

General Information

CRT: A34JFQ90X01

Remote Control:

155-882002-00-00

Door Flap: 919-881301-14

Specifications

System: PAL -1 (UK)
Channel Coverage: UHF: 21 - 69 CH
Frequency Range: UHF: 471.25 - 855.25 MHz
Scanning Lines: 625 lines
Horizontal: 15626 Hz
Vertical: 50 Hz
IF Frequency: Video: 39.5 MHz
Sound: 33.5 MHz
Chroma: 35.07 MHz
Vision/Sound Separation: 6.0 MHz
Sensitivity: UHF: 80uV
Output Power Maximum: 1000mW
10% THD: 700mW
CRT: 14" (35.5CM) Diagonal, 22.5MM Neck,
Diameter 90° Deflection Angle
Speaker: 3" 16 ohm 1W
Antenna Impedance: 75 ohm
Power Consumption: 60 Watts

Service Adjustments

Alignment

Preparation Step (see fig 1)

- 1: Connect AGC bias voltage to TP101, the DC supply should be turned off this time.
- 2: Connect 14V B+ bias voltage to D404 (-) and Ground.
- 3: Connect sweep generator to tuner test point and Ground.
- 4: Connect waveform detector to TP105 and Ground.

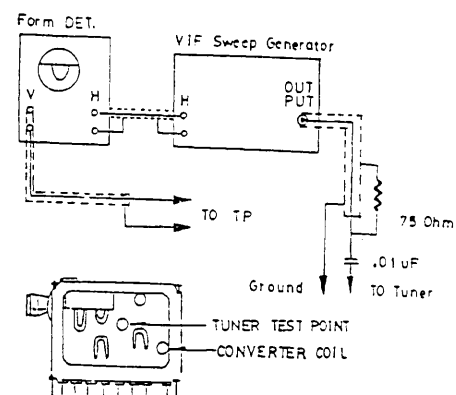


Fig 1.

Tank Coil Alignment Step (see fig 2)

- 1: Calibrate the division of waveform detector equal to 100mV per div.
- 2: The output of sweep generator should be -50dB.
- 3: Connect TP001 to Ground.
- 4: Adjust AGC bias until the output waveform is equal to iV p.p (10 div.).
- 5: Turn T101 until the marker 39.5 MHz falls to the lowest point as fig 2.

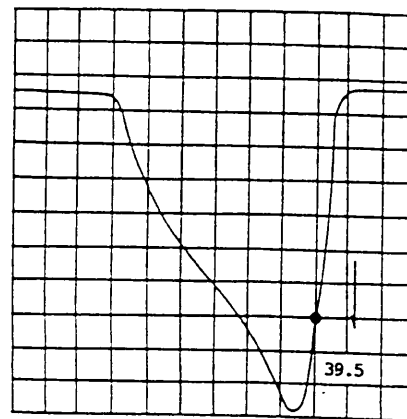


Fig 2.

VIF Alignment

- 1: Connect 100 ohm resistor between TP103 and TP104.
- 2: Adjust T104 until obtain the maximum waveform amplitude, (if provided).
- 3: Adjust AGC bias, and maintain the waveform achieve 1V p.p.

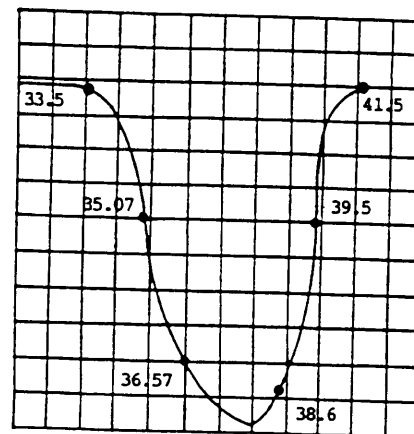


Fig 3.

B+ Adjustment

- 1: Connect a digital voltmeter to TPB+ and ground.
- 2: Set brightness, contrast and colour to minimum.
- 3: Adjust VR901 and obtain a reading of 114V.

Horizontal Circuit Adjustment

- 1: Receive monoscope pattern input signal 80dBuV.
- 2: Connect terminal TP305 and the earth with the short jump wire.
- 3: Adjust VR304 to obtain the picture running at the centre.
- 4: Adjust VR303 to obtain the picture at the centre.

Vertical Circuit Adjustment

- 1: Receive the monoscope pattern.
- 2: Adjust V-size (VR301) to obtain a normal picture.

White Balance Alignment Step

Degauss the picture by degaussing coil if necessary.

- 1: Turn the brightness, contrast and picture control to minimum value.
- 2: Turn VR501, VR503, VR505 to middle position. Turn VR502, VR504 to minimum position.

