

Model Chassis No.

FINLUX 5100

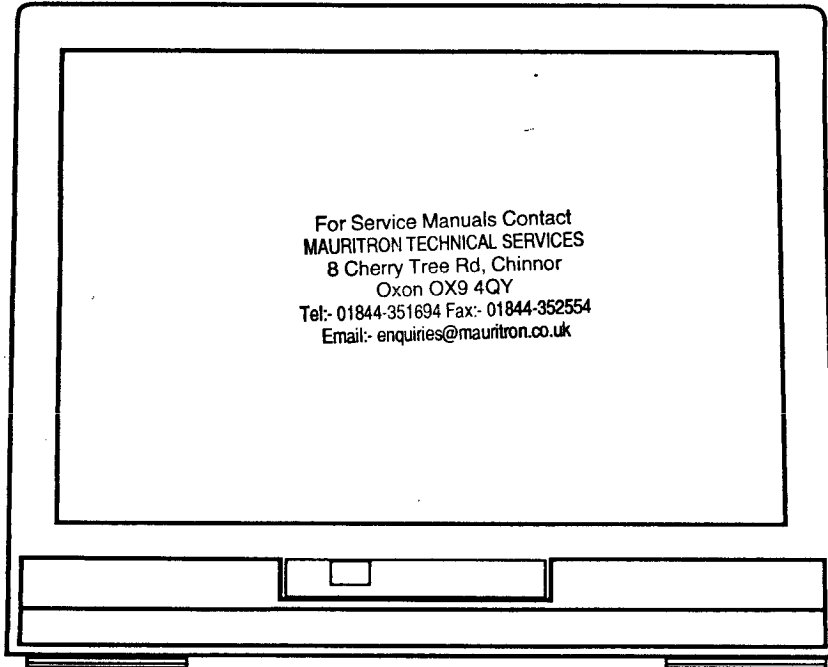
≡ 5125
5128/s



Homeserve

Product Type: Television

Technical Information



Features

- Nicam
- Fastext
- Audio/Video Scart - Audio out
 - Audio in
 - Video out
 - Video in
 - RGB in
- 47 programme memory locations
- 1 AV memory location

THORN UK
Service Information

TUK Part No. TP57007

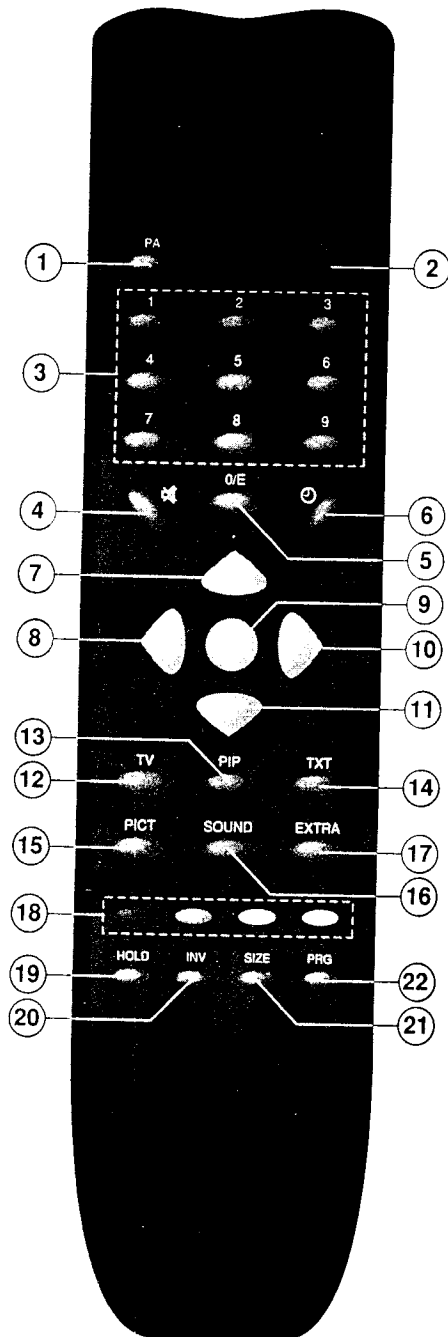
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

1583

REMOTE CONTROL HAND UNIT

All installation operations of the receiver as well as the daily use are controlled by the remote control hand unit. It is also possible to use the basic control functions of the receiver without remote control hand unit using the local control unit (see chapter "LOCAL CONTROL UNIT").

Two pcs. of 1,5 V batteries type UM3 (AAA) are required.
The batteries should last about one year.



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1. No function
2. Standby button
3. Number buttons 1 - 9
4. Instant sound mute button
5. O/E. button
6. Clock button / broadcast identifier
7. Cursor button upwards, Step forward button
8. Cursor button to left, sound volume control (-)
9. i-button; ideal picture button (keep depressed 2 ... 3 seconds)
10. Cursor button to right, sound volume control (+)
11. Cursor button downwards, Step backward button
12. TV mode/switching the receiver on from standby
13. No function
14. Teletext button
15. Picture controls
16. Sound controls
17. EXTRA button
18. Coloured buttons
19. HOLD button (Teletext)
20. Background for display of time and programme number
21. Enlarging of teletext page
22. Programming button

PROGRAMMING THE TV-CHANNELS INTO MEMORY LOCATIONS

The stations broadcast their television programmes on different channels, to which your TV set must be tuned. E.g. in some area the BBC1 is transmitted on channel 31. This set includes 47 memory location numbers to which you can programme 47 different TV programmes from TV channels 21 ... 69 UHF.

When using the direct programming of channels, always enter the channel number three-numbered beginning with a zero e.g. 021.

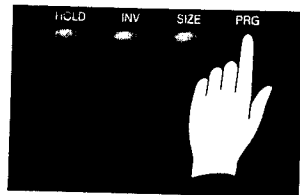
FUNCTION

HAND UNIT

ON SCREEN DISPLAY

1

Start programming by pressing the PRG button.

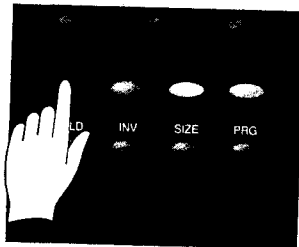


Pr	Station	Pr	Station	Pr	Station
1	021	17	33		
2		18	34		
3		19	35		
4		20	36		
5		21	37		
6		22	38		
7		23	39		

You can select the desired programme memory location using the cursor buttons (upwards and downwards).

2

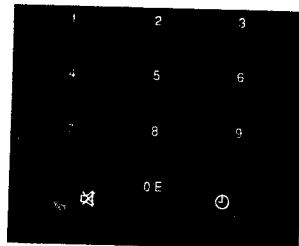
Select Tune function by pressing the red button.



3a

Direct programming

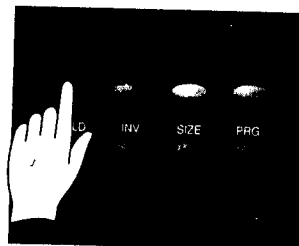
If you know the channel number of the desired programme, enter the channel number three-numbered (e.g. ch. 25 = 025).



3b

Channel search

If you don't know the channel number, start channel search by pressing the red button.



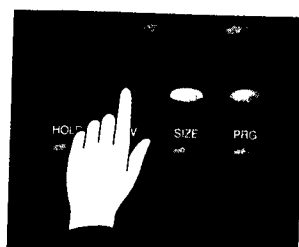
e.g.



If the programme is not the one you require, restart the search.

4

If necessary, correct the fine tuning. Select F-Tune by pressing the green button.



NB! Normally no fine tuning is needed.

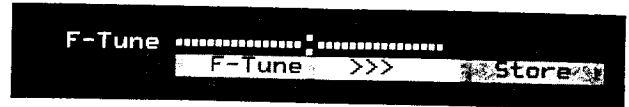
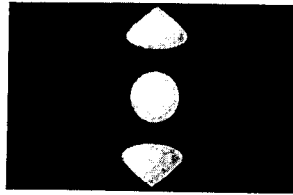
FUNCTION

HAND UNIT

ON SCREEN DISPLAY

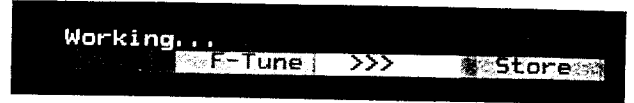
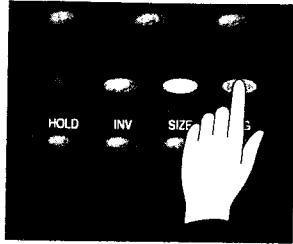
5

Fine tune using the cursor button (left - or right +).



6

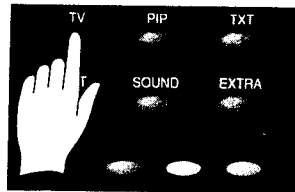
Store the channel into memory by pressing the blue button.



After storing the receiver selects the next memory locations automatically, if it is free. If not, select the next memory location with the cursor button (upwards). All memory locations 1 ... 47 can be programmed as above.

7

Switch back to normal TV reception by pressing the TV button.



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PROGRAMMING THE MEMORY LOCATION RESERVED FOR VIDEO RECORDER OR SATELLITE RECEIVER

Any of the memory locations 1 ... 47 can be reserved for a videorecorder or a satellite receiver connected via the aerial connector. E.g. the memory location 7 is programmed for videorecorder as follows:

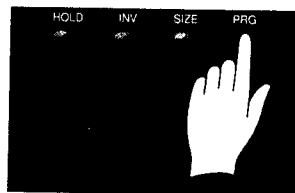
FUNCTION

HAND UNIT

ON SCREEN DISPLAY

1

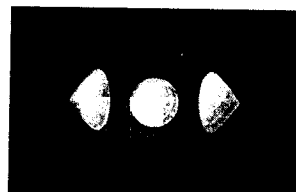
Start programming by pressing the PRG button.



Pr	Station	Pr	Station	Pr	Station
1	025	17	33		
2	027	18	34		
3	031	19	35		
4		20	36		
5		21	37		
6		22	38		
7		23	39		

2

Select the programme memory location using the cursor buttons, e.g. 7.



Pr	Station	Pr	Station	Pr	Station
1	025	17	33		
2	027	18	34		
3	031	19	35		
4		20	36		
5		21	37		
6		22	38		
7		23	39		

Load a prerecorded tape into the video recorder and start the playback.
 (For satellite receiver: Start the satellite receiver and select a satellite programme.)

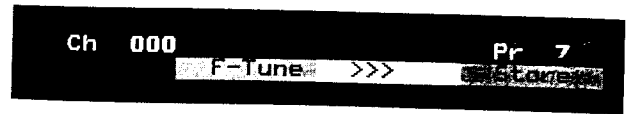
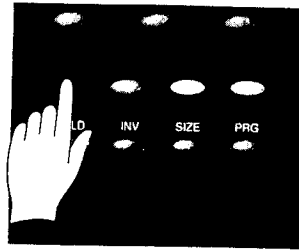
FUNCTION

HAND UNIT

ON SCREEN DISPLAY

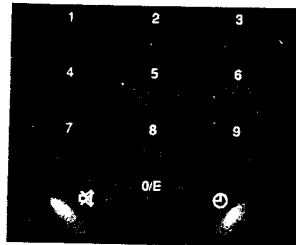
3

Select Tune function by pressing the red button.



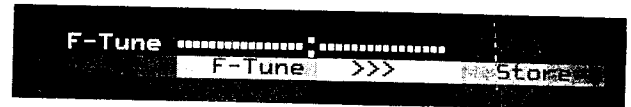
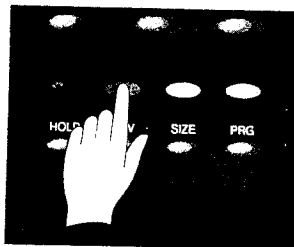
4

Enter the RF output channel number of the video recorder; generally ch. 37 = 037. (see user's manual for the video recorder)



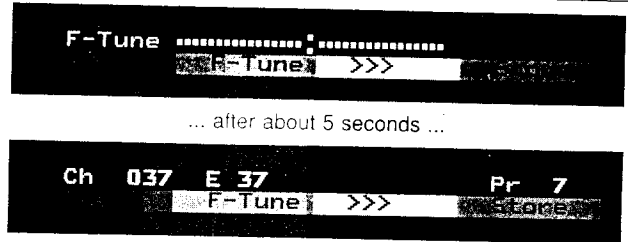
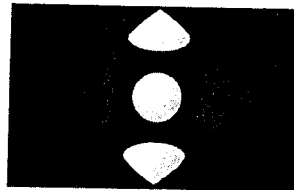
5

If necessary, correct the fine tuning. Select F-Tune by pressing the green button.



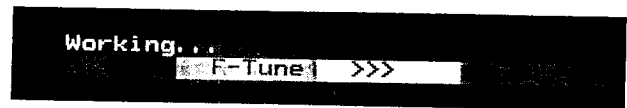
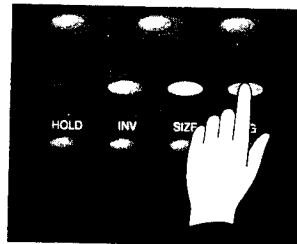
6

Fine tune using the cursor button (to left - or to right +).



7

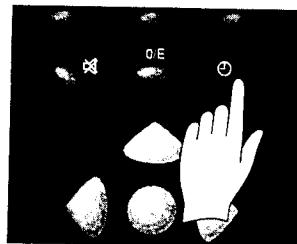
Store the tuning information into memory by pressing the blue button.



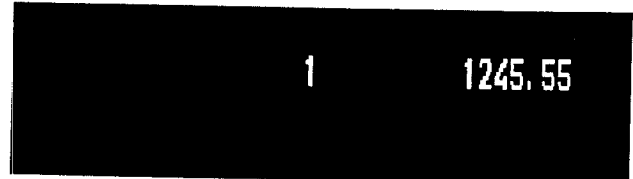
Switch back to normal TV reception by pressing the TV button.

TIME DISPLAY

The real time is displayed on the screen when pressing the clock button.



e.g.

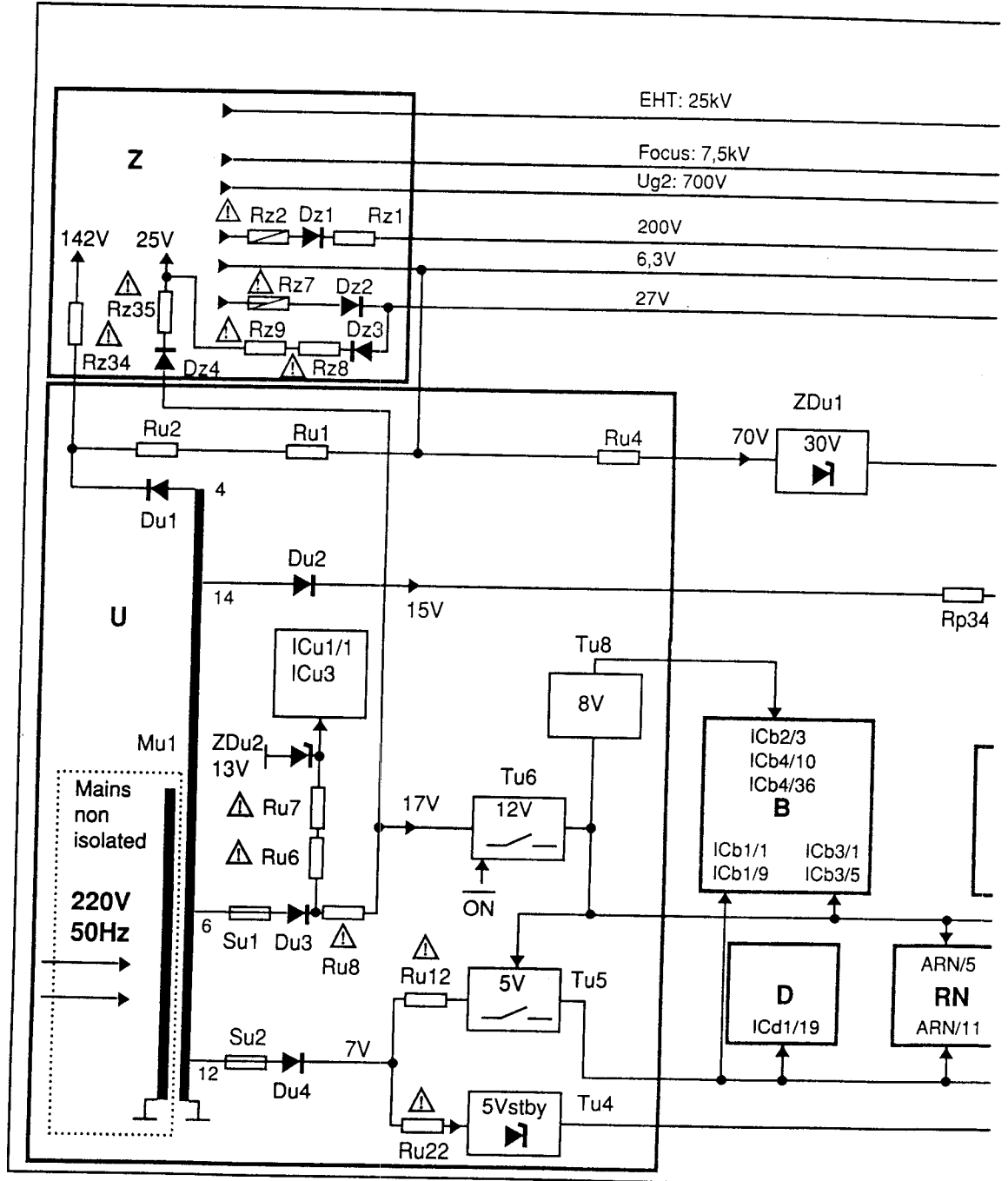


First appear the programme number and time in the upper right corner of the screen. In a while the programme number disappears.

