SALORA 'K' Series Chassis, Models 20K30, 20K37, 21K70, 21K77, 22K30, 22K37, 24K70, 24K77, 26K30, 26K37, 26K70, 28K70, 28K77

General Description: A colour television receiver chassis with optional Teletext, P.A.L./S.E.C.A.M. transcoder, F.M. radio, videotext, satellite tuner and direct signal connection via a SCART socket. The circuit is capable of driving 90° or 110° cathode ray tubes and is powered from a switch-mode power supply which is 'live' on the primary side of the switched transformer irrespective of mains connections. This section is located on the lower part of the 'mother' board.

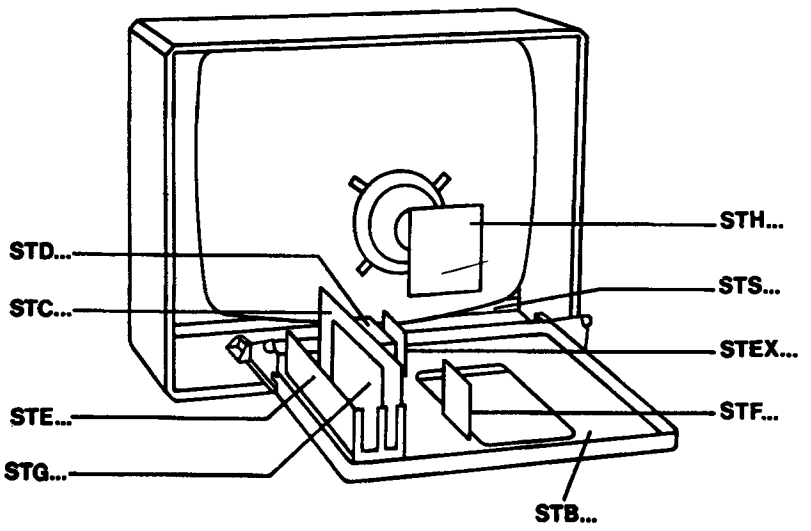
Mains Supply: 240 volts, 50Hz.

Module codes (See Fig. T112):

STB — Mother board
STC — Voltage synthesizer module
STD — Video and sound IF module
STE — Sound module
STH — Picture tube base panel
SCS — Control unit
STUL — Remote control transmitter

In addition, components on the mother board STB — are grouped according to their function as follows:

100 — Mother board interface comp's
200 — Colour section
500 — Deflection section
600 — Power section, mains isolated
700 — Power section, mains non-isolated



(T112) LOCATION OF PANELS — 'K' SERIES CHASSIS

Voltage Checks

Operating Point (24kV E.H.T.): Operating point is set by the factory to the following values (test point B4 on hybrid HB600 pins 5 and 6); in receivers with 110° deflection to 140V ± 3V; in receivers with 90° deflection to 120V ± 3V.

12·5V Supply: Connect the voltmeter to test point B5 (ICB601 pin 3).
Check that the voltage is 12·5V ± 0·6V.

Adjustments

Line Oscillator Frequency (Hor. Freq.): Connect pin 5 of line oscillator circuit ICB500 to ground potential (connector B14).
Set picture upright with RTB541 (Hor. Freq.).
Remove the short.

Horizontal Linearity (Hor. Lin.): Adjust the picture to its widest position with coil LB503 (Hor. Lin.) then turn the same coil anti-clockwise to set horizontal linearity to optimum. Make sure that both the right and left side squares are similar in width and that there is no dark shadow on the left hand side of the picture.

Horizontal Centering (line oscillator phase): Centre the picture horizontally with trimmer RTB542.

Alignment of Diode Modulator

This adjustment does not exist in 90° sets: Adjust picture width to minimum using trimmer RTB501.
Adjust picture as narrow as possible using coil LB502.
Re-adjust trimmer RTB501 to set the correct picture width.

Picture Width: Set Brightness, Contrast and Colour saturation for normal picture. Adjust picture width using trimmer RTB501 (in receivers with 90° deflection using coil LB502).

Vertical Centering: Set Brightness and Contrast for normal picture.
Adjust vertical centering with trimmer RTB571.

Picture Height (Vert. Ampl.): Set Brightness and Contrast so that the picture height is reduced to its minimum.
Adjust picture height with trimmer RTB543 (Vert. Ampl.).

East-West Raster Correction (E-W Ampl.): This adjustment is not possible in 90° sets.
Check picture width adjustment. Straighten the vertical lines with trimmer RTB502 (E-W Ampl.).

Focus: Set Contrast close to maximum and Brightness for a well balanced greyscale.

Adjust focus to optimum using Focus potentiometer of the trimming unit RTH1 on the picture tube base panel.

Screen Grid Voltage (G2): Connect a test picture to the receiver set Brightness, Contrast and Colour saturation to minimum.

Check, using a voltmeter, which of the output voltages of test points TP1 (R), TP2 (G) and TP3 (B) is the highest.

Connect the voltmeter to the output of the highest voltage and adjust trimmer G2 on the trimmer unit RTH1 for a black level of 160V.

Highlight Greyscale Tracking: Connect the oscilloscope to testpoint TP2 (G).

Adjust Contrast control for a voltage of 60V from black level to peak on the green cathode.

Disconnect the oscilloscope from TP2.

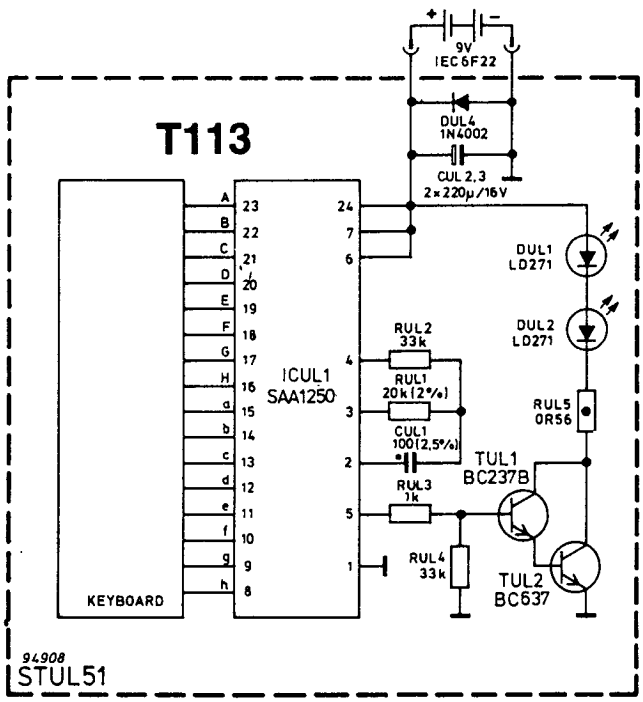
Adjust Brightness for normal picture. Adjust, using trimmers RTH10 (R-Ampl.) and RTH30 (B-Ampl.), the white parts of the test picture to obtain white.

