

Service Manual

Sach-Nr./Part No.
72010-742.45

Zusätzlich erforderliche Unterlagen für den Komplettservice:

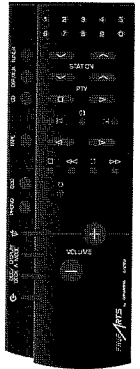
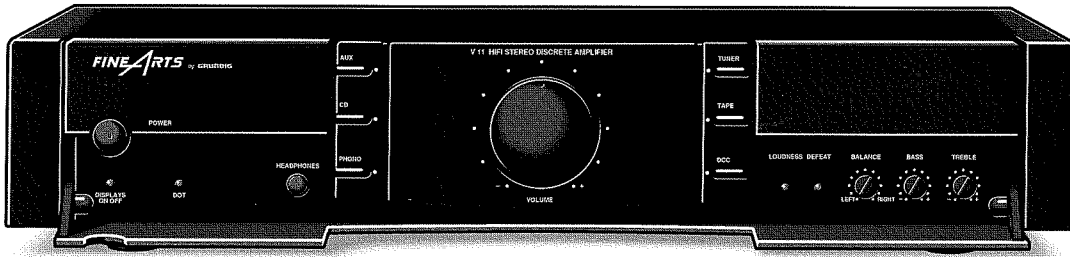
Additionally required Service Manuals for the Complete Service:

Service Manual

Sicherheit
Safety

Sach-Nr./Part No.
72010-800.00

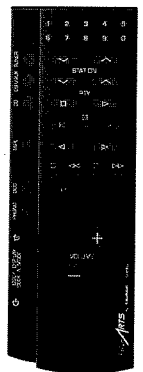
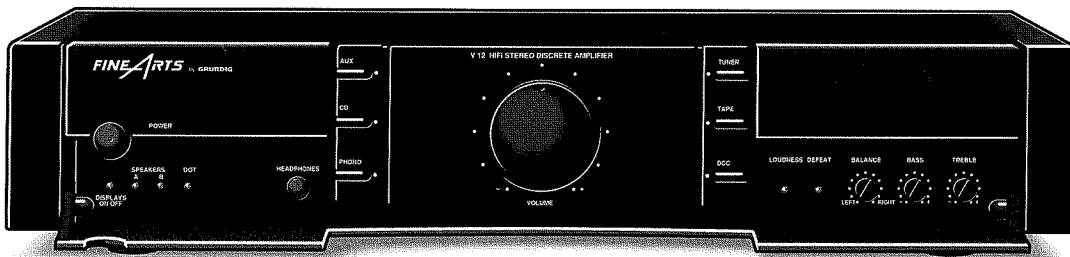
V 11
V 12



FINEARTS

V 11
IR-Geber / IR Remote Control

(9.55341-8151 / GLE 03-51)
(59802-602.01)



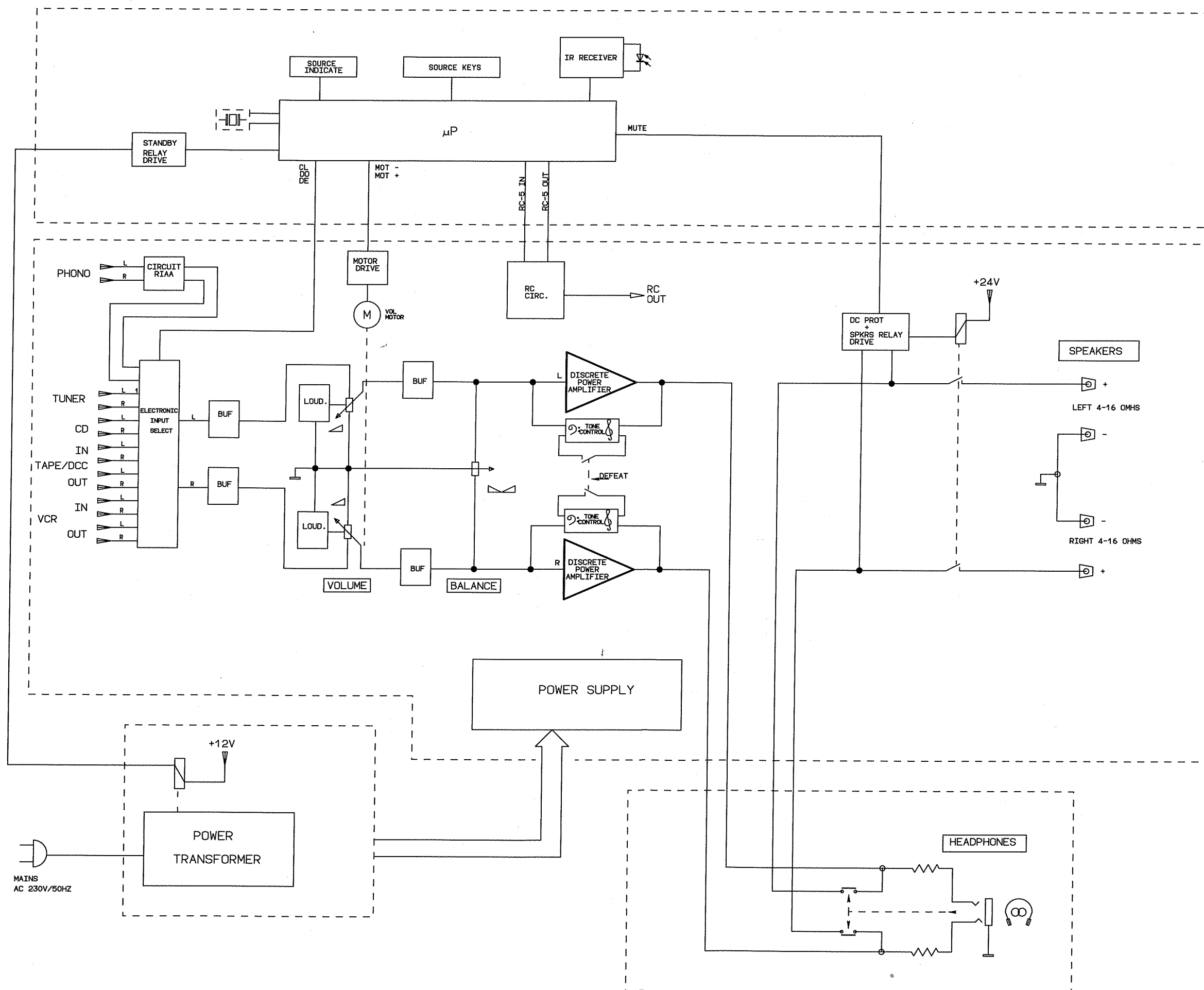
FINEARTS

V 12
IR-Geber / IR Remote Control

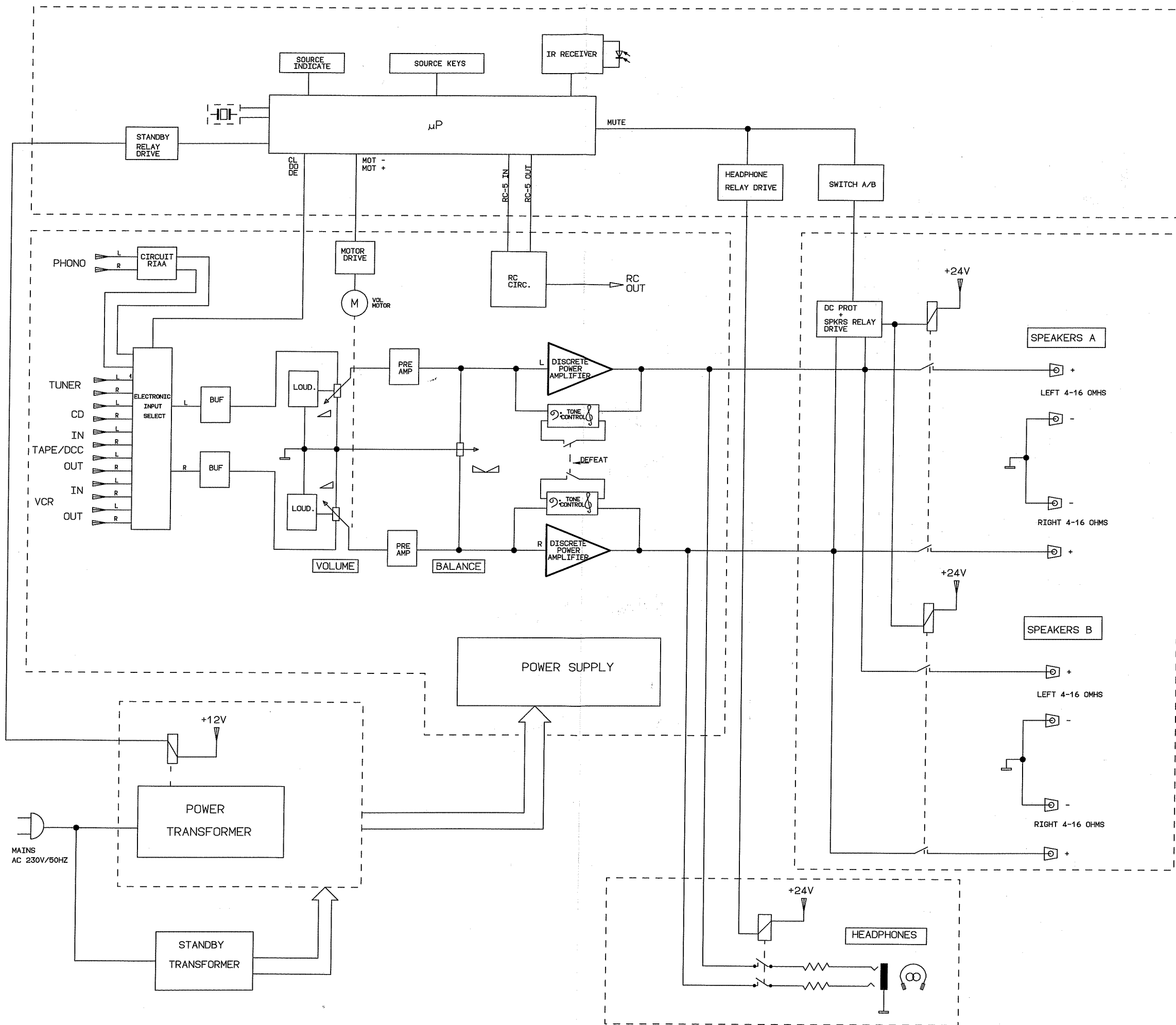
(9.55342-8151 / GLE 04-51)
(59802-602.01)

