NOKIA Stereo (Mono Plus 90°) Chassis 334

General Information

1994
Covers Models:
Nokia 3755 VT / 3755 UK / 3755 NICAM / 5155 VT / 5155 NICAM
Chassis:
Stereo (Mono Plus 90°)
CRT's:
A34EFU13X01
A48EEV13X01
Remote Control:
56521830 (ST2)
Main Power Button:
84680370

Matrix

See Matrix

Safety Notice — Nokia FS Chassis

Specifications

Mains Power:	176V - 246V
Power Consumption:	ca. 60W
Stand-by:	5,5W
Picture Tube:	14": 37cm, 20": 42cm
Programme Memory Loc:	99
AV Memory Locations:	1
Sound Output:	2 x 3W RMS (16Ω
Chassis:	Mains isolated, AP5
Connections	
On the front panel:	≥16Ω 3.5mm REC
On the rear panel:	
SCART 1:	Audio out: 0.5V/1kΩ
	Audio in: 0.5V/10kΩ
	Video out: 1V/75Ω
	Video in: 1V/75Ω
	RGB: 0.7V/75Ω
Aerial:	75Ω

Service Adjustments

Safety Regulations

X-Ray Regulations

The picture tube type and the maximum permissible high voltage ensure that the X-ray intensity within the set remains far below the permissible value.
The high voltage must not exceed 28kV, the high voltage is within the permissible limits when the operating voltage of the horizontal deflection stage equals 109.5V ± 0.5V at minimum beam current.
During servicing check and adjust this U1 voltage to the nominal value.

Instructions for Repair Work

Instructions for Repair Work
N.B.: (cc. switch mode)

Please use only original component 3422 06 3[illegible] for CO06. If standard size electrolyte capacitor CO06 is used, parallel 0.47mF MKT must be installed additionally.

1. With the horizontal output stage disconnected (e.g. pin 8 at TK02 open) and a "dummy" load at the cathode of VO3[illegible] (e.g. 100W lamp) the power supply must supply approximately 100% of the setpoint voltage.
2. For fault finding the electronic fuse can be disconnected with a shunt connector across CO07. If the electronic fuse cuts out due to a momentary overload, the TV set can be re-started by using the mains switch.
3. Make sure there is a hum-free DC voltage available, for example: the ripple voltage of U1 is approximately 4V and should, due to capacitance loss of CO33, not increase much more. The ripple voltages of the other DC voltages should be less than 1V. The ripple voltages of U2, U3 and U5 are in the mV range.

Service Adjustments

Note: Before other adjustments U1 voltage must be adjusted.

Service Mode

Select the service mode by pressing successively the "I", M and PROG buttons on the remote control unit. You can use the yellow button to call up service menu 2 or 3 (or service menu 1 again).
Use the cursor button ∧ or ∨ to select required adjustment and adjust it by using the > and < buttons.
Store into the memory by pressing the red M button.
Return to normal TV mode by pressing the TV button.
See Chart.

Adjustment U1 Voltage

1. Set the contrast and brightness to minimum.
2. Connect the test point XF01 (chassis board) to the ground.
3. Select the service mode (see Service Mode).
4. Use the cursor button / or Ÿ to select U1 adjustment.
5. Adjust the U1 voltage to 109.5V ± 0.5V (14", 17" and 20") / 134.4V ± 0.5V (21") with the cursor button > and < at teat point XO03.
6. Use the M button to store the value in the memory.
7. Disconnect the test point XF01/ground again.
8. Return to normal TV mode by pressing the TV button.

