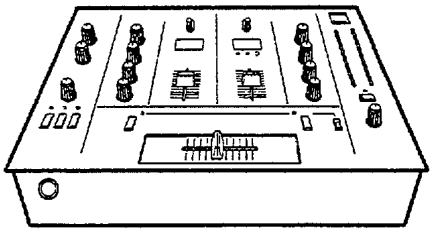
Service Manual

PIONEER
The Art of Entertainment

RTV servis Horvat
Kešinci, 31402 Semeljci
031-856-139
031-856-637
098-788-319
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Croatia



ORDER NO.
RRV1711

DJ MIXER

DJM-300

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	DJM-300		
KUC	○	AC120V	————
SYL	○	AC110V/120V/220–230V/240V	With the voltage selector

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

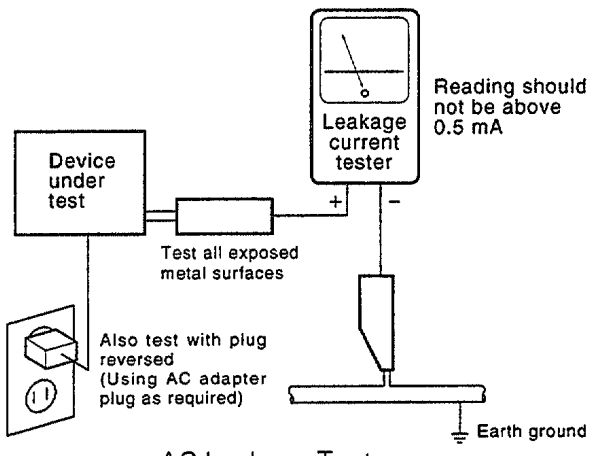
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage , etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

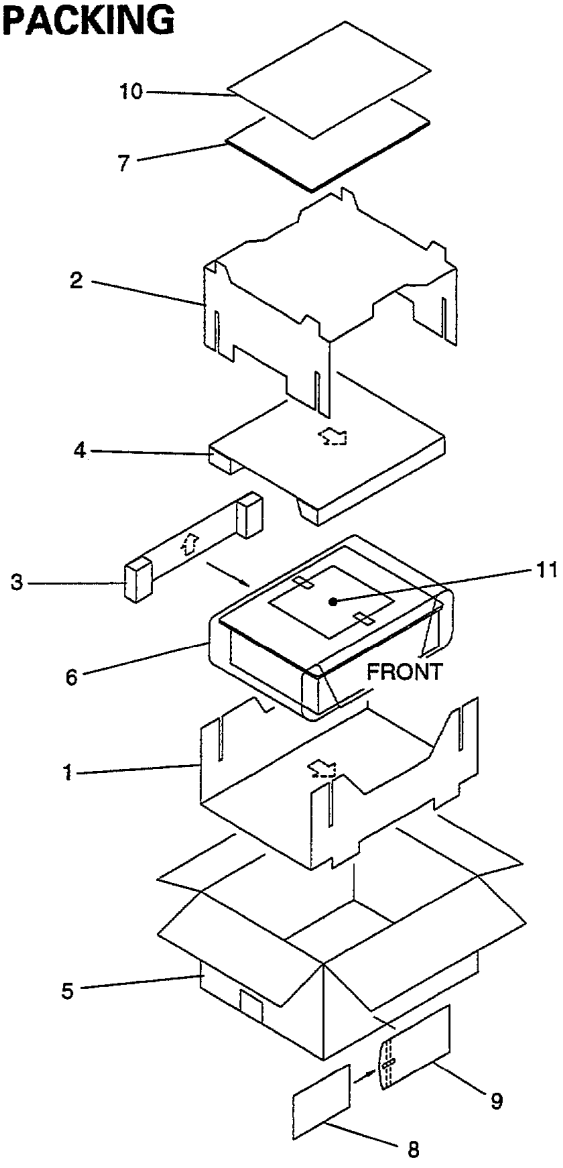
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

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2. EXPLOLDED VIEWS AND PARTS LIST

NOTES : ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *Screw adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING



(1) Parts List

Mark	No.	Description	Parts No.
	1	PAD A	DHA1370
	2	PAD B	DHA1371
	3	PAD C	DHA1372
	4	PAD D	DHA1375
	5	PACKING CASE	See Contrast table (2)
	6	SHEET	RHX1006
	7	OPERATING INSTRUCTIONS	See Contrast table (2)
NSP	8	CARD	See Contrast table (2)
NSP	9	VINYL BAG	See Contrast table (2)
NSP	10	WARRANTY CARD	See Contrast table (2)
NSP	11	CAUTION CARD 220V	See Contrast table (2)

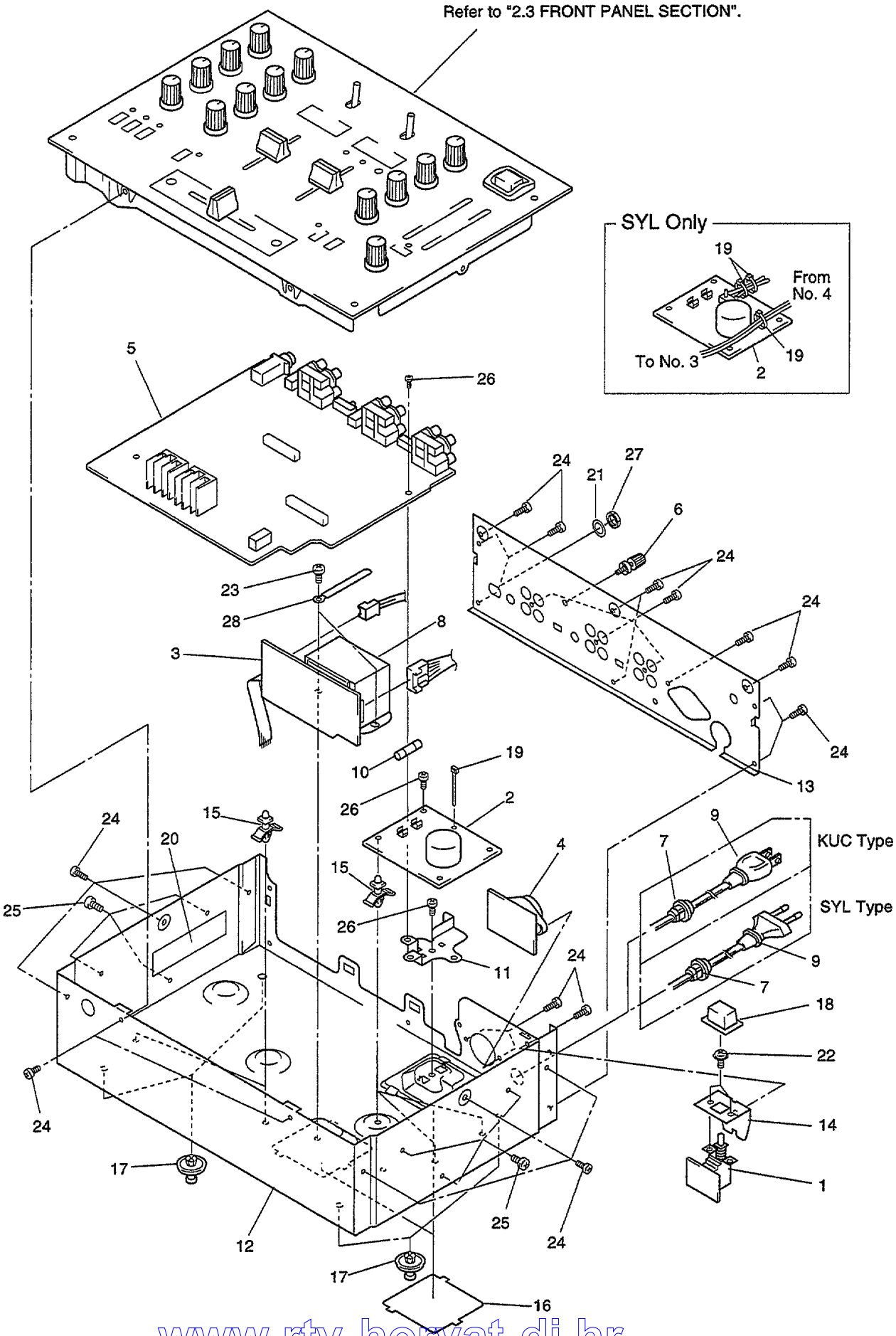
(2) Contrast Table

DJM-300/KUC and SYL have the same construction except for the following:

Mark	No.	Description	Part No.		Remarks
			DJM-300/KUC	DJM-300/SYL	
	5	Packing Case	DHG1737	DHG1736	
	7	Operating Instructions (English/French)	DRB1206	Not used	
	7	Operating Instructions (English/French/German/Italian/Dutch/ Swedish/Spanish/Chinese)	Not used	DRB1207	
NSP	8	Card	DRY1032	Not used	
NSP	9	Vinyl Bag	DHL1011	Not used	
NSP	10	Warranty Card	DRY1171	Not used	
NSP	11	Caution Card 220V	Not used	ARR7003	

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2.2 EXTERIOR



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(1) Parts List

Mark	No.	Description	Parts No.
NSP	1	POWER SW ASSY	DWR1262
NSP	2	POWER SUP ASSY	See Contrast table (2)
NSP	3	TRANS ASSY	See Contrast table (2)
NSP	4	VOLTAGE SELECT ASSY	See Contrast table (2)
	5	TERMINAL ASSY	DWZ1072
	6	TERMINAL SCREW	AKE-031
	7	CORD STOPPER	See Contrast table (2)
⚠	8	POWER TRANSFORMER (T701)	See Contrast table (2)
⚠	9	AC POWER CORD	See Contrast table (2)
⚠	10	FUSE (FU701)	See Contrast table (2)
	11	PCB STAY	DNF1544
NSP	12	CHASSIS	DNA1208
NSP	13	REAR PANEL	See Contrast table (2)
	14	PLATE (SW)	DNF1545
NSP	15	PCB HOLDER	PNW2100
	16	BOTTOM COVER	DEC2037
	17	FOOT (RUBBER)	REC-434
	18	POWER KNOB	DAC1847
	19	BINDER	ZCA-SKB90BK
	20	65 LABEL	See Contrast table (2)
	21	WASHER	DBE1010
	22	SCREW	AMZ30P040FMC
	23	SCREW	BBZ40P060FMC
	24	SCREW	BBZ30P080FZK
	25	SCREW	BBZ40P080FZK
	26	SCREW	BBZ30P060FMC
	27	NUT	NKX2FUC
	28	CORD CLAMPER	See Contrast table (2)

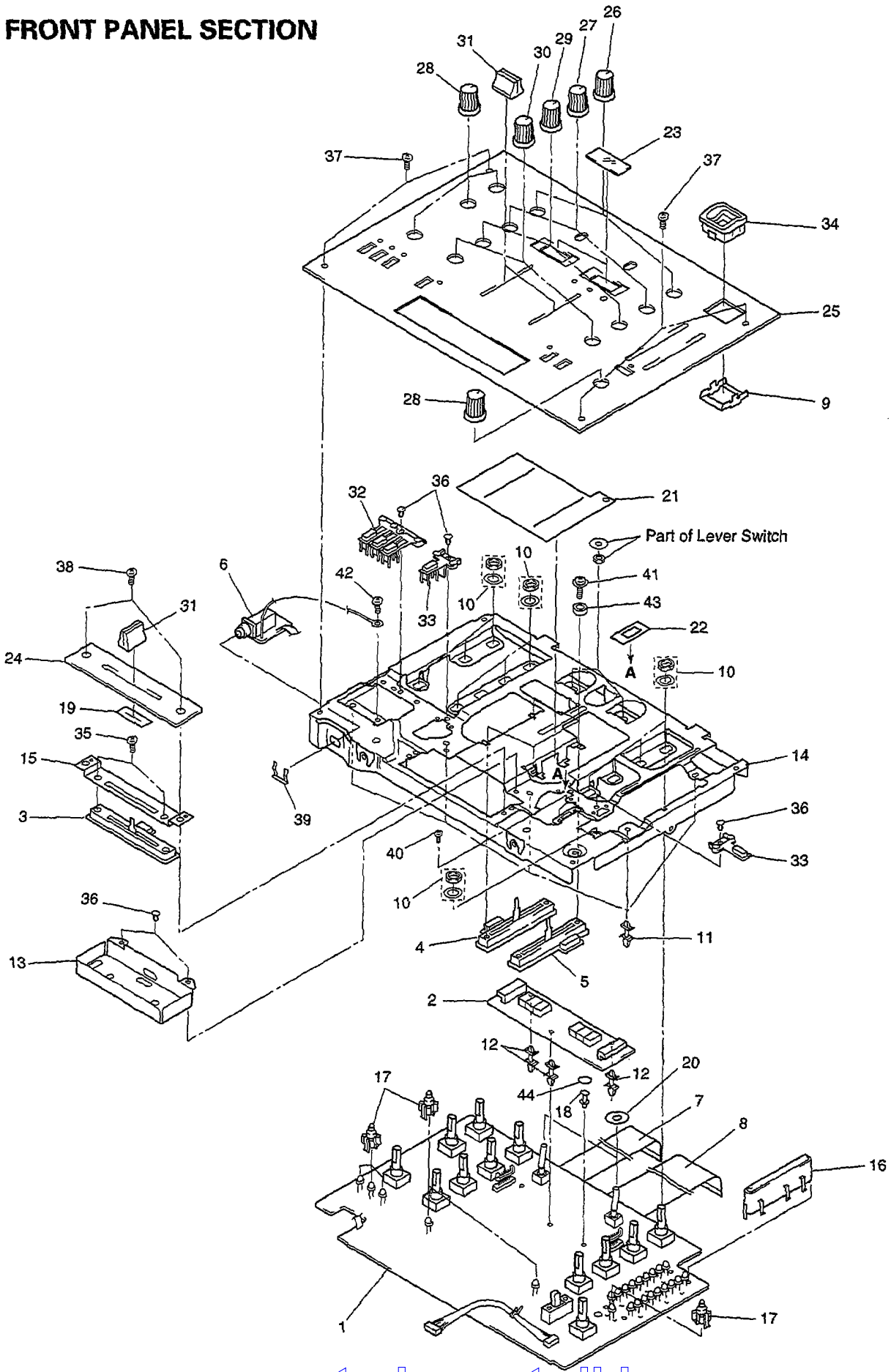
(2) Contrast Table

DJM-300/KUC and SYL have the same construction except for the following:

