

Farbf Fernsehgeräte Color TV Televisore a colori

FS 940 M 4

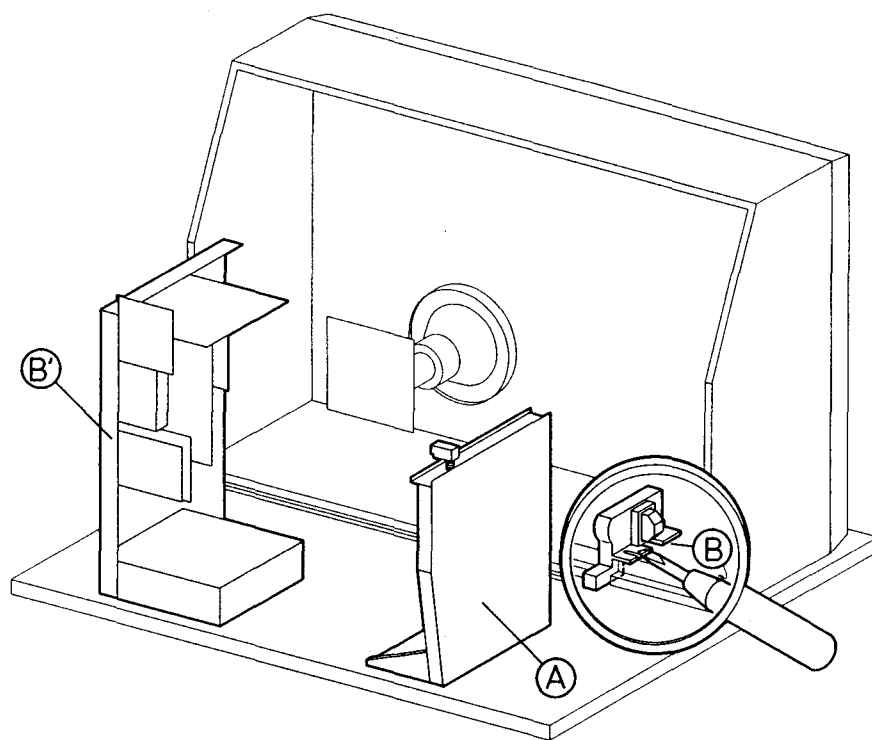
Kundendienstschrift für Grundchassis
Service manual for basis chassis
Istruzioni d'assistenza il telaio

CS 8801

Bedienteil · Control unit · Sezione di comando

P 49 A2 01

Servicestellung Service position Posizione di servizio



Diese Geräte tragen das VDE-Zeichen und erfüllen daher die einschlägigen VDE-Bestimmungen. Um die Sicherheit der Geräte zu erhalten, müssen die mit einem solchen Symbol in den Kundendienst-Unterlagen gekennzeichneten Bauelemente durch Originalteile ersetzt werden.

Wichtig ist auch, daß Bauelemente in gleicher Lage wieder eingesetzt werden.



Achtung! Nach optimalen Einstellungen im Bildröhrenwerk bilden Bildröhre und Ablenkensystem eine festverbundene Einheit.

Es erlischt die Bildröhren-Garantie, wenn ! die Lage des Ablenkensystems oder der Korrekturmagnete verändert wird.

! Befestigungsmuttern oder Versiegelungen gelöst werden.

These sets are provided with the VDE sign, thus fulfilling the VDE regulations. In order to maintain the safety of the sets, the components marked with a suchlike symbol in the service manuals must be replaced by original parts.

It is also important that components are placed in the same position.



Note! After optimum adjustments in the picture tube factory, picture tube and deflection yoke represent a firmly connected unit.

Picture tube warranty is expiring in case ! the position of the deflection yoke or the correction magnets is changed,

! mounting nuts or sealings are loosened.

Gli apparecchi sono contrassegnati con il marchio VDE e quindi corrispondono a queste norme. Per garantire la sicurezza degli apparecchi, i componenti contrassegnati con il simbolo riportato a destra e rilevabile dalle istruzioni di manutenzione, devono essere sostituiti con componenti originali.

E' importante che i componenti vengano inseriti di nuovo nella loro posizione originale.

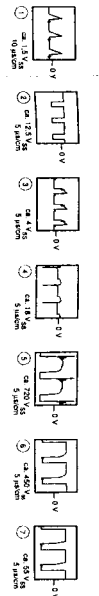
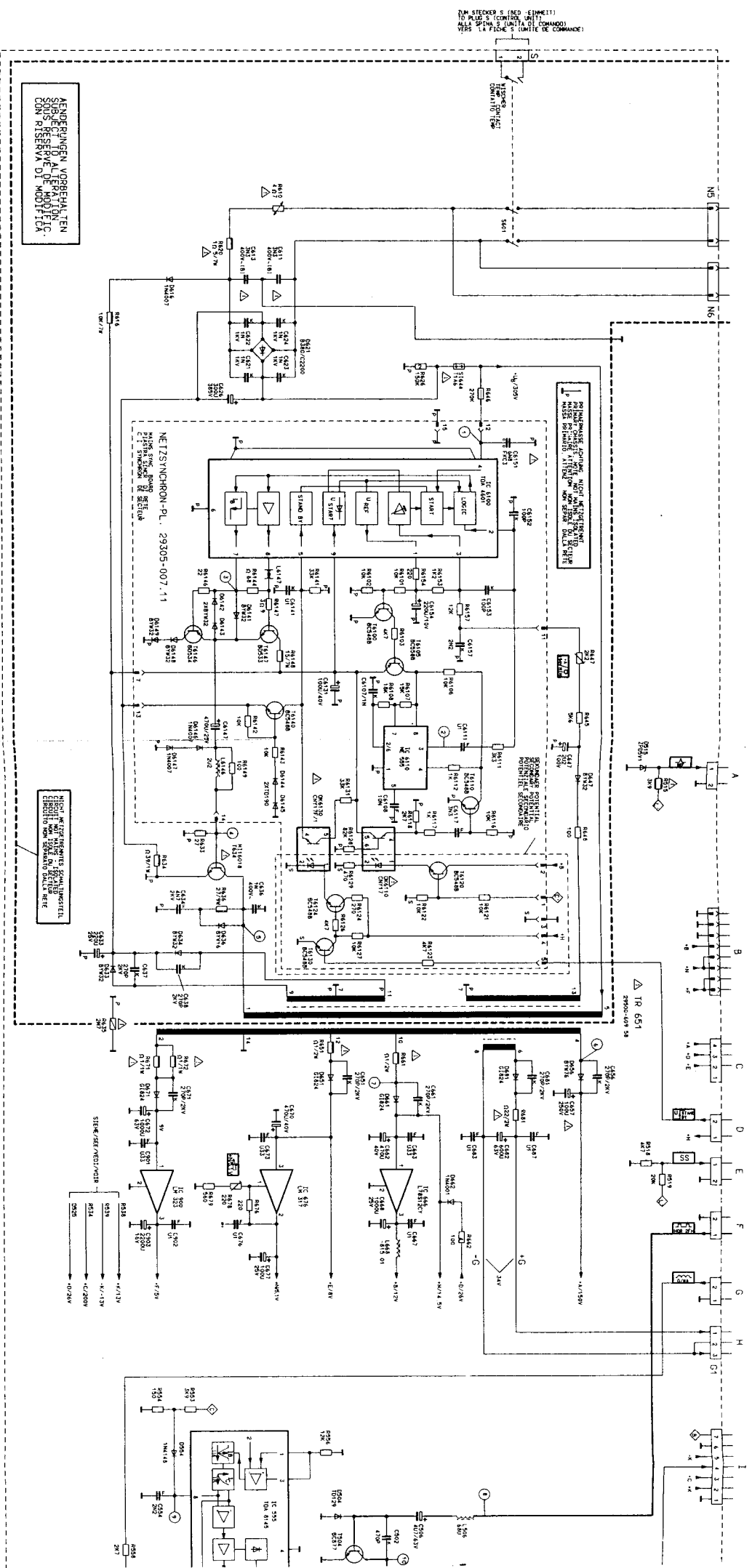


Attenzione: Dopo la regolazione ottimale effettuata in sede di fabbricazione il cinescopio ed il giogo di deflessione formano un sistema unico. E' quindi vietato:

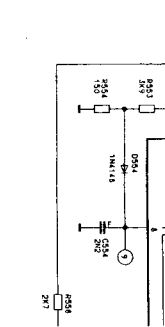
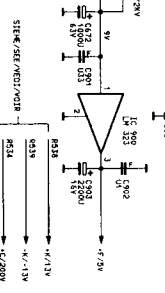
! spostare i componenti i posti sul collo del cinescopio.

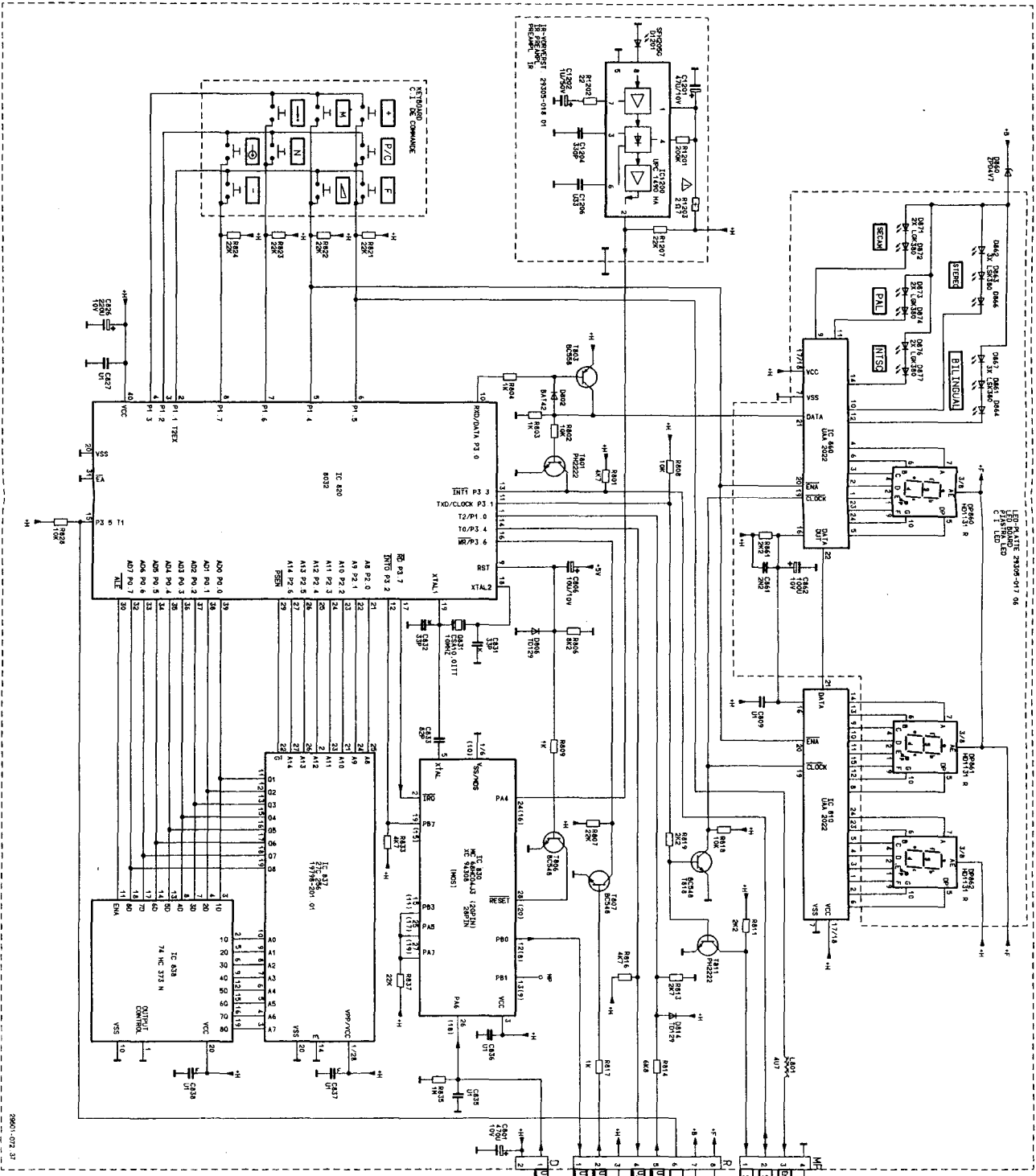
! allentare le viti di tali componenti.

