



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

**THOMSON A5000**

Version (PC\*): A

\*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**

<b>Type of set :</b> radio recorder / compact disc <b>Type d'appareil :</b> Combiné radio / CD <b>Geräteart :</b> CD-Radio Portable <b>Tipo d'apparecchio :</b> Insieme radio / CD <b>Tipo de aparato :</b> Radio / CD	
<b>Power supply :</b> <b>Alimentation :</b> <b>Stromversorgung :</b> 230V +/- 10% <b>Alimentazione :</b> <b>Alimentación :</b>	<b>Nominal output power :</b> <b>Puissance nominale de sortie :</b> <b>Nennausgangsleistung :</b> 2 x 25 W (Rms) <b>potenza nominale di uscita :</b> 2 x 75 W (Music.) <b>Potencia nominal de salida :</b>
<b>FM - MF :</b> 87.5 - 108 MHz <b>MW - PO :</b> 522 - 1611 kHz <b>LW - GO :</b> 150 - 283 kHz	<b>Sensitivity :</b> <b>Sensibilité :</b> <b>FM - MF :</b> 4 µV (S/N = 30 dB) <b>Empfindlichkeit :</b> <b>MW - PO :</b> 800 µV/m (S/N = 20 dB) <b>Sensibilità :</b> <b>LW - GO :</b> 2000 µV/m (S/N = 20 dB) <b>Sensibilidad :</b>
<b>Disc rotation speed :</b> <b>Vitesse de rotation du disque :</b> <b>CD-Drehgeschwindigkeit :</b> 200 → 500 tr/m <b>Velocità di rotazione del disco :</b> <b>Velocidad de rotación del disco :</b>	<b>Frequency response :</b> <b>Courbe de réponse :</b> 40Hz - 20Khz <b>Frequenzgang :</b> (-3dB) <b>Curva di risposta :</b> <b>Curva de respuesta :</b>
<b>DAD</b> <b>Stereo separation :</b> <b>Diaphonie :</b> <b>Übersprechdämpfung :</b> 40 dB <b>Diafonia :</b> <b>Diafonia :</b>	<b>Signal to noise ratio :</b> <b>Rapport signal / bruit :</b> <b>Geräuschspannungsabstand :</b> 60 dB <b>Rapporto segnale / disturbo :</b> <b>Relación señal / ruido :</b>



**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 le norme di sicurezza.  
**IMPORTANTE :** Antes de cualquier intervención, leer las recomendaciones de seguridad.

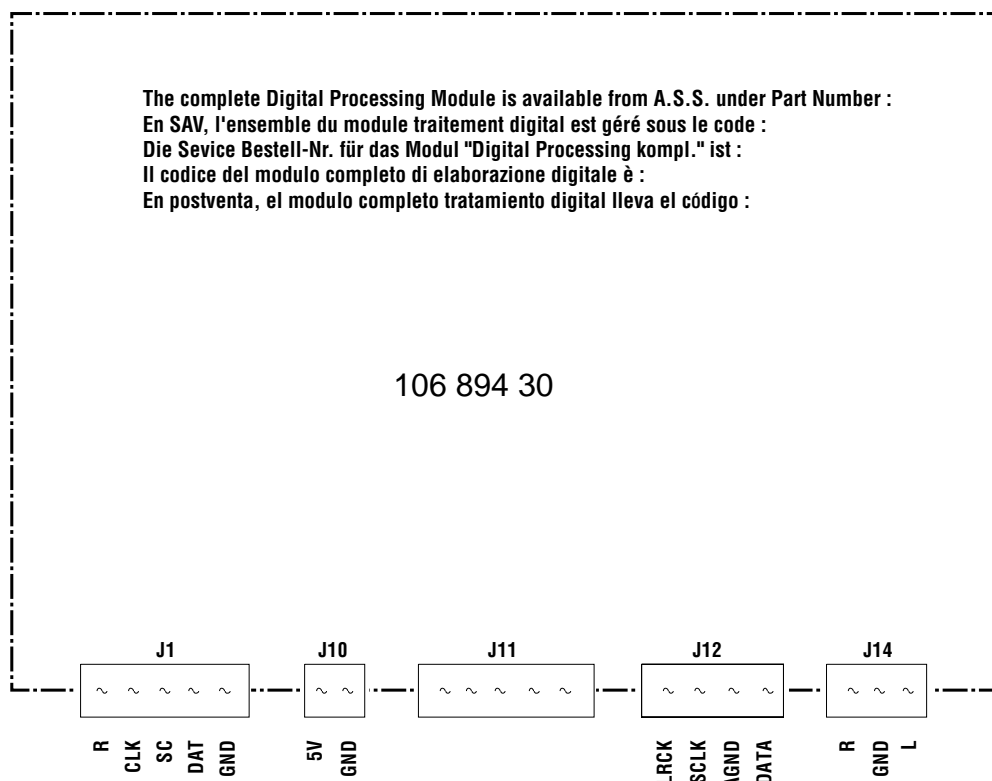
**Code : 351 416 70 - 09/01 / 4,1M - CRKD2538 Print.**




