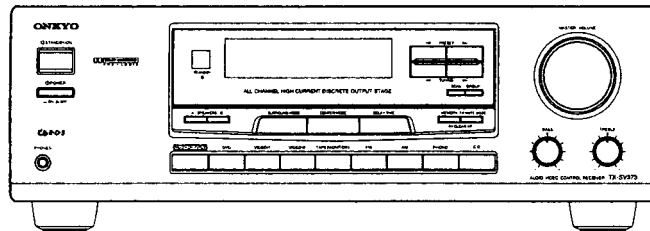


# ONKYO® SERVICE MANUAL

## AUDIO VIDEO CONTROL RECEIVER MODEL TX-SV373



### Black model

BMDN	120V AC, 60Hz
BMP,BMPT	230V AC, 50Hz
BMWT,BMWR	220-230V/120V AC, 50/60Hz

### Black and Golden models

BMWT,BMWR,GMWT,GMWR	220-230V/120V AC, 50/60Hz
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### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\triangle$  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

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**ONKYO®**  
**AUDIO COMPONENTS**

# SPECIFICATIONS

## AMPLIFIER SECTION

Continuous Average Power output (FTC)

<b>Front L/R channels:</b>	<b>50 watts per channel min. RMS at 8 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.08% total harmonic distortion.</b>
<b>Center channel:</b>	<b>50 watts min. RMS at 8 ohms, driven from 20 Hz to 20 kHz with no more than 0.08% total harmonic distortion.</b>
<b>Surround L/R channels:</b>	<b>20 watts per channel min. RMS at 8 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.3% total harmonic distortion.</b>

Continuous Power output (DIN)

Front L/R channels:	70 watts × 2 at 6 ohms
Center channel:	70 watts at 6 ohms
Surround L/R channels:	30 watts × 2 at 6 ohms

Maximum Power output (EIAJ)

Front L/R channels:	90 watts × 2 at 6 ohms
Center channel:	90 watts at 6 ohms
Surround L/R channels:	40 watts × 2 at 6 ohms

Total Harmonic Distortion: 0.08% at rated power (Front)

IM Distortion: 0.08% at rated power (Front)

Damping Factor: 60 at 8 ohms (Front)

Sensitivity and Impedance

Phono: 2.5 mV/50 kohms

CD, DVD, VIDEO-1, VIDEO-2, Multi-CH, Tape Play: 200 mV/50 kohms

Tape Rec: 200 mV/2.2 kohms

Subwoofer Pre out: 1 V/2.2 kohms

Phono Overload: 70 mV RMS at 1 kHz, 0.5% T.H.D.

Frequency Response: 20 Hz to 30 kHz, ±1 dB

RIAA Deviation: 20 Hz to 20 kHz, ±0.8 dB

Tone Control

Bass: ±10 dB at 100 Hz

Treble: ±10 dB at 10 kHz

Signal-to-Noise Ratio

Phono: 80 dB (IHF A, 5 mV input)

CD, DVD, VIDEO-1, VIDEO-2, Tape: 100 dB (IHF A)

## VIDEO SECTION

Signal sensitivity and impedance: 1 V<sub>p-p</sub>, 75 ohms (DVD/VIDEO-1/VIDEO-2 input, output)

## TUNER SECTION

### FM

Tuning Range: 87.50 ~ 108.00 MHz

Usable Sensitivity

Mono: 11.2 dBf, 1.0 μV (75 ohms)

Stereo: 17.2 dBf, 2.0 μV (75 ohms)

50 dB Quieting Sensitivity

Mono: 17.2 dBf, 2.0 μV (75 ohms)

Stereo: 37.2 dBf, 20.0 μV (75 ohms)

Capture Ratio: 1.5 dB

Image Rejection Ratio

U.S.A. & Canadian models: 40 dB

Other area models: 85 dB

IF Rejection Ratio: 90 dB

Signal-to-Noise Ratio

Mono: 76 dB

Stereo: 70 dB

Alternate Channel Attenuation: 55 dB

Selectivity: 50 dB (DIN)

AM Suppression Ratio: 50 dB

Total Harmonic Distortion

Mono: 0.15%

Stereo: 0.25%

Frequency Response: 30 Hz ~ 15 kHz, ±1.5 dB

Stereo Separation: 45 dB at 1 kHz

30 dB at 100 Hz ~ 10 kHz

## AM

Tuning Range

U.S.A. & Canadian models: 530 ~ 1,710 kHz (10 kHz steps)

European models: 522 ~ 1,611 kHz (9 kHz steps)

Worldwide models: 531 ~ 1,602 kHz (9 kHz steps), 530 ~ 1,710 kHz (10 kHz steps)

Usable Sensitivity: 30 μV

Image Rejection Ratio: 40 dB

IF Rejection Ratio: 40 dB

Signal-to-Noise Ratio: 40 dB

Total Harmonic Distortion: 0.7%

## GENERAL

Power Supply

U.S.A. & Canadian models: AC 120 V, 60 Hz

European models: AC 230 V, 50 Hz

Worldwide models: AC 220-230 V and 120 V switchable, 50/60 Hz

Power Consumption

U.S.A. & Canadian models: 4.2 A

Other area models: 240 W

Dimensions (W × H × D): 435 × 140 × 324 mm  
17-1/8" × 5-1/2" × 12-3/4"

Weight: TX-SV373 9.6 kg, 21.2 lbs.

TX-SE350 9.8 kg, 21.6 lbs.

## REMOTE CONTROL

TX-SV373: RC-385S

TX-SE350: RC-387S

Transmitter: Infrared


Signal range: Approx. 5 meters, 16 ft.


Power supply: Two "AA" batteries (1.5V × 2)

Specifications and features are subject to change without notice.

## SERVICE PROCEDURES

### 1. Replacing the fuses

 This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.

 Ce symbole indique que le fusible utilise est a rapide. Pour une protection permanente, n'utiliser que des fusibles de meme type. Ce dernier est indique la qu le present symbol est appose.

Ref.No.	Part No.	Description
M901	5120-0024-0	$\Delta$ 3.15A TIME-LAG 5 <W>
M902	5120-0024-0	$\Delta$ 3.15A TIME-LAG 5 <P/T>
M902	5120-0200-0	$\Delta$ T5A/125V <D/W>
M909	5100-2530-1B	$\Delta$ T2.5A/250V IEC <P/T>
M905,M906	5120-0019-0	$\Delta$ T4A L125V UL, Fuse <D>
M905,M906	5120-0203-0	$\Delta$ T4A/250V,Fuse <P/T/W>

NOTE: <D>: 120V model only  
<P>: 230V model only  
<T>: Asian model only  
<W>: Worldwide model only

### 2. To Initialize the unit

This device employs a microprocessor to perform various functions and operations. If interference generated by an external power supply, radio wave, or other electrical source results in accident which causes the specified operations and functions to operate abnormally.

To perform a result, please follow the procedure below.

1. Press and hold down VIDEO 1 button, then press SPEAKER A button.

2. After "clear" is displayed, <sup>DVP</sup> the prest memory and each mode stored in the memory, such as surround, are initialized and will return to the factory settings.

### 3. Safety-check out

(Only U.S.A. model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer. Connect the insulating-resistance tester between the plug of power supply cord and the screw on the back panel.

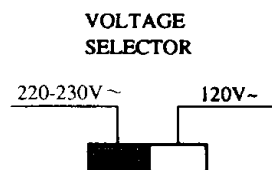
Specifications: 3.3 Mohm $\pm$ 10% at 500V.

### 4. Change of voltage

Worldwide models are equipment with a voltage selector to conform with local power supplies. This switch is located on the back panel.

Be sure to set this switch to match the voltage of the power supply in your area before turning the power switch on.

This switch is set to 220V at the factory. Voltage is changed by sliding the groove in the switch with the screwdriver to the right or left. Confirm that the switch has been moved all the way to the right or left before turning the power switch on.



### 5. Memory preservation

This unit does not require memory preservation batteries.

A built-in memory power back-up system preserves contents of the memory during power failures and even when the unit is unplugged.

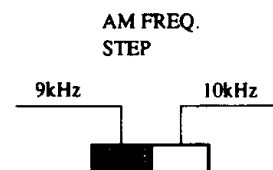
The unit must be plugged in and the power switch turned on and off once in order to charge the back-up system. Note that since this is not a permanent memory, the power switch must be turned on and off a few times each month the keep the back-up system operative.

The period of the time during which memory contents are preserved after power has last been turned off varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of 3 to 4 weeks (a minimum of 2 weeks) after the last time power has been turned off. This period is shorted when the unit is exposed to very high humidity or used in an area with an extremely humid climate.

### 6. Setting the tuning step frequency

Worldwide models are equipped with a step band selector switch. This switch is located on the back panel. This switch is set to 9 kHz at the factory, but may have to be reset to 10 kHz depending on the area where the unit is used.

AM band step  
Europe: 9 kHz  
U.S.A.: 10 kHz



### 7. Changing the band step

With the exception of the worldwide models, a tuning step selector switch is not provided. When you change the band step, change the parts as shown below.

