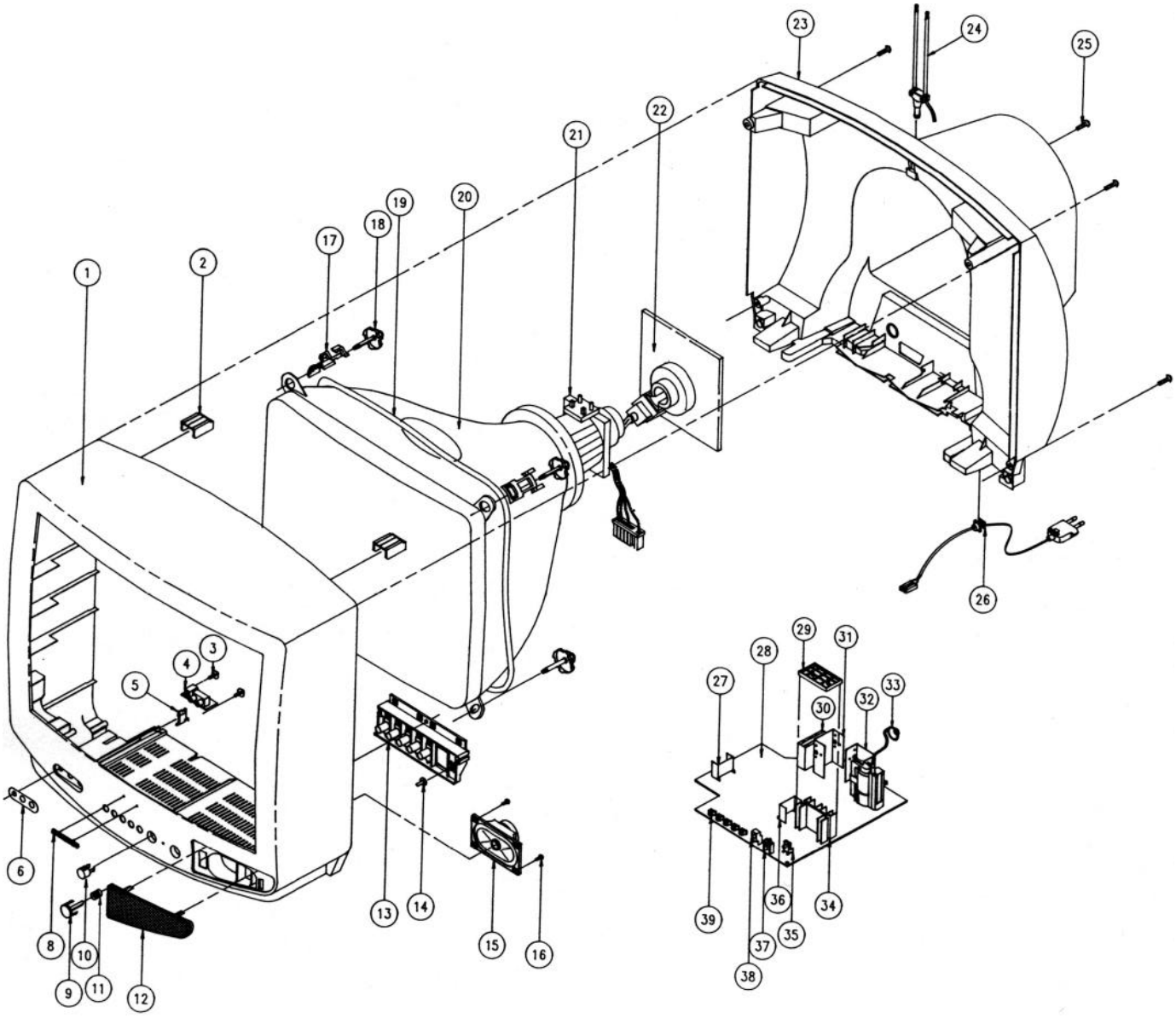
6. Exploded View and Parts list

6-1 .CT5073VC/ASMCX



No	New Code No	Old Code No	Description	Specification	Q'ty	Remrk
1	AA64-30118C	32001-0129-040	CABINET-FRONT	HIPS,HB,BLK,PA100,E	1	
2	33113-0003-011		BOSS-CABINET(WING)	HIPS,V0,BLK	2	
3	AA60-10002A	37144-001-210	SCREW-TAPPING(PA+CF)	RH,+,M4,L12,ZPC(YEL)	2	
4	33339-521-070		JACK-EARPHONE	SHC9085-01-010	1	
5	AA61-40007A	33383-0002-000	STOPPER-PC8	ABS,HB,NTR,5038	1	
6	A3040-0186		JACK-PIN,BLOCK	P13.5 V-A/V IN 2P ST	1	
	A3040-0187		JACK-PIN,BLOCK	P13.5 V-MINI 2P ST S/W	1	
8	AA64-70015B	34533-0079-030	BADGE-BRAND	AL,L45,GOLD,R2000,SS	1	
9	AA64-10131A	34083-0179-000	KNOB-POWER	ABS,HB,BLK,5073	1	
IO	AA64-40044A	34073-0076-000	WINDOW-REMOCON	ABS,HB,NO-SILK,5073	1	
11	AA61-60003T	36674-140-880	SPRING-CS	SUS304,0.5,007,H13.5	1	
12	AA63-50096A	34003-0070-000	GRILLE-WOOFER	DP,AA63-50095A	1	
13	AA64-10039A	34082-0178-000	KNOB-CONTROL	ABS,HB,BLK,5073	1	
14	AA64-40182A	34164-0039-000	INDICATOR-LEO	ACRYL,5073	1	
15	3001-001004		SPEAKER	3W,160HM,900B,180HZ	1	—1001211
16	37148-540-153		SCREW-TAPPING(SPK+CF)	2S-4X15 FE FZY	2	
17	AA65-30019A	36635-112-110	CLAMP-D.COIL	NYLON,V0,NTR,DADH-460 2	2	
18	AA60-10017A	37124-100-830	SCREW-ASSY(CRT+CF)	WC,RH,+,M5,L35,SWRCH18A	4	
19	AA27-20001B	32479-028-510	CDIL-DEGAUSING	20",4.00HM,35T,L1280,D	1	
20	AA03-10003L	A1320-0156	CRT-COLOR	A48KRD82X(U),+380MG,20"	1	
21	AA27-50001S	32439-310-029	DEFLECTION-YOKE	DSE-1992LL(1),20"	1	
22	3704-000109	A3047-0020	SOCKET-CRT	14P,29,1PI,22.5PI,SN	1	
23	AA64-30375B	32001-0130-010	CABINET-BACK	HIPS,HB,BLK,5073	1	
24	AA42-10001S	34509-334-004	ANT-ROD	DP,4S,700MM,MT,UL	1	
25	6002-000514	37148-540-153	SCREW-TAPPING(CB+CF)	RH,+,2,M4,L15,ZPC(BLK),SW	4	
26	AA39-10003H	A6006-0281	POWER-CORD	KJ-10,SPT-2,2.1M,UL/CSA	1	
27	*AA96-60004A	● 3Y81-00002-010	ASSY-H/S,SOUND(IC601)	TDA7056,SIP	1	
28	AA41-10590A		PCB-MAIN	K1,1L,FR-1,245X245X1.6T	1	BARE PCB
29	CHASSIS OPTION		COVER-HEAT SINK			
30	AA40-10005B		TUNER-F/S	TECC1080PK25A,NTSC/USA	1	
31	● AAQ6%0020A	*3Y82-00016-010	ASSY-H/S,VERT(IC301)	KA2131	1	
32	*AA96-60021A	*3Y82-00017-010	ASSY-H/S,VERT(Q401)	KSD5072YD	1	
33	AA26-30001Y	A1201-0033	TRANS-FLY BACK	FSV-20A001 20",125V	1	
34	●	*3Y83-20027-010	ASSY-H/S,POWER(IC801)	SMR40100,SIP,5P	1	
35	3404-000209	A30186044	SWITCH-TACT	12V,50MA,90-150GF,8,SPST	1	
36	●		ASSY-H/S,POWER(IC802)	KA7631 SIP 10P BULK	1	
37	*AA96-30001B	*3H77-00001-070	ASSY-LED,GUIDE	AA41-50055A,DL-G5RGA	1	
38	AA59-60003B		MODULE-REMOCON	SR-12V,38KHZ,940NM,MESH	1	
39	3404-000244	B3018-0034	SWITCH-TACT	15V,20MA,90-170GF,7.5X7MM	5	