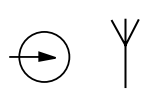





**CLASS 1 LASER PRODUCT**  
**APPAREIL A LASER DE CLASSE 1**  
**LASER KLASSE 1**  
**APPARECCHIO CON LASER DI CLASSE 1**  
**APARATO CON LASER DE CLASE 1**


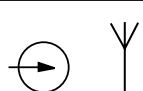

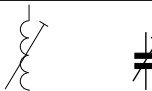


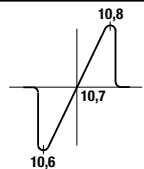
<b>DANGER :</b>	Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
<b>ATTENTION :</b>	Le rayon laser est invisible. Eviter l'exposition directe lors de la maintenance.
<b>VORSICHT BEI REPARATUREN :</b>	Bei geöffneter Schublade und Defekt der Sicherheitsvorrichtungen besteht die Gefahr unsichtbaren Laserlichts. Niemals direkt in den Laserstrahl sehen.
<b>ATTENZIONE :</b>	Il raggio laser è invisibile. Evitare l'esposizione diretta durante la manutenzione.
<b>IMPORTANTE :</b>	El rayo laser es invisible. Evitar la exposición directa en el momento del mantenimiento.


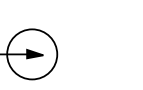

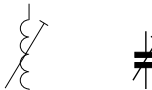


## MP3 PROCESSING SCHEMATIC DIAGRAM - SCHEMA DU TRAITEMENT MP3 SCHALTBILD MP3-VERARBEITUNG - SCHEMA ELABORAZIONE MP3 ESQUEMA DEL TRATAMIENTO MP3




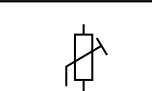



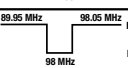


# ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONI - AJUSTES

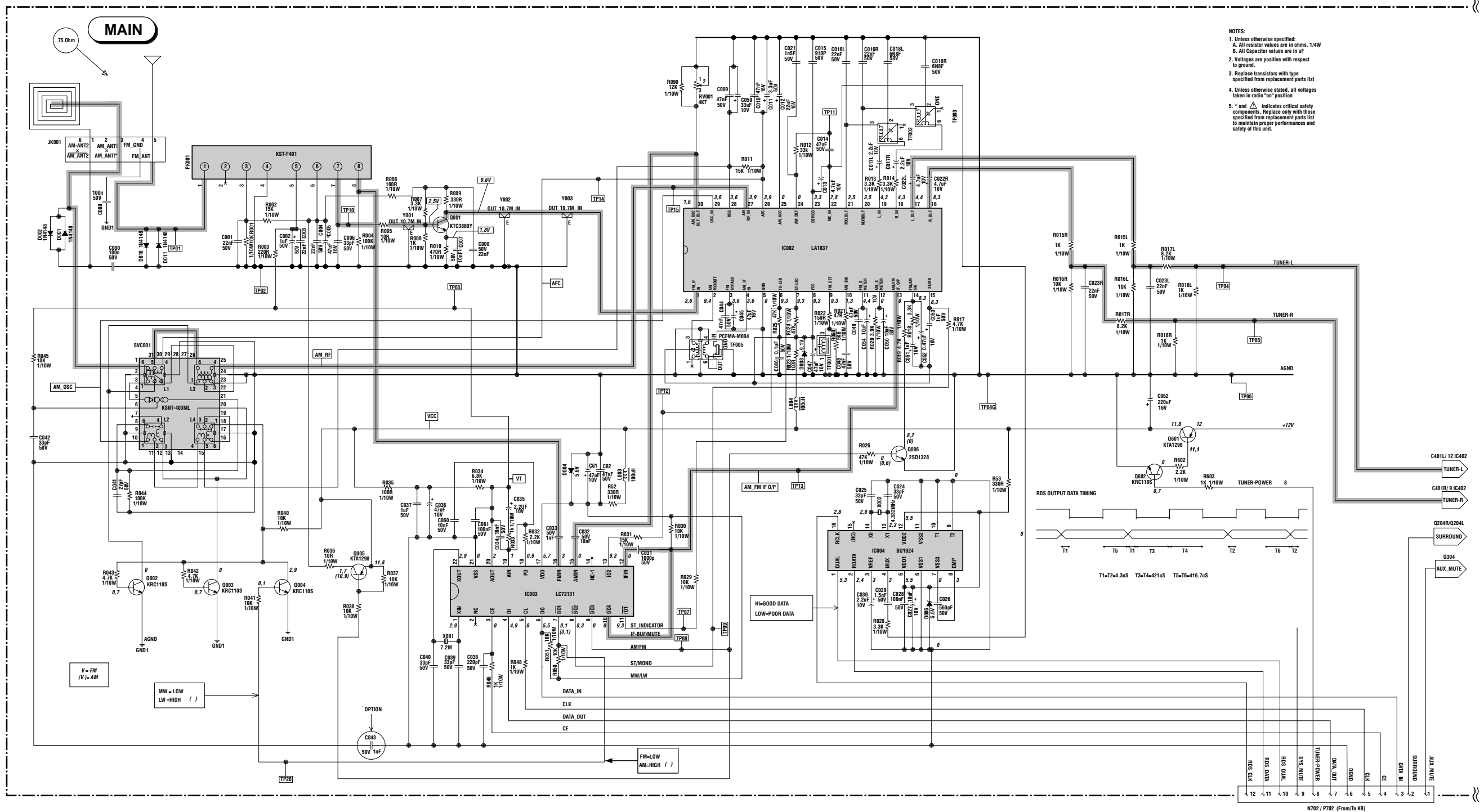
AM alignment						
			f			
Osc	1	LW	150 kHz	150 kHz	L1 (SVC001)	TP03 V = 2,25V ±0,1V
	2	LW	283 kHz	283 kHz	L1 (SVC001)	TP03 V = 6,7V ±0,5V
	3	MW	522 kHz	522 kHz		TP03 V = 1,2V ±0,4V
	4	MW	1620 kHz	1620 kHz		TP03 V = 7,5V ±0,5V

