

MONO PLUS 2 CHASSIS (MP2)

TV

10/1998

Ⓜ Service manual
Ⓝ Service-Manual
Ⓢ Serviceanvisning

ⓕ Manuel de service
Ⓡ Manuale di servizio

AKAI

TV 1420-UK
TV 1420-T UK
TV 1420-Euro
TV 1420-T Euro
TV 1421
TV 1421-T
TV 1421-T Euro
TV 2020 UK
TV 2020-T UK
TV 2020-Euro
TV 2021
TV 2021-T
TV 2021-T Euro
TV 2120-T UK
TV 2120-Euro
TV 2120-T Euro
TV 2121
TV 2121-T
TV 2121-T Euro

FINLUX

14A1 TX
51A1 TX
55A1 TX

LUXOR

3392 TX
5192 TX
5592 TX

NOKIA

3721
3721-T Euro
5121
5121-T
5121-T Euro
5521
5521-T
5521-T Euro

SALORA

14MP50 VT TICO
20MP50 VT TICO
21MP50 VT TICO

RTV servis Horvat

Kešinci, 31402 Semeljci

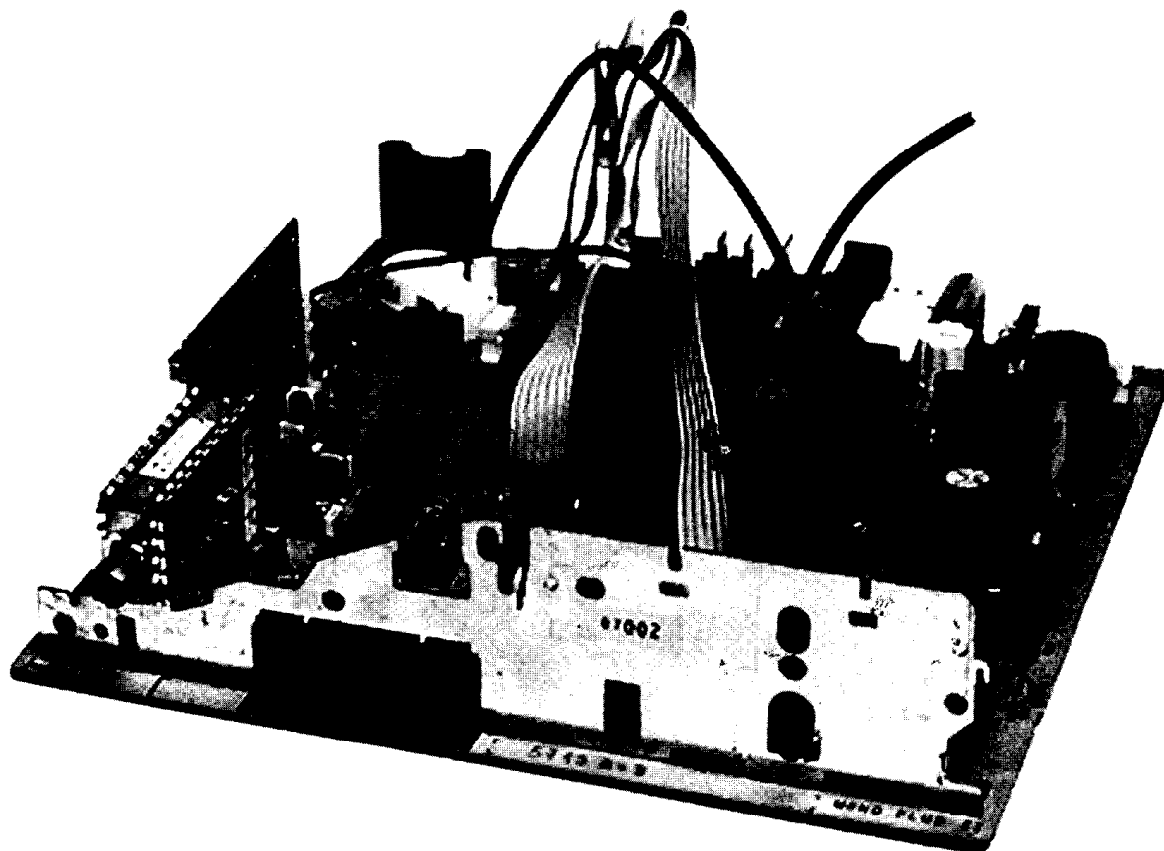
031-856-139

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098-788-319

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Croatia





Service adjustments

Note! Before other adjustments U1 voltage must be adjusted.

If the set cannot be switched on with the number buttons, please see under "RC Mode" (Service menu 2).

Wait! Allow the TV set to be switched on for 10 minutes before any adjustment.

Service mode

Select the service mode by pressing the Mute, OK (M) and TV buttons in sequence on the remote control unit. Use the blue button to call up the Service Menu 2, 3 (or Service Menu 1 again).

- Cursor button ▲ or ▼ = To select required adjustment
- Cursor button ◀ or ▶ = To adjust it
- OK (M) button = To store the adjustment into the memory.
- TV button = To return to normal TV mode.

Service adjustments which are made in service mode

Display	Note
Start APS	Service Menu 1 YES = APS; search function will be run automatically when the set is switched on for the first time and stores all stations into the memory.
V-Amplitude H-Shift	Adjust the bottom edge. Stereo set: Adjust centre of the test picture horizontally to a centered position. Mono set: Adjust centre of the test horizontal to a centered position with RK 45.
U1 AGC	U1 operating voltage, see adj. "U1 voltage". See adjustment "AGC".
Set Standard APS Standard RC Mode Front AV Text Characters	Service Menu 2 Select required standard. Set to appropriate television standard. (Remote Control), select the other remote control units. YES, if front AV socket is available. Teletext character sets: OFF, EU+CS, EU+TR, East 1, East 2
Equalizer C4 Bit	Service Menu 3 (only with stereo sets) YES/NO: YES = on Yes: Switches back to FM-sound, if FM-sound ≠ Nicam sound. No: Switches Nicam during Nicam-transmission.
Loudness AVC Carrier Mute Hi-Dev	YES/NO Yes: Suppresses sound cracks. Yes: Switches sound off, if carrier missing. Displays "HDM" line in the audio menu, use in case of overmodulation of sound.

