

General Information

1995

Covers Models:

Nokia 5577 NICAM / 6377
NICAM / 7177 NICAM /
7177 NICAM F / 5577 / 6366
/ 6367 / 6377 / 7177 /

7177 SAT

Finlux 55Y2 / 63Y2 / 71Y2

Luxor 6354 / 7054 / 7058

Chassis:

Stereo Plus (5864/48)

CRT's:

A51EFS43X191

A59EDN43X

A59ECY13X01

A66EDN43X

A66ECY13X01

Remote Control:

56521955 (RCN622)

Main Power Button:

84680420 (21")

84680450 (25" & 28")

84680300 (XX66)

Matrix

| Item | See Model |
|------------------------|--|
| Safety Notes | Nokia FS Chassis |
| Remote Control Diagram | Nokia Stereo (Monoplus) 90 x 110 Chassis |

Specifications

| | |
|----------------------------------|---|
| Mains Power: | 176V - 246V |
| Power Consumption: | ca. 90W |
| Stand-by: | 0.1W |
| Picture Tube: | 21": 55cm (90°) 25": 63cm 28": 71cm (110°) |
| Programme Memory Loc: | 99 |
| AV Memory Locations: | 3 |
| Sound Output: | 2 x 6.5W RMS (8 W) |
| Chassis Connections: | Mains isolated. SAT imp. |
| On the front panel: | ≥16W 3.5mm AV (Cinch/Hosiden) |
| On the rear panel: | Audio out: 0.5V/1kW |
| SCART 1: SCART 2: | Audio in: 0.5V/10kW Video out: 1V/75W Video in: 1V/75W SVHS: Y/C (Scart 1) RGB: 0.7V/75 W (Scart 1) |
| Loudspeaker Socket: | ≥8 W |
| OSCAR 5 commander Control Socket | |
| Aerial: | 75W |

Service Adjustments

Safety Precautions

X-Ray Radiation

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 150V (110°) and 130V (90°) at minimum beam current.

During servicing, check and adjust this U1 voltage to the nominal value.

By following the service adjustments, check and adjust this voltage to the nominal value with RO80.

Instructions for Repair Work

N.B.: (cc. switch mode).

Please use only original component 34220637 for CO12. If standard size electrolyte capacitor CO12 is used, parallel 0.47mf MKT must be installed additionally.

- With the horizontal output stage disconnected (e.g. pin 2 at TK60 open) and a 'Dummy' load at the cathode of VO41 (e.g. 100W lamp) the power supply must supply approx. 100% of the setpoint voltage.
- For fault finding the elect. fuse (NO10) can be disconnected with a shunt connection across CO15. If the electronic fuse cuts out due to a momentary overload, the TV set can be re-started by using the mains switch. By short connecting the collector and emitter of VE14 (the control unit) the TV set can be forced to switch on.
- Make sure there is hum-free DC voltage available. For example, the ripple voltage of U1 is approx. 4V and should, due to capacitance loss of CO42, 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 1 by pressing the Mute, OK (M) and TV buttons on the remote control unit.

Use the cursor buttons \bar{Y} or \bar{X} to select required adjustment and adjust it by using the cursor buttons > and <.

Store into memory by pressing the red OK (M) button.

Return to normal TV mode by pressing the TV button.

| Service adjustment which are made in service mode | |
|---|---|
| Display | Note! |
| V.MID.POS | Adjust centre of the test picture vertical to a centred pos. (Bottom half is black) |
| V.TOP.POS | Adjust top edge (bottom half is black) |
| V.AMPL. H.SHIFT | Adjust bottom edge |
| H.AMPL. | Adjust centre of the test picture horizontal to a centred position |
| P.AMPL. | Horizontal amplitude |
| P.TILT | Horizontal cushion |
| P.CORN | Horizontal trapeze |
| S.COR. | Corner correction (starting SPL21 R 02) |
| GREEN | Vertical linearity (starting SPL21 R 02) |
| BLUE | See adj. "G2- and colour temperature" |
| RED | See adj. "G2- and colour temperature" |
| MAX APSI PROGRAM OSD SHIFT INVAR: | Starting SPL40 R 01 (ON/OFF) starting SPL50 R 01 |
| FRONT AV: LOUDNESS: | (ON/OFF) (ON) |
| NICAM: | (ON/OFF) |
| CARRIER-MUTE: | (OFF) |
| VT CHAR: | West / East 1 / West Turkey / East 2 (ON=NTSC) as from SPL21 R 02 |
| FLYB MODE: | (ON=NTSC) as from SPL21 R 02 |
| AGC | See adjustment "AGC" |

G2- and Colour Temperature

- Set the TV set to the Service Mode (see Service Mode).
- Adjust the green, blue and red OSD values to 60 with the cursor button > or <.
- Set the G2 trimmer (RK60) to its centre position.
- Adjust the brightness to normal level (black bar of the grey scale is black).
- By using an oscilloscope (probe 100:1) determine the highest black value at the picture tube cathodes (R, G, B).
- Adjust with G2 (RK60) the highest black value to 160V.
- Use a colour neutral picture and adjust the light areas in green, blue and red drives to white (lower the OSD value) with the cursor button > or <. At least one of the level controls should remain at 60.
- Store the adjustments in the memory by

- pressing the OK (M) button.
- Return to normal TV mode by pressing the TV button.

AGC

- Feed in RF signal (70 dBmV) turned on a mid range UHF channel and without a sound carrier via the aerial input.
- Set the TV set to Service Mode (see Service Mode).
- Set the AGC adjustment with the cursor button \bar{Y} or \bar{X} .
- Connect oscilloscope (bandwidth >50 MHz) to the tuner's IF output on the tuner (TL01 or TL02).
- Press the yellow button on the remote control unit (OSD = OKAY).
- Adjust the signal to 450mVp-p = 50mV (with reference to the signal's synchronising peaks) with the cursor button > or <.
- Use the red OK (M) button to store the value in memory.
- Return to normal TV mode by pressing the TV button.

U1 Voltage Adjustment

- Set the contrast and brightness to minimum.
- Connect an universal voltmeter on the capacitor CO42.
- Adjust the U1 voltage to: 150V ± 0.5V (110°) or 130V ± 0.5V (90°) with the trimmer RO80 by black picture.

Focus

Adjust the focus to optimum with the focus trimmer (RK60).

Picture Reference Calibration

- Press the PROG button (RCF .. remote control).
- Press the blue menu button twice (RCN .. remote control).
- Activate TV-PROGR option by pressing the cursor button > or <.
- Enter one of the mid range UHF channels by using the number buttons, e.g. Ch. 38 (607.25 MHz):
- Select the frequency tuning menu by pressing the green button.
- Select AFC option and change it to ON by using the cursor button > or <.
- Adjust the frequency to 607.25 MHz with ZL22 (even with other channels, always set to xxx.25 MHz).
- Return to normal TV mode by pressing the TV button.

Audio IF Calibration

- Feed in a test picture.
- Connect an oscilloscope to pin 12 of TDA 2545.
- Adjust for minimum picture content with the ZL02.

AGC (Multistandard TV Sets)

- Feed in a RF signal (>5mV), tuned on a mid range UHF channel and without a sound carrier, via the aerial input.
- Connect an oscilloscope (bandwidth >50mV) to the IF output of the tuner (TL01 or TL02).
- Adjust the signal to 450mVpp ± 50mV (with reference to the signals synchronising peaks) with the trimmer RL217 (located on the Multistandard module).