FM alignment						
			f			
VT	1		87,5 MHz	87,5 MHz		TP3 V = 1,4V ±0,2V
	2		108,0 MHz	108,0 MHz		TP3 V = 7,2V < V < 9V
IF	3	 Ve = 10 mV	10,7 MHz	10,7 MHz	TF001	TP11 

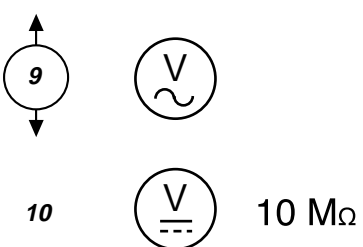
Decoder							
			f				
	1		Lch	98 MHz	98 MHz	TF003	Rch min
	2	 25dBu	Rch	98 MHz	98 MHz	TF002	Lch min

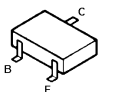
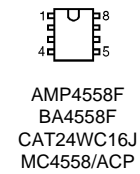
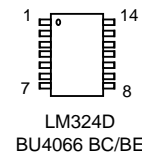
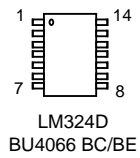
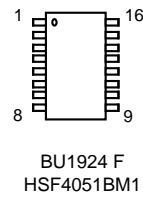
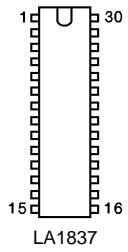
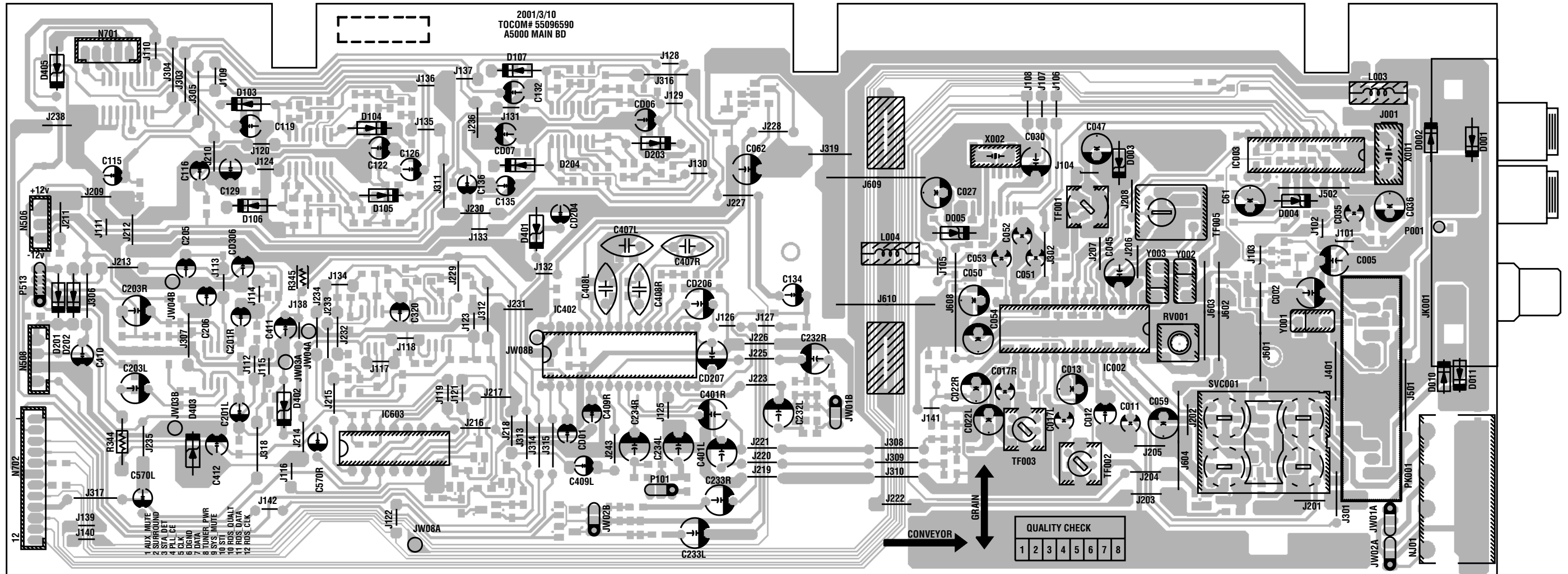
Scan stop						
			f			
FM	1	25dBu	98 MHz	98 MHz	RV001	TP12 
	2	25dBu	97,5 MHz -> 98,5 MHz			TP12 