Adjustment U1 voltage

- Set the contrast and brightness to minimum.
- Connect test point XF01 (chassis board) to ground.
- Go to service menu 1 (see service mode).
- Use cursor button ▲ or ▼ to select U1-adjustment.
- Adjust with cursor button ◀ or ▶
 - 110V ± 1V 14" (Philips/Samtel) and 20" (Videocolor)
 - 135V ± 1V 21" (Philips)
 - 150V ± 1V 25" and 28" (Videocolor)
- Use OK (M) memory button to store the value into the memory.
- Remove XF01/ground connection.
- Return to normal TV mode by pressing the TV button.

AGC

- Connect test point XF01 (Chassis board) to ground.
- Feed in RF signal without sound carrier with 72 dBμV (= 4mV) on a medium UHF channel via the aerial input.
- Go to service menu 1 (see service mode).
- Use cursor button ▲ or ▼ to select AGC adjustment.
- Connect oscilloscope (Bandwidth > 50 MHz) to the tuner's IF output (test point XL03 or XL04) and to ground (XL02).
- Use cursor button ◀ and ▶ to adjust 350 mVpp +0/-50mV with reference to the signal's synchronizing peaks.
- Use OK (M) memory button to store the value into the memory.
- Remove XF01/ground connection.
- Return to normal TV mode by pressing the TV button.

Other service adjustments

Horizontal amplitude

Adjust 90° CRT's horizontal amplitude with coil LK 12.
Adjust 110° SQ - and FST - CRT's with resistor RK66.

Vertical position

Adjust vertical position by severing resistor RS24, and/or RS14.

Focus

Use focus adjuster TKO2 (at horizontal transformer) to set the focus to optimum sharpness.

Cushion

Adjust 110° SQ and FST CRT's with resistor RK60.

G2 and colour temperature

- Set the UG2 adjustment (the lower adjustment at horizontal transformer) to its middle position.
- Select the IDEAL picture setting and switch the set to AV programme number or other black screen picture.
- Using the oscilloscope with 100:1 probe determine the colour cathode with the highest black level measuring pulse at IC NH01, pins 9, 12 and 15.
- Adjust the highest measuring pulse to 150V (measured against ground).

AFC

- Feed in symmetric IF signal (ca. 0,8 Vpp) by means of 4:1 transmitter at test points XL 03 and XL 04. (38,9 MHz for standard BG, DK and 39,5 MHz for standard I)
- At test point XL 01 (XL 02 to ground) set 3,5 V DC ± 0,5 V with coil ZL 01 (AFC reference).
- Multistandard set, standard L': After proper BG adjustment select a channel in band 1 (L'-range). Activate standard L in Tuning menu. Feed in symmetric IF signal (ca. 0,8 Vpp) by means of 4:1 transmitter at test points XL 03 and XL 04. (33,9 MHz for standard L') At test point XL 01 (XL 02 to ground) set 3,5 V DC ± 0,5 V with capacitor CL 05.

AFC check

Detune the IF signal to approx. 39 MHz (39,7 MHz, 34 MHz). Then the voltage must drop to approx. 1V.

Sound of multistandard sets

(standard BG, DK or standard I)

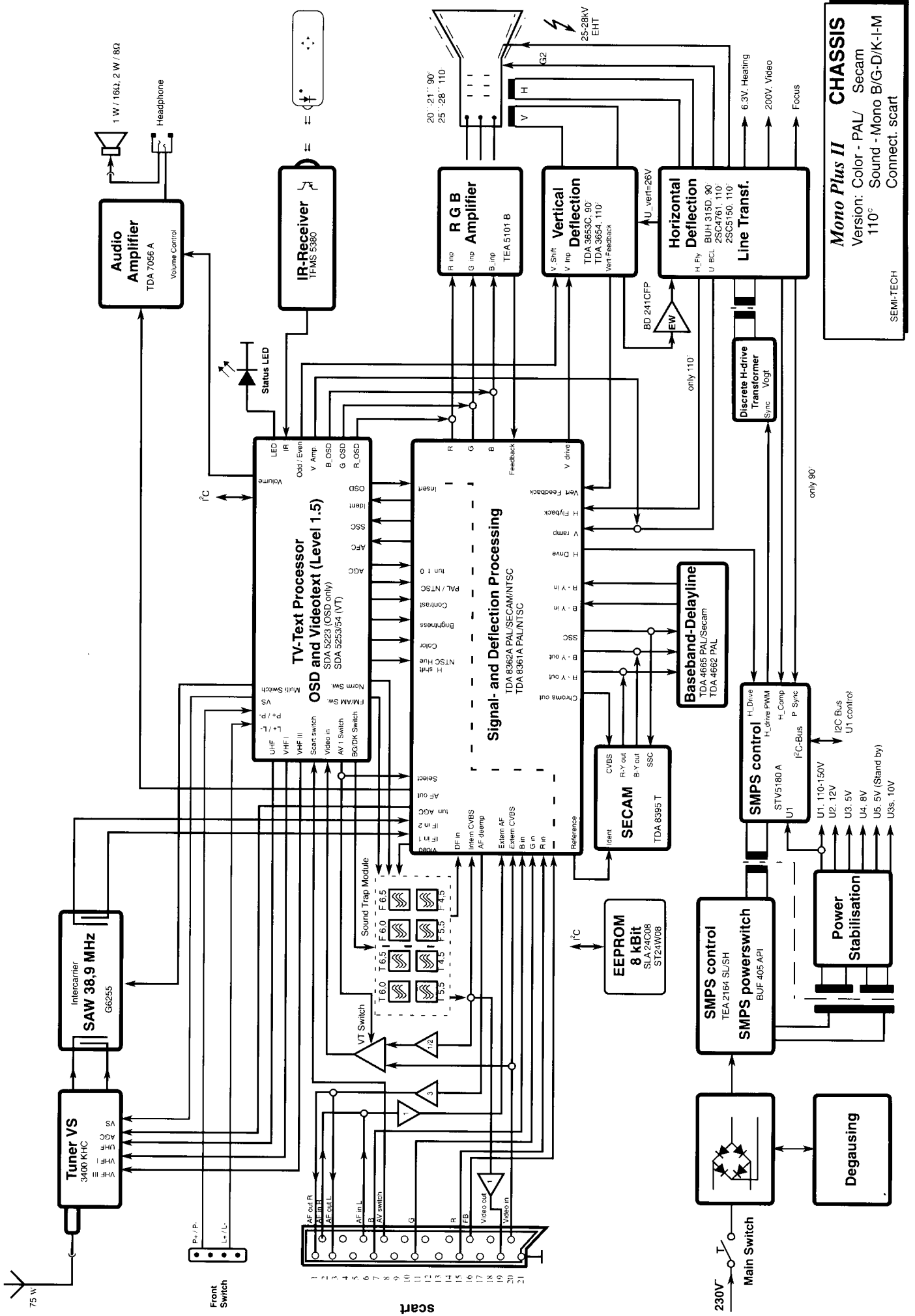
Make the standard adjustment as follows:

