DIAGRAMFORKLARING

På diagrammet er der angivet typenumre på transistorer og IC'er i de tilfælde hvor typenummeret er entydigt for kompenenters placering i kredsløbet – f.eks. TR20/BC 557B.

Hvis positionsnummeret er efterfulgt af en stjerne **skal** reservedelsnummeret benyttes, da denne komponent ere specielt udvalgt – f.eks. TR102*.

Forsyningsspændinger

En pil og spænding viser, hvor forsyningsspændingerne går ind i et print.

Eksempel:
(7CON.) f.eks. ved siden af forsyningsspændingen angiver det antal steder, spændingen går ind på denne diagramside.

Koordinatnumre

De tre største PC plader er forsynet med et koordinatsystem. Komponenterne på disse PC plader er forsynet med et koordinatnummer på diagrammet (mindre skrifttype end positions nr.), som fortæller hvilket koordinat, på PC pladen, de er placeret i.

Styrekredsløb

I visse styrekredsløb er den aktive tilstand angivet med en bogstavsbetegnelse ($\overline{Cr}$ = High med CrO_2 bånd). Hvis betegnelsen er forsynet med negationstegn er den aktive tilstand LOW ($\overline{Cr}$ = LOW med CrO_2 bånd).

EXPLANATION OF DIAGRAM

Type numbers of transistors and IC's have been indicated on the diagram in those cases where the type number is unambigouos for the position of the component in a circuit – e.g. TR20/BC 557B.

If the position number is followed by an asterisk the spare part number **must be used** because this component has been expecially selected – e.g. TR102*.

Supply voltages

An arrow and the voltage show where the supply voltages are fed to a PCB.

Example:
(7CON.) next to the supply voltage indicates the numbers of places where to find the voltages in this diagram.

System of Coordinates

The biggest PC boards are provided with coordinate systems. The components on these PC boards are provided with a co-ordinate number on the diagram (smaller printing type than the position numbers) indicating in which co-ordinate they are placed on the PC board.

Control Circuit

In certain control circuits the active mode has been indicated by means of a letter symbol ($\overline{Cr}$ = HIGH with CrO_2 tapes). If the symbol has a negation superscript bar the active mode is LOW ($\overline{Cr}$ = LOW with CrO_2 tapes).

Ledningsforbindelser

Ledningsforbindelser på diagrammet er samlet i »bundter«. De enkelte ledninger er forsynet med koder, der fortæller hvor de går til.

Wiring Connections

The wiring connestions on the diagram are assembled in "bundles". The individual wires are coded to indicate to where they are leading.

INTERN FORBINDELSE
PÅ EN DIAGRAMSIDE

INTERNAL CONNECTION
ON ONE DIAGRAM PAGE

Interne forbindelser på en diagramside angives med et tal. Knækket på ledningen viser i hvilken retning den anden ende af ledningen findes.

Internal connections on a diagram page are indicated by a number. The bend of the wire indicates in which direction the other end of the wire may be found.

FORBINDELSE TIL EN ANDEN
DIAGRAMSIDE

CONNCTION TO ANOTHER
DIAGRAM PAGE

DIAGRAM A

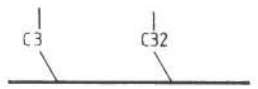
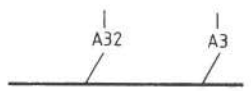


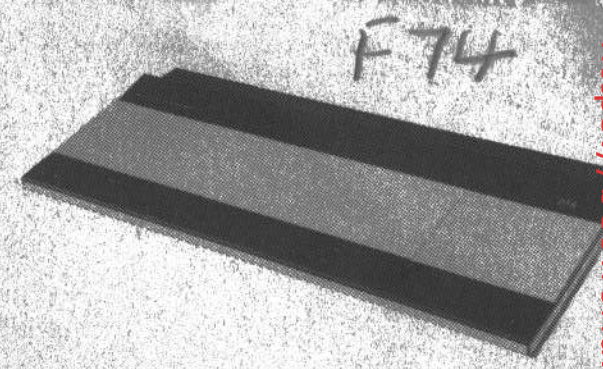
DIAGRAM C



Forbindelsen til en anden diagramside angives med et tal, samt bogstav indikation på det diagram forbindelsen går til.

Connections to another diagram page are indicated by a number, as well as by a letter of the diagram to which the connections lead.

Bang&Olufsen



Beocenter 9000

Type 2501, 2502, 2503, 2504, 2505

Audio Terminal

Type 2049

SERVICEANVISNING
SERVICE MANUAL

DIAGRAMFORKLARING

På diagrammet er der angivet typenumre på transistorer og IC'er i de tilfælde hvor typenummeret er entydigt for kompenenters placering i kredsløbet – f.eks. TR20/BC 557B.

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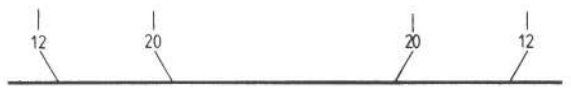
The wiring connestions on the diagram are assembled in "bundles". The individual wires are coded to indicate to where they are leading.

INTERN FORBINDELSE PÅ EN DIAGRAMSIDE



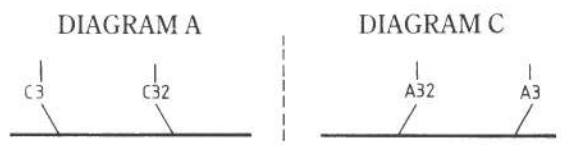
INTERNAL CONNECTION ON ONE DIAGRAM PAGE

Interne forbindelser på en diagramside angives med et tal. Knækket på ledningen viser i hvilken retning den anden ende af ledningen findes.

Internal connections on a diagram page are indicated by a number. The bend of the wire indicates in which direction the other end of the wire may be found.

FORBINDELSE TIL EN ANDEN DIAGRAMSIDE

CONNCTION TO ANOTHER DIAGRAM PAGE



Forbindelsen til en anden diagramside angives med et tal, samt bogstav indikation på det diagram forbindelsen går til.

Connections to another diagram page are indicated by a number, as well as by a letter of the diagram to which the connections lead.

INDHOLD

CONTENTS

Symbol for sikkerhedskomponenter

Ved udskiftning af komponenter med dette symbol skal der anvendes komponenter med samme reservedelsnummer. Den nye komponent skal monteres på samme måde som den udskiftede.

Symbol for Safety Components

When replacing components with this symbol components with identical part numbers are to be used. The new component must be fitted in the same way as the one replaced.

MÅLEBETINGELSER

Alle DC spændinger er målt til stel med voltmeter (indre modstand på 10 Mohms).
DC spændinger er opgivet i volt (V). Eks. 0,7 V.
Spændinger på diagram A er målt i stilling FM, spændingerne i parentes er målt i stilling MW, spændingerne i firkantet parentes er målt i stilling LW.
Spændingerne på diagram C er målt med 1 W udgangseffekt.
Signalveje er vist for henholdsvis FM, AM, fjernbetjening og for LF højre kanal.

MEASURING CONDITIONS

All DC voltages are measured in relation to chassis with a voltmeter (internal resistor 10 Mohms).
DC voltages are stated in volts (V). E.g. 0.7 V.
Voltages in diagram A are measured in FM mode signal, the voltages in parentheses are measured in MW mode, the voltages in qua'drangular parentheses are measured in LW mode.
Voltages in diagram C are measured with 1 W output level.
The signal paths are shown for FM, AM, remote control and AF right channel.

Båndoptager

Spændinger: Stilling gengive (333 Hz 250 pWb mm).

AC spændinger opgivet i millivolt (mV). Eks. 733 mV.

DC spændinger opgivet i volt (V). Eks. 0,7 V.

Signalvejen i optage position er vist i venstre kanal, og gengive position er vist i højre kanal.

Oscillogrammerne på diagram F er målt i stilling »Play«. Læg et bånd i der er indspillet med Dolby B på Beocenter 9000. Under indspilningen må der ikke være tilført eksternt signal.

Oscillogrammerne på diagram D er målt i stilling »Record« uden signal tilført.

Tape recorder

Voltages: Position play back (333 Hz 250 pWb mm).

AC voltages stated in millivolts (mV). Ex.: 733 mV.

DC voltages stated in volts (V). Ex.: 0.7 V.

The signal path in recording pos. is shown in left channel, and replay pos. is shown in right channel.

The oscillograms in diagram F are measured in "Play" mode. Insert a tape which has been recorded with Dolby B noise reduction in the Beocenter 9000. The recording must not be supplied with any external signal.

The oscillograms in diagram D are measured in "Record" mode without signal supplied.

1-3

ADVARSEL!
LITHIUMBATTERI – EKSPLOSIONSFARE
UDSKIFTNING MÅ KUN FORETAGES AF EN SAGKYNDIG, OG SOM BESKREVET I SERVICE MANUAL.

WARNING!
LITHIUM BATTERY – RISK OF EXPLOSION
TO BE REPLACED BY QUALIFIED SERVICEMAN ONLY AND AS DESCRIBED IN THE SERVICE MANUAL.

ADVARSEL

Kortslutning og overopladning af visse typer lithium-batterier kan medføre voldsom eksplosion.

Ved udskiftning af lithium-batteriet i dette apparat skal følgende iagttages:

Der **skal** anvendes batteri af samme fabrikat og type som angivet i denne service manual (se side 3-2).

Batteriet skal monteres nøjagtigt som det originale batteri.

WARNING

Short circuit and overcharging of some types of lithium batteries may result in a violent explosion.

When replacing the lithium battery in this set note the following:

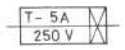
Use **only** batteries of the same make and type as mentioned in this service manual (see page 3-2).

Place the battery exactly like the old one.

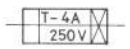
CLASS 1
LASER PRODUCT

Type 2503

Explanation of the fuse symbols used in the set.
Explanatiton de symboles du fusible utilisés dans l'appareil

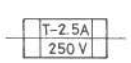


Replace with same type 5 ampere 250 volts slow acting fuse.
Remplacer par un fusible de meme type retardè et de 5 amperes 250 volts.

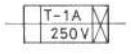


Replace with same type 4 ampere 250 volts slow acting fuse.
Remplacer par un fusible de meem type retardé et de 4 ampere 250 volts.

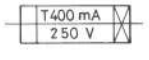
Replace with same type 3 ampere 250 volts slow acting fuse.
Remplacer par un fusible de meme type retarde et de 3 ampere 250 volts.



Replace with same type 2.5 ampere 250 volts slow acting fuse.
Remplacer par un fusible de meem type retardé et de 2.5 ampere 250 volts.



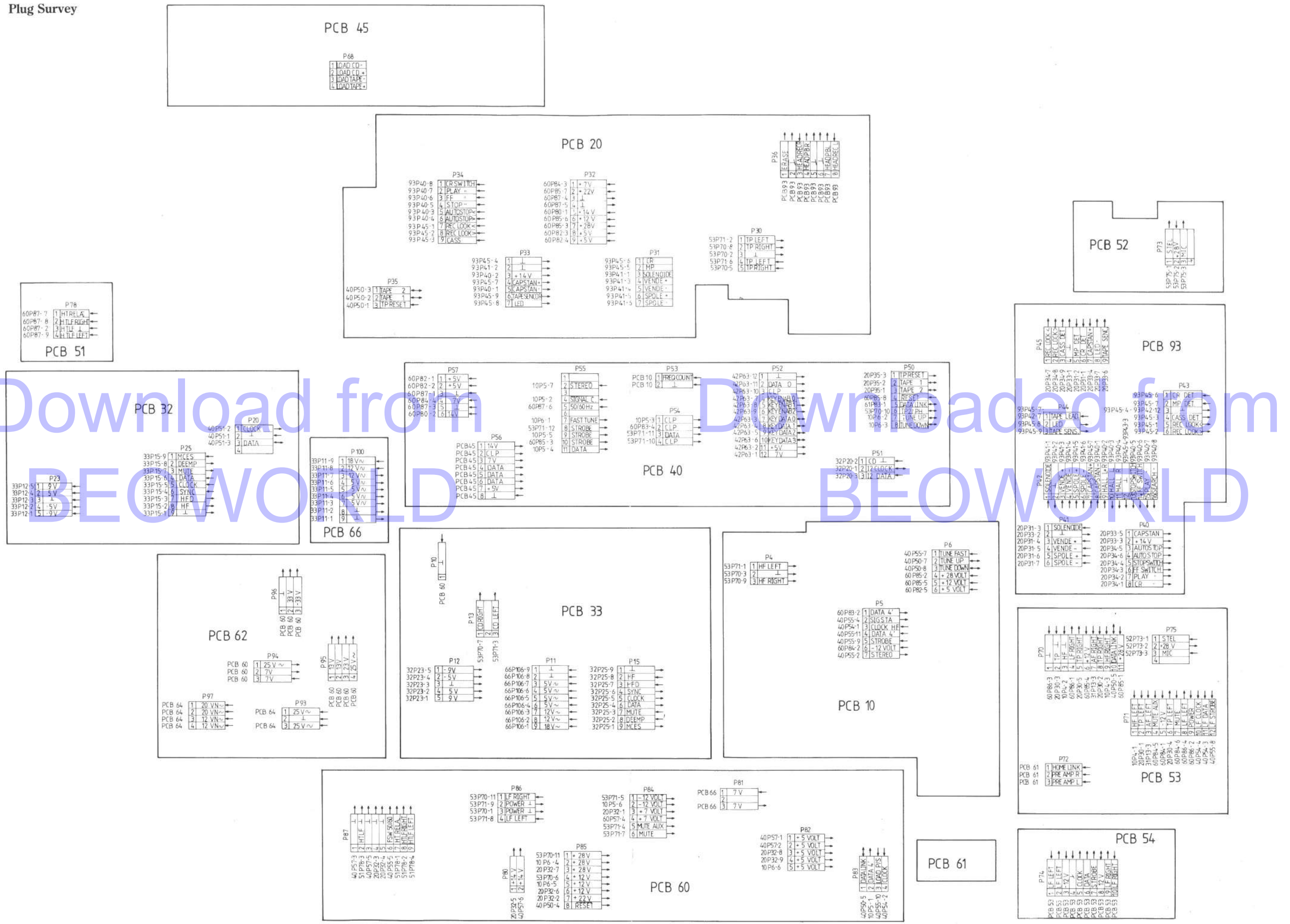
Replace with same type 1 ampere 250 volts slow acting fuse.
Remplacer par un fusible de meem type retardé et de 1 ampere 250 volt.



Replace with same type 400 milliamperes 250 volts slow acting fuse.
Remplacer par un fusible de meem type retardé et de 400 milliamperes 250 volts.

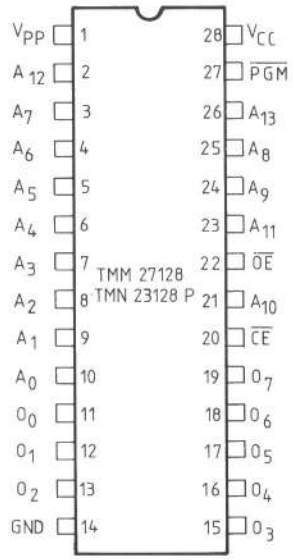
Bang&Olufsen

Plug Survey

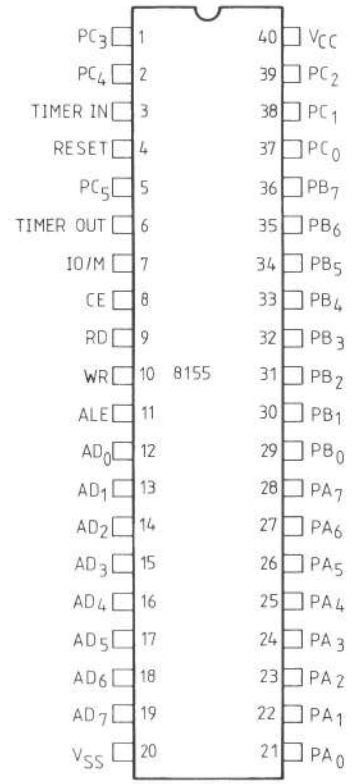


1-5

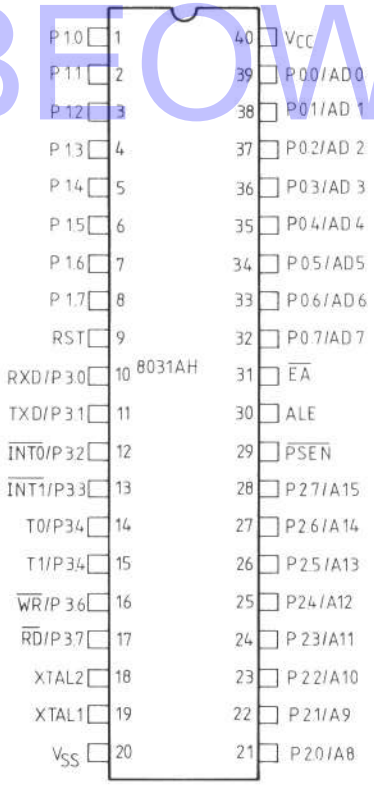
40IC3



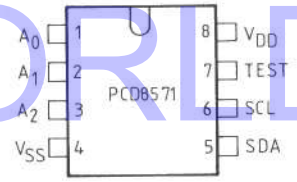
40IC4



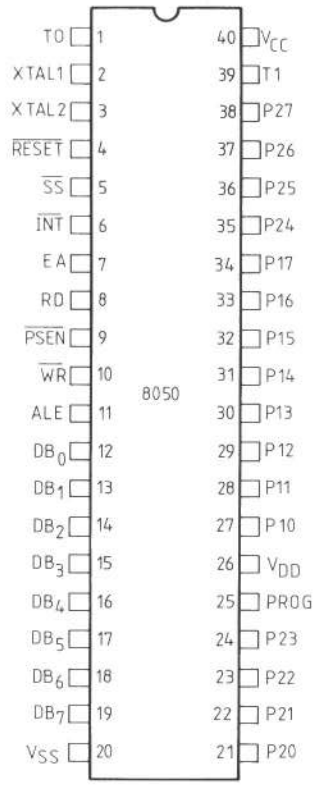
40IC1



40IC6



20IC20



The FM TUNER is a single unit.
With failure in this unit we recommend replacing the whole unit.
However the part nos. of semi-conductors are in the list of semi-conductors.

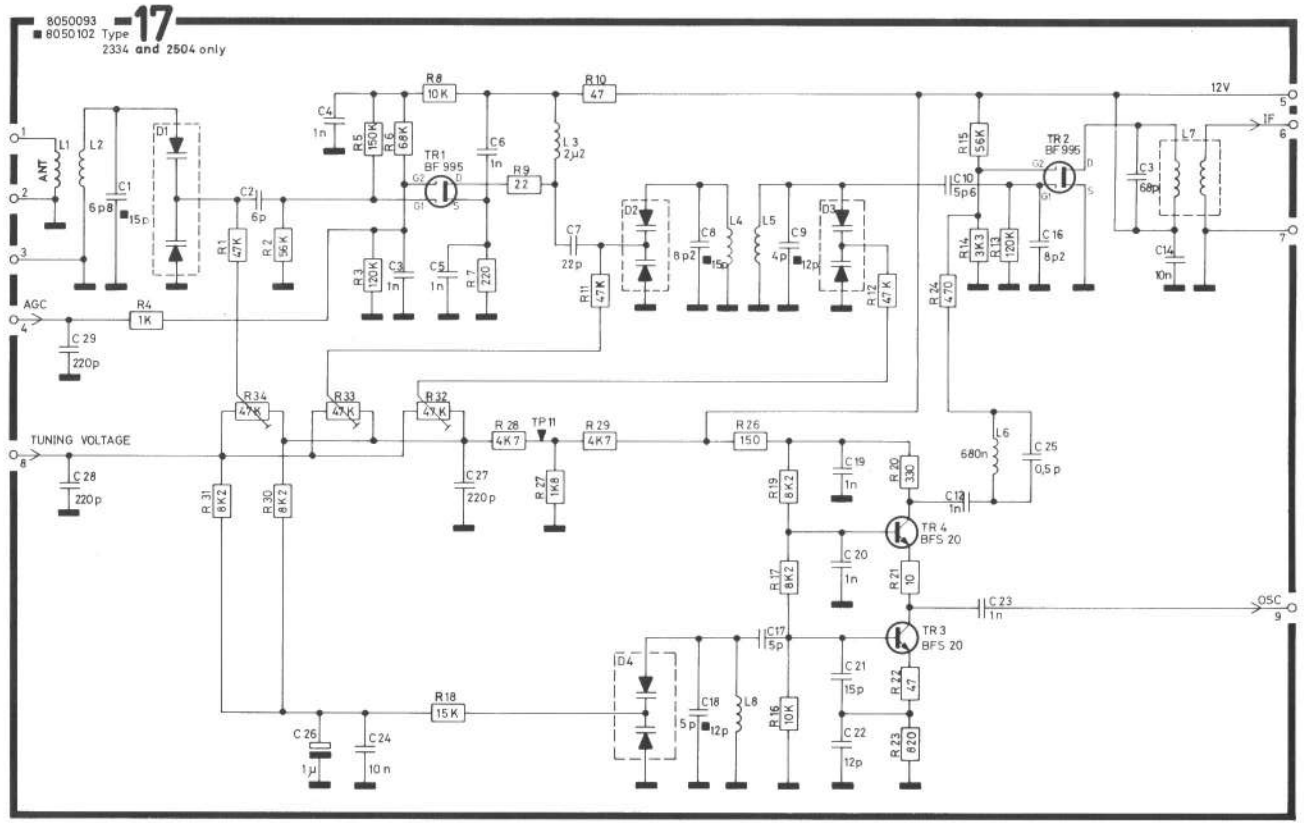


DIAGRAM A (AM-FM, Tuner, IF, Stereo Decoder, Type 2503, 2504, 2505)

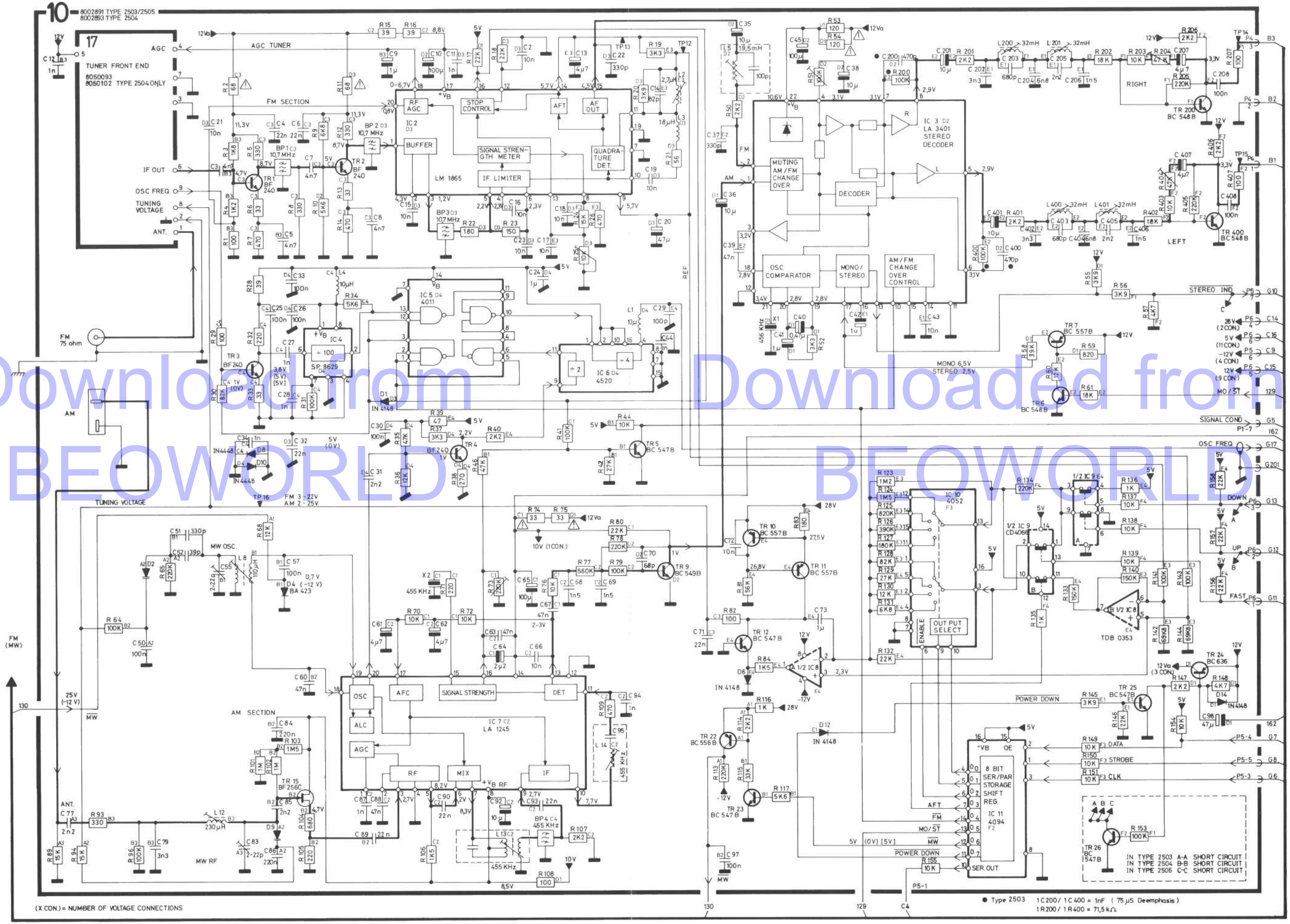


DIAGRAM A (AM-FM, Tuner, IF, Stereo Decoder, Type 2501)

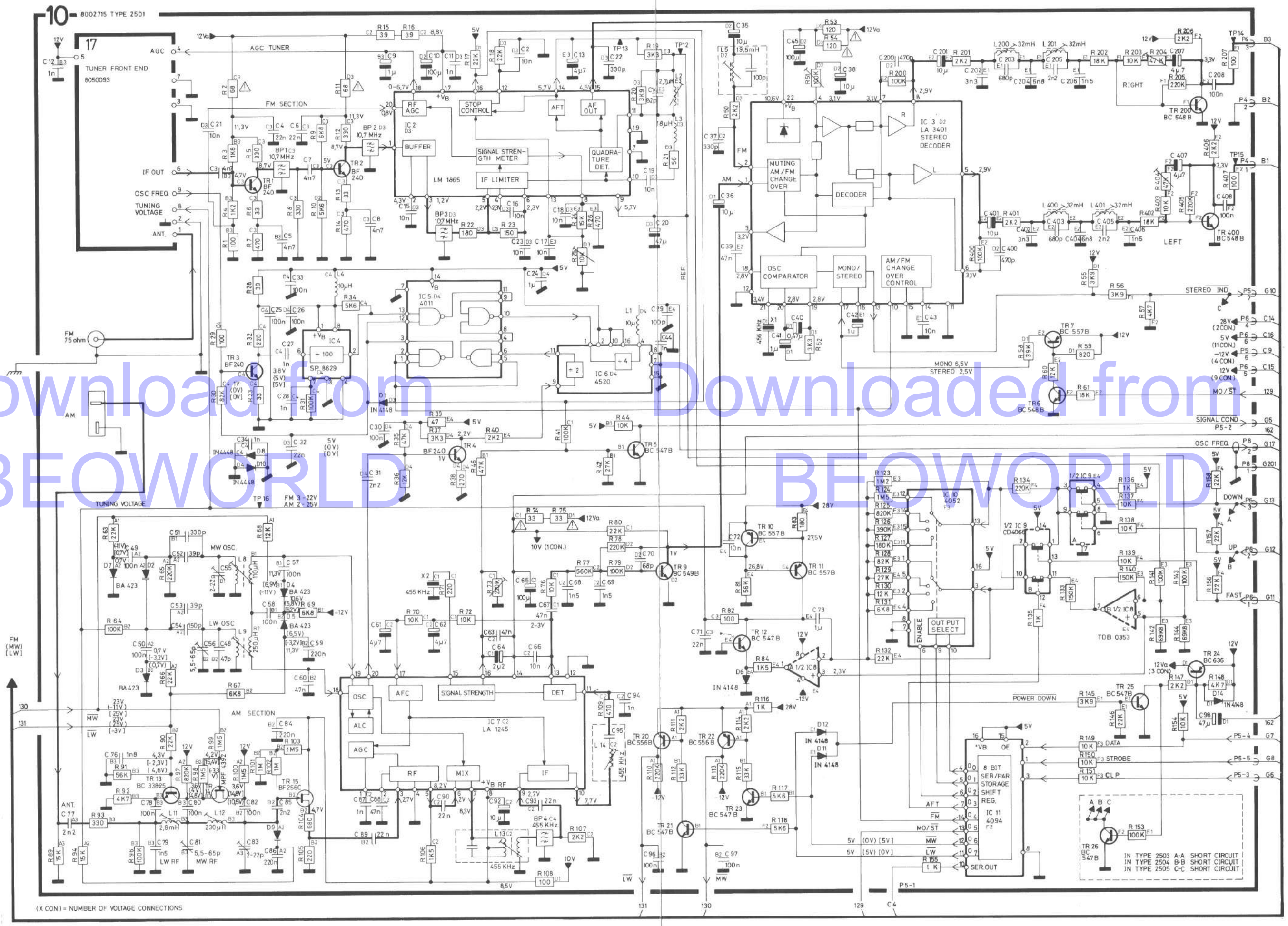


DIAGRAM B (Mic. Ampl., Input Select, Tone and Volume Control)

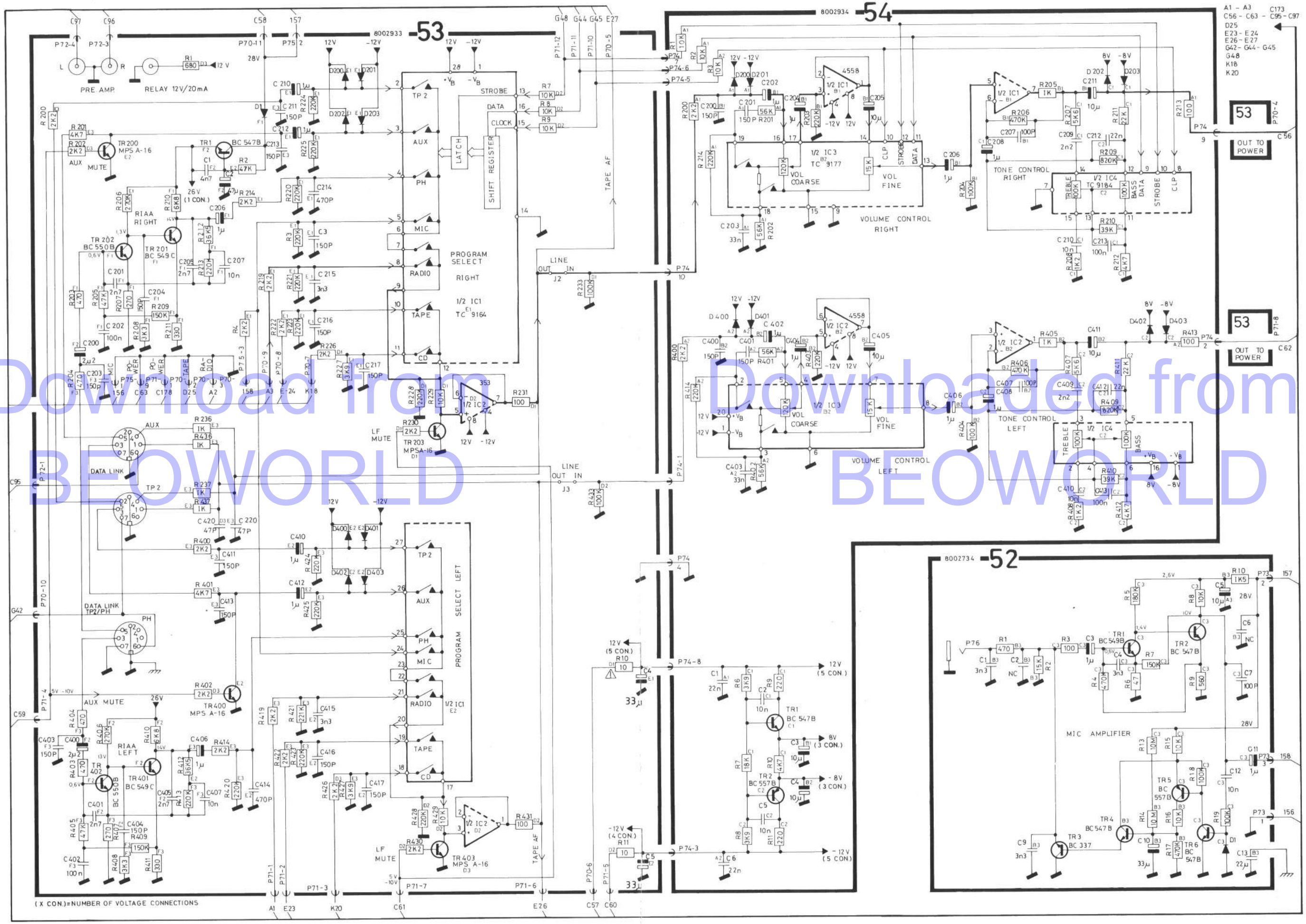


DIAGRAM C (Power Supply and Output Ampl.)

NB. As all fuses are placed in fuse holders, solding is unneccessary when replacing the fuses.

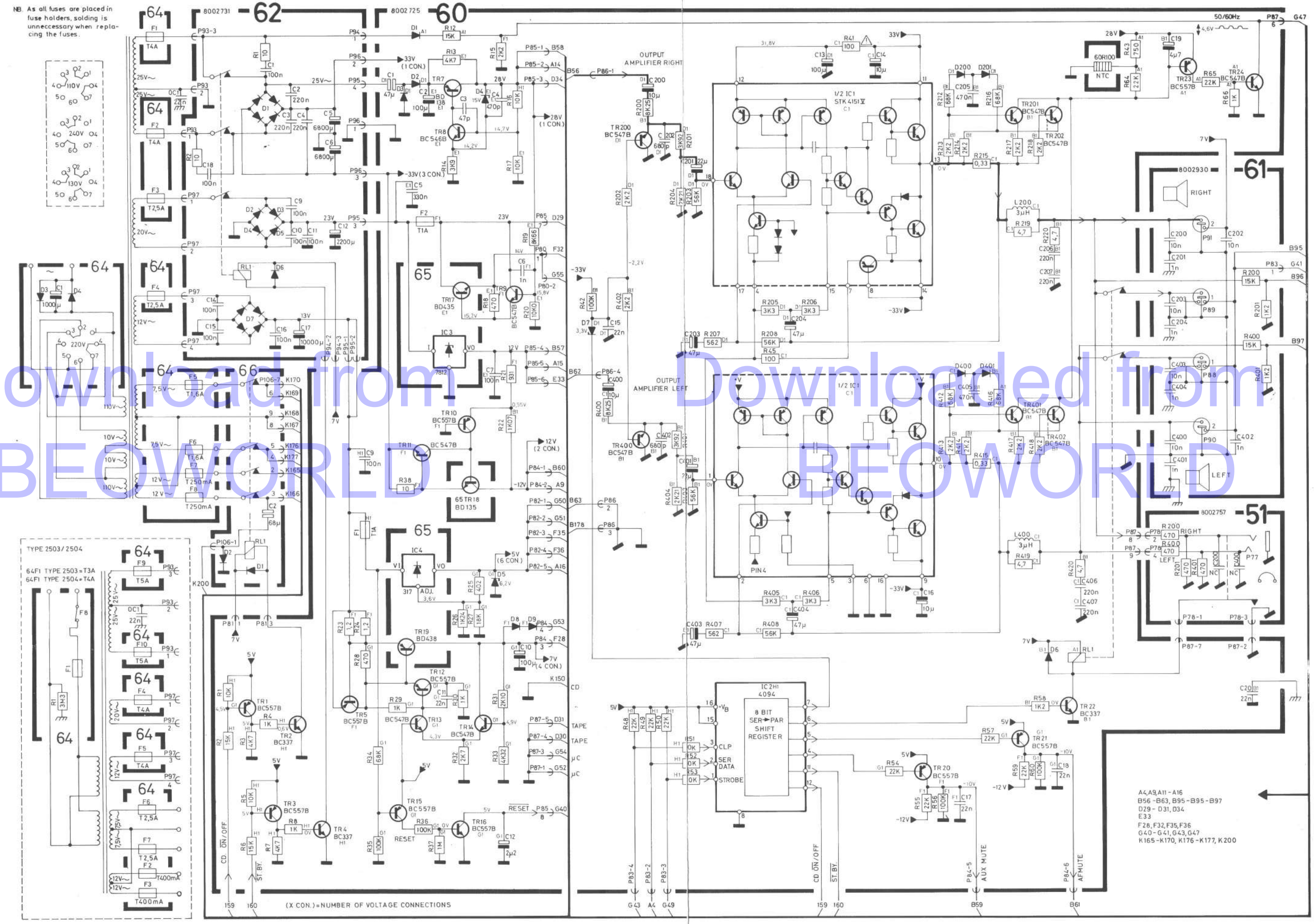


DIAGRAM D (Play Back Ampl., Rec. Ampl., Bias Osc. and HX Pro.)

