Matrix

Item	See Model	Book
Service Notes (See Notes)	Grundig G1000 Chassis	4
X-Ray Precautions (See Notes)	Grundig G1000 Chassis	4
Circuit Diagram Symbols	Grundig CUC 1982	5
Remote Control Diagram	Grundig CUC 6360	5
Tuner Diagram	Grundig CUC 5301	3

Recommended Safety Parts

Item	Part No.	Description	
E72 9112			
	09246-188.31	Degaussing Coil	
WW.	09246-188.71	Degaussing Coil	
	8300-068-696	Pict. Tube A 68 KZN 696X01	
	29201-360.11	CRT Socket	
	29703-291.81	Power Switch	
	8290-991-356	Power Cable	
	29201-361.17	Focus-UG 2 Control	
	29305-022.26	CRT Board CUC 7800	
R 816, R 817	8766-701-027	KSW SI A 12 OHM 5% -GA	
ST72 760/9			
	09246-188.31	Degaussing Coil	
WW.	09246-188.71	Degaussing Coil	
	8300-068-696	Pict. Tube A 68 KZN 696X01	
	29201-360.11	CRT Socket	
	29303-452.03	Mains Plug - Lower Part	
	29703-291.32	Power Switch	
	8290-991-361	Power Cable	
	29201-361.17	Focus Control Unit	
R 1850	8765-049-157	MSW AX 0414-GA 3,3 MOHM	
ST63 760/9			
	09246-188.71	Degaussing Coil	
	8300-059-696	Pict. Tube A 59 LCG 696X01	
	29201-360.11	CRT Socket	
	29201-471.01	Euro-Converter	
	29303-377.03	Bracket Plug 2-POL	
	29303-452.03	Mains Plug - Lower Part	
	29703-291.32	Power Switch	
	8290-991-361	Power Cable	
	29201-361.19	Focus Control Unit	
R 1850	8765-049-157	MSW AX 0414-GA 3,3 MOHM	
CUC 7861			
	29304-050.95	Mains Interference Unit	
	09621-113.02	Fuse Holder	
C 7	8531-505-221	MKT 680PF 20% 12,5KV	
C 621	8660-098-238	SI-KERKO B-SS 2200PF 20%	
C622	8660-098-238	SI-KERKO B-SS 2200PF 20%	
C 665	8660-098-234	SI-KERKO B-SS 1000PF 20%	
C 666	8515-912-063	FKP1 0,033UF 20% 630V	
C 6001	8511-793-047	MP 3 0,47 UF 20% 250VW	
C 6002	8511-793-045	MP 0,33 UF 20% 250VW	
L 6001	29500-809.97	FUNKENSTOERDR	
OK637	8306-000-012	OPTOKOPPLET CNY 17 F1	
OK646	8306-000-012	OPTOKOPPLET CNY 17 F1	
R 503	8701-230-817	NKS 3 4,7 OHM 5% ROE	
R 520	8705-329-071	MOW LI 0411 820 OHM 5%	
R 525	8735-003-068	DW 0,75W 0,68 OHM 10%	
R 551	8705-227-423	MOW AX0411-GA 8,2 OHM 5% DRA 22	
R 552	8700-329-009	KSW LI 0207-NE 2,2 OHM	
R 665	8766-349-155	MSW LI 0414 2,7 MOHM	
R 6009	8311-200-010	DUO-PTC	
SI 401	8315-616-205	LOET-SI.-GR 800 MA/T	
SI 406	8315-616-205	LOET-SI.-GR 800 MA/T	
SI 411	8315-616-205	LOET-SI.-GR 800 MA/T	
SI 630	8315-619-028	LOET-SI.-GR 1.6 A/T	
SI 671	8315-622-025	LOET-SI.-GR 3,15 A/T	
SI 691	8315-623-008	LOET-SI.-GR 4 A/T	
SI 6001	8315-622-503	FS.3,15 A/T H 250V	
TR 8	29201-445.97	FOKUSIERUEBERTRAGER	
TR 410	29201-382.97	UEBERTRAGER EF20	
TR 526	29201-030.08	DIODENSPLITTRAO KPL	
TR 6010	09032-301.02	NETZTRAFO	
TR 651	29201-408.97	SPERRWANDLERTRAFO KPL	
WW.	29201-453.08	SPERRWANDLERTRAFO KPL	(WW. = Optional)

Service Adjustments

Service and Special Functions

1: Switching-on Options

ATS Reset
Press and hold the L+ button on the local keyboard while switching on with the mains button to set the ATS-bit. This option activates the ATS function next time the receiver is switched on.

ATS Start
Pressing the buttons “P/C” (approx. 4 secs.) --> OK (language selection menu) --> starts the Auto Tuning System (ATS).
When finding a TV signal, the ATS system automatically determines the fine tuning value and the VPS signal for the station ident. Additionally for the programmes 1 ... 99 the volume offset is reset and the optimum values for brightness, colour contrast and volume level are stored together with the Peri bit for the respective country.

Loading the Average Values
Press and hold the “P-” button on the local keyboard and switch the TV on with the mains button. In doing so the analog average values for the programmes 1 - 99 and AV1 - AV4 are loaded in the programme memory IC840, the Luminance Delay is set to “0”. The individual settings can be entered and stored with the remote control handset.

Emergency Data
The processor IC850 in this TV receiver is fitted with two memories in which the picture geometry data is stored. If this IC fails or the data has been changed the TV receiver **must** be switched on with the emergency data set.

Loading the Emergency Data (eg. after changing mP IC850)
Connect pin 2 of the processor to chassis and switch the TV on with the mains button. The EEPROM in the processor IC850 is loaded with:
- the basic data set and the geometry data for the Decoder/Sync Processor TDA 9160/9162.
- the basic data set for the RGB Processor TDA 4685.
- the AGC reference voltage (tuner gain control).
- the AFC reference voltage (PLL-control).

2: Settings Via the Info Menu

EPROM Version Number
The version number can be called up in the Info Menu with the “AUX” button. The index 05 of the part number (19798-254.05) indicates the EPROM version.

Programme Lock
(protection against unauthorised use)
You can cancel your personal code number by pressing P+ P◀ P▼ P▲ and OK sequentially.

One place/Two Place Programme Selection
Via the Menu Info Centre --> Special Functions --> Settings, Programme Selection can be switched over between 1 - 9 and 1 - 99.

Maximum Programme Number
Via the Menu Info Centre --> Special Functions --> Settings. When storing the channel number “00” at any programme position, programme selection with the P▼ P▲ buttons is limited to the numbers lower than this position.

OSD-ON/OSD-OFF - all programmes.
The on screen display can be switched on or off via the Menu Info Centre --> Special Functions --> Settings --> Pict./Sound Options. When selecting the OSD-OFF option the station identifications and scales for the analog values is switched off.

Volume Offset
Via the menu --> Special Functions --> Settings the volume level can be changed in 16 steps for each individual programme position.

3: Settings via the Audio Menu
The following settings can be changed with the Audio Menu:
- **Loudspeaker:** Mono/Stereo sound
- **Headphones:** Mono/Stereo sound
- **Equaliser:** frequencies 1 ... 12kHz
- **Configuration** of loudspeaker boxes
- **Effect sounds with the IDTV button** (effect sound fields menu).

Switching Over the Sound (only multi system) **to: Stereo, Mono, FM, NICAM, NICAM B**
Via the Audio Menu --> Sound.
Switch the stereo decoder for the desired sound reception with P+ P◀ buttons.

FM-sound stereo broadcast:
- Switchable between Stereo <—> Mono
- Two-channel sound: switchable between Sound 1 <—> Sound 2.

The sound for the loudspeakers and headphones can be switched over independently of each other.

NICAM-sound mono broadcast:
- switchable between NICAM Mono <—> FM-Mono

NICAM-sound stereo broadcast:
- switchable between NICAM Stereo <—> FM-Mono

NICAM-sound dual-sound broadcast:
- switchable to NICAM-sound 1 --> NICAM-sound 2 --> FM-Mono

NICAM not relating to the picture:
- switchable to NICAM-sound 1 --> NICAM-sound 2 --> FM-Mono, preferred sound is FM-Mono

AV mode:
- Stereo (preferred setting) --> Sound 1 --> Sound 2
- With Sound 1 and Sound 2, the sound for the loudspeakers and headphones can be switched over independently of each other.

4: Settings via the Station Ident
Select the menu Info Centre --> TV station Table and activate the desired TV station.

OSD-ON/OSD-OFF Individual Programmes

Note: only TVs with LED display.
Enter a decimal point “.” at the first place of the station identification. With this setting the display can be switched off for the individual programmes.
The first places of the station identification can be filled with any kind of characters.

Forced Switching to Mono

Example: **MONO**
Indication: **ARD**
The stereo decoder is made to remain in the FM-Mono mode. This function is advantageous in the case of stereo broadcasts in poor reception conditions.

Automatic Frequency Control

AV or **AF**
The TV tuner is automatically re-tuned according to the variations of the receiving frequency which is advantageous when feeding in the video signal via the aerial socket.

Forced Switching to SECAM

SECAM or **SE**
Colour errors may occur when operating the TV with Canal-plus decoders in SECAM standard. These errors can be eliminated by forced switching to SECAM.

5: Settings via the AUX Position
The “AUX” command initialises an input mode in which certain commands are interpreted differently. This mode remains active for about 4 secs. unless another command is entered. The indication “AUX” is shown on the screen for 4 secs.

Changing the Display Brightness
(VFD display only)
Press the “AUX” button --> buttons sequentially.

Setting the Peri Bit
“AUX” -->“ “0/AV”.
With the PERI-bit set, the control processor evaluates the switching voltage on pin 8 of the EURO-AV-socket AV1 (black) and switches the TV receiver to this input, eg. on descrambler operation. The Peri symbol illuminates in the display of the keyboard unit.

Switching over the descrambler:
- Descrambler off
- Descrambler on Auto (Peri bit set)
- Descrambler on Stereo (Peri bit set)
- Descrambler on Mono - L (Peri bit set)
- Descrambler on Mono - R (Peri bit set)

Copy Function

In operating mode:
Select first the AV signal source eg. AV1, AV2 etc.
- On: “AUX” --> “0/AV” indication “Copy on”
- Off: “AUX” --> “0/AV” indication “Copy off”

Copying possibilities:

From	To
AV1(black)	--> AV2 (orange) and AV3 (blue).
AV2 (orange)	--> AV3 (blue).
AV3 (blue)	--> AV2 (orange).
AV4 (CCVS-socket)	--> AV2 (orange) and AV3 (blue).
AV5 (S-VHS)	--> AV2 (orange) and AV3 (blue).

Please take into account the following restrictions:
- Peri operation is not possible when AV1 is used as a signal source.
- Switching over to the AV2 or AV3 programme is only possible if the selected AV position and the signal source are the same.

Copy function In stand-by mode:
(not for OSD-TVs).

Firstly select the AV signal source eg. AV1, AV2 etc.
- On: “AUX” --> “0/AV” (Indication “Copy on”.)
- Buttons “AUX” --> “ “ (Indication “COP” in the display.)
Copying possibilities are the same as before.

Attention: In Copy Standby-Mode the switched-mode power supply is not switched off.

De-activation of the copy-mode:
(not for OSD-TVs).

To cancel the copy mode:
- Press standby or power switch off.

Changing the headphone volume
Enter “AUX” --> P+ P◀ changes the volume level for headphones.

Switching to mono --> stereo sound
“AUX” --> activates the sound switching function: Mono --> Stereo --> Mono A --> Mono B etc.

