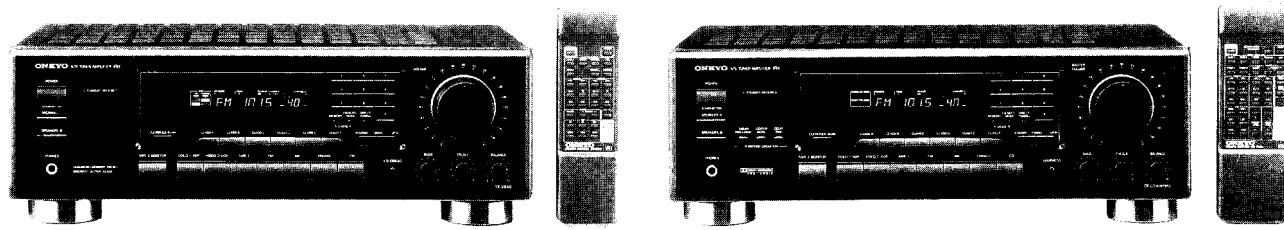


ONKYO SERVICE MANUAL

**QUARTZ SYNTHESIZED
TUNER AMPLIFIER
MODEL TX-V940
MODEL TX-V940RDS
MODEL TX-SV414PRO**

**Black model**

BMD, BMDN	120V AC, 60Hz
BMP	230V AC, 50Hz
BMW	120V or 220V AC, 50/60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ 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

TX-V940/TX-V940RDS

Power Output:	USA & Canadian models: 100 watts per channel, min. RMS, at 8 ohms, both channels driven, from 40 Hz to 20 kHz with no more than 0.2% THD.
	Other than USA & Canadian models: Continuous output 2 x 100 watts at 4 ohms 1 kHz (DIN) 2 x 75 watts at 8 ohms 1 kHz (DIN)
Total Harmonic Distortion:	0.08% at power 30 watts
IM Distortion:	0.08% at power 30 watts
Damping Factor:	50 at 8 ohms
Sensitivity and Impedance:	Phono: 2.5 mV/50 kohms CD/Tape Play: 150 mV/50 kohms Tape Rec: 150 mV/2.2 kohms
Phono Overload:	120 mV RMS. at 1,000 Hz, 0.5% THD.
Frequency Response:	20 to 30,000 Hz, +/-1 dB
RIAA Deviation:	20 to 20,000 Hz, +/-0.8 dB
Tone Control:	BASS: +/-10 dB at 100 Hz TREBLE: +/-10 dB at 10,000 Hz
Signal to Noise Ratio:	PHONO: 80 dB (IHF A, 5 mV input) CD/TAPE: 100 dB (IHF A)

VIDEO SECTION

Signal sensitivity and impedance:	VDP/VCR input, output: 1 Vp-p, 75 ohms
	VDP/VCR input, output: 1 Vp-p, 75 ohms

TUNER SECTION

FM:

Tuning Range:	87.5 — 108.0 MHz
Usable Sensitivity:	Mono: 11.2 dBf, 1.0 µV (75 ohms) Stereo: 17.2 dBf, 2.0 µV (75 ohms)
50dB Quieting Sensitivity:	Mono: 18.2 dBf, 2.2 µV (75 ohms) Stereo: 38.2 dBf, 22 µV (75 ohms)
Capture Ratio:	1.5 dB
Image Rejection Ratio:	USA & Canadian models: 40 dB Other area models: 85 dB
IF Rejection Ratio:	90 dB
Signal-to-Noise Ratio:	Mono: 73 dB Stereo: 67 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 — 15,000 Hz +/-1.5 dB
Stereo Separation:	45 dB at 1 kHz/30 dB at 100 — 10,000 Hz

AM:

Tuning Range:	USA & Canadian models: 530 — 1710 kHz (10 kHz steps) European models: 522 — 1611 kHz (9 kHz steps) Worldwide models 531 — 1602 kHz (9 kHz steps), 530 — 1710 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:	USA & Canadian models: AC120 V, 60 Hz European models: AC 230V, 50 Hz UK & Australian models: AC 240 V, 50 Hz Worldwide models: 220 V and 120 V switchable 50/60 Hz
Dimensions (W x H x D):	455 x 150 x 331 mm 17-15/16" x 5-7/8" x 13-1/16"
Weight:	9.5 kg (20.9 lbs)

TX-SV414PRO

Stereo mode	Front L/R channels 60 watts per channel min. RMS. at 8 ohms, both channels driven, from 20 Hz to 20,000 Hz, with no more than 0.08% total harmonic distortion.
Continuous Power output:	2 x 90 watts 4 ohms 1 kHz (DIN) 2 x 70 watts 8 ohms 1 kHz (DIN)
Surround mode	Front L/R and center channels 50 watts per channel min. RMS at 8 ohms, with no more than 0.08% total harmonic distortion at 1,000 Hz
Rear channels	15 watts per channel min. RMS at 8 ohms with no more than 0.3% total harmonic distortion at 1,000 Hz
0.08% at rated power (FRONT)	0.08% at rated power (FRONT)
50 at 8 ohms (FRONT)	Phono: 2.5 mV/50 kohms CD/Tape Play: 150 mV/50 kohms Tape Rec: 150 mV/2.2 kohms
Mono out (SUBWOOFER): 1V 2.2 kohms	Mono out (SUBWOOFER): 1V 2.2 kohms
120 mV RMS. at 1,000 Hz, 0.5% THD.	120 mV RMS. at 1,000 Hz, 0.5% THD.
20 to 30,000 Hz, +/-1 dB	20 to 30,000 Hz, +/-1 dB
20 to 20,000 Hz, +/-0.8 dB	20 to 20,000 Hz, +/-0.8 dB
BASS: +/-10 dB at 100 Hz	BASS: +/-10 dB at 100 Hz
TREBLE: +/-10 dB at 10,000 Hz	TREBLE: +/-10 dB at 10,000 Hz
PHONO: 80 dB (IHF A, 5 mV input)	PHONO: 80 dB (IHF A, 5 mV input)
CD/TAPE: 100 dB (IHF A)	CD/TAPE: 100 dB (IHF A)
VDP/VCR input, output: 1 Vp-p, 75 ohms	VDP/VCR input, output: 1 Vp-p, 75 ohms
87.5 — 108.0 MHz	87.5 — 108.0 MHz
Mono: 11.2 dBf, 1.0 µV (75 ohms)	Mono: 11.2 dBf, 1.0 µV (75 ohms)
Stereo: 17.2 dBf, 2.0 µV (75 ohms)	Stereo: 17.2 dBf, 2.0 µV (75 ohms)
Mono: 18.2 dBf, 2.2 µV (75 ohms)	Mono: 18.2 dBf, 2.2 µV (75 ohms)
Stereo: 38.2 dBf, 22 µV (75 ohms)	Stereo: 38.2 dBf, 22 µV (75 ohms)
1.5 dB	1.5 dB
USA & Canadian models: 40 dB	USA & Canadian models: 40 dB
Other area models: 85 dB	Other area models: 85 dB
90 dB	90 dB
Mono: 73 dB	Mono: 73 dB
Stereo: 67 dB	Stereo: 67 dB
55 dB	55 dB
50 dB (DIN)	50 dB (DIN)
50 dB	50 dB
Mono: 0.15%	Mono: 0.15%
Stereo: 0.25%	Stereo: 0.25%
30 — 15,000 Hz +/-1.5 dB	30 — 15,000 Hz +/-1.5 dB
45 dB at 1 kHz/30 dB at 100 — 10,000 Hz	45 dB at 1 kHz/30 dB at 100 — 10,000 Hz
USA & Canadian models: 530 — 1710 kHz (10 kHz steps)	USA & Canadian models: 530 — 1710 kHz (10 kHz steps)
European models: 522 — 1611 kHz (9 kHz steps)	European models: 522 — 1611 kHz (9 kHz steps)
Worldwide models 531 — 1602 kHz (9 kHz steps), 530 — 1710 kHz (10 kHz steps)	Worldwide models 531 — 1602 kHz (9 kHz steps), 530 — 1710 kHz (10 kHz steps)
30 µV	30 µV
40 dB	40 dB
40 dB	40 dB
40 dB	40 dB
0.7%	0.7%
USA & Canadian models: AC120 V, 60 Hz	USA & Canadian models: AC120 V, 60 Hz
European models: AC 230V, 50 Hz	European models: AC 230V, 50 Hz
UK & Australian models: AC 240 V, 50 Hz	UK & Australian models: AC 240 V, 50 Hz
Worldwide models: 220 V and 120 V switchable 50/60 Hz	Worldwide models: 220 V and 120 V switchable 50/60 Hz
455 x 150 x 331 mm	455 x 150 x 331 mm
17-15/16" x 5-7/8" x 13-1/16"	17-15/16" x 5-7/8" x 13-1/16"
9.5 kg (20.9 lbs)	10.2 kg (22.5 lbs)

Remote control transmitter RC-223S

Transmitter: Infrared
Signal range: Approx. 5 meters (16ft. X 4")
Power supply: Two "AA" batteries(1.5V X 2)

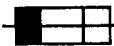
Specifications and features are subject to change without notice.

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.

Circuit No.	Part No.	Descriptions	Models	Remarks
F901	252166Y	6.3A-UL/T-237,Primary	MD/MW	
F902	252076	3.15A-SE-EAK,Primary	MP/MW	
F903	252075	2.5A-SE-EAK,AC outlet	MP	
F921,F922	252166Y	6.3A-UL/T-237,Secondary	MD	TX-SV414PRO only
F921,F922	252079	6.3A-SE-EAK,Secondary	MP/MW	TX-SV414PRO only

2.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 nickel screw on the back panel.

Specifications: 3.3Mohm ±10% at 500V.

3.Change of voltage

Worldwide models are equipped 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.

4.Step band selector switch

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

AM step

Europe: 50μsec

9kHz

U.S.A.: 75μsec

10kHz

5.Changing the band step

With the exception of the models below, a BAND STEP selector switch is not provided.

<AM>

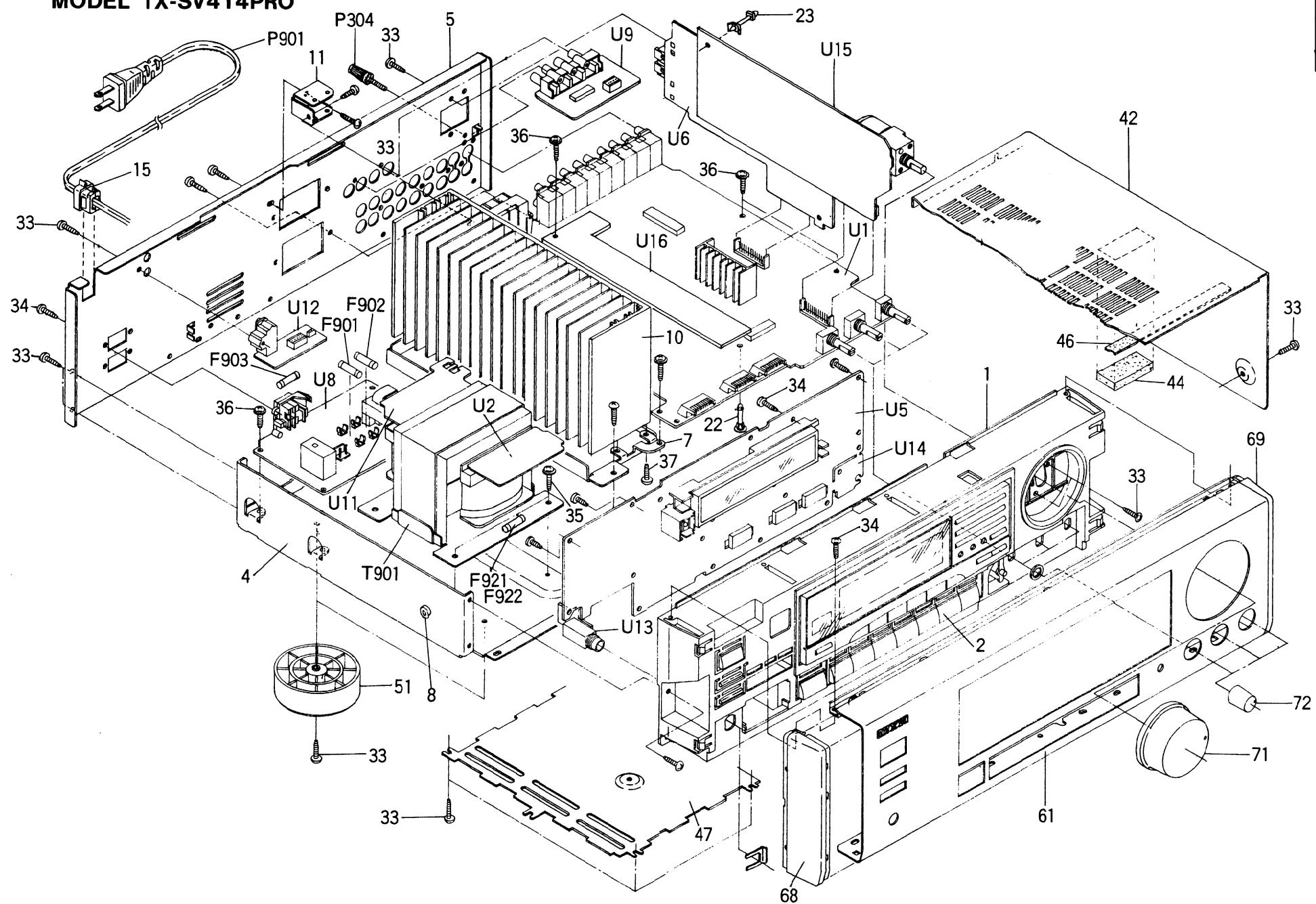
MODEL	BAND STEP	R727
MD	10kHz to 9kHz	47 kΩ
MP	9kHz to 10kHz	22 kΩ

6.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 to keep the back-up system operative. The period of 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 shorter when the unit is exposed to very high humidity or used in an area with an extremely humid climate.

EXPLODED VIEW

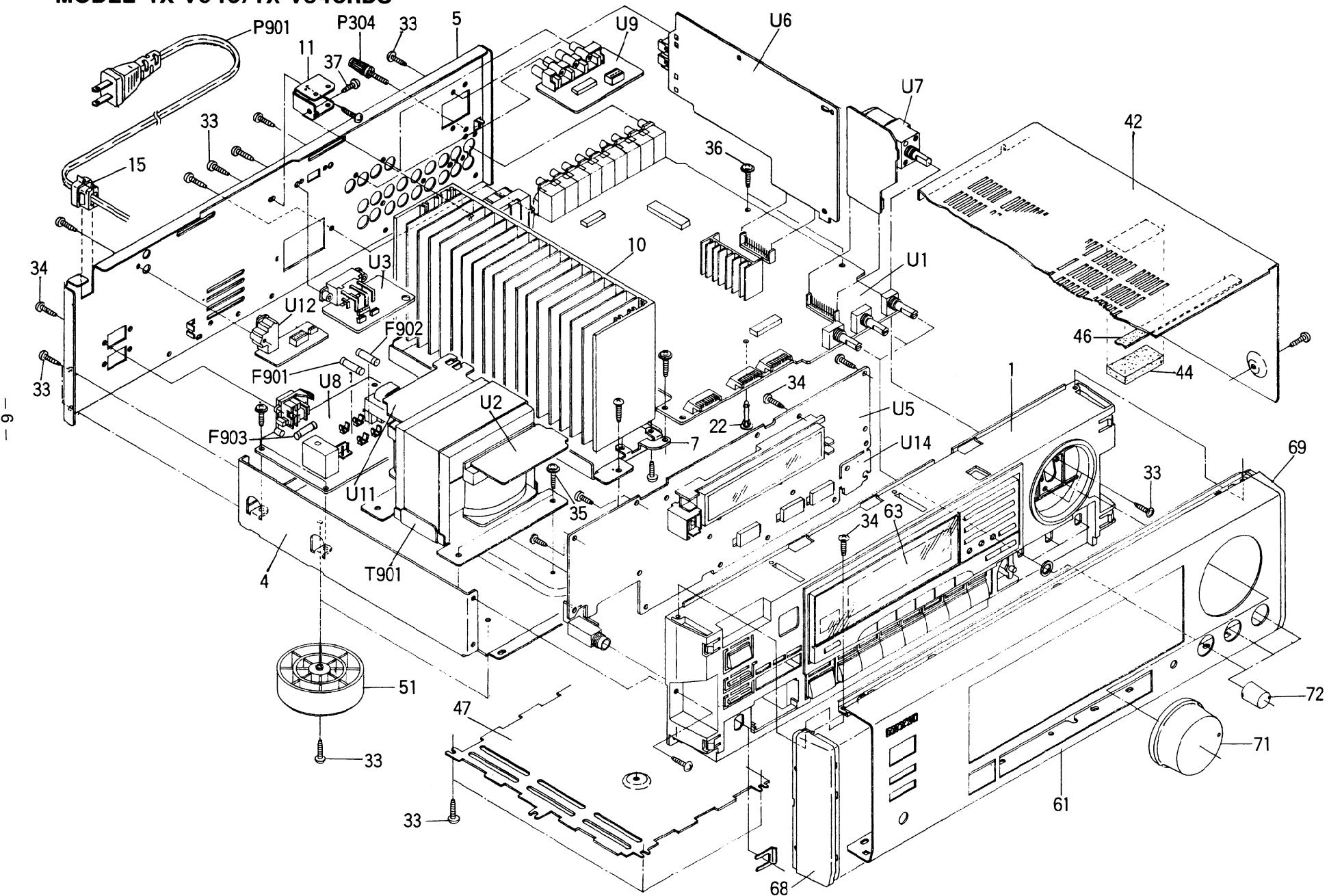
MODEL TX-SV414PRO



PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	27110794Y	Front bracket	P304	25060044	Terminal	U6	1A472598-1Y	NARF-4898-1,Tuner circuit pc board ass'y <D>
2	28324929AY	Knob CLA	P901	253192HIT	AS-UC-6#18,Power supply cord <D/PX>		1A472598-1AY	NARF-4898-1A,Tuner circuit pc board ass'y <P>
3	28175209Y	Isolating plate		253193HIT	AS-CEE,Power supply cord <P/W>		1A472598-1BY	NARF-4898-1B,Tuner circuit pc board ass'y <W>
4	27100278AY	Chassis	Q521,Q522	2202523,	2SC4468-O,	U8	1A472500-1Y	NAPS-4900-1,Power supply circuit pc board ass'y <D>
5	27121825AY	Rear panel <D>		2202524,	2SC4468-Y,		1A472500-1AY	NAPS-4900-1A,Power supply circuit pc board ass'y <P>
	27121826AY	Rear panel <P>		2202526,	2SC4468-P,		1A472500-1BY	NAPS-4900-1B,Power supply circuit pc board ass'y <W>
	27121828AY	Rear panel <W>		2202292 or	2SC3182N-R or		1A472500-1DY	NAPS-4900-1D,Power supply circuit pc board ass'y <PX>
	27121829AY	Rear panel <PX>		2202293	2SC3182N-O,Transistors	U9	1A472501-1Y	NAETC-4901-1,Video circuit pc board ass'y
	27121842AY	Rear panel <C>	Q523,Q524	2202513,	2SA1695-O,	U11	1A472503-1Y	NAETC-4903-1,Primary circuit pc board ass'y
7	27130727Y	Bracket H		2202514,	2SA1695-Y,	U12	1A472504-1Y	NAETC-4904-1,RI terminal pc board ass'y <D/P>
8	27270212Y	Spacer <P/W>		2202516,	2SA1695-P,		1A472504-1BY	NAETC-4904-1B,RI terminal pc board ass'y <W>
10	27160330AY	Radiator		2202282 or	2SA1265N-R or	U13	1A472505-1Y	NAETC-4905-1,Headphone terminal pc board ass'y
11	27141623Y	Retainer H		2202283	2SA1265N-O,Transistors	U14	1A472506-1Y	NASW-4906-1,Loudness switch pc board ass'y
13	27141530AY	Retainer HS-2	Q821	2202253,	2SC4467-O,	U15	1A472508-1Y	NAAF-4908-1,Surround ciruict pc board ass'y
15	27300750	▲ Bushing cord		2202254,	2SC4467-Y,	U16	1A472509-1Y	NAAF-4909-1,Center and rear amplifier pc board ass'y <D>
22	27190524	KGLS-14RF,Holder		2202256,	2SC4467-P,		1A472509-1AY	NAAF-4909-1A,Center and rear amplifier pc board ass'y <P/W>
23	27190062	KGLS-12S,Holder		2202502 or	2SC3181N-R or			
32	801433	3SMS8W,SW+14B(BC),Special screw		2202503	2SC3181N-O,Transistors			
33	834430088	3TTS+8B(BC),Self-tapping screw	Q822	2202373,	2SC4466-O,			
34	833430080	3TTP+8P(BC),Self-tapping screw		2202374,	2SC4466-Y,			
35	830440089	4TTC+8B(BC),Self-tapping screw		2202375,	2SC4466-P,			
36	831130088	3TTW+8B,Self-tapping screw		2202352 or	2SC3180N-R or			
37	834430108	3TTS+10B(BC),Self-tapping screw		2202353	2SC3180N-O,Transistors			
39	82143006	3P+6FN(BC),Pan head screw	Q823	2202243,	2SA1694-O,			
42	28184476BY	Top cover		2202244,	2SA1694-Y,			
44	28140265	Cushion		2202246,	2SA1694-P,			
46	28140546	Cushion		2202492 or	2SA1264N-R or			
47	27170302Y	Bottom panel		2202493	2SA1264N-O,Transistors			
51	27175251AY	Leg	Q824	2202363,	2SA1693-O,			
61	1A472121Y	Front panel ass'y		2202364,	2SA1693-Y,			
62	8910301	CS-3,Ring CS		2202365,	2SA1693-P,			
63	28191673Y	Clear plate		2202342 or	2SA1263N-R or			
64	28198782Y	Facet		2202343	2SA1263N-O,Transistors			
67	28135199	Badge	T901	2300983AY	▲ NPT-1196D,Power transformer <D>			
68	28125255A	End cap L		2300984Y	▲ NPT-1196P,Power transformer <P>			
69	28125256A	End cap R		2300985Y	▲ NPT-1196DG,Power transformer <W>			
71	28324933A	Knob VOLUME	U1	1A472592-1Y	NAAR-4892-1,Main circuit pc board ass'y <D>			
72	28324845B	Knob LEVEL		1A472592-1AY	NAAR-4892-1A,Main circuit pc board ass'y <P/W>			
F901	252166Y	▲ 6.3A-UL/T237,Fuse <D/W>	U2	1A472593-1Y	NAETC-4893-1,Power supply circuit pc board ass'y <D>			
F902	252076	▲ 3.15A-SE-EAK,Fuse <P/W>		1A472593-1AY	NAETC-4893-1A,Power supply circuit pc board ass'y <P/W>			
F903	252075	▲ 2.5A-SE-EAK,Fuse <P>	U5	1A472597-1Y	NADIS-4897-1,Display circuit pc board ass'y <D>			
F921,F922	252166Y	▲ 6.3A-UL/T237,Fuse <D>		1A472597-1AY	NADIS-4897-1A,Display circuit pc board ass'y <P>			
	252079	▲ 6.3A-SE-EAK,Fuse <P/W>		1A472597-1BY	NADIS-4897-1B,Display circuit pc board ass'y <W>			
				1A472597-1CY	NADIS-4897-1C,Display circuit pc board ass'y <C>			

