

Service Service Service

For repair information of the cassette mechanism see
Service Manual YMW47-307-01



41 262 A12

Service Manual

INHOUD

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RADIO- EN TELEVISIESERVICE
KEES van de NOOTEL
BOESCHOUVELSTRAAT 14
5-HERTOGENBOSCH
TELEFOON 073 - 2 5344

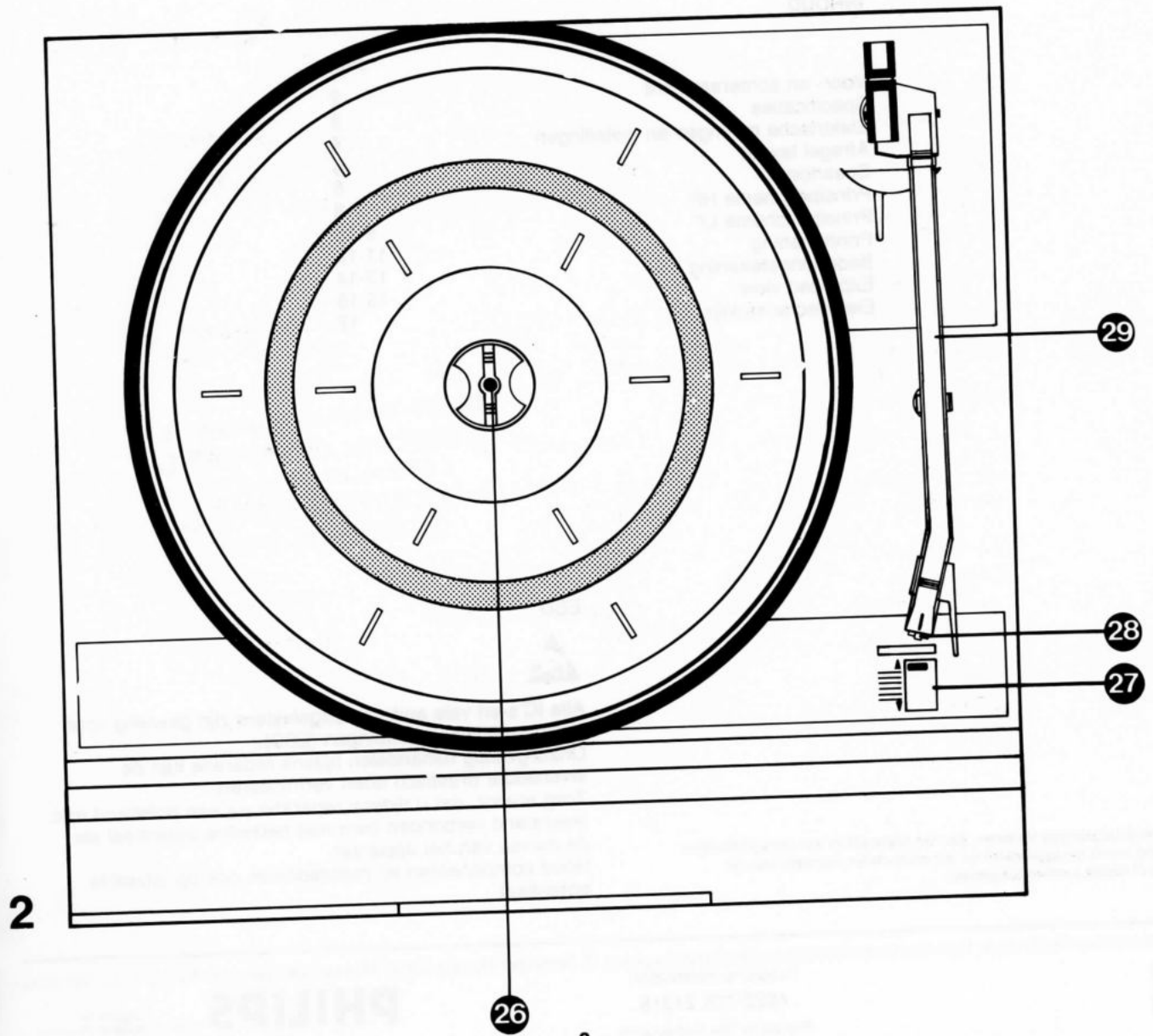
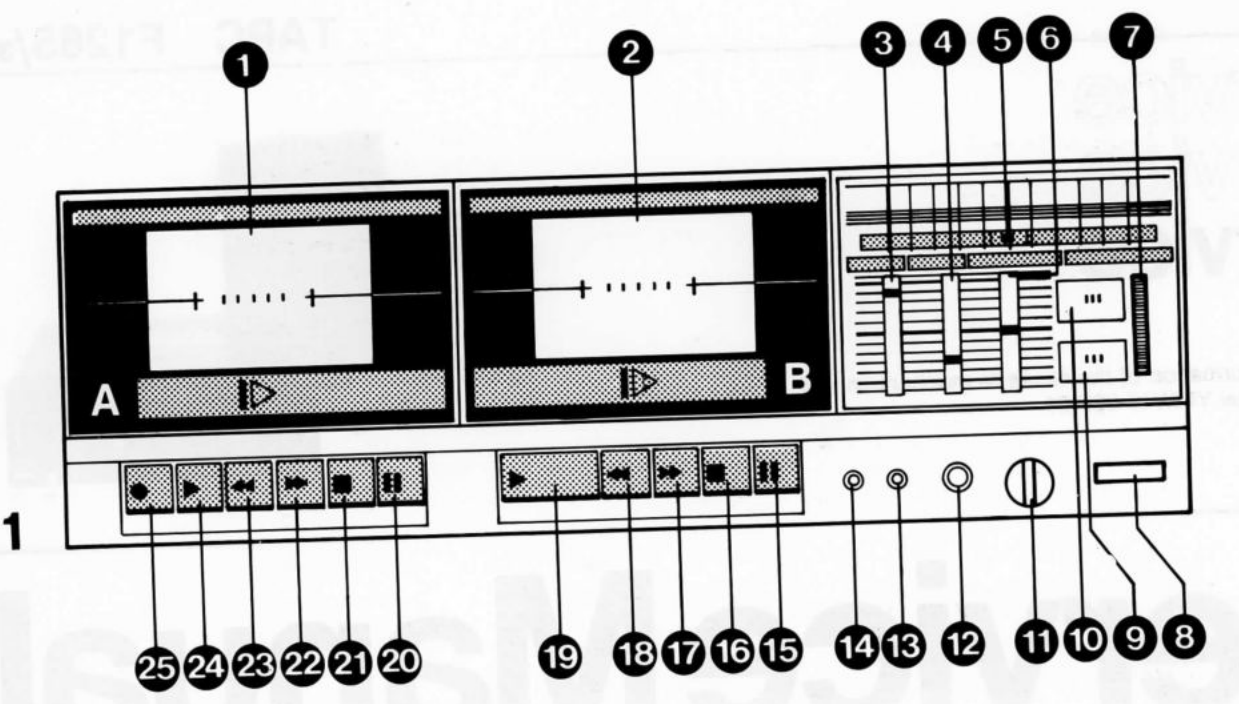
ESD



Alle IC's en vele andere halfgeleiders zijn gevoelig voor elektrostatische 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.

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





BEDIENINGSORGANEN EN FUNCTIES

Fig. 1 en 2

- | | | | |
|----|--|----|----------------------------|
| 1 | Cassettevak A | 15 | Pauzetoets |
| 2 | Cassettevak B | 16 | Stop-/uitwerptoets |
| 3 | Geluidssterkteregelaar | 17 | Snelspoeltoets (vooruit) |
| 4 | Balansregelaar | 18 | Snelspoeltoets (achteruit) |
| 5 | 'Aan/uit'-indicator; tevens schaalverlichting voor tuner | 19 | Weergeef-/starttoets |
| 6 | Klankkleurregelaar | 20 | Pauzetoets |
| 7 | Afstemknop | 21 | Stop-/uitwerptoets |
| 8 | 'Aan/uit'-schakelaar | 22 | Snelspoeltoets (vooruit) |
| 9 | FM stereo-indicator | 23 | Snelspoeltoets (achteruit) |
| 10 | Opneemsterkteregelaar | 24 | Weergeef-/starttoets |
| 11 | Functieschakelaar | 25 | Opneemtoets |
| 12 | Aansluiting voor koptelefoon | 26 | Adapterschijf |
| 13 | Aansluiting voor microfoon (rechter kanaal) | 27 | Toerentalkiezer |
| 14 | Aansluiting voor microfoon (linker kanaal) | 28 | Naaldbeschermer |
| | | 29 | Platenspelerarm |

