

Wurl antenna 300Ω

ORDER NO. SD 7504-1015

# Service Manual

**FM/AM STEREO RECEIVER**

**SA-5251 / SA-5551**

- \* This service manual includes only the changes of the **Technics SA-5250/SA-5550** service manual (ORDER NO. SD7504-1011) except for replacement Parts List.
- \* This manual should be filed with the service manual for model **Technics SA-5250/SA-5550** (ORDER NO. SD7504-1011).
- \* When servicing model **SA-5251/SA-5551** this service manual and the **Technics SA-5250/SA-5550** (ORDER NO. SD7504-1011) service manual should be used together.

**REPLACEMENT PARTS LIST ..... Model No. SA-5251 (for European Military)**

NOTES:  
 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.  
 2. **SAFETY** Indicates that only parts specified by the manufacturer be used for replacement in critical circuits.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
<b>INTEGRATED CIRCUITS</b>									
IC101	AN217BB	FM IF, AM RF & AM IF Amplifier	1		L3	RLOY25S5	Choke Coil	1	
IC102	SV1SN76115N	PLL Type FM MPX	1		L4	SIDA4N18	FM DET Coil	1	
<b>TRANSISTORS</b>									
TR1	3SK39-Q	FM RF Amplifier	1		L5, 10	RLQY15G5	Choke Coil	2	
TR2	2SC922-M	FM Mixer	1		L6	SLOA 4N9	FM Oscillator Coil	1	
TR3	2SC839-H	FM Oscillator	1		L7, L101, 103, 701	SLOX101-2D	Choke Coil	4	
TR101, 102, 103, 104, 105	2SC829-C	FM IF Amplifier	5		L8	SLOX101-2D	AM Antenna Coil	1	
TR106, 107	2SC945-P2	FM Muting Switching	2		L9	SLOA2C6	AM Oscillator Coil	1	
TR201, 202	2SC1327-T	Equalizer Amplifier	2		L102, 105	SLIAA81	FM AGC Coil	1	
TR203, 204	2SA721-T	Equalizer Amplifier	2		T1	SLM1Z7-K	Low Pass Filter	2	
TR(601, 602) x 2	2SC1573-Q	Differential Amplifier (Use in Pairs)	4		T2	RL17W105S-T	AM 1st IF Transformer	1	
TR(603) x 2	2SA666A-AD	Pre Driver Amplifier	2		T101	SLI4AC56	FM Discriminator, Secondary	1	
TR(604) x 2	2SC828-R	Thermo Compensation	2		T102	SLI4AC541	FM Discriminator, Primary	1	
TR(605) x 2	2SC1567-R	Driver Amplifier } Use in Pairs	2		T103, 104	SLI4AC241-T	FM Muting & Meter IFT	2	
TR(606) x 2	2SA794-R	Driver Amplifier } Use in Pairs	2		T1001	SLT5P47	Power Transformer	1	<b>EXTRA</b>
TR(607) x 2	2SC1667(S)-Q	Power Amplifier } Use in Pairs	2		<b>CERAMIC FILTERS</b>				
TR(608) x 2	2SA837(S)-Q	Power Amplifier } Use in Pairs	2		CF101, 102, 103	SVF107MA8A	FM IF Circuit, Red, 10.7MHz	each	
TR701	2SA699-R	Ripple Filter	1			SVF107MA8B	FM IF Circuit, Blue, 10.67MHz	3	
TR702	2SA694-Q	Speaker Protection	1			SVF107MA8C	FM IF Circuit, Orange, 10.73MHz		
TR703, 704	2SC1318-R	Speaker Protection	2			SVF107MA8D	FM IF Circuit, Black, 10.64MHz		
<b>DIODES</b>									
D1, 2, 101, 104, 105	OA99	AM & FM AGC Detector	5		VR101	EVL33AA00B54	50KΩ (B), Muting Level Adjustment	1	
D102, 103	2-OA99	FM Discriminator	1 pair		VR102	EVL33AA00B24	20KΩ (B), Signal Meter Adjustment	1	
D106, 107, 108	MA150	FM Muting & Meter Detector	3		VR103, 104	EVL33AA00B14	10KΩ (B), PLL VCO & Separation Adj.	2	
D701	SVDAS2HB10	Rectifier	1		VR501	EVE2DA088G25	200KΩ (B), Balance Control	1	
D702, 703	RVD1001	Rectifier	2		VR502	EW49 A037BF5	250KΩ (B), Volume Control	1	
D704	SVDA10D1M	Rectifier	1		VR503, 504	EW33NA037C15	100KΩ (C), Bass & Treble Control	2	
D705	SVDAE0B0120	20V Zener	1		VR (601) x 2	EVL33AA00B52	500Ω (B), ICQ Adjustment	2	
D706	SVDARD10E	10V Zener	1		<b>VARIABLE RESISTORS</b>				
<b>THERMISTORS</b>									
TH(601) x 2	RRT251	Driver Circuit	2		<b>VARIABLE CAPACITORS</b>				
<b>COILS and TRANSFORMERS</b>									
L1	SLAA4W1-3	FM Balun Coil	1		CV1~5	ECV5MX25X20G	Tuning Gang, AM/FM (with Trimmer)	1	
L2	SLAA4N9	FM Antenna Coil	1		CT5	ECV1Z06GP35	FM OSC Trimmer, 6pF	1	
<b>COMPONENT COMBINATIONS</b>									
Z1	EXAF203Z471	AM Detector	1		<b>REMARKS</b>				
Z101	EXA5DL0AC	FM Detector	1		<b>EXTRA</b>				
Z701, 702	RXAF103P22HD	Hum Cancel, 0.01μF(x2), 500WV	2						