Mark	No.	Description	Part No.		Remarks
			DJM-300/KUC	DJM-300/SYL	
NSP	2	POWER SUP Assy	DWR1267	DWR1260	
NSP	3	TRANS Assy	DWR1268	DWR1261	
NSP	4	VOLTAGE SELECT Assy	Not used	DWR1263	
	7	Cord Stopper	CM-22C	CM-22B	
⚠	8	Power transformer (T701)	DTT1137	DTT1136	
⚠	9	AC Power Cord	PDG1015	PDG1003	
⚠	10	Fuse (FU701)	VEK1008 (400 mA)	AEK1049 (T315 mA)	
NSP	13	Rear Panel	DNC1438	DNC1437	
	20	65 Label	ORW1069	Not used	
NSP	28	Cord Clamper	Not used	ZCB-4772B	

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2.3 FRONT PANEL SECTION



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(1) Parts List

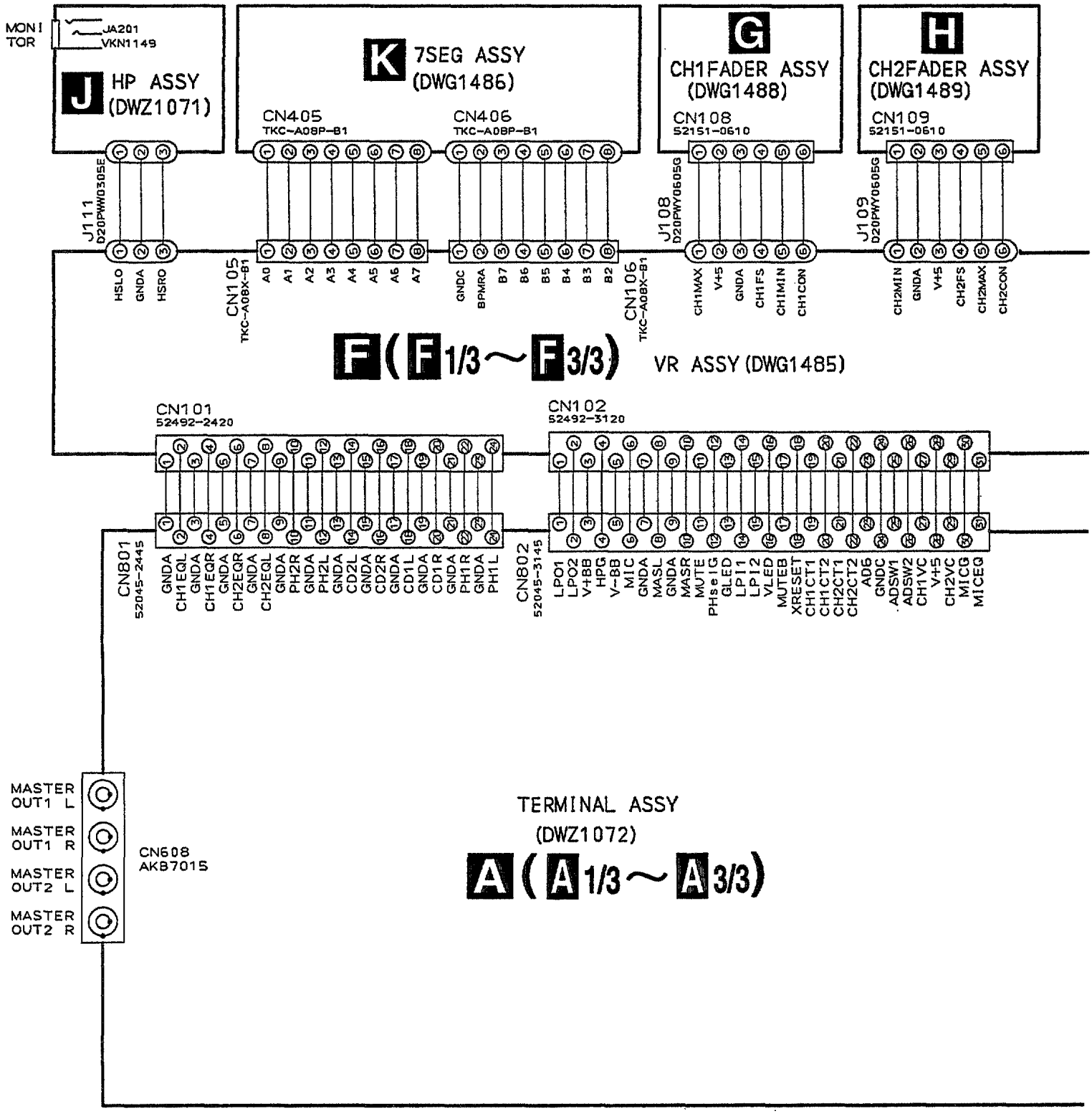
Mark	No.	Description	Parts No.
	1	VR ASSY	DWG1485
NSP	2	7SEG ASSY	DWG1486
NSP	3	C. F. ASSY	DWG1487
NSP	4	CH1 FADER ASSY	DWG1488
NSP	5	CH2 FADER ASSY	DWG1489
NSP	6	HP ASSY	DWZ1071
	7	24P FFC/30V	DDD1108
	8	31P FFC/30V	DDD1113
	9	POWER GUIDE SPACER	DBC2038
	10	VR NUT	DBN1003
NSP	11	PCB SPACER (14)	DEC1387
	12	PCB SPACER (10)	DEC1388
	13	CF COVER	DEC2039
NSP	14	PANEL STAY	DND1203
	15	PLATE (SLIDER)	DNF1518
	16	LEVEL METER HOLDER	DNK3354
	17	LED HOLDER	DNK3356
NSP	18	CARD SPACER	REC1156
	19	FADER PACKING B	DED1100
	20	LEVER SW PACKING	DED1120
	21	FADER PACKING C	DED1121
	22	SLIDE SW PACKING B	DED1125
	23	DISPLAY PANEL	DAH1824
	24	SLIDER PANEL (B)	DAH1825
	25	CONTROL PANEL	DNB1068
	26	ROTARY VR KNOB G	DAA1133
	27	ROTARY VR KNOB DG	DAA1135
	28	ROTARY VR KNOB B	DAA1136
	29	ROTARY VR KNOB GY	DAA1139
	30	ROTARY VR KNOB GG	DAA1140
	31	FADER KNOB	DAC1846
	32	KNOB ASSY	DAC1871
	33	TACT KNOB	DAC1872
	34	POWER KNOB GUIDE	DNK3207
	35	SCREW	AMZ30P040FMC
	36	RIVET	RBM-003
	37	SCREW	BBZ30P080FZK
	38	SCREW	CBZ30P080FZK
	39	SNAP PLATE	VNE1102
	40	SCREW	AMZ26P040FMC
	41	SCREW	PMH20P060FMC
	42	SCREW	BBZ30P060FMC
	43	SPACER	DLA1801
	44	SPACER (WASHER)	DEC1982

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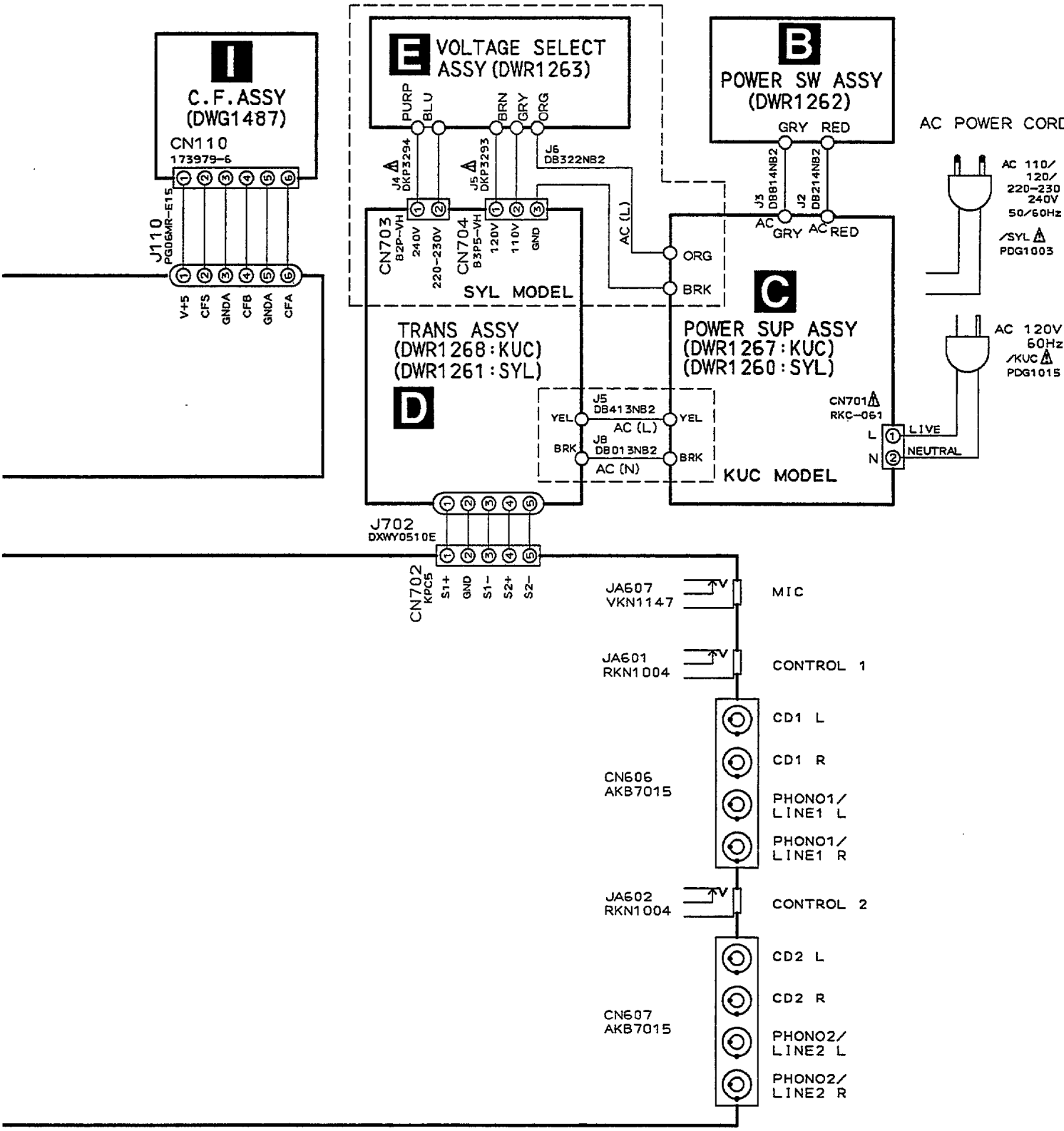
3. SCHEMATIC DIAGRAM

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST".

