

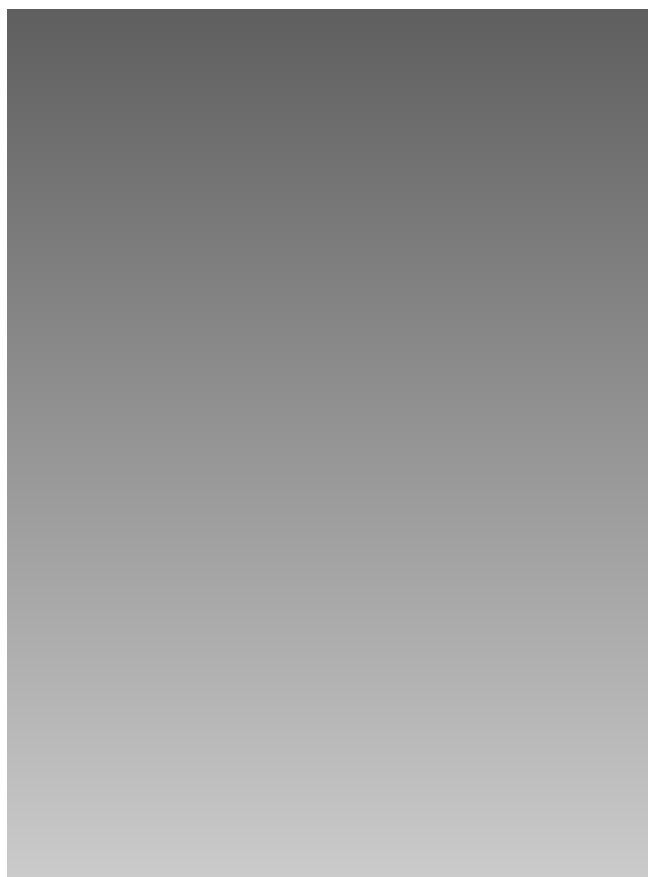


COLOR TELEVISION RECEIVER

Chassis : SCT12B
Model: CS7202NBX/EIS
CS6202NX/EIS

SERVICE *Manual*

COLOR TELEVISION RECEIVER



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ELECTRONICS

1. Precautions

Follow these safety, servicing and ESD precautions to prevent damage and protect against potential hazards such as electrical shock and X-rays.

1-1 Safety Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.
2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including: nonmetallic control knobs and compartment covers.
3. Make sure that there are no cabinet openings through which people—particularly children—might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (Figure 1-1):
Warning: Do not use an isolation transformer during this test. Use a leakage-current tester or a metering system that complies with American National Standards Institute (ANIS C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).
5. With the unit completely reassembled, plug the AC line cord directly into the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

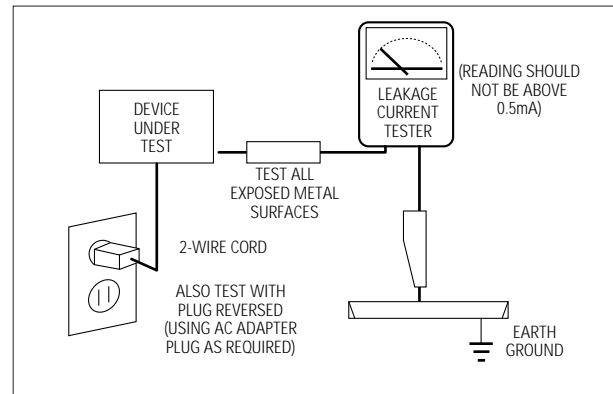


Fig. 1-1 AC Leakage Test



6. Antenna Cold Check:
With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.
7. X-ray Limits:
The picture tube is especially designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original. Carefully reinstall the picture tube shields and mounting hardware; these also provide X-ray protection.
8. High Voltage Limits:
High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits. Correct operation of the X-ray protection circuits must be reconfirmed whenever they are serviced.
(X-ray protection circuits also may be called "horizontal disable" or "hold-down".)

Heed the high voltage limits. These include the X-ray Protection Specifications Label, and the Product Safety and X-ray Warning Note on the service data schematic.

1-1 Safety Precautions (Continued)

9. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.
10. Design Alteration Warning:
Never alter or add to the mechanical or electrical design of this unit. Example: Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.
11. Hot Chassis Warning:
Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

To confirm that the AC power plug is inserted correctly, do the following: Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.
12. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, regardless of the AC plug polarity. These units can be safely serviced only if an isolation transformer inserted between the receiver and the power source.
13. Some TV chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.
14. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or overheating, and correct any potential hazards.
15. Observe the original lead dress, especially near the following areas: Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.
16. Picture Tube Implosion Warning:
The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.
17. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.
18. Product Safety Notice:
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.

Components that are critical for safety are indicated in the circuit diagram by shading, () or ().
Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

1-2 Servicing Precautions

Warning1: First read the "Safety Precautions" section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.

Warning2: An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.
2. Always unplug the unit's AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly, (b) Disconnect an electrical plug or connector, (c) Connect a test component in parallel with an electrolytic capacitor.
3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.
5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of the AC plug.

The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.
8. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

1. Some semiconductor (“solid state”) devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.
2. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power—this is an electric shock precaution.)
3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.
4. Do not use freon-propelled chemicals. These can generate electrical charges that damage ESDs.
5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.
6. Use only an anti-static solder removal device. Many solder removal devices are not rated as “anti-static”; these can accumulate sufficient electrical charge to damage ESDs.
7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

2. Specifications and IC Data

2-1 Specifications

Television System:

MODEL	SYSTEM
CI	PAL-I (UHF)
CII	PAL-I (VHF/UHF)
CX	PAL-B/G, SECAM-B/G
CK	PAL-B/G, D/K, SECAM-B/G, D/K
CW	PAL-B/G, D/K, SECAM-B/G, D/K, NT 4.43
CS	PAL-B/G, D/K, PAL-I, SECAM-B/G, D/K, NT4.43, NT3.58

Channels:

System Band	PAL/SECAM-B/G,I	PAL, SECAM- D/K	SECAM-K1, PAL-D	NTSC - M
VHF	2 - 12	1 - 13	2 - 9	2 - 13
UHF	21 - 69	21 - 69	13 - 57	14-69

Intermediate Frequencies (MHz) :

SYSTEM IF Carrier Frequency	PAL/ SECAM- B/G	PAL/SECAM-D/K, SECAM-K1	PAL - I	NTSC - M
Picture IF Carrier	38.90	38.90	38.90	38.90
Sound IF Carrier	33.40	32.40	32.90	34.40
Color Sub Carrier	34.47	34.47	34.47	35.32

Picture Tube:

25 Inch	A59KPR84X05 (B)	SED CPT	Quick start, In-line-gun, Black stripe, 110° degree deflection
	A59EAK71X01	PHILIPS CPT	
28/29 Inch	A68KVM74X02 (B)	SED CPT	
	A66EAK71X01	PHILIPS CPT	

Power Requirements:

AC 100-260V, 50/60Hz

Antenna Input Impedance:

VHF, UHF : Telescopic dipole antenna (75 ohm unbalanced type)

Speaker Impedance

8 ohm, 10W+10W (Semi-Dome)

2-2 IC Line Up

Loc. No	Specification	Description	Remark
HIC101	PAP101T	IF PRE-AMP	
IC201	TDA8374A	PAL-B/G, SECAM-B/G	
	TDA8374A	PAL-B/G, SECAM-B/G, NTSC	
	TDA8374	PAL-B/G, SECAM-B/G, NTSC, SECAM-L	
	TDA8375A	PAL-B/G, SECAM-B/G, NTSC, SECAM-L, E/W ADJ.	
	TDA8375	PAL-B/G, SECAM-B/G, NTSC, SECAM-L, E/W ADJ., 16:9	
IC202	TDA4665	1H DELAY	
IC203	TDA8395	SECAM DECODER	
IC301	TDA8350Q	VERTICAL DEFLECTION AMP	
IC401	KA7812	REGULATOR (12V)	
IC501	TDA6101Q	RGB DRIVE AMP	
IC502	TDA6101Q	RGB DRIVE AMP	
IC503	TDA6101Q	RGB DRIVE AMP	
IC504	SPK101T	SPOT-KILLER	
IC601	TDA7394	SOUND-AMP (10W+10W)	
	TDA7266	SOUND-AMP (7W+7W)	
IC801	STR6709	POWER IC (STR)	
IC802	TDA8133	CUSTOM REGULATOR (5V, 8V)	
IC803	SE130N	ERROR AMP	SED CPT
	SE140N		PHILIPS CPT
IC804	KA78R05	REGULATOR (5V)	
ICT01	SAA5281 P/E	TTX-DECODER	
ICT02	T900580	TTX-CONTROLLER	
ICT04	X24C02	E ² -PROM	
IC901	Z8933212	μ-com	
IC902	AT24C04	E ² -PROM	

2-3 Semiconductor Base Diagrams

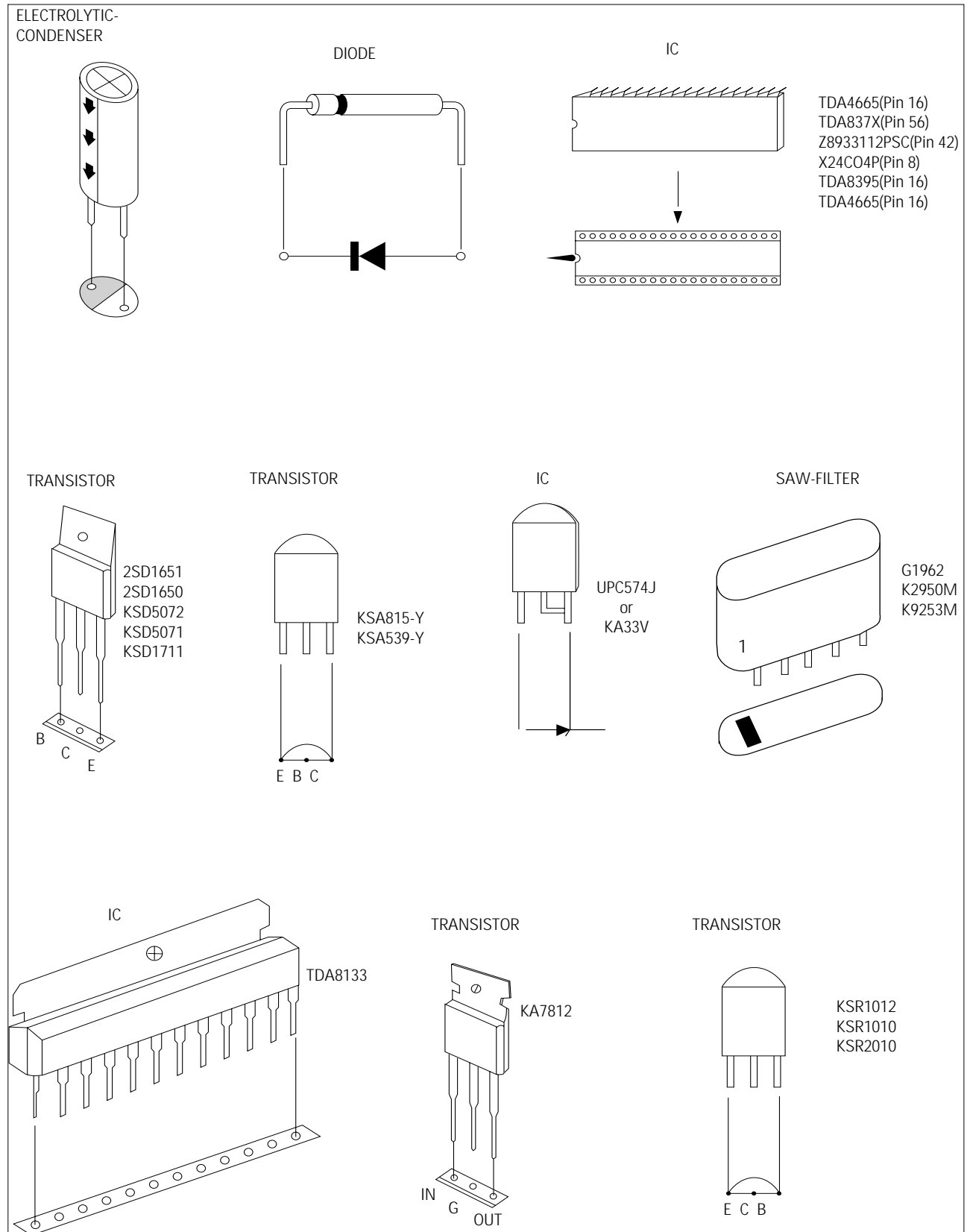


Fig.2-1 Semiconductor Base Diagrams

4. Alignment and Adjustments

4-1 Preadjustment

4-1-1 Factory Mode

1. Do not attempt these adjustments in the Video Mode.
2. The Factory Mode adjustments are necessary when either the EEPROM (IC902) or the CRT is replaced.
3. Do not tamper with the "Adjustment" screen of the Factory Mode menu. This screen is intended only for factory use.

4-1-2 When EEPROM (IC902) Is Replaced

1. When IC902 is replaced all adjustment data revert to initial values. It is necessary to re-program this data.
2. After IC902 is replaced, warm up the TV for 10 seconds

4-1-3 When CRT Is Replaced

1. Make the following adjustments AFTER setting up after setting up purity and convergence:
White Balance
Sub-Brightness
Vertical Center
Vertical Size
Horizontal Size
Fail Safe (This adjustment must be the last step.)
2. If the EEPROM or CRT is replaced, set PSL and PVA to 15 and 63 (Factory Mode).

4-2 Factory/Service Mode

4-2-1 Procedure for the "Adjustment" Mode

1. This mode uses the standard remote control. The Service Mode is activated by (1) pressing the "HIDDEN" service key on the local-keyboard, or (2) by entering the following remote-control sequence:

STAND-BY→P.STD→HELP→SLEEP→
POWER ON
2. The "SERVICE (FACTORY)" message will be displayed. The Service Mode has four components: Adjustment, Test Pattern, Option Bytes and Reset.
3. Access the Adjustment Mode by pressing the "VOLUME" keys (Up or Down). The adjustment parameters are listed in the accompanying table. Select them by pressing the CHANNEL keys (▲,▼).
4. Selection sequences for the PAL system:
DOWN or UP key:
AGC>VCO>SBT>SCT>SCR>RG>GG>BG>
SC>PVS>PVA>PSL>PHS>PEW>PEP>PEC>
PET>LA>SA
5. Selection sequences for the NTSC system:
DOWN or UP key:
NVS>NVA>NSL>NHS>NEW>NEP>
NEC>NET
6. The VOLUME keys increase or decrease the adjustment values, (stored in the non-volatile memory when Adjustment Mode is cancelled).
7. Cancel the Adjustment Mode by re-pressing the "HIDDEN" or "STATUS" keys.

4-2-2 Main Adjustment Parameter

Table 4-1 Main Adjustment Parameter (Zilog μ -com)			
FUNCTION	OSD ABBREVIATION	RANGE	ADJUSTMENT DATA
AUTO GAIN CONTROL	AGC	0 ~ 63 STEP	48 ~ 51
VOLTAGE CONTROLLED OSCILLATOR	VCO	0 ~ 127 STEP	60 ~ 70
SUB BRIGHT	SBT	0 ~ 13 STEP	9 ~ 10
SUB CONTRAST	SCT	0 ~ 13 STEP	7
SUB COLOR	SCR	0 ~ 23 STEP	23
LEVEL ADJUSTMENT	LA	0 ~ 9 STEP	5
STEREO ADJUSTMENT	SA	0 ~ 49 STEP	27
RED CUTOFF	RG	0 ~ 63 STEP	31
GREEN CUTOFF	GG	0 ~ 63 STEP	31
BLUE CUTOFF	BG	0 ~ 63 STEP	10 ~ 31
S-CORRECTION	SC	0 ~ 63 STEP	10 ~ 12
PAL VERTICAL SLOPE	PSL	0 ~ 63 STEP	31
PAL VERTICAL SHIFT	PVS	0 ~ 63 STEP	25 ~ 30
PAL VERTICAL AMPLITUDE	PVA	0 ~ 63 STEP	25 ~ 30
PAL HORIZONTAL SHIFT	PHS	0 ~ 63 STEP	40 ~ 45
PAL EW-WIDTH	PEW	0 ~ 63 STEP	50 ~ 55
PAL EW-APRABOLA WIDTH	PEP	0 ~ 63 STEP	31
PAL EW-CORNER PARABOLA	PEC	0 ~ 63 STEP	31
PAL EW-TRAPEZIUM	PET	0 ~ 63 STEP	20 ~ 25
NTSC VERTICAL SLOPE	NSL	0 ~ 63 STEP	31
NTSC VERTICAL SHIFT	NVS	0 ~ 63 STEP	25 ~ 30
NTSC VERTICAL AMPLITUDE	NVA	0 ~ 63 STEP	25 ~ 30
NTSC HORIZONTAL SHIFT	NHS	0 ~ 63 STEP	48 ~ 52
NTSC EW-WIDTH	NEW	0 ~ 63 STEP	50 ~ 55
NTSC EW-PARABOLA WIDTH	NEP	0 ~ 63 STEP	31
NTSC EW-CORNER PARABOLA	NEC	0 ~ 63 STEP	31
NTSC EW-TRAPEZIUM	NET	0 ~ 63 STEP	20 ~ 25
SECAM-L CONTROLLED OSCILLATOR	LCO	0 ~ 127 STEP	75 ~ 95
TELETEXT SUB CONTRAST	TSC	0 ~ 63 STEP	50

NOTE : PVS,PVA, PHS, NVS, NVA,NHS parameters must be aligned using both the 50Hz and 60Hz vertical-field rates.

4-2-3 Test Pattern (Aging Mode)

1. This mode can be used during servicing, or for confirming that the convergence and purity adjustments are correct.
2. Access the Test Pattern parameters by pressing a CHANNEL keys (▲, ▼) while the Service Mode is on. The cursor will move to the test pattern. Press the VOLUME keys. On-screen display:

- RED
- GREEN
- BLUE

3. AGING Mode (Reference Only)

This pattern is used for pre-heating the CRT during manufacturing--it is accessed in the factory by twice pressing the "HIDDEN" key .

Even if the TV power is cut off, the Aging Mode is not cancelled, The patterns are displayed at 5 sec intervals. The AGING mode is cancelled by repressing the "HIDDEN" key.