SPECIFICATIE	Nominale waarde	Typische waarde
Algemeen		
Netspanning	: 220 V~ Service oplossing voor 110 V-240 V	: 220 V~ Service oplossing voor 110 V-240 V
Netfrequentie	: 50 Hz	: 50 Hz
Opgenomen vermogen	: 20 W max	: 20 W max
Afmetingen (BxHxD)	: 381x121x365 mm	: 381x121x365 mm
Gewicht	: 5 kg	: 5 kg
Tuner: FM gedeelte		
Afstembereik	: 87,5 Mhz tot 108 MHz	: 87,5 MHz tot 108 MHz
Antenne ingang	: 75	: 75
Gevoeligheid	: 10 V 30 dB S/N	: 20 V 30 dB S/N
Onderdrukking MF-AM	: 32 dB	: 26 dB
T.H.D. stereo	: 2%	: 3%
Kanaalscheiding	: 30 dB	: 24 dB
Tuner: AM gedeelte		
Golfbereiken MW	: 520 kHz-1650 kHz	: 530 kHz-1610 kHz
LW	: 145 kHz- 265 kHz	: 150 kHz- 275 kHz
Gevoeligheid	: 400 µV	: 700 µV
Versterker		
Uitgangsvermogen	: 1,5 W (10% T.H.D.)	: 1,2 W (10% T.H.D.)
T.H.D.	: 2%	: 3%
Frequentiekaracteristiek	: 80 Hz-12 kHz	: 100 Hz-10 kHz
Toonregeling	: -14 dB	: -12 dB
Cassette recorder		
Bandsnelheid	: 4,76 cm/sec	: 4,76 cm/sec
Frequentiebereik	: 125 Hz-8 kHz (± 30 dB)	: 125 Hz-8 kHz (± 6 dB)
Wow en flutter	: 0,25 WRMS	: 0,35 WRMS
Platenspeler		
Frequentiekaracteristiek	: 80 Hz-12 kHz	: 100 Hz-10 kHz
Toerental	: 33 $\frac{1}{3}$, 45 TPM	: 33 $\frac{1}{3}$, 45 TPM

ELEKTRISCHE METINGEN EN INSTELLINGEN

Benodigde meetinstrumenten

- RF generator
- Oscilloscoop
- AC milivoltmeter
- DC milivoltmeter
- Frequentieteller

Algemene voorwaarden

Tijdens het afregelen moeten de toegevoerde signalen zo klein mogelijk zijn. De MF-afregelingen gebeuren met een gewobbeld signaal. Voor FM is dit 10,7 MHz (zwaai van 75 kHz met een frequentie van 50 Hz). Voor AM is dit 450 kHz (zwaai van 10 kHz met een frequentie van 50 Hz). De top van de doorlaatcurve door verschuiven van de wobbelfrequentie in het midden van het scoopbeeld plaatsen.

RADIO ALIGNMENT

SK..... A Position	Signal	to	Tune in	Adjust	
MW	455 kHz			T102 T104	MAX
MW	525 kHz 1650 kHz 550 kHz 1500 kHz		MAX CAP MIN CAP 550 kHz 1500 kHz	S107 TC104 L105 TC105	MAX
LW	145 kHz 265 kHz 160 kHz 250 kHz		MAX CAP MIN CAP 160 kHz 250 kHz	TC106 L105 TC103	MAX
FM	10.7 MHz	 		T101 T103	MAX
FM	86.5 MHz 109 MHz 90 MHz 106 MHz		MAX CAP MIN CAP 90 MHz 106 MHz	L104 TC102 L102,103 TC101	MAX

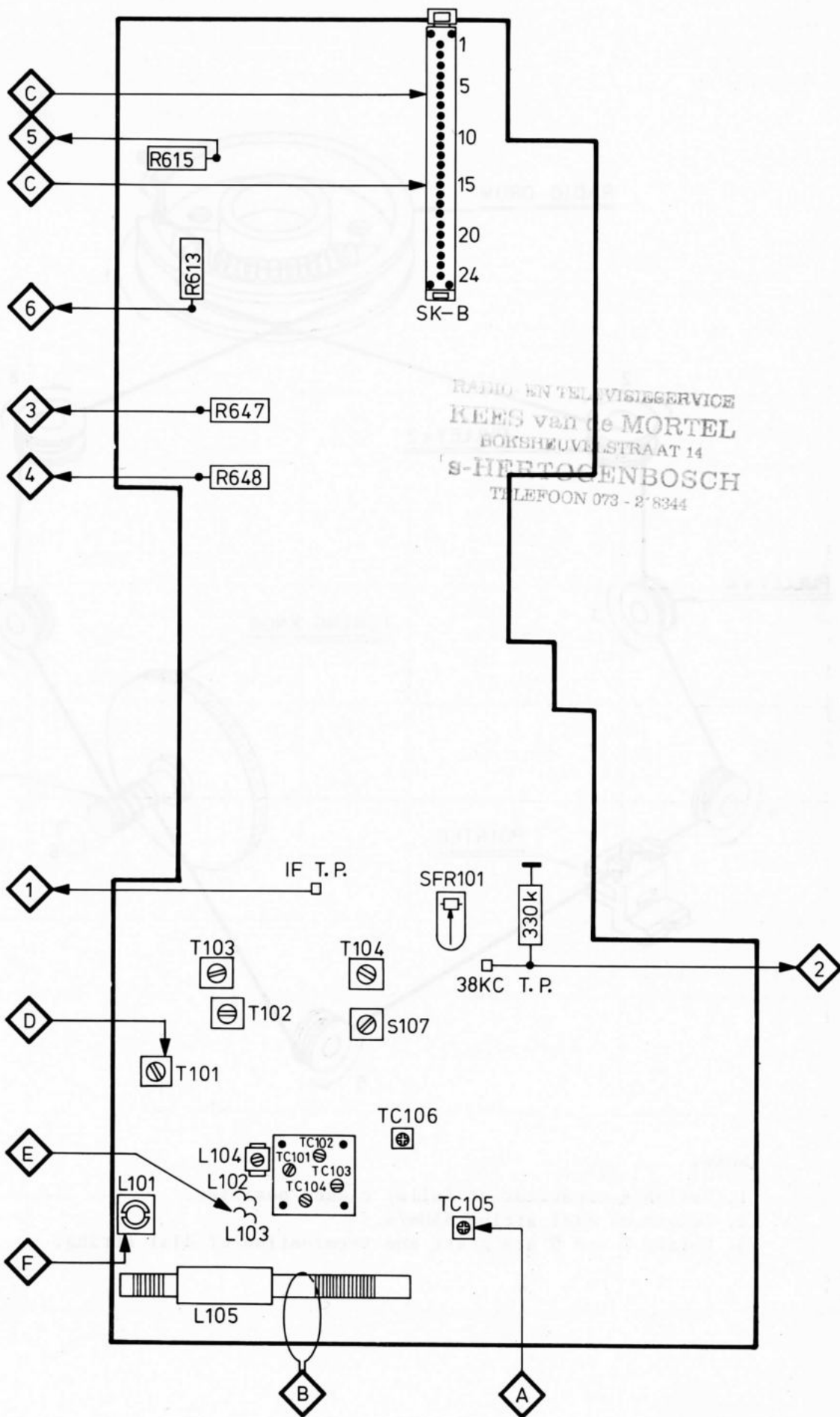
STEREO DECODER

FM	NO SIGNAL			SFR101	COUNTER 38 kHz
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CASSETTE ALIGNMENT & SPEC