**Technics**  
by Panasonic

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**SA-5251**

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
<b>SWITCHES</b>									
S501	SSRA81	Selector Switch	1		CH1	SDHA60-2	Mounting, Meter & Dial Scale	1	
S502, 503, 505	SSH303S	Tape 1, 2 & Mode Switch	1		CH2	SHRA9116-1	Lock Pin, Dial Scale	2	
S506, 507	SSHA56S	Loudness & Muting Switch	1		CH3	SKDA530	Dial Scale	1	
S1001	ESRC124F30CE	Speakers Selector Switch	1		CH4	SUSA69	Spring, Meter	1	
S1002	ESB7040T	Power Switch (with Button)	1		CH5	SUMA8-1	Mounting, Dial Scale	1	
S1003	SSRA71S	Voltage Selector Switch	1		CH6	SJJA116	Headphones Jack	4	
<b>RELAY and METER</b>									
RLV701	SSYA1	Speaker Protection Relay	1		CH8	RNW150-2	Lock Washer, Pulley	1	
	SSMA25-2	Signal Meter	1		CH9	SDUA11	Filter, Dial Light	1	
<b>FUSES and LIGHTS</b>									
F1, 2	XBAZK30N5S	3A Fuse, Power Source	2		CH10	SJSA206	Black Screw, Lamp House M'tg	2	
F3, 4	XBASI3301	3.3A Fuse, Circuit Protection	2		CH11	SDJVA11	Nut, Lamp Holder M'tg	1	
F6	XBZK15N5S	1.5A Fuse, Power Source	1		CH12	XNG3CS	Lamp House	1	
PL1~6	XAM35K	Dial Lamp, 6.3V 0.25A	6		CH13	SMPA59	Pointer, Dial	1	
PL7	XAMR38S150A	Stereo Eye, 6.3V 40mA	1		CH14	SDPA8	Holder, Dial Lamp	1	
<b>CABINET PARTS</b>									
CA1	XTS3+8BK	Black Screw, Panel M'tg.	2		CH15	SJSA206	Cord, Dial (200cm (78 3/4"))	1	
CA2	SGW6350	Front Panel	1		CH16	SDZ051-1	Orange Filter, Stereo Indicator	1	
CA3	SBNA116E	Knob, Speakers, Selector Switch Bass	6		CH17	SGL51	Pulley, Dial Cord	1	
CA4	XTV3+8CK	Treble, Balance, Volume Control	2		CH18	RDR23	Shaft, Pulley (RDR23)	1	
CA5	SBCA56	Button, Push Switches	5		CH19	RDY32	Rubber Cushion, Stereo Eye	1	
CA6	SBNA131E	Knob, Tuning	1		CH20	SHGA204	Tuning Shaft, with Flywheel	1	
CA7	SGUA34	Glass Plate	1		CH21	SDTA10-2S	Drum, Tuning	1	
CA8 (BLK)	SKAA830-1	Cabinet (Black Wood)	1		CH22	SDDA471S	Spring, Drum	1	
CA9 (BLK)	XSBA+16KS	Screw, Black Cabinet M'tg.	4		CH23	SDSA44121	Screw, Drum M'tg.	2	
CA10	SGPA680-1BF	Rear Panel (with Name Plate)	1			XXAR3H6S	4pin Socket, Lead Connector	2	
CA11	SMA197	Name Plate (Model No. Label) Only	1			SJS5405	6pin Socket, Lead Connector	1	
CA12	SMAA6-2	Mounting, AM Antenna Coil	1			SJS5603	Pin Clamp (SJS5405, SJS5603)	14	
CA13	SGT11190	Band, AM Antenna Coil	1			SJSA1	Lock Pin, Dial Light Filter	3	
CA14	SJFA5201-1	Fuse Holder, Circuit Protection	2			SHRA919			
CA15	SJSA66-1	Socket, AC Outlet	1		A1	SSAA3	FM Antenna Cord	1	
CA16	RHR111	Bushing, AC Cord	1		A2	XBASI3301	Circuit Protection Fuse (3.3A)	2	
CA17	SJFA4401-2	Terminal, Antenna	1		A3	RJP5	Pin Plug	4	
CA18	SJFA3020-1	Terminal, Input	1		A4	RJP16AS	AC Plug	1	
CA19	XSN26+12	Screw, Fuse Cap M'tg.	1		A5	RJP17AS	AC Plug	1	
CA20	SJFA4803-1	Fuse Cap	1						
CA21	SJAA3-1	Terminal, Speakers	1						
CA22	SKUA440	AC Cord	1						
CA23	SKL145	Bottom Board	1						
CA24	XTV3+8CFYR	Leg	4						
CA25	XSN3+6FYRS	Red Screw, Bottom Board M'tg.	5						
CA26	RHR106	Red Screw, Bottom Board M'tg.	1						
	RJS31-1	Bushing, AM Antenna Lead Wire	1						
		DIN Socket, Tape Monitor	1						

**CHANGE OF PARTS NO.**

Ref. No.	Change of Part No.	Description	Per Set (Pcs.)
C138, 139	SA-5250 → SA-5251		
CAB	ECQM05223KZ	0.039μF, 50WV, ±5%, Polyester Capacitor	2
CA8	SKAA830	Cabinet, Black Wooden	1
CA9	XSB4+16BVC	Screw, Black Cabinet M'tg.	4
CA10	SGPA680-1B	Rear Panel (with Name Plate)	1
CH1	SDHA60-1	Name Plate (Technics by Panasonic Model SA-5251 Label)	1
P7	SPN5085	Mounting, Meter & Dial Scale	1
P8	SQF979	Carton Box	1
P9	SPG511	Printed Matter	1
PI1	SPNA187	Deletion, Inner Carton Box	
		Deletion, Carton Box Upper Pad	

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 2 SA-5251/SA-5551

## REPLACEMENT PARTS LIST .....Model No.

SA5551 (for European Military)