3.1 OVERALL SCHEMATIC DIAGRAM

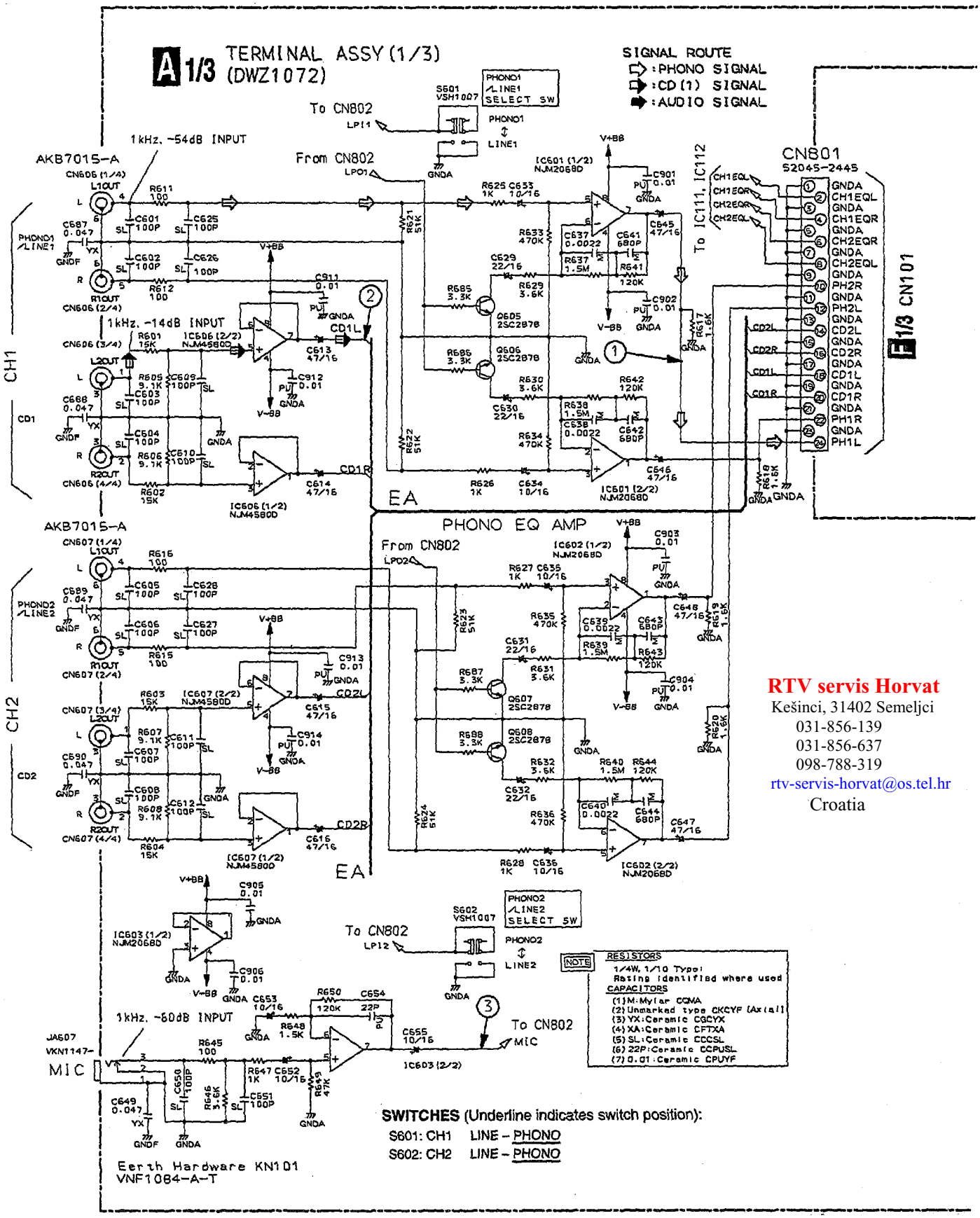


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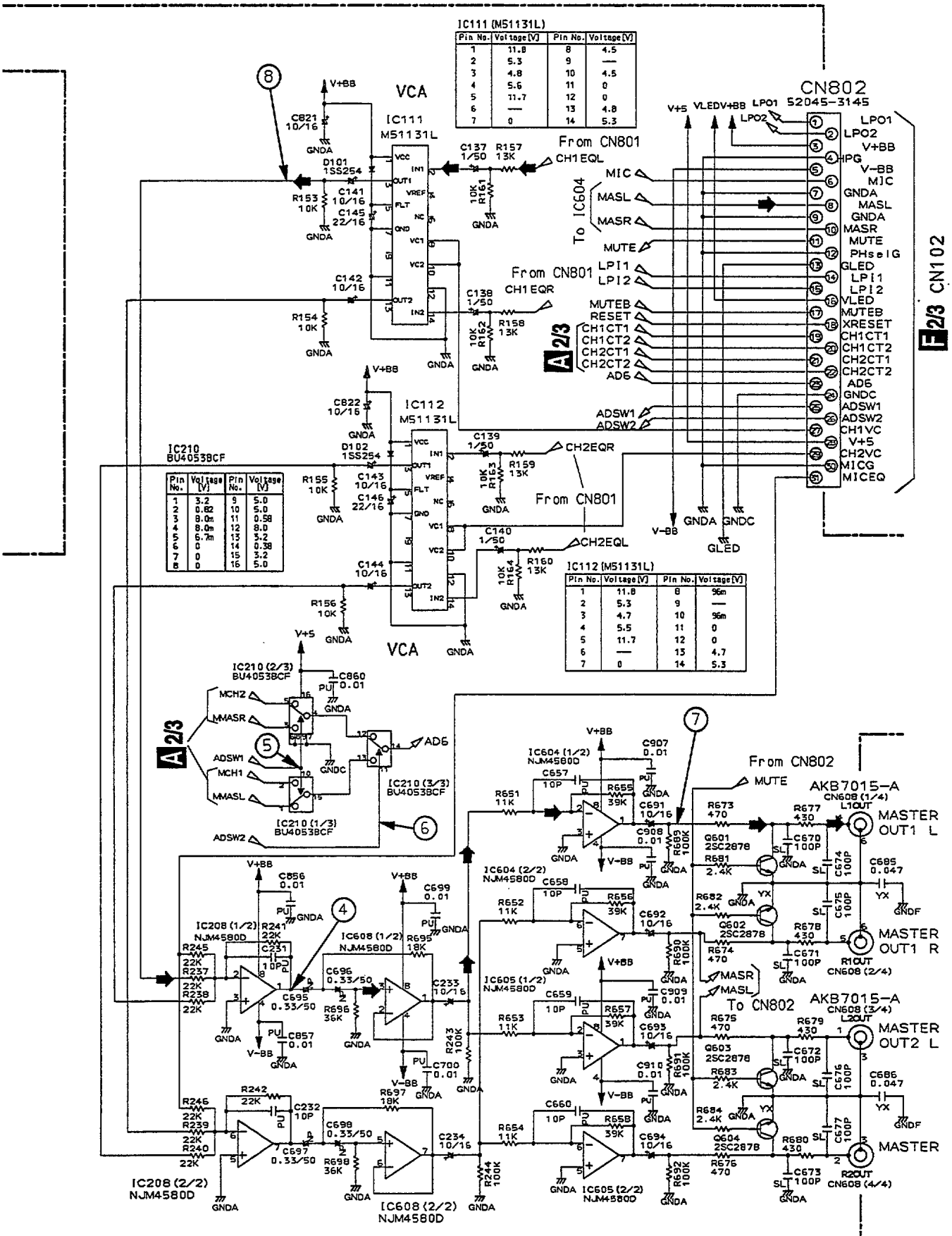
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3.2 TERMINAL ASSY (1/3)



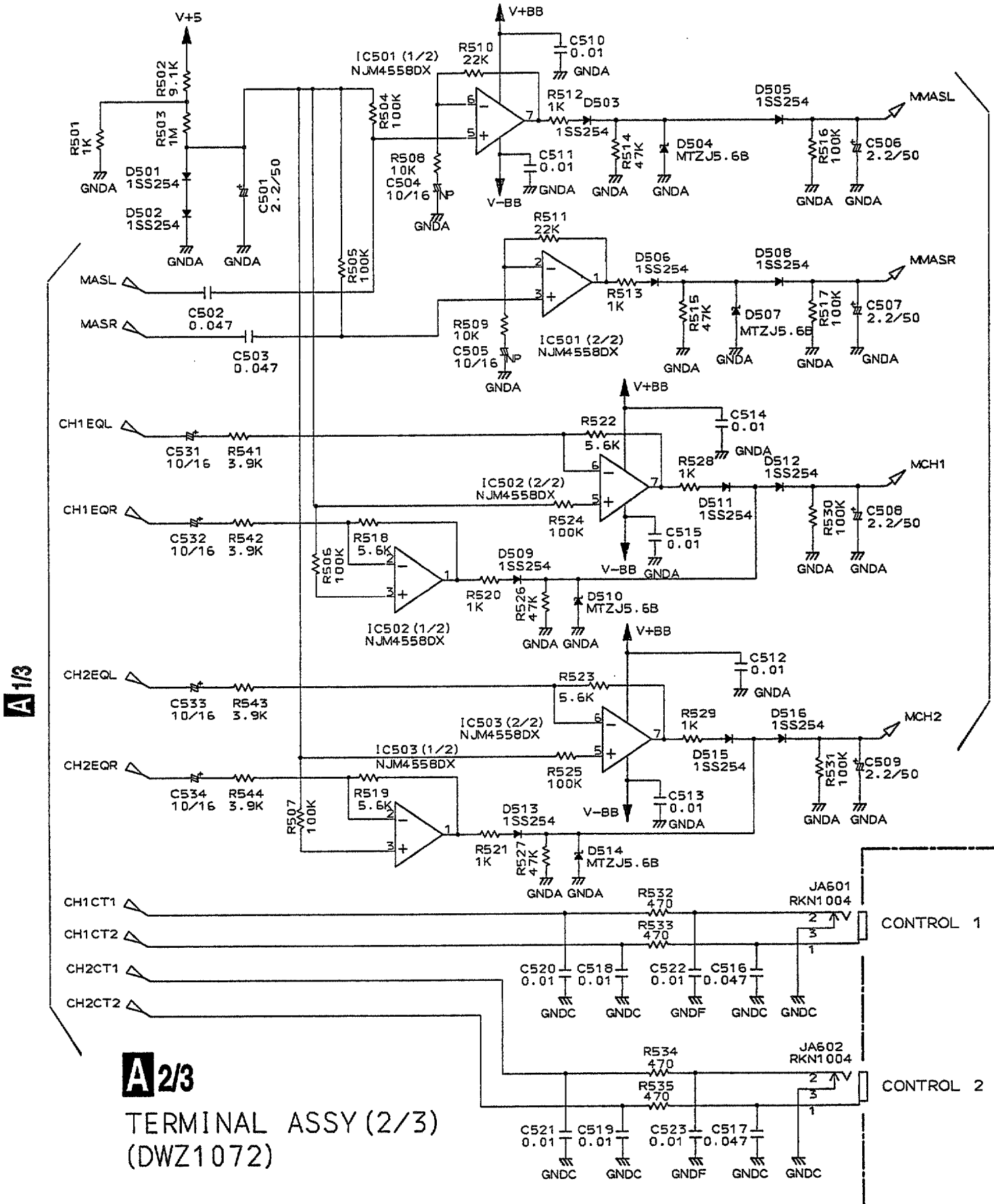
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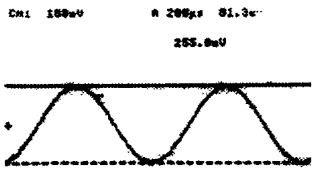
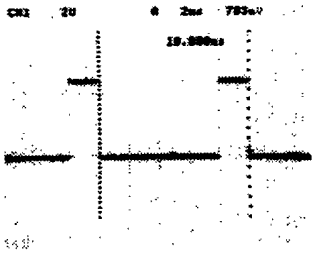
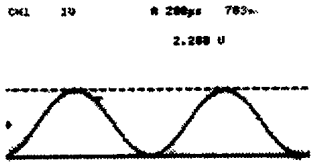
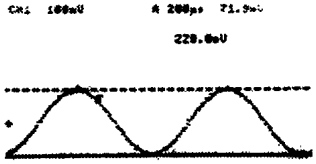
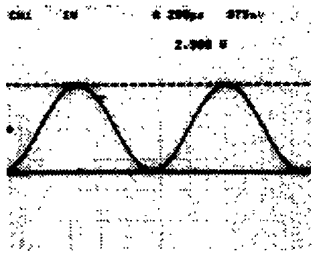
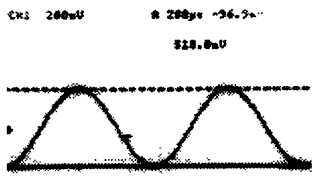
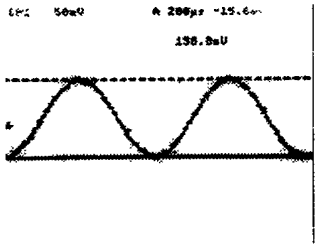
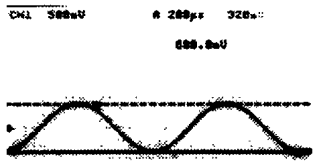
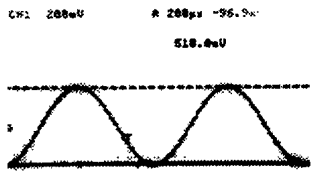
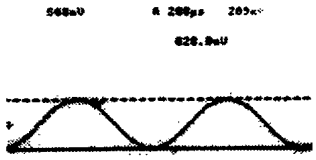
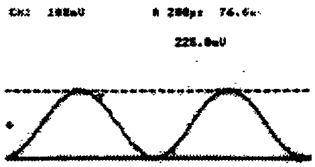
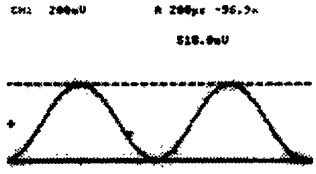
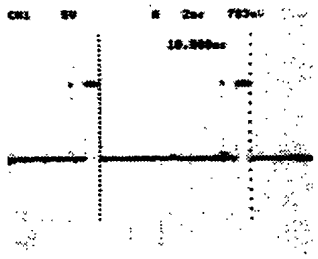
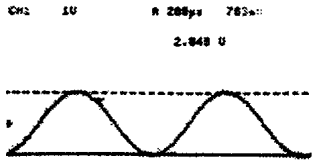
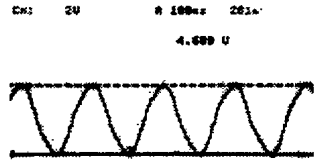
3.3 TERMINAL ASSY (2/3)



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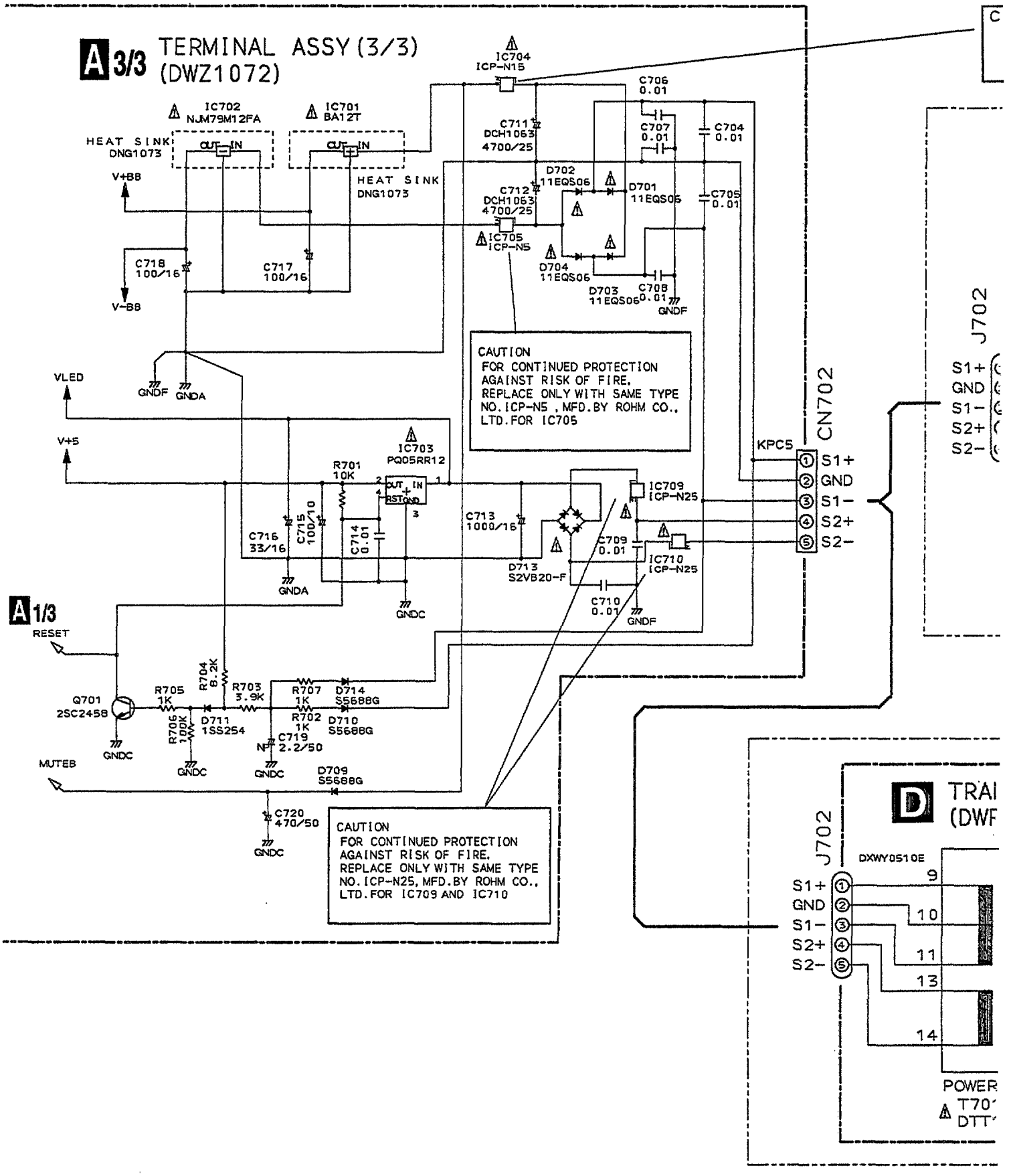
Waveforms

Note: The encircled numbers denote measuring point in the schematic diagram and block diagram.

① PHONO1/LINE1 L Output 1 kHz, –54 dB Input  100 mV/div., 200 µS/div.	⑥  2 V/div., 2 mS/div.	⑪  1 V/div., 200 µS/div.
② CD1 L Output 1 kHz, –14 dB Input  100 mV/div., 200 µS/div.	⑦  1 V/div., 200 µS/div.	⑫  200 mV/div., 200 µS/div.
③ MIC Output 1 kHz, –60 dB Input  50 mV/div., 200 µS/div.	⑧  500 mV/div., 200 µS/div.	⑬  200 mV/div., 200 µS/div.
④  500 mV/div., 200 µS/div.	⑨  100 mV/div., 200 µS/div.	⑭  200 mV/div., 200 µS/div.
⑤  5 V/div., 2 mS/div.	⑩  1 V/div., 200 µS/div.	⑮  2 V/div., 100 nS/div.

