

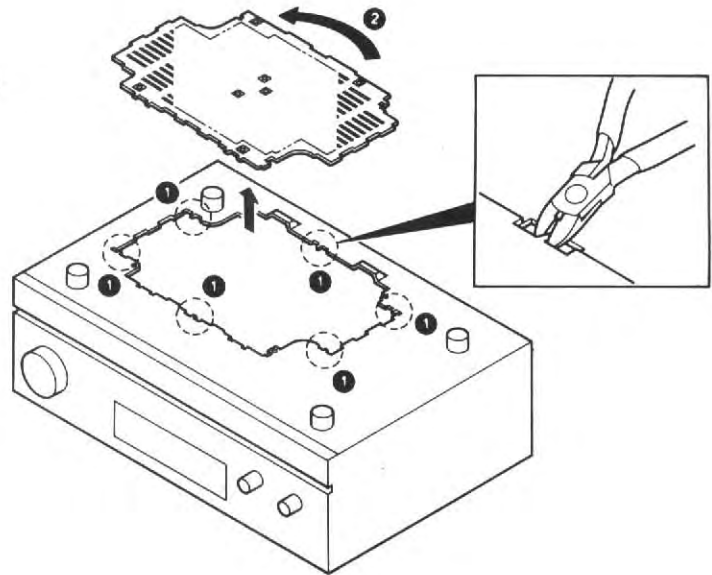
Photo is KA-891M.

* Refer to parts list on page 24.

DISASSEMBLY FOR REPAIR

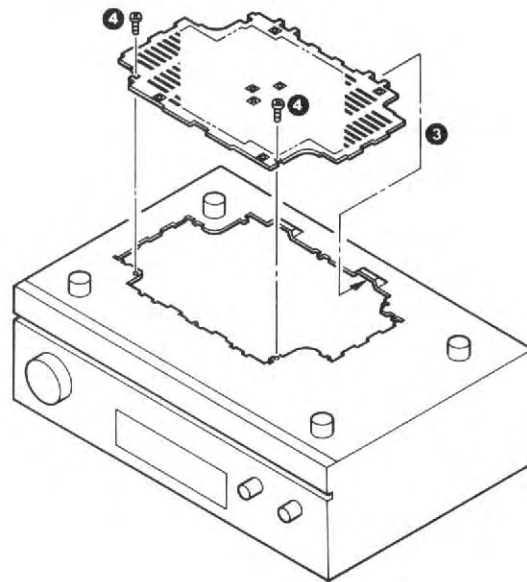
How to remove the repairing chassis

- 1 Cut the 6 parts **1** of the repairing chassis. Remove the repairing chassis from main chassis.



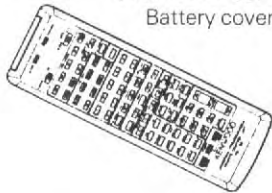
After repair

- 2 Turn the repairing chassis 180 degrees in the arrow direction **2**.
- 3 Insert the 2 claws **3** into main chassis.
- 4 Lock to the main chassis by 2 screws (M3 x 6) **4**.

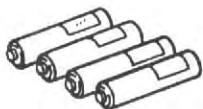


Accessories

Remote control unit.....1
 (A70-0512-05)
 (A09-0111-08;
 Battery cover)



Battery ("AAA" or "R03")4



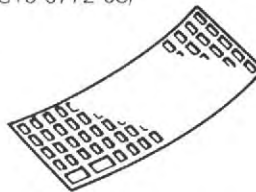
AC plug adaptor.....1
 (except for some areas)
 For the unit with a European AC
 plug in areas other than Europe.
 (E03-0115-05)



System control cord1
 (E30-1392-05)



Overlay sheet1
 (G16-0772-08)




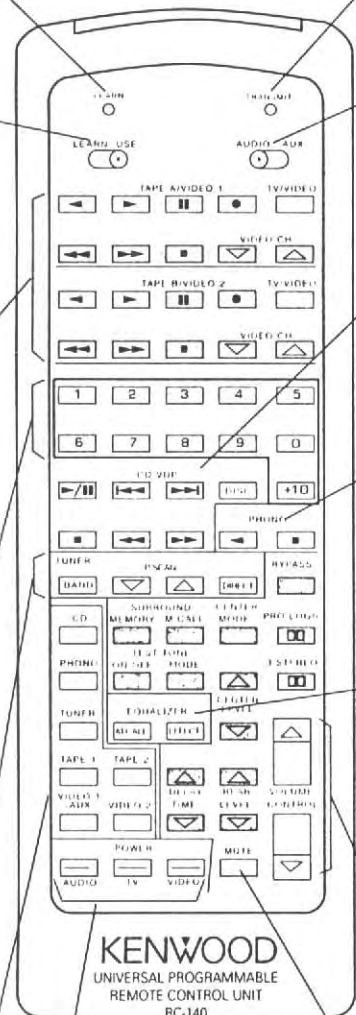
INSTRUCTION MANUAL

B60-0341-00 (ENGLISH)
 B60-0342-00 (FRENCH)
 B60-0343-00 (SP, AR, CH)

REMOTE CONTROL OPERATION

Names of controls (AUDIO mode)

Keys masked with  are functions which are not supported with this product.



LEARN indicator
Blinks or lights steadily during programming procedure.

LEARN/USE switch
Normally set to the USE position. Set to the LEARN position when programming remote control signals.

Tape deck/video deck operation keys
The TAPE A and TAPE B keys allow to operate a double cassette tape deck. When using a single cassette tape deck, use the TAPE A keys. A video deck can also be operated by programming the control signals of a video deck in the AUX mode.

Numeric keys
When the CD source is selected, these keys can be used as the numeric keys of the CD player. When the TUNER source is selected, they can be used as the numeric keys of the tuner.
How to enter numerals:
For 23 press [+10] twice and [3]
For 40 press [+10] four times and [0]

TUNER operation keys
BAND: Switches the bands.
P.SCAN: Scans the preset stations.
DIRECT: In conjunction with the numeric keys, tunes stations directly (The DIRECT key cannot be used with the KT-591/S)

Input selector keys
Switches the input selector on the amplifier.

POWER keys
Turn the power of components ON/OFF. For the TV and VIDEO keys, specific control signals should be programmed

TRANSMIT indicator
Lights up while the remote control signal is being transmitted.

MODE switch
Selects the mode to be used.

CD player operation keys
Operate the CD player.
DISC: The DISC key can be used as the disc selector key of a multi-disc player with a disc changer. For details, read the instruction manual provided with the CD player.

Turntable operation keys
Control the start/stop of turntable.

Amplifier's equalizer operation keys
M.CALL: Recalls programmed patterns.

```

    graph LR
      M1 --> M2
      M2 --> M3
      M3 --> EQ_OFF[EQ.OFF]
      EQ_OFF --> M4
      M4 --> M5
      M5 --> M1
  
```

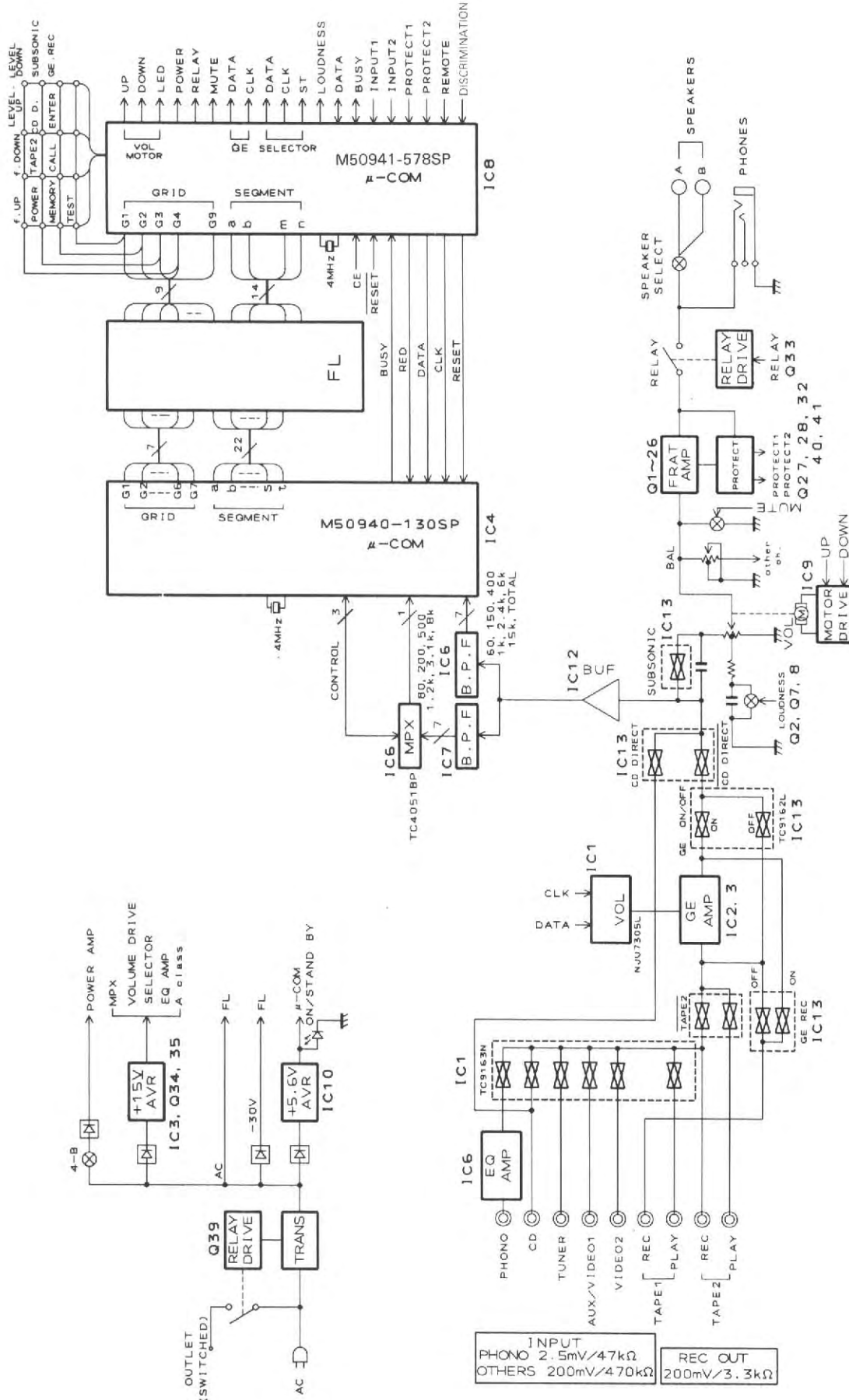
EFFECT: Turns the graphic equalizer effect ON/OFF.

VOLUME CONTROL keys
Adjust the volume. During operation, the VOLUME CONTROL on the front turns and the indicator on the knob blinks at high speed.

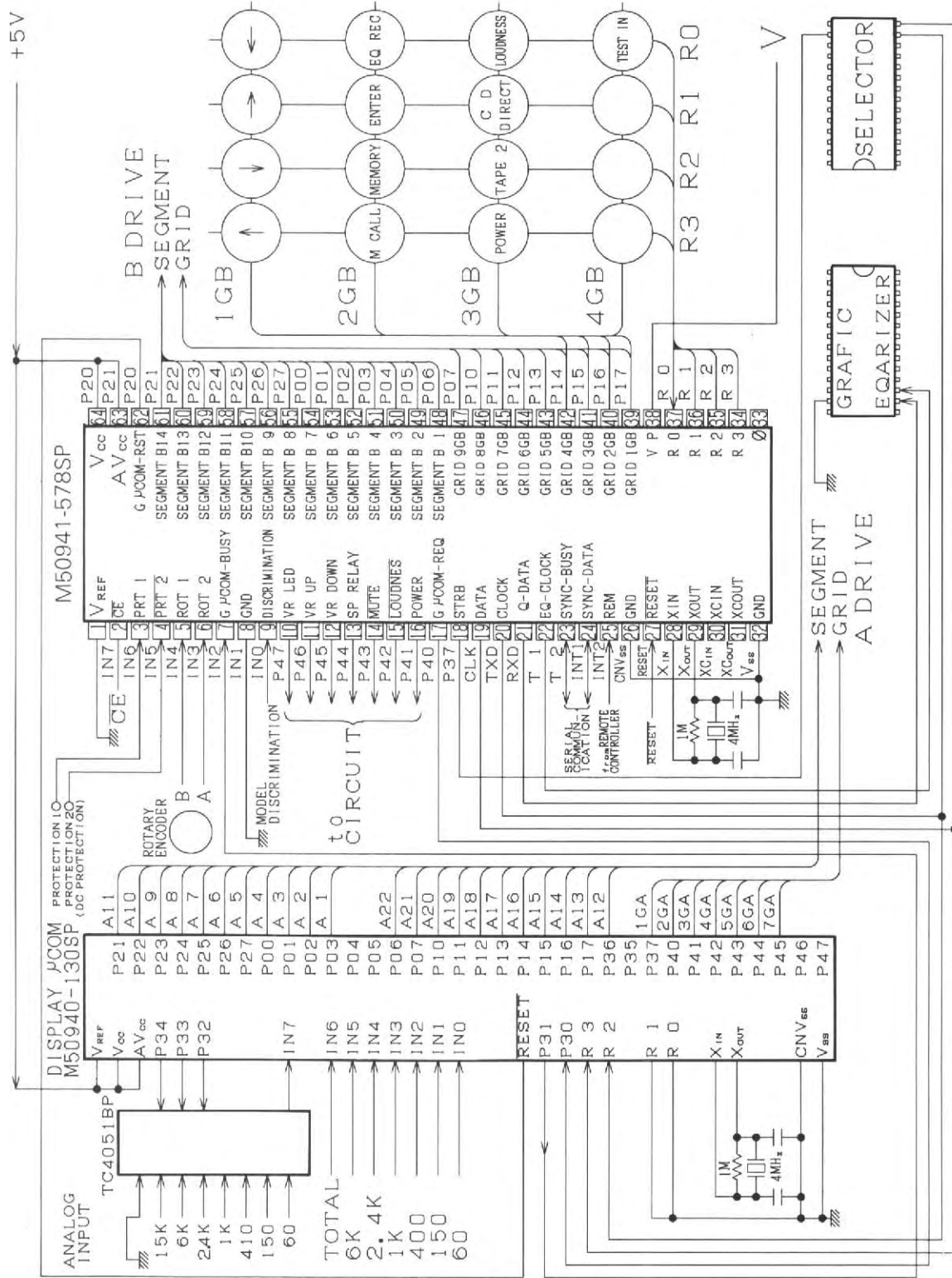
MUTE key
Press to reduce the volume temporarily. During operation, the indicator on the VOLUME CONTROL knob blinks.