- NOTES: 1. Part numbers are indicated on most mechanical parts.  
Please use this part number for parts orders.  
2. **SAFETY** Indicates that only parts specified by the manufacturer be used for replacement in critical circuits.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
<b>INTEGRATED CIRCUITS</b>				
IC101	AN217BB	FM IF, AM RF & AM IF Amplifier	1	
IC102	SVISN76115N	PLL Type FM MPX	1	
<b>TRANSISTORS</b>				
TR1	3SK39-Q	FM RF Amplifier	1	
TR2	2SC922-M	FM Mixer	1	
TR3	2SC839-H	FM Oscillator	1	
TR4, 109, 110	2SA666-Q	AM & FM AF Amplifier	3	
TR101 ~ 105	2SC829-C	FM-IF Amplifier	5	
TR106, 107	2SC945-P2	Muting Switching	2	
TR108	2SA733-MAP	Stereo Eye Switching	1	
TR203, 204	2SC1328-T	Equalizer Amplifier	2	
TR201, 202,	2SA722-T	Equalizer, Tone Amplifier & Speaker Protection Switching	10	
501, 502,				
503, 504,				
703, 705,				
706, 707				
TR1(601,602) X2	2SA640AD	Differential Amplifier (Use in Pairs)	4	
TR(603) X2	2SC1628-Y	Pre Driver Amplifier	2	
TR1(604) X2	2SC828-R	Thermo Compensation	2	
TR1(605) X2	2SD381-L9	Driver Amplifier (Use in Pairs)	2	
TR1(606) X2	2SB536-L9	Power Amplifier (Use in Pairs)	2	
TR1(607) X2	2SD426-R	Power Amplifier (Use in Pairs)	2	
TR1(608) X2	2SB556-R	Power Amplifier (Use in Pairs)	2	
TR701, 704	2SA684-Q	Ripple Filter & Relay Driver	2	
TR702	2SA794-R	Ripple Filter	1	
<b>DIODES</b>				
D1, 2, 101, 104, 105	0A99	AM/FM, AGC & Muting Detector	5	
D102, 103	2-0A99	FM Discriminator	1 Pair	
D106 ~ 108	MA150	Meter Detector	3	
D701	SVD686CTA	Rectifier	1	
D703, 704, 707	SVDA100DM	Rectifier	3	
D705	SVDEQA0124R	24V Zener	1	
D706	SVDAE080109	9V Zener	1	
D702	RVD100D1	Rectifier	1	
<b>THERMISTORS</b>				
TH1(601) X2	RRT251	Driver Circuit	2	
<b>COILS and TRANSFORMERS</b>				
L1	SLAA4W1-3	FM Balun Coil	1	
L2	SLAA4N9	FM Antenna Coil	1	
L3	RLQY25S5	Choke Coil	1	
L4	SLDA4N18	FM DET Coil	1	
L5, 11	RLQY15G5	Choke Coil	2	
L6	SLOA4N9	FM Oscillator Coil	1	
L7, 8, 102, 103, 701	SLQX101-2D	Choke Coil	5	
L10	SLFA2E22	AM Antenna Coil	1	
L101	SLIA4B1	FM AGC Coil	1	
T1	SLOA2C6	AM Oscillator Coil	1	
T2	RL17W105S-T	AM 1st IF Transformer	1	
T3	RL12C450P-T	AM 2nd IF Transformer	1	
T101	SLIA4D51-T	FM Discriminator	1	
T102, 103	SLIA4C241-T	Muting & Meter IF Transformer	2	
L104	SLMA1Z3-K	Low Pass Filter	1	
T1001	SLT5S1	Power-Transformer	1	
<b>CERAMIC FILTERS</b>				
CF101, 102, 103	SVF107MA8A SVF107MA8B SVF107MA8C SVF107MA8D SVF107MA8E	FM IF Circuit, Red, 10.7MHz FM IF Circuit, Blue, 10.67MHz FM IF Circuit, Orange, 10.73MHz FM IF Circuit, Black, 10.64MHz FM IF Circuit, White, 10.76MHz	each 3	
<b>VARIABLE RESISTORS</b>				