- 3: Turn VR306 to middle position.
- 4: Receive a black and white pattern.
- 5: Set S301 to service position.
- 6: Turn off the screen voltage.
- 7: Turn on the screen control volume on flyback transformer and horizontal red line appears.
- 8: Adjust VR502 to obtain a yellow line.
- 9: Adjust VR504 to obtain a white line.
- 10: Set S301 to normal position.
- 11: Adjust VR503, VR505 to make the picture uniformly white (9300°K).

Sub-Brightness Alignment

- 1: Receive a colour bar pattern.
- 2: Turn the brightness, contrast and colour to minimum.
- 3: Adjust VR306 until the brightness bar can just be seen.

Focus Alignment

- 1: Set the brightness and contrast to middle position.
- 2: Receive a monoscope pattern.
- 3: Adjust focus control to obtain sharpest picture.

AGC Alignment

- 1: Receive CH69 (UHF) and input field strength in ±3dB input.
- 2: Adjust VR101 to the point where noise disappears.

PAL Colour Alignment

- 1: Receive Philips pattern.
- 2: Connect oscilloscope to TP303.
- 3: Set the service switch (S301) to service position.
- 4: Set colour control to maximum position.
- 5: Adjust T301, T302 and VR305 to obtain the waveform as fig 6.

AFC Alignment

- 1: Remove the 100 ohm resistor from TP103 and TP104.
- 2: Connect the waveform detector to TP102. The output of sweep generator should be -40dB.
- 3: Adjust AGC bias to 5V.
- 4: Adjust T103 to obtain waveform as fig 4.

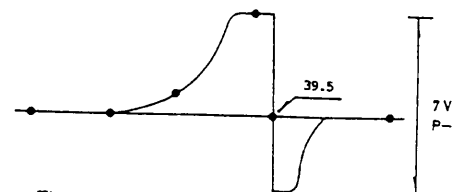


Fig 4.

SIF Alignment

- 1: Connect the sweep generator to TP105.
- 2: Connect waveform detector to TP106.
- 3: The output of sweep generator should be -50dB.
- 4: Adjust T102 to obtain the waveform as in fig 5.

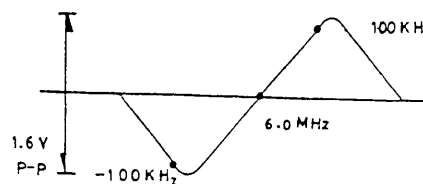


Fig 5.

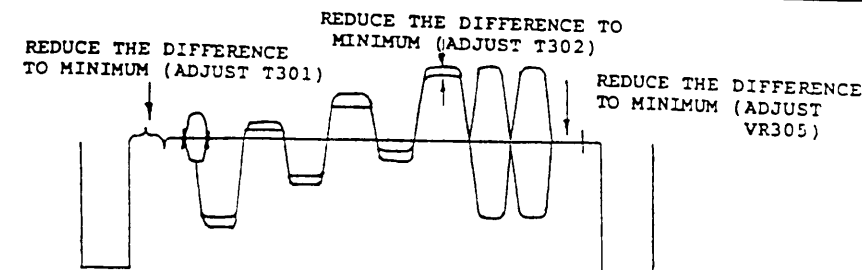


Fig 6.

Colour Sync Adjustment.

- 1: Receive Philips pattern and warm up for five minutes.
- 2: Connect terminal TP302 and the earth with the short jump wire.
- 3: Connect TP306 and TP301 with 10K ohm resistor so that the colour killer turns off.

- 4: Then the colour stripes appear on the screen when the adjustment is incorrect. Adjust the colour sync (CT301) so that the Philips pattern stands still.
- 5: Remove 10K ohm resistor and jump wire.

Symbol/Pin	IC201 (V)
1	0.6
2	0.5
3	0
4	0
5	7.3
6	1.5
7	1.5
8	1.5
9	9.2

Symbol/Pin	IC101 (V)
1	4
2	2.5
3	7
4	0
5	7.23
6	4.74
7	4.72
8	4.71
9	4.73
10	4.64
11	2.04
12	GEN
13	4.14
14	7.76
15	3.88
16	4.2
17	7.94
18	7.94
19	4.2
20	11.55
21	4.5
22	4.5
23	6.07
24	4.5

Symbol/Pin	IC601 (V)
1	4.68
2	4.68
3	0
4	0
5	NC
6	NC
7	4.68
8	2.83
9	4.67
10	0.61
11	6.38
12	3.3
13	8.9
14	4.63
15	0
16	1.38
17	1.5
18	GEN
19	GEN
20	0.56
21	GEN
22	1.42
23	4.67
24	1.6
25	4.67
26	0.2
27	0.2
28	0.2
29	0.52
30	0
31	0
32	0.34
33	0
34	2.1
35	2.15
36	0.1
37	NC
38	4.5
39	0.2
40	0.1
41	4.73