Service adjustment which are made in service mode		
Adjustment	**OSD**	**Note!**
Service Menu 1		
U1 operating voltage	U1	See adjustment "U1 voltage"
AGC	AGC	See adjustment "AGC"
Hor. position	H-SHIFT	Adjust centre of the test picture to a centred position.
Service Menu 2		
Teletext hor position	TXT H-SHIFT	Adjust teletext picture to centre on the screen.
Teletext.character sets	TXT:	WEST/ EAST/ WEST TURKEY
SCART	SCART	(yes/no)
TV standard	NORM:	Set to appropriate TV standard
Service menu 3	NICAM	(on/off)
	LOUDNESS	(off=linear frequency response)
	C4 BIT CHECK	(on)
	CAR.MUTE	(on/off)

AGC

1. Connect the test point XF01 to the ground.
2. Feed in a RF signal (70 dBmV) without sound carrier and tuned on a mid range UHF channel via the aerial input.
3. Select the service mode.
4. Use the cursor button / or Ÿ to select AGC adjustment.
5. Connect an oscilloscope (bandwidth >50 MHz) to the tuner's IF output, test point XL03 or XL04 and to ground XL02.
6. Use cursor button > or < to adjust to 400 mVpp ± 50 mV with reference to the signal's synchronising peaks.
7. Use the M button to store the value in the memory.
8. Disconnect the test point XF01/ground again.
9. Return to normal TV mode by pressing the TV button.

Horizontal Amplitude

Adjust horizontal amplitude with the coil LK12 (only 14" minineck and 21" picture tubes).

Vertical Amplitude

Adjust vertical amplitude by severing the resistor RS20.

Vertical Position

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

Focus

Use the focus adjuster TK02 (at the horizontal transformer) to set the focus to optimum sharpness.

G2 and Colour Temperature

1. Turn the potentiometers RH24, RH34 and RH44 (CRT module) to anti-clockwise stop.
2. Switch the TV set the AV, or select a black test picture.
3. Connect an oscilloscope at the green input of the CRT module (XH02/2).
4. Select the brightness adjustment and adjust the black value to 1.7V DC.
5. Short circuit the test points XS03/XS04 (vert. deflection).
6. Turn the UG2 adjuster (at the horizontal transformer) until a colour just appears as a bar.
7. Turn the potentiometer RH24, RH34 or RH44 until the bar just appears in white. At least one of the adjusters should remain at its anti-clockwise stop.
8. Disconnect the test points XS03/XS04.

AFC

1. Feed in a symmetrical IF signal by means of a 4:1 transmitter at test points XL03/XL04 (the BG/DK standard 38.9 MHz or the I standard 39.5 MHz; approx. 0.8 Vpp).
2. At test point XL01 (XL02 = ground), set to 3.5V DC ≥ 0.5V with the coil ZL01 (AFC reference).

AFC Check

Re-tune the IF signal to approx. 39 MHz (39.7 MHz); when you do this the voltage must drop to approx. 1V.

Sound

The BG or I standards are independent of the STANDARD setting. With the BG/DK standard: STANDARD 2 = DK and STANDARD 3 = BG. To select the STANDARD proceed as follows:

1. Press the PROG button (under the lid).
2. Activate the STANDARD setting with the cursor button Ÿ or /.
3. Use the cursor button > or < to switch to STANDARD 3 or 2.
4. Use the M button to store the setting in the memory.
5. Return to normal TV mode by pressing the TV button.

Audio IF Calibration

1. Feed in a test picture.
2. Connect an oscilloscope at pin 12 of TDA2545A (stereo module).
3. Use coil ZA61 to adjust for minimum picture content.