4-2-4 Option Byte Table

BIT		BYTE 0	BYTE1	REMARKS
D7	L	LANGUAGE (TABLE 1)	TDA837X X-TAL CONTROL (XA/XB = 1/1)	
	H		TDA837X X-TAL CONTROL (XA/XB = 1/0)	
D6	L		NOISE REDUCTOR : NOT DISPLAYED IN FUNCTION MENU	
	H		NOISE REDUCTOR : DISPLAYED IN FUNCTION MENU	
D5	L	ZOOM (TABLE 2)	SHARPNESS : NOT DISPLAYED IN FUNCTION MENU	
	H		SHARPNESS : DISPLAYED IN FUNCTION MENU	
D4	L	SYSTEM (TABLE 3)	VX FUNCTION : NOT AVAILABLE (TDA847X ADD 16HEX)	
	H		VX FUNCTION : AVAILABLE	
D3	L		PICTURE STANDARD (TABLE 4)	
	H			
D2	L		CH.NUMBER IS DISPLAY I AV-1, AV-2 MODE	SCART JACK
	H		CH. NUMBER IS NOT DISPLAY IN AV-1, AV-2 MODE	RCA JACK
D1	L	STEREO	-	
	H	MONO	AUTO ON	
D0	L	NON HYPER TUNER	MUTE OR POLAND SAFETY (TABLE 1)	
	H	HYPER TUNER		

BYTE 0 BIT D1 :

MODE	RF			AV-1, AV-2		
ITEM	1. IDENT SAA7283 TDA9840 TDA9859	2. SYMBOL DISPLAY	3. S-MODE CONTROL	1. IDENT SAA7283 TDA9840 TDA9859	2.SYMBOL DISPLAY	3. S-MODE CONTROL
LOW	YES	YES	YES	YES	YES	YES
HIGH	NO	NO	NO	NO	YES	YES

TABLE 1 (LANGUAGE) :

BIT		SZM-155AR	SZM-157WTX	SZM-177TV	SZM-159RTX	SZM-179CH
D7	D6	ARABIC	WEST EUROPE	ASIA	EAST EUROPE	CHINA
L	L	ENGLISH ARABIC	ENGLISH DUTCH FRANCE ESPANA ITALIAN SWEDISH NEDERLAND	ENGLISH THAILAND	ENGLISH HUNGARIAN POLAND CZECHOSLOVAKIA RUSSIAN RUMANIA CROATIA	ENGLISH CHINA
L	H			ENGLISH VIETNAM	ENGLISH HUNGARIAN POLAND CZECHOSLOVAKIA RUMANIA CROATIA	
H	H	ENGLISH		ENGLISH MALAYSIA INDONESIA		

	LOGIC	SZM-155AR SZM-179CH	SZM-157WTX	SZM-159RTX	SZM-177TV
BYTE 1 D0	L	NO MUTE : IF NO RF INPUT	1. STAND-BY LED : TURNED ON IN STAND-BY MODE 2. MUTE : TURNED ON IF NO RF INPUT	NO MUTE : IF NO RF INPUT	1. STAND-BY LED : TURNED ON IN STAND BY MODE 2. MUTE : TURNED OFF IF NO RF INPUT
	H	MUTE : IF NO RF INPUT	1. STAND-BY LED : TURNED ON IN NORMAL MODE 2. MUTE : IF NO RF INPUT	MUTE : IF NO RF INPUT	1. STAND-BY LED : TURNED ON IN NORMAL MODE 2. MUTE : IF NO RF INPUT

TABLE 2 (ZOOM) :

MODE		RF	AV-1, AV-2
BYTE0 D5	LOW	NORMAL ; ZOOM ; 16 : 9 ↑	NORMAL↔ZOOM
	HIGH	NORMAL ; ZOOM	

TABLE 3 (SYSTEM) :

BYTE 0			SYSTEM	SOUND SYSTEM		COLOR SYSTEM			
D4	D3	D2		OSD	ACTION	RF MODE		AV-1, AV-2 MODE	
						OSD	ACTION	OSD	ACTION
H	H	H	CI	DELETE	I	DELETE	PAL	DELETE	AUTO
H	H	L	CII	DELETE	I	DELETE	PAL	DELETE	AUTO
H	L	H	CW	? → B/G → I ↑ ↓ D/K	B/G I D/K	AUTO → PAL ↓ ↑ NT4.43 ← SECAM	AUTO PAL SECAM NT4.43	AUTO → PAL ↓ ↑ NT4.43 ← SECAM ↑ ↓ NT4.43	AUTO PAL SECAM NT4.43 NT3.58
H	L	L	CF	DELETE	B/G L/L'	DELETE	PAL SECAM	DELETE	AUTO
L	H	H	CK	D/K ↔ B/G	D/K B/G	AUTO → PAL ↓ ↑ NT4.43 ← SECAM	PAL SECAM NT4.43	AUTO → PAL ↓ ↑ NT4.43 ← SECAM	AUTO PAL SECAM NT4.43
L	H	L	CB	DELETE	B/G	DELETE	PAL	DELETE	AUTO
L	L	H	CX	DELETE	B/G	DELETE	AUTO	DELETE	AUTO
L	L	L	CS	? → B/G → I ↑ ↓ M ← D/K	B/G <None> <None> <None> 4-6 <None> I	AUTO → PAL ↓ ↑ NT3.58 ← SECAM ↓ ↑ NT3.58 ← NT4.43	AUTO PAL SECAM NT4.43 NT3.58	AUTO → PAL ↓ ↑ SECAM ↓ ↑ NT3.58 ← NT4.43	AUTO PAL SECAM NT4.43 NT3.58

CI SYSTEM (ONLY UHF BAND)
CF SYSTEM (AVAILABLE IN SZM-157 M-COM)

TABLE 4 (PICTURE STANDARD) :

MODE \ BYTE	STANDARD MODE	DYNAMIC	MOVIE	MILD	CUSTOM
	CON/BR/SHA/COL	CON/BR/SHA/COL	CON/BR/SHA/COL	CON/BR/SHA/COL	CON/BR/SHA/COL
LOW	100/50/50/50	100/50/75/50	90/50/75/50	60/50/50/50	100/50/50/50
HIGH	90/50/50/50	100/50/50/50	75/55/50/50	60/50/50/50	90/55/25/50
RG	-	-	+10	-	-
BG	-	+10	-	-	-

CON/BR/SHA/COL = CONTRAST / BRIGHT / SHARPNESS / COLOR

4-2-5 RESET

The Reset Mode is used during factory inspection.
Function Reset:

- | | |
|-------------|---------------------------|
| 1. Channels | Added/Erase |
| 2. Sort | NON |
| 3. Language | Basic (English) |
| 4. System | Auto (Non-TTX micom only) |

4-3 Other Adjustments

4-3-1 General

1. Usually, a color TV needs only slight touch-up adjustment upon installation. Check the basic characteristics such as height, horizontal and vertical sync and focus.
2. The picture should have good black and white details. There should be no objectionable color shading; if color shading is present, perform the purity and convergence adjustments described below.
3. Use the specified test equipment or its equivalent.
4. Correct impedance matching is essential.
5. 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 test results.
6. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.
7. 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.
8. To protect against shock hazard, use an isolation transformer.

4-3-2 Automatic Degaussing

A degaussing coil is mounted around the picture tube, so that external degaussing after moving the TV should be unnecessary. But the receiver must be properly degaussed upon installation.

The degaussing coil operates for about 1 second after the power is switched ON. If the set has been moved or turned in a different direction, disconnect its AC power for at least 10 minutes.

If the chassis or parts of the cabinet become magnetized, poor color purity will result. If this happens, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube and the sides and front of the receiver. Slowly withdraw the coil to a distance of about 6 feet before removing power.

4-3-3 High Voltage Check

*CAUTION: There is no high voltage adjustment on this chassis. The B⁺ power supply must be set to +130/155 volts.
(Full color bar input and normal picture level).*

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 not exceed 33KV.
4. Adjust the Brightness and contrast controls to both extremes. Ensure that the high voltage does not exceed 33KV under any conditions.

4-3-4 FOCUS Adjustment

1. Input a black and white signal.
2. Adjust the tuning control for the clearest picture.
3. Adjust the FOCUS control for well defined scanning lines in the center area of the screen.

4-3-5 Screen Adjustment

1. Turn to the ACTIVE channel.
2. Adjust the VR screen for a normal picture is (no blooming or flyback line).
3. Adjust the FOCUS control for well defined scanning lines in the center area of the screen.

4-3-6 Purity Adjustment

1. Warm up the receiver for at least 20 minutes.
2. Plug in the CRT deflection yoke and tighten the clamp screw.
3. Plug the convergence yoke into the CRT and set in as shown in Fig. 4-1.
4. Input a black and white signal.
5. Fully demagnetize the receive by applying an external degaussing coil.
6. Turn the CONTRAST and BRIGHTNESS controls to maximum.
7. Loosen the clamp screw holding the yoke. Slide the yoke backward or forward to provide vertical green belt. (Fig. 4-2).
8. Tighten the convergence yoke.
9. Slowly move the deflection yoke forward, and adjust for the best overall green screen.
10. Temporarily tighten the deflection yoke.
11. Produce blue and red rasters by adjusting the low-light controls. Check for good purity in each field.
12. Tighten the deflection yoke.

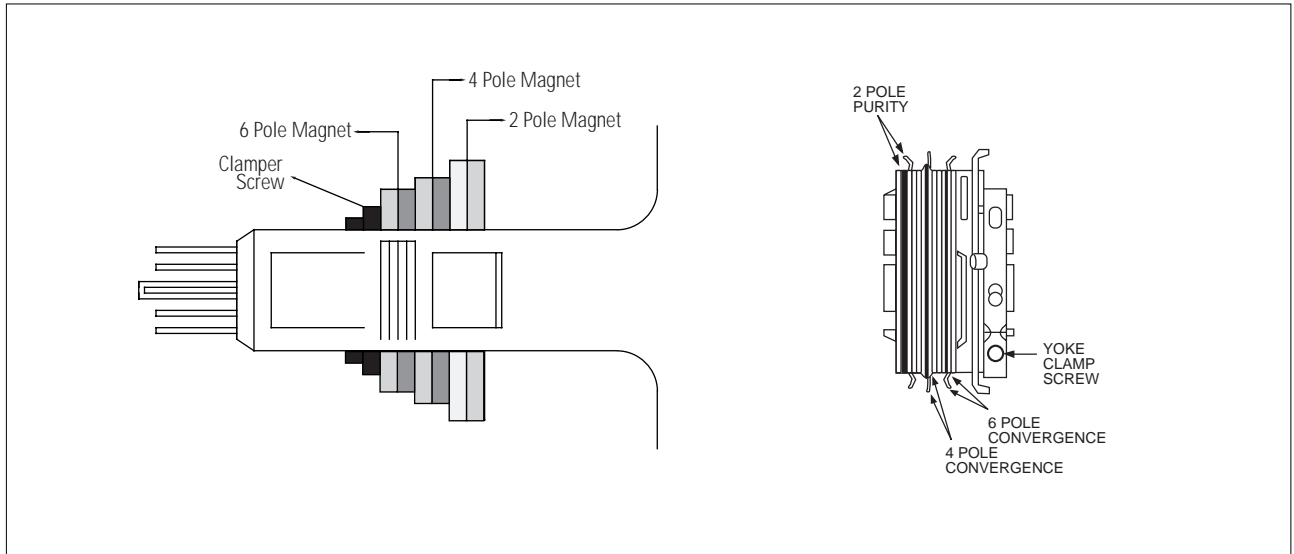


Fig. 4-1 Convergence Magnet Assembly

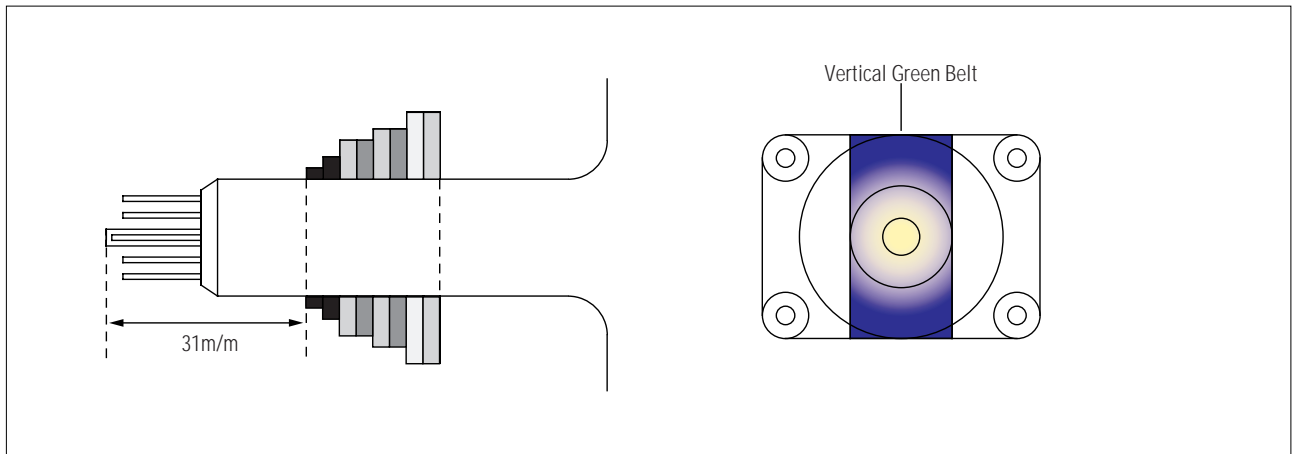


Fig. 4-2 Center Convergence Adjustment

4-3-7 White Balance Adjustment

4-3-7 (a) High-Light Adjustment

1. Input either a Lion Head or a "pure white" pattern.
2. Warm up the TV for 30 minutes.
3. Check the data in the Service Mode (RG,GG,BG Should be 31, initially)
4. Adjust RG, BG in the Factory Mode.

4-3-7 (b) Low-Light Adjustment:

1. Automatically accomplished during the high-light adjustment.

4-3-8 Center Convergence Adjustment

1. Warm up the receiver for at least 20 minutes.
2. Adjust the two tabs of the 4 pole magnets to change the angle between them. Superimpose the red and blue vertical lines in the center area of the screen.
3. Adjust the Brightness and Contrast controls for a well defined picture.
4. Adjust the two-tab pairs of the 4 pole magnets, and change the angle between them. Superimpose the red and the blue vertical lines in the center area of the screen.
5. Turn the both tabs at the same time, keeping the angle constant, and superimpose the red and blue horizontal line in the center of the screen.
6. Adjust the two-tab pairs of the 6-pole magnets to superimpose the red and blue line onto the green. (Changing the angle affects the vertical lines, and rotating both magnets affects the horizontal lines.)
7. Repeat adjustments 2~6, if necessary.
8. Since the 4-pole magnets and 6-pole magnets interact, the dot movement is complex (Fig. 4-3).

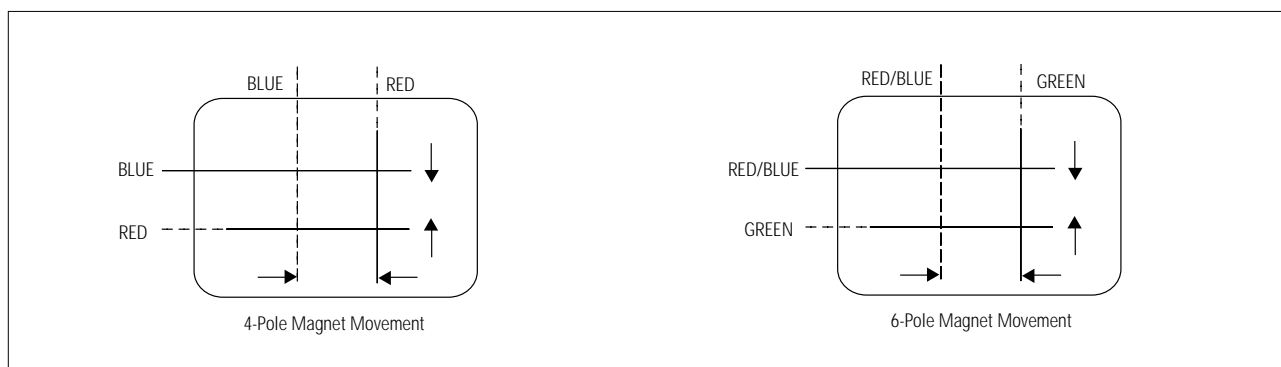


Fig. 4-3 Center Convergence Adjustment

4-3-9 VCO Adjustment

1. Connect to tuner IF pin.
2. Apply an IF input (38.9MHz) signal.
3. In Factory Mode, adjust the AFC with the VCO tuning bits (AFA, AFB).

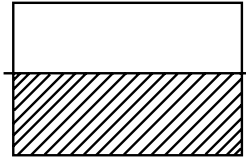
The VCO is correct when the AFA Bit is "INSIDE WINDOW " (The AFB Bit is above~below). The AFC output is available on the I²C-BUS (used for VCO adjustment and feedback).

4-3-10 IF AGC Adjustment

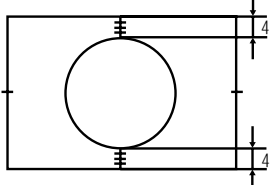
1. Input a UHF Band channel (70~80dB, 479.25MHz).
2. Adjust the AGC in the Factory mode. IC201 Pin 53 to 3.2V \pm 0.05V (DC).

4-3-11 Geometry Adjustment (SC -> PVS -> PVA -> PSL -> PHS)

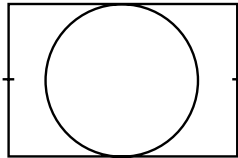
1. Input a Lion Head pattern.
2. SET the SC Data steps 10~12 in the Factory Mode.
3. Adjust with PVS (starts blinking) exactly at middle of the screen.



4. Adjustment with PVA : Top and Bottom margins of the picture are 4.



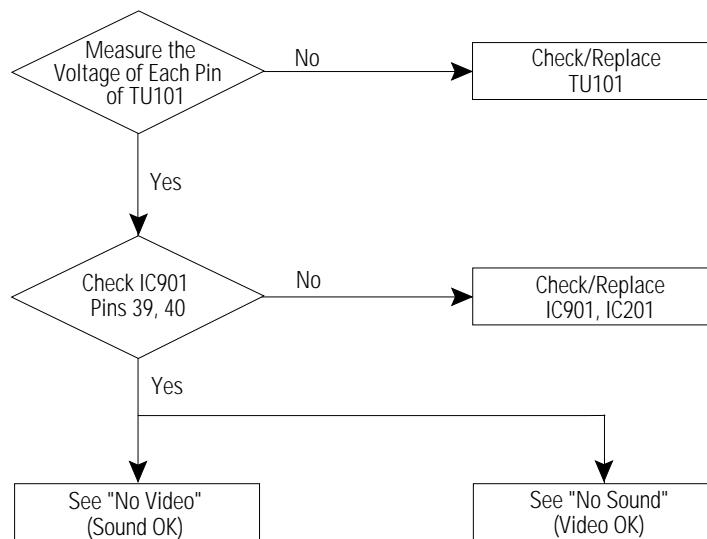
5. Adjustment with PSL : Bottom of picture to bottom of screen.