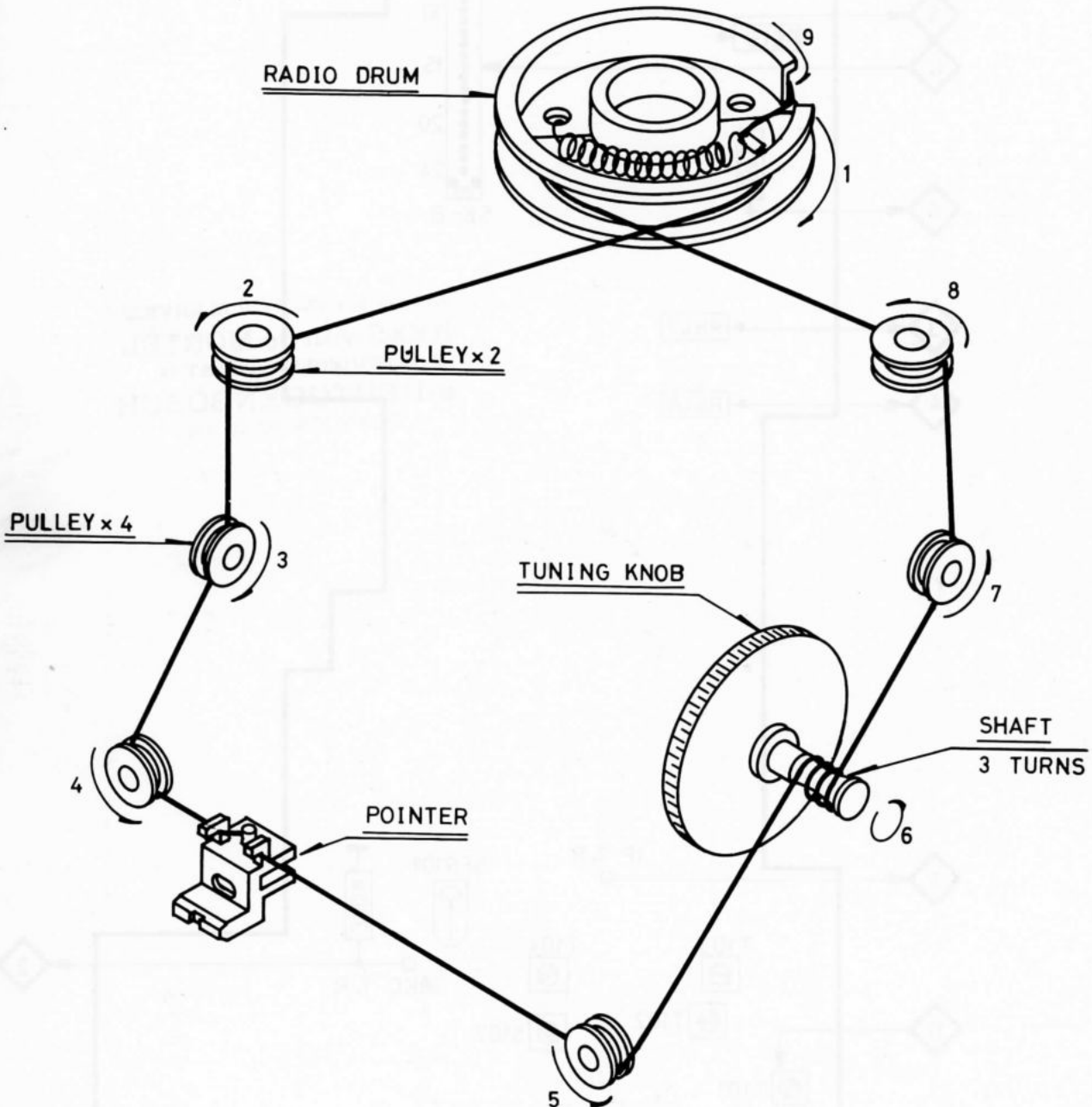
HEAD ANGLE	TEST TAPE 6.3 kHz		PLAYBACK	HEAD ADJUST SCREW	MAX
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Adjustment Location Diagram



RADIO EN TELEVISIE SERVICE
 KEES VAN DE MORTEL
 BOKSHEUVELSTRAAT 14
 'S-HEERTOGENBOSCH
 TELEFOON 073 - 2'8344

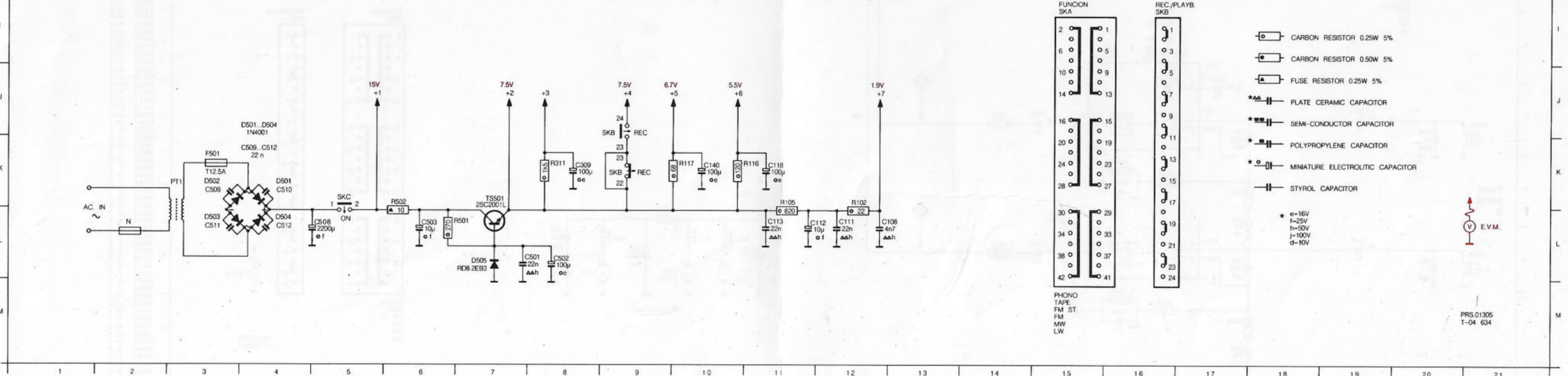
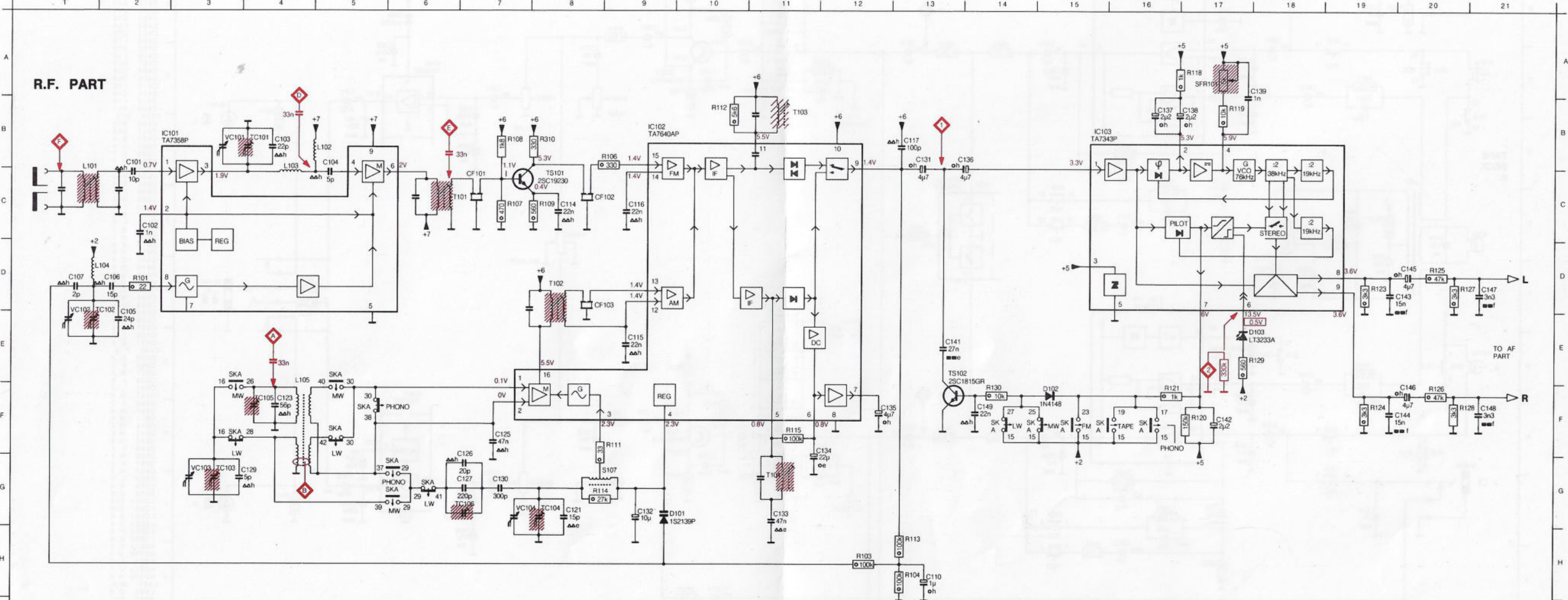
Dial Stringing