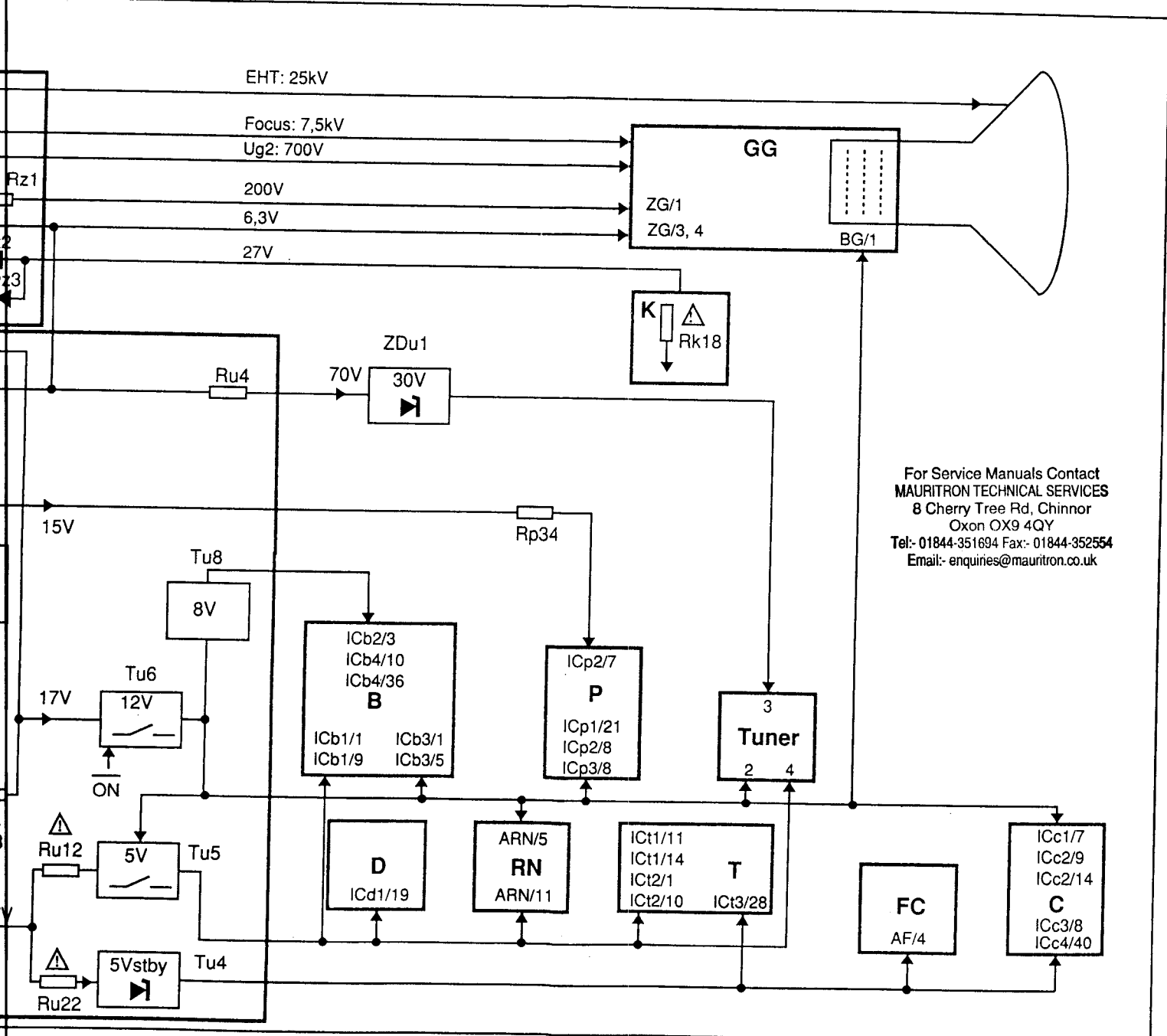
You can select the black background for the display by pressing the INV button. The background will disappear when pressing the INV button again. The time display disappears when pressing the clock button.

Note: The time display is visible only if the TV channel includes teletext service.

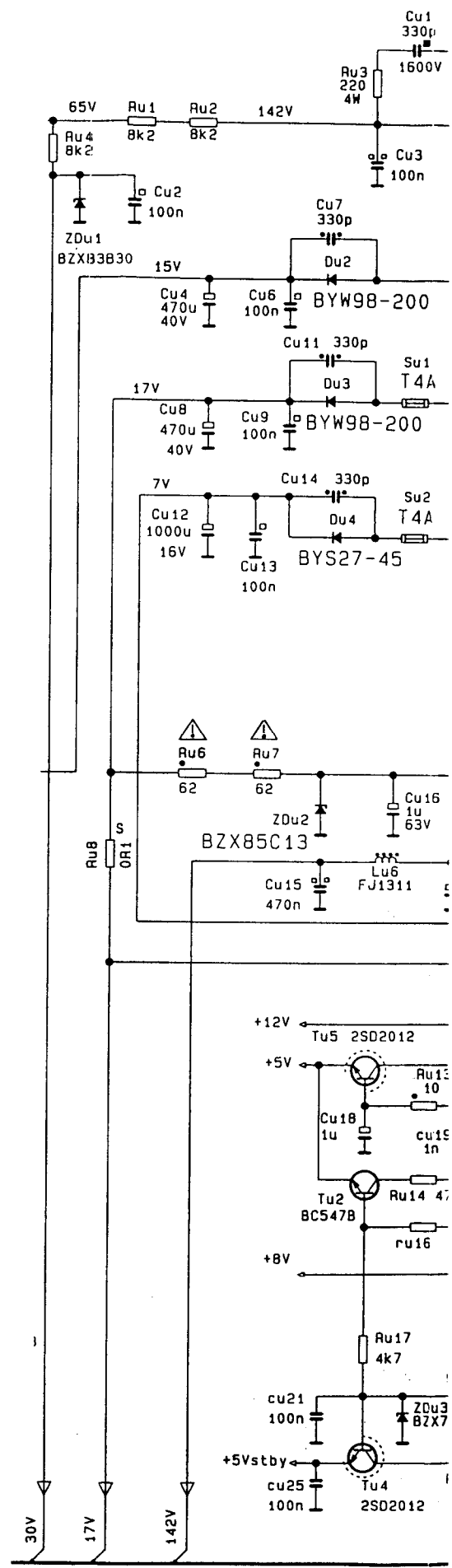
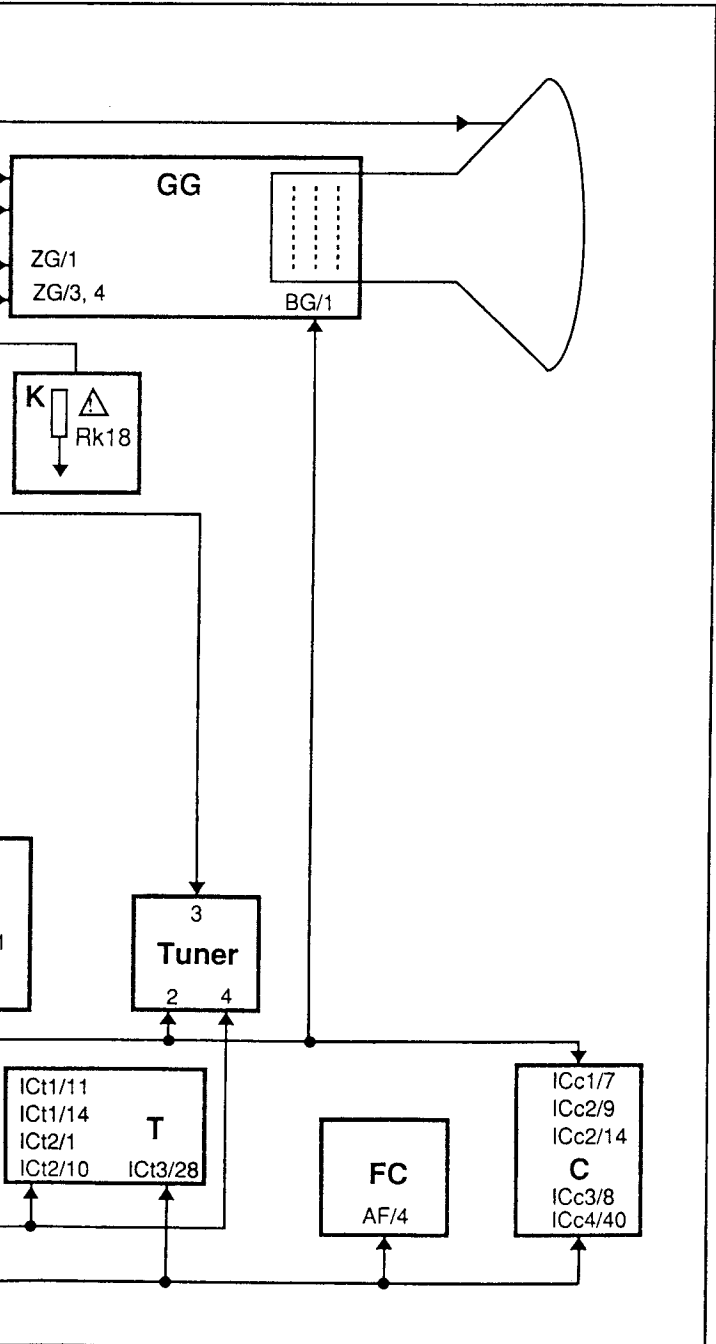
POWER SUPPLY BLOCK DIAGRAM



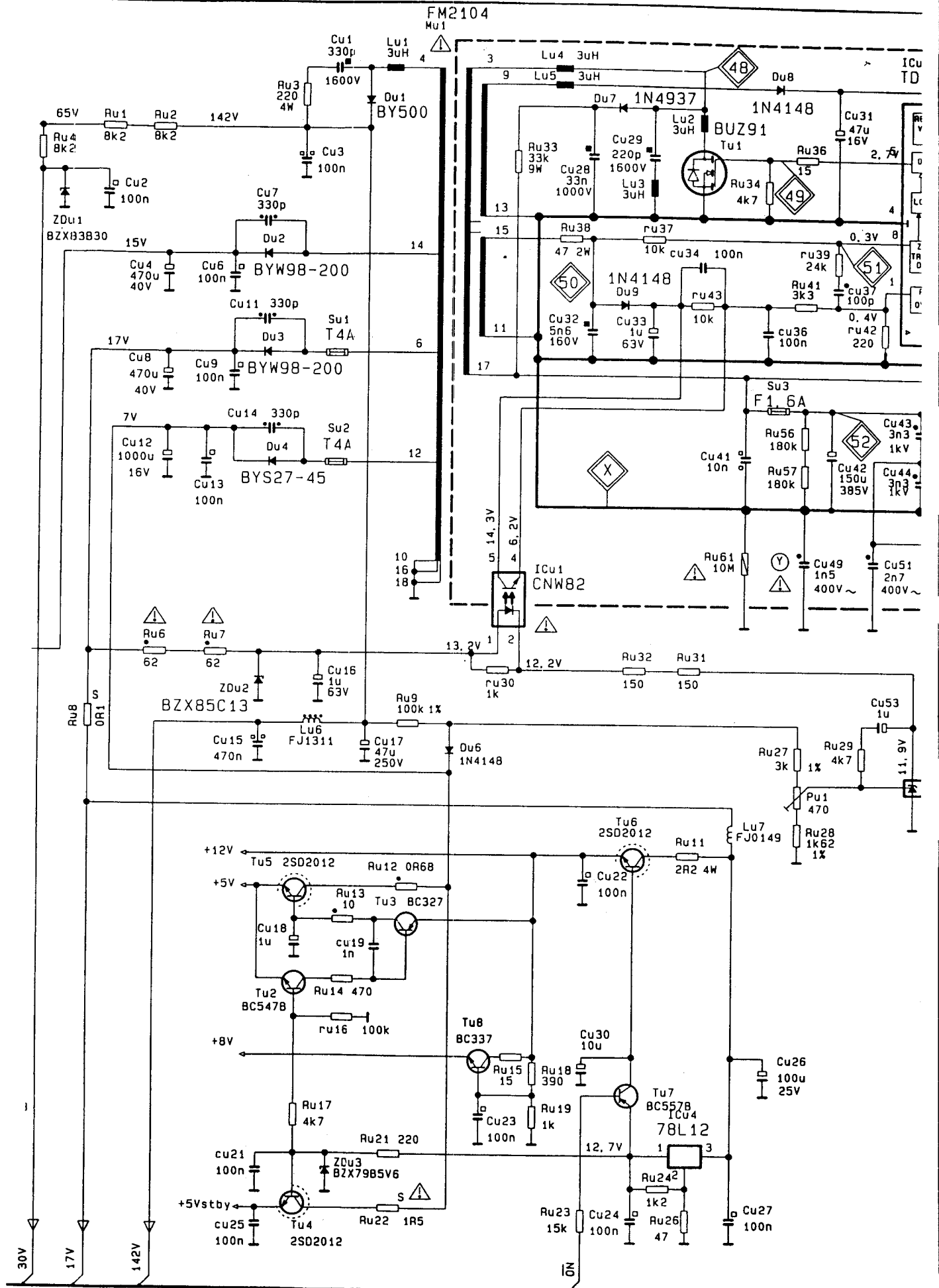
PLY BLOCK DIAGRAM



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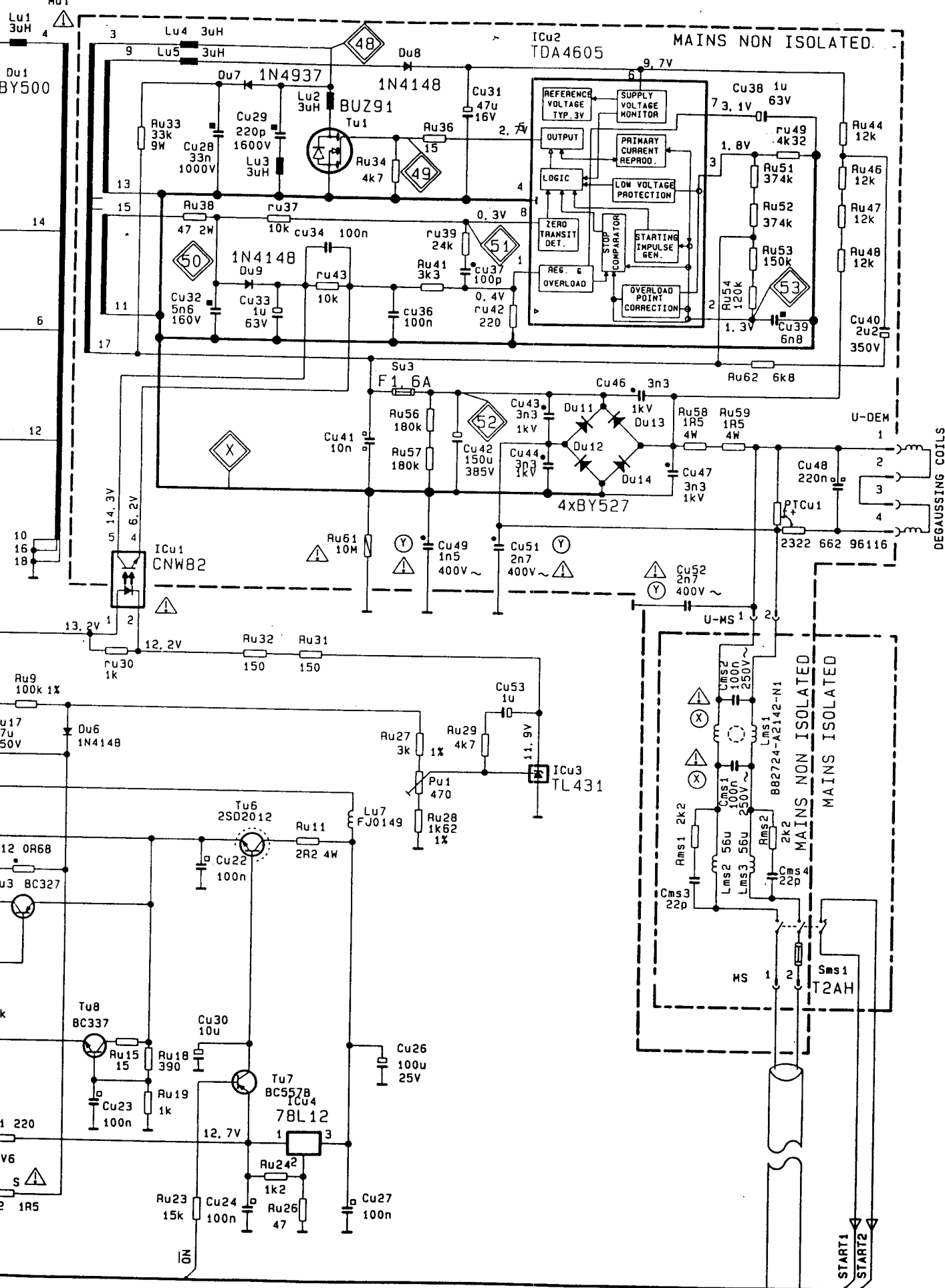