	To 10kHz	To 9kHz
J712	shorted	open
R724	open	10kohm

## PRINTED CIRCUIT BOARD-PARTS LIST

## MAIN CIRCUIT PC BOARD ASSEMBLY

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
					<b>Capacitors</b>
			C401,C402	354744709	47 $\mu$ F,16V,Elect.
			C413,C414	354741009	10 $\mu$ F,16V,Elect.
			C415,C416	371121034	0.01 $\mu$ F $\pm$ 5%,50V,Mylar
			C417,C418	374721015	100pF $\pm$ 10%,50V,Mylar
			C463	354741009	10 $\mu$ F,16V,Elect.
			C465-C467	354744709	47 $\mu$ F,16V,Elect.
			C501,C502	354744709	47 $\mu$ F,16V,Elect.
			C503,C504	374721015	100pF $\pm$ 10%,50V,Mylar
			C505,C506	354742219	220 $\mu$ F,16V,Elect.
			C507-C510	354781009	10 $\mu$ F,50V,Elect.
			C519,C520	374721044	0.1 $\mu$ F $\pm$ 5%,50V,Plastic
			C521,C522	354744709	47 $\mu$ F,16V,Elect.
			C523,C524	345340201	2pF $\pm$ 0.2 CH,50V,Ceramic
			C525,C526	354774719	470 $\mu$ F,6.3V,Elect.
			C581	354721019	100 $\mu$ F,6.3V,Elect.
			C910	354732219	220 $\mu$ F,10V,Elect.
			C915,C916	354786829	6800 $\mu$ F,6.3V,Elect.
			C917	354753329	3300 $\mu$ F,25V,Elect.
			C918	354761029	1000 $\mu$ F,35V,Elect.
			C923,C932	354781009	10 $\mu$ F,50V,Elect.
			C924,C925	354764729	4700 $\mu$ F,35V,Elect.
			C926	354784709	47 $\mu$ F,50V,Elect.
			C928,C929	354781019	100 $\mu$ F,50V,Elect.
					<b>Resistors</b>
			R1512,R1513	443526804	68 $\Omega$ $\pm$ 5%,1/2W,Metal oxide
			R1515	443525604	56 $\Omega$ $\pm$ 5%,1/2W,Metal oxide
			R1516	443526804	68 $\Omega$ $\pm$ 5%,1/2W,Metal oxide
			R1522,R1523	453630224	2.2 $\Omega$ $\pm$ 5%,1/2W,Metal
			R1524	4800048	RWR 5W 0.22R X2,Metal plate
			R1529	453630824	8.2 $\Omega$ $\pm$ 5%,1W,Metal
			R1532	4756-2226-3-06	SVR 2.2K H3,Trimming
			R521-R524	443526804	68 $\Omega$ $\pm$ 5%,1/2W,Metal oxide
			R525,R526	443525604	56 $\Omega$ $\pm$ 5%,1/2W,Metal oxide
			R527,R528	443526804	68 $\Omega$ $\pm$ 5%,1/2W,Metal oxide
			R539-R542	453630224	2.2 $\Omega$ $\pm$ 5%,1/2W,Metal
			R547,R548	4800048	RWR 5W 0.22R X2,Metal plate
			R555,R556	443530824	8.2 $\Omega$ $\pm$ 5%,1W,Metal
			R557,R558	443533904	390 $\Omega$ $\pm$ 5%,1W,Metal oxide
			R567,R569	453630224	2.2 $\Omega$ $\pm$ 5%,1/2W,Metal resistor
			R573,R574	4756-2226-3-06	SVR 2.2K,Trimming
					<b>Relays</b>
			RL501,RL502	4500-0910-0	24VDC,125V OSA-SS-224DM3 OE
			RL503	4500-0900-0	24VDC,250V SDT-SS-124D OEG
					<b>Terminals</b>
			PH,DVD	2113-1308-0	6P RCA,Phono,DVD
			SP	2113-1312-0	8P Speaker
			V2	2113-1309-0	4P RCA,Video-2
					<b>Connectors</b>
			J1501	2113-1160-0	2P, Wafer
			J201A	7707-1080-2004	Connector
			J202A	2101-1591-0	Flexible connector
			J203A	2101-1641-0	Wafer
			J204A	7706-1100-2004	Connector
			J205A	2101-1611-0	Wafer
			J206A	2102-041S-004	4P, Wafer
			J501,J502	2113-1160-0	2P, Wafer
			J603B	2101-1621-0	Wafer
			J801B	7708-1150-3004	Connector
			J901B	2102-071S-004	7P, Connector
			J302B	2101-1651-0	4P, Wafer
			J303B	2101-1631-0	6P, Wafer
					<b>ICs</b>
Q301	222465	NJM4558D			
Q302	22240881	TC9273N-010			
Q401,Q402	22240293	NJM4558L			
Q921	222780124NEC	UPC7812H			
Q922	222790125NEC	UPC79M12HF			
Q923	222780565JRC	NJM78M56FA			
					<b>Transistors</b>
Q1501-Q1503	2211732 or	2SC1845-F or			
Q1514	2211733	2SC1815-E			
Q1504,Q1505	2211353	2SA949-O			
Q1506,Q1508	2211633	2SC2229-0			
Q1507	2211353	2SA949-O			
Q1509	2211633	2SC2229-0			
Q1510	2203010	2SC5171			
Q1511	2203000	2SA1930			
Q1512	2203043	2SC5197-O			
Q1513	2203033	2SA1940-O			
Q1515	2213284	2SC1740S-R			
Q423-Q425	2213631	RN1241-A			
Q427	2212600	DTA114ESA			
Q501-Q506	2211732 or	2SC1845-F or			
Q527,Q528	2211733	2SC1815-E			
Q507-Q510	2211353	2SA949-O			
Q511,Q512	2211633	2SC2229-0			
Q513,Q514	2211353	2SA949-O			
Q515-Q518	2211633	2SC2229-0			
Q519,Q520	2203010	2SC5171			
Q521,Q522	2203000	2SA1930			
Q523,Q524	2203043	2SC5197 (O)			
Q526,Q541	2203033	2SA1940 (O)			
Q529,Q530	2213284	2SC1740S-R			
Q581,Q582	2211732 or	2SC1845-F or			
	2211733	2SC1815-E			
Q583	2211792	2SA992			
Q591-Q593	2213640	DTC123JSA			
Q924	2211455	2SA1015-GR			
					<b>Diodes</b>
D501,D503	4804-0040-1	IN4004			
D591,D592	223163	1SS133			
D595	223163	1SS133			
D901	223260	1N4148			
D910	22380022	RBV602			
D911	22380021	RS403L			
D915-D921	4804-0040-1	IN4004			
D922	224473304	MTZJ33D			
D923	223163	1SS133			
					<b>Capacitors</b>
C1501,C1512	354744709	47 $\mu$ F,16V,Elect.			
C1502	374721015	100pF $\pm$ 10%,50V,Mylar			
C1503	354742219	220 $\mu$ F,16V,Elect.			
C1504,C1505	354781009	10 $\mu$ F,50V,Elect.			
C1509	345340201	2pF $\pm$ 0.2 CH,50V,Ceramic			
C1511	374721044	0.1 $\mu$ F $\pm$ 5%,50V,Plastic			
C1517,C922	354781009	10 $\mu$ F,50V,Elect.			
C303,C304	354741009	10 $\mu$ F,16V,Elect.			
C307,C308	354721019	100 $\mu$ F,6.3V,Elect.			
C309,C310	371126824	6800pF $\pm$ 5%,50V,Mylar			
C311,C312	371121824	1800pF $\pm$ 5%,50V,Mylar			
C313-C316	354741009	10 $\mu$ F,16V,Elect.			
C391,C392	374721015	100pF $\pm$ 10%,50V,Mylar			

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
<b>Heat sinks</b>					
HQ921	5400-1611-0		C691,C694	354742219	220 $\mu$ F,16V,Elect.
HQ922,HQ923	5400-0831-0		C692,C695	354741009	10 $\mu$ F,16V,Elect.
<b>DOLBY PROLOGIC PC BOARD ASSEMBLY</b>			C696	374796844	0.68 $\mu$ F $\pm$ 5%,63V,Plastic
<b>CIRCUIT NO. PART NO. DESCRIPTION</b>			C698	354742209	22 $\mu$ F,16V,Elect.
<b>ICs</b>			C699	354741009	10 $\mu$ F,16V,Elect.
U601,U603	222465	NJM4558D	<b>Connectors</b>		
U602	3131-5750-0	NJW1103FC3	J205b	2101-1681-0	Socket
U604	22241296	M62447SP	J304b	2102-051S-004	5P,Wafer
U605	22240800	TC9164AN	J601a	7710-1290-2004	Connector
U606,U607	222465	NJM4558D	J603a	2101-1801-0	Socket
U609	222780094MAT	AN7809	J604a	2102-031S-004	3P,Wafer
<b>Transistors</b>			<b>ROTARY PC BOARD ASSEMBLY</b>		
Q601	4858-0501-5	LM80501	<b>CIRCUIT NO. PART NO. DESCRIPTION</b>		
Q602	4858-5501-5	LM85501	P701	4750-6000-0	EC16B24304,Rotary encoder
Q603-Q605	2213631	RN1241-A	<b>SURROUND PC BOARD ASSEMBLY</b>		
Q606	2215162	2SD667A	<b>CIRCUIT NO. PART NO. DESCRIPTION</b>		
Q607	2213631	RN1241-A	<b>Transistors</b>		
<b>Diodes</b>			Q801-Q806	2211732 or	2SC1845-F or
D601,D602	224470753	MTZJ7.5C	Q829,Q830	2211733	2SC1845-E
D603	224470562	MTZJ5.6B	Q807,Q808	2213284	2SC1740S-R
<b>Coil</b>			Q809-Q812	2211353	2SA949-O
L601-L604	233409K101	100 $\mu$ H $\pm$ 10%,Choke	Q813,Q814	2215162	2SD667-A
<b>Oscillator</b>			Q815,Q816	2211353	2SA949-O
M602	2300-1400-0	4MHz, Crystal	Q817-Q820	2211633	2SC2229-0
<b>Capacitors</b>			Q821,Q822	2213284	2SC1740S-R
C600,C646	374721044	0.1 $\mu$ F $\pm$ 5%,50V,Plastic	Q823,Q824	2215173	2SB647A-C
C601,C602	354741009	10 $\mu$ F,16V,Elect.	Q825,Q826	2202923	2SC5196-0
C605,C606	354780229	2.2 $\mu$ F,50V,Elect.	Q827,Q828	2202913	2SA1939-0
C609,C629	354741009	10 $\mu$ F,16V,Elect.	Q831	2213640	DTC123JSA
C612-C614	354742209	22 $\mu$ F,16V,Elect.	<b>Diodes</b>		
C615-C617	354740339	3.3 $\mu$ F,16V,Elect.	D801,D802	4804-0040-1	IN4004
C619-C622	354741009	10 $\mu$ F,16V,Elect.	D803	223163	1SS133
C623-C625	354742209	22 $\mu$ F,16V,Elect.	<b>Capacitors</b>		
C628	354744709	47 $\mu$ F,16V,Elect.	C801,C802	354742209	22 $\mu$ F,16V,Elect.
C632,C636	354780229	2.2 $\mu$ F,50V,Elect.	C809,C810	354741019	100 $\mu$ F,16V,Elect.
C633,C637	354741009	10 $\mu$ F,16V,Elect.	C811,C812	354744709	47 $\mu$ F,16V,Elect.
C640	354780229	2.2 $\mu$ F,50V,Elect.	C817-C820	354781009	10 $\mu$ F,50V,Elect.
C641,C697	354744709	47 $\mu$ F,16V,Elect.	C823,C824	374724734	0.047 $\mu$ F $\pm$ 5%,50V,Plastic
C642-C645	354741009	10 $\mu$ F,16V,Elect.	C829,C830	354762219	220 $\mu$ F,35V,Elect.
C648,C649	345342704	27pF $\pm$ 5% CH,50V,Ceramic	<b>Resistors</b>		
C650,C690	354742209	22 $\mu$ F,16V,Elect.	R819-R822	443526804	68 $\Omega$ $\pm$ 5%, 1/2W, Metal oxide
C651	354750109	1 $\mu$ F,25V,Elect.	R827,R828	443525604	56 $\Omega$ $\pm$ 5%, 1/2W, Metal oxide
C652,C658	371121034	0.01 $\mu$ F $\pm$ 5%,50V,Mylar	R837,R838	443521014	100 $\Omega$ $\pm$ 5%, 1/2W, Metal oxide
C653,C659	371121824	1800pF $\pm$ 5%,50V,Mylar	R841-R844	453630224	2.2 $\Omega$ $\pm$ 5%, 1/2W, Metal
C654,C657	371126834	0.068 $\mu$ F $\pm$ 5%,50V,Plastic	R849,R850	443525604	56 $\Omega$ $\pm$ 5%, 1/2W, Metal oxide
C655,C656	374721044	0.1 $\mu$ F $\pm$ 5%,50V,Plastic	R851,R852	443526804	68 $\Omega$ $\pm$ 5%, 1/2W, Metal oxide
C660-C662	374721044	0.1 $\mu$ F $\pm$ 5%,50V,Plastic	R853,R854	4000129	0.22 $\Omega$ $\pm$ 5%X2,2W, Metal plate
C663	371121224	1200pF $\pm$ 5%,50V,Mylar	R857,R858	443530824	8.2 $\Omega$ $\pm$ 5%, 1W, Metal
C665	371128214	820pF $\pm$ 5%,50V,Mylar	R859,R860	453630224	2.2 $\Omega$ $\pm$ 5%, 1/2W, Metal
C666,C693	371125624	5600pF $\pm$ 5%,50V,Mylar	R865	443531014	100 $\Omega$ $\pm$ 5%, 1W, Metal oxide
C667	374724734	0.047 $\mu$ F $\pm$ 5%,50V,Plastic	R867,R868	4756-2026-3-03	SVR 2K,Trimming
C668,C669	374722344	0.22 $\mu$ F $\pm$ 5%,50V,Mylar	<b>Relay</b>		
C670,C671	354750479	4.7 $\mu$ F,25V,Elect.	M801	4500-0910-0	24VDC,125VA,3A
C672,C673	374722344	0.22 $\mu$ F $\pm$ 5%,50V,Mylar	<b>Connectors</b>		
C674	374721044	0.1 $\mu$ F $\pm$ 5%,50V,Plastic	SP	2113-1313-0	6P,Speaker terminal
C675,C676	374724734	0.047 $\mu$ F $\pm$ 5%,50V,Plastic	J604b	7703-1320-2004	3P,Connector
C677,C678	374721044	0.1 $\mu$ F $\pm$ 5%,50V,Plastic	J801a	2102-081S-004	8P,Wafer
C679,C680	374722334	0.022 $\mu$ F $\pm$ 5%,50V,Plastic	J206B	7704-1150-2004	4P,Connector
C681,C687	371126814	680pF $\pm$ 5%,50V,Mylar	TP801,TP802	2101-1931-0	2P,Wafer
C682-C686	374721044	0.1 $\mu$ F $\pm$ 5%,50V,Plastic			
C688,C689	354741009	10 $\mu$ F,16V,Elect.			