KENWOOD
UNIVERSAL PROGRAMMABLE
REMOTE CONTROL UNIT
RC-140

BLOCK DIAGRAM



CIRCUIT DESCRIPTION



CIRCUIT DESCRIPTION

Pin description

Pin No.	Pin Name	I/O	Name	Description
1	VREF	I	OV	GND
2	IN 7	I	CE	Chip enable
3	IN 6	I	PRT 1	Protection
4	IN 5	I	PRT 2	DC protection
5	IN 4	I	ROT 1	Rotary encoder
6	IN 3	I	ROT 2	Rotary encoder
7	IN 2	I	G μ COM-BUSY	Display μ -COM busy
8	IN 1	I		
9	IN 0	I		
10	P4 7	O	VR LED	Volume LED
11	P4 6	O	VR UP	Volume up
12	P4 5	O	VR DOWN	Volume down
13	P4 4	O	SP RELAY	Speaker relay
14	P4 3	O	MUTE	Mute
15	P4 2	O	LOUDNESS	Loudness
16	P4 1	O	POWER	Power
17	P4 0	O	G μ COM-REQ	Display μ -COM request
18	P3 7 S-RDY	O	STRB	Strobe (Selector)
19	P3 6 CLK	O	DATA	Data (Selector, Display μ -COM)
20	P3 5 TXD	O	CLOCK	Clock (Selector Display μ -COM)
21	P3 4 RXD	O	EQ-DATA	Data for GE
22	P3 3 T1	O	EQ-CLOCK	Clock for GE
23	P3 2 T2	I/O	SYNC-BUSY	Syncro busy
24	P3 1 INT1	I/O	SYNC-DATA	Syncro data
25	P3 0 INT2	I	REM	Remote controller input
26	CNVSS	I	GND	
27	RESET	I	RESET	Reset
28	XIN	I	XIN	Clock
29	XOUT	O	XOUT	Clock
30	XCIN	I	XCIN	GND
31	XCOU	O	XCOU	
32	Vss	I	GND	GND
33	ϕ	O	ϕ	Timing output
34	R3	I	R3	Key return input 3
35	R2	I	R2	Key return input 2
36	R1	I	R1	Key return input 1
37	R0	I	R0	Key return input 0
38	VP	I	VP	Pull-down voltage
39	P1 7	O	GRID 1GB	Grid
40	P1 6	O	GRID 2GB	Grid
41	P1 5	O	GRID 3GB	Grid
42	P1 4	O	GRID 4GB	Grid
43	P1 3	O	GRID 5GB	Grid
44	P1 2	O	GRID 6GB	Grid

CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Name	Description
45	P1 1	O	GRID 7GB	Grid
46	P1 0	O	GRID 8GB	Grid
47	PO 7	O	GRID 9GB	Grid
48	PO 6	O	SEGMENT B1	Segment
49	PO 5	O	SEGMENT B2	Segment
50	PO 4	O	SEGMENT B3	Segment
51	PO 3	O	SEGMENT B4	Segment
52	PO 2	O	SEGMENT B5	Segment
53	PO 1	O	SEGMENT B6	Segment
54	PO 0	O	SEGMENT B7	Segment
55	P2 7	O	SEGMENT B8	Segment
56	P2 6	O	SEGMENT B9	Segment
57	P2 5	O	SEGMENT B10	Segment
58	P2 4	O	SEGMENT B11	Segment
59	P2 3	O	SEGMENT B12	Segment
60	P2 2	O	SEGMENT B13	Segment
61	P2 1	O	SEGMENT B14	Segment
62	P2 0	O	G μ COM-RST	Display μ -COM reset
63	P2 1	O	AV _{CC}	
64	P2 0	O	V _{CC}	V _{CC}

TEST mode**1. Setting method**

Insert AC plug to the power supply under pressing CD DIRECT key.

2. Confirm the following checks

- 2-1 FL all light (Spectrum analyzer sections do not light)
- 2-2 This is all lighting is canceled by operating an other key.
- 2-3 EQ FREQ kob operation
Select the frequency
- 2-4 EQ LEVEL kob operation
3 point of MAX, CENTER and MIN.

2-5 M. CALL key operation

- M1: MAX segments of all frequency turn ON.
- M2: MIN segments of all frequency turn ON.
- M3: Flat
- M4: Flat
- M5: Flat

2-6 CD DIRECT key operation

VOLUME UP

2-7 TAPE 2 key operation

VOLUME DOWN

INITIALIZATION

Insert AC plug to the power supply under pressing ENTER key.

ADJUSTMENT/REGLAGE/ABGLEICH

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, set the respective switches as follows: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	IDLE CURRENT	-	Connect a DC voltmeter across CP1 (L) CP2 (R) (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	18mV	(a)

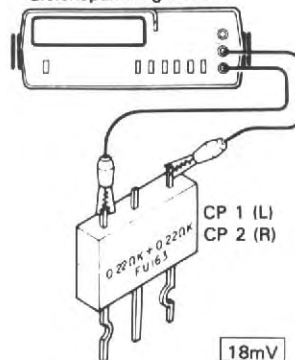
REGLAGES

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINTS DE L'ALIGNMENT	ALIGNER POUR	FIG.
Sauf indication contraire, régler comme suit les commandes respectives: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	COURANT DE POLARISATION	-	Connecter un voltmètre de CC SUR CP1 (G) CP2 (D) (X09-)	VOLUME: 0	VR1 (G) VR2 (D) (X09-)	18mV	(a)

ABGLEICH

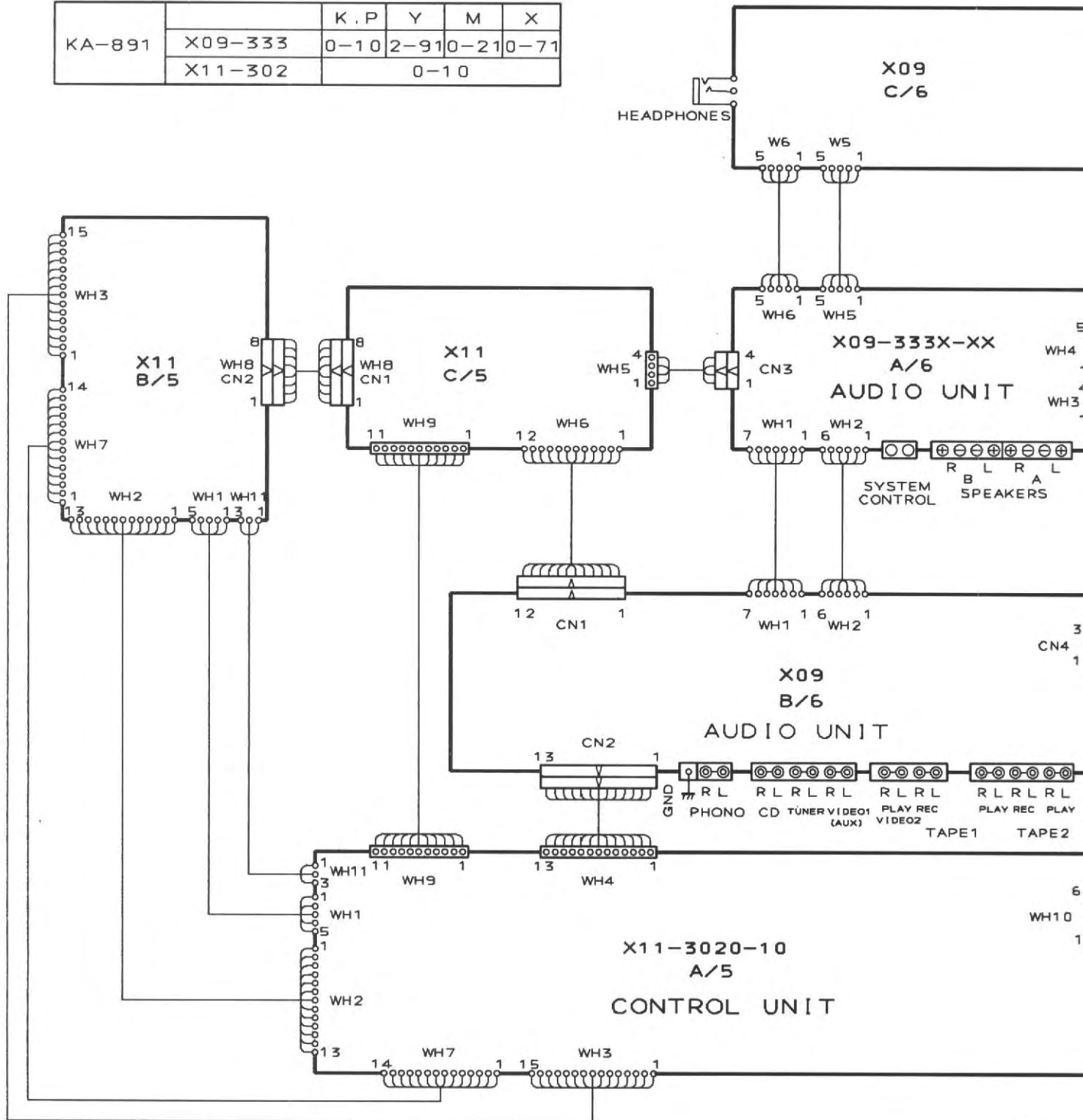
NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSANG-EINSTELLUNG	VORSTÄRKER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
Wenn nicht anders angegeben, die einzelnen Schalter wie folgt einstellen: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	LEERLAUFSTROM	-	Einen Gleichspannungsmesser über CP1 (L) CP2 (R) anschließen. (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	18mV	(a)

(a) DC voltmeter
Voltmètre de CC
Gleichspannungsmesser



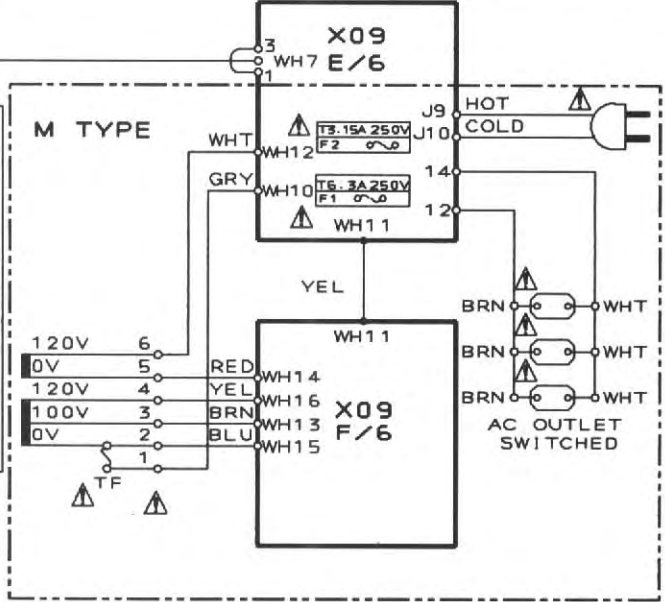
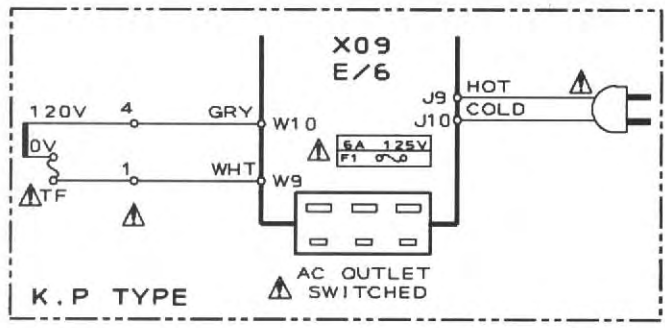
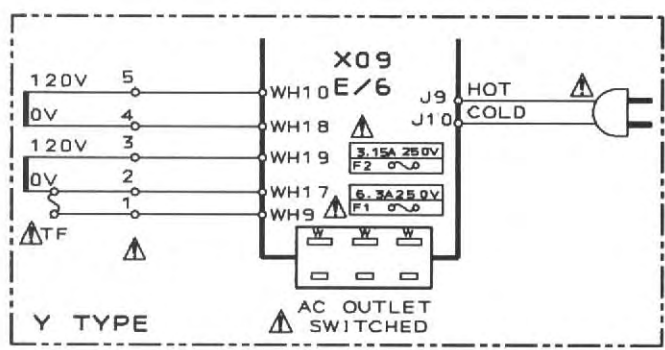
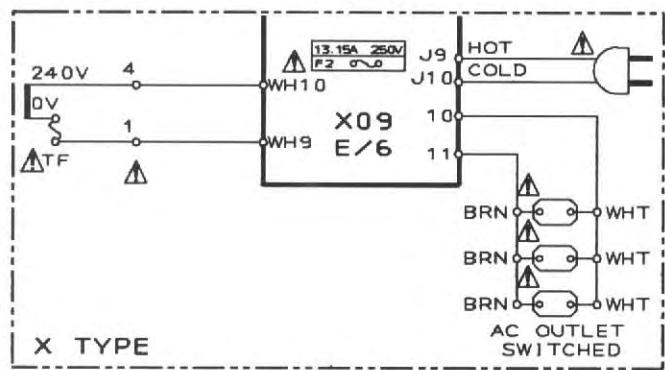
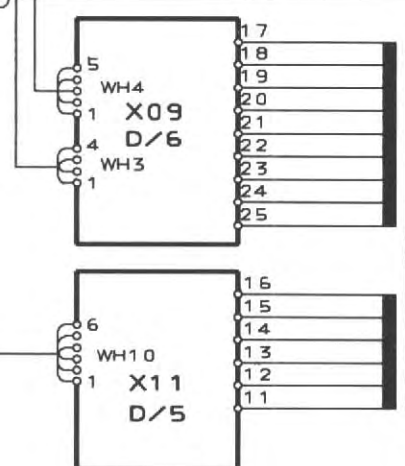
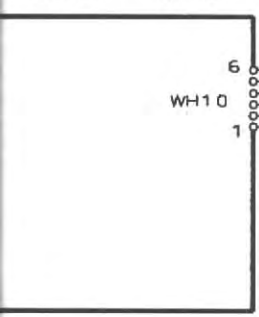
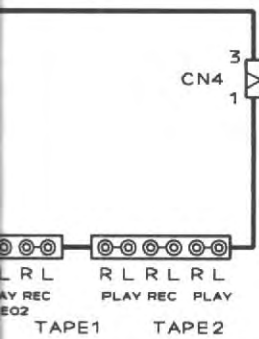
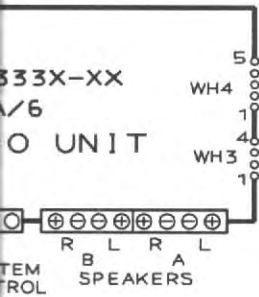
KA-891 KA WIRING DIAGRAM

KA-891		K	P	Y	M	X
	X09-333	0-10	2-91	0-21	0-71	
	X11-302	0-10				



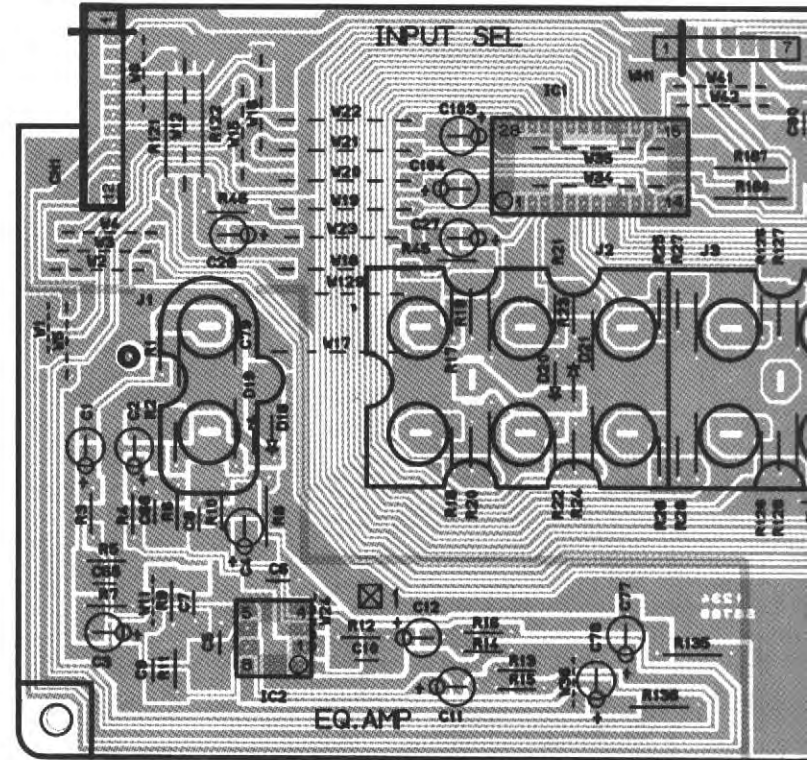
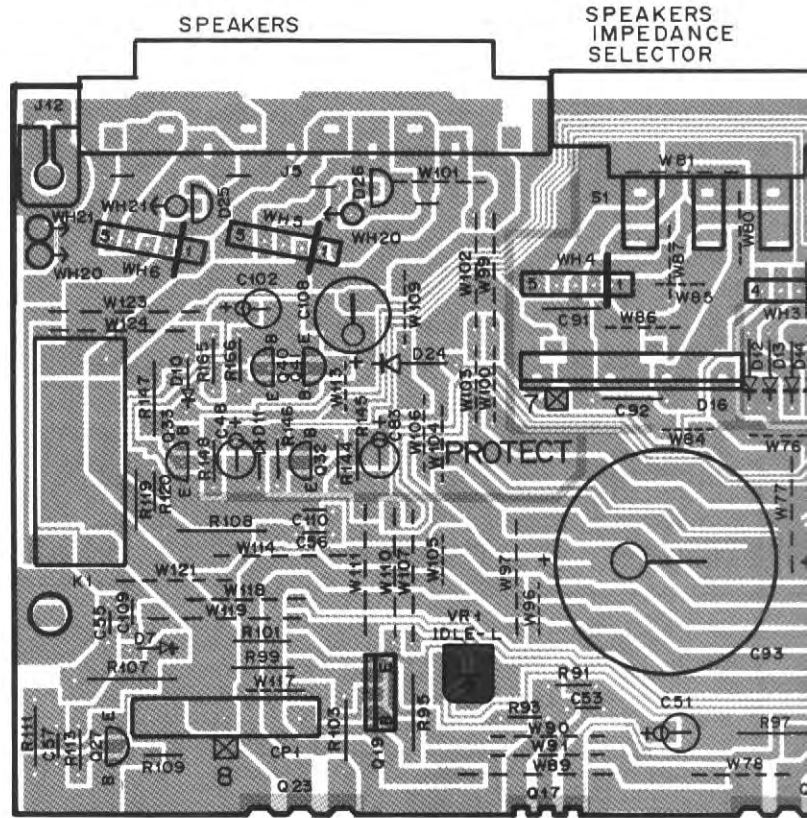
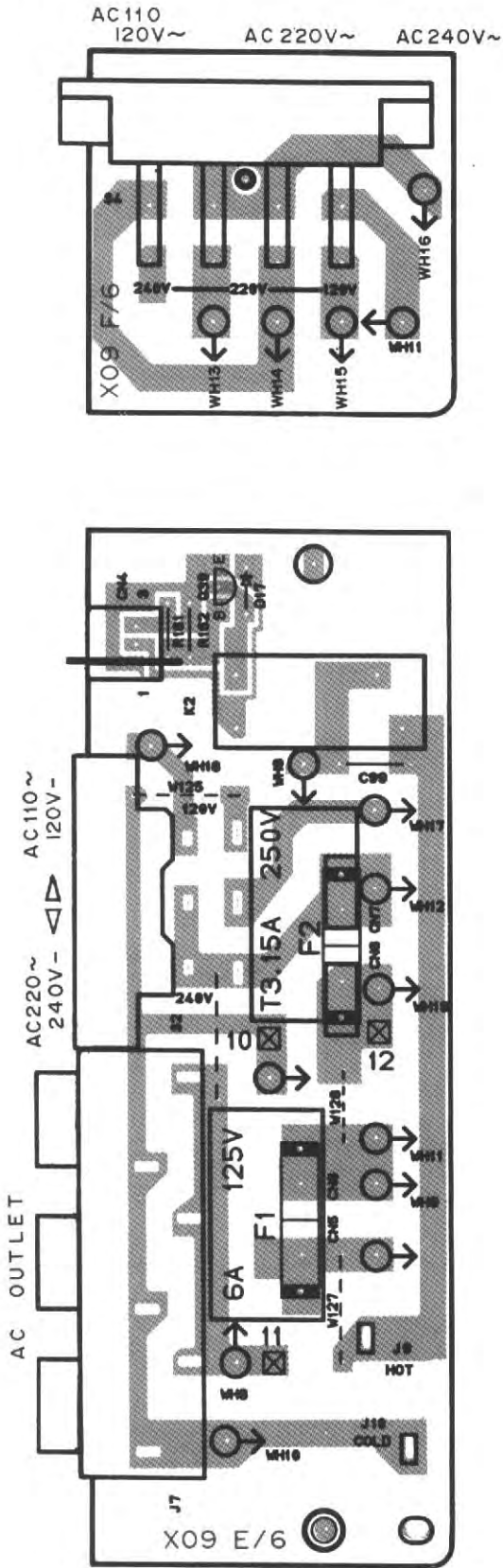
KA-891

