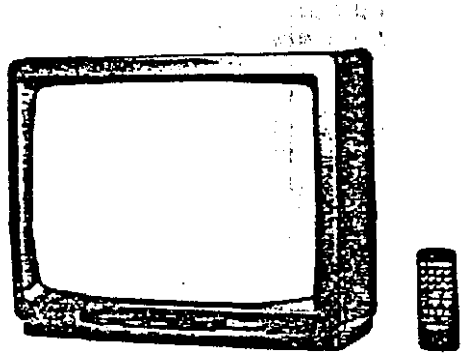
Emerson®

SERVICE MANUAL

MODEL TC1972D

CAUTION

Before Servicing the chassis. read the "IMPORTANT SERVICE SAFETY INFORMATION" on page 2 of this manual.



19' REMOTE CONTROL COLOR TELEVISION WITH ON-SCREEN PICTURE CONTROLS

AKB AUTOMATIC KINE **BIAS**

CCD CLOSED **CAPTION DECODER**

SPECIFICATIONS

AC POWER INPUT ..... 120V ± 10%, 60Hz
AC POWER CONSUMPTION ..... 102 Watts @ 120V
PICTURE SIZE ..... 19" (MEASURED DIAGONALLY)
FOCUS LENS ..... Bipotential
AUDIO POWER OUTPUT RATING ..... 1.2 Watts
FREQUENCY RESPONSE ..... 250Hz -0.5 ± 3dB
6KHz 0+/-3db
SPEAKER SIZE ..... 3-1/16" 0.33 oz. Magnet
VOICE COIL IMPEDANCE ..... 8 ohms at 600Hz
ANTENNA INPUT IMPEDANCE ..... 75 ohm Coaxial input
RECEIVING CHANNELS
VHF 2-13
UHF 1
CATV .....
14-22
23-36
(AA-FFF)

Carrier Frequency ..... 45 .75MHz
Sound IF Carrier Frequency ..... 41 .25MHz
Color Sub - Frequency ..... 42 .17MHz
WEIGHT ..... 38 lbs
DIMENSIONS .....

CONTENTS

SERVICE PUBLICATION #05-93

Note All the specifications and features are subject to change without notice

EMERSON RADIO CORP
One Emerson Lane

ELECTRICAL ADJUSTMENTS

1. BEFORE MAKING ELECTRICAL ADJUSTMENTS

Read and perform t h e s e adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

CAUTION

Use an isolation transformer when performing any service on lhis chassis.

Before removing the anode cap. discharge electricity because it contains high voltage

When removing a PCB or related component. alter unfastening or changing a wire. be sure to put the wire back in its original position.

Inferior silicon grease can damage IC's and transistors. When replacing IC's and transistors. use only specified silicon grease (YG6260M). Remove all old silicon before applying new silicon.

I-I: Prepare the following measurement tools for electrical adjustments

1. Sweepmarker Generator
2. Oscilloscope
3. Digital Voltmeter
4. Color Bar Generator

2. BASIC ADJUSTMENTS

2-1: VIF AND AFT

NOTE

Connect input and output terminals of the sweepmarket generator to the circuit as shown in Fig. 2-I-a. then adjust it.

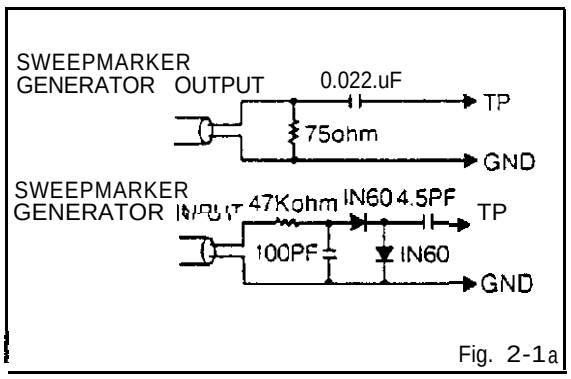
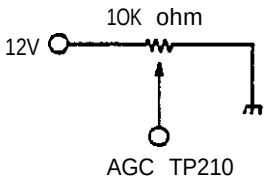


Fig. 2-1a

1. Connect output terminal of the sweepmarker generator to TP201. (Connect a 2.7K ohm resistor between them.)
2. Connect input terminal of the sweepmarker generator to TP204.
3. Connect a 10K ohm variable resistor to IF AGC terminal (TP210). 12V line and ground. then adjust to make the waveform of the oscilloscope readable.



4. Adjust L205 until the waveform marker (45.75MHz) becomes as shown in Fig. 2-I-b.

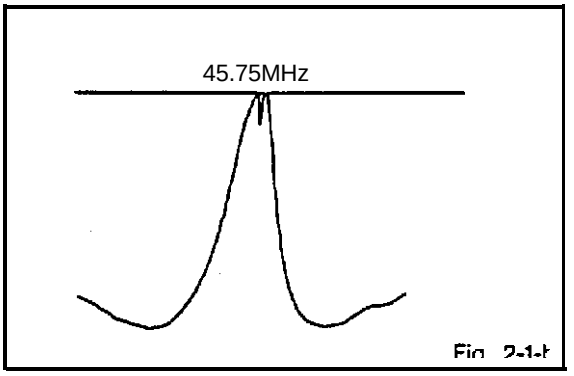


Fig. 2-1-b

5. Disconnect output terminal of the sweepmarker generator from TP201. then connect it to TP of the tuner pack.
6. Adjust tuner pack coil until the waveform becomes as shown in Fig. 2-I-c.

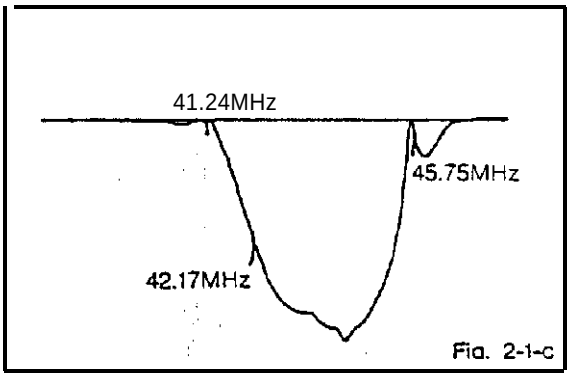


Fig. 2-1-c

7. Disconnect the 10K ohm variable resistor and 2.7K ohm resistor.
8. Disconnect input and output terminals of the sweepmarker generator.
9. Connect the AFT adjustment oscillator (45.75MHzl to TP, of the tuner pack through a 2.7K ohm resistor.
10. Connect the digital voltmeter to TP206.
11. Adjust L204 to find the point where the voltage of TP206 changes dramatically. and adjust to 4.5VDC at that point.

2-2: BRIGHT, AGC, TINT AND COLOR

On-Screen Display Adjustment

Insert the point of a straightened paper clip into the hole on, the remote control marked with an arrow as shown in Fig. 2-2.

The adjustment mode display will appear as shown in Fig. 2-3.

NOTE

Use the 1 - 7 keys on the remote control to Select the options show" in Fig. 2-3.

Press the 7 key to end the adjustments

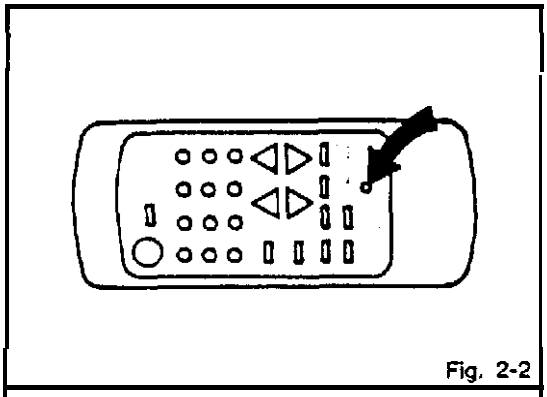


Fig. 2-2

ADJUSTMENT MODE
1. AGC/BRIGHT/TINT/COLOR AUTO
2. SUB BRIGHT AUTO
3. AGC MANUAL
4. COLOR MANUAL
5. TINT MANUAL
6, BRIGHT MANUAL
7. END

Fig. 2-3

2-2-A: **BRIGHT**

1. Receive the monochrome pattern
2. Activate the adiustment mode display and press the 6 key.
3. Press the VOL. UP/DOWN key on the remote control until 0% of gray scale will begins to lighten.

2-2-B. AGC

NOTE

Adjust after performing adjustments in section 2-l

In case of weak electric field.

1. Tune to a noisy channel.
2. Activate the adjustment mode display and press the 3 key.
3. Press the VOL. UP/DOWN key a" the remote control until noise is at minimum.
4. Change the channel. confirm other channels are normal.

I" case of strong electric field.
(Radio frequency interlerence can cause diagonal streaks to appear.)

1. Aclivate the adjustment mode display and press the 3 key.
2. Press the VOL. UP/DOWN key on the remote control until diagonal streaks are at minimum.
3. If there is still a problem after pressing the VOL. UP/DOWN key on the remote control. install an attenuator to the antenna terminals the" repeat step 1.
4. Confirm noise does not appear,
5. Change the channel. confirm other channels are 'normal.

2-2-C: **TINT**

1. Receive the color bar patter".
2. Using the remote Control. set the brightness and color to center position.
3. Using the remote control, set the contrast to maxlmum position.
4. Connect the oscilloscope to TPO23.
5. Activate the adjustment mode display and press the 5 key.
6. Press the VOL. UP/DOWN key a" the remote Control until the waveform becomes as show" in Fig. 2-4

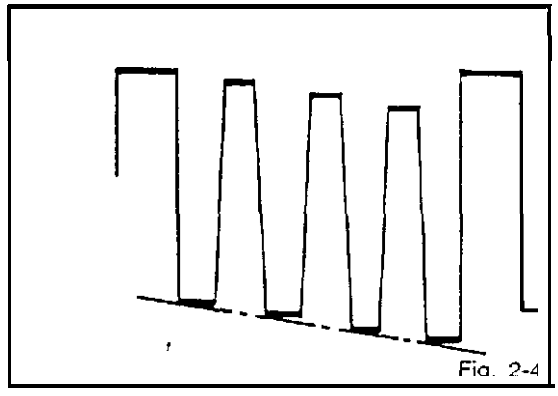


Fig. 2-4

2-2-D: COLOR

1. Receive the color bar patter",
2. Using the remote control, set the brightness and tint to center position.
3. Using the remote control, set the contrast to maximim position
4. Connect the oscilloscope to TP022.
5. Activate the adjustment mode display and press the 4 key.
6. Adjust the VOLTS RANGE VARIABLE knob of the oscilloscope until the range between white 100% and 0% is set to 5 scales a" the Screen of lhe oscilloscope.
7. Press the VOL. UP/DOWN key on the remote control until the red color level is set to the ***4.75th scale (95%)*** from while 0%. (Refer to Fig. 2-5)

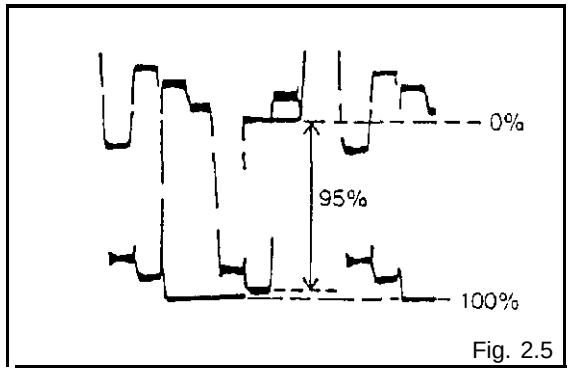


Fig. 2.5

4. Confirm red and blue colors
5. Adjust the slant of lhe deflection yoke while watching the screen. then tighten the fixing screw.

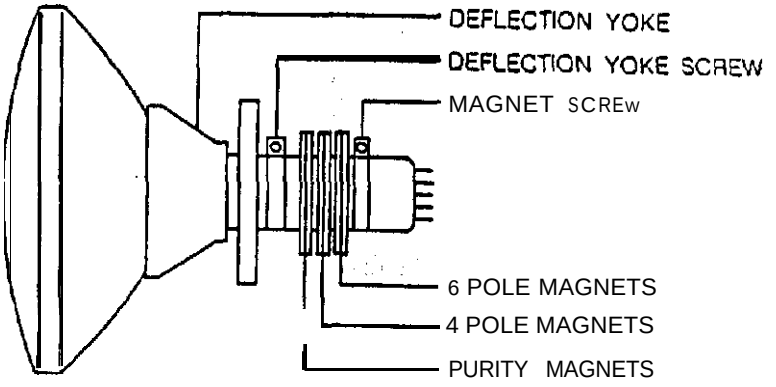
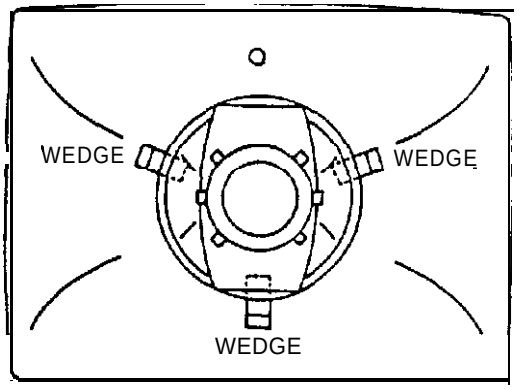


Fig. 3-1



WEDGE POSITION

Fig. 3-2-b

3-3: STATIC CONVERGENCE

NOTE
Adjust after performing adjustmenls in section 3-2.

