

**SAMSUNG**

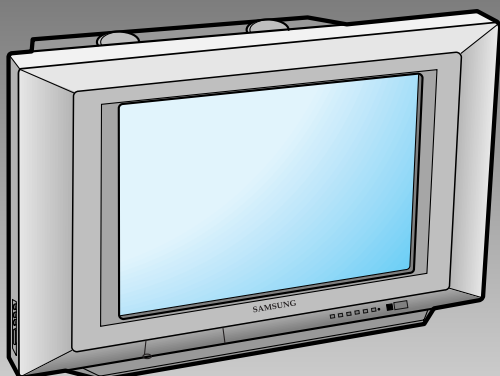
# COLOR TELEVISION RECEIVER

Chassis : KS2A(N) (REV.2)

Model : CFT24907X/SMS

# **SERVICE** *Manual*

## COLOR TELEVISION RECEIVER



## CONTENTS

1. Precautions
2. Reference Information
3. Specifications
4. Alignment and Adjustments
5. Troubleshooting
6. Exploded Views and Parts List
7. Electrical Parts List
8. Block Diagrams
9. Wiring Diagram
10. Schematic Diagrams



## 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.

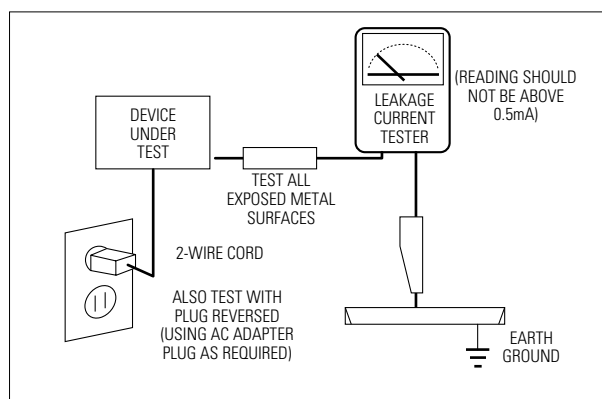




Fig. 1-1 AC Leakage Test

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)

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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

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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)

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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.

#### **CAUTION**

These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

## 2. Reference Information

### 2-1 Tables of Abbreviations and Acronyms

**Table 2-1 Abbreviations**

A	Ampere	MV	Megavolt
Ah	Ampere-hour	MW	Megawatt
Å	Angstrom	MΩ	Megohm
dB	Decibel	m	Meter
dBm	Decibel Referenced to One Milliwatt	μA	Microampere
°C	Degree Celsius	μF	Microfarad
°F	Degree Fahrenheit	μH	Microhenry
°K	degree Kelvin	μm	Micrometer
F	Farad	μs	Microsecond
G	Gauss	μW	Microwatt
GHz	Gigahertz	mA	Milliampere
g	Gram	mg	Milligram
H	Henry	mH	Millihenry
Hz	Hertz	ml	Milliliter
h	Hour	mm	Millimeter
ips	Inches Per Second	ms	Millisecond
kWh	Kilowatt-hour	mV	Millivolt
kg	Kilogram	nF	Nanofarad
kHz	Kilohertz	Ω	Ohm
kΩ	Kilohm	pF	Picofarad
km	Kilometer	lb	Pound
km/h	Kilometer Per Hour	rpm	Revolutions Per Minute
kV	Kilovolt	rps	Revolutions Per Second
kVA	Kilovolt-ampere	s	Second (Time)
kW	Kilowatt	V	Volt
l	Liter	VA	Volt-ampere
MHz	Megahertz	W	Watt
		Wh	Watt-hour

**Table 2-2 Table of Acronyms**

ABL	Automatic Brightness Limiter	I/O	Input/output
AC	Alternating Current	L	Left
ACC	Automatic Chroma Control	L	Low
AF	Audio Frequency	LED	Light Emitting Diode
AFC	Automatic Frequency Control	LF	Low Frequency
AFT	Automatic Fine Tuning	MOSFET	Metal-Oxide-Semiconductor-Field-Effect-Tr
AGC	Automatic Gain Control	MTS	Multi-channel Television Sound
AM	Amplitude Modulation	NAB	National Association of Broadcasters
ANSI	American National Standards Institute	NEC	National Electric Code
APC	Automatic Phase Control	NTSC	National Television Systems Committee
APC	Automatic Picture Control	OSD	On Screen Display
A/V	Audio-Video	PCB	Printed Circuit Board
AVC	Automatic Volume Control	PLL	Phase-Locked Loop
BAL	Balance	PWM	Pulse Width Modulation
BPF	Bandpass Filter	QIF	Quadrature Intermediate Frequency
B-Y	Blue-Y	R	Right
CATV	Community Antenna Television (Cable TV)	RC	Resistor & Capacitor
CB	Citizens Band	RF	Radio Frequency
CCD	Charge Coupled Device	R-Y	Red-Y
CCTV	Closed Circuit Television	SAP	Second Audio Program
Ch	Channel	SAW	Surface Acoustic Wave(Filter)
CRT	Cathode Ray Tube	SIF	Sound Intermediate Frequency
CW	Continuous Wave	SMPS	Switching Mode Power Supply
DC	Direct Current	S/N	Signal/Noise
DVM	Digital Volt Meter	SW	Switch
EIA	Electronics Industries Association	TP	Test Point
ESD	Electrostatic Discharge	TTL	Transistor Transistor Logic
ESD	Electrostatically Sensitive Device	TV	Television
FBP	Feedback Pulse	UHF	Ultra High Frequency
FBT	Flyback Transformer	UL	Underwriters Laboratories
FF	Flip-Flop	UV	Ultraviolet
FM	Frequency Modulation	VCD	Variable-Capacitance Diode
FS	Fail Safe	VCO	Voltage Controlled Oscillator
GND	Ground	VCXO	Voltage Controlled Crystal Oscillator
G-Y	Green-Y	VHF	Very High Frequency
H	High	VIF	Video Intermediate Frequency
HF	High-Frequency	VR	Variable Resistor
HI-FI	High Fidelity	VTR	Video Tape Recorder
IC	Inductance-Capacitance	VTVM	Vacuum Tube Voltmeter
IC	Integrated Circuit	TR	Transistor
IF	Intermediate Frequency		



## 2-2 IC Line Up

Table 2 - 3 IC Line - Up					
NO	BOARD	LOC. NO	SPEC	DESCRIPTION	REMARK
1	MAIN	IC201S	VDP3130Y-B1	Video Processor	Refer to Table 2-3-1
		IC601	MSP3440G-B6	NTSC Sound Processor	
		IC901	SIM408A	MICOM, Caption (MTP)	
		IC902	24WC16	EEPROM	
		IC602	TDA7297	Audio AMP	Refer to Table 2-3-2
		HIC201	DRGB001	RGB Drive AMP Hybrid IC	VM Option
		IC301	LA7845	Vertical IC	
		DH01	KSD5703	Horizontal Drive IC	DH01
		DAMPER-D	FMP-3FU		
		IC801S	KA3A1265RD	SPS Controller	Option
		D801S	D5SB60	Bridge Diode	
		PC801S	PC123Y	Photo Coupler	
		DDR01	KA78R05	Regulator	DDR01
		IC804	KA7806	6V Regulator	
		IC803	KA78R08	8V Controlled Regulator	
		IC903	KA78RM33	3.3V Regulator	
		IC904	KIA7025AP	MICOM Reset IC	
		Q909	2N7000	IIC Level Shifter	
		Q910			
		TU01	TAFC-H0051	Main Tuner with IF Block	
D813	FML-G12S	Rectifier Diode			
2	CRT	IC501	STV5109	Video Output AMP R.G.B Drive	

**Table 2-3-1 VIDEO IC**

<b>SPEC</b>	<b>FUNCTION</b>	<b>REMARK</b>
VDP3108B	Basic 1H Comb Filter	
VDP3130Y	2H Comb Filter, DVD Input	

**Table 2-3-2 SOUND AMP**

<b>SPEC</b>	<b>FUNCTION</b>	<b>REMARK</b>
TDA7297	7W x 2CH, 10W x 2CH	

### 3. Specifications

<b>Television System</b>	<b>Multi</b>	NTSC-M, PAL N.M	Option
<b>Antena Input</b>		75ohms, Coaxial Cable	
<b>Power</b>	<b>Consumption</b>	120W (Applied When 29" Flat)	Option
	<b>Requirements</b>	Free Volts(100V-240Volts)	Option
		Free Voltage	Not Present R815
	<b>Frequency</b>	50/60Hz	
<b>Sound</b>	<b>Output</b>	15W x 2CH	
		10W x 2CH	
		5W x 2CH	
	<b>Effect</b>	Vitual Dolby	Option
		Turbo Sound	
		Pseudo Stereo	
<b>Jacks</b>	<b>Front (AV2)</b>	RCA Input	
		S-VHS	Option
		Head-Phone	
	<b>Back</b>	2 AV Input	
		DVD Input(YPbPr)	Option
		AV2 Monitor Audio Output	Option
		S-VHS	Option

Specifications are subject to change.

# MEMO

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## 4. Alignment and Adjustments

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### 4-1 General Alignment Instructions

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1. Usually, a color TV-VCR needs only slight touch-up adjustment upon installation. Check the basic characteristics such as height, horizontal and vertical sync and focus.
2. Observe the picture for good black and white details. There should be objectionable color shading; if color shading is present, demagnetize, perform 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.

### 4-2 Automatic Degaussing

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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 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. 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 turning power OFF.

If color shading persists, perform the following Color purity and Convergence adjustments.

### 4-3 High Voltage Check

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**CAUTION :** There is no high voltage adjustment on this chassis. The B+ power supply should be +135 volts (with 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. Adjust the Brightness and contrast controls to both extremes. Ensure that the high voltage does not exceed 30 KV under any conditions.

## 4-4 FOCUS Adjustment

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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.

## 4-5 SCREEN Adjustment

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1. Input Toshiba Pattern
2. Enter "Service Mode".(Refer to "4-8-1 Service Mode")
3. Select "G2-Adjust".
4. Set the values as below.

**Table 1. Screen Adjustment Table**

No	INCH / CRT	IBRM	WDRV	CDL	COLR G B (Smallest Value)	REGION
1	14" / SDI	205	35	100	100	Normal
2	15PF / SDI	220	35	180	100	
3	21" 1.7R / SDI	220	35	180	100	
4	20V 10.0R/SDI	205	35	115	120	
5	21PF / TSB	220	35	180	65	
6	21PF / LG	230	35	230	65	
7	21PF / SDI	225	45	220	75	
8	25PF / SDI	210	35	160	120	
9	27V 1.3R / SDI	210	35	170	150	
10	27V 1.0R/SDI	210	35	150	180	
11	25V 1.0R/SDI	210	35	150	180	
12	23V 1.3R/SDI	205	35	120	140	

5. Turn the SCREEN VR until "MRCR G B" and "MRWDG" are green and those value are about 100.  
(The incorrect SCREEN Voltage may result that "MRCR G B" and "MRWDG" should be red)

## 4-6 E<sup>2</sup>PROM (IC902) Replacement

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1. When IC902 is replaced, all adjustment data revert to the initial values.  
So, all adjustment values when servicing should be readjusted.
2. After IC902 is replaced, connect the AC power supply cord.
3. Turn the power switch ON.
4. In stand-by, warm up the TV for at least 10 seconds.
5. Power on the TV.

## 4-7 White Balance Adjustment

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- Equipment : Color-Analyzer (CA-100)
- Input Signal : Pattern signal (Toshiba pattern)

1. Select STANDARD from the menu.
2. Input an 100% White pattern.
3. Enter the "Service Mode". (Refer to "4-8 Service Mode")
4. Warm up the TV set at least for 30 minutes.
5. Input a Toshiba pattern signal.
6. Enter the "Video Adjust1".
  - Adjust "Sub Contrast" so that Y (luminance) becomes  $65 \text{ ft} \pm 3$ .
  - Use "Red Drive" and "Blue Drive" to adjust High-Light (x : 275, y : 265)
  - Adjust "Sub Bright" so that Y (luminance) becomes  $1.2\text{ft} \pm 0.3$ .
  - Use "Red Cutoff" and "Blue Cutoff" to adjust Low-Light (x : 275, y : 265).
7. Adjust CA-100 so that the final adjustment value can be fixed.
8. Use the Channel Up/Down ( ▲/▼ ) buttons to move the cursor on the adjustment modes.
9. Use the Volume +/- buttons to change the adjustment value.

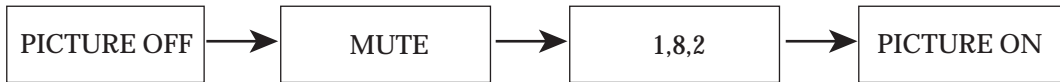
## 4-8 Factory Adjustment

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### 4-8-1 Service Mode

1. To enter the "Service Mode", Press the remote-control keys in this sequence :

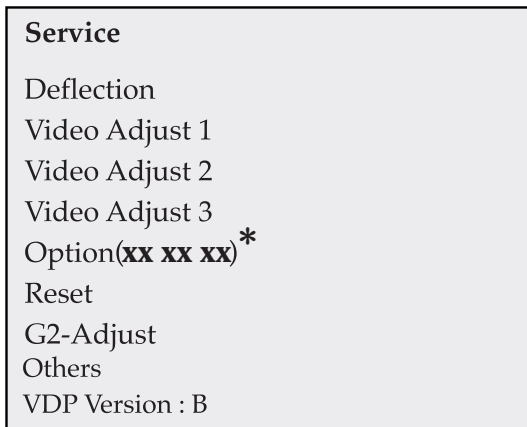
- If you do not have Factory remote-control



- If you have Factory remote-control



2. After the Service Mode is entered, the initial screen is as shown in the figure below.



\* These hexa digits are check sum value which depends on the MICOM version. If check sum value is changed, the value of E<sup>2</sup>PROM Data newly initialed.

3. Use the Channel Up/Down buttons to move the cursor in the adjustment parameters.

**Note :**

- When CRT, CRT PCB, FBT, E<sup>2</sup>PROM (sometimes MICOM) is replaced, the adjustment values should be controlled.
- After the Service adjustment is completed, Do not select "Reset" in the service mode menu. (After above procedure is done, power is on initially and the "Plug and Play" will be operated.)

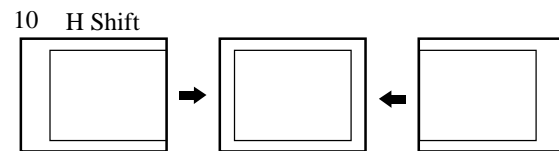
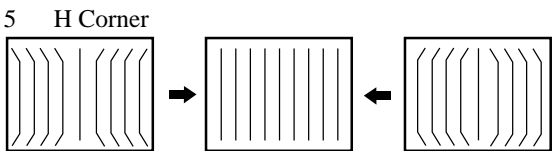
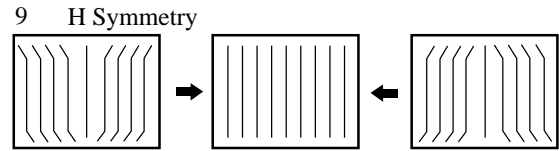
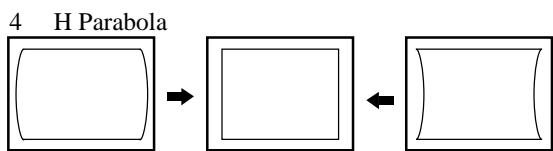
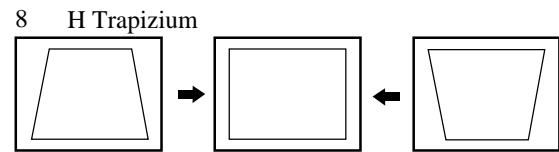
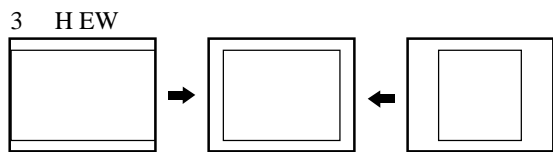
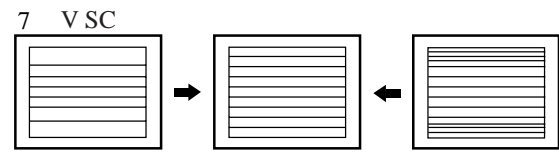
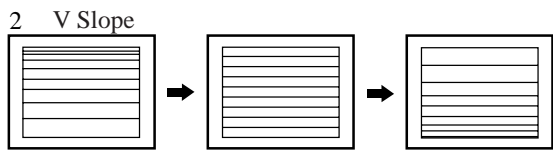
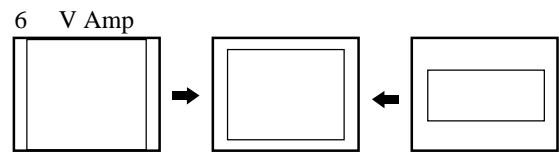
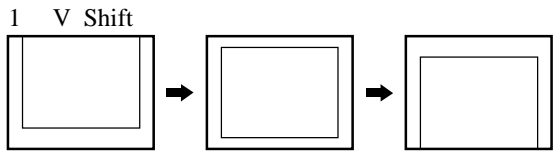