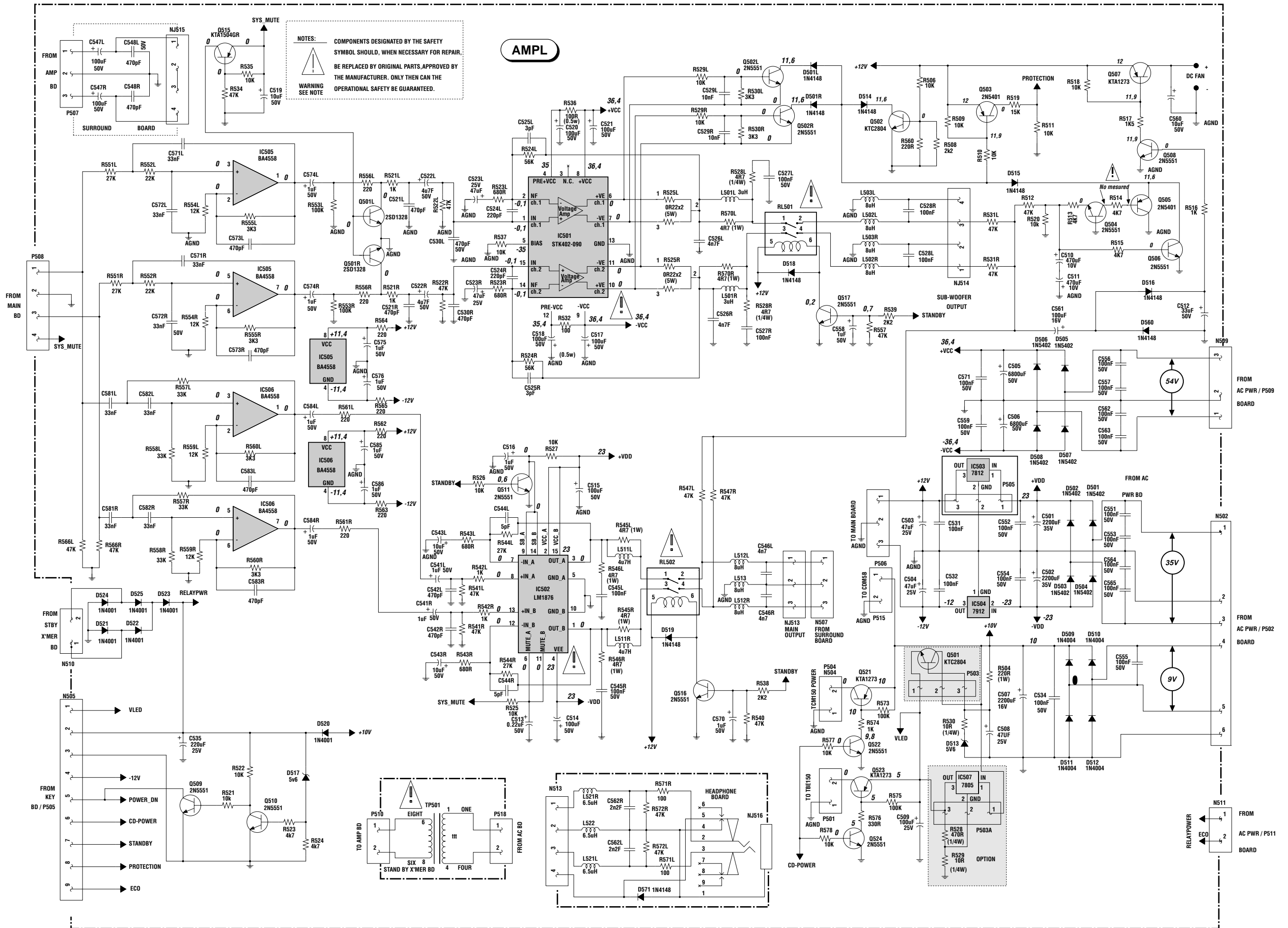
MAIN SCHEMATIC DIAGRAM - SCHEMA DE LA PLATINE PRINCIPALE - SCHALTBILD GRUNDPLATTE - SCHEMA DELLA PIASTRA PRINCIPALE  
 ESQUEMA DE LA PLATINA PRINCIPAL

