

# **VESTAX**

## **SERVICE NOTE**

### **MODEL: PMC-08 PRO**

**preliminary**

1. SPECIFICATIONS P. 2 - P. 8
2. LIST OF SCHEMATICS P. 9
3. CIRCUIT DIAGRAM P. 10 - P. 30

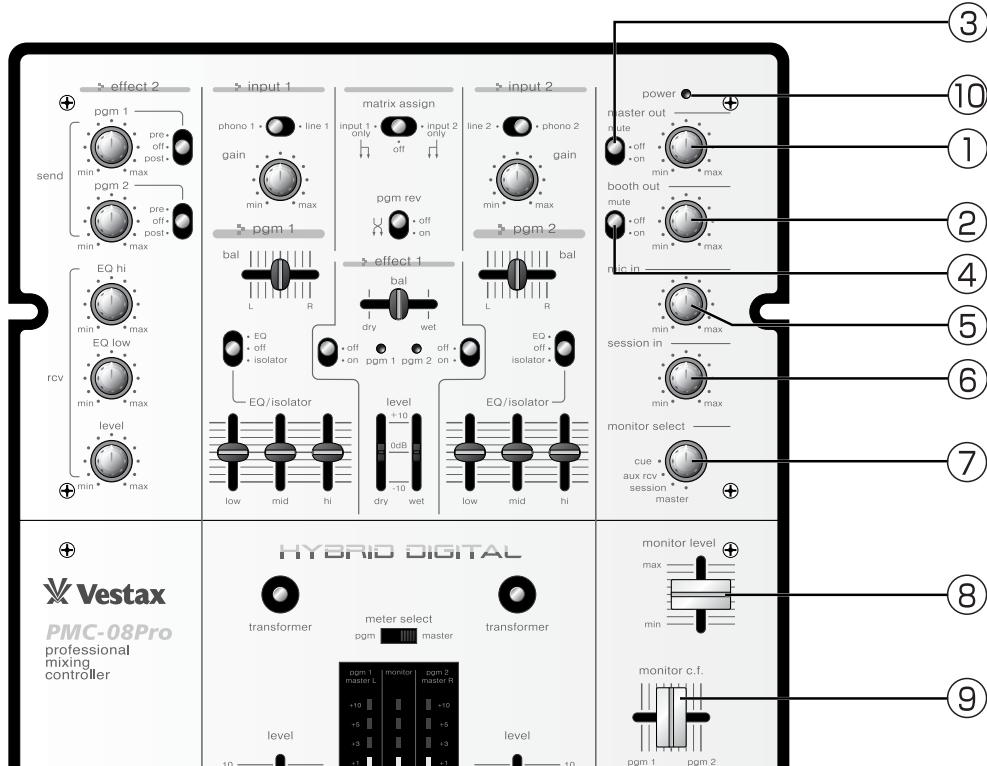
Vestax Corporation Service Department

(2006-05-30)

# FUNCTIONS

## TOP PANEL SECTION

### MASTER SECTION



#### ①MASTER LEVEL VOLUME

This volume adjusts the level of the sound signal outputted from the MASTER OUTPUT ④① and SUB MASTER OUPUT ④② located on the rear panel.

#### ②BOOTH LEVEL VOLUME

This volume adjusts the level of the sound signal outputted from BOOTH OUT ④② located on the rear panel.

#### ③MASTER MUTE SWITCH

This switch mutes the sound outputted from MASTER OUTPUT ④① and SUB MASTER OUTPUT ④②.

#### ④BOOTH MUTE SWITCH

This switch mutes the sound outputted from BOOTH OUTPUT ④②.

#### ⑤MIC LEVEL VOLUME

This volume adjusts the MIC level of MIC INPUT located on the rear panel.

#### ⑥SESSION LEVEL VOLUME

This volume adjusts the level of the sound signal from devices inputted via SESSION INPUT ④⑧ located on the rear panel.

#### ⑦MONITOR SELECT SWITCH

This switch selects the monitor sound from CUE, AUX RCV, SESSION and MASTER.

#### ⑧MONITOR LEVEL VOLUME

This volume adjusts the headphone level connected via the HEADPHONE terminal located on the front panel.

#### ⑨C.F. MONITOR VOLUME

This volume adjusts and selects the sound signals from PGM1 and PGM2 when the MONITOR SELECT switch has selected CUE.

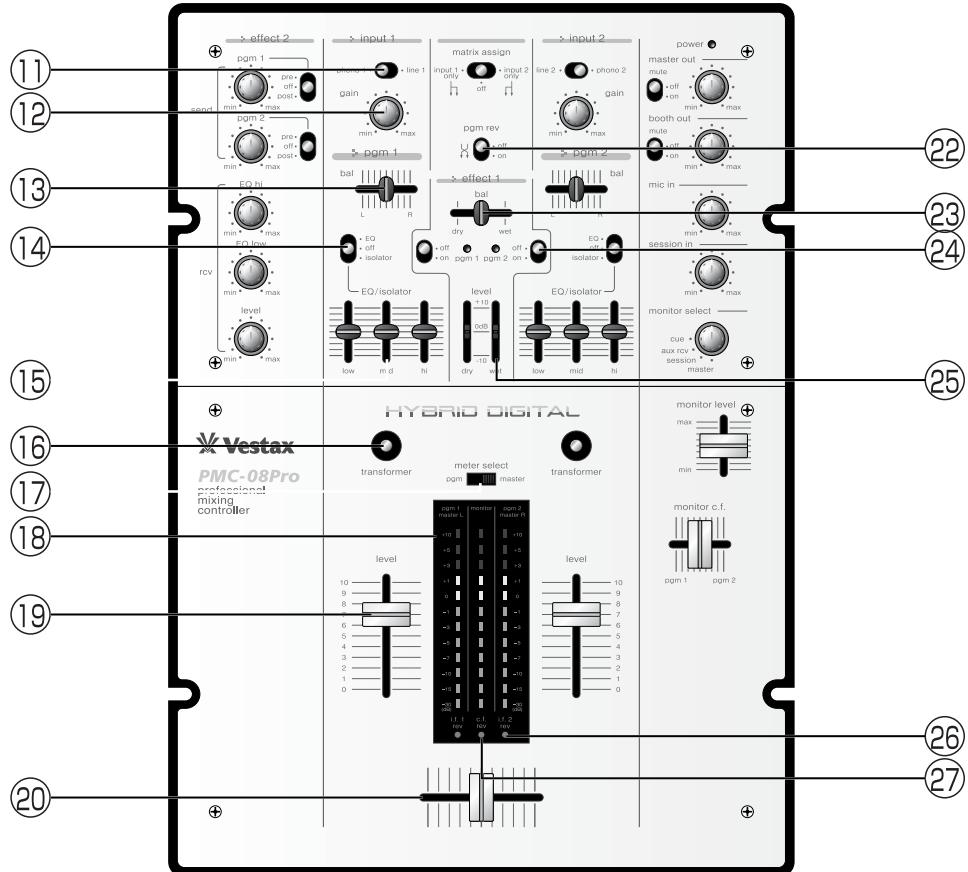
#### NOTE

The C.F. MONITOR does not reverse when the C.F. REVERSE switch is set to REVERSE.

#### ⑩POWER INDICATOR

This indicator lights up when the POWER switch located on the rear panel is turned ON.

## PGM SECTION



### ⑪ INPUT SELECT SWITCH

This switch selects each PGM channels input sound. The input signal can be selected from devices connected to LINE INPUT<sup>43</sup> and PHONO INPUT<sup>44</sup>.

### ⑫ GAIN VOLUME

This volume adjusts each PGM channels input level, and is used to set the signal level sent to the INPUT FADER<sup>49</sup> at the same level.

### ⑬ PGM BALANCE VOLUME

This volume adjusts the L/R balance of each PGM channel.

### ⑭ PGM EQ/ISOLATOR SELECT SWITCH

This switch selects each PGM channels sound adjustment from EQ, OFF and ISOLATOR.

### ⑮ PGM EQ/ISOLATOR VOLUME

The 3 faders adjusts each PGM channels HI, MID and LOW sound frequency.