- RCF remote control unit: Press the PROG button.
RCN remote control unit: Press the blue MENU button twice.
- Select the menu line Tuning, Manual tuning.
- Select STANDARD BG, DK or I with cursor buttons ◀ and ▶.
- Store the setting by pressing the OK (M) button.
- Return to normal TV viewing by pressing the TV button.

AM sound (multistandard module)

- Connect a sweep generator with 30-40 MHz marking to pin 14 of AL-connector.
- Connect an oscilloscope to pin 11 of AL-connector.
- Connect a control voltage supply to pin 3 of TDA 9830.
- L standard: The voltage at pin 09 of AL-connector = 0 V.
Set the output amplitude to 200 mV by means of the control voltage and keep this value during the adjustment.
Adjust the amplitude of 34,2 MHz to maximum with ZL 651 and ZL 652.
- After proper L-adjustment:
L' standard: The voltage at pin 10 of AL-connector = 12 V.
Set the output amplitude to 200 mV by means of the control voltage and keep this value during the adjustment.
Adjust the amplitude of 40,4 MHz to maximum with RL 673.

Block diagram



scart

230V

Main Switch

Degaussing

Power Stabilisation

SMPS control

SMPS powerswitch

SECAM

Baseband-Delayline

Signal-and Deflection Processing

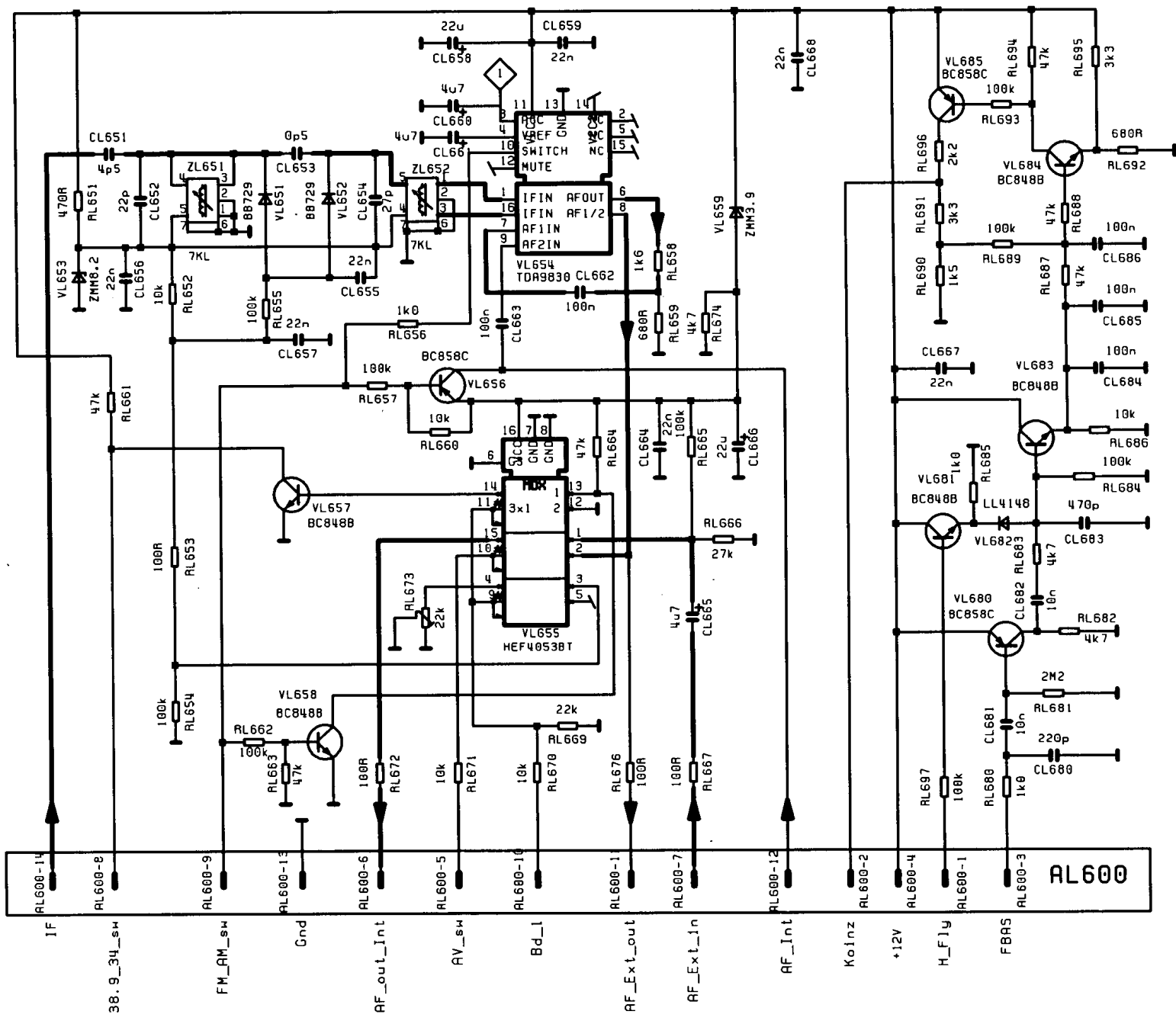
TV-Text Processor OSD and Videotext (Level 1.5)

