

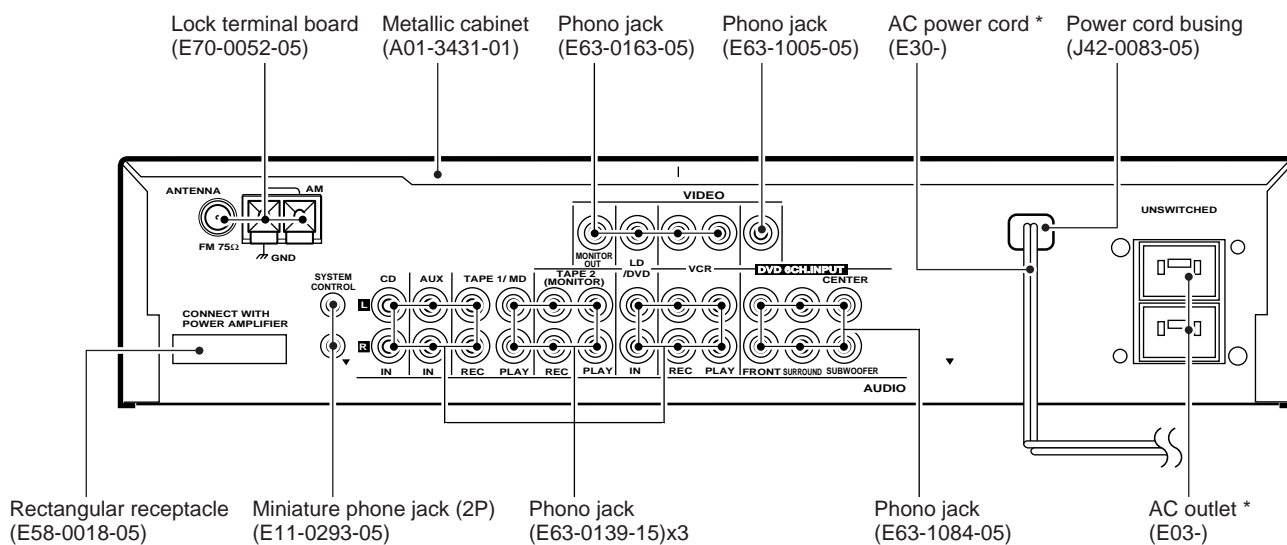
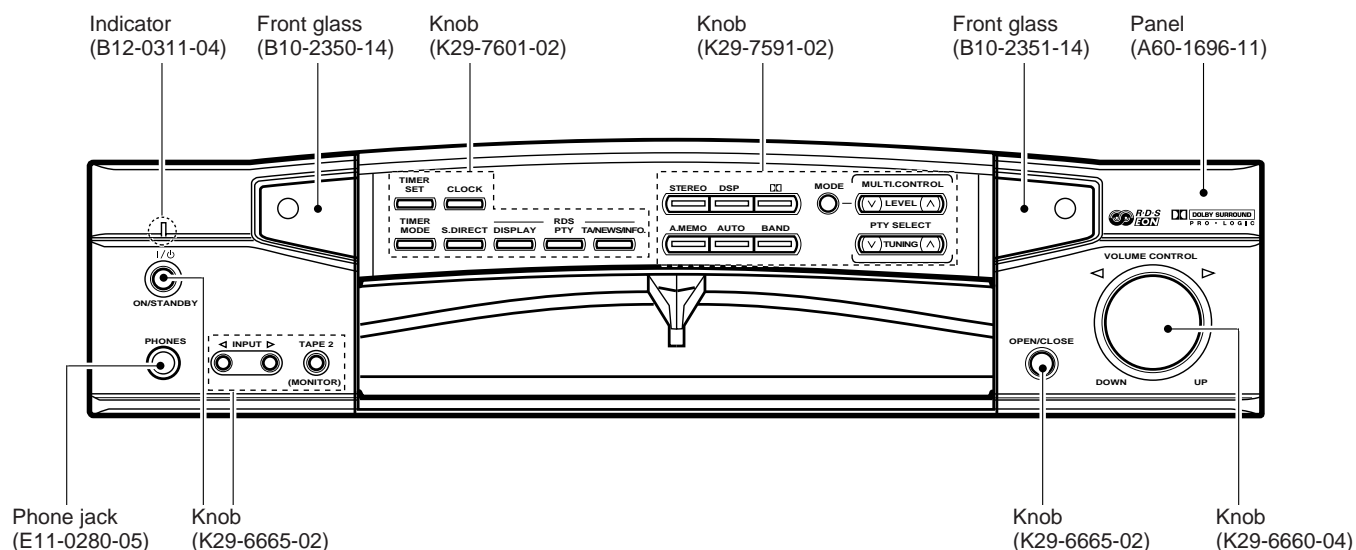
# STEREO INTEGRATED AMPLIFIER/TUNER

# C-V301/V351

## SERVICE MANUAL

# KENWOOD

© 1999-7/B51-5556-00 (K/K) 1653



\* Refer to parts list on page 25.

**Caution :** No connection of ground line if disassemble the unit.  
Please connect the ground line on rear panel, PCBs, Chassis and some others.




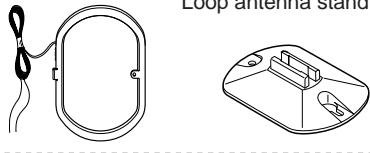

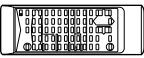
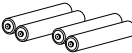


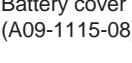
# C-V301/V351

## CONTENTS / ACCESSORIES / CAUTIONS

### Contents

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PC BOARD .....	5	SPECIFICATIONS .....	Back cover

### Accessories

FM indoor antenna (1) (T90-0841-05) 	AM loop antenna (1) (T90-0833-05) --- Loop antenna stand (1) 	Graphical Remote Control unit (1) (C-V351) (A70-1205-15) 
Remote control unit (1) (C-V301) (A70-1306-05) 	Batteries(R6/AA) (4) (C-V351) 	Batteries(R6/AA) (2) (C-V301) 
Battery cover (A09-0378-08) 		Battery cover (A09-1115-08) (Optional with the C-V301) 

### Cautions

#### ***How to reset the microcomputer***

The microcomputer may malfunction (impossibility of operation, erroneous display, etc.) when the power cord is unplugged and plugged in again while the unit is in ON mode with the I/⏻ key pressed or due to other external causes. In this case, execute the procedure on the right to reset the microcomputer and return the unit to the normal condition.

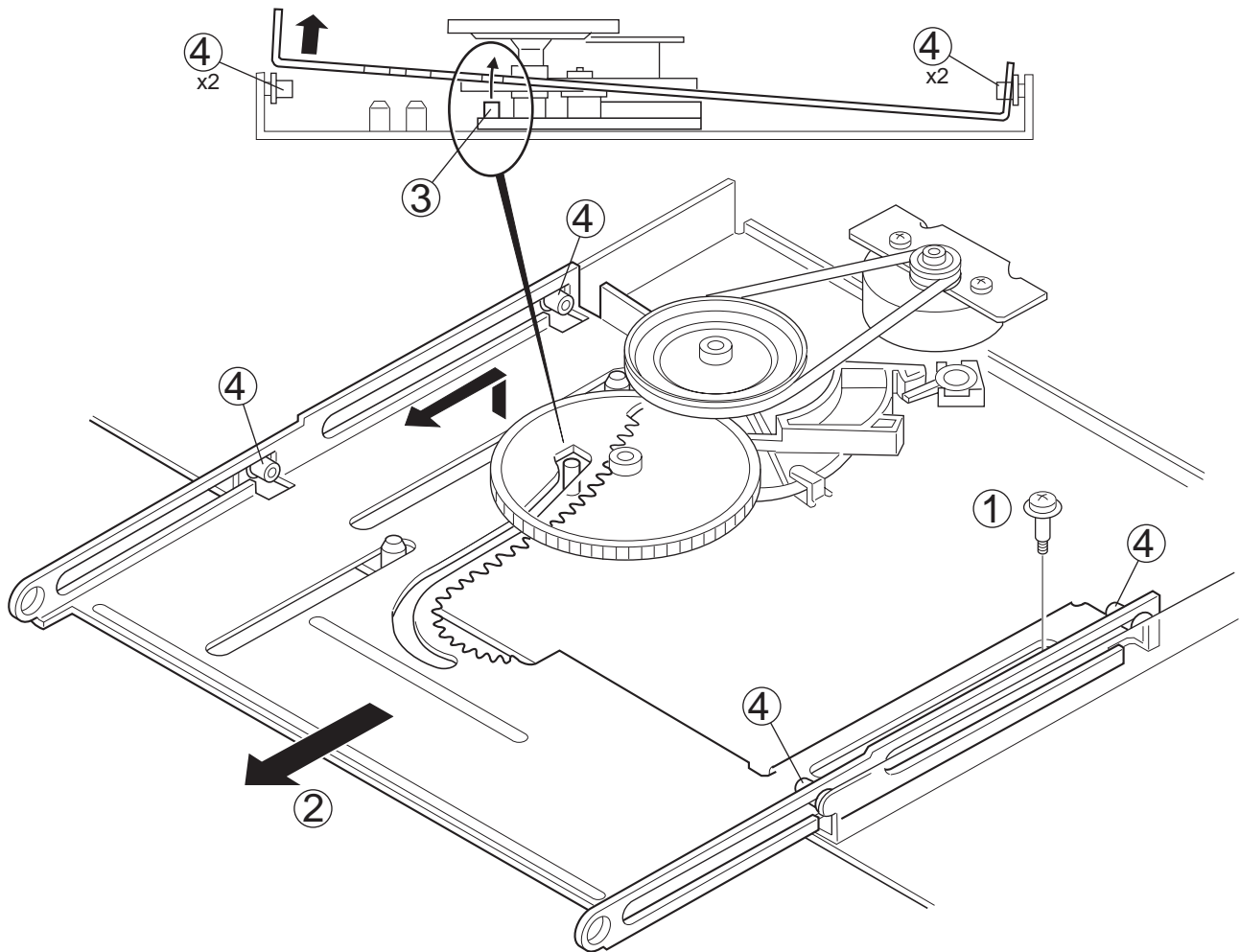
- ① Unplug the power cord from the wall outlet.
- ② While holding the I/⏻ (ON/STANDBY) key depressed, plug the power cord into the wall outlet again.

- Resetting the microcomputer clears the memory you entered and returns it to the initial condition when the unit left the factory.

# C-V301/V351

## DISASSEMBLY FOR REPAIR

1. Remove the 1 screw (①), Then pull the slider (②) till last
2. While raise the slider of left side, remove the slider from the bosses (③,④)

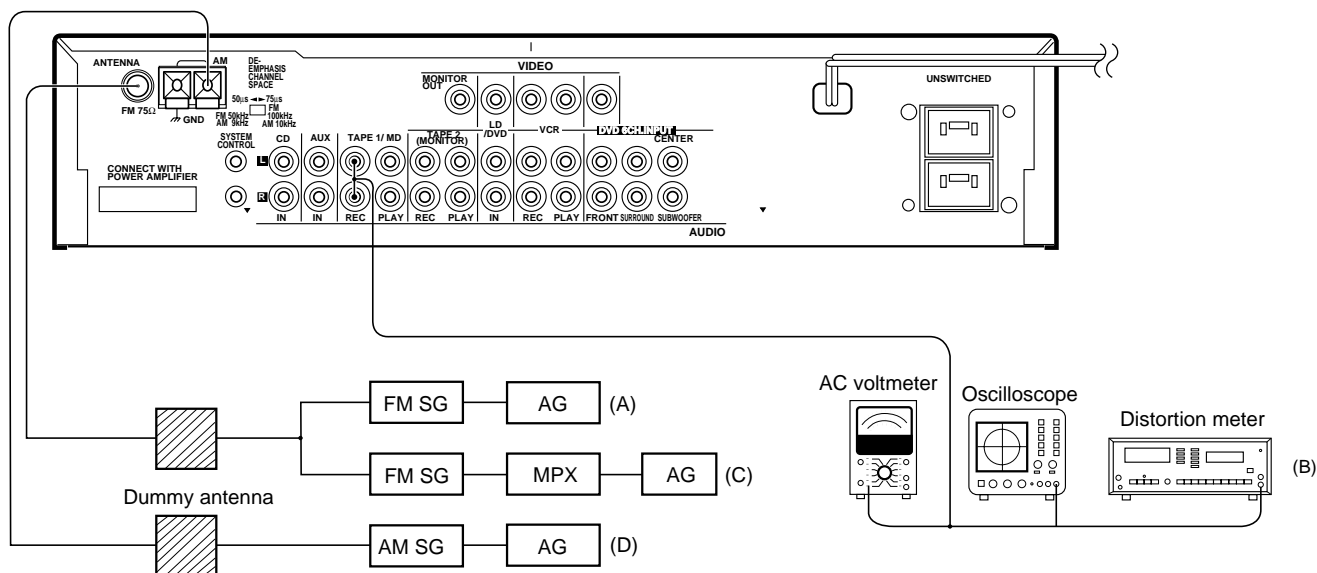


# C-V301/V351

## ADJUSTMENT

No.	ITEM	INPUT SETTING	OUTPUT SELECTOR	TUNER/AMP SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
SELECTOR : FM							
1	DISCRIMINATOR L31 ↔ L32 (E, T only)	(A) 98.0MHz 1kHz, ±40kHz dev (E, T type) 60dBu (ANT INPUT)	Connect a DC voltmeter between port of CN2	AUTO 98.0MHz	L31 (X05-)	0V	(a)
			(B)		L32 (X05-)	Minimum distortion	
2	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±40kHz dev pilot: ±6kHz dev 60dBu (ANT INPUT)	(B)	AUTO (98.0MHz)	IFT (W02-)	Minimum distortion	(a)

(a)