### ⑯ TRANSFORMER SWITCH

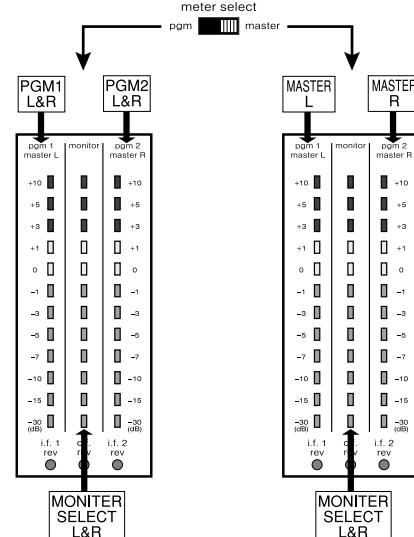
This switch mutes the sound signal inputted to the INPUT FADER on each PGM channel. ※ The angle of the switch can be changed.

#### NOTE

Please read <FADER and SWITCH Replacements> to change the angle of the switch.

### ⑰ LEVEL INDICATOR SWITCH

This switch selects the LEVEL INDICATOR<sup>18</sup> to indicate either the PGM level or MONITOR level.



### ⑱ LEVEL INDICATOR

This indicator indicates the MASTER level in the center bar and PGM levels on the left and right bars.

### ⑲ INPUT FADER VOLUME

This fader adjusts each PGM channels input level.

#### NOTE

If the fader begins to cause noises when it is slides, please replace it with a different input fader unit. Please read <Fader Replacements> for replacement instructions.

## ②⓪CROSS FADER

This fader adjusts the mix level of PGM1 and PGM2. If the C.F. REVERSE switch is set to NORMAL, the sound of PGM1 is outputted when the crossfader is set to the left, and the sound of PGM2 is outputted when it is set to the right.

### NOTE

If the fader begins to cause noises when it is slides, please replace it with a different cross fader unit. Please read <Fader Replacements> for replacement instructions.

## ②①MATRIX ASSIGN SWITCH

This switch assigns the 2 inputs of this mixer to each PGM channel.

NORMAL---INPUT 1 to PGM1, INPUT2 to PGM2  
INPUT1 ONLY---INPUT1 is assigned to both PGM channels.

INPUT2 ONLY---INPUT2 is assigned to both PGM channels.

## ②②PGM REVERSE SWITCH

This switch exchanges the sound signal inputted to each PGM channel. PGM1's input signal is sent to PGM2 and PGM2's input signal is sent to PGM1. The settings for PGM BALANCE VOLUME<sup>⑯</sup>, PGM EQ/ISOLATOR SELECT SWITCH<sup>⑰</sup>, PGM EQ/ISOLATOR VOLUME<sup>⑱</sup>, EFFECT ON/OFF SWITCH<sup>⑲</sup>, TRANSFORMER SWITCH<sup>⑳</sup> and INPUT FADER VOLUME<sup>⑳</sup> will also be exchanged with the input signal.

## ②③EFFECT VOLUME

This volume adjusts the balance of output level to an external effector and the input level from an external effector via the EFFECT SEND/RCV connection located on the rear panel.

DRY---The original sound sent from the EFFECT SEND terminal to an external effector.

WET---The effect sound sent back from an external effector via the EFFECT RCV terminal. The output from EFFECT SEND will be POST CF (after the crossfader), and the input from EFFECT RCV will be PRE MASTER (before master volume).

## ②④PGM EFFECT ON/OFF SWITCH

This switch selects each PGM channels sound signal output to an external effector ON and OFF.

## ②⑤EFFECT ADJUST VOLUME

This volume adjusts the each DRY and WET level of the effectors connected to the 2 EFFECT SEND/RCV connections<sup>⑳, ⑲</sup>.

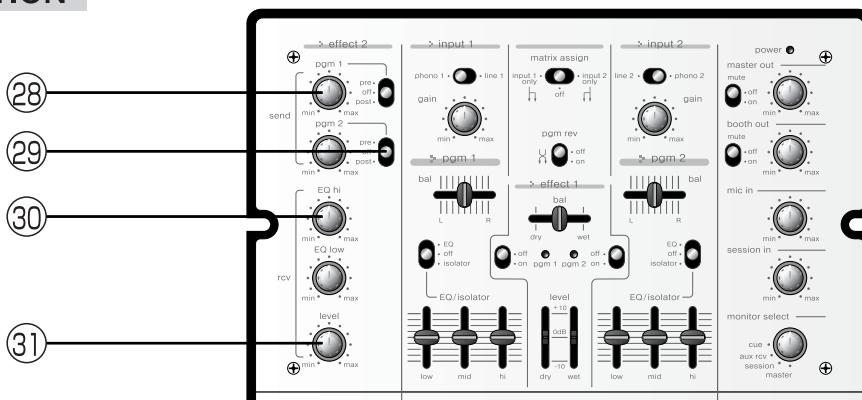
## ②⑥C.F. REVERSE INDICATOR

This LED lights up when the C.F. REVERSE switch<sup>⑳</sup> is set to REVERSE.

## ②⑦I.F. REVERSE INDICATOR

This LED lights up when the I.F. REVERSE switch<sup>⑳</sup> is set to REVERSE.

## AUX SECTION



## ②⑧PGM AUX SEND VOLUME

This volume adjusts the level of the sound signal sent to an external effector connected to AUX SEND located on the rear panel.

## ②⑨PGM AUX SEND SELECT SWITCH

This switch switches the position of the sound signal being sent to an external effector connected to AUX SEND.

PRE---Sets the position to PRE I.F. (Before the input fader)

OFF---Doesn't send the signal

POST---Sets the position to POST C.F. (After the crossfader)

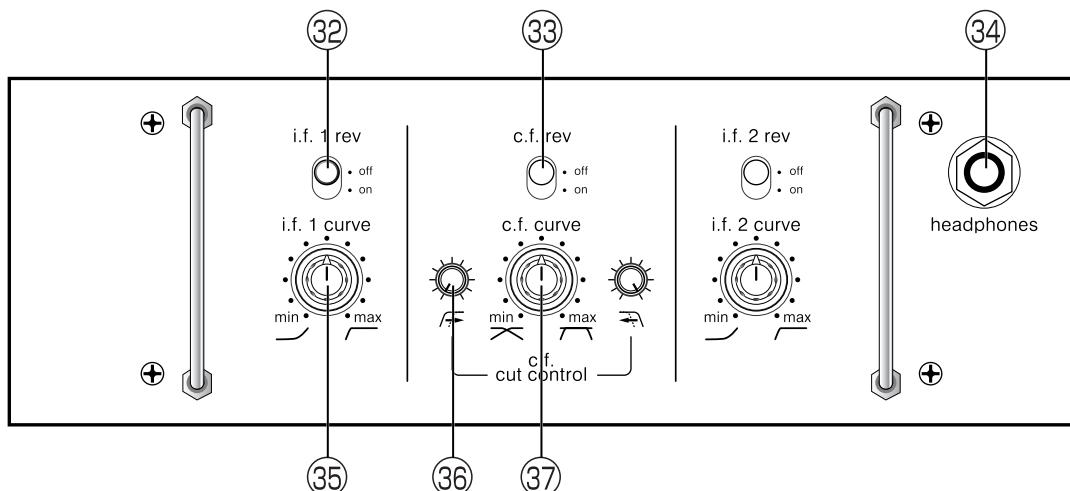
## ②⑩AUX RCV EQ VOLUME T

This volume adjusts the sound quality of the input sound from the external effector connected to AUX RCV. The sound quality is adjustable in HI and LOW frequencies.

## ②⑪AUX RCV LEVEL VOLUME

This volume adjusts the input level of the sound signal from an external effector connected to AUX RCV.

## FRONT PANEL



### ③② I.F. REVERSE SWITCH

This switch reverses the input fader function. The sound level will be minimum when the fader is set to the top and maximum when set to the bottom.

### ③③ C.F. REVERSE SWITCH

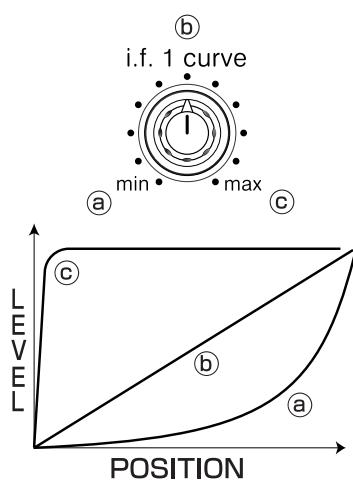
This switch reverses the input fader function. The left side of the cross fader will output PGM2 and the right side will output PGM1.