1. Receive the crosshatch pattern from color bar generator.
2. Combine red and blue of 'the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
3. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.

3-4: DYNAMIC CONVERGENCE

NOTE
Adjust after performing adjustments in section 3-3.

1. Adjust the differences around the screen by moving the deflection yoke upward/downward and right/left. (Refer to Fig. 3-2-a)
2. Insert three wedges between the deflection yoke and CRT funnel to fix the deflection yoke. (Refer to Fig. 3-2-b)

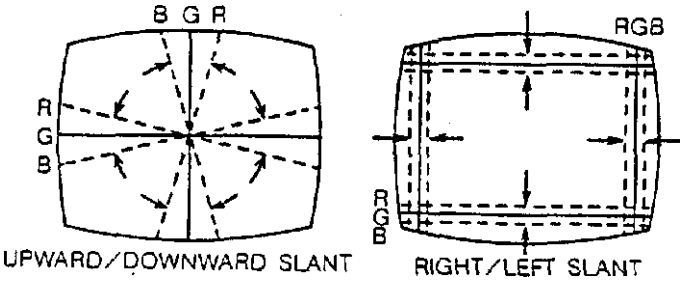


Fig. 3-2-e

2-3: CUT OFF

1. Receive the color bar petter".
2. Using the remote control. set brightness and contrast to minimum position.
3. Connect the oscilloscope to ,TPO24.
4. Adjust the screen control until voltage is 150VOC. (Refer to Fig. 2-6)

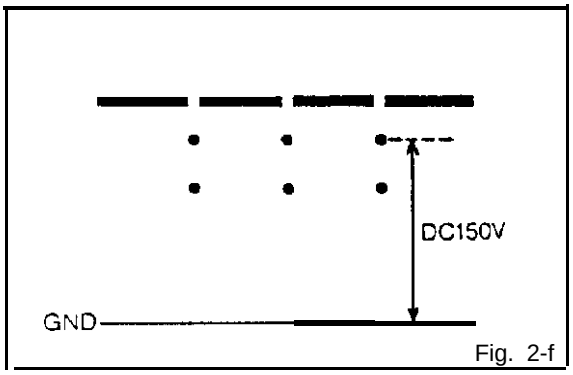


Fig. 2-f

2-4: FOCUS

1. Receive the broadcasting signal.
2. Adiust the locus control until picture is distinct

2-5: VERTICAL SIZE

1. Receive the crosshatch petter" from the color bar generator.
2. Adjust the bright and contrast controls until the crosshatch patter" is distinct.
3. Adjust VA401 until the center of crosshatch is square.
4. Receive broadcasting signal, the" confirm picture is normal.

2-6: VERTICAL POSITION

1, Receive the color bar patter".
2. Using the remote control. set brightness and Contrast Lo maximum position.
3. Adjust the value of A429 and R430 until horizontal line of the color bar comes to approximate center of the CRT.

NOTE

Lessen the value of R430.....Picture will move about 5mm UP.
Lessen the value of R429.....Picture will move about 5mm DOWN.
R429 and R430 are fixed resistors. Use a variable resistor to determine the optimal value and insert that value resistor.

2-7: HORIZONTAL POSITION

1. **Receive** the color bar patter".
2. Using the remote control. set brightness and contrast to maximum position.
3. Adjust the value of R444 and C460 until the color width of both screen edges are equal.
4. Receive the broadcasting signal, the" confirm picture is normal.

NOTE

Lessen the value of R444.....Picture will move right.
Lessen the value of C460 ,...,.Picture will move left.
R444 and C460 are fixed components. Use a variable resistor or capacitor to determine the optimal value and insert that value component.

3. PURITY AND CONVERGENCE ADJUSTMENT

NOTE

1. Turn the unit on and let it warm up for at least 30 minutes before performing the followiiig adjustments.
2. Place the CRT surface facing east or west to reduce the terrestrial magnetism.
3. Turn ON the unit and demagnetize with a degauss Coil,

3-1: STATIC CONVERGENCE (ROUGH ADJUSTMENT

1. Tighten the screw for the magnet. Refer to the adjusted CRT for the position. (Refer t o Fig. 3-1) If the deflection yoke and magnet are in one body, untighten the screw for the body.
2. Receive the green raster patter" from color bar generator.
3. Slide the deflection yoke until it touches the funnel side of the CRT.
4. Adjust center of screen to green. with red and blue a" the sides, using the pair of purity magnets.
5. Switch the color bar generator from the green raster patter" to, the crosshatch pattern.
6. Combine red and blue of the 3 color crosshatch Patter" on the center of the screen by adjusting the pair of 4 pole magnets.
7. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.
8. Adjust the crosshatch petter" to change to white by repeating steps 6 and 7.

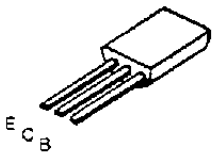
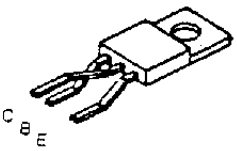
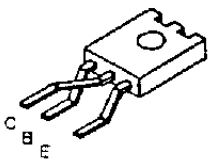
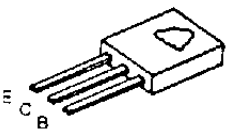
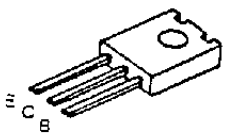
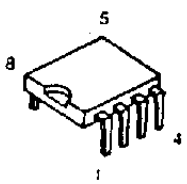
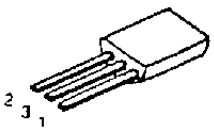
3-2: PURITY

NOTE

Adjust after; performing adjustments in section 3-1

1. Receive the green raster petter" from color bar generator.
2. Adjust the pair of purity magnets to center the color on the screen. Adjust the pair of purity magnets so the color at ends are equally wide.
3. Move the deflection yoke backward (to neck side) slowly, and Stop it at the position when the whole screen is green.

SEMICONDUCTOR BASE CONNECTIONS

ILLUSTRATION	DESCRIPTION
	2SA952 2SC945 2SA733 2SA1624 2SD734
	2SD2333
	2SC4217
	2SC2621
	2SC3902
	LE93C46S1
	UPC78L05
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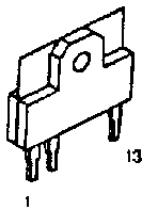
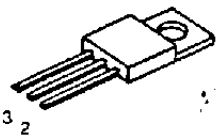
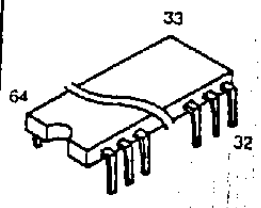
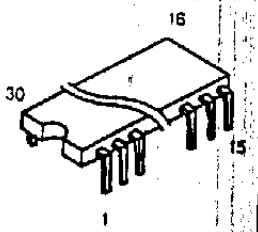
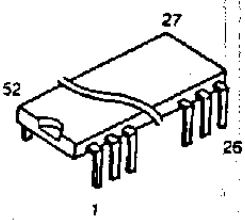
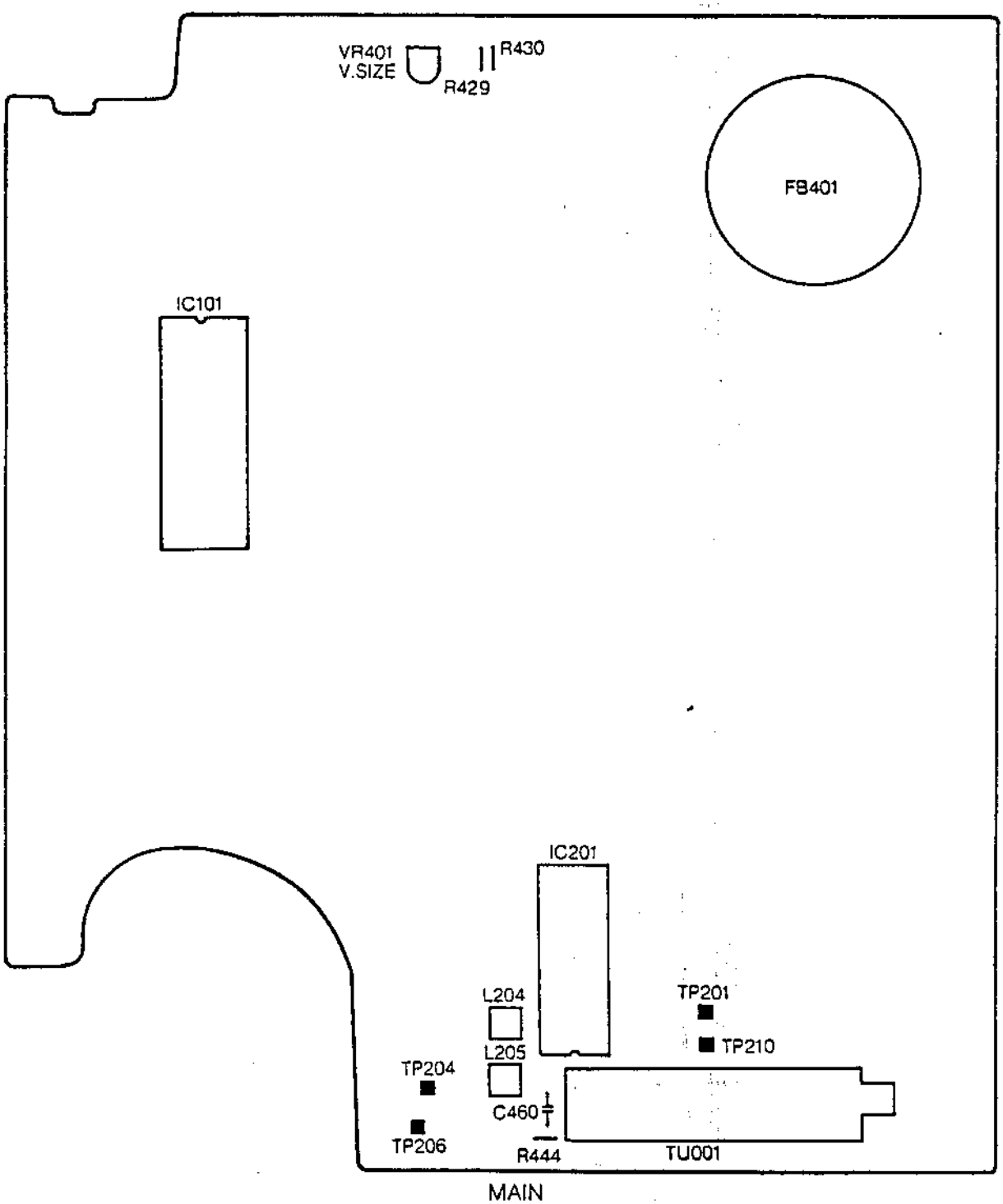
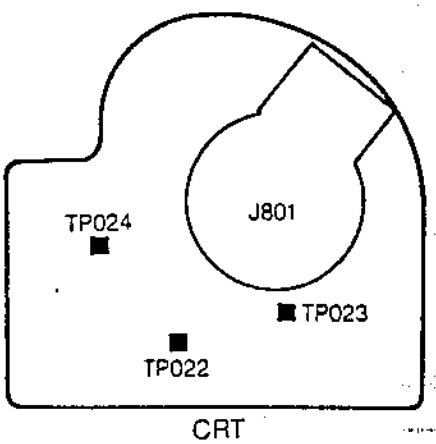
	LA7837
	UPC78M09H
	OEC8044A
	TA8782N
	LA7671S

