

General Information

1996

TV8 Chassis

CRT: A66EAS13X01

Service Adjustments

General Hints:

Warning - Always use an isolating transformer for repair work and existing safety regulations.

Compliance with the general valid rules for protection against static charges is essential.

X-ray regulations - The picture tube types and the maximum permissible high voltage ensure that the x-ray intensity within the set remains far below the permissible value. The high voltage is within the permissible limits when operating voltage equals 148V at the minimum beam current. Following servicing, check and adjust this voltage to the normal value.

Operating Voltage U1

Set the contrast and brightness to minimum. Testpoint: Cathode of Diode D202 to ground (gnd). Adjust R107 to +148V (+/- 0.5V).

Adjustment On-Board IF

Note: This Information is not for Multi-Standard Sets.

There is full explanation below in AFC and AGC voltage adjustments.

At first adjust the AFC and then the AGC voltage.

AFC Adjustment

Set in band III a PAL test picture with 63dBuV (+3dBuV) (Channel 8 (196.25 Mhz)) on 75 ohm antenna. Set the channel direct. Testpoint: IC501 pin15 and gnd (IC 501 pin 18). Adjust with Fi +2.5V (+/- 0.5V)DC.

AGC Voltage

Set in band III a PAL test picture with 63dBuV (+3dBuV) (Channel 8 (196.25mhz)) on 75 ohm antenna. Set the channel direct. Testpoint: IC501 pin12 and grd (IC501 pin 18).

Tuner TEMIC 3402PHC: Adjust with R157 +5.8V (+/- 0.1V)

Tuner TEMIC 2002PHC: Adjust with R517 +6.5V (+/- 0.2V)

Note: The two adjustments are not independent. In extreme cases the two parameters can be such kind of mistuned, that it is difficult to adjust them. In this case proceed as follows:

- 1: Connect pin 1 and pin 8 of the Tuner.
- 2: Do the AFC adjustment.
- 3: Remove the connection.
- 4: Redo the AFC adjustment.
- 5: Do the AGC adjustment.

Service Mode

Before being switched to the service mode the unit must be set to a channel with a test pattern. Press the red key and the blue key on the remote control simultaneously. Within

5 seconds, press the key P- and the key V+ on the local control panel simultaneously. The title **SERVICE V xxx** (xxx is for software version) appears in the screen.

Keys

P+ and P- Call up tuning parameters
V+ and V- Modify tuning parameter

Note: The parameters are stored in changed.

Display Tuning Operation

VP Adjust the vertical shift
HP Adjust the horizontal fax
VA Adjust the vertical picture height. If the setting range is not sufficient the range must change with the point CRT.

VL Adjust top and bottom vertical linearity of screen centre

VB Adjust the intensity of EHT. **VB = 24**

PA Make vertical lines parallel with screen edge.

HA Adjust horizontal size.

CC Adjust vertical lines in corners. Basic setting is 0.

Setting should only be changed if PA balance cannot be adjusted satisfactorily.

PT Adjust values so that the picture has same width at top and bottom edges or other vertical lines are parallel with each other. See white drive adjustment

R

G

B

S-ADJ

Connect a test picture with a stereo signal to the tuner and adjust to the TV. Connect the oscilloscope to pin 3 of ST601. Adjust to lowest crosstalk between the channels.

L-ADJ Connect oscilloscope to pin1 of ST601. Connect a test picture (antenna level > 60dBuV/750 ohm) with stereo signal (27kHz frequency shift. 54% modulation factor) to the tuner and adjust the TV. Gear to vertical deflection. In dependence of the picture tube 0 or 1.

Gr/G+/GL Shows like the Cut off registration locks off in place. Its useable to adjust G2 adjustment.

DELAY Superimpose the luma signal on the chroma signal.

Note: With pushbuttons L (+) and L (-) you can connect the OPTION 1 - OPTION 8 up and down. The indicated optionbit could be connected with the yellow pushbutton On and Off. Each change of an option bit will be immediately stored. Only the option bit 1,2,3,4 and 7 are attached.