The lowlight greyscale will be adjusted automatically by the receiver.

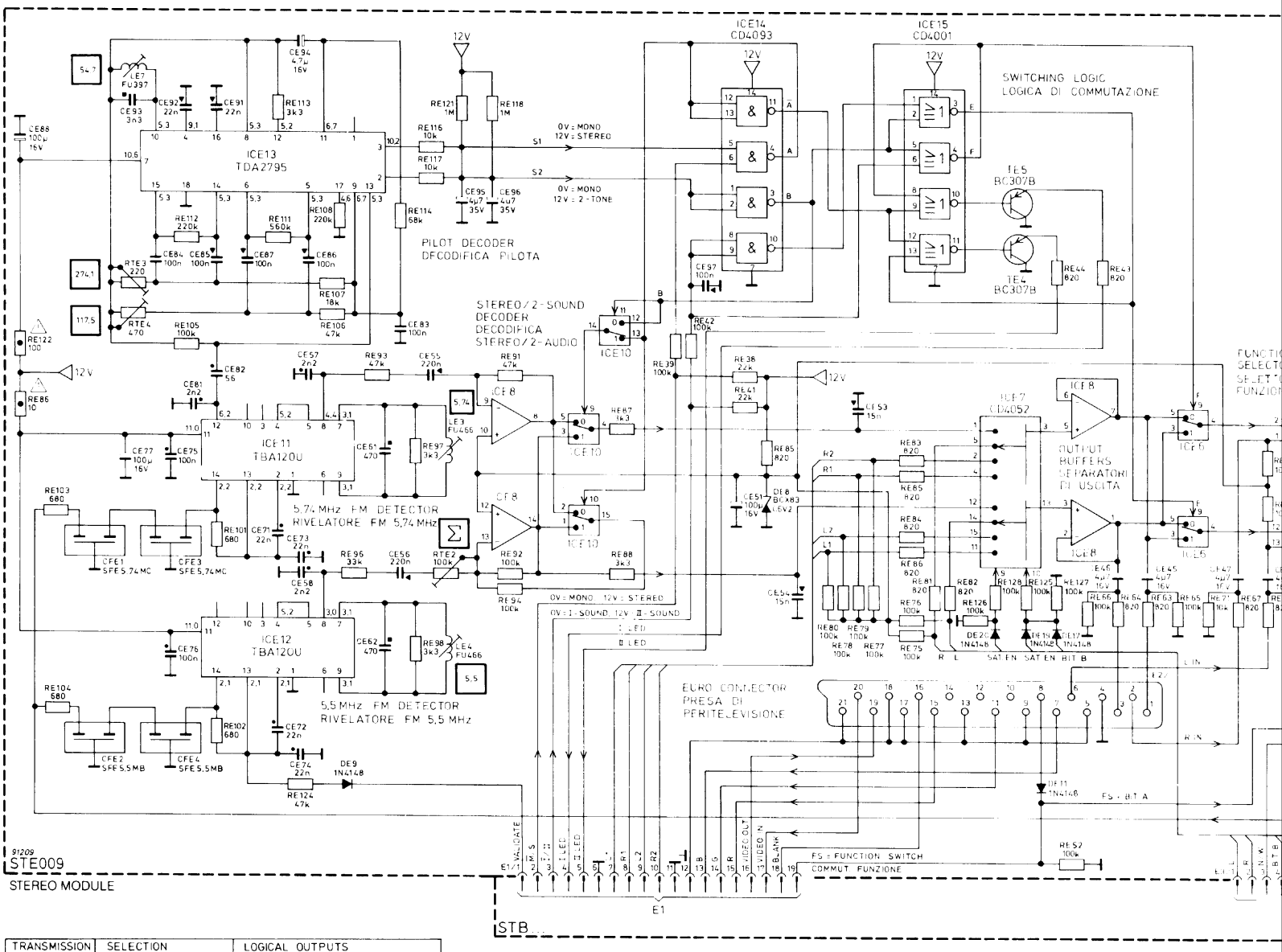
Adjustment of Tuner A.G.C. (Tuner A.G.C.)

Using a Colour Test Transmission: Adjust RTD1 according to receiving conditions so that no picture noise is visible and no overloading takes place.

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



(T113) CIRCUIT DIAGRAM (REMOTE CONTROL UNIT)
— 'K' SERIES CHASSIS

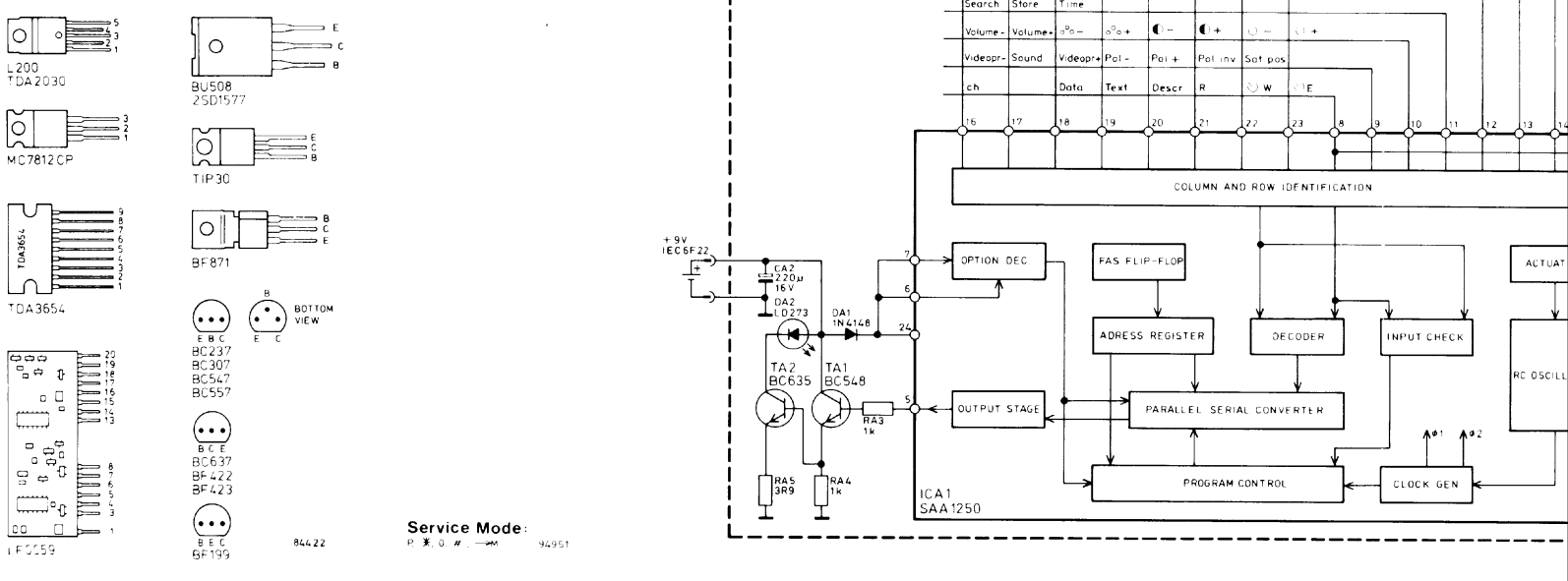


91209
STE009
STEREO MODULE

TRANSMISSION TYPE	SELECTION S1	S2	M/S	I/II	LOGICAL OUTPUTS A	B	E	F	ILED	IILED
MONO	0	0	X	X	1	1	0	0	OFF	OFF
2-TONE	0	1	X	0	1	0	0	1	ON	OFF
	0	1	X	1	1	0	1	0	OFF	ON
STEREO	1	0	0	X	1	1	0	0	OFF	OFF
	1	0	1	X	0	1	0	0	ON	ON

