

Service Manual

AD60VT

CONTENTS

Circuit Diagram: Page 2-14

Structural Diagram: Page 15-16

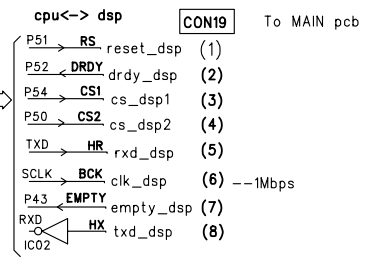
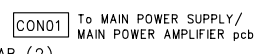
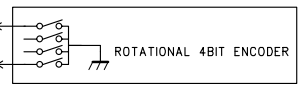
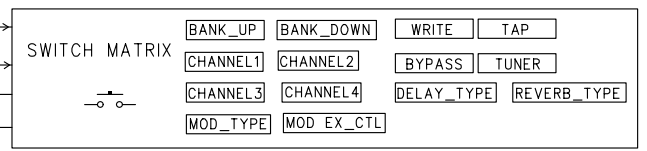
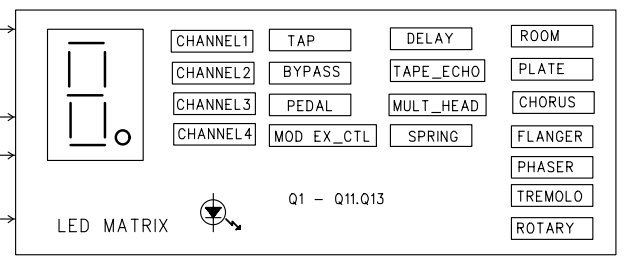
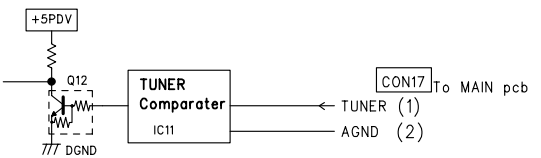
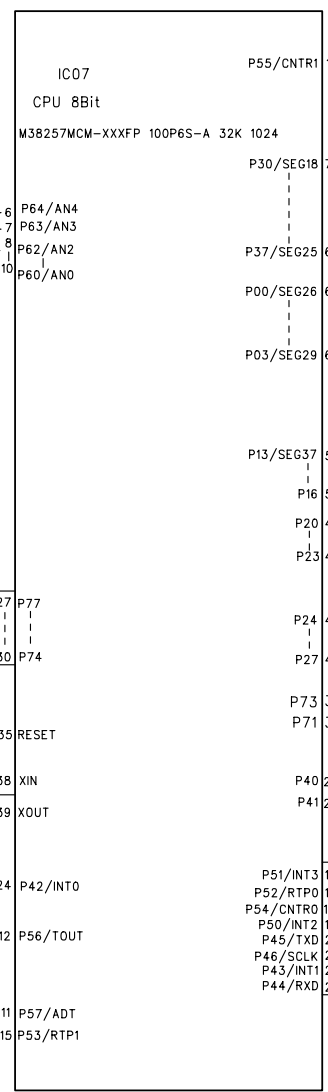
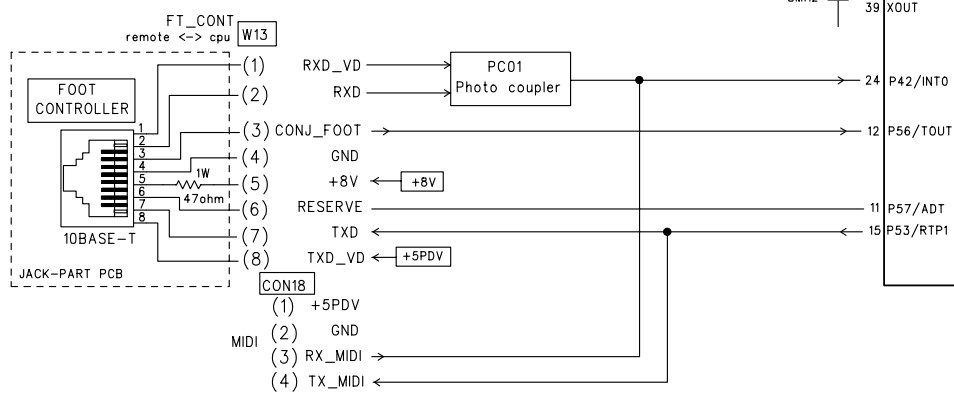
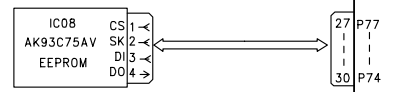
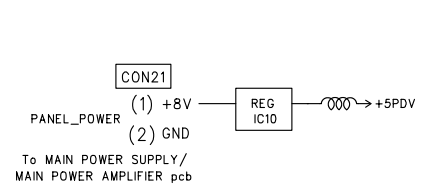
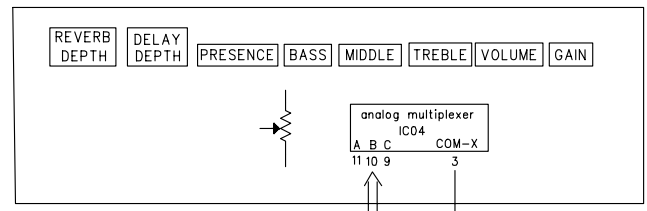
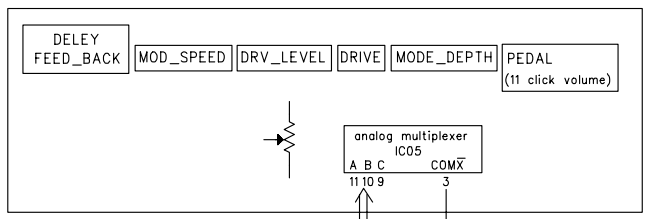
Test Mode: Page 17-18

Parts List: Page 19-33

2nd Edition

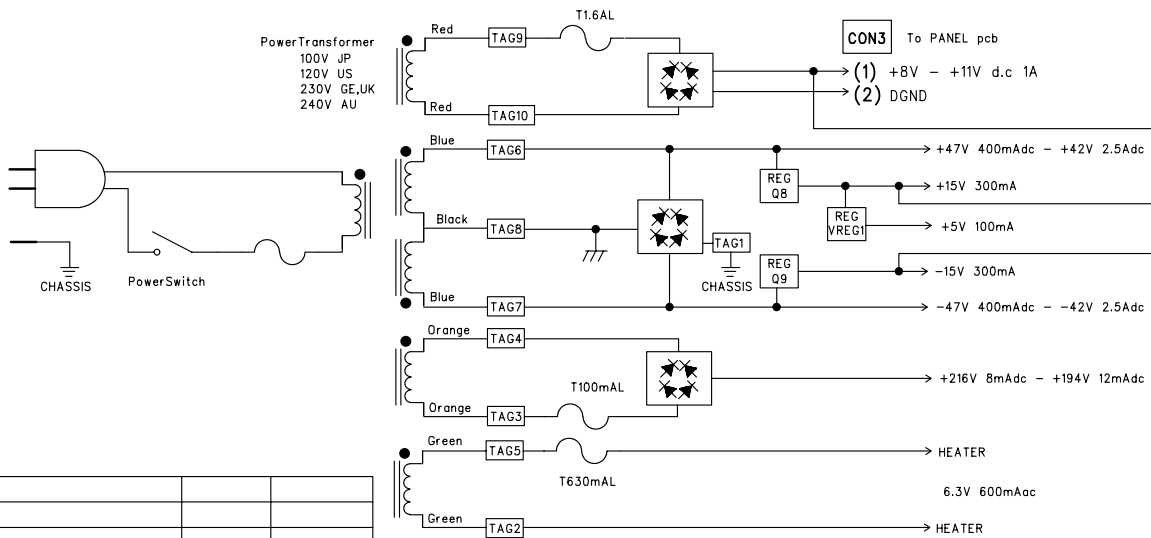
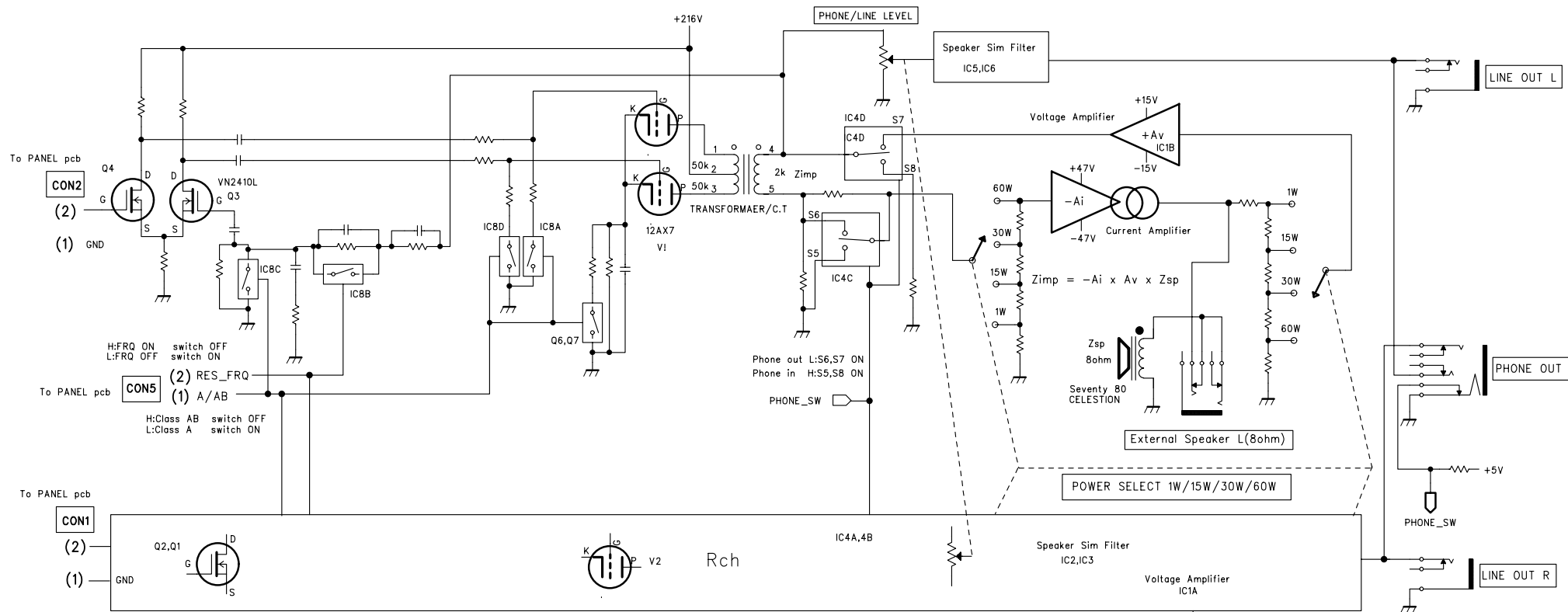
Issued date: October 15th, 2002

Issued by: KORG INC.



