



THOMSON

AUDIO



**SERVICE MANUAL
DOCUMENTATION TECHNIQUE
TECHNISCHE DOKUMENTATION
DOCUMENTAZIONE TECNICA
DOCUMENTACION TECNICA**

**CS520B / CS520M
MS3300 / MS3300B
MS4300 / MS4300B / MS4300U**

Version (PC*): A / B

*PC: The version code is indicated either in the battery compartment or on the back of the unit - ce code version est indiqué dans le compartiment à piles ou au dos de l'appareil - PC: Version des Geräts wird im Batteriefach oder auf der Rückseite angegeben - il codice della versione è indicato nello scompartimento delle batterie o sul retro dell'apparecchio - el código de la versión está indicado en el compartimento de las pilas o en la parte trasera del aparato.



Technical data - Caractéristiques principales Technische Daten - Dati tecnici - Características del aparato

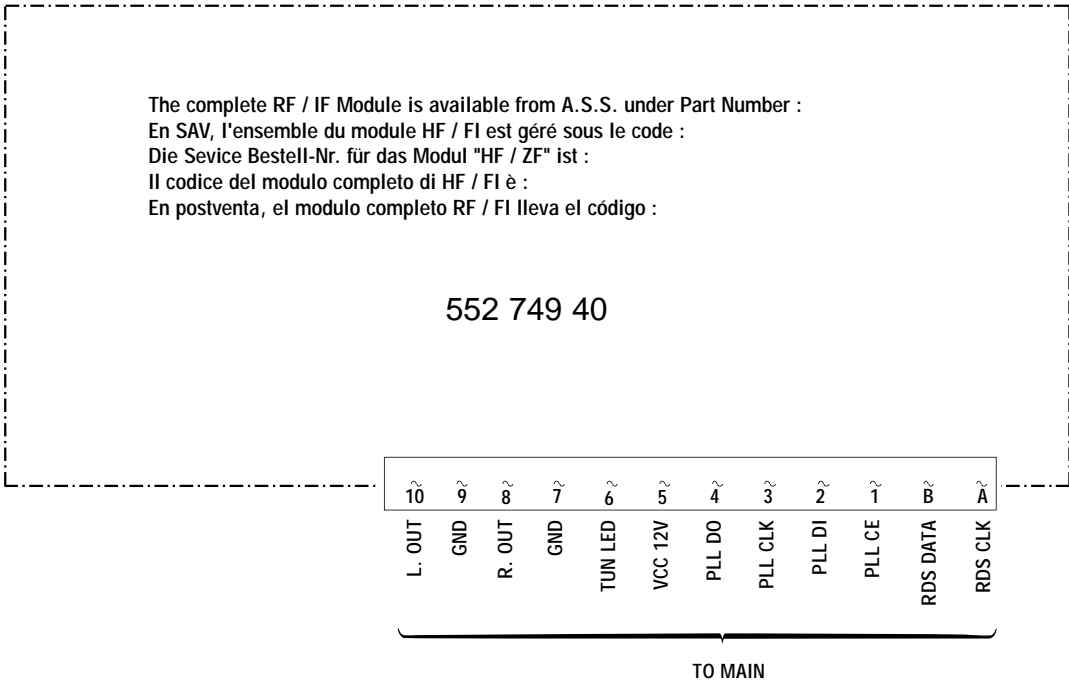
Type of set: Two-in-one horizontale combination/DAD Type d'appareil: Ensemble compact stéréophonique Geräteart: DAD-2er Horizontal Kompaktanlage Tipo d'apparecchio: Compatto Hifi/CD Tipo de aparato: Equipo compacto estereofónico/DAD	
Power supply: Alimentation: Stromversorgung: 230 V ~ 50Hz Alimentazione: Alimentación:	Nominal output power: Puissance nominale de sortie: MS3300 2 x 40W (rms) Nennausgangsleistung: 2 x 80W (music) Potenza nominale di uscita: MS4300 2 x 80W (rms) Potencia nominal de salida: 2 x 160W (music)
 FM - MF: 87.5 - 108 MHz MW - PO: 522 - 1611 kHz LW - GO: 150 - 283 kHz	Sensitivity: Sensibilité: FM - MF: 48µV (S/N = 50 dB) Empfindlichkeit: MW - PO: 1000µV/m (S/N = 20 dB) Sensibilità: LW - GO: 2500µV/m (S/N = 20 dB) Sensibilidad:
 Frequency response: Courbe de réponse: Frequenzgang: 125 Hz - 6.3 kHz Curva di risposta: (5 dB) Curva de respuesta: Wow and flutter: Fluctuations: Gleichlauf: 0,3% Fluttuazioni: Fluctuaciones:	Signal to noise ratio: Rapport signal / bruit: Geräuschspannungabstand: 38 dB Rapporto segnale / disturbo: Relación señal / ruido:
DAD Disc rotation speed: Vitesse de rotation du disque: CD-Drehgeschwindigkeit: 200 → 500 tr/mn Velocità di rotazione del disco: Velocidad de rotación del disco: Stereo separation : Diaphonie : Übersprechdämpfung : 40 dB Diafonia : Diafonia :	 Frequency response: Courbe de réponse: Frequenzgang: 60 Hz - 16 kHz Curva di risposta: (-3 dB) Curva de respuesta: Signal to noise ratio: Rapport signal / bruit: Geräuschspannungabstand: 60 dB Rapporto segnale / disturbo: Relación señal / ruido:



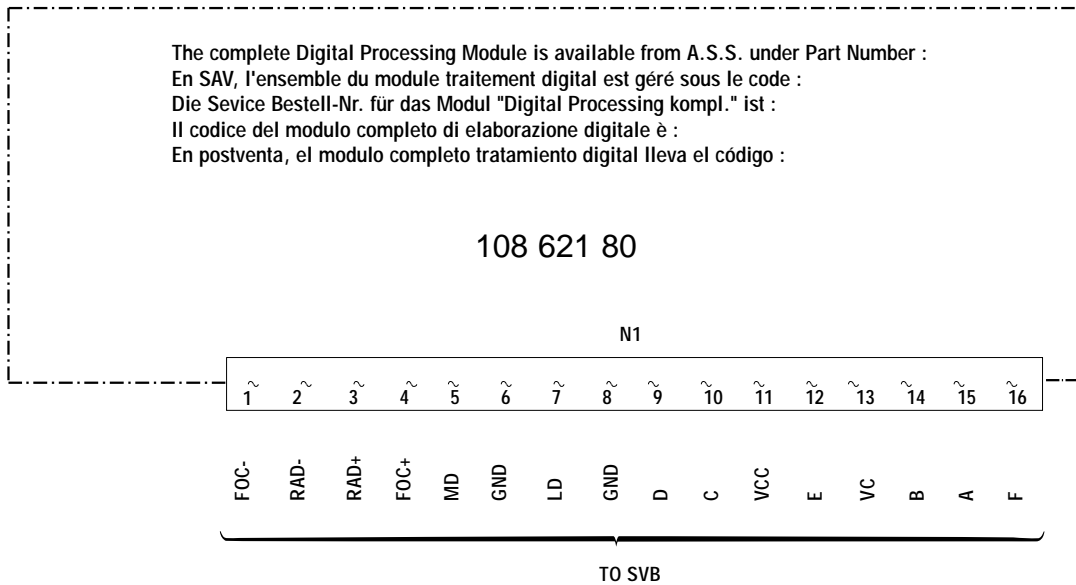
WARNING : Before servicing this chassis read the safety recommendations.
ATTENTION : Avant toute intervention sur ce châssis, lire les recommandations de sécurité.
ACHTUNG : Vor jedem Eingriff auf diesem Chassis, die Sicherheitsvorschriften lesen.
ATTENZIONE : Prima di intervenire sullo chassis, leggere la norme di sicurezza.
IMPORTANTE : Antes de cualquier intervención, leer las recomendaciones de seguridad.

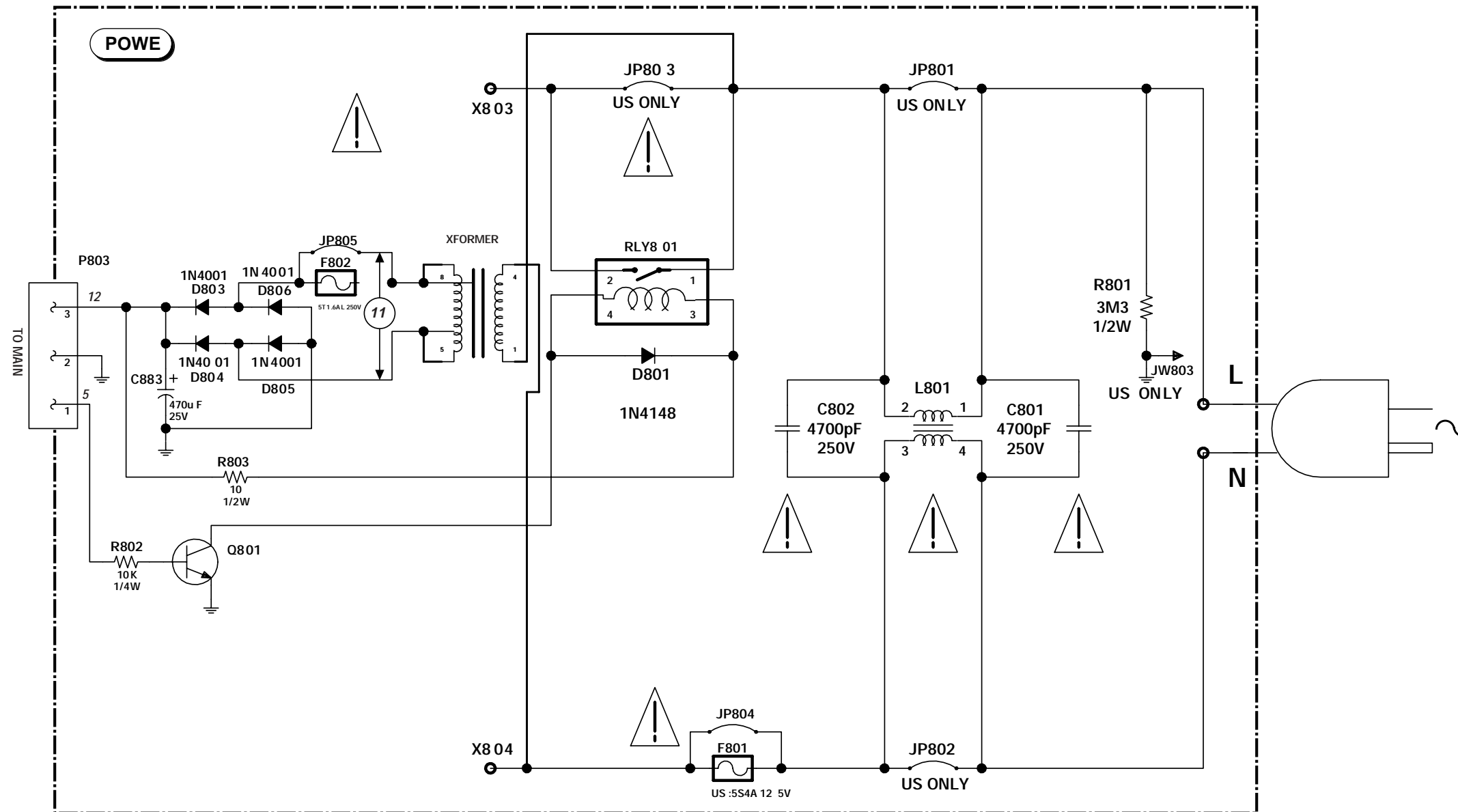
0805 - CRKD2143 - CRKD2143M - CRKD2577 - CRKD2577C