**POWER SWITCH PC BOARD**

CIRCUIT NO.	PART NO.	DESCRIPTION
C911	3500191	△ DE7150F-103M, IS capacitor
C911a	27301216	△ SB1925A, Cover for C911
M907	5200-3665-0	△ Power switch

**TONE PC BOARD ASSEMBLY**

CIRCUIT NO.	PART NO.	DESCRIPTION
C411, C412	374721834	0.018 $\mu$ F $\pm$ 5%, 50V, Plastic capacitor
J201b	2102-071S-004	7P, Wafer
R419, R421	4750-6166-0	100KWX2, Variable resistor

**VIDEO PC BOARD ASSEMBLY**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>IC</b>	
Q253	222840661	4066
	<b>Transistors</b>	
Q256-Q258	4858-0501-5	LM80501
Q254	4858-5501-5	LM80501
Q251, Q252	2213284	2SC1740S-R
	<b>Capacitors</b>	
C250-C252	354721019	100 $\mu$ F, 6.3V, Elect.
C255, C256	354734719	470 $\mu$ F, 10V, Elect.
C259	354741029	1000 $\mu$ F, 16V, Elect.
	<b>Terminals</b>	
M201	2113-1315-0	4P, RCA jack
M202	2113-1316-0	1P, RCA jack
	<b>Connector</b>	
J204b	2102-061S-004	6P, Wafer

**VIDEO 1 PC BOARD ASSEMBLY**

CIRCUIT NO.	PART NO.	DESCRIPTION
J601b	2102-101S-004	10P, Wafer
M601	2113-1309-0	4P, RCA jack
M603	2113-1310-0	2P, RCA jack
M602	2113-1311-0	1P, RCA jack

**KEY BOARD PC BOARD ASSEMBLY**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>FL tube</b>	
M740	2212196	12-BT-111GK
	<b>Remote sensor</b>	
U702	241305	GPIU281X
	<b>IC</b>	
U701	3130-8170-1	UPD78043F
	<b>Transistors</b>	
Q701, Q702	2213284	2SC1740S-R
Q703	2213290	DTC144ES
Q707	2212600	DTA114ESA
	<b>Diodes</b>	
D701, D702	223260	1N4148
D703	224471603	MTZJ16C
D704, D705	223260	1N4148
D706, D707	224470562	MTZJ5.6B
D708	223260	1N4148
D709	225290	SEL4110R
D710-D712	223260	1N4148
	<b>Coil</b>	
L701-L703	233409K220	22 $\mu$ H $\pm$ 10%, Choke
	<b>Oscillator</b>	
M741	2300-0120-0	4.19MHz, Ceramic

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Capacitors</b>	
C701	354780109	1 $\mu$ F, 50V, Elect.
C702	374794744	0.47 $\mu$ F $\pm$ 5%, 63V, Plastic
C703, C709	354721019	100 $\mu$ F, 6.3V, Elect.
C704, C705	354780109	1 $\mu$ F, 50V, Elect.
C706	3000076	0.1F, 5.5V, Super
C711	354721019	100 $\mu$ F, 6.3V, Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Switches</b>	
M701-M703	5200-3529-0	Tact <350>
M707-M729	5200-3529-0	Tact
M742	5200-3529-0	Tact <350>

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Resistors</b>	
R776	4750-6176-0	10KB, Variable <350>
R804, R805	4750-6176-0	10KB, Variable <350>

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Connectors</b>	
J1101B	7706-1060-2004	6P <350>
J1102b	7403-1090-21	3P, Wafer
J202b	2101-1581-0	3P, Connector
J701a	7706-1310-2004	Connector
J702a	7403-1060-21	Flat wire

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Holder</b>	
M740a	4152-5741-0	FL

**POWER PC BOARD ASSEMBLY**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Transistor</b>	
Q901	2213640	DTC123JSA
	<b>Diodes</b>	
D901	223163	1SS133T-77
D902-D905	4804-0040-1	IN4004
	<b>Capacitors</b>	
C908	3500191	△ DE7150F-103M, IS capacitor
C910	354743319	330 $\mu$ F, 16V, Elect.
	<b>Resistors</b>	
R903	443523354	△ 3.3M $\Omega$ $\pm$ 5%, 1/2W, Metal oxide <D>
R904	453630824	8.2 $\Omega$ $\pm$ 5%, 1/2W, Metal
	<b>Transformer</b>	
T902	1806-2311-0	△ EI-35, 200MA
	<b>Fuses</b>	
M901	5120-0024-0	△ 3.15A TIME-LAG 5 <W>
M902	5120-0024-0	△ 3.15A TIME-LAG 5 <P/T>
M902	5120-0200-0	△ T5A/125V <D/W>
M909	5100-2530-1B	△ T2.5A/250V IEC <P/T>
	<b>Relay</b>	
M903	4500-0890-0	△ 12VDC, 250V SDT-SS-112DM OEG
	<b>AC outlet</b>	
	2113-1317-0	△ 250V/2.5A <P/T/W>
	<b>Switch</b>	
M908	5200-3530-0	△ 110-220V, Voltage selector
	<b>Fuse holders</b>	
M901, M902	4132-1011-0	△ Fuse holder <W>
M902	4132-1011-0	△ Fuse holder <D>
M902, M909	4132-1011-0	△ Fuse holder <P/T>
	<b>Connectors</b>	
J901a	4131-9321-0	Terminal
J902A	7704-1150-3004	Connector ass'y

**RI PC BOARD**

CIRCUIT NO.	PART NO.	DESCRIPTION
J902b	2102-041S-004	4P, Wafer
J701b	2102-061S-004	6P, Wafer
M701	2113-1179-0	RI terminal
M702	5200-3171-0-01	Slide switch <W>

## SECONDARY PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
C901-C907	374791044	0.1 $\mu$ F $\pm$ 5%,63V,Plastic capacitor
M905a,M906a	4132-1011-0	Fuse holder
R901,R902	453630224	2.2 $\Omega$ $\pm$ 5%, 1/2W, Metal resistor
M905,M906	5120-0019-0	T4A L125V UL, Fuse <D>
M905,M906	5120-0203-0	T4A/250V,Fuse <P/T/W>
J901a	7707-1300-2004	7 P, Connector wire

## TUNER PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Front end</b>	
TU001	240131	ENV172D4G1 <D>
	240132	ENV172D3G1 <P/T/W>
	<b>ICs</b>	
Q121	22241076	LM7001J
Q141	22241151	LA1837
Q185	22241297	BU1923 <P>
	<b>Transistors</b>	
Q101	2210746	2SC945P <P/T/W>
Q102	2211723	2SC1923-0
Q122	2212445	2SK365-GR
Q123	2213284	2SC1740S(R)
Q124,Q145	2212600	DTA114ESA
Q142	2213284	2SC1740S(R) <P>
Q143,Q144	2212795	2SD1468-S
	<b>Diodes</b>	
D101	224470513	MTZJ5.1C
D102	224470913	MTZC9.1C
	<b>Coils</b>	
L103,L104	233484	NMC-4085,LPF <P/T/W>
L141	233457	NFIF-4081,FM IF
L142	233458	NFIF-4082,FM IF
L171	232174	NMRF-5077,AM RF
L172	5600-3416-S	NMIF-4062,AM IF
L185	1801-101K-M	100 $\mu$ H $\pm$ 10%,Choke <P>
	<b>Filters</b>	
X101,X103	3010122	SFE10.7MA5
X102	3010130	SFE10.7MZZ2K-A <P/T/W>
X171	2701-0680-0	CF 450 +-1 SFZ45
	<b>Oscillators</b>	
X121	2300-0440-0	7.2MHz, Crystal
X185	2300-1220-0	4.332MHz, crystal <P>
	<b>Capacitors</b>	
C002	354741009	10 $\mu$ F,16V,Elect.
C1010,C142	354741019	100 $\mu$ F,16V,Elect.
C124,C125	345343004	30pF $\pm$ 5% CH,50V,Ceramic
C126	374723334	0.033 $\mu$ F $\pm$ 5%,50V,Plastic
C127,C143	354780229	2.2 $\mu$ F,50V,Elect.
C128	354744709	47 $\mu$ F,16V,Elect.
C129	354782299	0.22 $\mu$ F,50V,Elect.
C131	354721019	100 $\mu$ F,6.3V,Elect.
C144	354780479	4.7 $\mu$ F,50V,Elect.
C146,C148	354780109	1 $\mu$ F,50V,Elect.
C147,C167	354784799	0.47 $\mu$ F,50V,Elect.
C151,C177	354780229	2.2 $\mu$ F,50V,Elect.
C153,C154	371122724	2700pF $\pm$ 5%,50V,Mylar <P/T/W>
	371123324	3300pF $\pm$ 5%,50V,Mylar <D>
C159,C160	354742209	22 $\mu$ F,16V,Elect.
C161,C162	371121524	1500pF $\pm$ 5%,50V,Mylar <P/T>
	371121824	1800pF $\pm$ 5%,50V,Mylar <W>
C163,C164	354742209	22 $\mu$ F,16V,Elect.
C165	371122724	2700pF $\pm$ 5%,50V,Mylar <P/T/W>
C169	354744709	47 $\mu$ F,16V,Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Capacitors</b>	
C170	374722334	0.022 $\mu$ F $\pm$ 5%,50V,Plastic
C175	354741009	10 $\mu$ F,16V,Elect.
C171	345340802	8pF $\pm$ 0.5 CH,50V,Ceramic
C173	374724734	0.047 $\mu$ F $\pm$ 5%,50V,Plastic
C179	354742209	22 $\mu$ F,16V,Elect.
C186,C190	354721019	100 $\mu$ F,6.3V,Elect. <P>
C188,C189	345343304	33pF $\pm$ 5% CH,50V,Ceramic <P>
C191	371121024	1000pF $\pm$ 5%,50V,Mylar <P>
	<b>Resistors</b>	
R141	4756-2236-3-06	SVR 22K,Trimming
R156	4756-1036-3-03	SVR 10K,Trimming
	<b>Terminal</b>	
P103	2107-1061-0	Antenna
	<b>Connectors</b>	
J203b	2101-1601-0	16P,Socket
TP141	2113-1160-0	2P, Wafer

