STEREO PLUS CHASSIS

42

TV

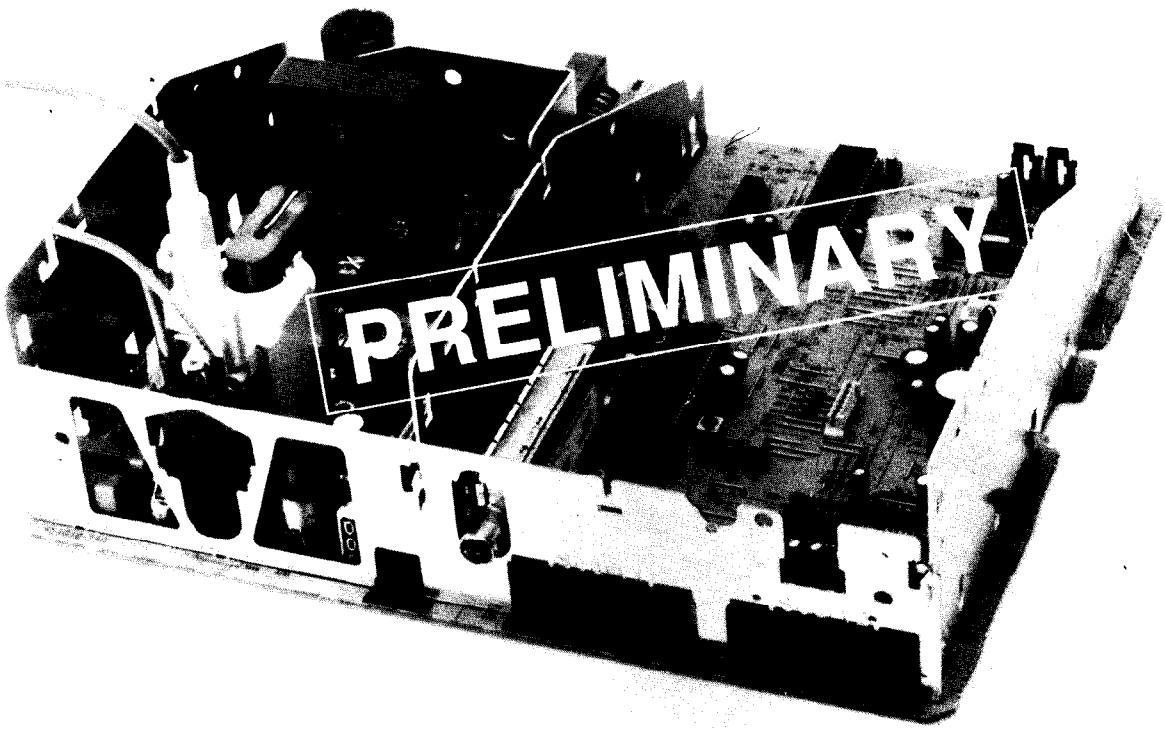
1995

(GB) Service manual
(D) Service-Manual
(S) Serviceanvisning
(F) Manuel de service
(I) Manuale di servizio

NOKIA

5577 NICAM
6377 NICAM
7177 NICAM
7177 NICAM F
6377
7177
7177 SAT

ALSO NEWEST 7155



(S) Kort bruksanvisning

Allmänt
Funktionsmenyn väljs med den blå knappen (RCN.. Fjärrcontrollen) eller med den PROG knappen (RCF.. Fjärrcontrollen), bildmenyn med den gula knappen VISION och ljudmenyn med den gröna knappen SOUND.
I menyn kan man välja önskad option med markörknappen ▲ eller ▼ och med markörknappen ◀ eller ▶ kan man ändra värdena. När det behövs kan värdet sparas med den röda knappen OK och man kan återgå till TV-mottagning med TV-knappen.

Automatisk sökning (APSI):
1. Tryck på PROG-knappen (RCF.. Fjärrcontrollen).
1. Tryck två gånger på den blå knappen (RCN.. Fjärrcontrollen).
2. Välj OMPROGRAMMERING med markörknappen ▲ eller ▼.
3. Aktivera funktionen med markörknappen ◀ eller ▶.
4. Aktivera OMSTART AV APSI med markörknappen ◀ eller ▶:
   APSI-funktionen sparar alla TV-program som går att ta emot på orten och sorterar dem i den ordningsföljd som matats in i fabriken för det aktuella landet.
5. Med knappen TV återgår man till allmän TV-mottagning.