**4-8-2 Deflection (Memory Data)****- SIM408A USA, LATIN FACTORY (VDP IC VDP3108B)**

## 4-8-2(A) GEOMETRIC ADJUSTMENT VALUE

INCH			27V 1.3R	23V 1.3R	25V 1R	27V 1R	20V 1R	15" FLAT	21" STEREO	25" STEREO
Model			TXK2767	CL25D4W	TXK2550 TXK2554 TXK2566 TXK2567 CL663BW	TXK2750 TXK2754	TXK2060 TXK2066 TXK2067	CT-15A8	CL21A8W7X	CL25M6P CL25M6W
DEFLECTION	INIT									
H Bow	0	FIX	0	0	0	0	0	0	0	0
H Angle	0	FIX	0	0	0	0	0	0	0	0
H Dsc	0	FIX	3	3	3	3	3	3	3	3
V SHIFT	-40	Control	-27	-24	-18	-18	-40	-35	-40	-50
V AMP	5	Control	-50	-41	18	18	5	20	-20	-15
V SLOPE	-2	Control	-7	-4	-4	-4	-2	-4	-6	-2
V SC	-7	FIX	0	-13	-13	-13	-13	-13	-5	-6
H EW	64	Control	10	-37	64(FIX)	64(FIX)	64(FIX)	64(FIX)	-5	10
H TRAPEZIUM	-20	Control	-82	-48	-20(FIX)	-20(FIX)	-20(FIX)	-20(FIX)	-20	-20
H PARABOLA	-13	Control	-89	-44	-13(FIX)	-13(FIX)	-13(FIX)	-13(FIX)	20	-60
H SYMMETRY	13	FIX	13	13	13	13	13	13	13	13
H CORNER	15	Control	0	69	69(FIX)	69(FIX)	69(FIX)	69(FIX)	40	40
H SHIFT	4	Control	0	8	13	13	4	13	-24	-27
PIP CONTRAST		FIX	0	0	0	0	0	0		7
PIP TINT		FIX	0	0	0	0	0	0		0
PIP PAL V.POS		FIX	12	12	12	12	12	12		10
PIP NTSC V.POS		FIX	12	12	12	12	12	12		10
PIP H.POS		FIX	12	12	12	12	12	12		15

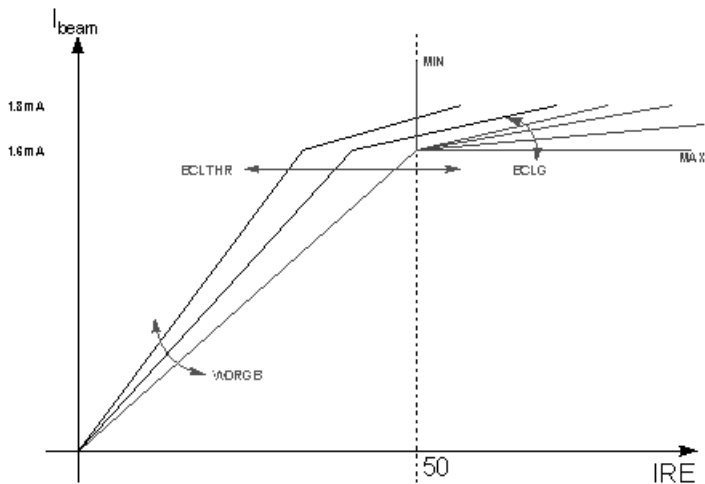
4-8-2(B) SCREEN CHANGE (I2C BUS GEOMETRIC ADJUSTMENT)



4-8-2(C) VIDEO ADJUST 1

INCH			27V 1.3R	23V 1.3R	25V 1R	27V 1R	20V 1R	15" FLAT	21" STEREO	25" STEREO
Model			TXK2767	CL25D4W	TXK2550 TXK2554 TXK2566 TXK2567 CL663BW	TXK2750 TXK2754	TXK2060 TXK2066 TXK2067	CT-15A8	CL21S8W7X	CL25M6P CL25M6W
VIDEO ADJUST1	INIT									
RED CUT OFF	127	Control	127	127	127	127	127	127	127	127
GREEN CUT OFF	127	FIX	127	127	127	127	127	127	127	127
BLUE CUT OFF	127	Control	127	127	127	127	127	127	127	127
RED DRIVE	127	Control	150	127	127	127	127	127	127	127
GREEN DRIVE	127	FIX	127	127	127	127	127	127	127	127
BLUE DRIVE	127	Control	170	127	127	127	127	127	127	127
SUB BRIGHT	110	Control	100	110	100	100	114	110	100	110
SUB CONTRAST	52	Control	52	52	52	52	52	52	52	52
SUB COLOR	27	FIX	50	50	50	50	50	67	60	60
SUB TINT	30	FIX	70	70	70	70	30	15	30	30
BCL THRESHOLD	62	FIX	60	54	58	58	70	40	62	67
BCLGAIN	8	FIX	8	8	8	8	8	8	9	9
BCL TIME	13	FIX	10	10	10	10	10	13	5	5
DVD SUB TINT	90	FIX	100	100	100	100	100	120	25	25
N. YC DELAY	0	FIX	3	3	3	3	3	4	4	4

**Note 1. Beam Control Limit Characteristic**



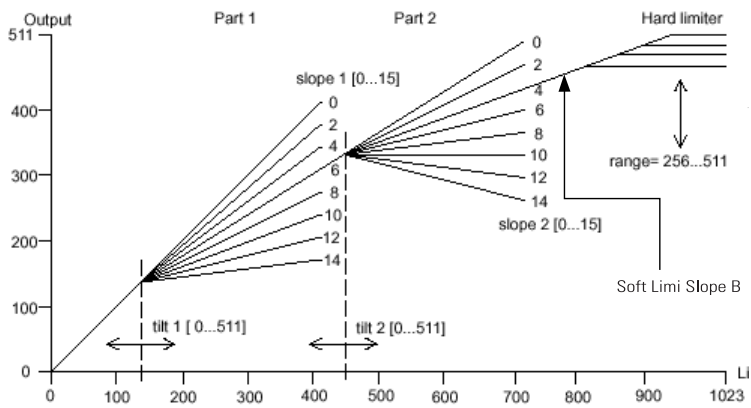
4-8-2(D) VIDEO 2 ADJUST

INCH			27V 1.3R	23V 1.3R	25V 1R	27V 1R	20V 1R	15" FLAT	21" STEREO	25" STEREO
Model			TXK2767	CL25D4W	TXK2550 TXK2554 TXK2566 TXK2567 CL663BW	TXK2750 TXK2754	TXK2060 TXK2066 TXK2067	CT-15A8	CL21S8W7X	CL25M6P CL25M6W
VIDEO ADJUST2	INIT									
B STRETCH-BTHR	50	FIX	50	50	50	50	50	50	50	50
B DTRETCH-BTLT	8	FIX	8	8	8	8	8	8	8	8
B STERTCH-BAM	4	FIX	4	4	4	4	4	4	4	4
CORING	31	FIX	31	31	31	31	31	31	31	31
NTSC COMB FILTER	1	FIX	1	1	1	1	1	1	3	3
RGB BRIGHT	0	FIX	0	0	0	0	0	0	0	0
RG B CONTRAST	0	FIX	0	0	0	0	0	0	0	0
EHT TIME	0	FIX	0	0	0	0	0	0	8	8
EHT VERTICAL		FIX	60	60	60	60	60	60	60	60
DTI CORING		FIX	0	0	0	0	0	0	0	0
DTI GAIN		FIX	1	1	1	1	1	1	1	1
DTI BAND		FIX	1	1	1	1	1	1	1	1
EHT OFFSET		FIX	0	0	0	0	0	0	0	0
EHT HORIZONTAL		FIX	0	0	0	0	0	0	0	0

4-8-2(E) VIDEO 3 ADJUST

INCH			27V 1.3R	23V 1.3R	25V 1R	27V 1R	20V 1R	15" FLAT	21" STEREO	25" STEREO
Model			TXK2767	CL25D4W	TXK2550 TXK2554 TXK2566 TXK2567 CL663BW	TXK2750 TXK2754	TXK2060 TXK2066 TXK2067	CT-15A8	CL21S8W7X	CL25M6W CL25M6P
VIDEO ADJUST3	INIT									
PEAK WHITE LIMLT	255	FIX	255	255	255	255	255	255	255	255
SOFT LIMIT SLOPE B	4	FIX	4	4	4	4	4	4	4	4
HARD LIMIT	255	FIX	255	255	255	255	255	255	255	180
MODULATION ON/OFF	0	FIX	0	0	0	0	0	0	0	0
A TILT POINT	0	FIX	0	0	0	0	0	0	0	0
B TILT POINT	0	FIX	114	114	114	114	114	114	114	114
GAIN 1 (VIDEO)		FIX	11	11	11	11	11	11	11	11
DELAY 1 (VIDEO)		FIX	3	3	3	3	3	3	3	3
PEAK VIDEO REF		FIX	0	0	0	0	0	0	0	0
PEAK VIDEO GAIN		FIX	0	0	0	0	0	0	0	0
LIMIT VALUE		FIX	74	74	74	74	74	74	74	74
VELOCITY DELAY		FIX	7	7	7	7	7	7	7	7
VELOCITY CORING		FIX	10	10	10	10	10	10	10	10
ACC-REF	20	FIX	20	20	20	20	20	20	20	20
ACCR	21	FIX	21	21	21	21	21	21	21	21

**Note 2. Soft Limit & Hard Limit Characteristics**



\* "Soft Limit" is that Limiting the peak white without feed-back, but "Peak Limit" is that with feed-back for white peak level

4-8-2(F) OTHERS

INCH			27V 1.3R	23V 1.3R	25V 1R	27V 1R	20V 1R	15" FLAT	21" STEREO	25" STEREO
Model			TXK2767	CL25D4W	TXK2550 TXK2554 TXK2566 TXK2567 CL663BW	TXK2750 TXK2754	TXK2060 TXK2066 TXK2067	CT-15A8	CL21S8W7X	CL25M6W CL25M6P
OTHERS	INIT									
VSU	108	FIX	108	104	100	100	104	110	100	108
VSU2		FIX	0	0	0	0	0	0	0	0
H QEW	0	FIX	0	0	0	0	0	0	0	0
H ZOOM Parabola	8	FIX	-22	-35	8	8	8	8	25	-12
H 16:9 Parabola	-10	FIX	8	13	-18	-18	-18	-10	-30	0
TTX H Shift	0	FIX	0	0	0	0	0	0	1	1
PAL V SHIFT		FIX	OFFSET	OFFSET	OFFSET	OFFSET	OFFSET	OFFSET	-51	-61
PAL H SHIFT		FIX	OFFSET	OFFSET	OFFSET	OFFSET	OFFSET	OFFSET	-19	-22
Melody Volume	5	FIX	7	7	7	7	7	7	7	7
PIP BRIGHT		FIX								3
PIP COLOR		FIX								9
PIP VSPD		FIX								0
WHITE BALANCE	H	Control	275/295 35FL	275/295 35FL	275/295 35FL	275/295 35FL	275/295 35FL	275/295 95FL	275/265 65FL	275/265 45FL
	L	Control	275/295 1.2FL	275/295 1.2FL	275/295 1.2FL	275/295 1.2FL	275/295 1.2FL	275/295 2.0FL	275/265 1.2FL	275/265 1.4FL

4-8-2(G) G2 ADJUST

INCH			27V 1.3R	23V 1.3R	25V 1R	27V 1R	20V 1R	15" FLAT	21" STEREO	25" STEREO
Model			TXK2767	CL25D4W	TXK2550 TXK2554 TXK2566 TXK2567 CL663BW	TXK2750 TXK2754	TXK2060 TXK2066 TXK2067	CT-15A8	CL21S8W7X	CL25M6W CL25M6P
G2 Adjust										
MRC R G B		Max	110	110	110	110	110	110	110	110
MRWDG			110	110	110	110	110	110	110	110
IBRM		FIX	210	205	210	210	205	220	225	205
WDRV		FIX	35	35	35	35	35	35	45	45
CDL		FIX	170	120	150	150	115	180	220	150
COL		MIN	150	140	150	150	120	100	75	140

### 4-8-3 Deflection (Memory Data)

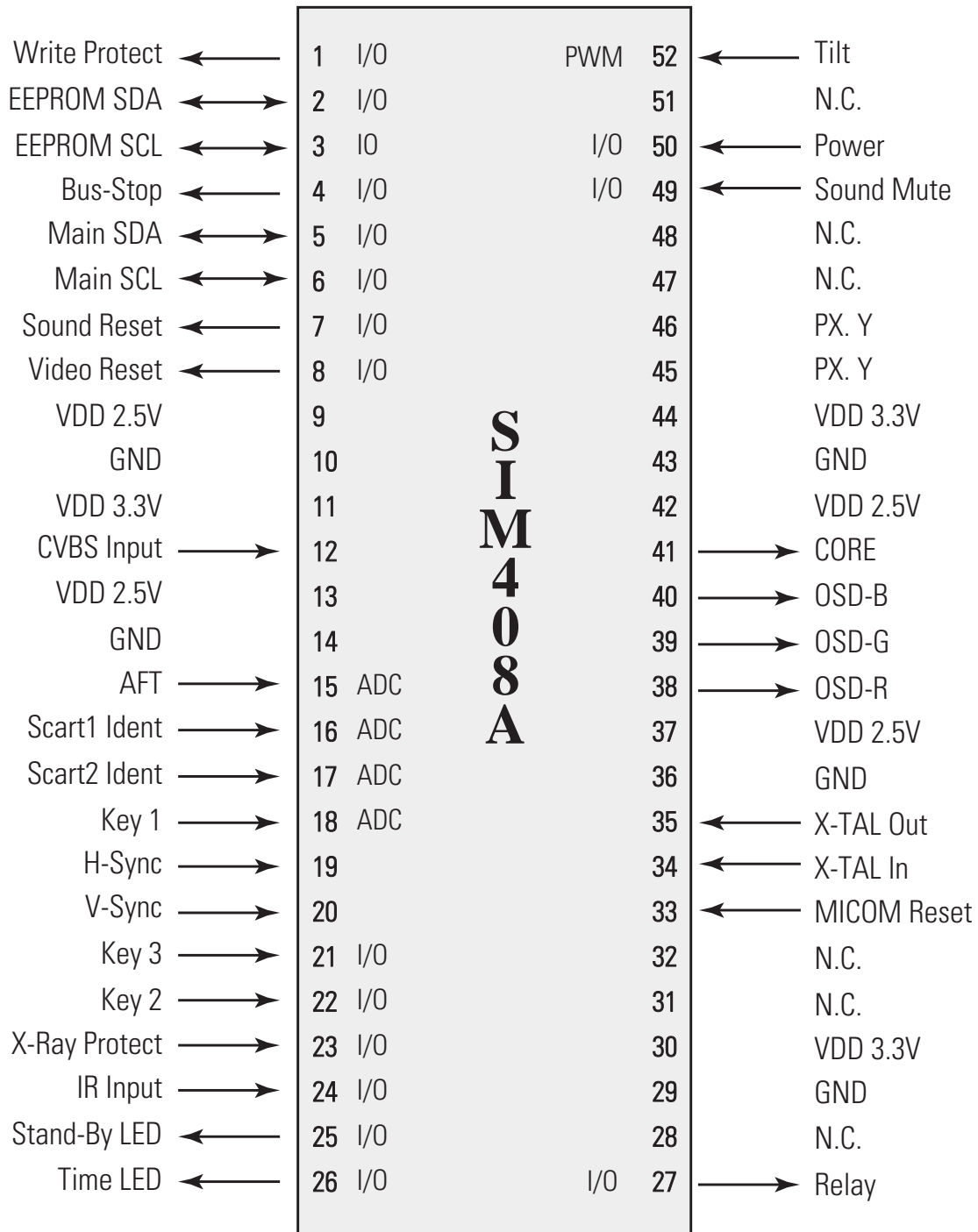
- SIM408A USA, LATIN FACTORY (VDP IC VDP3130Y)

4-8-3(A) GEOMETRIC ADJUSTMENT VALUE

INCH			27V 1.3R	23V 1.3R	25V 1R	27V 1R	20V 1R	15" FLAT	21" STEREO	25" STEREO
Model			TXK2767	CL25D4W	TXK2550 TXK2554 TXK2566 TXK2567 CL663BW	TXK2750 TXK2754	TXK2060 TXK2066 TXK2067	CT-15A8	CL21A8W7X	CL25M6W CL25M6P
DEFLECTION	INIT									
H Bow	0	FX	0	0	0	0	0	0	0	0
H Angle	0	FX	0	0	0	0	0	0	0	0
H Dsc	0	FX	3	3	3	3	3	3	3	3
V SHIFT	-40	Control	-27	-24	-18	-18	-40	-35	-40	-50
V AMP	5	Control	-50	-41	18	18	5	20	-20	-15
V SLOPE	-2	Control	-7	-4	-4	-4	-2	-4	-6	-2
V SC	-7	FX	0	-13	-13	-13	-13	-13	-5	-6
H EW	64	Control	10	-37	64(FIX)	64(FIX)	64(FIX)	64(FIX)	-5	10
H TRAPEZIUM	-20	Control	-82	-48	-20(FIX)	-20(FIX)	-20(FIX)	-20(FIX)	-20	-20
H PARABOLA	-13	Control	-89	-44	-13(FIX)	-13(FIX)	-13(FIX)	-13(FIX)	20	-60
H SYMMETRY	13	FX	13	13	13	13	13	13	13	13
H CORNER	15	Control	0	69	69(FIX)	69(FIX)	69(FIX)	69(FIX)	40	40
H SHIFT	4	Control	0	8	13	13	4	13	-24	-27
PIP CONTRAST		FX	0	0	0	0	0		0	7
PIP TINT		FX	0	0	0	0	0		0	0
PIP PAL V.POS		FX	12	12	12	12	12		10	10
PIP NTSC V.POS		FX	12	12	12	12	12		10	10
PIP H.POS		FX	12	12	12	12	12		15	15