POWER SUPPLY CIRCUIT DIAGRAM



CIRCUIT DIAGRAM

FM2104
Mu1



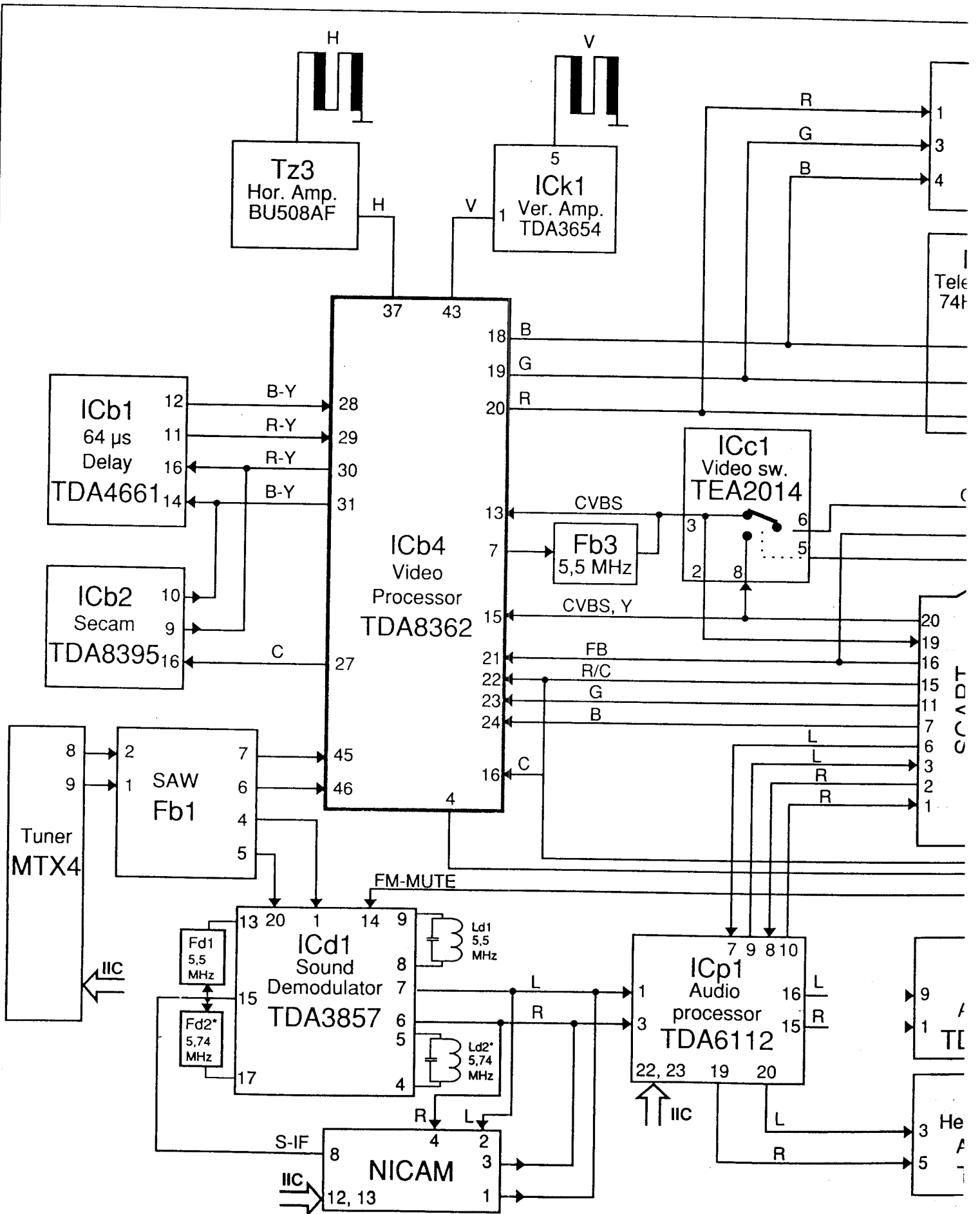
MAINS NON ISOLATED.

MAINS NON ISOLATED
MAINS ISOLATED

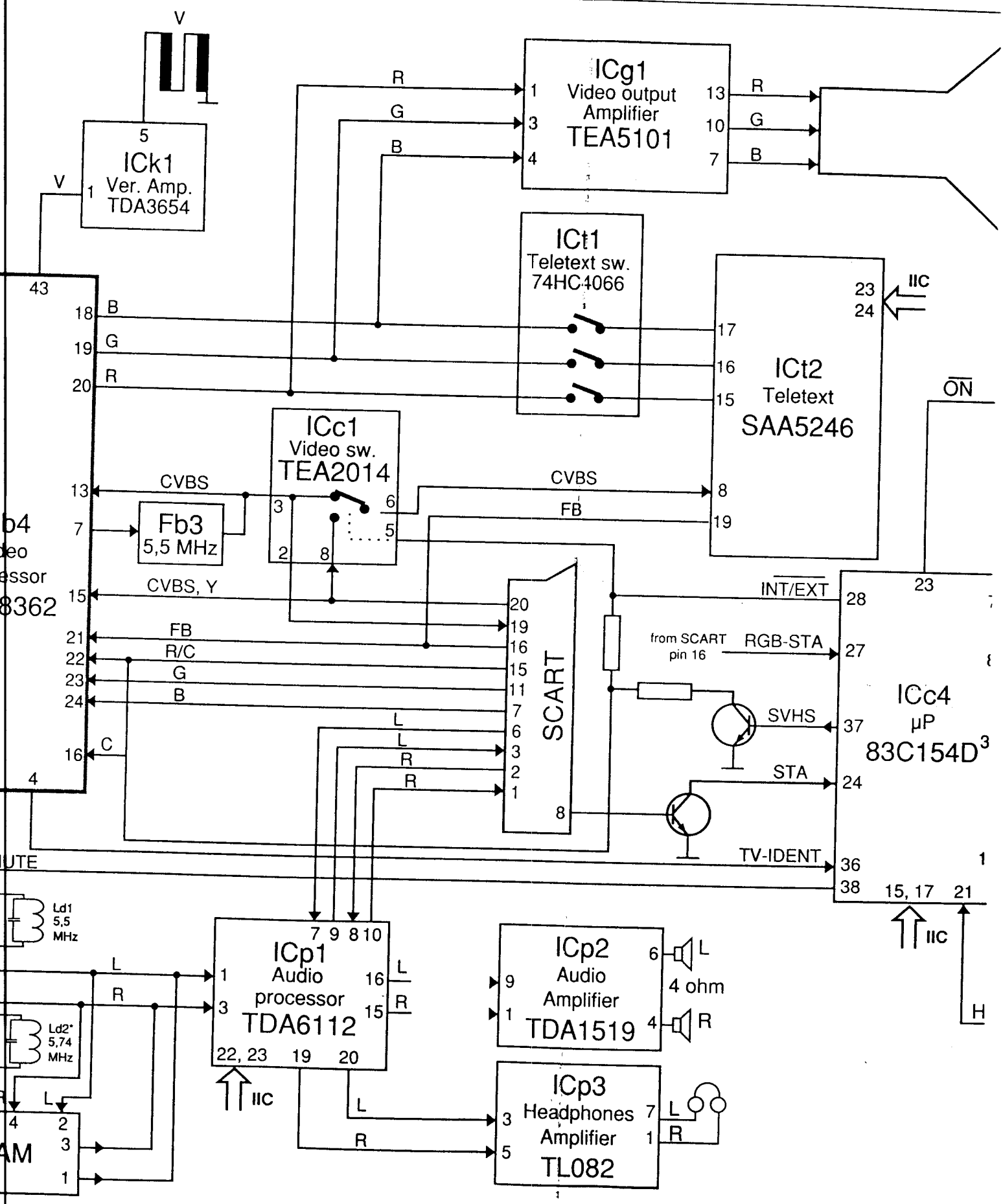
DEGAUSSING COILS

START1
START2

MAIN BLOCK DIAGRAM



AGRAM



Suppl
1. Set
an u
2. Adj

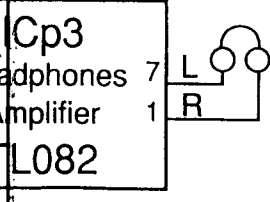
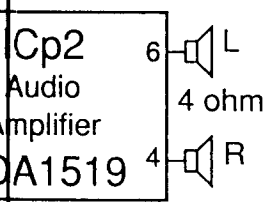
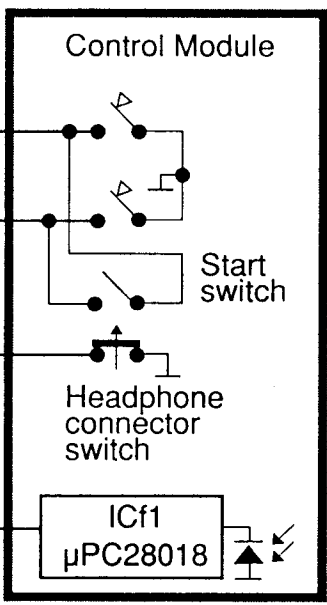
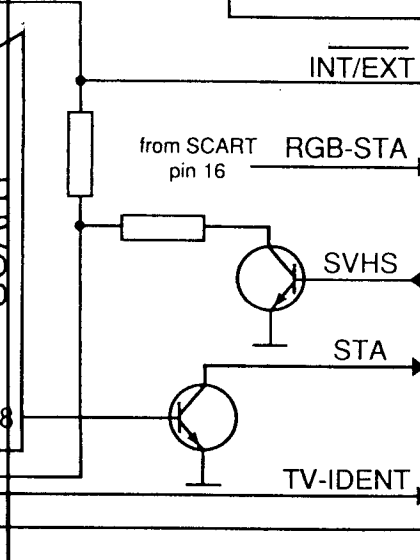
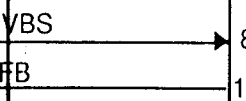
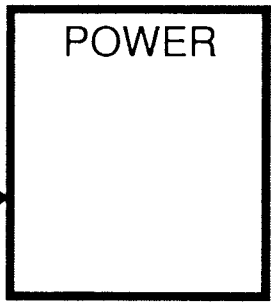
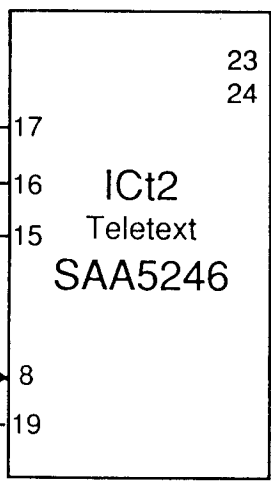
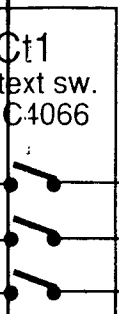
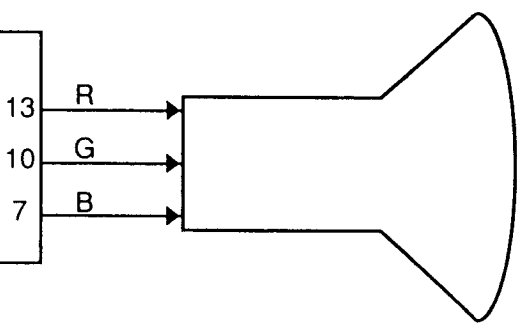
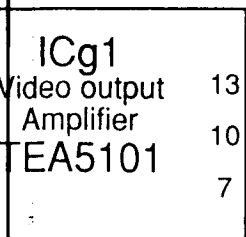
Z H

Horiz
• Adj

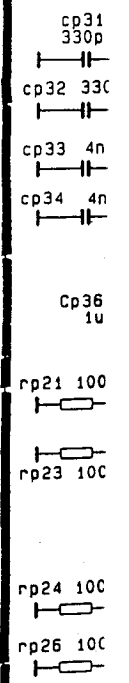
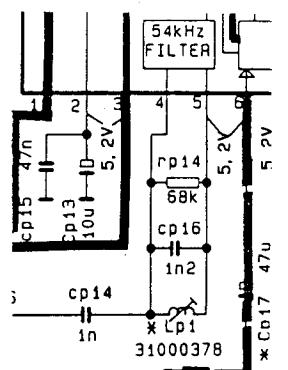
Focus
• Set
• Cros
• resc

Scree
• See

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VERTICAL



ADD SOUND

U POWER SUPPLY BLOCK

Supply voltage

1. Set brightness and contrast to normal level. Connect an universal voltmeter to the cathode of Du1.
2. Adjust with Pu1 the DC voltage for +142V (± 1 V).

Z HORIZONTAL DEFLECTION BLOCK

Horizontal linearity

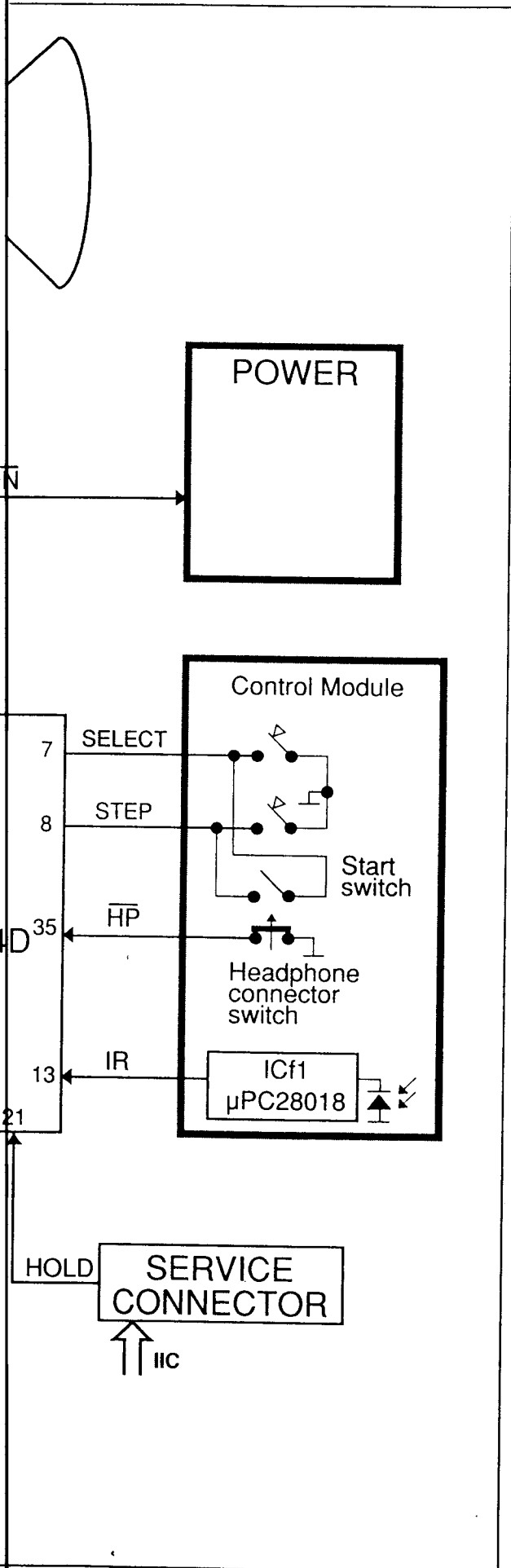
- Adjust with Lz1.

Focusing

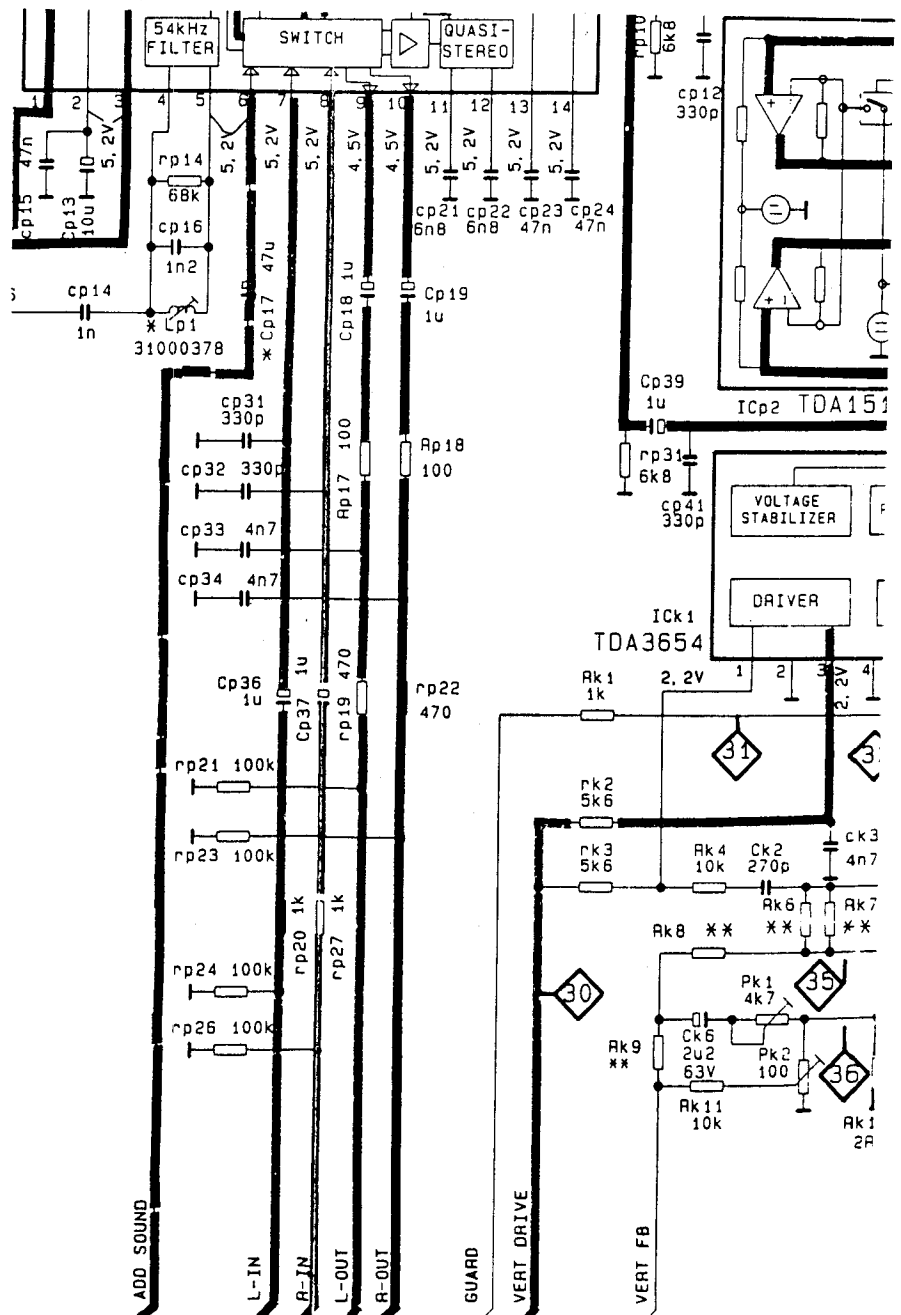
- Set brightness and contrast to normal level. Use cross hatch pattern and adjust the picture for optimum resolution.