Manuell avstämning:
1. Tryck på PROG-knappen (RCF.. Fjärrcontrollen).
1. Tryck två gånger på den blå knappen (RCN.. Fjärrcontrollen).
2. Gå till PROG. TV-KANAL med markörknappen ▲ eller ▼.
3. Aktivera funktionen med markörknappen ◀ eller ▶.
4. Med den gula knappen väljer man kanaltabell A eller B, med den gröna knappen frekvensvisningen.

Kanalinställning
5a. Mata in kanalnummer med sifferknapparna.

Frekvensinställning
5b. Stäm av frekvensen med markörknappen ◀ eller ▶.
6. Spara med den röda knappen OK.
7. Med knappen TV återgår man till allmän TV-mottagning.

INSTRUCTIONS FOR REPAIR WORK

(GB) Instructions for repair work

N.B.: (cc. switch-mode)
Please use only original component 3422 06 37 for CO12 . If standard size electrolyt capacitor CO12 is used, parallel 0,47 µF MKT must be installed additionally.
1. With the horizontal output stage disconnected (e.g. pin 2 at TK60 open) and a "dummy" load at the cathode of VO41 (e.g. 100 W lamp) the power supply must supply approx. 100% of the setpoint voltage.
2. For fault finding the elect. fuse (NO10) can be disconnected with a shunt connection across CO 15. IF the electronic fuse cuts out due to a momentary overload, the TV set can be re-started by using the mains switch. By short connecting the collector and emitter of VE14 (the control unit) the TV set can be forced to switch on.
3. Make sure there is hum-free d. c. voltage available. For example: the ripple voltage of U1 is approx. 4 V and should, due to capacitance loss of CO42, not increase much more. The ripple voltages of the other d.c. voltages should be less than 1 V. The ripple voltages of U2, U3, U5 are in the mV range.

(D) Reparaturtips

Achtung! (betr. Schaltnetzteil)
Für CO12 nur Originalteil 3422 06 37 verwenden. Bei handelsüblichem Elko CO12 muß parallel 0,47 µF MKT zusätzlich bestückt werden.
1. Mit abgetrennter Horizontalendstufe (z.B. Anschluß 2 an TK60 offen) und einer Ersatzbelastung an der Kathode von VO41 (100 W Glühlampe) muß das Netzteil ca. 100% der Sollspannung liefern.
2. Zur Fehlersuche bei Sicherungsbetrieb des Netzteiles kann CO15 überbrückt werden. Wurde der Sicherungsbetrieb durch einen flüchtigen Überlastfall ausgelöst, kann das Gerät durch Aus- und Einschalten des Netzschalters wieder in Betrieb genommen werden. Bei Anlaufprobleme kann durch überbrücken von Kollektor/ Emitter von VE14 (Bedienteil-Platte), das Netzteil zwangsanlaufen.
3. Auf brummfreie Gleichspannung achten. Z.B. die Brummspannung von U1 liegt bei ca. 4 V und sollte, bedingt durch Kapazitätsverlust von CO42, nicht viel größer werden. Die Brummspannungen der übrigen Gleichspannungen sollten unter 1 V liegen. Die Brummspannungen von U2, U3 und U5 liegen im mV-Bereich.

(F) Conseils de réparation

Attention! (bloc secteur de commutation)
Utiliser uniquement la pice originale 3422 06 37 (CO12). Dans le cas de condensateurs electrochimiques usuels CO12 0,47µF MKT doit etre équipé en plus.
1. Lorsque l'étage final horizontal est déconnecté (par ex. raccordement 2 sur TK60 ouvert) et dans le cas d'une charge de remplacement au niveau de la cathode de VO41 (lampe à incandescence de 100 W) le bloc seteur doit délivrer 100% env. des tensions de consigne.
2. Pour la détection d'erreurs en fonctionnement de sécurité du bloc secteur, il est possible de ponter CO15. Lorsque le fonctionnement de sûrete est déclenché à cause d'une surcharge transitoire, l'appareil peut être remis en marche au moyen du commut. principal mise en et hors circuit. En présence de problèmes de démarrage, un démarrage forcé du bloc secteur est possible en pontant le collecteur/l'émetteur de VE14 (plaque de l'organe de commande).
3. Veiller à la présence de tensions continues exemptes d'ondulation. La tension d'ondulation de U1 par exemple est de 4 V env. et ne devrait pas beaucoup augmenter en raison d'une perte de capacité de CO42. Les tensions d'ondulation des autres tensions continues devraient toujours être inférieures à 1 V. Les tensions d'ondulation de U2, U3, U5 se situent dans la gamme des mV.

