

(D)

(GB)

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Sicherheitsvorschriften / Safety requirements / Prescriptions de sécurité / Prescrizioni de sicurezza / 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!

(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**!

(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 i lavori con componenti **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.

! **!** Components to safety guidelines (IEC/U.L.)! Only use components with the same specifications for replacement!


Observe by checking leakage-current or resistance measurement that the exposed parts are acceptably insulated from the supply circuit.

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

(D) Sicherheitsbestimmungen **(GB) Safety Standard Compliance** **(F) Prescriptions de Sécurité**
(I) Norme di Sicurezza **(E) Disposiciones para la Seguridad** **(USA) Safety Instructions**

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 .

• Messen des Isolationswiderstandes nach VDE 0701.

Isolationsmesser ($U_{\text{Test}} = 500 \text{ V}$) gleichzeitig an beiden Netzpolen und zwischen allen Gehäuse- oder Funktionsteilen (Antenne, Buchsen, Tasten, Zierteilen, Schrauben, usw.) aus Metall oder Metallegierungen anlegen. Fehlerfrei ist das Gerät bei einem:

$$R_{\text{isol}} \geq 2 \text{ M}\Omega \text{ bei } U_{\text{Test}} = 500 \text{ V}$$

Meßzeit: $\geq 1 \text{ s}$ (Fig. 1)

Anmerkung: Bei Geräten der Schutzklasse II kann durch Entladungswiderstände der Meßwert des Isolationswiderstandes konstruktionsbedingt $< 2 \text{ M}\Omega$ sein. In diesen Fällen ist die Ableitstrommessung maßgebend.

Prüfling
Test item
Apparecchio in misura
Pièce d'essai
Aparato de prueba

Netzstecker des Prüflings
Mains plug of test item
Spina di rete dell'apparecchio in misura
Fiche secteur pièce de essai
Clavija de red del aparato de prueba

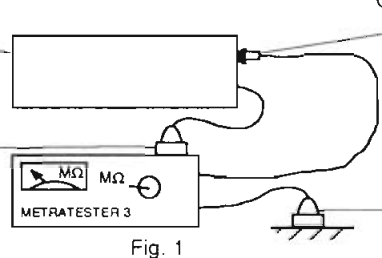


Fig. 1

Mit der Greifklemme alle Metallteile u. metallisierten Teile abtasten. All metal and metallic parts must be tested with the Caliper clamp. Con cavo provvisto di morsetto toccare tutte le parti metalliche o metallizzate.

A l'aide d'une pince vérifier toutes les parties métalliques ou métallisées.

Con la pinza, tocar todas las piezas metálicas o metalizadas.

Netzstecker/Mains plug/Spina di rete/Fiche secteur/Clavija de red

Prüfling
Test item
Apparecchio in misura
Pièce d'essai
Aparato de prueba

Netzstecker des Prüflings
Mains plug of test item
Spina di rete dell'apparecchio in misura
Fiche secteur pièce de essai
Clavija de red del aparato de prueba

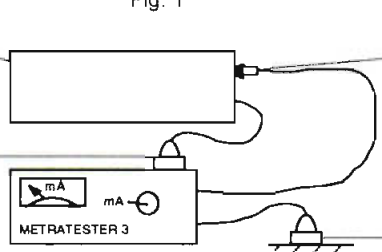


Fig. 2


Mit der Greifklemme alle Metallteile u. metallisierten Teile abtasten. All metal and metallic parts must be tested with the Caliper clamp. Con cavo provvisto di morsetto toccare tutte le parti metalliche o metallizzate.

A l'aide d'une pince vérifier toutes les parties métalliques ou métallisées.

Con la pinza, tocar todas las piezas metálicas o metalizadas.


Netzstecker/Mains plug/Spina di rete/Fiche secteur/Clavija de red

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.

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 .

- **Measurement of the Insulation Resistance to VDE 0701.**
Connect an Insulation Meter ($U_{\text{Test}} = 500 \text{ V}$ -) to both mains poles simultaneously and between all cabinet or functional parts (antenna, sockets, buttons, decorative parts, etc.) made from metal or metal alloy. The product is fault free if:

$$R_{\text{isol}} \geq 2 \text{ M}\Omega \text{ at } U_{\text{Test}} = 500 \text{ V}$$

Measuring time: $\geq 1 \text{ s}$ (Fig. 1)

Comment: On product conforming to the Safety class II the Insulation Resistance can be $< 2 \text{ MOhm}$, dependent constructively on discharge resistors. In this cases, the check of the leakage current is significant.

- **Measurement of the Leakage Current to VDE 0701.**


Connect the Leakage Current Meter ($U_{\text{Test}} = 220 \text{ V}$ ≈) to both mains poles simultaneously and between all cabinet or functional parts (antenna, sockets, buttons, screws, etc.) mad from metal or metal alloy. The product is fault free if:

$$I_{\text{Leak}} \leq 1 \text{ mA at } U_{\text{Test}} = 220 \text{ V}$$

Measuring time: $\geq 1 \text{ s}$ (Fig. 2)

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 .

- **Mesure de la résistance d'isolement selon VDE 0701**

Brancher un appareil de mesure d'isolement ($U_{\text{test}} = 500 \text{ V}$ -) simultanément sur les deux pôles secteur et entre toutes les parties métalliques ou métallisées accessibles de l'appareil (antenne, embases, touches, enjoliveurs, vis, etc.).

Le fonctionnement est correct lorsque:

$$R_{\text{isol}} \geq 2 \text{ M}\Omega \text{ pour une } U_{\text{test}} = 500 \text{ V}$$

Durée de la mesure: $\geq 1 \text{ s}$

Observations: L'isolement des appareils de la classe II, de part leur conception (résistance de décharge), peut être inférieur à $< 2 \text{ M}\Omega$, (Fig. 1).

- **Mesure du courant de fuite selon VDE 0701**


Brancher un ampèremètre du courant de fuite ($U_{\text{test}} = 220 \text{ V}$ ≈) simultanément sur les deux pôles du secteur et entre toutes les parties métalliques ou métallisées accessibles de l'appareil (antenne, embases, touches, enjoliveurs, vis, etc.). Le fonctionnement est correct lorsque (Fig. 2):

$$I_{\text{fuite}} \leq 1 \text{ mA pour } U_{\text{test}} = 220 \text{ V}$$

Durée de la mesure: $\geq 1 \text{ s}$

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 .

- **Misura della resistenza di isolamento secondo VDE 0701**

Applicare il misuratore di isolamento (tens. prova = 500 V-) contemporaneamente ai due poli di rete e tra tutte le parti del mobile e delle funzioni (antenna, prese, tasti, mascherine, viti ecc.) in metallo o in lega metallica. L'apparecchio non presenta difetti quando:


- 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.

- 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.

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.

- 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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- 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.

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 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.

$$R_{\text{isol}} \geq 2 \text{ M}\Omega \text{ con tens. prova} = 500 \text{ V}$$

Tempo di misura: $\geq 1 \text{ s}$ (Fig. 1)

Nota: Negli apparecchi della classe II, che per motivi costruttivi dispongono di resistenze di dispersione, il valore di misura della resistenza di isolamento può essere inferiore a $< 2 \text{ M}\Omega$. In questi casi è determinante la misura della corrente di dispersione.

- **Misura della corrente di dispersione secondo VDE 0701**

Applicare il misuratore di isolamento (tens. prova = 220 V≈) contemporaneamente ai due poli di rete e tra tutte le parti del mobile e delle funzioni (antenna, prese, tasti, mascherine, viti ecc.) in metallo o in lega metallica. L'apparecchio non presenta difetti quando:

$$I_{\text{disp.}} \leq 1 \text{ mA con tens. prova} = 220 \text{ V}$$

Tempo di misura: $\geq 1 \text{ s}$ (Fig. 2)


- 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 .

● Medida de la resistencia de aislamiento según VDE 0701.

Aplicar el medidor de aislamiento ($U_{prueba} = 500\text{ V-}$), simultáneamente, a los dos polos de red y entre todas las partes del mueble o de funciones (antena, conectores, teclas, tornillos, etc.) de metal o aleaciones metálicas. El aparato estará libre de defectos con:

$$R_{aisl} \geq 2\text{ M}\Omega \text{ con } U_{prueba} = 500\text{ V-}$$

Tiempo de medida: $\geq 1\text{ seg.}$

Observación: En aparatos de la clase de protección II, condicionado por la construcción y por resistencias de descarga, el valor de medida de la resistencia de aislamiento puede ser superior a $< 2\text{ M}\Omega$.

En este caso es decisiva la medida de la corriente derivada (Fig.1).

● Medida de la corriente derivada de acuerdo con VDE 0701.

Aplicar el medidor de corriente derivada ($U_{prueba} = 220\text{ V}\approx$) simultáneamente a los dos polos de red y entre todas las partes del mueble o de funciones (antena, conectores, teclas, tornillos, etc.) de metal o aleaciones metálicas. El aparato estará libre de defectos con (Fig.2):

$$I_{deriv} \leq 1\text{ mA con } U_{prueba} = 220\text{ V}\approx$$

Tiempo de medida: $\geq 1\text{ seg.}$

USA

US &
Canada

Safety Instructions



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage", within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.