△			
△			
△			
△			
△			
MARK	REVISION REASON	DATE	REVISED BY

DRAWN BY	DESIGNED BY	CHECKED BY	MODEL
	Yoshihiro		TITLE X-9861,X-9862 VOX Digital Amplifier CONTROLL PANEL BLOCK DIAGRAM
KORG		DRAWING NO.	DATE
		KOD-A*****	'2001.05.29

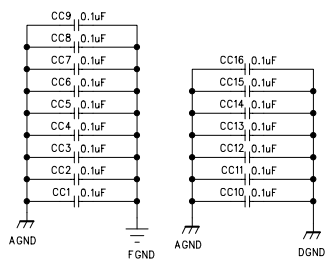
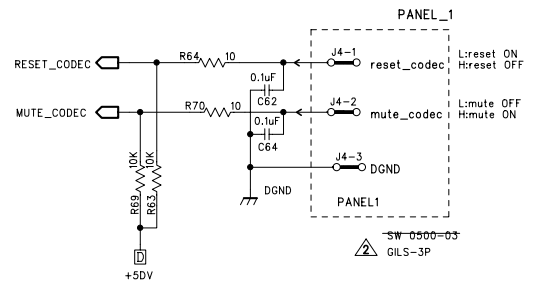
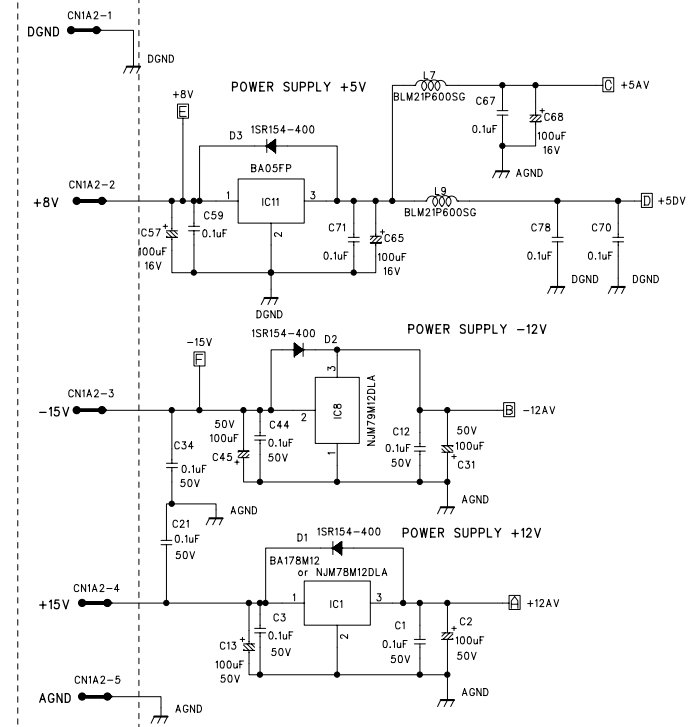


X-9862: 2 ch Virtual Valve Power Amplifier

△			
△			
△			
△			
△			
MARK	REVISION REASON	DATE	REVISED BY

DRAWN BY	DESIGNED BY	CHECKED BY	MODEL
Yoshihiro			TITLE X-9862 MAIN AMP/POWER SUPPLY BLOCK DIAGRAM
KORG		DRAWING NO.	DATE
		KOD-A*****	'2001.09.14

PowerSupplyMain

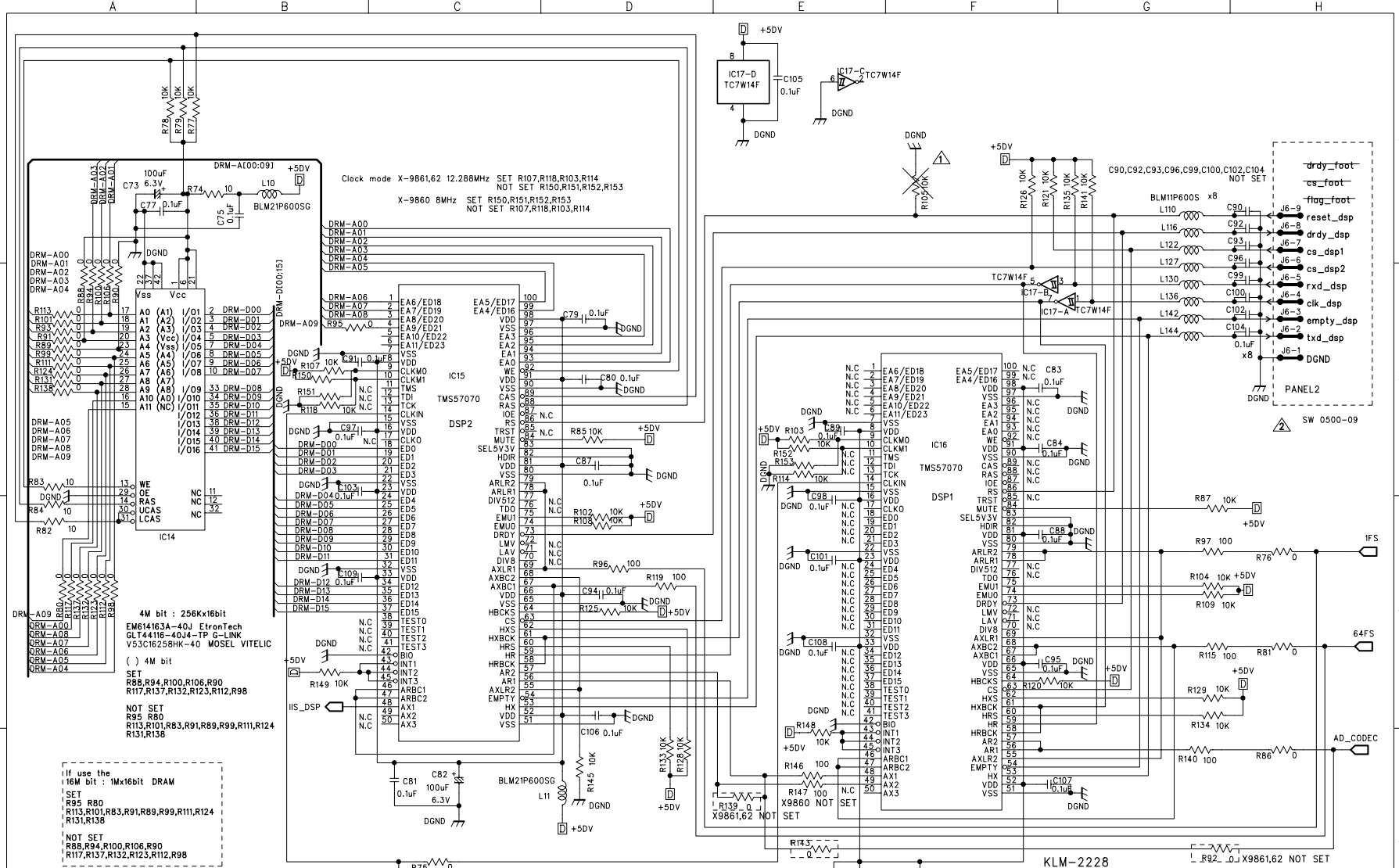


SW-0500-05 SW-0500-04 GILS-4P

△			
△			
△			
△	Change CNIA2,J4	'02-3-11	Yoshihiro
△	Change CNIA2	'01-6-11	Yoshihiro
MARK	REVISION REASON	DATE	REVISED BY

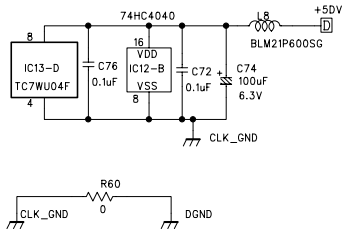
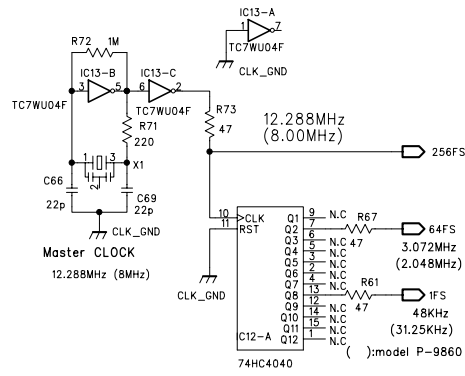
KLM-2228