(I) Consigli per le riparazioni

Attenzione! (circ. alimentazione)
Utilizzare soltanto pezzo orig. 3422 06 37 CO12. Nei Elko CO12 reperibili in commercio deve essere ulteriorm e montato un 0,47µF MKT.
1. Con lo stadio di uscita orizzontale staccoto (ad es. collegamento 2 al TK60 aperto) e un carico di sostituzione al catodo di VO41 (una lampada a 100 W), l'alimentatore deve fornire circa il 100% della tensione nominale.
2. Per la ricerca di errori in caso di funzionamento di sicurezza del blocco dileeralimentazione, CO15 può essere cavallottato. Se il funzionamento di sicurezza dovesse scattare a causa di un sovraccarico transitorio, l'apparecchio può essere rimesso in funzione azionando l'unterruttore principale d'inserzione e disinserzione. In caso di problemi di accensione, si può mettere in funzione l'alimentatore forzamente cavallottando il collettore/emettitore del VE14 (circuito del dispositivo di comando).
3. Controllare che le tensioni continue siano prive di ronzio. Per es la tensione di ronzio di U1 si trova a ca. 4 V e non dovrebbe aumentare di molto, in dipendenza della perdita di capacità di CO42. Le tensioni di ronzio delle rimanenti tensioni continue dovrebbero rimanere inferiori a 1 V. La tensione di ronzio di U2, U3, U5 si trovano nel campo dei mV.

(S) Reparationstips

Obs! (gäller switch-nätdelen)
Endast originalkomponent 3422 06 37 bör användas för CO12. Om en standard elektrolytkondensator används för CO12, måste en 0,47 µF MKT installeras parallellt.
1. Med horisontalslutsteget urkopplat (t.ex. stift 2 på TK60 öppen) och konstbelastning (t.ex. 100 W lampa) på katoden till VO41, måste nätdelen mata ca. 100% av den nödvändiga spänningen.
2. För felsökning kan skyddskretsen (NO10) kopplas ur funktion med en bryggkoppling över CO15. Om skyddskretsen utlöser sig, beroende på en tillfällig överbelastning, kan mottagaren kopplas på på nytt med nätbrytaren. TV:n kan tvångstartas genom att kortsluta kollektor och emitter på VE14 (kontrollenheten).
3. Använd endast filtrerad DC-spänning. Exempel: Beroende på kapasitansförlusten över CO42, får brumnivån på U1 inte vara över 4 V. Brumnivån på övriga DC-spänningarna skall vara under 1 V. Brumnivån på U2, U3 och U5 är i mV storlek.

Service adjustments

Note! Before other adjustments U1 voltage must be adjusted.

Service mode

Select the service mode by pressing the Mute, OK (M) and TV buttons on the remote control unit.
Use the cursor button ▲ or ▼ to select required adjustment and adjust it by using the cursor buttons ◀ and ▶.
Store into memory by pressing the red OK (M) button.
Return to normal TV mode by pressing the TV button.

Service adjustment which are made in service mode

Display	Note
V.MID-POS.	Adjust centre of the test picture vertical to a centred pos. (bottom half is black).
V.TOP-POS.	Adjust top edge (bottom half is black).
V.AMPL.	Adjust bottom edge.
H.SHIFT	Adjust centre of the test picture horizontal to a centred position.
H.AMPL.	Horizontal amplitude
P.AMPL.	Horizontal cushion
P.TILT	Horizontal trapeze
P.CORN.	Corner correction (starting SPL21 R 02)
S.COR.	Vertical linearität (starting SPL21 R 02)
GREEN	See adj. "G2- and colour temperature"
BLUE	See adj. "G2- and colour temperature"
RED	See adj. "G2- and colour temperature"
MAX APSI PROGRAM	Starting SPL40 R 01
OSD SHIFT	
INVAR:	(ON/OFF) starting SPL50 R 01
FRONT AV:	(ON/OFF)
LOUDNESS:	(ON)
C4 BIT CHECK:	(ON)
NICAM:	(ON/OFF)
CARRIER-MUTE:	(OFF)
VT CHAR:	West / East1 / West Turkey / East2
FLYB MODE:	(ON=NTSC) as from SPL21 R 02
AGC	See adjustment "AGC".

G2- and colour temperature

1. Set the TV set to the service mode (see "Service mode").
2. Adjust the green, blue and red OSD values to 60 with the cursor button ◀ or ▶.
3. Set the G2 trimmer (RK60) to its centre position.
4. Adjust the brightness to normal level (black bar of the grey scale is black).
5. By using an oscilloscope (Probe 100:1) determine the highest black value at the picture-tube cathodes (R, G, B).
6. Adjust with G2 (RK60) the highest black value to 160 V.
7. Use a colour neutral picture and adjust the light areas in green, blue and red drives to white (lower the OSD value) with the cursor button ◀ or ▶. At least one of the level controls should be remain at 60.
8. Store the adjustments in the memory by pressing the OK (M) button.
9. Return to normal TV mode by pressing the TV button.