Screen grid voltage

- See RGB gain and black level adjustments.



VERTICAL OUTPUT CIRCUIT DIAGRAM



POWER SUPPLY BLOCK

Line voltage
 Brightness and contrast to normal level. Connect universal voltmeter to the cathode of Du1. Adjust with Pu1 the DC voltage for +142V (±1 V).

HORIZONTAL DEFLECTION BLOCK

Horizontal linearity
 Adjust with Lz1.

Vertical brightness and contrast
 Use test pattern and adjust the picture for optimum definition.

Grid voltage
 Adjust for B gain and black level adjustments.

X RASTER CORRECTION BLOCK

Picture width
 • Adjust with Px1.

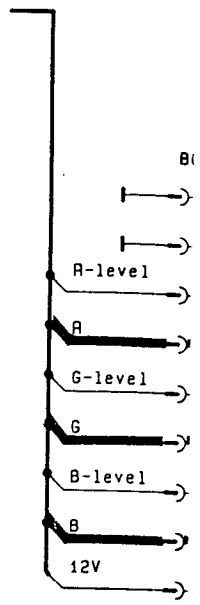
E-W amplitude
 • Adjust with Px2.

Trapezoidal correction
 • Adjust with Px3.

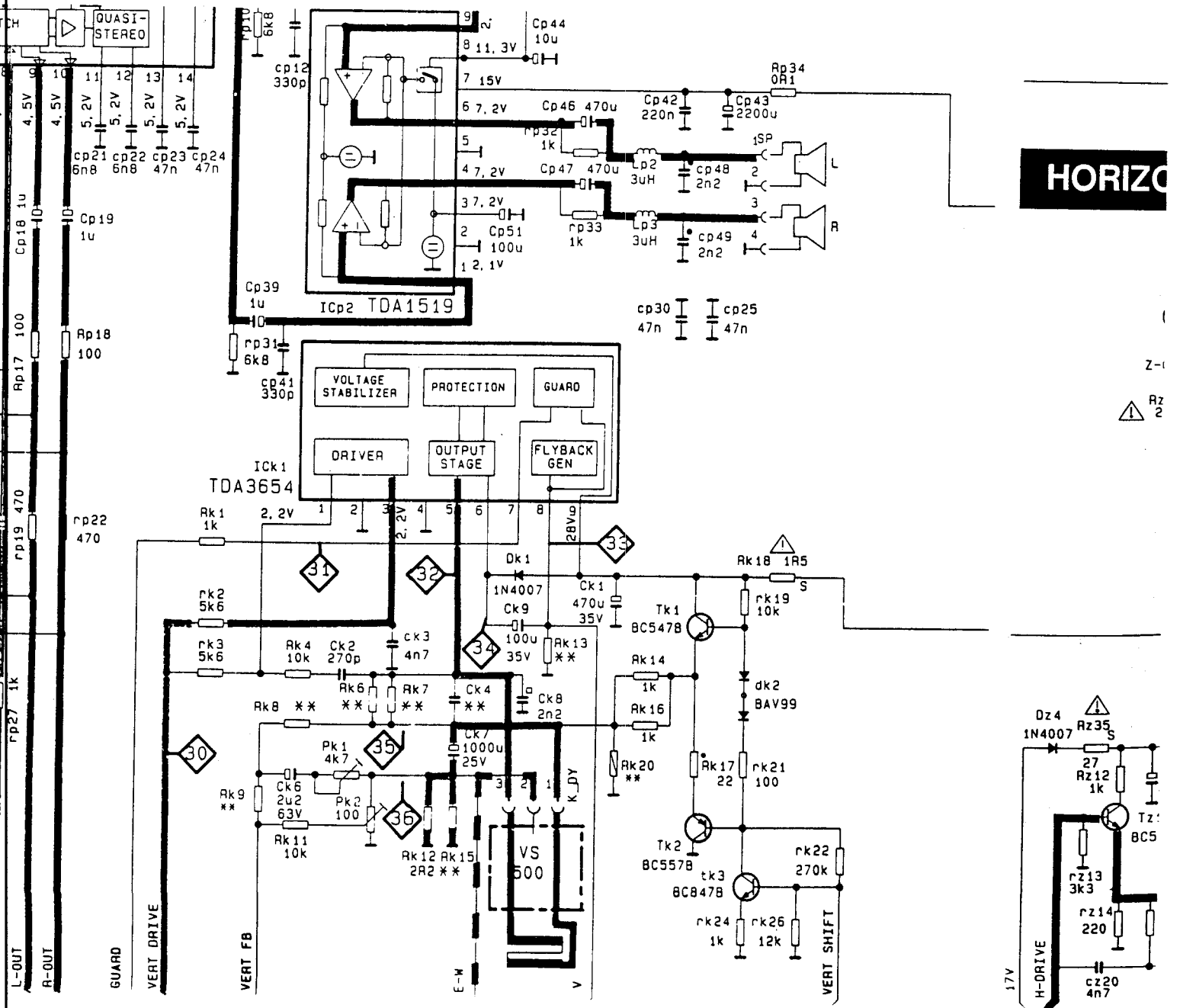
K VERTICAL DEFLECTION BLOCK

Picture height
 • Adjust with Pk2.

Vertical linearity
 • Adjust with Pk1

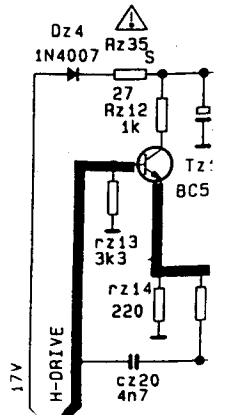


OUTPUT CIRCUIT DIAGRAM



HORIZO

Z-1
 ⚠ RZ 2



RASTER CORRECTION BLOCK

ure width
djust with Px1.

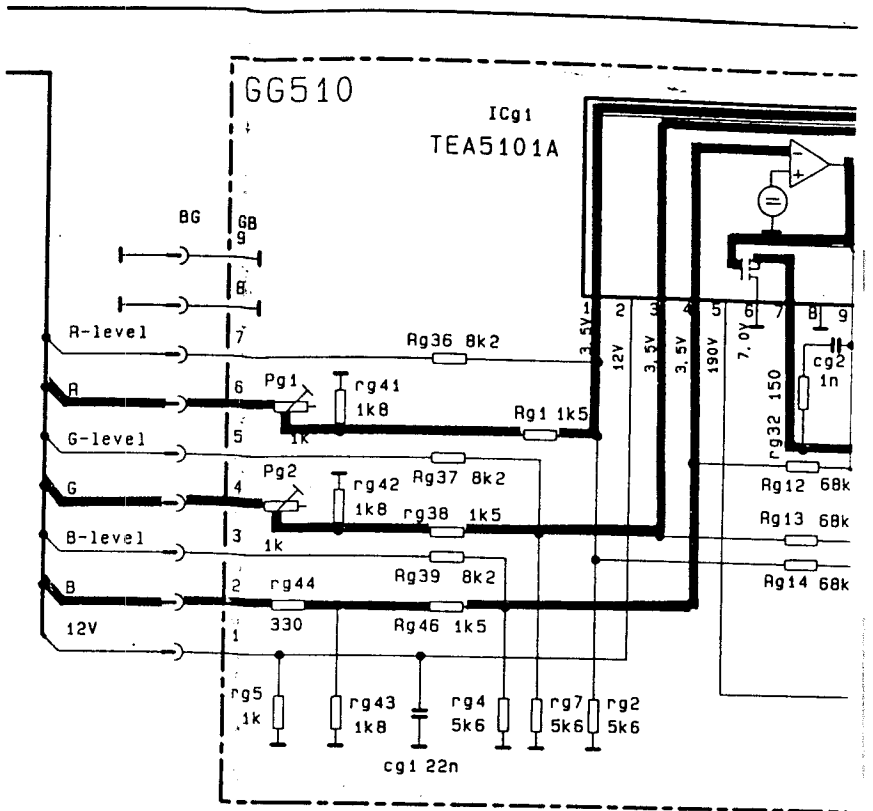
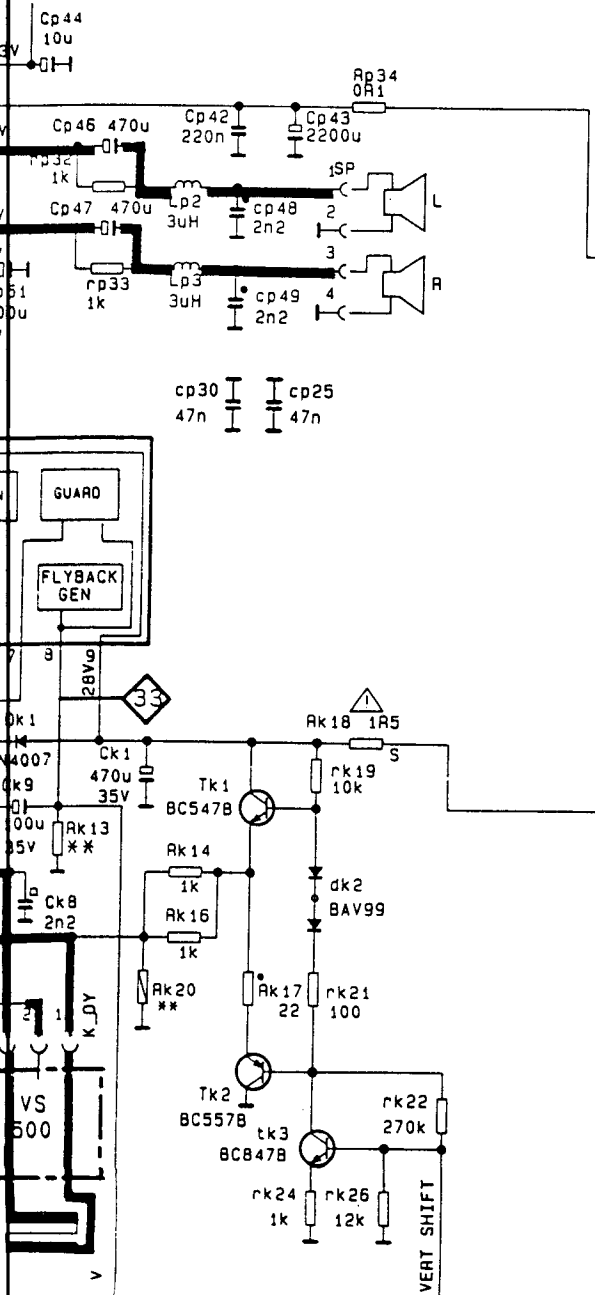
amplitude
djust with Px2.

ezoidal correction
djust with Px3.

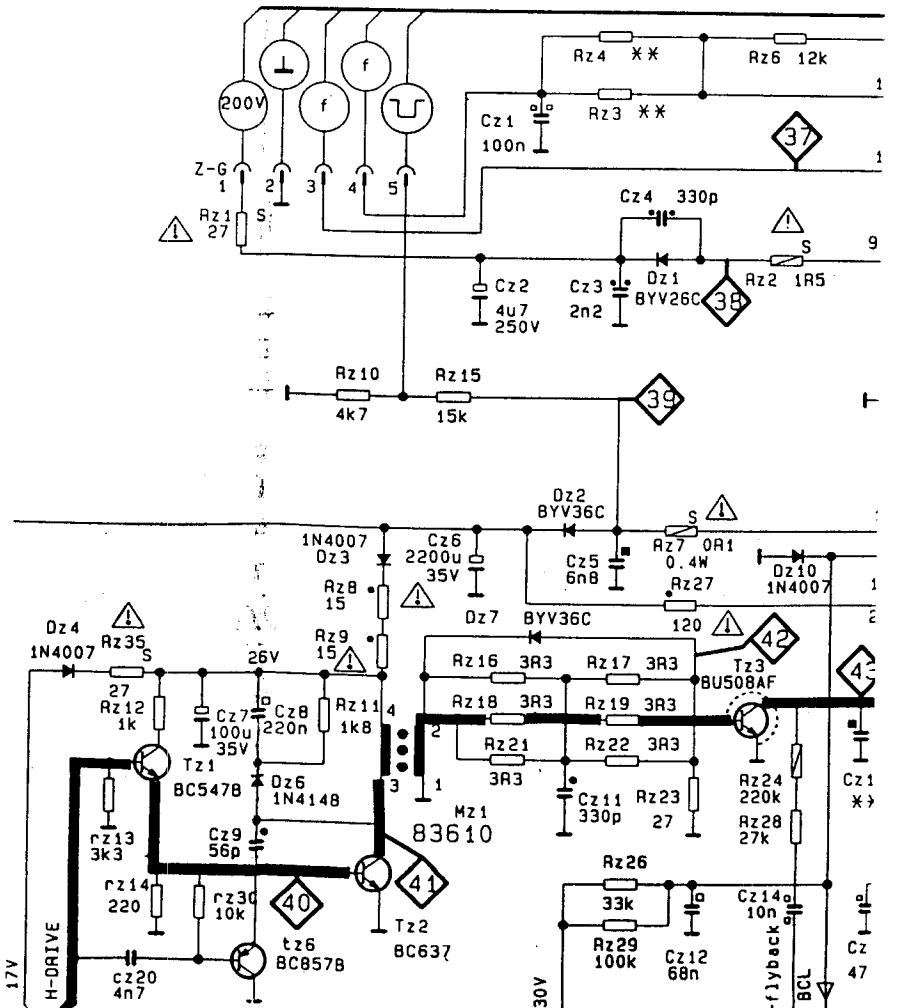
VERTICAL DEFLECTION BLOCK

ure height
djust with Pk2.