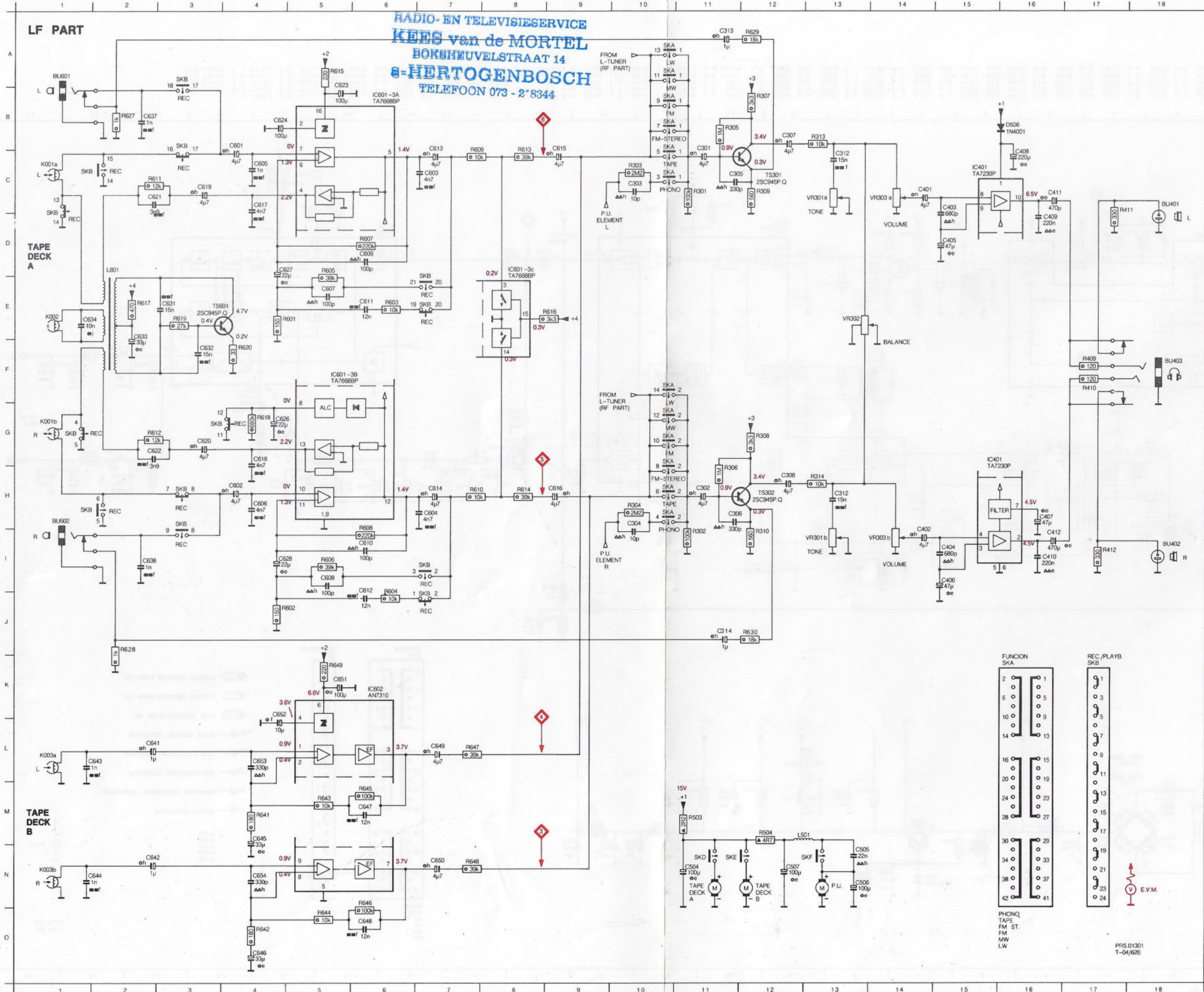
Note:

1. Variable capacitor at fully closed position.
2. Length of dial string 850m/m.
3. Points 1 and 9 are start and termination of dial string.

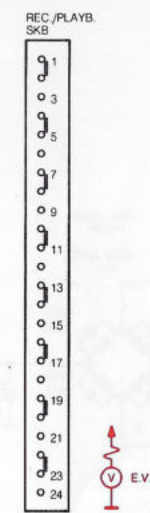
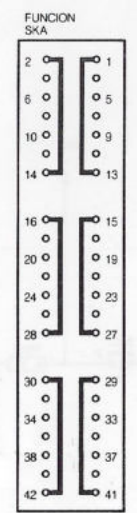
C101 B 2 C106 D 2 C112 L12 C117 B13 C126 F 7 C132 G 9 C137 B16 C142 F17 C147 D21 C502 L 8 C511 L 3 D101 G10 D503 L 3 IC102 B 9 L104 D 2 R103 H12 R108 B 7 R114 G 8 R119 B17 R125 D20 R130 F14 S107 G 9 T104 G11 TC105 F 4 VC101 B 3
 C102 C 2 C107 D 1 C113 L11 C118 K11 C127 G 7 C133 G11 C138 B17 C143 D20 C148 F21 C503 L 6 C512 L 4 D102 F15 D504 L 4 IC103 B15 L105 E 4 R104 H13 R109 C 8 R115 F11 R120 F17 R126 F20 R310 B 8 SFR10 A17 TC101 B 4 TC106 G 7 VC102 D 1
 C103 B 4 C108 L13 C114 C 8 C121 G 8 C129 G 4 C134 F12 C139 A18 C144 F20 C149 F14 C508 L 5 CF101 C 7 D103 E18 D505 L 7 L101 B 1 PT1 K 3 R105 K11 R111 F 9 R116 K11 R121 F16 R127 D21 R311 K 8 T101 C 7 TC102 D 2 TS101 C 8 VC103 G 3
 C104 B 5 C110 H13 C115 E 9 C123 F 4 C130 G 7 C135 F13 C140 K10 C145 D20 C309 K 8 C509 K 3 CF102 C 9 D501 K 4 F501 K 3 L102 B 5 R101 D 2 R106 B 9 R112 B10 R117 K10 R123 D19 R128 F21 R501 L 7 T102 D 8 TC103 G 3 TS102 E13 VC104 G 7
 C105 E 2 C111 L12 C116 C 9 C125 F 7 C131 B13 C136 B14 C141 E13 C146 F20 C501 L 8 C510 K 4 CF103 D 9 D502 K 3 IC101 B 3 L103 B 4 R102 K12 R107 C 7 R113 H13 R118 A17 R124 F19 R129 E18 R502 K 6 T103 B11 TC104 G 8 TS501 K 7



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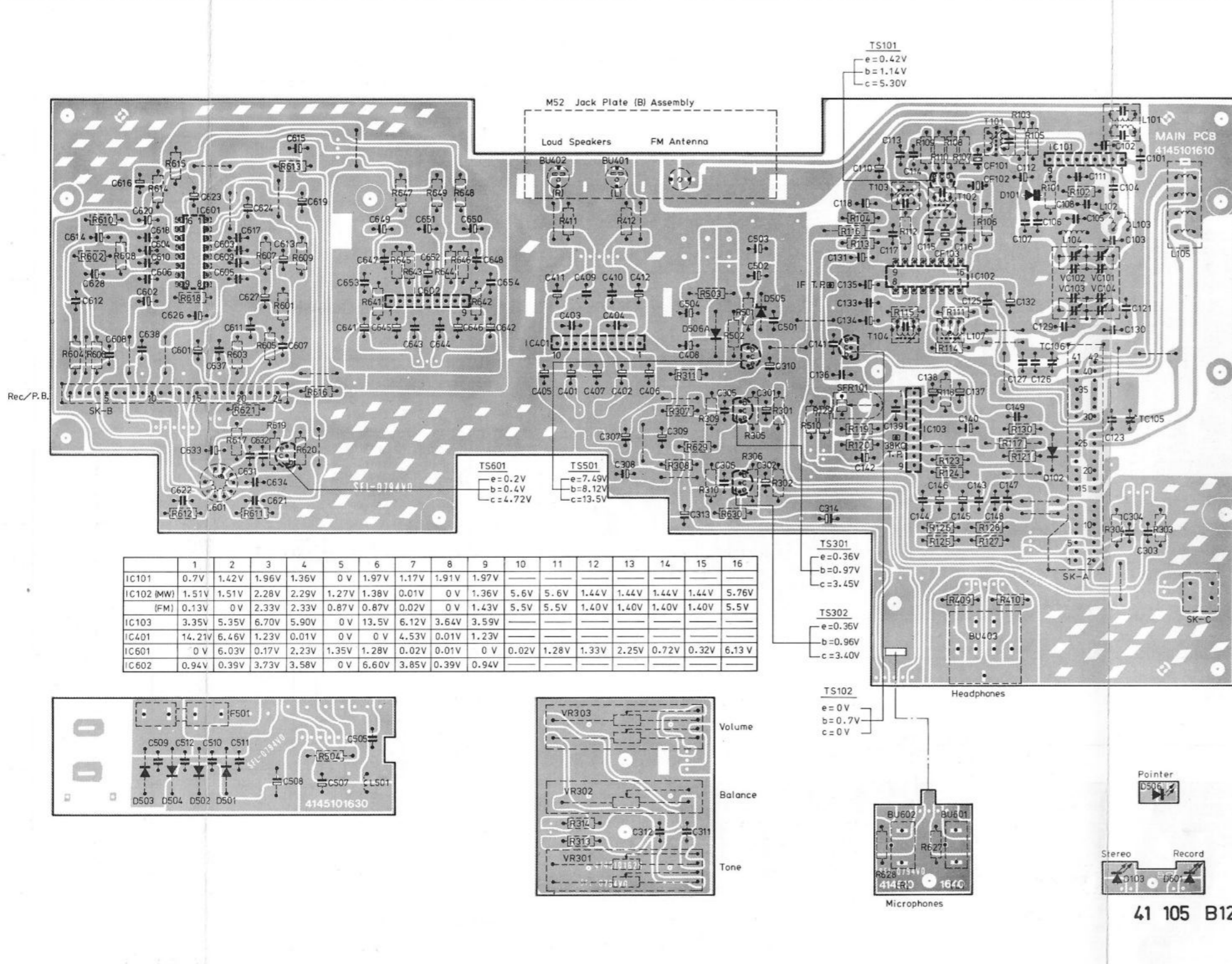


