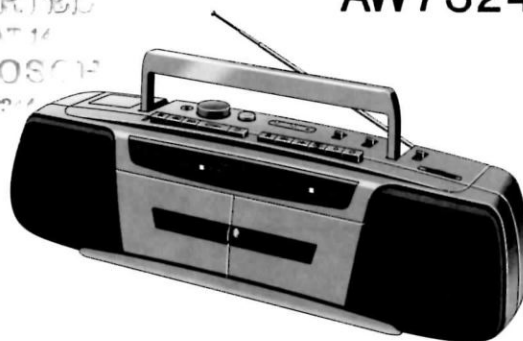


Service
Service
Service

RADIO EN TELEVISIESERVICE
J. J. van de MORTEL
BOEKSHUVELSTRAAT 14
6114 HERTOGENBOSCH
043 251 1111

AW7324 /00 /05/14



This manual superseded 4822 725 24065

Service Manual

For repair information of the cassette mechanism
see Service Manual of Tape Transport

RDR-9 for AW7324

RDN-9 for AW7224

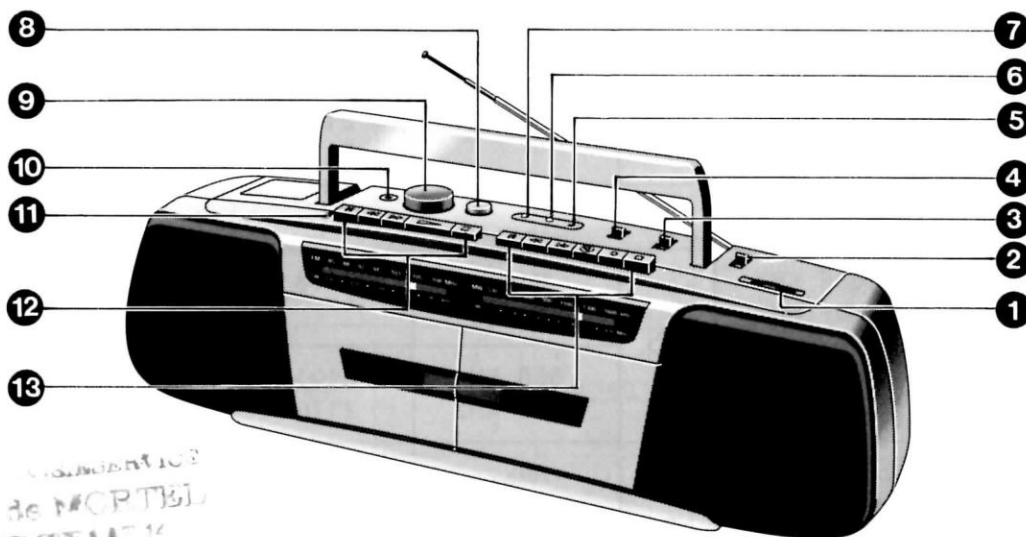
TABLE OF CONTENTS

PAGE

Connection and controls	1
Specifications	2
Cassette adjustment	3
Radio alignment	4
Schematic diagram - tuner	5
Components layout - tuner PCB	6
Schematic diagram - audio (AW7324)	7
Components layout - audio PCB (AW7324)	8
Schematic diagram - audio (AW7224)	9
Components layout - audio PCB (AW7224)	10
Exploded View diagram	11
Deck Mechanism partslist	12
Electrical partslist	13



CONNECTION AND CONTROLS



- | | | |
|----|------------------------------|---------------|
| 1 | Tuning knob | |
| 2 | Band selector | |
| 3 | Mode selector | |
| 4 | Bubbing switch | |
| 5 | Mic-mixing socket | |
| 6 | High speed dubbing indicator | (AW7224) |
| | Deck 1 direction indicator < | (AW7324) |
| 7 | Power indicator | (AW7224) |
| | Deck 1 direction indicator > | (AW7324) |
| 8 | DBB button | |
| 9 | Volume knob | |
| 10 | Headphone socket | |
| 11 | Deck 1 tape mode selector | (AW7324 only) |
| 12 | Deck 1 buttons | |
| 13 | Deck 2 buttons | |

GB WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD



NL WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

F ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).

Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfile le bracelet serti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

D WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.

Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione.

Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

SPECIFICATIONS

GENERAL

Mains voltage	:	220V (for -/00 & -/14)
	:	240V (for -/05)
Mains frequency	:	50 Hz
Battery	:	9V (R20 x 6)
Power Consumption	:	20W
Dimension	:	550 x 155 x 150 (mm)
Weight	:	2.9 Kgs

AUDIO/CASSETTE

Output power	mains	:	2 x 1.4 W
	battery	:	2 x 2.2 W
Speaker impedance	:		2 x 3.2 ohm
Tape speed	:		4.76cm/s $\pm$ 2%
Wow & flutter	:		< 0.5% (weight)
Fast-wind time (C60)	:		< 130 sec.
Frequency response	:		250 - 6,300 Hz
	High speed dubbing	:	250 - 5,000 Hz
S/N ratio	:		> 40dB
	High speed dubbing	:	> 37dB
Bias/erase system	FM	:	AC 78 $\pm$ 10 kHz
	AM	:	DC

TUNER - FM section

Tuning range	:	87.5 - 108 MHz
	:	65 - 108 MHz (for -/14)
IF frequency	:	10.7MHz
Sensitivity	:	< 24dbf at 26dB S/N
Selectivity	:	> 20dB at 600kHz B.W.
IF rejection	:	> 50dB
Image rejection	:	> 20dB

TUNER - AM section

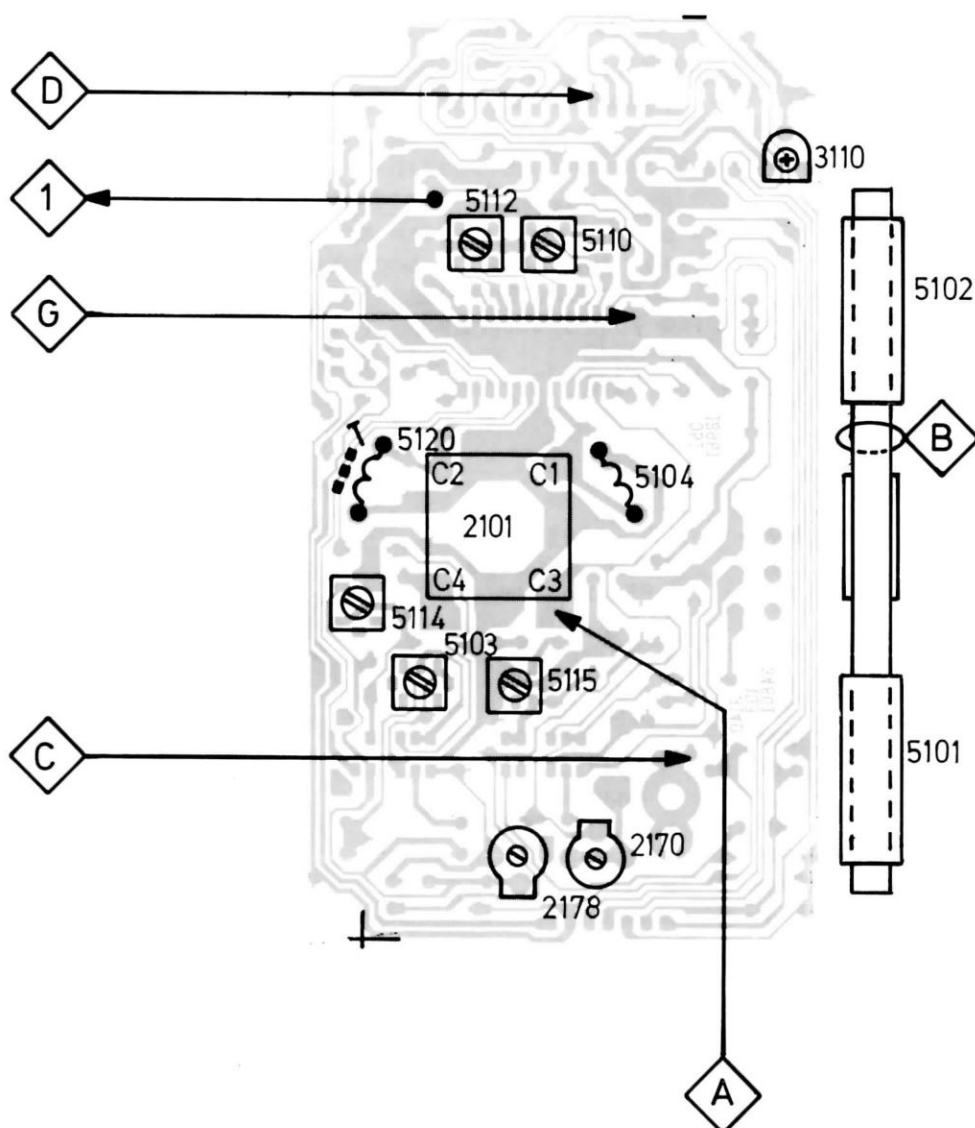
Tuning range	MW	:	520 - 1607 kHz
	LW	:	148.5 - 283.5 kHz
	SW	:	5.95 - 17.9 MHz
IF frequency	:		468 $\pm$ 3 kHz
Sensitivity	MW	:	< 3500 μ V/m 26dB S/N
	LW	:	< 6000 μ V/m
	SW	:	< 210 / 85 μ V
Selectivity	MW	:	> 16dB
	LW	:	> 20dB
	SW	:	> 16dB
IF rejection	MW	:	> 24dB
	LW	:	> 26dB
	SW	:	> 40dB
Image rejection	MW	:	> 28dB
	LW	:	> 30dB
	SW	:	> 10 / 6 dB

CASSETTE ADJUSTMENT

Adjustment	Cassette	Recorder position		Measure on	Read on	Adjust with	Adjust to
		SK...	Deck				
R/P Head azimuth	8 KHz of SBC420 *	TAPE	PLAY FORWARD	1253	mV meter	R. screw of R/P head	Maximum L = R
		AUTO REVERSE	PLAY REVERSE	1253	mV meter	L. screw of R/P head	Maximum L = R
R/P Head azimuth	8 kHz of SBC420*	TAPE	PLAY	1253	mV meter	L. screw of R/P head	Maximum L = R
Motor speed	3150Hz of SBC420 *	TAPE	PLAY	1253	Wow and flutter meter	Preset in motor	3150 Hz +3/-2%