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

EXPLODED VIEW**MODEL TX-V940/TX-V940RDS**

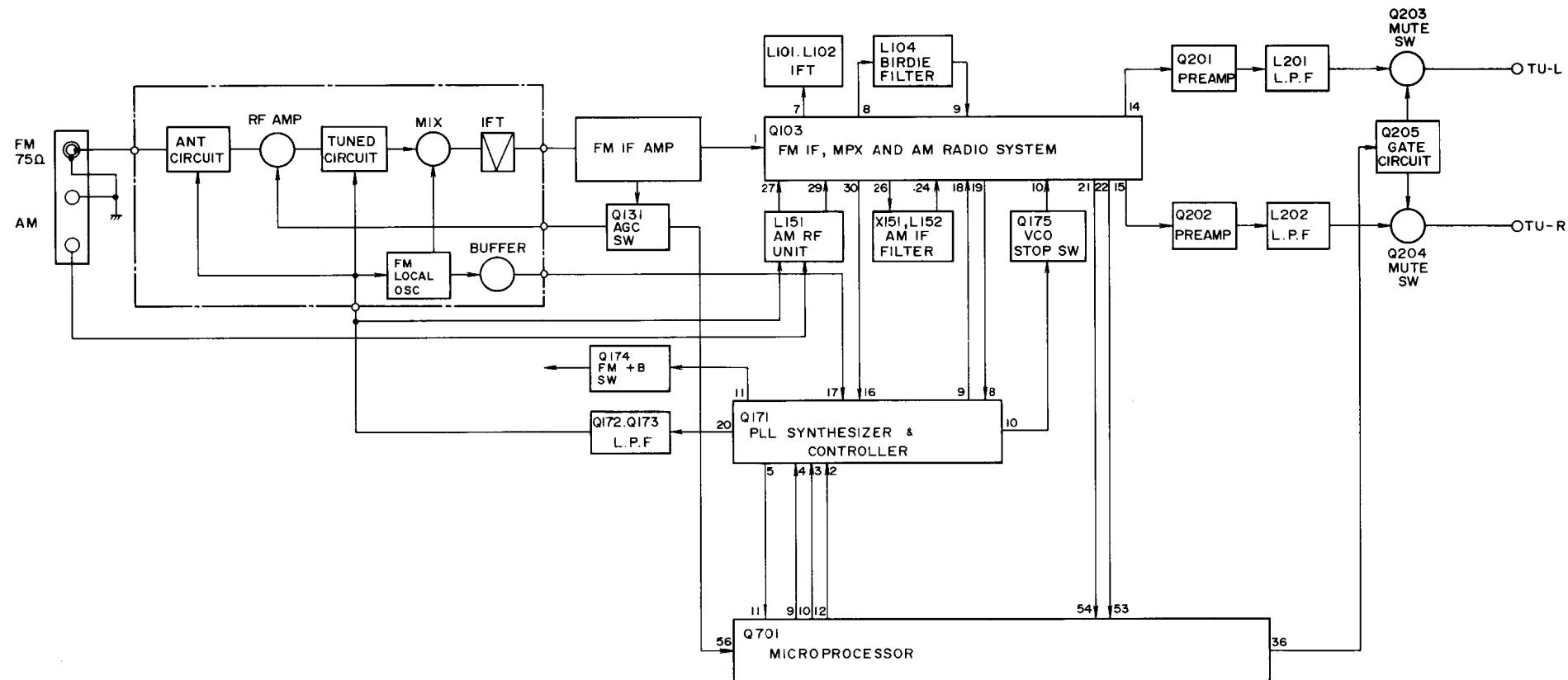
PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	27110792Y	Front bracket <D/W>	P304	25060044	Terminal
	27110795Y	Front bracket <P>	P901	253192HIT	AS-UC-6#18,Power supply cord <D>
2	28324929Y	Knob CLA		253172 or	AS-CEE-2,
3	28175209Y	Isolating plate		253092-1A	Power supply cord <P/W>
4	27100278AY	Chassis	Q521,Q522	2201653, 2201654 or 2201655	2SC3856-O, 2SC3856-Y or 2SC3856-P,Transistors
5	27121817Y	Rear panel <D>	Q523,Q524	2201663, 2201664 or 2201665	2SA1492-O, 2SA1492-Y or 2SA1492-P,Transistors
	27121838AY	Rear panel <P>	T901	2300975AY	▲ NPT-1197D,Power transformer <D>
	27121820AY	Rear panel <W>		2300976Y	▲ NPT-1194P,Power transformer <P>
7	27130727Y	Bracket H		2300977Y	▲ NPT-1194DG,Power transformer <W>
8	27270212Y	Spacer <P/W>	U1	1A468592-3Y	NAAR-4892-3,Main circuit pc board ass'y <D>
10	27160330AY	Radiator		1A468592-3AY	NAAR-4892-3A,Main circuit pc board ass'y <P/W>
11	27141623Y	Retainer H	U2	1A468593-3Y	NAETC-4893-3,Power supply circuit pc board ass'y <D>
15	27300750	▲ Bushing cord		1A468593-3AY	NAETC-4893-3A,Power supply circuit pc board ass'y <P/W>
22	27190524	KGLS-14RF,Holder	U3	1A468594-3Y	NASW-4894-3,Switch pc board ass'y <D>
32	801433	3SMS8W.SW+14B(BC),Special screw	U5	1A468597-3Y	NADIS-4897-3,Display circuit pc board ass'y <D>
33	834430088	3TTS+8B(BC),Self-tapping screw		1A476597-3CY	NADIS-4897-3C,Display circuit pc board ass'y <P>
34	833430080	3TTP+8P(BC),Self-tapping screw	U6	1A468597-3BY	NADIS-4897-3B,Display circuit pc board ass'y <W>
35	830440089	4TTC+8B(BC),Self-tapping screw		1A468598-3Y	NARF-4898-3,Tuner circuit pc board ass'y <D>
36	831130088	3TTW+8B,Self-tapping screw	U7	1A476598-3CY	NARF-4898-3C,Tuner circuit pc board ass'y <P>
37	834430108	3TTS+10B(BC),Self-tapping screw		1A468598-3BY	NARF-4898-3B,Tuner circuit pc board ass'y <W>
42	28184476BY	Top cover	U8	1A468599-3Y	NAAF-4899-3,Volume circuit pc board ass'y
44	28140265	Cushion		1A468500-3Y	NAPS-4900-3,Power supply circuit pc board ass'y <D>
46	28140546	Cushion	U9	1A468500-3AY	NAPS-4900-3A,Power supply circuit pc board ass'y <P>
47	27170302Y	Bottom panel		1A468500-3BY	NAPS-4900-3B,Power supply circuit pc board ass'y <W>
51	27175251AY	Leg	U11	1A468501-3Y	NAETC-4901-3,Video circuit pc board ass'y
61	1A468121Y	Front panel ass'y <D/W>	U12	1A468503-3Y	NAETC-4903-3,Primary circuit pc board ass'y
	1A476121Y	Front panel ass'y <P>		1A468504-3Y	NAETC-4904-3,RI terminal pc board ass'y <D>
62	8910301	CS-3,Ring CS	U13	1A468504-3BY	NAETC-4904-3B,RI terminal pc board ass'y <P/W>
63	28191673Y	Clear plate		1A468505-3Y	NAETC-4905-3,Headphone terminal pc board ass'y
64	28198782Y	Facet	U14	1A468506-3Y	NASW-4906-3,Loudness switch pc board ass'y
67	28135199	Badge			
68	28125255A	End cap L			
69	28125256A	End cap R			
71	28324932B	Knob VOLUME			
72	28324845B	Knob LEVEL			
F901	252166Y	▲ 6.3A-UL/T237,Fuse <D/W>			
F902	252076	▲ 3.15A-SE-EAK,Fuse <P/W>	NOTE: <D>:120V model only <P>:230V model only (TX-V940RDS only) <W>:Worldwide model only		
F903	252075	▲ 2.5A-SE-EAK,Fuse <P>			

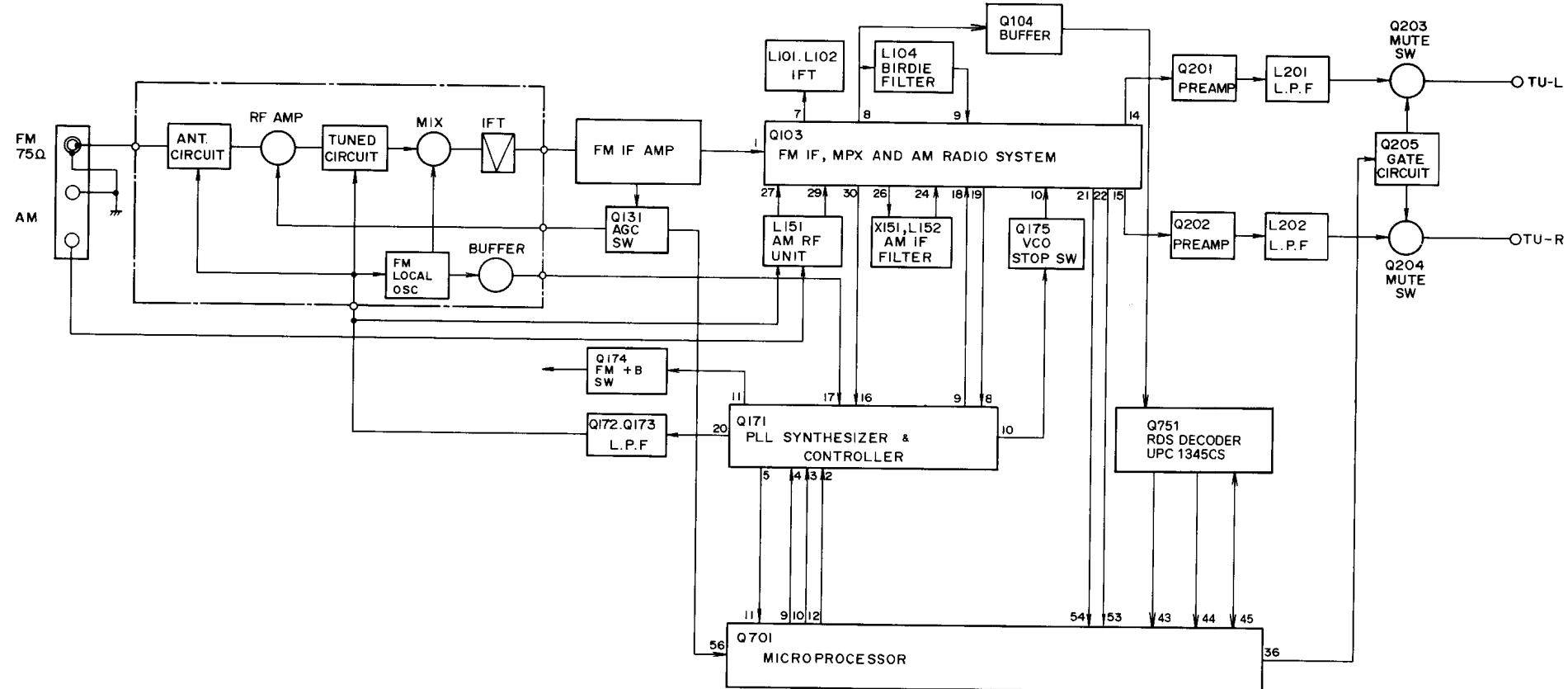
NOTE: THE COMPONENTS IDENTIFIED BY MARK ▲ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