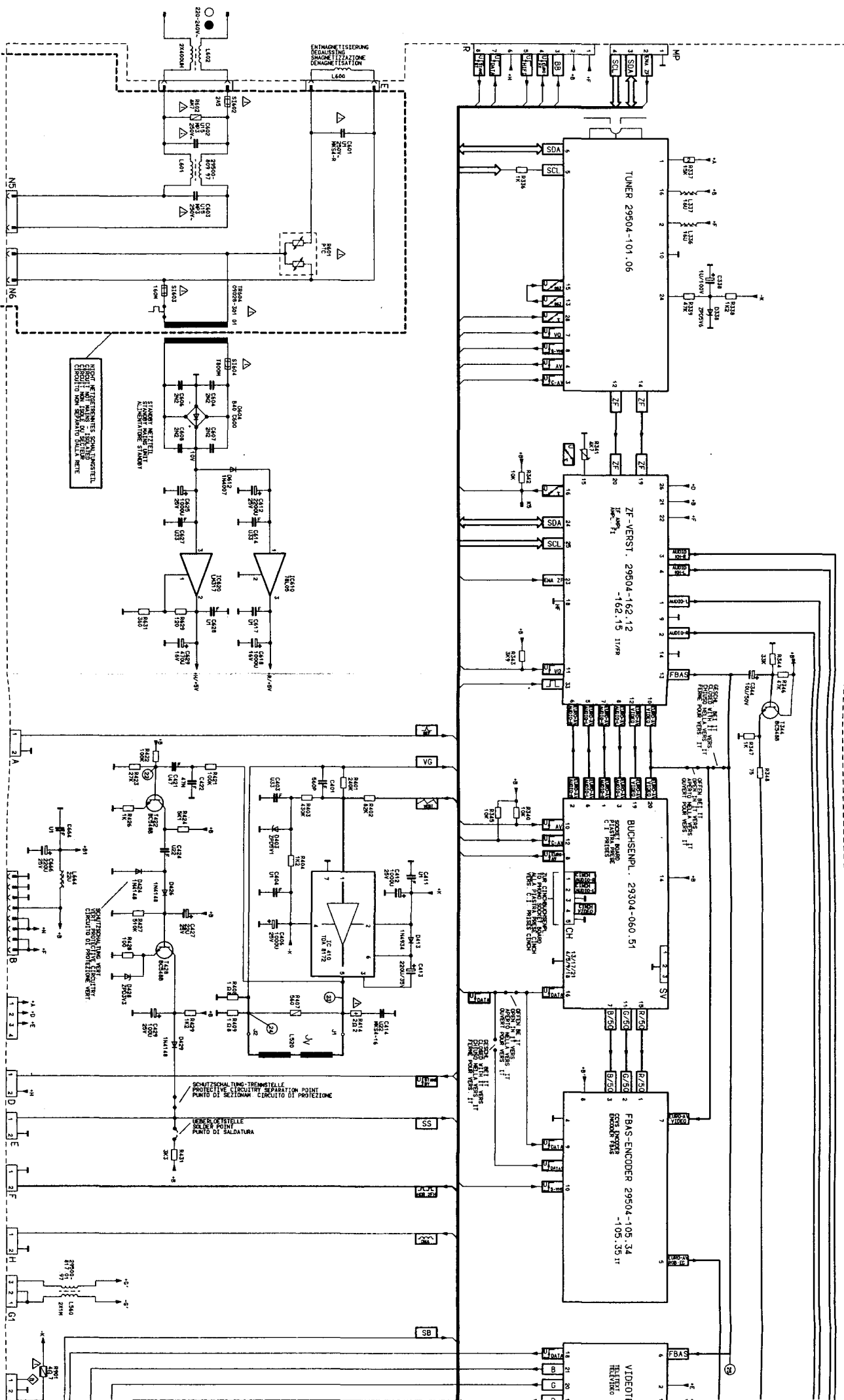
SENDRIKUNGAN VORBEREITUNG
 SENDRIKUNGAN ALTERNATIF
 SONS RESERVE DE MODIFIC.
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NIEMAL ZŁĄCZYĆ SPINACZKIEM
 ENNEBLOK WYMIENIĆ
 ENNEBLOK WYMIENIĆ





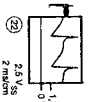


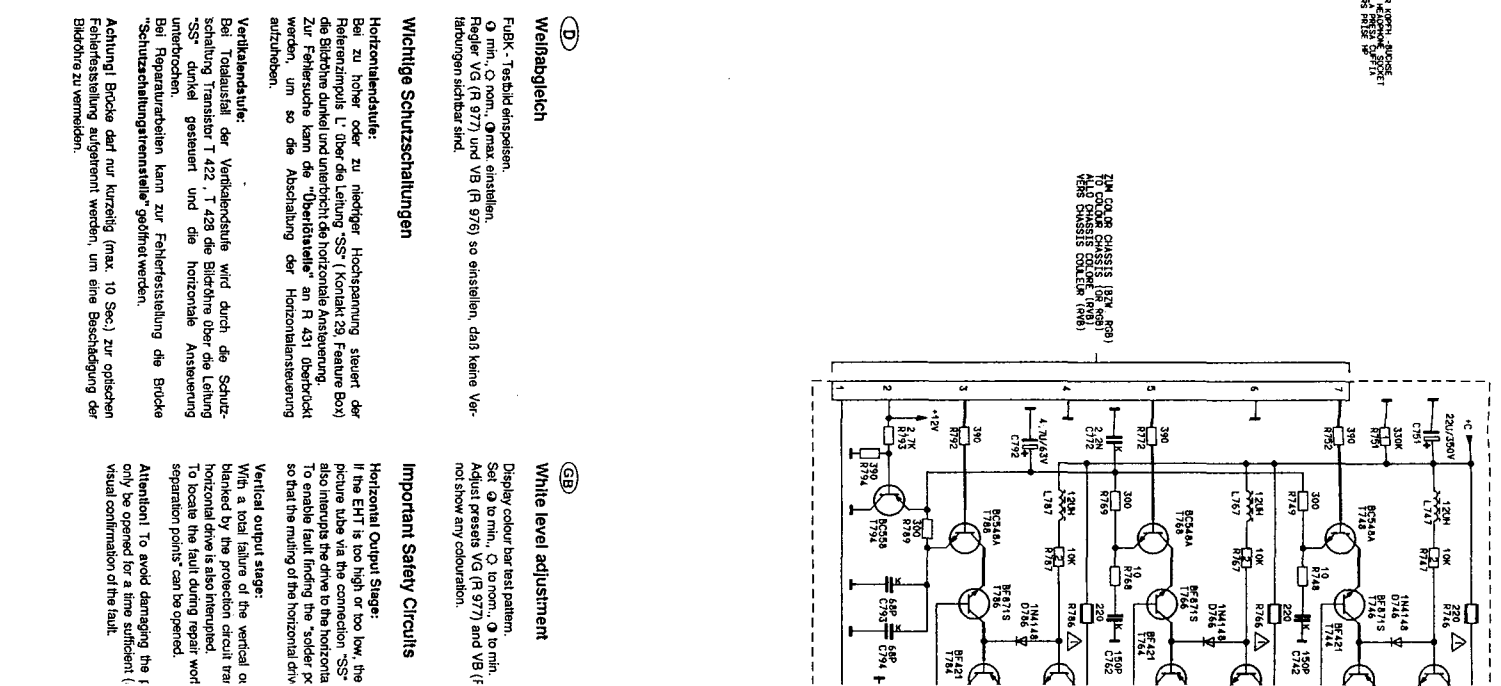
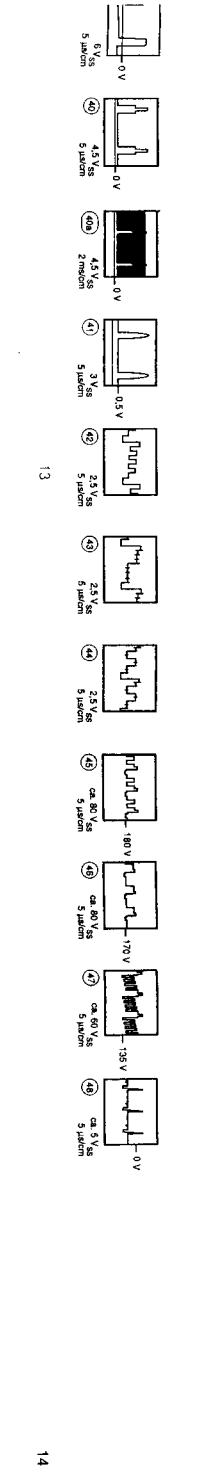
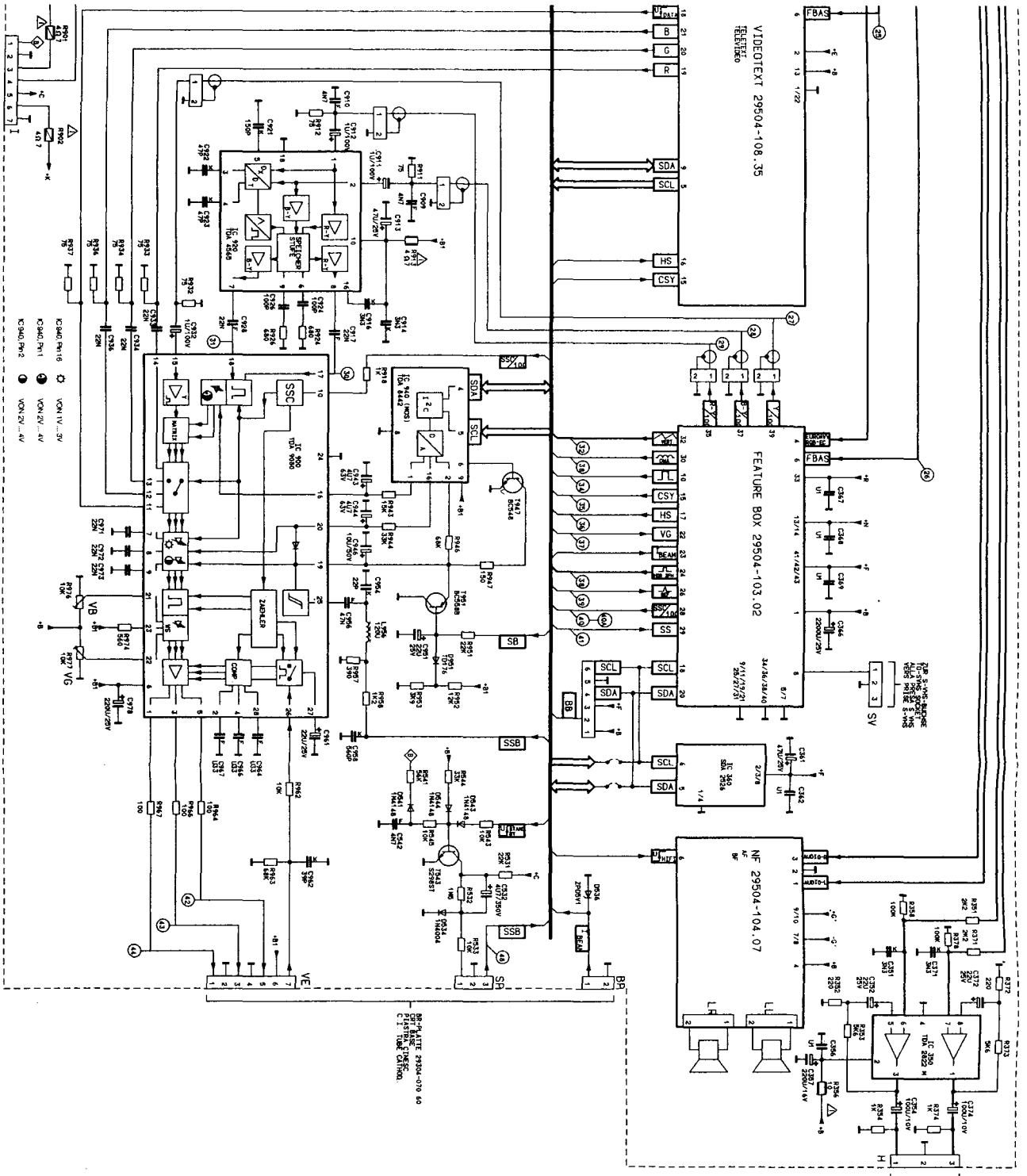
HODON NEUTRALISIERUNGSSCHWINGSTRECKEN
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STROMNETZTEIL
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SCHUTZSCHALTUNG-TRENNWEITEL
 PROTECTIVE CIRCUITRY SEPARATION POINT
 PUNTO DI CIRCUITO DI PROTEZIONE

SEPAR. PNT. 29504-107.12
 SEPAR. PNT. 29504-108.13





Vertical output stage:
 With a total failure of the vertical or horizontal drive is also interrupted. To locate the fault during repair work separation points can be opened.

