

General Information

Chassis: A8-B
CRT: W66LFC195X
Remote Control:
6450082757
Door Flap: 6102543391
Door Latch: 6450062919
Main Power Button:
6102503319

Matrix

Item	See Model
Safety Notices	Sanyo CB 1443

Specifications

Power Source: AC220 -240V, 50Hz/60Hz
Television System: B/G, D/K, K', M/M, I, L (VIDEO IN)
Colour Reception System: PAL, SECAM, NTSC, NTSC4.43
Channel Coverage:
VHF: E2-E12, A2-A13, J1-J12, R1-R12, C1-C12, K1-K9
CATV: S1-S20, X, Y, Z
UHF: E21-E69, B21-B69, A14-A69, J13-J62, R21-R69, C13-C57
Video IF: 38.9MHz
Sound IF: 33.4MHz (B/G), 32.9MHz (I), 32.4MHz (D/K), 34.4MHz (M)
Aerial Input Impedance: 75W
Ext. Terminals:-
Video Inputs: Phono jack x 3 (1Vp-p, 75W) S - terminal x 2 (DIN 4 pin separate, Y C signal input)
Audio Inputs: Phono jack (R/L) x 3 (463mVrms, more than 40K W)
Audio Monitor Outputs: Phono jack (R/L) x 1 (436 Vrms less than 600 W)
TV Outputs (video and audio):
Video output Phono jack x 1
Audio Output Phono jack (R/L) x 1
External Speaker terminals: 8 W, output max. 5w
Headphone jack: Mini. stereo jack x 1

Recommended Safety Parts

Item	Part No.	Description
C1511	4040079606	MT-Compo 0.22U M 250V
C632	4030582604	Polyester 0.015U J 50V
C632	4031793207	Polyester 0.015U J 50V
F1511	4230072103	Fuse 250V 4A
K701	6102484717	CRT Socket
L901	6450086953	Coil, Degaussing
L901	6450086960	Coil, Degaussing
L902	6450064470	Yoke, Deflection
Q631A, Q635A	4080149703	PC CNY17F-30PT1+6
Q631A, Q635A	4080168803	PC PC113 (VDE0884)
Q901	4140082407	CRT W66LFC195X
R631	4010112708	Carbon 68K JA 1/2W
R632	4010272600	Carbon 5.6K JA 1/2W
SW1101	6102127133	Switch
T1501	6100333756	Power Trans
T1501	6102404722	Power Trans
T402	6450064377	Trans. Flyback
T611	6450079076	Trans. Power. Pulse
V901	6450002453	Cord Power

Service Adjustments

Service Control Adjustments

Safety Precautions

An isolated transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.

X-Radiation Precaution

The primary source of X-Radiation in television receivers is the picture tube. The picture tube is specially constructed to limit X-Radiation emission. For continued X-Radiation protection, the replacement tube must be the same type as the original including suffix letter. Excessive high voltage may produce potentially hazardous X-Radiation. To avoid such hazards, the high voltage must be maintained within specified limits. Refer to this service manual for specific high voltage limits. If high voltage exceeds specified high voltage limits, take necessary corrective action. Carefully follow the instructions for +B1 volt power supply adjustment, and high voltage check to maintain the high voltage within specified limits.

Video DET. Out Adjustment

- 1: Receive the PAL colour bar pattern.

White	Yellow	Cyan	Green	Magenta	Red	Blue
V	C +	Grey	White	Black		

PAL colour bar pattern

Fig 1.

- 2: Connect the oscillator to Q133 - emitter on the MAIN PCB ASS'Y and the ground.
- 3: Adjust VR131 for 0.1Vp-p as shown in fig. 2.

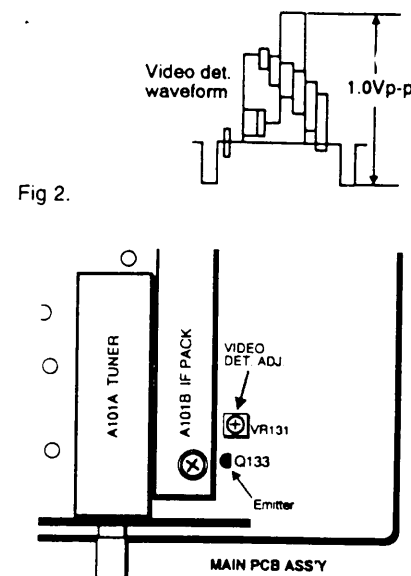


Fig 3.

Focus Adjustment

- 1: Receive the monochrome circular pattern.
- 2: Set the brightness to normal and contrast to maximum.
- 3: Adjust the focus control on the FBT for the best focus on the screen centre.

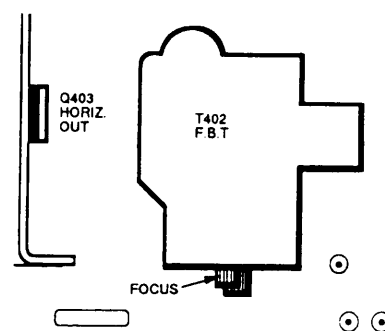


Fig 4.

High Voltage Check

- 1: Connect the high voltage probe (+) to the anode lead of the picture tube and the ground.
- 2: Receive the monochrome circular pattern.
- 3: Set the brightness and contrast to minimum.
- 4: The high voltage must be less than 34.0 KV.

Note: If the picture tube is replaced, check the high voltage.

Y-Output Adjustment

- 1: Receive the PAL colour bar pattern.

White	Yellow	Cyan	Green	Magenta	Red	Blue
V	C +	Grey	White	Black		

PAL colour bar pattern

Fig 5.

- 2: Connect the oscillator to TP - Y (+) and TP - E (-) on the COMB FILTER PCB ASS'Y. (Oscilloscope sens. $\times 2V/c.v.$)
- 3: By using VR2601 on the COMB FILTER PCB ASS'Y, adjust the amplitude as shown in fig. 7.