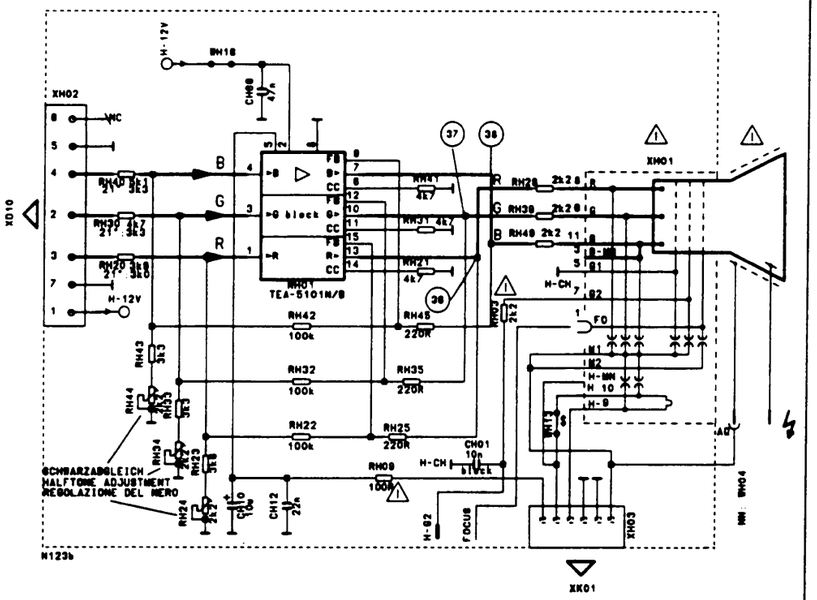
Teletext Decoder 5854 40 37

Adjust IC NR02 to 2.5 V ± 0.1V with the coil LR1 at pin 28.

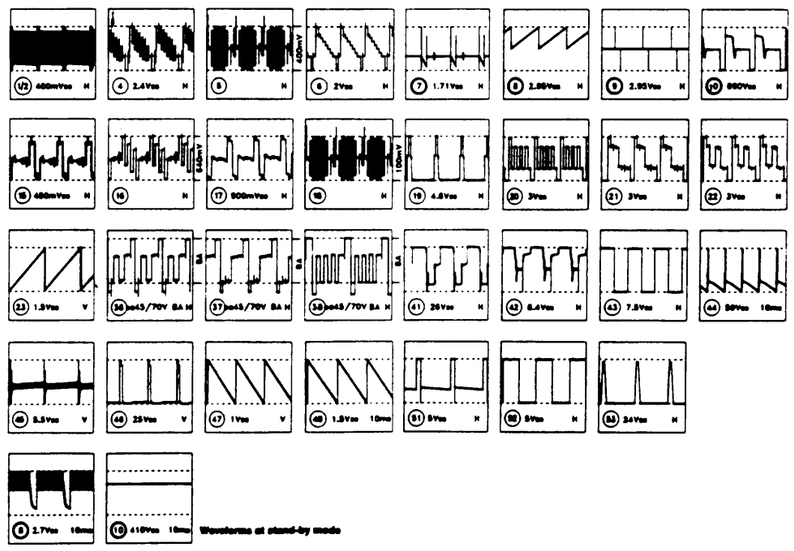
Recommended Safety Parts

	Part No	
5	43641401	Tube 14" A34 EFU 13 X 01
5	43642001	Tube 20" A48 EEV 13 X 01
12	45880722	Degaussing Coil 14"
12	45880812	Degaussing Coil 20"
14	41210003	Mains Switch
18	41312527	Mains Cable (UK) 14"
18	41312510	Mains Cable 20"