- | | | |
|----------|---|--|
| Option 1 | On | Off |
| Option 2 | PAL mode | only PAL/SECAM TV |
| Option 3 | Blanking like the cutoff locks off, should be ON | The picture will not be suppressed |
| | If the beam current is exceeded the TV will set in Stand-by mode. | Base saturation current will be ignored. |

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|----------|----------------|--|
| Option 4 | Should be ON | Mains operation on. TV connects in stand-by |
| Option 7 | Sleep mode on. | Mains operation on. The TV starts immediately. Sleep mode off. |

Note: Sleepmode - TV connects after 6 minutes in stand-by, if there is no input signal at the Videoprocessor.

G2, Focus and Drive Adjustment

Set brightness to minimum, contrast to maximum and colour to middle. Set test picture with black field. Select in service mode the G2 setting. It shows GR, G+ or GL. **GR** cut off registration is locked in. Turn the underlines adjuster right to get in the range of adjustment. **G+** cutoff registration is locked in. **GL** cut off registration is not locked in. Turn the underlines adjuster left to get in the range of adjustment. Turn the adjuster right. **GL** is shown. Turn the adjuster slowly left since the indication jumps to G+.

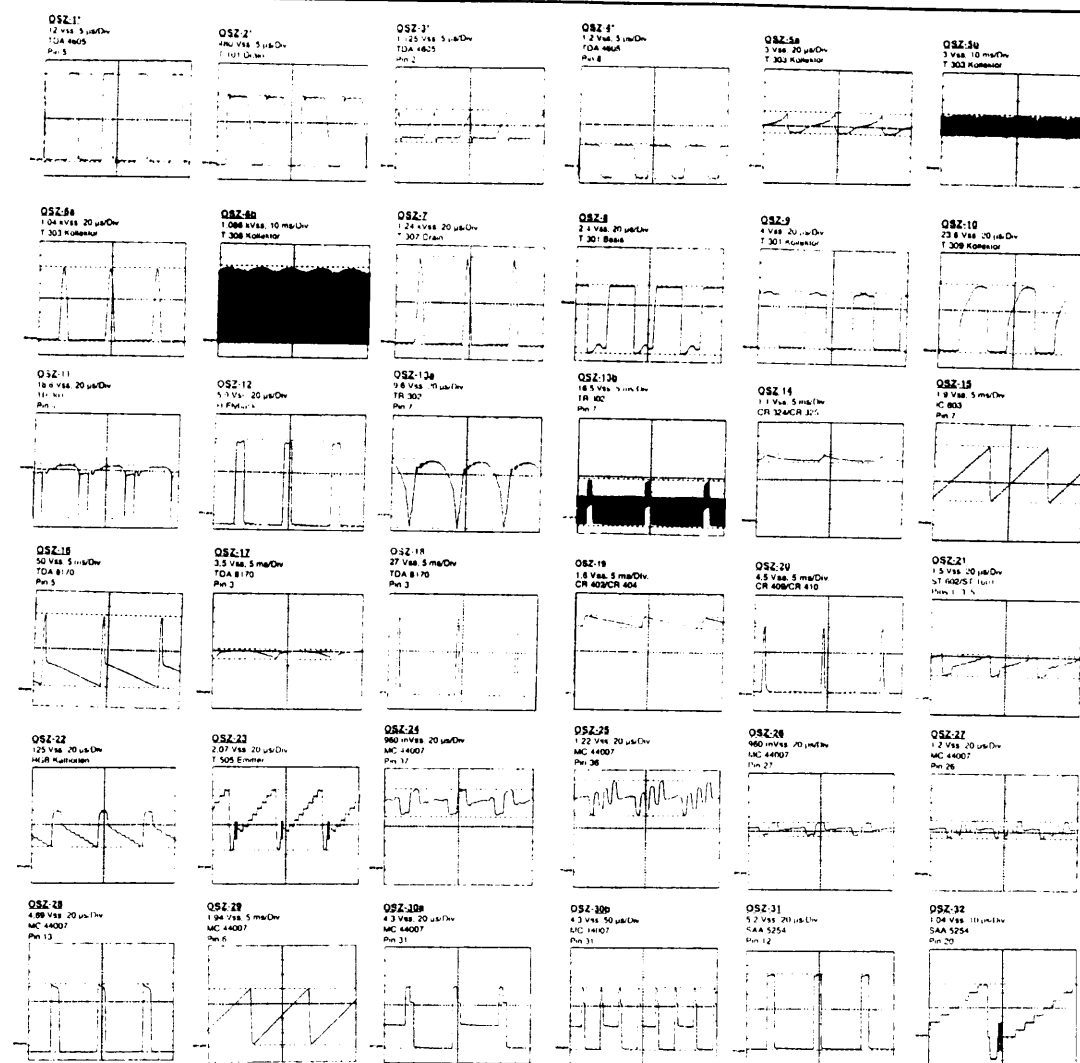
Note: The correct G2 adjustment is if the indication jumps between "GL" and "G+".