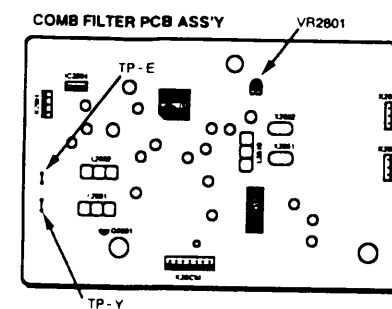


Fig 6.

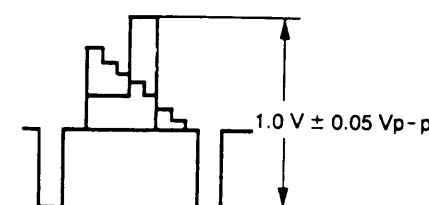


Fig 7.

Tuner Assembly Adjustments

The following components of Tuner assembly (645 000 1970) can be ordered separately:

Ref No	Part No.	Description
A101A	610 000 4122	UV Varactor Tuner
A101B	645 000 1987	IF Pack

When you order these components together as the tuner assembly, they do not need to be adjusted. Since each component is pre-adjusted at the time of shipment, it does not usually require further adjustment, even when purchased separately. However, if there is any such need, you can follow the instructions below to perform the adjustment.

AGC Adjustment

Note: do not attempt this adjustment with a weak signal.

- 1: Tune the receiver to the most clearest (or strongest) VHF station in your area.
- 2: Set the brightness and contrast to maximum and the colour to minimum. Turn the AGC control (SVR101) on the IF pack in the direction which causes snow to appear, then in the opposite direction until the snow just disappears.

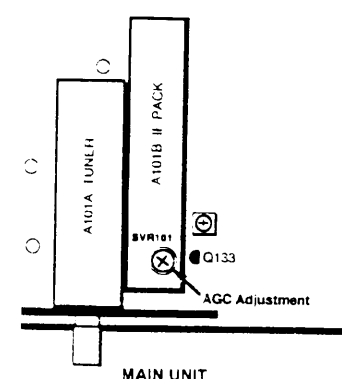


Fig 8.

Adjustments in the Service Mode

Since some chassis circuit adjustments are controlled by the CPU built into the chassis,

adjustments can now be made by inputting data directly via the remote control unit supplied with the set.

Memory IC Replacement

Since adjustment data for the circuit is stored in the memory IC (IC805) that comes with the CPU, the adjustment data must be re-inputted when the memory IC is replaced. (After memory IC is replaced, reference data is initially written automatically to memory from the CPU ROM for basic set operation.)

Setting the Service Mode

To enter service mode, press and hold down the MEMORY key on the front control panel of the TV set, then press the remote control normalisation key.

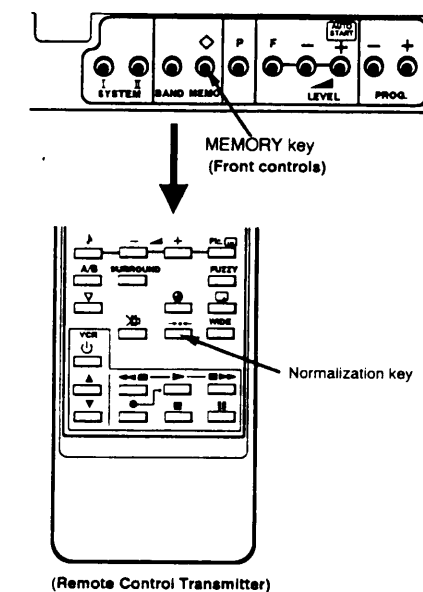


Fig 9.

Screen Display of the Service Mode

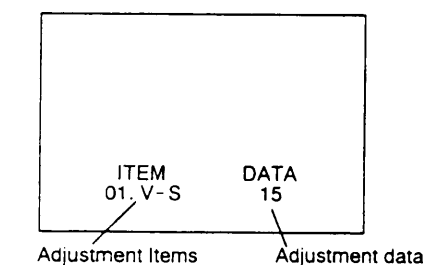


Fig 10.

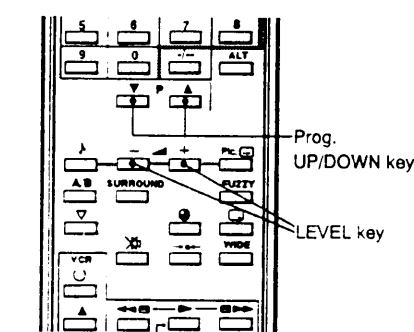


Fig 11.

- 1: Adjustment items can be selected by pressing Prog. UP/DOWN (P/Y) key of the remote control unit
- 2: Adjustment data can be set by pressing Level (-/+) key of the remote control unit.

Exit Service Mode

To exit from the service mode, turn off the TV set by pressing the [power ON/OFF] button on the TV set or the remote control transmitter.

The displayed data is not post adjustment data, but initial reference data from the CPU ROM for basic set operation following memory IC replacement. Perform individual adjustments according to the circuit adjustment method described earlier when the memory IC is replaced.

Adjustments in the Service Mode

The displayed data is not post adjustment data, but initial reference data from the CPU ROM for basic set operation following memory IC replacement. Perform individual adjustments according to the circuit adjustment method described earlier when the memory IC is replaced. See Table 1. on next page.

Sub Contrast Adjustment

- 1: Connect the oscilloscope to TP - 47R and the ground (TE - 47) of the CRT PCB ASS'Y.
- 2: Receive the PAL colour bar pattern, and set the picture size to the "FULL" size.
- 3: Set the colour control to minimum and the contrast to maximum.

White	Yellow	Cyan	Green	Magenta	Red	Blue
V	C +	Grey	White	Black		

PAL colour bar pattern

Fig 12.

- 4: Adjust the brightness control volume to be a = 5V = 3V.