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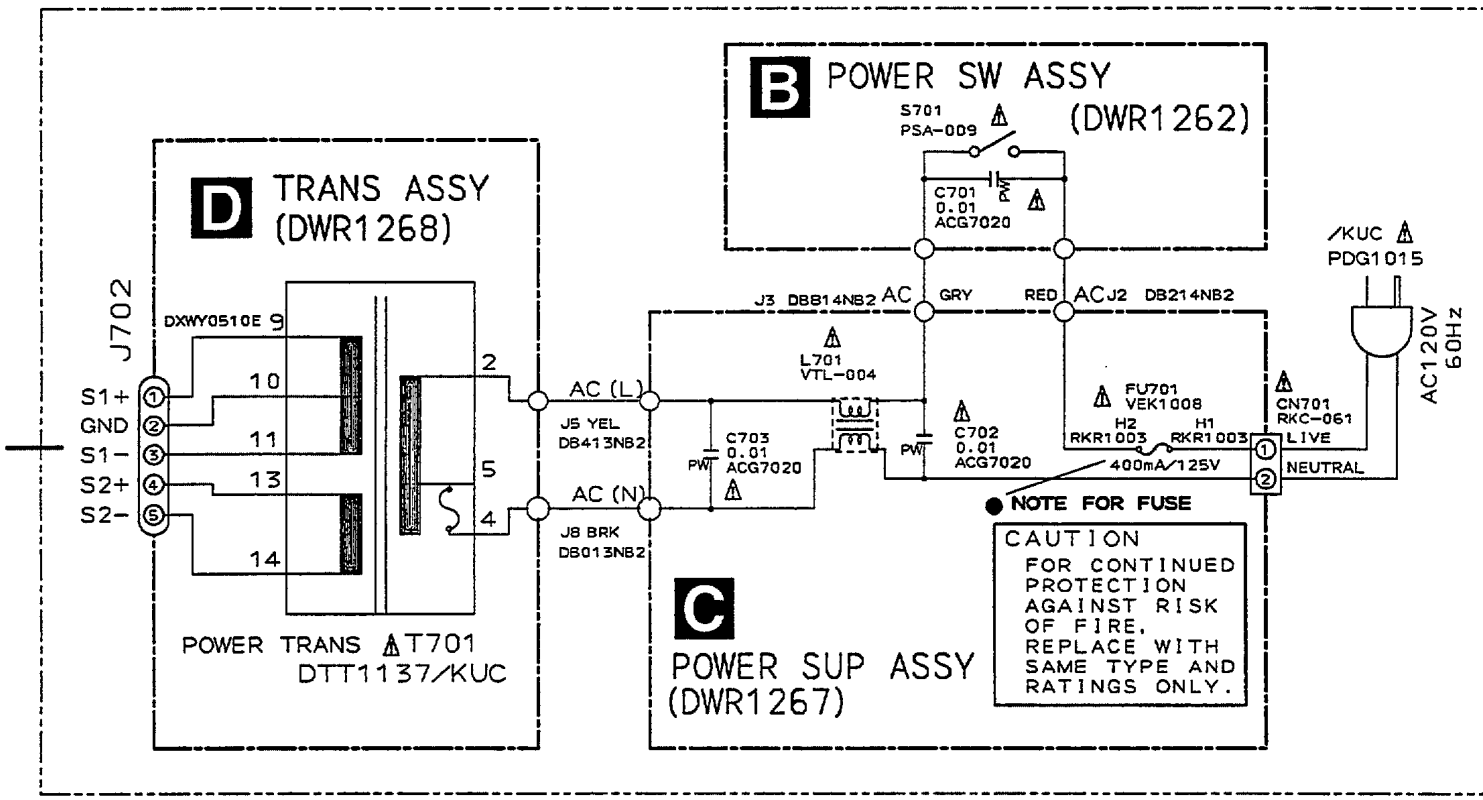
3.4 TERMINAL ASSY (3/3), POWER SW ASSY, POWER SUP ASSY, TRANS ASSY AND VOLTAGE SELECT ASSY



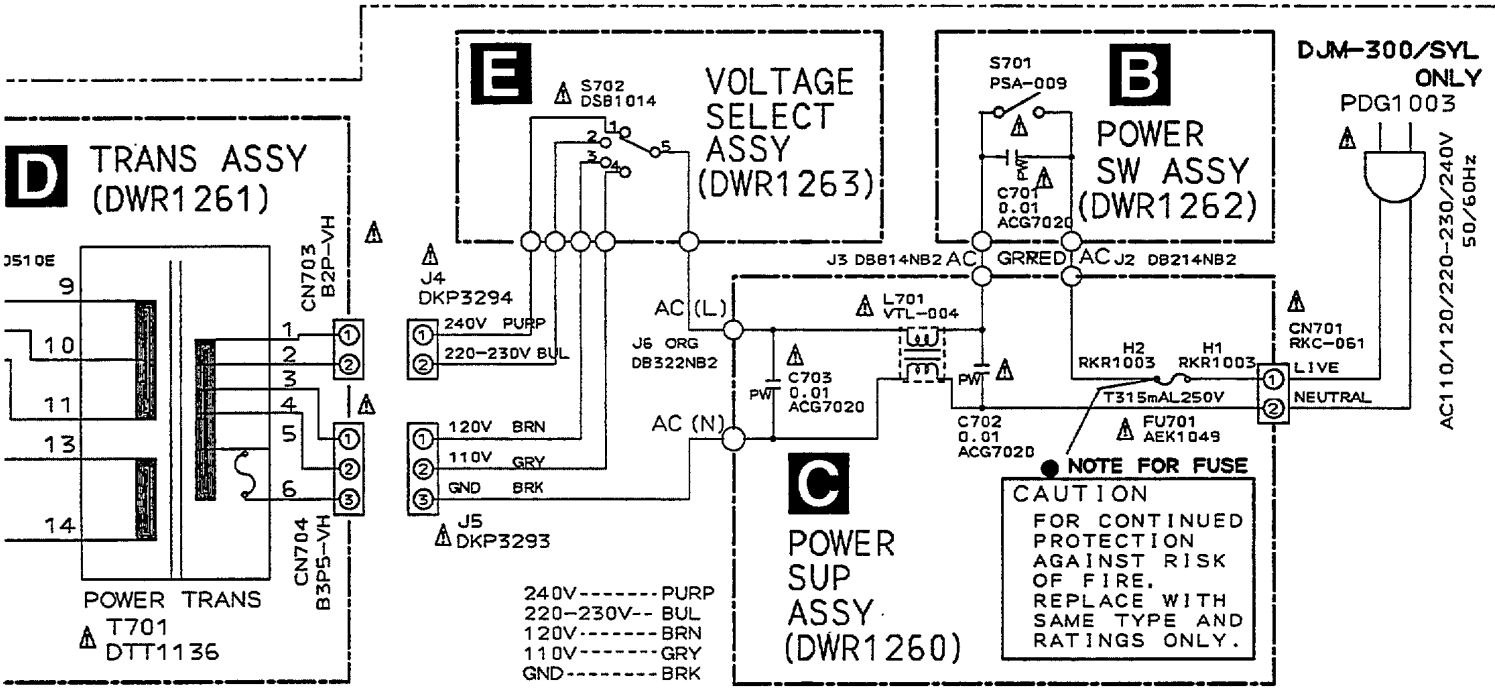
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CAUTION
FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,
REPLACE ONLY WITH SAME TYPE NO. ICP-N15,
MFD. BY ROHM CO., LTD. FOR IC704

KUC MODEL



SYL MODEL



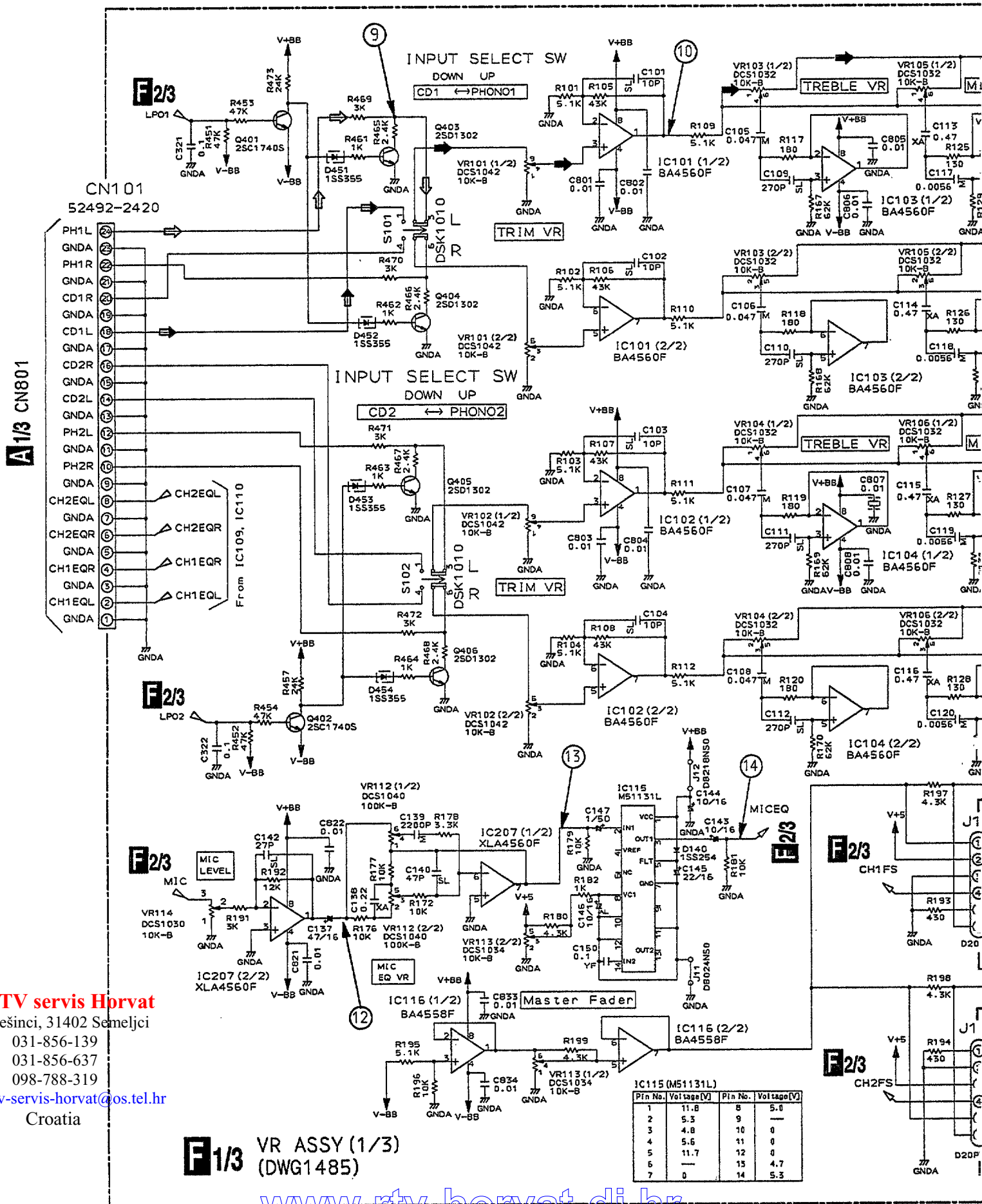
SWITCHES (Underline indicates switch position):

S702: VOLTAGE SELECTOR

AC110V / 120V / 220-230V / 240V

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3.5 VR ASSY (1/3), CH1 FADER ASSY, CH2 FADER ASSY AND C. F. ASSY



Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	11.8	8	5.0
2	5.3	9	—
3	4.8	10	0
4	5.6	11	0
5	11.7	12	0
6	—	13	4.7
7	0	14	5.3

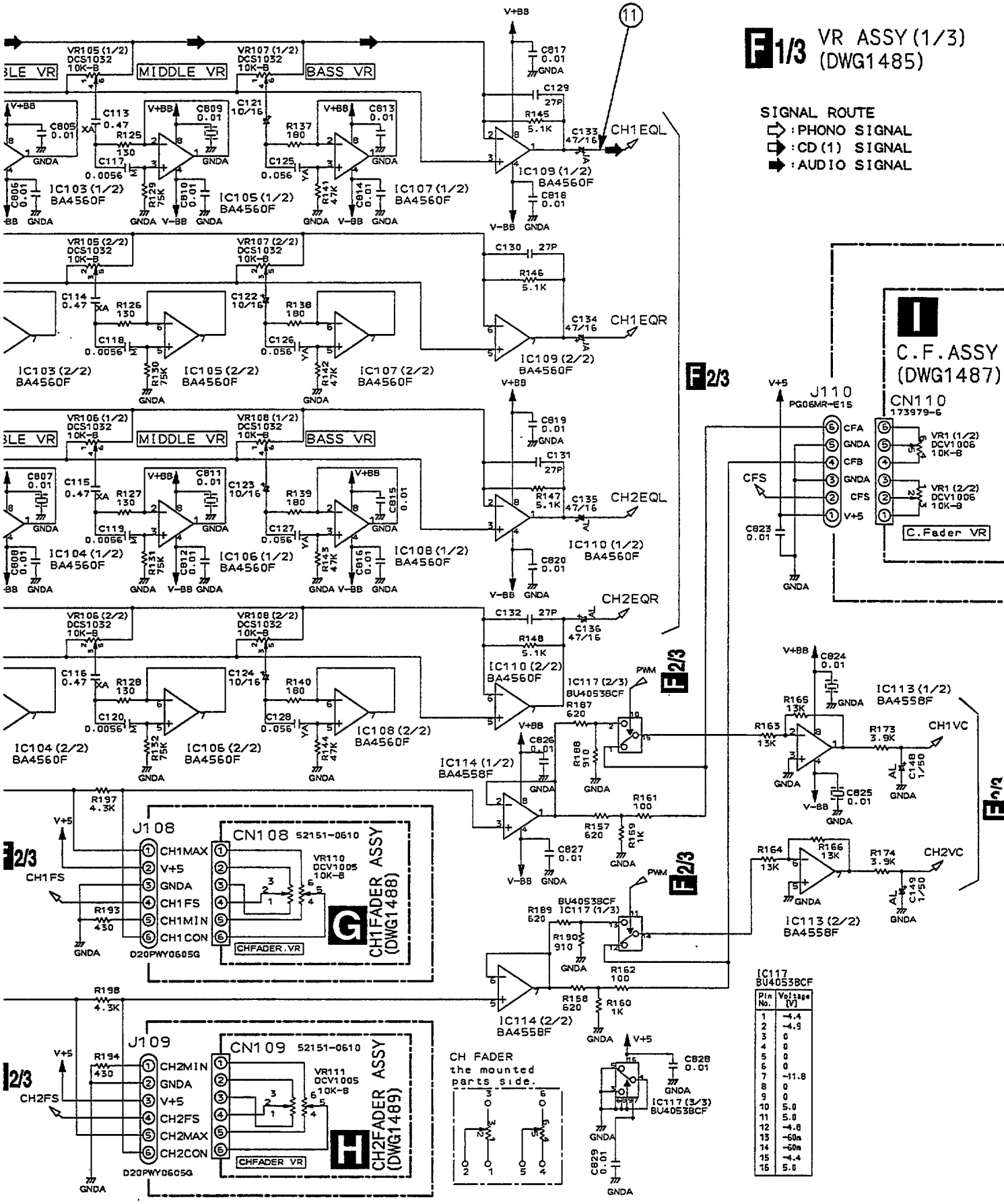
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031-856-139
031-856-637
098-788-319
rtv-servis-horvat@os.tel.hr
Croatia