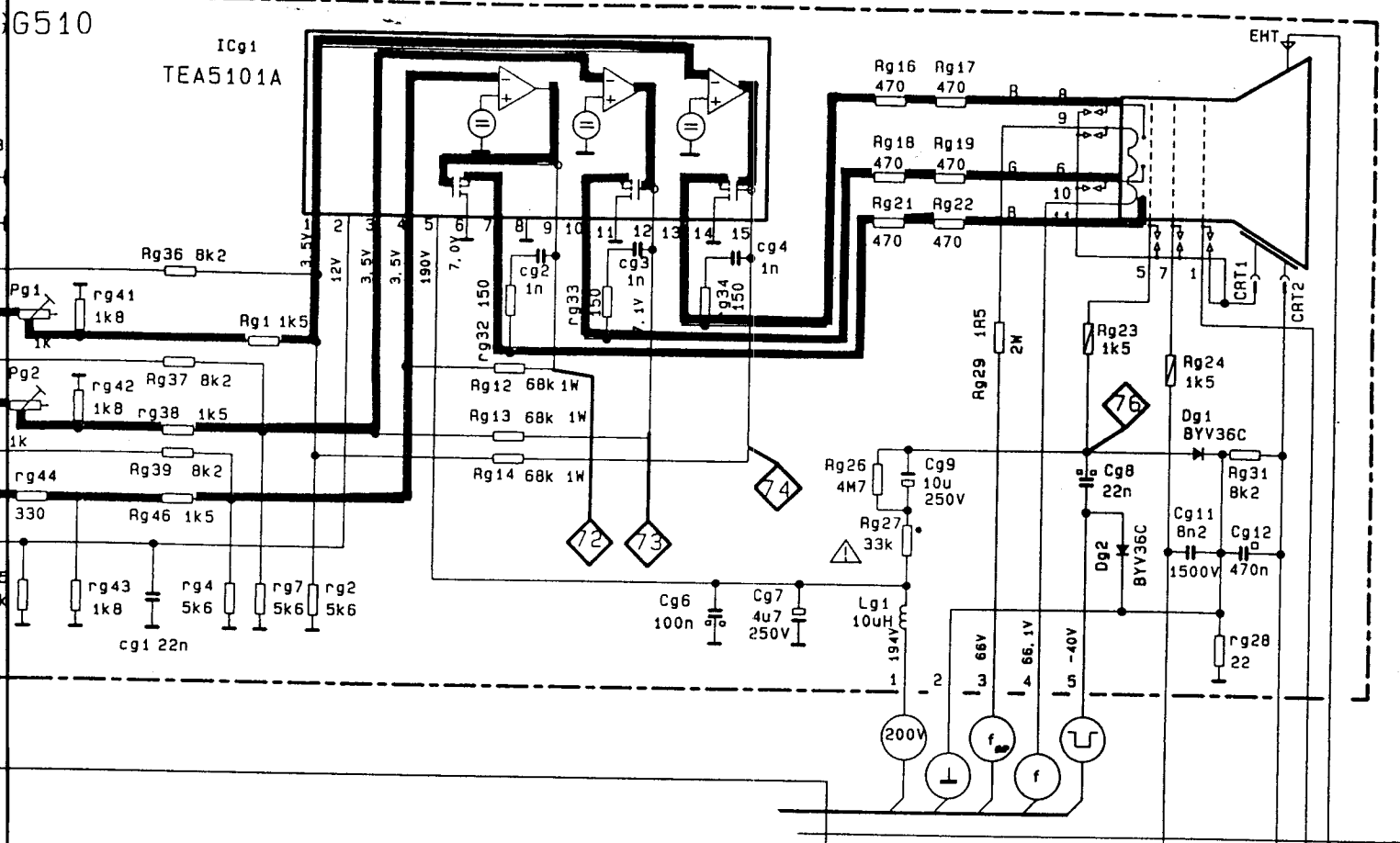
ical linearity
djust with Pk1



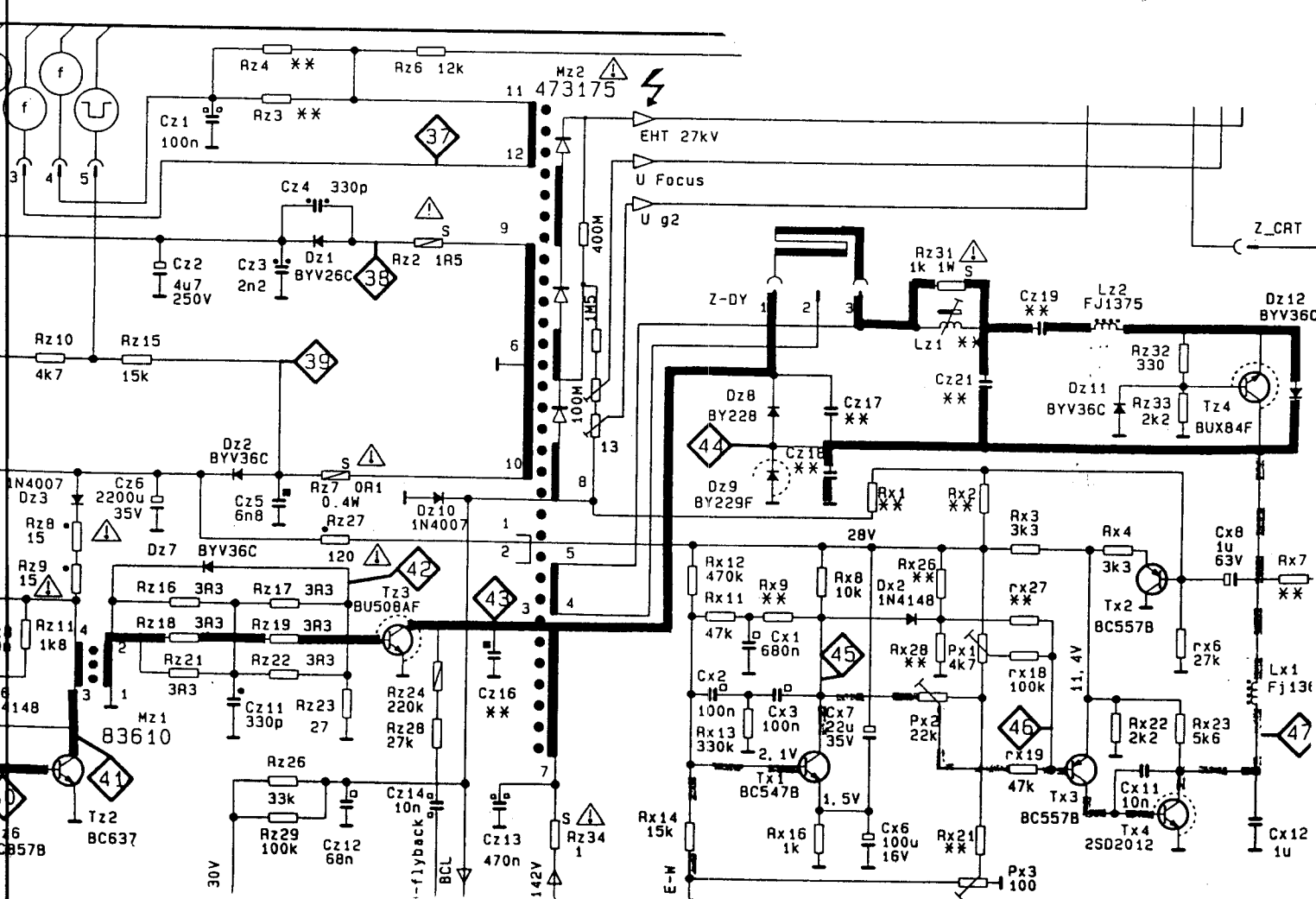
HORIZONTAL (Line) OUTPUT CIRCUIT



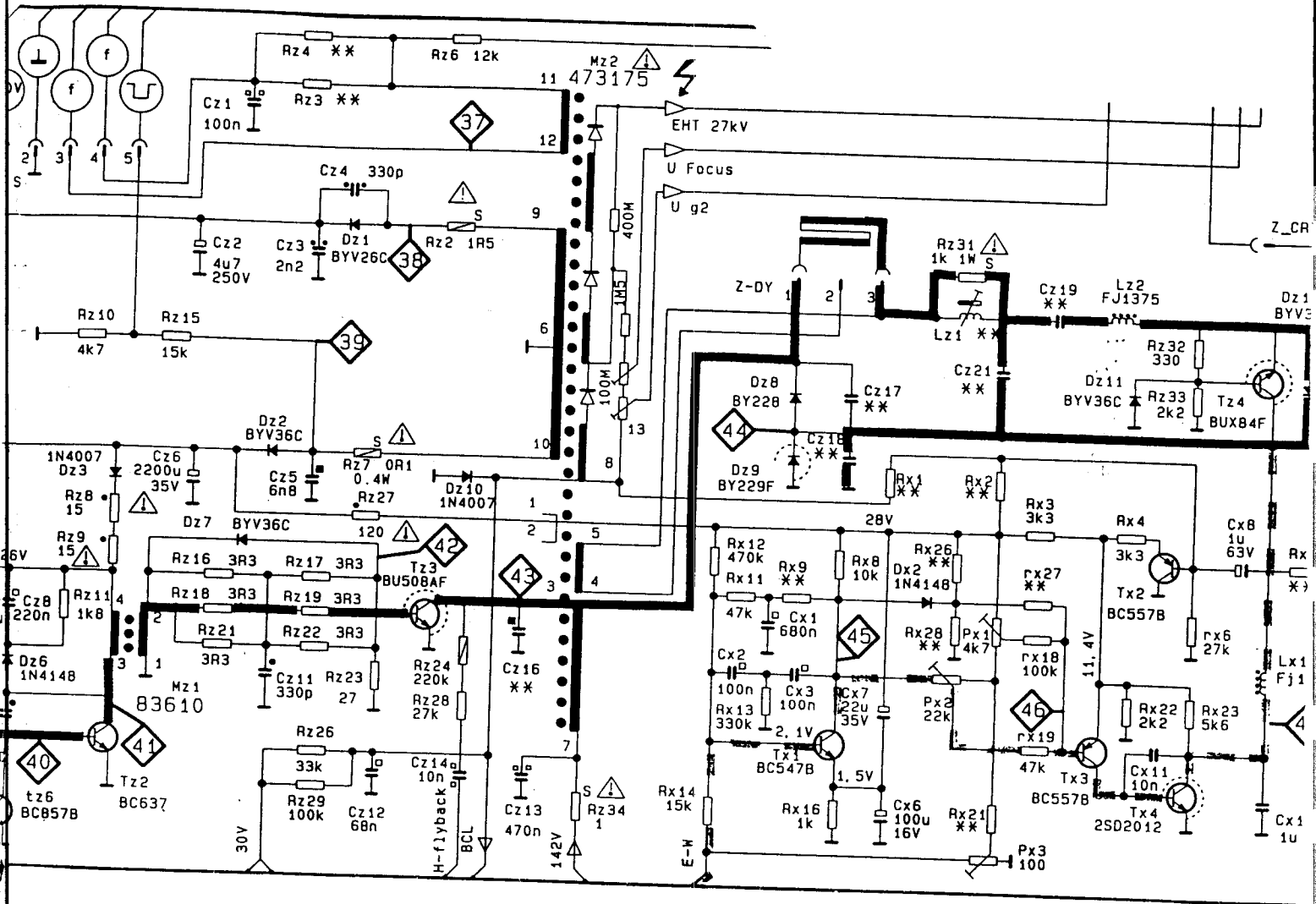
OUTPUT CIRCUIT DIAGRAM



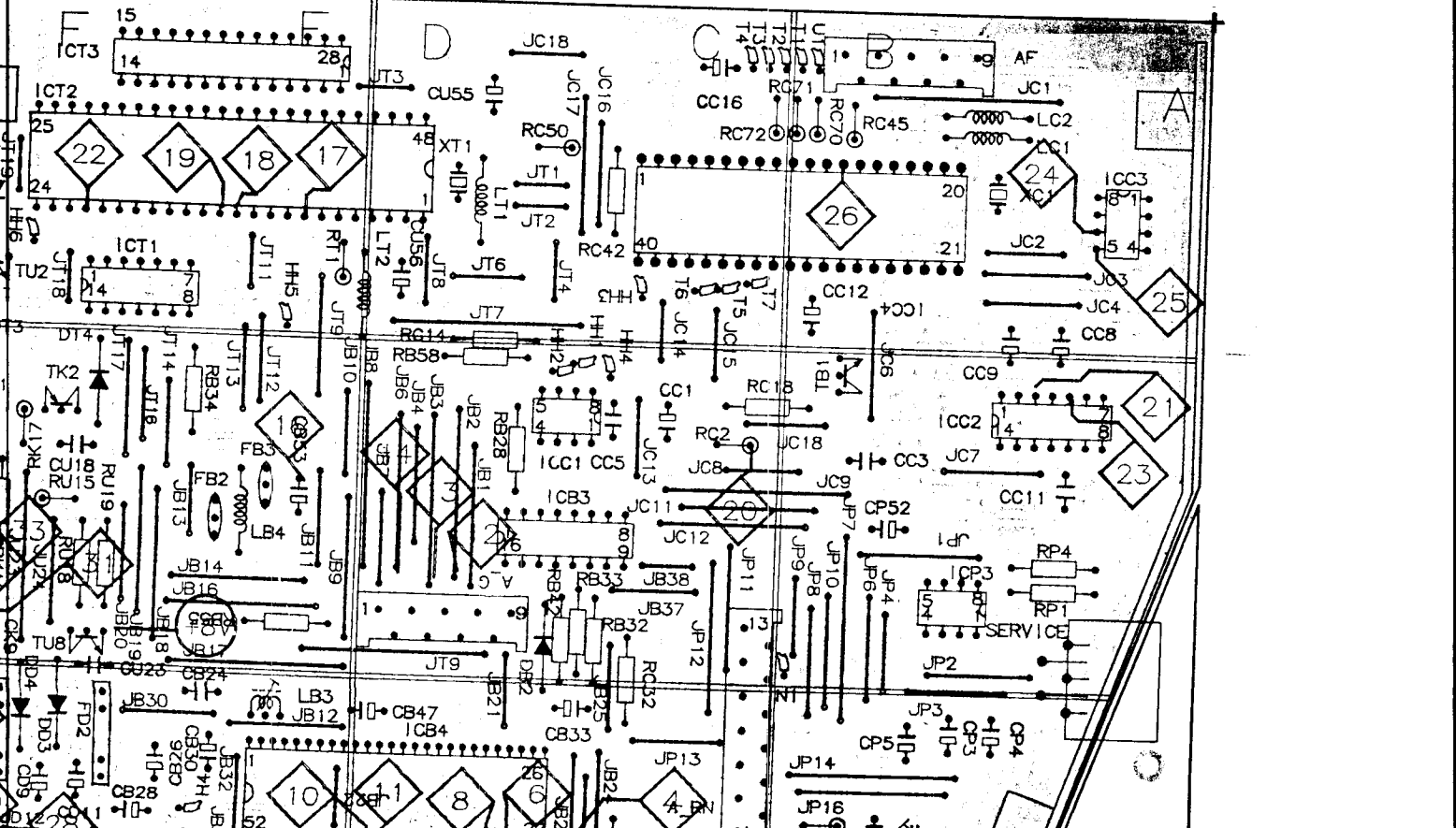
AL (Line) OUTPUT CIRCUIT DIAGRAM

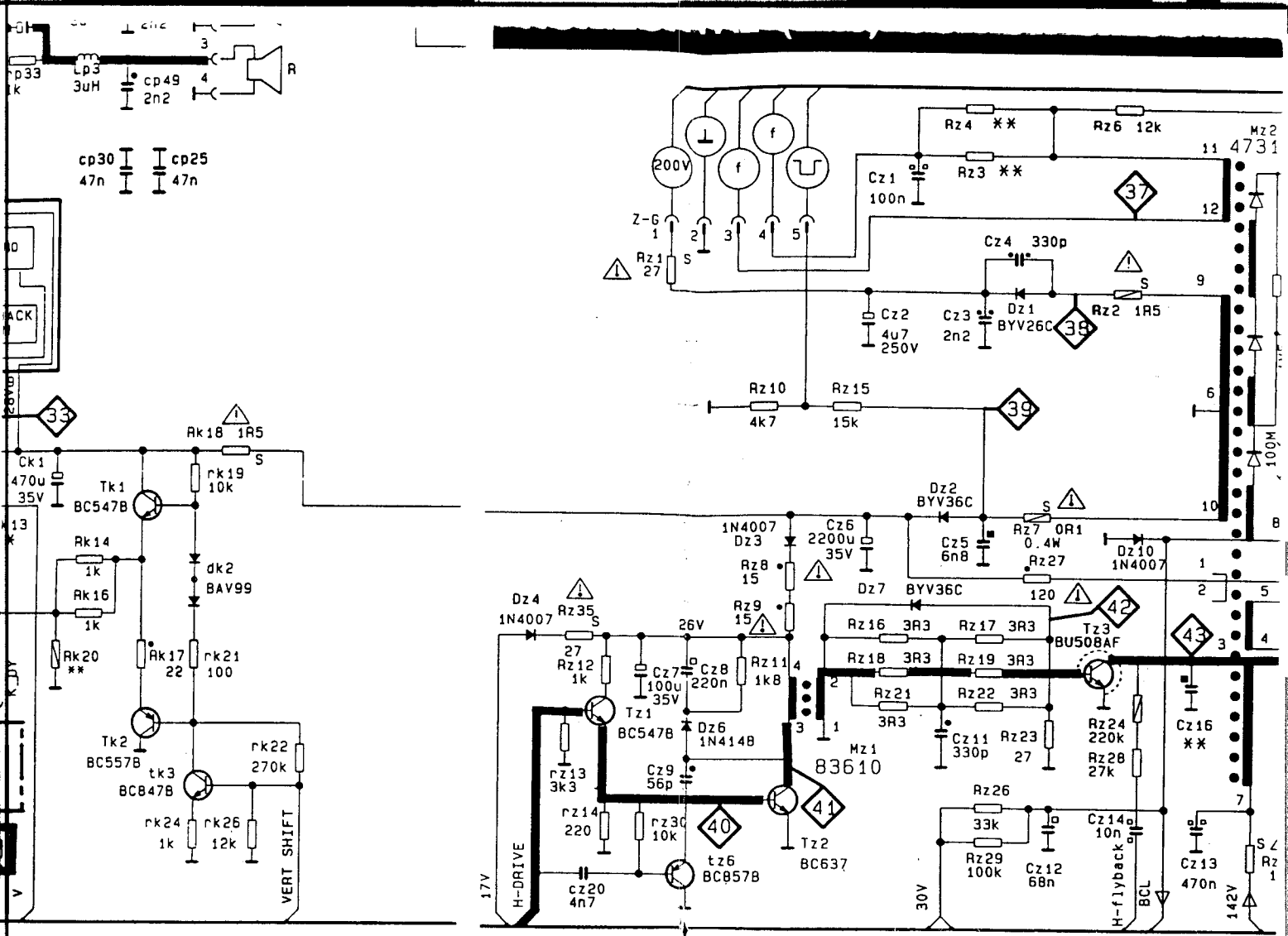


NIAL (Line) OUTPUT CIRCUIT DIAGRAM

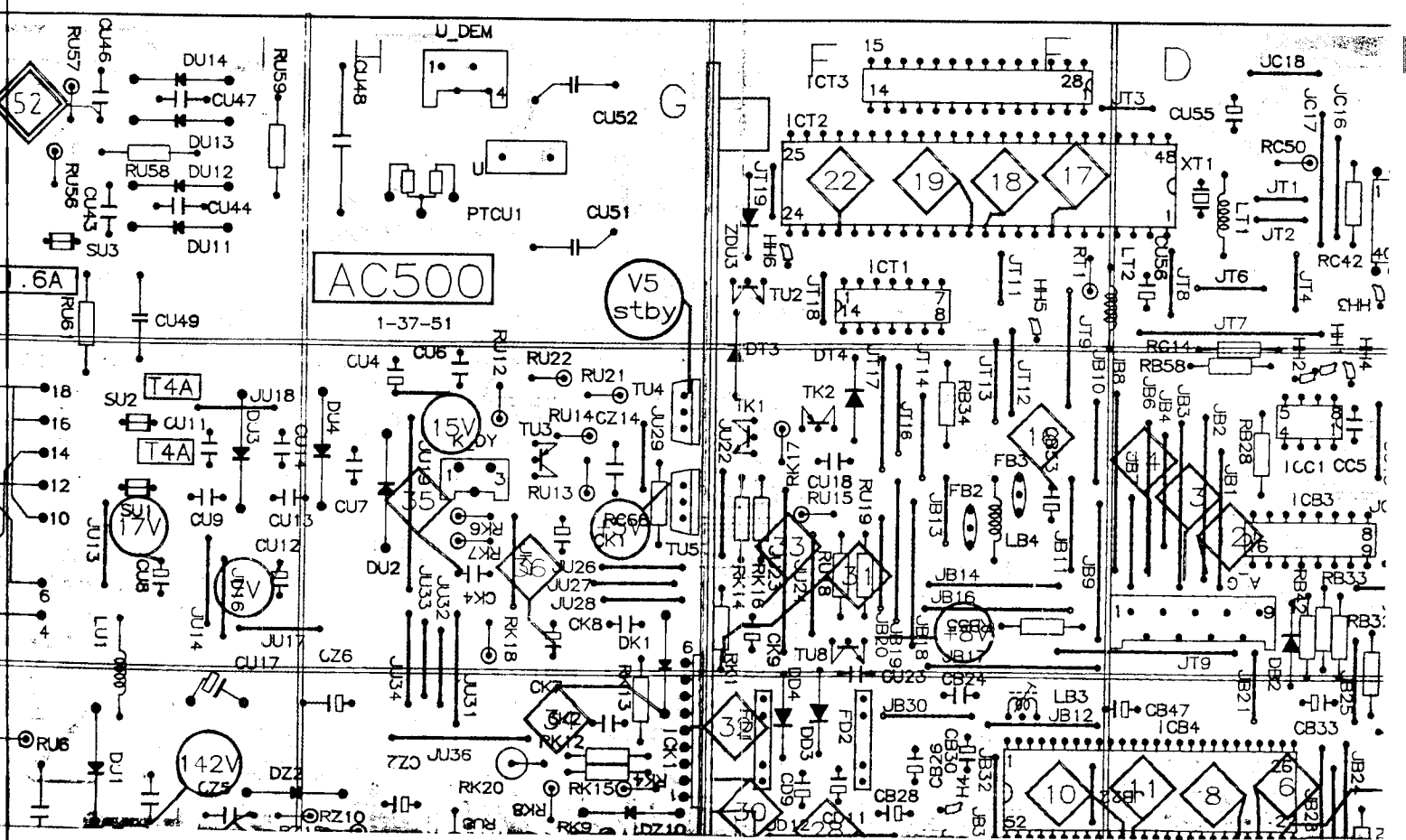