Focus Adjustment

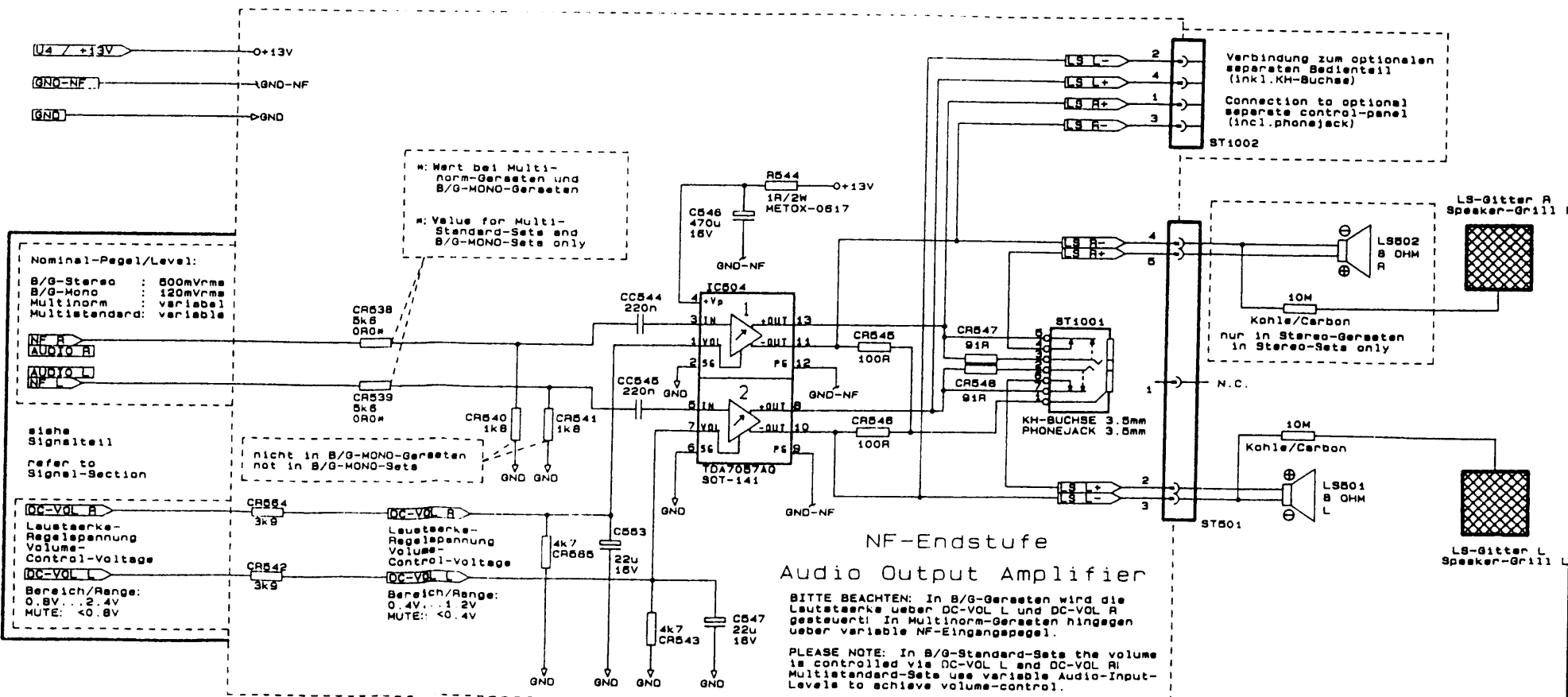
Connect a test picture. Brightness, colour and contrast adjust to normal look. Press 2x INFO pushbutton. Adjust with focus adjuster (upper adjuster on the back) to optimum general focus.