**RF / IF SCHEMATIC DIAGRAM - SCHEMA HF / FI - SCHALTBILD HF / ZF
SCHEMA HF / FI - ESQUEMA RF / FI**

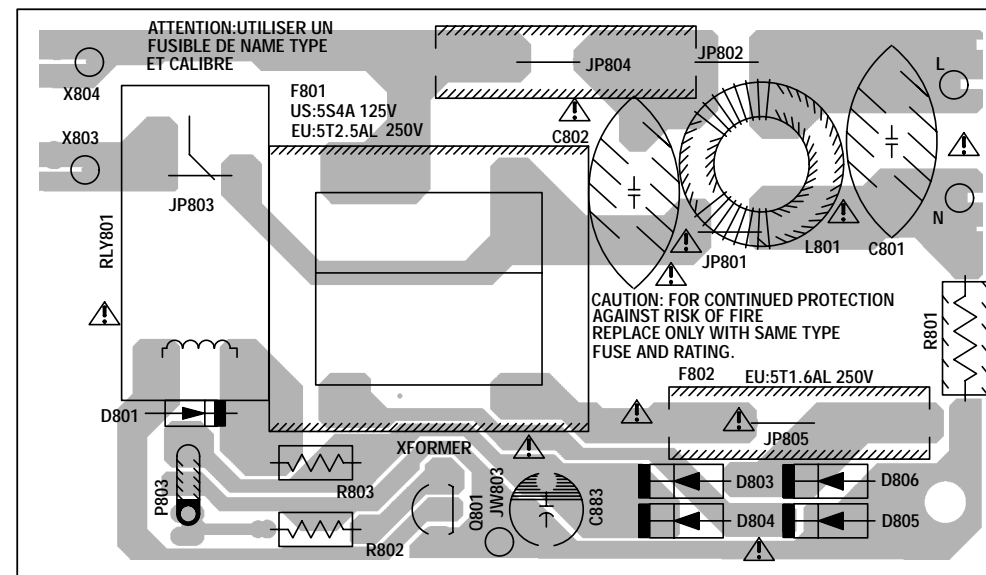


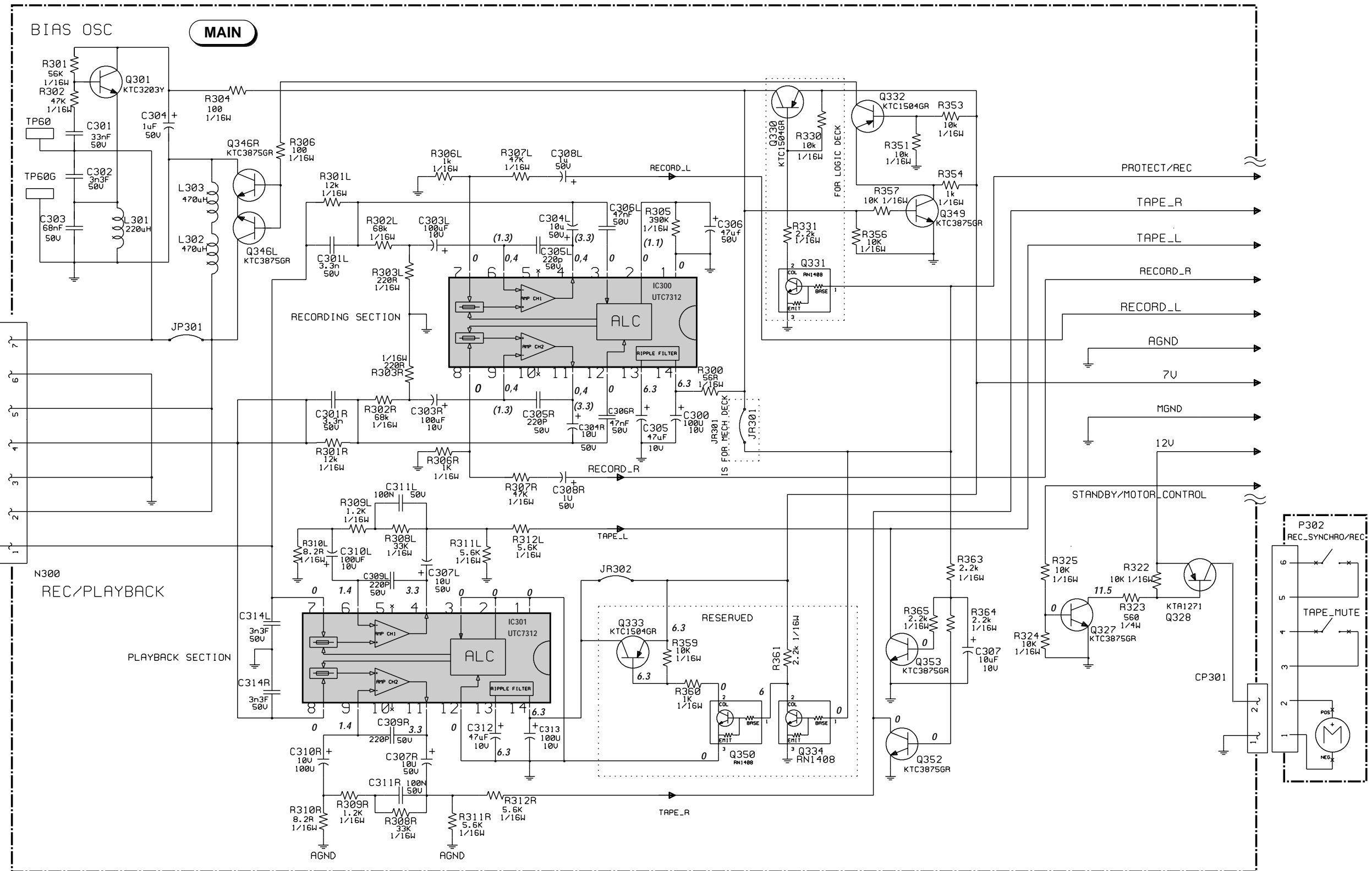
**DIGITAL PROCESSING SCHEMATIC DIAGRAM - SCHEMA DU TRAITEMENT DIGITAL -
SCHALTBILD DIGITALVERARBEITUNG - SCHEMA ELABORAZIONE DIGITALE
ESQUEMA DEL TRATAMIENTO DIGITAL**