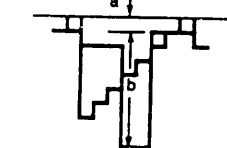


Fig 13.

- 5: Set the TV receiver to the service mode.
- 6: Select "10 R" by pressing the programme UP/DOWN key.
- 7: Adjust so that b = 120V ± 3V by pressing the LEVEL (-/+) key.

Grey Scale Adjustment

Note: This adjustment should be performed after sub contrast adjustment.

- 1: Receive the PAL monochrome circular pattern, and set picture size to "FULL"
- 2: Set brightness and colour control to normal and the contrast to maximum.
- 3: Set the TV receiver to the service mode.
- 4: Select "11 G" by pressing Prog. UP/DOWN key, and adjust so that the green gain is maximum level by pressing LEVEL (-/+) key.
- 5: Select "12 B" by pressing Prog. UP/DOWN key, and adjust so that the blue gain is maximum level by pressing LEVEL (-/+) key.

Vertical Centre Adjustment

- 1: Receive the monochrome circular pattern, and set the picture size to "FULL".
- 2: Set the brightness and contrast to normal.

Service Adjustments Cont'd.

Table 1. (See Adjustments in the Service Mode section, previous page.)

The adjustments below must be done in condition of 50Hz (vertical) Full picture size mode.

Screen Display	Adjustments	Data (Picture size = Full)	Range of a data	Remarks
01. V-S	Vertical Centre Adjustment	PAL 36	08-63	
02. V-A	Vertical Size Adjustment	9	00-63	
03. V-L	Vertical Linearity Adjustment	17	(17-63)	Fixed
04. S-C	S-Correction Adjustment	11	(00-63)	Fixed
05. H-S	Horizontal Centre Adjustment	33	(14-63)	
06. H-W	Horizontal Width Adjustment	29	00-48	
07. P-W	Pincushion Adjustment (Parabola width)	21	01-50	
08. C-P	Pincushion Adjustment (Corner parabola)	13	(00-63)	Fixed
09. TRP	Pincushion Adjustment	29	00-59	
10. R	Red Gain Adjustment	24	00-63	
11. G	Green Gain Adjustment	24	00-63	
12. B	Blue Gain Adjustment	24	00-63	
13. P-L	Peak Drive Limit Adjustment	45	(00-63)	Fixed
14. S-L	Slide Adjustment	10	(00-63)	Fixed
15. S-F	Sharpness Focus Adjustment	16	(00-63)	Fixed
16. W-H	Weighting Adjustment	27	(00-63)	Fixed
17. C-D	Chroma Delay Adjustment	31	(00-63)	Fixed
18. OSD	On Screen Display Centre Adjustment	3	00-63	

Adjustments marked with an asterisk (*) in the summary display are difficult to adjust visually, so be sure to rest using the displayed data only if the setting differs from that displayed.

- 3: Set the TV receiver to the service mode.
- 4: Select "01. V-S" by pressing prog. UP/DOWN key and adjust vertical centre by pressing LEVEL (- < +) key.

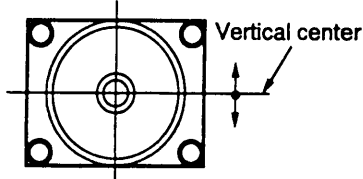


Fig 14.

Vertical Size Adjustment

- 1: Receive the monochrome circular pattern, and set the picture size to "FULL" size.
- 2: Set the brightness to normal and the contrast to maximum.
- 3: Set the TV receiver to service mode.
- 4: Select "02. V-A" by pressing Prog. UP/DOWN key.
- 5: Adjust the vertical size by pressing LEVEL (- < +) key.

Horizontal Centre Adjustment

- 1: Receive the monochrome circular pattern, and set the picture size to "FULL" size.
- 2: Set the brightness and contrast to normal.
- 3: Set the TV receiver to service mode.
- 4: Select "05. H-S" by pressing Prog. UP/DOWN key.
- 5: Adjust the horizontal centre by pressing LEVEL (- < +) key.

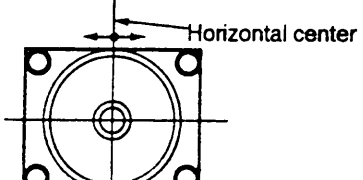


Fig 15.

Horizontal Width Adjustment

- 1: Receive the monochrome circular pattern, and set the picture size to "FULL" size.
- 2: Set the brightness to normal and the contrast to maximum.
- 3: Set the TV receiver to service mode.
- 4: Select "06. H-W" by pressing the Prog. UP/DOWN key.
- 5: Adjust the horizontal width by pressing LEVEL (- < +) key.

Pincushion Adjustment

- 1: Receive the grid pattern and set the picture size to "FULL" size.
- 2: Set the brightness to normal and the contrast to maximum.
- 3: Set the TV receiver to service mode.
- 4: Select "07. P-W" (Parabola width) by pressing the Prog. UP/DOWN key.
- 5: Adjust so that the vertical line is straight by pressing LEVEL (- < +) key.

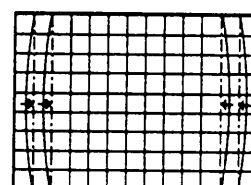


Fig 16.

On Screen Display Centre Adjustment

- 1: Receive the monochrome circular pattern, and set the picture size to "FULL" size.
- 2: Set the brightness to normal and the contrast to maximum.
- 3: Set the TV receiver to service mode.
- 4: Select "18. OSD" by pressing the Prog. UP/DOWN key.
- 5: Adjust so that the tuning bar centre is optimum position by pressing LEVEL (- < +) key.

Purity and Convergence Adjustment

Caution: The convergence and purity adjustments have been made at the factory. Re-adjustment should be made only after picture tube or deflection yoke replacement, following the steps below.