WIRING DIAGRAM



PC BOARD (Component Side View)

• AUDIO UNIT

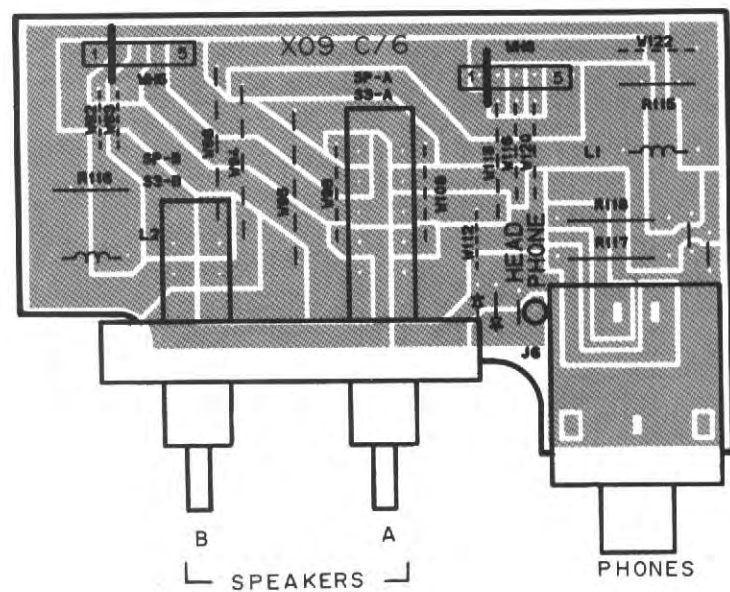
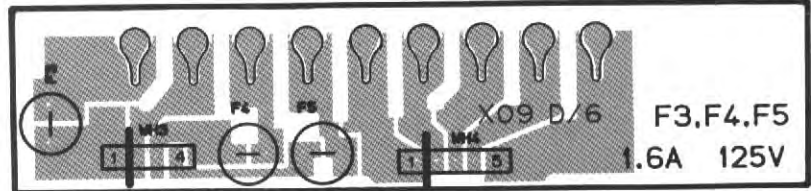
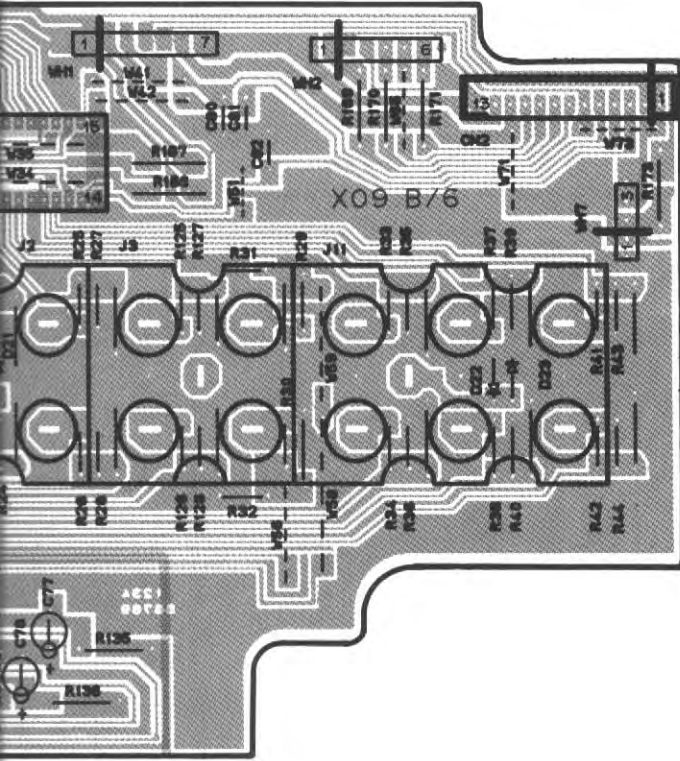
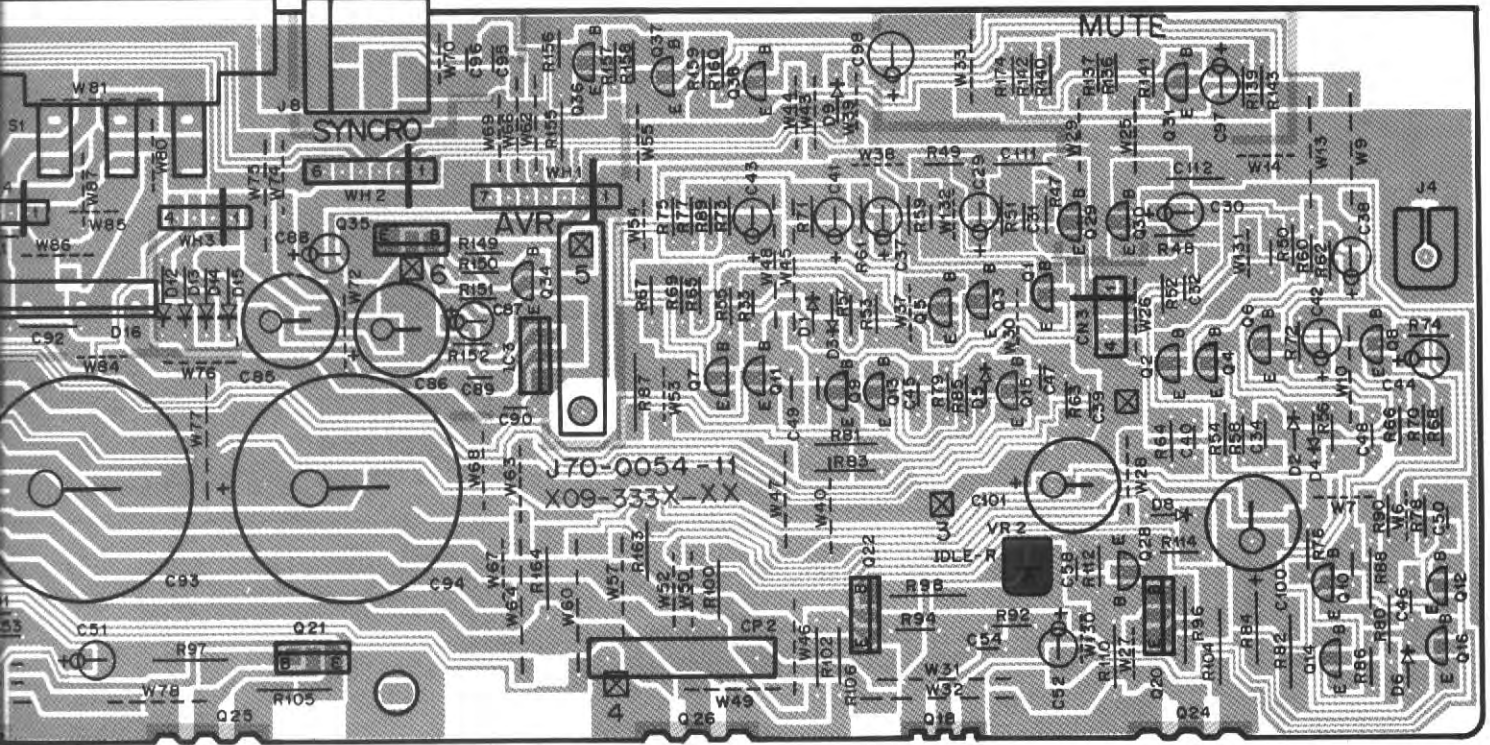


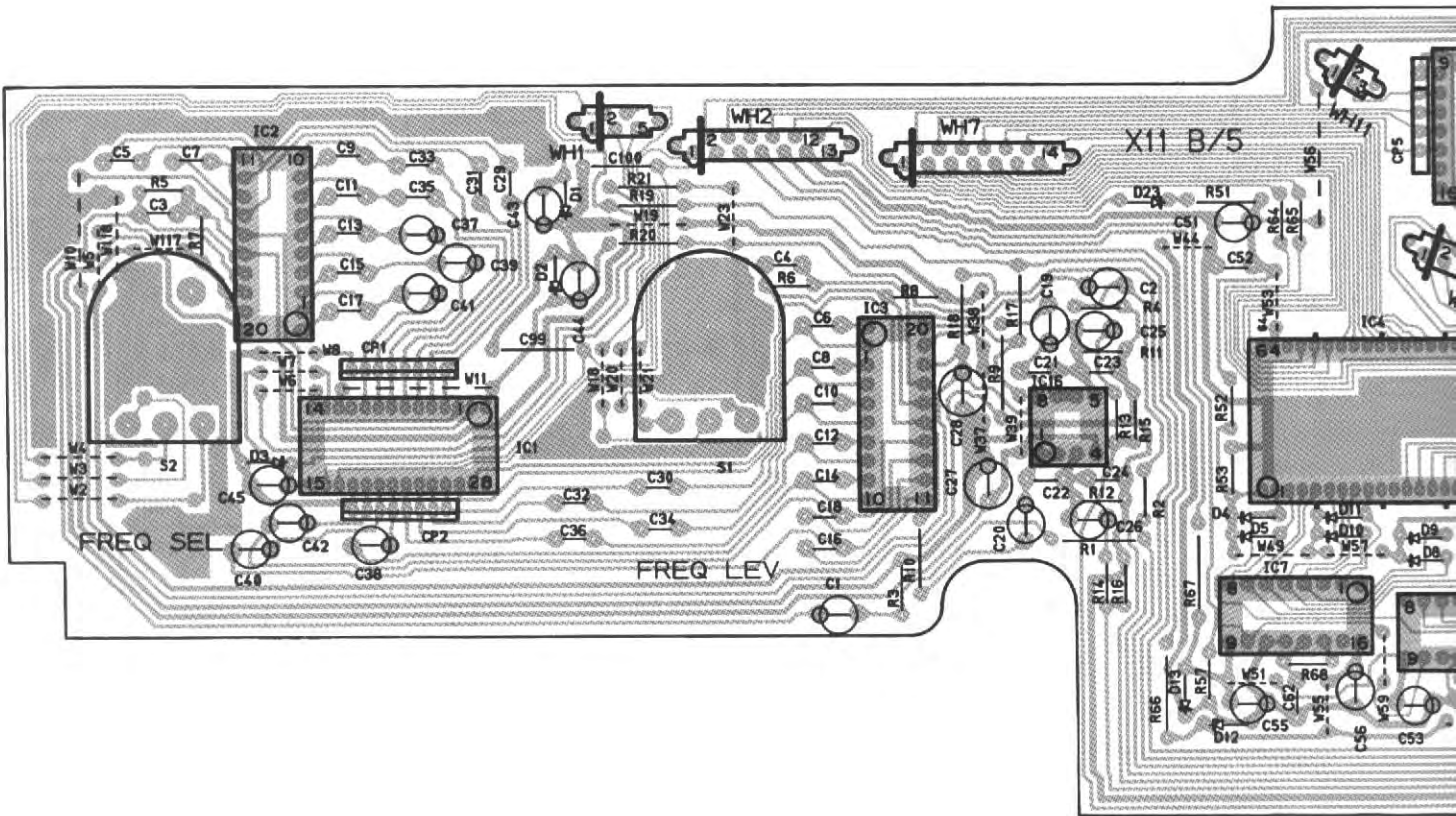
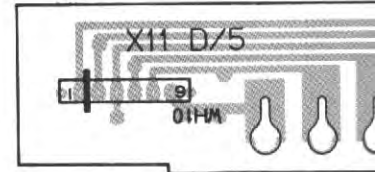
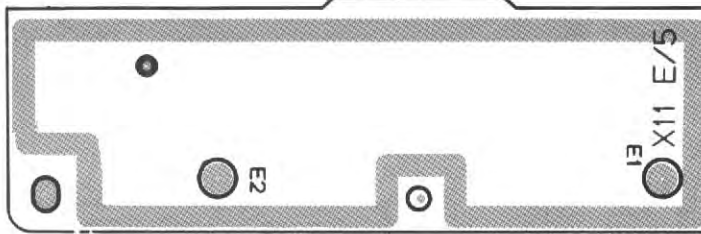
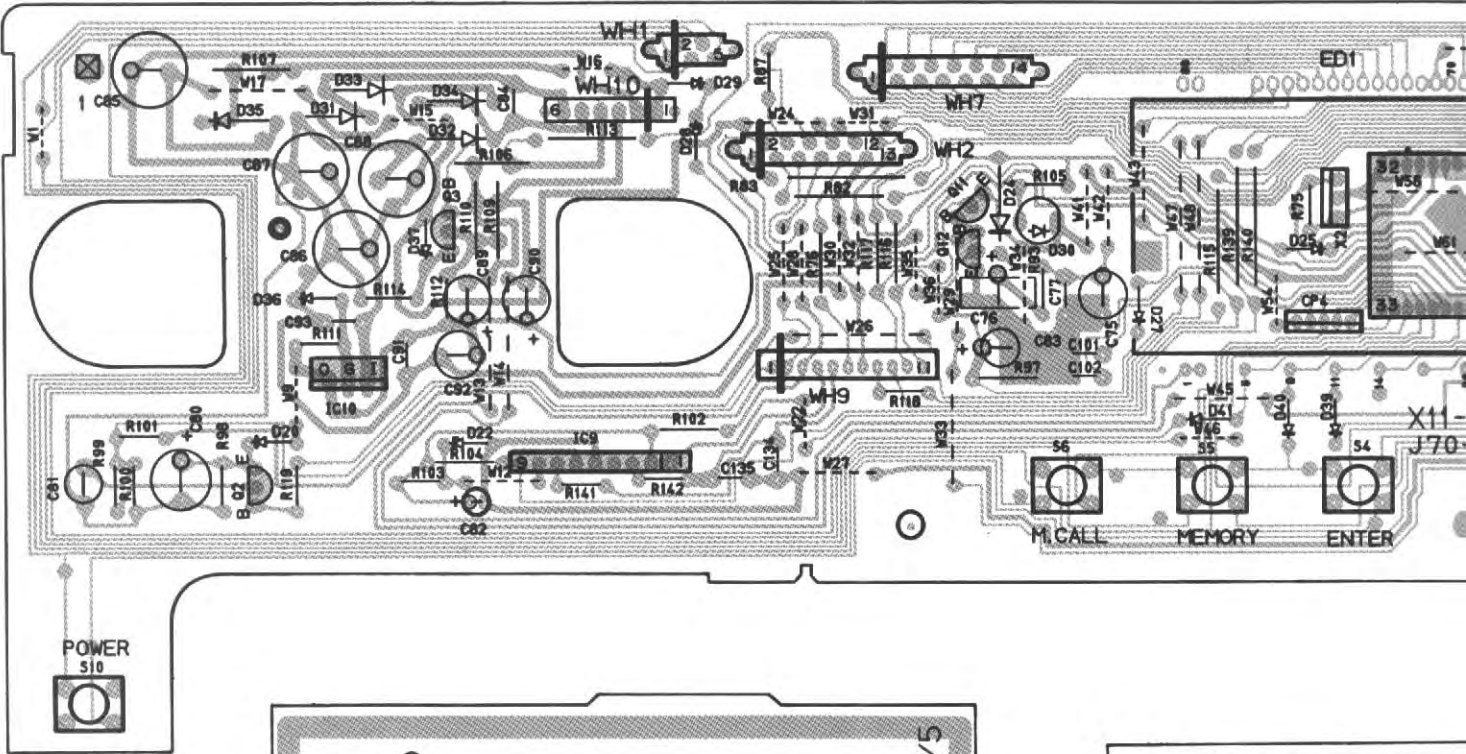
Refer to the schematic diagram for the values of resistors and capacitors.