The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

- Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
- Retain Instructions - The safety and operating instructions should be retained for future reference.
- Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
- Follow Instructions - All operating and use instructions should be followed.
- Water and Moisture - The appliance should not be used near water—for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
- Wall or Ceiling Mounting - The appliance should be mounted to wall or ceiling only as recommended by the manufacturer.
- Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
- Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

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 originali.
- 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.
- E' necessario controllare la sicurezza dei fermacavi e delle guaine flessibili.
- Saldature caricate termicam. vanno rifatte.
- Lasciare libere le fessure di areazione.

- 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, porou
 - 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.

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.
- Reparar los puntos de soldadura sometidos a carga térmica.
- Mantener libres los canales aireación.

- Power Sources - The appliance should be connected to a power supply only of the type given above or as marked on the appliance.
 - Power-Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
 - Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
 - Power Lines - An outdoor antenna should be located (x1) away from power lines.
 - Outdoor Antenna Grounding - If an outside antenna is (x2) connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
 - Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
 - Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
 - Damage Requiring Service - The appliance should be serviced by qualified service personnel when: The power-supply cord or the plug has been damaged; or objects have fallen, or liquid has been spilled into the appliance; or the appliance has been exposed to rain; or the appliance does not appear to operate normally or exhibits a marked change in performance; or the appliance has been dropped, or the enclosure damaged; or the batteries have been damaged.
 - Servicing - the user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
- Items (x1) and (x2) apply only to receivers or tuners.

Mechanischer Teil

Allgemeines zum mechanischen Teil

Die Zahlen im Text und bei den Abbildungen sind mit den Positionsnummern der Ersatzteilliste identisch. Teile - die in der Ersatzteilliste nicht vorkommen - sind mit Buchstaben gekennzeichnet.

Ist es erforderlich, lackgesicherte Schrauben zu lösen, müssen diese nach Abschluß der Reparatur wieder verlackt werden.

Saubere Gummilaufflächen tragen wesentlich zur Betriebssicherheit der Mechanik bei, diese sind mit Reinigungsmittel (Testbenzin) zu reinigen.

Magnetische Werkzeuge dürfen nicht in die Nähe der Magnetköpfe gebracht werden.

Vor Service - Arbeiten überprüfen Sie bitte, ob die Tonwellen, die Gummiandruckrollen, sowie die Magnetköpfe frei von Bandabriebrückständen sind. Zum Reinigen dieser Teile eignet sich ein spiritus- oder reinigungsbenzingetränktes Wattestäbchen.

Nach jeder Reparatur am Laufwerk sind die Köpfe 65, 66, 67, die Tonwellen 43, 44, sowie die Andruckrollen 35 mit Spiritus oder Reinigungsbenzin zu reinigen.

Ausbauhinweise

1. Gehäuserückteil abnehmen (Abb. 1)

- Batteriefachdeckel abnehmen.
- 6 Schrauben **a** herausdrehen.
- 2 Drehknöpfe **14** abziehen
- Gehäuserückteil abnehmen.

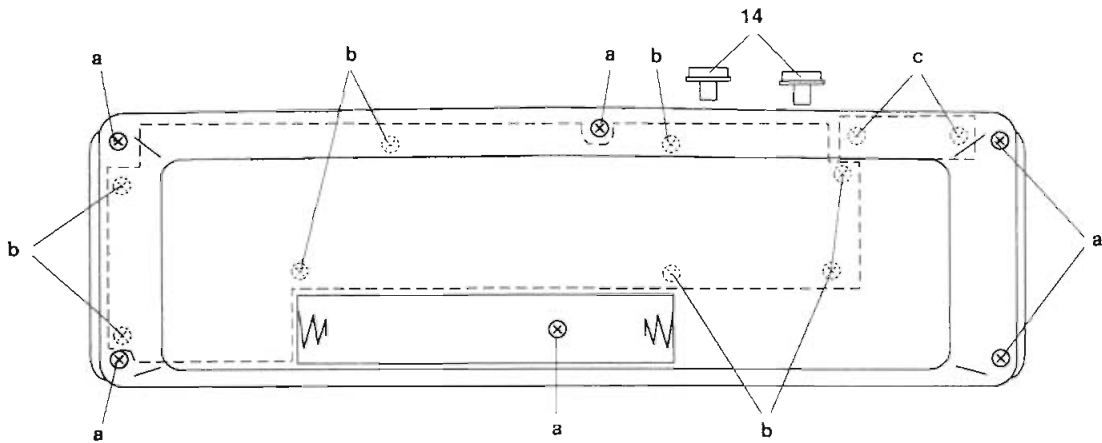


Abb. 1

Fig. 1

2. HF-NF-Platte ausbauen (Abb. 1)

- Rückwand Pkt. 1 abnehmen.
- 8 Schrauben **b** und 2 Schrauben **c** herausdrehen.
- HF-NF-Platte und Equalizer-Platte vorsichtig herausnehmen.

1. Removal of back panel (Fig 1)

- Remove battery compartment cover.
- Loosen the 6 screws **a**.
- Pull off two knobs **14**.
- Remove cabinet rear.

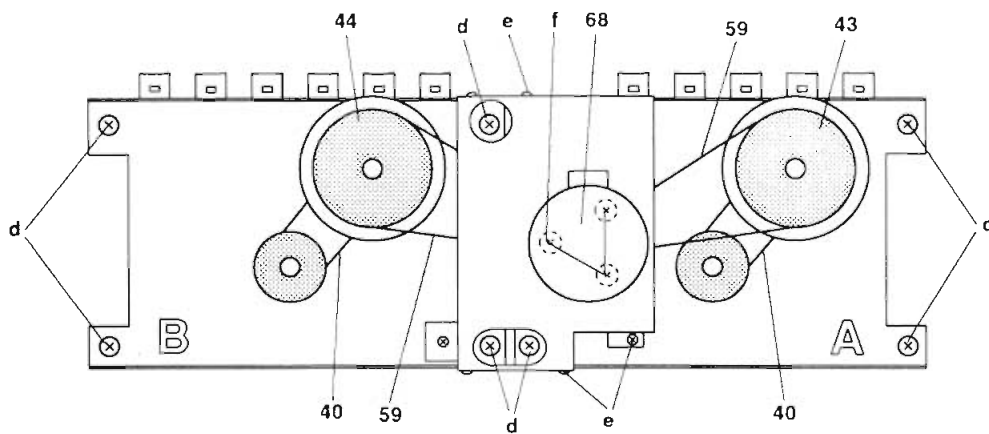


Abb. 2

Fig. 2

Mechanical Section

General notes relating to the mechanical section

The numbers in the text and on the diagrams are the same as the position numbers in the spare parts list. Parts not included in the spare parts list are denoted by letters.

If screws secured with lacquer have to be loosened, they must be resecured in the same manner when the repair is complete.

For the mechanical section to operate reliably it is essential that the rubber surfaces should be cleaned. Such surfaces shall be cleaned using a cleaning agent (cleaning benzene).

Magnetic tools shall not be brought near the magnetic heads.

Before commencing service work, ensure that the capstans, the rubber pinch rollers and the magnetic heads are free from particles produced by tape abrasion. To clean these parts, use a cotton bud saturated in methylated spirits or cleaning benzene.

Each time repair work has been carried out on the drive mechanism, clean the heads 65, 66, 67, the capstans 43, 44, and the rubber pinch rollers 35 with methylated spirits or cleaning benzene

Disassembly Instructions

1. Removal of back panel (Fig 1)

- Remove battery compartment cover.
- Loosen the 6 screws **a**.
- Pull off two knobs **14**.
- Remove cabinet rear.

2. Removing the RF-AF Board (Fig. 1)

- Remove back panel as under point 1.
- Loosen the 8 screws **b** and 2 screws **c**.
- Remove RF-AF board and EQ board carefully.

3. Laufwerk ausbauen (Abb. 2)

- HF-NF-Platte ausbauen Pkt. 2.
- 7 Schrauben **d** herausdrehen.
- Beide Cassettenfachdeckel durch Drücken der Tasten STOP / EJECT öffnen.
- Das Laufwerk unten (Motor) etwas anheben und herausnehmen.

4. Motor ausbauen (Abb. 2)

- Laufwerk ausbauen Pkt. 3.
- 3 Schrauben **e** herausdrehen, Deck A anheben und beide Riemen **59** abnehmen.
- 3 Schrauben **f** herausdrehen, Motor **68** (Einbaulage beachten) abnehmen und Motorzuleitungen ablöten (evtl. markieren).