BLOCK DIAGRAM

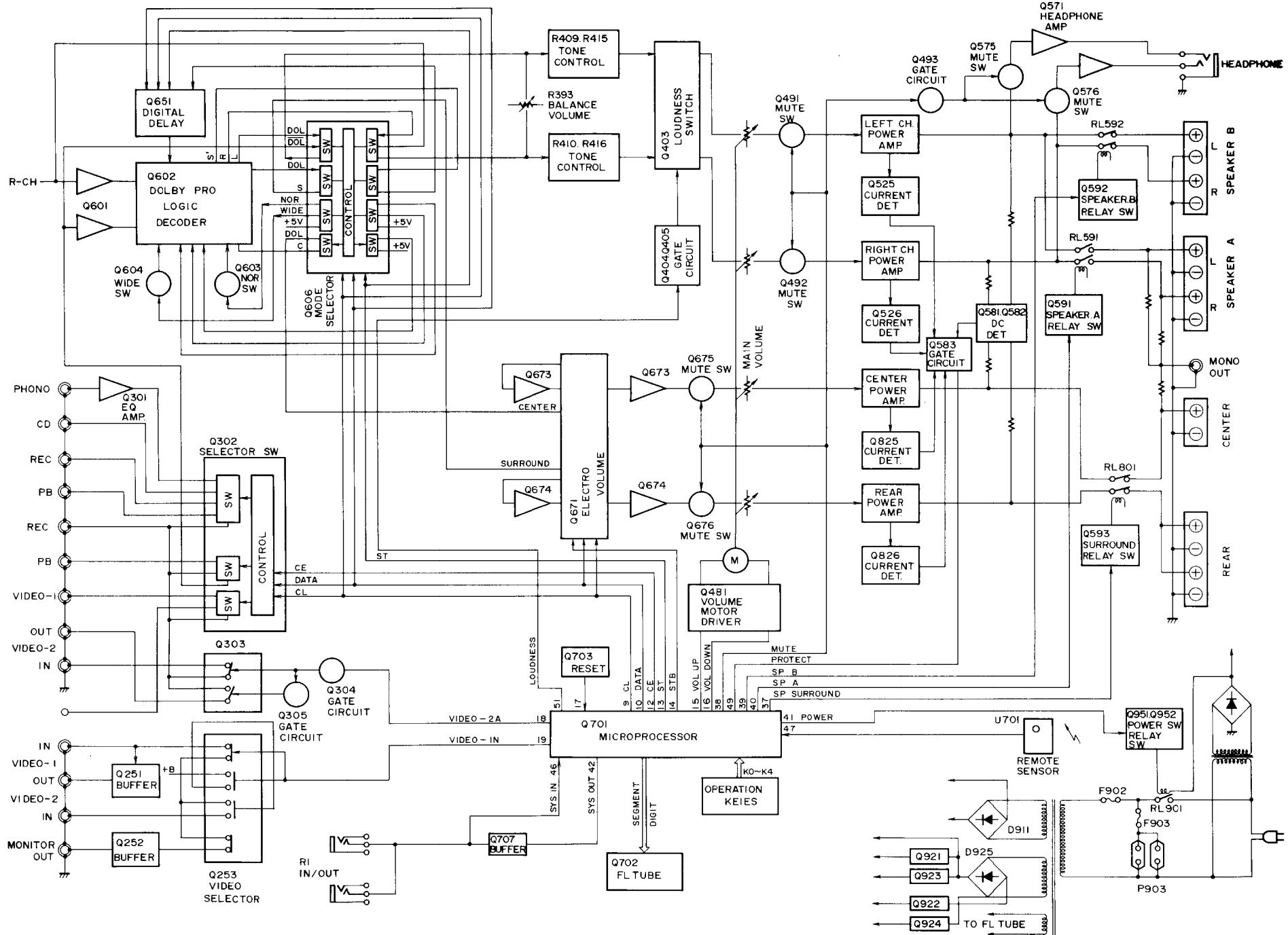
TUNER SECTION



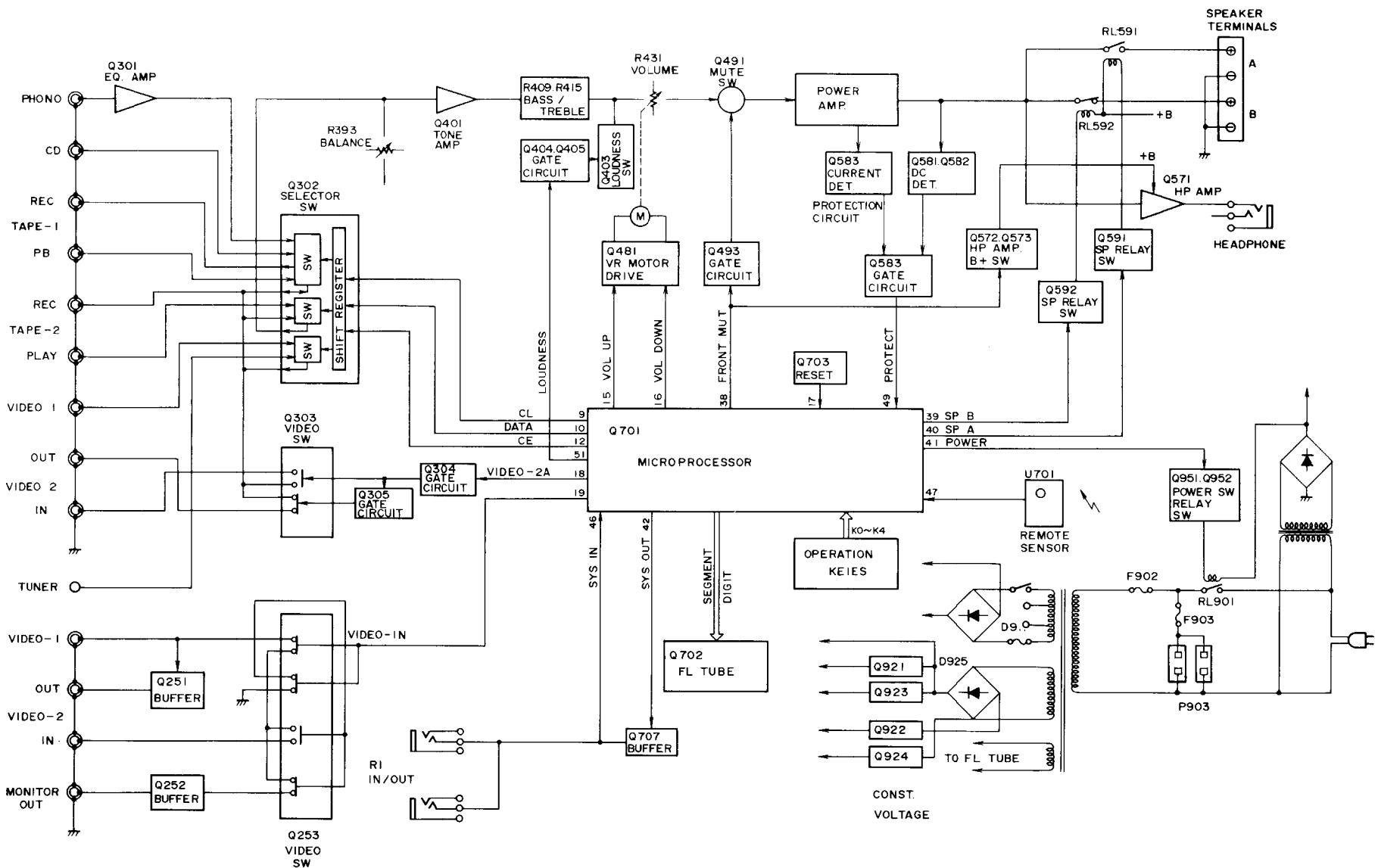
TX-V940RDS



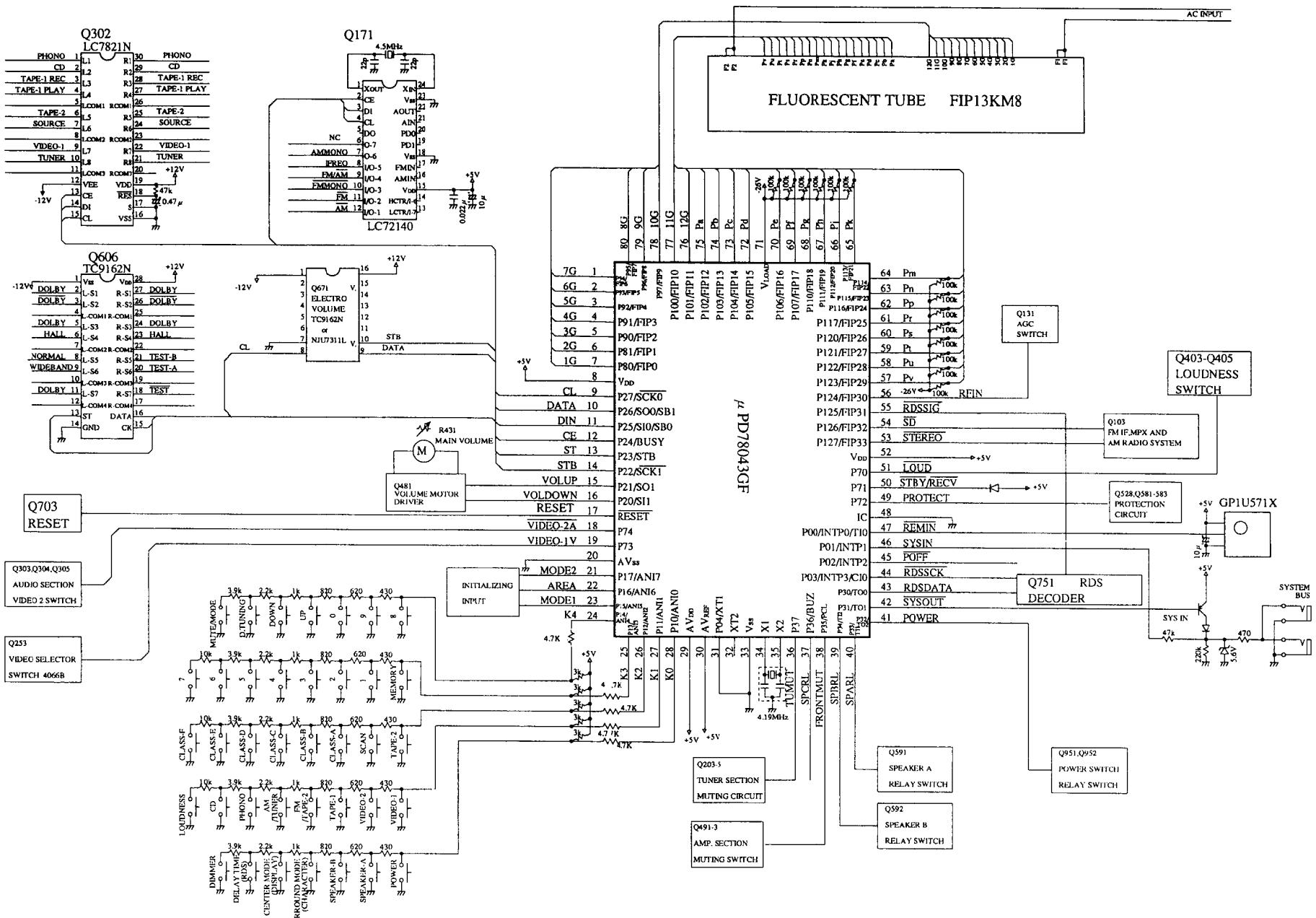
BLOCK DIAGRAM AMPLIFIER SECTION MODEL TX-SV414PRO



TX-V940/TX-V940RDS



MICROPROCESSOR CONNECTION DIAGRAM



TERMINAL DESCRIPTION

Pin No.	Function	Description
1~7	7G~1G	Grid output terminals Active "H"
8	VDD	Positive power supply terminal (+5V)
9	CL	Output terminal for CL-terminal of LC7821N , CK-terminal of TC9162N , CL-terminal of LC72140 , CK-terminal of TC9213P and SCK-terminal of M65830P
10	DATA	Output terminal for DI-terminal of LC7821N , DATA-terminal of TC9162N , DI-terminal of LC72140 , DATA-terminal of TC9213P and DATA-terminal of M65830P
11	DIN	Input terminal for DO-terminal of LC72140
12	CE	Output terminal for CE-terminal of LC7821N and LC72140
13	STB	Output terminal for ST-terminal of TC9162N , STB-terminal of TC9213P and REQ-terminal of M65830P.
14	RDSSCK	Input terminal for CLK OUT-terminal of RDS decoder μ PC1346CS
15	VOLUP	Volume control output terminal
16	VOLDOWN	Refer to table 1
17	RESET	Input terminal for System Reset
18	VIDEO-2A	Output terminal for changing Audio Signal of VIDEO-2
19	VIDEO-1V	Output terminal for changing Visual Signal of VIDEO-1
20	AVSS	Ground terminal for A/D converter
21	MODE2	Initial setting Input terminal for changing AM stereo function
22	AREA	Initial setting(BAND0,BAND1,AM10K) input terminal for changing frequency range
23	MODE	Initial setting input terminal for surround function
24	K4	Key input terminal.
25	K3	Key input terminal.
26	K2	Key input terminal.
27	K1	Key input terminal.
28	K0	Key input terminal.
29	AVDD	Analog positive power terminal (+5V) for A/D converter
30	AVREF	Reference voltage input terminal for A/D converter
31	XT1	Crystal connection terminal for resonator of sub system clock
32	XT2	Not used.
33	VSS	Ground Terminal
34	X1	Connect the ceramic resonator 4.19MHz.
35	X2	Resonator connection terminal for resonator of main system clock
36	TUMUT	Muting output terminal for tuner
37	SURMUT	Muting output terminal for center and rear amplifiers
38	FRONTMUT	Muting output terminal for front amplifier
39	SPBRL	Control output terminal for speaker relay B

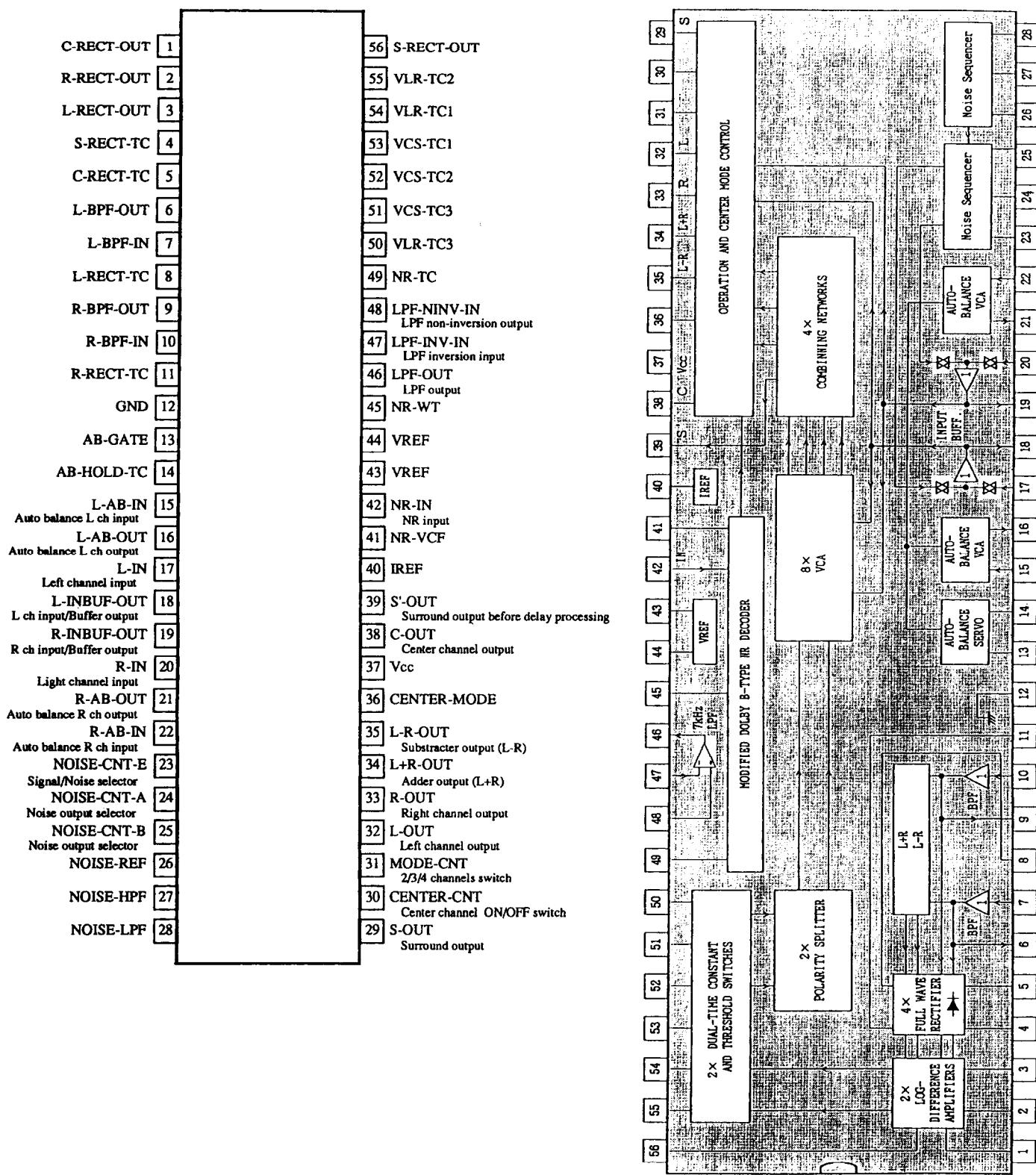
Pin No.	Function	Description
40	SPARL	Control output terminal for speaker relay A
41	POWER	Power source control output terminal
42	SYSOUT	System code output terminal
43	RDS DATA	Input terminal for DATA OUT-terminal of μ PC1346CS
44	RDSSCK	Input terminal for SCK-terminal of μ PC1346CS
45	POFF	Detection input terminal for power failure
46	SYSIN	System code input terminal
47	REMIN	Input terminal for signal of remote control
48	IC	Internal connection terminal
49	PROTECT	Detection input terminal for movement of protection circuit
50	STBY/RECV	STAND-BY and RECEIVED indication output terminal
51	LOUD	Control output terminal for Loudness switch
52	VDD	Positive power supply terminal (+5V)
53	STEREO	Detection input terminal for stereo broadcasting
54	SD	Detection input terminal for radio station
55	RDSSIG	Detection input terminal for RDS broadcasting
56	RFIN	RF MODE input terminal
57~70	Pv~Pe	Segment output terminals Active "H"
71	VLOAD	Pull-down resistor connection terminal for control and driver of FIP
72~75	Pd~Pa	Segment output terminals Active "H"
76~80	12G~8G	Grid output terminals Active "H"

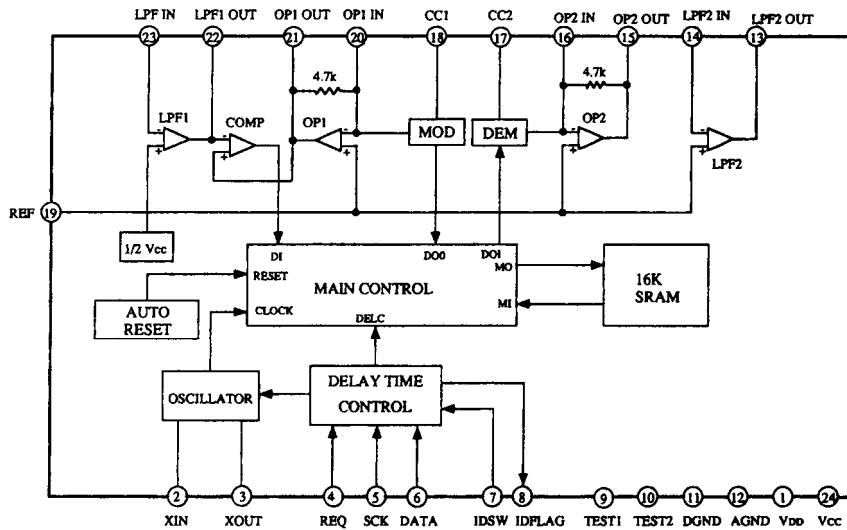
Outputs		
Movement	VOLUP(#15)	VOLDOWN(#16)
Stop	H	H
UP	H	L
DOWN	L	H
POWER OFF	L	L

Table 1

IC BLOCK DIAGRAMS AND DESCRIPTIONS

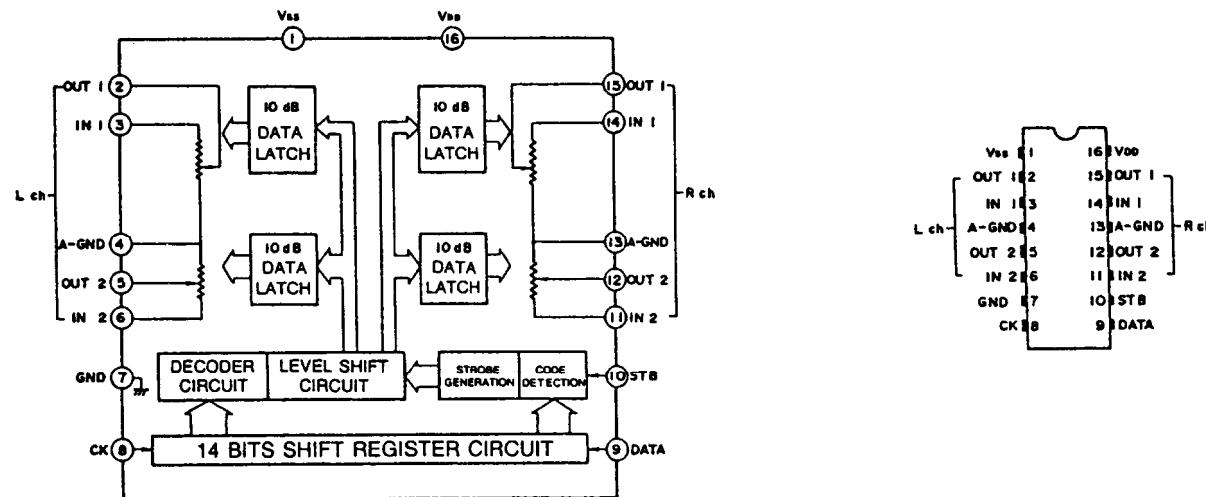
NJM2177L / M69032P (Dolby Pro Logic)



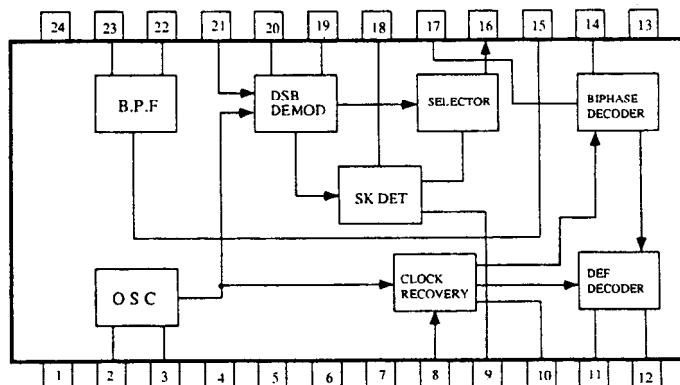
M65830P (Digital Delay)

Pin No.	Mark	Function	I/O	Description
1	VDD	Digital power supply	-	
2	XIN	Resonator input	I	Connect the 2MHz ceramic resonator
3	XOUT	Resonator output	O	
4	REQ	Request	I	Data request input
5	SCK	Shift lock	I	Serial data shift clock input
6	DATA	Data	I	Serial data input
7	IDSW	ID switch	I	External input of 4th bit of ID code
8	IDFLAG	ID flag	O	Data input confirmation pulse and serial data output
9	TEST1	Test 1	-	Normal mode when low level
10	TEST2	Test 2	-	Normal mode when low level
11	D GND	Digital ground	-	
12	A GND	Analog ground	-	
13	LPF2 OUT	LPF filter 2 output	O	
14	LPF2 IN	LPF filter 2 input	I	
15	OP2 OUT	Operation amp. 2 output	O	
16	OP2 IN	Operation amp. 2 input	I	
17	CC2	Current control 2	-	Demodulation ADM control
18	CC1	Current control 1	-	Modulation ADM control
19	REF	Reference	-	Analog reference voltage=1/2VCC
20	OP1 IN	Operation amp. 1 input	I	
21	OP1 OUT	Operation amp. 1 output	O	
22	LPF1 OUT	LPF filter 1 output	O	
23	LPF1 IN	LPF filter 1 input	I	
24	VCC	Analog power supply	-	

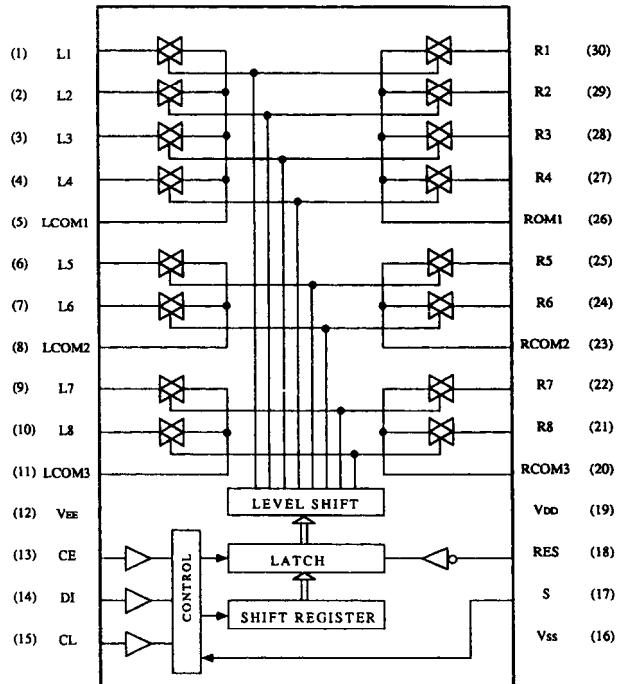
TC9213P (Electro Volume)



μ PD1346CS (RDS Decoder)

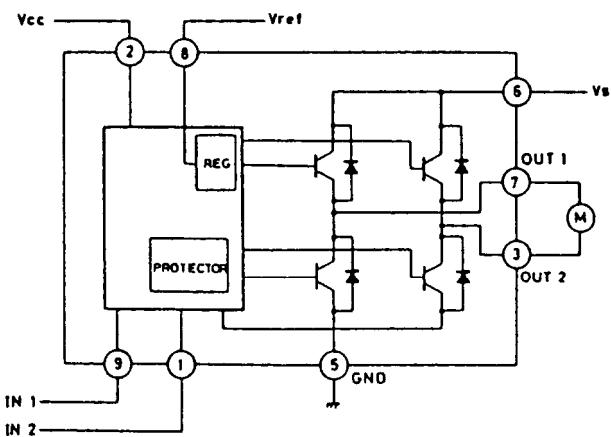


No.	Terminal	Description	No.	Terminal	Description
1	Vcc	Supply voltage for the digital circuit	13	GND	Ground for the analog circuit
2	OSC IN	Resonator input	14	INTEG	Integrating filter terminal
3	OSC OUT	Resonator output	15	BPF ADJ	Adjustment fc of band pass filter
4	GND	Ground for the digital circuit	16	PSK OUT	Biphase signal output
5	TEST1	Test input	17	PSK IN	Biphase decoder input
6	TEST2	Test input	18	LPF SK	Low pass filter for the detection SK
7	OP.CTL	Control input of the operation stop	19	LPF Q	Low pass filter for the crossed detector
8	S/L CTL	Mode control input of the synchronizing detection	20	LPF I	Low pass filter for the synchronizing detector
9	SK OUT	SK detection output	21	DSB IN	DSB demodulator circuit input
10	RDS OUT	RDS synchronizing detection output	22	BPF OUT	Band pass filter output
11	CLOCK OUT	Bit rate clock output	23	BPF IN	Band pass filter input
12	DATA OUT	RDS data output	24	Vcc	Supply voltage for analog circuit

LC7821N (Analogue switch)

Pin No.	Terminal	Description
1	PHONO	
2	CD	
3	TAPE 1 REC	
4	TAPE 1 PB	Input/output terminals of audio signal of left channel.
5	L COM 1	
6	MONITOR	Control to the inside analogue switch at the serial data.
7	SOURCE	
8	L COM 2	
9	VIDEO 1	
10	TUNER	
11	L COM 3	
12	Vss	Negative power supply terminal. (-15V)
13	CE	Chip enable terminal. Connect the terminal SEL of microprocessor.
14	DI	Serial data input terminal. Connect the terminal DATA of microprocessor.
15	CL	Serial clock input terminal. Connect the terminal CL of microprocessor