DRAWN BY	DESIGNED BY	CHECKED BY	MODEL	KKM-AD60/120 X-9861,X-9862
Yoshihiro	Yoshihiro		TITLE	ANALOG COMMON
DRAWING NO.			KOD-A30420	DATE
KORG				'2002.05.13



△			
△			
△	Change J6	'02-03-11	Yoshihiro
△	Delete R105	'02-02-28	Yoshihiro
MARK	REVISION REASON	DATE	REVISED BY

DRAWN BY		DESIGNED BY		CHECKED BY		MODEL		KKM-AD60/120 X-9861,X-9862	
Yoshihiro		Yoshihiro				TITLE		DSP CIRCUIT	
KORG				DRAWING NO.		KOD-A30418		DATE '2002.05.13	



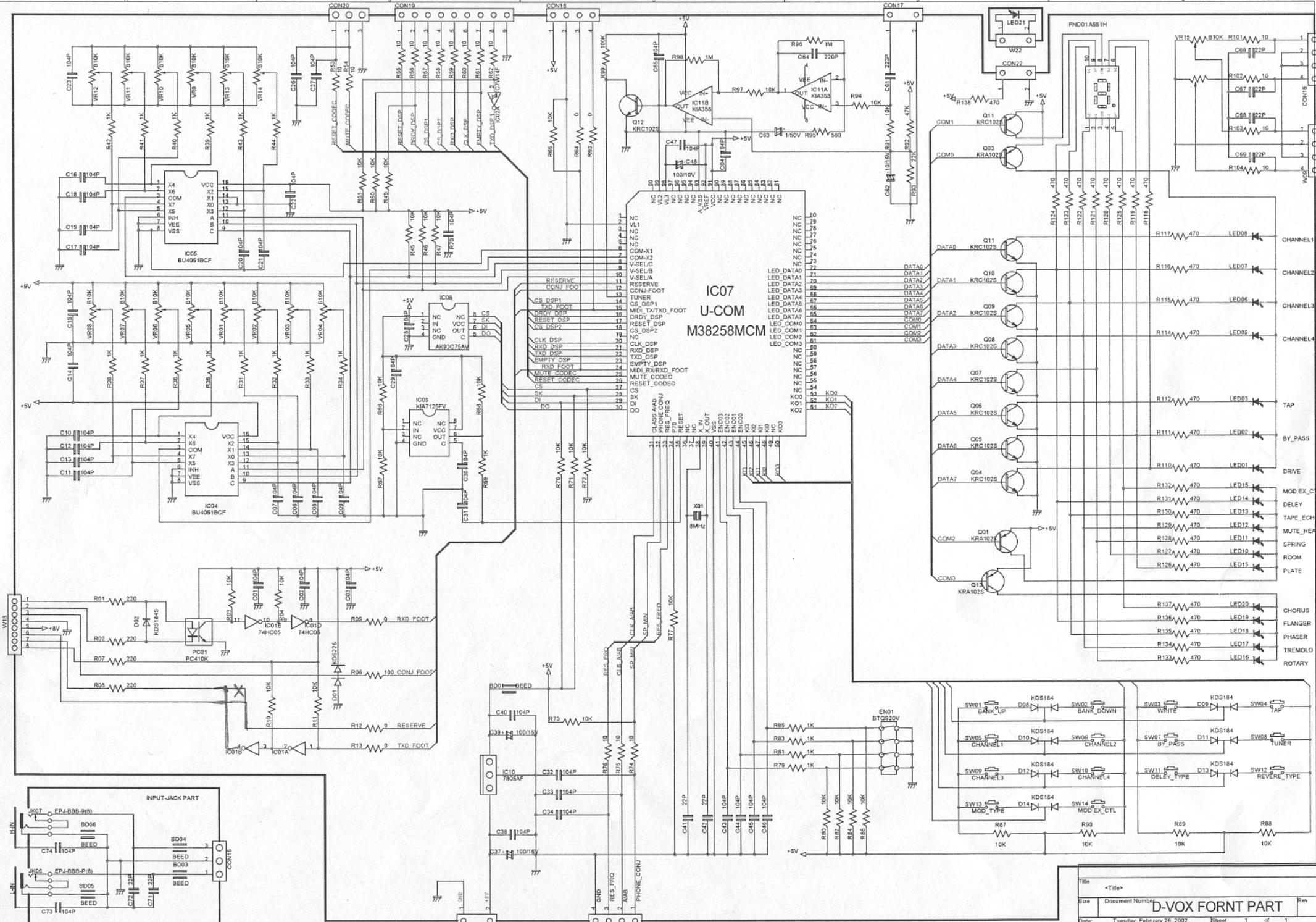
KLM-2228

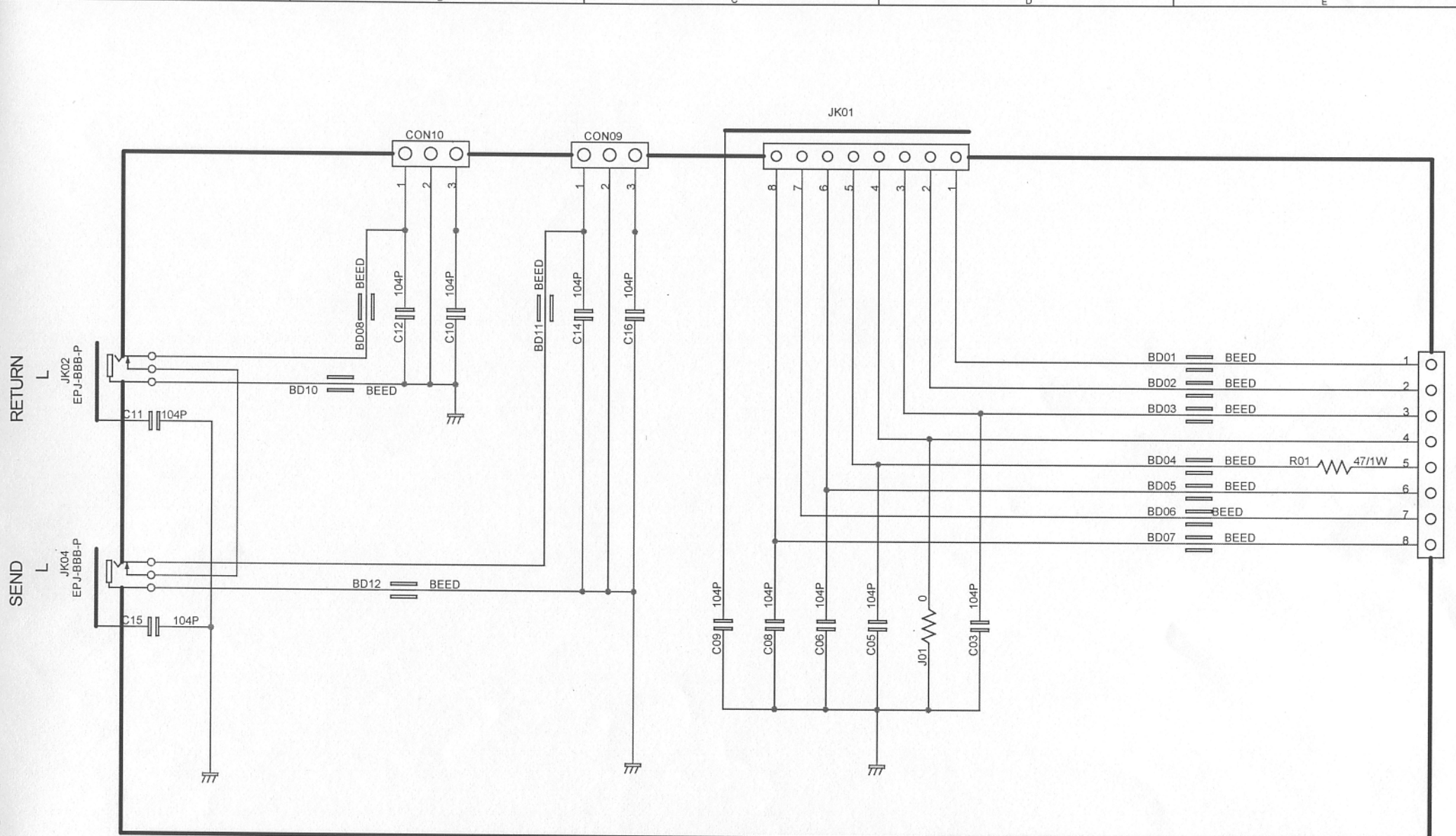
△			
△			
△			
△			
△			
MARK	REVISION REASON	DATE	REVISED BY