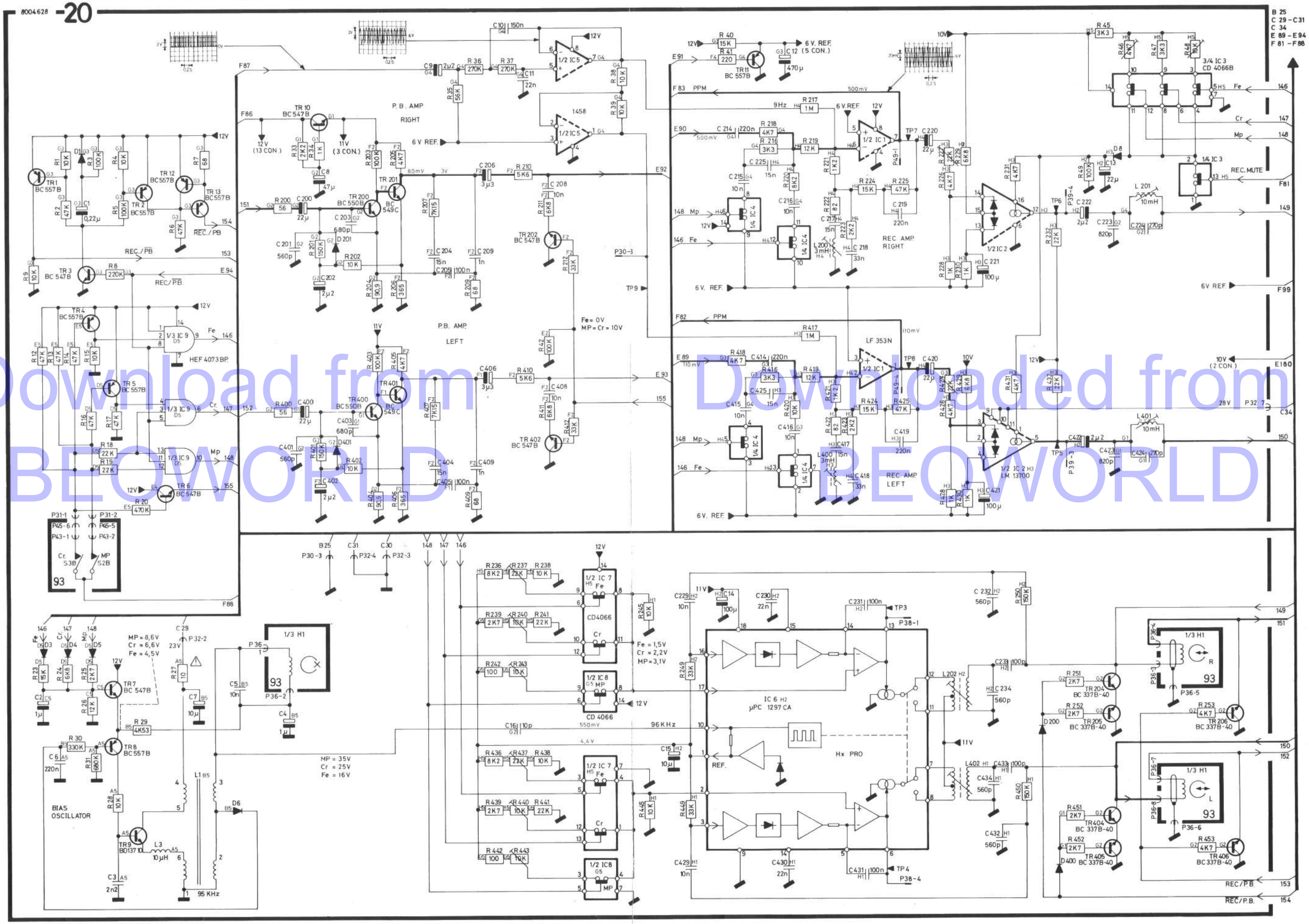


DIAGRAM E (Dolby NR and Rec. Level Adjustment)

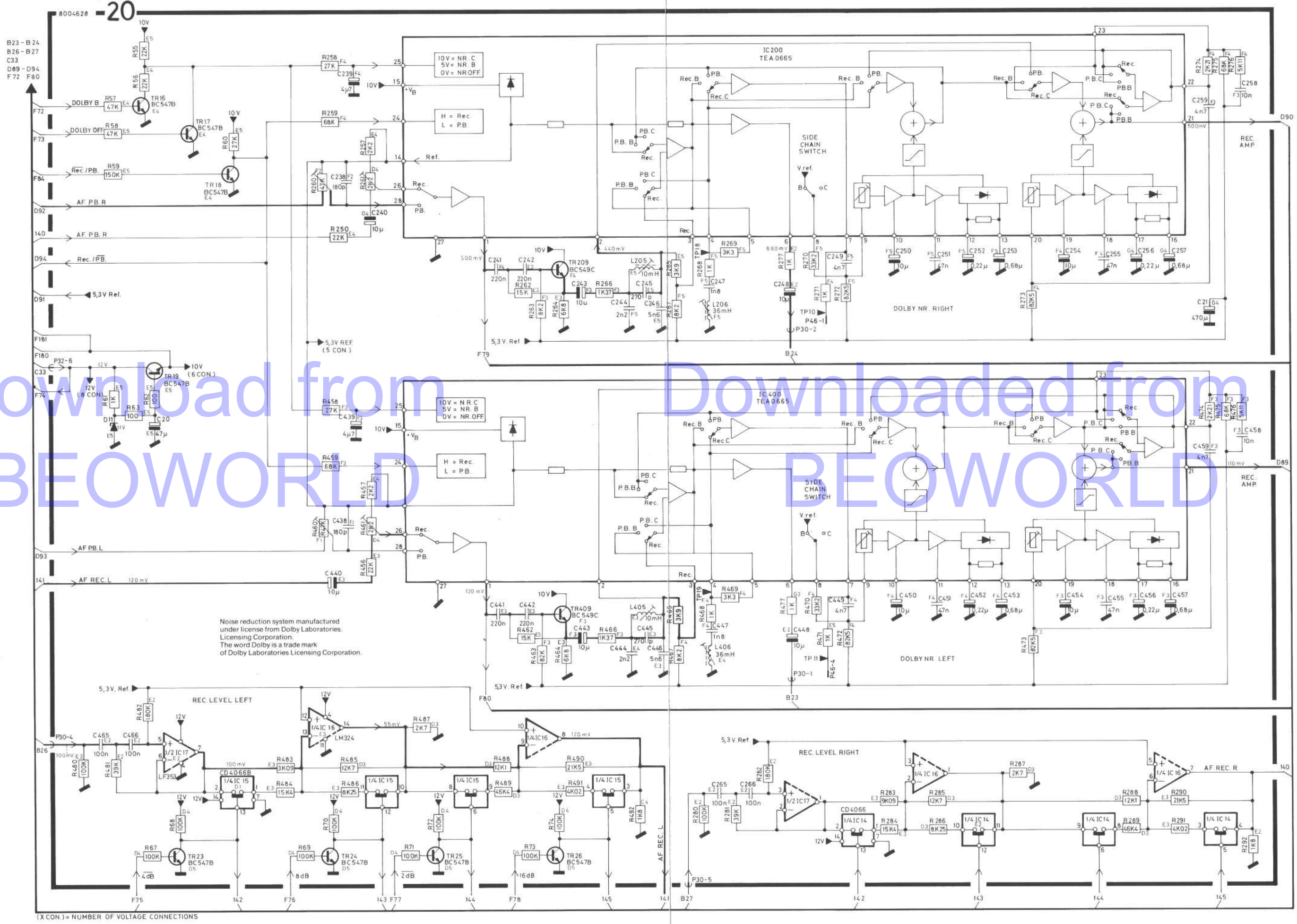
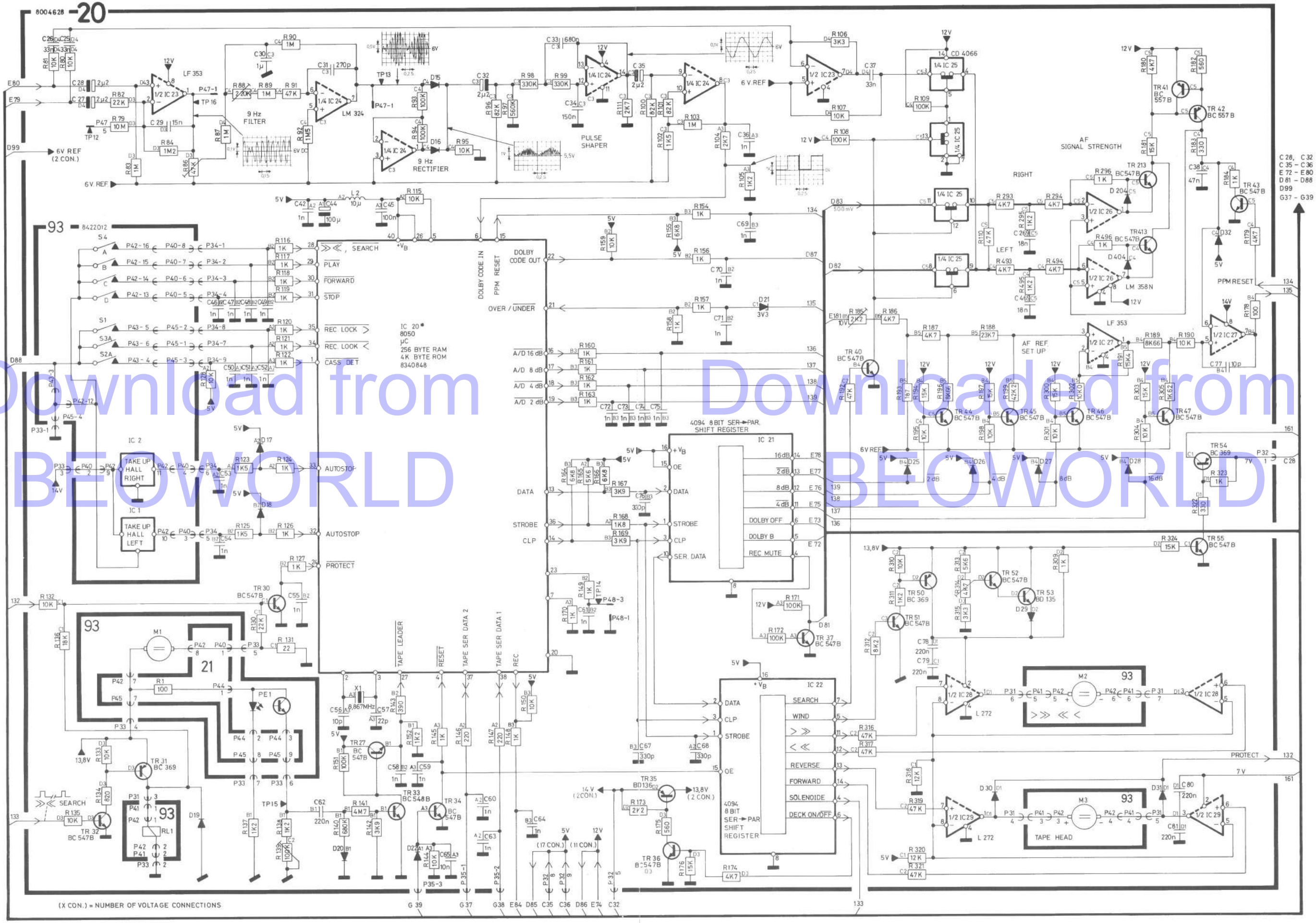
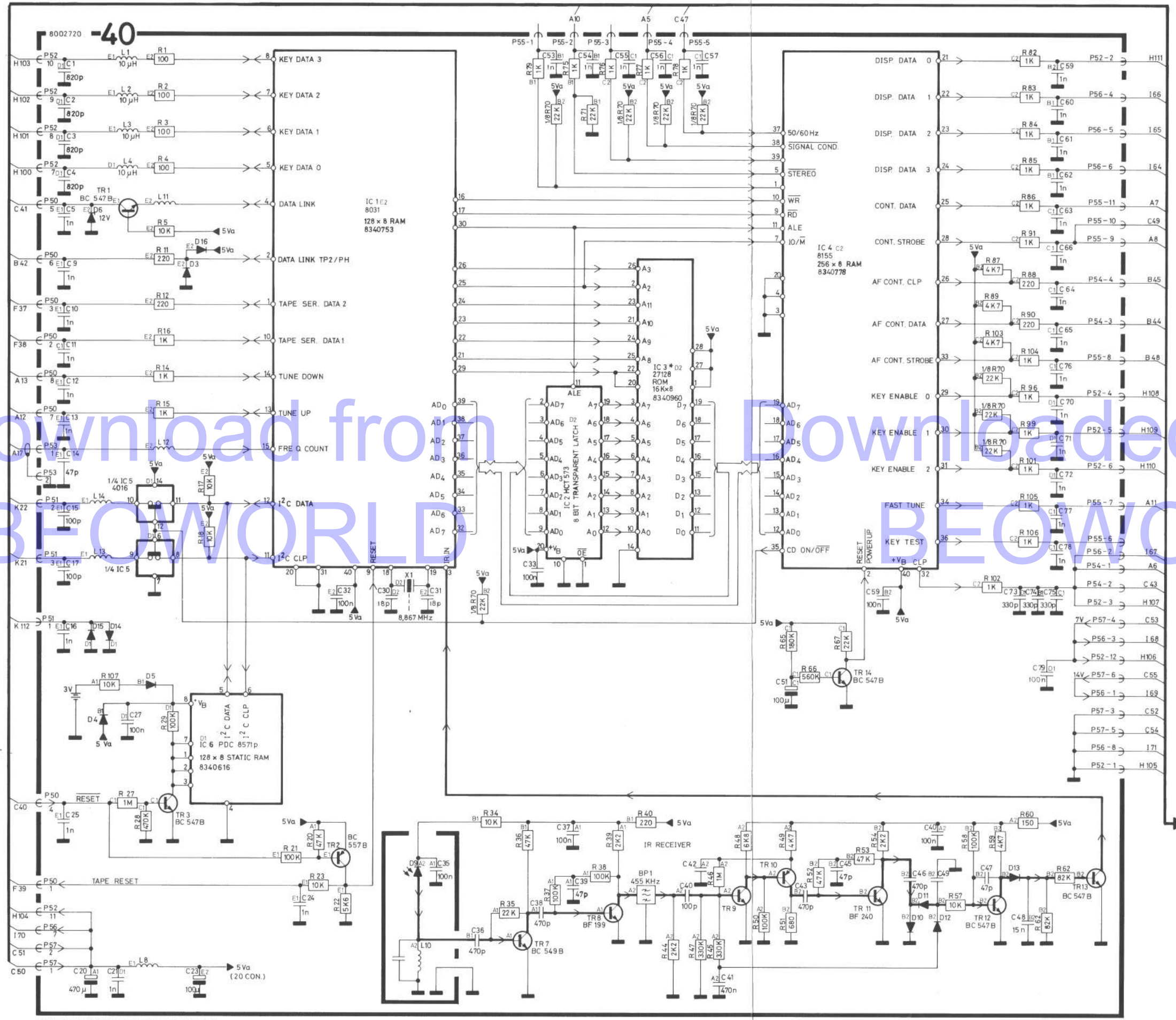


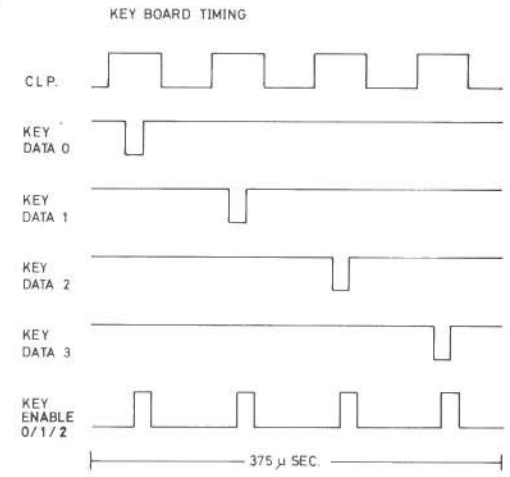
DIAGRAM F (Control for Tape Section)

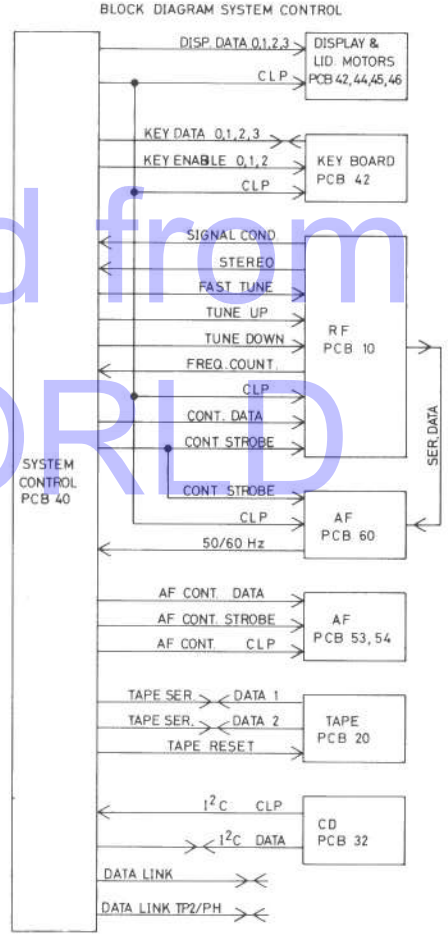


C 28, C 32
C 35 – C 36
E 72 – E 80
D 81 – D 88
D99
G37 – G39

DIAGRAM G (System Control and IR Receiver)







A5 - A8 , A10 - A13 , A17
B42, B44 - B46 , B48
C40 - C41 , C43 , C47, C49
C50 - C55
F37 - F39
I64 - I71

DIAGRAM H (Key Board and Lower Display)

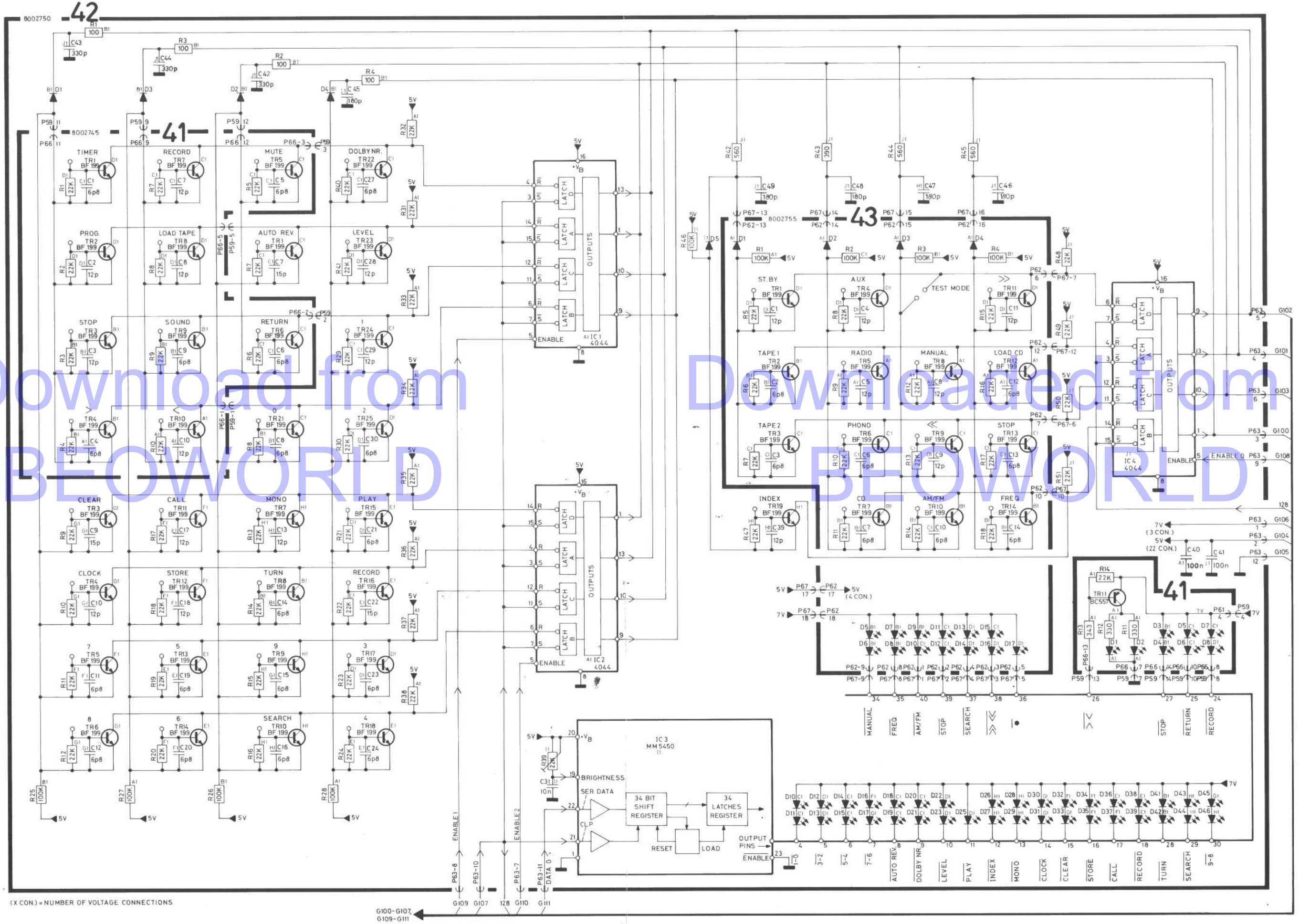
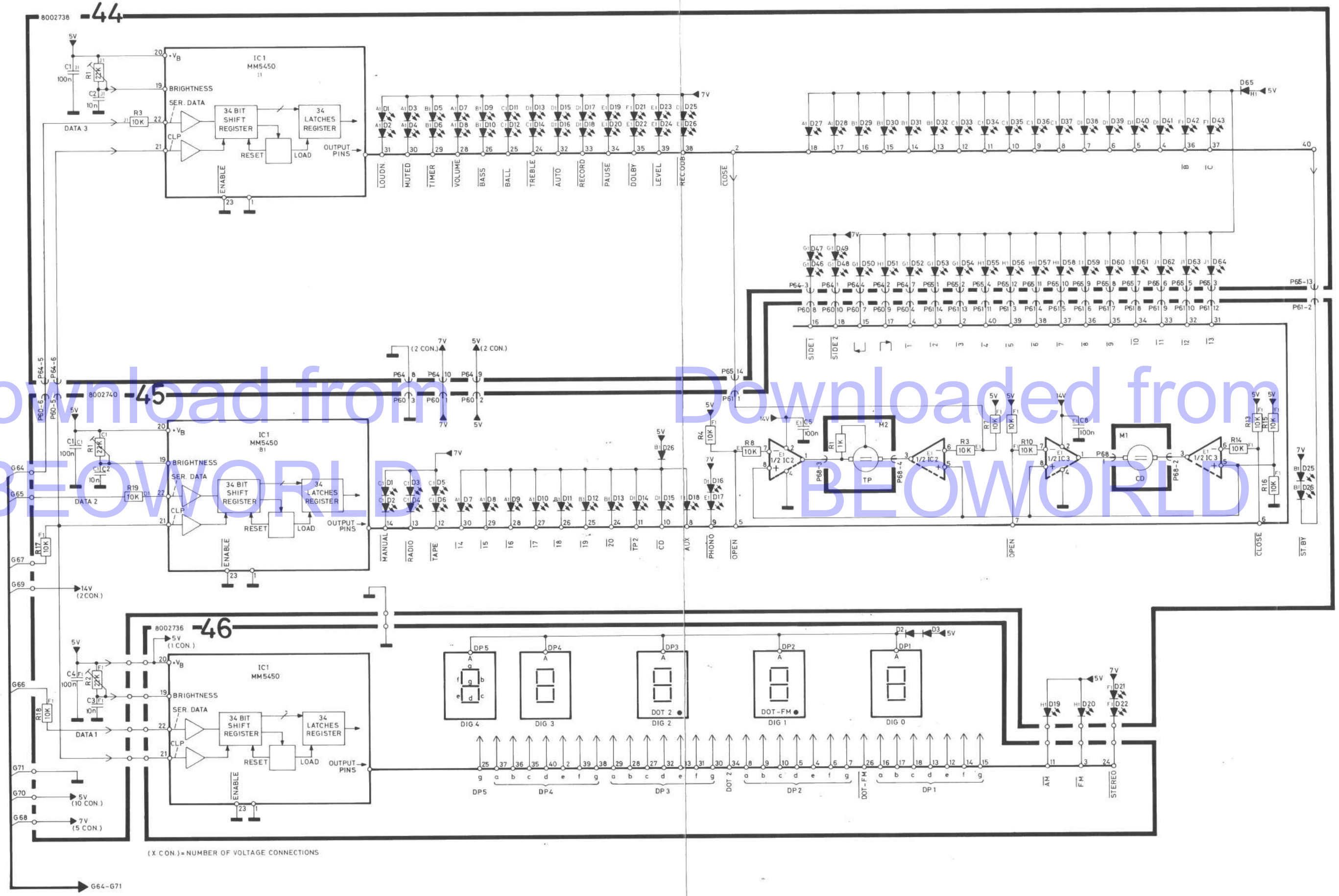
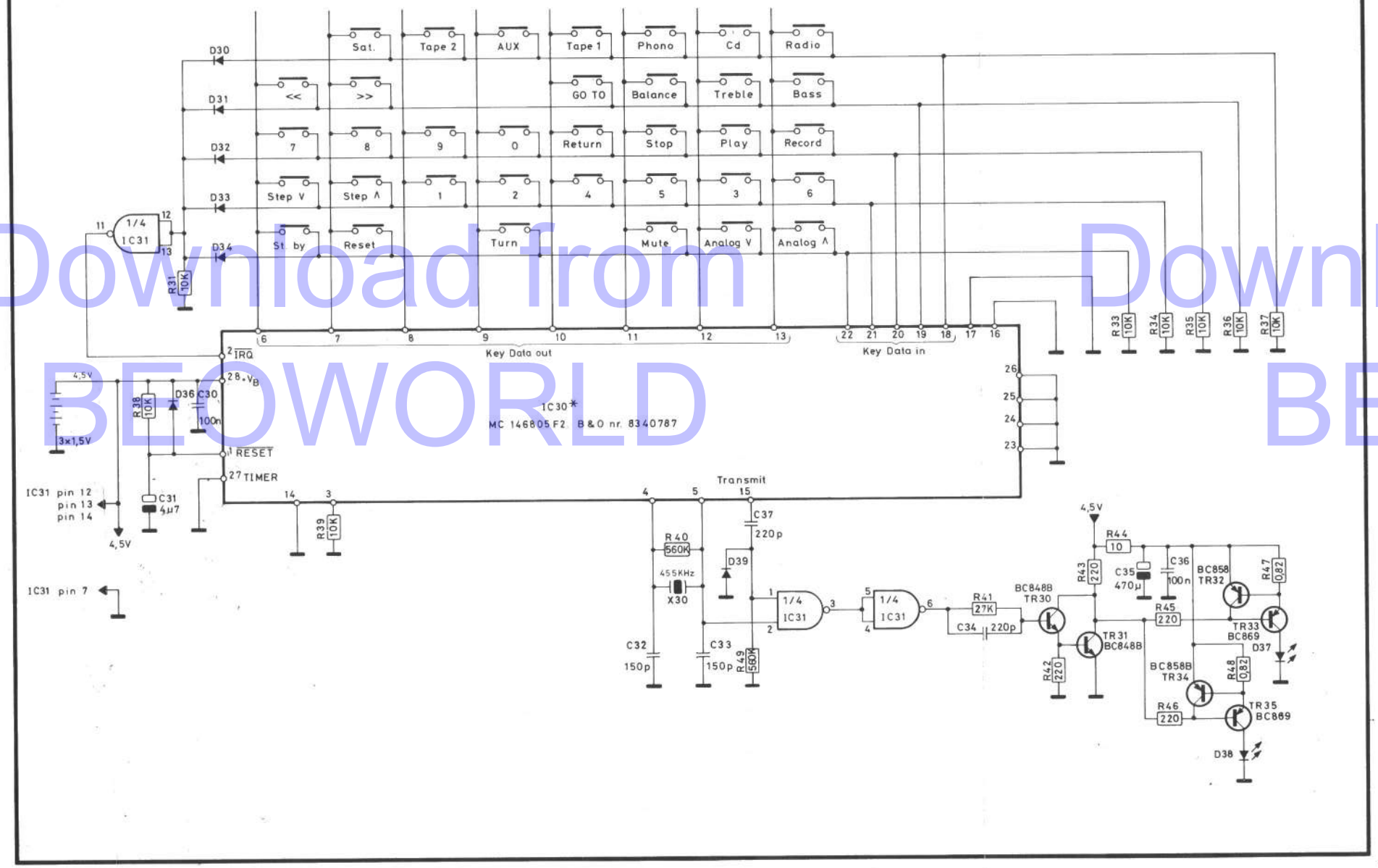
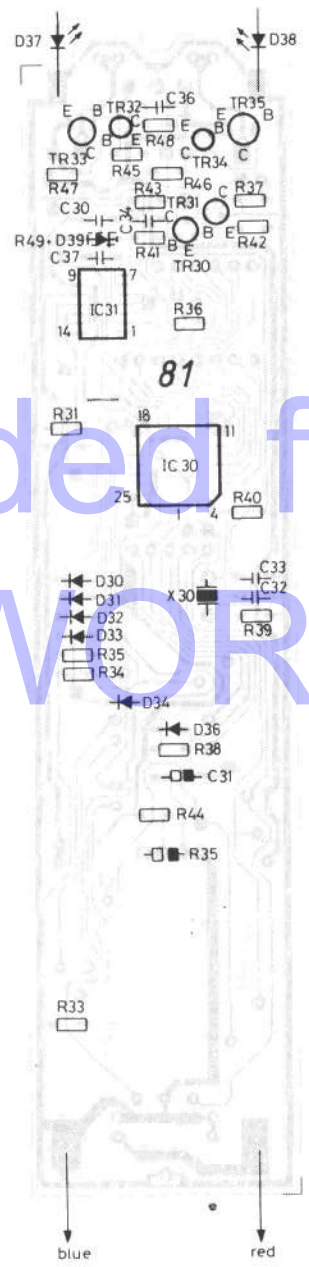


DIAGRAM I (Upper Display)

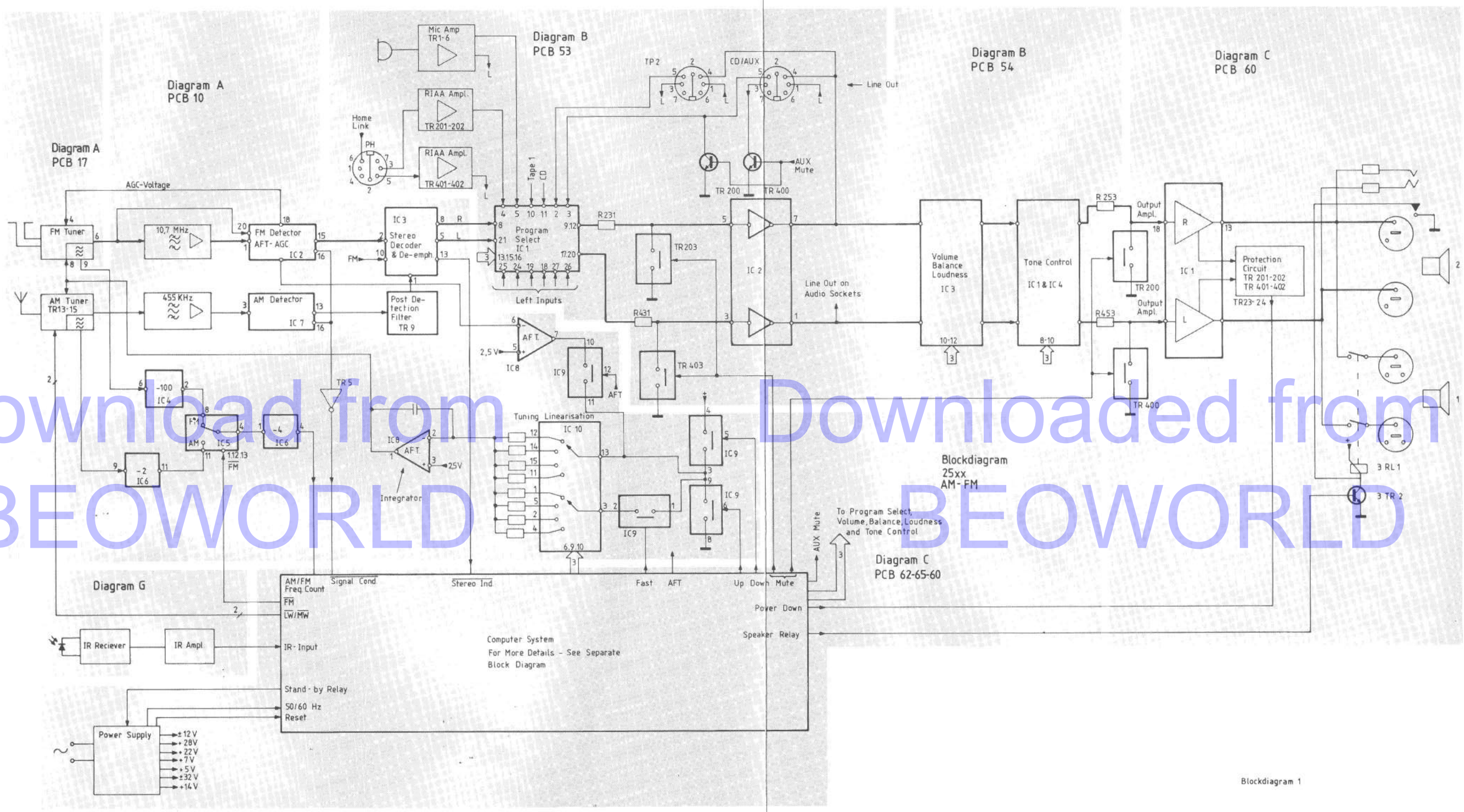


81 8002806
Audio terminal





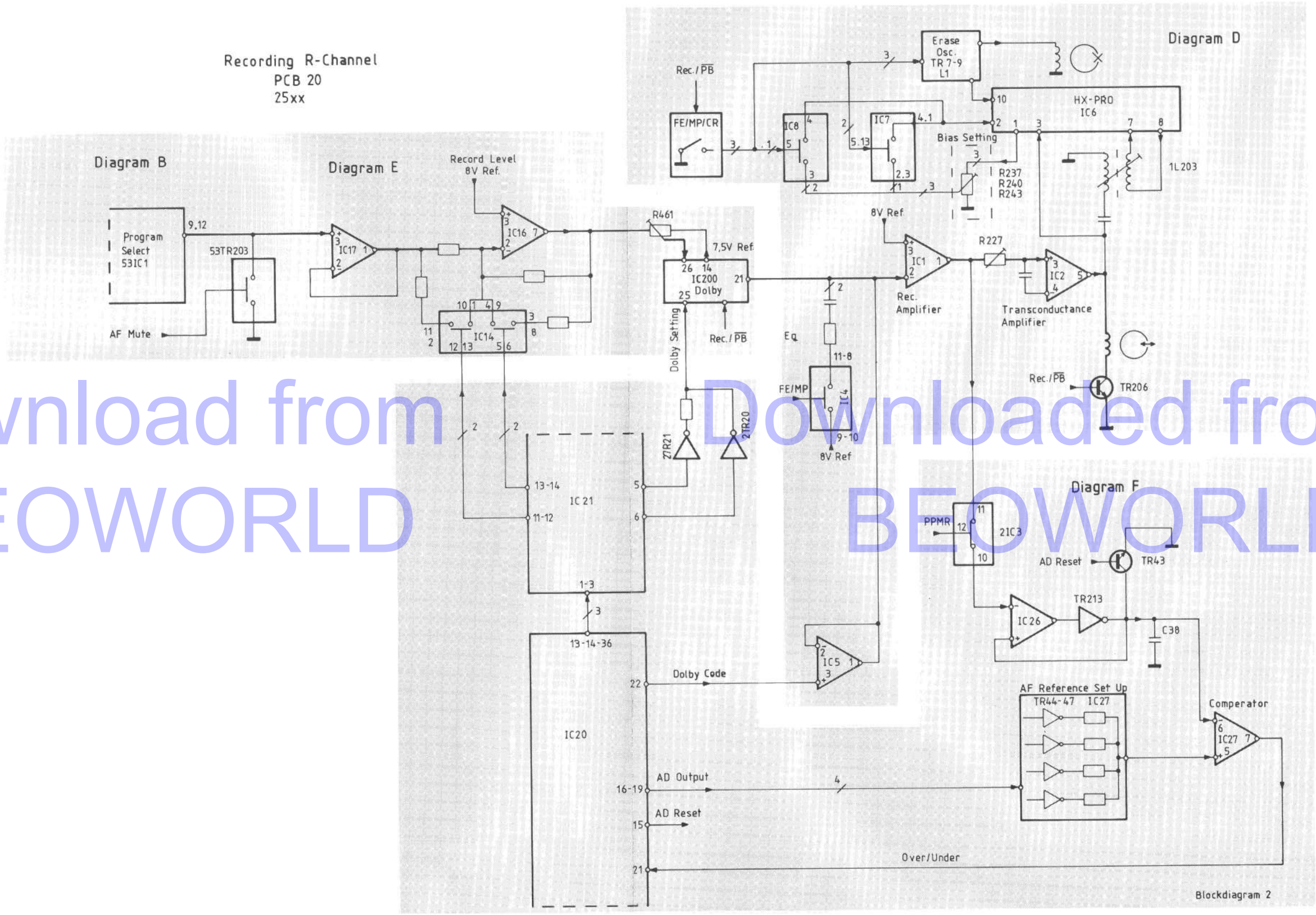
Block Diagram AM-FM



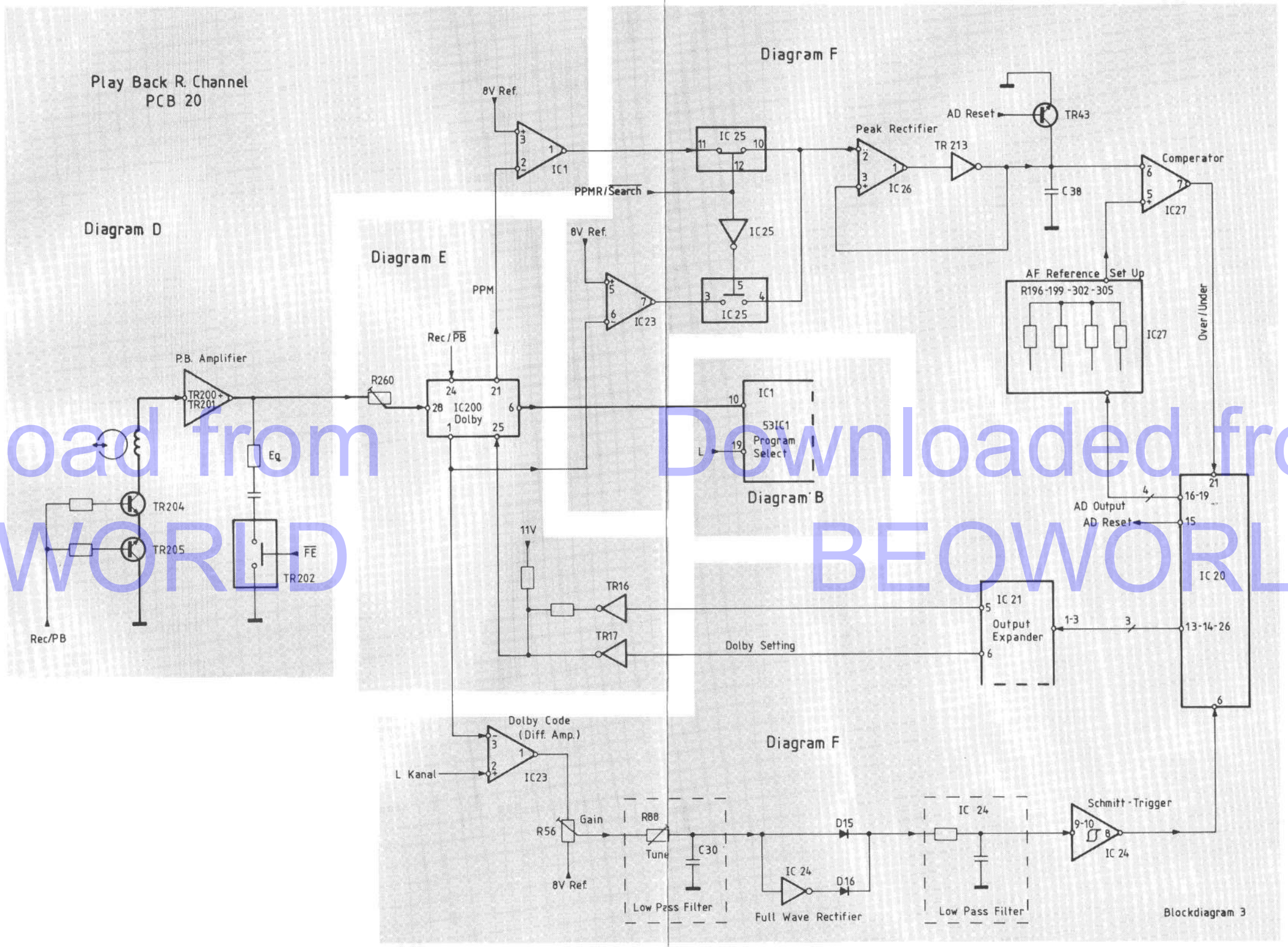
Blockdiagram 1

Bang&Olufsen

Block Diagram Recording R-channel



Block Diagram Play Back R-channel



Blockdiagram 3- 25xx

53TR403	8320525 **19**	MPS A16	
54TR1	8320497 **20**	BC 547B	
54TR2	8320503 **20**	BC 557B	
60TR1	8320503 **20**	BC 557B	
60TR2	8320507 **20**	BC 337-25/18	
60TR3	8320503 **20**	BC 557B	
60TR4	8320507 **20**	BC 337-25/18	
60TR5	8320503 **20**	BC 557B	
60TR7	8320241 **32**	BD 138	
60TR8	8320514 **20**	BC 546B	
60TR9	8320497 **20**	BC 547B	
60TR10	8320503 **20**	BC 557B	
60TR11	8320497 **20**	BC 547B	
60TR12	8320503 **20**	BC 557B	
60TR13	8320497 **20**	BC 547B	
60TR14			
60TR15	8320503 **20**	BC 557B	
60TR16	8320497 **20**	BC 547B	