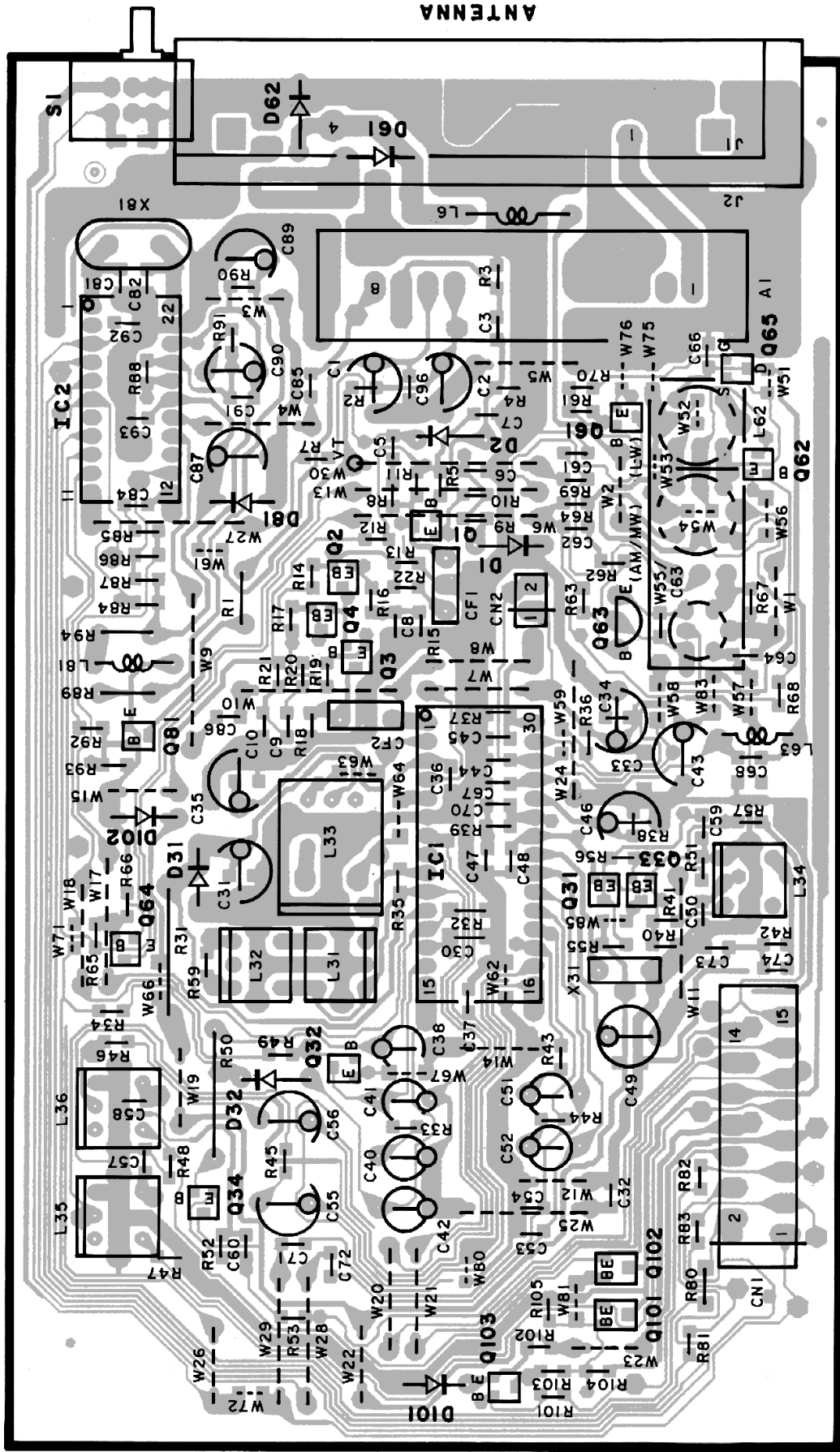


### ERROR MESSAGE

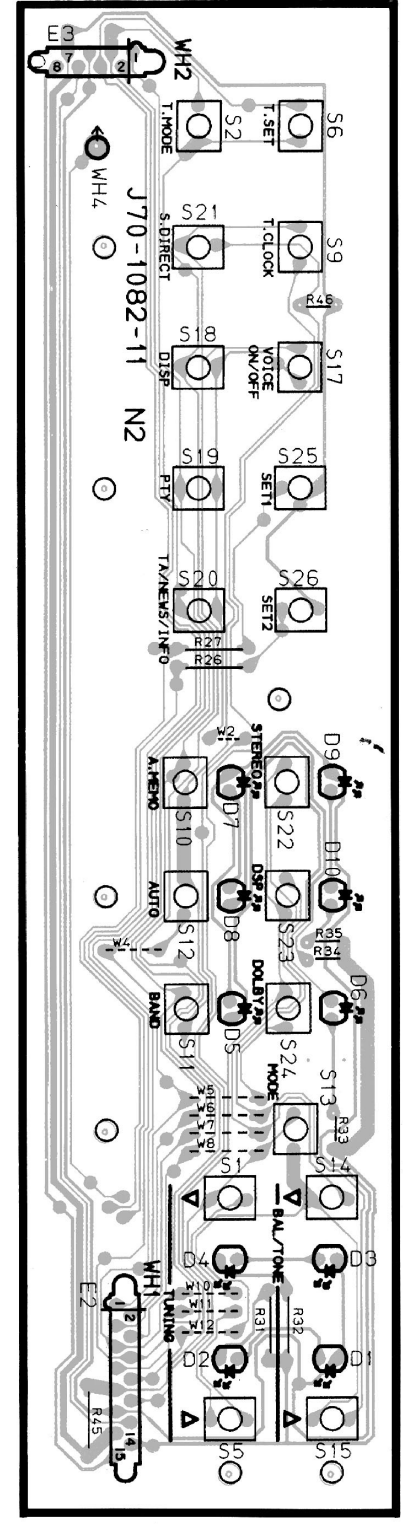
DISPLAY	DESCRIPTION
ERR 1	Main u-com sub clock no output
ERR 2	Main u-com sub clock frequency NG

# PC BOARD (Component side view)

(X05-4682-71) J70-0960-21

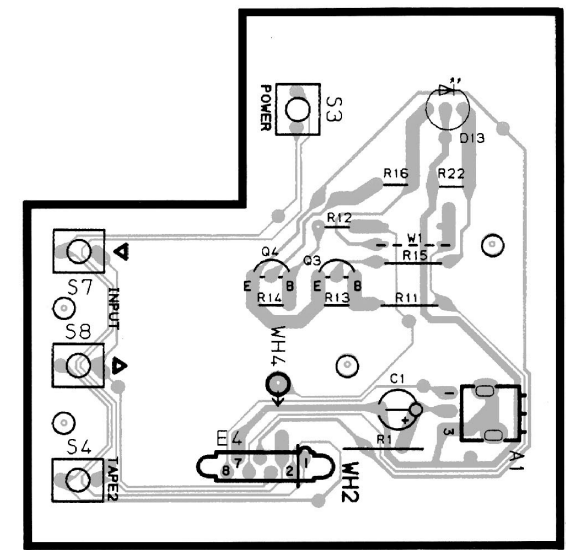


(X14-4372-71) (A/4)

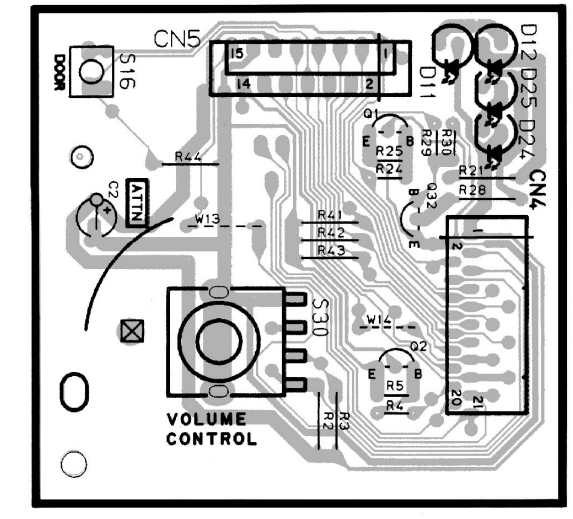


6

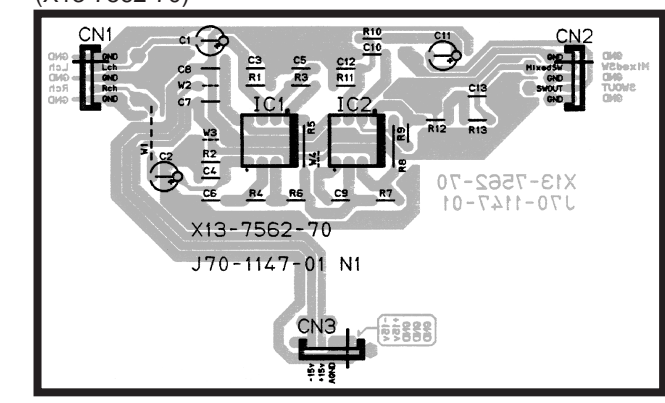
(X14-) (C/4)



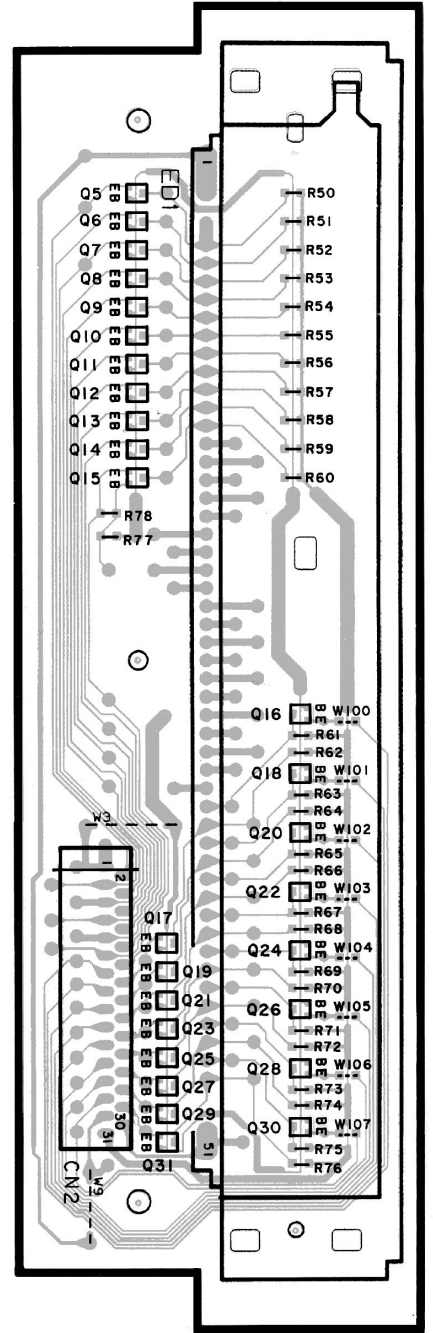
(X14-) (B/4)



(X13-7562-70)



(X14-) (D/4)

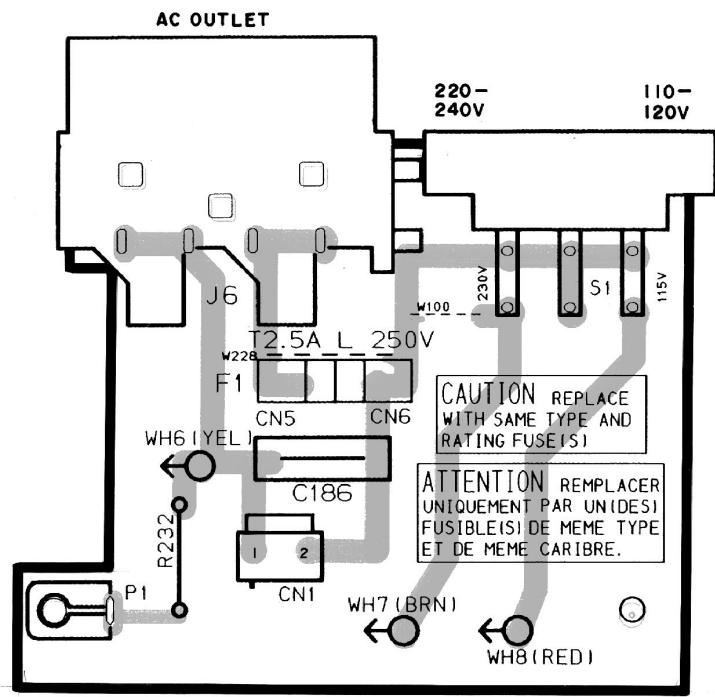


5

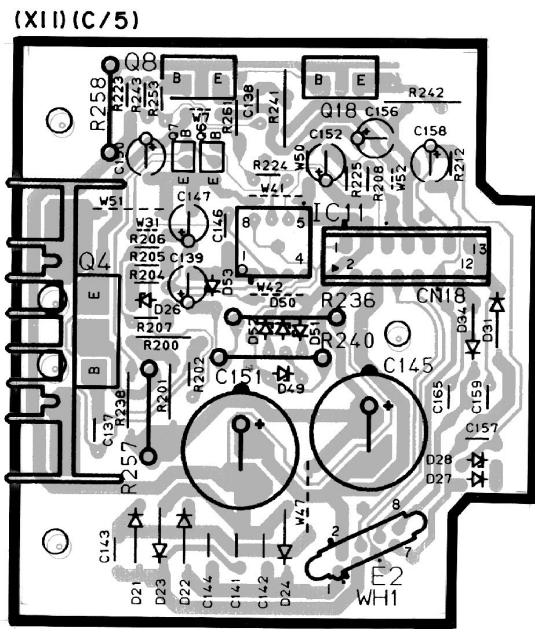
Refer to the schematic diagram for the value of resistors and capacitors.

7

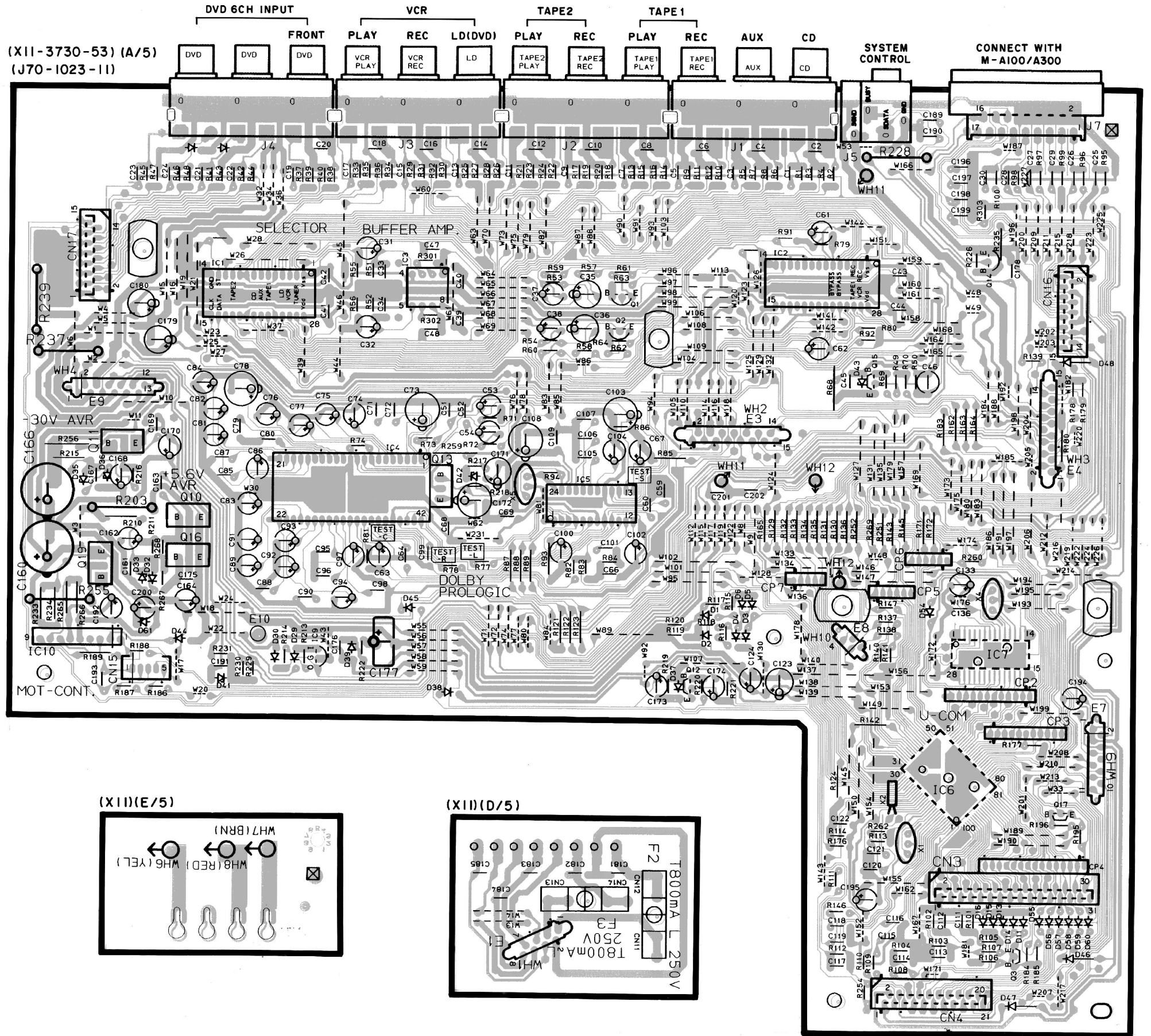
# PC BOARD (Component side view)



