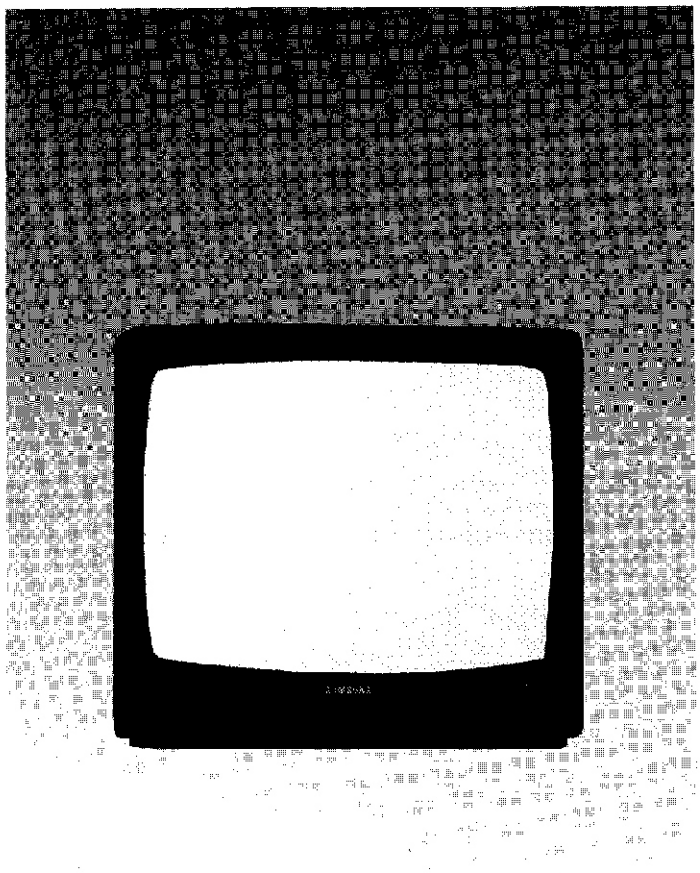
SAMSUNG

COLOR TELEVISION RECEIVER

CHASSIS : P69SA1 & RM135-1, SUPER BOMB (OPTION)
MODEL : CK3335TR1SERX
CK5341TR1SERX

SERVICE Manual

COLOR TELEVISION RECEIVER



CONTENTS

2-2 IC Line Up

Table 2-3 IC Line - Up

Loc No	Specification	Description	Remarks
IC101	TDA8362B	PAL/NTSC Decoder (VIF/SIF/VIDEO, Chroma/Deflection)	
IC502	TDA8395P	SECAM Decoder	
IC501	TDA4661	1H Delay	
IC301	KA2131	Vertical Output	
RIC01	SIM – 135-2	12K μ – COM	
RIC02	24C02	Non-Volatile Memory	E^2PROM
IC601	TA8216H	Sound output Amplifier	TA8216H --> TA8211H
IC801	STR-S6707	PWM-Controller for SMPS	
XIC01	KS51800 – 54	Remote Control	
IC604	TC4053BP	Audio Switch	
IC605	UPC1406HA	Volume Controller	
TIC04	TEA2014A	Video Switch	
IC603	TDA2614	Sound Out Amplifier	WOOFER

2-3 Semiconductor Base Diagrams

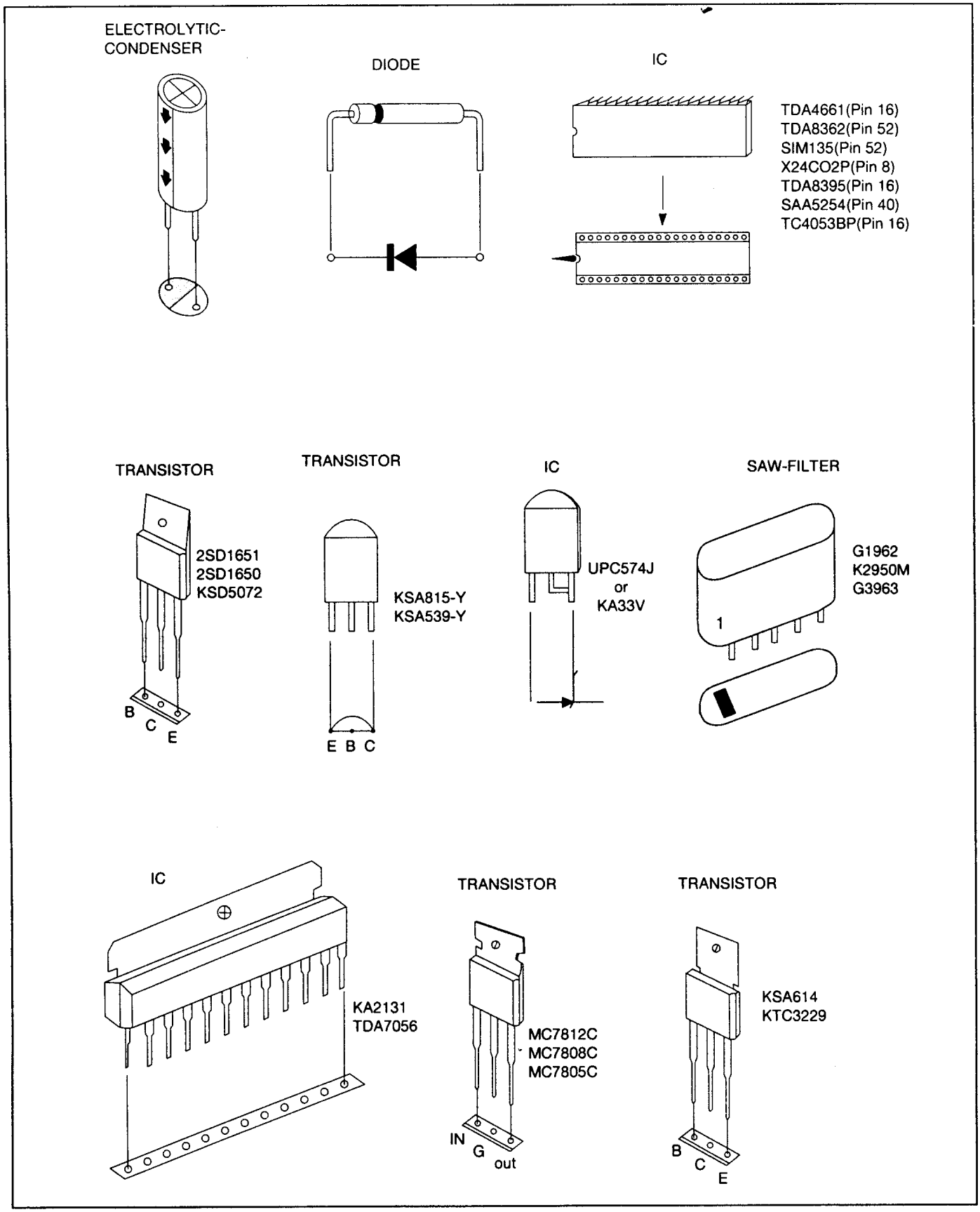


Fig. 2-1 Semiconductor Base Diagrams

3. Specifications

System	PAL/SECAM-B/G, D/K, NT 4.43, NT 3.58 (MVP)	
Channels	VHF : UHF:	2-12 21-69
IF	Picture: Sound: Color:	38.90MHz 33.40/32.40 MHz 34.47 MHz
Picture Tube	14" 20" 21"	A34KQV42X(B) A48KRD82X(B) A51KRE83X01(U)
Power	AC 100 ~ 260, 50 ~ 60 Hz, 93 Watts	
Antenna Input	VHF/UHF:	75 Ohm (unbalanced)
Speaker	16 Ohms, 3W + 3W Woofer: 8 Ohms, 5W	

	System	IF Sound
CB	PAL-B/G	33.4
CX	PAL/SECAM-B/G	33.4
CK	PAL/SECAM-B/G,D/K	33.4/32.4
CI	PAL-I	32.9
CF	PAL/SECAM-B/G,SECAM-L/L'	33.4/32.4
CW	PAL/SECAM-B/G,D/K,NT4.43 NT3.58 (MVP)	33.4/32.4

5. Alignment and Adjustments

5-1 General

1. Read the following notes before attempting alignment. Usually, a color TV-VCR will need only slight touch-up adjustment upon installation. Check the basic characteristics such as picture height, focus and horizontal and vertical sync.

   Observe the picture for good black and white details; there should be no objectionable color shading. If color shading is present, demagnetize the receiver. If color shading persists, perform the purity and convergence adjustments described below. This should be all that is necessary for optimum TV-VCR performance.

2. Use the specified test equipment or its equivalent.

3. Correct impedance matching is essential.

4. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort the test results.

5. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.

6. Do not attempt to connect or disconnect any wires while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.

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

5–2 Installation and Service Adjustment

5-2-1 Automatic Degaussing

The receiver must be properly degaussed upon installation. A degaussing coil is mounted around the picture tube, so that external degaussing after moving the TV should be unnecessary; automatic degaussing operates for about 1 second after the power is switched ON. If the set is moved or turned in a different direction, the power should be OFF for at least 10 minutes.

If the chassis or parts of the cabinet become magnetized, poor color purity will result. To demagnetize the set, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube, andaround the sides and front of the receiver. Slowly withdraw the coil to a distance of about 6 feet before turning the TV OFF or disconnecting it from the AC source.

5-2-2 High Voltage Check

CAUTION: There is no high voltage adjustment on this chassis. The B+ power supply (+125 volts) must be checked to ensure the correct high voltage. The check point is the D809 cathode.

1. Connect a digital voltmeter to the second anode of the picture tube.

2. Turn on the TV. Set the Brightness and Contrast controls to minimum (zero beam current).

3. The high voltage should be about 24KV.

4. Rotate the Brightness control to both extremes. Ensure that the high voltage does not exceed the 30KV limit under any conditions.

5-2-3 Horizontal Phase Adjustment

To center the picture, adjust Horizontal Phase Control (VR401).

5-2-4 Vertical Height and Location Adjustment

The Size control (VR301 located on the main board) changes the size of the picture, has an equal and simultaneous effect on top and bottom. Adjust the Vertical Location control (VR304) for proper vertical location.

5-2-5 Screen Adjustment

1. Tune in an active channel.

2. Adjust the picture for normal condition (no blooming or flyback line) with the VR Screen Control.

5-2-6 Focus Adjustment

Adjust the Focus control on the FBT for well defined scanning lines in the center area of the screen.

5-2-7 Center Convergence Adjustment

1. Note: Before attempting any convergence adjustment, make sure that the receiver has been powered on for at least 20 minutes.

2. Input a crosshatch pattern from a color bar generator.

3. Adjust the Brightness and Contrast controls for a well-defined pattern.

4. Adjust the two tabs of the 4-pole magnets. Change the angle between the tabs, and superimpose red and blue vertical lines in the center area of the picture screen.

5. Next, turn both tabs at the same time, keeping the angle constant; and superimpose red and blue horizontal lines at the center of the screen.

6. Adjust the two tabs of the 6-pole magnets. Superimpose the red/blue lines with the green. (Adjusting the angle affects the horizontal lines.)

7. Repeat adjustments 4, 5, and 6. Because the 4-pole and 6-pole magnets interact, the dot movement is complex.

5-2-8 RF AGC Adjustment

1. Tune the set in the strongest local station.

2. Turn the AGC control (VR101, located on the IF board) fully clockwise.

3. Adjust the AGC control until noise (snow) disappears from the screen.

5-2-9 Color Purity Adjustment

1. Note: If a magnetic tape beam bender is mounted on the neck of the picture tube, and if center-purity and center-convergence adjustments are required, the beam bender must be replaced with an Adjustable Type Beam Bender (Magnet Assembly). Consult the replacement parts list for the proper part number.

2. Warm up the receiver. Operate it for 20 minutes with the Brightness control set to maximum.

3. Fully degauss the receiver.; use an external degaussing coil.

4. Roughly adjust convergence.

5. Input a black and white signal.

6. Turn the low-light controls (Red and Blue; VR933, VR935) fully counterclockwise to obtain a green field. Adjust the Drive controls for a green field.

7. Loosen the Deflection Yoke clamp screw, and move the Deflection Yoke as close to the purity magnet as possible.

8. Loosen the purity magnet clamp. Adjust the purity magnet to set the vertical green raster precisely at the center of the screen. Tighten the clamp.

9. Slowly move the Deflection Yoke forward, and adjust it for the best overall green screen.

10. Tighten the Deflection Yoke clamp screw.

11 Produce a blue and red raster. Turn the bias controls fully clockwise. Ensure that good purity is obtained on each field.

5-2-10 CRT White Balance Adjustment

PREPARATION

1. Warm up the receiver for at least 20 minutes before attempting the white balance adjustment.
2. Input a monochromesignal.
3. Set the Colour control to the center.
4. Set the Brightness and Contrast controls to maximum.
5. Set the Red, Blue and Green Low Light controls to center position.
6. Set the Blue and Red Drive Controls to the center position.
7. Set the Screen VR Control on FBT to minimum (fully counter-clockwise).
8. Temporarily slide the service switch (SW201, on main board) to the top position. This stops vertical oscillation.

ADJUSTMENT

1. Rotate the Screen control on FBT (T444) gradually clockwise until a horizontal line appears slightly on the screen.
2. Adjust the two Cut-Off controls to obtain a slightly lighted horizontal line in the same levels of three colours (red, green, blue). The line looks white when the Cut-Off controls are adjusted properly.
3. Reset the service switch (SW201) on main board to the bottom position. Obtain a raster.
4. Adjust the Blue and Red Drive Controls to obtain proper white-balanced picture in high light areas.
5. Set the Contrast Control to the minimum position. Turn the Brightness Control slightly counter-clockwise to obtain a dark gray raster. Check the white balance in low brightness. Repeat steps a-d if necessary.

5-2-11 Circumference Convergence Adjustment

1. Tilt the yoke by loosening the clamp screw.
2. Place a temporary mounting wedge. Do not remove the cover paper on the adhesive part of the wedge.
3. Tilt the front of the Deflection Yoke up or down to obtain better convergence in circumference. Push the mounted wedge into the space between the picture tube and the yoke; this will hold the yoke temporarily in place.
4. Place the other wedge into the bottom space and remove the cover paper.
5. Tilt the front of the yoke right or left to obtain better convergence in circumference.
6. Keep the yoke positioned, and put another wedge in the upper space. Remove the cover paper and place the wedge on the picture tube, fixing the yoke.
7. Detach the temporarily mounted wedge and put it in another upper space. Place it on the picture tube to fix the yoke.
8. After inserting three wedges, recheck overall convergence. Tighten the screws firmly to hold the yoke tightly in place.
9. Place 3 adhesive tabs over the wedges.