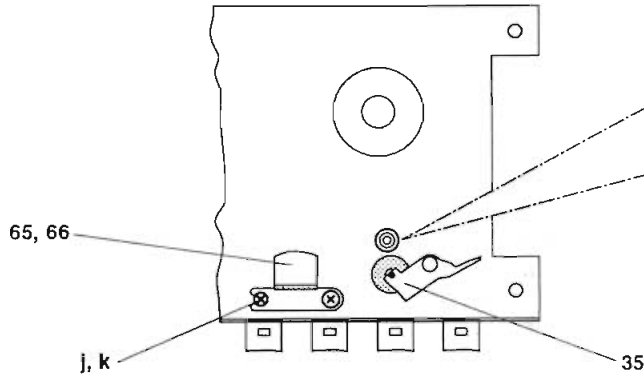


Abb. 3

3. Removal of the drive mechanism (Fig. 2)

- Remove the RF-AF board as under point 2.
- Loosen 7 screws **d**.
- Open both cassette compartment covers by depressing the STOP / EJECT button.
- Lightly lift up the drive mechanism (motor) from the bottom and remove it.

4. Removal of motor (Fig. 2)

- Remove the drive mechanism as under point 3.
- Remove the 3 screws **e**, lift up the Deck A and remove two drive belts **59**.
- Loosen 3 screws **f**, lift motor **68** out (take note of the position of the motor) and unsolder the connections (mark them, if necessary).

Fig. 3

5. Schwungscheiben ausbauen (Abb. 2 und 3)

- Laufwerk ausbauen Pkt. 3.
- Riemen **40** und **59** abnehmen.
- Sperrscheibe **84** (Abb. 3) von der Tonwellenachse abziehen.
- Schwungscheibe **43** oder **44** mit der Tonwelle aus dem Schwungscheibenlager herausnehmen, dabei auf die Scheibe **85** (Abb. 3) achten.
- Neue Schwungscheibe einsetzen, danach Tonwelle mit Spiritus reinigen und in umgekehrter Reihenfolge zusammenbauen.

5. Removal of flywheels (Figs. 2 and 3)

- Remove the drive mechanism as under point 3.
- Remove drive belts **40** and **59**.
- Remove the locking disk **84** (Fig. 3) from the capstan.
- Remove flywheel **43** or **44** complete with capstan from flywheel bearing, take care of the washer **85** (Fig. 3).
- Fit new flywheel, clean capstan in white spirit and reassemble in reverse order.

Seilzug

Dial Cord

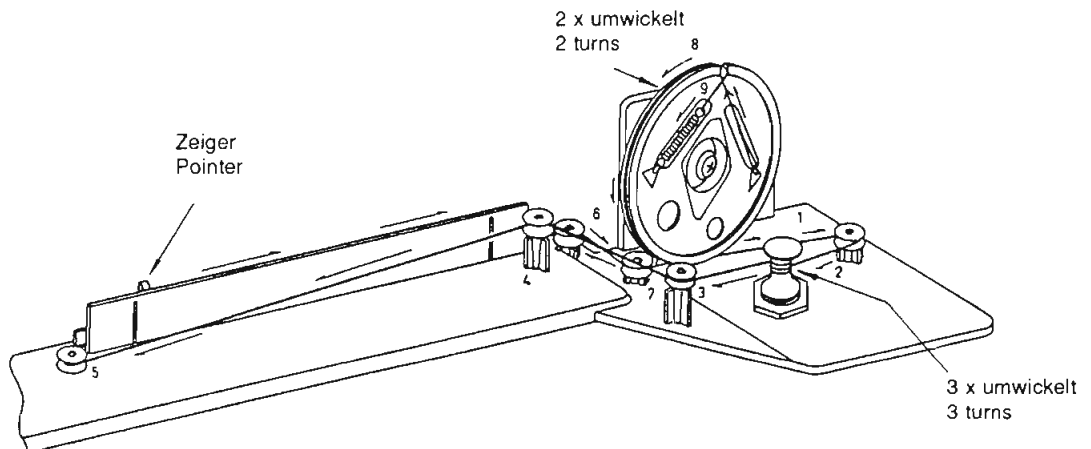


Abb. 4

Fig. 4

Elektrischer Teil

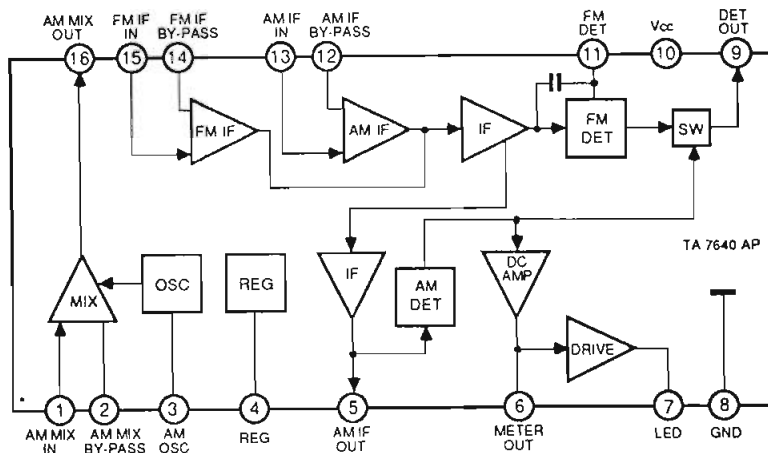
Allgemeines zum elektrischen Teil

Alle erforderlichen Meßgeräte sind im GRUNDIG - Meßgeräteprogramm enthalten. Angaben über die einzelnen Messungen und Meßschaltungen finden Sie bei den elektrischen Messungen.

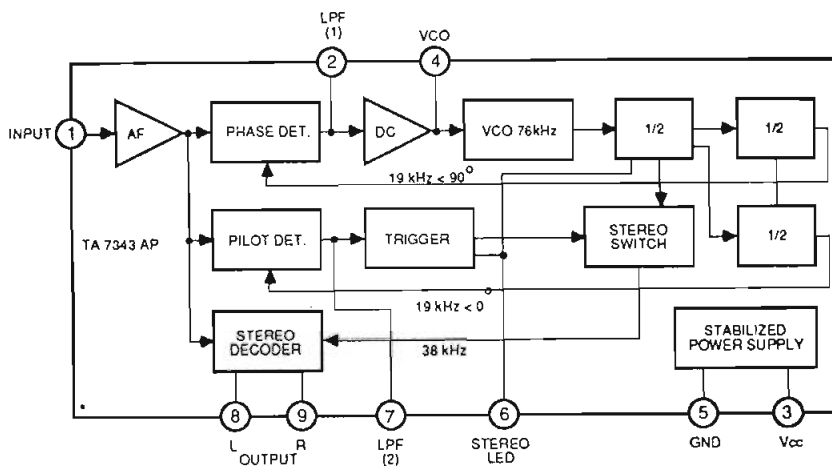
Buchstaben und Zahlen im ∇ Dreieck weisen auf Meßpunkte im Schaltbild und auf den Druckplatten - Abbildungen hin.

IC Block Diagramme

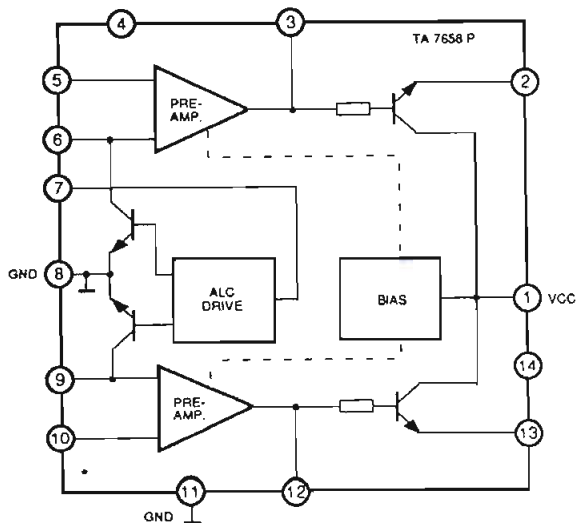
IC 101 TA 7640 AP



IC 102 TA 7343 AP



IC 201 TA 7658 P



Electrical Section

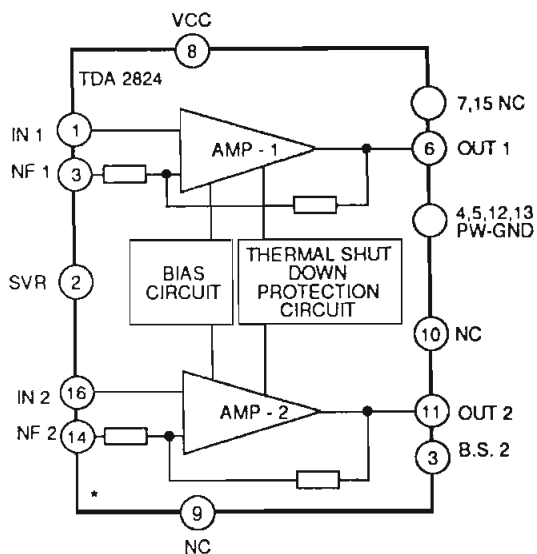
General notes relating to the electrical section

All the equipment needed is available in the GRUNDIG test equipment range. Details of individual tests and test circuits are to be found in the Electrical Test Section.