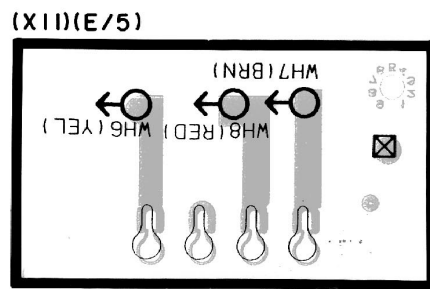
(XII)(B/5)



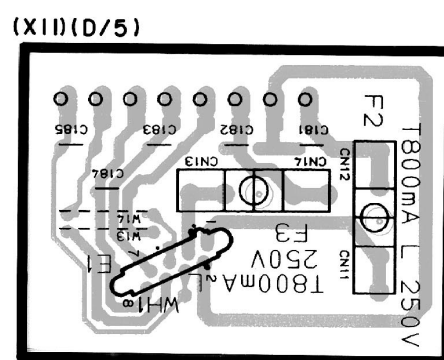
(XII)(C/5)



(XII-3730-53) (A/5)  
(J70-1023-11)

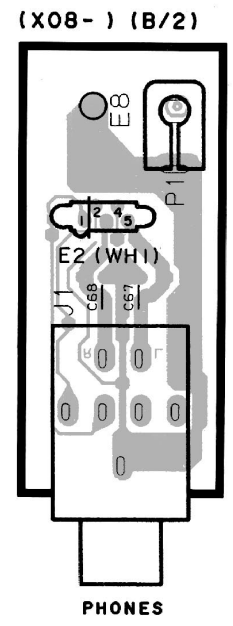
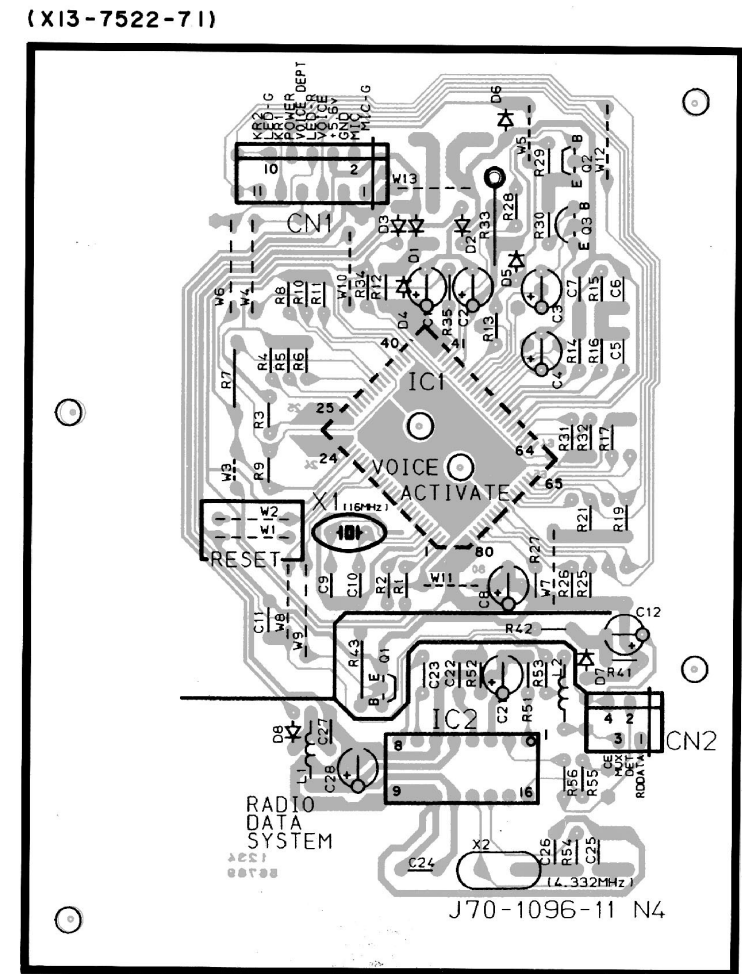
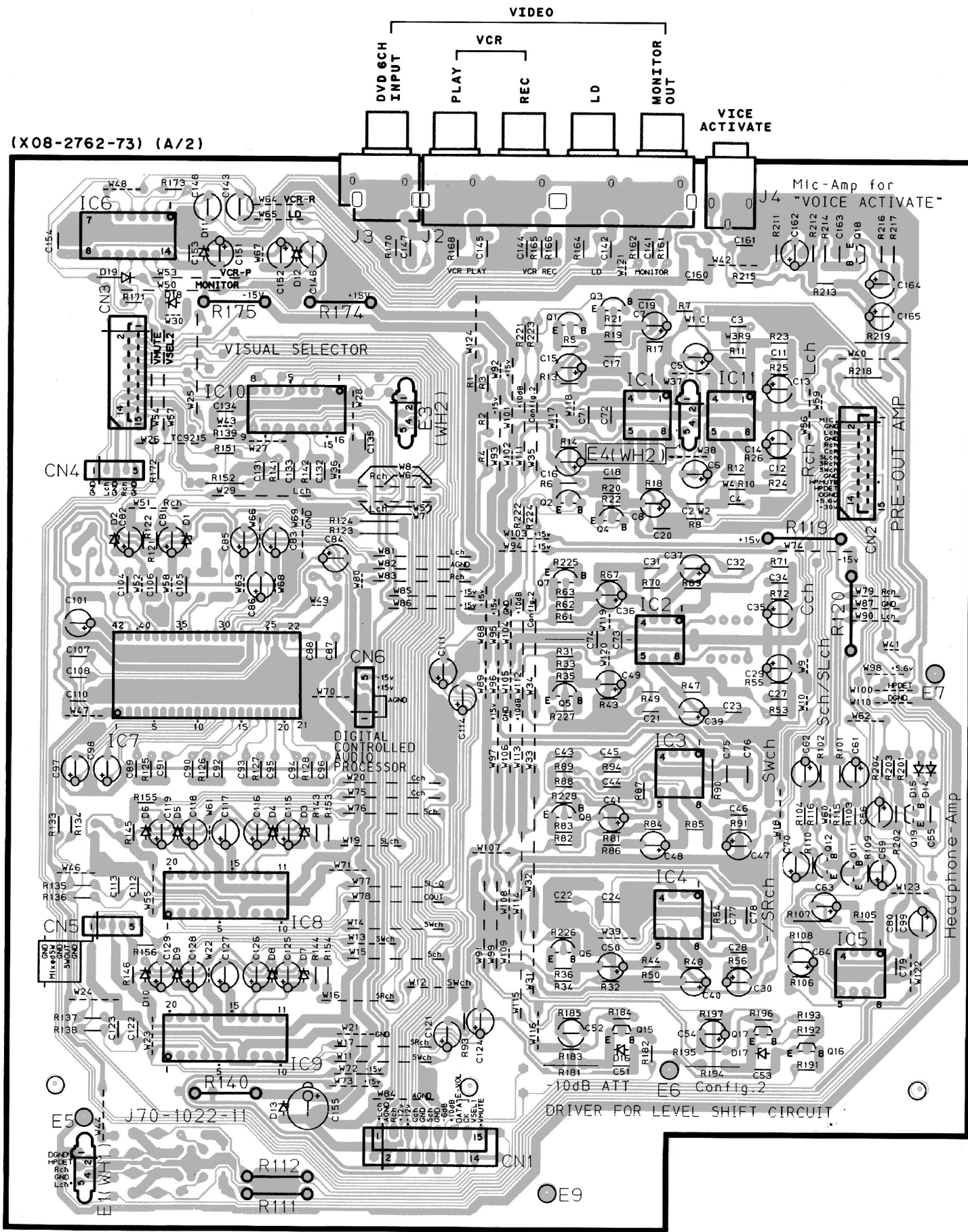


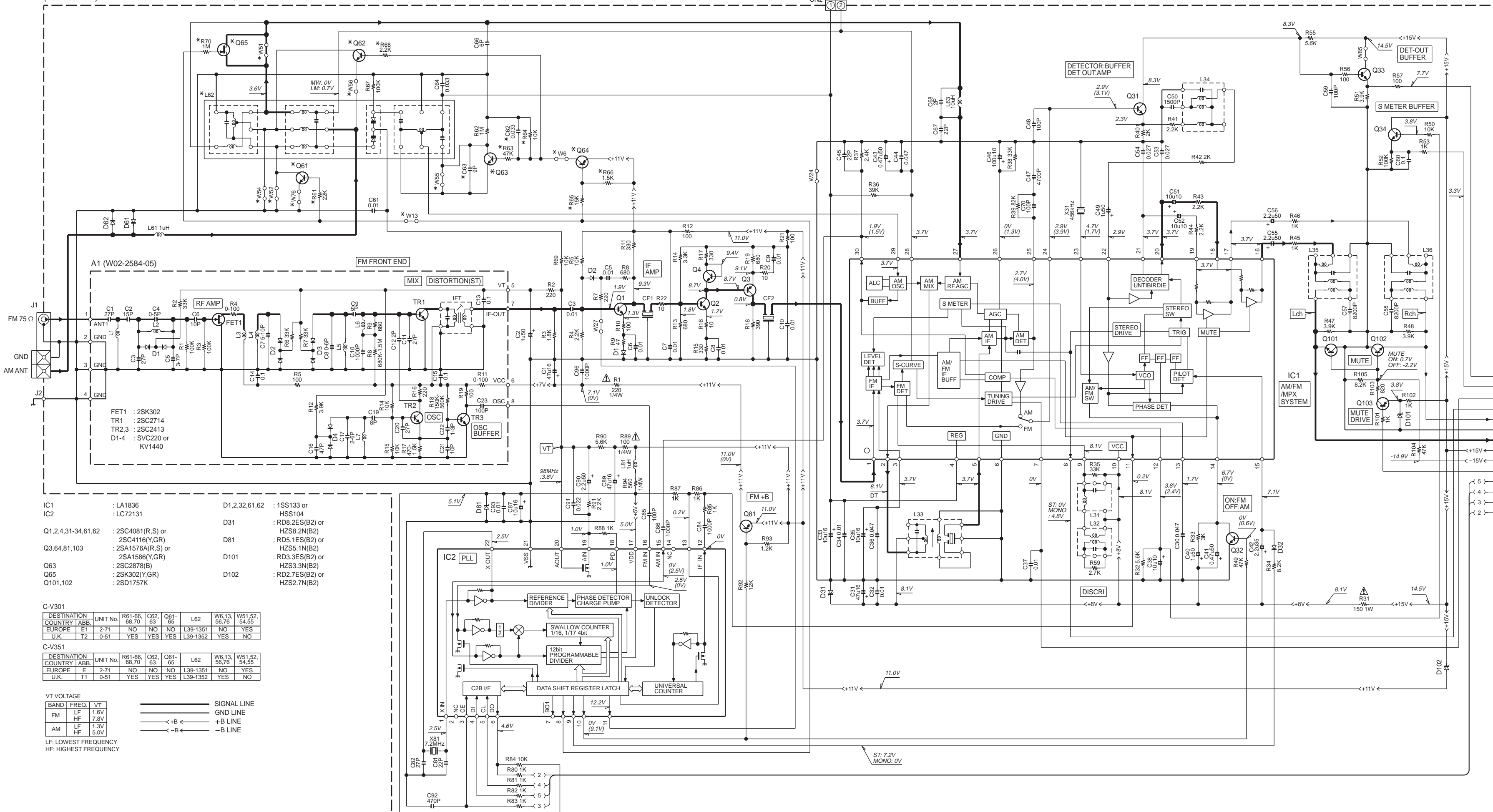
(XII)(E/5)



(XII)(D/5)

# PC BOARD (Component side view)





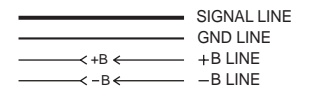
IC1	: LA1836	D1,2,32,61,62	: 1SS133 or HSS104
IC2	: LC72131	D31	: RD8.2ES(B2) or HZS8.2N(B2)
Q1,2,4,31-34,61,62	: 2SC4081(R,S) or 2SC4116(Y,GR)	D81	: RD5.1ES(B2) or HZS5.1N(B2)
Q3,64,81,103	: 2SA1576A(R,S) or 2SA1586(Y,GR)	D101	: RD3.3ES(B2) or HZS3.3N(B2)
Q63	: 2SC2878(B)	D102	: RD2.7ES(B2) or HZS2.7N(B2)
Q65	: 2SK302(Y,GR)		
Q101,102	: 2SD1757K		

DESTINATION COUNTRY	ABB.	UNIT No.	R61-66, 68,70	C62, 63	Q61-65	L62	W6,13, 56,76	W51,52, 54,55
EUROPE	E1	2-71	NO	NO	NO	L39-1351	NO	YES
U.K.	T2	0-51	YES	YES	YES	L39-1352	YES	NO

DESTINATION COUNTRY	ABB.	UNIT No.	R61-66, 68,70	C62, 63	Q61-65	L62	W6,13, 56,76	W51,52, 54,55
EUROPE	E	2-71	NO	NO	NO	L39-1351	NO	YES
U.K.	T1	0-51	YES	YES	YES	L39-1352	YES	NO

BAND	FREQ.	VT
FM	LF	1.6V
	HF	7.8V
AM	LF	1.3V
	HF	5.0V

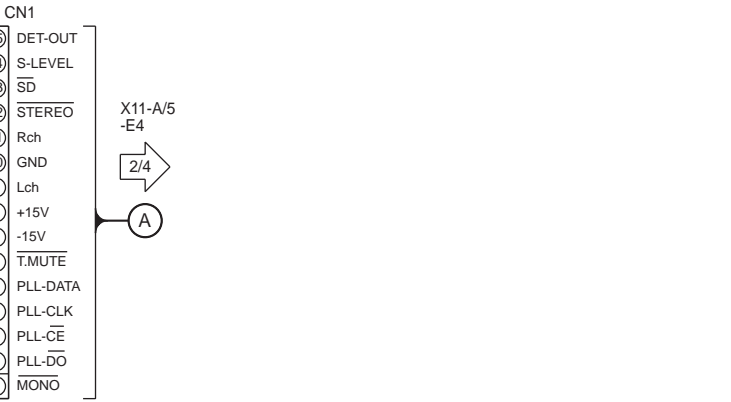
LF: LOWEST FREQUENCY  
HF: HIGHEST FREQUENCY