5-2-12 VIF and SIF Adjustment

1. Equipment: Pattern Generator (PM5518), Digital voltmeter
2. Set the supply voltage to 220V
3. Set the RF output frequency to 38.9 MHz
4. Set the output pattern to Multi-burst
5. Connect the RF output to the tuner IF Pin
6. Connect the DV voltmeter to R111
7. Vary T104 and adjust the DC voltage on R111 to 4V

9. Block Diagrams

9-1 System Block Diagram

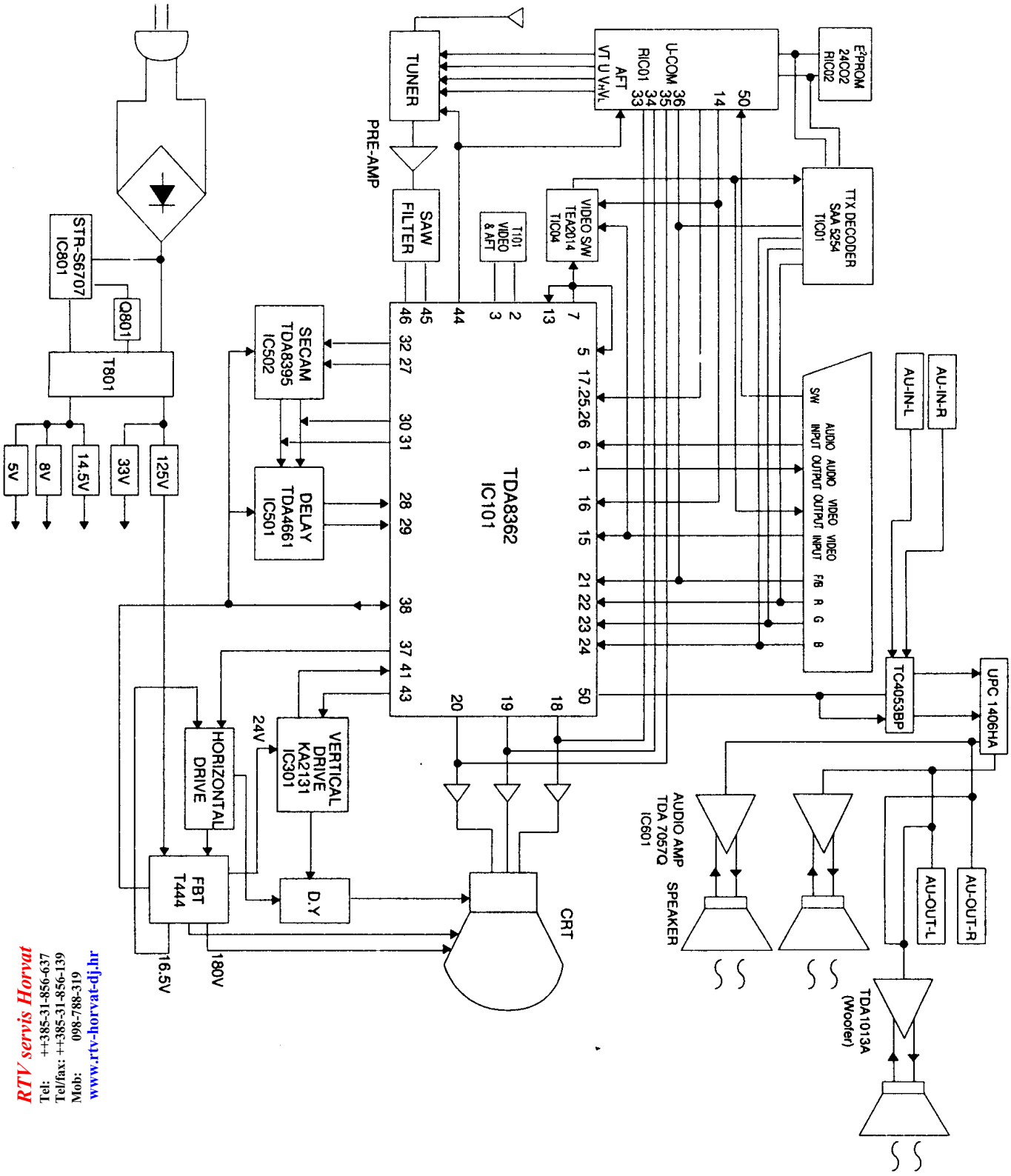


Fig. 9-1 System Block Diagram

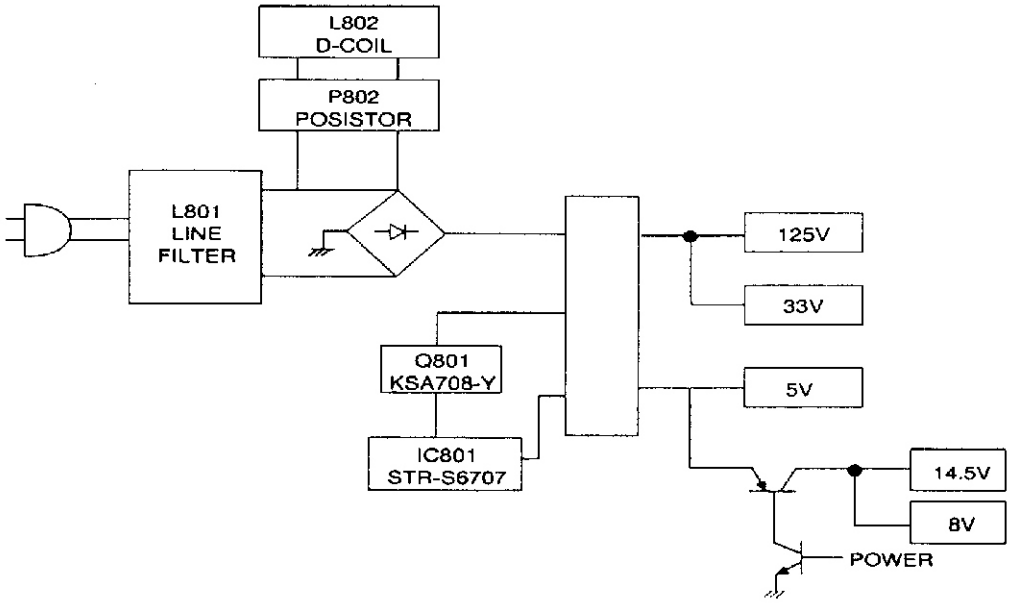


Fig. 9-2 Block Diagram

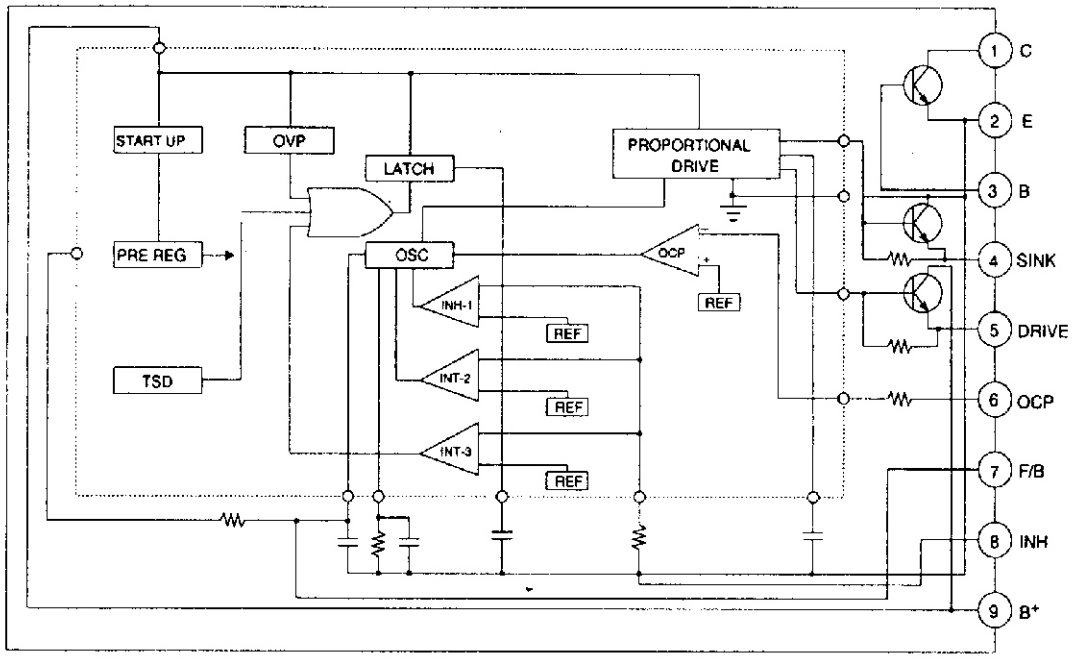


Fig. 9-3 Power Control Circuit, STR S6707

9-3 IC Block Diagram, TDA8362

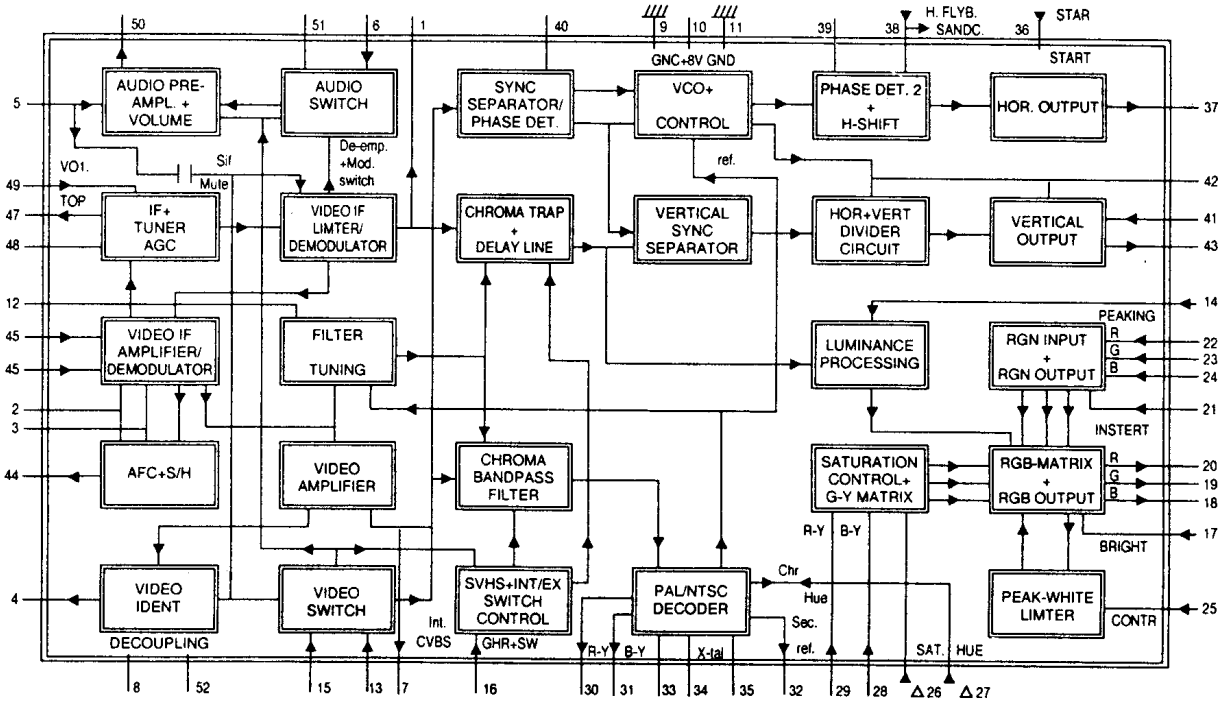


Fig. 9-4 Block Diagram

Table 9-1 Pin Function

No	Function	No	Function
1	Audio deemphasis	52	Decoupling bandgap supply
2	IF – demodulator tuned circuit	51	Decoupling sound demodulator
3	IF – demodulator tuned circuit	50	Audio output
4	Video identification output	49	Tuner take over adjustment
5	Sound IF in plus volume control	48	AGC decoupling capacitor
6	External audio input	47	Tuner AGC output
7	IF video output	46	IF – input
8	Decoupling digital supply	45	IF – AFC output
9	Ground	44	AFC output
10	Positive supply (8V)	43	Vertical output
11	Ground	42	Vertical ramp generator
12	Decoupling filter tuning	41	Vertical feedback input
13	Internal CVBS input	40	Φ – 1 loop filter
14	Peaking control input, Sync ident	39	Φ – 1 loop filter
15	External CVBS input	38	Flyback input/sandcastle output
16	Chroma+A/V switch input	37	Horizontal output
17	Brightness control input	36	Start horizontal oscillator
18	B – output	35	4.43MHz crystal connection
19	G – output	34	3.58MHz crystal connection
20	R – output	33	Loop filter burst phase detector
21	RGB – insertion and blanking input	32	4.43MHz output for TDA8395
22	R – input for insertion	31	B – Y output signal
23	G – input for insertion	30	R – Y output signal
24	B – input for insertion	29	R – Y input signal
25	Contrast control input	28	B – Y input signal
26	Saturation control input	27	Hue control input (or chroma out)

9-4-1 IC Block Diagram (TDA8395)

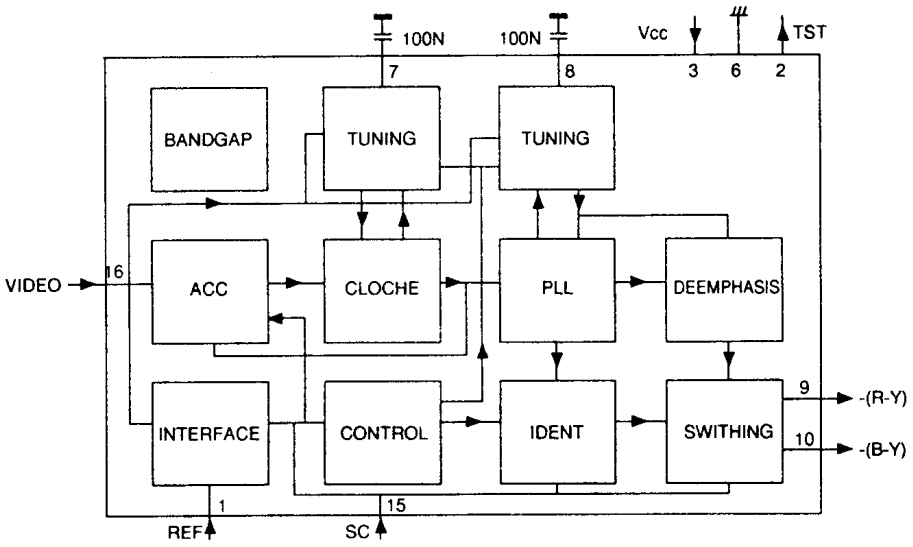


Fig. 9-5 Chroma Block-Diagram

Table 9-2 Pin Function		
NO.	Symbol	Function
1	freq/IDENT	Reference frequency input/identification input Test output
2	TEST	Positive supply voltage
3	Vp	Not connected
4	n.c.	Not connected
5	n.c.	Ground
6	GND	Cloche reference filter
7	CLOCHE ref	PLL reference
8	PLLref	– (R – Y) output
9	– (R – Y)	– (B – Y) output
10	– (B – Y)	Not connected
11	n.c.	Not connected
12	n.c.	Not connected
13	n.c.	Not connected
14	n.c.	Sandcastle pulse input
15	SAND	Video(chrominance) input
16	CVBS	

9-4-2 IC Block Diagram (TDA8362)