AGC

1. Feed in a RF signal (70 dBµV) tuned on a mid range UHF channel and without sound carrier) via the aerial input.
2. Set the TV set to the service mode (see "Service mode").
3. Select the AGC-adjustment with the cursor button ▲ or ▼.
4. Connect an oscilloscope (bandwidth > 50 MHz) to the IF output on the tuner (TL01 or TL02).
5. Press the yellow button on the remote control unit (OSD = OKAY).
6. Adjust the signal to 450 mVpp ± 50 mV. (with reference to the signals synchronizing peaks) with the cursor button ◀ or ▶.
7. Store the value in the memory by pressing the red OK (M) button.
8. Return to normal TV mode by pressing the TV button.

U1 voltage

1. Set the contrast and brigthness to minimum.
2. Connect an universal voltmeter to the on the capacitor CO42.
3. Adjust the U1 voltage to 150 V ± 0.5 V (110°) or 130 V ± 0.5V (90°) with the trimmer RO80 by black picture.

Focus

Adjust the focus to optimum with the focus trimmer (RK60).

Other service adjustments

Picture reference calibration

1. Press the PROG button (RCF.. Remote Control).
1. Press the blue MENU button twice (RCN..Remote Control).
2. Activate TV-PROGR option by pressing the cursor button ◀ or ▶.
3. Enter one of the mid range UHF channels by using the number buttons, e.g. ch. 38 (607.25 MHz).
4. Select the frequency tuning menu by pressing the green button.
5. Select AFC option and change it to ON by using the cursor buttons ◀ or ▶.
6. Adjust the frequency to 607.25 MHz with ZL22 (even with other channels, always set to xxx.25 MHz).
7. Return to normal TV mode by pressing the TV button.

Audio IF calibration

1. Feed in a test picture.
2. Connect an oscilloscope to pin 12 of TDA 2545.
3. Adjust for minimum picture content with the ZL02.

AGC (Multistandard TV sets)

1. Feed in a RF signal (>5 mV) tuned on a mid range UHF channel and without sound carrier) via the aerial input.
2. Connect an oscilloscope (bandwidth >50 MHz) to the IF output of the tuner (TL01 or TL02).
3. Adjust the signal to 450 mVpp ±50 mV (with reference to the signals synchronizing peaks) with the trimmer RL217 (located on the multistandard module).

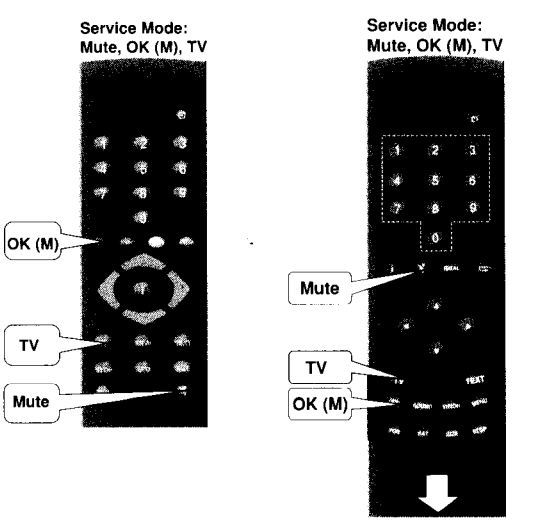
Picture reference calibration (Multistandard TV sets)