6: IR-Data Programmer
With this menu and the IR-Data Programmer 2, it is possible to transfer a maximum of 99 programme positions with the data for the TV norm, Peri, 6-place station identification, the fine tuning centre frequency and the volume offset “0”. The Programmer AP transfers only channels and 4-place station identifications and the volume offset “0”.
Call up via the Menu Info Centre --> Special Functions --> IR-Data Programmer.

Attention: The data transfer can be affected by interference’s from electrical lighting fixtures.

7: Autom. Change between 4:3/16:9 Aspect Ratio
With the setting “Format 4:3/16:9 auto” the aspect ratio is switched over automatically
- in programme positions 1 ... 99 when the decoder is set to “ON”
- in AV position or with the Peri-bit set, when a 16:9 signal source is connected to the AV1 socket.

Identification:
- 16:9 switching voltage at the AV1 source, Pin 8 = 6V.
- 4:3 switching voltage at the AV1 source, Pin 8 = 12V.

8: Setting the Analog Values
When exceeding the minimum acceptable values for the brightness, colour contrast and volume level specified in the table below, the appropriate optimum value is initialised when switching the TV on or changing from RF value AV.

	Minimum value	Optimum value
Brightness	18	32
Colour contrast	24	40
B/W contrast	21	32
Volume	10	10

Alignment

All adjustment controls not mentioned in this description are adjusted during production and must not be re-adjusted in the case of repairs.

1. Chassis Board
Measuring Instruments:
Oscilloscope with 10:1 test probe
Colour test pattern
High resistance voltmeter.

Checks and adjustments after replacement or repair of:

Power Supply:	**1.1**
Horizontal Deflection:	**1.2, 1.4, 1.8, 1.9**
Picture Tube/CRT Panel:	**1.2, 1.7**
Colour-Decoder	
Sync. Module:	**1.7**
IF Amplifier, Tuner:	**1.5**
Tuning Module:	**1.6, 1.8**
Vertical Deflection:	**1.9**

Bridge Coil: **only necessary after improper changes in the horizontal deflection adjustment 1.3**

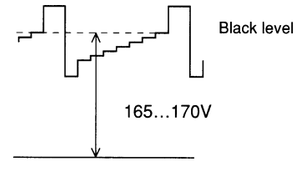
1.1: Alignment
+A Voltage

Preparation
Set luminance to minimum.
Connect the voltmeter to the cathode of D681.
Alignment Process
Set the control R654 to the voltage 152V.

1.2: Alignment
Screen grid voltage U_{SG}

Preparation
Feed in a test pattern.
With the remote control adjust the screen brightness so that the grey areas just become dark.
Switch the TV receiver to AV operation.
Connect a high-ohmic voltmeter (series resistance approx. 220 W) to the test points R, G, B and determine the maximum voltage.

Alignment Process
With the control SG on the picture tube panel set the maximum voltage level to approx. 165 ... 170V.
If retrace lines are visible on the screen reduce the voltage by approx. 10V.



1.3: Alignment
Bridge coil L551

Preparation
The bridge coil L551 is correctly adjusted during production and should not be readjusted anymore.
Call up the Service Programme --> Info Centre --> Special Functions --> Service --> Code 8500 --> Geometry.
Set the horizontal amplitude to minimum.
Connect channel one an oscilloscope to the collector of the transistor T572.
Connect channel two of an oscilloscope between the diodes D502 and D503.

Alignment Process
Adjust the coil L511 so that both oscillograms have the same pulse width.
Re-adjust the horizontal amplitude according to the test pattern and store.

Service Adjustments Cont'd.

1.4: Alignment
Line sharpness

Preparation
Select the convergence test pattern.
Contrast to maximum.
Set the brightness so that the black background of the test pattern is just brightening.

Alignment Process
With the focus control adjust the horizontal lines for maximum sharpness.

Attention: For measurements on the focusing panel use only sufficiently insulated measuring cables and test probes with adequate electric strength (eg. 100:1).

1.5: Alignment
Tuner-AGC. Manual or Automatic.

Preparation
Manual:
Feed in a standard test pattern in the upper range of the UHF band; the RF must be 1.5mV (64dBmV, noise free picture) at least.
Info Centre --> Special Functions --> Service --> Code 8500 --> Tuner-AGC --> Manual.

Automatic:
Info Centre --> Special Functions --> Service --> Code 8500 --> Tuner-AGC --> Automatic.

AFC-Reference:
Info Centre --> Special Functions --> Service --> Code 8500 --> AFC-Reference.

Tune to a local station on a channel as low as possible at the desired programme position with standard channel spacing without fine tuning.

Not For Servicing.

Alignment Process

Manual:
With buttons **-** and **+** tune the TV station so that noise just starts to appear in the picture. Then tune in reverse direction until the picture becomes noise free. Store with OK.

Automatic:
The control processor will set the optimum value for the delayed gain control voltage. Activate with button OK.

AFC-Reference:
On activation of AFC Reference Automatic a rectified IF-voltage is measured at the AFC output of the IF amplifier which is used on station search as a comparative value for VCR-RF playback (station identification "AV") to readjust the modulator drift. Activate with OK.

No function for the buttons **-** and **+**.

1.6: Alignment

Colour match.

Preparation
Call up the programme position of the desired TV station.
Info Centre --> Special Functions --> Settings --->Colour Match.

Alignment Process
Adjust with **-** and **+** buttons to make the signals coincide. Store with OK.

1.7: Alignment
White balance

Preparation
Call up the White Balance menu via the Service Programme Info Centre --> Special Functions --> Service --> Code 8500.

Alignment Process
With **-** and **+** set the VG and VB values so that the white rectangular area in the middle of the picture becomes achromatic. Store with OK.

1.8: Alignment
Picture sharpness

Preparation
Call up the programme position of the desired TV station.
Info Centre --> Picture Menu --> Sharpness.

Alignment Process
Change the value with the buttons **-** **+**.

1.9:Alignment
Picture geometry

Preparation
Info Centre --> Special Functions --> Service --> Code 8500 --> Geometry.
For accurate adjustment of the picture a test generator or standard test pattern should be used. The integrated test pattern or grid pattern may also be used.

Attention: Start always with the "V-Middle" adjustment otherwise the other vertical deflection parameters would defy correct geometry adjustment.

Alignment Process
Via the menu, select the geometry values for the vertical deflection, then set the values for the horizontal deflection.

Preparation
"V-Middle" adjustment with a colour test pattern: select the "V-Middle" menu. The upper part of the picture is coloured the lower part is black and white.

Alignment Process
With the **-** or **+** button move the three broken lines on the left and on the right of the indication "V-Middle" upwards or downwards so that they coincide with the line separating the coloured part and B/W part of the picture.
Continue with the picture geometry adjustment via the menu and store.

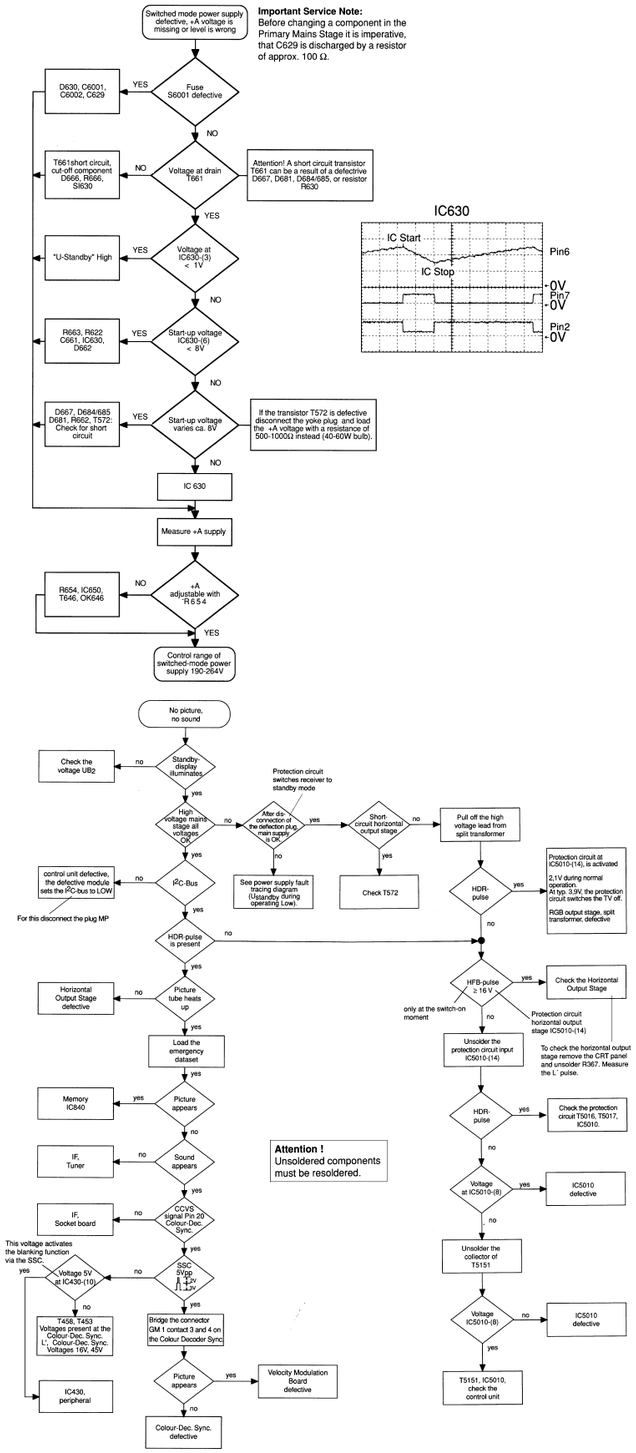
Preparation
"V-Middle" adjustment with a video generator, eg. Grundig VG 1000.
Feed in the convergence test pattern with standard colour bars via RF.
To store this adjustment move the bar to "Terminate with Store" and confirm with OK.

Alignment Process
With the **-** or **+** button change the setting so that the G-Y vector (orange area in the centre of the picture) is just covered.
Continue with the picture geometry adjustment via the menu and store.

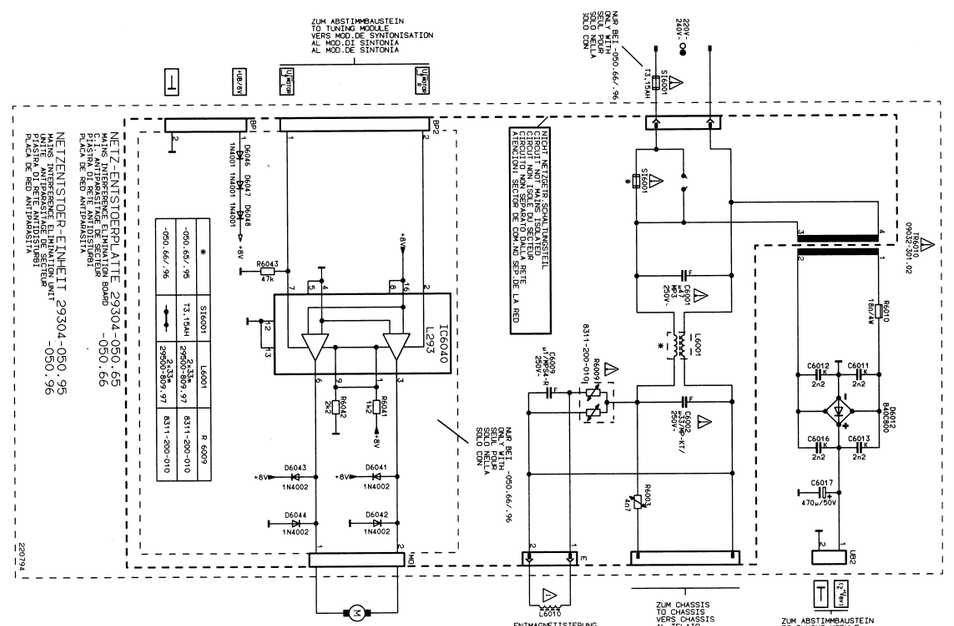
Preparation
The picture geometry is set to the last stored value whenever the receiver is switched on.