## 4-9 MICOM

### 4-9-1 Pin Layout



**4-9-2 Pin Assignment Specification**

<b>PIN NO</b>	<b>FUNCTION</b>	<b>ASSIGN</b>	<b>IN/OUT</b>	<b>ACTIVE H/L</b>	<b>DESCRIPTION</b>
<b>1</b>	I/O	Write Protect	Out	Low	EEPROM Write Protection
<b>2</b>	I/O	ROM SDA	I/O		EEPROM Serial Data Line
<b>3</b>	I/O	ROM SCL	I/O		EEPROM Serial Clock Line
<b>4</b>	I/O	Bus Stop	In	Low	Disable Micom IIC
<b>5</b>	I/O	Main SDA	I/O		Peripheral IC Serial Data Line
<b>6</b>	I/O	Main SCL	I/O	Low	Peripheral IC Serial Clock Line
<b>7</b>	I/O	Sound Reset	Out	Low	MSP IC Initial Control
<b>8</b>	I/O	Video Reset	Out		VDP IC Initial Control
<b>9</b>	Vdd	VDD 2.5V			
<b>10</b>	GND				
<b>11</b>	Vdd	VDD 3.3V			
<b>12</b>	CVBS	CVBS Input	In		TTX CVBS Input
<b>13</b>	Vdd	VDD 2.5V			Analog B+
<b>14</b>	GND				Analog Ground
<b>15</b>	ADC	AFT	In		Auto Fine Tuning Control
<b>16</b>	ADC	SC1-ID	In		Scart1 Ident
<b>17</b>	ADC	SC2-ID	In		Scart2 Ident
<b>18</b>	ADC	Key1	In		Key1 Input
<b>19</b>	HS	H-Sync	In		Horizontal Sync Input
<b>20</b>	VS	V-Sync	In		Vertical Sync Input
<b>21</b>	I/O	Key3	In		Key3 Input
<b>22</b>	I/O	Key2	In		Key2 Input
<b>23</b>	I/O	X-Ray	In		X-Ray Protection
<b>24</b>	I/O	IR-In	In		Remocon Signal Input
<b>25</b>	I/O	STD-LED	Out		LED Drive Output(Red)
<b>26</b>	I/O	TIM-LED	Out		LED Drive Output(Green)



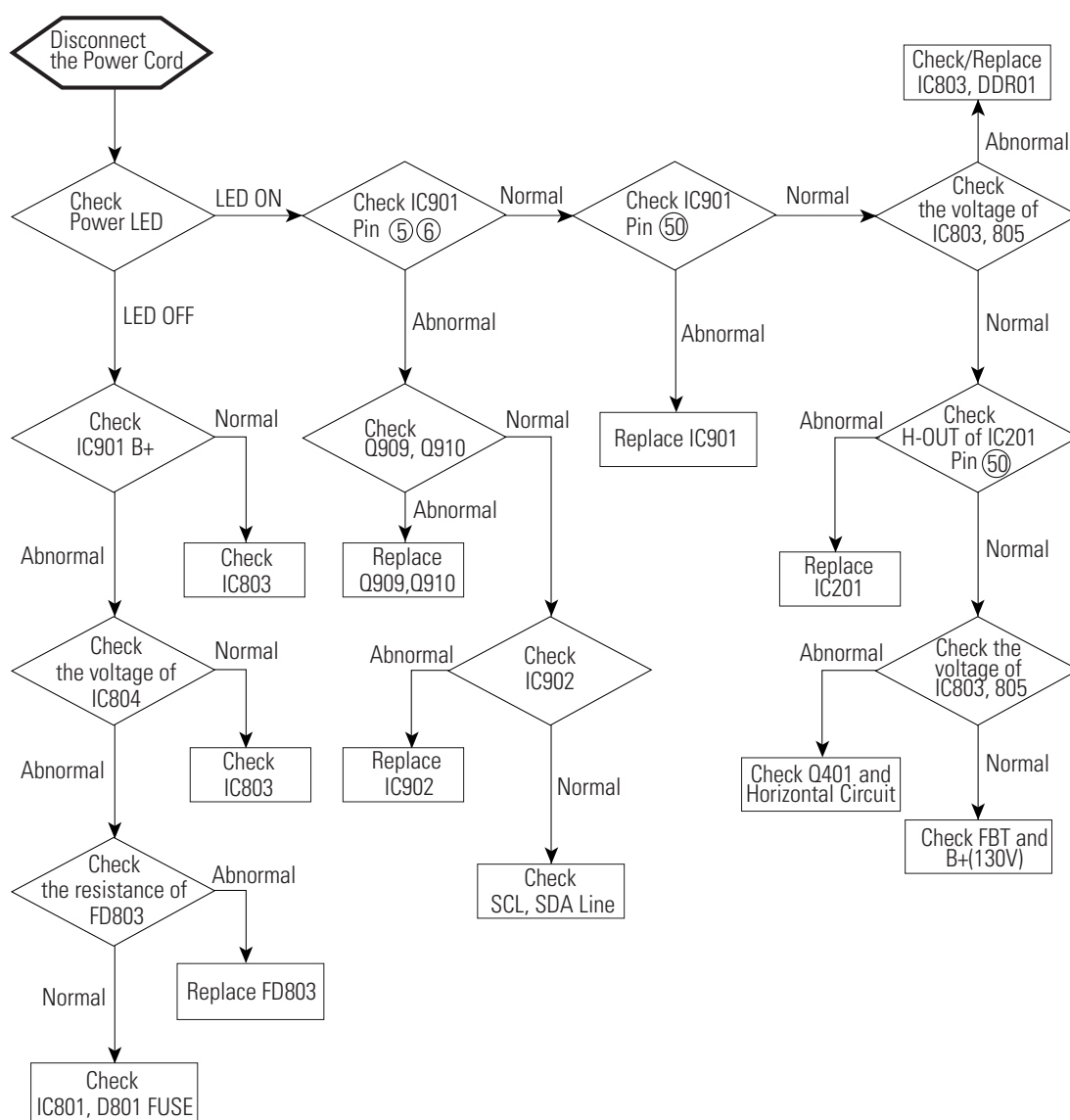
**4-9-2 Pin Assignment Specification (Continued)**

<b>PIN NO</b>	<b>FUNCTION</b>	<b>ASSIGN</b>	<b>IN/OUT</b>	<b>ACTIVE H/L</b>	<b>DESCRIPTION</b>
27	I/O	Relay	Out	Low	Activate Degaussing Coil
28	N.C.				Not Used (Programmed Gound Level)
29	GND				Analog Ground
30	Vdd	VDD 3.3V			Not Used (Programmed Gound Level)
31	N.C.				Not Used (Programmed Gound Level)
32	N.C.				Micom Hardware Reset
33	Reset	Reset	In	Low	Crystal Oscillation Input
34	X-In	X-TAL In	In	6MHz	Crystal Oscillation Output
35	X-Out	X-TAL Out	Out	6MHz	Analog Ground
36	GND				Analog B+
37	Vdd	VDD 2.5V			OSD/TTX Output (Red)
38	R	OSD-R	Out		OSD/TTX Output (Green)
39	G	OSD-G	Out		OSD/TTX Output (Blue)
40	B	OSD-B	Out		Fast Blank/Half Contrast Output
41	COR	CORE	Out		
42	Vdd	VDD 2.5V			
43	GND				
44	Vdd	VDD 3.3V			
45	I/O	PX.Y	In		When The Caption Function Adopted, Used.
46	I/O	PX.Y	Out		
47	N.C.				Not Used (Programmed Gound Level)
48	N.C.				
49	I/O	S-Mute	Out	High	Sound Amp Mute
50	I/O	Power	Out	Low	Picture On/Off Control
51	N.C.				Not Used (Programmed Gound Level)
52	I/O				