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SWITCHES (Underline indicates switch position):

S101: INPUT SELECTOR PHONO1 / LINE1

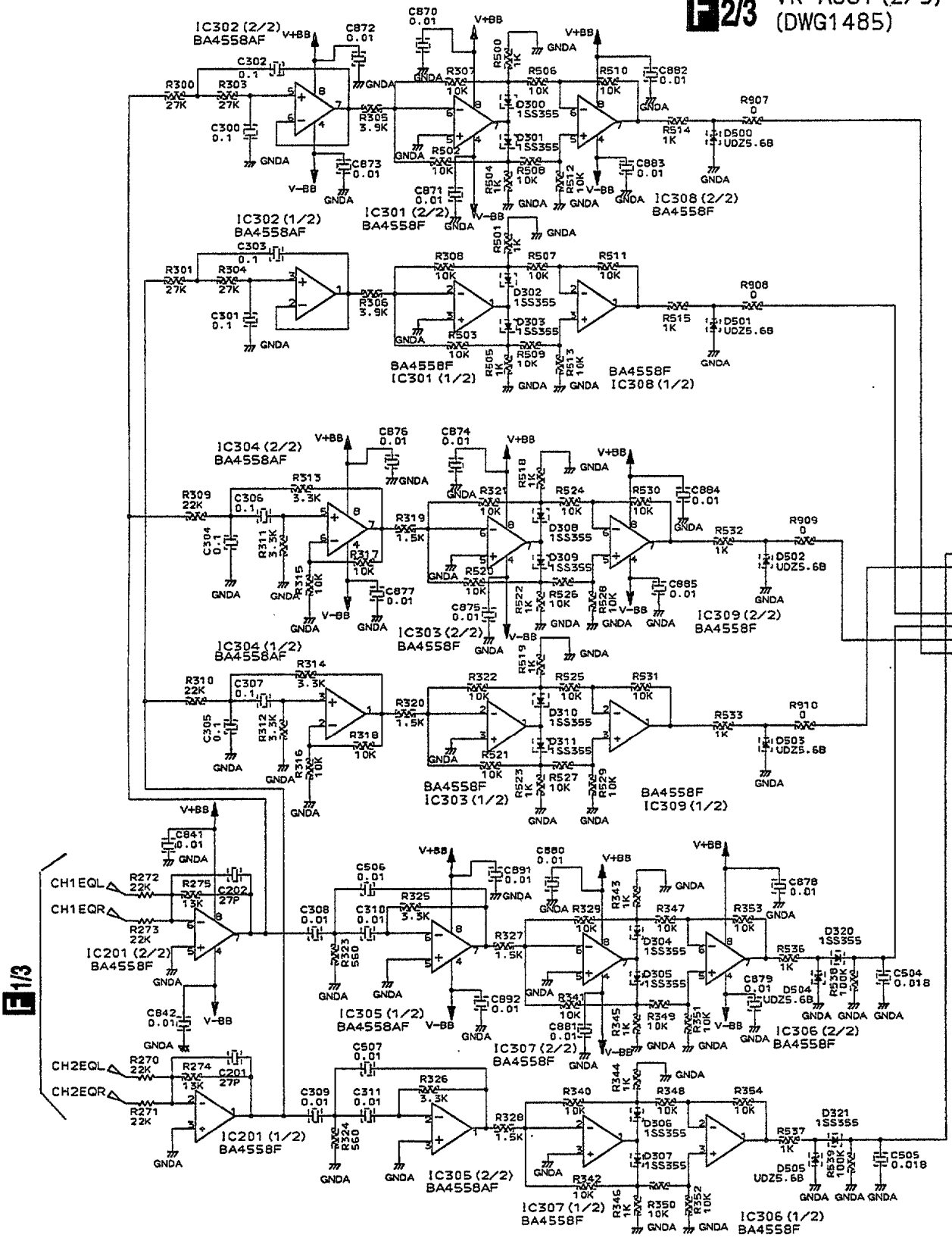
S102: INPUT SELECTOR PHONO2 / LINE2



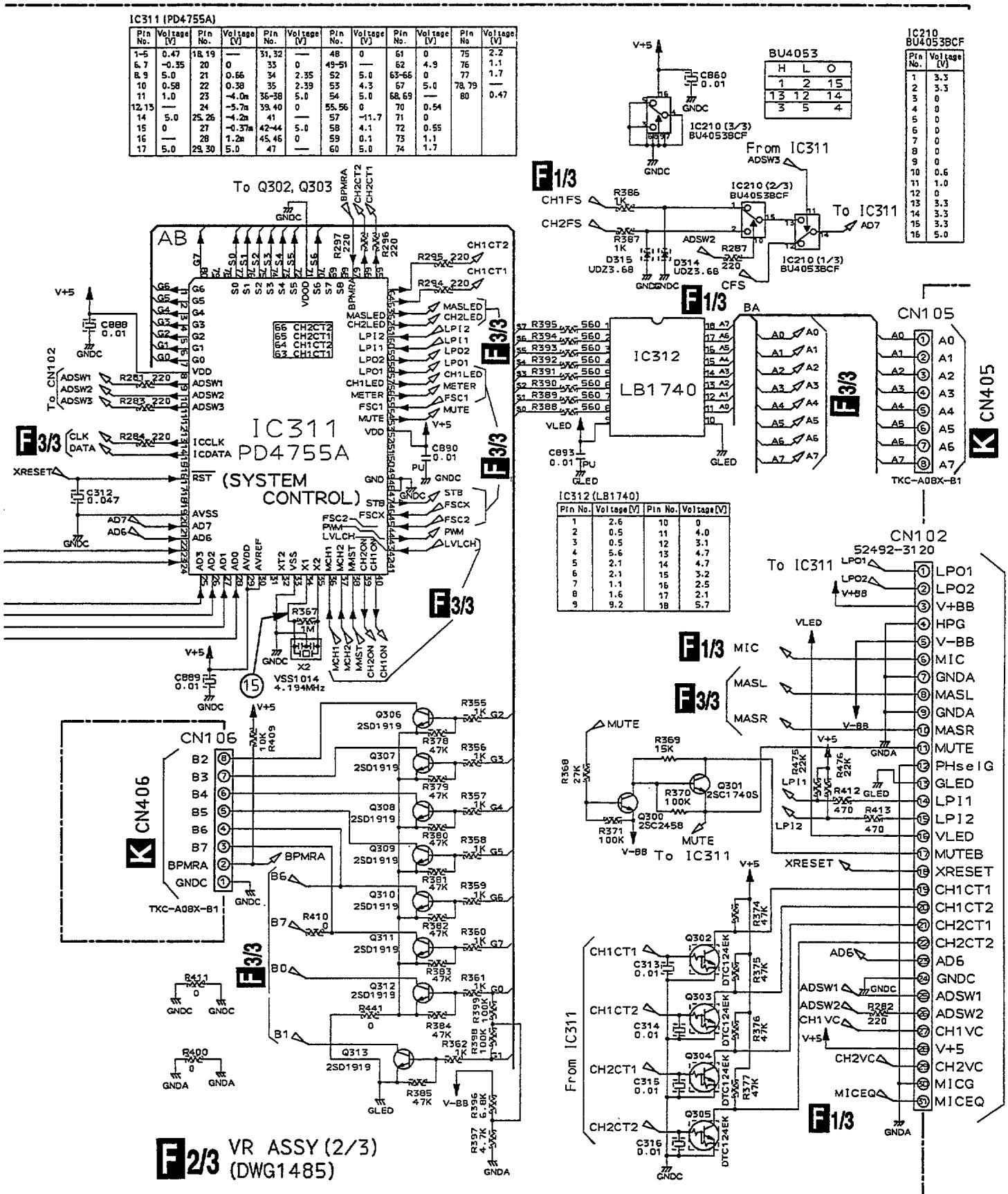
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3.6 VR ASSY (2/3)

F2/3 VR ASSY (2/3) (DWG1485)

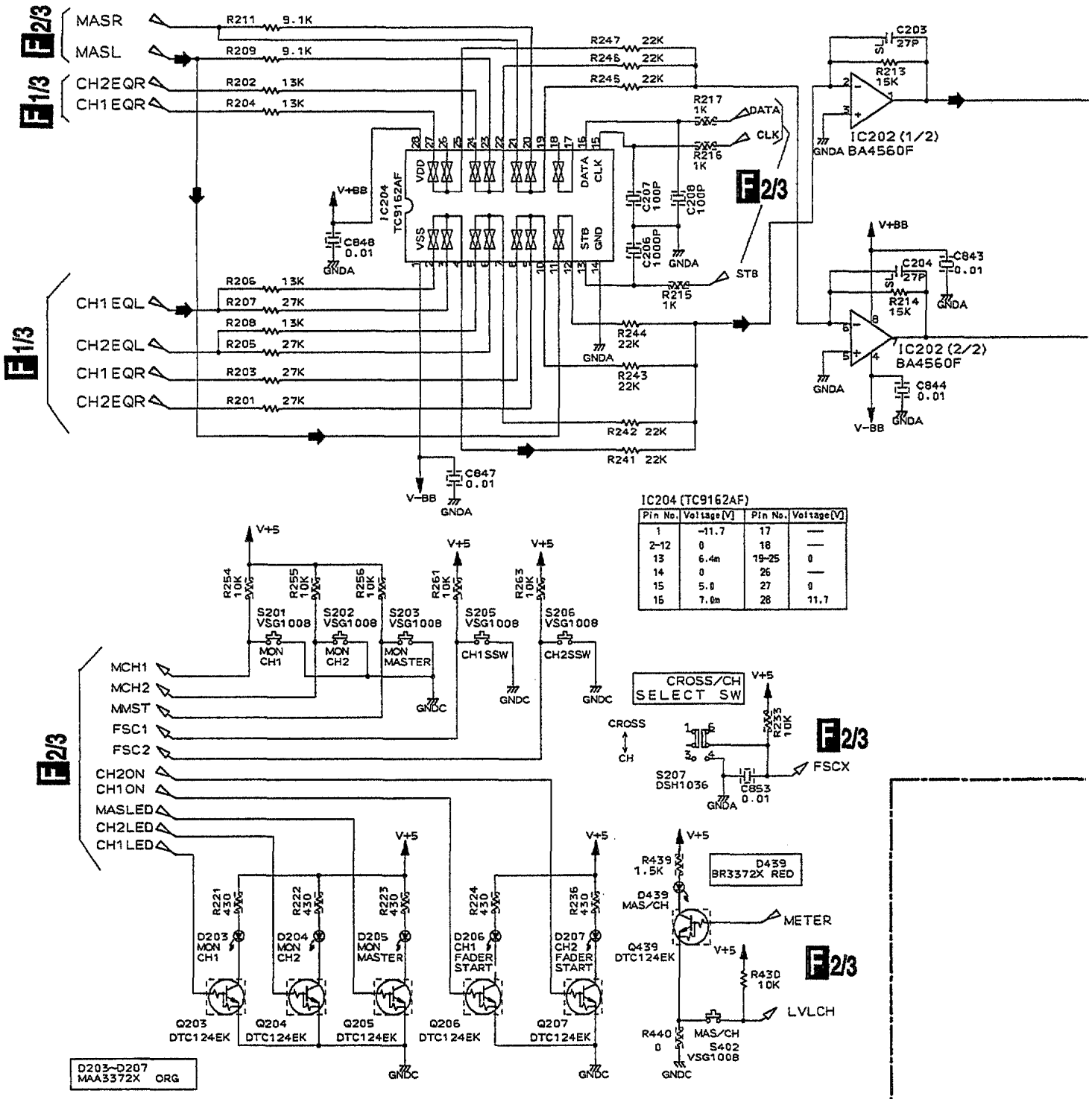


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3.7 VR ASSY (3/3), HP ASSY AND 7SEG ASSY