VR101	EVL53AA00B24	20kΩ (B), Meter Adjustment	1	
VR102	EVL53AA00B54	50kΩ (B) Muting Level Adjustment	1	
Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
VR103, 104	EVL53AA00B14	10kΩ (B) VCO & Separation Adjustment	2	
VR501	EWFA9A037BF5	250kΩ (B), Volume Control	1	
VR502	EVEZDA008G25	200kΩ (G), Balance Control	1	
VR503, 504	EWFZ0AF30B15	100kΩ (B), Bass & Treble Control	2	
VR(601) X2	EVL50AA00B24	20kΩ (B), DC Unbalance Adjustment	2	
VR(602) X2	EVL50AA00B52	500Ω (B), ICQ Adjustment	2	
<b>VARIABLE CAPACITORS</b>				
CV1 ~ 5	ECV5MX25X20G	Tuning Gang, AM/FM (with Trimmer)	1	
CT3	ECV1ZV06P35	FM OSC Trimmer, 6pF	1	
<b>COMPONENT COMBINATIONS</b>				
Z1	EXAF203Z471	AM Detector	1	
Z101	EXA5D104C	FM Detector	1	
Z701, 702	RXAF103P22HD	Hum Cancel, 0.01μF(X2), Ceramic	2	
<b>SWITCHES</b>				
S1	ESB7037T	Power Source Switch	1	
S2	SSR33	Selector Switch	1	
S3, 4, 5, 6, 9	SSHA60S	Mode, Tape Monitor, Muting & Loudness Push Switches	1	
S7, 8	SSHA56S	Low & High Filter Switch	1	
S10	ESRC124F30CE	Speakers Switch	1	
S11	SSRA7-1S	Voltage Selector Switch	1	
<b>RELAY and METERS</b>				
RLY701	SSYA1	Speakers Protection Relay	1	
	SSMA25-2	Signal Meter	1	
	SSMA26-2	FM Tuning Meter	1	
<b>FUSES and LIGHTS</b>				
F1	XBA2K50NS5	5A Fuse, Power Source	1	
F2	XBA1K30NS5	3A Fuse, Power Source	1	
F3, 4	XBA2K25NS5	5A Fuse, Circuit Protection	2	
F7	XAM35K	2.5A Fuse, Power Source	1	
PL1 ~ 6	XAM35K	Dial Lamp, 6.3V 0.25A	6	
PL7	XAMR38S150A	Stereo Eye, 6.3V 40mA	1	
<b>CABINET PARTS</b>				
CA1	XTS3-8BK	Black Screw, Panel M'tg.	2	
CA2	SGW6310	Front Panel	1	
CA3	SBNA116E	Knob, Speakers, Bass, Treble, Volume, Balance & Selector	6	
CA4	XTV3-8CK	Black Screw, Panel M'tg.	2	
CA5	SBCA56	Button, Push Switches	7	
CA6	SBNA131E	Knob, Tuning Control	1	
CA7	SGU1	Glass Plate	1	
CA8 (BLK)	SKA7811	Cabinet (Black Wood)	1	
CA9 (BLK)	XSB4-16FZS	Screw, Black Cabinet M'tg.	4	
CA10	SGPA710-1AF	Rear Panel (with Name Plate)	1	
	SGT111270	Name Plate (Model No. Label) only	1	
CA11	SMA197	Mounting, AM Antenna Coil	1	
CA12	SMAA6-2	Band, AM Antenna Coil	1	
CA13	SJFA501	Terminal, Ext. Antenna	1	
CA14	SJFA66-1	Holder, Circuit Protection Fuse Socket, AC Outlet	1	
CA15	SJFA4803-1	Terminal, Speakers	2	
CA16	XSN26+12	Screw, Fuse Cap M'tg.	1	
CA17	SJFA5202-1	Fuse Cap	1	
CA18	RHR106	Bushing, AM Antenna Lead Wire Terminal, Input & Tape Monitor	1	
CA20	SJFA3020-1	Bushing, AC Cord	1	
CA21	RHR111	AC Cord	1	
CA22	SJAA3-1	Bottom Board	1	
CA23	SYU39	Leg	4	
CA24	SKL145	Red Screw, Bottom Board M'tg.	8	
CA25	XTV3+8CR	Red Screw, Bottom Board M'tg.	1	
CA26	XSN3+8RS	DIN Socket, Tape Monitor	1	
	RJS31-1		1	