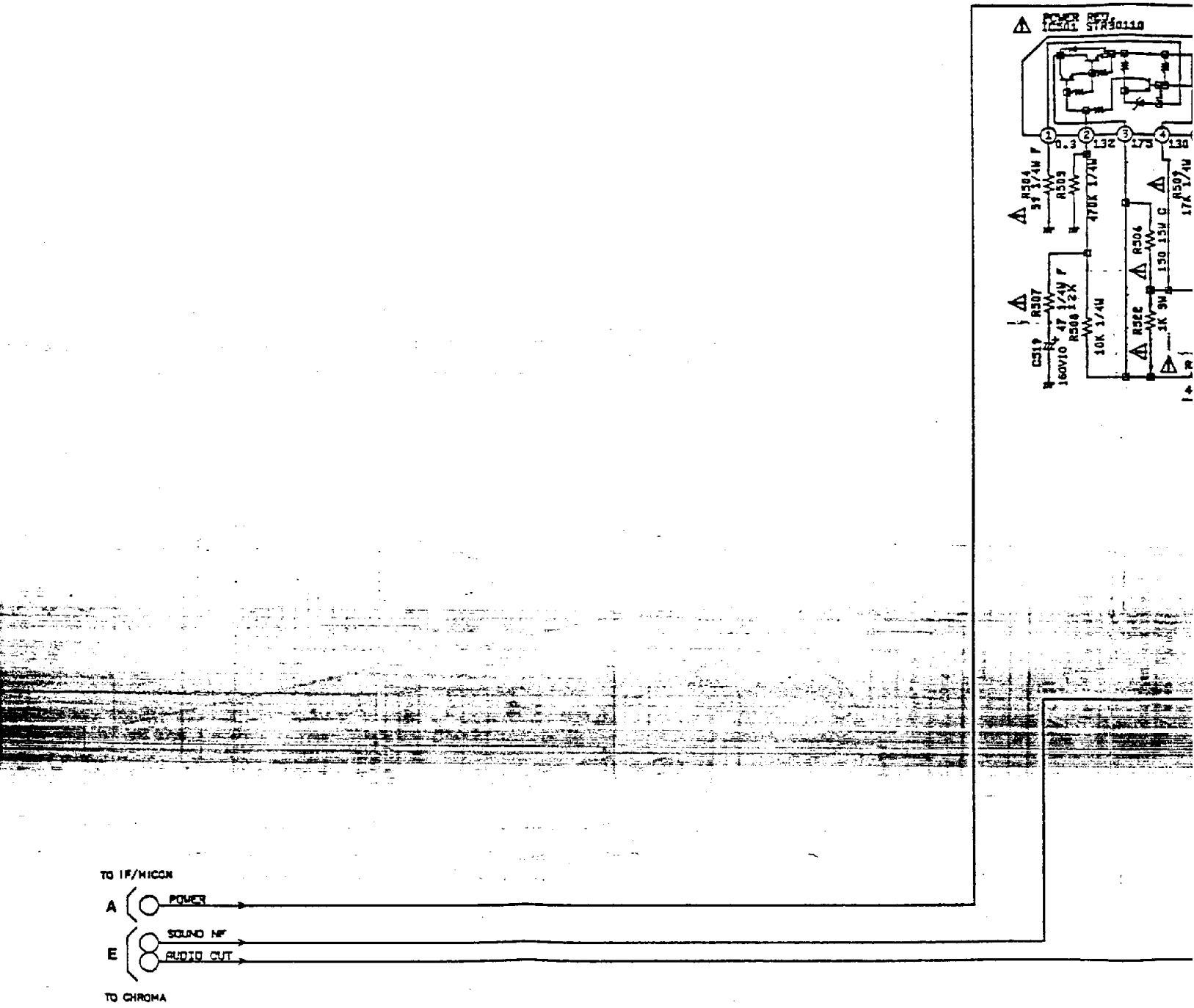
MAJOR COMPONENTS LOCATION GUIDE



MAIN



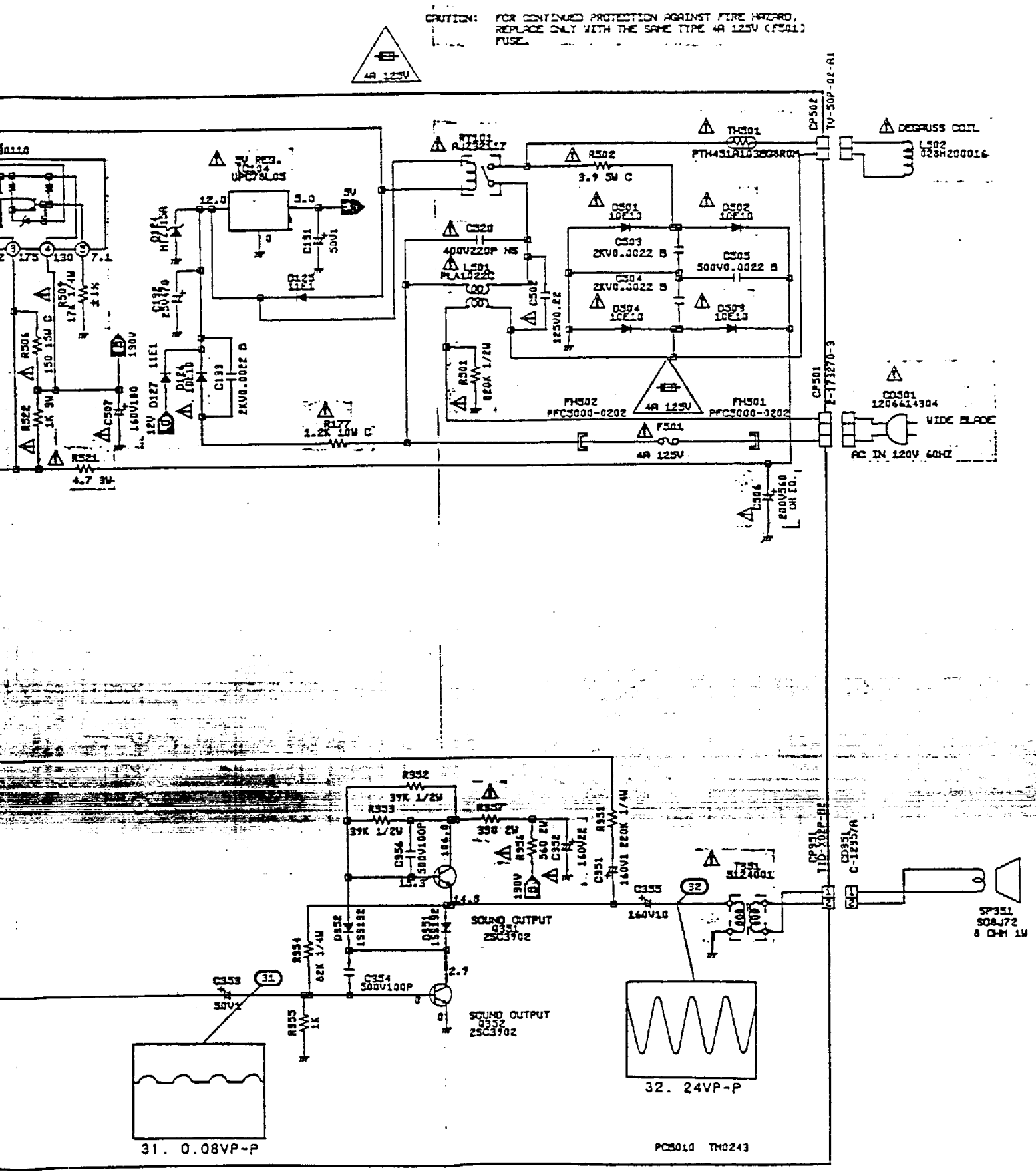
CRT



CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.

NOTE: THIS
OF PR

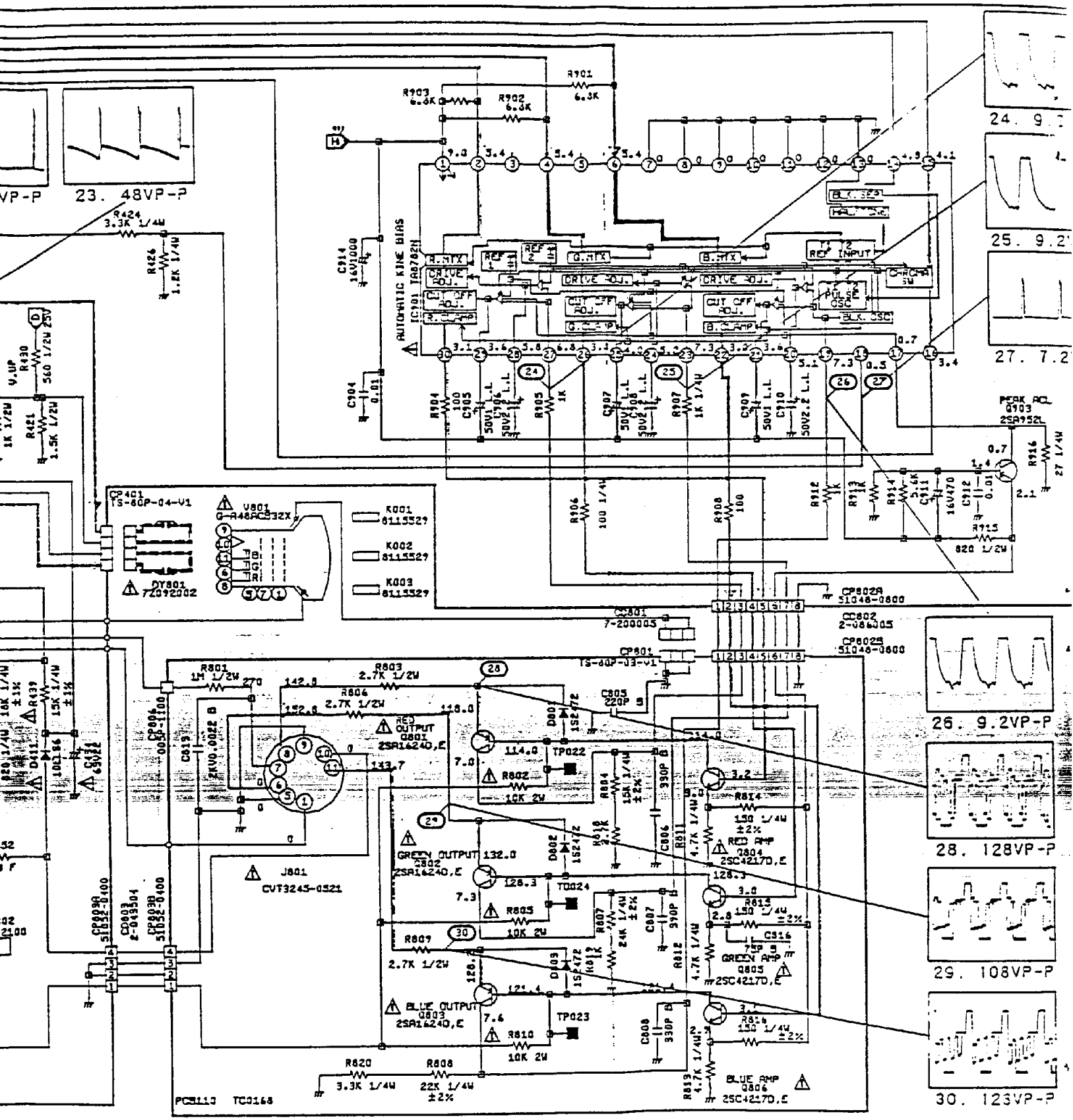
CHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

