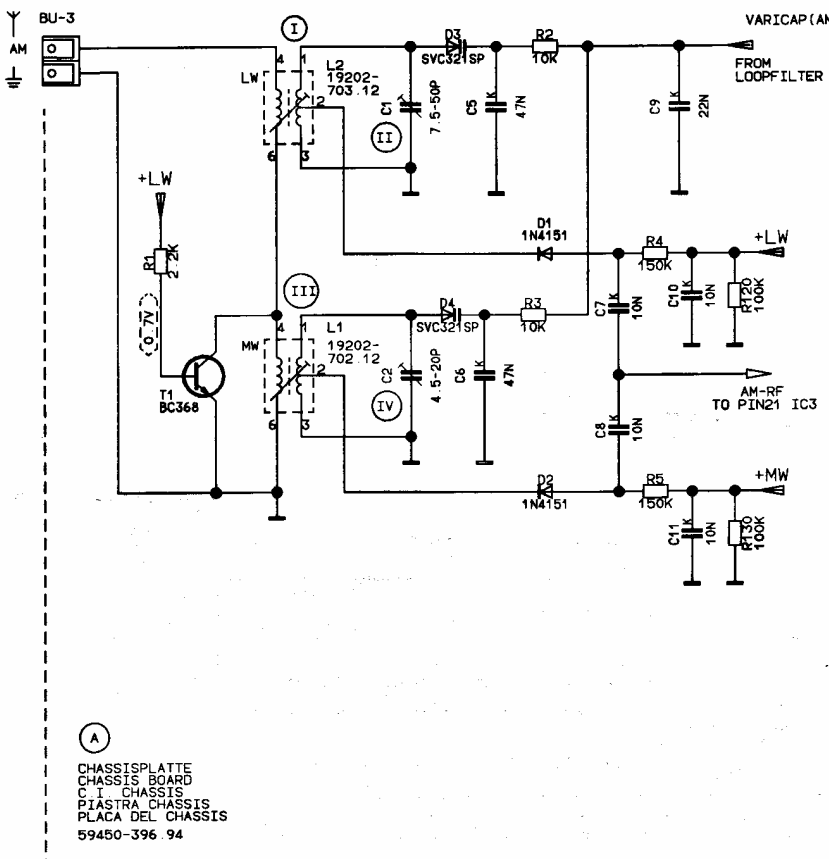
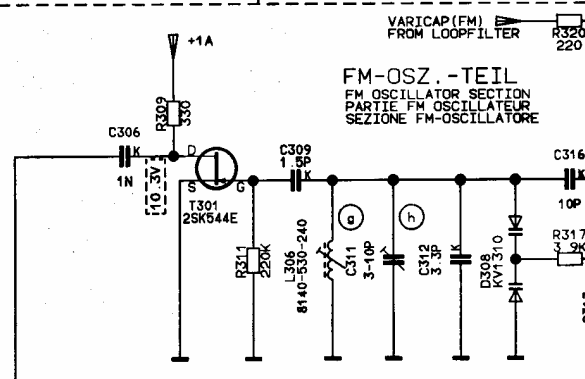
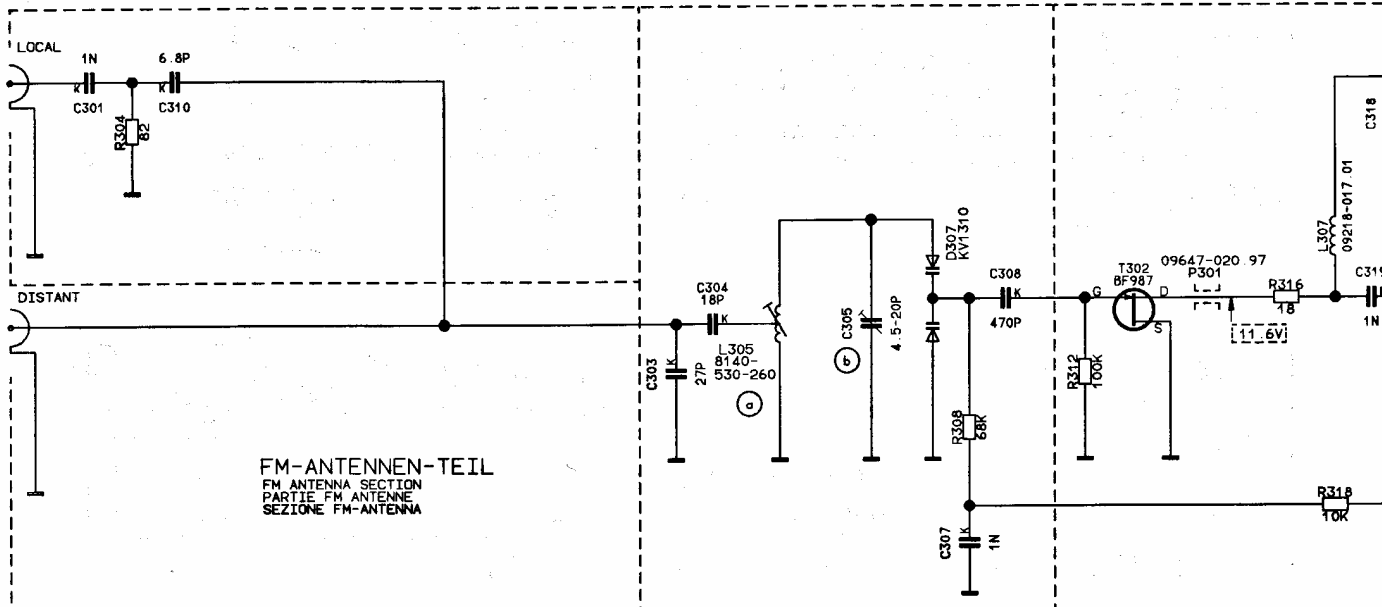


BEDIENPLATTE
 OPERATING BOARD
 C. 1. COMMANDES
 PIASTRA COMANDI
 PLACA DE MANDOS
 59450-391 .94

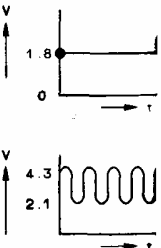
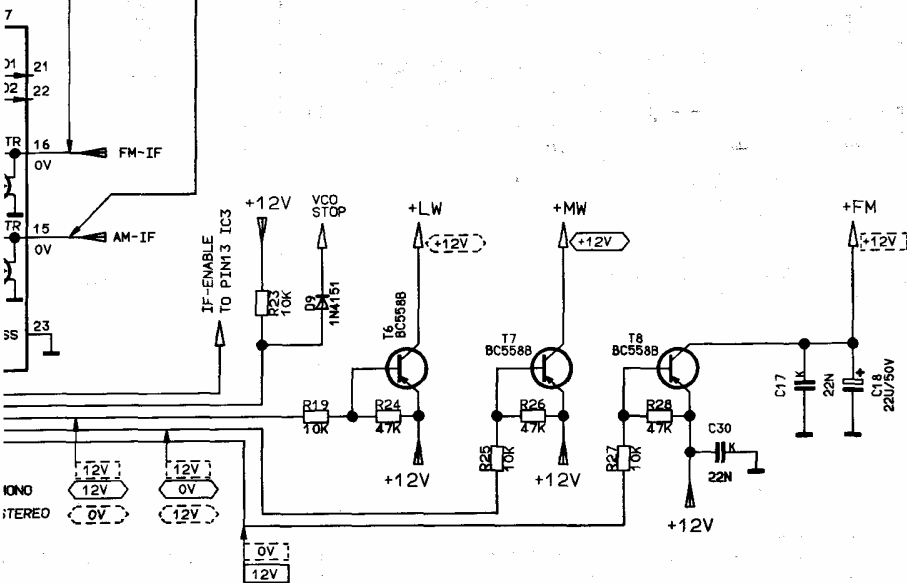
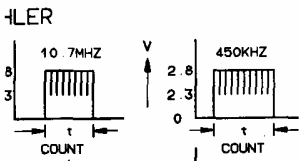
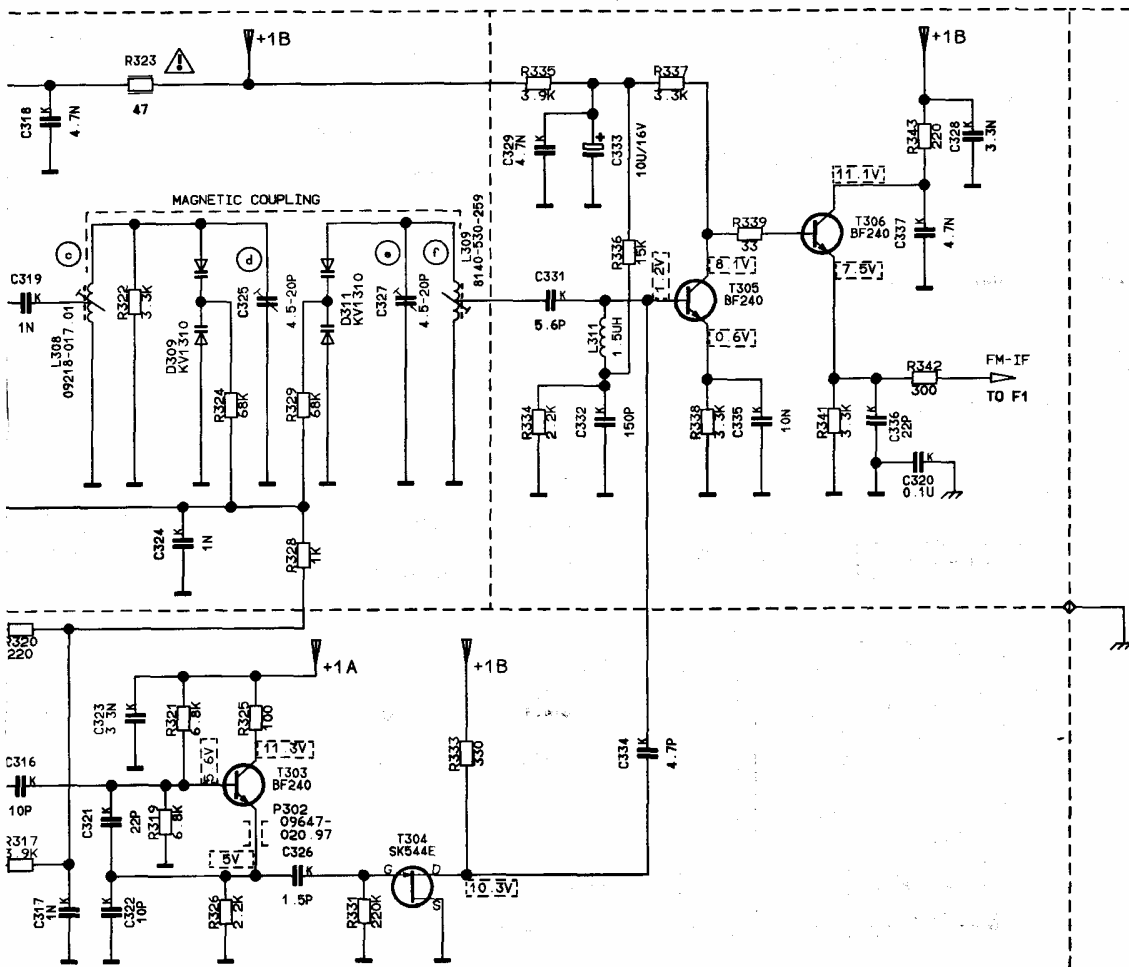


GRUNDIG

R 301



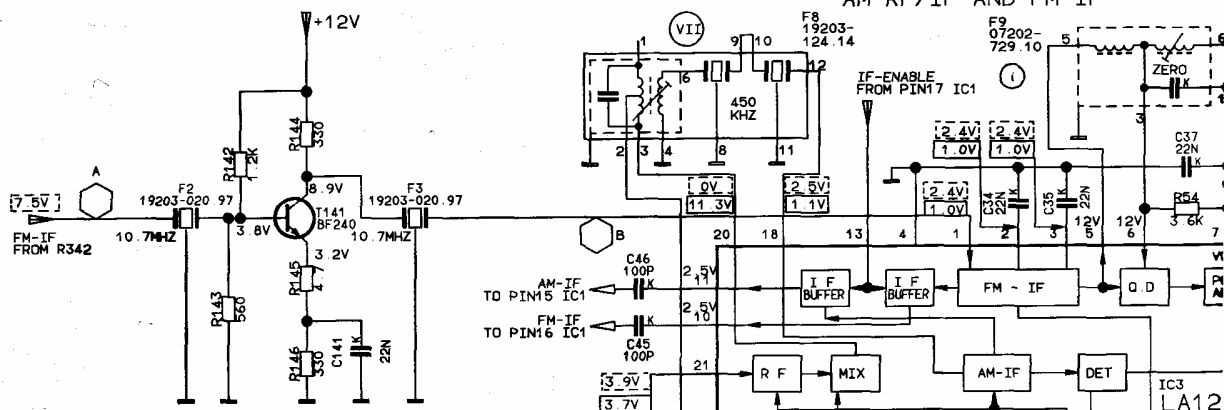
(A)
 CHASSISPLATTE
 CHASSIS BOARD
 C-1 CHASSIS
 PIASTRA CHASSIS
 PLACA DEL CHASSIS
 59450-396 94