Attention! To avoid damaging the f only be opened for a time sufficient (visual confirmation of the fault).

Important Safety Circuits

Horizontal Output Stage:
 If the EHT is too high or too low, the picture tube via the connection "SS" also interrupts the drive to the horizontal To enable fault finding the "solder pc so that the melting of the horizontal drive

White level adjustment

Display colour bar test pattern.
 Set: \odot to min., \ominus to nom., \odot to max. Adjust potentiometer VG (R 977) and VB (f not show any colouration).

White balance

FuBk - Testbild-Anpassen.
 \odot min., \ominus nom., \odot max. einstellen. Potentiometer VG (R 977) und VB (R 976) so einstellen, daß keine Verfärbungen sichtbar sind.

Wichtige Schutzschaltungen

Horizontalendstufe:
 Bei zu hoher oder zu niedriger Hochspannung steuert der Referenzimpuls L über die Leitung "SS" (Kontakt 29 Feature Box) die Blittdiode dunkel und unterbricht die horizontale Ansteuerung. Zur Fehlersuche kann die "Oberstufeliste" an R 431 überbrückt werden, um so die Abschaltung der Horizontalansteuerung auszuhaken.

Verbindendstufe:
 Bei Totalausfall der Verbindendstufe wird durch die Schutzschaltung Transistor T 422, T 428 die Blittdiode über die Leitung "SS" dunkel gesteuert und die horizontale Ansteuerung unterbrochen.

Bei Reparaturarbeiten kann zur Fehlerfeststellung die Brücke "Schutzanwendungsstelle" geöffnet werden.

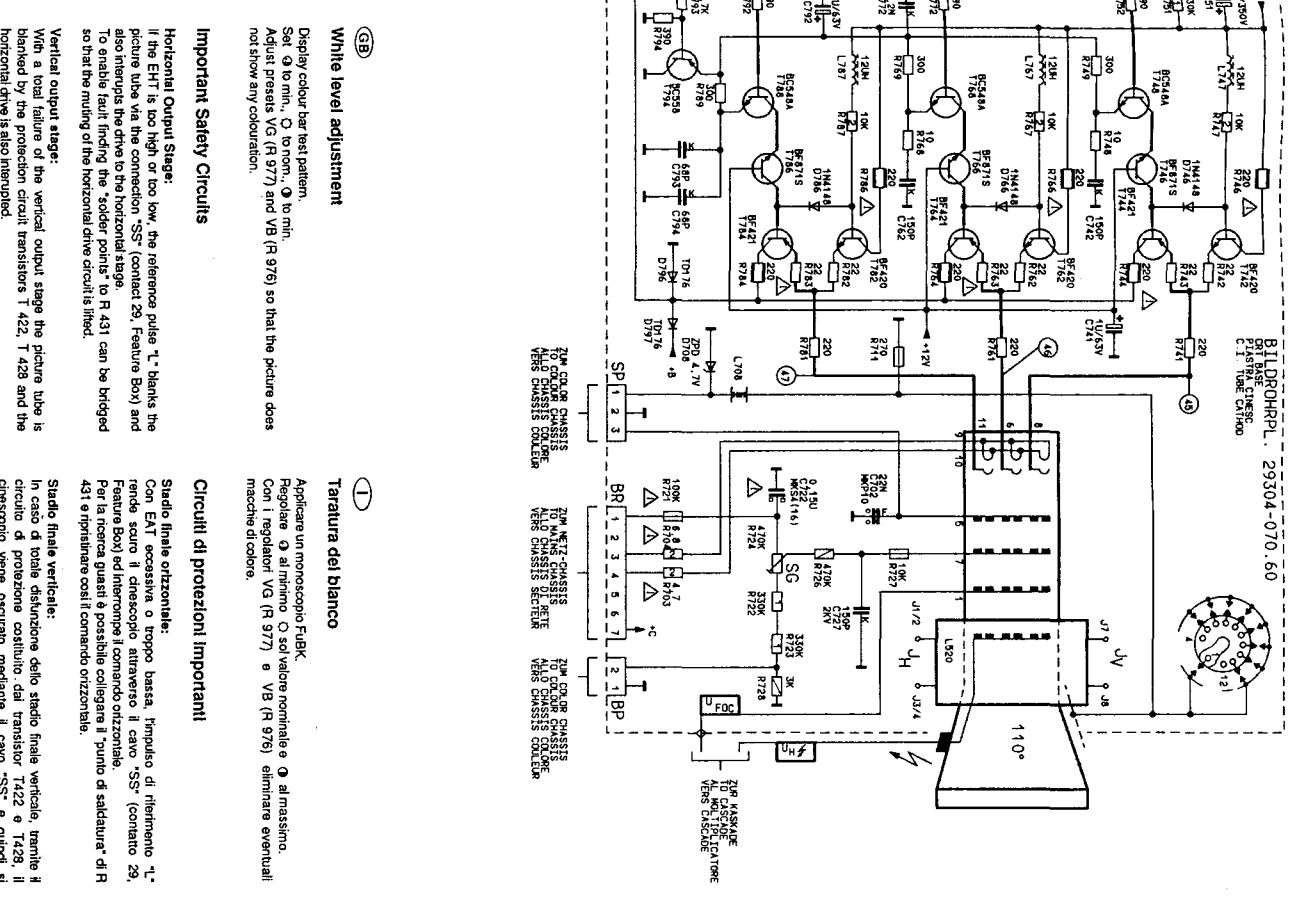
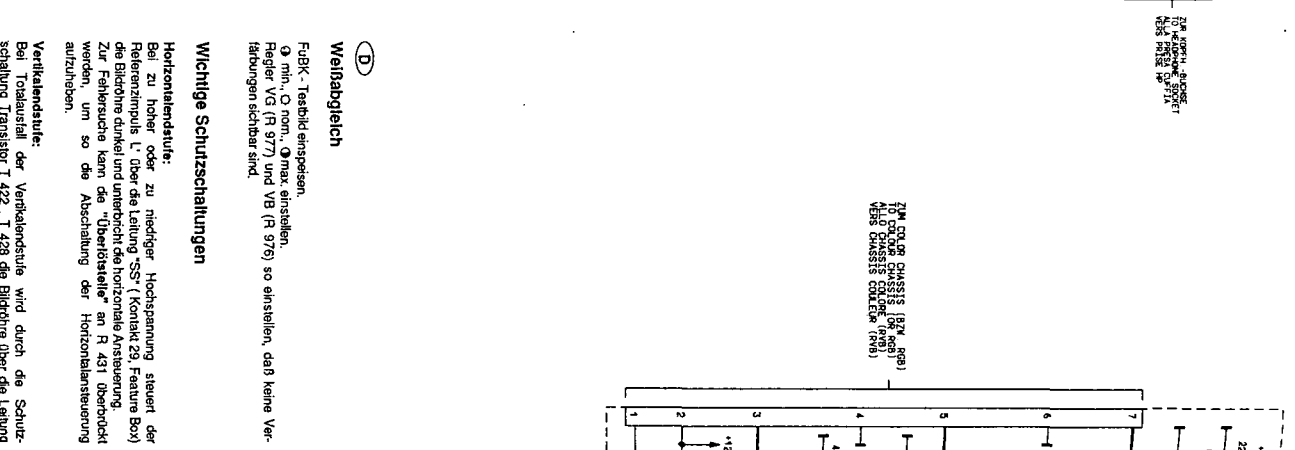
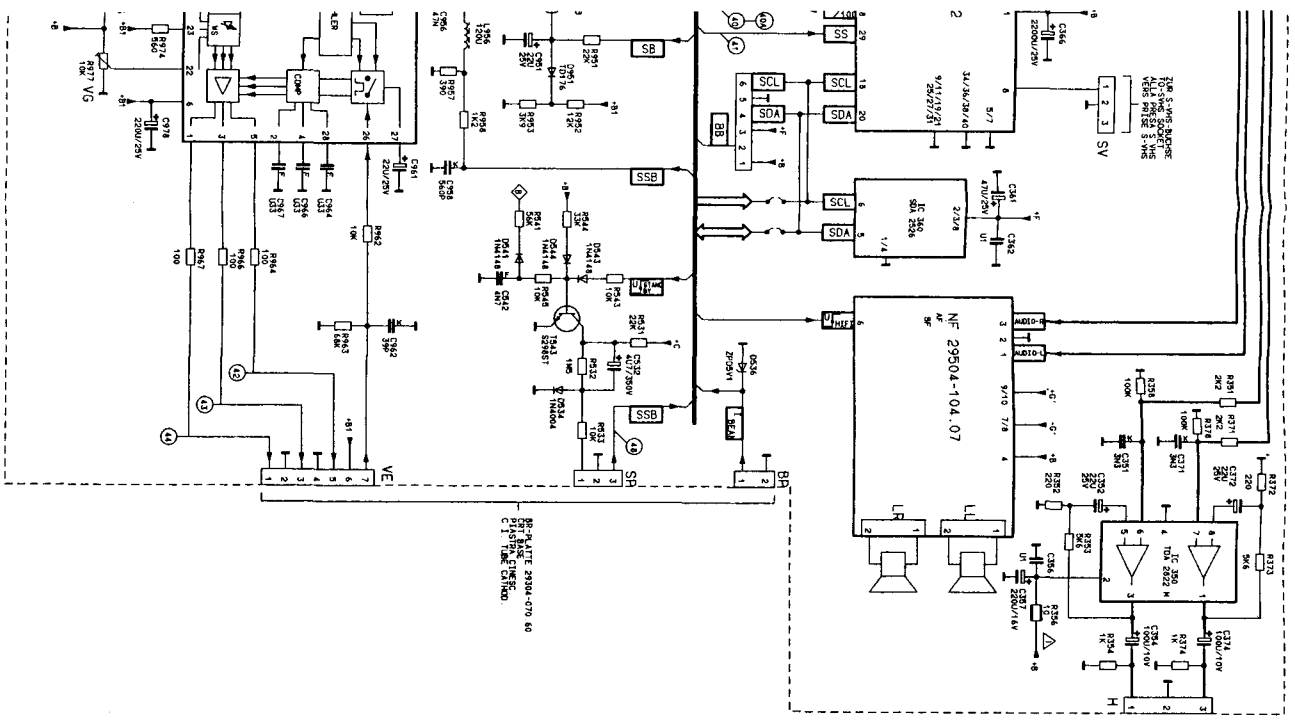
Achtung! Brücke darf nur kurzzeitig (max. 10 Sec.) zur optischen Fehlerfeststellung aufgetrennt werden, um eine Beschädigung der Blittdiode zu vermeiden.

29504-104.07

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Ⓛ **Wahlabgleich**

FuBk - Testbild einpassen.
 Ⓛ min., Ⓞ nom., Ⓢ max. einstellen.
 Regler VG (R 977) und VB (R 976) so einstellen, daß keine Verfärbungen sichtbar sind.

Wichtige Schutzschaltungen

Horizontalendstufe:
 Bei zu hoher oder zu niedriger Hochspannung steuert der Referenzimpuls "L" über die Leuchte "SS" (Kontakt 29, Feature Box) die Bildhöhe dunkel und unterbricht die horizontale Ansteuerung. Zur Fehlersuche kann die "Überlitzstelle" an R 431 überdruckt werden, um so die Abschaltung der Horizontalansteuerung aufzuheben.

Vertikaleinstufe:
 Bei Totausfall der Vertikaleinstufe wird durch die Schutzschaltung Transistor T 422, T 428 die Bildhöhe über die Leuchte "SS" dunkel gesteuert und die horizontale Ansteuerung unterbrochen.
 Bei Reparaturarbeiten kann zur Fehlerfeststellung die Brücke "Schutzschaltungstromastelle" geöffnet werden.

Achtung! Backe darf nur kurzzeitig (max. 10 Sec.) zur optischen Fehlerfeststellung aufgemittelt werden, um eine Beschädigung der Bildröhre zu vermeiden.

Ⓢ **White level adjustment**

Display colour bar test pattern.
 Set Ⓛ to min., Ⓞ to nom., Ⓢ to max.
 Adjust presets VG (R 977) and VB (R 976) so that the picture does not show any colouration.

Important Safety Circuits

Horizontal Output Stage:
 If the EHT is too high or too low, the reference pulse "L" blanks the picture tube via the connection "SS" (contact 29, Feature Box) and also interrupts the drive to the horizontal stage.
 To enable fault finding the "solder points" to R 431 can be bridged so that the output of the horizontal drive circuit is lifted.

Vertical output stage:
 When a total failure of the vertical output stage the picture tube is blanked by the protection circuit transistors T 422, T 428 and the horizontal drive is also interrupted.
 To locate the fault during repair work, the bridge "protection circuit separation points" can be opened.