Platinenabbildungen und Schaltpläne / Layout of the PCBs and Circuit Diagrams

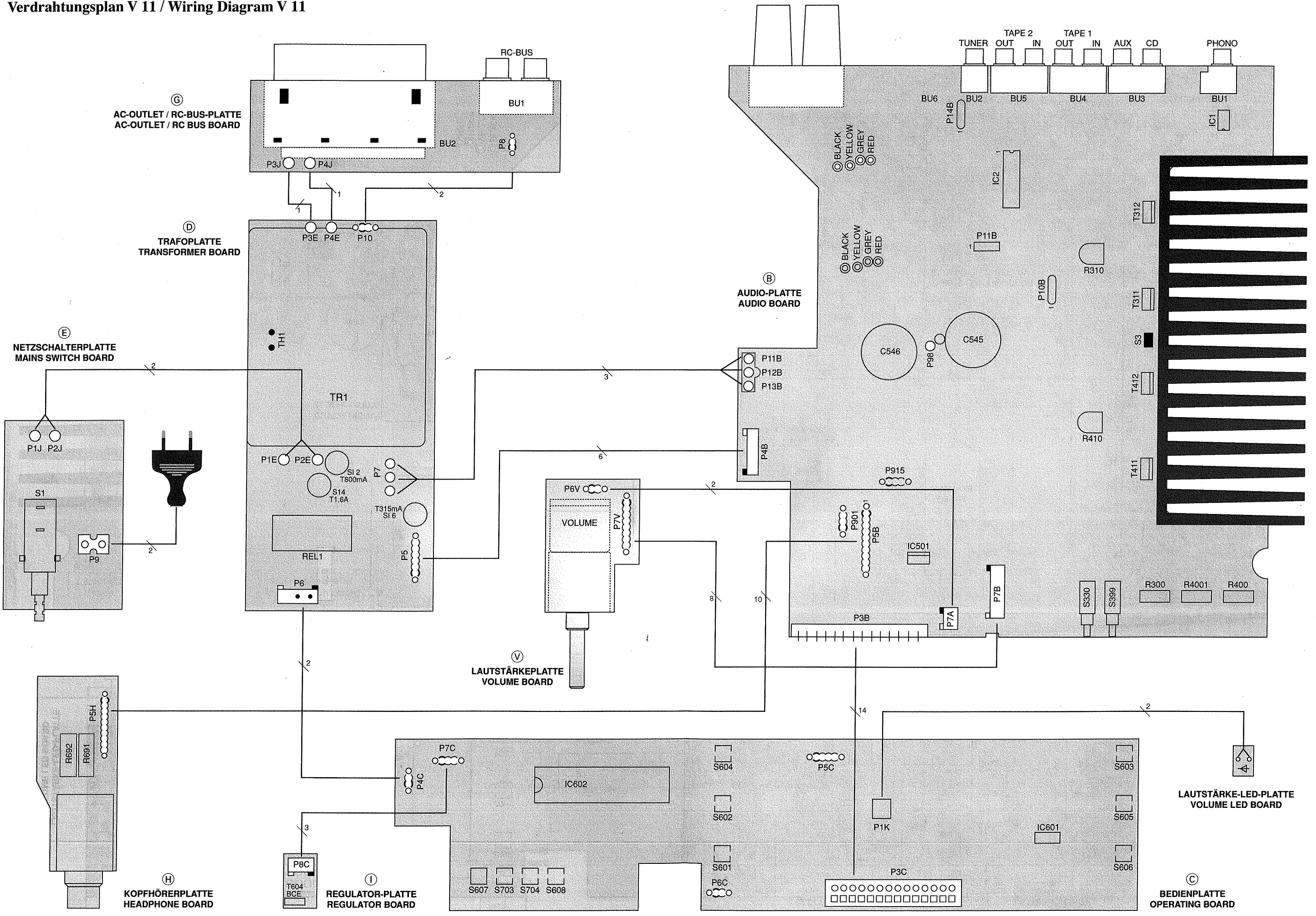
Blockschaltbild V 11 / Block Diagram V 11



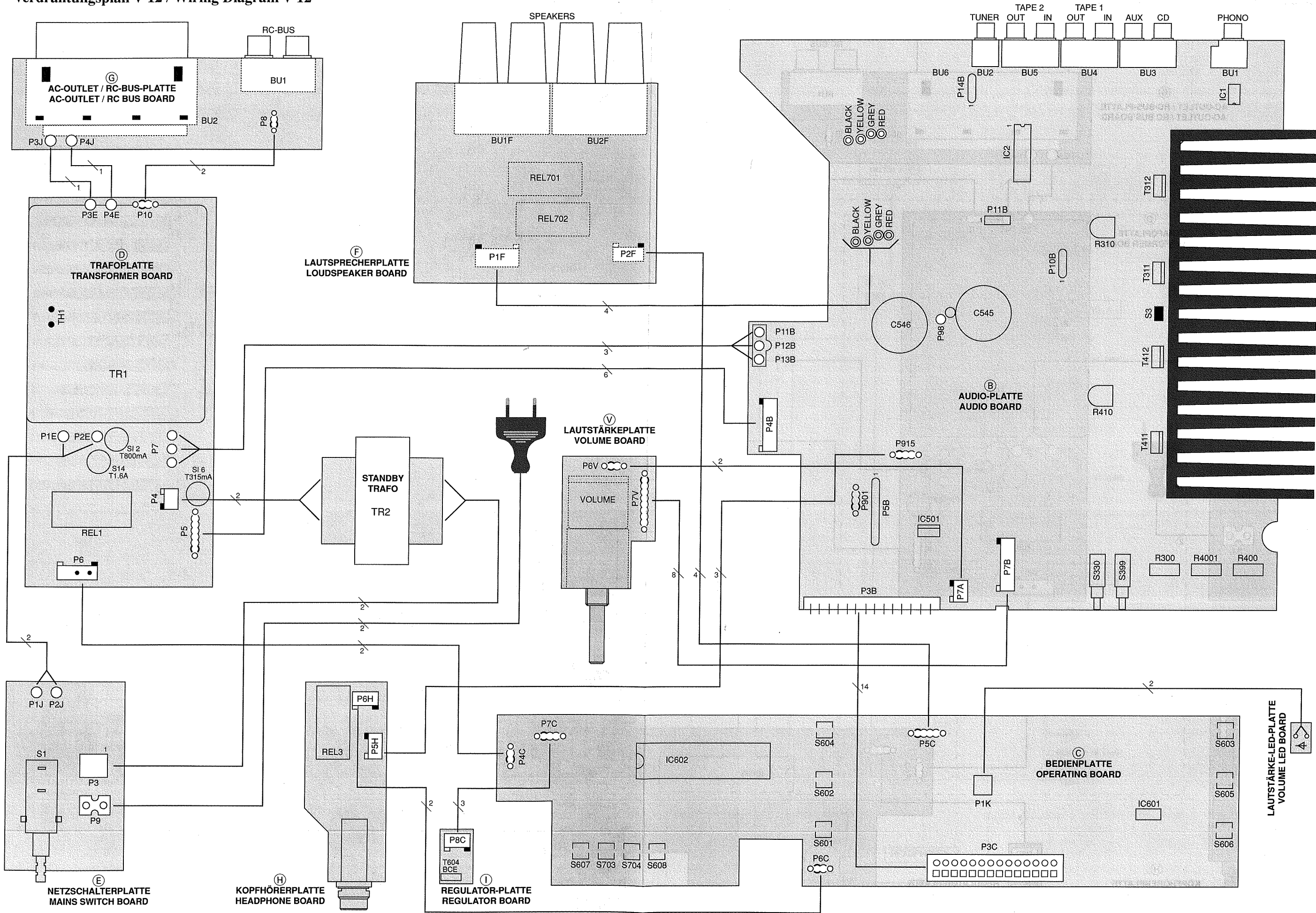
Blockschaltbild V 12 / Block Diagram V 12