**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). 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.

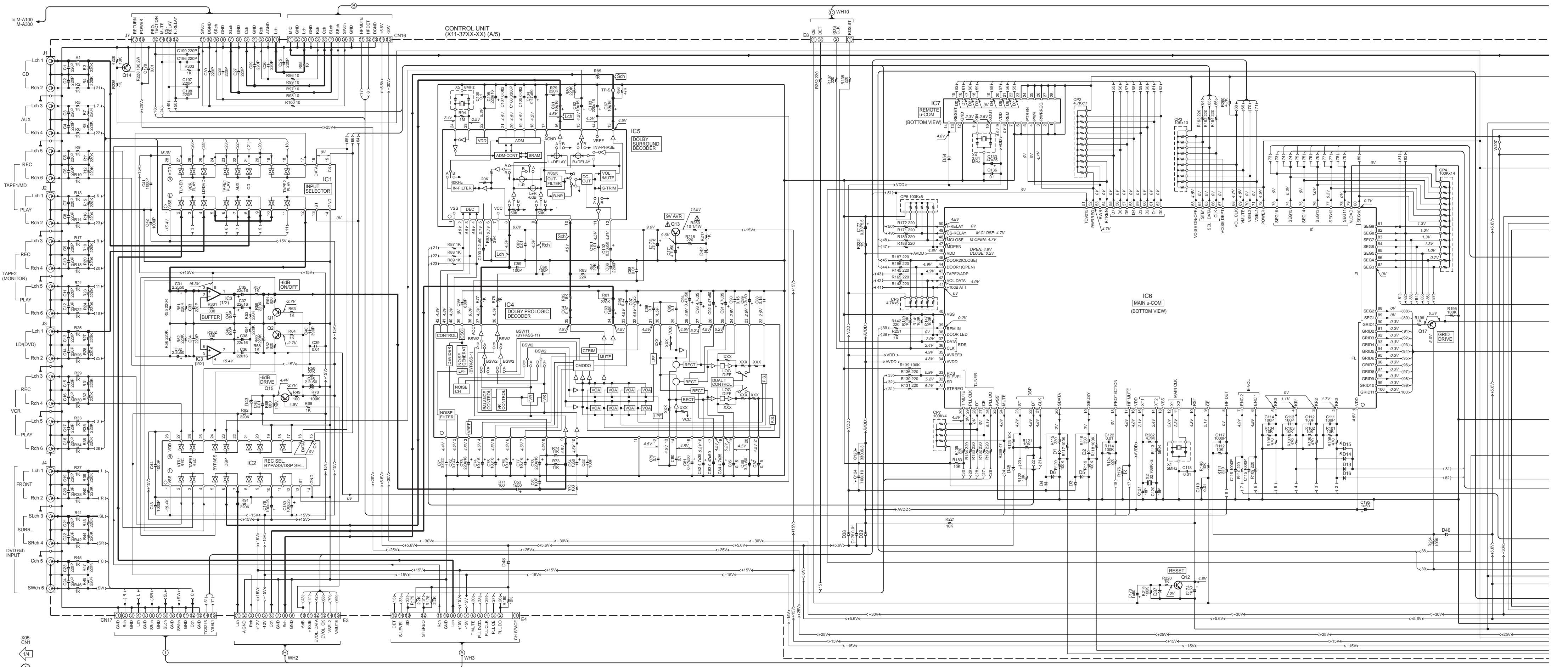
The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in ( ) is actual reading measured in the AM mode.

MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB



# C-V301/V351





**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements should be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

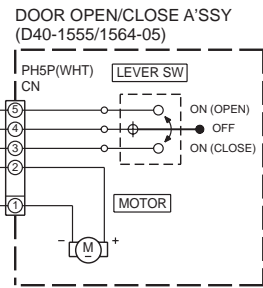
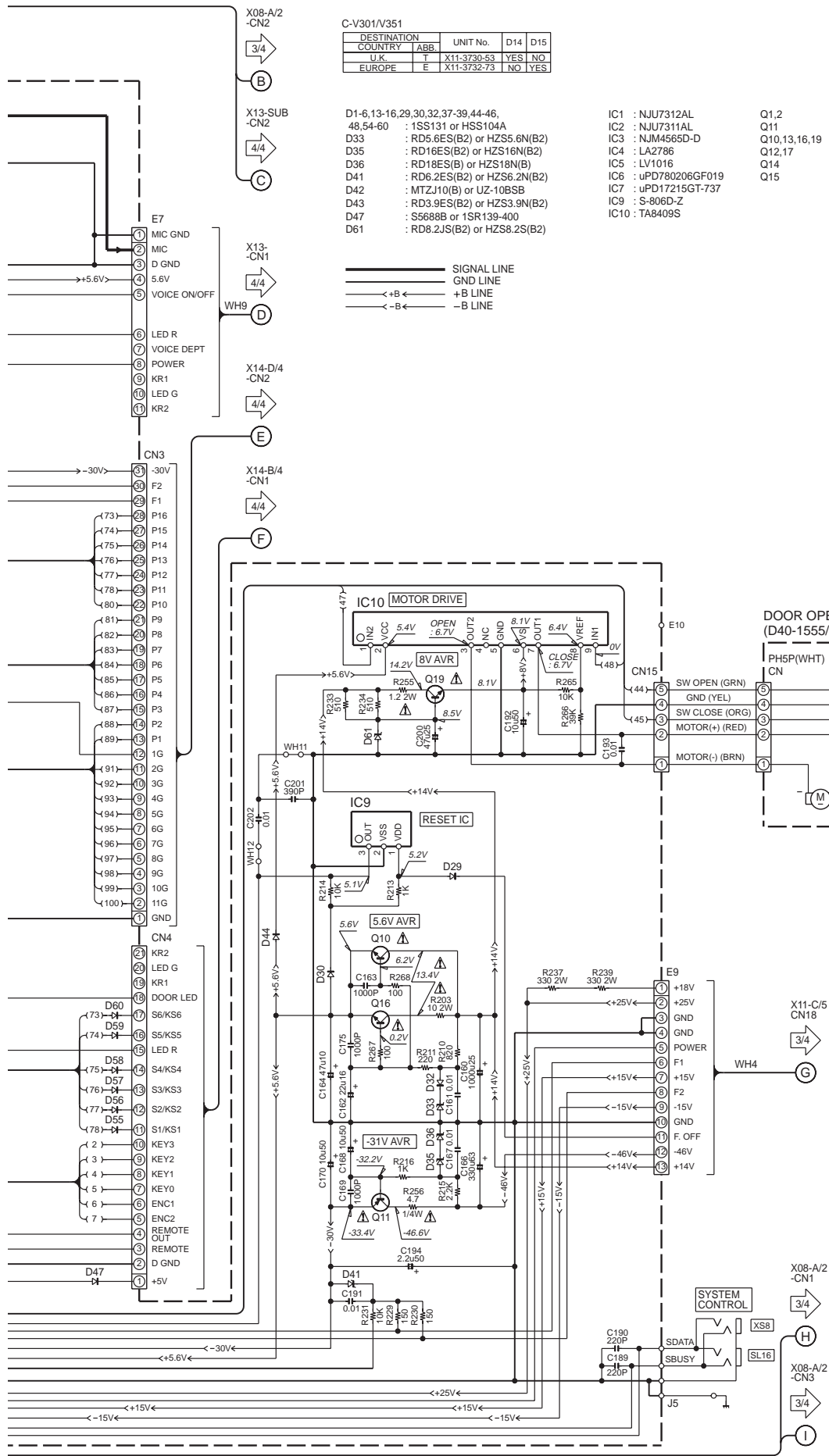
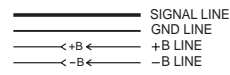
C-V301/V351

DESTINATION	COUNTRY	ABB.	UNIT No.	D14	D15
U.K.	T	X11-3730-53	YES	NO	
EUROPE	E	X11-3732-73	NO	YES	

- D1-6, 13-16, 29, 30, 32, 37-39, 44-46, 48, 54-60 : 1SS131 or HSS104A
- D33 : RD5.6ES(B2) or HZS5.6N(B2)
- D35 : RD16ES(B2) or HZS16N(B2)
- D36 : RD18ES(B) or HZS18N(B)
- D41 : RD6.2ES(B2) or HZS6.2N(B2)
- D42 : MTZJ10(B) or UZ-10BSB
- D43 : RD3.9ES(B2) or HZS3.9N(B2)
- D47 : S688B or 1SR139-400
- D61 : RD8.2JS(B2) or HZS8.2S(B2)

- IC1 : NJU7312AL
- IC2 : NJU7311AL
- IC3 : NJM4568D-D
- IC4 : LA2786
- IC5 : LV1016
- IC6 : uPD780206GF019
- IC7 : uPD17215GT-737
- IC9 : S-806D-Z
- IC10 : TA8409S

- Q1, 2 : 2SC2878(B)
- Q11 : 2SB1370(E,F) or 2SB1375
- Q10, 13, 16, 19 : 2SD2061
- Q12, 17 : 2SC2458(Y,GR) or 2SC3311A(Q,R)
- Q14 : 2SC2003(L,K)
- Q15 : 2SA1048(Y,GR) or 2SA1309A(Q,R)

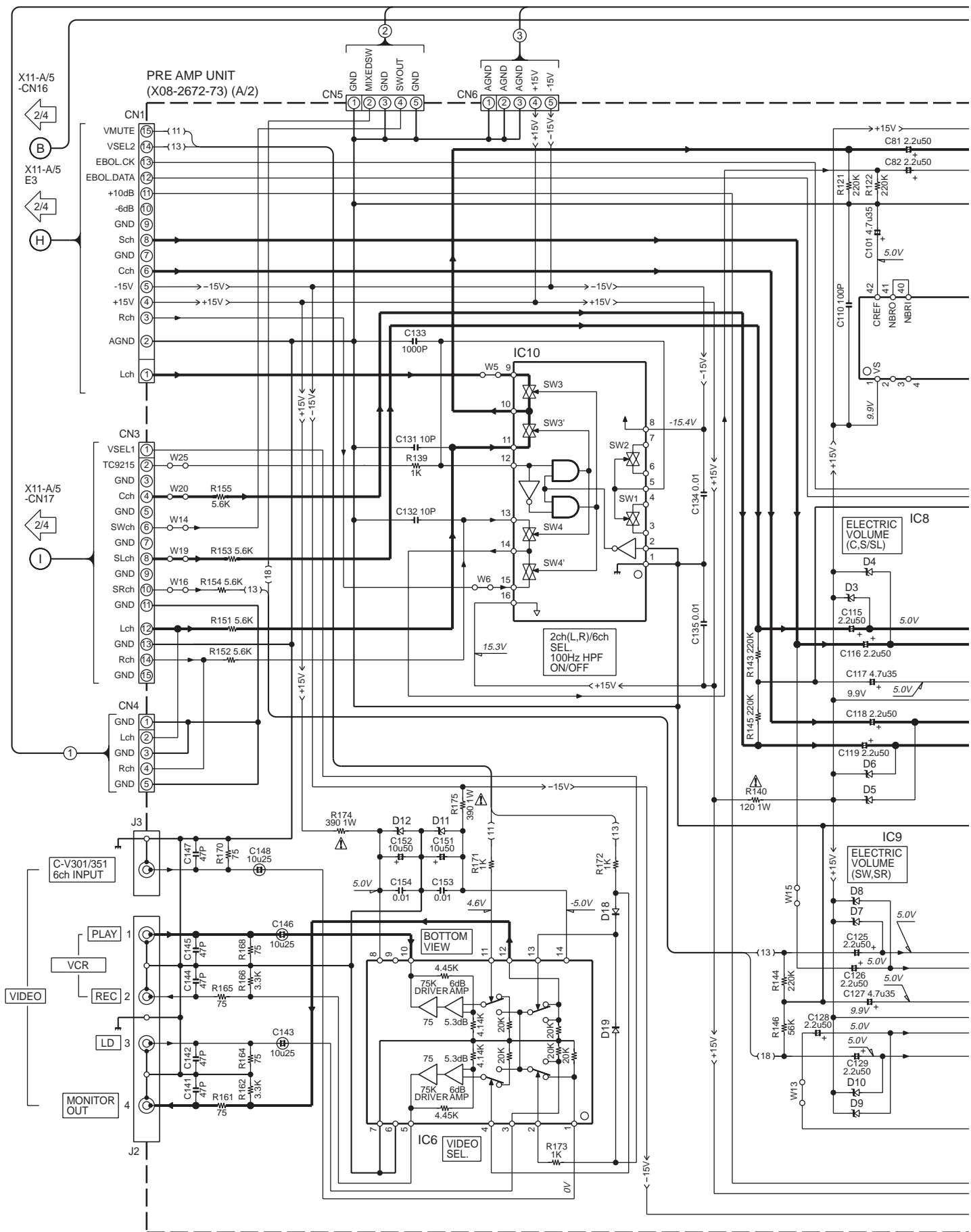


C-V301/V351 (2/4)

