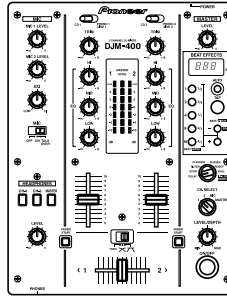


# Service Manual



DJM-400

ORDER NO.  
**RRV3351**

DJ MIXER

# DJM-400

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

Model	Type	Power Requirement	Remarks
DJM-400	KUCXJ	AC 120V	
DJM-400	RLXJ	AC 110-120V / 220-240V	
DJM-400	WYXJ5	AC 220-240V	



For details, refer to "Important Check Points for good servicing".

# 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

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65



## 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.

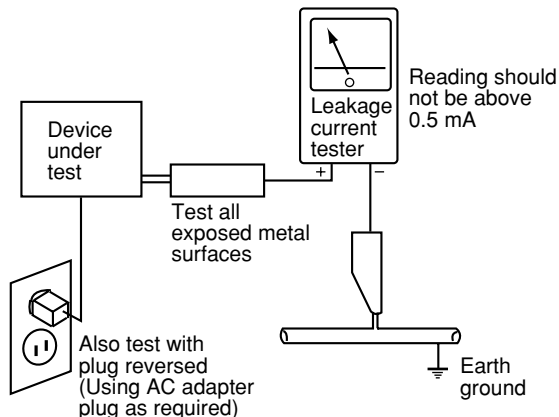
(FOR USA MODEL ONLY)

## 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 does 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.

## [Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol. Please be sure to confirm and follow these procedures.

### 1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification (addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris. Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs. In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages. If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries. Please pay attention to your surroundings and repair safely.

### 2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification. Adjustments should be performed in accordance with the procedures/instructions described in this manual.

### 3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance. Make sure the proper amount is applied.

### 4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

### 5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

1 2 3 4

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4

DJM-400

1 2 3 4

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# 1. SPECIFICATIONS

## 1. General

Power source	AC 120 V, 60 Hz (KUCXJ model)
	AC 110 V to 120 V/220 V to 240 V, 50 Hz/60 Hz (RLXJ model)
	AC 220 V to 240 V, 50 Hz/60 Hz (WYXJ5 model)
Power consumption	13 W
Operating temperature	+5°C to +35°C (+41°F to +95°F)
Operating humidity	5 % to 85 % (without condensation)
Weight	3.2 kg (7.05 lb)
Maximum dimensions	223 (W) × 304.7 (D) × 106.6 (H) mm 8-3/4 (W) × 12 (D) × 4-3/16 (H) inch

## 2. Audio section

Sampling rate	96 kHz
A/D, D/A converter	24 bits
Frequency response	
LINE	20 Hz to 20 kHz
MIC	20 Hz to 20 kHz
PHONO	20 Hz to 20 kHz (RIAA)
S/N ratio (at rated output)	
LINE	97 dB
PHONO	82 dB
MIC	78 dB
Distortion (LINE-MASTER OUT)	0.007 %
Input level/ Impedance	
PHONO	-52 dBu/47 kΩ
MIC 1, MIC 2	-52 dBu/47 kΩ
CD, LINE	-12 dBu/47 kΩ
Output Level/Impedance	
MASTER OUT	+2 dBu/1 kΩ
PHONES	+ 2 dBu/150 Ω
Crosstalk (LINE)	78 dB
Channel equalizer response (Isolater)	
HI	+9 dB to ∞ (4.6 kHz ~)
MID	+9 dB to ∞ (284 Hz ~ 4.6 kHz)
LOW	+9 dB to ∞ (~ 284 Hz)
Microphone equalizer response	
HI	-12 dB (full counterclockwise) to 0 dB (center) (10 kHz)
LOW	-12 dB (full clockwise) to 0 dB (center) (100 Hz)

## 3. Input / output connector systems

PHONO/LINE input connectors	
RCA pin jacks	2
CD input connectors	
RCA pin jacks	2
MIC/AUX input connectors	
Phone jacks (∅6.3 mm)	2
MASTER output connectors	
RCA pin jacks	2
PHONES connectors	
Stereo phone jack (∅6.3 mm)	1
CONTROL connectors	
Mini-phone jacks (∅3.5 mm)	2

## 4. Accessories

Operating Instructions	1
Power cord	1
Warranty card	1 (KUCXJ model only)

Specifications and appearance are subject to change without notice.



## ● Accessories

Power cord  
(KUCXJ : ADG7021)  
(RLXJ, WYXJ5 : ADG1154)

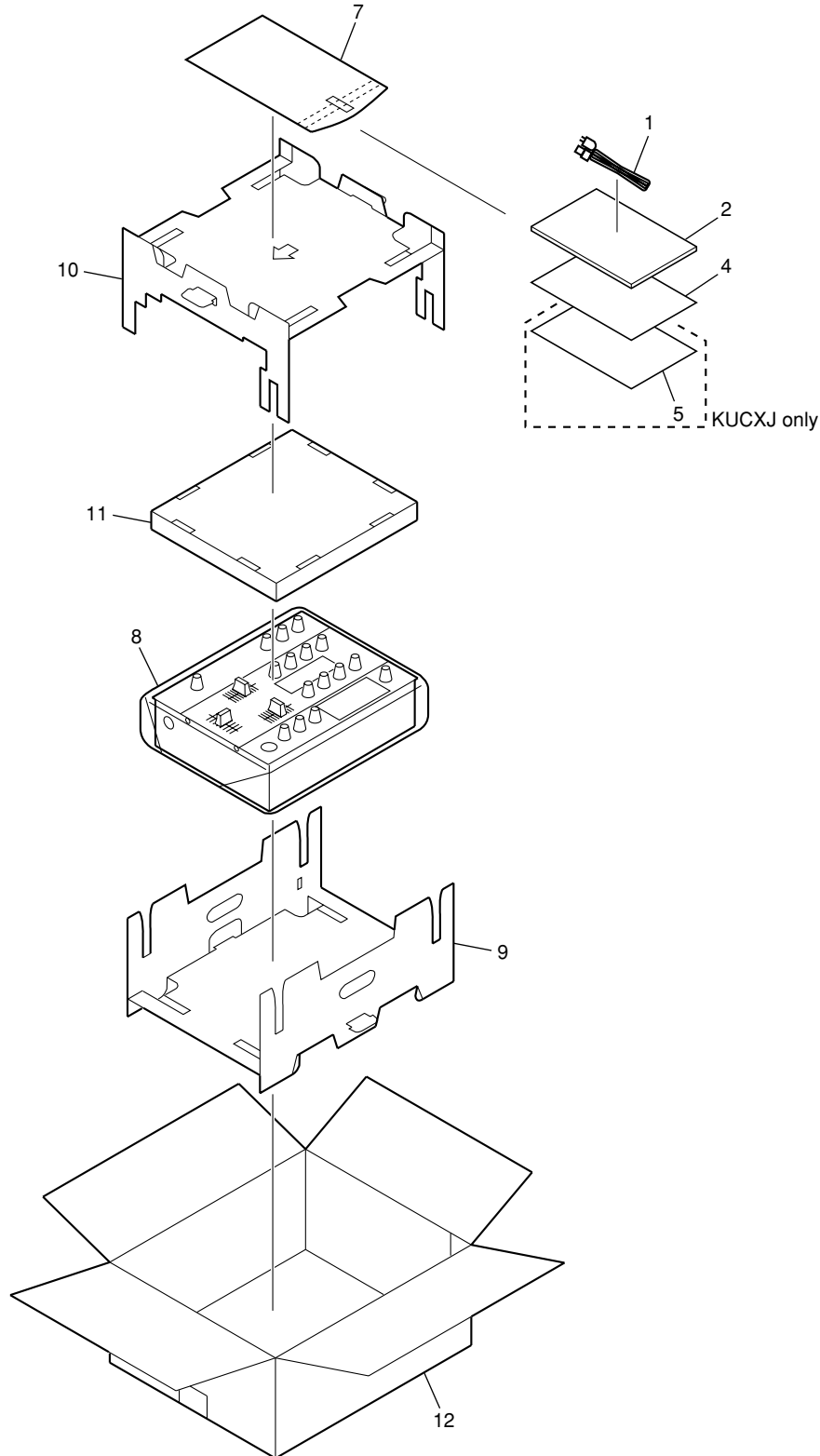


Operating instructions  
Warranty card (KUCXJ only)

## 2. EXPLODED 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.
  - Screws adjacent to  mark on product are used for disassembly.
  - For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)

### 2.1 PACKING SECTION



**(1) PACKING SECTION PARTS LIST**

<b>Mark No.</b>	<b>Description</b>	<b>Part No.</b>
△ 1	Power Cord	See Contrast table (2)
2	Operating Instructions	See Contrast table (2)
3	.....	
NSP 4	User Registration Seat	DRM1262
NSP 5	Warranty Card	See Contrast table (2)
6	.....	
NSP 7	Polyethylene Bag (0.06 x 230 x 340)	AHG7117
8	Packing Sheet	AHG7015
9	Pad A	DHA1706
10	Pad B	DHA1707
11	Pad C	DHA1713
12	Packing Case	See Contrast table (2)

**(2) CONTRAST TABLE**

DJM-400/KUCXJ, RLXJ and WYXJ5 are constructed the same except for the following:

<b>Mark</b>	<b>No.</b>	<b>Symbol and Description</b>	<b>DRM-400/KUCXJ</b>	<b>DRM-400/RLXJ</b>	<b>DRM-400/WYXJ5</b>
△	1	Power Cord	ADG7021	ADG1154	ADG1154
	2	Operating Instructions (English)	DRB1405	Not used	Not used
	2	Operating Instructions (English/ Spanish/ Chinese)	Not used	DRB1406	Not used
	2	Operating Instructins (English/ French/ German/ Italian/ Duch/ Spanish)	Not used	Not used	DRB1404
NSP	5	Warranty Card	ARY7043	Not used	Not used
	12	Packing Case	DHG2605	DHG2606	DHG2604





**(1) EXTERIOR SECTION PARTS LIST**

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	MAIN Assy	DWX2527			
2	JACK Assy	See Contrast table (2)	NSP 21	Rear Panel	See Contrast table (2)
3	MIC Assy	DWX2517	22	Chassis Assy	See Contrast table (2)
4	HP Assy	DWX2518	23	Insulator	DEB1795
5	TRANS Assy	See Contrast table (2)	24	Power Knob Guide	DNK4198
			25	Blind Cap	DNK4218
⚠ 6	Fuse (FU1 : T250mA)	AEK1048			
⚠ 7	Power Transformer	See Contrast table (2)	26	Phone Washer	DEC2920
8	Earth Terminal	AKE-031	27	Nut M12	NKX2FNI
9	26P Flexible Cable	DDD1306	28	.....	
10	22P Flexible Cable	DDD1307	29	.....	
			30	.....	
11	19P Flexible Cable	DDD1308			
12	Small Connector	PF07PP-R12	31	Screw 3x8	DBA1290
NSP 13	Spacer	AEB7092	32	Screw	BBZ40P060FTC
14	PCB Mold	AMR2534	33	Screw	BBZ30P140FTC
15	Power Knob	DAC2339	34	Screw	BPZ30P080FTB
			35	Screw	BBZ30P060FTB
16	Blind Sheet	DEC2907			
17	PCB Spacer	DEC2942	36	Label	See Contrast table (2)
18	PCB Stay	DNF1739	37	FCC.Class B Label	See Contrast table (2)
19	ICP Cover	DNK4625	38	V Select Label	See Contrast table (2)
NSP 20	Card Spacer	REC1156	39	FCC Label	See Contrast table (2)

**(2) CONTRAST TABLE**

DJM-400/KUCXJ, RLXJ and WYXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	DRM-400/KUCXJ	DRM-400/RLXJ	DRM-400/WYXJ5
	2	JACK Assy	DWX2524	DWX2525	DWX2516
	5	TRANS Assy	DWX2519	DWX2526	DWX2519
⚠	7	Power Transformer	DTT1201	DTT1202	DTT1202
NSP	21	Rear Panel (KUC)	DNC1784	Not used	Not used
NSP	21	Rear Panel (RL)	Not used	DNC1805	Not used
NSP	21	Rear Panel (WY)	Not used	Not used	DNC1787
	22	Chassis Assy	DXB1890	DXB1891	DXB1890
NSP	36	Label	DRW1975	Not used	Not used
NSP	37	FCC.Class B Label	DRW2300	Not used	Not used
	38	V Select Label	Not used	DRW2298	Not used
	39	FCC Label	Not used	DRW2299	Not used

# 2.3 CONTROL PANEL SECTION

A

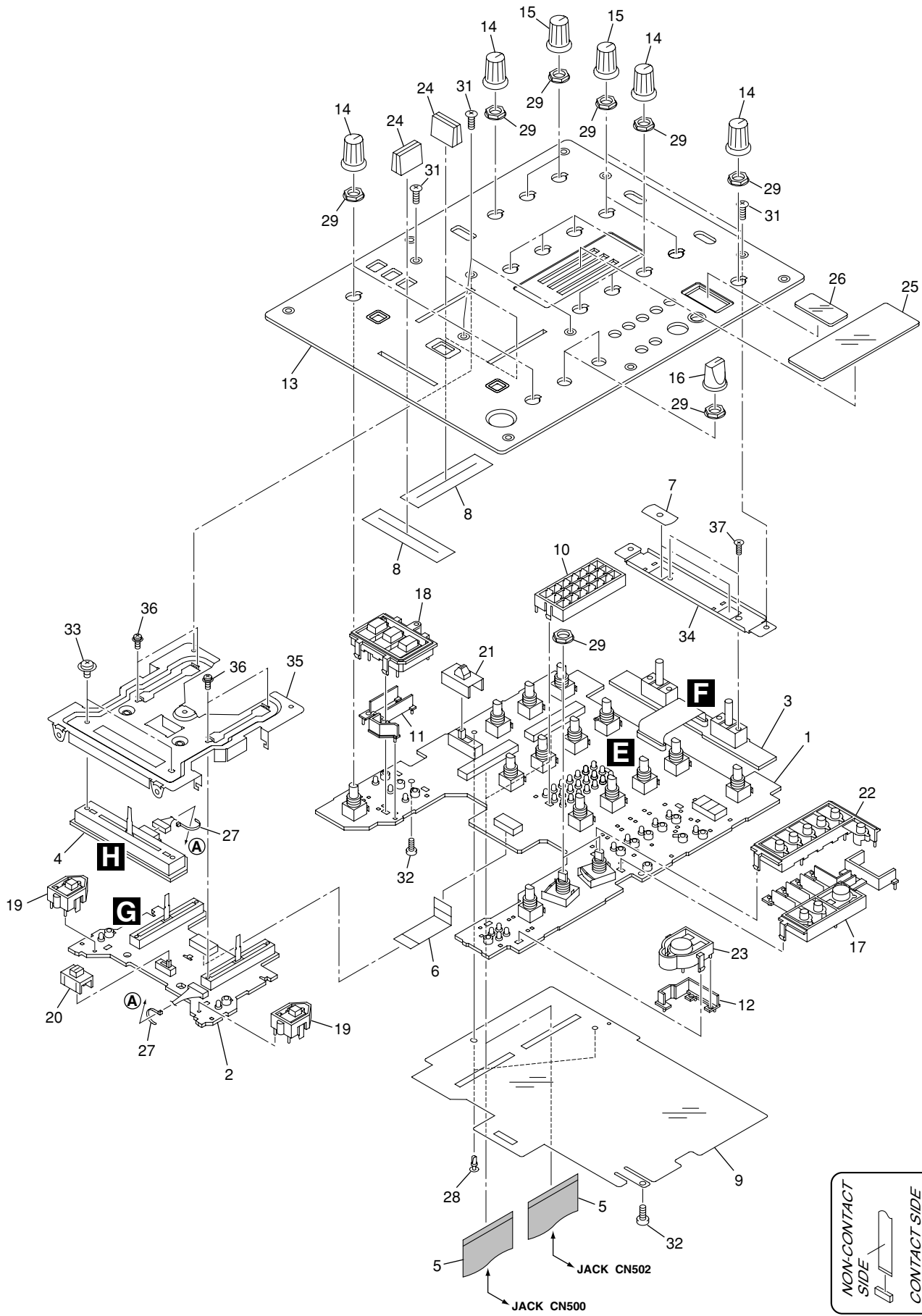
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DJM-400

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**(1) CONTROL PANEL SECTION PARTS LIST**

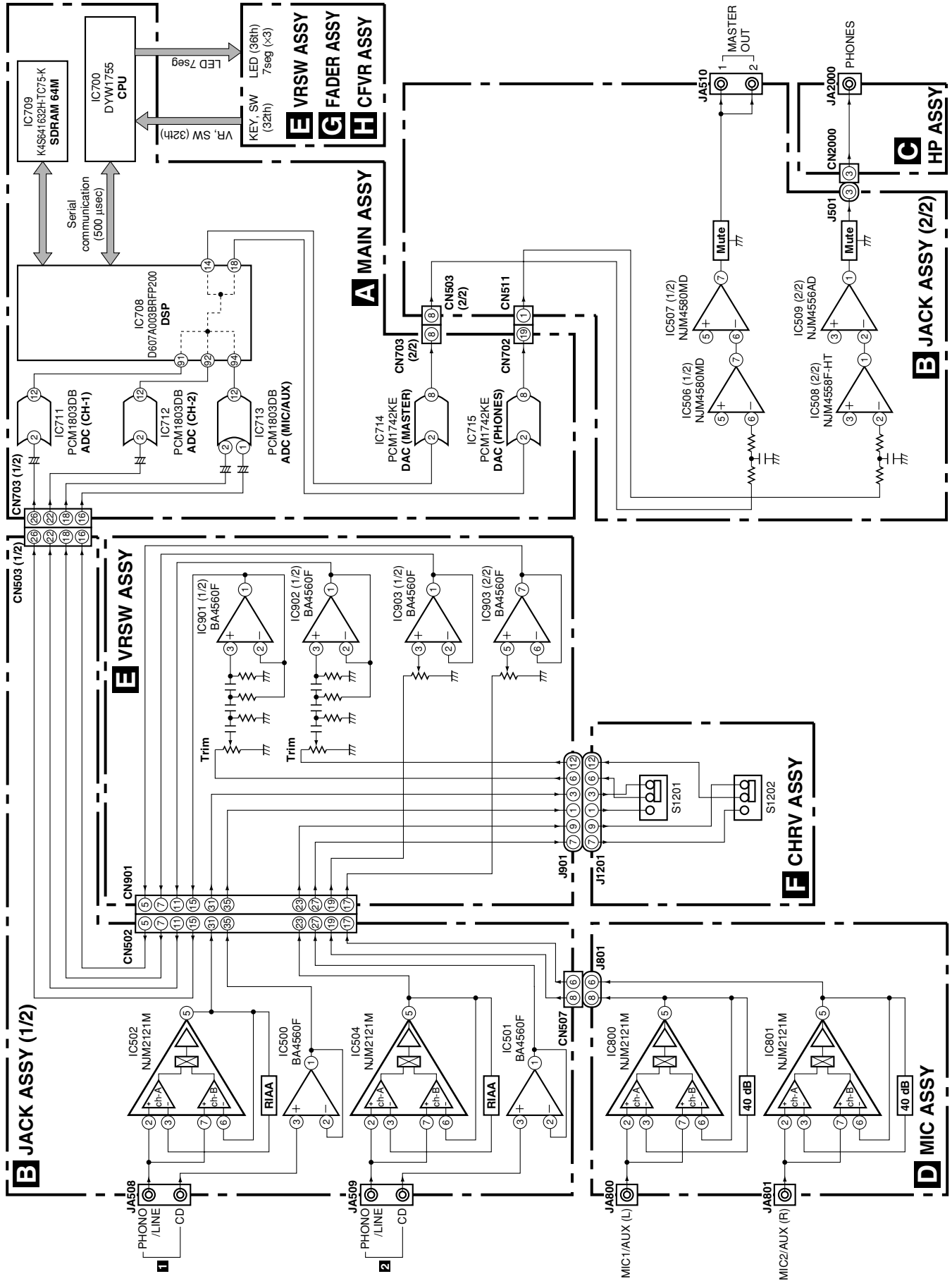
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
1	VRSW Assy	DWX2520	
2	FADER Assy	DWX2521	A
3	CHRV Assy	DWX2522	
4	CFVR Assy	DWX2523	
5	36P Flexible Cable	DDD1305	
6	12P Flexible Cable	DDD1310	
7	SW Packing (B)	DEC2574	
8	Fader Packing	DEC2903	
9	Insulation Sheet	DEC2940	
10	Level Meter Holder	DNK4622	
11	Blind Plate CUE	DNK4624	B
12	Blind Plate EFFECT	DNK4654	
13	Control Panel	DNB1138	
14	Rotary VR Knob (B)	DAA1183	
15	Rotary VR Knob (G)	DAA1184	
16	Rotary SW Knob	DAA1185	
17	Button TAP	DAC2341	
18	Button CUE	DAC2343	
19	Button FADER	DAC2344	
20	SW Cap FADER	DAC2345	C
21	SW Cap MIC	DAC2346	
22	Button BEAT	DAC2369	
23	Button EFFECT	DAC2370	
24	Slider Knob (L2)	DAC2371	
25	Level Plate	DAH2445	
26	7seg Plate	DAH2446	
27	Binder (SKB-909BK)	ZCA-SKB90BK	
28	Nyron Rivet 3x4.5	RBM-003	
29	Nut M9	DBN1008	D
30	.....		
31	Screw 3x8	DBA1290	
32	Screw	BPZ26P080FTC	
33	Screw	AMZ30P040FTC	
34	Lever SW Stay	DNF1740	
35	Fader Stay	DNF1746	
36	Screw	PMH20P040FTC	
37	Screw	CMZ26P050FTB	E

# 3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

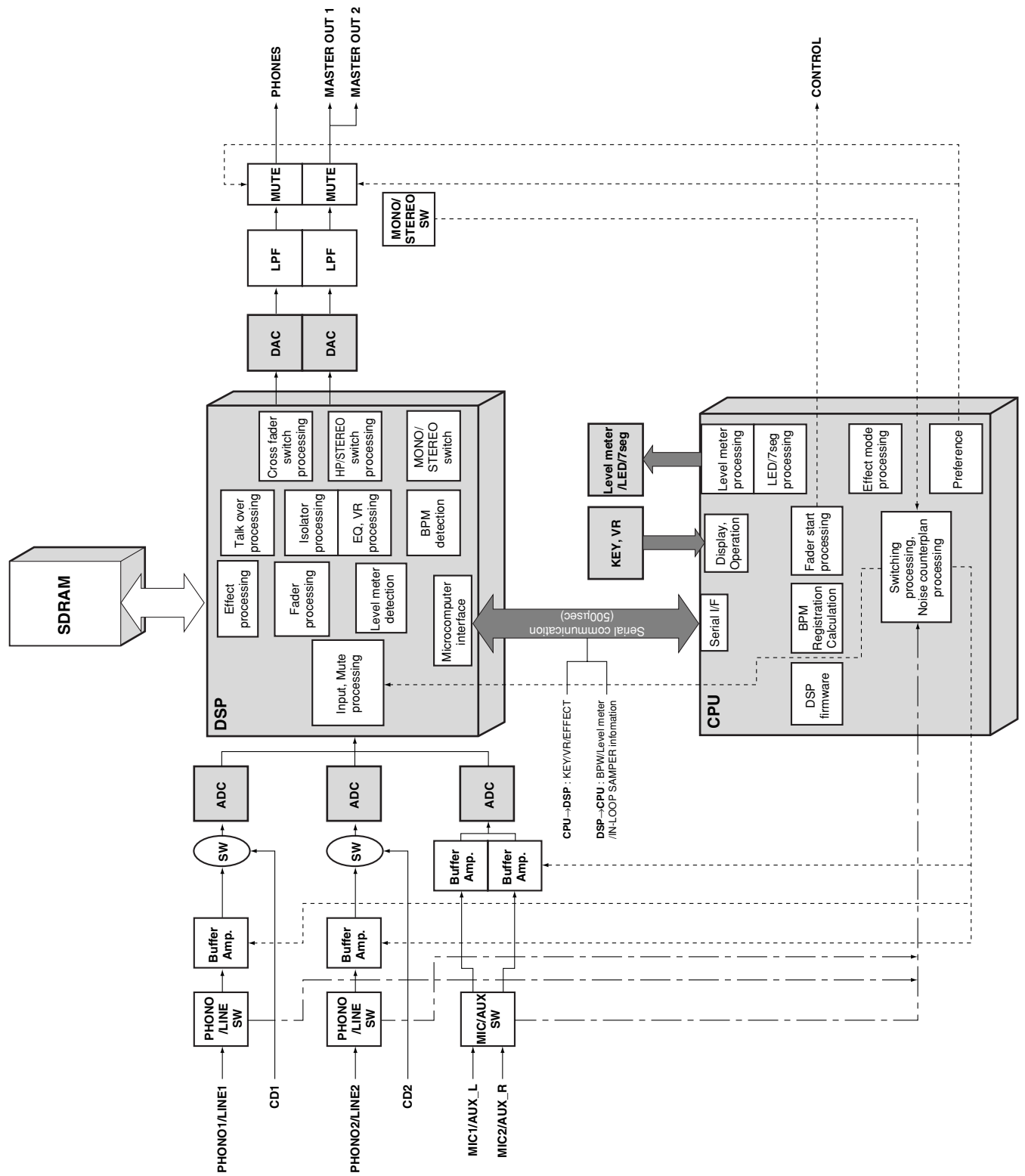
## 3.1 BLOCK DIAGRAM

### 3.1.1 OVERALL BLOCK DIAGRAM


A  
B  
C  
D  
E  
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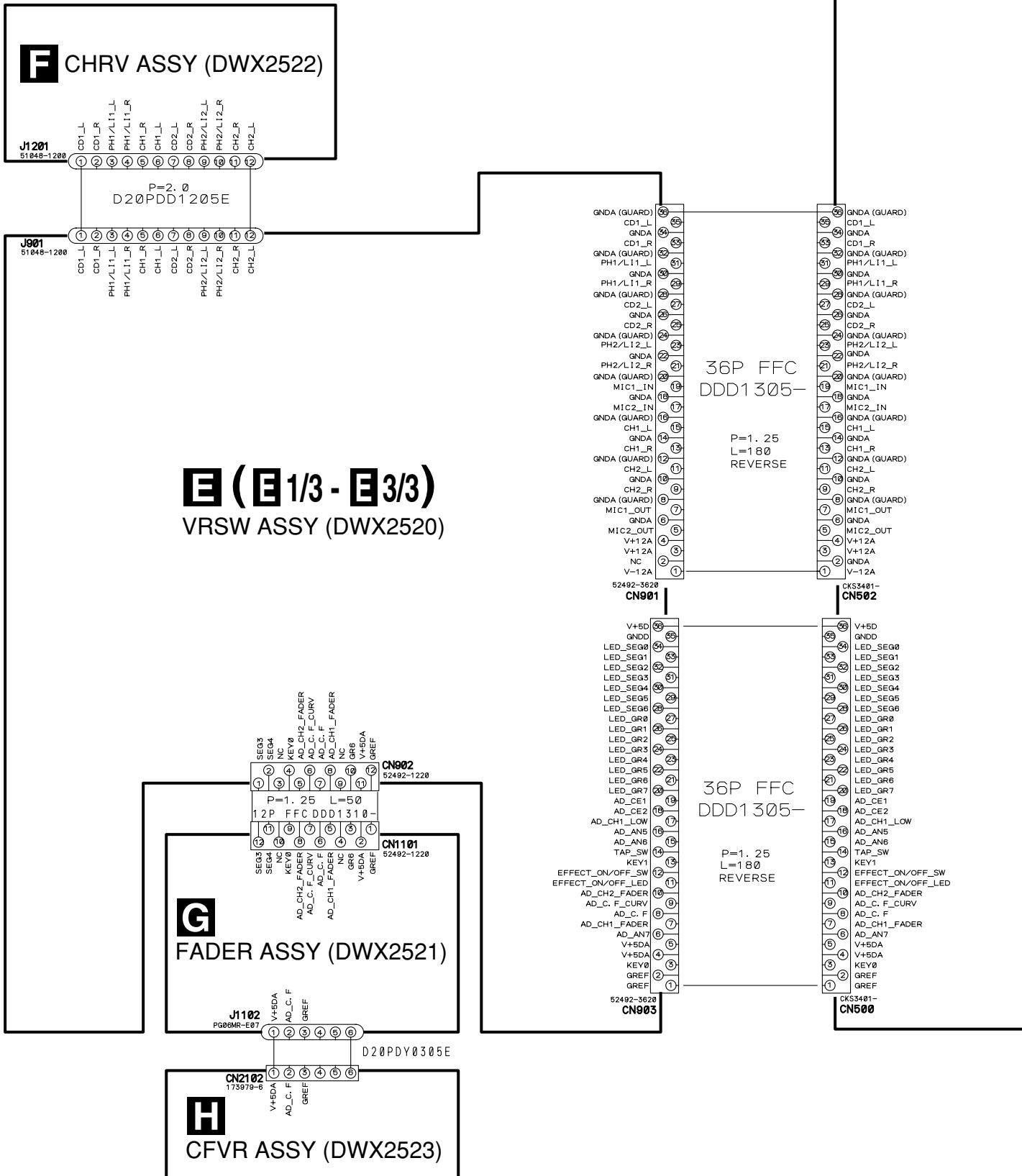


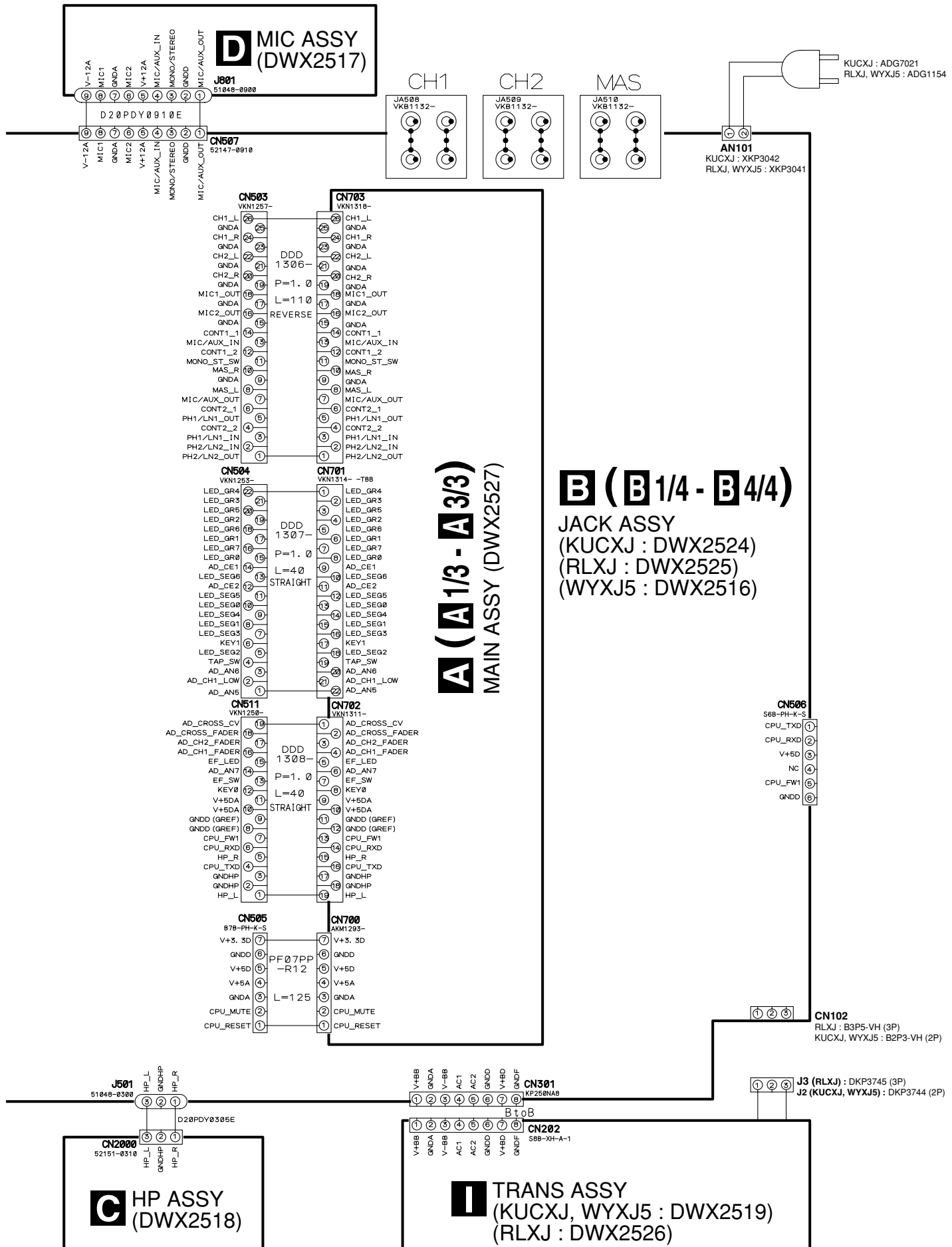
### 3.1.2 CPU & DSP BLOCK DIAGRAM



# 3.2 OVERALL WIRING DIAGRAM

- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB 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.
-  : The power supply is shown with the marked box.





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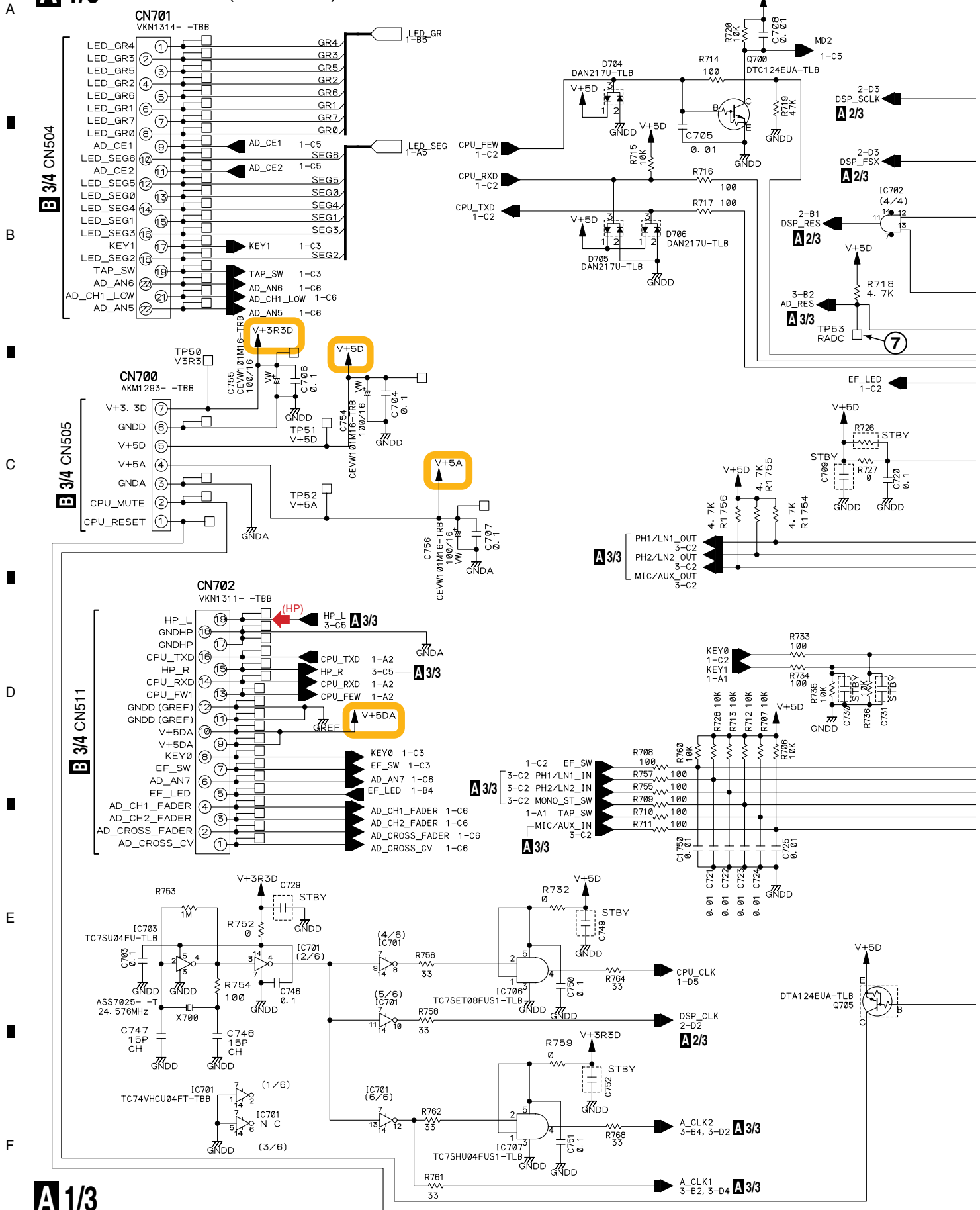
F