* SBC420 : 4822 397 30071

** The Wow & Flutter value can be read. This value should not exceed 0.3%.



RADIO ALIGNMENT

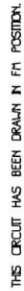
SK....	FREQUENCY	I/P	VARICON	ADJUST	O/P	SCOPE/METER
AM IF						
MW #	468 KHz	$\diamond A$	Min.	5110 5112	$\diamond 1$	$\updownarrow$ Max.
AM RF						
MW (520 - 1606 kHz)	1635 KHz > 507 KHz	$\diamond B$	Min. Max.	2178	$\diamond 1$	$\updownarrow$ Max.
	550 KHz 1500 KHz		550 KHz 1500 KHz	5101 2170		$\updownarrow$ Max.
LW (148.5 - 283.5 kHz)	147 KHz > 283.5 KHz	$\diamond B$	Max. Min.	5103	$\diamond 1$	$\updownarrow$ Max.
	155 KHz		155 KHz	5102		$\updownarrow$ Max.
SW # (5.95 - 17.9 MHz)	5.82 MHz 18.2 MHz	$\diamond C$	Max. Min.	5114 C4	$\diamond 1$	$\updownarrow$ Max.
	6.2 MHz 17.0 MHz		6.2 MHz 17.0 MHz	5115 C3		$\updownarrow$ Max.
FM IF						
FM	10.7 MHz		Min.		$\diamond 1$	$\updownarrow$ Symmetrical
FM RF						
FM #	* 87.35 MHz * 108.25 MHz	$\diamond C$	Max. Min.	5120 C2	$\diamond 1$	$\updownarrow$ Max.
	ϕ 88 MHz 106 MHz		ϕ 88 MHz 106 MHz	5104 C1		$\updownarrow$ Max.
STEREO DECODER						
FM STEREO	98 MHz	$\diamond C$	98 MHz	3110	$\diamond D$	19 $\pm$ 0.1 KHz

via 10nF + 15E

* For /05 : 87.0 ± 0.5 MHz - 108.5 ± 0.5 MHz

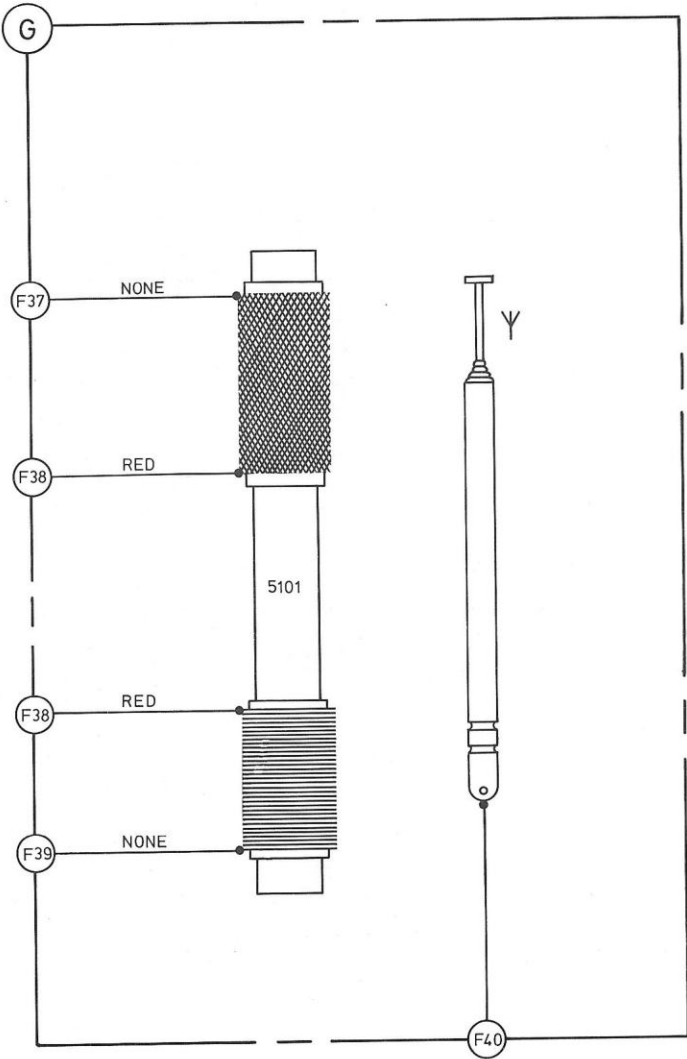
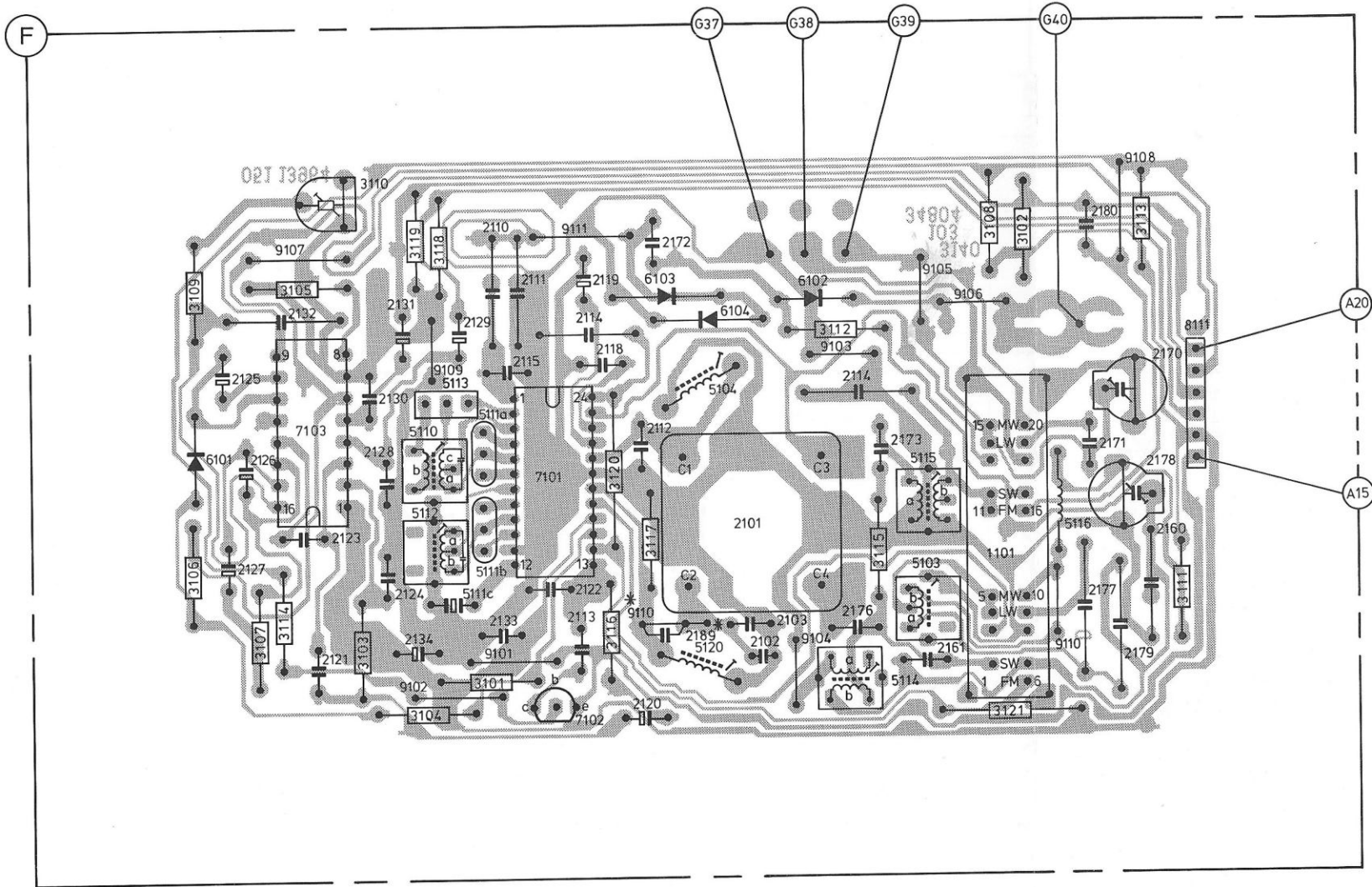
For /14 : 64.7 ± 0.3 MHz - 108.5 ± 0.5 MHz

ϕ For /14 : L.T.P. = 68 MHz

[illegible]

COMPONENTS LAYOUT - TUNER PCB

																					5101		
MISC.	6101	7103	5113 5112 5111c				5111a 9110	9100	7102	5104		6102	9103	9105	5117	1101	5116	9108					
	9107		9109		5110	9102	9101	5111b 9111	7101	6103	6104	5120	9104	5114	6102	5115	5103	9106	8111				
C.	2125	2132	2121	2123	2130	2131	2115	2129	2110	2111	2115	2118	2172	2112	2101	2174		2173	2161	2180	2179	2170	2160
	2127	2126	2124		2128	2124	2134	2133	2122	2113	2189	2119	2120	2102	2103	2176		2114	2171		2177	2178	
R.	3109	3107		3110	3119	3118	3101	3120		3116	3112			3115	3108	3102	3113			3111			
	3106	3105	3114	3103	3104		3117				3121												



7101			
-1 = 0V	V7	-13 = V5	V6
-2 = 1V44	1V4	-14 = 1V3	0V
-3 = 1V44	1V4	-15 = V09	4V5
-4 = 0V	1V	-16 = 5V	5V
-5 = 1V44	1V4	-17 = 0V	0V
-6 = 1V2	V7	-18 = 0V	0V
-7 = 1V47	1V4	-19 = 0V	0V
-8 = 1V11	V7	-20 = 0V	0V
-9 = 1V48	1V4	-21 = V46	V6
-10 = 1V06	V7	-22 = 2V13	2V1
-11 = 0V	0V	-23 = 0V	0V
-12 = 0V	1V	-24 = 0V	0V