Verdrahtungsplan V 11 / Wiring Diagram V 11



Verdrahtungsplan V 12 / Wiring Diagram V 12



Platinenabbildungen / Layout of the PCBs: -AC-Outlet- und RC-Bus-Platte / AC Outlet Board and RC Bus Board

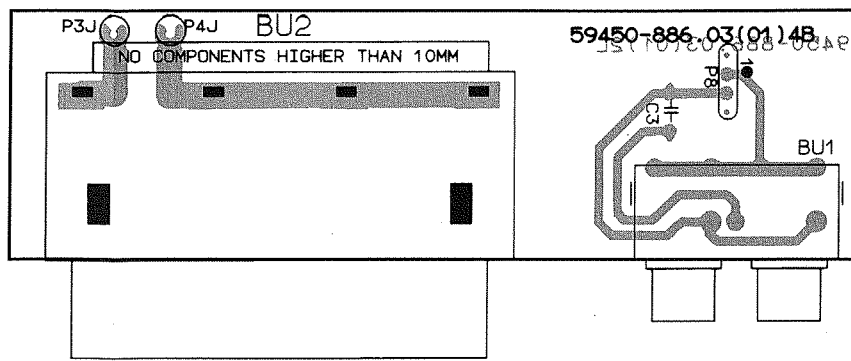
-Lautsprecherplatte / Loudspeakers Board

-Audio-Platte / Audio Board

Ansicht von der Bestückungsseite / View on Component Side

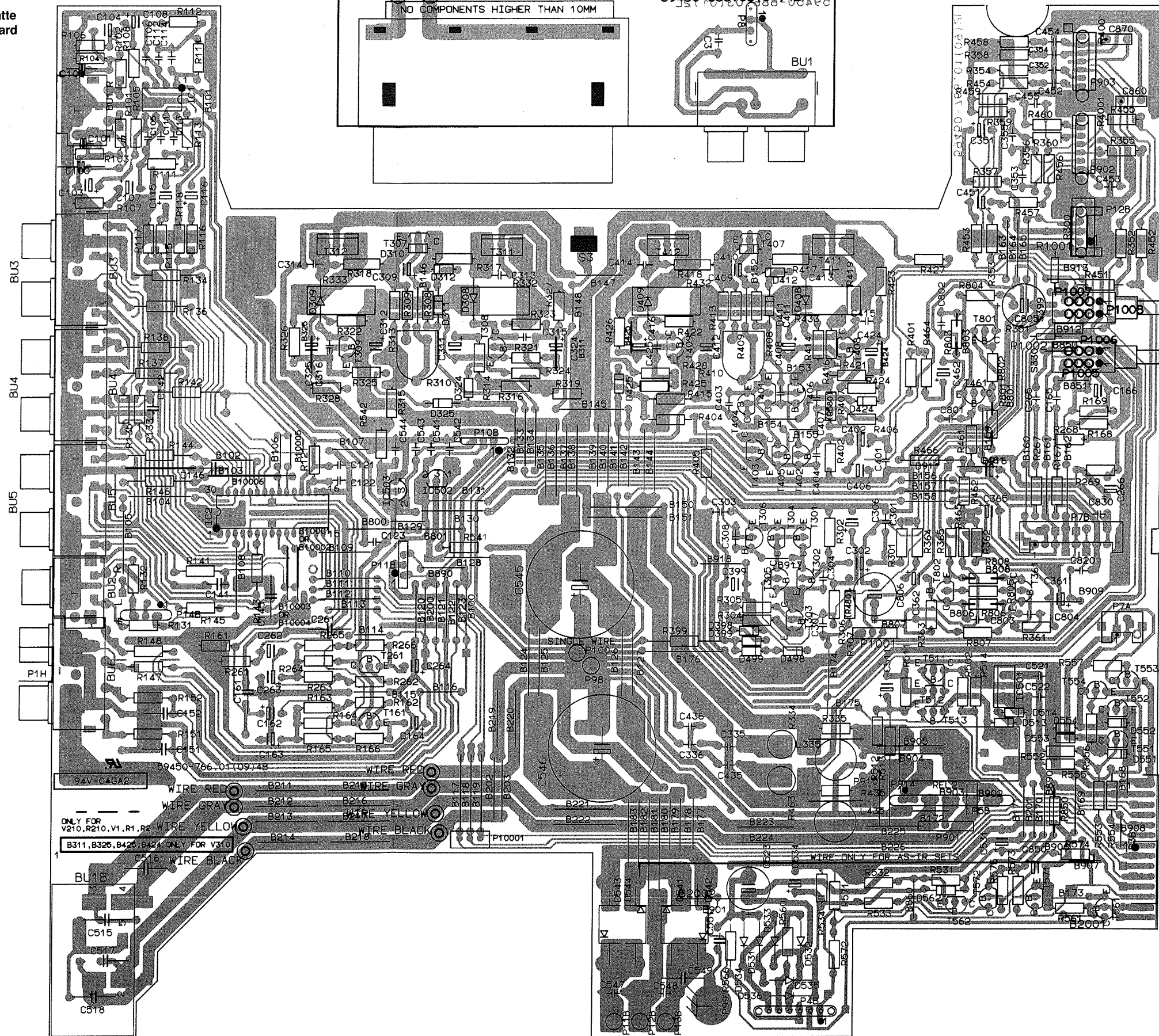
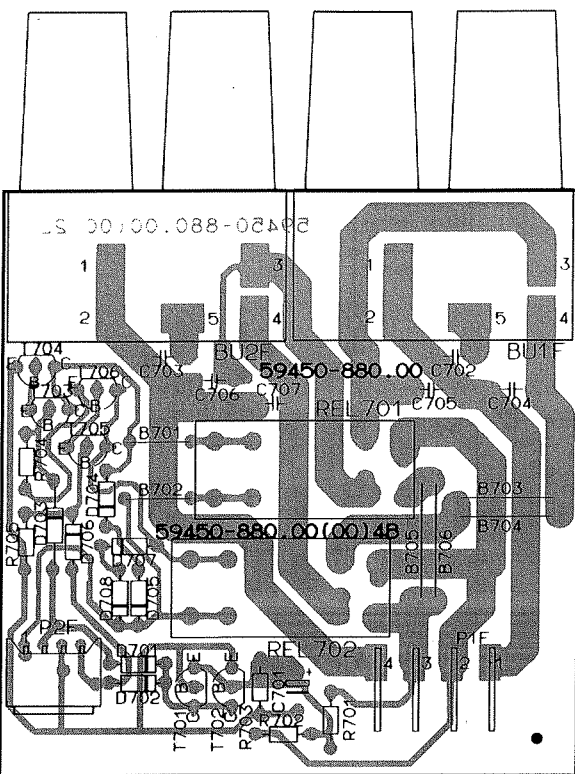
AC-Outlet- und RC-Bus-Platte
AC Outlet Board and RC Bus Board

Audio-Platte
Audio Board



Lautsprecherplatte
Loudspeakers Board

nur bei V 12 / only V 12

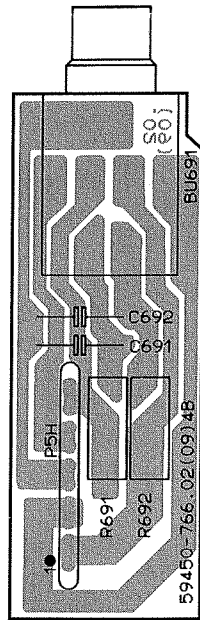


- Platinenabbildungen / Layout of the PCBs:**
- Bedienplatte / Operating Board
 - Lautstärke-LED-Platte / Volume LED Board
 - Regulator-Platte / Regulator Board
 - Kopfhörerplatte / Headphone Board
 - Netzschalterplatte / Mains Switch Board
 - Lautstärkeplatte / Volume Board
 - Trafoplatte / Trafo Board