AUDIO SIGNAL

CHEMATIC DIAGRAM



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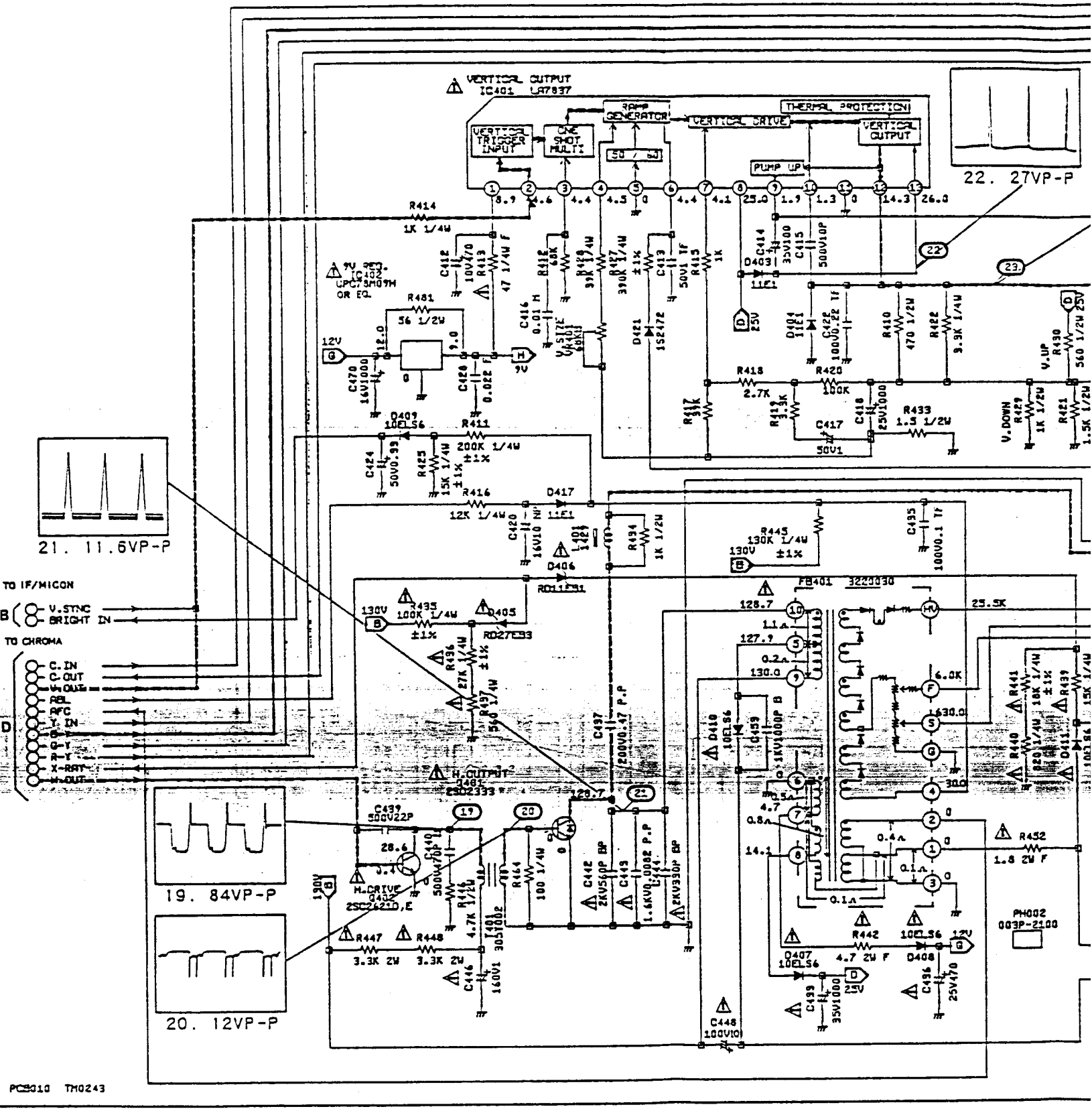
R. SIGNAL
G. SIGNAL
LUMINANCE SIGNAL
COLOR SIGNAL



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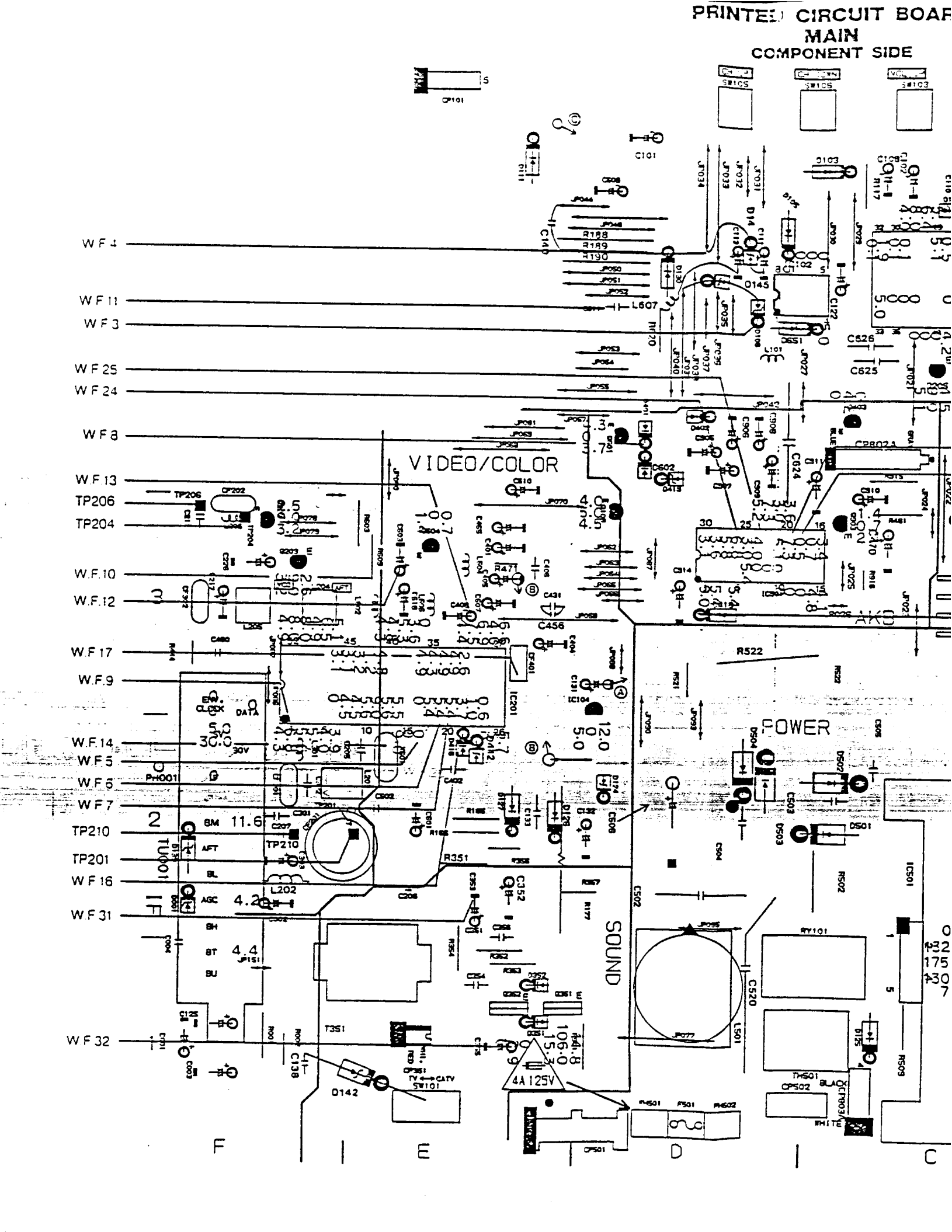
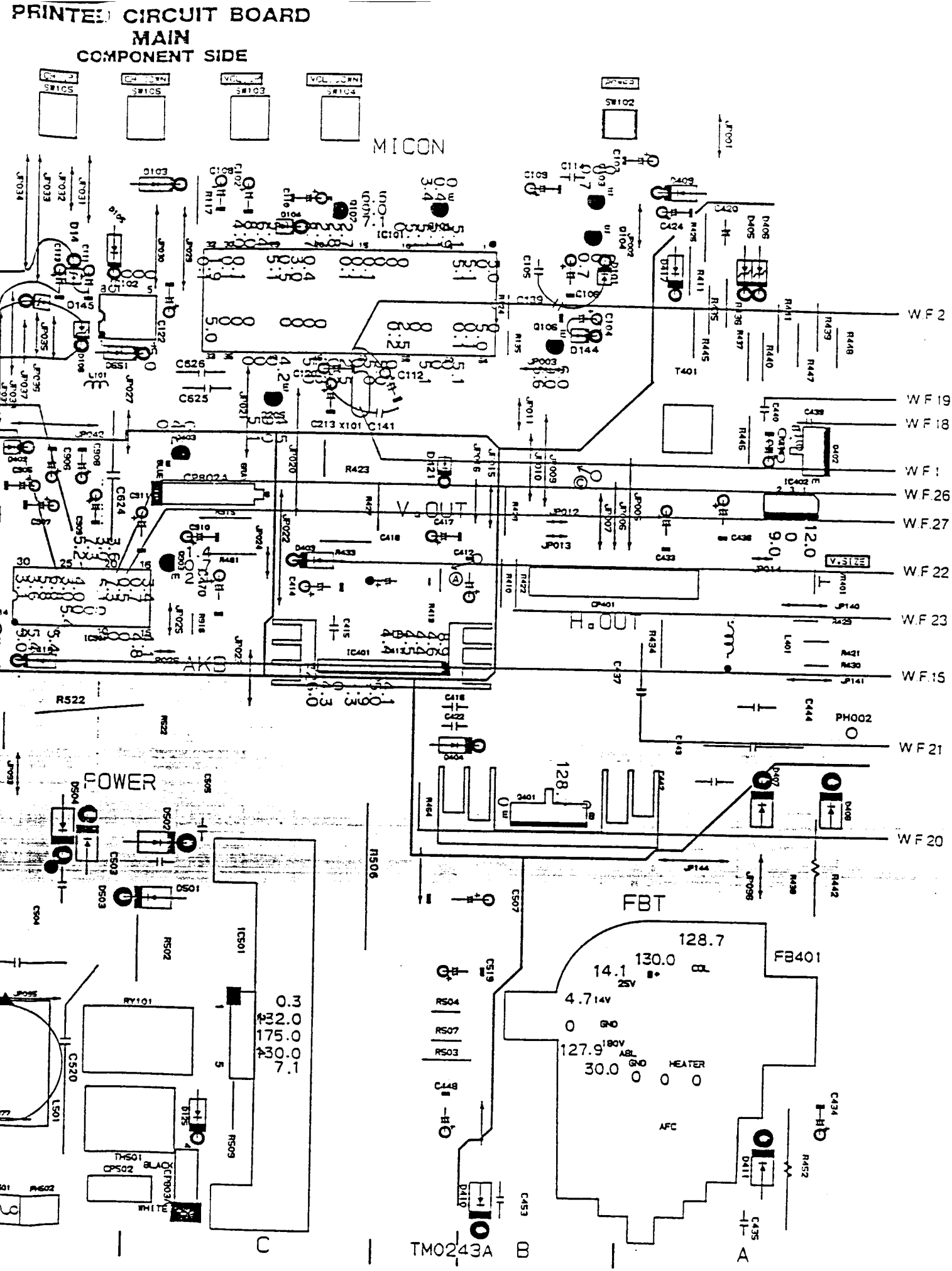
PRINTED CIRCUIT BOARD
MAIN
COMPONENT SIDE

