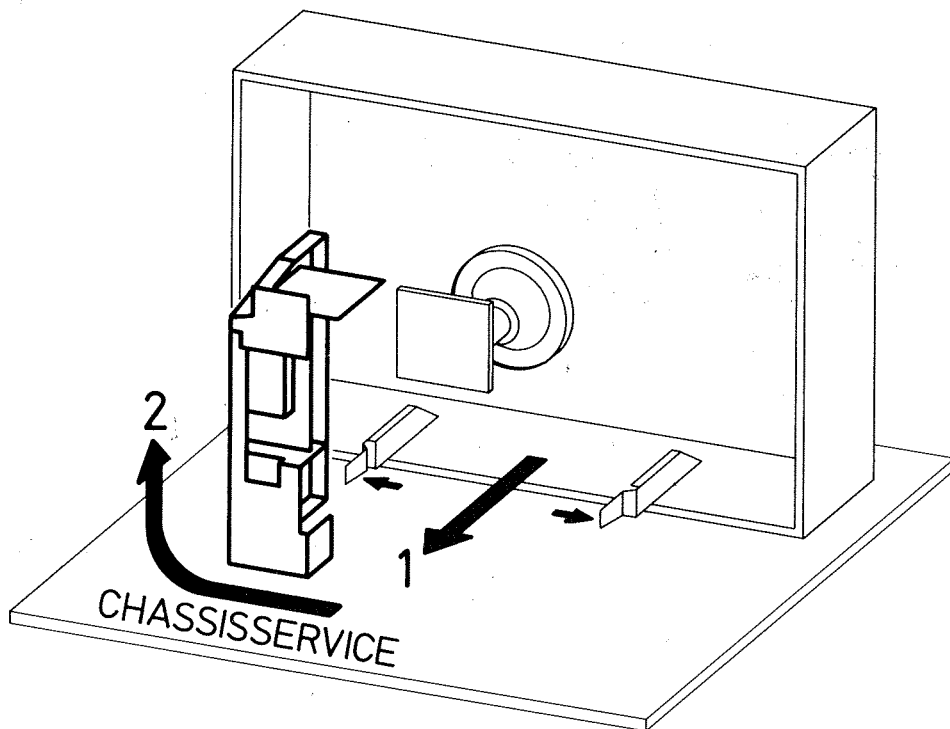


G0468

Servicestellung
Service position
Posizione di servizio

KRB 22-TC 05 (PY) 15*
LMB 22-TC 02 15*
JMB 22-TC 03 15*
EAX 00X 03 15*
YXB 22-TC 02 (SY) 20*
ABWB 22-TC 02 20*
EAC 00X03/01 20*



MM, GEHÄUSE
CABINET
SILE SIMMETRICO

(9.25122-01)
(9.25122-01)
(9.25151-65)
(9.25151-65)
(9.25151-65)
(9.25108-21)

GRUNDIG



Ⓛ Btx * 32700 #

SERVICE MANUAL CUC 2201

P37-222
P37-222
P37-2226 GB
P37-2226 GB UHF/VHF TT
T51-220 A

(9.25122-01)
(9.25122-05)
(9.25151-65)
(9.25151-63)
(9.25108-21)

83700
N15520
N15530
N15531

SERVICEHINWEISE

Funktionshinweis Zeilennetzteil
Service für Zeilennetzteil
Abgleichhinweise der Steckkartenarten

Seite

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13

SERVICE NOTES

Short Description for Line Mains Supply Unit
Service for Line Mains Supply Unit
Alignment notes of the plug-in board types.

Page

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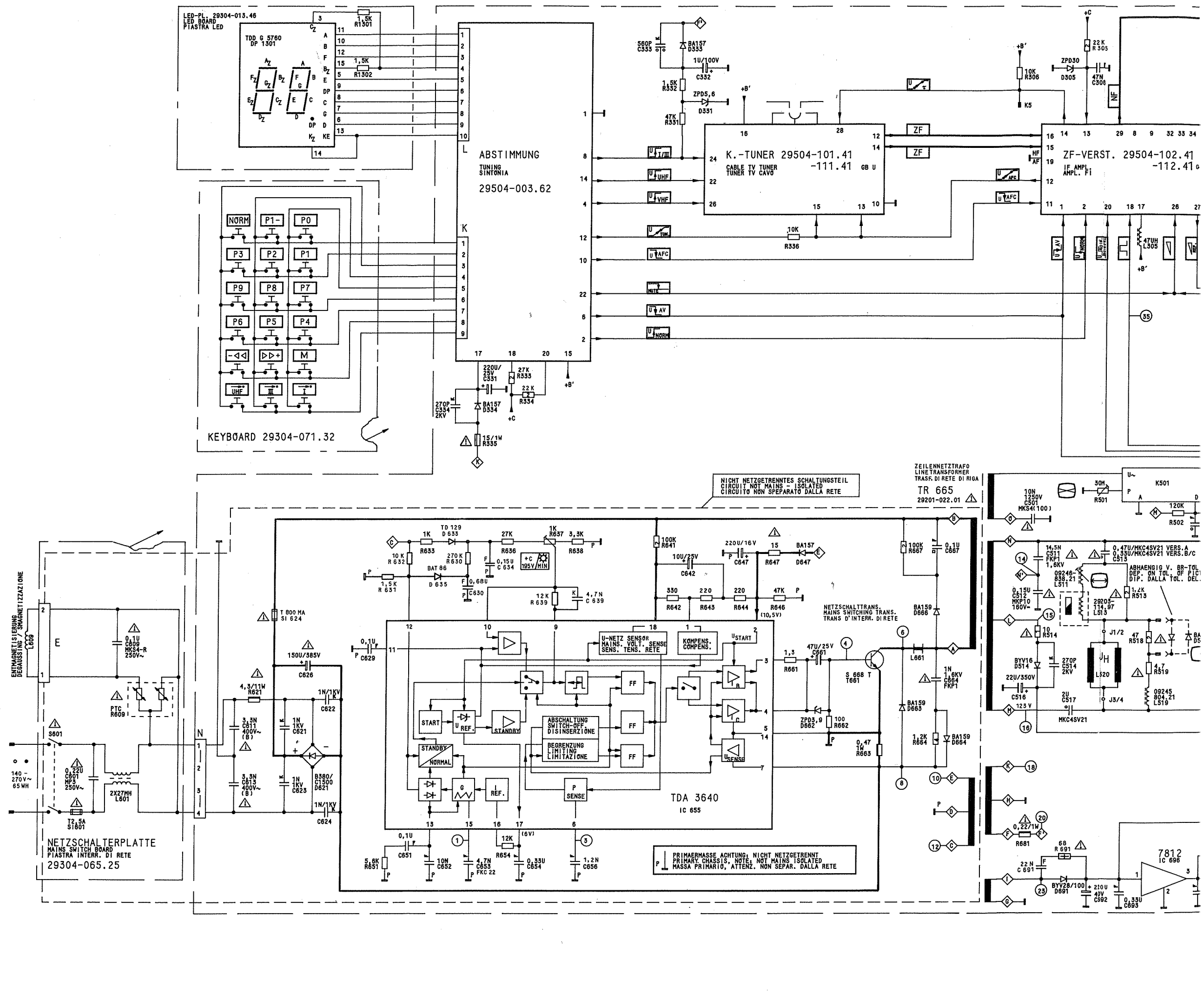
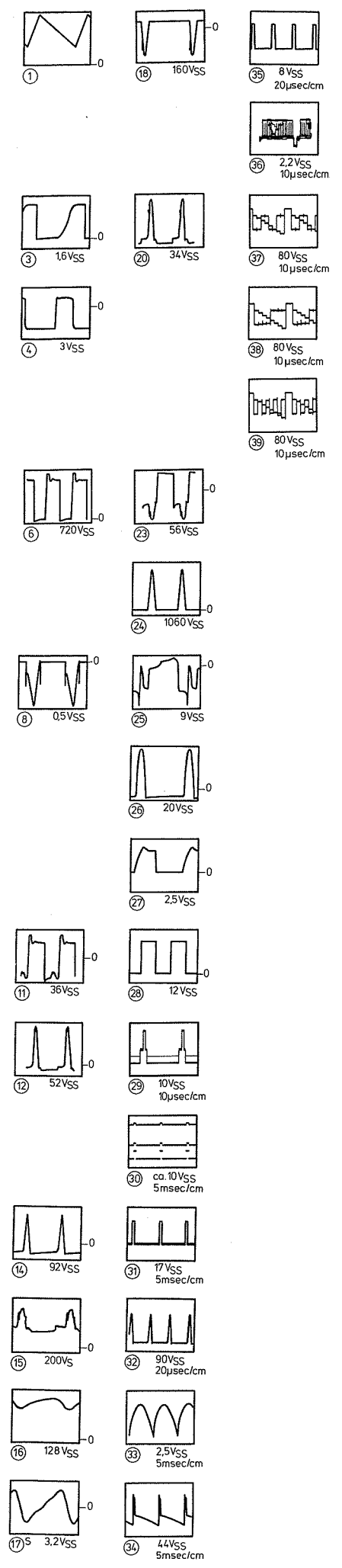
AVVERTENZA DI SERVIZIOS

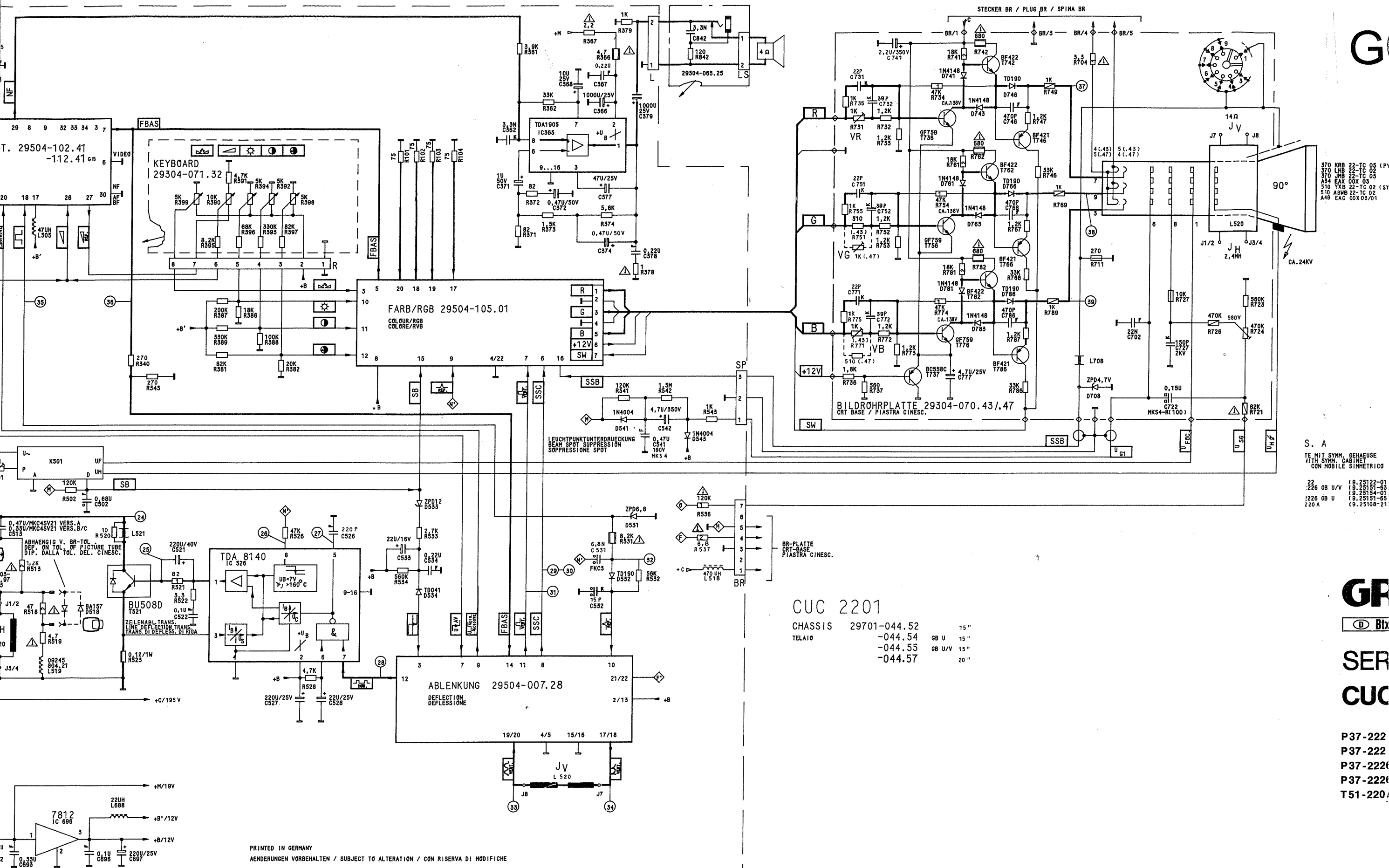
Descrizione circuitale: ALIMENTATORE DI RIGA
Istruzioni per il Servizio Assistenza
Avvertenze di taratura dei tipi di scheda.

Pagina

13
13

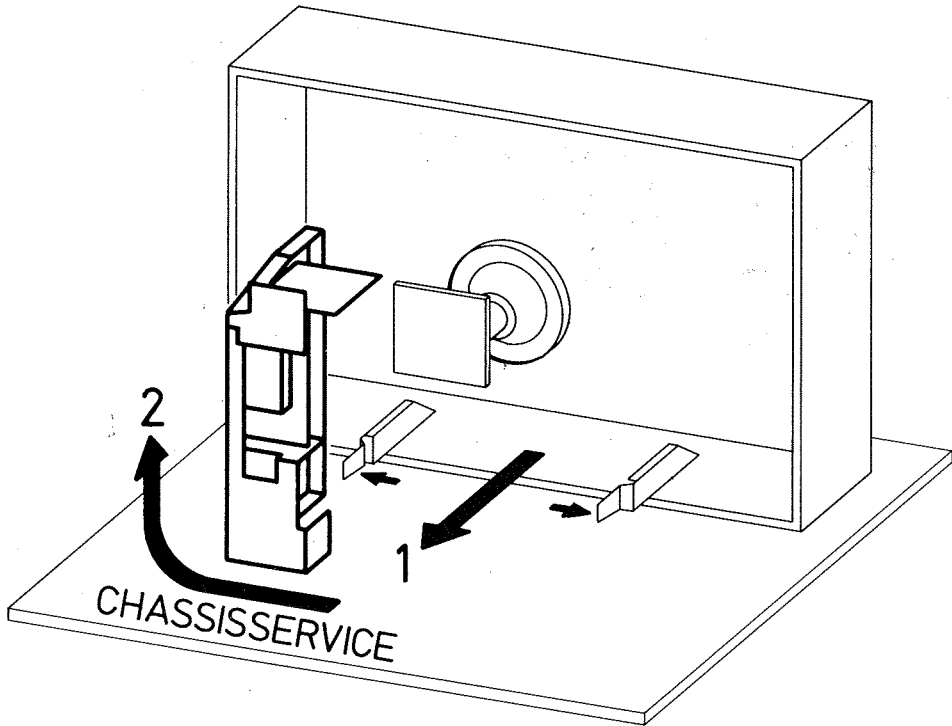
72008-316.91





G0468

Servicestellung
Service position
Posizione di servizio



70 KRB 22-TC 05 (PY) 15°
70 LHB 22-TC 02 15°
70 JMB 22-TC 03 15°
70 EAX 00X 03 15°
70 YXB 22-TC 02 (SY) 20°
70 ABMB 22-TC 02 20°
70 EAC 00X 03/01 20°

SYMM. GEHÄUSE
SYM. CABINET
MOBILE SIMMETRICO

70 U/V (9.25122-01)
70 U/V (9.25151-63)
70 U (9.25154-01)
70 U (9.25151-65)
70 U (9.25108-21)

GRUNDIG **Color**

Btx * 32700 #

SERVICE MANUAL CUC 2201

P37-222
P37-222
P37-2226 GB
P37-2226 GB UHF/VHF TT
T51-220 A

(9.25122-01)
(9.25122-05)
(9.25151-65)
(9.25151-63)
(9.25108-21)

83700
N15529
N15530
N15531

SERVICEHINWEISE

Funktionshinweis Zeilennetzteil
Service für Zeilennetzteil
Abgleichhinweise der Steckkartenarten

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13

SERVICE NOTES

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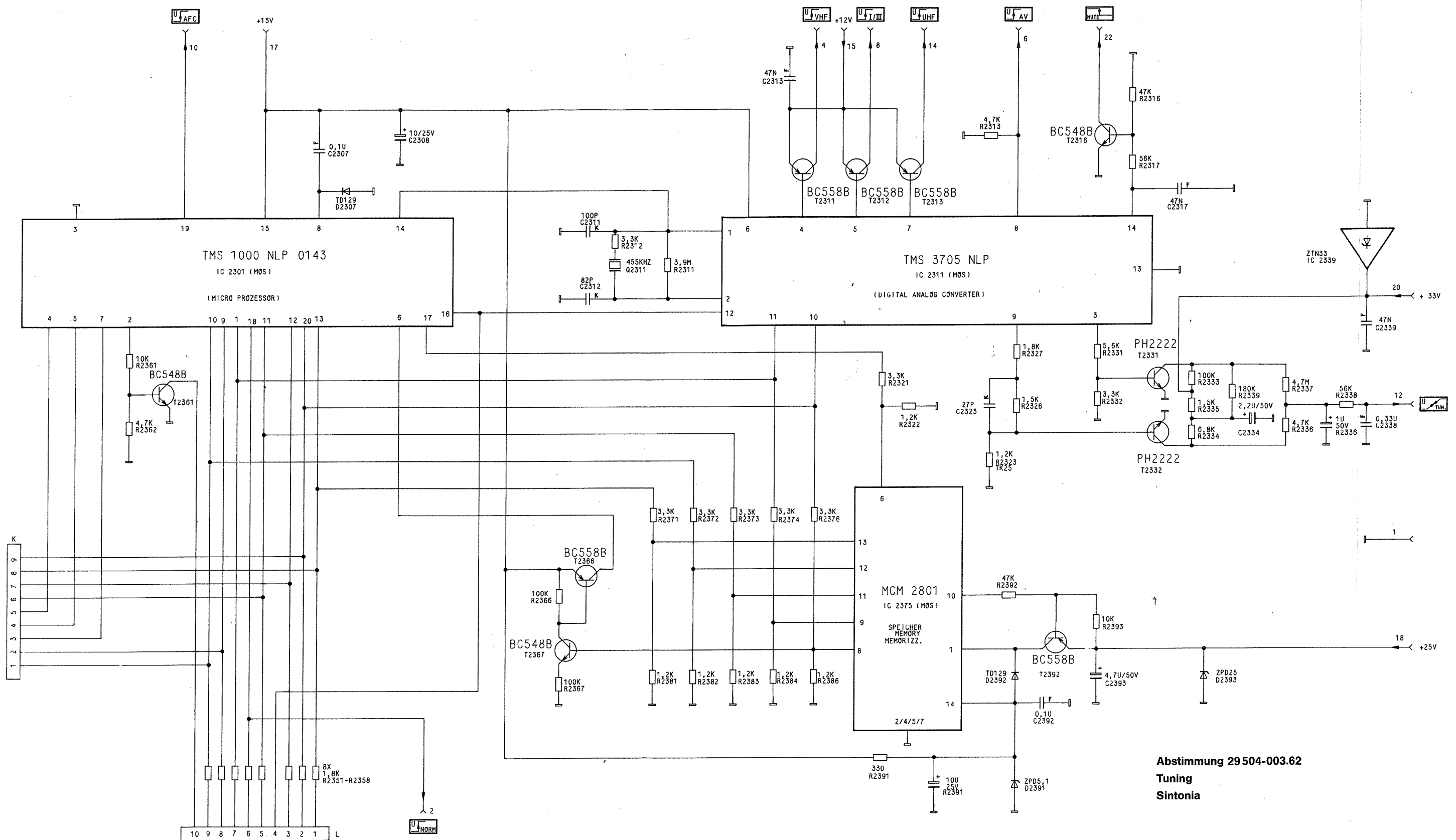
AVVERTENZA DI SERVIZI

Descrizione circuitale: ALIMENTATORE DI RIGA
Istruzioni per il Servizio Assistenza
Avvertenze di taratura dei tipi di scheda.