Reset:
Under the menu item "Reset" an average data set from the ROM IC860 is stored. After inadvertent readjustment during servicing, these basic values can be re-loaded at any time. For this, move the bar to "Reset". Press the OK button. By pressing the "AUX" button the picture geometry is set according to the "Reset" values. With the **i** button return to the normal menu.

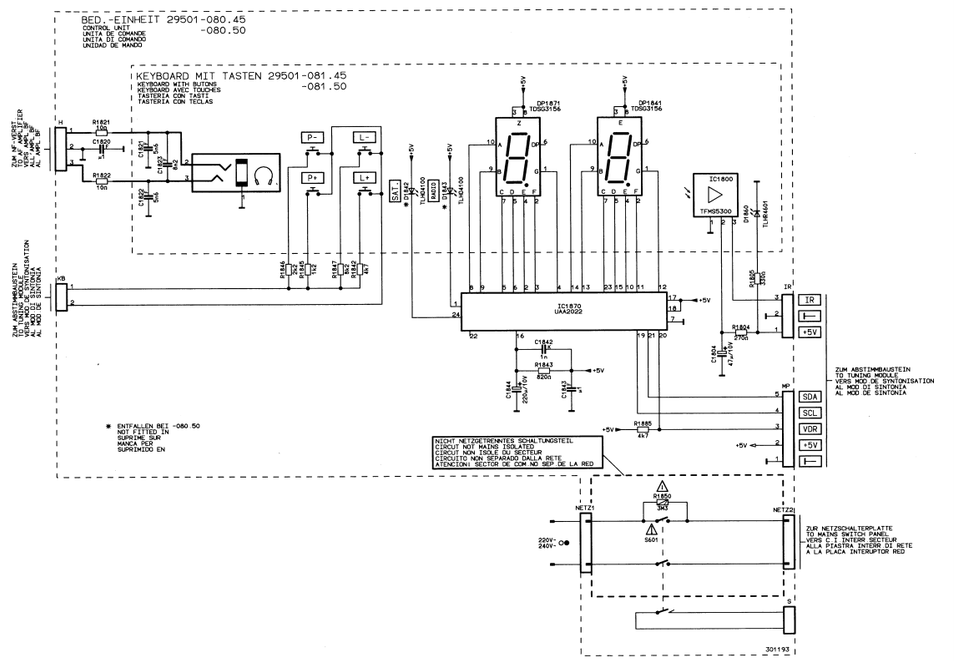
Trouble Shooting Guide
-Power Supply

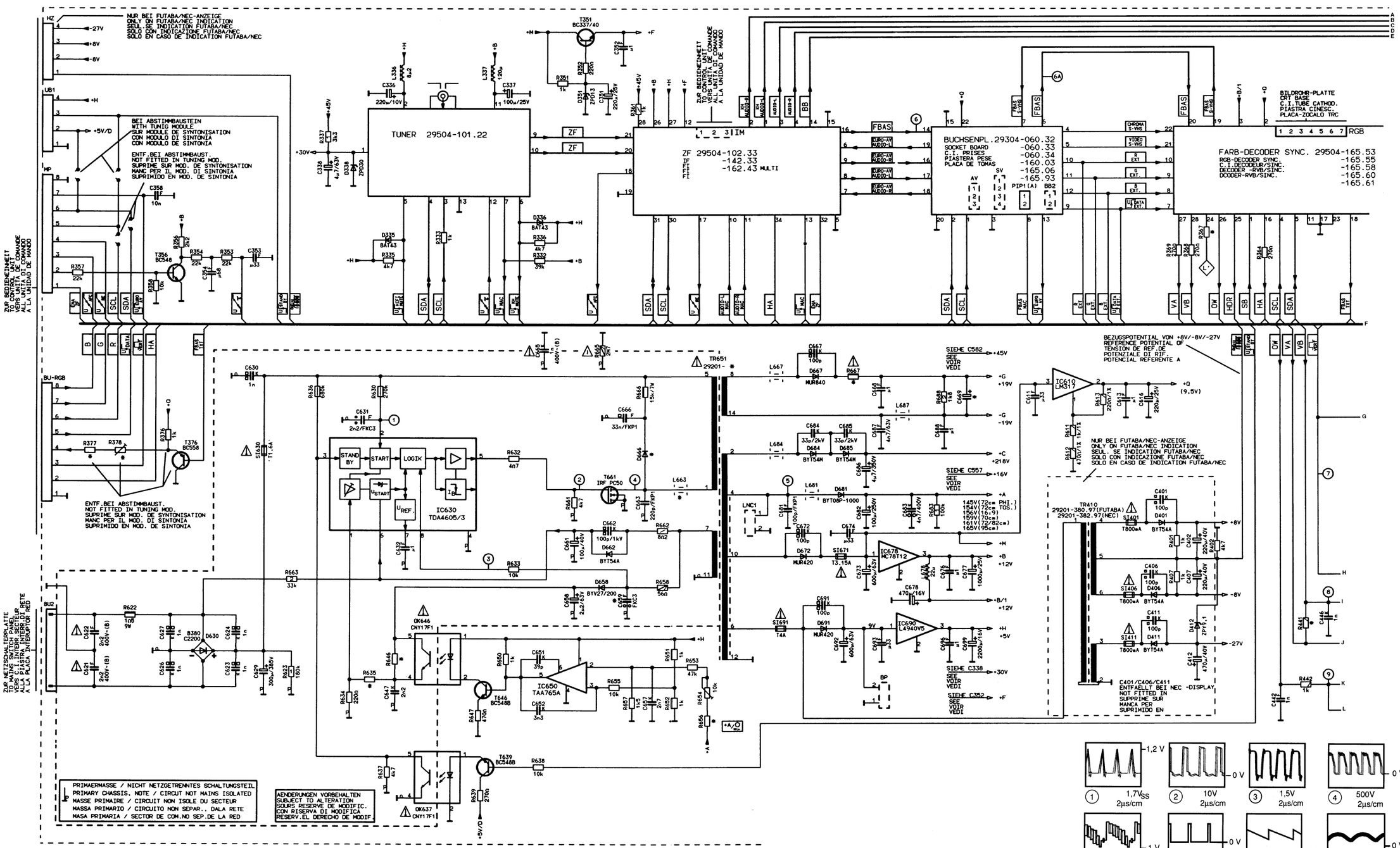


Interference Elimination Diagram



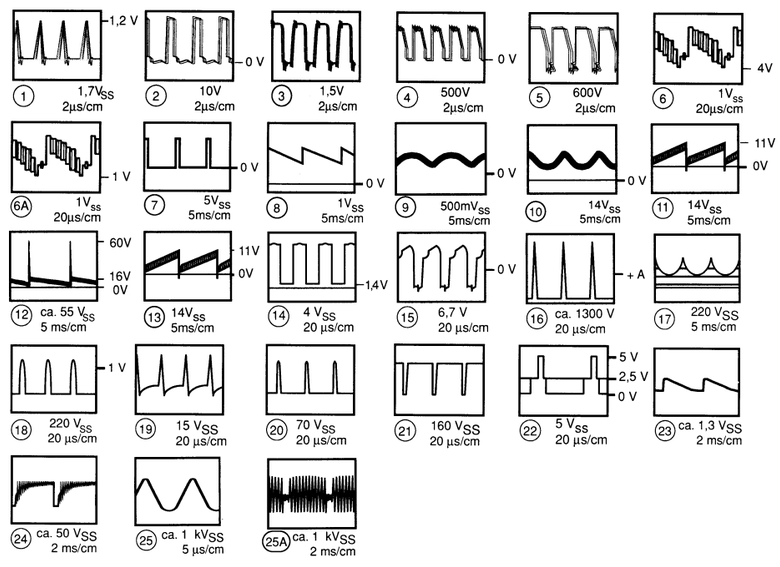
Control Keyboard Diagram



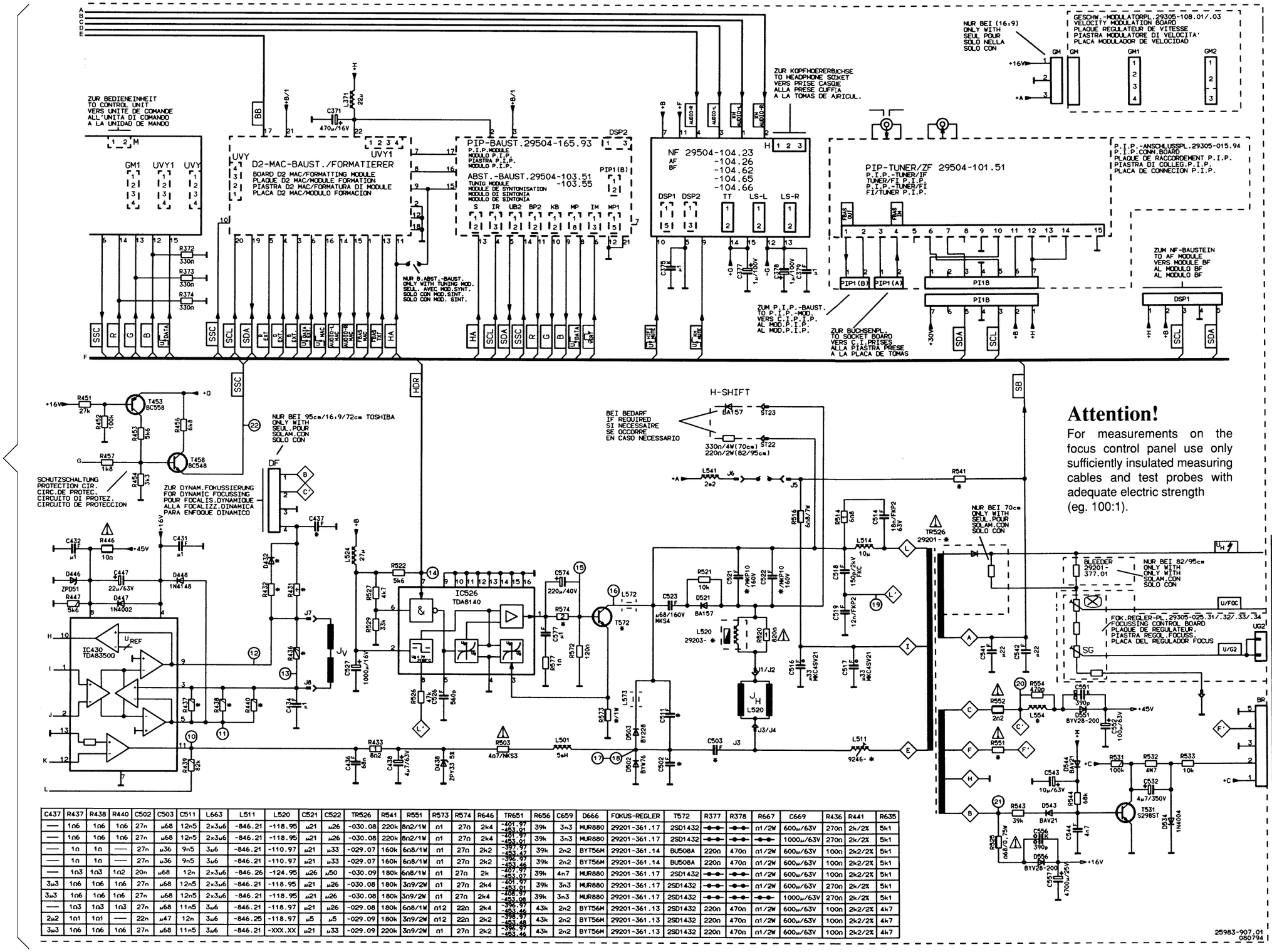


Main Diagram

Continued at 1



Main Diagram Cont'd.