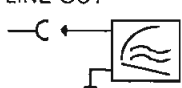
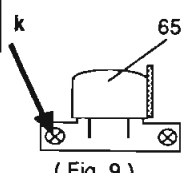


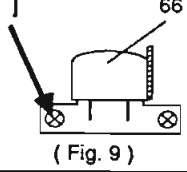


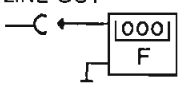



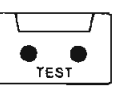



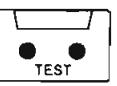

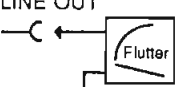


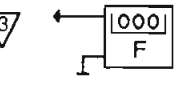
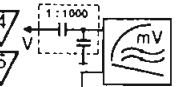
Letters and numbers in triangles ∇ refer to test points in the circuit diagram and in the illustrations of printed circuit boards.





IC Block Diagrams

IC 501 TDA 2824



Cassettenteil - Einstellung
Cassette part - Adjustment
Partie cassette - Réglage
Sezione cassetta - Regolazione
Sección de cassette - Ajuste

Messung Measurement Mesure Misura Medida	Einspeisung Input Injection Alimentazione Aplicación de señal	f	Betriebsart Mode Mode de fonction. Tipo di funzionam. Modo de funcionam.	Meßbedingung Testparameter Conditions de mesure Condizione di misura Condiciones de medida	Anforderung Requirement Exigence Necessità Exigencias	Einstellung Adjustment Réglage Regolazione Ajuste
Azimut Azimuth Azimutaje	CASS. A 	10 kHz		LINE OUT 	V = max.	CASS "A" k  (Fig. 9)
	CASS. B 				V = max.	CASS "B" J  (Fig. 9)
- NORMAL - Geschwindigkeit Tape speed Vitesse de bande Velocità Velocidad	CASS. A 	3150 Hz		LINE OUT -C 	f = 3150 Hz	 VR 504
	CASS. B 					
- HIGH - Geschwindigkeit Tape speed Vitesse de bande Velocità Velocidad	CASS. A 	3150 Hz	HIGH DUBBING	LINE OUT -C 	f = 4725 Hz	 VR 503
	CASS. B 					
Gleichlauf Wow / Flutter Fluctuation Stabilità di scorum. Sincronización	CASS. A/B 			LINE OUT -C 	≤ ± 0,35%	
Vormagnetisierung Bias Prémagnétisation Premagnetizzazione Premagnetización	CASS. B 				f = 65 ... 75 kHz	
					10 ... 14 mV	

 448	=	Sach - Nr. Order - No. Références No. ordine No de código	} 35079 - 018.00		Aufnahme Recording Enregistrement Registrazione Grabación		Wiedergabe Playback Lecture Riproduzione Reproducción
							

Radio - Abgleich
Alignment
Alignement
Taratura
Ajuste

Abgleich Alignment Alignement Taratura Ajuste	Einspeisung Input Injection Alimentazione Aplicación de señal	Meßpunkt Testpoint Point de mesure Punto di misura Punto de medida	Hinweise Notes Observations Note Advertencias	Bereich Band Bande Gamma Banda	f	Abgleichpunkt Alignment point Point d'alignem. Punto di taratura Punto de ajuste	Einstellung Adjustment Réglage Regolazione Ajuste
Oszillator Oscillator Oscillateur Oscillatore Oscilador				MW	515 kHz	T 102	max.
					1600 kHz	CT 106	
				LW	140 kHz	-	max.
					275 kHz	CT 105	
Vor- u. Zwischenkreis Aerial-bandpass oct. Circuits préliminaire et intermédiaire Circuito ingresso ed intermedio Circuitos de antena e intermedio				MW	530 kHz	L 104	max.
					1600 kHz	CT 103	
				LW	160 kHz	L 105	max.
					250 kHz	CT 104	
FM	88 MHz	L 101	max.				
	106 MHz	CT 101					
ZF IF FI	Abgleich nach Rauschen Alignment by noise Réglage au max. de bruit Taratura in base al fruscio Ajuste según el ruido		Tuning	MW		T 103	max.
						T 105	
Demodulator				FM		T 101	max.
						T 104	min.
Stereo				FM		VR 101	76 kHz ± 0,2 kHz

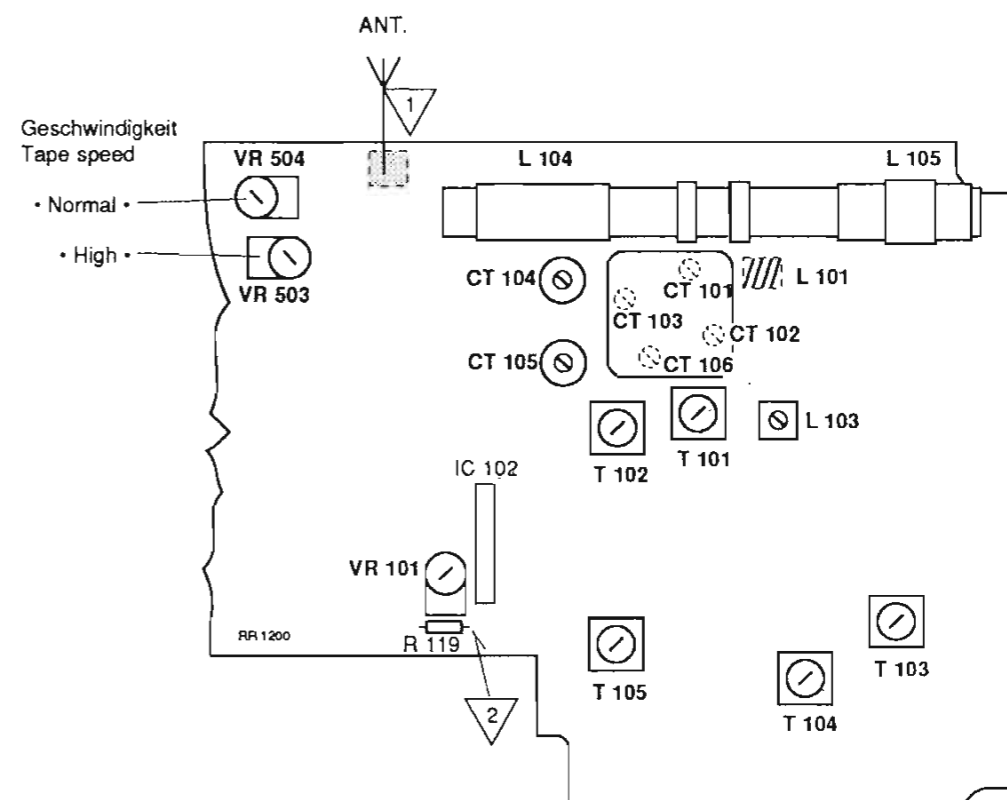


Abb. 5

Fig. 5

Einstellung • Azimut •

Adjustment of Azimuth

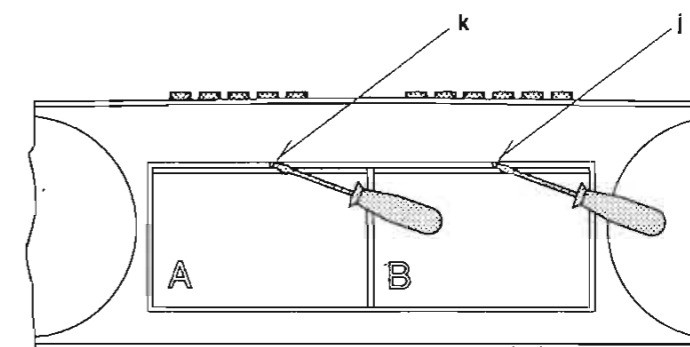
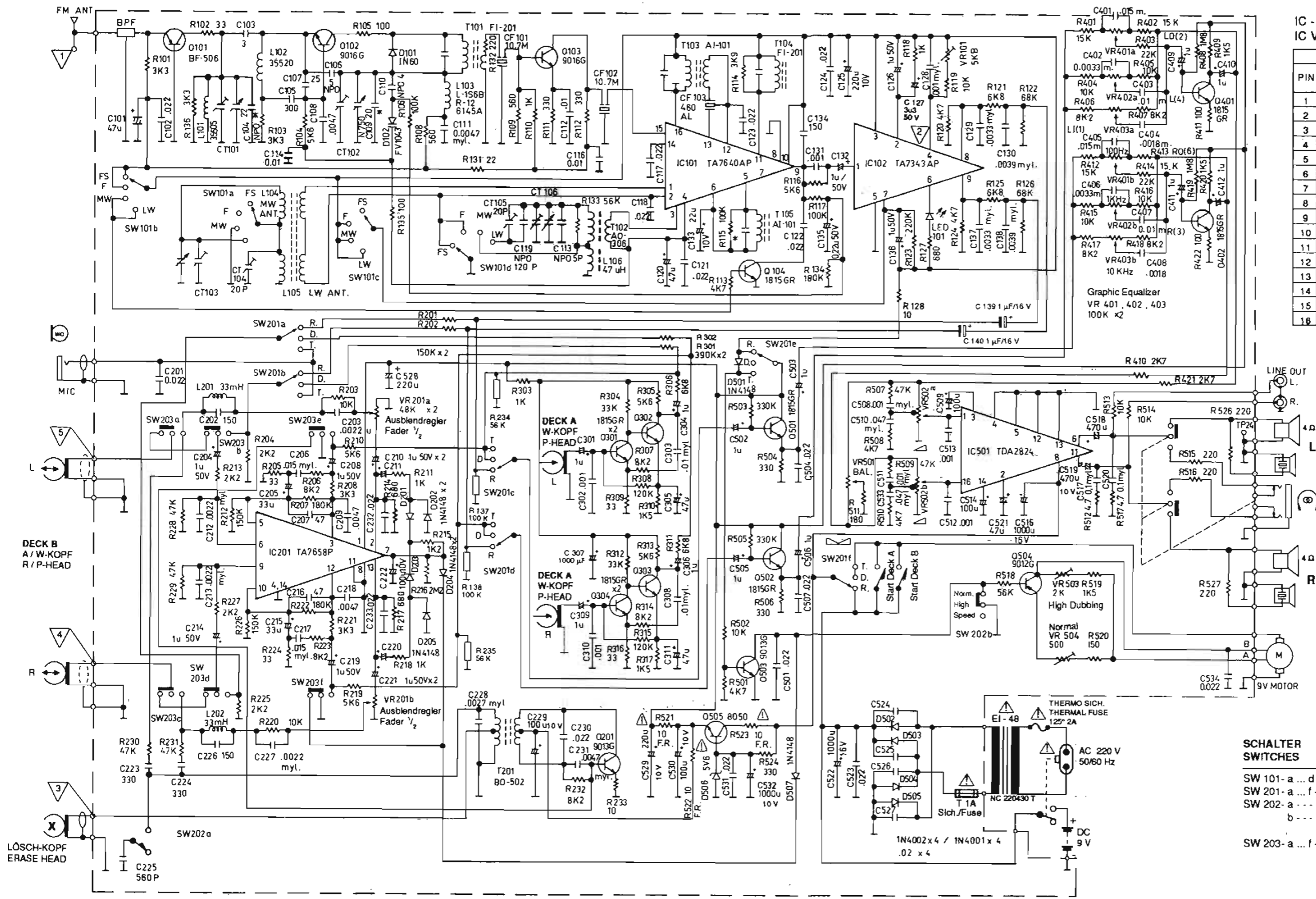