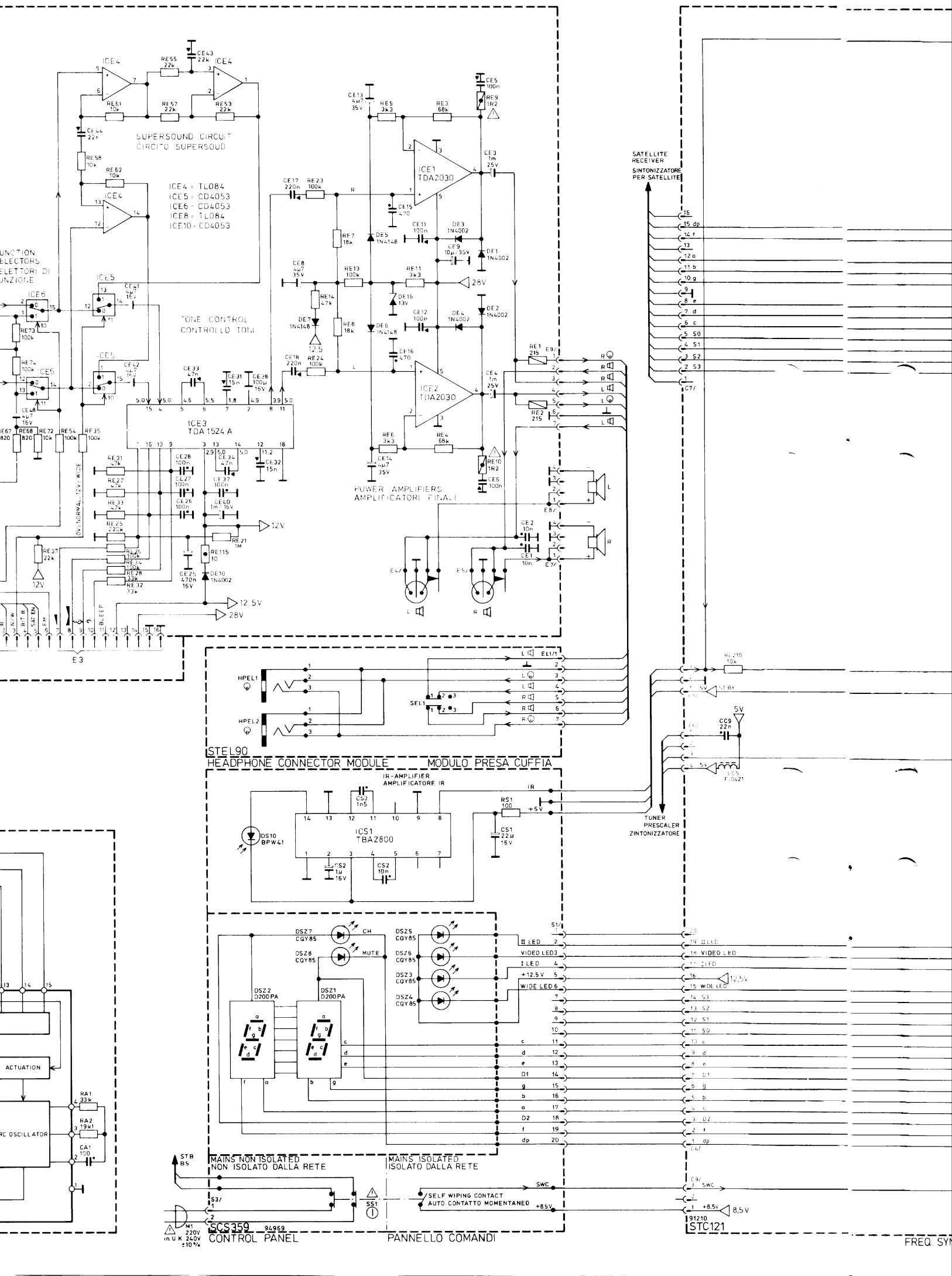
X = DON'T CARE
0 ≙ 0V
1 ≙ 12V

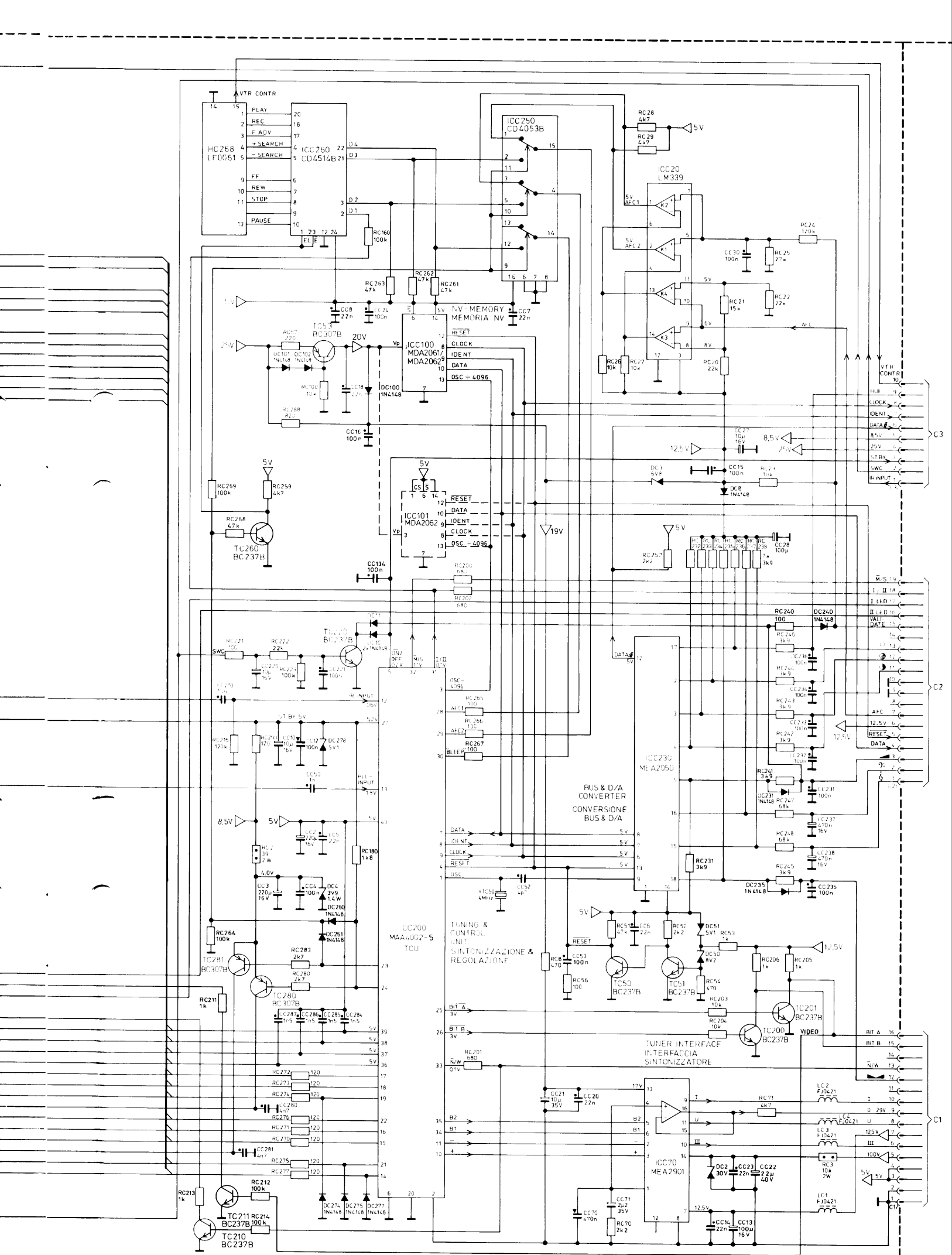
94971

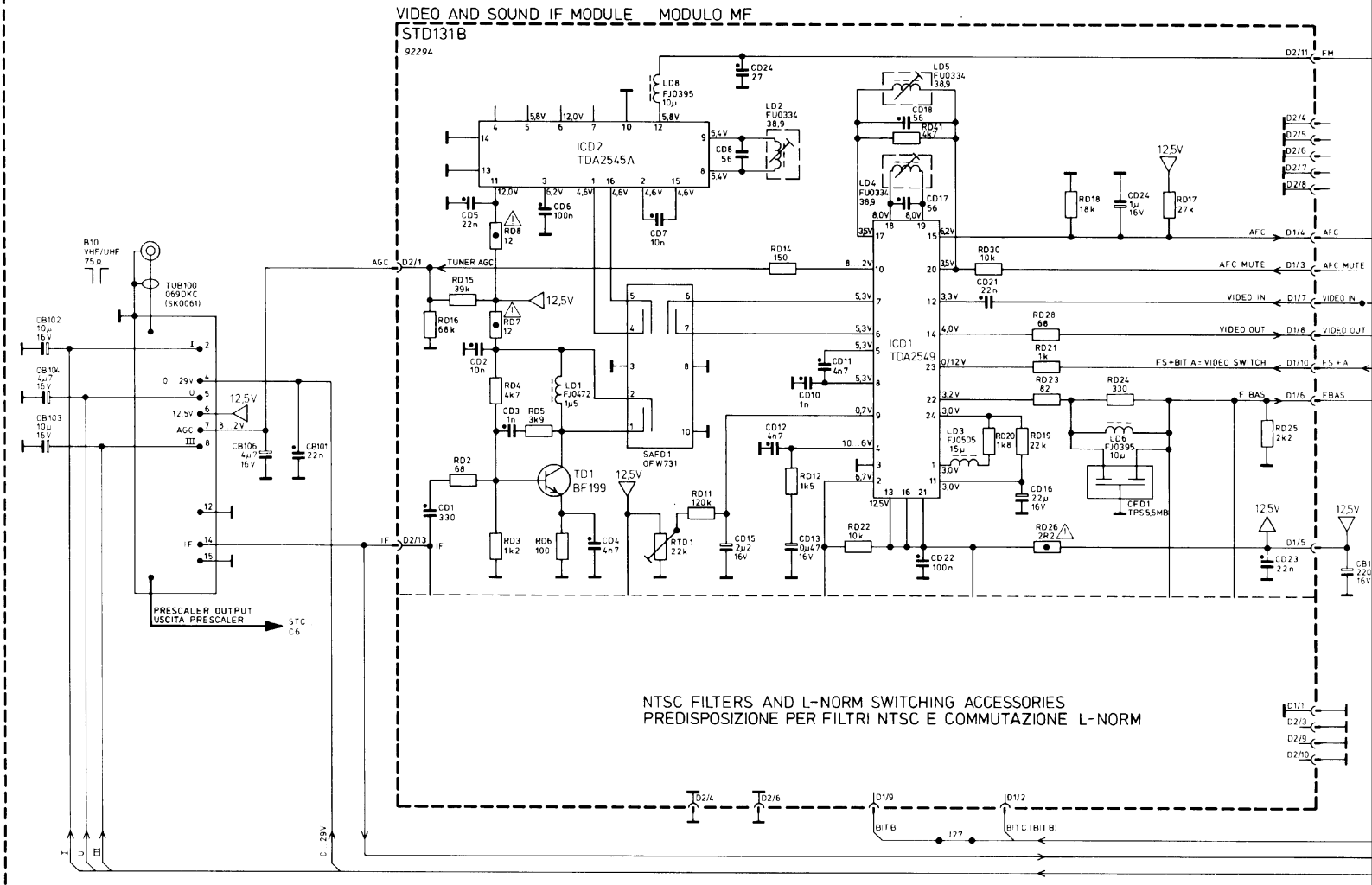


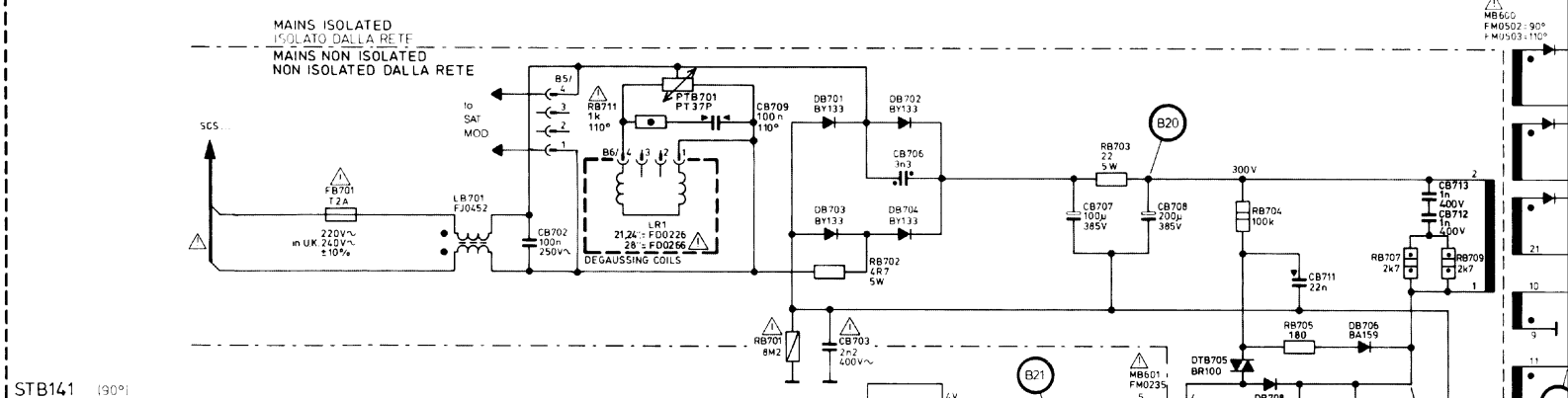
84422

Service Mode:
P ✱ 0 # → 94951


SUPERSOUND CIRCUIT
CIRCUITO SUPERSOUD
ICE4 = TL084
ICE5 = CD4053
ICE6 = CD4053
ICE8 = TL084
ICE10 = CD4053
TONE CONTROL
CONTROLLO TONI
ICE1 TDA2030
ICE2 TDA2030
ICE3 TDA 1524 A
POWER AMPLIFIERS
AMPLIFICATORI FINALI
SATELLITE RECEIVER
SINTONIZZATORE PER SATELLITE
STEL90
HEADPHONE CONNECTOR MODULE
MODULO PRESA CUFFIA
IR-AMPLIFIER
AMPLIFICATORE IR
ICS1 TBA2800
TUNER PRESCALER
ZINTONIZZATORE
MAINS NON ISOLATED
NON ISOLATO DALLA RETE
MAINS ISOLATED
ISOLATO DALLA RETE
SELF WIPING CONTACT
AUTO CONTATTO MOMENTANEO
SCS359
CONTROL PANEL
PANNELLO COMANDI
STC121
FREQ. SYN


VTR CONTR
HC268
LF0061
PLAY
REC
F. ADV
+ SEARCH
- SEARCH
FF
REW
STOP
PAUSE
ICC260
CD4514B
ICC250
CD4053B
ICC20
LM339
AFC1
AFC2
AFC
N.V. MEMORY
MEMORIA N.V.
ICC100
MDA2062