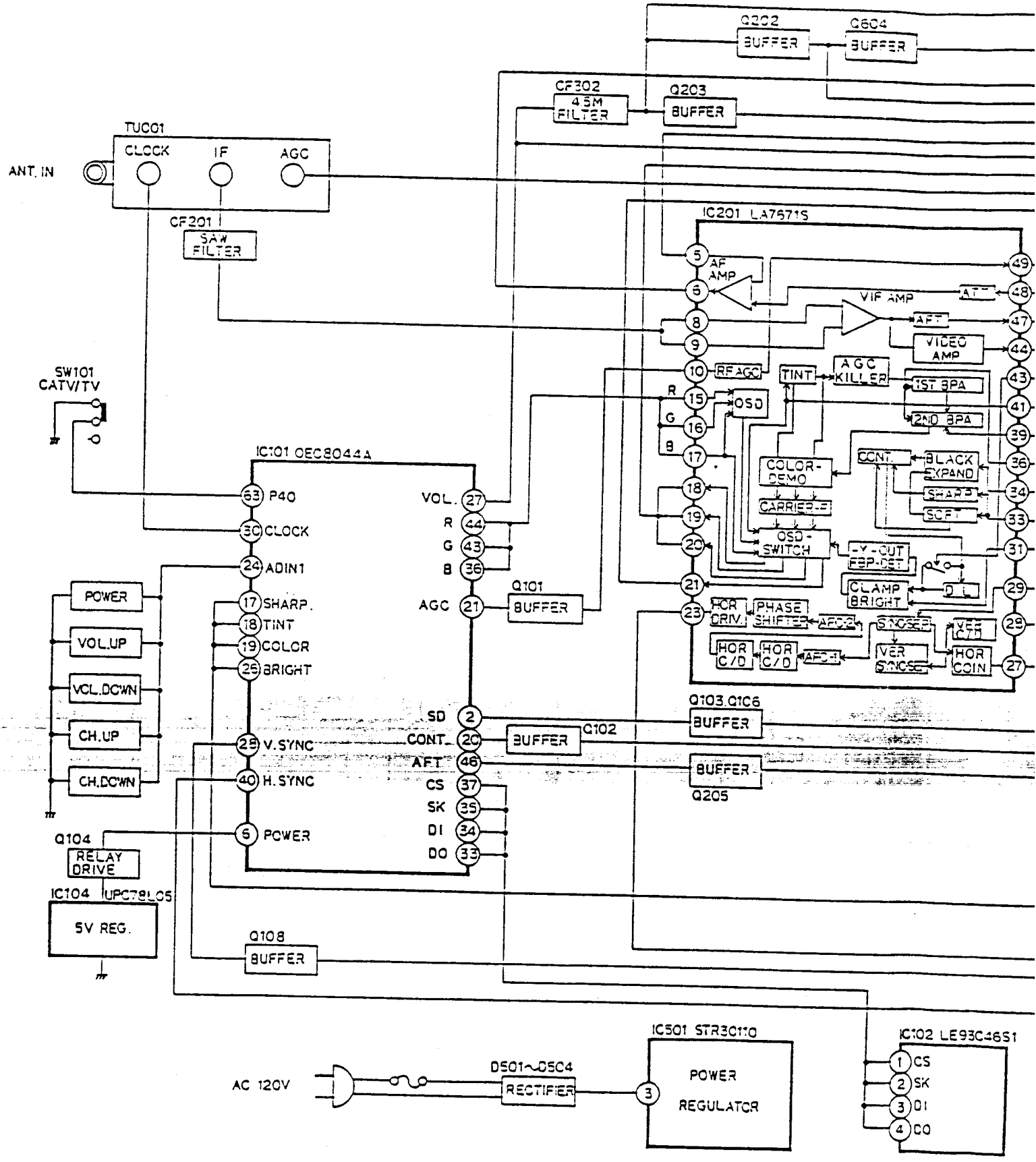


PRINTED CIRCUIT BOARD
MAIN
COMPONENT SIDE

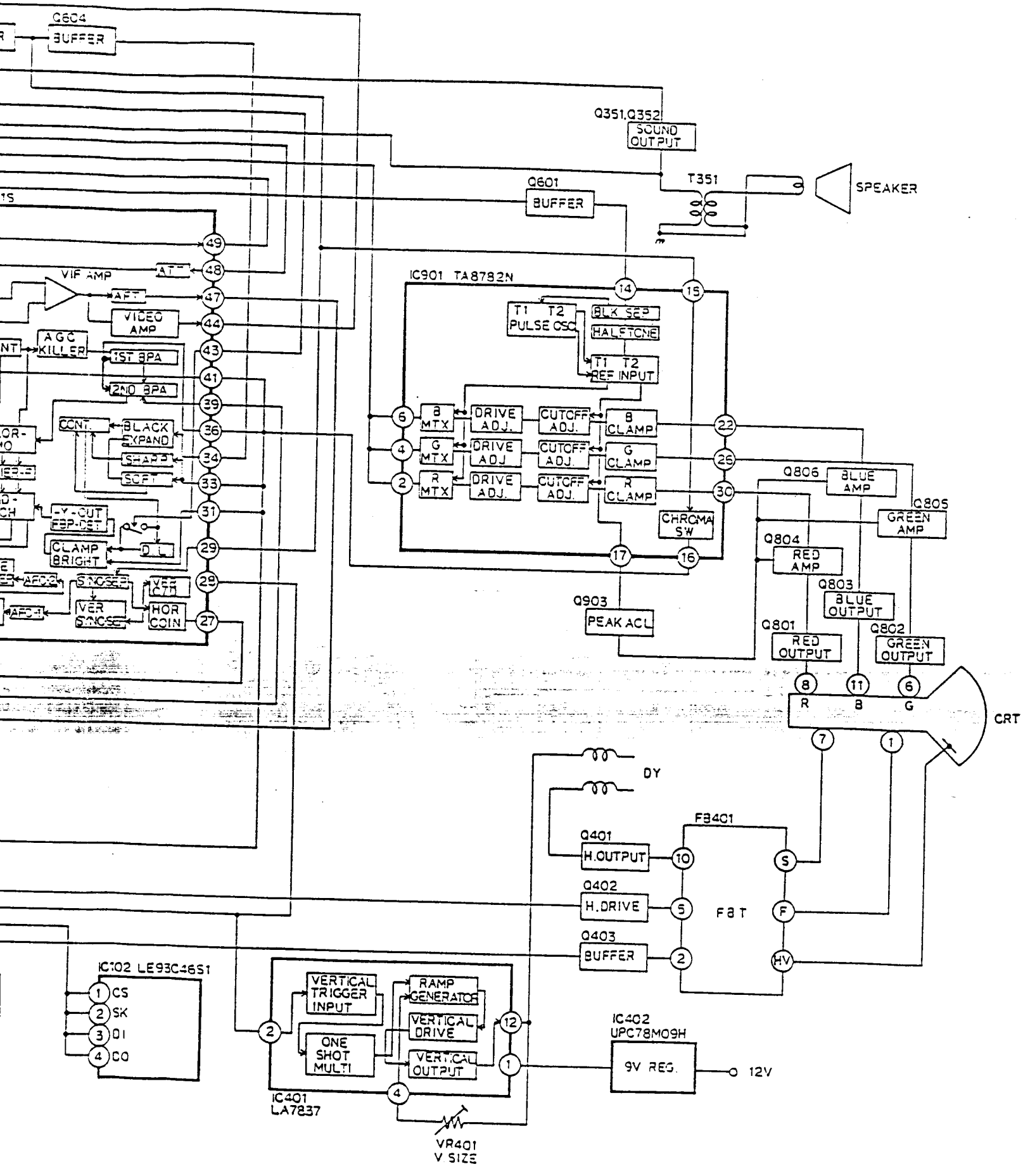


NOTE W.F. .....WAVEF

BLOCK DIAGRAM

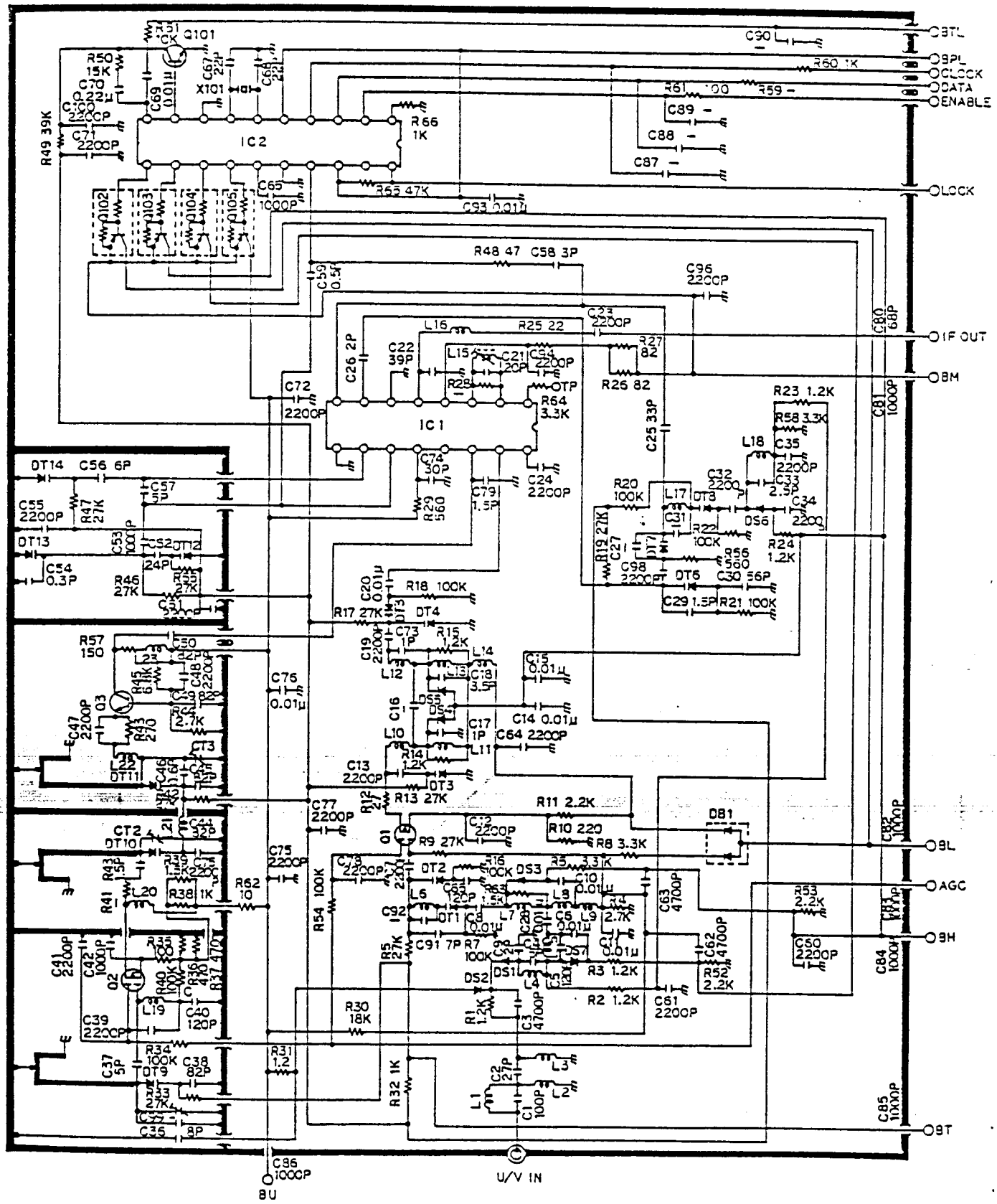


BLOCK DIAGRAM

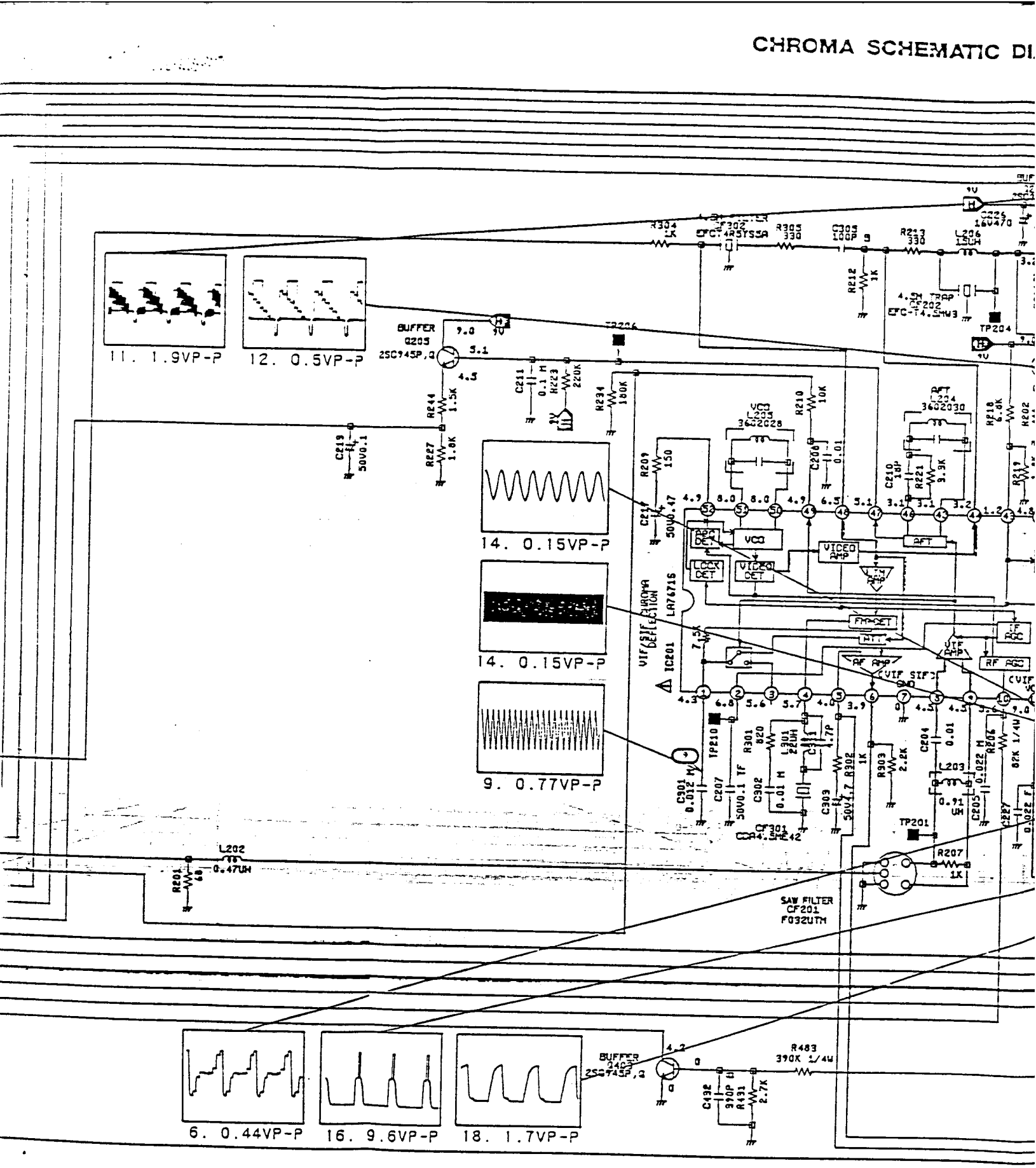


TUNER SCHEMATIC DIAGRAM

ENV-56880G3S



NOTE: Tuner parts are not available.
When repairs are required, order a complete replacement tuner.