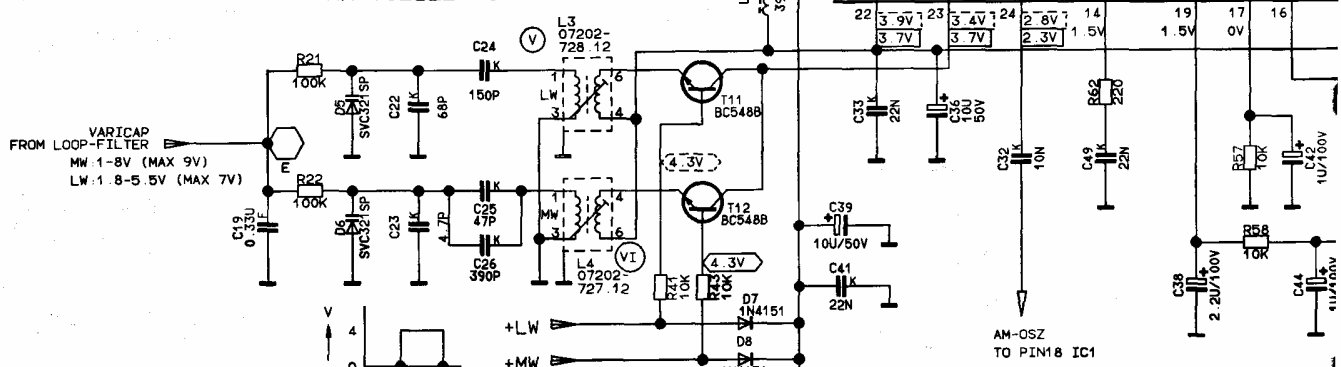
(A)
 CHASSISPLATE
 CHASSIS BOARD
 C.I. CHASSIS
 PIASTRA CHASSIS
 PLACA DEL CHASSIS
 59450-396.94 FI

AM-A INPUT FROM
 FM-F INPUT FROM PINS

AM-RF/IF AND FM-IF

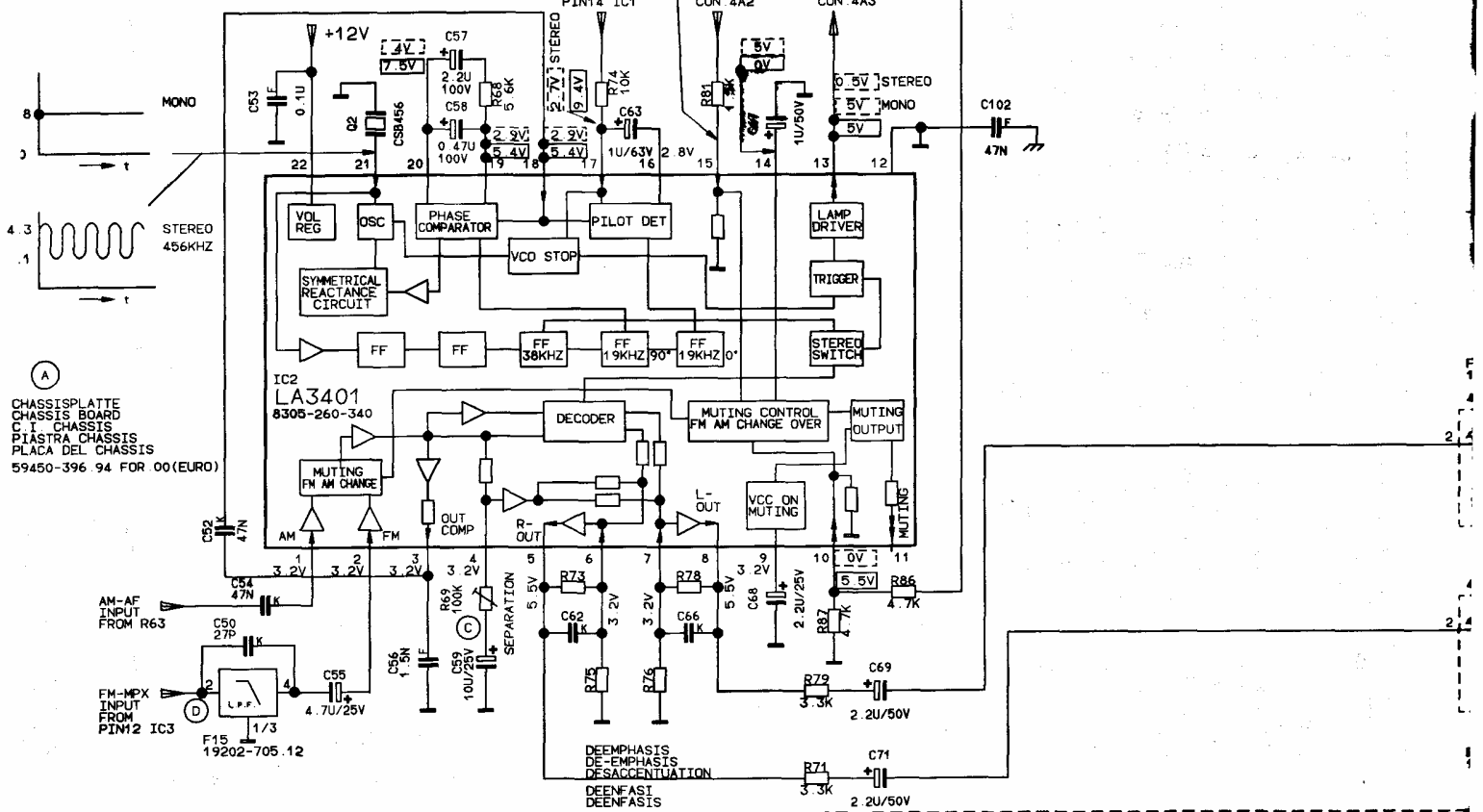


AM OSZILLATOR SECTION



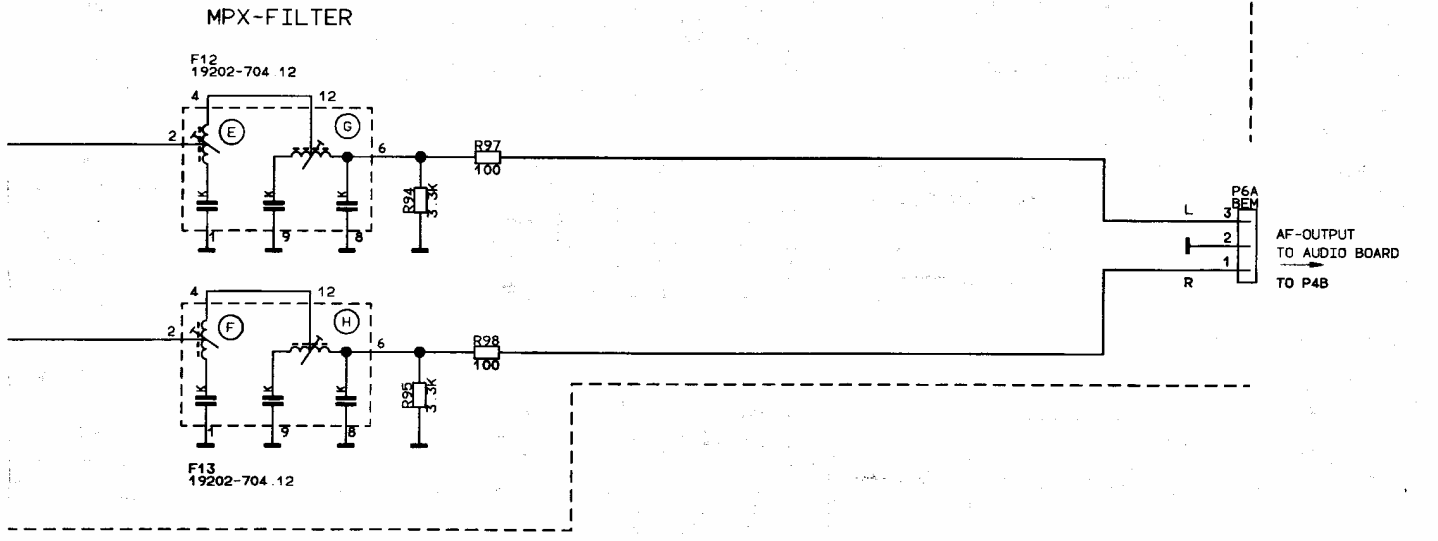
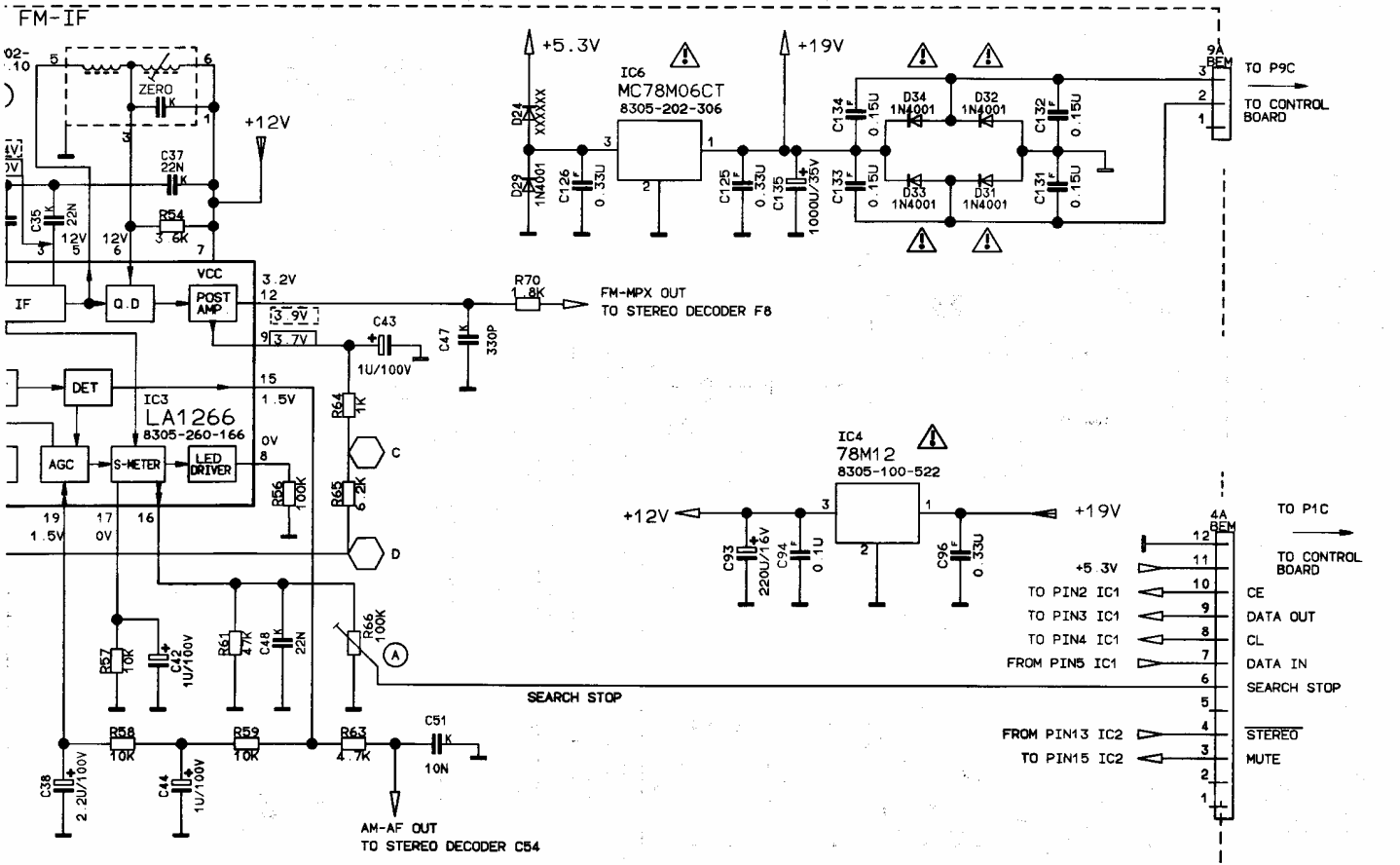
STEREO-DECODER

DECODEUR STEREO
DECODER STEREO



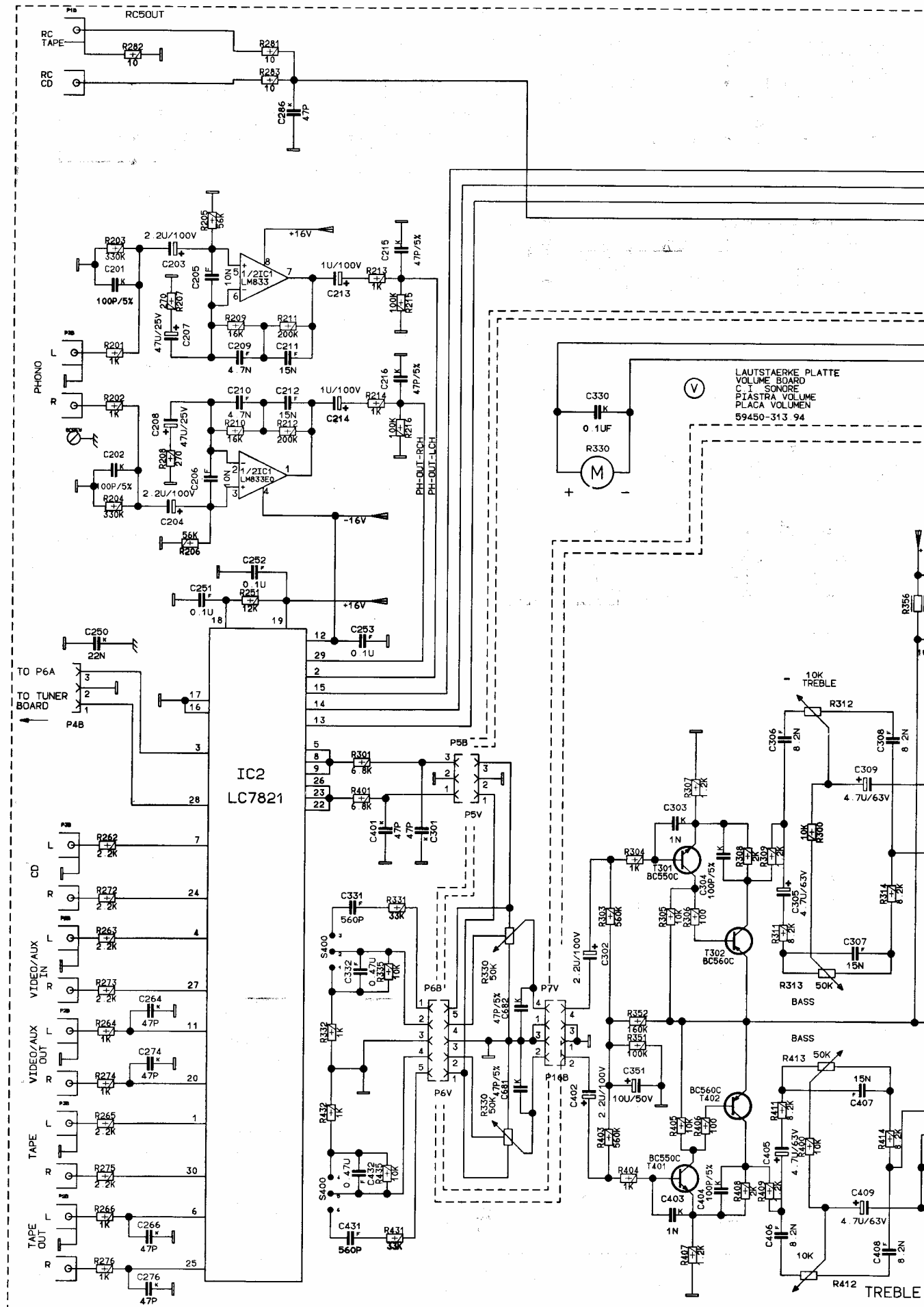
CHASSISPLATE
CHASSIS BOARD
C.I. CHASSIS
PIASTRA CHASSIS
PLACA DEL CHASSIS
59450-396 94 FOR 00(EURO)