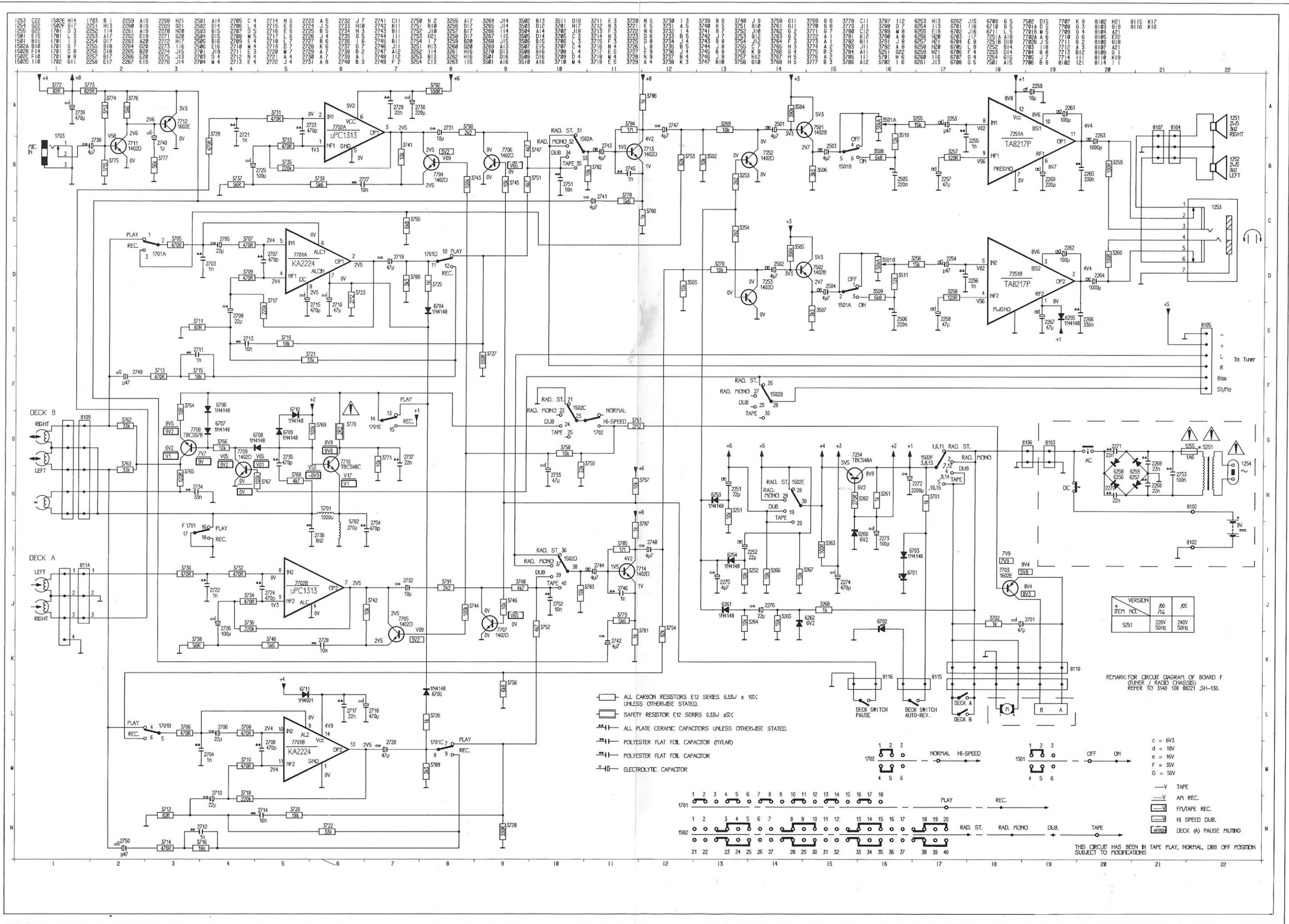
7103			
-1 = 5V	5V	-9 = 1V5	0V [V5]
-2 = 1V47	1V46	-10 = 1V33	1V27
-3 = 1V43	1V43	-11 = 1V33	2V14
-4 = 2V46	2V45	-12 = 1V14	1V14
-5 = 2V5	2V5	-13 = 1V34	1V43
-6 = 5V	5V	-14 = 1V35	1V36
-7 = 0V	0V	-15 = 1V35	1V36
-8 = V4	V39	-16 = 1V8	1V8

7102			
e = 0V	0V		
b = V7	0V		
c = 0V	0V		

*ITEM	VERSION	/00/05	/14
9110		✓	X
2189		X	✓

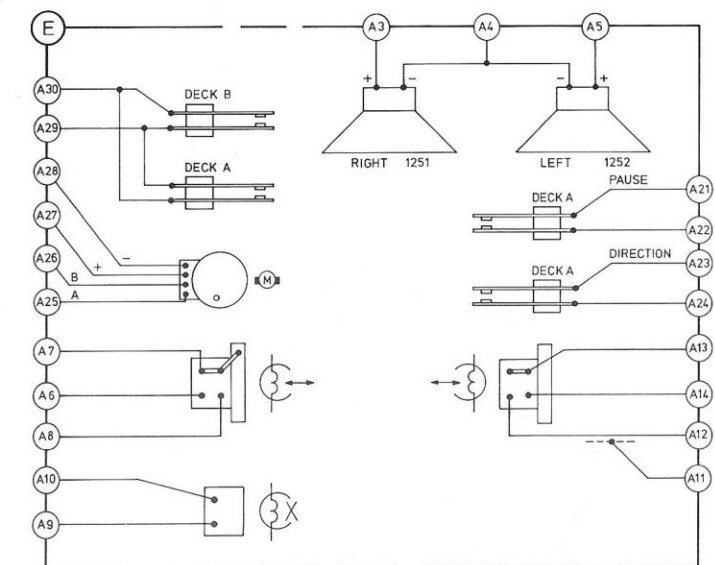
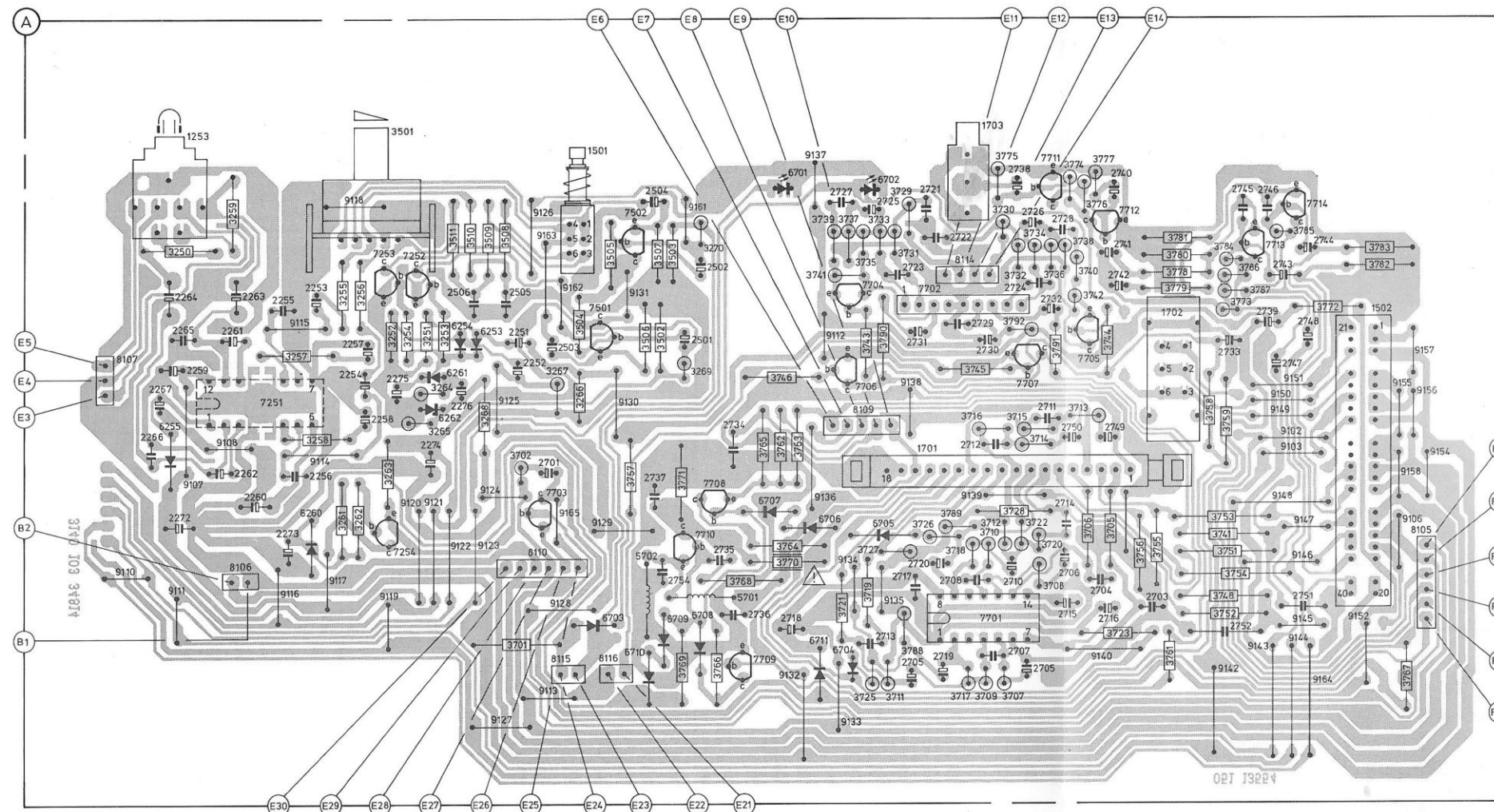
---V AM
---V FM
---V FM MONO

SCHEMATIC DIAGRAM - AUDIO (AW7324)



COMPONENTS LAYOUT - AUDIO PCB (AW7324)