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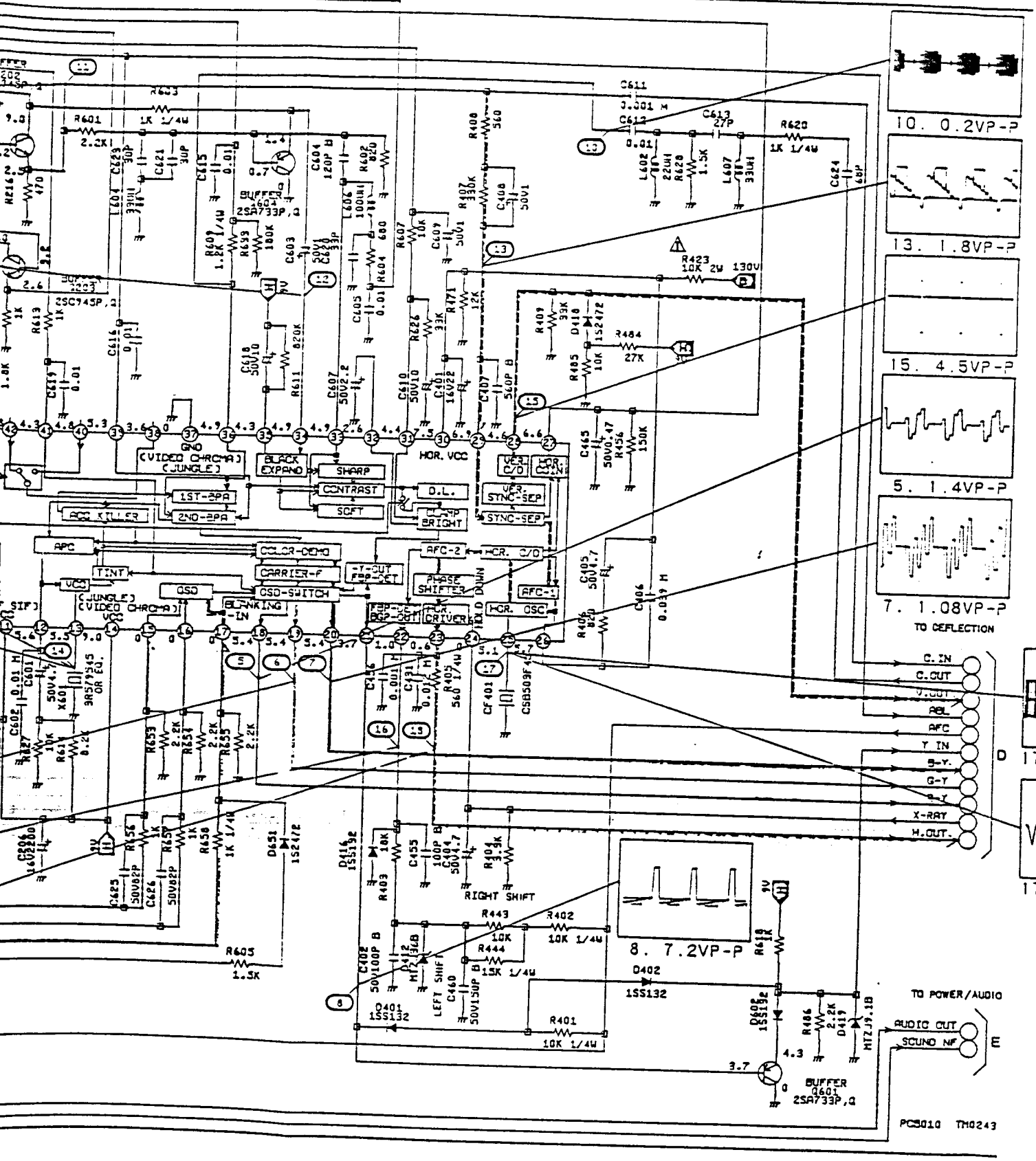
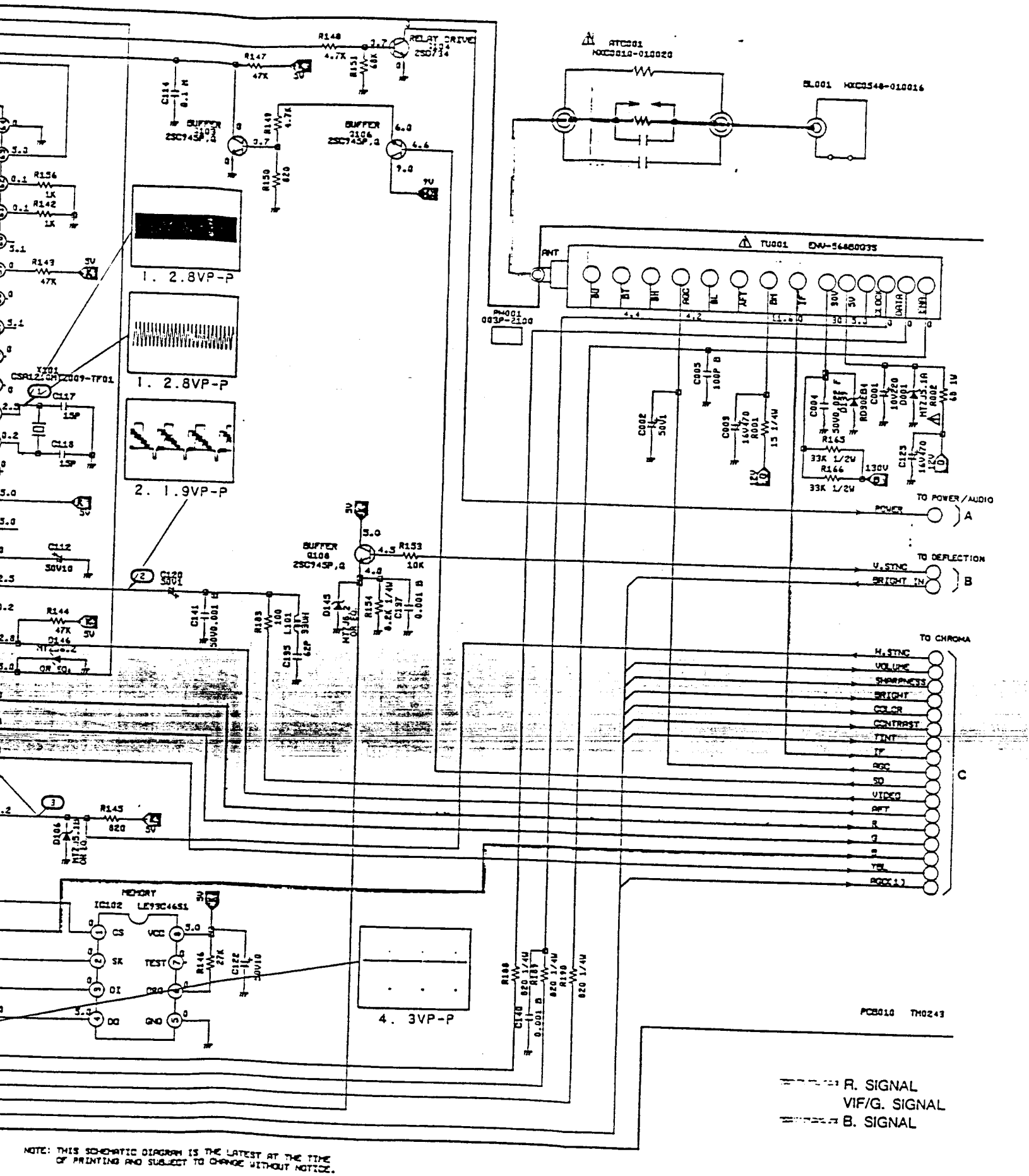
IAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

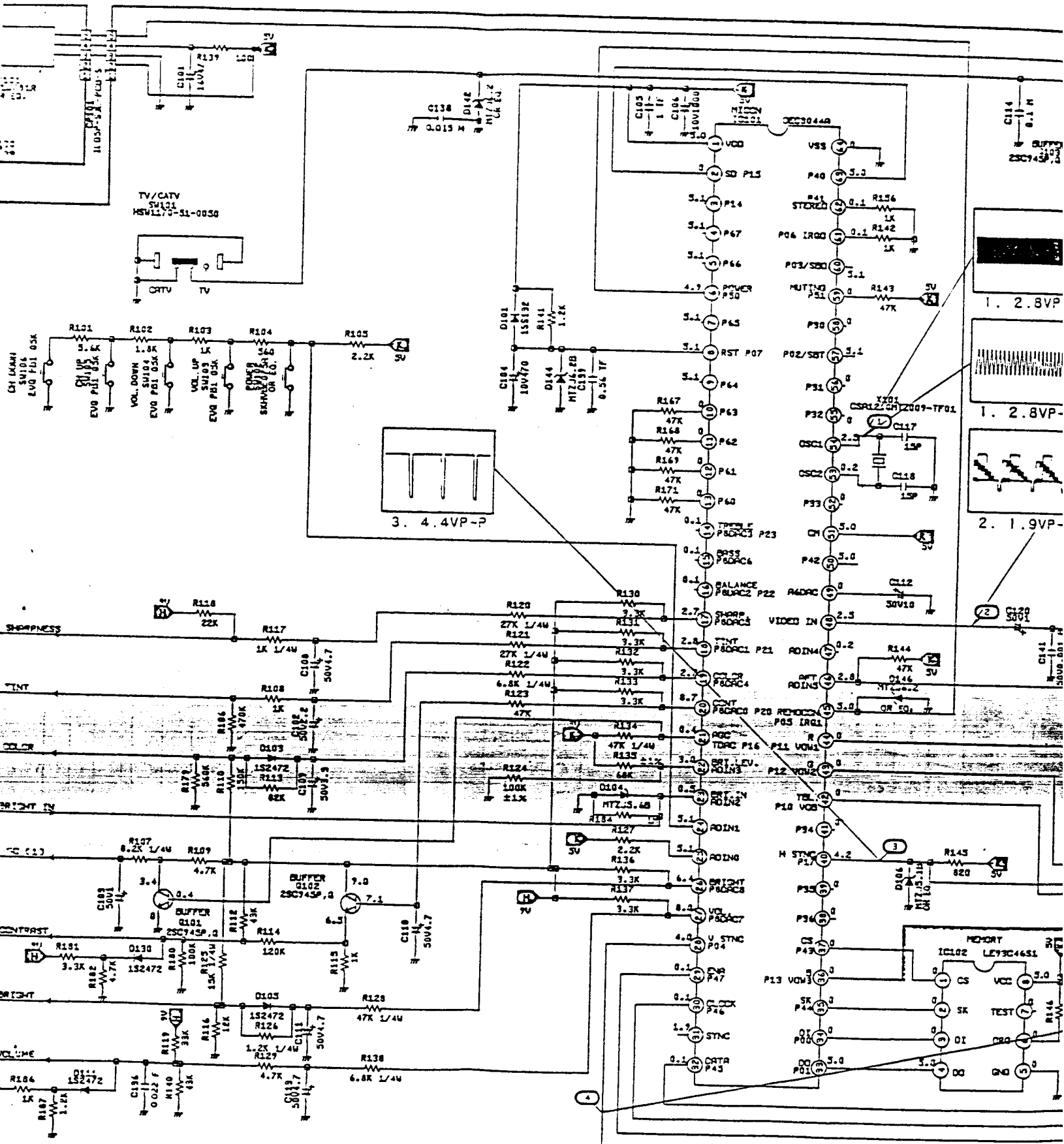
R. SIGNAL
VIF/G. SIGNAL
AUDIO SIGNAL
LUMINANCE SIGNAL
COLOR SIGNAL
B. SIGNAL
DEFLECTION SIGNAL