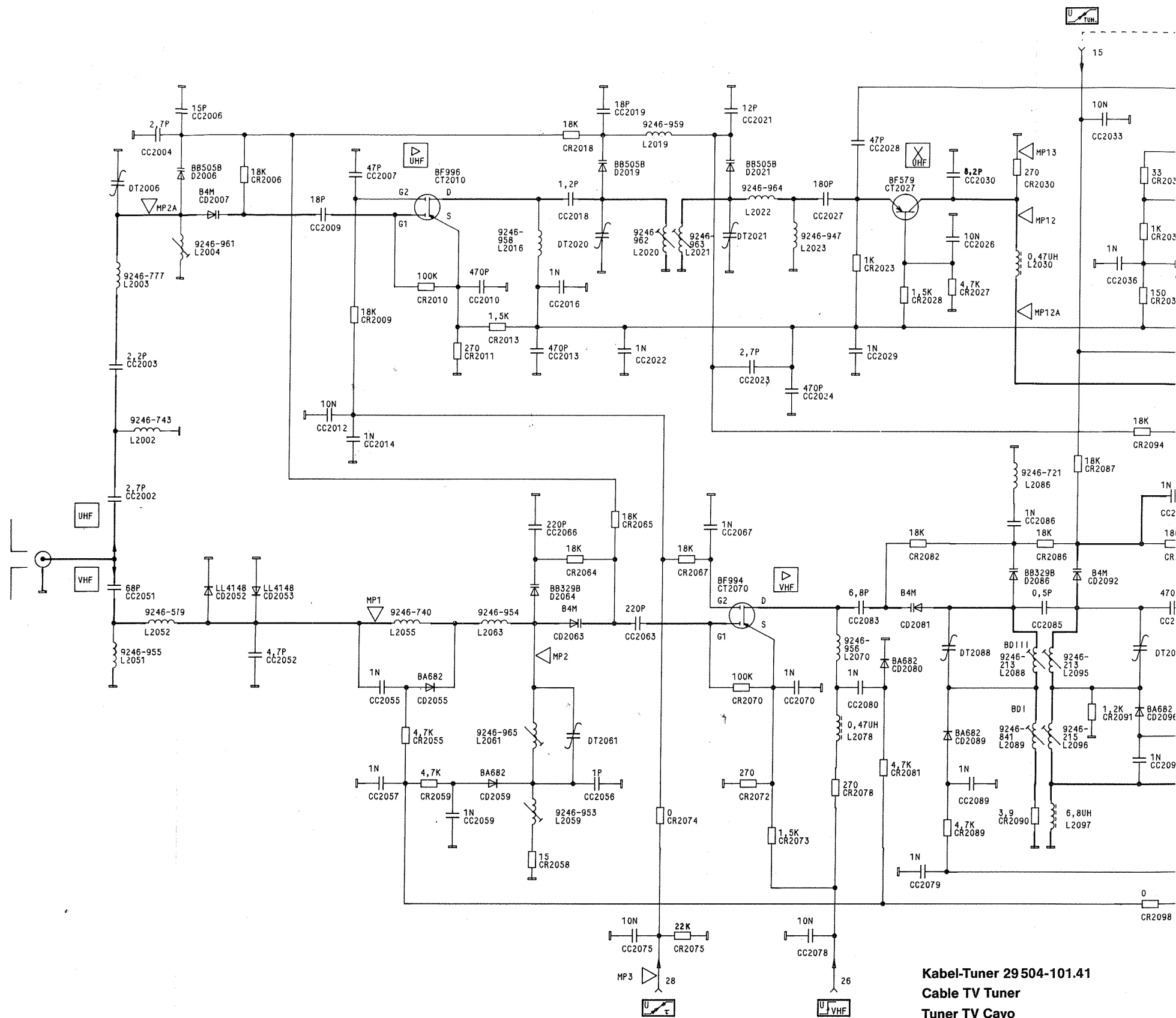
Pagina

13
13

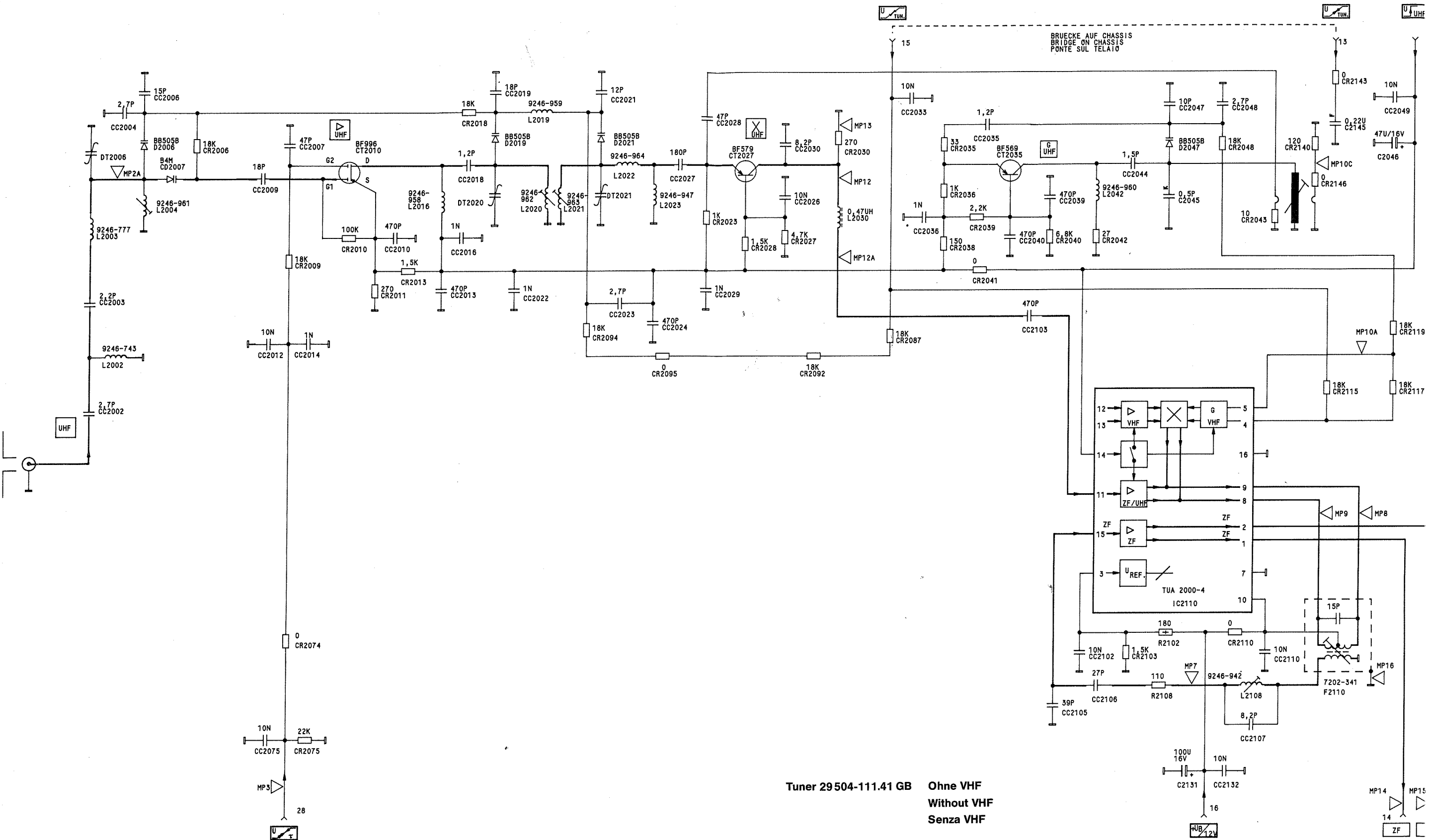
72008-316.91

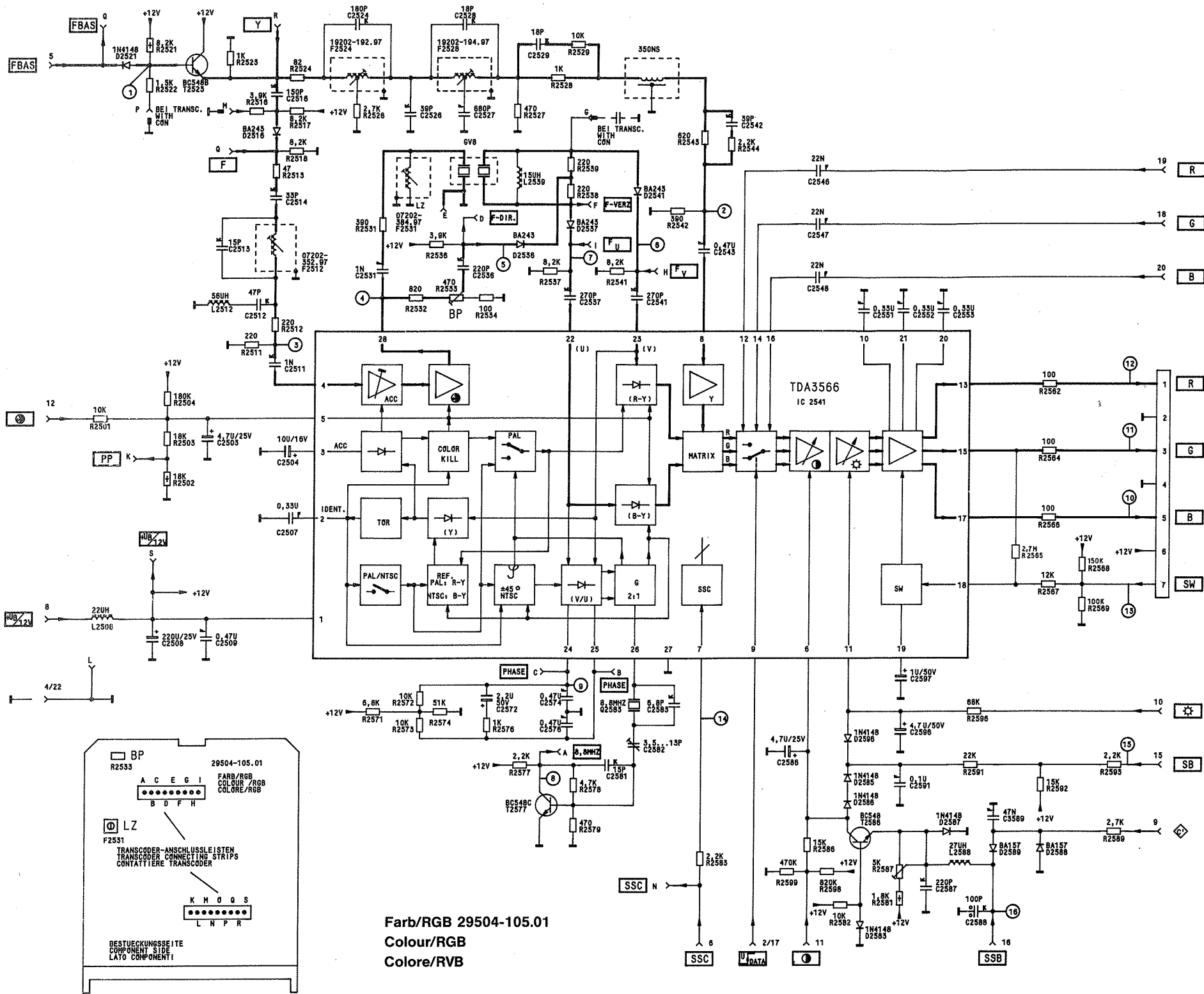


Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
Non è necessaria nessuna taratura di adattamento dopo la
sostituzione di una scheda ad innesto



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sostituzione di una scheda ad innesto

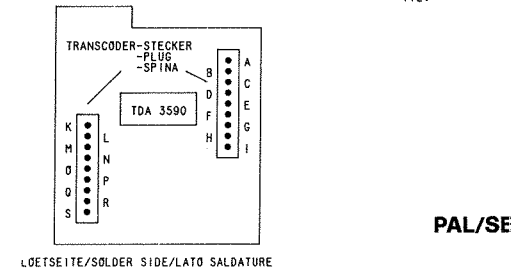
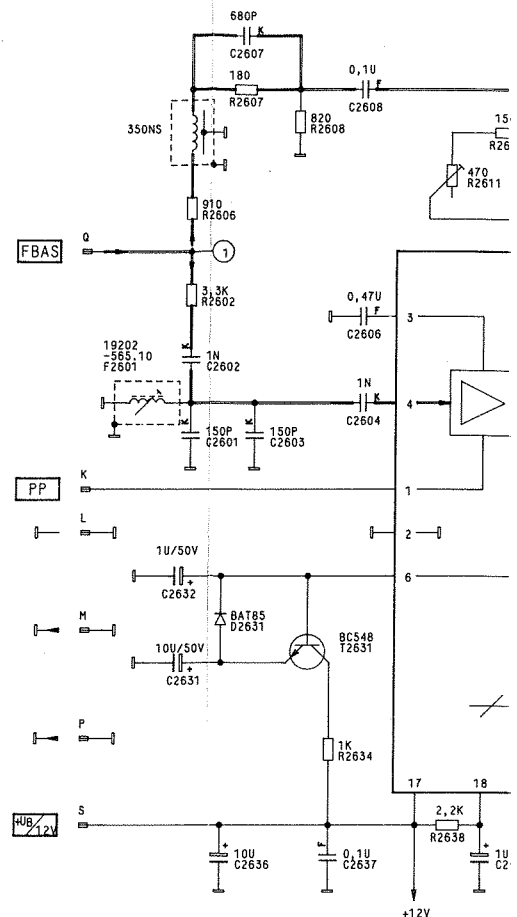
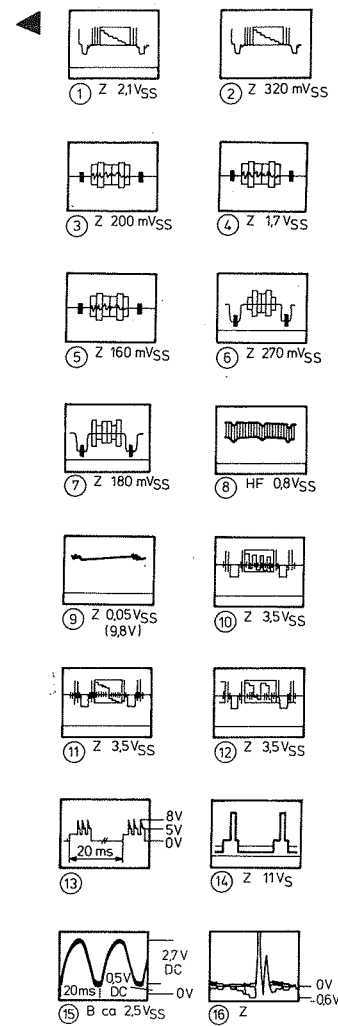




1. Weißabgleich
 - FuBK-Testbild einspeisen.
 - $\odot$ min., $\odot$ nom., $\odot$ max., einstellen.
 - Regler VR und VB (Bildrohrplatte) so einstellen, daß keine Verfärbungen in den Grauwerten sichtbar sind.
2. Sperrpunktgleichung
 Eine manuelle Einstellung ist nicht möglich, da die Steckkarte eine automatische Dunkelstromregelung besitzt. Kontrolle des Sperrpunkts (Oszilloskop erforderlich).
 - FuBK-Testbild einspeisen.
 - $\odot$ min., $\odot$ nom., $\odot$ max., einstellen.
 - Tastkopf an den Kollektoren der Transistoren T736, T756, T776 anhängen (Bildrohrplatte). Die Schwarzwerte der drei Kathodensignale liegen bei ca. 140 ... 150 V.
3. Einstellungen im Farbkanal
 - FuBK-Testbild einspeisen.
 - $\odot$ nom., $\odot$ nom., $\odot$ nom., einstellen.
 - Am IC TDA 3566 Pin 1 mit Pin 5 und Pin 24 mit Pin 25 kurzschließen.
 - Mit Trimmer 2582 die durchlaufenden Farbbalken zum Stehen bringen. Kurzschlußbrücken entfernen.
 - Tastkopf am Pin 17 des IC TDA 3566 einhängen.
 - Mit Regler BP und Spule LZ die Doppelbilder des B-Signals zur Deckung bringen.