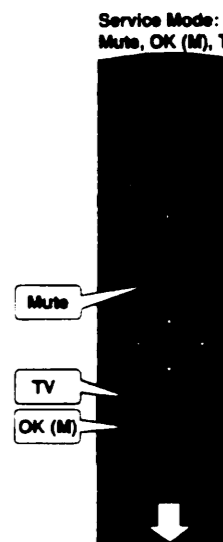
Picture Reference Calibration (Multistandard TV Sets)

BG, DK, I, L Standard

- Press the PROG button (RCF .. remote control).
- Press the blue menu button twice (RCN .. remote control).
- Activate TV-PROGR option by pressing the cursor button > or <.
- Enter one of the mid range UHF channels by using the number buttons, e.g. Ch. 38.
- Connect an universal voltmeter to the TP205.
- Adjust the DC voltage for 2.5V with the LL221 (located on the Multistandard module).
- Return to the TV mode by pressing the TV button.

L' Standard

- Press the PROG button (RCF .. remote control).
- Press the blue menu button twice (RCN .. remote control).
- Activate TV-PROGR option by pressing the cursor button > or <.
- Select the frequency tuning menu by pressing the green button.
- Enter one of the mid range channels on Band 1 by using the number buttons, e.g. channel C (63.75 MHz).
- Connect a universal voltmeter to the TP205.
- Adjust the DC voltage for 2.5V with the RL286 (located on the Multistandard module).
- Return to the TV mode by pressing the TV button.



Variable components for picture tube

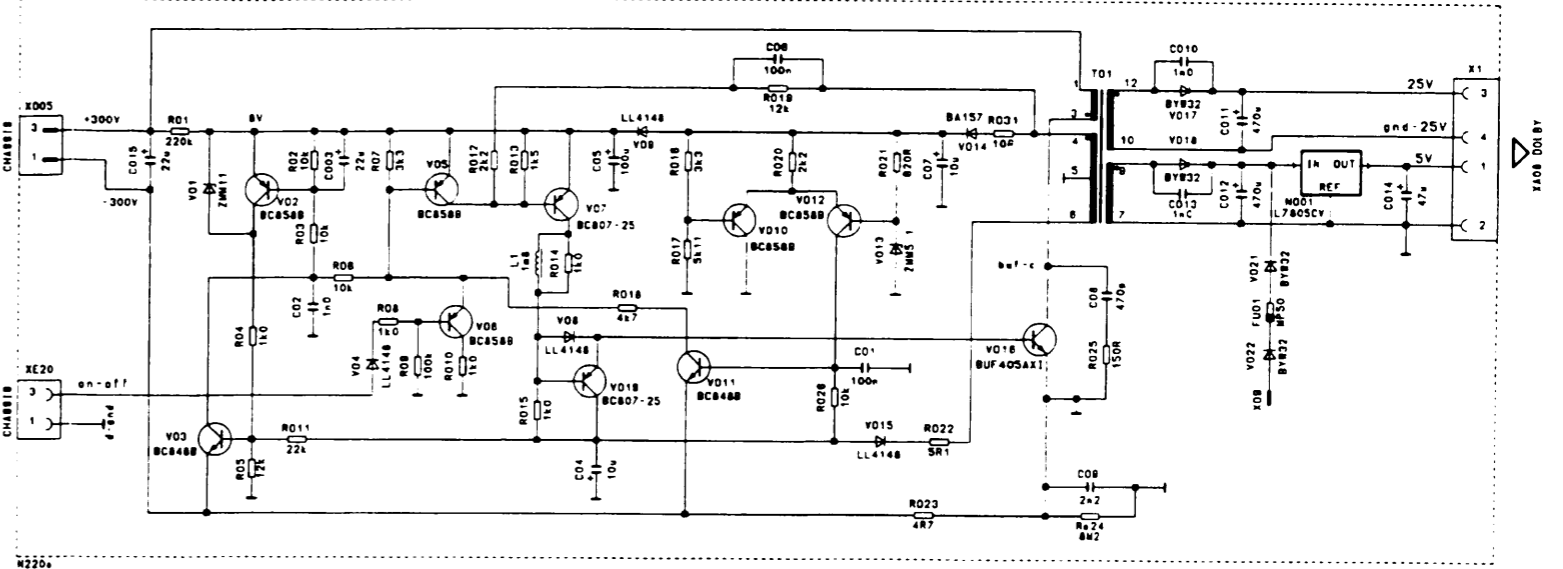
for Norm BG, DK, I stereo plus chassis

| Variable components for picture tube | | | | | | | | | |
|--------------------------------------|----------|----------|----------|----------|----------|-----------|----------|----------|-----------|
| *POS | A59/66 | A59/66 | A59/66 | A59/66 | A51 | A51 | A51 | A51 | A48 |
| U1 | EAF10X01 | ECY13X01 | EAS13X01 | ECF20X12 | ECQ43X01 | EF543X191 | EBV13X01 | EAM40X01 | EEV13X01 |
| CO09 | 220U | 220U | 220U | 220U | 150U | 150U | 150U | 150U | 150U |
| CS26 | 33N | 15N | 33N | 15N | 15N | 15N | 15N | 15N | 15N |
| CK51 | 8N7 | 8N2 | 8N7 | 8N7 | 6N8 | 6N2 | 5N6 | 4N7 | 6N2 |
| CK53 | 120N | 120N | 120N | 120N | 120N | 47N | 120N | 120N | 120N |
| CK55 | 400N | 300N | 400N | 360N | 360N | 360N | 360N | 360N | 220N+270N |
| CK56 | 33N | 33N | 33N | 33N | - | - | - | 33N | 33N |
| CK61 | 27N | 27N | 27N | 27N | 47N | 47N | 27N | 18N | 18N |
| CK65 | 4N7 | 4N7 | 4N7 | 4N7 | 4N7 | 4N7 | 4N7 | 15N | 15N |
| LK55 | 227U | 227U | 227U | 227U | 227U | 227U | 227U | 227U | 227U |
| LK61 | 490UH | 490UH | 490UH | 490UH | 360UH | 360UH | 490UH | 610UH | 610UH |
| LK65 | 82U | 82U | 82U | 82U | 75U | 75U | 75U | 25U | 25U |
| RK02 | 3R3 | 1R2 | 3R3 | 3R3 | 2R7 | 1R2 | 1R2 | 1R2 | R39 |
| RK06 | 10K | 10K | 10K | 10K | 330K | 330K | 330K | 330K | 330K |
| RK50 | 1R0 | 1R0 | 1R0 | 1R0 | 1R0 | 1R0 | 1R0 | 1R5 | 1R5 |
| RK58 | 16K | 16K | 16K | 16K | 16K | 16K | 16K | 20K | 16K |
| RK63 | 56K | 56K | 56K | 56K | - | - | - | - | - |
| RK65 | 39R | 39R | 39R | 39R | 22R | 22R | 22R | 62R | 62R |
| RK70 | 1R0 | 1R0 | 1R0 | 1R0 | 1R0 | 0R0 | 0R0 | 0R0 | 0R0 |
| RK80 | 150K | 470K | 150K | 150K | 150K | 150K | 150K | 150K | 150K |
| RK85 | 3M3 | 2M2 | 3M3 | 2M2 | 3M3 | 3M3 | 3M3 | 3M3 | 3M3 |
| RK88 | 100K | 100K | 220K | 100K | 100K | 100K | 100K | 220K | 100K |
| RO19 | 2K7 | 2K7 | 2K7 | 2K7 | 2K7 | 3K6 | 3K6 | 3K9 | 3K9 |
| RO21 | 0K36 | 0K36 | 0K36 | 0K36 | 0K43 | 0K43 | 0K43 | 0K47 | 0K47 |
| RO42 | 15K | 15K | 15K | 15K | 15K | 15K | 15K | 12K | 12K |
| RO43 | 2K2 | 2K2 | 2K2 | 2K2 | 100K | 100K | 100K | 820K | 820K |
| RO44 | - | - | - | - | 15K | 15K | 15K | 12K | 12K |
| RO75 | 18K | 18K | 18K | 18K | 3K3 | 3K3 | 3K3 | - | 2K2 |
| Hotel | 27K | 27K | 27K | 27K | 12K | 12K | 12K | 2K2 | 2K2 |
| RO78 | 51K | 51K | 51K | 51K | 51K | 51K | 51K | 51K | 51K |
| Hotel | 59K | 59K | 59K | 59K | 59K | 59K | 59K | 59K | 59K |
| RS11 | 300R | 220R | 300R | 220R | 220R | 220R | 220R | 220R | 220R |
| RS12 | 300R | 220R | 300R | 220R | 220R | 220R | 220R | 220R | 220R |
| RS13 | 3R0 | 4R7 | 3R0 | 2R0 | 2R0 | 3R3 | 10R | - | - |
| RS14 | 3R0 | 4R7 | 3R0 | 2R0 | - | - | - | - | - |
| RS20 | 68K | 68K | 100K | 68K | 68K | 68K | 68K | 68K | 68K |
| RS25 | 560K | - | 560K | 560K | 560K | 560K | 560K | 560K | 560K |
| RS26 | 150K | 330K | 150K | 82K | 100K | 100K | 100K | 100K | 100K |
| RS28 | 10K | 100K | 10K | 10K | 10K | 100K | 100K | 100K | 100K |
| TK60 | M1015 | M1015 | M1015 | M1015 | M1009 | M1009 | M1009 | M1016 | M1016 |
| C.R.T. Board | | | | | | | | | |
| RH20 | 2k2 | 2k2 | 2k2 | 2k2 | 2k2 | 2k2 | 3k0 | 2k2 | |
| RH30 | 2k2 | 2k2 | 2k2 | 2k2 | 2k2 | 2k2 | 3k0 | 2k2 | |
| RH40 | 2k2 | 2k2 | 2k2 | 2k2 | 2k2 | 2k2 | 3k0 | 2k2 | |