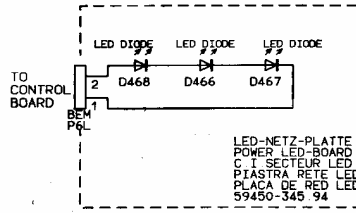
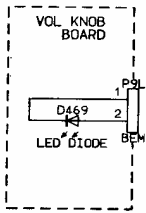
DE-EMPHASIS FOR:	R73	R75	C62
.00(EURO)	270K	330K	180P



GRUNDIG

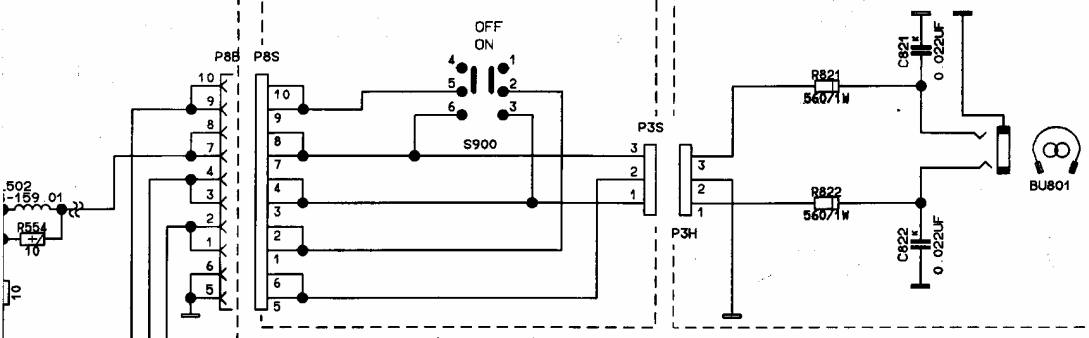
R 301



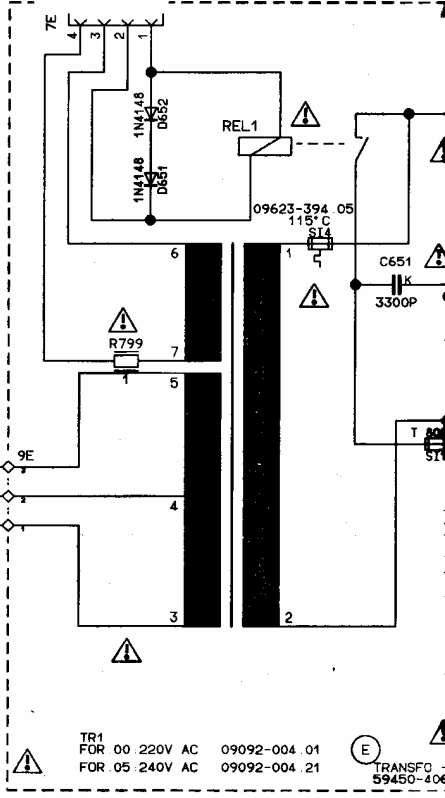
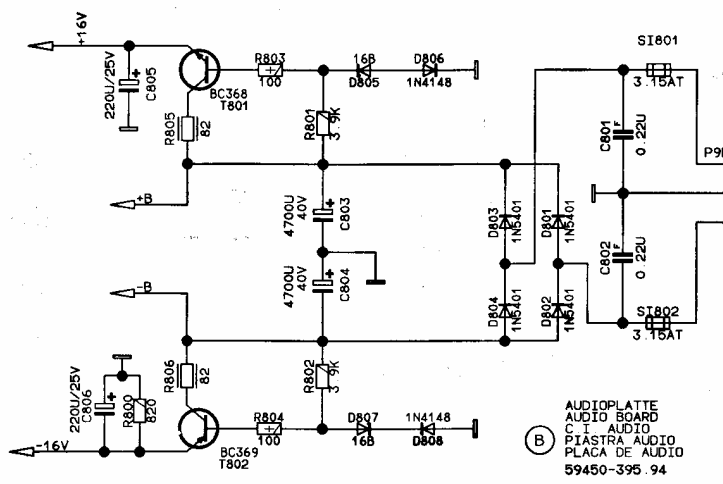
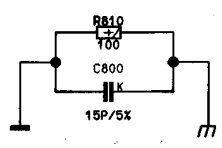
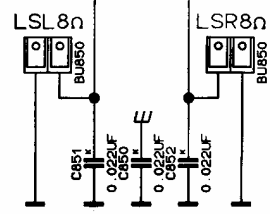


(S) LS SCHALTER PLATTE
LS SWITCH BOARD
COMM HAUT-PARLEUR C.I.
PIASTRA COMM LS
PLACA COMM DE ALTAVOCES
59450-428.94

(H) KOPFHOERERPLATTE
HEADPHONE BOARD
C.I. ECOUTEUR
PIASTRA CUFFIA
PLACA DE AURICULARES
59450-314.94



TO CONTROL BOARD
TO P7C

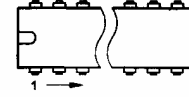
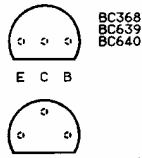
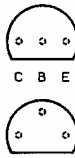


ÄNDERUNGEN VORBEHALTEN
 SUBJECT TO ALTERATION
 SOUS RESERVE DE MODIFIC.
 CON RISERVA DI MODIFICA
 RES. EL DERECHO DE MODIFIC.

WIDERSTAND/RESISTOR
 RESISTANCE/RESISTENZA/RESISTENCIA

- ⊕ KSW 0204 DIN DRAHT WIRE BOBINÉE A FILE BOBINADA
- ⊖ MSW 0204 DIN
- ⊖ KSW 0207 DIN METALLOXYDSCHICHT METAL OXIDE A OXYDE METALLIQUE 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
- ⊖ KSW 0617 DIN
- ⊖ MSW 0309 DIN SCHWER ENTELAMMBAR LOW FLAMMABILITY PEU INFLAMMABLE A BASSA INFLAMMABILITA DIFFICILMENTE INFLAMMABLE
- ⊖ NTC
- ⊖ MSW 0414 DIN SICHERUNGSWIDERSTAND SAFETY RESISTOR FUSIBLE DI SICUREZZA RESISTENCIA FUSIBLE

- ⚠ FÜR DIE GERAETESICHERHEIT 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 CASO 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



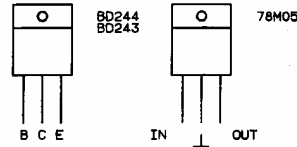
M50720-XXXSP
 LC7831
 LM833

KONDENSATOR/CAPACITOR
 CONDENSATEUR/CONDENSATORE/CONDENSADOR

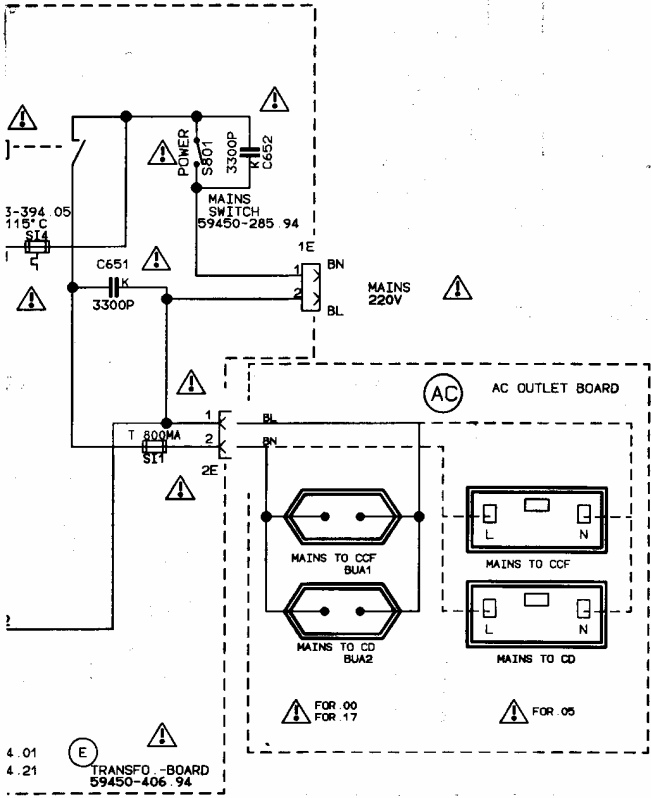
- ⊖ ELKO ELECTROLYTIC ELECTROLYTIQUE ELETTROLITICO ELECTROLITICO
- ⊖ TANTAL ELKO TANTALUM ELECTROLYTIC ELECTROLYTIQUE AU TANTALE ELETTROLITICO AL TANTALIO ELECTROLITICO DE TANTALO
- ⊖ FOLIE FOIL A FEUILLE A FOGLIA DELAMINA
- ⊖ KERAMIK CERAMIC CERAMIQUE A CERAMICA CERAMICO
- ⊖ GLIMMER MICA A MICA A MICA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

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

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



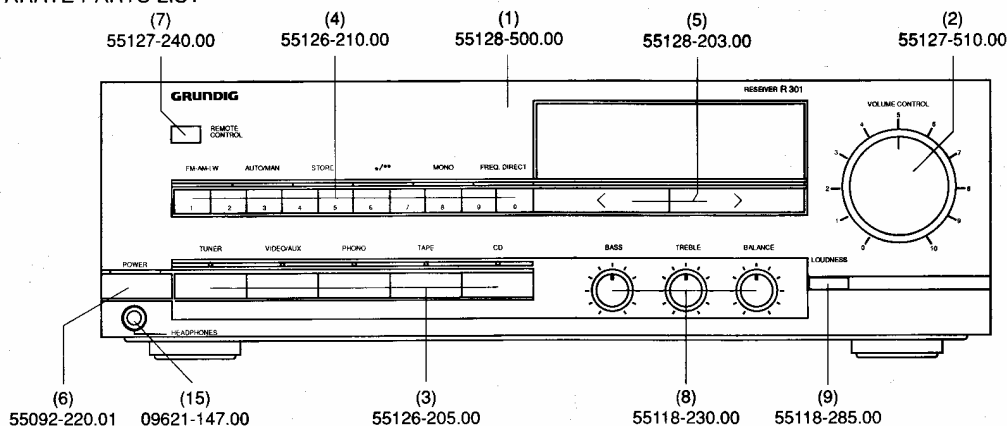
SPANNUNGEN MIT VOLTMETER (RI=10M Ω) FALLS NICHT ANDERS ANGEZEIGT, GEGEN MASSE GEMESSEN. MESSWERTE GELTEN BEI 220V NETZSPANNUNG.
 IF NOT OTHERWISE INDICATED ALL VOLTAGES ARE MEASURED AGAINST CHASSIS WITH A VOLTMETER (RI=10M Ω). THE VALUES ARE VALID FOR 220V AC MAINS VOLTAGES.
 SAUF INDICATION CONTRAIRE, LES TENSIONS SONT MESUREES PAR RAPPORT AU CHASSIS AVEC UN VOLTMETRE (RI=10M Ω). LES VALEURS SONT VALABLES POUR UNE TENSION SECTEUR DE 220V CA.
 TENSIONI MISURATE CON VOLTMETRO (RI=10M Ω) 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 Ω). LOS VALORES DE MEDIDA SON VALIDOS CON 220V DE TENSION DE RED.