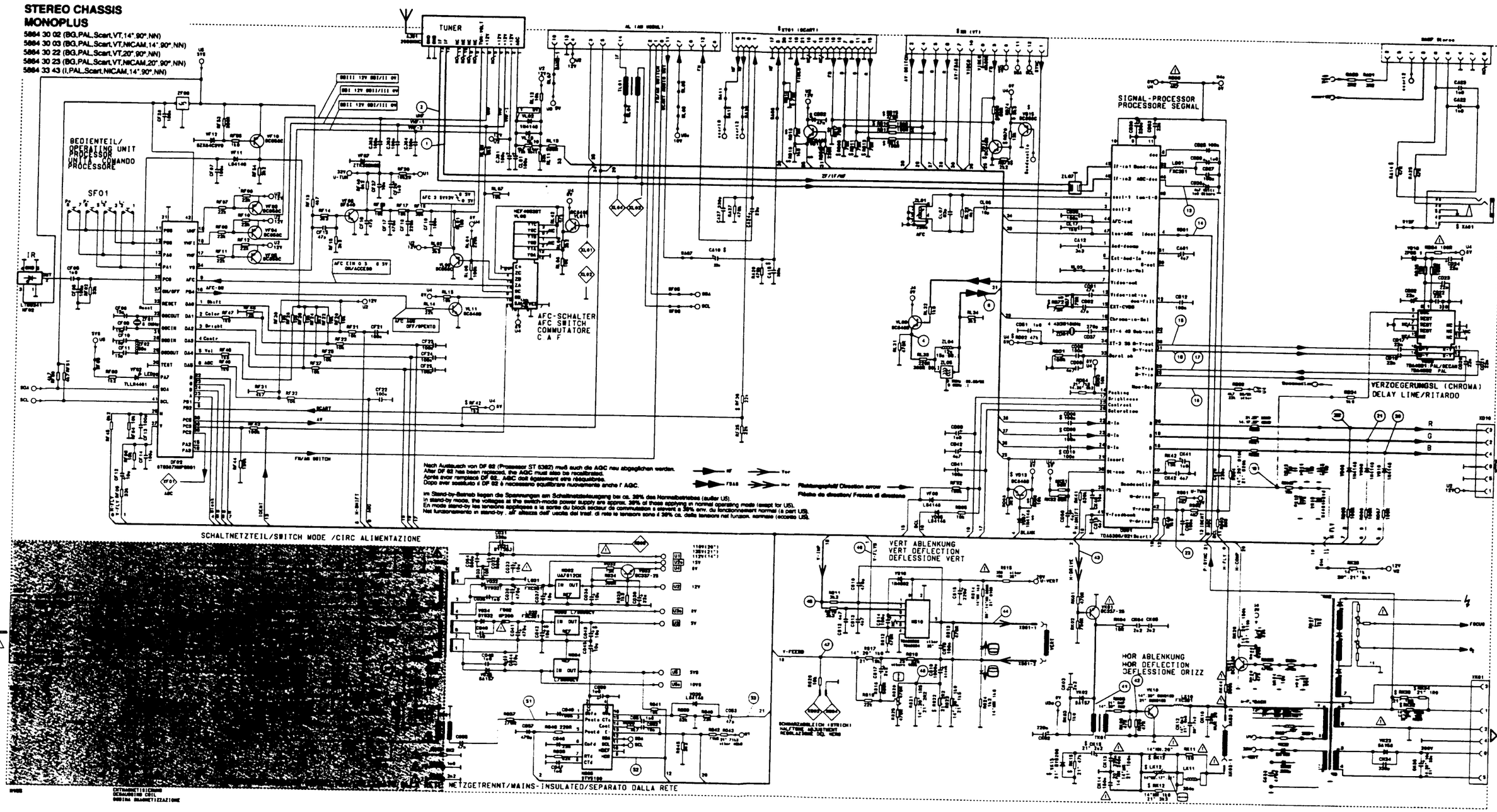
CRT Diagram



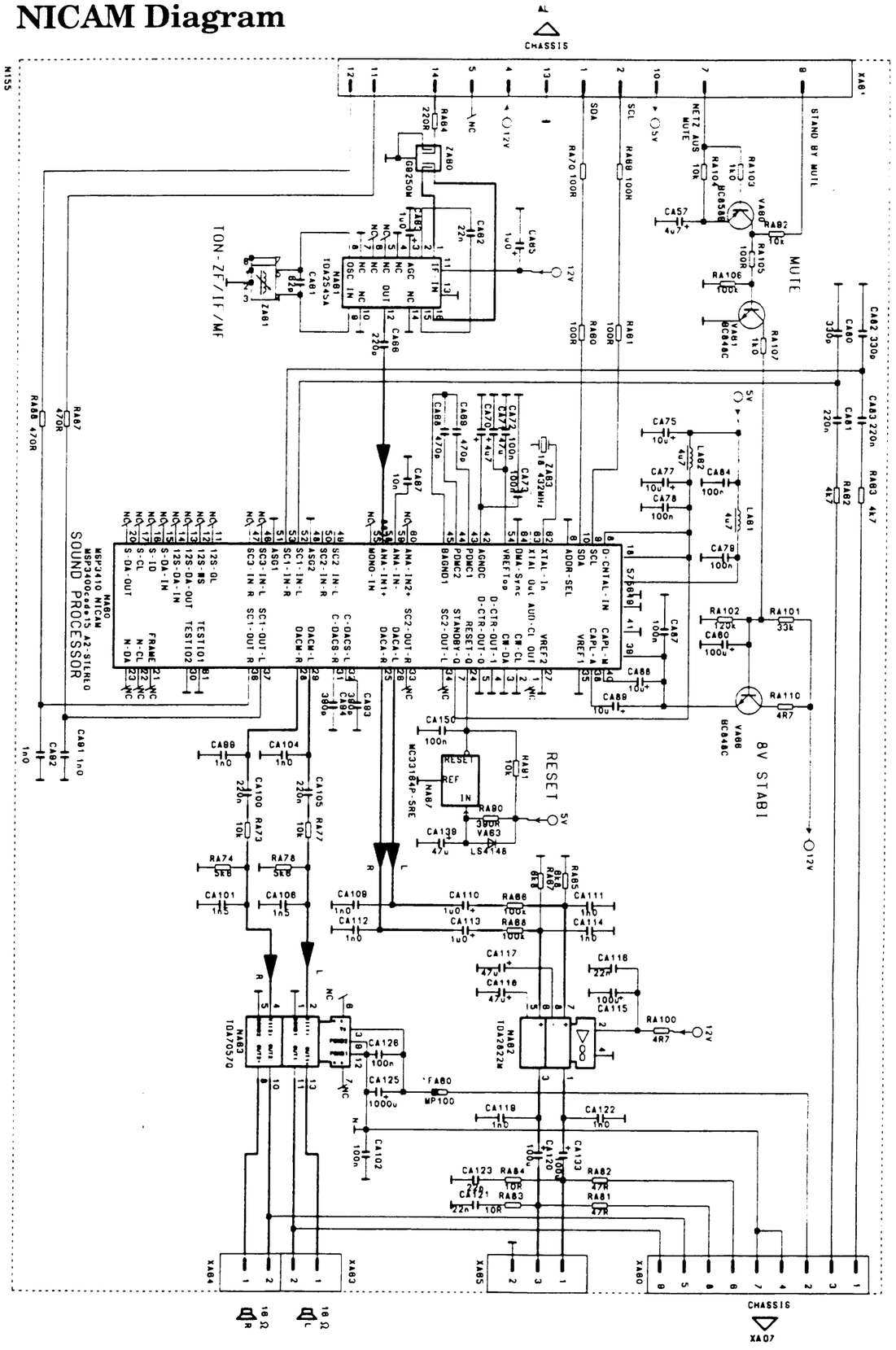
Waveforms
- Main Diagram