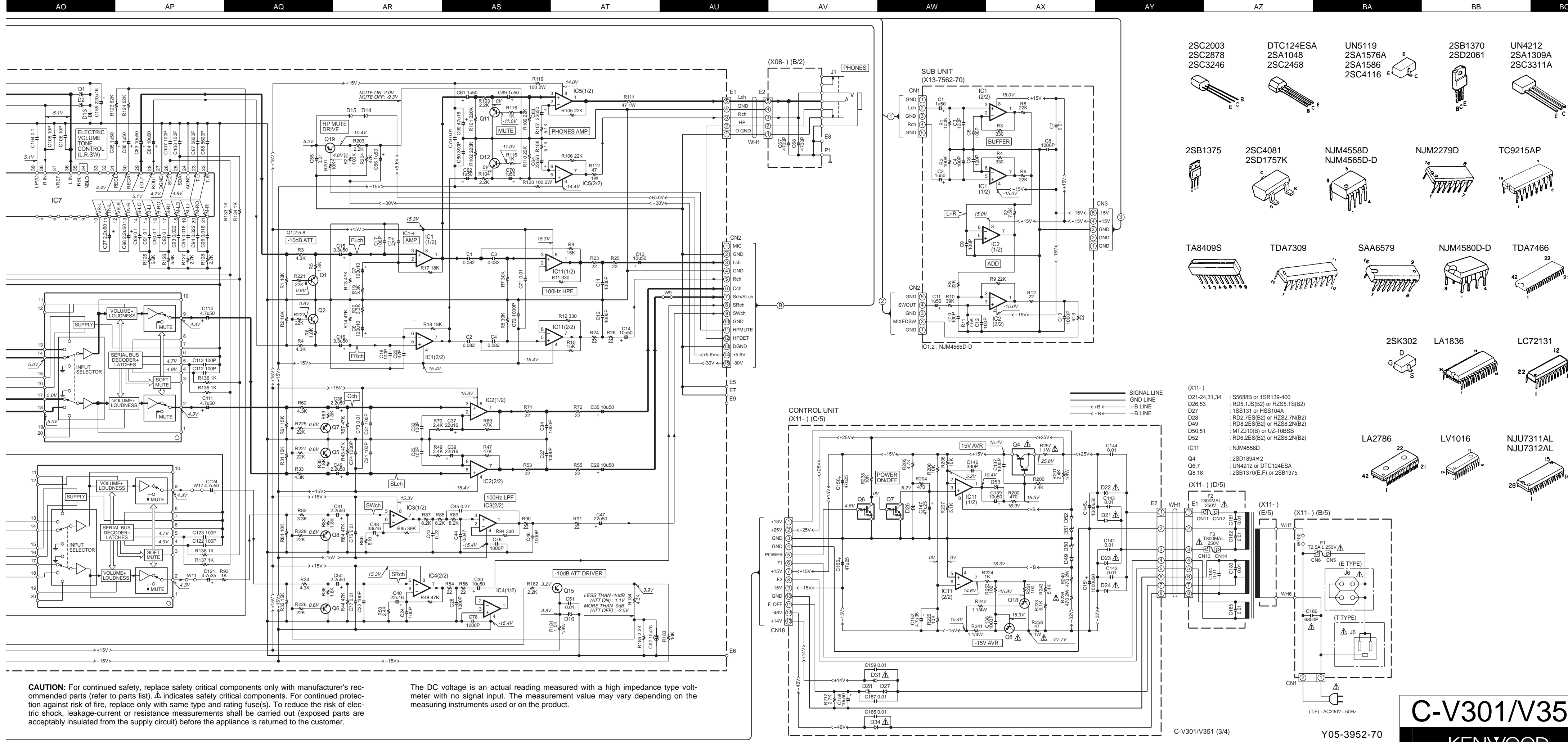
# C-V301/V351

Y05-3952-70

# KENWOOD



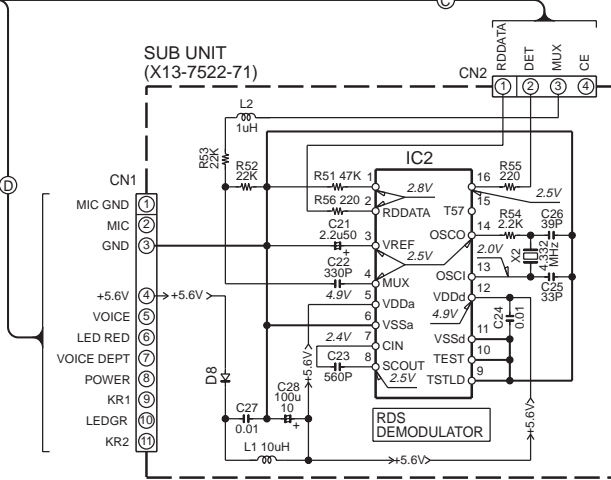
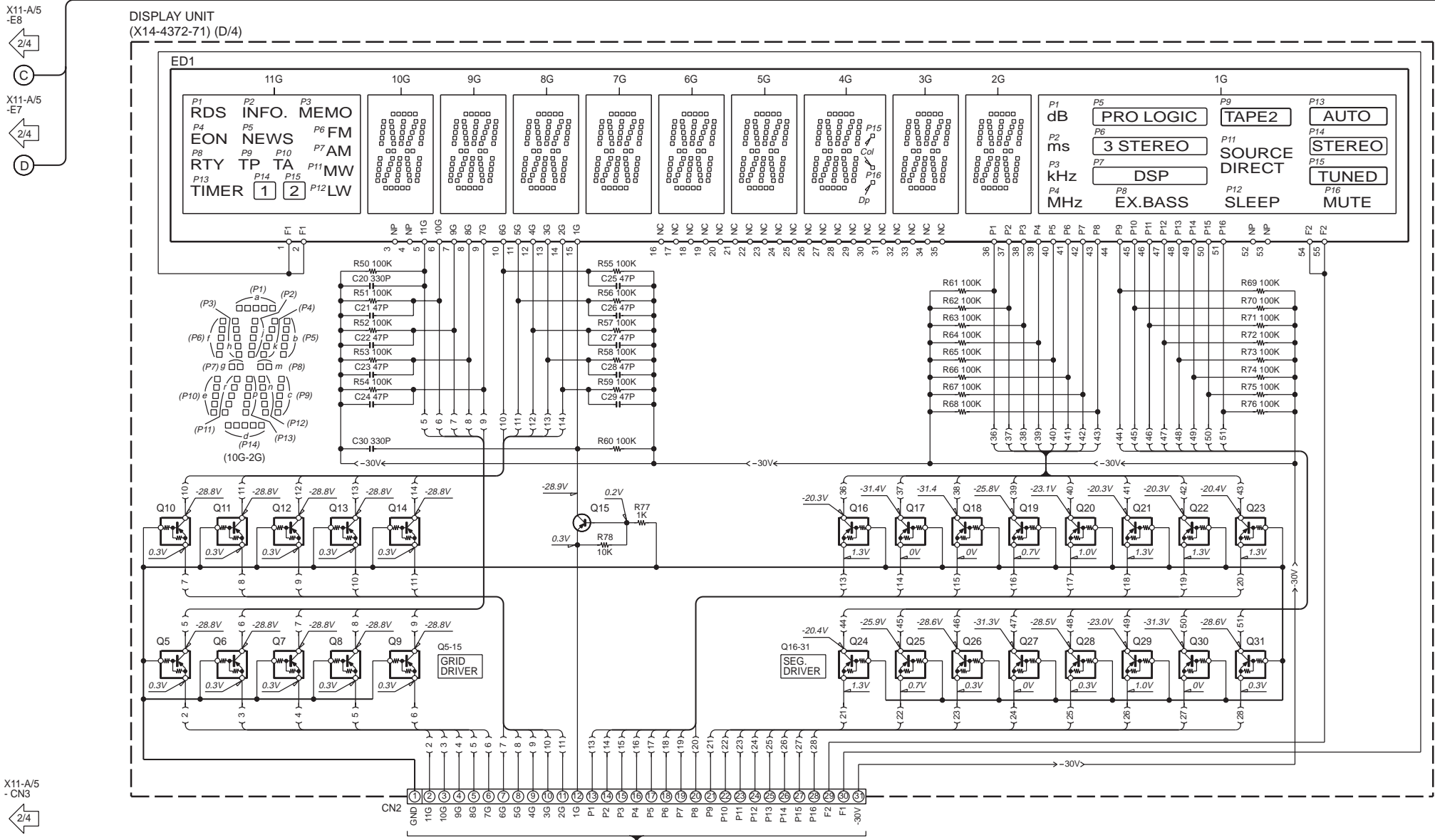
(X08-)	IC1,5,11	: NJM4580D-D	Q1,2,5-8,11,12	: 2SC2878(B)
	IC2-4	: NJM4565D-D	Q15,19	: 2SA1048(Y,GR) or 2SA1309A(Q,R)
	IC6	: NJM2279D		
	IC7	: TDA7466	D1-10	: RD8.2ES(B2) or HZS8.2N(B2)
	IC8,9	: TDA7309	D11,12	: RD5.1ES(B2) or HZS5.1N(B2)
	IC10	: TC9215AP	D13	: RD10ES(B2) or HZS10N(B2)
			D14,15,18,19	: 1SS131 or HSS104A
			D16	: RD3.9ES(B2) or HZS3.9N(B2)



**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). 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.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

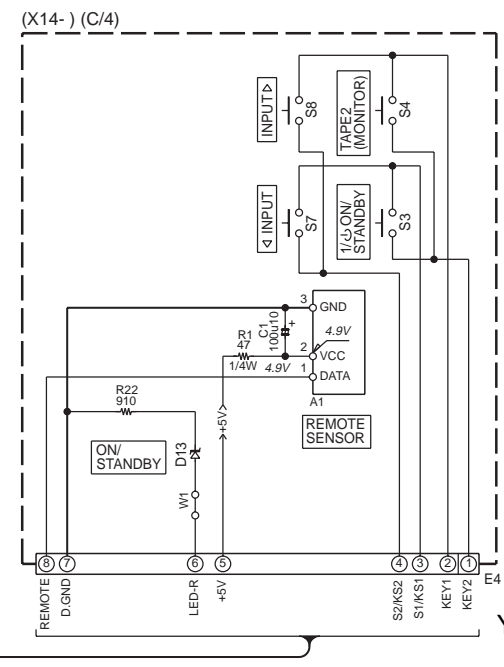
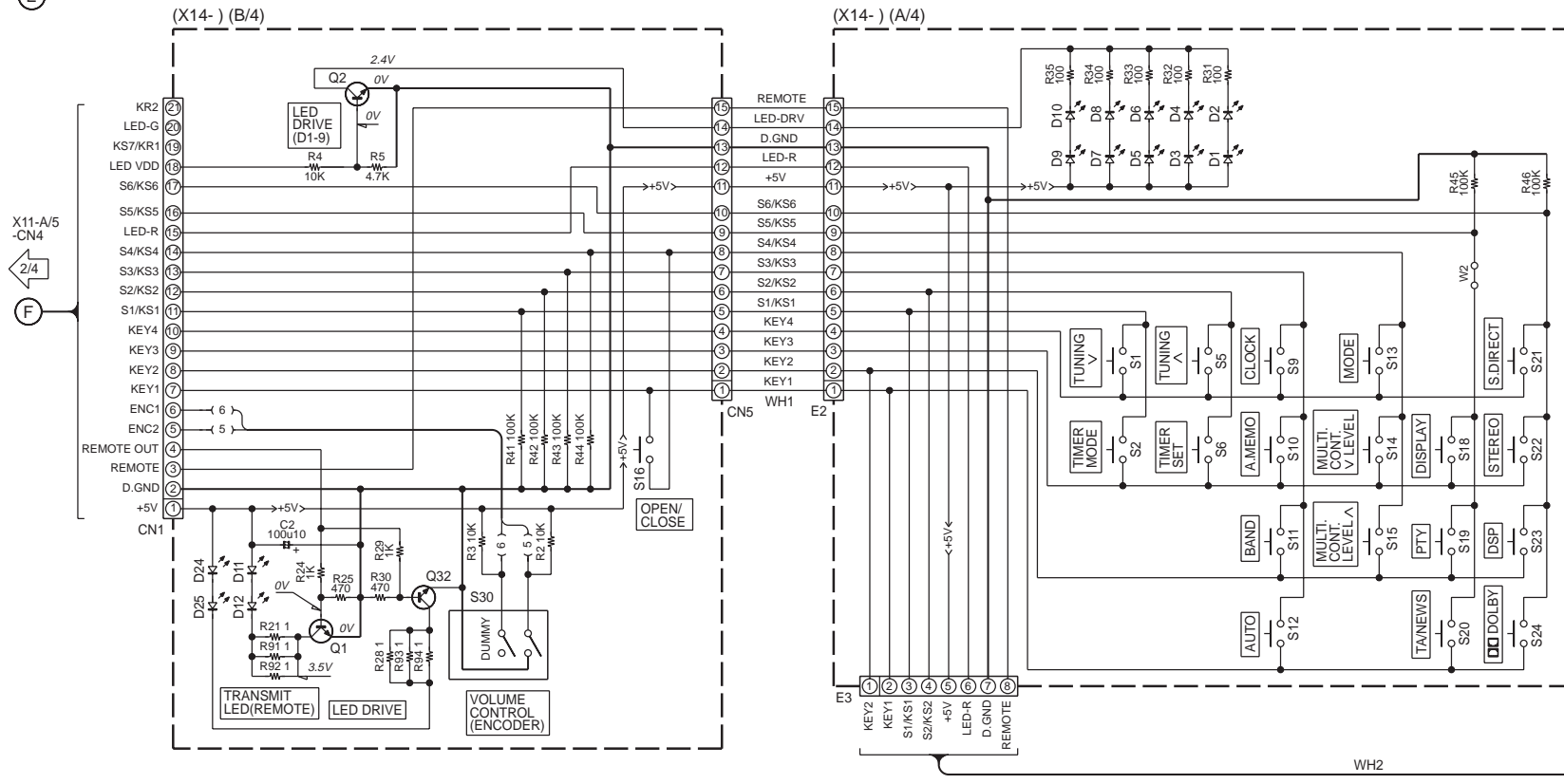
**C-V301/V351**  
**KENWOOD**



- (X13-)
- IC2 : SAA6579
  - D8 : 1SS131 or HSS104A
- (X14-)
- Q1,32 : 2SC3246(J,K)
  - Q2 : 2SC2003(L,K)
  - Q5-14,16-31 : UN5119 or DTA113ZUA
  - Q15 : 2SA1586(Y,GR) or 2SA1576A(R,S)
  - D1-10 : B30-2515-05
  - D11,12,24,25 : B30-2519-05
  - D13 : B30-2493-05
  - ED1 : 20U64100SA
  - A1 : W02-2598-05
- Legend:
- GND LINE
  - +B LINE
  - -B LINE

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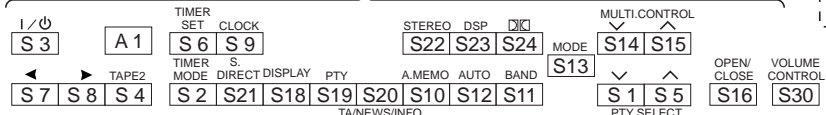
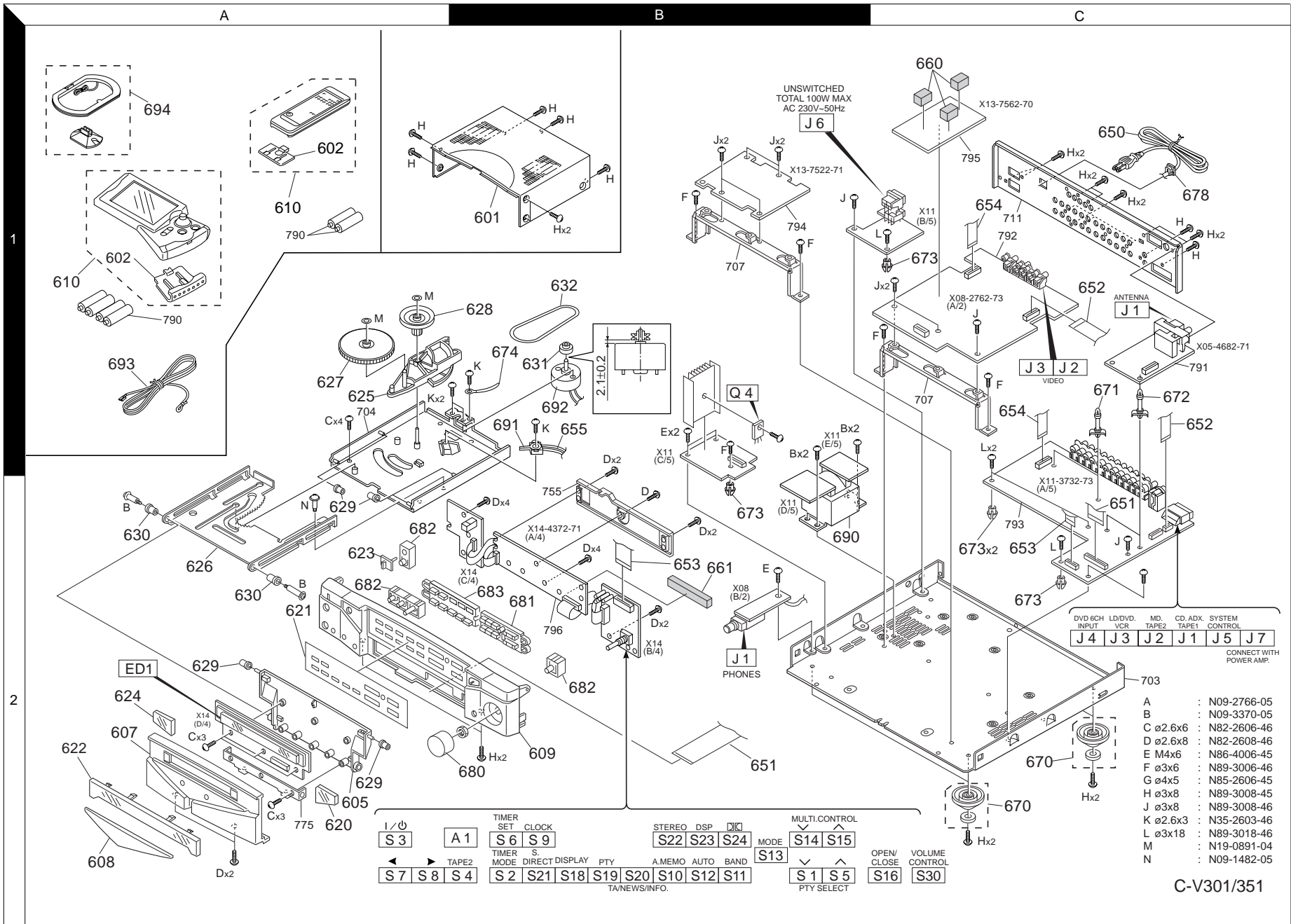
The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.