ICC101
MDA2062
RESET
CLOCK
IDENT
DATA
OSC – 4096
TC53
BC307B
TC260
BC237B
TC261
BC237B
TC262
BC237B
TC263
BC237B
TC200
BC237B
TC201
BC237B
TC210
BC237B
TC211
BC237B
TC280
BC307B
TC281
BC307B
TC50
BC237B
TC51
BC237B
ICC230
MEA2050
BUS & D/A
CONVERTER
CONVERSIONE
BUS & D/A
ICC200
MAA4002-5
TCU
TUNING &
CONTROL
UNIT
SINTONIZZAZIONE &
REGOLAZIONE
TUNER INTERFACE
INTERFACCIA
SINTONIZZATORE
ICC70
MEA2901
VIDEO
STB
FREQ. SYNTH. WITH REMOTE CONTROL MOD. SINTESI DI FREQUENCA CON TELECOMANDO





STB141 (90°)
STB140 (110°)
MOTHER BOARD B
TELAIO BASE B

NB. Safety components marked with ⚠ must be replaced with original or approved components only. All printed boards and the back cover are also safety components.

NOTA: I componenti contrassegnati con ⚠ devono essere sostituiti con componenti originali.

The manufacturer reserves the right to change the design and specification without prior notice or warning.

La fabbrica si riserva il diritto di apportare modifche all schema e alle specificazioni senza dare alcun preavviso.