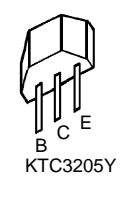
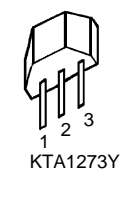
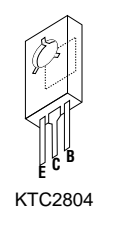
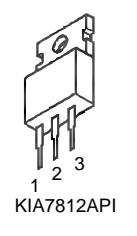
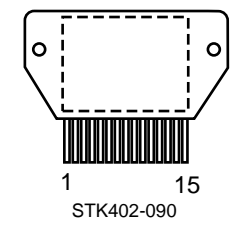
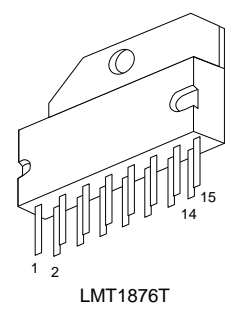
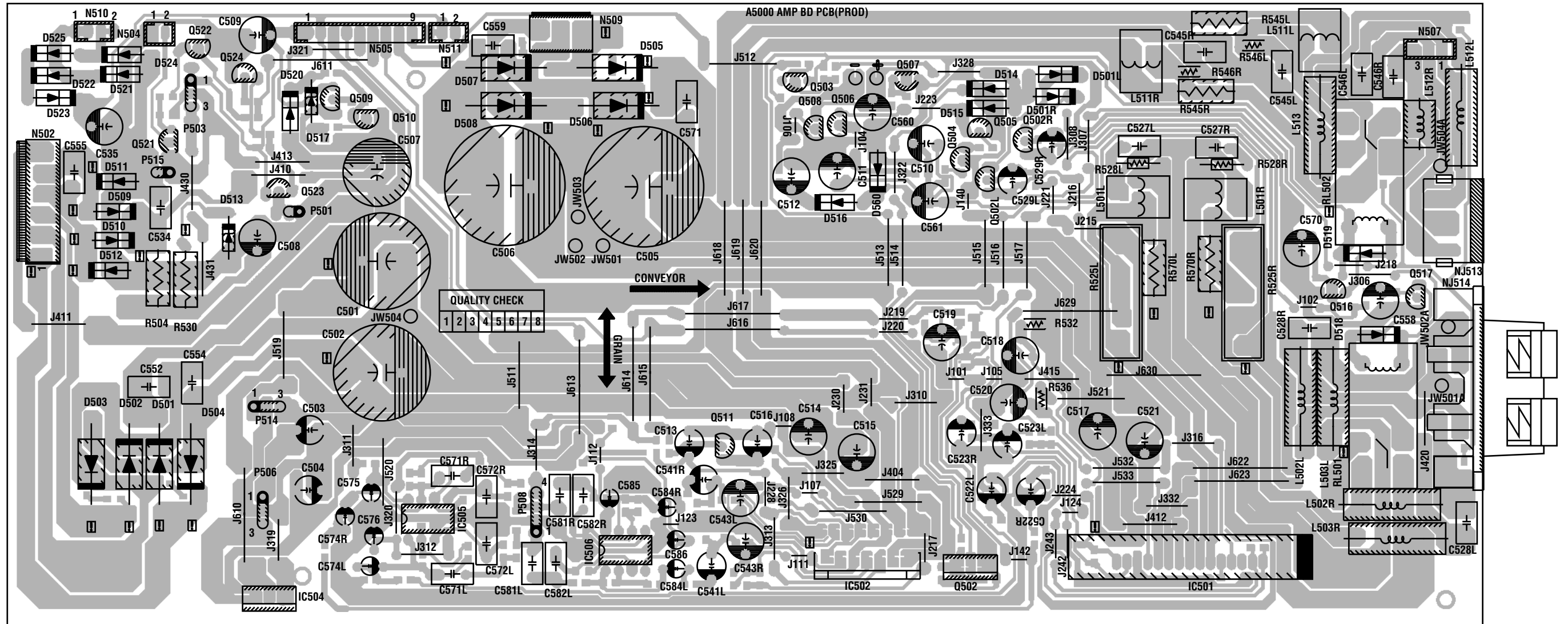