GRUNDIG
 R 301






POS. NR. POS. NO.	ABB. NR. FIG. NO.	SACHNUMMER PART NUMBER	ANZ. QUA.	BEZEICHNUNG D	DESCRIPTION GB
0001.000	1	55128-500.00		VORDERTEIL KPL.	FRONT CABINET ASSY
0002.000	1	55127-510.00		DREHKNOFF KPL.	ROTARY KNOB CPL.
0003.000	1	55126-205.00		WAHLKNOFF	SELECT BUTTON
0004.000	1	55126-210.00		MEMORYKNOFF	MEMORY BUTTON
0005.000	1	55128-203.00	2	KNOFF	BUTTON
0006.000	1	55092-220.01		NETZTASTE	POWER BUTTON
0006.100	△	59400-321.00		NETZSCHALTER TYP SDL CIP	POWER SUPPLY SWITCH
0007.000	1	55127-240.00		INFRAROTLINSE	INFRA-RED LENS
0008.000	1	55118-230.00	3	KNOFF / BASS/BALANCE /TREBLE	KNOB
0009.000	1	55118-285.00		DRUCKTASTE LAUTSTAERKE	PUSH BUTTON-VOLUME
0009.100		59400-311.00		SCHALTER (SUL 192 S) /AUDIO PL.	SWITCH
0010.000		55083-325.01		UV-FILTER	UV-FILTER
0011.000	1	55083-321.02		FARBFILTER	COLOR FILTER
0015.000	1	09621-147.00		STEREO-KOPFHÖRERBUCHSE	PHONE SOCKET
0020.000		8134-020-180	22	TASTSCHALTER BEDIEN PL.	FEATHER TOUCH SWITCH
0025.000	△	09092-001.02		NETZTRAFO 220V bis Stückzahl 1000	POWER TRANSFORMER
0025.100	△	09092-004.01		NETZTRAFO 220V ab Stückzahl 1001	
0026.000	△	09621-113.02	2	SICHERUNGSHALTER	FUSE HOLDER
0027.000		55110-210.00		ANTENNENSELEKTOR	ARIAL SELECTOR
0028.000		09641-152.00	3	STEUERKABEL	CONTROL CABLE
0029.000		09623-404.00	2	EURO-EINBAUSTECKDOSE	AC-OUTLET
0030.000		09621-236.01		PUSH-TERMINAL	PUSH TERMINAL
0031.000		09621-162.00		FEDERKLEMME 4-FACH	SPRING CLIP
0032.000	△	09623-312.01		THERMOSCHAL.100 GRAD/AUDIO PL.	THERMO SWITCH
0033.000		09623-390.00		CINCHBUCHSE 4-FACH	CINCH SOCKET
0034.000		09623-389.00	2	CINCHBUCHSE 6-FACH	CINCH SOCKET
0035.000		09623-363.00		KOAXIALBUCHSE	COAXIAL-SOCKET
0036.000		59600-072.00		ANTENNENHALTER	AERIAL HOLDER
0037.000		59600-071.00		AM-SCHLEIFANTENNE	AM-LOOP-AERIAL
0038.000		59800-113.01		BATTERIEKASTEN KPL	BATTERY CASE
0039.000		59800-099.01		BATTERIEDECKEL	BATTERY COVER
0040.000		59752-068.01	4	FUSS	FOOT
0040.100		59752-069.00	4	ANTI-RUTSCH FILZ	ANTI SLIP FELT
0045.000		59800-747.00		INFRAROT-EMPFÄNGER	INFRARED RECEIVER
0055.000		59800-767.00	X	IR-SENDER / RC 2	IR-TRANSMITTER / RC 2
		59740-002.00		LC-DISPLAY (IC 401)	LC-DISPLAY (IC 401)
		55128-941.01		BEDIENUNGSANLEITUNG	INSTRUCTION MANUAL
		72010-718.80		SERVICE MANUAL	SERVICE MANUAL

X = SIEHE GESONDERTE E-LISTE
X = SEE SEPARATE PARTS LIST










ÄNDERUNGEN VORBEHALTEN























ALTERATIONS RESERVED

POS. NR.	SACHNUMMER	BEZEICHNUNG 
POS. NO.	PART NUMBER	DESCRIPTION 
		
C 1	8699-999-356	TR.15 7,5/50PF VCT 56
C 2	8699-999-345	TR.13 4,5/20PF VCT 56
C 135	8452-996-187	ELKO CB 1000UF 35V
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 803	8446-795-141	ELKO 4700UF 40V
C 804	8446-795-141	ELKO 4700UF 40V
		
D 1	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 2	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 3	8309-217-321	DIODE SVC 321 SP-A/B/C/D
D 4	8309-217-321	DIODE SVC 321 SP-A/B/C/D
D 5	8309-217-321	DIODE SVC 321 SP-A/B/C/D
D 6	8309-217-321	DIODE SVC 321 SP-A/B/C/D
D 7	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 8	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 9	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 12	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 14	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 17	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 18	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 19	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 20	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 24	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 29	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 31	8309-215-006	DIODE 1 N 4001 -GA
D 32	8309-215-006	DIODE 1 N 4001 -GA
D 33	8309-215-006	DIODE 1 N 4001 -GA
D 34	8309-215-006	DIODE 1 N 4001 -GA
D 40	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 50	8309-215-043	DIODE 1 N 4151 PHI/TFK/
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 321	8309-215-148	DIODE 1 N 4148 WW.
D 401	8309-922-439	LE DIODE TLSY 4290 TFK
D 402	8309-720-027	Z DIODE 2,7 C 0,5W
D 403	8309-215-045	DIODE 1 N 4148 ITT/TID
D 404	8309-198-042	DIODE BAT 42 THO
D 405	8309-215-045	DIODE 1 N 4148 ITT/TID
D 406	8309-925-024	LE DIODE GL-9 HD 23 SHARP
D 407	8309-215-045	DIODE 1 N 4148 ITT/TID
D 408	8309-925-024	LE DIODE GL-9 HD 23 SHARP
D 412	8309-215-045	DIODE 1 N 4148 ITT/TID
D 413	8309-215-045	DIODE 1 N 4148 ITT/TID
D 414	8309-215-045	DIODE 1 N 4148 ITT/TID
D 415	8309-215-045	DIODE 1 N 4148 ITT/TID
D 416	8309-198-042	DIODE BAT 42 THO
D 417	8309-922-439	LE DIODE TLSY 4290 TFK
D 418	8309-922-439	LE DIODE TLSY 4290 TFK
D 419	8309-922-439	LE DIODE TLSY 4290 TFK
D 421	8309-922-439	LE DIODE TLSY 4290 TFK
D 422	8309-922-439	LE DIODE TLSY 4290 TFK
D 423	8309-215-045	DIODE 1 N 4148 ITT/TID
D 530	8309-215-148	DIODE 1 N 4148 WW.
D 531	8309-215-148	DIODE 1 N 4148 WW.
D 551	8309-215-104	DIODE 1 N 4002 -GA
D 552	8309-215-104	DIODE 1 N 4002 -GA
D 571	8309-215-104	DIODE 1 N 4002 -GA
D 572	8309-215-104	DIODE 1 N 4002 -GA
D 573	8309-215-148	DIODE 1 N 4148 WW.



ÄNDERUNGEN VORBEHALTEN

POS. NR.	SACHNUMMER	BEZEICHNUNG 
POS. NO.	PART NUMBER	DESCRIPTION 
D 574	8309-215-148	DIODE 1 N 4148 WW.
D 651	8309-215-104	DIODE 1 N 4002 -GA
D 652	8309-215-104	DIODE 1 N 4002 -GA
D 671	8309-215-104	DIODE 1 N 4002 -GA
D 672	8309-215-104	DIODE 1 N 4002 -GA
D 673	8309-215-148	DIODE 1 N 4148 WW.
D 674	8309-215-148	DIODE 1 N 4148 WW.
D 801	8309-215-401	DIODE 1 N 5401 G GI/FAG
D 802	8309-215-401	DIODE 1 N 5401 G GI/FAG
D 803	8309-215-401	DIODE 1 N 5401 G GI/FAG
D 804	8309-215-401	DIODE 1 N 5401 G GI/FAG
D 805	8309-720-161	Z DIODE 16 B 0,5W
D 806	8309-215-045	DIODE 1 N 4148 ITT/TID
D 807	8309-720-161	Z DIODE 16 B 0,5W
	8309-215-045	DIODE 1 N 4148 ITT/TID
F 2	19203-020.97	KERAMIK-FILTER 70
F 3	19203-020.97	KERAMIK-FILTER 70
F 8	19203-124.14	AM-ZF SFL 450 J3
F 9	07202-729.10	FM-DEM.I
F 12	19202-704.12	FILTER (PILOT) LPF-V20
F 13	19202-704.12	FILTER (PILOT) LPF-V20
F 15	19202-705.12	FILTER (NACHBARKANAL)
		
IC 1	8305-262-217	IC LC 7217 SANYO MOS
	ODER	
IC 1	8305-204-834	IC LM 833 N ELLI 580 NSC MOS
IC 2	8305-260-340	IC LA 3401 SANYO
	ODER	
IC 2	8305-262-821	IC LC 7821 SANYO
IC 3	8305-260-166	IC LA 1266 SANYO
IC 4	8305-205-765	IC 7812 3% FAI/NEC/SGS/
IC 6	8305-202-306	IC MC 78 M 06 CT MOT
IC 401	59740-002.00	LCD-DISPLAY
IC 402	8305-203-038	IC M 34200 M4-358 SP MIT
		
L 1	19202-702.12	MW-VORKR.
L 2	19202-703.12	LW-VORKR.
L 3	07202-728.12	SPULE (LW OSZ.)
L 4	07202-727.12	SPULE (MW-OSZ.)
L 5	8140-526-862	DROSSEL 39 MH 5%
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	8140-530-258	UKW-SPULE 7/114/A
L 311	8140-526-025	DR AX 0309-GA 1,5UH
L 502	09238-197.01	HF-DROSSEL
		
LA 1	8316-113-120	LAMPE 5V 115MA T1 1/4 515
LA 2	8316-113-120	LAMPE 5V 115MA T1 1/4 515
		

ALTERNATIONS RESERVED

POS. NR.	SACHNUMMER	BEZEICHUNG 
POS. NO.	PART NUMBER	DESCRIPTION 
Q 1	8382-312-072	QUARZ 7,2 MHZ
Q 2	8602-331-001	KER.RES.10 CSB 456 F11
Q 401	8602-331-069	KER.RES.69 CSB 1000 D
		
R 1	8700-011-281	KSW AX 0204-GA 2,2 KOHM
R 2	8700-011-297	KSW AX 0204-GA 10 KOHM
R 3	8700-011-297	KSW AX 0204-GA 10 KOHM
R 6	8700-011-281	KSW AX 0204-GA 2,2 KOHM
R 12	8700-011-281	KSW AX 0204-GA 2,2 KOHM
R 18	8700-011-281	KSW AX 0204-GA 2,2 KOHM
R 19	8700-011-297	KSW AX 0204-GA 10 KOHM
R 23	8700-011-297	KSW AX 0204-GA 10 KOHM
R 25	8700-011-297	KSW AX 0204-GA 10 KOHM
R 27	8700-011-297	KSW AX 0204-GA 10 KOHM
R 41	8700-011-297	KSW AX 0204-GA 10 KOHM
R 42	8700-011-297	KSW AX 0204-GA 10 KOHM
R 43	8700-011-297	KSW AX 0204-GA 10 KOHM
R 57	8700-011-297	KSW AX 0204-GA 10 KOHM
R 58	8700-011-297	KSW AX 0204-GA 10 KOHM
R 59	8700-011-297	KSW AX 0204-GA 10 KOHM
R 64	8700-011-273	KSW AX 0204-GA 1 KOHM
R 66	8790-050-064	ESTR.SK10-A 100 KOHM LIN
R 69	8790-050-064	ESTR.SK10-A 100 KOHM LIN
R 74	8700-011-297	KSW AX 0204-GA 10 KOHM
R 91	8700-011-297	KSW AX 0204-GA 10 KOHM
R 92	8700-011-297	KSW AX 0204-GA 10 KOHM
R 318	8700-011-297	KSW AX 0204-GA 10 KOHM
R 323 	8766-701-041	KSW SI A 47 OHM 5% -GA
R 326	8700-011-281	KSW AX 0204-GA 2,2 KOHM
R 327 	8766-701-041	KSW SI A 47 OHM 5% -GA
R 328	8700-011-273	KSW AX 0204-GA 1 KOHM
R 330	59703-377.00	LAUTSTAERKEREGLER
R 332 	8766-701-027	KSW SI A 12 OHM 5% -GA
R 334	8700-011-281	KSW AX 0204-GA 2,2 KOHM
R 356 	8701-118-049	KSW SI B 100 OHM 5% -GA
R 412	59713-005.00	POT. 2X 10 KOHM
R 413	59713-004.00	POT. 2X 50 KOHM
R 430	59713-006.00	POT. 100 KOHM
R 514	8790-009-036	ESTR.S 10 100 OHM
R 517 	8701-118-049	KSW SI B 100 OHM 5% -GA
R 518 	8701-118-049	KSW SI B 100 OHM 5% -GA
R 546 	8701-118-057	KSW SI B 220 OHM 5% -GA
R 549 	8701-118-057	KSW SI B 220 OHM 5% -GA
R 614	8790-009-036	ESTR.S 10 100 OHM
R 617 	8701-118-049	KSW SI B 100 OHM 5% -GA
R 618 	8701-118-049	KSW SI B 100 OHM 5% -GA
R 646 	8701-118-057	KSW SI B 220 OHM 5% -GA
R 649 	8701-118-057	KSW SI B 220 OHM 5% -GA
R 805 	8701-118-047	KSW SI B 82 OHM 5% -GA
R 806 	8701-118-047	KSW SI B 82 OHM 5% -GA
		
SI 801 	8315-617-006	FS.2,5 A/T
SI 802 	8315-617-006	FS.2,5 A/T
		
T 1	8303-287-368	TRANS.BC 368
T 2	8302-638-030	TRANS.2 SK 30 A-TM-Y1
T 3	8303-207-548	TRANS.BC 548 C
T 6	8303-205-558	TRANS.BC 558 B
T 7	8303-205-558	TRANS.BC 558 B
T 8	8303-205-558	TRANS.BC 558 B