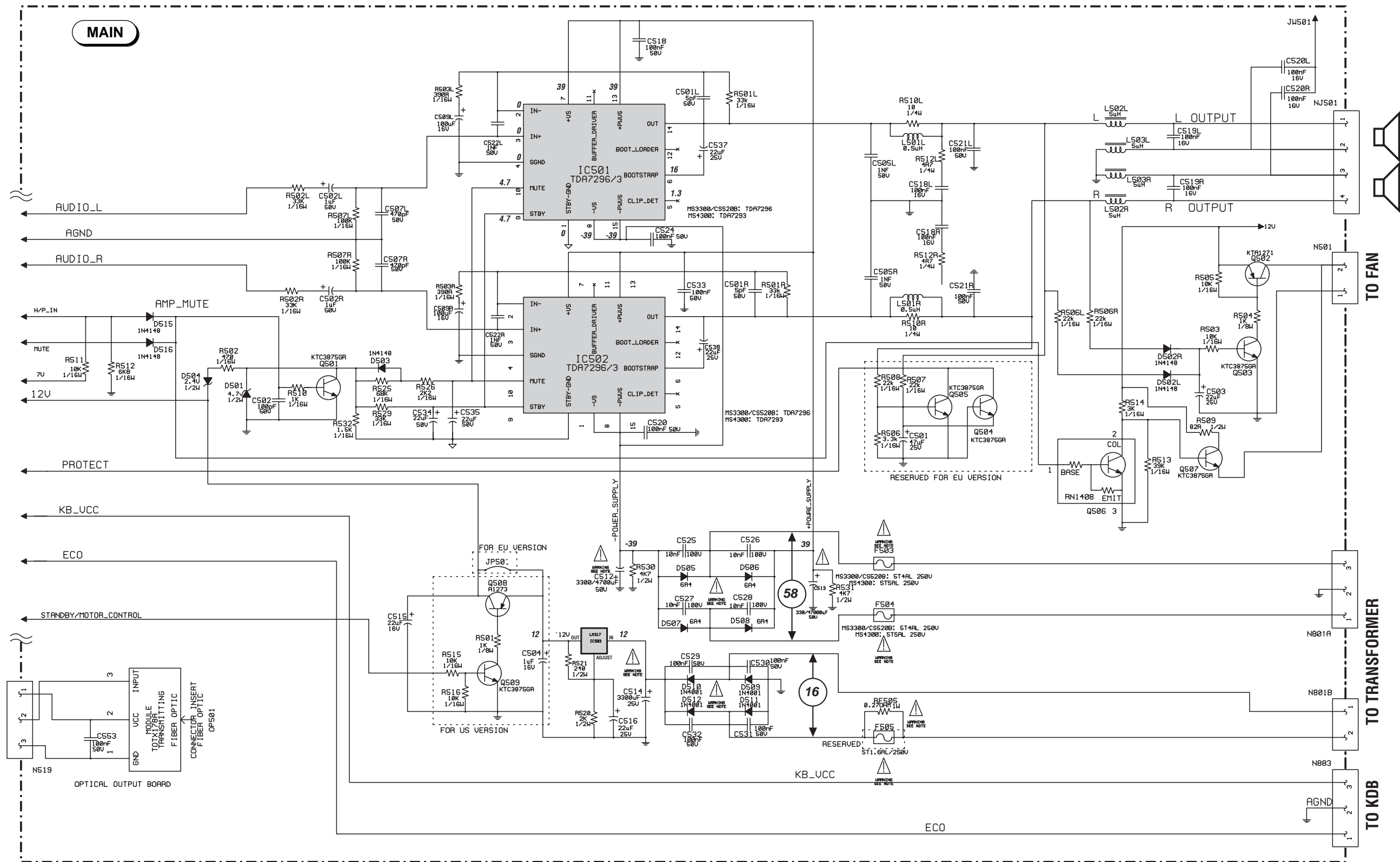


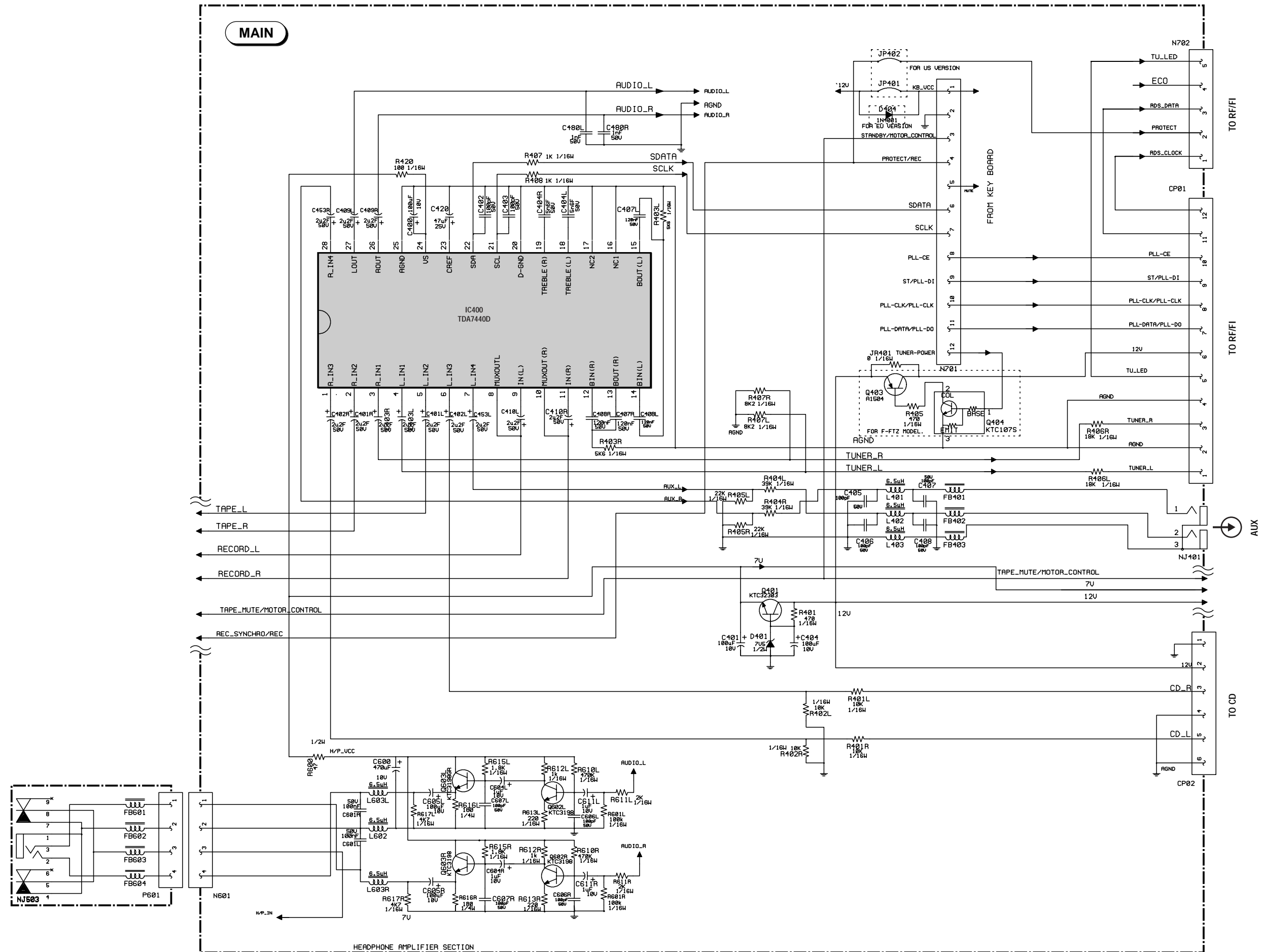
Power unit P.C.B.
 Platine secteur
 Ltpl. Netzanschluss
 Piastra di rete
 Platina de red





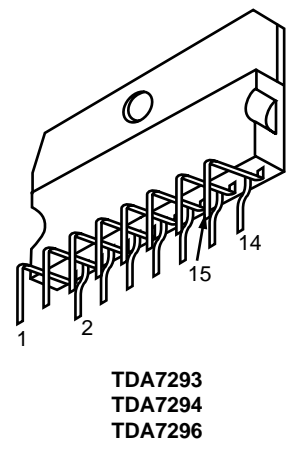
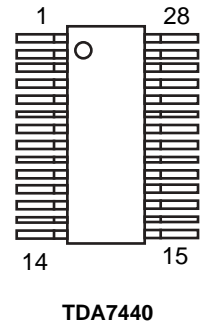
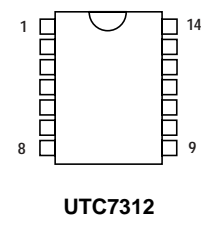
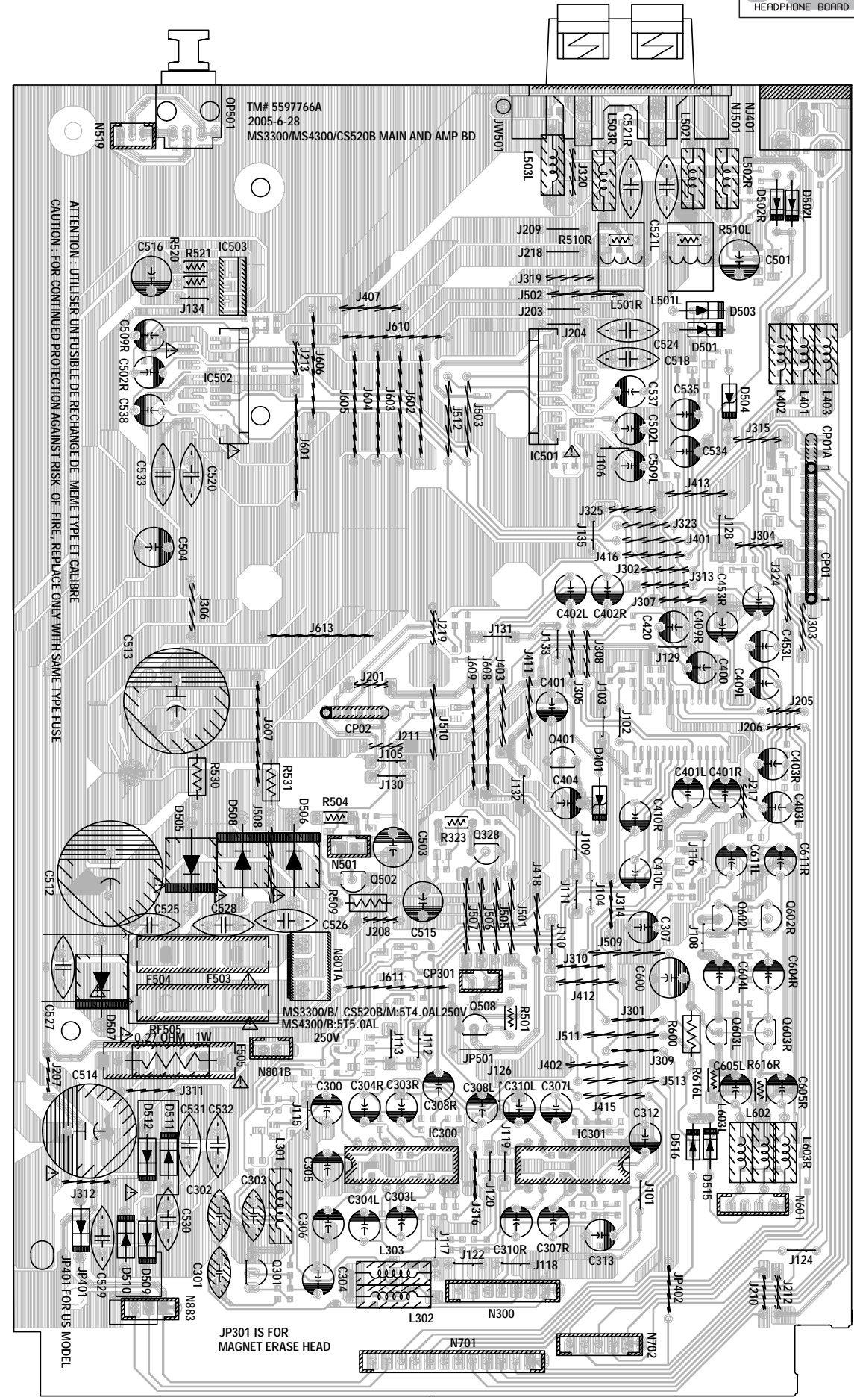
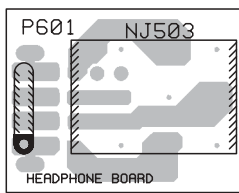
MAIN SCHEMATIC DIAGRAM - SCHEMA DE LA PLATINE PRINCIPALE - SCHALTBILD GRUNDPLATTE - SCHEMA DELLA PIASTRA PRINCIPALE - ESQUEMA DE LA PLATINA PRINCIPAL (2/3)