1. White level adjustment.
 - Display colour bar test pattern.
 - Set $\odot$ to min., $\odot$ to nom., $\odot$ to max.
 - Adjust presets VR and VB (CRT socket board) so that the picture does not show any colouration.
2. Adjustment of cut-off point.
 Manual adjustment is not possible, as the circuit board employs an automatic dark current control circuit.
 To check cut-off point (oscilloscope required), proceed as follows:
 - Display colour bar test pattern.
 - Set $\odot$ to min., $\odot$ to nom., $\odot$ to min.
 - Connect test probe to collectors of T736, T756, T776 (CRT socket board).
 The black levels of the three cathode signals should be 140-150 V.
3. Colour oscillator and PAL adjustments.
 - Inject colour bar test pattern.
 - Adjust to $\odot$, $\odot$, $\odot$ suit view conditions.
 - On the IC TDA 3566, short circuit pin 1 with pin 5 and pin 24 with 25.
 - With trimmer 2582 adjust the until colours are correct. Remove short circuits.
 - Attach probe to pin 17 of the IC TDA 3566.
 - With control BP and coil LZ, adjust the double images of the B signal to coincide.

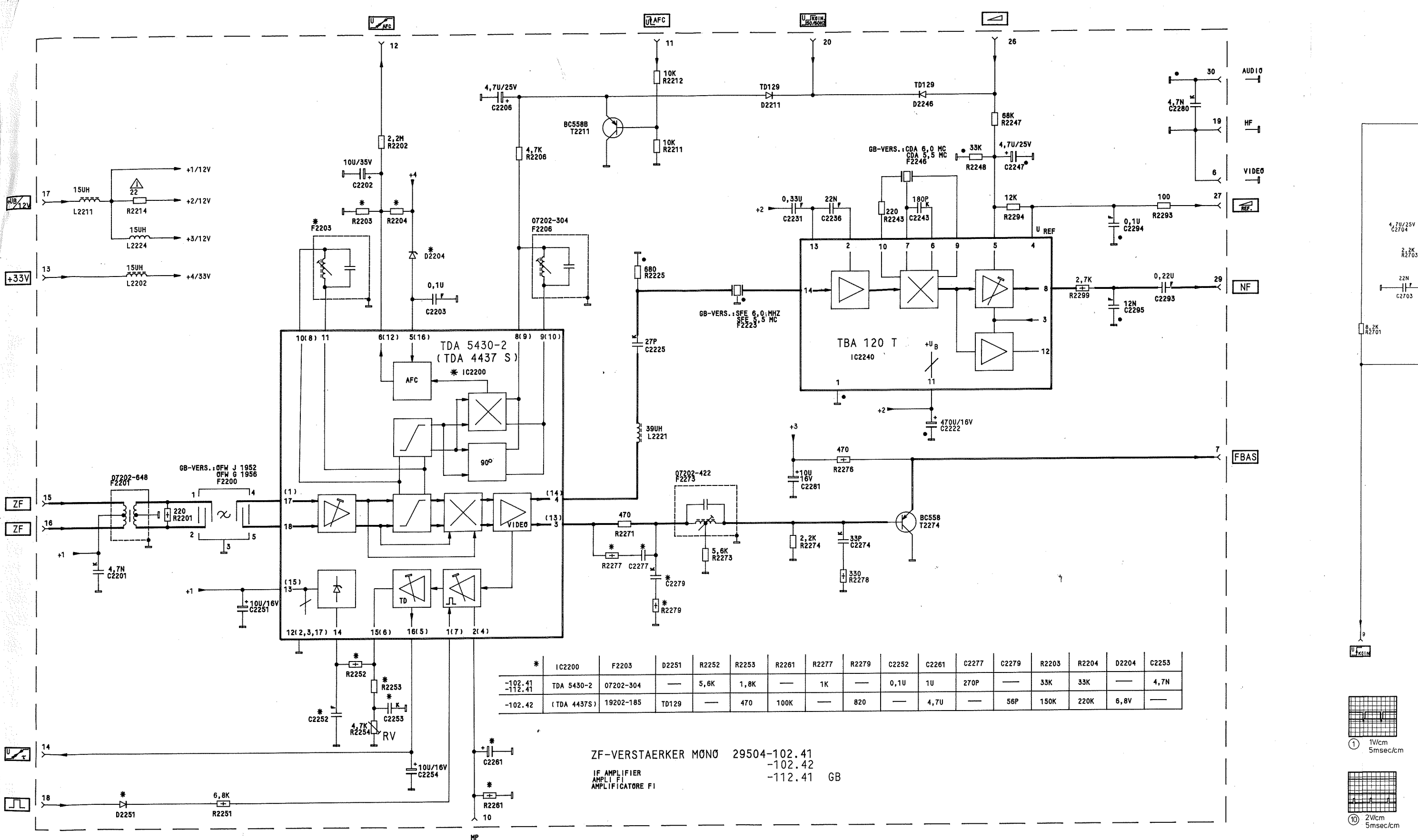
1. Taratura del bianco
 - Applicare un monoscopio FuBK
 - Regolare $\odot$ al minimo, $\odot$ sul valore nominale e $\odot$ al massimo.
 - Con VR e VB (piastra cinescopio) eliminare eventuali macchie di colore.
2. Taratura del punto di blocco.
 Una regolazione manuale non è possibile, poiché questa scheda incorpora una regolazione automatica della corrente d'interdizione.
 Controllo del punto di blocco (è necessario un oscilloscopio):
 - Applicare un monoscopio FuBK.
 - Regolare $\odot$ al minimo, $\odot$ sul valore nominale e $\odot$ al minimo.
 - Collegare la sonda ai collettori dei transistori T736, T756, T776 (piastra cinescopio).
 Valore nero dei tre segnali catodici ca. 140...150 V.
3. Regolazioni dell'oscillatore colore e PAL
 - Applicare un monoscopio FuBK.
 - Regolare $\odot$, $\odot$ ed $\odot$ sul valore nominale.
 - Cortocircuitare i terminali 1 e 5 ed i terminali 24 e 25 dell'IC TDA 3566.
 - Fermare le barre colorate scorrevoli con il trimmer 2582 e togliere i cortocircuiti.
 - Collegare la sonda dell'oscilloscopio al terminale 17 dell'IC TDA 3566.
 Con il regolatore BP e la bobina LZ portare a copertura le immagini doppie del segnale B.

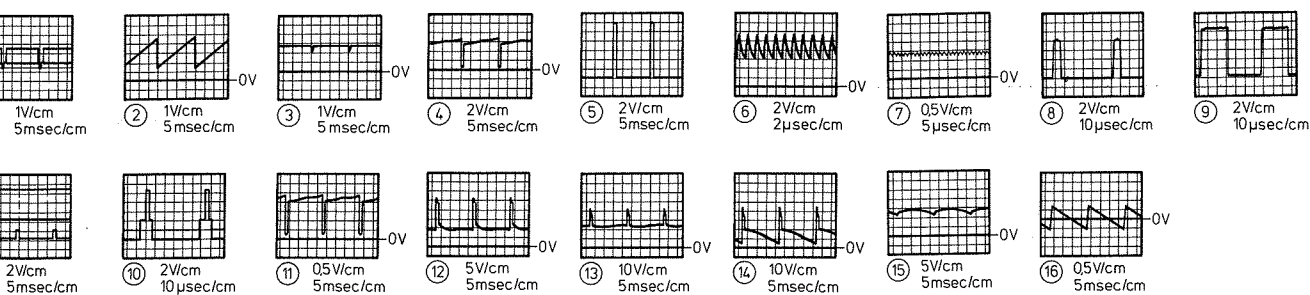
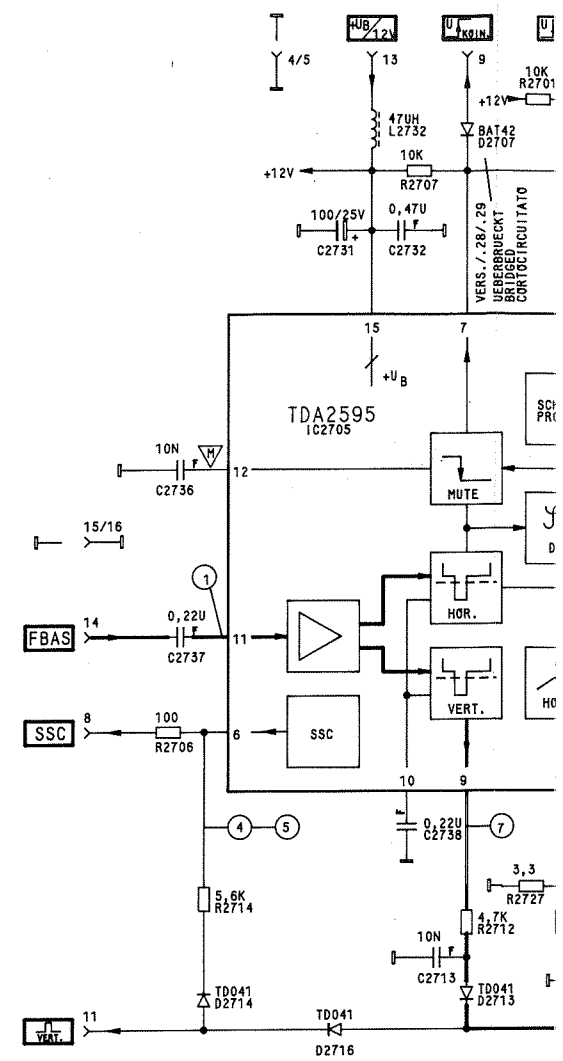
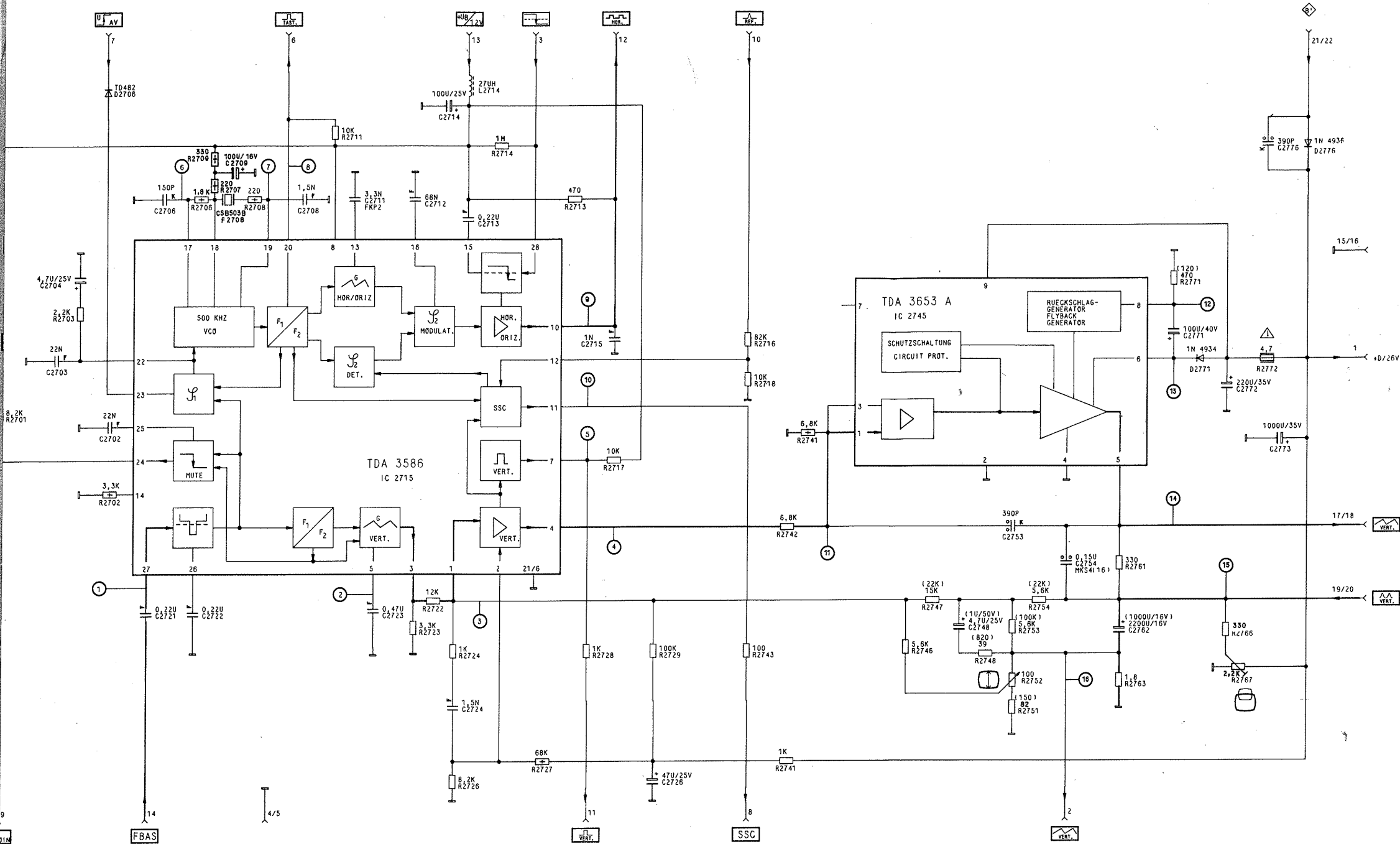


Wird die FARB/RGB-Steckkarte 29504-105.01 SECAM nachgerüstet ist kein zusätzlicher Abg

If the colour/RGB board 29504-105.01 is con 29504-146.01, no additional alignment is nece

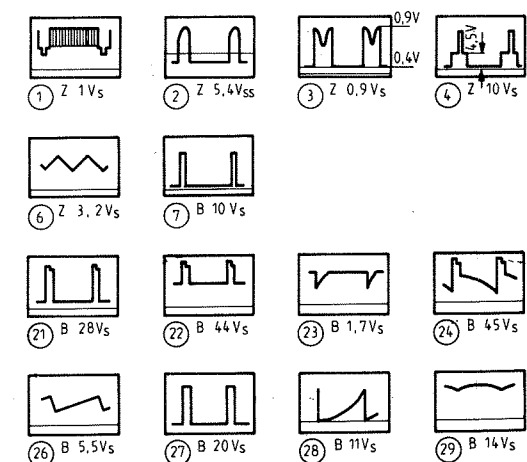
Se la scheda colore/RGB 29504-105.01 viene 29504-146.01, non occorre effettuare nessun'e

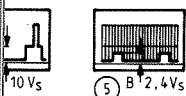
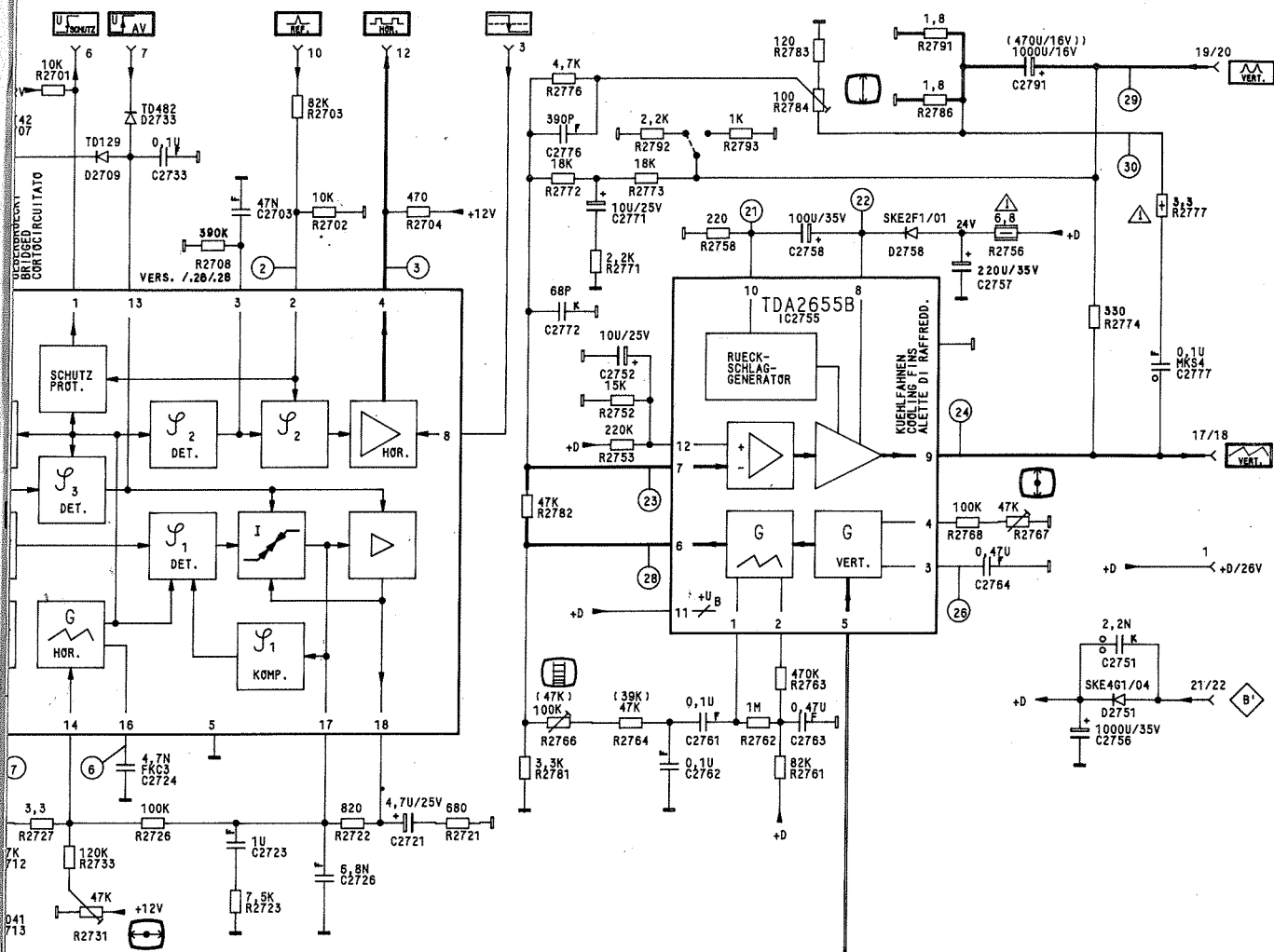