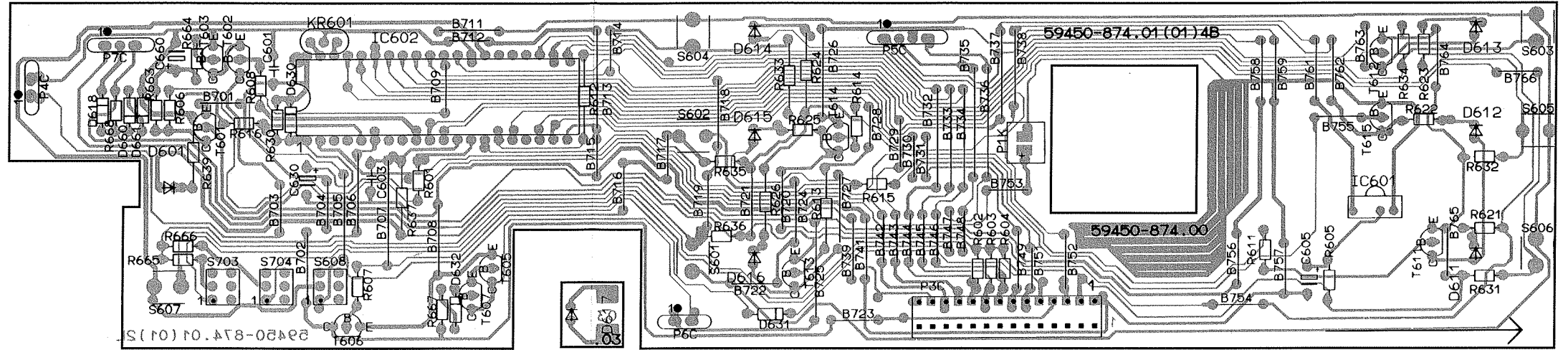
Ansicht von der Bestückungsseite / View on Component Side