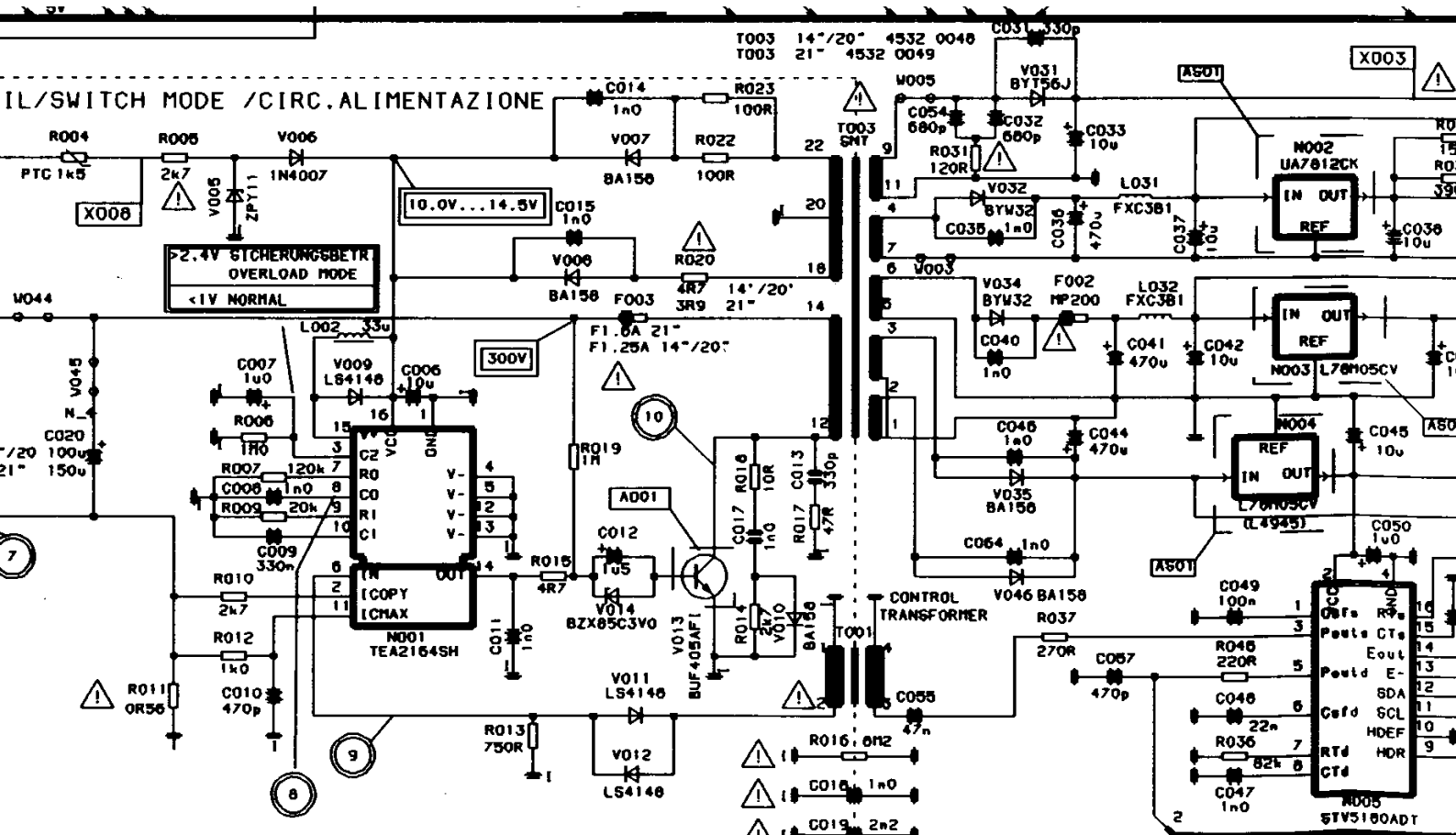
Audio Amplifier

IR-Receiver

CHASSIS
Mono Plus II
 Version: Color - PAL / Secam
 110°
 Sound - Mono B/G-D/K-I-M
 Connect: scart
 SEMI-TECH