C-V301/V351  
Y05-3952-70  
KENWOOD

## EXPLODED VIEW (UNIT)

Parts with exploded numbers larger than 700 are not supplied.



\* 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.

①

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
<b>C-V301/V351</b>						
601	1B		A01-3431-01	METALLIC CABINET		
602	1A		A09-0378-08	BATTERY COVER	E1T2	
602	1A		A09-1115-08	BATTERY COVER	ET1	
605	2A		A46-0303-01	REAR COVER		
607	2A		A29-0861-11	PANEL		
608	2A	*	A21-3770-03	DRESSING PANEL	ET1	
608	2A		A21-3771-03	DRESSING PANEL	E1T2	
609	2B	*	A60-1696-11	PANEL		
610	1A		A70-1205-15	REMOTE ASSY GRC-151	ET1	
610	1A	*	A70-1306-05	REMOTE ASSY RC-S0506	E1T2	
620	2A		B10-2351-14	FRONT GLASS		
621	2A	*	B03-3849-03	DRESSING PLATE		
622	2A	*	B10-2349-12	FRONT GLASS		
623	2A		B12-0311-04	INDICATOR		
624	2A		B10-2350-14	FRONT GLASS		
-			B46-0310-03	WARRANTY CARD		
-			B58-0945-03	CAUTION CARD	T1T2	
-			B58-0965-13	CAUTION CARD (PL)	T1T2	
-			B58-0966-13	CAUTION CARD (PL)	EE1	
-		*	B60-4349-00	INSTRUCTION MANUAL(EN)	T1T2	
-		*	B60-4350-00	INSTRUCTION MANUAL(FR)	EE1	
-		*	B60-4351-00	INSTRUCTION MANUAL(NE)	EE1	
-		*	B60-4352-00	INSTRUCTION MANUAL(IT)	EE1	
-		*	B60-4353-00	INSTRUCTION MANUAL(GE)	EE1	
-		*	B60-4392-00	INSTRUCTION MANUAL(ES)	EE1	
625	1A		D10-3715-04	ARM ASSY		
626	2A		D10-3716-01	SLIDER		
627	1A		D13-1807-04	GEAR		
628	1B		D13-1808-03	GEAR		
629	2A		D14-0385-04	ROLLER		
630	2A		D14-0386-04	ROLLER		
631	1B		D15-0407-04	MOTOR PULLEY		
632	1B		D16-0715-03	BELT		
△ 650	1C		E30-2788-05	AC POWER CORD	EE1	
△ 650	1C		E30-2791-05	AC POWER CORD	T1T2	
651	2B,2C		E35-1773-05	FLAT CABLE		
652	1C		E35-1774-05	FLAT CABLE		
653	2B,2C		E35-1861-05	FLAT CABLE		
654	1C		E35-1781-05	FLAT CABLE		
655	1B		E35-1810-05	WIRING HARNESS		
660	1C		G11-2101-04	CUSHION		
661	2B		G11-2369-04	CUSHION		
-			G11-0153-04	SOFT TAPE (80X12X3)		
-			H10-7286-12	POLYSTYRENE FOAMED FIXTURE	EE1	
-		*	H10-7287-32	POLYSTYRENE FOAMED FIXTURE	EE1	
-		*	H10-7288-12	POLYSTYRENE FOAMED FIXTURE	T1T2	
-		*	H10-7289-32	POLYSTYRENE FOAMED FIXTURE	T1T2	
-		*	H11-0095-04	POLYSTYRENE FOAMED BOARD	T1T2	
-			H13-0086-04	CARTON BOARD	EE1	
-		*	H13-0288-04	CARTON BOARD	EE1	
-			H20-0568-04	PROTECTION COVER	EE1	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	EE1	

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia  
Y : PX(Far East, Hawaii) T : England E : Europe G : Germany V : China (Shanghai)  
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas △ indicates safety critical components.

\* New Parts  
Parts without **Parts No.** are not supplied.  
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Teile ohne **Parts No.** werden nicht geliefert.

②

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
-			H25-0651-04	PROTECTION BAG	T1T2	
-			H25-1516-04	PROTECTION BAG	T1T2	
-		*	H30-0100-04	ADHESIVE DOUBLE-COATED TAPE		
-		*	H50-3442-04	ITEM CARTON CASE	E	
-		*	H50-3443-04	ITEM CARTON CASE	T1	
-		*	H50-3444-04	ITEM CARTON CASE	E1	
-		*	H50-3445-04	ITEM CARTON CASE	T2	
670	2C		J02-1188-13	FOOT		
671	1C		J19-5917-05	UNIT HOLDER		
672	1C		J19-5919-05	UNIT HOLDER		
673	1C,2C		J19-3732-04	UNIT HOLDER		
674	1B		J19-5833-05	LEAD HOLDER		
△ 678	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0098-05	WIRE BAND		
680	2B		K29-6660-04	KNOB		
681	1B	*	K29-7591-02	KNOB		
682	2A,2B	*	K29-6665-02	KNOB		
683	2B	*	K29-7601-02	KNOB		
△ 690	2B		L07-2330-05	POWER TRANSFORMER		
691	1B		S64-0026-05	LEVER SWITCH		
692	1B		T42-0882-05	DC MOTOR		
693	1A		T90-0841-05	LEAD WIRE ANTENNA		
694	1A		T90-0833-05	LOOP ANTENNA		
<b>TUNER (X05-4680-51)</b>						
C1			CE04LW1C470M	ELECTRO	47UF	16WV
C2			CE04LW1H010M	ELECTRO	1.0UF	50WV
C3			CK73FB1H103K	CHIP C	0.010UF	K
C5 -10			CK73FB1H103K	CHIP C	0.010UF	K
C30			CK73EB1E473K	CHIP C	0.047UF	K
C31			CE04LW1C470M	ELECTRO	47UF	16WV
C32			CK73FB1H103K	CHIP C	0.010UF	K
C33			CE04LW1C100M	ELECTRO	10UF	16WV
C34			CK73FB1H103K	CHIP C	0.010UF	K
C35			CE04LW1C100M	ELECTRO	10UF	16WV
C36			CK73FB1E473K	CHIP C	0.047UF	K
C37			CK73FB1H103K	CHIP C	0.010UF	K
C38			C90-3217-05	ELECTRO	10UF	10WV
C40			C90-3253-05	ELECTRO	1.0UF	50WV
C41			C90-3251-05	ELECTRO	0.47UF	50WV
C42			C90-3240-05	ELECTRO	2.2UF	35WV
C43			CE04LW1HR47M	ELECTRO	0.47UF	50WV
C44			CK73FB1E473K	CHIP C	0.047UF	K
C45			CC73FCH1H220J	CHIP C	22PF	J
C46			CE04LW1A101M	ELECTRO	100UF	10WV
C47			CK73FB1H472K	CHIP C	4700PF	K
C48			CC73FSL1H101J	CHIP C	100PF	J
C49			CE04LW1H010M	ELECTRO	1.0UF	50WV
C50			CK73FB1H152K	CHIP C	1500PF	K
C51 ,52			C90-3217-05	ELECTRO	10UF	10WV
C53 ,54			CK73FB1H273K	CHIP C	0.027UF	K
C55 ,56			CE04LW1H2R2M	ELECTRO	2.2UF	50WV
C57 ,58			CK73FB1H822K	CHIP C	8200PF	K

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C59			CC73FSL1H101J	CHIP C 100PF J		
C60			CK73FB1E104K	CHIP C 0.10UF K		
C61			CK73FB1H103K	CHIP C 0.010UF K		
C62			CK73FB1H333K	CHIP C 0.033UF K	T1T2	
C63			CC73FCH1H090D	CHIP C 9.0PF D	T1T2	
C64			CK73FB1H333K	CHIP C 0.033UF K		
C66			CC73FCH1H060D	CHIP C 6.0PF D		
C67			CC73FCH1H220J	CHIP C 22PF J		
C68			CC73FSL1H020C	CHIP C 2.0PF C		
C70			CC73FSL1H101J	CHIP C 100PF J		
C81			CC73FCH1H220J	CHIP C 22PF J		
C82			CC73FCH1H270J	CHIP C 27PF J		
C84			CK73FB1H102K	CHIP C 1000PF K		
C85			CC73FSL1H101J	CHIP C 100PF J		
C86			CK73FB1H102K	CHIP C 1000PF K		
C87			CE04LW1C100M	ELECTRO 10UF 16WV		
C89			CE04LW1C470M	ELECTRO 47UF 16WV		
C90			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C91			CK73FB1H223K	CHIP C 0.022UF K		
C92			CC73FSL1H471J	CHIP C 470PF J		
C93			CK73FB1H103K	CHIP C 0.010UF K		
C96			CK73FB1H102K	CHIP C 1000PF K		
CN1			E40-4609-05	PIN ASSY		
CN2			E40-4871-05	PIN ASSY		
J1			E70-0052-05	LOCK TERMINAL BOARD		
CF1 ,2			L72-0536-05	CERAMIC FILTER		
L31			L30-0943-05	FM IFT		
L32			L30-0944-05	FM IFT		
L33			L30-0911-05	AM IFT		
L34			L79-1240-05	LC FILTER		
L35 ,36			L79-1239-05	LC FILTER		
L61			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L62			L39-1351-05	COMBINATION COIL	EE1	
L62			L39-1352-05	COMBINATION COIL	T1T2	
L63			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
L81			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
X31			L78-0637-05	RESONATOR (456KHZ)		
X81			L77-2159-05	CRYSTAL RESONATOR(7.2MHZ)		
R1			RD14NB2E221J	RD 220 J 1/4W		
R2			RK73FB2A221J	CHIP R 220 J 1/10W		
R3			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R4			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R5			RK73FB2A103J	CHIP R 10K J 1/10W		
R7			RK73FB2A221J	CHIP R 220 J 1/10W		
R8			RK73FB2A681J	CHIP R 680 J 1/10W		
R9			RK73FB2A470J	CHIP R 47 J 1/10W		
R10			RK73FB2A101J	CHIP R 100 J 1/10W		
R11			RK73FB2A331J	CHIP R 330 J 1/10W		
R12			RK73FB2A101J	CHIP R 100 J 1/10W		
R13			RK73FB2A681J	CHIP R 680 J 1/10W		
R14			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R15			RK73FB2A331J	CHIP R 330 J 1/10W		
R16			RK73FB2A100J	CHIP R 10 J 1/10W		

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R17			RK73FB2A331J	CHIP R 330 J 1/10W		
R18			RK73FB2A391J	CHIP R 390 J 1/10W		
R19			RK73FB2A681J	CHIP R 680 J 1/10W		
R20			RK73FB2A100J	CHIP R 10 J 1/10W		
R21			RK73FB2A101J	CHIP R 100 J 1/10W		
R22			RK73FB2A100J	CHIP R 10 J 1/10W		
R31			RS14KB3A151J	FL-PROOF RS 150 J 1W		
R32			RK73EB2B562J	CHIP R 5.6K J 1/8W		
R33			RK73FB2A302J	CHIP R 3.0K J 1/10W		
R34			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R35			RK73FB2A333J	CHIP R 33K J 1/10W		
R36			RK73FB2A393J	CHIP R 39K J 1/10W		
R37			RK73FB2A242J	CHIP R 2.4K J 1/10W		
R38			RK73FB2A333J	CHIP R 33K J 1/10W		
R39			RK73FB2A823J	CHIP R 82K J 1/10W		
R40			RK73FB2A202J	CHIP R 2.0K J 1/10W		
R41			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R42			RK73FB2A202J	CHIP R 2.0K J 1/10W		
R43 ,44			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R45 ,46			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R47 ,48			RK73FB2A392J	CHIP R 3.9K J 1/10W		
R49			RK73FB2A473J	CHIP R 47K J 1/10W		
R51			RK73FB2A392J	CHIP R 3.9K J 1/10W		
R52			RK73FB2A104J	CHIP R 100K J 1/10W		
R53			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R55			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R56 ,57			RK73FB2A101J	CHIP R 100 J 1/10W		
R59			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R61			RK73FB2A223J	CHIP R 22K J 1/10W	T1T2	
R62			RK73FB2A105J	CHIP R 1.0M J 1/10W	T1T2	
R63			RK73FB2A473J	CHIP R 47K J 1/10W	T1T2	
R64			RK73FB2A103J	CHIP R 10K J 1/10W	T1T2	
R65			RK73FB2A153J	CHIP R 15K J 1/10W	T1T2	
R66			RK73FB2A152J	CHIP R 1.5K J 1/10W	T1T2	
R67			RK73FB2A104J	CHIP R 100K J 1/10W		
R68			RK73FB2A222J	CHIP R 2.2K J 1/10W	T1T2	
R69			RK73FB2A103J	CHIP R 10K J 1/10W		
R70			RK73FB2A105J	CHIP R 1.0M J 1/10W	T1T2	
R80			RK73EB2B102J	CHIP R 1.0K J 1/8W		
R81 -83			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R84			RK73FB2A103J	CHIP R 10K J 1/10W		
R85 -88			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R89			RD14NB2E101J	RD 100 J 1/4W		
R90			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R91			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R92			RK73FB2A123J	CHIP R 12K J 1/10W		
R93			RK73FB2A122J	CHIP R 1.2K J 1/10W		
R94			RD14NB2E561J	RD 560 J 1/4W		
R101,102			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R103			RK73FB2A821J	CHIP R 820 J 1/10W		
R104			RK73FB2A473J	CHIP R 47K J 1/10W		
R105			RK73FB2A822J	CHIP R 8.2K J 1/10W		
W51 -55			R92-0670-05	CHIP R 0 OHM	EE1	
W53			R92-0670-05	CHIP R 0 OHM	T1T2	
W56 -58			R92-0679-05	CHIP R 0 OHM	T1T2	