Abb. 6

Fig. 6

Zeichenerklärung / Legende / Légende / Simbologia / Aclaración

	Meßsender Testgenerator Générateur Generatore di misura Generador frecuencias		NF-Voltmeter AF voltage meter Voltmètre BF Voltmetro BF Voltmetro de BF		Frequenzähler Frequency counter Fréquence-mètre Frequenzimetro Contador frecuencias		Rahmenantenne Frame aerial Cadre Antenna a telaio Antena de cuadro
	Gleichspg.-Voltmeter DC voltage meter Voltmètre DC Misuratore tensione continua Medidor de tensión continua		Tonhörschwankungsmesser Flutter meter Fluctuomètre Misuratore di flutter Medidor de fluctuaciones		Drehen nach rechts Tuning to right Tourner vers la droite Ruotare verso destra Girar a la derecha		Einstellung wiederholen To repeat the adjustment Répéter le réglage Ripetere la regolazione Repertir el ajuste



IC - SPANNUNGSANGABEN (V)
IC VOLTAGE CHECK (V)

PIN	IC 101		IC 102			IC 201		IC 501	
	AM	FM	AM	FM	FM ST.	PLAY	REC.		
1	1,5	0	2,3	2,9	2,9	4,3	4,2	0	
2	1,5	0	2,3	3,6	3,6	1,9	2,0	1,3	
3	2,3	2,3	4,0	5,0	5,0	2,7	2,7	0,5	
4	2,3	2,3	2,0	4,2	4,2	0	0	0	
5	0,9	0,8	0	0	0	1,2	1,2	0	
6	0,9	0,8	3,2	4,5	4,5	0	0	4,0	
7	0	—	3,8	4,6	4,4	0,4	0,6	0	
8	0	0	2,0	1,1	1,1	0	0	9,00	
9	1,3	1,5	2,0	1,0	1,0	0	0	0	
10	4,0	4,0				1,2	1,2	0	
11	4,0	4,0				0	0	4,0	
12	1,4	1,4				2,7	2,7	0	
13	1,4	1,4				1,9	2,0	0	
14	1,4	1,4				0	0	0,6	
15	1,4	1,4						0	
16	4,0	4,0						0	

TRANS. - SPANNUNGSANGABEN (V)
TRANSISTOR VOLTAGE CHECK (V)

FUNCT.	TR.	E	B	C
FM	Q 101	0,7	0	0
	Q 102	1,6	2,3	3,4
	Q 103	0,6	1,3	3,2
	Q 401	0,6	1,2	4,0
	Q 402	0,6	1,2	4,0
	Q 501	0	0,6	3,4
Q 502	0	0,6	3,4	
Q 505	4,6	5,6	8,6	
MW	Q 104	0	0,7	0
TAPE	Q 503	0	0,6	0
	Q 504	8,4	7,8	8,4
OSC	Q 201	0	-2,1	4,0
DECK A	Q 301	0,6	1,1	1,2
	Q 302	0	0,6	1,2
	Q 303	0	0,6	1,2
	Q 304	0,6	1,1	1,2

SCHALTER SWITCHES	FUNKTION FUNCTION	STELLUNG POSITION
SW 101-a ... d	FM STEREO / FM / MW / LW	FM STEREO
SW 201-a ... f	RADIO / DUBBING / CASS.; TAPE	RADIO
SW 202-a ... b	OSZILLATOR; BEAT CUT	
	HIGH SPEED / NORMAL SPEED (DUBBING)	NORMAL SP.
SW 203-a ... f	AUFN / WDG.; REC / PLAY	WDG.; PLAY

GRUNDIG

Ⓛ Btx ★ 32700 #

RR 1200

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!

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.

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

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

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

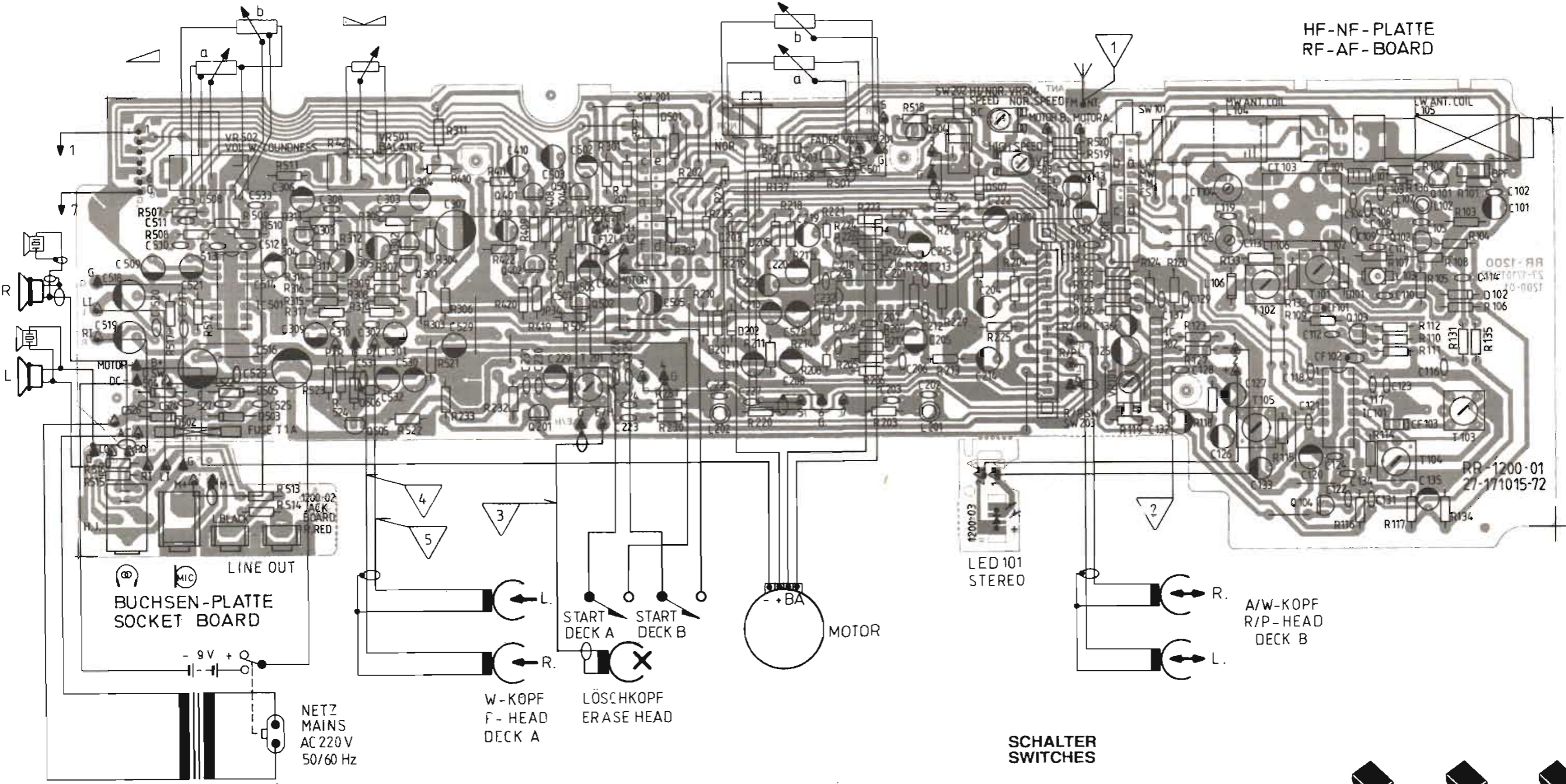
E Atención: Recomendamos las normas de seguridad VDE u otras normas equivalentes, por ejemplo: VDE 701 para reparaciones, VDE 0860 / IEC 65 para aparatos!