4. Alignment and Adjustments

4-1 Service Mode Adjustments

4-I-I Service Mode Menus

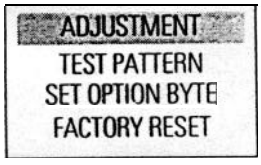
Since there are no VRs in the K1 chassis, all adjustments after parts replacement must be done in the Service Mode. Service Mode adjustments are necessary when either the EEPROM (IC902) or the CRT is replaced.

4-I-Z Entering the Service Mode

Press the following transmitter keys while in STAND-BY mode:

MUTE-->1-->8-->2-->POWER

"Factory Mode Menu" is displayed



<---selected (violet)

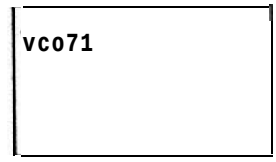
Enter Service-Mode using the Volume +,- keys. Service Mode Menu:

AGC	XX	GG	XXX
VCO	XX	BG	XXX
SCT	XX	SB	XX
SCR	XX	VA	XX
STTI	XX	VS	XX
RC	XXX	HS	XX
GC	XXX	SS	XX
BC	XXX	SVC:MUTE	

Select a mode to be adjusted, using the channel down key. Example: VCO.

AGC	XX	GG	XXX
VCO	XX	BG	XXX
SCT	XX	SB	XX
SCR	XX	VA	XX
STTI	XX	VS	XX
RC	XXX	HS	XX
GC	XXX	SS	XX
BC	XXX	SVC : MUTE	

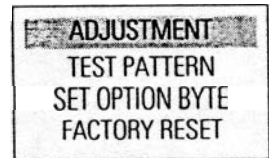
Change the data with "Volume +,- " keys.



Return to the Service mode by pressing MENU.

AGC	XX	GG	XXX
VCO	XX	BG	XXX
SCT	XX	SB	XX
SCR	XX	VA	XX
STTI	XX	VS	XX
RC	XXX	HS	XX
GC	XXX	SS	XX
BC	XXX	SVC : MUTE	

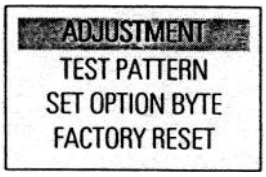
Return to the Factory mode via the MENU key.



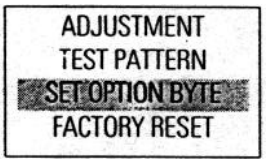
Press POWER to enter the Stand-by mode.

4-1-3 Adjustment in Option Mode

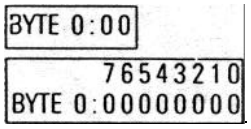
This adjustment is necessary whenever the EEPROM is replaced. Input data (as marked on the back cabinet).



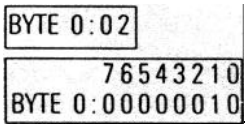
Select 'SET OPTION" by pressing the Channel ▼ key twice.



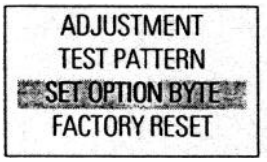
Press the Volume +,- keys to enter the set Option mode.



Set each bit to "0" or "1" via the Direct Access Keys (O-7) of the transmitter. Example: To set Byte) to 2, press Direct Access Key ①, see below:

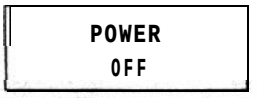


Press MENU to go back to the factory mode.

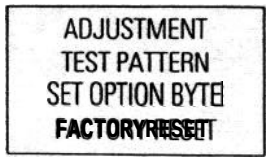


Select RESET with channel ▼ key.

Press volume + key.



4-I-4 Service Mode Adjustments



1. The Pattern Adjustment is done only in the factory. Do not attempt to readjust it
2. Refer to 42 for other adjustments.
3. Set OPTION data (as marked on the back-cabinet label).

4-I-5 Service Mode Adjustment Ratings

No	Item	Function	Range	Initalized MICOM Data
1	AGC	RFAGC Adjustment	o-63	43
2	VCO	PIF VCO Adjustment	o-127	63
3	SCT	SUB-CONTRAST Adjustment	0-63	39
4	SCR	SUE-COLOR Adjustment	o-27	4
5	STT	SUB-TINT Adjustment	O-27	19
6	RC	RED-CUT OFF Adjustment	o-255	0
7	GC	GREEN-CUT OFF Adjustment	O-255	0
8	BC	BLUE-CUT OFF Adjustment	o-255	0
9	SVC	Input a Horiz line pattern		
10	GG	GREEN-GAIN Adjustment	o-255	90
11	BG	BLUE-GAIN Adjustment	o-255	140
12	SB	SUB-BRIGHTNESS Adjustment	B-63	16
13	VA	VERTICAL PHASE SIZE Adjustment	O-63	35
14	VS	VERTICAL CENTER Adjustment	0	0
15	HS	HORIZONTAL Phase Adjustment	0-31	15
16	SS	SUB-SHARPNESS Adjustment	B-31	25

Note : The initial MICOM data values take effect when IC902 is replaced.

4-Z-I General Alignment Instructions

1. Usually, a color TV needs only slight touch-up adjustment upon installation. Check the basic characteristics such as picture height, focus and a horizontal and vertical sync.

2. Observe the picture and check for good back and white details. There should be no objectionable color shading: If color shading is present, demagnetize the receiver. If color shading persists, perform purity and convergence adjustments described below.