Attention! To avoid damaging the picture tube, the bridge should only be opened for a time sufficient (maximum 10 seconds) to allow visual confirmation of the fault.

Ⓛ **Taratura del bianco**

Applicare un monocolor FuBk.
 Regolare Ⓛ al minimo, Ⓞ al valore nominale e Ⓢ al massimo.
 Con i regolatori VG (R 977) e VB (R 976) eliminare eventuali macchie di colore.

Circuiti di protezioni importanti

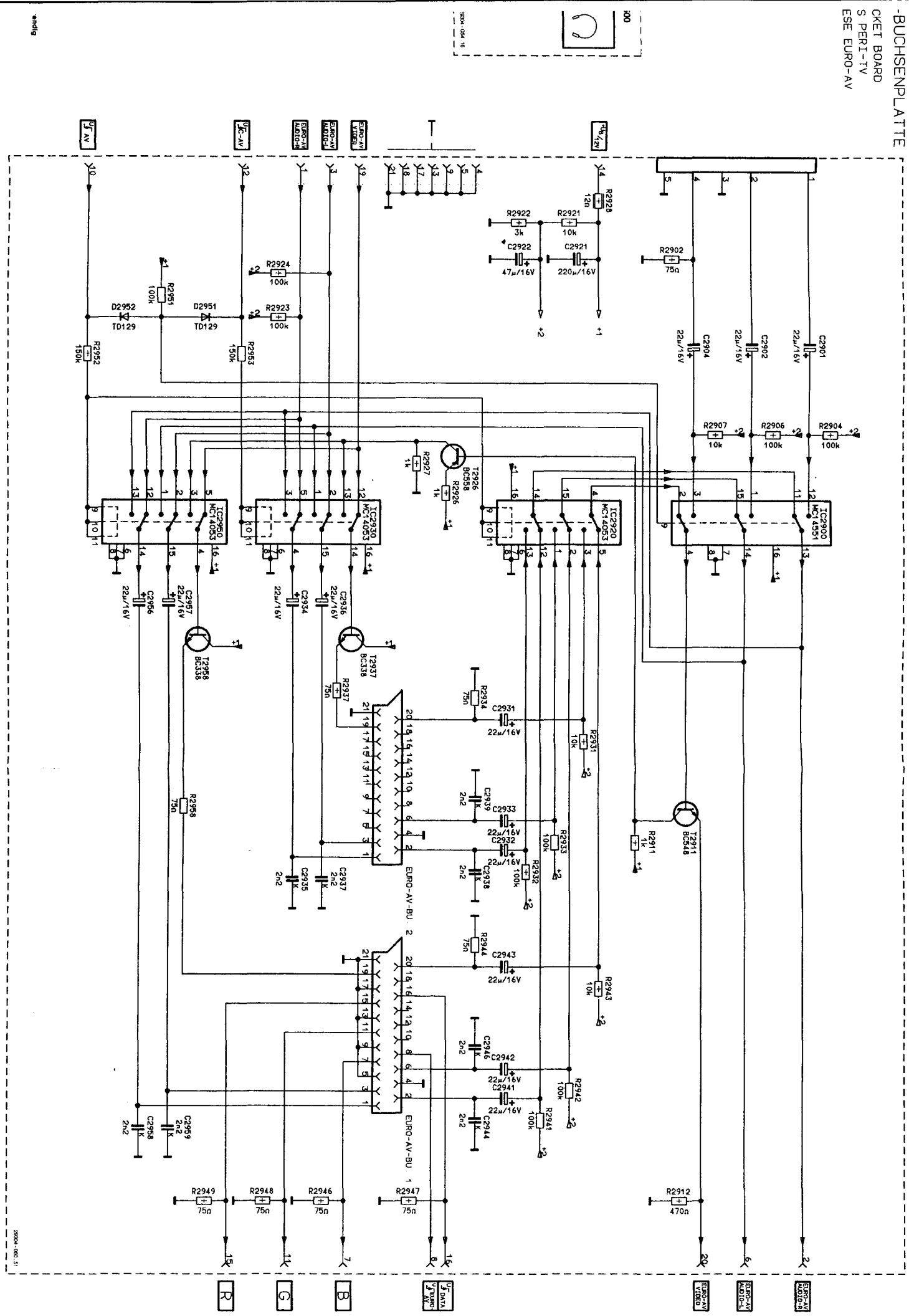
Stadio finale orizzontale:
 Con EAT eccessiva o troppo bassa, l'impulso di riferimento "L" rende scuro il cinescopio attraverso il cavo "SS" (contatto 29, Feature Box) ed interrompe il comando orizzontale.
 Per la ricerca guasti è possibile collegare il "punto di saldatura" di R 431 e ripistinare così il comando orizzontale.

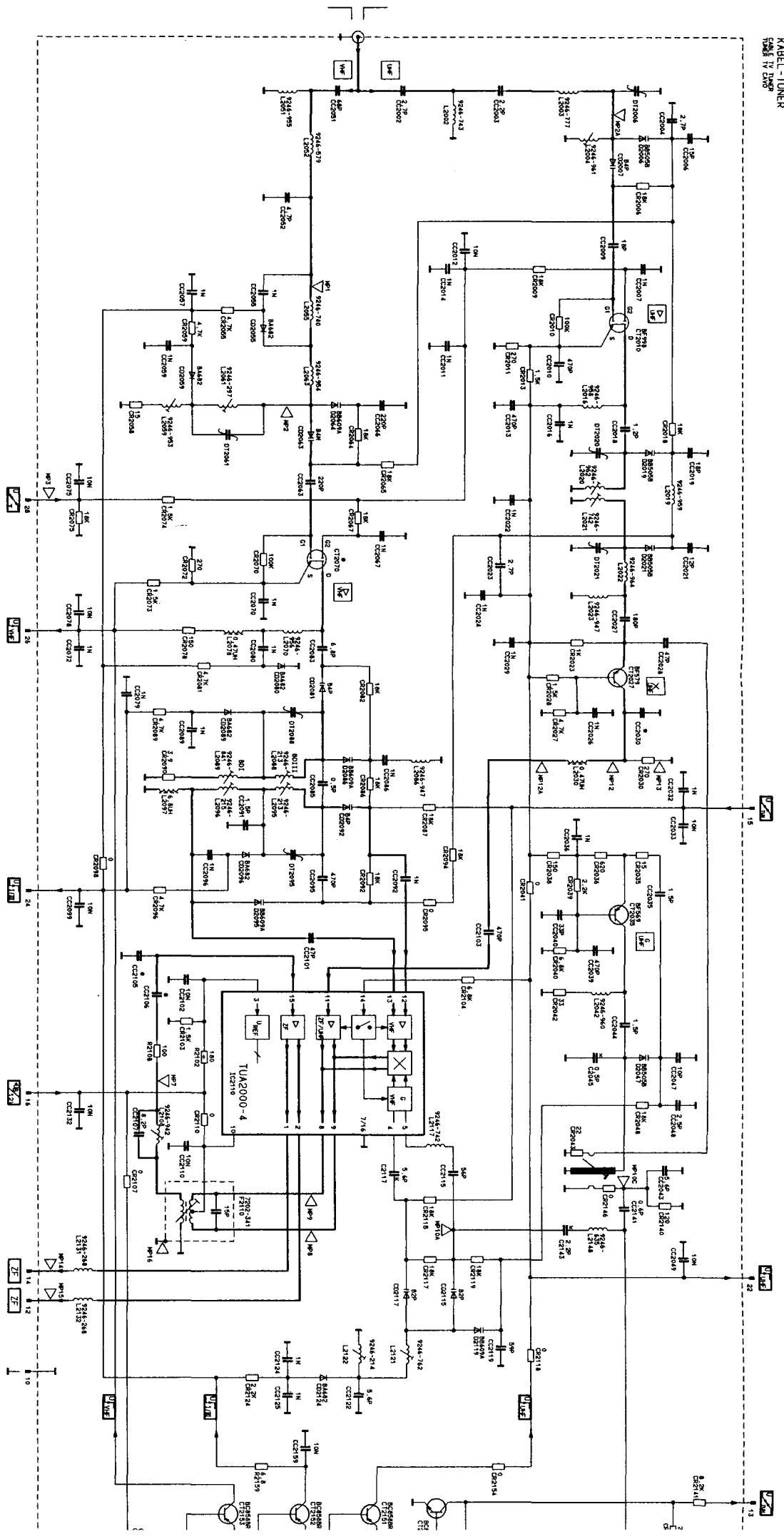
Stadio finale verticale:
 In caso di totale disfunzione dello stadio finale verticale, tramite il circuito di protezione costituito dai transistor T422 e T428, il cinescopio viene oscurato mediante il cavo "SS" e quindi il interrampa il pilotaggio orizzontale.
 In caso di lavori di riparazione, per determinare il guasto è possibile aprire il ponticello "punto di separazione circuito di protezione".

Attenzione! Tale ponticello può venir interrotto solo brevemente (max. 10 sec.) per una determinazione visiva del guasto, al fine di evitare danni al cinescopio.

-BUCHSENPLATTE

CKET BOARD
S PERI-TV
ESE EURO-AV





(D) RV Regelspannungsverzögerung (Tuner)

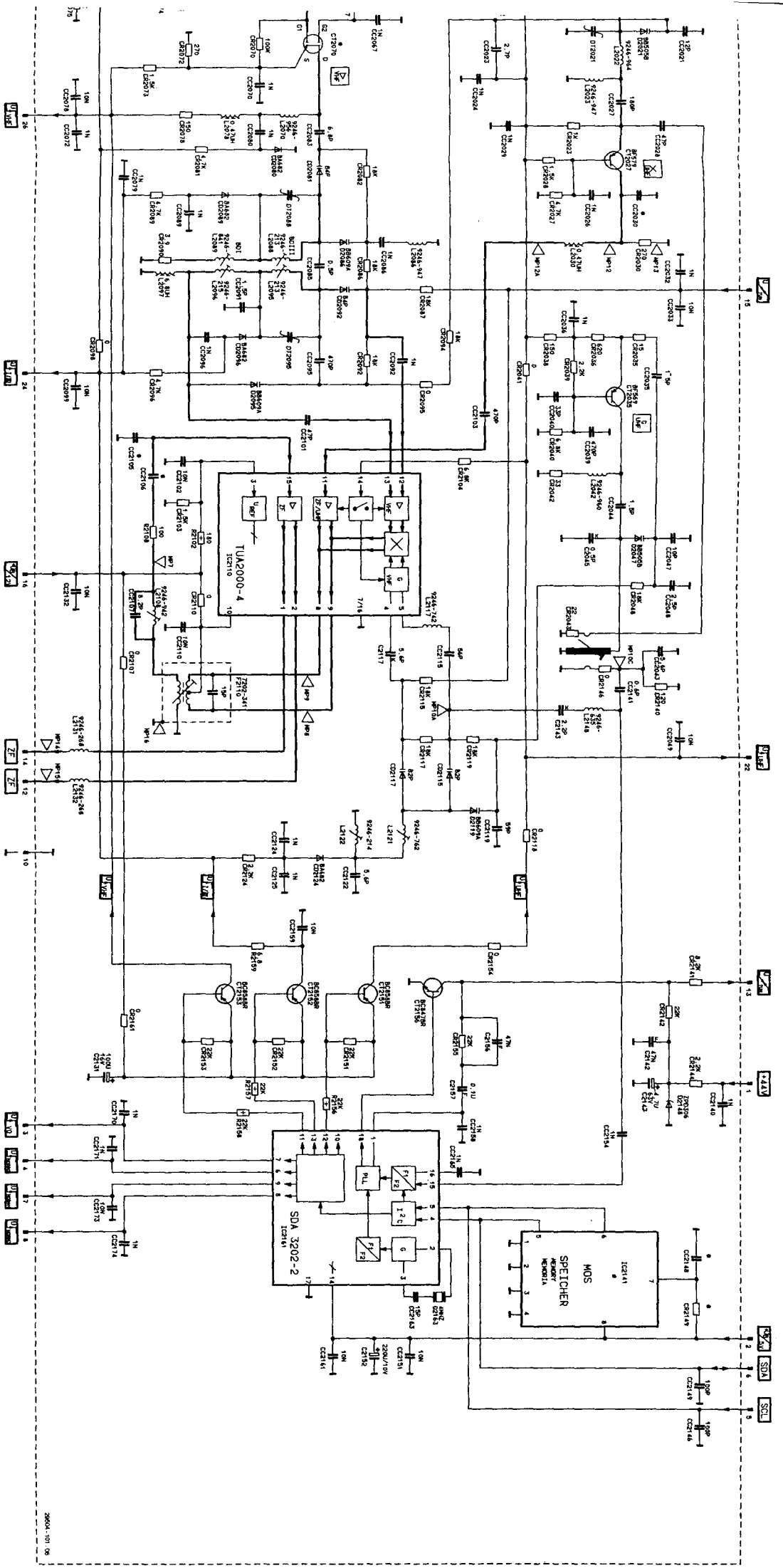
Normalbild auf hohen UHF Kanal legen, die HF sollte mindestens 1,5 mV betragen. (rauschiefes Bild). Regler R 341 (Kontakt 15, ZF-Vorst.) in Richtung Links anschlag drehen bis das Bild zu rauschen beginnt, dann wieder zurückdrehen bis das Bild gerade rauschfrei wird.