Ablenkung 29504-107.21
Deflection 107.22 Werte in ()
Deflessione

Kein Anpassungsabgleich 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





Ablenkung 29504-007.28

Deflection 007.29 Werte in ()

Deflessione

Kein Anpassungsabgleich 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

Pos. No.	Fig. No.	Bestell-Nr./Part No. Réf./Nr. d'ordinazioni	Benennung Description Désignation Denominazione
R 661		8765-098-005	1,5 Ω
R 663		8730-019-156	1W/0,47 Ω
R 664		8730-049-275	4W/ 1,2 KΩ
R 667		8705-369-321	100 KΩ
R 681		8735-003-022	0,22 Ω
R 704		8705-227-013	3,3 Ω
R 721		8700-051-071	82 KΩ
R 724		8797-215-674	470 KΩ
R 731		8790-047-135	1 KΩ
R 734		8705-329-113	47 KΩ
R 741		8705-369-103	18 KΩ
R 742		8700-201-069	680 Ω NB
R 754		8705-329-113	47 KΩ
R 761		8705-369-103	18 KΩ
R 762		8700-201-069	680 Ω NB
R 771		8790-047-135	1 KΩ
R 774		8705-329-113	47 KΩ
R 781		8705-369-103	18 KΩ
R 782		8700-201-069	680 Ω NB



Si 624 8315-616-003 800 mA

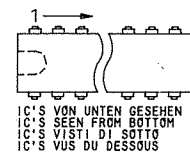
Symbole und ihre Bedeutung Symbols and their meaning Simboli e loro significati

	PROGR.		VERT. TASTIMPULS VERT. GATING PULSE IMP. A CADENZA VERT. IMP. TRAME
	PROGR. TASTE PROGR. BUTTON TASTO PROGR. TOUCHE PROGR.		VERT. PARABOLA PARABOLA VERT. SIGNAL PARABOLIQUE
	SPEICHERTASTE MEMORY BUTTON TASTO DI MEMORIA TOUCHE MEMOIRE		VERT. SAEGEZAHN VERT. SAW TOOTH DENTE DI SEGA VERT. SIGNAL DENT DE SCIE
	NORMTASTE TV STANDARD SELECT. BUTTON COMMUT. DI NORMA TOUCHE DE NORME		HOR. ANSTEUERUNG HORIZ. DRIVE PILOTAGGIO ORIZZ. SYNCH. LIGNES
	FEINABST. + FINE TUNING + SINT. FINE + REGLAGE FIN +		REF. IMPULS REFERENCE PULSE IMP. DI RIFER. IMP. DE REFER.
	FEINABST. - FINE TUNING - SINT. FINE - REGLAGE FIN -		SCHUTZSCHALTUNG CIRCUIT PROTECTION CIRCUITO DI PROTEZIONE CIRCUIT DE SECURITE
	SUCHLAUF BD I SELF-SEEK BAND I SINT. AUTOM. BANDE I RECHERCHE AUTOM. BANDE I		FARBTON TINTA TEINTE
	SUCHLAUF BANDWAHL III SELF-SEEK BAND III SINT. AUTOM. BANDE III RECHERCHE AUTOM. BANDE III		REF. LAUTSTÄRKE VOLUME REF. VOLT. TENS. DI RIF. VOLUME TENS. DE REF. VOL. SONORE
	SUCHLAUF UHF SELF-SEEK UHF SINT. AUTOM. UHF RECHERCHE AUTOM. UHF		HELLIGKEIT BRIGHTNESS LUMINOSITA' LUMINOSITE
	LAUTSTÄRKE VOLUME VOLUME SONORE		KONTRAST CONTRAST CONTRASTE
	FEINABST. FINE TUNING SINT. FINE REGLAGE FIN		FARBKONTRAST CONTRAST COLOUR CONTRASTO COLORE CONTRASTE COULEUR
	KANALWAHL CHANNEL SEL. SELEZ. CANALE SELECT. DE CANAUX		FBAS-SIGNAL CVBS SIGNAL SEGNALE SVCC SIGNAL VIDEO COMPOSITE
	BALANCE BILANCIAM. BALANCE		SUPERSANDCASTLE
	SUCHLAUF SELF-SEEK SINT. AUTOM. RECHERCHE AUTOM.		STRAHLSTR. BEGR. BEAM CURRENT LIM. CORRENTE CATODICA MEDIA LIM. COUR. DE FAISCEAU
	SCHALTSP. BANDWAHL BAND SEL. SWITCHING VOLTAGE TENS. DI COMMUT. SELEZ. BANDE TENS. DE COMMUT. SELECT. BANDE		SPITZ. STRAHLSTR. BEGR. PEAK BEAM CURRENT LIMITING CORR. CATODICA DI PICCO LIM. DE FAISCEAU CRETE
	SCHALTSP. VHF SWITCHING VOLT. VHF TENS. DI COMMUT. VHF TENS. DE COMMUT. VHF		ROT-SIGNAL RED SIGNAL SEGNALE ROSSO SIGNAL ROUGE
	SCHALTSP. UHF SWITCHING VOLT. UHF TENS. DI COMMUT. UHF TENS. DE COMMUT. UHF		GRÜN-SIGNAL GREEN SIGNAL SEGNALE VERDE SIGNAL VERT
	SCHALTSP. AFC SWITCHING VOLT. AFC TENS. DI COMMUT. AFC TENS. DE COMMUT. AFC		BLAU-SIGNAL BLUE SIGNAL SEGNALE BLU SIGNAL BLEU
	SCHALTSP. AV SWITCHING VOLT. AV TENS. DI COMMUT. AV TENS. DE COMMUT. AV		Y-SIGNAL CHROMA SIGNAL SEGNALE Y SIGNAL Y
	SCHALTSP. NORM SWITCHING VOLT. STANDARD TENS. DI COMMUT. NORMA TENS. DE COMMUT. STANDARD		F-SIGNAL CHROMA SIGNAL SEGNALE F SIGNAL CHROMA
	SCHALTSP. KOINZ. SWITCHING VOLT. COINC. TENS. DI COMMUT. COINC. TENS. DE COMMUT. COINC.		SCHWARZWERT BLACK LEVEL LIVELLO DEL NERO NIVEAU DU NOIR
	SCHALTSP. EURO-AV SWITCHING VOLT. EURO-AV TENS. DI COMMUT. EURO-AV TENS. DE COMMUT.		NF-SIGNAL AF SIGNAL SEGNALE BF SIGNAL BF
	SCHALTSP. VIDEO QUELLE SWITCHING VOLT. VIDEO SOURCE TENS. DI COMMUT. SORG. VIDEO TENS. DE COMMUT. SOURCE VIDEO		NF-SIGNAL LINKS AF SIGNAL LEFT SEGNALE BF SINISTRA SIGNAL BF GAUCHE
	SCHALTSP. DATENBETR. SWITCHING VOLT. DATA MODE TENS. DI COMMUT. DATI TENS. DE COMMUT. FONCT. DONNEES		NF-SIGNAL RECHTS AF SIGNAL RIGHT SEGNALE BF DESTRA SIGNAL BF DROIT
	SCHALTSP. 4,5 MHz SWITCHING VOLT. 4,5 MHz TENS. DI COMMUT. 4,5 MHz TENS. DE COMMUT. 4,5 MHz		VIDEO SIGNAL EURO-AV SEGNALE VIDEO EURO-AV SIGNAL VIDEO NORME FR
	REGELSP. VERZOEGERT DELAYED CONTR. VOLTAGE TENS. DI CONTR. RITARDO TENS. DE REGUL. RETARDEE		AUDIO SIGNAL EURO-AV SEGNALE AUDIO EURO-AV SIGNAL AUDIO NORME FR
	ABSTIMMSP. TUNER TUNING VOLT. TUNER TENS. DI SINTONIA TUNER TENS. D'ACCORD TUNER		SCHALTSP. LED LED SWITCHING VOLT. TENS. DI COMMUT. LED TENS. DE COMMUT. LED
	REGELSP. AFC AFC CONTROL VOLT. TENS. DI CONTR. AFC TENS. DE REGUL. AFC		IR-SIGNAL SEGNALE IR SIGNAL IR
	STUMMSCHALTUNG MUTING SILENZIAMENTO SILENCIEUX		SPG. GITTER 1 VOLTAGE GRID 1 TENS. GRIGLIA 1 TENS. GRILLE G1
	TASTIMPULS GATING PULSE IMPULSO A CADENZA IMPULS. DE DECLenchement		FOKUSSP. FOCUSING VOLTAGE TENS. DI FOCALIZZ. TENS. DE FOCALIS.

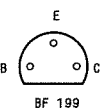
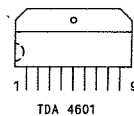
BEI ERSATZ AUS SICHERHEITSGRÜNDE NUR ORIGINALBAUTEILE VERWENDEN.
FOR REASONS OF SAFETY USE ORIGINAL PARTS ONLY WHEN REPLACING.
IN CASO DI SOSTITUZIONE UTILIZZARE PARTI ORIGINALI PER RAGIONI DI SICUREZZA SOLAMENTE.
PEZZI DI RICAMBIO ORIGINALI.
EN CAS DE REMPLACEMENT N'UTILISER, POUR DES RAISONS DE SECURITE, QUE DES PIECES D'ORIGINE.

BEI EINGRIFFEN SCHUTZMASSNAHMEN FÜR MOS-BAUTEILE BEACHTEN!
WHEN HANDLING MOS-CIRCUITS, ALWAYS OBSERVE THE MOS PROTECTION MEASURES!
ADOPTANDO COMPONENTI O CIRCUITI MOS OSSERVARE LE CORRESPONDENTI MISURE DI PROTEZIONE!
LORS DE LA MANIPULATION DES CIRCUITS MOS, RESPECTER LES PRESCRIPTIONS MOSI

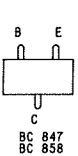
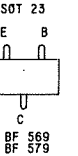
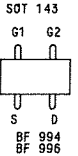
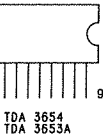
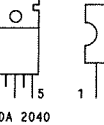
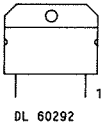
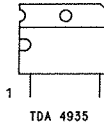
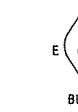
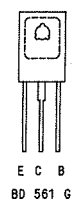
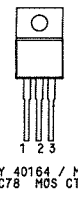
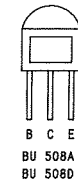
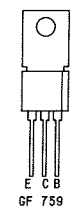
Wichtige Schaltzeichen Important circuit symbols Segni circuitali importanti



IC'S VON UNTEN GESEHEN
IC'S SEEN FROM BOTTOM
IC'S VISTI DI SOTTO
IC'S VUS DU DESSOUS



BC 548 / BC 558
BC 337/25
PH 2222
BC 338 / BC 324
BF 414



3/4W 0617 DIN

1/10W 0204 DIN

1/4W 0207 DIN

1/2W 0411 DIN

1W 0411 DIN

2W 0617 DIN

4W 0922 DIN

WIDERSTAND NICHT BRENNBAR
RESISTOR NOT FLAMMABLE
RESISTENZA NON INFAMMABILE
RESISTANCE INFLAMMABLE

DRAHTWIDERSTAND
WIRE RESISTOR
RESISTENZA A FILO
RESISTANCE BOBINEE

SICHERUNGSWIDERSTAND
SAFETY RESISTOR
RESISTENZA A SICUREZZA
RESISTANCE DISJONCTABLE

KONDENSATOR
CAPACITOR
CONDENSATORE
CONDENSATEUR

250V-

400V-

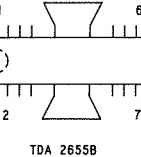
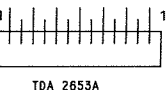
630V-