DRAWN BY	DESIGNED BY	CHECKED BY	MODEL KKM-AD60/120	X-9861,X-9862
			TITLE	
			CLOCK	

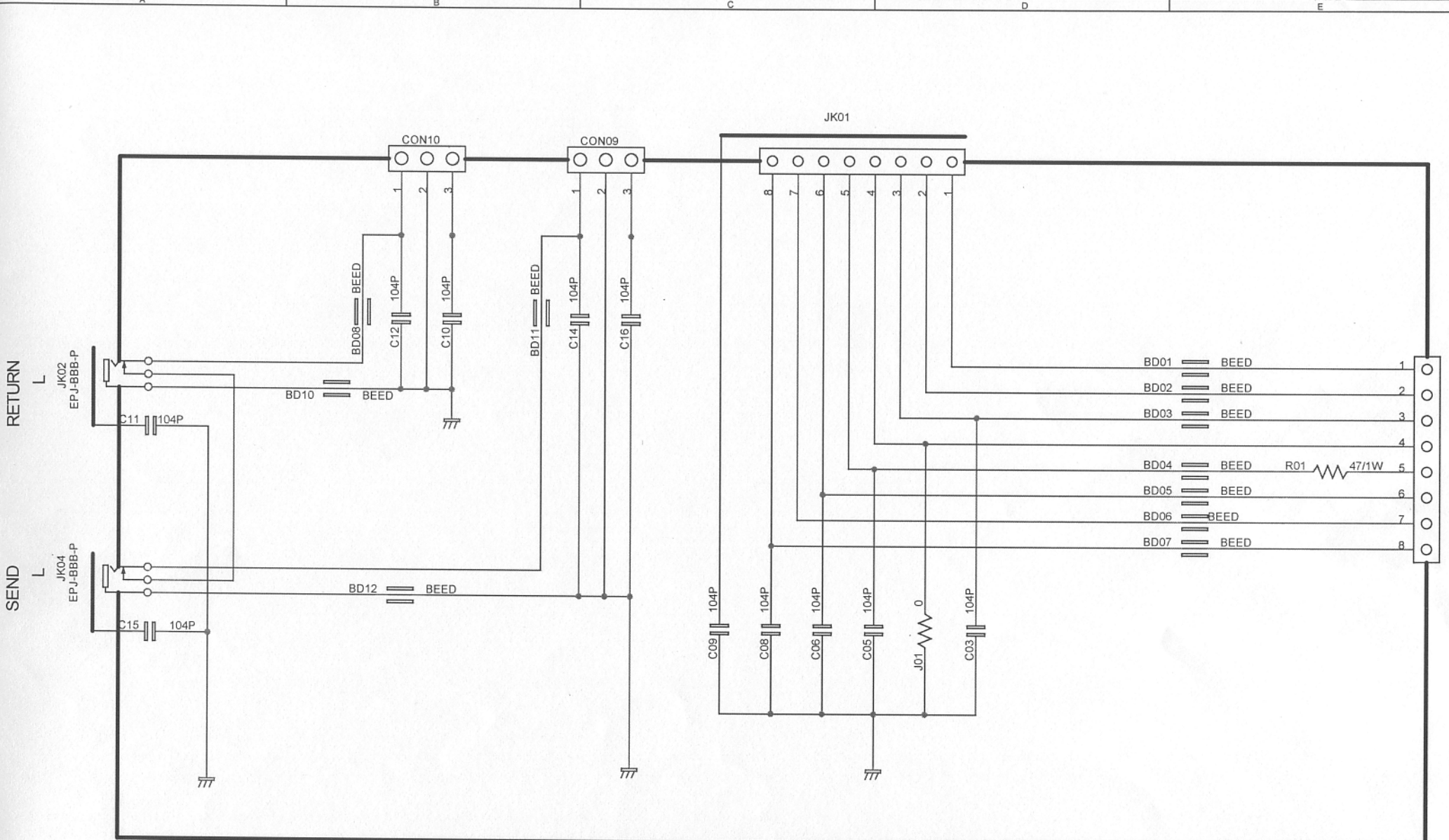
KORG

DRAWING NO. **KOD-A30419** DATE **'2000.09.28**





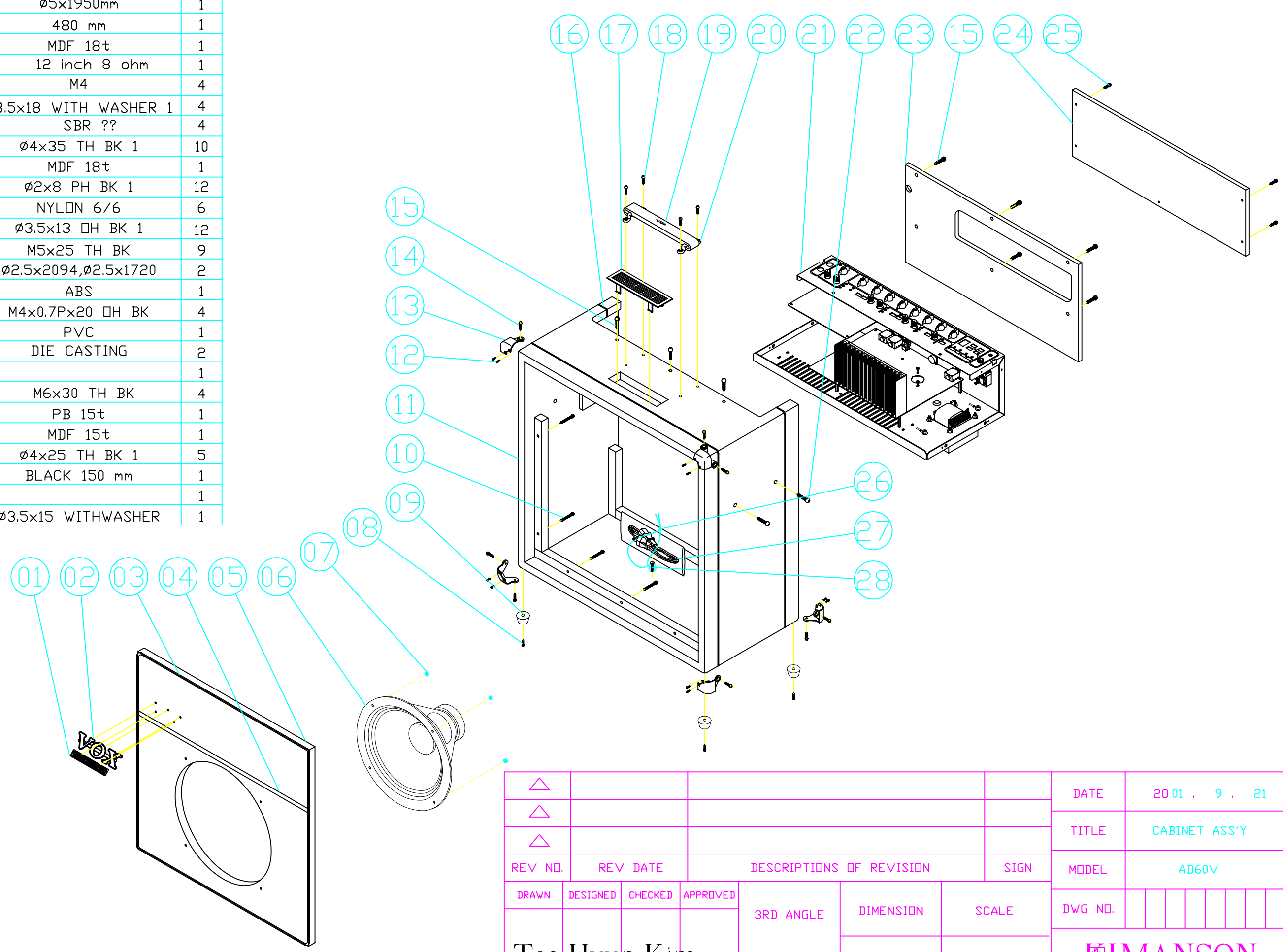
Title		<Title>
Size	Document Number	JACK PART(AD60VT)
A4		
Date:	Friday, May 10, 2002	Sheet 1 of 1
Rev		



Title		<Title>	
Size	Document Number	JACK PART(AD60VT)	
A4			
Date:	Friday, May 10, 2002	Sheet	1 of 1
Rev			

NO	DESCRIPTION	SPECIFICATION	Q'TY
01	EMBLEM	ABS(GOLD) STAMPING	1
02	BRAND MARK	ABS(GOLD)	1
03	WHITE STRIPER	ø5x1950mm	1
04	GOLD FRONT PANEL	480 mm	1
05	BAFFLE PANEL	MDF 18t	1
06	SPEAKER	12 inch 8 ohm	1
07	FRANGE NUT	M4	4
08	SCREW	ø3.5x18 WITH WASHER 1	4
09	RUBBER FOOT	SBR ??	4
10	SCREW	ø4x35 TH BK 1	10
11	WOODEN CABINET	MDF 18t	1
12	SCREW	ø2x8 PH BK 1	12
13	CORNER	NYLON 6/6	6
14	SCREW	ø3.5x13 OH BK 1	12
15	SCREW	M5x25 TH BK	9
16	GOLD BEADING	ø2.5x2094,ø2.5x1720	2
17	VENT GRILL	ABS	1
18	SCREW	M4x0.7Px20 OH BK	4
19	HANDLE BAR	PVC	1
20	HANDLE EDGE	DIE CASTING	2
21	CHASSIS ASS'Y		1
22	SCREW	M6x30 TH BK	4
23	BACK PANEL "A"	PB 15t	1
24	BACK PANEL "B"	MDF 15t	1
25	SCREW	ø4x25 TH BK 1	5
26	CORD TIE	BLACK 150 mm	1
27	AC POWER CORD		1
28	SCREW	ø3.5x15 WITHWASHER	1