AM-Module 5825 20 26





IL/SWITCH MODE /CIRC.ALIMENTAZIONE

2.4V SICHERUNGSBETR
OVERLOAD MODE
<1V NORMAL

10.0V...14.5V

300V

NETZVERBUNDEN/MAINS-CONNECTED/COLLEGATO ALLA RETE ; NETZGETRENNT/MAINS-INSULATED/SEPARAT

RTV servis Horvat

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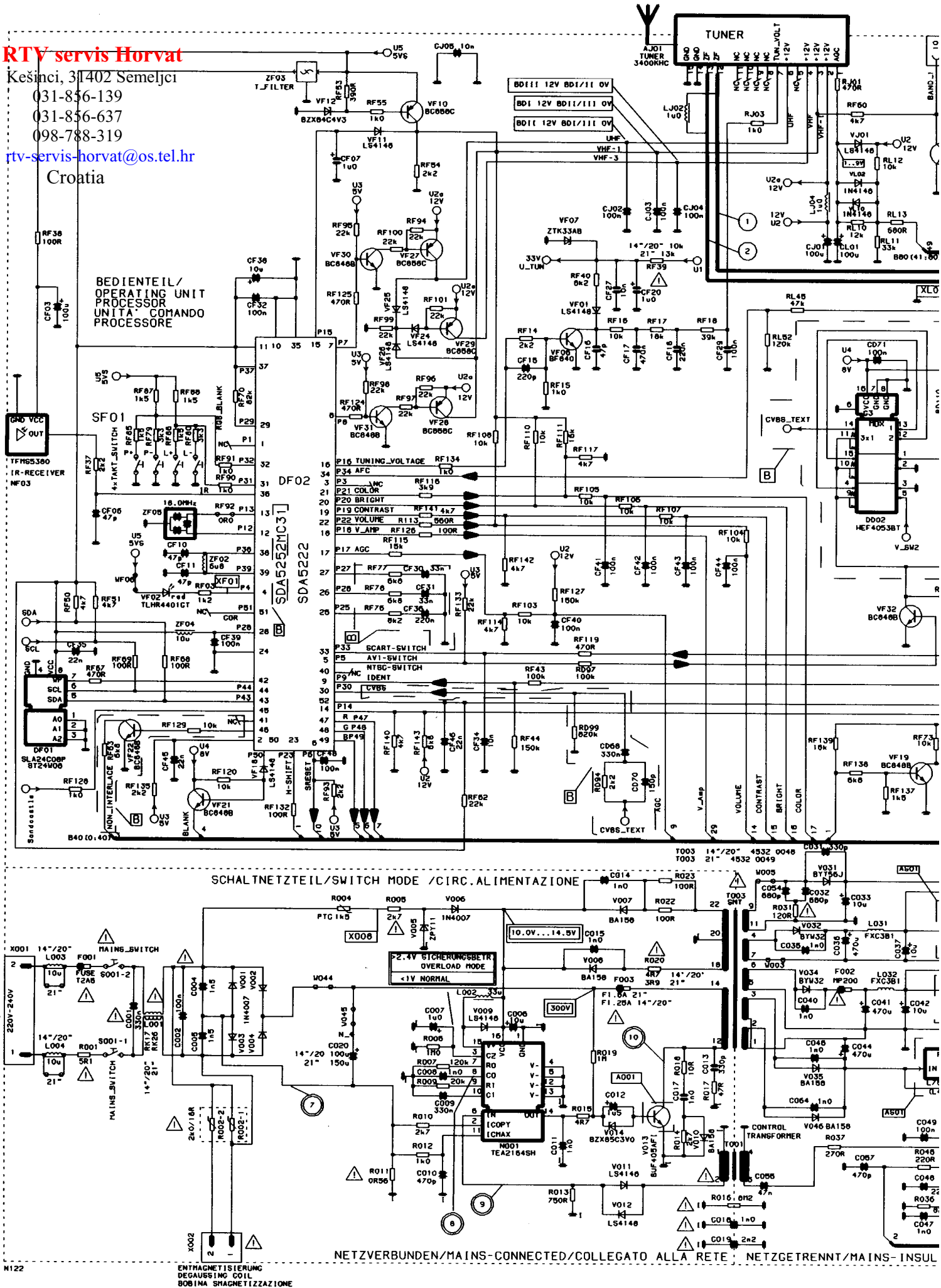
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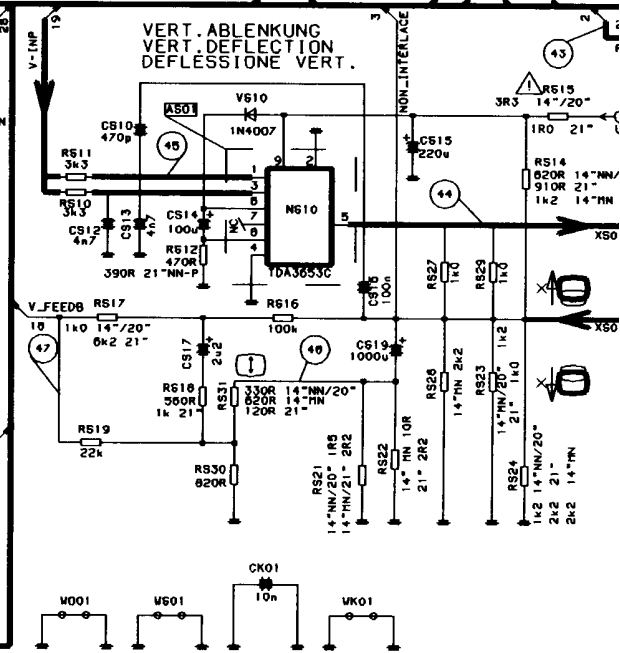
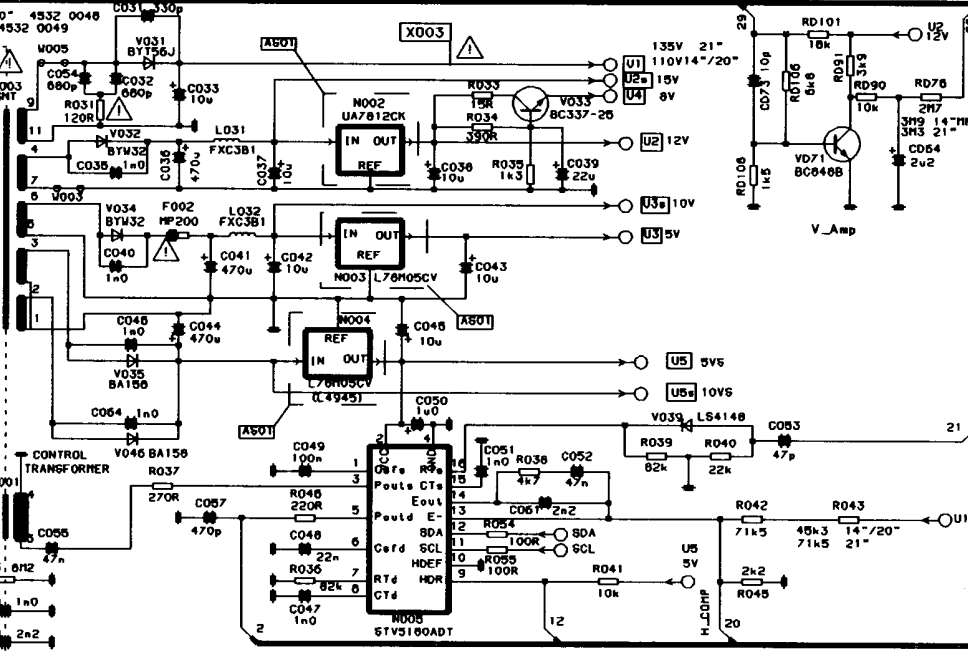