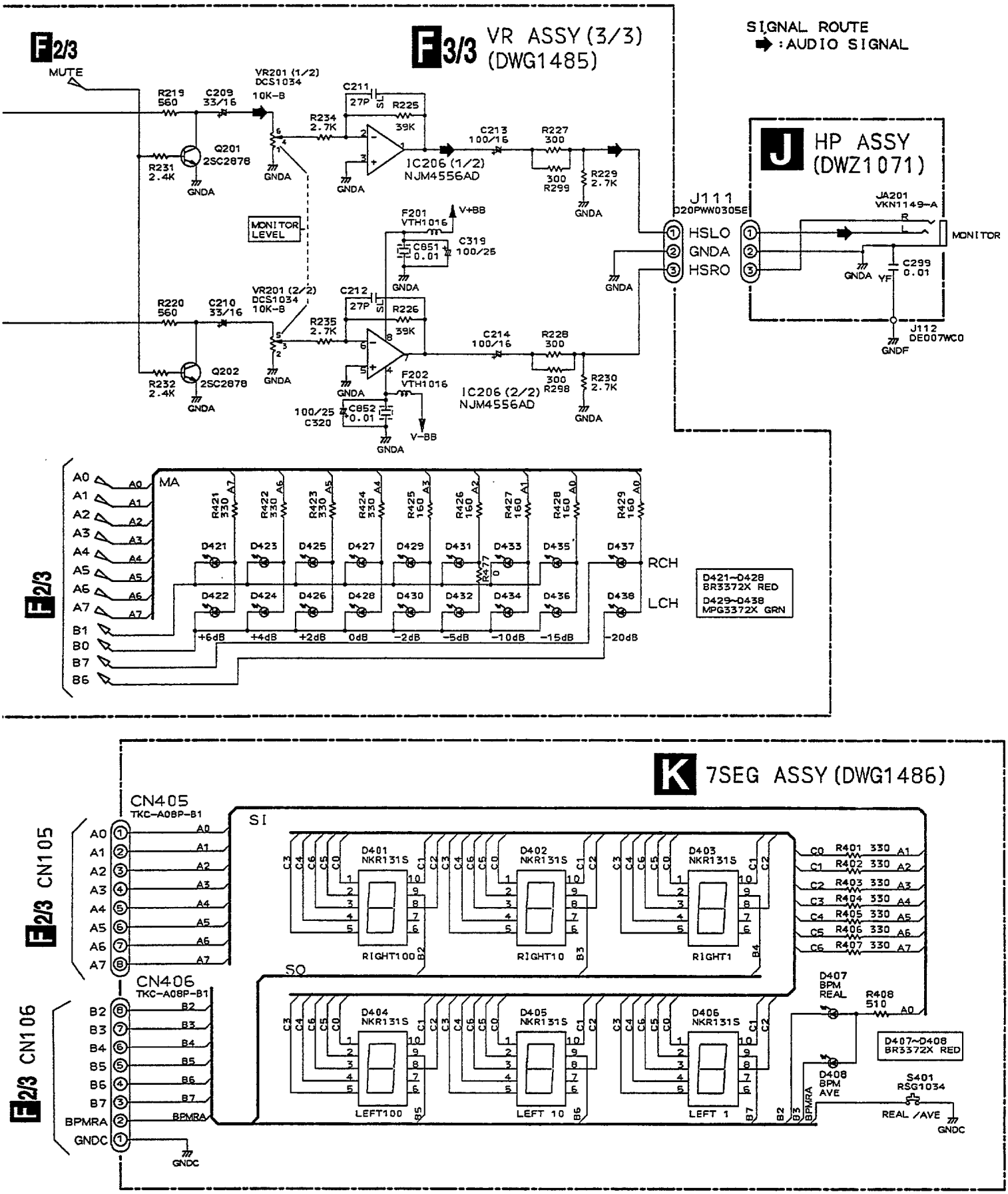


F3/3 VR ASSY (3/3) (DWG1485)

SWITCHES (Underline indicates switch position):

S201: MONITOR SELECTOR CH-1
S202: MONITOR SELECTOR CH-2
S203: MONITOR SELECTOR MASTER
S205: FADER START CH-1
S206: FADER START CH-2
S207: CH / CROSS
S402: INPUT LEVEL CH-1 – CH-2

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SWITCHES (Underline indicates switch position):
S401: REAL/AVERAGE

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5. PCB PARTS LIST

NOTES : ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

560Ω → 56 x 10¹ = 561 ..... *RD1/4PU 5 6 1 J*
47kΩ → 47 x 10³ = 473 ..... *RD1/4PU 4 7 3 J*
0.5Ω → R50 ..... *RN2H R 5 0 K*
1Ω → 1R0 ..... *RS1P 1 R 0 K*

Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*

5.62kΩ → 562 x 10¹ = 5621 ..... *RN1/4PC 5 6 2 1 F*

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol & Description	Part No.		Remarks
		DJ-M300/KUC	DJ-M300/SYL	
NSP	MAIN ASSY	DWM2026	DWM2026	
	├ VR ASSY	DWG1485	DWG1485	
NSP	├ 7SEG ASSY	DWG1486	DWG1486	
NSP	├ C. F. ASSY	DWG1487	DWG1487	
NSP	├ CH1 FADER ASSY	DWG1488	DWG1488	
NSP	├ CH2 FADER ASSY	DWG1489	DWG1489	
NSP	└ HP ASSY	DWZ1071	DWZ1071	
NSP	SUB ASSY	DWM2028	DWM2027	
NSP	├ POWER SW ASSY	DWR1262	DWR1262	
NSP	├ POWER SUP ASSY	DWR1267	DWR1260	*
NSP	├ TRANS ASSY	DWR1268	DWR1261	
NSP	├ VOLTAGE SELECT ASSY	Not used	DWR1263	
	└ TERMINAL ASSY	DWZ1072	DWZ1072	

Note ∗: Although DWR1267 and DWR1260 are different in part number, they consist of the same components.

■ CONTRAST OF PCB ASSEMBLIES

TRANS Assy

DWR1268 and DWR1261 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		DWR1268	DWR1261	
	CN704 3P-VH Connector	Not used	B3P5-VH	*

∗: Refer to **D** *in the "3. SCHEMATIC DIAGRAM".*

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■ PCB PARTS LIST

Mark	No.	Description	Parts No.
		E VOLTAGE SELECT ASSY (SYL TYPE ONLY)	
		SWITCHES AND RELAYS	
⚠	S702		DSB1014
		OTHERS	
⚠	J5	CONNECTOR ASSY	DKP3293
⚠	J4	CONNECTOR ASSY	DKP3294

■ PCB PARTS LIST for DJ-M300/KUC

Mark	No.	Description	Parts No.
		F VR ASSY	
		SEMICONDUCTORS	
	IC117, IC210		BU4053BCF
	IC312		LB1740
	IC115		M51131L
	IC206		NJM4556AD
	IC311		PD4755A
	IC204		TC9162AF
	IC113, IC114, IC116, IC201		XLA4558F-P
	IC301–IC309		XLA4558F-P
	IC101–IC110, IC202, IC207		XLA4560F
	Q301, Q401, Q402		2SC1740S
	Q300		2SC2458
	Q201, Q202		2SC2878
	Q403–Q406		2SD1302
	Q306–Q313		2SD1919
	Q203–Q207, Q302–Q305, Q439		DTC124EK
	D140		1SS254
	D300–D311, D320, D321		1SS355
	D451–D454		1SS355
	D421–D428, D439		BR3372XJ240K
	D203–D207		MAA3372XJ240K
	D429–D438		MPG3372XJ240K
	D314, D315		UDZ3.6B
	D500–D505		UDZ5.6B
		SWITCHES AND RELAYS	
	S207		DSH1036
	S101, S102		DSK1010
	S201–S203, S205, S206, S402		VSG1008
		CAPACITORS	
	C101–C104		CCCSL100D50
	C142, C203, C204, C211, C212		CCCSL270J50
	C109–C112		CCCSL271J50
	C140		CCCSL470J50
	C207, C208		CCSQSL101J50
	C129–C132, C201, C202		CCSQSL270J50
	C148, C149		CEAL1R0M50
	C146		CEAL100M16
	C135, C136		CEAL470M16
	C147		CEAS1R0M50
	C121–C124, C143, C144		CEAS100M16
	C213, C214		CEAS101M16
	C319, C320		CEAS101M25
	C145		CEAS220M16
	C209, C210		CEAS330M16
	C137		CEAS470M16
	C133, C134		CEJA470M16
	C138		CFTXA224J50
	C113–C116		CFTXA474J50
	C125–C128		CFTYA563J50
	C890, C893		CKPUYF103Z25
	C206		CKSQYB102K50
	C504, C505		CKSQYB183K50
	C308–C311, C313–C316		CKSQYF103Z50
	C506, C507, C801–C829		CKSQYF103Z50
	C833, C834, C841–C844		CKSQYF103Z50
	C847, C848, C851–C853, C860		CKSQYF103Z50
	C870–C885, C888, C889		CKSQYF103Z50
	C891, C892		CKSQYF103Z50
	C150, C300–C307, C321, C322		CKSQYF104Z25
	C312		CKSQYF473Z50
	C139		CQMA222J50
	C105–C108		CQMA473J50
	C117–C120		CQMA562J50
		RESISTORS	
	R182		RD1/4PU102J
	R172, R176, R177, R179, R181		RD1/4PU103J
	R430		RD1/4PU103J
	R202, R204, R206, R208		RD1/4PU133J
	R192		RD1/4PU123J
	R125–R128		RD1/4PU131J
	R213, R214, R369		RD1/4PU153J
	R425–R429		RD1/4PU161J
	R201, R203, R205, R207		RD1/4PU164J
	R117–R120, R137–R140		RD1/4PU181J
	R241–R247, R270–R273		RD1/4PU223J
	R231, R232, R465, R466–R468		RD1/4PU242J
	R229, R230, R234, R235		RD1/4PU272J
	R201, R203, R205, R207		RD1/4PU273J
	R227, R228, R298, R299		RD1/4PU301J
	R191, R469–R472		RD1/4PU302J
	R421–R424		RD1/4PU331J
	R178		RD1/4PU332J
	R225, R226		RD1/4PU393J
	R105–R108		RD1/4PU433J
	R141–R144		RD1/4PU473J
	R101–R104, R109–R112		RD1/4PU512J
	R145–R148		RD1/4PU512J
	R219, R220		RD1/4PU561J
	R167–R170		RD1/4PU623J
	R129–R132		RD1/4PU753J
	R209, R211		RD1/4PU912J
	VR114 (10 kΩ–B)		DCS1030
	VR103–VR108 (10 kΩ–B)		DCS1032
	VR113, VR201 (10 kΩ–B)		DCS1034
	VR101, VR102 (10 kΩ–B)		DCS1042
	VR112 (100 kΩ–B)		DCS1040
	Other Resistors		RS1/10S□□□J
		OTHERS	
	CN101	CONNECTOR 24P	52492-2420
	CN102	CONNECTOR 31P	52492-3120
	J11		DB0241NS0
	J12		DB218NS0
	J110	CONNECTOR	PG06MR-E15
	CN105, CN106	CONNECTOR	TKC-A08X-B1
		PCB BINDER	VEF1008
	X2 (4.19MHz)	VSS1014	
	F201, F202		VTH1016

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Mark	No.	Description	Parts No.
K	**7SEG ASSY**		
	SEMICONDUCTORS		
	D407, D408		BR3372XJ210K
	D401–D406		NKR131S
	SWITCHES AND RELAYS		
	S401		RSG1034
	RESISTORS		
	Other Resistors		RD1/4PU□□□J
	OTHERS		
	CN405, CN406	CONNECTOR PLUG	TKC–A08P–B1
I	**C. F. ASSY**		
	RESISTORS		
	VR1 (10 kΩ–B)		DCV1006
	OTHERS		
	CN110	MT CONNECTOR 6P	173979–6
G	**CH1 FADER ASSY**		
	RESISTORS		
	VR110 (10 kΩ–B)		DCV1005
	OTHERS		
	CN108	6P JUMPER CONNECTOR	52151–0610
H	**CH2 FADER ASSY**		
	RESISTORS		
	VR111 (10 kΩ–B)		DCV1005
	OTHERS		
	CN109	6P JUMPER CONNECTOR	52151–0610
J	**HP ASSY**		
	CAPACITORS		
	C299		CKSQYF103Z50
	OTHERS		
	J111	3P JUMPER WIRE	D20PWW0305E
	JA201	HEADPHONE JACK	VKN1149
B	**POWER SW ASSY**		
	SWITCHES AND RELAYS		
⚠	S701		PSA–009
	CAPACITORS		
⚠	C701 (10000 pF/250V)		ACG7020

Mark	No.	Description	Parts No.
C	**POWER SUP ASSY**		
	COILS AND FILTERS		
⚠	L701		VTL–004
	CAPACITORS		
⚠	C702, C703 (10000 pF/250V)		ACG7020
	OTHERS		
		PCB BINDER	DEF1015
⚠		TERMINAL	RKC–061
	H1, H2	FUSE HOLDER	RKR1003
D	**TRANS ASSY**		
	TRANS Assy has no service part.		
A	**TERMINAL ASSY**		
	SEMICONDUCTORS		
⚠	IC701		BA12T
	IC210		BU4053BC
⚠	IC704		ICP–N15
⚠	IC709, IC710		ICP–N25
⚠	IC705		ICP–N5
	IC111, IC112		M51131L
	IC601–IC603		NJM2068D
	IC501–IC503		NJM4558DX
	IC208, IC604–IC608		NJM4580D
⚠	IC702		NJM79M12FA
⚠	IC703		PQ05RR12
	Q701		2SC2458
	Q601–Q604		2SC2878
	Q605–Q608		2SD2878
⚠	D701–D704		11EQS06
	D101, D102, D501–D503		1SS254
	D505, D506, D508, D509		1SS254
	D511–D513, D515, D516		1SS254
	D601–D604, D711		1SS254
	D504, D507, D510, D514		MTZJ5.6B
⚠	D713		S2VB20
⚠	D709, D710, D714		S5688G
	SWITCHES AND RELAYS		
	S601, S602		VSH1007
	CAPACITORS		
	C601–C612, C625–C628		CCCSL101J50
	C650, C651, C670–C677		CCCSL101J50
	C231, C232, C657–C660		CCPUSL100J50
	C654		CCPUSL220J50
	C504, C505		CEANP100M16
	C719		CEANP2R2M50
	C695–C698		CEANPR33M50
	C137–C140		CEAS1R0M50
	C141–C144, C233, C234		CEAS100M16
	C531–C534, C633–C636		CEAS100M16

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Mark	No.	Description	Parts No.
	C652, C653, C655, C691–C694		CEAS100M16
	C821, C822		CEAS100M16
	C715		CEAS101M10
	C717, C718		CEAS101M16
	C713		CEAS102M16
	C145, C146, C629–C632		CEAS220M16
	C501, C506–C509		CEAS2R2M50
	C716		CEAS330M16
	C613–C616, C645–C648		CEAS470M16
	C720		CEAS471M50
	C649, C685–C690		CGCYX473K25
	C510–C515, C518–C523		CKCYF103Z50
	C704–C710, C714, C905, C906		CKCYF103Z50
	C502, C503, C516, C517		CKCYF473Z50
	C699, C700, C856, C857, C860		CKPUYF103Z25
	C901–C904, C907–C914		CKPUYF103Z25
	C637–C640		CQMA222J50
	C641–C644		CQMA681J50
	C711, C712		DCH1063
RESISTORS			
	All Resistors		RD1/4PU□□□J
OTHERS			
	CN801	FFC CONNECTOR 24P	52045-2445
	CN802	FFC CONNECTOR 31P	52045-3145
	CN606–CN608	4P PIN JACK	AKB7015
⚠		HEAT SINK	DNG1073
⚠		HEAT SINK	DNG1073
	CN702	5P JUMPER CONNECTOR	KPC5
	JA601, JA602	JACK	RKN1004
	JA607	MIC JACK	VKN1147
	KN101	EARTH METAL FITTING	VNF1084

6. ADJUSTMENTS

There is no information to be shown in this chapter.

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7. GENERAL INFORMATION

7.1 IC

■ PD4755A (IC311: VR ASSY)

● System Control Micro-computer

● Pin Function

● The information shown in the list is basic informarion and may not correspond exactly to that shown in the schematic diagrams.