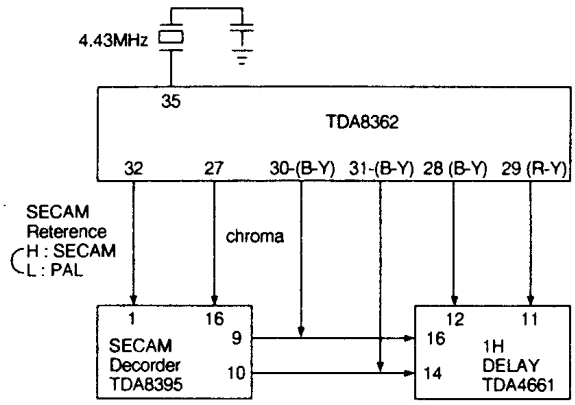


Fig. 9-6 TDA8362

9-4-3 IC TDA8362, Chroma Subsystem

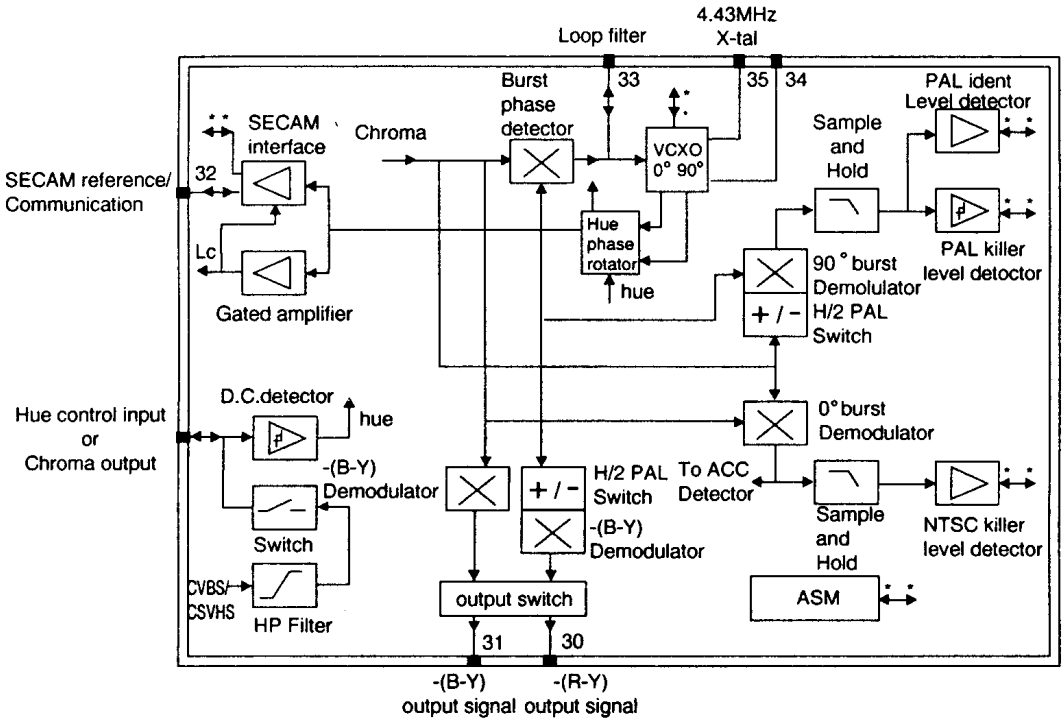


Fig. 9-7 TDA8362

9-4-4 IC TDA4661, Luminance Delay Block

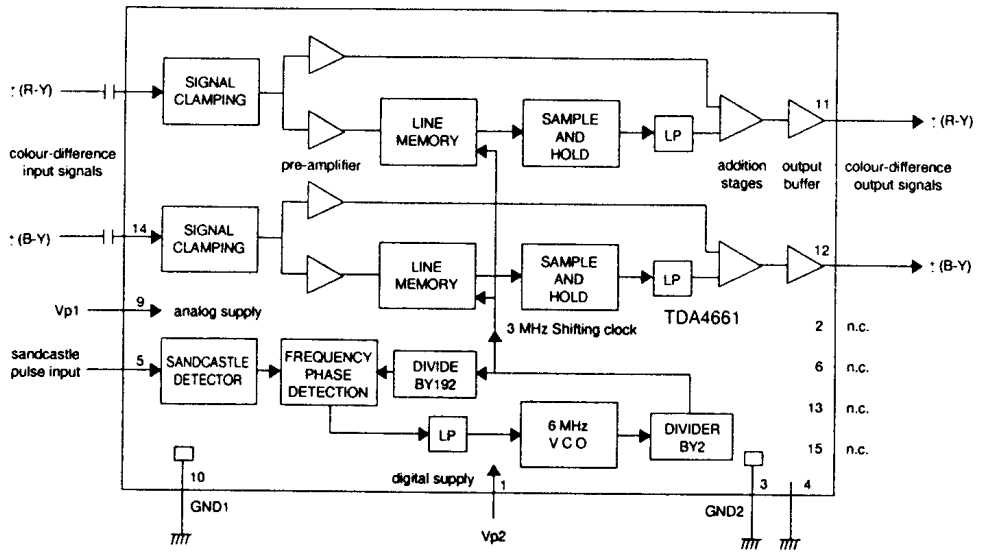


Fig. 9-8 Block Diagram, TDA4661

Table 9-3 Pin Functions

No	Symbol	Function	No	Symbol	Function
1	Vp2	+8V Supply Voltage for analogue part	9	Vp1	+8V Supply Voltage for analogue part
2	n.c.	Not connected	10	GND1	Ground for analog part (0V)
3	GND2	Ground for digital part (0V)	11	Vo(R – Y)	±(R – Y) output signal
4	i.c.	Internally connected	12	Vo(B – Y)	±(B – Y) output signal
5	SAND	Sandcastle pulse input	13	n.c.	Not connected
6	n.c.	Not connected	14	Vi(B – Y)	±(B – Y) input signal
7	i.c.	Internally connected	15	n.c.	Not connected
8	i.c.	Internally connected	16	Vi(R – Y)	±(R – Y) input signal

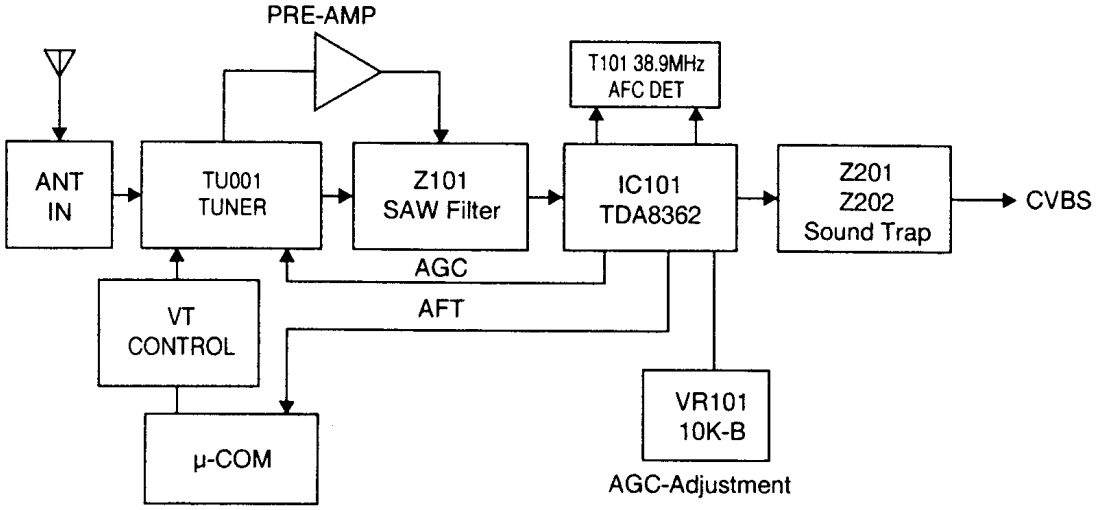


Fig. 9-9 IF Block Diagram

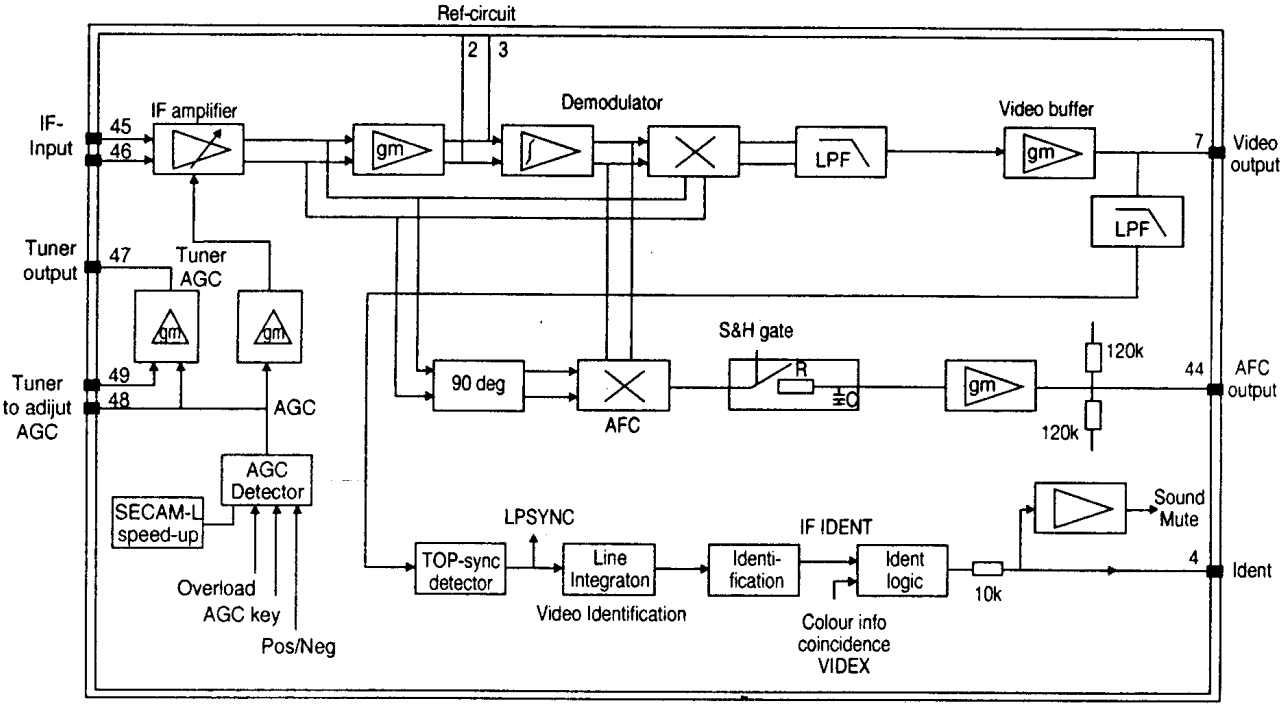


Fig. 9-10 TDA8362 IF Subsystem

9-6-1 Sound Subsystem

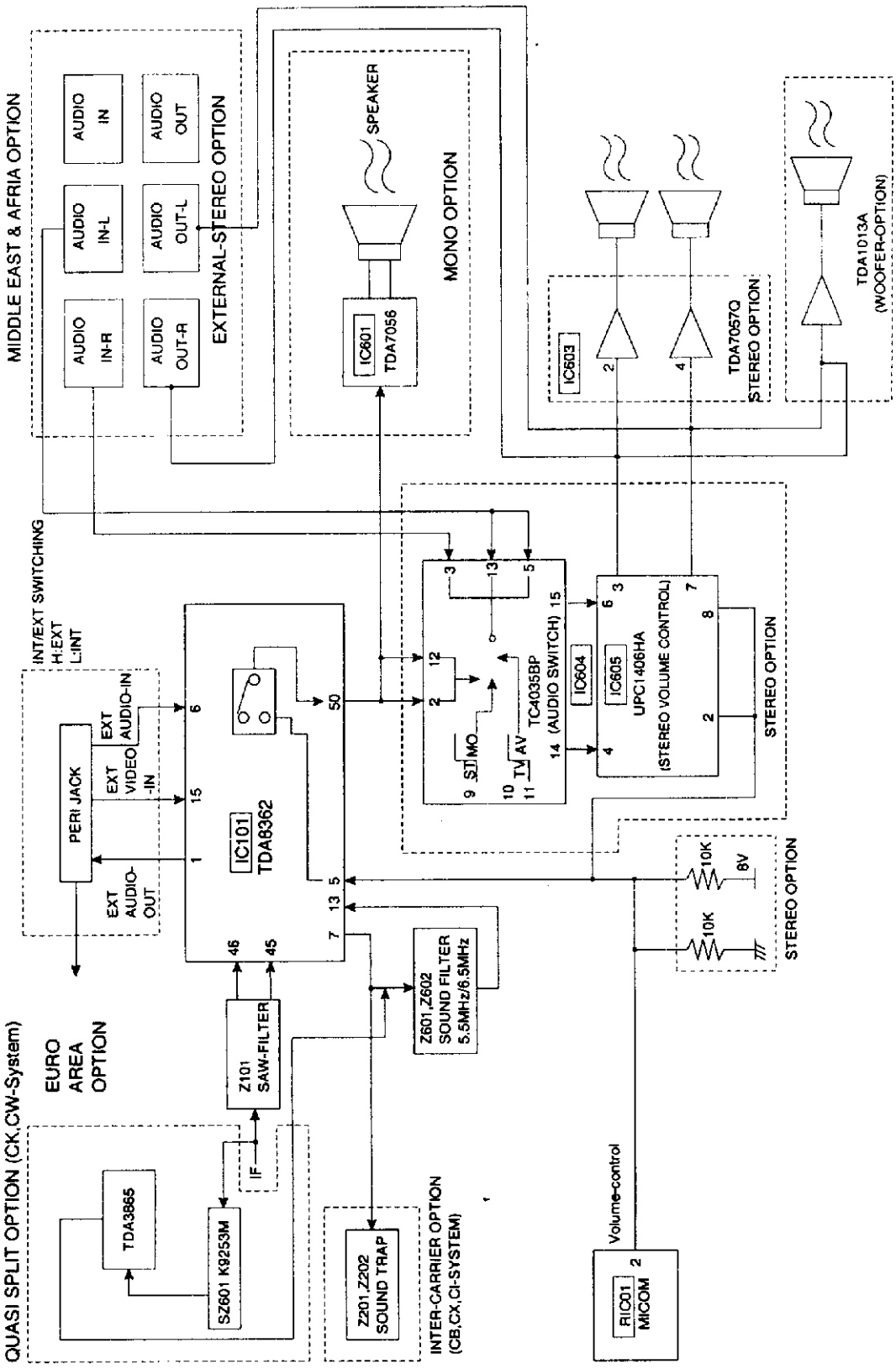


Fig. 9-11 Block-Diagram, Sound System

9-6-2 IC Block Diagram (TDA8362)