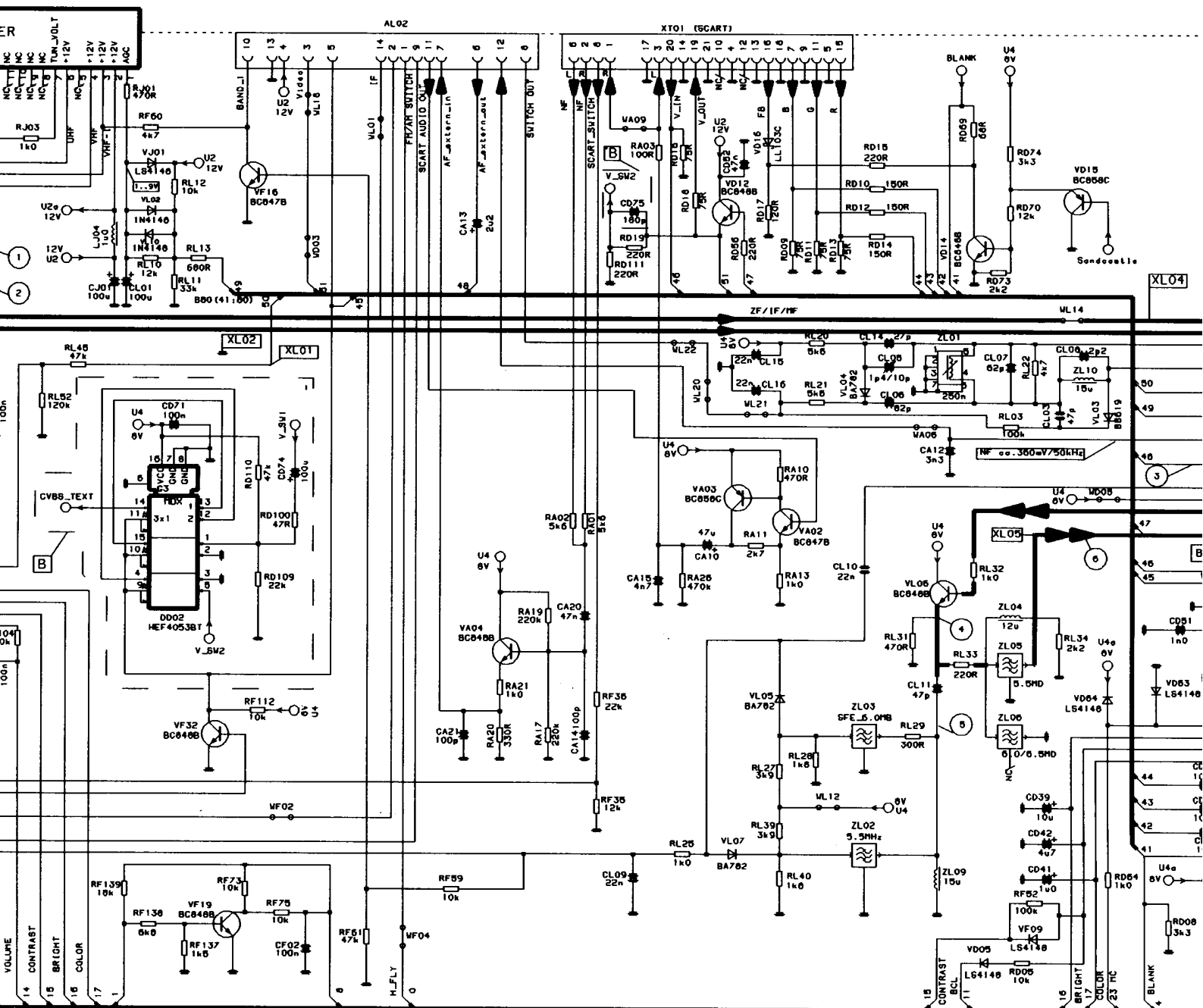
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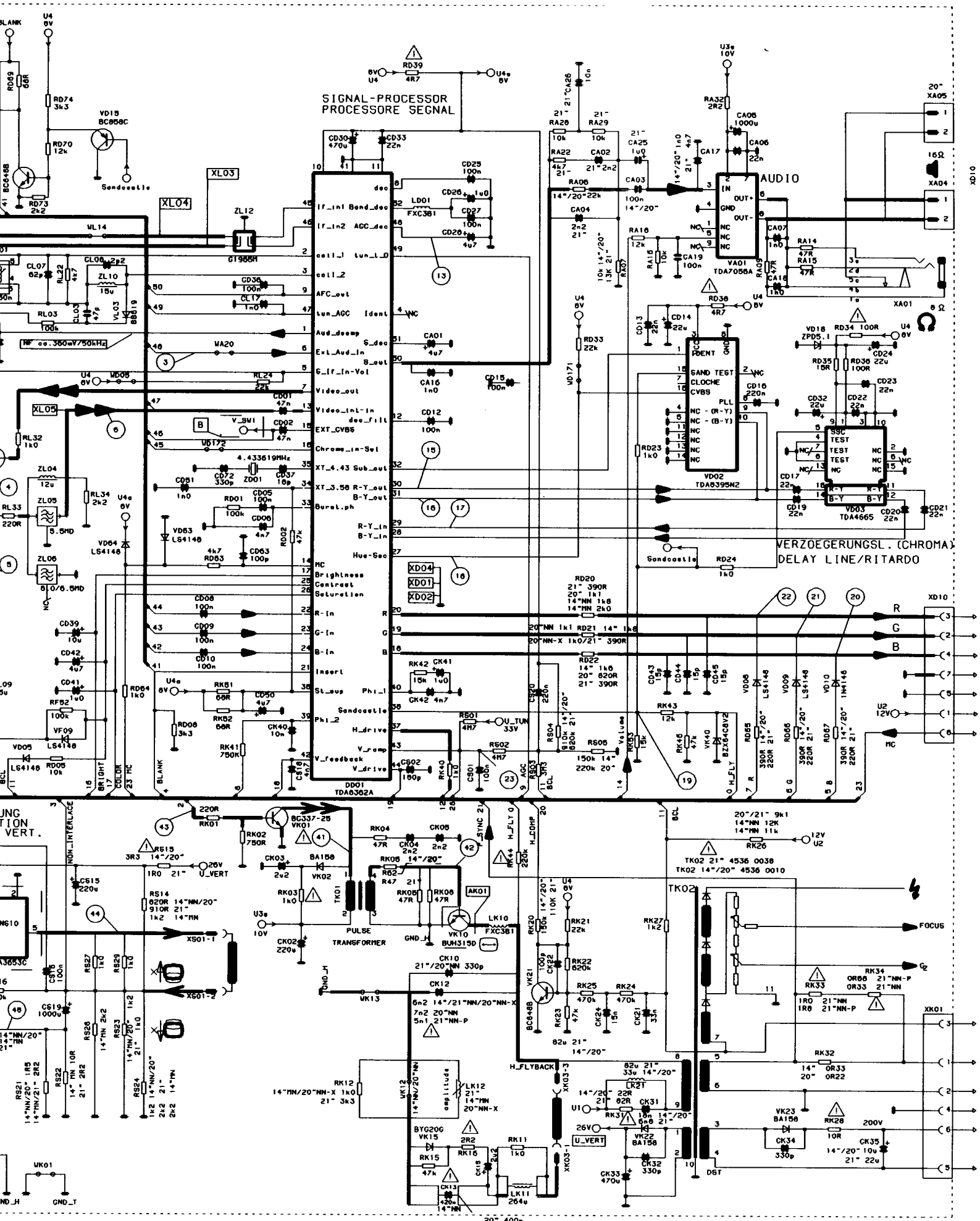
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NETZGETRENT/MAINS-INSULATED/SEPARATO DALLA RETE