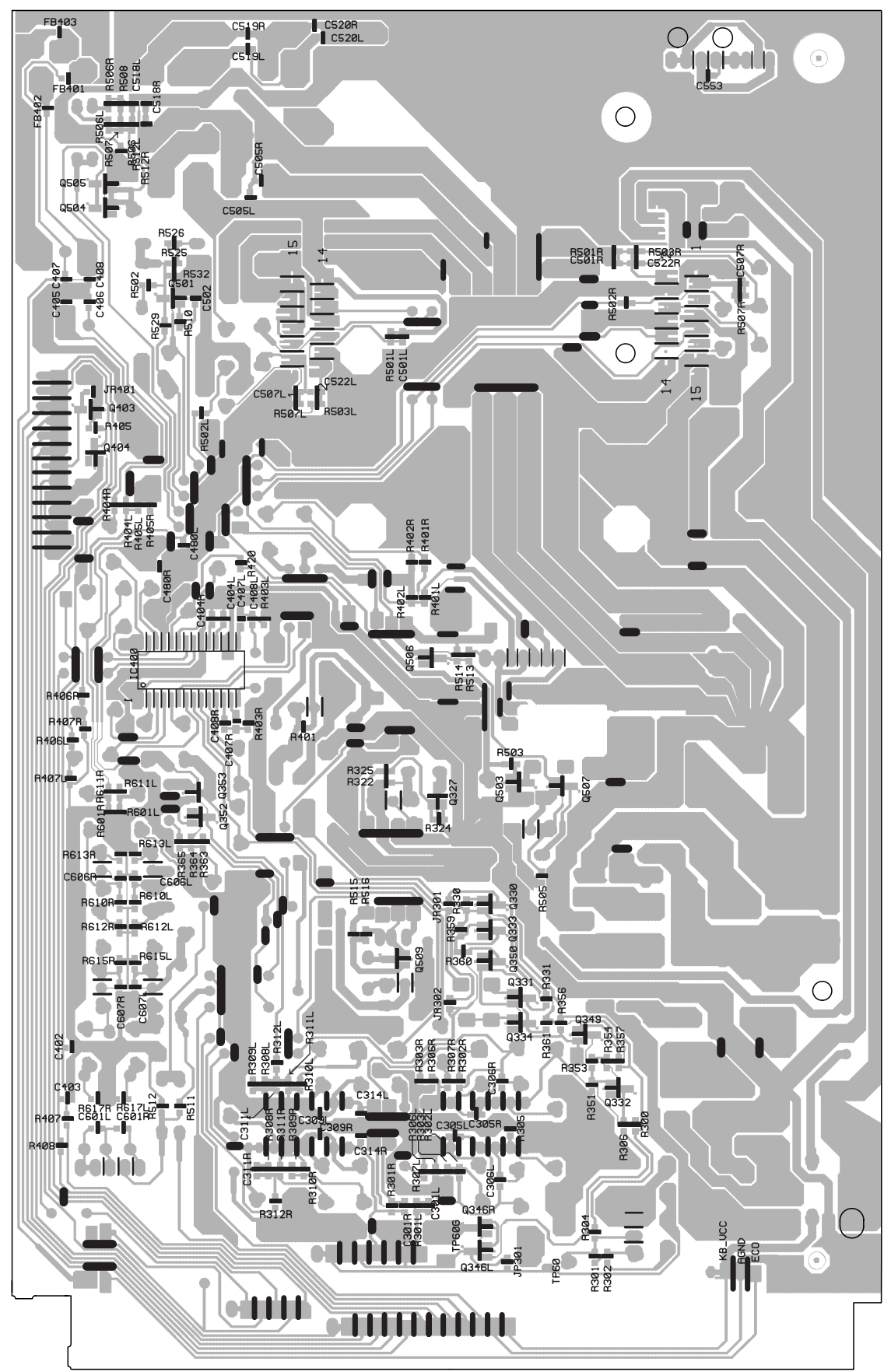
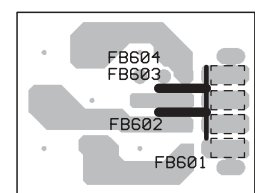


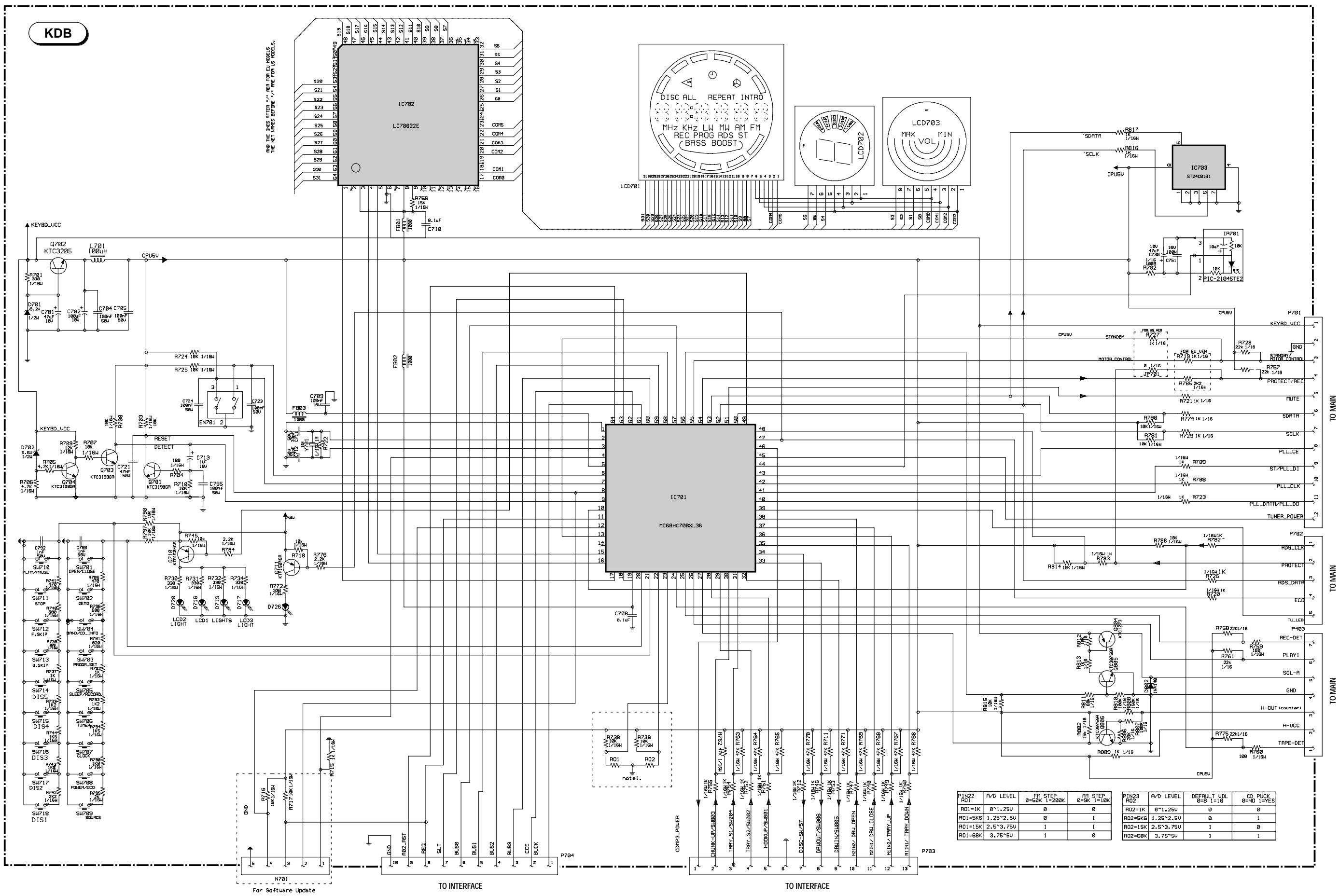
Main P.C.B.
Platine principale
Grundplatte
Piastra principale
Platina principal