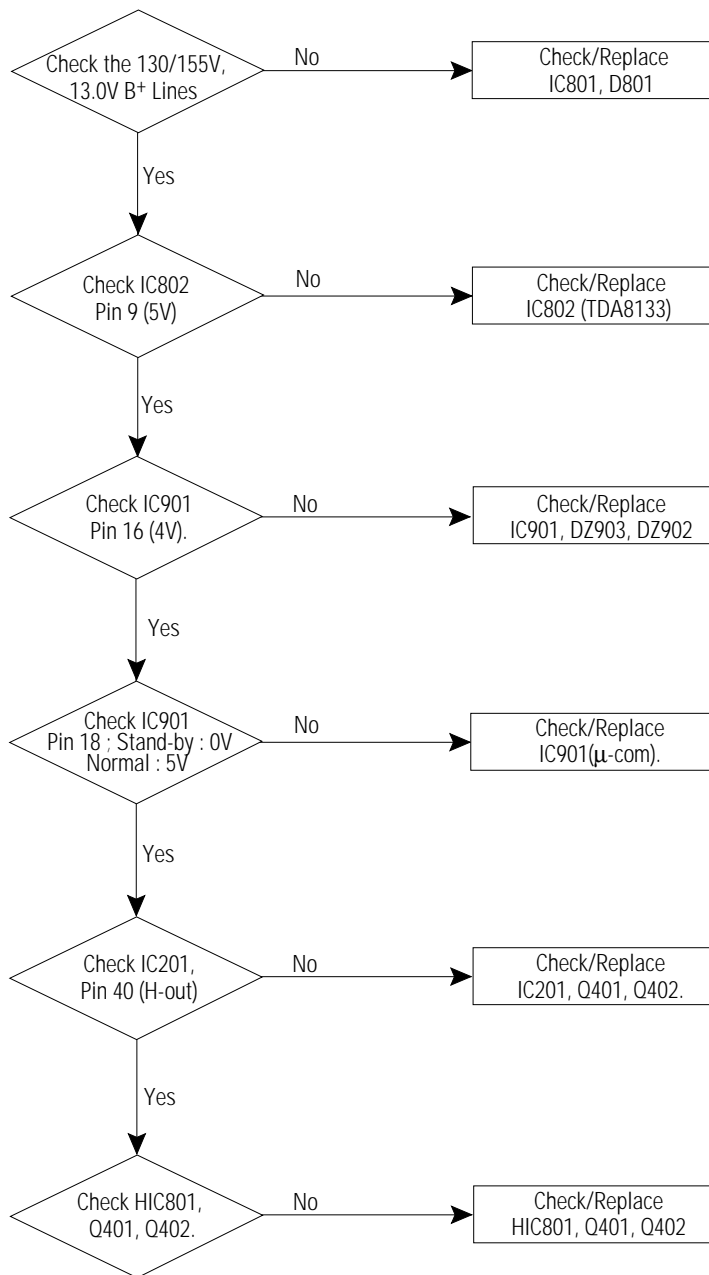
6. Adjust PHS horizontally. Center the picture.

5. Troubleshooting

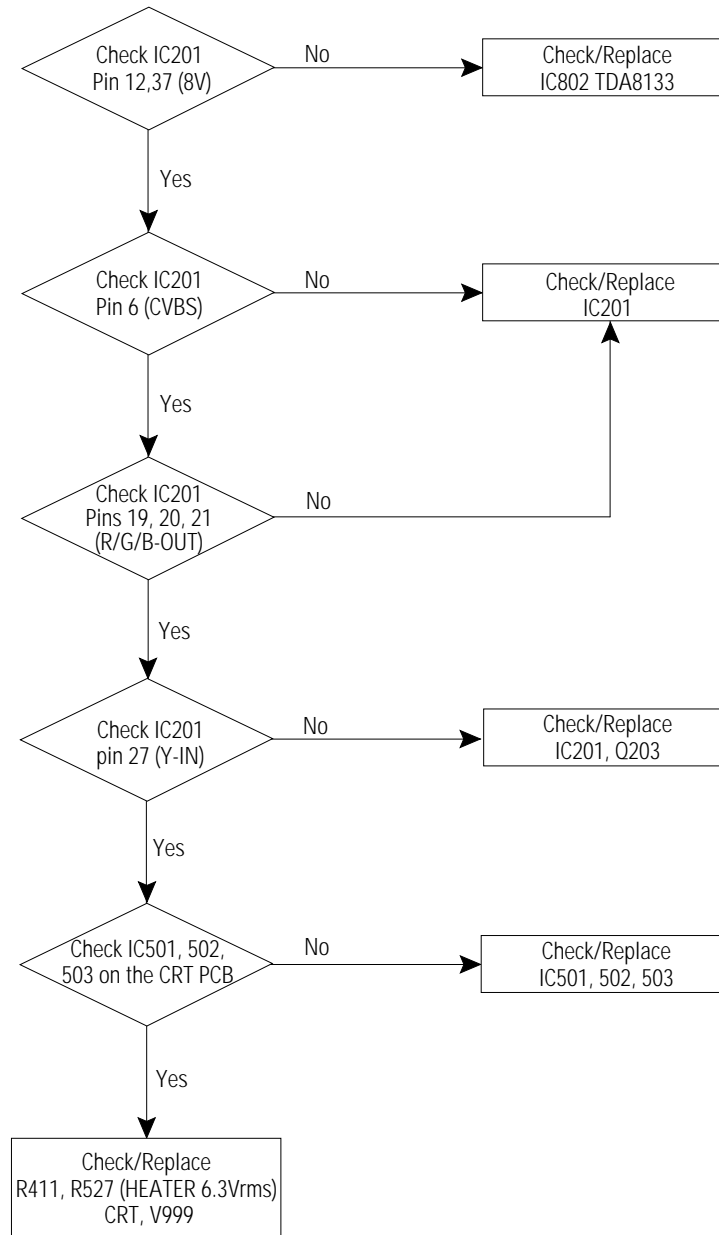
5-1 No Video (Raster On, No Sound)



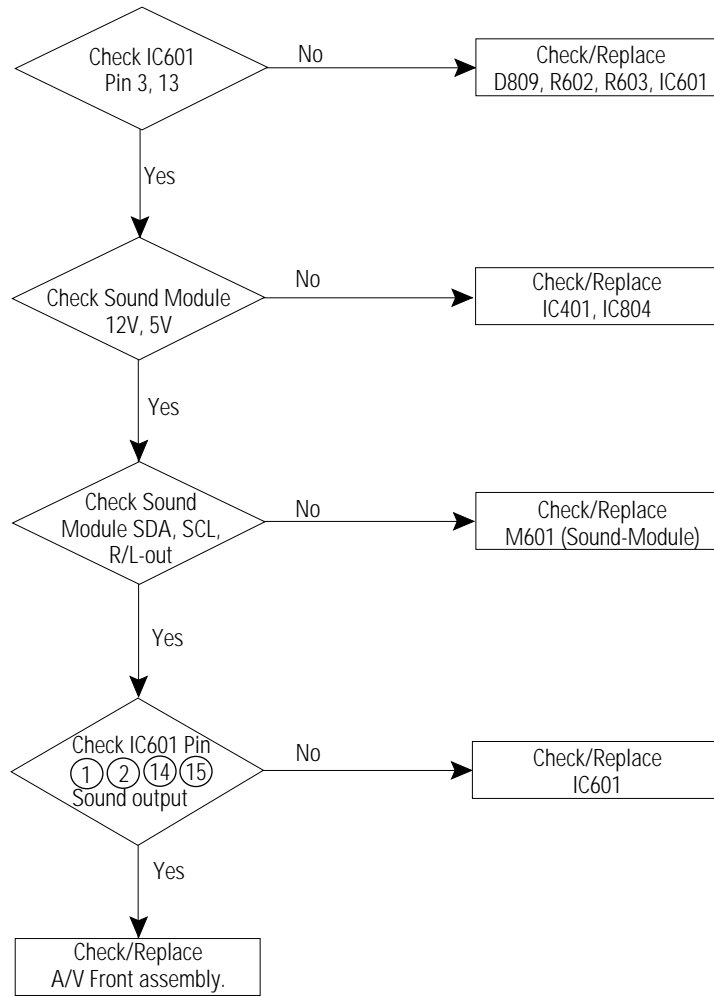
5-2 No Power



5-3 No Video (Sound OK)

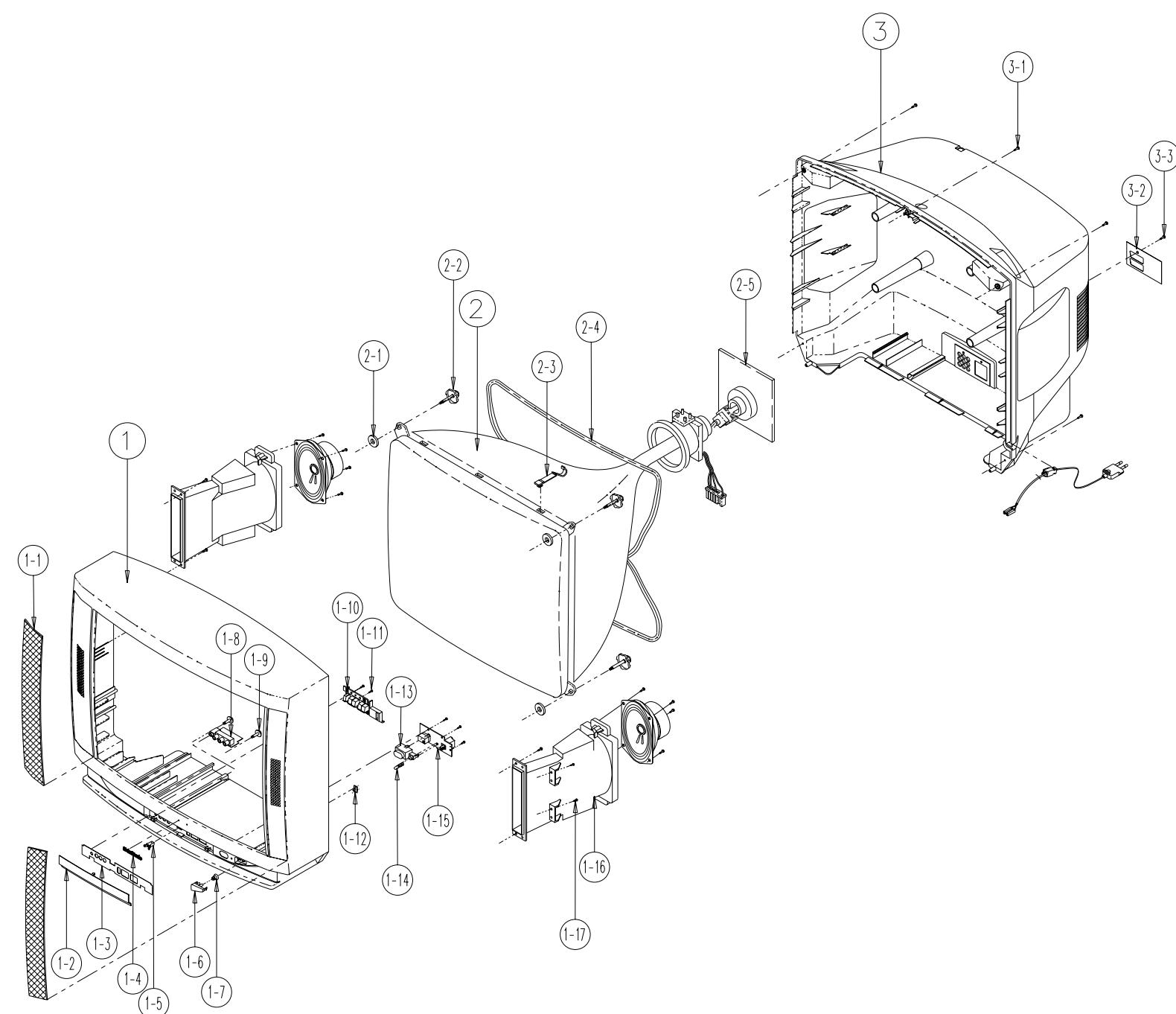


5-4 No Sound (Video OK)



5. Exploded View & Parts List

5-1 CS7202NBX/EIS



No	Code No	Description	Specification	Q'ty	Remark
1	AA64-31157G	CABINET-FRONT	CS7202NB,S1000 EGB,HIPS	1	
1-1	AA63-50106A	GRILLE-SHEET	7202,S1300,PS,T0.4	2	S.N.A
1-2	AA64-50111A	DOOR-CONTROL	62.7202,S1000,HIPS,HB,BLK	1	
1-3	AA64-60238B	INLAY-CONTROL	7202,EG,PS,T0.3,BLK	1	S.N.A
1-4	AA64-70011D	BADGE-BRAND	AL,SS R2000 25,GOLD,L60	1	S.N.A
1-5	AA61-30001A	LATCH-DOOR	KIFUCO LA701	1	S.N.A
1-6	AA64-10166A	KNOB-POWER,M	62.7202,-,ABS,HB,BLK	1	
1-7	AA61-60005K	SPRING-CS	SUS304,0.6,OD12.2,H13,N4	1	S.N.A
1-8	* AA95-40004M	ASSY-PCB,A/V	CS5377/MVTX,SCT12A	1	
1-9	AA60-10002A	SCREW-TAPPING(PA+CF)	RH,+,M4,L12,ZPC(YEL),-,OD1	2	S.N.A
1-10	AA64-10058A	KNOB-CONTROL	62.7202,-,ABS,HB,BLK	1	
1-11	6002-000514	SCREW-TAPPING(KNOB)	RH,+,2,M4,L15,ZPC(BLK),SWR	2	S.N.A
1-12	AA64-40238A	INDICATOR-LED	62.7202,-,ACRYL	1	S.N.A
1-13	AA64-40060A	WINDOW-REMOCON	ABS,HB,-,LG41338,6202	1	
1-14	0601-000198	LED	ROUND,RED/GRN,5.0mm,630/565nm	1	
1-15	* AA95-30002B	ASSY-PCB,CONTROL	SCT12B	1	
1-16	* AA91-60003A	ASSY-HOLDER,SPK	PP,-,8ohm 10W,CT2199	2	
1-17	6002-000522	SCREW-TAPPING	TH,+,2,M4,L15,ZPC(BLK),SWR	8	S.N.A
2	AA03-10031S	CRT-COLOR	A68KVL74X01(MB),+380mG,29,1	1	
2-1	AA63-60004P	SPACER-GUM,CRT	NTR RUBBER,T2,GRY	4	
2-2	AA60-10050R	SCREW-ASSY(CRT+CF)	WC,HH,+,M5,L31.5,SWRCH18A,ZPC	4	
2-3	AA65-30017A	CLAMP-D,COIL	NYLON-66,V0,NTR,DADH300,25	2	
2-4	AA27-20003E	COIL-DEGAUSSING	29,13.45ohm,60T,L3000	1	
2-5	* AA95-20003H	ASSY-PCB,CRT	SCT12B,25,EUROPE	1	
3	AA64-30639A	CABINET-BACK	HIPS,V0,-,BLK,-,7202	1	
3-1	AA60-10050T	SCREW-TAPPING(CB+CF)	RH,+,2S,M4,L20,ZPC(BLK),SW	6	S.N.A
3-2	AA64-60233A	INLAY-BACK	RCA 9PIN,PS,T0.5,BLK	1	S.N.A

6. Electric Parts List

6-1 CS7202NBX/EIS AND CS6202NX/EIS Dissimilar Parts

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
ASSY-PCB,MAIN(OPT)				ASSY-CABINET			
		* AA94-10110QASSY-PCB,MAIN(OPT) CS6202NX/EIS,SCT12B,I				* AA91-10147NASSY-CABINET,FRONT-,CS6202N,S1000 EGN,H	
L402	AA27-40001E	COIL-HORIZ.WIDTH-,1.5MH,SB-5S820,2UEW0.		CRT+CF	AA60-10050Q	SCREW-ASSY WC,HH,+ ,M5,L26.5,SWRCH18A,ZPC	
R242	2001-000837	R-CARBON 51Kohm,5%,1/8W,AA,TP,1.8x3.2mm		GRILLE/S	AA63-50064A	GRILLE-SHEET-,6202,S1300,PS,TO.4,-,-	
R115	2001-000343	R-CARBON 130Kohm,5%,1/8W,AA,TP,1.8x3.2mm		SPA	AA63-60004K	SPACER-GUM,CRT NTR RUBBER,T2,BLK,NEW,—	
LD801	AA27-20002D	COIL-DEGAUSSING-,25,14.5ohm,55T,L2770		FRONT	AA64-30575R	CABINET-FRONT-,CS6202N,S1000,EGN,HIPS,H	
		ASSY-CRT		FRONT	AA64-30576A	CABINET-FRONT-,6202,SACHUL,HIPS,HB,BLK	
		* AA94-50010UASSY-CRT A59KPR84X01(D),+380MG,25,ITC		BACK	AA64-30641A	CABINET-BACK-HIPS,VO,-,-,BLK-,6202	
CRT	AA03-10016G	CRT-COLOR-,A59KPR84X01(D),+380MG,25,11		IN/C	AA64-60274B	INLAY-CONTROL 6202,EG,PS,TO.3,BLK,-,-	