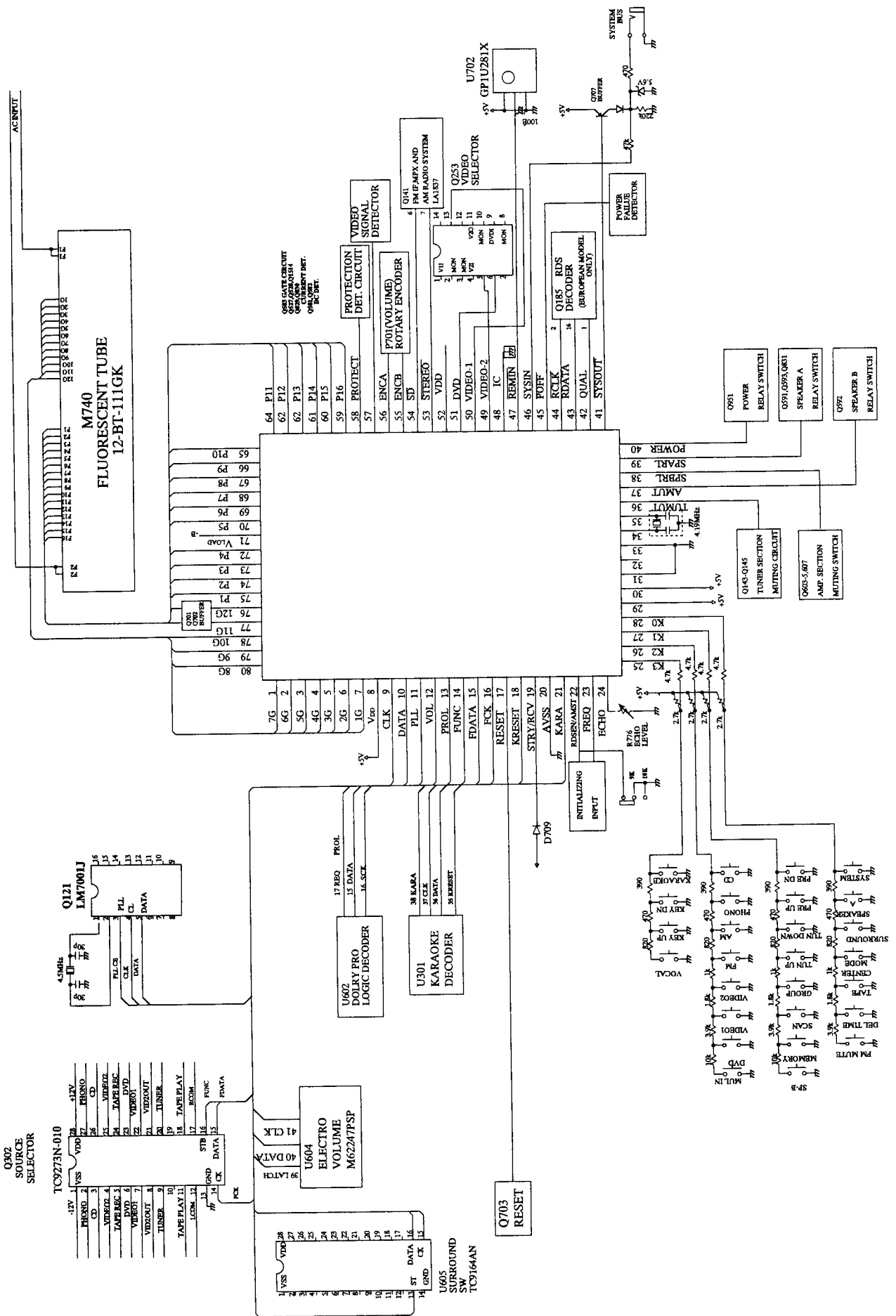
## HEADPHONE TERMINAL PC BOARD ASSEMBLY

CIRCUIT NO.	PART NO.	DESCRIPTION
J571	2113-1081-2	Headphone jack <B>
	2113-1081-1	Headphone jack <G>

NOTE: <D>: 120V model only  
 <P>: 230V model only  
 <T>: Asian model only  
 <W>: Worldwide model only  
 <B>: Black model only  
 <G>: Golden model only  
 <350>: Model TX-SE350 only

NOTE: THE COMPONENTS IDENTIFIED BY MARK  
 $\Delta$  ARE CRITICAL FOR RISK OF FIRE AND  
 ELECTRIC SHOCK. REPLACE ONLY WITH  
 PART NUMBER SPECIFIED.