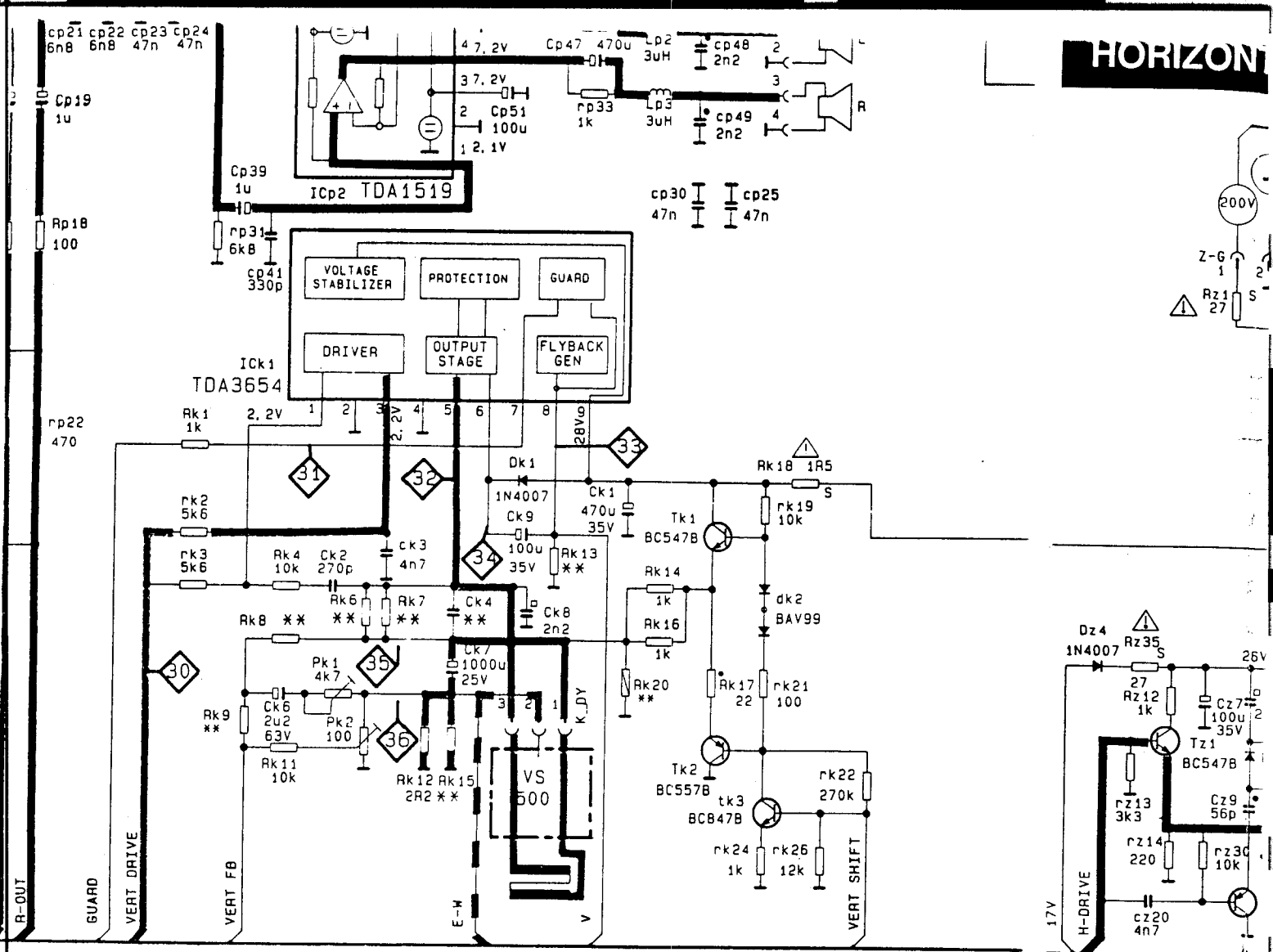
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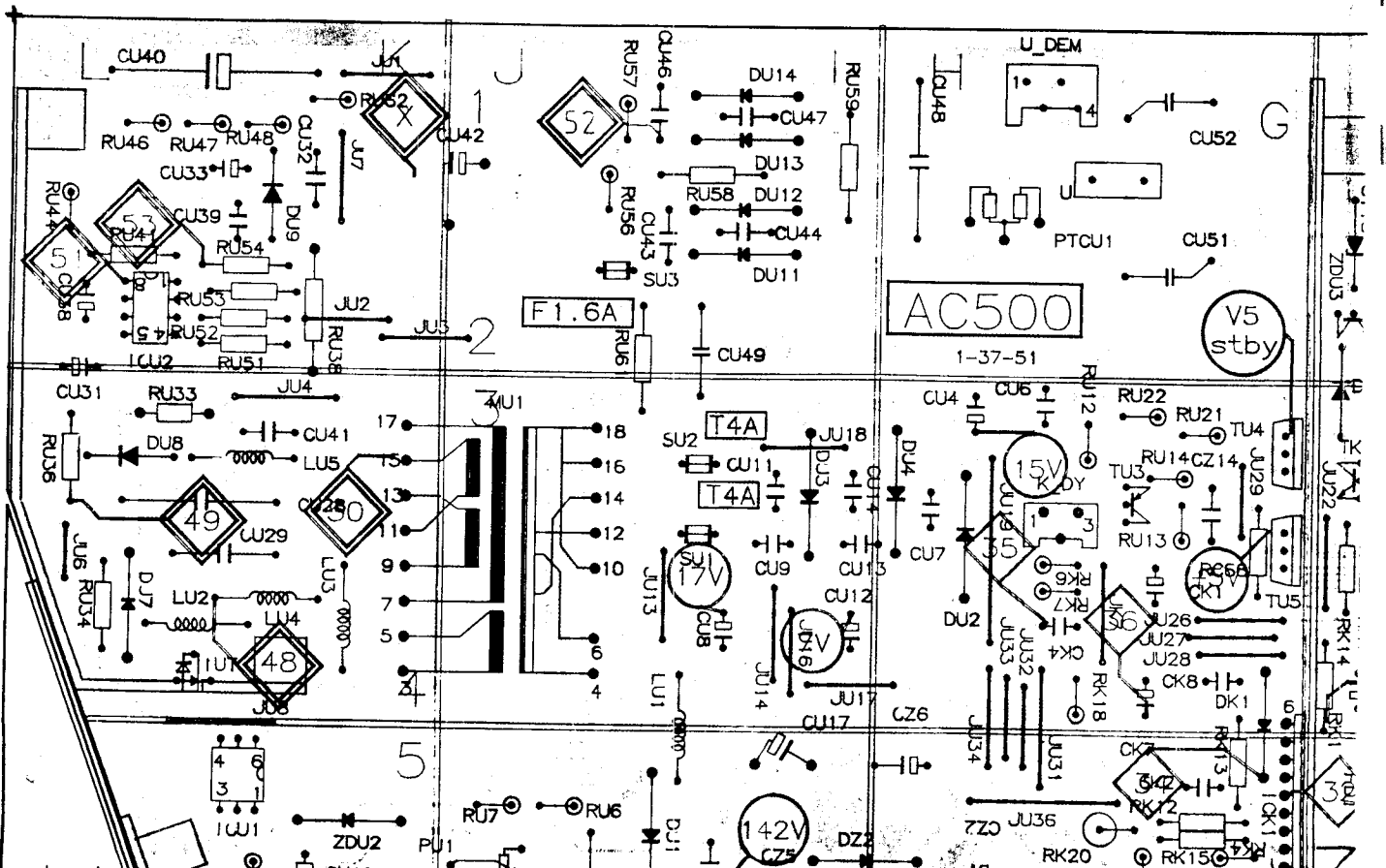


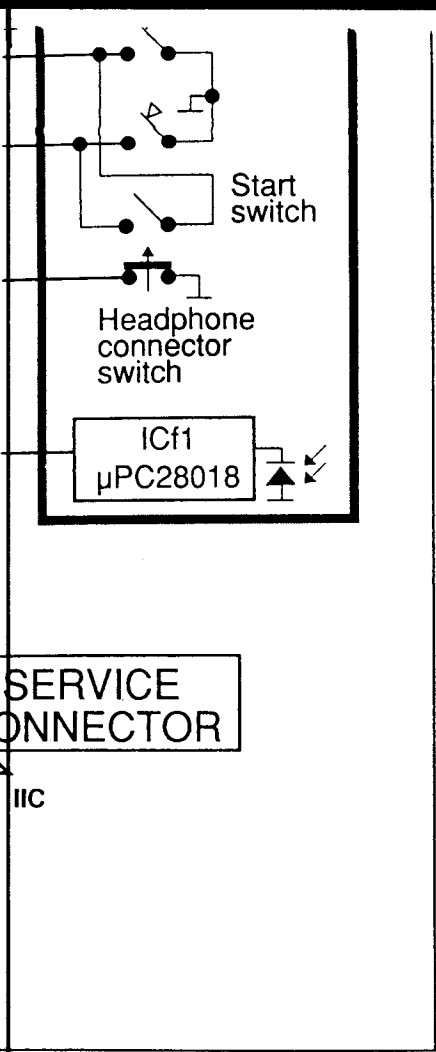
LAYOUT





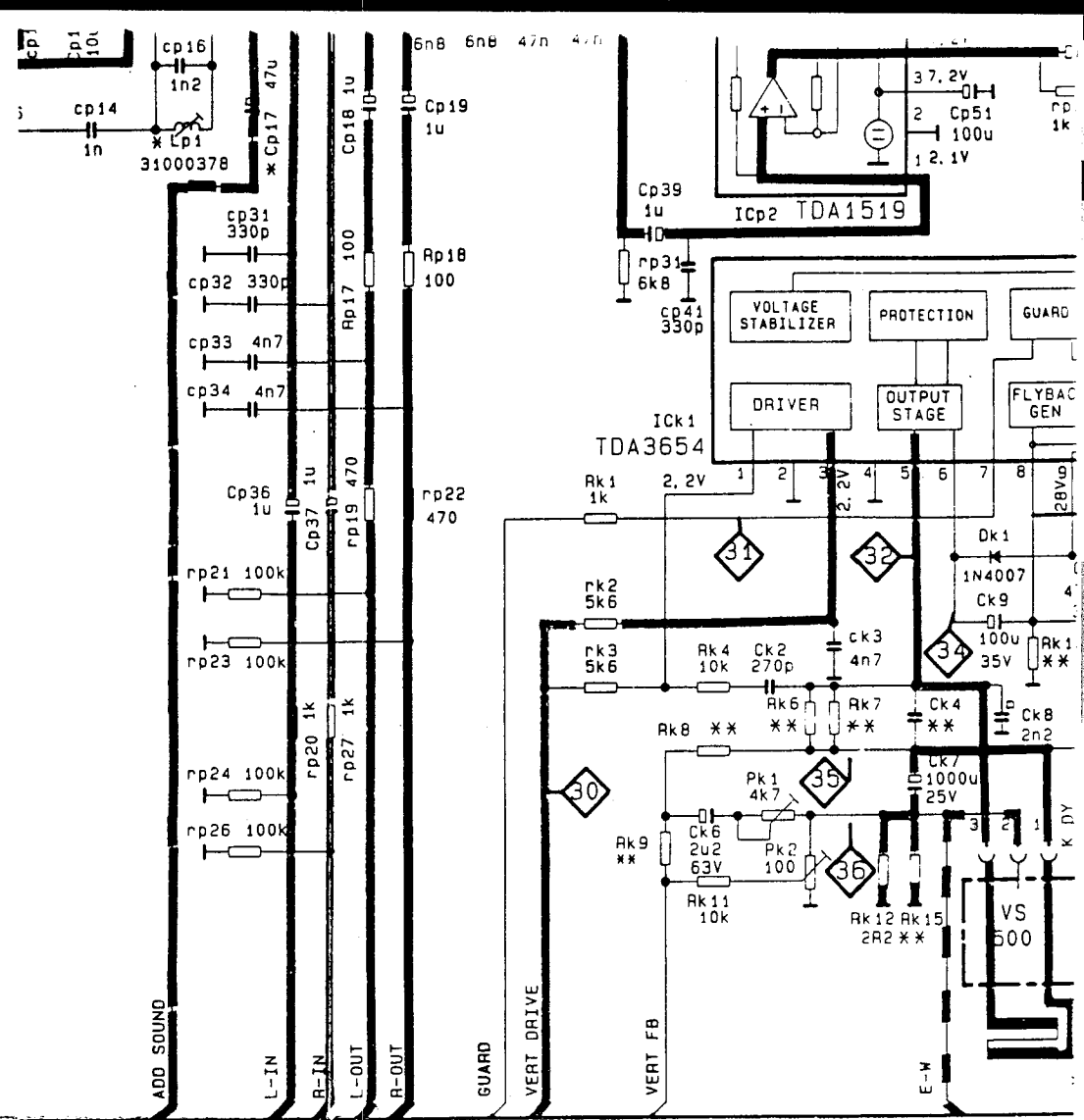
PCB LAYOUT





SERVICE CONNECTOR

IIC

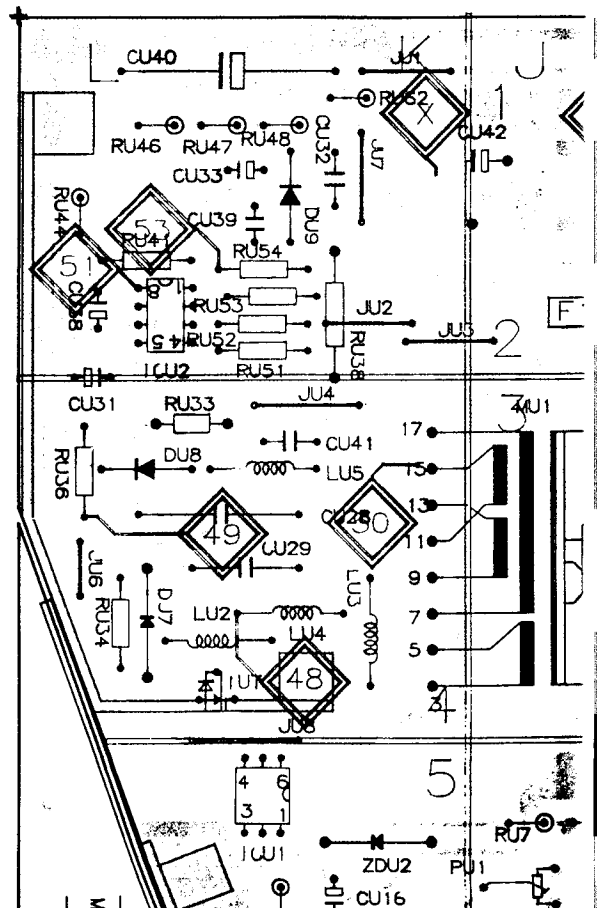


OR CIRCUITS CONNECTED

addresses of bus driven circuits and shows
adding or removing some options.