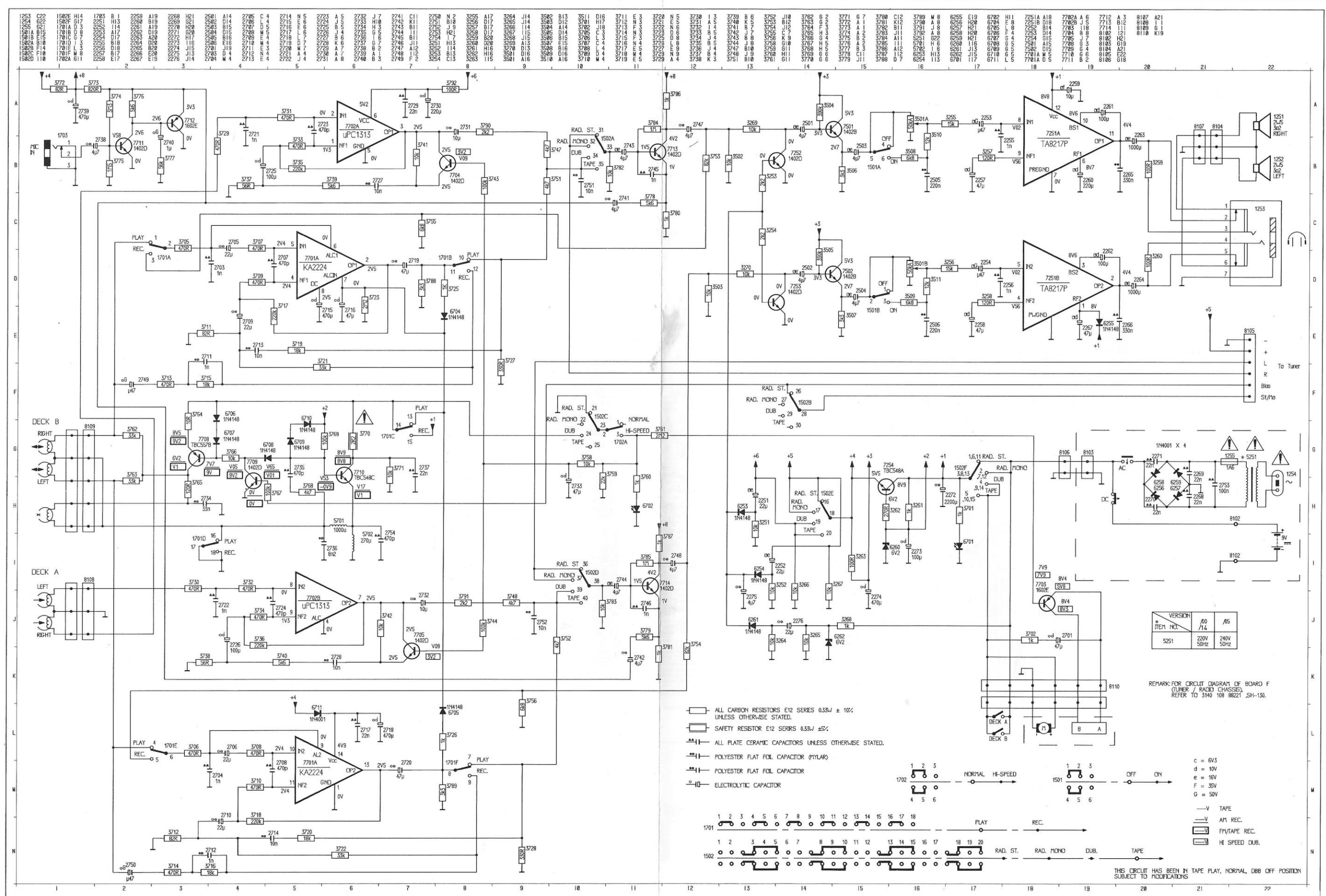
MISC.	9110	1253	9107	9115	9114	9118	6261	6257	9124	9126	9162	1501	7502	5702	6701	6707	9137	6702	7704	6704	1701	1703	7711	1702	9142	7714	1502	9145	9157	5251	1251	1252	
	6255	9111	7251	6260	7253	7252	6262	6254	9123	8110	7703	7501	9131	6710	7708	9132	9112	7706	6705	7702	7701	7705		9143	7713	9149	9148	9144	9156				
	1255	9108	9116	9117	7254	9120	9121	9122	9125	8115	9128	9165	9130	6703	7710	9161	5701	8109	9136	9134	9138	8114	7707	9160	9159	7712	9164	9151	9102	9147	9152	9155	8105
	8017	8016	6258	6259	9119	6256	1254	6253	9127	9163	9113	9129	8116	6709	6708	7709	6706	6711	9133	9135	9139	9140			9150	9103	9146	9158	9106	9154			
C.	2264	2272	2255	2253	2275	2274	2506	2505				2737	2502			2718	2727	2713			2738	2724	2728	2749	2703		2745	2751	2744				
	2265	2263	2256	2257	2268	2269	2276	2251	2701				2501				2725	2723	2721	2730	2726	2750	2704	2733		2752	2746						
	2259	2261	2273	2254		2753			2252				2754	2735				2731	2722	2712	2711	2714	2716				2743						
	2267	2262		2258					2503			2504					2736	2720	2729	2710	2732	2706	2740				2739						
R.	2266	2260	2270	2271													2734			2705	2708	2719	2707	2705	2715	2741	2742	2747	2748				
	3250	3259	3257	3258	3256	3252	3264	3511	3509	3508		3505	3507	3503		3746	3763	3735	3719	3731	3775	3712	3734	3736	3777	3781	3784	3786	3751	3772			
				3255	3262	3254	3265	3510	3268	3267		3757	3506	3502	3765	3762	3743	3727	3788	3730	3720	3710	3714	3713	3774	3723	3780	3758	3787	3754	3783		
				3261	3263	3251			3702	3504				3771	3270	3768	3739	3721	3725	3726	3745	3716	3732	3715	3722	3776	3744	3778	3779	3759	3748	3782	
						3253		3701	3266				3769	3269		3764	3741	3733	3711	3789		3792	3728	3708	3738	3706	3761	3773	3753	3752	3767		
						3501										3766	3770	3737	3790	3729	3718	3717	3709	3707	3742	3791	3740	3705	3756	3755	3741	3785	



7251 1 = 8V 2 = 4V4 3 = 8V5 4 = V56 5 = V02 6 = 8V7 7 = 0V 8 = V02 9 = V56 10 = 8V6 11 = 4V4 12 = 8V8	7252 -b = 0V -c = 0V -e = 0V	7704 -b = V09 3V2 -c = 2V5 -e = 2V5	7710 -b = V53 0V9 -c = 8V9 8V8 -e = V17 V1
7701 1 = 0V 2 = 2V5 3 = 0V 4 = 2V4 5 = 2V4 6 = 0V 7 = 0V 8 = 2V5 9 = 0V 10 = 2V4 11 = 2V4 12 = 0V 13 = 2V5 14 = 4V9	7253 -b = 0V -c = 0V -e = 0V	7705 -b = V09 3V2 -c = 2V5 -e = 2V5	7711 -b = V58 -c = 2V6 -e = 0V
7702 1 = 1V3 2 = 0V 3 = 2V5 4 = 0V 5 = 0V 6 = 5V2 7 = 2V5 8 = 0V 9 = 1V3	7254 -b = 6V2 -c = 8V9 -e = 5V5	7706 -b = 0V V65 PAUSE -c = 0V 0V -e = 0V 0V	7712 -b = 2V6 -c = 0V -e = 3V3
7501 -b = 3V3 -c = 5V3 -e = 2V7	7707 -b = 0V V65 PAUSE -c = 0V 0V -e = 0V 0V	7713 -b = 1V5 -c = 4V2 -e = 1V	
7502 -b = 3V3 -c = 5V3 -e = 2V7	7708 -b = 7V7 9V -c = 6V2 V1 -e = 8V5 9V2	7714 -b = 1V5 -c = 4V2 -e = 1V	
7703 -b = 7V9 7V9 -c = 8V4 8V3 -e = 8V4 5V8	7709 -b = V55 V01 -c = V05 9V2 -e = 0V 0V		