Kopfhörerplatte
Headphone Board

nur bei V 11 / only V 11



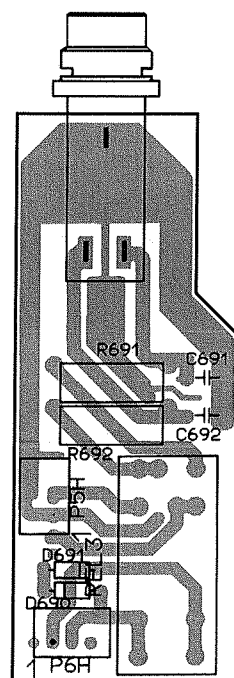
Bedienplatte
Operating Board



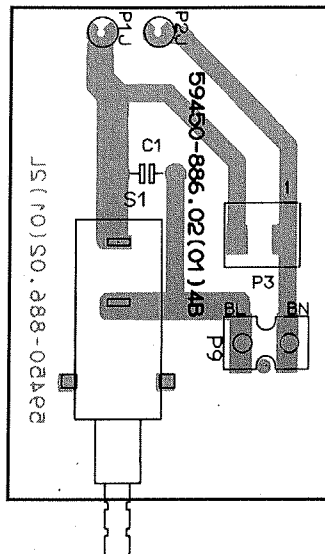
Lautstärke-LED-Platte
Volume LED Board

Kopfhörerplatte
Headphone Board

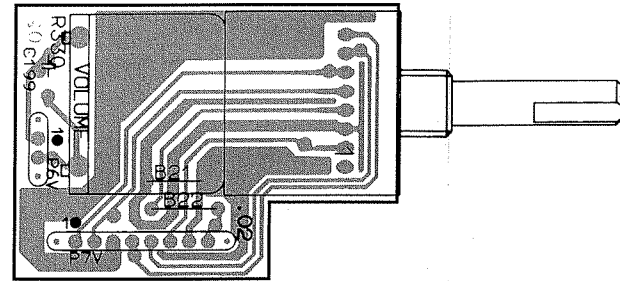
nur bei V 12 / only V 12



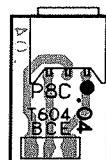
Netzschalterplatte
Mains Switch Board



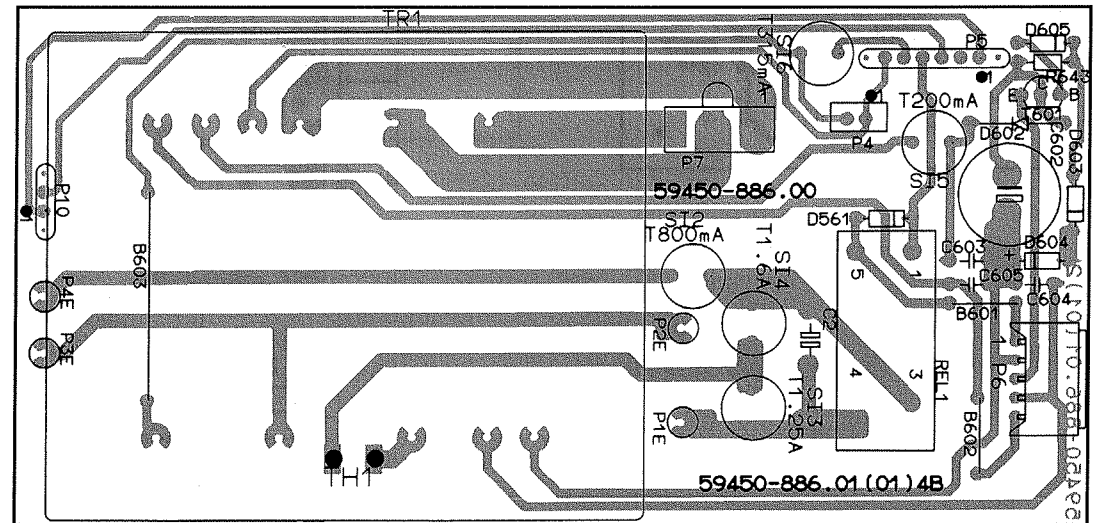
Lautstärkeplatte
Volume Board



Regulator-Platte
Regulator Board



Trafoplatte
Trafo Board



Schaltbild V 11 / Circuit Diagram V 11: -Audio-Platte / Audio Board

-Lautstärkeplatte / Volume Board

-Netzschalterplatte / Mains Switch Board

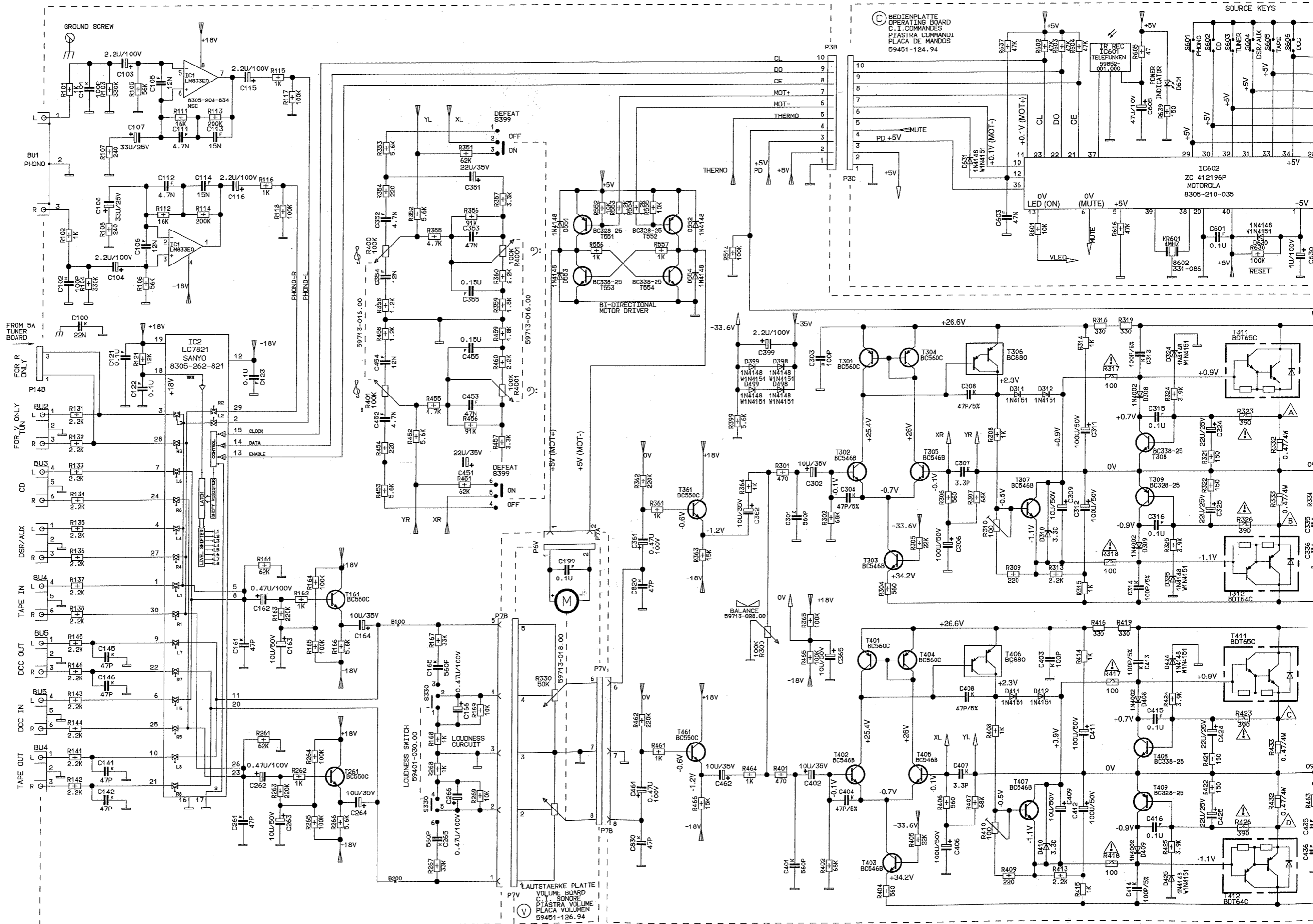
-Bedienplatte / Operating Board

-Lautstärke-LED-Platte / Volume LED Board

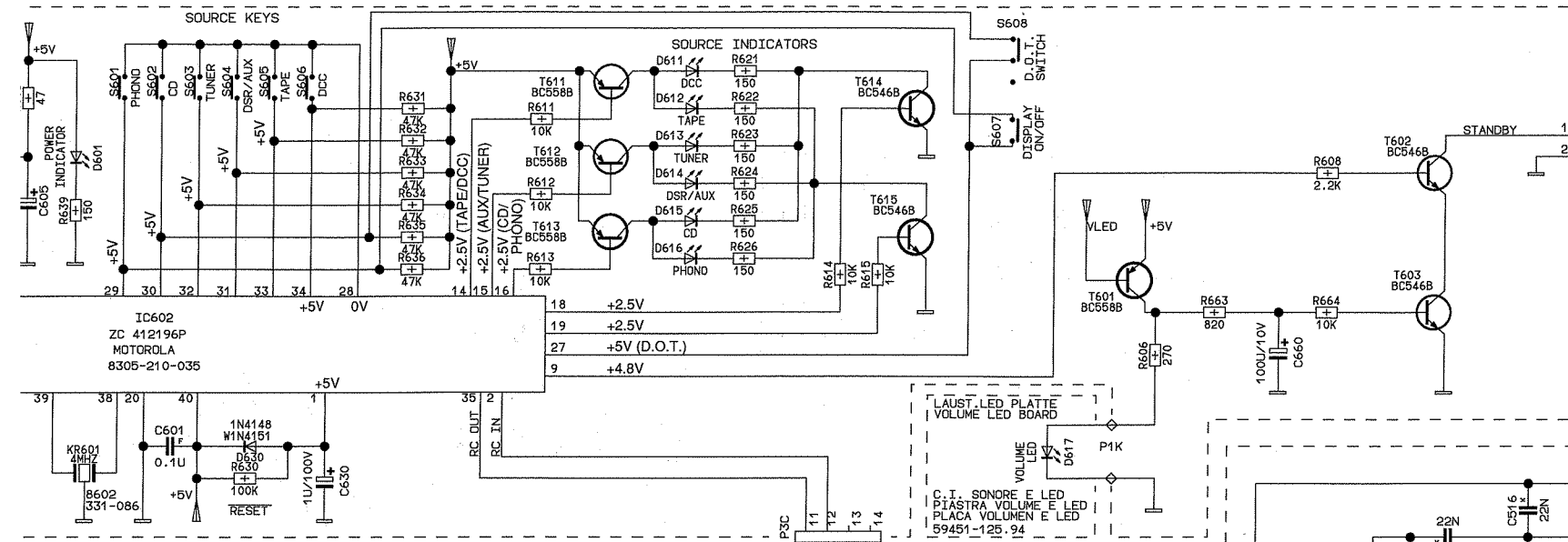
-AC-Outlet- und RC-Bus-Platte / AC Outlet Board and RC Bus Board

-Kopfhörerplatte / Headphone Board

-Trafoplatte / Trafo Board



Bus Board



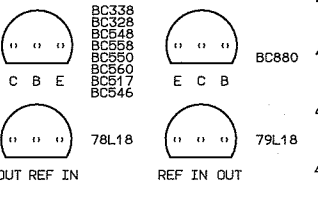
AENDERUNGEN VORBEHALTEN
SUBJECT TO ALTERATION
SOUS RESERVE DE MODIFIC.
CON RISERVA DI MODIFICA
RES. EL DERECHO DE MODIFIC.

- WIDERSTAND/RESISTOR/RESISTENCIA**
- KSW 0204 DIN
 - MSW 0204 DIN
 - KSW 0207 DIN
 - MSW 0207 DIN
 - KSW 0309 DIN
 - KSW 0411 DIN
 - KSW 0617 DIN
 - MSW 0309 DIN
 - NTC
 - MSW 0414 DIN

- DRAHT WIRE BOBINAGE A FTLO BOBINADA**
- METALLOXYDSCHICHT A OXYDE METALLIQUE AD OSSIDO METALLICO DE CAPA DE OXIDO METALICO**
- RAUSCHARM LOW NOISE A SOUFFLE REDUIT A BASSO RUMORE DE BAJO RUIDO**
- SCHWER ENTLAMMBAR LOW FLAMMABILITY PEU INFLAMMABLE A BASSA INFLAMMABILITA DIFICILMENTE INFLAMMABLE**
- SICHERUNGSWIDERSTAND SAFETY RESISTOR FUSIBLE DI SICUREZZA RESISTENCIA FUSIBLE**

- KONDENSATOR/CAPACITOR CONDENSATEUR/CONDENSATOR/CONDENSADOR**
- ELKO ELECTROLYTTIC ELECTROLYTIQUE ELETTROLITICO ELECTROLITICO
 - TANTAL ELKO TANTALUM ELECTROLYTTIC ELECTROLYTIQUE AU TANTALE ELETTROLITICO A TANTALIO ELECTROLITICO DE TANTALO
 - FOLIE FOIL A FEUILLE A FOLIA DELAMINA
 - KERAMIK CERAMIC CERAMIQUE A CERAMICA CERAMICO
 - GLIMMER MICA AU MICA A MICA DE MICA
 - VIELSCHICHT MULTILAYER A COUCHES MULTIPLES A PIU STRATI MULTICAPA
 - POLYPROPYLEN DE POLIPROPILENO (KS-KP)

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



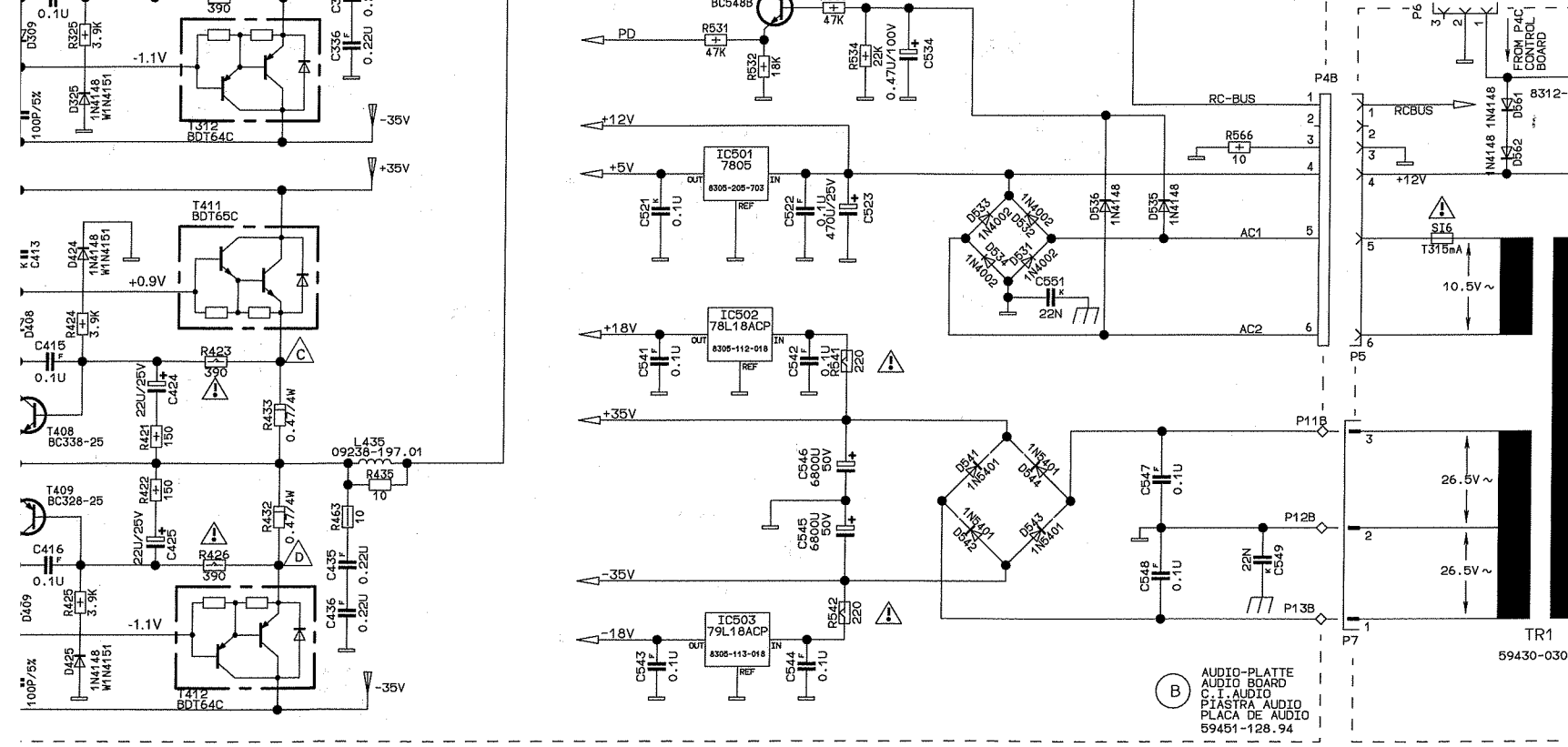
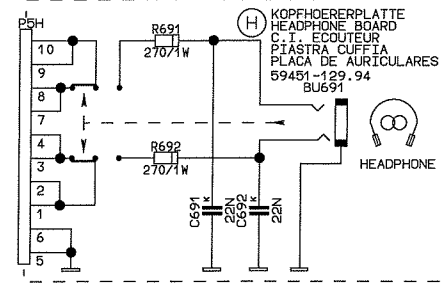
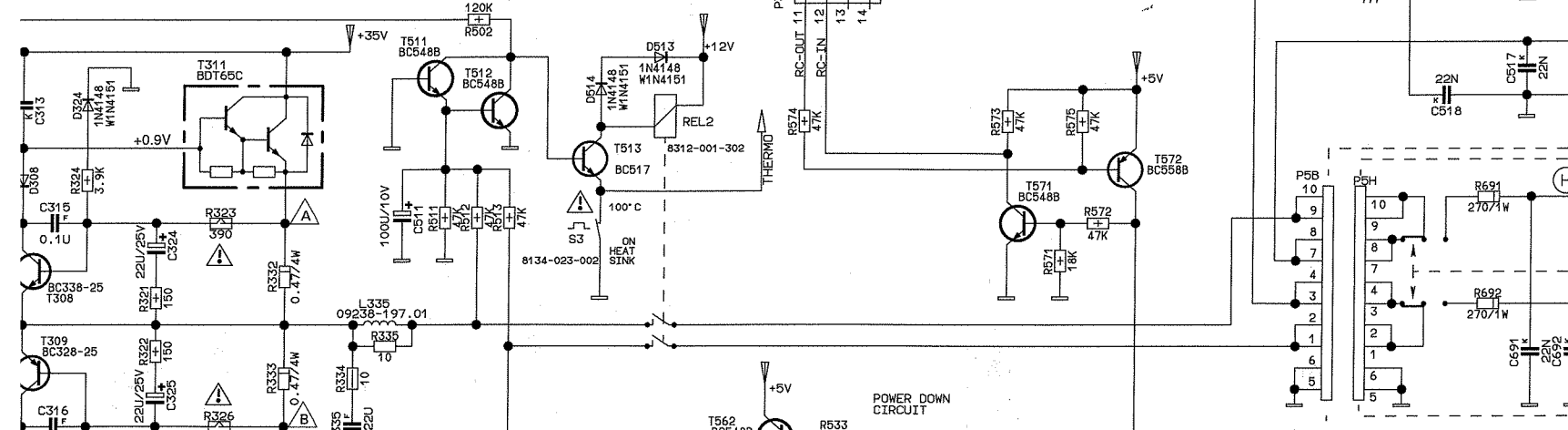
FUER DIE GERATESICHERHEIT ABSOLUT NOTWENDIG UND ENTSPRECHEND DEN RICHTLINIEN DES VDE BZW. IEC, IM ERSTFALL DUERFEN NUR BAUTEILE MIT GLEICHER SPEZIFIKATION VERWENDET WERDEN.