**A (A 1/3 - A 3/3)**  
**MAIN ASSY (DWX2527)**

**B (B 1/4 - B 4/4)**  
**JACK ASSY**  
 (KUCXJ : DWX2524)  
 (RLXJ : DWX2525)  
 (WYXJ5 : DWX2516)

# 3.3 MAIN ASSY (1/3)

## A 1/3 MAIN ASSY (DWX2527)





(HP) : HP L ch

A

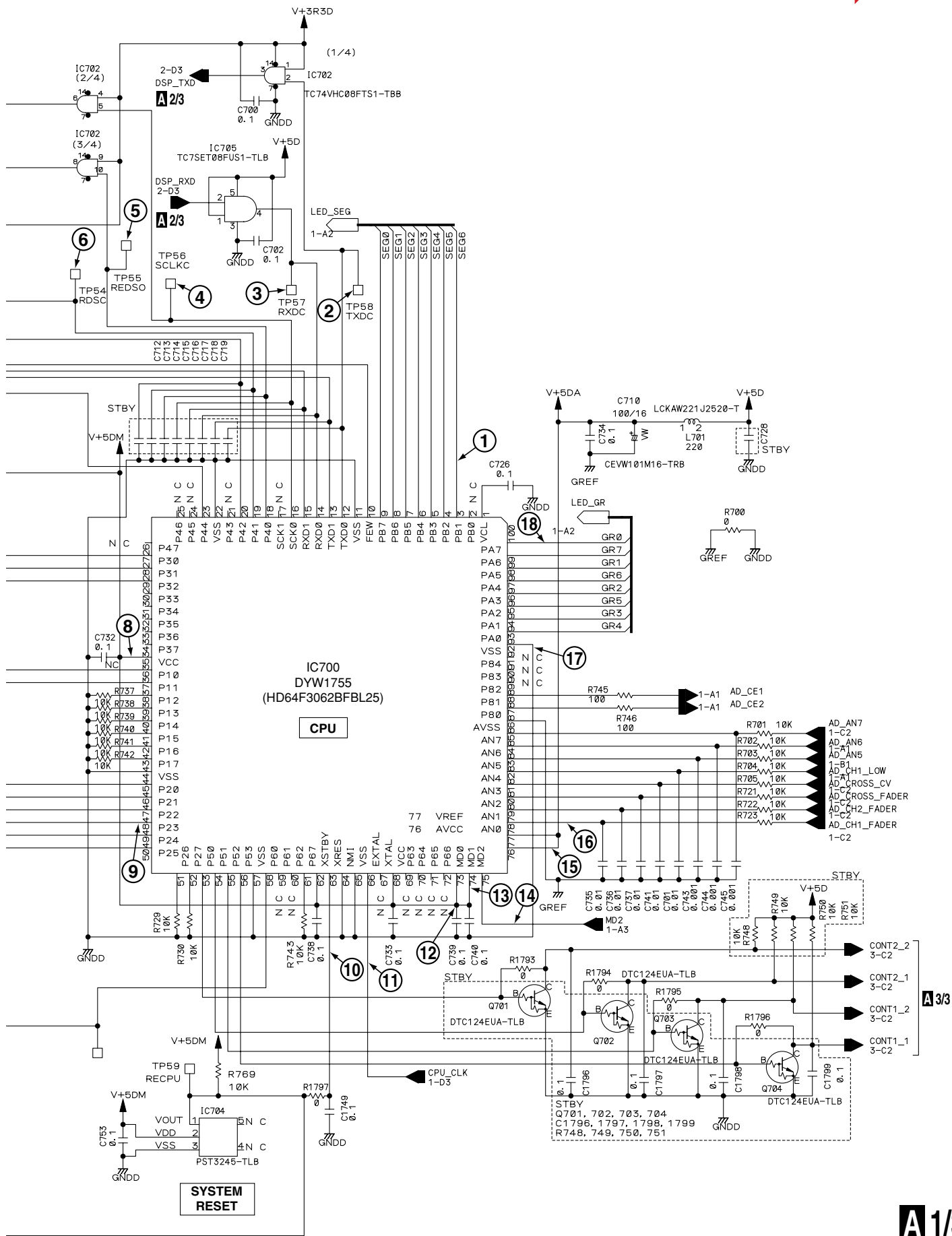
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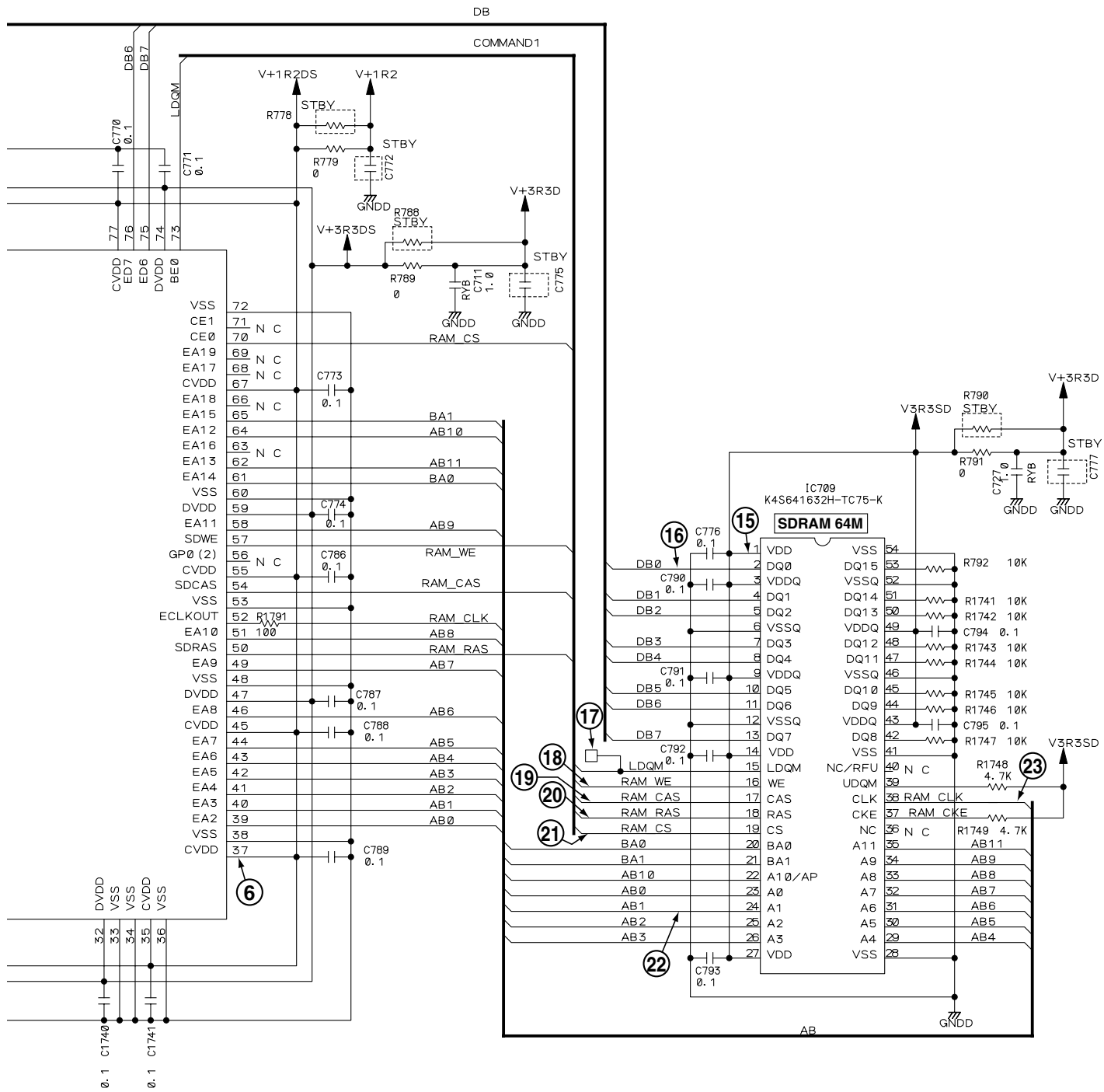
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A 1/3

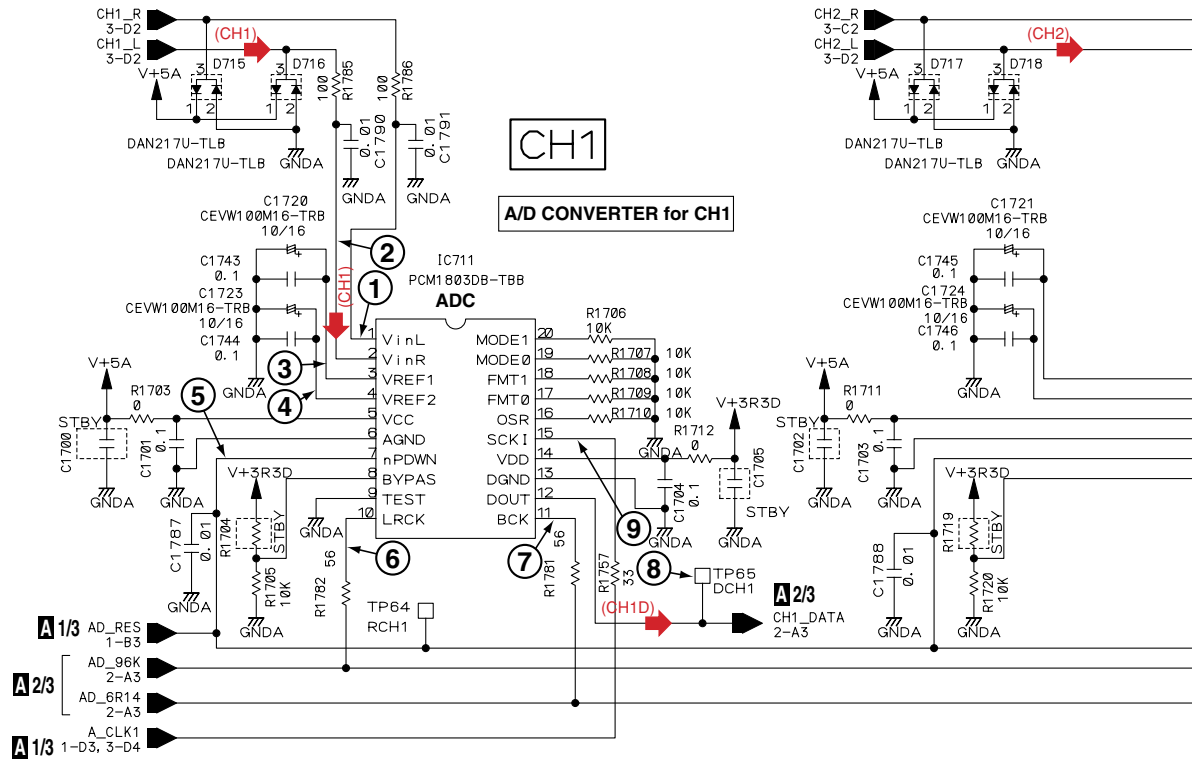


- (CH1D) : CH 1 Data
- (CH2D) : CH 2 Data
- (MICD) : MIC Data
- (MASTERD) : MASTER Data
- (HPD) : HP Data



# 3.5 MAIN ASSY (3/3)

## A 3/3 MAIN ASSY (DWX2527)



A

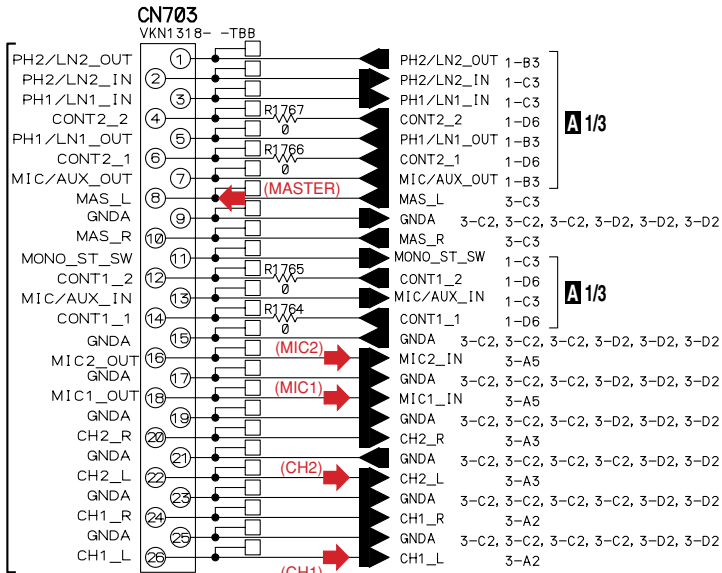
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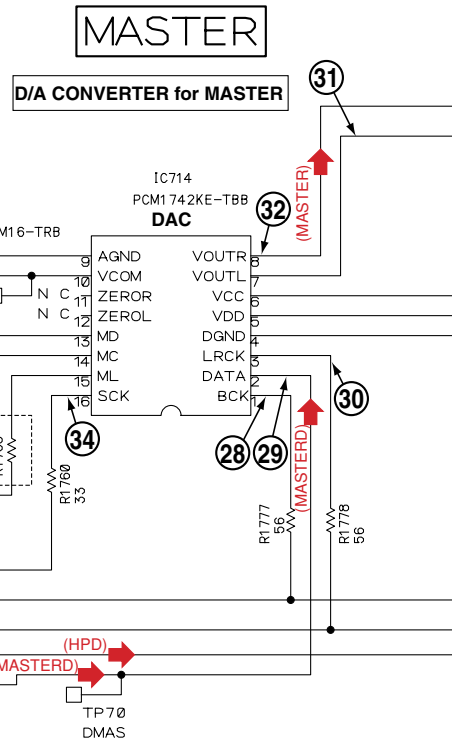
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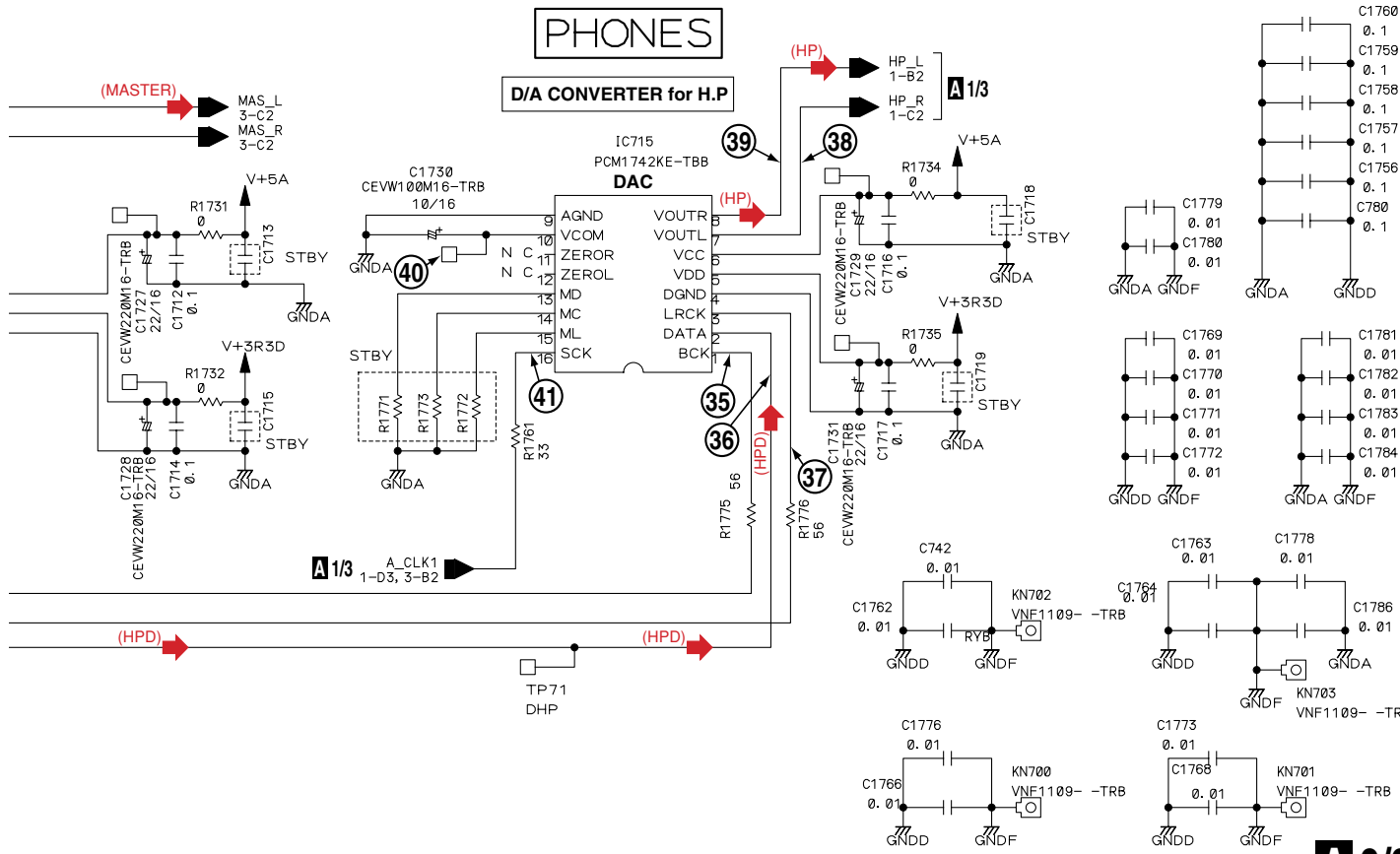
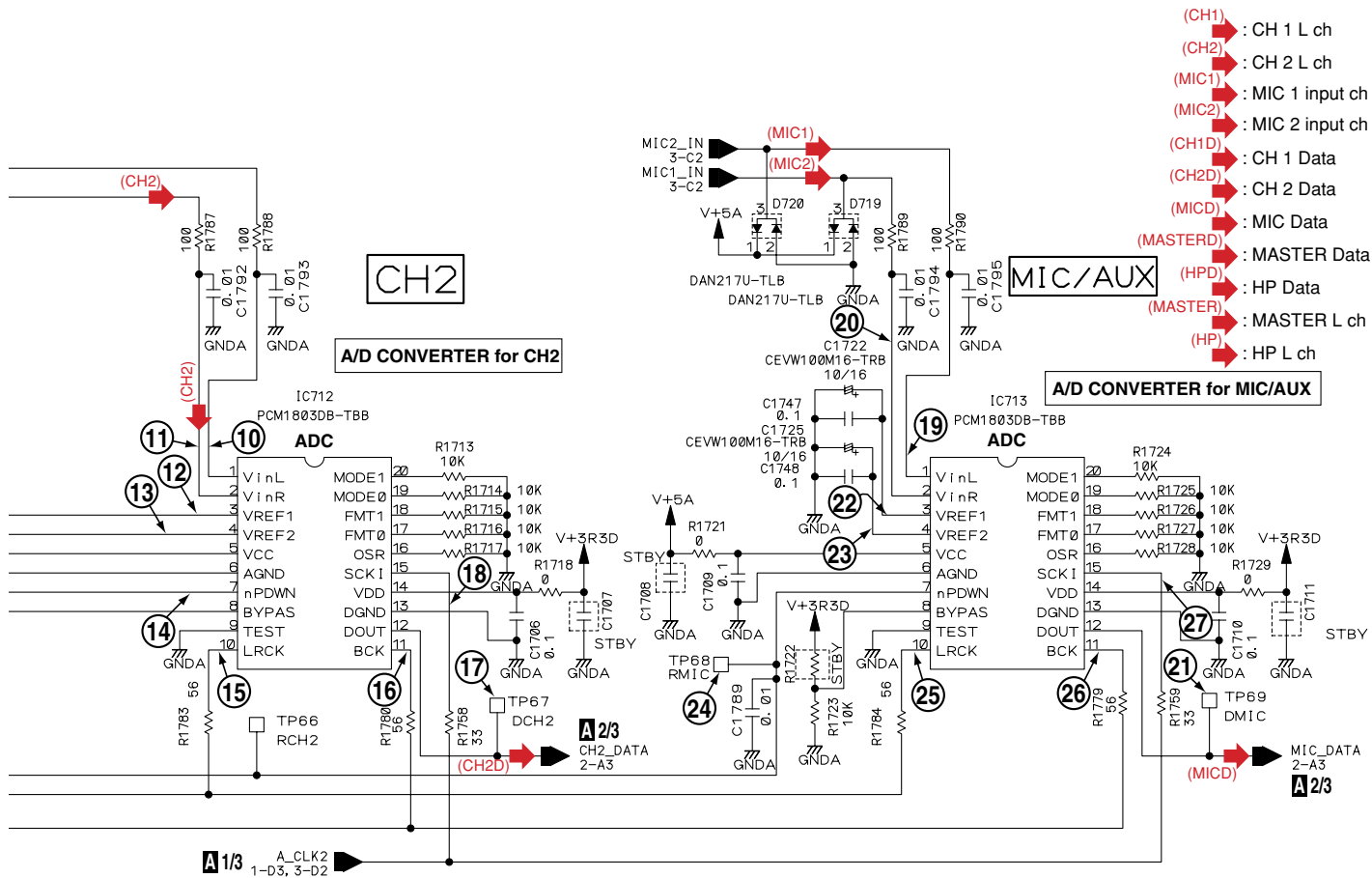
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B 2/4 CN503

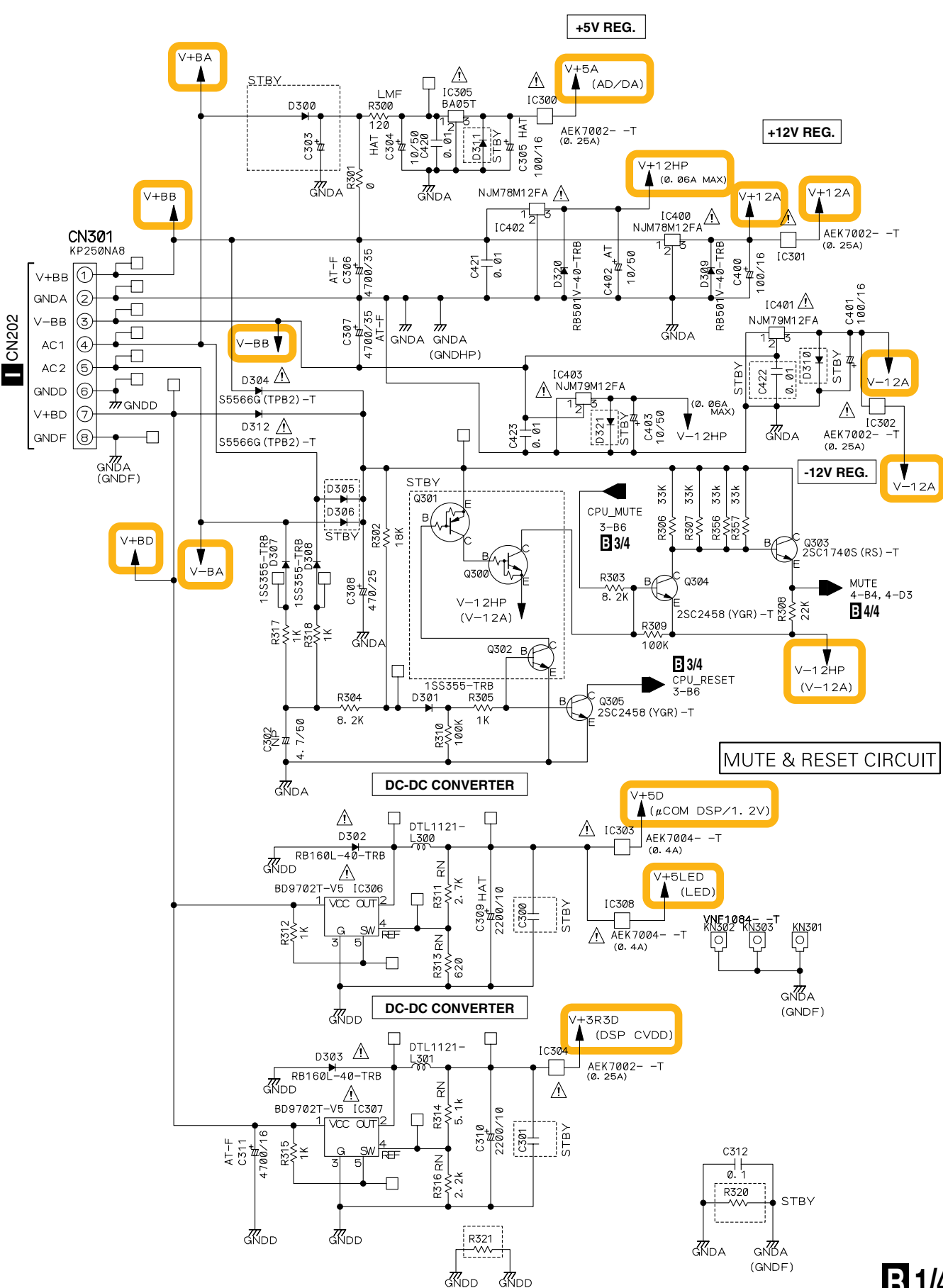


## A 3/3



A 3/3





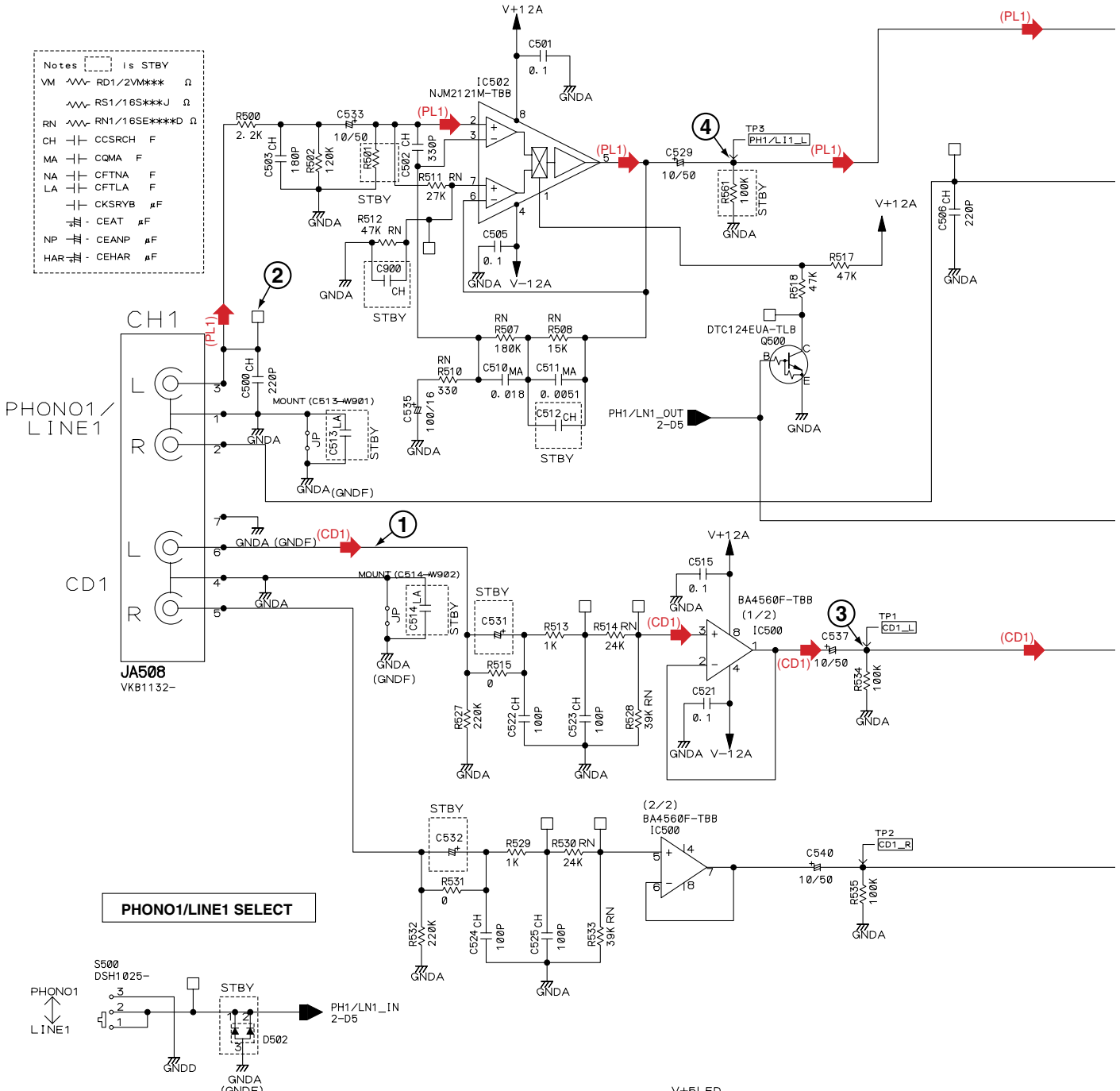
# 3.7 JACK ASSY (2/4)

**B 2/4** JACK ASSY (KUCXJ : DWX2524)  
 (RLXJ : DWX2525)  
 (WYXJ5 : DWX2516)

## PHONO/LINE SELECT AMP

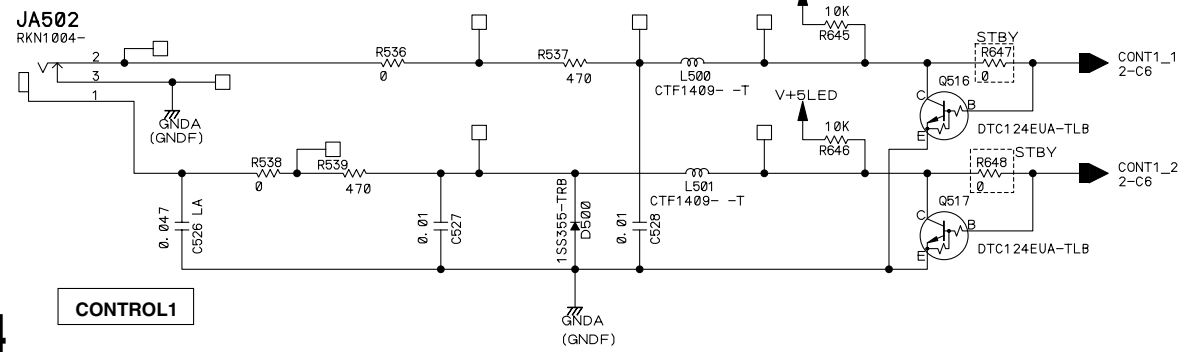
Notes:   is STBY

VM	~	RD1/2VM***	Ω
RN	~	RN1/16SE***D	Ω
CH		CCSRCH	F
MA		CQMA	F
NA		CFTNA	F
LA		CFTLA	F
		CKSRYB	μF
		CEAT	μF
NP		CEANP	μF
HAR		CEHAR	μF



## PHONO1/LINE1 SELECT

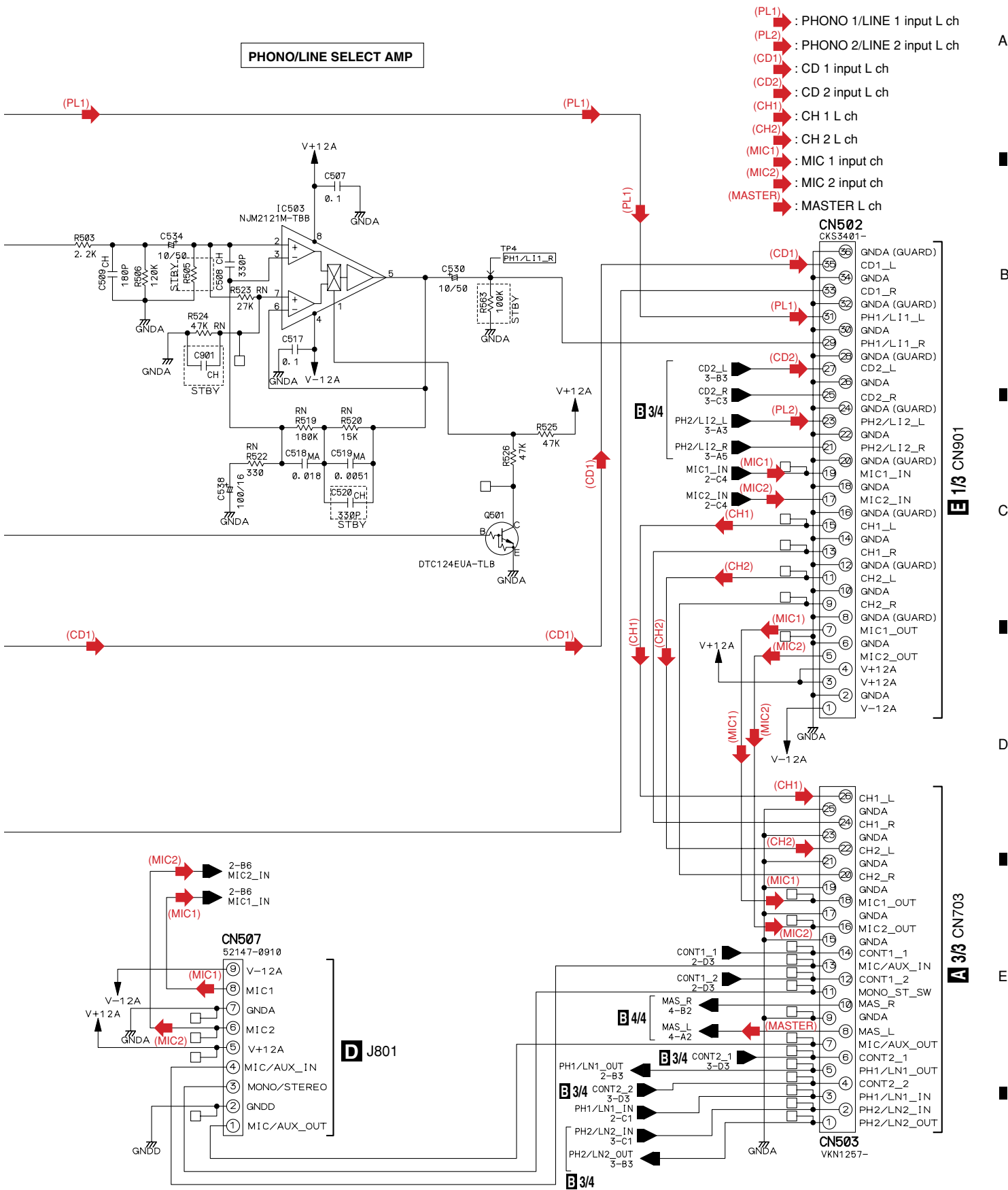
## CONTROL1



**B 2/4**



PHONO/LINE SELECT AMP



- (PL1) : PHONO 1/LINE 1 input L ch
- (PL2) : PHONO 2/LINE 2 input L ch
- (CD1) : CD 1 input L ch
- (CD2) : CD 2 input L ch
- (CH1) : CH 1 L ch
- (CH2) : CH 2 L ch
- (MIC1) : MIC 1 input ch
- (MIC2) : MIC 2 input ch
- (MASTER) : MASTER L ch

A

B

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D

E

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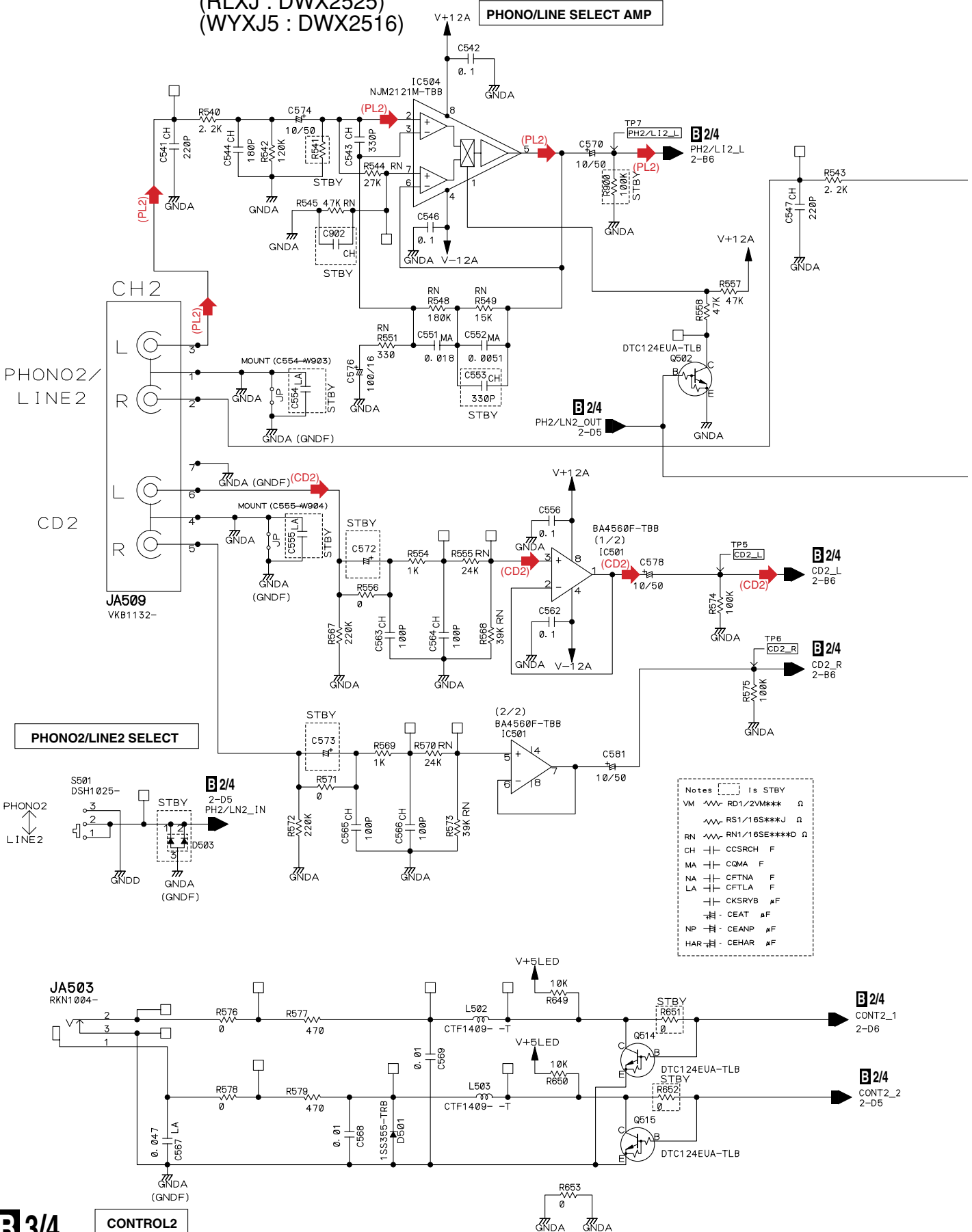
E 1/3 CN901

A 3/3 CN703

B 2/4

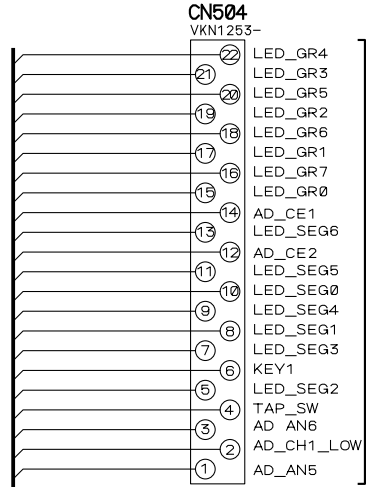
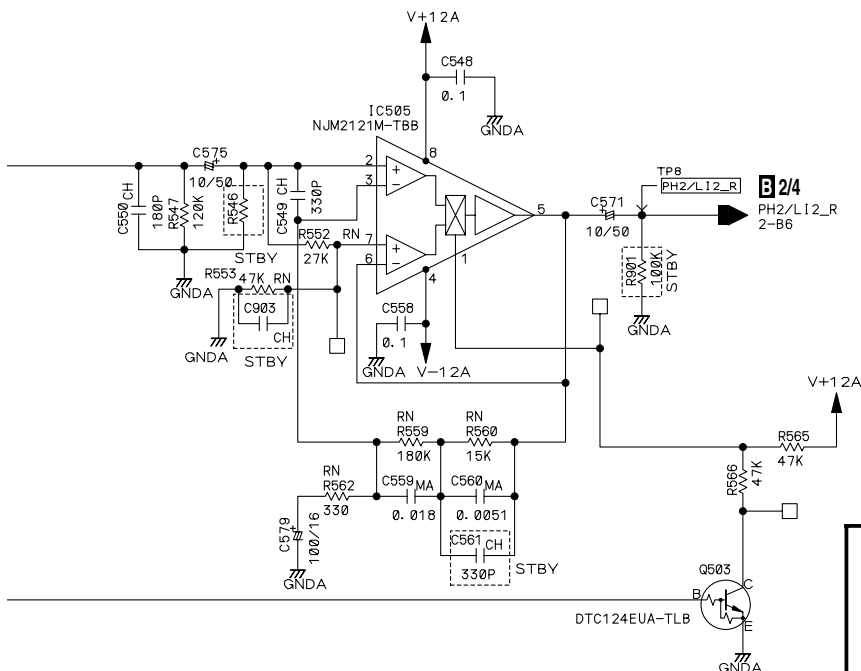
# 3.8 JACK ASSY (3/4)