Purity Adjustment

- 1: Demagnetise the picture tube and receiver using an external degaussing coil. When replacing picture tube or deflection yoke, mount deflection yoke and purity-convergence magnets assembly properly, see figs. 17 and 18.
- 2: Turn red and blue guns off and provide only green raster. Rotate screen control to fully counterclockwise. Rotate red and blue bias controls fully counterclockwise. Slowly rotate green bias control clockwise to produce green raster.
- 3: Loosen the screw holding the deflection yoke and remove the three rubber wedges, and slide the deflection yoke fully forward.
- 4: Rotate and spread the tabs of the two purity magnets to centre the vertical green belt in the picture screen. The purity magnets are also adjusted to obtain vertical centring of the raster.
- 5: Slowly slide the deflection yoke backward until a uniform green screen is obtained.
- 6: Check the purity of the red and blue screens for uniformity, turn off other colours to check this (use bias controls). Readjust the yoke position if necessary until all screens are pure.
- 7: Adjust each bias control and screen control to obtain white raster. Refer to Grey Scale Adjustment. If part of the picture screen is coloured, adjust the deflection yoke position forward or backward slightly.
- 8: Tighten the mounting screw of the deflection yoke. Adjust Convergence next.

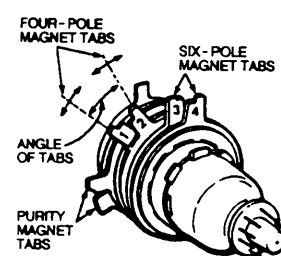


Fig 17.

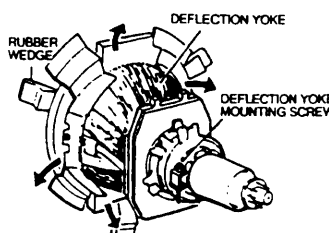


Fig 18.

Centre Convergence Adjustment

- 1: Use a dothatch pattern signal.
- 2: Turn red and blue guns on and green gun off. Adjust the angle between the tabs of the four pole magnet 1 and 2, and superimpose the red and blue

- 3: vertical lines in the centre area of the picture screen. Refer to fig. 19.
- 4: Keeping the mutual angle of the tabs of the four pole magnet turn them together to superimpose the blue and red horizontal lines in the centre area of the picture screen. Refer to fig. 19.
- 5: Turn green gun on and adjust six pole magnet 3 and 4 so that the green line is superimposed on the red/blue lines. This is the same procedure used in steps 2 and 3. Refer to fig. 20.

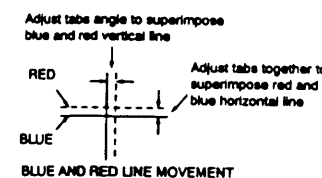


Fig 19.

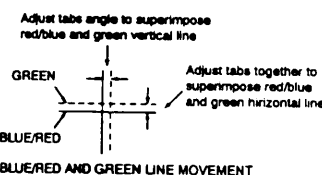
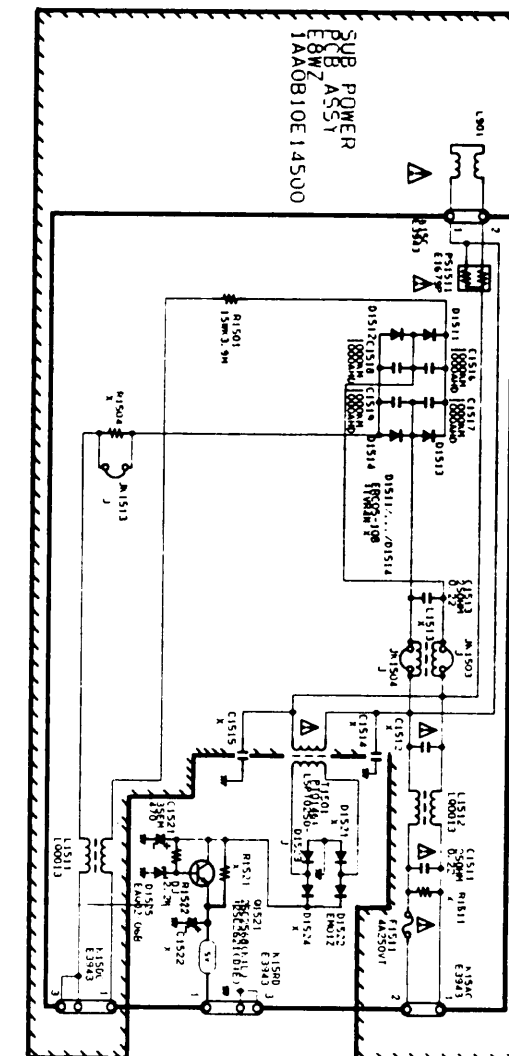


Fig 20.