No.	Port	Pin Name	I/O	Description
1 | 5	P94/FIP6 | P90/FIP2	GRID6 | GRID2	O	7seg. display output
6	P81/FIP1	GRID1		
7	P80/FIP0	GRID0		
8	VDD	—	—	Power supply
9	P27/SCK0	ADSW1	O	Switching analog SW signal 1
10	P26/SO0/SB1	ADSW2	O	Switching analog SW signal 2
11	P25/SI0/SB0	ADSW3	O	Switching analog SW signal 3
12	P24/BUSY	—	—	——
13	P23/STB	—	—	——
14	P22/SCK1	IC CLK	I	Analog SW IC serial communication clock output
15	P21/SO1	IC DATA	O	Analog SW IC serial data output
16	P20/SI1	—	—	——
17	XRESET	XRST	O	u - COM. reset L: Reset
18	P74	—	—	——
19	P73	—	—	——
20	AVSS	GRF	—	A/D converter GND
21	P17/ANI7	AD7	I	A/D converter input CH7
22	P16/ANI6	AD6	I	A/D converter input CH6
23	P15/ANI5	AD5	I	GFB3 CH2 "H" level BPM signal
24	P14/ANI4	AD4	I	GFB2 CH2 "M" level BPM signal
25	P13/ANI3	AD3	I	GFB1 CH2 "L" level BPM signal
26	P12/ANI2	AD2	I	GFB3 CH1 "H" level BPM signal
27	P11/ANI1	AD1	I	GFB2 CH1 "M" level BPM signal
28	P10/ANI0	AD0	I	GFB1 CH1 "L" level BPM signal
29	AVDD	—	—	A/D converter analog power supply
30	AVREF	—	—	A/D converter reference voltage input

No.	Port	Pin Name	I/O	Description
31	P04/XT1	—	—	Connect to Crystal for Sub system clock oscillation
32	XT2	—		
33	VSS	—	—	GND
34	X1	—	—	Connect to Crystal for Main system clock oscillation
35	X2	—		
36	P37	MCH1	—	CH1 Monitor SW ON: L
37	P36/BUZ	MCH2	—	CH2 Monitor SW ON: L
38	P35/PCL	MMST	—	Master Monitor SW ON: L
39	P34/TI2	CH2 ON	O	CH2 Fader start on LED H: Light up
40	P33/TI1	CH1 ON	O	CH1 Fader start on LED H: Light up
41	P32/TO2	—	—	——
42	P31/TO1	LVLCH	—	Switching level meter L: ON
43	P30/TO0	PWM	O	Switching feder signal H: ON
44	P03/INTP3/CI0	FSC2	—	CH2 FD control ON/OFF L: ON
45	P02/INTP2	FSCX	—	Cross FD control H: Cross, L: CH
46	P01/INTP1	STB	O	Analog SW IC selection signal
47	P00/INTP0/TI0	—	—	——
48	IC (VPP)	—	—	Internal connection
49	P72	—	—	——
50	P71	—	—	——
51	P70	—	—	——
52	——	—	—	——
53	P127/FIP33	MUTE	O	Mute control L: ON
54	P126/FIP32	FSC1	—	CH1 FD control ON/OFF L: ON
55	P125/FIP31	METER	O	CH meter LED H: Light up
56	P124/FIP30	CH1LED	O	CH1 monitor LED H: Light up
57	P123/FIP29	LPO1	O	Switching LINE1/PHONO1 L: LINE
58	P122/FIP28	LPO2	O	Switching LINE1/PHONO1 L: LINE

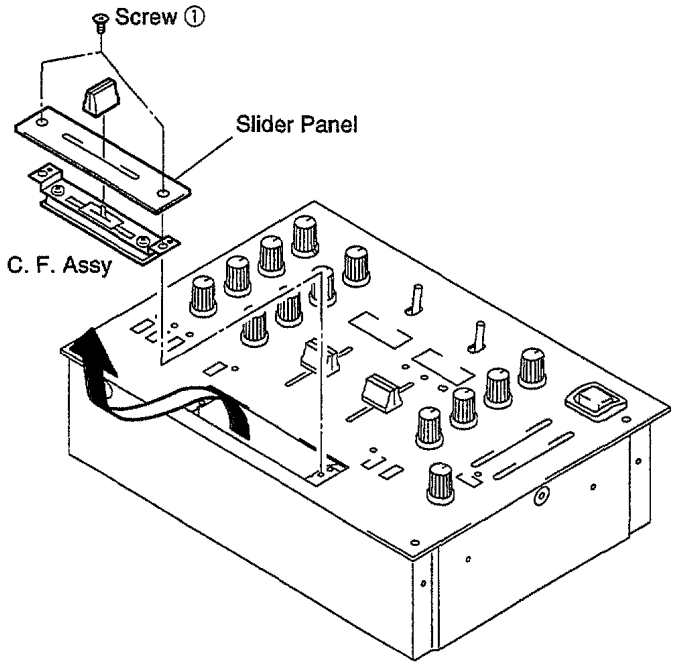
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No.	Port	Pin Name	I/O	Description
59	P121/FIP27	LPI1	—	LINE1/PHONO1 SW L: LINE
60	P120/FIP26	LPI2	—	LINE2/PHONO2 SW L: LINE
61	P117/FIP25	CH2LED	O	CH2 monitor LED H: Light up
62	P116/FIP23	MASLED	O	Master monitor LED H: Light up
63	P115/FIP22	CH1CT1	O	Player control signal CH1 START: H
64	P114/FIP21	CH1CT2	O	CH1 STOP: H
65	P113/FIP20	CH2CT1	O	CH2 START: H
66	P112/FIP19	CH2CT2	O	CH2 STOP: H
67	P111/FIP18	BPMRA	—	Switching BPM REAL/AVE L: ON
68	P110/FIP17	SEG8	—	7 seg display output
69	P107/FIP17	SEG7		
70	P106/FIP16	SEG6		
71	VLOAD	—	—	Connect to FIP driver pull-down resistor
72 | 77	P105/FIP15 | P100/FIP10	SEG5 | SEG0	—	7 seg display output
78	P97/FIP9	—	—	
79	P96/FIP8	—	—	
80	P95/FIP7	GRID7	—	

7.2 DISASSEMBLY

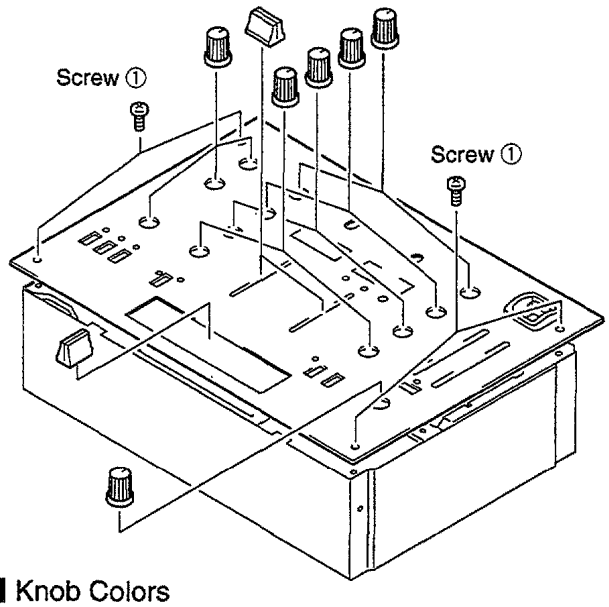
■ Cross-Fader Section

1. Remove the Fader Knob.
2. Remove the two screws ① fixing the Slider Panel.
3. Raise the C. F. Assy at the front and then raise the entire unit.



■ Control Panel Section

1. Remove all knobs from the Control Panel surface.
2. Remove the four screws ①.



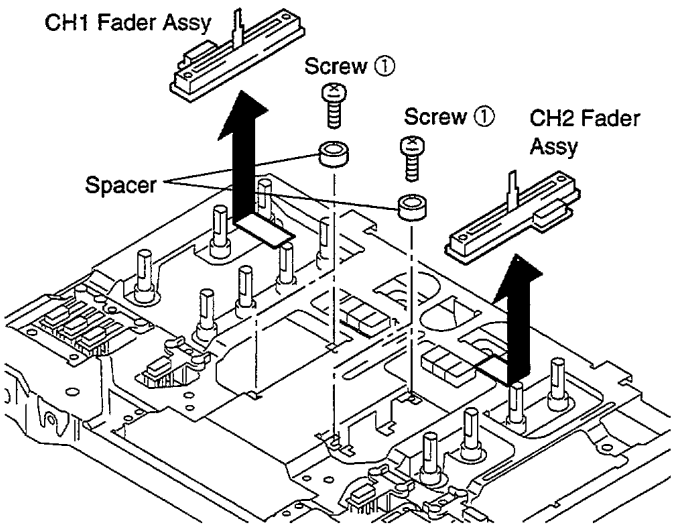
■ Knob Colors

EQ-HI: Gray (Red)
EQ-MID: Gray (Yellow)
EQ-LOW: Gray (Green)
TRIM: Dark Gray
Other: BLACK

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■ Removal of the CH1 Fader Assy and CH2 Fader Assy

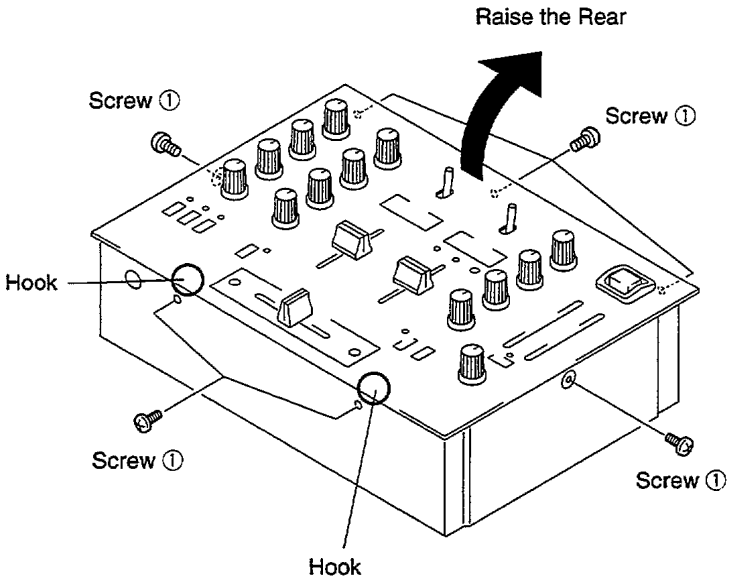
1. Remove the Control Panel. (Refer to the preceding item.)
2. Remove the two screws ① and spacer fixing the CH1 Fader Assy.
3. Slide the CH1 Fader Assy to the side and raise it.
4. Proceed in the same way for CH2 Fader Assy.



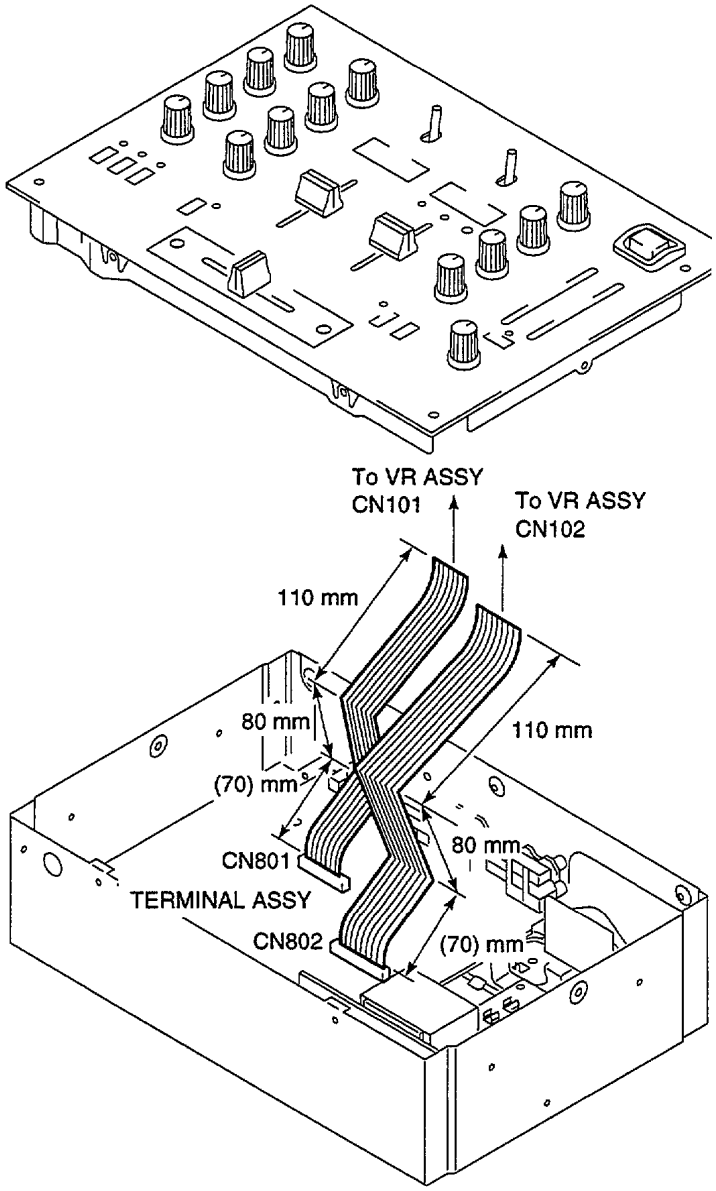
■ Screw Removal for Unit Diagnosis

1. Remove the two screws ① on both sides, the two screws ② at the front, and the three screws ③ at the rear in this order.
2. Raise the rear and remove the Control Panel.

Note: At the time of installation, install in reverse order of the removal (Rear → Front → Sides).