**B 3/4** JACK ASSY (KUCXJ : DWX2524)  
 (RLXJ : DWX2525)  
 (WYXJ5 : DWX2516)



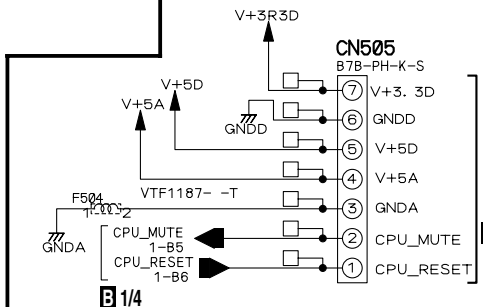
### PHONO/LINE SELECT AMP

(PL2) : PHONO 2/LINE 2 input L ch  
 (CD2) : CD 2 input L ch  
 (HP) : HP L ch



A 1/3 CN701

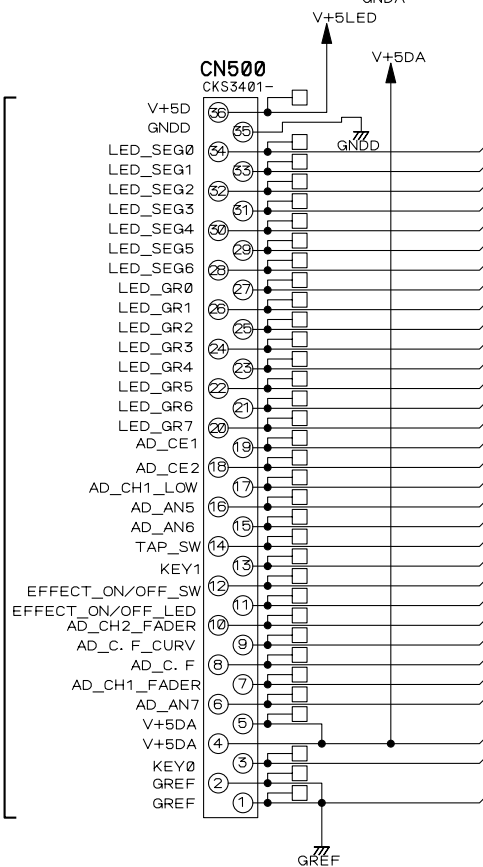
A B



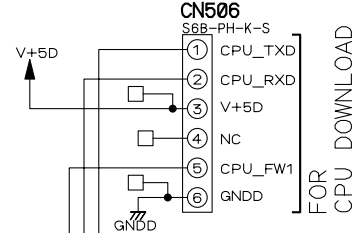
A 1/3 CN700

C

E 3/3 CN903

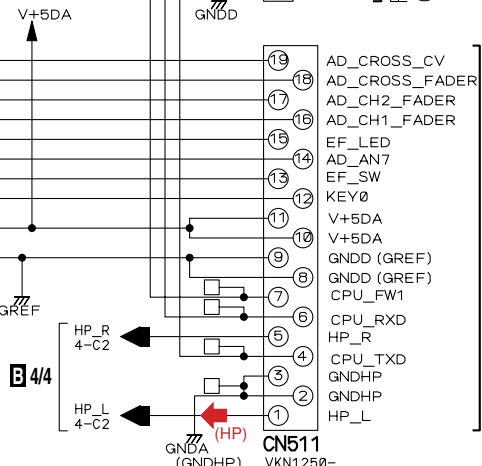


B 1/4



FOR CPU DOWNLOAD

D



A 1/3 CN702

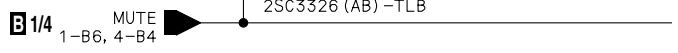
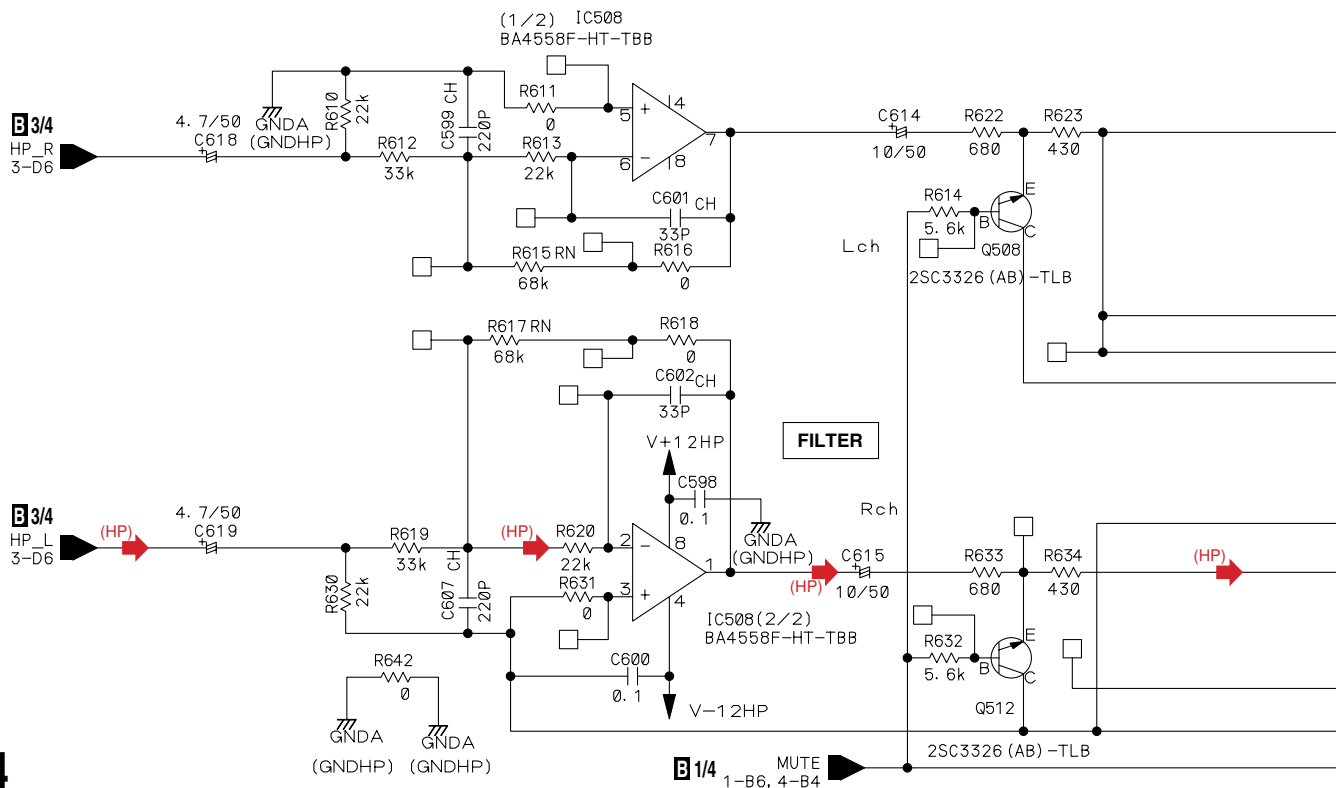
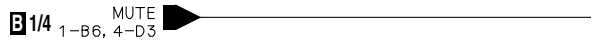
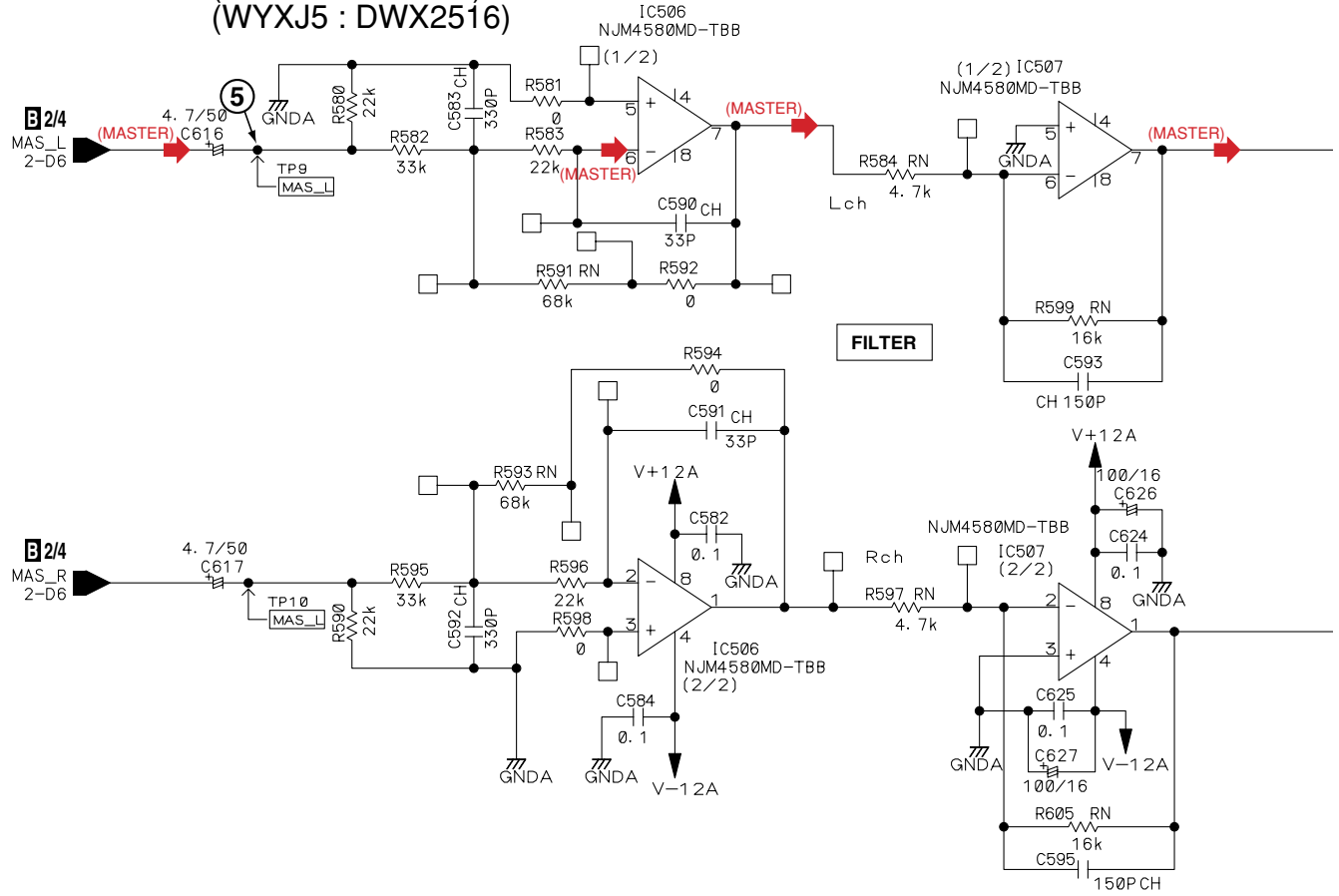
E

B 4/4

B 3/4

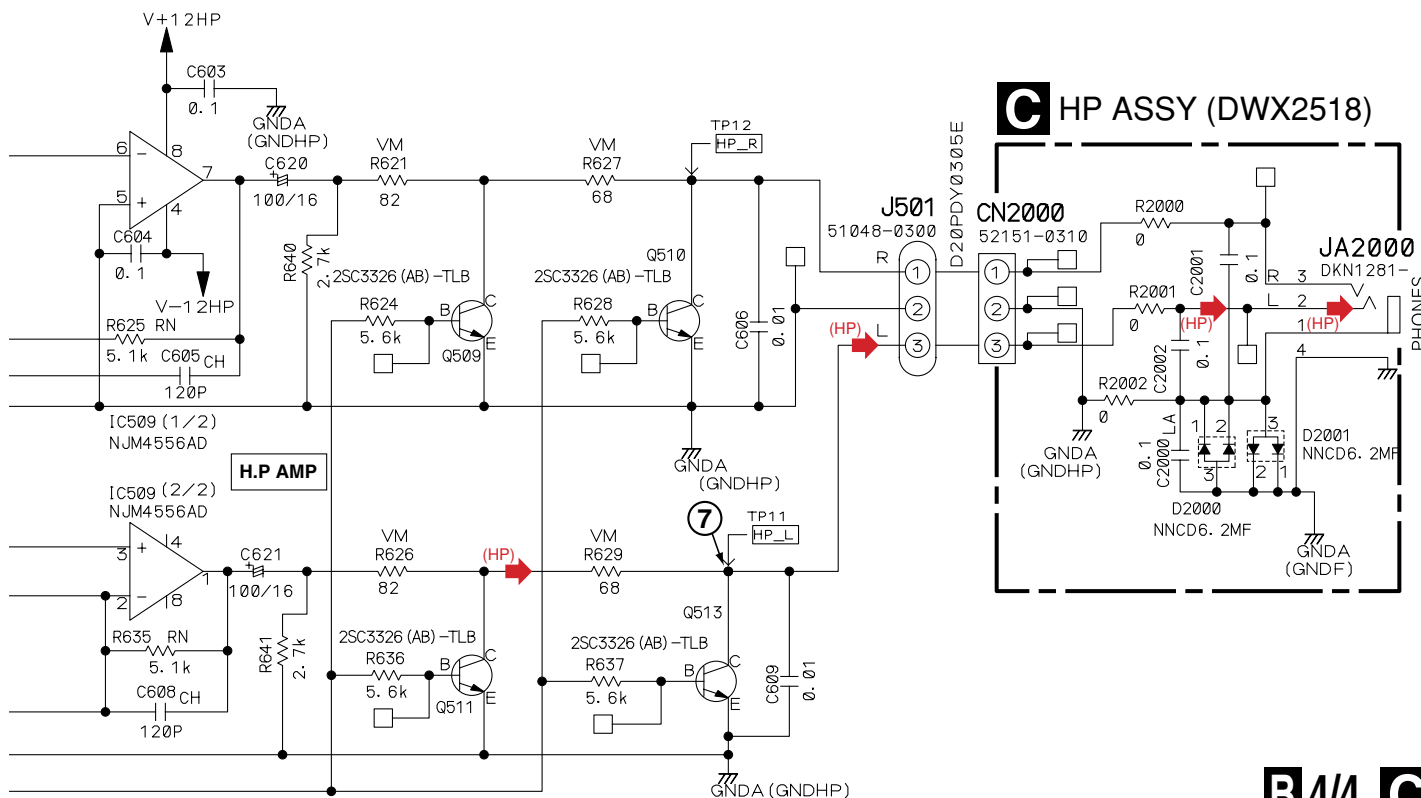
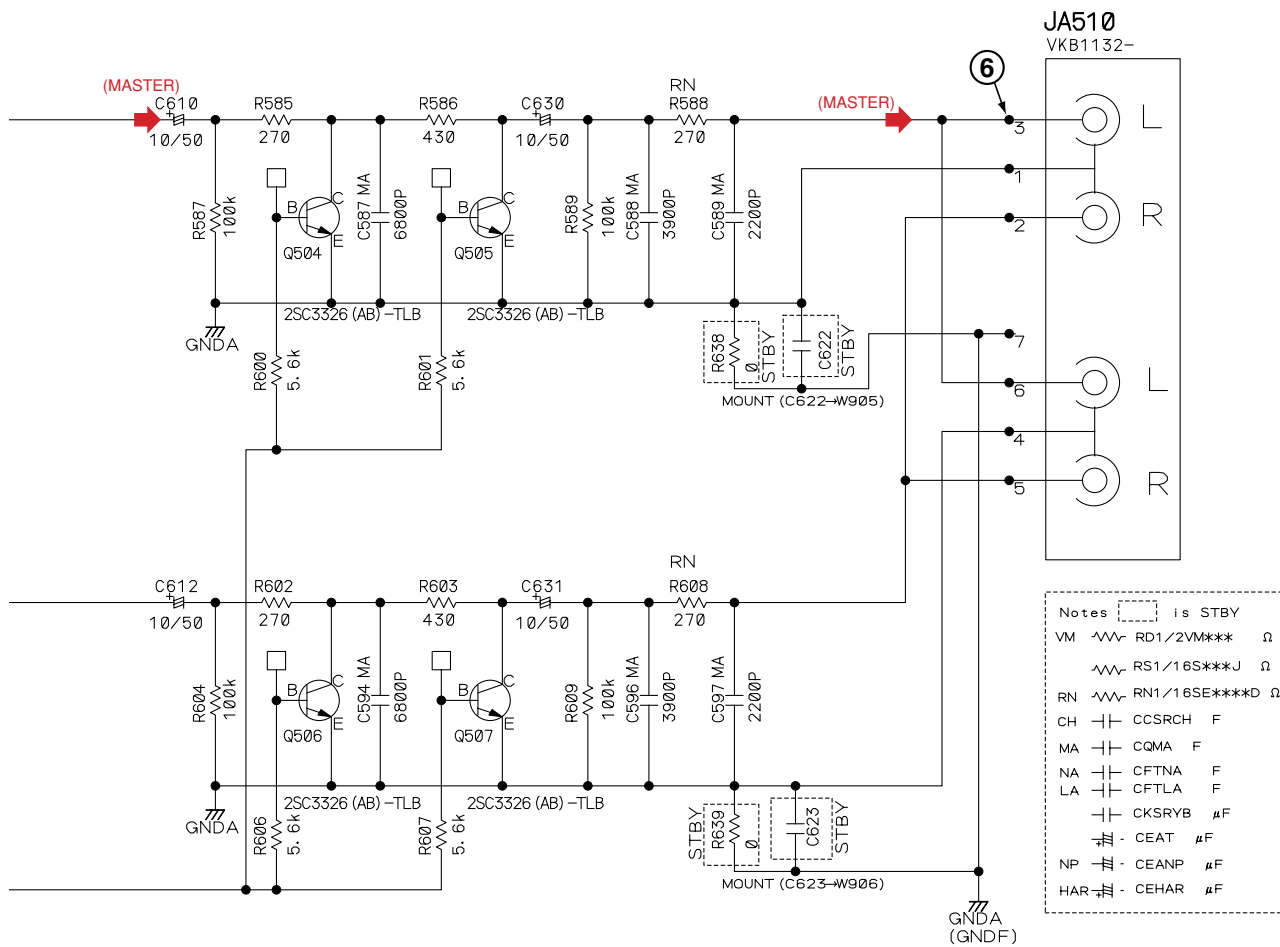
### 3.9 JACK (4/4) and HP ASSYS

#### B 4/4 JACK ASSY (KUCXJ : DWX2524) (RLXJ : DWX2525) (WYXJ5 : DWX2516)



#### B 4/4

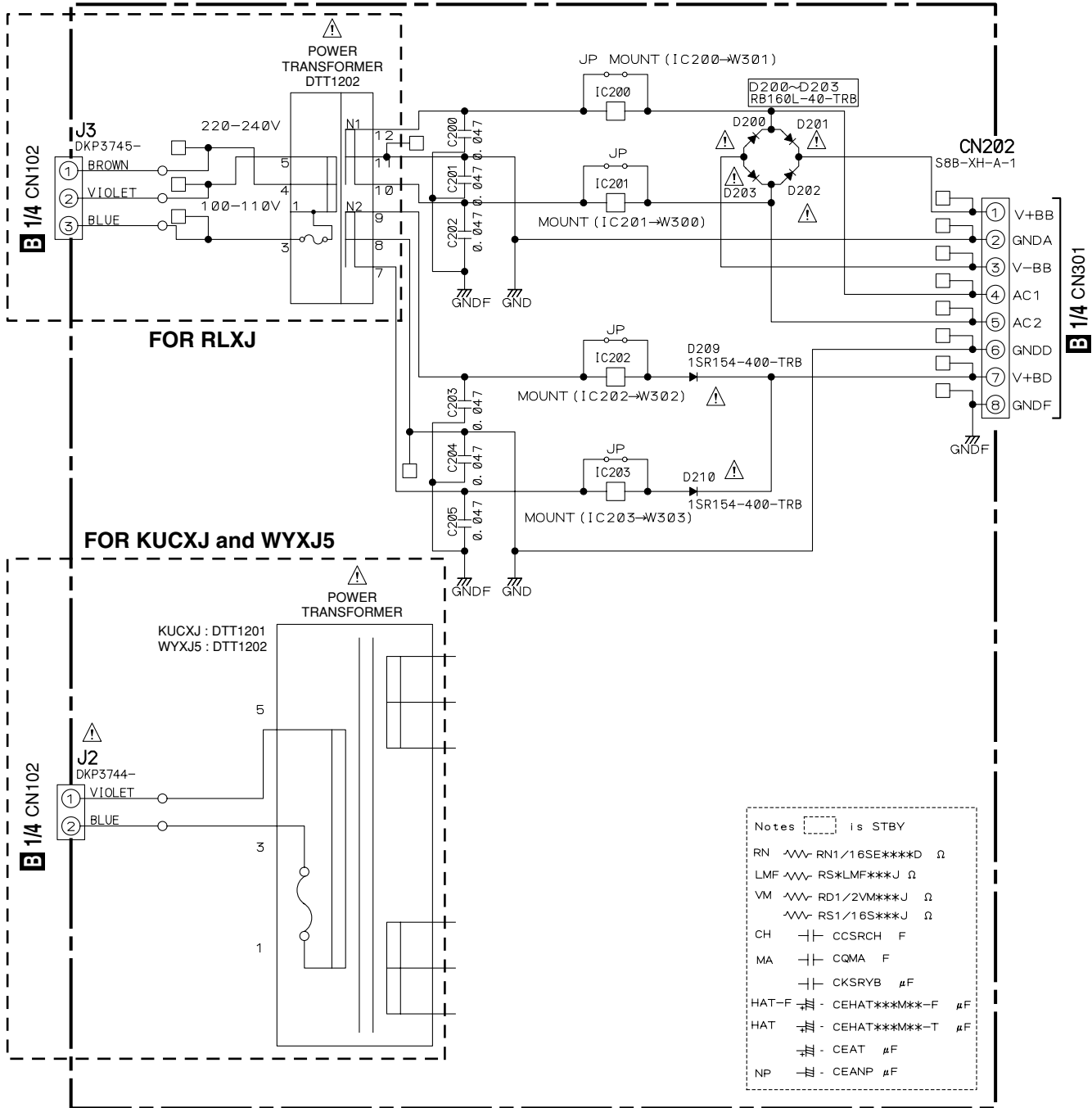
(MASTER) : MASTER L ch  
 (HP) : HP L ch





# 3.11 TRANS ASSY

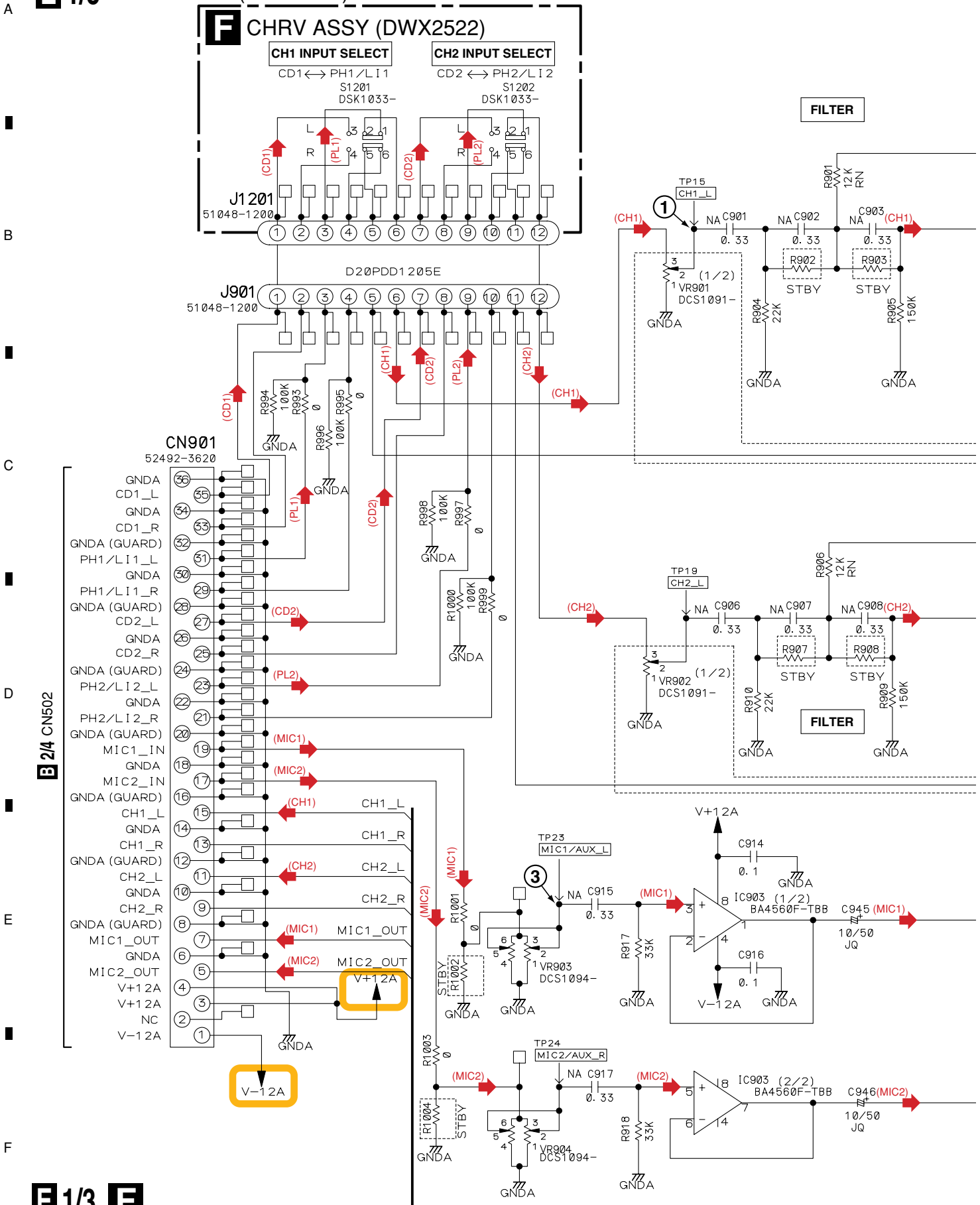
**TRANS ASSY (KUCXJ, WYXJ5 : DWX2519)  
(RLXJ : DWX2526)**



# 3.12 VRSW (1/3) and CHRV ASSYS

## E 1/3 VRSW ASSY (DWX2520)

## F CHRV ASSY (DWX2522)

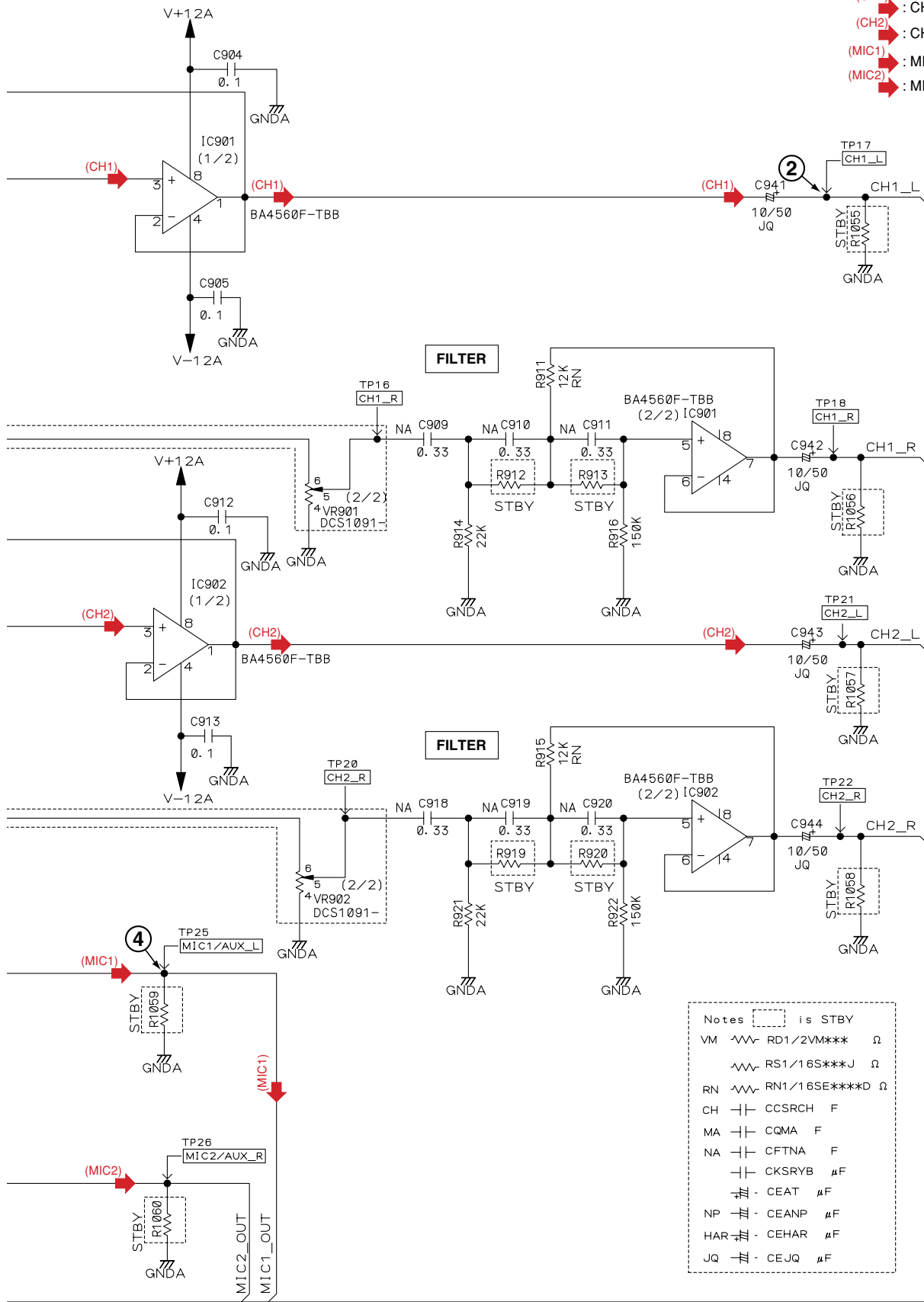


B 2/4 CN502

## E 1/3 F



- (PL1) : PHONO 1/LINE 1 input L ch
- (PL2) : PHONO 2/LINE 2 input L ch
- (CD1) : CD 1 input L ch
- (CD2) : CD 2 input L ch
- (CH1) : CH 2 L ch
- (CH2) : CH 1 L ch
- (MIC1) : MIC 1 input ch
- (MIC2) : MIC 2 input ch

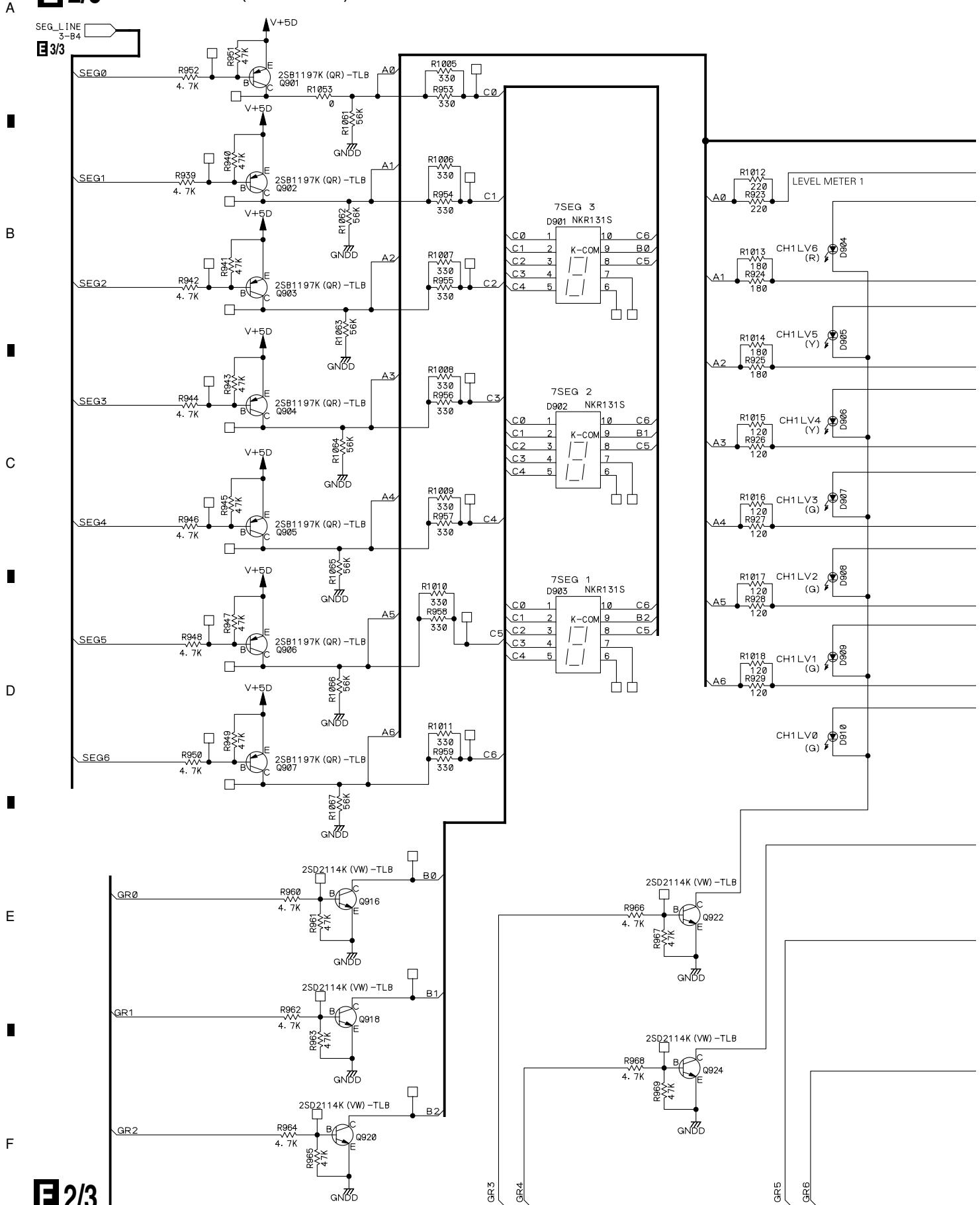


Notes

VM	~	RD1/2VM***	Ω
	~	RS1/16S***J	Ω
	~	RN1/16SE***D	Ω
CH		CCSRCH	F
MA		CQMA	F
NA		CFTNA	F
		CKSRYB	μF
		CEAT	μF
		CEANP	μF
		CEHAR	μF
		CEJQ	μF

# 3.13 VRSW ASSY (2/3)

## E 2/3 VRSW ASSY (DWX2520)



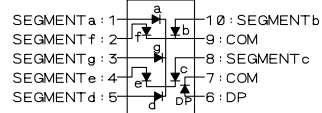
SLI-343URCW (RST) -TS (R) =RED  
D904, D911, D918

SLI-343YCW (RST) -TS (Y) =YELLOW  
D905, D912, D919  
D906, D913, D920

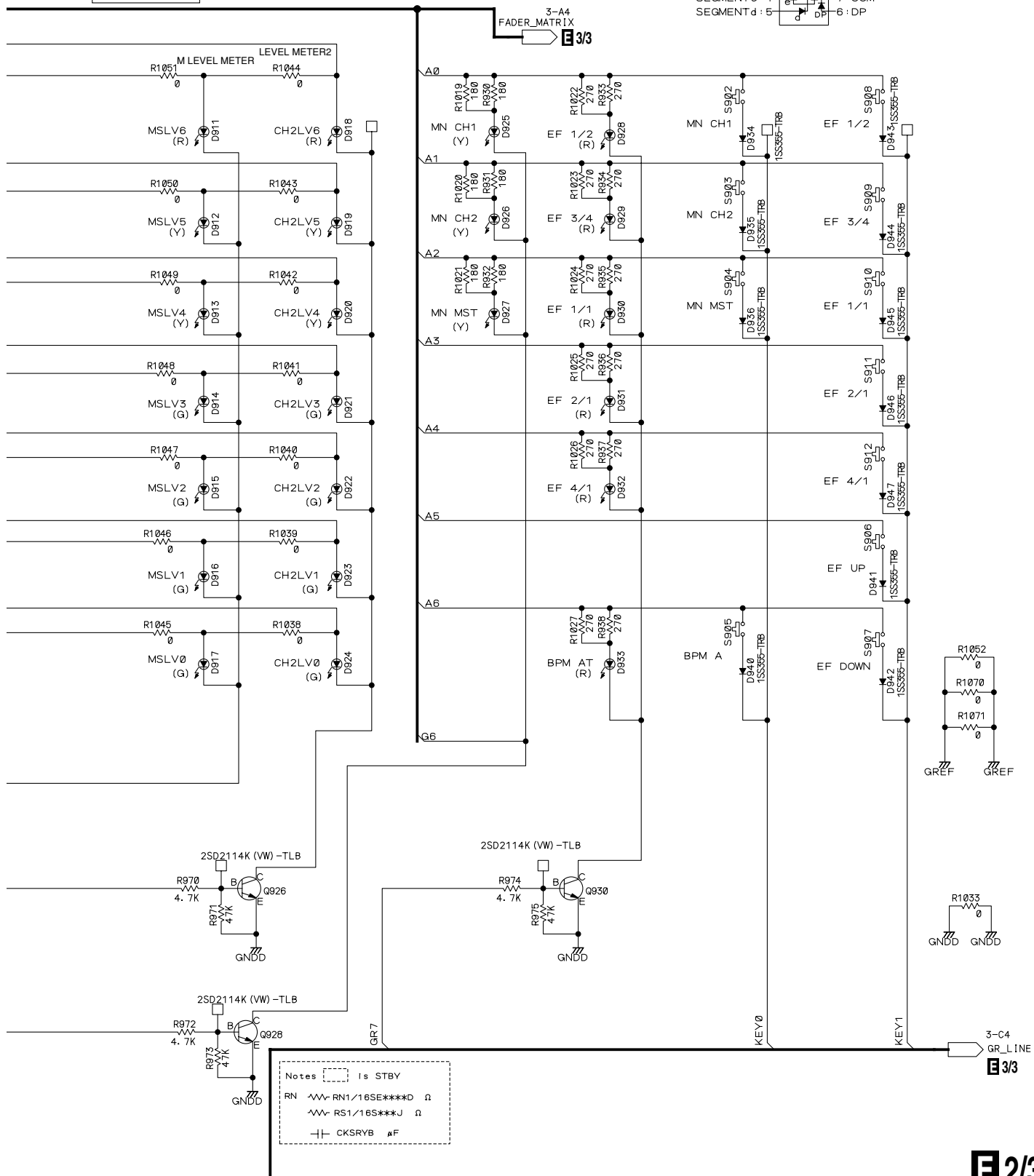
TLGE68TG (NP) -TS (G) =GREEN  
D907, D914, D921  
D908, D915, D922  
D909, D916, D923  
D910, D917, D924