60TR20	8320503 **20**	BC 557B	
60TR21			
60TR22	8320507 **20**	BC 337-25/18	
60TR23	8320503 **20**	BC 557B	
60TR24-	8320497 **20**	BC 547B	
60TR402			
65TR17	8320429 **32**	BD 435	
65TR18	8320292 **32**	BD 137	
65TR19	8320428 **32**	BD 438	
81TR30-	8320615 **51**	BC 848B	
31			
81TR32	8320616 **51**	BC 858B	
81TR33	8320684 **52**	BC 869	
81TR34	8320616 **51**	BC 858B	
81TR35	8320684 **51**	BC 869	

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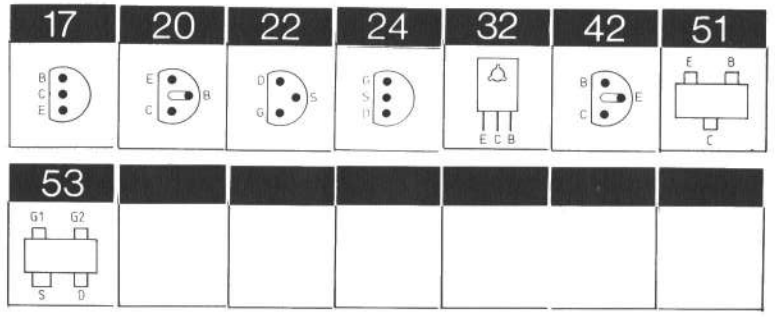
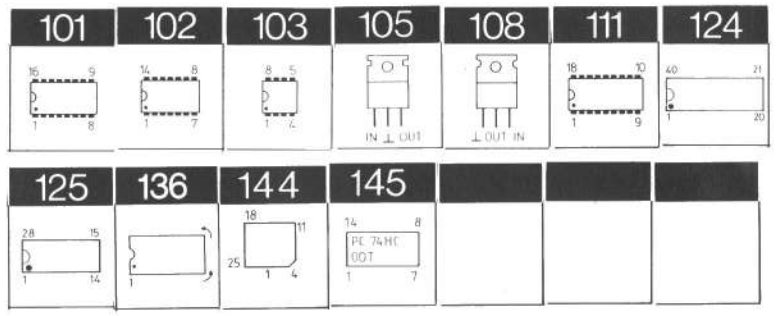
SEMI-CONDUCTORS



Transistors

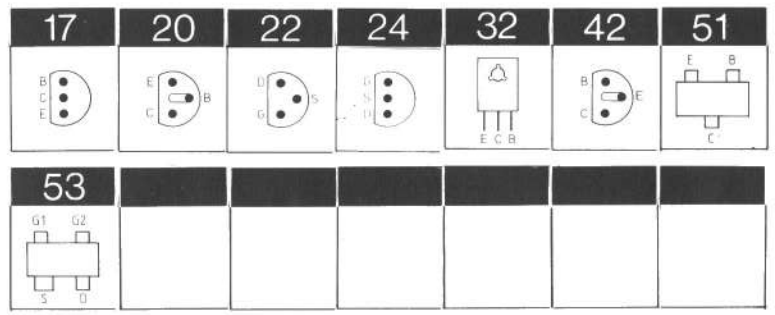
10TR1	8320625 **42**	BF 240	
10TR2			
10TR3	8320625 **42**	BF 240	
10TR4			
10TR5	8320497 **20**	BC 547B	
10TR6	8320509 **20**	BC 548B	
10TR7	8320503 **20**	BC 557B	
10TR9	8320627 **20**	BC 549B	
10TR10	8320503 **20**	BC 557B	
10TR11			
10TR12	8320497 **20**	BC 547B	
10TR13	8320512 **20**	BC 338-25/18	
10TR14	8320396 **24**	MPF 4392	
	24	SF 51221	
	24	2N 5639	
10TR15	8320657 **22**	BF 256C	
10TR20	8320521 **20**	PNP BC 556B	
10TR21	8320497 **20**	BC 547B	
10TR22	8320521 **20**	BC 556B	
10TR23	8320497 **20**	BC 547B	
10TR24	8320640 **17**	BC 636	
10TR25-	8320497 **20**	BC 547B	
10TR26			
10TR200-	8320509 **20**	BC 548B	
10TR400			
17TR1	8320610 **53**	BF 995	
17TR2			

17TR3	8320672 **51**	BFS 20	
17TR4			
20TR1	8320503 **20**	BC 557B	
20TR2			
20TR3	8320497 **20**	BC 547B	
20TR4	8320503 **20**	BC 557B	
20TR5			
20TR6	8320497 **20**	BC 547B	
20TR7			
20TR8	8320503 **20**	BC 557B	
20TR9	8320617 **32**	BD 137-10	
20TR10	8320497 **20**	BC 547B	
20TR11	8320503 **20**	BC 557B	
20TR13			
20TR16-	8320497 **20**	BC 547B	
20TR30			
20TR31	8320691 **17**	BC 369	
20TR32	8320497 **20**	BC 547B	
20TR33	8320509 **20**	BC 548B	
20TR34	8320497 **20**	BC 547B	
20TR35	8320240 **32**	BD 136/W	
20TR36-	8320497 **20**	BC 547B	
20TR40			
20TR41	8320503 **20**	BC 557B	
20TR42			
20TR43-	8320497 **20**	BC 547B	
20TR47			
20TR50	8320691 **17**	BC 369	



IC's

10IC2△	8340756	**136**	LM 1865
10IC3△	8340758	**136**	LA 3401
10IC4△	8340492	**102**	SP 8629 DP
10IC5△	8340245	**102**	CD 4011 BCN
		102	CD 4011 BE
		102	HEF 4011 BP
		102	MC 14011 BCP
10IC6△	8340491	**101**	HEF 4520 BP
10IC7△	8340757	**136**	LA 1245
10IC8△	8340763	**136**	LF 353-TL072
10IC9△	8340202	**102**	CD 4066 BCN
		102	HEF 4066 BP
		102	MC 14066BCP
		102	MSM 4066 RS
10IC10△	8340602	**101**	CD 4052 BC
		101	HEF 4052 BP
		101	MC 14052BCP
10IC11△	8340782	**136**	HEF 4094B
20IC1	8340294	**103**	LF 353N
		103	TDB 0353 DP
20IC2	8340545	**101**	LM 13700 N
20IC3 △	8340202	**102**	CD 4066 BCN
20IC4		**102**	HEF 4066 BP
		102	MC 14066 BCP
		102	MSM 4066 RS
20IC5	8340048	**103**	MC 1458 CP1
		103	MC 1458 N
		103	MC 1458 P
		103	SFC 2458 DC
20IC6	8340752	**111**	UPC 1297
20IC7△	8340202	**102**	CD 4066 BCN
20IC8		**102**	HEF 4066 BP
		102	MC 14066 BCP
		102	MSM 4066 RS
20IC9△	8340383	**136**	CD 4073 BCN
		136	HEF 4073 BP
		136	MC 14073 BCP
20IC14△	8340202	**102**	CD 4066 BCN
20IC15		**102**	HEF 4066 BP
		102	MC 14066 BCP
		102	MSM 4066 RS
20IC16	8340157	**102**	LM 324 N
		102	MLM 324 P
		102	TDB 0124 DP
20IC17△	8340790	**103**	4558
20IC20*△	8340848	**136**	8050
20IC21△	8340782	**136**	HEF 4094B
20IC22			
20IC23	8340294	**103**	LF 353 N
		103	TDB 0158 DP
20IC24	8340157	**102**	LM 324 N
		102	MLM 324 P
		102	TDB 0124 DP
20IC25△	8340202	**102**	CD 4066 BCN
		102	HEF 4066 BP
		102	MC 14066 BCP
		102	MSM 4066 RS
20IC26	8340569	**103**	LM 358 N
		103	TDB 0158 DP
20IC27	8340294	**103**	LF 353 N
		103	TDB 0158 DP
20IC28	8340605	**103**	LM 272m op-
20IC29			AMP Dual
			Power 1A



20TR51	8320497	**20**	BC 547B
20TR52			
20TR53	8320617	**32**	BD 137
20TR54	8320691	**17**	BC 369
20TR55	8320497	**20**	BC 547B
20TR200	8320524	**20**	BC 550B
20TR201	8320579	**20**	BC 549C
20TR202	8320497	**20**	BC 547B
20TR204-20TR206	8320595	**20**	BC 337-40
20TR209	8320579	**20**	BC 549C
20TR213	8320497	**20**	BC 547B
20TR400	8320524	**20**	BC 550B
20TR401	8320579	**20**	BC 549C
20TR402	8320497	**20**	BC 547B
20TR404-20TR406	8320595	**20**	BC 337-40
20TR409	8320579	**20**	BC 549c
20TR413	8320497	**20**	BC 547B
40TR1	8320497	**20**	BC 547B
40TR2	8320503	**20**	BC 557B
40TR3	8320497	**20**	BC 547B
40TR7	8320627	**20**	BC 549B
40TR8	8320625	**42**	BF 240
40TR9	8320497	**20**	BC 547B
40TR10	8320503	**20**	BC 557B
40TR11	8320625	**42**	BF 240
40TR12-40TR14	8320497	**20**	BC 547B
41TR1-41TR10	8320625	**42**	BF 240
41TR11	8320503	**20**	BC 557B
42TR1-42TR25	8320625	**42**	BF 240
43TR1-43TR14	8320625	**42**	BF 240
52TR1	8320627	**20**	BC 549B
52TR2	8320497	**20**	BC 547B
52TR3	8320595	**20**	BC 337-40
52TR4	8320497	**20**	BC 547B
52TR5	8320503	**20**	BC 557B
52TR6	8320497	**20**	BC 547B
53TR1	8320497	**20**	BC 547B
53TR200	8320525	**19**	MPS A16
53TR201	8320579	**20**	BC 549C
53TR202	8320524	**20**	BC 550B
53TR203-53TR400	8320525	**19**	MPS A16
53TR401	8320579	**20**	BC 549C
53TR402	8320524	**20**	BC 550B

44D17	8330188	**246**	Led green
44D18			
44D20-44D26	8330192	**246**	Led red
44D27-44D41	8330188	**246**	Led green
44D42	8330192	**246**	Led red
44D64			
44D65	8300023	**209**	1N 4002
45D1-45D24	8330192	**246**	Led red
45D26	8300023	**209**	1N 4002
46DP1	8330131		7 mm
46DP2	8330131		7 mm
46DP3	8330131		7 mm
46DP4	8330131		7 mm
46DP5	8330131		7 mm
46D2	8300023	**209**	1N 4002
46D3			
52D1	8300058	**217**	SFD 184
		209	1N 4148
		215	1N 4148
53D1	8300058	**217**	SFD 184
		209	1N 4148
		215	1N 4148
54D200-54D203	8300058	**217**	SFD 184
		209	1N 4148
		215	1N 4148
60D1	8300058	**217**	SFD 184
		209	1N 4148
		215	1N 4148
60D2	8300023	**209**	1N 4002
60D3			
60D4	8300053	**209**	BZX83B 15
60D5	8300556	**209**	BZX79C 6V2
		209	BZX83C 6V2
		209	ZPD 6.2V
60D6	8300058	**217**	SFD 184
		209	1N 4148
		215	1N 4148
60D7	8300135	**209**	BZX79C 3V3
		209	BZX83C 3V3
		209	ZPD 3.3V
60D8	8300023	**209**	1N 4002
60D9			
60D200-401	8300058	**217**	SFD 184
		209	1N 4148
		215	1N 4148
62D1	8300487		KBU6D
62D2-62D5	8300294	**212**	1N5401
62D6	8300058	**209**	1N4148
62D7	8300487		KBU6D
64D3-64D4	8300023	**209**	IN 4002
66D1-66D2	8300058	**209**	1N4148
81D30	8300482	**217**	LL 4148
81D37-38	8330140	**203**	TSHA 5502
81D39	8300482	**217**	LL 4148

NB! 10D2 and 10D9 are made in sets of two and therefore they both have to be replaced.

20IC200△ 20IC400	8340784	**125**	TEA 0665 Dolby
40IC1△	8340753	**136**	8031
40IC2△	8340777	**136**	74 HCT 573
40IC3*	8340960	**136**	27128-3
40IC4△	8340778	**136**	8155
40IC5△	8340953	**102**	4016
40IC6△	8340616	**136**	PCD 8571
42IC1△ 42IC2	8340780	**101**	MC 14044
42IC3△	8340467	**124**	5450 N
42IC4△	8340780	**101**	MC 14044
44IC1△	8340467	**124**	5450 N
45IC1△	8340467	**124**	5450 N
45IC2-45IC3	8340605	**103**	L 272m
46IC1△	8340467	**124**	5450 N
53IC1△	8340759	**136**	TC9164C
53IC2△	8340763	**136**	LF 353 TL 072
54IC1△ 54IC2	8340790	**103**	4558
54IC3△	8340760	**136**	TC9177
54IC4△	8340761	**136**	TC9184
60IC1	8350045	**141**	4151-5
60IC2△	8340782	**136**	HEF 4094B
65IC3	8340049	**105**	MC781212V1A
65IC4	8340244	**108**	LM 317T
81IC30△	8340787	**144**	uP MC 16805
81IC31△	8340858	**145**	74HC00

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LIST OF ELECTRICAL PARTS

Resistors not mentioned are standard

PCB 10, 8002715
AM/FM, RF, IF Decoder

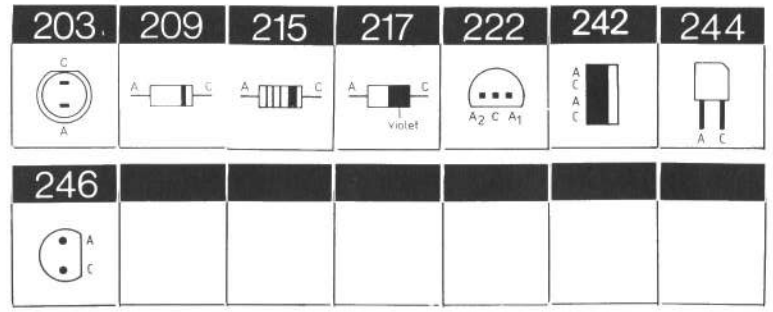
8002891 HF Type 2503/2305
8002893 HF Type 2504

**only type 2503*

R2	5011011	68 ohm 5% 1/2W	R75	5011007	33 Ω 5% 1/2W
R11	5011011	68 Ω 5% 1/2W	R141	5020263	100 kohm 1% 1/4W
R25	5370074	10.0 Kohm 20% 0.1W	R142	5020336	69.8 kohm 1% 1/4W
R51	5370128	100 Kohm 20% 0.1W	R143	5020263	100 kohm 1% 1/4W
R53	5011014	120 Ω 5% 1/2W	R144	5020336	69.8 Kohm 1% 1/4W
R54	5011014	120 Ω 5% 1/2W	R200*	5020257	71.5 Kohm 1% 1/4W
R73	5370156	220 Kohm 20% 0.1W	R204	5370061	47 Kohm 20% 0.1W
R74	5011007	33 Ω 5% 1/2W			

C2	4010106	10 nF 20+80% 40V	C56	434003	5.5-65 pF big size (C48 = 4000137 47 p
C3	4010101	4.7 nF 10% 63V			
C4	4010107	22 nF -20+80% 40V	C57	4130230	100 nF 20% 63V
C5	4010101	4.7 10% 63V	C58	4130230	100 nF 20% 63V
C6	4010107	22 nF -20+80% 40V	C59	4130233	220 nF 20% 63V
C7	4010101	4.7 nF 10% 63V	C60	4130235	47 nF 20% 63V
C8	4010101	4.7 nF 10% 63V	C61	4200515	4.7 µF 20% 25V
C9	4200512	1 µF 20% 50V	C62	4200515	4.7 µF 20% 25V
C10	4200739	100 µF -20+50% 16V	C63	4130235	47 nF 20% 63V
C11	4010105	1 nF 10% 63V	C64	4200517	2.2 µF 20% 50V
C12	4010105	1 nF 10% 63V	C65	4200739	100 µF -20+50% 16V
C13	4200515	4.7 µF 20% 25V	C66	4010106	10 nF -20+80% 40V
C14	4000142	82 pF 5% 63V	C67	4130235	47 nF 20% 63V
C15	4010106	10 nF -20+80% 40V	C68	4100210	1.5 nF 5% 63V
C16	4010106	10 nF -20+80% 40V	C69	4100210	1.5 nF 5% 63V
C17	4010106	10 nF -20+80% 40V	C70	4000226	68 pF 5% 63V
C18	4010106	10 nF -20+80% 40V	C71	4010107	22 nF -20+80% 40V
C19	4010106	10 nF -20+80% 40V	C72	4010106	-20+80% 40V 10 nF
C20	4200525	22 µF 20% 10V	C73	4130136	1 µF 20% 100V
C21	4010106	10 nF -20+80% 40V	C76	4100247	1.8 nF 5% 63V
C22	4010118	330 pF 10% 63V	C77	4010103	2.2 nF 10% 63V
C23	4010106	10 nF -20+80% 40V	C78	4130230	100 nF 20% 63V
C24	4130070	1 µF 10% 50V	C79	4100210	1.5 nF 5% 63V
C25	4130230	100 nF 20% 63V	C79*	4100238	3.3 nF 5% 63V
C26	4130230	100 nF 20% 63V	C80	4130230	100 nF 20% 63V
C27	4010105	1 nF 10% 63V	C81	4340003	5.5-65 pF
C28	4010105	1 nF 10% 63V	C82	4130230	100 nF 20% 63V
C29	4000139	100 pF 5% 63V	C83	4340002	2-22 pF
C30	4130230	100 nF 20% 63V	C84	4130233	220 nF 20% 63V
C31	4010103	2.2 nF 10% 63V	C85	4010103	2.2 nF 10% 63V
C32	4010107	22 nF -20+80% 40V	C86	4130233	220 nF 20% 63V
C33	4130179	100 nF 20% 63V	C87	4010105	1 nF 10% 63V
C34	4010105	1 nF 10% 63V	C88	4130235	47 nF 20% 63V
C35	4200510	10 µF 20% 16V	C89	4010107	22 nF -20+80% 40V
C36	4200510	10 µF 20% 16V	C90	4010107	22 nF -20+80% 40V
C37	4010118	330 pF 10% 63V	C92	4200510	10 µF 20% 16V
C38	4200510	10 µF 20% 16V	C93	4010107	22 nF -20+80% 40V
C39	4030023	47 nF -20+80% 16V	C94	4010105	1 nF 10% 63V
C40	4200523	0.47 µF 20% 50V	C96	4130230	100 nF 20% 63V
C41	4200512	1 µF 20% 50V	C97	4130230	100 nF 20% 63V
C42	4200512	1 µF 20% 50V	C98	4200483	47 µF 20% 16V
C43	4010106	10 nF -20+80% 40V	C200	4100209	470 pF 5% 63V
C44	4010105	1 nF 10% 63V	C200*	4100236	1 nF 5% 63V
C45	4200739	100 µF -20+50% 16V	C201	4200510	10 µF 20% 16V
C48		see C56	C202	4100238	3.3 nF 5% 63V
C49	4130230	100 nF 20% 63V	C203	4100235	680 pF 5% 63V
C50	4130230	100 nF 20% 63V	C204	4100261	6.8 nF 2.5% 63V
C51	4100266	330 pF 2.5% 63V	C205	4100260	2.2 nF 2.5% 63V
C52	4000154	39 pF 5% 63V	C206	4100210	1.5 nF 5% 63V
C53	4000154	39 pF 5% 63V	C207	4200515	4.7 µF 20% 25V
C54	4100233	150 pF 5% 63V	C208	4130230	100 nF 20% 63V
C55	4340002	2-22 pF			
C56	4340002	2-22 pF small size (C48 = 4000142 82 p			

L1	8020578	Coil 10 µH 10%	L11	8020558	Coil LW Ant.
L2	8020568	Coil 2.7 µH	L12	8020557	Coil MW Ant.
L3	8020569	Coil 18 µH 10%	L13	8020561	Coil AM IF 455 kHz
L4	8020578	Coil 10 µH 10%	L14	8020562	Coil AM IF 455 kHz
L5	8022240	Coil 19.5 mH 2%	L200	8022239	Coil 32 mH 2%
L8	8020559	Coil MW Osc.	L201	8022239	Coil 32 mH 2%
L9	8020560	Coil LW Osc.			



Diodes

10D1	8300058	**217**	SFD 184	20D29	8300023	**209**	1N 4002
		209	1N 4148				
		215	1N 4148	20D30-	8300058	**217**	SFD 184
				20D404		**209**	1N 4148
10D2 NB!	8300568	**242**	SVC 333B			**215**	1N 4148
10D3-	8300385	**209**	BA 423	40D1-	8300058	**217**	SFD 184
10D5				40D5		**209**	1N 4148
						215	1N 4148
10D6	8300058	**217**	SFD 184				
		209	1N 4148	40D6	8300407	**209**	BZX79B 12
		215	1N 4148			**209**	BZX83B 12
						209	ZPD 12V
10D7	8300385	**209**	BA 423				
				40D9	8330145	**244**	BPW 82
10D8	8300212	**209**	1N 4448				TIL 100
10D9 NB!	8300568	**242**	SVC 333B	40D10-	8300058	**217**	SFD 184
				40D16		**209**	1N 4148
10D10	8300212	**209**	1N 4448			**215**	1N 4148
10D11-	8300058	**217**	SFD 184	41D1-	8330188	**246**	Led green
10D14		**209**	1N 4148	41D2			
		215	1N 4148				
				41D3-	8330192	**246**	Led red
17D1-4	8300308	**222**	BB 204	41D8			
20D1-	8300058	**217**	SFD 184	42D1-	8300058	**217**	SFD 184
20D8		**209**	1N 4148	42D5		**209**	1N 4148
		215	1N 4148			**215**	1N 4148
20D11	8300326	**209**	BZX79C 11	42D10-	8330192	**246**	Led red
		209	BZX83C 11	42D21			
		209	ZPD 11V				
				42D23-	8330192	**246**	Led red
20D15-	8300058	**217**	SFD 184	42D46			
20D20		**209**	1N 4148				
		215	1N 4148	43D1-	8300058	**217**	SFD 184
				43D4		**209**	1N 4148
20D21	8300135	**209**	BZX79C 3V3			**215**	1N 4148
		209	BZX83C 3V3				
		209	ZPD3.3V	43D5-	8330192	**246**	Led red
				43D17			
20D22-	8300058	**217**	SFD 184				
20D28		**209**	1N 4148	44D1-	8330192	**246**	Led red
		215	1N 4148	44D16			

BP1	8030118	10.7 MHz	BP3	8030118	10.7 MHz
BP2	8030118	10.7 MHz	BP4	8030056	455 kHz ±1 kHz
P4	7220488	Plug 3 pol.	P7	7210501	Socket 75 Ω
P5	7220481	Plug 7 pol	P8	7220312	Plug 2 pol.
P6	7220486	Plug 6 pol.			
X1	8030087	456 kHz ±1 kHz	X2	8030088	455 kHz

PCB 20, 8004628
Tape Recorder

R27	5020489	10 Ω 10% 0.3W	R230	5020188	1 Kohm 1% 1/4W
R29	5020214	4,53 kohm 1% 1/4W	R237	5370327	22 Kohm 20% 0.1W
R46	5370324	4.7 Kohm 20% 0.1W	R240	5370326	10 Kohm 20% 0.1W
R48	5370326	10 Kohm 20% 0.1W	R243	5370326	10 Kohm 20% 0.1W
R86	5370328	47 Kohm 20% 0.1W	R260	5370328	47 Kohm 20% 0.1W
R88	5370330	220 Kohm 20% 0.1W	R261	5370325	2.2 Kohm 20% 0.1W
R89	5020288	1 Mohm 1% 1/4W	R266	5020835	1.37 kohm 1% 1/4W
R90	5020288	1 Mohm 1% 1/4W	R270	5020083	33.2 Kohm 1% 1/4W
R139	5370330	220 kohm 20% 0.1W	R272	5020294	82.5 Kohm 1% 1/4W
R156	5020955	715 kohm 1% 1/4W	R273	5020294	82.5 Kohm 1% 1/4W
R185	5370325	2.2 Kohm 20% 0.1W	R274	5020568	2.21 Kohm
R187	5020195	1.62 Kohm 1% 1/4W	R276	5020763	5.11 Kohm 1% 1/4W
R188	5020238	23.7 Kohm 1% 1/4W	R283	5020648	9.1 Kohm 1% 1/4W
R189	5020145	8.66 Kohm 1% 1/4W	R284	5020343	15.4 Kohm 1% 1/4W
R191	5020343	15.4 Kohm 1% 1/4W	R285	5020593	12.7 Kohm 1% 1/4W
R193	5020567	787 Ω	R286	5020565	8.25 Kohm
R196	5020145	8.66 Kohm 1% 1/4W	R288	5020139	12.1 Kohm 1% 1/4W
R199	5020773	42.2 Kohm 1% 1/4W	R289	5020766	46.4 Kohm 1% 1/4W
R204	5020836	90.9 Ω 1% 1/4W	R290	5020767	21.5 Kohm 1% 1/4W
R206	5020782	365 Ω 1% 1/4W	R291	5020212	4.02 Kohm 1% 1/4W
R207	5020116	7.87 kohm 1% 1/4W	R302	5020110	10 Kohm 1% 1/4W
R227	5370327	22 Kohm 20% 0.1W	R305	5020195	1.62 Kohm 1% 1/4W
R228	5020188	1 Kohm 1% 1/4W	R314	5370324	4.7 Kohm 20% 0.1W
C1	4200631	0.22 µF 20% 50V	C48	4010035	1 nF 10% 63V
C2	4200512	1 µF 20% 50V	C49	4010035	1 nF 10% 63V
C3	4010103	2.2 nF 10% 63V	C50	4010105	1 nF 10% 63V
C4	4200512	1 µF 20% 50V	C51	4010035	1 nF 10% 63V
C5	4100231	10 nF 2,5%	C52	4010035	1 nF 10% 63V
C6	4130308	220 nF 10% 63V	C53	4010035	1 nF 10% 63V
C7	4200561	10 µF 20% 50V	C54	4010035	1 nF 10% 63V
C8	4200516	47 µF 20% 16V	C55	4010035	1 nF 10% 63V
C9	4200517	2.2 µF 20% 50V	C56	4000163	10 pF 5% 63V
C10	4130307	150 nF 10% 63V	C57	4000136	22 pF 5% 63V
C11	4130304	22 nF 10% 63V	C58	4010035	1 nF 10% 63V
C12	4200600	470 µF 20% 16V	C59	4010035	1 nF 10% 63V
C13	4200544	22 µF 20% 16V	C60	4010035	1 nF 10% 63V
C14	4200628	100 µF 20% 16V	C61	4010035	1 nF 10% 63V
C15	4200510	10 µF 20% 16V	C62	4130233	220 nF 20% 63V
C16	4000163	10 pF 5% 63V	C63	4010035	1 nF 10% 63V
C20	4200516	47 µF 20% 16V	C64	4010035	1 nF 10% 63V
C21	4200600	470 µF 20% 16V	C65	4130265	10 nF 10% 63V
C25	4130305	33 nF 10% 63V	C67	4010184	330 pF 10% 63V
C26	4130305	33 nF 10% 63V	C68	4010184	330 pF 10% 63V
C27	4200517	2.2 µF 20% 50V	C69	4010035	1 nF 10% 63V
C28	4200517	2.2 µF 20% 50V	C70	4010105	1 nF 10% 63V
C29	4130315	15 nF 5% 63V	C71	4010105	1 nF 10% 63V
C30	4130334	1 µF 5% 63V	C72	4010035	1 nF 10% 63v
C31	4100263	270 pF 1% 63V	C73	4010035	1 nF 10% 63V
C32	4200517	2.2 µF 20% 50V	C74	4010035	1 nF 10% 63V
C33	4130311	680 nF 10% 63V	C75	4010035	1 nF 10% 63V
C34	4130307	150 nF 10% 63V	C76	4010184	330 pF 10% 63V
C35	4200517	2.2 µF 20% 50V	C77	4000163	10 pF 5% 63V
C36	4010035	1 nF 10% 63V	C78	4130308	220 nF 10% 63V
C37	4130305	33 nF 10% 63V	C79	4130308	220 nF 10% 63V
C38	4130331	47 nF 5% 63V	C80	4130308	220 nF 10% 63V
C42	4010035	1 nF 10% 63V	C81	4130308	220 nF 10% 63V
C44	4200511	100 µF 20% 10V	C200	4200525	22 µF 20% 10V
C45	4030027	100 nF 20% 25V	C201	4010161	560 pF 10% 63V
C46	4010035	1 nF 10% 63V	C202	4200517	2.2 µF 20% 50V
C47	4010035	1 nF 10% 63V	C203	4010122	68 pF 10% 63V

C69	4010105	1 nF 10% 63V	C75	4010118	330 pF 10% 63V
C70	4010105	1 nF 10% 63V	C76	4010105	1 nF 10% 63V
C71	4010105	1 nF 10% 63V	C77	4010105	1 nF 10% 63V
C72	4010105	1 nF 10% 63V	C78	4010105	1 nF 10% 63V
C73	4010118	330 pF 10% 63V	C79	4030027	100 nF 20% 25V
C74	4010118	33o pF 10% 63V			
L1	8020578	Coil 10 µH 10%	L10	8020562	Coil 455 kHz
L2	8020578	Coil 10 µH 10%	L11	8020551	Coil 4.7 µH 10%
L3	8020578	Coil 10 µH 10%	L12	8020551	Coil 4.7 µH 10%
L4	8020578	Coil 10 µH 10%	L13	8020551	Coil 4.7 µH 10%
L8	8020342	Coil 10 µH	L14	8020551	Coil 4.7 µH 10%
BP1	8030056	455 kHz ±1kHz			
	7200056	Socket 28 pol.			
P50	7220485	Plug 8 pol.	P55	7220477	Plug 11 pol.
P51	7220488	Plug 3 pol.	P56	7220589	Plug 8 pol.
P52	7220550	Plug 12 pol.	P57	7220486	Plug 6 pol.
P54	7220487	Plug 4 pol			
X1	8090005	8.867 MHz			
	8700021	Lithiumbattery 3V			

PCB 41, 8002745
Key Board Left.

C1	4000203	6.8 pF 0.5 63V	C6	4000203	6.8 pF 0.5 63V
C2	4000203	6.8 pF 0.5 63V	C7	4000149	12 pF 5% 63V
C3	4000144	10 pF 63V	C8	4000144	10 pF 63V
C4	4000203	6.8 pF 0.5 63V	C9	4000203	6.8 pF 0.5 63V
C5	4000203	6.8 pF 0.5 63V	C10	4000149	12 pF 5% 63V
P66	7220551	Plug 14 pol.			
R39	5370068	22 Kohm 20% 0.1W			

PCB 42, 8002750
Key Board Middle.

C2	4000149	12 pF 5% 63V	C24	4000203	6.8 pF 0.5 63V
C7	4000144	10 pF 63V	C27	4000203	6.8 pF 0.5 63V
C8	4000203	6.8 pF 0.5 63V	C28	4000143	8.2 pF 63V
C9	4000143	8.2 pF 63V	C29	4000149	12 pF 5% 63V
C10	4000149	12 pF 5% 63V	C30	4000203	6.8 pF 0.5 63V
C11	4000203	6.8 pF 0.5 63V	C31	4010186	10 nF -20+80% 40V
C12	4000203	6.8 pF 0.5 63V	C39	4000149	12 pF 5% 63V
C13	4000149	12 pF 5% 63V	C40	4130230	100 nF 20% 63V
C14	4000203	6.8 pF 0.5 63V	C41	4130230	100 nF 20% 63V
C15	4000203	6.8 pF 0.5 63V	C42	4010118	330 pF 10% 63V
C16	4000203	6.8 pF 0.5 63V	C43	4010118	330 pF 10% 63V
C17	4000149	12 pF 5% 63V	C44	4010118	330 pF 10% 63V
C18	4000149	12 pF 5% 63V	C45	4010109	180 pF 10% 63V
C19	4000203	6.8 pF 0.5 63V	C46	4010109	180 pF 10% 63V
C20	4000203	6.8 pF 0.5 63V	C47	4010109	180 pF 10% 63V
C21	4000203	6.8 pF 0.5 63V	C48	4010109	180 pF 10% 63V
C22	4000146	15 pF 5% 63V	C49	4010109	180 pF 10% 63V
C23	4000203	6.8 pF 0.5 63V			
P59	7220551	Plug 14 pol.	P63	7220550	Plug 12 pol.
P67	7220552	Plug 18 pol.			

PCB 43, 8002755
Key Board Right

C1	4000144	10 pF 63V	C8	4000143	10 pF 63V
C2	4000203	6.8 pF 0.5 63V	C9	4000144	8.2 pF 63V
C3	4000203	6.8 pF 0.5 63V	C10	4000203	6.8 pF 0.5 63V
C4	4000149	12 pF 5% 63V	C11	4000144	10 pF 63V
C5	4000149	12 pF 5% 63V	C12	4000203	6.8 pF 0.5 63V
C6	4000203	6.8 pF 0.5 63V	C13	4000203	6.8 pF 0.5 63V
C7	4000203	6.8 pF 0.5 63V	C14	4000203	6.8 pF 0.5 63V

P	7220635	Plug 2 pol. Test mode.			
P62	7220552	Plug 18 pol			

PCB 44, 8002738
Display Left.

R1	5370068	22 Kohm 20% 0.1W			
C1	4130230	100 nF 20% 63V	C2	4010142	10 nF -20 +80% 40V
P64	7220549	Plug 10 pol.	P65	7220551	Plug 14 pol.

PCB 45, 8002740
Display Right.

R1	5370068	22 kohm 20% 0.1W	R2	5370068	22 Kohm 20% 0.1W
C1	4130230	100 nF 20% 63V	C4	4130230	100 nF 20% 63V
C2	4010142	10 nF -20 +80% 40V	C5	4130230	100 nF 20% 63V
C3	4010142	10 nF -20 +80% 40V	C8	4130230	100 nF 20% 63V
P60	7220549	Plug 10 pol.	P68	7220317	Plug 4 pol.
P61	7220551	Plug 14 pol.			

PCB 46 8002736
7 Segment Display

	7220604	Plug 8 pol.

PCB 51, 8002757
Headphone.

C200	4010106	10 nF -20+80% 40V			
P77	7210391	Headphone	P78	7220487	Plug 4 pol.

PCB 52, 8002734
Mic. Ampl.

C1	4010111	3.3 nF 10% 63V	C9	4010111	3.3 nF 10% 63V
C3	4200512	1 µF 20% 50V	C10	4200551	33 µF 20% 16V
C4	4010111	3.3 nF 10% 63V	C11	4200512	1 µF 20% 50V
C5	4200561	10 µF 20% 50V	C12	4010106	10 nF -20+80% 40V
C7	4000139	100 pF 5% 63V	C13	4010107	22 nF -20+80% 40V
P73	7220487	Plug 4 pol.	P76	7210391	MIC

PCB 53, 8002933
Input Select.

R10	5020489	10 Ω 0.3W	R212	5020019	36.5 kohm 1% 1/4W
C1	4010101	4.7 nF 10% 63V	C206	4200512	1 µF 20% 50V
C2	4201087	47 µF -10+100% 40V	C207	4130268	10 nF 5% 63V
C3	4000135	150 pF 5% 63V	C210	4200512	1 µF 20% 50V
C4	4200509	33 µF 20% 25V	C211	4000135	150 pF 5% 63V
C5	4200509	33 µF 20% 25V	C212	4200512	1 µF 20% 50V
C200	4200517	2.2 µF 20% 50V	C213	4000135	150 pF 5% 63V
C201	4010036	2.7 nF 10% 63V	C214	4010128	470 pF 10% 63V
C202	4130306	100 nF 10% 63V	C215	4010111	3.3 nF 10% 63V
C203	4000135	150 pF 5% 63V	C216	4000135	150 pF 5% 63V
C204	4000135	150 pF 5% 63V	C217	4000135	150 pF 5% 63V
C205	4010167	2.7 nF 10% 100V	C220	4000137	47 pF 5% 63V
P70	7220477	Plug 11 pol.	P72	7220403	Plug 4 pol.
P71	7220476	Plug 12 pol.	P75	7220487	Plug 4 pol.

PCB 54, 8002934
Volume and Tone Control.

C1	4010107	22 nF -20+80% 40V	C204	4200512	1 µF 20% 50V
C2	4010106	10 nF -20+80% 40V	C205	4200510	10 µF 20% 16V
C3	4200510	10 µF 20% 16V	C206	4200512	1 µF 20% 50V
C4	4200510	10 µF 20% 16V	C207	4000139	100 pF 5% 63V
C5	4010106	10 nF -20+80% 40V	C208	4200512	1 µF 20% 50V
C6	4010107	22 nF -20+80% 40V	C209	4010103	2.2 nF 10% 63V
C200	4000135	150 pF 5% 63V	C210	4130268	10 nF 5% 63V
C201	4000135	150 pF 5% 63V	C211	4200510	10 µF 20% 16V
C202	4200512	1 µF 20% 50V	C212	4130304	22 nF 10% 63V
C203	4130328	33 nF 5% 63V	C213	4130306	100 nF 10% 63V
P74	7220478	Plug 10 pol.			