ZUR BEDIENEINHEIT
TO CONTROL UNIT
VERS UNITE DE COMANDE
ALL'UNITA DI COMANDO
A LA UNIDAD DE MANDO
PIP-BAUST.29504-165.93
P.I.P.MODULE
MODULO P.I.P.
PIASTRA P.I.P.
MODULO P.I.P.
D2-MAC-BAUST./FORMATIERER
BOARD D2 MAC/FORMATTING MODULE
PLAQUE D2 MAC/MODULE FORMATION
PIASTRA D2 MAC/FORMATURA DI MODULE
PLACA D2 MAC/MODULO FORMACION
ABST.-BAUST.29504-103.51
-103.55
TUNIG MODULE
MODULE DE SYNTONISATION
MODULO DI SINTONIA
MODULO DE SINTONIA
NF 29504-104.23
-104.26
-104.62
-104.65
-104.66
ZUR KOPFHOERERBUCHSE
TO HEADPHONE SOCKET
VERS PRISE CASQUE
ALLA PRESE CUFFIA
A LA TOMAS DE AJRICUL.
NUR BEI (16:9)
ONLY WITH
SEUL POUR
SOLO NELLA
SOLO CON
GESCHW.-MODULATORPL.29305-108.01/.03
VELOCITY MODULATION BOARD
PLAQUE REGULATEUR DE VITESSE
PIASTRA MODULATORE DI VELOCITA'
PLACA MODULADOR DE VELOCIDAD
PIP-TUNER/ZF 29504-101.51
P.I.P.-TUNER/IF
TUNER/FI P.I.P.
P.I.P.-TUNER/FI
FI/TUNER P.I.P.
P.I.P.-ANSCHLUSSPL.29305-015.94
P.I.P.CONN.BOARD
PLAQUE DE RACCORDEMENT P.I.P.
PIASTRA DI COLLEG.P.I.P.
PLACA DE CONNECION P.I.P.
ZUM NF-BAUSTEIN
TO AF MODULE
VERS MODULE BF
AL MODULO BF
AL MODULO BF
ZUM P.I.P.-BAUST.
TO P.I.P.-MOD.
VERS C.I.P.I.P.
AL MOD.P.I.P.
AL MOD.P.I.P.
ZUR BUCHSENPL.
TO SOCKET BOARD
VERS C.I.PRISES
ALLA PIASTRA PRESE
A LA PLACA DE TOMAS
NUR B.ABST.-BAUST.
ONLY WITH TUNING MOD.
SEUL. AVEC MOD.SYNT.
SOLO CON MOD.SINT.
SOLO CON MOD. SINT.
SCHUTZSCHALTUNG
PROTECTION CIR.
CIRC.DE PROTEC.
CIRCUITO DI PROTEZ.
CIRCUITO DE PROTECCION
ZUR DYNAM.FOKUSSIERUNG
FOR DYNAMIC FOCUSSING
POUR FOCALIS.DYNAMIQUE
ALLA FOCALIZZ.DINAMICA
PARA ENFOQUE DINAMICO
NUR BEI 95cm/16:9/72cm TOSHIBA
ONLY WITH
SEUL. POUR
SOLAM.CON
SOLO CON
H-SHIFT
BEI BEDARF
IF REQUIRED
SI NECESSAIRE
SE OCCORRE
EN CASO NECESSARIO
IC526
TDA8140
IC430
TDA8350Q
NUR BEI 70cm
ONLY WITH
SEUL.POUR
SOLAM.CON
SOLO CON
NUR BEI 82/95cm
ONLY WITH
ONLY WITH
SOLAM.CON
SOLO CON
BLEEDER
29201-
377.01
FOK.REGLER-PL.29305-026.31/.327.33/.34
FOCUSSING CONTROL BOARD
PLAQUE DE REGULATEUR
PIASTRA REGOL.FOCUSS.
PLACA DEL REGULADOR FOCUS
FOCUSSIERUNGSPLATTE 29305-025.19
FOCUSING BOARD
PLACA DE FOCALISATION
PIASTRA DI FOCALIZZ.
PLACA DE FOCO
TR08
29201-445.97
BR-PLATTE 29305-022.26/.27/.28/.29/.30
CRT BASE
C.I.TUBE CATHOD.
PIASTRA CINESC.
PLACA-ZOCALO TRC
TR526
29201-
L520
29203-
L541
2m2
L511
9246-
L501
5mH
L514
10µ
L524
27µ
L573
L572
T572
T453
BC558
T458
BC548
T531
S298ST
T02
BC639
D543
BAV21
D551
BYV28-200
D556
BYV28-200
D502
BYW76
D503
BYD28
D438
ZPY33 5%
D521
BA157
D446
ZPD51
D447
1N4002
D448
1N4148
D534
1N4004
IC430
TDA8350Q
U REF
Jv
J1/J2
J3/J4
J6
J7
U/FOC
U/G2
SG
BR
DF
DF1
SSC
SCL
SDA
HDR
SB
HA
PIP1(B)
PIP1(A)
PI18
DSP1
DSP2
TR08
29201-445.97
R372
330n
R373
330n
R374
330n
R451
27k
R452
100k
R453
5k6
R454
3k3
R456
6k8
R457
1k8
R446
10n
R447
5k6
R522
5k6
R527
4k7
R529
33k
R574
R572
120n
R577
1n
R521
10k
R520
820n
R514
6n8
R516
6n8/7W
R518
150p/2kV
R519
12n/FKP2
R552
2n2
R554
4700
R551
R531
100k
R532
4M7
R533
10k
R543
39k
R544
68k
R556
390p
R557
4700µ/25V
R525
R66/1,75W
R526
47k
R536
47k
R537
*/1W
R503
4n7/NKS3
R433
8R2
R541
R436
R437
R438
R440
R439
82k
C432
C431
C437
C447
22µ/63V
C527
1000µ/16V
C574
220µ/40V
C523
µ68/160V
NKS4
C521
*MKP10
160V
C522
*MKP10
160V
C516
µ33
MKC4SV21
C517
µ33
MKC4SV21
C518
150p/2kV
FKC
C519
12n/FKP2
C514
18n/FKP2
63V
C541
µ22
C542
µ22
C551
390p
C552
100µ/63V
C543
10µ/63V
C544
4n7
C532
4µ7/350V
C556
390p
C557
4700µ/25V
C502
C503
C511
C526
C577
1µ/100V
C378
1µ/100V
C379
1µ
C371
470µ/16V
C372
22µ
C436
68n
C438
4µ7/63V
C534
µ15/63V
C504
µ15/63V
C505
220p
2000V
C506
220p
2000V
C507
330p-680p
12,5kV
MKT
R506
10k
R501
120W
R502
220n
R503
1k5
R504
680n
R505
470k
D501
D502
D503
D504
D544
D545
BAV21
D546
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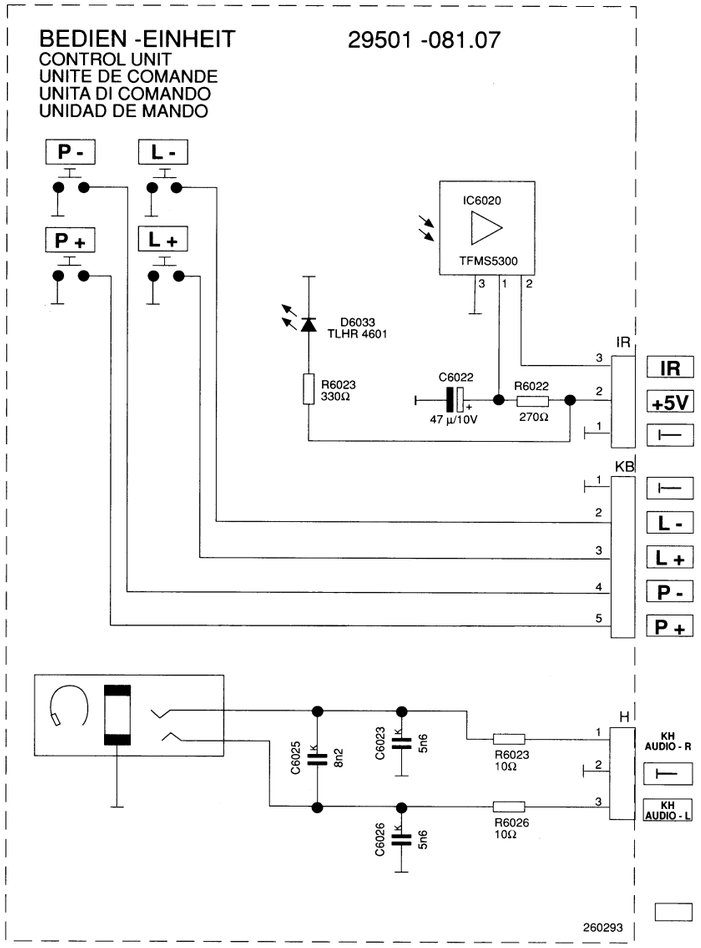
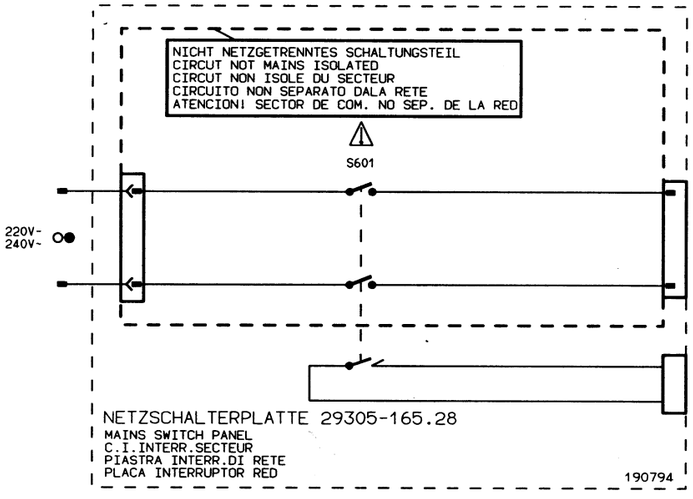
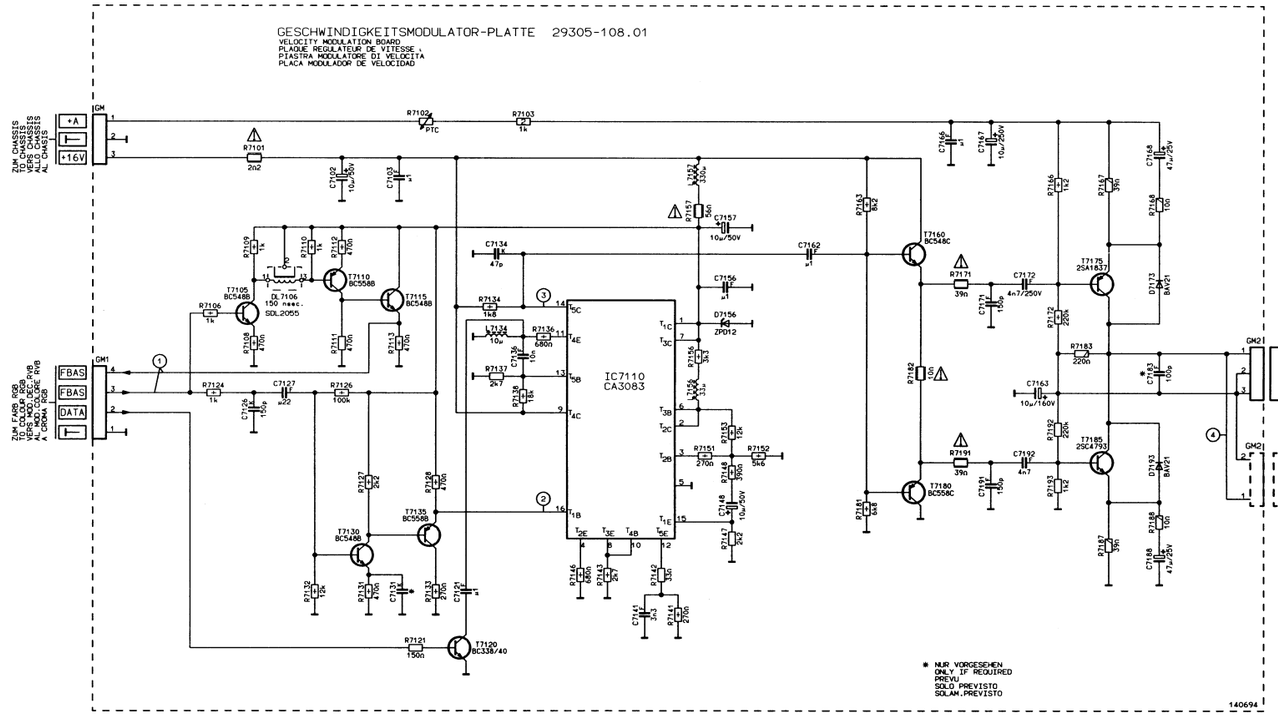
D595
D596