Symbol/Pin	IC301 (V)
1	3.7
2	11.99
3	4.45
4	4.18
5	1.06
6	9.6
7	5.9
8	9.5
9	5.85
10	7.3
11	0
12	9.17
13	9.72
14	3.5
15	3.49
16	8.46
17	4.1
18	8.5
19	4.11
20	7.33
21	7.29
22	7.31
23	5.47
24	0.76
25	4
26	8.1
27	8
28	-0.3
29	2.57
30	GEN
31	GEN
32	0.38
33	8.6
34	4.7
35	4.5
36	3.15
37	-0.5
38	0.8
39	3.86
40	6.5
41	7.51
42	9.18

Symbol/Pin	IC401 (V)
1	GEN
2	13.2
3	25
4	0.76
5	-0.34
6	0.97
7	24.6
8	
9	3

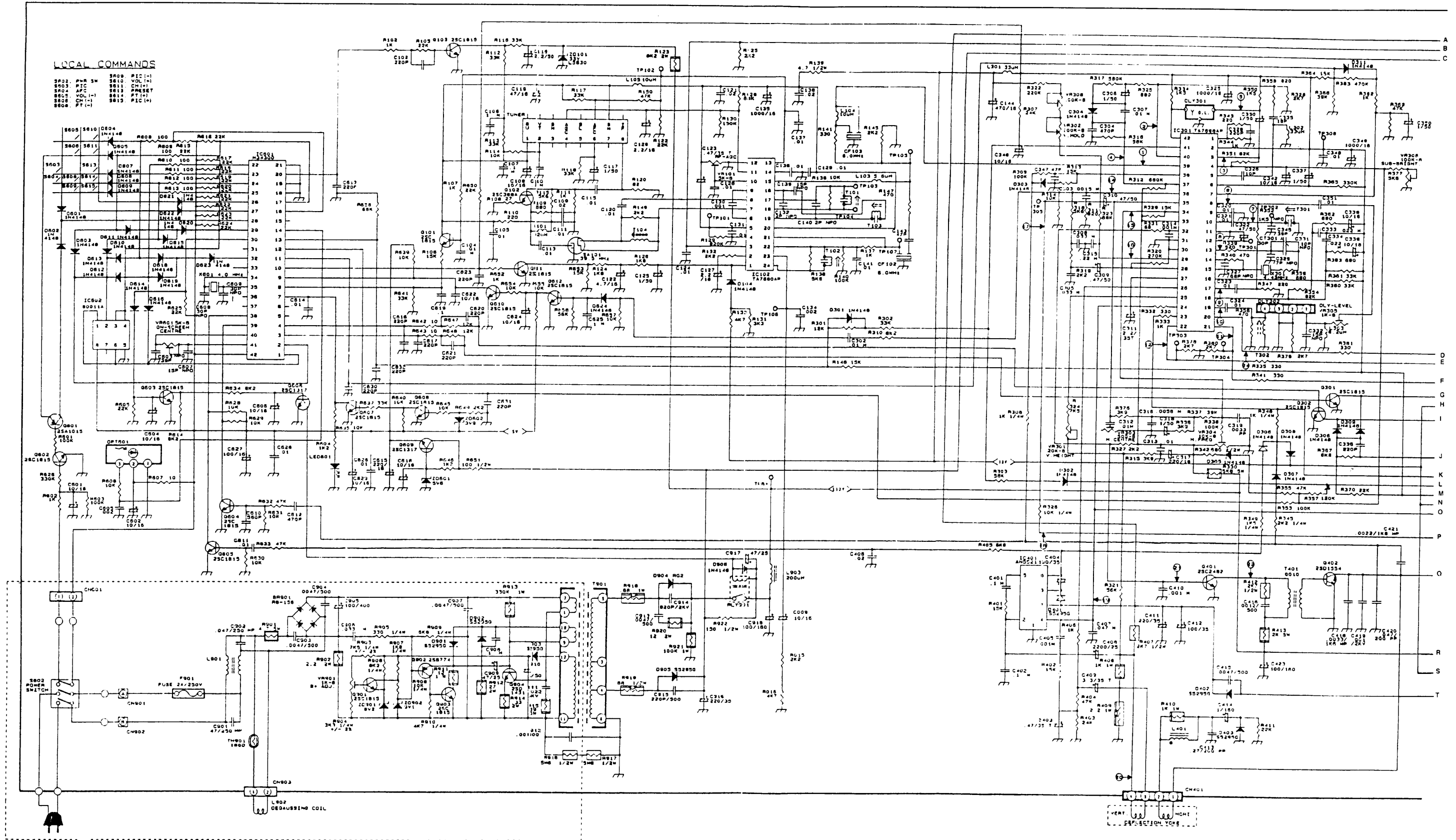
Symbol/Pin	IC701 (V)
1	GEN
2	GEN
3	3
4	0
5	3
6	0
7	3
8	3
9	
10	3
11	NC
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	3