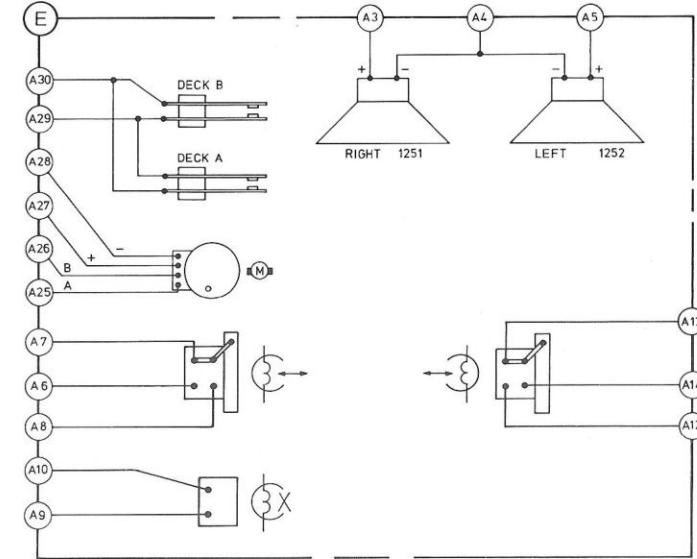
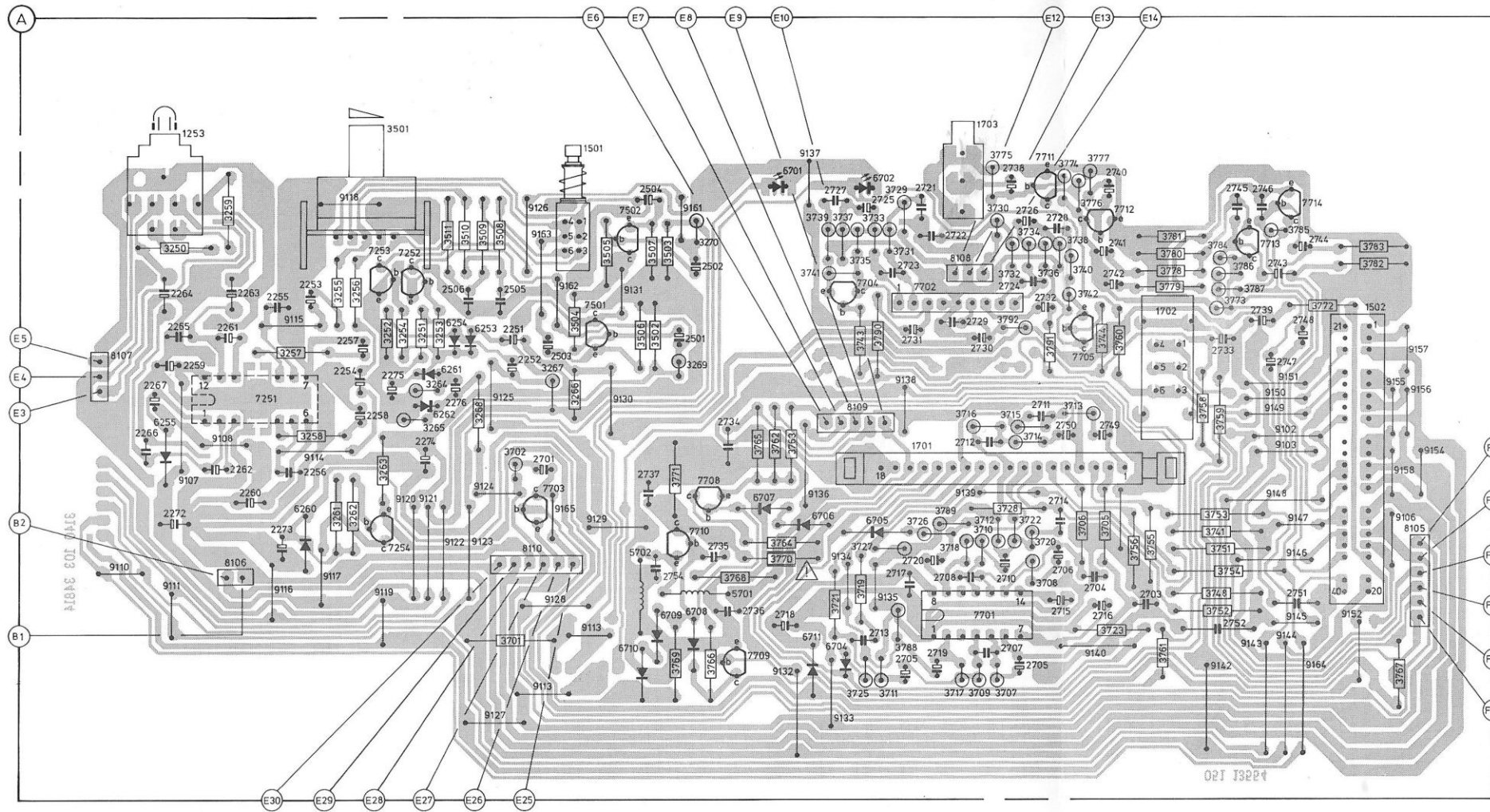
---V TAPE
 ---V AM REC.
 ---V FM/TAPE REC.
 ---V HI SPEED DUB.

SCHEMATIC DIAGRAM - AUDIO (AW7224)



COMPONENTS LAYOUT - AUDIO PCB (AW7224)

MISC.	9110	1253	9107	9115	9114	9118	6261	6257	9124	9126	9162	1501	7502	5702	6701	6707	9137	6702	7704	6704	1701	1703	7711	1702	9142	9164	7714	1502	9145	9157	5251	1251	1252	
	6255	9111	7251	6260	7253	7252	6262	6254	9123	8110	7703	7501	9131	6710	7708	9132			6705	7702	7701	7705		9143	7713	9149	9148	9144	9156					
	1255	9108	9116	9117	7254	9120	9121	9122	9125	9163	9128	9130	9161	7710	5701	8109	9136	9134	9138	8108	9160	9159	7712		9151	9102	9147	9152	9155	8105				
	8017	8016	6258	6259	9119	6256	1254	6253	9127	9165	9113	9129	6709	6708	7709	6706	6711	9133	9135	9139	9140			9150	9103	9146	9158	9106	9154					
C.	2264	2272	2255	2253	2275	2274	2506	2505				2737	2502		2718	2727	2713		2738	2724	2728	2749	2703	2745	2751	2744								
	2265	2263	2256	2257	2268	2269		2276	2251	2701			2501				2725	2723	2721	2730	2726	2750	2704	2733	2752	2746								
	2259	2261	2273	2254	2753				2252			2754	2735				2731	2722	2712	2711	2714	2716		2743										
	2267	2262			2258					2503		2504			2736		2717	2720	2729	2710	2732	2706	2740		2739									
	2266	2260	2270	2271											2734		2705	2708	2719	2707	2705	2715	2741	2742	2747	2748								
R.	3250	3259	3257	3258	3256	3252	3264	3511	3509	3508	3505	3507	3503				3763	3735	3719	3731	3775	3712	3734	3736	3777	3781	3784	3786	3751	3772				
					3255	3262	3254	3265	3510	3268	3267		3506	3502	3765	3762	3743	3727	3788	3730	3720	3710	3714	3713	3774	3723	3780	3758	3787	3754	3783			
					3261	3263	3251			3702	3504		3771	3768	3739	3721	3725	3726		3716	3732	3715	3722	3776	3744	3778	3779	3759	3748	3782				
							3253		3701	3266		3769	3270	3764	3741	3733	3711	3789	3760	3792	3728	3708	3738	3706	3761	3773	3753	3752	3767					
							3501							3269	3766	3770	3737	3790	3729	3718	3717	3709	3707	3742	3791	3740	3705	3756	3755	3741	3785			



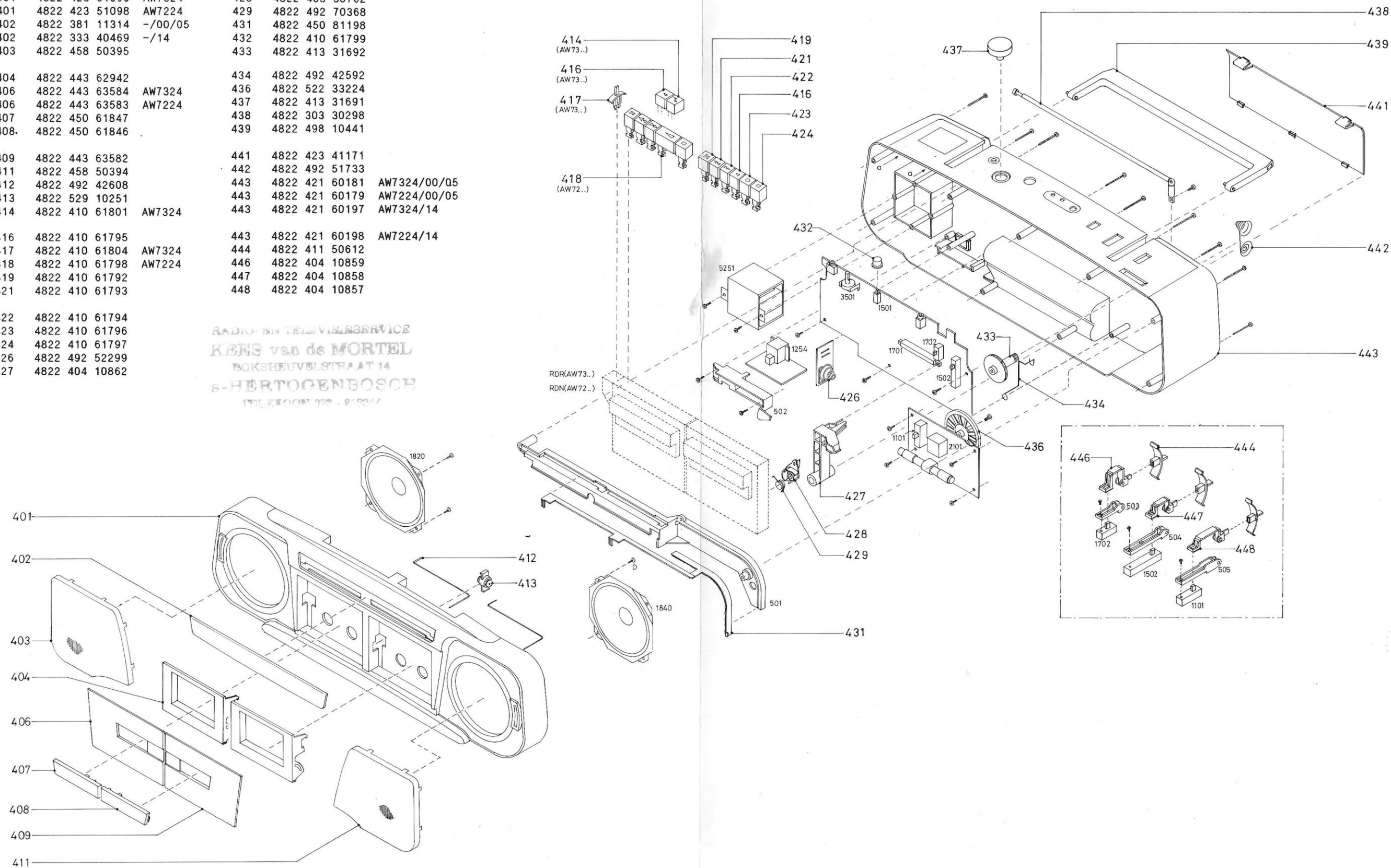
7251	7252	7704	7710
1 = 8V	b = 0V	b = V09 3V2	b = V53 0V9
2 = 4V4	c = 0V	c = 2V5	c = 8V9 8V8
3 = 8V6	e = 0V	e = 2V5	e = V17 V1
4 = V56			
5 = V02			
6 = 8V7			
7 = 0V			
8 = V02			
7701	7253	7705	7711
1 = 0V	b = 0V	b = V09 3V2	b = V58
2 = 2V5	c = 0V	c = 2V5	c = 2V6
3 =	e = 0V	e = 2V5	e = 0V
4 = 2V4			
5 = 2V4			
6 = 0V			
7 = 0V			
14 = 4V9			
7702	7254	7708	7712
1 = 1V3	b = 6V2	b = 7V7 9V	b = 2V6
2 = 0V	c = 8V9	c = 8V2 V1	c = 0V
3 = 2V5	e = 5V5	e = 8V5 9V2	e = 3V3
4 = 0V			
5 = 0V			
6 = 5V2			
7 = 2V5			
8 = 0V			
9 = 1V3			
7501	7703	7709	7713
b = 3V3	b = 7V9 7V9	b = V65 V01	b = 1V5
c = 5V3	c = 8V4 8V3	c = V05 9V2	c = 4V2
e = 2V7	e = 8V4 5V8	e = 0V 0V	e = 1V
7502			
b = 3V3			
c = 5V3			
e = 2V7			
7714			
b = 1V5			
c = 4V2			
e = 1V			

---V TAPE
---V AM REC.
---V FM/TAPE REC.
---V HI SPEED DUB.