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W57 ,58 W59 W61 W62 ,64 W66 ,67			R92-0679-05 R92-0670-05 R92-0670-05 R92-0679-05 R92-0679-05	CHIP R CHIP R CHIP R CHIP R CHIP R	0 OHM 0 OHM 0 OHM 0 OHM 0 OHM	EE1
W71 W75 W75 ,76 W81 W83			R92-0670-05 R92-0670-05 R92-0670-05 R92-0679-05 R92-0679-05	CHIP R CHIP R CHIP R CHIP R CHIP R	0 OHM 0 OHM 0 OHM 0 OHM 0 OHM	EE1 T1T2
W85			R92-0670-05	CHIP R	0 OHM	
D1 ,2 D1 ,2 D31 D31 D32			HSS104 1SS133 HZS8.2N(B2) RD8.2ES(B2) HSS104	DIODE DIODE ZENER DIODE ZENER DIODE DIODE		
D32 D61 ,62 D61 ,62 D81 D81			1SS133 HSS104 1SS133 HZS5.1N(B2) RD5.1ES(B2)	DIODE DIODE DIODE ZENER DIODE ZENER DIODE		
D101 D101 D102 D102 IC1			HZS3.3N(B2) RD3.3ES(B2) HZS2.7N(B2) RD2.7ES(B2) LA1836	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE ANALOGUE IC		
IC2 Q1 ,2 Q1 ,2 Q3 Q3			LC72131 2SC4081(R,S) 2SC4116(Y,GR) 2SA1576A(R,S) 2SA1586(Y,GR)	MOS-IC TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q4 Q4 Q31 -34 Q31 -34 Q61 ,62			2SC4081(R,S) 2SC4116(Y,GR) 2SC4081(R,S) 2SC4116(Y,GR) 2SC4081(R,S)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		T1T2
Q61 ,62 Q63 Q64 Q64 Q65			2SC4116(Y,GR) 2SC2878(B) 2SA1576A(R,S) 2SA1586(Y,GR) 2SK302(Y,GR)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR FET		T1T2 T1T2 T1T2 T1T2 T1T2
Q81 Q81 Q101,102 Q103 Q103			2SA1576A(R,S) 2SA1586(Y,GR) 2SD1757K 2SA1576A(R,S) 2SA1586(Y,GR)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
A1			W02-2584-05	FM FRONT-END ASSY		
<b>PREAMP (X08-2762-73)</b>						
C1 -4 C7 ,8 C11 ,12 C13 ,14 C15 ,16			CQ93FMG1H823J CE04KW1A101M CK45FB1H102K CE04KW1H100M CE04KW1H3R3M	MYLAR ELECTRO CERAMIC ELECTRO ELECTRO	0.082UF 100UF 1000PF 10UF 3.3UF	J 10WV K 50WV 50WV

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C17 ,18 C19 ,20 C21 -24 C27 ,28 C29 ,30			CC45FSL1H101J CC45FSL1H470J CC45FSL1H101J CK45FB1H102K CE04KW1H100M	CERAMIC CERAMIC CERAMIC CERAMIC ELECTRO	100PF 47PF 100PF 1000PF 10UF	J J J K 50WV
C31 ,32 C34 C35 C36 C37			CC45FSL1H101J CK45FB1H102K CE04KW1H100M CE04KW1H2R2M CE04KW1C220M	CERAMIC CERAMIC ELECTRO ELECTRO ELECTRO	100PF 1000PF 10UF 2.2UF 22UF	J K 50WV 50WV 16WV
C39 ,40 C41 C43 C44 C45			CE04KW1C220M CE04KW1H2R2M CF92FV1H224J CQ93FMG1H473J CF92FV1H274J	ELECTRO ELECTRO MF-C MYLAR MF-C	22UF 2.2UF 0.22UF 0.047UF 0.27UF	16WV 50WV J J J
C46 C47 C48 C49 ,50 C51			CK45FB1H102K CE04KW1H220M CE04KW1C330M CE04KW1H2R2M CK45FF1H103Z	CERAMIC ELECTRO ELECTRO ELECTRO CERAMIC	1000PF 22UF 33UF 2.2UF 0.010UF	K 50WV 16WV 50WV Z
C52 C55 C56 C61 ,62 C63 ,64			CE04HW1E100M CK45FF1H103Z CE04KW1H010M CE04KW1H010M CE04KW1H220M	NP-ELEC CERAMIC ELECTRO ELECTRO ELECTRO	10UF 0.010UF 1.0UF 1.0UF 22UF	25WV Z 50WV 50WV 50WV
C67 ,68 C69 ,70 C71 C72 C73			CK45FF1H472Z CE04KW1H010M CQ93FMG1H103J CQ93FMG1H102J CQ93FMG1H103J	CERAMIC ELECTRO MYLAR MYLAR MYLAR	4700PF 1.0UF 0.010UF 1000PF 0.010UF	Z 50WV J J J
C74 C75 C76 C77 C78			CQ93FMG1H102J CQ93FMG1H103J CQ93FMG1H102J CQ93FMG1H103J CQ93FMG1H102J	MYLAR MYLAR MYLAR MYLAR MYLAR	1000PF 0.010UF 1000PF 0.010UF 1000PF	J J J J J
C79 C80 C81 ,82 C83 ,84 C85 ,86			CQ93FMG1H103J CQ93FMG1H391K CE04KW1H2R2M CE04KW1H100M CE04KW1H010M	MYLAR MYLAR ELECTRO ELECTRO ELECTRO	0.010UF 390PF 2.2UF 10UF 1.0UF	J K 50WV 50WV 50WV
C87 ,88 C89 -92 C93 ,94 C95 ,96 C97 ,98			CQ93FMG1H562J CF92FV1H104J CQ93FMG1H223J CQ93FMG1H183J CE04KW1H2R2M	MYLAR MF-C MYLAR MYLAR ELECTRO	5600PF 0.10UF 0.022UF 0.018UF 2.2UF	J J J J 50WV
C99 C101 C104 C105,106 C107,108			CE04KW1C470M CE04KW1V4R7M CF92FV1H104J CC45FSL1H100D CC45FSL1H101J	ELECTRO ELECTRO MF-C CERAMIC CERAMIC	47UF 4.7UF 0.10UF 10PF 100PF	16WV 35WV J D J
C110 C111 C112,113 C114 C115,116			CC45FSL1H101J CE04KW1H4R7M CC45FSL1H101J CE04KW1H4R7M CE04KW1H2R2M	CERAMIC ELECTRO CERAMIC ELECTRO ELECTRO	100PF 4.7UF 100PF 4.7UF 2.2UF	J 50WV J 50WV 50WV

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C117			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C118,119			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C121			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C122,123			CC45FSL1H101J	CERAMIC 100PF J		
C124			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C125,126			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C127			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C128,129			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C131,132			CC45FSL1H100D	CERAMIC 10PF D		
C133			CK45FB1H102K	CERAMIC 1000PF K		
C134,135			CK45FF1H103Z	CERAMIC 0.010UF Z		
C141,142			CC45FSL1H470J	CERAMIC 47PF J		
C143			CE04HW1E100M	NP-ELEC 10UF 25WV		
C144,145			CC45FSL1H470J	CERAMIC 47PF J		
C146			CE04HW1E100M	NP-ELEC 10UF 25WV		
C147			CC45FSL1H470J	CERAMIC 47PF J		
C148			CE04HW1E100M	NP-ELEC 10UF 25WV		
C151,152			CE04KW1H100M	ELECTRO 10UF 50WV		
C153,154			CK45FF1H103Z	CERAMIC 0.010UF Z		
C155			CE04KW1C221M	ELECTRO 220UF 16WV		
CN1			E40-4609-05	PIN ASSY		
CN2 ,3			E40-4902-05	FLAT CABLE CONNECTOR		
CN4 -6			E40-8179-05	PIN ASSY		
J1			E11-0280-05	PHONE JACK		
J2			E63-0163-05	PIN JACK		
J3			E63-1005-05	PIN JACK		
E5 -9			J11-0809-05	WIRE CLAMPER		
R111,112			RS14KB3A470J	FL-PROOF RS 47 J 1W		
R119,120			RS14KB3D101J	FL-PROOF RS 100 J 2W		
R140			RS14KB3A121J	FL-PROOF RS 120 J 1W		
R174,175			RS14KB3A391J	FL-PROOF RS 390 J 1W		
R181			RD14NB2E152J	RD 1.5K J 1/4W		
D1 -10			HZS8.2N(B2)	ZENER DIODE		
D1 -10			RD8.2ES(B2)	ZENER DIODE		
D11 ,12			HZS5.1N(B2)	ZENER DIODE		
D11 ,12			RD5.1ES(B2)	ZENER DIODE		
D13			HZS10N(B2)	ZENER DIODE		
D13			RD10ES(B2)	ZENER DIODE		
D14 ,15			HSS104A	DIODE		
D14 ,15			1SS131	DIODE		
D16			HZS3.9N(B2)	ZENER DIODE		
D16			RD3.9ES(B2)	ZENER DIODE		
D18 ,19			HSS104A	DIODE		
D18 ,19			1SS131	DIODE		
IC1			NJM4580D-D	IC(OP AMP X2)		
IC2 -4			NJM4565D-D	IC(OP AMP X2)		
IC5			NJM4580D-D	IC(OP AMP X2)		
IC6			NJM2279D	ANALOGUE IC		
IC7			TDA7466	ANALOGUE IC		
IC8 ,9			TDA7309	ANALOGUE IC		
IC10			TC9215AP	ANALOGUE IC		
IC11			NJM4580D-D	IC(OP AMP X2)		
Q1 ,2			2SC2878(B)	TRANSISTOR		

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
Q5 -8			2SC2878(B)	TRANSISTOR		
Q11 ,12			2SC2878(B)	TRANSISTOR		
Q15			2SA1048(Y,GR)	TRANSISTOR		
Q15			2SA1309A(Q,R)	TRANSISTOR		
Q19			2SA1048(Y,GR)	TRANSISTOR		
Q19			2SA1309A(Q,R)	TRANSISTOR		
<b>CONTROL (X11-3730-53)</b>						
C1 -30			CC45FSL1H221J	CERAMIC 220PF J		
C31 ,32			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C33 ,34			CC45FSL1H221J	CERAMIC 220PF J		
C35 ,36			C90-3748-05	ELECTRO 22UF 16WV		
C37 ,38			CE04KW1C220M	ELECTRO 22UF 16WV		
C39			CK45FF1H103Z	CERAMIC 0.010UF Z		
C40			CK45FB1H391K	CERAMIC 390PF K		
C41 -44			CQ93FMG1H102J	MYLAR 1000PF J		
C45			CK45FF1H103Z	CERAMIC 0.010UF Z		
C46			CE04HW1H2R2M	NP-ELEC 2.2UF 50WV		
C47 ,48			CC45FSL1H101J	CERAMIC 100PF J		
C51 ,52			CC45FSL1H101J	CERAMIC 100PF J		
C53 ,54			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C59 ,60			CC45FSL1H101J	CERAMIC 100PF J		
C61 ,62			CE04KW1C100M	ELECTRO 10UF 16WV		
C63			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C64			CF92FV1H474J	MF-C 0.47UF J		
C66			CQ93FMG1H222J	MYLAR 2200PF J		
C67			CE04KW1C100M	ELECTRO 10UF 16WV		
C68 ,69			CK45FF1H103Z	CERAMIC 0.010UF Z		
C71			CQ93FMG1H223J	MYLAR 0.022UF J		
C72			CQ93FMG1H473J	MYLAR 0.047UF J		
C73			CE04KW1C221M	ELECTRO 220UF 16WV		
C74 -77			CE04KW1C100M	ELECTRO 10UF 16WV		
C78			CE04KW1C221M	ELECTRO 220UF 16WV		
C79 ,80			CQ93FMG1H104J	MYLAR 0.10UF J		
C81			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C82			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C83			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C84			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C85			CF92FV1H154J	MF-C 0.15UF J		
C86			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C87 ,88			CF92FV1H154J	MF-C 0.15UF J		
C89			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C90			CF92FV1H154J	MF-C 0.15UF J		
C91			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C92			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C93			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C94			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C95 ,96			CQ93FMG1H104J	MYLAR 0.10UF J		
C97			CE04KW1E470M	ELECTRO 47UF 25WV		
C98			CF92FV1H474J	MF-C 0.47UF J		
C99			CQ93FMG1H681J	MYLAR 680PF J		
C100			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C101			CQ93FMG1H103J	MYLAR 0.010UF J		
C102			CE04KW1HR33M	ELECTRO 0.33UF 50WV		
C103			CE04KW1C221M	ELECTRO 220UF 16WV		

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C104			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C105			CQ93FMG1H823J	MYLAR 0.082UF J		
C106			CQ93FMG1H332J	MYLAR 3300PF J		
C107			CQ93FMG1H823J	MYLAR 0.082UF J		
C108			CE04KW1C221M	ELECTRO 220UF 16WV		
C109			CQ93FMG1H104J	MYLAR 0.10UF J		
C111-114			CC45FSL1H101J	CERAMIC 100PF J		
C115-117			CK45FB1H102K	CERAMIC 1000PF K		
C118,119			CK45FF1H103Z	CERAMIC 0.010UF Z		
C120,121			CC45FCH1H180J	CERAMIC 18PF J		
C122			CK45FF1H103Z	CERAMIC 0.010UF Z		
C123			CE04KW0J331M	ELECTRO 330UF 6.3WV		
C124			CE04KW1A101M	ELECTRO 100UF 10WV		
C133			CE04KW1E470M	ELECTRO 47UF 25WV		
C136			CQ93FMG1H104J	MYLAR 0.10UF J		
C137,138			CK45FB1H102K	CERAMIC 1000PF K		
C139			CE04KW1H100M	ELECTRO 10UF 50WV		
C141-144			CK45FF1H103Z	CERAMIC 0.010UF Z		
C145			CE04KW1H102M	ELECTRO 1000UF 50WV		
C146			CK45FB1H391K	CERAMIC 390PF K		
C147			CE04KW1E470M	ELECTRO 47UF 25WV		
C150			CE04KW1E470M	ELECTRO 47UF 25WV		
C151			CE04KW1H102M	ELECTRO 1000UF 50WV		
C152			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C156			CE04KW1E470M	ELECTRO 47UF 25WV		
C157			CK45FF1H103Z	CERAMIC 0.010UF Z		
C158			CE04KW1H100M	ELECTRO 10UF 50WV		
C159			CK45FF1H103Z	CERAMIC 0.010UF Z		
C160			CE04KW1E102M	ELECTRO 1000UF 25WV		
C161			CK45FF1H103Z	CERAMIC 0.010UF Z		
C162			CE04KW1C220M	ELECTRO 22UF 16WV		
C163			CK45FB1H102K	CERAMIC 1000PF K		
C164			CE04KW1A470M	ELECTRO 47UF 10WV		
C165			CK45FF1H103Z	CERAMIC 0.010UF Z		
C166			CE04KW1J331M	ELECTRO 330UF 63WV		
C167			CK45FF1H103Z	CERAMIC 0.010UF Z		
C168			CE04KW1H100M	ELECTRO 10UF 50WV		
C169			CK45FB1H102K	CERAMIC 1000PF K		
C170			CE04KW1H100M	ELECTRO 10UF 50WV		
C171			C90-3747-05	ELECTRO 4.7UF 50WV		
C172			C90-3749-05	ELECTRO 47UF 16WV		
C173,174			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C175			CK45FB1H102K	CERAMIC 1000PF K		
C176			CK45FF1H103Z	CERAMIC 0.010UF Z		
C177			C90-3623-05	BACKUP 0.33F 5.5V		
C178			CK45FF1H103Z	CERAMIC 0.010UF Z		
C179,180			CE04KW1E101M	ELECTRO 100UF 25WV		
C181-185			CK45FF1H103Z	CERAMIC 0.010UF Z		
C186			C91-1488-05	MF 6800PF 250VAC		
C189,190			CC45FSL1H221J	CERAMIC 220PF J		
C191			CK45FF1H103Z	CERAMIC 0.010UF Z		
C192			CE04KW1H100M	ELECTRO 10UF 50WV		
C193			CK45FF1H103Z	CERAMIC 0.010UF Z		
C194			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C195			CE04KW1H010M	ELECTRO 1.0UF 50WV		