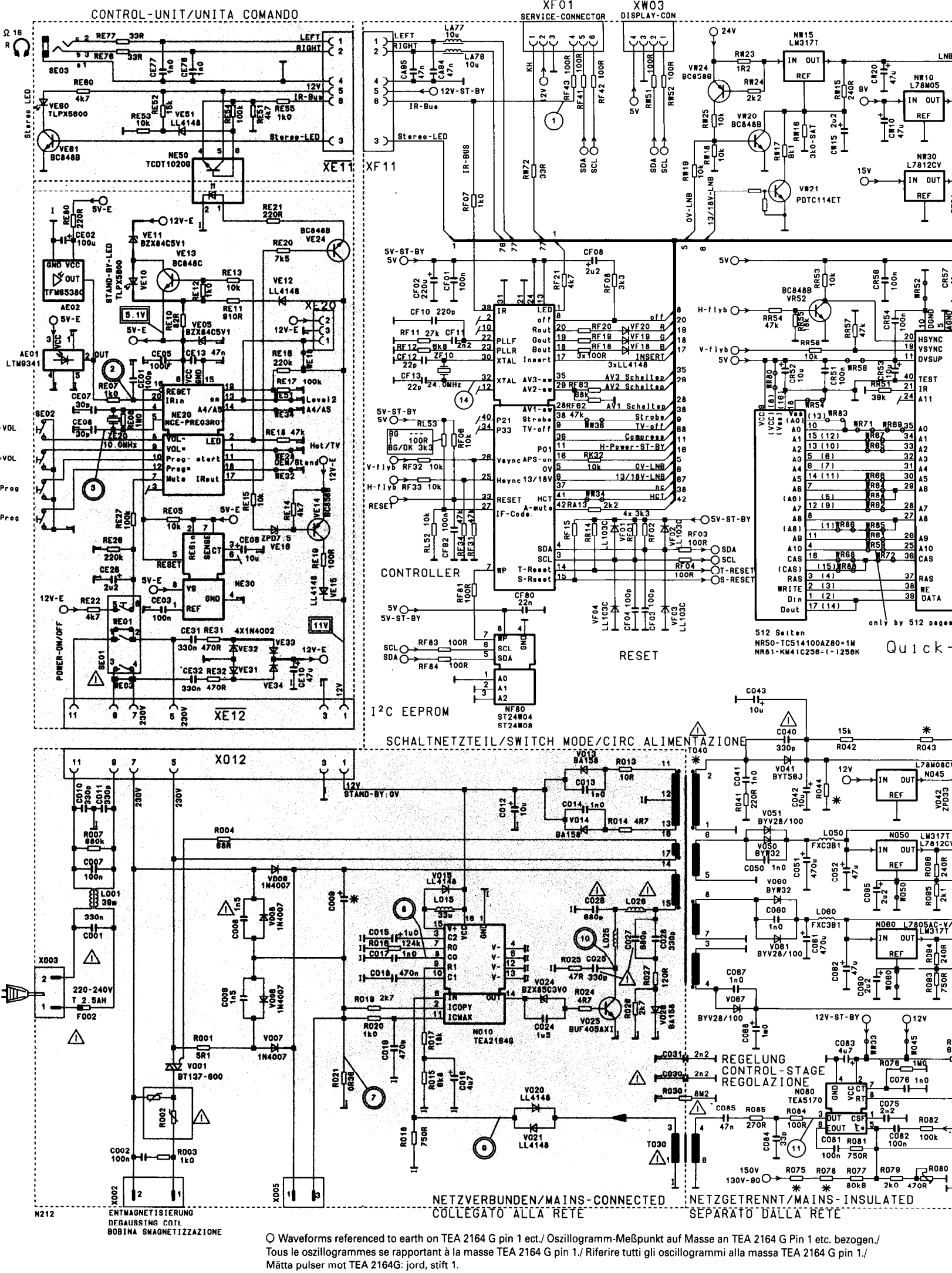
BG, DK, I, L standard

1. Press the PROG button (RCF.. Remote Control).
1. Press the blue MENU button twice (RCN..Remote Control).
2. Activate TV-PROGR option by pressing the cursor button ◀ or ▶.
3. Enter one of the mid range UHF channels by using the number buttons, e.g. channel 38.
4. Connect an universal voltmeter to the TP205.
5. Adjust the DC voltage for 2.5 V with the LL221 (located on the multistandard module).
6. Return to normal TV mode by pressing the TV button.

L' standard

1. Press the PROG button (RCF.. Remote Control).
1. Press the blue MENU button twice (RCN..Remote Control).
2. Activate TV-PROGR option by pressing the cursor button ◀ or ▶.
3. Select the frequency tuning menu by pressing the green button.
4. Enter one of the mid range channels on band I by using the number buttons, e.g. channel C (63.75 MHz).
5. Connect an universal voltmeter to the TP205.
6. Adjust the DC voltage for 2.5 V with the RL286 (located on the multistandard module).
7. Return to normal TV mode by pressing the TV button.