Component side
Côté composants
Bestückungsseite
Lato componenti
Lado componentes



Solder side
Côté soudure
Lötseite
Lato saldature
Lado del cobre

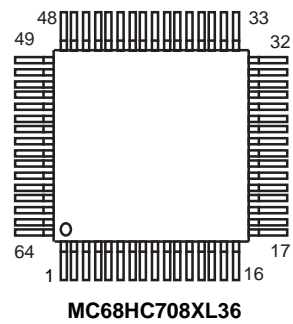
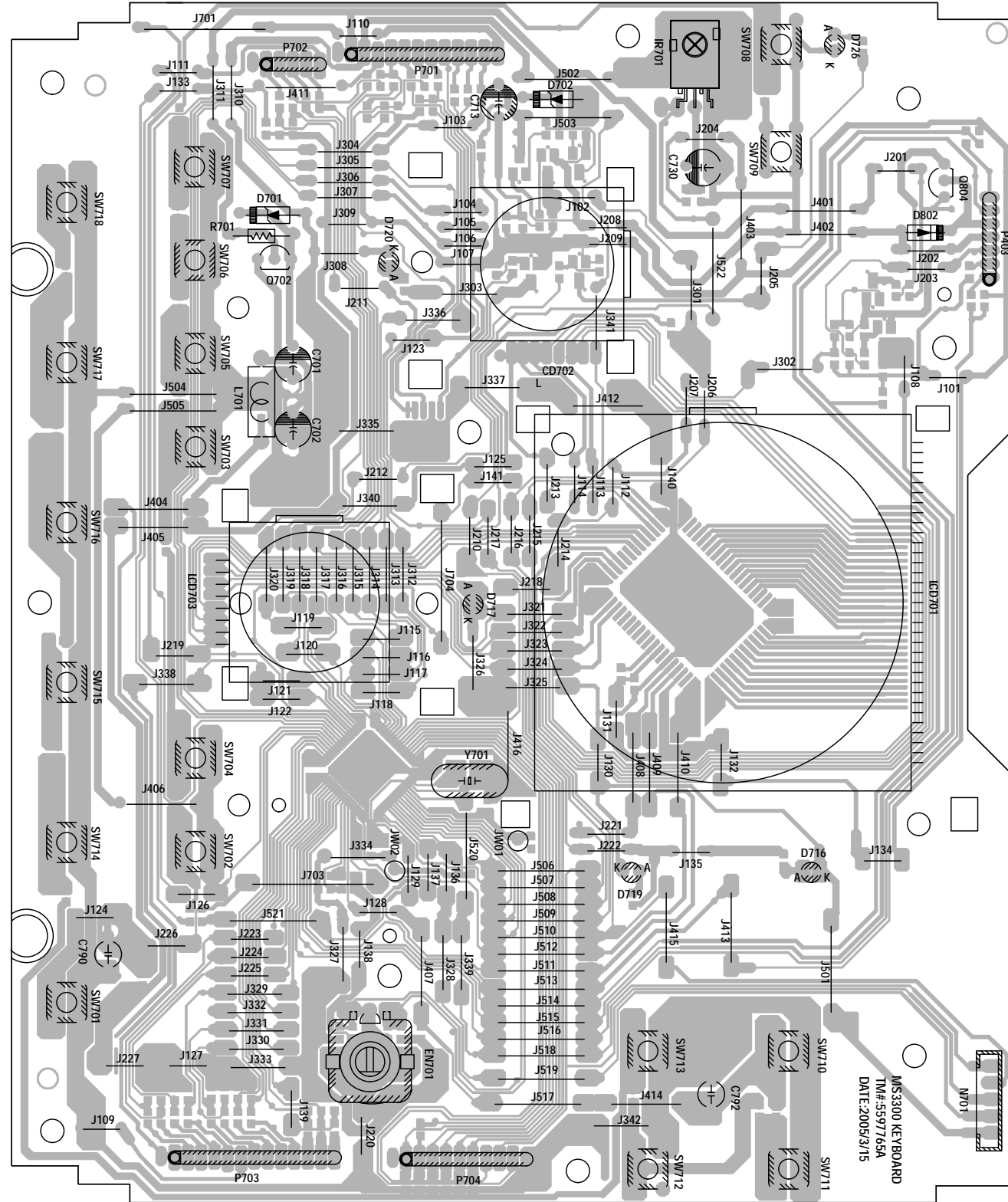




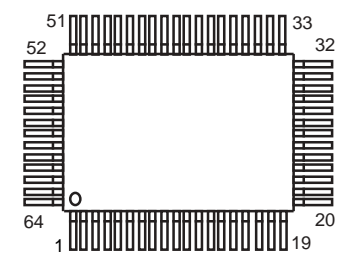
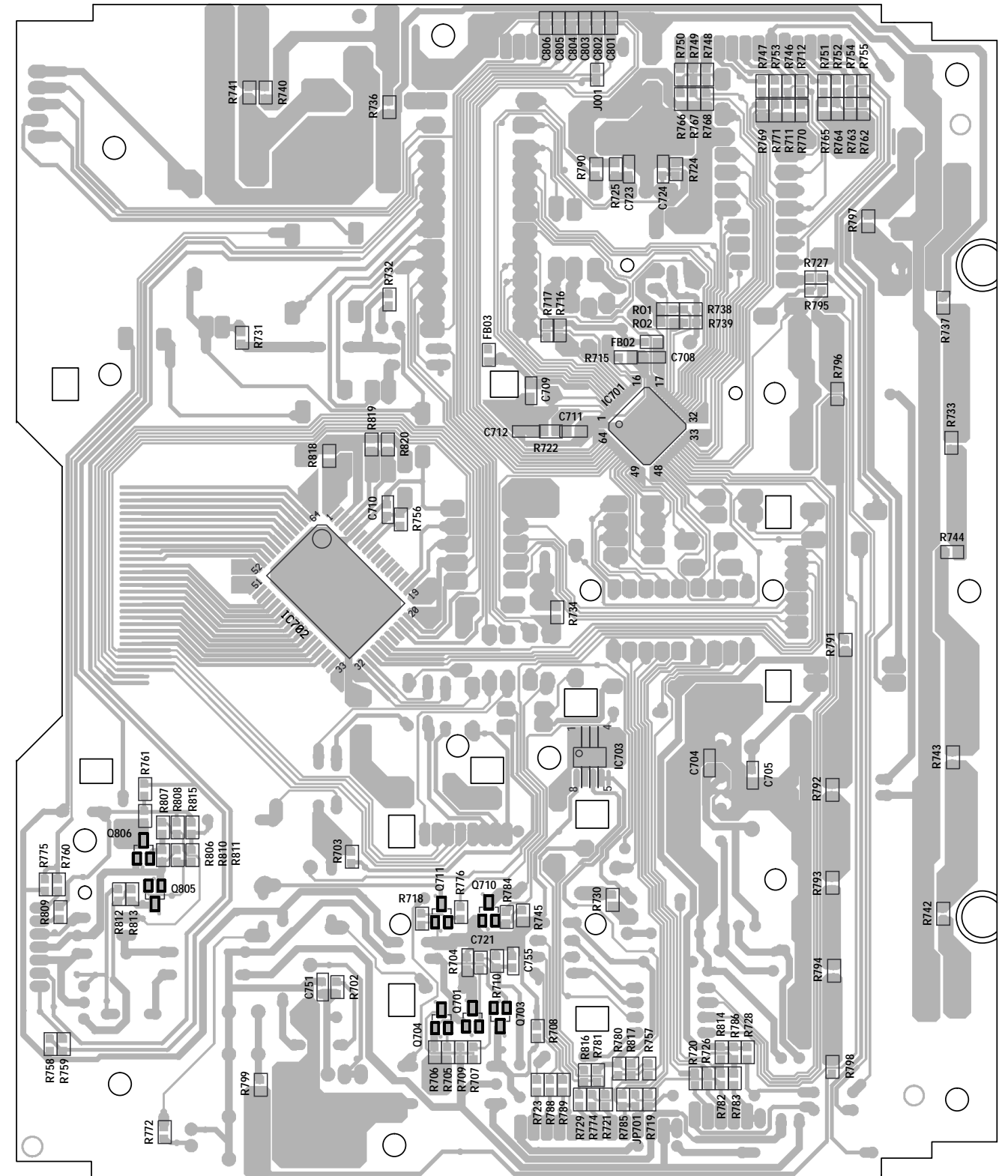
Control / display P.C.B.
 Platine commandes / afficheur
 Ltpl. Bedienteil / Anzeige
 Piastra comandi / indicatore
 Platina de mandos / indicador

Component side
 Côté composants
 Bestückungsseite
 Lato componenti
 Lado componentes