SCHEMATIC DIAGRAM



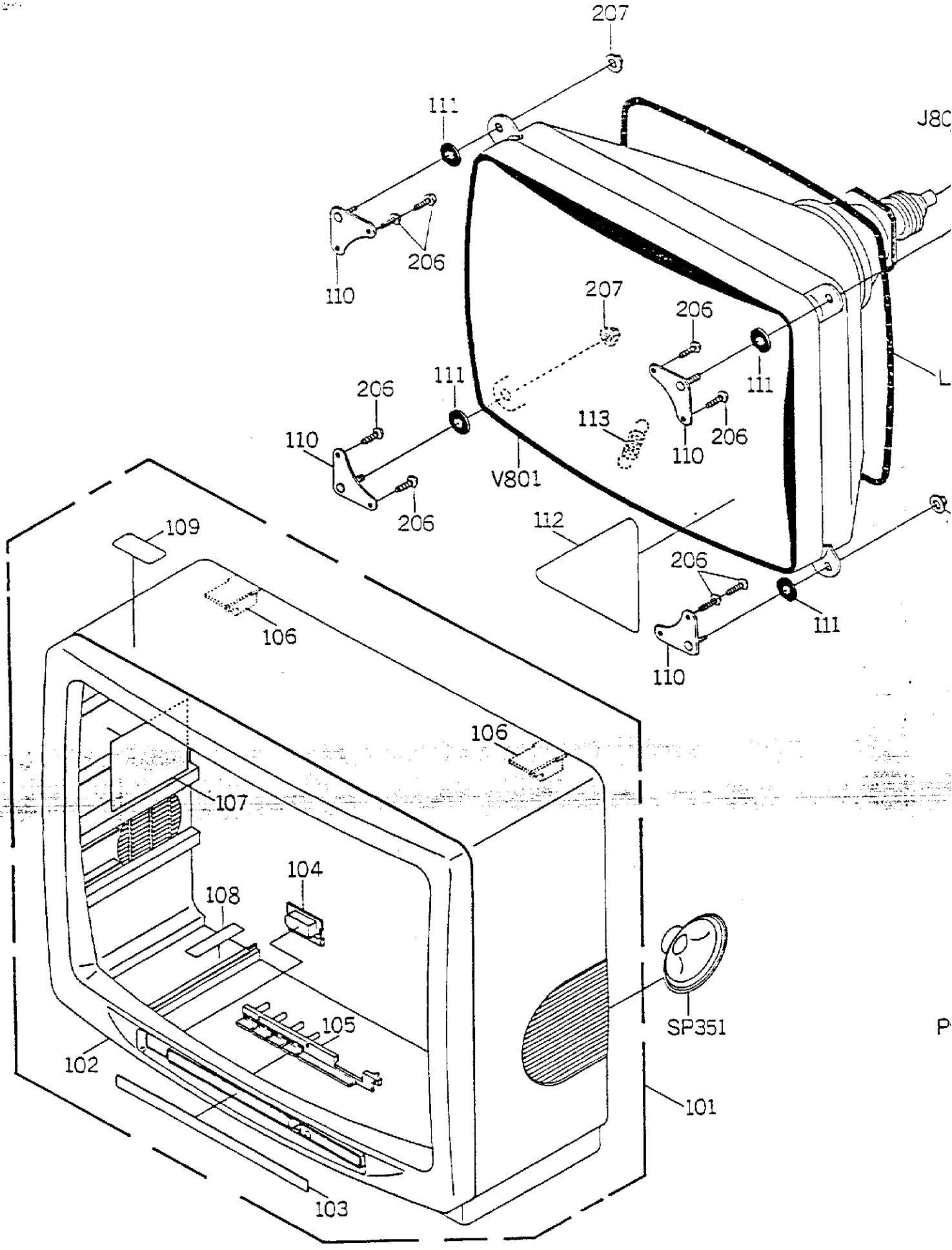
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

IF/MICON SCHEMATIC DIAGRA



NOTE: THESE PARTS MARKED BY ⚠ ARE
CRITICAL FOR SAFETY, USE ONES
SPECIFIED ON PARTS LIST ONLY.

NOTE: THIS SCHEMATIC DIAGRAM IS TH
OF PRINTING AND SUBJECT TO C


207
111
J80
206
110
207
206
111
206
111
L
113
110
206
110
V801
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112
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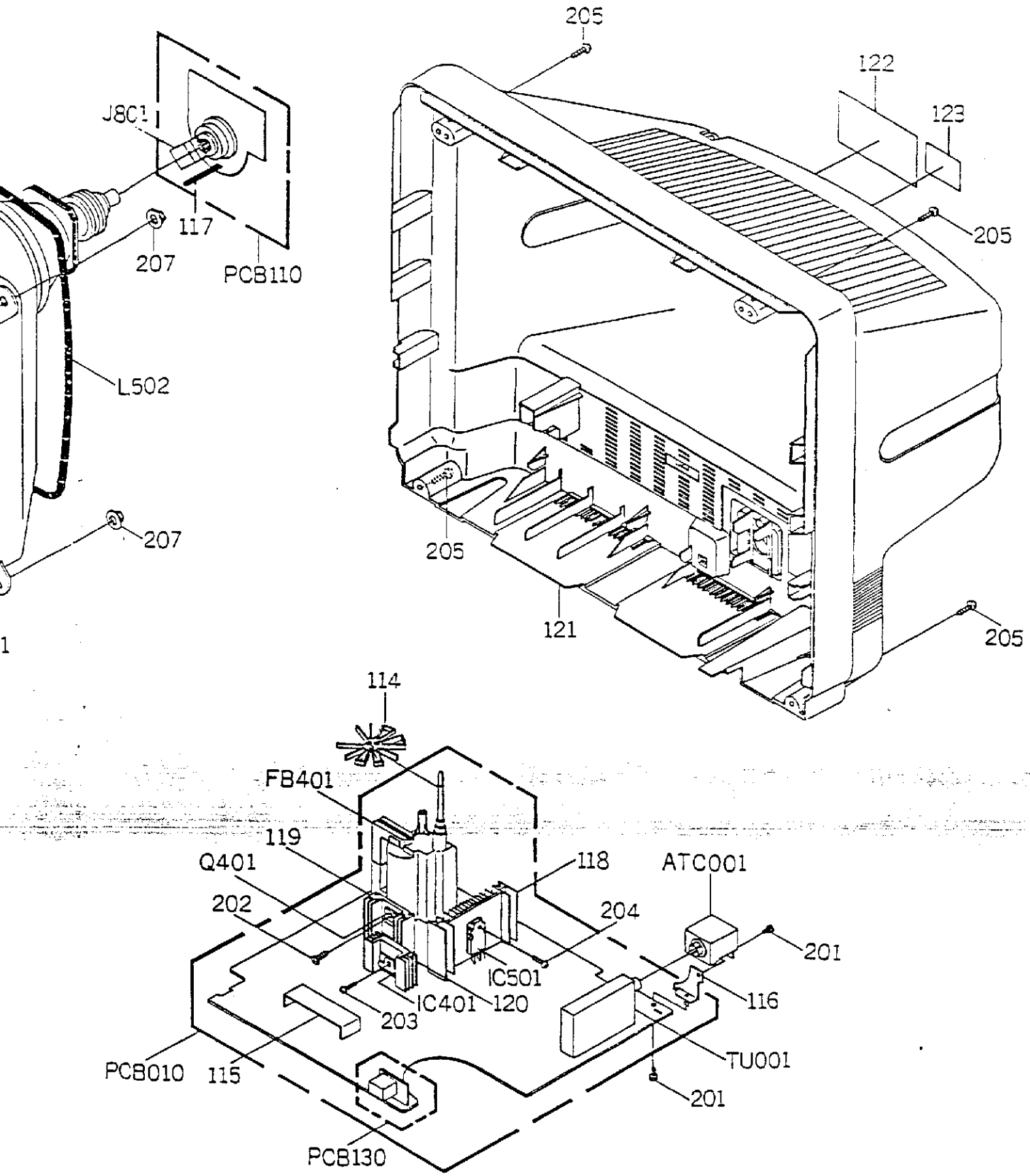
SP351
102
101
103


205
122
123
J801
117
207
PCB110
205
L502
207
205
121
205
1
114
FB401
119
Q401
202
118
ATC001
204
201
IC501
IC401
120
203
116
PCB010
115
TU001
201
PCB130

ELECTRICAL REPLACEMENT PARTS LIST

REF.NO.	PART NO	DESCRIPTION	
RESISTORS			
R002	R311V1680J	R.METAL OXIDE	68 OHM 1W
R177	R5Y2CF122J	R.CEMENT	1.2K OHM 10W
R188	R00104821J	RC	820 OHM 1/4W
R189	R00104821J	RC	820 OHM 1/4W
R190	R00104821J	RC	820 OHM 1/4W
R356	R311VA561J	R.METAL OXIDE	560 OHM 2W
R357	R311VA331J	R.METAL OXIDE	330 OHM 2W
R413	R615U4470J	R.FUSE	47 OHM 1/4W
R423	R311VA103J	R.METAL OXIDE	10K OHM 2W
R435	R425T4104F	R.METAL	100K OHM 1/4W
R436	R425T4273F	R.METAL	27K OHM 1/4W
R437	R001T4561J	RC	560 OHM 1/4W
R439	R425T4153F	R.METAL	15K OHM 1/4W
R440	R001T4821J	RC	820 OHM 1/4W
R441	R425T4183F	R.METAL	18K OHM 1/4W
R442	R6158A4R7J	R.FUSE	4.7 OHM 2W
R444	R00104153J	RC	15K OHM 1/4W
R447	R311VA332J	R.METAL OXIDE	3.3K OHM 2W
R448	R311VA332J	R.METAL OXIDE	3.3K OHM 2W
R452	R6158A1R8J	R.FUSE	1.8 OHM 2W
R501	R002T2824J	RC	820K OHM 1/2W
R502	R5Y2CD3R9J	R.CEMENT	3.9 OHM 5W
R504	R615U4390J	R.FUSE	39 OHM 1/4W
R506	R5Y2CG151J	R.CEMENT	150 OHM 15W
R507	R611U4470G	R.FUSE	47 OHM 1/4W
R509	R425T4173F	R.METAL	17K OHM 1/4W
R521	R311VB4R7J	R.METAL OXIDE	4.7 OHM 3W
R522	R311VB102J	R.METAL OXIDE	1.0K OHM 3W
R802	R311VA103J	R.METAL OXIDE	10K OHM 2W
R805	R311VA103J	R.METAL OXIDE	10K OHM 2W
R810	R311VA103J	R.METAL OXIDE	10K OHM 2W
R916	R0L1U4270J	RC	27 OHM 1/4W
CAPACITORS			
C104	E0E701471M	CE	470 UF 10V
C105	P6M300105J	CMPL	1.0 UF 50V
C112	E0E705100M	CE	10 UF 50V
C139	P6M300564J	CMPL	0.56 UF 50V
C140	CHG080413K	CC	1000 PF 50V
C141	C0J080413K	CC	0.001 UF 50V YB
C206	E0E7F2222M	CE	2200 UF 16V
C352	E0E7T8220M	CE	22 UF 160V
C433	E0E7F4102M	CE	1000 UF 35V
C434	E0E7T5220M	CE	22 UF 63V
C436	E0ELT3471M	CE	470 UF 25V
C437	P411A2474J	CMPP	0.47 UF 200V
C442	C01T8P7S2K	CC	560 PF 2KV
C443	P412A9822H	CMPP	0.0082UF 1.6KV
C444	C01T8PTL2K	CC	330 PF 2KV
C446	E0E7TB010M	CE	1 UF 160V
C448	E0E7T8100M	CE	10 UF 100V
C453	C0JBB0513K	CC	0.001 UF 1KV YB
C502	P2162B224M	CMP	0.22 UF AC125V
C506	E52CFC561M	CE	560 UF 200V
C507	E0E7FB101M	CE	100 UF 160V
C520	CA1030KH2M	CC	220 PF 400V AC
C624	CHG0SL4U1J	CC	68 PF 50V
SEMICONDUCTORS			
D001	D97U05R11A	DIODE.ZENER	MTZJ5.1A T-77
D101	D1VT001320	DIODE.SILICON	1SS132T-77
D103	D1VT024720	DIODE.SILICON	1S2472T-77
D104	D97U05R61B	DIODE.ZENER	MTZJ5.6B T-77
D105	D1VT024720	DIODE.SILICON	1S2472T-77
D106	D97U05R11B	DIODE.ZENER	MTZJ5.1B T-77
D111	D1VT024720	DIODE.SILICON	1S2472T-77
D124	D97U015Q1A	DIODE.ZENER	MTZJ15A T-77
D125	D28T011E10	DIODE.SILICON	11E1TA1
D126	D28T10E100	DIODE.SILICON	10E10-TA2B5
D127	D28T011E10	DIODE.SILICON	11E1TA1
D130	D1VT024720	DIODE.SILICON	1S2472T-77
D139	D92T030084	DIODE.SILICON	RD30EB 4 TA11R
D142	D97U06R210	DIODE.ZENER	MTZJ6.2 (A,B,C)
D144	D97U06R218	DIODE.ZENER	MTZJ6.2B T-77
D145	D97U06R210	DIODE.ZENER	MTZJ6.2 (A,B,C)
D146	D97U06R210	DIODE.ZENER	MTZJ6.2 (A,B,C)
D351	D1VT001320	DIODE.SILICON	1SS132T-77
D352	D1VT001320	DIODE.SILICON	1SS132T-77
D401	D1VT001320	DIODE.SILICON	1SS132T-77