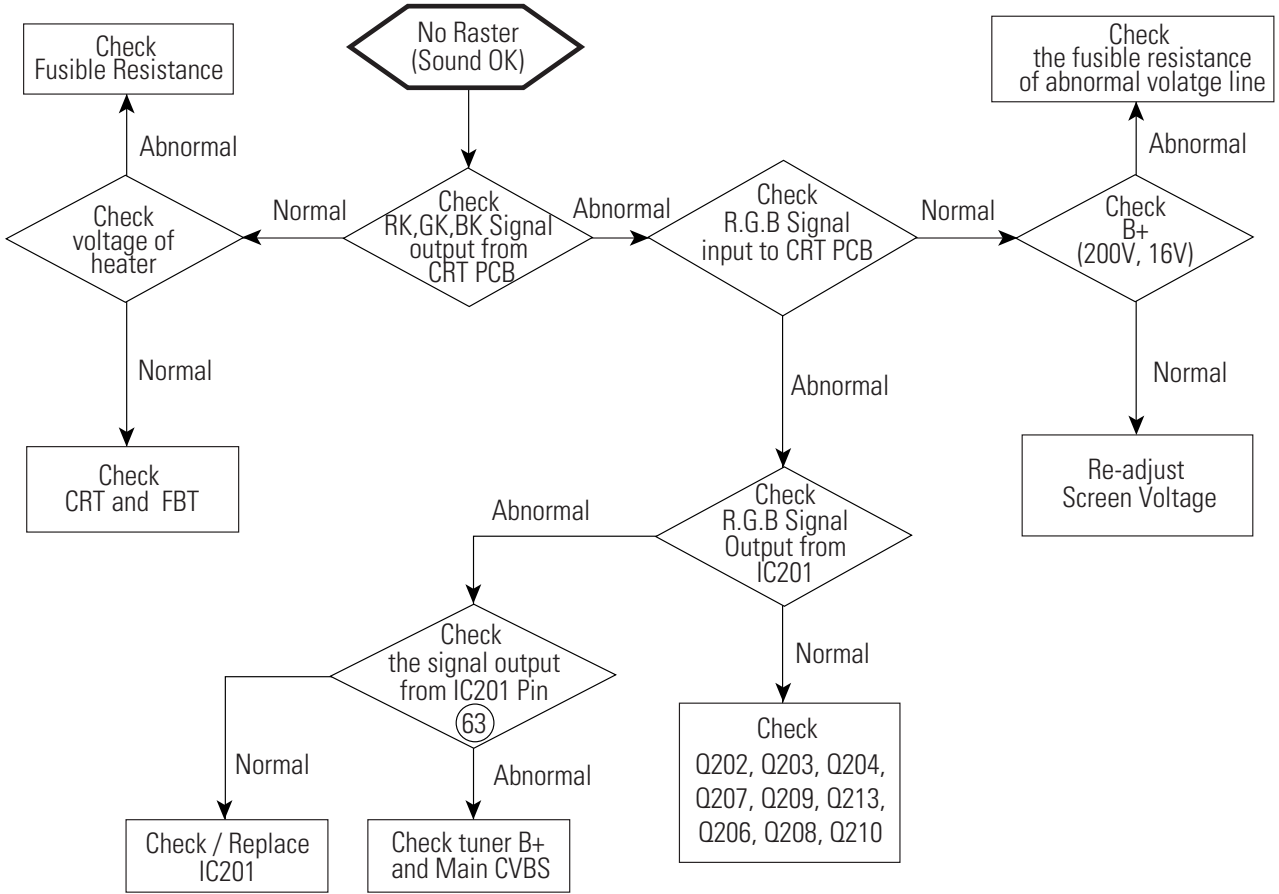
# MEMO

## 5. Troubleshooting

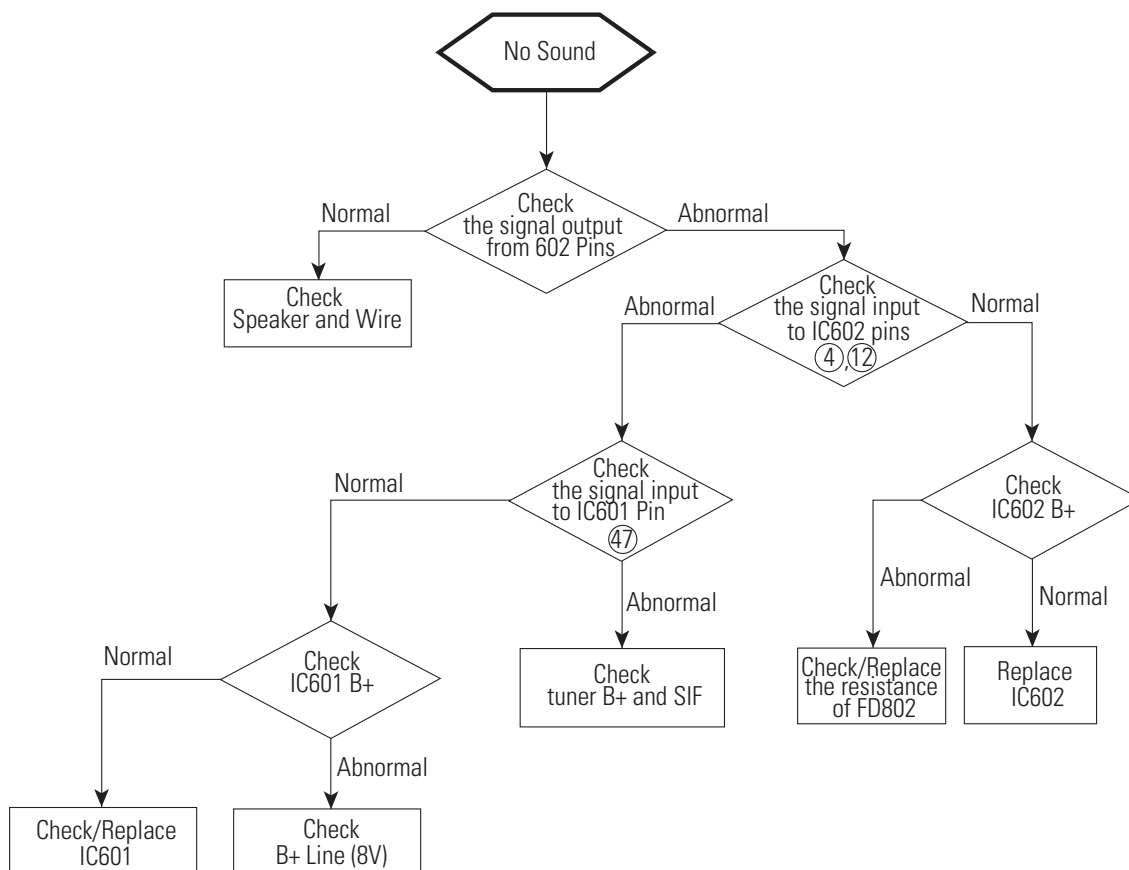
### 5-1 No Power



## 5-2 No Raster (Sound OK)

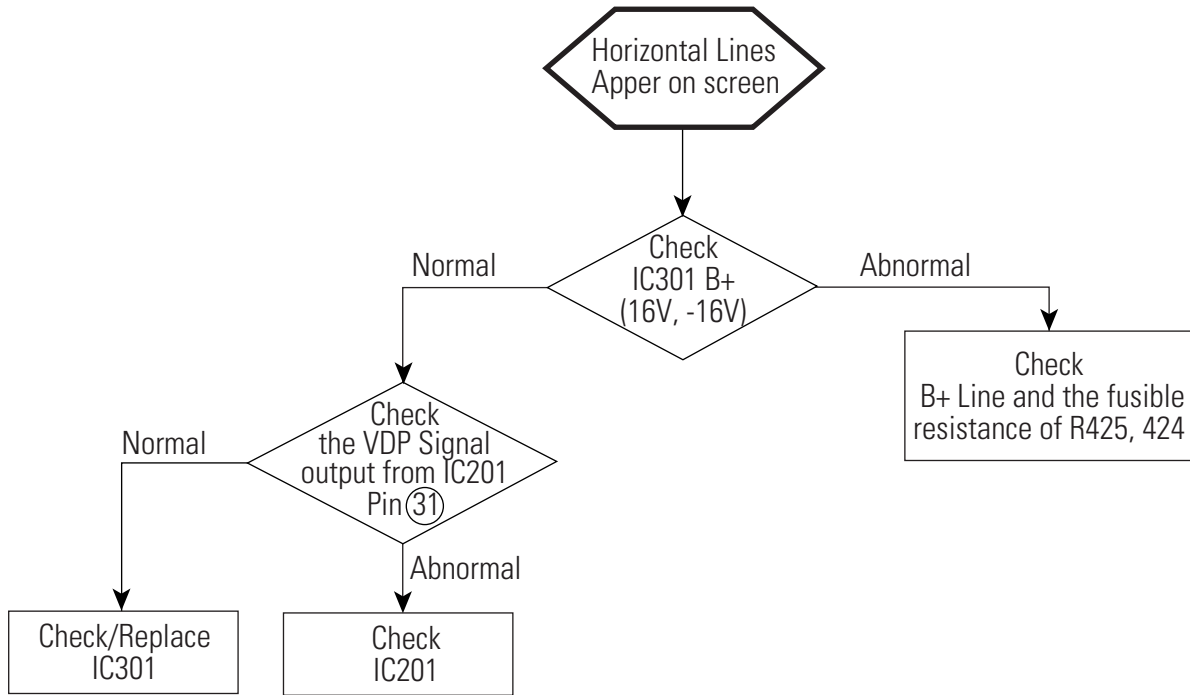


### 5-3 No Sound



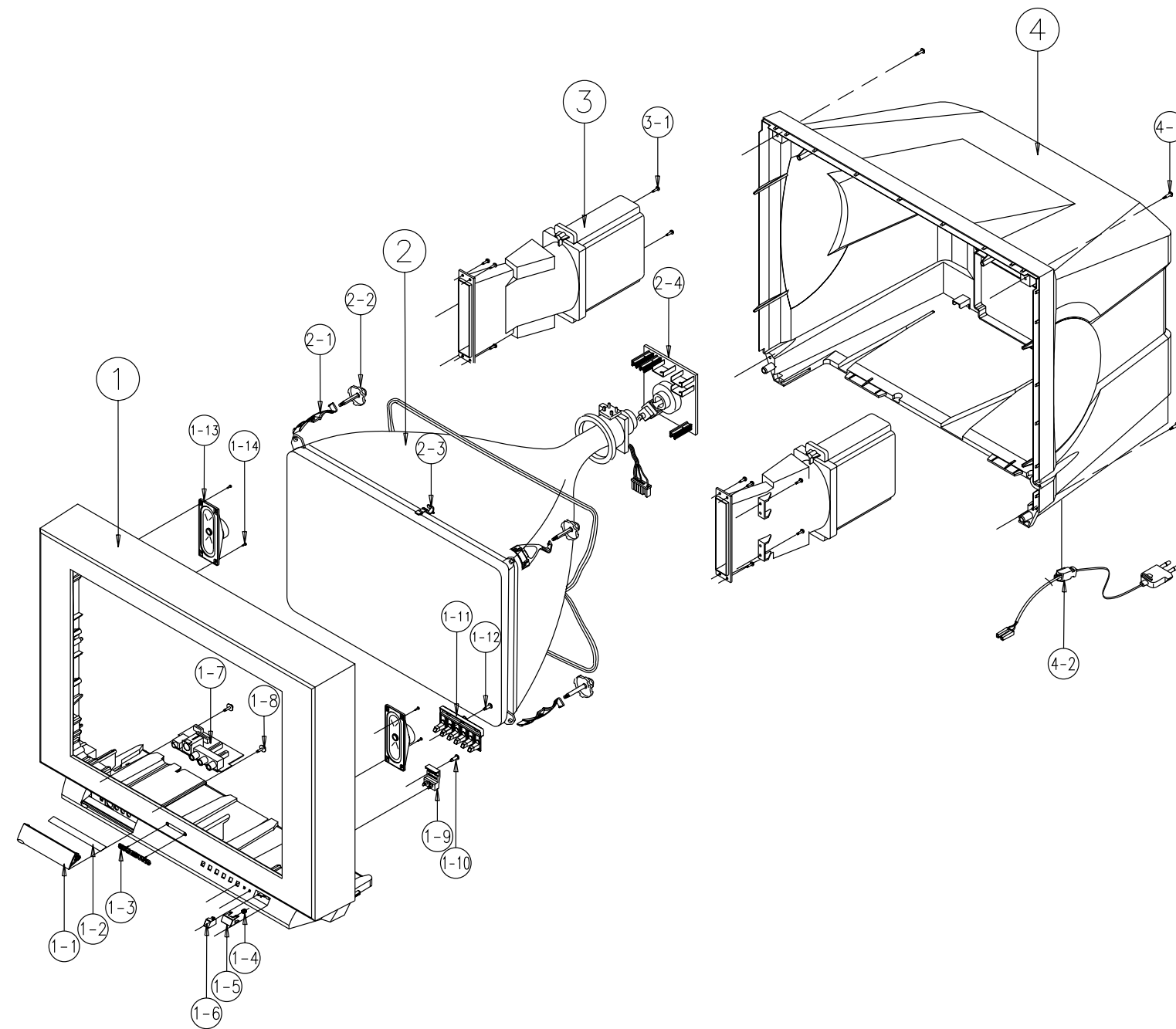
## 5-4 Horizontal Lines Appear on screen

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## 6. Exploded View & Parts List

### 6-1 CFT24907X/SMS



No	Code No	Description;Specification	Q'ty	Remark
1	AA64-02885A	CABINET-FRONT;KS2A,25A6,MOLD,SAM'S	1	F/C
1-1	AA64-02886A	DOOR-A/V;KS2A,25A6,ABS,HB,SAM'S	1	DOOR
1-2	AA64-02915A	INLAY-A/V;PS,SHEET,T0.3 GRAY,25A6	1	IN/AV
1-3	AA64-02286A	BADGE-BRAND;AKAI,AL FORGING,-,L65,-,SI	1	BADGE
1-4	AA61-00343A	SPRING-CS,-,SUS304,-,0.4,0D6,H12,N	1	SPRING
1-5	AA64-02888A	KNOB POWER;25A6,NO-SILK,ABS	1	KP
1-6	AA64-00241C	WINDOW-REMOCON,-,25A6,W971,PC,VO,VIOLET,	1	WR
1-7	AA95-00759A	ASSY-PCB,A/V FRONT, KS2A	1	A/A-V
1-8	6006-001095	SCREW-ASS'Y TAPT;WP,BH,+,M4,L12,ZPC(YEL)	2	AV+CF
1-9	AA64-00242B	INDICATOR-LED,-,25A6,-,ACRYL,-,CLEAR,-	1	IL
1-10	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	1	IL+CF
1-11	AA64-02889A	KNOBCONTROL,25A6,ABS,VO,W97	1	KC
1-12	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	2	KC+CF
1-13	AA91-00427B	ASSY HOLDER SPK;DP,PP,8ohm/10W,BLK,SEMI-	2	A/HSPK
1-14	6006-001095	SCREW-ASS'Y TAPT;WP,BH,+,M4,L12,ZPC(YEL)	4	SPK+CF
2	AA03-00322A	CRT COLOR;A59QDF891X999,+380MG,1.05MH,1.	1	CRT
2-1	AA65-30017A	CLAMP-D,COIL,-,NYLON-66,VO,NTR,DADH300,2	4	CDCOIL
2-2	AA60-10050V	SCREW-ASSY;WC,HH,+,M6,L30,SWRCH18A,ZPC(S	4	CRT+CF
2-3	3704-001105	SOCKET-CRT;11P,20PI,26.5PI,NI,-	1	V999S
3	AA91-00427B	ASSY HOLDER SPK;DP,PP,8ohm/10W,BLK,SEMI-	1	A/HSPK
3-1	6006-001095	SCREW-ASS'Y TAPT;WP,BH,+,M4,L12,ZPC(YEL)	8	SPK+CF
4	AA64-02882A	CABINET-BACK;25A6,HIPS,VO,BLK,KS2A,SAM'S	1	B/C
4-1	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	4	CB+CF
4-2	AA96-20129A	ASSY-POWER,CORD,-,EP2/YES,H/C300,ME301P,	1	PWR/AC

## 7. Electrical Parts List

### 7-1 CFT27907X/SMS

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
<b>ASSY-CHASSIS</b>							
1	A/CHAS	AA91-04171A	ASSY-CHASSIS;KS2A,25,SINGLE V. AKAI	4	6003-000335	SCREW-TAPTITE;RH,+2S,M3,L8,ZPC(YEL),SWR	
2	DRESB	AA65-30018A	CLAMP-WIRE;-NYLON6.6,-,DATL	4	AA60-30001A	WASHER-PLATE;-M3,ID3.5,15X8.5,T1.0,-,SB	
2	FBT	AA65-30018A	CLAMP-WIRE;-NYLON6.6,-,DATL	4	AA62-00051A	HEAT SINK-PS;-,-,SILVER,HOLE 31mm,ALL,	
2	H/S+CW	AA65-30018A	CLAMP-WIRE;-NYLON6.6,-,DATL	3	DDR01	AA96-00469F	ASSY H/S;-REGULATOR,AA62-00053B,D10U60
2	C/HS	AA65-30105B	CLAMP-WIRE;NYLON 66,V2,NTR,25MM,ALL MODE	4	0205-000129	GREASE-SILICON;SC102,JAPAN	
2	A/MAIN	AA94-08397A	ASSY-PCB;MAIN,KS2A,25,SINGLE V. AKAI	4	0402-001358	DIODE-RECTIFIER;SDS10U60S,600V,10A,TO-22	
3		0202-000008	SOLDER-WIRE;S63S-D3.0,S63A,D3,63/37	4	0402-001375	DIODE-RECTIFIER;FFFP10U20S,200V,10A,TO-2	
3		0202-000187	SOLDER-WIREFLUX;-RS60S,D1.2,6	4	1203-001006	IC-VOLTAGEREGULATOR78R05,TO-220F,4P	
3		0204-000442	SOLVENT;CH3-CH5H-CH396%IM-1000	4	6003-000334	SCREW-TAPTITE;RH,+2S,M3,L6,ZP	
3		0204-001024	FLUX;DF-96TVS,-,20%,	4	AA62-00053B	HEAT SINK;DREAM (D2,D3),AL ,T1.0,147,50,	
△ 3	D813	0402-000233	DIODE-RECTIFIER;FML-G12S,200V,	3	IC501	AA96-00582A	ASSY H/S;-CRT,AA62-00096A,STV5109,KS1A
△ 3	D801S	0402-001082	DIODEBRIDGE;RBV406LFB,600V,4A	4	0205-000129	GREASE-SILICON;SC102,JAPAN	
3	Q402	0502-001007	TR-POWER;KSC2073-H2,NPN,150V,1	4	1201-001687	IC-VIDEO AMP;STV5109,ZIP,15P,-,SIGLE,50d	
3	Q404	0505-000156	FET-SILICON;IRF620,N,200V,5A,0.8ohm,50W,	4	6003-000335	SCREW-TAPTITE;RH,+2S,M3,L8,ZPC(YEL),SWR	
△ 3	PC801S	0604-001032	PHOTO-COUPLER;TR,170-260%,300M	△ 3	PWR/AC	AA96-20129A	ASSY-POWER,CORD;-EP2/YES,H/C300,ME301P,
3	IC902	1103-001211	IC-EEPROM;24C16-PC27 C,2048x8Bit,DIP,8P,	4	AA39-10007Y	POWER-CORD;-EP2/YES,SPT-2 18AWGx2C,2.4mm	
△ 3	IC401	1202-000103	IC-VOLTAGECOMP.393,DIP,8P,300MIL,DUAL,	4	AA61-20284A	OLDER P CORD;PPV0,BLK,KE-002	
3	IC903	1203-001944	IC-POSI.FIXEDREG.78RM33,TO-220,3P,PLAST	△ 3	IC801S	AA96-50373F	ASSY H/S;-PVM,AA62-30181K,KA3A1265RD
△ 3	IC803	1203-002085	IC-VOLTAGEREGULATOR;78R08,TO-220,4P	4	0205-000129	GREASE-SILICON;SC102,JAPAN	
3	IC601	1204-001594	IC-SOUND PROCESSOR;MSP3440G-B6,SDIP,52P,	4	6003-000333	SCREW-TAPTITE;RH,+2S,M3,L10,ZPC(YEL),SW	
△ 3	IC201S	1204-001633	IC-VIDEO PROCESS;VDP3112B-C3,DIP,64P,709	4	AA02-00007A	MICA;DPM-04,MICA,22x29x0.15mm	
△ 3	P801S	1404-000002	THERMISTOR;NTC,90HM,20%,TR,AC290VRMS,120	4	AA13-00101A	IC HYBRID;KA3A1265RD,CN5039,5Pin,-,50to12	
△ 3	NT802S	1404-001045	THERMISTOR NTC;4.70HM,15%,2900K,35.0MW,T	4	AA61-10386A	BRACKET-IC;-SECC100,T1.0,-,KA2S0680,	
△ 3	CY802S	2201-000446	C-CERAMIC,AC;CK45PE400V332-M/T	4	AA62-30181K	HEATSINK-ES;-AL6063EXTR.,2,WHT,40MM,-	
△ 3	CR404S	2301-001257	C-FILM,MPPF;640nF,5%,400V,TP,26x14.5x24,	3	IC602	AA96-50398B	ASSY H/S;-AA62-30182E,TDAT7266S,-
△ 3	CR405S	2301-001257	C-FILM,MPPF;640nF,5%,400V,TP,26x14.5x24,	4	0205-000129	GREASE-SILICON;SC102,JAPAN	
3	C407	2301-001338	C-FILM,MPE,PPFO.68nF,5%,1.6kV,TP,28x7x1	4	1201-001308	IC-POWERAMP;7266,ZIP,15P,-,DUAL,26dB,PL	
△ 3	CR403S	2303-001001	C-FILM,PPF;220nF,5%,630V,TP,18x14.5x8.5mm	4	6003-000333	SCREW-TAPTITE;RH,+2S,M3,L10,ZPC(YEL),SW	
△ 3	CR401S	2303-001032	C-FILM,PPF;10nF,5%,1600V,TP,28.5x12x19.5	4	AA62-30182E	HEAT-SINK,ES;-A6063 EXTR.,-WHT,-,-,40	
△ 3	CX801S	2306-000318	C-FILM,MPPF;220NF,20%,250V,-,2	3	IC301	AA96-50406A	ASSY H/S;LA62-30180K,LA7845
△ 3	CR402S	2306-000329	C-FILM;CF922P1.6KV702-H-25/+8	4	1204-000517	IC-LINEAR;LA7845SIPVERTICALAMP	
3	C815	2401-000786	C-ELECTROLYTIC;CE04W160V220M-M(18X37)	3	A/AUTO	AA97-07473A	ASSY-AUTO-MAIN;KS2A,25,SINGLE V. AKAI
3	C806	2401-001387	C-AL;470uF,20%,250V,GP,BK,25.4x40,1	4	D201	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
△ 3	RL801S	3501-001040	RELAYPOWER;12VDC,500MW,10A,1FO	4	D202	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
△ 3	FP801S	3601-001012	FUSE-FERRULE;250V,4A,SLOW-BLOW	4	D207	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
△ 3	V999S	3704-001105	SOCKET-CRT;11P,20PI,26.5PI,NL,-	4	D501	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
3	CN602	3711-002644	POST-HEADER;67094-005(AUTO)	4	D502	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
3	CN901	3711-002644	POST-HEADER;67094-005(AUTO)	4	D503	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
3	CN701	3711-002647	POST-HEADER;67094-008(AUTO)	4	D508	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
3	CN601	3711-003043	CONNECTOR-HEADER;BOX,4P,1R,2.5mm,STRAIGH	4	D602	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
3	CN902	3711-003043	CONNECTOR-HEADER;BOX,4P,1R,2.5mm,STRAIGH	4	D604	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
3	JA701	3722-001333	JACK-RCA9P,3.2mm,NL,BLK	△ 4	D804	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
3	IC901	AA09-00243A	IC MICOM;SIM-408A3,CL-21A8,52P,-0.3-+7,	4	D908	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
△ 3	T801S	AA26-00044C	TRANS SWITCHING,CODE-NO,CT-21A8,AC90-260	4	DZ402	0401-000005	DIODE;1N4148,100V,300mA,1V,8nS,TAPING
△ 3	T444S	AA26-00057A	TRANS-FBT;-FUH-29A001B(S),25/29,130	4	D407	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1
△ 3	T401	AA26-50001M	HORIZ.DRIVE;-80MH,520UH,4UH,E	4	D410	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1
3	L405	AA27-00096A	COIL HORIZ. WIDTH;-10.0mH,DR15 X 27.5,U	4	D404	0402-000534	DIODE-RECTIFIER;RG10V,400V,1.5
3	L408	AA27-00097A	COIL HORIZ. WIDTH;-700uH,DR15 X 27.5,US	△ 4	DR01S	0402-000534	DIODE-RECTIFIER;RG10V,400V,1.5
3	L808	AA27-00098A	COIL CHOKE;-24uH,10%,-,0.1,3.0A,DR10X	4	D413	0402-000537	DIODE-RECTIFIER;RH1A,600V,0.6A,
△ 3	LR401S	AA27-00100A	COIL LINEARITY;45uH,45uH,DR14x15C;6.0,11	4	D401	0402-000540	DIODE-RECTIFIER;RU20A,600V,1.5
△ 3	LX801S	AA29-30002F	FILTER-LINENOISE;-6MH,2.45A,-	4	D402	0402-000540	DIODE-RECTIFIER;RU20A,600V,1.5
3	CN501B	AA39-00172A	LEAD-CONNECTOR,ASSY;DREAM,1007#26,UL/CSA	4	D301	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.
4	CN502B	AA39-20053A	LEAD-CONNECTOR,ASSY;YBNH025-05,S,5P,400m	4	D408	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.
4	CN501B	AA39-20054B	LEAD-CONNECTOR,ASSY;YBNH025-06,S,6P,500m	4	D411	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.
△ 3	TU01S	AA40-00074A	TUNER;TCPN3081PA09A(B),NTSC,181CH,45	△ 4	D803	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.
3	L/PQS	AA68-01018A	LABEL-PQS;-50mmX,13,-,WHITE,-	△ 4	D801	0402-001111	AB01-19ACTIFIER;1N5397GP;600V,1.5A,DO-20
△ 3	IC804	AA96-00243C	ASSY H/S;-REGULATOR,AA62-00045A,KA7806	4	D403	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41
4		0205-000129	GREASE-SILICON;SC102,JAPAN	4	D406	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41
4		1203-000284	IC-POSI.FIXEDREG.;7806,TO-220,	4	D504	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41
4		6003-000335	SCREW-TAPTITE;RH,+2S,M3,L8,ZPC(YEL),SWR	△ 4	D808	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41
4		AA62-00045A	HEAT SINK-PS;-,-,T1.0,-,-,DREAM,-,-,-,-,	△ 4	D810	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41
3	DH01	AA96-00275A	ASSY H/S;-COMPLEX,AA62-00051A,KSD5703,	△ 4	D811	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41
4		0205-000129	GREASE-SILICON;SC102,JAPAN	4	D907	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41
4		0402-001296	DIODE-RECTIFIER;FMP-3FU,1500V,5A,TO-3PF	4	DZ201	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500
4		0502-001136	TR-POWER;KSD5703,NPN,70W,TO-3PF,ST-8	4	DZ203	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500