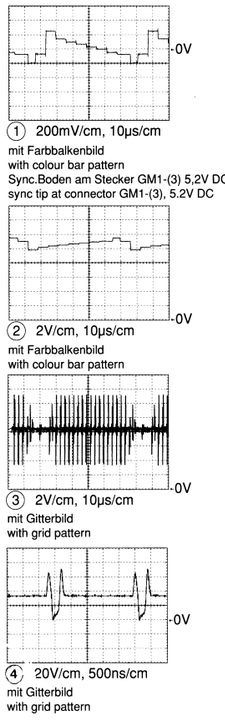
Control Unit Diagram



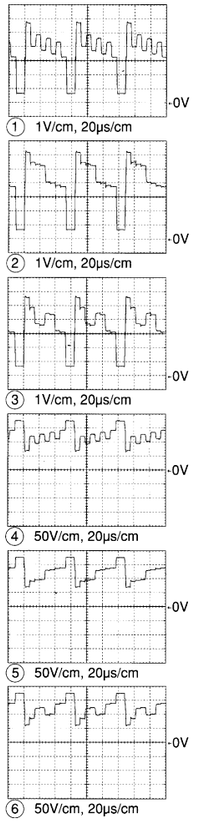


Velocity Diagram

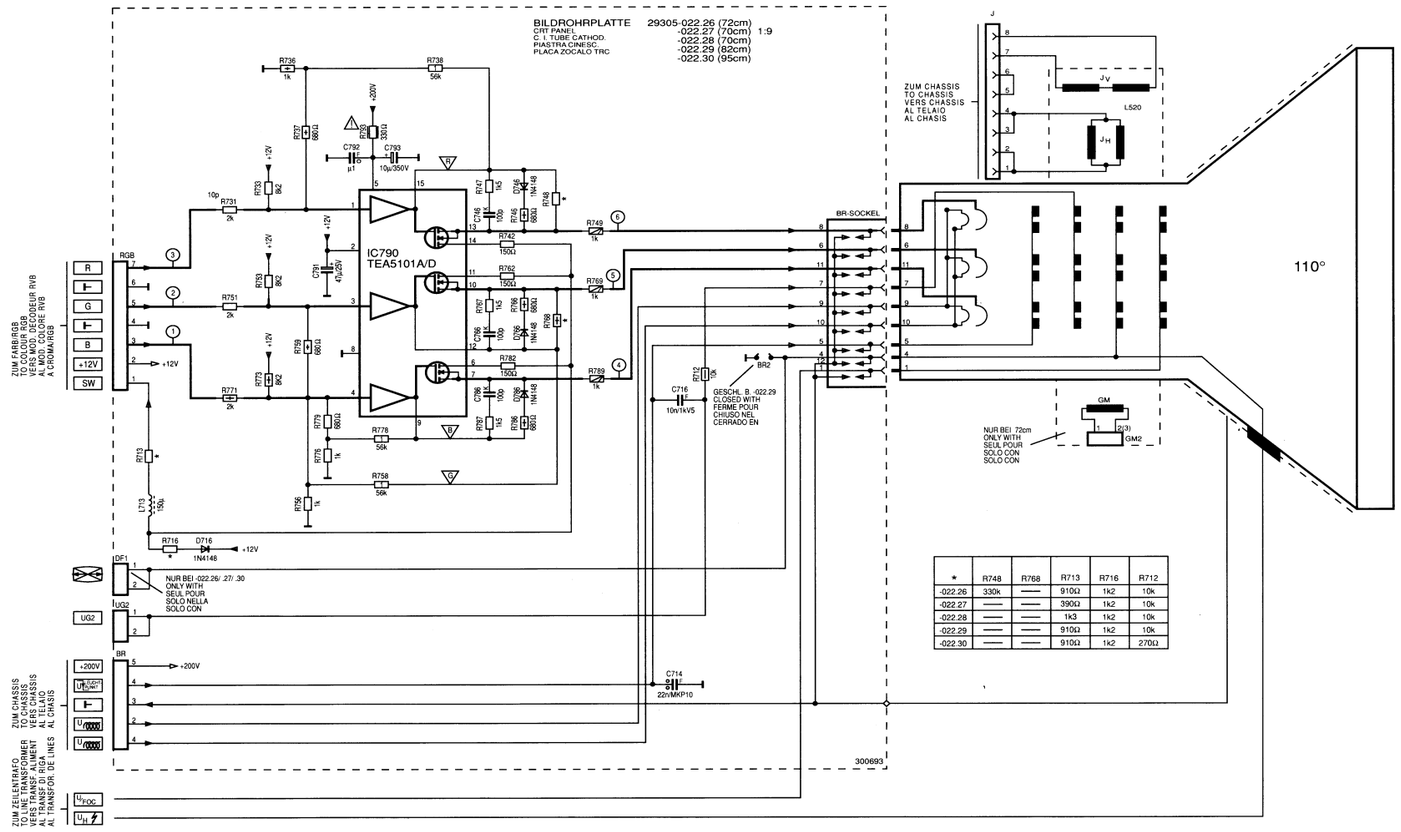




Waveforms

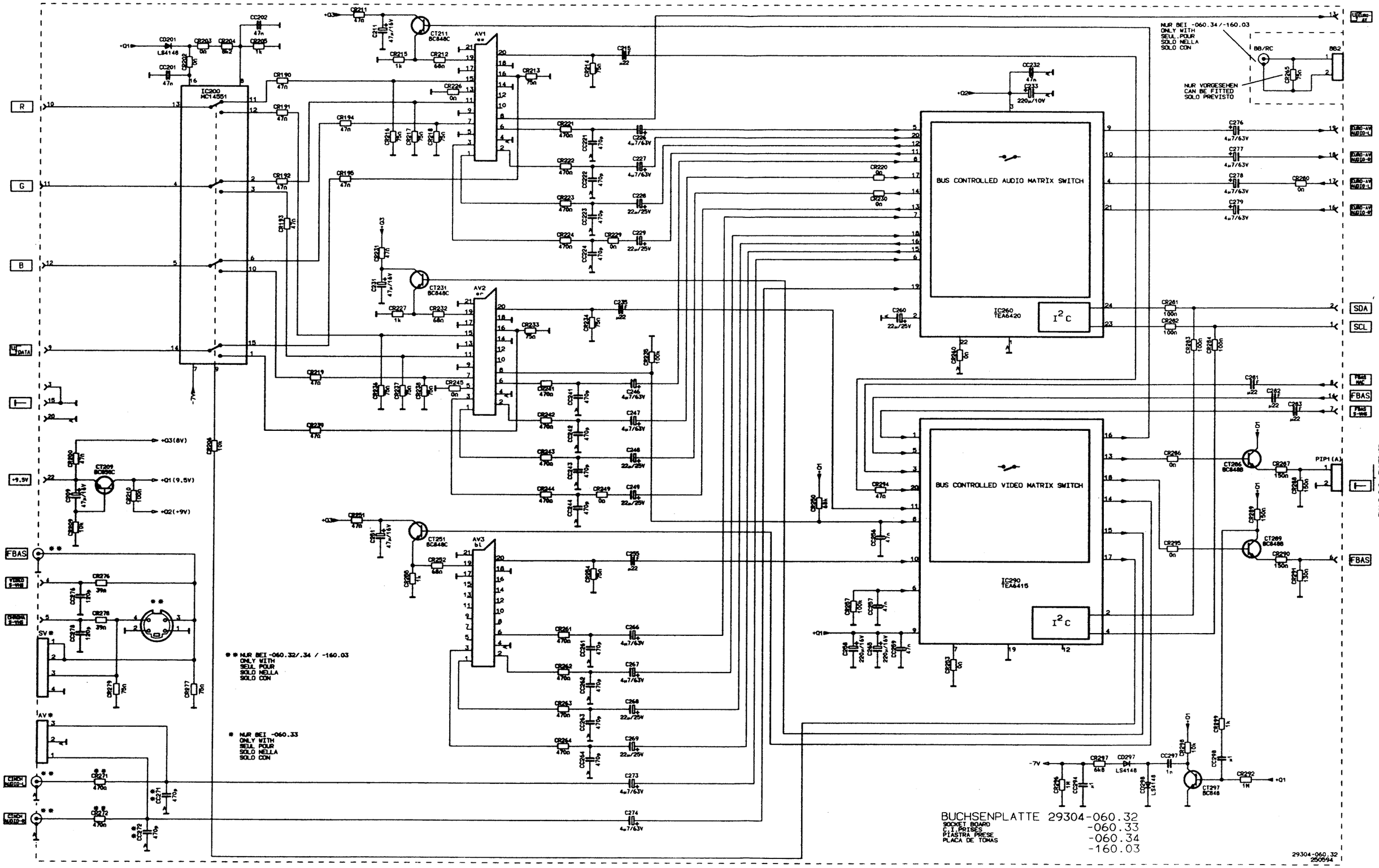


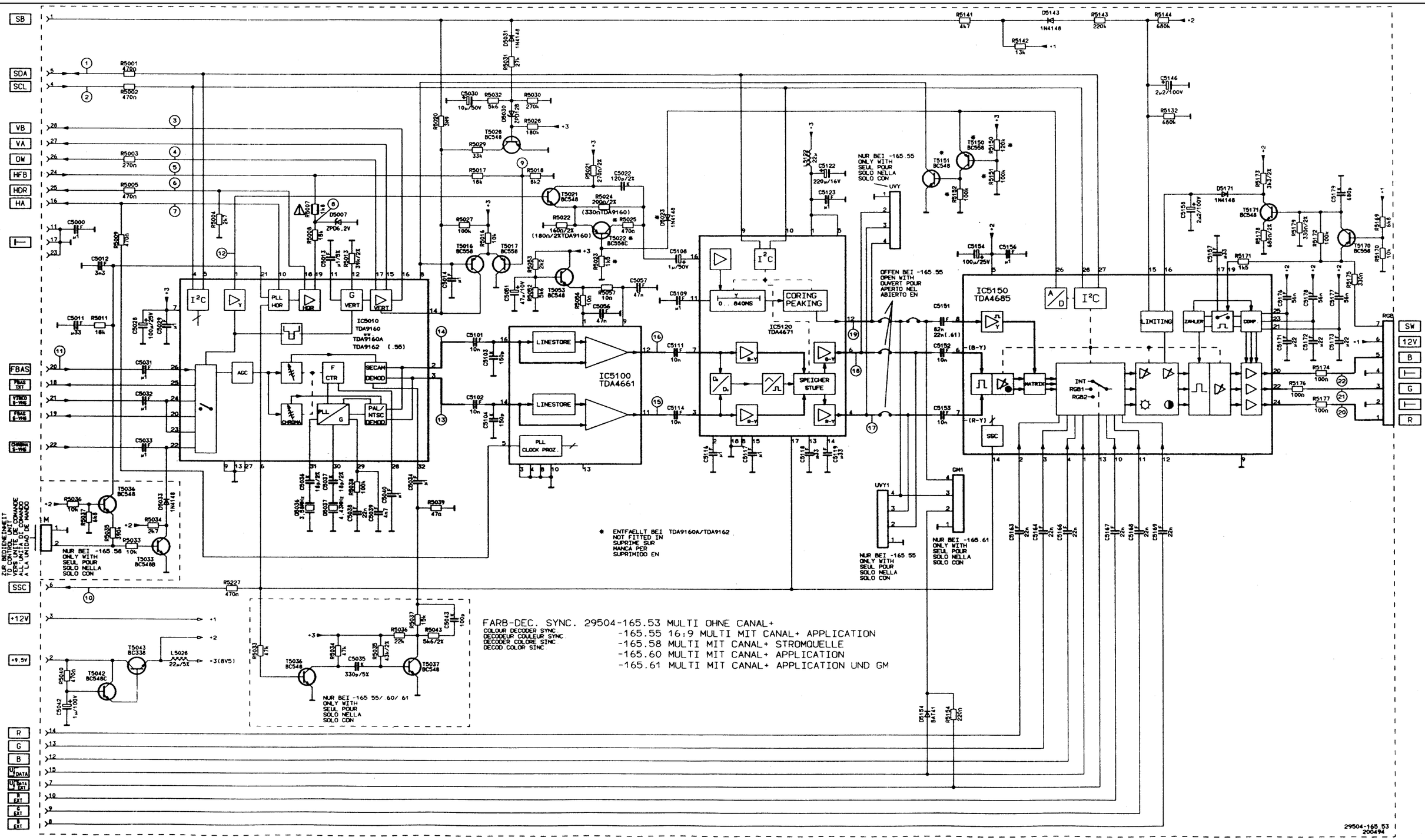
CRT Diagram



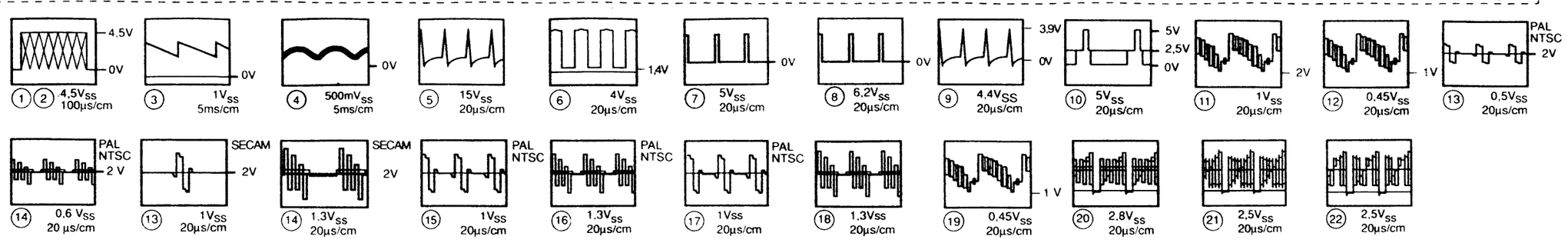
*	R748	R768	R713	R716	R712
-022.26	330k	—	910Ω	1k2	10k
-022.27	—	—	390Ω	1k2	10k
-022.28	—	—	1k3	1k2	10k
-022.29	—	—	910Ω	1k2	10k
-022.30	—	—	910Ω	1k2	270Ω