C204	4130315	15 nF 5% 63V	C239	4200515	4.7 µF 20% 25V
C205	4130306	100 nF 10% 63V	C240	4200510	10 µF 20% 16V
C206	4200625	3.3 µF 20% 50V	C241	4130333	220 nF 5% 63V
C208	4130268	10 nF 5% 63V	C242	4130333	220 nF 5% 63V
C209	4010105	1 nF 10% 63V	C243	4200510	10 µF 20% 16V
C214	4130308	220 nF 10% 63V	C244	4010103	2.2 nF 10% 63V
C215	4130268	10 nF 5% 63V	C245	4100246	270 pF 5% 63V
C216	4130265	10 nF 10% 63V	C246	4100240	5.6 nF 5% 63V
C217	4130315	15 nF 5% 63V	C247	4100247	1.8 nF 5% 63V
C218	4130305	33 nF 10% 63V	C248	4200510	10 µF 20% 16V
C219	4130308	220 nF 10% 63V	C249	4100258	4.7 nF 2% 63V
C220	4200525	22 µF 20% 10V	C250	4200510	10 µF 20% 16V
C221	4200511	100 µF 20% 10V	C251	4130331	47 nF 5% 63V
C222	4200517	2.2 µF 20% 50V	C252	4200631	0.22 µF 20% 50V
C223	4010164	820 pF 10% 63V	C253	4200630	0.68 µF 20% 50V
C224	4100246	270 pF 5% 63V	C254	4200510	10 µF 20% 16V
C225	4130315	15 nF 5% 63V	C255	4130331	47 nF 5% 63V
C229	4130265	10 nF 10% 63V	C256	4200631	0.22 µF 20% 50V
C230	4130304	22 nF 10% 63V	C257	4200630	0.68 µF 20% 50V
C231	4130306	100 nF 10% 63V	C258	4100231	10 nF 2.5%
C232	4100255	560 pF 5% 63V	C259	4100258	47 nF 2% 63V
C233	4100232	100 pF 5% 63V	C265	4130306	100 nF 10% 63V
C234	4100255	560 pF 5% 63V	C266	4130306	100 nF 10% 63V
C238	4010109	180 pF 10% 63V	C269	4130267	18 nF 5% 63V

L1	8020556	Coil 2.4 mH	L201	8022237	Coil 10 mH
L2	8020342	Coil 10 µH	L202	8022251	Coil 5 mH
L3	8020552	Coil 10 µH 10%	L205	8022237	Coil 10 mH
L200	8022252	Coil 3 mH	L206	8022236	Coil 36 mH

P30	7220484	Plug 5 pol.	P38	7220122	Plug 4/3 pol.
P31	7220480	Plug 7 pol.	P39	7220122	Plug 4/3 pol.
P32	7220479	Plug 9 pol.	P46	7220122	Plug 4/3 pol.
P33	7220480	plug 7 pol.	P47	7220160	Plug 5/4 pol.
P34	7220479	Plug 9 pol.	P48	7220122	Plug 4/3 pol.
P35	7220483	Plug 3 pol.	P49	7220122	Plug 4/3 pol.
P36	7220319	Plug 8 pol.	P130	7220122	Plug 4/3 pol.
P37	7220122	Plug 4/3 pol.			

X1	8090005	8.8672 MHz

PCB 40, 8002720
System Control and IR.

R70	5030001	8x22 Kohm 5% 1/8W			
C1	4010164	820 pF 10% 63V	C38	4010128	470 pF 10% 63V
C2	4010164	820 pF 10% 63V	C39	4000137	47 pF 5% 63V
C3	4010164	820 pF 10% 63V	C40	4000139	100 pF 5% 63V
C4	4010164	820 pF 10% 63V	C41	4130313	470 nF 20% 63V
C5	4010105	1 nF 10% 63V	C42	4010103	2.2 nF 10% 63V
C9	4010105	1 nF 10% 63V	C43	4010128	470 pF 10% 63V
C10	4010105	1 nF 10% 63V	C44	4030027	100 nF 20% 25V
C11	4010105	1 nF 10% 63V	C45	4000137	47 pF 5% 63V
C12	4010105	1 nF 10% 63V	C46	4010128	470 pF 10% 63V
C13	4010105	1 nF 10% 63V	C47	4000137	47 pF 5% 63V
C14	4010105	1 nF 10% 63V	C48	4130303	15 nF 10% 63V
C15	4000139	100 pF 5% 63V	C49	4010128	470 pF 10% 63V
C16	4010105	1 nF 10% 63V	C51	4200330	100 µF -10+50% 10V
C17	4000139	100 pF 5% 63V	C53	4010105	1 nF 10% 63V
C20	4200600	470 µF 20% 16V	C54	4010105	1 nF 10% 63V
C21	4010105	1 nF 10% 63V	C55	4010105	1 nF 10% 63V
C23	4200330	100 µF -10+50% 10V	C56	4010105	1 nF 10% 63V
C24	4010105	1 nF 10% 63V	C57	4010105	1 nF 10% 63V
C25	4010105	1 nF 10% 63V	C58	4030027	100 nF 20% 25V
C27	4030027	100 nF 20% 25V	C59	4030027	100 nF 20% 25V
C30	4000167	18 pF 5% 63V	C60	4010105	1 nF 10% 63V
C31	4000167	18 pF 5% 63V	C61	4010105	1 nF 10% 63V
C32	4030027	100 nF 20% 25V	C62	4010105	1 nF 10% 63V
C33	4030027	100 nF 20% 25V	C63	4010105	1 nF 10% 63V
C35	4130230	100 nF 63% 63V	C64	4000137	47 pF 5% 63V
C36	4010128	470 pF 10% 63V	C65	4010105	1 nF 10% 63V
C37	4030027	100 nF 20% 25V	C66	4010105	1 nF 10% 63V

PCB 20, 8004628
Tape Recorder

BP1	8030118	10.7 MHz	BP3	8030118	10.7 MHz
BP2	8030118	10.7 MHz	BP4	8030056	455 kHz ±1 kHz
P4	7220488	Plug 3 pol.	P7	7210501	Socket 75 Ω
P5	7220481	Plug 7 pol	P8	7220312	Plug 2 pol.
P6	7220486	Plug 6 pol.			
X1	8030087	456 kHz ±1 kHz	X2	8030088	455 kHz

R27	5020489	10 Ω 10% 0.3W	R230	5020188	1 Kohm 1% 1/4W
R29	5020214	4,53 kohm 1% 1/4W	R237	5370327	22 Kohm 20% 0.1W
R46	5370324	4.7 Kohm 20% 0.1W	R240	5370326	10 Kohm 20% 0.1W
R48	5370326	10 Kohm 20% 0.1W	R243	5370326	10 Kohm 20% 0.1W
R86	5370328	47 Kohm 20% 0.1W	R260	5370328	47 Kohm 20% 0.1W
R88	5370330	220 Kohm 20% 0.1W	R261	5370325	2.2 Kohm 20% 0.1W
R89	5020288	1 Mohm 1% 1/4W	R266	5020835	1.37 kohm 1% 1/4W
R90	5020288	1 Mohm 1% 1/4W	R270	5020083	33.2 Kohm 1% 1/4W
R139	5370330	220 kohm 20% 0.1W	R272	5020294	82.5 Kohm 1% 1/4W
R156	5020955	715 kohm 1% 1/4W	R273	5020294	82.5 Kohm 1% 1/4W
R185	5370325	2.2 Kohm 20% 0.1W	R274	5020568	2.21 Kohm
R187	5020195	1.62 Kohm 1% 1/4W	R276	5020763	5.11 Kohm 1% 1/4W
R188	5020238	23.7 Kohm 1% 1/4W	R283	5020648	9.1 Kohm 1% 1/4W
R189	5020145	8.66 Kohm 1% 1/4W	R284	5020343	15.4 Kohm 1% 1/4W
R191	5020343	15.4 Kohm 1% 1/4W	R285	5020593	12.7 Kohm 1% 1/4W
R193	5020567	787 Ω	R286	5020565	8.25 Kohm
R196	5020145	8.66 Kohm 1% 1/4W	R288	5020139	12.1 Kohm 1% 1/4W
R199	5020773	42.2 Kohm 1% 1/4W	R289	5020766	46.4 Kohm 1% 1/4W
R204	5020836	90.9 Ω 1% 1/4W	R290	5020767	21.5 Kohm 1% 1/4W
R206	5020782	365 Ω 1% 1/4W	R291	5020212	4.02 Kohm 1% 1/4W
R207	5020116	7.87 kohm 1% 1/4W	R302	5020110	10 Kohm 1% 1/4W
R227	5370327	22 Kohm 20% 0.1W	R305	5020195	1.62 Kohm 1% 1/4W
R228	5020188	1 Kohm 1% 1/4W	R314	5370324	4.7 Kohm 20% 0.1W

C1	4200631	0.22 µF 20% 50V	C48	4010035	1 nF 10% 63V
C2	4200512	1 µF 20% 50V	C49	4010035	1 nF 10% 63V
C3	4010103	2.2 nF 10% 63V	C50	4010105	1 nF 10% 63V
C4	4200512	1 µF 20% 50V	C51	4010035	1 nF 10% 63V
C5	4100231	10 nF 2,5%	C52	4010035	1 nF 10% 63V
C6	4130308	220 nF 10% 63V	C53	4010035	1 nF 10% 63V
C7	4200561	10 µF 20% 50V	C54	4010035	1 nF 10% 63V
C8	4200516	47 µF 20% 16V	C55	4010035	1 nF 10% 63V
C9	4200517	2.2 µF 20% 50V	C56	4000163	10 pF 5% 63V
C10	4130307	150 nF 10% 63V	C57	4000136	22 pF 5% 63V
C11	4130304	22 nF 10% 63V	C58	4010035	1 nF 10% 63V
C12	4200600	470 µF 20% 16V	C59	4010035	1 nF 10% 63V
C13	4200544	22 µF 20% 16V	C60	4010035	1 nF 10% 63V
C14	4200628	100 µF 20% 16V	C61	4010035	1 nF 10% 63V
C15	4200510	10 µF 20% 16V	C62	4130233	220 nF 20% 63V
C16	4000163	10 pF 5% 63V	C63	4010035	1 nF 10% 63V
C20	4200516	47 µF 20% 16V	C64	4010035	1 nF 10% 63V
C21	4200600	470 µF 20% 16V	C65	4130265	10 nF 10% 63V
C25	4130305	33 nF 10% 63V	C67	4010184	330 pF 10% 63V
C26	4130305	33 nF 10% 63V	C68	4010184	330 pF 10% 63V
C27	4200517	2.2 µF 20% 50V	C69	4010035	1 nF 10% 63V
C28	4200517	2.2 µF 20% 50V	C70	4010105	1 nF 10% 63V
C29	4130315	15 nF 5% 63V	C71	4010105	1 nF 10% 63V
C30	4130334	1 µF 5% 63V	C72	4010035	1 nF 10% 63v
C31	4100263	270 pF 1% 63V	C73	4010035	1 nF 10% 63V
C32	4200517	2.2 µF 20% 50V	C74	4010035	1 nF 10% 63V
C33	4130311	680 nF 10% 63V	C75	4010035	1 nF 10% 63V
C34	4130307	150 nF 10% 63V	C76	4010184	330 pF 10% 63V
C35	4200517	2.2 µF 20% 50V	C77	4000163	10 pF 5% 63V
C36	4010035	1 nF 10% 63V	C78	4130308	220 nF 10% 63V
C37	4130305	33 nF 10% 63V	C79	4130308	220 nF 10% 63V
C38	4130331	47 nF 5% 63V	C80	4130308	220 nF 10% 63V
C42	4010035	1 nF 10% 63V	C81	4130308	220 nF 10% 63V
C44	4200511	100 µF 20% 10V	C200	4200525	22 µF 20% 10V
C45	4030027	100 nF 20% 25V	C201	4010161	560 pF 10% 63V
C46	4010035	1 nF 10% 63V	C202	4200517	2.2 µF 20% 50V
C47	4010035	1 nF 10% 63V	C203	4010122	68 pF 10% 63V

C69	4010105	1 nF 10% 63V	C75	4010118	330 pF 10% 63V
C70	4010105	1 nF 10% 63V	C76	4010105	1 nF 10% 63V
C71	4010105	1 nF 10% 63V	C77	4010105	1 nF 10% 63V
C72	4010105	1 nF 10% 63V	C78	4010105	1 nF 10% 63V
C73	4010118	330 pF 10% 63V	C79	4030027	100 nF 20% 25V
C74	4010118	33o pF 10% 63V			
L1	8020578	Coil 10 µH 10%	L10	8020562	Coil 455 kHz
L2	8020578	Coil 10 µH 10%	L11	8020551	Coil 4.7 µH 10%
L3	8020578	Coil 10 µH 10%	L12	8020551	Coil 4.7 µH 10%
L4	8020578	Coil 10 µH 10%	L13	8020551	Coil 4.7 µH 10%
L8	8020342	Coil 10 µH	L14	8020551	Coil 4.7 µH 10%
BP1	8030056	455 kHz ±1kHz			
	7200056	Socket 28 pol.			
P50	7220485	Plug 8 pol.	P55	7220477	Plug 11 pol.
P51	7220488	Plug 3 pol.	P56	7220589	Plug 8 pol.
P52	7220550	Plug 12 pol.	P57	7220486	Plug 6 pol.
P54	7220487	Plug 4 pol			
X1	8090005	8.867 MHz			
	8700021	Lithiumbattery 3V			

PCB 41, 8002745
Key Board Left.

C1	4000203	6.8 pF 0.5 63V	C6	4000203	6.8 pF 0.5 63V
C2	4000203	6.8 pF 0.5 63V	C7	4000149	12 pF 5% 63V
C3	4000144	10 pF 63V	C8	4000144	10 pF 63V
C4	4000203	6.8 pF 0.5 63V	C9	4000203	6.8 pF 0.5 63V
C5	4000203	6.8 pF 0.5 63V	C10	4000149	12 pF 5% 63V
P66	7220551	Plug 14 pol.			
R39	5370068	22 Kohm 20% 0.1W			

PCB 42, 8002750
Key Board Middle.

C2	4000149	12 pF 5% 63V	C24	4000203	6.8 pF 0.5 63V
C7	4000144	10 pF 63V	C27	4000203	6.8 pF 0.5 63V
C8	4000203	6.8 pF 0.5 63V	C28	4000143	8.2 pF 63V
C9	4000143	8.2 pF 63V	C29	4000149	12 pF 5% 63V
C10	4000149	12 pF 5% 63V	C30	4000203	6.8 pF 0.5 63V
C11	4000203	6.8 pF 0.5 63V	C31	4010186	10 nF -20+80% 40V
C12	4000203	6.8 pF 0.5 63V	C39	4000149	12 pF 5% 63V
C13	4000149	12 pF 5% 63V	C40	4130230	100 nF 20% 63V
C14	4000203	6.8 pF 0.5 63V	C41	4130230	100 nF 20% 63V
C15	4000203	6.8 pF 0.5 63V	C42	4010118	330 pF 10% 63V
C16	4000203	6.8 pF 0.5 63V	C43	4010118	330 pF 10% 63V
C17	4000149	12 pF 5% 63V	C44	4010118	330 pF 10% 63V
C18	4000149	12 pF 5% 63V	C45	4010109	180 pF 10% 63V
C19	4000203	6.8 pF 0.5 63V	C46	4010109	180 pF 10% 63V
C20	4000203	6.8 pF 0.5 63V	C47	4010109	180 pF 10% 63V
C21	4000203	6.8 pF 0.5 63V	C48	4010109	180 pF 10% 63V
C22	4000146	15 pF 5% 63V	C49	4010109	180 pF 10% 63V
C23	4000203	6.8 pF 0.5 63V			
P59	7220551	Plug 14 pol.	P63	7220550	Plug 12 pol.
P67	7220552	Plug 18 pol.			

PCB 43, 8002755
Key Board Right

C1	4000144	10 pF 63V	C8	4000143	10 pF 63V
C2	4000203	6.8 pF 0.5 63V	C9	4000144	8.2 pF 63V
C3	4000203	6.8 pF 0.5 63V	C10	4000203	6.8 pF 0.5 63V
C4	4000149	12 pF 5% 63V	C11	4000144	10 pF 63V
C5	4000149	12 pF 5% 63V	C12	4000203	6.8 pF 0.5 63V
C6	4000203	6.8 pF 0.5 63V	C13	4000203	6.8 pF 0.5 63V
C7	4000203	6.8 pF 0.5 63V	C14	4000203	6.8 pF 0.5 63V

Standard resistors:
Resistors SMD 5% 1/8 W

	X1	X10	X100	X1K	X10K	X100K	X1M	X10M
1.0		5011295	5011274	5011197	5011272	5011207		
1.2		5011296	5011299	5011273	5011310	5011195		
1.5		5011203	5011205	5011306	5011189	5011198		
1.8		5011297	5011300	5011286	5011311	5011196		
2.2	5011282	5011192	5011194	5011307	5011312	5011208		
2.7	5011283	5011275	5011301	5011183	5011271	5011316		
3.3	5011289	5011202	5011188	5011184	5011313	5011317		
3.9	5011290	5011298	5011302	5011308	5011314	5011318		
4.7	5011291	5011191	5011303	5011193	5011284	5011206		
5.6	5011292	5011276	5011304	5011309	5011199	5011288		
6.8	5011293	5011190	5011305	5010186	5011200	5011319		
8.2	5011294	5011185	5011187	5011285	5011315	5011201		

Resistors 5% 1/2 W

	X1	X10	X100	X1K	X10K	X100K	X1M	X10M
1.0		5011000	5011013	5011028	5011044	5010313	5011069	5011083
1.2	5011406	5011001	5011014	5011030	5011045	5011058	5010421	
1.5	5010727	5011002	5011015	5011031	5011046	5011059	5011071	
1.8	5010857	5010787	5011016	5011033	5011047		5011072	
2.2	5011335	5010708	5010815	5011034	5011048	5011061	5011074	
2.7		5010803	5011018	5010055	5011049	5011062	5011075	
3.3	5010255	5011007	5011019	5011037		5011063	5010381	
3.9		5010782	5011021	5010700	5011051		5010392	
4.7	5010765	5011009	5011022	5010035	5010036	5011065	5011078	
5.6		5011010	5011023	5011041		5011066	5011079	
6.8	5010874	5011011	5011024	5011042	5010810	5011067	5011080	
8.2		5011012	5011026	5011043	5010038	5011068	5011081	

Resistors 5% 1/4 W

	X1	X10	X100	X1K	X10K	X100K	X1M	X10M
1.0	5010592	5010506	5010065	5010040	5010059	5010049	5010054	5010638
1.2		5010595	5010128	5010153	5010046	5010047	5010665	
1.5		5010468	5010057	5010247	5010053	5010063	5010093	
1.8		5010822	5010362	5010066	5010135	5010072	5010791	
2.2	5010682	5010448	5010092	5010064	5010079	5010120	5010245	
2.7	5010925	5010403	5010000	5010298	5010141	5010083	5010431	
3.3		5010253	5010044	5010076	5010075	5010117	5010848	
3.9		5010622	5010070	5010069	5010060	5010073	5010714	
4.7	5010888	5010411	5010058	5010048	5010045	5010077		
5.6	5010706	5010151	5010067	5010041	5010061	5010071	5010658	
6.8	5010904	5010039	5010144	5010052	5010062	5010074		
8.2	5010880	5010056	5010068	5010154	5010091	5010505		

Resistors 5% 1/8 W

	X1	X10	X100	X1K	X10K	X100K	X1M	
1.0			5011357	5010816	5010935	5011440	5011174	
1.2		5011351	5011084	5011442	5011338		5011175	
1.5			5011443	5011178	5011364	5011398	5011176	
1.8			5011350	5011361	5011344			
2.2	5011032	5011376	5010886	5011353	5010833	5011369		
2.7			5011355	5011362	5011366	5011370		
3.3			5011337	5010827	5011346	5011371	5011177	
3.9				5011157		5011372		
4.7	5011363	5011038	5011441	5011363	5010937			
5.6			5011358	5010885	5011166			
6.8		5011356	5011336	5010839	5011367			
8.2			5011354	5011339	5011368	5011373		

PCB 60, 8002725
Power Supply and Output Ampl.

R16	5020110	10 kohm 1% 1/4W	R41	5020159	100 Ω 10% 0.3W
R17	5020110	10 kohm 1% 1/4W	R43	5020342	750 Ω 1% 1/4W
R19	5020145	8.66 kohm 1% 1/4W	R100	5220036	330 kohm 10% 1/2W
R20	5020110	10 kohm 1% 1/4W	R200	5020831	8.25 kohm 1% 1/4W
R21	5020314	931 Ω 1% 1/4W	R201	5020832	3.92 kohm 1% 1/4W
R22	5020189	1.07 kohm 1% 1/4W	R204	5020568	2.21 kohm
R25	5020533	402 Ω 1% 1/4W	R207	5020814	562 Ω 1% 1/4W
R26	5020789	1.24 kohm 1% 1/4W	R208	5010819	56 kohm 2% 1/4W
R31	5020200	2.1 kohm 1% 1/4W	R215	5100175	0.33 Ω 10% 2W
R33	5020213	4.32 kohm 1% 1/4W			
C1	4200415	47 µF -10+100% 40V	C16	4200342	10 µF -10+50% 63V
C2	4200652	100 µF 20% 100V	C17	4010107	22 nF -20+80% 40V
C3	4000193	47 pF 5% 63V	C18	4010107	22 nF -20+80% 40V
C4	4010128	470 pF 10% 63V	C19	4200515	4.7 µF 20% 25V
C5	4130236	330 nF 20% 63V	C20	4010107	22 nF -20+80% 40V
C6	4010105	1 nF 10% 63V	C200	4200510	10 µF 20% 16V
C7	4130230	100 nF 20% 63V	C201	4200525	22 µF 20% 10V
C9	4130230	100 nF 20% 63V	C202	4010122	680 pF 10% 63V
C10	4200511	100 µF 20% 10V	C203	4200516	47 µF 20% 16V
C11	4010107	22 nF -20+80% 40V	C204	4200271	47 µF -10+100% 63V
C12	4200517	2.2 µF 20% 50V	C205	4130313	470 nF 20% 63V
C13	4200368	100µF -10+100%63V	C206	4130233	220 nF 20% 63V
C14	4200342	10 µF -10+50% 63V	C207	4130233	220 nF 20% 63V
C15	4010107	22 nF -20+80% 40V			
L200	6850165	Coil 3 µH			
RL1	7600073	Relay 6V DC 2NC			
F1	6600072	T1A	F2	6600072	T1A
P80	7220489	Plug 2 pol.	P84	7220486	Plug 6 pol.
P81	7220313	Plug 3 pol.	P85	7220485	Plug 8 pol.
P82	7220482	Plug 5 pol.	P86	7220487	Plug 4 pol.
P83	7220487	Plug 4 pol.	P87	7220479	Plug 9 pol.

PCB 61, 8002930
Speaker Socket

C200	4010106	10 nF -20+80% 40V	C203	4010106	10 nF -20+80% 40V
C201	4010105	1 nF 10% 63V	C204	4010105	1 nF 10% 63V
C202	4010106	10 nF -20+80% 40V			
P88	7210521	Socket 4 pol.	P90	7210520	Socket 3 pol.
P89	7210521	Socket 4 pol.	P91	7210520	Socket 3 pol.

PCB 62, 8002731
Rectifiers

C1	4130391	100 nF 20% 63 V	C11	4130391	100 nF 20% 63V
C2	4130389	220 nF 20% 100V	C12	4200393	2200µF -10+50% 40V
C3	4130389	220 nF 20% 100V	C14	4130391	100 nF 20% 63V
C4	4130389	220 nF 20% 100V	C15	4130391	100 nF 20% 63V
C5	4200629	6800 µF -10+50% 40V	C16	4130391	100 nF 20% 63V
C6	4200629	6800 µF -10+50% 40V	C17	4200630	10000µF-10+50%25V
C9	4130391	100 nF 20% 63V	C18	4130391	100 nF 20% 63V
C10	4130391	100 nF 20% 63V			
RL1	7600084	Relay 6VDC			
P93	7220185	Plug 3 pol.	P96	7220196	Plug 4/3 pol.
P94	7220313	Plug 3 pol.	P97	72220403	Plug 4 pol.
P95	7220403	Plug 4 pol.			

PCB 64, 8013395
Fuses
Type 2501

R1	5000194	3,3 Mohm 10% 1/2 W			
C1	4200422	1000 µF -10+50% 63V			
F1	6600068	4AT 250V	F5	6600065	1,6 AT 250V
F2	6600068	4AT 250V	F6	6600065	1,6 AT 250V
F3	6600067	2,5 AT 250V	F7	6600064	250 mA 250V
F4	6600067	2,5 AT 250V	F8	6600064	250 mA 250V

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Beocenter 9000
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Bottom

CD RETAINER
BLACK MAGIC CAP AND SPRING P/No 3164690

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PCB 64, 8013384
Fuses
Type 2503

R1	5000194	3,3 Mohm 10% 1/2W			
C1	4130079	22 nF 20% 250V			
F1	6600078	3 AT 125 V	F6	6600075	2,5 AT 125V
F2	6600077	T400 mA 125V	F7	6600075	2,5 AT 125V
F3	6600077	T400 mA 125V	F9	6600079	5 AT 125V
F4	6600056	4 AT 125V	F10	6600079	5 AT 125V
F5	6600056	4 AT 125V			

PCB 64, 8012292
Fuses
Type 2504

R1	5000194	3,3 Mohm 10% 1/2W			
C1	4130079	22 nF 20% 250V			
F1	6600056	4 AT 125V	F6	6600075	2,5 AT 125V
F2	6600077	T400 mA 125V	F7	6600075	2,5 AT 125V
F3	6600077	T400 mA 125V	F9	6600079	5 AT 125V
F4	6600056	4 AT 125V	F10	6600079	5 AT 125V
F5	6600056	4 AT 125V			

PCB 66, 8002840
CD on/off Relay

C2	4200712	68 µF -10+30% 40V
RL1	7600085	Relay 6VDC
P106	7220590	Plug 9 pol.

PCB 81, 8002806
Audio Terminal

C30	4010166	100 nF -20+50%	C34	4000321	220 pF 5% 50V
C31	4200635	4.7 µF 20% 16V	C35	4200664	470 µF 20% 63V
C32	4000229	150 pF 5% 50V	C36	4000321	220 pF 5% 50V
C33	4000229	150 pF 5% 50V			
X30	8030024	455 kHz ± 1 kHz			

MEKANISK STYKLISTE
MECHANICAL PARTS LIST

10 Modul	8002715	AM/FM, RF, IF, Decoder	AM/FM, RF, IF, Decoder
	8002893	Type 2504	Type 2504
	8002891	Type 2503/2505	Type 2503/2505
1001	2542657	Vinkel	Angle
	3304125	Skærm	Screen
17 Modul	8050093	FM Tuner	FM Tuner
	8050102	Type 2504	Type 2504
	3302396	Låg tuner	Lid Tuner
21 Modul	8002732	Connection Board	Connection Board
40 Modul	8002720	System Control and IR	System Control and IR
	3302405	Skærm	Screen
	8700021	Lithiumbatteri 3V	Lithiumbattery 3V
32 Modul	8420086	CD Servo	Servo
33 Modul	8005190	CD Decoder	Decoder
	3152461	Holder	
51 Modul	8002757	Headphone	Headphones
52 Modul	8002734	Mic. Ampl.	Mic. Ampl.
53 Modul	8002933	Input Select	Input Select
	2542675	Vinkel	Angle
	3152511	Holder	Holder
	8002780	PCB beskyttelses dioder	PCB Protection diodes
54 Modul	8002934	Volume and Tone Control	Volume and Output Ampl.
60 Modul	8002725	Power and Output Ampl.	Power and Output Ampl.
61 Modul	8002930	Speaker Socket	Speaker Socket
62 Modul	8002731	Rectifiers	Rectifiers
65 Modul	8002929	Power Supply Voltage Regulators	Power Supply Voltage Regulators
66 Modul	8002758	CD On/Off Relay	CD On/Off Relay
93Løbev.	8422012	Tape Mechanism	Tape Mechanism
96 CD	8420132	CD Mechanism	Mechanism
9101	8002725	Print	PCB
5301	2542675	Vinkel stikpanel	Angle connector panel
5302	3152537	Holder	Holder
9102	3164621	Dækplade	Cover plate
9103	3470171	Sidestykke Venstre	Side piece left
9104	2548233	Vinkel	Angle
9105	7500176	Stikben	Pin
1001	2542657	Vinkel	Angle
9106	3030101	Hængsel	Hinge
9107	3450677	Forstykke venstre	Front piece left
9108	3450616	Forstykke midt	Front piece centre
9109	3103083	Fod gummi	Foot rubber

9110	3164654	Dæksel Type 2501	Cover Type 2501
	3164657	Dæksel Type 2503	Cover Type 2503
	3164659	Dæksel Type 2504	Cover Type 2504
	3164660	Dæksel Type 2505	Cover Type 2505
9111	2819235	Fjeder	Spring
9112	3152466	Holder	Holder
9113	2576109	Afstandsstykke	Spacers
9114	3164589	Dæksel Type 2501-04-05	Cover Type 2501-04-05
	3164656	Dæksel Type 2503	Cover Type 2503
64T1	8013395	Trafo Type 2501	Transformer Type 2501
	8013384	Trafo Type 2503	Transformer Type 2503
	8013392	Trafo Type 2504	Transformer Type 2504
9115	3162279	Dækplade CD	Cover plate CD
9116	2548234	Vinkel	Angle
9117	2812118	Trykfjeder	Pressure spring
9118	3152561	Holder	Holder
9119	2938249	Bøsning	Bushing
9120	3358224	Køleplade	Cooling plate
9121	3152553	Holder	Holder
9122	3152460	Holder	Holder
9123	6271102	Netledning Type 2501	Mains lead Type 2501
	6270328	Netledning Type 2503	Mains lead Type 2503
	6271119	Netledning Type 2504	Mains lead Type 2504
	6270297	Netledning Type 2505	Mains lead Type 2505
9124	3164677	Dæksel	Cover
9125	2641119	Spændestykke	Clamps
9126	3152366	Ledningsholder	Lead holder
9127	3454375	Bund	Bottom
9128	3030101	Hængsel	Hinge
9129	3470172	Sidestykke højre	Side piece right
9130	3322111	Rude	Window
9131	2576109	Afstandsstykke	Spacers
9132	3450676	Forstykke højre	Front piece right

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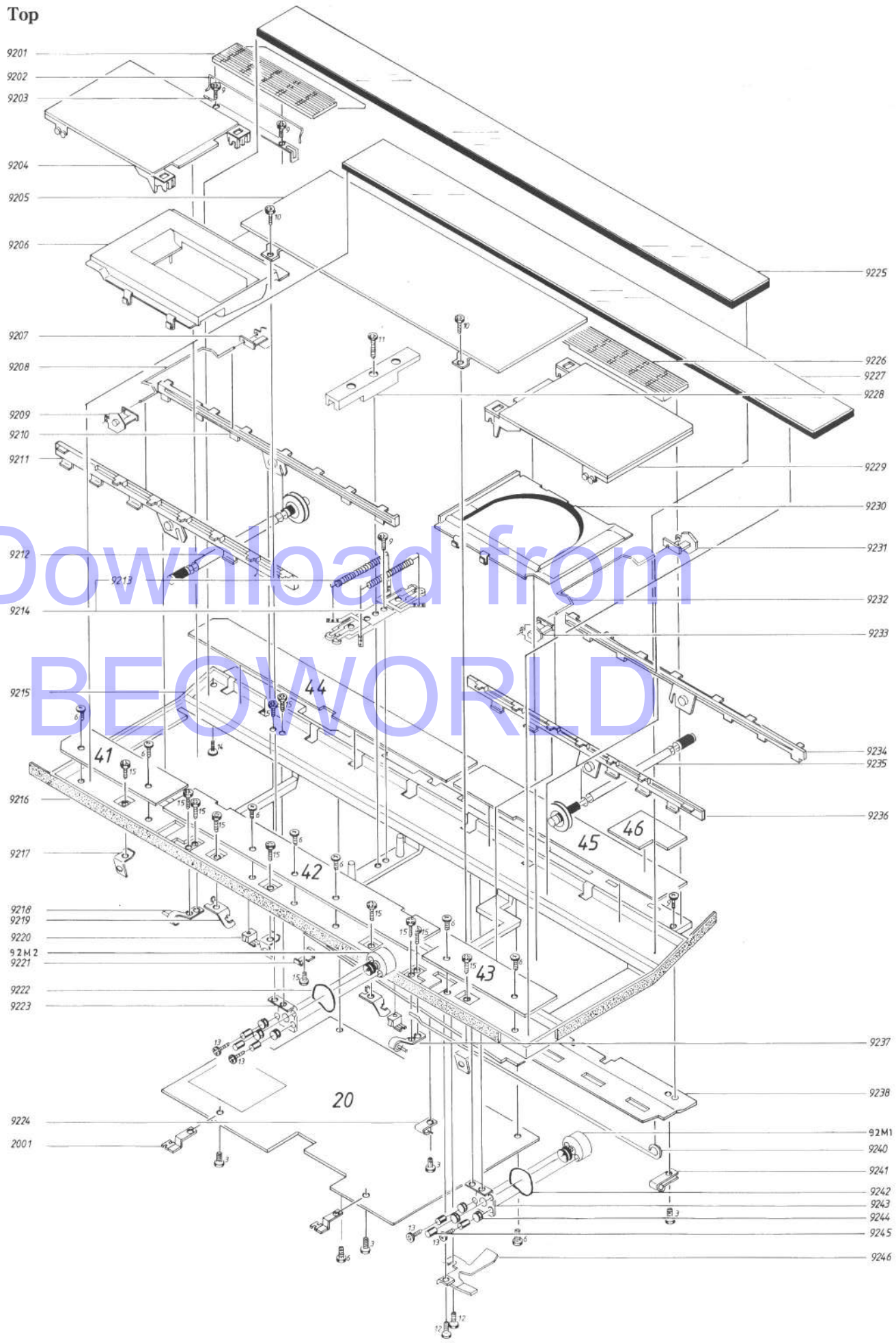
Beocenter 9000
Top



20 Modul	8004628	Tape Recorder	Tape Recorder
2001	3151246	Holder Tape PBC	Holder Tape PCB
	3170236	Isolationsplade	Insulation plate
	3302404	Skærm	Screen
	2515054	Nylonbøjle 6mm	Nylon clamp 6mm
41 Modul	8002745	Key Board Left	Keyboard Left
	3131258	Hus stor	Housing large
	3907059	Gummi	Rubber
	3947286	Tape 1 rulle a 50m	Tape 1 roll of 50 m
	3131257	Hus lille	Housing small
42 Modul	8002750	Key Board Middle	Keyboard Middle
	3131258	Hus stor	Housing large
	3907059	Gummi	Rubber
	3947286	Tape 1 rulle a 50m	Tape 1 roll of 50m
	3131257	Hus lille	Housing small
43 Modul	8002755	Key Board Right	Keyboard Right
	3131258	Hus stor	Housing large
	3907059	Gummi	Rubber
	3947286	Tape 1 rulle a 50m	Tape 1 roll of 50m
	3131257	Hus lille	Housing small
44 Modul	8002738	Display Left	Display Left
	3947286	Tape 1 rulle a 50m	Tape 1 roll of 50m
	3131257	Hus lille	Housing small
	3131258	Hus stor	Housing large
45 Modul	8002740	Display Right	Display Right
	3947286	Tape 1 rulle a 50m	Tape 1 roll of 50m
	3131257	Hus lille	Housing small
	3131258	Hus stor	Housig large
46 Modul	8002736	7 Segment Display	7 Segment Display

2001	2542607	Vinkel	Angle
9201	3164632	Dæksel stikpanel	Cover connector panel
9202	2830118	Aksel	Shaft
9203	2530506	vinkel	Angle
9204	3162288	Låg for løbeværk	Lid for tape transport system
9205	3162287	Låg midt	Lid centre
9206	3164620	Dæksel for løbeværk	Cover for tape transport system
9207	3014076	Styr løfteled Højre	Guide lifting member Right
9208	2830122	Aksel	Shaft
9209	3014075	Styr løfteled Venstre	Guide lifting member Left
9210	3013056	Styreskinne Venstre	Guide rail Left
9211	3013055	Styreskinne Højre	Guide rail Right
9212	2831064	Aksel	Shaft
9213	2810174	Fjeder	Spring
9214	2641117	Plade	Plate
9215	8052246	Chassis Alu.	Chassis alu.
	8052258	Chassis Hvid	Chassis white
	8052234	Chassis Pali.	Chassis palisander
9216	3414873	Kabinetsæt palis	Cabinet trim palisander
	3414878	Kabinetsæt hvid	Cabinet trim white
	3414870	Kabinetsæt alu	Cabinet trim alu.
9217	2542667	Vinkel topchassis	Angle top chassis
9218	3030105	Hængsel	Hinge
9219	3030095	Hængsel tape PCB	Hinge tape PCB
9220	2576109	Afstandsstykke	Spacer
9221	3034070	Lås for dæksel	Lock for cover
9222	2732076	Rem motor	Belt motor
9223	3151234	Holder motor Venstre	Holder motor Left
9224	2515051	Nylonbøjle	Nylon clamp
9225	3162251	Glas display	Glass display
9226	3164633	Pyntdæksel	Decorative cover

Skrueoversigt / Survey of screws

		Skrueoversigt	Survey of screws
1	2039030	Skrue AM 3x10	Screw AM 3x10
2	2039036	Skrue AM 3x30	Screw AM 3x30
3	2039020	Skrue AM 3x5	Screw AM 3x5
4	2039027	Skrue AM 3x6	Screw AM 3x6
5	2013099	PL. Skrue U 2,9x6,5	Countersunk screw U 2.9x6.5
6	2013077	PL. Skrue U 2,9x6,5	Countersunk screw U 2.9x6.5
7	2043038	Skrue AM 4x70	Screw AM 4x70
8	2015092	PL. Skrue U 3,5x13	Countersunk screw U 3.5x13
9	2015091	PL. Skrue U 3,5x9,5	Countersunk screw U 3.5x9.5
10	2039034	Skrue AM 3x12	Screw AM 3x12
11	2015070	PL. Skrue M 3,5x25	Countersunk screw M 3.5x25
12	2013075	PL. Skrue U 2,9x4,5	Countersunk screw U 2.9x4.5
13	2036016	Skrue AM 2,6x6	Screw AM 2.6x6
14	2039037	Skrue AM 3x16	Screw AM 3x16
15	2038098	Skrue AM 3x8	Screw AM 3x8
16	2039069	Skrue AM 3x8	Screw AM 3x8
17	2039906	Skrue AM 3x10 UH	Screw AM 3x10 UH
18	2034066	Skrue AM 2x5 DIN 965	Screw AM 2x5 DIN 965
19	2625002	Stj. Skive	Tooth lock washer
20	2380092	Møtrik	Nut
21	2622052	Skive Ø3.2xØ8x1	Washer Ø3.2xØ8x1
22	2622321	Skive 3,2 DIN 9021	Washer 3.2 DIN 9021
23	2622022	Skive 4,3 DIN 125	Washer 4.3 DIN 125
24	2380011	Møtrik M3 DIN 934Z	Nut M3 DIN 934Z
25	2938154	Bøsning	Bushing