**MICROPROCESSOR-CONNECTION DIAGRAM**

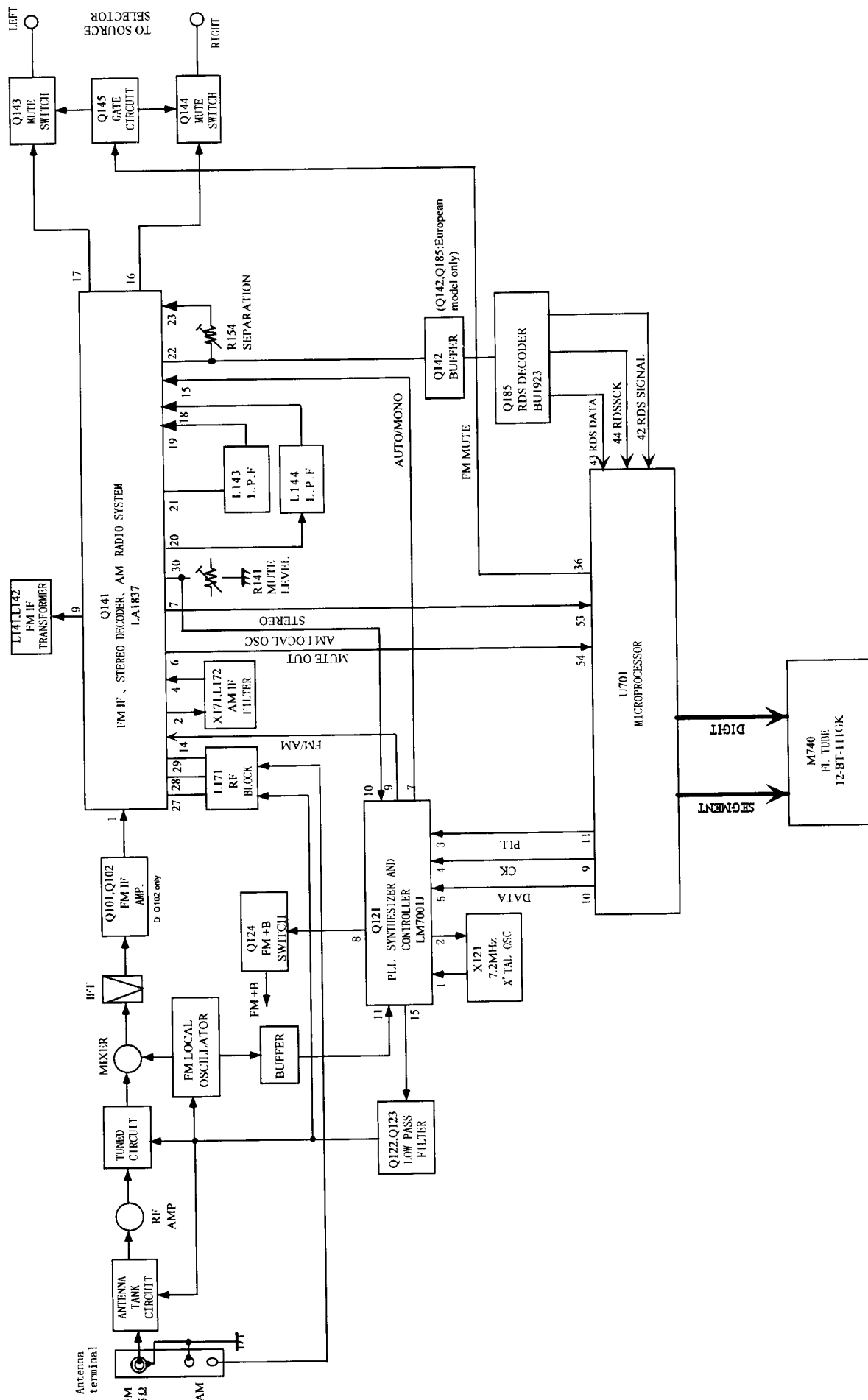




## TREMINAL DESCRIPTIONS

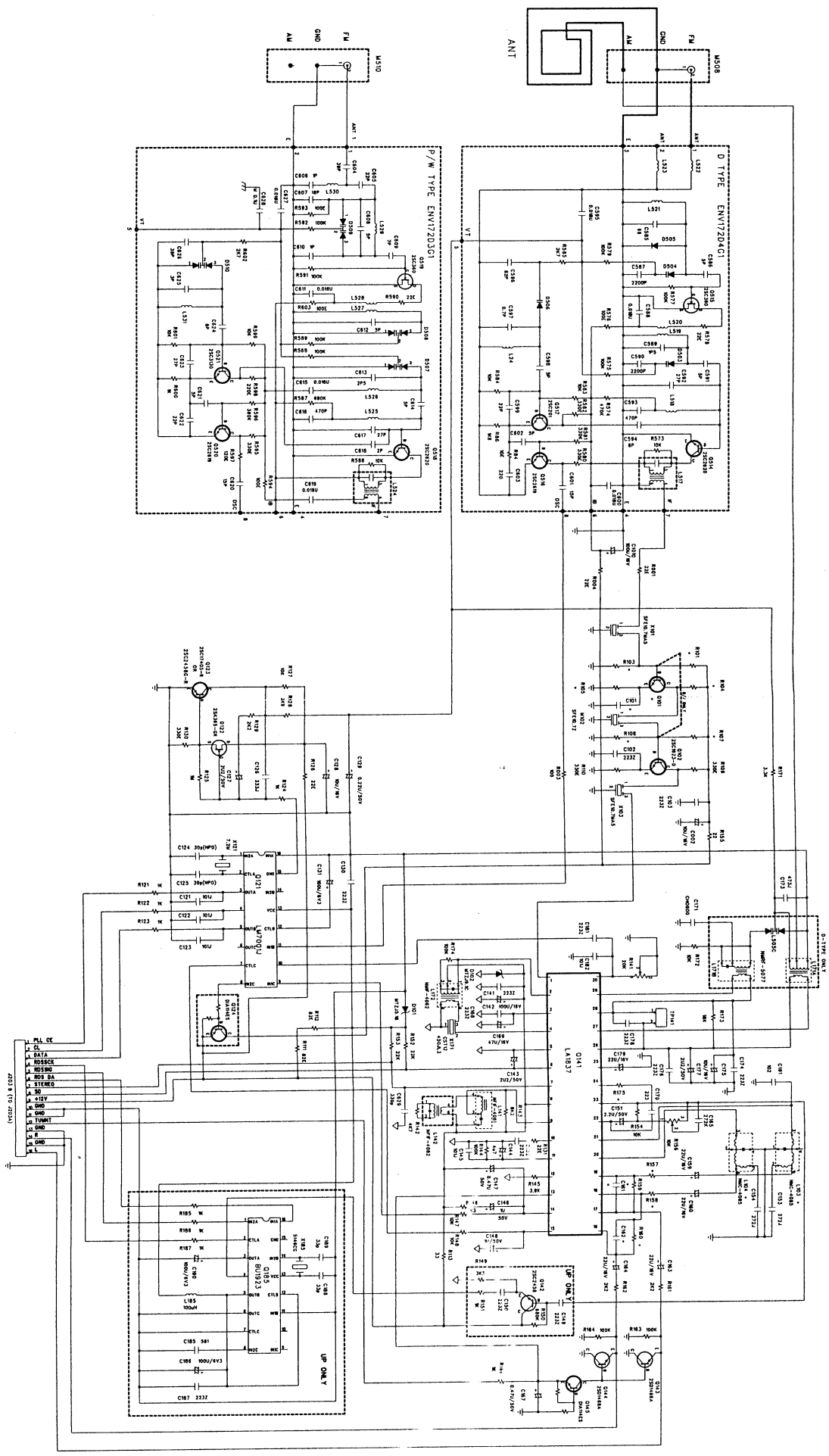
Pin No.	Function	Descriptions	Pin No.	Function	Descriptions
1~7	7G~1G	Grid output terminals	45	POFF	Power failure detection input terminal
8	VDD	Positive power supply terminal (+5V)	46	YSIN	System code input terminal
9	CLK	Clock output terminal.	47	REMIN	Remote control signal input terminal
10	DATA	Data output terminal.	48	IC	Internal connection terminal
11	PLL	Chip enable output terminal for PLL IC Q121.	49	VIDEO2	Video selector control output terminal
12	VOL	Clock output terminal for electro volume IC U604.	50	VIDEO1	Video selector control output terminal
13	PROL	Request output terminal for DOLBY IC U602.	51	DVD	Video selector control output terminal
14	FUNC	Strobe output terminal for function switch IC Q302	52	VDD	Power supply terminal (+5V)
15	FDATA	Data output terminal for function and surround switch ICs.	53	STEREO	Stereo broadcast detection input terminal
16	FCK	Clock output terminal for function and surround switch ICs.	54	SD	Broadcast detection input terminal
17	RESET	System reset input terminal	55,56	ENCB,A	Rotary encoder connection terminals for Volume.
18	KRESET	Reset output terminal for KARAOKE decoder.	57		Not used.
19	STBY/RECV	STANDBY/RECEIVED indication output terminal	58	PROTECT	Detection input terminal for protection circuit
20	AVSS	Ground terminal for A/D converter	59-70	P16~P5	Segment output terminals
21	KARA	Initializing input terminal	71	VLOAD	Resistor connection terminal for FIP controller and driver
22	RDSEN/AMS	Initializing input terminal for RDS decoder/AM band switch connection terminal.(Worldwide model)	72	P4~P1	Segment output terminals
23	FREQ	Initializing input terminal for region of frequency range	76~80	12G~8G	Grid output terminals
24	ECHO	Echo volume connection terminal			
25-28	K3~K0	Key input terminals			
29	AVDD	Analog power supply terminal (+5V)			
30	AVREF	Reference voltage input terminal for A/D converter			
31	XT1	Crystal connection terminals for subsystem clock			
32	XT2	Not used.			
33	VSS	Ground terminal			
34	X1	Crystal connection terminals for main system clock			
35	X2	Connect the 4.19MHz ceramic oscillator.			
36	TUMUT	Muting output terminal for tuner section			
37	AMUT	Muting output terminal for amplifier of front channels.			
38	SPBRL	Speaker relay B control output terminal			
39	SPARL	Speaker relay A control output terminal			
40	POWER	Power source control output terminal			
41	SYSOUT	System code output terminal			
42	QUAL	Detection input terminal for RDS broadcast			
43	RDDATA	Data input terminal for RDS broadcast			
44	RCLK	Clock input terminal from RDS demodulator			

**BLOCK DIAGRAM  
TUNER SECTION**



A B C D E F G

**SCHEMATIC DIAGRAM**



U0	R101	R104	R107	R103	R105	R108	R175	R159	R160	C101	C181	C182	Q101	R157	R158	J157	J111	
UP	3K3	-	-	M	-	-	3K	68K	68K	-	332	332	-	3K3	3K3	NO	YES	
UP	33K	330	3K3	12K	680	470	58K	330K	330K	223	152	152	252	252	2K7	2K7	YES	NO
UMT	33K	330	3K3	12K	680	470	58K	330K	330K	223	182	182	252	252	2K7	2K7	YES	NO

Preparation

1. Input

FM mono: 1kHz, 75kHz devi., 60dB/ $\mu$ V

FM stereo: 1kHz, 67.5kHz devi., 60dB/ $\mu$ V

Pilot signal 19kHz, 7.5kHz devi.

AM: 400Hz, 30% mod.

2. Outputs

Connect the non-inductive type resistor of 8 ohms to the all speaker terminals unless otherwise noted.

FM Adjustment

Item	Step	Connection of instrument	FM SG output	Stereo modulator output	Tuning frequency	Output indicator	Adjustment point	Adjust for	Remarks
FM IF/RF	1					DC voltmeter	L141	$0 \pm 20mV$	FM MUTE/STEREO switch-ON/STEREO Repeat the steps 1 and 3 until no further adjustment is necessary.
	2	Fig 1	99.0MHz 1kHz 75kHz devi. 65dB(60dB)	—	99.0MHz	AC voltmeter	IFT on the front end	Maximum	
	3					Distortion analyzer	L142	Minimum	
Stereo Distortion		Fig 2	99.0MHz Ext. mod. 65dB(60dB)	Channel L or R 1kHz	99.0MHz	Distortion analyzer	IFT on the front end	Minimum	Don't turn more than $\pm 180^\circ$
	1	Fig.2	99.0MHz Ext. mod. 65dB(60dB)	Channel L 1kHz Channel R 1kHz	99.0MHz	Channel R AC voltmeter Channel L AC voltmeter	R156	Minimum Minimum	Maximum and same separation
Muting Level		Fig.3	99.0MHz 19.2dB(14dB)	—	99.0MHz	Oscilloscope or TUNED indicator	R141	Signal output or light on	

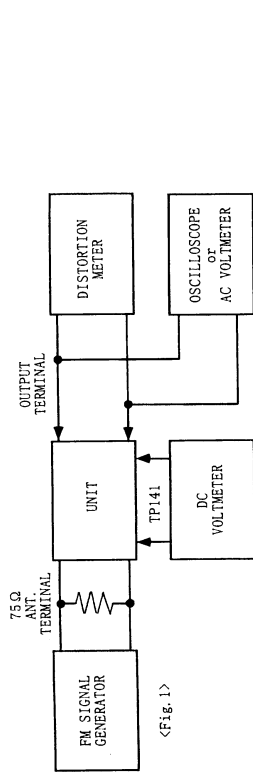
AM adjustment

120V model

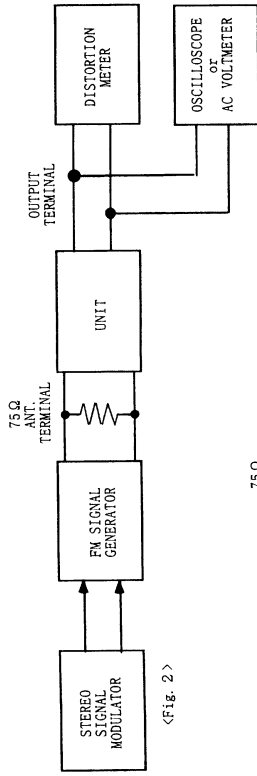
Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		530kHz	Digital DC voltmeter	OSC coil on RF block L171	$1.4 \pm 0.2V$
2	600kHz 400Hz 30% mod. 60dB/m	600kHz	AC voltmeter	RF coil on RF block L171	Maximum
3	990kHz 400Hz 30% mod. 60dB/m	990kHz	AC voltmeter	L172	Maximum

230V and worldwide models

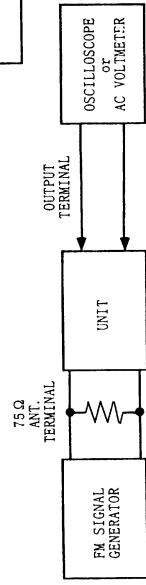
Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		522kHz or 531kHz	Digital DC voltmeter	OSC coil on RF block L171	$1.4 \pm 0.2V$
2	603kHz 400Hz 30% mod. 60dB/m	603kHz	AC voltmeter	RF coil on RF block L171	Maximum
3	999kHz 400Hz 30% mod. 60dB/m	999kHz	AC voltmeter	L172	Maximum