Electrical Parts List

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
4	DZ601	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R412	2001-000020	R-CARBON(S);220HM,5%,1/2W,AA,T
4	DZ602	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R527	2001-000028	R-CARBON(S);1000HM,5%,1/2W,AB,
4	DZ802	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R407	2001-000066	R-CARBON(S);10KOHM,5%,1/2W,AA,
4	DZ806	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R825	2001-000066	R-CARBON(S);10KOHM,5%,1/2W,AA,
4	DZ902	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R507	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA
4	DZ903	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R510	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA
4	DZ904	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R513	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA
4	DZ905	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R209	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP
4	DZ906	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R914	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP
4	DZ907	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R440	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP
4	DZ908	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	4	R103	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ306	0403-000700	DIODE-ZENER;TZP33A,33V,31-35V,	4	R201	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ804	0403-000700	DIODE-ZENER;TZP33A,33V,31-35V,	4	R203	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ808	0403-000719	DIODE-ZENER;MTZJ7.5B,7.5V,7.07-7.45V,500	4	R204	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ701	0403-000720	DIODE-ZENER;MTZJ9.1B,9.1V,8.57-9.01V,500	4	R246	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ702	0403-000720	DIODE-ZENER;MTZJ9.1B,9.1V,8.57-9.01V,500	4	R251	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ803	0403-001167	DIODE-ZENER;MTZJ30D,30V,29.02-30.51V,500	4	R256	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ509	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500mW,D	4	R411	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ305	0403-001221	DIODE-ZENER;UZ39BSB,35.36-37.19V,500mW,D	4	R609	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ202	0403-001321	DIODE-ZENER;MTZJ6.8C,6.66-7.01V,500mW,DO	4	R610	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
△	DZR01S	0403-001321	DIODE-ZENER;MTZJ6.8C,6.66-7.01V,500mW,DO	4	R611	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ801	0403-001322	DIODE-ZENER;MTZJ8.2B,7.78-8.19V,500mW,DO	4	R612	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ401	0403-001325	DIODE-ZENER;MTZJ15C,14.35-15.09V,500mW,D	4	R613	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ501	0403-001325	DIODE-ZENER;MTZJ15C,14.35-15.09V,500mW,D	4	R619	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ302	0403-001329	DIODE-ZENER;MTZJ24B,22.61-23.77V,500mW,	4	R706	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ303	0403-001329	DIODE-ZENER;MTZJ24B,22.61-23.77V,500mW,	4	R707	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	DZ304	0403-001329	DIODE-ZENER;MTZJ24B,22.61-23.77V,500mW,	4	R708	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	D203	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100MA,DO-34,TP	4	R723	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	D204	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100MA,DO-34,TP	4	R730	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	D205	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100MA,DO-34,TP	4	R731	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	D206	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100MA,DO-34,TP	4	R902	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	D901	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100MA,DO-34,TP	4	R907	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	D902	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100MA,DO-34,TP	4	R909	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	D903	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100MA,DO-34,TP	4	R940	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	D904	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100MA,DO-34,TP	4	R941	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	D905	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100MA,DO-34,TP	4	R942	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	Q206	0501-000283	TRANSISTOR;KSA539-Y(TAPG)/YTAM	4	R944	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	Q208	0501-000283	TRANSISTOR;KSA539-Y(TAPG)/YTAM	4	R945	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,
4	Q210	0501-000283	TRANSISTOR;KSA539-Y(TAPG)/YTAM	4	R202	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q405	0501-000283	TRANSISTOR;KSA539-Y(TAPG)/YTAM	4	R205	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
△	QR01S	0501-000283	TRANSISTOR;KSA539-Y(TAPG)/YTAM	4	R206	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q802	0501-000369	TRANSISTOR;KSC2331-Y(TAPG)	4	R211	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q201	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R268	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q202	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R309	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q203	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R310	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q204	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R601	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q207	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R602	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q209	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R606	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q213	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R620	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q222	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R627	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q901	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R715	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q902	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R716	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q903	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	△	R935	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q904	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	△	RR07S	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q905	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	△	RR10S	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,
4	Q906	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R241	2001-000362	R-CARBON;1500HM,5%,1/8W,AA,TP,
4	Q907	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R208	2001-000405	R-CARBON;1800HM,5%,1/8W,AA,TP,
4	Q908	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R243	2001-000405	R-CARBON;1800HM,5%,1/8W,AA,TP,
4	Q911	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R509	2001-000405	R-CARBON;1800HM,5%,1/8W,AA,TP,
△	QR02S	0501-000389	TRANSISTOR;KSC815-Y(TAPG)/YTAM	4	R511	2001-000405	R-CARBON;1800HM,5%,1/8W,AA,TP,
4	Q909	0505-000109	FET-SILICON;2N7000,N,60V,200mA,5ohm,400	4	R517	2001-000405	R-CARBON;1800HM,5%,1/8W,AA,TP,
4	Q910	0505-000109	FET-SILICON;2N7000,N,60V,200mA,5ohm,400	4	C906	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	DZ805	1203-001217	IC-POST.ADJJUSTREG;431,TO-92,3P,4.58MIL,P	4	D505	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	IC904	1203-001943	IC-VOL.DETECTOR;7025,TO-92,3P,PLASTIC	4	D506	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R223	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,	4	D507	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R224	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,	4	J909	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R225	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,	4	R222	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R226	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,	4	R231	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R264	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,	4	R232	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R265	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,	4	R233	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R267	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,	4	R234	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R934	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,	4	R235	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R245	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,	4	R252	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R250	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,	4	R603	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R255	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,	4	R607	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R214	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	4	R608	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm
4	R303	2001-000016	R-CARBON(S);10HM,5%,1/2W,AA,TP	4	R910	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark	
4	R912	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R818	2001-001113	R-CARBON(S);270KOHM,5%,1/2W,AA	
4	R924	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R239	2001-001114	R-CARBON(S);270OHM,5%,1/2W,AA	
4	R929	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R438	2001-001131	R-CARBON(S);33KOHM,5%,1/2W,AA	
4	R930	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R421	2001-001144	R-CARBON(S);4.7KOHM,5%,1/2W,AA,TP,2.4X6	
4	R943	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R441	2001-001144	R-CARBON(S);4.7KOHM,5%,1/2W,AA,TP,2.4X6	
△	R908S	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R427	2001-001150	R-CARBON(S);470KOHM,5%,1/2W,AA	
4	R207	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP	4	R437	2001-001150	R-CARBON(S);470KOHM,5%,1/2W,AA	
4	R833	2001-000472	R-CARBON;2.7KOHM,5%,1/8W,AA,TP	4	R805	2001-001150	R-CARBON(S);470KOHM,5%,1/2W,AA	
4	R236	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	4	R806	2001-001150	R-CARBON(S);470KOHM,5%,1/2W,AA	
4	R237	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	4	R813	2001-001153	R-CARBON(S);470HM,5%,1/2W,AA,T	
4	R238	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	4	R832	2001-001153	R-CARBON(S);470HM,5%,1/2W,AA,T	
4	R249	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	4	R409	2001-001165	R-CARBON(S);560HM,5%,1/2W,AB,T	
4	R254	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	4	R414	2001-001165	R-CARBON(S);560HM,5%,1/2W,AB,T	
4	R259	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	4	R420	2001-001168	R-CARBON(S);6.8KOHM,5%,1/2W,AB	
4	R932	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	4	R228	2001-001170	R-CARBON(S);6.8OHM,5%,1/2W,AB	
4	R946	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	4	R810	2001-001178	R-CARBON(S);680OHM,5%,1/2W,AA	
4	R215	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP	4	R410	2001-001192	R-CARBON(S);820OHM,5%,1/2W,AB	
4	R824	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP	4	R809	2001-001410	R-CARBON;RD1/2T(S)430-J43R	
4	R504	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP	4	R512	2002-001008	R-COMPOSITION;1.8KOHM,10%1/2W,AA,TP,3.7	
4	R505	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP	4	R515	2002-001008	R-COMPOSITION;1.8KOHM,10%1/2W,AA,TP,3.7	
4	R506	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP	4	R518	2002-001008	R-COMPOSITION;1.8KOHM,10%1/2W,AA,TP,3.7	
4	R213	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R521	2002-001009	R-COMPOSITION;2.7KOHM,10%,1/2W,AA,TP,3.7	
4	R901	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	△	4	RY802S	2002-001013	R-COMPOSITION;4.7MOhm,5%,1/2W,AA,TP,3.7X
4	R903	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R426	2003-000540	R-METALOXIDE(S);1KOHM,5%,2W,AD	
4	R904	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R434	2003-000664	R-METAL OXIDE(S);330HM,5%,2W,AF,TP,4X12MM	
4	R905	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R807	2003-000746	R-METALOXIDE(S);560HM,5%,2W,AD	
4	R906	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R808	2003-000746	R-METALOXIDE(S);560HM,5%,2W,AD	
4	R908	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R802	2003-001025	R-METALOXIDE(S);15KOHM,5%,2W,A	
4	R921	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R803	2003-001025	R-METALOXIDE(S);15KOHM,5%,2W,A	
4	R926	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R804	2003-001025	R-METALOXIDE(S);15KOHM,5%,2W,A	
4	R937	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R829	2003-001036	R-METALOXIDE(S);3.3OHM,5%,2W,A	
4	R947	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R403	2003-002037	R-METAL OXIDE(S);270OHM,5%,2W,AF,TP,3.9X	
4	R948	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R436	2003-002151	R-METALOXIDE;18KOHM,5%,2W,AG,TP,6X16	
4	R952	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R305	2003-002157	R-METAL OXIDE;220OHM,5%,2W,AG,TP,6X16MM	
4	R953	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP	4	R306	2003-002157	R-METAL OXIDE;220OHM,5%,2W,AG,TP,6X16MM	
4	R614	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R401	2003-002186	R-METALOXIDE(S);22Kohm,5%,2W,AG,TP,3x	
4	R615	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R402	2003-002186	R-METALOXIDE(S);22Kohm,5%,2W,AG,TP,3x	
4	R616	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R835	2003-002211	R-METALOXIDE(S);91Kohm,5%,2W,AG,TP,3x	
4	R617	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R836	2003-002211	R-METALOXIDE(S);91Kohm,5%,2W,AG,TP,3x	
4	R812	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R212	2004-000218	R-METAL;10KOHM,1%,1/8,1.8X3.2M	
4	R831	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R313	2004-001137	R-METAL;6.8KOHM,1%,1/8W,AA,TP,1.8*3.2M	
4	R919	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R301	2004-001397	R-METAL(S);4.7KOHM,1%,1/2W,AA	
4	R920	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R429	2004-001397	R-METAL(S);4.7KOHM,1%,1/2W,AA	
4	R931	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R432	2004-001397	R-METAL(S);4.7KOHM,1%,1/2W,AA	
4	R933	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R821	2004-001889	R-METAL(S);127KOHM,1%,1/2W,AA,TP,2.5X6.5	
4	R816	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R417	2004-001893	R-METAL(S);22KOHM,1%,1/2W,AA,T	
△	R909S	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R819	2004-001983	R-METAL;2.49KOHM,1%,1/2W,AA,TP,2.4X6.4	
4	R105	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP	4	R302	2004-001984	R-METAL;26.7KOHM,1%,1/2W,AA,TP	
4	R210	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R314	2004-001986	R-METAL;35.7KOHM,1%,1/2W,AA,TP	
4	R927	2001-000837	R-CARBON;51KOHM,5%,1/8W,AA,TP	4	R315	2004-004970	R-METAL(S);62Kohm,1%,1/8W,AA,TP,1.8x3.2m	
4	R106	2001-000864	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	△	4	RR04S	2004-004970	R-METAL(S);62Kohm,1%,1/8W,AA,TP,1.8x3.2m
4	R621	2001-000890	R-CARBON;6.8KOHM,5%,1/8W,AA,TP	4	R522	2008-000206	R-FUSIBLE(S);10HM,5%,1/2W,AF,T	
4	R622	2001-000890	R-CARBON;6.8KOHM,5%,1/8W,AA,TP	4	R523	2008-000206	R-FUSIBLE(S);10HM,5%,1/2W,AF,T	
4	R501	2001-000904	R-CARBON;620OHM,5%,1/8W,AA,TP,1.8X3.2MM	4	R304	2008-000254	R-FUSIBLE(S);0.680HM,5%,2W,AF	
4	R502	2001-000904	R-CARBON;620OHM,5%,1/8W,AA,TP,1.8X3.2MM	4	R828	2008-000266	R-FUSIBLE(S);10HM,5%,2W,AF,TP	
4	R503	2001-000904	R-CARBON;620OHM,5%,1/8W,AA,TP,1.8X3.2MM	4	R408	2008-000284	R-FUSIBLE(S);0.10HM,10%,2W,AF,TP,3.9X10M	
4	R102	2001-000924	R-CARBON;680ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R827	2008-000284	R-FUSIBLE(S);0.10HM,10%,2W,AF,TP,3.9X10M	
4	R922	2001-000924	R-CARBON;680ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R405	2008-001018	R-FUSIBLE(S);0.47OHM,10%,2W,AF	
4	R923	2001-000924	R-CARBON;680ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R413	2008-001018	R-FUSIBLE(S);0.47OHM,10%,2W,AF	
4	R709	2001-000938	R-CARBON ;68ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	R424	2008-001018	R-FUSIBLE(S);0.47OHM,10%,2W,AF	
4	R913	2001-000947	R-CARBON;7.5KOHM,5%,1/8W,AA,TP	4	R425	2008-001018	R-FUSIBLE(S);0.47OHM,10%,2W,AF	
4	R248	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1	4	R433	2008-001127	R-FUSIBLE(S);6.8Kohm,5%,1W,AF,TP,3.9x10m	
4	R253	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1	4	C424	2201-000132	C-CERAMIC,DISC;100PF,10%,500V,Y5P,6X3MM,	
4	R258	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1	4	C656	2201-000304	C-CERAMIC,DISCO.001nF,0.25pF,50V,NP0,TP	
4	R701	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1	4	C657	2201-000304	C-CERAMIC,DISCO.001nF,0.25pF,50V,NP0,TP	
4	R702	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1	4	C804	2201-000332	C-CERAMIC,AC;CK45PTAPGE250V222	
4	R703	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1	4	C805	2201-000332	C-CERAMIC,AC;CK45PTAPGE250V222	
4	R704	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1	4	C401	2201-000556	C-CERAMIC,DISC;470PF,10%,500V,	
4	R705	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1	4	C403	2201-000556	C-CERAMIC,DISC;470PF,10%,500V,	
4	R719	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1	4	C421	2201-000556	C-CERAMIC,DISC;470PF,10%,500V,	
4	L905	2001-000995	R-CARBON;820OHM,5%,1/8W,AA,TP	△	4	CR01S	2201-000556	C-CERAMIC,DISC;470PF,10%,500V,
4	R925	2001-001035	R-CARBON ;91ohm,5%,1/8W,AA,TP,1.8x3.2mm	4	C650	2201-000558	C-CERAMIC,DISC;470PF,10%,50V,Y	
4	R415	2001-001054	R-CARBON(S);1.6KOHM,5%,1/2W,AB,TP,2.4X6	4	C817	2201-000599	C-CERAMIC,DISC;560PF,10%,500V,	
4	R524	2001-001062	R-CARBON(S);10MOHM,5%,1/2W,AA	4	C819	2201-000599	C-CERAMIC,DISC;560PF,10%,500V,	
4	R826	2001-001072	R-CARBON(S);12ohm,5%,1/2W,AA,TP,2.4x6.4m	4	C822	2201-000599	C-CERAMIC,DISC;560PF,10%,500V,	
4	R811	2001-001078	R-CARBON(S);15KOHM,5%,1/2W,AA	4	C843	2201-000681	C-CERAMIC,DISC;82PF,5%,50V,SL,4X3.5MM,5M	
4	R428	2001-001106	R-CARBON(S);220KOHM,5%,1/2W,AA	4	C509	2201-000723	C-CERAMIC,DISC;4.7nF,20%,3KV,Y5U,TP,16x5	