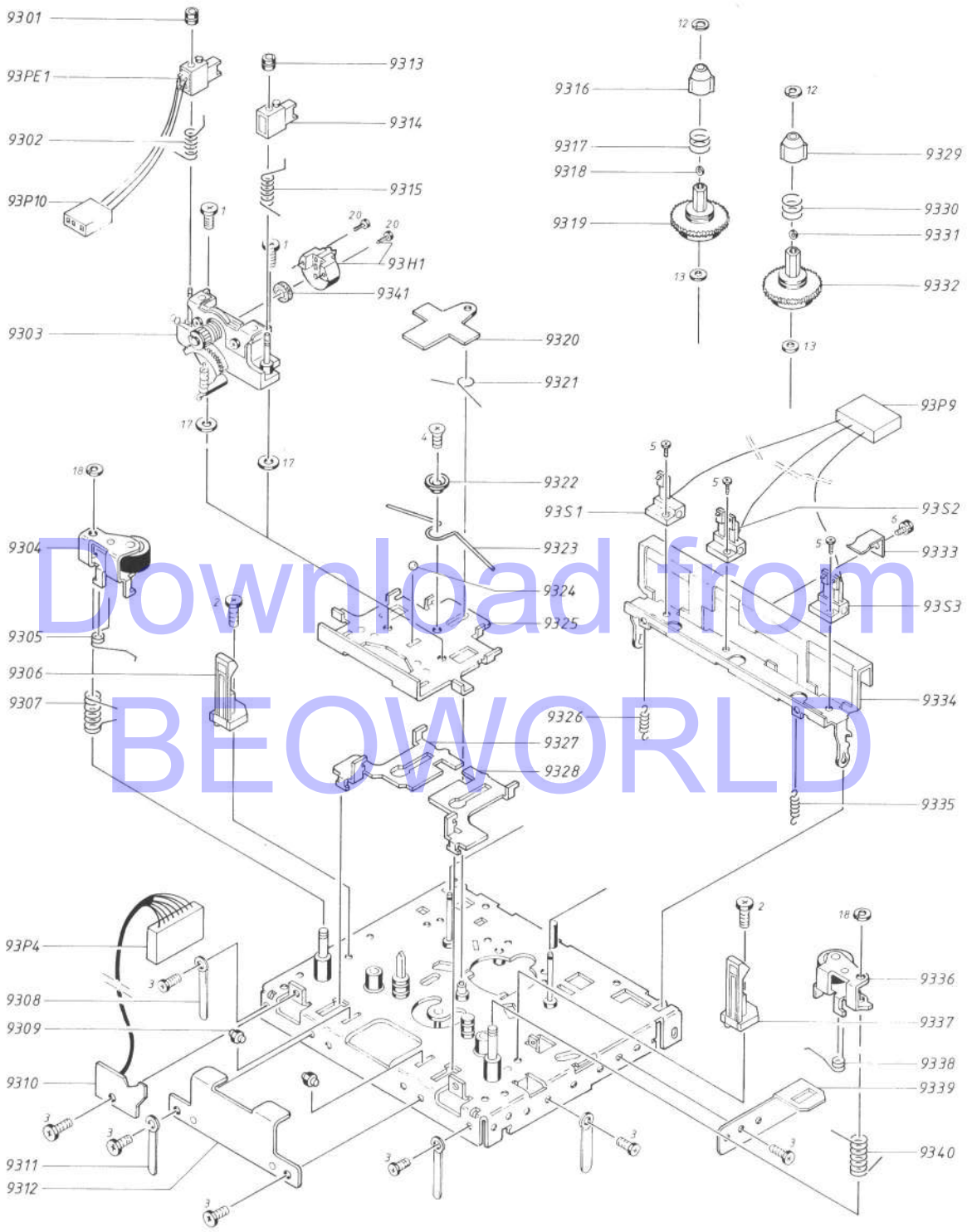
Ikke viste dele / Parts not shown

		Ikke viste dele	Parts not shown
	3982251	Pen til aluminiumsfarvet kant	Pen for the aluminium-coloured bezel
	3391967	Yderæske	Outer box
	3397585	Skumemballagesæt	Foam packing set
	3946038	Folie (1m)	Foil (1m)
	3395003	Skumemballage f. Terminal	Foam packing for terminal
	3395001	Yderæske f. Terminal	Outer box for terminal
	3502587	Betjeningsanvisning DK	Owner's Manual DK
	3502588	Betjeningsanvisning S	Owner's Manual S
	3502589	Betjeningsanvisning SF	Owner's Manual SF
	3502590	Betjeningsanvisning GB	Owner's Manual GB
	3502591	Betjeningsanvisning D	Owner's Manual D
	3502592	Betjeningsanvisning NL	Owner's Manual NL
	3502593	Betjeningsanvisning F	Owner's Manual F
	3502594	Betjeningsanvisning I	Owner's Manual I
	3502595	Betjeningsanvisning USA	Owner's Manual USA

9227	3162250	Glas keyboard	Glass keyboard
9228	2542727	Vinkel	Angle
9229	3162289	Låg for CD	Lid for CD
9230	3164623	Dæksel for CD	Cover for CD
9231	3014075	Styr løfteled Venstre	Guide lifting member Left
9232	2830122	Aksel	Shaft
9233	3014076	Styr løfteled Højre	Guide lifting member Right
9234	3013055	Styreskinne Højre	Guide rail Right
9235	2831065	Aksel	Shaft
9236	3013056	Styreskinne Venstre	Guide rail Left
9237	3030104	Hængsel Højre	Hinge Right
9238	2568868	Skinne pyntdæksel	Rail decorative cover
9240	2850136	Servicearm	Service arm
9241	2515001	Nylonbøjle	Nylon clamp
9242	2732076	Rem motor	Belt motor
9243	3151235	Holder motor Højre	Holder motor Right
9244	2938237	Bøsning	Bushing
9245	2930074	Bøsning afstandsstykke	Bushing spacer
9246	2548203	Vinkel	Angle
92M1	8400164	Motor CD	Motor CD
92M2	8400164	Motor TAPE	Motor TAPE

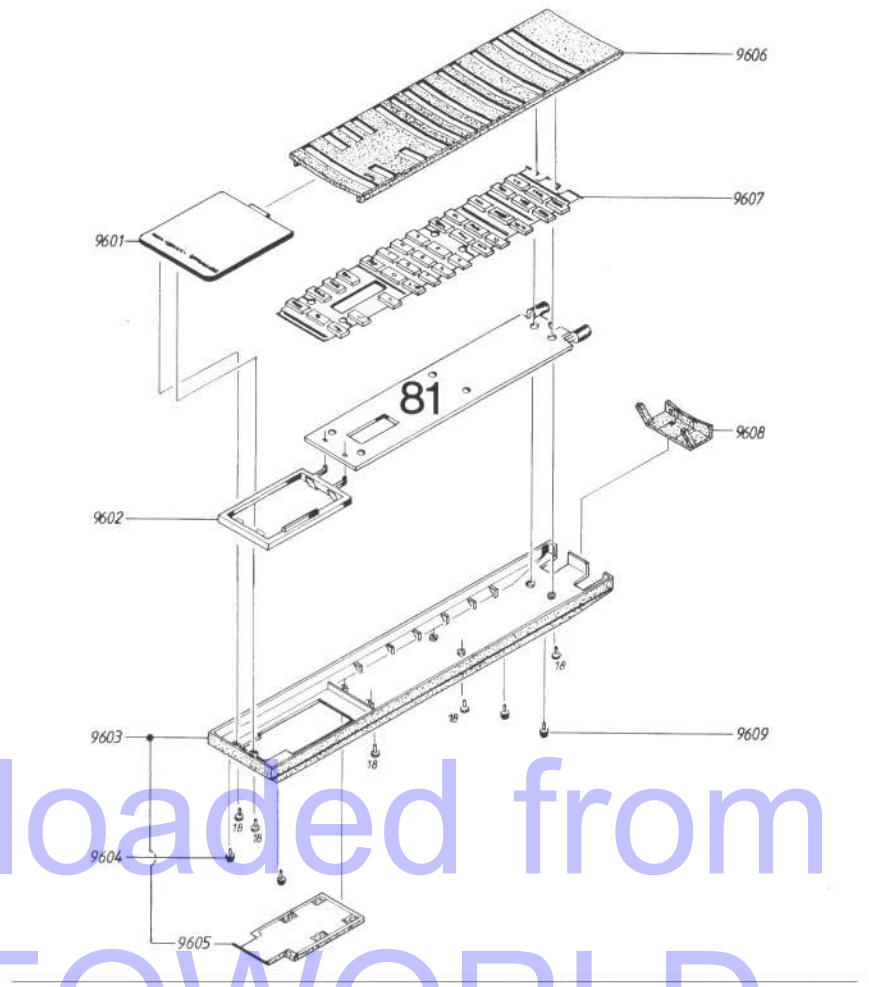
Bang&Olufsen

Tape løbeværk top
Tape mechanism top



Bang&Olufsen

Audio Terminal
Type 2049



81Modul 8002806 PCB Audio terminal

9601	3164609	Dæksel	Cover
9602	3015131	Styr for batteri	Guide for battery
9603	3131265	Bund	Bottom
9604	3341020	Glidesko	Plastic foot
9605	3164552	Dæksel	Cover
9606	3131268	Top	Top
9607	2776038	Knapsæt	Set of buttons
9608	3375047	Linse	Lense
9609	3341020	Glidesko	Plastic foot
	8700017	Batteri	Battery

Tilslut en målesender til antenneindgangen og indstil den til 94 MHz.
Finindstil målesenderens frekvens til minimum 2. harmonisk forvrængning af signalet, som vist på kurven.

Connect a signal generator to the aerial input and adjust it to 94MHz.
Fine-tune the signal generator to at least second harmonic distortion of the signal as indicated on the curve.

RIGTIG  CORRECT

FORKERT  INCORRECT

Juster 10L2 så tæt mod 0V DC som muligt.
NB! Spændingen over 10R19 vil hele tiden variere p.g.a. korrektionspulser fra mikrocomputeren.

Efter detektor justering indstil FM DISPLAY INDIKERING se afsnit 7.

Adjust 10L2 as close to 0V DC as possible.
NOTE! The voltage across 10R19 will vary continuously because of correction pulses from the microcomputer.
After adjustment of the detector, adjust the FM DISPLAY INDICATION, see section 7.

FM LF output
Tilslut en målesender til antenneindgangen og indstil den til mono, 94MHz, 1mV EMF, △±75 kHz.
Tilslut LF voltmeter til 10TP14 (10TP15).
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til displayet viser 87,5.
Tryk »Freq«.
Tryk 940.
Juster 10R204 (10R404) til 1V RMS.
(Type 2503 justeres til 700mV RMS).

FM AF output
Connect a signal generator to the aerial input and adjust it to mono, 94MHz, 1mV EMF, △ ± 75kHz.
Connect AF voltmeter to 10TP14 (10TP15).
Press "Radio".
Press "Search".
Press "AM-FM" until the display shows 87.5.
Press "Freq".
Press 940.
Adjust 10R204 (10R404) to 1V R.M.S.(Adjust type 2503 to 700mV R.M.S.)

Kanalseparation
Tilslut en stereokoder (Encoder) til antenneindgangen og indstil den til 94 MHz og umoduleret signal i den ene kanal.
Tilslut LF voltmeter til 10TP14 eller 10TP15 (den umodulerede kanal).
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til displayet vises 87,5.
Tryk »Freq.«
Tryk 940.
Juster 10R51 til minimum signal i den umodulerede kanal.
Tilslut LF voltmeter til den anden kanal, og indstil stereokoderen til umoduleret signal i den samme kanal.
Kontroller, juster til symmetrisk kanalseparation.

Channel separation
Connect a stereo encoder to the aerial input and adjust it to 94MHz and unmodulated signal in one channel.
Connect AF voltmeter to 10TP14 or 10TP15 (the unmodulated channel).
Press "Radio".
Press "Search".
Press "AM-FM" until the display shows 87.5.
Press "Freq."
Press 940.
Adjust 10R51 to minimum signal in the unmodulated channel.
Connect AF voltmeter to the other channel, and adjust the stereo encoder to unmodulated signal in the same channel.
Check, adjust to symmetrical channel separation.

FM stop niveau
Tilslut en målesender til antenneindgangen, og indstil den til 94MHz, 20µV EMF, △±75 kHz.
Tilslut DC voltmeter til kollektor på 10TR5.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til displayet visere 87,5.
Tryk Freq.«
Tryk 940.
Drej 10R25 mod uret til stop.
Drej 10R25 med uret til spændingen på kollektoren af 10TR5 skifter fra high til low.

FM stop level
Connect a signal generator to the aerial input, and adjust it to 94MHz, 20µV EMF, △ ±75kHz.
Connect DC voltmeter to the collector at 10TR5.
Press "Radio".
Press "Search".
Press "AM-FM" until the display shows 87.5.
Press "Freq".
Press 940.
Turn 10R25 anticlockwise to stop.
Turn 10R25 clockwise until the collector voltage of 10TR5 switches from high to low.

9301	2389085	Møtrik M2	Nut M2
9302	2818083	Fjeder	Spring
9303	3112329	Vendemekanisme	Reversing mechanism
9304	2794133	Trykrulle venstre	Thrust roller left
9305	2818085	Fjeder	Spring
9306	3010028	Arm f. kassette styr	Arm f. cassette guide
9307	2818086	Fjeder	Spring
9308	3152529	Kabelbinder	Cable binder
9309	2804059	Rulle	Roller
9310	6275681	PCB m. ledninger og fatning	PCB w. cables and socket
9311	3152529	Kabelbinder	Cable binder
9312	3112324	Vinkel f. chassis	Bracket f. chassis
9313	2389085	Møtrik M2	Nut M2
9314	3010027	Båndstyr	Tape guide
9315	2818084	Fjeder	Spring
9316	3164634	Dæksel	Cap
9317	2812085	Fjeder	Spring
9318	2816233	Bladfjeder	Leaf spring
9319	2726156	Spoletallerken	Turntable
9320	2816232	Bladfjeder	Leaf spring
9321	2819221	Fjeder	Spring
9322	2932124	Bøsning	Bushing
9323	2819222	Fjeder	Spring
9324	2917018	Rulle	Roller
9325	3112320	Vinkel f. tonehovedbro	Bracket for tape head bridge
9326	2810212	Fjeder	Spring
9327	3112321	Vinkel venstre	Bracket left
9328	3112322	Vinkel højre	Bracket right
9329	3164634	Dæksel	Cap
9330	2812085	Fjeder	Spring
9331	2816233	Bladfjeder	Leaf spring
9332	2726156	Spoletallerken	Turntable
9333	2810213	Bladfjeder	Leaf spring
9334	2548228	Vinkel f. kontakter	Bracket f. contacts
9335	2810212	Fjeder	Spring
9336	2794134	Trykrulle højre	Thrust roller right
9337	3010028	Arm f. kassette styr	Arm f. cassette guide
9338	2818087	Fjeder	Spring
9339	3112323	Vinkel	Bracket
9340	2818086	Fjeder	Spring
9341	2932123	Gummibøsning	Rubber bushing

93H1	8600096	Tonehoved	Tape head

93P4	6275681	Ledning m. fatning 8 pol	Leads w. socket 8 pol
93P9	6275677	Ledning m. fatning 6 pol	Leads w. socket 6 pol
93P10	6275678	Ledning m. fatning 3 pol	Leads w. socket 3 pol

93PE1	7400343	Optokobler	Opto coupler

93S1	7400341	Omskifter	Switch
93S2	7400340	Omskifter	Switch
93S3	7400340	Omskifter	Switch

AM
For at undgå indvirkning fra AGC'en, anbefales det at kortslutte 10C62.

LW oscillator
Der skal ikke tilføres signal.
Tilslut DC voltmeter til 10TP16.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til frekvensdisplayet viser 150.
Juster 10L9 til 2V±0,25V.
Tryk »Freq«.
Tryk 350.
Juster 10C56 til 25V±0,5V
Gentag evt. proceduren.

MW oscillator
Der skal ikke tilføres signal.
Tilslut DC voltmeter til 10TP16.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til frekvensdisplayet viser 150.
Tryk »Freq«.
Tryk 520.
Juster 10L8 til 2V±0,25V.
Tryk »Freq«.
Tryk 1610.
Juster 10C55 til 25V±0,5V.
Gentag evt. proceduren.

AM MF
Tilslut en sweepgenerator til antenneindgangen, og indstil den til centerfrekvens 455 kHz △10 kHz.
Tilslut et oscilloskop til 10IC7 ben 13.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til frekvensdisplayet viser 150.
Tryk Freq«..
Tryk 1500.
Kortslut 10R98.
Juster 10L13 og 10L14 til maksimum og symmetrisk MF kurve.
Kortslutningen over 10R98 fjernes.

ANTENNEKREDSE
MW antennekredsene **skal** justeres først.

MW
Tilslut en målesender til antenneindgangen, og indstil den til 1500 kHz, 30% modulation.
Tilslut oscilloskop eller LF voltmeter til 10IC7 ben 13.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til frekvensdisplayet viser 150.
Tryk »Freq«.
Tryk 1500.
Juster 10C83 til maksimum output.
Målesenderens frekvens ændres til 575 kHz.
Tryk »Freq«.
Tryk 575 kHz.
Juster 10L12 til maksimum output.
Gentag evt. proceduren.

AM
In order to avoid any kind of influence from the AGC, it is recommended that 10C62 be short-circuited.

LW oscillator
Do not input a signal.
Connect DC voltmeter to 10TP16.
Press "Radio".
"Search".
Press "AM-FM" until the frequency display shows 150.
Adjust 10L9 to 2V ± 0.25V.
Press "Freq".
Press 350.
Adjust 10C56 to 25V ± 0.5V.
Repeat this procedure if necessary.

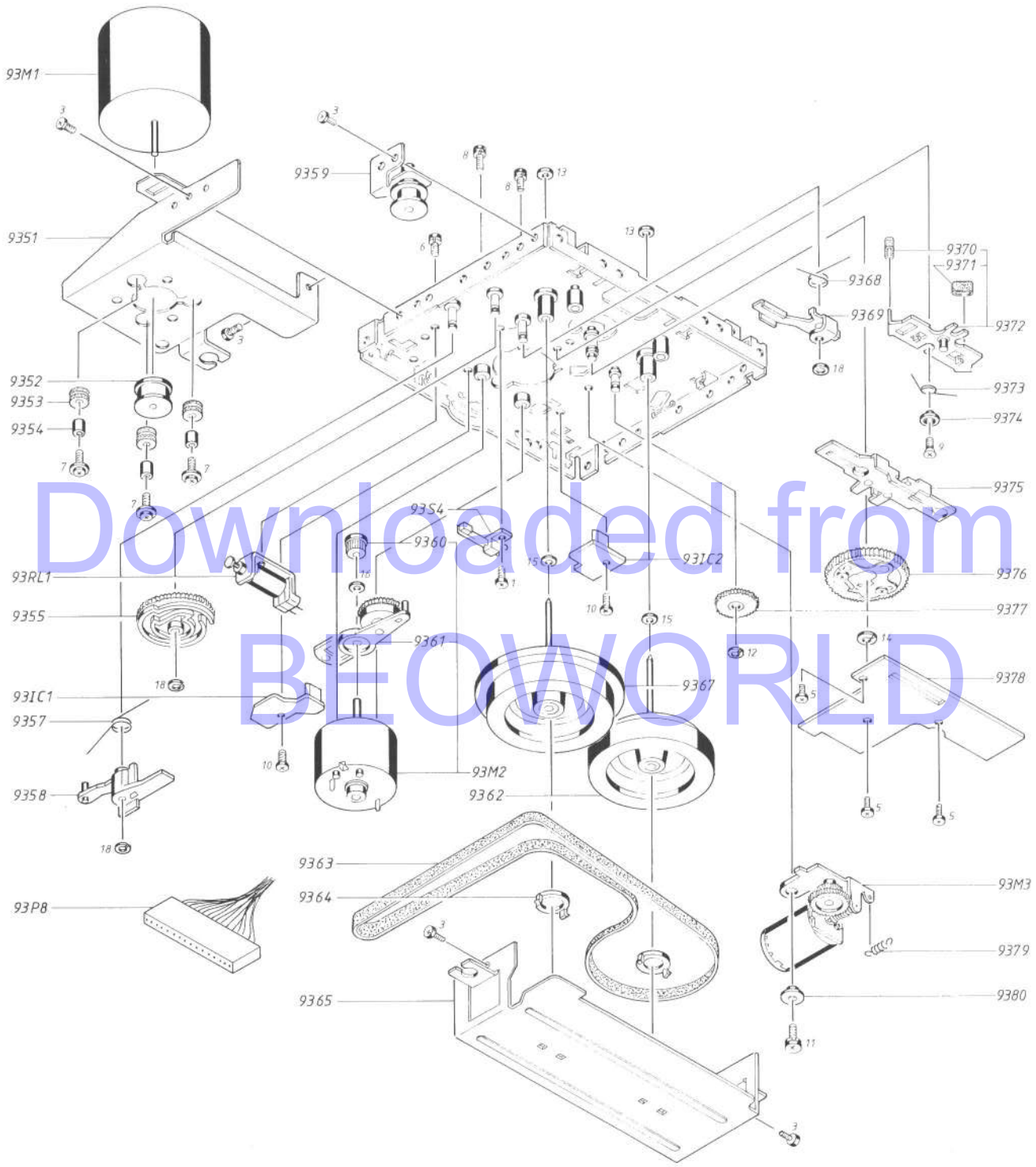
MW oscillator
Do not input a signal.
Connect DC voltmeter to 10TP16.
Press "Radio".
Press "Search".
Press "AM-FM" until the frequency display shows 150.
Press "Freq".
Press 520.
Adjust 10L8 to 2V ± 0.25V.
Press "Freq".
Press 1610.
Adjust 10C55 to 25V ± 0.5V.
Repeat this procedure if necessary.

AM IF
Connect a sweep generator to the aerial input, and adjust it to centre frequency, 455 kHz △ 10 kHz.
Connect an oscilloscope to 10IC7 pin 13.
Press "Radio".
Press "Search".
Press "AM-FM" until the frequency display shows 150.
Adjust 10L13 and 10L14 to maximum and symmetrical IF curve.
Remove the short-circuit across 10R98.

AERIAL CIRCUITS
The MW aerial circuits must be adjusted first.

MW
Connect a signal generator to the aerial input, and adjust it to 1500 kHz, 30% modulation.
Connect oscilloscope or AF voltmeter to 10IC7 pin 13.
Press "Radio".
Press "Search".
Press "AM-FM" until the frequency display shows 150.
Press "Freq".
Press 1500.
Adjust 10C83 to maximum output.
Signal generator frequency is changed to 575 kHz.
Press "Freq".
Press 575 kHz.
Adjust 10L12 to maximum output.
Repeat this procedure if necessary.

Tape løbeværk bund
Tape mechanism bottom



9351	3112325	Vinkel f. motor	Bracket f. motor
9352	2722047	Remskive	Pulley
9353	2932090	Gummibøsning	Rubber bushing
9354	2932089	Bøsning	Bushing
9355	2700058	Kurvehjul	Cam lifting wheel
9357	2819223	Fjeder	Spring
9358	2851208	Arm f. kurvehjul	Arm f. cam lifting wheel
9359	2794138	Vinkel for hjul	Bracket with wheel
9360	2700059	Tandhjul	Gear wheel
9361	2794135	Kobling	Clutch
9362	2794137	Svinghjul højre	Flywheel right
9363	2732082	Rem	Belt
9364	2905078	Lås	Lock
9365	3112328	Vinkel f. svinghjul	Bracket f. cam lifting wheel
9367	2794136	Svinghjul venstre	Flywheel left
9368	2819224	Fjeder	Spring
9369	3112326	Vinkel f. kurvehjul	Bracket f. flywheel
9370	2932125	Gummibøsning	Rubber bushing
9371	2932125	Gummibøsning	Rubber bushing
9372	3112330	Arm f. bremse	Arm f. brake
9373	2819225	Fjeder	Spring
9374	2932126	Bøsning	Bushing
9375	3112327	Vinkel	Bracket
9376	2700061	Hjul m. kontakt	Wheel w. contact
9377	2700060	Tandhjul	Gear wheel
9378	8004594	PCB	PCB
9379	2819226	Fjeder	Spring
9380	2932127	Bøsning	Bushing

93M1	8400000	Capstan motor	Capstan motor
93M2	8400159	Opsamle motor	Wind motor
93M3	8400160	Vende motor	Reversing motor

93RL1	6840293	Sugespole	Magnet coil

93S4	7400342	Omskifter f. kurvehjul	Switch f. cam lifting wheel

93P8	6275676	Ledning m. fatning 16 pol	Leads w. socket 16 pol

93IC1	8004591	PCB m. IC	PCB w. IC
93IC2	8004590	PCB m. IC	PCB w. IC

Oversigt skruer, skiver m.m. til løbeværk
Survey of screws, washers etc. for tapedeck

1	2036020	Skrue 2.6x4	Screw 2.6x4
2	2034063	Skrue AM2x5	Screw AM2x5
3	2039051	Skrue 2.6x5	Screw 2.6x5
4	2036063	Skrue 2.6x4	Screw 2.6x4
5	2034067	Skrue 2x4	Screw 2x4
6	2034049	Skrue 2x4, m. skive	Screw 2x4, w. washer
7	2036023	Skrue 2.6x7, m. skive	Screw 2.6x7, w. washer
8	2036010	Skrue 2.6x8, m. skive	Screw 2.6x8, w. washer
9	2034080	Skrue 2x5	Screw 2x5
10	2034081	Skrue 2x4	Screw 2x4
11	2036062	Skrue 2.6x5, m. skive	Screw 2.6x5, w. washer
12	2390099	Låsering	Locking ring
13	2622408	Skive	Washer
14	2622421	Skive	Washer
15	2622409	Skive	Washer
16	2622422	Skive	Washer
17	2622407	Skive	Washer
18	2390098	Låsering	Locking ring
20	2033012	Skrue	Screw

3-10

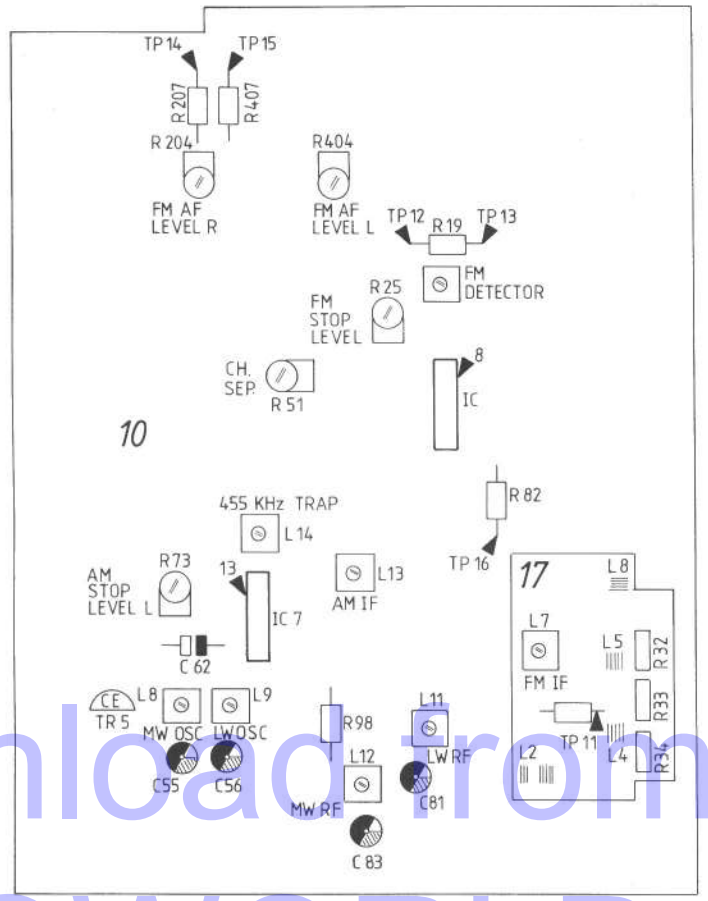
Smøring
Behovet for eftersmøring er minimalt, men ved større eftersyn og ved udskiftning af vigtige mekaniske dele, bør disse retningslinier følger.

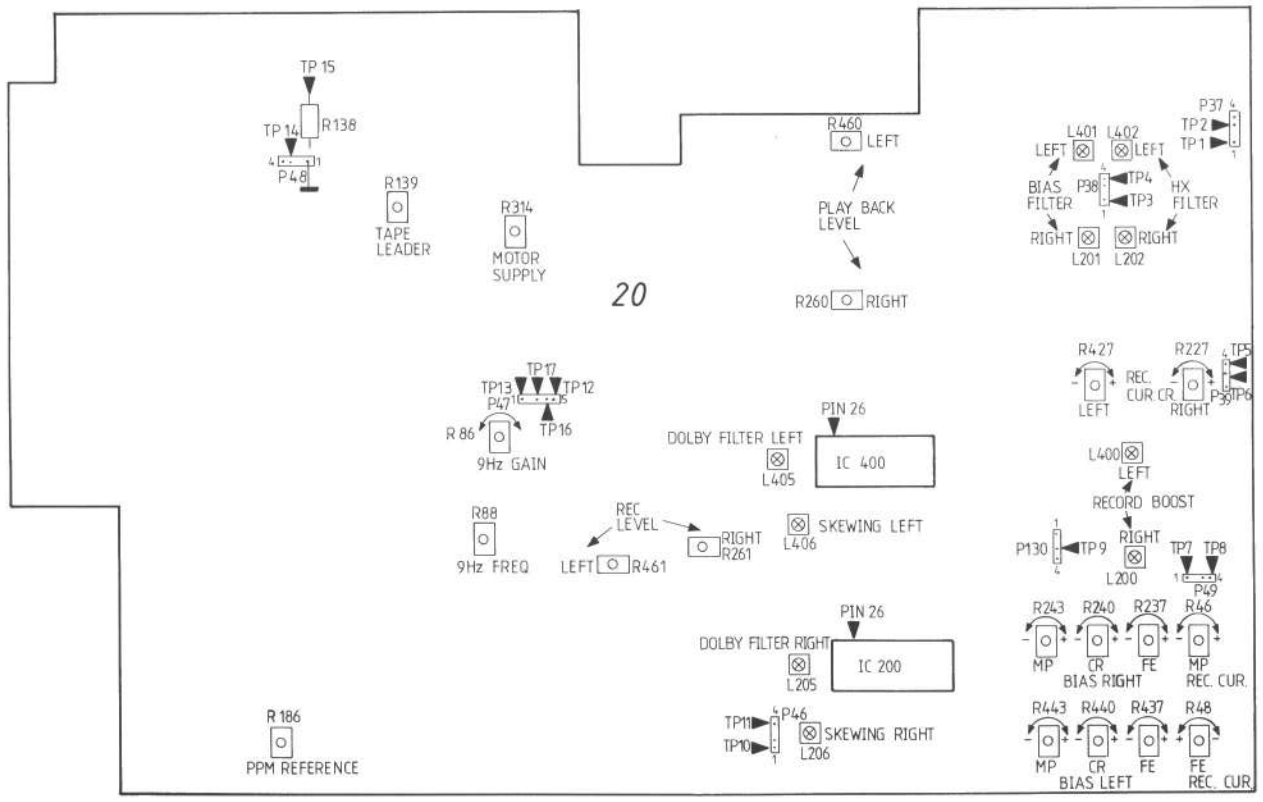
Lubrication
The need for lubrication is negligibible, but the directions given below should be followed during overhauls and when replacing major mechanical components.

Vinkel 9359: Aksel for remhjul. Messingtap på tandhjul 9376. Aksel i vendemekanisme 9303. Aksler for spoletallerkener 9319, 9332.	Bracket 9359: Shaft for belt wheel. Brass tap on wheel 9376. Shaft inside reversing mechanism 9303. Shafts for wheels 9319, 9332.	3984022 Floil GB-TS-1
Alle kurvebaner på kurvehjul 9355. Aksler i topchassis: Glideflade mod kurvehjul 9355, tandhjul 9377, hjul 9376, arm 9358, vinkel 9369 og 9375. Arm for bremse 9372: Glideflader mod topchassis. Snekke på vendemotor 93M3 og aksel for tandhjul på 93M3. Vinkel for kontakter 9334: Omdrejningspunkter mod topchassis. Arm på tandkrans i vendemekanisme 9303: Glideflader mod vinkel 9375. Vinkel 9325: Glideflader mod tappe i topchassis, vinkler 9327, 9328 og ruller 9309. Vinkler 9327 og 9328: Glideflader mod topchassis og vinkel 9325. Rulle 9324: Glideflader mod vinkel 9325 og bladfjeder 9320. Ruller 9309: Glideflader mod topchassis og vinkel 9325.	All curves on cam wheel 9355. Shafts in top chassis: Sliding surface against cam wheel 9355, gear wheel 9377, wheel 9376, arm 9358, bracket 9369 and 9375. Arm for brake 9372: Sliding surfacces against top chassis. Worm on reversing motor 93M3 and shaft for gear wheel on 93M3. Bracket for switches 9334: Points of rotation against top chassis. Arm on toothed rim in reversing mechanism 9303: Sliding surfaces against bracket 9375. Bracket 9325: Sliding surfaces against taps in top chassis, brackets 9327, 9328 and rollers 9309. Brackets 9327 and 9328: Sliding surfaces against top chassis and bracket 9325. Roller 9324: Sliding surfaces against bracket 9325 and leaf spring 9320. Rollers 9309: Sliding surfaces against top chassis and bracket 9325.	3984216 Rocol MTS 1000
PCB 9378: Kontaktflader for slæbekontakter på hjul 9376.	PCB 9378: Contact area for sliding contact on wheel 9376.	3984040 Syrefri vaseline. Vaseline (free from acid).

4-1

4-1





JUSTERINGER

HF justeringer

Udskiftning af FM tuner
Ved udskiftning af FM tuner er det kun nøvendigt at justere MF spolen 17L7.

MF
Tilslut et oscilloskop til 10IC2 ben 8.
Tilslut en sweepgenerator til antenneindgangen og indstil den til 87,5 MHz.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til displayet viser 87.5.
Tryk »Manual«.
Juster 17L7 til maksimum og symmetrisk MF kurve.

TUNER JUSTERINGER (KUN HVIS TUNEREN ER MISJUSTERET)

Oscillator
Der skal ikke tilføres signal.
Tilslut DC voltmeter mellem 17TP11 og ben 8 på tuneren.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til displayet viser 87,5.
Juster 17L8 til 0V.

HF 87,5 MHz
Tilslut et oscilloskop til 10IC2 ben 8.
Tilslut en sweepgenerator til antenneindgangen og indstil den til 87,5 MHz.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til displayet viser 87,5.
Tryk »Manual«.
Juster 17L2, 17L4, 17L5 og 17L7 til maksimum og symmetrisk MF kurve.

HF 108 MHz
Tryk »Radio«.
Tryk »Search«.
Tryk »Freq«.
Tryk 1080.
Tryk »Manual«.
Sweepgeneratorens frekvens ændres til 108 MHz.
Juster 17R32, 17R33 og 17R34 til maksimum.

Detektor
Tilslut oscilloskop til 10IC2 ben 8.
Tilslut DC voltmeter over 10R19 (10TP12 og 10TP13).
Tryk »Radio«.
Tryk »Search«.
Tryk »Am-FM« til displayet viser 87,5.
Tryk »Freq«.
Tryk »940«.
Tryk »Manual«.

ADJUSTMENTS

RF Adjustments

Replacement of FM tuner
When replacing an FM tuner, it is only necessary to adjust the IF coil 17L7.

IF
Connect an oscilloscope to 10IC2 pin 8.
Connect a sweep generator to the aerial input and adjust it to 87.5 MHz.
Press “Radio”.
Press “Search”.
Press “AM-FM” until the display shows 87.5.
Press “Manual”.
Adjust 17L7 to maximum and symmetrical IF curve.

TUNER ADJUSTMENT (ONLY IF TUNER IS MALADJUSTED)

Oscillator
Do not input a signal.
Connect DC voltmeter between 17TP11 and the tuner’s pin 8.
Press “Radio”.
Press “Search”.
Press “AM-FM” until the display shows 87.5.
Adjust 17L8 to 0V.

RF 87.5 MHz
Connect an oscilloscope to 10IC2 pin 8.
Connect a sweep generator to the aerial input and adjust it to 87.5MHz.
Press “Radio”.
Press “Am-FM” until the display shows 87.5.
Press “Manual”.
Adjust 17L2, 17L4, 17L5 and 17L7 to maximum and symmetrical IF curve.

RF 108 MHz
Press “Radio”.
Press “Search”.
Press “Freq”.
Press 1080.
Press “Manual”.
Change sweep generator frequency to 108MHz.
Adjust 17R32, 17R33 and 17R34 to maximum.

Detector
Connect oscilloscope to 10IC2 pin 8.
Connect DC voltmeter across 10R19 (10TP12 and 10TP13).
Press “Radio”.
Press “Search”.
Press “AM-FM” until the display shows 87.5.
Press “Search”.
Press “940”.
Press “Manual”.

Højde side 2
Tryk »Tape 1« (»Side 2« skal lyse, tryk evt. »Turn«).

Justeringen gøres som højde side 1, evt. skiver skal lægges ind ved skruen B.

Der skal altid være samme antal skiver i begge sider.

Hvis højden justeres, skal azimuth kontrolleres.

Height, side 2
Press "Tape 1" ("Side 2" must be lit, press if necessary "Turn").

Adjustment as for height, side one; washers, if any should be inserted at screw B.

There must always be the same number of washers in both sides.

If the height is adjusted, the azimuth must be checked.

Frigang trykruller

Ved at bukke fligen G, justeres henholdsvis højre og venstre trykrulle, til en frigang fra kapstan akslen på 0,5 mm ved spoling.

Thrust roller clearance

By bending pin G, the right and left thrust rollers can be adjusted separately for a clearance to the capstan shaft of 0.5 mm during fast forward and rewind.

ELEKTRISKE JUSTERINGER BÅNDOPTAGER
Henvisningerne er for højre kanal, (henvisningerne i parentes er for venstre kanal).

Justeringerne foretages uden DOLBY NR, hvis andet ikke er nævnt.

Tryk »Aux«, »Record«, »Programming« og »Dolby« indtil Dolby indikatoren slukker.

Ved justeringer, hvor der skal benyttes tonegenerator, tilsluttes denne AUX indgangen.

Norm bånd benyttet til justering:

6780066 CrO_2 TDK AP 512
6780067 Fe_2O_3 BASF R723 DG
6780101 METAL AP 712

ELECTRICAL ADJUSTMENTS TAPE RECORDER
References are for the right channel, (references in brackets are for the left channel).

Adjustments to be made without DOLBY NR. unless otherwise stated.

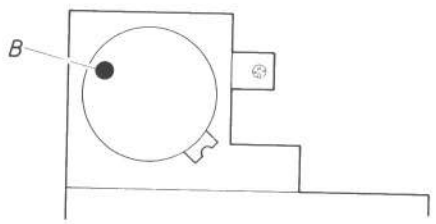
Press "Aux", "Record", "Programming" and "Dolby" until the Dolby indicator turns off.

For adjustments requiring an tone generator, this must be connected to the AUX input.

Level tapes used for adjustment:

6780066 CrO_2 TDK AP 512
6780067 Fe_2O_3 BASF R723 DG
6780101 METAL AP 712

Hastighed



Speed

LW
Målesenderens frekvens ændres til 330 kHz.
Tryk »Freq«.
Tryk 330.
Juster 10C81 til maksimum output.
Målesenderens frekvens ændres til 160 kHz.
Tryk »Freq«.
Tryk 160.
Juster 10L11 til maksimum output.
Gentag evt. proceduren.

LW
The signal generator frequency is changed to 330 kHz.
Press "Freq".
Press 330.
Adjust 10C81 to maximum output.
Change the signal generator frequency to 160 kHz.
Press "Freq".
Press 160.
Adjust 10L11 to maximum output.
Repeat this procedure if necessary.

AM stop niveau
Kortslutninger over 1C62 fjernes.
Tilslut en målesender til antenneindgangen, og indstil den til 1MHz 30% modulation, og 30 µV.
Tilslut DC voltmeter til kollektor på 10TR5.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til frekvensdisplayet viser 150.
Tryk »Freq«.
Tryk 1000.
Juster 10R73 til 2,5 V.

AM stop level
Remove the short-circuit across 1C62.
Connect a signal generator to the aerial input, and adjust it to 1MHz 30% modulation, and 30µV.
Connect DC voltmeter to the collector at 10TR5.
Press "Radio".
Press "Search".
Press "AM-FM" until the frequency display shows 150.
Press "Freq".
Press 1000.
Adjust 10R73 to 2.5V.

Lysintensitet
For at undgå forringelse af display drivernes levetid, må nedennævnte spændingsværdier ikke overskrides ved justering af lysintensitet.

Light intensity
In order to avoid reduction of display drive life, the voltage values given below must not be exceeded when adjusting the light intensity.

PCB42
Tilslut en modstand på 390 ohm fra ben 20 til ben 31 på 42IC3, og tilslut DC voltmeter over modstanden.
Korslut testmode stikket på PCB43 kortvarigt. 42R39 justeres til der måles 2,8V.