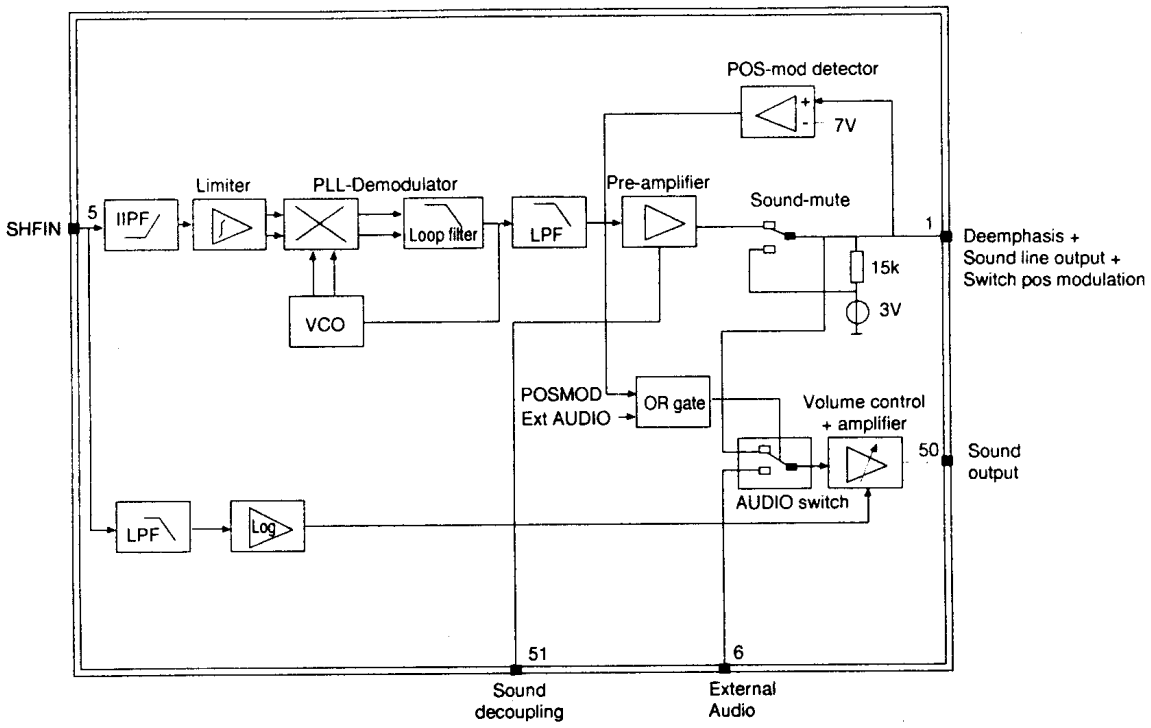


Fig. 9-12 Block Diagram

9-6-3 IC Specification (TDA7056) : Mono Sound

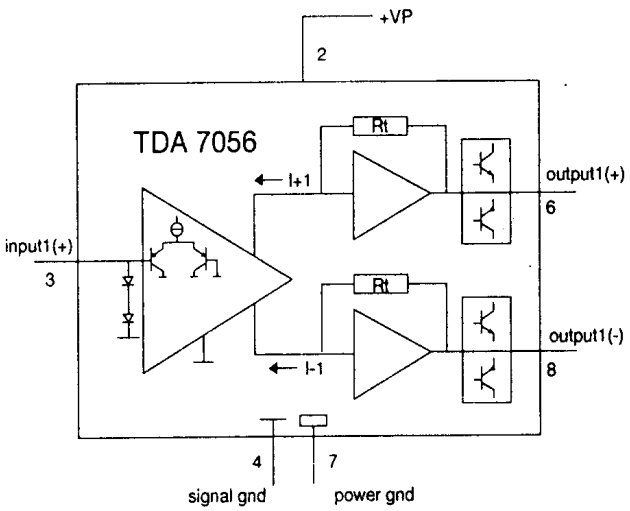


Fig. 9-13 Block Diagram

9-6-3 IC Specification (TDA7057Q) : Stereo

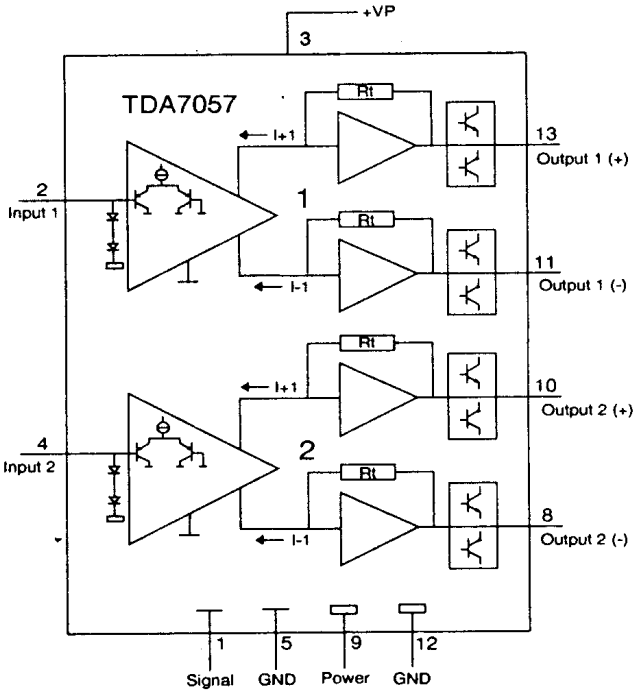


Fig.9-14 Block Diagram

9-7-1 Block-Diagram

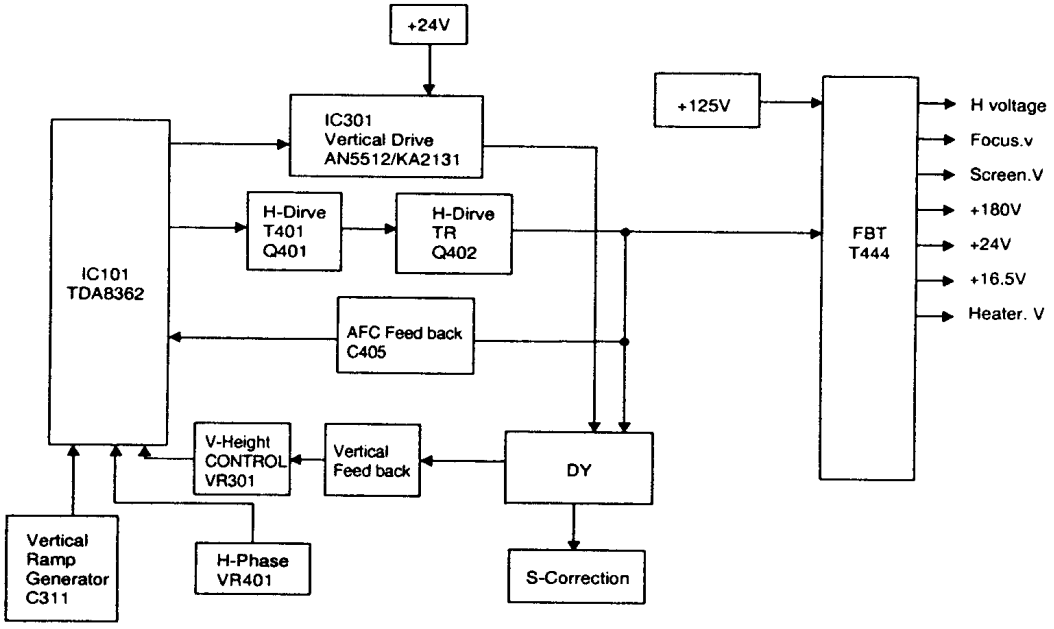


Fig. 9-15 Block Diagram

9-7-2 Vertical Output Driver, KA1231

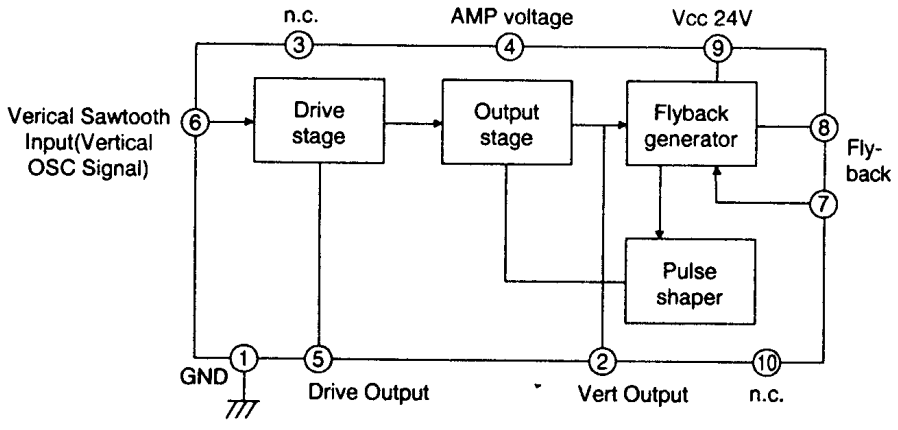


Fig. 9-16 Block Diagram

9-7-3 Deflection Subsystem, IC TDA8362

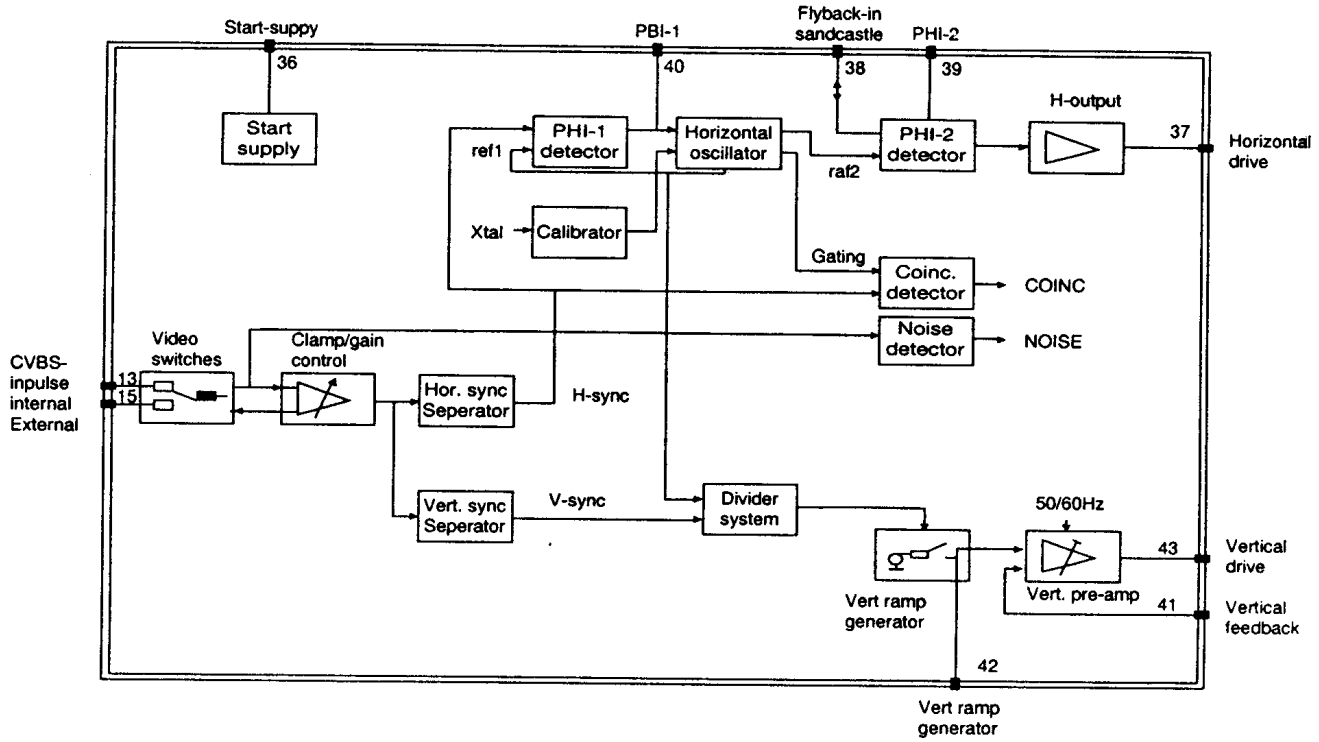


Fig. 9-17 Block Diagram of TDA 8362

9-8 Remote Control Block, Microcontroller Pinout

● External Interface Requirements

9-8-1 Microcontroller pinout

Table 9-4 Pin Functions

Pin No.	Pin Name	Signal Name	I/O	Function
1	PWM 0	Signal Name	O	Tuning voltage control out (14bit)
2	PWM1—0	Volume	O	Volume control out (6bit)
3	PWM1—1	Bright	O	Bright control out (6bit)
4	PWM1—2	Colour	O	Colour control out (6bit)
5	PWM1—3	Contrast	O	Contrast control out (6bit)
6	PWM1—4	Tint	O	Tint control out (6bit)
7	PWM1—5	Woofer Vol	O	Woofer volume control out (6bit)
8	PWM1—6	Stereo	O	Stereo control out (6bit) TV mode:Lo fix AV mode:High =Stereo Lo =mono
9	PWM1—7	SECAM—L'	O	System control out Hi =SECAM—L'
10	PWM1—8	SECAM—L	O	System control out Hi =SECAM—L
11	B0	VHF—L	O	Band Switching Control Lo =VHF—L
12	B1	VHF—H	O	Band Switching Control Lo =VHF—H
13	B2	VHF—L	O	Band Switching Control Lo =UHF
14	B3	AV1	O	AV1 Source selection output Hi =AV1
15	B4	AV2	O	AV2 Source selection output Lo =AV2
16	B5	NTSC OUT	O	System Control Output, Active Hi Active when NTSC Ident becomes active
17	B6	Standby LED	O	Standby off =Hi On =Lo
18	B7	RMC/Timer LED	O	Standby of:∫RMC LED, Blink Standby on:Timer on =Lo off =Hi

Table 9-4 Pin Functions (Continued)

Pin No.	Pin Name	Signal Name	I/O	Function
19	A0	AFC	I	Analogue AFC input
20	C0	Key 0	I/O	Local key scan line
21	C1	Key 1	I/O	Local key scan line
22	C2	Key 2	I/O	Local key scan line
23	C3	Key 3	I/O	Local key scan line
24	C4	Key 4	I/O	Local key scan line
25	C5	Option 1	O	Option check out 1 Lo = check, Hi = Normal
26	C6	Option 2	O	Option check out 2 Lo = check, Hi = Normal
27	Vss	Vss	I	Ground
28	C7	Sync Ident		Sync Ident Valid only at AV mode Lo = Valid sync
29	D0			Reserved
30	D1			Reserved
31	D2			Reserved
32	D3			Reserved
33	RED	RED	O	RED OSD output, active Lo
34	GREEN	GREEN	O	GREEN OSD output, active Lo
35	BLUE	BLUE	O	BLUE OSD output, active Lo
36	Yout	Yout	O	Fast Blanking output, active Lo
37	HSYNC	HSYNC	I	Horizontal OSD sync input Polarity : active Lo
38	VSYNC	VSYNC	I	Vertical OSD sync input Polarity : active Lo
39	OSD OSC IN	OSD OSC IN	I	OSD clock input
40	OSD OSC OUT	OSD OSC OUT	O	OSD clock output
41	A2	RF Ident	I	RF Ident Hi = valid Ident
42	TEST	GND		
43	OSC IN	OSC IN	I	Input 4MHz Crystal
44	OSC OUT	OSC OUT	O	Output 4MHz Crystal
45	RESET	RESET	I	Microcontroller reset Input Lo = Status pin active
46	A1	AV2 Ident	I	Input Status pin 8 AV2 source Hi = Status pin active
47	A3	RMC	I	RC—5 Remote control input Active Lo
48	A4	Peaking	O	Peaking control output Active Hi
49	A5	NTSC Ident	I	NTSC Ident signal Active Hi

Table 9-4 Pin Functions (Continued)				
Pin No	Pin Name	Signal Name	I/O	Function
50	A6	AV1 Ident	I	Input Status pin 8 AV1 source Hi =Status pin active
51	SDA	SDA	I/O	IIC BUS Data
52	SCL	SC1	O	IIC BUS Clock
53	A7	Power	O	Power Supply standby output Power Supply on =Hi Power Supply off =Lo
54	Vcc	Vcc	I	Power supply voltage

9-8-2 Local keyboard commands

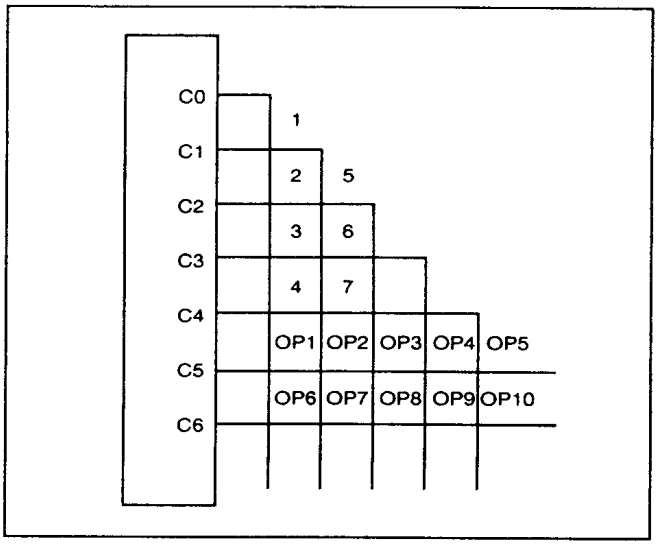


Fig. 9-18

Key No.	key Name	TV	TTX
01	Power	Standby on/off	Standby on/off
02	Up	Menu Up/Program Up	Menu Up/TTX page up
03	Right	Menu Right/Volume Up	Menu Right/Volume Up
04	Function	Function	
05	Down	Menu Down/Prog Down	Menu down/TTX page Down
06	Left	Menu Left/Volume Down	Menu Left/Volume down
07	Status	Status	Status