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

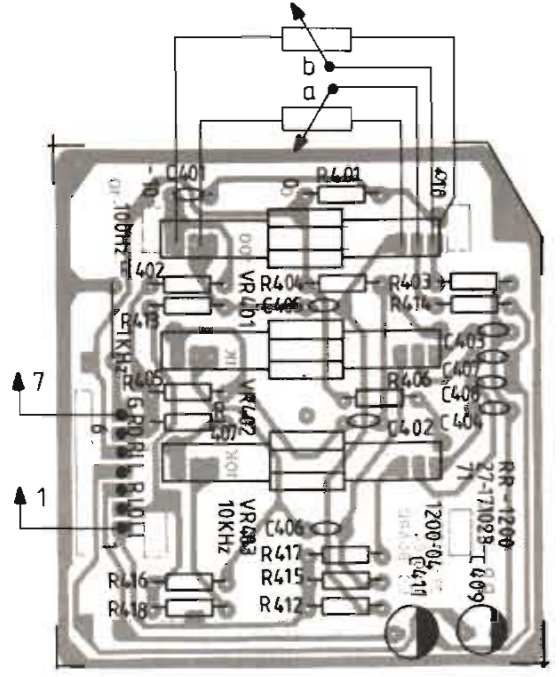
ÄNDERUNGEN VORBEHALTEN.
SUBJECT TO ALTERATION.
MODIFICAZIONI RESERVEES.
CON RISERVA DI MODIFICA.
RESERVADO EL DERECHO DE MODIFICACION.

AUSBLENDREGLER
FADER

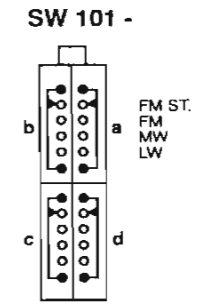
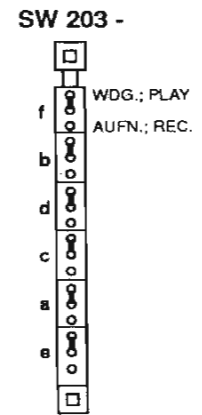
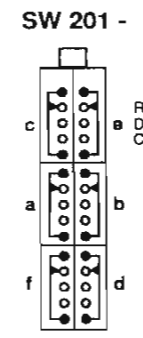
HF-NF-PLATTE
RF-AF-BOARD



EQUALIZER - PLATTE
EQUALISER BOARD



SCHALTER
SWITCHES



Q 101 BF 506	Q 104, Q 301, Q 302, Q 303, Q 304, Q 401, Q 402, Q 501, Q 502 1815 GR	Q 102, Q 103 9016 G Q 201, Q 503 9013 G Q 504 9012 G Q 505 8050

DRUCKPLATTENABBILDUNGEN
ILLUSTRATION OF PRINTED BOARDS
(BESTÜCKUNGSSEITE)
(COMPONENT SIDE)



D Btx *32700 #

9 / 89

RR 1200

SACH-NR. / PART NO. 75987-515.20

POS. NR. POS. NO.	ABB. NR. FIG. NO.	SACHNUMMER PART NUMBER	ANZ. QUA.	BEZEICHNUNG D	DESCRIPTION GB
A001.000		75987-515.21		LAUTSPRECHER	SPEAKER
A002.000		75987-515.22		HOCHTONLAUTSPRECHER	TWEETER
A004.000	1	75987-515.25		CASSETTENDECKEL KPL. L.	CASSETTE COMPARTM.COVER L
A005.000	1	75987-515.26		CASSETTENDECKEL KPL. R.	CASSETTE COMPARTM.COVER R
A006.000		75987-515.27	2X	CASSETTENANDRUCKFEDER	CASSETTE PRESSURE SPRING
A007.000		75987-515.28		BUCHSENABDECKUNG	SOCKET COVER
A008.000		75987-515.29		BATTERIEDECKEL	BATTERY LID
A009.000		75987-515.31		BATTERIEKONTAKT (+)	BATTERY CONTACT +
A010.000		75987-407.14		TELESKOPANTENNE	ROD ANT
A011.000		75987-515.32		BATTERIEFEDER (-)	BATTERY SPRING -
A012.000		75987-435.25		BATTERIEFEDER (+)	BATTERY SPRING +
A013.000		75987-515.34		KNEBELKNOPF	TOGGLE KNOB
A014.000	1	75986-357.21	2X	LAUTSTAERKEKNOPF	VOLUME KNOB
A015.000		75987-515.35		TASTE	KEY
A016.000		75987-515.36		KNOPF	KNOB
A016.100		75987-515.37		FEDER	SPRING
A017.000		75987-515.38		EQUALIZER-KNOPF A	EQUALISER KNOB A
A018.000		75987-515.39		EQUALIZER-KNOPF B	EQUALISER KNOB B
A019.000		75987-515.40		EQUALIZER-KNOPF C	EQUALISER KNOB C
A020.000	1	75987-515.45		TUNER-KNOPF	TUNING KNOB
A025.000	1	75987-515.46		KNOPF / REC.	KNOB RECORD
A026.000	1	75987-515.47	2X	KNOPF/PLAY	KNOB-PLAY
A027.000	1	75987-515.48	2X	KNOPF / RUECKLAUF	KNOB REWIND
A028.000	1	75987-515.49	2X	KNOPF / VORLAUF	KNOB-FORWARD
A029.000	1	75987-515.50	2X	KNOPF / STOP	KNOB-STOP
A030.000	1	75987-515.51	2X	KNOPF / PAUSE	KNOB-PAUSE
A031.000		75987-515.52		ZEIGER	POINTER
A032.000		75987-515.53		ANTRIEBSRAD	DRIVE WHEEL
A033.000		75987-515.58	7X	ANTRIEBSSCHEIBE	PULLEY
A034.000		75987-515.54		ZUGFEDER	TENSION SPRING
A035.000	1	75987-470.26		BUCHSE (MICRO)	SOCKET
A036.000	1	75987-515.56		BUCHSE L	SOCKET L
A037.000	1	75987-515.57		BUCHSE R	SOCKET R
A038.000	1	75986-912.00		BUCHSE (KOPFHÖRER)	JACK, EXT SP
A039.000	1	75987-427.19		NETZBUCHSE	MAINS SOCKET
A040.000		75987-515.62	2X	GRIFF	HANDLE
A041.000		75987-515.41		QUERSTANGE	CROSS BAR
A045.000		75987-515.63	2X	SICHERUNGSHALTER	FUSE HOLDER
A046.000	Δ	8315-617-004		FS. 1 A/T	FUSE 1 A/T
A047.000		75987-515.65		TRAFO EI-48	TRANSFORMER
				LAUFWERK	DRIVE MECHANISM
B010.000	2	75987-486.21	2X	SCHENKELFEDER	LEG SPRING
B011.000	2	75986-626.91	2X	HEBEL	LEVER
B012.000	2	75986-626.92	2X	FEDER	SPRING
B013.000	2	75987-516.01	2X	HALTERUNG	HOLDER
B014.000	2	75987-486.22	2X	SCHENKELFEDER	LEG SPRING
B016.000	2	75987-486.23	2X	SCHENKELFEDER	LEG SPRING
B017.000	2	75987-486.24		SCHENKELFEDER	LEG SPRING
B021.000	2	75987-486.25		SCHENKELFEDER	LEG SPRING
B022.000	2	75987-486.26	2X	SCHENKELFEDER	LEG SPRING
B023.000	2	75987-414.97	2X	SCHALTER	SWITCH
B027.000	2	75987-516.02		KOPFHALTERPLATTE	HEAD CARRIER PLATE
B029.000	2	75987-486.31		SCHENKELFEDER	LEG SPRING
B030.000	2	75987-486.27	2X	SCHENKELFEDER	LEG SPRING
B031.000	2	75987-516.09		FEDER	SPRING