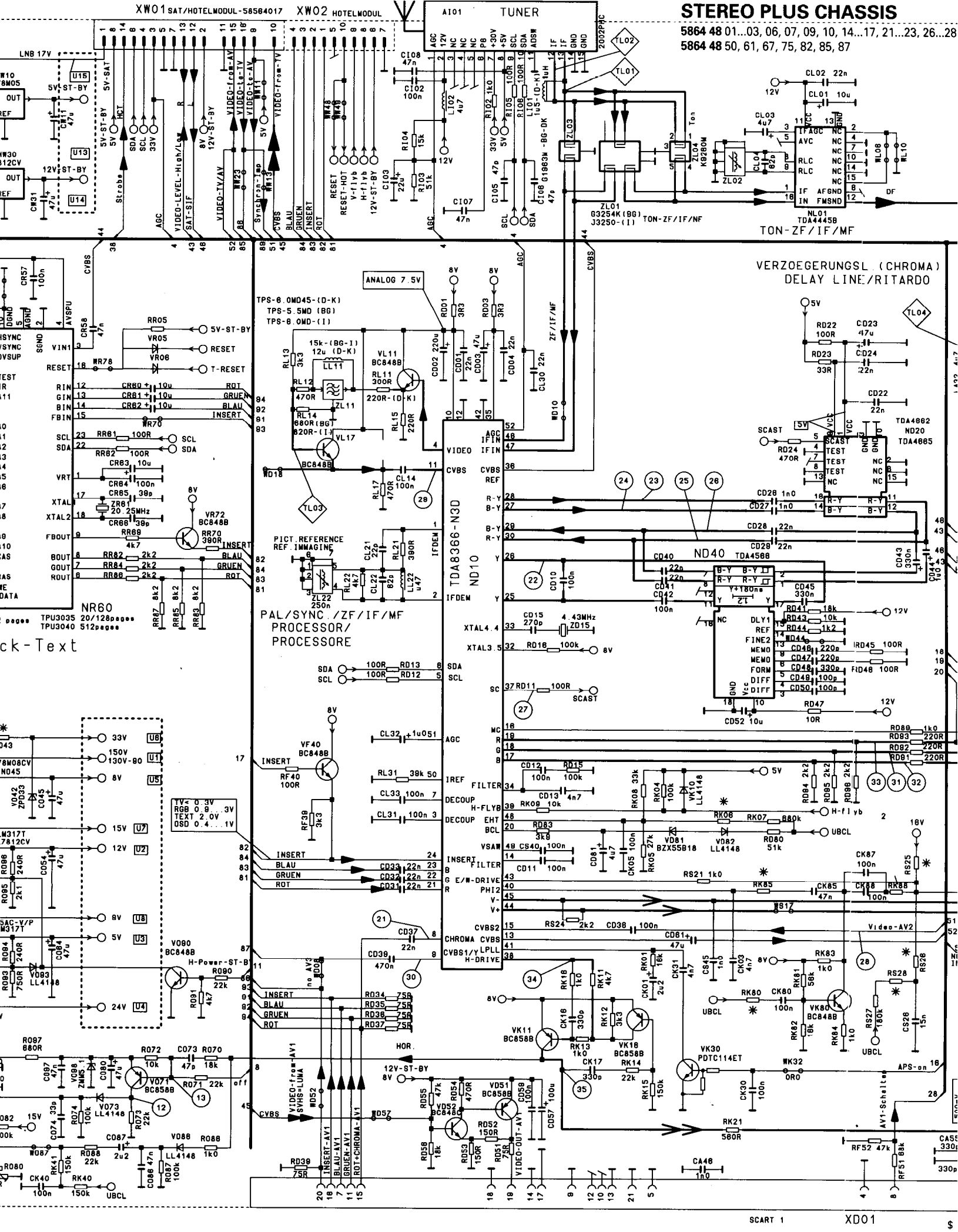




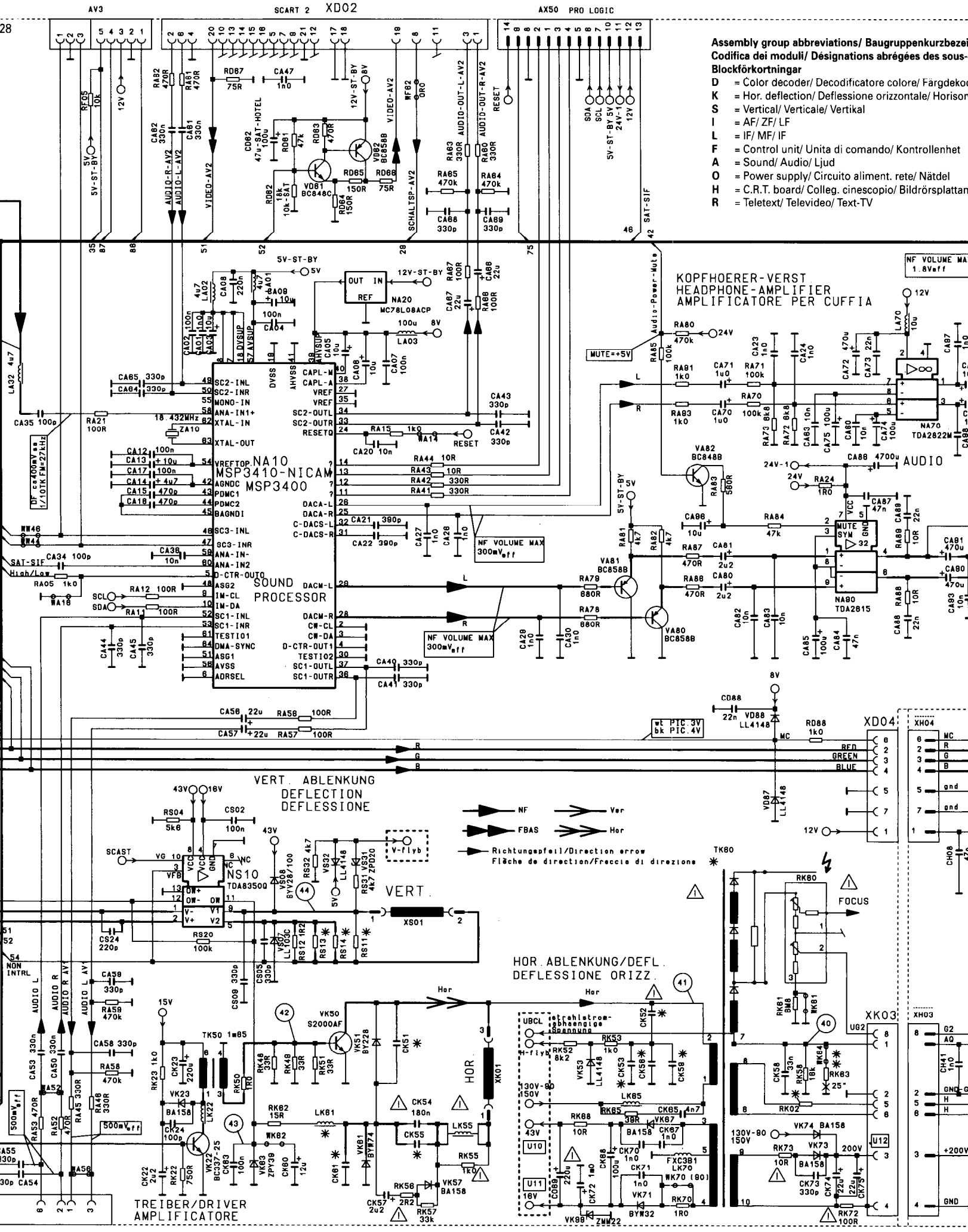
○ Waveforms referenced to earth on TEA 2164 G pin 1 ect./ Oszillogramm-Meßpunkt auf Masse an TEA 2164 G Pin 1 etc. bezogen./ Tous le oszillogrammes se rapportant à la masse TEA 2164 G pin 1./ Riferire tutti gli oscillogrammi alla massa TEA 2164 G pin 1./ Mätta pulser mot TEA 2164G: jord, stift 1.

STEREO PLUS CHASSIS