NO	PART NAME	MATERIAL	SIZE	FINISH	Q' TY	NOTE
----	-----------	----------	------	--------	-------	------

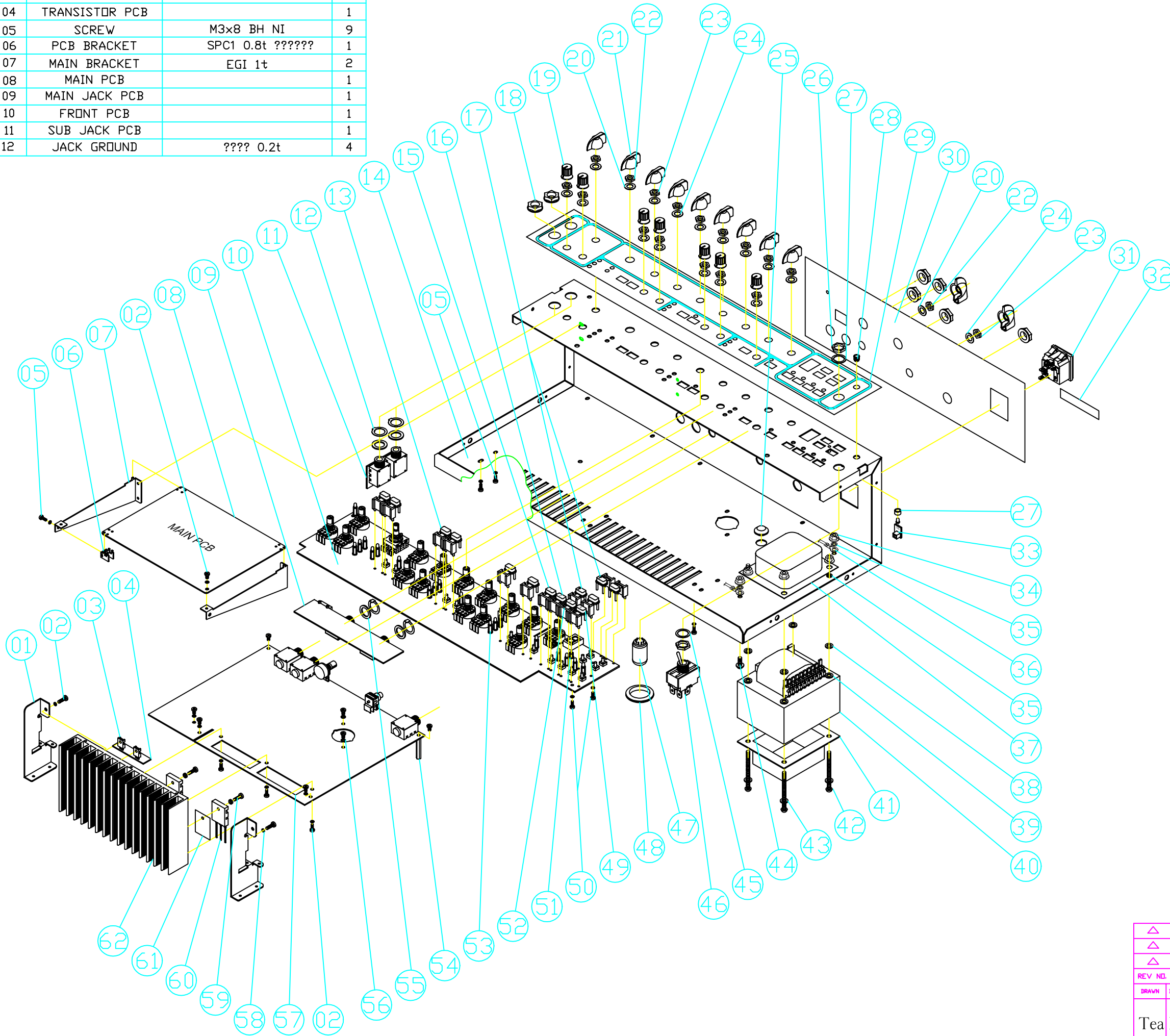


△					DATE	2001 . 9 . 21
△					TITLE	CABINET ASS'Y
△					MODEL	AD60V
REV NO.	REV DATE	DESCRIPTIONS OF REVISION		SIGN		
DRAWN	DESIGNED	CHECKED	APPROVED	3RD ANGLE	DIMENSION	SCALE
Tea Hyun Kim				PROJECTION	M/M	
				 KIMANSON Kimanson Instruments CO., Ltd.		

NO	DESCRIPTION	SPECIFICATION	Q'TY
01	HEAT SINK BRACKET	EGI 1.2t	2
02	SCREW	ø3x8 BH BK 2 CUT	19
03	TRANSISTOR		2
04	TRANSISTOR PCB		1
05	SCREW	M3x8 BH NI	9
06	PCB BRACKET	SPC1 0.8t ?????	1
07	MAIN BRACKET	EGI 1t	2
08	MAIN PCB		1
09	MAIN JACK PCB		1
10	FRONT PCB		1
11	SUB JACK PCB		1
12	JACK GROUND	???? 0.2t	4

NO	PART NAME	MATERIAL	SIZE	FINISH	Q'TY	NOTE

NO	DESCRIPTION	SPECIFICATION	Q'TY
13	TACT KNOB	ABS(?????)	8
14	MAIN CHASSIS	EGI 1.2t	1
15	TACT KNOB	ABS<1>	1
16	TACT KNOB	ABS<2>	1
17	TACT KNOB	ABS(?)	2
18	HIBER WASHER	ø11	7
19	ROUND KNOB	ABS	7
20	VOLUME WASHER	ø9	2
21	KNOB	ABS<CHICKEN HEAD>	11
22	VOLUME NUT	M9	2
23	VOLUME NUT	M7	16
24	VOLUME WASHER	ø7	16
25	RUBBER BUSHING	ø12	1
26	JACK NUT	M11	7
27	JACK WASHER	ø11	1
28	LED BUSHING	ø5	1
29	FRONT PANEL	PVC 0.5t ???	1
30	REAR PANEL	PVC 0.5t BK	1
31	AC CONNECTOR	SC-8F-21	1
32	SERIAL NO	STICKER	1
33	LED PCB		1
34	FLANGE NUT	M4	6
35	TOOS WASHER	ø4 INTERNAL	3
36	EARTH TERMINAL		2
37	TRANS COVER ??		1
38	HIBER WASHER	ø4	4
39	WASHER	ø4	7
40	POWER TRANS		1
41	TRANS COVER ?		1
42	SCREW	M4x65 PH BK	4
43	PLATE WASHER	ø4	4
44	SCREW	M4x10 WITH WASHER	2
45	SPRING WASHER	ø11	2
46	POWER SWITCH		1
47	VACCUM TUBE	12AX7	1
48	TUBE COVER	NBR	1
49	TACT KNOB	ABS<4>	1
50	SCREW	M3x6 BH NI	2
51	SEGMENT SUPPORT	PLASTIC 6mm	2
52	TACT KNOB	ABS<3>	1
53	LED SUPPORT	PLASTIC 10mm	19
54	PCB SPACER	BRASS 30mm	4
55	JACK WASHER	ø11	4
56	PLATE WASHER	ø3	4
57	POWER PCB		1
58	SPRING WASHER	ø3	28
59	SCREW	M3x10 BH NI	2
60	TRANSISTOR	NBR	2
61	INSULATE SPACER	MICA	2
62	HEAT SINK	AL EXTRUSION	1



△				DATE	2001. 9. 21
△				TITLE	CHASSIS ASS'Y
△				MODEL	AD60V
REV NO.	REV DATE	DESCRIPTIONS OF REVISION		SIGN	
DRAWN	DESIGNED	CHECKED	APPROVED	3RD ANGLE	DIMENSION
Tea Hyun Kim				PROJECTION	M/M
				SCALE	
				DWG NO.	
				 Kimanson Instruments CO., Ltd.	

AD60VT/AD120VT

How to start and operate the test mode

1) AD60VT:

REV CH1:	FULL TEST
REV CH1 DWN:	FULL TEST (LEVEL, TUNER, FC I/F SKIP)
REV CH1 UP:	EXTERNAL TEST ONLY

2) AD120VT:

REV CH2:	FULL TEST
REV CH1 DWN:	FULL TEST (LEVEL, TUNER, FC I/F SKIP)
REV CH2 UP:	EXTERNAL TEST ONLY
BYP CH4:	AUDIO TEST (A/D, D/A, THRU)

Operations during the test mode:

*Internal test

CH1+CH3:	RE-CHECKING OF THE STEPS IN ERROR
CH1+CH4:	ERROR SKIP
CH1+DWN:	RE-CHECKING THE N.G. ITEMS
CH1+UP:	SKIP THE N.G. ITEMS AND PROCEED TO THE NEXT ITEM.

*External test:

CH4:	STEP UP
CH3:	RE-CHECKING THE STEPS IN ERROR
UP:	ITEM UP

*Conditions when starting the test mode:

-Loop the following jacks with cables respectively.

AD60VT: SEND L – INPUT HI, SEND R – INPUT LO

AD120VT: SEND L – INPUT HI/LO

-Connect a VC-4 (foot controller) to the product respectively.