(GB) RV Delayed Automatic Gain Control Voltage (Tuner)

Faded in a standard test pattern at a channel in the upper range of the UHF band. The RF should be at least 1.5 mV (noise free picture). Rotate the control R 341 (contact 15, IF-Amp) towards the left hand and stop until noise just begins to appear in the picture, then reverse the direction of the control until the picture just becomes noise free.

(I) RV Ritardo della tensione di regolazione (Tuner)

Porre il monoscopio su un canale UHF elevato, il segnale AF deve essere almeno 1,5 mV (immagine priva di fruscio). Ruotare il regolatore R 341 (contatto 15, Amp. FI) verso la battuta sinistra finché l'immagine comincia ad apparire frusciosa, successivamente girarlo in senso opposto finché nell'immagine scompare il fruscio.



RV Ritardo della tensione di regolazione (Tuner)



Control Voltage

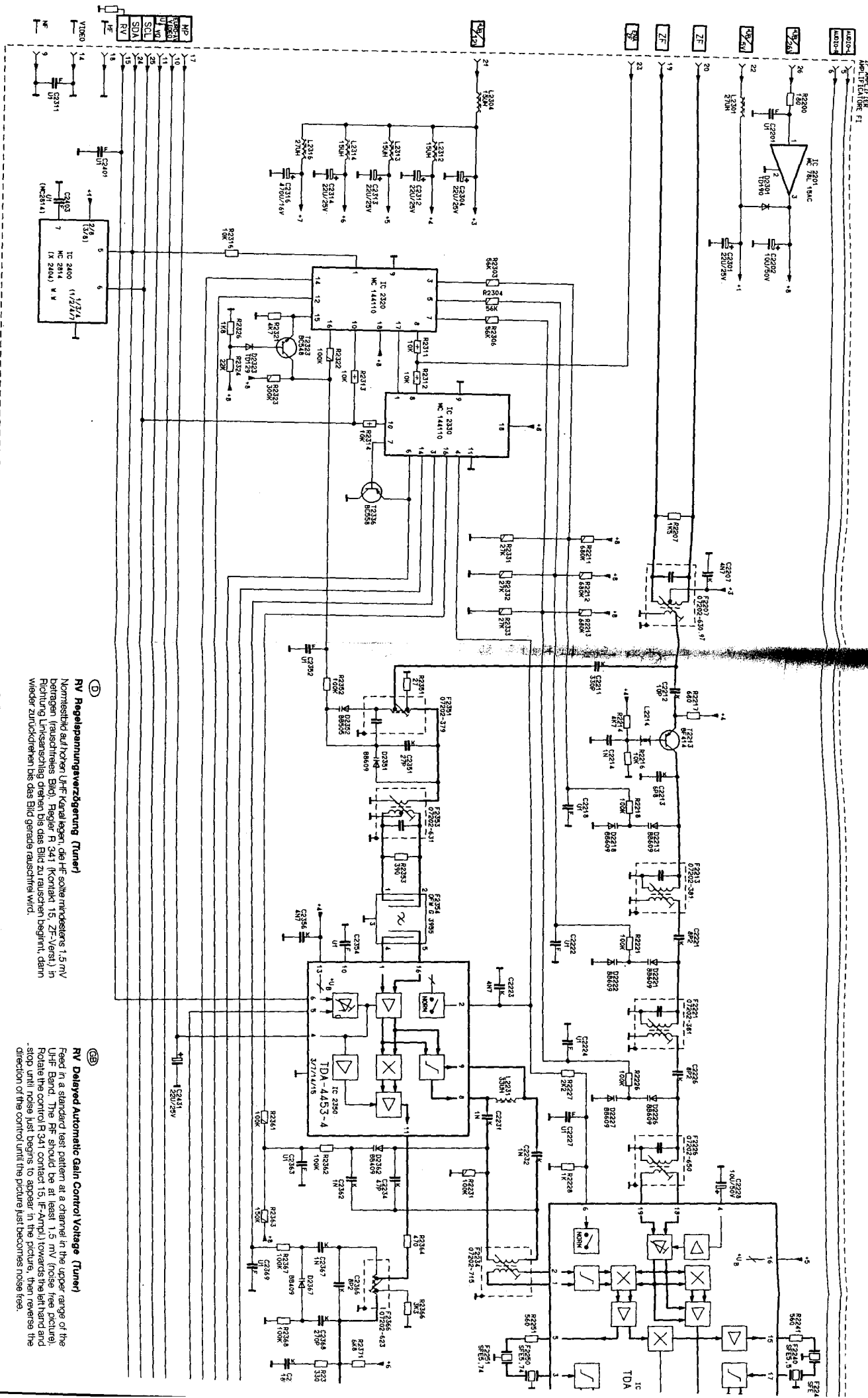
RF should be at least 1.5
R 341
the left hand and stop
appear in the picture, then
control until the picture just

Pone il monoscopio su un canale UHF elevato, il
segnale AF deve essere almeno 1,5 mV (immagine priva
di fruscio). Ruotare il regolatore R 341 (contatto 15,
Amp; F) verso la battuta sinistra finché l'immagine
comincia ad apparire fruscata, successivamente girarlo
in senso opposto finché nell'immagine scompare il
fruscio.

Kein Anpassungsbedarf bei Austausch der Steckkarte notwendig.
When replacing the plug-in board, no adjustment is necessary.
Nessuno intervento di una scheda ed innesto.

ZF-VERSTÄRKER

Hersteller: FI



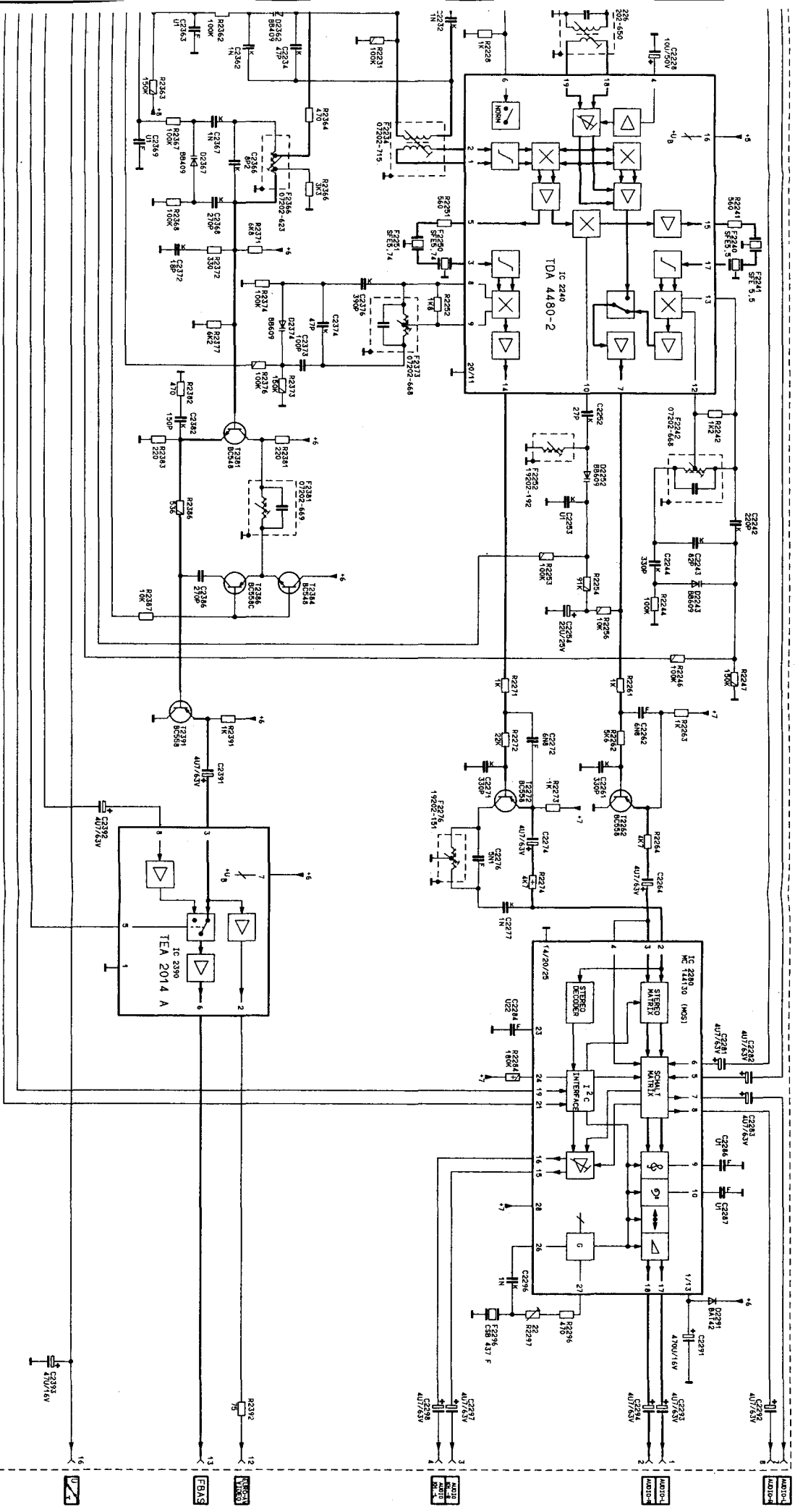
RV Regelspannungsvorzugsgerung (Tuner)

Normierbild auf hohen UHF-Kanal regeln, die HF sollte mindestens 1,5 mV betragen (rauschenes Bild). Regler R 341 (kontakt 13, Z-Vers.) in Richtung Linksanschlag drehen bis das Bild zu rauschen beginnt, dann wieder zurückdrehen bis das Bild gerade rauskommt wird.

RV Delayed Automatic Gain Control Voltage (Tuner)

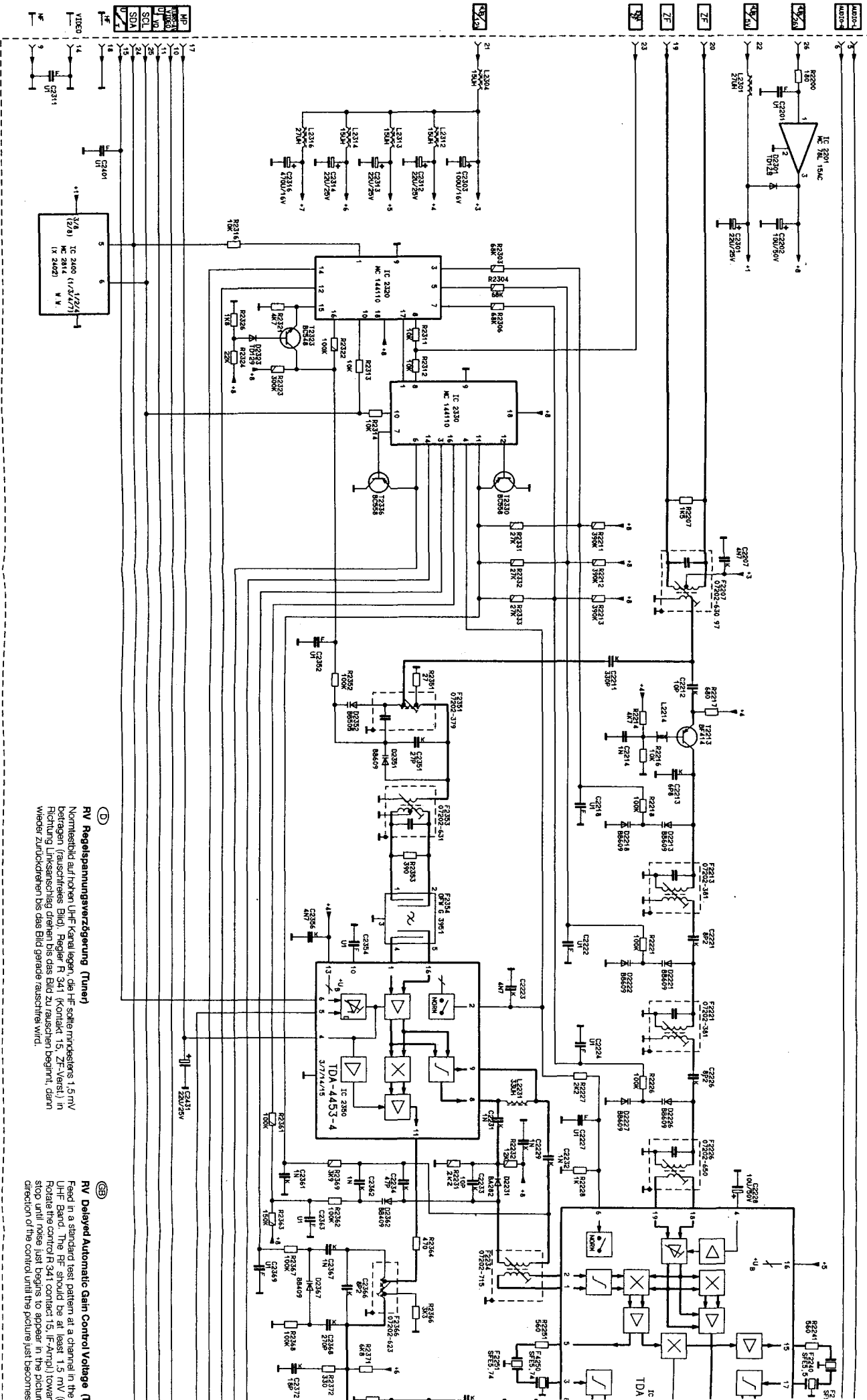
Feed in a standard test pattern at a channel in the upper range of the UHF Band. The RV should be at least 1.5 mV (noisy free picture). Rotate the control R 341 contact 13, (W-Ampl) towards the left hand and stop until noise just begins to appear in the picture, then reverse the direction of the control until the picture just becomes noise free.