Solder side
 Côté soudure
 Lötseite
 Lato saldature
 Lado del cobre

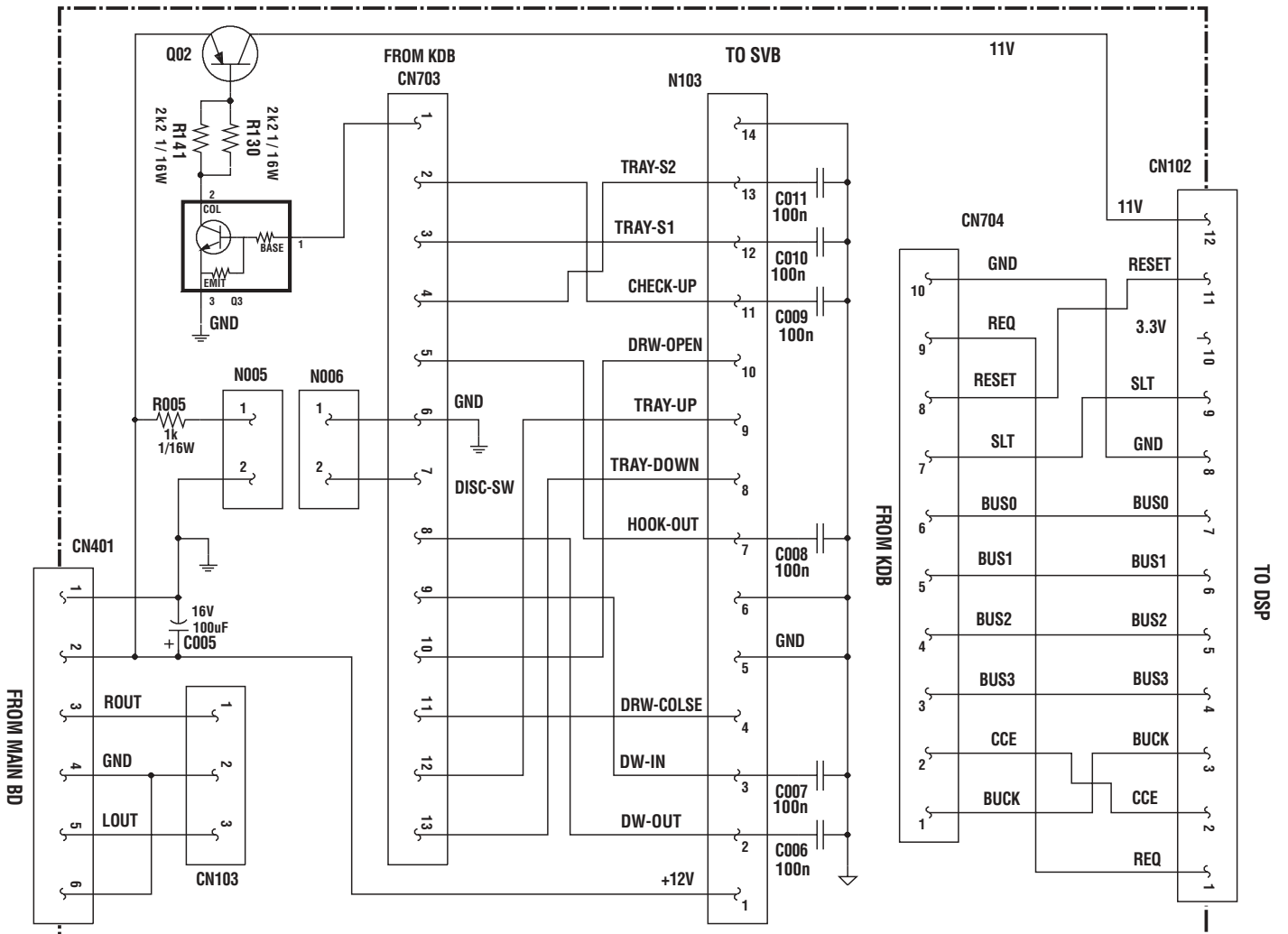


MC68HC708XL36

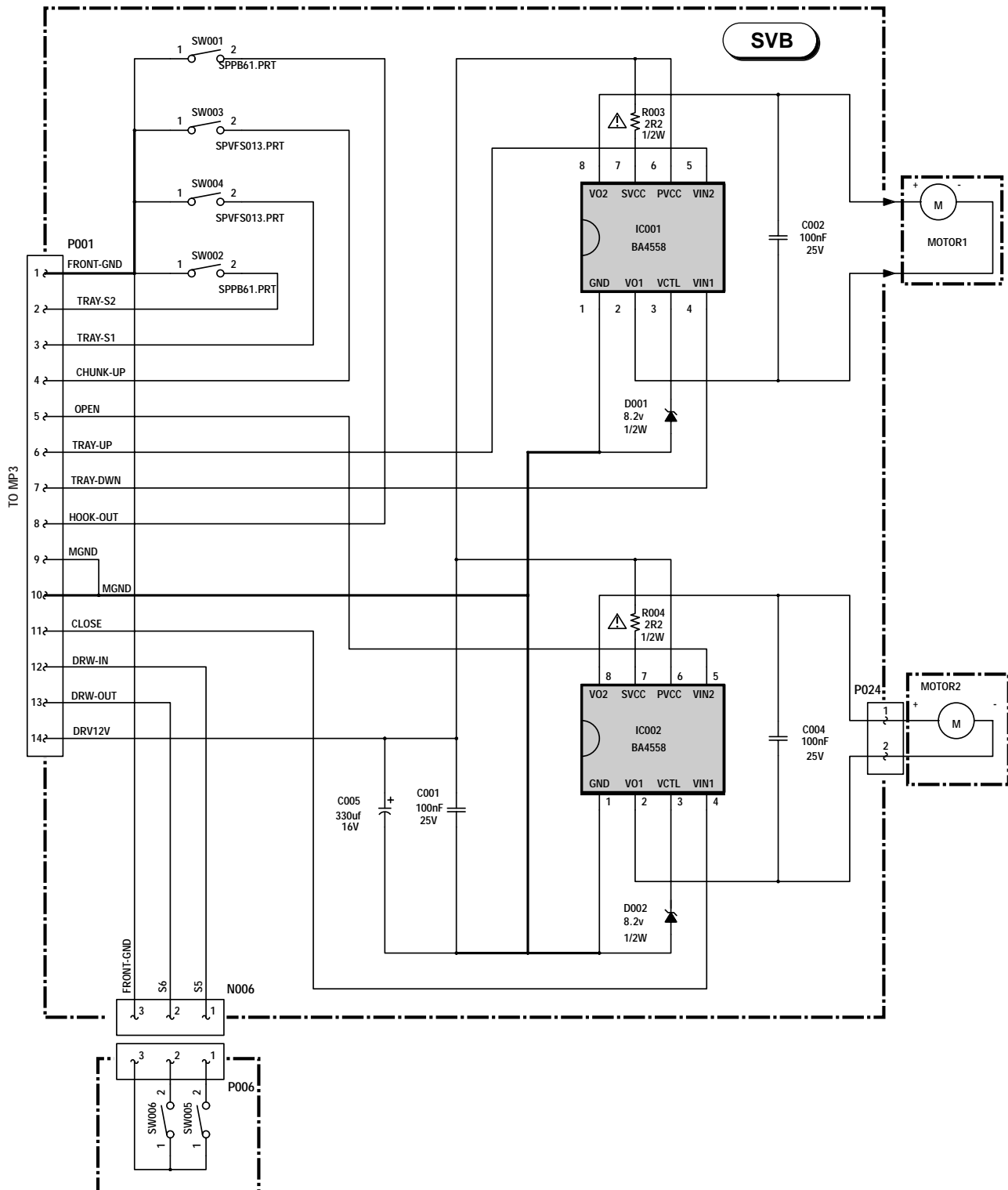


LC78622E

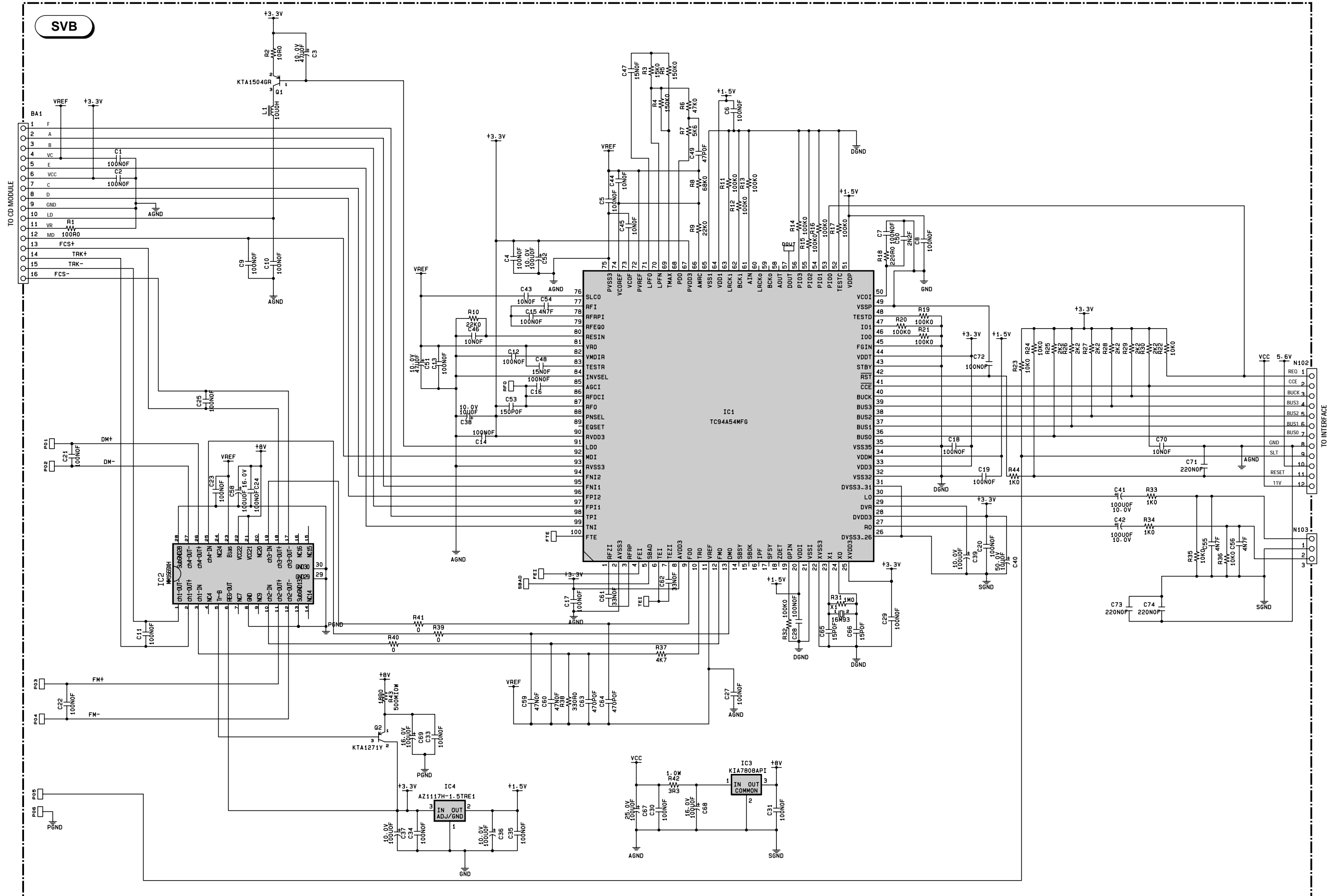
**INTERFACE SCHEMATIC DIAGRAM - SCHEMA D'INTERFACE - SCHALTBILD INTERFACE
 SCHEMA DEI INTERFACCIA - ESQUEMA DEL INTERFACE**



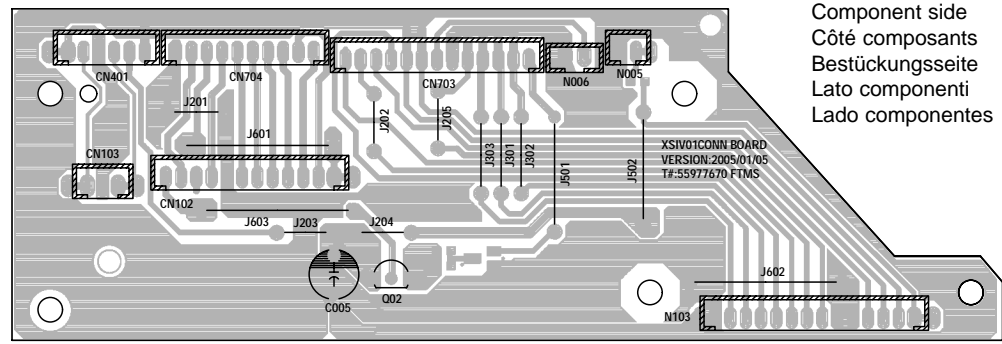
**CD MOTOR CONTROL SCHEMATIC DIAGRAM - SCHEMA DE LA PLATINE
 COMMANDES MOTEURS CD - CD WECHSLER-MOTOR SCHALTBILD -
 SCHEMA DELLA PIASTRA COMANDI MOTORI CD
 ESQUEMA DE LA PLATINA MANDOS MOTORES CD**