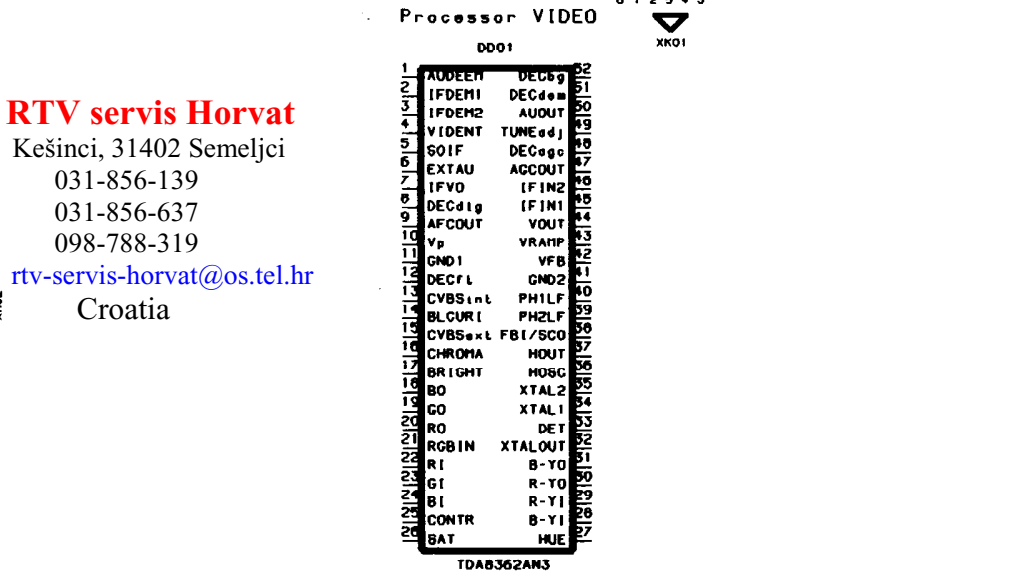
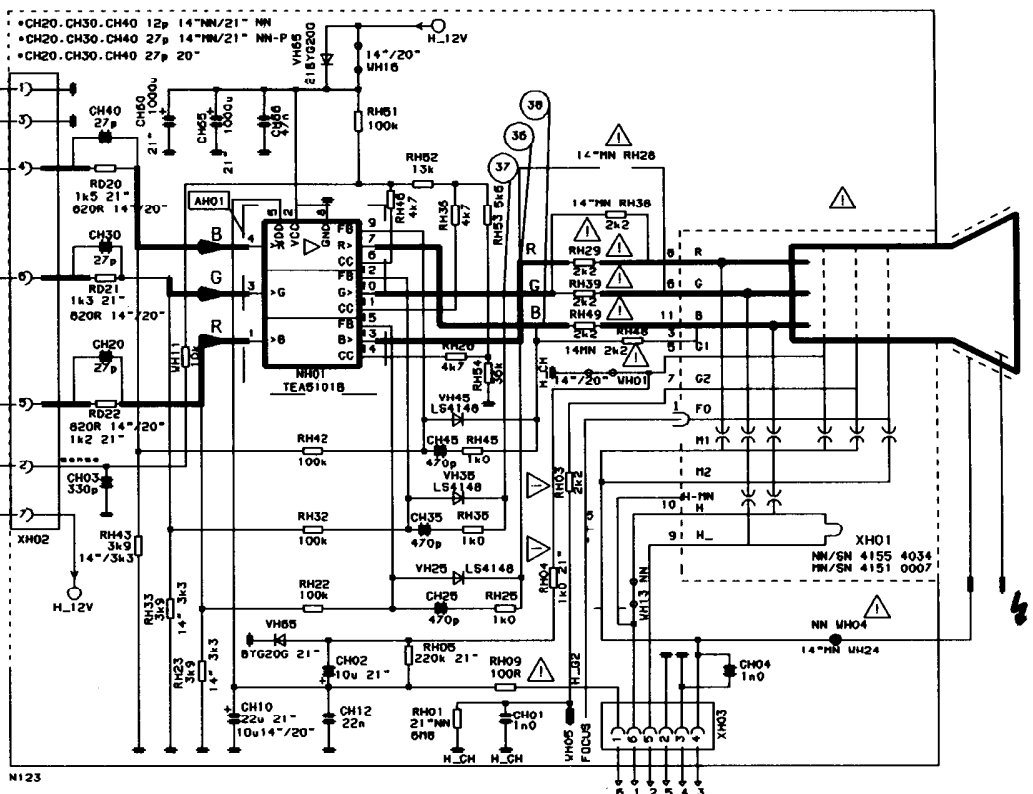
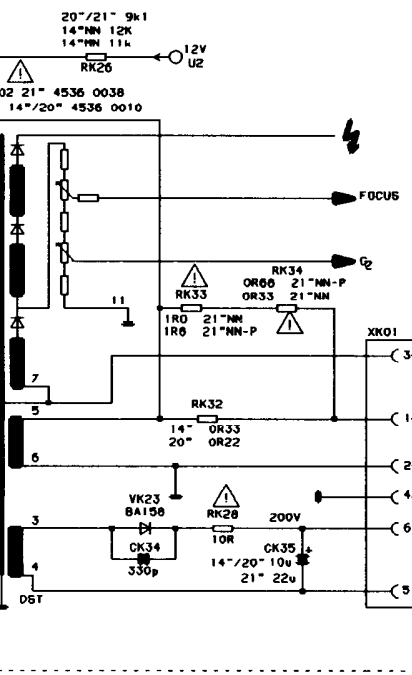
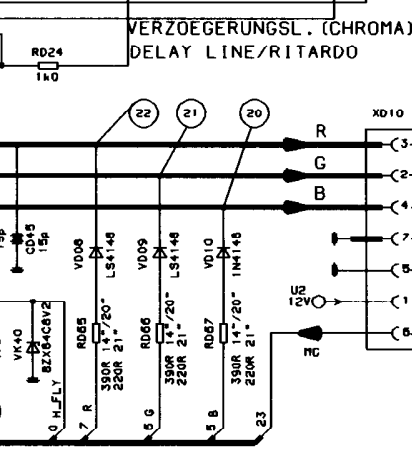
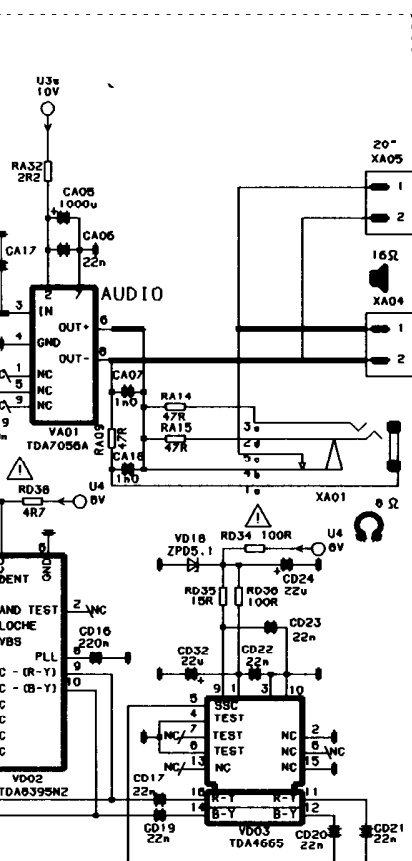


SIGNAL-PROCESSOR
PROCESSORE SEGNAL

AUDIO

VERZOERINGS (CHROMA)
DELAY LINE/RITARDO

FUNCTION VERT.



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