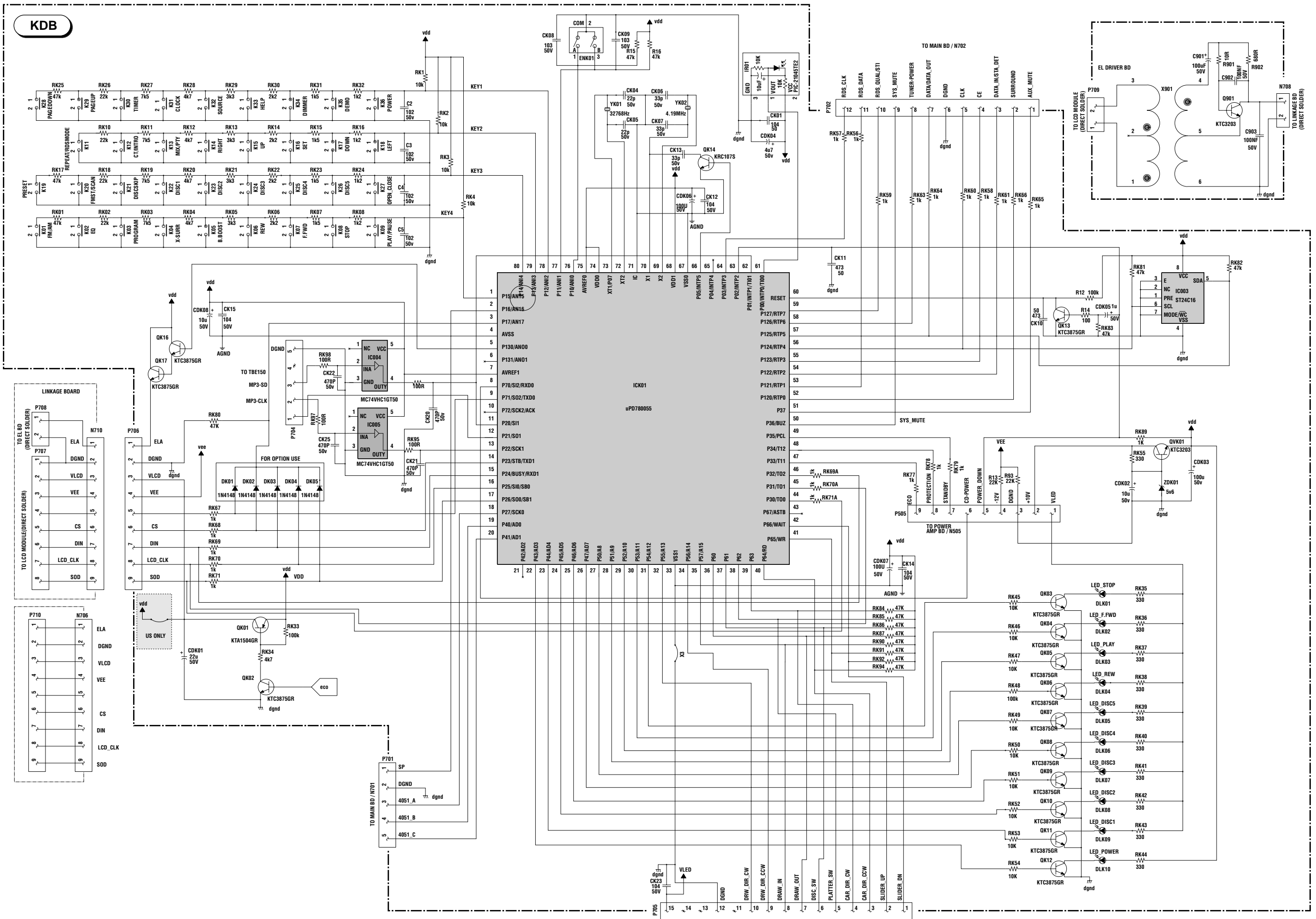
NOTES:  
 1. Unless otherwise specified:  
 A. All resistor values are in ohms, 1/4W  
 B. All Capacitor values are in uF  
 2. Voltages are positive with respect to ground.  
 3. Replace transistors with type specified from replacement parts list  
 4. Unless otherwise stated, all voltages taken in radio "on" position  
 5. \* and Δ indicates critical safety components. Replace only with those specified from replacement parts list to maintain proper performance and safety of this unit.

