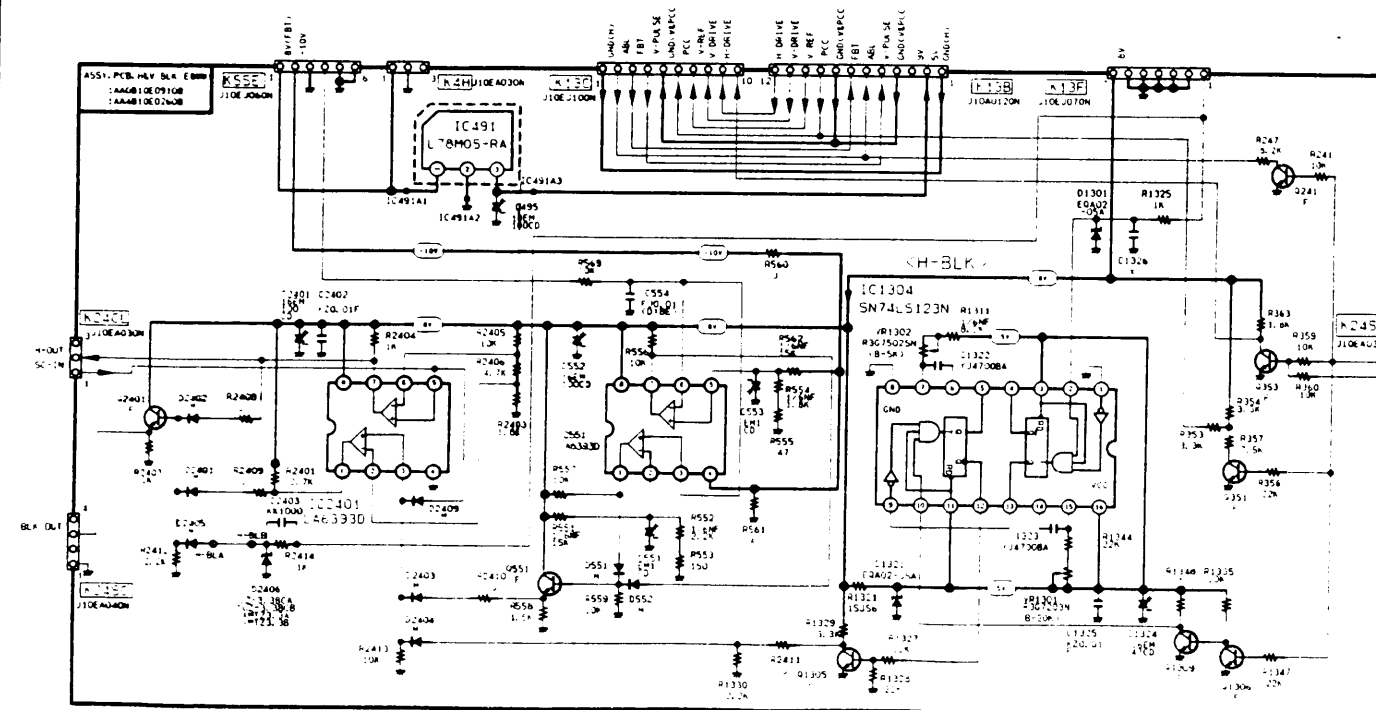
Outer Area Convergence Adjustment

Slightly loosen the screw holding the deflection yoke. Adjust the deflection yoke to converge the detail in the outer area (left side and right side) of the picture screen by orbital movement of the front of the yoke, then secure the deflection yoke in appropriate position by putting the wedges as illustrated. Tighten screw holding deflection yoke.