ÄNDERUNGEN VORBEHALTEN

ALTERATIONS RESERVED









POS. NR. POS. NO.	ABB. NR. FIG. NO.	SACHNUMMER PART NUMBER	ANZ. QUA.	BEZEICHNUNG D	DESCRIPTION GB	
B032.000	2	75987-486.31		SCHENKELFEDER	LEG SPRING	
B033.000	2	75987-414.99		DRUCKFEDER	PRESSURE SPRING	
B034.000	2	75987-413.51	2X	DRUCKFEDER	PRESSURE SPRING	
B035.000	2	75987-485.71	2X	AR-HEBEL	AR-LEVER	
B038.000	2	75987-516.10	2X	HEBEL	LEVER	
B039.000	2	75987-485.73	2X	VORLAUF/RUECKLAUFKUPPLUNG	CLUTCH	
B040.000	2	75986-486.34	2X	RIEMEN/KUPPLUNG	DRIVE BELT	
B043.000	2	75987-486.28		SCHWUNGRAD	FLYWHELL	
B044.000	2	75987-486.29		SCHWUNGRAD	FLYWHELL	
B045.000	2	75987-486.30	2X	DREHFEDER	TORSION SPRING	
B047.000	2	75986-626.93	2X	ZAHNRAD	GEAR WHEEL	
B049.000	2	75987-467.80	2X	ZAHNRAD	GEAR WHEEL	
B050.000	2	75987-467.85	2X	DRUCKFEDER	PRESSURE SPRING	
B051.000	2	75987-486.32	2X	WICKELTELLER-RUECKLAUF	SPOOL CARRIER-REWIND	
B052.000	2	75987-485.72	2X	WICKELTELLER	SPOOL CARRIER	
B053.000	2	75987-486.33	2X	FUEHLER	SENSOR	
B056.000	2	75987-467.86	2X	MOTORDAEMPfung	MOTOR DAMPING	
B057.000	2	75987-467.87	2X	SCHRAUBE	SCREW	
B059.000	2	75987-516.03	2X	ANTRIEBSRIEMEN	DRIVE BELT	
B062.000	2	75987-516.04	2X	AUSWURFHEBEL	EJECT LEVER	
B064.000	2	75987-467.91	2X	ANDRUCKFEDER	PRESSURE SPRING	
B065.000	2	75987-516.05		WIEDERGABEKOPF MS15P.	P./ HEAD	
B066.000	2	75986-626.95		A/W-KOPF	R/P-HEAD	
B067.000	2	75987-516.11		LOESCHKOPF	ERASE HEAD	
B068.000	2	75987-516.06		MOTOR MIT PULLY *RR1200	MOTOR W. PULLEY	
B069.000	2	75987-467.84		AUFNAHMESPERRE	RECORD LOCK	
B075.000	2	75987-516.12		SCHRAUBE M2X6	SCREW	
B076.000	2	75987-467.95	2X	SCHRAUBE	SCREW	
B077.000	2	75986-627.03	2X	SCHRAUBE	SCREW	
B078.000	2	75987-413.58	2X	JUSTIERSCHRAUBE	ADJUSTING SCREW	
B083.000	2	75986-627.00	2X	UNTERLEGSCHNEIBE	WASHER	
B084.000	2	75987-467.99	2X	OELFANGRING	OIL STOP DISK	
B085.000	2	75987-413.59	2X	SCHEIBE	WASHER	
B089.000	2	75987-516.07		FEDER	SPRING	
B090.000	2	75987-516.08		FEDER	SPRING	
B091.000	2	75986-627.01		HEBEL	LEVER	
B094.000	2	75986-627.02		HEBEL	LEVER	
B095.000	2	75987-436.43		ZUGFEDER	SPRING	
				72010-711.05	BEDIENUNGSANLEITUNG	INSTRUCTION MANUAL
				72010-714.45	SERVICE MANUAL	SERVICE MANUAL

ÄNDERUNGEN VORBEHALTEN

ALTERATIONS RESERVED

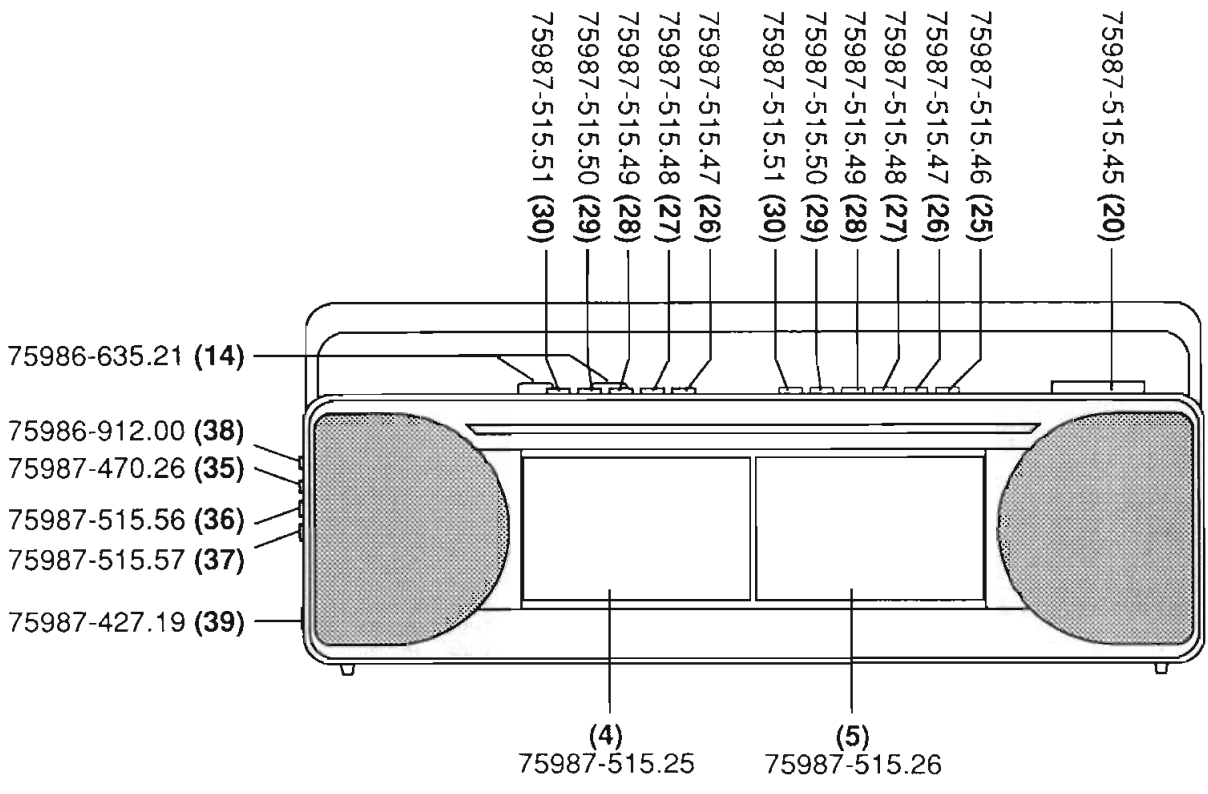
POS. NR.	SACHNUMMER	BEZEICHUNG 
POS. NO.	PART NUMBER	DESCRIPTION 
		
C 516	75987-515.70	ELKO 1000UF/16V CA
C 522	75987-515.70	ELKO 1000UF/16V CA
C 532	75987-515.71	ELKO 1000UF/10V CA
		
CF 101	75987-402.03	FILTER
CF 102	75987-402.03	FILTER
CF 103	75987-515.72	FILTER
		
CT 104	75987-515.68	TRIMMER 20 PF
CT 105	75987-515.68	TRIMMER 20 PF
		
D 101	8309-002-002	DIODE 1 N 60 TFK/TOS
D 102	75987-515.86	DIODE SD-116
D 201	8309-215-050	DIODE 1 N 4148
D 202	8309-215-050	DIODE 1 N 4148
D 203	8309-215-050	DIODE 1 N 4148
D 204	8309-215-050	DIODE 1 N 4148
D 205	8309-215-050	DIODE 1 N 4148
D 501	8309-215-050	DIODE 1 N 4148
D 502	8309-215-107	DIODE 1 N 4001 GI/ITT/TFK
D 503	8309-215-107	DIODE 1 N 4001 GI/ITT/TFK
D 504	8309-215-107	DIODE 1 N 4001 GI/ITT/TFK
D 505	8309-215-107	DIODE 1 N 4001 GI/ITT/TFK
D 506	8309-720-054	Z DIODE 5,6 A 0,5W
D 507	8309-215-050	DIODE 1 N 4148
LED 101	75987-428.83	LE DIODE TLR 208
		
IC 101	75987-060.00	IC TA 7640 AP
IC 102	75987-438.29	IC TA 7343 AP
IC 201	8305-407-658	IC TA 7658 P TOS
IC 501	75987-515.85	IC TDA 2824
		
L 101	75987-515.78	SPULE D3.5 4.5T D0.5
L 102	75987-515.79	SPULE D3.5 19.5T D0.5
L 103	75987-515.76	OSZ.-SPULE 1,5T
L 201	75987-515.81	SPULE 33MH
L 202	75987-515.81	SPULE 33MH
L 106	75987-515.80	SPULE 47UH
		