5864 48 01...03, 06, 07, 09, 10, 14...17, 21...23, 26...28
5864 48 50, 61, 67, 75, 82, 85, 87



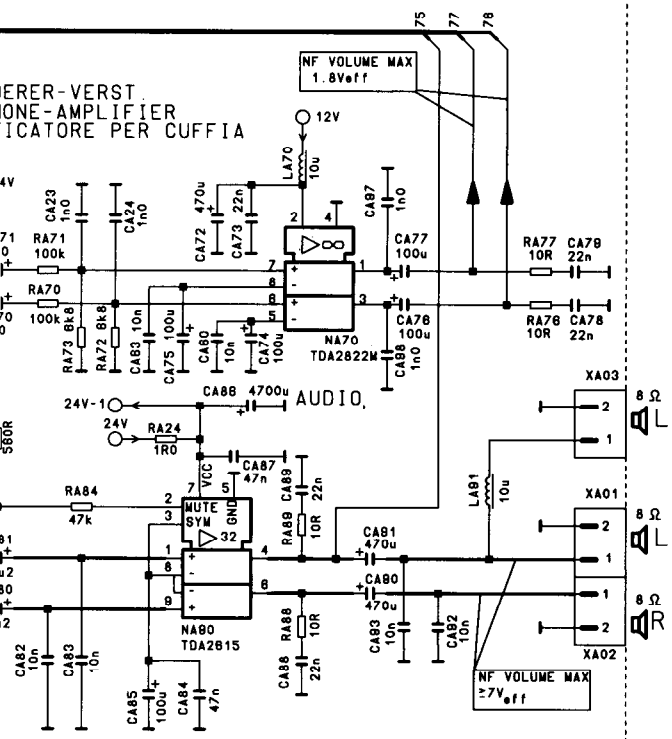
Measurements referenced to switch-moded power supply minus potential ⏚ / Messungen auf Schaltnetzteil-Minuspotential ⏚ bezogen
Toutes les mesures se rapportant au potentiel négatif du bloc-secteur de commutation ⏚ / Riferire tutte le misure al potenziale negativo della sezione di rete ⏚/ Mätta mot nätdelens minuspotential ⏚