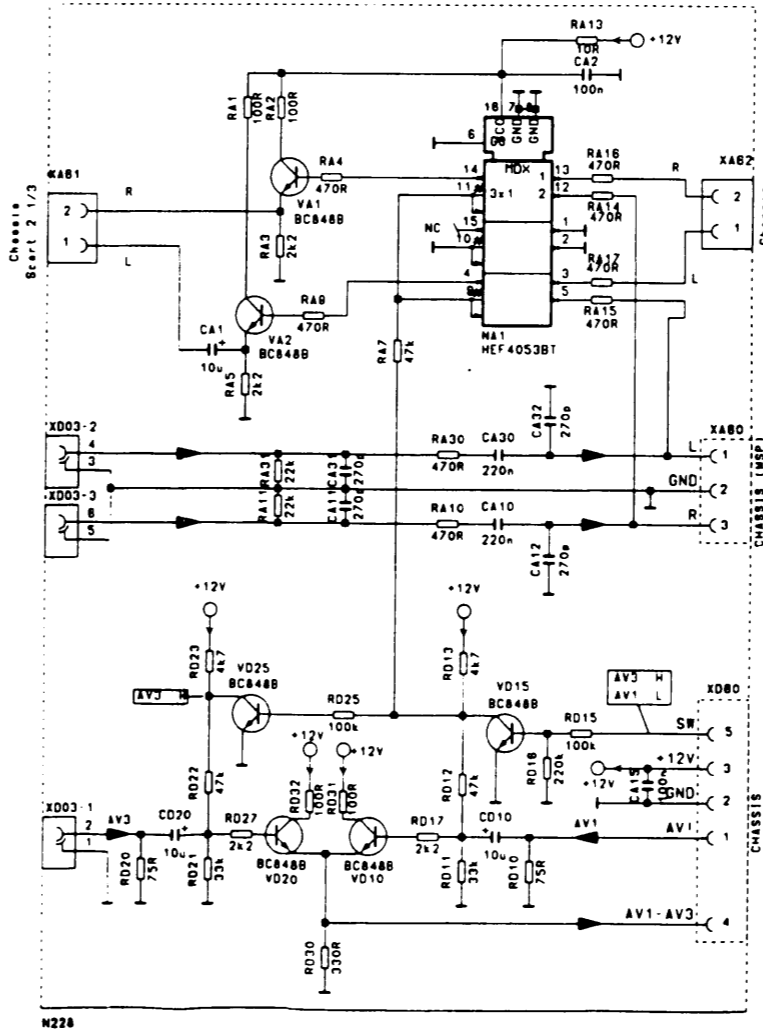
for Multinorm Module 5825 40 85

| | Q4 | Q3 | Q2 | Q1 | NORM |
|---|----|----|----|----|------|
| 1 | 0 | 1 | 0 | 1 | B/G |
| 0 | 1 | 1 | 0 | 0 | D/K |
| 0 | 1 | 1 | 0 | 0 | I |
| 1 | 0 | 1 | 1 | 0 | L |
| 1 | 1 | 0 | 1 | 0 | L |

