General Information

1995
CRT: 14"
Remote Control:
242865
Door Flap:
242788 (Remote)
242885 (Text)
Main Power Button:
242887
Battery Cover:
242866

Specifications

Receiving System:	BG
Colour System:	PAL
VIF:	39.5 MHz
SIF:	6.0 MHz
Scanning Lines:	625 lines
H Frequency:	15.625 kHz
V Frequency:	50 Hz
Antenna:	75 Ω Co-axial
Picture Size:	14"
Speakers:	2 x 8 Ω
AV I/O:	21 pin Scart socket
Power Output:	4.5 W max.
Power In:	230 V 50 Hz

Recommended Safety Parts

Item	Part No.	Description
C405	242753	Capacitor 0.0018μF 2kV
C433	242873	Capacitor 0.0015μF 2kV
C508	272467	Electrolytic 47μF 50V
C516	171643	Capacitor 820pF 2kV
C604	272099	Capacitor 0.001μF 2kV
D501	242760	Diode Bridge 1J4B41
F501	240082	Fuse 2A T 250V
Q402	242877	Transistor BU2508
Q504	242774	Transistor BUT11AX
R408, R409, R529	242741	Non-Flammable Fuse 0.68 Ω 1W
R501	242752	Thermistor ZPB53
R502	242510	Wire Wound Cement 4.7 Ω 5W
R518	242571	Non-Flammable Fuse 0.68 Ω 1/2W
R620	241804	Non-Flammable Fuse 2.2 Ω 1W
R716	242871	Non-Flammable Fuse 3.3 Ω 2W
SK601	242784	CRT Socket ISM - 03
SW501	242881	SW Power ESB - 999575
T402	242746	TX Flyback 154 - 189C
T501	242747	Line Filter 70mH
T502	242867	TX Switching Power KB40C214D

Service Adjustments

Safety Tests

Note: When any work is carried out on this product, the following safety tests must be carried out to ensure continued safety:

1: Flash test from the mains lead with live and neutral together to all accessible metal points at 3kV.
2: Megger test at 500V DC from the mains lead with live and neutral joined together to all accessible external metal points, reading must not fall below 4M W.

Alignment Procedures

VIF Alignment

Preparation Set-up
(see fig. 1)

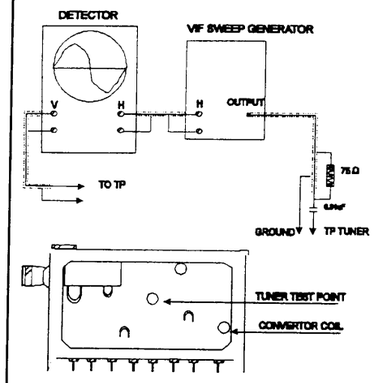


Fig 1.

1: Connect AGC bias voltage to U201 pin 48, the AGC bias not exceeding +5V DC.
2: Disconnect the soldering pads "H" and "I".
3: Connect a +3V bias to C406 and GND.
4: Connect sweep generator to tuner test point and GND.

Tank Coil Alignment Set-up
(see fig. 2)

1: Calibrate the division of wave detector to 20MV/DIV.
2: The output of sweep generator should be -60dB.
3: Connect the waveform detector to TP201 and GND.
4: Adjust AGC bias until the output waveform equals to 2Vp-p.
5: Turn L204 to obtain (39.5 MHz) the waveform as in fig. 2.

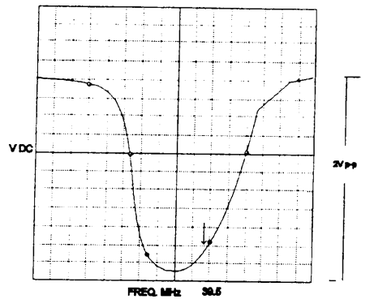


Fig 2.

VIF Alignment

1: Connect 100 W resistor parallel to R266.
2: The output of sweep generator should be -60dB.
3: Adjust AGC bias to maintain the waveform achieve, i.e. 2Vp-p.
4: Adjust tuner converter coil to obtain the waveform as shown in fig. 3.
5: Re-solder the pads "H" and "I".

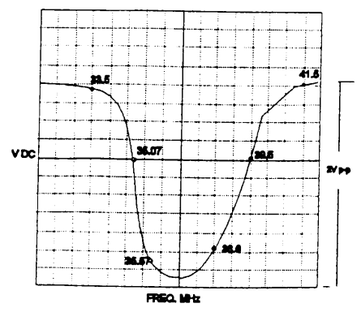


Fig 3.

AGC Alignment

1: Apply PAL IF signal 39.5 MHz modified with a colour bar pattern to tuner test point.
2: Output of the IF signal generator should not be >80dB.
3: Connect DVM to TP203 and ground.
4: Adjust L204 to obtain reading of 4V.

B+ Adjustment

1: Connect DVM to TP B+ and ground.
2: Set brightness, colour and contrast to minimum.
3: Adjust VR501 to read 112VDC.