PART LIST

MODEL: AD60V(POWER PART)

PAGE :1-7

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION		REMARK
*V909000002	1	1	PWB010601A	AD60VT Assembly Power PCB		
*V903200013	2	2	NJM4556	OPAMP NJM4556 or M5216		M5216
*V904530006	3	1	DG403	ANALOGUE SWITCH DUAL SPDT MAX303/DG403		DG403
*V904530005	4	1	DG211	ANALOGUE SWITCH DG211		
*V903200015	5	1	NJM072	OPAMP NJM072		
*V903020003	6	2	VN2410L	MOSFET VN2410L		
*V903010002	7	1	2SA1359-Y	TRANSISTOR PNP 2SA1359-Y		KTB631-Y
*V903010003	8	2	2SA1837	TRANSISTOR PNP 2SA1837		
*V903010004	9	1	KTC3198-Y	TRANSISTOR NPN 2SC2458 or KTC3198-Y		KTC3198-Y
*V903010005	10	1	2SC3422-Y	TRANSISTOR NPN 2SC3422 or KTD600-Y		KTD600-Y
*V903010006	11	2	2SC4793	TRANSISTOR NPN 2SC4793		
*V903010007	12	2	KTA1024-Y	TRANSISTOR PNP KTA1024-Y		
*V903010008	13	2	2SA1943-O	TRANSISTOR PNP 2SA1943-O		KTA1943-O
*V903010009	14	2	KTC3206-Y	TRANSISTOR NPN KTC3206-Y		
*V903010010	15	1	2SC5200-O	TRANSISTOR NPN 2SC5200-O		KTC5200-O
*V9032100002	16	1	KRA102M	PNP-DIGITAL TRANSISTOR TYPE KRA102M		
*V903210002	17	1	78L05	VOLTAGE REGULATOR 78L05		
*V903111001	18	6	1N4007	SILICON RECTIFIRE DIODE 1N4007	T	
*V903111002	19	4	1N4148	SILICON SWITCHING DIODE 1N4148	T	
*V903111011	20	1	KBP206G	BRIDGE RECTIFIER DIODE KBP206G		
*V903111009	21	1	SHSW04M	BRIDGE RECTIFIER DIODE SHSW04M		AM152
*V903111010	22	2	1N5245	ZENER DIODE 15V 0.5W 1N5245	T	
*V905000002	23	1	12AX7	TUBE, VACUUME TUBE 12AX7		

PART LIST

MODEL: AD60V(POWER PART)

PAGE :2-7

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION		REMARK
*V90500001	24	1	VT9-PT-2	TUBE SOCKET VT9-PT-2		
*V903300002	25	1	250V T800mA	FUSE TIME LAG 250V T800mA		
?	26	1	250V T100mA	FUSE TIME LAG 250V T100mA		
*V903300012	27	1	250V T1A	FUSE TIME LAG 250V T1A		
*V903300009	28	6	0751-0110	FUSE CLIP 0751-0110(OG TYPE)	T	
*V904020001	29	1	BEED	AXIAL BEED CORE	T	
*V904540002	30	2	EPJ-BBB-P(8)	PHONE JACK EPJ-BBB-P(8) MONO		
*V904540003	31	1	EPJ-BBB-P(8)	PHONE JACK EPJ-BBB-P(8) STEREO		
*V903620012	32	1	RS1600-20-15S-A10K-C0	POTENTIOMETER RS1600-20-15S-A10K-C0 MONO		
*V903630004	33	2	B10K	SEMI POTENTIOMETER 10m/m B10K		
*V904530004	34	1	RS-2401-15SP-20	ROTARY SWITCH 2C4P RS-2401-15SP-20		
*V904050013	35	1	OPT48	OUTPUT TRANS		
SEE BELOW	36	1	9861-DJ,DU,DE	POWER TRANS(100V/120V/230V/240V)		
*V904050010				POWER TRANS 9862-DJ(100V)		
*V904050011				POWER TRANS 9862-DU(120V)		
*V904050012				POWER TRANS 9862-DE(230V/240V)		
*V904530003	37	1	R13-28F-01-BINN-NA	POWER SWITCH R13-28F-01-BINN-NA		
*V904100105	38	1		Speaker Celestion Seventy 80 (12inch/8ohm)		
*V904700000	39	1	SC-8F-21	AC CONNECTOR SC-8F-21		
*V906000108			KKP4819R-16A	AC POWER CORD 230V=KKP650-16A (UK)		
*V906000109			KKP30(SVT)-16A	AC POWER CORD 120V=KKP30 SVT-16A		
*V906000110			KKP4819R-16A	AC POWER CORD 230V=KKP4819R-16A		
*V903300013	41	1	FUSE	FUSE 100V=250/T3.15A		
*V903300013				FUSE 120V=250V/T3.15A		
*V903300004				FUSE 230V=250V/T1.25A		
NO SUPPLY	42	1	220P	CERAMIC CAPACITOR 50V J 22 ?	T	

PART LIST

MODEL: AD60V(POWER PART)

PAGE :3-7

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION		REMARK
NO SUPPLY	43	1	470P	CERAMIC CAPACITOR 50V J 47 ?	T	
NO SUPPLY	44	1	221P	CERAMIC CAPACITOR 50V J 220 ?	T	
NO SUPPLY	45	1	471P	CERAMIC CAPACITOR 50V J 470 ?	T	
NO SUPPLY	46	1	471P/500V	CERAMIC CAPACITOR 500V J 470 ?	T	
NO SUPPLY	47	6	103P/500V	CERAMIC CAPACITOR 500V J 0.01 ?	T	
NO SUPPLY	48	1	KC103P	CERAMIC CAPACITOR AC 400V J 0.01 ?		
NO SUPPLY	49	1	M102	PLASTIC FILM CAPACITOR 100V PP 0.001 ?	T	
NO SUPPLY	50	1	M102	PLASTIC FILM CAPACITOR 100V PP 0.001 ?		??
NO SUPPLY	51	1	M222	PLASTIC FILM CAPACITOR 100V PP 0.0022 ?	T	
NO SUPPLY	52	3	M472	PLASTIC FILM CAPACITOR 100V PP 0.0047 ?	T	
NO SUPPLY	53	9	M103	PLASTIC FILM CAPACITOR 100V PP 0.01 ?	T	
NO SUPPLY	54	1	M333	PLASTIC FILM CAPACITOR 100V PP 0.033 ?	T	
NO SUPPLY	55	1	M393	PLASTIC FILM CAPACITOR 100V PP 0.039 ?	T	
NO SUPPLY	56	1	M473	PLASTIC FILM CAPACITOR 100V PP 0.047 ?	T	
NO SUPPLY	57	9	M104	PLASTIC FILM CAPACITOR 100V PP 0.1 ?	T	
NO SUPPLY	58	1	M224	PLASTIC FILM CAPACITOR 100V PD 0.22 ?	T	
NO SUPPLY	59	2	M223/250V	METAL POLYPROPYLENE CAPACITOR 250V MP 0.22 ?		
NO SUPPLY	60	3	2.2/63V	CHEMICAL CONDENSOR 63V 2.2 ?	T	
NO SUPPLY	61	1	10/350V	CHEMICAL CONDENSOR 350V 10 ?	T	
NO SUPPLY	62	1	22/25V	CHEMICAL CONDENSOR 25V 22 ?	T	
NO SUPPLY	63	1	47/50V	CHEMICAL CONDENSOR 50V 47 ?	T	
NO SUPPLY	64	1	47/250V	CHEMICAL CONDENSOR 250V 47 ?	T	
NO SUPPLY	65	4		CHEMICAL CONDENSOR 25V 100 ?	T	

PART LIST

MODEL: AD60V(POWER PART)

PAGE :4-7

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION	REMARK
NO SUPPLY	66	1	100/100V	CHEMICAL CONDENSOR 100V 100 ?	
NO SUPPLY	67	1	2200/16V	CHEMICAL CONDENSOR 16V 2200 ?	
NO SUPPLY	68	2	3300/63V	CHEMICAL CONDENSOR 63V 3300 ?	
NO SUPPLY	69	1	22 ohm	CARBON RESISTOR 1/6 WATT J 22 ohm	T
NO SUPPLY	70	4	47 ohm	CARBON RESISTOR 1/6 WATT J 47 ohm	T
NO SUPPLY	71	1	120 ohm	CARBON RESISTOR 1/6 WATT J 120 ohm	T
NO SUPPLY	72	1	330 ohm	CARBON RESISTOR 1/6 WATT J 330 ohm	T
NO SUPPLY	73	1	560 ohm	CARBON RESISTOR 1/6 WATT J 560 ohm	T
NO SUPPLY	74	7	1K ohm	CARBON RESISTOR 1/6 WATT J 1K ohm	T
NO SUPPLY	75	1	1.2K ohm	CARBON RESISTOR 1/6 WATT J 1.2K ohm	T
NO SUPPLY	76	1	1.8K ohm	CARBON RESISTOR 1/6 WATT J 1.8K ohm	T
NO SUPPLY	77	2	2.2K ohm	CARBON RESISTOR 1/6 WATT J 2.2K ohm	T
NO SUPPLY	78	2	4.7K ohm	CARBON RESISTOR 1/6 WATT J 4.7K ohm	T
NO SUPPLY	79	4	10K ohm	CARBON RESISTOR 1/6 WATT J 10K ohm	T
NO SUPPLY	80	9	22K ohm	CARBON RESISTOR 1/6 WATT J 22K ohm	T
NO SUPPLY	81	2	24K ohm	CARBON RESISTOR 1/6 WATT J 24K ohm	T
NO SUPPLY	82	1	27K ohm	CARBON RESISTOR 1/6 WATT J 27K ohm	T
NO SUPPLY	83	2	47K ohm	CARBON RESISTOR 1/6 WATT J 47K ohm	T
NO SUPPLY	84	1	68K ohm	CARBON RESISTOR 1/6 WATT J 68K ohm	T
NO SUPPLY	85	1	100K ohm	CARBON RESISTOR 1/6 WATT J 100K ohm	T
NO SUPPLY	86	1	120K ohm	CARBON RESISTOR 1/6 WATT J 120K ohm	T
NO SUPPLY	87	2	150K ohm	CARBON RESISTOR 1/6 WATT J 150K ohm	T
NO SUPPLY	88	2	180K ohm	CARBON RESISTOR 1/6 WATT J 180K ohm	T

PART LIST

MODEL: AD60V(POWER PART)