94951

	Ceram.	Polypropylen	Polyester Polycarb
	≧ 63 V	≧ 63 V	100 V
¼ W	160 V	160 V	160 V
½ W	250 V	250 V	250 V
1 W	500 V	500 V	400 V
2 W	1,5 kV	1,5 kV	1,5 kV

M = Metal film resistor
= Take off jumper
= Insert jumper
* = From original source only

M = Resistenza metallico
= Ponticelli da togliere
= Ponticelli da aggiungere
* = Originali forniti da fabbricante

94951

90236

STC... =FREQ.SYNTH. WITH REMOTE CONTROL/
MOD. SINTESI DI FREQUENZA CON TELECOMANDO

STE... =AUDIO MODULE/MODULO AUDIO

STEJ... =AM-MODULE OR FM-RADIO INTERFACE/
MODULO AM OPPURE INTERFACCIA RADIO-FM

STEX... =FM-MULTINORM MODULE/MODULO FM-MULTINORM

STF... =SECAM TRANSCODER MODULE/DECODIFICA SECAM

STFS... =NTSC-MODULE/MODULO NTSC

STG... =TELETEXT MODULE/MODULO TELEVIDEO

STGS... =VIDEOTEX INTERFACE/MODULO VIDEOTEL

STNS... =SATELLITE INTERFACE/INTERFACCIA SATELLITE

CONTROLLO DEL VCR B11

STC...

STNS...

STE...

STEX...

STEJ...

STG...

STGS...