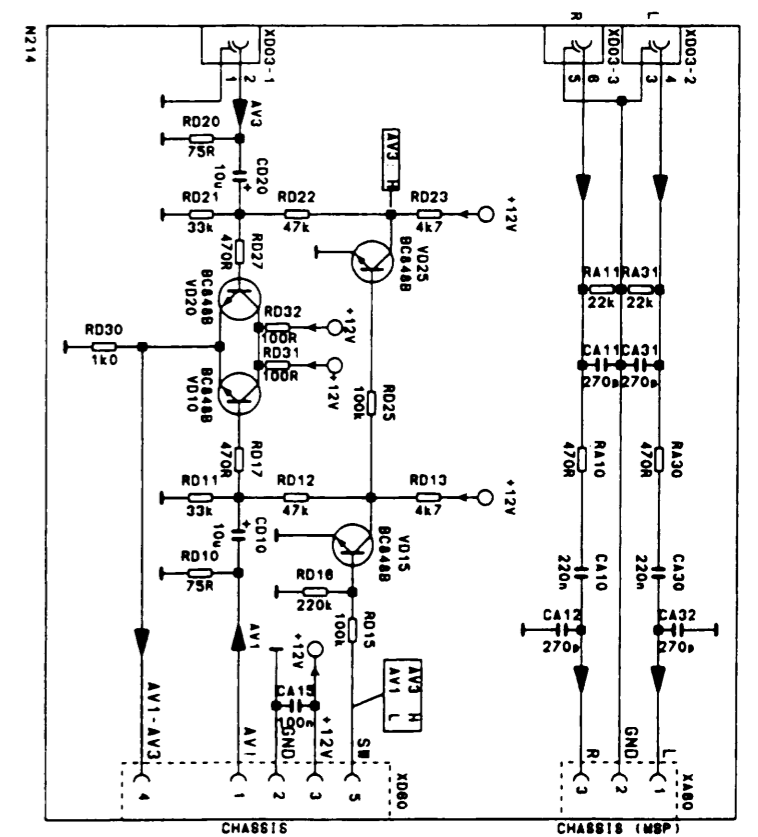
Audio PSU Diagram



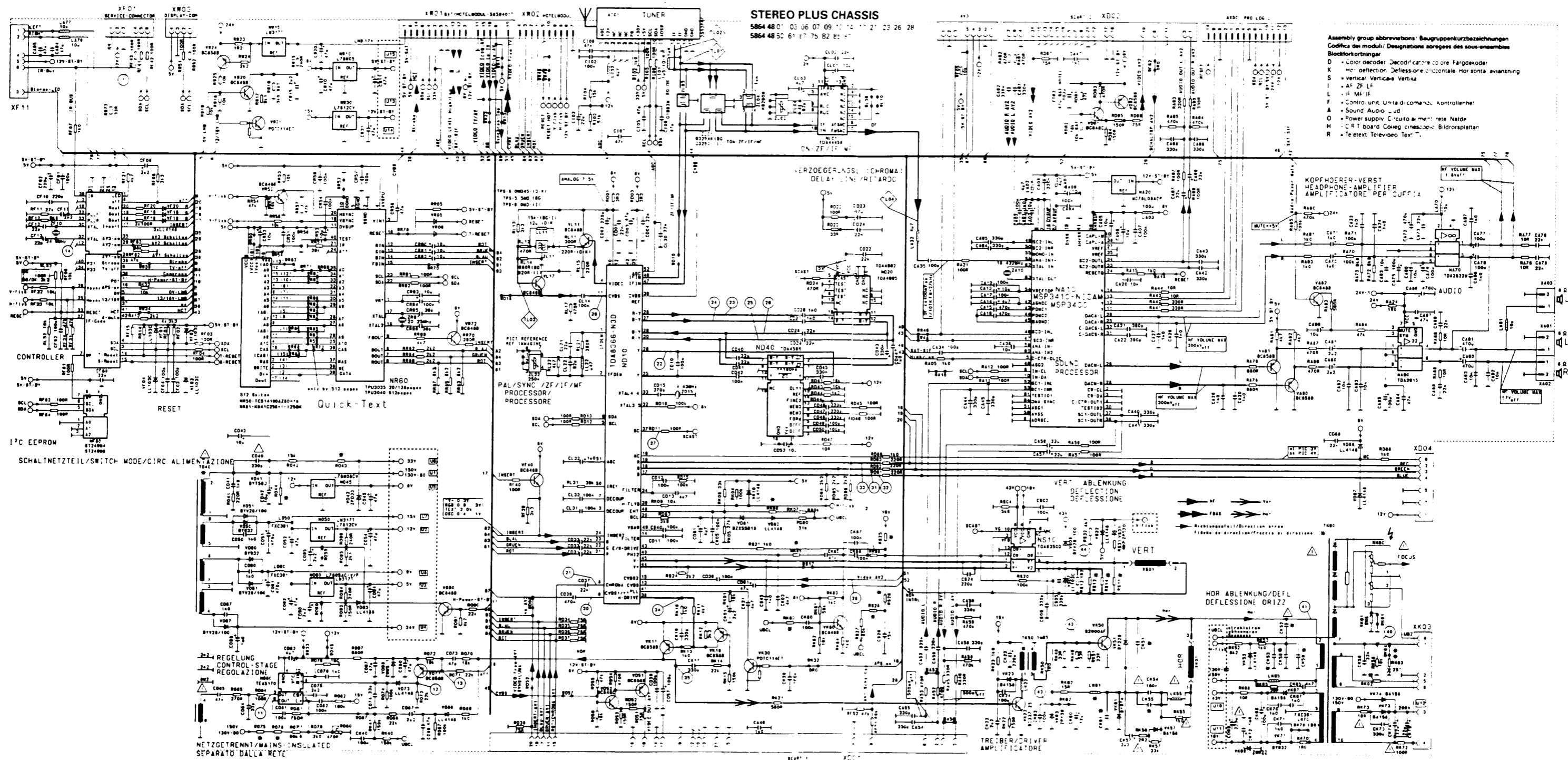
AV 3 Diagram -5859 03 77



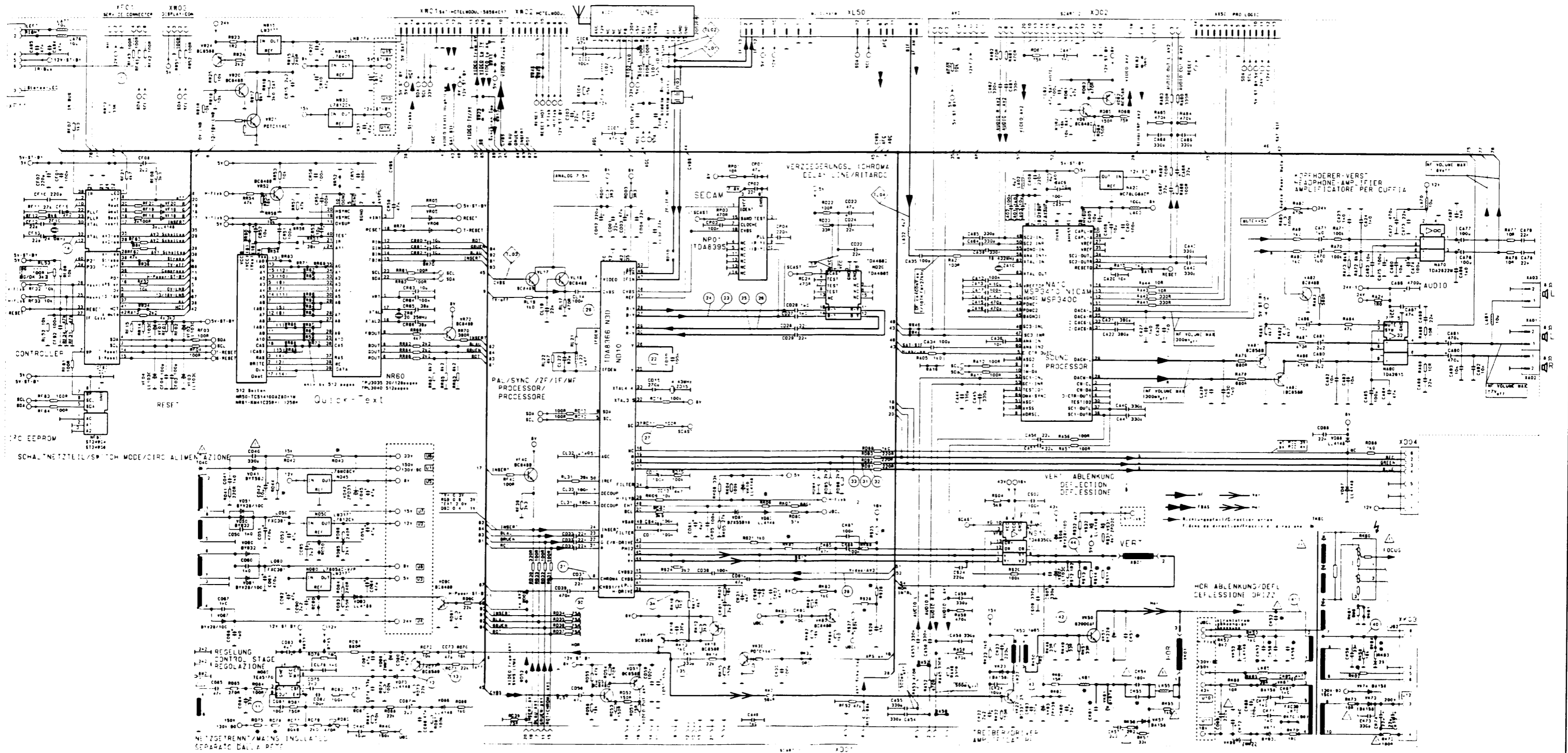
AV 3 Diagram -5859 03 75