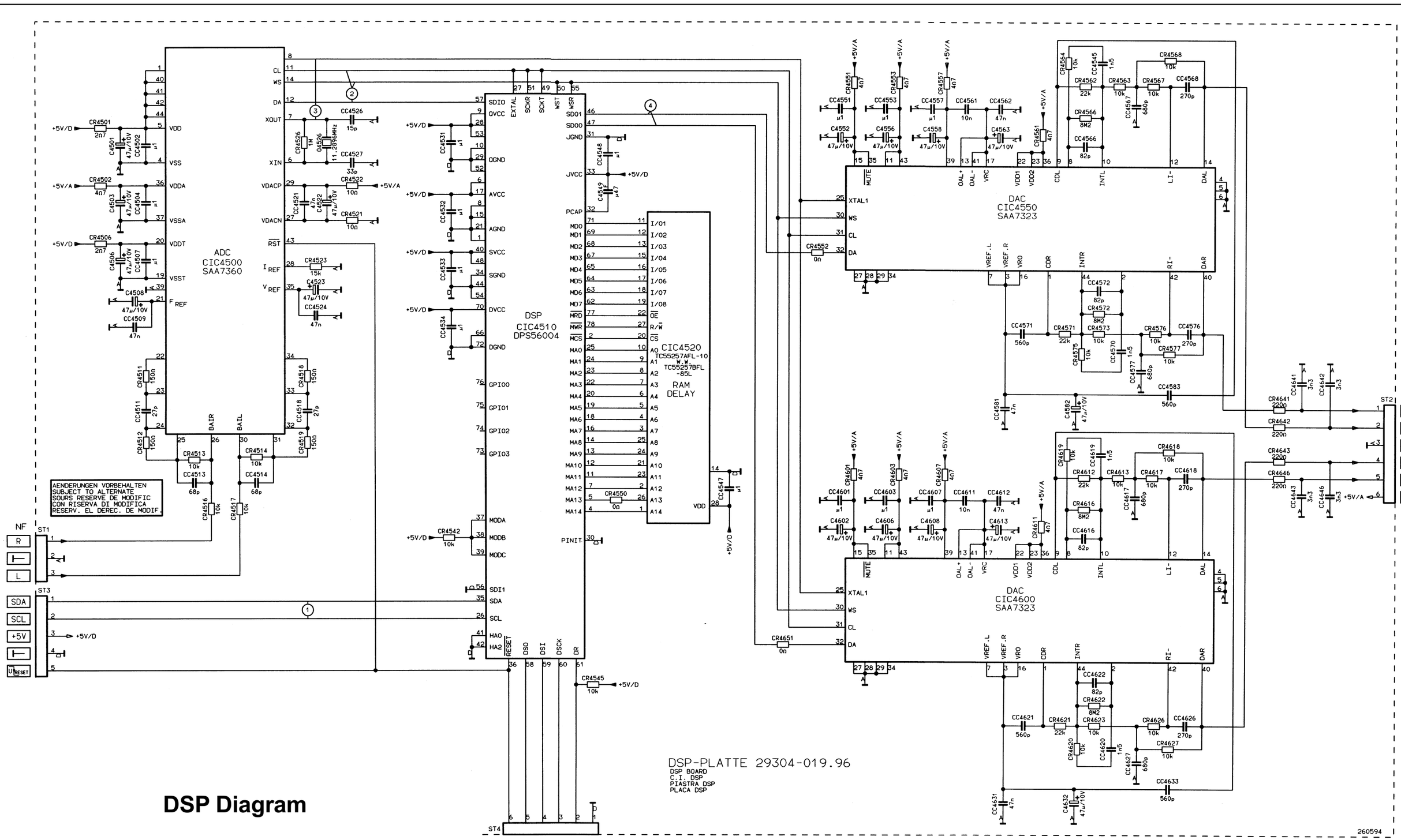
Socket Diagram



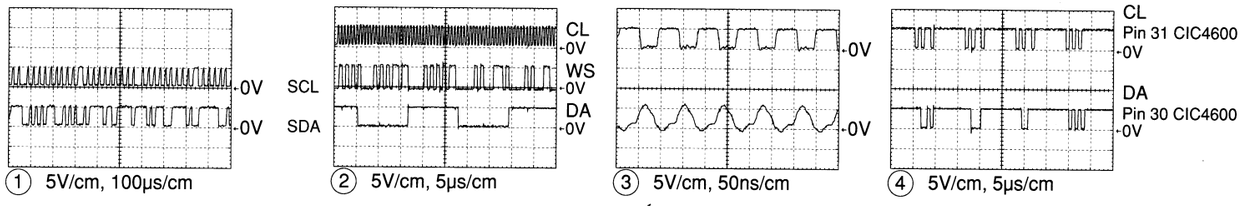


Colour Decoder Sync. Diagram

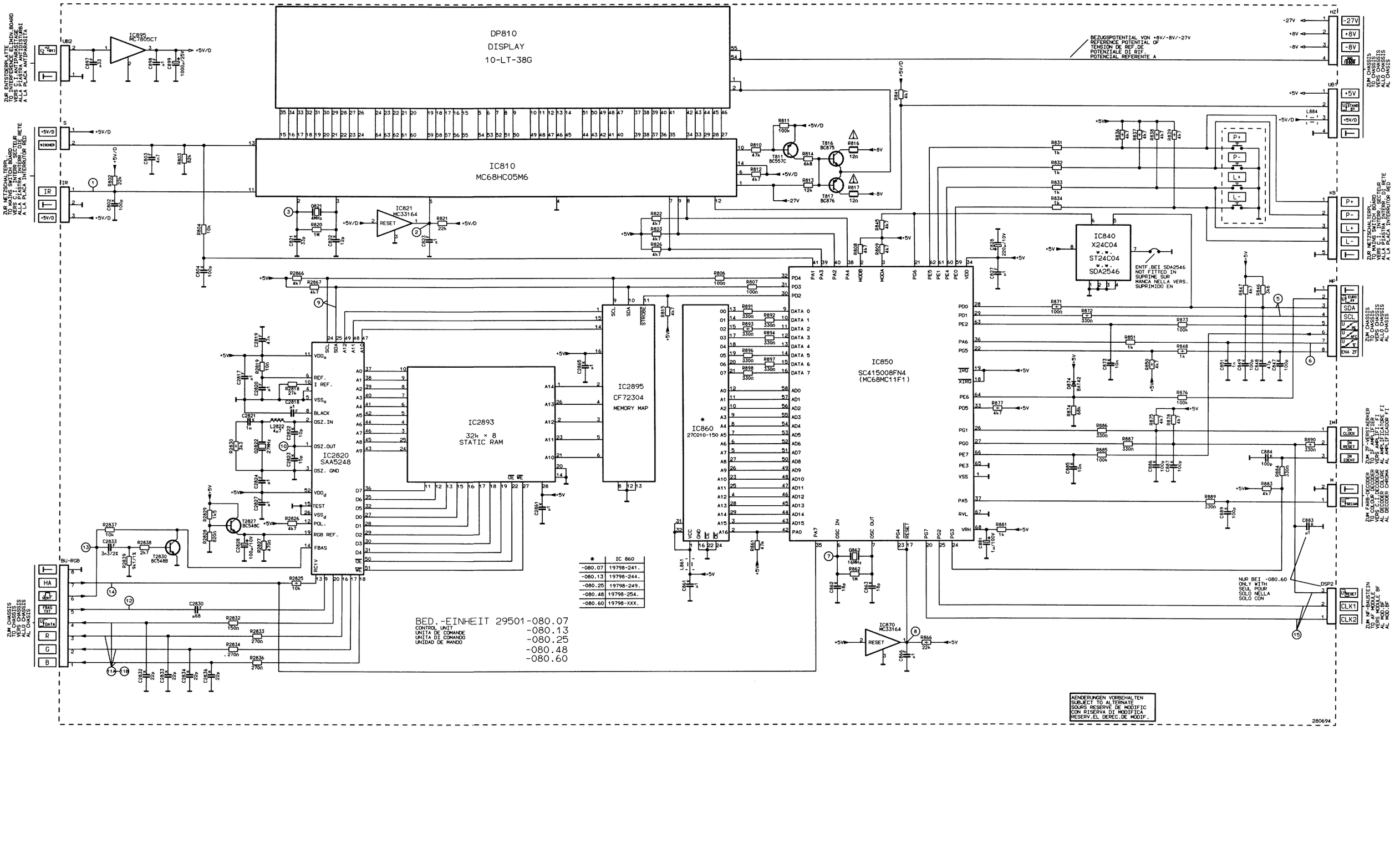



ADC
CIC4500
SAA7360
DSP
CIC4510
DPS56004
CIC4520
TC55257AFL-10
W.W.
TC55257BFL
-85L
RAM
DELAY
DAC
CIC4550
SAA7323
DAC
CIC4600
SAA7323
AENDERUNGEN VORBEHALTEN
SUBJECT TO ALTERNATE
SOURS RESERVE DE MODIFIC
CON RISERVA DI MODIFICA
RESERV. EL DEREC. DE MODIF.
NF
ST1
ST2
ST3
ST4
SURROUND
CENTRE
AUDIO-R
AUDIO-L
+5V/A
SDA
SCL
+5V
RESET
DSP-PLATTE 29304-019.96
DSP BOARD
C.I. DSP
PIASTRA DSP
PLACA DSP
260594

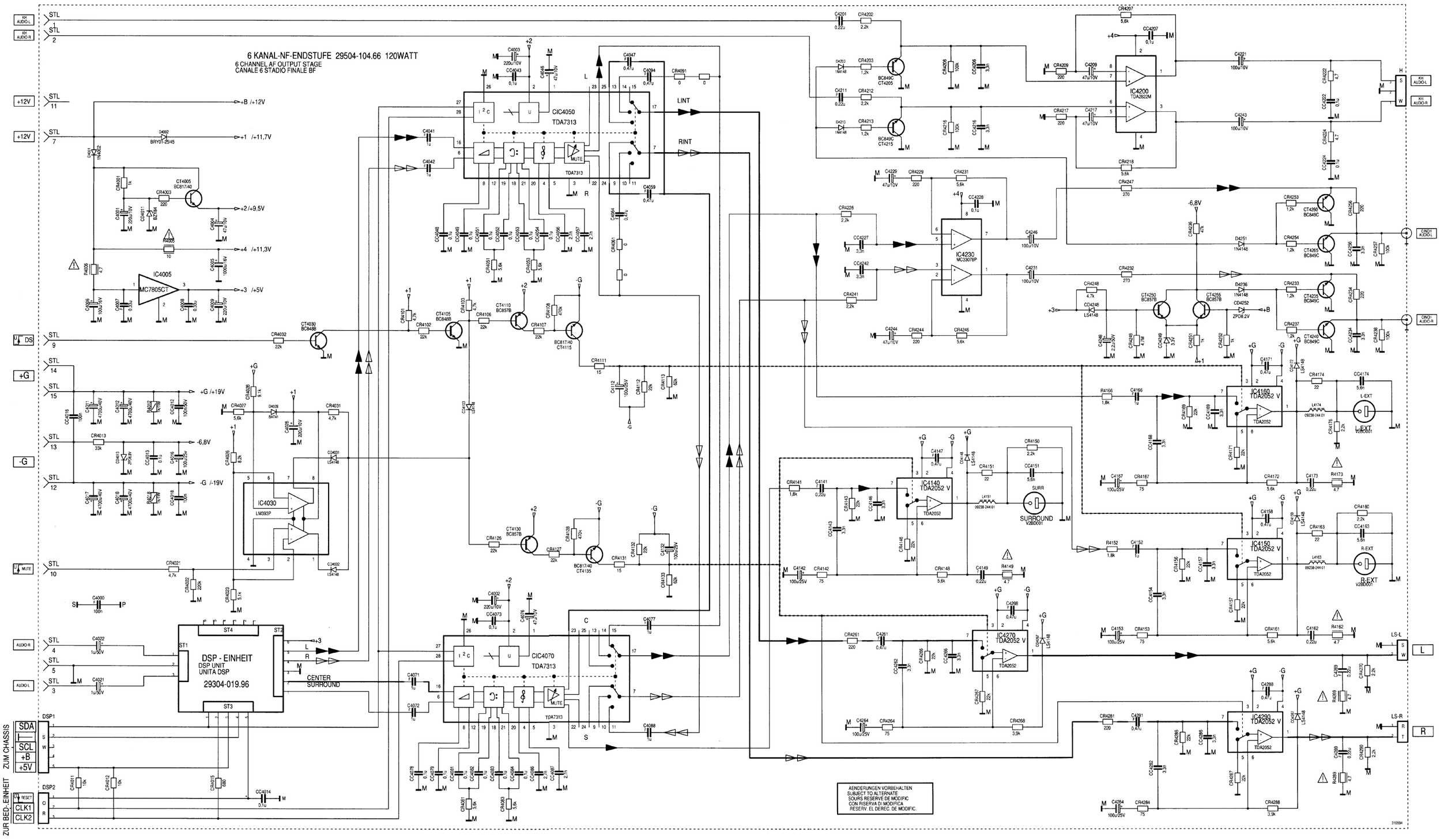