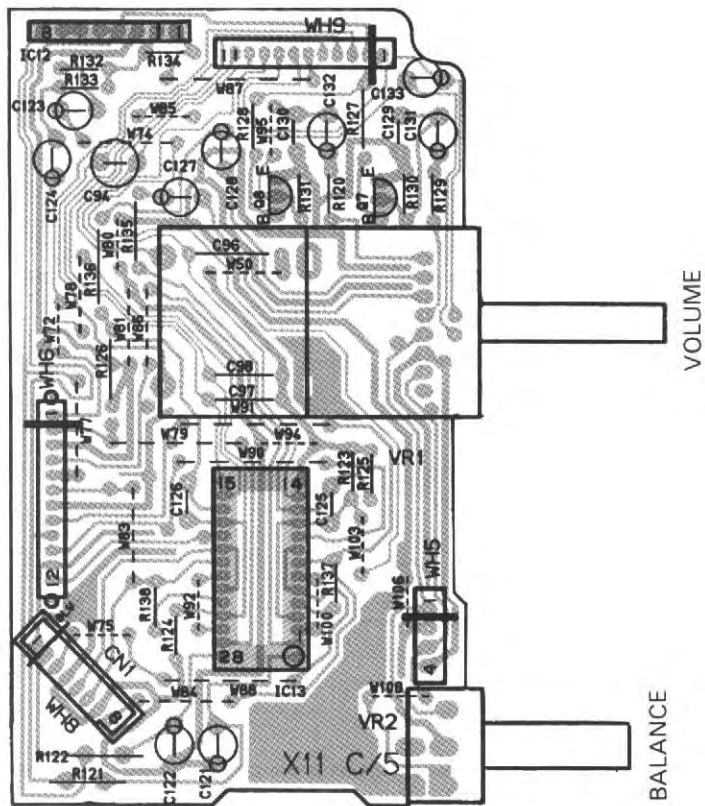
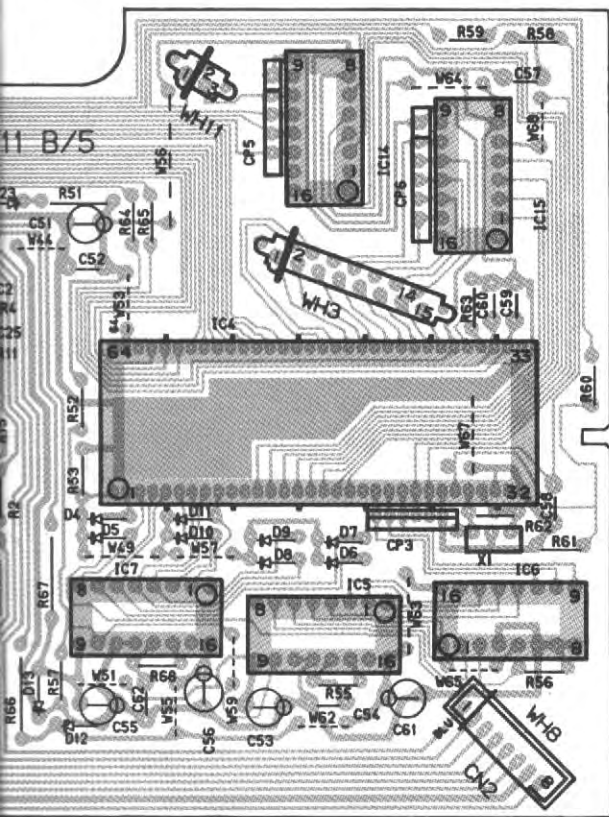
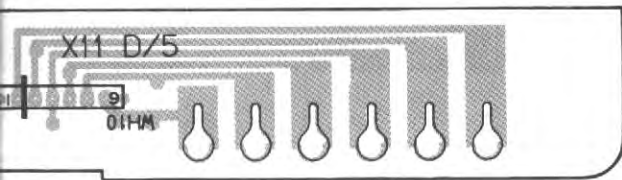
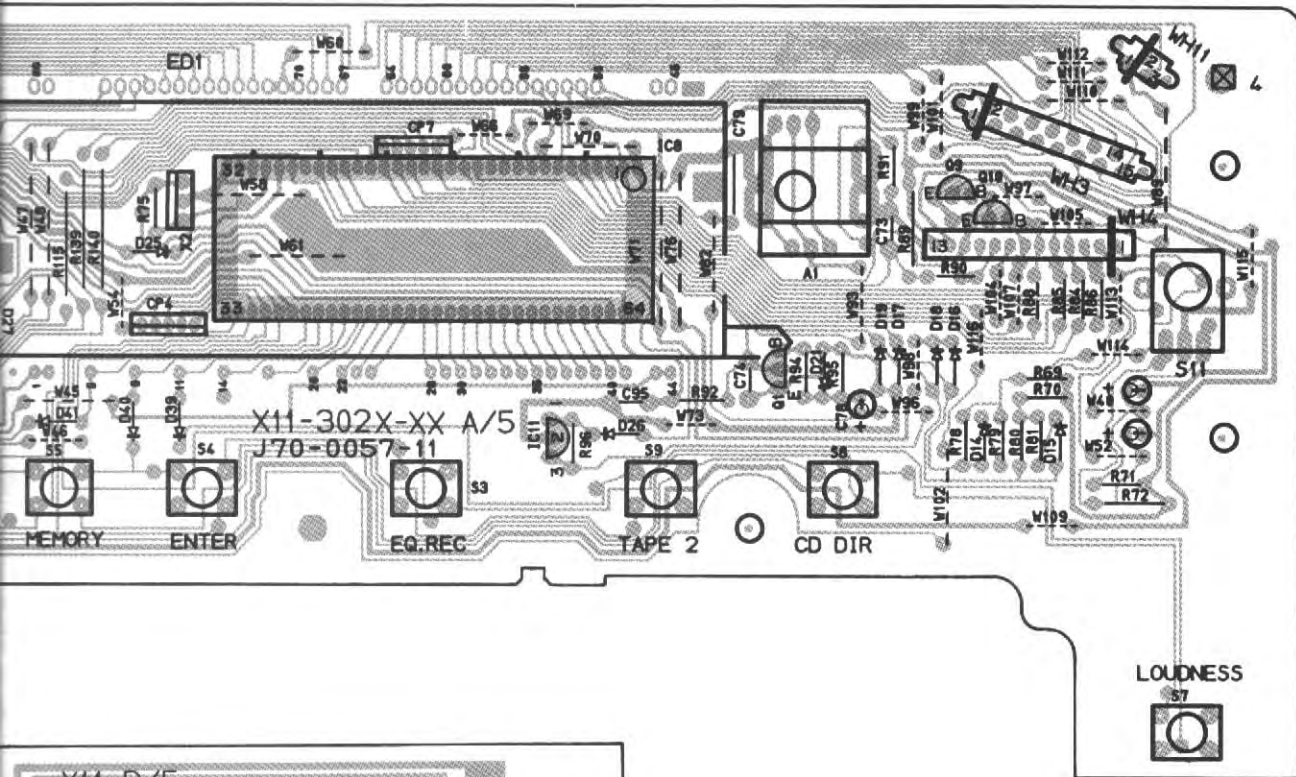
SPEAKERS
IMPEDANCE
SELECTOR

PHONO

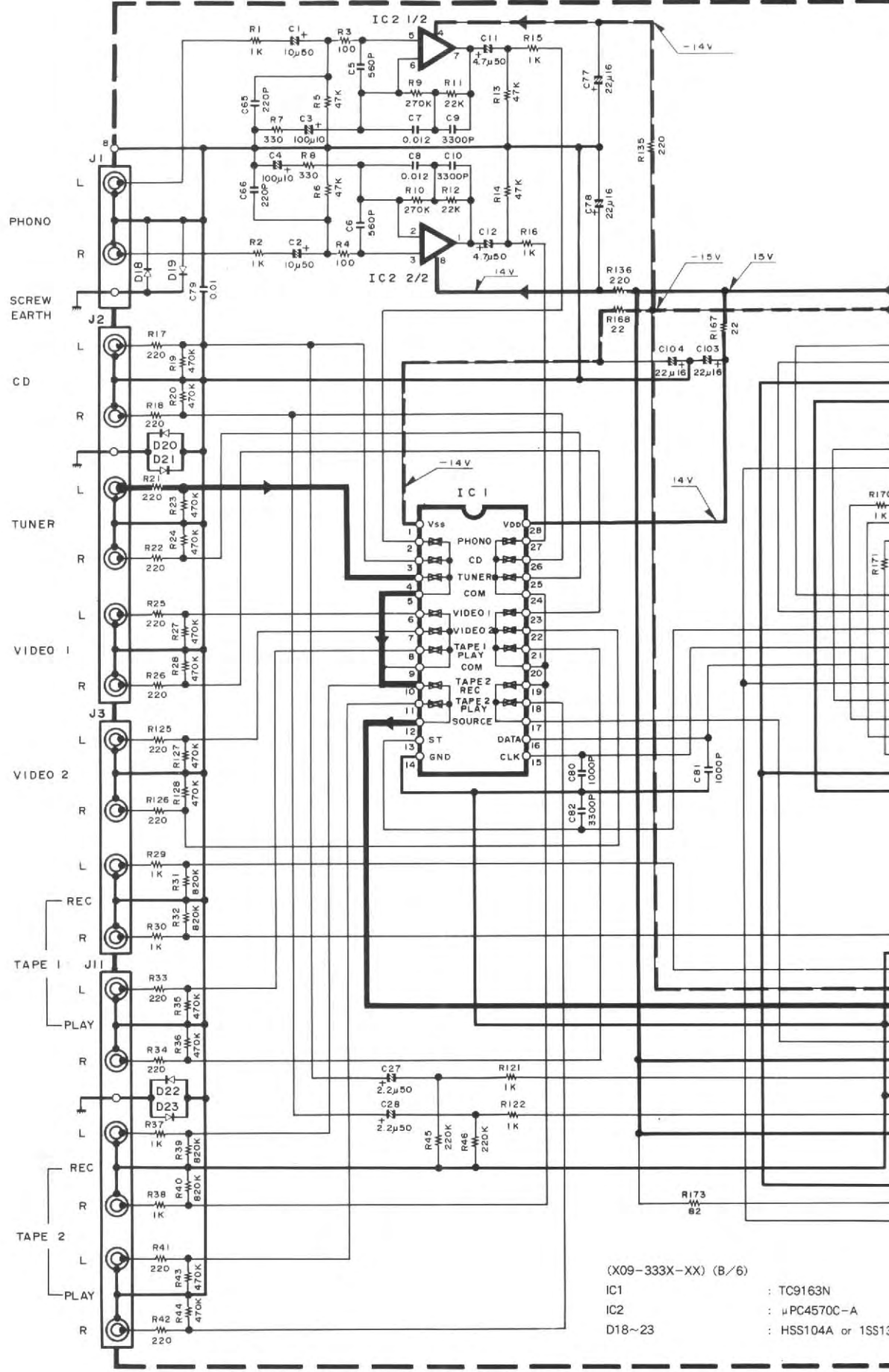
MUTE







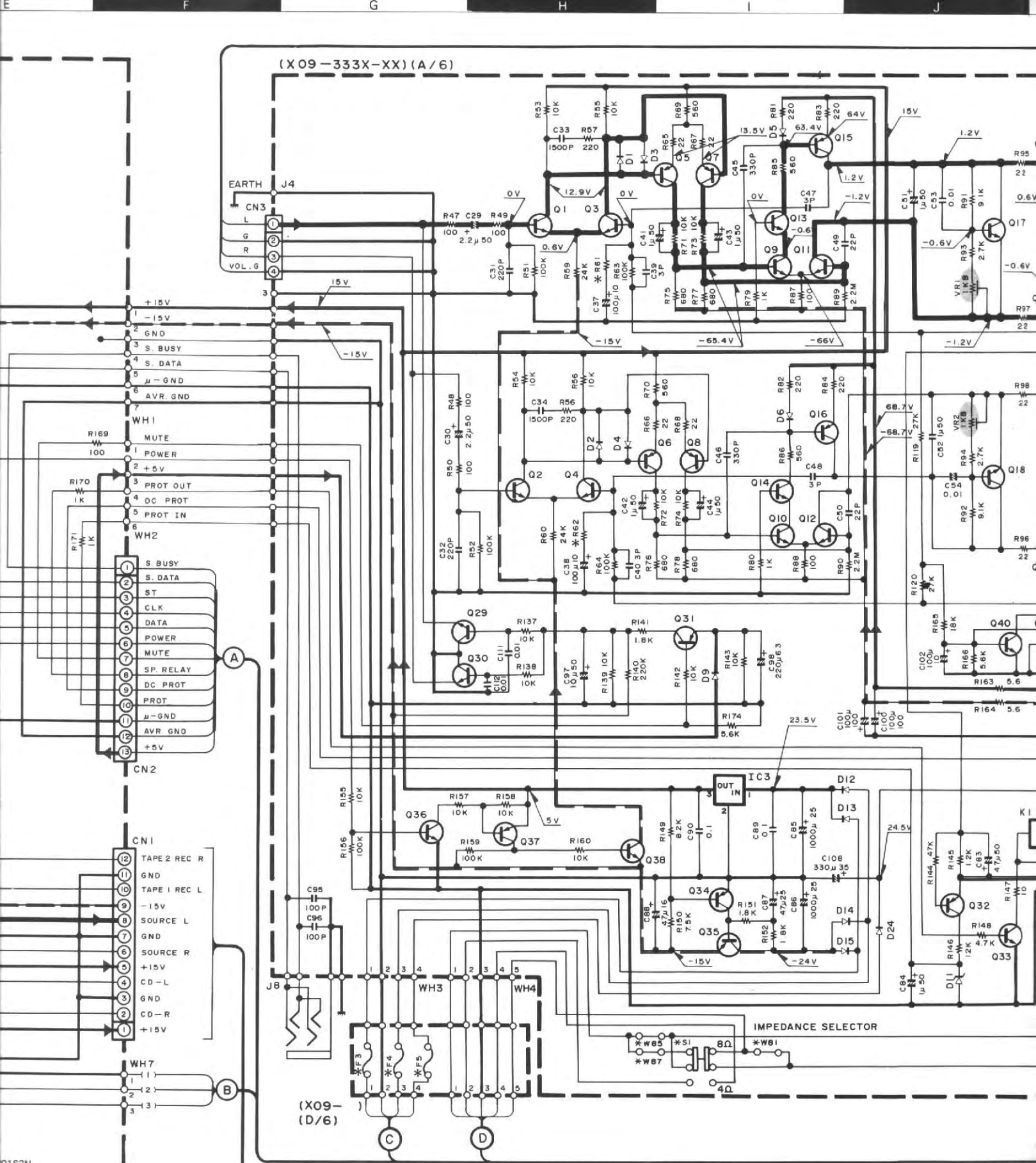
(X09-333X-XX) (B/6)