PCB42
Connect a 390 ohm resistor from pin 20 to pin 31 of 42IC3 and connect a DC voltmeter across the resistor.
Short-circuit the test mode plug of PCB43 briefly.
Adjust 42R39 until a value of 2.8 V is measured.

PCB44
Tilslut en modstand på 390 ohm fra ben 20 til ben 2 på 44IC1, og tilslut DC voltmeter over modstanden.
Kortslut testmode stikket på PCB43 kortvarigt, og tryk derefter »Play«, (øverste venstre display skal lyse).
44R1 justeres til der måles 2,8V.

PCB44
Connect a 390 ohm resistor from pin 20 to pin 2 of 44IC1 and connect a DC voltmeter across the resistor.
Short-circuit the test mode plug of PCB43 briefly, and then press "Play" (top left-hand display must light up).
Adjust 44R1 until a value of 2.8 V is measured.

PCB45
Tilslut en modstand på 390 ohm fra ben 20 til ben 5 på 45IC1, og tilslut DC voltmeter over modstanden.
Kortslut testmode stikket på PCB43 kortvarigt, og tryk derefter »Record« i det midterste touchfelt, (midterste display sektion foroven skal lyse).
45R1 justeres til der måles 2,8V.

PCB45
Connect a 390 ohm resistor from pin 20 to pin 2 of 45IC1 and connect a DC voltmeter across the resistor.
Short-circuit the test mode plug of PCB43 briefly, and then press "Record" in the middle touch-field (middle display section at the top must light up).
Adjust 45R1 until a value of 2.8 V is measured.

PCB46
Tilslut en modstand på 100 ohm fra ben 20 til ben 18 på 46IC1, og tilslut DC voltmeter over modstanden.
Kortslut testmode stikket på PCB43 kortvarigt, og tryk derefter »Call« (øverste højre display skal lyse).
Juster 45R2 til der måles 0,7V.

PCB46
Connect a 100 ohm resistor from pin 20 to pin 18 of 46IC1 and connect a DC voltmeter across the resistor.
Short-circuit the test mode plug of PCB43 briefly, and then press "Call" (top right-hand display must light up).
Adjust 45R2 until a value of 0.7 V is measured.

Ilæg wow bånd bestillingsnr. 6780037. (Justeringen skal foretages midt på båndet).

Tilslut wow meter med driftmeter til AUX stikket.

Tryk »Tape 1«, måleresultatet aflæses og noteres.

Tryk »Turn«, og den anden side af båndet afspilles, måleresultatet aflæses og noteres.

Middelværdien af de to tal udregnes.

Hvis måleresultaterne er negative, lægges middelværdien til det højeste af de to tal, og skruen B i motoren justeres til det udregnede resultat.

Hvis måleresultaterne er positive, trækkes middelværdien fra det højeste af de to tal, og skruen B i motoren justeres til det udregnede resultat.

Load wow tape part no. 6780037. (The adjustment should be made in a mid-tape position).

Connect wow meter with drift meter to the AUX socket.

Press "Tape 1", read off and note down reading.

Press "Turn" and play other side of tape, read off and note down reading.

Calculate the mean of the two figures.

If the values obtained are negative, add the mean value to the higher of the two figures and adjust screw B in the motor to the value calculated.

If the values obtained are positive, subtract the mean value from the higher of the two figures and adjust screw B in the motor to the value calculated.

Gengiveniveau
Justering af gengiveniveau er her beskrevet efter to norm bånd.
1: DIN standard, 250 pWb mm.
2: Dolby level, 200 pWb mm.

1: Pegel bånd bestillingsnr. 6780035 ilægges.
LF voltmeter tilsluttes 20TP10 (20TP11).
Tryk »Tape 1«.
20R260 (20R460) justeres til der måles 440 mV.

2: Dolby level calibration bånd MTT-150A ilægges.
LF voltmeter tilsluttes 20TP10 (20TP11).
Tryk »Tape 1«.
20R260 (20R460) justeres til der måles 387 mV.

Playback level
Adjustment of playback level is described here in accordance with two level tapes.
1: DIN standard, 250 pWb mm.
2: Dolby level, 200 pWb mm.

1: Load standard level tape part no. 6780035.
Connect AF voltmeter to 20TP10 (20TP11).
Press "Tape 1".
Adjust 20R260 (20R460) until a reading of 440 mV is obtained.

2: Load Dolby level calibration tape MTT-150A.
Connect AF voltmeter to 20TP10 (20TP11).
Press "Tape 1".
Adjust 20R260 (20R460) until a reading of 387 mV is obtained.

Optage niveau og PPM reference
Ilæg en kassette for optagelse.

Tryk »Aux«.

Tryk »Record« en gang. (Record pause uden signal tilført).

Tryk »Programming« og derefter »Level« indtil Level indikatoren blinker en gang, og Auto indikatoren slukker.

Tilslut tonegenerator til AUX indgangen og indstil den til 333 Hz og 400 mV.

LF voltmeter tilsluttes 20TP10 (20TP11).

20R261 (20R461) justeres til der måles 440 mV.

20R185 justeres til lysdioden for 0 dB netop lyser.

Tryk "Stop".

Rec level and PPM reference
Load cassette for recording.

Press "Aux".

Press "Record" once. (Record pause without signal supplied).

Press "Programming" and then "Level" until the level indicator flash once, and the Auto indicator switches off.

Connect tone generator to the AUX input and set it to 333 Hz and 400 mV.

Connect AF voltmeter to 20TP10 (20TP11).

Adjust 20R261 (20R461) until a reading of 440 mV is obtained.

Adjust 20R185 until the LED for 0 dB starts to light up.

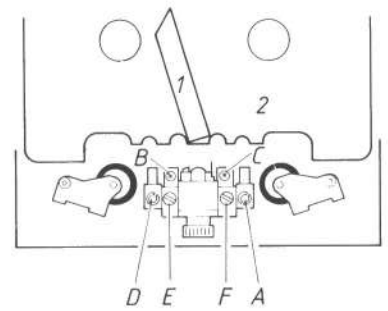
Press "Stop".

MEKANISKE JUSTERINGER BÅNDOPTAGER
Højde og azimuth
For at opnå korrekt højdejustering skal højdeværktøj bestillingsnr. 3624026 benyttes.

En tilnærmet justering kan opnås med en spejlkassette.

MECHANICAL ADJUSTMENTS TAPE RECORDER
Height and azimuth
To obtain correct height adjustment, height adjustment tool part no. 3624026 must be used.

Approximate adjustment can be obtained using a mirror cassette.



Højde båndstyr
Ilæg justerværktøj 1 og 2.
Tryk »Tape 1«.
NB! På grund af virkningen fra autostoppet kører tonehovedbroen ud umiddelbart efter at den er kørt ind.
Skub værktøj 1 ind i båndstyrene.

Juster henholdsvis A og D sådan at højden passer med overkanten af værktøjet.

Height, tape guide
Insert adjustment tools 1 and 2.
Press "Tape 1".
NB! Due to the effect from the auto stop the tape head base travels out immediately after it has travelled in.
Push tool 1 into the tape guides.

Adjust A and D respectively so that the height is level with the top edge of the tool.

Azimuth side 1
Ilæg azimuth bånd bestillingsnr. 6780036.

De to Y indgange på et oscilloskop tilsluttes højre og venstre AUX udgang.

Tryk »Tape 1«, og skruen E justeres til de 2 kurver på oscilloskopet er i medfase ved max. amplitude.

Azimuth side 1
Load azimuth tape part no. 6780036.

Connect the two Y inputs on an oscilloscope to right and left AUX outputs.

Press "Tape 1" and adjust screw E until the 2 curves on the oscilloscope are in phase at maximum amplitude.

Azimuth side 2
Tryk »Turn«.

Justeringen gøres som azimuth side 1, blot justeres der med skruen F.

Azimuth side 2
Press "Turn".

Adjustment as for side 1 but using screw F.

Højde side 1
Tryk »Tape 1« (»Side 1« skal lyse, tryk evt. »Turn«).
Værktøj 1 skubbes ind i båndstyret på tonehovedet.

Det øverste båndstyr skal passe med overkanten af værktøj 1.

Højden ændres ved at lægge 0,1 mm afstandsskiver (bestillingsnr. 2624052) under tonehovedopspændingen ved skruen C.

Height side 1
Press "Tape 1" ("Side 1" must be lit, press if necessary "Turn").
Push tool 1 into the tape guide on the tape head.

The top tape guide must be level with the top edge of tool 1.

The height can be changed by placing 0.1 mm spacing washers (part no. 2624052) under the tape head mount at screw C.

Optagehæv
Tonegenerator indstilles til 333 Hz og 30 mV.

Cr bånd ilægges.

LF voltmeter tilsluttes 20TP7 (20TP8).

Tryk »Record« en gang (Record pause).

Tryk »Programming« og derefter »Level« indtil Level indikatoren blinker en gang, og Auto indikatoren slukker.

Tonegeneratorens output reguleres til der måles 1 V.

Tonegeneratorens output dæmpes 20 dB og frekvensen ændres til 19 kHz.

20L200 (20L400) justeres til der måles 600 mV.

Tryk »Stop«.

HX Filter
Ilæg kassette for optagelse.

DC voltmeter tilsluttes 20TP3 (20TP4).

Tryk »Record« en gang. (Record pause uden signal tilført).

20L202 (20L402) justeres til minimum DC spænding.

Tryk »Stop«.

Bias filter
LF voltmeter tilsluttes 20TP6 (20TP5).

Ilæg kassette for optagelse.

Tryk »Record« REC en gang. (Record pause uden signal tilført).

20L201 (20L401) justeres til minimum spænding.

Tryk »Stop«.

Skewing
Tonegenerator indstilles til 1 kHz og 30 mV.

Ilæg kassette for optagelse.

LF voltmeter tilsluttes 20TP18 (20TP19).
Tryk »Programming« og tryk »Dolby« til DOLBY C lyser og tryk »Record« en gang. (Record pause).

Tonegeneratorens niveau finreguleres til LF voltmeteret viser »0 dB«.

Tonegeneratorens frekvens ændres til 17 kHz.

20L206 (20L406) justeres til niveauet er faldet 8,5 dB.

Tryk »Stop«.

Dolby filter
Kortslut 20TP6 (20TP5) til 20IC200 (20IC400) ben 26 via en 1nF kondensator.

Ilæg en Metal bånd kassette.

Recording boost
Set tone generator to 333 Hz and 30 mV.

Load Cr tape.

Connect AF voltmeter to 20TP7 (20TP8).

Press "Record" once (Record pause).

Press "Programming" and the "Level" until the Level indicator flash once, and the Auto indicator switches off.

Adjust tone generator's output until a reading of 1 V is obtained.

Damp the tone generator's output by 20dB and change the frequency to 19 kHz.

Adjust 20L200 (20L400) until a reading of 600 mV is obtained.

Press "Stop".

HX Filter
Connect DC voltmeter to 20TP3 (20TP4).

Load cassette for recording.

Press "Record" once. (Record pause without signal supplied).

Adjust 20L202 (20L402) to minimum DC voltage.

Press "Stop".

Bias filter
Connect AF voltmeter to 20TP6 (20TP5).

Load cassette for recording.

Press "Record" REC once. (Record pause without signal supplied).

Adjust 20L201 (20L401) to minimum voltage.

Press "Stop".

Skewing
Set tone generator to 1 kHz and 30 mV.

Load cassette for recording.

Connect AF voltmeter to 20TP18 (20TP19).

Press "Programming" and press "Dolby" until DOLBY C lights up and press "Record" once. (Record pause).

Fine adjust the tone generator's level until the AF voltmeter indicates "0 dB".

Change the tone generator's frequency to 17 kHz.

Adjust 20L206 (20L406) until the level has fallen by 8.5 dB.

Press "Stop".

Dolby filter
Short-circuit 20TP6 (20TP5) to 20IC200 (20IC400) pin 26 via a 1nF capacitor.

Load an Metal tape cassette.

Justeringen er fælles for højre og venstre kanal og foretages med 20R46.

Dolby koder
9 Hz Freq.
Kortslut 20TP14 til stel.

Kortslut 20TP9 til 20TP12.

Et dobbelt stråret oscilloskop stilles i X-Y og begge stråler i DC.

Den ene stråle tilsluttes 20TP13, og den anden stråle tilsluttes 20TP16.

Oscilloskopets stelledning tilsluttes 20TP17 6V REF.

NB! Jordledningen i oscilloskopets netledning må ikke være tilsluttet jord ved denne justering.

Ilæg kassette for optagelse.

Tryk »Record« 2 gange (uden signal tilført).

20R88 justeres til Lissajous figuren viser en cirkel.

Kortslutningen 20TP9 til 20TP12 fjernes.

9 Hz Ampl.
Kortslut 20P14 til stel.

Cr bånd ilægges.

LF voltmeter tilsluttes 20TP13.

Der optages et stykke på båndet, uden signal tilført (tryk »Record« to gange).

Optagelsen gengives, og 20R86 justeres til der måles 2 V RMS.

HUSK at fjerne kortslutningen i 20P14.

Opsamlemoment (Motor supply)
Ilæg moment måle kassette.

Tryk »Tape 1«

Det aflæste opsamlemoment vil svinge mellem to værdier, og 20R314 justeres til middelværdien er 45 pcm.

Føler for udløbsstop (Tape leader)
Ilæg en ikke gennemsigtig kassette uden bånd.

Der må ikke tilføres lys udefra (fra f.eks. en arbejdslampe).

DC voltmeter tilsluttes 20TP15.

Tryk tonehovedbroen ind med hånden.

20R139 justeres til 9V ±0,3 V.

Adjustment is for right and left channels together and must be made using 20R46.

Dolby codes
9 Hz Freq.
Short-circuit 20TP14 to ground.

Short-circuit 20TP9 to 20TP12.

Set double-beam oscilloscope to X-Y and both beams in DC.

Connect one beam to 20TP13 and the other to 20TP16.

Connect the ground wire of the oscilloscope to 20TP17 6V REF.

NB! During this adjustment the earth wire in the mains cable of the oscilloscope must not be connected to earth.

Load cassette for recording.

Press "Record" twice (without signal supplied).

Adjust 20R88 until Lissajous figure on the oscilloscope shows a circle.

Remove short circuit 20TP9 to 20TP12.

Adjust 1R52 until Lissajous' figure on the oscilloscope shows a circle.

9 Hz Ampl.
Short-circuit 20TP14 to ground.

Load Cr tape.

Connect AF voltmeter to 20TP13.

Record for a while on the tape without a signal being supplied (press "Record" twice).

Playback recording and adjust 20R86 until 2 V RMS is measured.

DO NOT FORGET to remove the short circuit in 20TP14.

Take-up torque (Motor supply)
Load torque measurement cassette.

Press "Tape 1".

The take-up torque reading will oscillate between two values and 20R314 must be adjusted until the mean value is 45 pcm.

Sensor for tape leader
Load a non-transparent cassette without tape.

Light must not be supplied from the outside (from, for example, a work lamp).

Connect DC voltmeter to 20TP15.

Press in the tape head base with the hand.

Adjust 20R139 to 9V ±0.3 V.

TECHNICAL SPECIFICATIONS

Beocenter 9000	Type No. 2501
Power output RMS DIN/IEC	2 x 35 watts/8 ohms
Power output music	2 x 50 watts/8 ohms
Harmonic distortion DIN/EIC	<0.1%
Power output 20-20,000 Hz IHF	2 x 30 watts/8 ohms
Total harmonic distortion IHF	<0.1%
Dynamic headroom	1 dB/8 ohms
Intermodulation IHF	<0.1%
Response vs frequency:	
Phono	20-20,000 Hz ±1,5 dB
Tape	20-20,000 Hz ±1,5 dB
Wideband damping factor	50
Input sensitivity/impedance:	
Phono	0.36 mV/47 kohms
Tape 2 – AUX	36 mV/100 kohms
Microphone	0.04 mV/1 kohms
Signal-to-noise ratio:	
Phono A-weighted, 1 W IHF	>78 dB
Tape A-weighted, 1 W IHF	>80 dB
Tape A-weighted, 30 W output	>95 dB
Channel separation 10,000 Hz	>60 dB
Output:	
Tape 2 – AUX	500 mV/1 kohms
External power amplifier	1 V/1 kohms
Headphones	Max. 8 V/220 ohms
Bass control at 40 Hz	±10 dB
Treble control at 12,500 Hz	±8 dB
FM range	87.5 – 108 MHz
FM aerial impedance	75 ohms
Usable sensitivity mono	14 dBf – 1,4 µV
Usable sensitivity stereo	19 dBf – 2.5 µV
50 dB quiting sensitivity mono	19 dBf – 2.5 µV
50 dB quiting sensitivity stereo	40 dBf – 28 µV
Signal-to-noise ratio 65 dBf mono	75 dB
65 dBf stereo	70 dB
Frequency response	20-15,000 Hz ±1 dB
Distortion at 65 dBf mono	0.16%
Distortion at 65 dBf stereo	0.2%
Intermodulation mono	0.1%
Intermodulation stereo	0.1%
Capture ratio	1.7 dB
Adjacent channel selectivity	10 dB
Alternate channel selectivity	70 dB
Spurious response	100 dB
Image response ratio	80 dB
IF response ratio	120 dB
AM suppression	57 dB
Stereo channel separation	45 dB
Subcarrier product rejection	70 dB

LF voltmeter tilsluttes 20TP10 (20TP11).

Tryk »Record« REC en gang. (Record pause uden signal tilført).

20L205 (20L405) justeres til minimum spænding.

Tryk »Stop«.

Cr bias
CrO_2 norm bånd bestillingsnr. 6780066 ilægges.

Tonegenerator indstilles til 333 Hz og ca. 30 mV.

LF voltmeter tilsluttes 20TP10 (20TP11).

For optagelse:
Tryk »Record« en gang. (Record pause uden signal tilført).

Tryk »Programming« og derefter »Level« indtil level indikatoren blinker en gang, og Auto indikatoren slukker.

Herefter tilsluttes tonegeneratoren.

Ved henholdsvis at optage (tryk »Record« to gange) og gengive 333 Hz og 15 kHz, justeres 20R240 (20R440) indtil niveauet ved 15 kHz og 333 Hz er ens.

(Mindre bias giver diskant hæv. Mere bias giver diskant fald).

Fe bias
Gøres som Cr bias, blot skal Fe_2O_3 norm bånd bestillingsnr. 6780067 benyttes, og der justeres med 20R237 (20R437).

MP bias
Gøres som Cr bias, blot skal Metal norm bånd bestillingsnr. 6780101 benyttes, og der justeres med 20R243 (20R443).

Optagestrøm Cr
CrO_2 norm bånd bestillingsnr. 6780066 ilægges.

Tonegenerator indstilles til 333 Hz og 200 mV.

LF voltmeter tilsluttes 20TP10 (20TP11).

Ved henholdsvis at optage (tryk "Record" to gange) og gengive 333 Hz, justeres 20R227 (20R427) indtil der måles samme spænding under såvel optage som gengive.

Optagestrøm Fe
Gøres som optagestrøm Cr, blot skal Fe_2O_3 norm bånd bestillingsnr. 6780067 benyttes.

Justeringen er fælles for højre og venstre kanal og foretages med 20R48.

Optagestrøm MP
Gøres som optagestrøm Cr, blot skal Metal norm bånd bestillingsnr. 6780101 benyttes.

Connect AF voltmeter to 20TP10 (20TP11).

Press "Record" once. (Record pause without signal supplied).

Adjust 20L205 (20L405) to minimum voltage.

Press "Stop".

Cr bias
Load CrO_2 level tape part no. 6780066.

Set tone generator to 333 Hz and approx. 30 mV.

Connect AF voltmeter to 20TP10 (20TP11).

For optagelse:
Press "Record" once. (Record pause without signal supplied).

Press "Programming" and then "Level" until the level indicator flash once, and the Auto indicator switches off.

Now connect tone generator.

While recording (press "Record" twice) and playing back 333 Hz and 15 kHz respectively, adjust 20R240 (20R440) until the level is the same for 15 kHz and 333 Hz.

(Less bias will result in treble boost. More bias will result in treble cut.)

Fe bias
As for Cr bias, but Fe_2O_3 level tape part no. 6780067 must be used and the adjustment is made with 20R237 (20R437).

MP bias
As for Cr bias, but Metal level tape part no. 6780101 must be used and the adjustment made with 20R243 (20R443).

Recording current Cr
Load CrO_2 level tape part no. 6780066.

Set tone generator to 333 Hz and 200 mV.

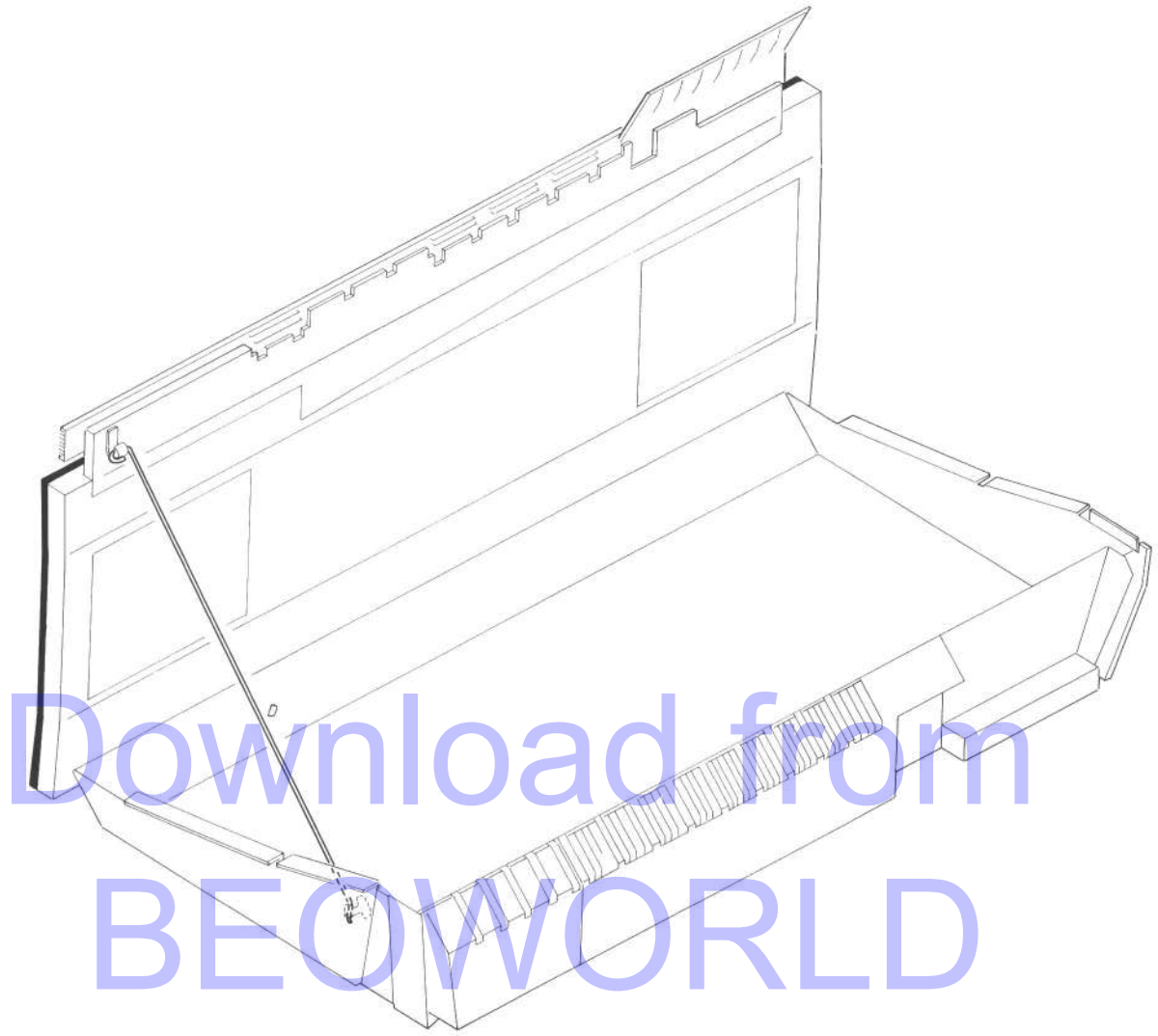
Connect AF voltmeter to 20TP10 (20TP11).

While recording (press "Record" twice) and playing back 333 Hz, adjust 20R227 (20R427) until the same voltage is measured during both recording and playback.

Recording current Fe
As for recording current Cr, but Fe_2O_3 level tape part no. 6780067 must be used.

Adjustment is for right and left channel together and is made using 20R48.

Recording current MP
As for recording current Cr, but Metal level tape part no. 6780101 must be used.



Topchassis sættes i serviceposition ved hjælp af armen D, der er placeret i topchassiset.

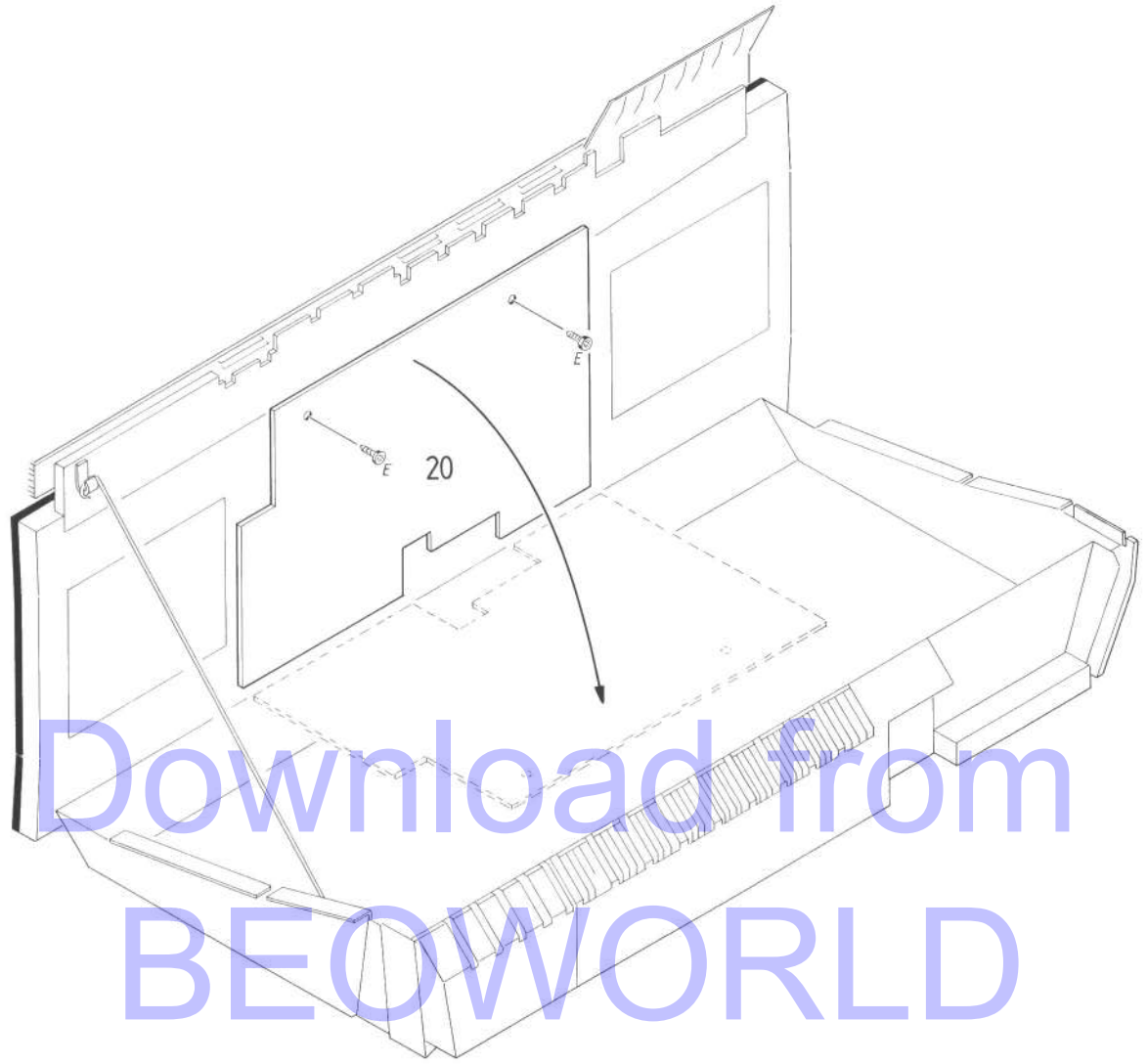
Place top chassis in servicing position using arm D located in top chassis.

AM tuner section:	
LW range	150-350 kHz
MW range	520-1610 kHz
LW sensitivity 20 dB S/N ratio	80 µV
MW sensitivity 20 dB S/N ratio	60 µV
Tape recorder	
Compact cassette	C46-C60-C90-C120
Recording system	HX PRO
Tape transport system	Auto Reverse
Search system	Track numbers
Record level	Auto Record Level
Noise reduction system	Auto Dolby B and C
Tape switch	Auto ferro/chrome/metal
Tape head	Sendust
Wow and flutter DIN	<0.15%
Wow and flutter WRMS	<0.09%
Speed deviation	<±1.5%
Fast forward and rewind	85 sec.
Frequency range chrome	30-18,000 Hz ±3 dB
Signal-to-noise ratio CCIR/ARM	
Metal Dolby	B: >64 dB, C: >73 dB
Chrome Dolby	B: >65 dB, C: >74 dB
Ferro Dolby	B: >63 dB, C: >72 dB
Signal-to-noise ratio IEC/DIN	
Metal	>56 dB
Chrome	>56 dB
Ferro	>55 dB
Driveability 10,000 Hz, metal	0 dB
Chrome/ferro	-7 dB
Distortion ferro	<2%
Channel separation	>35 dB
Erasure	>70 dB
Erasure frequency	96 kHz
CD player	
Frequency range	3-20,000 Hz ±3 dB
Signal-to-noise ratio	>96 dB/100 dB A-weighted
Dynamic range	>96 dB
Harmonic distortion	0.003% at 0 dB
	0.03% at -20 dB
Channel separation	>94 dB 20-20,000 Hz
Channel difference	<0.5 dB
Converter system	14 bit, 4 x oversampling
Low pass filter	Digital + analog
Damping >20,000 Hz	>50 dB
Phase error	±0.5 degree at 20-20,000 Hz
Power supply	110-130-220-240 voltage switch
Power frequency	50-60 Hz
Power consumption	Max. 200 watts
Dimensions W x H x D	76 x 11 x 34 cm
Weight	14 kg

Subject to change without notice

Serviceposition for PCB20

Servicing Position for PCB20



De 2 skruer E fjernes, PCB20 kan anbringes i serviceposition som vist.

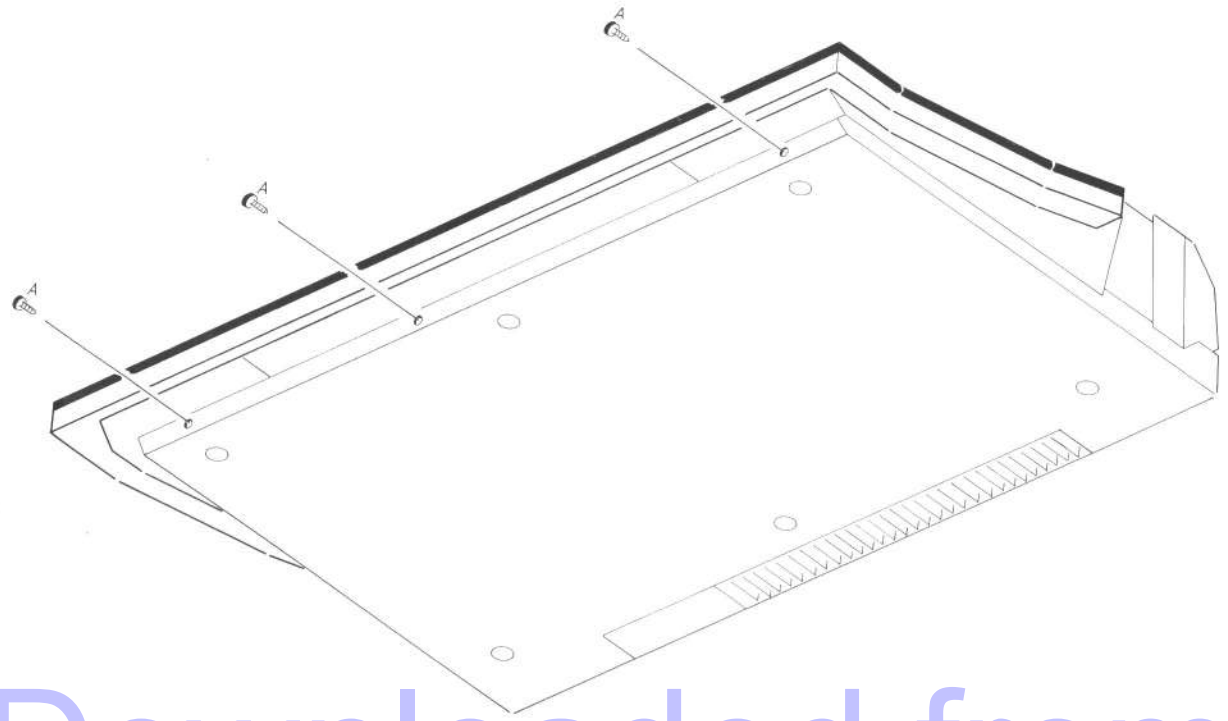
Remove 2 screws (E); PCB20 can be placed in servicing position as shown.

ADSKILLELSE

DISMANTLING

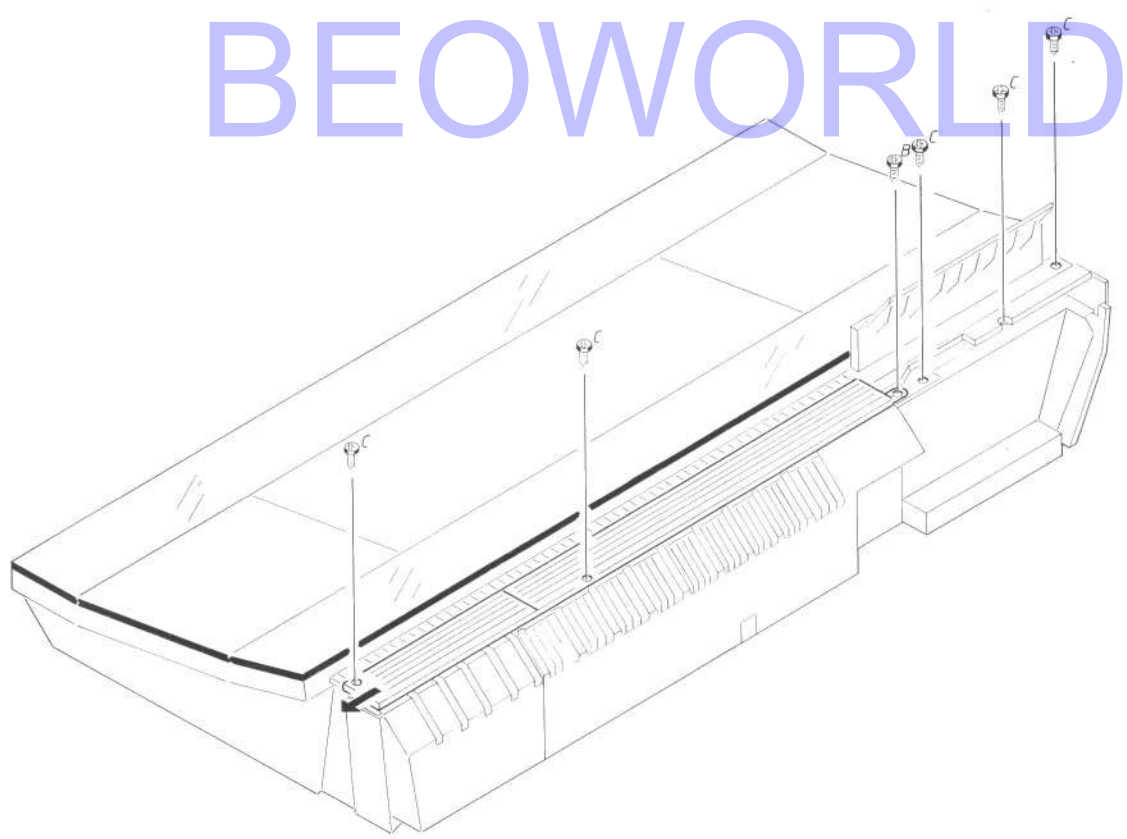
Generel serviceposition

General Servicing Position



Skruerne A (3 stk) i apparatets forkant fjernes

Remove 3 screws (A) at front of set.

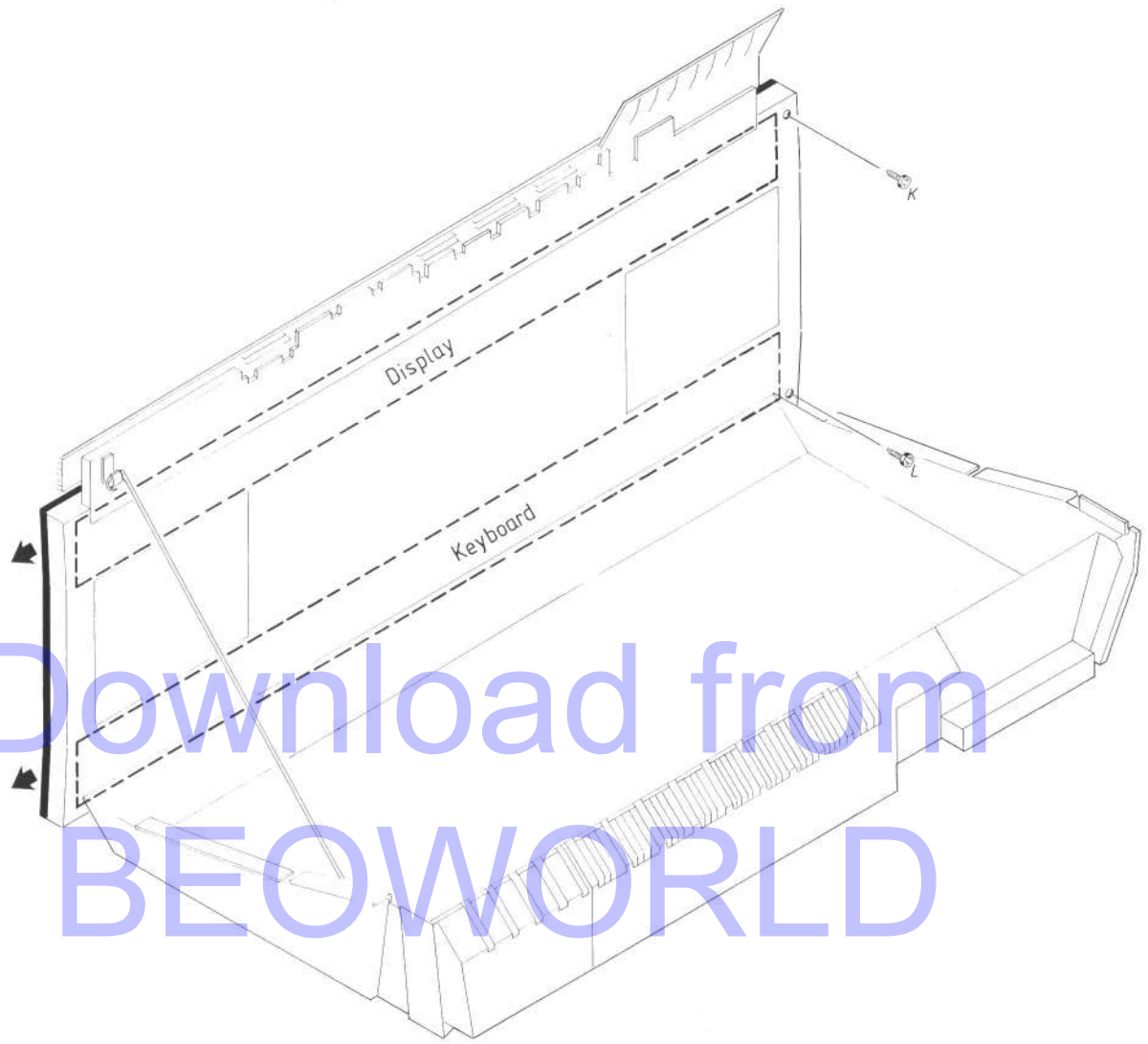


Skruen B fjernes og kølegitter skubbes mod højre og aftages.
Skruerne C fjernes (5 stk).