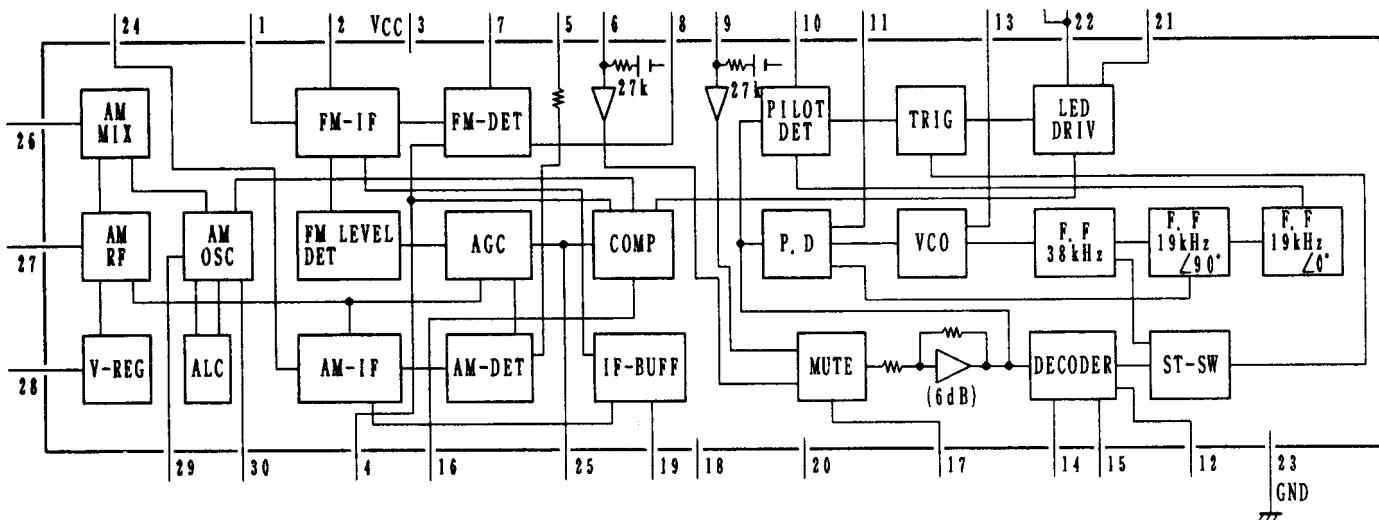
Pin No.	Terminal	Description
16	Vss	Ground terminal.
17	S	Selector terminal.
18	RES	Reset terminal.
19	VDD	Power supply terminal.(+15V)
20	R COM 3	
21	TUNER	
22	VIDEO 1	
23	R COM 2	Input/output terminals of audio signal of right channel.
24	SOURCE	
25	MONITOR	Control to the inside analogue switch at the serial data.
26	R COM 1	
27	TAPE 1 PB	
28	TAPE 1 REC	
29	CD	
30	PHONO	

TA7291S (Volume driver)

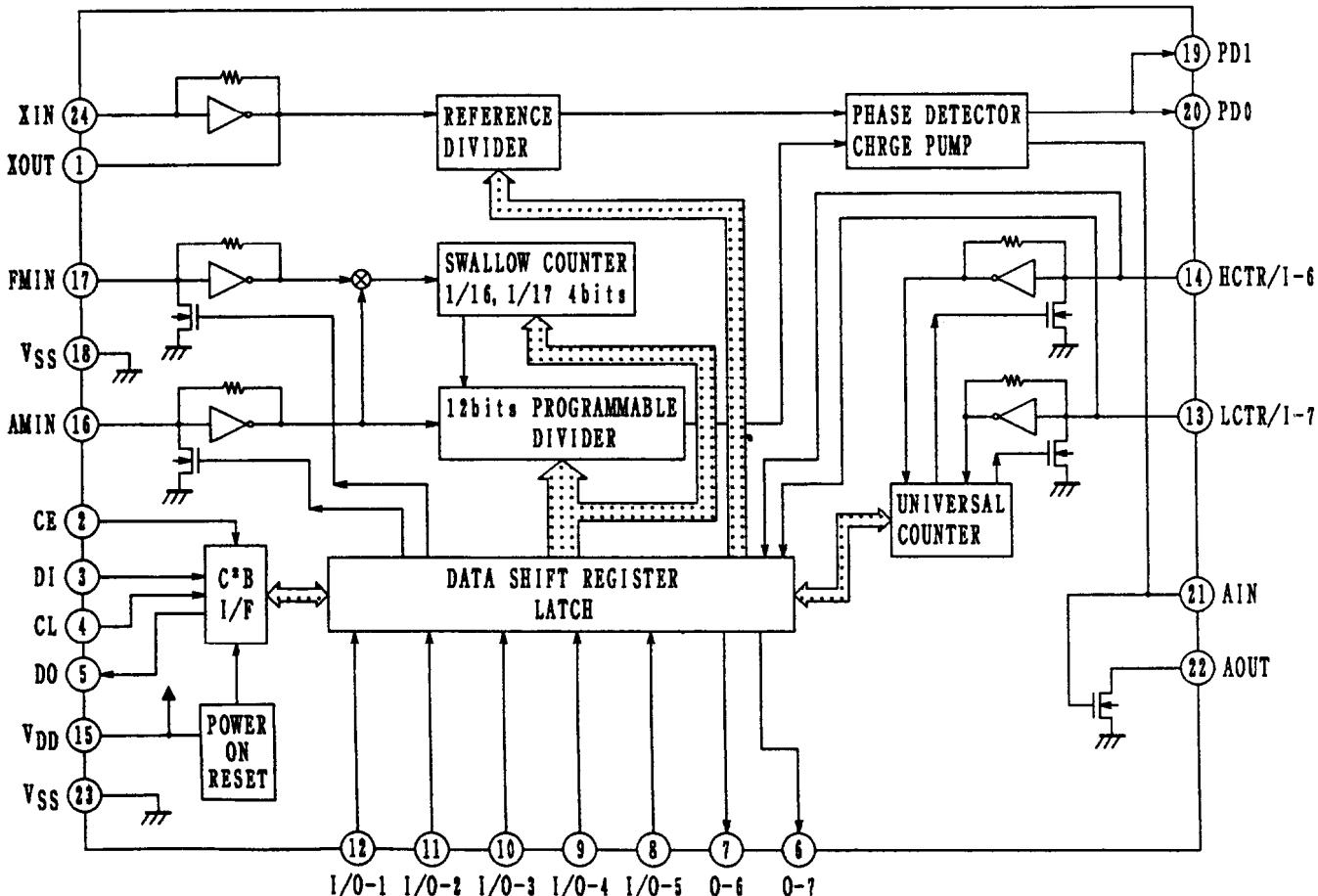
INPUT		OUTPUT		MODE
IN 1	IN 2	OUT 1	OUT 2	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

CCW: Counter clockwise direction
CW: Clockwise direction

LA1851N (AM, FM IF and MPX)

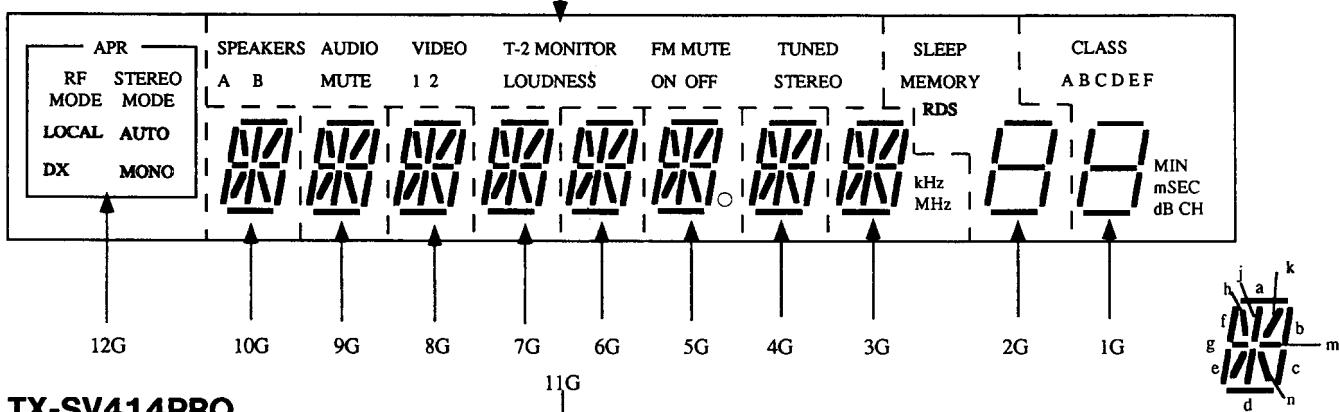


LC72140 (PLL Frequency Synthesized LSI)

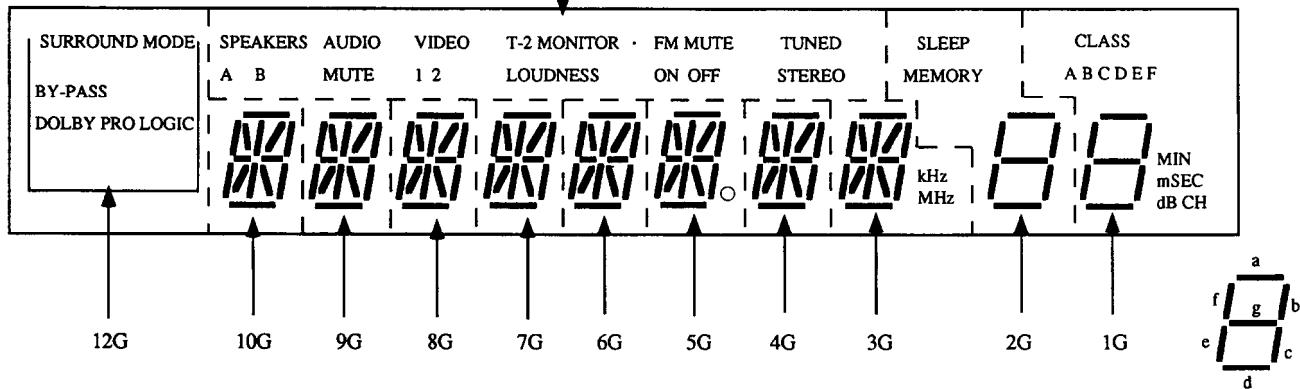


FL TUBE

TX-V940/TX-V940RDS



TX-SV414PRO



TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12
ELECTRODE	F1	F1	NP	NP	NP	Pv	Pu	Pt	Ps	Pr	Pp	Pn
TERMINAL NO.	13	14	15	16	17	18	19	20	21	22	23	24
ELECTRODE	Pm	Pk	Pj	Ph	Pg	Pf	Pe	Pd	Pc	Pb	Pa	NP
TERMINAL NO.	25	26	27	28	29	30	31	32	33	34	35	36
ELECTRODE	NP	NP	NP	12G	11G	10G	9G	8G	7G	6G	5G	4G
TERMINAL NO.	37	38	39	40	41	42	43	44	45	46		
ELECTRODE	3G	2G	1G	NP	NP	NP	NP	NP	F2	F2		

ADJUSTMENT PROCEDURES

Preparation

1. Input

FM mono: 1kHz, 75kHz devi., 60dB/ μ V

FM stereo: 1kHz, 75kHz devi., 60dB/ μ V

Pilot signal 19kHz 7.5kHz devi.

AM: 400Hz 30% mod.

2. Outputs

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

TX-SV414PRO

3. Standard Knob Positions

Master Volume Control	Maximum
Bass Control	Center
Treble Control	Center
Balance Control	Center
Input selector	CD
Tape 2 Monitor.....	OFF
Muting	OFF
Loudness	OFF
Speakers	ON
Dolby Surround.....	OFF
Center Mode	Wide Band
Delay Time.....	20 ms
Center Level	0 dB
Rear Level	0 dB

Idling Current Adjustment

Connect the DC voltmeter to the terminals P521, P522, and P821 (VCT and IID) on the main circuit pc board. Adjust the trim resistors R537, R538 and R837 so that the indicator of voltmeter becomes 3 ± 0.5 mV.

NOTE: Adjust after switching on for 5 minutes.

Set Volume knob to the minimum position.

TX-V940/TX-V940RDS

3. Standard Knob Positions

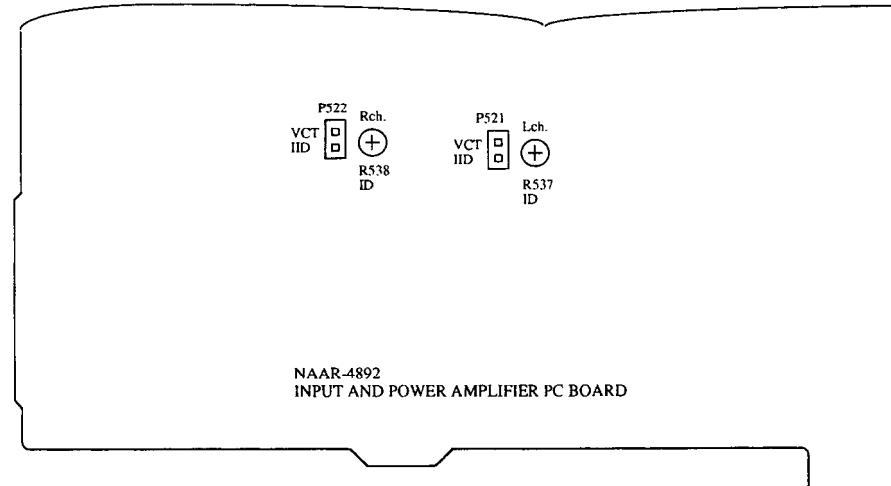
Master Volume Control	Maximum
Bass Control	Center
Treble Control	Center
Balance Control	Center
Input selector	CD
Tape 2 Monitor.....	OFF
Muting	OFF
Loudness	OFF
Speakers	A

Idling Current Adjustment

Connect the DC voltmeter to the terminals P521, and P522 (VCT and IID) on the main circuit pc board. Adjust the trim resistors R537, and R538 so that the indicator of voltmeter becomes 3 ± 0.5 mV.

NOTE: Adjust after switching on for 5 minutes.

Set Volume knob to the minimum position.



Set the unit to the test mode.

1. Press and hold down the CD button, then press the Power button.
2. "TEST-" is displayed on the display.
3. While "TEST-" is displayed, press the FM key.

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	Fig.1	99.0MHz 1kHz 75kHz devi. 65dBf(60dB)	—	99.0MHz	DC voltmeter	L101	0±20mV	FM MUTE/MODE switch:ON/STEREO Repeat the steps 1 and 3 until no further adjustment is necessary.
	2					AC voltmeter	IFT on the front end	Maximum	
	3					Distortion analyzer	L102	Minimum	
Stereo Distortion		Fig.2	99.0MHz Ext. mod. 65dBf(60dB)	Channel L or R 1kHz	99.0MHz	Distortion analyzer	IFT on the front end	Minimum	Don't turn more than ±180°
Stereo Separation	1	Fig.2	99.0MHz Ext. mod. 65dBf(60dB)	Channel L 1kHz	99.0MHz	Channel R AC voltmeter	R202	Minimum	Maximum and same separation
	2			Channel R 1kHz		Channel L AC voltmeter		Minimum	
Muting Level		Fig.2	99.0MHz 21.2dBf(16dB) <P/W models> 23.2dBf(18dB) <D model>	—	99.0MHz	Oscilloscope or TUNED indicator	R101	Signal output or light on	
RDS		Fig.3	99.0MHz Ext. mod. 40dB	RDS data or 57kHz 3% devi.	99.0MHz	Oscilloscope	R786	Maximum	TX-V940RDS only

AM ADJUSTMENT

120V model

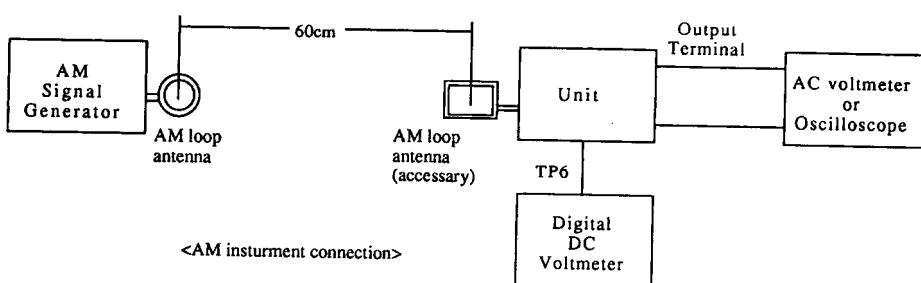
Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		530kHz	Digital DC voltmeter	OSC coil on RF block L151	1.3±0.1V
2	600kHz 400Hz 30% mod. 60dB/m	600kHz	AC voltmeter	RF coil on RF block L151	Maximum
3	990kHz 400Hz 30% mod. 60dB/m	990kHz	AC voltmeter	L152	Maximum

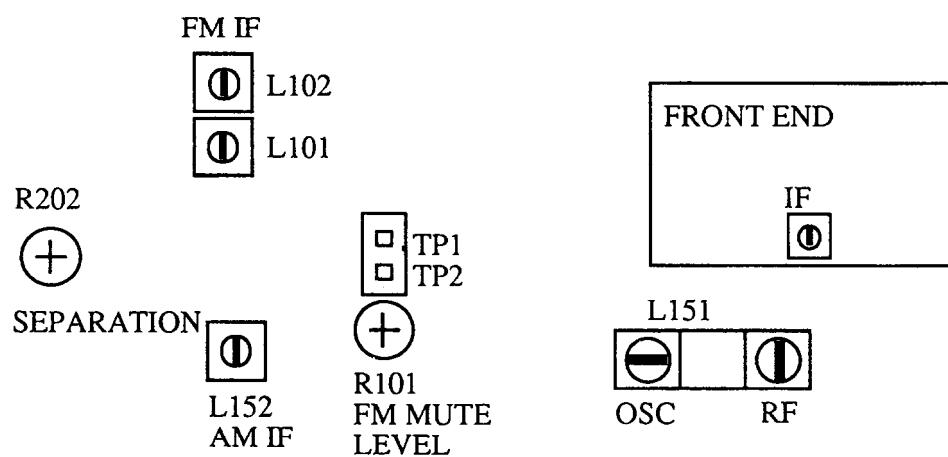
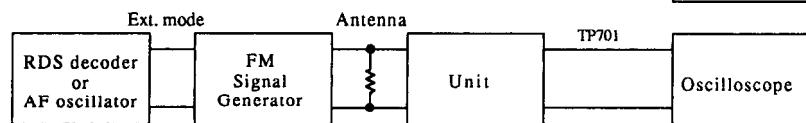
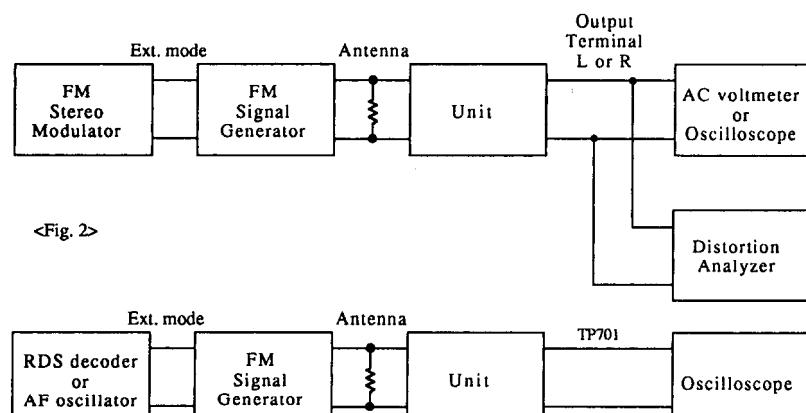
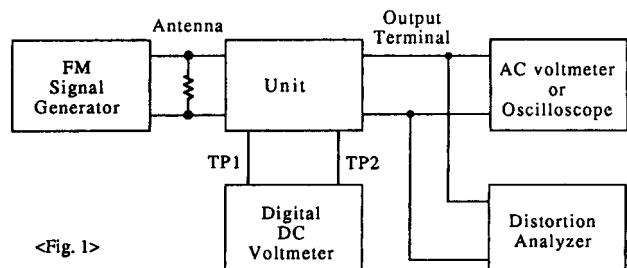
230V and Worldwide models

Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		522kHz or 531kHz	Digital DC voltmeter	OSC coil on RF block L151	1.3±0.1V
2	603kHz 400Hz 30% mod. 60dB/m	603kHz	AC voltmeter	RF coil on RF block L151	Maximum
3	999kHz 400Hz 30% mod. 60dB/m	999kHz	AC voltmeter	L152	Maximum

Reference Specification
 FM tuned voltage: 87.9MHz ~ 107.9MHz
 More than 1.3V ~ Less than 10V
 AM tuned voltage: 530kHz ~ 1710kHz
 1.3±0.2V ~ Less than 9.0V

Reference Specification
 FM tuned voltage: 87.5MHz ~ 108.0MHz
 More than 1.3V ~ Less than 10V
 AM tuned voltage: 522kHz ~ 1611kHz
 1.3±0.2V ~ Less than 9.0V
 (230V model)
 AM tuned voltage: 531kHz ~ 1602kHz
 1.3±0.2V ~ Less than 9.0V
 (Worldwide model)