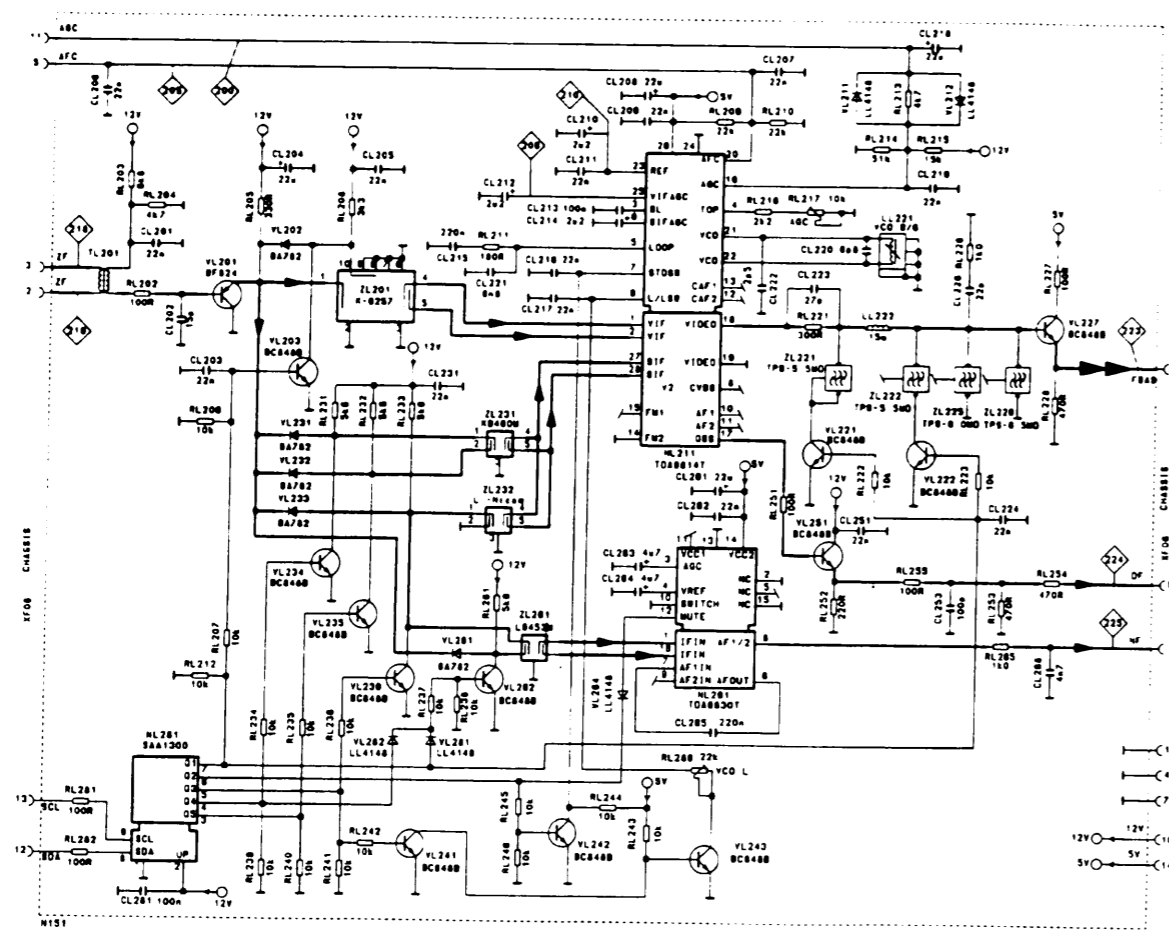
Main Diagram



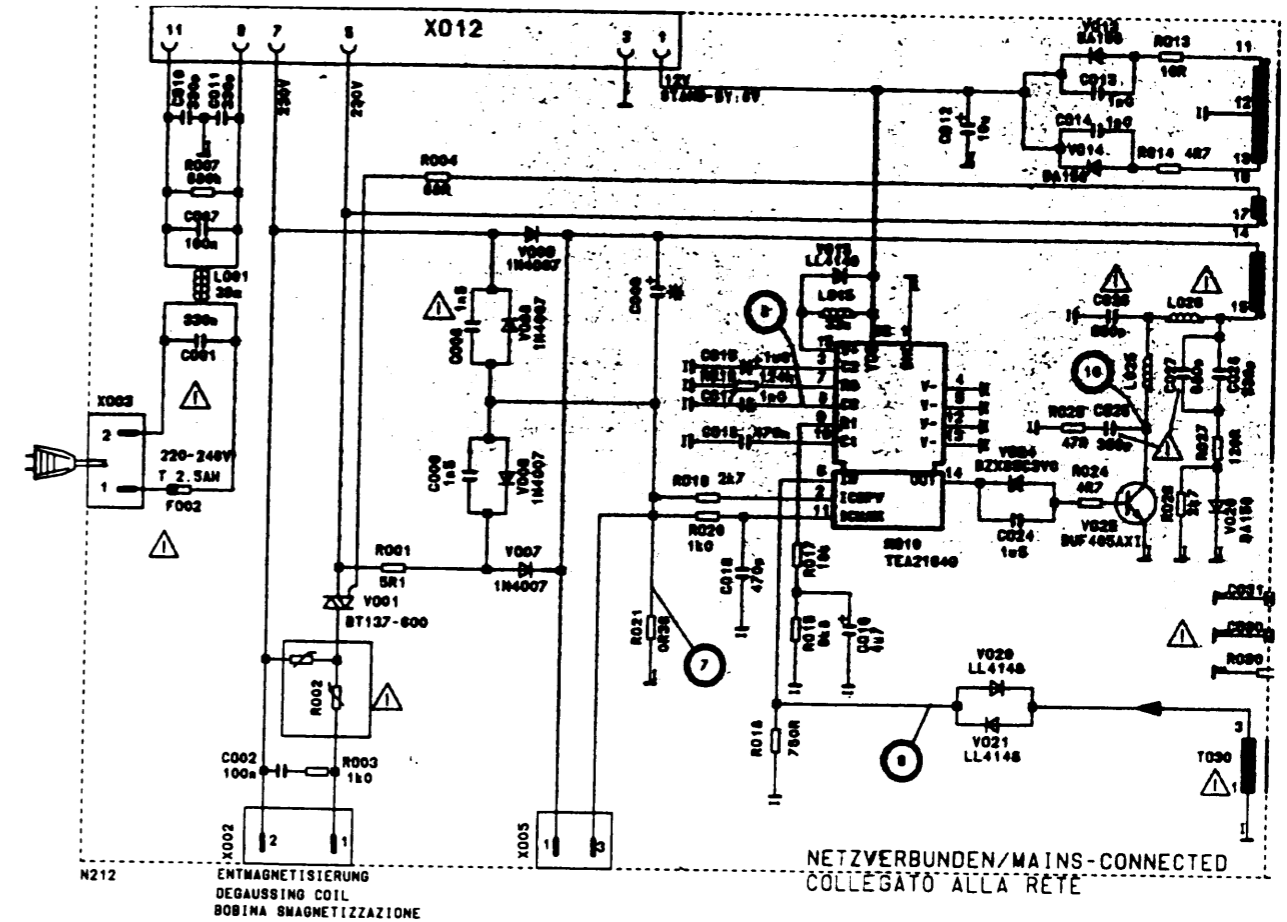
Main Diagram
- Multinorm



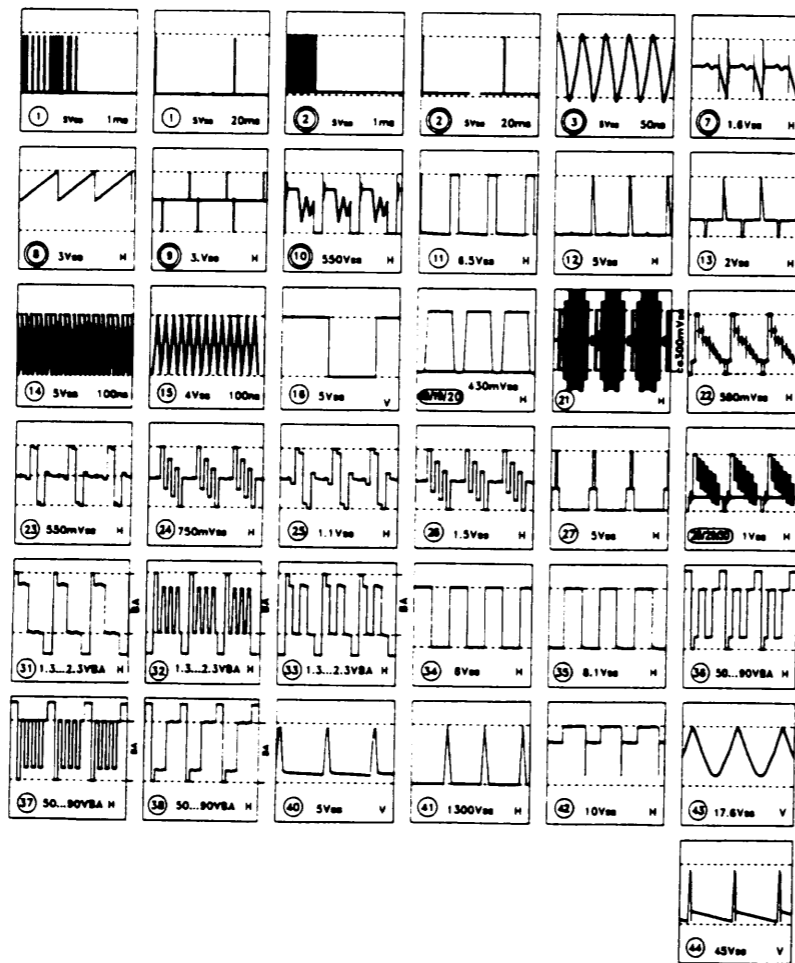
IF Diagram - Multinorm