Colour Adjustment

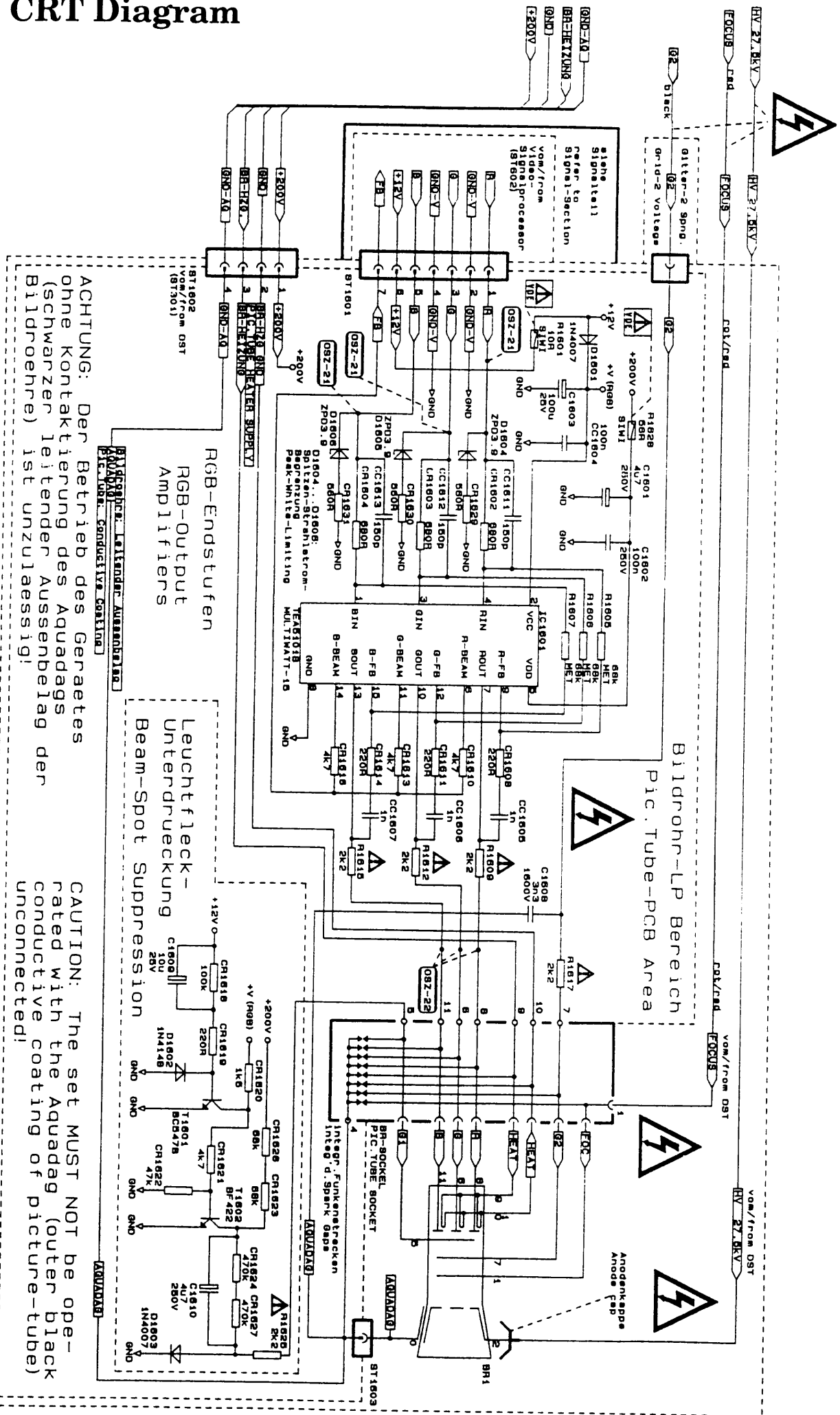
Set test picture with white and grey field. Brightness, colour and contrast adjust to normal look. Invoke the adjust point **R**, **G** and **B** and set the parameter to 32. Now set the colour with the parameters. The weak primary colour adjust upper (>32) and the heaviest colour underlines (<32). The middle colour will be adjusted to 32.