NARF-4898
TUNER CIRCUIT PC BOARD

PRINTED CIRCUIT BOARD-PARTS LIST

MODEL TX-V940/TX-V940RDS

MAIN CIRCUIT PC BOARD (NAAR-4892-3/3A)

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
ICs					
Q301	222502	NJM4558D-X	D507,D508	223222,	WG713A,
Q302	22240280	LC7821N	D571,D572	223205 or	ISS270A or
Q303,Q403	22240025	LC4966	D591,D592	223163	ISS133
Q401,Q402	22240247	BA15218N	D911	22380038	RBV602
Q481	22240239	TA7291S	D921-D924	22380035 or	GP104003E or
Q571	22240752	NJM4556L	D926-D928	22380046	AM01Z
Q921	222780125NEC	78M12HF	D929	224453304	MTZ33D
Q922	222790125	79M12HF	D930,D931	223222,	WG713A,
Q923	222780565JRC	78M56		223205 or	ISS270A or
				223163	ISS133
Transistors					
Q304,Q404	2213510 or	DTA114ES or		Coils	
Q493	2214350	RN2202	L501,L502	231176S	S-1.3C
Q305,Q405	221282 or	DTC144ES or		Capacitors	
Q572	2213560	RN1204	C303,C304	354741009	10 μ F,16V,Elect.
Q491,Q492	2213631 or	RN1241-A or	C307,C308	354721019	100 μ F,6.3V,Elect.
Q575,Q576	2213632	RN1241-B	C309,C310	374726224	6200pF±5%,50V,Plastic
Q501-Q504	2211732 or	2SC1845-F or	C311,C312	374721824	1800pF±5%,50V,Plastic
Q507,Q508	2211733	2SC1845-E	C313-C316	354741009	10 μ F,16V,Elect.
Q511,Q512	2211353 or	2SA949-O or	C391,C392	374721015	100pF±10%,50V,Plastic
	2211354	2SA949-Y	C401,C402	354741009	10 μ F,16V,Elect.
Q513,Q514	2211633 or	2SC2229-O or	C407-C412	354741009	10 μ F,16V,Elect.
	2211634	2SC2229-Y	C413,C414	374721534	0.015 μ F±5%,50V,Plastic
Q515,Q516	2213284 or	2SC1740S-R or	C417,C418	374721534	0.015 μ F±5%,50V,Plastic
	2212115	2SC2458-GR	C421,C422	374724734	0.047 μ F±5%,50V,Plastic
Q517,Q518	2202034 or	2SD1763A-D or	C481,C514	354721019	100 μ F,6.3V,Elect.
	2202035	2SD1763A-E	C491	354741009	10 μ F,16V,Elect.
Q519,Q520	2202024 or	2SB1186A-D or	C501,C502	354741009	10 μ F,16V,Elect.
	2202025	2SB1186A-E	C503,C504	374721015	100pF±10%,50V,Plastic
Q521,Q522	2201653, 2201654 or 2201655	* 2SC3856-O, * 2SC3856-Y or * 2SC3856-P	C507,C508 C513,C514 C521,C522	354742219 354722219 354772209	220 μ F,16V,Elect. 220 μ F,6.3V,Elect. 22 μ F,63V,Elect.
Q523,Q524	2201663, 2201664 or 2201665	* 2SA1492-O, * 2SA1492-Y or * 2SA1492-P	C527,C528 C567,C568 C570	374724734 354700109 354791019	0.047 μ F±5%,50V,Plastic 1 μ F,160V,Elect. 100 μ F,100V,Elect. <D>
Q525,Q526	2211633 or 2211634	2SC2229-O or 2SC2229-Y <D>	C571-C573	354771019 354741009	100 μ F,63V,Elect. <P/W> 10 μ F,16V,Elect.
Q525,Q526	2211732 or 2211733	2SC1845-F or 2SC1845-E <P/W>	C581 C915,C916	354721019 3504265 3504266 or	100 μ F,6.3V,Elect. 6800 μ F,71V,Elect. <D> # 6800 μ F,56V or
Q573	2211163 or 2211164	2SC2120-O or 2SC2120-Y		3504267	# 6800 μ F,56V,Elect. <P/W>
Q581,Q582	2211732 or 2211733	2SC1845-F or 2SC1845-E	C923 C924	354753329 354764719	3300 μ F,25V,Elect. 470 μ F,35V,Elect.
Q583	2211792 or 2211793	2SA992-F or 2SA992-E	C927,C928 C931	354741009 354741009	10 μ F,16V,Elect. 10 μ F,16V,Elect.
Q591,Q592	2213640 or 2214660	DTC123JS or RN1205	C932 C933	354761019 354781019	100 μ F,35V,Elect. 100 μ F,50V,Elect.
Q924	2211455	2SA1015-GR	C936-C938	354741009	10 μ F,16V,Elect.

CAUTION: Replacement for transistor of mark *, if necessary, must be made from the same beta group (H_{FE}) as the original type.

CAUTIONS: Replacement for capacitor of mark # must be made the same sort capacitor.

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Resistors			Transistors	
R393	5104225	N11RLC250KWT22Z, Balance	Q703	221282 or	DTC144ES or
R409	5104230	N14RLC100KWT22Z,Bass		2213560	RN1204
R415	5104230	N14RLC100KWT22Z,Treble	Q704-Q706	2213284 or 2212115	2SC1740S-R or 2SC2458-GR
R533,R534	443522704	27 ohm,1/2W,Metal oxide		2213510 or	DTA114ES or
R535,R536	443521014	100 ohm,1/2W,Metal oxide	Q707	2214350	RN2202
R537,R538	5210259	N06HR 2KBC,Trim		Diodes	
R543,R544	443523314	330 ohm,1/2W,Metal oxide			
R545,R546	4000132Y	0.22 ohm × 2,5W + 5W,Metal plate	D701,D702	223205 or	ISS270A or
R551,R552	453630824	8.2 ohm,1W,Metal	D704,D705	223163	ISS133
R553,R554	443523924	3.9 kohm,1/2W,Metal oxide	D703	224450913	MTZ9.1C
R567,R568	453530224	2.2 ohm,1/2W,Metal	D706,D707	224450562	MTZ5.6B
R570	443522204	22 ohm,1/2W,Metal oxide	D708	223205 or	ISS270A or
R923	453530224	2.2 ohm,1/2W,Metal	D710-D712	223163	ISS133
R924	453530824	8.2 ohm,1/2W,Metal	D709	225291D	SEL4910D-D,LED
R927,R930	443522204	22 ohm,1/2W,Metal oxide	D751	223205 or	ISS270A or
R933	443524704	47 ohm,1/2W,Metal oxide		223163	ISS133 <P>
	Relais			Resonator	
RL591,RL592	25065339	NRL-2P5A-DC24-046	X701	3010163	CST4.19MGW,Ceramic
	Plugs		X751	3010203	AF6146CG,X'tal <P>
P211a	25055652	NPLG-14P608		Coils	
P613a	25055651	NPLG-12P607	L701-L703	233454K220	NCH-1452 220K
	Terminals			Capacitors	
P301-P303	25045300	NPJ-6PDBL-159	C701	3000075Y	0.047F,5.5V,Super
P501	25060158	NTM-8PDMN084	C702	375524744	0.47 μF ± 5%,50V,Plastic
	Sockets		C703,C709	354721019	100 μF,6.3V,Elect.
P711a-P713a	25051046	NSCT-10P833	C704	354780109	1 μF,50V,Elect.
JL261a	25051087	NSCT-3P874	C706,C707	354780109	1 μF,50V,Elect.
JL912a,JL913a	25051109	NSCT-5P896	C711	354721019	100 μF,6.3V,Elect.
			C751	354721019	100 μF,6.3V,Elect. <P>
POWER SUPPLY CIRCUIT PC BOARD(NAETC-4893-3/3A)			C753,C754	374724724	4700pF ± 5%,50V,Plastic <P>
CIRCUIT NO.	PART NO.	DESCRIPTION	C755,C756	374723324	3300pF ± 5%,50V,Plastic <P>
R921,R922	453534794	0.47 ohm,1/2W,Metal resistors	C757	354780229	2.2 μF,50V,Elect. <P>
			C758	374724734	0.047 μF ± 5%,50V,Plastic <P>
SWITCH PC BOARD (NASW-4894-3)			C759	374722234	0.022 μF ± 5%,50V,Plastic <P>
CIRCUIT NO.	PART NO.	DESCRIPTION	C760	374724724	4700pF ± 5%,50V,Plastic <P>
S911	25065437	NSS-22157P,Slide switch		Resistor	
			R786	5210265	N06HR50KBC,Trim
DISPLAY CIRCUIT PC BOARD (NADIS-4897-3/3A/3C)				Switches	
CIRCUIT NO.	PART NO.	DESCRIPTION	S701-S703	25035652	NPS-111-S604
	ICs		S704-S706	25035652	NPS-111-S604 <P>
Q701	22240773Y	μ PD78042GF-064 <D/W>	S707-S713	25035652	NPS-111-S604
	22240758Y	μ PD78043GF-071 <P>	S715-S737	25035652	NPS-111-S604
Q751	22240679	μ PC1346CS <P>		Plugs	
	FL tube		P711b-P713b	25055659	NPLG-10P615
Q702	212128Y	FIP13KM8		Holder	
	Remote control sensor			27190937Y	FL tube
U701	24130010Y	HC-312		Retainer	
				27141575Y	RI terminal

NOTE: <D>:120 V model only

<P>:230 V model only

<W>:Worldwide model only

TUNER CIRCUIT PC BOARD (NARF-4898-3/3B/3C)

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
		Front end			Capacitors
TU001	240095Y	TFFJ2U316A <D>	C175	354780229	2.2 μ F,50V,Elect.
	240089	FE415-G11 <P/W>	C176	374722234	0.022 μ F \pm 5%,50V,Plastic
		ICs	C177	354782299	0.22 μ F,50V,Elect.
Q103	22240749Y	LA1851N	C201,C202	354780109	1 μ F,50V,Elect.
Q171	22240750Y	LC72140	C203	354783399	0.33 μ F,50V,Elect.
		Transistors	C204	354741019	100 μ F,16V,Elect.
Q101	2210746	2SC945A-P <P/W>	C205,C206	374721534	0.015 μ F \pm 5%,50V,Plastic <D>
Q102	2211723	2SC1923-O		374721034	0.01 μ F \pm 5%,50V,Plastic <P>
Q104	2213284 or	2SC1740S-R or		374721234	0.012 μ F \pm 5%,50V,Plastic <W>
	2212115	2SC2458-GR <P>	C207-C210	354741009	10 μ F,16V,Elect. <D>
Q131,Q173	2213284 or	2SC1740S-R or	C213-C216	354741009	10 μ F,16V,Elect. <P/W>
Q201,Q202	2212115	2SC2458-GR	C217	354780229	2.2 μ F,50V,Elect.
Q172	2212445	2SK365-GR			Resistors
Q174,Q175	2213510 or	DTA114ES or	R101	5210263	N06HR 20KBC,Trim
Q205	2214350	RN2202	R202	5210259	N06HR2KBC,Trim
Q203,Q204	2212794	2SD1468-R			Terminal
		Diodes	P101	25060160	NTM-4PDML086 <D>
D131,D132	223191	SD101		25060117	NTM-2PDML051 <P/W>
D171	224450512	MTZ5.1B			Socket
		Resonators	P211b	25050986	NSCT-14P773
X171	3010228Y	XTL-4.5M,Crystal			VOLUME CIRCUIT PC BOARD (NAAF-4899-3)
X201	3010227Y	CSB456F15,Ceramic			
		Coils and transformers			
L101	233457Y	NFIF-4081	R431,R432	5104334Y	N16RGL100KBT25F,Variable,Volume
L102	233458Y	NFIF-4082	P613b	25050985	NSCT-12P772,Socket
L103	233454M022	NCH-1452 022M			
L104	233383	NMC-6070			POWER SUPPLY CIRCUIT PC BOARD (NAPS-4900-3/3A/3B)
L201,L202	233355A	NMC-4059			
L151	232163	NMRF-7065			
L152	232139	NMIF-4062			
		Ceramic filters			
X101	3010071	SFE10.7MA5			
X102	3010071	SFE10.7MA5 <P/W>			
X103	3010071	SFE10.7MA5 <D>			
	3010130	SFE10.7MZ2A <P/W>			
X151	3010123	SPZ-450JL			
		Capacitors			
C001	354741019	100 μ F,16V,Elect.			
C107-C109	354780229	2.2 μ F,50V,Elect.			
C110,C171	354741019	100 μ F,16V,Elect.			
C132	354742209	22 μ F,16V,Elect.	C901	3500065A	▲ DE7150FZ103PAC400V/125V
C133	354784799	0.47 μ F,50V,Elect.	C952	354742219	220 μ F,16V,Elect.
C151	354741009	10 μ F,16V,Elect.			Resistors
C155,C156	354741009	10 μ F,16V,Elect.	R901	431523355	▲ 3.3M Ω ,1/2W,Solid <D>
C157	374723324	3300pF \pm 5%,50V,Plastic	R951	453530824	8.2 ohm,1/2W,Metal
C158	374721534	0.015 μ F \pm 5%,50V,Plastic			Power transformer
C159,C180	354721019	100 μ F,6.3V,Elect.	T902	2300670	▲ NPT-1111D <D>
C174	374723334	0.033 μ F \pm 5%,50V,Plastic		2300671	▲ NPT-1111P <P>
				2300672	▲ NPT-1111DG <W>

CIRCUITNO.	PART NO.	DESCRIPTION
	Relay	
RL901	25065483	△ NRL-1P5A-DC-12-084
	Fuses	
F901	252166Y	△ 6.3A-UL/T-237 <D/W>
F902	252076	△ 3.15A-SE-EAK <P/W>
F903	252075	△ 2.5A-SE-EAK <P>
	Fuseholders	
F901a	25050065	△ YSH403T <D/W>
F902a	25050065	△ YSH403T <P/W>
F903a	25050065	△ YSH403T <P>
	Plug	
P901a	25055675	NPLG-2P631 <D>
	Socket	
P902	25051126	△ NSCT-4P913,AC outlet <D>
	25050410	△ NSCT-2P235,AC outlet <P/W>
	Switch	
S901	25065437	△ NSS-22157P,Voltage selector <W>

VIDEO CIRCUIT PC BOARD (NAETC-4901-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
	IC	
Q253	222840661	4066B
	Transistors	
Q251,Q252	2213284 or 2212115	2SC1740S-R or 2SC2458-GR
	Diode	
D251	223222, 223205 or 223163	WG713A, 1SS270A or 1SS133
	Capacitors	
C251,C252	354721019	100 μ F,6.3V,Elect.
C255,C256	354724719	470 μ F,6.3V,Elect.
C257	354721019	100 μ F,6.3V,Elect.
C259	354741019	100 μ F,16V,Elect.
	Terminal	
P251	25045339	NPJ-4PDYE190

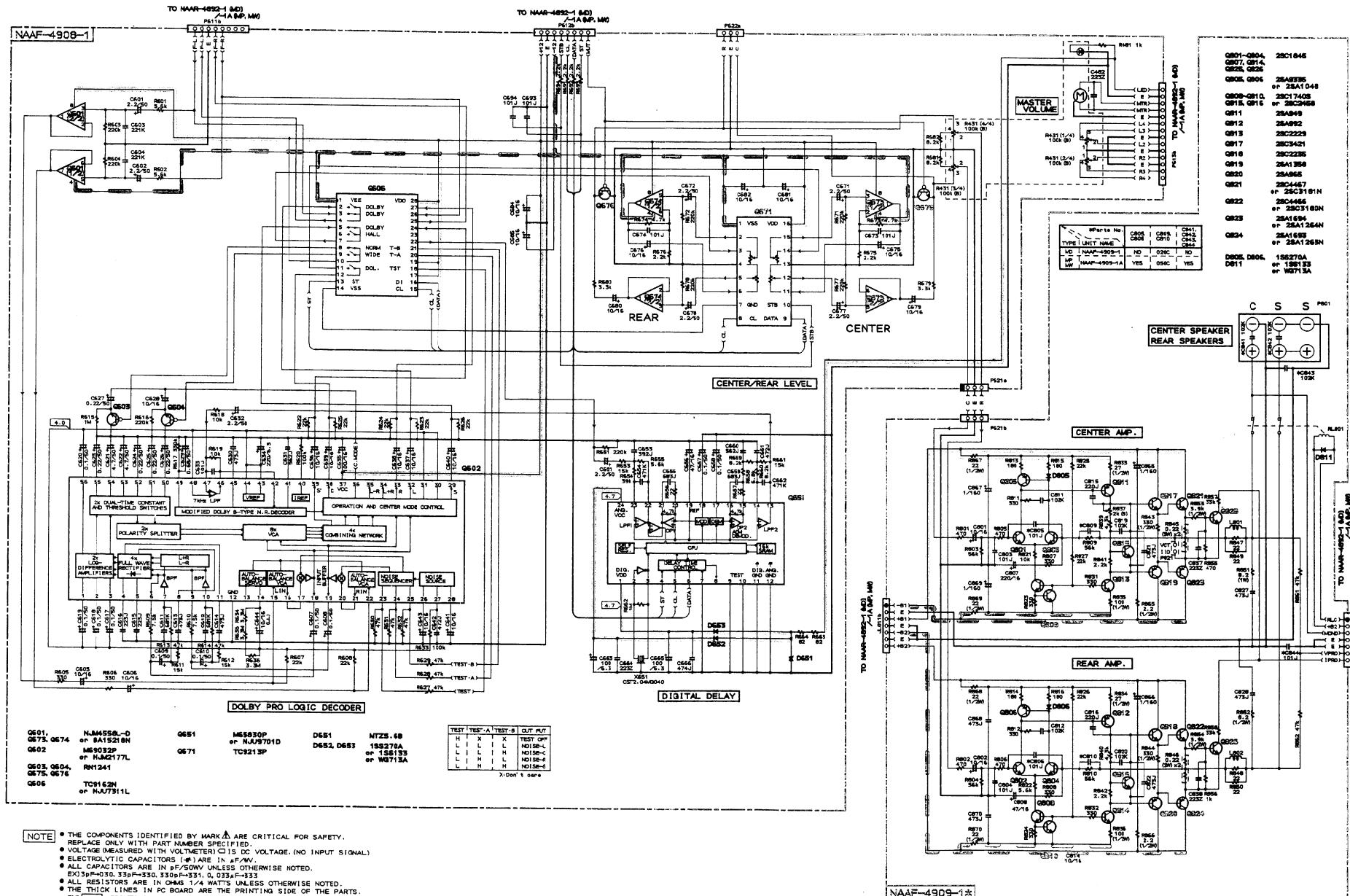
RI TERMINAL PC BOARD(NAETC-4904-3/3B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminal	
P961	25045330	NPJ-2PDYL184
	Switch	
S961	25065286	NSS-22112,Band <W>

HEADPHONE TERMINAL PC BOARD(NASW-4905-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminal	
P503	25045255	YKB21-5009

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

SCHEMATIC DIAGRAM
MODEL TX-SV414PRO


ONKYO CORPORATION

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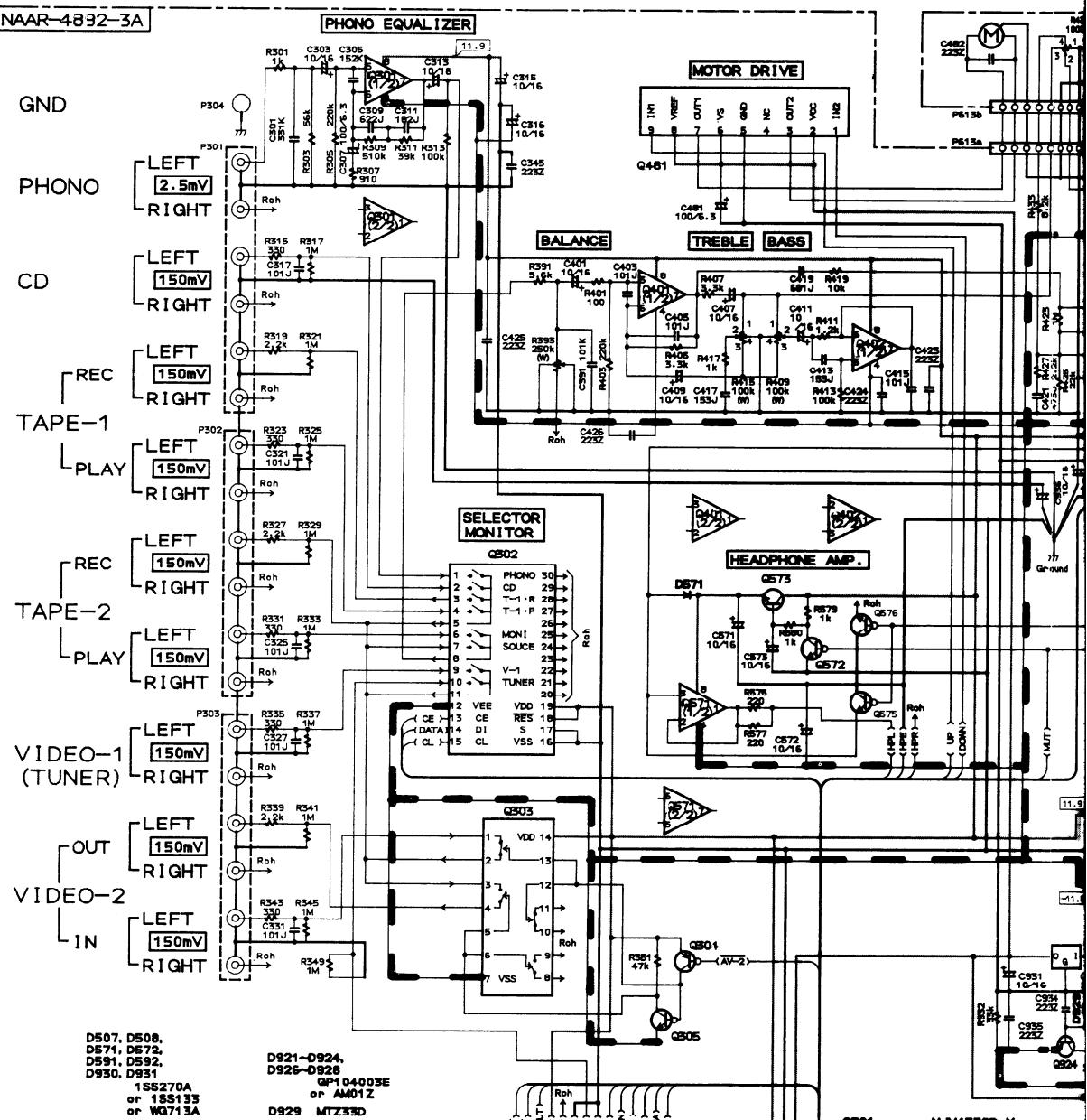
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SCHEMATIC DIAGRAM