### ③④ HEADPHONE JACK

The sound signal adjusted with the MONITOR LEVEL volume will be outputted from this terminal. 1/4inch stereo plugs can be plugged.

### ③⑤ I.F. CURVE VOLUME

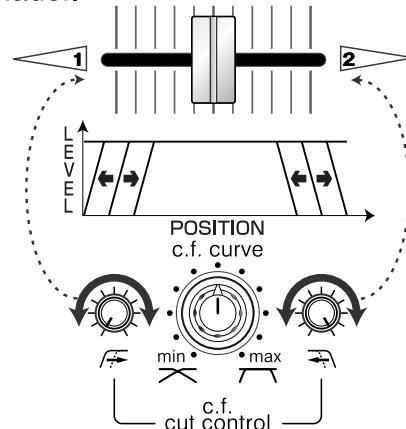
This volume adjusts the curve of the INPUT FADER. The curve is sharper when turned to the right and smoother when turned to the left.



The curve characteristic changes from (a) → (b) → (c) when the volume knob is turned clockwise.

### ③⑥ C.F. CUT LAG ADJUST VOLUME

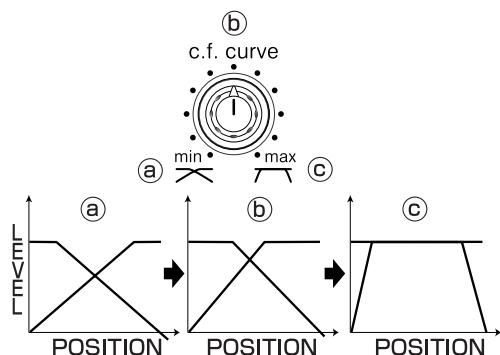
This volume adjusts the cut lag width of the crossfader.



- The left volume knob adjusts the cut lug width on the left side of the crossfader.
- The Right volume knob adjusts the cut lug width on the right side of the crossfader.

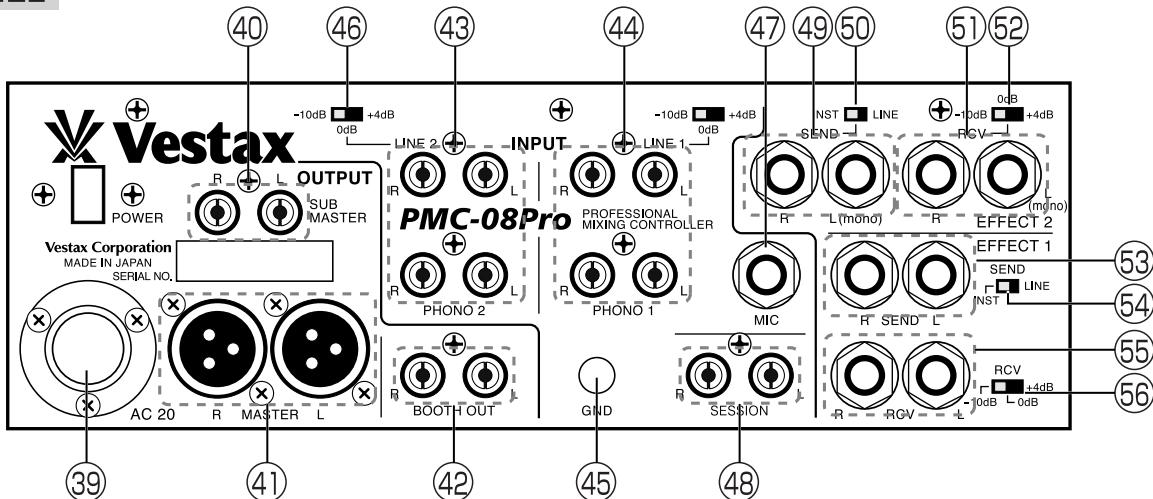
### ③⑦ C.F. CURVE VOLUME

This volume adjusts the curve of the cross fader. The curve is sharper when turned to the right and smoother when turned to the left.



- a... Suitable for long mixes. The volume of the sound signal changes gently while PGM1 is exchanged to PGM2.
- b... The middle of a and b.
- c... suitable for scratches. This is the most sharpest curve for the crossfader.

## REAR PANEL



### ③⁸POWER SWITCH

This switch turns the Power ON/OFF. The POWER indicator lights up when the power is ON.

#### NOTE

Please make sure that the volume of the power amps are lowered or power is turned off when turning the mixer's power ON. It may cause noises and damage to the power amp and speakers.

### ③⁹POWER JACK

Please connect Vestax's AC-20.

#### NOTE

DO NOT USE other power adaptors than Vestax's AC-20. It may cause damage to the mixer and cannot be repaired on the warranty.

### ④⁰SUB MASTER OUTPUT

The final mix signal is outputted from this terminal. Connect it to an amplifier. (RCA Unbalanced output)

### ④¹MASTER OUPUT

The final mix signal is outputted from this terminal. Connect it to an amplifier. (XLR Balanced output)

### ④²BOOTH OUTPUT

The DJ booth's monitor sound is outputted from this terminal. The output signal is the same as MASTER OUTPUT and SUB MASTER OUTPUT, allowing a use as a third output. (RCA Unbalance output)

### ④³LINE INPUT

This is the Input terminal for each LINE device. CD players, MD players, TAPE players, DAT and VTR outputs are connectable. (RCA Unbalanced input)

### ④⁴PHONO INPUT

This is the Input terminal for turntables. Please connect turntables with MM cartridges. (RCA Unbalanced input).

#### NOTE

An additional head amp will be required when using a MC cartridge.

### ④⁵GND TERMINAL

Connect each turntables ground cable.

### ④⁶INPUT LEVEL SELECT SWITCH

This switch selects the mixers input level. The input level can be selected from -0dB, 0dB, and +4dB.

#### NOTE

Please check the input and output level of the devices you are going to connect before selecting the input level.

-10dB devices: MP3 Players, MD Players, Portable CD Players, PC Output, Keyboards  
0dB devices: CD Players, Institutional MD Players  
+4dB devices: Institutional Devices

### ④⁷MIC INPUT

Connection for microphones. 1/4inch plugs connectable. (RCA Unbalanced input)

### ④⁸SESSION INPUT

The master output of other mixers can be matched to the same level when each mixer is inputted to SESSION INPUT. (RCA Unbalanced input)

### ④⁹AUX SEND OUTPUT

Connect it to the input of external effectors. This terminal sends out the selected sound signal from PGM AUX SEND and PGM AUX SEND SELECT. Please connect it to external effectors or samplers. The RL sound signals will be outputted from the left jack when it is connected only to the left channel.

### ⑤⁰OUPUT LEVEL SELECT SWITCH

This switch adjusts the output level of AUX SEND. Line level(0dB) for LINE and instrument level(-15dB) for INST.

### ⑤¹AUX (effect 2) RCV INPUT

Connect the output of an external effector to this terminal. The PMC-08 will output both LR channels even when the effector is only connected to the L channel.

## ⑤②AUX (effect 2) INPUT LEVEL SELECT SWITCH

This switch selects the AUX RCV (51) input level. The input level can be selected from -0dB, 0dB, and 4dB.

### NOTE

Please check the input and output level of the devices you are going to connect before selecting the input level.

-10dB devices: MP3 Players, MD Players, Portable CD Players, PC Output, Keyboards  
0dB devices: CD Players, Institutional MD Players  
+4dB devices: Institutional Devices

## ⑤③EFFECT SEND OUTPUT

Connect it to the input of external effectors. The RL sound signals will be outputted from the left jack when it is connected only to the left channel.

## ⑤④EFFECT (effect1) OUTPUT LEVEL SELECT SWITCH

This switch adjusts the output level of EFFECT SEND(53). Line level(0dB) for LINE and instrument level(-15dB) for INST.

## ⑤⑤EFFECT RCV INPUT

Connect the output of an external effector to this terminal. The PMC-08 will output both LR channels even when the effector is only connected to the L channel.

## ⑤⑥EFFECT(effect 1) INPUT LEVEL SELECT SWITCH

This switch selects the EFFECT RCV (51) input level. The input level can be selected from -0dB, 0dB, and 4dB.