Remove screw B and push heat dissipation grille to left to dislodge.
Remove 5 screws (C).

Serviceposition for Display og Keyboard PCB
(Udskiftning af glaspaneler)

Servicing Position for PCB Display and Keyboard
(Replacement of glass panels)



Skruen K fjernes og Display glasset skubbes mod ventre og aftages.

Skrue L fjernes og Keyboard glasset skubbes mod ventre og aftages.

PCB er nu tilgængelig for service.

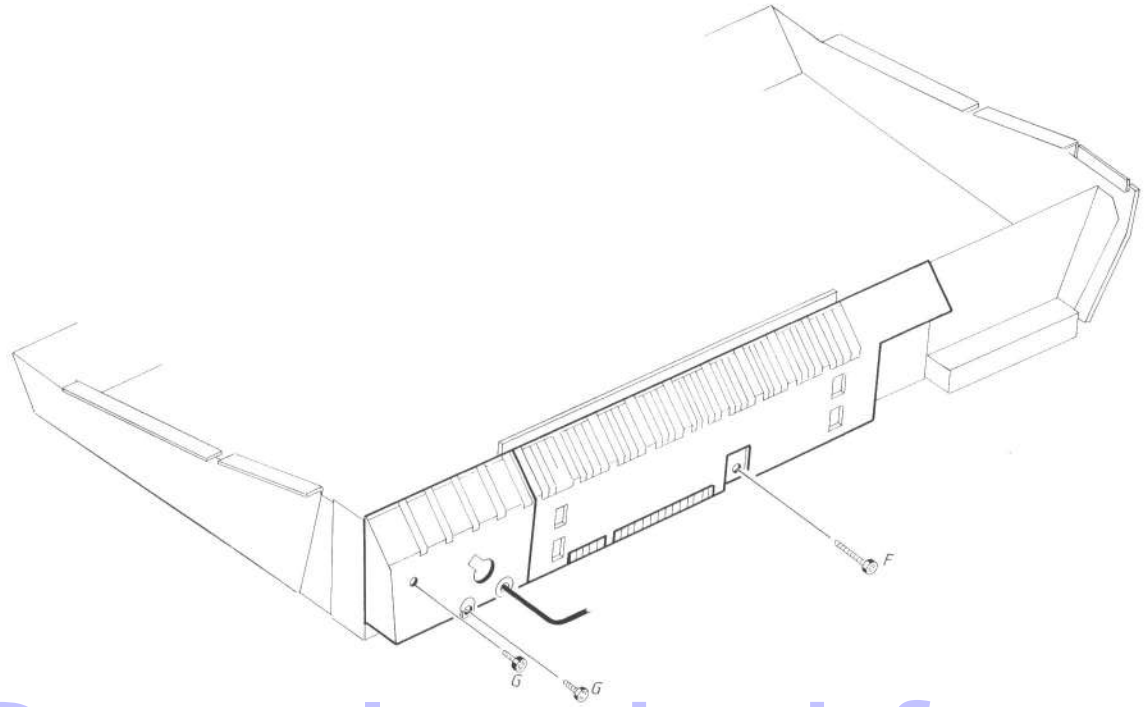
Remove screw (K) and push display glass to left to dislodge.

Remove screw (L) and push keyboard glass to left to dislodge.

PCB is now assessible for servicing.

Serviceposition for PCB60

Servicing Position for PCB60



Skruen F aftages og kølepladens plastdæksel fjernes ved at trække opad.

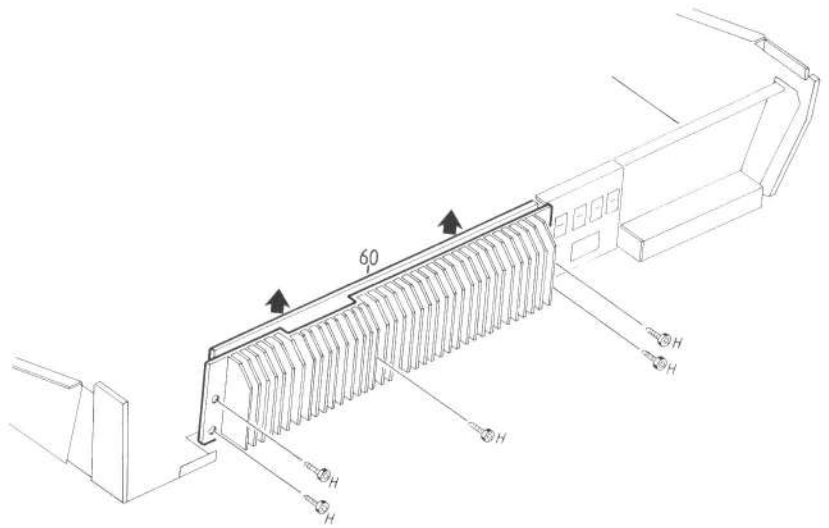
Skruen G aftages og plastdæksel over transformator fjernes.

N.B. Pas på nettransformatorens terminaler med netspænding.

Take out screw (F) and remove plastic cover of heat dissipation panel by pulling upwards.

Take out screws (G) and remove plastic cover over transformer.

N.B. Be careful of mains voltage on terminals of network transformer.



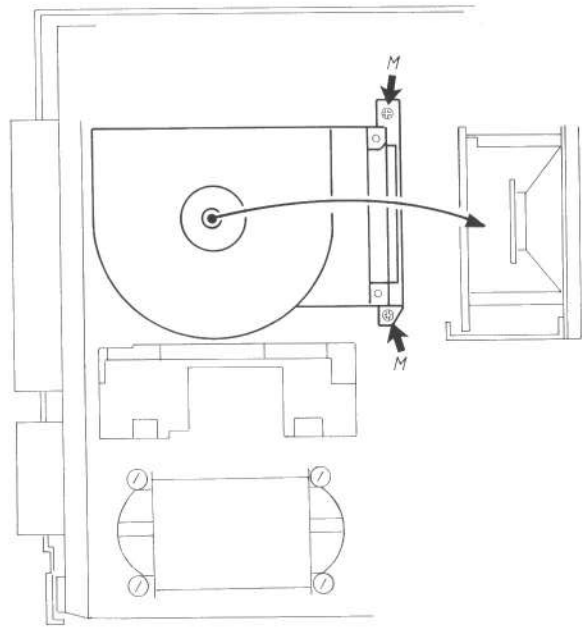
Skruerne H aftages og køleplade trækkes lidt op og lægges på bordet med PCB60 opad.

Remove screws (H), pulling heat dissipation panel up slightly and placing it on worktop with PCB60 facing upwards.

Bang&Olufsen

Serviceposition CD

Servicing Position CD



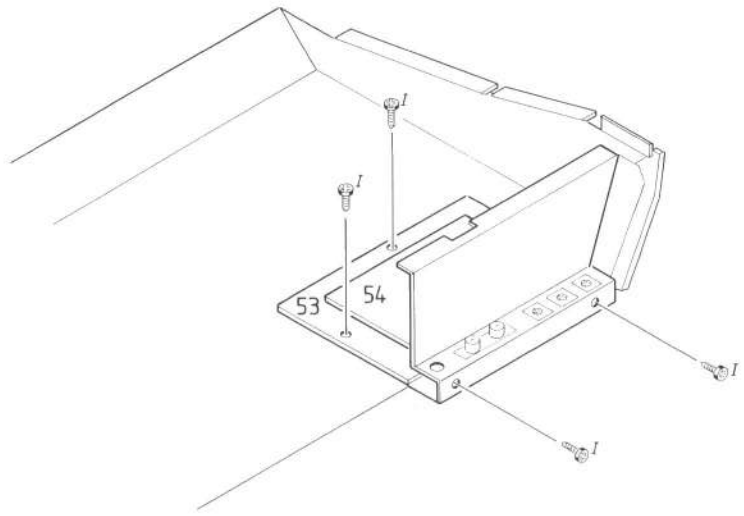
De to skruer aftages, vinkel med ophæng fjernes og CD kan trækkes ud og sættes på højkant.

Remove 2 screws (M) and angle with suspension. CD can then be pulled out and set on its edge.

Bang&Olufsen

Serviceposition for PCB53 og 54

Servicing Position for PCB53 and 54

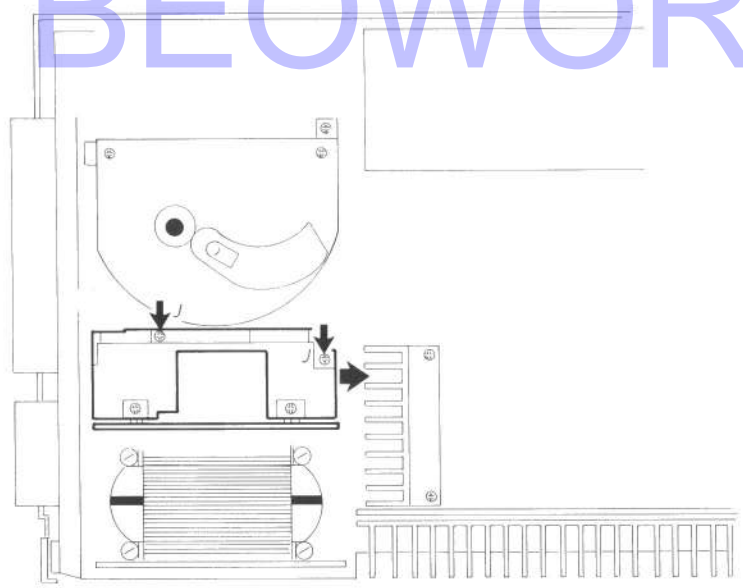


Skruerne I (4 stk) aftages og modulet tages op og sættes på højkant.

Remove 4 screws (I), lift up module and place it on its edge.

Serviceposition PCB62

Servicing Position for PCB62

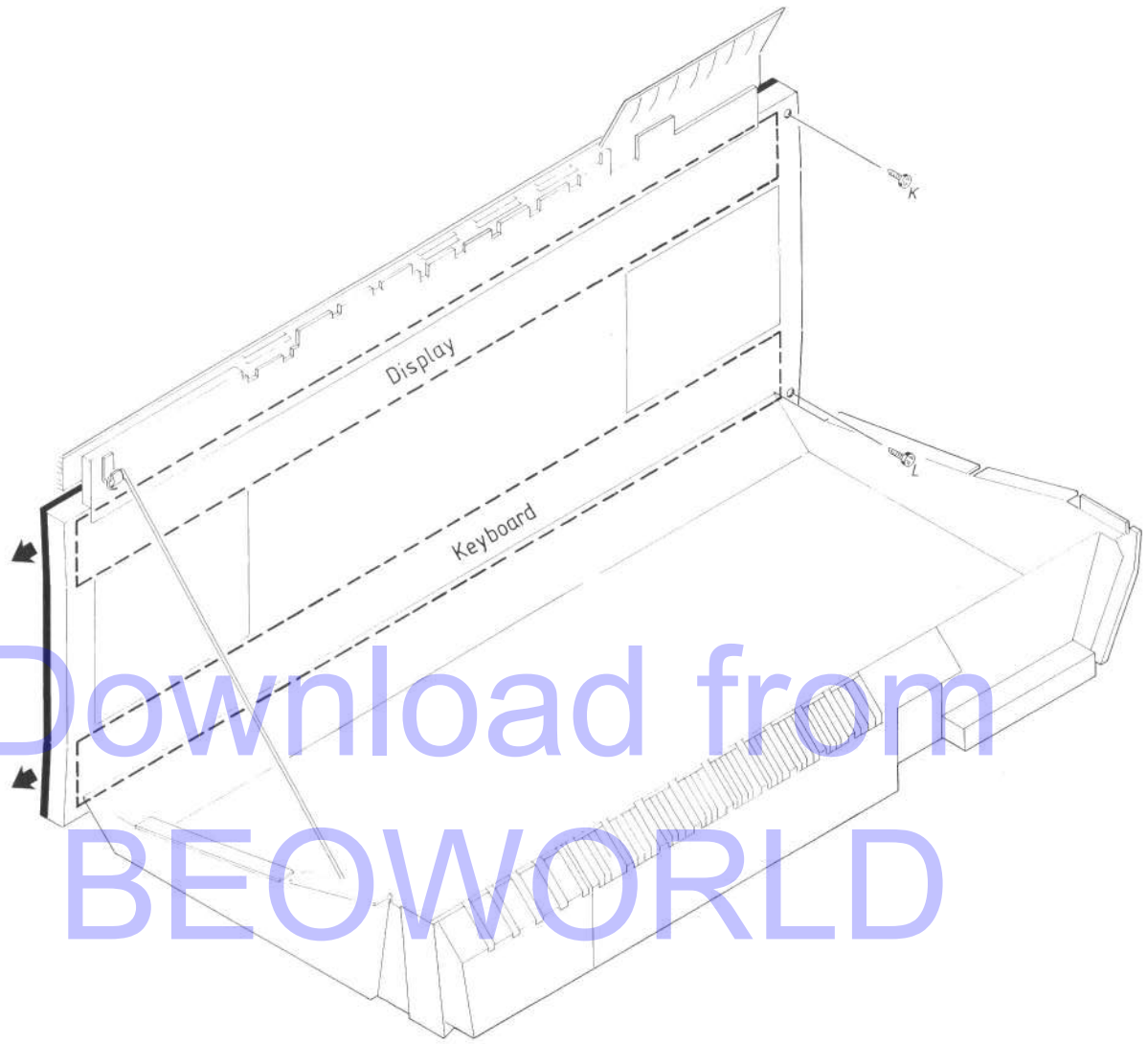


De to skruer J aftages og modulet skubbes mod højre og løftes op.

Remove 2 screws (J), push module to right and lift.

Serviceposition for Display og Keyboard PCB
(Udskiftning af glaspaneler)

Servicing Position for PCB Display and Keyboard
(Replacement of glass panels)



Skruen K fjernes og Display glasset skubbes mod ventre og aftages.

Skrue L fjernes og Keyboard glasset skubbes mod ventre og aftages.

PCB er nu tilgængelig for service.

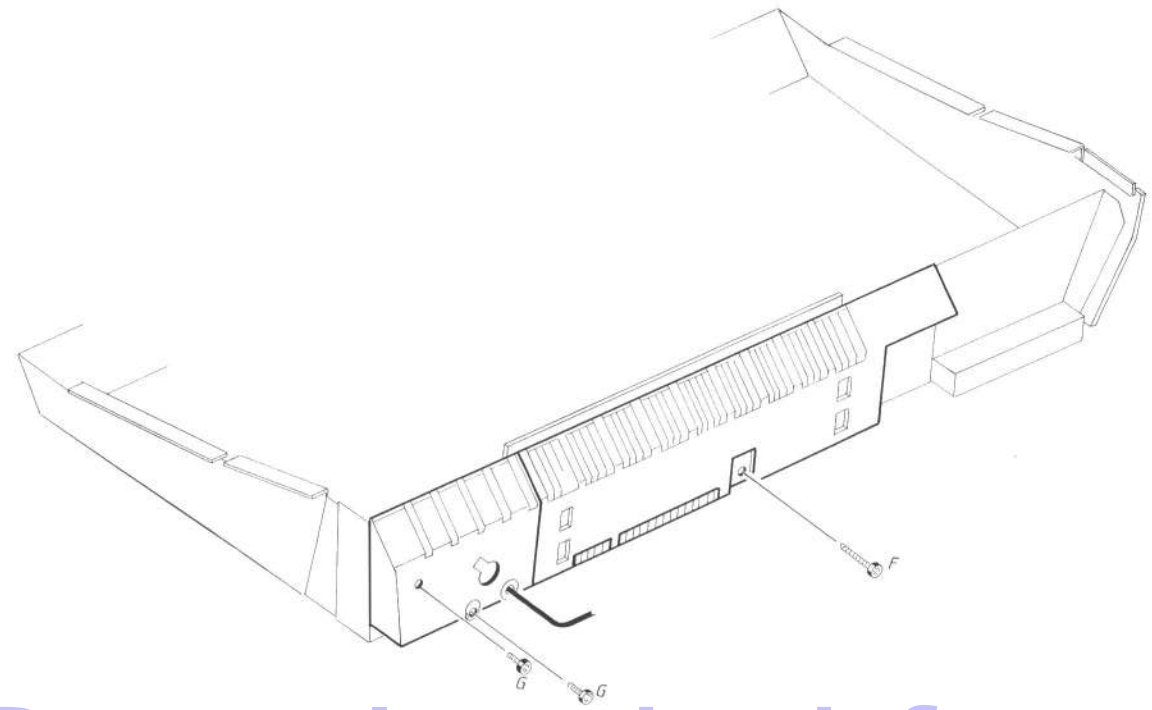
Remove screw (K) and push display glass to left to dislodge.

Remove screw (L) and push keyboard glass to left to dislodge.

PCB is now assessible for servicing.

Serviceposition for PCB60

Servicing Position for PCB60



Skruen F aftages og kølepladens plastdæksel fjernes ved at trække opad.

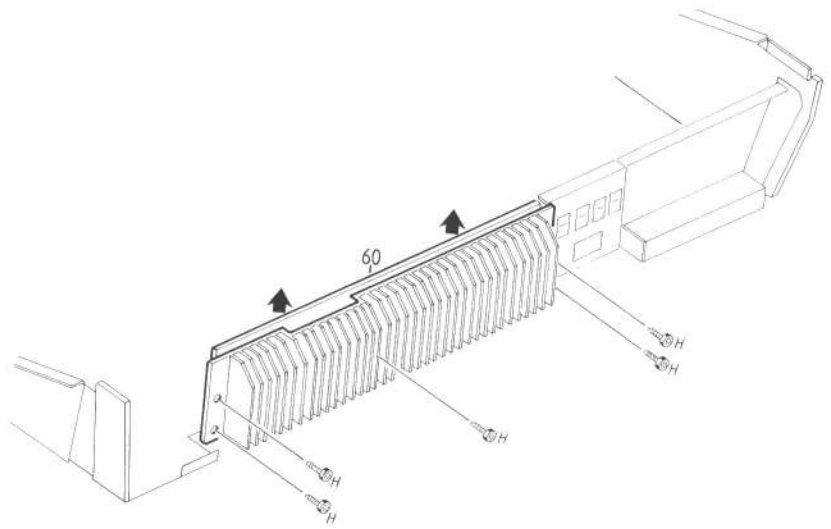
Skruen G aftages og plastdæksel over transformator fjernes.

N.B. Pas på nettransformatorens terminaler med netspænding.

Take out screw (F) and remove plastic cover of heat dissipation panel by pulling upwards.

Take out screws (G) and remove plastic cover over transformer.

N.B. Be careful of mains voltage on terminals of network transformer.



Skruerne H aftages og køleplade trækkes lidt op og lægges på bordet med PCB60 opad.

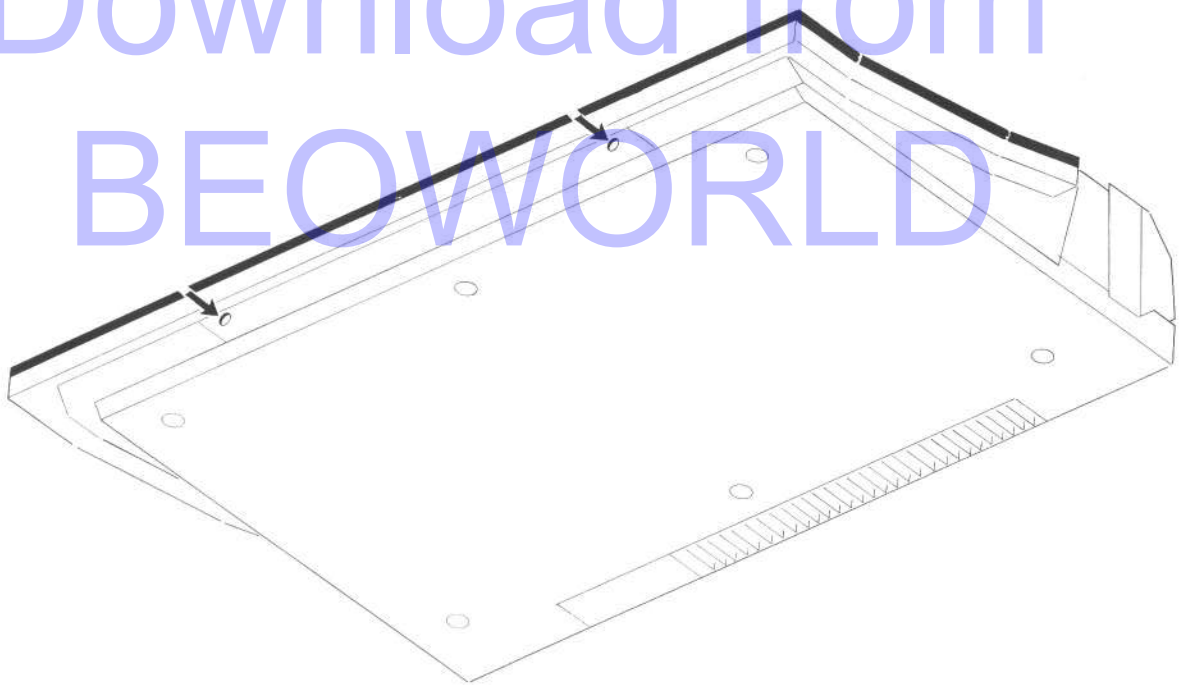
Remove screws (H), pulling heat dissipation panel up slightly and placing it on worktop with PCB60 facing upwards.

Tryk »AM-FM« til frekvensdisplayet viser 150.
DC strømforsyningen skrues langsomt op, og når modtageren »fanger« 150 kHz skal spændingen være ca. 2V.
Målesenderens frekvens ændres til 350 kHz.
Strømforsyningen skrues op, og når modtageren »fanger« frekvensen skal spændingen være ca. 25V.
Samme procedure kan benyttes i mellembølgeområdet:
520 kHz spænding ca. 2V.
1610 kHz spænding ca. 25V.

Press "AM-FM" until the frequency display shows 150.
Turn up the DC power supply slowly, and when the receiver "catches" 150kHz the voltage should be approx. 2V.
The signal generator frequency is changed to 350kHz.
Turn up the power supply, and when the receiver "catches" the frequency the voltage should be approx. 25V.
The same procedure may be followed in the medium wave range:
520 kHz voltage approx. 2V.
11610 kHz voltage approx. 25V.

Manuel åbning eller lukning af låg.

Manual Opening or Closing of Cover

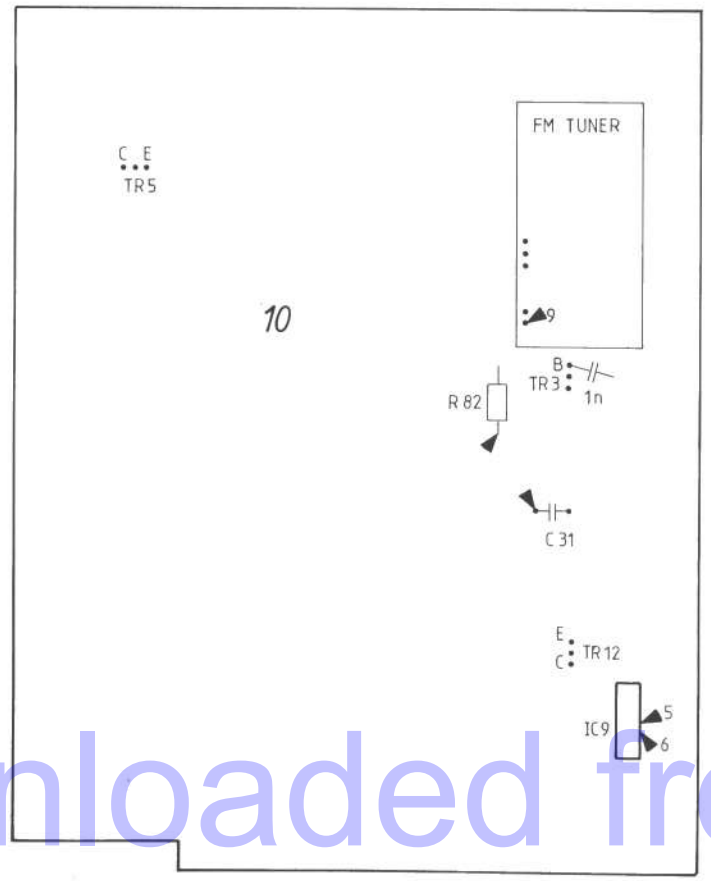


Låg over CD og TAPE kan åbnes og lukkes manuelt. Det kan være nyttigt, hvis lågfunktionen er blokeret eller apparatet ikke er tilsluttet lysnettet.
Gennem de viste huller, kan man dreje lågakselerne med en skruetrækker, og dermed åbne og lukke lågerne.

The cover over CD and TAPE can be opened and closed manually. This may be useful if the cover function is blocked or the set is not connected to the mains.
The cover axles can be rotated with a screwdriver through the holes shown, thereby opening and closing the covers.

SERVICETIPS

SERVICE TIPS



Reparation i tuningssystemet
Ved reparation i tuningssystemet kan det være vanskeligt at lokalisere en fejl.
Følgende servicetips kan benyttes til at »åbne sløjfen« mellem mikrocomputeren og resten af tuningssystemet.

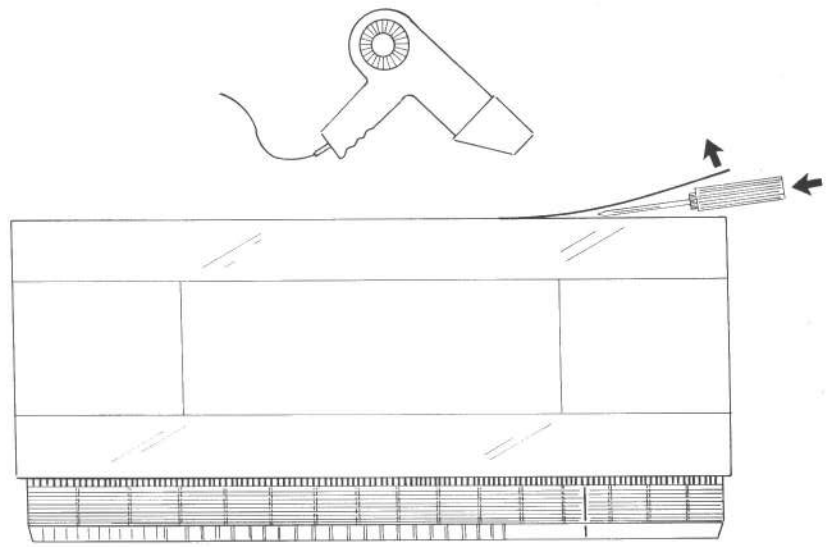
1. Neddeler af oscillatorfrekvens:
Kortslut kollektor og emitter på 10TR5. Ben 9 på tuneren suges fri for tin, så der ikke er forbindelse til loddeøen.
Tilslut en målesender til basis på 10TR3 via en 1nF kondensator.
Indstil målesenderen til FM, og en frekvens på f.eks. 100,7 MHz, output større end 15mV.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til frekvensdisplayet viser 87,5.
Tryk >>.
Frekvensdisplayet skal nu vise en frekvens, der er 10,7MHz under målesenderens frekvens, i dette tilfælde 90MHz.
Frekvensdeleren deler med 400.
Kortslutningen fjernes.

Repairs in the tuning system.
When carrying out tuning system repairs, it may be difficult to localize a fault. The following service tips may be used for "opening the loop" between the microcomputer and the rest of the tuning system.

1. Oscillator frequency divider:
Short-circuit collector and emitter at 10TR5. Remove all solder from tuner pin 9 so that there is no connection to the soldering point.
Connect a signal generator to the base of 10TR3 via a 1nF capacitor.
Set the signal generator to FM and a frequency of, for example, 100.7MHz, the output being greater than 15mV.
Press "Radio".
Press "Search".
Press "AM-FM" until the frequency display shows 87.5.
Press >>.
The frequency display will now show a frequency which is 10.7MHz less than the frequency of the signal generator, i.e., 90MHz in this example.
The frequency divider divides by 400.
Remove the short-circuit.

Kabinet, reparation og udskiftning.

Cabinet, Repairs and Replacement



Kabinetsættet består af løse sider, som er belagt med en selvklæbende tape og beskyttelsespapir.

Det gamle kabinet aftages lettest ved at opvarme siderne med en varmluftblæser (hårtørrer) og langsomt trække siderne af.
Hvis limen efter at siderne er fjernet ligger jævnt, kan de nye sider monteres ovenpå denne lim. Hvis limen derimod ligger ujævnt skal denne aftages med renset benzin, inden de nye sidestykker monteres.

Hvis den aluminiumsfarvede kant under glaspanelerne beskadiges, kan den repareres med en pen med reparationsmaling (bestillingsnr. 3982251).

The cabinet set consists of loose sides covered with self-adhesive tape and protective paper.

The easiest way to remove the old cabinet is to heat up the sides with a hot-air blower (hair-drier) and pull the sides away slowly. If the glue is evenly distributed after removal of the sides, the new sides can be fitted onto the glue. However, if the glue is unevenly distributed, it should be removed with cleaner's naphtha before mounting the new side-pieces.

If the aluminium-coloured bezel underneath the glass panels is damaged, it can be repaired with a pen using touching-up paint (order no. 3982251).

Relay stikdåse

Denne stikdåse bag på apparatet er beregnet for tilslutning af en »Remote Mains Switch« for tænd og sluk af et ekstern apparat (f.eks. en forstærker equalizer eller en lampe). Det tilsluttede apparat vil tænde og slukke sammen med Beocenter 9000.
Såfremt der f.eks. tilsluttes en ekstra forstærker i samme rum som Beocenter 9000, kan det være ønskeligt at »Remote Mains Switch« tænder og slukker sammen med højttaler-sæt 1 (det vil sige slukker når disse højttaler mutes). For at opnå dette skal der foretages en mindre modifikation i apparatet:
- »lus« pos. 53 J4 klippes.
- modstand 53 R1 ændres til 270 ohm.
- Der monteres en ledning fra 60 TR22 kollekter til 53 R1 (monteres på den side af modstand som vender væk fra »Relay« stikdåsen.

Relay Socket

This socket at the rear of the set is designed for connecting a Remote Mains Switch for switching external apparatus on and off (e.g. amplifier, equalizer or light). The apparatus connected will come on and go off in phase with the Beocenter 9000.
Where e.g. an extra amplifier is connected in the same room as the Beocenter 9000, it may be desirable to have the Remote Mains Switch come on and go off in phase with loudspeaker set 1 (i.e. go off when these loudspeakers are muted). To achieve this, a minor modi-fication must be carried out to the set:

- trim jumper bug pos. 53 J4.
- alter resistor 53 R1 to 270 ohms.
- wire up a lead from collector 60 TR22 to 53 R1 (fit it on the side of the resistor facing away from the relay socket).

2. Korrektion af afstemningsspænding:
Ben 9 på tuneren suges fri for tin, så der ikke er forbindelse til loddeøen.
Tilslut en målesender til basis på 10TR3 via en 1nF kondensator.
Indstil målesenderen til FM, 100,7MHz, output større end 15mV.
Tilslut et oscilloskop til 10IC9 ben 5 og ben 6.
Tilslut et DC voltmeter til kollektoren på 10TR12.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til frekvensdisplayet viser 87,5.
Tryk »Freq«.
Tryk 900.
Tryk »Manual«.
Målesenderens frekvens reguleres langsomt op.
Dette opfattes som oscillatordrift mod højere frekvens af mikrocomputeren, som så skal sende positive korrektionspulser til 10IC9 ben 5.
Reguleres der ned for målesenderens frekvens, i forhold til 100,7 MHz, skal mikrocomputeren sende positive korrektionspulser til 10IC9 ben 6.
Opregulering af frekvensen skal give faldende spænding på DC voltmeteret.
Nedregulering af frekvensen skal give stigende spænding på DC voltmeteret.

2. Correction of tuning voltage:
Remove all solder from tuner pin 9 so that there is no connection to the soldering point.
Connect a signal generator to the base of 10TR3 via a 1nF capacitor.
Set the signal generator to FM, 100.7MHz, output greater than 15mV.
Connect an oscilloscope to 10IC9 pins 5 and 6.
Connect a DC voltmeter to the collector of 10TR12.
Press "Radio".
Press "Search".
Press "AM-FM" until the frequency display shows 87.5.
Press "Freq".
Press 900.
Press "Manual".
Increase the signal generator frequency slowly.
The microcomputer understands this as oscillator drift towards higher frequency, and it therefore has to send positive correction pulses to 10IC9 pin 5.
If the signal generator frequency is decreased compared to 100.7MHz, the microcomputer has to send positive correction pulses to 10IC9 pin 6.
A frequency increase should result in decreasing voltage on the DC voltmeter.
A frequency decrease should result in increasing voltage on the DC voltmeter.

3. FM oscillator og HF:
10R82 løftes (den side af 10R82 som vender mod 10TR12 loddes fra).
En variabel DC strømforsyning tilsluttes med + til den fraloddede side af 10R82, og indstilles til 0V.
Tilslut en målsender til FM antenneindgangen.
Indstil senderen til 88MHz.
Tryk »Radio«.
Tryk »Search«.
Tryk »AM-FM« til frekvensdisplayet viser 87,5.
Tryk »Freq«.
Tryk 880.
Tryk »Manual«.
DC strømforsyningen skrues langsomt op, og når modtageren »fanger« 88MHz skal spændingen være ca. 4V.
Målesenderens frekvens ændres til 107 MHz.
Strømforsyningen skrues op, og når modtageren »fanger« frekvensen skal spændingen være ca. 19V.

3. FM oscillator and RF:
Lift 10R82 (desolder the side of 10R82 facing 10TR12).
Connect a variable DC power supply with + at the desoldered side of 10R82, and adjust to 0V.
Connect a signal generator to the FM aerial input.
Set the generator to 88MHz.
Press "Radio".
Press "Search".
Press "AM-FM" until the frequency display shows 87.5.
Press "Freq".
Press 880.
Press "Manual".
Turn up the DC power supply slowly, and when the receiver "catches" 88MHz the voltage should be approx. 4V.
The signal generator frequency is changed to 107MHz.
Turn up the power supply, and when the receiver "catches" the frequency the voltage should be approx. 19V.

4. AM oscillator og HF:
10R82 løftes (den side af 10R82 som vender mod 10TR12 loddes fra).
En variabel DC strømforsyning tilsluttes med + til den fraloddede side af 10R82, og indstilles til 0V.
Tilslut en målesender til AM antenneindgangen.
Indstil senderen til 150 kHz.
Tryk »Radio«.

4. AM oscillator and RF:
Lift 10R82 (desolder the side of 10R82 facing 10TR12).
Connect a variable DC power supply with + at the desoldered side of 10R82, and adjust to 0V.
Connect a signal generator to the AM aerial input.
Set the generator to 150 kHz.
Press "Radio".

Testfunktioner

Beocenter 9000 kan bringes i forskellige »test-modes« ved tage det underste displayglas af og kortslutte stikket TESTMODE på PCB 43, i få sekunder.

Der er mulighed for:

Kontrol af lysdioder.
Test af ROM.
Test af RAM.
Kommunikationstest.
Test af IR-modtager.
Sletning af RAM.
FM-displayindikering.
AM-displayindikering.

Resultatet af hver test indikeres i displayet, i form af en kode. Hvis koden har form som et spørgsmålstegn, så start testen pånny.

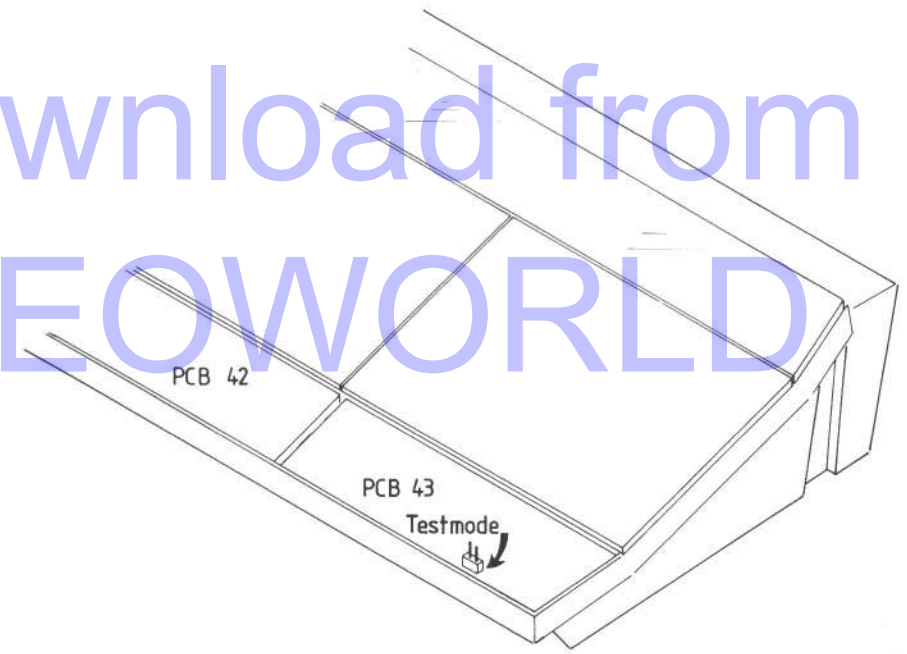
Test Functions

The Beocenter 9000 can be put into different test modes by removing the bottom display glass and short-circuiting the TEST MODE plug on PCB 43 for a few seconds.

There are facilities for:

Check LEDs.
ROM test.
RAM test.
Communication test.
IR receiver test.
RAM deletion.
FM display indication.
AM display indication.

The result of each test is indicated in the display in the form of a code. If the code takes the form of a question mark, restart the test.

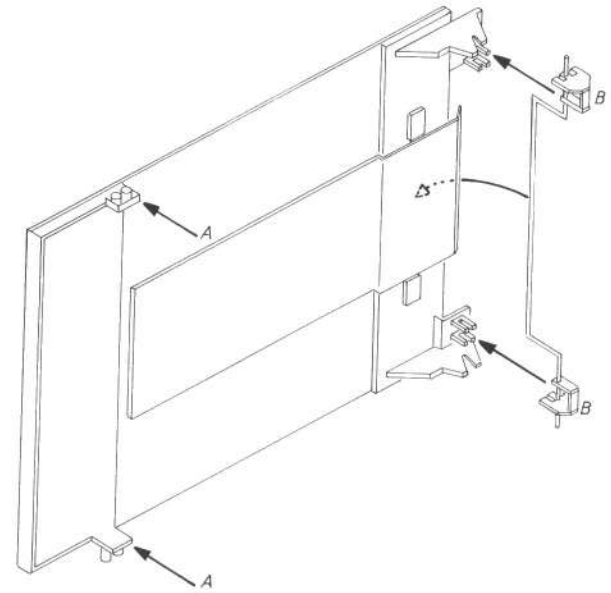


Lysdiodekontrol:
LED Check

Kortslut Indikering:	TESTMODE Alle lysdioder i underste panel lyser.
Short-circuit Indication:	TEST MODE All LEDs in bottom panel light up.
Tast Indikering:	PLAY Lysdioder i øverste venstre panel lyser.
Key Indication:	PLAY LEDs in top left panel light up.
Tast Indikering:	RECORD Lysdioder i øverste midterste panel lyser.
Key Indication:	RECORD LEDs in top middle panel light up.