SLI-343YCW (RST) -TS (Y) =YELLOW  
D925, D926, D927

SLI-343URCW (RST) -TS (R) =RED  
D928, D929, D930  
D931, D932, D933

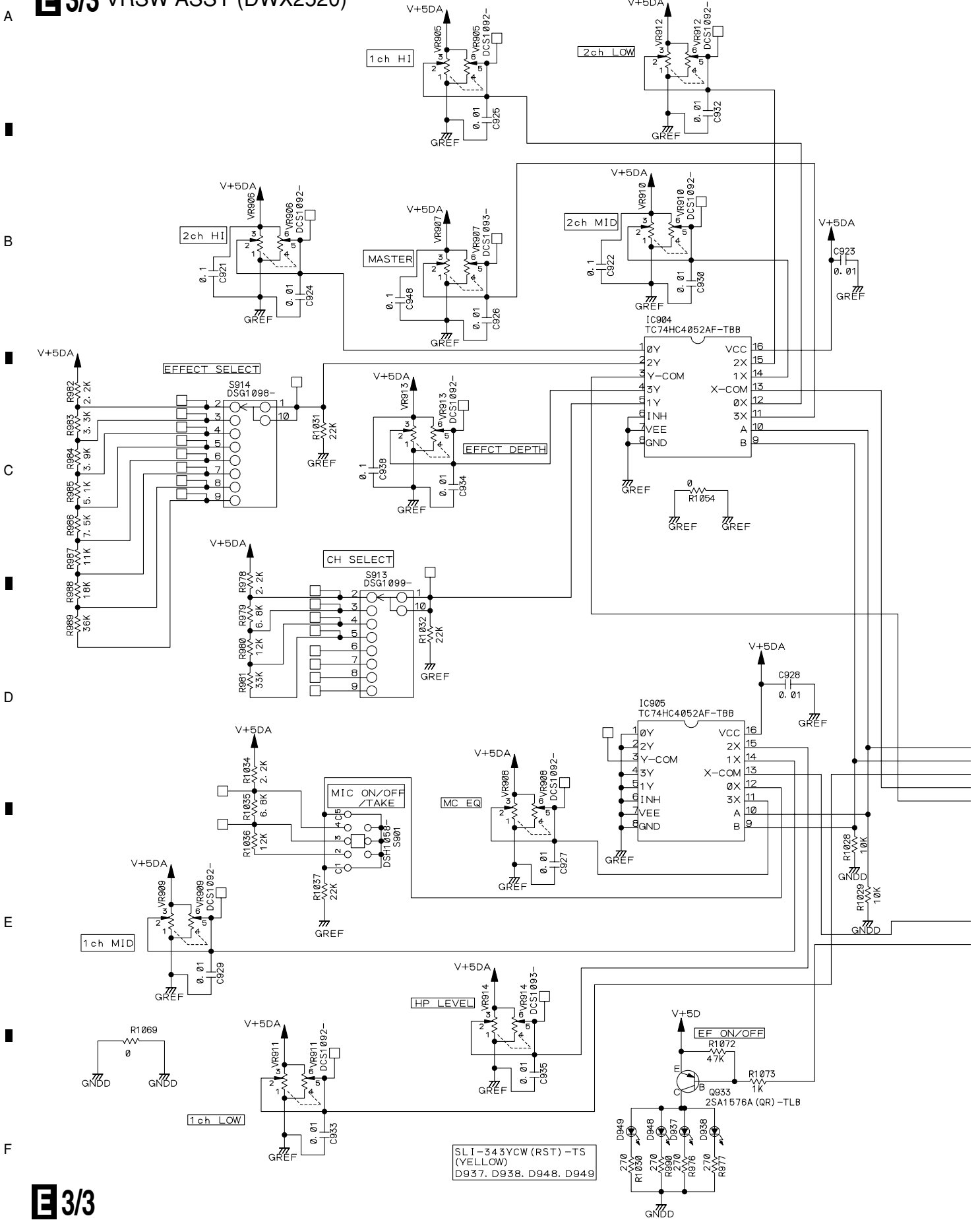


**LEVEL METER**



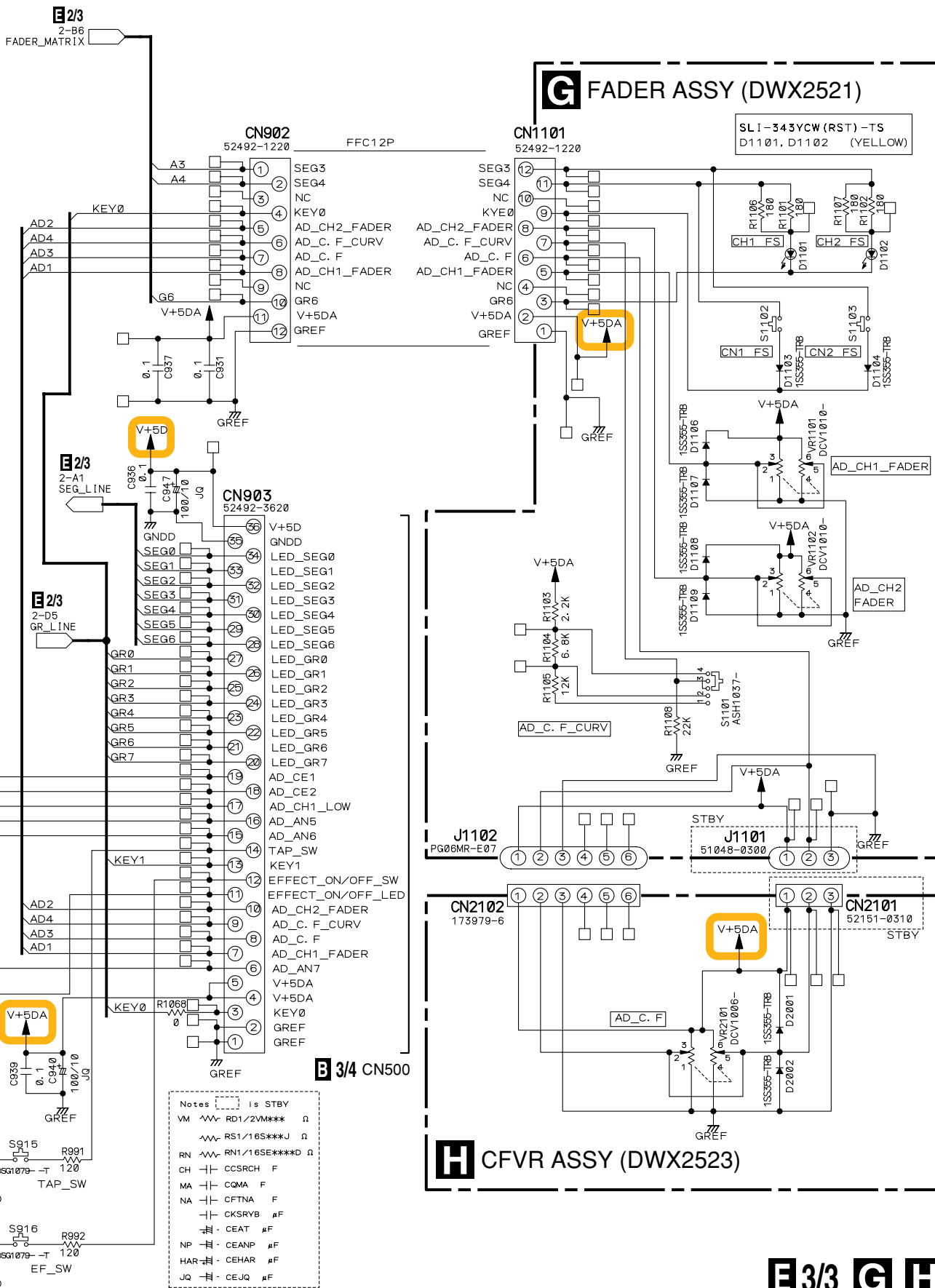
# 3.14 VRSW (3/3), FADER and CFVR ASSYS

## 3/3 VRSW ASSY (DWX2520)



SLI-343YCW (RST) - TS  
(YELLOW)  
D937, D938, D948, D949





# 3.15 VOLTAGES

## Measurement Condition

### Control panel section

Channel	CH-1	CH-2
Input signal	No input	No input
Input selector	CD	CD
TRIM	MAX	MAX
EQ HI	MID	MID
EQ MID	MID	MID
EQ LO	MID	MID
CH FADER	MAX	MAX

FADER START	
CH-1	OFF
CH-2	OFF

HEADPHONES	
LEVEL	MAX
CH-1, CH-2, MASTER	OFF

MIC	
Input signal	No input
TRIM	MAX
EQ HI	MID
EQ LO	MID
MIC	OFF

MASTER VOLUME	MAX
---------------	-----

CROSS FADER SW	THRU
CROSS FADER	Center

MIC Switch	OFF
Effect	DELAY
BPM COUNTER	AUTO
CH. SELECT	CH-1
LEVEL/DEPTH	Center

### Rear panel

LINE/PHONO (CH1/2)	LINE
MONO/STEREO	STEREO
MIC/AUX	AUX

# A MAIN ASSY

## IC700

No.	Voltage (V)	No.	Voltage (V)
1	3.324	51	0.73 m
2	5.21	52	0.72 m
3	2.9 to 4.4	53	0.72 m
4	4.1 to 5.1	54	0.71 m
5	4.1 to 5.1	55	0.71 m
6	4.1 to 5.1	56	0.7 m
7	4.1 to 4.6	57	-0.04 m
8	4.6 to 5.1	58	8.04 m
9	4.1 to 5.1	59	0.7 m
10	0.15 m	60	0.67 m
11	0.04 m	61	0.04 m
12	3.68	62	5.2
13	5.21	63	5.2
14	4.6	64	-0.03 m
15	5.21	65	-0.02 m
16	5.09	66	2.69
17	1.02 m	67	2.51
18	4.55	68	5.21
19	5.21	69	0.72 m
20	5.19	70	0.72 m
21	1.62 m	71	0.72 m
22	0.02 m	72	0.72 m
23	148.34 m	73	5.21
24	2.96 m	74	5.21
25	3.45 m	75	5.21
26	4.8 m	76	4.86
27	40.38 m	77	4.86
28	40.77 m	78	3.87
29	5.18	79	4.85
30	5.2 m	80	2.31
31	5.21 m	81	2.47
32	5.16 m	82	2.39
33	5.18 m	83	3.05
34	5.17 m	84	2.71
35	5.29	85	2.62
36	-0.07 m	86	0.32 m
37	-0.11 m	87	0.14 m
38	-0.09 m	88	2.48
39	-0.08 m	89	0.73 m
40	-0.08 m	90	0.7 m
41	-0.09 m	91	0.71 m
42	-0.08 m	92	0.13 m
43	-0.08 m	93	0.13 m
44	-0.02 m	94	43.3 m
45	5.28	95	43 m to 45 m
46	5.28	96	43.3 m
47	47.03 m	97	43.4 m
48	46.62 m	98	43.3 m
49	5.21	99	43 m to 45 m
50	46.85 m	100	43 m to 45 m

## IC701

No.	Voltage (V)
1	0
2	3.24
3	1.658
4	1.542
5	0
6	3.25
7	-0.01 m
8	1.661
9	1.543
10	1.661
11	1.540
12	1.661
13	1.534
14	3.25

## IC702

No.	Voltage (V)
1	3.25
2	3.69
3	2.3
4	3.25
5	5.1
6	3.17
7	-0.07 m
8	2.84
9	3.25
10	4.56
11	3.25
12	3.25
13	5.2
14	3.25

## IC703

No.	Voltage (V)
1	-
2	-
3	0
4	1.76
5	3.25

## IC704

No.	Voltage (V)
1	5.21
2	5.21
3	-0.04 m
4	-
5	-

## IC705

No.	Voltage (V)
1	5.21
2	2.83
3	0.07 m
4	4.6
5	5.21

## IC706

No.	Voltage (V)
1	5.21
2	1.661
3	0
4	2.7
5	5.21

## IC707

No.	Voltage (V)
1	3.25
2	1.660
3	0
4	1.538
5	3.25

## IC708

No.	Voltage (V)	No.	Voltage (V)
1	8.94 m	73	3.23
2	8.84 m	74	3.25
3	1.18	75	3.2
4	7.69 m	76	3.2
5	7.26 m	77	1.18
6	3.28	78	0.06 m
7	0.04 m	79	3.2
8	1.18	80	3.2
9	3.93 m	81	3.2
10	1183 m	82	3.2
11	0.03 m	83	3.2
12	3.53 m	84	3.2
13	3.97 m	85	3.24
14	5.85 m	86	1.18
15	3.98 m	87	0.06 m
16	3.95 m	88	1.59
17	3.29	89	1.62
18	5.49 m	90	3.25
19	0.03 m	91	0.04 m
20	2.87	92	3.24
21	2.86	93	3.24
22	3.21	94	3.24
23	0.05 m	95	3.24
24	1.18	96	0.04 m
25	1.944 to 1.946	97	3.24
26	0.03 m	98	3.24
27	1.18	99	3.24
28	1.18	100	3.24
29	3.28	101	1.18
30	0.03 m	102	1.62
31	1198 m	103	3.25
32	3.29	104	1.18
33	0.03 m	105	68.24 m
34	0.03 m	106	0.05 m
35	1.18	107	1.59
36	0.05 m	108	3.25
37	1.18	109	0.1 m
38	0.11 m	110	1.42 m
39	9.7 m	111	3.24
40	3.27	112	3.2
41	3.26	113	3.24
42	3.26	114	0.34 m
43	3.26	115	5.89 m
44	3.26	116	3.28
45	1.183	117	3.28
46	3.2	118	102.8 m
47	3.2	119	3.24
48	0.15 m	120	1.18
49	3.25	121	102.7 m
50	3.28	122	223 m
51	8.4 m to 8.7 m	123	3.24
52	1.59	124	3.25
53	0.11 m	125	3.25
54	3.27	126	-0.04 m
55	1.18	127	1.19
56	6.6 m	128	1.19
57	3.27	129	3.26
58	7.3 m to 7.6 m	130	3.26
59	3.28	131	3.26
60	0.11 m	132	3.25
61	11.4 m	133	3.24
62	11.4 m	134	3.24
63	6.99 m	135	3.24
64	7.15 m	136	0.08 m
65	7.19 m	137	1.18
66	1.18	138	2.6 m
67	7.19 m	139	3.25
68	7.04 m	140	-0.04 m
69	7.04 m	141	1.18
70	3.27	142	3.25
71	3.28	143	5.68 m to 5.75 m
72	0.08 m	144	1.67

## IC709

No.	Voltage (V)
1	3.25
2	3.2
3	3.25
4	3.2
5	3.2
6	-0.04 m
7	3.2
8	3.2
9	3.25
10	3.2
11	3.2
12	-0.03 m
13	3.2
14	3.25
15	3.23
16	3.24
17	3.24
18	3.24
19	3.23
20	11.26 m to 3.23 V
21	7.05 m
22	11.5 m to 11.7 m
23	9.7 m
24	3.23
25	3.23
26	3.23
27	3.25
28	-0.03 m
29	3.23
30	3.23
31	1.502
32	1.385
33	8.55 m
34	7.25 m to 7.54 m
35	11.35 m
36	-
37	3.24
38	1.583
39	-0.01 m
40	-
41	-0.02 m
42	0
43	3.25
44	-0.01 m
45	-0.02 m
46	-0.01 m
47	0
48	0
49	3.25
50	-0.01 m
51	0
52	-0.01 m
53	0
54	0

## IC711

No.	Voltage (V)
1	2.51
2	2.51
3	2.51
4	4.91
5	5.01
6	-0.02 m
7	5.2
8	4.83 m
9	-0.04 m
10	1.58
11	1.61
12	1.110 to 1.119
13	-0.02 m
14	3.25
15	1.67
16	1.24 m
17	1.24 m
18	1.24 m
19	1.24 m
20	1.22 m

## IC712

No.	Voltage (V)
1	2.51
2	2.51
3	2.5
4	4.9
5	5.01
6	0.01 m
7	5.2
8	4.97 m
9	-0.02 m
10	1.6
11	1.63
12	1130 m to 1150 m
13	0
14	3.25
15	1.54
16	1.29 m
17	1.29 m
18	1.29 m
19	1.3 m
20	1.28 m

## IC713

No.	Voltage (V)
1	2.51
2	2.51
3	2.5
4	4.9
5	5.01
6	0
7	5.2
8	5.01 m
9	-0.02 m
10	1.60
11	1.63
12	1.13
13	0.01 m
14	3.25
15	1.54
16	1.25 m
17	1.23 m
18	1.25 m
19	1.25 m
20	1.25 m

## IC714

No.	Voltage (V)
1	1.63
2	1.21
3	1.63
4	0.01 m
5	3.25
6	5.01
7	2.48
8	2.53
9	0.03 m
10	2.5
11	4.11 m
12	4.14 m
13	3.39 m
14	3.39 m
15	3.42 m
16	1.54

## IC715

No.	Voltage (V)
1	1634 m
2	1.18
3	1.6
4	-0.03 m
5	3.257
6	5.01
7	2.50
8	2.55
9	0
10	2.49
11	3.9 m
12	3.93 m
13	3.19 m
14	3.37 m
15	3.4 m
16	1.67

**B** JACK ASSY**D** MIC ASSY**E** VRSW ASSY

A

## IC305

No.	Voltage (V)
1	15.05
2	-0.05 m
3	5.05

## IC503

No.	Voltage (V)
1	9.36
2	5.1 m to 6.7 m
3	5.01 m
4	-11.97
5	4.3 m to 5.8 m
6	4.3 m to 5.8 m
7	4.0 m to 5.4 m
8	11.89

## IC800

No.	Voltage (V)
1	9.3
2	4.73 m
3	5.95 m
4	-11.96
5	5.94 m
6	5.95 m
7	4.75 m
8	11.87

## IC901

No.	Voltage (V)
1	-0.02 m
2	-0.02 m
3	0.13 m
4	-11.97
5	0.19 m
6	0.51 m
7	0.51 m
8	11.88

## IC904

No.	Voltage (V)
1	2.4
2	4.5
3	3.35
4	0.16 m
5	4.42
6	0.01 m
7	0.01 m
8	0.01 m
9	168 m
10	2.41
11	4.95
12	2.41
13	3.05
14	2.42
15	2.45
16	4.95

## IC306

No.	Voltage (V)
1	10.65
2	5.32
3	-0.2 m
4	990 m
5	10.7

## IC504

No.	Voltage (V)
1	9.37
2	5.1 m to 6.7 m
3	4.6 m
4	-11.97
5	4.2 m to 5.8 m
6	4.2 m to 5.8 m
7	4.0 m to 5.4 m
8	11.89

## IC801

No.	Voltage (V)
1	9.35
2	4.9 m
3	5.73 m
4	-11.96
5	5.73 m
6	5.72 m
7	4.95 m
8	11.88

## IC902

No.	Voltage (V)
1	0.32 m
2	0.32 m
3	0.13 m
4	-11.97
5	0.1 m
6	0.23 m
7	0.24 m
8	11.87

## IC905

No.	Voltage (V)
1	-0.4 m
2	7.07 m to 7.14 m
3	7.07 m to 7.14 m
4	-0.4 m
5	-0.4 m
6	-0.4 m
7	-0.4 m
8	-0.4 m
9	1.39
10	1.39
11	2.46
12	4.42
13	1.99
14	2.4
15	-0.15 m
16	4.95

B

## IC307

No.	Voltage (V)
1	10.7
2	3.3
3	0
4	995.5 m
5	10.7

## IC505

No.	Voltage (V)
1	9.31
2	5.1 m to 6.7 m
3	5.6 m
4	-11.97
5	4.4 m to 6.0 m
6	4.4 m to 6.0 m
7	4.0 m to 5.4 m
8	11.89

## IC800

No.	Voltage (V)
1	9.35
2	4.9 m
3	5.73 m
4	-11.96
5	5.73 m
6	5.72 m
7	4.95 m
8	11.88

## IC903

No.	Voltage (V)
1	0.57 m
2	0.57 m
3	0.17 m
4	-11.97
5	0.15 m
6	0.34 m
7	0.35 m
8	11.87

C

## IC400

No.	Voltage (V)
1	13.86
2	-0.05 m
3	11.92

## IC401

No.	Voltage (V)
1	0.98 m
2	-19.8
3	-12

## IC506

No.	Voltage (V)
1	7.5 m to 9.2 m
2	0.13 m
3	-0.03 m
4	-11.97
5	-0.03 m
6	0.17
7	7.6 m to 9.2 m
8	11.89

## IC801

No.	Voltage (V)
1	9.35
2	4.9 m
3	5.73 m
4	-11.96
5	5.73 m
6	5.72 m
7	4.95 m
8	11.88

## IC903

No.	Voltage (V)
1	0.57 m
2	0.57 m
3	0.17 m
4	-11.97
5	0.15 m
6	0.34 m
7	0.35 m
8	11.87

D

## IC402

No.	Voltage (V)
1	18.14
2	0.78 m
3	11.9

## IC403

No.	Voltage (V)
1	0.75 m
2	-19.8
3	-11.9

## IC507

No.	Voltage (V)
1	13.4 m to 15.1 m
2	0.14 m
3	-0.03 m
4	-11.97
5	-0.02 m
6	-0.11 m
7	13.4 m to 15.1 m
8	11.89

## IC801

No.	Voltage (V)
1	9.35
2	4.9 m
3	5.73 m
4	-11.96
5	5.73 m
6	5.72 m
7	4.95 m
8	11.88

## IC903

No.	Voltage (V)
1	0.57 m
2	0.57 m
3	0.17 m
4	-11.97
5	0.15 m
6	0.34 m
7	0.35 m
8	11.87

E

## IC500

No.	Voltage (V)
1	3.6 m to 4.7 m
2	3.5 m to 4.6 m
3	2.8 m to 3.8 m
4	-11.97 m
5	2.8 m to 3.8 m
6	3.5 m to 4.7 m
7	3.5 m to 4.7 m
8	11.88

## IC508

No.	Voltage (V)
1	-7.6 m
2	0.04 m
3	0.17 m
4	-11.97
5	0.17 m
6	0.14 m
7	-7.39 m
8	11.942

## IC801

No.	Voltage (V)
1	9.35
2	4.9 m
3	5.73 m
4	-11.96
5	5.73 m
6	5.72 m
7	4.95 m
8	11.88

## IC903

No.	Voltage (V)
1	0.57 m
2	0.57 m
3	0.17 m
4	-11.97
5	0.15 m
6	0.34 m
7	0.35 m
8	11.87

## IC501

No.	Voltage (V)
1	3.5 m to 4.6 m
2	3.5 m to 4.6 m
3	2.7 m to 3.9 m
4	-11.97
5	2.7 m to 3.8 m
6	3.5 m to 4.6 m
7	3.4 m to 4.6 m
8	11.88

## IC509

No.	Voltage (V)
1	-5.0 m to -6.0 m
2	0.03 m
3	0.57 m
4	-11.85
5	-5.9 m to -6.0 m
6	-5.6 m to -5.8 m
7	-5.9 m to -6.0 m
8	11.8

## IC801

No.	Voltage (V)
1	9.35
2	4.9 m
3	5.73 m
4	-11.96
5	5.73 m
6	5.72 m
7	4.95 m
8	11.88

## IC903

No.	Voltage (V)
1	0.57 m
2	0.57 m
3	0.17 m
4	-11.97
5	0.15 m
6	0.34 m
7	0.35 m
8	11.87

F

## IC502 (at LINE input)

No.	Voltage (V)
1	9.34
2	5.1 m to 6.7 m
3	5.2 m
4	-11.97
5	4.3 m to 5.8 m
6	4.3 m to 5.8 m
7	4.0 m to 5.4 m
8	11.89



# 3.16 WAVEFORMS

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

■ **Measuring conditions (Analog)** Top panel : only a measurement line is inputted.

CH	CH 1/2 Input selector		
	CD	LINE	PHONO
Input signal	1k/0db	1k/0db	1k/-40db
TRIM	MAX (display MAX)	MAX (display MAX)	MAX (display MAX)
EQ HI	MID	MID	MID
EQ MID	MID	MID	MID
EQ LO	MID	MID	MID
CH FADER	MAX	MAX	MAX

Input signal	AUX L/R	MIC 1/2
TRIM	MAX (display MAX)	MAX (display MAX)
EQ HI	MID	MID
EQ LO	MID	MID
MIC selector sw	ON	ON

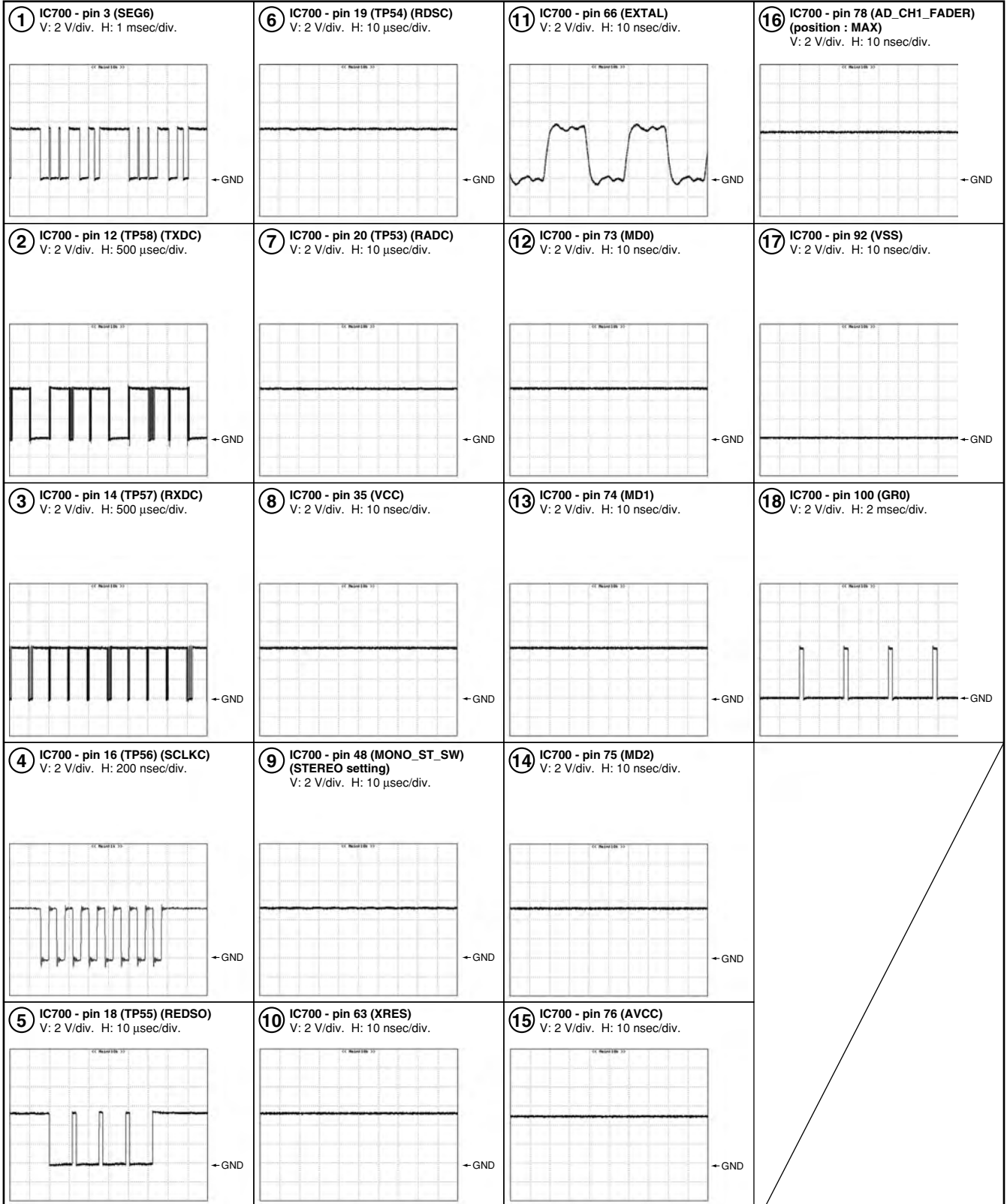
FADER START	
CH-1	OFF
CH-2	OFF

HP	
Input signal	1k/-14db
HP LEVEL	MAX
CH1	ON

MAS VR	MAX (display MAX)
MONO/ST	ST
C/FADER	THRU

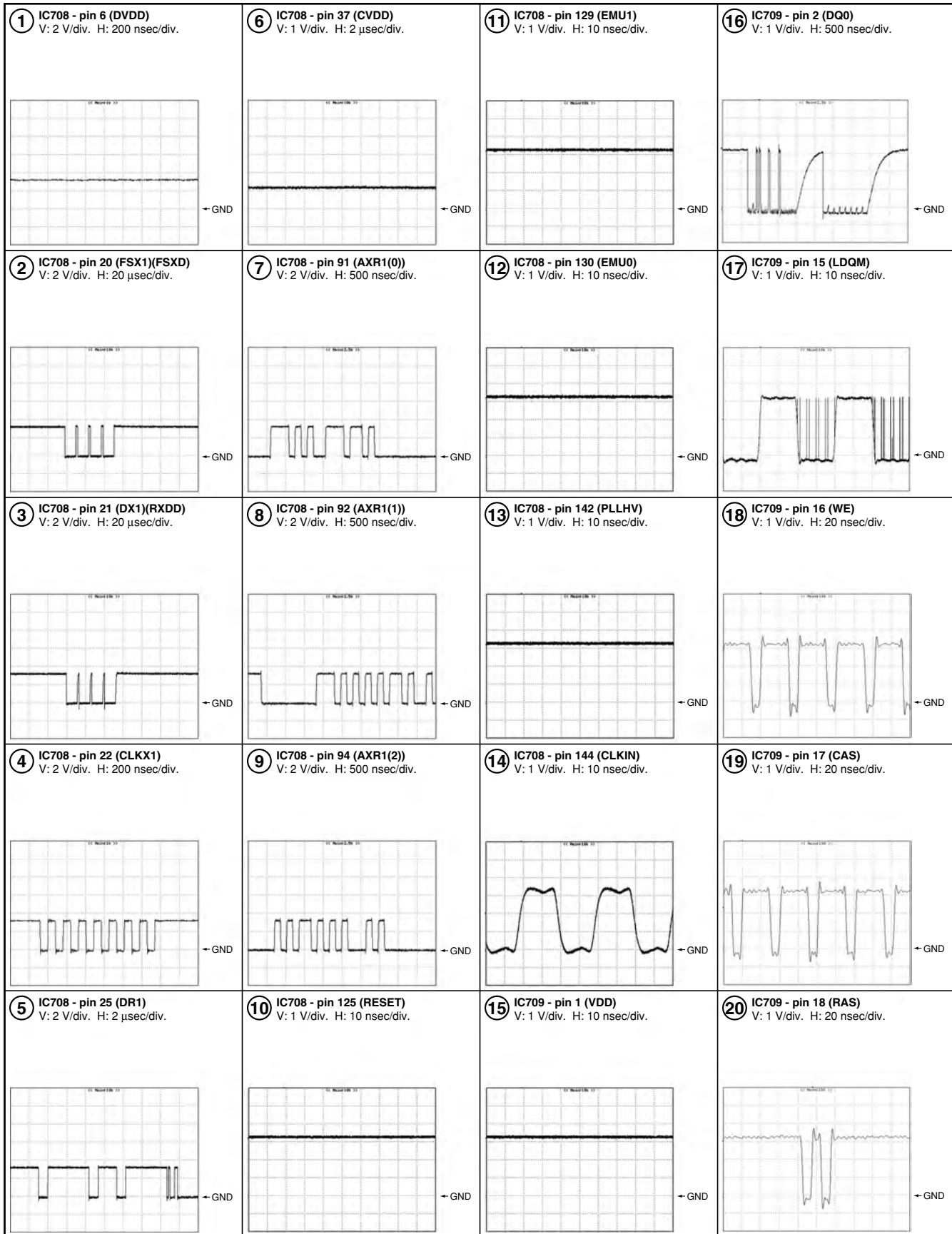
## A 1/3 MAIN ASSY



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

A

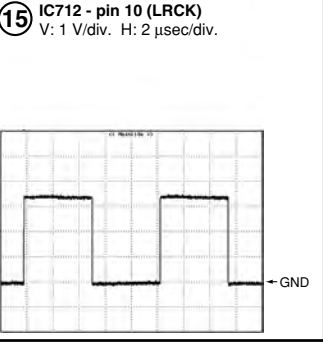
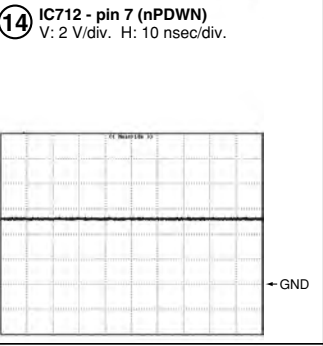
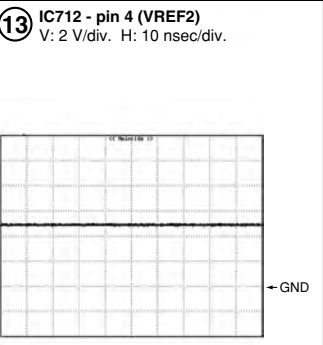
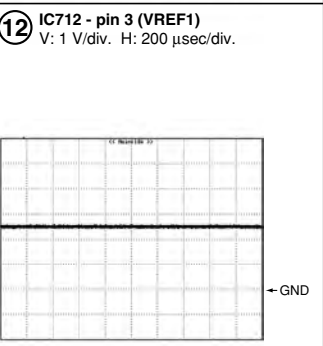
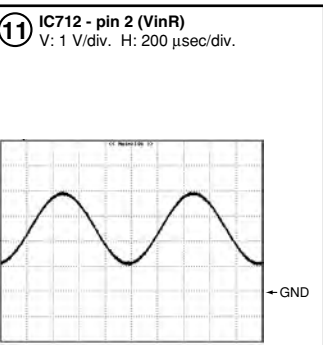
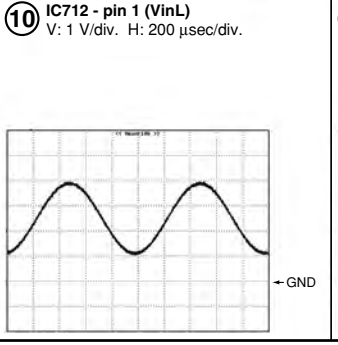
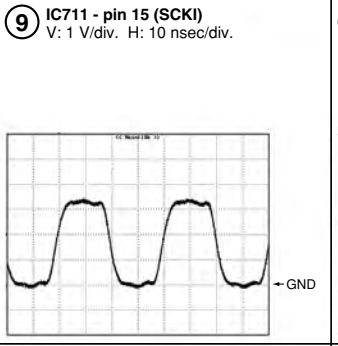
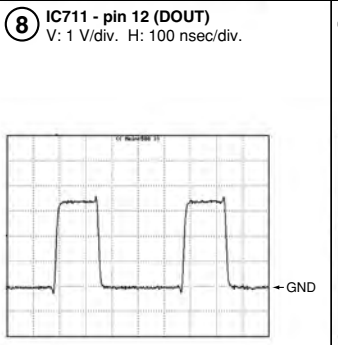
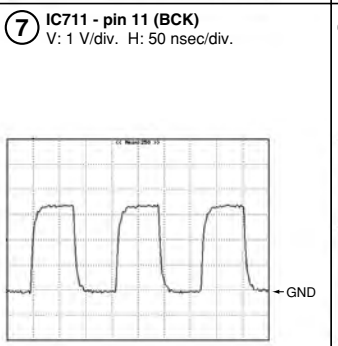
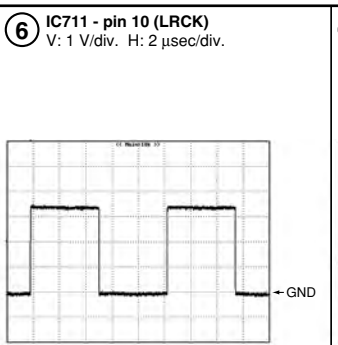
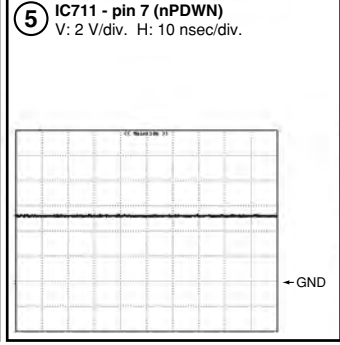
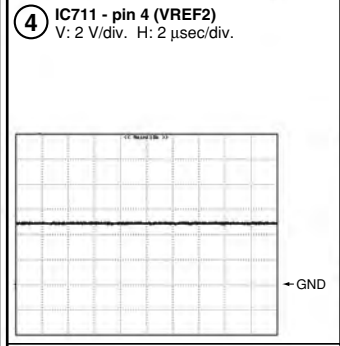
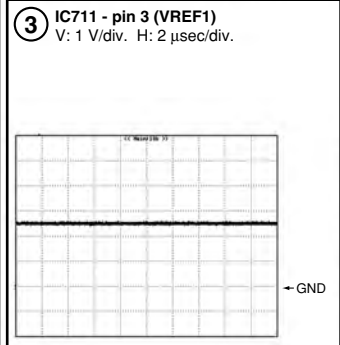
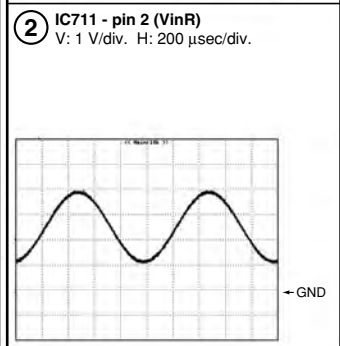
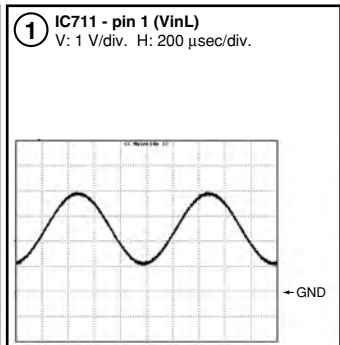
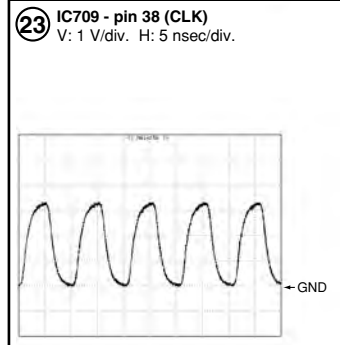
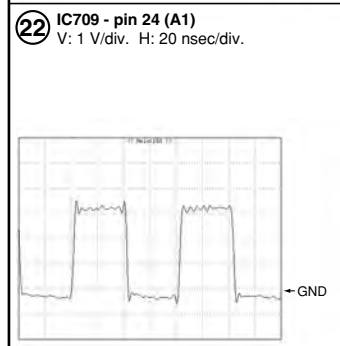
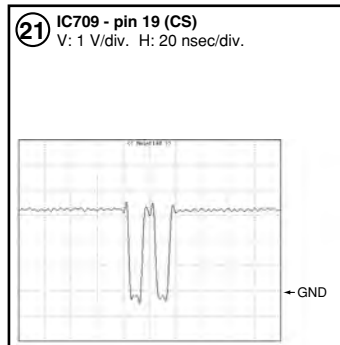
**A** 2/3 MAIN ASSY