ÄNDERUNGEN VORBEHALTEN

POS. NR.	SACHNUMMER	BEZEICHUNG 
POS. NO.	PART NUMBER	DESCRIPTION 
T 11	8303-205-548	TRANS.BC 548 B
T 12	8303-205-548	TRANS.BC 548 B
T 15	8303-205-558	TRANS.BC 558 B
T 16	8303-205-548	TRANS.BC 548 B
T 17	8303-205-548	TRANS.BC 548 B
T 24	8303-205-548	TRANS.BC 548 B
T 141	8303-406-240	TRANS.BF 240
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	8303-259-550	TRANS.BC 550 C SIE/VAL
T 304	8302-991-044	FE-TRANS.2 SK 544 E MOS
T 305	8303-406-240	TRANS.BF 240
T 306	8303-406-240	TRANS.BF 240
T 331	8303-273-338	TRANS.BC 338-25
T 401	8303-205-548	TRANS.BC 548 B
T 402	8303-267-560	TRANS.BC 560 C SIE/VAL
T 403	8303-259-550	TRANS.BC 550 C SIE/VAL
T 404	8303-205-558	TRANS.BC 558 B
T 405	8303-205-558	TRANS.BC 558 B
T 406	8303-205-558	TRANS.BC 558 B
T 407	8303-205-548	TRANS.BC 548 B
T 408	8303-205-548	TRANS.BC 548 B
T 409	8303-205-548	TRANS.BC 548 B
T 411	8303-205-548	TRANS.BC 548 B
T 412	8303-205-558	TRANS.BC 558 B
T 413	8303-205-548	TRANS.BC 548 B
T 414	8303-205-548	TRANS.BC 548 B
T 415	8303-273-337	TRANS.BC 337-25
T 416	8303-205-558	TRANS.BC 558 B
T 431	8303-273-338	TRANS.BC 338-25
T 501	8303-267-560	TRANS.BC 560 C SIE/VAL
T 502	8303-241-546	TRANS.BC 546 B
T 503	8303-241-546	TRANS.BC 546 B
T 504	8303-267-560	TRANS.BC 560 C SIE/VAL
T 505	8303-241-546	TRANS.BC 546 B
T 506	8303-241-556	TRANS.BC 556 B
T 509	8303-207-548	TRANS.BC 548 C
T 571	8303-273-338	TRANS.BC 338-25
T 572	8303-273-328	TRANS.BC 328-25 PHI/ITT
T 601	8303-267-560	TRANS.BC 560 C SIE/VAL
T 602	8303-241-546	TRANS.BC 546 B
T 603	8303-241-546	TRANS.BC 546 B
T 604	8303-267-560	TRANS.BC 560 C SIE/VAL
T 605	8303-241-546	TRANS.BC 546 B
T 606	8303-241-556	TRANS.BC 556 B
T 609	8303-207-548	TRANS.BC 548 C
T 671	8303-273-338	TRANS.BC 338-25
T 672	8303-273-328	TRANS.BC 328-25 PHI/ITT
T 801	8303-287-368	TRANS.BC 368
T 802	8303-287-369	TRANS.BC 369

ALTERNATIONS RESERVED

GRUNDIG



Ersatzteilliste List of spare parts

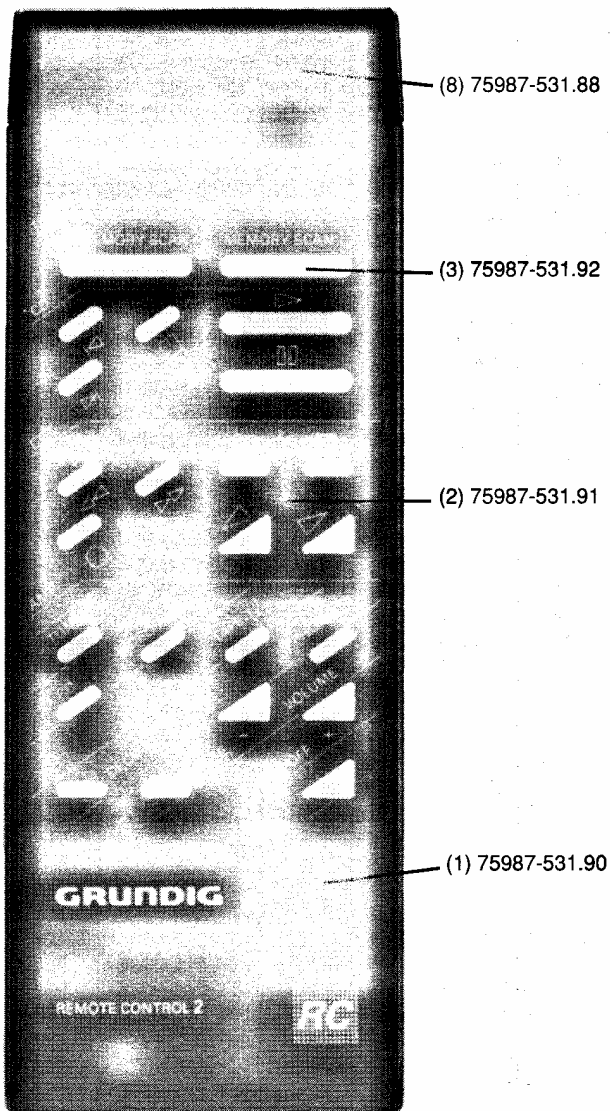
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



Ⓛ Btx ★ 32700 #

RC 2

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

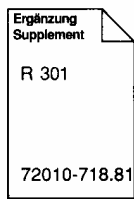
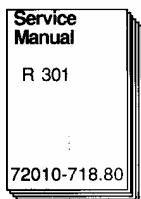
POS. NR. POS. NO.	ABB. NR. FIG. NO.	SACHNUMMER PART NUMBER	ANZ. QUA.	BEZEICHUNG 	DESCRIPTION 
0001.000		75987-531.90		GEHAEUSEOBERTEIL	CABINET TOP
0002.000		75987-531.91		BLLENDE	PANEL
0003.000		75987-531.92		TASTENSATZ	KEYS SET
0004.000		75987-531.93		BATTERIEDECKEL	BATTERY LID
0005.000		75987-531.94		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



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

ALTERNATIONS RESERVED

GRUNDIG**R 301**



D

Korrektur

Im Service Manual R 301 (Sachnummer 72010-718.80) müssen die folgenden Punkte geändert werden:

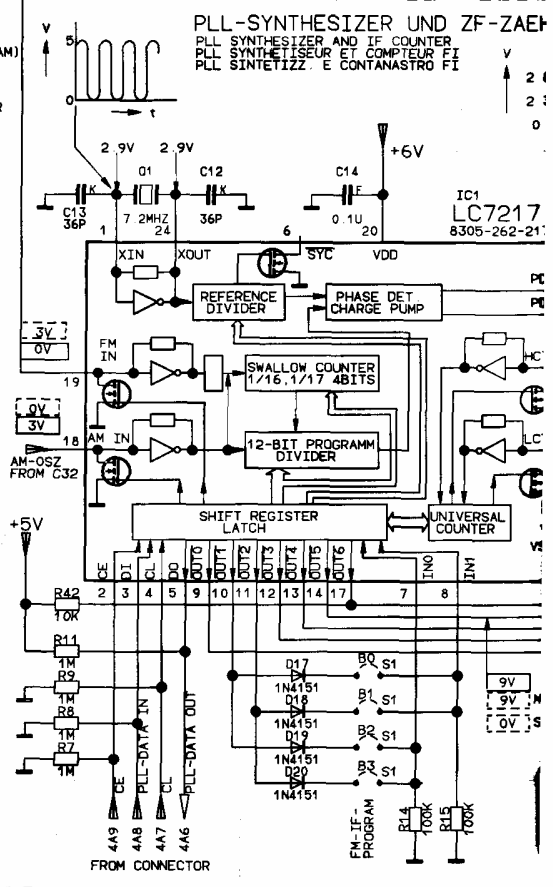
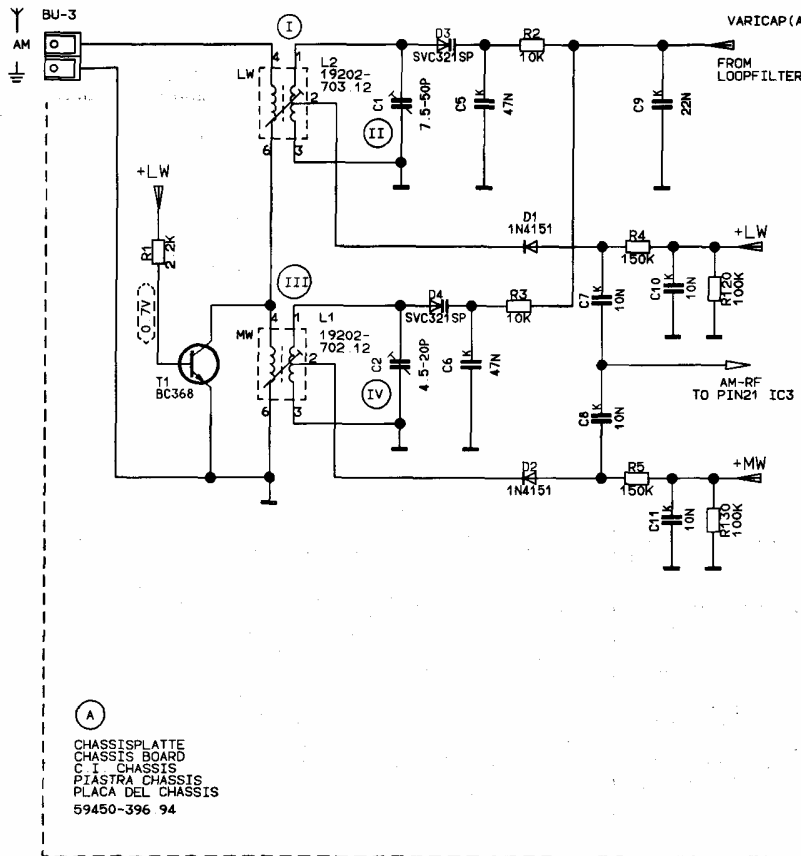
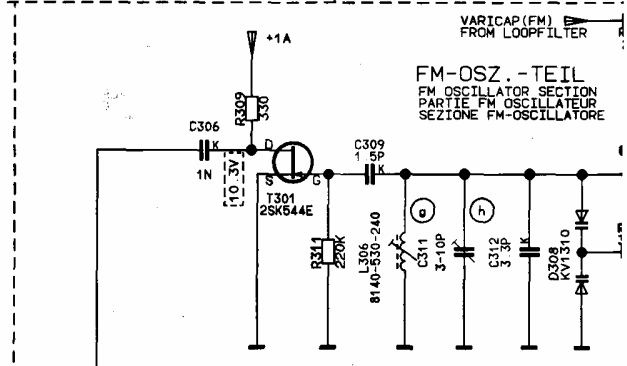
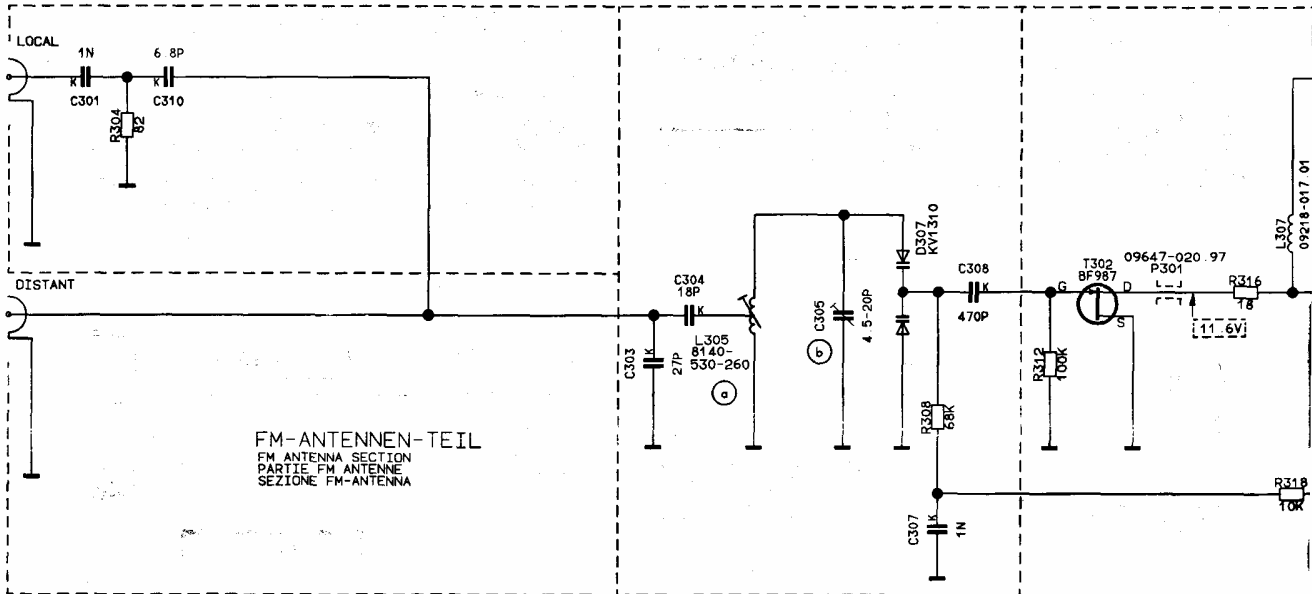
- Seite 14
Trafoplatte: Die Bezeichnung **SI2** des Bauteils am Anschluß 7 des Trafos ändert sich in **R 799**.
- Seite 15/16
NF-Platte: Der Wert der Sicherungen **SI801** und **SI802** ändert sich in **T 3,15 A**.
- Seite 19-26: Im Schaltbild fehlen einige Sicherheitsbauteil-Kennzeichnungen. Ersetzen Sie diese Seiten durch die in dieser Ergänzung angehängten Seiten.