Horizontal Hold Adjustment

1: Receive monoscope pattern input signal to 80dBmV.
2: Adjust VR202 to obtain picture in the centre.

Vertical Hold Adjustment

1: Receive the monoscope pattern.
2: Adjust V. size VR402 to obtain a normal picture.

White Balance Adjustment

1: Degauss the picture tube if necessary. Receive signal from pattern generator and switch off the generator.
2: Turn the brightness, contrast and colour controls to minimum.
3: Turn VR601 - VR605 to centre positions and sub-brightness (VR101) to mid position.
4: No RF signal should be applied.
5: Connect 10mF cap. between TP J and ground.
6: Connect a DVM between G2 and ground on CRT PCB, then adjust screen control on FBT to obtain 310VDC. If it cannot be obtained adjust the brightness control.
7: Slowly turn screen control clockwise to the point where a horizontal line just appears.
8: Adjust VR603 to get a red horizontal line on the screen.
9: Adjust VR604 to get a yellow horizontal line on the screen.
10: Adjust VR605 to get a white horizontal line on the screen.
11: Disconnect 10mF cap. and apply a signal with a black and white picture.
12: Adjust VR601 - VR605 to obtain uniform white picture 9300° K using Odometer.

Sub Brightness Alignment

1: Receive colour bar pattern.
2: Turn brightness, colour and contrast to minimum.
3: Adjust VR101 until brightest of the bars just becomes visible.

Focus Adjustment

1: Set brightness and contrast to mid position.
2: Receive monoscope pattern.
3: Adjust focus control to get sharpest picture.

AGC Alignment

1: Receive Ch. 69 and adjust input field strength to 63dB ± 3dB.
2: Adjust VR201 until noise disappears.

Voltage Charts

IC201 TDA8362	
Pin No.	Volts DC
1	3.0
2	5.6
3	5.6
4	5.5
5	7.9
6	3.8
7	3.3
8	1.7
9	0
10	7.6
11	0
12	3.2
13	4.2
14	3.3
15	3.4
16	0
17	3.6
18	2.1
19	2.1
20	2.1
22	3.4
23	3.4
24	3.4
24	3.4
25	1.6
26	1.6
27	5.5
28	3.9
29	3.9
30	3.0
31	2.9
32	1.7
33	4.2
34	3.6
35	2.0
36	7.9
37	0.6
38	1.2
39	2.7
40	3.8
41	2.3
42	2.8
43	3.8
44	2.9
45	3.9
46	3.9
47	2.5
48	4.7
49	1.2
50	3.5
51	4.0
52	6.6

IC901 SAA5254AP	
Pin No.	Volts DC
1	5.0
2	2.1
3	3.5
4	0
5	0
6	5.0
7	2.0
8	2.2
9	2.5
10	5.0
11	5.0
12	1.8
13	5.0
14	0
15	0
16	0
17	0
18	4.1
19	0
20	0
21	0.7
22	0
23	0
24	3.0
25	2.6
26	0.7
27	0.7
28	0.8
29	0
30	0
31	0.8
32	0.7
33	0.7
34	0.8
35	0.7
36	0.8
37	0.7
38	0.8
39	0.8
40	0.7

IC202 TDA4661	
Pin No.	Volts DC
1	5.2
2	0
3	0
4	0
5	1.4
6	0
7	0
8	0
9	5.2
10	0
11	2.9
12	2.9
13	0
14	1.3
15	0
16	1.3

IC101 CTV322	
Pin No.	Volts DC
1	4.3
2	0.1
3	4.7
4	2.4
5	4.9
6	2.5
7	0
8	4.5
9	1.6
10	5.0
11	0
12	5.6
13	5.0
14	5.0
15	5.0
16	5.0
17	5.0
18	0.1
19	5.0
20	5.0
21	0
22	0
23	0
24	0
25	0
26	0.3
27	-0.3
28	5.0
29	5.0
30	0
31	2.6
32	2.1
33	5.0
34	5.4
35	4.8
36	0
37	0
38	0
39	3.0
40	2.7
41	0
42	5.0

IC401 TDA3653	
Pin No.	Volts DC
1	1.1
2	0
3	1.2
4	0
5	15.6
6	25.6
7	1.2
8	5.8
9	25.4

IC705 TDA1013B	
Pin No.	Volts DC
1	0
2	7.6
3	16
4	15.6
5	1.2
6	6.7
7	2.2
8	2.8
9	0