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

**A 2/3 MAIN ASSY**

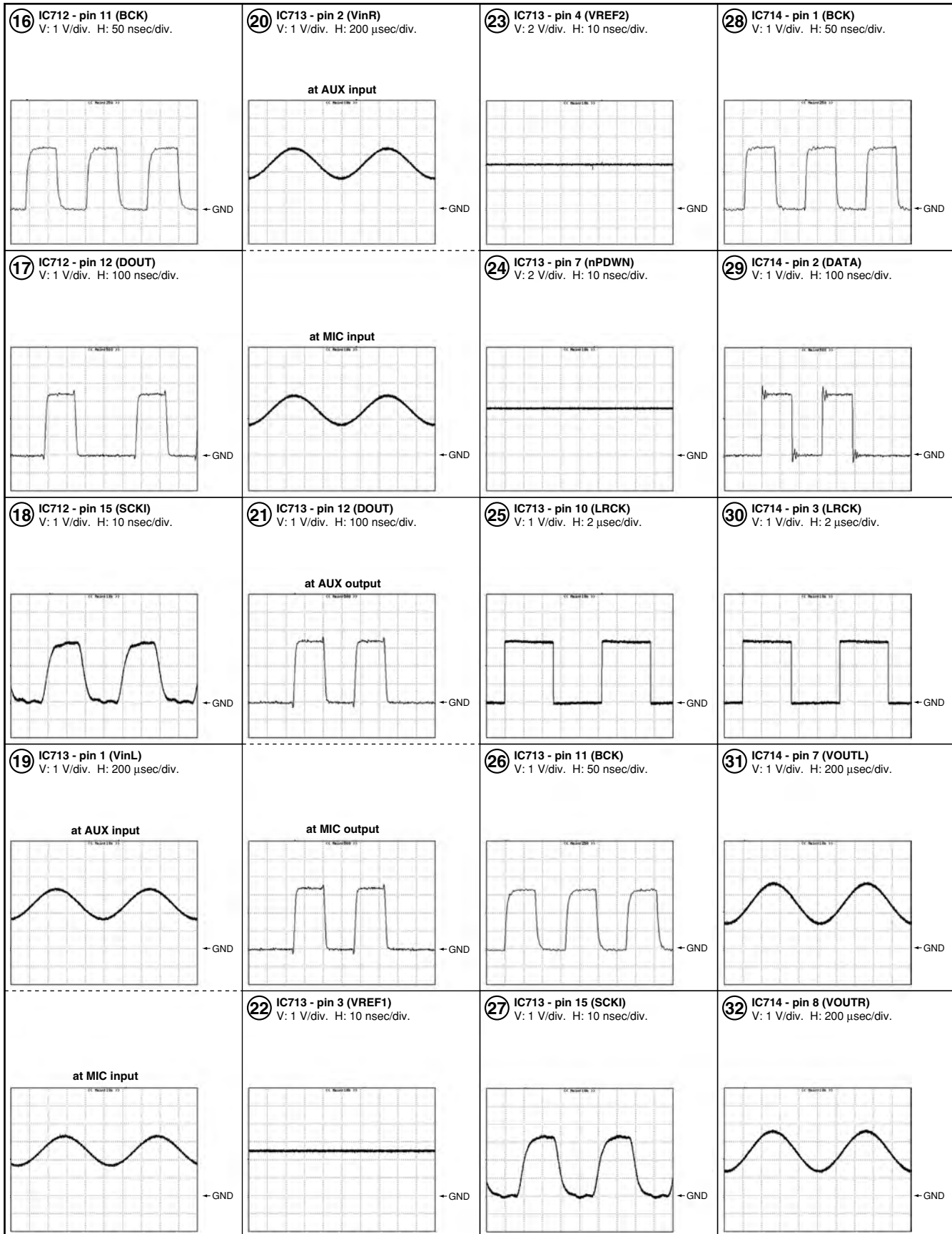
**A 3/3 MAIN ASSY**



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

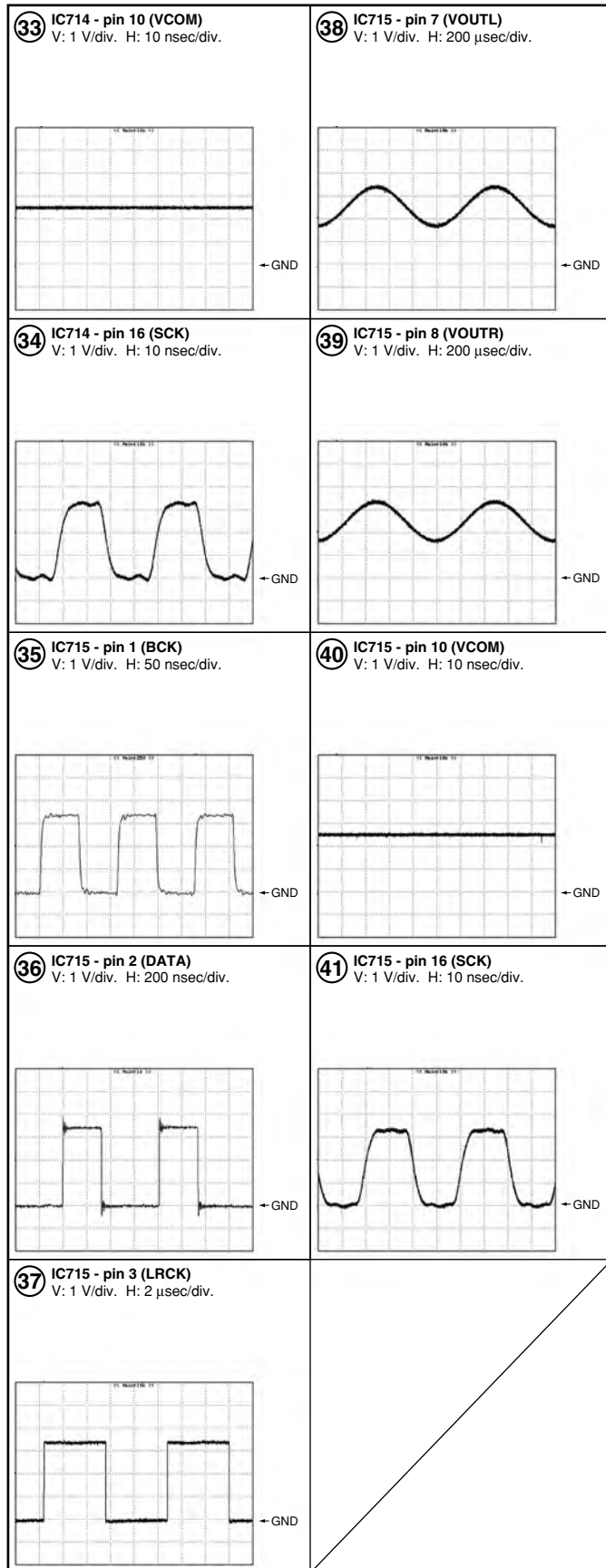
A

**A** 3/3 MAIN ASSY



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

**A** 3/3 MAIN ASSY



A

B

C

D

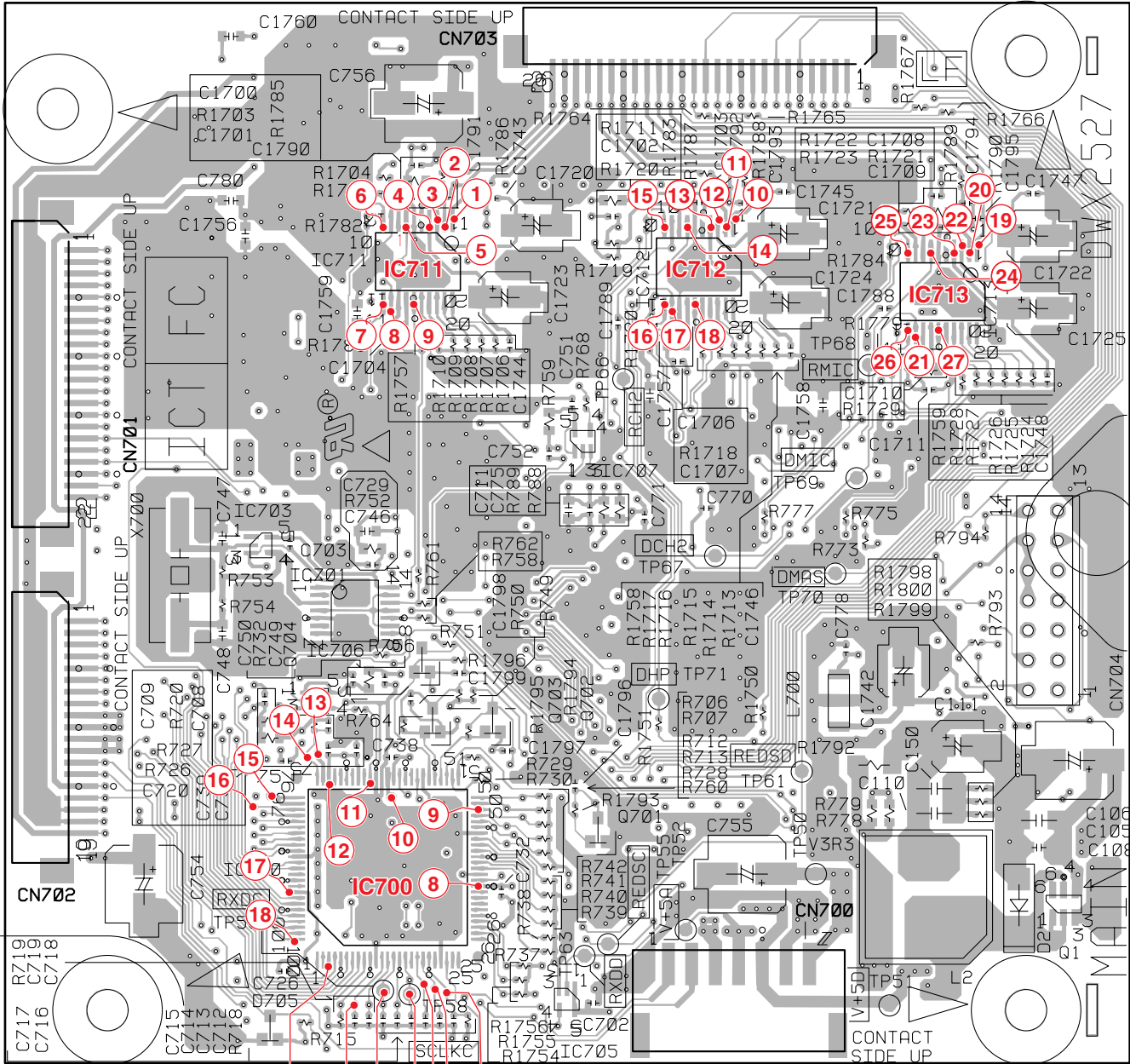
E

F

SIDE A

SIDE A

# A MAIN ASSY



(DNP2222-B)

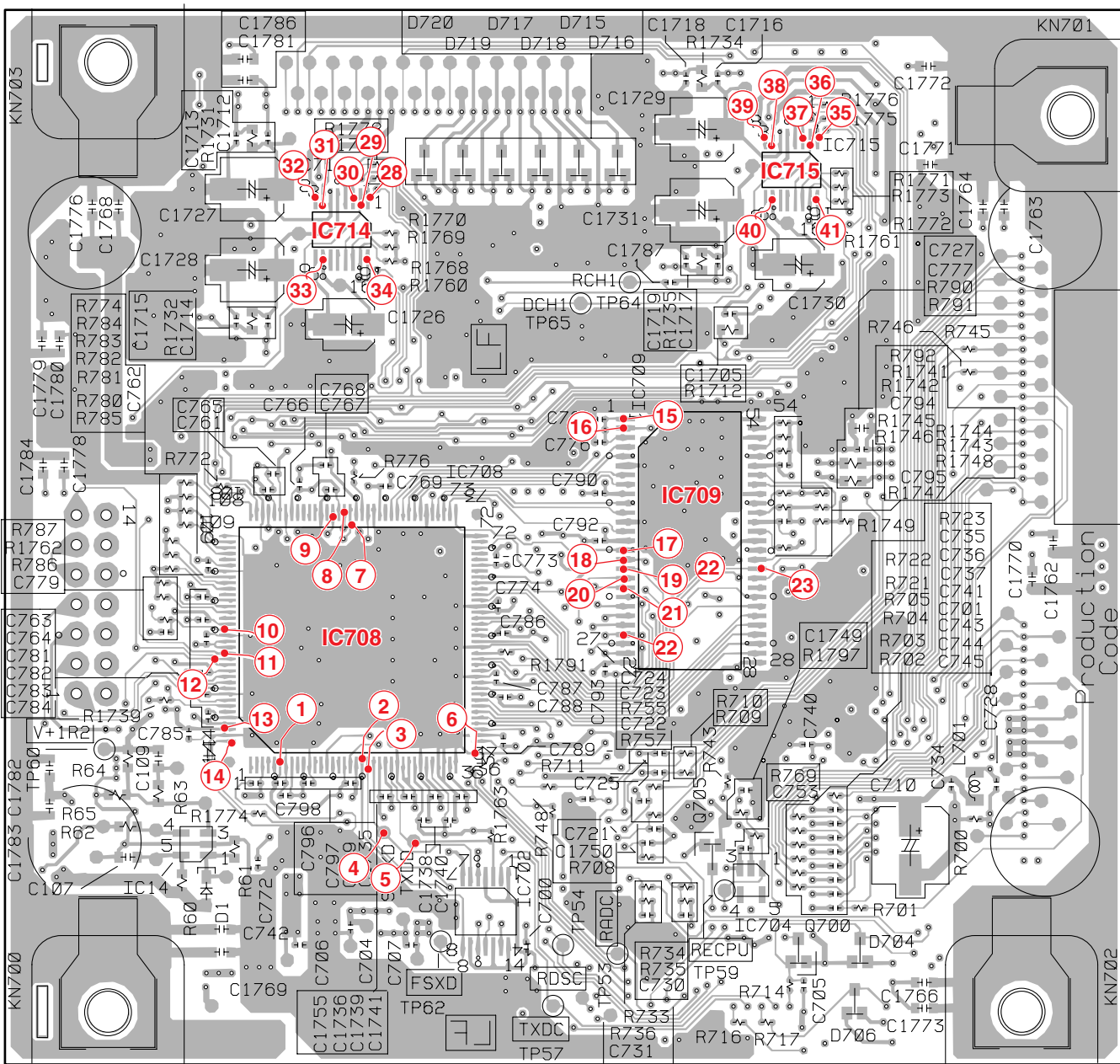
Note : The encircled numbers denote measuring point.

A

SIDE B

SIDE B

# A MAIN ASSY



(DNP2222-B)

Note : The encircled numbers denote measuring point.

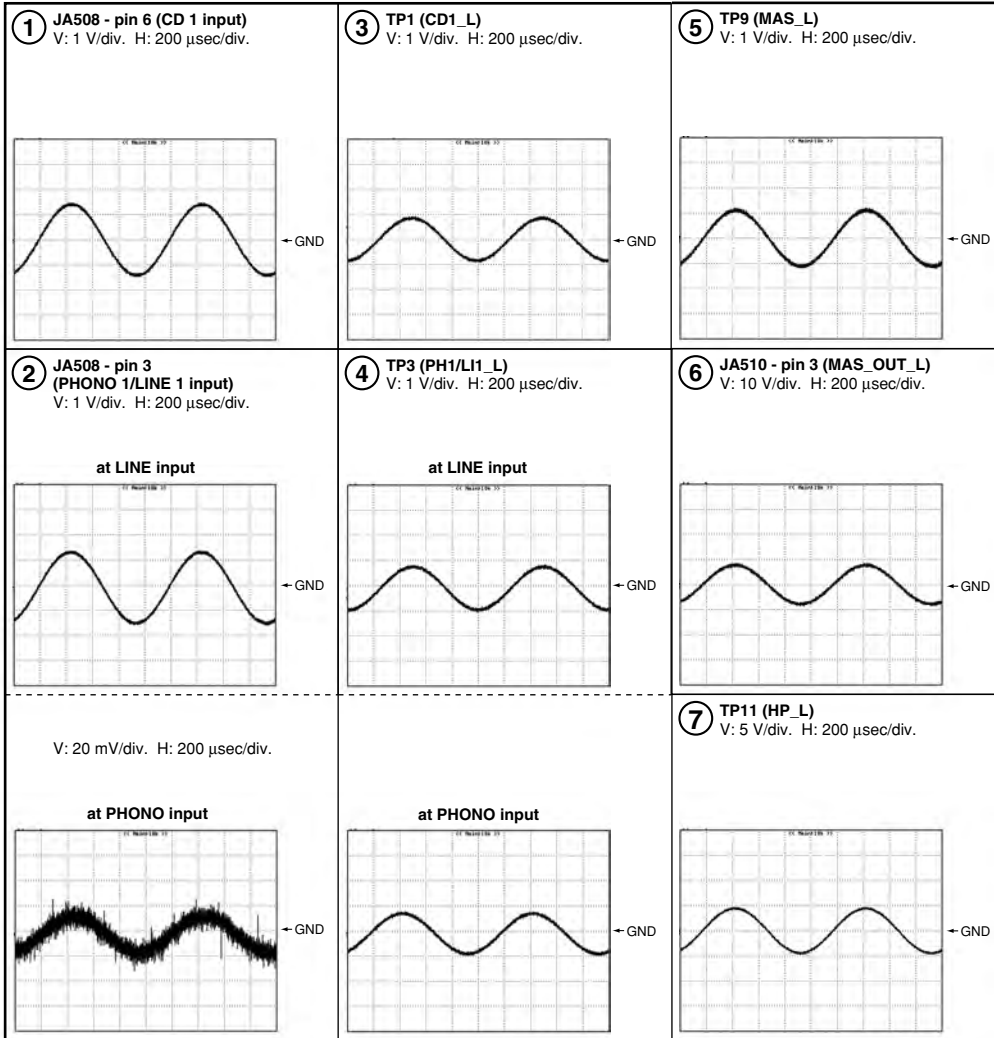
A

Note : The encircled numbers denote measuring point in the schematic diagram and pcb diagram.  
 (Refer to "3. block diagram and schematic diagram, 4. pcb connection diagram)

A

**B 2/4 JACK ASSY**

**B 4/4 JACK ASSY**



B

C

D

E

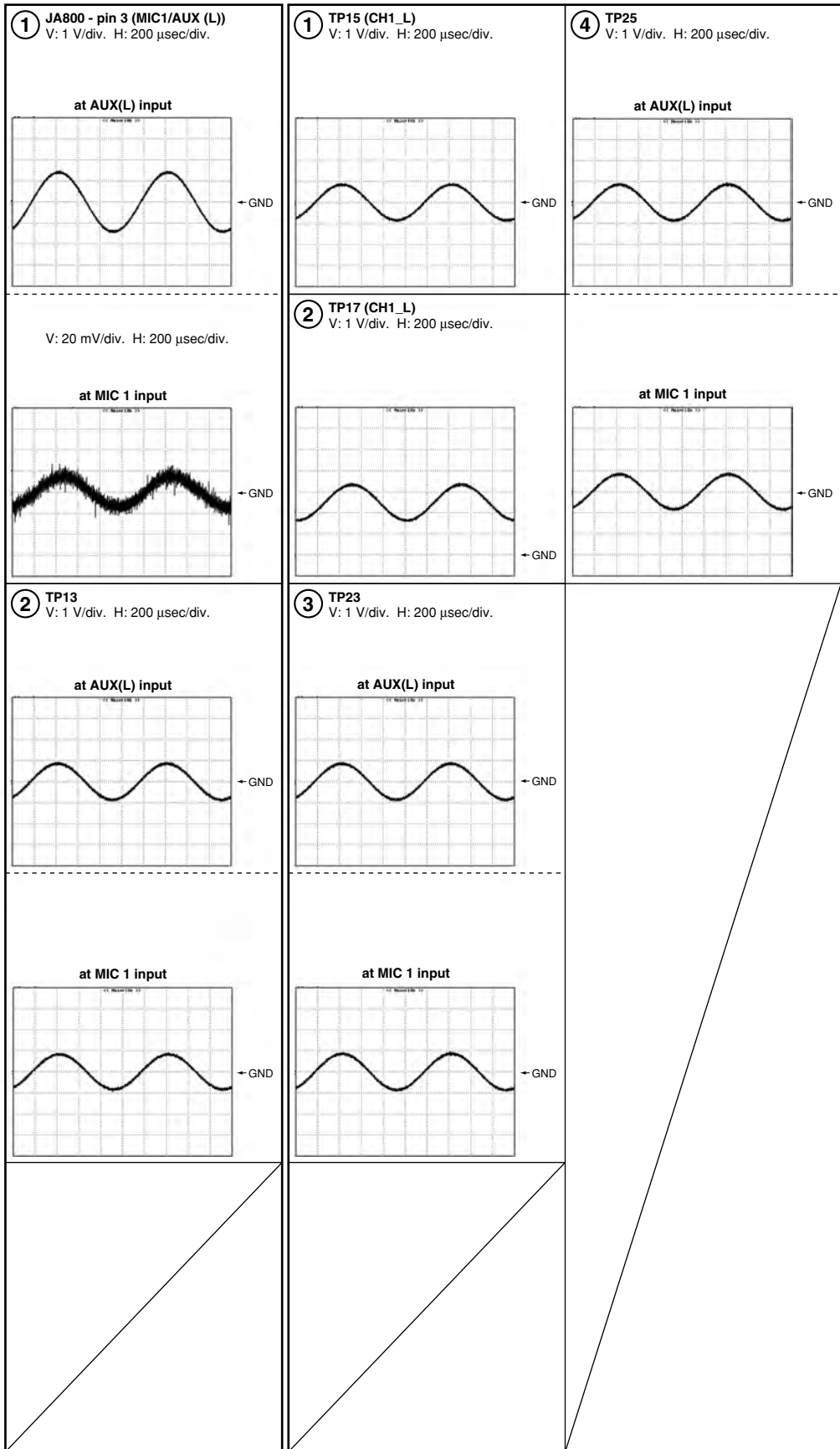
F



Note : The encircled numbers denote measuring point in the schematic diagram and pcb diagram.  
(Refer to "3. block diagram and schematic diagram, 4. pcb connection diagram)

**D** MIC ASSY

**E** 1/3 VRSW ASSY



A  
B  
C  
D  
E  
F

# 4. PCB CONNECTION DIAGRAM

## 4.1 MAIN ASSY

1

2

3

4

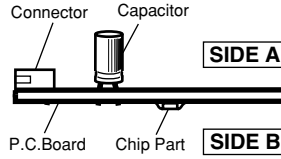
**A SIDE A**

**SIDE A**

**NOTE FOR PCB DIAGRAMS :**

- Part numbers in PCB diagrams match those in the schematic diagrams.
- A comparison between the main parts of PCB and schematic diagrams is shown below.
- The parts mounted on this PCB include all necessary parts for several destinations.  
For further information for respective destinations, be sure to check with the schematic diagram.
- View point of PCB diagrams.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

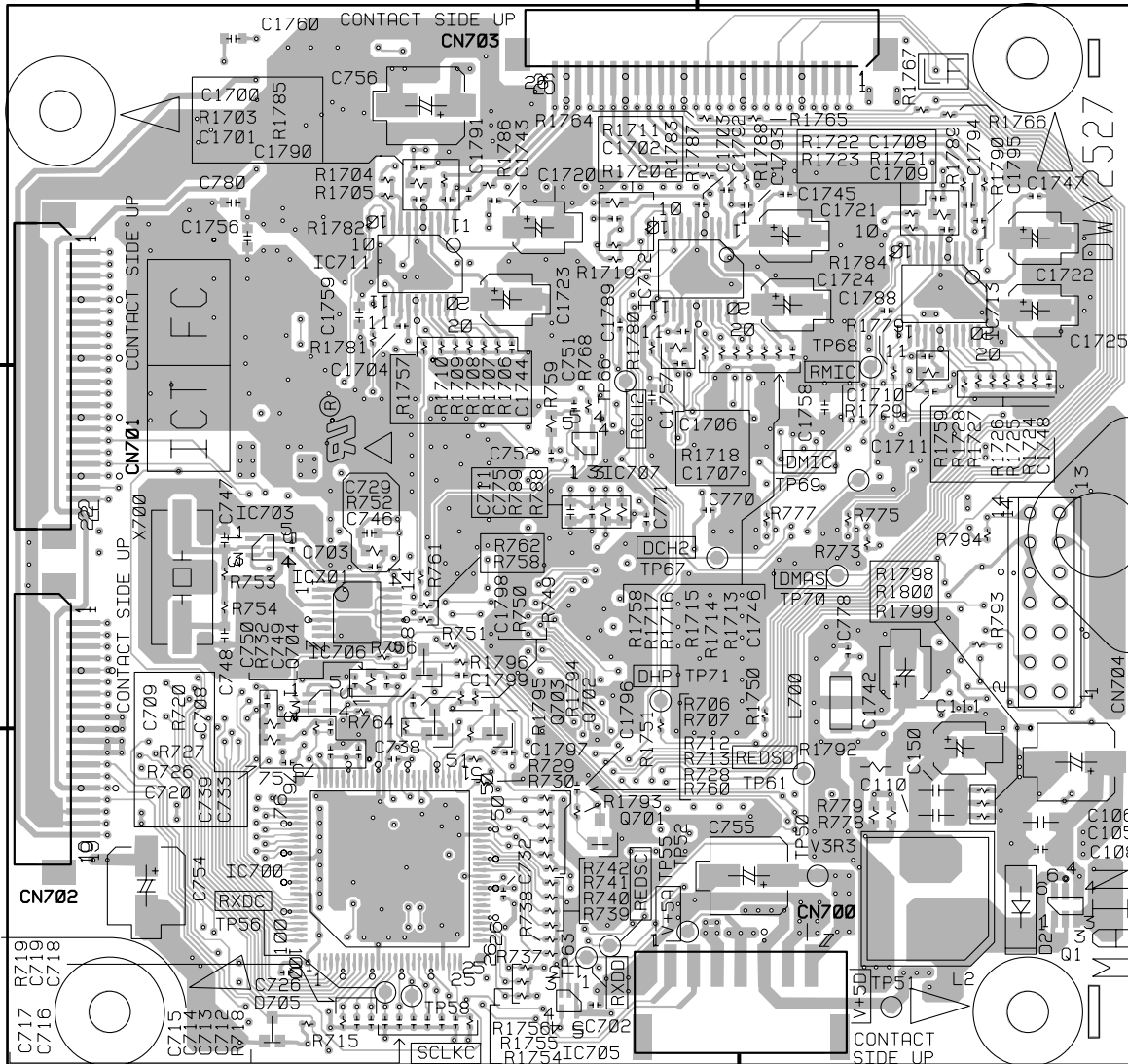


B

**B CN503**

**A MAIN ASSY**

**CN703**



**CN701**

**B CN504**

**CN702**

**B CN511**

C

D

E

**CN700**

**B CN505**

(DNP2222-B)

F

- IC703
- IC701
- IC711
- IC707
- IC712
- IC713
- IC706
- Q704
- Q703
- Q702
- Q701
- Q1
- IC700
- IC705

**A**

50

DJM-400

1

2

3

4

SIDE B

SIDE B

A

B

C

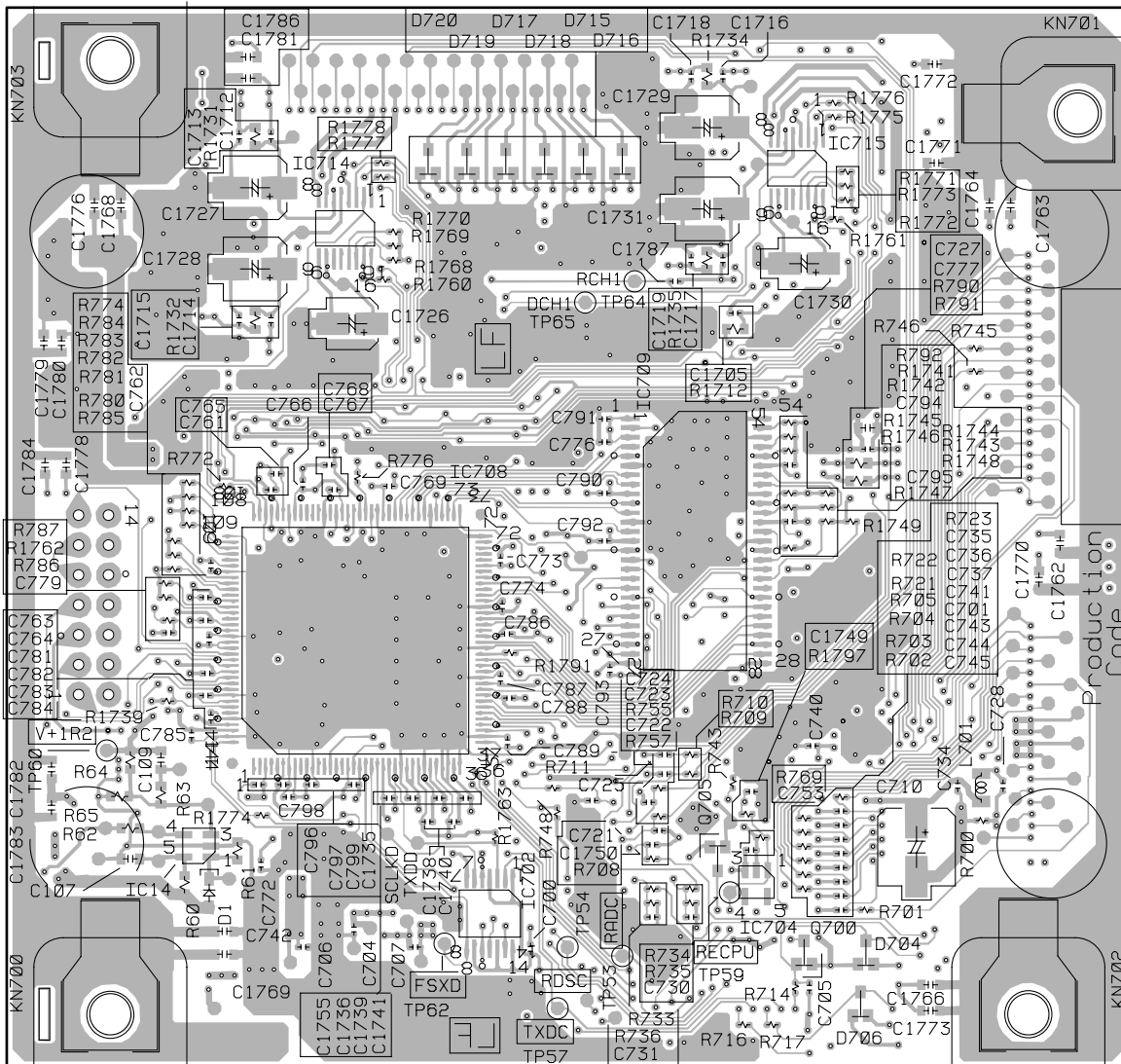
D

E

F

# A MAIN ASSY

CN703

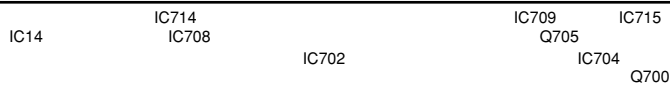


CN701

CN702

CN700

(DNP2222-B)



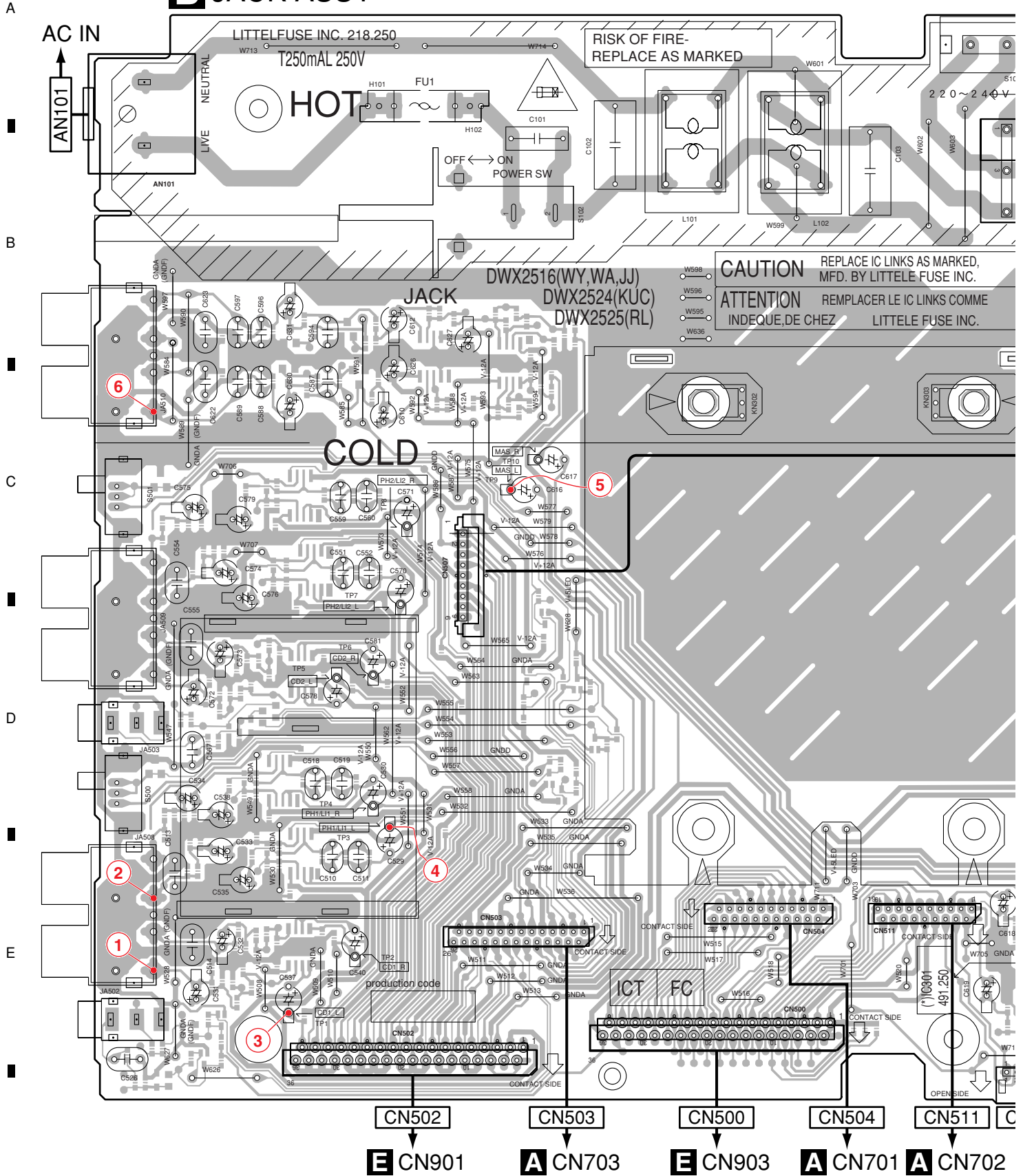
DJM-400

A

## 4.2 JACK, HP and MIC ASSYS

**SIDE A**

**B JACK ASSY**

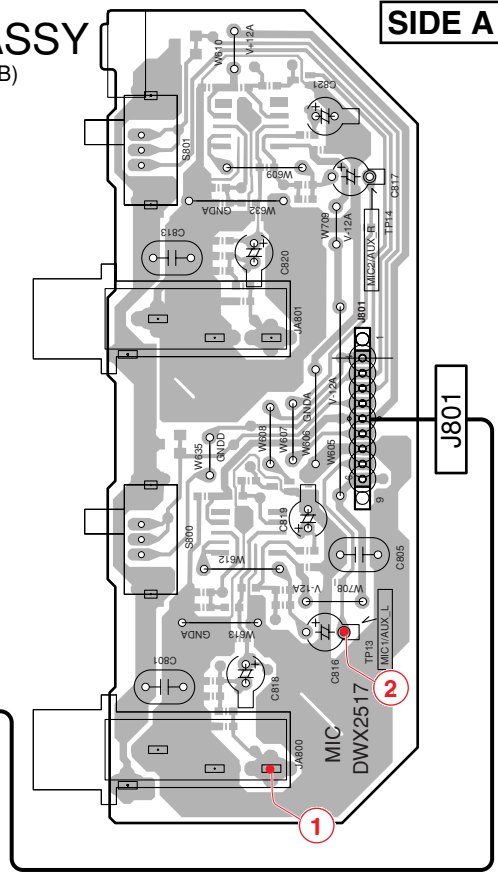


**B**

Note : The encircled numbers denote measuring point.

# D MIC ASSY (DNP2223-B)

SIDE A



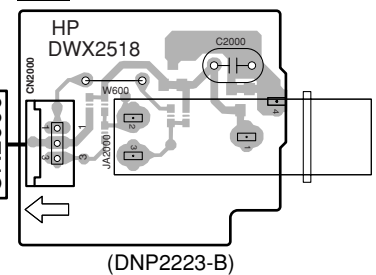
CN102 J2 or J3

CN507

Note : The encircled numbers denote measuring point.

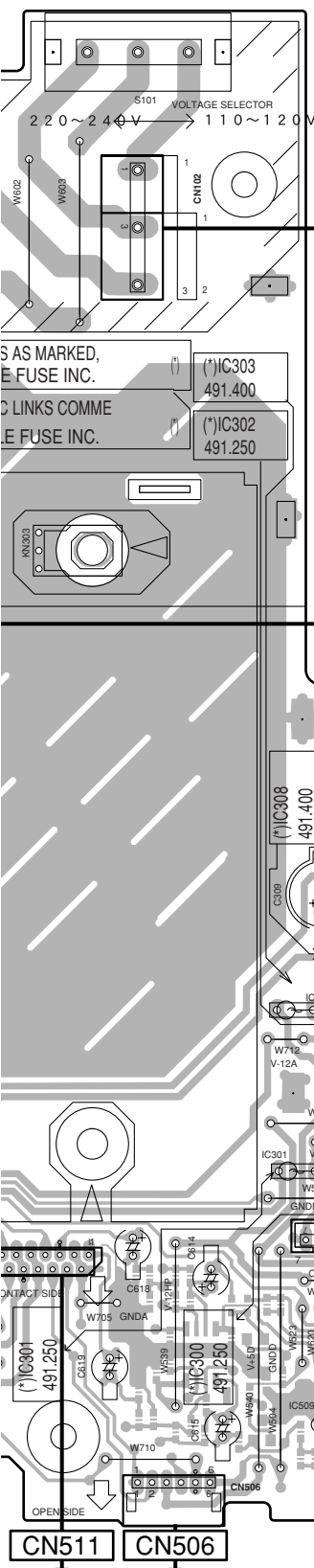
CN301 CN202

# C HP ASSY (DNP2223-B)



J501

CN2000



A CN702 FOR CPU DOWNLOAD

A CN700

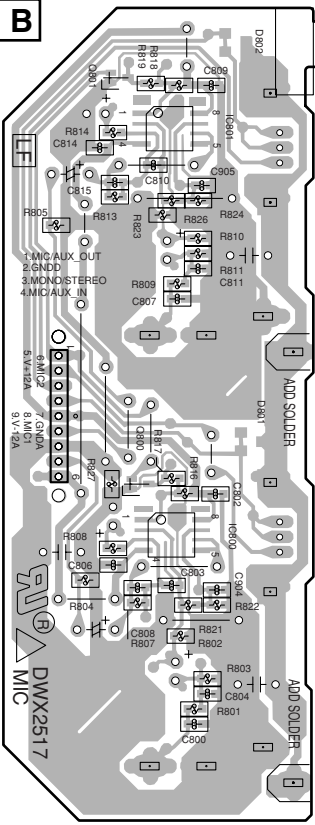
7

B C D

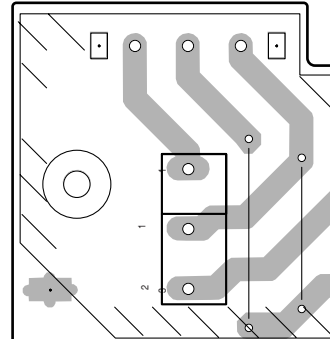
DJM-400

**SIDE B**

**D MIC ASSY**



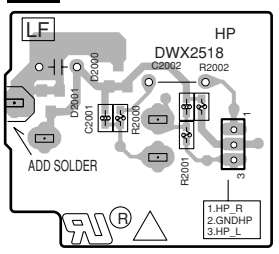
(DNP2223-B)



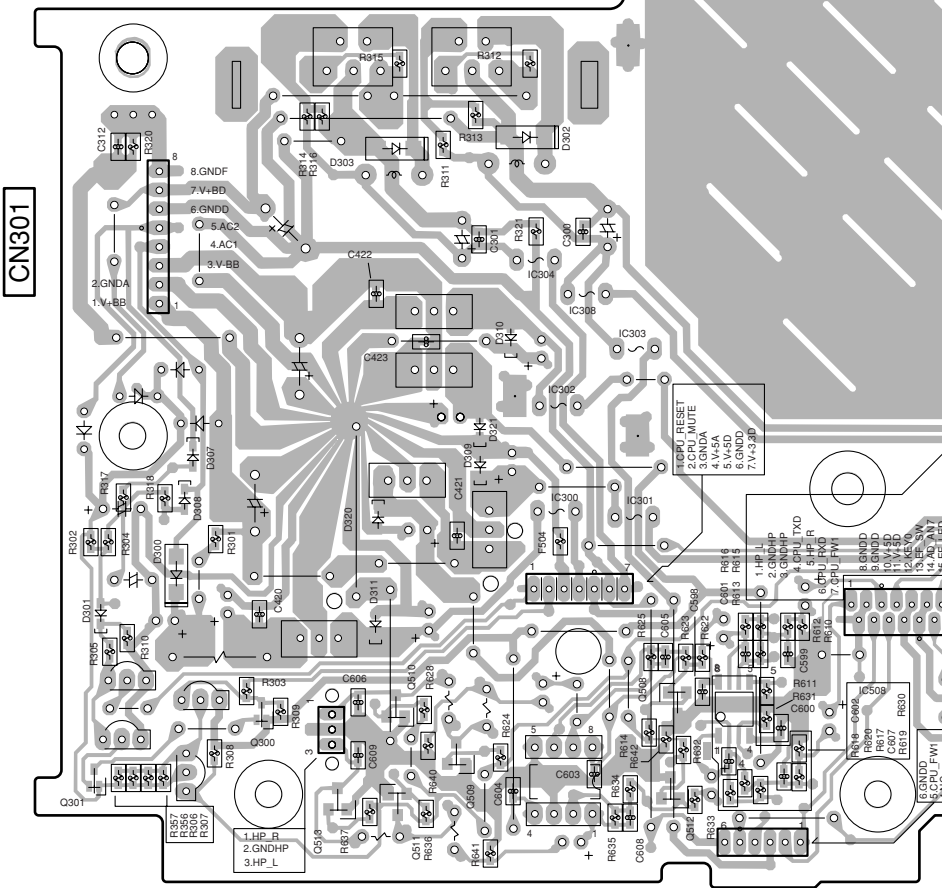
**JACK**

- Q801 IC801
- Q800 IC800

**C HP ASSY**



(DNP2223-B)