6-2 CS7202NBX/EIS

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
ASSY-PCB,MAIN(OPT)							
		* AA94-10110RASSY-PCB,MAIN(OPT);CS7202NBX/EIS,SCT12B,I		C231	2202-000796	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,3	
C100	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		C232	2202-000796	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,3	
C101	2401-001082	C-AL:330nF,20%,50V,GP,TP,5x11,5		C233	2202-000796	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,3	
C102	2401-000758	C-AL:220nF,20%,50V,GP,TP,5X11MM,5MM		C234	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
C103	2401-000914	C-AL:22uF,20%,16V,GP,TP,5x11,5		C235	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m	
C104	2401-001840	C-AL:100uF,20%,16V,GP,TP,6.3x11,5		C236	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
C105	2202-000807	C-CERAMIC,MLC-AXIAL:22nF,+80-20%,25V,Y5V		C237	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m	
C106	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		C238	2305-000289	C-FILM,MPEF:220nF,5%,63V,TP,-,5mm	
C107	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		C239	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m	
C108	2401-001271	C-AL:4.7uF,20%,50V,GP,TP,4X7,5MM		C249	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m	
C109	2202-000127	C-CERAMIC,MLC-AXIAL:10nF,+80-20%,25V,Y5V		C250	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
C110	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		C251	2305-000665	C-FILM,MPEF:100nF,5%,63V,TP,7.5x4.0x5.0m	
C111*	2202-000796	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,3		C252	2202-000796	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,3	
C112	2305-000411	C-FILM,MPEF:470nF,5%,50V,TP,7.3x4.8x5.5m		C255	2202-000861	C-CERAMIC,MLC-AXIAL:12pF,5%,50V,CH,TP,3.	
C113	2202-000796	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,3		C256	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
C202	2202-000127	C-CERAMIC,MLC-AXIAL:10nF,+80-20%,25V,Y5V		C301	2305-000149	C-FILM,MPEF:100nF,5%,100V,TP,12x12.5x6.5	
C204	2301-000224	C-FILM,PEF:22nF,5%,50V,TP,7.4x3.9x13mm		C302	2305-000285	C-FILM,MPEF:220nF,5%,100V,TP,20x18x11.5	
C205	2401-000660	C-AL:2.2uF,20%,50V,GP,TP,5x11,5		C303	2305-000407	C-FILM,MPEF:470nF,5%,100V,TP,-,5mm	
C206	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m		C304	2401-003028	C-AL:100uF,20%,25V,WT,TP,6.3x11,5	
C207	2401-001840	C-AL:100uF,20%,16V,GP,TP,6.3x11,5		C305	2401-001661	C-AL:68uF,20%,100V,GP,TP,10x16,5	
C208	2305-000411	C-FILM,MPEF:470nF,5%,50V,TP,7.3x4.8x5.5m		C401	2305-000178	C-FILM,MPEF:10nF,5%,100V,TP,-,5mm	
C209	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m		C402	2401-003028	C-AL:100uF,20%,25V,WT,TP,6.3x11,5	
C210	2305-000411	C-FILM,MPEF:470nF,5%,50V,TP,7.3x4.8x5.5m		C403	2201-000556	C-CERAMIC,DISC:470pF,10%,500V,Y5P,TP,7x4	
C211	2401-000480	C-AL:10uF,20%,50V,GP,TP,5x11,5		C404	2401-001661	C-AL:68uF,20%,100V,GP,TP,10x16,5	
C212	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m		C405	2201-000556	C-CERAMIC,DISC:470pF,10%,500V,Y5P,TP,7x4	
C213	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m		C406	2401-000927	C-AL:22uF,20%,250V,GP,TP,13X20MM,5M	
C214	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m		C407	2201-000556	C-CERAMIC,DISC:470pF,10%,500V,Y5P,TP,7x4	
C216	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m		C408	2401-001397	C-AL:470uF,20%,25V,GP,TP,10x16,5	
C217	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m		C409*	2303-001026	C-FILM,PPF:33nF,10%,400V,TP,20x15x8,7,5	
C218	2201-000611	C-CERAMIC,DISC:56pF,5%,50V,CH,TP,6.5x3,5		C410	2305-000154	C-FILM,MPEF:100nF,5%,400V,TP,21.5x6.5x11	
C219	2201-000144	C-CERAMIC,DISC:100pF,5%,50V,CH,TP,8x3,5		C411	2306-000267	C-FILM,MPPF:8.2nF,5%,1.6KV,TP,28.5x18.5x	
C220	2301-000445	C-FILM,PEF:4.7nF,5%,50V,TP,5.5x7x3mm,5mm		C412	2401-000302	C-AL:100uF,20%,25V,GP,TP,6.3x11,5	
C221	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m		C413	2306-000322	C-FILM,MPPF:12nF,5%,1.6KV,TP,29x20.5x13,	
C222	2401-000302	C-AL:100uF,20%,25V,GP,TP,6.3x11,5		C414	2306-000235	C-FILM,MPPF:560nF,5%,400V,TP,26*22.5*14,	
C223	2401-001271	C-AL:4.7uF,20%,50V,GP,TP,4X7,5MM		C415	2306-000235	C-FILM,MPPF:560nF,5%,400V,TP,26*22.5*14,	
C224	2301-000342	C-FILM,PEF:2.2nF,5%,50V,TP,7.4x3.9x13mm,		C416	2301-000383	C-FILM,PEF:10nF,5%,50V,TP,6x7x3.2mm,5mm	
C225	2301-000445	C-FILM,PEF:4.7nF,5%,50V,TP,5.5x7x3mm,5mm		C417	2305-000289	C-FILM,MPEF:220nF,5%,63V,TP,-,5mm	
C226	2401-000603	C-AL:1uF,20%,50V,GP,TP,5x11,5		C418	2201-000984	C-CERAMIC,DISC:680pF,10%,2KV,Y5P,TP,11x6	
C227	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		C419	2401-000045	C-AL:10uF,20%,160V,GP,TP,10x16,5	
C228	2309-000138	C-FILM,PE-PF:100nF,5%,50V,TP,20x16x8,5,		C420	2305-000382	C-FILM,MPEF:4.7nF,5%,400V,TP,-,5mm	
C229	2401-000603	C-AL:1uF,20%,50V,GP,TP,5x11,5		C421	2401-002268	C-AL:2.2uF,20%,250V,LZ,TP,8X11,5	
C230	2202-000222	C-CERAMIC,MLC-AXIAL:3.3nF,20%,16V,Y5P,TP		C423	2201-000599	C-CERAMIC,DISC:560pF,10%,500V,Y5P,TP,7x4	
				C424	2306-000122	C-FILM,MPPF:100nF,5%,50V,TP,7.3x4.0x5.0m	
				C425	2202-000121	C-CERAMIC,MLC-AXIAL:100pF,10%,50V,Y5P,TP	
				C426	2201-000291	C-CERAMIC,DISC:1nF,10%,500V,Y5P,TP,8.5x5	

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
L301	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400		R204	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
L302	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400		R205	2001-000005	R-CARBON:390OHM,5%,1/8W,AA,TP,-	
L401	AA27-40003J	COIL-HORIZ,WIDTH:-,3MH,ER14 20,PIO.35,ST		R206	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-	
L402	AA27-40003A	COIL-HORIZ,WIDTH:-,1mH,SB-5S 8x20,PIO.12		R207	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
L403	AA27-30003G	COIL-LINERITY:-,44uH,DR14x15,PIO.2x10,18		R208	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
L404	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R209	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
L405	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R210	2001-000577	R-CARBON:2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
L406	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R211	2001-000773	R-CARBON:470Kohm,5%,1/8W,AA,TP,1.8x3.2m	
L601	2901-000297	FILTER-EMI ON BOARD:-,3A,-,-,3.5x5,TP,-		R212	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,-	
L602	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400		R214	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
L603	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400		R215	2001-000008	R-CARBON:15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
L604	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400		R216	2001-000780	R-CARBON:470OHM,5%,1/8W,AA,TP,-	
L703	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R217	2001-000734	R-CARBON:4.7KOHM,5%,1/8W,AA,TP,-	
L704	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R218	2004-001914	R-METAL:39Kohm,2%,1/8W,AA,TP,1.8x3.5mm	
L705	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R219	2001-000016	R-CARBON(S):1ohm,5%,1/2W,AA,TP,2.4x6.4mm	
L706	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R220	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,-	
L707	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R224	2001-000563	R-CARBON:27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
L708	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R225	2001-000522	R-CARBON:22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
L801	AA29-30002F	FILTER-LINE NOISE:-,6mH,2.45A,-,-		R227	2001-000397	R-CARBON:180Kohm,5%,1/8W,AA,TP,1.8x3.2m	
L803	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400		R230	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
L804	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400		R231	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-	
L805	2901-000299	FILTER-EMI ON BOARD:-,6A,UL/CSA,-,9x7.5,		R232	2001-000793	R-CARBON:47ohm,5%,1/8W,AA,TP,1.8x3.2mm	
L806	2901-000299	FILTER-EMI ON BOARD:-,6A,UL/CSA,-,9x7.5,		R233	2001-000793	R-CARBON:47ohm,5%,1/8W,AA,TP,1.8x3.2mm	
L807	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400		R240	2001-000490	R-CARBON:200OHM,5%,1/8W,AA,TP,-	
L808	AA27-10002Y	COIL-CHOKE:-,100UH,K,10,700MA,T,100UH-(R241	2001-000356	R-CARBON:150Kohm,5%,1/8W,AA,TP,1.8x3.2m	
L809	2901-000299	FILTER-EMI ON BOARD:-,6A,UL/CSA,-,9x7.5,		R242	2001-000786	R-CARBON:47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
L810	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400		R243	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-	
L811	2901-000297	FILTER-EMI ON BOARD:-,3A,-,-,3.5x5,TP,-		R301	2004-001970	R-METAL(S):1.8kohm,1%,1/2W,AA,TP,6.5x2.5	
L901	2702-000181	INDUCTOR-RADIAL:680uH,5%,6x6.4mm		R302	2003-001018	R-METAL OXIDE(S):220ohm,5%,2W,AF,TP,3.9x	
L902	2701-000142	INDUCTOR-AXIAL:1uH,10%,2.5x3.4mm		R303	2003-001018	R-METAL OXIDE(S):220ohm,5%,2W,AF,TP,3.9x	
L903	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R305	2001-000016	R-CARBON(S):1ohm,5%,1/2W,AA,TP,2.4x6.4mm	
L904	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R306	2001-000016	R-CARBON(S):1ohm,5%,1/2W,AA,TP,2.4x6.4mm	
L905	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R307	2008-000179	R-FUSIBLE(S):10ohm,5%,1/2W,AA,TP,2.5x6.5	
L906	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		R401	2001-000302	R-CARBON:10ohm,5%,1/8W,AA,TP,1.8x3.2mm	
LD801	AA27-20003E	COIL-DEGAUSSING:-,29,13.45ohm,60T,L3000		R402	2001-000591	R-CARBON:3.3KOHM,5%,1/8W,AA,TP,-	
LN101	2701-000127	INDUCTOR-AXIAL:15uH,10%,2.5x3.4mm		R403	2003-001034	R-METAL OXIDE(S):270OHM,5%,1W,AF,TP,2.5X	
NT801	1404-001045	THERMISTOR-NTC;4.7OHM,15%,2900K,35.0MW,T		R404	2001-000117	R-CARBON(S):68ohm,5%,1/2W,AA,TP,2.4x6.4m	
P801	1404-000178	THERMISTOR-PTC;7ohm,20%,-.290V,25A,-,BK		R406	2001-000028	R-CARBON(S):100OHM,5%,1/2W,AA,TP,-	
PC801	0604-001038	PHOTO-COUPLER;TR,130-260%,200mW,DIP-4,ST		R407	2001-000020	R-CARBON(S):22ohm,5%,1/2W,AA,TP,2.4x6.4m	
PCB	AA41-10586G	PCB-MAIN;SCT12B,1L,FR-1,330x245x1.6T,NO		R408	2008-001022	R-FUSIBLE(S):10ohm,5%,1W,AF,TP,2.5x6.5mm	
Q201	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T		R409	2008-000264	R-FUSIBLE(S):1ohm,5%,1W,AF,TP,3.9x10mm	
Q202	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T		R411	2008-000264	R-FUSIBLE(S):1ohm,5%,1W,AF,TP,3.9x10mm	
Q205	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T		R412	2008-000251	R-FUSIBLE(S):0.27ohm,10%,2W,AF,TP,3.9x10	
Q207	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T		R413	2001-001194	R-CARBON(S):82Kohm,5%,1/2W,AA,TP,2.4x6.4	
Q208	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T		R414	2004-001404	R-METAL(S):72Kohm,1%,1/2W,AA,TP,2.4x6.4m	
Q401	0502-000450	TR-POWER:25D1887YD,NPN,1500V,800V,10A,7	H/SINK	R415	2003-000993	R-METAL OXIDE(S):3.9Kohm,5%,1W,AF,TP,2.5	
Q402	0502-001007	TR-POWER:KSC2073-H2,NPN,25W,TO-220,ST,6		R416	2001-001138	R-CARBON(S):390ohm,5%,1/2W,AA,TP,2.4x6.4	
Q403	0502-000242	TR-POWER:KSA614,PNP,25W,TO-220,TP40-24	H/SINK	R417	2004-001390	R-METAL(S):1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	
Q701	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T		R418	2001-001155	R-CARBON(S):5.6Kohm,5%,1/2W,AA,TP,2.4x6.	
Q702	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T		R419	2001-000563	R-CARBON:27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
Q703	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T		R420	2004-001234	R-METAL:75Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
Q802	0502-000244	TR-POWER:KSA940,PNP,1.5W,TO-220,-,40-14		R421	2004-001967	R-METAL(S):68Kohm,1%,1/2W,AA,TP,6.5x2.5m	
Q805	0503-000153	TR-DARLINGTON;TIP102,NPN,2W,TO-220,TP10		R422	2001-001131	R-CARBON(S):33Kohm,5%,1/2W,AA,TP,2.4x6.4	
Q901	0501-000369	TR-SMALL SIGNAL;KSC2331-Y,NPN,1W,TO-92L,		R423	2008-000290	R-FUSIBLE(S):2.4ohm,5%,2W,AF,TP,3.9X10MM	
Q902	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T		R424	2008-000290	R-FUSIBLE(S):2.4ohm,5%,2W,AF,TP,3.9X10MM	
Q903	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T		R427	2003-002008	R-METAL OXIDE(S):18Kohm,5%,2W,AF,TP,3.9x	
Q905	0504-000123	TR-DIGITAL;KSR1010,NPN,300mW,10K,TO-92,T		R428	2001-001152	R-CARBON(S):47Kohm,5%,1/2W,AA,TP,2.4x6.4	
Q906	0504-000123	TR-DIGITAL;KSR1010,NPN,300mW,10K,TO-92,T		R602	2008-001002	R-FUSIBLE(S):0.18ohm,5%,2W,AA,TP,3.9x10m	
Q907	0504-000123	TR-DIGITAL;KSR1010,NPN,300mW,10K,TO-92,T		R603	2008-001002	R-FUSIBLE(S):0.18ohm,5%,2W,AA,TP,3.9x10m	
Q908	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T		R604	2001-000605	R-CARBON:3.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
Q909	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T		R605	2001-000734	R-CARBON:4.7KOHM,5%,1/8W,AA,TP,-	
QN101	0501-000245	TR-SMALL SIGNAL;BC548C,NPN,500mW,TO-92,T		R610	2001-000734	R-CARBON:4.7KOHM,5%,1/8W,AA,TP,-	
QN102	0504-000150	TR-DIGITAL;TIP2010,PNP,300mW,10K,TO-92,T		R614	2001-000605	R-CARBON:3.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
QN103	0504-000123	TR-DIGITAL;KSR1010,NPN,300mW,10K,TO-92,T		R615	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-	
R101	2001-001015	R-CARBON:9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m		R701	2001-000515	R-CARBON:220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R102	2001-000660	R-CARBON:33Kohm,5%,1/8W,AA,TP,1.8x3.2mm		R702	2001-000515	R-CARBON:220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R103	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm		R705	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R104	2001-001079	R-CARBON(S):15ohm,5%,1/2W,AA,TP,2.4x6.4m		R707	2001-000515	R-CARBON:220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R105	2001-001079	R-CARBON(S):15ohm,5%,1/2W,AA,TP,2.4x6.4m		R708	2001-000515	R-CARBON:220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R112	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-		R709	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R114	2001-000490	R-CARBON:200OHM,5%,1/8W,AA,TP,-		R710	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R115	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm		R712	2001-000539	R-CARBON:24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R116	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-		R713	2001-000411	R-CARBON:18KOHM,5%,1/8W,AA,TP,-	
R117	2001-000995	R-CARBON:820OHM,5%,1/8W,AA,TP,-		R714	2001-000780	R-CARBON:470OHM,5%,1/8W,AA,TP,-	
R118	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-		R715	2001-000786	R-CARBON:47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R119	2001-000331	R-CARBON:12KOHM,5%,1/8W,AA,TP,-		R716	2001-000362	R-CARBON:150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R203	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm		R717	2001-000362	R-CARBON:150ohm,5%,1/8W,AA,TP,1.8x3.2mm	