(X09-333X-XX) (B/6)

IC1 : TC9163N
 IC2 : µPC4570C-A
 D18~23 : HSS104A or 1SS13

2
3
4
5
6
7



9163N
PC4570C-A
SS104A or 1SS131

(X09-333X-XX) (D/6) *

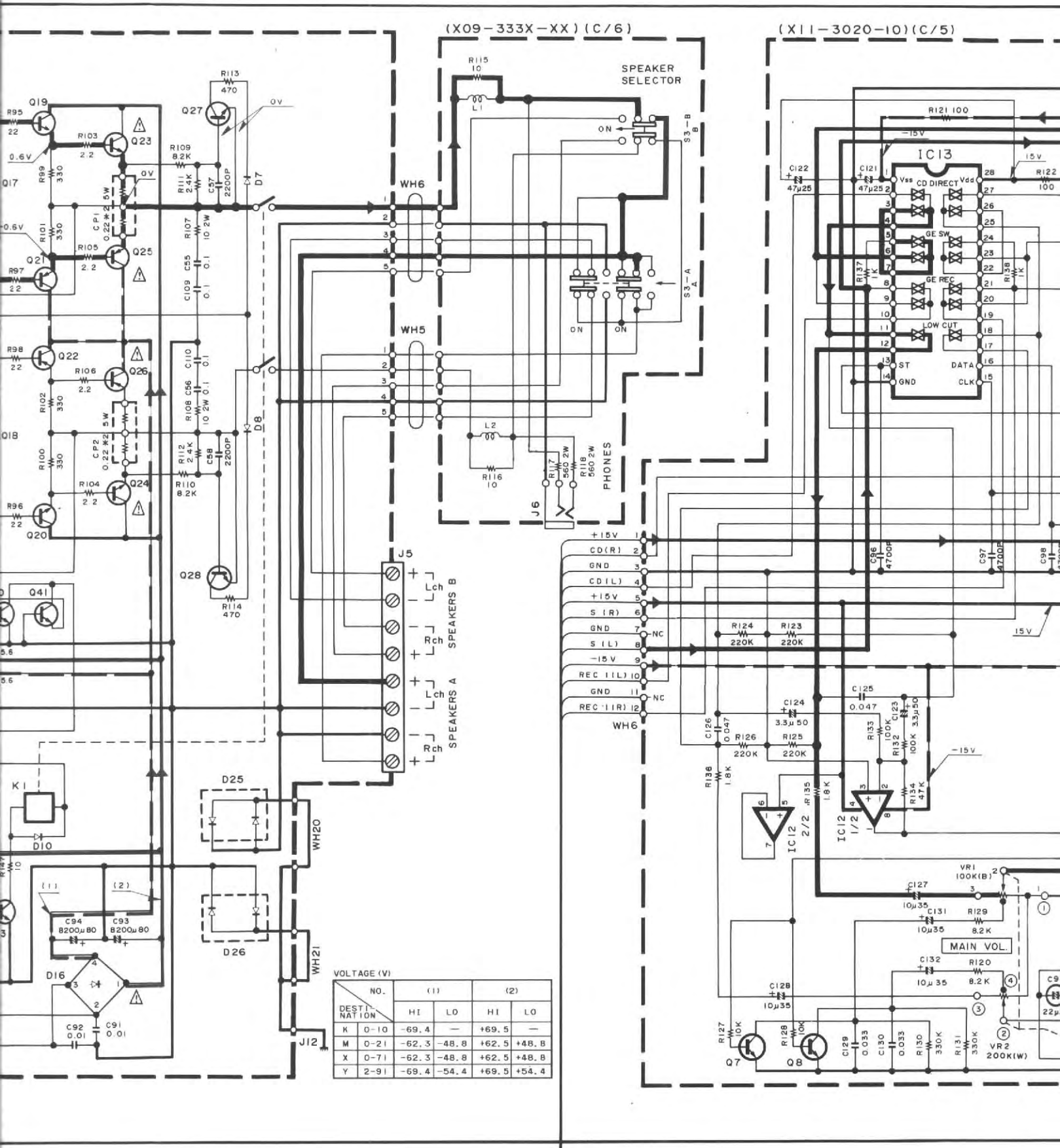
DES-TINATION	REF. NO.	F3-5
K	0-10	T1.6A 125V
M	0-21	T1.6A 250V
X	0-71	T1.6A 250V
Y	2-91	T1.6A 125V

(X09-333X-XX) (A/6) *

DES-TINATION	REF. NO.	R61, 62	W81, 85	W87	S1
K	0-10	510	YES	NO	NO
M	0-21	560	NO	YES	YES
X	0-71	560	NO	YES	YES
Y	2-91	510	NO	YES	YES

(X09-333X-XX) (A/6)

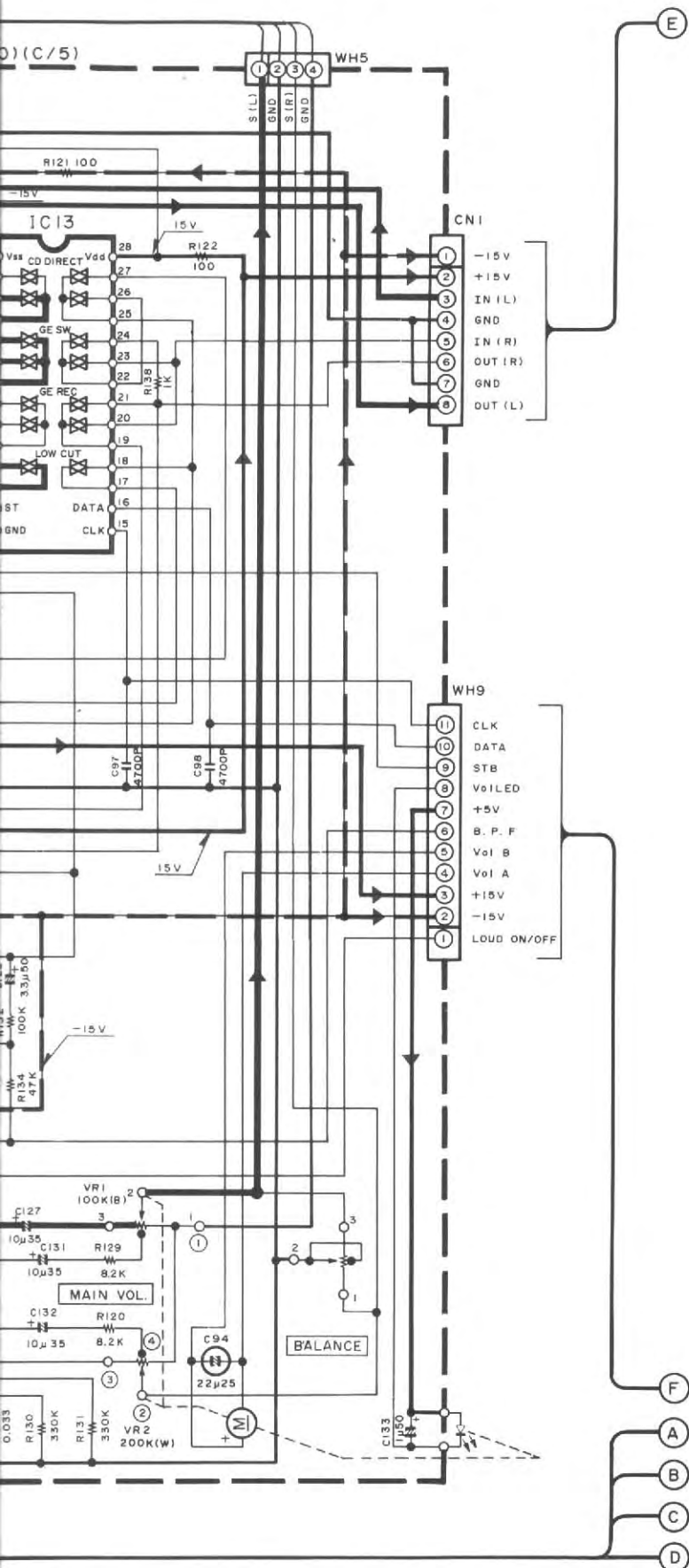
IC3	: μPC7815HF or TA7815S	Q19, 20
Q1-4	: 2SC1845(F, E)	Q21, 22
Q5-8	: 2SA992(F, E)	Q23, 24
Q9-14	: 2SC2632(Q, R, S)	Q25, 26
Q15, 16	: 2SA1124(Q, R, S)	Q27, 28
Q17, 18	: 2SC4137	Q29, 30



VOLTAGE (V)

NO.	DESTINATION	(1)		(2)	
		HI	LO	HI	LO
K	0-10	-69.4	-	+69.5	-
M	0-21	-62.3	-48.8	+62.5	+48.8
X	0-71	-62.3	-48.8	+62.5	+48.8
Y	2-91	-69.4	-54.4	+69.5	+54.4

- : 2SC3944(Q, R, S)
- : 2SA1535(Q, R, S)
- : 2SC2921
- : 2SA1215
- : 2SC2631(R, S)
- : 2SC2878(B)
- Q31, 34, 37
- Q32
- Q33, 39
- Q35
- Q36, 38, 40, 41
- : 2SA933S(Q, R) or 2SA1048(Y, GR)
- : 2SA1123(R, S)
- : 2SC2003(L, K)
- : 2SB941
- : 2SC1740S(Q, R) or 2SC2458(Y, GR)
- D1~10
- D11
- D12~15, 24
- D16
- D25, 26
- : HSS104A or 1SS131
- : HZS4.7N(B) or RD4.7ES(B)
- : S5688B or RD4.7ES(B)
- : D5SBA20F03 or RBV-602LFA
- : MA177
- (X11-3020-10) (C/5)
- IC12
- IC13
- Q7, 8



(X11-3020-10) (C/5)
 IC12 : NJM4565L
 IC13 : TC9162N
 Q7, 8 : 2SC2878(B)

— SIGNAL LINE
 — GND LINE
 — + B LINE
 - - - - - B LINE

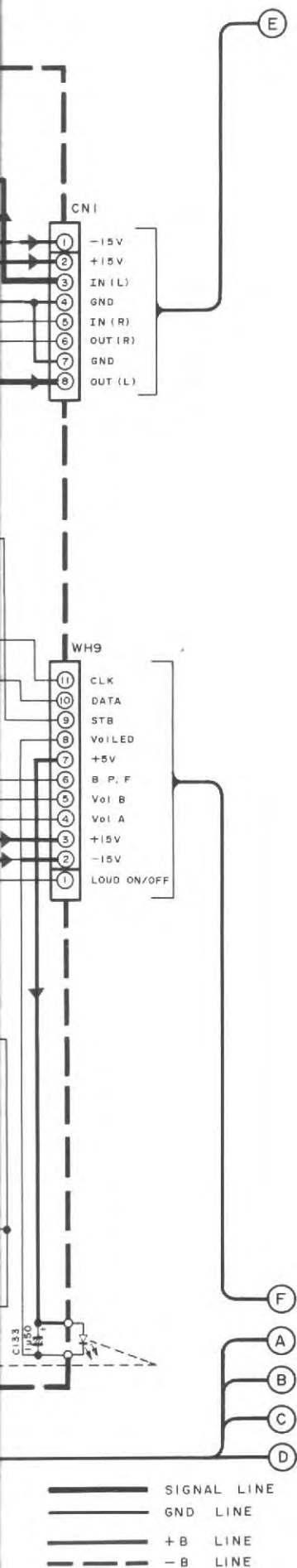
- | | | |
|----------|------------|-----|
| 2SA1123 | XR-1091DCP | UPC |
| 2SA1124 | | UPC |
| 2SA992 | | |
| 2SC1845 | LB1294 | PST |
| 2SC2003 | | |
| 2SC2631 | | |
| 2SC2632 | | |
| 2SC2878 | | |
| 2SC3244 | | |
| DTC124ES | TA8409S | TC9 |
| 2SA1048 | | TC9 |
| 2SA933S | | |
| 2SC1740S | | |
| 2SC2458 | | |
| | M5229P | M5 |
| 2SA1215 | | |
| 2SC2921 | | |
| | UPC4570C-A | TA7 |
| | | TA7 |
| 2SC4137 | | |
| | RZ7305L | |
| 2SA1535 | | |
| 2SB941 | | |
| 2SC3944 | | |
| | | |

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (see parts list). ⚠ Indicates safety critical components. Replacement of safety critical components shall be carried out (exposed parts are acceptable) before the appliance is returned to service.

DC voltages are as measured with a high impedance meter. Values may vary slightly due to variations in individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre haute impédance. Les valeurs peuvent différer légèrement en raison des variations inhérentes aux appareils et des mesures individuelles.

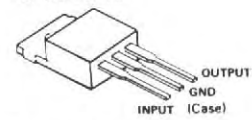
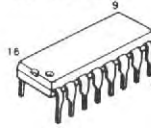
Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Die Meßwerte aufgrund von Unterschieden in den Instrumenten oder Geräten u. U. geringfügig variieren.



2SA1123
 2SA1124
 2SA992
 2SC1845
 2SC2003
 2SC2631
 2SC2632
 2SC2878
 2SC3244

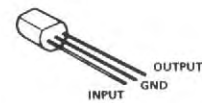
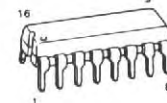
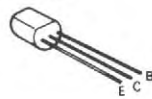
XR-1091DCP

UPC7805HF
 UPC7815HF



LB1294

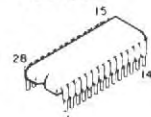
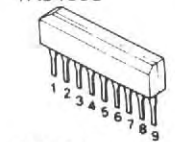
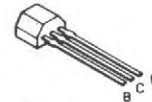
PST529D



DTC124ES
 2SA1048
 2SA933S
 2SC1740S
 2SC2458

TAB409S

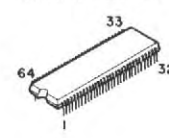
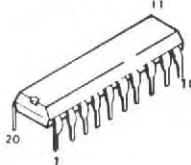
TC9162N
 TC9163N



M5229P

M50941-578SP

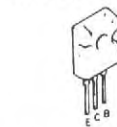
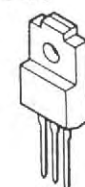
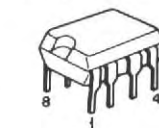
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 2SC2921



UPC4570C-A

TA7805S
 TA7815S

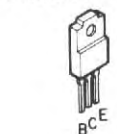
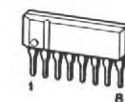
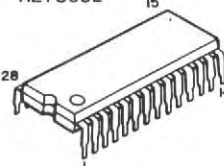
2SC4137