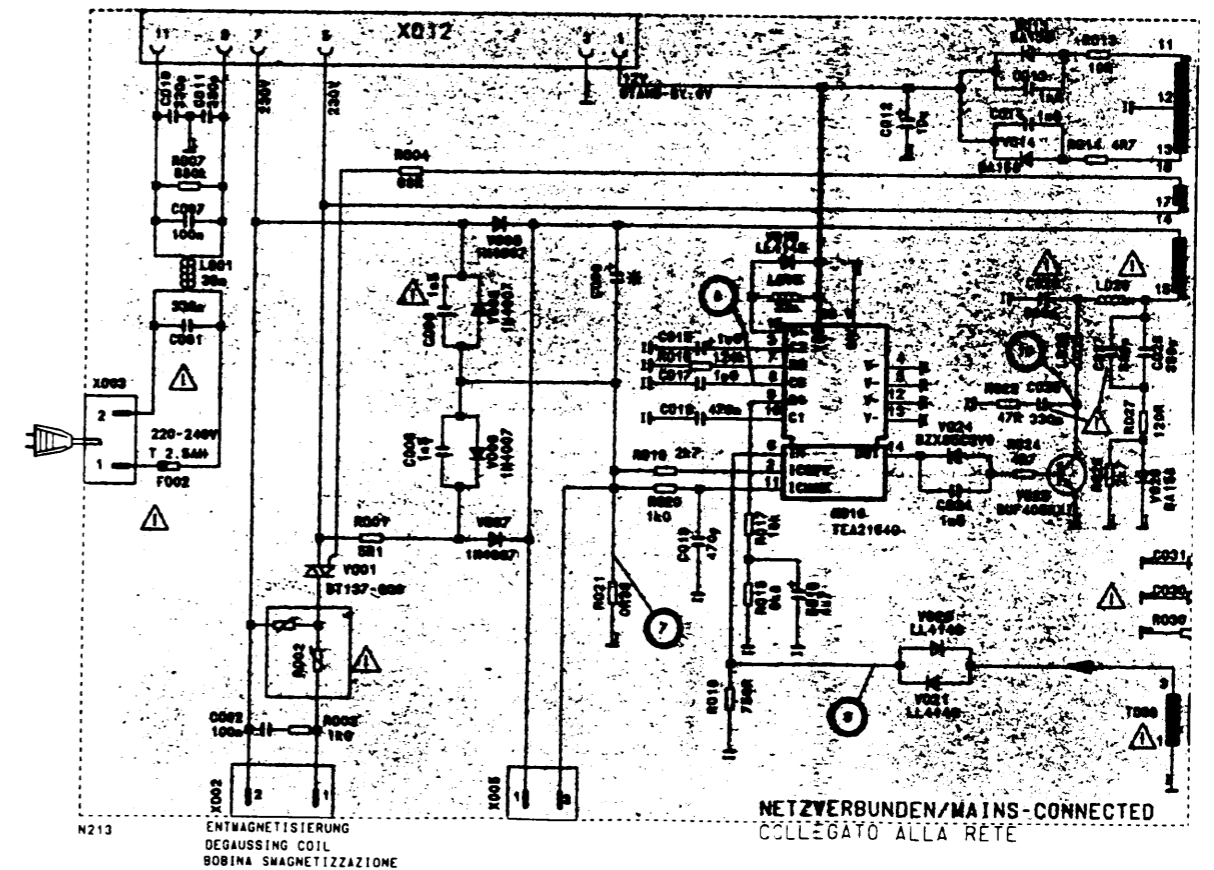
Power Supply Diagram



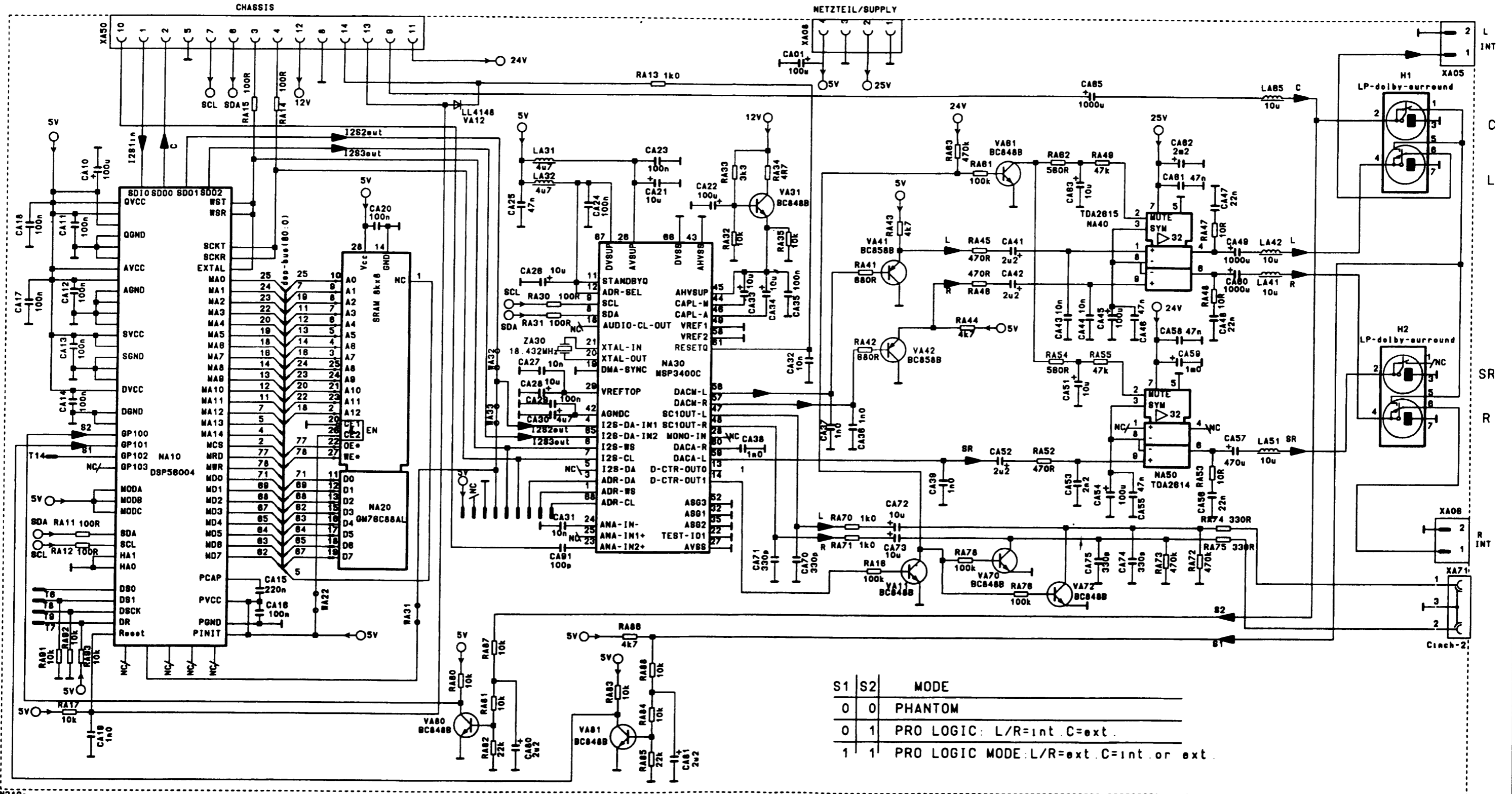
Waveforms - Main Diagram



Power Supply Diagram - Multinorm