1000V-

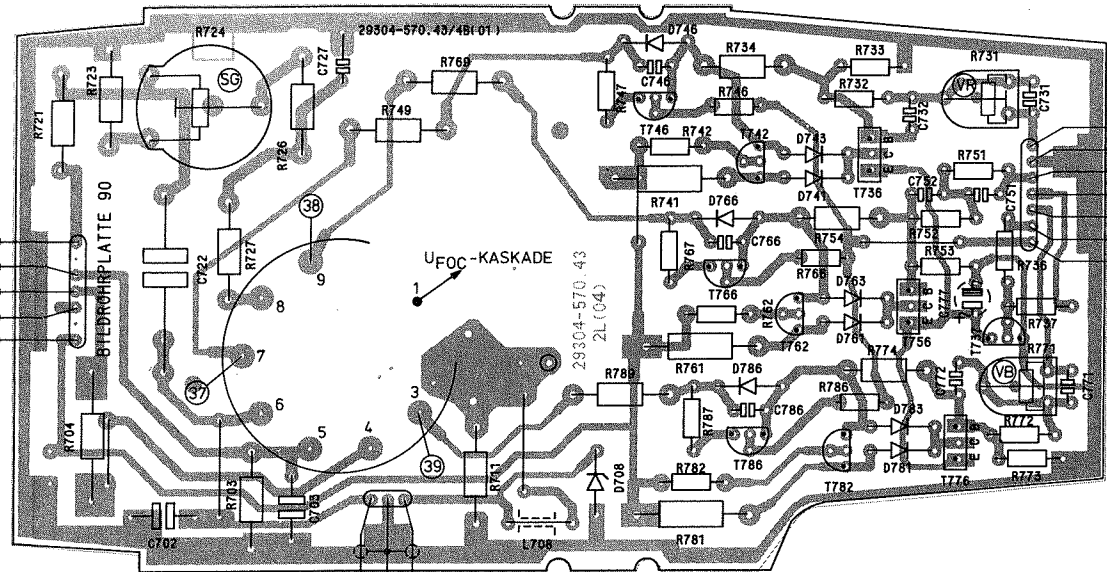
FOLIE
FOIL
A FOLIA
FOLIO PLASTIQUE

KERAMIK
CERAMIC
CERAMICO
CERAMIQUE

ELKO
ELECTROLYTIC
Elettrolitico
ELECTROLYTIQUE

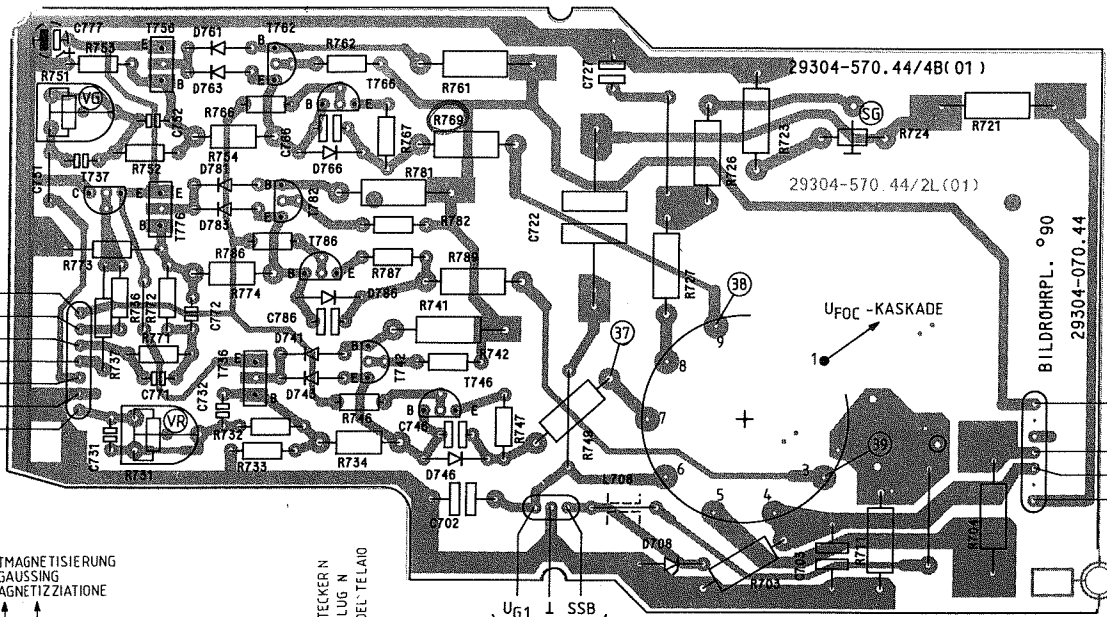


**BILDROHRPLATTE
CRT BASE
PIASTRA CINESC.**

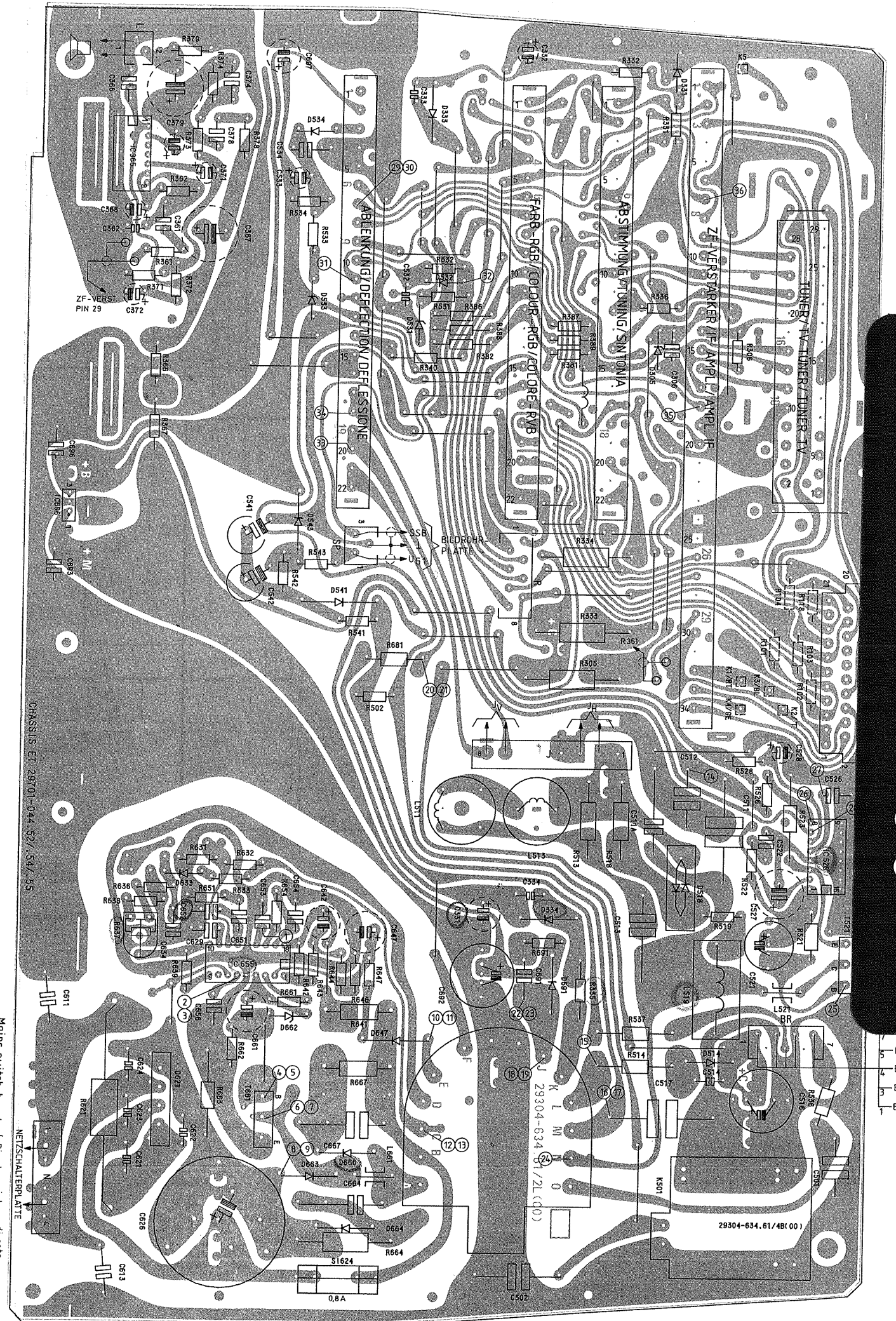
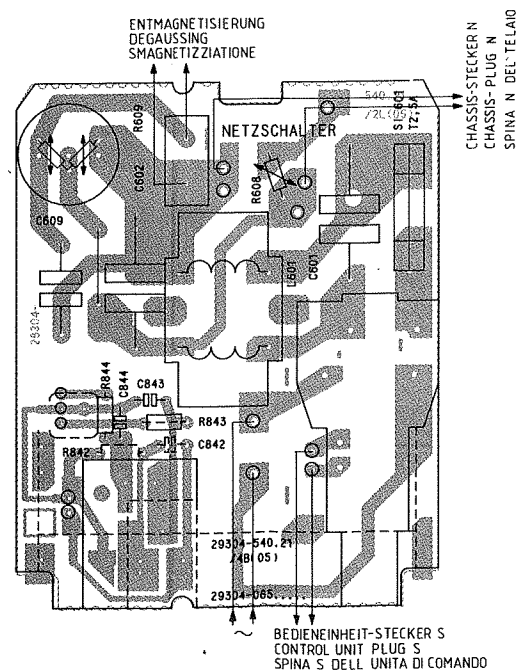


COLORE - RVB
COLOUR - RGB
FARB - RGB-STECKKARTE

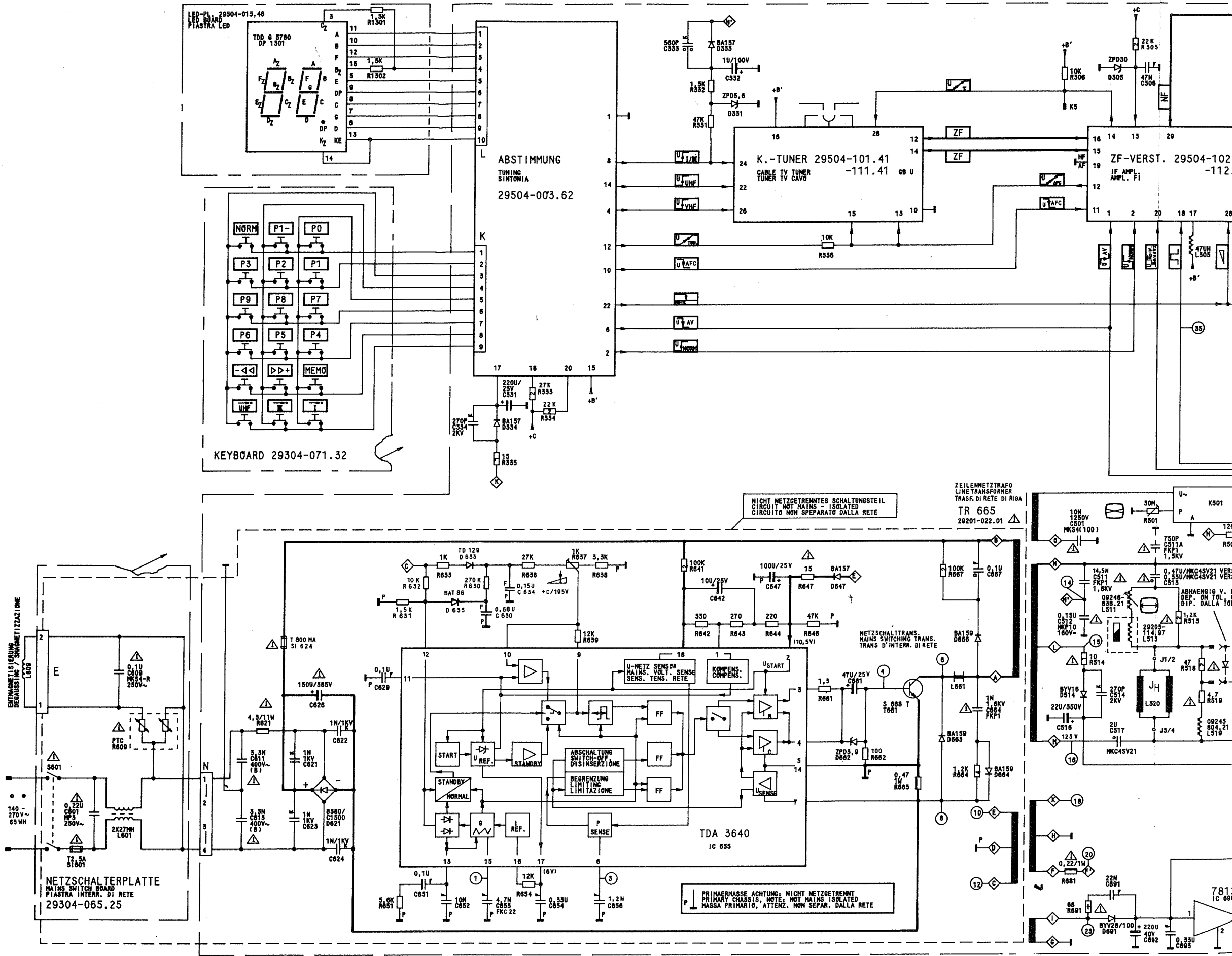
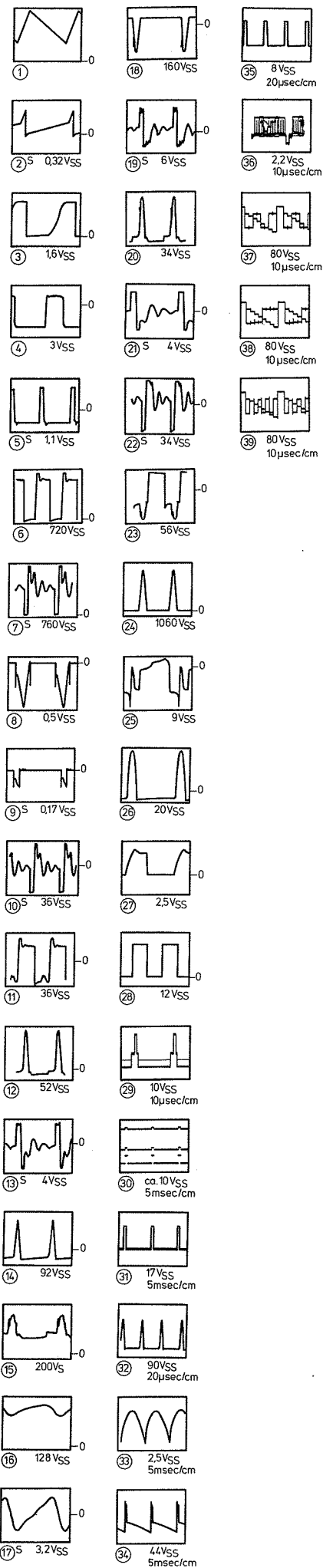
STECKER SP-CHASSIS
PLUG SP-CHASSIS
SPINA SP DELL TELAIO

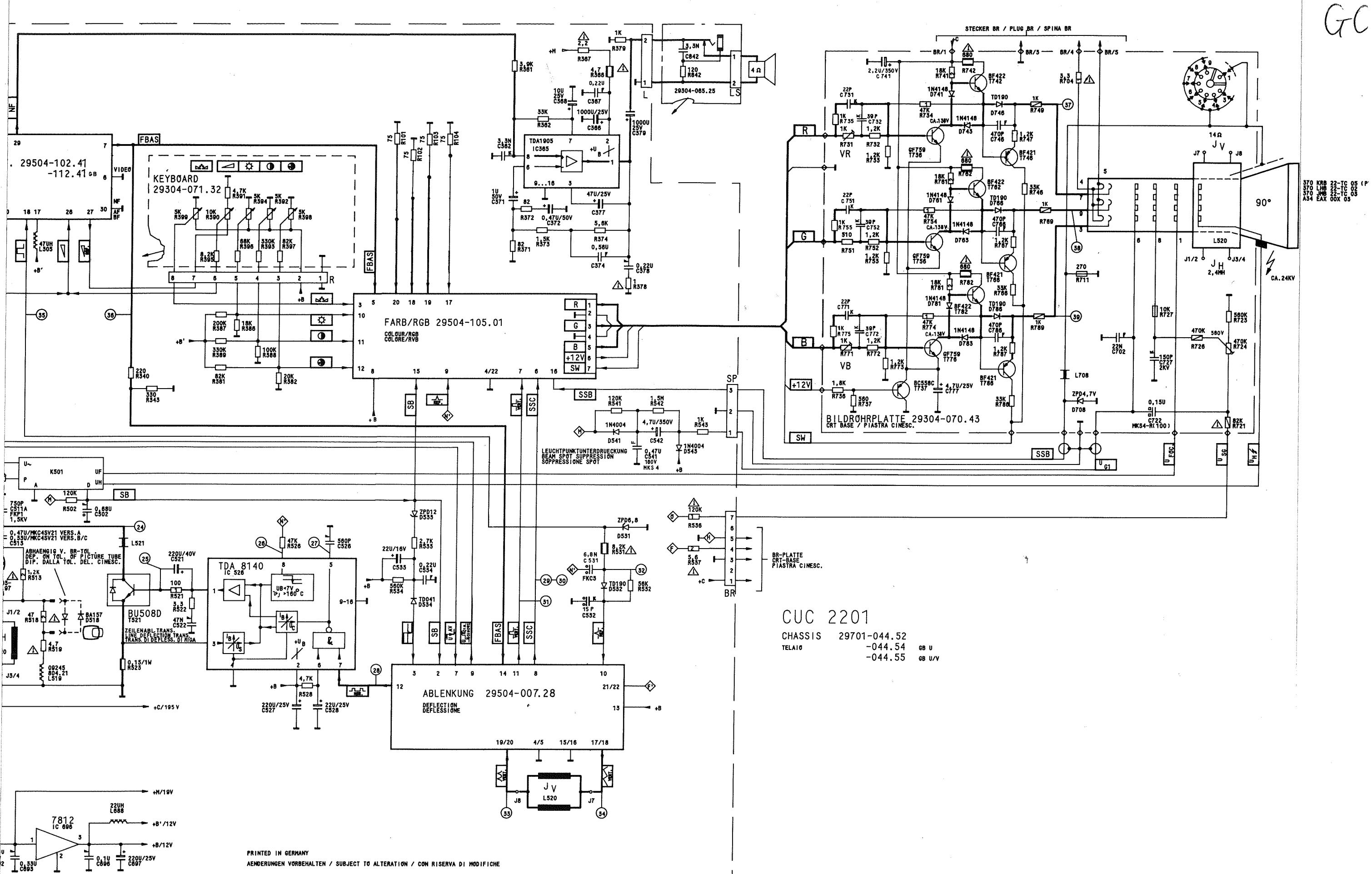


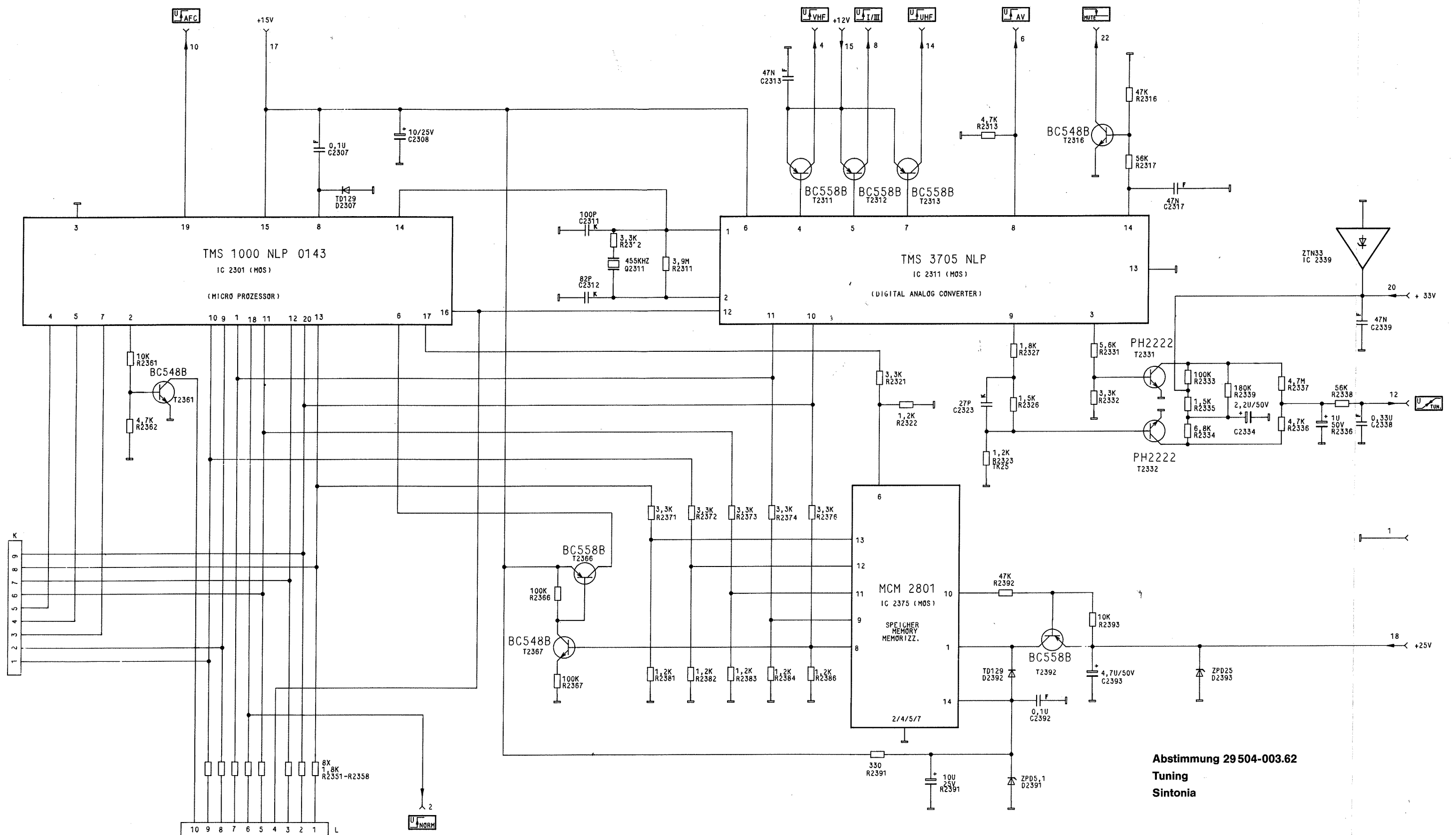
STECKER BR - CHASSIS
PLUG BR-CHASSIS
SPINA BR DELL TELAIO



ALDRORPLATE/ CRT BASE / PIASTRA CINESC.