Waveforms
-Main Diagram

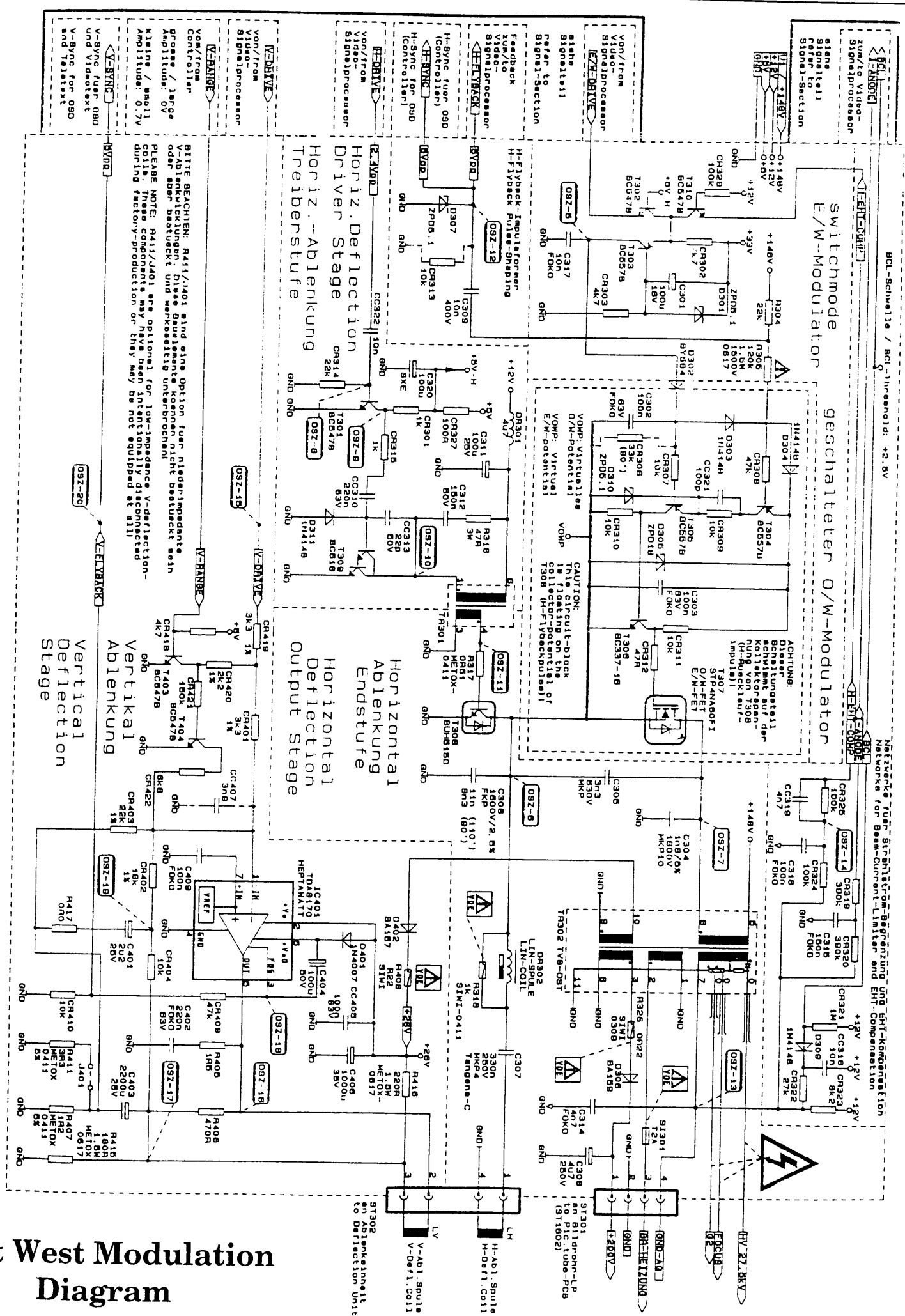
Audio Output Diagram