Kein Anpassungsblech bei Austausch der Steckkarte notwendig
 Non a necessaris neppure tavola di adattamento dopo la
 sostituzione di una scheda ad innesto



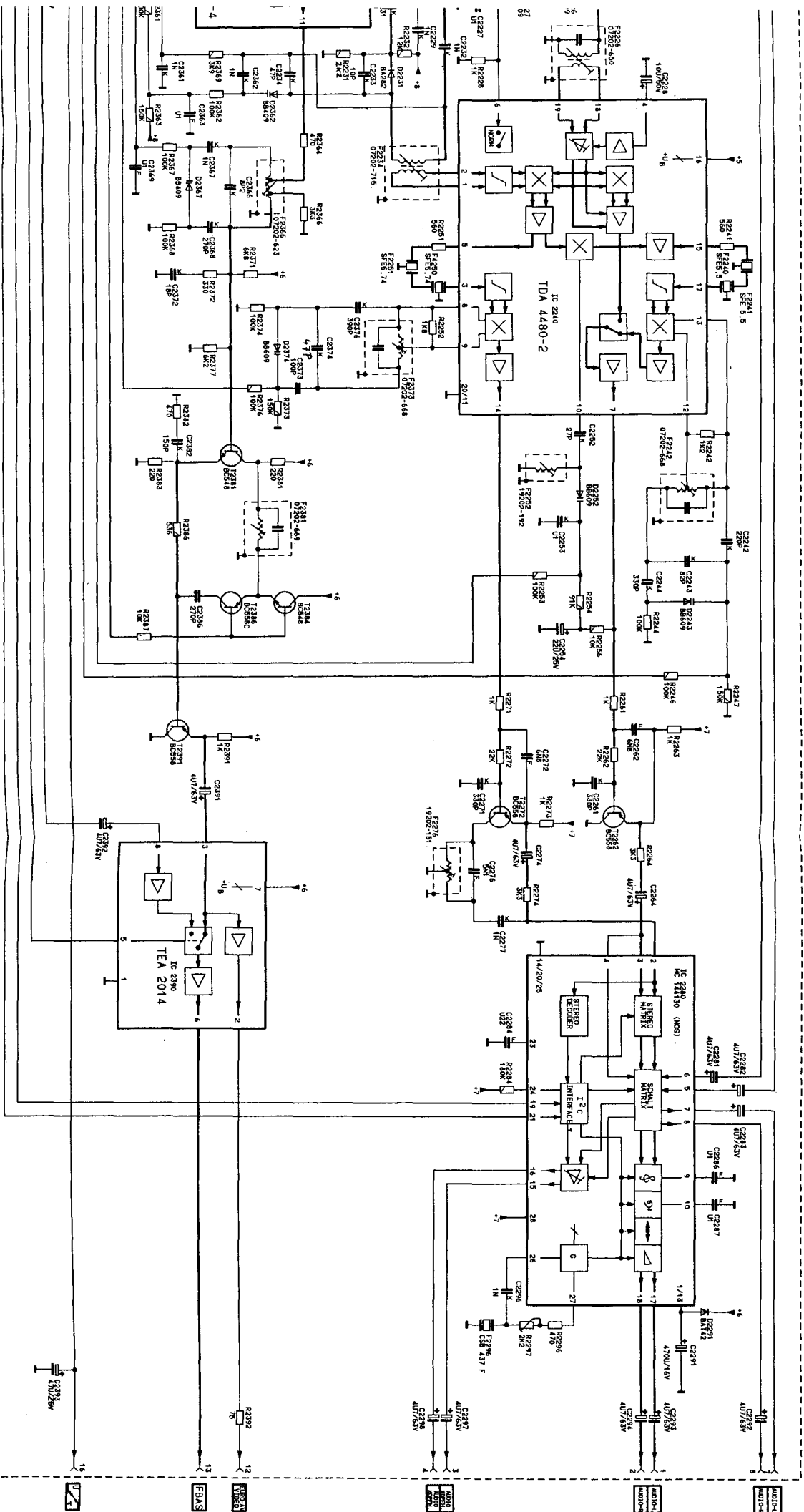
c Gain Control Voltage (Turner)
 pattern at a channel in the upper range of the
 scale be at least 1.5 mV (noise free picture);
 contact 15, (F-Amp.) towards the left hand and
 pins 10 appear in the picture, then reverse the
 till the picture just becomes noise free.

① **R.V. Ritardo della tensione di regolazione (Turner)**
 Porne il manoscritto su un canale UHF elevato. Il segnale AF deve
 essere almeno 1,5 mV (immagine priva di rumore). Ruotare il regolatore
 R 341 (contatto 15, Amp. F) verso la battuta sinistra finché l'immagine
 comincia ad apparire ruscata, successivamente girarla in senso opposto
 finché nell'immagine scompare il fruscio.



RV Regelspannungsverzögerung (Tuner)
 Normtestbild auf hohen UHF-Kanal legen, die HF-Schemendiagramme 1,5 mV betragen (Rauschreife Bild). Regler R 341 (Kontakt 15, ZF-Verst.) in Richtung Linkenschlag drehen bis das Bild zu rauschen beginnt, dann wieder zurückdrehen bis das Bild gerade rauschfrei wird.

RV Delayed Automatic Gain Control Voltage (T)
 Feed in a standard test pattern at a channel in the UHF-Band. The RF should be at least 1.5 mV. Rotate the control R 341 contact 15, (F-Amp.) toward stop until noise just begins to appear in the picture direction of the control until the picture just becomes



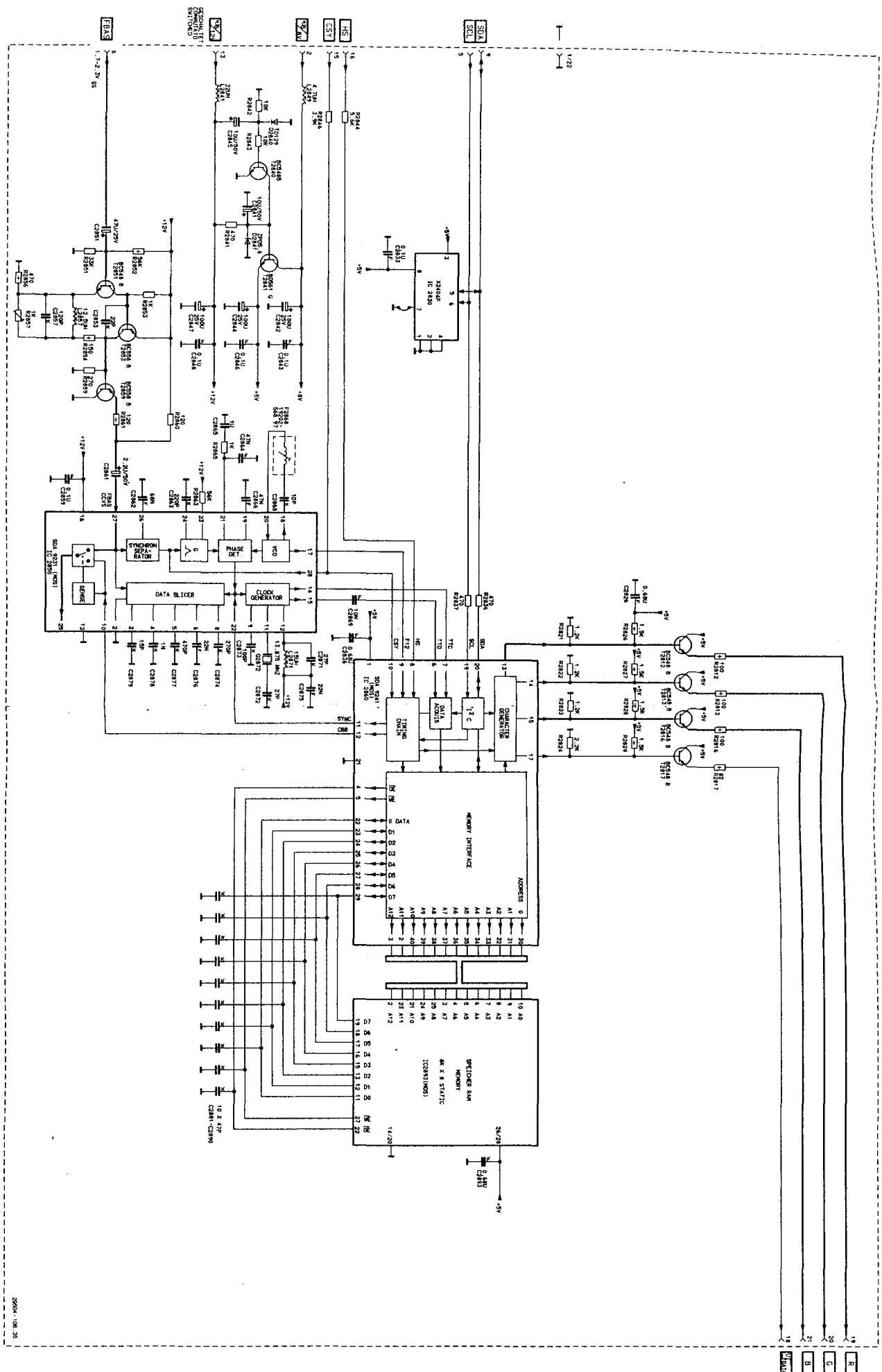
RV Delayed Automatic Gain Control (Tuner)