BU401	C18	TS301	C12
BU402	I 18	TS302	H12
BU403	F 18	TS601	E 3
BU601	A 1	VR301	C13
BU602	H 1	VR301	I 13
C301	B11	VR302	E13
C302	H11	VR303	I 14
C303	C10	VR303	C14
C304	H10		
C305	C11		
C306	H11		
C307	B12		
C308	H12		
C312	C13		
C312	H13		
C313	A11		
C314	I 11		
C401	C14		
C402	I 14		
C403	C15		
C404	I 15		
C405	D15		
C406	I 15		
C407	H16		
C408	C16		
C409	D16		
C410	I 16		
C411	C16		
C412	I 16		
C504	N11		
C505	N13		
C506	N13		
C507	N12		
C601	B 4		
C602	H 4		
C603	C 7		
C604	H 7		
C605	C 4		
C606	H 4		
C607	E 5		
C608	I 5		
C609	D 6		
C610	I 6		
C611	E 6		
C612	I 6		
C613	B 7		
C614	H 7		
C615	B 9		
C616	H 9		
C617	C 4		
C618	G 4		
C619	C 3		
C620	G 3		
C621	C 2		
C622	G 2		
C623	A 5		
C624	B 4		
C626	G 4		
C627	D 5		
C628	I 5		
C631	E 3		
C632	F 3		
C633	E 2		
C634	B 2		
C637	E 1		
C638	I 2		
C641	L 2		
C642	N 2		
C643	L 2		
C644	L 2		
C645	M 4		
C646	O 4		
C647	M 6		
C648	O 6		
C649	N 7		
C650	N 7		
C651	K 5		
C652	K 4		
C653	L 4		
C654	N 4		
D506	B16		
I C401	C15		
I C401	G15		
I C601	B 6		
I C601	D 8		
I C601	F 5		
I K001a	C 1		
I K001b	G 1		
I K002	E 1		
I K003a	L 1		
I K003b	N 1		
L501	M13		
L601	D 2		
R301	C11		
R302	I 11		
R303	C10		
R304	H10		
R305	B11		
R306	H11		
R307	B12		
R308	G12		
R309	C12		
R310	I 12		
R313	B13		
R314	H13		
R409	F17		
R410	F17		
R411	C18		
R412	I 17		
R503	M11		
R504	M12		
R601	E 5		
R602	E 5		
R603	E 6		
R604	I 6		
R605	D 5		
R606	I 5		
R607	D 6		
R608	H 6		
R609	B 7		
R610	H 7		
R611	C 2		
R612	G 2		
R613	B 8		
R614	H 8		
R615	A 5		
R616	E 9		
R617	E 2		
R618	G 4		
R619	E 3		
R620	F 4		
R627	B 2		
R628	J 2		
R629	A12		
R630	J12		
R641	M 4		
R642	O 4		
R643	M 5		
R644	O 5		
R645	M 6		
R646	N 6		
R647	L 7		
R648	N 7		
R649	K 5		



P C Board-Solder Side

1 2 3 4 5



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC101	0.7V	1.42V	1.96V	1.36V	0V	1.97V	1.17V	1.91V	1.97V							
IC102 (MW)	1.51V	1.51V	2.28V	2.29V	1.27V	1.38V	0.01V	0V	1.36V	5.6V	5.6V	1.44V	1.44V	1.44V	1.44V	5.76V
(FM)	0.13V	0V	2.33V	2.33V	0.87V	0.87V	0.02V	0V	1.43V	5.5V	5.5V	1.40V	1.40V	1.40V	1.40V	5.5V
IC103	3.35V	5.35V	6.70V	5.90V	0V	13.5V	6.12V	3.64V	3.59V							
IC401	14.21V	6.46V	1.23V	0.01V	0V	0V	4.53V	0.01V	1.23V							
IC601	0V	6.03V	0.17V	2.23V	1.35V	1.28V	0.02V	0.01V	0V	0.02V	1.28V	1.33V	2.25V	0.72V	0.32V	6.13V
IC602	0.94V	0.39V	3.73V	3.58V	0V	6.60V	3.85V	0.39V	0.94V							