DSP Diagram


0V
0V
1 5V/cm, 100µs/cm
SCL
SDA
CL
0V
WS
0V
DA
0V
2 5V/cm, 5µs/cm
0V
0V
3 5V/cm, 50ns/cm
CL
Pin 31 CIC4600
0V
DA
Pin 30 CIC4600
0V
4 5V/cm, 5µs/cm

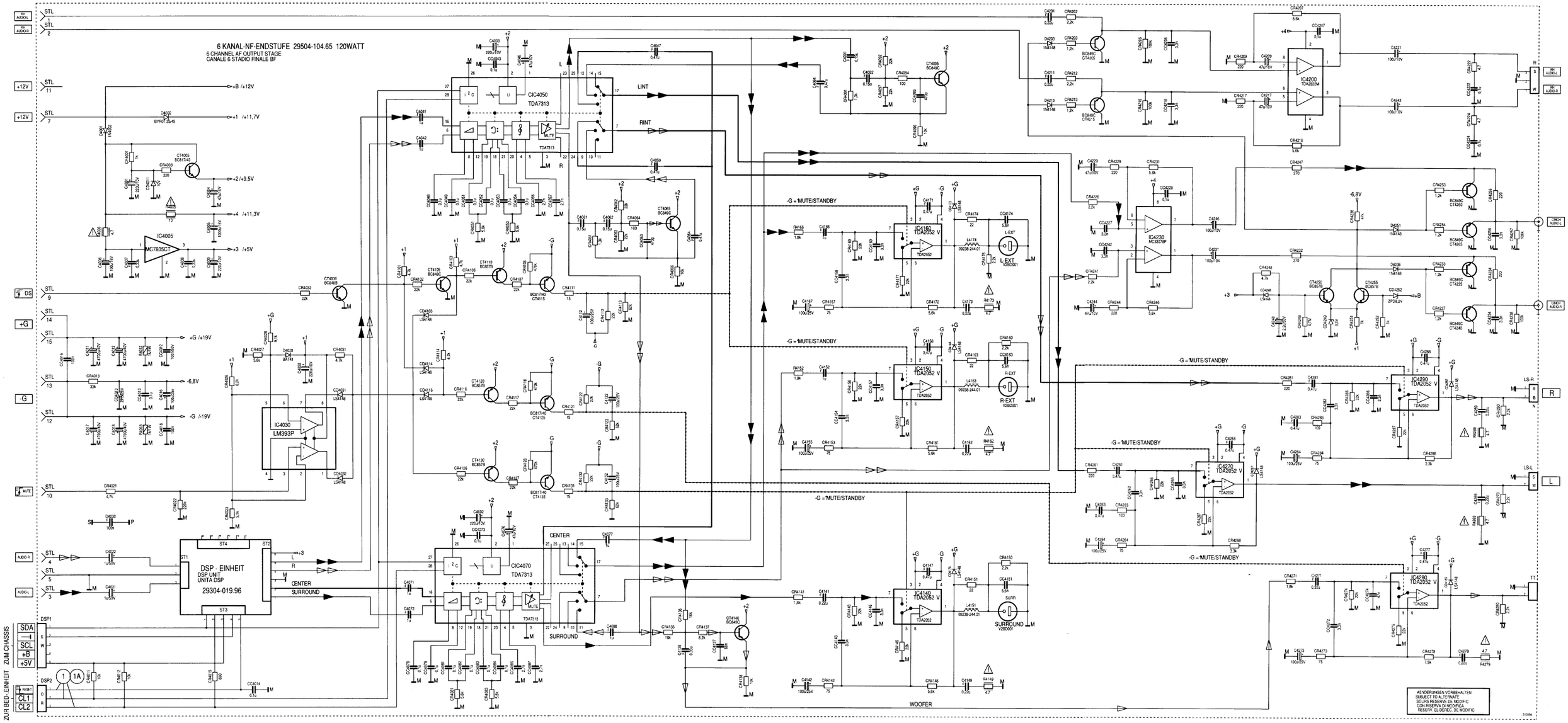
Display Control Unit with Videotext Diagram

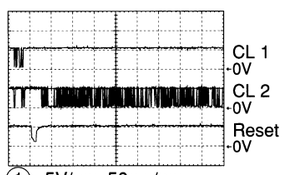


AF Output Diagram “A”



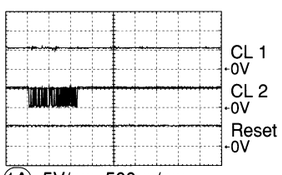
AF Output Diagram “B”





(1) 5V/cm, 50ms/cm
50mV/cm, 50ms/cm

Togglefunktion im Sound-Mode "On/OFF" /
Toggle function in the Sound Mode "ON/OFF"



(1A) 5V/cm, 500µs/cm
50mV/cm, 500µs/cm

Normalbetrieb ohne Tastenbetätigung /
Normal operation without pressing the buttons