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.

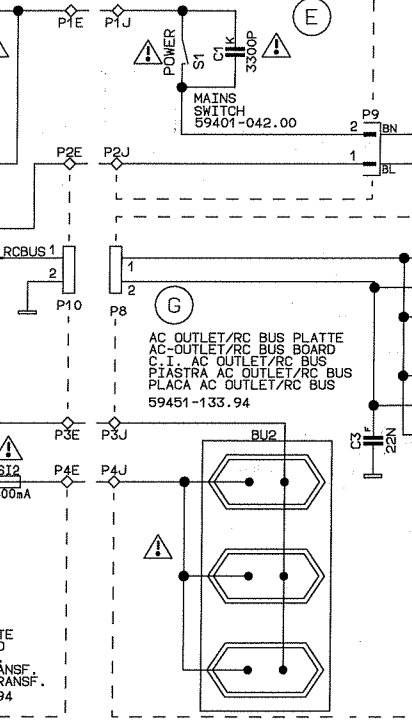
ABSOLUMENT NECESSAIRE POUR LA SECURITE DE L'APPAREIL ET CONFORME AUX REGULATIONS VDE ET IEC, EN CAS DE REMPLACEMENT, N'UTILISER QUE DES COMPOSANTS AVEC LES MEMES SPECIFICATIONS.

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.

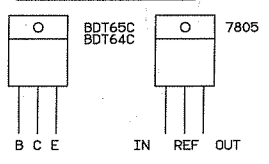
ABSOLUTAMENTE NECESARIO PARA LA SEGURIDAD DEL APARATO Y DE ACUERDO CON LAS NORMAS DE SEGURIDAD VDE O IEC, EN CASO DE SUSTITUCION SUSTITUCION SOLO DEBEN EMPLEARSE COMPONENTES CON LA MISMA ESPECIFICACION.



NETZHALTERPLATTE
MAINS SWITCH BOARD
C.I. INTERR. SECTEUR
PIASTRA INTERR. DI RETE
PLACA DEL INTERR. DE RED
59451-134-94



SEITENANSICHT
FRONT VIEW
VUE DE FACE
VISTA DI FRONTE
VISTO DEL FRENTE



SPANNUNGEN MIT VOLTMETER (RI=10MΩ), FALLS NICHT ANDERS ANGEGEBEN, GEGEN MASSE GEMESSEN. MESSWERTE GELTEN BEI 230V NETZSPANNUNG.

IF NOT OTHERWISE INDICATED ALL VOLTAGES ARE MEASURED AGAINST CHASSIS WITH A VOLTMETER (RI=10MΩ). THE VALUES ARE VALID FOR 230V AC MAINS VOLTAGES.

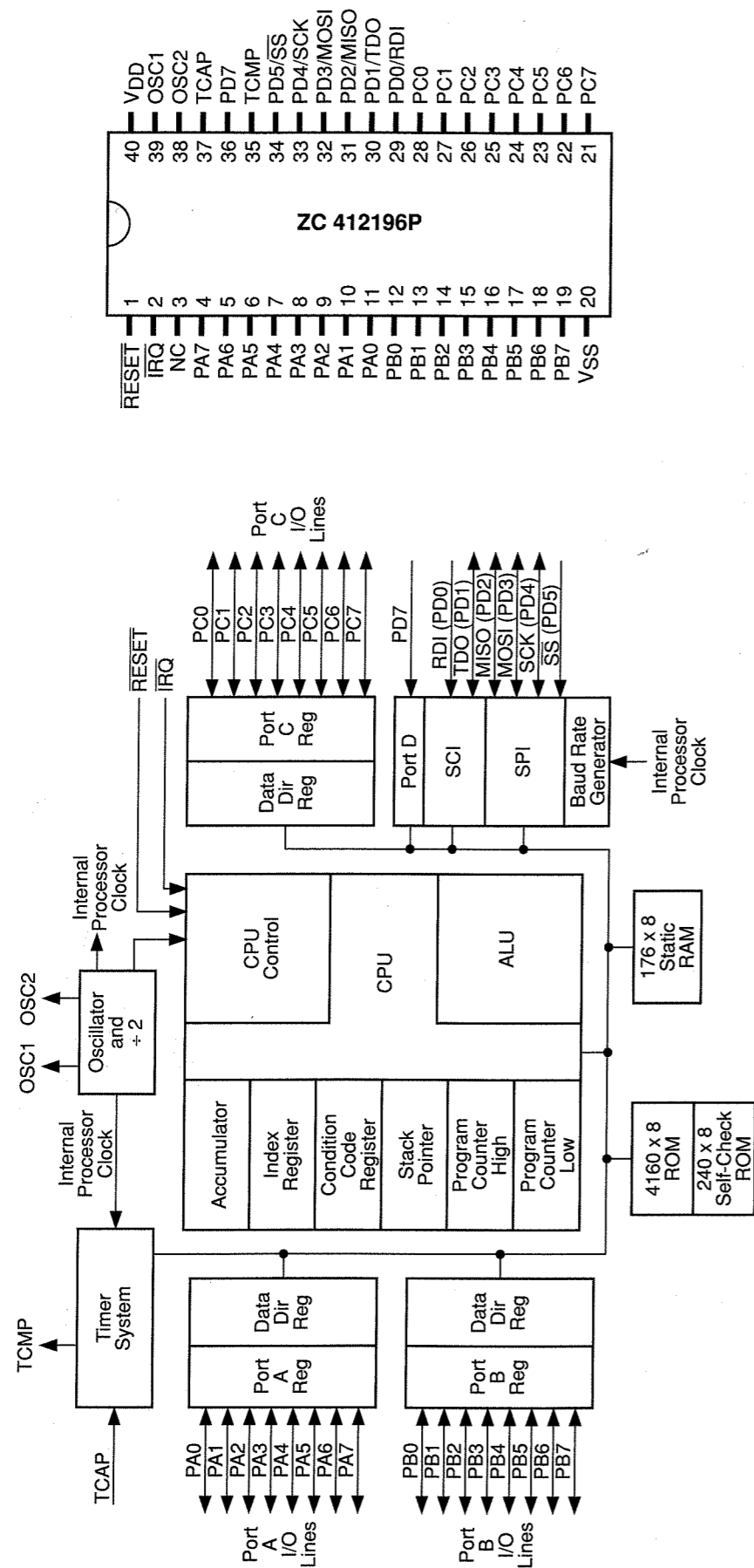
SAUF INDICATION CONTRAIRE, LES TENSIONS SONT MEASUREES PAR RAPPORT AU CHASSIS AVEC UN VOLTMETRE (RI=10MΩ). LES VALEURS SONT VALABLES POUR UNE TENSION SECTEUR DE 230V CA.