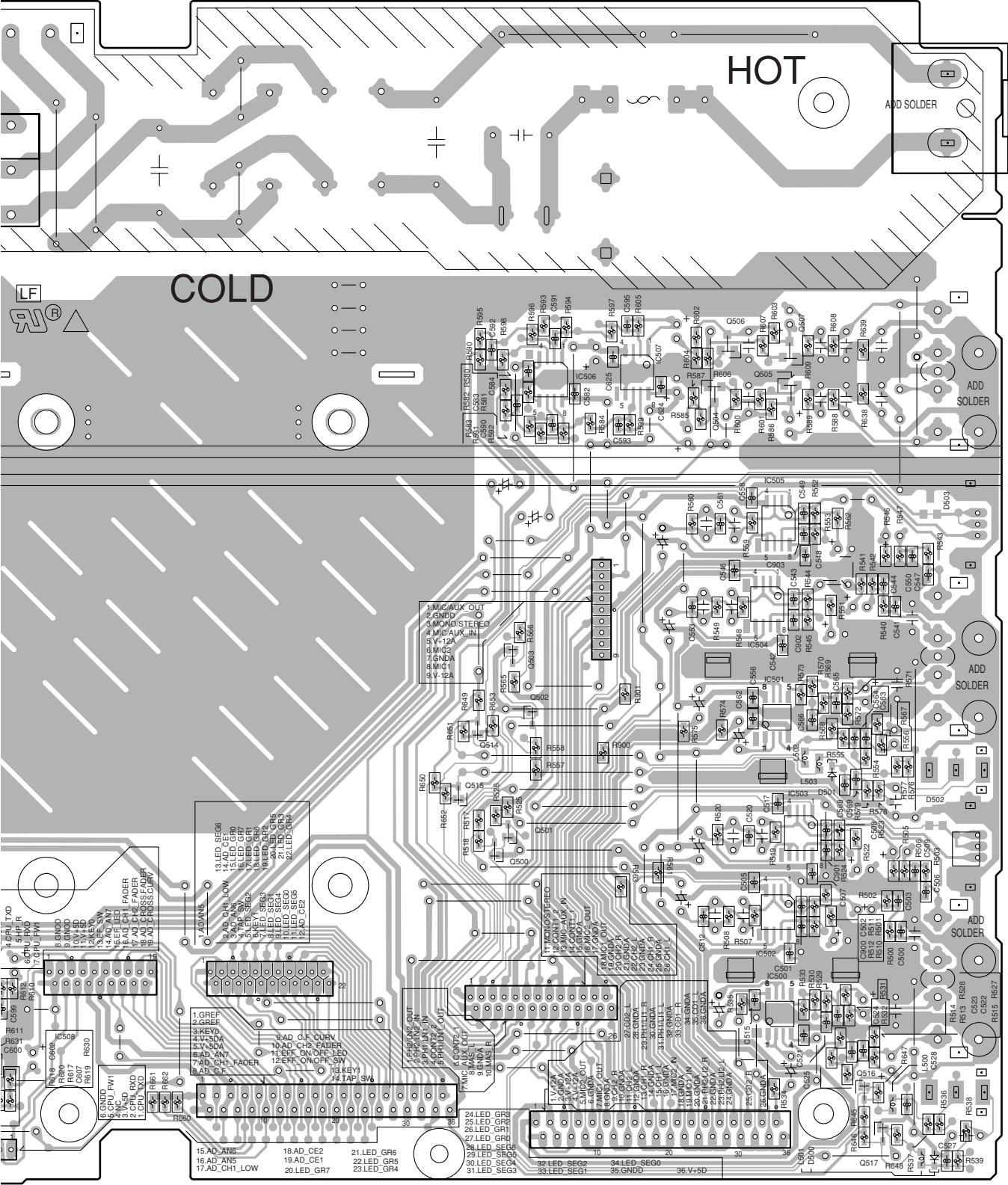


A  
B  
C  
D  
E  
F

**B C D**

# B JACK ASSY

**SIDE B**



AN101

CN507

6 CN511 CN504 CN500 CN503 CN502 (DNP223-B)

- Q503 IC506 IC507 Q504-Q507
- Q514 Q502 IC505
- Q515 Q501 IC504
- Q500 IC501
- IC503
- IC502
- IC500 Q516
- Q517

DJM-400

**B**







**SIDE B**

A

B

C

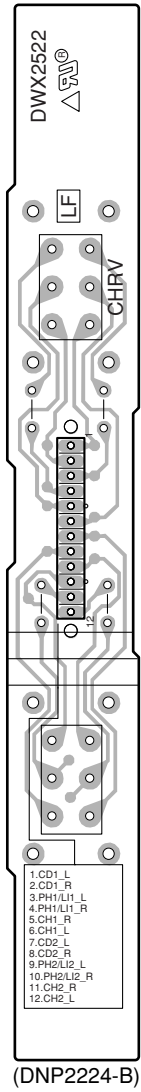
D

E

F

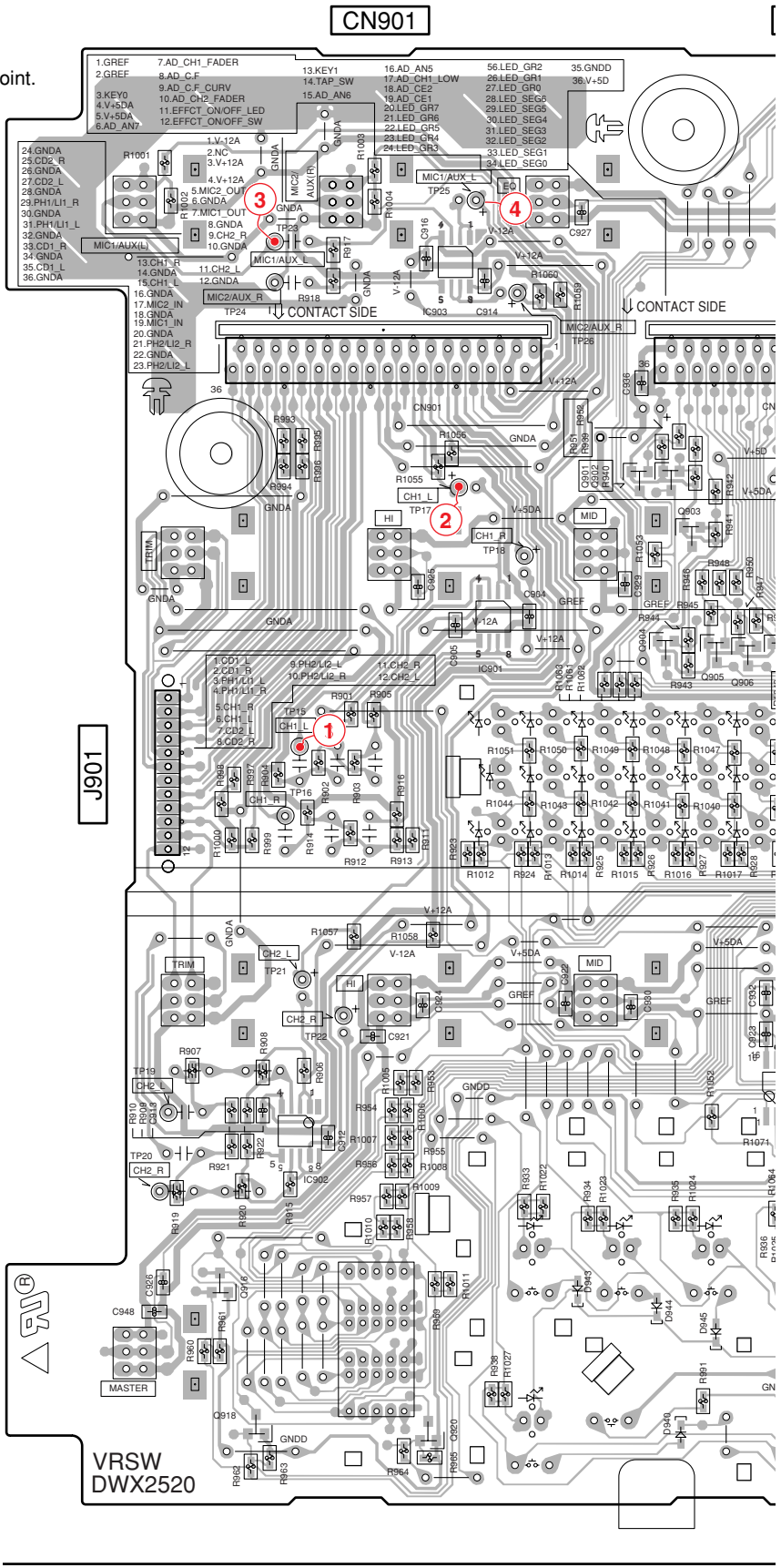
Note : The encircled numbers denote measuring point.

**F** CHRV ASSY



J1201

J901



CN901

IC903

Q901-Q903

Q904-Q907

Q916 IC902 Q918

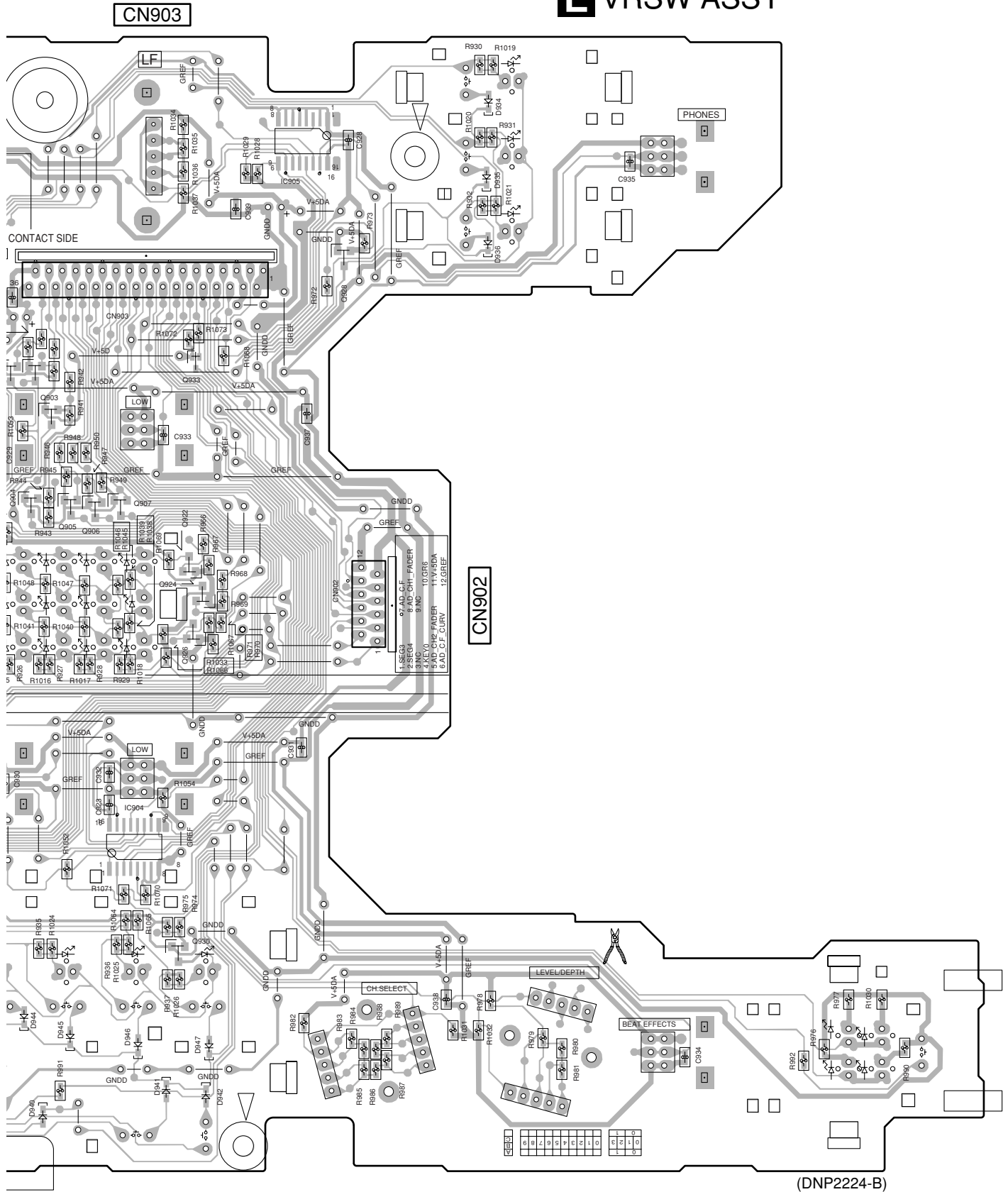
Q920

DJM-400



SIDE B

# E VRSW ASSY



A  
B  
C  
D  
E  
F

- 901-Q903
- Q904-Q907
- Q933
- Q922
- Q924
- Q926
- Q930
- IC904
- Q930
- IC905
- Q928

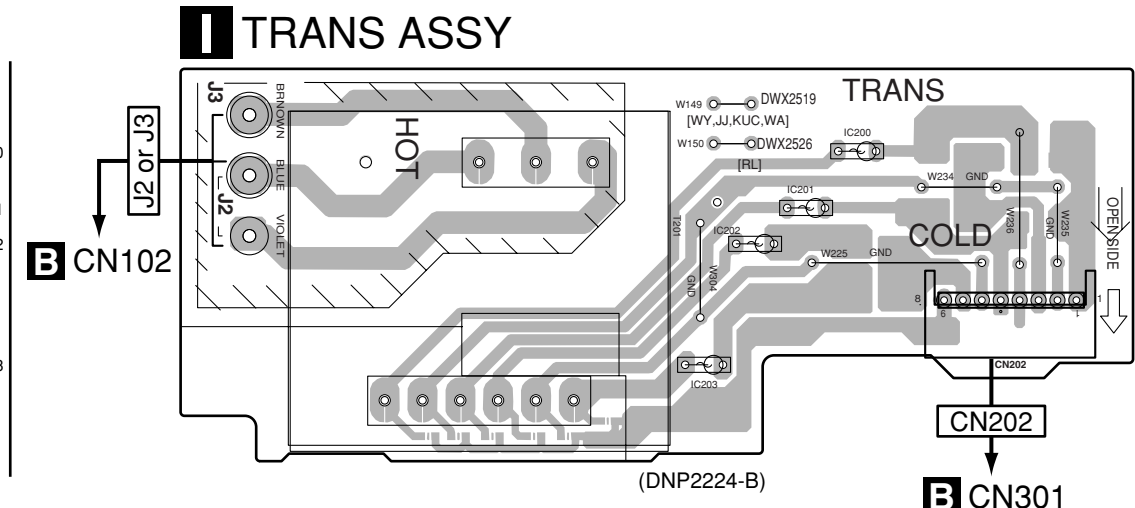
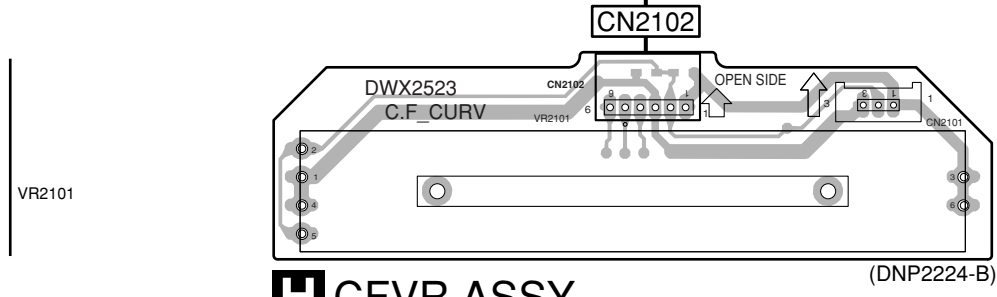
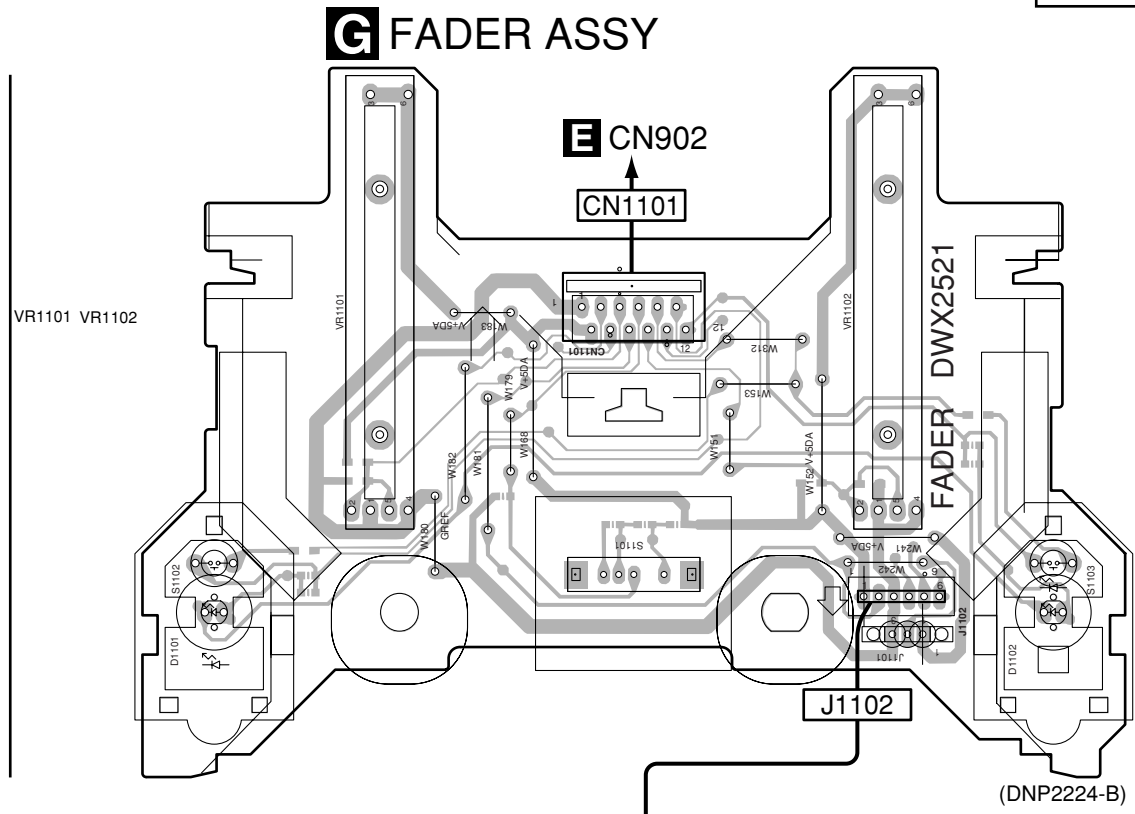
DJM-400



# 4.4 FADER, CFVR and TRANS ASSYS

**SIDE A**

**SIDE A**

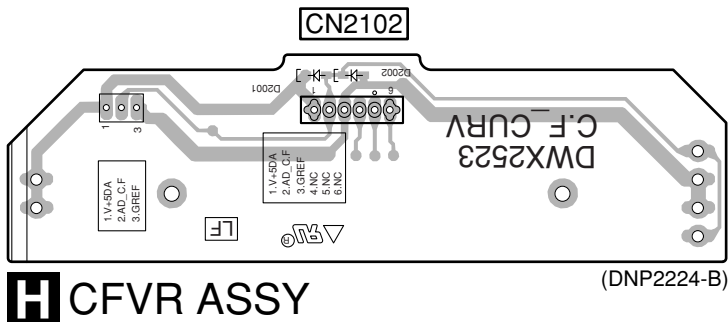
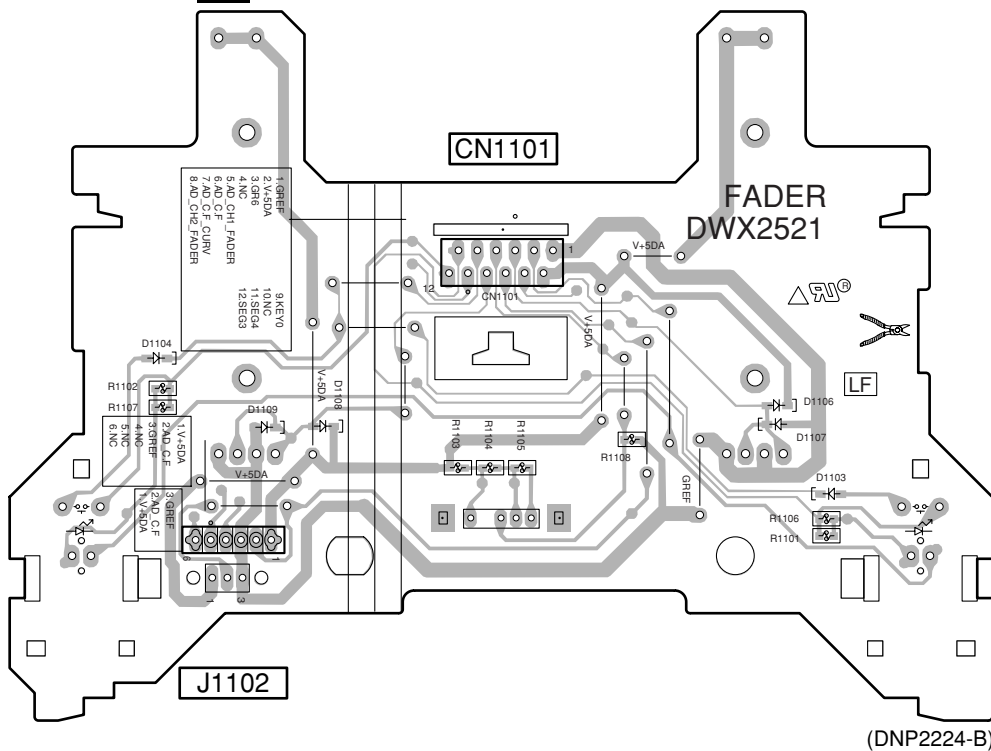


**G H I**

SIDE B

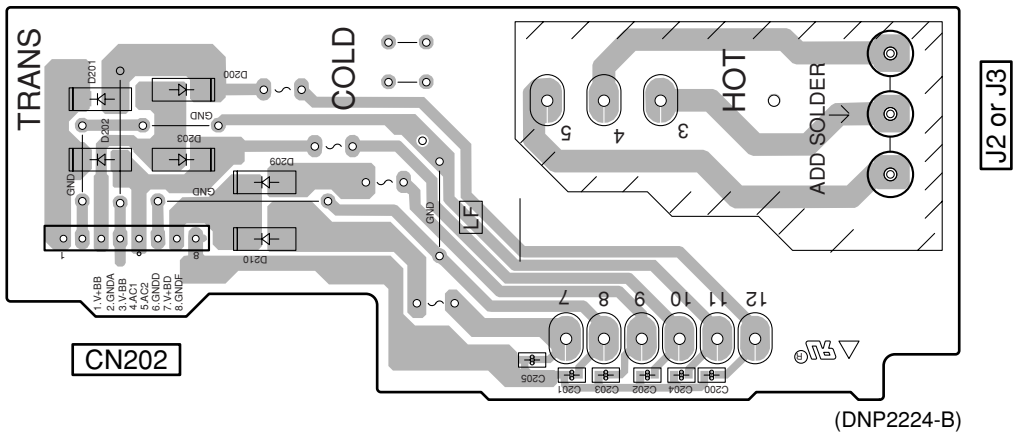
SIDE B

# G FADER ASSY



# H CFVR ASSY

# I TRANS ASSY



# 5. PCB PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The  $\Delta$  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%).

560  $\Omega$   $\rightarrow$   $56 \times 10^1$   $\rightarrow$  561 ..... RD1/4PU  $\boxed{5}\boxed{6}\boxed{7}J$

47k  $\Omega$   $\rightarrow$   $47 \times 10^3$   $\rightarrow$  473 ..... RD1/4PU  $\boxed{4}\boxed{7}\boxed{3}J$

0.5  $\Omega$   $\rightarrow$  R50 ..... RN2H  $\boxed{R}\boxed{5}\boxed{0}K$

1  $\Omega$   $\rightarrow$  1R0 ..... RS1P  $\boxed{7}\boxed{R}\boxed{0}K$

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

5.62k  $\Omega$   $\rightarrow$   $562 \times 10^1$   $\rightarrow$  5621 ..... RN1/4PC  $\boxed{5}\boxed{6}\boxed{2}\boxed{1}F$

## LIST OF HOLE PCB ASSEMBLIES

Mark	Symbol and Description	DJM-400/KUCXJ	DJM-400/RLXJ	DJM-400/WYXJ5
	1..MAIN ASSY	DWX2527	DWX2527	DWX2527
	1..SUB ASSY	DWM2228	DWM2229	DWM2226
	2..JACK ASSY	DWX2524	DWX2525	DWX2516
	2..HP ASSY	DWX2518	DWX2518	DWX2518
	2..MIC ASSY	DWX2517	DWX2517	DWX2517
	1..PANEL ASSY	DWM2227	DWM2230	DWM2227
	2..VRSW ASSY	DWX2520	DWX2520	DWX2520
	2..CHRV ASSY	DWX2522	DWX2522	DWX2522
	2..FADER ASSY	DWX2521	DWX2521	DWX2521
	2..CFVR ASSY	DWX2523	DWX2523	DWX2523
	2..TRANS ASSY	DWX2519	DWX2526	DWX2519

## CONTRAST OF PCB ASSEMBLIES

### **B** JACK ASSY

DWX2524, DWX2525 and DWX2516 are constructed the same except for the following :

Mark	Symbol and Description	DWX2524	DWX2525	DWX2516
$\Delta$	AN101 1P AC INLET	XKP3042	XKP3041	XKP3041
$\Delta$	CN102 2P VH CONNECTOR	B2P3-VH	Not used	B2P3-VH
$\Delta$	CN102 3P VH CONNECTOR	Not used	B3P5-VH	Not used
$\Delta$	S101 VOLTAGE SELECTOR	Not used	DSA1026	Not used

### **I** TRANS ASSY

DWX2519 and DWX2526 are constructed the same except for the following :

Mark	Symbol and Description	DWX2519	DWX2526
$\Delta$	J2 CONNECTOR ASSY	DKP3744	Not used
$\Delta$	J3 CONNECTOR ASSY	Not used	DKP3745



**Mark No. Description****Part No.**

C302  
C402,C403,C529,C530  
C533,C534,C537,C540  
C570,C571,C574,C575,C578  
C581,C610,C612,C614,C615

CEANP4R7M50  
CEAT100M50  
CEAT100M50  
CEAT100M50  
CEAT100M50

C630,C631  
C400,C401,C535,C538,C576  
C579,C620,C621,C626,C627  
C309,C310  
C308

CEAT100M50  
CEAT101M16  
CEAT101M16  
CEAT222M10  
CEAT471M25

C311  
C306,C307  
C616-C619  
C304  
C305

CEAT472M16  
CEAT472M35  
CEAT4R7M50  
CEHAT100M50  
CEHAT101M16

C526,C567  
C420,C421,C423,C527,C528  
C568,C569,C606,C609  
C312,C501,C505,C507,C515  
C517,C521,C542,C546,C548

CFTLA473J50  
CKSRYB103K50  
CKSRYB103K50  
CKSRYB104K50  
CKSRYB104K50

C556,C558,C562,C582,C584  
C598,C600,C603,C604  
C624,C625  
C510,C518,C551,C559  
C589,C597

CKSRYB104K50  
CKSRYB104K50  
CKSRYB104K50  
CQMA183J50  
CQMA222J50

C588,C596  
C511,C519,C552,C560  
C587,C594

CQMA392J50  
CQMA512J50  
CQMA682J50

**RESISTORS**

R627,R629  
R621,R626  
R508,R520,R549,R560  
R599,R605  
R507,R519,R548,R559

RD1/2VM680J  
RD1/2VM820J  
RN1/16SE1502D  
RN1/16SE1602D  
RN1/16SE1803D

R316  
R514,R530,R555,R570  
R588,R608  
R311  
R511,R523,R544,R552

RN1/16SE2201D  
RN1/16SE2402D  
RN1/16SE2700D  
RN1/16SE2701D  
RN1/16SE2702D

R510,R522,R551,R562  
R528,R533,R568,R573  
R584,R597  
R512,R524,R545,R553  
R314,R625,R635

RN1/16SE3300D  
RN1/16SE3902D  
RN1/16SE4701D  
RN1/16SE4702D  
RN1/16SE5101D

R313  
R591,R593,R615,R617  
R300  
Other Resistors

RN1/16SE6200D  
RN1/16SE6802D  
RS1LMF121J  
RS1/16S###J

**OTHERS**

3P CABLE HOLDER  
CN507 9P JUMPER CONNECTOR  
H101,H102 FUSE CLIP  
△CN102 2P VH CONNECTOR  
CN505 KR CONNECTOR

51048-0300  
52147-0910  
AKR1004  
B2P3-VH  
B7B-PH-K

**Mark No. Description****Part No.**

CN500,CN502 CONNECTOR  
J501 JUMPER WIRE 3P  
CN301 8P SOCKET  
JA502,JA503 REMOTE CONTROL JACK  
CN506 KR CONNECTOR

CKS3401  
D20PDY0305E  
KP250NA8  
RKN1004  
S6B-PH-K

PCB BINDER  
JA508-JA510 4P PIN JACK  
CN511 19P FFC CONNECTOR  
CN504 22P FFC CONNECTOR  
CN503 26P FFC CONNECTOR

VEF1040  
VKB1132  
VKN1250  
VKN1253  
VKN1257

KN301-KN303 WRAPPING TERMINAL  
△AN101 1P AC INLET

VNF1084  
XKP3042

**HP ASSY  
SEMICONDUCTORS**

D2000,D2001

NNCD6.2MF

**CAPACITORS**

C2000  
C2001,C2002

CFTLA104J50  
CKSRYB104K50

**RESISTORS**

All Resistors

RS1/16S###J

**OTHERS**

CN2000 3P JUMPER CONNECTOR  
JA2000 HEADPHONE JACK

52151-0310  
DKN1281

**D MIC ASSY  
SEMICONDUCTORS**

IC800,IC801  
Q800,Q801

NJM2121M  
DTC124EUA

**SWITCHES AND RELAYS**

S800,S801

DSH1025

**CAPACITORS**

C808,C815  
C804,C811  
C800,C807  
C803,C810  
C818,C820

CCSRCH101J50  
CCSRCH181J50  
CCSRCH221J50  
CCSRCH331J50  
CEAL100M35

C816,C817  
C819,C821  
C802,C806,C809,C814

CEAT100M50  
CEAT101M16  
CKSRYB104K50

**RESISTORS**

R807,R813  
R821,R823  
R808,R814  
R822,R824  
Other Resistors

RN1/16SE2002D  
RN1/16SE2702D  
RN1/16SE3300D  
RN1/16SE4702D  
RS1/16S###J



5	6	
Mark No.	Description	Part No.
<b>OTHERS</b>		
9P CABLE HOLDER	51048-0900	
J801 JUMPER WIRE 9P	D20PDY0910E	
JA800,JA801 MIC JACK	DKN1248	

### **E** VRSW ASSY SEMICONDUCTORS

IC901-IC903	BA4560F
IC904,IC905	TC74HC4052AF
Q933	2SA1576A
Q901-Q907	2SB1197K
Q916,Q918,Q920,Q922,Q924	2SD2114K
Q926,Q928,Q930	2SD2114K
D934-D936,D940-D947	1SS355
D901-D903	NKR131S
D904,D911,D918,D928-D933	SLI-343URCW(RST)
D905,D906,D912,D913	SLI-343YCW(RST)
D919,D920,D925-D927	SLI-343YCW(RST)
D937,D938,D948,D949	SLI-343YCW(RST)
D907-D910,D914-D917	TLGE68TG(NP)
D921-D924	TLGE68TG(NP)

### **SWITCHES AND RELAYS**

S902-S912,S915,S916	DSG1079
S914	DSG1098
S913	DSG1099
S901	DSH1058

### **CAPACITORS**

C941-C946	CEJQ100M50
C940,C947	CEJQ101M10
C901-C903,C906-C911,C915	CFTNA334J50
C917-C920	CFTNA334J50
C923-C930,C932-C935	CKSRYB103K50
C904,C905,C912-C914,C916	CKSRYB104K50
C921,C922,C931,C936-C939	CKSRYB104K50
C948	CKSRYB104K50

### **RESISTORS**

R901,R906,R911,R915	RN1/16SE1202D
VR901,VR902	DCS1091
VR905,VR906,VR908-VR913	DCS1092
VR907,VR914	DCS1093
VR903,VR904	DCS1094
Other Resistors	RS1/16S###J

### **OTHERS**

12P CABLE HOLDER	51048-1200
CN902 FFC CONNECTOR 12P	52492-1220
CN901,CN903 FFC CONNECTOR 36P	52492-3620

### **F** CHRV ASSY SWITCHES AND RELAYS

S1201,S1202	DSK1033
-------------	---------

7	8	
Mark No.	Description	Part No.
<b>OTHERS</b>		
12P CABLE HOLDER	51048-1200	
J1201 JUMPER WIRE 12P	D20PDD1205E	
LEVER SW STAY	DNF1740	
SCREW	CMZ26P050FTB	

### **G** FADER ASSY SEMICONDUCTORS

D1103,D1104,D1106-D1109	1SS355
D1101,D1102	SLI-343YCW(RST)

### **SWITCHES AND RELAYS**

S1101	ASH1037
S1102,S1103	DSG1079

### **RESISTORS**

VR1101,VR1102	DCV1010
Other Resistors	RS1/16S###J

### **OTHERS**

CN1101 FFC CONNECTOR 12P	52492-1220
J1102 SMALL CONNECTOR	PG06MR-E07
FADER STAY	DNF1746
SCREW	PMH20P040FTC

### **H** CFVR ASSY SEMICONDUCTORS

D2001,D2002	1SS355
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### **RESISTORS**

VR2101	DCV1006
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### **OTHERS**

CN2102 MT CONNECTOR 6P	173979-6
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### **I** TRANS ASSY SEMICONDUCTORS

⚠ D209,D210	1SR154-400
⚠ D200-D203	RB160L-40

### **CAPACITORS**

C200-C205	CKSRYB473K50
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### **OTHERS**

⚠ J2 CONNECTOR ASSY	DKP3744
CN202 8P PCB CONNECTOR	S8B-XH-A-1

## 6. ADJUSTMENT

• There is no information to be shown in this chapter.

# 7. GENERAL INFORMATION

## 7.1 DIAGNOSIS

### 7.1.1 TEST MODE

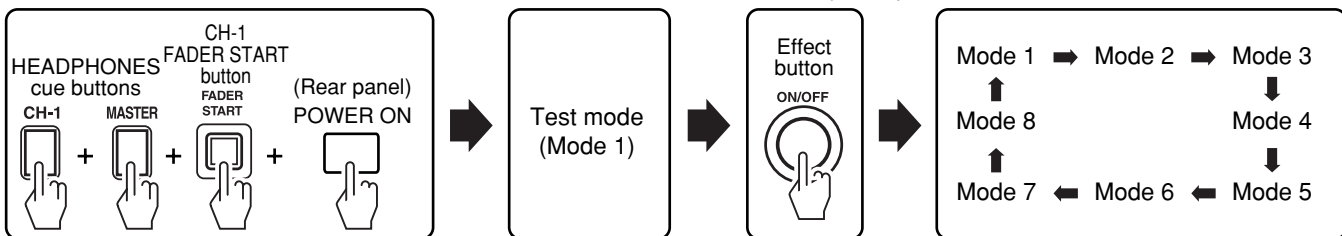
#### 1. Description of Test Modes

The following eight test modes are provided for this unit:

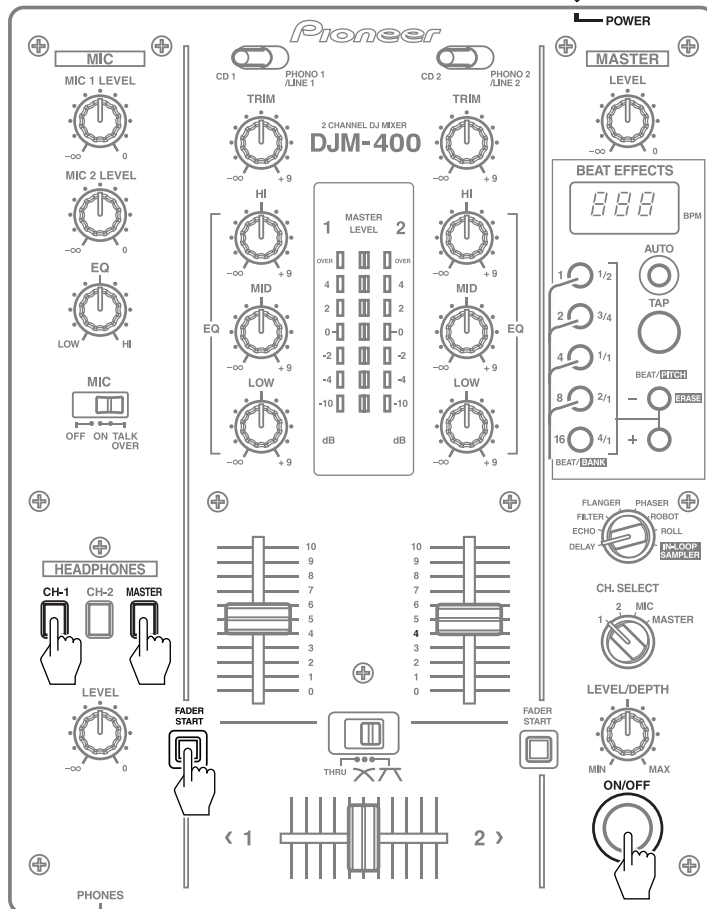
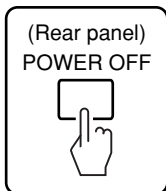
- ① **mode 1** : For confirmation of the firmware version
- ② **mode 2** : All LEDs and 7-segment indications unlit
- ③ **mode 3** : All LEDs and 7-segment indications lit
- ④ **mode 4** : For checking operations of individual keys and switches (KEY TEST)
- ⑤ **mode 5** : Mode 1 for using the LEDs to check the variable control value (VOLTESTLED)
- ⑥ **mode 6** : Mode 1 for using hexadecimal readout to check the variable control value (VOLTEST1)
- ⑦ **mode 7** : Mode 2 for using hexadecimal readout to check the variable control value (VOLTEST2)
- ⑧ **mode 8** : Mode for using the LEDs to check the level-meter (METERTEST)

#### 2. Test Mode

##### Test mode : ON



##### Test mode : CANCEL



### ① mode 1 : For confirmation of the firmware version

The firmware version is indicated on the BPM display. The version is indicated in three digits. Read the number as if there were a decimal point between the first and second two digits.

**Example:** Where the version is 1.23



### ③ mode 2 : All LEDs and 7-segment indications unlit

All the LEDs go dark. On the BPM display, "oFF" is displayed.



### ③ mode 3 : All LEDs and 7-segment indications lit

All the LEDs and 7-segment indications are lit. On the BPM display, "888" is displayed.



### ④ mode 4 : For checking operations of individual keys and switches (KEY TEST)

While a key is held pressed, the corresponding LED lights. The LED corresponding to a selected switch lights. On the BPM display, the position selected by the Effect select switch is displayed.