RZ7305L

NJM4565L

2SA1535
 2SB941
 2SC3944



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

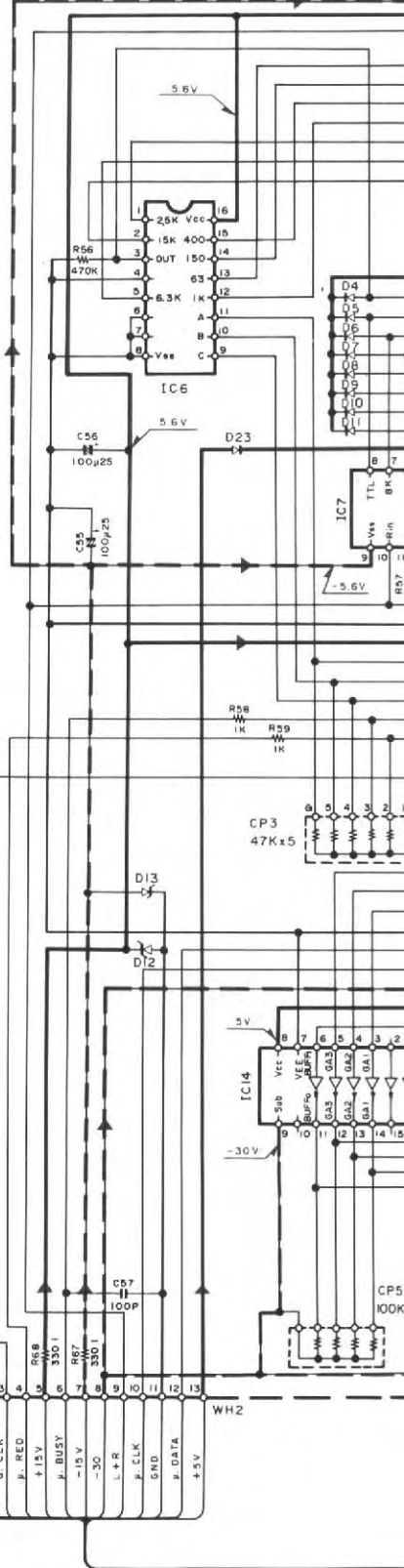
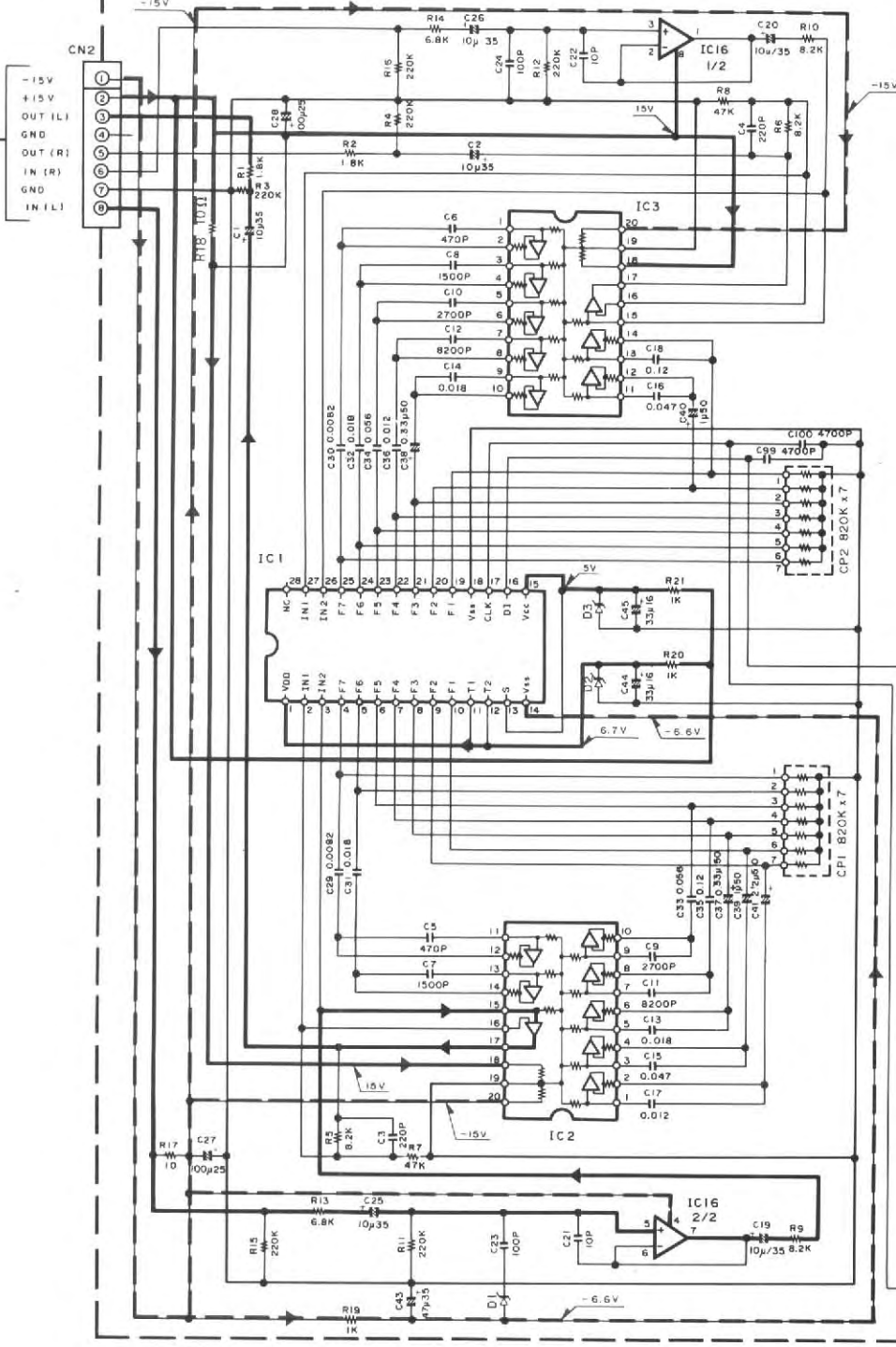
DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

KA-891
KENWOOD

(X11-3020-10) (B/5)



(X11-3020-10) (B/5)

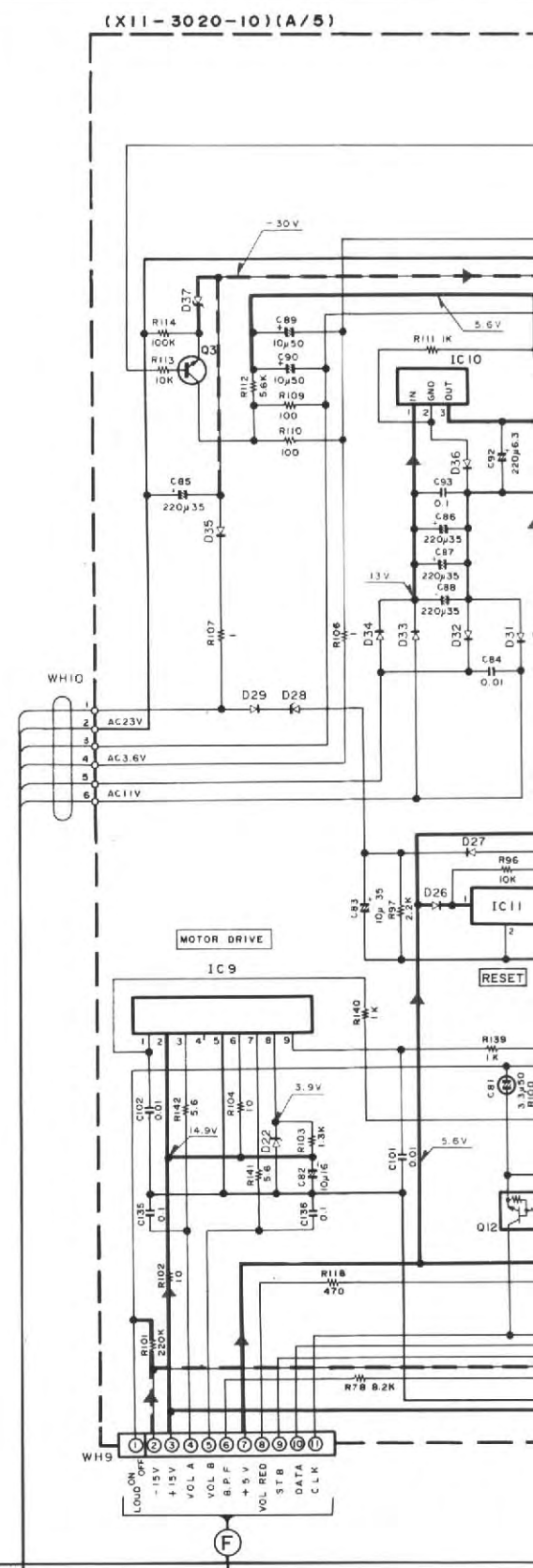
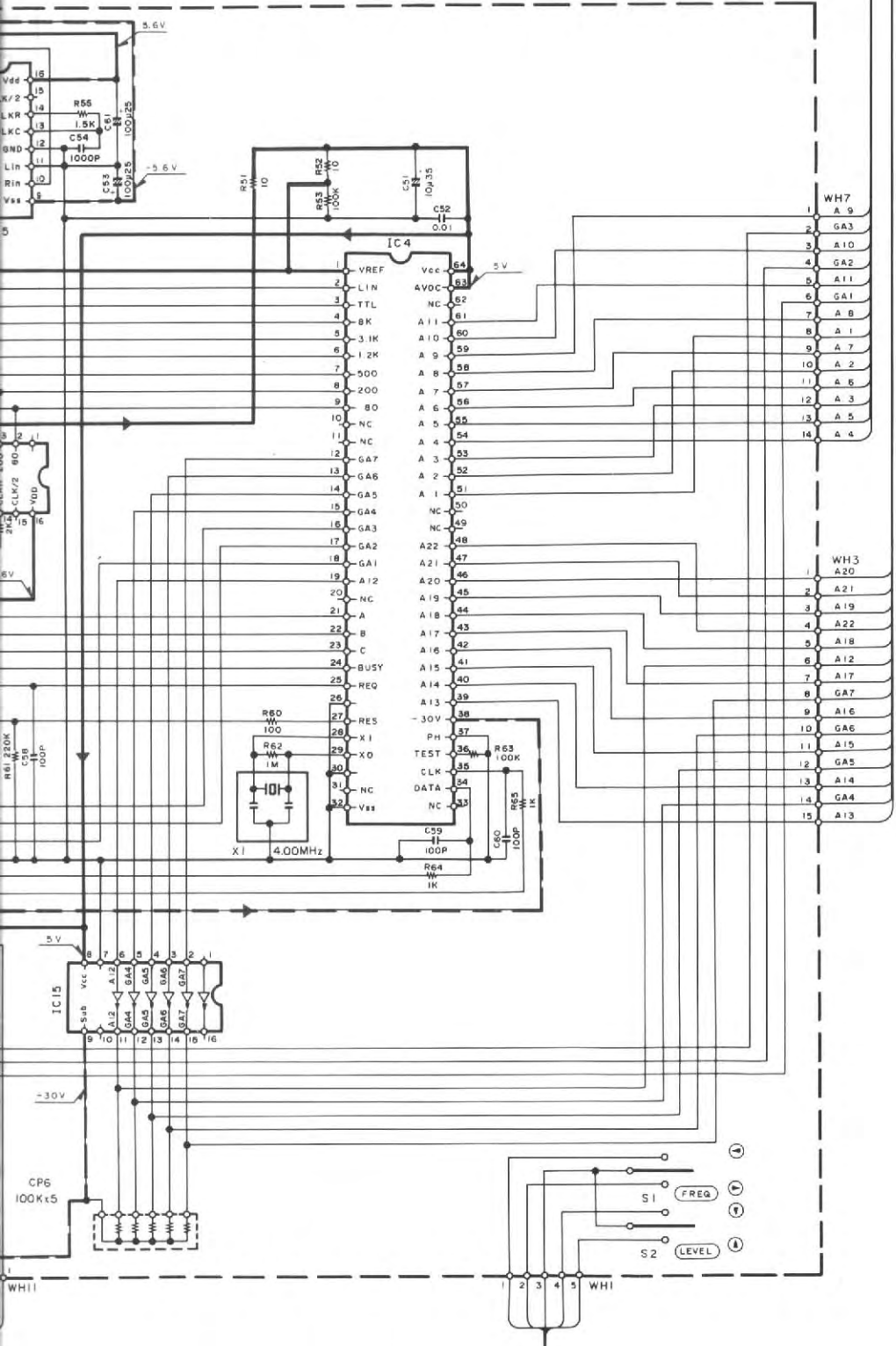
- | | | | |
|----------|----------------|-----------|------------------------------|
| IC1 | : R27305L | D1, 2 | : HZS6.8N(B2) or RD6.8ES(B2) |
| IC2, 3 | : M5229P | D3 | : HZS5.1N(B2) or RD5.1ES(B2) |
| IC4 | : M50940-1305P | D4~11, 23 | : HSS104 or 1SS133 |
| IC5, 7 | : XR-109/DCP | D12, 13 | : HZS5.6N(B2) or RD5.6ES(B2) |
| IC6 | : XRU4051B | | |
| IC14, 15 | : LB1294 | | |
| IC16 | : μPC4570C-A | | |

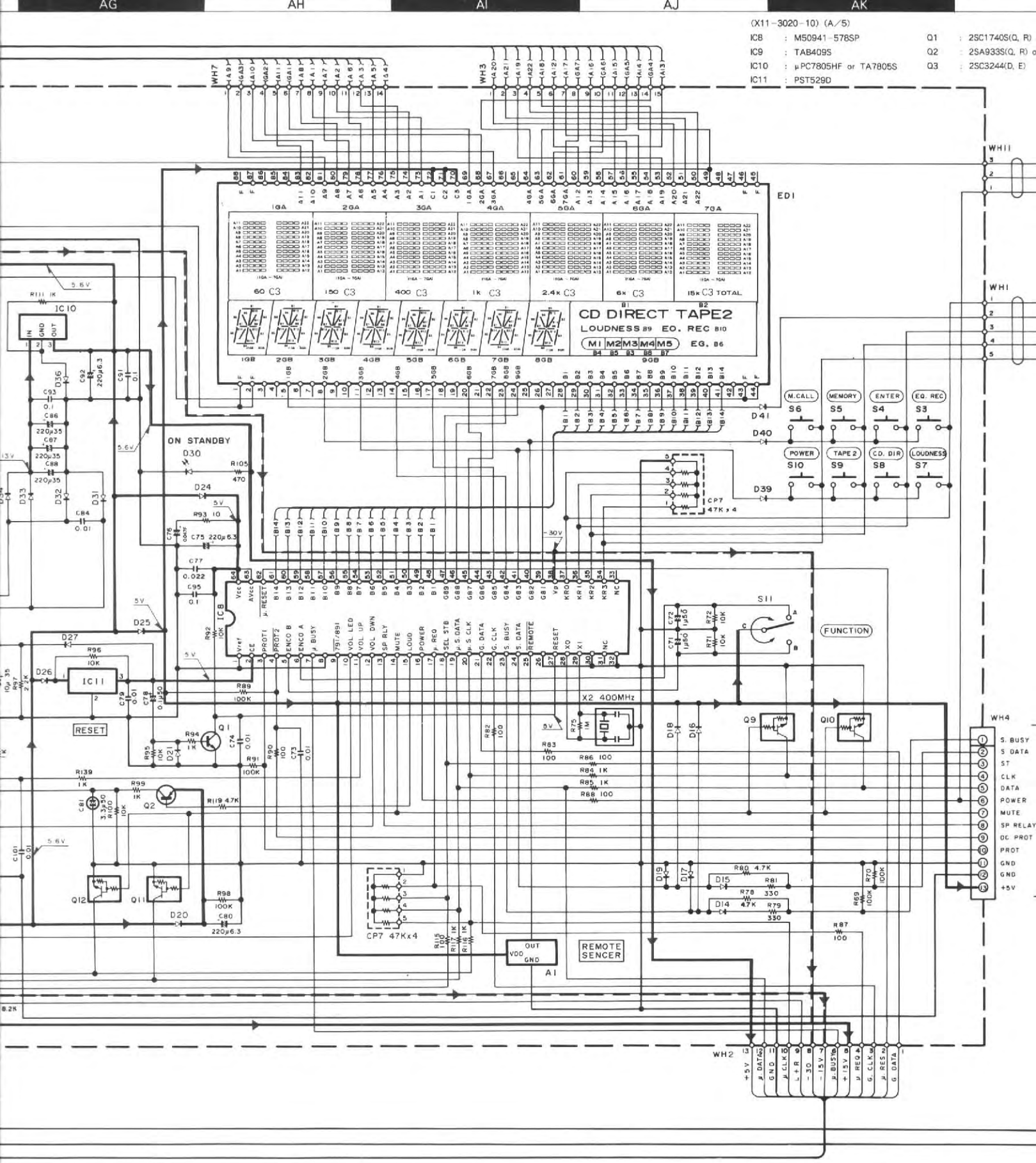
- | | |
|----|---------|
| 1 | G. DATA |
| 2 | P. RES |
| 3 | G. CLK |
| 4 | P. RED |
| 5 | +15V |
| 6 | P. BUSY |
| 7 | -15V |
| 8 | -30V |
| 9 | L+R |
| 10 | P. CLK |
| 11 | GND |
| 12 | P. DATA |
| 13 | +5V |

WH2

(E)

(F)
(A)
(B)
(C)
(D)