### NOTE

Please check the input and output level of the devices you are going to connect before selecting the input level.

-10dB devices: MP3 Players, MD Players, Portable CD Players, PC Output, Keyboards  
0dB devices: CD Players, Institutional MD Players  
+4dB devices: Institutional Devices

# HOW TO CHANGE THE FADER UNIT

## How to remove the top panel

- ① Remove the knobs on the INPUT FADER, CROSS FADER, MONITOR LEVEL, and MONITOR CROSSFADER, as shown in fig-a. (Total 5 knobs)
- ② Unscrew the 4 screws on the top panel with a plus screw driver as shown in fig-a.

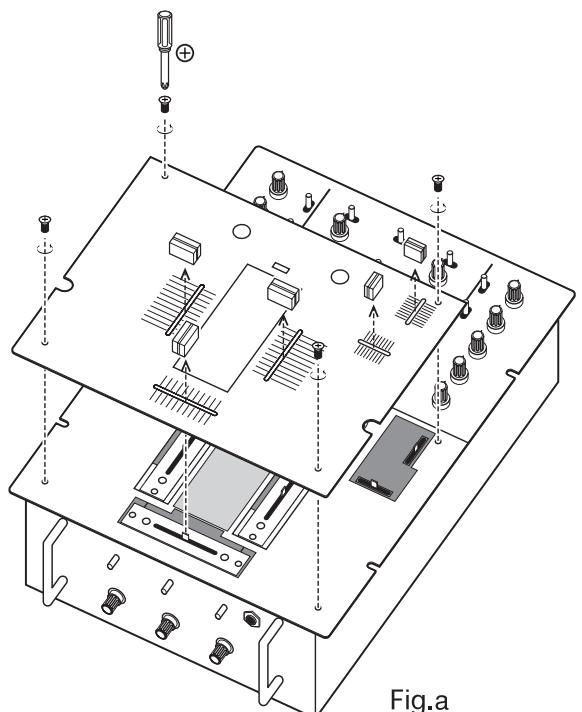
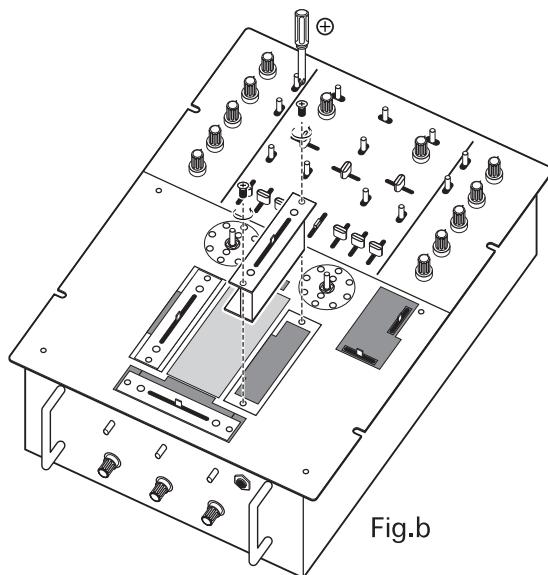
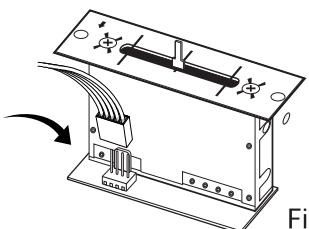


Fig.a

## How to change the crossfader and input fader unit

- ① Remove the top panel, unscrew the 2 screws on the fader panel and raise the fader unit as shown in fig-b.
- ② Disconnect the pin cable connected to the fader unit and the mixer, as shown in fig-c. (Be careful not to bend the connectors pins)
- ③ Connect the pin cable to the new fader unit, and set the unit following instruction " to ! .

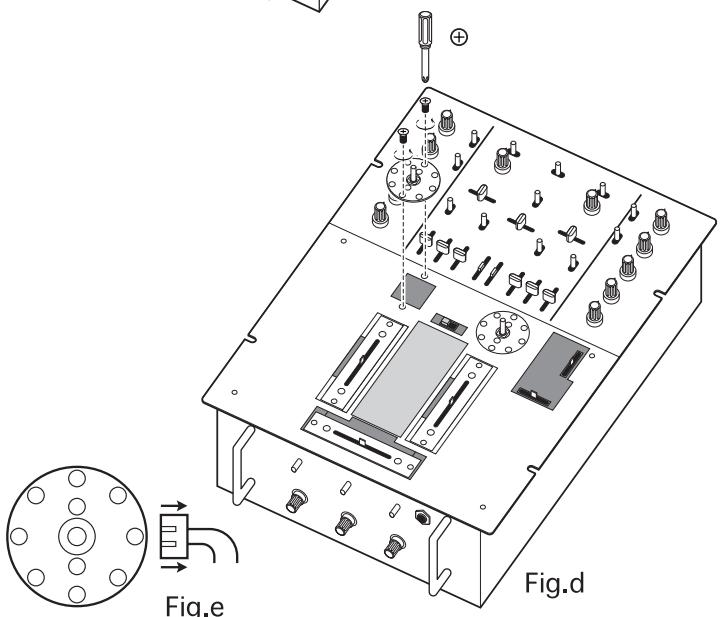


## How to change the switch unit

- ① Remove the top panel as instructed in (How to change the fader unit)
- ② Unscrew the 2 screws on the switch panel and raise the switch unit as shown in fig-d.
- ③ Disconnect the connector connected to the switch unit and the mixer as shown in fig-e.
- ④ Connect the cable to the new switch unit and set the unit following instruction ②," and ! .

## How to change the angle of the switch

- ① Unscrew the 2 screws holding the switch unit and raise the switch unit as shown in fig-e.
- ② Change the switches angle to your preference and screw it with the 2 screws.
- ③ Set the top panel back.



### NOTE

BE CAREFUL of the angle of the fader unit when changing the fader unit.

INPUT FADER: Set the unit having the connector facing left.

CROSS FADER: Set the unit having the connector on the top side.

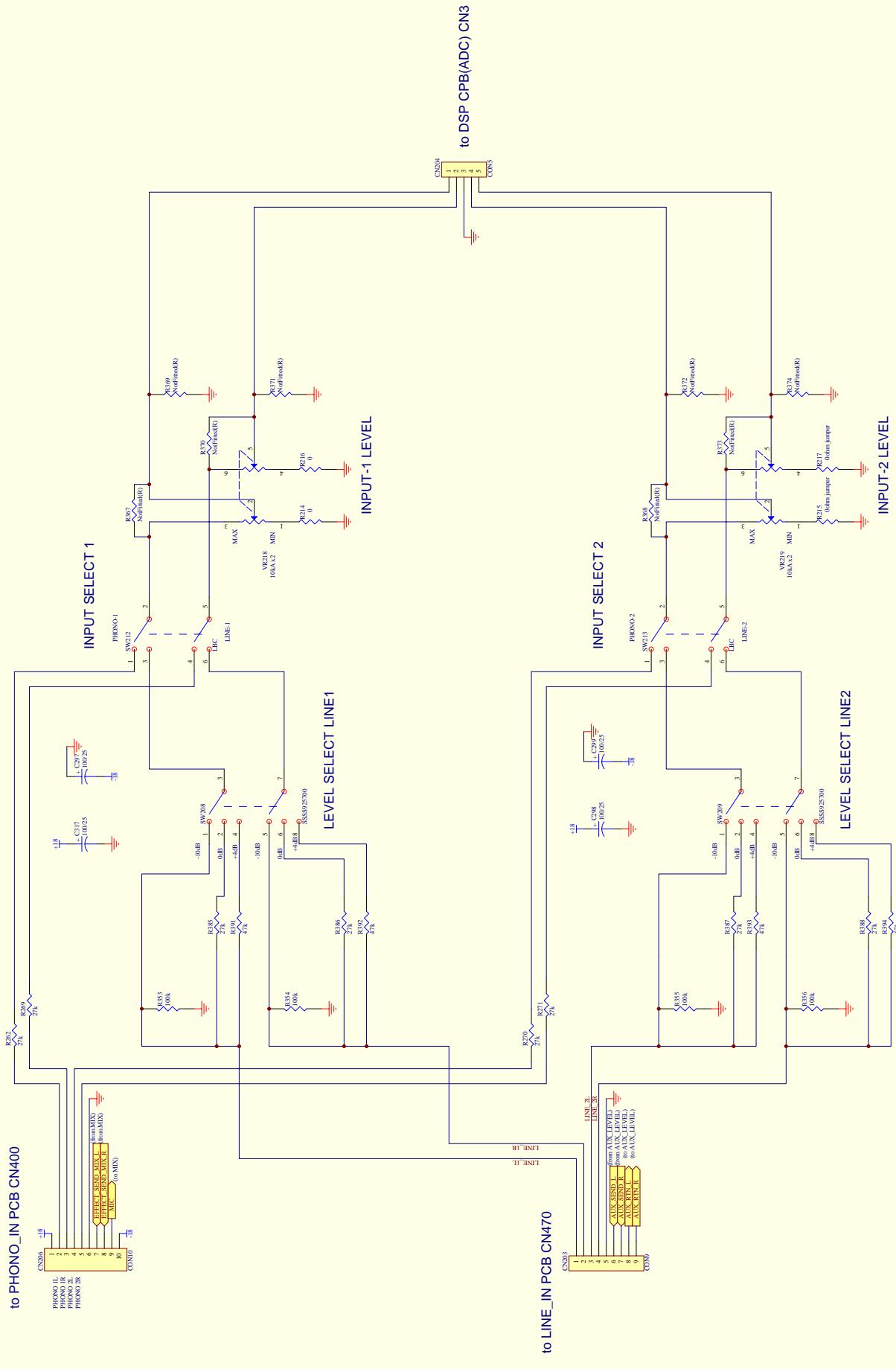
- Please MAKE SURE that the power is OFF when changing the fader unit or switch unit. It may cause noises or the mixer to short.
- Please use the correct size screw driver when unscrewing and screwing screws. Using the wrong size may cause damage to the screws.