PAGE :5-7

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION	REMARK
NO SUPPLY	89	4	470K ohm	CARBON RESISTOR 1/6 WATT J 470K ohm	T
NO SUPPLY	90	2	2.2M ohm	CARBON RESISTOR 1/6 WATT J 2,2M ohm	T
NO SUPPLY	91	1	10M ohm	CARBON RESISTOR 1/6 WATT J 10M ohm	T
NO SUPPLY	92	1	10 ohm	1% METAL FILM RESISTOR 1/6 WATT F 10 ohm	T
NO SUPPLY	93	1	24 ohm	1% METAL FILM RESISTOR 1/6 WATT F 24 ohm	T
NO SUPPLY	94	1	30 ohm	1% METAL FILM RESISTOR 1/6 WATT F 30 ohm	T
NO SUPPLY	95	1	43 ohm	1% METAL FILM RESISTOR 1/6 WATT F 43 ohm	T
NO SUPPLY	96	1	62 ohm	1% METAL FILM RESISTOR 1/6 WATT F 62 ohm	T
NO SUPPLY	97	2	330 ohm	1% METAL FILM RESISTOR 1/6 WATT F 330 ohm	T
NO SUPPLY	98	1	910 ohm	1% METAL FILM RESISTOR 1/6 WATT F 910 ohm	T
NO SUPPLY	99	1	1.2K ohm	1% METAL FILM RESISTOR 1/6 WATT F 1.2K ohm	T
NO SUPPLY	100	2	2.2K ohm	1% METAL FILM RESISTOR 1/6 WATT F 2.2K ohm	T
NO SUPPLY	101	1	8.2K ohm	1% METAL FILM RESISTOR 1/6 WATT F 8.2K ohm	T
NO SUPPLY	102	1	12K ohm	1% METAL FILM RESISTOR 1/6 WATT F 12K ohm	T
NO SUPPLY	103	1	18K ohm	1% METAL FILM RESISTOR 1/6 WATT F 18K ohm	T
NO SUPPLY	104	1	100 ohm	CARBON RESISTOR 1/4 WATT J 100 ohm	T
NO SUPPLY	105	2	5.1K ohm	CARBON RESISTOR 1/4 WATT J 5.1K ohm	T
NO SUPPLY	106	2	10K ohm	CARBON RESISTOR 1/4 WATT J 10K ohm	T
NO SUPPLY	107	1	56K ohm	CARBON RESISTOR 1/4 WATT J 56K ohm	T
NO SUPPLY	108	1	82K ohm	CARBON RESISTOR 1/4 WATT J 82K ohm	T
NO SUPPLY	109	1	100K ohm	CARBON RESISTOR 1/4 WATT J 100K ohm	T
NO SUPPLY	114	1	10/1W	CARBON RESISTOR 1 WATT 10 ohm	
NO SUPPLY	115	2	100/1W	CARBON RESISTOR 1 WATT 100 ohm	

PART LIST

MODEL: AD60V(POWER PART)

PAGE :6-7

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION		REMARK
NO SUPPLY	116	1	1K/1W	CARBON RESISTOR 1 WATT 1K ohm		
NO SUPPLY	117	2	1.5K/1W	CARBON RESISTOR 1 WATT 1.5K ohm		
NO SUPPLY	118	2	0.33/3W	WIRE WOUND RESISTOR 3 WATT J 0.33 ohm		
NO SUPPLY	119	2	0.68/5W	WIRE WOUND RESISTOR 5 WATT J 0.68 ohm		
NO SUPPLY	120	2	100/10W	WIRE WOUND RESISTOR 10 WATT J 100 ohm		
*V904754001	121	9	GP881191-2	POWER TERMINAL GP881191-2		
*V904700001	122	3		WAFER 2P		
*V904752001	123	1	3P CONNECTOR	FLAT WIRE UL1007 AWG26 BLK,WHT,WHT 150mm		
*V904752010	124	2	170 m/m	3P FLAT WIRE UL2877 BLACK 170mm		
*V904753001	125	1	360 m/m	RING/TER WIRE UL1015 AWG18 GRN 360m/m		
*V904751008	126	1	300 m/m	205/TER WIRE UL1015 AWG18 WHT 300m/m		
*V904751009	127	1	300 m/m	205/TER WIRE UL1015 AWG18 BLK 300m/m		
*V904751010	128	1	150 m/m	RING/TER WIRE UL1015 AWG18 GRN-YEL 150m/m		
*V904751005	129	1	150 m/m	250/TER WIRE UL1617 AWG22 BLK 150m/m		
NO ENTRY	130	1	17 m/m	JUMPER WIRE 0.6 pi 17 m/m	T	
NO ENTRY	131	1	15 m/m	JUMPER WIRE 0.6 pi 15 m/m	T	
NO ENTRY	132	2	12 m/m	JUMPER WIRE 0.6 pi 12 m/m	T	
NO ENTRY	134	6	10 m/m	JUMPER WIRE 0.6 pi 10 m/m	T	
NO ENTRY	135	32	8 m/m	JUMPER WIRE 0.6 pi 8 m/m	T	

PART LIST

MODEL: AD60V(POWER PART)

PAGE :7-7

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION		REMARK
NO ENTRY	136	1g		BOND		
*V906430033	137	4	MICA	INSULATE SPACER MICA		
*V906430034	138	4	P-520-02	RESISTOR SUPPORT P-520-02		
NO ENTRY	139	8		CABLE TIE		

PART LIST

MODEL: AD60V(JACK PART)

PAGE :1-1

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION		REMARK
*V909000008	1	1	PWB010601C	AD60/120VT ASSEMBLY INPUT JACK PCB		
*V904540002	2	2	EPJ-BBB-P(8)	PHONE JACK EPJ-BBB-P(8) MONO		
*V904540012	3	1	JM37115-LO	MODULAR JACK JM37115-LO		
*V904020001	4	11	BEED	AXIAL BEED CORE	T	
NO ENTRY	5	2	22P	CERAMIC CAPACITOR 50V J 22 ?	T	
NO ENTRY	6	7	104P	CERAMIC CAPACITOR 50V J 0,1 ?	T	
NO ENTRY	7	1	47/1W	CARBON RESISTOR 1 WATT 47 OHM	T	
NO ENTRY	8	1		JUMPER WIRE 0,6 pi 10 m/m	T	
*V904753003	9	1	2P ANGLE CONNECTOR	SHIELD WIRE UL1533 AWG26 GLY 240mm		
NO ENTRY	10	1	2P WAFER	2P WAFER 2mm PICH		
NO ENTRY	11	1	8P WAFER	8P WAFER 2mm PICH		

PART LIST

MODEL: AD60V(FRONT PART)

PAGE :1-4

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION	REMARK
*V909000001	1	1	PWB010601D	AD60VT Assembly Front PCB	
*V909000006	2	1	PWB010601E	AD60VT Assembly Rear Jack PCB	
*V903200005	3	2	BU4051BCF	8-CHANNEL ANALOG MULTIPLEXER	T
320011223	4	1	M38257M8-258FP	M-COM M38257M8-261FP	
*V903200007	5	1	BA10358	DUAL GROUND SENSER OP-AMP DA10358	T
*V903200008	6	1	KIA7805AF	VOLTAGE REGULATOR KIA7805AF	T
*V903200009	7	1	AK93C75AV	8KIT SERIAL C-MOS EEFROM	T
*V903200010	8	1	KIA7125FV	SYSTEM RESETTNG KIA7125FV	T
*V903200011	9	1	74HC05	HEX INVERTER 74HC05	T
*V903200012	10	1	TC7S14FU	SCHMITT INVERTER TC7S14FU	T
*V903010012	11	4	KRA102S	DIGITAL TRANSISTOR PNP KRA102S	T
*V903010013	12	9	KRC102S	DIGITAL TRANSISTOR NPN KRC102S	T
*V903010014	13	1	KDS226S	HIGH SPEED SWITCHING DIODE KDS226S	T
*V903111007	14	8	KDS184S	HIGH SPEED SWITCHING DIODE KDS184S	T
*V903120007	15	1	A551H	LED DISPLAY A551H	
*V903350001	16	1	8 MHz	CRYSTAL 8 MHz	
*V904020002	17	2	BEED	CHIP BEED CORE	T
*V904020001	18	4	BEED	AXIAL BEED CORE	
334000600	19	1	PC410K	PHOTO COUPLERS PC410K	T
*V904530007	20	1	BTQS20V	ENCORD SWITCH BTQS20V	
*V904540002	21	2	EPJ-BBB-P(8)	PHONE JACK EPJ-BBB-P(8) MONO	
*V903620013	22	13	RV1600-40-15S-B10K-C0	POTENTIOMETER RV1600-40-15S-B10K-C0 MONO	

PART LIST

MODEL: AD60V(FRONT PART)

PAGE :2-4

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION	REMARK
*V903620012	23	1	RV1600-40-15S-A10K-C0	POTENTIOMETER RV1600-40-15S-A10K-C0 MONO	
*V903620011	24	1	RV1600-40-15S-B10K-C11	11 CLICK VOLUME RV1600-40-15S-B10K-C11	
*V904530008	25	14	ST-1101B	TACT SWITCH ST-1101B 9.5 m/m	
*V903120001	26	19	KLR124	LED RED 3 pi KLR124	
*V903120003	27	1	KLR114	LED RED 5 pi KLR114	
NO ENTRY	28	1	1/50V	CHEMICAL CONDENSOR 50V SS 1 ?	
NO ENTRY	29	1	10/16V	CHEMICAL CONDENSOR 16V SS 10 ?	
NO ENTRY	30	1	100/10V	CHEMICAL CONDENSOR 10V SS 100 ?	
NO ENTRY	31	2	100/16V	CHEMICAL CONDENSOR 16V SS 100 ?	
NO ENTRY	32	4	22P	CHIP CERAMIC CAPACITOR 1608 J 22 ?	T
NO ENTRY	33	1	220P	CHIP CERAMIC CAPACITOR 1608 J 220 ?	T
NO ENTRY	34	1	223P	CHIP CERAMIC CAPACITOR 1608 J 0.022 ?	T
NO ENTRY	35	39	104P	CHIP CERAMIC CAPACITOR 1608 J 001 ?	T
NO ENTRY	36	2	22P	CERAMIC CAPACITOR 50V 22 ?	
NO ENTRY	37	3	104P	CERAMIC CAPACITOR 50V 0.1 ?	
NO ENTRY	38	5	000 ohm	CHIP RESISTOR 1608 1/16 WATT J 0 ohm	T