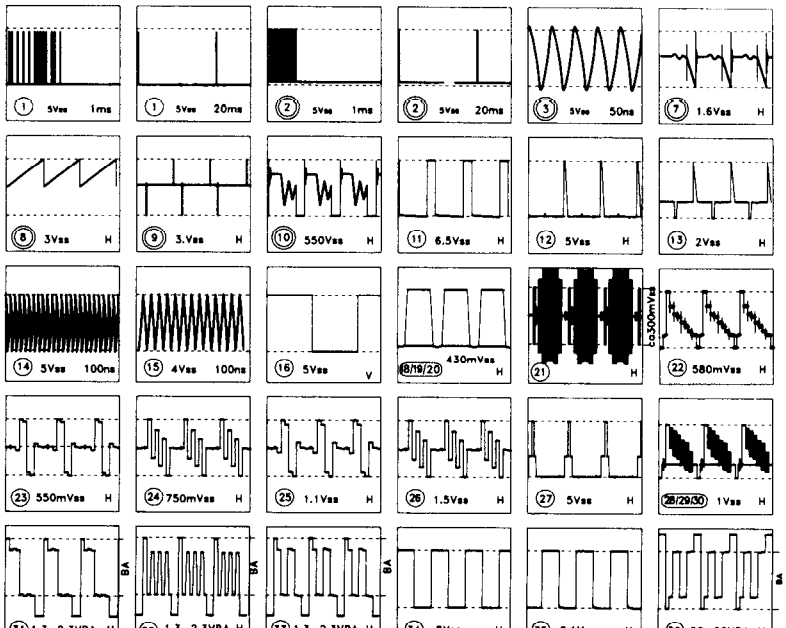


$ Depending on the chassis version, these components can either be fitted or not.
Diese Bauteile können je nach Chassisversion bestückt/ nicht bestückt sein.
Suivant la version du chassis, ces composants sont montés/ pas montés.
La possibilità di montaggio di questi componenti dipende dalla versione dello chassis.
Dessa komponenters montering är beroende pa chassiversion.

ssembly group abbreviations/ Baugruppenkurzbezeichnungen
odifica dei moduli/ Désignations abrégées des sous-ensembles
ockförkortningar

= Color decoder/ Decodificatore colore/ Färgdekoder
= Hor. deflection/ Deflessione orizzontale/ Horisontal avlänkning
= Vertical/ Verticale/ Vertikal
= AF/ ZF/ LF
= IF/ MF/ IF
= Control unit/ Unita di comando/ Kontrollenhet
= Sound/ Audio/ Ljud
= Power supply/ Circuito aliment. rete/ Nätdel
= C.R.T. board/ Colleg. cinescopio/ Bildrörsplattan
= Teletext/ Televideo/ Text-TV





Picture tube connecting board / Bildröhrenanschlußplatte Connexion tube image / Collegamento cinescopio

5858 20 74/76

Variable compon
Bildröhrenabhän
Componenti che

*POS	A59/6 EAF1
U1	150V
CO09	220U
CS26	33N
CK51	8N7
CK52	1N5
CK53	120P
CK55	400P
CK56	33N
CK61	27N
CK65	4N7
LK55	227U
LK61	490U
LK65	82U
RK02	3R3
RK06	10K
RK50	1R0
RK58	16K
RK63	56K
RK65	39R
RK70	1R0
RK80	150K
RK85	3M3
RK88	100K
RO19	2K7
RO21	0K36
RO42	15K
RO43	2K2
RO44	-
RO75	18K
Hotel	27K
RO78	51K
Hotel	59K
RS11	300R
RS12	300R
RS13	3R0
RS14	3R0
RS20	68K
RS25	560K
RS26	150K
RS28	10K
TK60	M10
C.R.T. board	
RH20	2k2
RH30	2k2
RH40	2k2

Stand 20/95

N.B.! The oscil
the module bei
The decoder w
conditions:
Standard PAL,
colour saturati

Achtung! Die C
messenden Ba
Alle Decoderos
Bedingungen a
Kontrast, ca. N

Attention! La r
à proximité du
Tous le oscillog
pris sous les cc
barre PAL, cont
couleur aux val

Attenzione! La
collegata vicinc
Tutti gli oscillog
seguenti condiz
contrasto, appr
saturazione nor

Obs! Oskilloskc
som man gör m
under följande
kontrasten i ma
normalläge.