Effect Select Switch	BPM Display
DELAY	1
ECHO	2
FILTER	3
FLANGER	4
PHASER	5
ROBOT	6
ROLL	7
IN-LOOP SAMPLER	8

A

**List of LEDs to be lit**

Button or Switch to be Operated	LED Lit
CH-1 HEADPHONES cue button	CH-1 HEADPHONES cue indicator
CH-2 HEADPHONES cue button	CH-2 HEADPHONES cue indicator
MASTER HEADPHONES cue button	MASTER HEADPHONES cue indicator
CH-1 FADER START button	CH-1 FADER START indicator
CH-2 FADER START button	CH-2 FADER START indicator
Beat select/BANK button BEAT1 (1/2)	Beat select/BANK indicator BEAT1 (1/2)
Beat select/BANK button BEAT2 (3/4)	Beat select/BANK indicator BEAT2 (3/4)
Beat select/BANK button BEAT4 (1/1)	Beat select/BANK indicator BEAT4 (1/1)
Beat select/BANK button BEAT8 (2/1)	Beat select/BANK indicator BEAT8 (2/1)
Beat select/BANK button BEAT16 (4/1)	Beat select/BANK indicator BEAT16 (4/1)
BPM measuring mode button (AUTO)	BPM measuring mode indicator (AUTO)
TAP button (TAP)	Channel level indicator CH-2 OVER
BEAT/PITCH + select button	Channel level indicator CH-2 +4dB
BEAT/PITCH – select button	Channel level indicator CH-2 +2dB
MIC/AUX input select switch (MIC/AUX) (rear panel)	MIC : Channel level indicator MASTER OVER AUX : Channel level indicator CH-1 OVER
STEREO/MONO select switch (STEREO/MONO) (rear panel)	STEREO : Channel level indicator CH-1 +4dB MONO : Channel level indicator MASTER +4dB
Channel 1 PHONO/LINE select switch (PHONO/LINE)(rear panel)	PHONO : Channel level indicator CH-1 +2dB LINE : Channel level indicator MASTER +2dB
Channel 2 PHONO/LINE select switch (PHONO/LINE)(rear panel)	PHONO : Channel level indicator CH-1 0dB LINE : Channel level indicator MASTER 0dB
Effect CH. SELECT switch (1/2/MIC/MASTER)	1 : Channel level indicator CH-1 -2dB 2 : Channel level indicator MASTER -2dB MIC : Channel level indicator CH-2 -2dB MASTER : Channel level indicator CH-2 0dB
MIC function select switch (OFF/ON/TALK OVER)	OFF : Channel level indicator CH-1 -4dB ON : Channel level indicator MASTER -4dB TALK OVER : Channel level indicator CH-2 -4dB
Cross fader select switch (THRU/✕/↗)	THRU : Channel level indicator CH-1 -10dB ✕ : Channel level indicator MASTER -10dB ↗ : Channel level indicator CH-2 -10dB
Effect button (ON/OFF)	Mode selection in Test mode

**Note:** Lighting of a self-illuminating button can be confirmed at any time, except in a mode in which all LEDs are lit or unlit.

E

F

### ⑤ mode 5 : Mode 1 for using the LEDs to check the variable control value (VOLTESTLED)

In this mode, the values of the A/D input controls are indicated on the level indicators.

The variable controls to be checked can be selected with the Effect select switch, as shown in the table below:

Effect Select Switch	BPM Display	Variable Control to be Checked	Channel Level Indicator
DELAY	11	MIC EQ LEVEL	CH-1 CH-2
ECHO	22	CH-1 HIGH CH-1 MID CH-1 LOW	CH-1 MASTER CH-2
FILTER	33	CH-2 HIGH CH-2 MID CH-2 LOW	CH-1 MASTER CH-2
FLANGER	44	CH-1 FADER CROSS FADER CH-2 FADER	CH-1 MASTER CH-2
PHASER ROBOT ROLL IN-LOOP SAMPER	55	MASTER LEVEL LEVEL/DEPTH	CH-1 CH-2

### ⑥ mode 6 : Mode 1 for using hexadecimal readout to check the variable control value (VOLTEST1)

In this mode, the values of the A/D input controls are indicated on the BPM display in hexadecimal.

The variable controls to be checked can be selected with the Effect select switch, as shown in the table below:

Effect Select Switch	Variable Control to be Checked	Channel Level Indicator	BPM Display (in hex.)
DELAY	EQ	CH-1 OVER	0 to 3FF
ECHO	MIC	CH-1 +4dB	OFF : 36F to 3C9 ON : 2AD to 2FF TALK OVER : 1D6 to 228
FILTER	CH-1 HIGH	MASTER OVER	0 to 3FF
FLANGER	CH-1 MID	MASTER +4dB	0 to 3FF
PHASER	CH-1 LOW	MASTER +2dB	0 to 3FF
ROBOT	CH-2 HIGH	CH-2 OVER	0 to 3FF
ROLL	CH-2 MID	CH-2 +4dB	0 to 3FF
IN-LOOP SAMPLER	CH-2 LOW	CH-2 +2dB	0 to 3FF

While the CH-1 HEADPHONES cue button is held pressed, the value of the effect selected with the Effect select switch is displayed.

CH-1 HEADPHONES cue button	Effect select switch	CH-2 -2dB	DELAY : 36F to 3C1 ECHO : 309 to 35B FILTER : 2A3 to 2F5 FLANGER : 23C to 28E PHASER : 1D6 to 228 ROBOT : 170 to 1C2 ROLL : 109 to 15B IN-LOOP SAMPLER : A3 to F5
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A

### ● Technical tips

While one of the following buttons is held pressed when the value of the control for one of the effects is displayed, the minimum and maximum values of the adjustable range of the control, adjustable range, and value after chatter is removed are indicated.

While the CH-2 HEADPHONES cue button is held pressed: Minimum value of the adjustable range  
 While the MASTER HEADPHONES cue button is held pressed: Maximum value of the adjustable range  
 CH-1 FADER START button: Adjustable range  
 CH-2 FADER START button: Value after chatter is removed

B

### ⑦ mode 7 : Mode 2 for using hexadecimal readout to check the variable control value (VOLTEST2)

In this mode, the values of the A/D input controls are indicated on the BPM display in hexadecimal. The variable controls to be checked can be selected with the Effect select switch, as shown in the table below:

Effect Select Switch	Variable Control to be Checked	Channel Level Indicator	BPM Display (in hex.)
DELAY	LEVEL	CH-1 -10dB	0 to 3FF
ECHO	CH-1 FADER	CH-1 -2dB	0 to 3FF
FILTER	CH-2 FADER	MASTER -2dB	0 to 3FF
FLANGER	CROSS FADER	MASTER -10dB	0 to 3FF
PHASER	CH C. F	MASTER -4dB	↖ : 36F to 3C9 ↘ : 2AD to 2FF THRU : 1D6 to 228
ROBOT	MASTER LEVEL	CH-2 0dB	0 to 3FF
ROLL	CH. SELECT	CH-2 -4dB	CH-1 : 37A to 3CB CH-2 : 2AD to 2FF MIC : 1E2 to 234 MASTER : FF to 151
IN-LOOP SAMPLER	LEVEL/DEPTH	CH-2 -10dB	0 to 3FF

C

D

While the CH-1 HEADPHONES cue button is held pressed, the value of the effect selected with the Effect select switch is displayed.

CH-1 HEADPHONES cue button	Effect select switch	CH-2 -2dB	DELAY : 36F to 3C1 ECHO : 309 to 35B FILTER : 2A3 to 2F5 FLANGER : 23C to 28E PHASER : 1D6 to 228 ROBOT : 170 to 1C2 ROLL : 109 to 15B IN-LOOP SAMPLER : A3 to F5
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E

### ● Technical tips

While one of the following buttons is held pressed when the value of the control for one of the effects is displayed, the minimum and maximum values of the adjustable range of the control, adjustable range, and value after chatter is removed are indicated.

While the CH-2 HEADPHONES cue button is held pressed: Minimum value of the adjustable range  
 While the MASTER HEADPHONES cue button is held pressed: Maximum value of the adjustable range  
 CH-1 FADER START button: Adjustable range  
 CH-2 FADER START button: Value after chatter is removed

F

### ⑧ mode 8 : Mode 8: For checking the level-meter LED (METERTEST)

This is a mode in which the channel level indicators are lit one by one.  
On the BPM display, "-8-" is displayed.



Each time a HEADPHONES cue button (CH-1/CH-2/MASTER) is pressed, the level indicator LEDs corresponding to that channel are lit one by one, from the bottom. At first, all the LEDs are unlit.

When a HEADPHONES cue button is pressed 7 times, the uppermost LED will be lit.

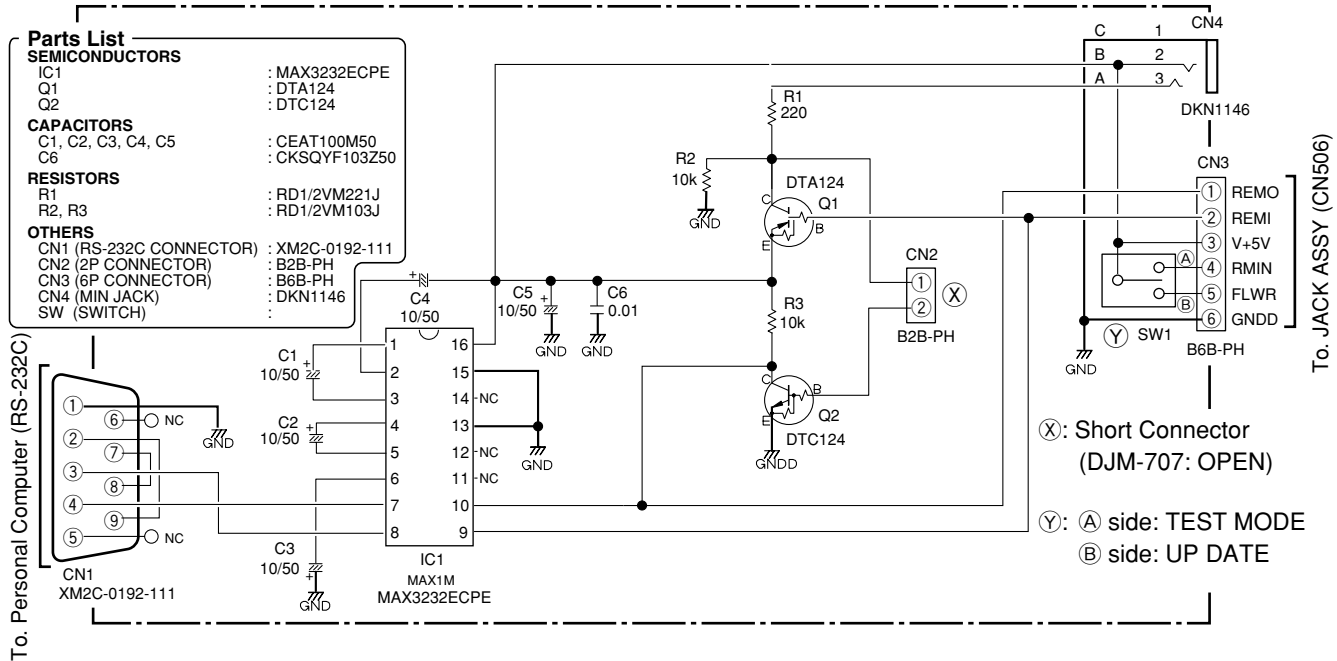
Then when the same HEADPHONES cue button is pressed again, all the LEDs go dark.

Thus, this process can be repeated from the beginning.

## 7.1.2 Rewriting of the Software

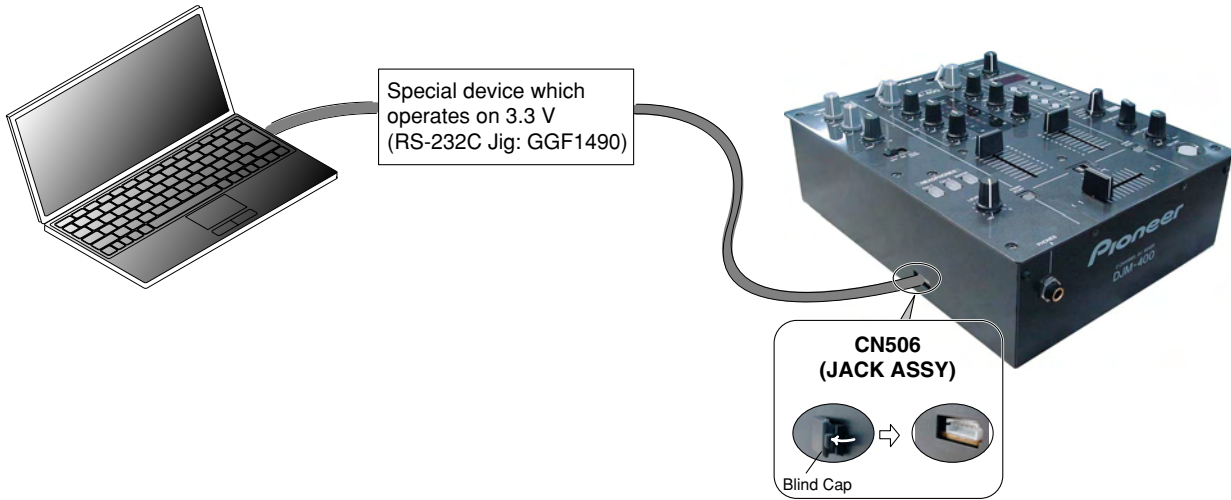
### [RS-232C Jig Schematic Diagram] (Jig No. GGF1490)

A



C

• Connection diagram of rewriting the program for the system control microcomputer



D

### [How to rewrite the software for the DJM-400]

#### • Rewritable programs for the DJM-400

1. Programs for the system control microcomputer: DYW1755X.mot

E

Use the unit's connector for rewriting the program for the system control microcomputer.

#### • Time required for rewriting

1. Time required for transmitting the rewriting control program: Approx. 5 sec
2. Time required for rewriting the program for the system control microcomputer: Approx. 1 min

#### • Notes

If the rewriting control program is not transferred when OK is clicked on while "Set to Boot mode and restart by resetting" is displayed in the rewriting procedure below, the following causes may be suspected:

1. The special device is not securely connected.
2. The DJM-400 is not turned on.

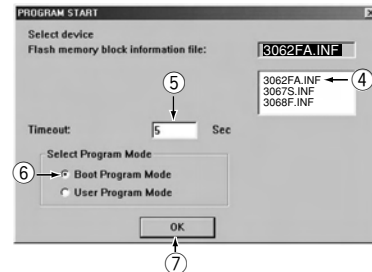
F



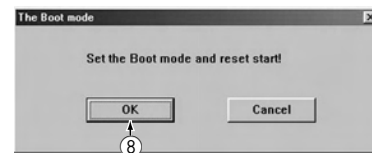
### 1. How to rewrite the program for the system control microcomputer

- ① With the DJM-400's power off, connect the DJM-400 and a PC via the special device by connecting it to the connector for rewriting the program for the system control microcomputer.
- ② Turn on the DJM-400.
- ③ Start up [FLASH.exe], the software for rewriting, on the PC.
- ④ Assign "3062FA.inf" to "Device selection Flash memory block information file."
- ⑤ Assign 5 sec to "Timeout duration."
- ⑥ Assign "Boot mode" to "Mode selection."
- ⑦ Click on "Set".

• Operating screen



- ⑧ If "Set to Boot mode and restart by resetting" is displayed, click on "OK".



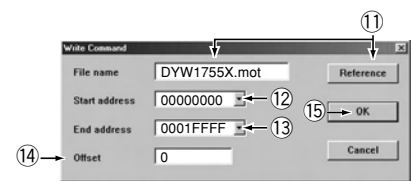
- ⑨ The rewriting control program is transferred in 5 seconds.



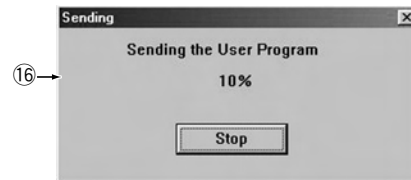
- ⑩ When program transfer is finished, the display in the window disappears. Select "WRITE" at the upper left of the menu bar.



- ⑪ After clicking on Reference, select "DYW1755X.mot" for "Filename."
- ⑫ Assign "00000000" to "Start address."
- ⑬ Assign "0001FFFF" to "End address."
- ⑭ Assign "0" to "Offset."
- ⑮ Click on "OK".



- ⑯ The system control computer program is transferred in 1 min.

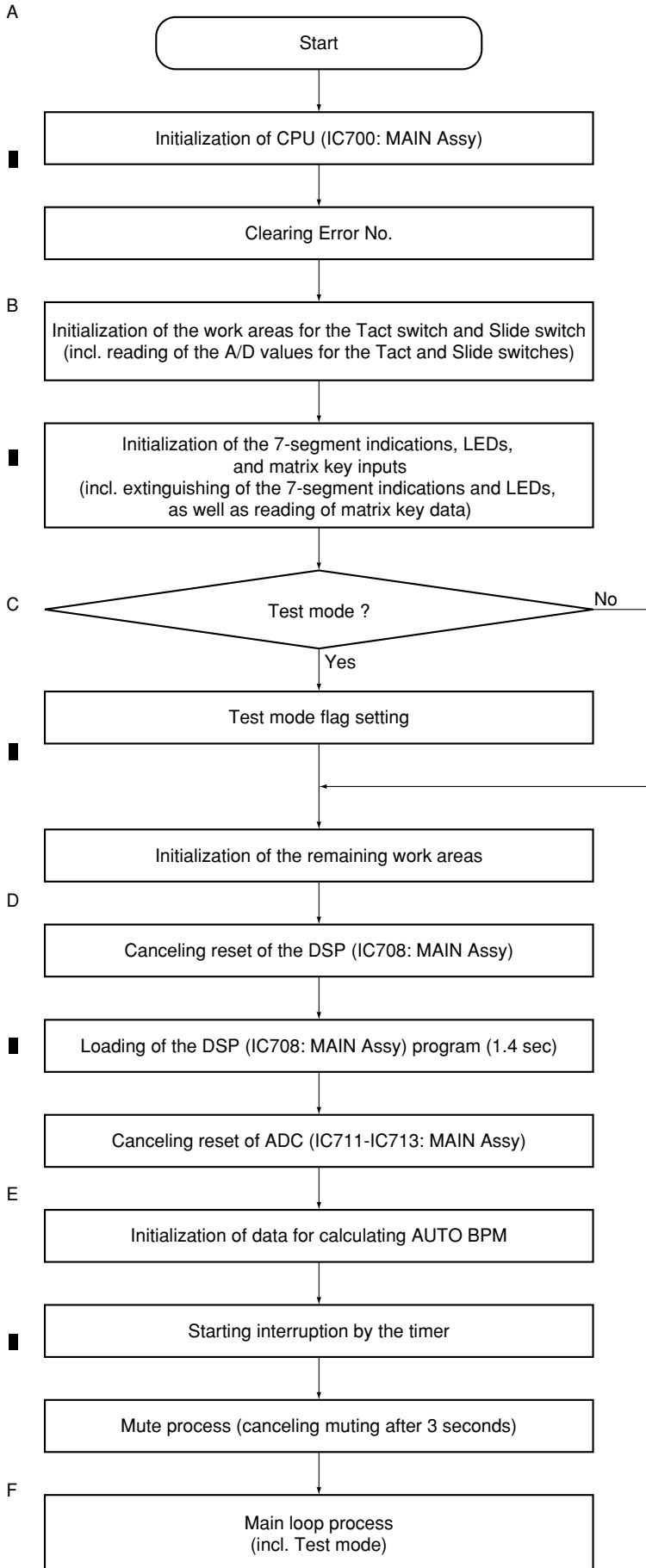


- ⑰ When program transfer is finished, the display in the window disappears. Select File on the menu bar then Exit to exit the program.



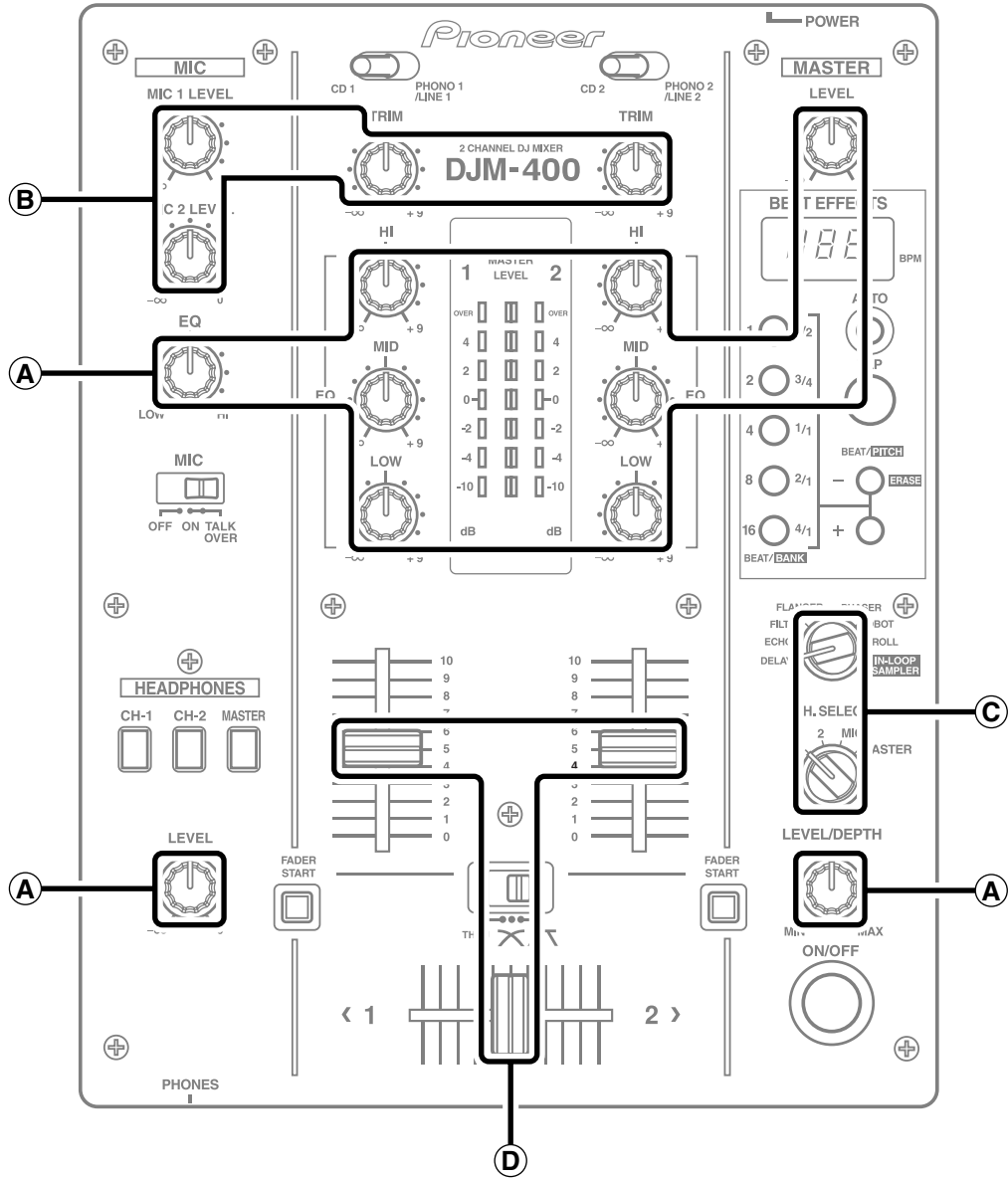
- ⑱ Turn off the DJM-400.
- ⑲ Disconnect the special device from the DJM-400.

### 7.1.3 POWER-ON SEQUENCE

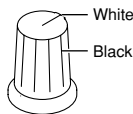


**Note:** Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

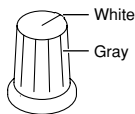
**Knobs and Volumes Location**



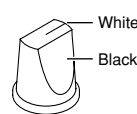
**A** Rotary VR knob (B)  
(DAA1183) ×10



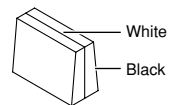
**B** Rotary VR knob (G)  
(DAA1184) ×4



**C** Rotary SW knob  
(DAA1185) ×2



**D** Slider knob (L2)  
(DAC2371) ×3

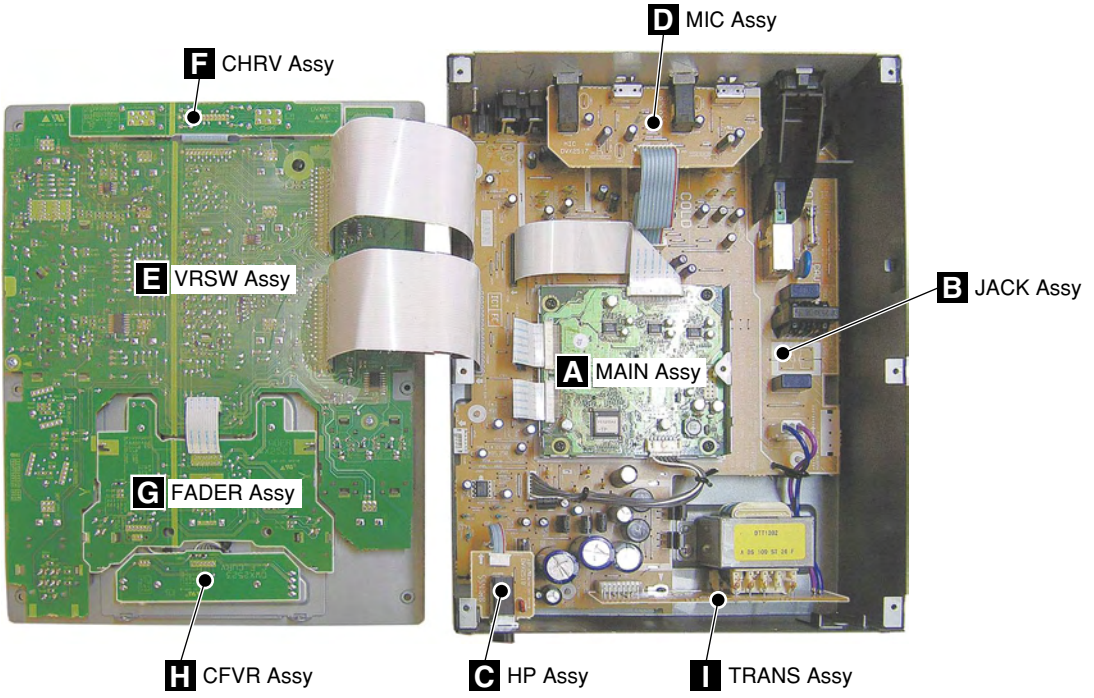
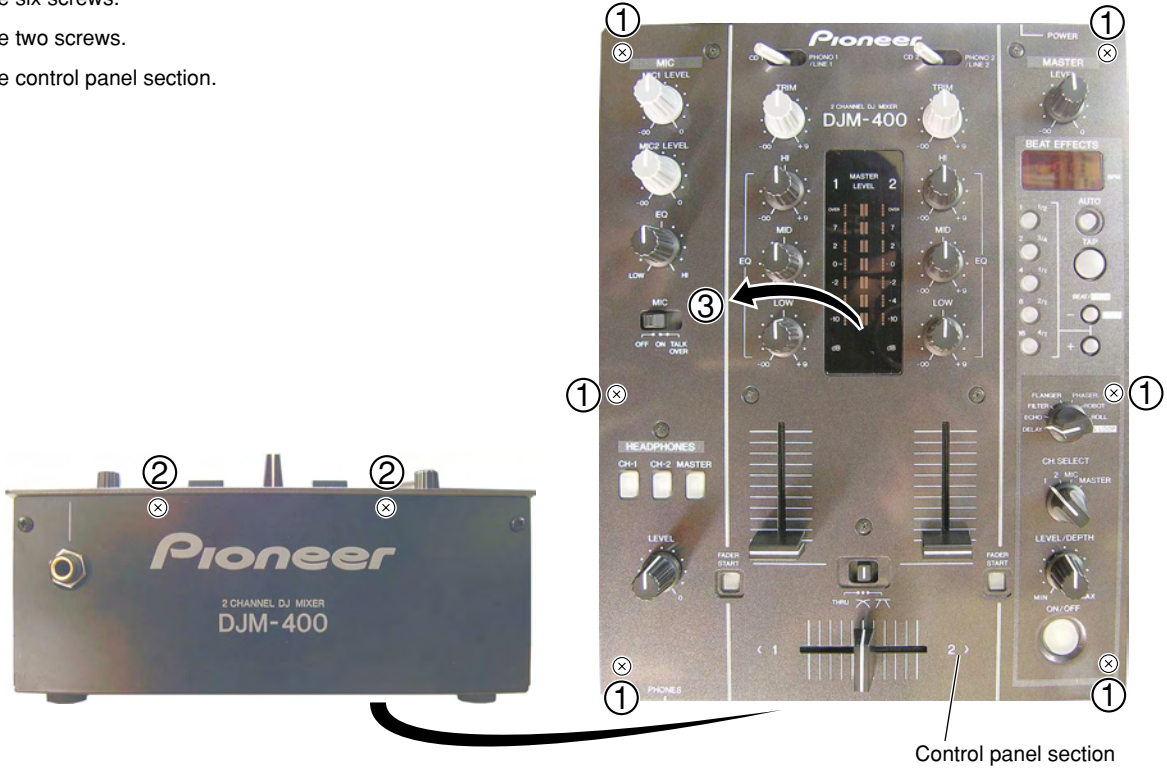


A

Disassembly

1 Control Panel Section

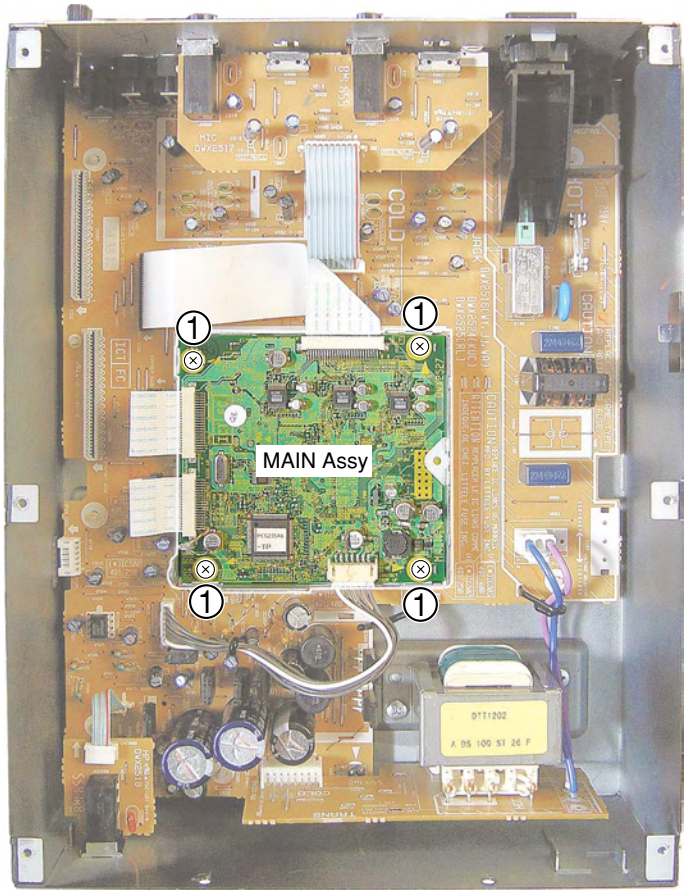
- 1 Remove the six screws.
- 2 Remove the two screws.
- 3 Remove the control panel section.



DJM-400

## 2 Diagnosis of MAIN Assy

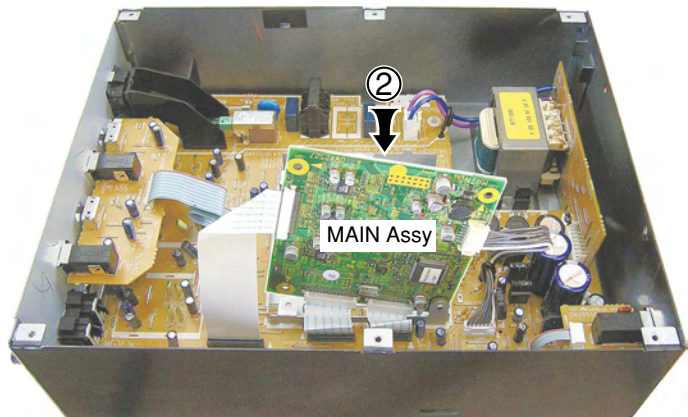
① Remove the four screws.



② Stand the MAIN Assy.



**Diagnosis**

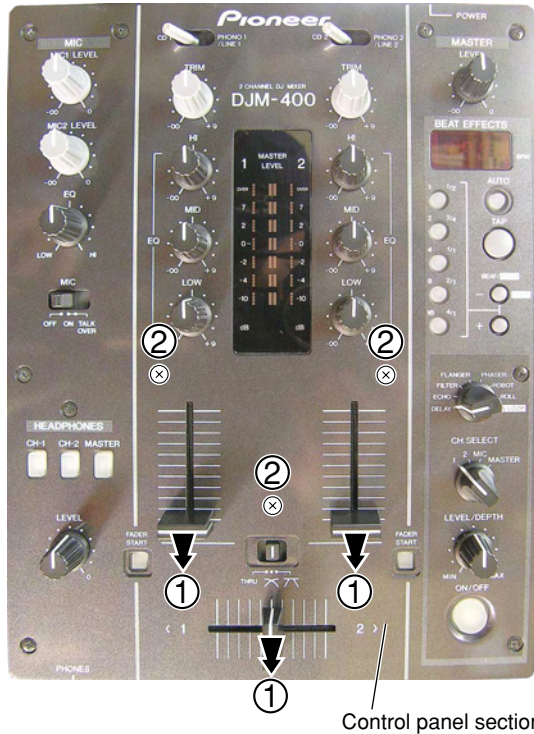


DJM-400

A

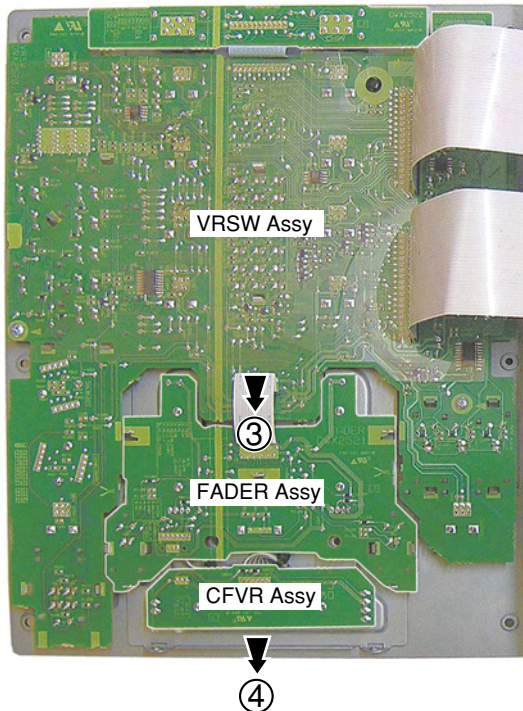
### 3 CFVR Assy

- ① Remove the three slider knob (L2).
- ② Remove the three screws.



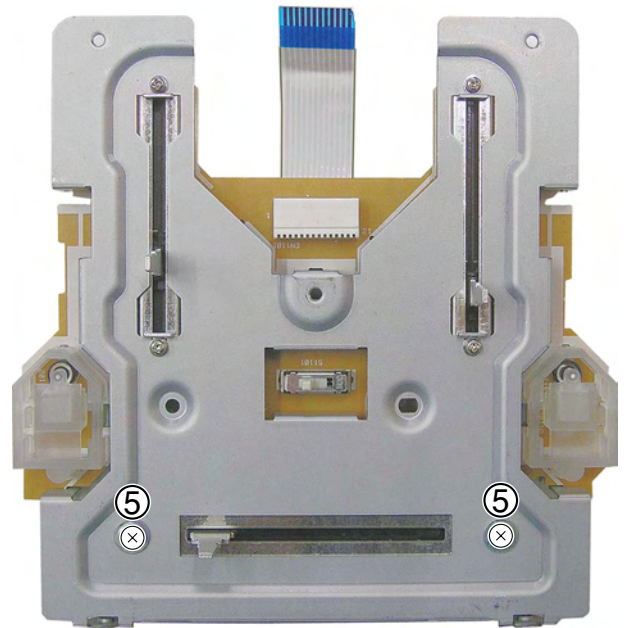
D

- ③ Disconnect the one flexible cable.
- ④ Remove the FADER and CFVR Assys.

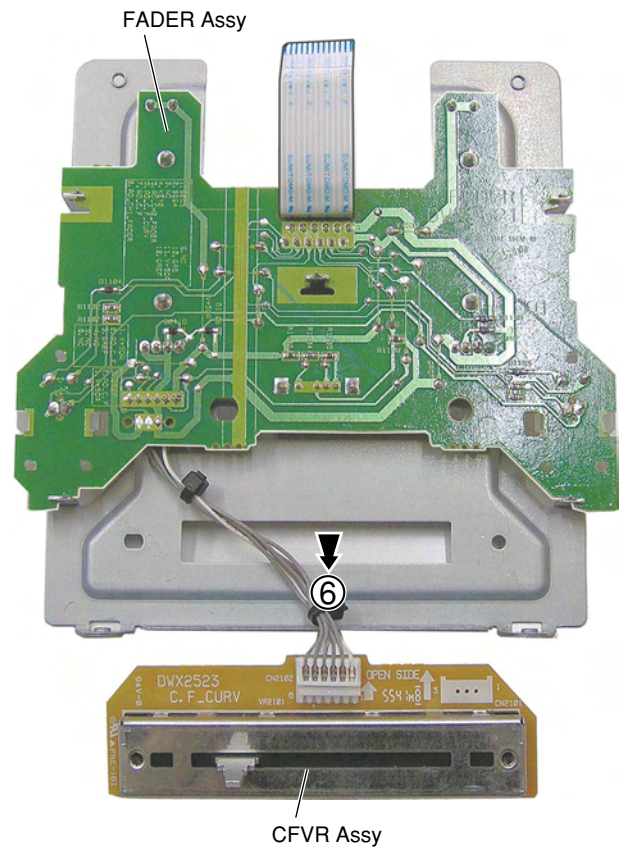


F

⑤ Remove the two screws.



⑥ Remove the CFVR Assy.



A

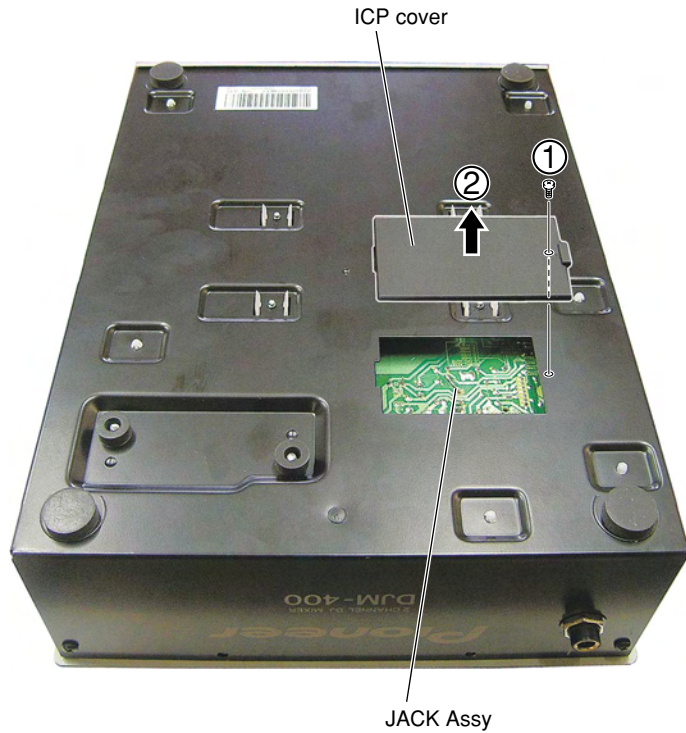
### 4 Diagnosis of JACK Assy (Exchange of ICP)

- ① Remove the one screw.
- ② Remove the ICP cover.