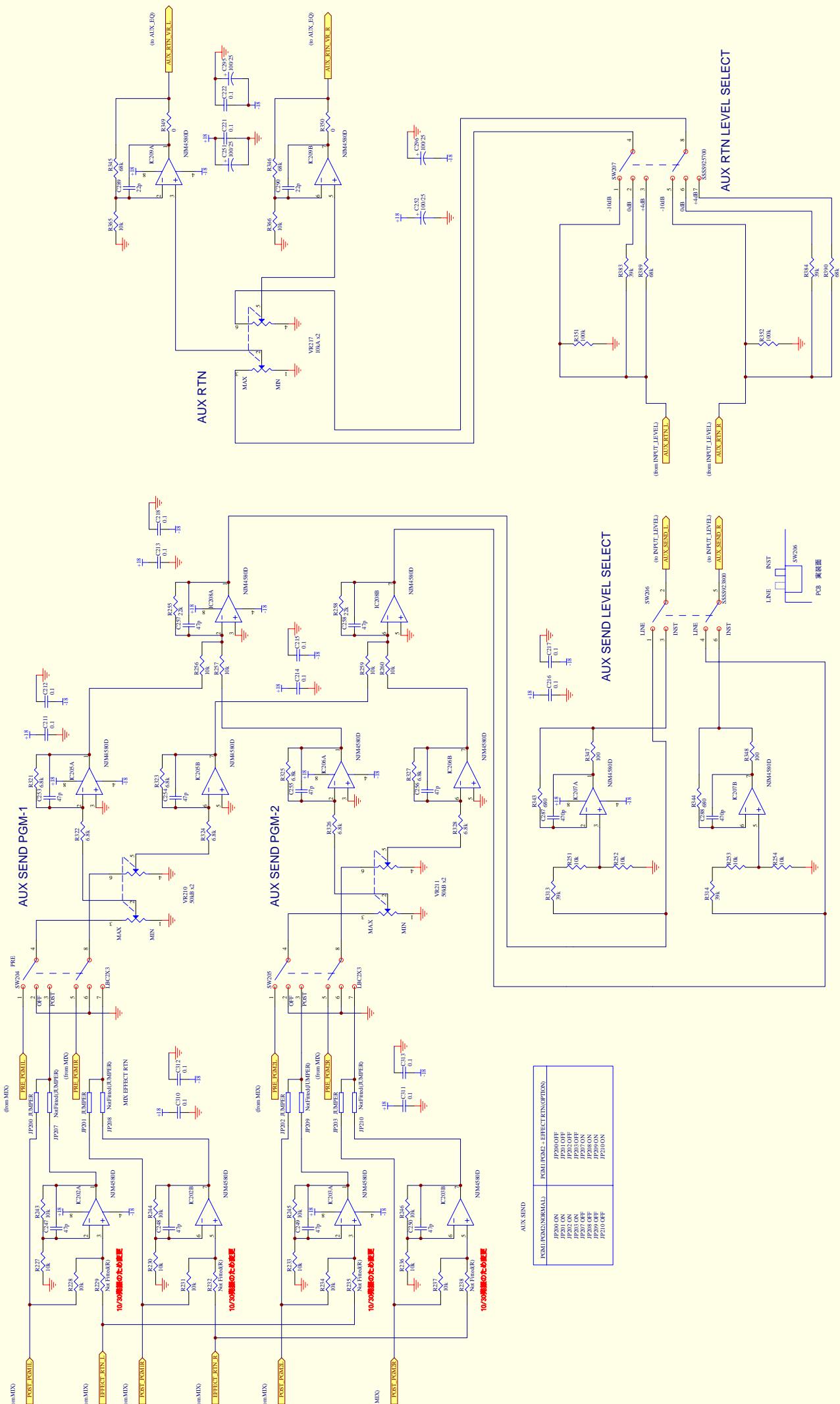
## MAIN SPECIFICATIONS

INPUT	0dB The input level can be switched to -10dB, 0dB and +4dB with the INPUT LEVEL switch.
OUTPUT	0dB The output level can be switched to line(0dB) and inst(-15dB) with the OUTPUT LEVEL switch.
Headphone output	250mW
Frequency Response	±1dB up to 20Hz -20KHz
Measurement (WXHxD)	264 x 80(100: including knob) x 393mm
WEIGHT	4.5kg

## PMC-08 PRO LIST OF SCHEMATICS

<b>NR</b>	<b>DESCRIPTION</b>	<b>SHEET</b>	<b>SHEET NUMBER</b>	<b>PAGE</b>
4	08-cont-input level	CONTROL PCB (INPUT LEVEL)	1 of 6	10
2	08-cont-aux level	CONTROL PCB (AUX LEVEL)	2 of 6	11
5	08-cont-mix	CONTROL PCB (MIX)	3 of 6	12
1	08-cont-aux eq	CONTROL PCB (AUX EQ)	4 of 6	13
6	08-cont-out	CONTROL PCB (OUT)	5 of 6	14
3	08-cont-digital	CONTROL PCB (DIGITAL)	6 of 6	15
8	08-dsp-cpu	DSP PCB (CPU DSP)	1 of 4	16
7	08-dsp-adc	DSP PCB (ADC)	2 of 4	17
10	08-dsp-out	DSP PCB (OUT)	3 of 4	18
9	08-dsp-env	DSP PCB (ENVELOPE)	4 of 4	19
11	08-front	FRONT PCB	1 of 1	20
12	08-led	LED PCB	1 of 1	21
13	08-line-in	LINE IN PCB	1 of 1	22
14	08-monitor-level	MONITOR LEVEL PCB	1 of 1	23
15	08-monitor-select	MONITOR SELECT PCB	1 of 1	24
16	08-phones	PHONES PCB	1 of 1	25
18	08-phono-in-phono-in	PHONO_IN PCB(PHONO)	1 of 2	26
17	08-phono-in effect-send	PHONO_IN PCB(EFFECT_SEND)	2 of 2	27
20	08-power-power	POWER PCB (POWER)	1 of 2	28
19	08-power-effect-rtn	POWER PCB (EFFECT-RTN)	2 of 2	29
21	08-sub-master	SUB_MASTER PCB	1 of 1	30