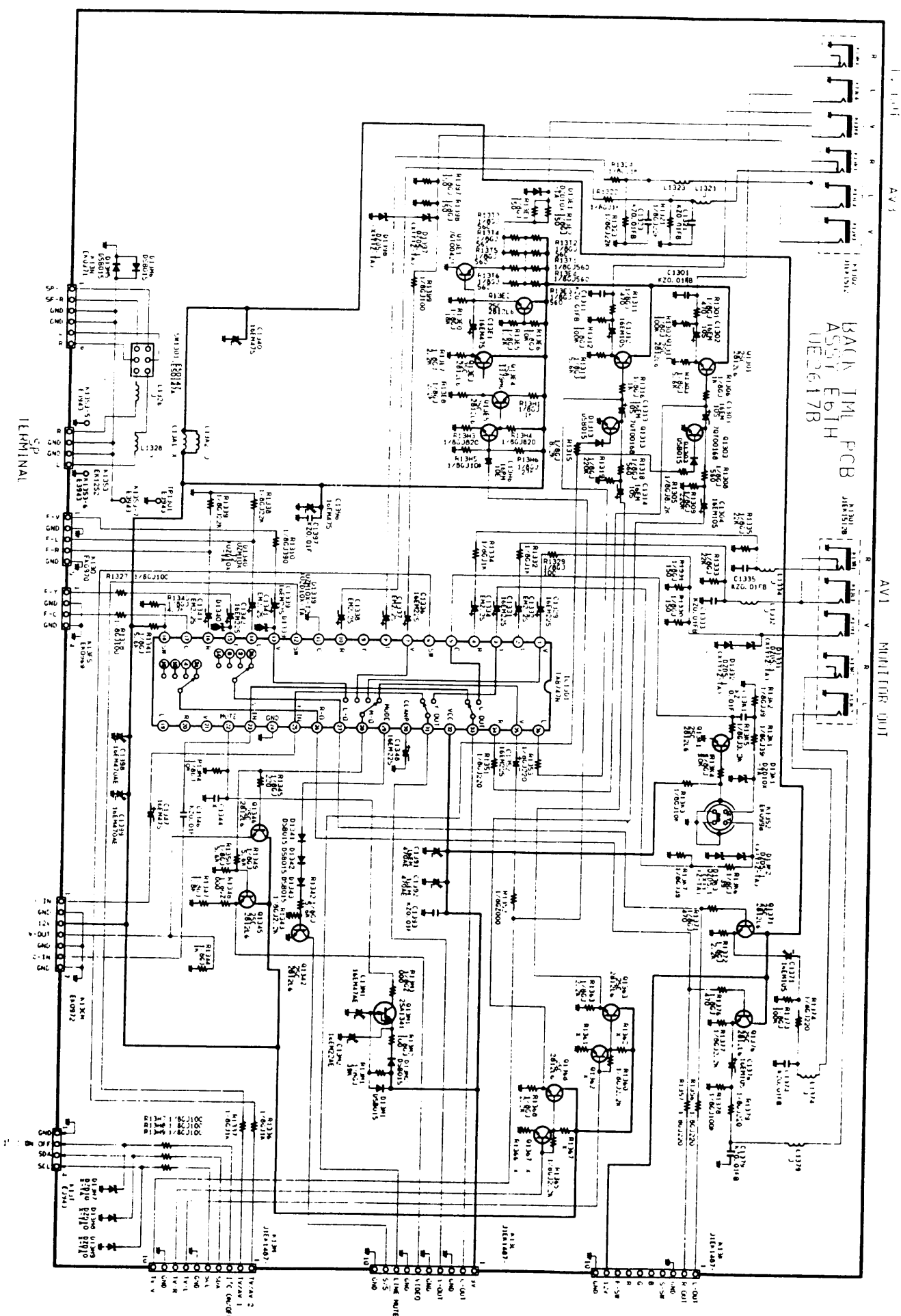
Sub Power Diagram



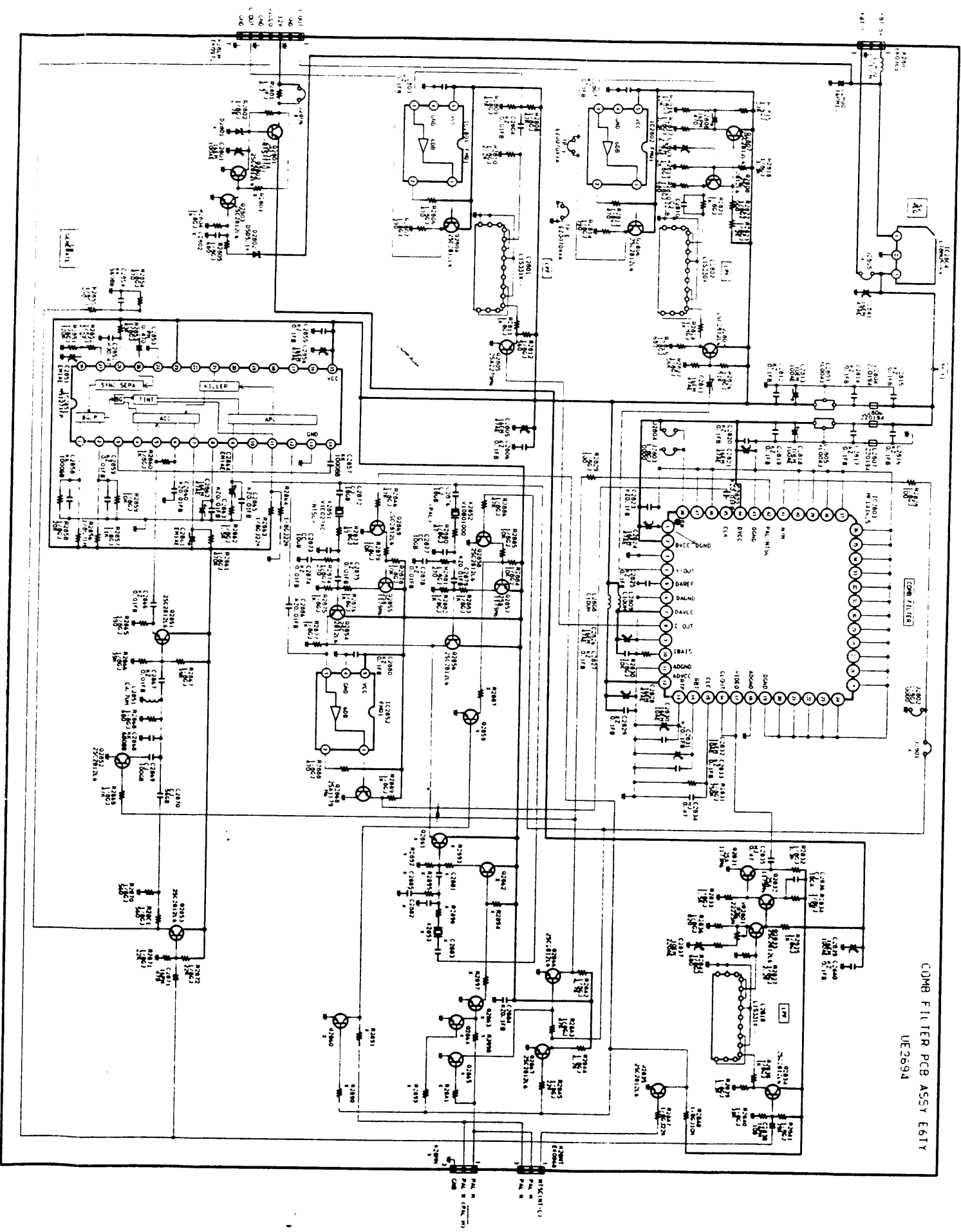
Assembly Diagram