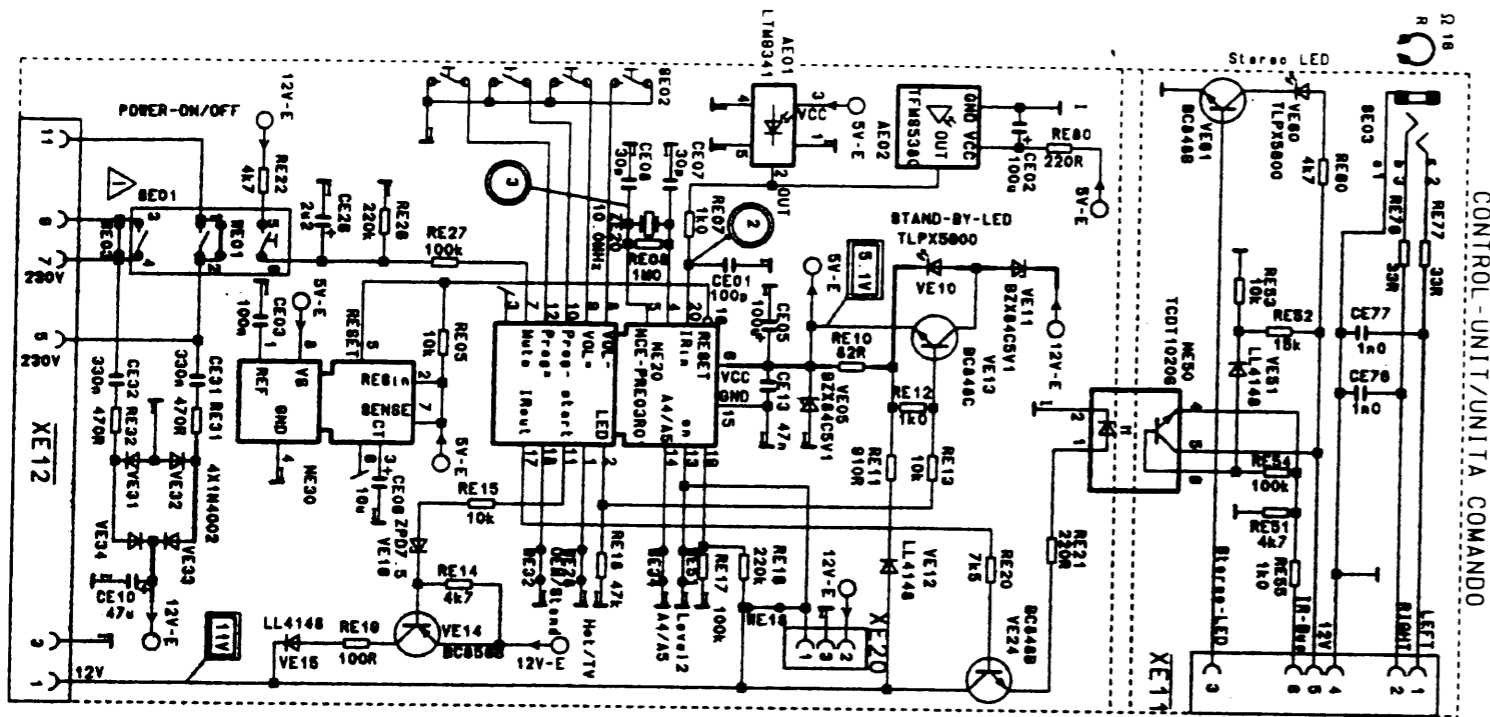
Dolby Diagram



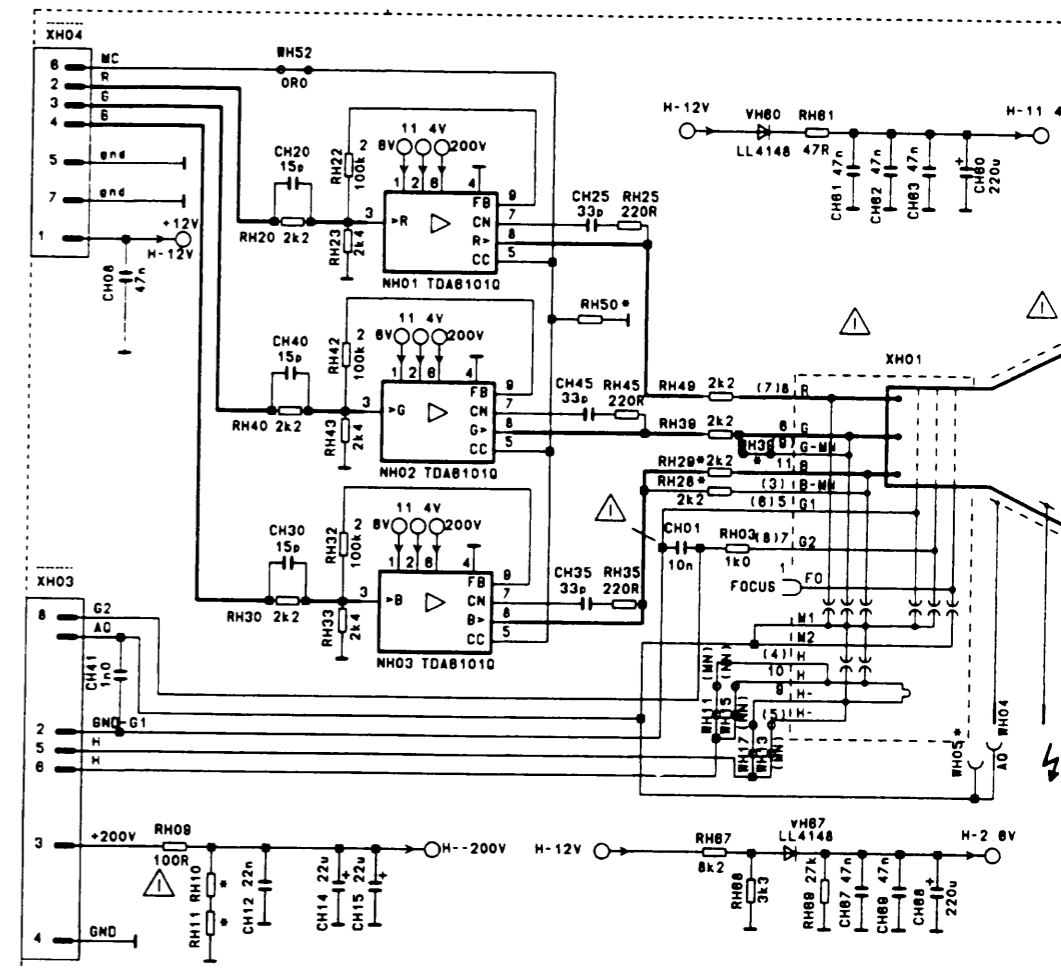
| S1 | S2 | MODE |
|----|----|---|
| 0 | 0 | PHANTOM |
| 0 | 1 | PRO LOGIC: L/R=int. C=ext. |