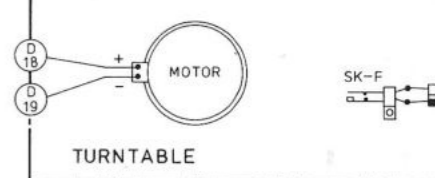
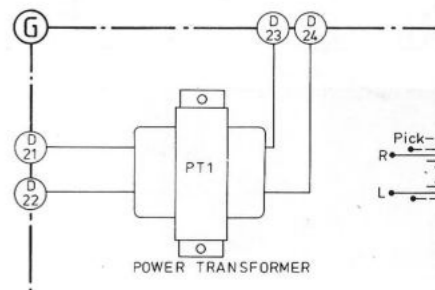
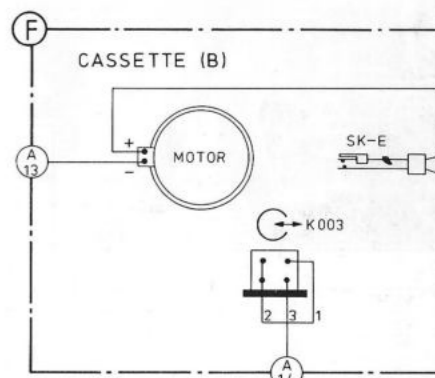
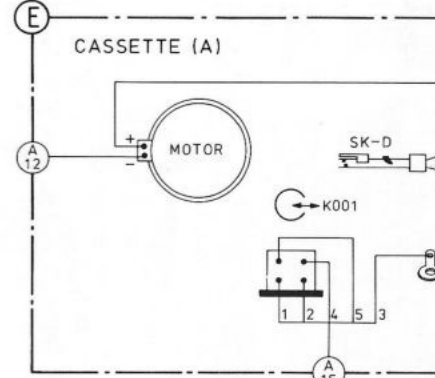
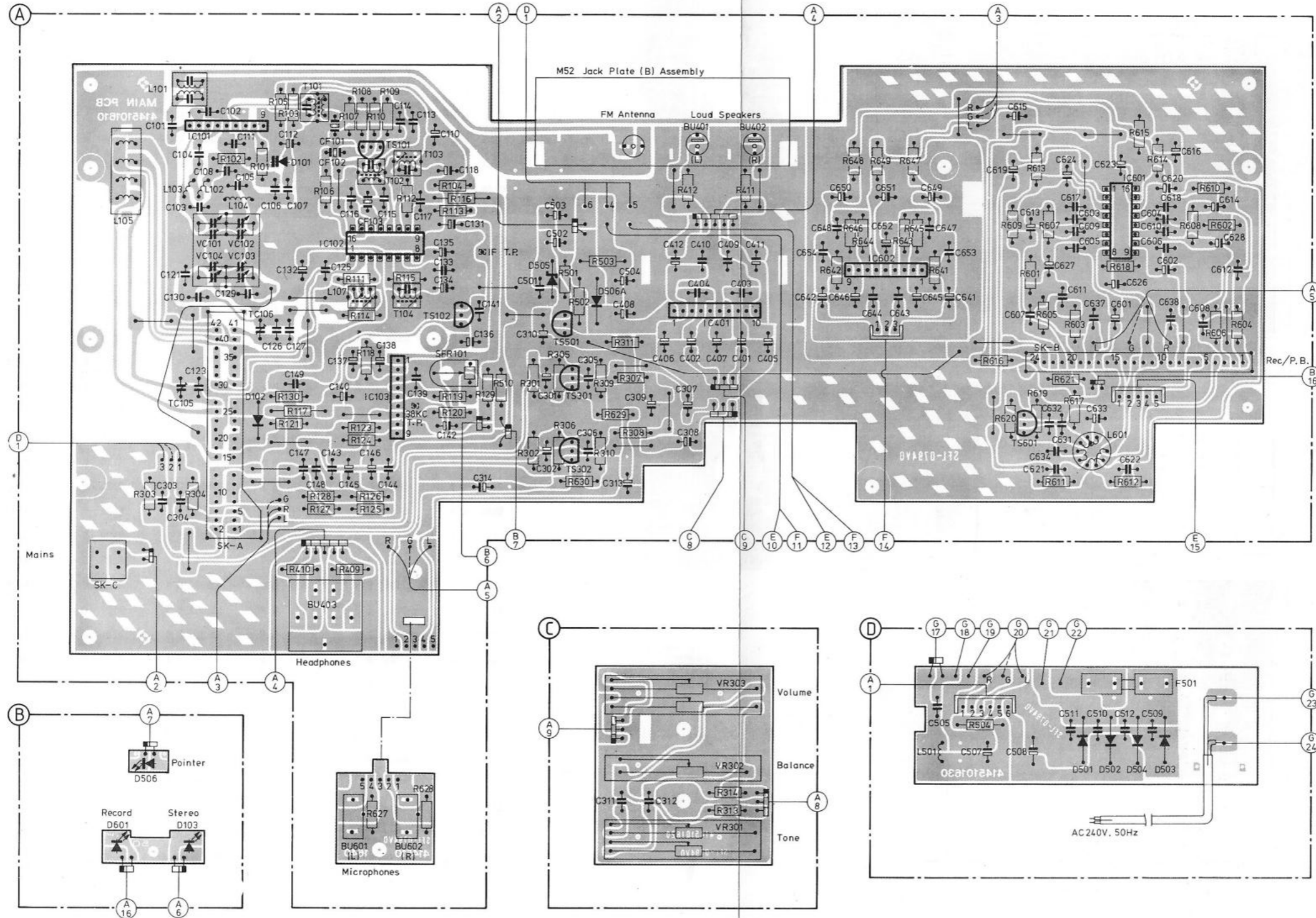
BU401	A 3	C141	B 4	C505	D 2	C634	B 2	L104	A 5	R306	B 4	R626	D 4
BU402	A 3	C142	B 4	C507	D 2	C637	B 1	L105	A 5	R307	B 3	R629	B 3
BU403	C 4	C143	B 4	C508	D 2	C638	B 1	L107	B 4	R308	B 3	R630	C 3
BU601	D 4	C144	C 4	C509	D 1	C641	B 2	L501	D 2	R309	B 3	R641	B 2
BU602	D 4	C145	C 4	C510	D 1	C642	B 3	L601	C 1	R310	C 3	R642	B 2
C101	A 5	C146	B 4	C511	D 1	C643	B 2	R101	A 5	R311	B 3	R643	B 2
C102	A 5	C147	B 5	C512	D 1	C644	B 2	R102	A 5	R313	D 3	R644	B 2
C103	A 5	C148	C 5	C601	B 1	C645	B 2	R103	A 5	R314	D 3	R645	A 2
C104	A 5	C149	B 5	C601	A 1	C646	B 2	R104	A 4	R409	C 4	R646	A 2
C105	A 5	C301	B 4	C602	B 1	C647	A 2	R105	A 4	R410	C 5	R647	A 2
C106	A 5	C301	B 4	C602	B 2	C648	A 2	R105	A 5	R411	A 3	R648	A 2
C107	A 5	C302	B 3	C603	A 1	C649	A 2	R106	A 5	R412	A 3	R649	A 2
C108	A 5	C303	C 5	C604	A 1	C650	A 2	R107	A 4	R501	B 4	SK A	C 5
C110	A 4	C304	C 5	C605	B 1	C651	A 2	R108	A 4	R502	B 3	SK B	B 1
C111	A 5	C305	B 3	C606	B 1	C652	A 2	R110	A 4	R503	B 3	SK C	C 5
C112	A 5	C307	B 3	C607	B 2	C653	B 2	R111	B 4	R504	D 2	T101	A 5
C113	A 4	C308	B 3	C608	B 1	C654	B 3	R112	A 4	R510	B 4	T102	A 4
C114	A 4	C309	B 3	C609	A 1	CF101	A 5	R113	A 4	R601	B 2	T103	A 4
C115	A 4	C310	B 4	C610	A 1	CF102	A 5	R114	B 4	R602	A 1	T103	A 4
C116	A 4	C311	D 3	C611	B 1	CF103	A 4	R115	B 4	R603	B 1	T104	B 4
C117	A 4	C312	D 3	C612	B 1	D101	A 5	R116	A 4	R604	B 1	TC105	B 5
C118	A 4	C313	C 3	C613	A 2	D102	B 5	R117	B 5	R605	B 2	TC106	B 5
C121	B 5	C314	C 4	C614	A 1	D103	D 5	R118	B 4	R606	B 1	VC101	B 5
C123	B 5	C401	B 3	C615	A 2	D501	D 1	R119	B 4	R607	A 2	VC102	B 5
C125	B 4	C402	B 3	C616	A 1	D502	D 1	R120	B 4	R608	A 1	VC103	B 5
C126	B 5	C403	B 3	C617	A 2	D503	D 1	R123	B 4	R609	A 2	VC104	B 5
C127	B 5	C404	B 3	C618	A 1	D504	D 1	R124	B 4	R610	A 1	VR301	D 3
C129	B 5	C405	B 3	C619	A 2	D505	B 4	R125	C 4	R611	C 2	VR302	D 3
C130	B 5	C406	B 3	C620	A 1	D506	D 5	R126	C 4	R612	C 1	VR303	C 3
C131	A 4	C407	B 3	C621	C 2	D506A	B 3	R127	C 5	R613	A 2		
C132	B 5	C408	B 3	C622	C 1	D601	D 5	R126	C 5	R614	A 1		
C133	B 4	C409	B 3	C623	A 1	F501	D 1	R129	B 4	R615	A 1		
C134	B 4	C410	B 3	C624	A 2	IC101	A 5	R130	B 5	R616	B 2		
C135	B 4	C411	B 3	C626	B 1	IC102	B 4	R171	B 5	R617	B 1		
C136	B 4	C412	B 3	C627	B 2	IC103	B 4	R301	B 4	R618	B 1		
C137	B 4	C501	B 4	C628	B 1	IC401	B 3	R302	B 4	R619	B 2		
C138	B 4	C502	A 4	C631	B 1	L101	A 5	R303	C 5	R620	B 2		
C139	B 4	C503	A 4	C632	B 2	L102	A 5	R304	C 5	R621	B 1		
C140	B 4	C504	B 3	C633	B 1	L103	A 5	R305	B 4	R627	D 4		

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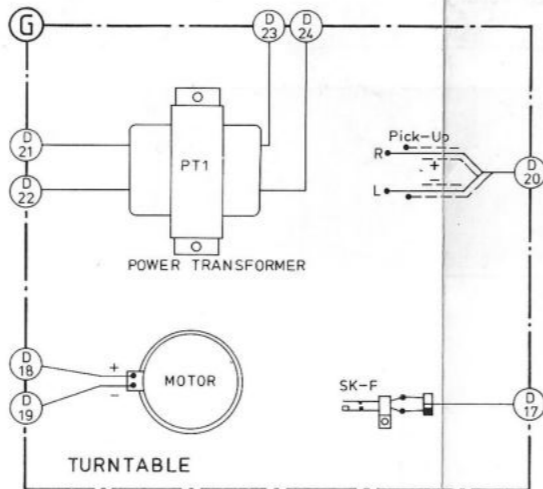
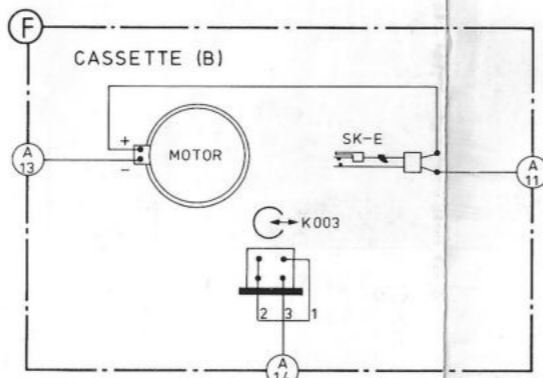
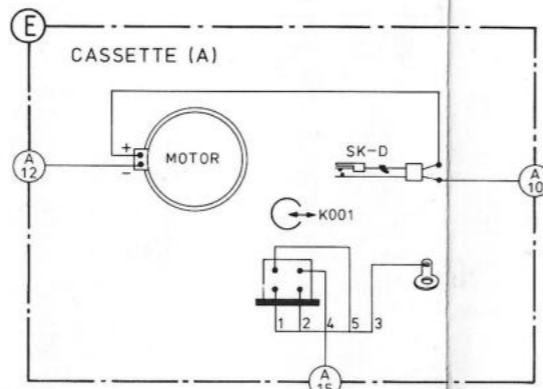
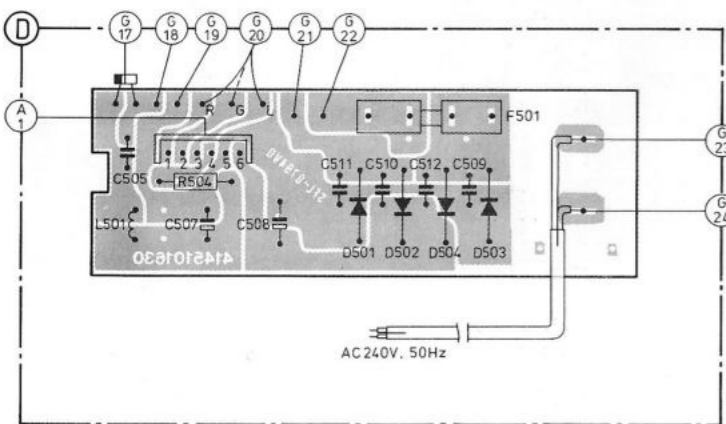
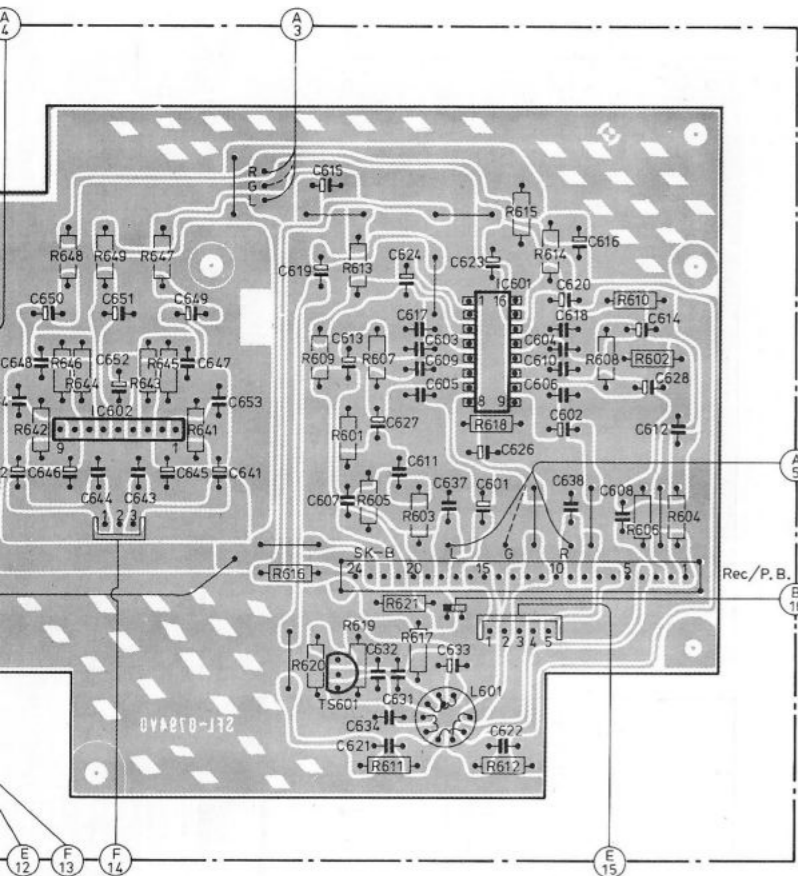
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Wiring Diagram