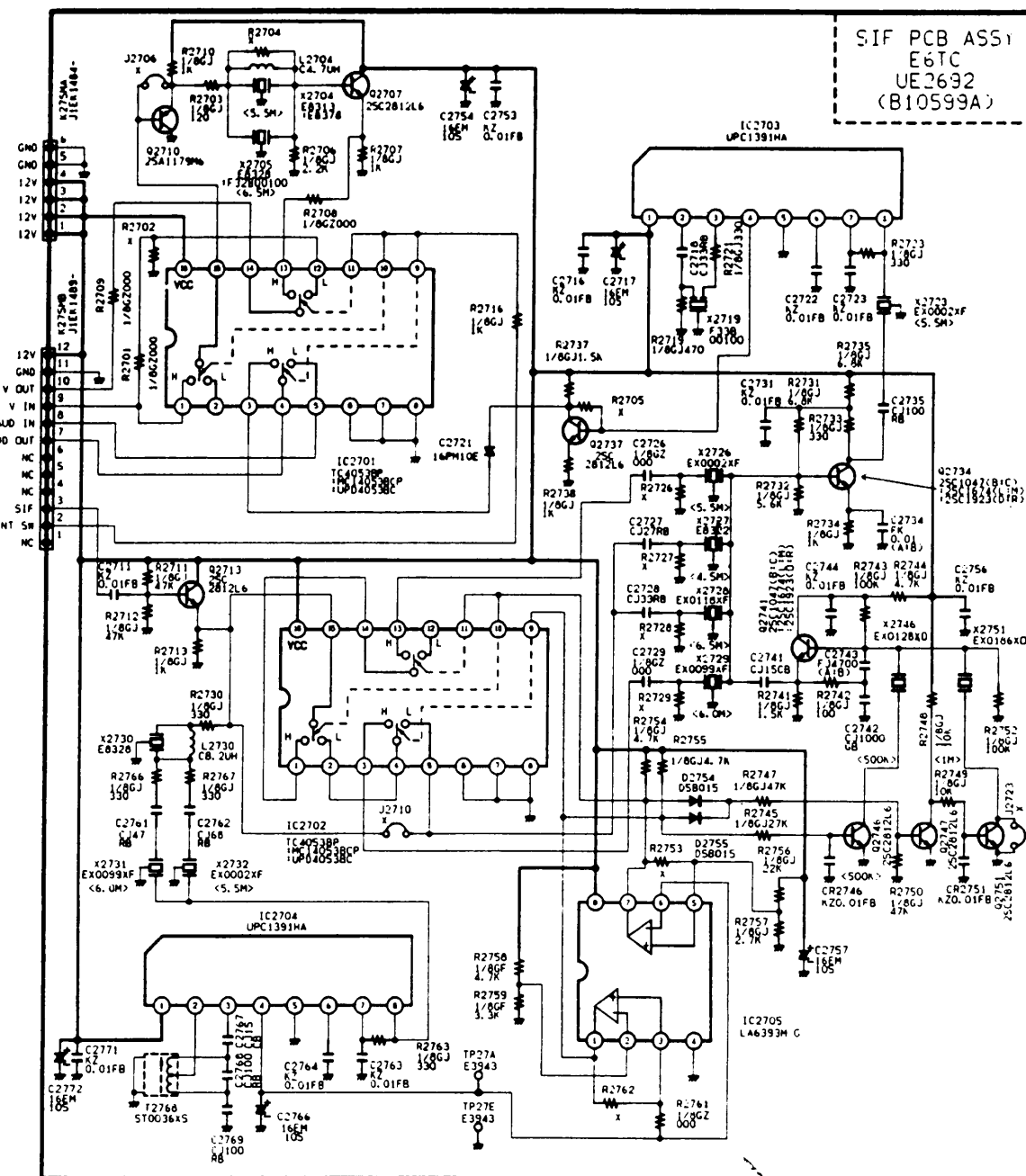
Back Terminal Diagram



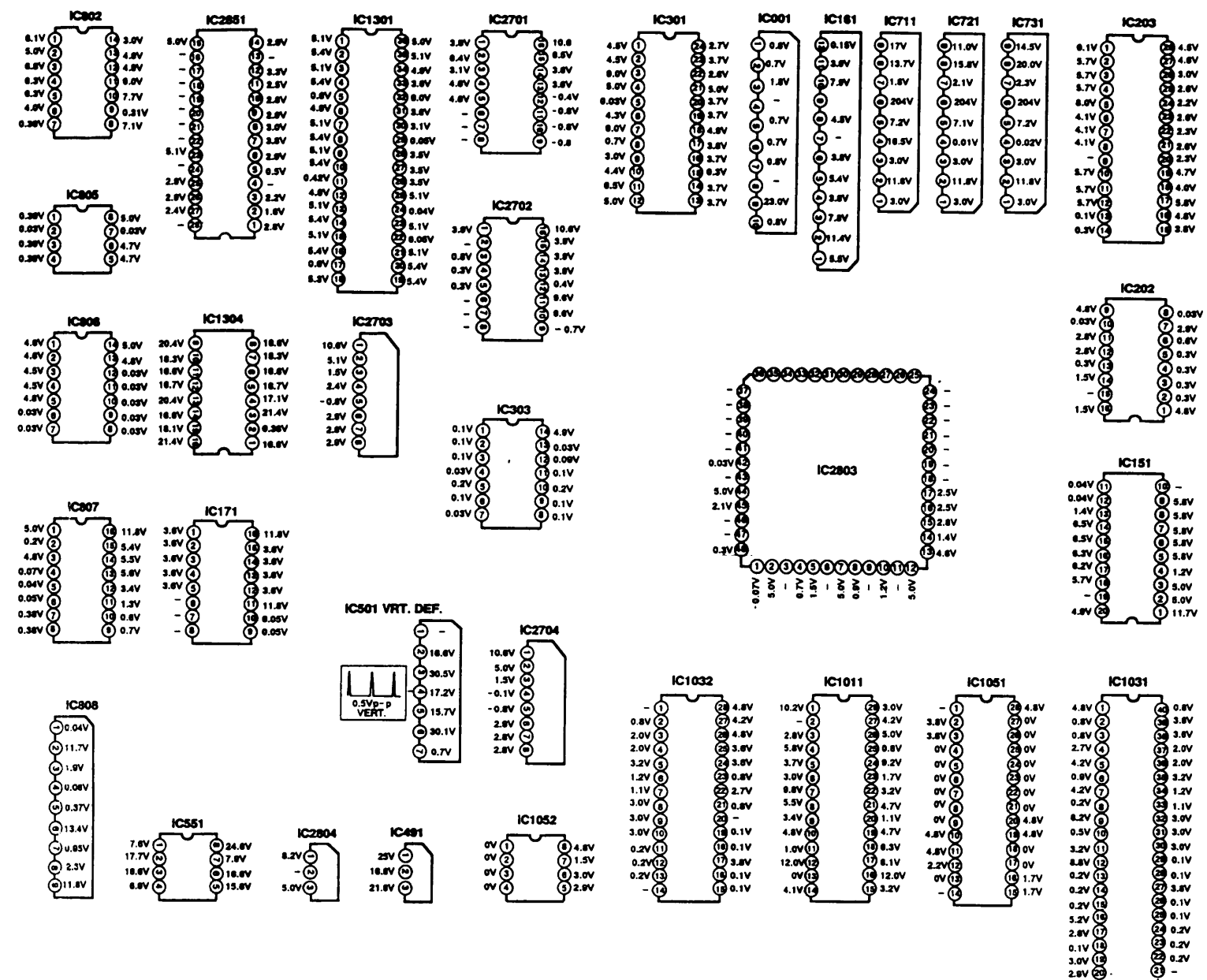
Comb Filter Diagram



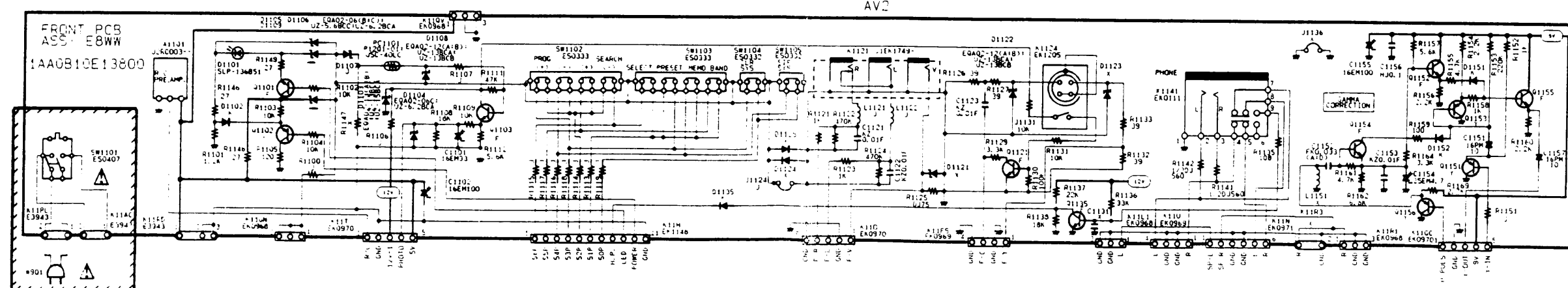