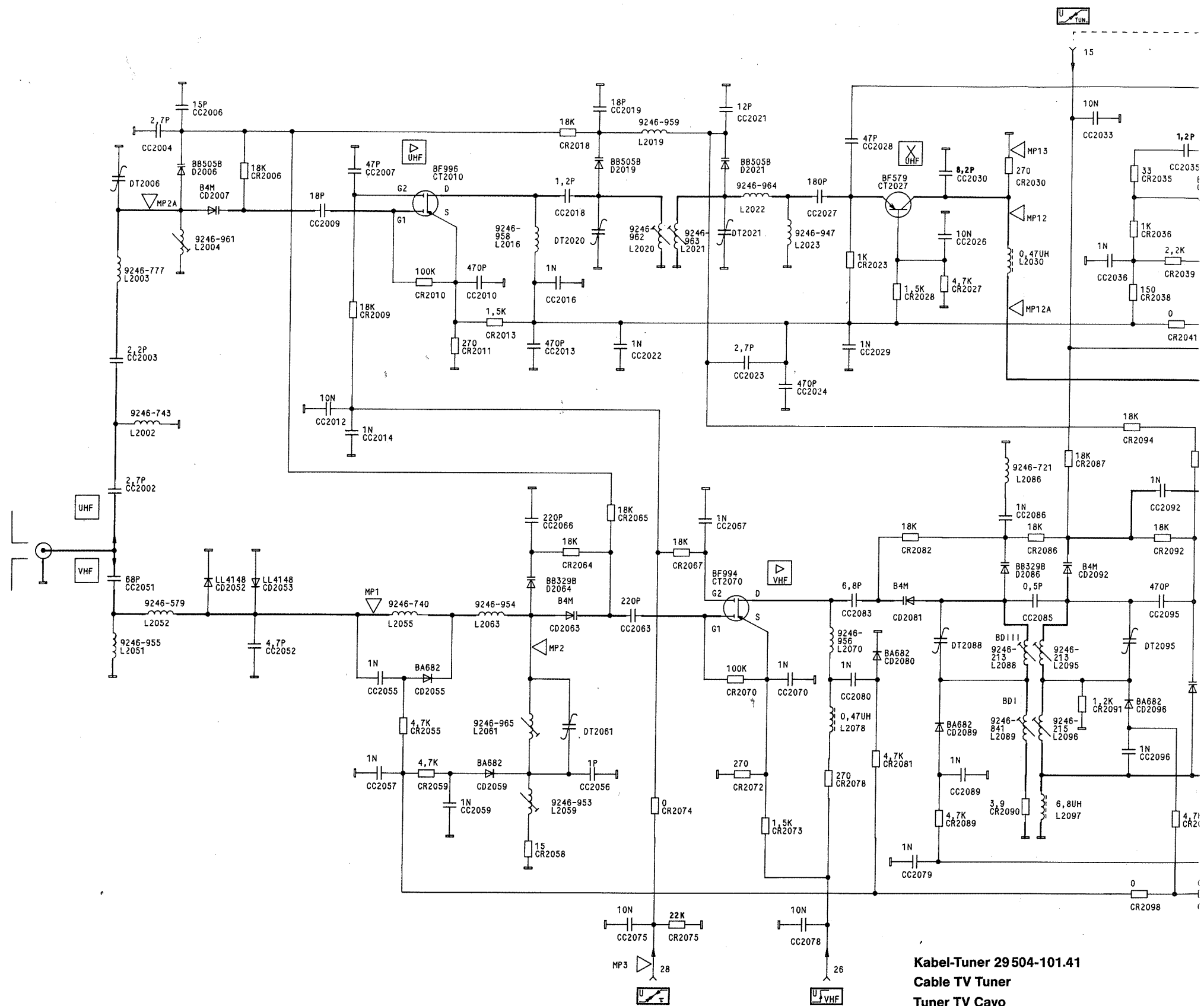




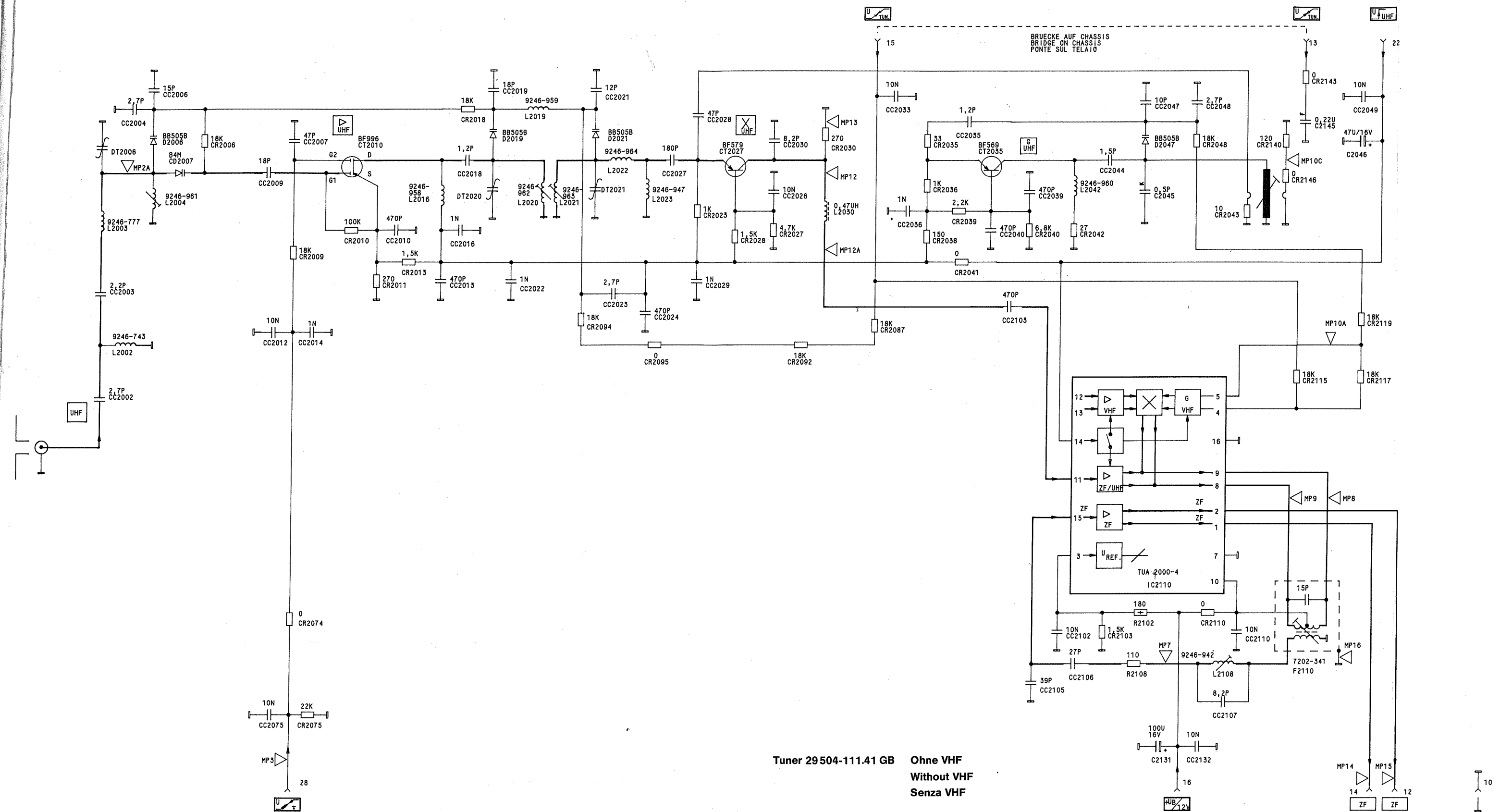


Abstimmung 29 504-003.62
Tuning
Sintonia

Kein Anpassungsabgleich 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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Funktionshinweise ZEILEN-NETZ-Teil

Der Zeilennetztransformator TR 665 trägt auf einem Wickelkörper Erregerwicklung für Spannungsversorgung und Zeilenablenkkreis.

Die Primärseite des Zeilennetztransformators liegt über T 661 und D 621 an Netzspannung und wird im Zeilenrhythmus geschaltet.

Dieser Zeilenrhythmus, erzeugt durch IC 655 (Pin 15), wird über Pin 12 synchronisiert. Die lastabhängige Nachsteuerung zur Stabilisierung des Netzteils übernimmt die Referenzspannung am R 663 und Pin 6 IC 655.

Service-Hinweise für ZEILEN-NETZ-Teil

Gerät mit Netztrenntransformator betreiben. Primärseite des ZEILEN-NETZ-Teils liegt an Netzpotential!

Bei Fehlfunktionen des Zeilen-Netz-Teils nach folgendem Suchschema vorgehen:

1. Kollektor/Emitter TR 521 überbrücken
2. Anlaufspannung über R 641 Pin 18 IC 655 = ca. 13 V
3. Startspannung über D 647 Pin 2 IC 655 = 10,5 V
4. Referenzspannung Pin 17 IC 655 = 6 V
5. Oszillatorfrequenz Pin 15 IC 655 = 2,5 V_{ss}, 15,625 kHz
6. +M = 10 V
+B = ca. 8 V
7. C 626 muß vor Wechsel des IC 655 entladen sein.
8. Netzteil-Regelbereich: 140–270 V.

Short Description of LINE MAINS SUPPLY UNIT

The line mains transformer TR 655 has a field winding for the voltage supply and line deflection cycle.

The primary side of the line mains transformer is connected to the mains voltage via T 661 and D 621 and is connected into the circuit in line rhythm.

The line rhythm produced via IC 655 (Pin 15) is synchronized via Pin 12. The reference voltage at Pin 10 provides the follow up to stabilize the mains supply during normal operation. Pin 2 supplies the voltage.

Service Instructions for Line Mains Supply Unit

The unit is operated via a mains isolated transformer.

The primary side of the line mains transformer is connected to the mains potential!

The event of a fault in the line mains supply unit, the following procedure should be adopted:

1. By-pass collector/emitter T 521
2. Set threshold voltage to approx. 13 V via R 641, Pin 18 of IC 655.
3. Set starter/AGC voltage to 10.5 V via D 647, Pin 2 of IC 655
4. Set reference voltage to 6 V via Pin 17 of IC 655
5. Set oscillator voltage at Pin 15 of IC 655 to 2.5 V_{pp}, 15.625 kHz
6. Set +M to approx. 10 V
Set +B to approx. 8 V
7. Be sure to discharge C 626 before replacing IC 655
8. Mains unit range of adjustment 140–270 V

Descrizione circuitale: ALIMENTATORE DI RIGA

Sul trasformatore di riga TR 665 esiste un rocchetto, dove è applicato l'avvolgimento d'eccitazione per la tensione d'alimentazione, ed il circuito di deflessione di riga.

Il primario del trasformatore, tramite T 661 e D 621, è collegato alla tensione di rete e commutato al ritmo delle righe.

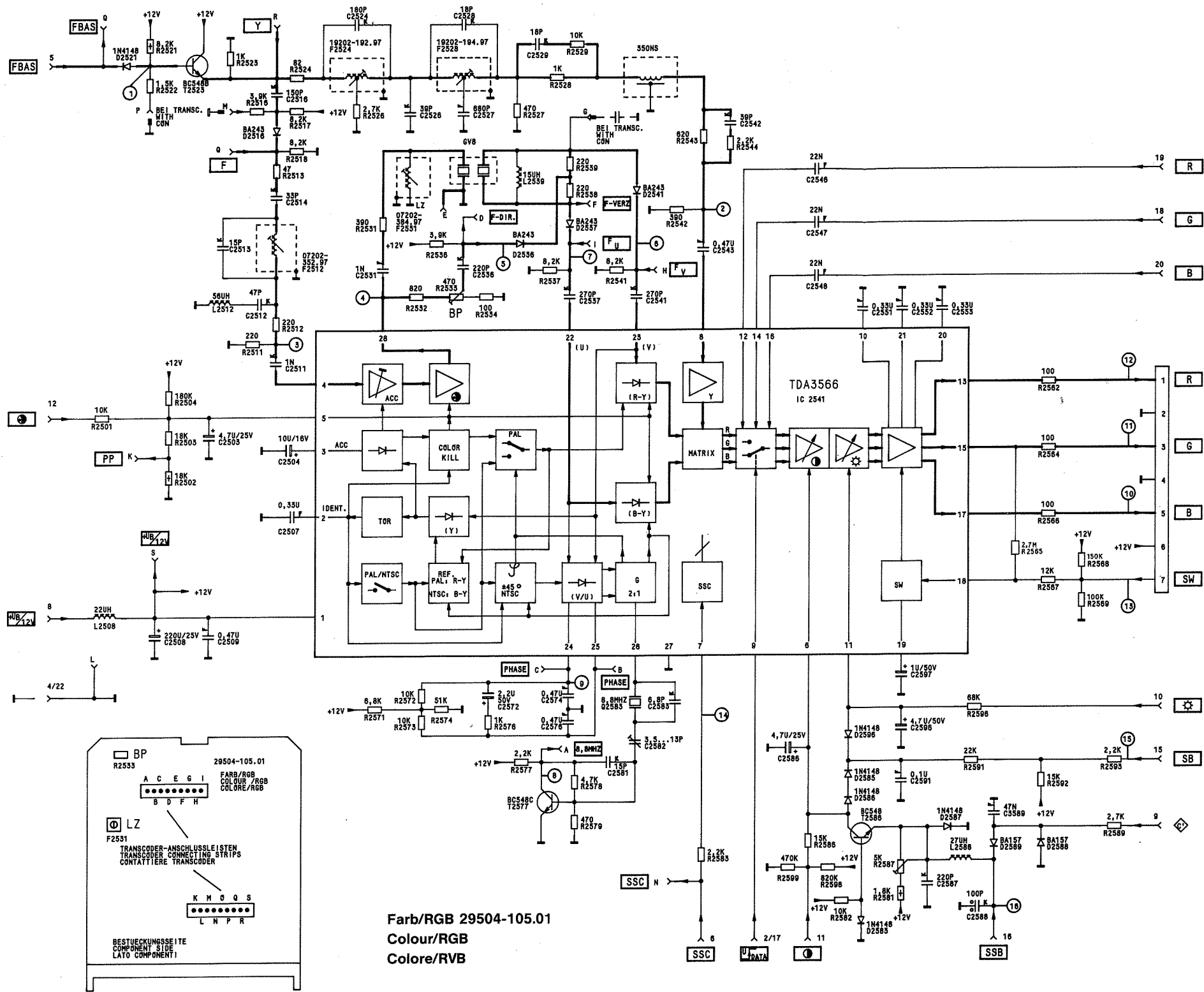
Tale commutazione, prodotta dall'IC 655 (pin 15), viene sincronizzata per mezzo del pin 12. La regolazione, che è in funzione del carico, per la stabilizzazione dell'alimentatore avviene con la tensione di riferimento applicata al pin 10 in funzionamento normale, mentre al pin 2 è disponibile la tensione d'alimentazione.

Istruzioni per il Servizio Assistenza

Alimentare l'apparecchio con un trasformatore separatore. Il lato primario dell'alimentatore è a potenziale di rete!

Se l'alimentatore di riga funziona erroneamente, ricercare il guasto secondo lo schema seguente:

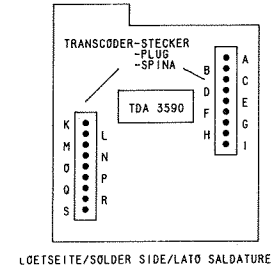
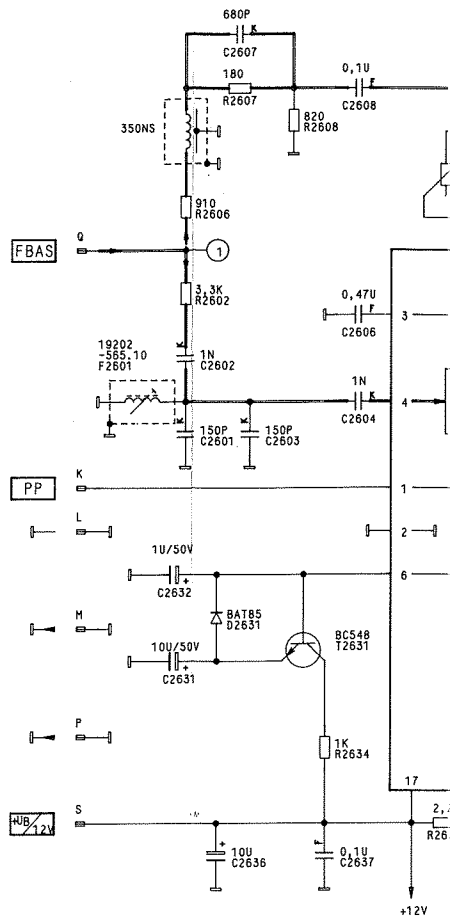
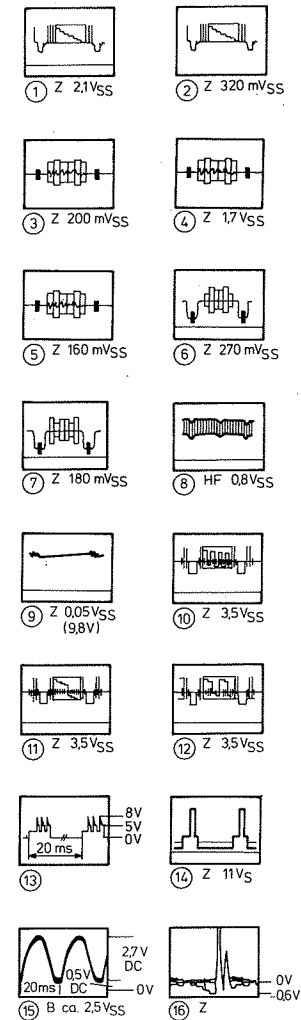
1. Cortocircuitare collettore/emettitore T 521.
2. Tensione di avviamento, tramite R 641, pin 18 IC 655 = ca. 13 V.
3. Tensione di start e di regolazione, tramite D 647, pin 2 IC 655 = 10,5 V.
4. Tensione di riferimento, pin 17 IC 655 = 6 V.
5. Frequenza dell'oscillatore, pin 15 IC 655 = 2,5 V_{pp}, 15,625 kHz.
6. +M = 10 V
+B = ca. 8 V.
7. C 626 deve essere scarico prima di cambiare l'IC 631.
8. Campo di regolazione dell'alimentatore: 140–270 V.