WADDE-DE-VELE-VISIE-SERVICE
 KEES van de MORTTEL
 BOSKHOEVELSTRAAT 14
 'S-HERTOGENBOSCH
 TELEFON 013 - 813344



HOOP- en TELEVISIESERVICE
KEES van de MORTEL
 BOSKRUUVELSTRAAT 14
S-HERTOGENBOSCH
 TELEFONUM 073 - 8 3346



41 106 B12

BU401 A 3	C144 C 2	C602 B 5	C652 B 4	R112 B 2	R604 B 5	TS101 A 2
BU402 A 4	C145 C 2	C603 B 5	C653 B 4	R113 B 2	R605 B 5	TS102 B 2
BU403 C 2	C146 C 2	C604 B 5	C654 B 4	R114 B 2	R606 B 5	TS301 B 3
BU601 D 2	C147 C 2	C605 B 5	CF101 A 2	R115 B 2	R607 B 5	TS302 C 3
BU602 D 2	C148 C 2	C606 B 5	CF102 A 2	R116 B 2	R608 B 5	TS501 B 3
C101 A 1	C149 B 2	C607 B 5	CF103 B 2	R117 C 2	R609 B 5	TS501 C 5
A C102 A 1	C301 B 3	C608 B 5	D101 A 2	R118 B 2	R610 B 5	VC101 B 1
C103 B 1	C302 C 3	C609 B 5	D102 B 2	R119 B 2	R611 C 5	VC102 B 2
C104 A 1	C303 C 1	C610 B 5	D103 D 1	R120 C 2	R612 C 5	VC103 B 2
C104 B 3	C304 C 1	C611 B 5	D501 D 5	R121 C 2	R613 B 5	VC104 B 1
C105 B 2	C305 B 3	C612 B 5	D502 D 5	R123 C 2	R614 A 5	VR201 D 3
C106 B 2	C306 C 3	C613 B 5	D503 D 5	R124 C 2	R615 A 5	VR302 D 3
C107 B 2	C307 B 3	C614 B 5	D504 D 5	R125 C 2	R616 B 4	VR303 D 3
C108 B 1	C308 C 3	C615 A 5	D505 B 3	R126 C 2	R617 B 5	
C110 A 2	C309 B 3	C616 A 5	D506 D 1	R127 C 2	R618 B 5	
C111 A 2	C310 B 3	C617 B 5	D506A B 3	R128 C 2	R619 B 5	
B C112 A 2	C311 D 3	C618 B 5	D601 D 1	R129 B 3	R620 C 5	
C113 A 2	C312 D 3	C619 B 5	F501 D 5	R130 B 2	R621 B 5	
C114 A 2	C313 C 3	C620 B 5	IC101 A 1	R301 B 3	R622 D 2	
C115 B 2	C314 C 2	C621 C 5	IC102 B 2	R302 C 3	R628 D 2	
C116 B 2	C401 B 4	C622 C 5	IC103 B 2	R303 C 1	R629 C 3	
C117 B 2	C402 B 3	C623 A 5	IC401 B 3	R304 C 1	R630 C 3	
C118 B 2	C403 B 3	C624 A 5	IC601 B 5	R305 B 3	R641 B 4	
C121 B 1	C405 B 4	C626 B 5	IC602 B 4	R306 C 3	R642 B 4	
C123 B 1	C406 B 3	C627 B 5	L101 A 1	R307 B 3	R643 B 4	
C125 B 2	C407 B 3	C628 B 5	L102 B 1	R308 C 3	R644 B 4	
C C126 B 2	C408 B 3	C631 C 5	L103 B 1	R309 B 3	R645 B 4	
C127 B 2	C409 B 3	C632 B 5	L104 B 2	R310 C 3	R646 B 4	
C129 B 1	C410 B 3	C633 B 5	L105 B 1	R311 B 3	R647 A 4	
C130 B 1	C411 B 4	C634 C 5	L107 B 2	R313 D 3	R648 A 4	
C131 B 2	C412 B 3	C637 B 5	L501 D 4	R314 D 3	R649 A 4	
C132 B 2	C501 B 3	C638 B 5	L601 C 5	R409 C 2	SK A C 1	
C133 B 2	C502 B 3	C641 B 4	R101 B 2	R410 C 2	SK B B 5	
C134 B 2	C503 B 3	C642 B 4	R102 A 1	R411 B 4	SK C C 1	
C135 B 2	C504 B 3	C643 B 4	R103 A 2	R412 B 3	SK D A 7	
C136 B 3	C505 D 4	C644 B 4	R104 B 2	R501 B 3	SK E B 7	
D C137 B 2	C507 D 4	C645 B 4	R105 A 2	R502 B 3	SK F D 7	
C138 B 2	C508 D 5	C646 B 4	R106 B 2	R503 B 3	T10 A 2	
C139 B 2	C509 D 5	C647 B 4	R107 A 2	R504 D 4	T102 B 2	
C140 B 2	C510 D 5	C648 B 4	R108 A 2	R510 B 3	T103 A 2	
C141 B 3	C511 D 5	C649 B 4	R109 A 2	R601 B 5	T104 B 2	
C142 C 2	C512 D 5	C650 B 4	R110 A 2	R602 B 5	TC105 B 1	
C143 C 2	C601 B 5	C651 B 4	R111 B 2	R603 B 5	TC106 B 2	