EXPLODED VIEW DIAGRAM

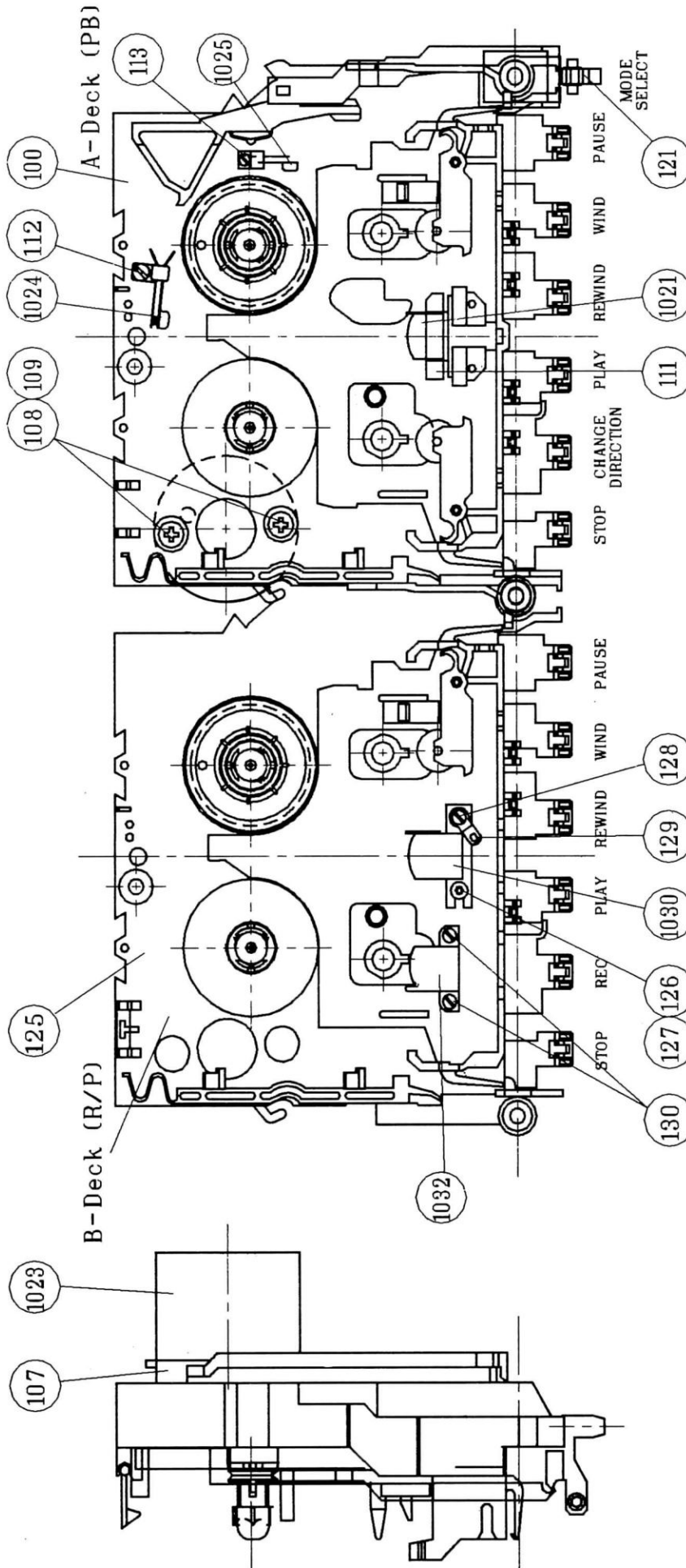
401	4822	423	51099	AW7324	428	4822	403	30762
401	4822	423	51098	AW7224	429	4822	492	70368
402	4822	381	11314	-/00/05	431	4822	450	81198
402	4822	333	40469	-/14	432	4822	410	61799
403	4822	458	50395		433	4822	413	31692
404	4822	443	62942		434	4822	492	42592
406	4822	443	63584	AW7324	436	4822	522	33224
406	4822	443	63583	AW7224	437	4822	413	31691
407	4822	450	61847		438	4822	303	30298
408	4822	450	61846		439	4822	498	10441
409	4822	443	63582		441	4822	423	41171
411	4822	458	50394		442	4822	492	51733
412	4822	492	42608		443	4822	421	60181
413	4822	529	10251		443	4822	421	60179
414	4822	410	61801	AW7324	443	4822	421	60197
416	4822	410	61795		443	4822	421	60198
417	4822	410	61804	AW7324	444	4822	411	50612
418	4822	410	61798	AW7224	446	4822	404	10859
419	4822	410	61792		447	4822	404	10858
421	4822	410	61793		448	4822	404	10857
422	4822	410	61794					
423	4822	410	61796					
424	4822	410	61797					
426	4822	492	52299					
427	4822	404	10862					

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
BOKSHEUVELSTRAAT 14
6-HERTOGENBOSCH
TELEFOON 023 - 873246



Only those parts of which a service code is stated are normal service parts

DECK MECHANISM PARTSLIST



AW7324

100	4822	691	10294	RRO
125	4822	691	10296	RNO
1021	4822	249	30156	
1023	4822	361	21285	
1024	4822	271	30598	
1025	4822	278	90624	
1030	4822	249	10397	
1032	4822	249	20072	

AW7224

100	4822	691	10296	RNO
125	4822	691	10296	RNO
1021	4822	249	10397	
1023	4822	361	21285	
1024	4822	271	30598	
1030	4822	249	10397	
1032	4822	249	20072	

ELECTRICAL PARTS LIST

- IC -					- Capacitor -				
7101	4822	209	31065	TEA5713/N1	2101	4822	125	50597	Polyvaricon
7103	4822	209	71321	AN7411	#2101	4822	125	40052	Polyvaricon
7251	4822	209	63783	TA8217P	2170	4822	125	50045	Trim cap 22pF
7701	4822	209	72491	KA2224	2178	4822	125	50045	Trim cap 22pF
7702	4822	209	70288	μPC1313HA					
- Transistors -					- Coils -				
7102	4822	130	40937	1402D	5101	4822	158	60626	MW/LW ant assy
7252,7253	4822	130	40937	1402D	5103	4822	157	70034	Coil-AM osc
7254	4822	130	40948	TBC548A	5104	4822	157	53789	Coil-FM RF
7501,7502	4822	130	62741	1402B	#5104	4822	156	21671	Coil-FM RF
7703	4822	130	41457	1602E	5110	4822	156	11147	IFT-FM
7704,7705	4822	130	40937	1402D	5111	4822	242	81154	Filter 10.7MHz
*7706,7707	4822	130	40937	1402D	5112	4822	156	11146	IFT-AM
7708	4822	130	44568	TBC557B	5113	4822	242	71139	Filter 468kHz
7709,7711	4822	130	40937	1402D	5114	4822	156	30811	Coil-SW osc
7710	4822	130	44196	TBC548C	5115	4822	156	30811	Coil-SW ant
7712	4822	130	41457	1602E	5116	4822	157	70044	Coil 18μH
7713,7714	4822	130	40937	1402D	5120	4822	156	30947	Coil-FM osc
- Diodes -					#5120	4822	157	70033	Coil-FM osc
6101	4822	130	30621	1N4148	5701	4822	157	53473	Coil 1mH
6102	4822	130	32214	BA484	5702	4822	157	53518	Coil 270μH
6103,6104	4822	130	30621	1N4148	- Miscellaneous -				
6253-6255	4822	130	30621	1N4148	1101	4822	277	21589	Sw-slide BAND
6256-6259	4822	130	31438	1N4001	1501	4822	276	10991	Sw-Push DBB
6260,6262	4822	130	34167	BZX79-C6V2	1502	4822	277	21588	Sw-slide Fun.
6261	4822	130	30621	1N4148	1701	4822	277	20594	Sw-slide R/P
6701,6702	4822	130	31274	TLR124 LED	1702	4822	277	21587	Sw-slide Dubb.
6704-6710	4822	130	30621	1N4148	1251	4822	240	30613	Spkr. 4" 3.2Ω
6711	4822	130	31438	1N4001	1252	4822	240	30613	Spkr. 4" 3.2Ω
*6703	4822	130	30621	1N4148	1703	4822	267	30332	Socket-mic
- Resistors -					1253	4822	267	31468	Socket-phone
3110	4822	105	11078	Preset 10K	1254	⚠ 4822	265	20287	Socket-mains
3501	4822	101	21163	Potm-rot 50KA	1255	⚠ 4822	070	31602	Fuse T1.6A
3770	⚠ 4822	052	10228	Rst-fuse 2.2R	5251	⚠ 4822	146	31064	Tx-mains /00/14
					5251	⚠ 4822	146	31065	Tx-mains /05

* for AW7324 only

for -/14 only

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(SF)

Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambio identici a quelli specificati.