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
<b>CHASSIS PARTS</b>									
CH1	SDH113-2	Mounting, Meter & Dial Scale	1		A1	SSAA3	FM Antenna Cord	1	
CH2	SHRA916-1	Lock Pin, Dial Scale	2		A2	XBAS1A5001	Circuit Protection Fuse, 5A	2	
CH3	SKD2310	Dial Scale	1		A3	RJP5	Pin Plug	4	
CH4	SMMA10-1	Mounting, Meter	1		A4	RJP16AS	AC Plug	1	
CH5	SUM1	Mounting, Dial Scale	1		A5	RJP17AS	AC Plug	1	
CH6	SJJA16	Jack, Headphones	1		<b>PACKING PARTS</b>				
CH7	RDY34	Shaft, Pulley	6		P1	SPPA14	Soft Cover	1	
CH8	RDR20	Pulley, Dial Cord	5		P2	SPS5	Pad, AM Bar Antenna	1	
CH9	RNW150-2	Lock Washer, Pulley	5		P3	SPP163	Polyethylene Bag	1	
CH10	SDUI	Filter, Dial Light	1		P4	SPS7	Pad, Left Side	1	
CH11	XTV3+8CK	Black Screw, Lamp House M'tg.	4		P5	SPS9	Pad, Right Side	1	
CH12	XNG3CS	Nut, Lamp Holder M'tg.	2		P6	SPS51	Pad, Bottom Side	1	
CH13	SMP231	Lamp House	1		P7	SPG535	Carton Box	1	
CH14	SPPA8	Pointer, Dial	1		P8	SQFA1055	Printed Matter, Complete	1	
CH15	SJSA206	Holder, Dial, Lamp	1		P9	.....	Deletion	.....	
CH16	SDZ051-1	Cord, Dial (230cm 90%)	1 roll		P10	.....	Deletion	.....	
CH17	SGL51	Orange Filter, Stereo Indicator	1		P11	.....	Deletion	.....	
CH18	SHGA204	Bracket, Stereo, Eye	1						
CH19	SDTA10-2S	Tuning Shaft, with Flywheel	1						
CH20	SDDA471S	Drum, Tuning	1						
CH21	SDSA4121	Spring, Drum	1						
	XXAR3H6S	Screw, Drum M'tg.	2						
	SHRA919	Lock Pin, Dial Light Filter	3						
CH22	SJSA65	Socket, Main Amp. p.c.b. Connector	4						