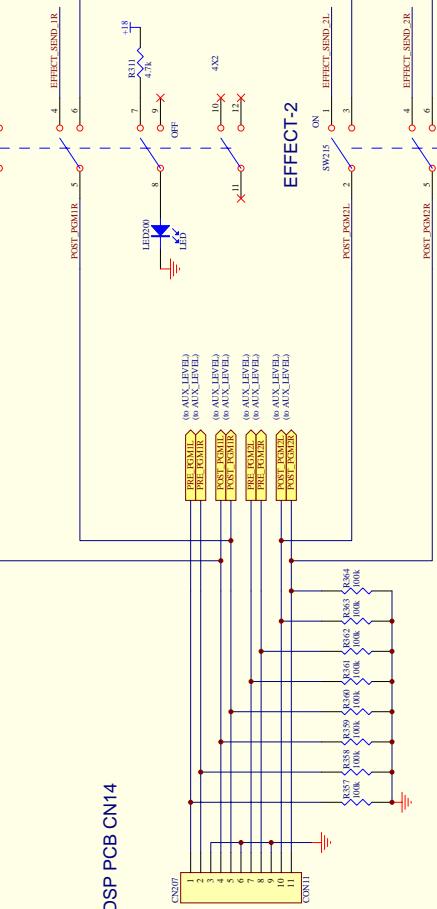




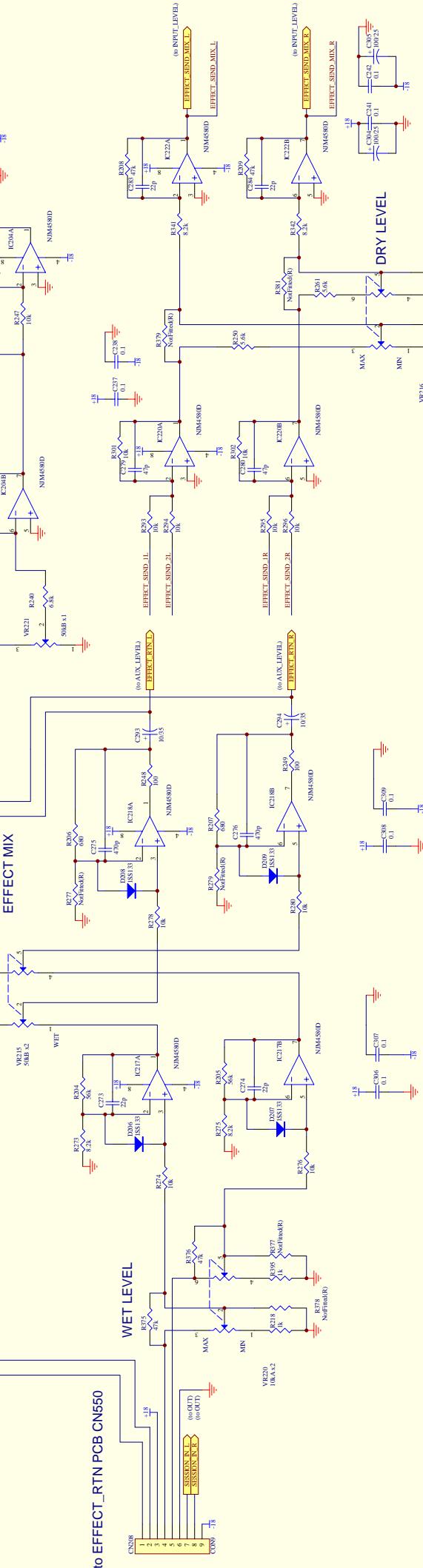
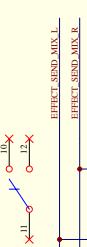
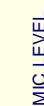
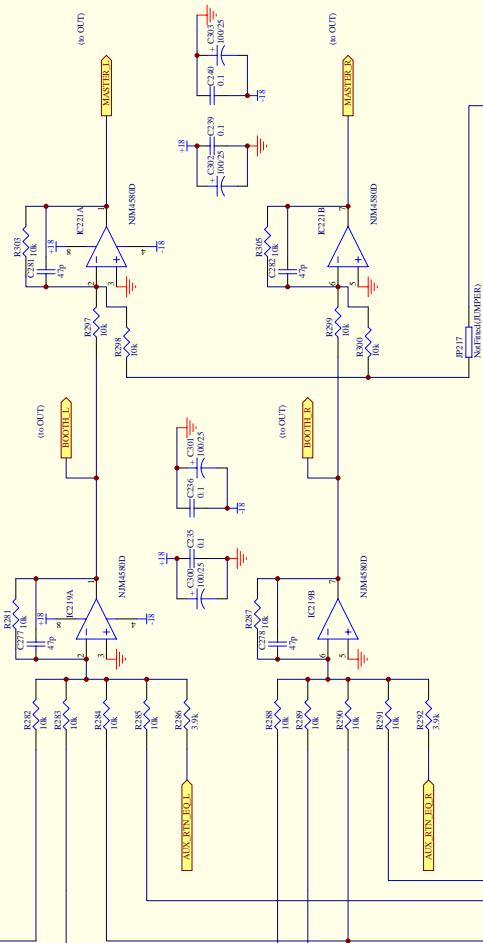