AUDIO Links / Left

AUDIO Rechts / Right

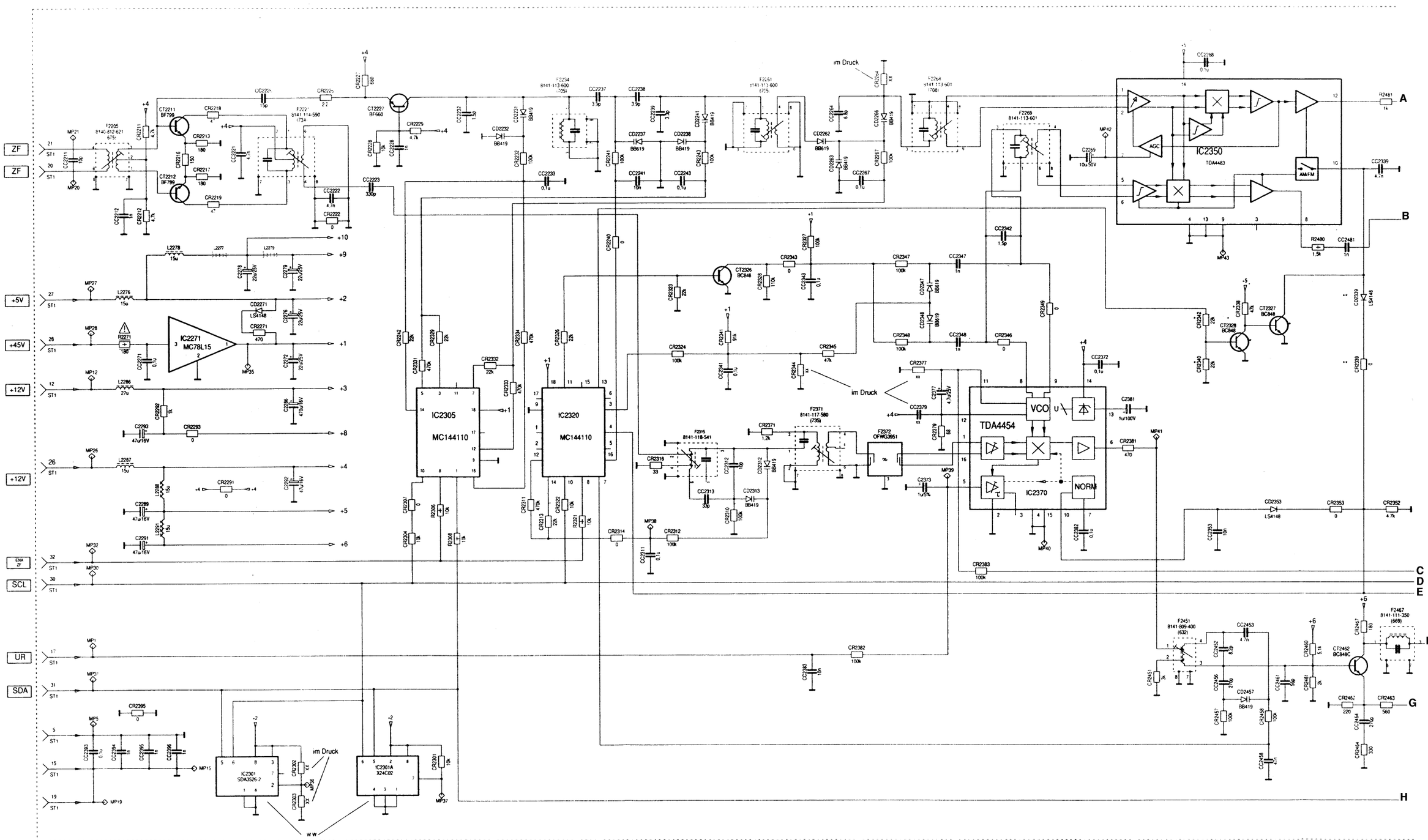
SURROUND

WOOFER

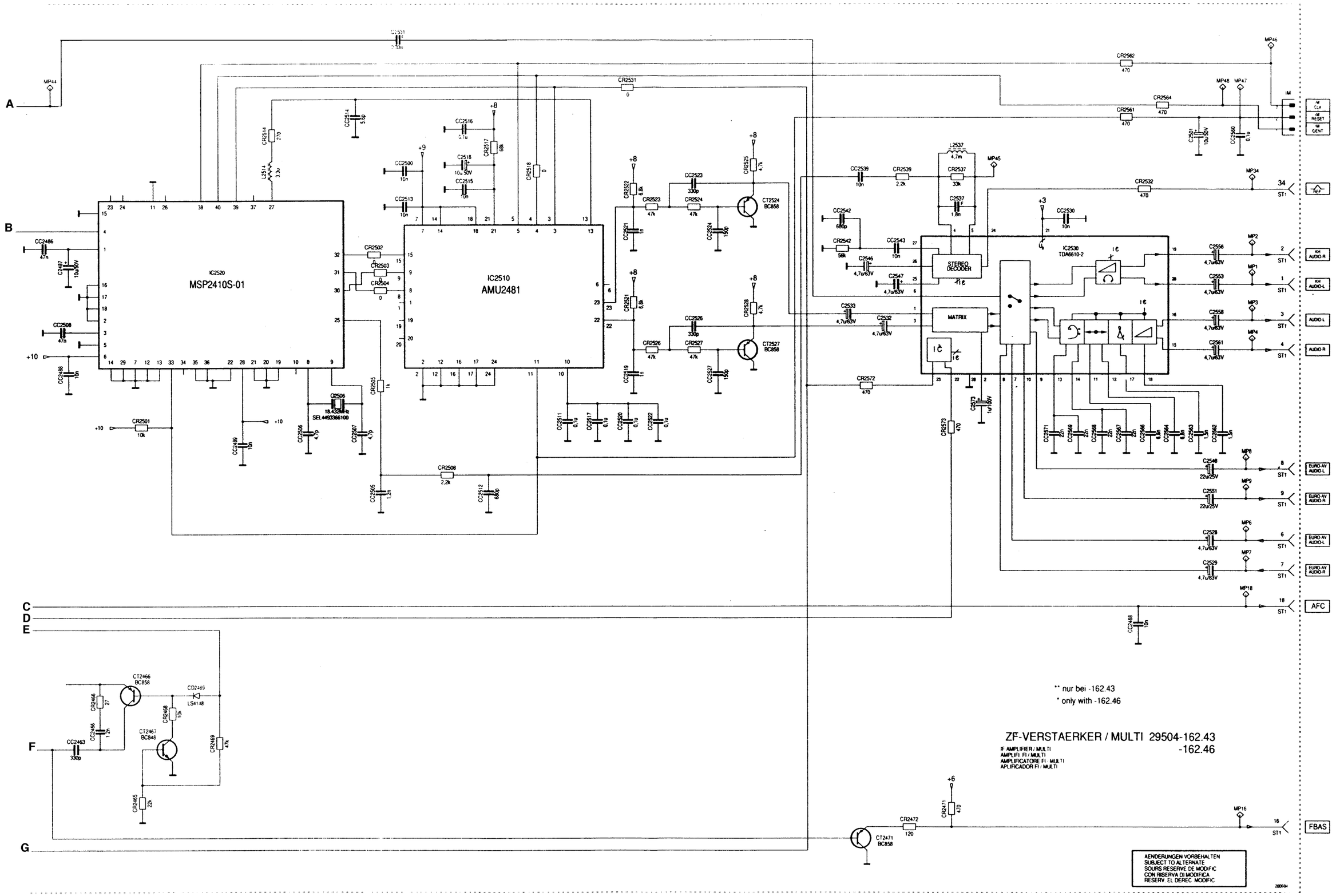
CENTER

MUTE, Standby

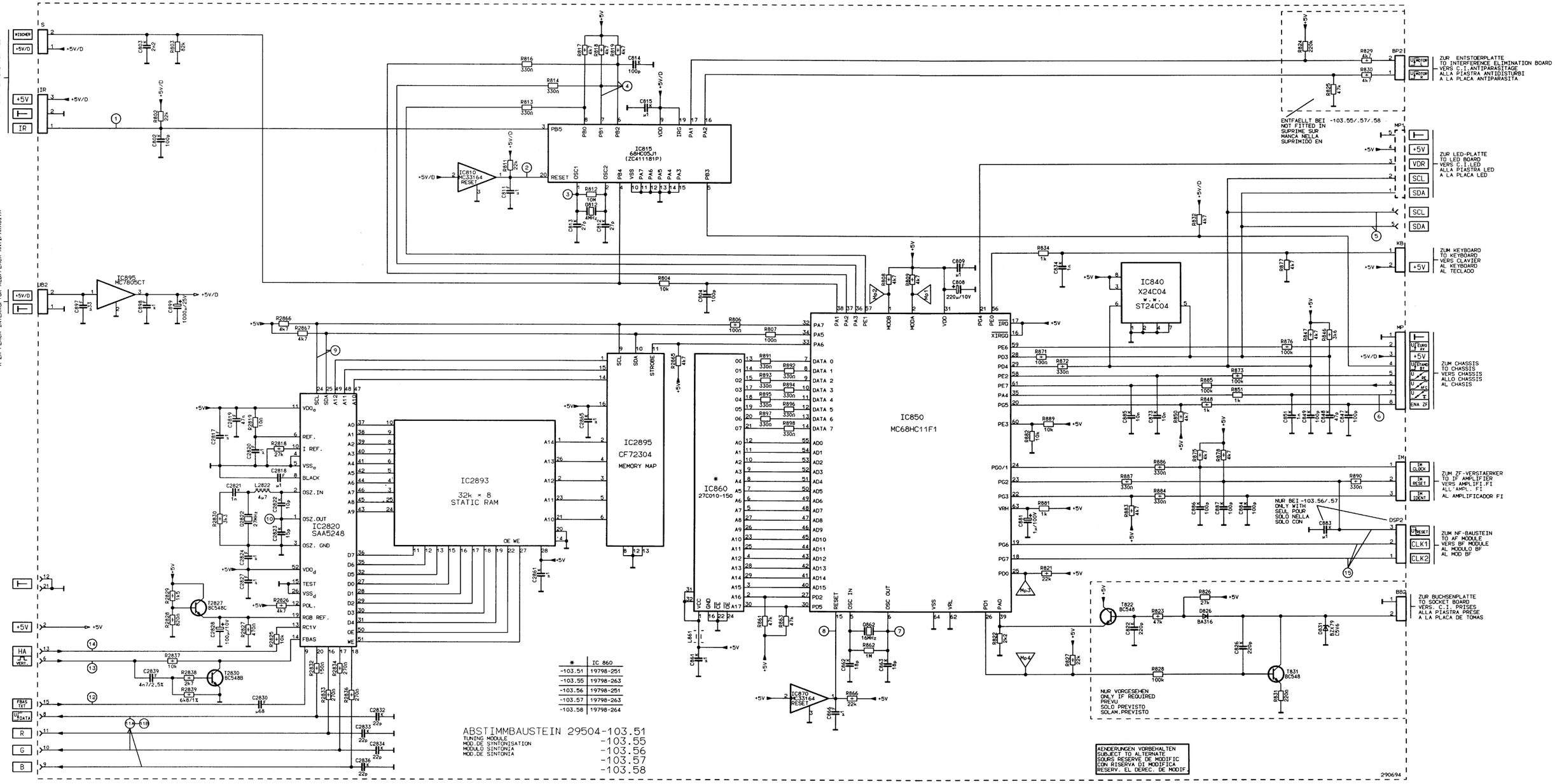
IF Amp Diagram

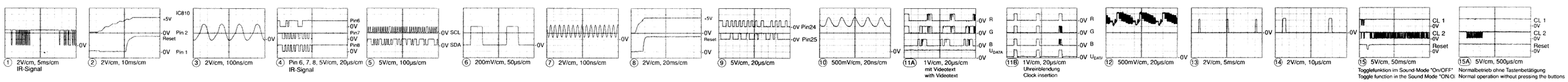


IF Amp Diagram Cont'd



Tuner Diagram



*	IC 860
-103.51	19798-251
-103.55	19798-263
-103.56	19798-251
-103.57	19798-263
-103.58	19798-264

ABSTIMMBAUSTEIN 29504-103.51
TUNING MODULE -103.55
MOD.DE SYNTONISATION -103.56
MODULO SINTONIA -103.57
MOD.DE SINTONIA -103.58