TENSIONI MISURATE CON VOLTMETRO (RI=10MΩ), SALVE ALTRE INDICAZIONI, RIFERITE A MASSA. I VALORI DI MISURA VALGONO CON TENSIONE DI RETE DI 230V.

LAS TENSIONES, SIEMPRE QUE NO SE INDIQUE OTRA COSA, SE MIDEN CON RESPECTO A MASA CON VOLTMETRO (RI=10MΩ). LOS VALORES DE MEDIDA SON VALIDOS CON 230V DE TENSION DE RED.

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

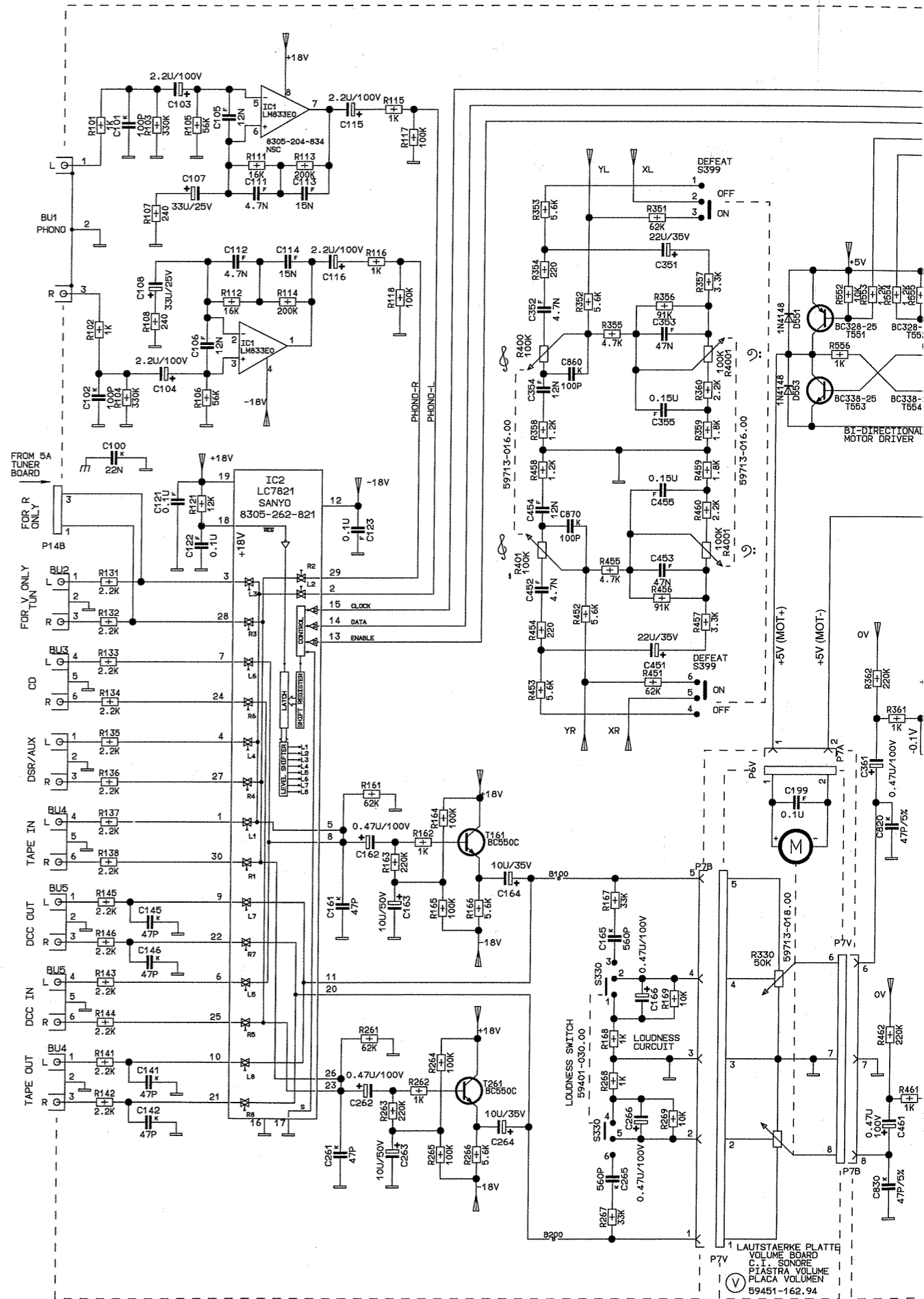
IC-Block-Diagramm / IC Block Diagram



ZC 412196P Microcomputer Block Diagram

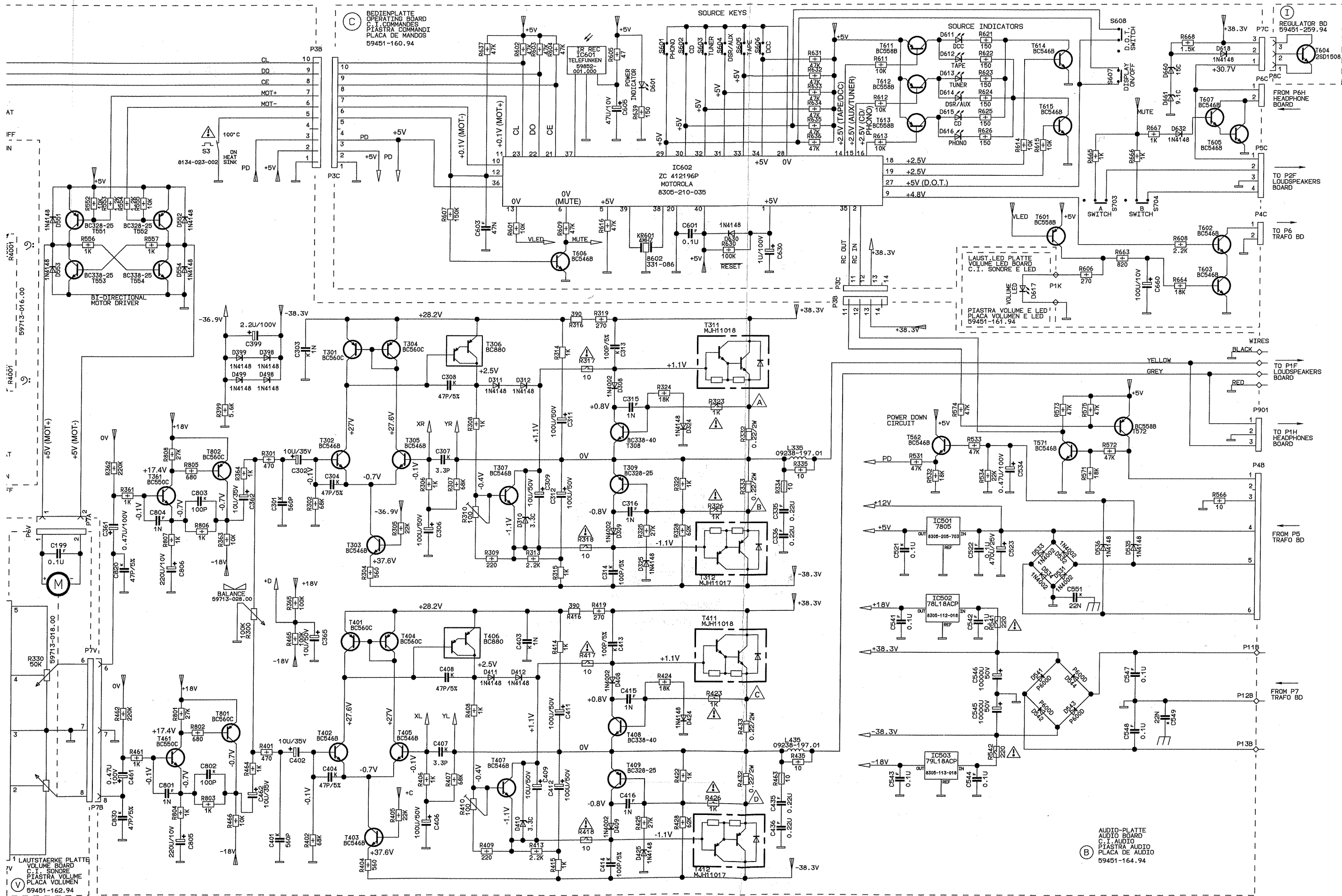
Schaltbild V 12 / Circuit Diagram V 12: -Audio-Platte / Audio Board
-Bedienplatte / Operating Board
-Regulator-Platte / Regulator Board