3. To protect against shock hazard, use an isolation transformer.

4-2-2 Power Supply Check

Check the following:
A: Power plug is connected; "Stand-by" mode
B: Power On when "Power ON' button is pressed
C: Power On by FBT Each supply is marked on its lead-in wire. ( )

4-2-3 Focus Adjustment

Adjust the focus control on the FBT for well defined scanning lines.

4-2-4 Fail Safe Circuit Check (FS)

1. The failsafe check must be the final step in servicing.

2. Turn the power switch ON and adjust customer controls for normal operation.

3. Temporarily short pin X to pin R on the main board (RX05, RX04) with a jumper wire. Raster will disappear.

4. The TV must remain in this state even after removing the jumper wire. This shows that the failsafe circuit is working properly.

5. To recover picture and sound, temporarily turn off the TV and allow the failsafe circuit more than 30 seconds to reset. Then switch power ON to produce normal picture and sound.

4-2-5 IC902 Replacement

1. When IC902 is replaced, all values are reset to "Initialized MICOM Data" and readjustment is necessary.

2. Press POWER button 10 seconds after plug-in.

3. To enter the service mode, refer to 41 (Service Mode Adjustment).

4-2-6 PIF VCO Adjustment

1. Use a Pattern Generator or an off-air signal.

2. Open pin 11 of Micom (IC901) or one side of lead pin for R237.

3. Adjust VCO in the service mode to set IC101 Pin 44 (AFT) to 2.5V ± 0.4V.

4. Connect the opened site.

4-2-7 RF-AGC Adjustment

1. Input a PHILLIPS pattern (CH40).

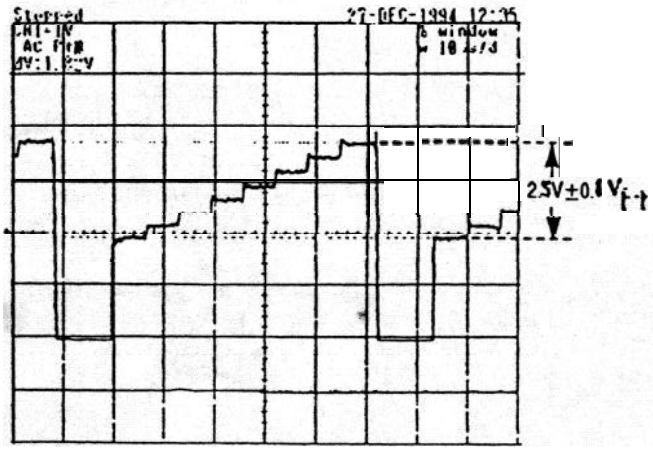
2. Set the input signal to 60dB.

3. Enter into the AGC in the service mode.

4. Adjust AGC until color bar noise disappears.

4-2-8 Sub-Contrast Adjustment

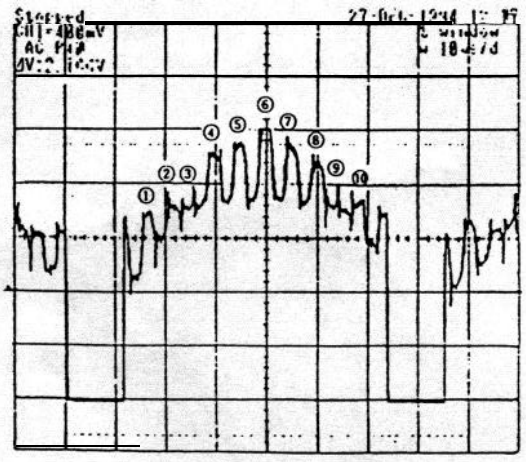
1. Input a gray scale pattern. Use a pattern generator (PM5518).
2. Short D208 to switch off the ABL feed-back.
3. Check CN201 R-OUT with an oscilloscope.
4. Set RC, BC, GC data to 0 in the Service Mode.
5. Adjust SCT to 2.40 ± 0.1Vp-p



6. Remove the short across D208 and restore ABL.

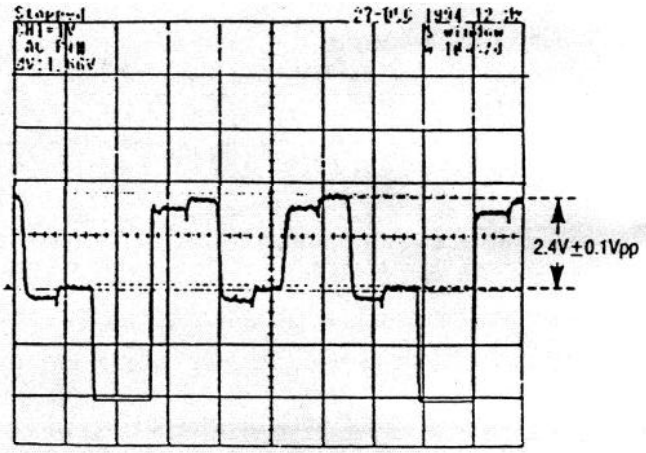
4-2-9 Sub-Tint Adjustment

1. Input a rainbow pattern.
2. Check CN201 B-OUT with an oscilloscope.
3. Adjust STT in the service mode until the 6th peak is the highest and the 5th and 7th peaks have equal heights.



4-2-10 Sub-Color Adjustment

1. Do sub-color adjustment after the Sub-Contrast and Sub-Tint adjustments.
2. D208 should still be shorted. The ABL should still be switched OFF.
3. Input a color bar pattern. Use a pattern generator (PM5518)
4. Check CN201 R-OUT (use an oscilloscope).
5. Ensure that the RC, GC and BC data are 0. BG are 140 and GG should be 90.
6. Adjust SCR to 2.4 ±: 0.1Vp-p (black and red levels).
7. Remove the short across D208 and restore ABL.



4-2-11 White Balance Adjustment

4-2-I 1 (a) LOW-LIGHT ADJUSTMENTS

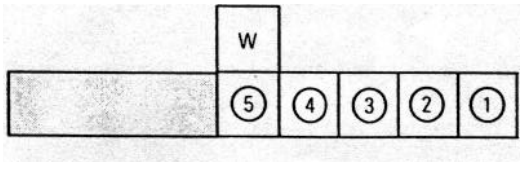
1. Input either a lion head or “pure white” color pattern.
2. Operate the receiver for 30 minutes.
3. Check the data in the service mode:
   RC, GC, BC are 0 and SB is 16;
   Steps BG are 90 and GG are 140.
4. Enter the horizontal line mode by pressing the MUTE key.
5. Adjust the screen VR on the FBT until a dim colored line (red,green or blue) appears on the screen.
6. After pressing the MUTE key, go to RC,BC or GC with channel ▲/ ▼ keys. After putting a dim colored line (red, green or blue) in the horizontal line with MUTE key, adjust color with volume ▲/ ▼ keys
7. Exit the horizontal line via the MUTE key.