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C196-199			CC45FSL1H221J	CERAMIC 220PF J		
C200			CE04KW1E470M	ELECTRO 47UF 25WV		
C201			CK45FB1H391K	CERAMIC 390PF K		
C202			CK45FF1H103Z	CERAMIC 0.010UF Z		
CN1			E40-8126-05	PIN ASSY		
CN3			E40-4918-05	FLAT CABLE CONNECTOR		
CN4			E40-4908-05	FLAT CABLE CONNECTOR		
CN15			E40-3249-05	PIN ASSY		
CN16,17			E40-4902-05	FLAT CABLE CONNECTOR		
CN18			E40-4607-05	PIN ASSY		
J1 -3			E63-0139-15	PIN JACK		
J4			E63-1084-05	PIN JACK		
J5			E11-0293-05	MINIATURE PHONE JACK(2P)		
Δ J6			E03-0149-05	AC OUTLET		EE1
Δ J6			E03-0310-05	AC OUTLET		T1T2
J7			E58-0018-05	RECTANGULAR RECEPTACLE		
Δ F1			F05-2525-05	FUSE (SEMKO) (250V T2.5AL)		
Δ F2 ,3			F05-8013-05	FUSE (SEMKO) (250V T800MAL)		
CN5 ,6			J13-0075-05	FUSE CLIP		
CN5 ,6			J13-0092-05	FUSE CLIP		
CN11-14			J13-0075-05	FUSE CLIP		
CN11-14			J13-0092-05	FUSE CLIP		
E10			J11-0808-05	WIRE CLAMPER		
X1			L78-0284-05	RESONATOR (5MHZ)		
X2			L77-2173-05	CRYSTAL RESONATOR(32.768KHZ)		
X4			L78-0674-05	RESONATOR (3.64MHZ)		
X5			L78-0290-05	RESONATOR (8MHZ)		
CP2			R90-0860-05	MULTI-COMP 4.7K X1 1		
CP3			R90-0812-05	MULTI-COMP 10KX10 J 1/6W		
CP4			R90-0864-05	MULTI-COMP 100KX14		
CP5			R90-0892-05	MULTI-COMP 4.7KX5		
CP6			R90-0855-05	MULTI-COMP 100KX5 J		
CP7			R90-0482-05	MULTI-COMP 100KX4 J 1/6W		
R68			RD14NB2E681J	RD 680 J 1/4W		
Δ R203			RS14KB3D100J	FL-PROOF RS 10 J 2W		
R228			RS14KB3D181J	FL-PROOF RS 180 J 2W		
Δ R236			RS14KB3D471J	FL-PROOF RS 470 J 2W		
Δ R237			RS14KB3D331J	FL-PROOF RS 330 J 2W		
R239			RS14KB3D331J	FL-PROOF RS 330 J 2W		
R240			RS14KB3D471J	FL-PROOF RS 470 J 2W		
R241,242			RD14NB2E1R0J	RD 1 J 1/4W		
Δ R255			RS14KB3D1R2J	FL-PROOF RS 1.2 J 2W		
Δ R256			RD14NB2E4R7J	RD 4.7 J 1/4W		
Δ R257			RS14KB3A1R0J	FL-PROOF RS 1 J 1W		
Δ R258			RS14KB3A470J	FL-PROOF RS 47 J 1W		
Δ R259			RD14NB2E100J	RD 10 J 1/4W		
D1 -6			HSS104A	DIODE		
D1 -6			1SS131	DIODE		
D13			HSS104A	DIODE		EE1
D13			1SS131	DIODE		EE1
D13 ,14			HSS104A	DIODE		T1T2
D13 ,14			1SS131	DIODE		T1T2
D15 ,16			HSS104A	DIODE		EE1

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PARTS LIST

C-V/301/V/351

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D15 ,16			1SS131	DIODE	EE1	
D16			HSS104A	DIODE	T1T2	
D16			1SS131	DIODE	T1T2	
Δ D21 -24			S5688B	DIODE		
Δ D21 -24			1SR139-400	DIODE		
D26			HZS5.1S(B2)	ZENER DIODE		
D26			RD5.1JS(B2)	ZENER DIODE		
D27			HSS104A	DIODE		
D27			1SS131	DIODE		
D28			HZS2.7N(B2)	ZENER DIODE		
D28			RD2.7ES(B2)	ZENER DIODE		
Δ D29 ,30			HSS104A	DIODE		
Δ D29 ,30			1SS131	DIODE		
Δ D31			S5688B	DIODE		
Δ D31			1SR139-400	DIODE		
D32			HSS104A	DIODE		
D32			1SS131	DIODE		
D33			HZS5.6N(B2)	ZENER DIODE		
Δ D33			RD5.6ES(B2)	ZENER DIODE		
Δ D34			S5688B	DIODE		
Δ D34			1SR139-400	DIODE		
D35			HZS16N(B2)	ZENER DIODE		
D35			RD16ES(B2)	ZENER DIODE		
D36			HZS18N(B)	ZENER DIODE		
D36			RD18ES(B)	ZENER DIODE		
D37 -39			HSS104A	DIODE		
D37 -39			1SS131	DIODE		
D41			HZS6.2N(B2)	ZENER DIODE		
D41			RD6.2ES(B2)	ZENER DIODE		
D42			MTZJ10(B)	ZENER DIODE		
D42			UZ-10BSB	ZENER DIODE		
D43			HZS3.9N(B2)	ZENER DIODE		
D43			RD3.9ES(B2)	ZENER DIODE		
D44 -46			HSS104A	DIODE		
D44 -46			1SS131	DIODE		
D47			S5688B	DIODE		
D47			1SR139-400	DIODE		
D48			HSS104A	DIODE		
D48			1SS131	DIODE		
D49			HZS8.2N(B2)	ZENER DIODE		
D49			RD8.2ES(B2)	ZENER DIODE		
D50 ,51			MTZJ10(B)	ZENER DIODE		
D50 ,51			UZ-10BSB	ZENER DIODE		
D52			HZS6.2N(B2)	ZENER DIODE		
D52			RD6.2ES(B2)	ZENER DIODE		
D53			HZS5.1S(B2)	ZENER DIODE		
D53			RD5.1JS(B2)	ZENER DIODE		
D54 -60			HSS104A	DIODE		
D54 -60			1SS131	DIODE		
D61			HZS8.2S(B2)	ZENER DIODE		
D61			RD8.2JS(B2)	ZENER DIODE		
IC1			NJU7312AL	ANALOGUE IC		
IC2			NJU7311AL	ANALOGUE IC		
IC3			NJM4565D-D	IC(OP AMP X2)		
IC4			LA2786	ANALOGUE IC		

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
IC5			LV1016	DI BI-POLAR IC		
IC6			UPD780206GF019	MI-COM IC		
IC7			UPD17215GT-737	MI-COM IC		
IC9			S-806D-Z	ANALOGUE IC		
IC10			TA8409S	MOS-IC		
IC11			NJM4558D	ANALOGUE IC		
Q1 ,2			2SC2878(B)	TRANSISTOR		
Δ Q4			2SD1894*2	TRANSISTOR		
Q6 ,7			DTC124ESA	DIGITAL TRANSISTOR		
Q6 ,7			UN4212	DIGITAL TRANSISTOR		
Δ Q8			2SB1370(E,F)	TRANSISTOR		
Δ Q8			2SB1375	TRANSISTOR		
Δ Q10			2SD2061	TRANSISTOR		
Δ Q11			2SB1370(E,F)	TRANSISTOR		
Δ Q11			2SB1375	TRANSISTOR		
Q12			2SC2458(Y,GR)	TRANSISTOR		
Q12			2SC3311A(Q,R)	TRANSISTOR		
Δ Q13			2SD2061	TRANSISTOR		
Q14			2SC2003(L,K)	TRANSISTOR		
Q15			2SA1048(Y,GR)	TRANSISTOR		
Q15			2SA1309A(Q,R)	TRANSISTOR		
Δ Q16			2SD2061	TRANSISTOR		
Q17			2SC2458(Y,GR)	TRANSISTOR		
Q17			2SC3311A(Q,R)	TRANSISTOR		
Q18			2SB1370(E,F)	TRANSISTOR		
Q18			2SB1375	TRANSISTOR		
Δ Q19			2SD2061	TRANSISTOR		
<b>SUB (X13-7522-71)</b>						
C21			CE04KW1H2R2M	ELECTRO	2.2UF	50WV
C22			CC45FSL1H331J	CERAMIC	330PF	J
C23			CK45FB1H561K	CERAMIC	560PF	K
C24			CK45FF1H103Z	CERAMIC	0.010UF	Z
C25			CC45FCH1H330J	CERAMIC	33PF	J
C26			CC45FCH1H390J	CERAMIC	39PF	J
C27			CK45FF1H103Z	CERAMIC	0.010UF	Z
C28			CE04KW1A101M	ELECTRO	100UF	10WV
CN1			E40-4808-05	PIN ASSY		
CN2			E40-4294-05	FLAT CABLE CONNECTOR		
L1			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
L2			L40-1091-17	SMALL FIXED INDUCTOR		
X2			L77-2200-05	CRYSTAL RESONATOR(4.332MHZ)		
D8			HSS104A	DIODE		
D8			1SS131	DIODE		
IC2			SAA6579	ANALOGUE IC		
<b>BUFFER (X13-7562-70)</b>						
C1 ,2			CE04KW1H010M	ELECTRO	1.0UF	50WV
C3 -6			CC45FSL1H101J	CERAMIC	100PF	J
C7			CQ93FMG1H103J	MYLAR	0.010UF	J
C8			CQ93FMG1H102J	MYLAR	1000PF	J
C9 ,10			CC45FSL1H101J	CERAMIC	100PF	J
C11			CE04KW1H010M	ELECTRO	1.0UF	50WV
C12			CC45FSL1H101J	CERAMIC	100PF	J
C13			CK45FB1H102K	CERAMIC	1000PF	K

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CN1 -3			E40-8180-05	SOCKET FOR PIN ASSY		
IC1 ,2			NJM4565D-D	IC(OP AMP X2)		
<b>DISPLAY (X14-4372-71)</b>						
D1 -10 D11 ,12 D13 D24 ,25			B30-2508-05 B30-2519-05 B30-2493-05 B30-2519-05	LED(AMBER,D=3,P=2) LED(INFRARED,D=5.) LED(RED) LED(INFRARED,D=5.)		
C1 ,2 C20 C21 -29 C30			CE04KW1A101M CC73FSL1H331J CC73FSL1H470J CC73FSL1H331J	ELECTRO 100UF 10WV CHIP C 330PF J CHIP C 47PF J CHIP C 330PF J		
CN1 CN2 CN5			E40-4946-05 E40-4956-05 E40-4609-05	FLAT CABLE CONNECTOR FLAT CABLE CONNECTOR PIN ASSY		
R1 R21 R28 R50 -76 R77			RD14NB2E470J RK73FB2A1R0J RK73FB2A1R0J RK73FB2A104J RK73FB2A102J	RD 47 J 1/4W CHIP R 1 J 1/10W CHIP R 1 J 1/10W CHIP R 100K J 1/10W CHIP R 1.0K J 1/10W		
R78 R91 -94 W100-107			RK73FB2A103J RK73FB2A1R0J R92-0670-05	CHIP R 10K J 1/10W CHIP R 1 J 1/10W CHIP R 0 OHM		
S1 -16 S18 -24			S70-0031-05 S70-0031-05	TACT SWITCH TACT SWITCH		
S30			T99-0559-05	ROTARY ENCODER		
ED1 Q1 Q2 Q5 -14 Q5 -14			20U64100SA 2SC3246(J,K) 2SC2003(L,K) DTA113ZUA UN5119	FLUORESCENT INDICATOR TUBE TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
Q15 Q15 Q16 -31 Q16 -31 Q32			2SA1576A(R,S) 2SA1586(Y,GR) DTA113ZUA UN5119 2SC3246(J,K)	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
A1			W02-2598-05	OPTIC RECEIVING MODULE		

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**HOW TO READ THE PARTS LIST**

*Destination column has the abbreviation for sale country and model.*

*Alphabets mean the country. Numerals do the model.*

*Example: T2 shows C-V301 for England market.*

*"T" does all models for U.K.*

**ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTNATIONS**

MODEL	CNT	Australia	Canada	China	England	Europe	Germany	Korea	Malaysia
	ABB.	X	P	C	T	E	G	H	I
C-V301	-	-	-	-	T2	E1	-	-	-
C-V351	-	-	-	-	T1	E	-	-	-
MODEL	CNT	Mexico	PX/AAFES	Russia	Scandinavia	Shanghai	USA	Other area	Other area(M2)
	ABB.	R	Y	Q	L	V	K	M	M2
C-V301	-	-	-	-	-	-	-	-	-
C-V351	-	-	-	-	-	-	-	-	-

PARTS LIST

C-V301/V351

# C-V301/V351

## SPECIFICATIONS

### Audio section

Total harmonic distortion (1 kHz, 1V)	0.01 %
Signal to noise ratio (IHF'66)	
CD	93 dB
Input sensitivity / impedance	
CD	200 mV / 47k $\Omega$
Tone controls	
BASS	$\pm 8$ dB (at 100 Hz)
TREBLE	$\pm 8$ dB (at 10 kHz)
Output level / impedance	
TAPE REC	200 mV / 1 k $\Omega$

### Video section

VIDEO inputs / outputs	
(composite)	1 Vp-p/75 $\Omega$

### FM Tuner section

Tuning frequency range	87.5 MHz~108 MHz
Usable sensitivity (DIN)	
MONO	1.2 $\mu$ V (at 75 $\Omega$ ) / 13.2 dBf (40 kHz dev., S/N 26 dB)
STEREO	35 $\mu$ V (at 75 $\Omega$ ) / 42 dBf (46 kHz dev., S/N 46 dB)
Signal to noise ratio (DIN weighted at 1 kHz, 40 kHz dev.)	
MONO	65 dB (65.2 dBf input)
STEREO	60 dB (65.2 dBf input)
Selectivity (DIN $\pm 300$ kHz)	64 dB
Stereo separation (DIN, 1 kHz)	36 dB
Frequency response	30 Hz~15 kHz, + 0.5 dB, - 3.0 dB


### MW Tuner section

Tuning frequency range	531 kHz ~ 1,602 kHz
Usable sensitivity	
(30% mod., S/N 20 dB)	20 $\mu$ V / (700 $\mu$ V / m)
Signal to noise ratio	
(at 30% mod. 1mV input)	48 dB

### LW Tuner section (U.K. only)

Tuning frequency range	153 kHz ~ 279 kHz
Usable sensitivity	
(30% mod., S/N 20 dB)	35 $\mu$ V
Signal to noise ratio	
(at 30% mod. 1mV input)	45 dB

### General

Power consumption	25 W
 AC outlet	
UN SWITCHED	2: (Total 100 W max)
Dimensions	
W: 400 mm	
H: 105 mm	
D: 382 mm	
Weight (net)	5.2 kg



1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. Full performance may not be exhibited in extremely cold locations (below 0 deg.C).

#### Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) 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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