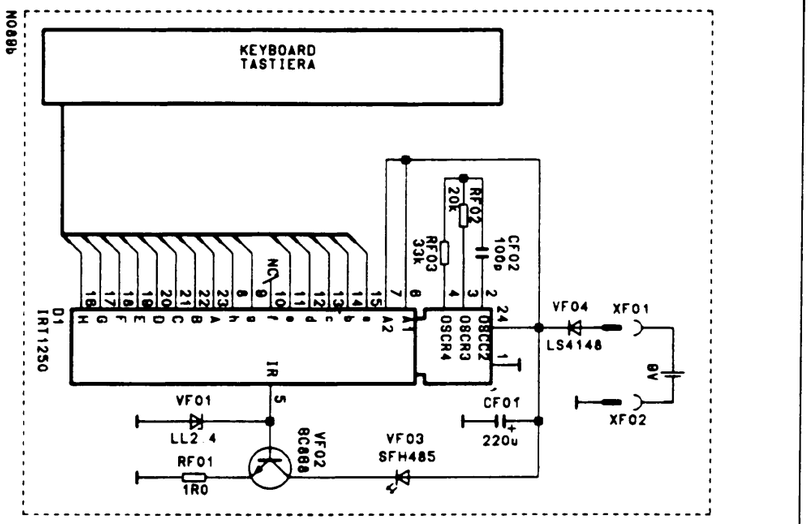
Main Diagram



NICAM Diagram



Remote Control Diagram



Teletext Diagram