4-2-I 1 (b) HIGH-LIGHT ADJUSTMENTS

1. Input a high-light pattern
2. Adjust GG,BG in the Service Mode.
3. Recheck in low iight.

4-2-12 Sub-Brightness Adjustment

1. Input a Toshiba pattern.
2. Warm up the receiver for 10 minutes.
3. Enter the Service Mode and set SB to the point where the 5th point is brighter in the gray scale.



4-2-13 Vertical Size Adjustment

1. Input a lion head pattern-
2. After the vertical center adjustment, enter into the service mode.
3. Adjust VA so that the each top and bottom of the screen is 4.0. If the top and bottom values are different, adjust VA so that the sum of the two values is 8.0.

4-2-14 Horizontal Size Adjustment

1. Receive a lion head pattern.
2. Enter into the service mode.
3. Adjust HS to symmetrize right and left.

4-2-15 When CRT Is Replaced

Do the following adjustments after the basic purity and convergence adjustments.

1. White Balance
2. Sub-brightness
3. Vertical Size
4. Horizontal Size
5. Fail safe (should be the final step).

SCHEMATIC DIAGRAM

CHASSIS : K-1

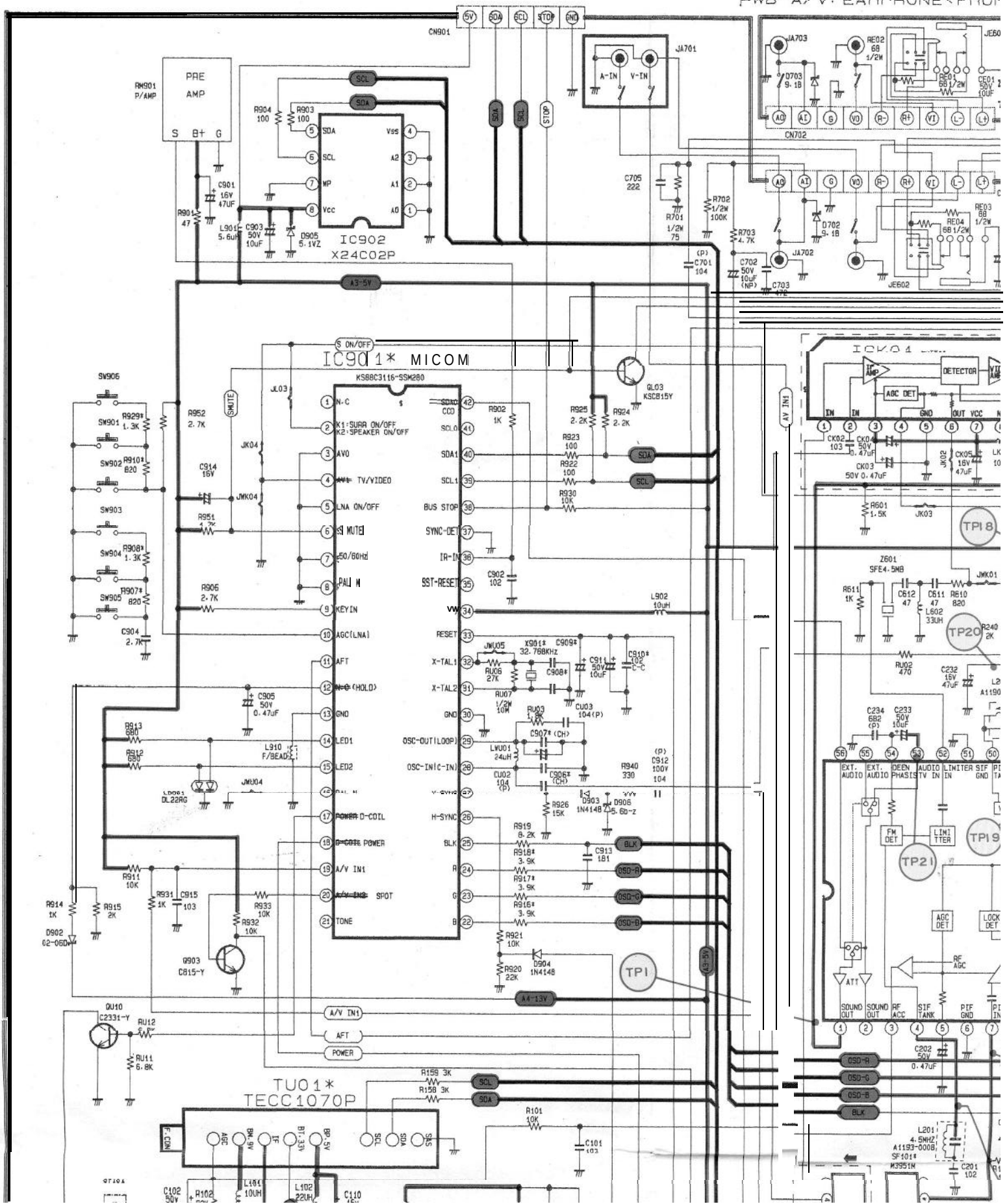
MODEL : CT-3373CA, CT-5073CA

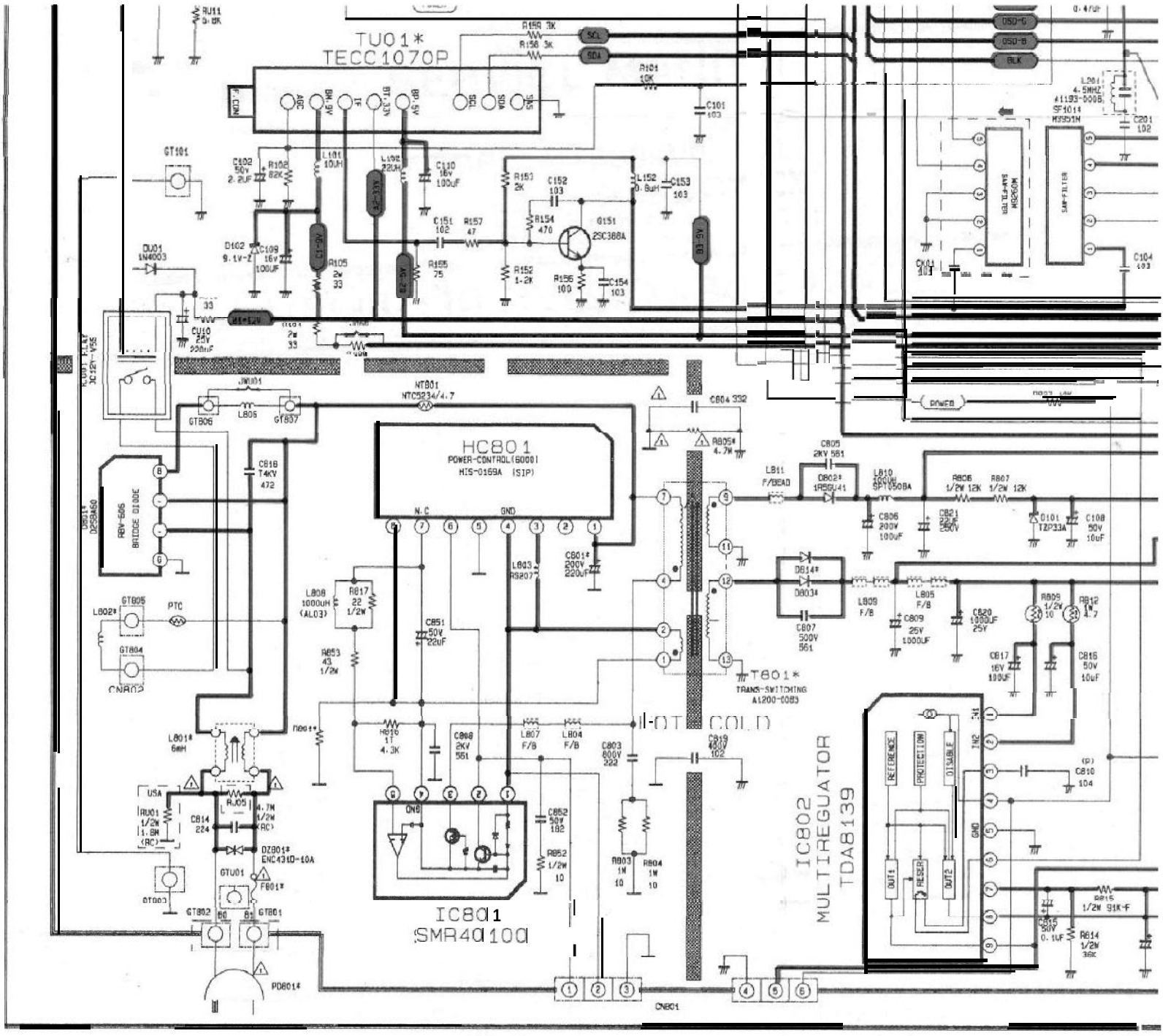
BOARD NAME : NO489000

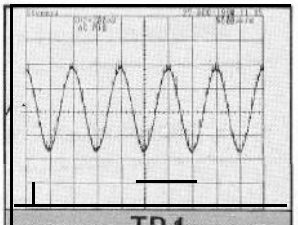
ADJUSTMENT PORT

TCD1372/1382/1373

PWB-A/V. EARPHONE(FRON