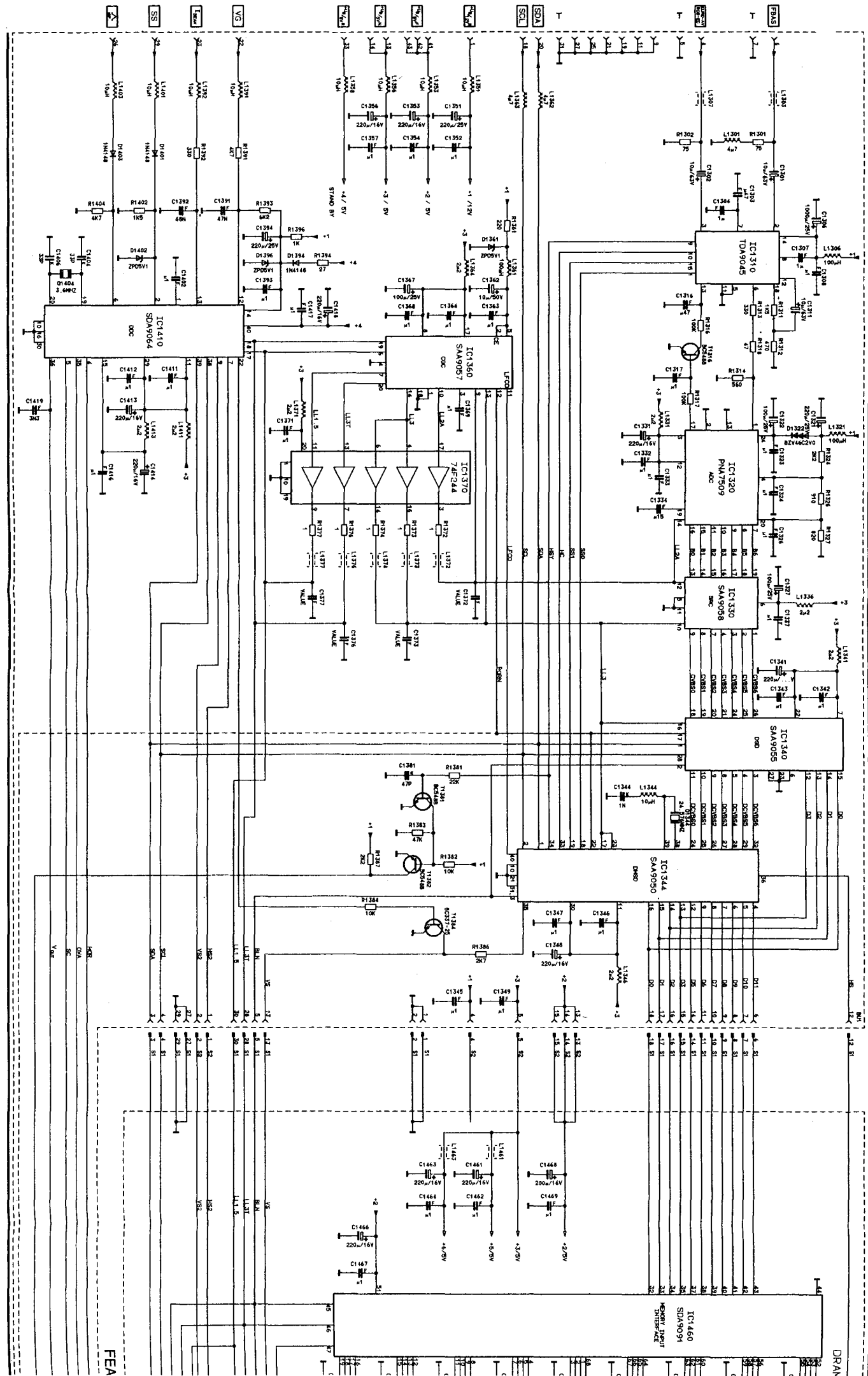
Feed in a standard test pattern at a channel in the upper range of the UHF Band. The RF should be at least 1.5 mV (noise free picture). Rotate the control R 541 (contact 15, F-Amp.) towards the left hand and stop until noise just begins to appear in the picture, then reverse the direction of the control until the picture just becomes noise free.

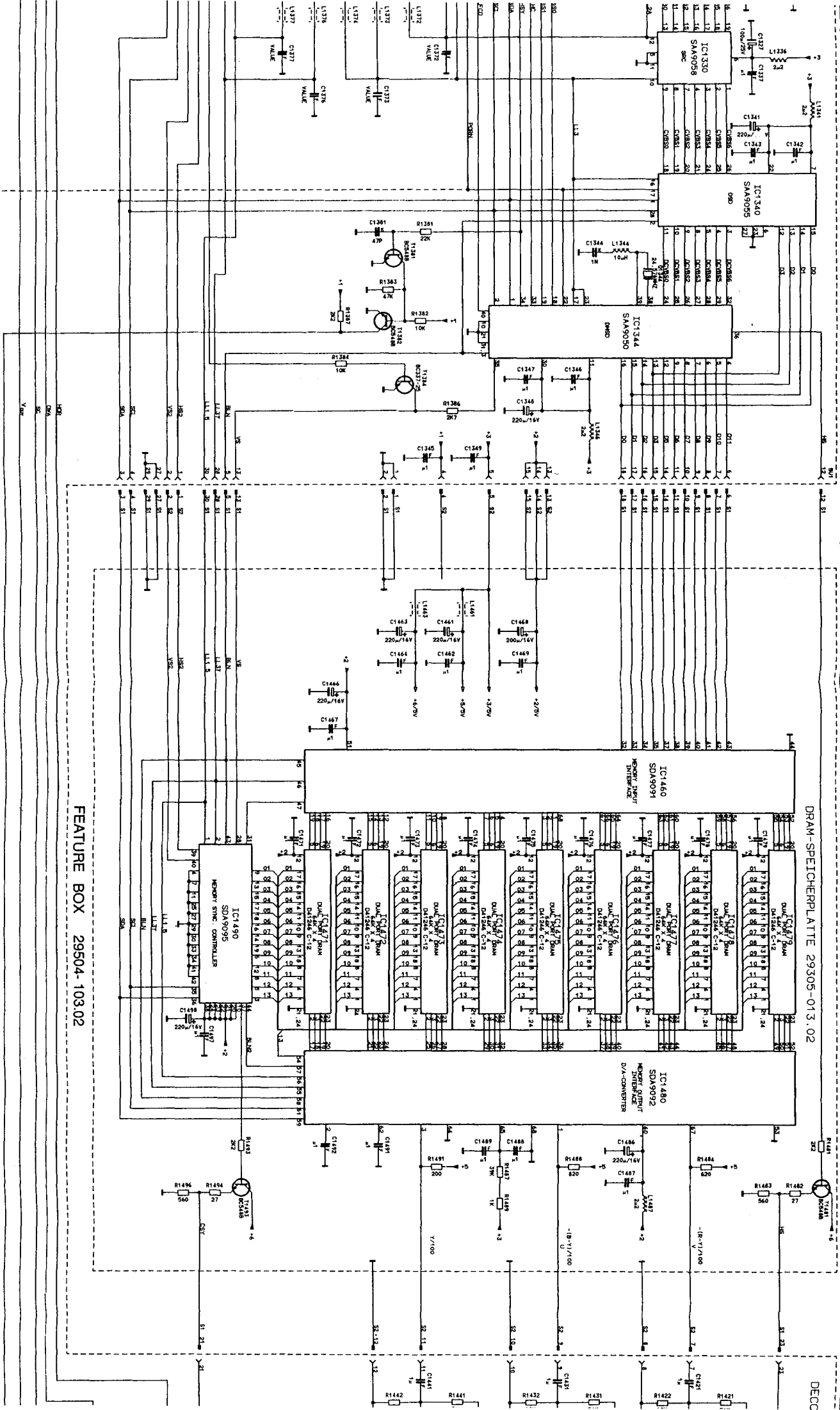
RV Ritardo della tensione di regolazione (Tuner)

Porre il microscopio su un canale UHF elevato, il segnale AF deve essere almeno 1.5 mV (immagine priva di rumore). Ruotare il regolatore R 541 (contatto 15, Amp. F) verso la sinistra finché in immagine comincia ad apparire il rumore, successivamente girarlo in senso opposto finché nell'immagine scompare il rumore.

Kein Anpassungsmaßstab bei Austausch der Steckkarte notwendig.
 When replacing the plug-in board, no alignment is necessary.
 Non è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto.
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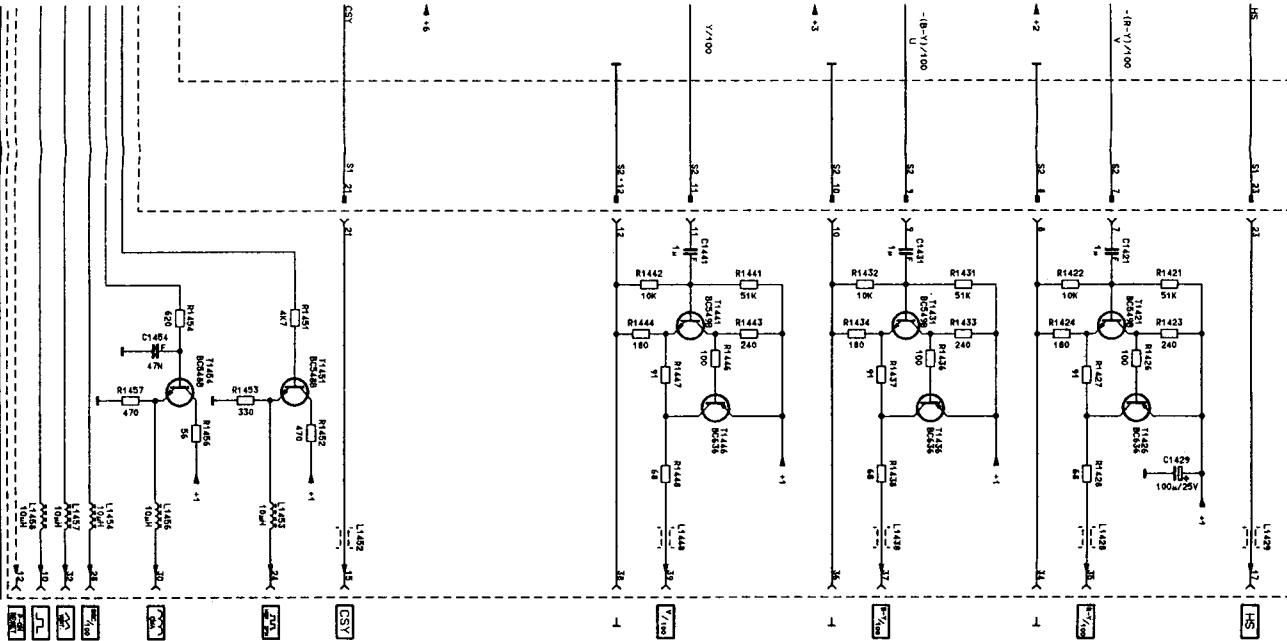