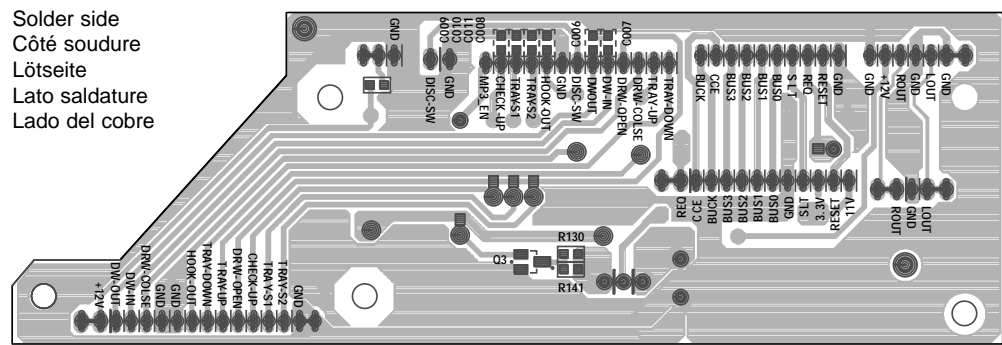
DIGITAL PROCESSING SCHEMATIC DIAGRAM - SCHEMA DU TRAITEMENT DIGITAL - SCHALTBILD DIGITALVERARBEITUNG - SCHEMA ELABORAZIONE DIGITALE
 ESQUEMA DEL TRATAMIENTO DIGITAL



Interface P.C.B.
Platine d'interface
Ltpl. Interface
Piastra dei interfaccia
Platina del interface



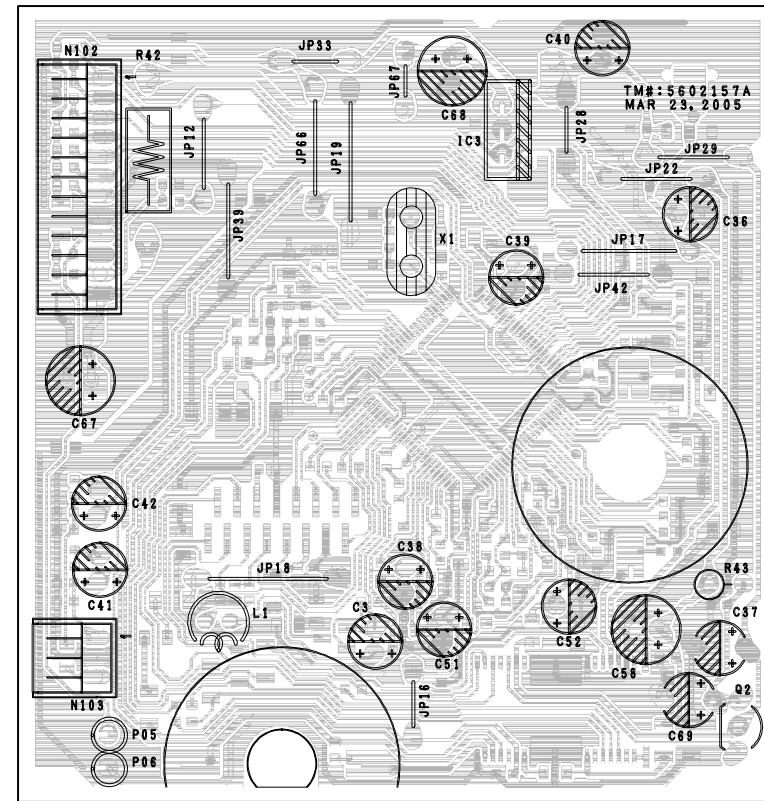
Component side
 Côté composants
 Bestückungsseite
 Lato componenti
 Lado componentes



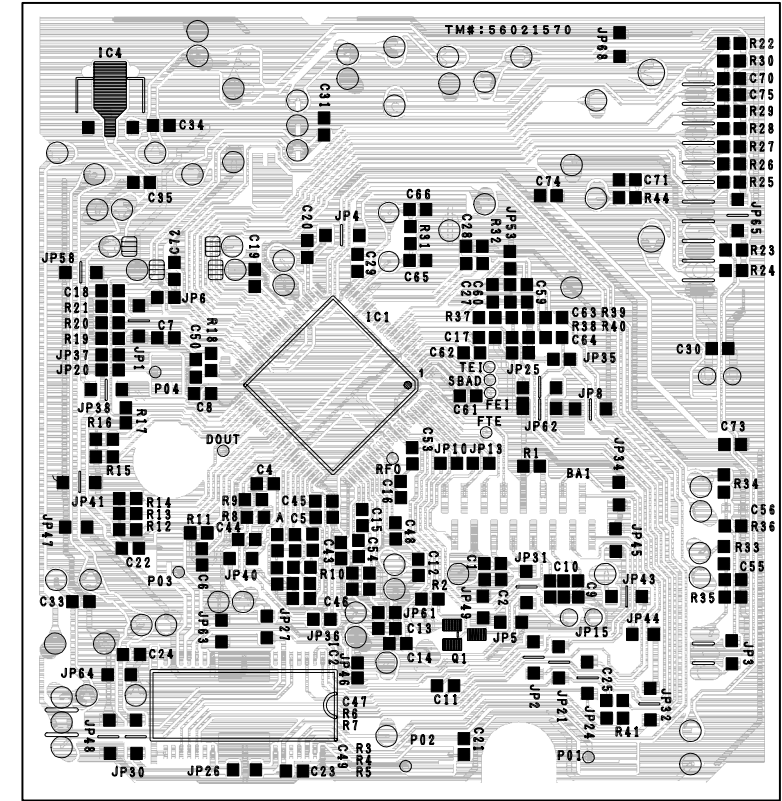
Solder side
 Côté soudure
 Lôtseite
 Lato saldature
 Lado del cobre

Digital processing P.C.B.
Platine traitement digital
Ltpl. Digitalverarbeitung
Piastra elaborazione digitale
Platina tratamiento digital

Component side
 Côté composants
 Bestückungsseite
 Lato componenti
 Lado componentes