REF.NO.	PART NO.	DESCRIPTION	
SEMICONDUCTORS (CONT.)			
D402	D1VT001320	DIODE.SILICON	1SS132T-77
D403	D28T011E10	DIODE.SILICON	11E1TA1
D404	D28T011E10	DIODE.SILICON	11E1TA1
D405	D92T027083	DIODE.ZENER	RD27EB 3 TA11R
D406	D92T011081	DIODE.ZENER	RD11EB 1 TA11R
D407	D28T10ELS6	DIODE.RECTIFIER	10ELS6TA1
D408	D28T10ELS6	DIODE.RECTIFIER	10ELS6TA1
D409	D28T10ELS6	DIODE.RECTIFIER	10ELS6TA1
D410	D28T10ELS6	DIODE.RECTIFIER	10ELS6TA1
D411	D28T10ELS6	DIODE.RECTIFIER	10ELS6TA1
D412	D97U036018	DIODE.ZENER	MTZJ36B T-77
D416	D1VT001320	DIODE.SILICON	1SS132T-77
D417	D28T011E10	DIODE.SILICON	11E1TA1
D418	D1VT024720	DIODE.SILICON	1S2472T-77
D419	D97U09R11B	DIODE.ZENER	MTZJ9.1B T-77
D421	D1V0024720	DIODE.SILICON	1S2472
D501	D28T10E1D0	DIODE.SILICON	10E10-TA2B5
D502	D28T10E100	DIODE.SILICON	10E10-TA2B5
D503	D28T10E100	DIODE.SILICON	10E10-TA2B5
D504	D28T10E100	DIODE.SILICON	10E10-TA2B5
D602	D1VT001320	DIODE.SILICON	1SS132T-77
D651	D1VT024720	DIODE.SILICON	1S2472T-77
D801	D1VT024720	DIODE.SILICON	1S2472T-77
D802	D1V0024720	DIODE.SILICON	1S2472
D803	D1VT024720	DIODE.SILICON	1S2472T-77
IC101	I51D08044A	OEC8044A	MICON
IC102	I53D046S1J	LE93C46S1	MEMORY
IC104	I02J98L050	UPC78L05	5V REGULATOR
IC201	I03DE76T1S	LA7671S	VIF/SIF CHROMA DEFLECTION
IC401	I03SD78370	LA7837	VERTICAL OUTPUT
IC402	I0X398M090	UPC78M09H	9V REGULATOR
IC501	I2B4901100	STR30110	POWER REGULATOR
IC901	I05DE87820	TA8782N	AUTOMATIC KINE BIAS
Q101	TCLT009450	2SC945A(C)-T(P,Q)	BUFFER
Q102	TCLT009450	2SC945A(C)-T(P,Q)	BUFFER
Q103	TCLT009450	2SC945A(C)-T(P,Q)	BUFFER
Q104	TD3T007340	2SD734(E,F,G)-AA	RELAY DRIVE
Q105	TCLT009450	2SC945A(C)-T(P,Q)	BUFFER
Q108	TCLT009450	2SC945A(C)-T(P,Q)	BUFFER
Q202	TCLT009450	2SC945A(C)-T(P,Q)	BUFFER
Q203	TCLT009450	2SC945A(C)-T(P,Q)	BUFFER
Q205	TCLT009450	2SC945A(C)-T(P,Q)	BUFFER
Q351	TC30039020	2SC3902(S,T)	SOUND OUTPUT
Q352	TC30039020	2SC3902(S,T)	SOUND OUTPUT
Q401	TDKF023330	2SD2333-(RQ)	H.OUTPUT
Q402	TC3C026210	2SC2621(D,E)-RAC	H.DRIVE
Q403	TCLT009450	2SC945A(C)-T(P,Q)	BUFFER
Q601	TALT007330	2SAT33(C)-T(P,Q)	BUFFER
Q604	TALT007330	2SAT33(C)-T(P,Q)	BUFFER
Q801	TA3T016240	2SA1624(D,E)-AA	RED OUTPUT
Q802	TA3T016240	2SA1624(D,E)-AA	GREEN OUTPUT
Q803	TA3T016240	2SA1624(D,E)-AA	BLUE OUTPUT
Q804	TC3F042170	2SC4217(D,E)-RAC	RED AMP
Q805	TC3F042170	2SC4217(D,E)-RAC	GREEN AMP
Q806	TC3F042170	2SC4217(D,E)-RAC	BLUE AMP
Q903	TALT00952L	2SA952(C)-T L	PEAK ACL
COILS & TRANSFORMERS			
L101	021JA6330K	COIL	33 UH
L202	021JA2R47M	COIL	0.47 UH
L203	021S05R91K	COIL	0.91 UH
L204	0336020300	COIL:VIDEO IFT	3602030
L205	0336020280	COIL:VIDEO IFT	3602028
L206	021JA6150K	COIL	15 UH
L301	021JA6220K	COIL	22 UH
L401	022J000008	COIL:LINEARITY	1429
L501	029A000016	COIL:LINE FILTER AC	PLA1022C
L502	028H200016	COIL:DEGAUSS	8H200016
L602	021JA6220K	COIL	22 UH
L604	021JA6330K	COIL	33 UH
L606	021JA6101K	COIL	100 UH
L607	021J96330K	COIL	33 UH
T351	045124001V	TRANSFORMER.SOUND OUTPUT	5124001
T401	03305Y002G	TRANS.,HORIZONTAL DRIVE	305Y002
JACK			
J801	0666130012	SOCKET.CRT	CYT3245-0521

MECHANICAL REPLACEMENT PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	
101	A3C001AT20	CABINET.FRONT ASS'Y	
102	T01APJ0043	CABINET.FRONT	
103	T230004778	PLATE.FRONT	
104	T35APA0008	BUTTON.POWER	
105	T35APA0007	BUTTON.CHANNEL/VOLUME	
106	T09APA0001	CABINET.HOLDER	
107	T260000235	SHEET.CRT SERVICEMAN	
108	T260000251	SHEET.TRANSLESS CAUTION	
109	T230003875	FILM.INFORMATION	
110	T62TSA0037	ANGLE.CRT	
111	800AR00002	SHEET.CRT SUPPORT	
112	T232560212	FILM.DECORATION	
113	T41SUA0001	SPRING.EARTH	
114	T59WPA0004	HOLDER.ANODE LEAD	
115	T52SSA0008	SHIELD.IC	
116	T61WSA0017	ANGLE.ATC UNIT	
117	----	COAING CLIP CP-1S 50MM	
118	----	HEAT SINK.POWER	
119	----	HEAT SINK	
120	----	HEAT SINK	
121	T02APA0059	CABINET.BACK	
122	T222560585	SHEET.RATING	
123	T230004749	SHEET.UPC-A	
201	810A130504	SCREW/WASHER(A)	M3*5
202	8117D30804	SCREW.TAPPING(BO) WH&	3*8
203	8110630804	SCREW.TAP TITE(P) BRAZIER	3*8
204	8110630A04	SCREW.TAP TITE(P) BRAZIER	3*10
205	8117540A64	SCREW.TAPPING(BO) TRUSS	4*16
206	8117540B04	SCREW.TAPPING(BO) TRUSS	4*20
207	8300560004	SL NUT	M6
---	J3C00101	INSTRUCTION BOOK	
---	JEASTFA02	WARRANTY CARD	
---	JEASTFA36	ESP BROCHURE	
---	J3970443	ACCESSORY ORDER FORM	
---	T230004748	SHEET.BAR CODE	
---	T91MHA0004	LAMIFILM BAG	
---	T92AHA0030	PACKAGE.TOP	
---	T92AHA0031	PACKAGE.BOTTOM	
---	T93AC00271	GIFT BOX	

ELECTRICAL REPLACEMENT PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	
		SWITCHES	
SW101	0510321028	HSW1170-51-0050	TV/CATV
SW102	0504U01T33	SKHVBE075A	POWER
SW103	0504101T32	EVQ PB1 05K	VOL.UP
SW104	0504101T32	EVQ PB1 05K	VOL.DOWN
SW105	0504101T32	EVQ PB1 05K	CH UP
SW106	0504101T32	EVQ PB1 05K	CH DOWN
		VARIABLE RESISTOR	
VR401	V1H63U4BT6	VR,SEMIFIXED	66KB V.SIZE
		P.C. BOARD ASSEMBLIES	
PCB010	A3C001A01AZ1	PCB ASS'Y TM0243-Z1	MAIN
PCB110	A3C001A11A	PCB ASS'Y TC0168	CRT
PCB130	A3C001A13A	PCB ASS'Y TE0766	REMOCON
		MISCELLANEOUS	
⚠ ATC001	0632400005	ANT.UNIT	NXC0010-010020
BL001	063W200026	PLUG-FJ	HXC0548-010016
CD351	06CK12357A	CORD,CONNECTOR	C-12357A
⚠ CD501	1206614304	CORD,AC	1206614304
CD801	127A200005	BRAIDED WIRE	7-200005
CD802	122Z086005	CORD,JUMPER	2-086005
CD803	122Z043504	CORD,CONNECTOR	2-043504
CF201	1027045RTA	FILTER,SAW	F032UTM
CF202	1011T4R507	FILTER,CERAMIC	EFC-T4R5MW3
CF301	1012T4R514	CERAMIC DISCRI.	CDA4.5ME42-TF21
CF302	1011T4R504	FILTER,CERAMIC	EFCT4R5YS5A
CF401	1002R50304	CERAMIC OSCILLATOR	CSB503F45
CP101	069H150209	CONNECTOR PCB SIDE	ILG5P-S3L-PCB-S
CP351	069W120019	CONNECTOR PCB SIDE	TID-X02P-B2
CP401	069W340018	CONNECTOR PCB SIDE	TS-80P-04-V1
CP501	0694430100	CORD,UX CONNECTOR	2-173270-3
CP502	069W420029	CONNECTOR PCB SIDE	TV-50P-02-A1
CP801	069W330018	CONNECTOR PCB SIDE	TS-80P-03-V1
CP806	069W010020	CONNECTOR PCB SIDE	005P-1100
CP802A	067R008019	WIRE HOLDER	51048-0800
CP802B	067R008019	WIRE HOLDER	51048-0800
CP803A	067R104019	WIRE HOLDER	51052-0400
CP803B	067R104019	WIRE HOLDER	51052-0400
⚠ DY801	027Z092002	DEFLECTION YOKE	7Z092002
⚠ F501	081DC04003	FUSE	4A 125V
⚠ FB401	043220030M	TRANSFORMER,FLYBACK	3220030
FH501	06760T0001	HOLDER,FUSE	PFC5000-0202
FH502	06760T0001	HOLDER,FUSE	PFC5000-0202
K001	129A000010	WEDGE	8115529
K002	129A000010	WEDGE	8115529
K003	129A000010	WEDGE	8115529
OS101	077901100A	REMOTE RECEIVER	GP1U781R
PH001	069W01001A	CONNECTOR PCB SIDE	003P-2100
PH002	069W01001A	CONNECTOR PCB SIDE	003P-2100
⚠ RY101	0560120108	RELAY	AJZ32117
SP351	070V131003	SPEAKER	S08J72
⚠ TH501	D8R08G8R0M	DEGAUSS ELEMENT	PTH451A1038G8R0M
TM101	076M056100	TRANSMITTER	R25-6800
⚠ TU001	0145S00035	TUNER,UHF-VHF	ENV-56880G3S
⚠ V801	092Z200411	COLOR PICTURE TUBE	G-A48AC832X
X101	1002T01201	C.OSCILLATOR	CSA12.0MTZ009-TF01
X601	100W357903	CRYSTAL HC-49/U	3.579545MHZ

RESISTOR
RC.....CARBON RESISTOR

CAPACITORS
CC.....CERAMIC CAPACITOR
CE.....ALUMI ELECTROLYTIC CAPACITOR
CP.....POLYESTER CAPACITOR
CPP.....POLYPROPYLENE CAPACITOR
CPL.....PLASTIC CAPACITOR
CMP.....METAL POLYESTER CAPACITOR
CMPL.....METAL PLASTIC CAPACITOR
CMPP.....METAL POLYPROPYLENE CAPACITOR
CST.....STYROL CAPACITOR