Do not disconnect modules when they are energized!  
Repairs on power supply section are to be carried out only with isolating transformer.

Ne pas retirer les modules lorsqu'ils sont sous tension. N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch Mode) qu'au travers d'un transformateur d'isolement.

Module nicht bei eingeschaltetem Gerät entfernen!  
Servicearbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

Non scollegare le piastre quando sono alimentate!  
Per le riparazioni sulla sezione alimentatore, utilizzare un trasformatore isolatore.

No desconectar los módulos cuando están activados. Las reparaciones en la sección de alimentación de energía deben ser ejecutadas solamente con un transformador de separación.

Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.

Le remplacement des éléments de sécurité (repérés avec le symbole ) par des composants non homologués selon la Norme CEI 65 entraîne la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.

Wenn Sicherheitsteile (mit dem Symbol ) gekennzeichnet nicht durch Original - Ersatzteile ersetzt werden, erlischt die Haftung des Herstellers.

La sostituzione dei componenti di sicurezza (evidenziati con il segno ) con componenti non omologati secondo la norma CEI 65 comporta la non conformità dell'apparecchio. In tal caso è "esclusa la responsabilità" del costruttore.

La sustitución de elementos de seguridad (marcados con el símbolo ) por componentes no homologados según la norma CEI 65, provoca la no conformidad del aparato. En ese caso, el fabricante cesa de ser responsable.

### MEASUREMENT CONDITIONS - CONDITIONS DE MESURES - MESSBEDINGUNGEN CONDIZIONI DI MISURA - CONDICIONES DE MEDIDAS

#### RECEIVER :

On UHF, input level : 1 mV, bar test pattern :  
- PAL, I standard, 100% white.

Via the scart socket, input level : 1 Vpp, bar test pattern :

Colour, contrast and brightness at mid-position, sound at minimum.  
Programme selected : PR 01.

DC voltages measured between the point and earth using a digital voltmeter.

#### RICEVITORE :

In UHF, livello d'entrata 1 mV, monoscopio barre :  
- PAL, norma G, bianco 100%.

Via SCART, livello d'entrata 1 Vpp, monoscopio barre :

Colore, Contrasto, Luminosità media, Suono minimo.  
Programma selezionato PR 01.

Tensioni continue rilette rispetto alla massa con un voltmetro digitale.

#### RECEPTEUR :

En UHF, niveau d'entrée 1 mV mire de barres  
- SECAM, Norm L, Blanc 100%.

Par la prise Péritélévision, niveau d'entrée 1 Vcc, mire de barres .

Couleur, contraste, lumière à mi-course, son minimum.  
Programme affecté PR 01.

Tensions continues relevées par rapport à la masse avec un voltmètre numérique.

#### RECEPTOR :

En UHF, nivel de entrada 1 mV, mira de barras :  
- PAL, norma G, blanco 100%.

Por la toma Peritelevision, nivel de entrada 1 Vpp mira de barra.

Color, Contraste, luz a mitad de carrera, Sonido mínimo.  
Programa afectado PR 01.

Tensiones continuas marcadas en relación a la masa con un voltmetro digital.

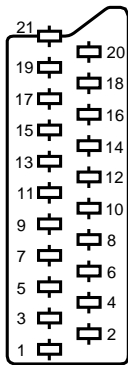
#### EMPFÄNGER :

Bei UHF Eingangsspegel 1 mV, Farbbalken :  
- PAL, Norm G, Weiss 100%.

Über die Scartbuchse : Eingangsspegel 1 Vss, Farbbalken :

Farbe, Kontrast, Helligkeit in der Mitte des Bereichs, Ton auf Minimum.  
Zugeordnetes Programm PR 01.

Gleichspannungen mit einem digitalen Voltmeter zur Masse gemessen.



NOTE : **MAIN** ... etc. identifies each pcb module.

NOTE : **MAIN** ... etc. repères des platines constituant l'appareil.