SIF Diagram



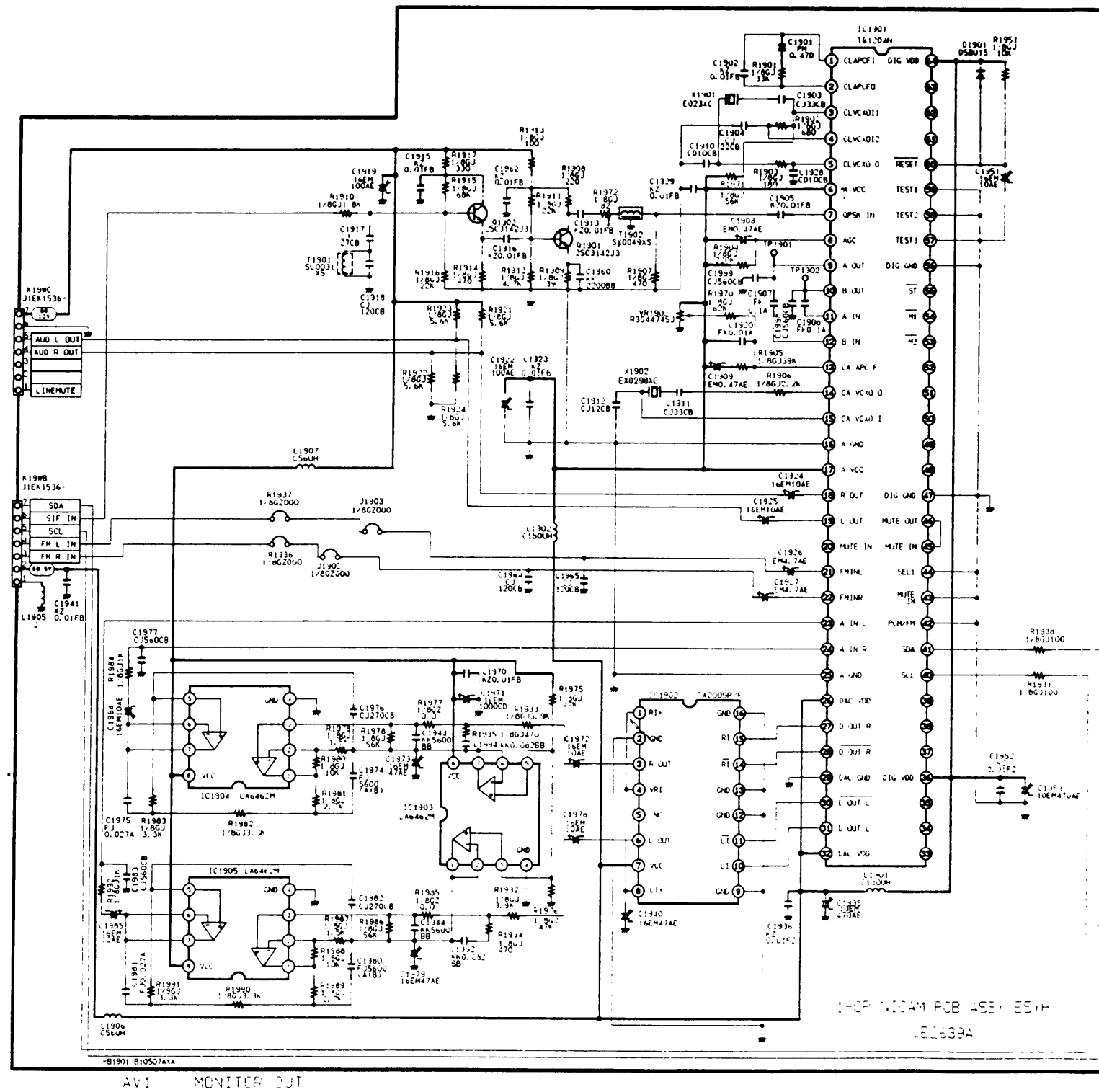
ICs Diagram



Front Diagram



NICAM Diagram



Text Diagram