Electrical Parts List

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
4	C910	2201-000980	C-CERAMIC,DISC;30PF,5%,50V,NPO,5.0X3.0,5	4	C907	2305-000665	C-FILM;104J, 60V,5MM TAPING
4	C911	2201-000980	C-CERAMIC,DISC;30PF,5%,50V,NPO,5.0X3.0,5	4	C914	2305-000665	C-FILM;104J, 60V,5MM TAPING
4	C814	2201-000991	C-CERAMIC,HIC;CK45(T)B2KV561-K	4	C916	2305-000665	C-FILM;104J, 60V,5MM TAPING
4	C224	2201-002031	C-CERAMIC,DISC;5pF,0.25pF,50V,NPO,TP,5x3	4	C919	2305-000665	C-FILM;104J, 60V,5MM TAPING
4	C225	2201-002031	C-CERAMIC,DISC;5pF,0.25pF,50V,NPO,TP,5x3	4	C508	2305-000704	C-M,POLYESTER;CFS922MTAPG250V1
4	C303	2201-002103	C-CERAMIC,DISC;0.015nF,5%,500V,NPO,TP,6.	4	C511	2305-000704	C-M,POLYESTER;CFS922MTAPG250V1
4	C115	2202-000121	C-CERAMIC,MLC-AXIAL;100PF,10%,	4	C825	2306-000122	C-FILM,MPPF;100NF,5%,50V,7.3X4
4	C116	2202-000121	C-CERAMIC,MLC-AXIAL;100PF,10%,	4	C637	2401-000027	C-AL;4.7UF,20%,50V,GP,5*11MM,5MEA
4	C243	2202-000121	C-CERAMIC,MLC-AXIAL;100PF,10%,	4	C640	2401-000027	C-AL;4.7UF,20%,50V,GP,5*11MM,5MEA
4	C244	2202-000121	C-CERAMIC,MLC-AXIAL;100PF,10%,	4	C641	2401-000027	C-AL;4.7UF,20%,50V,GP,5*11MM,5MEA
4	C245	2202-000121	C-CERAMIC,MLC-AXIAL;100PF,10%,	4	C643	2401-000027	C-AL;4.7UF,20%,50V,GP,5*11MM,5MEA
4	C632	2202-000231	C-CERAMIC,MLC-AXIAL;330PF,10%,50V,Y5P,3.	4	C816	2401-000262	C-AL;100UF,20%,160V,GP,16X25MM,5MM,
4	C647	2202-000286	C-CERAMIC,MLC-AXIAL;56PF,5%,50	4	C913	2401-000287	C-AL;100UF,20%,16V,WT,6X11MM,5
4	C654	2202-000286	C-CERAMIC,MLC-AXIAL;56PF,5%,50	4	C915	2401-000287	C-AL;100UF,20%,16V,WT,6X11MM,5
4	C912	2202-000719	C-CERAMIC,MLC-AXIAL;6.8nF,20%,16V,Y5R,TP	4	C302	2401-000326	C-AL;100UF,20%,35V,GP,8X11MM,5
4	C211	2202-000796	C-CERAMIC,MLC-AXIAL;1nF,10%,50	4	C307	2401-000360	C-AL;100UF,20%,50V,GP,5X11MM,5
4	C419	2202-000796	C-CERAMIC,MLC-AXIAL;1nF,10%,50	4	C920	2401-000480	C-AL;10UF,20%,50V,GP,5X11MM,5M
4	C504	2202-000796	C-CERAMIC,MLC-AXIAL;1nF,10%,50	4	C617	2401-000493	C-AL;10UF,20%,50V,WT,5X11MM,5M
4	C505	2202-000796	C-CERAMIC,MLC-AXIAL;1nF,10%,50	4	C201	2401-000553	C-AL;1UF,10%,50V,GP,5X11MM,5MM
4	C506	2202-000796	C-CERAMIC,MLC-AXIAL;1nF,10%,50	4	C618	2401-000553	C-AL;1UF,10%,50V,GP,5X11MM,5MM
4	C607	2202-000796	C-CERAMIC,MLC-AXIAL;1nF,10%,50	4	C902	2401-000553	C-AL;1UF,10%,50V,GP,5X11MM,5MM
4	C608	2202-000796	C-CERAMIC,MLC-AXIAL;1nF,10%,50	4	C106	2401-000603	C-AL;1UF,20%,50V,GP,5X11MM,5MM
4	C905	2202-000796	C-CERAMIC,MLC-AXIAL;1nF,10%,50	4	C301	2401-000603	C-AL;1UF,20%,50V,GP,5X11MM,5MM
4	C908	2202-000863	C-CERAMIC;CKOAX7R50V1561-KUP050561	4	C818	2401-000711	C-AL;220uF,20%,25V,GP,TP,16x25,7.5
4	C218	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C237	2401-000914	C-AL;22UF,20%,16V,GP,5X11,5,TP
4	C219	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C217	2401-001026	C-AL;3.3UF,20%,50V,GP,5X11MM,5
4	C220	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C636	2401-001026	C-AL;3.3UF,20%,50V,GP,5X11MM,5
4	C221	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C820	2401-001054	C-AL;3300UF,20%,25V,GP,18X26MM,7.5MM
4	C222	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C510	2401-001232	C-AL;4.7UF,20%,250V,GP,10X12.5
4	C223	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C402	2401-001397	C-AL;470UF,20%,25V,GP,10X16MM,
4	C232	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C404	2401-001397	C-AL;470UF,20%,25V,GP,10X16MM,
4	C901	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C422	2401-001527	C-AL;47UF,20%,250V,HR,13X25MM,
4	C921	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C207	2401-001840	C-AL;100UF,20%,16V,GP,TP,6.3X1
4	C960	2202-002037	C-CERAMIC,MLC-AXIAL;100NF,+80-20	4	C250	2401-001840	C-AL;100UF,20%,16V,GP,TP,6.3X1
4	C411	2301-000104	C-FILM,PEF;1.2NF,5%,50V,6.5X3.0X5.5MM,5M	4	C634	2401-001840	C-AL;100UF,20%,16V,GP,TP,6.3X1
4	C412	2301-000188	C-FILM,PEF;1nF,5%,100V,10.5X12	4	C652	2401-001840	C-AL;100UF,20%,16V,GP,TP,6.3X1
4	C821	2301-000192	C-FILM,PEF;1nF,5%,50V,5.3X10MM	4	C660	2401-001840	C-AL;100UF,20%,16V,GP,TP,6.3X1
4	C212	2301-000224	C-FILM,PEF;22NF,5%,50V,7.4X3.9	4	C832	2401-001840	C-AL;100UF,20%,16V,GP,TP,6.3X1
4	C429	2301-000232	C-FILM,PEF;3.3NF,5%,50V,8.1X4.	4	C838	2401-001840	C-AL;100UF,20%,16V,GP,TP,6.3X1
4	C213	2301-000247	C-FILM,PEF;33NF,5%,50V,8.1X4.5	4	C917	2401-001840	C-AL;100UF,20%,16V,GP,TP,6.3X1
4	C811	2301-000254	C-FILM,PEF;39NF,5%,50V,7.5X3.5X6.5MM,5MM	4	C918	2401-001840	C-AL;100UF,20%,16V,GP,TP,6.3X1
4	C416	2301-000289	C-FILM,PEF;5.6NF,5%,50V,6.5X5.	4	C612	2401-001914	C-AL;1uF,20%,50V,BP,TP,5x11,5
4	C242	2301-000310	C-FILM,PEF;68NF,5%,50V,8.0X8.5	4	C613	2401-001914	C-AL;1uF,20%,50V,BP,TP,5x11,5
4	C415	2301-000314	C-FILM,PEF;8.2NF,5%,50V,6.5X3.	4	C626	2401-001989	C-AL;4.7uF,20%,50V,BP,TP,5x11,5
4	C610	2301-000314	C-FILM,PEF;8.2NF,5%,50V,6.5X3.	4	C628	2401-001989	C-AL;4.7uF,20%,50V,BP,TP,5x11,5
4	C611	2301-000314	C-FILM,PEF;8.2NF,5%,50V,6.5X3.	4	C621	2401-001998	C-AL;1000UF,20%,25V,GP,TP,10X20
4	C306	2301-000342	C-FILM,PEF;2.2nF,5%,50V,TP,7.4x3.9x13mm,	4	C210	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C228	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	4	C215	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C803	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	4	C227	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C809	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	4	C229	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C103	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	4	C231	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C105	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	4	C630	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C420	2301-001065	C-FILM,MPPF;47NF,55,630V,TP,19	4	C631	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C807	2301-001435	C-FILM,PPF;1.5nF,5%,1.2kV,TP,15x8x12.5mm	4	C645	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C304	2305-000149	C-FILM;CF922N100VT104-J-40/105	4	C827	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C305	2305-000149	C-FILM;CF922N100VT104-J-40/105	4	C840	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C408	2305-000382	C-FILM,MPEF;4.7NF,5%,400V,TP,-,5MM.	4	C903	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C233	2305-000412	C-FILM,MPEF;470NF,5%,63V,-,5MM	△ 4	CR03S	2401-002235	C-ELECTROLYTIC;CE04W(T)16V10M
4	C234	2305-000412	C-FILM,MPEF;470NF,5%,63V,-,5MM	4	C427	2401-002267	C-AL;2.2UF,20%,250V,GP,8X12MM,
4	C235	2305-000412	C-FILM,MPEF;470NF,5%,63V,-,5MM	4	C507	2401-002267	C-AL;2.2UF,20%,250V,GP,8X12MM,
4	C236	2305-000412	C-FILM,MPEF;470NF,5%,63V,-,5MM	4	C808	2401-002300	C-ELECTROLYTIC;CE04WTAPG50V47U
△ 4	CR04S	2305-000412	C-FILM,MPEF;470NF,5%,63V,-,5MM	4	C102	2401-002463	C-ELECTROLYTIC;CE04WTAPG16V470M-MISG)-VE
4	C205	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	C104	2401-002463	C-ELECTROLYTIC;CE04WTAPG16V470M-MISG)-VE
4	C214	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	C512	2401-002463	C-ELECTROLYTIC;CE04WTAPG16V470M-MISG)-VE
4	C216	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	C826	2401-002463	C-ELECTROLYTIC;CE04WTAPG16V470M-MISG)-VE
4	C308	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	C202	2401-002594	C-AL;220uF,20%,16V,GP,TP,8x11.5.5
4	C417	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	C414	2401-002597	C-AL;220uF,20%,35V,GP,TP,10x12.5,5
4	C513	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	C418	2401-002597	C-AL;220uF,20%,35V,GP,TP,10x12.5,5
4	C605	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	C248	2401-002619	C-AL;47uF,20%,25V,GP,TP,5x11,5
4	C620	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	C835	2401-003139	C-AL;1000UF,20%,25V,WT,TP,10*2
4	C635	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	CW901	2503-000156	C-NETWORK;100pF,4.208,50V
4	C646	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	L202	2701-000114	INDUCTOR-AXIAL;10UH,10%,2.5X3.
4	C823	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	L301	2701-000114	INDUCTOR-AXIAL;10UH,10%,2.5X3.
4	C829	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	L406	2701-000114	INDUCTOR-AXIAL;10UH,10%,2.5X3.
4	C831	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	L602	2701-000114	INDUCTOR-AXIAL;10UH,10%,2.5X3.
4	C837	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	L603	2701-000114	INDUCTOR-AXIAL;10UH,10%,2.5X3.
4	C839	2305-000665	C-FILM;104J, 60V,5MM TAPING	4	L906	2701-000114	INDUCTOR-AXIAL;10UH,10%,2.5X3.





Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
4	EY816	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		1	A/CFRN	AA90-03242A ASSY-COVER/FRONT;KS2A,25,SV5808P,SAM'S	
4	EY817	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	PC+CF	6002-000522 SCREW-TAPPING;TH,+,2,M4,L15,ZP	
4	EY818	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	BRAC+C	6002-000522 SCREW-TAPPING;TH,+,2,M4,L15,ZP	
4	EY820	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	AV+CF	6006-001095 SCREW-ASS'Y TAPT;WP,BH,+,M4,L12,ZPC(YEL)	
4	EY822	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	SPK+CF	6006-001095 SCREW-ASS'Y TAPT;WP,BH,+,M4,L12,ZPC(YEL)	
4	EY823	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	S/CRT	AA60-00038A SPACER-CRT;PS,SHEET,T1.0,BLK,OD22,ID10.	
4	EY824	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	CRT+CF	AA60-10050V SCREW-ASSY;WC,HH,+,M6,L30,SWRCH18A,ZPCS	
4	EY830	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	BRAC	AA61-10053A BRACKET-CRATER;-;7277,STS304,T0.5,-,-,-	
4	EY831	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	F/C	AA64-02885A CABINET-FRONT;KS2A,25A6,MOLD,SAM'S	
4	EY832	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	IL+CF	6003-001026 SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	
4	EY833	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	KC+CF	6003-001026 SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	
4	EY835	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	HR+CF	6002-000522 SCREW-TAPPING;TH,+,2,M4,L15,ZP	
4	EY836	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	SPRING	AA61-00343A SPRING-CS;-;SUS304,-,-,-,0.4,OD6,H12,N	
4	EY837	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	HOLDER	AA61-00529A HOLDER-RAIL;TOOL,S25A6,-,-,-,MOLD	
4	EY839	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	DOOR	AA64-02886A DOOR-A/V;KS2A,25A6,ABS,HB,SAM'S	
4	EY840	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	WR	AA64-00241C WINDOW-REMOCON;-;25A6,W971,PC,VO,VIOLET,	
4	EY841	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	IL	AA64-00242B INDICATOR-LED;-;25A6,-,ACRYL,-,CLEAR,-	
4	EY842	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	KP	AA64-02888A KNOB POWER;25A6,NO-SILK,ABS	
4	EY843	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	KC	AA64-02889A KNOBCONTROL;25A6,ABS,VO,W97	
4	EY844	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	IN/AV	AA64-02915A INLAY-A/V;PS,SHEET,T0.3 GRAY,25A6	
4	EY845	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	CWFLCR	AA65-00011B CLAMP-WIRE;ALL MODEL,NYLON 66,V2,NTR,15M	
4	EY847	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	DRESPK	AA65-30018A CLAMP-WIRE;-;NYLON6.6,-,-,DATL	
4	EY849	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	L/QMS	AA68-02391A LABEL-QMS;ART-PAPER(90)G,110x24mm	
4	EY853	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	A/HSPK	AA91-00427B ASSY HOLDER SPK;DP,PP;8ohm/10W,BLK,SEMI-	
4	EY854	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		2	A/CTRL	AA95-00897A ASSY PCB CONTROL;-;KS2A,-,-	
4	EY855	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	DC01	0403-000508 DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
4	EY856	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	LDC901	0601-000262 LED;ROUND,RED,5mm,700nm	
4	EY858	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	LDC902	0601-000465 LED;ROUND,GRN,5mm,565	
4	EY859	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	RC916	2001-000007 R-CARBON;3KOHM,5%,1/8W,AA,TP,1	
4	EY865	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	RC918	2001-000009 R-CARBON;20KOHM,5%,1/8W,AA,TP,	
4	EY870	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	RC915	2001-000577 R-CARBON;2KOHM,5%,1/8W,AA,TP,1	
4	EY871	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	RC939	2001-000793 R-CARBON;470HM,5%,1/8W,AA,TP,1	
4	EY425	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	RC917	2001-000878 R-CARBON;6.2KOHM,5%,1/8W,AA,TP	
4	EY426	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	CC904	2401-001496 C-AL;47UF,20%,16V,GP;5X7MM,5MM	
4	EY427	AA60-40011A EYELET;-JD2.0,OD2.8,-,-,BST		3	SWC901	3404-000176 SWITCH-TACT;12V,50MA,90-150GF,	
4	EL401	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	SWC902	3404-000176 SWITCH-TACT;12V,50MA,90-150GF,	
4	EL402	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	SWC903	3404-000176 SWITCH-TACT;12V,50MA,90-150GF,	
4	EL403	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	SWC904	3404-000176 SWITCH-TACT;12V,50MA,90-150GF,	
4	EL404	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	SWC905	3404-000176 SWITCH-TACT;12V,50MA,90-150GF,	
4	EL405	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	SWC906	3404-000176 SWITCH-TACT;12V,50MA,90-150GF,	
4	EL501	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	SWC907	3404-000176 SWITCH-TACT;12V,50MA,90-150GF,	
4	EL502	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	JC01	3812-000219 JUMPER-WIRE-SO,COPPER;TA0.6SN/52M/M/A	
4	EL802	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	JC02	3812-000219 JUMPER-WIRE-SO,COPPER;TA0.6SN/52M/M/A	
4	EL803	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	JC03	3812-000219 JUMPER-WIRE-SO,COPPER;TA0.6SN/52M/M/A	
4	EL805	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	RC02	3812-000219 JUMPER-WIRE-SO,COPPER;TA0.6SN/52M/M/A	
4	EL806	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	RC03	3812-000219 JUMPER-WIRE-SO,COPPER;TA0.6SN/52M/M/A	
4	EL807	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	CNC902	AA39-00100A LEAD CONNECTOR-ASSY;4P,YBNH250-04,300mm	
4	EL808	AA60-40011B EYELET;-JD2.2,OD3.2,-,-,BSP		3	CNC901	AA39-20523A LEAD CONNECTOR-ASSY;-;YBNH025-05,67096-0	
4	GT301	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	00VER	AA41-00405A PCB-CONTROL;CL25F1D,FR-1,1L,A,1.6T,245x2	
4	GT302	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	RMC901	AA59-60002B MODULE-REMOCON;-;ORC-50HF,38KH	
4	GT401	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	AVPCB	AA63-10002A BAND-TIE;-;NYLON66V2,-,-,L100,NTR,-,-	
4	GT402	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		2	A/A-V	AA95-00759A ASSY-PCB,A/V FRONT, KS2A	
4	GT501	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	RA01	2001-000028 R-CARBON(S);100OHM,5%,1/2W,AB,	
4	GT502	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	RA02	2001-000028 R-CARBON(S);100OHM,5%,1/2W,AB,	
4	GT503	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	CA02	2202-000121 C-CERAMIC,MLC-AXIAL;100PF,10%,	
4	GT801	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	CA03	2202-000121 C-CERAMIC,MLC-AXIAL;100PF,10%,	
4	GT802	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	CA04	2202-000720 C-CERAMIC,MLC-AXIAL;8.2nF,20%,16V,Y5R,TP	
4	GT803	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	CA05	2202-000720 C-CERAMIC,MLC-AXIAL;8.2nF,20%,16V,Y5R,TP	
4	GT805	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	CA06	2401-003102 C-AL;100uF,20%,10V,GP,TP;5x11,5	
4	GT806	AA60-40014A PIN-GT,ASSY;1P,-,-,AUTO		3	CA07	2401-003102 C-AL;100uF,20%,10V,GP,TP;5x11,5	
4	L/LINE	AA68-01544A LABEL;LINE.ALL MDL COMMON		3	LA04	2701-000180 INDUCTOR-AXIAL;33UH,5%,2.5X3.4	
4	R418	2001-001088 R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4		3	LA05	2701-000180 INDUCTOR-AXIAL;33UH,5%,2.5X3.4	
4	R817	2001-001088 R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4		3	JE01	3722-000143 JACKHONE;1P;3.4MM,-,MBAG	
△	RR430S	2001-001088 R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4		3	JR01	3722-001031 JACK-RCA;3P;3.6MM,#18,AU	
△	CR02S	2401-002212 C-AL;10UF,20%,25V,WT,TP;5X11,5		3	LA02	3812-000219 JUMPER-WIRE-SO,COPPER;TA0.6SN/52M/M/A	
△	RR01S	2008-000264 R-FUSIBLE(S);1OHM,5%,1W,AF,TP,		3	LA03	3812-000219 JUMPER-WIRE-SO,COPPER;TA0.6SN/52M/M/A	
△	RR02S	2001-000766 R-CARBON;43KOHM,5%,1/8W,AA,TP,		3	CN01A	AA39-20068E LEAD CONNECTOR-ASSY;-;YBNH025-08,67096-0	
△	FD802S	3601-001228 FUSE-AXIAL LEAD;125V,10A,FAST-ACTING,EPO		3	CN05A	AA39-20069D LEAD-CONNECTOR,ASSY;-;YBNH025-	
△	RR05S	2001-001196 R-CARBON(S);9.1KOHM,5%,1/2W,AA,TP,2.4X6.		3	00VER	AA41-00320A PCB-AV FRONT;CL568B,FR-1,1L,A,1.6T,245x2	
△	RR06S	2001-000977 R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m		3	BAND-W	AA63-10002A BAND-TIE;-;NYLON66V2,-,-,L100,NTR,-,-	
△	RP801S	2002-001010 R-COMPOSITION;1.8MOHM,5%,1/2W,AA,TP,3.7X		3	BAND/W	AA63-10002A BAND-TIE;-;NYLON66V2,-,-,L100,NTR,-,-	
△	RR03S	2001-000009 R-CARBON;20KOHM,5%,1/8W,AA,TP,		2	L/IND	AA68-00524A LABEL-INDICATOR;A/P 90(G),CXJ1352X/XAA,U	
				2	L/WARN	AA68-01618A LABEL-WARNING;WHTPAPER100	
				2	BADGE	AA64-02286A BADGE-BRAND;AKAI,AL FORGING,-,-,L65,-,SI	