MODEL TX-V940RDS

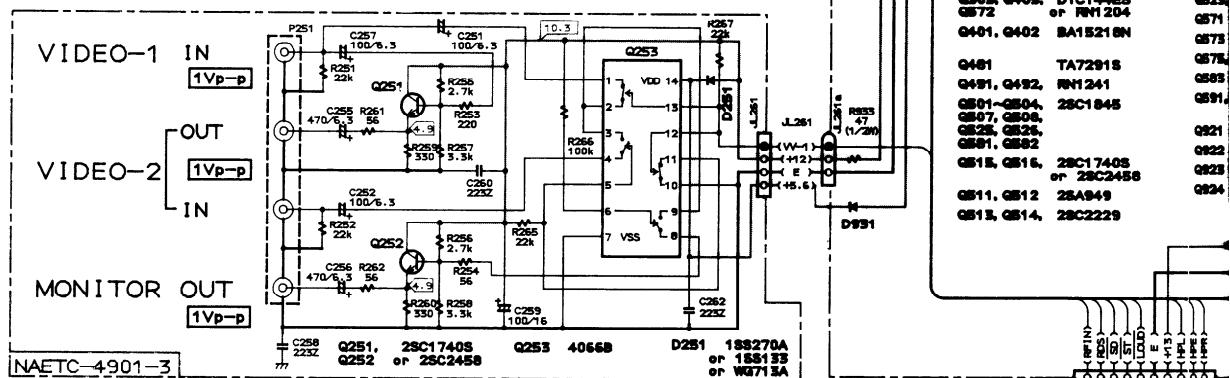
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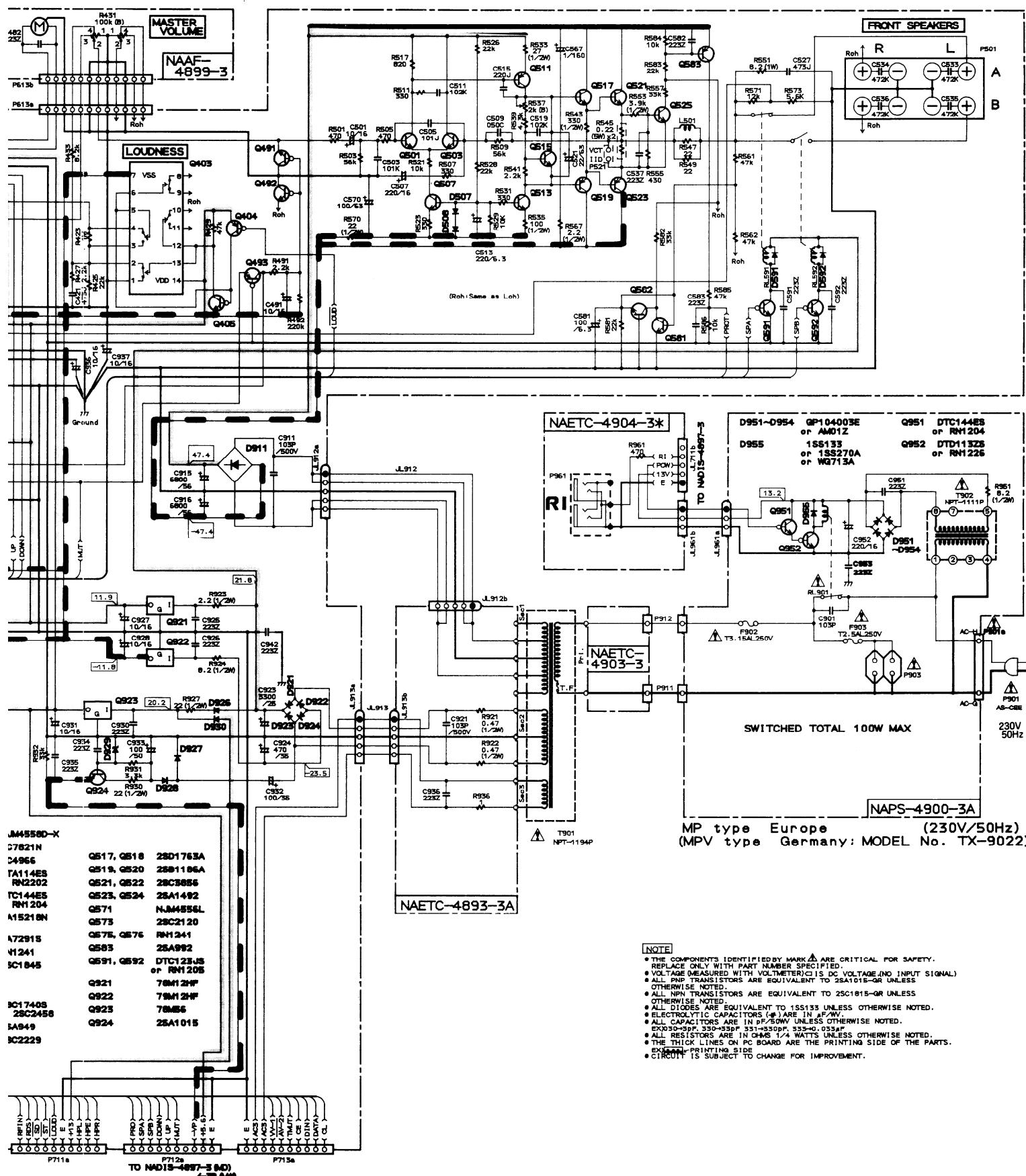


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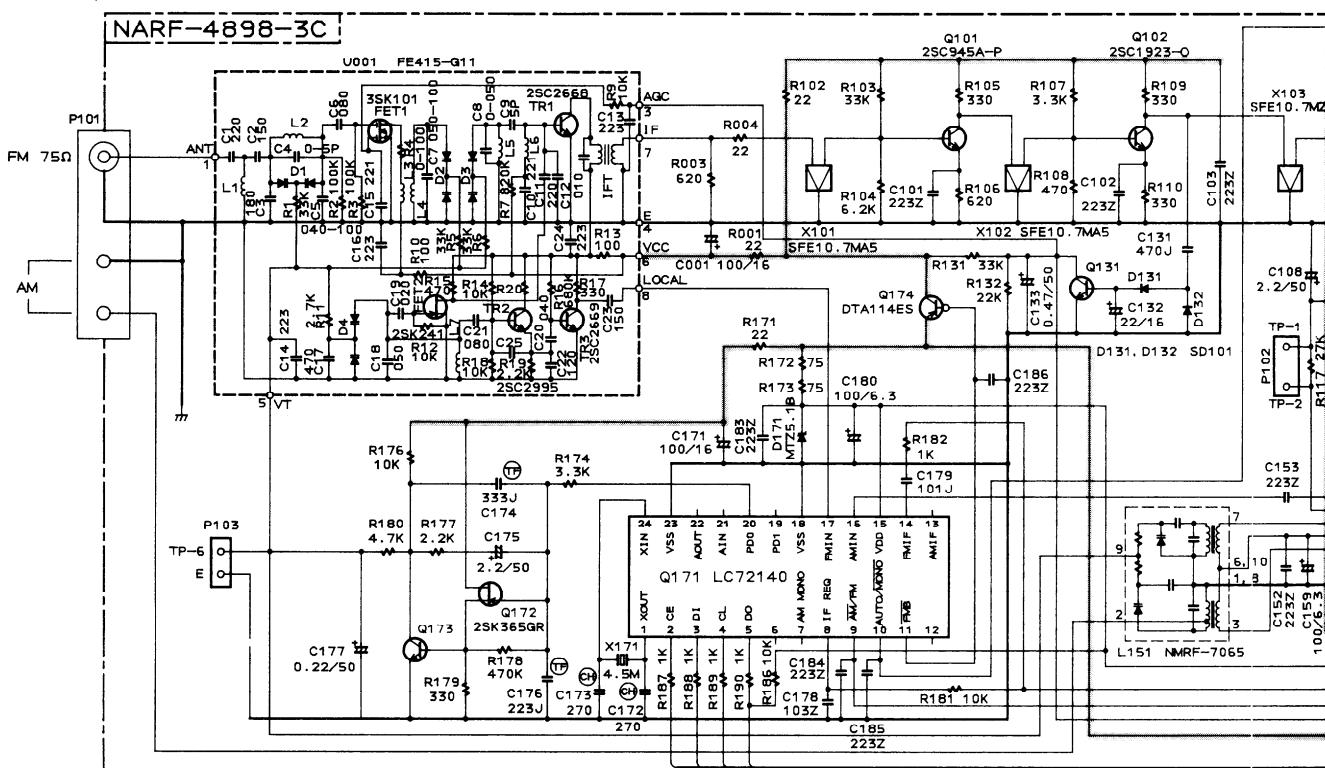




A**B****C****D**

SCHEMATIC DIAGRAM MODEL TX-V940RDS

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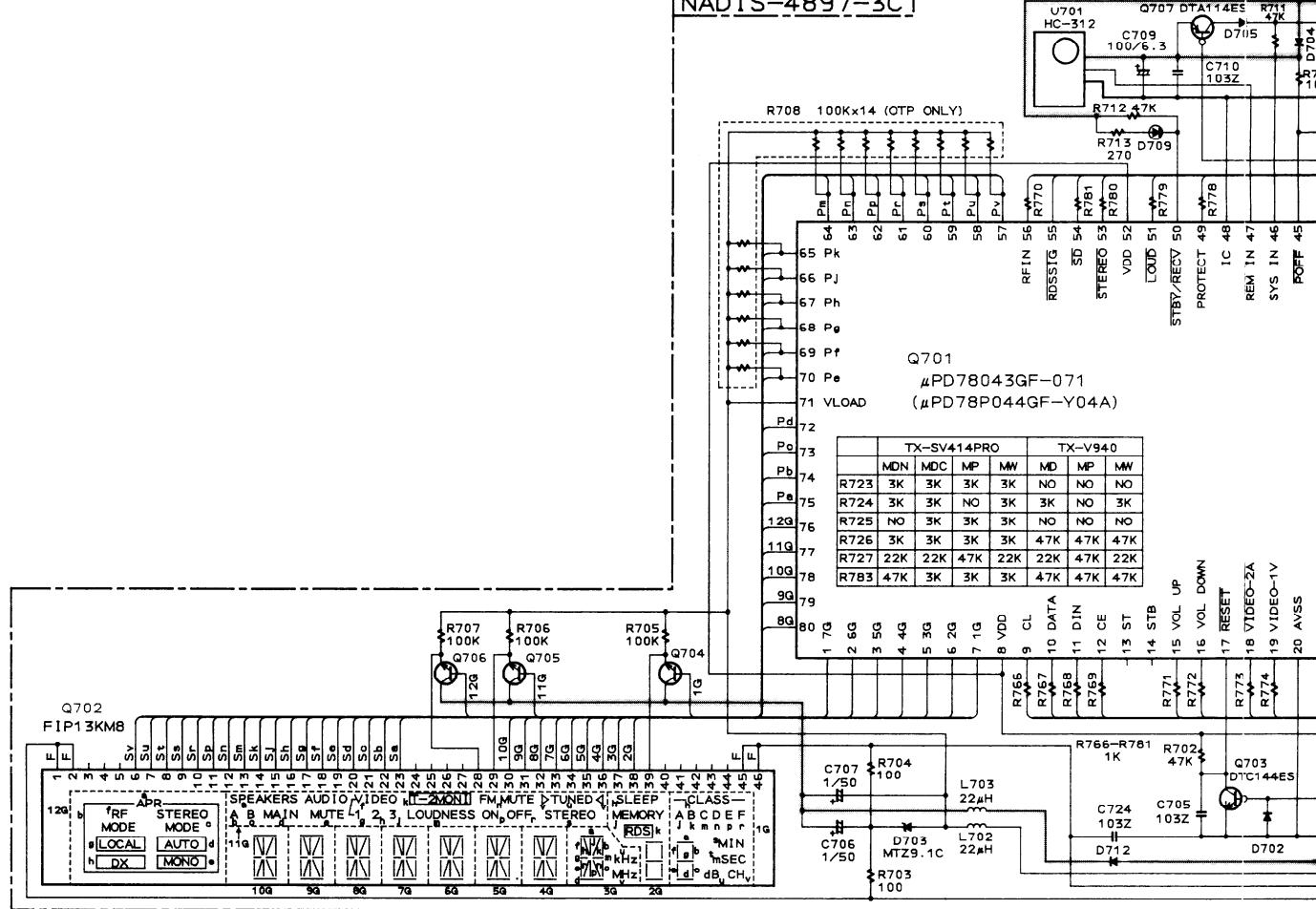
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NAD IS-4897-3C

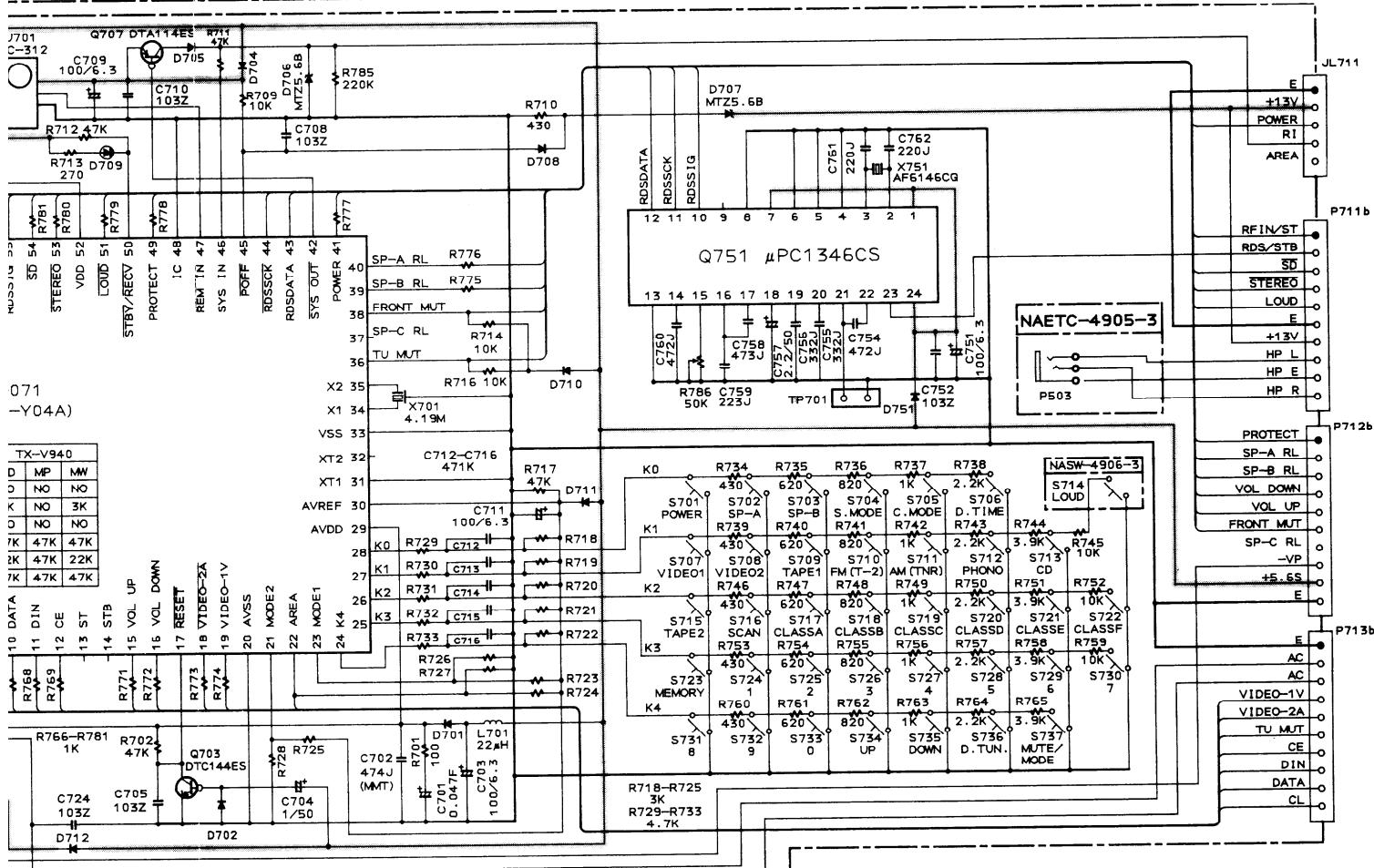
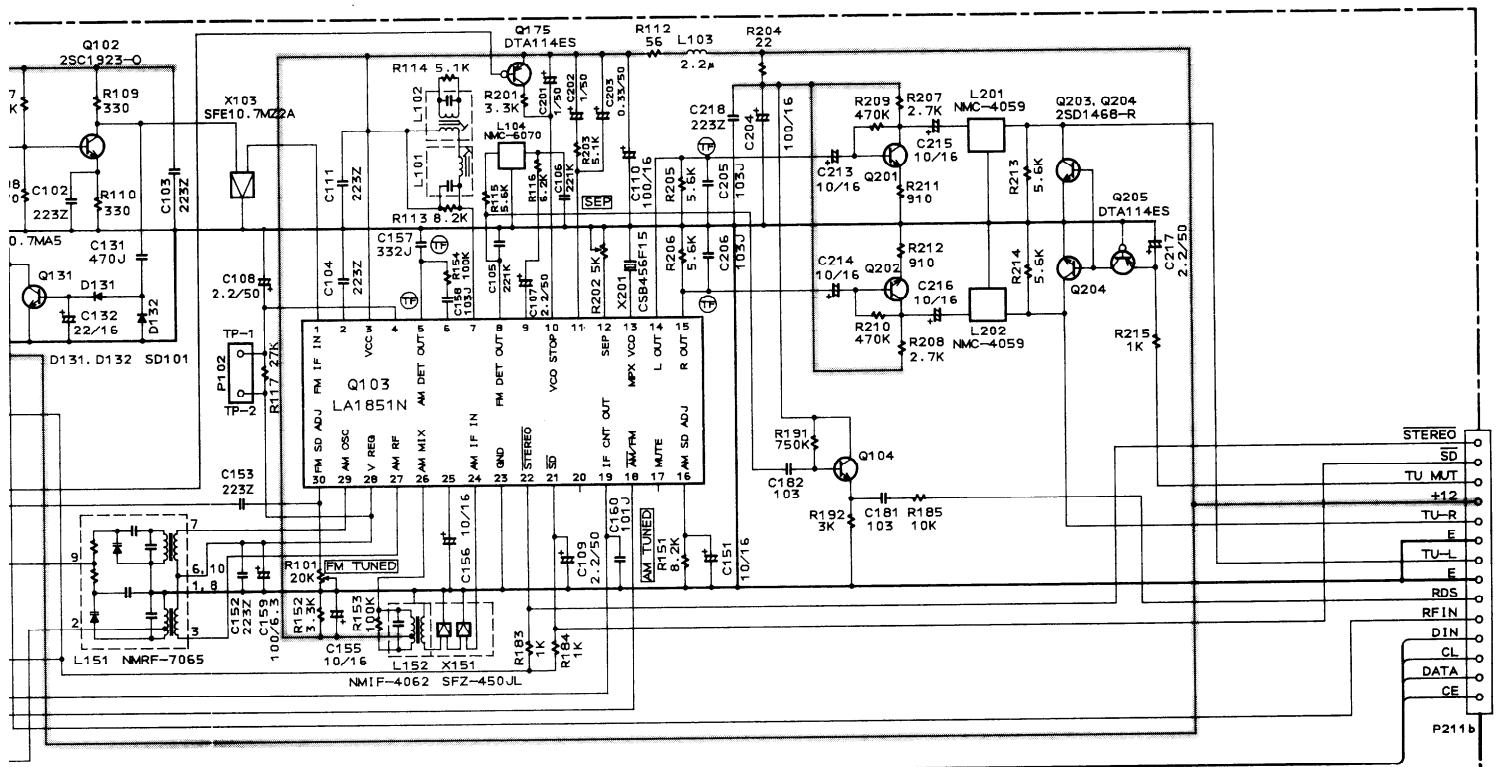