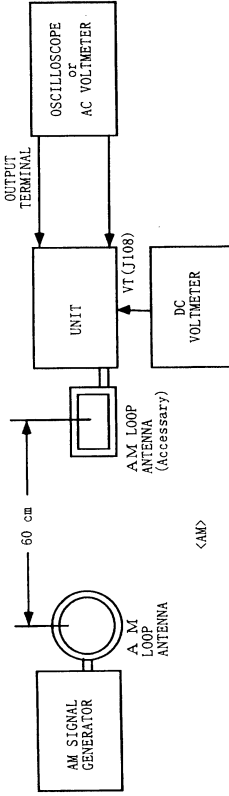
<Fig. 1>



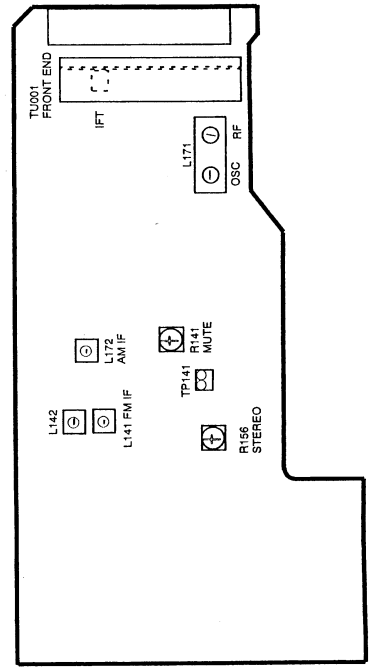
<Fig. 2>



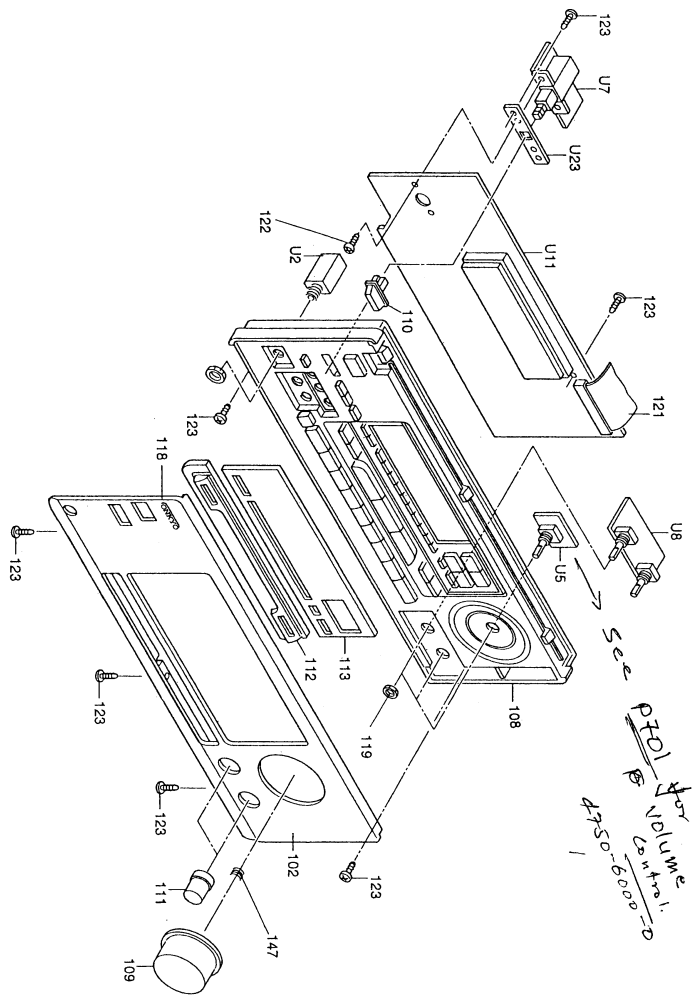
<Fig. 3>



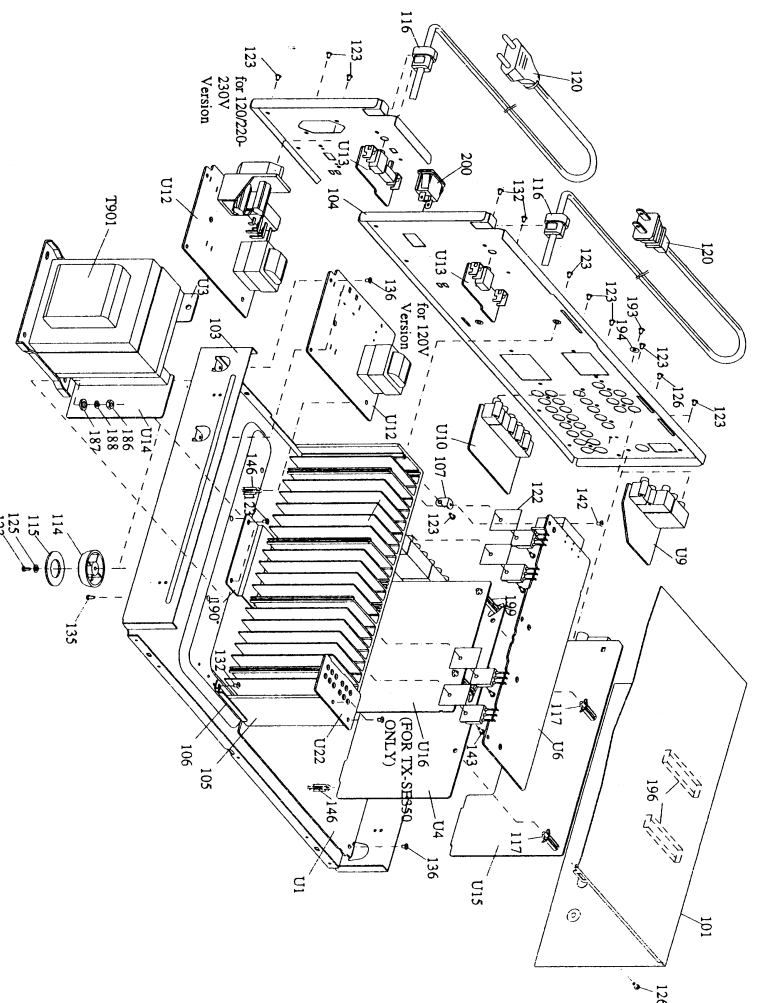
<AM>



**EXPLODED VIEWS**



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
101	1402-7611-0	Top cover	117	4153-9221-0	Holder, PCB
102	1402-7591-1	Front panel <D/T/W>	118	28135244Y	Badge
103	1402-7592-1	Front panel <P>	119	2640-C020-1434	Hexagon nut
104	1402-7620-0	Chassis	120	7009-3100-2	Power supply cord <D>
105	1402-7602-0	Rear panel <P>	121	7009-3110-0	Power supply cord <P/T/W>
106	1402-7603-0	Rear panel <T>	122	7010-1660-1	Power supply cord <R>
107	1402-7604-0	Rear panel <W>	123	3100-3211-0	Flexible flat cable
108	1402-7605-0	Rear panel <R>	123	838130088	Insulated sheet
109	5400-4001-0	Heat sink	125	87643006	W3*6, Metal washer
110	4134-0121-0	Bracket, heat sink	126	2954-3008-3000	T3X8MM, Self-tapping screw
111	4152-0451-0	Bracket L	132	82513006	3B+6FN, Tapping screw
112	1465-2301-0	Front bracket	135	838140108	M4X10, Self-tapping screw
113	2443-3101-0	Knob, Volume	136	838130068	3TTB+6B, Self-tapping screw
114	2443-4401-0	Knob, Power	143	831330100	M3X10, Self-tapping screw
115	2443-5501-0	Knob, Tone	146	4152-5831-0	M3X10, Self-tapping screw
116	1465-2001-0	Decorative frame	147	2510-3071-1	Knob, spring
117	3716-1501-0	Clear plate	150	2600-C006-1604	M12, Metal washer
118	27175319A	Leg			
119	28141332	Cushion			
120	27300750	Bushing, cord			