1. Weißabgleich
 - FuBK-Testbild einspielen.
 - $\odot$ min., $\odot$ nom., $\odot$ max., einstellen.
 - Regler VR und VB (Bildrohrplatte) so einstellen, daß keine Verfärbungen in den Grauwerten sichtbar sind.
2. Sperrpunktgleichung
 Eine manuelle Einstellung ist nicht möglich, da die Steckkarte eine automatische Dunkelstromregelung besitzt. Kontrolle des Sperrpunkts (Oszilloskop erforderlich).
 - FuBK-Testbild einspielen.
 - $\odot$ min., $\odot$ nom., $\odot$ max., einstellen.
 - Tastkopf an den Kollektoren der Transistoren T736, T756, T776 anhängen (Bildrohrplatte). Die Schwarzwerte der drei Kathodensignale liegen bei ca. 140 ... 150 V.
3. Einstellungen im Farbkanal
 - FuBK-Testbild einspielen.
 - $\odot$ nom., $\odot$ nom., $\odot$ nom., einstellen.
 - Am IC TDA 3566 Pin 1 mit Pin 5 und Pin 24 mit Pin 25 kurzschließen.
 - Mit Trimmer 2582 die durchlaufenden Farbbalken zum Stehen bringen, Kurzschlußbrücken entfernen.
 - Tastkopf am Pin 17 des IC TDA 3566 einhängen.
 - Mit Regler BP und Spule LZ die Doppelbilder des B-Signals zur Deckung bringen.

1. White level adjustment.
 - Display colour bar test pattern.
 - Set $\odot$ to min., $\odot$ to nom., $\odot$ to max.
 - Adjust presets VR and VB (CRT socket board) so that the picture does not show any colouration.
2. Adjustment of cut-off point.
 Manual adjustment is not possible, as the circuit board employs an automatic current control circuit.
 To check cut-off point (oscilloscope required), proceed as follows:
 - Display colour bar test pattern.
 - Set $\odot$ to min., $\odot$ to nom., $\odot$ to min.
 - Connect test probe to collectors of T736, T756, T776 (CRT socket board).
 The black levels of the three cathode signals should be 140-150 V.
3. Colour oscillator and PAL adjustments.
 - Inject colour bar test pattern.
 - Adjust to $\odot$, $\odot$, $\odot$ suit view conditions.
 - On the IC TDA 3566, short circuit pin 1 with pin 5 and pin 24 with 25.
 - With trimmer 2582 adjust the until colours are correct. Remove short circuits.
 - Attach probe to pin 17 of the IC TDA 3566.
 - With control BP and coil LZ, adjust the double images of the B signal to coincide.

1. Taratura del bianco
 - Applicare un monoscopio FuBK
 - Regolare $\odot$ al minimo, $\odot$ sul valore nominale e $\odot$ al massimo.
 - Con VR e VB (piastra cinescopio) eliminare eventuali macchie di colore.
2. Taratura del punto di blocco.
 Una regolazione manuale non è possibile, poiché questa scheda incorpora una regolazione automatica della corrente d'interdizione.
 Controllo del punto di blocco (è necessario un oscilloscopio):
 - Applicare un monoscopio FuBK.
 - Regolare $\odot$ al minimo, $\odot$ sul valore nominale e $\odot$ al minimo.
 - Collegare la sonda ai collettori dei transistori T736, T756, T776 (piastra cinescopio).
 Valore nero dei tre segnali catodici ca. 140 ... 150 V.
3. Regolazioni dell'oscillatore colore e PAL
 - Applicare un monoscopio FuBK.
 - Regolare $\odot$, $\odot$ ed $\odot$ sul valore nominale.
 - Cortocircuitare i terminali 1 e 5 ed i terminali 24 e 25 dell'IC TDA 3566.
 - Fermare le barre colorate scorrevoli con il trimmer 2582 e togliere i cortocircuiti.
 - Collegare la sonda dell'oscilloscopio al terminale 17 dell'IC TDA 3566.
 Con il regolatore BP e la bobina LZ portare a copertura le immagini doppie del segnale B.

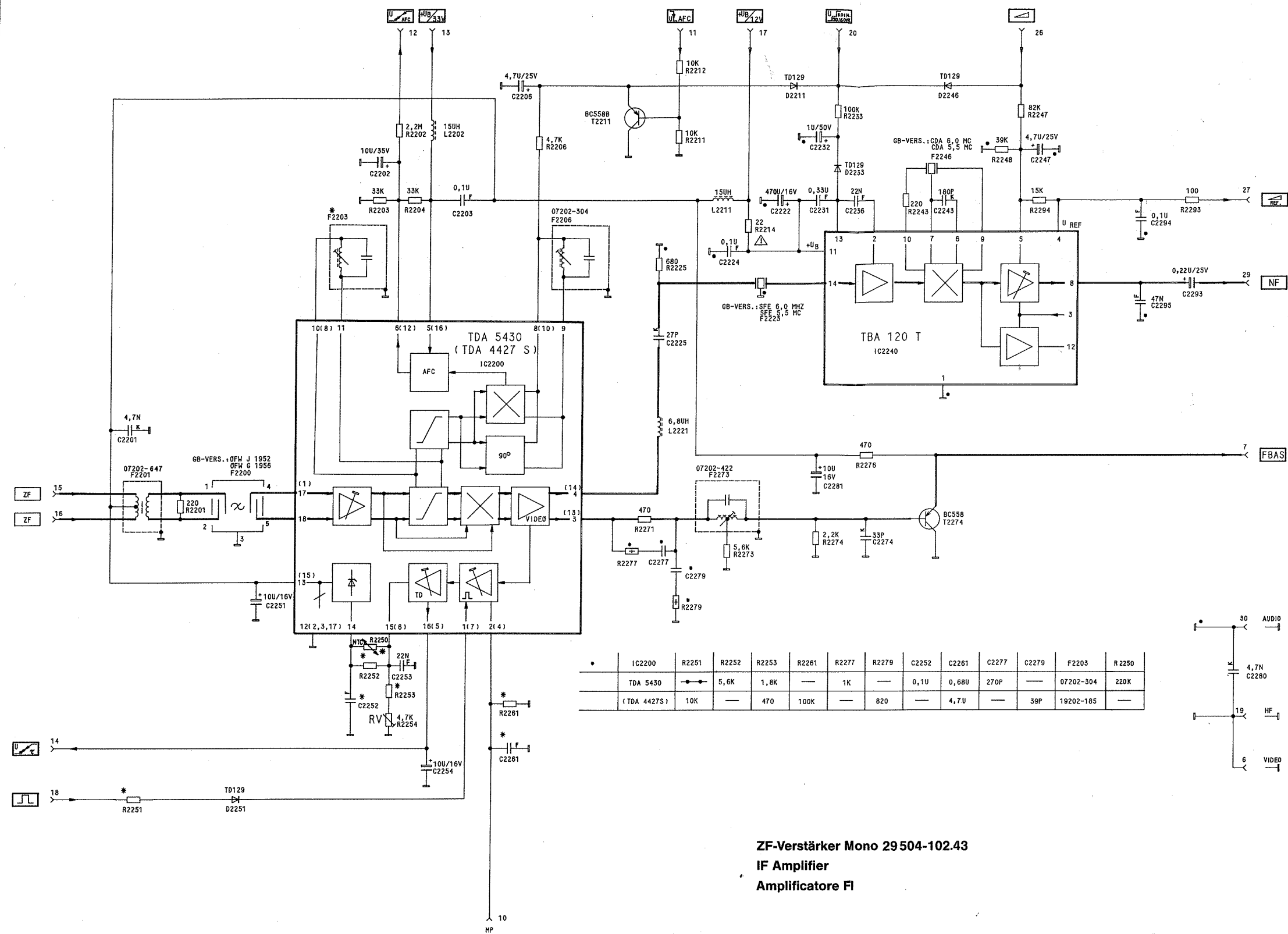


LOETSEITE/SOLDER SIDE/LATO SALDATURE

Wird die FARB/RGB-Steckkarte 29504-105.01 SECAM nachgerüstet ist kein zusätzliche

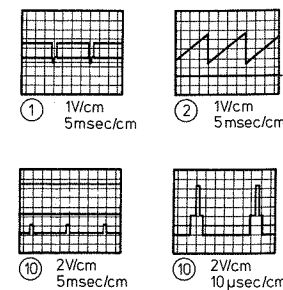
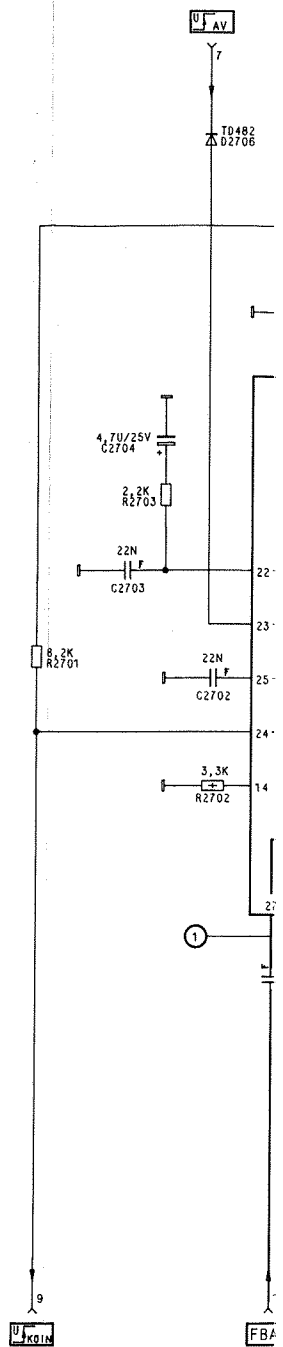
If the colour/RGB board 29504-105.01 is SECAM afterequipped is no additional

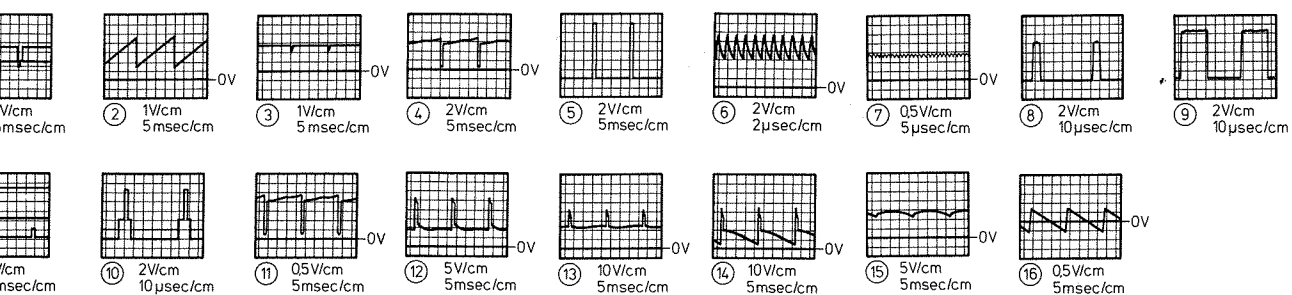
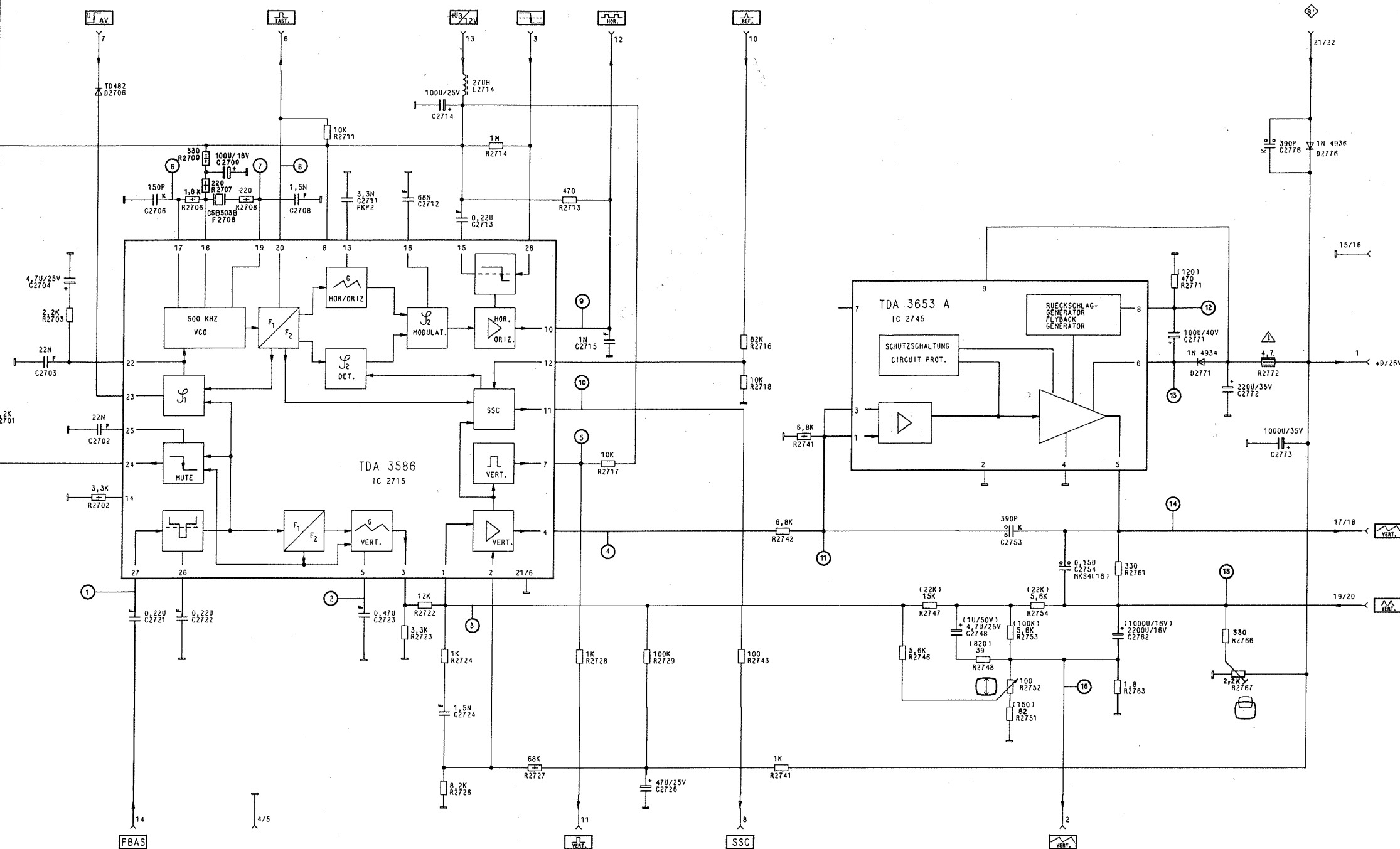
Se la scheda colore/RGB 29504-105.01 è SECAM dopo equipaggiata non occorre effettuare ne



ZF-Verstärker Mono 29504-102.43
IF Amplifier
Amplificatore FI

Kein Anpassungsabgleich 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



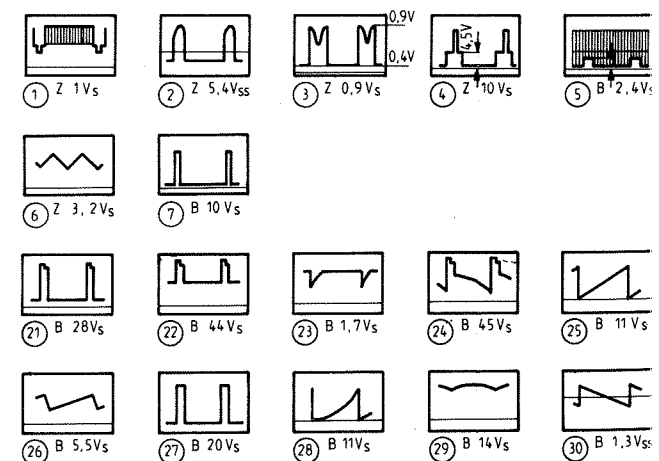
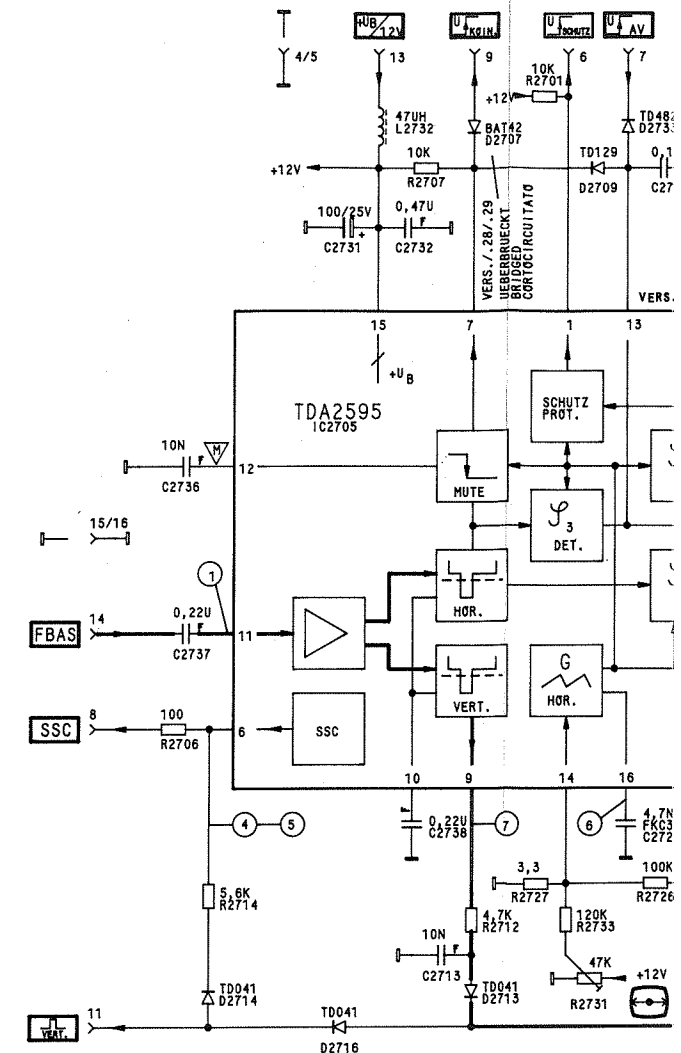