Opt No	Opt Name	Description	Opt No	Opt Name	Description
01	TTX	Lo =TTX installed	06	Band	Hi =3 Band Lo =UHF Only
02	AV	Hi =1 AV system Lo =2 AV system	07	Woofer	Lo =Woofer volume installed
03	SYSTEM	Hi =SECAM—L Lo =Single system	08	Auto Power	Hi =Auto power on Lo =No Auto power on
04	Peaking	Hi =Peaking installed	09		Reserved
05	TTX Mode	Hi =LIST when power on Lo =FLOF when power on	10	NTSC	Hi =NTSC control enabled

9-9 TELETEXT Section(Option)

9-9-1 SAA5254 Reference Data

SYMBOL	PARAMETER	MIN.	TYP.	MAX.	UNIT
V_{DD}	Supply	4.5	5.0	5.5	volts
I_{DD}	Supply current	—	74	148	mA
V_{syn}	Sync amplitude	0.1	0.3	0.6	volts
V_{vid}	Video amplitude	0.7	1.0	1.4	volts
Temp	Operating ambient temperature	-20	—	+70	°C

9-9-2 SAA5254 Pin Function

Table 9-5 SAA5254 PIN Function

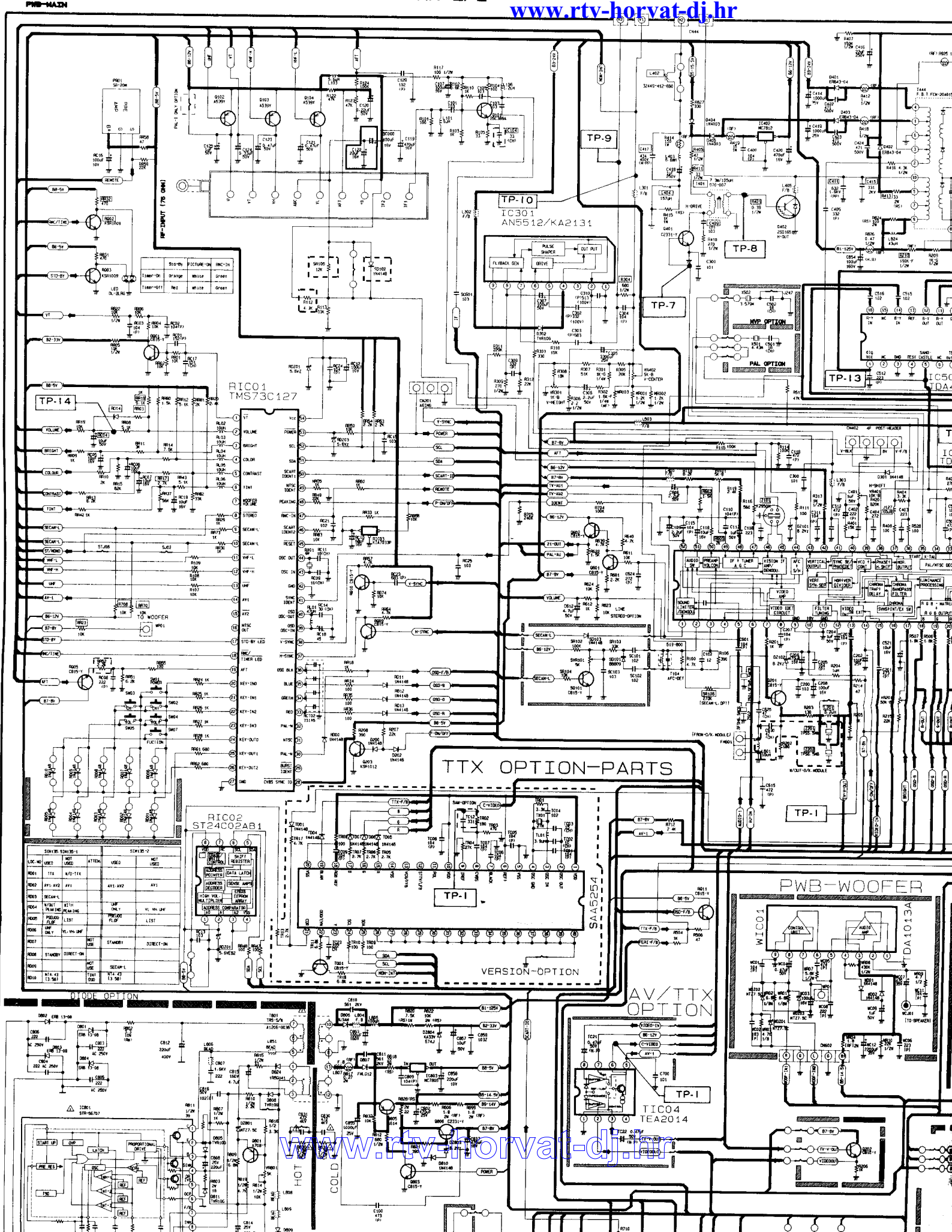
PIN	SYMBOL	FUNCTION	PIN	SYMBOL	FUNCTION
1	VDD	+5V SUPPLY	22	ODD/EVEN	25HZ OUTPUT SYNCHRONIZED TO INPUT CVBS FIELD SYNC PULSES; TO PRODUCES A NON-INTERLACED FIELD ADJUSTMENT OF VERTICAL DEFLECTION CURRENTS.
2	OSC OUT	27MHz CRYSTAL OSCILLATOR OUTPUT			
3	OSC IN	27MHz CRYSTAL OSCILLATOR INPUT			
4	OSC GND	OV CRYSTAI OSCILLATOR GROUND			
5	VSS	OV GROUND	23	Y	DOT RATE CHARACTER OUTPUT OF TELETEXT (FOR BACKGROUND COLOUR INFORMATION)
6	REF+	POSITIVE REFERENCE VOLTAGE FOR ADC			
7	BLACK	VIDEO BLACK LEVEL STORAGE PIN			SERIAL CLOCK INPUT FOR I²C BUS
8	CVBS	COMPOSITE VIDEO INPUT PIN	24	SCL	SERIAL DATA PORT FOR I²C BUS
9	IREF	REFERENCE CURRENT INPUT PIN.	25	SDA	INTERNALLY CONNECTED
10	VDD	+5V SUPPLY	26	I.C	INTERNALLY CONNECTED
11	POL	STTV/LFB/FFB POLARITY SELECTION PIN.	27	I.C	INTERNALLY CONNECTED
12	STTV/LFB	SYNC TO TV OUTPUT PIN	28	I.C	INTERNALLY CONNECTED
13	VCR/FFB	PLL TIME CONSTANT SWITCH/FIELD INPUT PIN.	29	I.C	INTERNALLY CONNECTED
14	VSS	GROUND	30	I.C	INTERNALLY CONNECTED
15	R	RED OUTPUT	31	I.C	INTERNALLY CONNECTED
16	G	GREEN OUTPUT	32	I.C	INTERNALLY CONNECTED
17	B	BLUE OUTPUT	33	I.C	INTERNALLY CONNECTED
18	RGB REF	INPUT DC VOLTAGE (DEFINES THE OUTPUT HIGH LEVEL ON THE RGB PINS).	34	I.C	INTERNALLY CONNECTED
			35	I.C	INTERNALLY CONNECTED
19	BLAN	DOT RATE FAST BLANKING OUTPUT	36	I.C	INTERNALLY CONNECTED
20	VSS	GROUND	37	I.C	INTERNALLY CONNECTED
21	COR	PROGRAMMABLE OUTPUT TO PROVIDE CONTRAST REDUCTION OF THE TV PICTURE FOR MIXED TEXT AND PICTURE DISPLAYS OR WHEN VIEWING. NEWSFLASH/SUBTITLE PAGES. OPEN DRAIN OUTPUT	38	I.C	INTERNALLY CONNECTED
			39	I.C	INTERNALLY CONNECTED

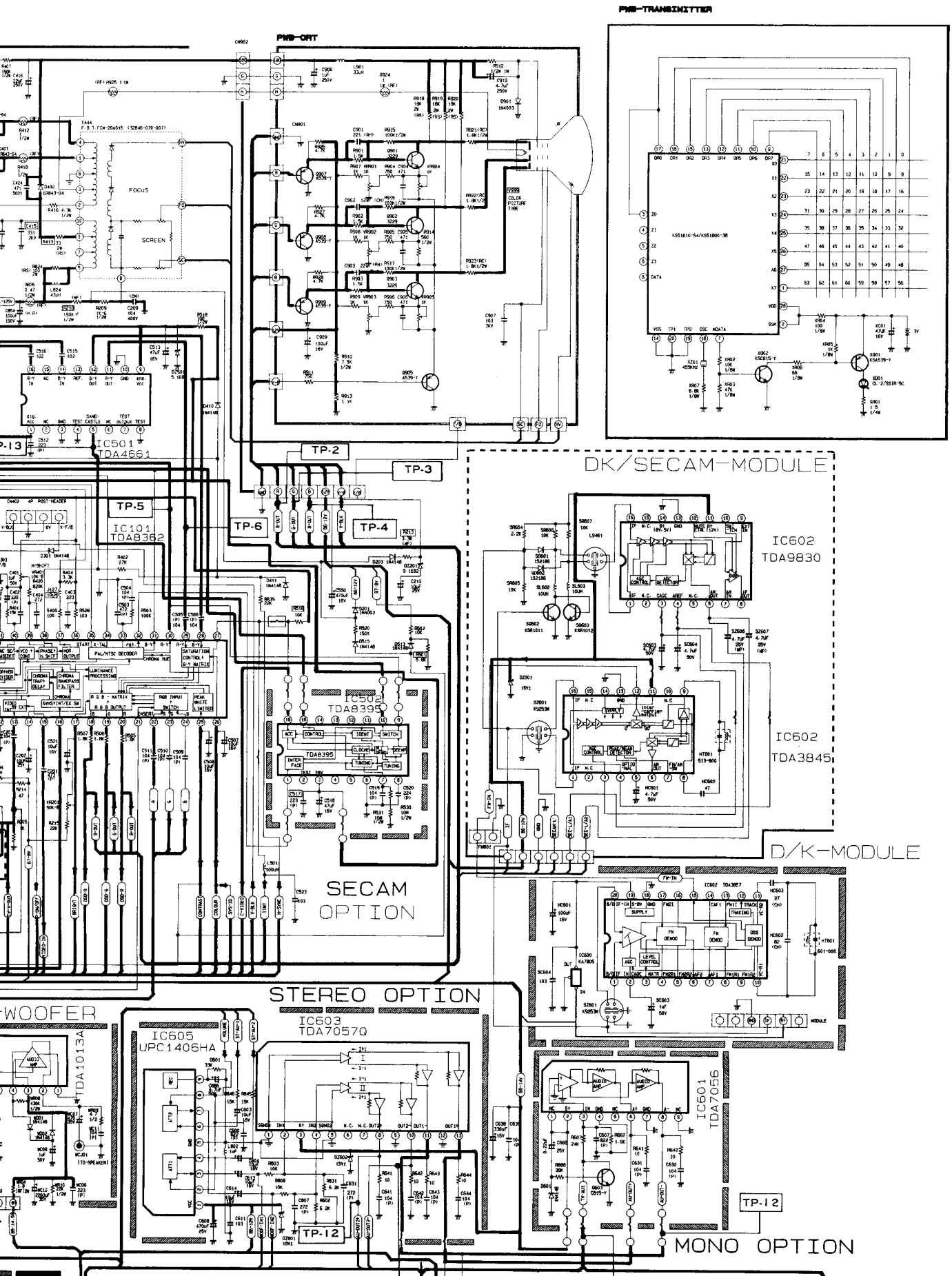
SCHEMATIC DIAGRAM

CHASSIS:P69SA1

SYSTEM: PAL/SECAM - B/G, D/K, PAL-I,
NT4.43, NT3.58(MVP), SECAM-L/L'

PWB-MAIN




PWB-TRANSMITTER
PWB-CRT
FOCUS
SCREEN
IC501
TDA4661
TP-2
TP-3
TP-5
TP-6
TP-4
IC101
TDA8362
DK/SECAM-MODULE
IC602
TDA9830
IC602
TDA3845
D/K-MODULE
IC502
TDA8395
SECAM
OPTION
STEREO OPTION
IC603
TDA7057Q
IC605
UPC1406HA
IC601
TDA7056
TP-12
MONO OPTION
TP-11
TDA1013A
WOOFER
www.itv-horvat-dj.hr