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
CV09	2201-000441	C-CERAMIC,DISC:3.3nF,10%,500V,Y5P,TP,10x		RV02	2001-000281	R-CARBON:100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
CV10	2401-000430	C-AL:10uF,20%,250V,GP,TP,10x16mm,5m		RV03	2001-001178	R-CARBON(S):680ohm,5%,1/2W,AA,TP,2.4x6.4	
CV11	2401-000480	C-AL:10uF,20%,50V,GP,TP,5x11,5		RV04	2001-000362	R-CARBON:150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
CV12	2401-000480	C-AL:10uF,20%,50V,GP,TP,5x11,5		RV05	2001-000241	R-CARBON:1.5Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
CV15	2201-000604	C-CERAMIC,DISC:56pF,+100-0%,500V,SL,TP,7		RV06	2001-000331	R-CARBON:12KOHM,5%,1/8W,AA,TP,-	
CV16	2401-000045	C-AL:10uF,20%,160V,GP,TP,10x16,5		RV07	2001-000449	R-CARBON:2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
CV17	2201-000441	C-CERAMIC,DISC:3.3nF,10%,500V,Y5P,TP,10x		RV08	2001-000522	R-CARBON:22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
CV18	2201-000441	C-CERAMIC,DISC:3.3nF,10%,500V,Y5P,TP,10x		RV09	2001-000577	R-CARBON:2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
CV19	2401-000404	C-AL:10uF,20%,16V,BP,TP,5x11,5		RV10	2001-000449	R-CARBON:2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
CV20	2401-000480	C-AL:10uF,20%,50V,GP,TP,5x11,5		RV11	2008-000275	R-FUSIBLE(S):560ohm,0.05,2W,AA,TP,3.9x10	
CV21	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		RV12	2001-000331	R-CARBON:12KOHM,5%,1/8W,AA,TP,-	
D501	0401-000005	DIODE-SWITCHING:1N4148,75V,300mA,DO-35,T		RV13	2001-000331	R-CARBON:12KOHM,5%,1/8W,AA,TP,-	
D503	0402-000546	DIODE-RECTIFIER:TVR10G,400V,1.0A,DO-41,T		RV14	2001-000780	R-CARBON:470OHM,5%,1/8W,AA,TP,-	
D504	0402-000546	DIODE-RECTIFIER:TVR10G,400V,1.0A,DO-41,T		RV15	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-	
D505	0402-000546	DIODE-RECTIFIER:TVR10G,400V,1.0A,DO-41,T		RV16	2001-000221	R-CARBON:1.2KOHM,5%,1/8W,AA,TP,-	
D506	0402-000546	DIODE-RECTIFIER:TVR10G,400V,1.0A,DO-41,T		RV17	2001-000780	R-CARBON:470OHM,5%,1/8W,AA,TP,-	
D507	0402-000546	DIODE-RECTIFIER:TVR10G,400V,1.0A,DO-41,T		RV18	2001-000554	R-CARBON:270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
D508	0402-000546	DIODE-RECTIFIER:TVR10G,400V,1.0A,DO-41,T		RV19	2001-000221	R-CARBON:1.2KOHM,5%,1/8W,AA,TP,-	
D511	0402-000132	DIODE-RECTIFIER:1N4004,400V,1A,DO-41,TP		RV20	2003-001023	R-METAL OXIDE(S):120ohm,0.05,2W,AF,TP,3	
D512	0401-000005	DIODE-SWITCHING:1N4148,75V,300mA,DO-35,T		RV21	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,-	
DV01	0401-000005	DIODE-SWITCHING:1N4148,75V,300mA,DO-35,T		RV22	2001-001045	R-CARBON(S):1.2Kohm,5%,1/2W,AA,TP,2.4x6	
DV02	0401-000005	DIODE-SWITCHING:1N4148,75V,300mA,DO-35,T		RV23	2001-001050	R-CARBON(S):1.5Kohm,5%,1/2W,AA,TP,2.4x6	
DV03	0402-000546	DIODE-RECTIFIER:TVR10G,400V,1.0A,DO-41,T		RV24	2001-001179	R-CARBON(S):68Kohm,5%,1/2W,AA,TP,2.4x6.4	
DV04	0402-000546	DIODE-RECTIFIER:TVR10G,400V,1.0A,DO-41,T		RV25	2001-001179	R-CARBON(S):68Kohm,5%,1/2W,AA,TP,2.4x6.4	
DV05	0401-000005	DIODE-SWITCHING:1N4148,75V,300mA,DO-35,T		RV26	2001-001050	R-CARBON(S):1.5Kohm,5%,1/2W,AA,TP,2.4x6	
DV06	0401-000005	DIODE-SWITCHING:1N4148,75V,300mA,DO-35,T		RV27	2001-001045	R-CARBON(S):1.2Kohm,5%,1/2W,AA,TP,2.4x6	
DV07	0401-000005	DIODE-SWITCHING:1N4148,75V,300mA,DO-35,T		RV28	2003-000744	R-METAL OXIDE(S):56ohm,5%,2W,AA,TP,4x12mm	
DV08	0401-000005	DIODE-SWITCHING:1N4148,75V,300mA,DO-35,T		RV29	2001-001152	R-CARBON(S):47Kohm,5%,1/2W,AA,TP,2.4x6.4	
DZ501	0403-000654	DIODE-ZENER:MTZ12B,12V,11.44-12.03V,500m		RV30	2003-000744	R-METAL OXIDE(S):56ohm,5%,2W,AA,TP,4x12mm	
DZ502	0403-000654	DIODE-ZENER:MTZ12B,12V,11.44-12.03V,500m		RV31	2001-001100	R-CARBON(S):2.7ohm,5%,1/2W,AA,TP,2.4x6.4	
DZ503	0403-000654	DIODE-ZENER:MTZ12B,12V,11.44-12.03V,500m		RV32	2001-001100	R-CARBON(S):2.7ohm,5%,1/2W,AA,TP,2.4x6.4	
DZ504	0403-000654	DIODE-ZENER:MTZ12B,12V,11.44-12.03V,500m		RV33	2003-000578	R-METAL OXIDE(S):220ohm,5%,2W,AA,TP,4x12	
DZ505	0403-000654	DIODE-ZENER:MTZ12B,12V,11.44-12.03V,500m		RV34	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-	
DZ506	0403-000654	DIODE-ZENER:MTZ12B,12V,11.44-12.03V,500m		RV35	2001-000258	R-CARBON:1.8KOHM,5%,1/8W,AA,TP,-	
DZ507	0403-000655	DIODE-ZENER:MTZ13A,13V,12.11-12.75V,500m		RV36	2001-000221	R-CARBON:1.2KOHM,5%,1/8W,AA,TP,-	
IC501	1201-000539	IC-VIDEO AMP:6101,ZIP9P,-,SINGLE,-,PLAS	H/SINK	RV37	2001-000534	R-CARBON:240ohm,5%,1/8W,AA,TP,1.8x3.2mm	
IC502	1201-000539	IC-VIDEO AMP:6101,ZIP10P,-,SINGLE,-,PLAS	H/SINK	RV38	2001-000577	R-CARBON:2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
IC503	1201-000539	IC-VIDEO AMP:6101,ZIP11P,-,SINGLE,-,PLAS	H/SINK	RV39	2001-000331	R-CARBON:12KOHM,5%,1/8W,AA,TP,-	
IC504	AA13-200025	IC-HYBRID:-,SPK101,SIP,6P,SPOT KILLER		RV40	2001-000628	R-CARBON:300ohm,5%,1/8W,AA,TP,1.8x3.2mm	
LV01	4711-000246	DELAY LINE:330ns/200KHz,-,34x9x2mm,BK		RV41	2008-000294	R-FUSIBLE(S):33ohm,5%,2W,AF,TP,3.9x10mm	
LV02	3301-000287	CORE-FERRITE BEAD:AA,3.5x1x6mm,1500,2400		RV42	2001-000995	R-CARBON:820OHM,5%,1/8W,AA,TP,-	
LV03	AA27-10001E	COIL-CHOKE:-,1.0UH,K,25,2100A,T,SP0408-1		RV43	2001-000554	R-CARBON:270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
LV04	2702-000158	INDUCTOR-RADIAL:39uH,10%,6x6.4mm		V999	3704-000114	SOCKET-CRT:14P,29.1,35.5,SN,ISH095/BK	
PCB	AA41-10492B	PCB-CRT:SCT12A,1,FR-1,122x122x1.6T,-,-		VL03	3301-000287	CORE-FERRITE BEAD:AA,3.5x1x6mm,1500,2400	
QV01	0501-000245	TR-SMALL SIGNAL:BC548C,NPN,500mW,TO-92,T		VL04	3301-000287	CORE-FERRITE BEAD:AA,3.5x1x6mm,1500,2400	
QV02	0501-000283	TR-SMALL SIGNAL:KSA539,PNP,400mW,TO-92,T					
QV03	0501-000389	TR-SMALL SIGNAL:KSC815,NPN,400mW,TO-92,T					
QV04	0501-000283	TR-SMALL SIGNAL:KSA539,PNP,400mW,TO-92,T					
QV05	0501-000389	TR-SMALL SIGNAL:KSC815,NPN,400mW,TO-92,T					
QV06	0501-000389	TR-SMALL SIGNAL:KSC815,NPN,400mW,TO-92,T					
QV07	0501-000369	TR-SMALL SIGNAL:KSC2331-Y,NPN,1W,TO-92L,					
QV08	0502-000131	TR-POWER:2SA1011-D,PNP,1.2W,TO-220,-,60					
QV09	0502-000153	TR-POWER:2SC2344-D,NPN,1.2W,TO-220,-,60	H/SINK	CN10A	AA39-20177A	LEAD-CONNECTOR,ASSY:-,YBNH025-05,67096-0	
QV10	0501-000389	TR-SMALL SIGNAL:KSC815,NPN,400mW,TO-92,T	H/SINK	CR01	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
QV11	0501-000389	TR-SMALL SIGNAL:KSC815,NPN,400mW,TO-92,T		LDR01	0601-000198	LED:ROUND,RED/GRN,5.0mm,630/565nm	
R501	2001-000577	R-CARBON:2Kohm,5%,1/8W,AA,TP,1.8x3.2mm		PAR01	AA59-60003J	MODULE-REMOCON:-,ORC-06H2,38KHZ,940NM,ME	
R502	2001-000577	R-CARBON:2Kohm,5%,1/8W,AA,TP,1.8x3.2mm		PCB	AA41-10428B	PCB-REMOCON:SCT12B,1,FR-1,40x156x1.6T,-,-	
R503	2001-000577	R-CARBON:2Kohm,5%,1/8W,AA,TP,1.8x3.2mm		RMC/VV	AA64-40060A	WINDOW-REMOCON:-,ABS,HB,-,-,LG41338,6202	
R510	2001-001070	R-CARBON(S):120ohm,5%,1/2W,AA,TP,2.4x6.4		RR01	2001-000793	R-CARBON:47ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R511	2001-000258	R-CARBON:1.8KOHM,5%,1/8W,AA,TP,-		RR02	2001-000522	R-CARBON:22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R512	2001-000258	R-CARBON:1.8KOHM,5%,1/8W,AA,TP,-					
R513	2001-000258	R-CARBON:1.8KOHM,5%,1/8W,AA,TP,-					
R514	2001-000087	R-CARBON(S):120Kohm,5%,1/2W,AA,TP,2.4x6					
R515	2001-000087	R-CARBON(S):120Kohm,5%,1/2W,AA,TP,2.4x6					
R516	2001-000087	R-CARBON(S):120Kohm,5%,1/2W,AA,TP,2.4x6					
R517	2001-000515	R-CARBON:220ohm,5%,1/8W,AA,TP,1.8x3.2mm					
R518	2001-000515	R-CARBON:220ohm,5%,1/8W,AA,TP,1.8x3.2mm					
R519	2001-000515	R-CARBON:220ohm,5%,1/8W,AA,TP,1.8x3.2mm		CA02	2202-000121	C-CERAMIC,MLC-AXIAL:100pF,10%,50V,Y5P,TP	
R520	2001-001086	R-CARBON(S):18Kohm,5%,1/2W,AA,TP,2.4x6.4		CA03	2202-000121	C-CERAMIC,MLC-AXIAL:100pF,10%,50V,Y5P,TP	
R521	2002-001009	R-COMPOSITION:2.7Kohm,10%,1/2W,AA,TP,3.7		CA04	2202-000720	C-CERAMIC,MLC-AXIAL:8.2nF,20%,16V,Y5R,TP	
R522	2002-001009	R-COMPOSITION:2.7Kohm,10%,1/2W,AA,TP,3.7		CA05	2202-000720	C-CERAMIC,MLC-AXIAL:8.2nF,20%,16V,Y5R,TP	
R523	2002-001009	R-COMPOSITION:2.7Kohm,10%,1/2W,AA,TP,3.7		CA06	2401-001840	C-AL:100uF,20%,16V,GP,TP,6.3x11,5	
R525	2002-001006	R-COMPOSITION:4.7KOHM,10%,1/2W,AA,TP,3.7		CA07	2401-001840	C-AL:100uF,20%,16V,GP,TP,6.3x11,5	
R526	2008-000278	R-FUSIBLE(S):82ohm,5%,2W,AA,TP,3.9x10mm		CN01A	AA39-20068E	LEAD-CONNECTOR,ASSY:-,YBNH025-08,67096-0	
R527	2008-000189	R-FUSIBLE:0.47ohm,10%,2W,AA,TP,6x15.5mm		CN05A	AA39-20069A	LEAD-CONNECTOR,ASSY:-,YBNH025-05,67096-0	
R529	2001-000734	R-CARBON:4.7KOHM,5%,1/8W,AA,TP,-		CN06A	AA39-20499B	LEAD CONNECTOR,ASSY:-,YBNH025-04,SMPO25-	
R530	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,-		JE01	3722-000143	JACK-PHONE:1P(VER),3.4mm,AG,BLK,NO	

ASSY-PCB,CONTROL

* AA95-30002BASSY-PCB,CONTROL:-,SCT12B,-,-

ASSY-PCB,A/V

* AA95-40004MASSY-PCB,A/V:-,CS5377/MVTX,SCT12A,-,-,-

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
JR01	3722-001031	JACK-RCA:3P,3.6MM,#18,AU		CJ63	2401-001989	C-AL:4.7uF,20%,50V,BP,TP;5x11,5	
LA02	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		CJ64	2401-002144	C-AL:47uF,20%,16V,GP,TP;5x11,5	
LA03	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		CJ65	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP	
LA04	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		CJ66	2401-002144	C-AL:47uF,20%,16V,GP,TP;5x11,5	
LA05	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		CJ67	2401-002144	C-AL:47uF,20%,16V,GP,TP;5x11,5	
PCB	AA41-10358B	PCB-A/V FRONT:SCT12A,1,FR-1,245x245x1.6T		CJ68	2401-001989	C-AL:4.7uF,20%,50V,BP,TP;5x11,5	
RA01	2001-000028	R-CARBON(S):100OHM,5%,1/2W,AA,TP-		CJ69	2203-000983	C-CERAMIC,CHIP:47nF,10%,50V,X7R,TP,3216,	
RA02	2001-000028	R-CARBON(S):100OHM,5%,1/2W,AA,TP-		CJ70	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5	