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PRINTED CIRCUIT BOARD-PARTS LIST

MODEL TX-SV414PRO

MAIN CIRCUIT PC BOARD (NAAR-4892-1/1A)

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs			Transistors	
Q301	222502	NJM4558D-X	Q581,Q582	2211732 or 2211733	2SC1845-F or 2SC1845-E
Q302	22240280	LC7821N	Q583	2211792 or 2211793	2SA992-F or 2SA992-E
Q303,Q403	22240025	LC4966	Q591-Q593	2213640 or 2214660	DTC123JS or RN1205
Q401,Q402	22240247	BA15218N	Q924	2211455	2SA1015-GR
Q481	22240239	TA7291S		Diodes	
Q571	22240752	NJM4556L	D505,D506	223222, D571,D572	WG713A, 1SS270A or
Q921	222780125NEC	78M12HF	D591,D592	223163	1SS133
Q922	222790125	79M12HF	D911	22380038	RBV602
Q923	222780565JRC	78M56	D925	22380048	RBA402
	Transistors		D926-D928	22380035 or 22380046	GP104003E or AM01Z
Q304,Q404	2213510 or	DTA114ES or	D929	224453304	MTZ33D
Q493	2214350	RN2202	D930,D931	223222, 223205 or 223163	WG713A, 1SS270A or 1SS133
Q305,Q405	221282 or	DTC144ES or		Coils	
Q572	2213560	RN1204	L501,L502	231176S	S-1.3C
Q491,Q492	2213631 or	RN1241-A or		Capacitors	
Q575,Q576	2213632	RN1241-B	C303,C304	354741009	10 μ F,16V,Elect.
Q501-Q504	2211732 or	* 2SC1845-F or	C307,C308	354721019	100 μ F,6.3V,Elect.
Q507,Q508	2211733	* 2SC1845-E	C309,C310	374726224	6200pF \pm 5%,50V,Plastic
Q505,Q506	2213354 or	2SA933S-R or	C311,C312	374721824	1800pF \pm 5%,50V,Plastic
	2212125	2SA1048-GR	C313-C316	354741009	10 μ F,16V,Elect.
Q509,Q510	2213284 or	2SC1740S-R or	C391,C392	374721015	100pF \pm 10%,50V,Plastic
Q515,Q516	2212115	2SC2458-GR	C401,C402	354741009	10 μ F,16V,Elect.
Q511,Q512	2211353 or	2SA949-O or	C407-C412	354741009	10 μ F,16V,Elect.
	2211354	2SA949-Y	C413,C414	374721534	0.015 μ F \pm 5%,50V,Plastic
Q513,Q514	2211633 or	2SC2229-O or	C417,C418	374721534	0.015 μ F \pm 5%,50V,Plastic
	2211634	2SC2229-Y	C421,C422	374724734	0.047 μ F \pm 5%,50V,Plastic
Q517,Q518	2201944,	* 2SD1763-D,	C481	354721019	100 μ F,6.3V,Elect.
	2201945 or	* 2SD1763-E or	C491	354741009	10 μ F,16V,Elect.
	2201946	* 2SD1763-F	C501,C502	354741009	10 μ F,16V,Elect.
Q519,Q520	2201934,	* 2SB1186-D,	C503,C504	374721015	100pF \pm 10%,50V,Plastic
	2201935 or	* 2SB1186-E or	C507,C508	354742219	220 μ F,16V,Elect.
	2201936	* 2SB1186-F	C513,C514	354722219	220 μ F,6.3V,Elect.
Q521,Q522	2202523,	* 2SC4468-O,	C521,C522	354772209	22 μ F,63V,Elect.
	2202524,	* 2SC4468-Y,	C527,C528	374724734	0.047 μ F \pm 5%,50V,Plastic
	2202526,	* 2SC4468-P,	C567,C568	354700109	1 μ F,160V,Elect.
	2202292 or	* 2SC3182N-R or	C570	354771019	100 μ F,63V,Elect.
	2202293	* 2SC3182N-O	C571-C573	354741009	10 μ F,16V,Elect.
Q523,Q524	2202513,	* 2SA1695-O,	C581	354721019	100 μ F,6.3V,Elect.
	2202514,	* 2SA1695-Y,	C915,C916	3504263 or	* 8200 μ F,56V or
	2202516,	* 2SA1695-P,		3504268	* 8200 μ F,56V,Elect.
	2202282 or	* 2SA1265N-R or	C923	3504213	4700 μ F,35V,Elect.
	2202283	* 2SA1265N-O	C924	354763329	3300 μ F,35V,Elect.
Q525,Q526	2211732 or	2SC1845-F or			
	2211733	2SC1845-E			
Q573	2211163 or	2SC2120-O or			
	2211164	2SC2120-Y			
Q575,Q576	2213631 or	RN1241-A or			
	2213632	RN1241-B			

CAUTION: Replacement for transistor of mark * ,if necessary,
must be made from the same beta group (H FE) as
the original type.

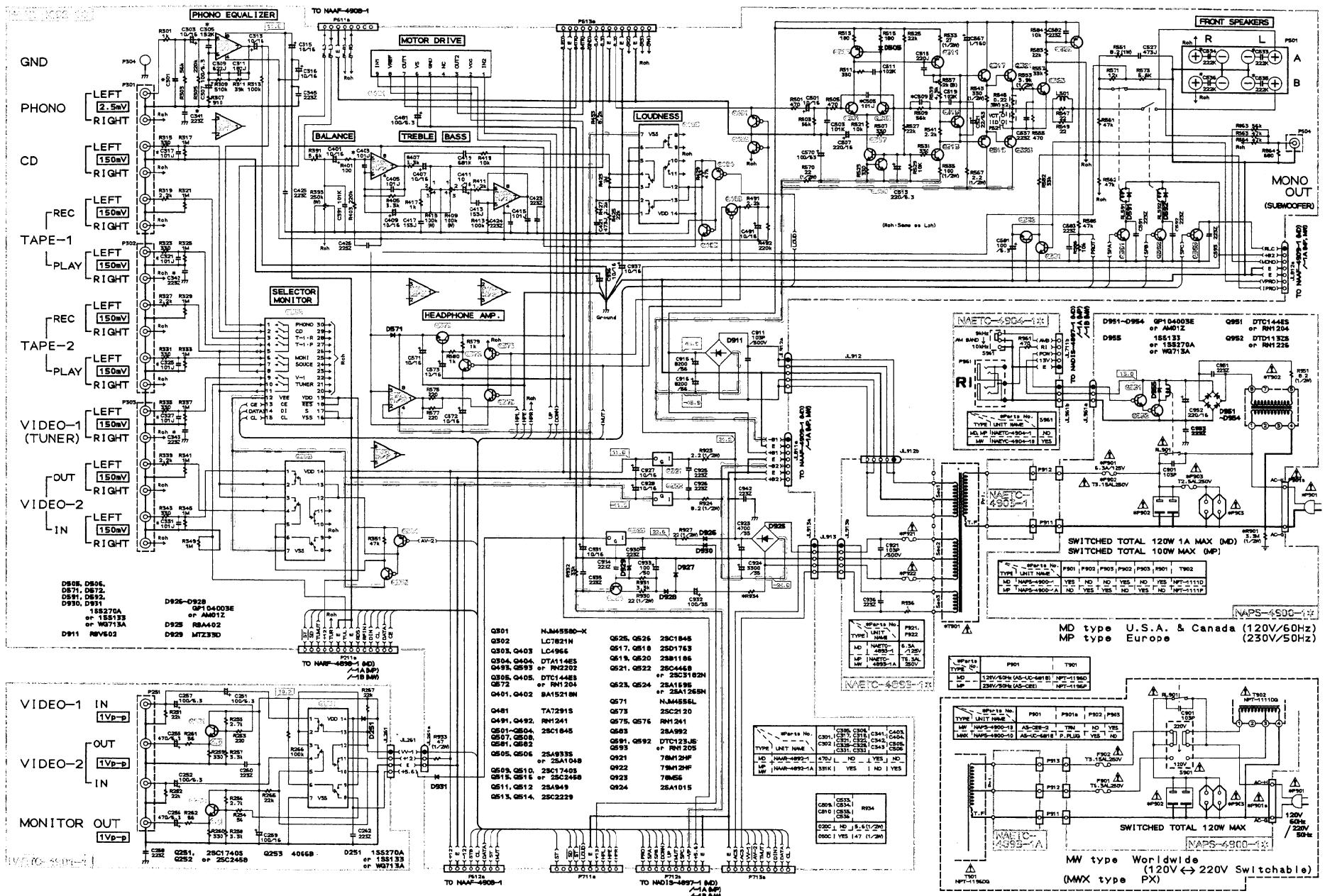
DISPLAY CIRCUIT PC BOARD (NADIS-4897-1/1A/1B/1C)		
CIRCUIT NO.	PART NO.	DESCRIPTION
		Capacitors
C927,C928	354741009	10 μ F,16V,Elect.
C931	354741009	10 μ F,16V,Elect.
C932	354761019	100 μ F,35V,Elect.
C933	354781019	100 μ F,50V,Elect.
C936,C937	354741009	10 μ F,16V,Elect.
		Resistors
R393	5104225	N11RLC250KWT22Z, Balance
R409	5104230	N14RLC100KWT22Z,Bass
R415	5104230	N14RLC100KWT22Z,Treble
R533,R534	443522704	27 ohm,1/2W,Metal oxide
R535,R536	443521014	100 ohm,1/2W,Metal oxide
R537,R538	5210259	N06HR 2KBC,Trim
R543,R544	443523314	330 ohm,1/2W,Metal oxide
R545,R546	4000132Y	0.22 ohm \times 2.5W + 5W,Metal plate
R551,R552	453630824	8.2 ohm,1W,Metal
R553,R554	443523924	3.9 kohm,1/2W,Metal oxide
R567,R568	453530224	2.2 ohm,1/2W,Metal
R570	443522204	22 ohm,1/2W,Metal oxide
R923	453530224	2.2 ohm,1/2W,Metal
R924	453530824	8.2 ohm,1/2W,Metal
R927,R930	443522204	22 ohm,1/2W,Metal oxide
R933	443524704	47 ohm,1/2W,Metal oxide
R934	453530564	5.6 ohm,1/2W,Metal <D>
	443524704	47 ohm,1/2W,Metal oxide <P/W>
		Relais
RL591,RL592	25065485	NRL-2P2A-DC24-086
		Plugs
P211a,P613a	25055652	NPLG-14P608
P611a	25055678	NPLG-8P634
P612a	25055649	NPLG-8P605
		Terminals
P301-P303	25045300	NPJ-6PDBL-159
P501	25060158	NTM-8PDMN084
P504	25045302	NPJ-1PDBL-161
		Sockets
P711a-P713a	25051046	NSCT-10P833
JL261a	25051087	NSCT-3P874
JL811a,JL812a	25051111	NSCT-7P898
JL912a,JL913a	25051109	NSCT-5P896
		POWER SUPPLY CIRCUIT PC BOARD(NAETC-4893-1/1A)
CIRCUIT NO.	PART NO.	DESCRIPTION
F921,F922	252166Y	△ 6.3A-UL/T-237,Fuse <D>
	252076	△ 6.3A-SE-EAK,Fuse <P/W>
F921a,F922a	25050065	△ YSH403T,Fuseholders
		DISPLAY CIRCUIT PC BOARD (NADIS-4897-1/1A/1B/1C)
		IC
Q701	22240773Y	μ PD78042GF-064
Q702	212127Y	FIP13LM8
		Remote control sensor
U701	24130010Y	HC-312
		Transistors
Q703	221282 or	DTC144ES or
	2213560	RN1204
Q704-Q706	2213284 or	2SC1740S-R or
	2212115	2SC2458-GR
Q707	2213510 or	DTA114ES or
	2214350	RN2202
		Diodes
D701,D702	223205 or	1SS270A or
D704,D705	223163	1SS133
D703	224450913	MTZ9.1C
D706,D707	224450562	MTZ5.6B
D708	223205 or	1SS270A or
D710-D712	223163	1SS133
D709	225291D	SEL4910D-D,LED
		Resonator
X701	3010163	CST4.19MGW,Ceramic
		Coils
L701-L703	233454K220	NCH-1452 220K
		Capacitors
C701	3000075Y	0.047F,5.5V,Super
C702	375524744	0.47 μ F \pm 5%,50V,Plastic
C703,C709	354721019	100 μ F,6.3V,Elect.
C704	354780109	1 μ F,50V,Elect.
C706,C707	354780109	1 μ F,50V,Elect.
C711	354721019	100 μ F,6.3V,Elect.
		Switches
S701-S713	25035652	NPS-111-S604
S715-S737	25035652	NPS-111-S604
		Plugs
P711b-P713b	25055659	NPLG-10P615
		Holder
	27190937Y	FL tube
		Retainer
	27141575Y	RI terminal