Udskiftning af låg over CD og TAPE.

Replacement of Cover over CD and TAPE



Apparatet sættes i serviceposition.
Låget åbnes og plastdækslet under låget tages ud (4 stk. plastclips).
Låget lukkes ca. 80% (kan gøres ved at dreje med lågaksel).
Eks. CD-låg

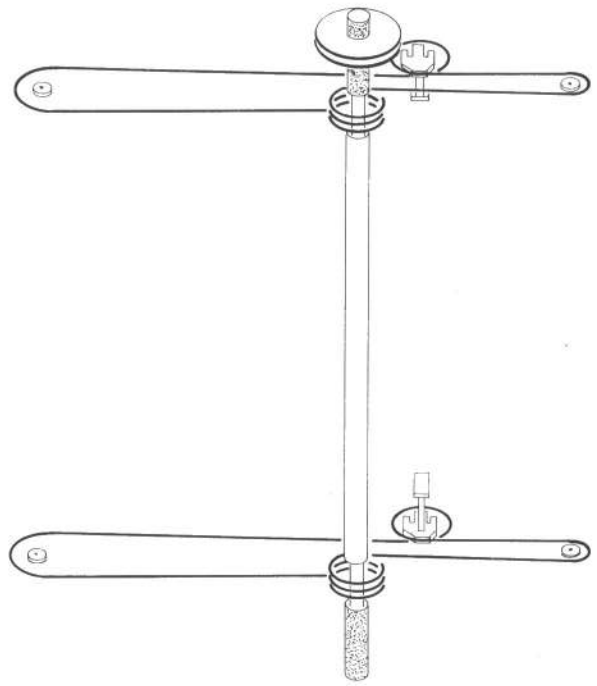
De to glidestyr ved pilene A løftes ud af styrespor.
Låget trækkes mod venstre.
Låget løftes fri af låsene B og kan nu tages af.
Låget for TAPE tages af på samme måde.

Place the set in the servicing position. Open the cover and take out the plastic lid under the cover (4 plastic clips).
Close the lid approx. 80% (this can be done by rotating the cover axle).
Ex. CD Cover

Lift the two sliding controls at arrows A out of the control track. Pull the cover to the left.
Raise the cover clear of locks (B) and then remove.
Take the TAPE cover off in the same way.

Skalasnor

Dial cord



Skalatrækket for hver låg består af 2 stk. snore på hver 495mm.

The dial drive for each lid comprises 2 pieces of cable of 495 mm each.

Tast Indikering:		CALL Lysdioder i øverste højre panel og display lyser.
Key Indication:		CALL LEDs in top right panel and display light up.
Tast Key		STAND BY
ROM-test 40IC3: **ROM Test 40IC3:** Kortslut Short-circuit		TESTMODE TEST MODE
Tast Key		7
Display Display	0 ROM i orden 0 ROM okay	Andet Fejl i ROM Other Error in ROM
Tast Key		STAND BY

RAM-test
40IC1, 40IC4, 40IC6:

Ram testes under hver opstart af 25xx fra stand by. Hvis testen findes i orden, kører opstarten i.fl.g. det valgte program.

RAM Test
40IC1, 40IC4, 40IC6:

RAM is tested each time 25xx is started up from stand-by. If the test is okayed, start-up proceeds according to the program selected.

Hvis der findes fejl i intern RAM (40IC1, 40IC4):	Går 25xx i TESTMODE og display viser 01.
If an error is located in internal RAM (40IC1, 40IC4):	25xx goes into TEST MODE and display shows 01.
i extern RAM (40IC6):	Går 25xx i TESTMODE og display viser 02.
in external RAM (40IC6):	25xx goes into TEST MODE and display shows 02.
i både intern og extern RAM (40IC1, 40IC4, 40IC6):	Går 25xx i TESTMODE og display viser 03.
in both internal and external RAM (40IC1, 40IC4, 40IC6):	25xx goes into TEST MODE and display shows 03.

Hvis yderligere kontrol af mikroprocessoren er nødvendig kan følgende gøres:

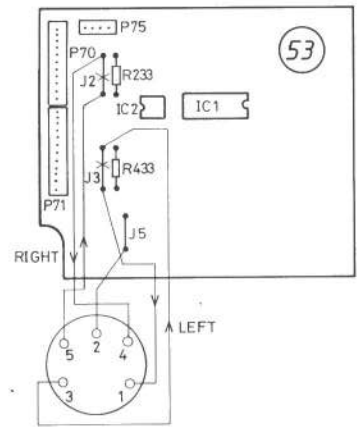
40P50, P51, P52, P54, P55, P56, P57, 10P2 og IR-øje afmonteres, og PCB 40 tages ud af Beocenteren.
Tilslut en strømforsyning med +5V (500 mA) til ben 1 på 40P57 og stel på afskærmningsrammen.
Mikroprocessoren resettes ved kortvarigt at kortslutte 40P50 ben 4 til stel.
Kontroller, at der er et AC-signal tilstede på 40IC1 ben 5.
Hvis ikke resettes Beocenteren igen.

If further checking of the microprocessor is required, the following can be carried out:

Dismount 40P50, P51, P52, P54, P55, P56, P57, 10P2 and the IR eye, and remove PCB40 from the Beocenter.
Connect a +5 V (500 mA) power supply to pin 1 of 40P57 and to the screen frame chassis.
Reset the microprocessor by briefly short-circuiting 40P50 pin 4 to chassis.
Make sure that there is an AC signal on 40IC1 pin 5.
If not, reset the Beocenter again.

Line in/out

Line In/Out



Såfremt en equalizer ønskes tilsluttet, kan dette gøres ved at foretage et mindre indgreb i apparatet.
De to »lus« J2 og J3 på PCB 53 fjernes.

Ledningen monteres som vist på ovenstående skitse.
Det anbefales at anvende et 4 leder kabel med skærm (bestillingsnr. 6252000) 5-polet DIN-hunstik (bestillingsnr. 7211023) og kortslutningsprop som sættes i DIN-stikdåsen når equalizer ikke er tilsluttet (bestillingsnr. 7220265).
Der bores et hul i bagpladen, hvor kabel føres igennem. Husk at beskytte kabel i gennemføringsstedet, og husk at foretage trækaflastning.

Where it is desired to connect an equalizer, this can be done by means of a minor operation to the set.
Remove the two bugs, J2 and J3, on the PCB 53.

Install the lead as shown in the sketch (above). It is advisable to use screened, 4-core cable (order no. 6252000), 5-pole DIN jack (order no. 7211023) and bridging plug inserted in the DIN socket when the equalizer is not connected (order no. 7220265).
Drill a hole in the back-plate and guide the cable through. Remember to protect the cable at the lead-in point and to provide strain relief.

Touchfelter virker ikke

Hvis touchfelter ikke reagerer ved berøring, men fjernbetjening virker, kan følgende gøres:
Oscilloscop i stilling DC tilsluttes 40IC1 ben 36. Dette ben skal gå high, når et touchfelt berøres.
Hvis 40IC1 ben 36 er konstant high, skal modul 41, 42 eller 43 undersøges for kortslutninger. Kortslutningsstedet kan indkredses, ved at afmontere 41P66 og 42P63 en efter en, imens 40IC1 ben 36 kontrolleres for at gå low.

Touch-fields do not function

If the touch-fields do not react when touched and yet the remote control works, the following can be done:
Connect oscilloscope in position DC to 40IC1 pin 36. This pin should go high when a touch-field is touched.
If 40IC1 pin 36 is constantly high, modules 41, 42 or 43 should be examined for short-circuits. The short-circuit point may be determined by dismounting 41P66, 42P63 and 43P62, one by one, while checking whether or not 40IC1 pin 36 goes low.

Testfunktioner

Beocenter 9000 kan bringes i forskellige »test-modes« ved tage det underste displayglas af og kortslutte stikket TESTMODE på PCB 43, i få sekunder.

Der er mulighed for:

- Kontrol af lysdioder.
- Test af ROM.
- Test af RAM.
- Kommunikationstest.
- Test af IR-modtager.
- Sletning af RAM.
- FM-displayindikering.
- AM-displayindikering.

Resultatet af hver test indikeres i displayet, i form af en kode. Hvis koden har form som et spørgsmålstegn, så start testen pånny.

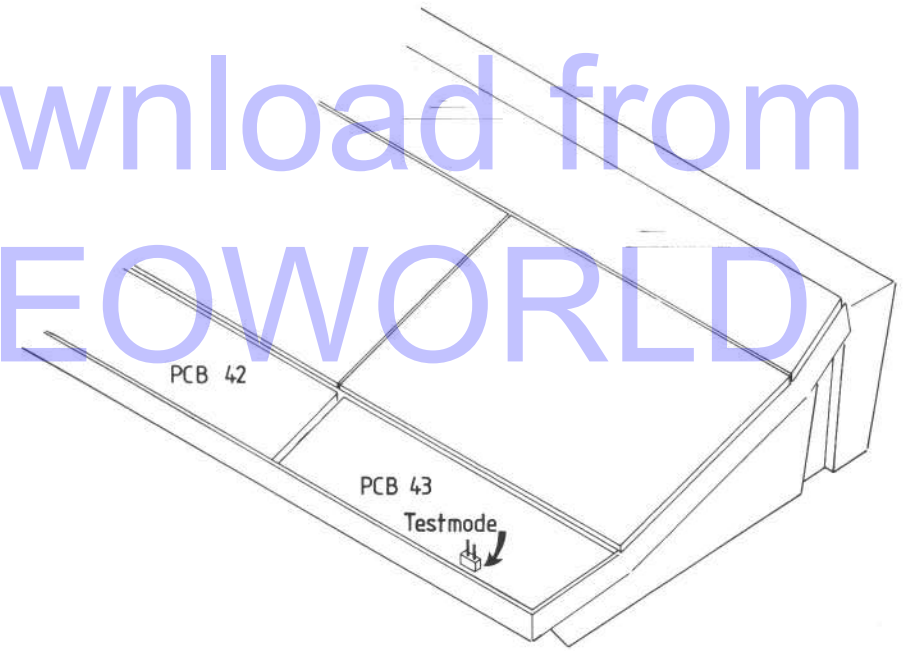
Test Functions

The Beocenter 9000 can be put into different test modes by removing the bottom display glass and short-circuiting the TEST MODE plug on PCB 43 for a few seconds.

There are facilities for:

- Check LEDs.
- ROM test.
- RAM test.
- Communication test.
- IR receiver test.
- RAM deletion.
- FM display indication.
- AM display indication.

The result of each test is indicated in the display in the form of a code. If the code takes the form of a question mark, restart the test.



Lysdiodekontrol:
LED Check

Kortslut Indikering:	TESTMODE Alle lysdioder i underste panel lyser.
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Tast Indikering:	PLAY Lysdioder i øverste venstre panel lyser.
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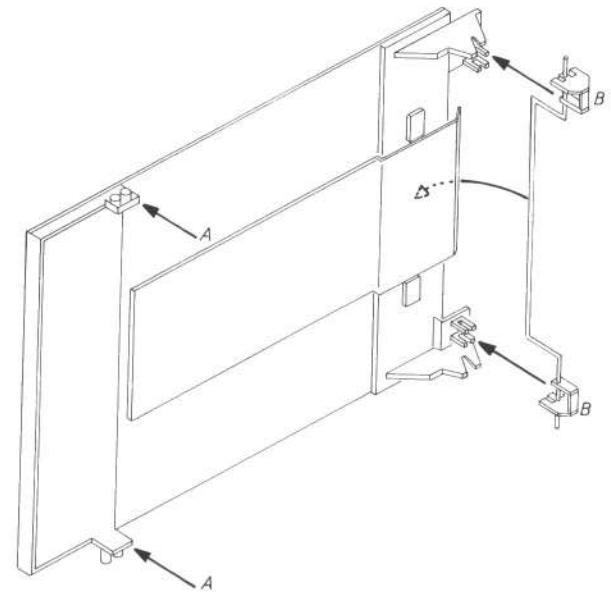
Tast Indikering:	RECORD Lysdioder i øverste midterste panel lyser.
Key Indication:	RECORD LEDs in top middle panel light up.

Udskiftning af låg over CD og TAPE.

Replacement of Cover over CD and TAPE



Apparatet sættes i serviceposition.
Låget åbnes og plastdækslet under låget tages ud (4 stk. plastclips).
Låget lukkes ca. 80% (kan gøres ved at dreje med lågaksel).
Eks. CD-låg

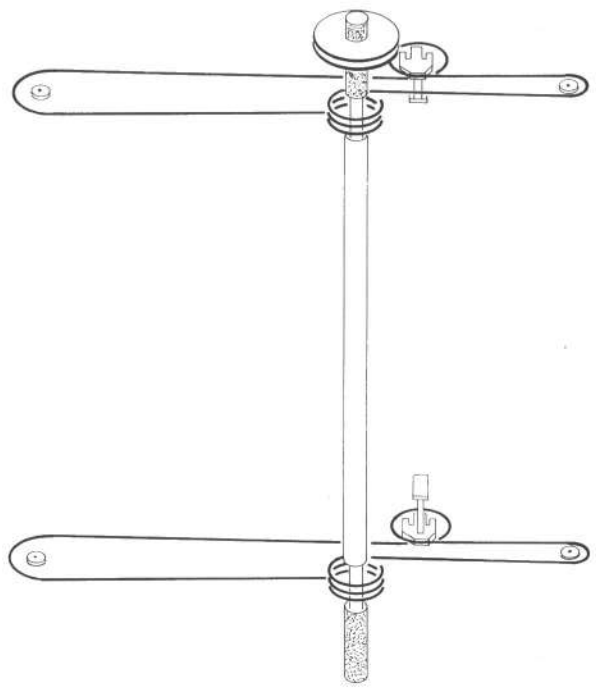
Place the set in the servicing position. Open the cover and take out the plastic lid under the cover (4 plastic clips).
Close the lid approx. 80 % (this can be done by rotating the cover axle).
Ex. CD Cover

De to glidestyr ved pilene A løftes ud af styrespor.
Låget trækkes mod venstre.
Låget løftes fri af låsene B og kan nu tages af.
Låget for TAPE tages af på samme måde.

Lift the two sliding controls at arrows A out of the control track. Pull the cover to the left.
Raise the cover clear of locks (B) and then remove.
Take the TAPE cover off in the same way.

Skalasnor

Dial cord



Skalatrækket for hver låg består af 2 stk. snore på hver 495mm.

The dial drive for each lid comprises 2 pieces of cable of 495 mm each.

Tast Indikering:	CALL Lysdioder i øverste højre panel og display lyser.
Key Indication:	CALL LEDs in top right panel and display light up.
Tast Key	 STAND BY

ROM-test 40IC3:
ROM Test 40IC3:

Kortslut	TESTMODE
Short-circuit	TEST MODE
Tast Key	 7
Display 0 ROM i orden	Andet Fejl i ROM
Display 0 ROM okay	Other Error in ROM
Tast Key	 STAND BY

RAM-test
40IC1, 40IC4, 40IC6:

Ram testes under hver opstart af 25xx fra stand by. Hvis testen findes i orden, kører opstarten i.fl.g. det valgte program.

RAM Test
40IC1, 40IC4, 40IC6:

RAM is tested each time 25xx is started up from stand-by. If the test is okayed, start-up proceeds according to the program selected.

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i både intern og extern RAM (40IC1, 40IC4, 40IC6):	Går 25xx i TESTMODE og display viser 03.
in both internal and external RAM (40IC1, 40IC4, 40IC6):	25xx goes into TEST MODE and display shows 03.

Hvis yderligere kontrol af mikroprocessoren er nødvendig kan følgende gøres:

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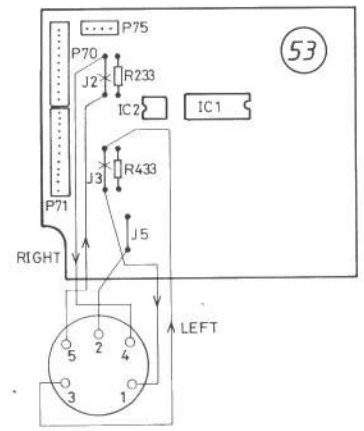
Tilslut en strømforsyning med +5V (500 mA) til ben 1 på 40P57 og stel på afskærmningsrammen.
Mikroprocessoren resettes ved kortvarigt at kortslutte 40P50 ben 4 til stel.
Kontroller, at der er et AC-signal tilstede på 40IC1 ben 5.
Hvis ikke resettes Beocenteren igen.

If further checking of the microprocessor is required, the following can be carried out:

Dismount 40P50, P51, P52, P54, P55, P56, P57, 10P2 and the IR eye, and remove PCB40 from the Beocenter.
Connect a +5 V (500 mA) power supply to pin 1 of 40P57 and to the screen frame chassis.
Reset the microprocessor by briefly short-circuiting 40P50 pin 4 to chassis.
Make sure that there is an AC signal on 40IC1 pin 5.
If not, reset the Beocenter again.

Line in/out

Line In/Out



Såfremt en equalizer ønskes tilsluttet, kan dette gøres ved at foretage et mindre indgreb i apparatet.
De to »lus« J2 og J3 på PCB 53 fjernes.

Ledningen monteres som vist på ovenstående skitse. Det anbefales at anvende et 4 leder kabel med skærm (bestillingsnr. 6252000) 5-polet DIN-hunstik (bestillingsnr. 7211023) og kortslutningsprop som sættes i DIN-stikdåsen når equalizer ikke er tilsluttet (bestillingsnr. 7220265).
Der bores et hul i bagpladen, hvor kabel føres igennem. Husk at beskytte kabel i gennemføringsstedet, og husk at foretage trækaflastning.

Where it is desired to connect an equalizer, this can be done by means of a minor operation to the set. Remove the two bugs, J2 and J3, on the PCB 53.

Install the lead as shown in the sketch (above). It is advisable to use screened, 4-core cable (order no. 6252000), 5-pole DIN jack (order no. 7211023) and bridging plug inserted in the DIN socket when the equalizer is not connected (order no. 7220265). Drill a hole in the back-plate and guide the cable through. Remember to protect the cable at the lead-in point and to provide strain relief.

Touchfelter virker ikke

Hvis touchfelter ikke reagerer ved berøring, men fjernbetjening virker, kan følgende gøres:
Oscilloscop i stilling DC tilsluttes 40IC1 ben 36. Dette ben skal gå high, når et touchfelt berøres.
Hvis 40IC1 ben 36 er konstant high, skal modul 41, 42 eller 43 undersøges for kortslutninger. Kortslutningsstedet kan indkredses, ved at afmontere 41P66 og 42P63 en efter en, imens 40IC1 ben 36 kontrolleres for at gå low.

Touch-fields do not function

If the touch-fields do not react when touched and yet the remote control works, the following can be done:
Connect oscilloscope in position DC to 40IC1 pin 36. This pin should go high when a touch-field is touched.
If 40IC1 pin 36 is constantly high, modules 41, 42 or 43 should be examined for short-circuits. The short-circuit point may be determined by dismounting 41P66, 42P63 and 43P62, one by one, while checking whether or not 40IC1 pin 36 goes low.

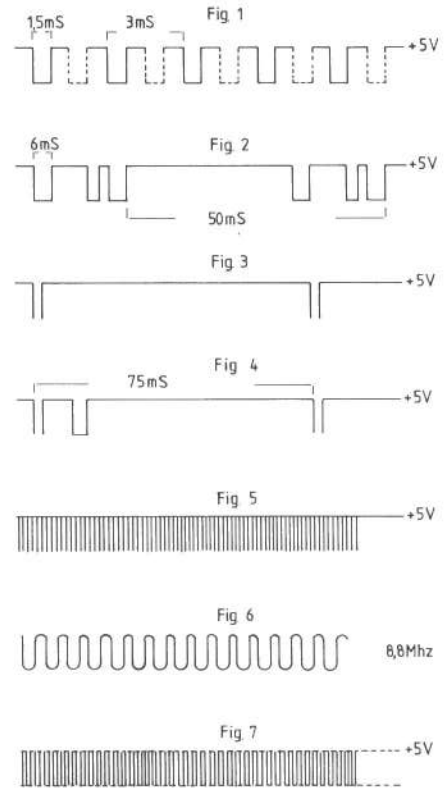
PCB 40 skal nu vise følgende spændinger:

PCB 40 should now have the following voltage values:

40IC1	DC	AC
Pin 1-2	–	Fig. 1
Pin 4	–	Fig. 2
Pin 5-8	–	Fig. 3
Pin 9	<0.8V	–
Pin 10	ca. 5V	–
Pin 11-12	–	Fig. 4
Pin 13-14	ca. 0V	–
Pin 15	ca. 5V	–
Pin 16-17	–	Fig. 5
Pin 18-19	–	Fig. 6
Pin 20	0V	–
Pin 21-28	–	Fig. 7
Pin 29-30	–	Fig. 8
Pin 31	0V	–
Pin 32-39	–	Fig. 9
Pin 40	+5V	–

40IC4	DC	AC
Pin 1	ca. 5V	–
Pin 2	ca. 0V	–
Pin 3-4	0V	–
Pin 5	ca. 0V	–
Pin 7	–	Fig. 7
Pin 9-10	–	Fig. 5
Pin 11	–	Fig. 8
Pin 12-19	–	Fig. 10
Pin 20	0V	–
Pin 21-22	–	Fig. 11
Pin 23	–	Fig. 14
Pin 24-25	–	Fig. 11
Pin 26-27	ca. 0V	–
Pin 28	–	Fig. 11
Pin 29-31	–	Fig. 12
Pin 32	–	Fig. 13
Pin 33-35	ca. 0V	–
Pin 36-39	ca. 5V	–
Pin 40	+5V	–

40IC6	DC	AC
Pin 1-3	ca. 0V	–
Pin 4	0V	–
Pin 5-6	–	Fig. 4
Pin 7	ca. 0V	–
Pin 8	4.5V	–



Test af IR-modtager:
Hertil bruges en audio terminal.

Tast ▽ og hold den nedtrykket.

På 40IC1 ben 3 skal der kunne måles et AC-signal, med en bredde på ca. 2msek. og en amplitude på $5V_{pp}$.

Over 40C41 (A2) skal der kunne måles ≦0,2V DC når terminalen er placeret meget tæt på modtageren. Uden ▽ knap nedtrykket skal spændingen være ≧0,5V DC.

IR receiver test:
Use an audio terminal for this test.

Key ▽ Press and keep depressed.

On 40IC1 pin 3 it should now be possible to measure an AC signal with a width of approx. 2 msec. and an amplitude of 5 V_{pp}.

When the terminal is positioned very close to the receiver, it should be possible to measure a voltage ≦0.2 V DC across 40C41 (A2).
If the button is not depressed, this voltage should be ≧0.5 V DC.

RAM-sletning:
Herved slettes alle stationsindlæsninger og niveauindlæsninger nulstilles. Dette ses ikke på displayet, før Beocenter 9000 har været afbrudt fra lysnettet.
RAM-sletning skal foretages ved udskiftning af PCB 40, 40IC6, 40D5, 40D4, 40C27, 40R107 eller 3V batteri.

RAM Deletion:
This procedure deletes all station settings and zeroes out all level settings. This is not displayed until the Beocenter 9000 has been disconnected from the mains. RAM deletion must be performed when changing PCB 40, 40IC6, 40D5, 40D4, 40C27, 40R107 or 3V battery.

kortslut	TESTMODE
Short-circuit	TEST MODE
Tast	AUT REV. RAM er hermed nulstillet.
Key	AUT REV. RAM is now zero set.
Tast	STAND BY
Key	

FM-displayindikering:
Skal udføres ved udskiftning af PCB 10, båndpasfiltrene 10BP1, 10BP2 og 10BP3, eller ved indgreb i FM-detektorkredsløbet.

FM Display Indication:
Must be performed when changing PCB 10, band-pass filters 10BP1, 10BP2 and 10BP3 or when intervenning in the FM detector circuit.

Tast	RADIO
Key	
Tast	SEARCH
Key	
Tast (til display viser 87,5)	AM-FM
Key (until 87.5 is displayed)	AM-FM
Kortslut	TESTMODE
Short-circuit	TEST MODE

Tast Key	>>
Vent til Beocenteren stopper på en station (eks. 92,9 MHz) Wait until Beocenter stops on a station. (Ex. 92.9 MHz)	(Vent til display blinker) (Wait until display flashes)
Tast Key	RADIO
Tast Key	SEARCH
Tast Key	FREQ
Indtast den nøjagtige frekvens på den modtagne station (eks. 92,8 MHz). Enter the exact frequency of the station being received (e.g. 92.8 MHz).	9 2 8 9 2 8
Tast (inden 3 sec.) Key (Within 3 secs.)	STORE STORE
Display Display	92.8
Tast Key	STAND BY

AM-displayindikering	**AM Display Indication**
Skal udføres ved udskiftning af PCB 10, det keramiske filter 10BP4 eller ved indgreb i AM-detektorkredsløbet.	Must be performed when changing PCB 10, ceramic filter 10BP4 or when intervening in the AM detector circuit.
Tast Key	RADIO
Tast Key	SEARCH
Tast (til AM-indikering lyser) Key (until AM indication lights up)	AM-FM AM-FM
Kortslut Short-circuit	TESTMODE TEST MODE
Tast Key	FREQ

Kortslut 40P50 ben 4 til stel og samtidig skal følgende kunne måles:

Short-circuit 40P50 pin 4 to chassis, and at the same time it should be possible to measure the following values:

40IC6	DC	AC
Pin 1-3	ca. 4.5V	–
Pin 4	0V	–
Pin 5-6	ca. 5V	–
Pin 7	ca. 4.5V	–
Pin 8	4.5V	–

Fjern kortslutningen og monter PCB 40 i Beocenteren igen.

Remove the short-circuit and remount PCB40 in the Beocenter.

Kommunikationstest:

Her testes mikroprocesserens kommunikation fra processorindgange til display.
Testen udføres i STAND BY.

Kortslut TESTMODE

Ved at forbinde følgende ben, en efter en, til +5V gennem en 220 ohms modstand, skal følgende muligheder kunne aflæses på displayet, når der tastes LEVEL:

Communication test:

In this test the communication of the microprocessor from processor inputs to display is checked. Carry out the test in STAND BY mode.

Short-circuit TEST MODE

By connecting the following pins, one by one, to +5 V through a 220 ohm resistor, the following alternative values should be given by the display when the LEVEL key is pressed:

		Display Indication
40IC1	Pin 1-4	FF 0C or FF 0d
	Pin 5	no shift
	Pin 6-8	FF 0C or FF 0d
40IC4	Pin 1	FF 0C or FF 0d
	Pin 2	FF 1C or FF 1d
	Pin 5	FF 2C or FF 2d
	Pin 38	FF 0E or FF 0F
	Pin 39	FF 0C or FF 0d
	Pin 37	Units goes into Stand by

Kortslut TESTMODE

Ved at forbinde de samme ben en efter en til stel, kan følgende indikeringer aflæses, når der tastes LEVEL:

Short-circuit TEST MODE

By connecting the same pins, one by one, to chassis, the following indications will be displayed when the LEVEL key is pressed:

40IC1	Pin 1	FE 0C or FE 0d
	Pin 2	Fd 0c or Fd 0d
	Pin 3	F2 0C or F2 0d
	Pin 4	F7 0C or F7 0d
	Pin 5-8	no shift
40IC1	Pin 1	FF 04 or FF 05
	Pin 2	FF 0C or FF 0d
	Pin 5	FF 0C or FF 0d
	Pin 38	FF 0C or FF 0d
	Pin 39	FF 08 or FF 09
	Pin 37	Units goes into Stand by

Test af IR-modtager:
Hertil bruges en audio terminal.

Tast ▽ og hold den nedtrykket.

På 40IC1 ben 3 skal der kunne måles et AC-signal, med en bredde på ca. 2msek. og en amplitude på $5V_{pp}$.

Over 40C41 (A2) skal der kunne måles ≦0,2V DC når terminalen er placeret meget tæt på modtageren. Uden ▽ knap nedtrykket skal spændingen være ≧0,5V DC.

IR receiver test:
Use an audio terminal for this test.

Key ▽ Press and keep depressed.

On 40IC1 pin 3 it should now be possible to measure an AC signal with a width of approx. 2 msec. and an amplitude of 5 V_{pp}.

When the terminal is positioned very close to the receiver, it should be possible to measure a voltage ≦0.2 V DC across 40C41 (A2).
If the button is not depressed, this voltage should be ≧0.5 V DC.

RAM-sletning:
Herved slettes alle stationsindlæsninger og niveauindlæsninger nulstilles. Dette ses ikke på displayet, før Beocenter 9000 har været afbrudt fra lysnettet.
RAM-sletning skal foretages ved udskiftning af PCB 40, 40IC6, 40D5, 40D4, 40C27, 40R107 eller 3V batteri.

RAM Deletion:
This procedure deletes all station settings and zeroes out all level settings. This is not displayed until the Beocenter 9000 has been disconnected from the mains. RAM deletion must be performed when changing PCB 40, 40IC6, 40D5, 40D4, 40C27, 40R107 or 3V battery.

kortslut	TESTMODE
Short-circuit	TEST MODE
Tast	AUT REV. RAM er hermed nulstillet.
Key	AUT REV. RAM is now zero set.
Tast	STAND BY
Key	

FM-displayindikering:
Skal udføres ved udskiftning af PCB 10, båndpasfiltrene 10BP1, 10BP2 og 10BP3, eller ved indgreb i FM-detektorkredsløbet.

FM Display Indication:
Must be performed when changing PCB 10, band-pass filters 10BP1, 10BP2 and 10BP3 or when intervenning in the FM detector circuit.

Tast	RADIO
Key	
Tast	SEARCH
Key	
Tast (til display viser 87,5)	AM-FM
Key (until 87.5 is displayed)	AM-FM
Kortslut	TESTMODE
Short-circuit	TEST MODE

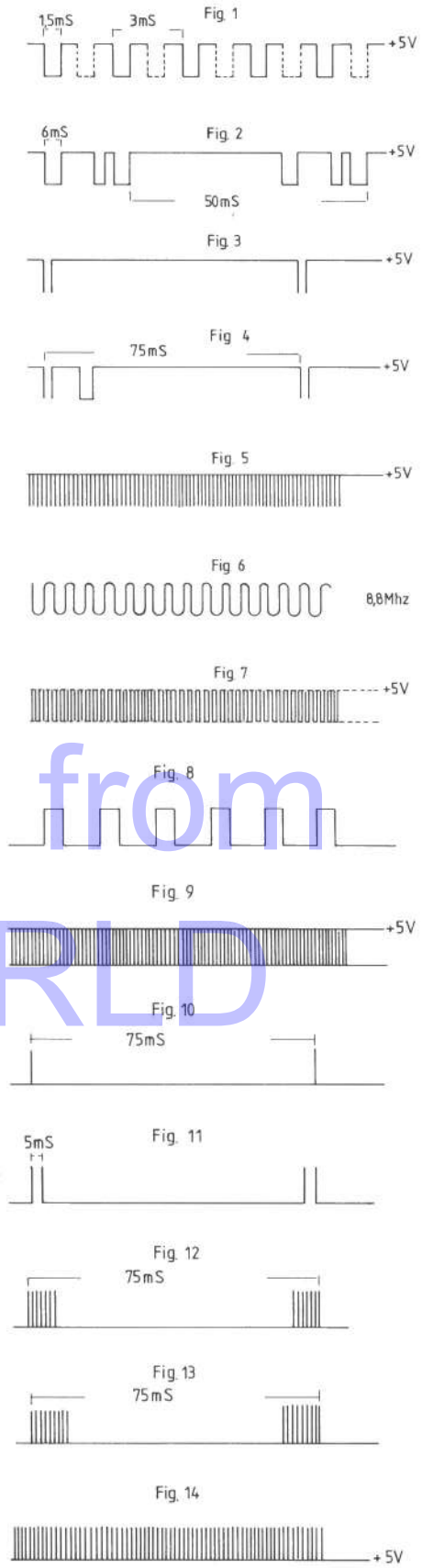
PCB 40 skal nu vise følgende spændinger:

PCB 40 should now have the following voltage values:

40IC1	DC	AC
Pin 1-2	–	Fig. 1
Pin 4	–	Fig. 2
Pin 5-8	–	Fig. 3
Pin 9	<0.8V	–
Pin 10	ca. 5V	–
Pin 11-12	–	Fig. 4
Pin 13-14	ca. 0V	–
Pin 15	ca. 5V	–
Pin 16-17	–	Fig. 5
Pin 18-19	–	Fig. 6
Pin 20	0V	–
Pin 21-28	–	Fig. 7
Pin 29-30	–	Fig. 8
Pin 31	0V	–
Pin 32-39	–	Fig. 9
Pin 40	+5V	–

40IC4	DC	AC
Pin 1	ca. 5V	–
Pin 2	ca. 0V	–
Pin 3-4	0V	–
Pin 5	ca. 0V	–
Pin 7	–	Fig. 7
Pin 9-10	–	Fig. 5
Pin 11	–	Fig. 8
Pin 12-19	–	Fig. 10
Pin 20	0V	–
Pin 21-22	–	Fig. 11
Pin 23	–	Fig. 14
Pin 24-25	–	Fig. 11
Pin 26-27	ca. 0V	–
Pin 28	–	Fig. 11
Pin 29-31	–	Fig. 12
Pin 32	–	Fig. 13
Pin 33-35	ca. 0V	–
Pin 36-39	ca. 5V	–
Pin 40	+5V	–

40IC6	DC	AC
Pin 1-3	ca. 0V	–
Pin 4	0V	–
Pin 5-6	–	Fig. 4
Pin 7	ca. 0V	–
Pin 8	4.5V	–



Slutafprøvning 25xx

Denne afprøvning bør benyttes som slutkontrol efter endt reparation, og sikrer at hovedparten af Beocenterens funktioner er i orden.

Final Testing of 25xx

This testing procedure should be used as a final check after completion of repairs to ensure that the majority of the Beocenter's functions are in working order.

Tilslut Beocenter 9000 til lysnet.	Connect Beocenter 9000 to mains.
Standby diode lyser.	Stand-by diode lights up.
Volumeindikering viser lydstyrkeniveau.	Volume indication shows volume level.
Udfør lysdiodekontrol ifølge testprogram. Se side 7-7 i servicemanual.	Perform LED check as per testing program. See page 7-7 in servicing manual.
Tast [STAND BY] Key [STAND-BY]	
Tast [RADIO] Key [RADIO]	Radio starter på den sidst benyttede station. Radio starts on the station last used.
Tast [SEARCH] Key [SEARCH]	MANUAL; FREQ; AM-FM og <<SEARCH>> skal lyse. MANUAL; FREQ; AM-FM and <<SEARCH>> must light up.
Tast [AM-FM] Key [AM-FM]	Til display viser 150. Until display shows 150.
Tast [>>] Key [>>]	Søger til AM-station, hvor lydkvaliteten kan bedømmes. Searches for AM station on which to evaluate sound quality.
Tast [AM-FM] Key [AM-FM]	Til display viser 87,5. Until display shows 87.5
Tast [>>] Key [>>]	Søger til FM-station, hvor lydkvaliteten kan bedømmes. Searches for FM station on which to evaluate sound quality.
Tast [LOAD TAPE] Ilæg kassettebånd for optagelse. Key [LOAD TAPE] Insert cassette for recording.	Tapeskuffe åbnes. Tape deck opens.
Tast [RECORD] Key [RECORD]	VU indikerer indspillestyrke. VU indicates recording volume.
Tast [RECORD] Optag 1 min. Key [RECORD] Record 1 min.	Optagelse starter. Recording starts.
Tast [RETURN] Key [RETURN]	Spoler tilbage til optagestart. Rewinds to start of recording.

*Indtast frekvens 455 kHz	4 5 5
*Enter frequency 455 kHz	4 5 5
Tast (inden 3 sek.)	[STORE]
Key (within 3 secs.)	[STORE]
Display	150 eller 520
Display	150 or 520
Tast Key	[STAND BY]
*Ved udskiftning af 10BP4, indtastes den frekvens, der står på det nye keramiske filter.	*When changing 10BP4, enter the frequency given on the ceramic filter.

Tast [TAPE 1]	Optagelse afspilles, hvorved lydkvaliteten kan bedømmes.
Key [TAPE 1]	Recording is played back, enabling sound quality to be evaluated.
Tast [LOAD CD]	CD-skuffe åbnes
Key [LOAD CD]	CD deck opens.
Ilæg [CD-plade]	
Insert [CD]	
Tast [CD]	CD-skuffe lukker og afspilning 1 starter.
Key [CD]	CD deck closes and playback 1 starts.
Tast [STOP]	Lyt efter støj.
Key [STOP]	Listen out for noise.
Tast [CD]	Afspilning fortsætter.
Key [CD]	Playback continues.
Tast [HØJESTE NUMMER] i nummerindikering	Søger til sidste nummer og starter afspilning.
Key [HIGHEST NUMBER] indication	Searches for last number and starts playback.
Tast [LOAD CD] Tast [LOAD TAPE]	Fjern CD-plade og bånd fra Beocenteren.
Key [LOAD CD] Key [LOAD TAPE]	Remove CD and tape from Beocenter.
Tast [STAND BY] med fjernbetjening.	CD- og TAPE-skuffe lukkes.
Key [STAND-BY] using remote control.	CD and TAPE decks close.

ISOLATIONSTEST

Ethvert apparat **skal** isolationstestes efter at det har været adskilt. Testen udføres når apparatet igen er helt samlet og klar til udlevering til kunden.

Isolationstest for Beocenter 9000

Isolationstesten udføres på følgende måde:
De to stikben på netstikket kortsluttes og tilsluttes en af terminalerne på isolationstesteren. Den anden terminal fra isolationstesteren tilsluttes stelbenet i hovedtelefonstikdåsen.

OBS!
For at undgå beskadigelser på apparatet er det vigtigt, at begge terminaler fra isolationstesteren har virkelig god mekanisk kontakt.

Der drejes nu langsomt med spændingsreguleringen op isolationstesteren indtil en spænding på 1,5 - 2 kV er opnået. Her skal den holdes i 1 sekund, derefter drejes der langsomt ned for spændingen igen.

Der må ikke på noget tidspunkt under testen forekomme overslag.

INSULATION TEST

Each set **must** be insulation tested after dismantling. The test is to be performed when the set has been reassembled and is ready for delivery to the customer.

Insulation test for Beocenter 9000

Make the insulation test as follows: Short-circuit the two plug pins of the mains plug and connect one of the terminals of the insulation tester. Connect the other terminal of the insulation tester to the chassis pin of the headphone socket.

N.B.!
To avoid ruining the set, it is essential that both insulator test terminals are in really good mechanical contact.

Now turn slowly the voltage control of the insulation tester until a voltage of 1.5 - 2 kV is obtained. Hold it there for 1 second, then turn slowly the voltage down again.

At no point during the testing procedure any flashovers are permissible.