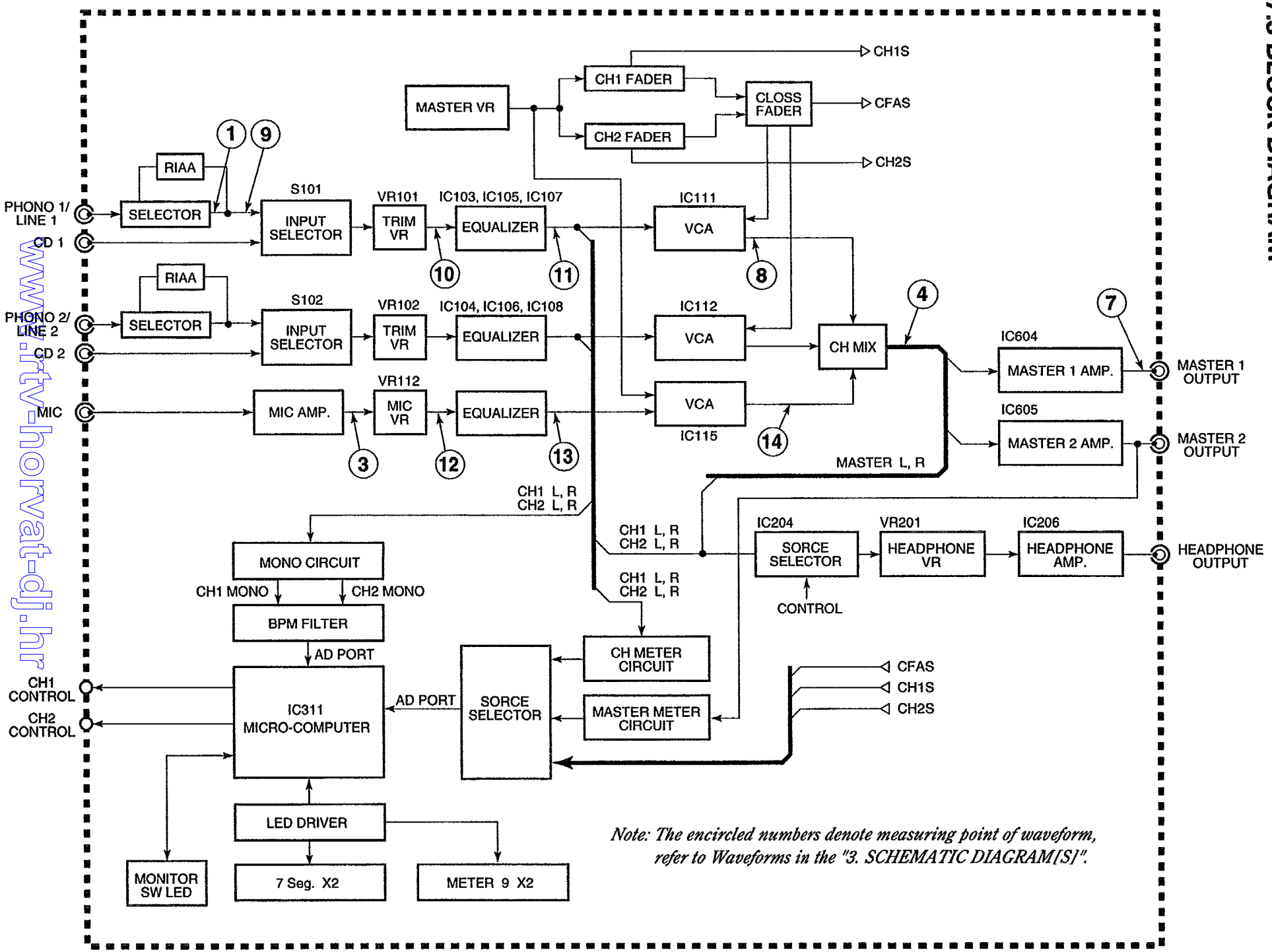


■ Bending Positions for the flexible wiring of the FFC card



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7.3 BLOCK DIAGRAM



Note: The encircled numbers denote measuring point of waveform, refer to Waveforms in the "3. SCHEMATIC DIAGRAM[S]".

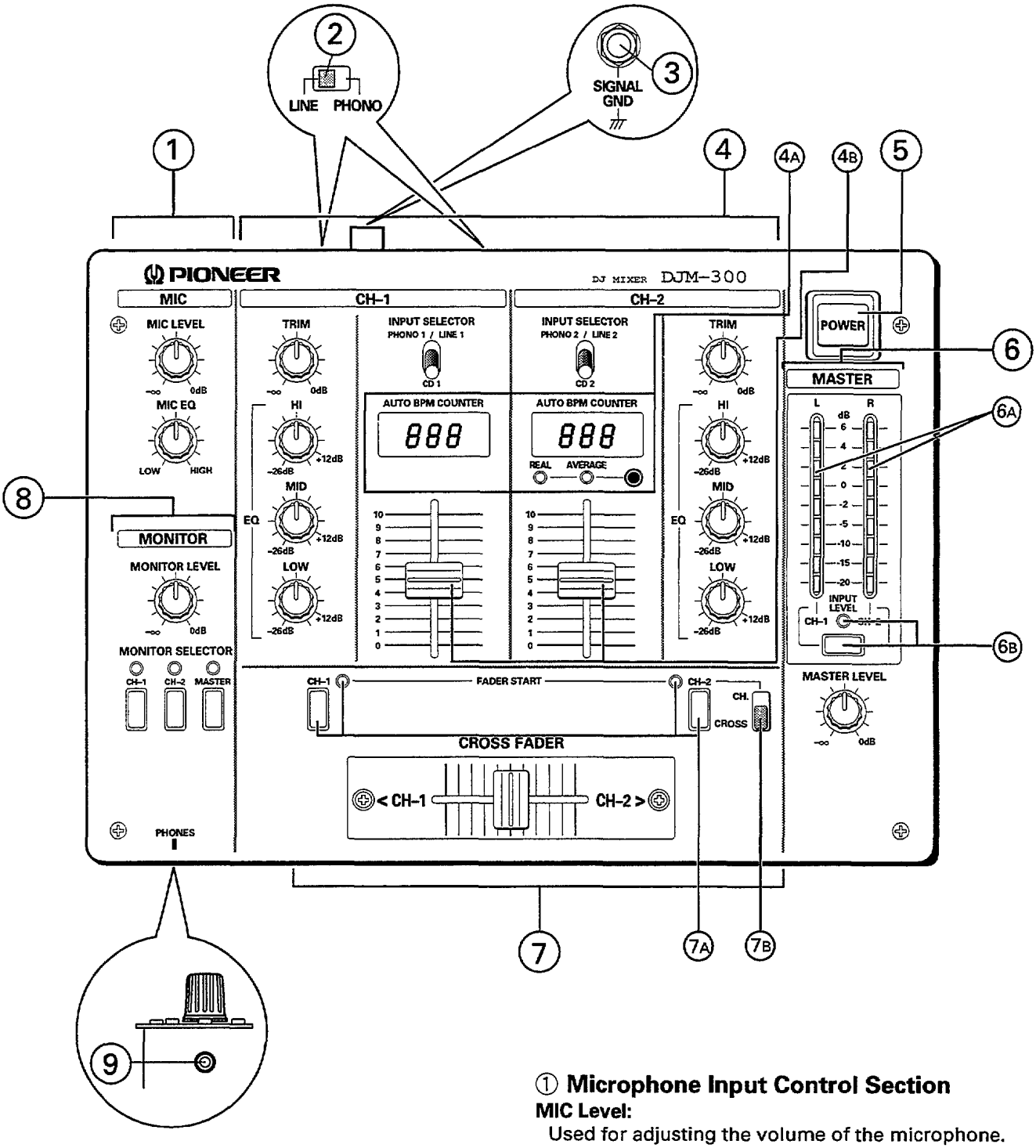
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8. PANEL FACILITIES AND SPECIFICATIONS

■ PANEL FACILITIES

Control panel

② and ③ shows the rear view, while ⑨ shows the front view.



① Microphone Input Control Section

MIC Level:

Used for adjusting the volume of the microphone.

MIC EQ (Microphone Equalizer):

Used for adjusting the sound quality of the microphone.
Flat at center click.
Emphasizes the high tone (treble) when rotated to the right.
Emphasizes the low tone (bass) when rotated to the left.

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② Rear Panel Input Source Selection Switch

Used for selecting the device connected to PHONO 1/LINE 1 and PHONO 2/LINE 2 input terminals.
PHONO: Analog player (MM output)
LINE: Audio equipment whose output level is the line level

NOTE:
Do not switch with the power ON.
When switched, the master output will be muted.

③ Ground Terminal (SIGNAL GND)

Connects to the GND cord of the analog player.

This terminal is for only an analog player, not for a safety ground.

④ CH1, CH2 Input Control Section

Input selection switch (INPUT SELECTOR):
Selects which one of the two units connected to each CH to use.
CH1: Switches between PHONO 1/LINE 1 and CD1
CH2: Switches between PHONO 2/LINE 2 and CD2

TRIM:
Used for adjusting the level of the input signal.
The level increases when rotated to the right. (To +6 dB)
The level decreases when rotated to the left. (To –∞)

EQ (Equalizer):

HI:
Used for adjusting the high tone.
Flat at center click.
Increases when rotated to the right.
Decreases when rotated to the left.

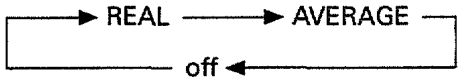
MID:
Used for adjusting the middle tone.
Flat at center click.
Increases when rotated to the right.
Decreases when rotated to the left.

LOW:
Used for adjusting the low tone.
Flat at center click.
Increases when rotated to the right.
Decreases when rotated to the left.

④A BPM Display

Counter:
• Displays the BPM of the source input to CH1 and CH2 digitally. Displays "– – –" when BPM could not be measured for more than 5 seconds or when switched off. Displays in real mode when the power is turned on.

Real-mode/average mode selection button and indicator:
Each time the button is pressed, the display mode and indicator light switch as follows.



(When REAL is selected.)
Displays the measured BPM value at real time.
The measurement error is greater than AVERAGE.
Blinks while measuring.

(When AVERAGE is selected.)
The display timing becomes slower, but the display will be stabilized by the averaging process.
While measuring, the previous value will remain displayed.

④B Channel Fader Volume

Used for adjusting the volume of CH1 to CH2.

⑤ Power Supply Switch (POWER)

Turns ON/OFF the power of this unit.
When the power is turned ON, the unit will be muted for about 2 seconds to protect the connected units.

⑥ Master Control Section

⑥A Level meter

The level meter display mode selection switch enables two levels to be displayed. When the level meter display mode indicator is off, the master level is displayed. When it is lit, the CH1 and CH2 input levels are displayed. The peak level is held for 2 seconds.
The display range is –20 dB to +6 dB.

⑥B Level Meter Display Mode Selection Button and Indicator

Used for switching the level meter display mode.
Each time the button is pressed, the mode will be switched between the master level display and input level display (CH1, CH2).
The INPUT LEVEL indicator is lit during the input level display.
When the power is turned on, the mode will first be set to the master level display.

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⑦ Cross Fader Section

Cross Fader Volume (CROSS FADER)

Operates when the cross fader switch is at the CROSS side.
Controls and outputs the CH1 and CH2 signals.
When the control is set to the left side, the CH1 signal increases (To 0 dB) and the CH2 signal decreases (To −∞).
When set to the right side, the CH2 signal increases (To 0 dB) and the CH1 signal decreases (To −∞).

⑦A Fader Start Switch (FADER START) and indicator (Refer to Page 14.)

When pressed, the indicator lights up and the fader start switch turns ON. When pressed another time, the indicator goes off and the fader start switch goes off.
When the optional CD player (CDJ-500 or CDJ-500Ⅱ) is connected to the unit using the commercially available cord with mini plug (no resistor), this ON/OFF switch is used to start automatic playing of the CD player using the channel fader or cross fader.

⑦B Cross Fader Switch (CH./CROSS)

CH.:
Select when mixing sounds using the channel fader volume. (Direct mix.)
When the fader start switch is ON, fader should be started by the channel fader.

CROSS:
Select when mixing sounds using the cross fader. (Cross fader mix.)
When the fader start switch is ON, fader should be started by the cross fader.

Master Volume Level Adjustment (MASTER LEVEL)

Used to adjust the level of the master output volume.
The signal mixing the CH1 and CH2 channel fader levels and microphone inputs will be output.

⑧ Headphone Monitor Section

Monitor Level Knob (MONITOR LEVEL)

Used for adjusting the headphone monitor volume.

Monitor Select Switch (CH-1/CH-2/MASTER) and indicators

When pressed, the indicator lights up and the fader start switch turns ON. When pressed another time, the indicator goes off and the fader start switch turns off.
Used for selecting the headphone monitor sources (CH-1, CH-2, MASTER).
When the button of the desired source is pressed, the sound of the channel selected will be output to the headphone terminal.
For CH-1 and CH-2, the sound before the channel fader is set will be output.
For MASTER, the sound after the master control is set will be output.
Two sources can be selected simultaneously. When MASTER is pressed when CH-1 and CH-2 are selected simultaneously, only MASTER will be selected. When only one of the channels and MASTER are selected simultaneously, the one channel and MASTER will be selected.
(Three sources cannot be selected simultaneously.)

(Relation between Monitor Select Switch and Headphone Output)

Monitor Select Switch			Headphone Output	
CH–1	CH–2	MASTER	L	R
ON	OFF	OFF	CH1 (L)	CH1 (R)
OFF	ON	OFF	CH2 (L)	CH2 (R)
OFF	OFF	ON	MASTER (L)	MASTER (R)
ON	ON	OFF	CH1 (L) + CH2 (L)	CH1 (L) + CH2 (R)
ON	OFF	ON	CH1 (MONO)	MASTER (MONO)
OFF	ON	ON	CH2 (MONO)	MASTER (MONO)

⑨ Headphone Terminal (PHONES)

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■ SPECIFICATIONS

Audio Section

Input terminal (Input level/impedance)
- CD ..... −14 dBV (200 mV) / 22 kΩ
- LINE ..... −14 dBV (200 mV) / 47 kΩ
- PHONO ..... −52.5 dBV (2.37 mV) / 47 kΩ
- MIC ..... −60 dBV (1 mV) / 3 kΩ

Output terminal (Output level/impedance)
- MASTER OUT (RCA) ..... 0 dBV (1 V) / 1 kΩ
- PHONES ..... −4 dBV (0.63 V) / 150 Ω

Frequency characteristics
- CD/LINE ..... 20 Hz to 20 kHz
- PHONO ..... 20 Hz to 20 kHz
- MIC ..... 20 Hz to 20 kHz

SN ratio
- CD/LINE ..... 80 dB
- PHONO ..... 75 dB
- MIC ..... 67 dB

Total harmonic distortion rate
- CD/LINE, PHONO, MIC ..... Below 0.05 % (In 3 Vrms output)

Cross talk ..... 70 dB

Channel equalizer
- LOW ..... +12 dB, −26 dB (70 Hz)
- MID ..... +12 dB, −26 dB (1 kHz)
- HI ..... +12 dB, −26 dB (13 kHz)

Microphone equalizer ..... ±12 dB (10 kHz)

Electrical Section, Others

Power supply voltage ..... AC 120 V, 60 Hz (KUC)
Power supply voltage ..... AC 110/120/220–230/240 V, 50/60 Hz (SYL)
Power consumption ..... 16 W (KUC)
Power consumption ..... 17 W (SYL)
Operating temperature ..... +5 °C to +35 °C (41°F to 95°F)
Operating humidity ..... 5 % to 85 %
External dimensions ..... 308 (W) × 225.3 (D) × 107 (H) mm (12-1/8 (W) x 8-11/16 (D) x 4-1/4 (H) in.)
Weight ..... 3.5 kg (7 lb 12 oz)

Accessories

- Operating instructions 1

NOTE:
Specifications and the design are subject to possible modifications without notice, due to improvements.

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