## ASSY-COVER/FRONT

Loc. No.	Code No.	Description ; Specification	Remark
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**ASSY-COVER/REAR**

1	A/REAR	AA90-03216A	ASSY-COVER/REAR;25A6,HIPS,V0,G4309,KS2A,
2	CB+CF	6003-001026	SCREW-TAPTITE;RH,+B,M4,L15,ZPC(BLK),SWR
2	TER+RK	6003-001026	SCREW-TAPTITE;RH,+B,M4,L15,ZPC(BLK),SWR
2	SPCBC	AA63-60001X	SPACER-FELT;FELT,T0.5,330X15MM
2	B/C	AA64-02882A	CABINET-BACK;25A6,HIPS,V0,BLK,KS2A,SAM'S
2	AC+BC	AA65-30008A	CLAMP-CORD;-PE,HB,BLK,-,-
2	H/T	AA61-00356B	HOLDER-TUNER,F/JACK;-501F,ABS,HB,BLK,-
2	INL/CA	AA64-02053A	INLAY BACK;CAUTION,LGRY-TXT,W-FCC,73X93,

**ASSY-CPT**

1	A/CPT	AA91-04221A	ASSY-CPT;A59QDF891X999+380MG,25,SINGLEV
△ 2	CRT	AA03-00322A	CRT COLOR;A59QDF891X999,+380MG,1.05MH,1.
2	CDCOIL	AA65-30017A	CLAMP-D,COIL;-NYLON-66,V0,NTR,DADH300,2
2	CDCOIL	AA65-30113A	CLAMP-D,COIL;NYLON66,V2,BLK,TVI25-29,-
2	A/TBC	AA98-70008B	ASSY-TBC,WIRE(P);-,TVI 25',NTSC,2P-WH,-
2	D-COIL	AA27-20004U	COIL-DEGAUSSING;-26,14.0ohm,55T,L2830,E

**ASSY-BOX**

1	A/BOX	AA92-05375A	ASSY-BOX;KS2A,25,SAM'S CLUB
2	L/BARC	AA68-01621A	LABEL-BARCORDER;EDP60POUNDSSMOOT
2	PCK	AA69-01752A	PACKING-CASE;CT25A6,KRAFT-LINER

Loc. No.	Code No.	Description ; Specification	Remark
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**ASSY-LABEL**

1	A/LABE	AA92-05374A	ASSY-LABEL;KS2A,25,SAM'S CLUB
2	INLAYB	AA64-00892B	INLAY BACK;D2,D3,RCA9PPS SHEET,T0.3,BLK
2	L/RAT	AA68-02498A	LABEL-RATING;WHITE PAPER,AKAI,UL,SAM'S C
2	L/SET	AA68-02425A	LABEL-SET;A59QDF891X999,25KV/32KV

**ASSY-P/MATERIAL**

1	A/PACK	AA92-05361A	ASSY-P/MATERIAL;KS2A,25,SAM'S
2	BXTAPE	0203-001295	TAPE-OPP MASKING;1242,T0.06,W100,L91.4M,
2	STAPLE	AA60-40006A	PIN-STAPLE;-,-,H18,33X17.8X2
2	C/SET	AA69-00471B	CUSHION SET;25A6(NEVVO,PS C=0.02,-,-,-,-,
2	PE-BAG	AA69-01209A	BAG;SHEET,25-27,W54,L60,FOAM,OEM.

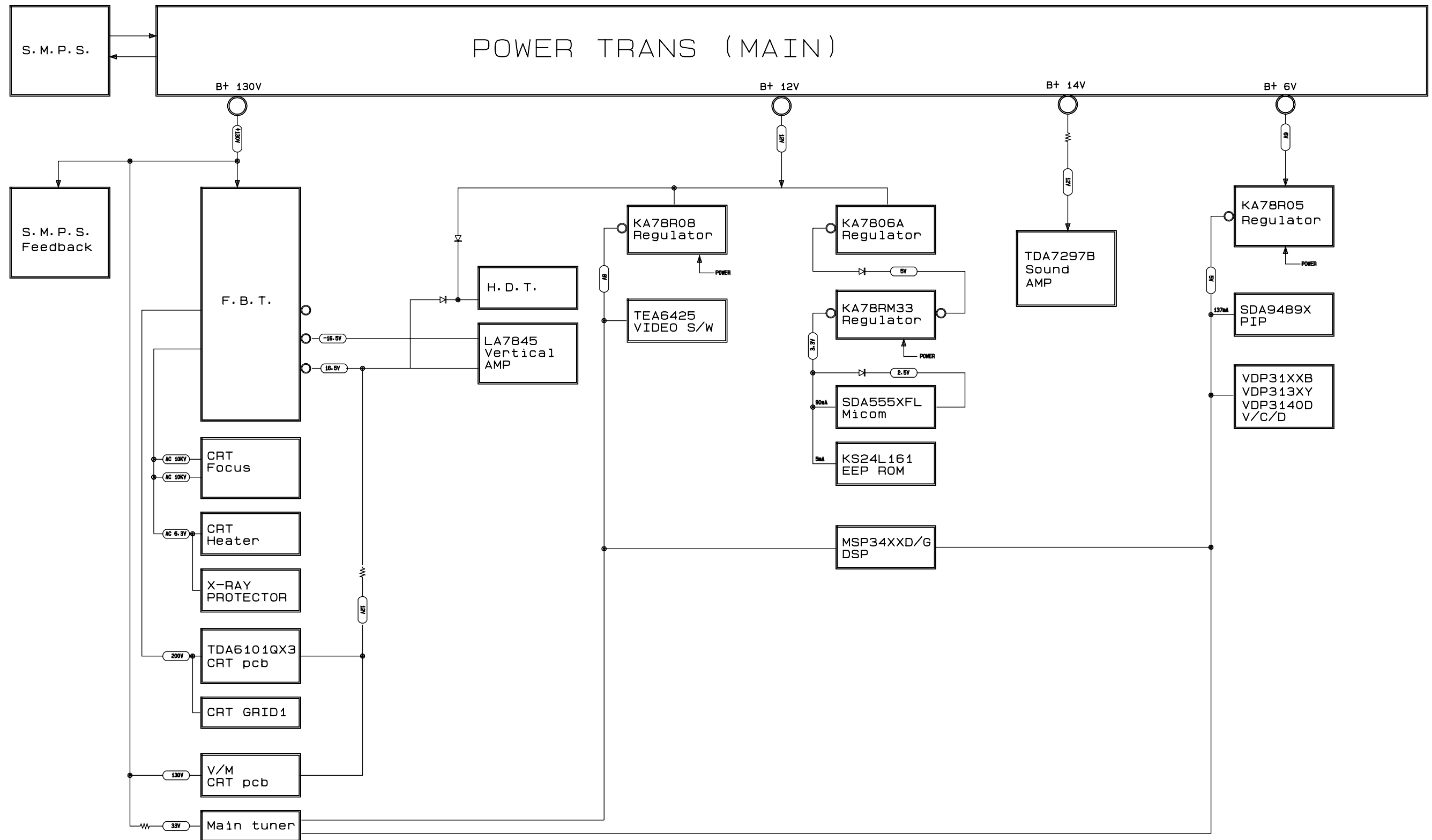
**ASSY-ACCESSORY**

1	A/ACCE	AA92-05255A	ASSY-ACCESSORY;KS2A,25,SAM'S
2	AC-TAP	0203-001279	TAPE-OPP MASKING;#232,T0.14,W15,L50000,Y
2	I/B2	AA68-02413A	MANUAL-USERS;KS2A,ENG,W/P100,USA,SMS
2	I/B	AA68-02414A	MANUAL-USERS;KS2A,SPA,W/P100,USA,SMS
2	BAG-PE	AA69-01195A	BAG PE;CL29A6W8X,HDPETO.012,93/4X151
2	C/WARR	AA68-02426A	CARD-WARRANTY;1PAGE,SPA,SAM'S CLUB
2	C/WARR	AA68-02427A	CARD-WARRANTY;1PAGE,ENG,SAM'S CLUB
2	RMT	AA59-10111J	REMOCON;TM59,SZM368ET2,G3174A,25,NO