| 1 | 1 | PRO LOGIC MODE: L/R=ext. C=int. or ext. |

N218

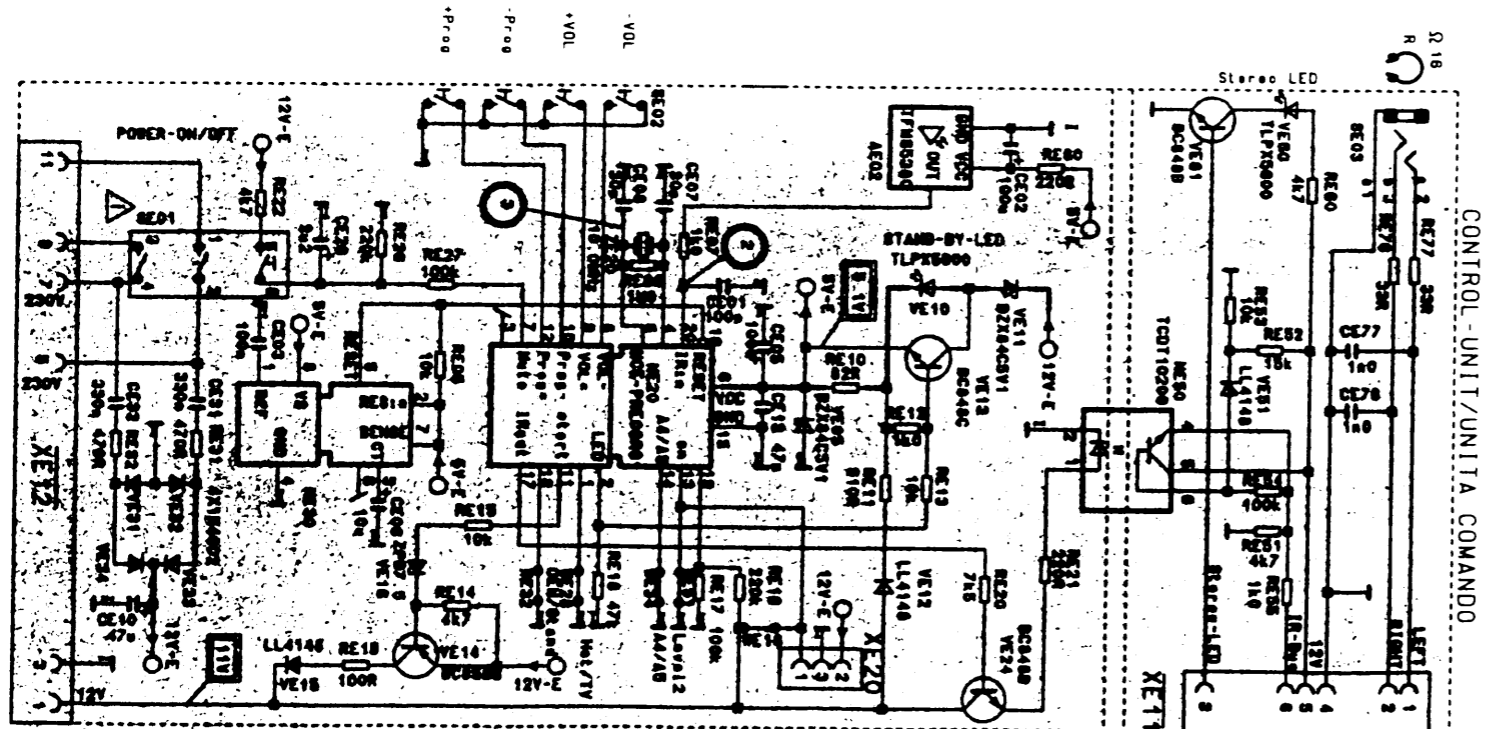
Control Unit Diagram



CRT Diagram



Control Unit Diagram
- Multinorm



CRT Diagram
- Multinorm