RB101 47k

DB102 1N4148

RB102 68

CB105 220µ 16V

CB614 470n

LB601 110°=FJ0484 90°=FJ0439

DB612 RGP10

RB616 OR22

25V=110° 22V=90°

RB605 100

CB612 330

DB611 RGP10

CB611 330

RB604 12

CB615 2µ2 250V

CB501 220

RB502 120k

ICB601 MC7812C

CB607 330

DB607 RGP15

CB616 2200µ 25V

CB617 100n

RB624 220

RB626 270

RB612 15

ICB602 L200

CB627 100µ 16V

RB623 56

RB621 68

CB623 100µ 16V

CB606 2n2

DB606 RGP15

CB605 6µ8

LB602 FJ0284

CB622 1000µ 40V

CB621 1000µ 40V

CB609 1n

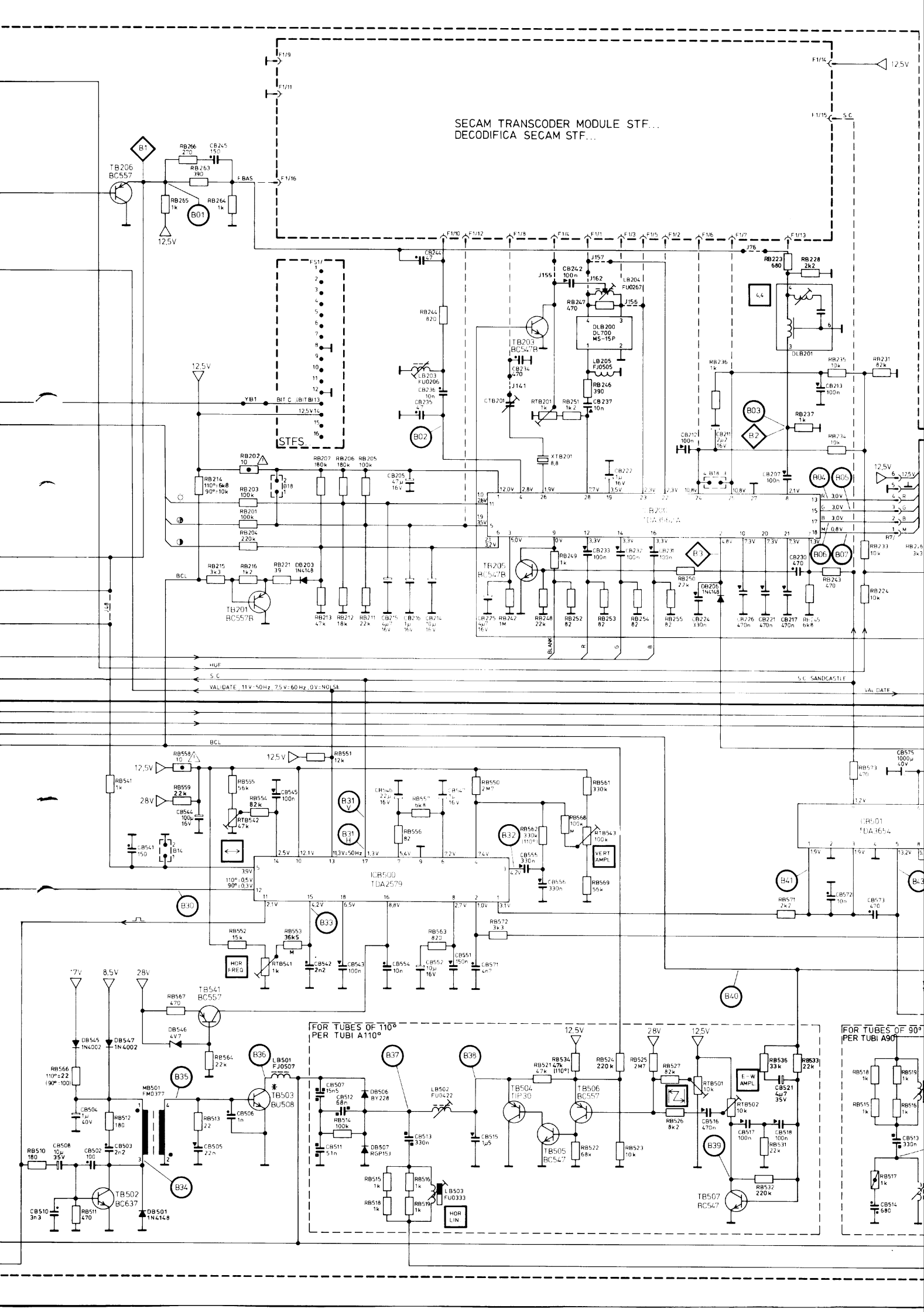
RB617 1k8

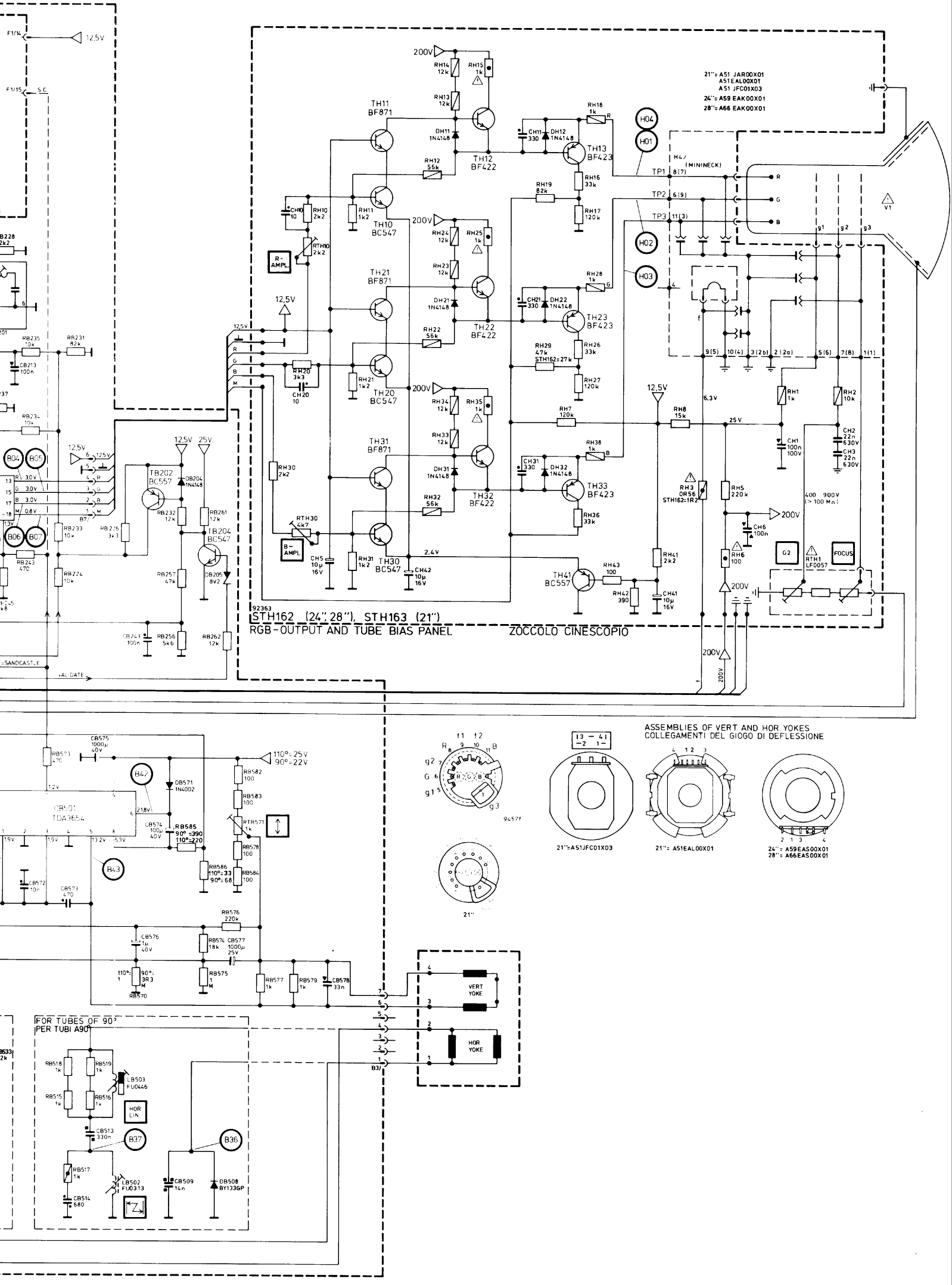
RB618 1k8

CB613 2µ2

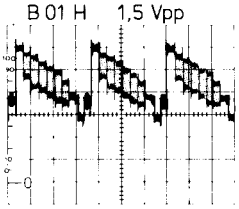
RB510 180

CB51 3n3

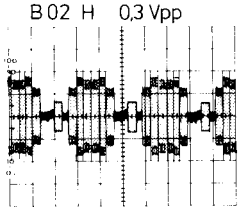

SECAM TRANSCODER MODULE STF...
DECODIFICA SECAM STF...
STFS
ICB500
TDA2579
ICB501
TDA3654
ICB200
TDA4650/A
FOR TUBES OF 110°
PER TUBI A110°
FOR TUBES OF 90°
PER TUBI A90
VERT AMPL
E-W AMPL
HOR FREQ
HOR LIN
12,5V
28V
8,5V
17V
SC
VALIDATE, 11V=50Hz, 7,5V=60Hz, 0V=NOISE
SC SANDCASTLE