### CHANGE OF PARTS NO.

Ref. No.	Change of Part No.		Description	Per Set (Pcs.)
	SA-5550	SA-5551		
R145, 146	ERD14TJ392	ERD14TJ472	4.7k $\Omega$ , $\frac{1}{4}$ W, $\pm 5\%$ , Carbon Resistor	2
C146, 147	ECQM05183JZ	ECQM05273JZ	0.027 $\mu$ F, 50WV, $\pm 5\%$ , Polyester Capacitor	2
CA8	SKA7810	SKA7811	Cabinet, Black Wooden	1
CA9	XBB4+16BVC5	XSB4+16FZS	Screen, Black Cabinet M'tg.	4
CA10	SGPA710-1A	SGPA710-1AF	Rear Panel (with Name Plate)	1
	.....	SGT11270	Name Plate (Technics by Panasonic Model SA-5551 Label)	1
CH1	SDH113-1	SDH113-2	Mounting, Meter & Dial Scale	1
P6	SPS101	SPS51	Pad, Set Bottom Side	1
P7	SPN5089	SPG535	Carton Box	1
P8	SQF987	SQF1055	Printed Matter, Complete	1
P9	SPG519	.....	Deletion	.....
P10	SPS103	.....	Deletion	.....
P11	SPS105	.....	Deletion	.....

### CHANGE OF SCHEMATIC DIAGRAMS.....Headphones