MECHANICAL PARTS LIST

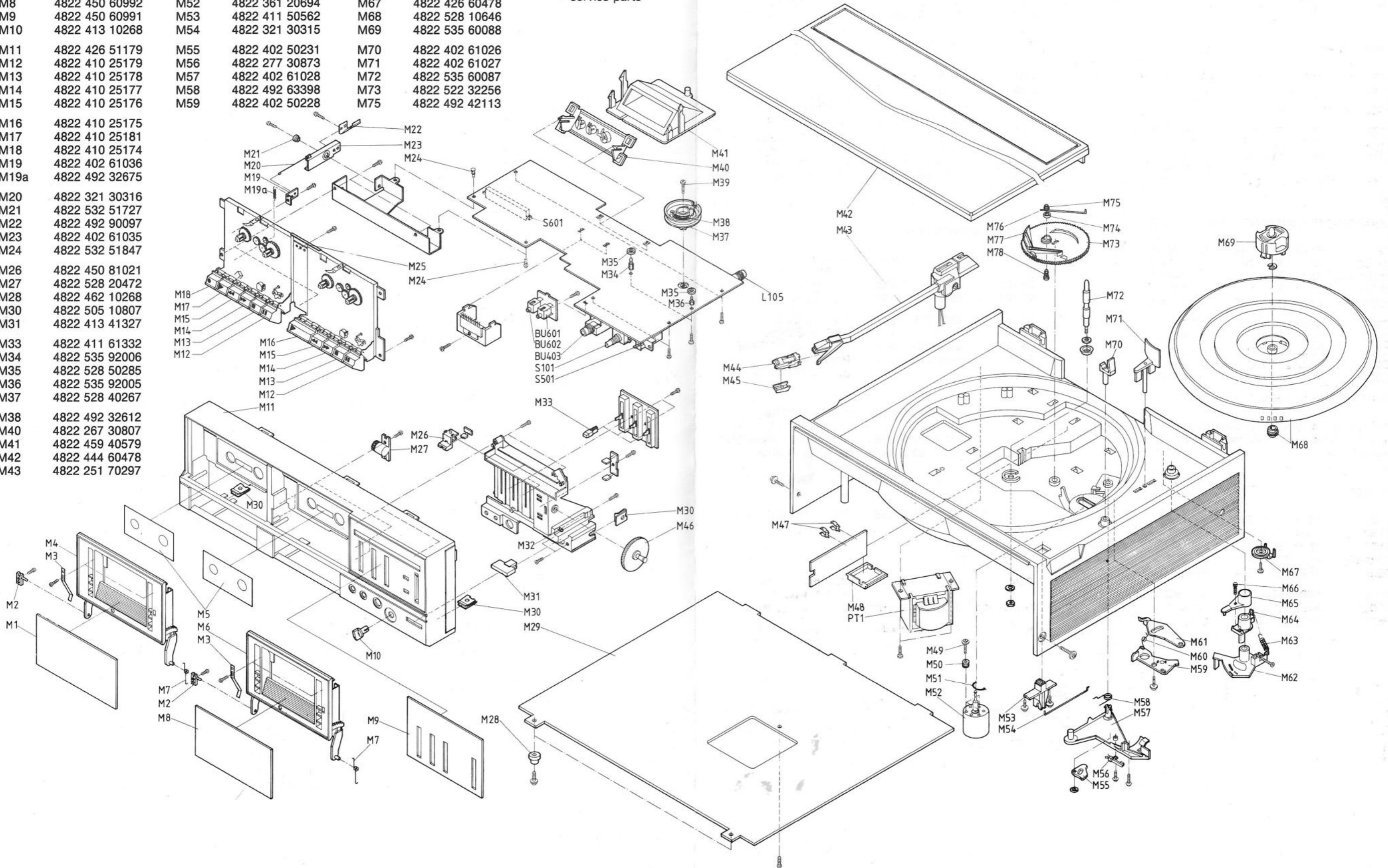
Ref. no. Parts no.

M1	4822 450 60989	M44	4822 251 30119	M60	4822 492 41967
M2	4822 256 90996	M45	4822 251 30118	M61	4822 402 50222
M3	4822 492 63394	M46	4822 413 41323	M62	4822 402 61032
M4	4822 426 60501	M47	4822 256 30288	M63	4822 492 63393
M5	4822 380 30112	M48	4822 426 60479	M64	4822 528 20474
M6	4822 426 60502	M50	4822 325 60294	M65	4822 528 20473
M7	4822 492 63395	M51	4822 358 30694	M66	4822 492 63392
M8	4822 450 60992	M52	4822 361 20694	M67	4822 426 60478
M9	4822 450 60991	M53	4822 411 50562	M68	4822 528 10646
M10	4822 413 10268	M54	4822 321 30315	M69	4822 535 60088
M11	4822 426 51179	M55	4822 402 50231	M70	4822 402 61026
M12	4822 410 25179	M56	4822 277 30873	M71	4822 402 61027
M13	4822 410 25178	M57	4822 402 61028	M72	4822 535 60087
M14	4822 410 25177	M58	4822 492 63398	M73	4822 522 32256
M15	4822 410 25176	M59	4822 402 50228	M75	4822 492 42113
M16	4822 410 25175				
M17	4822 410 25181				
M18	4822 410 25174				
M19	4822 402 61036				
M19a	4822 492 32675				
M20	4822 321 30316				
M21	4822 532 51727				
M22	4822 492 90097				
M23	4822 402 61035				
M24	4822 532 51847				
M26	4822 450 81021				
M27	4822 528 20472				
M28	4822 462 10268				
M30	4822 505 10807				
M31	4822 413 41327				
M33	4822 411 61332				
M34	4822 535 92006				
M35	4822 528 50285				
M36	4822 535 92005				
M37	4822 528 40267				
M38	4822 492 32612				
M40	4822 267 30807				
M41	4822 459 40579				
M42	4822 444 60478				
M43	4822 251 70297				

M76	4822 535 92004
M77	4822 535 92003
M78	4822 535 92291

Other 4822 445 10107 Speaker box assembly

Note: Only the parts mentioned in this parts list are service parts



REPLACEMENT PARTS LIST

Ref. no.	Parts no.	Description	Ref. no.	Parts no.	Description
RESISTORS			TRANSFORMERS & COILS		
Note: all resistors are carbon type, $\pm 5\%$ and D watt, unless otherwise noted.			L101	4822 157 52747	FM antenna coil TWS-358-472
R502	4822 111 91165	10 Ω , Fuse	L102,103	4822 156 10924	FM RF coil 0.55x4 ϕ x1.5T
R503	4822 111 91166	2.2 Ω , Fuse	L104	4822 156 10928	FM osc. coil R12-6128C
R504	4822 111 91167	4.7 Ω , Fuse	L105	4822 158 60552	LW/MW bar antenna 100m/m
CAPACITORS			S107	4822 156 10927	AM osc. coil TWS-358-508
Note: All capacitors are ceramic type, unless otherwise noted.			L501	4822 152 20617	Motor choke 1 mH "K"
Limit: J = $\pm 5\%$ M = $\pm 20\%$			L601	4822 156 10929	Bias osc. coil TWS-358-495
C105	4822 122 32947	24 pF (J) CH	T101	4822 156 10938	FM IFT TWS-358-425
C106	4822 122 32946	15 pF (J) CH	T102	4822 156 10935	AM IFT TWS-358-423
C508	4822 124 22021	2200 $\mu\text{F}/25\text{ V}$ (M) Electrolytic	T103	4822 156 10937	FM IFT TWS-358-426
C141	4822 122 32911	DD5R 273 K165	T104	4822 156 10932	AM IFT TWS-358-424
TRANSISTORS & INTERGRATED CIRCUITS			PT1	4822 146 21217	Power transformer E1-48
TS101	4822 130 60166	2SC19230	FILTERS & SWITCHES		
TS102	4822 130 41306	2SC1815GR	CF101,102	4822 242 70299	Ceramic F. SFE10.7MA5M
TS301,302	4822 130 41198	2SC945P,Q	CF103	4822 242 71525	Ceramic F. SFU460B
TS501	4822 130 41651	2SC2001L	VC101-104	4822 125 11018	P.V.C. R-6178
TS601	4822 130 41198	2SC945P,Q	SK-A	4822 276 11919	Function switch SRRZV66S60-CP
IC101	4822 209 82489	TA7358P	SK-B	4822 276 11918	R/P switch FS-25-182
IC102	4822 209 81818	TA7640AP	SK-C	4822 276 11921	Power switch SDDWA1AS10-CP
IC103	4822 209 81245	TA7343P	VARIABLE RESISTORS & CERAMIC TRIMMERS		
IC401	4822 209 70307	TA7230P	SFR101	4822 100 11056	Semi-fixed resistor 5KX
IC601	4822 209 83297	TA7668BP	VR301,303	4822 102 30444	VR RSEA2P9005-CP 50KAx2
IC602	4822 209 81549	AN7310	VR302	4822 101 20925	VR RSEA1P9009-CP 100KW
See special handling techniques for electrostatically sensitive devices as described in section of this service manual.			TC105,106	4822 125 60135	Trimmer C. CTC-30 pF
DIODES			JACKS & FUSE		
D101	4822 130 31228	1S2139B	BU403	4822 264 30198	Headphone jack HTJ-064-03A2
D102	4822 103 33743	1N4148T	BU601,602	4822 264 30195	Mic. jack HTJ-035-03B
D103	4822 130 33739	LT-3233A LED (GREEN)	F501	4822 253 10089	Fuse beab 1.25T
D501-504	4822 130 33744	1N4001			
D505	4822 130 33734	RD8.2EB3 ZENER			
D506	4822 130 33735	SR538D LED (RED)			
D506A	4822 130 33744	1N4001			
D601	4822 130 33738	LT-3213A LED (RED)			

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
 BOKSHEUVELSTRAAT 14
s-HERTOGENBOSCH
 TELEFOON 073 - 218344