NOTE: <D>:120 V model only

<P>:230 V model only

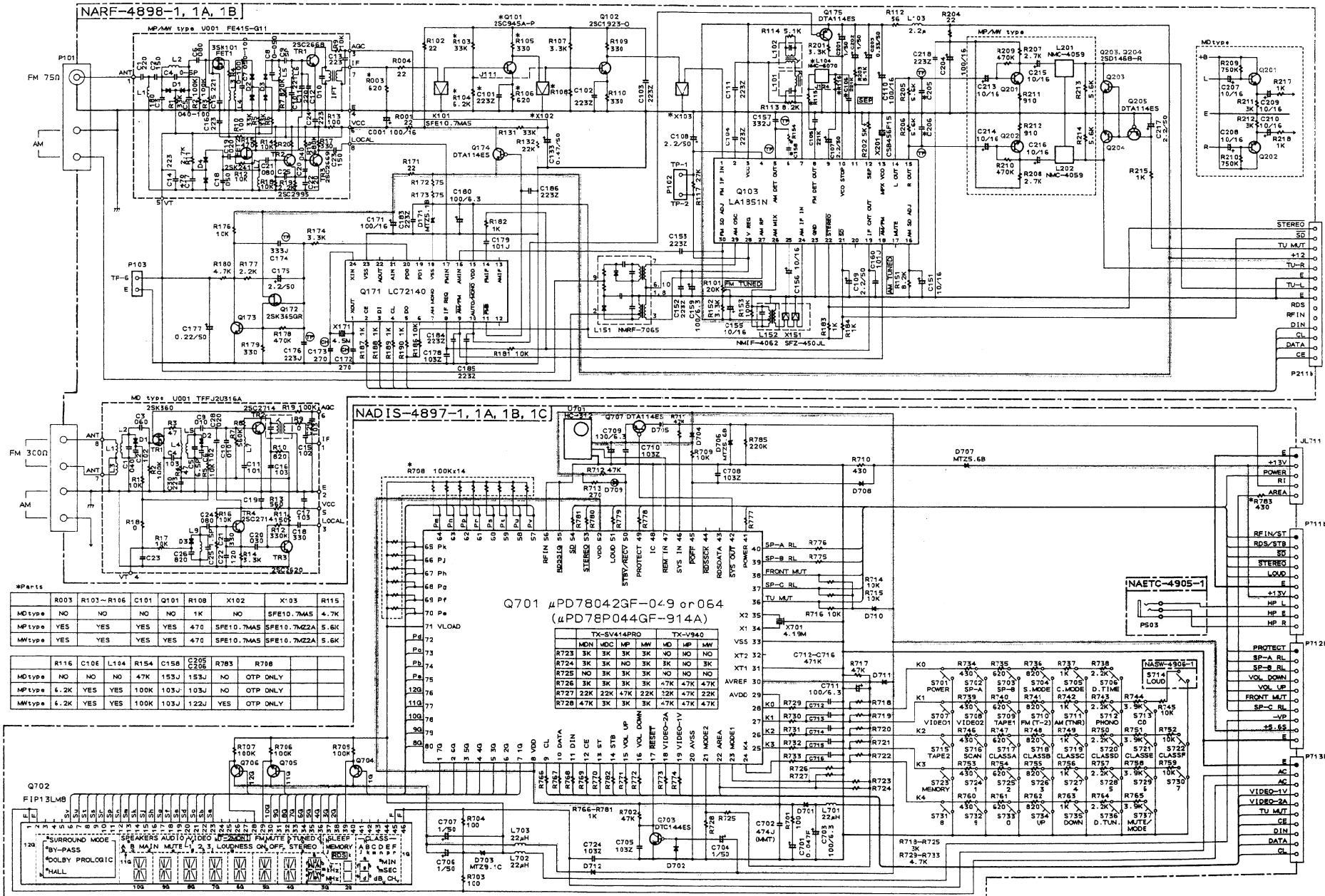
<W>:Worldwide model only

A **B** **C** **D** **E** **F** **G**

SCHEMATIC DIAGRAM
MODEL TX-SV414PRO


ONKYO CORPORATION

A B C D E F G

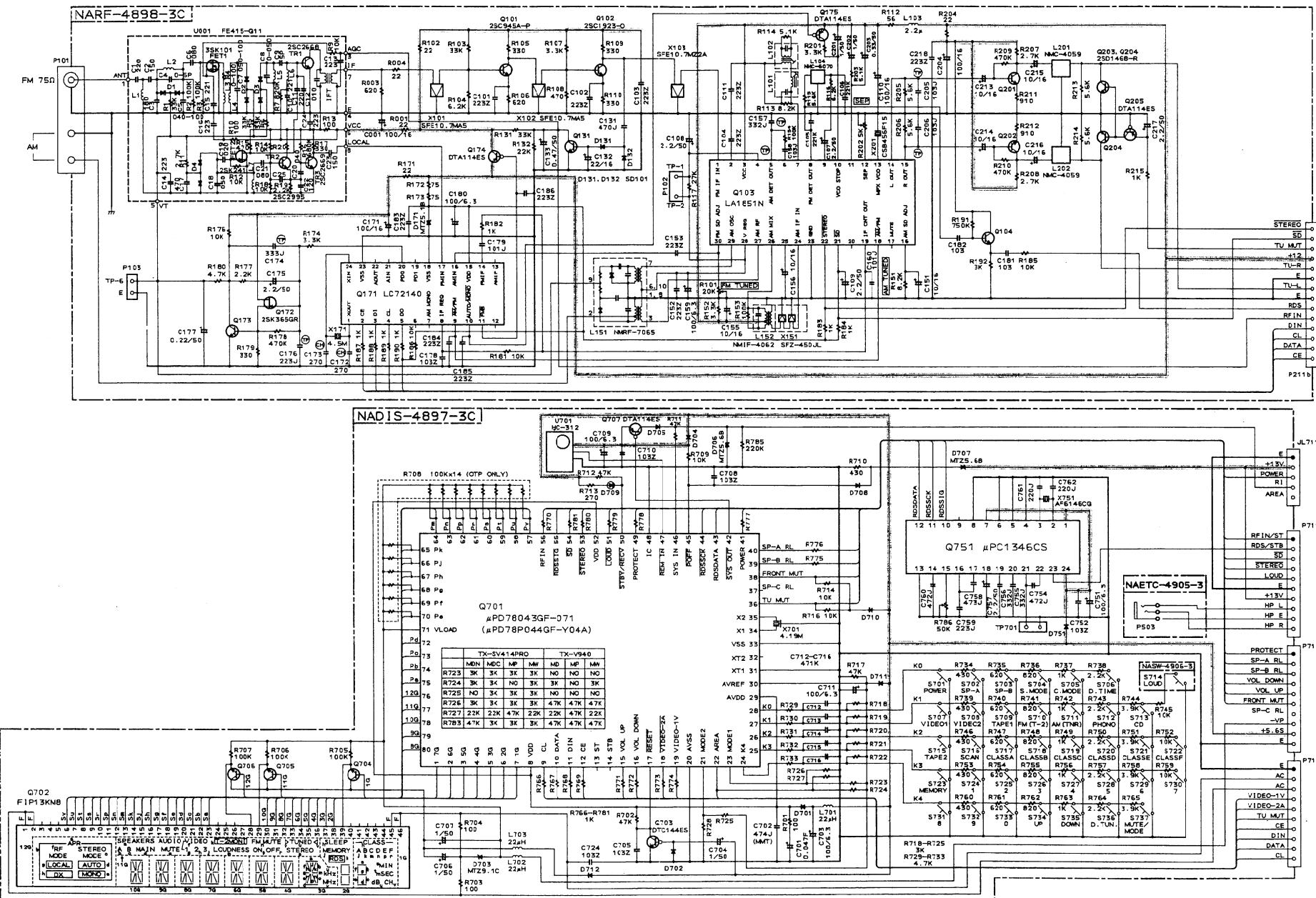
SCHEMATIC DIAGRAM
MODEL TX-SV414PRO


TUNER CIRCUIT PC BOARD (NARF-4898-1/1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Front end			Capacitors	
TU001	240095Y	TFFJ2U316A <D>	C201,C202	354780109	1 μ F,50V,Elect.
	240089	FE415-G11 <P/W>	C203	354783399	0.33 μ F,50V,Elect.
	ICs		C204	354741019	100 μ F,16V,Elect.
Q103	22240749Y	LA1851N	C205,C206	374721534	0.015 μ F \pm 5%,50V,Plastic <D>
Q171	22240750Y	LC72140		374721034	0.01 μ F \pm 5%,50V,Plastic <P>
	Transistors			374721234	0.012 μ F \pm 5%,50V,Plastic <W>
Q101	2210746	2SC945A-P <P/W>	C207-C210	354741009	10 μ F,16V,Elect. <D>
Q102	2211723	2SC1923-O	C213-C216	354741009	10 μ F,16V,Elect. <P/W>
Q172	2212445	2SK365-GR	C217	354780229	2.2 μ F,50V,Elect.
Q173	2213284 or	2SC1740S-R or		Resistors	
Q201,Q202	2212115	2SC2458-GR	R101	5210263	N06HR 20KBC,Trim
Q174,Q175	2213510 or	DTA114ES or	R202	5210259	N06HR2KBC,Trim
Q205	2214350	RN2202		Terminal	
Q203,Q204	2212794	2SD1468-R	P101	25060160	NTM-4PDML086 <D>
	Diode			25060117	NTM-2PDML051 <P/W>
D171	224450512	MTZ5.1B		Socket	
	Resonators		P211b	25050986	NSCT-14P773
X171	3010228Y	XTL-4.5M,Crystal			
X201	3010227Y	CSB456F15,Ceramic			
	Coils and transformers				
L101	233457Y	NFIF-4081			
L102	233458Y	NFIF-4082			
L103	233454M022	NCH-1452 022M	Q951	221282 or	DTC144ES or
L104	233383	NMC-6070 <P/W>		2213560	RN1204
L201,L202	233355A	NMC-4059 <P/W>	Q952	2213650 or	DTD113ZS or
L151	232163	NMRF-7065		2214680	RN1226
L152	232139	NMIF-4062	D951-D954	22380035 or	Diodes
	Ceramic filters			22380046	GP104003E or
X101	3010071	SFE10.7MAS	D955	223222,	AM01Z
X102	3010071	SFE10.7MA5 <P/W>		223205 or	WG713A,
X103	3010071	SFE10.7MA5 <D>		223163	ISS270A or
	3010130	SFE10.7MZ2A <P/W>		Capacitors	ISS133
X151	3010123	SFZ-450JL	C901	3500065A	▲ DE7150FZ103PAC400V/125V
	Capacitors		C952	354742219	220 μ F,16V,Elect.
C001	354741019	100 μ F,16V,Elect.		Resistors	
C107-C109	354780229	2.2 μ F,50V,Elect.	R901	431523355	▲ 3.3M Ω ,1/2W,Solid <D>
C110	354741019	100 μ F,16V,Elect.	R951	453530824	8.2 ohm,1/2W,Metal
C133	354784799	0.47 μ F,50V,Elect.		Power transformer	
C151	354741009	10 μ F,16V,Elect.	T902	2300670	▲ NPT-1111D <D>
C155,C156	354741009	10 μ F,16V,Elect.		2300671	▲ NPT-1111P <P>
C157	374723324	3300pF \pm 5%,50V,Plastic		2300672	▲ NPT-1111DG <W>
C158	374721534	0.015 μ F \pm 5%,50V,Plastic <D>		Relay	
	374721034	0.01 μ F \pm 5%,50V,Plastic <P/W>	RL901	25065483	▲ NRL-1P5A-DC-12-084
C159,C180	354721019	100 μ F,6.3V,Elect.		Fuses	
C174	374723334	0.033 μ F \pm 5%,50V,Plastic	F901	252166Y	▲ 6.3A-UL/T-237 <D/W>
C175	354780229	2.2 μ F,50V,Elect.	F902	252076	▲ 3.15A-SE-EAK <P/W>
C176	374722234	0.022 μ F \pm 5%,50V,Plastic	F903	252075	▲ 2.5A-SE-EAK <P>
C177	354782299	0.22 μ F,50V,Elect.			

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

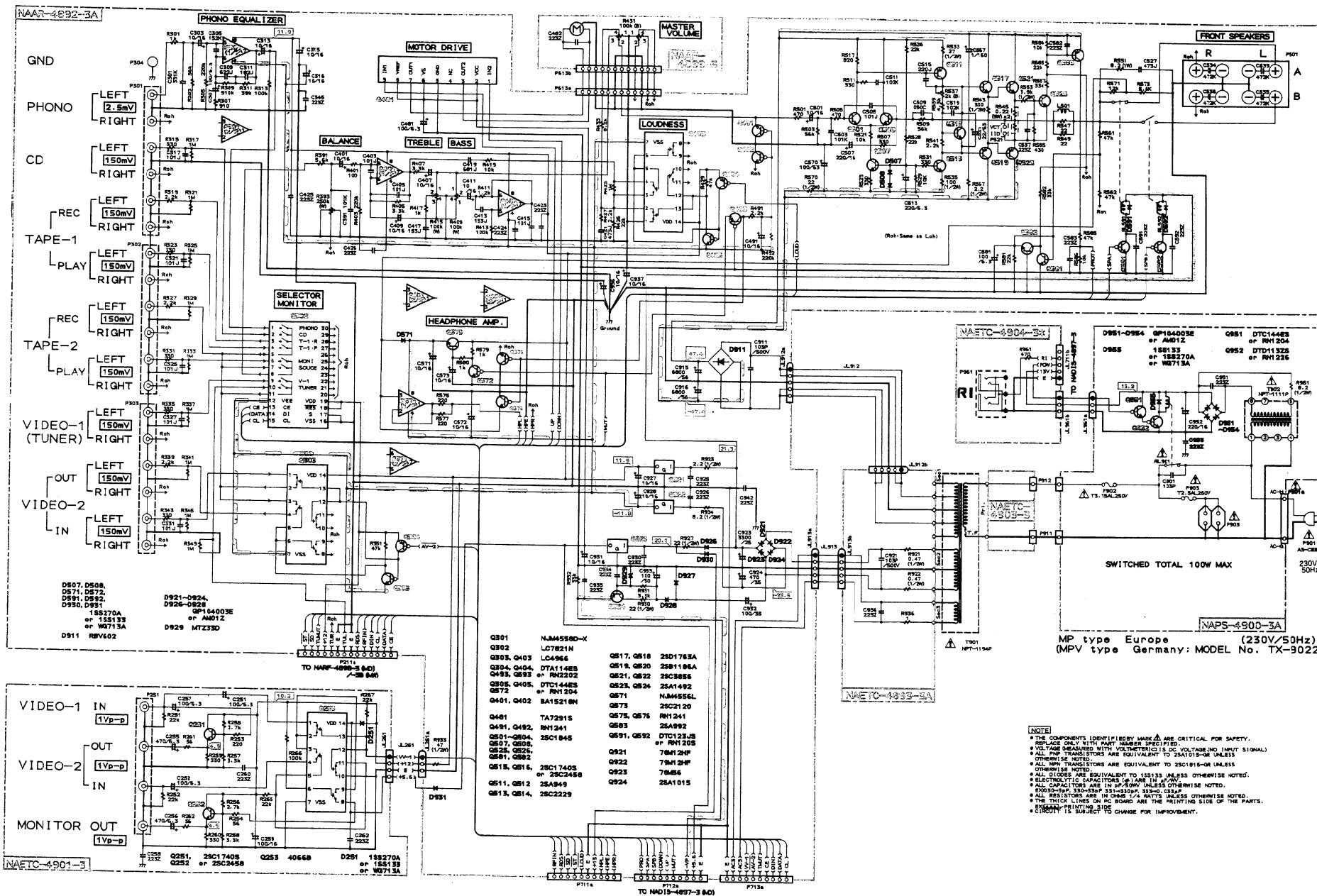
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SCHEMATIC DIAGRAM
MODEL TX-V940RDS


TX-V940RDS

A

SCHEMATIC DIAGRAM
MODEL TX-V940RDS



ONKYO CORPORATION

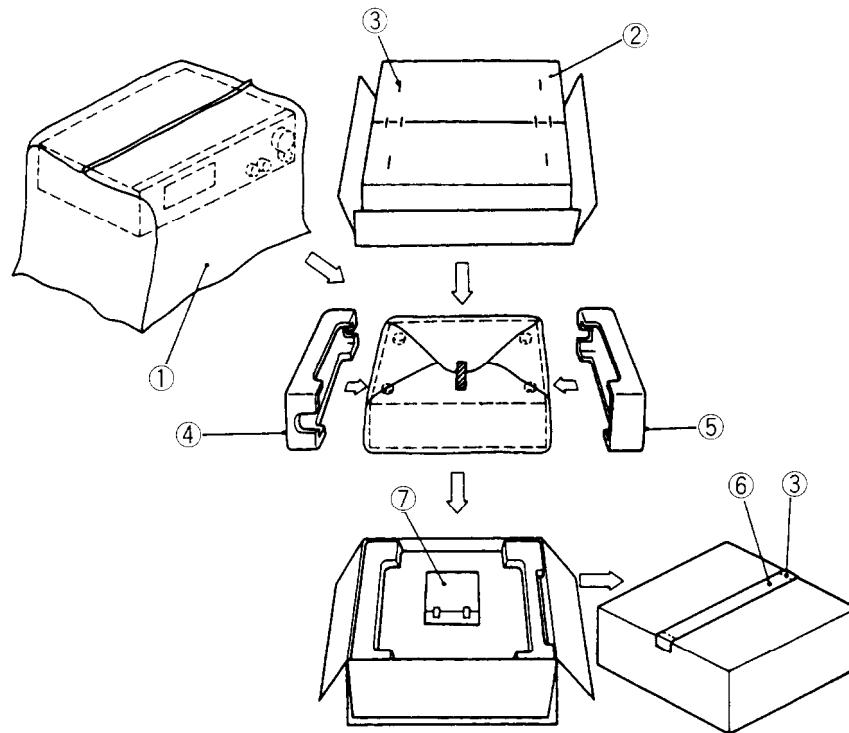
CIRCUIT NO.			SURROUND CIRCUIT PC BOARD (NAAF-4908-1)		
CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Fuseholders			ICs	
F901a	25050065	▲ YSH403T <D/W>	Q601	22240247 or	BA15218N or
F902a	25050065	▲ YSH403T <P/W>	Q673,Q674	22240293	NJM4558L-D
F903a	25050065	▲ YSH403T <P>	Q602	22240683 or	NJM2177L or
	Plug		22240692	M69032P	
P901a	25055675	NPLG-2P631 <D>	Q606	22240398 or	TC9162N or
	Socket		22240751	NJU7311L	
P902	25051126	▲ NSCT-4P913,AC outlet <D/PX>	Q651	22240686 or	M65830P or
	25051125	▲ NSCT-4P912,AC outlet <P/W>	22240687	NJU9701D	
	Switch		Q671	22240266	TC9213P
S901	25065437	▲ NSS-22157P,Voltage selector <W>		Transistors	
			Q603,Q604	2213631 or	RN1241-A or
			Q675,Q676	2213632	RN1241-B
VIDEO CIRCUIT PC BOARD (NAETC-4901-1)				Diodes	
CIRCUIT NO.	PART NO.	DESCRIPTION	D651	224450562	MTZ5.6B
	IC		D652,D653	223222,	WG713A,
Q253	222840661	4066B		223205 or	ISS270A or
	Transistors			223163	ISS133
Q251,Q252	2213284 or	2SC1740S-R or	X651	Resonator	
	2212115	2SC2458-GR		3010217	CST2.04MG040,Ceramic
	Diode			Capacitors	
D251	223222,	WG713A,	C601,C602	354780229	2.2 μ F,50V,Elect.
	223205 or	1SS270A or	C605,C606	354741009	10 μ F,16V,Elect.
	223163	1SS133	C607-C610	354781099	0.1 μ F,50V,Elect.
	Capacitors		C613,C614	374724734	0.047 μ F±5%,50V,Plastic
C251,C252	354721019	100 μ F,6.3V,Elect.	C615,C616	374722234	0.022 μ F±5%,50V,Plastic
C255,C256	354724719	470 μ F,6.3V,Elect.	C617-C620	354781099	0.1 μ F,50V,Elect.
C257	354721019	100 μ F,6.3V,Elect.	C621,C622	354780479	4.7 μ F,50V,Elect.
C259	354741019	100 μ F,16V,Elect.	C623-C627	354782299	0.22 μ F,50V,Elect.
	Terminal		C628	354741009	10 μ F,16V,Elect.
P251	25045339	NPJ-4PDYE190	C629	354786899	0.68 μ F,50V,Elect.
			C630	374724734	0.047 μ F±5%,50V,Plastic
RI TERMINAL PC BOARD(NAETC-4904-1/1B)			C631,C660	374725625	5600pF±5%,50V,Plastic
CIRCUIT NO.	PART NO.	DESCRPTION	C632	354780229	2.2 μ F,50V,Elect.
	Terminal		C634	354722219	220 μ F,6.3V,Elect.
P961	25045330	NPJ-2PDYL184	C635	354741019	100 μ F,16V,Elect.
	Switch		C636-C641	354741009	10 μ F,16V,Elect.
S961	25065286	NSS-22112 <W>	C642	374724724	4700pF±5%,50V,Plastic
			C643	354741009	10 μ F,16V,Elect.
HEADPHONE TERMINAL PC BOARD(NASW-4905-1)			C644	392841007	10 μ F,16V,Elect.
CIRCUIT NO.	PART NO.	DESCRPTION	C651	354782299	0.22 μ F,50V,Elect.
	Terminal		C653	374723924	3900pF±5%,50V,Plastic
P503	25045255	YKB21-5009	C655	374726834	0.068 μ F±5%,50V,Plastic
			C656	354744709	47 μ F,16V,Elect.
LOUDNESS SWITCH PC BOARD(NASW-4906-1)			C657,C658	354781099	0.1 μ F,50V,Elect.
CIRCUIT NO.	PART NO.	DESCRPTION	C659	374726834	0.068 μ F±5%,50V,Plastic
	Switch		C661	374724724	4700pF±5%,50V,Plastic
S714	25035652	NPS-111-S604	C663,C665	354721019	100 μ F,6.3V,Elect.
			C666	375524744	0.47 μ F±5%,50V,Plastic

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors			Transistors	
C671,C672	354780229	2.2 μ F,50V,Elect.	Q823	2202243,	* 2SA1694-O,
C675,C676	354741009	10 μ F,16V,Elect.		2202244,	* 2SA1694-Y,
C677,C678	354780229	2.2 μ F,50V,Elect.		2202246,	* 2SA1694-P,
C679-C682	354741009	10 μ F,16V,Elect.		2202492 or	* 2SA1264N-R or
C684,C685	354741009	10 μ F,16V,Elect.		2202493	* 2SA1264N-O
	Resistor		Q824	2202363,	* 2SA1693-O,
R431	5104332Y	N16RQL100KBT25F,Main volume		2202364,	* 2SA1693-Y,
	Plug			2202365,	* 2SA1693-P,
P622a	25055405	NPLG-3P387		2202342 or	* 2SA1263N-R or
	Sockets			2202343	* 2SA1263N-O
P611b	25051127	NSCT-8P914		Diodes	
P612b	25050983	NSCT-8P770	D805,D806	223222,	WG713A,
P613b	25050986	NSCT-14P773	D811	223205 or	1SS270A or
P621a	2000802ULY	NSAS-6P758		223163	1SS133
	Coils				
CENTER AND REAR AMPLIFIER PC BOARD (NAAF-4909-1/1A)			L801,L802	231176S	S-1.3C
	Capacitors				
	Transistors		C801,C802	354741009	10 μ F,16V,Elect.
Q801-Q804	2211732 or	* 2SC1845-F or	C807	354742219	220 μ F,16V,Elect.
Q807,Q808	2211733	* 2SC1845-E	C808	354744709	47 μ F,16V,Elect.
Q805,Q806	2213354 or	2SA933S-R or	C821,C822	374724734	0.047 μ F \pm 5%,50V,Plastic
	2212125	2SA1048-GR	C827,C828	374724734	0.047 μ F \pm 5%,50V,Plastic
Q809,Q810	2213284 or	2SC1740S-R or	C865,C867	354700109	1 μ F,160V,Elect.
Q815,Q816	2212115	2SC2458-GR	C866	354784709	47 μ F,50V,Elect.
Q811,Q812	2211353 or	2SA949-O or	C868,C870	374724734	0.047 μ F \pm 5%,50V,Plastic
	2211354	2SA949-Y	C869	354700109	1 μ F,160V,Elect.
Q813	2211633 or	2SC2229-O or		Resistors	
	2211634	2SC2229-Y	R833,R834	443522704	27 ohm,1/2W,Metal oxide
Q814	2211732 or	2SC1845-F or	R835,R836	442521014	100 ohm,1/2W,Metal oxide
Q825,Q826	2211733	2SC1845-E	R837	5215044	N08HR 2KBC,Trim
Q817	2212653 or	2SC3421-O or	R843,R844	443523314	330 ohm,1/2W,Metal oxide
	2212654	2SC3421-Y	R845	4000132Y	0.22 ohm \times 2,5W+5W,Metal plate
Q818	2211653 or	2SC2235-O or	R846	4000131Y	0.22 ohm \times 2,2W+2W,Metal plate
	2211654	2SC2235-Y	R851,R852	453530824	8.2 ohm,1/2W,Metal
Q819	2212643 or	2SA1538-O or	R853,R854	443523924	3.9 kohm,1/2W,Metal oxide
	2212644	2SA1538-Y	R865,R866	453530224	2.2 ohm,1/2W,Metal
Q820	2211643 or	2SA965-O or	R867-R870	443522204	22 ohm,1/2W,Metal oxide
	2211644	2SA965-Y		Relay	
Q821	2202253,	* 2SC4467-O,	RL801	25065485	NRL-2P2A-DC24-086
	2202254,	* 2SC4467-Y,		Plugs	
	2202256,	* 2SC4467-P,	P621b	25055234	NPLG-3P218
	2202502 or	* 2SC3181N-R or		Terminal	
	2202503	* 2SC3181N-O	P801	25060191Y	NTM-6PDML113
Q822	2202373,	* 2SC4466-O,			
	2202374,	* 2SC4466-Y,			
	2202375,	* 2SC4466-P,			
	2202352 or	* 2SC3180N-R or			
	2202353	* 2SC3180N-O			

CAUTION: Replacement for transistor of mark *, if necessary, must be made from the same beta group (H_{FE}) as the original type.

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

PACKING VIEW



TX-V940/TX-V940RDS

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	NOTE:
1	29100034-1Y	Styrene bag for unit	<D>:120V model only <P>:230V model only <TX-V940RDS only>
2	29052692Y	Carton box <D/W>	<W>:Worldwide model only
	29052705Y	Carton box <P>	<N>:USA model only
3	282301	Ten staples	<C>:Canadian model only
4	29091652BY	Pad R	
5	29091651BY	Pad L	
6	29110071	PP tape	
7	Accessory bag ass'y		
	232140	NMA-3057,AM loop antenna	
	2010200	Cord RI	
	3010054	UM-3,Two batteries	
	25055018	CV-K-1,Conversion plug <W>	
	25065462	YAE21-0237, Antenna adaptor <W>	
	24140261AY	RC-261S,Remote control transmitter	
	29100097-1Y	Styrene bag for accessory	
	292111Y	FM antenna <D>	
	292112Y	FM antenna <P/W>	
	29341901Y	Instruction manual	
	29341904Y	Instruction manual <P>	
	29341903Y	Instruction manual <C/W>	
	29358002K	Service station list <N>	
	29361678Y	Label UPC <N>	
	29365019A	Warranty card <N>	
	29360778	Label FLASH <N/C>	

TX-SV414PRO

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	NOTE: <D>:120V model only <W>:Worldwide model only <N>:USA model only <C>:Canadian model only
1	29100034-1Y	Styrene bag for unit	
2	29052696Y	Carton box	
	29052698Y	Carton box <PX>	
3	282320	Ten staples	
4	29091652BY	Pad R	
5	29091651BY	Pad L	
6	29110071	PP tape	
7	Accessory bag ass'y		
	232140	NMA-3057,AM loop antenna	
	2010200	Cord RI	
	3010054	UM-3,Two batteries	
	25055018	CV-K-1,Conversion plug <W>	
	25055251	CV-CP,Conversion plug <PX>	
	28330072	Two caps <PX>	
	25065462	YAE21-0237, Antenna adaptor <W>	
	24140262AY	RC-262S,Remote control transmitter	
	29100097-1Y	Styrene bag for accessory	
	292111Y	FM antenna <D>	
	292112Y	FM antenna <P/W>	
	29341901Y	Instruction manual	
	29341903Y	Instruction manual <C/W>	
	29341904Y	Instruction manual <P>	
	29380084	Instruction sheet <PX>	
	29358002J	Service station list <N/PX>	
	29361680Y	Label UPC <N/PX>	
	29365019A	Warranty card <N>	
	29365021	Warranty card <PX>	