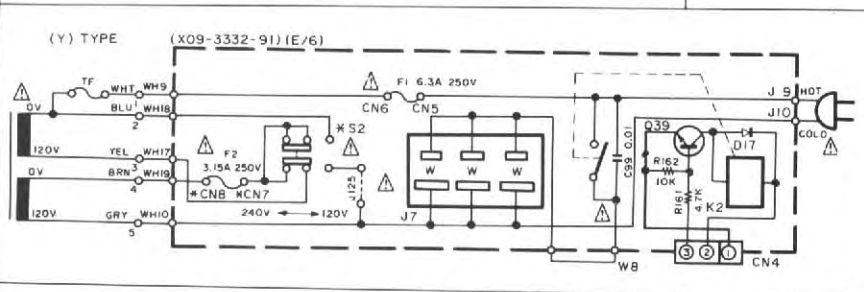
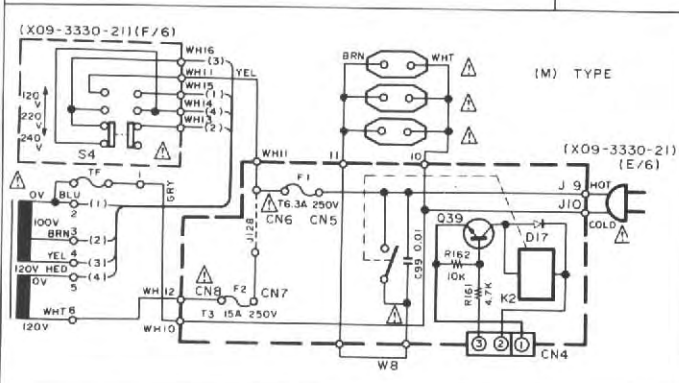
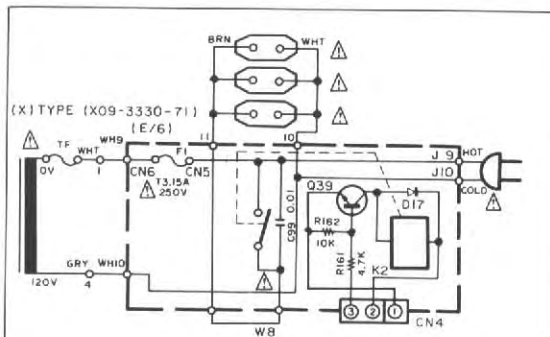
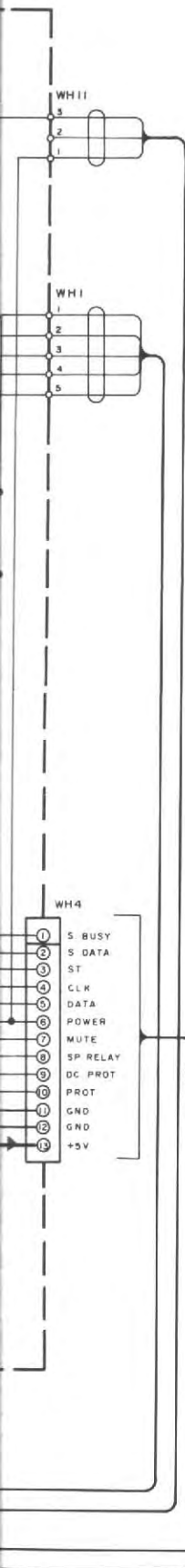
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measured with a high impedance meter. Values may vary slightly due to variations in individual instruments or/and units.

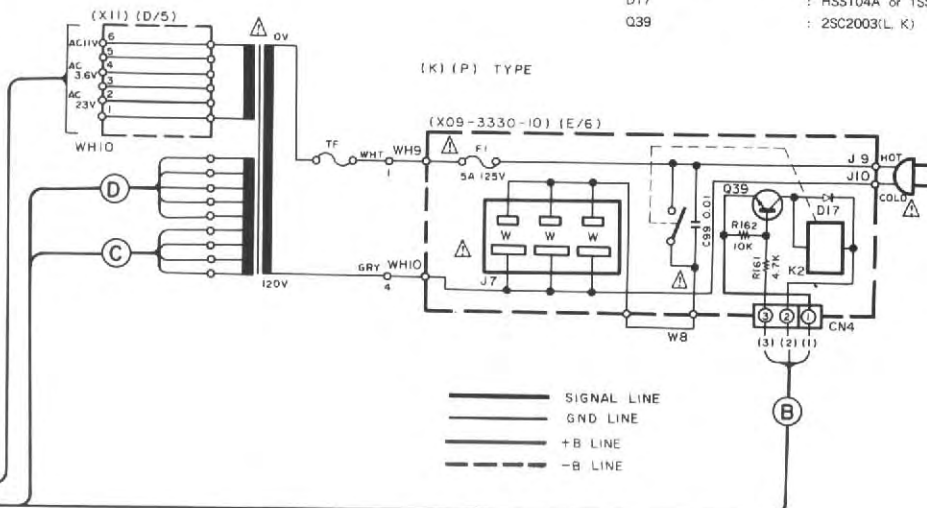
Les tensions c.c. doivent être mesurées avec un multimètre à haute impédance. Les valeurs peuvent varier en raison de variations inhérentes aux appareils de mesure individuels.

: 25C1740S(Q, R) or 25C2485(Y, GR)
 : 25A933S(Q, R) or 25A1048(Y, GR)
 : 25C3244(D, E)

D14~21, 24~27 : HSS104 or 1SS133
 29, 39~41 : HZ53.9N(B2) or RD3.9ES(B2)
 D22 : HZ58.2N(B2) or RD8.2ES(B2)
 D28 : B30-1291-05
 D30 : S5688B
 D31~35 : HZ55.1N(B2) or RD5.1ES(B2)
 D37 : W02-1046-05 or W02-1043-05
 A1 : FIP16AMW20
 ED1 :



(X09-333X-XX) (E/6)
 D17 : HSS104A or 1SS131
 Q39 : 25C2003(L, K)

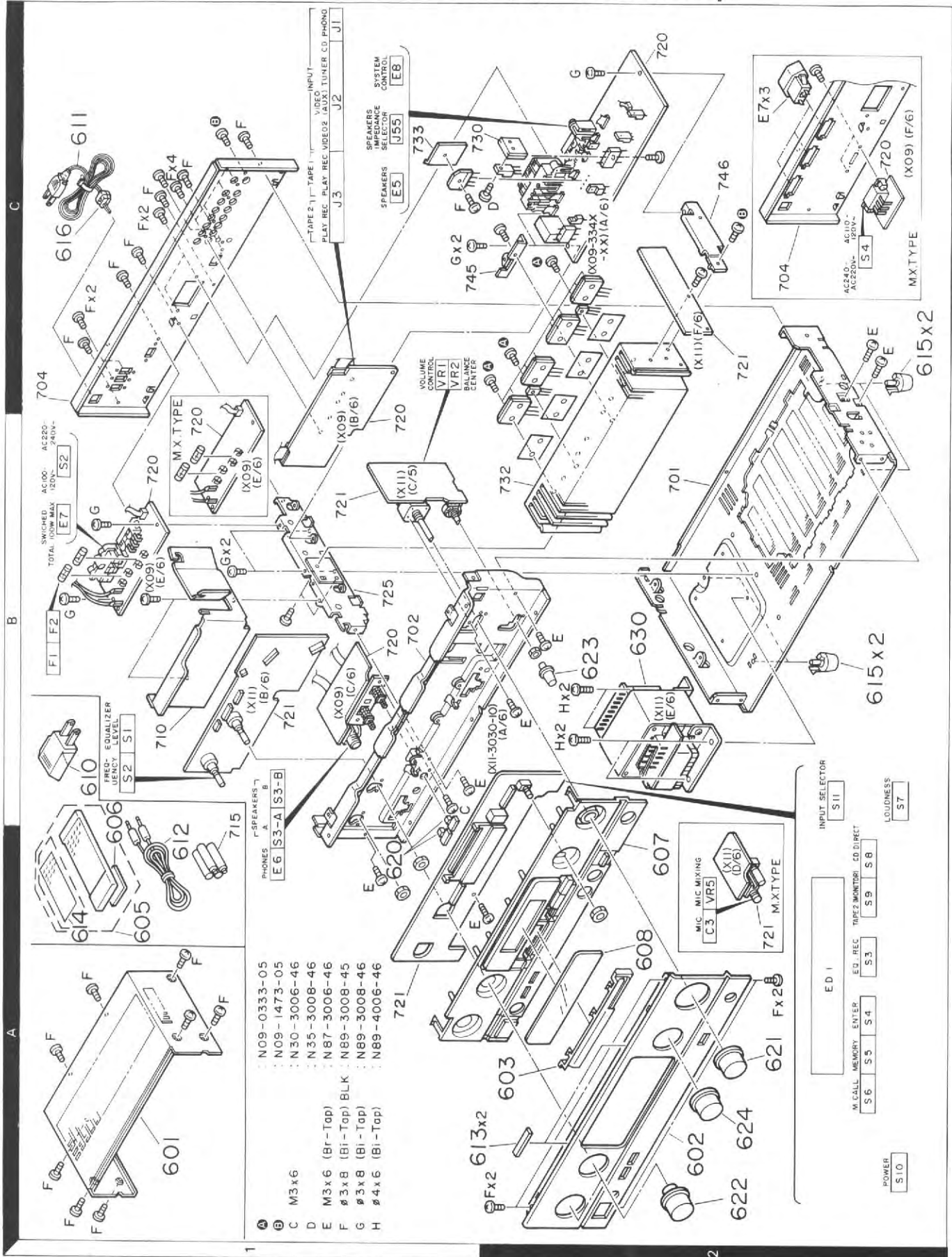


with a high impedance voltmeter due to variations between individuals.

mesurées avec un voltmètre à haute impédance peuvent différer légèrement du fait des appareils et des instruments.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

EXPLODED VIEW (MECHANISM)



Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

Destination list

KA-891	SINGAPORE MADE K, P, Y, M, X
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Audio unit

X09-3330-10	KA-891K, P
X09-3330-21	KA-891M
X09-3330-71	KA-891X
X09-3332-91	KA-891Y

Control unit

X11-3020-10	KA-891K, P, Y, M, X
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No.1

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
KA-891						
601	1A	*	A01-1913-01	METALLIC CABINET		
602	2A	*	A60-0020-02	PANEL		
603	2A	*	A21-1787-03	DRESSING PANEL		
605	1A, 1B	*	A70-0512-05	REMOTE CONTROLLER ASSY		
606	1A	*	A09-0111-08	BATTERY COVER		
607	1A, 2A	*	B01-0479-01	PANEL ESCUTCHEON		
608	2A	*	B10-1842-03	FRONT GLASS		
-	-	-	B46-0092-03	WARRANTY CARD		K
-	-	-	B46-0094-03	WARRANTY CARD		Y
-	-	-	B46-0095-03	WARRANTY CARD		Y
-	-	-	B46-0096-23	WARRANTY CARD		X
-	-	-	B46-0121-03	WARRANTY CARD		X
-	-	-	B58-0513-04	CAUTION CARD (PRESET220-240)		P
-	-	*	B60-0341-00	INSTRUCTION MANUAL (ENGLISH)		Y
-	-	*	B60-0342-00	INSTRUCTION MANUAL (FRENCH)		P
-	-	*	B60-0343-00	INSTRUCTION MANUAL (SP, AR, CH)		M
610	1B		E03-0115-05	AC PLUG ADAPTER		M
611	1C		E30-0459-05	AC POWER CORD		M
611	1C		E30-0512-05	AC POWER CORD		Y
611	1C		E30-1341-05	AC POWER CORD		X
611	1C		E30-2209-05	AC POWER CORD		KP
612	1A		E30-1392-05	CORD WITH PLUG		M
E7	1B		E03-0055-05	AC OUTLET		X
E7	1B		E03-0114-05	AC OUTLET		X
613	2A		G11-0155-14	SOFT TAPE (40X9X2)		
614	1A		G16-0772-08	REMOTE CONTROLLER ENTRY SHEET		
-	-	*	H50-0018-04	ITEM CARTON CASE		
-	-	*	H10-5091-02	POLYSTYRENE FOAMED FIXTURE		
-	-	*	H10-5092-02	POLYSTYRENE FOAMED FIXTURE		
-	-	*	H25-0223-04	PROTECTION BAG (750X350X0.03)		
-	-	*	H25-0232-04	PROTECTION BAG (235X350X0.03)		
615	2B, 2C		J02-1013-05	FOOT		
616	1C		J42-0083-05	POWER CORD BUSHING		
-	-		J61-0307-05	WIRE BAND		
620	1A, 1B		K27-2014-04	KNOB SPEAKERS		
621	2A	*	K29-4104-04	KNOB VOLUME		
622	2A	*	K29-4106-04	KNOB FREQUENCY, EQ LEVEL		
623	2B	*	K29-3911-04	KNOB BALANCE		
624	2A	*	K29-4105-04	KNOB INPUT SELECTOR		
630	2B	*	L07-0260-05	POWER TRANSFORMER		K
630	2B	*	L07-0261-05	POWER TRANSFORMER		P
630	2B	*	L07-0262-05	POWER TRANSFORMER		Y
630	2B	*	L07-0263-05	POWER TRANSFORMER		M
630	2B	*	L07-0264-05	POWER TRANSFORMER		X
B	1C		N89-3008-41	TAPPING SCREW (M3X8)		
C	1B		N30-3006-46	PAN HEAD MACHIN SCREW		
E	1A, 2B		N87-3006-46	BRAZIER HEAD TAPITIE SCREW		
F	1A, 1B		N89-3008-45	BINDING HEAD TAPITIE SCREW		
G	1B, 2C		N89-3008-46	BINDING HEAD TAPITIE SCREW		
H	2B		N89-4006-46	BINDING HEAD TAPITIE SCREW		

E: Scandinavia & Europe K: USA P: Canada
 Y: PX (Far East, Hawaii) T: England M: Other Areas
 Y: AAFES (Europe) X: Australia
 Δ indicates safety critical components.

PARTS LIST

No.3

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teil ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
△ F1		F05-6321-05	FUSE (SEMK0) (250V T6.3A)	M	
△ F2		F05-6324-05	FUSE (SEMK0) (250V 6.3A)	Y	
△ F3		F05-3121-05	FUSE (SEMK0) (250V T3.15A)	M	
△ F4		F05-3123-05	FUSE (SEMK0) (250V T3.15A)	Y	
△ F5		F53-0018-05	FUSE	MX	
△ F6		F53-0032-05	FUSE	KPY	
CN5-8		J13-0075-05	FUSE CLIP	YM	
CN5-6		J13-0075-05	FUSE CLIP	KPX	
L1-2		L39-0085-05	PHASE-COMPENSATION COIL		
A	2C	N09-0333-05	TAPPING SCREW (3X12)		
B	2C	N35-3008-46	BINDING HEAD MACHIN SCREW		
F	1C	N89-3008-45	BINDING HEAD TAPITTE SCREW		
G	1B,2C	N89-3008-46	BINDING HEAD TAPITTE SCREW		
CP1-2		R90-0187-05	MULTI-COMP 0.22X2	K	5W
R81		RD14GB2221J	FL-PR00F RD 220	J	1/4W
R82		RD14NB2221J	RD 220	J	1/4W
R83		RD14GB2221J	FL-PR00F RD 220	J	1/4W
R84		RD14NB2221J	RD 220	J	1/4W
R87		RD14NB2101J	RD 100	J	1/4W
R88		RD14GB2101J	FL-PR00F RD 100	J	1/4W
R95-98		RD14NB2220J	RD 22	J	1/4W
R99-102		RD14GB2331J	FL-PR00F RD 330	J	1/4W
R103		RD14GB22R2J	FL-PR00F RD 2.2	J	1/4W
R104, 105		RD14NB22R2J	RD 2.2	J	1/4W
R106		RD14GB22R2J	FL-PR00F RD 2.2	J	1/4W
R107, 108		RS14KB3100J	FL-PR00F RS 10	J	2W
R115, 116		RD14NB2100J	RD 10	J	1/4W
R117, 118		RS14KB31561J	FL-PR00F RS 560	J	2W
R147		RD14NB2100J	RD 10	J	1/4W
R163, 164		RD14GB25R6J	FL-PR00F RD 5.6	J	1/4W
R167, 168		RD14NB2201J	RD 22	J	1/4W
VR1-2		R12-1618-05	TRIMMING POT. (1K)		
K1		S51-2092-05	MAGNETIC RELAY		
K2		S51-1052-05	MAGNETIC RELAY		
S1		S31-2136-05	SLIDE SWITCH IMPEDANCE SELECT	YMK	
S2		S31-2131-05	SLIDE SWITCH VOLTAGE SELECT	Y	
S3		S42-2163-05	MULTIPLE PUSH SWITCH SPEAKERS		
S4		S31-2322-05	SLIDE SWITCH VOLTAGE SELECT	M	
D1-10		H55104A	D100E		
D11		1SS131	D100E		
D12		H254-7N(B)	ZENER DIODE		
D12-15		RD4.7ES(B)	ZENER DIODE		
D12-15		S5688B	D100E		
D12-15		1SR139-100	D100E		
D16		D55BA2F03	D100E		
D16		RBV-602LFA	D100E		
D17-23		H55104A	D100E		
D17-23		1SS131	D100E		
D24		S5688B	D100E		
D24		1SR139-100	D100E		
D25		MA177	D100E		
D26		MA177	D100E		

E: Scandinavia & Europe K: USA P: Canada
Y: PX (Far East, Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia
△ indicates safety critical components.