(S)

Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskider gränsen för laserklass 1.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

Service Information

1992-08-17

AW7223, AW7224
AW7323 and AW7324 families

A92-252

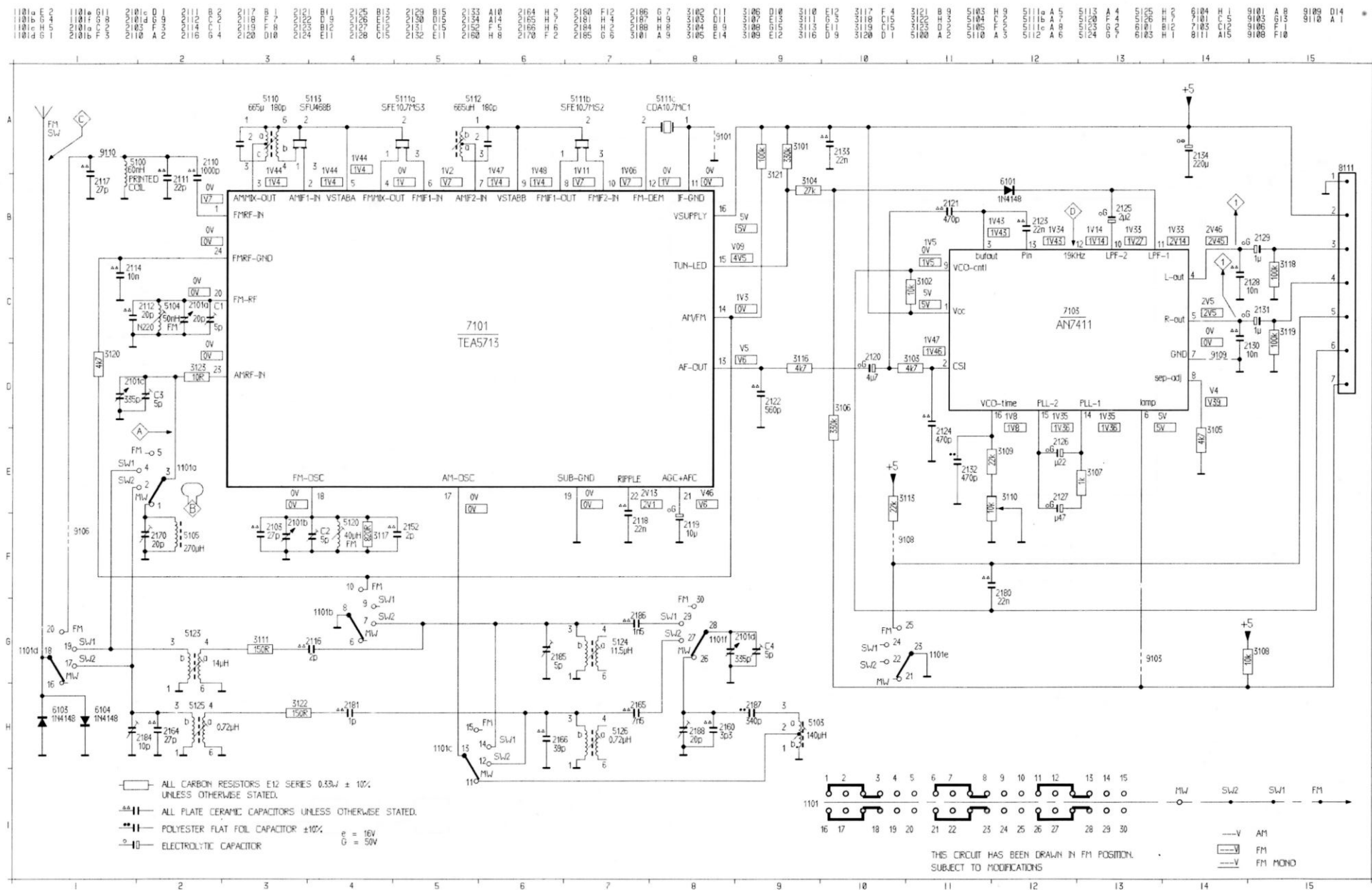
Product Service Group CE Audio

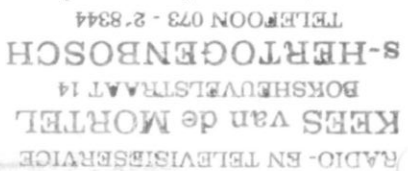
From June 1992 onwards, IC 7101 TEA5713 / N1 was replaced by TEA5713 / N2 (s.c. 4822 209 31697), and matched with the following changes.

2134 changed to 220 μ F
2113 deleted
3114 deleted
7102 deleted

Enclosed are the updated schematic diagrams for the tuner.

SCHEMATIC DIAGRAM - TUNER - AW7323/AW7223





THIS CIRCUIT HAS BEEN DRAWN IN FM POSITION.
SUBJECT TO MODIFICATIONS

Service
Service
Service

Product Service Group CE Audio

Service Information

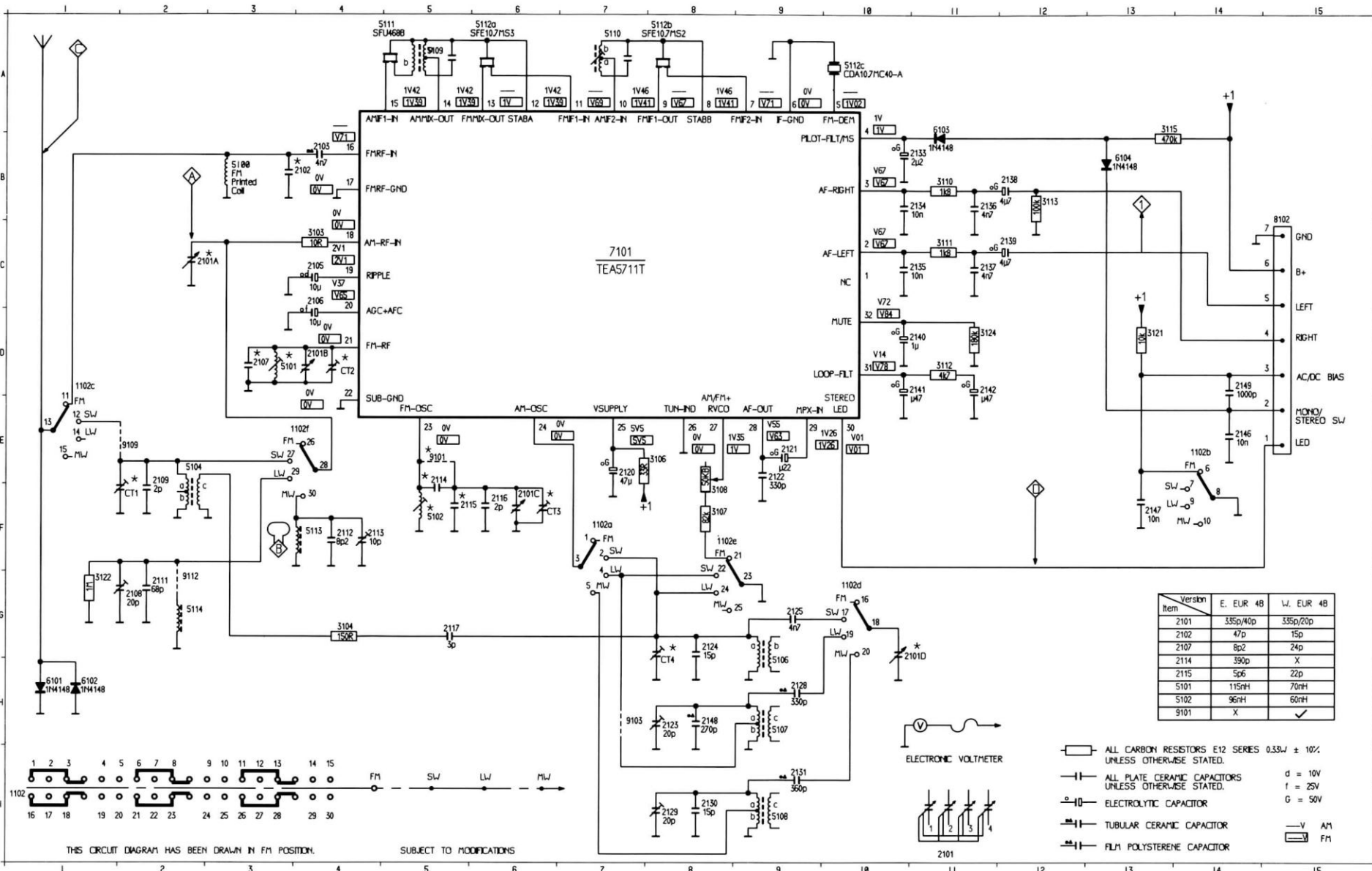
Already published Service Informations :