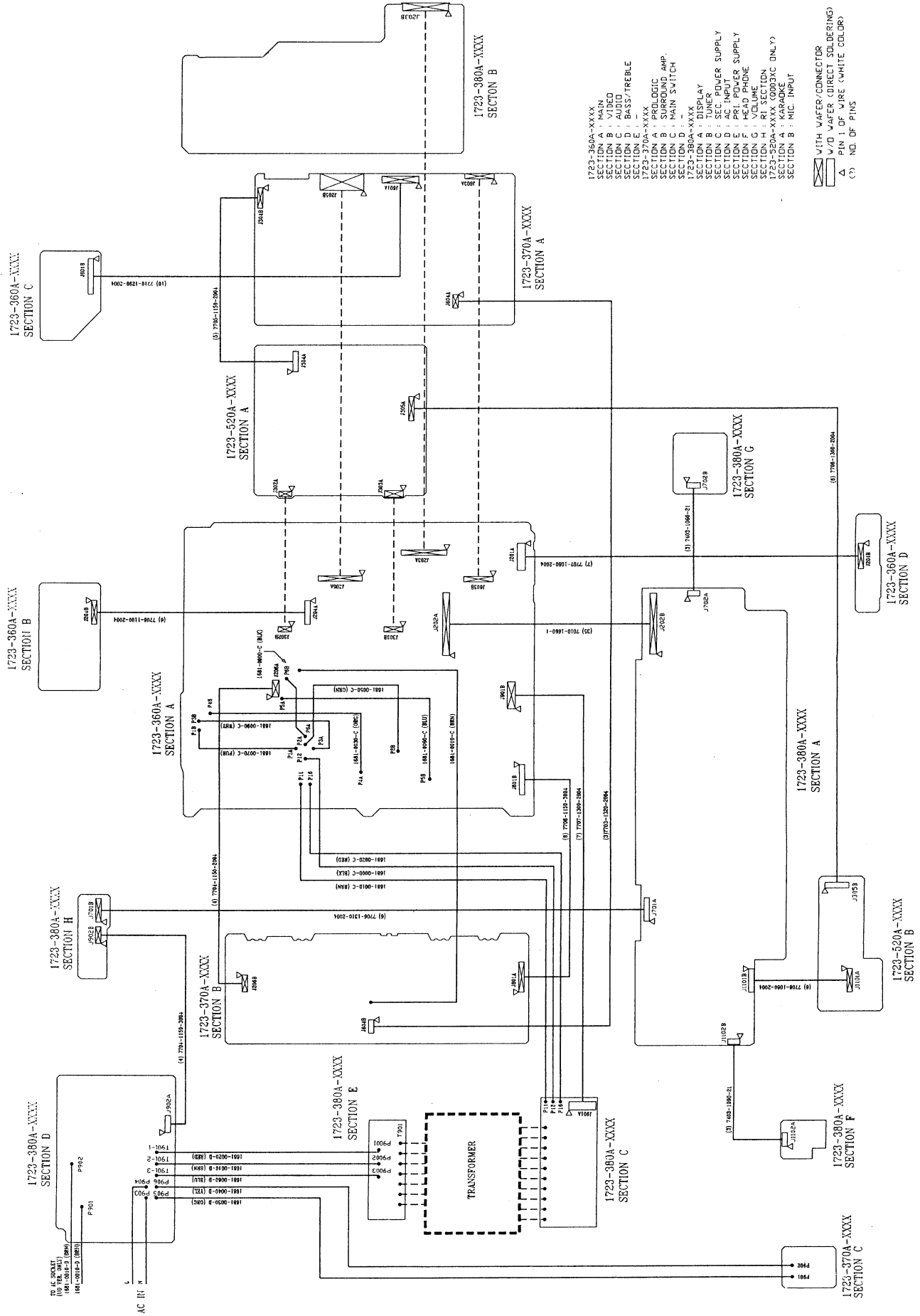


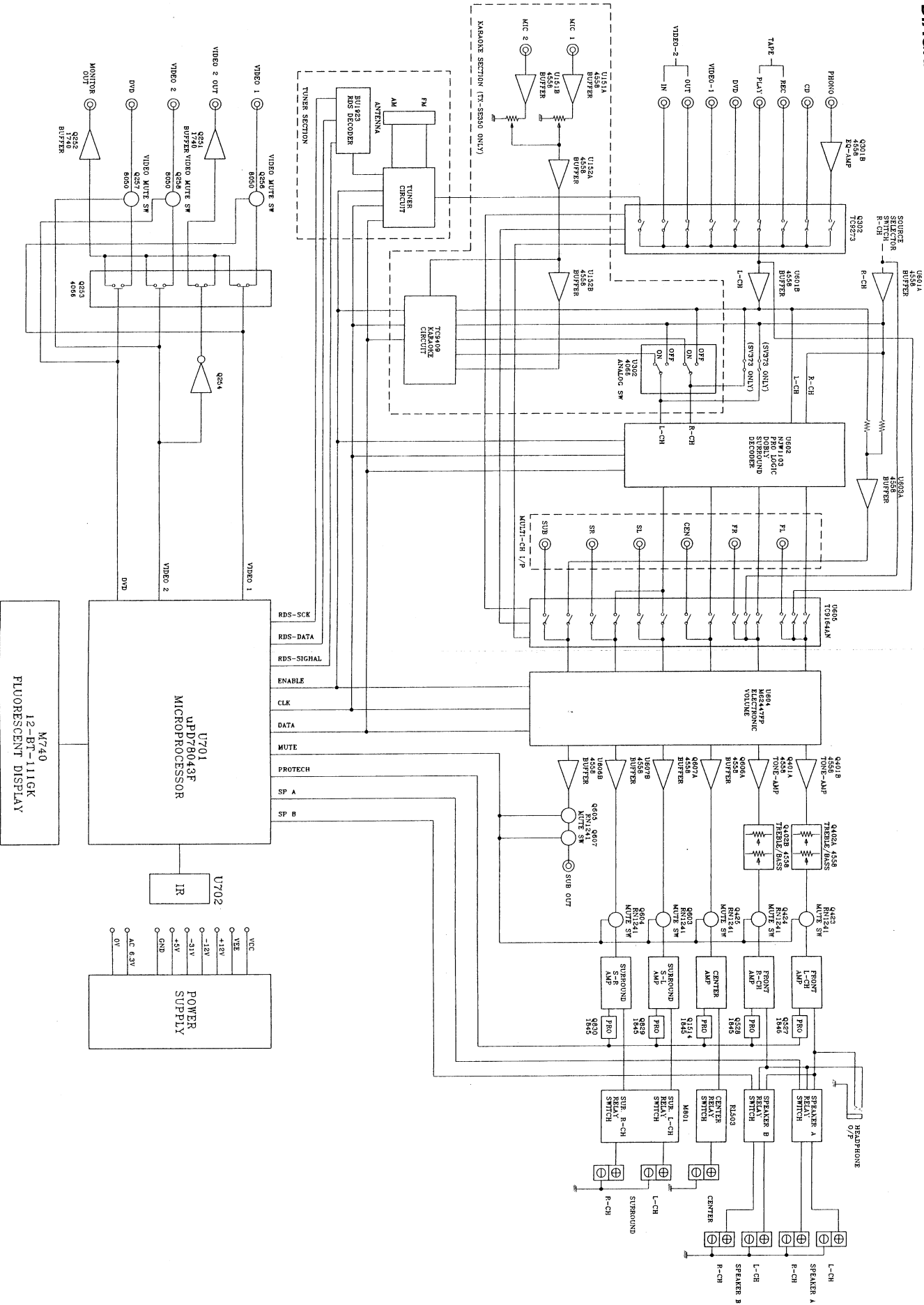
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
186	2640-4030-0703	M4 Nut	U12	PCBQ0020CPWR	Power PC board assy <D>
187	87644012	M4*12(FB/C), Flat washer	U13	PCBQ0021CPWR	Power PC board assy <P/T>
188	2607-4010-0703	M4 Spring washer	U14	PCBQ0022CPWR	Power PC board assy <R>
189	4134-8381-0	Bracket, heat sink	U15	PCBQ0024CPWR	Power PC board assy <R>
190	838230088	3TTB+8B(N), Nickel screw	U16	PCBQ0020CR1	RI terminal PC board assy <D/P/T>
193	87643010	W3*10(FB/C), Flat washer	U17	PCBQ0023CR1	RI terminal PC board assy <W/R>
194	2103-5802-0	125V, AC outlet <D>	U18	PCBQ0020CSEC	Secondary PC board assy <D>
199	1806-2310-1	EI-9 J/P120/230V, Power transformer	U19	PCBQ0021CSEC	Secondary PC board assy <P/T/W/R>
200			U20	PCBQ0020CTUN	Tuner PC board assy <D>
201			U21	PCBQ0021CTUN	Tuner PC board assy <P>
202			U22	PCBQ0022CTUN	Tuner PC board assy <T>
203			U23	PCBQ0023CTUN	Tuner PC board assy <W/R>

NOTE: <D>-120V model only  
 <P>-230V model only  
 <T>-Asian model only  
 <W>-Worldwide model only  
 <R>-Chinese model only