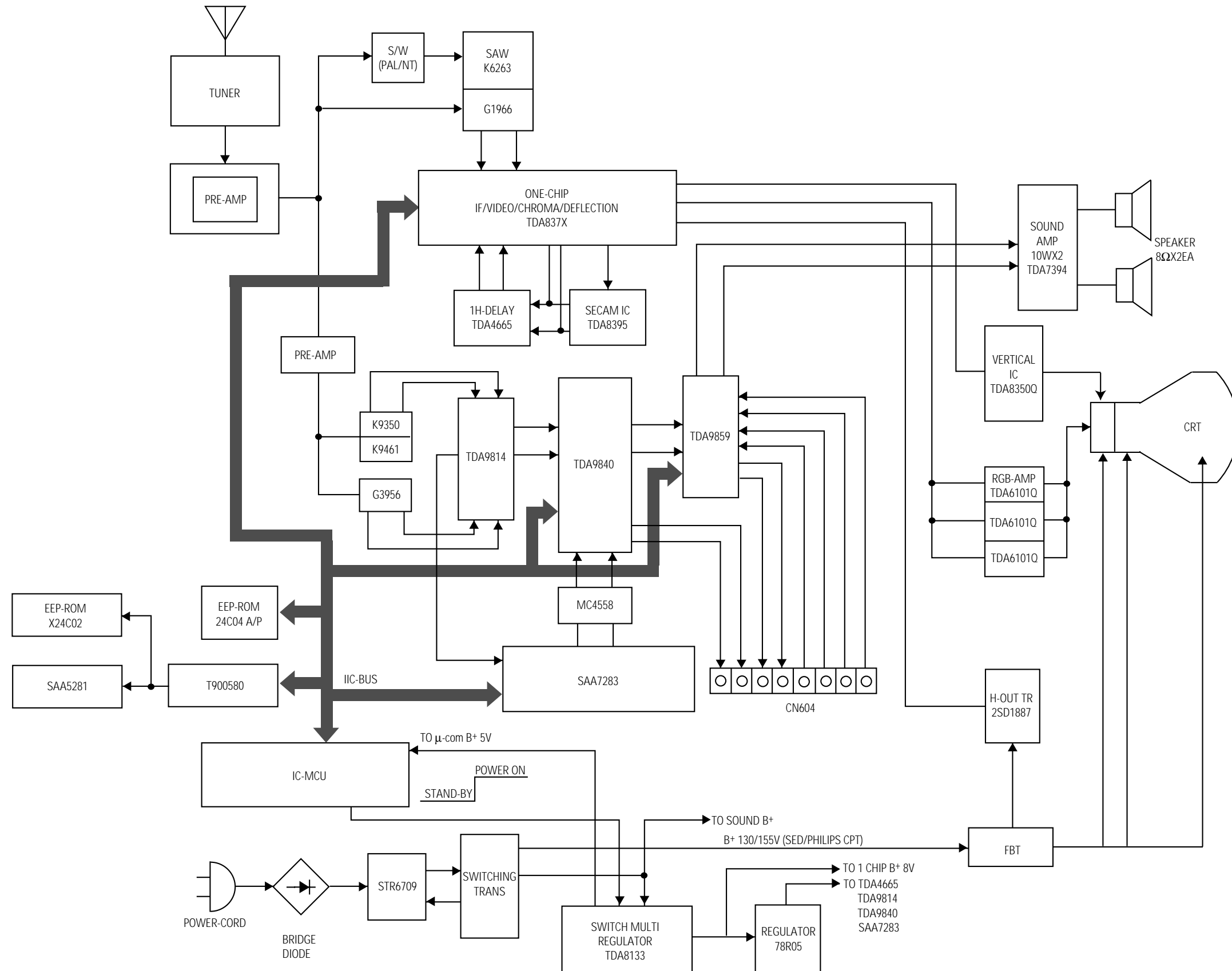
ASSY-MODULE,AUDIO

* AA95-40007NASSY-MODULE,AUDIO;-,-,SCT12A/B,CS,A2,NIC

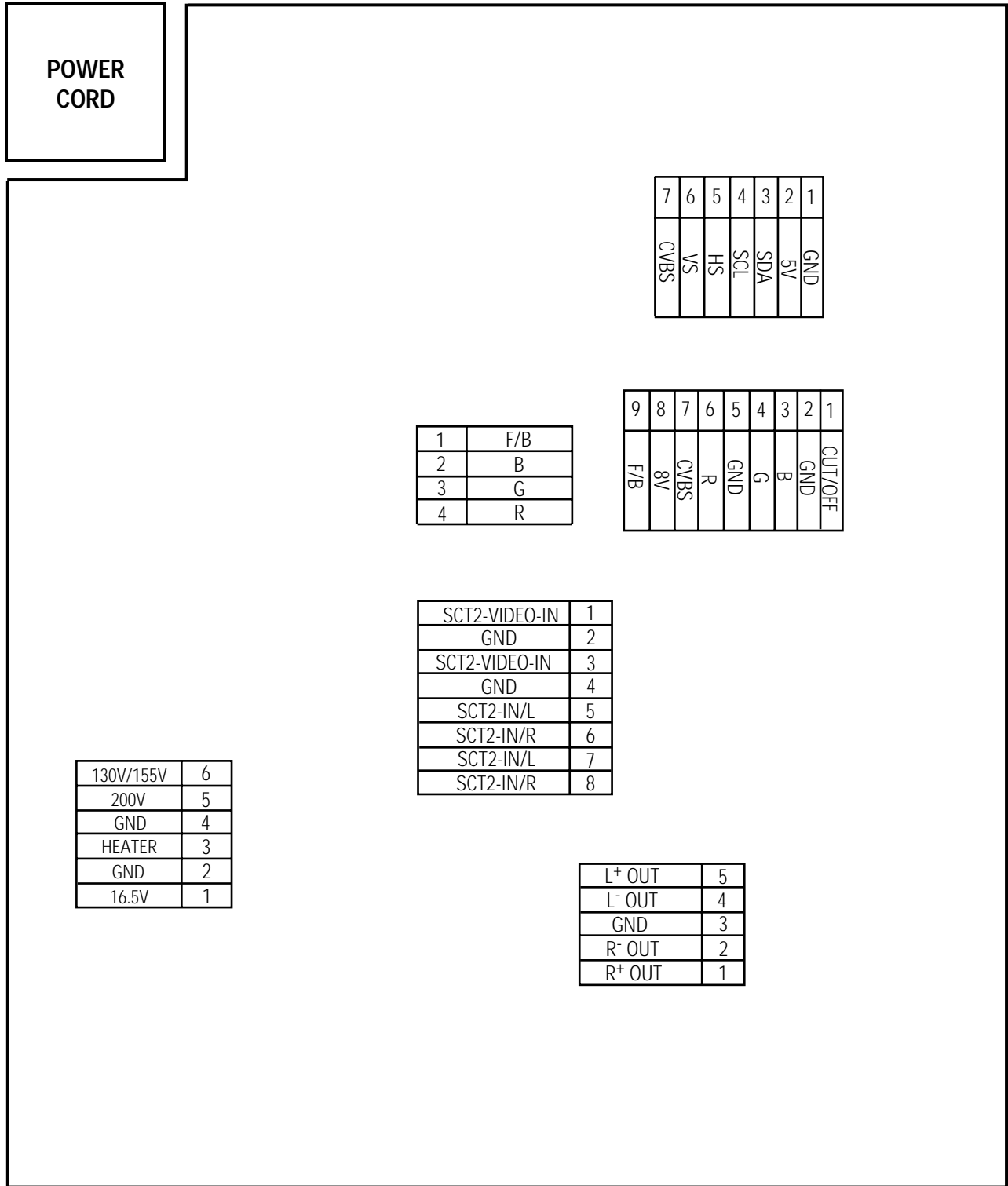
CJ01	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,		CJ71	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP	
CJ03	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,		CJ72	2401-002144	C-AL:47uF,20%,16V,GP,TP;5x11,5	
CJ04	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,		CJ73	2203-000274	C-CERAMIC,CHIP:10pF,0.25pF,50V,NPO,TP,20	
CJ05	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP		CJ74	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP	
CJ06	2203-002392	C-CERAMIC,CHIP:220nF,+80-20%,50V,Y5V,TP		CJ75	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5	
CJ07	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5		CJ76	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5	
CJ08	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,		CJ77	2203-000595	C-CERAMIC,CHIP:220pF,5%,50V,NPO,TP,2012,	
CJ10	2203-000891	C-CERAMIC,CHIP:4.7nF,10%,50V,X7R,TP,2012		CJ78	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5	
CJ101	2401-000471	C-AL:10uF,20%,50V,BP,TP;5x11,5mm		CJ79	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP	
CJ102	2401-001989	C-AL:4.7uF,20%,50V,BP,TP;5x11,5		CJ80	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP	
CJ103	2401-000471	C-AL:10uF,20%,50V,BP,TP;5x11,5mm		CJ81	2401-000603	C-AL:1uF,20%,50V,GP,TP;5x11,5	
CJ104	2203-000938	C-CERAMIC,CHIP:470pF,5%,50V,NPO,TP,2012,		CJ82	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP	
CJ105	2203-000938	C-CERAMIC,CHIP:470pF,5%,50V,NPO,TP,2012,		CJ83	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5	
CJ107	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,		CJ84	2203-000753	C-CERAMIC,CHIP:330nF,+80-20%,50V,Y5V,TP	
CJ108	2203-000495	C-CERAMIC,CHIP:2.2nF,10%,50V,X7R,TP,2012		CJ85	2203-000239	C-CERAMIC,CHIP:100pF,5%,50V,NPO,TP,2012,	
CJ109	2401-001271	C-AL:4.7UF,20%,50V,GP,TP,4X7,5MM		CJ86	2203-000239	C-CERAMIC,CHIP:100pF,5%,50V,NPO,TP,2012,	
CJ110	2401-001271	C-AL:4.7UF,20%,50V,GP,TP,4X7,5MM		CJ87	2305-000412	C-FILM,MPEF:470nF,5%,63V,TP,-,5mm	
CJ111	2203-000727	C-CERAMIC,CHIP:3.9nF,10%,50V,X7R,TP,2012		CJ90	2401-001271	C-AL:4.7UF,20%,50V,GP,TP,4X7,5MM	
CJ112	2203-000727	C-CERAMIC,CHIP:3.9nF,10%,50V,X7R,TP,2012		CJ91	2401-001271	C-AL:4.7UF,20%,50V,GP,TP,4X7,5MM	
CJ12	2401-000947	C-AL:22uF,20%,35V,GP,TP;5x11,5		CJ95	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5	
CJ13	2401-000947	C-AL:22uF,20%,35V,GP,TP;5x11,5		CJ96	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP	
CJ14	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP		CJ97	2203-000609	C-CERAMIC,CHIP:22nF,10%,50V,X7R,TP,2012,	
CJ16	2401-000660	C-AL:2.2uF,20%,50V,GP,TP;5x11,5		CJ98	2203-000839	C-CERAMIC,CHIP:390pF,5%,50V,NPO,TP,2012,	
CJ17	2401-000660	C-AL:2.2uF,20%,50V,GP,TP;5x11,5		CL01	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,	
CJ18	2401-001840	C-AL:100uF,20%,16V,GP,TP;6.3x11,5		CL02	2401-001840	C-AL:100uF,20%,16V,GP,TP;6.3x11,5	
CJ19	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,		CN603	3711-002709	CONNECTOR-HEADER:NOWALL,12P,1R,2.5MM,ANG	
CJ21	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5		CN604	3711-002709	CONNECTOR-HEADER:NOWALL,12P,1R,2.5MM,ANG	
CJ22	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,		DJ01	0401-000160	DIODE-SWITCHING:ISS314,30V,100mA,USC,TP	
CJ23	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP		DJ04	0401-000160	DIODE-SWITCHING:ISS314,30V,100mA,USC,TP	
CJ24	2203-000727	C-CERAMIC,CHIP:3.9nF,10%,50V,X7R,TP,2012		DJ05	0401-000160	DIODE-SWITCHING:ISS314,30V,100mA,USC,TP	
CJ25	2203-000891	C-CERAMIC,CHIP:4.7nF,10%,50V,X7R,TP,2012		DJ06	0401-000160	DIODE-SWITCHING:ISS314,30V,100mA,USC,TP	
CJ26	2401-002594	C-AL:220uF,20%,16V,GP,TP;8x11,5,5		DJ07	0401-000160	DIODE-SWITCHING:ISS314,30V,100mA,USC,TP	
CJ28	2401-001989	C-AL:4.7uF,20%,50V,BP,TP;5x11,5		DJ08	0401-000160	DIODE-SWITCHING:ISS314,30V,100mA,USC,TP	
CJ29	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,		DJ09	0401-000160	DIODE-SWITCHING:ISS314,30V,100mA,USC,TP	
CJ30	2203-000260	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,2012,		DJ20	0405-000108	DIODE-VARACTOR:BB4058,28V,10nA,D	
CJ31	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP		DJ21	0401-000005	DIODE-SWITCHING:1N4148,75V,300mA,DO-35,T	
CJ32	2401-001840	C-AL:100uF,20%,16V,GP,TP;6.3x11,5		DL01	0401-000160	DIODE-SWITCHING:ISS314,30V,100mA,USC,TP	
CJ33	2203-000701	C-CERAMIC,CHIP:2pF,0.25pF,50V,NPO,TP,201		ICJ01	1204-000559	IC-DEMULATOR:TDA9813T/V3,SOP,28P,-,PLA	
CJ35	2401-000471	C-AL:10uF,20%,50V,BP,TP;5x11,5mm		ICJ02	1204-000515	IC-SOUND PROCESSOR:TDA9840/V2,DIP,20P,32	
CJ36	2401-001840	C-AL:100uF,20%,16V,GP,TP;6.3x11,5		ICJ03	1204-000473	IC-AUDIO PROCESSOR:TDA9859,DIP,32P,-,PLA	
CJ37	2401-000471	C-AL:10uF,20%,50V,BP,TP;5x11,5mm		ICJ04	1204-000449	IC-DECODER:SAA7283ZP,DIP;52P,600MIL,PLAS	
CJ38	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP		ICJ05	1201-000191	IC-OP AMP:4558,DIP;8P,300MIL,DUAL,20V/mV	
CJ39	2401-001840	C-AL:100uF,20%,16V,GP,TP;6.3x11,5		LJ01	2701-000300	INDUCTOR-AXIAL:1.3uH,10%,2.5x3.4mm	
CJ40	2203-000802	C-CERAMIC,CHIP:33nF,10%,50V,X7R,TP,2012,		LJ02	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm	
CJ41	2203-001035	C-CERAMIC,CHIP:5.6nF,10%,50V,X7R,TP,2012		LJ03	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm	
CJ42	2203-001035	C-CERAMIC,CHIP:5.6nF,10%,50V,X7R,TP,2012		LJ04	2702-000131	INDUCTOR-RADIAL:2.2mH,5%,6.2x7.4mm	
CJ43	2203-000802	C-CERAMIC,CHIP:33nF,10%,50V,X7R,TP,2012,		LJ05	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm	
CJ44	2203-000374	C-CERAMIC,CHIP:15nF,10%,50V,X7R,TP,2012,		LJ06	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm	
CJ45	2203-000374	C-CERAMIC,CHIP:15nF,10%,50V,X7R,TP,2012,		LJ07	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm	
CJ46	2203-005030	C-CERAMIC,CHIP:470nF,+80-20%,50V,Y5V,TP		LJ10	2701-000208	INDUCTOR-AXIAL:6.8uH,10%,2.5x3.4mm	
CJ47	2203-005030	C-CERAMIC,CHIP:470nF,+80-20%,50V,Y5V,TP		PCB	AA41-10592A	PCB-SOUND:SCT12A/B,2L,FR-4,110X91X1.6,A4	
CJ48	2203-005030	C-CERAMIC,CHIP:470nF,+80-20%,50V,Y5V,TP		QJ01	0501-000525	TR-SMALL SIGNAL:BF799,NPN,280mW,SOT-323,	
CJ49	2203-005030	C-CERAMIC,CHIP:470nF,+80-20%,50V,Y5V,TP		QJ02	0501-000727	TR-SMALL SIGNAL:BC848C,NPN,310mW,SOT-23,	
CJ50	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5		QJ04	0501-000727	TR-SMALL SIGNAL:BC848C,NPN,310mW,SOT-23,	
CJ51	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5		QJ05	0501-000727	TR-SMALL SIGNAL:BC848C,NPN,310mW,SOT-23,	
CJ52	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5		QJ06	0501-000727	TR-SMALL SIGNAL:BC848C,NPN,310mW,SOT-23,	
CJ53	2401-000480	C-AL:10uF,20%,50V,GP,TP;5x11,5		QJ07	0501-000727	TR-SMALL SIGNAL:BC848C,NPN,310mW,SOT-23,	
CJ54	2401-000444	C-AL:10uF,20%,25V,GP,TP;5x5mm,5mm		QL03	0501-000727	TR-SMALL SIGNAL:BC848C,NPN,310mW,SOT-23,	
CJ55	2401-000444	C-AL:10uF,20%,25V,GP,TP;5x5mm,5mm		QL04	0501-000727	TR-SMALL SIGNAL:BC848C,NPN,310mW,SOT-23,	
CJ60	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP		RJ01	2007-000947	R-CHIP:470OHM,5%,1/10W,DA,TP,2012	
CJ61	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP		RJ02	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	
CJ62	2401-002144	C-AL:47uF,20%,16V,GP,TP;5x11,5		RJ03	2007-000981	R-CHIP:5.6KOHM,5%,1/10W,DA,TP,2012	
				RJ04	2007-000468	R-CHIP:1KOHM,5%,1/10W,DA,TP,2012	
				RJ06	2007-000941	R-CHIP:47KOHM,5%,1/10W,DA,TP,2012	
				RJ07	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	
				RJ08	2007-001071	R-CHIP:6.8KOHM,5%,1/10W,DA,TP,2012	
				RJ09	2001-000028	R-CARBON(S):100OHM,5%,1/2W,AA,TP-	
				RJ10	2007-000981	R-CHIP:5.6KOHM,5%,1/10W,DA,TP,2012	
				RJ101	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012	

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
RJ102	2007-001166	R-CHIP:75OHM,5%,1/10W,DA,TP,2012					
RJ104	2007-000653	R-CHIP:27KOHM,5%,1/10W,DA,TP,2012					
RJ105	2007-000686	R-CHIP:3.3KOHM,5%,1/10W,DA,TP,2012					
RJ106	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012					
RJ107	2007-000686	R-CHIP:3.3KOHM,5%,1/10W,DA,TP,2012					
RJ11	2007-000401	R-CHIP:150OHM,5%,1/10W,DA,TP,2012					
RJ12	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ17	2007-000468	R-CHIP:1KOHM,5%,1/10W,DA,TP,2012					
RJ18	2007-000468	R-CHIP:1KOHM,5%,1/10W,DA,TP,2012					
RJ20	2007-000941	R-CHIP:47KOHM,5%,1/10W,DA,TP,2012					
RJ23	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ24	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ25	2007-000030	R-CHIP:560OHM,5%,1/10W,DA,TP,2012					
RJ26	2007-000030	R-CHIP:560OHM,5%,1/10W,DA,TP,2012					
RJ27	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ28	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ29	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ30	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ31	2007-000981	R-CHIP:5.6KOHM,5%,1/10W,DA,TP,2012					
RJ32	2007-000774	R-CHIP:33KOHM,5%,1/10W,DA,TP,2012					
RJ33	2007-000981	R-CHIP:5.6KOHM,5%,1/10W,DA,TP,2012					
RJ34	2007-000774	R-CHIP:33KOHM,5%,1/10W,DA,TP,2012					
RJ35	2007-000981	R-CHIP:5.6KOHM,5%,1/10W,DA,TP,2012					
RJ36	2007-000774	R-CHIP:33KOHM,5%,1/10W,DA,TP,2012					
RJ37	2007-000981	R-CHIP:5.6KOHM,5%,1/10W,DA,TP,2012					
RJ38	2007-000774	R-CHIP:33KOHM,5%,1/10W,DA,TP,2012					
RJ39	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ40	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ41	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012					
RJ42	2007-000686	R-CHIP:3.3KOHM,5%,1/10W,DA,TP,2012					
RJ43	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012					
RJ45	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012					
RJ46	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012					
RJ47	2007-001177	R-CHIP:8.2KOHM,5%,1/10W,DA,TP,2012					
RJ48	2007-001177	R-CHIP:8.2KOHM,5%,1/10W,DA,TP,2012					
RJ50	2007-000308	R-CHIP:10OHM,5%,1/10W,DA,TP,2012					
RJ52	2007-000774	R-CHIP:33KOHM,5%,1/10W,DA,TP,2012					
RJ53	2007-000267	R-CHIP:1.8KOHM,5%,1/10W,DA,TP,2012					
RJ54	2001-000016	R-CARBON(S):1ohm,5%,1/2W,AA,TP,2.4x6.4mm					
RJ55	2007-000468	R-CHIP:1KOHM,5%,1/10W,DA,TP,2012					
RJ56	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012					
RJ57	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012					
RJ58	2001-001096	R-CARBON(S):2.2ohm,5%,1/2W,AA,TP,2.4x6.4					
RJ59	2007-000586	R-CHIP:22KOHM,5%,1/10W,DA,TP,2012					
RJ60	2007-000477	R-CHIP:1MOHM,5%,1/10W,DA,TP,2012					
RJ61	2007-000593	R-CHIP:22OHM,5%,1/10W,DA,TP,2012					
RJ62	2007-001113	R-CHIP:680KOHM,5%,1/10W,DA,TP,2012					
RJ63	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012					
RJ64	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012					
RJ65	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012					
RJ66	2007-000981	R-CHIP:5.6KOHM,5%,1/10W,DA,TP,2012					
RJ67	2007-000409	R-CHIP:15KOHM,5%,1/10W,DA,TP,2012					
RJ68	2007-000409	R-CHIP:15KOHM,5%,1/10W,DA,TP,2012					
RJ69	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012					
RJ70	2007-000981	R-CHIP:5.6KOHM,5%,1/10W,DA,TP,2012					
RJ71	2007-000409	R-CHIP:15KOHM,5%,1/10W,DA,TP,2012					
RJ72	2007-000409	R-CHIP:15KOHM,5%,1/10W,DA,TP,2012					
RJ95	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012					
RJ96	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012					
RL06	2007-000941	R-CHIP:47KOHM,5%,1/10W,DA,TP,2012					
RL07	2007-001071	R-CHIP:6.8KOHM,5%,1/10W,DA,TP,2012					
RL08	2007-001071	R-CHIP:6.8KOHM,5%,1/10W,DA,TP,2012					
RL09	2007-000774	R-CHIP:33KOHM,5%,1/10W,DA,TP,2012					
RN01	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012					
TJ01	AA26-10004E	TRANS-IF:-,7MG,VIF,-,7mm,8pF,116.7MHz,S					
XJ01	2801-000125	CRYSTAL-UNIT:10MHZ,20PPM,28-AAM,32PF,300					
XJ02	2801-000992	CRYSTAL-UNIT:8.192MHZ,30PPM,28-AAM,15PF,					
ZJ01	2904-000259	FILTER-SAW AV:38.9MHz,SIP5P,ST,15dB,PAL-					
ZJ03	2903-000189	FILTER-CERAMIC:BP;5.74MHz,+50KHz,8dB,-,					
ZJ04	2903-000189	FILTER-CERAMIC:BP;5.74MHz,+50KHz,8dB,-,					
ZJ07	2903-000135	FILTER-CERAMIC:BP;4.5MHz,+60KHz,6dB,-,T					
ZJ09	2903-000184	FILTER-CERAMIC:BP;5.5MHz,+60KHz,6dB,-,T					
ZJ11	2903-000277	FILTER-CERAMIC:BP;6.0MHz,60KHz,6.0dB,-,T					
ZJ13	2903-000200	FILTER-CERAMIC:BP;6.5MHz,+70KHz,6dB,-,T					
ZL01	2904-001010	FILTER-SAW AV:32.9-33.4MHz,SIP5P,ST,14.4					
						ASSY-POWER,CORD	
						* AA96-20050AASSY-POWER,CORD:-,CP2/NO,-,H/C300,-,SCT1	
				LEAD/C	AA39-20062B	LEAD-CONNECTOR,ASSY:-,YFH800-02,-,2P,200	
				P/CORD	AA39-10005A	POWER-CORD:-,KKP419C,KLCE-2F,2.286MT,INL	
				SW/PU	3403-001020	SWITCH-PUSH:250V,5A,DPST,OFF-ON-OFF	
						ASSY-CABINET	
						* AA90-70038NASSY-CABINET:7202,CS7202NBX/EIS	
				BACK	AA64-30639A	CABINET-BACK:-,HIPS,V0,-,BLK,-,7202	
				C-CORD	AA65-30008A	CLAMP-CORD:PE,HB,BLK,-,-,-	
				CB+CF	AA60-10050T	SCREW-TAPPING:RH,+2S,M4,L20,ZPC(BLK),SW	
				CB+RCA	6002-000512	SCREW-TAPPING:RH,+2,M4,L12,ZPC(BLK),SWR	
				CRT+CF	AA60-10050R	SCREW-ASSY:WC,HH,+M5,L31.5,SWRCH18A,ZPC	
				D-COIL	AA65-30017A	CLAMP-D,COIL:NYLON-66,V0,NTR,DADH300,25	
				IN-B	AA64-60233A	INLAY-BACK:-,RCA,9PIN,PS,TO.5,BLK,-,-	
				PA+CF	AA60-10002A	SCREW-TAPPING:RH,+M4,L12,ZPC(YEL),-OD1	
				PC+CF	6002-000514	SCREW-TAPPING:RH,+2,M4,L15,ZPC(BLK),SWR	
				SPA	AA63-60004P	SPACER-GUM,CRT:NTR RUBBER,T2,GRY,-,-,-	
				SPK+CF	6002-000522	SCREW-TAPPING:TH,+2,M4,L15,ZPC(BLK),SWR	
						ASSY-CABINET,FRONT	
						* AA91-10349EASSY-CABINET,FRONT:-,CS7202NB,S1000 EGB,	
				BADGE	AA64-70011D	BADGE-BRAND:AL,SS R2000 25,GOLD,L60,-,-,-	
				C/WIRE	AA65-30105A	CLAMP-WIRE:NYLON 66,V2,NTR,15MM,ALL MODE	
				DOOR/C	AA64-50111A	DOOR-CONTROL:-,62.7202,S1000,HIPS,HB,BLK	
				DOOR/L	AA61-30001A	LATCH-DOOR:-,-,KIFUCO LA701,-	
				FRONT	AA64-31157G	CABINET-FRONT:-,CS7202NB,S1000 EGB,HIPS,	
				FRONT	AA64-30574A	CABINET-FRONT:-,7202,SACHUL,HIPS,HB,BLK,	
				GRI/S	AA63-50106A	GRILLE-SHEET:-,7202,S1300,PS,TO.4,-,-	
				INLAY/C	AA64-60238B	INLAY-CONTROL:7202,EG,PS,TO.3,BLK,-,-	
				KNOB/C	AA64-10058A	KNOB-CONTROL:-,62.7202,-,ABS,HB,BLK	
				KNOB/P	AA64-10166A	KNOB-POWER,MI:-,62.7202,-,ABS,HB,BLK	
				KNOCON	6002-000514	SCREW-TAPPING:RH,+2,M4,L15,ZPC(BLK),SWR	
				LED	AA64-40238A	INDICATOR-LED:-,62.7202,-,ACRYL,-,-,-	
				SPRING	AA61-60005K	SPRING-CS:-,SUS304,0.6,OD12.2,H13,N4,-,-	
						REMOCON	
						* AA59-10075LREMOCON:-,TM48,SZM155AC,31,L/GRY,SS	
						ASSY-HOLDER,SPK	
						* AA91-60003AASSY-HOLDER,SPK:-,PP,-,8ohm 10W,CT2199	
						ASSY-ACCESSORY	
						* AA94-30048DASSY-ACCESSORY:CS7202ZB/EIX,SCT12B,ISRAE	
				RCA/C	AA39-40001B	CABLE-RCA:-,RCA,1500mm,0.12/10,RED/WHT/Y	
				I/B	AA68-10274A	MANUAL-USERS:PV2,W/P 100(G)-,ENG,-,-	
				I/B	AA68-10276A	MANUAL-USERS:PV2,W/P 100(G)-,ARB,-,-	