A92-252	4822 725 24153
A92-430	4822 725 24175

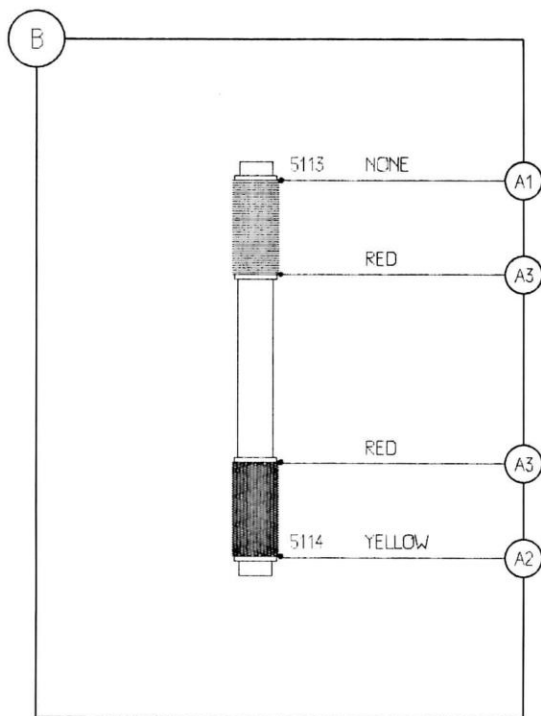
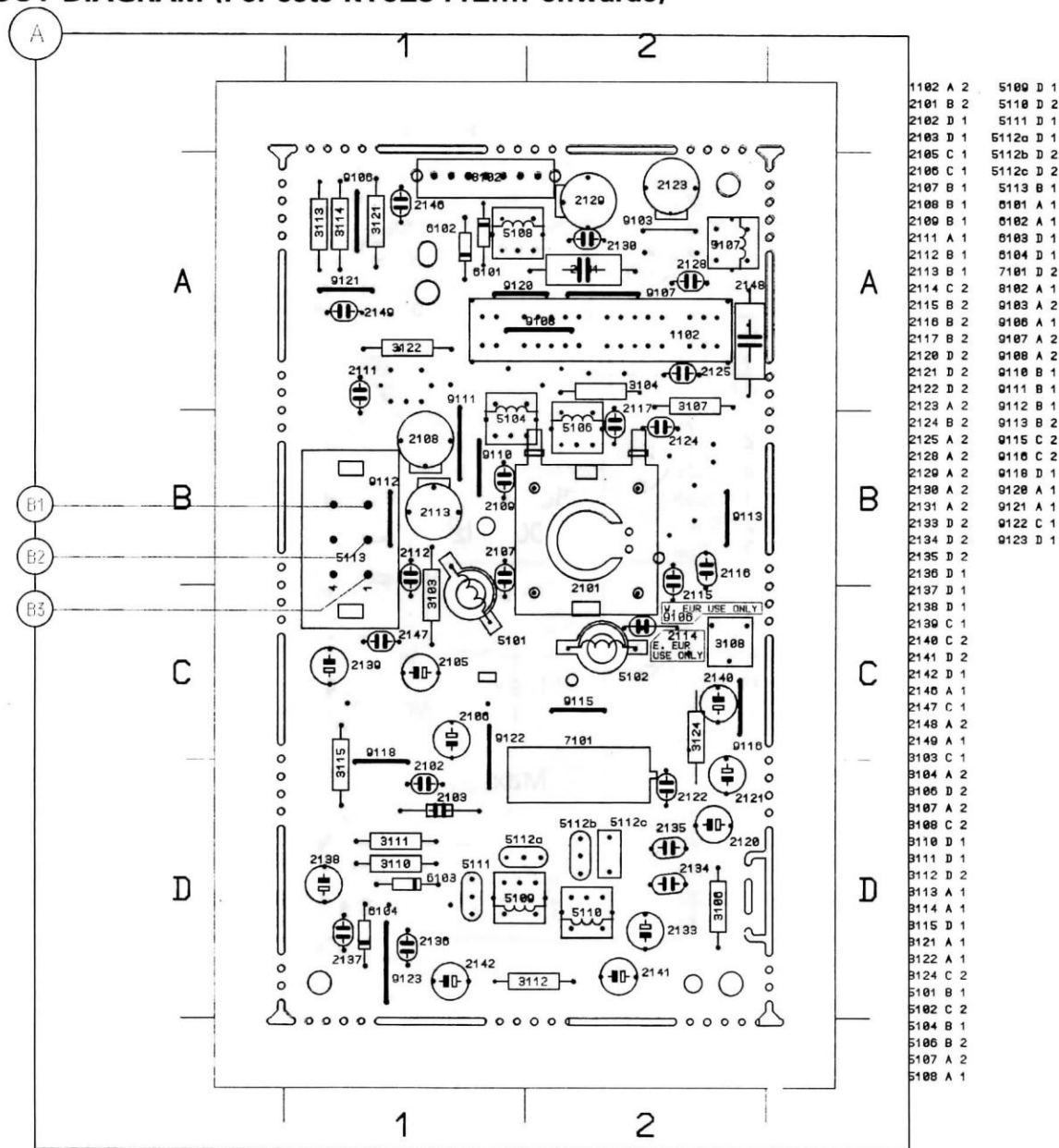
From week 9412 (production code KT029412.....) onwards, new Tuner PCB Assembly is used for the reason of standardization. For technical information please refer to the following supplementary sheets.

	PCS number
Schematic diagram – tuner	PCS 73 376
Layout diagram – tuner	PCS 73 376
Radio alignment	PCS 73 377
Electrical partslist – tuner	PCS 73 377

1182a F 7 1182a F 8 2101 C F 6 2102 B 4 2107 D 3 2112 F 4 2116 F 6 2122 F 9 2128 H 9 2133 B 11 2137 C 11 2141 D 11 2148 H 8 3106 F 8 3111 C 11 3121 D 13 5101 D 3 5107 H 9 5111 A 5 5113 F 4 6103 A 11 6104 B 13 6108 C 7 6109 E 5 1182b E 14 1182b E 4 2101 D G 11 2102 G 4 2107 F 2 2112 G 5 2116 G 5 2122 G 9 2128 I 8 2133 B 11 2137 C 12 2141 D 11 2148 H 8 3106 F 8 3111 C 11 3121 D 13 5101 D 3 5107 H 9 5111 A 5 5113 F 4 6103 A 11 6104 B 13 6108 C 7 6109 E 5 1182c D 1 2101 A C 3 2102 H 8 2107 F 2 2112 G 5 2116 G 5 2122 G 9 2128 I 8 2133 B 11 2137 C 12 2141 D 11 2148 H 8 3106 F 8 3111 C 11 3121 D 13 5101 D 3 5107 H 9 5111 A 5 5113 F 4 6103 A 11 6104 B 13 6108 C 7 6109 E 5 1182d G 10 2101 B D 4 2102 G 4 2107 F 2 2112 G 5 2116 G 5 2122 G 9 2128 I 8 2133 B 11 2137 C 12 2141 D 11 2148 H 8 3106 F 8 3111 C 11 3121 D 13 5101 D 3 5107 H 9 5111 A 5 5113 F 4 6103 A 11 6104 B 13 6108 C 7 6109 E 5



LAYOUT DIAGRAM (For sets KT029412.... onwards)



RADIO ALIGNMENT (For sets KT029412.... onwards)

SK....	FREQUENCY	I/P	VARICON	ADJUST	O/P	SCOPE/METER
AM IF						
MW #	468 KHz		Min.	5110 5109		 Max.
AM RF						
MW (520 – 1605 KHz)	512 KHz 1635 KHz		Min. Max.	5108 2129		 Max.
	550KHz 1500KHz		550 KHz 1500 KHz	5113 2113		 Max.
LW (148.5 – 283.5 KHz)	147 KHz 291 KHz		Max. Min.	5107 2123		 Max.
	155 KHz 270 KHz		Max. Min.	5114 2108		 Max.
SW # (5.88 – 17.9 MHz)	5.75 MHz 18.2 MHz		Max. Min.	5106 C4		 Max.
	6.2 MHz 17 MHz		6.2 MHz 17MHz	5104 C3		 Max.
FM IF						
FM	10.7 MHz		Min.			 Symmetrical
FM RF						
FM #	87.35 MHz 108.25 MHz		Max. Min.	5102 C2		 Max.
	88 MHz 106 MHz		88 MHz 106 MHz	5101 C1		 Max.
STEREO DECODER						
FM STEREO	98 MHz		98 MHz	3108		152 KHz ± 1 KHz max.

(For sets KT029412.... onwards)

ELECTRICAL PARTSLIST – TUNER BOARD (F/M/L/S)

– CAPCITORS –			– RESISTORS –		
2101	4822 125 50597	PVC 335Px2 / 20Px2	3103	4822 116 52176	10R 5%
2102	4822 126 12675	15pF $\pm 0.5p$ 50V N330	3104	4822 116 52211	150R 5%
2103	4822 122 32764	4.7nF 20%	3106	4822 116 52191	33R 5%
2105	4822 124 41402	10 μ F 20% 50V	3107	4822 116 52297	68k 5%
2106	4822 124 41402	10 μ F 20% 50V	3108	4822 100 20167	Volume 50kB
2107	4822 126 12814	24pF 5% N220	3110	4822 116 52249	1.8k 5%
2108	4822 125 50045	Trimmer 1.8pF–22pF	3111	4822 116 52249	1.8k 5%
2109	4822 126 12674	2pF $\pm 0.25p$ F NPO	3112	4822 116 52283	4.7k 5%
2111	4822 126 13087	68pF 5% N220	3113	4822 116 52234	100k 5%
2112	4822 126 12283	8.2pF $\pm 0.5p$ F N220	3114	4822 116 52234	100k 5%
2113	4822 125 50062	Trimmer 1.4pF–10pF	3115	4822 116 52285	470k 5%
2115	4822 126 12122	22pF 5% N750	3121	4822 116 52233	10k 5%
2117	4822 126 13063	3pF $\pm 0.25p$ F NPO	3122	4822 116 52235	1M 5%
2120	4822 124 40433	47 μ F 20% 16V	3124	4822 116 52252	180k 5%
2121	4822 124 42129	0.22 μ F 20% 63V	– COILS & FILTER –		
2122	4822 126 12671	330pF 10%	5101	4822 157 70513	Coil FM
2123	4822 125 50045	Trimmer 1.8pF–22pF	5102	4822 156 30947	RF Coil
2124	4822 126 13064	15pF 5% XL	5104	4822 156 30811	Coil–SW 2
2125	4822 121 51303	4.7nF 10% 50V	5106	4822 156 30811	Coil–SW 2
2128	5322 121 70138	330pF 1% 400V	5107	4822 157 70696	Coil – M/O
2129	4822 125 50045	Trimmer 1.8pF–22pF	5108	4822 157 70696	Coil – M/O
2130	4822 126 12669	15pF 5% N750	5109	4822 157 70499	IFT–AM
2131	4822 121 51254	360pF 1% 400V	5110	4822 156 11146	IFT–AM
2133	4822 124 22467	2.2 μ F 20% 50V	5111	4822 242 71139	Filter SFU468B
2134	4822 124 80141	10nF 10%	5112	4822 242 81154	Fil Kit KMFC5058 – Z
2135	4822 124 80141	10nF 10%	5113	4822 158 60651	Bar Assy – MW/LW
2136	4822 126 12672	4.7nF 10%	– DIODES & IC –		
2137	4822 126 12672	4.7nF 10%	6101	4822 130 30621	1N4148
2138	4822 124 40246	4.7 μ F 20% 63V	6102	4822 130 30621	1N4148
2139	4822 124 40246	4.7 μ F 20% 63V	6103	4822 130 30621	1N4148
2140	4822 124 41398	1 μ F 20% 63V	6104	4822 130 30621	1N4148
2141	4822 124 40239	0.47 μ F 20% 63V	7101	4822 209 32746	TEA5711T/N2
2142	4822 124 40239	0.47 μ F 20% 63V	– MISCELLANEOUS –		
2146	4822 124 80141	10nF 10%	1102	4822 277 21604	SW–slide 6P4T
2147	4822 124 80141	10nF 10%			
2148	4822 121 51569	270pF 1% 400V			
2149	4822 126 11592	1nF 10%			