GB

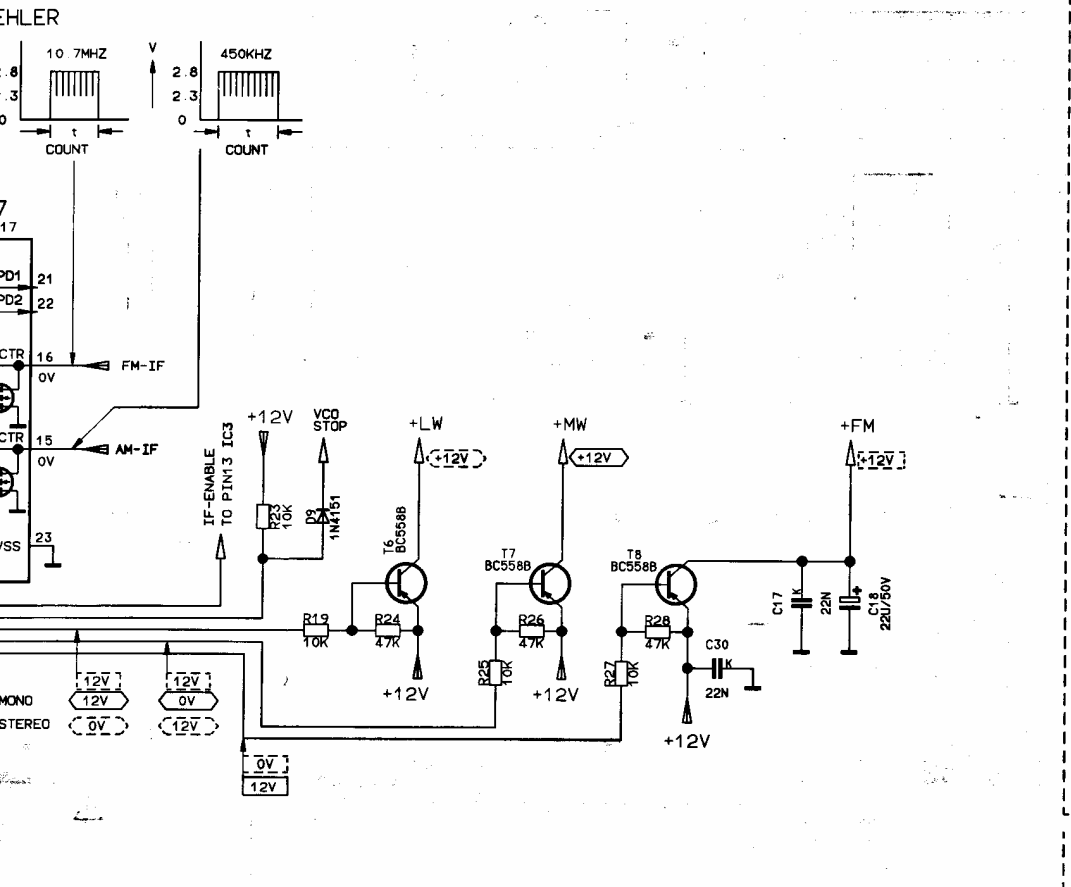
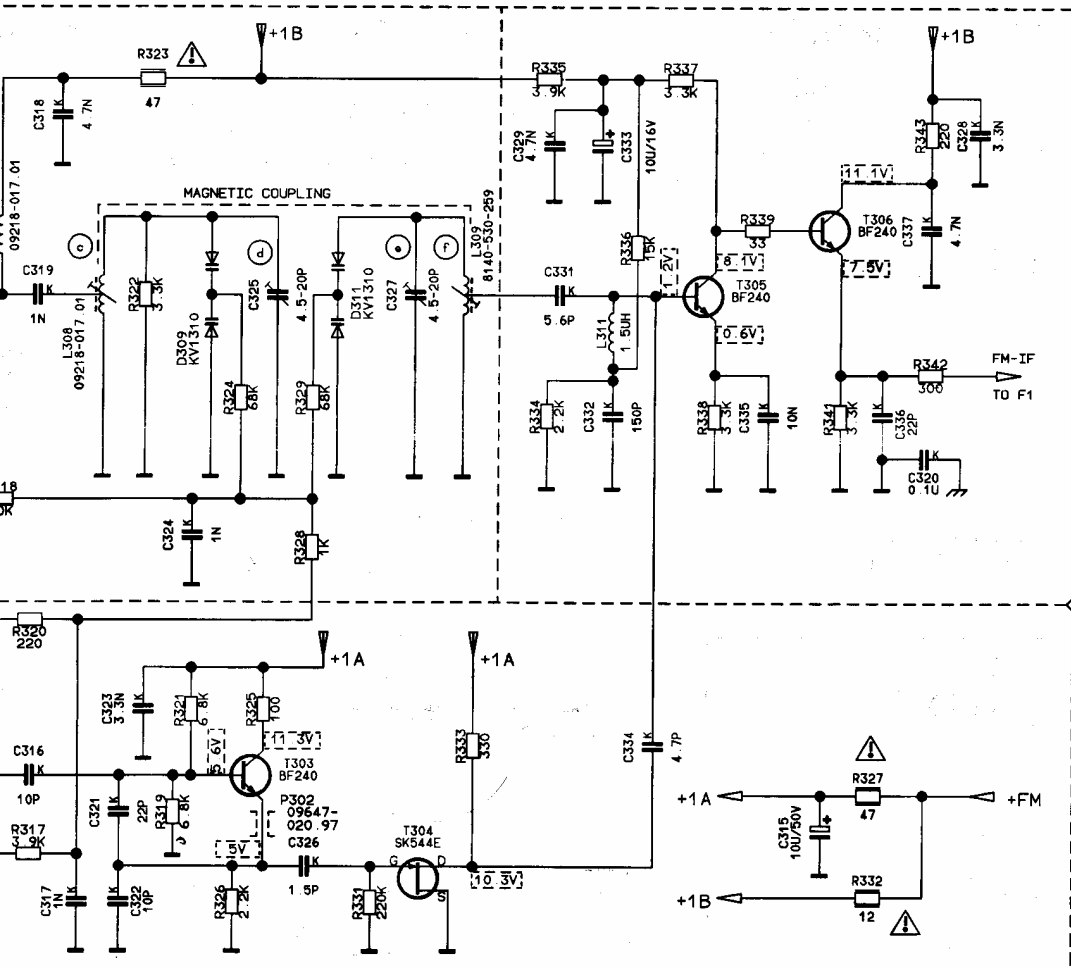
Correction

In the Service Manual R 301 (Part No. 72010-718.80) the following points must be corrected:

- Page 14
Transformer Board: The name **SI2** of the component at the connection 7 of the transformer changes to **R 799**.
- Page 15/16
AF Board: The value of the fuses **SI801** and **SI802** changes to **T 3.15 A**.
- Page 19-26: In the circuit diagram some safety component marks are missing. Replace these pages with the pages which are attached to this supplement.

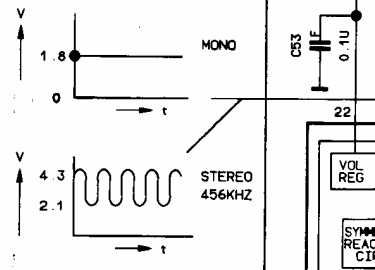


CHASSISPLATTE
 CHASSIS BOARD
 C.I. CHASSIS
 PIASTRA CHASSIS
 PLACA DEL CHASSIS
 59450-396 94

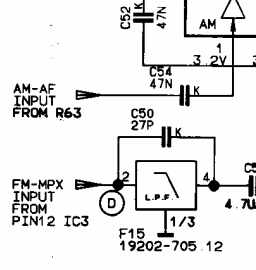


VARIACION
FROM LOOP-FILTER
MW: 1-8V
LW: 1-8-5

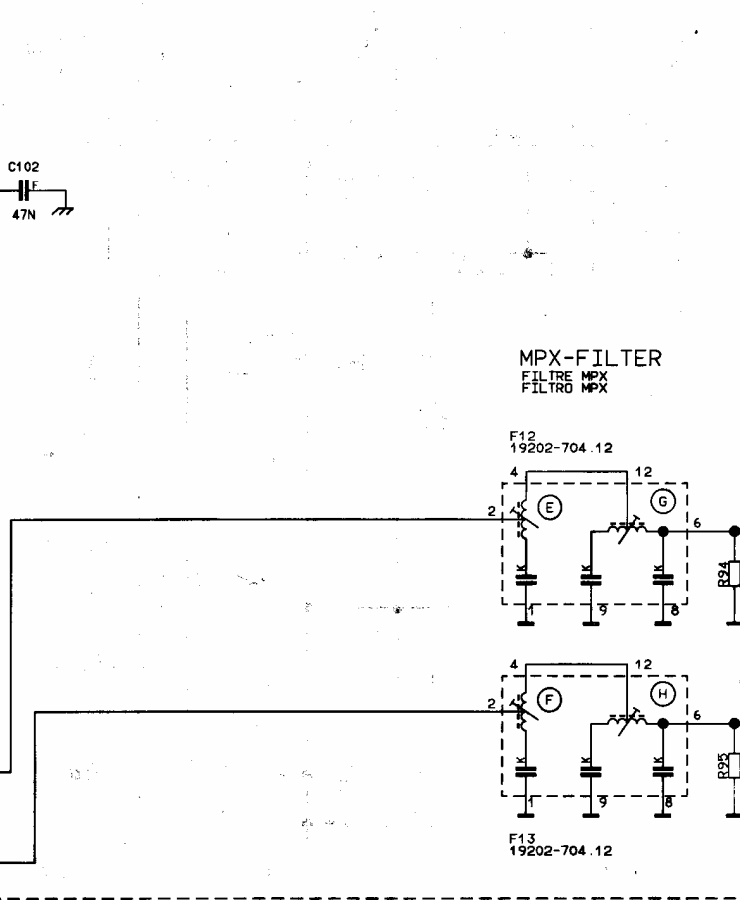
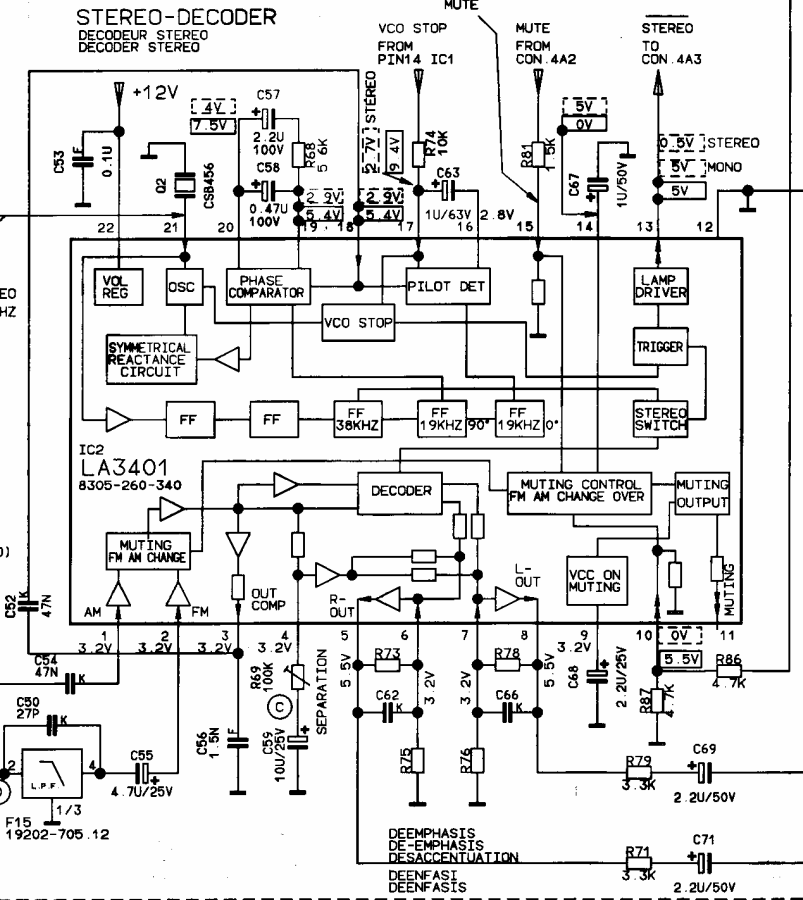
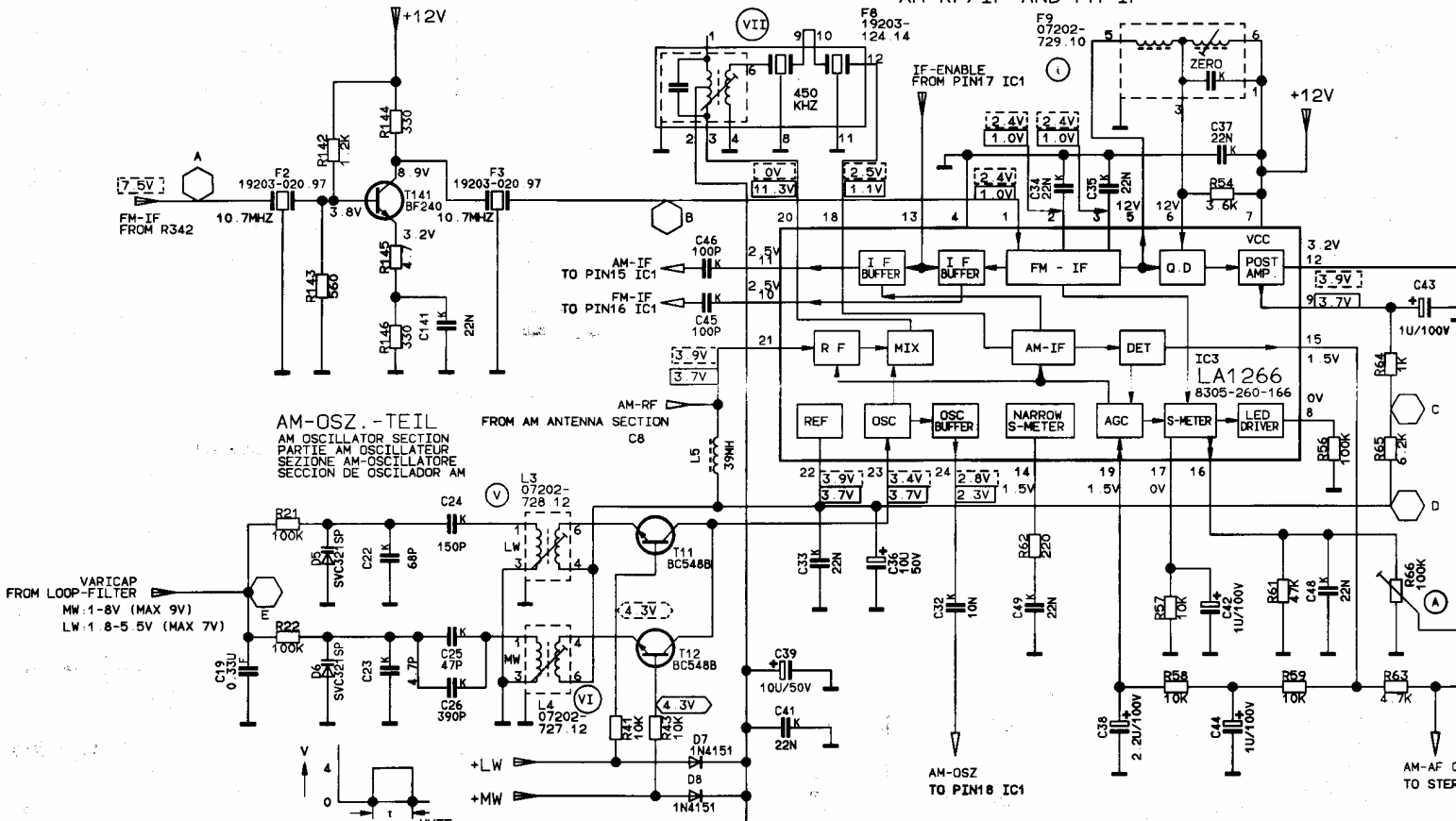
STEREO
DECODEL
DECODER