## 8. Block Diagrams

### 8-1 Power Diagram

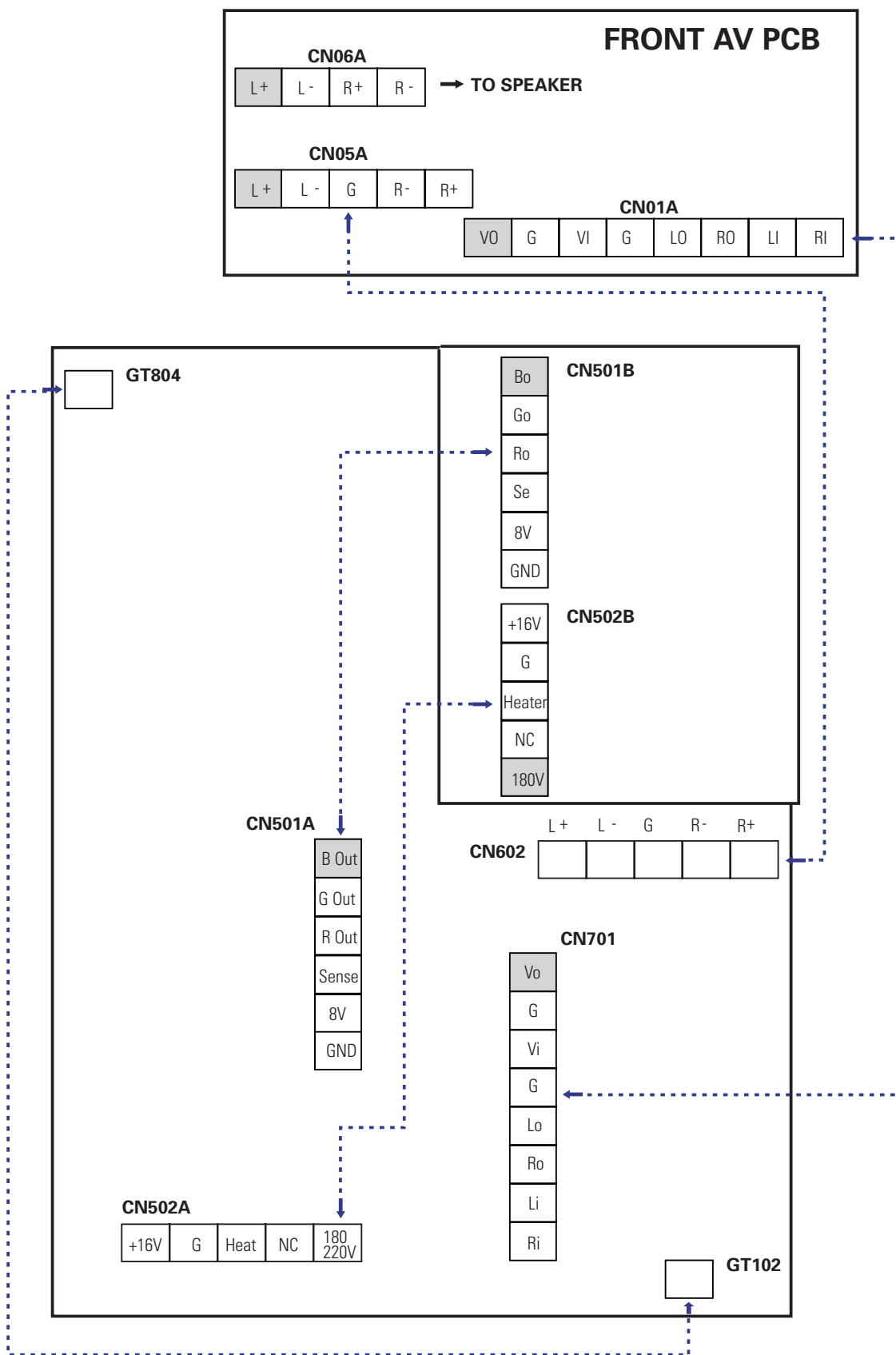
KS2A POWER DIAGRAMS







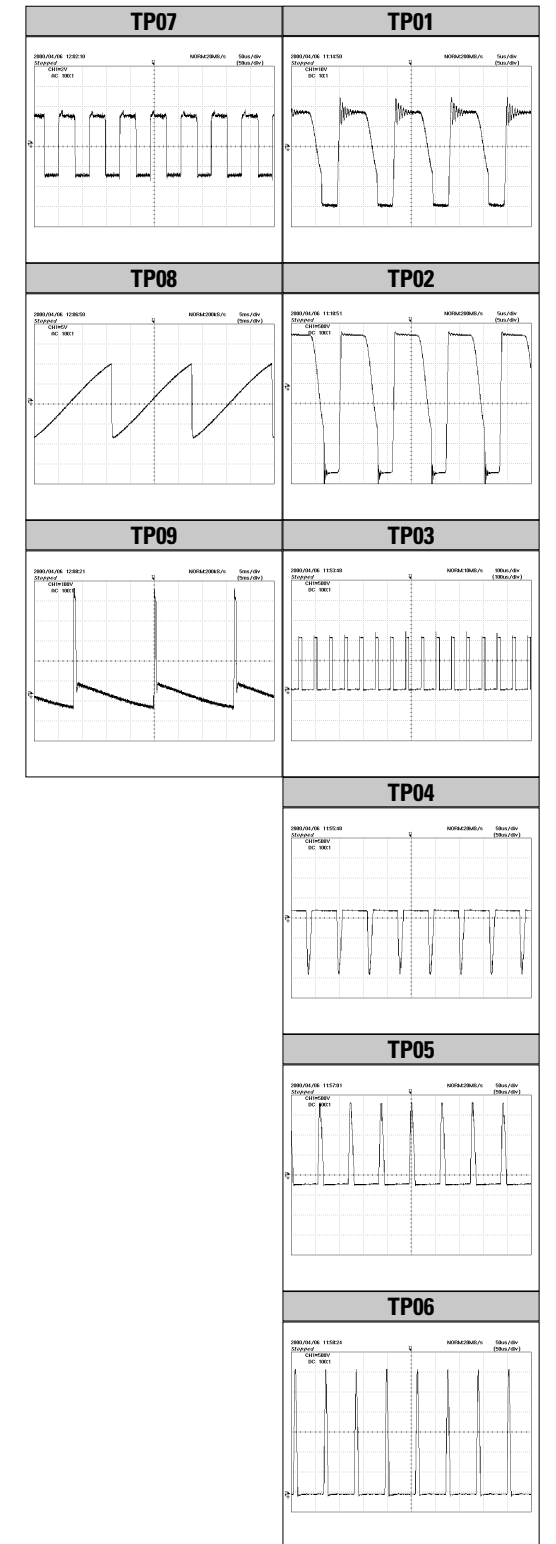
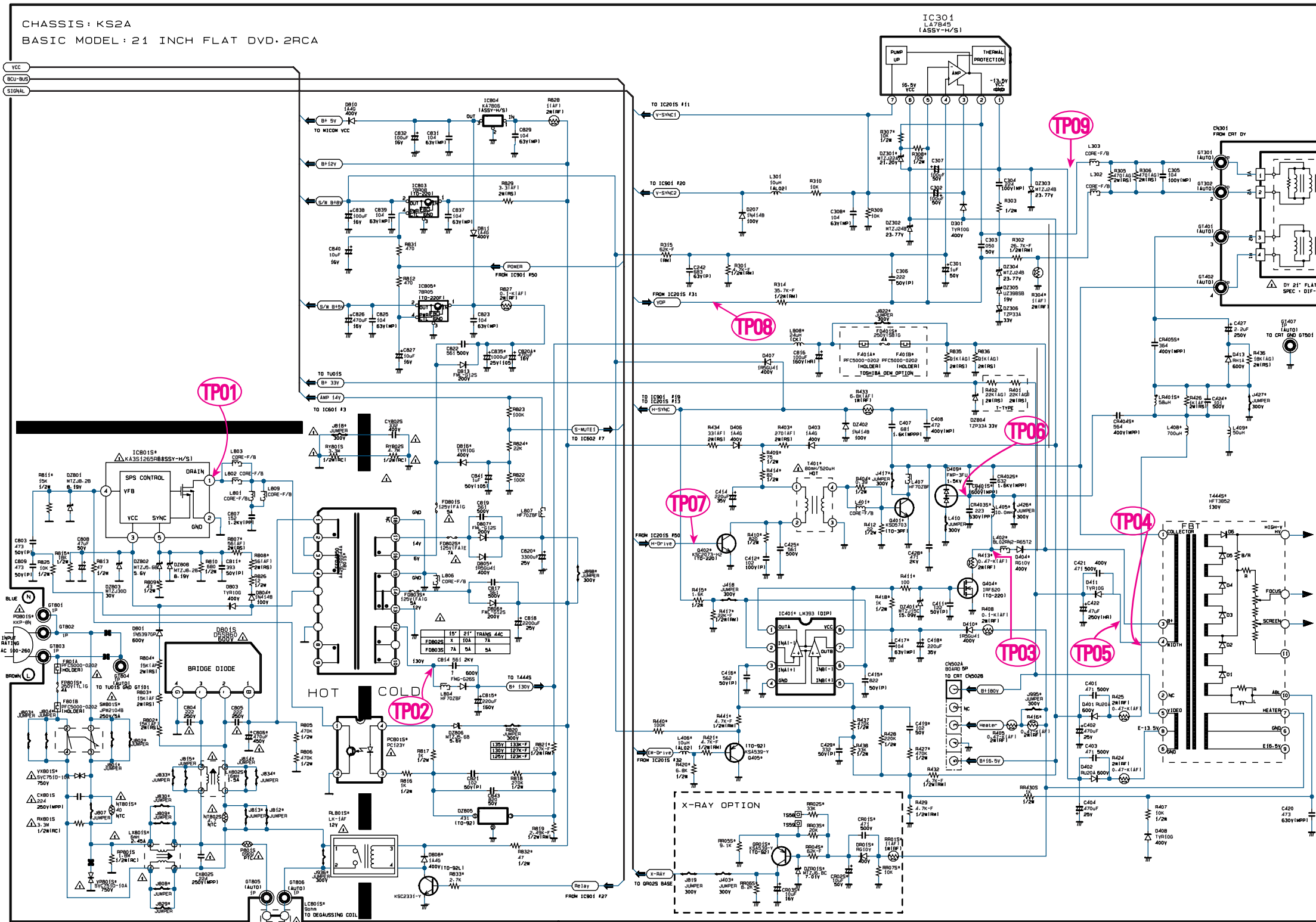
## 9. Wiring Diagram



# MEMO

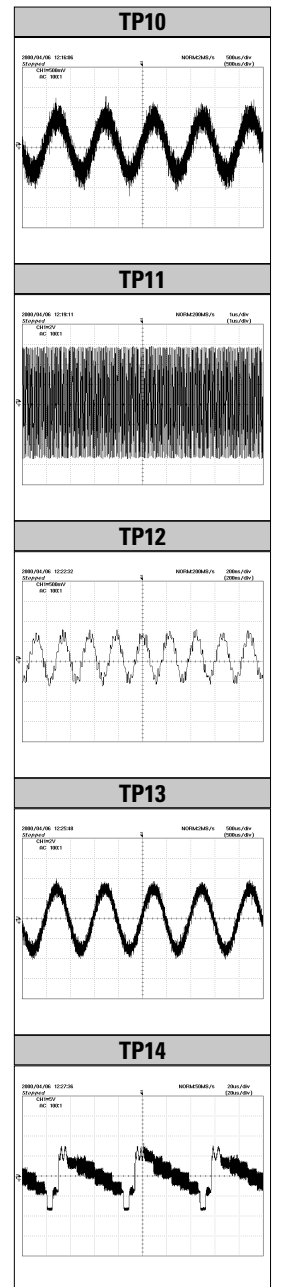
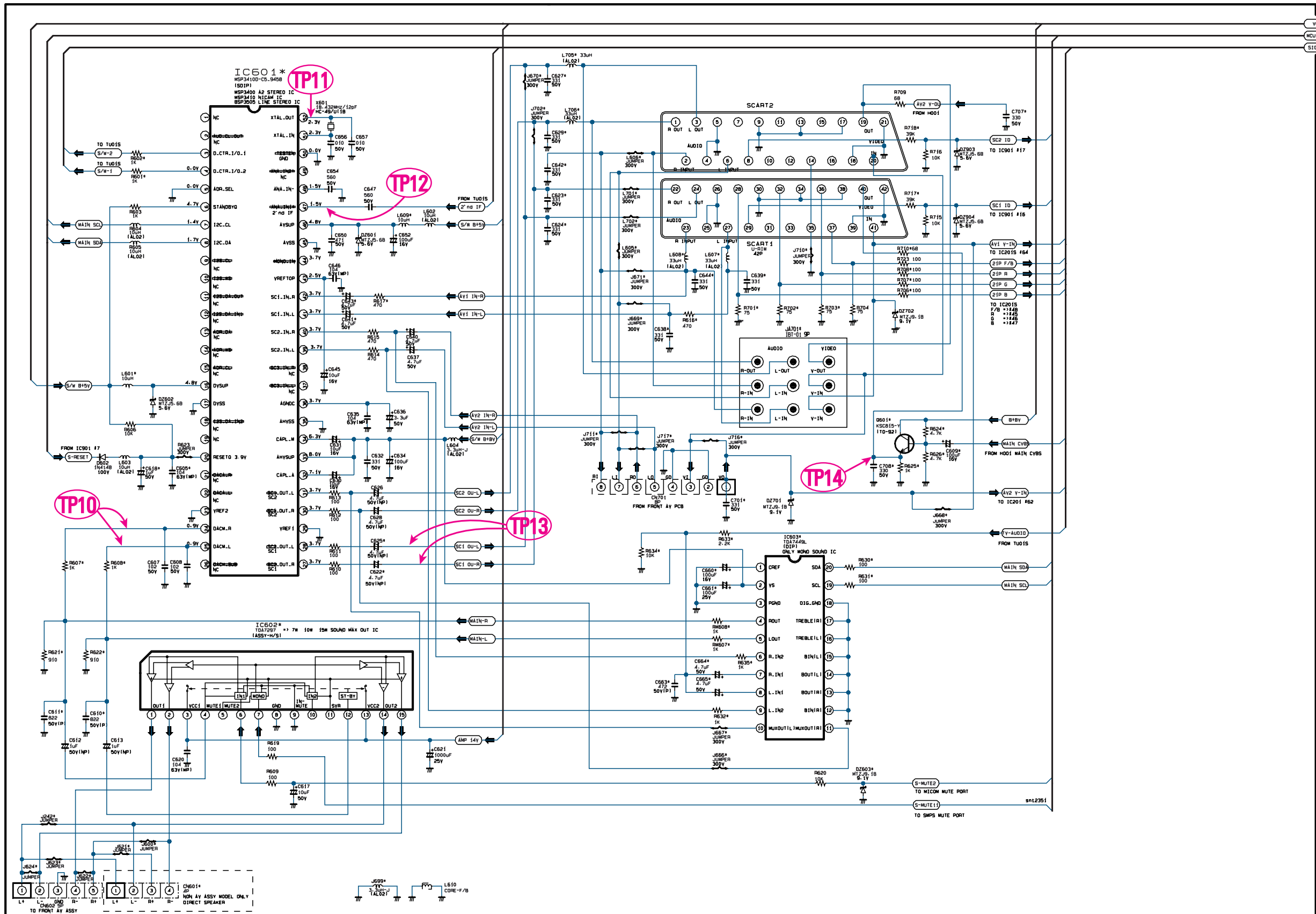
# 10. Schematic Diagrams

## 10-1 MAIN 1/4 (WITH EW)



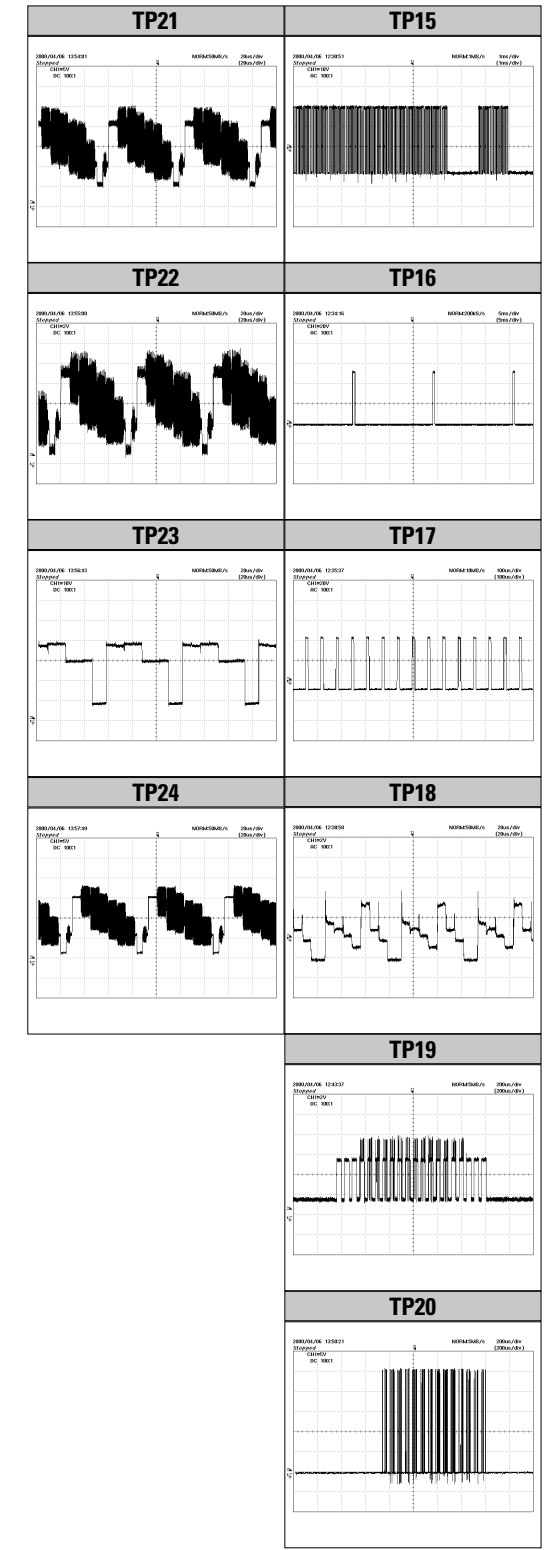
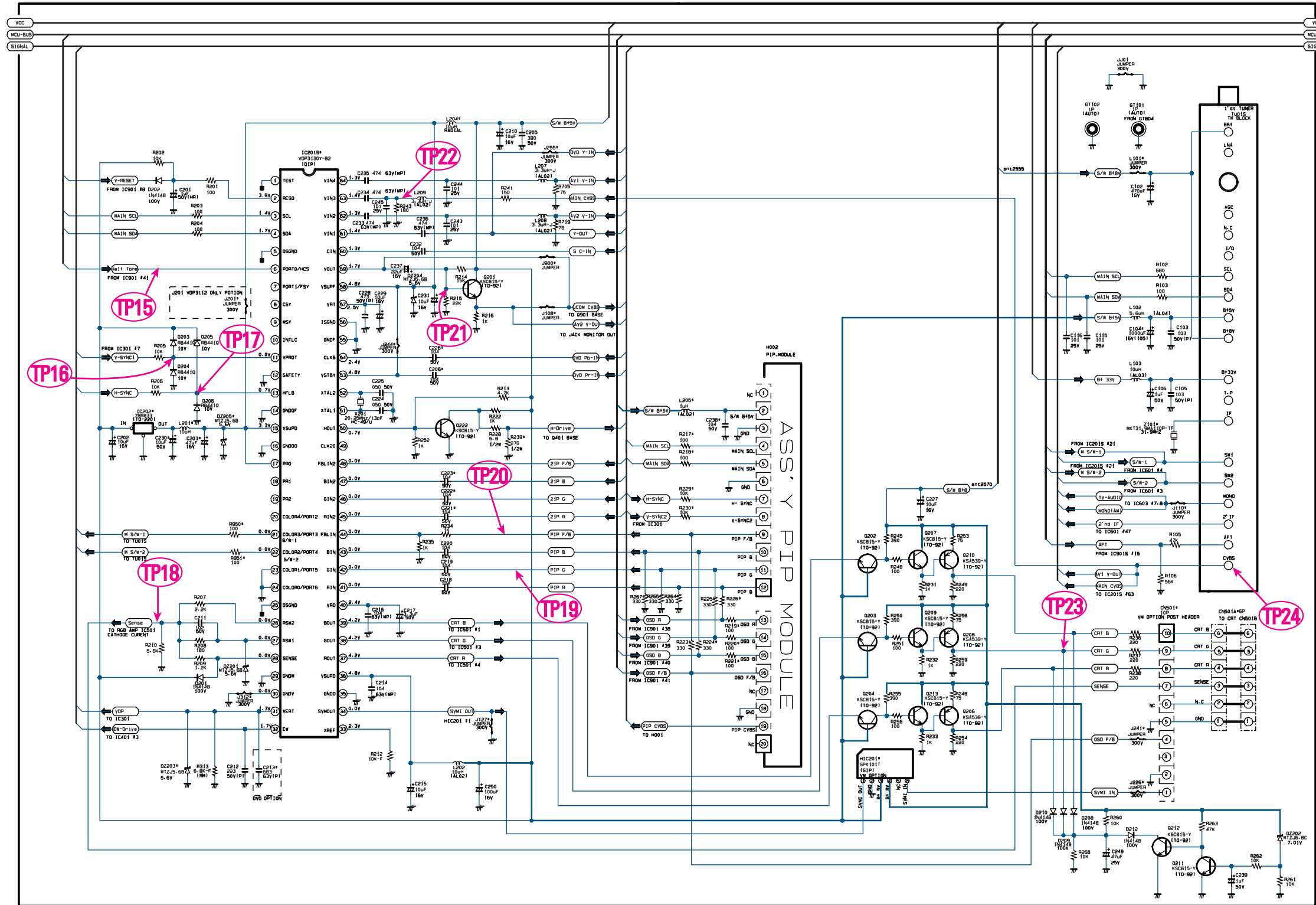
Power Line (Pink)  
Signal Line (Blue)

10-2 MAIN 2/4



— : Power Line  
 — : Signal Line

10-3 MAIN 3/4



— : Power Line  
 — : Signal Line