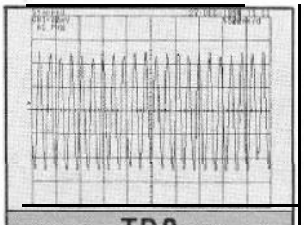






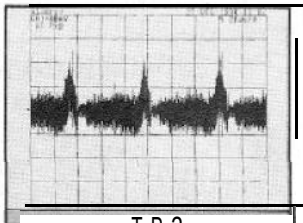
TP 1

Pin1, AUDIO OUTPUT



TP 2

Pin4, SIF TANK

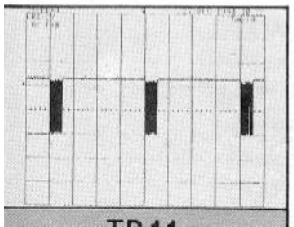


TP 3

Pin7, PIT INPUT

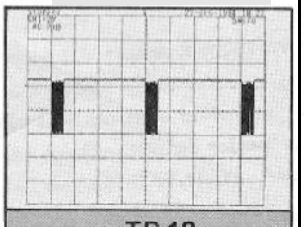
TP 4

Pin19, R-OUTPUT



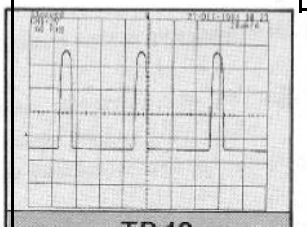
TP 11

Pin27, SUS:SCL INPUT



TP 12

Pin28, BUS:SDA INPUT

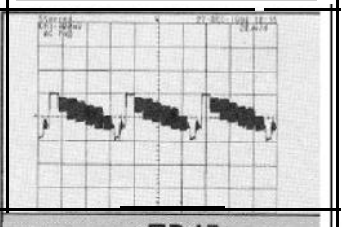


TP 13

Pin30, FLYBACK PULSE INPUT

TP 14

Pin32, HORIZONTAL OPTPUT

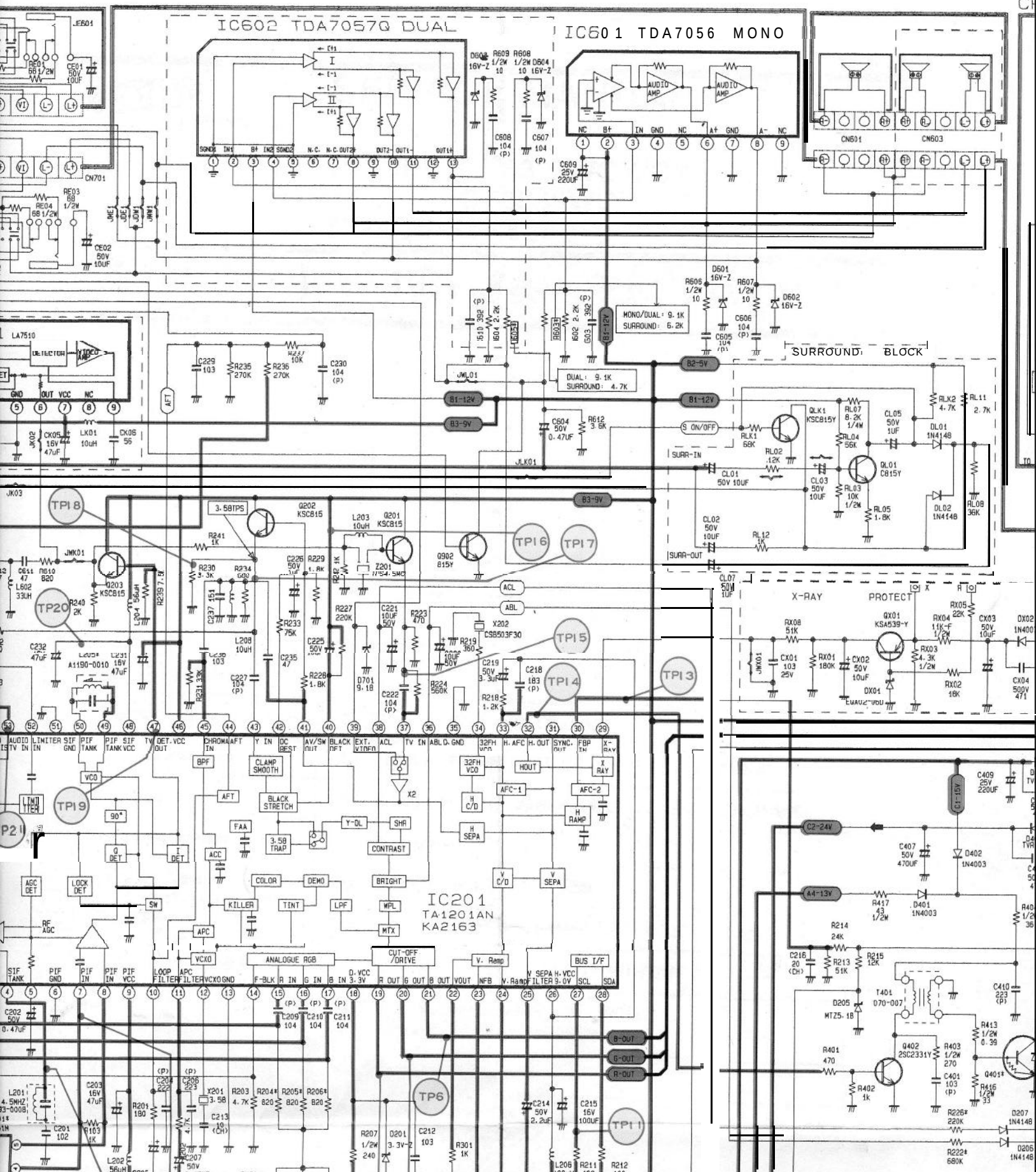


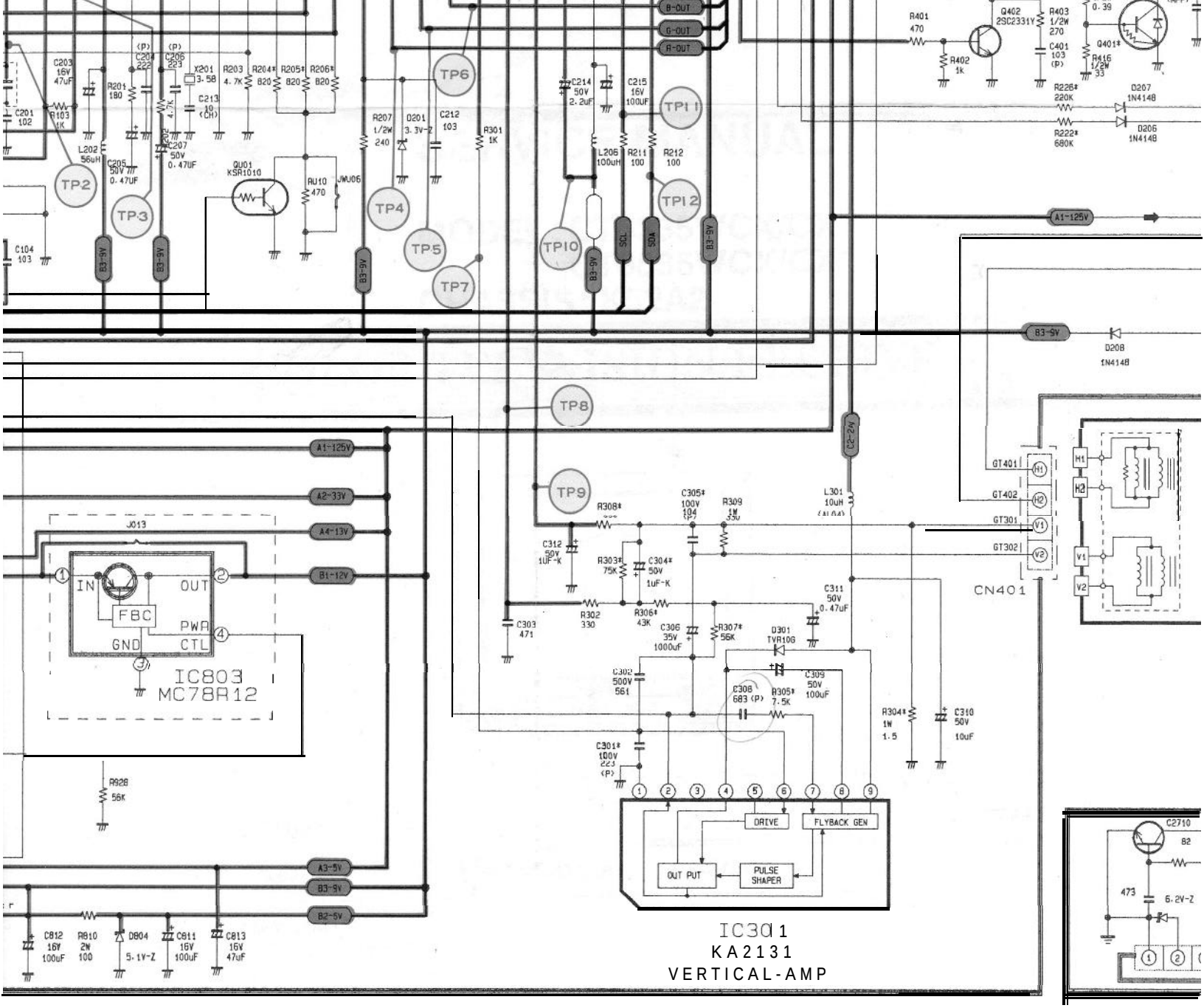
TP 15

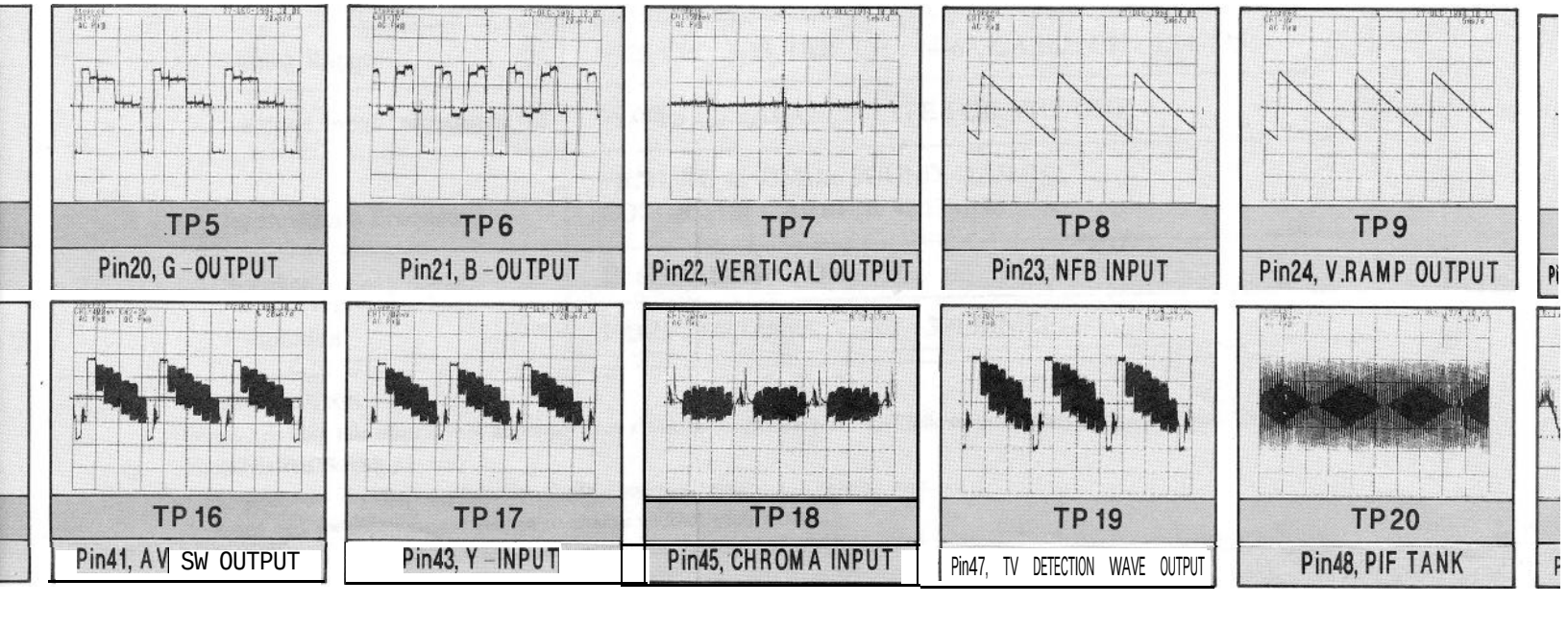
Pin37, TV INPUT