CHASSISPLATTE
CHASSIS BOARD
C I CHASSIS
PIASTRA CHASSIS
PLACA DEL CHASSIS
59450-396 94 FOR 00(EURO)

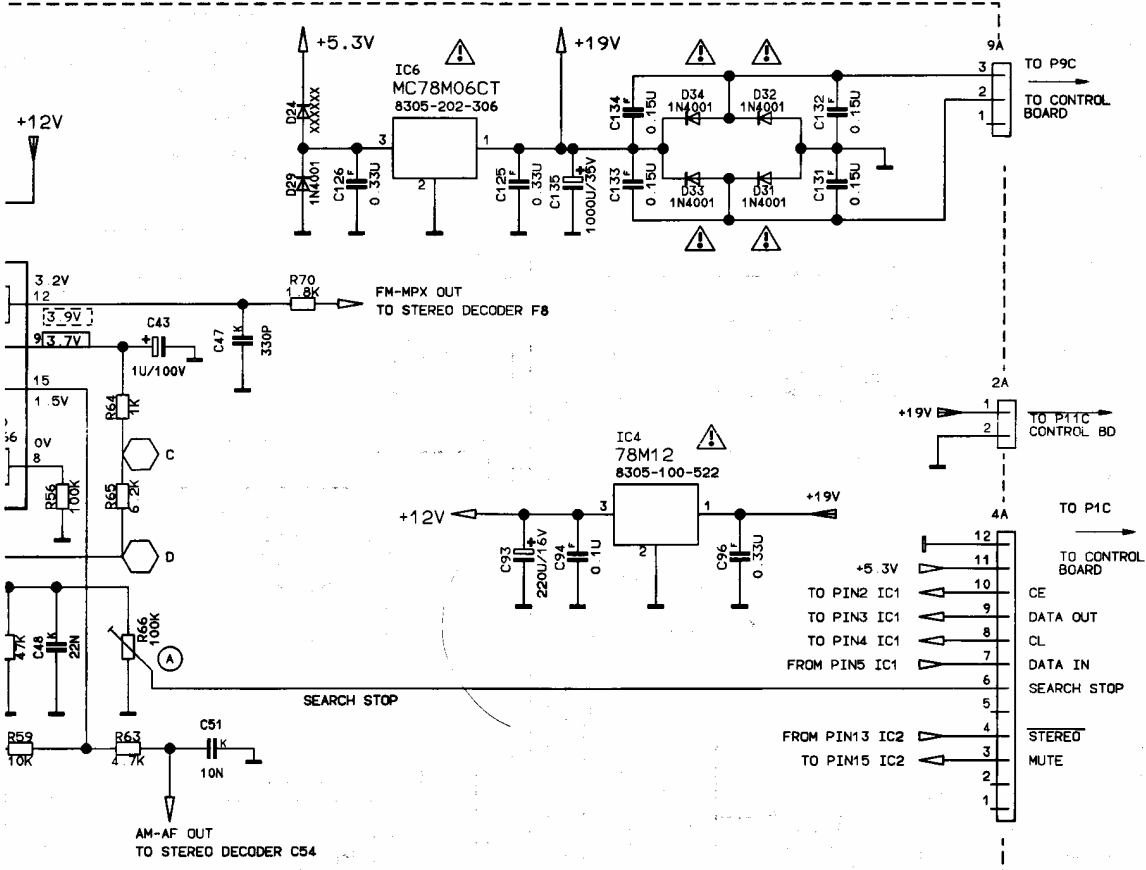


AM-RF/IF AND FM-IF

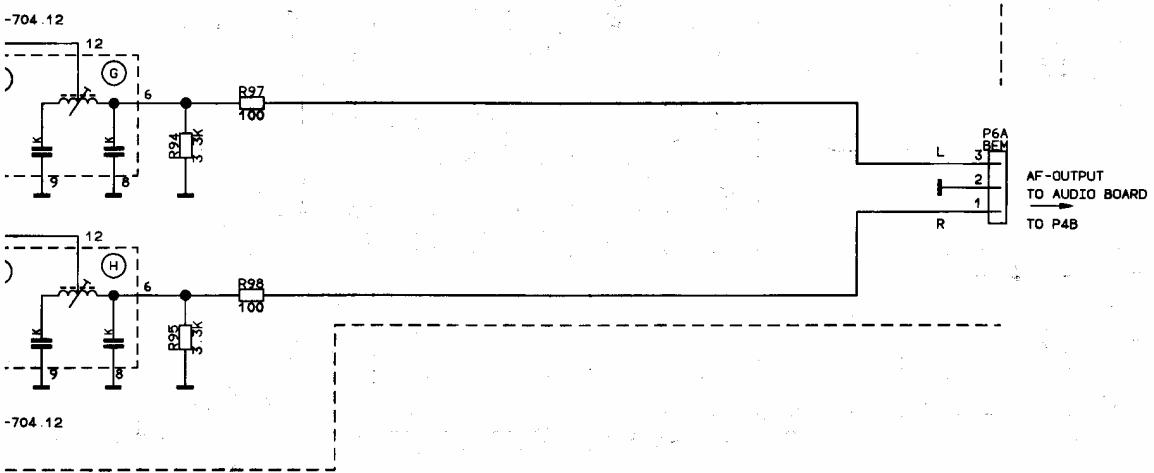


DE-EMPHASIS FOR .00(EURO)