**TX-SV373**

WIRING VIEW





SCHEMATIC DIAGRAM

A

B

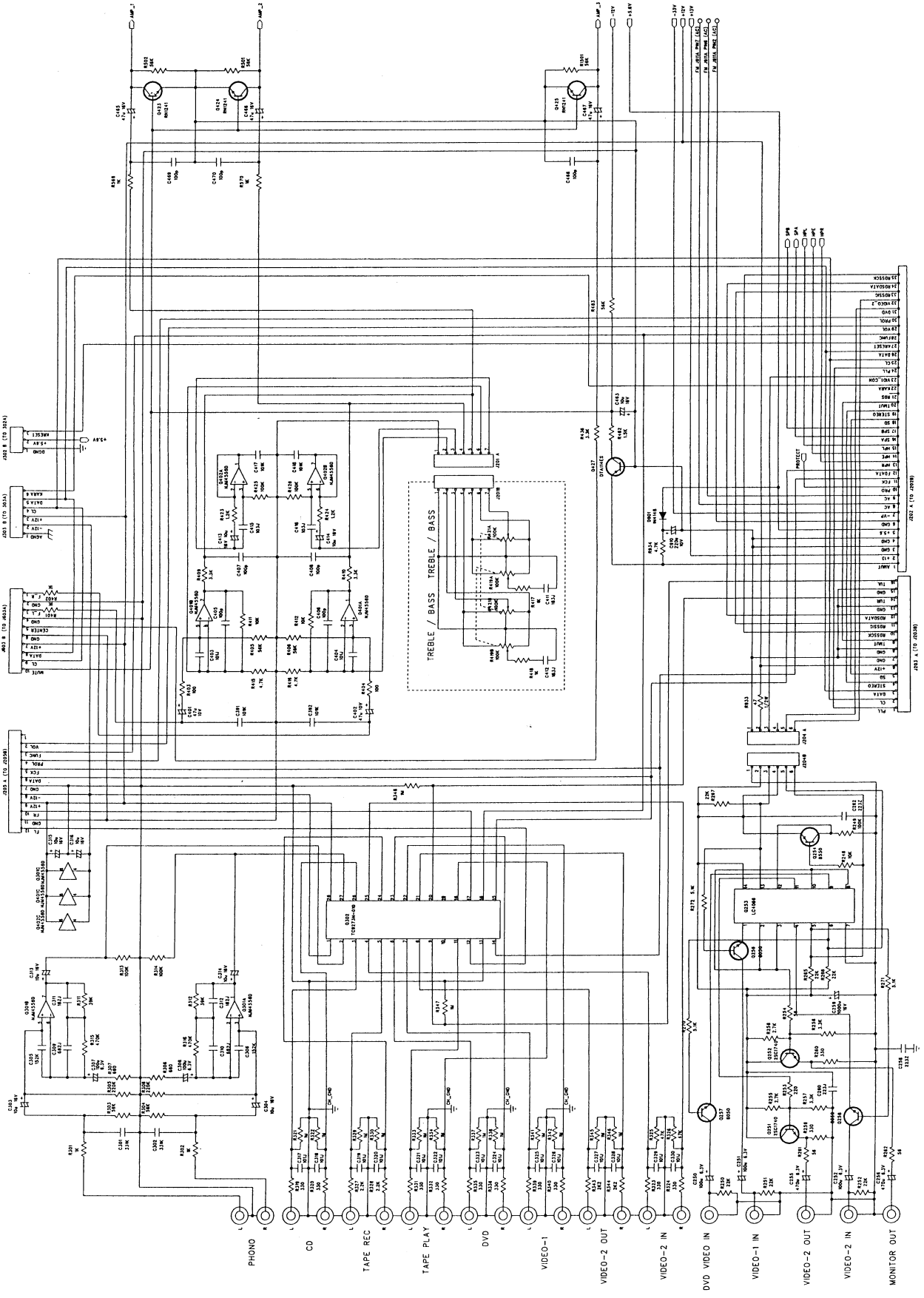
C

D

E

F

G

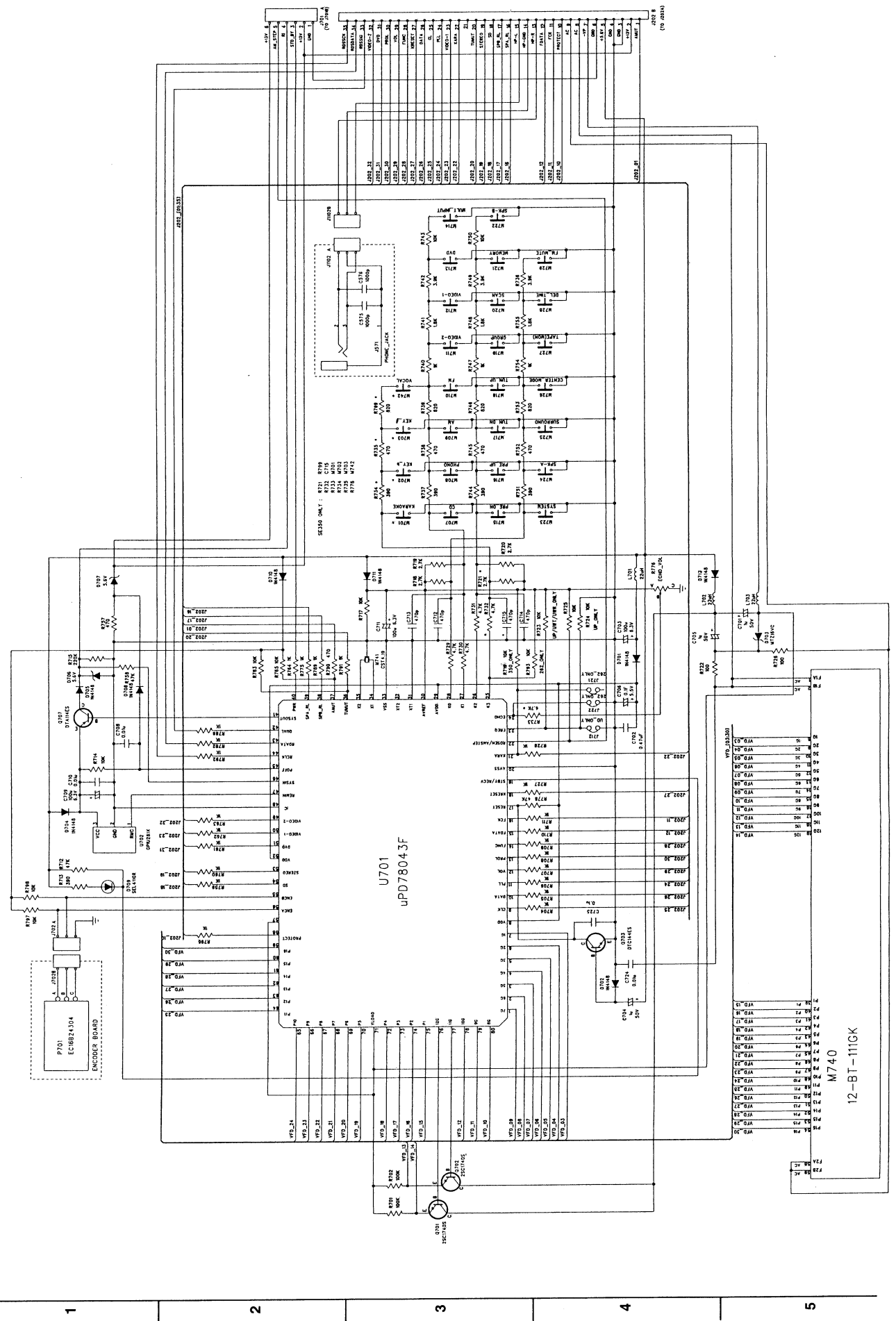






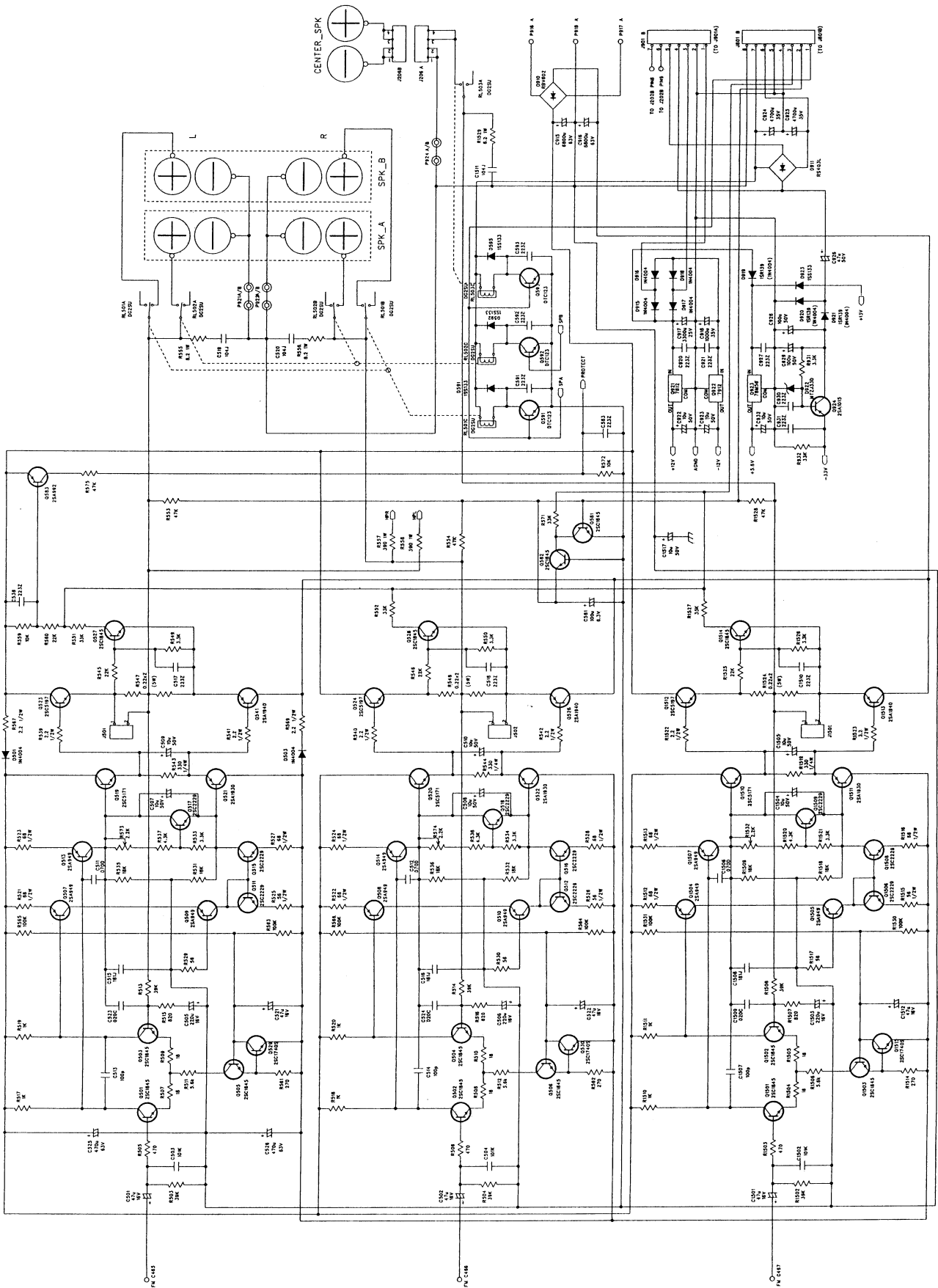
A B C D E F G

SCHEMATIC DIAGRAM

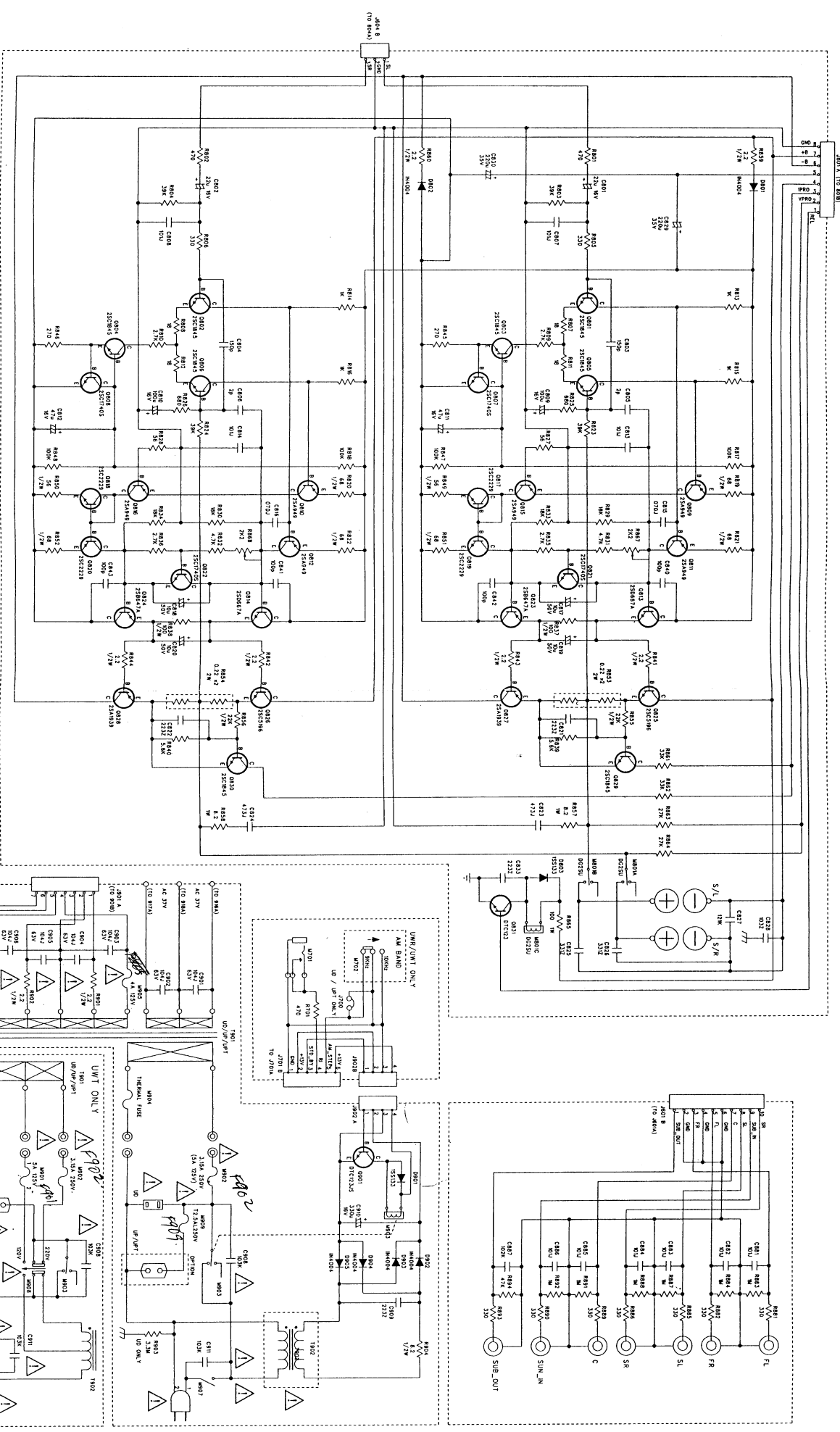


A B C D E F G

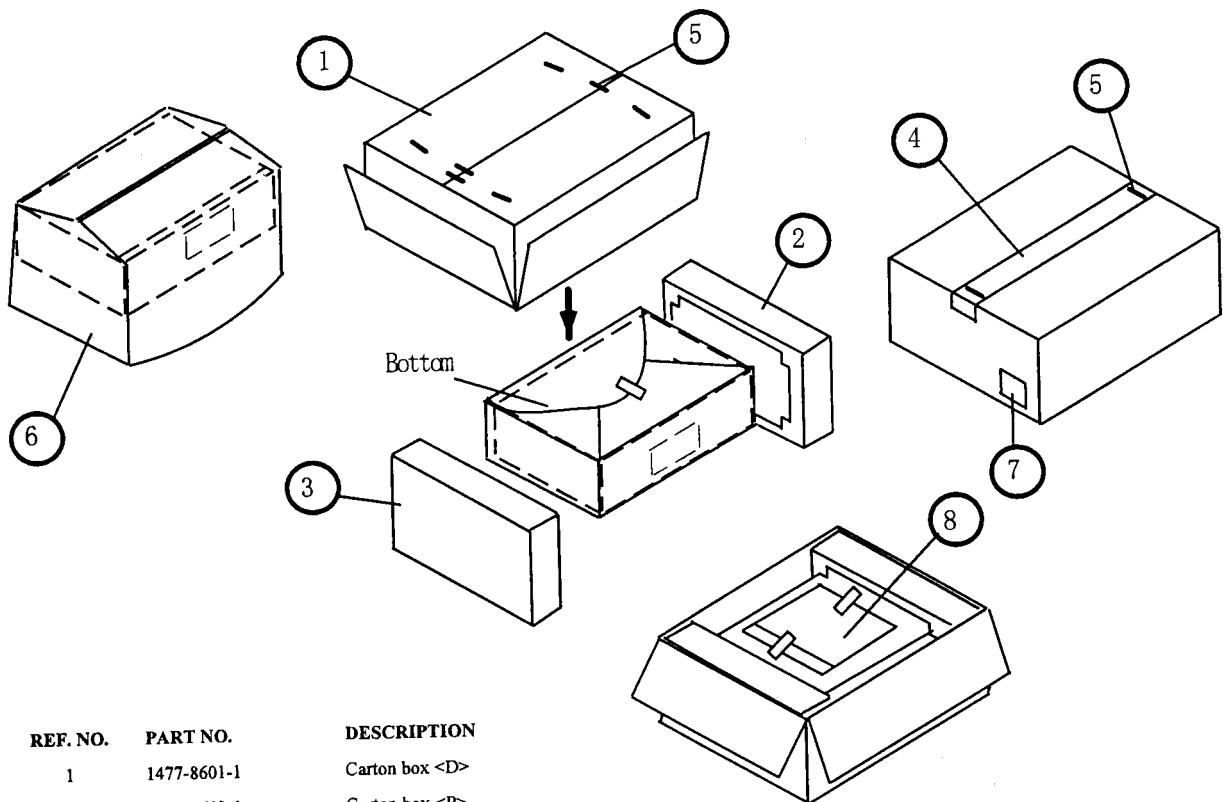
SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM



NOTE : COMPONENTS MARKED WITH "  $\Delta$  " ARE SAFETY CRITICAL PARTS.



REF. NO.	PART NO.	DESCRIPTION
1	1477-8601-1	Carton box <D>
	1477-8602-1	Carton box <P>
	1477-8603-1	Carton box <T/W>
2	1490-5023-0	Pad, left
3	1490-5024-0	Pad, right
4	29110071	PP tape
5	282301	Staple
6	1497-1072-4	Polybag, unit
7	3000-5091-0	Label UPC <D>
	3000-5092-0	Label EAN <P/T/W>

REF. NO.	PART NO.	DESCRIPTION
8	1497-1062-0	240X360X0.05, Polybag
	2101-1551-0	Antenna adopter <T>
	2105-3261-0	Conversion plug <T>
	2107-1081-0	Conversion plug <W>
	2113-1155-0	AM loop antenna
	29365019B	Warranty card <D>
	3010054	Battery
	4301-4204-0	Instruction manual E
	4301-4205-0	Instruction manual U3 <P>
	4301-4206-0	Instruction manual U3 <P>
4301-4207-0	Instruction manual T <T/W>	
7010-1740-0	FM antenna	
8900-1880-0	RC-386S Remote controller	

NOTE: <D>:120V model only  
 <P>:European model only  
 <T>:Asian model only  
 <W>:Worldwide model only

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