8. System Block Diagram

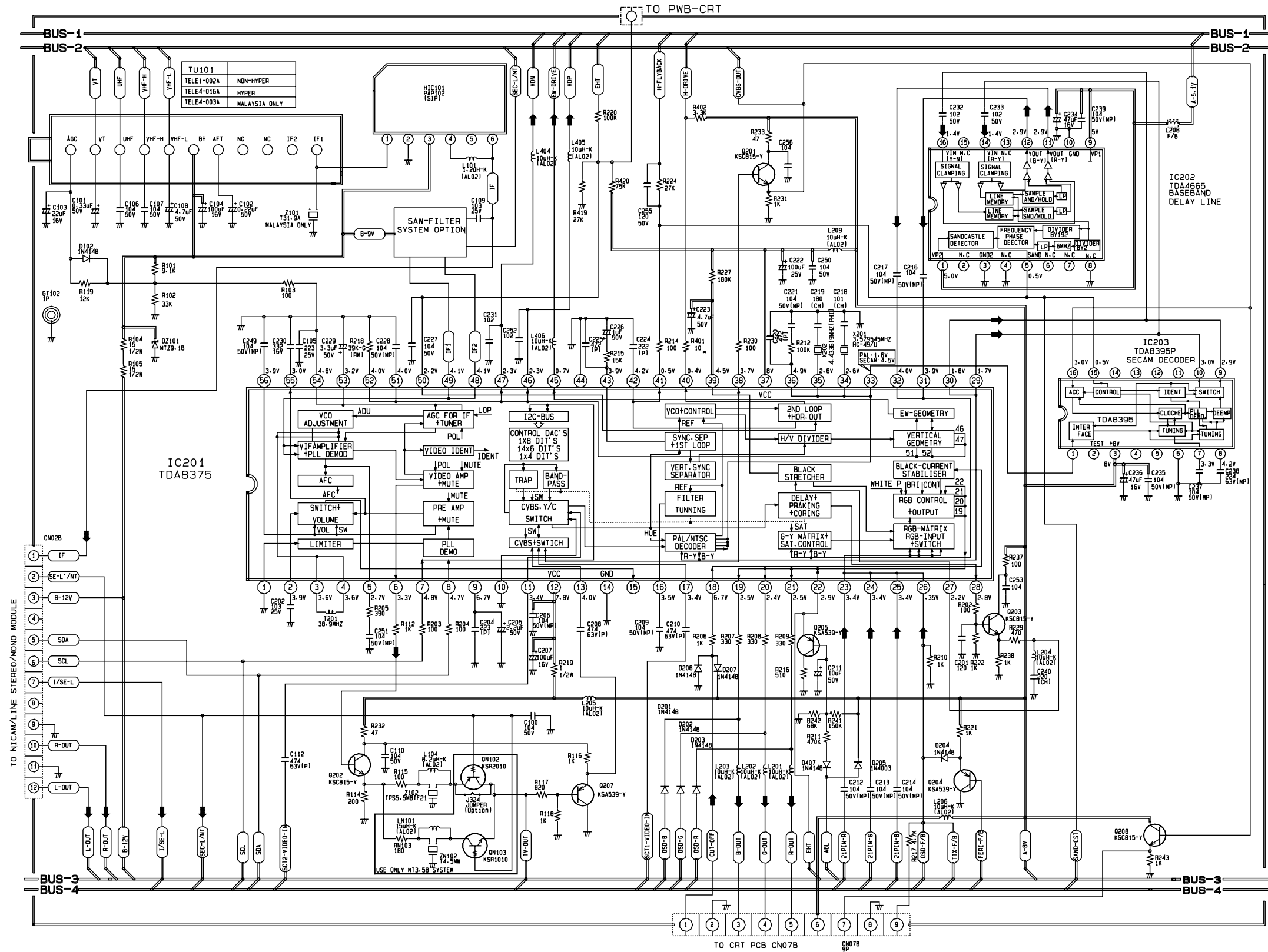


10. Wiring Diagram



10. Schematic Diagrams

10-1 PWB-MAIN (One-Chip)



OPTION LIST

LOC. NO	SYSTEM OPTION		
	CS SYSTEM	CX-CK SYSTEM	CB SYSTEM
C111*	50V 102	JUMPER	JUMPER
DN101	1S 2186	DELETE	DELETE
J324	DELETE	JUMPER	JUMPER
LN101	AL02 150H	DELETE	DELETE
QN101	BC-548	DELETE	DELETE
QN102	KSR2010	DELETE	DELETE
QN103	KSR1010	DELETE	DELETE
R115	RD 1/8T 100	RD 1/8T 120	RD 1/8T 120
RN101	RD 1/8T 56K	DELETE	DELETE
RN102	RD 1/8T 2.2K	DELETE	DELETE
RN103	RD 1/8T 180	DELETE	DELETE
RN104	RD 1/8T 2.2K	DELETE	DELETE
RN106	RD 1/8T 2.2K	DELETE	DELETE
SFN101	K6263K	G3956	G3956
ZN102	TPS 4.5MH	DELETE	DELETE
Z102	TPS 5.5MB	TPS 5.5MH	TPS 5.5MB
C235	50V 104-J	50V 104-J	DELETE
C236	16V 470F	16V 470F	DELETE
C237	50V 104-J	50V 104-J	DELETE
C238	50V 224-J	50V 224-J	DELETE
IC203	TDA8395P	TDA8395P	DELETE

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>
Tantalum	<T>
Non Polar	<NP>

RESISTOR

Carbon	NO MARK
Composition	<RC>
Metal Oxide	<RS>
Metal Film	<RM>
Fusible	<RF>
Cement-Wire	<RW>
Network	<RN>

WARNING : THIS RECEIVER CONTAINS SAFETY CRITICAL COMPONENTS. ALL PARTS SHOWN IN THE SHADED AREAS OF THE SCHEMATIC ARE SAFETY CRITICAL FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS. REFER TO PARTS LIST FOR EXACT REPLACEMENTS.

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 are expressed in uH and the values less than 1 in mH.

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

10-2 PWB-MAIN(Power)

EXPRESSION

- 1 Resistance is shown on 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 are expressed in uH and the values less than 1 in mH.

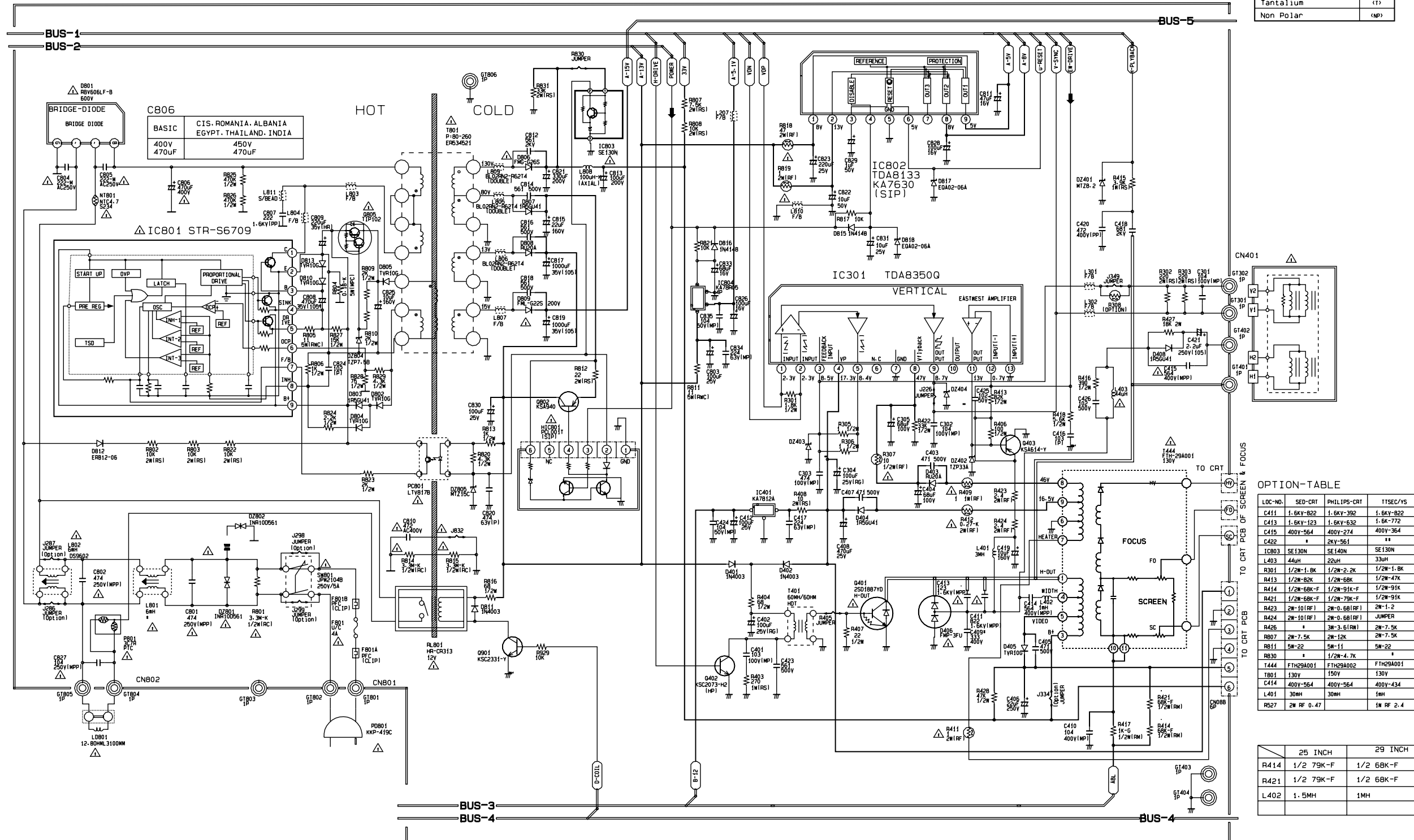
NOTE

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

WARNING : THIS RECEIVER CONTAINS SAFETY CRITICAL COMPONENTS. ALL PARTS SHOWN IN THE SHADED AREAS OF THE SCHEMATIC ARE SAFETY CRITICAL FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS. REFER TO PARTS LIST FOR EXACT REPLACEMENTS .

RESISTOR	
Carbon	NO MARK
Composition	(RC)
Metal Oxide	(RS)
Metal Film	(RM)
Fusible	(RF)
Cement-Wire	(RW)
Network	(RN)

CAPACITOR	
Ceramic - SL	NO MARK
Ceramic - RH	(RH)
Ceramic - CH	(CH)
Polyester (Induct)	(IP)
Polyester (Noninduct)	(PN)
Polypropylene	(PP)
Metal Polyester	(MP)
M.P. Polypropylene	(MPP)
Tantalium	(T)
Non Polar	(NP)

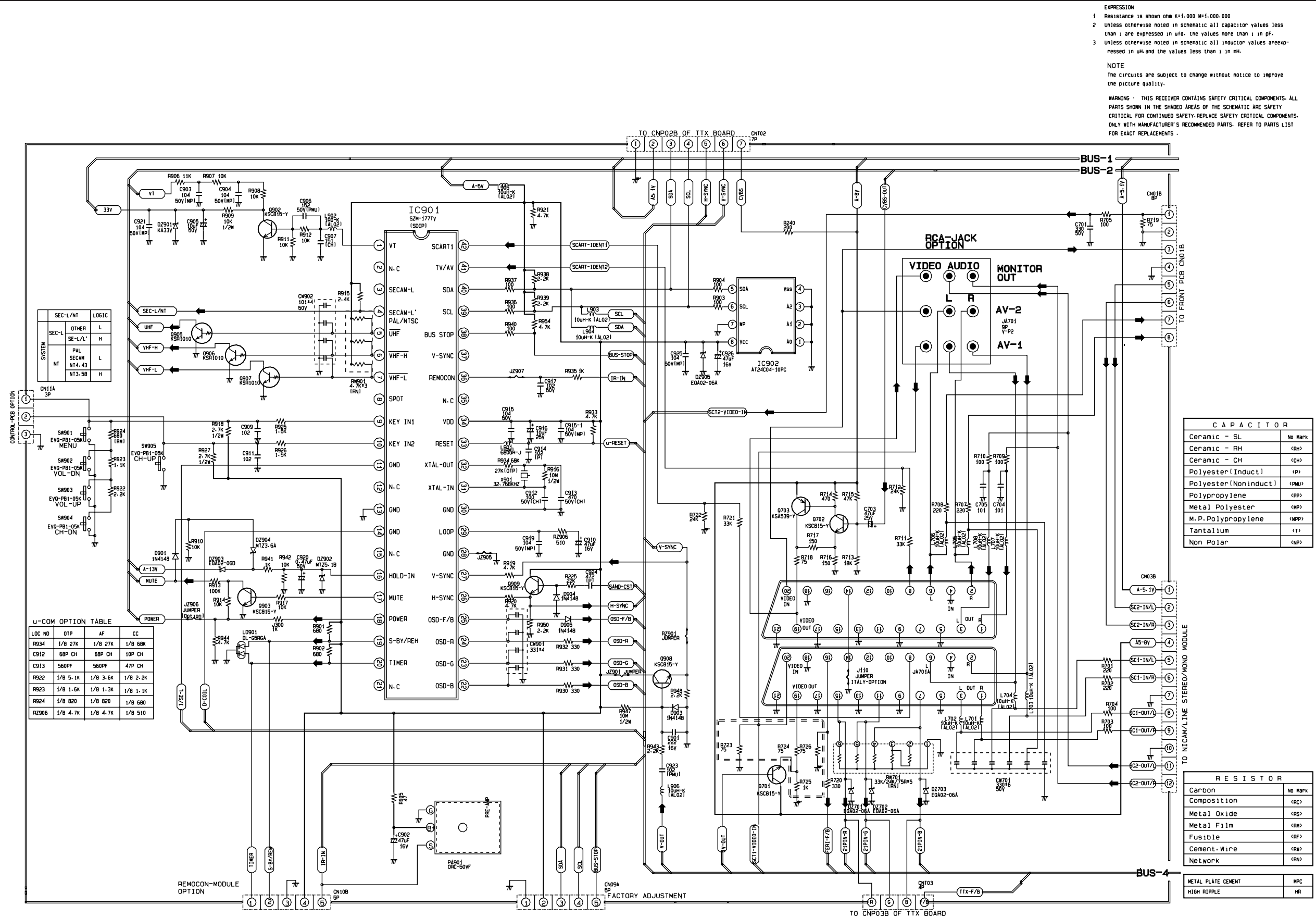


OPTION-TABLE

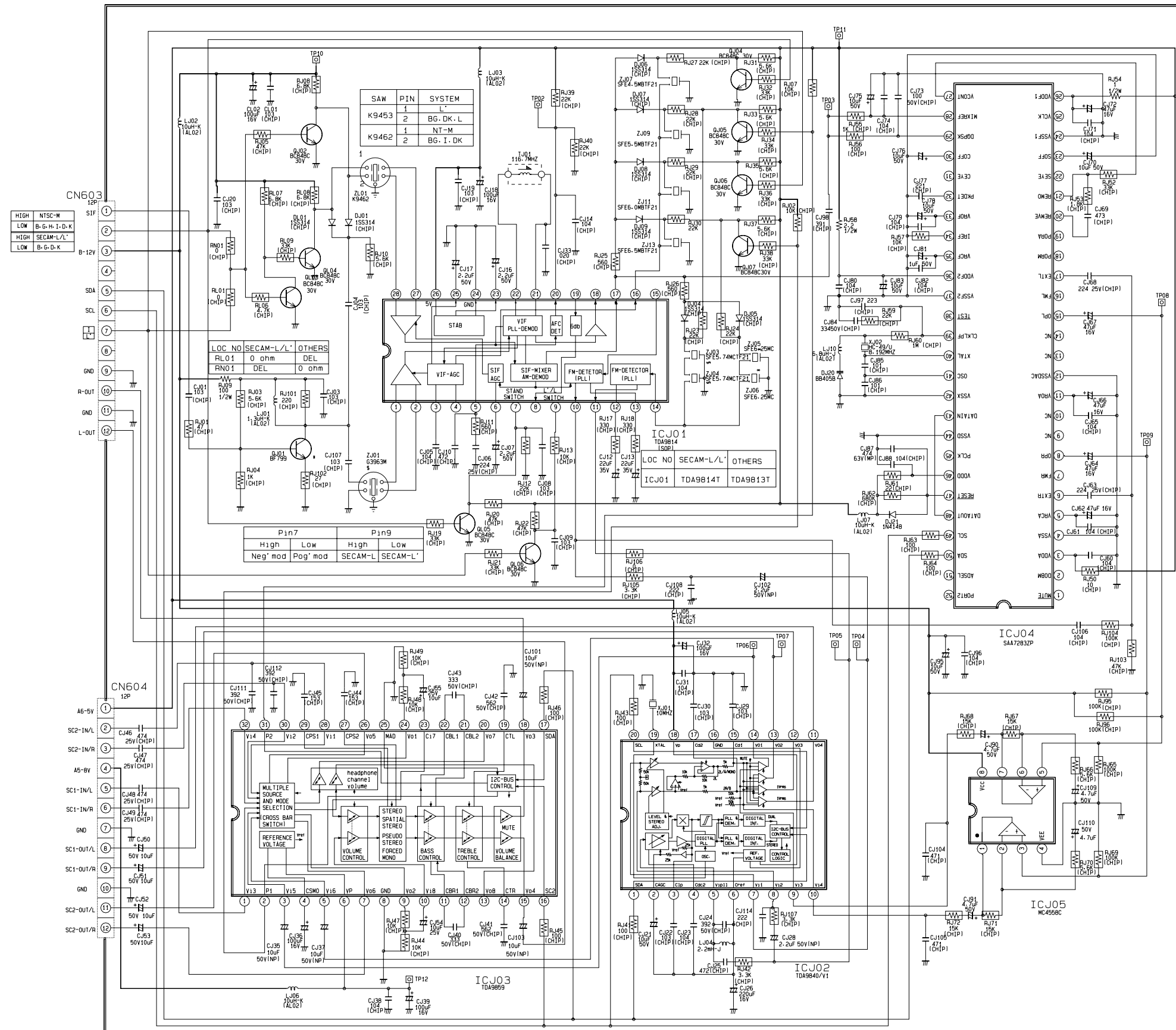
LOC-NO.	SED-CRT	PHILIPS-CRT	TTSEC/Y/S
C411	1.6KV-B22	1.6KV-392	1.6KV-B22
C413	1.6KV-123	1.6KV-632	1.6KV-772
C415	400V-564	400V-274	400V-364
C422	*	2KV-561	**
IC803	SE130N	SE140N	SE130N
L403	44uH	22uH	33uH
R301	1/2W-1.8K	1/2W-2.2K	1/2W-1.8K
R413	1/2W-82K	1/2W-68K	1/2W-47K
R414	1/2W-68K-F	1/2W-91K-F	1/2W-91K
R421	1/2W-68K-F	1/2W-79K-F	1/2W-91K
R423	2W-10(RF)	2W-0.68(RF)	2W-1.2
R424	2W-10(RF)	2W-0.68(RF)	JUMPER
R426	*	3W-3.61(RW)	2W-7.5K
R807	2W-7.5K	2W-12K	2W-7.5K
R811	5W-22	5W-11	5W-22
R830	*	1/2W-4.7K	*
T444	FTH29A001	FTH29A002	FTH29A001
T801	130V	150V	130V
C414	400V-564	400V-564	400V-434
L401	30mH	30mH	1mH
R527	2W RF 0.47		1W RF 2.4