VALIDATE
BLANK
HUE
BCL


21"= A51 JAR00X01
A51 EAL00X01
A51 JFC01X03
24"= A59 EAK00X01
28"= A66 EAK00X01
92363
STH162 (24", 28"), STH163 (21")
RGB-OUTPUT AND TUBE BIAS PANEL
ZOCCOLO CINESCOPIO
ASSEMBLIES OF VERT AND HOR YOKES
COLLEGAMENTI DEL GIOGO DI DEFLESSIONE
21"= A51JFC01X03
21"= A51EAL00X01
24"= A59EAS00X01
28"= A66EAS00X01
FOR TUBES OF 90°
PER TUBI A90
VERT YOKE
HOR YOKE
HOR LIN
R-AMPL
B-AMPL
TDA3654
STH162=27k
STH162=1R2
(MININECK)

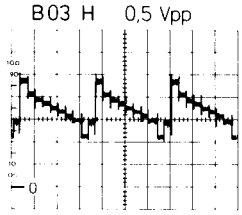
B 01 H 1,5 Vpp



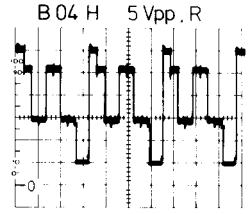
B 02 H 0,3 Vpp



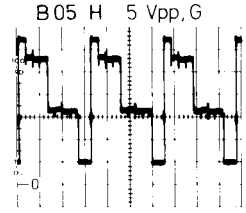
B 03 H 0,5 Vpp



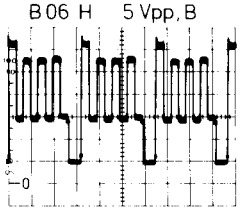
B 04 H 5 Vpp, R



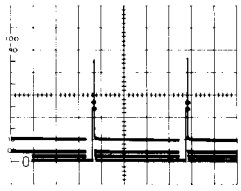
B 05 H 5 Vpp, G



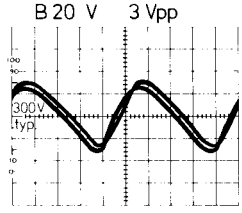
B 06 H 5 Vpp, B



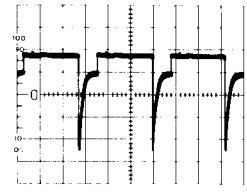
B 07 V 9 Vpp



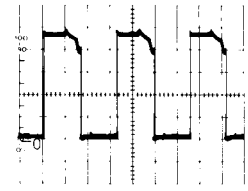
B 20 V 3 Vpp



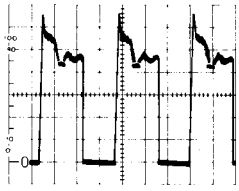
B 21 H 35 Vpp typ.