↓

**Diagnosis**

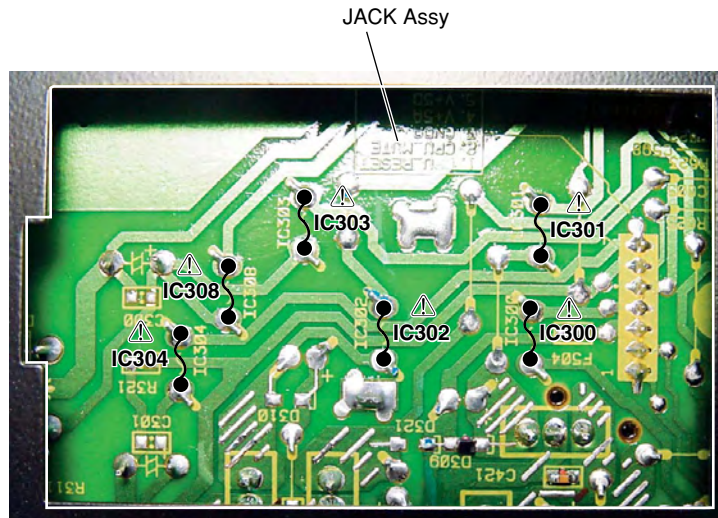
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# 7.2 PARTS

## 7.2.1 IC

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

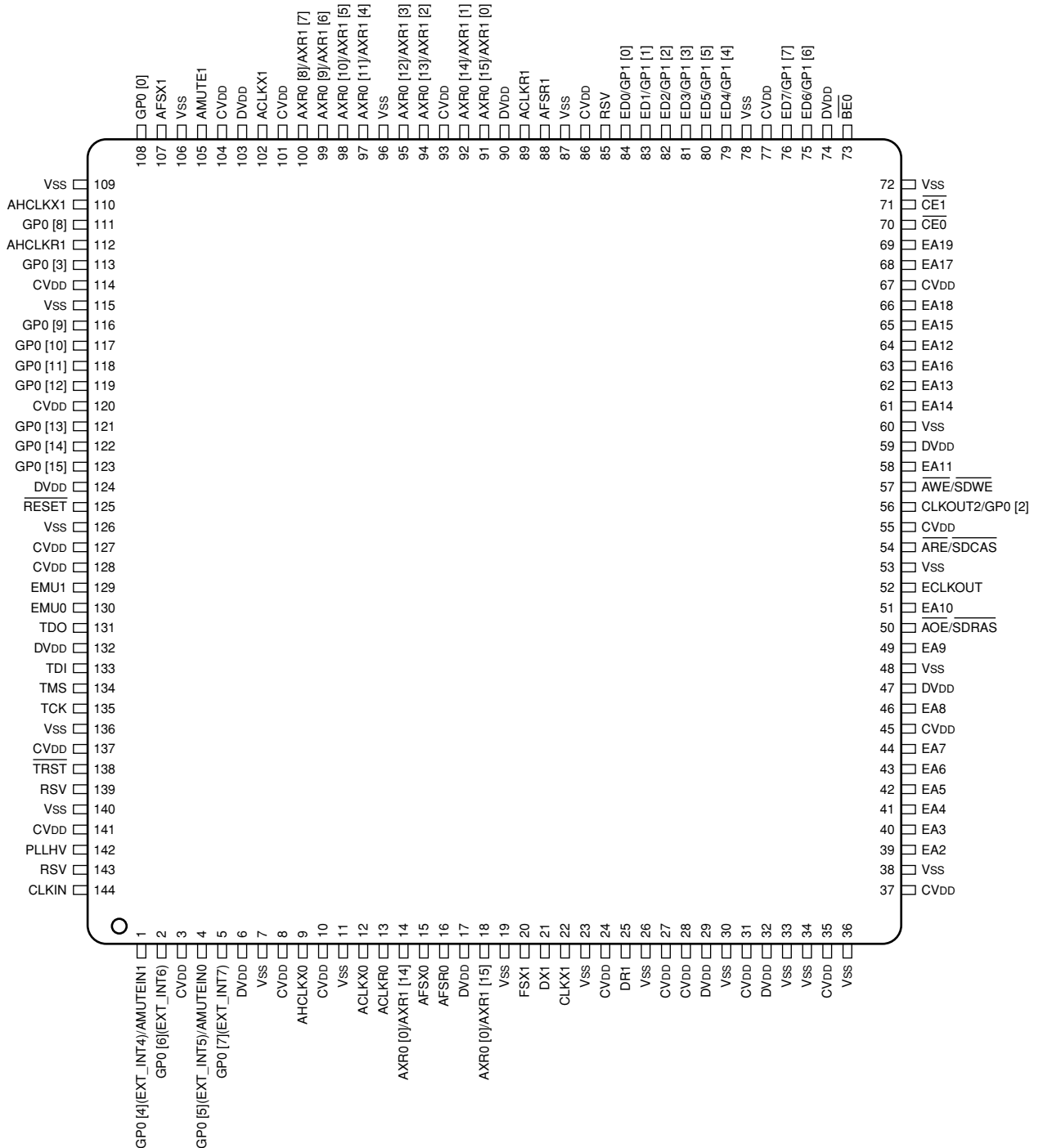
### List of IC

D607A003BRFP200

### D607A003BRFP200 (MAIN ASSY : IC708)

DSP (Digital Signal Processor)

### Pin Arrangement



A ● Block Diagram

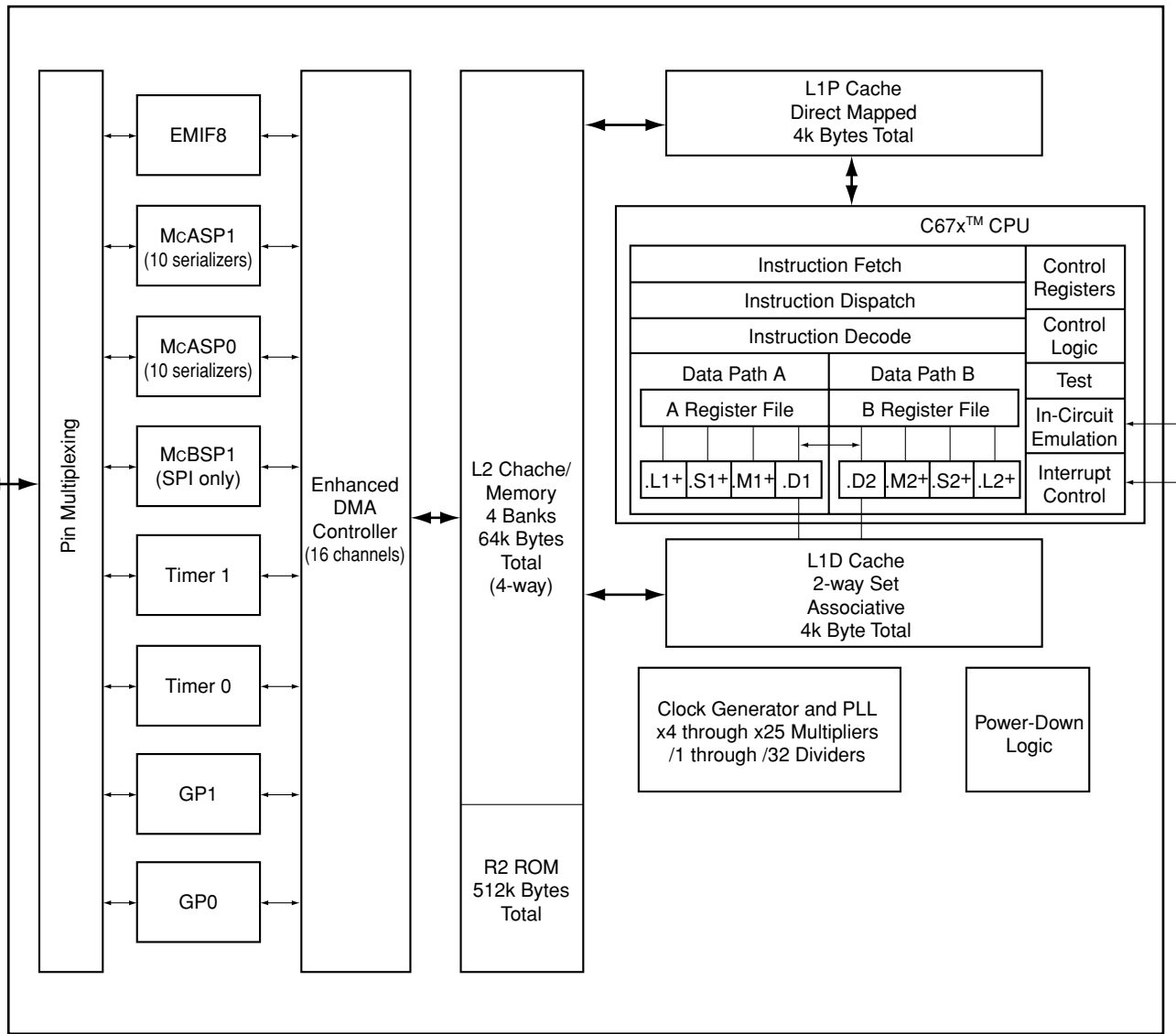
B

C

D

E

F



## ● Pin Function

No.	Pin Name	I/O	Pin Function										
<b>CLOCK/PLL CONFIGURATION</b>													
56	CLKOUT2/GP0 [2]	O	Clock output at half of device speed (default) (SYSCLK2 internal signal from the PLL controller) or this pin can be programmed as GP0 [2] pin										
142	PLLHV	–	Analog power (3.3V) for PLL										
144	CLKIN	I	Clock input										
<b>JTAG EMULATION</b>													
129	EMU1	I/O	Emulation [1:0] pins • Select the device functional mode of operation <table border="1"> <thead> <tr> <th>EMU [1:0]</th> <th>Operation</th> </tr> </thead> <tbody> <tr> <td>00</td> <td>Boundary Scan/Functional Mode (See Note)</td> </tr> <tr> <td>01</td> <td>Reserved</td> </tr> <tr> <td>10</td> <td>Reserved</td> </tr> <tr> <td>11</td> <td>Emulation/Functional Mode (default)</td> </tr> </tbody> </table>	EMU [1:0]	Operation	00	Boundary Scan/Functional Mode (See Note)	01	Reserved	10	Reserved	11	Emulation/Functional Mode (default)
EMU [1:0]	Operation												
00	Boundary Scan/Functional Mode (See Note)												
01	Reserved												
10	Reserved												
11	Emulation/Functional Mode (default)												
130	EMU0	The DSP can be placed in Functional mode when the EMU [1:0] pins are configured for either Boundary Scan or Emulation. <b>Note</b> : When the EMU [1:0] pins are configured for Boundary Scan mode, the internal pulldown (1PD) on the TRST signal must not be opposed in order to operate in Functional mode. For the Boundary Scan mode drive EMU [1:0] and $\overline{\text{RESET}}$ pins low.											
131	TDO	O	JTAG test-port data out										
133	TDI	I	JTAG test-port data in										
134	TMS		JTAG test-port mode select										
135	TCK		JTAG test-port clock										
138	TRST		JTAG test-port reset. For IEEE 1149.1 JTAG compatibility										
<b>RESETS AND INTERRUPTS</b>													
1	GP0 [4](EXT_INT4) /AMUTEIN1	I/O	General-purpose input/output 0 pins which also function as external interrupts (default) • Edge-driven • Polarity independently selected via the External interrupt Polarity Register bits (EXTPOL.[3:0])  GP0 [4] and GP0 [5] pins also function as AMUTEIN1 McASP1 mute input and AMUTEIN0 McASP0 mute input, respectively.										
2	GP0 [6](EXT_INT6)												
4	GP0 [5](EXT_INT5) /AMUTEIN0												
5	GP0 [7](EXT_INT7)												
125	RESET	I	Device reset										
<b>EMIF-COMMON SIGNALS TO ALL TYPES OF MEMORY</b>													
70	$\overline{\text{CE0}}$	O	Memory space enables • Enabled by bits 28 through 31 of the word address • Only one asserted during any external data access  Byte-enable control • Decoded from the two lowest bits of the internal address • Byte-write enables for most types of memory • Must be controlled to SDRAM read and write mask signal (SDQM)										
71	$\overline{\text{CE1}}$												
73	$\overline{\text{BE0}}$												
<b>EMIF-ASYNCHRONOUS/SYNCHRONOUS MEMORY CONTROL</b>													
50	$\overline{\text{AOE}}/\overline{\text{SDRAS}}$	O	Asynchronous memory output enable/SDRAM row-address strobe										
52	ECLKOUT		EMIF output clock depends on the Reserved 0 bit (DEVCFG.[4]) and on EKEN bit (CBLCTL.[5]). Reserved 0 = 0 - ECLKOUT is based on the internal SYSCLK3 signal from the clock generator (default). Reserved 0 = 1 - Reserved  EKEN = 0 - ECLKOUT held low EKEN = 1 - ECLKOUT enabled to clock (default)										
54	$\overline{\text{ARE}}/\overline{\text{SDCAS}}$		Asynchronous memory output enable/SDRAM column-address strobe										
57	$\overline{\text{AWE}}/\overline{\text{SDWE}}$		Asynchronous memory output enable/SDRAM write enable										

A

No.	Pin Name	I/O	Pin Function						
<b>EMIF-ADDRESS</b>									
39	EA2	O	External address (word, half-word, and byte address) The EMIF adjusts the address based on memory width: <table border="1"> <thead> <tr> <th>Width</th> <th>Pins</th> <th>Address</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>19:2</td> <td>17 through 0</td> </tr> </tbody> </table>	Width	Pins	Address	8	19:2	17 through 0
Width	Pins			Address					
8	19:2			17 through 0					
40	EA3								
41	EA4								
42	EA5								
43	EA6								
44	EA7								
46	EA8								
49	EA9								
51	EA10								
58	EA11								
61	EA14								
62	EA13								
63	EA16								
64	EA12								
65	EA15								
66	EA18								
68	EA17								
69	EA19								
<b>EMIF-DATA</b>									
75	ED6/GP1 [6]	I/O	The ED7 - ED0 pins are muxed with general-purpose input/output 1 (GP1) pins. The EMIFDIS bit in the DEVCFG register controls the function of these muxed pins, EMIF is default.						
76	ED7/GP1 [7]								
79	ED4/GP1 [4]								
80	ED5/GP1 [5]								
81	ED3/GP1 [3]								
82	ED2/GP1 [2]								
83	ED1/GP1 [1]								
84	ED0/GP1 [0]								
<b>MULTICHANNEL AUDIO SERIAL PORT 1 (McASP1)</b>									
1	GP0 [4](EXT_INT4)/AMUTEIN1	I/O	General-purpose input/output 0 pin 4 and external interrupt 4 (default) or McASP1 mute input.						
14	AXR0 [1]/AXR1 [14]	I/O	McASP0 TX/RX data pin 1 or McASP1 TX/RX data pin 14						
18	AXR0 [0]/AXR1 [15]		McASP0 TX/RX data pin 0 or McASP1 TX/RX data pin 15						
88	AFSR1	I/O	McASP1 receive frame sync or left/right clock (LRCLK)						
89	ACLKR1	I/O	McASP1 receive bit clock						
91	AXR0 [15]/AXR1 [0]	I/O	McASP0 TX/RX data pin 15 or McASP1 TX/RX data pin 0						
92	AXR0 [14]/AXR1 [1]		McASP0 TX/RX data pin 14 or McASP1 TX/RX data pin 1						
94	AXR0 [13]/AXR1 [2]		McASP0 TX/RX data pin 13 or McASP1 TX/RX data pin 2						
95	AXR0 [12]/AXR1 [3]		McASP0 TX/RX data pin 12 or McASP1 TX/RX data pin 3						
97	AXR0 [11]/AXR1 [4]		McASP0 TX/RX data pin 11 or McASP1 TX/RX data pin 4						
98	AXR0 [10]/AXR1 [5]		McASP0 TX/RX data pin 10 or McASP1 TX/RX data pin 5						
99	AXR0 [9]/AXR1 [6]		McASP0 TX/RX data pin 9 or McASP1 TX/RX data pin 6						
100	AXR0 [8]/AXR1 [7]		McASP0 TX/RX data pin 8 or McASP1 TX/RX data pin 7						
102	ACLKX1	I/O	McASP1 transmit bit clock						
105	AMUTE1	O	McASP1 mute output GP0 [13], along with GP0 [0] and AMUTE1, function as boot mode configuration pins at device reset.						
107	AFSX1	I/O	McASP1 transmit frame sync or left/right clock (LRCLK)						
110	AHCLKX1	I/O	McASP1 transmit high-frequency master clock						
112	AHCLKR1	I/O	McASP1 receive high-frequency master clock						

No.	Pin Name	I/O	Pin Function
<b>MULTICHANNEL AUDIO SERIAL PORT 0 (McASP0)</b>			
4	GP0 [5](EXT_INT5) /AMUTEIN0	I/O	McASP0 mute input
9	AHCLKX0	I/O	McASP0 transmit high-frequency master clock
12	ACLKX0	I/O	McASP0 transmit bit clock
13	ACLKR0	I/O	McASP0 receive bit clock
14	AXR0 [1]/AXR1 [14]	I/O	McASP0 TX/RX data pin 1 or McASP1 TX/RX data pin 14
15	AFSX0	I/O	McASP0 transmit frame sync or left/right clock (LRCLK)
16	AFSR0	I/O	McASP0 receive frame sync or left/right clock (LRCLK)
18	AXR0 [0]/AXR1 [15]	I/O	McASP0 TX/RX data pin 0 or McASP1 TX/RX data pin 15
91	AXR0 [15]/AXR1 [0]		McASP0 TX/RX data pin 15 or McASP1 TX/RX data pin 0
92	AXR0 [14]/AXR1 [1]		McASP0 TX/RX data pin 14 or McASP1 TX/RX data pin 1
94	AXR0 [13]/AXR1 [2]		McASP0 TX/RX data pin 13 or McASP1 TX/RX data pin 2
95	AXR0 [12]/AXR1 [3]		McASP0 TX/RX data pin 12 or McASP1 TX/RX data pin 3
97	AXR0 [11]/AXR1 [4]		McASP0 TX/RX data pin 11 or McASP1 TX/RX data pin 4
98	AXR0 [10]/AXR1 [5]		McASP0 TX/RX data pin 10 or McASP1 TX/RX data pin 5
99	AXR0 [9]/AXR1 [6]		McASP0 TX/RX data pin 9 or McASP1 TX/RX data pin 6
100	AXR0 [8]/AXR1 [7]		McASP0 TX/RX data pin 8 or McASP1 TX/RX data pin 7
<b>MULTICHANNEL BUFFERED SERIAL PORT 1 (McBSP1)</b>			
20	FSX1	I/O	McBSP1 transmit frame sync
21	DX1	O	McBSP1 transmit data (default)
22	CLKX1	I/O	McBSP1 transmit clock (default)
25	DR1	I	McBSP1 receive data (default). This pin does not have an internal pullup or pulldown. When this pin is used as a McBSP pin, this pin should either be driven externally at all times or be pulled up with a 10-k $\Omega$ resistor to a valid logic level. Because it is common for some ICs to 3-state their outputs at times, a 10-k $\Omega$ pullup resistor may be desirable even when an external device is driving the pin.

A

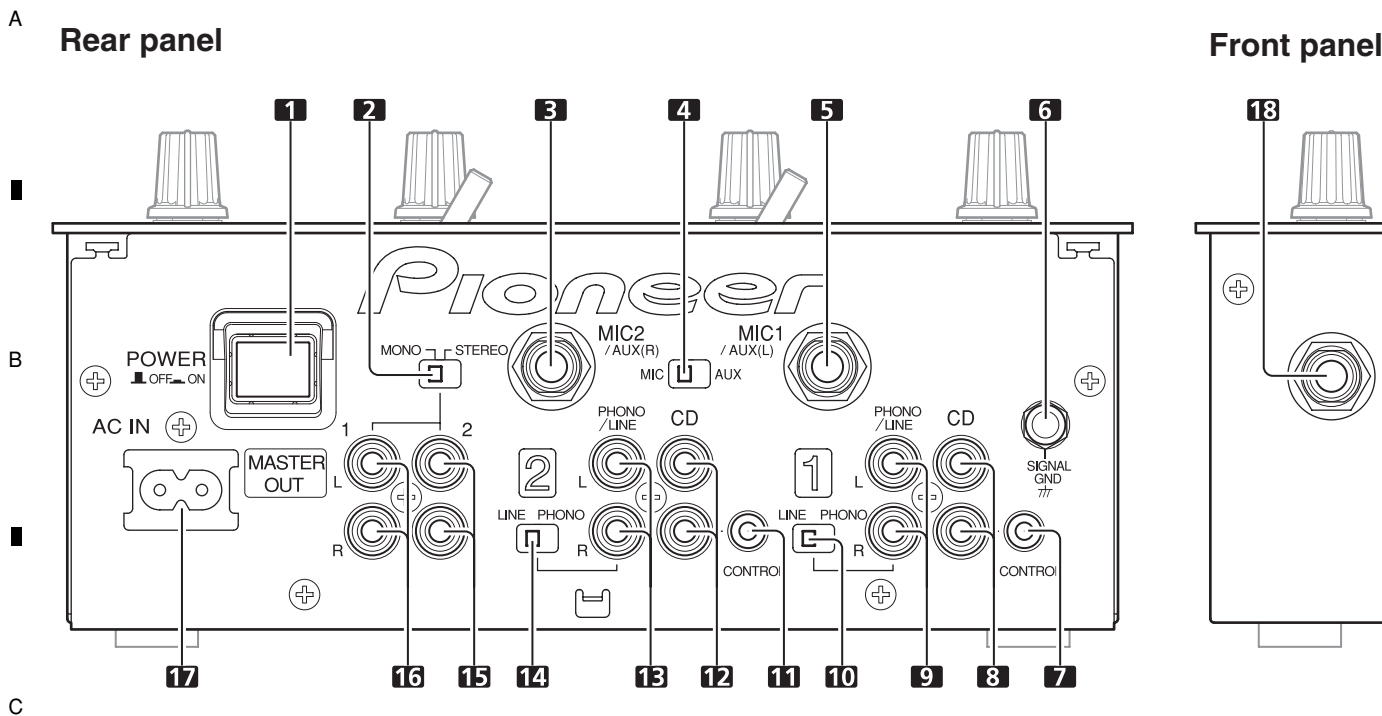
No.	Pin Name	I/O	Pin Function
<b>GENERAL-PURPOSE INPUT/OUTPUT 0 (GP0)</b>			
1	GP0 [4](EXT_INT4) /AMUTEIN1	I/O	<p>General-purpose input/output pins GP0 [15:2, 0] As general-purpose input/output 0 (GP0 [x]) functions, these pins are software-configurable through registers. The "GPxEN" bits in the GPIO Enable register and the GPxDIR bits in the GPIO Direction register must be properly configured:</p> <p>GP0xEN = 1;GP0 [x] pin is enabled. GP0xDIR = 0;GP0 [x] pin is an input. GP0xDIR = 1;GP0 [x] pin is an output.</p> <p><b>Internal ROM Boot Pins</b> GP0 [11:9] are used for selection of internal ROM boot options (SPI hardware or software booting from serial EEPROM or Flash, or SPI slave booting from host processor).</p> <p><b>Bootmode Configuration Pins (ROMBOOT + BOOTMODE)</b> Boot mode [GP0 [13], GP0 [0], AMUTE1 (McASP1 pin)] x00 - Reserved 101 - CE1 width 8-bit, Asynchronous external ROM boot with default timings (default mode) 110 - Reserved 111 - Reserved 001 - CE1 width 8-bit, internal ROM boot 010 - Internal ROM boot 011 - Internal ROM boot</p> <p><b>Device Endian mode (LEND)</b> The GP0 [8] pin selects the device endian mode and must be set to little-endian. For proper device operation, GP0 [8] must be either left unconnected or externally pulled up with a 4.4-kΩ or lower resistor until reset is released.</p> <p>GP0 [7:4] function as general-purpose input/output 0 pins and also as external interrupts (default). • Edge-driven • Polarity independently selected via the External Interrupt Polarity Register bits (EXTPOL. [3:0])</p> <p>GP0 [4] and GP0 [5] pins also function as AMUTEIN1 McASP1 mute input and AMUTEIN0 McASP0 mute input, respectively.</p> <p>The CLKOUT2/GP0 [2] pin functions as clock output at half of the device speed (default) or this pin can be programmed as GP0 [2] pin.</p> <p>The GP0 [0] pin can function as a general-purpose I/O and is external interrupt capable through interrupt sharing.</p> <p>For proper device operation, GP0 [14] must be externally pulled down with a 2-kΩ resistor until reset is released.</p>
2	GP0 [6](EXT_INT6)		
4	GP0 [5](EXT_INT5) /AMUTEIN0		
5	GP0 [7](EXT_INT7)		
56	CLKOUT2/GP0 [2]		
108	GP0 [0]		
111	GP0 [8]		
113	GP0 [3]		
116	GP0 [9]		
117	GP0 [10]		
118	GP0 [11]		
119	GP0 [12]		
121	GP0 [13]		
122	GP0 [14]		
123	GP0 [15]		
<b>GENERAL-PURPOSE INPUT/OUTPUT 1 (GP1)</b>			
75	ED6/GP1 [6]	I/O	<p>The ED7 - ED0 pins are muxed with general-purpose input/output 1 (GP1) pins. The EMIFDIS bit in the DEVCFG register controls the function of these muxed pins, EMIF is default.</p> <p>As general-purpose input/output 1 (GP1 [x]) functions (EMIFDIS = 1), these pins are software-configurable through registers. The "GPxEN" bits in the GPIO Enable register and the GPxDIR bits in the GPIO Direction register must be properly configured: GP1xEN = 1;GP1 [x] pin is enabled. GP1xDIR = 0;GP1 [x] pin is an input. GP1xDIR = 1;GP1 [x] pin is an output.</p>
76	ED7/GP1 [7]		
79	ED4/GP1 [4]		
80	ED5/GP1 [5]		
81	ED3/GP1 [3]		
82	ED2/GP1 [2]		
83	ED1/GP1 [1]		
84	ED0/GP1 [0]		
<b>RESERVED FOR TEST</b>			
85	RSV	I	Reserved. (Leave unconnected, do not connect to power or ground.)
139	RSV	O	Reserved. (Leave unconnected, do not connect to power or ground.)
143	RSV	I	Reserved. (This pin must be connected to ground.)

F

No.	Pin Name	I/O	Pin Function
<b>SUPPLY VOLTAGE PINS</b>			
6, 17, 29, 32, 47, 59, 74, 90, 103, 124, 132	DV <sub>DD</sub>	–	3.3-V supply voltage
3, 8, 10, 24, 27, 28, 31, 35, 37, 45, 55, 67, 77, 86, 93, 101, 104, 114, 120, 127, 128, 137, 141	CV <sub>DD</sub>	–	1.2-V supply voltage
<b>GROUND PINS</b>			
7, 11, 19, 23, 26, 30, 33, 34, 36, 38, 48, 53, 60, 72, 78, 87, 96, 106, 109, 115, 126, 136, 140	V <sub>SS</sub>	–	Ground pins

# 8. PANEL FACILITIES

## 8.1 CONNECTION PANEL SECTION



### 1. POWER switch

### 2. STEREO/MONO selector switch

When switch is set to the [MONO] position, master output is in monaural.

### 3. MIC2/AUX(R) input connector

Ø6.3 mm phone-type input connector. Use for microphone input, or for right (R) channel of component with line level output.

### 4. MIC/AUX input selector switch

When this switch is set to [AUX], the MIC1 and MIC2 input connectors function as AUX (L) and AUX (R) input connectors.

### 5. MIC1/AUX(L) input connector

Ø6.3 mm phone-type input connector. Use for microphone input, or for left (L) channel of component with line level output.

### 6. Signal grounding terminal (SIGNAL GND)

Use to connect ground wires from analog players. This is not a safety grounding terminal.

### 7. Channel 1 CONTROL connector

Ø3.5 mm mini-phone type connector. Connect to control connector of the DJ CD player connected to channel 1 inputs. When this connection is made, the DJ mixer's fader lever can be used to perform fader start play and back cue on the channel 1 DJ CD player.

### 8. Channel 1 CD input connectors (CD)

RCA type line level input connectors. Use to connect a DJ CD player or other component with line level output.

### 9. Channel 1 PHONO/LINE input connectors

RCA type phono level (for MM cartridge) or line level input connectors. Select function using channel 1 PHONO/LINE selector switch.

### 10. Channel 1 PHONO/LINE selector switch

Use to select function of channel 1 PHONO/LINE input connectors.

### 11. Channel 2 CONTROL connector

Ø3.5 mm mini-phone type connector. Connect to control connector of the DJ CD player connected to channel 2 inputs. When this connection is made, the DJ mixer's fader lever can be used to perform fader start play and back cue on the channel 2 DJ CD player.

### 12. Channel 2 CD input connectors (CD)

RCA type line level input connectors. Use to connect a DJ CD player or other component with line level output.

### 13. Channel 2 PHONO/LINE input connectors

RCA type phono level (for MM cartridge) or line level input connectors. Select function using channel 2 PHONO/LINE selector switch.

### 14. Channel 2 PHONO/LINE selector switch

Use to select function of channel 2 PHONO/LINE input connectors.

### 15. MASTER OUT 2 output connectors

RCA type unbalanced output.

### 16. MASTER OUT 1 output connectors

RCA type unbalanced output.

### 17. Power inlet (AC IN)

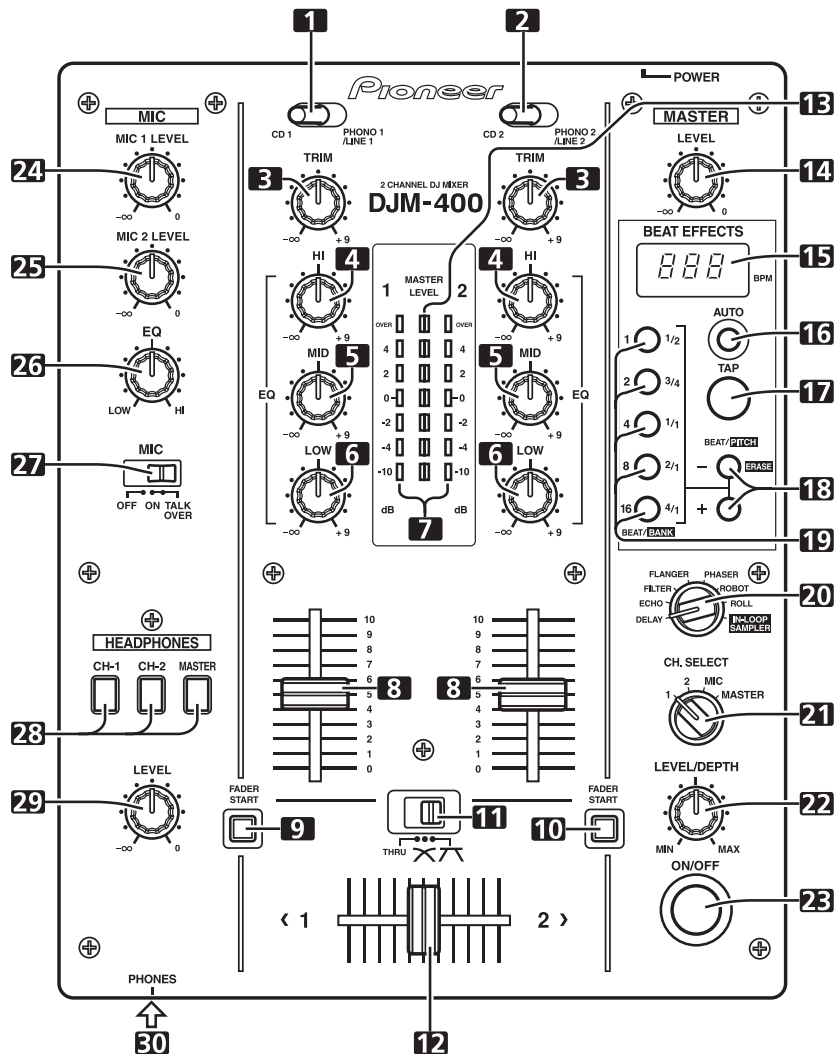
Use the accessory power cord to connect to an AC power outlet of the proper voltage.

### 18. Headphones jack (PHONES)

Use to connect stereo headphones equipped with Ø6.3 mm stereo headphones plug.



## 8.2 CONTROL PANEL SECTION



### 1 Channel 1 input selector switch

#### CD 1:

The CD input connectors (line level input) are selected.

#### PHONO 1/LINE 1:

PHONO/LINE input connectors are selected.

- The connection panel's **PHONO/LINE** switch is used to switch the function of the channel 1 connectors between phonograph input (analog turntable input) and line input (line level input).

### 2 Channel 2 input selector switch

#### CD 2:

The CD input connectors (line level input) are selected.

#### PHONO 2/LINE 2:

PHONO/LINE input connectors are selected.

- The connection panel's **PHONO/LINE** switch is used to switch the function of the channel 2 connectors between phonograph input (analog turntable input) and line input (line level input).

### 3 TRIM adjust dial

Use to adjust the input level for each channel.

(Adjustable range:  $-\infty$  to +9 dB, mid-position is about 0 dB)

### 4 Channel equalizer high-range adjust dial (HI)

Use to adjust the treble (high-range) frequency sound for each channel (includes kill function). (Adjustable range:  $-\infty$  to +9 dB)

### 5 Channel equalizer mid-range adjust dial (MID)

Use to adjust the mid-range frequency sound for each channel (includes kill function). (Adjustable range:  $-\infty$  to +9 dB)

### 6 Channel equalizer low-range adjust dial (LOW)

Use to adjust the bass (low-range) frequency sound for each channel (includes kill function). (Adjustable range:  $-\infty$  to +9 dB)

### 7 Channel level indicators

Display the current level for each channel, with 0.6 second peak hold.

### 8 Channel fader levers

Use to adjust sound volumes for each channel.

(Adjustable range:  $-\infty$  to 0 dB)

### 9 Channel 1 fader start button/indicator (FADER START)

Pressing this button toggles ON/OFF, the fader start/back cue function for the DJ CD player connected to channel 1. The button lights when set to ON. When set to ON, the operation differs depending on the setting of the cross fader selector switch.

- When the cross fader selector switch is at the left (**THRU**) position, the function is linked to the operation of the channel fader lever (not linked to cross fader).
- When the cross fader selector switch is at the middle (**∞**) or right (**∞**) position, the function is linked to the cross fader lever (not linked to channel fader).

### 10 Channel 2 fader start button/indicator (FADER START)

Pressing this button toggles ON/OFF, the fader start/back cue function for the DJ CD player connected to channel 2. The button lights when set to ON. When set to ON, the operation differs depending on the setting of the cross fader selector switch.

A

- When the cross fader selector switch is at the left (**THRU**) position, the function is linked to the operation of the channel fader lever (not linked to cross fader).
- When the cross fader selector switch is at the middle (**↔**) or right (**↗**) position, the function is linked to the cross fader lever (not linked to channel fader).

#### 11 Cross fader selector switch

Select whether or not to use the cross fader, and to select from two types of curve response.

- When the switch is set to left (**THRU**) position, the cross fader is disabled, and the channel fader output is mixed without passing through the cross fader.
- When this switch is set to the center (**↔**) position, the cross fader is enabled, and a slowly rising curve response is selected.
- When set to the right position (**↗**), the cross fader is enabled, and a rapidly rising curve response is selected (as soon as the lever leaves the [**< 1**] side, the [**2 >**] sound is heard).

#### 12 Cross fader lever

Outputs channel 1 and channel 2 sounds in accordance with cross fader curve response selected with the cross fader selector switch. The cross fader function is disabled when the cross fader selector switch is set to the [**THRU**] position.

#### 13 Master level indicators (MASTER LEVEL)

These indicators show the master output level in a monaural display. Each indicator has a 0.6 second peak hold.

#### 14 Master output level dial (MASTER LEVEL)

Use to adjust the master output level.  
(adjustable range:  $-\infty$  to 0 dB)

#### Beat effect section

##### 15 BPM display

Displays the current track tempo as Beats Per Minute (BPM).  
• The display flashes during BPM calculation and when BPM cannot be calculated.

##### 16 BPM measuring mode button/indicator (AUTO)

Each time the button is pressed, the BPM measuring mode alternates as follows:

###### AUTO mode:

The **AUTO** button lights and the BPM is calculated automatically. This is the default mode whenever power is first turned on.

###### TAP mode (manual input):

The **AUTO** button does not light, and BPM is input manually by using the **TAP** button.

##### 17 TAP button

The BPM is calculated from the intervals at which the **TAP** button is struck. If the **TAP** button is tapped in the **AUTO** mode, the mode automatically switches to the **TAP** mode (manual input).

##### 18 Beat select buttons (BEAT/PITCH -, +)

+ (Beat up): Doubles the calculated BPM.  
- (Beat down): Halves the calculated BPM.

- If one of the **BEAT/PITCH** buttons (-, +) is pressed while holding the **TAP** button depressed, the BPM can be changed (40 to 999, in 1-step increments).

During in-loop sampler play, the loop play speed is changed.

- + (Beat up): Play speed becomes faster while button is pressed.
- (Beat down): Play speed becomes slower while button is pressed.

##### 19 Beat select/bank buttons/indicators (BEAT 1 (1/2), 2 (3/4), 4 (1/1), 8 (2/1), 16 (4/1) / BANK)

Use to select the beat for synchronizing effects.  
The selected button lights.

During in-loop sampler play, the buttons function as bank buttons to record samples of the music.

- If the **BEAT/BANK** button is pressed while holding the **ERASE (BEAT/PITCH -)** button depressed, the music sample recorded in the **BEAT/BANK** button will be erased.

#### 20 Effect selector (DELAY/ECHO/FILTER/FLANGER/PHASER/ROBOT/ROLL/IN-LOOP SAMPLER)

Use to select desired type of effect.

#### 21 Effect channel selector (CH. SELECT 1/2/MIC/MASTER)

Use to select the channel to which beat effects are applied. When [**MIC**] is selected, effects are applied to both microphone 1 and microphone 2.

#### 22 Effect parameter dial (LEVEL/DEPTH)

Adjusts the quantitative parameters for selected beat effect.

#### 23 Effect button/indicator (ON/OFF)

Sets selected beat effects ON/OFF.

When effects are disabled (OFF), the button lights. When effects are enabled (ON), the button flashes. Whenever power is first turned ON, effects default to OFF.

#### Microphone input control

##### 24 Microphone 1 level control dial (MIC 1 LEVEL)

Use to adjust the volume of microphone 1.

(Adjustable range  $-\infty$  to 0 dB)

When the connection panel's **MIC/AUX** switch is set to [**AUX**], this dial adjusts the sound volume for the left channel (**AUX(L)**).

##### 25 Microphone 2 level control dial (MIC 2 LEVEL)

Use to adjust the volume of microphone 2.

(Adjustable range  $-\infty$  to 0 dB)

When the connection panel's **MIC/AUX** switch is set to [**AUX**], this dial adjusts the sound volume for the right channel (**AUX(R)**).

##### 26 Microphone equalizer control dial (EQ)

Use to adjust the tone of microphones 1 and 2. When rotated fully clockwise, attenuation of low-range sound is maximized. When rotated fully counterclockwise, attenuation of high-range sound is maximized. (Adjustable range 0 dB to  $-12$  dB)

##### 27 Microphone function selector switch (MIC)

###### OFF:

No microphone sound is output.

###### ON:

Microphone sound is output normally.

###### TALK OVER:

Microphone sound is output; when sound is input to a connected microphone, the **TALK OVER** function operates and all sound other than that from the microphone is attenuated by 20 dB.

#### Headphones output section

##### 28 Headphone cue button/indicator (CH-1, CH-2, MASTER)

Press the button for the source you wish to monitor with headphones. When a button is OFF, its indicator lights dimly; when ON, the button indicator lights brightly.

When the [**ECHO**] effect is selected, the effect is not applied to headphone outputs if headphone cue buttons **CH-1** or **CH-2** are set to ON.

##### 29 Headphones level adjust dial (LEVEL)

Adjusts the output level of the headphones jack.  
(Adjustable range:  $-\infty$  to 0 dB).

##### 30 Headphones jack (PHONES)

Located on the unit's front panel.

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6

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7

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8

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A

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B

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C

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D

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E

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F

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6

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7

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8

■

A

■ **Jigs list**

Jig No.	Jig Name	Remarks
GGF1490	RS-232C jig	used for rewriting of the software
DYW1755X.mot	Programs for the system control microcomputer	used for rewriting of the software

B

C

D

E

F