Voltage Charts

Note: Voltages are taken under tuned condition with

Contrast: Maximum Position
Brightness: Maximum Position
Colour: Maximum Position
Signal Input: 80 dBuV
Channel Setting: Last channel of UHF
Signal Pattern: high
Colour Bar

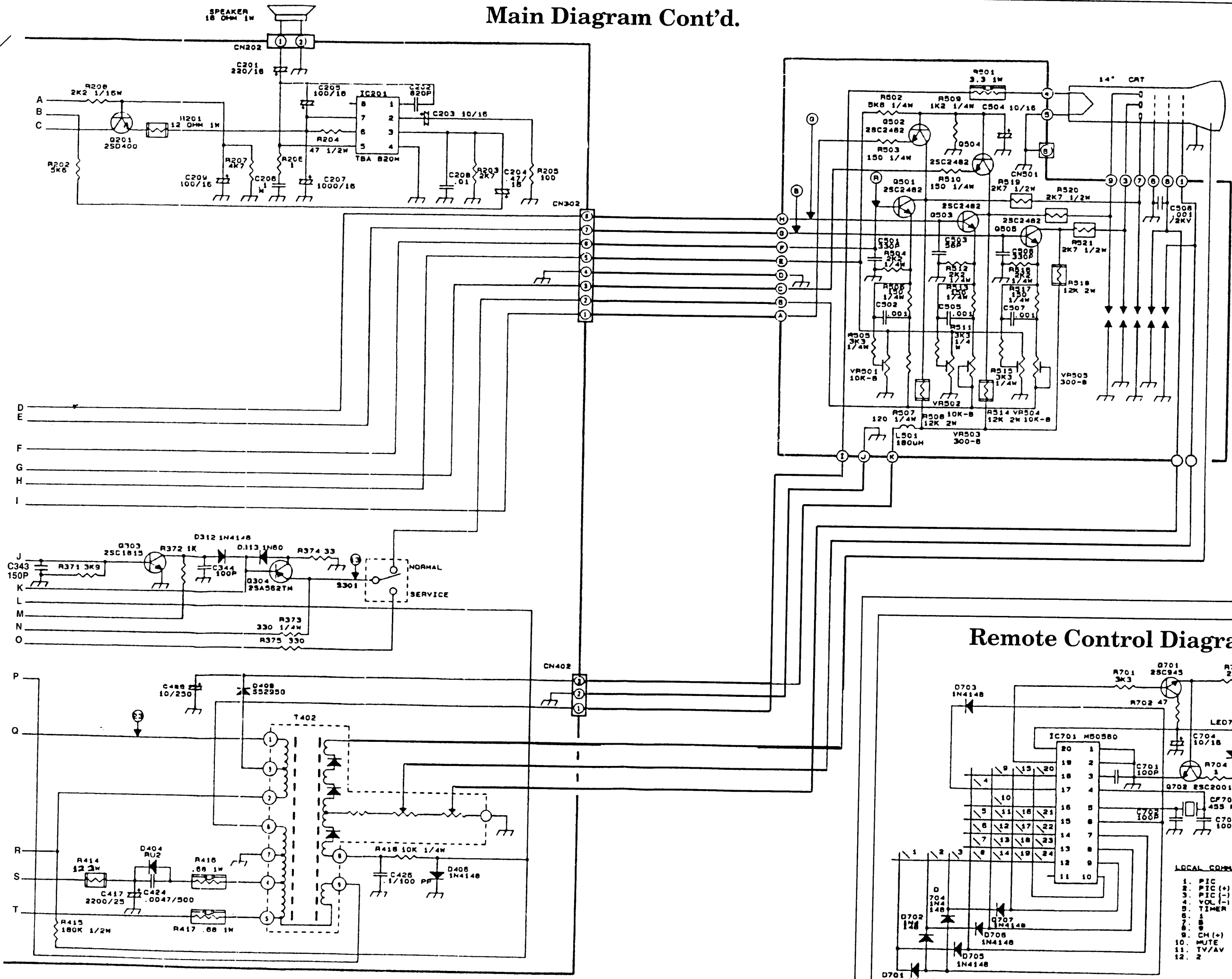
Main Diagram



Continued at 1

Main Diagram Cont'd.

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Remote Control Diagram