No.2

* New Parts
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Teil ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
AUDIO UNIT (X09-333X-XX)					
C1-2		CE04LW1H010M	ELECTR0 100F		
C3		CE04LW1A101M	ELECTR0 100W		
C5		CK45FB1H561K	CERAMIC 560PF		
C7		C092FM1H123J	MYLAR 0.012UF		
C9		C092FM1H332J	MYLAR 3300PF		
C11-12		CE04LW1H4R7M	ELECTR0 4.7UF		
C17-30		CE04LW1H2R2M	ELECTR0 2.2UF		
C31-32		C045FSL1H221J	CERAMIC 220PF		
C33-34		C092FM1H152J	MYLAR 1500PF		
C37-38		CE04LW1A101M	ELECTR0 100UF		
C39-40		C045FSL1H030C	CERAMIC 3.0PF		
C41-44		CE04LW1H010M	ELECTR0 1.0UF		
C45-46		C045FSL1H331J	CERAMIC 330PF		
C47-48		C045FSL1H030C	CERAMIC 3.0PF		
C49-50		C045FSL1H220J	CERAMIC 22PF		
C51-52		CE04LW1H010M	ELECTR0 1.0UF		
C53-54		CK45FB1H103Z	CERAMIC 0.010UF		
C55-56		CF92FV1H104J	MF 0.10UF		
C57-58		C092FM1H222J	MYLAR 2200PF		
C65-66		C045FSL1H221J	CERAMIC 220PF		
C77-78		CE04LW1C220M	ELECTR0 22UF		
C79		C91-0769-05	CERAMIC 1.00UF		
C80-81		CK45FB1H102K	CERAMIC 1000UF		
C82		CK45FB1H332K	CERAMIC 3300PF		
C83		CE04LW1H4R7M	ELECTR0 4.7UF		
C84		CE04LW1H010M	ELECTR0 1.0UF		
C85-86		CE04LW1E102M	ELECTR0 1000UF		
C87		CE04LW1E470M	ELECTR0 47UF		
C88		CE04LW1C470M	ELECTR0 47UF		
C89-90		CF92FV1H104J	MF 0.10UF		
C91-92		CK45FE2H103P	CERAMIC 0.010UF		
C93-94		C90-1868-05	ELECTR0 8200UF		
C95-96		C045FSL1H101J	CERAMIC 100PF		
C97		CE04LW1H100M	ELECTR0 100UF		
C98		CE04LW0J221M	ELECTR0 220UF		
C91-0647-05			CERAMIC 0.01UF		
C100, 101		CE04LW2A101M	ELECTR0 100UF		
C102		CE04LW1A101M	ELECTR0 100UF		
C103, 104		CE04LW1C220M	ELECTR0 22UF		
C108		CE04LW1V331M	ELECTR0 330UF		
C109, 110		CF92FV1H104J	MF 0.10UF		
C111, 112		C91-0769-05	CERAMIC 0.01UF		
J1		E13-0259-05	PHONO JACK PHONO		
J2		E13-0637-05	PHONO JACK CD, TUNER, VIDEO1		
J3		E13-0486-05	PHONO JACK VIDEO2, TAPE1(REC)		
J5		E20-0823-05	LOCK TERMINAL BOARD SPEAKERS		
J6		E11-0162-05	PHONE JACK HEAD PHONE		
J7		E03-0093-05	AC OUTLET	KPY	
J8		E11-0188-05	PHONE JACK SYSTEM CONTROL		
J11		E13-0637-05	PHONO JACK TAPE1(PLAY), TAPE2		
F1		F05-3121-05	FUSE (SEMK0) (250V T3.15A)	X	KP
F1		F05-6029-05	FUSE (UL)		

E: Scandinavia & Europe K: USA P: Canada
Y: PX (Far East, Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia
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PARTS LIST

No.5

* New Parts
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Teil ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
C41	.42	CE04LW12R2M	ELECTR0		50WV
C43		CE04LW14R7M	ELECTR0		35WV
C44	.45	CE04LW1330M	ELECTR0		1.6WV
C51		CE04LW1V100M	ELECTR0		35WV
C52		CK45FF1H103Z	CERAMIC		Z
C53		CE04LW1E101M	ELECTR0		25WV
C54	.56	CQ92FM1H102J	MYLAR		1000PF
C55		CE04LW1E101M	ELECTR0		25WV
C57	-60	CC45FSLH101J	CERAMIC		100PF
C61		CE04LW1E101M	ELECTR0		25WV
C62		CQ92FM1H102J	MYLAR		1000PF
C71	.72	CE04JW1H010M	ELECTR0		J
C73	.74	CK45FF1H103Z	CERAMIC		0.010UF Z
C75		CE04LW0221M	ELECTR0		220UF 6.3WV
C76		C90-1828-05	BACKUP		0.047F 5.5WV
C77		CK45FF1H232Z	CERAMIC		0.022UF Z
C78		CE04JW1H0R3M	ELECTR0		0.1UF 50WV
C79		C91-0768-05	CERAMIC		0.01UF K
C80		CE04JW0221M	ELECTR0		220UF 6.3WV
C81		C90-1293-05	ELECTR0		3.3UF 50WV
C82		CE04JW1C100M	ELECTR0		10UF 16WV
C83		CE04JW1V100M	ELECTR0		10UF 35WV
C84		CK45FF1H103Z	CERAMIC		0.010UF Z
C85	-88	CE04EW1V221M	ELECTR0		220UF 35WV
C89	.90	CE04JW1H100M	ELECTR0		10UF 50WV
C91		CF92FV1H104J	MF		0.10UF J
C92		CE04LW0221M	ELECTR0		220UF 6.3WV
C93		CF92FV1H104J	MF		0.10UF J
C94		C90-1353-05	NP-BLEC		22UF 25WV
C95		CF92FV1H104J	MF		0.10UF J
C96	-100	C91-0765-05	CERAMIC		820PF J
C101	.102	CK45FF1H103Z	CERAMIC		0.010UF Z
C121	.122	CE04LH1E470M	ELECTR0		47UF 25WV
C133	.124	CE04LW1H3R3M	ELECTR0		3.3UF 50WV
C125	.126	CF92FV1H473J	MF		0.047UF J
C127	.128	CE04LW1V100M	ELECTR0		10UF 35WV
C129	.130	CE92FV1H333J	MF		0.033UF J
C131	.132	CE04LW1V100M	ELECTR0		10UF 35WV
C133	.132	CE04LW1V100M	ELECTR0		1.0UF 50WV
C134	.135	CF92FV1H104J	MF		0.10UF J
X1	.2	L78-0244-05	RES0NATOR		4MHz
CP1	.2	R90-0491-05	MULTI-COMP		820KX7 J 1/6W
CP3		R90-0818-05	MULTI-COMP		RES1S-0R J 1/6W
CP4		R90-0809-05	MULTI-COMP		47KX4 J 1/6W
CP5		R90-0291-05	MULTI-COMP		100KX4 J 1/6W
CP6		R90-0203-05	MULTI-COMP		100KX5 J 1/6W
CP7	.18	R90-0487-05	MULTI-COMP		47KX4 J 1/6W
R17	.18	R014G82E100J	FL-PR00F		RD 10 J 1/4W
R66	.67	RS14K83A331J	RD		RD 1.0 J 1/4W
R106	.107	R014N82E1R0J	RD		RD 1.0 J 1/4W
R109	.110	R014N82E101J	RD		RD 100 J 1/4W
R121	.122	R014N82E101J	RD		RD 100 J 1/4W
VR2		R29-5052-05	POTENTIOMETER		VOLUME BALANCE
VR2		R01-5078-05	POTENTIOMETER		BALANCE

E: Scandinavia & Europe K: USA P: Canada
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No.4

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teil ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
IC1		TC9163N	IC(BILATERAL SWITCH X16)		
IC2		UPC4570C-A	IC		
IC3	*	TA7815S	IC(REGULATOR)GULATOR/ +15V)		
IC3		UPC7815HF	IC(VOLTAGE REGULATOR/ +15V)		
Q1	-4	2SC1845(F,E)	TRANSISTOR		
Q5	-8	2SA992(Q,F,E)	TRANSISTOR		
Q9	-14	2SC2632(Q,R,S)	TRANSISTOR		
Q15	.16	2SA1124(Q,R,S)	TRANSISTOR		
Q17	.16	2SC4137	TRANSISTOR		
Q19	.20	2SC3944(Q,R,S)	TRANSISTOR		
Q21	.22	2SA1535(Q,R,S)	TRANSISTOR		
Q23	.24	2SC2921	TRANSISTOR		
Q25	.26	2SA1215	TRANSISTOR		
Q27	.28	2SC2851(R,S)	TRANSISTOR		
Q29	.30	2SC2878(B)	TRANSISTOR		
Q31		2SA1048(Y,GR)	TRANSISTOR		
Q31		2SA935(Q,R)	TRANSISTOR		
Q32		2SA1123(R,S)	TRANSISTOR		
Q33		2SC2003(L,K)	TRANSISTOR		
Q34		2SA1048(Y,GR)	TRANSISTOR		
Q34		2SA935(Q,R)	TRANSISTOR		
Q35		2SB941	TRANSISTOR		
Q36		2SC1740S(Q,R)	TRANSISTOR		
Q36		2SC2458(Y,GR)	TRANSISTOR		
Q37		2SA1048(Y,GR)	TRANSISTOR		
Q37		2SA935(Q,R)	TRANSISTOR		
Q38		2SC1740S(Q,R)	TRANSISTOR		
Q38		2SC2458(Y,GR)	TRANSISTOR		
Q39		2SC2803(L,K)	TRANSISTOR		
Q40	.41	2SC1740S(Q,R)	TRANSISTOR		
Q40	.41	2SC2458(Y,GR)	TRANSISTOR		
CONTROL UNIT (X11-3020-10)					
D30		B30-1291-05	LED(LN210PSLX(V)-(T44))		
C1	.2	CE04LW1V100M	ELECTR0		35WV
C3	.4	CC45FSLH221J	CERAMIC		10UF
C5	.6	CQ92FM1H471J	MYLAR		220PF J
C7	.8	CQ92FM1H152J	MYLAR		1500PF J
C9	.10	CQ92FM1H272J	MYLAR		2700PF J
C11	.12	CQ92FM1H822J	MYLAR		8200PF J
C13	.14	CQ92FM1H183J	MYLAR		0.018UF J
C15	.16	CF92FV1H473J	MF		0.047UF J
C17	.18	CF92FV1H124J	MF		0.12UF J
C19	.20	CE04LW1V100M	ELECTR0		10UF 35WV
C21	.22	CC45FSLH100D	CERAMIC		10PF D
C23	.24	CC45FSLH101J	CERAMIC		100PF J
C25	.26	CE04LW1V100M	ELECTR0		10UF 35WV
C27	.28	CE04LW1E101M	ELECTR0		100UF 25WV
C29	.30	CQ92FV1H822J	MYLAR		8200PF J
C31	.32	CQ92FM1H183J	MYLAR		0.018UF J
C33	.34	CF92FV1H563J	MF		0.056UF J
C35	.36	CF92FV1H124J	MF		0.12UF J
C37	.38	CE04LW1HR33M	ELECTR0		50WV
C39	.40	CE04LW1H010M	ELECTR0		1.0UF 50WV

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PARTS LIST

No.7

* New Parts
Parts without Parts No. are not supplied.
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Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 国番号	Re- marks
A1			W02-1046-05	ELECTRIC CIRCUIT MODULE		

No.6

* New Parts
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Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 国番号	Re- marks
S1	* 2		S60-0007-05	ROTARY SWITCH FREQUENCY-EQLEVEL		
S3	-10		S40-1064-05	PUSH SWITCH KEY BOARD		
S11			T99-0509-05	SPEED DETECTOR FUNCTION		
D1	2		HZS6.8N(B2)	ZENER DIODE		
D1	2		RD6.6ES(B2)	ZENER DIODE		
D3			HZS5.1N(B2)	ZENER DIODE		
D3			RD5.1ES(B2)	ZENER DIODE		
D4	-11		HSS104	DIODE		
D4	-11		ISS133	DIODE		
D12	113		HZS5.6N(B2)	ZENER DIODE		
D12	113		RD5.6ES(B2)	ZENER DIODE		
D14	-21		HSS104	DIODE		
D14	-21		ISS133	DIODE		
D22			HZS4.7N(B2)	ZENER DIODE		
D22			RD4.7ES(B2)	ZENER DIODE		
D23	-27		HSS104	DIODE		
D23	-27		ISS133	DIODE		
D28			HZS6.2N(B2)	ZENER DIODE		
D28			RD6.2ES(B2)	ZENER DIODE		
D29			HSS104	DIODE		
D29			ISS133	DIODE		
D31	-35	*	S5688B	DIODE		
D31	-35		1SR139-100	DIODE		
D36			HSS104	DIODE		
D36			ISS133	DIODE		
D37			HZS5.1N(B2)	ZENER DIODE		
D37			RD5.1ES(B2)	ZENER DIODE		
D39	-41		HSS104	DIODE		
D39	-41		ISS133	DIODE		
E01		*	F1F16MM20	FLUORESCENT INDICATOR TUBE		
IC1		*	RZ7305L	IC(ELECTRONIC VOLUME)		
IC2	3		MS229P	IC(TXCH GRAPHIC EQUALIZER)		
IC4			MS0940-130SP	IC		
IC5			XR-10910CP	IC(OE DISPLAY FILTER)		
IC6			KRU4051B	IC		
IC7			XR-10910CP	IC(OE DISPLAY FILTER)		
IC8		*	MS0941-578SP	IC(MICROPROCESSOR)		
IC9			TA8409S	IC(MOTOR CONTROL)		
IC10			TA7805S	IC(REGULATOR)		
IC10			UPC7805HF	IC(VOLTAGE REGULATOR/ +5V)		
IC11			PST529D	IC		
IC12			NJM4565L	IC		
IC13			TC9162N	IC(ANALOG SWITCH ARRAY)		
IC14	15		LB1294	IC(6CH DARLINGTON DRIVER)		
IC16			UP64570C-A	IC		
Q1			2SC1740S(Q,R)	TRANSISTOR		
Q1			2SC2458(Y,G,R)	TRANSISTOR		
Q2			2SA1048(Y,G,R)	TRANSISTOR		
Q2			2SA933S(Q,R)	TRANSISTOR		
Q3			2SC2444(D,E)	TRANSISTOR		
Q7	8		2SC2878(L,B)	TRANSISTOR		
Q9	-12		DTC124ES	DIGITAL TRANSISTOR		
A1			W02-1043-05	OPTIC RECEIVING MODULE		

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SPECIFICATIONS

(For U.S.A. and Canada)

Rated Power Output

125 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20,000 Hz with no more than 0.03% total harmonic distortion. (FTC)

Total Harmonic Distortion LINE input to SPEAKER output

20 Hz to 20,000 Hz.....	0.03% at rated power into 8 Ω
Frequency Response.....	10 Hz to 50 kHz, +0 dB, -3 dB
Input Sensitivity/Impedance	
Phono	2.5 mV/47 k Ω
Tuner/Tape/CD/VIDEO	200 mV/47 k Ω
Signal-to-noise Ratio (IHF-A)	
Phono	75 dB for 2.5 mV input
Tuner/Tape/CD/VIDEO	100 dB
Phono Maximum Input Level.....	100 mV, T.H.D. 0.5% at 1 kHz
Output Level/Impedance	
Tape REC (Pin)	200 mV/3.3 k Ω
Phono Frequency Response.....	RIAA standard curve ± 0.5 dB (20 Hz to 20,000 Hz)
Graphic equalizer control	
(60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz)	± 10 dB
Loudness Control.....	+8 dB at 100 Hz (at -30 dB VOLUME Level)

General

Power Consumption.....	2.8 A
AC outlets	
SWITCHED	3; (Total 100 W, 0.8 A max.)
Dimensions	W: 440 mm (17-5/8") H: 133 mm (5-1/4") D: 281 mm (11-1/16")
Weight (Net)	9.5 kg (20.9 lb)

Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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