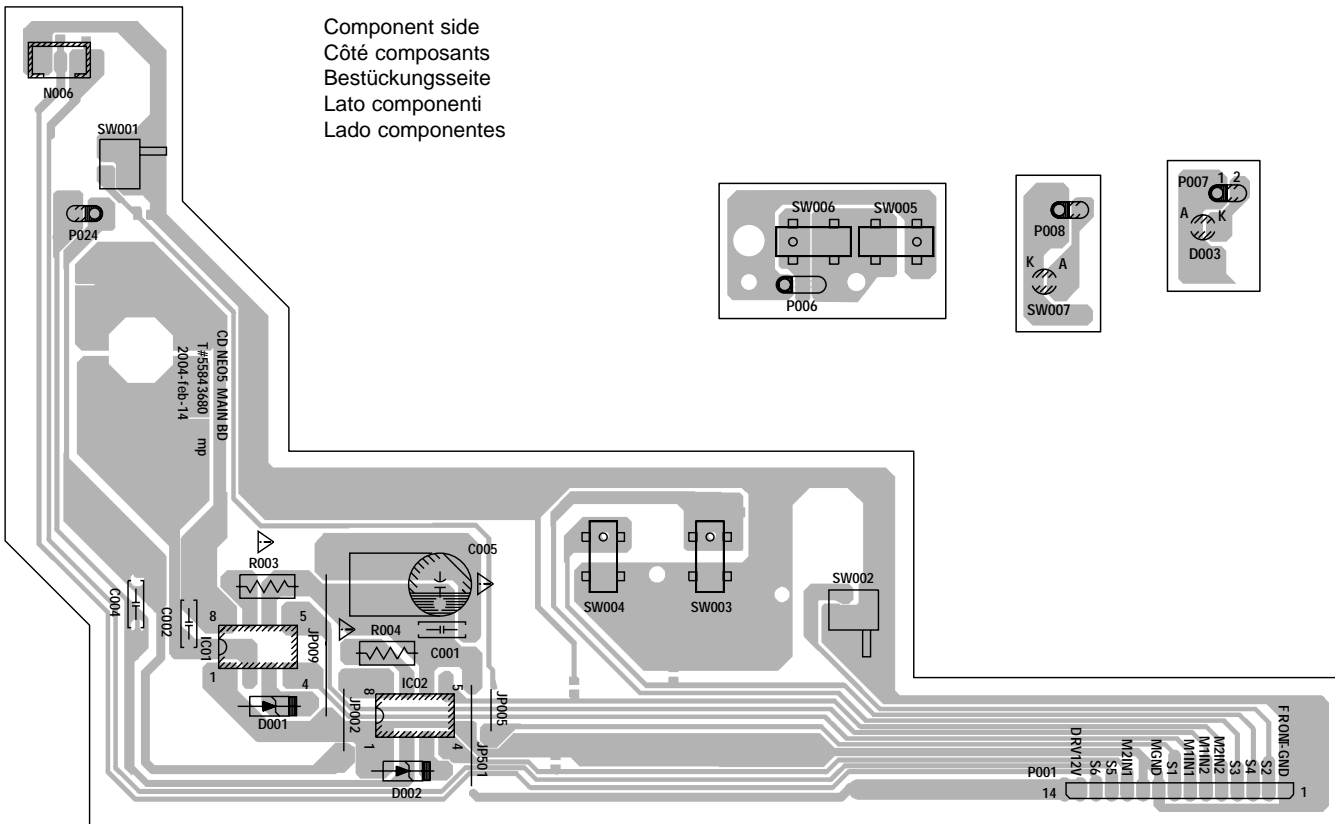


Solder side
 Côté soudure
 Lôtseite
 Lato saldature
 Lado del cobre

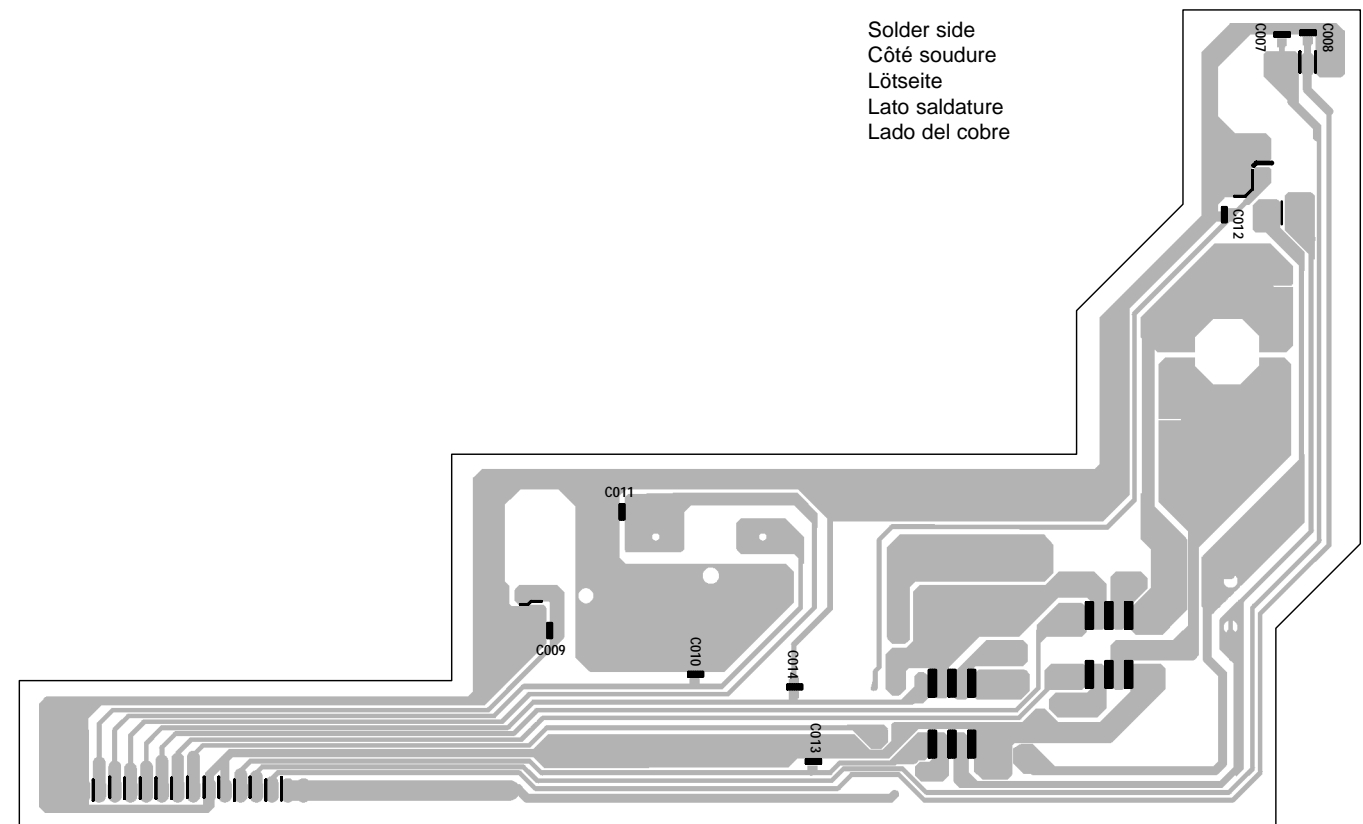


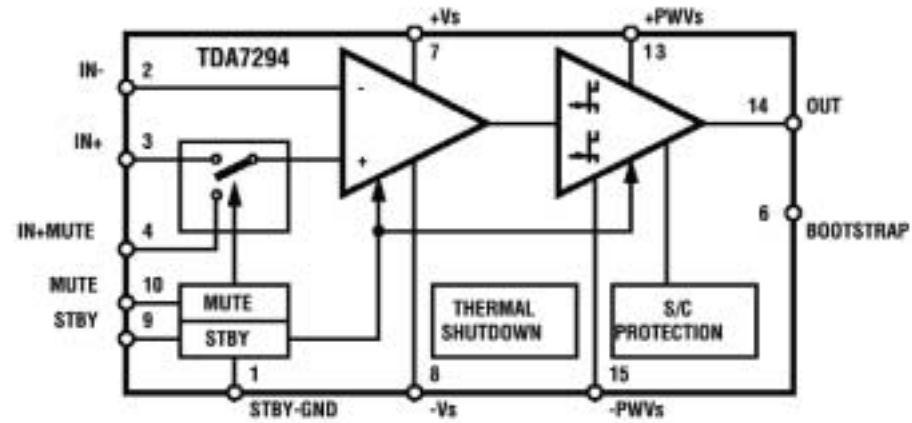
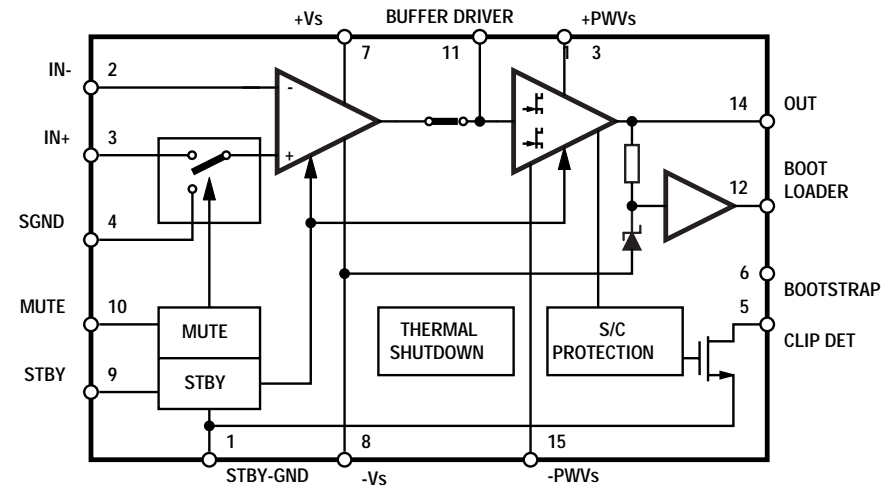
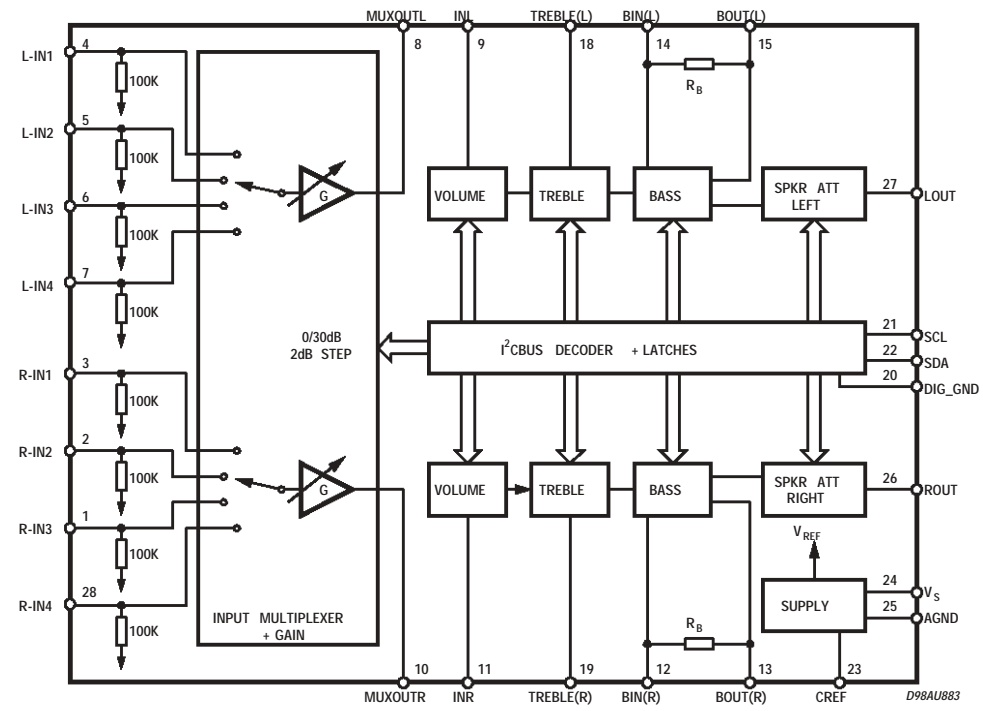
CD motor control P.C.B.
Platine commandes moteurs CD
Ltpl. CD wechsler-motor
Piastra comandi motori CD
Platina mandos motores CD

Component side
 Côté composants
 Bestückungsseite
 Lato componenti
 Lado componentes



Solder side
 Côté soudure
 Lôtseite
 Lato saldature
 Lado del cobre





Abbreviations - Abreviations - Abkürzungen - Abbreviazioni - Abreviaciones

AC	Alternating Current	GCA	Gain Controlled Amplifier
ACC	Automatic Colour Control	HPF	High Pass Filter
AGC	Automatic Gain Control	I.R	Infra Red
A_IF	Audio IF	ID	Identification
ALC	Automatic Level Control	INP/IN	Input
AMP	Amplifier	KDB	Key Display Board
APC	Automatic Phase Control	LIM	Limiter
AV	Audio-Video	LPF	Low Pass Filter
BPF	Band Pass Filter	PCB	Printed Circuit Board
CH	Channel	PG	Pulse Generator
CLK	Clock	PLL	Phase Locked Loop
COMP	Comparator	PWM	Pulse Width Modulation
CONV	Converter	SCL	Serial Clock
CSYNC	Composite Synch	SDA	Serial Data
CTL	Control	SMPS	Switch Mode Power Supply
DC	Direct Current	SW	Switch
DET	Detector	VCA	Voltage Controlled Amplifier
DIG	Digital	VCO	Voltage Controlled Oscillator
ENV	Envelope	VD	Supply Voltage Digital
EQ	Equalizer	VE	Voltage (Ever)
FG	Frequency Generator	VS	Voltage (Switched)
GND	Ground		

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