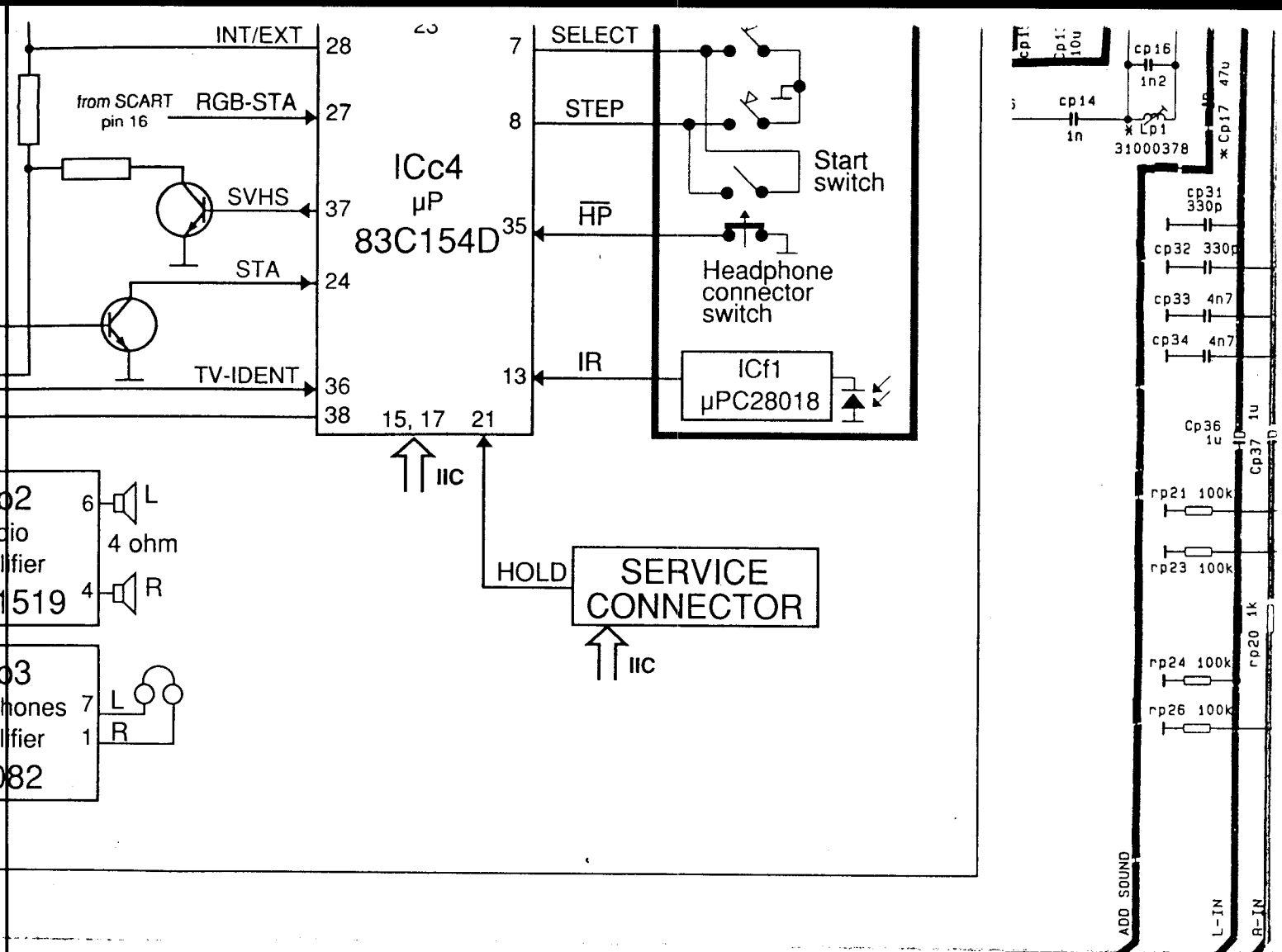
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PCB LA



ation is stored into NVM by pressing the blue
e set with the mains switch. The configuration

(02)



CONFIGURATION AND FAULT DIAGNOSIS FOR CIRCUITS CONNECTED TO THE IIC-BUS

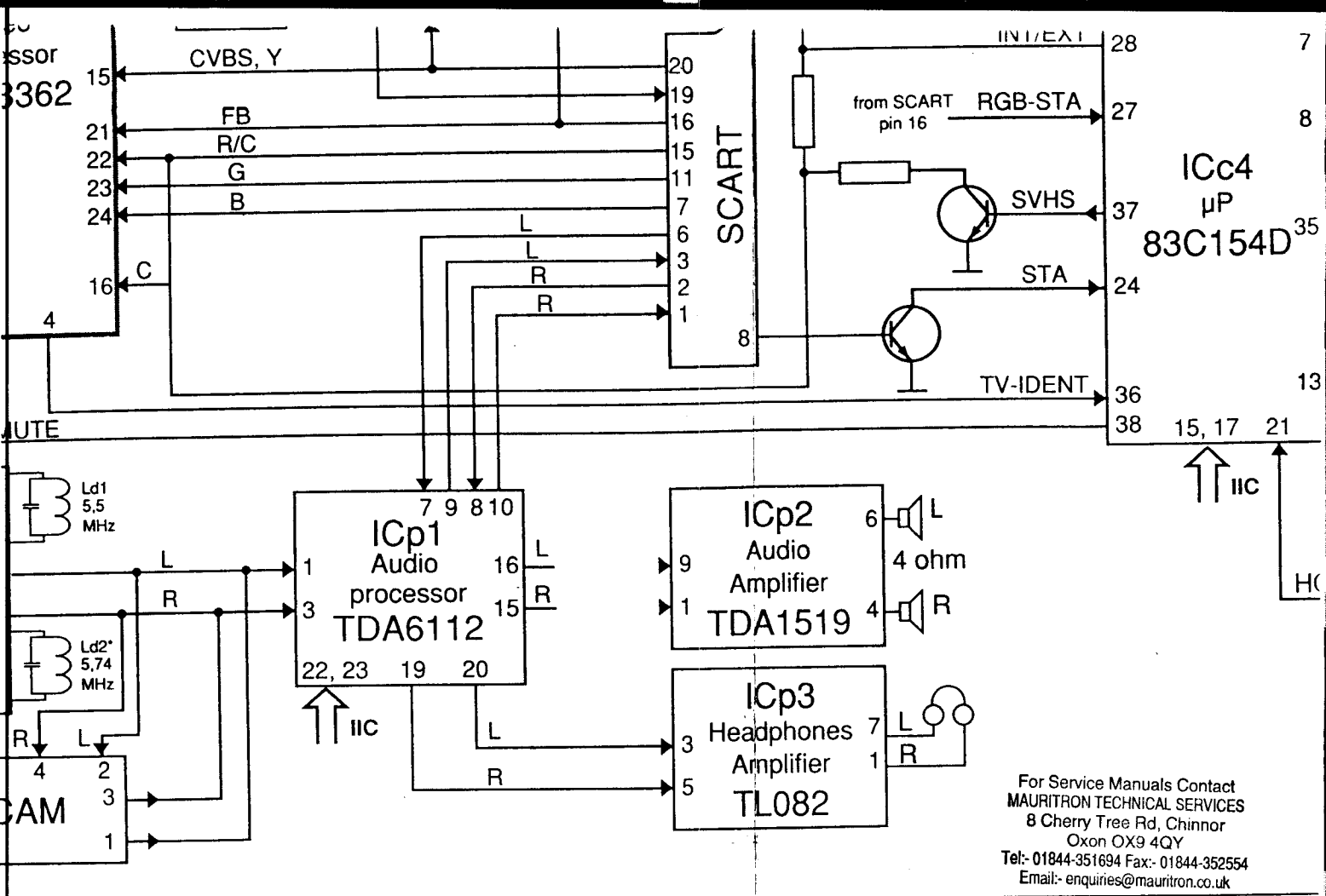
Pressing 04 in the service mode, the processor checks all possible addresses of bus driven circuits and shows the found addresses on the screen. The set must be configured after adding or removing some options.

Reg Configuration
04 22

SW Bus Addresses
10 4E 22 84 42 C0 A0 A2

The found configuration value is shown on the screen until new configuration is stored into NVM by pressing the blue key. The set takes the new configuration in use only after resetting the set with the mains switch. The configuration is also used as a fault diagnosis system.

Address	Circuit
10	µP software version, ICc4 (83C154D)
22	IVT Teletext, ICt2 (SAA5246A)
4E	Nicam Decoder / Micronas, ICr1 (MAS7D102)
84	Nicam Decoder / Toshiba, (TB1204)
84	Sound Processor, ICp1 (TDA6612)
42	D/A Converter, ICb3 (TDA8444)
C0	Hyperband Tuner PLL (TSA5510)
C6	UHF Tuner PLL (TSA5510)



For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
 8 Cherry Tree Rd, Chinnor
 Oxon OX9 4QY
 Tel:- 01844-351694 Fax:- 01844-352554
 Email:- enquiries@mauritron.co.uk

SETTINGS VIA IIC DATA BUS

Make sure the supply voltage is correctly adjusted. (See Service Manual)

Turn the receiver on by pressing the mains switch and within 5 seconds of the service mode an adjustment bar (register number, adjustment value)

indicates the current value. The VM can be adjusted by pressing the TV button or the service mode again by pressing the EXTRA button or by resetting the set with the mains switch.

Reg	Min	Value	Max
05		10	

SERVICE MODE

The hand unit are used for service adjustments. Analog controls don't function.

Reg	Min	Value	Max

CONFIGURATION AND FAULT DIAGNOSIS TO THE IIC-BUS

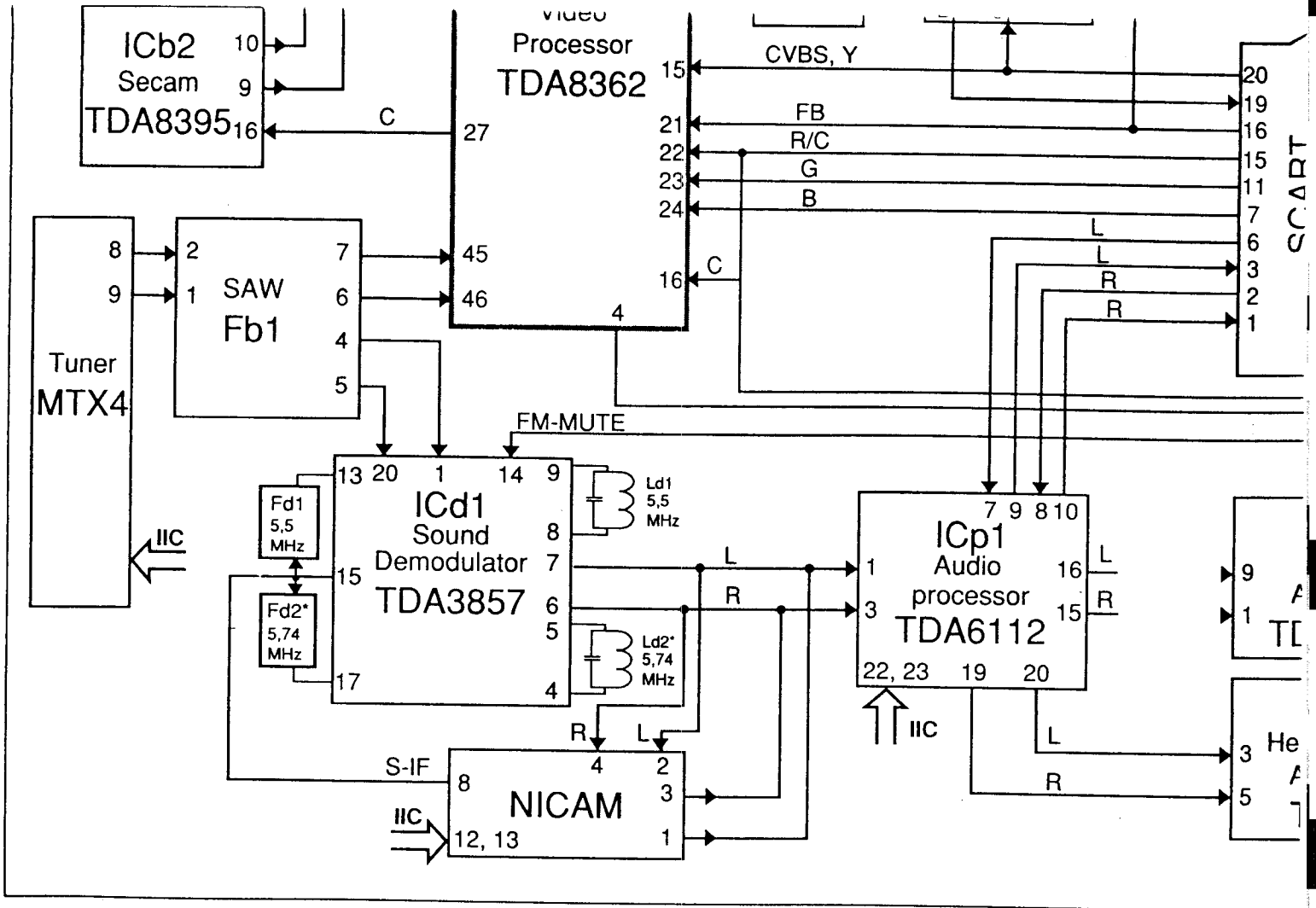
By pressing 04 in the service mode, the processor checks the found addresses on the screen. The set must be configured.

Reg	Configuration
04	22

SW	Bus Addresses
10	4E 22 84 42 C0

The old configuration value is shown on the screen until new configuration is saved. The set takes the new configuration in use only after saving also as a fault diagnosis system.

Address	Circuit
10	μP software version, ICc4 (83C154D)
22	IVT Teletext, ICT2 (SAA5246A)
4E	Nicam Decoder / Micronas, IC1
B4	Nicam Decoder / Toshiba, (TB12262)
84	Sound Processor, ICp1 (TDA6112)
42	D/A Converter, ICb3 (TDA8444)
C0	Hyperband Tuner PLL (TSA5510)
C6	UHF Tuner PLL (TSA5510)



SERVICE ADJUSTMENTS VIA IIC DATA BUS

Before making adjustments with RC hand unit, make sure the supply voltage is correctly adjusted. (See Service adjustments/power supply block)

SERVICE MODE SELECTION

TV receiver is set to the service mode by switching the receiver on by pressing the mains switch and within 5 seconds the TV, PRG and EXTRA buttons successively. In the service mode an adjustment bar (register number, adjustment value and min/max values) is shown on the screen.

The version number of the NVM on the screen indicates the selected service mode. The version number of the NVM can also be asked by pressing "05" buttons.

Reg	Min	Value	Max
05		10	

You can select the normal TV mode by pressing the TV button or the service mode again by pressing the EXTRA button. Return from service mode to normal TV mode by resetting the set with the mains switch.

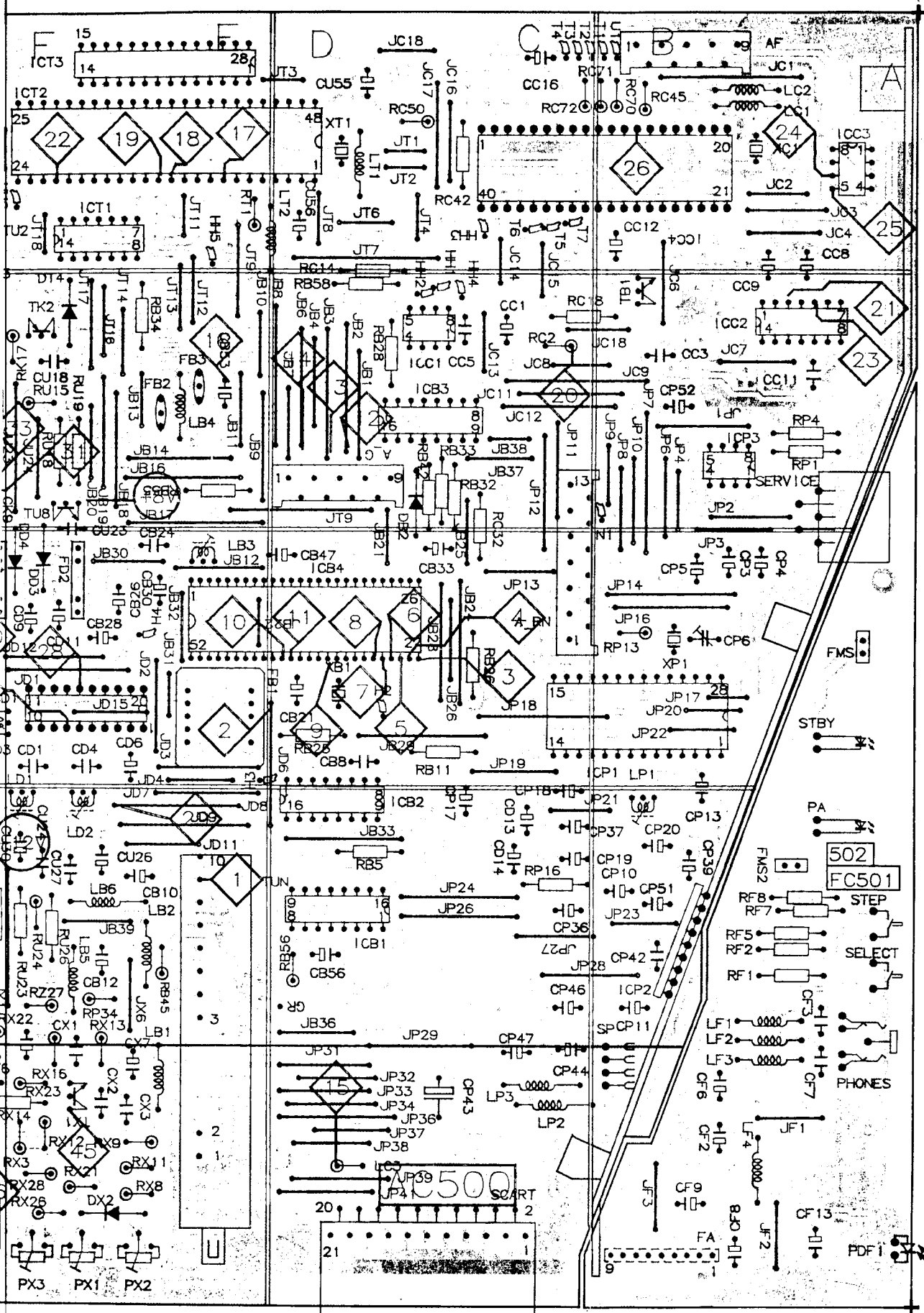
REMOTE CONTROL COMMANDS IN SERVICE MODE

Number buttons and cursor buttons (left and right) of the hand unit are used for service adjustments. Analog controls function normally; teletext controls and other special controls don't function.