MIC ON(NORMAL)	MIC OFF(OPTION)
JP217 OFF JP206 ON	JP217 ON JP206 OFF

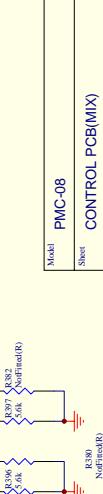
EFFECT-1



to DSP PCB CN14



to EFFECT RTN PCB CN550



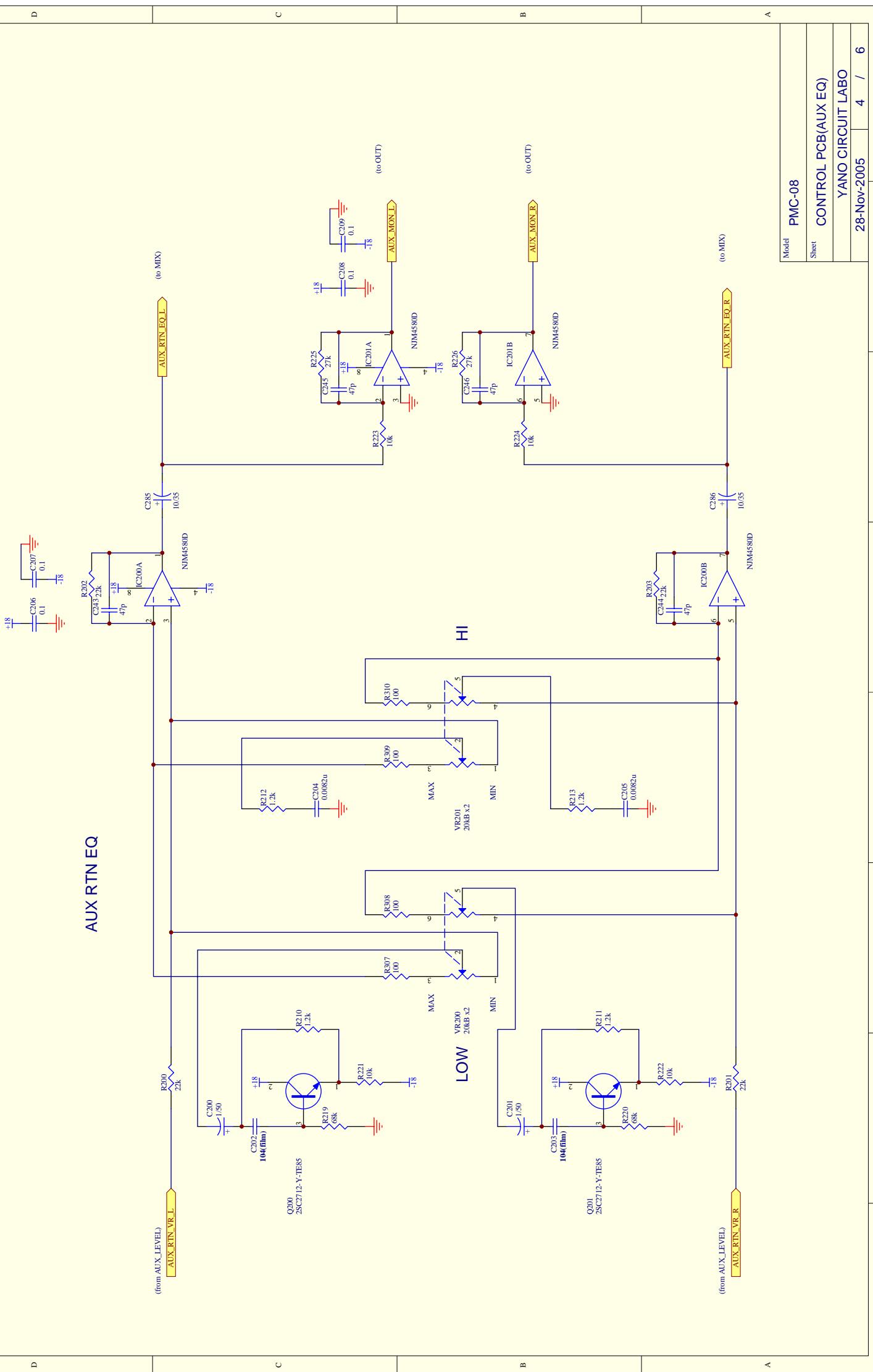
PMC-08

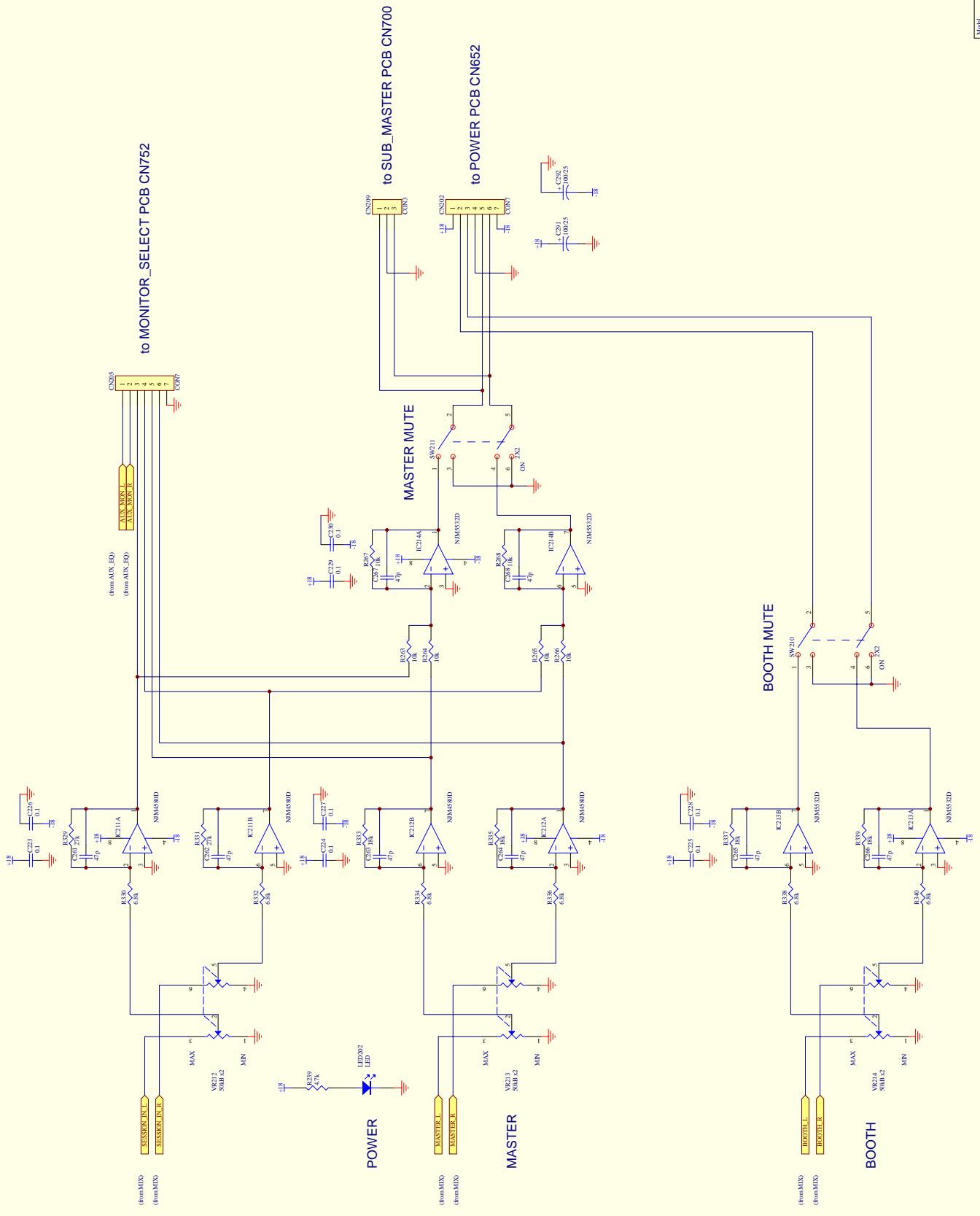
10

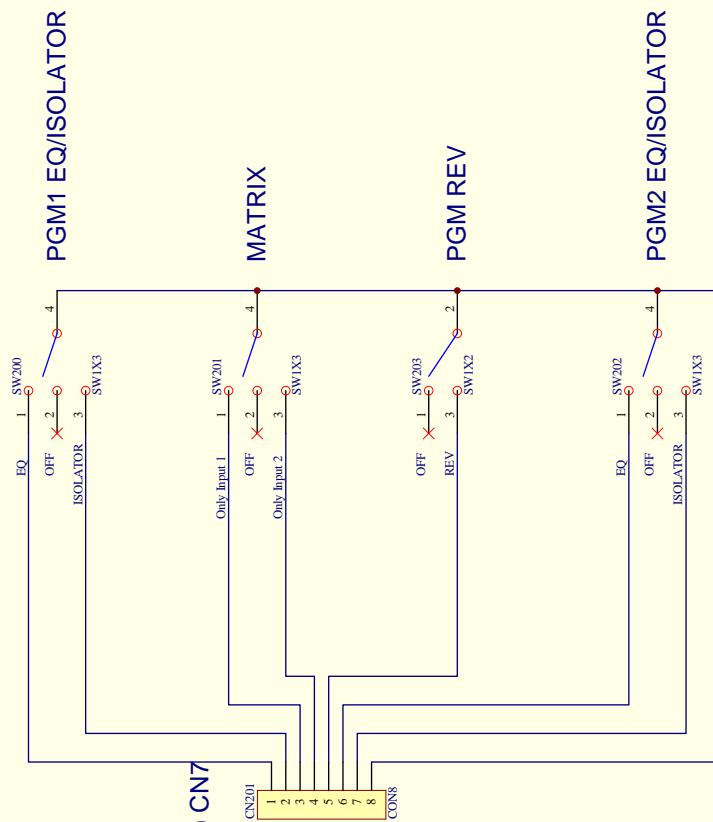