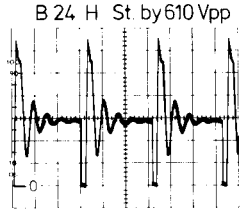
B 22 H 9 Vpp



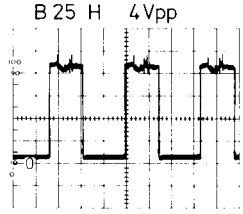
B 23 H 610 Vpp



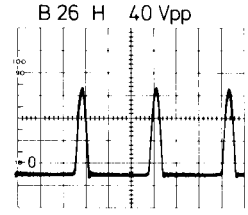
B 24 H St. by 610 Vpp



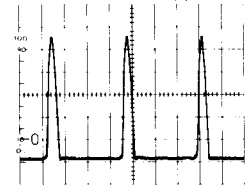
B 25 H 4 Vpp



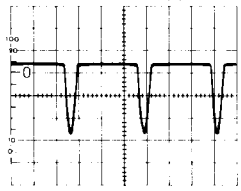
B 26 H 40 Vpp



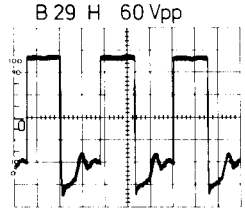
B 27 H 260 Vpp



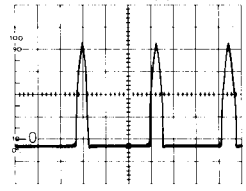
B 28 H 150 Vpp



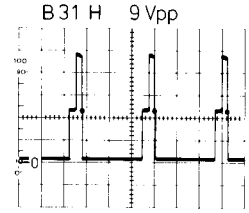
B 29 H 60 Vpp



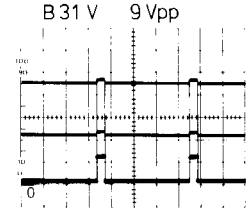
B 30 H 9 Vpp



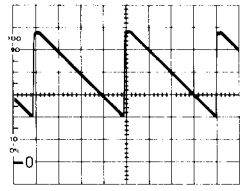
B 31 H 9 Vpp



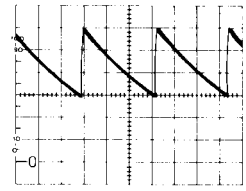
B 31 V 9 Vpp



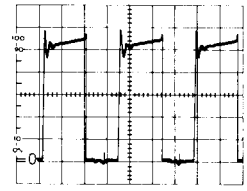
B 32 V 3,8 Vpp



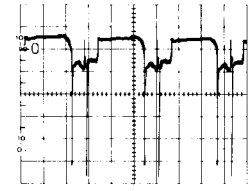
B 33 H 3 Vpp



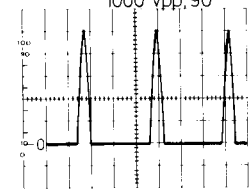
B 34 H 30 Vpp



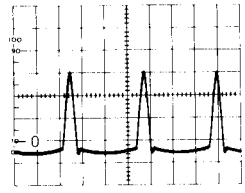
B 35 H 12 Vpp



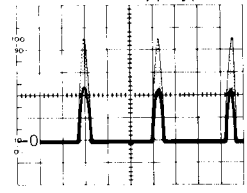
B 36 H 1200 Vpp, 110°
1000 Vpp, 90°



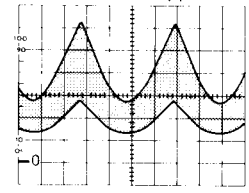
B 37 H 170 Vpp typ., 90°



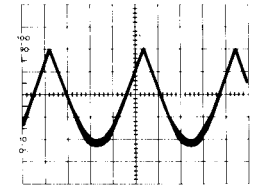
B 37 H 230 Vpp typ., 110°



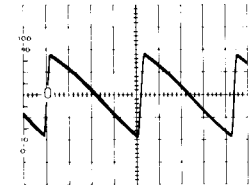
B 38 V 25 Vpp



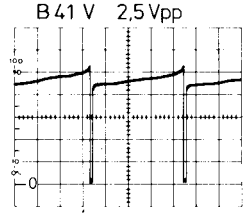
B 39 V 4 Vpp



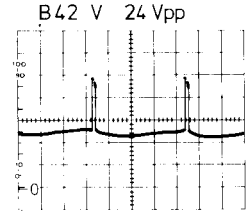
B 40 V 0,7 Vpp



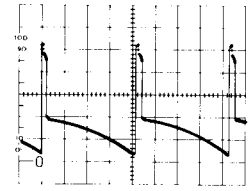
B 41 V 2,5 Vpp



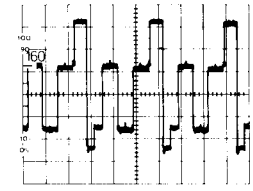
B 42 V 24 Vpp



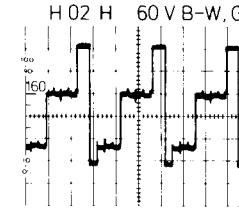
B 43 V 45 Vpp typ.



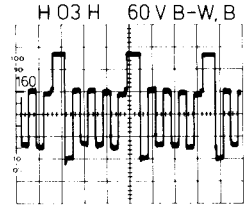
H 01 H 70 V B-W, R



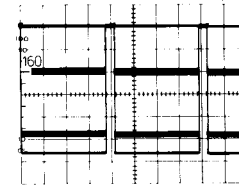
H 02 H 60 V B-W, G

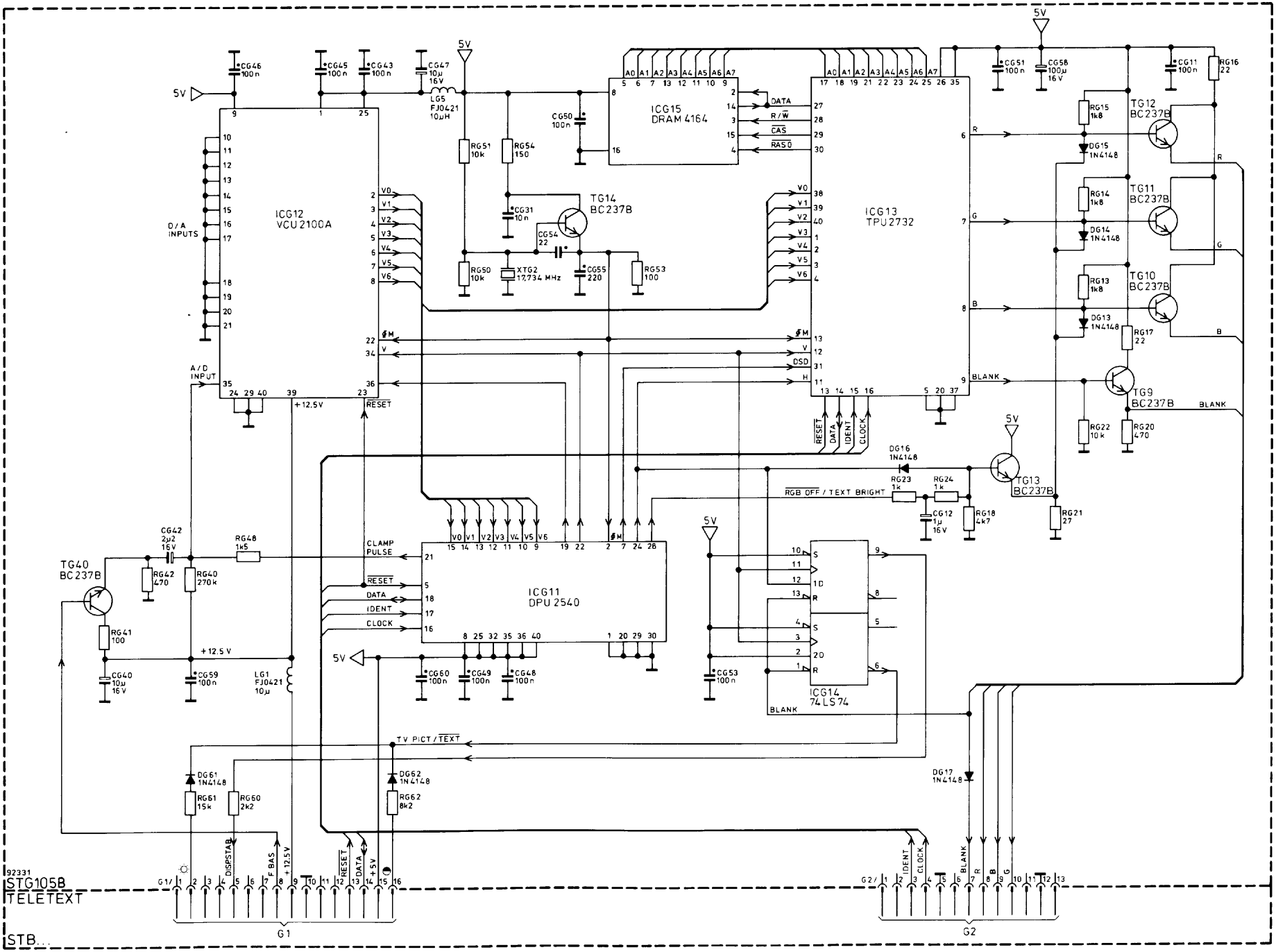


H 03 H 60 V B-W, B



H 04 V 70 V B-W, R




92331
STG105B
TELETEXT
STB...
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VCU2100A
ICG15
DRAM 4164
ICG13
TPU2732
ICG11
DPU 2540
ICG14
74LS74
TG14
BC237B
TG12
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TG9
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TG13
BC237B
TG40
BC237B
XTG2
17,734 MHz
D/A
INPUTS
A/D
INPUT
+12,5V
RESET
DATA
IDENT
CLOCK
BLANK
CLAMP
PULSE
TV PICT / TEXT
RGB OFF / TEXT BRIGHT
DISPSTAB
F BAS
G1
G2