DIFERENTIAL PARTS FOR SYSTEM

	PAL-B/G	PAL/SEC-B/G	PAL/SECAM B/G.D/K	PAL-I	PAL-II	PAL/SECAM B/G.D/K-N4-N3	PAL-B/G.VIT
C123	C-ELEC. 50V 0.47uF	C-ELEC. 50V 0.47uF	C-ELEC. 50V 0.47uF	DELETE	C-ELEC. 50V 0.47uF	C-ELEC. 50V 0.47uF	C-ELEC. 50V 0.47uF
C121	C-ELEC. 50V 0.47uF	C-ELEC. 50V 0.47uF	C-ELEC. 50V 0.47uF	DELETE	C-ELEC. 50V 0.47uF	C-ELEC. 50V 0.47uF	C-ELEC. 50V 0.47uF
C125	C-ELEC. 50V 1uF	C-ELEC. 50V 1uF	C-ELEC. 50V 1uF	DELETE	C-ELEC. 50V 1uF	C-ELEC. 50V 1uF	C-ELEC. 50V 1uF
L201	COIL-PEAK 8.2uH	COIL-PEAK 8.2uH	JUMPER	COIL-PEAK 5.6uH	COIL-PEAK 5.6uH	JUMPER	COIL-PEAK 8.2uH
L601	COIL-PEAK 12uH	COIL-PEAK 12uH	DELETE	COIL-PEAK 10uH	COIL-PEAK 10uH	DELETE	COIL-PEAK 12uH
Q102	TR:539Y	TR:539Y	TR:539Y	DELETE	TR:539Y	TR:539Y	TR:539Y
Q103	TR:539Y	TR:539Y	TR:539Y	DELETE	TR:539Y	TR:539Y	TR:539Y
Q104	TR:539Y	TR:539Y	TR:539Y	DELETE	TR:539Y	TR:539Y	TR:539Y
R107	1/8T 10K	1/8T 10K	1/8T 10K	DELETE	1/8T 10K	1/8T 10K	1/8T 10K
R108	1/8T 10K	1/8T 10K	1/8T 10K	DELETE	1/8T 10K	1/8T 10K	1/8T 10K
R109	1/8T 10K	1/8T 10K	1/8T 10K	DELETE	1/8T 10K	1/8T 10K	1/8T 10K
RD06	DELETE	DELETE	DELETE	DIODE 1N4148	DELETE	DELETE	DELETE
Z101	SAW:G1956W	SAW:G1956W	SAW:G3963	SAW:K2950M	SAW:K2950M	SAW:G3963	SAW:G1956W
Z201	FILTER-CER. TPS5.5MW	FILTER-CER. TPS5.5MW	DELETE	DELETE	DELETE	DELETE	FILTER-CER. TPS5.5MW
Z202	DELETE	DELETE	DELETE	FILTER-CER. TPS6.0MB	FILTER-CER. TPS6.0MB	DELETE	DELETE
Z601	FILTER-CER. SFSH 5.5MCB	FILTER-CER. SFSH 5.5MCB	FILTER-CER. SFSH 5.5MCB	DELETE	DELETE	FILTER-CER. SFSH 5.5MCB	FILTER-CER. SFSH 5.5MCB
Z602	DELETE	DELETE	FILTER-CER. SFSH 6.5MCB	FILTER-CER. SFE 6.0MB	FILTER-CER. SFE 6.0MB	FILTER-CER. SFSH 6.5MCB	DELETE
C517	DELETE	C-POLY:50V 223	C-POLY:50V 223	DELETE	DELETE	C-POLY:50V 223	C-POLY:50V 223
C518	DELETE	C-ELEC:16V 47uF	C-ELEC:16V 47uF	DELETE	DELETE	C-ELEC:16V 47uF	C-ELEC:16V 47uF
C519	DELETE	C-POLY:63V 104	C-POLY:63V 104	DELETE	DELETE	C-POLY:63V 104	C-POLY:63V 104
C520	DELETE	C-POLY:63V 224	C-POLY:63V 224	DELETE	DELETE	C-POLY:63V 224	C-POLY:63V 224
IC502	DELETE	IC:TDA8395	IC:TDA8395	DELETE	DELETE	IC:TDA8395	IC:TDA8395
TU001							
C530	C-CERA:CH 47	C-CERA:CH 47	DELETE	C-CERA:CH 47	C-CERA:CH 47	DELETE	C-CERA:CH 47
MODULE	DELETE	DELETE	3D39-00001-280	DELETE	DELETE	3D39-00001-280	DELETE
FW601	DELETE	DELETE	POST-HEAD.:3P	DELETE	DELETE	POST-HEAD.:3P	DELETE
SC601	DELETE	DELETE	C-CERA:50V 103	DELETE	DELETE	C-CERA:50V 103	DELETE
C523	DELETE	DELETE	C-CERA:50V 103	DELETE	DELETE	C-CERA:50V 103	C-CERA:50V 103
L501	DELETE	DELETE	COIL-PEAK ALO2-101K	DELETE	DELETE	COIL-PEAK ALO2-101K	COIL-PEAK ALO2-101K
R516	1/8T 10K-J	1/8T 10K-J	1/8T 10K-J	1/8T 10K-J	1/8T 10K-J	DELETE	DELETE
RC19	DELETE	DELETE	DELETE	DELETE	DELETE	C-ELEC.:16V10uF	C-ELEC.:16V10uF
RD10	DELETE	DELETE	DELETE	DELETE	DELETE	DIODE:1N4148	DIODE:1N4148
RL06	DELETE	DELETE	DELETE	DELETE	DELETE	COIL-PEAK ALO2-100K	COIL-PEAK ALO2-100K
RR20	DELETE	DELETE	DELETE	DELETE	DELETE	1/8T 2.4K-J	1/8T 2.4K-J
RR37	DELETE	DELETE	DELETE	DELETE	DELETE	1/8T 56K-J	1/8T 56K-J
RR42	DELETE	DELETE	DELETE	DELETE	DELETE	1/8T 1K-J	1/8T 1K-J
RR43	DELETE	DELETE	DELETE	DELETE	DELETE	1/8T 5.1K-J	1/8T 5.1K-J
X502	DELETE	DELETE	DELETE	DELETE	DELETE	X-TAL 3.579545	X-TAL 3.579545
R513	1/8T 47K-J	1/8T 47K-J	1/8T 47K-J	1/8T 47K-J	1/8T 47K-J	DELETE	DELETE
A-A	DELETE	DELETE	DELETE	DELETE	DELETE	1/2T 10M-J	DELETE
B-B	DELETE	DELETE	DELETE	DELETE	DELETE	1/2T 10M-J	DELETE

	PAL/SEC-B/G 21PIN SCART	PAL/SEC-B/G SECAM-L'/L
C117	C-ELEC 50V 1uF	C-ELEC 50V 4.7uF
C124	C-ELEC 50V 0.33uF	C-ELEC 50V 1uF
C609	C-ELEC 50V 10uF(NP)	C-ELEC 25V 22uF(NP)
C615	C-POLY 63V 472	C-CERA:50V 471
C706	DELETE	C-ELEC 50V 10uF(NP)
IC101	TDA8362B/N3	TDA8362/N3
IC504	DELETE	TC40538P
MODULE	DELETE	3D39-00001-290
R609	1/8T 5.6K-J	1/8T 6.2K-J
R661	1/8T 5.6K-J	1/8T 6.2K-J
R708	DELETE	1/8T 10K-J
RD03	DELETE	DIODE:1N148
RR30	DELETE	1/8T 1K-J
RR70	DELETE	1/8T 5.1K-J
RR73	DELETE	1/8T 100-J
SC101	DELETE	C-CERA:50V 102
SC102	DELETE	C-CERA:50V 102
SC103	DELETE	C-CERA:50V 103
SC601	DELETE	C-CERA:50V 103
SD101	DELETE	VARACTOR:BB809
SD102	DELETE	DIODE:1N148
SD103	DELETE	DIODE:1N148
SQ101	DELETE	TR:C815-Y
SQ701	DELETE	TR:C815-Y
SR101	DELETE	1/8T 100K-J
SR102	DELETE	1/8T 100K-J
SR103	DELETE	1/8T 33K-J
SR104	DELETE	1/8T 10K-J
SR105	DELETE	1/8T 12K-J
SR612	DELETE	1/8T 9.1K-J
SR702	DELETE	1/8T 10K-J
SR703	DELETE	1/8T 51K-J
SVR101	DELETE	VR:50K-J
****	DELETE	C-ELEC. 50V 22uF
J128	JUMPER (Q602 EMITTER)	DELETE
J128A	DELETE	JUMPER (21PIN 1.3)
J130	DELETE	JUMPER (21PIN 2.4)
J130B	JUMPER (21PIN 2.4)	DELETE
STJ10	DELETE	JUMPER (4053#2)
STJ19	DELETE	JUMPER (4053#5)
SJ09	DELETE	JUMPER (4053#4)
J142	DELETE	JUMPER (4053#11)
J360	DELETE	JUMPER (MICOM#8)
J148	DELETE	JUMPER (4053#10)
STJ20	DELETE	JUMPER (4053#2)
SJ02	DELETE	JUMPER (MICOM#10)
STJ01D	DELETE	JUMPER (Q602 EMITTER)
J166	DELETE	JUMPER (AU-IN-L)
J161	DELETE	JUMPER (4053#9)
Z101	G1956	K2960
C122	16V.22uF	16V.100uF
SC000	DEL	16V.100uF

	21PIN-JACK	AV-IN/OUT-JACK
C627	C-CERA:CH 101	DELETE
C628	C-CERA:CH 101	DELETE
C629	C-CERA:CH 101	DELETE
RCJ01	FERI-JACK	A3040-0103
RCJ02	DELETE	A3040-0108
J098	JUMPER	DELETE
J121	DELETE	JUMPER

	STEREO	WOOFER
RR23	DELETE	1/8T 10K-J
WP01	DELETE	GT-PIN 4PIN
CN602	DELETE	POST-HEAD.5PIN
J140	DELETE	JUMPER
WJ001	DELETE	JUMPER

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.

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

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

DIFERENTIAL PARTS FOR CRT

	14INCH-SEC	14INCH-PHILIPS	20INCH-SEC	20INCH-WF	21INCH-SEC
CRT	A34KQV42X	A34EAC01X06	A48KRD82X	A48ECR11X16	A51(KTB83X-1R A51KGJ63X-1.7R
R925	R-FUSE:2T 1.8-J	R-FUSE:2T 1.8-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J
R924	R-FUSE:1T 0.47-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J
C417	C-M.POLY:400V 364	C-M.POLY:400V 364	C-M.POLY:400V 434	C-M.POLY:400V 434	C-M.POLY:400V 434
R213	R-CAR.:1/8T 2K-J	R-CAR.:1/8T 2K-J	R-CAR.:1/8T 3.3K-J	R-CAR.:1/8T 3.3K-J	R-CAR.:1/8T 3.3K-J
Q402	2SD1650 2SD1711	2SD1650 2SD1711	KSD5072YD	KSD5072YD	KSD5072YD
T444	FTK14A004P	FTK14A004P	FCM20A015	FCM20A015	FCM20A015
L404	32449-730-010	32449-730-010	32446-705-040	32446-705-040	32446-705-040
CN802	32479-029-380	32479-029-380	A1149-0011:FREEVOLT A1149-0013:220VOLT	A1149-0011:FREEVOLT A1149-0013:220VOLT	A1149-0010:FREEVOLT A1149-0012:220VOLT
C411	C-FILM:1.6KV 632	C-FILM:1.6KV 722	C-FILM:1.6KV 632	C-FILM:1.6KV 722	C-FILM:1.6KV 632
C415	C-CERA:2KV 681	C-CERA:2KV 331	DELETE	C-CERA:2KV 331	C-CERA:2KV 331
R501	R-CAR.:1/8T 3.6K-J	R-CAR.:1/8T 3.6K-J	R-CAR.:1/8T 5.6K-J	R-CAR.:1/8T 5.6K-J	R-CAR.:1/8T 5.6K-J
C409	C-POLY:63V 103	C-POLY:63V 103	C-POLY:63V 822	C-POLY:63V 822	C-POLY:63V 822
V999	A3047-0013(MINI)	A3047-0013(MINI)	A3047-0010(HIBI)	A3047-0010(HIBI)	A3047-0010(HIBI)
L402	JUMPER	WIDTH-COIL(412-650)	JUMPER	WIDTH-COIL(412-680)	WIDTH-COIL(412-680)
R411	R-CAR.:1/2T 10-J	R-CAR.:1/2T 10-J	R-CAR.:1/2T 33-J	R-CAR.:1/2T 33-J	R-CAR.:1/2T 33-J
R304	R-CAR.:1/2T 680-J	R-CAR.:1/2T 330-J	R-CAR.:1/2T 330-J	R-CAR.:1/2T 680-J	R-CAR.:1/2T 330-J
R421	JUMPER	JUMPER	R-CAR.:1/2T 0.39-J	R-CAR.:1/2T 0.39-J	R-CAR.:1/2T 0.39-J
R405	R-CAR.:1/2T 12-J	R-CAR.:1/2T 12-J	R-CAR.:1/2T 47-J	R-CAR.:1/2T 47-J	R-CAR.:1/2T 47-J
R312	R-CAR.:1/8T 33K-J	R-CAR.:1/8T 33K-J	R-CAR.:1/8T 22K-J	R-CAR.:1/8T 22K-J	R-CAR.:1/8T 22K-J
RR17	R-CAR.:1/8T 6.8K-J	R-CAR.:1/8T 6.8K-J	R-CAR.:1/8T 2.7K-J	R-CAR.:1/8T 2.7K-J	R-CAR.:1/8T 2.7K-J

DIFERENTIAL PARTS FOR FUNCTION

(*OPP.=OPPOSITE)

	AV-IN/OUT (TV-OUT.MONO)	LINE-STEREO (MONITOR-OUT)
IC501	TDA7056	DELETE
IC503	DELETE	TDA7057Q
IC505	DELETE	UPC1406HA
IC504	DELETE	TC40538P
C666	C-ELEC. 25V 0.22uF	C-ELEC. 50V 4.7uF(OPP)
D601	DIODE:1N4148	1/8T 39K-J
R666	1/8T 39K-J	JUMPER
Q603	TR:C815-Y	DELETE
C606	C-ELEC. 50V 2.2uF	DELETE

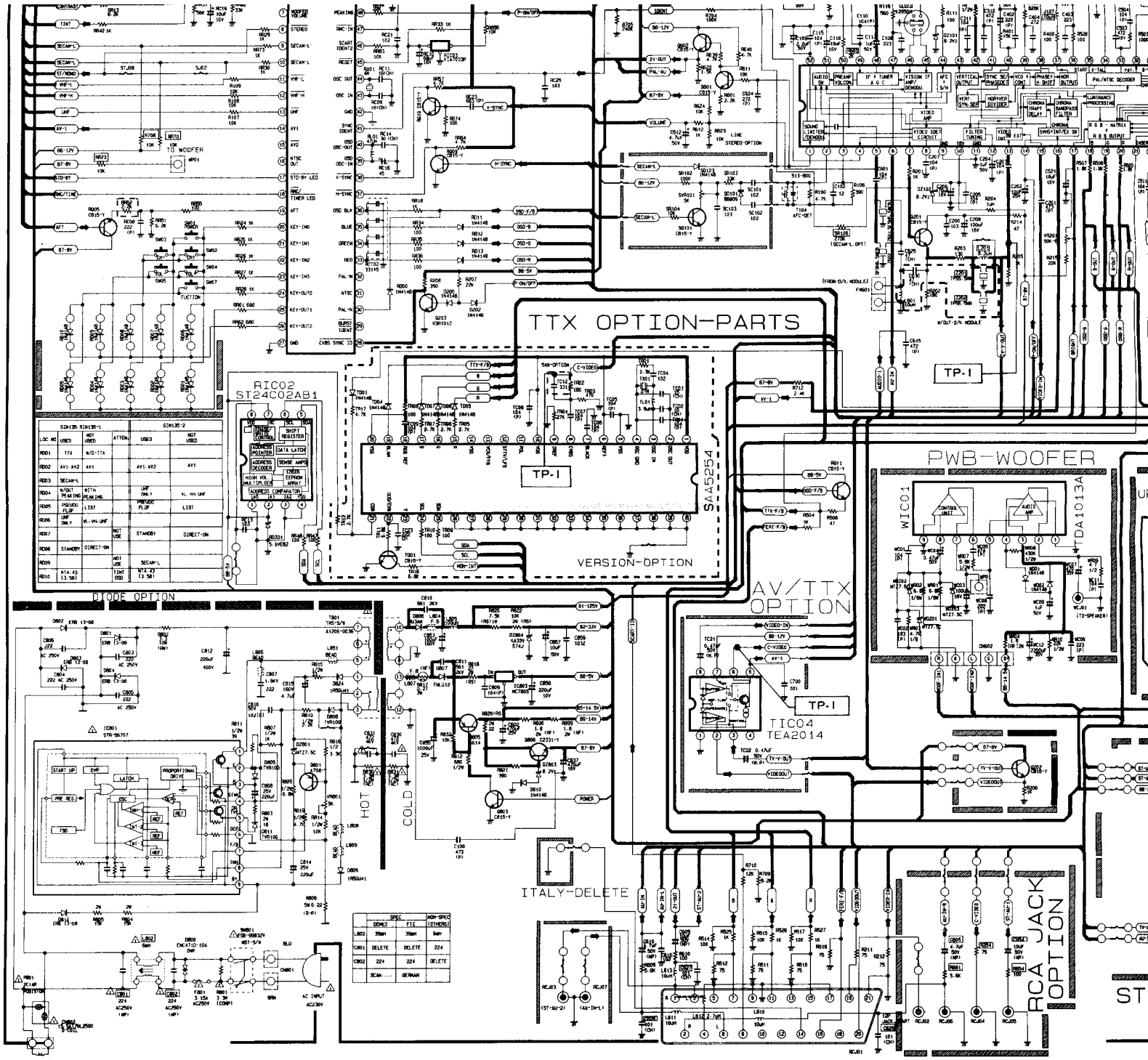
	AV-IN/OUT (TV-OUT.MONO)	LINE-STEREO (MONITOR-OUT)
R646	DELETE	1/8T 39K-J
RC04	C-ELEC. 50V 2.2uF	C-ELEC. 50V 10uF
R662	DELETE	1/8T 47K-J
R605	1/8T 1K-J	1/8T 24K-J
STJ21	DELETE	JUMPER (8362#50SHORT)
J139	JUMPER (8362#50LONG)	DELETE
STJ20D	DELETE	JUMPER (4053#12)
STJ07	DELETE	JUMPER (4053#13)