-Lautstärkeplatte / Volume Board
-Lautstärke-LED-Platte / Volume LED Board

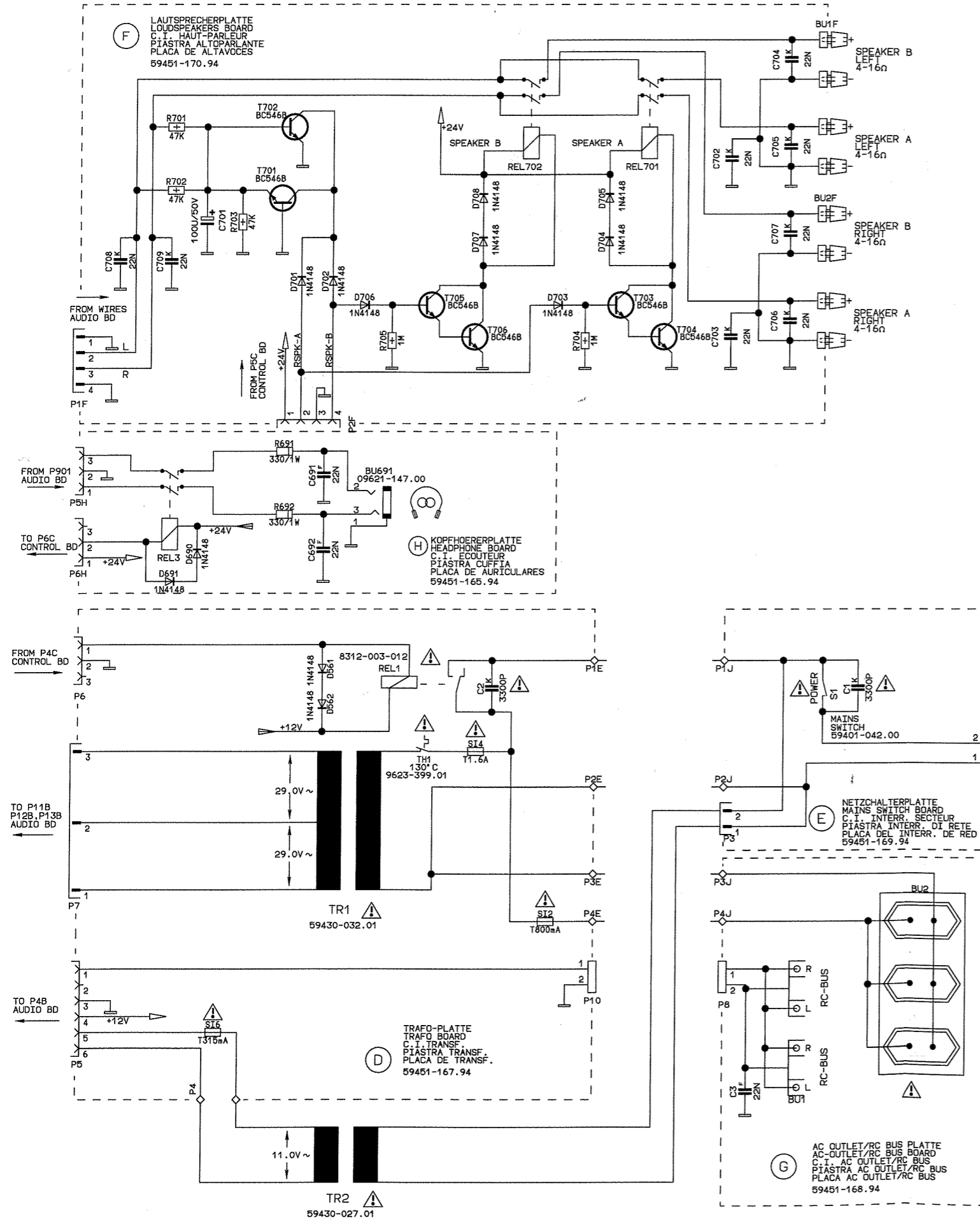


LAUTSTÄRKE PLATTE
VOLUME BOARD
C.I. SONORE
PLAQUE VOLUMEN
59451-162.94

Leuchte-LED-Platte / Volume LED Board
Lamp-LED-Plate / Volume LED Board



Schaltbild V 12 / Circuit Diagram V 12: -Lautsprecherplatte / Loudspeakers Board -Netzschalterplatte / Mains Switch Board
-Kopfhörerplatte / Headphone Board -AC-Outlet- und RC-Bus-Platte / AC Outlet Board and RC Bus Board
-Trafoplatte / Trafo Board



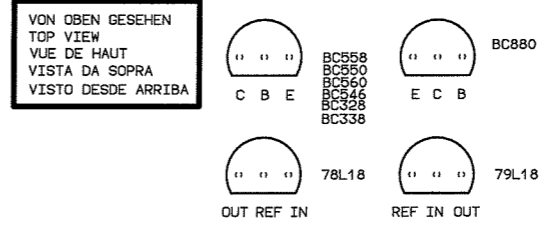
AENDERUNGEN VORBEHALTEN
 SUBJECT TO ALTERATION
 SOUS RESERVE DE MODIFIC.
 CON RISERVA DI MODIFICA
 RES. EL DERECHO DE MODIFIC.

WIDERSTAND/RESISTOR
 RESISTANCE/RESISTENZA/RESISTENCIA

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

KONDENSATOR/CAPACITOR
 CONDENSATEUR/CONDENSATORE/CONDENSADOR

ELKO ELECTROLYTIC ELECTROLYTIQUE ELETTROLITICO ELECTROLITICO
TANTAL ELKO TANTALUM ELECTROLYTIC ELECTROLYTIQUE AU TANTALE ELETTROLITICO AL TANTALO ELETTROLITICO DE TANTALO
FOLIE FOLI 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)



- ⚠ FÜR DIE GERÄTESICHERHEIT ABSOLUT NOTWENDIG UND ENTSPRECHEND DEN RICHTLINIEN DES VDE BZW. IEC, IM ERSATZFALL DÜRFEN NUR BAUTEILE MIT GLEICHER SPEZIFIKATION VERWENDET WERDEN.
- ⚠ ABSOLUTELY NECESSARY FOR THE SAFETY OF THE SET, THESE COMPONENTS MEET THE SAFETY REQUIREMENTS ACCORDING TO VDE OR IEC, RESP. AND MUST BE REPLACED BY PARTS OF SAME SPECIFICATION ONLY.
- ⚠ ABSOLUMENT NECESSAIRE POUR LA SECURITE DE L'APPAREIL ET CONFORME AUX REGULATIONS VDE ET IEC, EN CAS DE REMPLACEMENT, N'UTILISER QUE DES COMPOSANTS AVEC LES MEMES SPECIFICATIONS.
- ⚠ NECESSARI PER LA SICUREZZA DELL' APPARECCHIO E SONO CONFORMI ALLE NORME DI SICUREZZA VDE E IEC, IN 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.

SPANNUNGEN MIT VOLTMETER (RI=10MΩ), FALLS NICHT ANDERS ANGEGEBEN, GEGEN MASSE GEMESSEN, MESSWERTE GELTEN BEI 230V NETZSPANNUNG.
 IF NOT OTHERWISE INDICATED ALL VOLTAGES ARE MEASURED AGAINST CHASSIS WITH A VOLTMETER (RI=10MΩ), THE VALUES ARE VALID FOR 230V AC MAINS VOLTAGES.
 SAUF INDICATION CONTRAIRE, LES TENSIONS SONT MESUREES PAR RAPPORT AU CHASSIS AVEC UN VOLTMETRE (RI=10MΩ), LES VALEURS SONT VALABLES POUR UNE TENSION SECTEUR DE 230V CA.
 TENSIONI MISURATE CON VOLTMETRO (RI=10MΩ), SALVE ALTRE INDICAZIONI RIFERITE A MASSA, I VALORI DI MISURA VALGONO CON TENSIONE DI RETE DI 230V.
 LAS TENSIONES, SIEMPRE QUE NO SE INDIQUE OTRA COSA, SE MIDEN CON RESPECTO A MASA CON VOLTMETRO (RI=10MΩ), LOS VALORES DE MEDIDA SON VALIDOS CON 230V DE TENSION DE RED.

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

BK= SCHWARZ BLACK NOIR NEGRO	BN= BRAUN BROWN BRUN MARRONE MARRON	RD= ROT RED ROUGE ROSSO ROJO
YE= GELB YELLOW JAUNE GIALLO AMARILLO	GN= GRUEN GREEN VERT VERDE	BU= BLAU BLUE BLEU BLU AZUL
VT= VIOLETT VIOLET VIOLETT VIOLETTA	GY= GRAU GREY GRIS GRIGIO	WH= WEISS WHITE BLANC BLANCO
RS= ROSA PINK ROSE	OR= ORANGE ARANCIONE NARANJA	NF= NATURFARBEN NATURAL COLOUR COULEUR NATURELLE COLORI NATURALI COLOR NATURAL