/1373/1372 TXD1972/1373/1972/1982/1973/2022

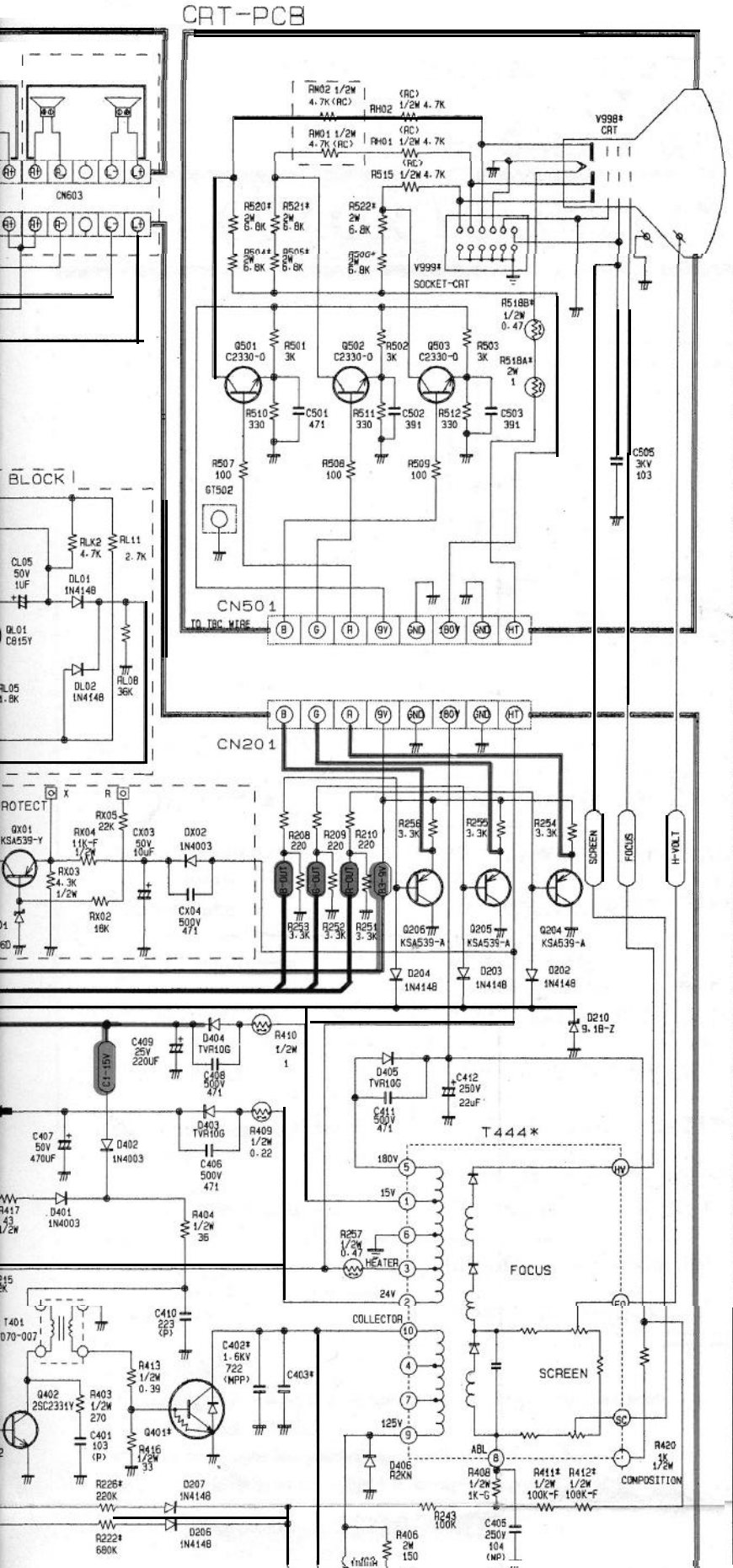
ONE〈FRONT〉




TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
B-OUT
G-OUT
R-OUT
B3-9V
A1-125V
A2-33V
A4-13V
B1-12V
A3-5V
B2-5V
J013
IN
OUT
FBC
PWR
GND
CTL
IC803
MC78R12
GT401
GT402
GT301
GT302
CN401
DRIVE
FLYBACK GEN
OUT PUT
PULSE SHAPER
IC301
KA2131
VERTICAL-AMP

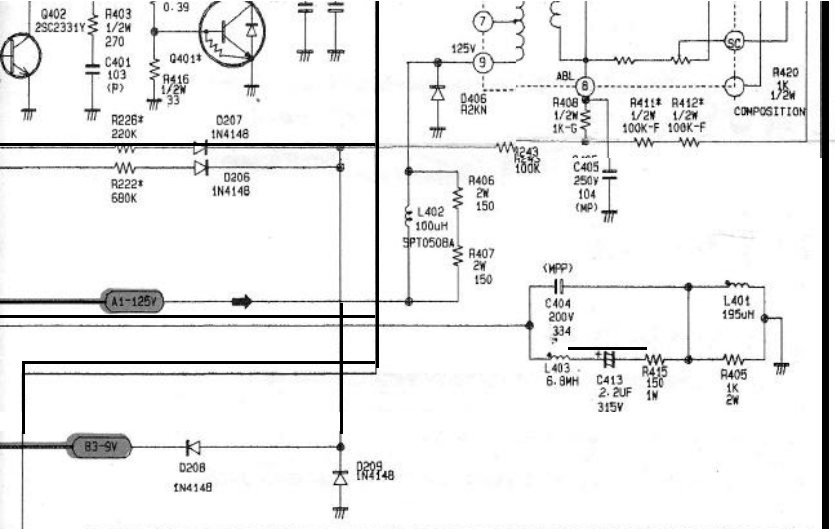

TP5
Pin20, G-OUTPUT
TP6
Pin21, B-OUTPUT
TP7
Pin22, VERTICAL OUTPUT
TP8
Pin23, NFB INPUT
TP9
Pin24, V.RAMP OUTPUT
TP 16
Pin41, AV SW OUTPUT
TP 17
Pin43, Y-INPUT
TP 18
Pin45, CHROMA INPUT
TP 19
Pin47, TV DETECTION WAVE OUTPUT
TP20
Pin48, PIF TANK