Making the service adjustments

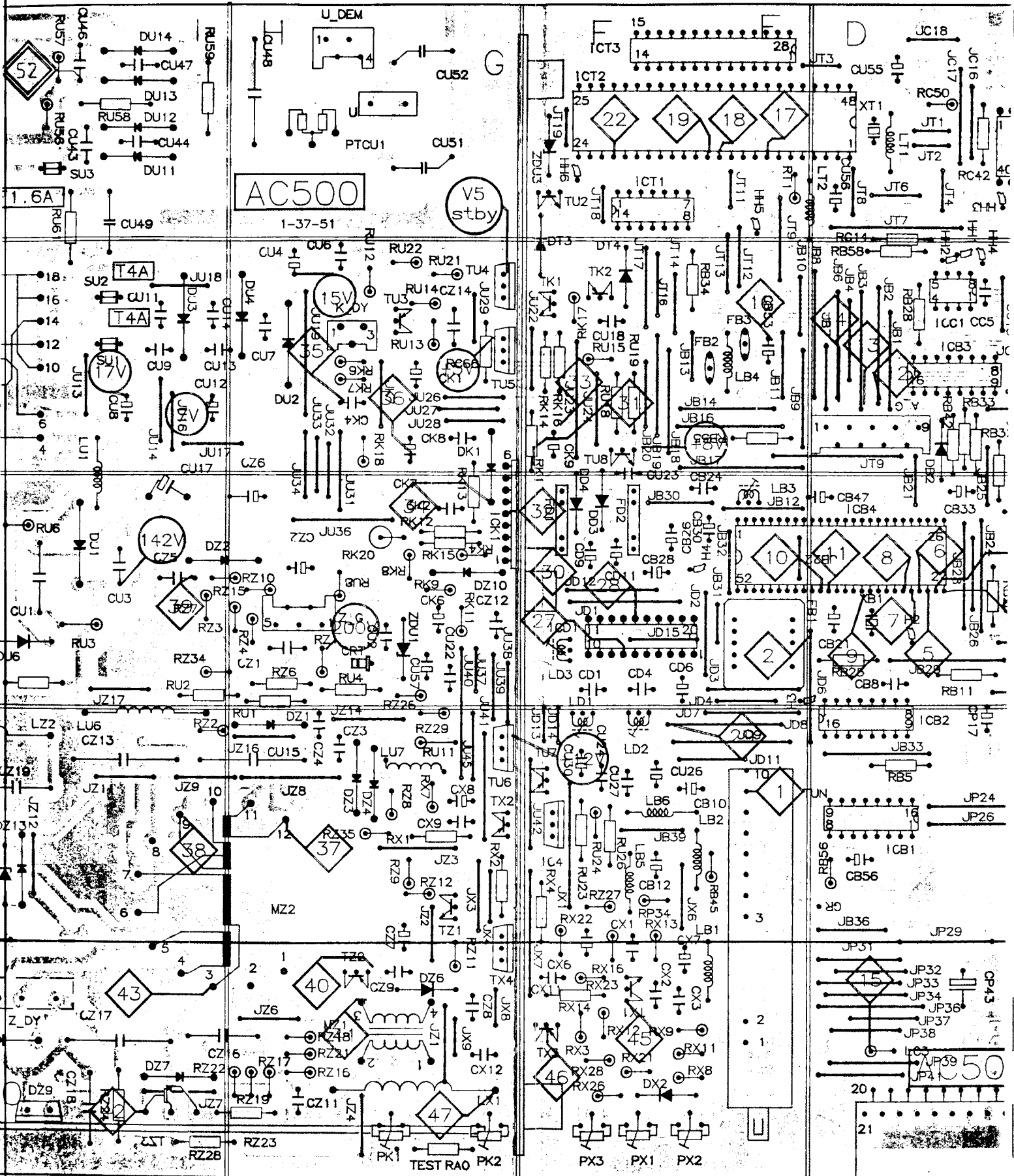
1. Give a two numbered code which determines the adjust

Reg	Min	Value	Max
05		10	

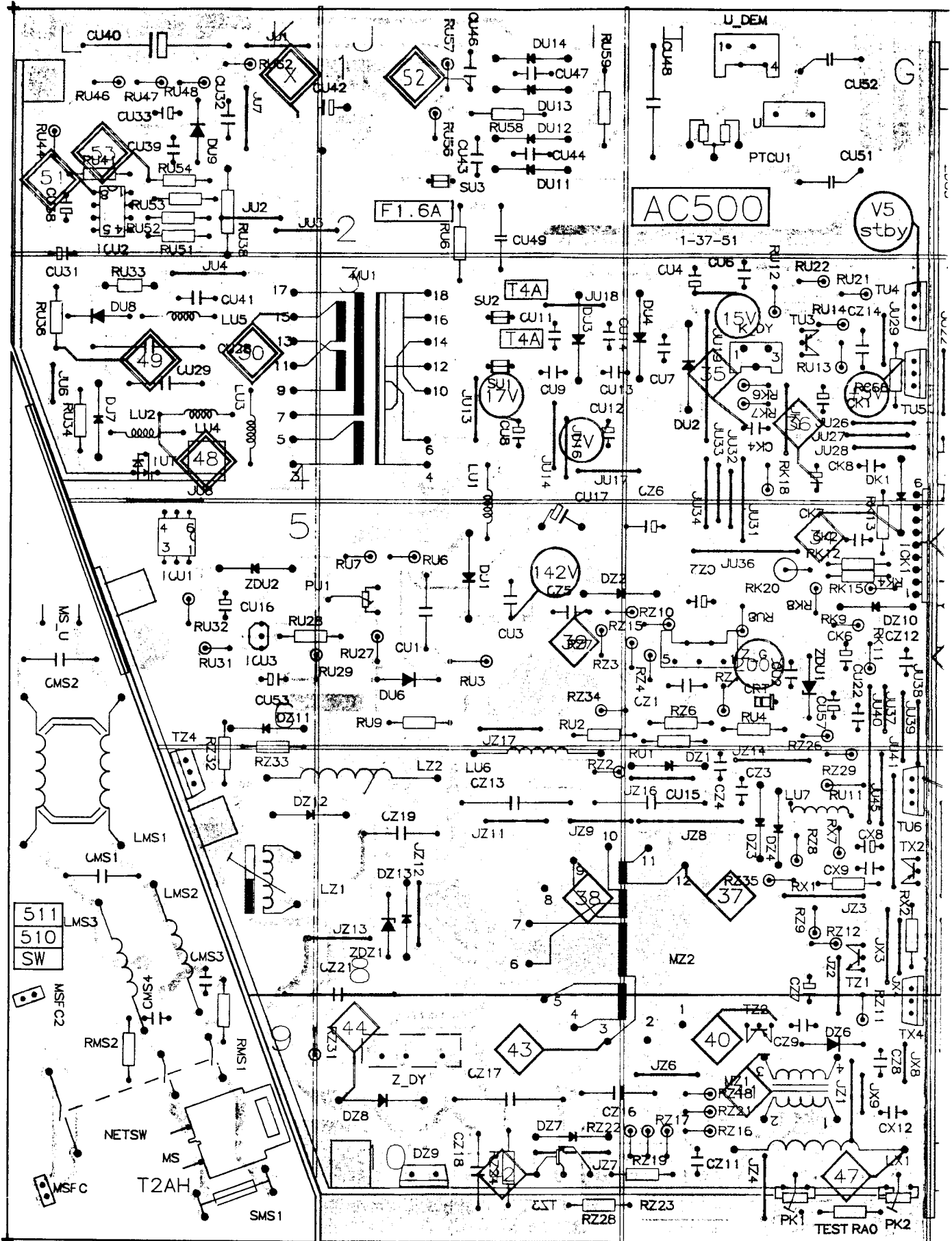


Home reserve

LAYOUT



PCB LAYOUT



R CIRCUITS CONNECTED

addresses of bus driven circuits and shows adding or removing some options.

on is stored into NVM by pressing the blue et with the mains switch. The configuration

IA IIC BUS

Note!

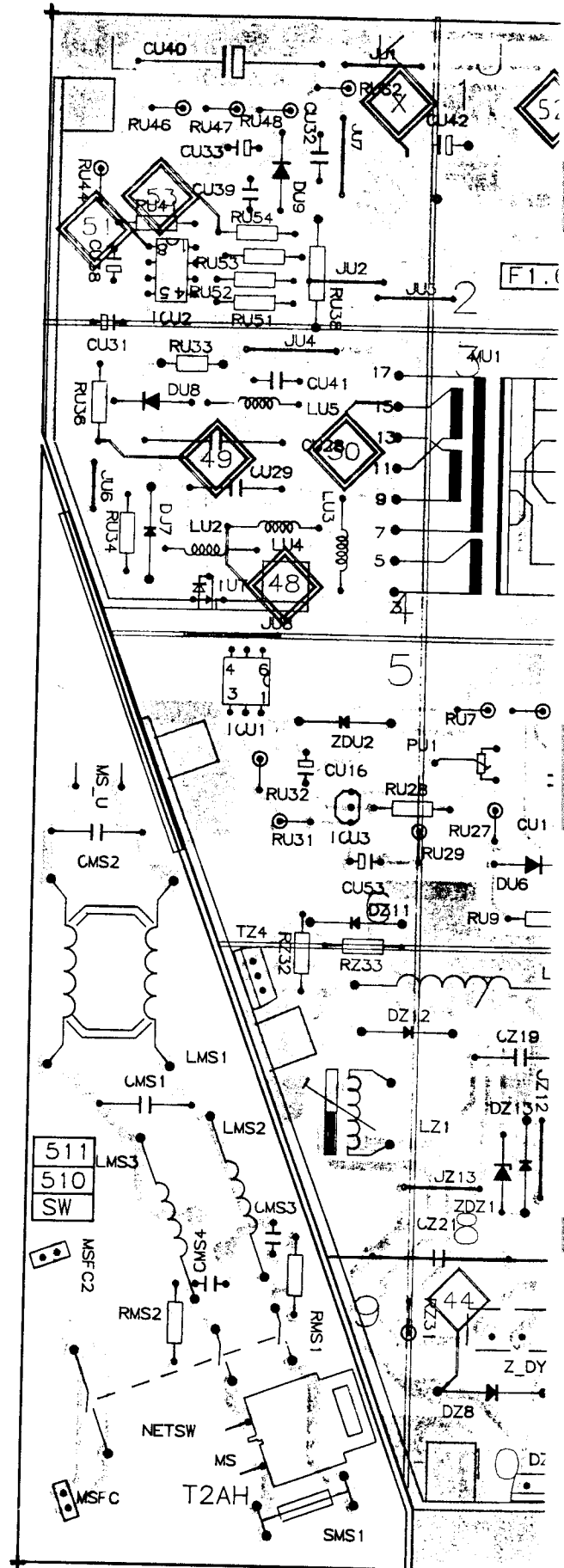
RGB gain and black level adjustments.

a 1mV (60 dBμV) test signal.
of the picture just without noise.

right channel stereo signal. Connect
illoscope to the pin16 of ICp1. Adjust
dio signal for minimum.

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PCB LAY



CONFIGURATION AND FAULT DIAGNOSIS FOR CIRCUITS CONNECTED TO THE IIC-BUS

By pressing 04 in the service mode, the processor checks all possible addresses of bus driven circuits and shows the found addresses on the screen. The set must be configured after adding or removing some options.

Reg Configuration
04 22

SW Bus Addresses
10 4E 22 84 42 C0 A0 A2

The old configuration value is shown on the screen until new configuration is stored into NVM by pressing the blue button. The set takes the new configuration in use only after resetting the set with the mains switch. The configuration serves also as a fault diagnosis system.

Address	Circuit
10	µP software version, ICc4 (83C154D)
22	IVT Teletext, ICt2 (SAA5246A)
4E	Nicam Decoder / Micronas, ICr1 (MAS7D102)
B4	Nicam Decoder / Toshiba, (TB1204)
84	Sound Processor, ICp1 (TDA6612)
42	D/A Converter, ICb3 (TDA8444)
C0	Hyperband Tuner PLL (TSA5510)
C6	UHF Tuner PLL (TSA5510)
A0	NVM Memory Block, ICc3 (X240 AP)
A2	NVM Memory Block, ICc3 (X240 AP)

SERVICE ADJUSTMENTS VIA IIC BUS

Code	Min.	Approx. value	Max.	Adjustment	Note!
04				Configuration	
05		20		NVM version	
10	00	0E	3F	Horizontal shift	
11	00	1F	3F	Colour saturation	
12	00	28	3F	Contrast	
13	00	28	3F	Brightness	
14	00	00	3F	R black level	See RGB gain and black level adjustments.
15	00	0F	3F	G black level	
16	00	13	3F	B black level	
17	00	13	3F	Tuner AGC	Apply a 1mV (60 dBµV) test signal. Adjust the picture just without noise.
18	00	10	1F	L/R cross talk (Not in mono receivers.)	Apply right channel stereo signal. Connect an oscilloscope to the pin16 of ICp1. Adjust the audio signal for minimum.
14	00	09	0F	Vertical shift	
15	00	0E	3F	Horizontal shift / RGB	

VIA IIC DATA BUS

The supply voltage is correctly adjusted. (See Service

on by pressing the mains switch and within 5 seconds
mode an adjustment bar (register number, adjustment

Reg	Min	Value	Max
05		10	

on or the service mode again by pressing the EXTRA
etting the set with the mains switch.

MODE

unit are used for service adjustments. Analog controls
s don't function.

Reg	Min	Value	Max
10	00	1E	3F

Reg	Min	Value	Max
10	00	02	3F

Reg	Min	Value	Max
10	00	02	3F

Reg	Min	Value	Max
10	00	02	3F

Reg	7	6	5	4	3	2	1	0
10	0	0	0	0	0	0	0	1

Reg	7	6	5	4	3	2	1	0
10	0	0	0	1	0	0	1	0

CONFIGURATION AND FAULT DIAGNOSIS TO THE IIC-BUS

By pressing 04 in the service mode, the processor checks all possible found addresses on the screen. The set must be configured at

Reg	Configuration
04	22

SW	Bus Addresses
10	4E 22 84 42 C0 A0 A2

The old configuration value is shown on the screen until new configuration button. The set takes the new configuration in use only after resetting the set. The set also serves as a fault diagnosis system.

Address	Circuit
10	µP software version, ICc4 (83C154D)
22	IVT Teletext, ICt2 (SAA5246A)
4E	Nicam Decoder / Micronas, ICr1 (MAS7C)
B4	Nicam Decoder / Toshiba, (TB1204)
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A0	NVM Memory Block, ICc3 (X240 AP)
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SERVICE ADJUSTMENTS

Code	Min.	Approx. value	Max.	Adjustment
04				Configuration
05		20		NVM version
10	00	0E	3F	Horizontal shift
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13	00	28	3F	Brightness
14	00	00	3F	R black level
15	00	0F	3F	G black level
16	00	13	3F	B black level
17	00	13	3F	Tuner AGC
23	00	10	1F	L/R cross talk (Not in mono receivers.)
24	00	09	0F	Vertical shift
25	00	0E	3F	Horizontal shift / RGB

SERVICE ADJUSTMENTS VIA IIC DATA BUS

Before making adjustments with RC hand unit, make sure the supply voltage is correctly adjusted. (See Service adjustments/power supply block)

SERVICE MODE SELECTION

TV receiver is set to the service mode by switching the receiver on by pressing the mains switch and within 5 seconds the TV, PRG and EXTRA buttons successively. In the service mode an adjustment bar (register number, adjustment value and min/max values) is shown on the screen.

The version number of the NVM on the screen indicates the selected service mode. The version number of the NVM can also be asked by pressing "05" buttons.

Reg	Min	Value	Max
05		10	

You can select the normal TV mode by pressing the TV button or the service mode again by pressing the EXTRA button. Return from service mode to normal TV mode by resetting the set with the mains switch.

REMOTE CONTROL COMMANDS IN SERVICE MODE

Number buttons and cursor buttons (left and right) of the hand unit are used for service adjustments. Analog controls function normally; teletext controls and other special controls don't function.

Making the service adjustments

1. Give a two numbered code which determines the adjustment (e.g. 10 =horizontal shift) with number buttons.

Reg	Min	Value	Max
10	00	1E	3F

2. Make the adjustment by pressing the cursor buttons (left or right). The earlier stored adjustment value is shown cyan coloured.

Reg	Min	Value	Max
10	00	02	3F

3. Store the adjusted value to the NVM by pressing the blue button. You must store each function separately.

Reg	Min	Value	Max
10	00	02	3F

Alternative For special settings

1. Give a two numbered code which determines the adjustment (e.g. 10 =horizontal shift) with number buttons.

Reg	Min	Value	Max
10	00	02	3F

2. Select binary code display by pressing the red button.

Reg	7	6	5	4	3	2	1	0
10	0	0	0	0	0	0	1	0

3. Activate the adjustment by pressing the yellow button.

4. Make the adjustment by pressing the number buttons. E.g number button 4 will change the logical level of the bit number 4 from 0 to 1. The earlier stored adjustment value is shown cyan coloured.

Reg	7	6	5	4	3	2	1	0
10	0	0	0	1	0	0	1	0

5. Store the adjusted value to the NVM by pressing the blue button. You must store each function separately. If you don't want to store the adjustment, press the i button.