DRAM-SPICHERPLATTE 29305-013.02

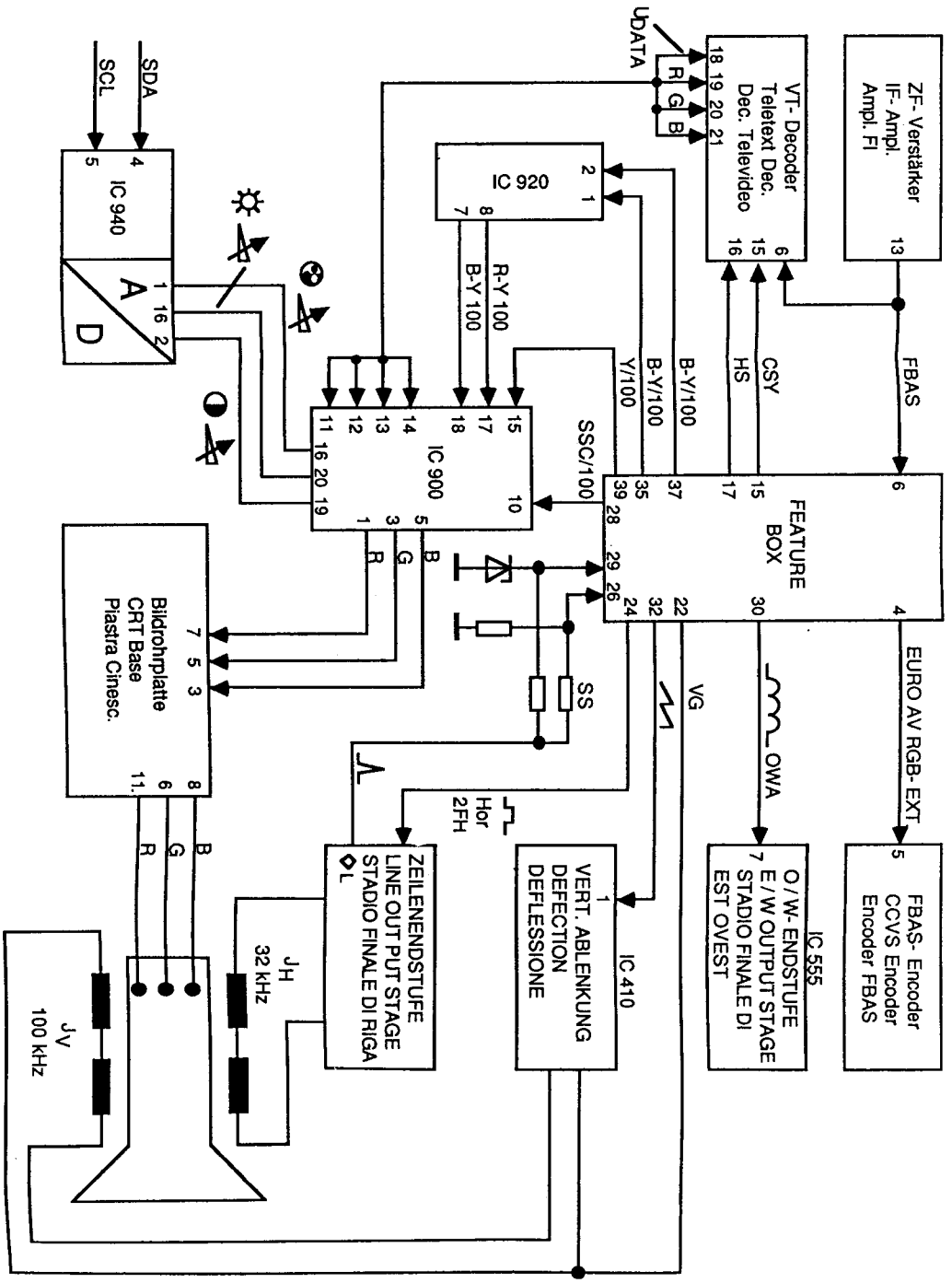
FEATURE BOX 29504-103.02

DECC

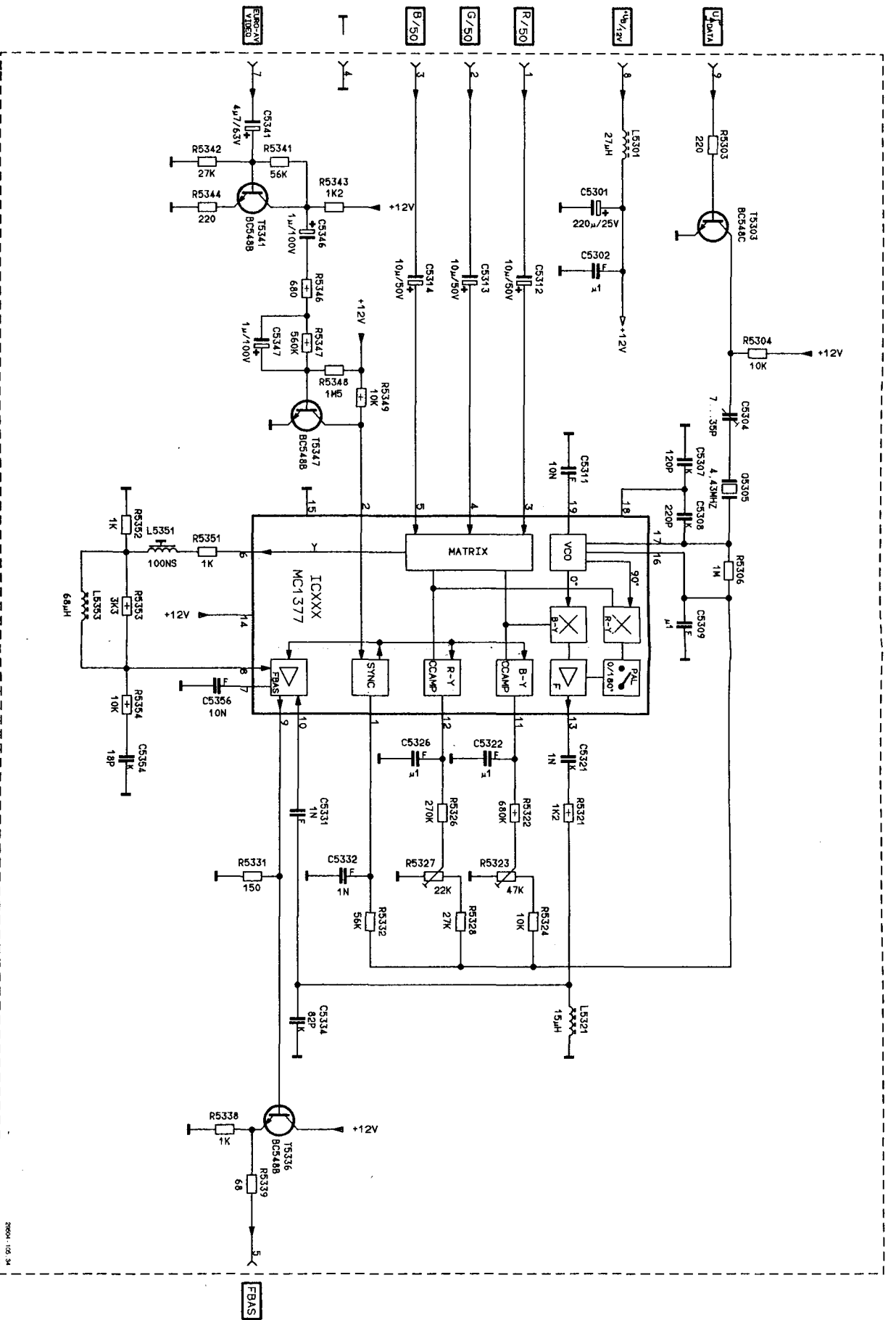
DECODERPLATTE 29504-014.02



SIGNALVERLAUF IM 100 HZ GERÄT



FBAS-ENCODER



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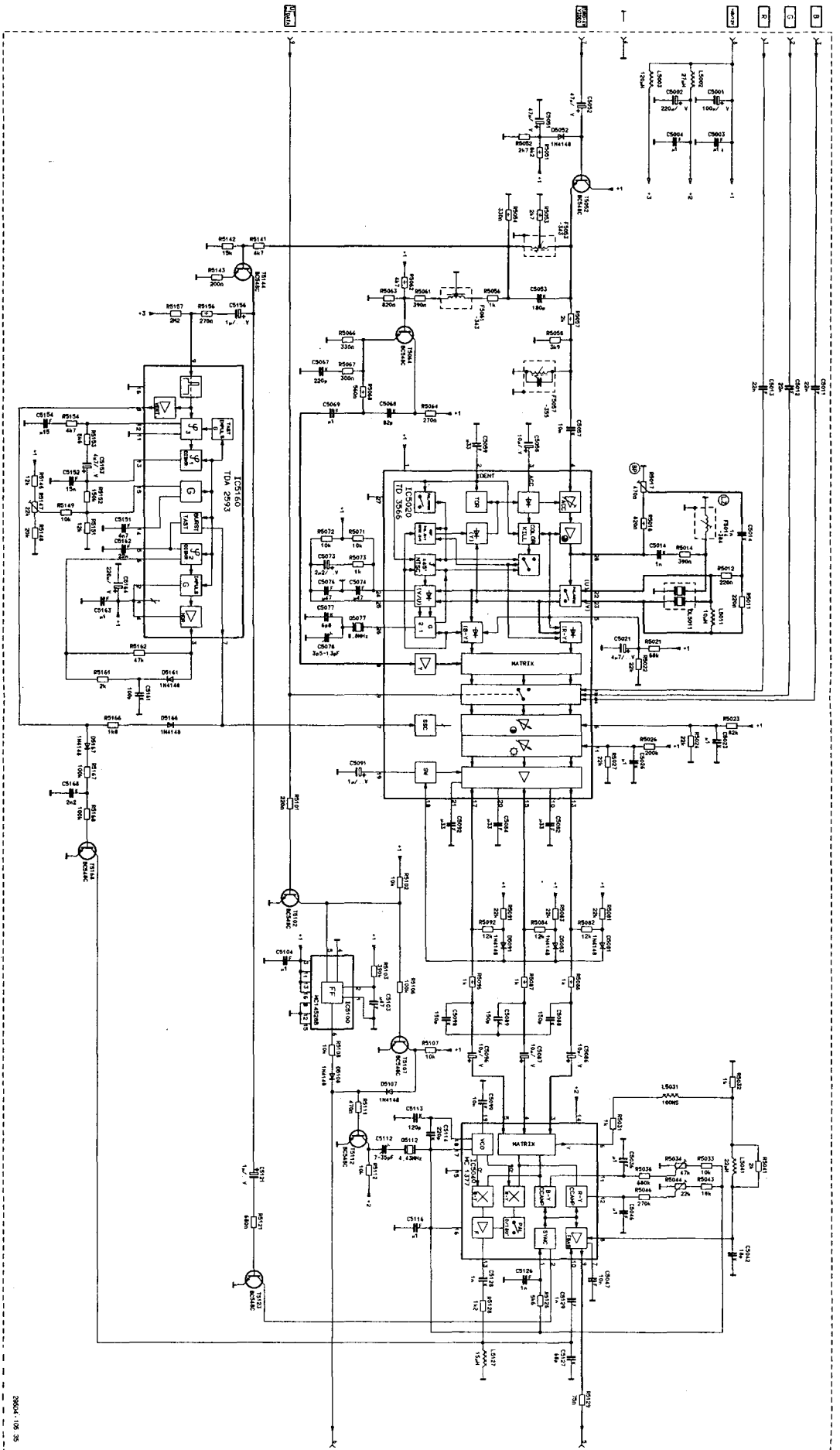
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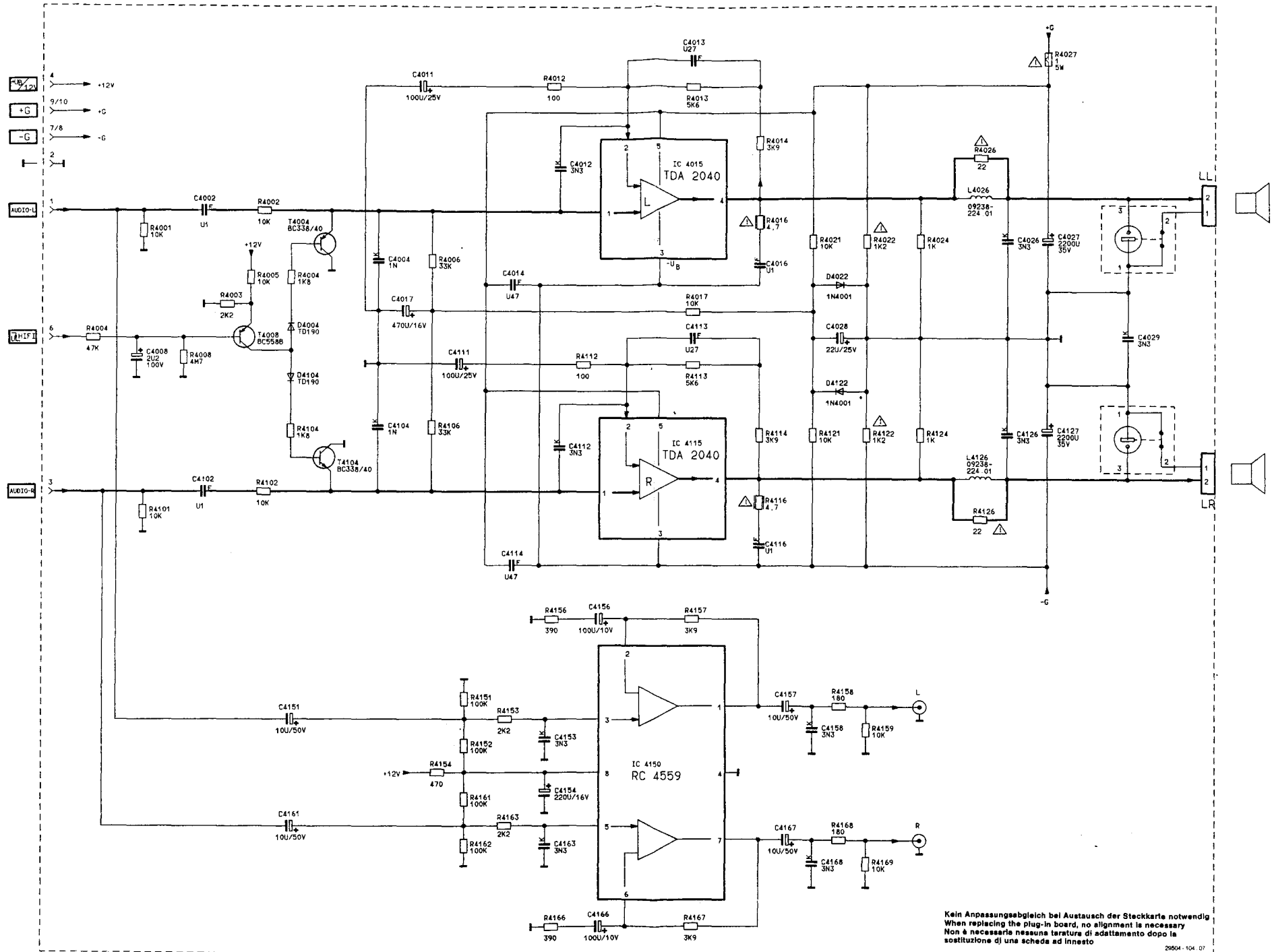
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NF- ENDSTUFE
AF OUTPUT STAGE
STADIO FINALE BF



Kein Anpassungsgeleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
Non è necessaria nessuna taratura di adattamento dopo la
sostituzione di una scheda ad innesto