HINWEIS : **MAIN** ... usw. Kennzeichnung der Platinen, aus denen das Gerät zusammengesetzt ist.

NOTA : **MAIN** ... ecc. sigla delle piastre dell'apparecchio.

NOTA : **MAIN** ... etc. marcas de las placas que constituyen el aparato.

	ENGLISH	FRANÇAIS	DEUTSCH	ITALIANO	ESPAÑOL
1	AUDIO "R"	AUDIO "D"	AUDIO "R"	AUDIO "D"	AUDIO "D"
2	AUDIO "R"	AUDIO "D"	AUDIO "R"	AUDIO "D"	AUDIO "D"
3	AUDIO "L"	AUDIO "G"	AUDIO "L"	AUDIO "S"	AUDIO "I"
4	AUDIO	AUDIO	AUDIO	AUDIO	AUDIO
5	"BLUE"	"BLEU"	"BLAU"	"BLU"	"AZUL"
6	AUDIO "L" MONO	AUDIO "G" MONO	AUDIO "L" MONO	AUDIO "S" MONO	AUDIO "I" MONO
7	"BLUE"	"BLEU"	"BLAU"	BLU	AZUL
8	SLOW SWITCH	COMMUT. LENTE	AV UMSCHALTUNG	"COMMUTAZIONE LENTA"	"CONMUTACION LENTA"
9	"GREEN"	"VERT"	"GRÜN"	"VERDE"	"VERDE"
10 <b>NC</b>					
11	"GREEN"	"VERT"	"GRÜN"	"VERDE"	"VERDE"
12 <b>NC</b>					
13	"RED"	"ROUGE"	"ROT"	"ROSSO"	"ROJA"
14 <b>NC</b>					
15	"RED"	"ROUGE"	"ROT"	"ROSSO"	"ROJA"
16	FAST SWITCH	COMMUT. RAPIDE	AUSTASTUNG	"COMMUTAZIONE RAPIDA"	"CONMUTACION RAPIDA"
17	VIDEO	VIDEO	VIDEO	VIDEO	VIDEO
18	FAST SWITCH	COMMUT. RAPIDE	AUSTASTUNG	"COMMUTAZIONE RAPIDA"	"CONMUTACION RAPIDA"
19	VIDEO	VIDEO	VIDEO	VIDEO	VIDEO
20	VIDEO OR "SYNC"	VIDEO SYNCHRO	VIDEO ODER SYNCHRO	VIDEO O SINCRO	VIDEO O SINCRO
21	PLUG SCREEN BOX	BLINDAGE PRISE	ABSCHIRMUNG DES STECKERS	INVOLUCRO METALLICO DELLA PRESA	BLINDAJE DEL ENCHUFE

: INPUT - ENTRÉE - EINGANG - ENTRATA - ENTRADA • : OUTPUT - SORTIE - AUSGANG - USCITA - SALIDA • : EARTH - MASSE - MASSE - MASSA - MASA



CLASS 1 LASER PRODUCT  
APPAREIL A LASER DE CLASSE 1  
LASER KLASSE 1  
APARATO CON LASER DE CLASE 1  
APPARECCHIO CON LASER DI CLASSE 1

<b>DANGER :</b>	<b>Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.</b>
<b>ATTENTION :</b>	<b>Le rayon laser est invisible. Eviter l'exposition directe lors de la maintenance.</b>
<b>VORSICHT BEI REPARATUREN :</b>	<b>Bei geöffneter Schublade und Defekt der Sicherheits - vorrichtungen besteht die Gefahr unsichtbaren Laserlichts. Niemals direkt in den Laserstrahl sehen.</b>
<b>ATTENZIONE :</b>	<b>Il raggio laser è invisibile. Evitare l'esposizione diretta durante la manutenzione.</b>
<b>IMPORTANTE :</b>	<b>El rayo laser es invisible. Evitar la exposición directa en el momento del mantenimiento.</b>


## PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE DEVICES (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity.

Such components commonly are called Electrostatically Sensitive Devices (ESD). Examples of typical ESD devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ESD devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ESD devices.
4. Use only an anti-static solder removal devices. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESD devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESD devices.
6. Do not remove a replacement ESD device from its protective package until immediately before your are ready to install it. (Most replacement ESD devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive materials).
7. Immediately before removing the protective materials from the leads of a replacement ESD device, touch the protective material to the chassis or circuit assembly into which the device will be installed.  
CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ESD devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ESD device).

### IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety, these part are marked by  symbol on the schematic circuit diagrams and replacement part list. It is essential that these safety critical components are replaced with the manufacture's specified parts to prevent electric shock, fire, or other hazards. do not attempt to modify the original design without permission of the manufacturer.