	TELETEXT	W/O-TELETEXT
RCT03	C-NETWORK 33144	DELETE
RD01	DIODE:1N4148	DELETE
RD05	DIODE:1N4148 (OPTION)	DELETE
TC01	C-POLY.63V 104	DELETE
TC02	C-CERA. 50V CH 100-J	DELETE
TC03	C-CERA. 50V CH 150-J	DELETE
TC04	C-CERA. 50V 102-K	DELETE
TC05	C-POLY. 63V 104-J	DELETE
TC06	C-POLY. 63V 104-J	DELETE

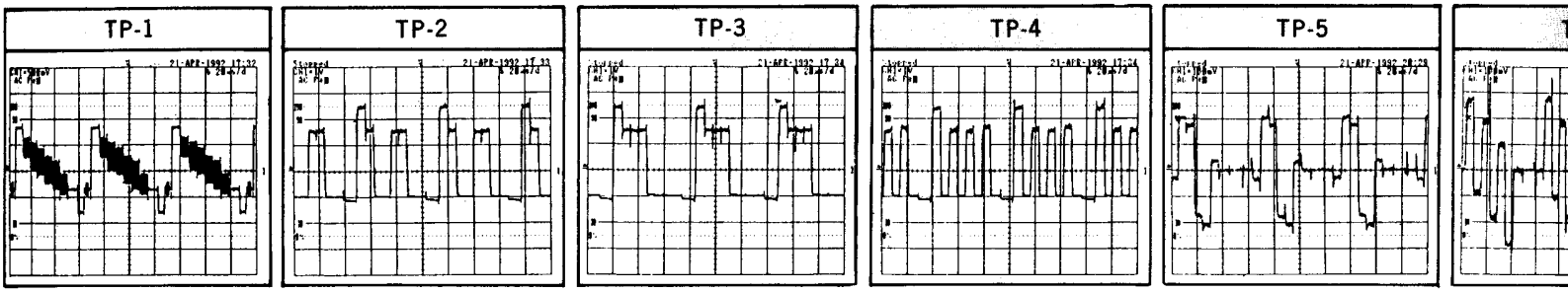
	LINE-STEREO (MONITOR-OUT)	SECAM-L'/L
IC501	DELETE	IC:TDA7056
IC503	TDA7057Q	DELETE
IC505	UPC1406HA	DELETE
R654	1/8T 100-J	DELETE
C666	C-ELEC. 50V 4.7uF(OPP)	C-ELEC. 25V 0.22uF
D601	1/8T 33K-J	DIODE:1N4148
R666	JUMPER	1.8T 39K-J
Q603	DELETE	TR:C815-Y
C606	DELETE	C-ELEC. 50V 2.2uF

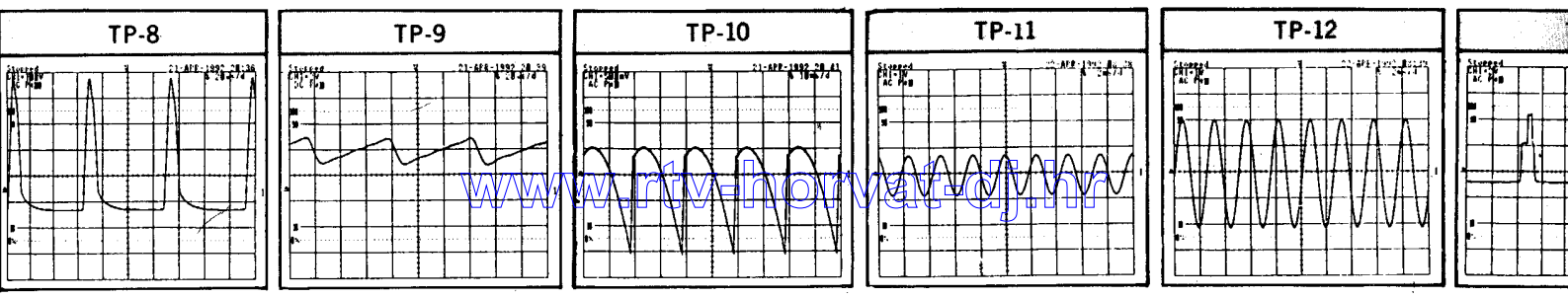
	LINE-STEREO (MONITOR-OUT)	SECAM-L'/L
R646	1/8T 39K-J	DELETE
R699		
R606		
R662	1/8T 47K-J	DELETE
R605	1/8T 24K-J	1/8T 1K-J
MODULE	3D39-00001-260	3D39-00001-290
RR73	DELETE	1/8T 100-J
RR30	DELETE	1/8T 1K-J
R708	DELETE	1/8T 10K-J

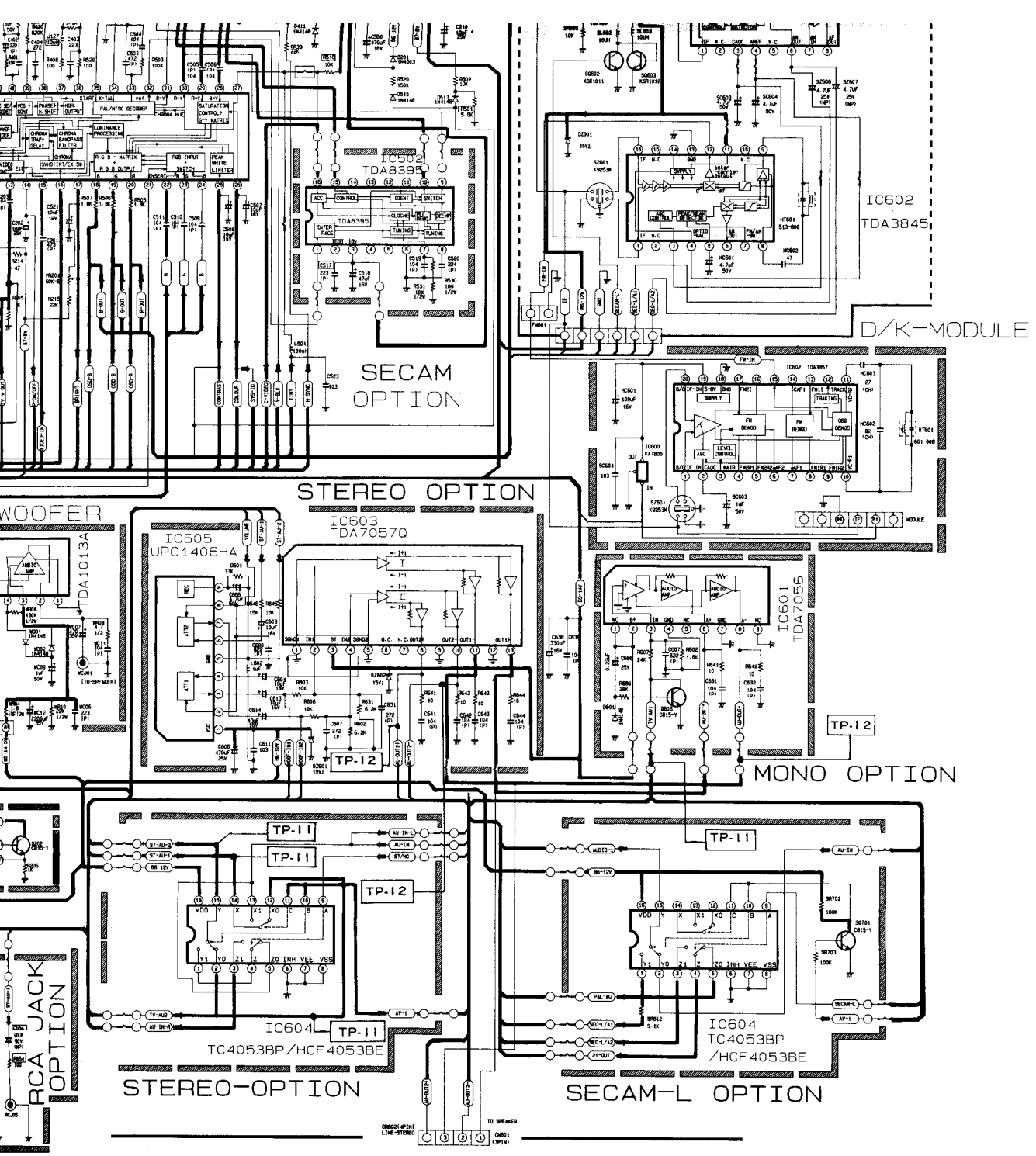
	LINE-STEREO (MONITOR-OUT)	SECAM-L'/L
STJ01	JUMPER (4053#13)	DELETE
STJ06	JUMPER (4053#15)	DELETE
STJ04	JUMPER (AU-IN-R)	DELETE
STJ03	JUMPER (AU-OUT-L)	DELETE
STJ15	JUMPER (AU-OUT-L)	DELETE
STJ05	JUMPER (AU-IN-R)	DELETE
J121	DELETE	JUMPER (21PIN #2/4)
J271	JUMPER (1406HA#2.8)	DELETE
J150	JUMPER (J271 PAT.)	DELETE

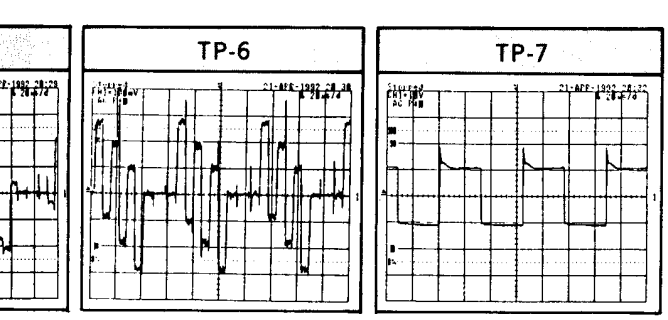


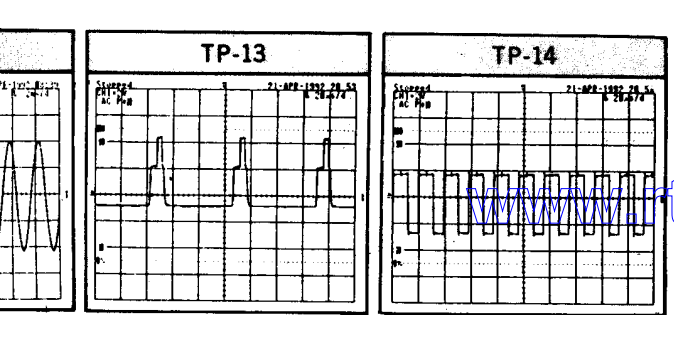
TESTPOINT WAVEFROM











DIFE

	A (TV
IC501	
IC603	
IC605	
IC604	
C666	(N
D601	DD
R666	1/
Q603	TI
C606	5/
R607	1/
C604	
C603	
C614	
C613	
R608	
R603	
R631	
C631	
DZ602	
DZ601	
C608	
C611	
R643	
R644	
C643	
C644	
CN601	P
CN603	
CN602	
R623	
R624	
C612	C 50
RR29	
RR16	1/
R661	
C605	
C654	
R611	1/8
R601	1/8
R639	1/8
R640	1/8
Q601	TR
Q602	TR
R622	1/8T
RR70	DE
R602	
R645	DE

AL06	DELETE	DELETE	DELETE	DELETE	DELETE	COIL-PEAK AL02-100K	COIL-PEAK AL02-100K
RR20	DELETE	DELETE	DELETE	DELETE	DELETE	1/8T 2.4K-J	1/8T 2.4K-J
RR37	DELETE	DELETE	DELETE	DELETE	DELETE	1/8T 56K-J	1/8T 56K-J
RR42	DELETE	DELETE	DELETE	DELETE	DELETE	1/8T 1K-J	1/8T 1K-J
RR43	DELETE	DELETE	DELETE	DELETE	DELETE	1/8T 5.1K-J	1/8T 5.1K-J
X502	DELETE	DELETE	DELETE	DELETE	DELETE	X-TAL:3.579545	X-TAL:3.579545
R513	1/8T 47K-J	1/8T 47K-J	1/8T 47K-J	1/8T 47K-J	1/8T 47K-J	DELETE	DELETE
A-A	DELETE	DELETE	DELETE	DELETE	DELETE	1/2T 10M-J	DELETE
B-B	DELETE	DELETE	DELETE	DELETE	DELETE	1/2T 10M-J	DELETE

SVR101	DELETE	VR:50K-J
****	DELETE	C-ELEC. 50V 22uF
J128	JUMPER (Q602 EMITTER)	DELETE
J128A	DELETE	JUMPER (21PIN 1.3)
J130	DELETE	JUMPER (21PIN 2.4)
J130B	JUMPER (21PIN 2.4)	DELETE
STJ10	DELETE	JUMPER (4053#2)
STJ19	DELETE	JUMPER (4053#5)
SJ09	DELETE	JUMPER (4053#4)
J142	DELETE	JUMPER (4053#11)
J360	DELETE	JUMPER (WICOM#8)
J148	DELETE	JUMPER (4053#10)
STJ20	DELETE	JUMPER (4053#2)
SJ02	DELETE	JUMPER (WICOM#10)
STJ010	DELETE	JUMPER (Q602 EMITTER)
J166	DELETE	JUMPER (AU-IN-L)
J161	DELETE	JUMPER (4053#9)
Z101	61956	K2960
C122	16V.22uF	16V.100uF
SC000	DEL	16V.100uF