	25 INCH	29 INCH
R414	1/2 79K-F	1/2 68K-F
R421	1/2 79K-F	1/2 68K-F
L402	1.5mH	1mH

10-3 PWB-MAIN (μ - com)



10-4 SOUND-MODULE



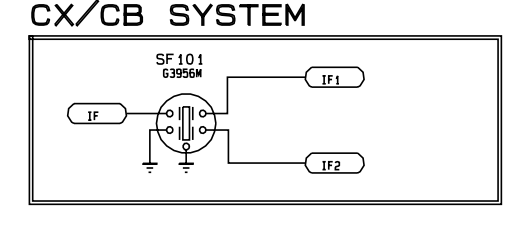
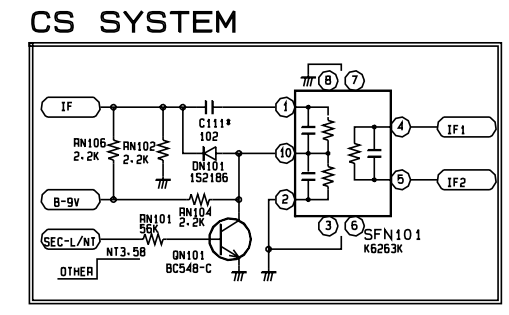
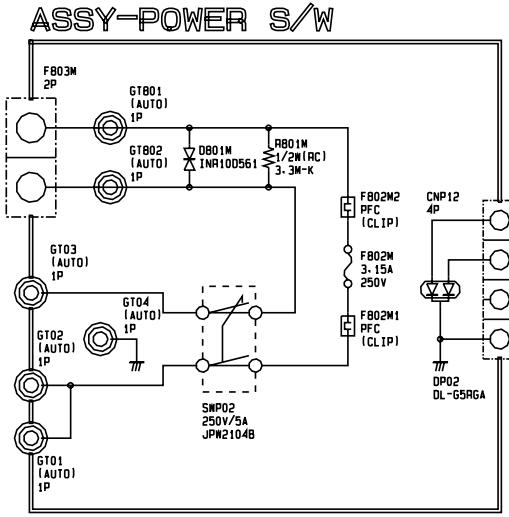
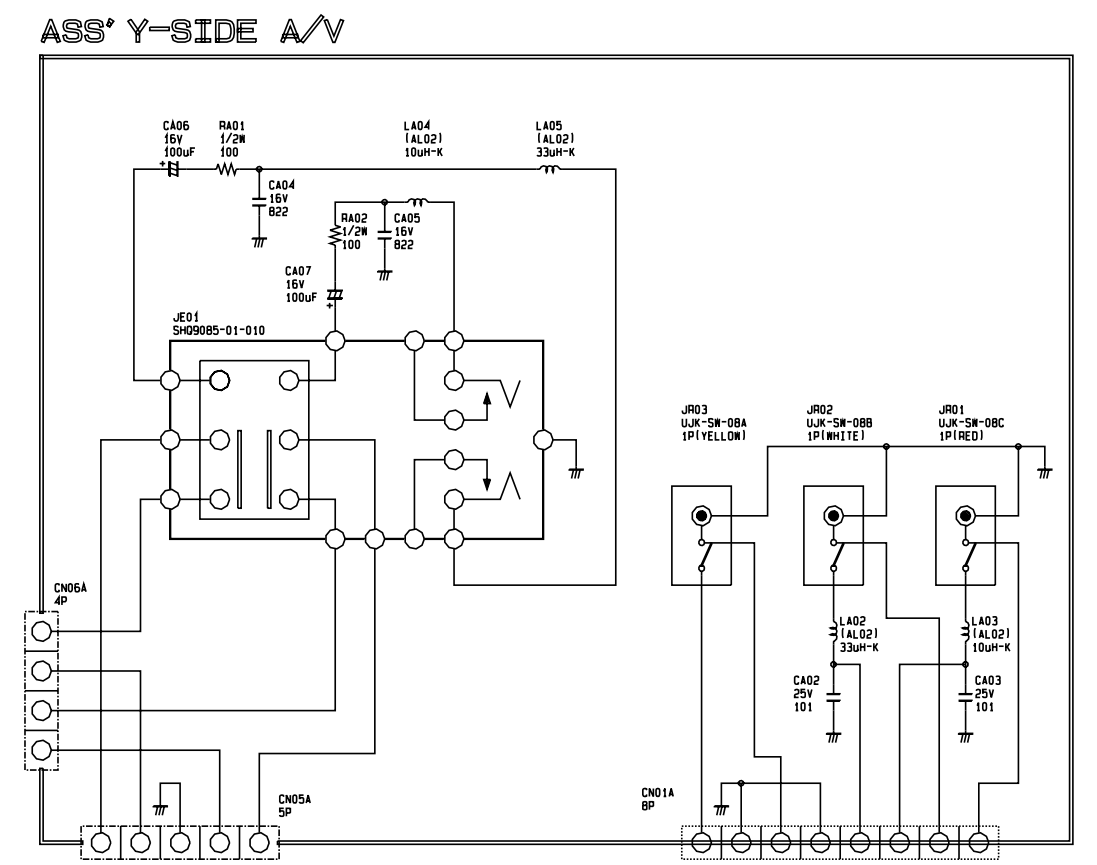
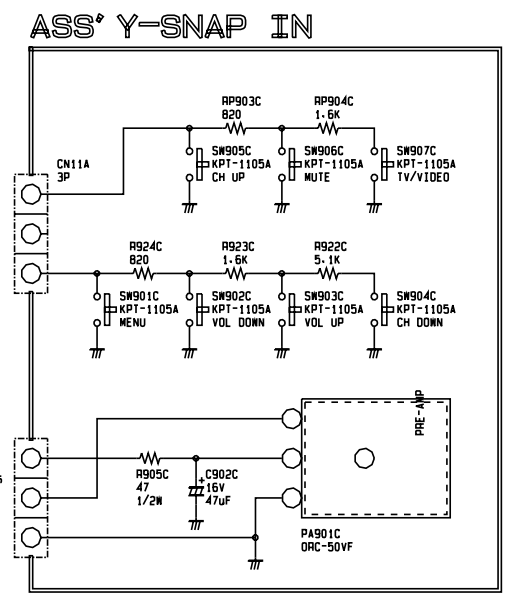
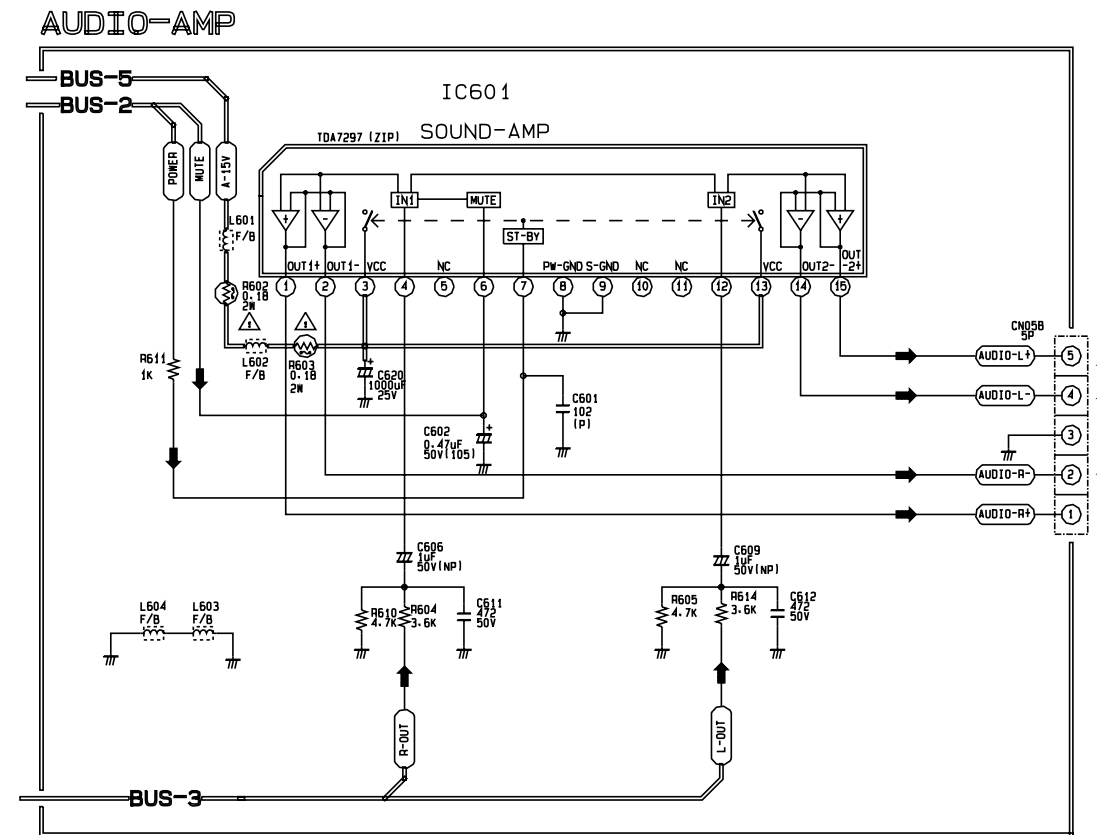
EXPRESSION
 1 Resistance is shown ohm K=1,000 M=1,000,000
 2 Unless otherwise noted in schematic all capacitor values less than 1 are expressed in ufd, the values more than 1 in pF.
 3 Unless otherwise noted in schematic all inductor values are expressed in uH and the values less than 1 in mH.

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)	(PM)
Polypropylene	(PP)
Metal Polyester	(MP)
M.P. Polypropylene	(MPP)
Tantalum	(T)
Non Polar	(NP)

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

10-5 PWB-MAIN (Audio - AMP)



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>
Tantalum	<T>
Non Polar	<NP>

RESISTOR	
Carbon	No Mark
Composition	<RC>
Metal Oxide	<RS>
Metal Film	<RM>
Fusible	<RF>
Cement-Wire	<RW>
Network	<RN>

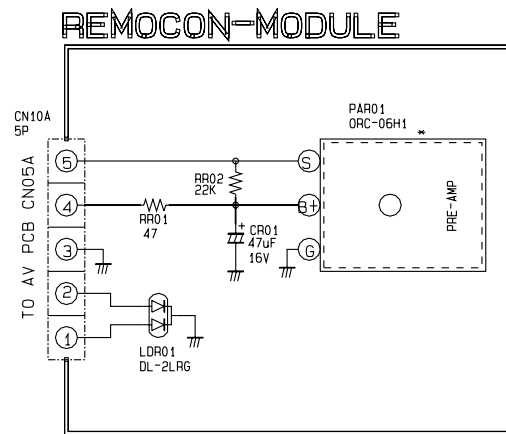
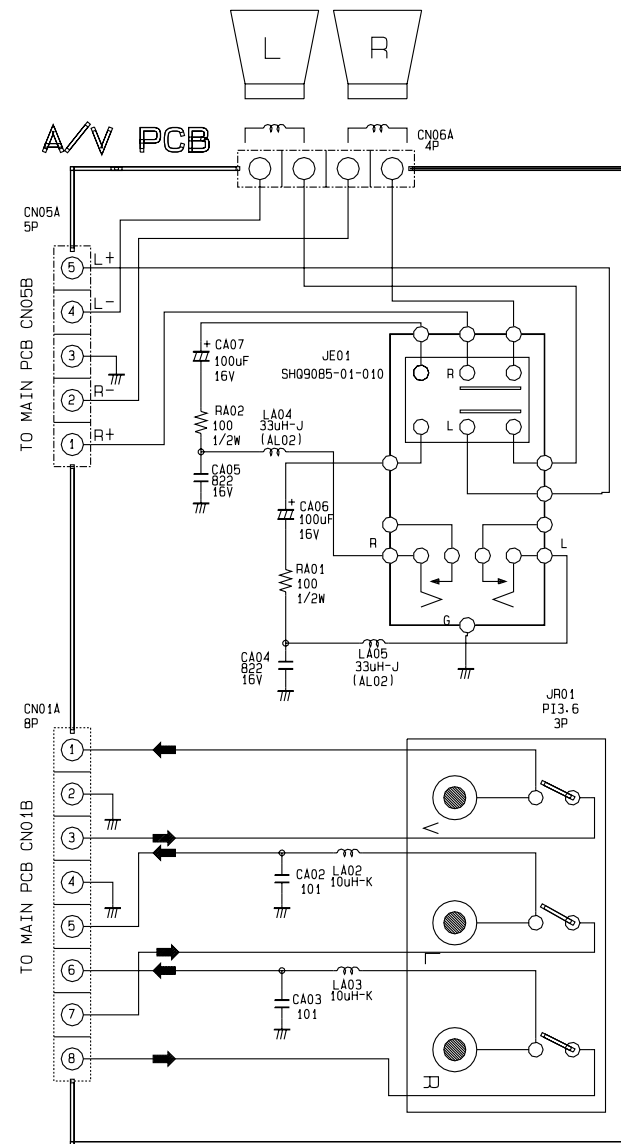
WARNING : THIS RECEIVER CONTAINS SAFETY CRITICAL COMPONENTS. ALL PARTS SHOWN IN THE SHADED AREAS OF THE SCHEMATIC ARE SAFETY CRITICAL FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS. REFER TO PARTS LIST FOR EXACT REPLACEMENTS .

EXPRESSION

- Resistance is shown ohm K=1,000 M=1,000,000
- Unless otherwise noted in schematic all capacitor values less than 1 are expressed in ufd, the values more than 1 in pF.
- Unless otherwise noted in schematic all inductor values are expressed in uH and the values less than 1 in mH.

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

10-6 PWB-A/V



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 are expressed in uH. and the values less than 1 in mH.

NOTE

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

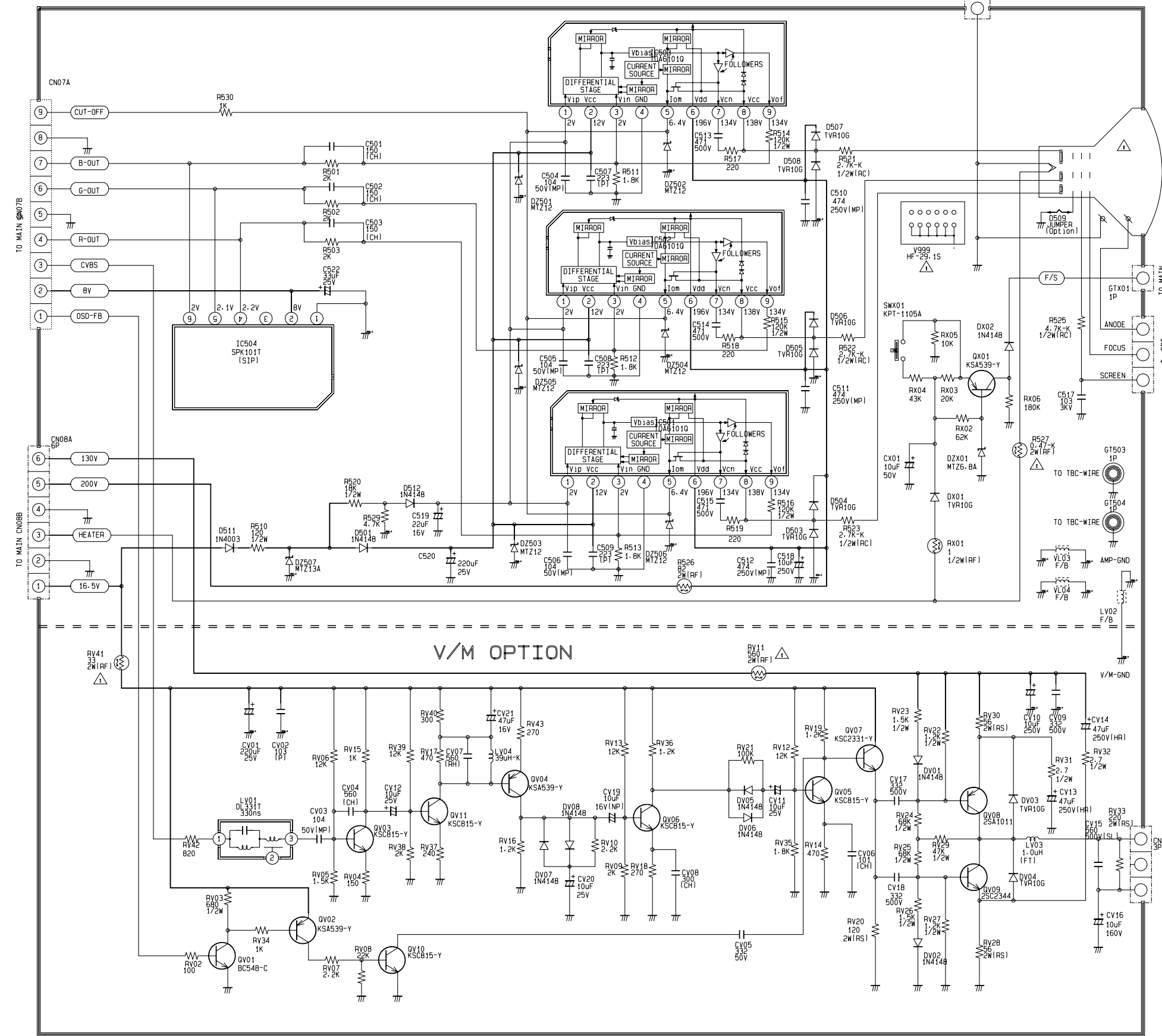
R E S I S T O R

Carbon	No Mark
Composition	<RC>
Metal Oxide	<RS>
Metal Film	<RM>
Fusible	<RF>
Cement Wire	<RW>
Network	<RN>

C A P A C I T O R

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>

10-7 PWB-CRT



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>
Tantalum	<T>
Non Polar	<NP>

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

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 are expressed in uH and the values less than 1 in mH.

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

10-8 PWB-TTX