IC402 7812	
Pin No.	Volts DC
1	15
2	0
3	12

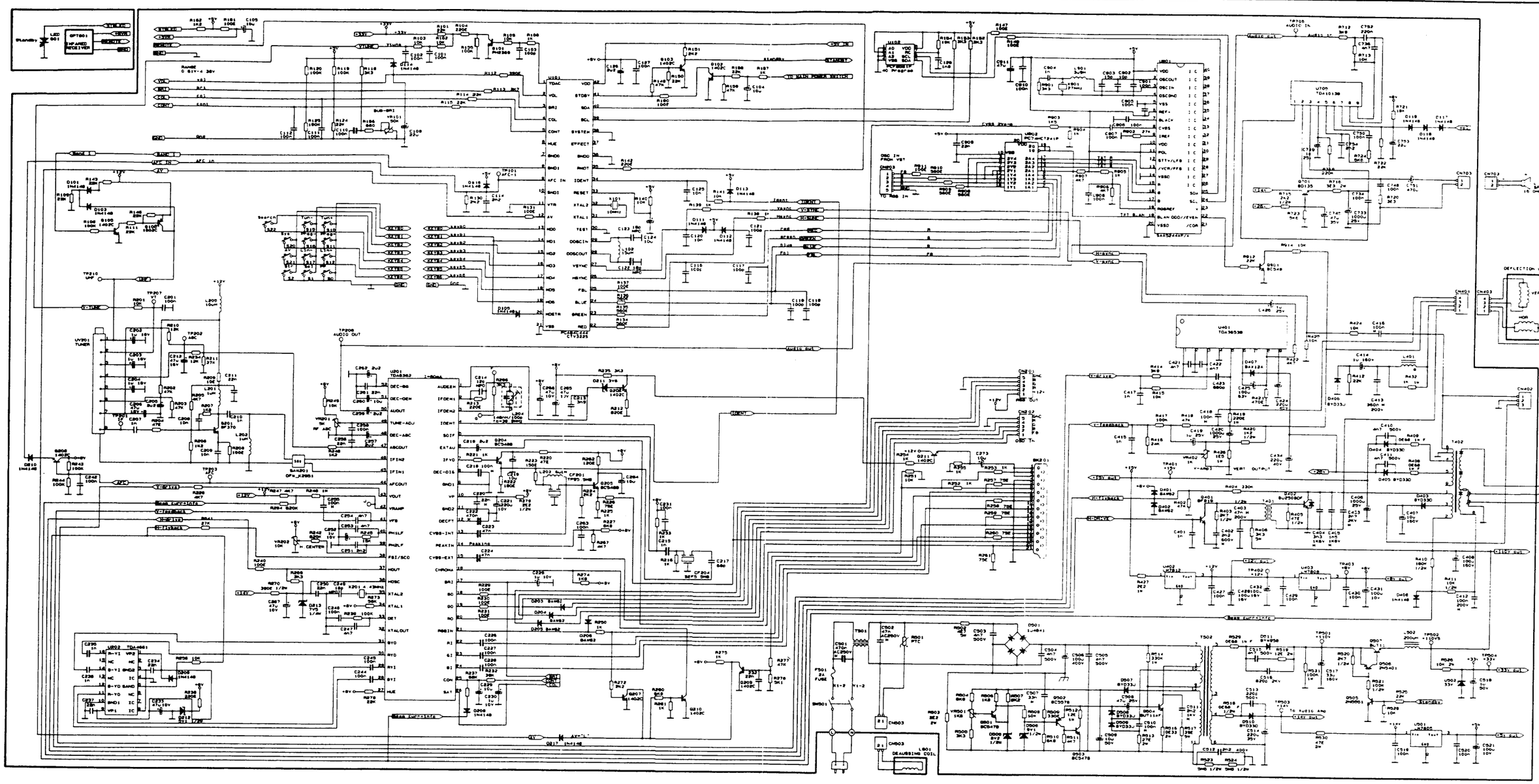
IC405 78.8	
Pin No.	Volts DC
1	12
2	0
3	8

IC401 TDA3653B	
Pin No.	Volts DC
1	1.2
2	GND
3	1.3
4	GND
5	12.0
6	25.0
7	NC
8	2.9
9	25.0

IC102 24C01B1	
Pin No.	Volts DC
1	0
2	5.0
3	0
4	0
5	2.6
6	3.0
7	5.0
8	5.0

Transistors

TR. No.	B VDC	C VDC	E VDC
Q101	0.6	1.2	0
Q102	0	0	0
Q103	0	4.6	0
Q104	0	11.9	0
Q105	0.6	0	0
Q106	12	0	12
Q107	12	0	12
Q108	11.1	11.7	12
Q201	2.3	11.7	1.6
Q202	1.4	4.8	0.8
Q204	3.1	7.3	2.4
Q205	2.3	7.7	1.7
Q207	0	6.3	0
Q208	3.6	7.9	2.9
Q209	0	6.3	0
Q210	0.7	0	0
Q211	4.8	12	4.1
Q401	4.8	12	4.1
Q402	-0.1	112.5	0
Q501	9.1	12.8	8.4
Q502	5.4	0	1.7
Q503	0	1.2	0
Q504	-2.6	293	0.07
Q505	0.6	0.06	0
Q506	113.1	113.7	113.8
Q507	113.7	113.8	113
Q601	2.6	129.2	2.1
Q602	2.5	128.3	1.9
Q603	2.5	128.4	1.9
Q604	3.7	0	3.9
Q701	16.7	16.1	16.1



Main Diagram