Q 101	8302-220-506	TRANS.BF 506 TFK/SIE
Q 102	75987-515.87	TRANS.JE 9016
Q 103	75987-515.87	TRANS.JE 9016

ÄNDERUNGEN VORBEHALTEN

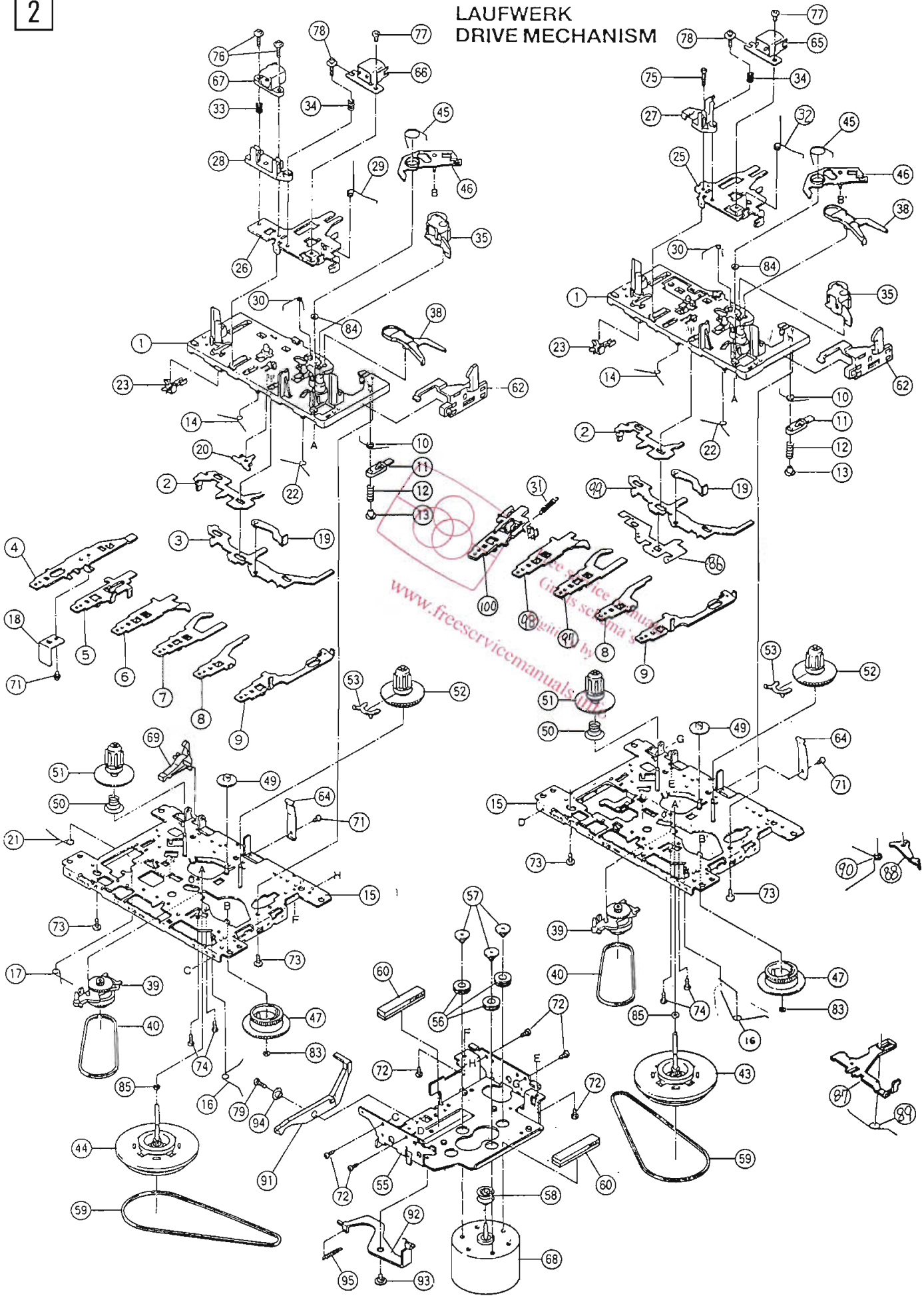
POS. NR.	SACHNUMMER	BEZEICHUNG 
POS. NO.	PART NUMBER	DESCRIPTION 
Q 104	75987-050.00	TRANS.2 SC 945 P
Q 201	75987-515.88	TRANS.9013 G
Q 301	75987-050.00	TRANS.2 SC 945 P
Q 302	75987-050.00	TRANS.2 SC 945 P
Q 303	75987-050.00	TRANS.2 SC 945 P
Q 401	75987-050.00	TRANS.2 SC 945 P
Q 402	75987-050.00	TRANS.2 SC 945 P
Q 501	75987-050.00	TRANS.2 SC 945 P
Q 502	75987-050.00	TRANS.2 SC 945 P
Q 503	75987-515.88	TRANS.9013 G
Q 504	75987-515.89	TRANS.9012 G
Q 505	75987-515.90	TRANS.8050 C
		
R 521 	75987-515.64	WIDERSTAND 10+-5% 0.25W
R 523 	75987-515.64	WIDERSTAND 10+-5% 0.25W
		
SW 101	75987-515.94	SCHIEBESCHALTER
SW 201	75987-515.93	SCHIEBESCHALTER
SW 202	75987-515.91	DRUCKSCHALTER
SW 203	75987-515.92	SCHIEBESCHALTER
		
T 101	75987-515.74	FILTER FM IFT FI-201
T 102	75987-515.75	OSZILLATOR AO-306
T 104	75987-515.74	FILTER FM IFT FI-201
T 105	75987-515.73	FILTER AM IFT AI-101
T 201	75987-515.77	OSZILLATOR 502
T 103	75987-515.73	FILTER AM IFT AI-101
8 PF	75987-407.35	FILTER PFW-B4
		
VR 101	8790-009-146	ESTR.S 10 4,7 KOHM
VR 201	75987-515.66	SCHIEBEREGLER
VR 401	75987-456.85	ESTR.
VR 402	75987-456.85	ESTR.
VR 403	75987-456.85	ESTR.
VR 501	75987-467.05	ESTR.
VR 502	75987-515.67	EINSTELLREGLER
VR 503	8790-047-125	ESTR.SK10 470 OHM
VR 504	8790-009-139	ESTR.S 10 2,2 KOHM

ALTERATIONS RESERVED

RR 1200



LAUFWERK DRIVE MECHANISM



Technische Daten

Allgemein:

Spannungsversorgung:

1. **Netzbetrieb:** 220 V \pm 10 %, 50/60 Hz.

2. **Batteriebetrieb:** 6 Monozellen IEC LR 20;

Stromaufnahme bei Batteriebetrieb (9 V),

Funktion: Rundf.- Aufn.- Cass. (Lautstärkereger zu) max. 200 mA.

Ausgangsleistung an 4 Ohm: 2 x 4 W Spitzenleistung.

Stereo-Kopfhörer-Klinkenbuchse: 3,5 mm \varnothing .

Mikrofon-Buchse: 3,5 mm \varnothing , Mono.

Wiedergabe-Buchsen LINE Out; Signalausgang (regelbar).

Rundfunkteil:

Wellenbereiche:

FM 87,5 - 108 MHz

MW 515 - 1640 kHz

LW 140 - 290 kHz

Zwischenfrequenzen:

10,7 MHz und 460 kHz.

Antennen: Teleskopantenne für FM.

Ferritstab-Antenne für MW und LW.

Cassettenteil:

Tonträger: Compact-Cassette nach Din 45516.

Spurlage: Viertelspur international.

Bandgeschwindigkeit: 4,76 cm/sec.

Motor: Gleichstrommotor mit Drehzahlstabilisierung.

Frequenzübertragungsbereich: 80 Hz - 10 kHz.

Geräuschspannungsabstand: \geq 48 dB.

Gleichlauffehler: \pm 0,35 %.

Automatik: Aussteuerungsautomatik bei Aufnahme.

Automatisches Auslösen der Tasten am Bandende.

Specification

General:

Power Supplies:

1. **Mains operation:** 220 V \pm 10 %, 50/60 Hz (GB: 240 V, 50 Hz).

2. **Battery operation:** six HP 2 batteries (IEC LR 20);

Current capacity in battery operation (9 V),

Function: Radio - Rec.- Cass. (Volume contr. min.) max. 200 mA.

Output Power into 4 Ω : 2 x 4 W peak power.

Stereo Headphone Jack Socket: 3.5 mm diameter.

Microphone Socket: 3.5 mm diameter, mono.

Playback Sockets LINE Out: Signal output (adjustable).

Radio Section:

Wavebands:

VHF 87.5 - 108 MHz

MW 515 - 1640 kHz

LW 140 - 290 kHz

Intermediate Frequencies:

10.7 MHz and 460 kHz.

Aerials: Telescopic aerial for VHF.

Ferrite rod aerial for MW and LW.

Cassette Section:

Cassette: Compact cassette to DIN 45516.

Track System: International $\frac{1}{4}$ -track.

Tape Speed: 4.76 cm/sec.

Motor: DC motor with speed stabilisation.

Frequency Response: 80 Hz - 10 kHz.

S / N Ratio (Weighted) \geq 48 dB.

Wow and Flutter: \pm 0 .35 %.

Automatic Circuits: Automatic level control during recording.

Automatic button release at end of tape.

Notizen

Notes