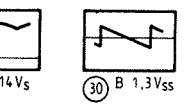
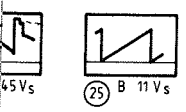
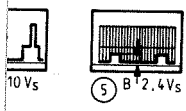
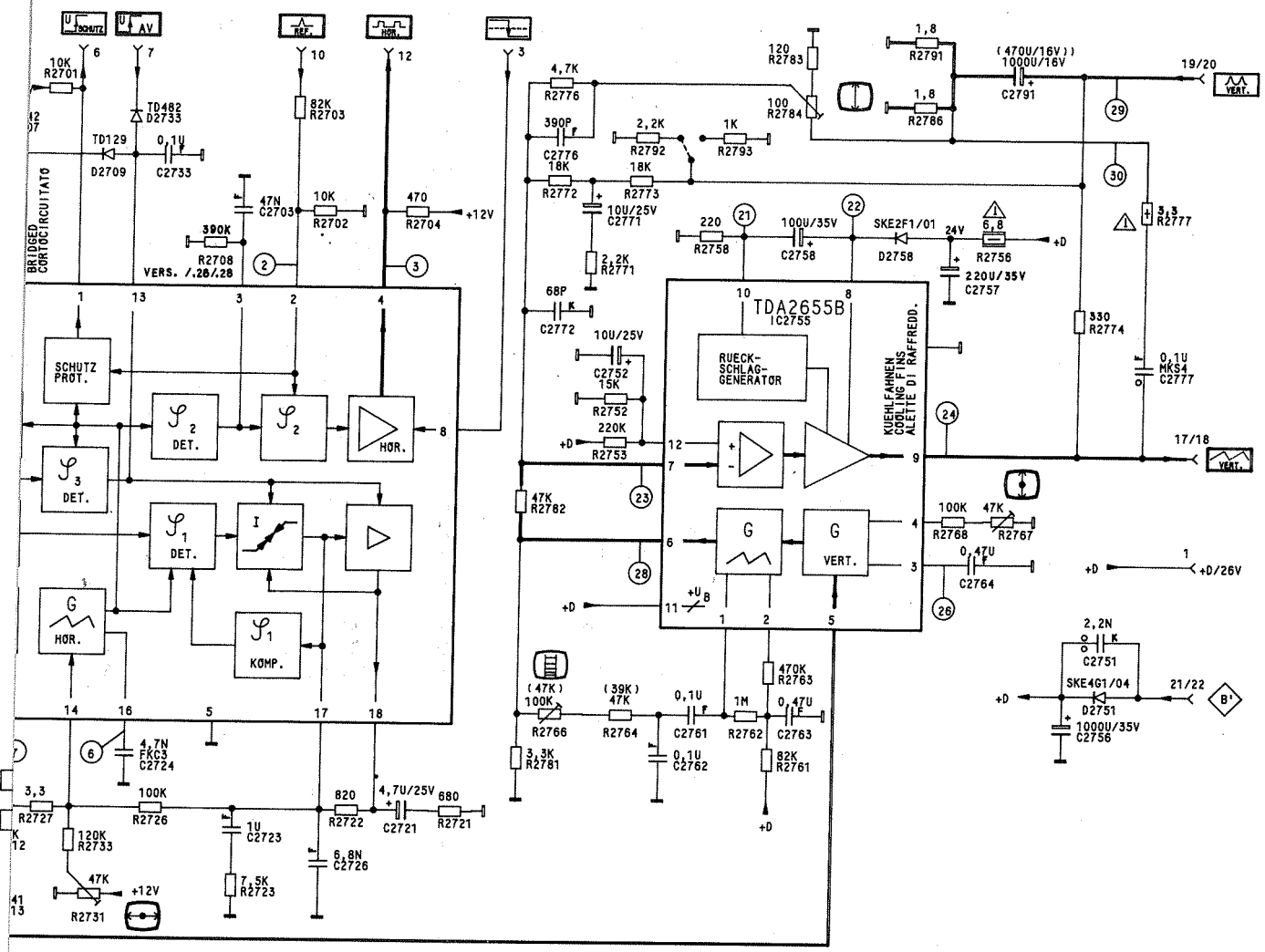
Ablenkung 29504-107.21

Deflection 107.22 Werte in ()

Deflessione

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Ablenkung 29504-007.28
Deflection 007.29 Werte in ()
Deflessione

Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
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 Non è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto

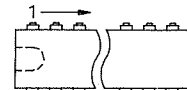
Symbole und ihre Bedeutung
Symbols and their meaning
Simboli e loro significati

	PROGR.
	PROGR. TASTE PROGR. BUTTON TOUCHE PROGR.
	SPEICHERTASTE MEMORY BUTTON TASTO DI MEMORIA TOUCHE MEMOIRE
	NORMTASTE TV STANDARD SELECT. BUTTON COMMUT. DI NORMA TOUCHE DE NORME
	FEINABST. FINE TUNING + SINT. FINE + REGLAGE FIN +
	FEINABST. - FINE TUNING - SINT. FINE - REGLAGE FIN -
	SUCHLAUF BD I SELF-SEEK BAND I SINT. AUTOM. BANDA I RECHERCHE AUTOM. BANDE I
	SUCHLAUF BANDWAHL III SELF-SEEK BAND III SINT. AUTOM. BANDA III RECHERCHE AUTOM. BANDE III
	SUCHLAUF UHF SELF-SEEK UHF SINT. AUTOM. UHF RECHERCHE AUTOM. UHF
	LAUTSTÄRKE VOLUME VOLUME SONORE
	FEINABST. FINE TUNING SINT. FINE REGLAGE FIN
	KANALWAHL CHANNEL SEL. SELEZ. CANALE SELECT. DE CANAUX
	BALANCE BILANCIAM. BALANCE
	SUCHLAUF SELF-SEEK SINT. AUTOM. RECHERCHE AUTOM.
	SCHALTSP. BANDWAHL BAND SEL. SWITCHING VOLTAGE TENS. DI COMMUT. SELEZ. BANDA TENS. DE COMMUT. SELECT. BANDE
	SCHALTSP. VHF SWITCHING VOLT. VHF TENS. DI COMMUT. VHF TENS. DE COMMUT. VHF
	SCHALTSP. UHF SWITCHING VOLT. UHF TENS. DI COMMUT. UHF TENS. DE COMMUT. UHF
	SCHALTSP. AFC SWITCHING VOLT. AFC TENS. DI COMMUT. AFC TENS. DE COMMUT. AFC
	SCHALTSP. AV AV SWITCHING VOLT. TENS. DI COMMUT. AV TENS. DE COMMUT. AV
	SCHALTSP. NORM SWITCHING VOLT. STANDARD TENS. DI COMMUT. NORMA TENS. DE COMMUT. STANDARD
	SCHALTSP. KOINZ. SWITCHING VOLT. COINC. TENS. DI COMMUT. COINC. TENS. DE COMMUT. COINC.
	SCHALTSP. EURO-AV SWITCHING VOLT. EURO-AV TENS. DI COMMUT. EURO-AV TENS. DE COMMUT.
	SCHALTSP. VIDEO QUELLE SWITCHING VOLT. VIDEO SOURCE TENS. DI COMMUT. SORG. VIDEO TENS. DE COMMUT. SOURCE VIDEO
	SCHALTSP. DATENBETR. SWITCHING VOLT. DATA MODE TENS. DI COMMUT. DATI TENS. DE COMMUT. FONCT. DONNEES
	SCHALTSP. 4.5 MHZ SWITCHING VOLT. 4.5 MHZ TENS. DI COMMUT. 4.5 MHZ TENS. DE COMMUT. 4.5 MHZ
	REGELSP. VERZÖGERT DELAYED CONTR. VOLTAGE TENS. DI CONTR. RITARD. TENS. DE REGUL. RETARDEE
	ABSTIMMSP. TUNER TUNING VOLT. TUNER TENS. DI SINTONIA TUNER TENS. D'ACCORD TUNER
	REGELSP. AFC AFC CONTROL VOLT. TENS. DI CONTR. AFC TENS. DE REGUL. AFC
	STUMMSCHALTUNG MUTING SILENZAMENTO SILENCIEUX
	TASTIMPULS GATING PULSE IMPULSO A CADENZA IMPULS. DE DECLenchement

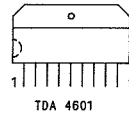
	VERT. TASTIMPULS VERT. GATING PULSE IMP. A CADENZA VERT. IMP. TRAME
	VERT. PARABEL VERT. PARABOLA PARABOLA VERT. SIGNAL PARABOLIQUE
	VERT. SAEGEZAHN VERT. SAW TOOTH DENTE DI SEGA VERT. SIGNAL DENT DE SCIE
	HOR. ANSTEUERUNG HORIZ. DRIVE PILOTAGGIO ORIZZ. SYNCHR. LIGNES
	REF. IMPULS REFERENCE PULSE IMP. DI RIF. IMP. DE REFER.
	SCHUTZSCHALTUNG CIRCUIT PROTECTION CIRCUITO DI PROTEZIONE CIRCUIT DE SECURITE
	FARBTON TINT TINTA TEINTE
	REF. LAUTSTÄRKE VOLUME REF. VOLT. TENS. DI RIF. VOLUME TENS. DE REF. VOL. SONORE
	HELLIGKEIT BRIGHTNESS LUMINOSITA' LUMINOSITE
	KONTRAST CONTRAST CONTRASTO CONTRASTE
	FARBKONTRAST CONTRAST COLOUR CONTRASTO COLORE CONTRASTE COULEUR
	FBAS-SIGNAL CCVS SIGNAL SEGNALE SVCC SIGNAL VIDEO COMPOSITE
	SUPERSANDCASTLE
	STRAHLSTR. BEGR. BEAM CURRENT LIM. CORRENTE CATODICA MEDIA LIM. COUR. DE FAISCEAU
	SPITZ. STRAHLSTR. BEGR. PEAK BEAM CURRENT LIMITING CORR. CATODICA DI PICCO LIM. DE FAISCEAU CRETE
	ROT-SIGNAL RED SIGNAL SEGNALE ROSSO SIGNAL ROUGE
	GRUEN-SIGNAL GREEN SIGNAL SEGNALE VERDE SIGNAL VERT
	BLAU-SIGNAL BLUE SIGNAL SEGNALE BLU SIGNAL BLEU
	Y-SIGNAL CHROMA SIGNAL SEGNALE Y SIGNAL Y
	F-SIGNAL CHROMA SIGNAL SEGNALE F SIGNAL CHROMA
	SCHWARZWERT BLACK LEVEL LIVELLO DEL NERO NIVEAU DU NOIR
	NF-SIGNAL AF SIGNAL SEGNALE BF SIGNAL BF
	NF-SIGNAL LINKS AF SIGNAL LEFT SEGNALE BF SINISTRA SIGNAL BF GAUCHE
	NF-SIGNAL RECHTS AF SIGNAL RIGHT SEGNALE BF DESTRA SIGNAL BF DROIT
	VIDEO SIGNAL EURO-AV SEGNALE VIDEO EURO-AV SIGNAL VIDEO NORME FR
	AUDIO SIGNAL EURO-AV SEGNALE AUDIO EURO-AV SIGNAL AUDIO NORME FR
	SCHALTSP. LED LED SWITCHING VOLT. LED TENS. DI COMMUT. TENS. DE COMMUT. LED
	IR-SIGNAL SEGNALE IR SIGNAL IR
	SPG. GITTER 1 VOLTAGE GRID 1 TENS. GRIGLIA 1 TENS. GRILLE G1
	FOKUSSP. FOCUSING VOLTAGE TENS. DI FOCALIZZ. TENS. DE FOCALIS.

	HOCHSPANNUNG EHT VOLTAGE ALTA TENS. HAUTE TENS.
	SCHIRMBITTERSPP. SCREEN-GRID VOLT. TENS. GRIGLIA SCHERMO TENS. GRILLE-ECRAN
	TEXT ENABLE
	I ² C-CLOCK
	VCR-CLOCK
	I-BUS-CLOCK
	DATEN DATA DATI DONNEES
	ZF-SIGNAL IF SIGNAL SEGNALE FI SIGNAL FI
	PAL PRIORITAET PAL PRIORITY PRIORITA' PAL PRIORITE PAL
	F-SIGNAL DIREKT F SIGNAL DIRECT SEGNALE F DIRETTO SIGNAL CHROMA DIRECT
	FV-SIGNAL FV SIGNAL SEGNALE FV SIGNAL FV
	FU-SIGNAL FU SIGNAL SEGNALE FU SIGNAL FX
	F-SIGNAL VERZÖGERT F SIGNAL DELAYED SEGNALE F RITARD. SIGNAL CHROMA RETARDE
	VERZÖGERUNGSLEITUNG DELAY LINE LINEA DI RITARDO LIGNE A RETARD
	SCHALTSP. /SCHUTZFUNKTION SWITCHING VOLT. /PROTECTIVE FUNCTION TENS. DI COMMUT. /FUNZ. DI PROTEZ. TENS. DE COMMUT. /SECURITE

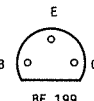
	ZEILENBREITE LINE WIDTH LARGHEZZA DI RIGA AMPLITUDE HORIZONTALE
	OST / WEST AMPLITUDE EAST / WEST AMPLITUDE AMPIEZZA EST / OVEST AMPLITUDE EST / OUEST
	HOR. LINEARITAET HORIZ. LINEARITY LINEAR. ORIZZ. LINEAR. HORIZONT.
	BILDLAG HOR. HORIZ. PICTURE POSITION POSIZIONE ORIZZ. D'IMMAGINE CADRAGE HORIZONT.
	FOKUSREGLER FOCUS CONTROL REGOLAT. DI FOCALIZZ. REGLAGE DE FOCALISATION
	BILDLAG VERT. VERT. PICTURE POSITION POSIZ. VERT. D'IMMAGINE CADRAGE VERTICAL
	BILDAMPLITUDE FIELD AMPLITUDE AMPIEZZA D'IMMAGINE AMPLITUDE VERTICALE
	TRAPEZ TRAPEZIUM TRAPEZIO TRAPEZE
	HOR. FREQUENZ HOR. FREQUENCY FREQ. ORIZZ. FREQ. HORIZ.
	VERT. FREQUENZ VERT. FREQUENCY FREQ. VERT.
	VERT. LINEARITAET VERT. LINEARITY LINEAR. VERT.



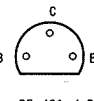
IC'S VON UNTEN GESEHEN
IC'S SEEN FROM BOTTOM
IC'S VISTI DI SOTTO
IC'S VUS DU DESSOUS



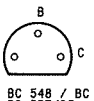
TDA 4601



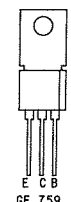
BF 199



BF 421 / BF 422



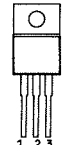
BC 548 / BC 558
BC 337/25
PH
BC 358 / BC 324
BF 414



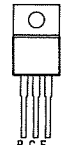
GF 759



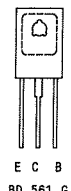
BU 508A
BU 508D



TY 40164 / MC 7505



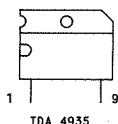
BD 5616
BU 908
BU 903



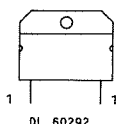
BD 561 G



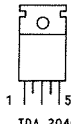
BU 208A



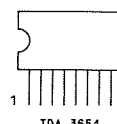
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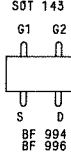
DL 60292



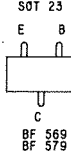
TDA 2040



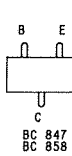
TDA 3654
TDA 3653A



SOT 143
G1 G2
S
BF 994
BF 996



SOT 23
E B
C
BF 569
BF 579



B E
C
BC 847
BC 858

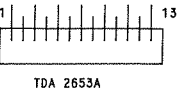
3/4W	0617 DIN
1/10W	0204 DIN
1/4W	0207 DIN
1/2W	0411 DIN
1W	0411 DIN
2W	0617 DIN
4W	0922 DIN

WIDERSTAND NICHT BRENNBAR
RESISTOR NOT FLAMMABLE
RESISTENZA NON INFIAMMABILE
RESISTANCE ININFLAMMABLE

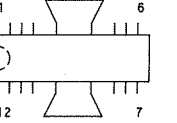
DRAHTWIDERSTAND
WIRE RESISTOR
RESISTENZA A FILO
RESISTANCE BOBINÉE

SICHERUNGSWIDERSTAND
SAFETY RESISTOR
RESISTENZA DI SICUREZZA
RESISTANCE DISJONCTABLE

KONDENSATOR CAPACITOR CONDENSATORE CONDENSATEUR	250V-
	400V-
	630V-
	1000V-
FOLIE Foil FOLLIA FOLIO PLASTIQUE	
KERAMIK Ceramic CERAMICO CERAMIQUE	
ELKO Electrolytic Elettrolitico Elettrolitico	



TDA 2653A



TDA 2655B

STECKER - BR - CHASSIS / Plug BR -
SPINA BR -
DEL TELAIO
Chassis