2022

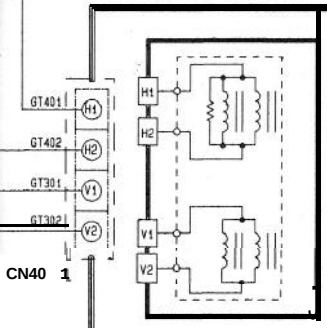


OPTION PARTS

LOC NO	14 INCH	20 INCH	21 INCH
CRT	A34KQV42X(B)	A48KRD82X(BU)	A51KQJ63X(BU)
DY	DSE-1422FL	DSE-1992LL(1)	DST-2192WL(1)
T444*	FCK-14A033	FSV20A001	FSV20A001
Q401*	2SD1711	2SD5072	2SD5072
C402*	1.6K 632	1.6K 722	1.6K702
C403*	**********	**********	**********
R404*	1/2T 22	1/2T 36	1/2T 36
R411*	1/2T 120K-F	1/2T 100K-F	1/2T 100K-F
R412*	1/2T 120K-F	1/2T 100K-F	1/2T 100K-F
C301*	C-P 273 100V	C-P 223 100V	C-P 223 100V
C305*	C-P 473 100V	C-P 104 100V	C-P 104 100V
R303*	1/8T 56K	1/8T 75K	1/8T 75K
R304*	R-METAL 2T 3.3	R-METAL 2T 1.5	R-METAL 2T 1.5
R305*	1/8T 33K	1/8T 7.5K	1/8T 7.5K
R306*	1/8T 82K	1/8T 43K	1/8T 110K
R307*	1/8T 36K	1/8T 56K	1/8T 43K
R308*	1/8T 30K	1/8T 62K	1/8T 47K
V999*	CRT-SOCKET A3047-0013	A3047-0010	A3047-0010
RH01	**********	R-COMPOSITION 1/2T 4.7K	R-COMPOSITION 1/2T 4.7K
RH02	**********	R-COMPOSITION 1/2T 4.7K	R-COMPOSITION 1/2T 4.7K
C304*	C-E 50V 1UF	C-E 50V 1UF	C-E 50V 0.22UF
RM01	R-COMPOSITION 1/2T 4.7K	**********	**********
RM02	R-COMPOSITION 1/2T 4.7K	**********	**********
R226*	1/8T 27K	1/8T 36K	1/8T 36K
R222*	1/8T 91K	1/8T 130K	1/8T 130K
R214*	1/8T 10K	1/8T 24K	1/8T 24K
R504*	R-METAL 2T 5.6K	R-METAL 2T 6.8K	R-METAL 2T 8.8K
R505*	R-METAL 2T 5.6K	R-METAL 2T 6.8K	R-METAL 2T 6.8K
R506*	R-METAL 2T 5.6K	R-METAL 2T 6.8K	R-METAL 2T 6.8K
R520*	R-METAL 2T 5.6K	R-METAL 2T 6.8K	R-METAL 2T 6.8K
R521*	R-METAL 2T 5.6K	R-METAL 2T 6.8K	R-METAL 2T 6.8K
	R-METAL 2T 5.6K	R-METAL 2T 6.8K	R-METAL 2T 6.8K
R204*	1/8 820	1/8 1.2K	1/8 1.2K
R205*	1/8 820	1/8 1.2K	1/8 1.2K
R206*	1/8 820	1/8 1.2K	1/8 1.2K



R521*	R-METAL 2T 5.6K	R-METAL 2T 6.8K	R-METAL 2T 6.8K
R522*	R-METAL 2T 5.6K	R-METAL 2T 6.8K	R-METAL 2T 6.8K
R204*	1/8 820	1/8 1.2K	1/8 1.2K
R205*	1/8 820	1/8 1.2K	1/8 1.2K
R206*	1/8 820	1/8 1.2K	1/8 1.2K



EXPRESSION

1 Resistance is shown ohm K=1.000 M=1.000.000

2 Unless otherwise noted in schematic all capacitor values less than 1 are expressed in ufd. the values more than 1 in pF.

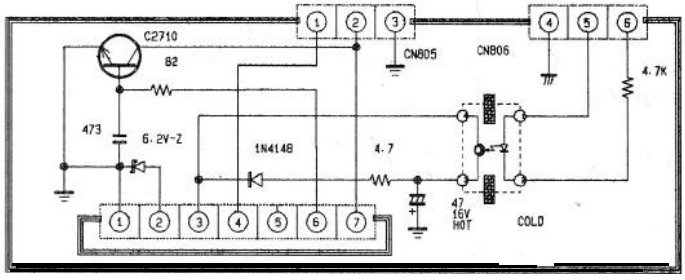
3 Unless otherwise noted in schematic all inductor values areexpressed in uH.and the values less than 1 in mH.

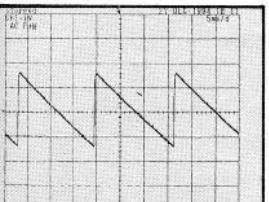
NOTE

The circuits are subject to change without notice to improve the picture quality.

RESISTOR	
Carbon	No Mark
Composition	(RC)
Metal Oxide	(RS)
Metal Film	(RN)
Fusible	(RF)
Cement. Wire	(RW)
Network	(RN)

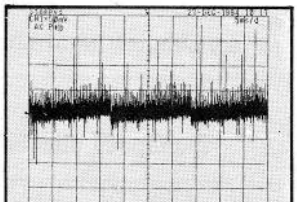
CAPACITOR	
Ceramic - SL	No Mark
Ceramic - RH	(RH)
Ceramic - CH	(CH)
Polyester(Induct)	(P)
Polyester(Noninduct)	(PMJ)
Polypropylene	(PP)
Metal Polyester	(MP)
M.P.Polypropylene	(MPP)
Tantalium	(T)
Non Polar	(NP)





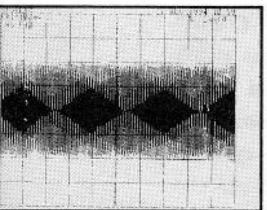
TP9

Pin24, V.RAMP OUTPUT



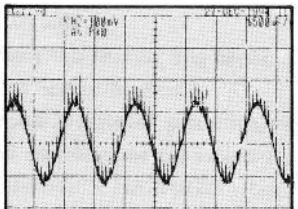
TP10

Pin25, VERT SYNC SEPARATING FILTER



TP20

Pin48, PIF TANK



TP21

Pin53, TV AUDIO SIGNAL INPUT

POWER LINE

SIGNAL LINE