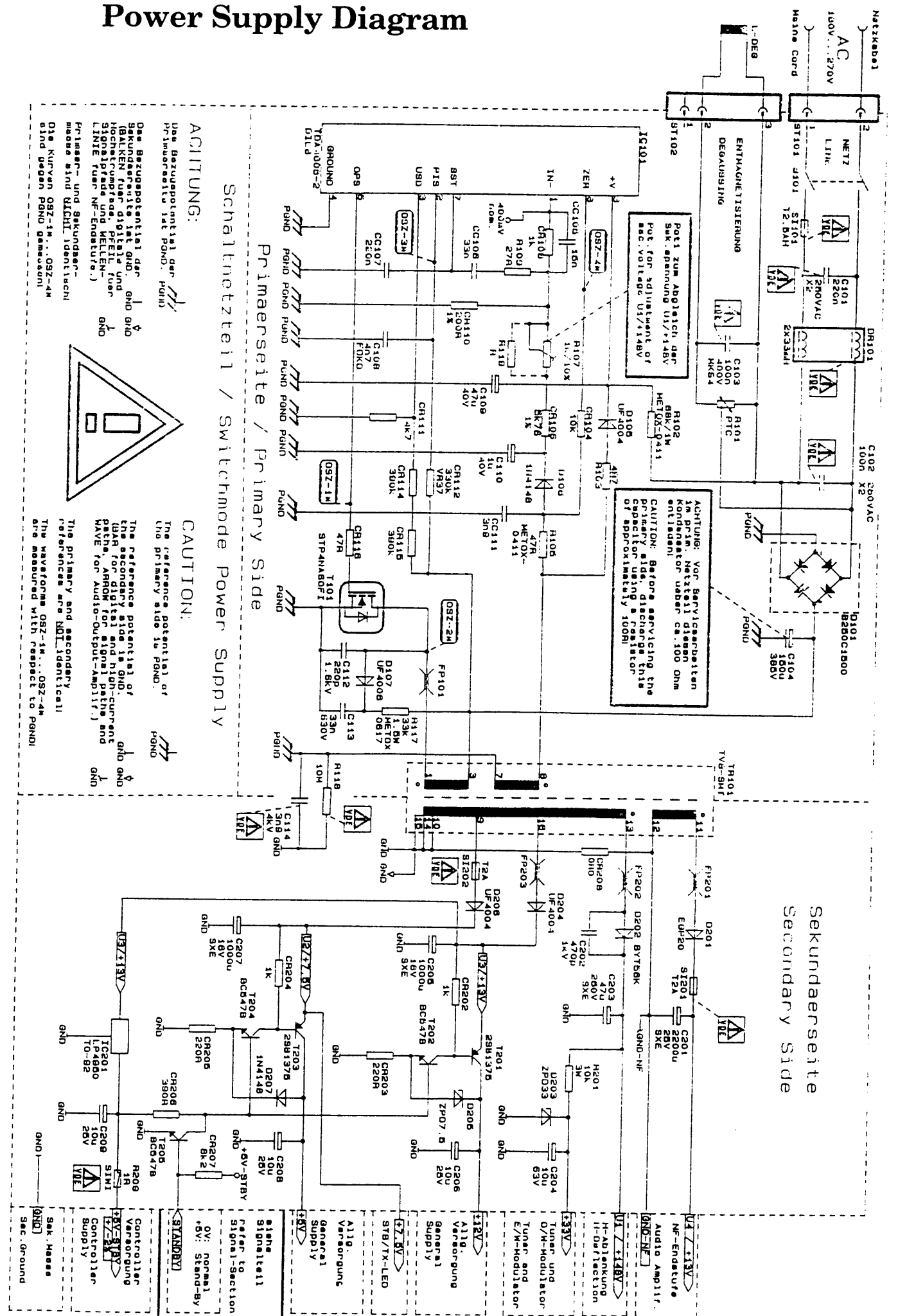
CRT Diagram



East West Modulation Diagram



Power Supply Diagram



Main Diagram