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

DIFERENTIAL PARTS FOR CRT

	14INCH-SEC	14INCH-PHILIPS	20INCH-SEC	20INCH-WF	21INCH-SEC
CRT	A34KGV42X	A34EAC01X06	A48KRD82X	A48ECR11X16	A51KTB83X+1R A51KGJ63X:1.7R
R925	R-FUSE:2T 1.8-J	R-FUSE:2T 1.8-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J
R924	R-FUSE:1T 0.47-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J	R-FUSE:1T 1.0-J
C417	C-M.POLY:400V 364	C-M.POLY:400V 364	C-M.POLY:400V 434	C-M.POLY:400V 434	C-M.POLY:400V 434
R213	R-CAR.:1/8T 2K-J	R-CAR.:1/8T 2K-J	R-CAR.:1/8T 3.3K-J	R-CAR.:1/8T 3.3K-J	R-CAR.:1/8T 3.3K-J
Q402	2SD1650 2SD1711	2SD1650 2SD1711	KSD5072YD	KSD5072YD	KSD5072YD
T444	FTK14A004P	FTK14A004P	FCM20A015	FCM20A015	FCM20A015
L404	32449-730-010	32449-730-010	32446-705-040	32446-705-040	32446-705-040
CN802	32479-029-380	32479-029-380	A1149-0011:FREEVOLT A1149-0013:220VOLT	A1149-0011:FREEVOLT A1149-0013:220VOLT	A1149-0010:FREEVOLT A1149-0012:220VOLT
C411	C-FILM:1.6KV 632	C-FILM:1.6KV 722	C-FILM:1.6KV 632	C-FILM:1.6KV 722	C-FILM:1.6KV 632
C415	C-CERA:2KV 681	C-CERA:2KV 331	DELETE	C-CERA:2KV 331	C-CERA:2KV 331
R501	R-CAR.:1/8T 3.6K-J	R-CAR.:1/8T 3.6K-J	R-CAR.:1/8T 5.6K-J	R-CAR.:1/8T 5.6K-J	R-CAR.:1/8T 5.6K-J
C409	C-POLY:63V 103	C-POLY:63V 103	C-POLY:63V 822	C-POLY:63V 822	C-POLY:63V 822
V999	A3047-0013(MINI)	A3047-0013(MINI)	A3047-0010(HIBI)	A3047-0010(HIBI)	A3047-0010(HIBI)
L402	JUMPER	WIDTH-COIL(412-650)	JUMPER	WIDTH-COIL(412-680)	WIDTH-COIL(412-680)
R411	R-CAR.:1/2T 10-J	R-CAR.:1/2T 10-J	R-CAR.:1/2T 33-J	R-CAR.:1/2T 33-J	R-CAR.:1/2T 33-J
R304	R-CAR.:1/2T 680-J	R-CAR.:1/2T 330-J	R-CAR.:1/2T 330-J	R-CAR.:1/2T 680-J	R-CAR.:1/2T 330-J
R421	JUMPER	JUMPER	R-CAR.:1/2T 0.39-J	R-CAR.:1/2T 0.39-J	R-CAR.:1/2T 0.39-J
R405	R-CAR.:1/2T 12-J	R-CAR.:1/2T 12-J	R-CAR.:1/2T 47-J	R-CAR.:1/2T 47-J	R-CAR.:1/2T 47-J
R312	R-CAR.:1/8T 33K-J	R-CAR.:1/8T 33K-J	R-CAR.:1/8T 22K-J	R-CAR.:1/8T 22K-J	R-CAR.:1/8T 22K-J
RR17	R-CAR.:1/8T 6.8K-J	R-CAR.:1/8T 6.8K-J	R-CAR.:1/8T 2.7K-J	R-CAR.:1/8T 2.7K-J	R-CAR.:1/8T 2.7K-J

DIFERENTIAL PARTS FOR FUNCTION

(*OPP.=OPPOSITE)

	AV-IN/OUT (TV-OUT-MONO)	LINE-STEREO (MONITOR-OUT)
IC601	TDA7056	DELETE
IC603	DELETE	TDA7057Q
IC605	DELETE	UPC1406HA
IC804	DELETE	TC40538P
C666	C-ELEC. 25V 0.22uF	C-ELEC. 50V 4.7uF(OPP)
D601	DIODE:1N4148	1/8T 39K-J
R666	1/8T 39K-J	JUMPER
Q603	TR:C815-Y	DELETE
C606	C-ELEC. 50V 2.2uF	DELETE
R607	1/8T 24K-J	DELETE
C604	DELETE	C-ELEC. 16V 10uF
C603	DELETE	C-ELEC. 16V 10uF
C614	DELETE	C-ELEC. 16V 10uF
C613	DELETE	C-ELEC. 16V 10uF
R608	DELETE	1/8T 13K-J
R603	DELETE	1/8T 13K-J
R631	DELETE	1/8T 12K-J
C631	DELETE	C-POLY 63V 272
DZ602	DELETE	DIODE-ZENER NTZ15C
DZ601	DELETE	DIODE-ZENER NTZ15C
C608	DELETE	C-ELEC. 25V 470uF
C611	DELETE	C-CERA. 50V 103
R643	DELETE	1/8T 10-J
R644	DELETE	1/8T 10-J
C643	DELETE	C-POLY. 63V 104
C644	DELETE	C-POLY. 63V 104
CN601	POST:3PIN	DELETE
CN603	DELETE	POST:4PIN
CN602	DELETE	POST:5PIN (FOR WOOFER)
R623	DELETE	1/8T 10K-J
R624	DELETE	1/8T 10K-J
C612	C-ELEC. 50V 4.7uF	DELETE
RR29	DELETE	1/8T 1K-J
RR16	1/8T 1K-J	1/8T 9.1K-J
R661	DELETE	1/8T 5.6K-J
C605	DELETE	C-ELEC. 50V 4.7uF(NP)
C654	DELETE	C-ELEC. 50V 10uF(NP)
R611	1/8T 10K-J	DELETE
R601	1/8T 2.2K-J	DELETE
R639	1/8T 4.7K-J	DELETE
R640	1/8T 4.7K-J	DELETE
Q601	TR:C815-Y	DELETE
Q602	TR:C815-Y	DELETE
R622	1/8T 1.5K-J	DELETE
RR70	DELETE	1/8T 10K-J
R602		1/8T 12K-J
R645	DELETE	1/8T 39K-J

	AV-IN/OUT (TV-OUT-MONO)	LINE-STEREO (MONITOR-OUT)
R646	DELETE	1/8T 39K-J
RC04	C-ELEC. 50V 2.2uF	C-ELEC. 50V 10uF
R662	DELETE	1/8T 47K-J
R605	1/8T 1K-J	1/8T 24K-J
STJ21	DELETE	JUMPER (8362#50SHORT)
J139	JUMPER (8362#50LONG)	DELETE
STJ20D	DELETE	JUMPER (4053#12)
STJ07	DELETE	JUMPER (4053#13)
J166	DELETE	JUMPER (AU-IN-L)
STJ11	DELETE	JUMPER (4053#14)
STJ16	DELETE	JUMPER (1406HA#2-8)
STJ10	DELETE	JUMPER (4053#2)
STJ12	DELETE	JUMPER (4053#3)
STJ19	DELETE	JUMPER (4053#5)
STJ09	DELETE	JUMPER (4053#4)
STJ25	DELETE	JUMPER (4053#1)
J360	DELETE	JUMPER (WICOM#8)
J161	DELETE	JUMPER (4053#9)
J148	DELETE	JUMPER (4053#10.11)
J601	DELETE	JUMPER (1406HA#8)
J147	JUMPER (7056#2)	DELETE
J361	JUMPER (7056#6)	DELETE
STJ01	DELETE	JUMPER (4053#13)
J128	JUMPER (Q602EMITTER)	DELETE
J128A	DELETE	JUMPER (AU-OUT-R)
STJ06	DELETE	JUMPER (4053#15)
STJ04	DELETE	JUMPER (AU-IN-R)
J130	DELETE	JUMPER (AU-IN-L)
J130B	JUMPER (AU-IN)	DELETE
STJ03	DELETE	JUMPER (AU-OUT-L)
STJ15	DELETE	JUMPER (AU-OUT-L)
STJ05	DELETE	JUMPER (AU-IN-R)
J121	JUMPER (21PIN 2-6)	DELETE
J271	DELETE	JUMPER (1406HA#2-8)
J150	DELETE	JUMPER (J271 PATTERN)
J149	JUMPER (J150 PATTERN)	DELETE
J143	JUMPER (J149 PATTERN)	DELETE
J209	JUMPER (8362#1)	DELETE
J208	JUMPER (8362#6)	DELETE
J666	DELETE	JUMPER (7057#1)
RCJ01	JACK-PIN:2PIN	DELETE
RCJ02	JACK-BLOCK:2PIN	JACK-BLOCK:6PIN

	TELETEXT	W/O-TELETEXT
RC103	C-NETWORK 33144	DELETE
RD01	DIODE:1N4148	DELETE
RD05	DIODE:1N4148 (OPTION)	DELETE
TC01	C-POLY:63V 104	DELETE
TC02	C-CERA. 50V CH 100-J	DELETE
TC03	C-CERA. 50V CH 150-J	DELETE
TC04	C-CERA. 50V 102-K	DELETE
TC05	C-POLY. 63V 104-J	DELETE
TC06	C-POLY. 63V 104-J	DELETE
TC07	C-POLY. 63V 104-J	DELETE
TC08	C-POLY. 63V 104-J	DELETE
TC09	C-POLY. 63V 104-J	DELETE
TC12 (CB-CX)	C-CERA. 50V 331-J	DELETE
TC12 (CK-CW)	C-CERA. 50V RH 181-J	DELETE
TD01	DIODE:1N4148	DELETE
TD04	DIODE:1N4148	DELETE
TD05	DIODE:1N4148	DELETE
TD06	DIODE:1N4148	DELETE
TD07	DIODE:1N4148	DELETE
TIC01	SAA5254P/E	DELETE
TIC01	SAA5254P/H	DELETE
TIC01	SAA5254P/T	DELETE
TL01	COIL:3.9UH	DELETE
TQ01	TR:C815-Y	DELETE
TR01	1/8T 3.3K	DELETE
TR02	1/8T 180	DELETE
TR03	1/8T 470 -	DELETE
TR04	1/8T 27K	DELETE
TR05	1/8T 2.7K	DELETE
TR06	1/8T 2.7K	DELETE
TR07	1/8T 2.7K	DELETE
TR08	1/8T 100	DELETE
TR09	1/8T 100	DELETE
TR10	1/8T 100	DELETE
TR11	1/8T 6.8K	DELETE
TR13	1/8T 2.7K	DELETE
TR16	1/8T 6.8K	DELETE
TR17	1/8T 4.7K	DELETE
TX01	X-TAL:27MHz (PHILIPS)	DELETE
TC23	C-CERA. 50V 222-Z	DELETE

	LINE-STEREO (MONITOR-OUT)	SECAM-L'/L
IC601	DELETE	IC:TDA7056
IC603	TDA7057Q	DELETE
IC605	UPC1406HA	DELETE
R654	1/8T 100-J	DELETE
C666	C-ELEC. 50V 4.7uF(OPP)	C-ELEC. 25V 0.22uF
D601	1/8T 33K-J	DIODE:1N4148
R666	JUMPER	1/8T 39K-J
Q603	DELETE	TR:C815-Y
C606	DELETE	C-ELEC. 50V 2.2uF
R607	DELETE	1/8T 24K-J
C604	C-ELEC. 16V 10uF	DELETE
C603	C-ELEC. 16V 10uF	DELETE
C614	C-ELEC. 16V 10uF	DELETE
C613	C-ELEC. 16V 10uF	DELETE
R608	1/8T 13K-J	DELETE
R603	1/8T 13K-J	DELETE
R631	1/8T 12K-J	DELETE
C631	C-POLY. 63V 272	DELETE
DZ602	DIODE-ZENER NTZ15C	DELETE
DZ601	DIODE-ZENER NTZ15C	DELETE
C608	C-ELEC. 25V 470uF	DELETE
C611	C-CERA. 50V 103	DELETE
R643	1/8T 10-J	DELETE
R644	1/8T 10-J	DELETE
C643	C-POLY. 63V 104	DELETE
C644	C-POLY. 63V 104	DELETE
CN601	DELETE	POST:3PIN
CN603	POST:4PIN	DELETE
CN602	POST:5PIN (FOR WOOFER)	DELETE
R623	1/8T 10K-J	DELETE
R624	1/8T 10K-J	DELETE
C612	DELETE	C-ELEC. 50V 4.7uF
RR29	1/8T 1K-J	DELETE
RR16	1/8T 9.1K-J	1/8T 1K-J
R661	1/8T 5.6K-J	1/8T 6.2K-J
C605	C-ELEC. 50V 10uF(NP)	DELETE
C654	C-ELEC. 50V 10uF(NP)	DELETE
R611	DELETE	1/8T 10K-J
R601	DELETE	1/8T 2.2K-J
R639	DELETE	1/8T 4.7K-J
R640	DELETE	1/8T 4.7K-J
Q601	DELETE	TR:C815-Y
Q602	DELETE	TR:C815-Y
R622	DELETE	1/8T 1.5K-J
RR70	1/8T 10K-J	1/8T 5.1K-J
R602	1/8T 12K-J	1/8T 1.6K-J
R645	1/8T 39K-J	DELETE

	LINE-STEREO (MONITOR-OUT)	SECAM-L'/L
R646	1/8T 39K-J	DELETE
R699		
R606		
R662	1/8T 47K-J	DELETE
R605	1/8T 24K-J	1/8T 1K-J
MODULE	3D39-00001-280	3D39-00001-290
RR73	DELETE	1/8T 100-J
RR30	DELETE	1/8T 1K-J
R708	DELETE	1/8T 10K-J
SR104	DELETE	1/8T 10K-J
SR702	DELETE	1/8T 10K-J
SR101	DELETE	1/8T 100K-J
SR102	DELETE	1/8T 100K-J
SR105	DELETE	1/8T 12K-J
SR103	DELETE	1/8T 33K-J
SR703	DELETE	1/8T 51K-J
R609	1/8T 5.6K-J	1/8T 6.2K-J
SR612	DELETE	1/8T 9.1K-J
SVR101	DELETE	VR:50K
C615	C-POLY:63V 472	C-CERA. 50V 471-K
SC101	DELETE	C-CERA 50V 102
SC102	DELETE	C-CERA 50V 102
SC103	DELETE	C-CERA 50V 103
C124	C-ELEC 50V 0.33uF	C-ELEC 50V 1uF
C117	C-ELEC 50V 1uF	C-ELEC 50V 4.7uF
****	DELETE	C-ELEC 50V 22uF
C609	C-ELEC 50V 10uF(NP)	C-ELEC 25V 22uF(NP)
C706	DELETE	C-ELEC 50V 10uF(NP)
SD701	DELETE	TR:C815-Y
SD101	DELETE	TR:C815-Y
SD103	DELETE	DIODE 1N4148
RD03	DELETE	DIODE 1N4148
SD102	DELETE	DIODE 1N4148
SD101	DELETE	VARACTOR:BB809
IC101	TDA8362B	TDA8362
STJ21	JUMPER (8362#50SHORT)	DELETE
J139	DELETE	JUMPER (8362#50LONG)
STJ20D	JUMPER (4053#12)	DELETE
STJ07	JUMPER (4053#13)	DELETE
STJ11	JUMPER (4053#14)	DELETE
STJ16	JUMPER (1406HA#2-8)	DELETE
STJ12	JUMPER (4053#3)	DELETE
STJ09	JUMPER (4053#4)	DELETE
STJ25	JUMPER (ONTO SR612)	DELETE
J601	JUMPER (1406HA#8)	DELETE
J147	DELETE	JUMPER (7056#2)
J361	DELETE	JUMPER (7056#6)

	LINE-STEREO (MONITOR-OUT)	SECAM-L'/L
STJ01	JUMPER (4053#13)	DELETE
STJ06	JUMPER (4053#15)	DELETE
STJ04	JUMPER (AU-IN-R)	DELETE
STJ03	JUMPER (AU-OUT-L)	DELETE
STJ15	JUMPER (AU-OUT-L)	DELETE
STJ05	JUMPER (AU-IN-R)	DELETE
J121	DELETE	JUMPER (21PIN #2/4)
J271	JUMPER (1406HA#2-8)	DELETE
J150	JUMPER (J271 PAT')	DELETE
J149	DELETE	JUMPER (J150 PAT')
J143	DELETE	JUMPER (J149 PAT')
J209	DELETE	JUMPER (8362#1)
J208	DELETE	JUMPER (8362#6)
J666	JUMPER (7057#1)	DELETE
SJ09	DELETE	JUMPER (4053#4)
STJ20	DELETE	JUMPER (4053#2.12)
SJ02	DELETE	JUMPER (WICOM #10)
STJ010	DELETE	JUMPER (Q602 EMITTER)
RCJ01	DELETE	JACK-PERI
RCJ02	JACK-6PIN	DELETE