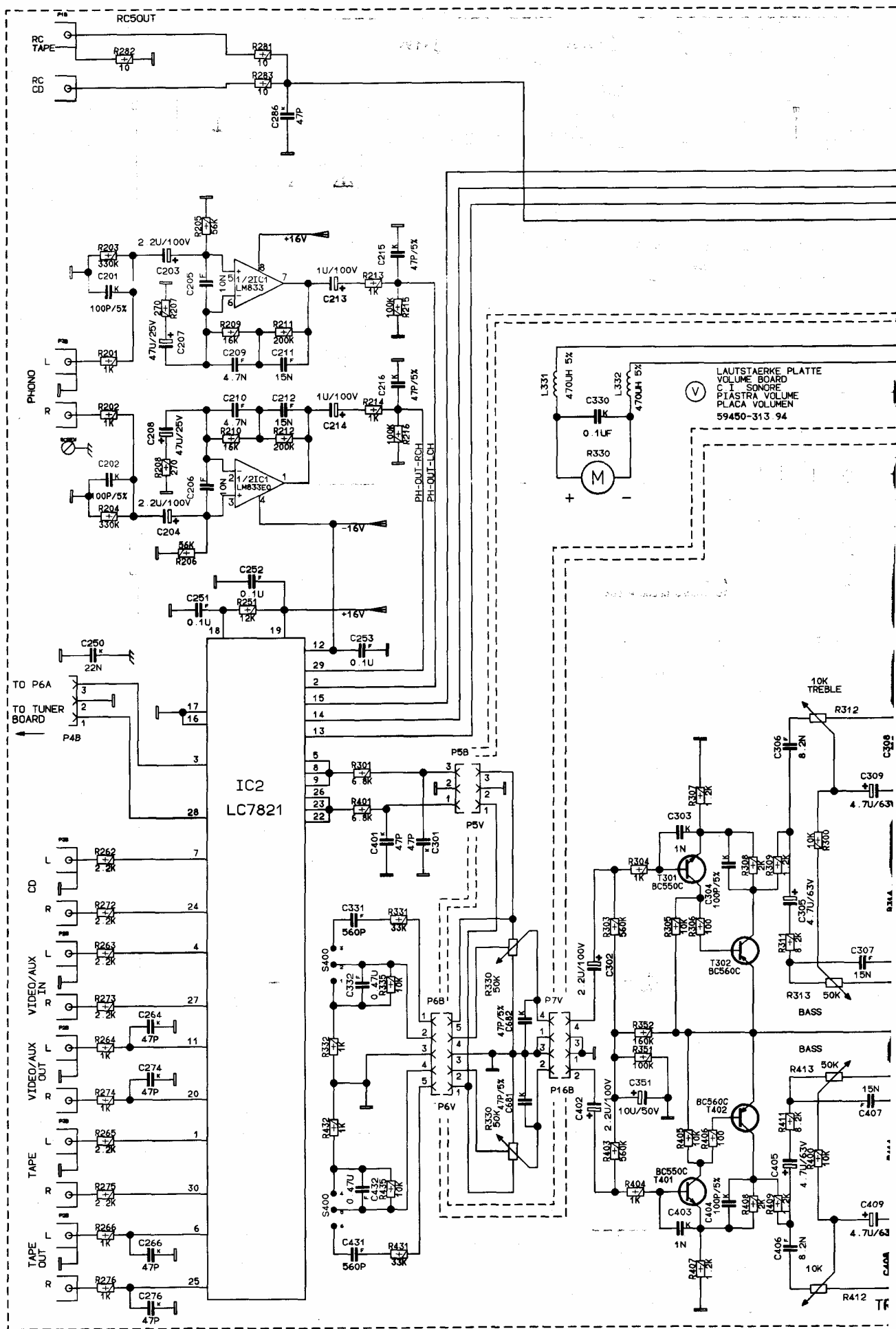
R73	R78	R75	C62
270K	330K	330K	180P

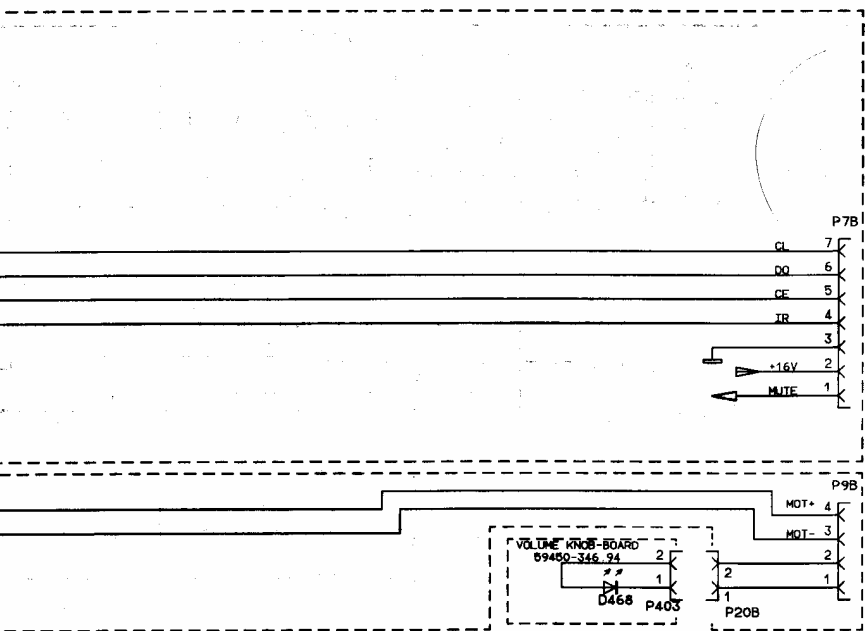


←-FILTER
RE MPX
RO MPX



GRUNDIG
R 301



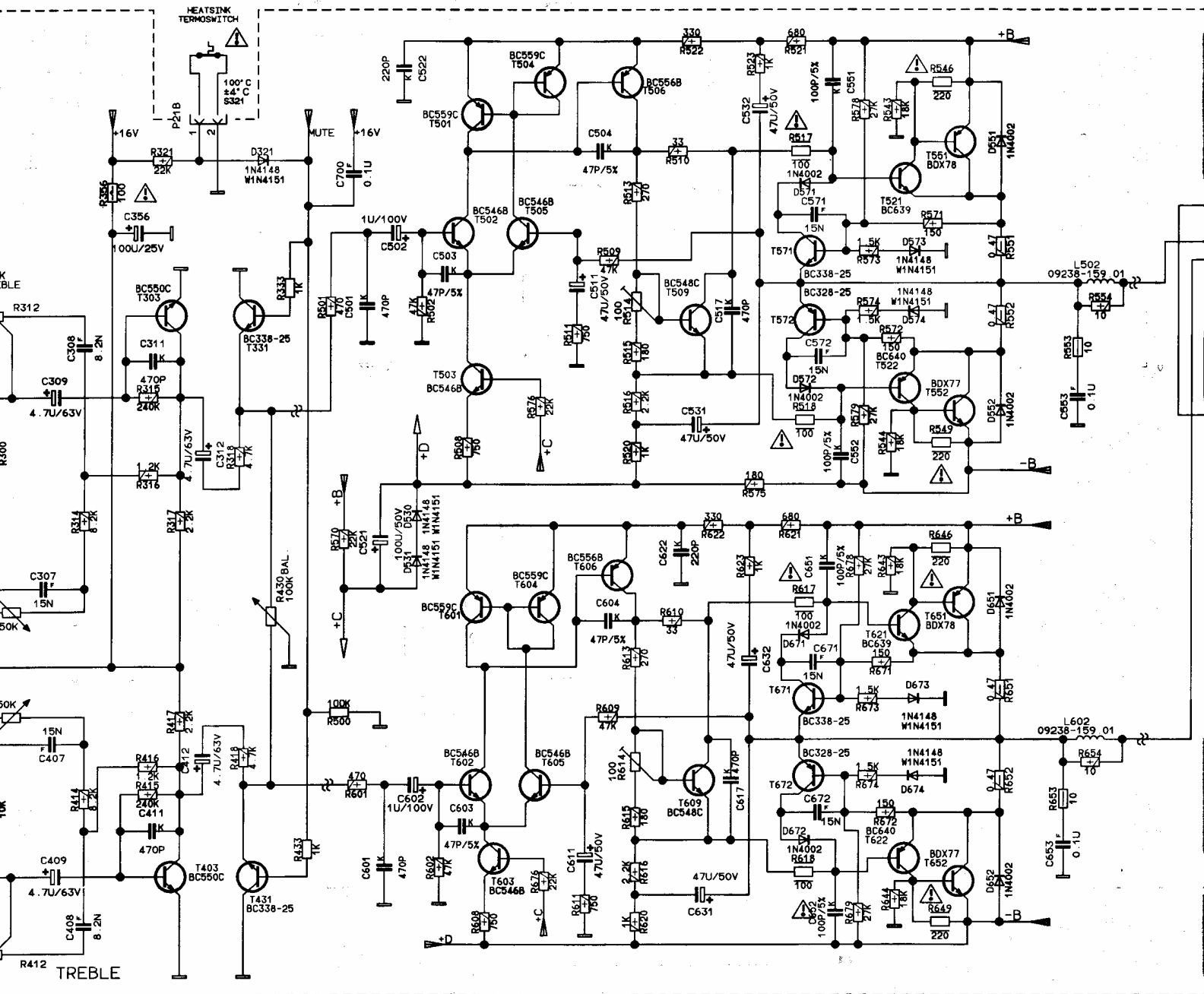


TO CONTROL BOARD

TO P5C

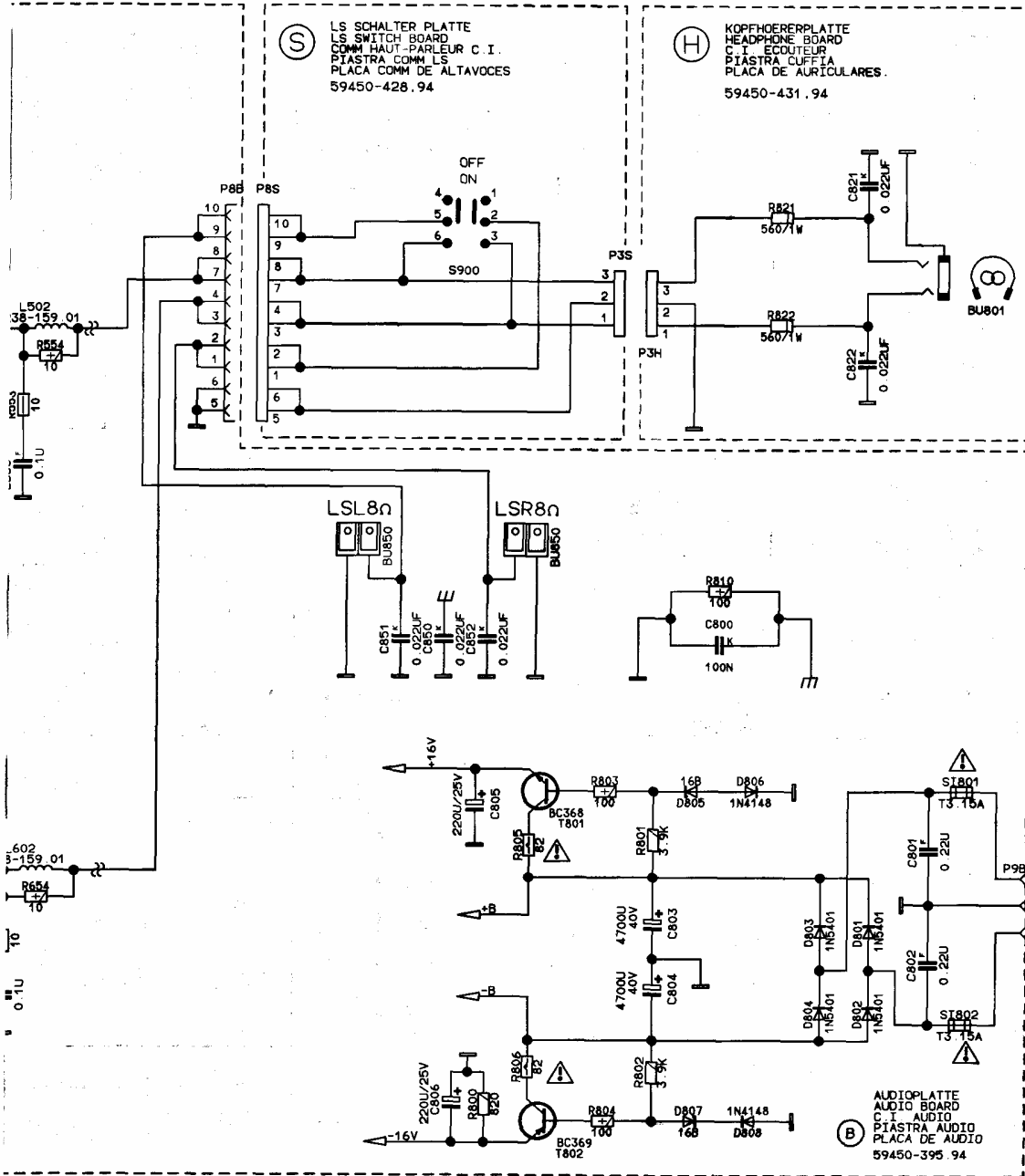
TO CONTROL BOARD

TO P8C

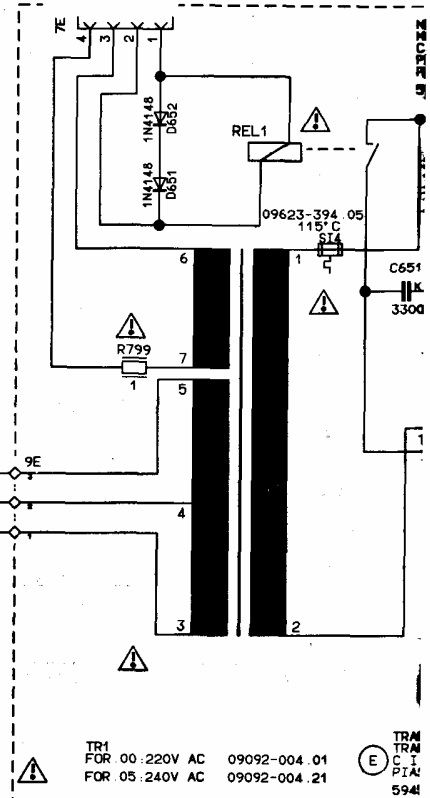


(S) LS SCHALTER PLATTE
LS SWITCH BOARD
COMM HAUT-PARLEUR C.I.
PIASTRA COMM LS
PLACA COMM DE ALTAVOCES
59450-428.94

(H) KOPFHÖRERPLATTE
HEADPHONE BOARD
C.I. ÉCOUTEUR
PIASTRA CUFFIA
PLACA DE AURICULARES.
59450-431.94



TO CONTROL BOARD
TO P7C



(B) AUDIOPLATTE
AUDIO BOARD
C.I. AUDIO
PIASTRA AUDIO
PLACA DE AUDIO
59450-395.94

TR1
FOR 00.220V AC 09092-004.01
FOR 05.240V AC 09092-004.21

(E) TRM
TRM
C.I.
PIA
594

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

**WIDERSTAND/RESISTOR
RESISTANCE/RESISTENZA/RESISTENCIA**

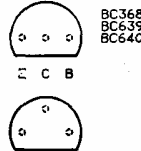
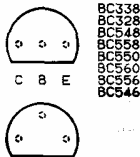
- KSW 0204 DIN DRAHT WIRE BOBINÉE A FILO BOBINADA
- MSW 0204 DIN
- KSW 0207 DIN METALLOXYDSCHICHT METAL OXIDE A OXYDE METALLIQUE AD OSSIDO METALLICO DE CAPA DE OXIDO METALICO
- MSW 0207 DIN
- KSW 0309 DIN RAUSCHARM LOW NOISE A SOUFFLE REDUIT A BASSO RUMORE DE BAJO RUIDO
- KSW 0411 DIN
- KSW 0617 DIN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

**KONDENSATOR/CAPACITOR
CONDENSATEUR/CONDENSATORE/CONDENSADOR**

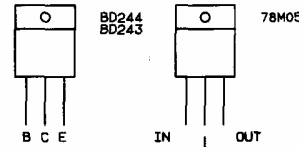
- ELKO ELECTROLYTIC ELECTROLYTIQUE ELETTROLITICO ELECTROLITICO
- TANTAL ELKO TANTALUM ELECTROLYTIC ELECTROLYTIQUE AU TANTALE ELETTROLITICO AL TANTALIO ELECTROLITICO DE TANTALO
- FOLIE FOIL A FEUILLE A FOGLIA DELAMINA
- KERAMIK CERAMIC CERAMIQUE A CERAMICA CERAMICO
- GLIMMER MICA AU MICA A MICA DE MICA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

ACHTUNG!
VORSICHTIG BEIM UMGANG MIT VORSICHTIGEN BEACHTEN!
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!
RESPECTAR EL TRATAMIENTO DE COMPONENTS MOS

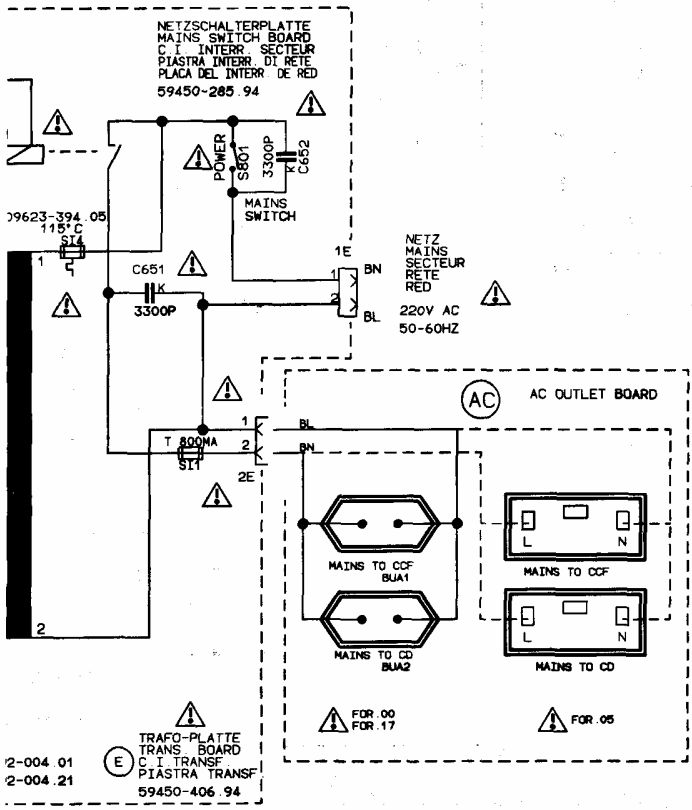
- FUER DIE GERAETESICHERHEIT ABSOLUT NOTWENDIG UND ENTSPRECHEND DEN RICHTLINIEN DES VDE BZW. IEC IM ERSATZFALL DURFEN NUR BAUTEILE MIT GLEICHER SPEZIFIKATION VERWENDET WERDEN.
- ABSOLUTELY NECESSARY FOR THE SAFETY OF THE SET THESE COMPONENTS MEET THE SAFETY REQUIREMENTS ACCORDING TO VDE OR IEC RESP. 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 CASO 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.



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



SPANNUNGEN MIT VOLTMEETER (RI=10M Ω) FALLS NICHT ANDERS ANGEGEBEN, GEGEN MASSE GEMESSEN. MESSWERTE GELTEN BEI 220V NETZSPANNUNG.
IF NOT OTHERWISE INDICATED ALL VOLTAGES ARE MEASURED AGAINST CHASSIS WITH A VOLTMEETER (RI=10M Ω). THE VALUES ARE VALID FOR 220V AC MAINS VOLTAGES.
SAUF INDICATION CONTRAIRE, LES TENSIONS SONT MEASUREES PAR RAPPORT AU CHASSIS AVEC UN VOLTMEETER (RI=10M Ω). LES VALEURS SONT VALABLES POUR UNE TENSION SECTEUR DE 220V CA.
TENSIONI MISURATE CON VOLTMETRO (RI=10M Ω) 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 Ω). LOS VALORES DE MEDIDA SON VALIDOS CON 220V DE TENSION DE RED.



**GRUNDIG
R 301**