PART LIST

MODEL: AD60V(FRONT PART)

PAGE :3-4

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION	REMARK
NO ENTRY	39	15	10 ohm	CHIP RESISTOR 1608 1/16 WATT J 10 ohm	T
NO ENTRY	40	1	100 ohm	CHIP RESISTOR 1608 1/16 WATT J 100 ohm	T
NO ENTRY	41	4	220 ohm	CHIP RESISTOR 1608 1/16 WATT J 220 ohm	T
NO ENTRY	42	28	470 ohm	CHIP RESISTOR 1608 1/16 WATT J 470 ohm	T
NO ENTRY	43	1	560 ohm	CHIP RESISTOR 1608 1/16 WATT J 560 ohm	T
NO ENTRY	44	19	1K ohm	CHIP RESISTOR 1608 1/16 WATT J 1K ohm	T
NO ENTRY	45	30	10K ohm	CHIP RESISTOR 1608 1/16 WATT J 10K ohm	T
NO ENTRY	46	1	22K ohm	CHIP RESISTOR 1608 1/16 WATT J 22K ohm	T
NO ENTRY	47	1	47K ohm	CHIP RESISTOR 1608 1/16 WATT J 47K ohm	T
NO ENTRY	48	1	100K ohm	CHIP RESISTOR 1608 1/16 WATT J 100K ohm	T
NO ENTRY	49	2	1M ohm	CHIP RESISTOR 1608 1/16 WATT J 1M ohm	T
*V904700004	50	2	2P ANGLE WAFER	2P ANGLE WAFER 2mm PICH	
*V904753003	51	1	2P ANGLE CONNECTOR	SHIELD WIRE UL1533 AWG26 GRY 240mm	
*V904752012	52	1	2P ANGLE CONNECTOR	FLAT WIRE UL1007 AWG 26 BLK.WHT 250mm	

PART LIST

MODEL: AD60V(FRONT PART)

PAGE :4-4

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION	REMARK
*V904753007	53	1	2P ANGLE CONNECTOR	SHIELD WIRE UL1533 AWG26 GLY 190mm	
*V904752013	54	1	2P ANGLE CONNECTOR	FLAT WIRE UL1007 AWG26 BLK,WHT 300mm	
*V904752014	55	1	2P ANGLE CONNECTOR	FLAT WIRE UL1007 AWG26 BLK,WHT 120mm	
*V904753006	56	1	3P ANGLE CONNECTOR	SHIELD WIRE UL2547 AWG26 GLY 90mm	
*V904752015	57	1	3P ANGLE CONNECTOR	FLAT WIRE UL1007 AWG26 BLK,WHT,WHT 270mm	
*V904751011	58	1	8P ANGLE CONNECTOR	WIRE UL1007 AWG26 BLK,WHT,WHT 180mm	
*V904751012	59	1	9P ANGLE CONNECTOR	WIRE UL1007 AWG26 BLK,WHT,WHT 260mm	

PART LIST

MODEL: AD-60VT (OTHERS)

PAGE :1-3

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION	REMARK
*V906410002	1	1	MDF 18t	WOODEN CABINET	
*V906430017	1-1	3	2174 x 323,496 x 157,496 x 287,496 x 90	LEATHER	
*V906440005	1-2	1		NET	
*V906440001	1-3	1	486	GOLD FRONT PANEL	
*V906440003	1-4	2	2.5 phi x 2094, 2.5 phi x 1714	GOLD BEADING	
*V906440002	1-5	1	5 phix1950m/m	WHITE STRIPER	
*V906400001	2	1	PVC	HANDLE BAR	
*V906400002	3	2	DIE CASTING	HANDLE EDGE	
*V906400018	4	1	ABS		
*V906400009	5	6			
*V906400008	6	1			
*V906400007	7	1			
*V906420001	8	4			
*V906430009	9	1		MAIN CHASSIS	
*V906430005	10	1	P.V.C 0.5t HAIRLINE	FRONT PANEL	
SEE BELOW	11	1	P.V.C 0.5t BK	REAR PANEL	
*V906430023				REAR PANEL AD60VT 120V	
*V906430024				REAR PANEL AD60VT 230V	
*V906430025				REAR PANEL AD60VT 230UK	
*V906430026				REAR PANEL AD60VT 230AU	
*V906430007				REAR PANEL AD60VT 100JP	
*V906400003	12	11	ABS (CHICKEN HEAD)	KNOB	
*V906400017	13	7	ABS	ROUND KNOB	
*V906400016	14	8	ABS	TACT KNOB	
*V906400010	15	1	ABS	TACT KNOB(1)	
*V906400011	16	1	ABS	TACT KNOB(2)	
*V906400012	17	1	ABS	TACT KNOB(3)	
*V906400013	18	1	ABS	TACT KNOB(4)	
*V906400014	19	1	ABS	TACT KNOB(upper)	
*V906400015	20	1	ABS	TACT KNOB(lower)	
*V906430035	21	5	BRASS 47.5m/m	PCB SPACER	
*V906430014	23	2		HEAT SINK BRACKET	

PART LIST

MODEL: AD-60VT (OTHERS)

PAGE :2-3

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION	REMARK
*V906430015	24	1	5 phi	LED BUSHING	
*V906430016	25	19	PLASTIC 10m/m	LED SUPPORT	
*V906430017	26	1	NBR	TUBE COVER	
*V906430018	27	1	12 phi	RUBBER BUSHING	SPEAKER
*V906430020	28	2	PLASTIC 6m/m	SEGMENT SPACER	
*V906430032	29	4	TIN 0.2t	JACK GROUND	
*V906440006	30	1	AL EXTRUD	HEAT SINK	
*V906430018	31	2	240x10x2t	RUBBER SPONGE	CHASSIS SIDE TOP
*V906430019	32	2	110x10x2t	RUBBER SPONGE	CHASSIS SIDE LOWER
*V906430020	33	6	40x10x2t	RUBBER SPONGE	CHASSIS BACK
*V906440016	34	3	20x20x4t	FELT	CHASSIS FRONT
*V906450001	35	4	M4 x 0.7P x 20 OH NI	SCREW	HANDLE
*V906450002	36	6	M5 x 25 TH BK	SCREW	CHASSIS+BACK
*V906450016	37	6	M6 x 30 TH BK	SCREW	CHASSIS SIDE
*V906450017	38	2	M6 x 27 TH BK	SCREW	INPUT HIGH,POWER ON
*V906450006	39	4	3.5 phi x 18 WITH WASHER1	SCREW	
*V906450007	40	1	3.5 phi x 15 WITH WASHER1	SCREW	CORD TIE
*V906450004	41	12	3.5 phi x 13 OH BK 1	SCREW	
*V906450005	42	12	2 phi x 8 PH BK 1	SCREW	
*V906460001	43	4	M4	FLANGE NUT	SPEAKER
*V906460009	44	8	14 phi x 6 phi x 0.8t BK	PLATE WASHER	CHASSIS SIDE
*V906460003	45	6	12 phi x 5 phi x 0.5t BK	PLATE WASHER	CHASSIS+BACK
*V906450008	46	2	M4 x 10 WITH WASHER	SCREW	EARTH
*V906450009	47	4	M3 x 10 BH NI	SCREW	IC,15VRE
*V906450010	48	2	M3 x 8 BH NI	SCREW	H.SINK+BRAKET
*V906450011	49	2	M3 x 6 BH NI	SCREW	FRONT PCB
*V906450012	50	20	M3 x 8 BH BK	SCREW	PCB SPACER
*V906450014	51	10	3 phi x 8 BH BK 2 CUT	SCREW	PCB BRACKET 7,HEAT SINK 3

PART LIST PART LIST

MODEL: AD-60VT (OTHERS)

PAGE :3-3

PART NO	N0	Q'TY	SPECIFICATION	DESCRIPTION	REMARK
*V906460001	52	2	M4	FLANGE NUT	EARTH
*V906460006	53	2	4 phi INTERNAL	TOOS WASHER	EARTH
*V906460005	54	19	3 phi	PLATE WASHER	POWER PCB SPACER UPPER5, CHASSIS BOTTOM14
*V906460007	55	33	3 phi	SPRING WASHER	H.SINK9,BRACKET 3, CHASSIS BOTTOM 14,FRONT PCB2,MAIN PCB5
*V907000102	56	1	DW2	INNER CARTON	
*V907000104	57	4		INSTA PACKING	
Refer below	58	1	PAPER	MANUAL	
OMADVTE				AD60VT/120VT MANUAL ENGLISH	
OMADVTF				AD60VT/120VT MANUAL FRENCH	
OMADVTD				AD60VT/120VT MANUAL GERMANY	
OMADVTE				AD60VT/120VT MANUAL JAPANESE	
NO ENTRY	59	1	PAPER	WRRANTY CARD	USA
NO ENTRY	60	1	PE 0.05t(850 x 900)	POLY BAG(SET)	
NO ENTRY	61	1	PE 0.05t(200 x 290)	POLY BAG(MANUAL)	
NO ENTRY	62	1	STICKER	BAR CORD	
NO ENTRY	63	1	STICKER	SERIAL NO	REAR PANEL