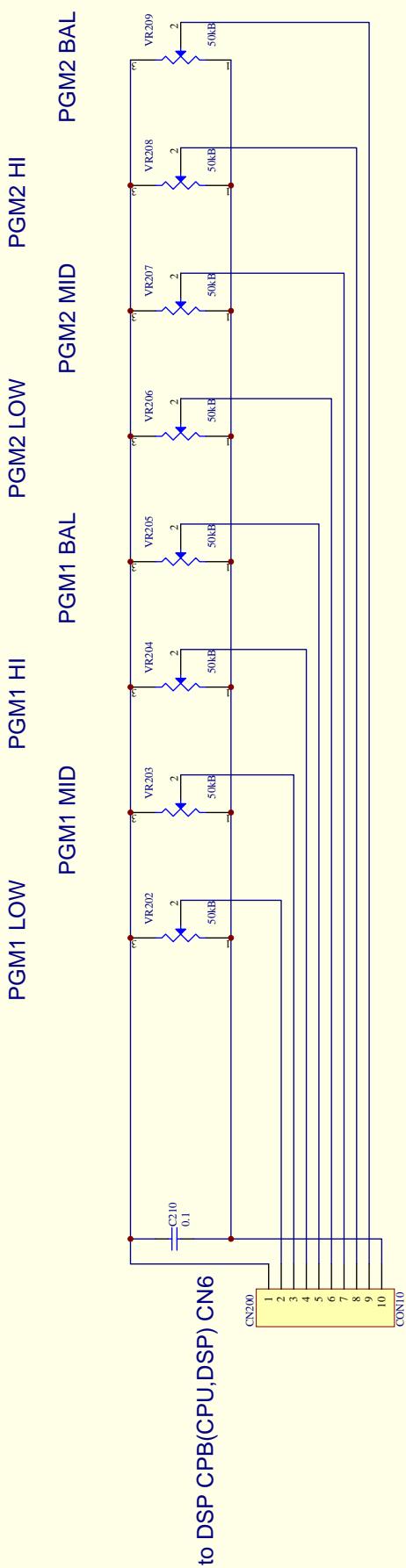
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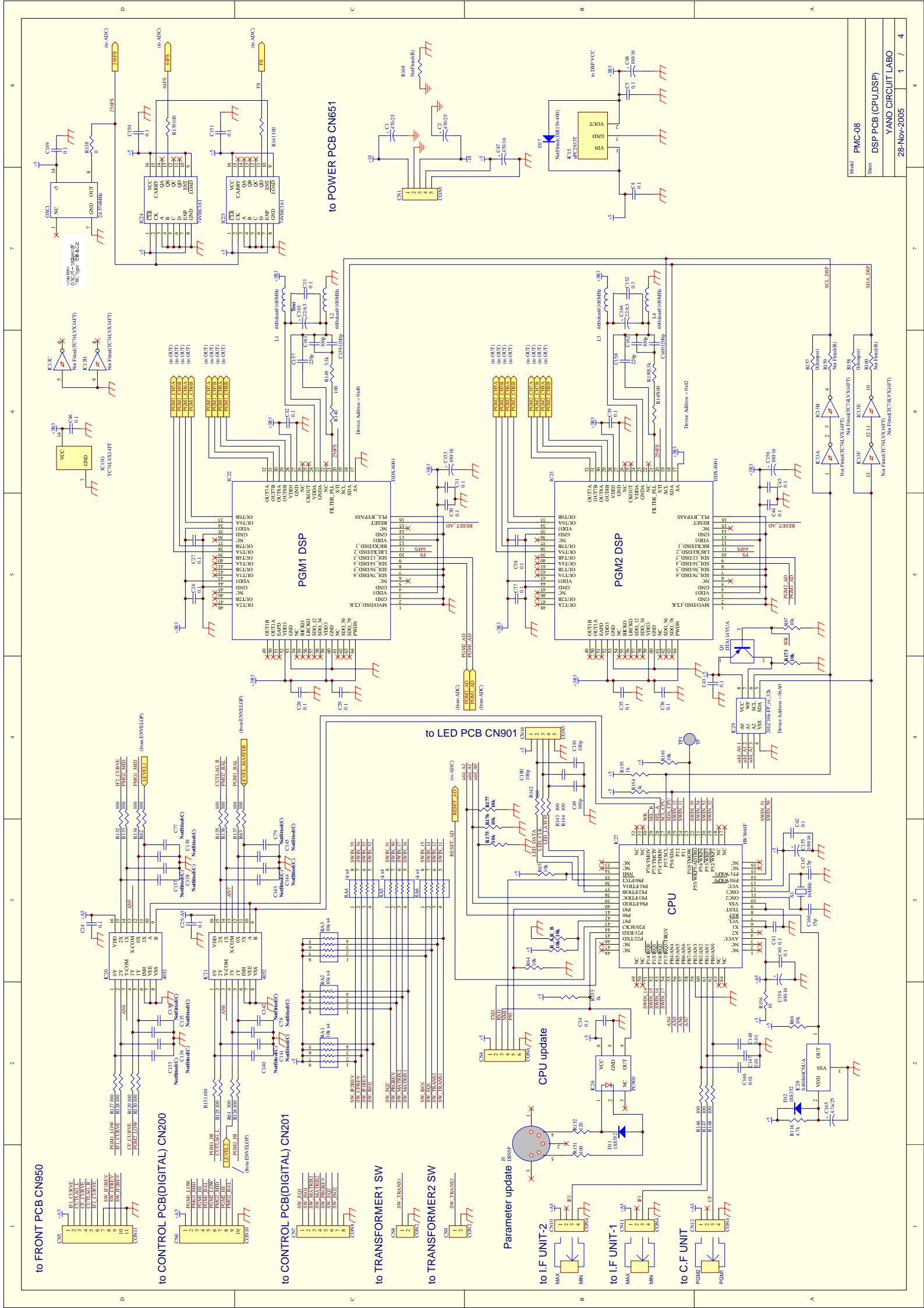
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Model	PMC-08
Sheet	CONTROL PCB(DIGITAL)
	YANO CIRCUIT LABO
	28-Nov-2005 6 / 6



Model

PMC-38

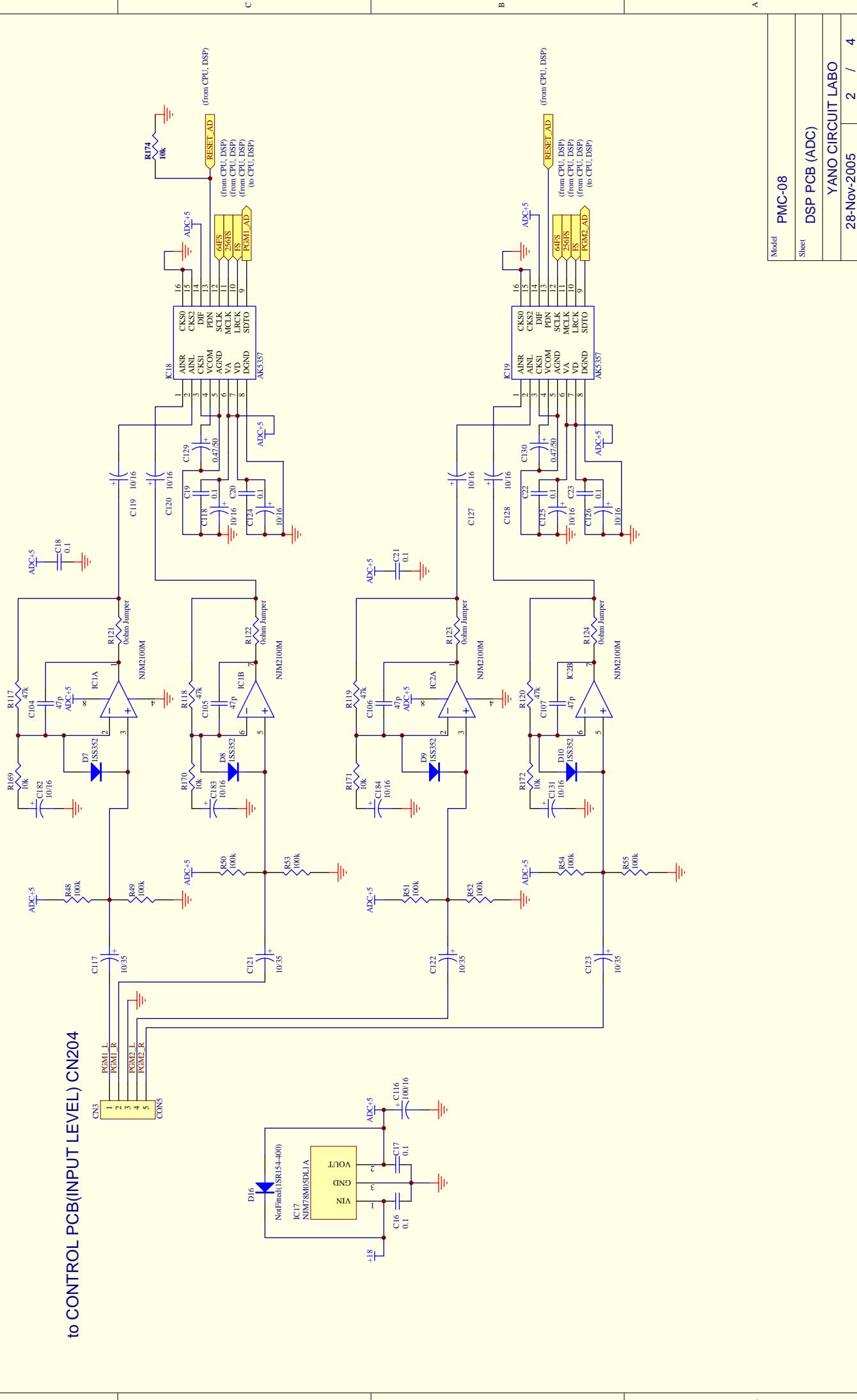
Sheet

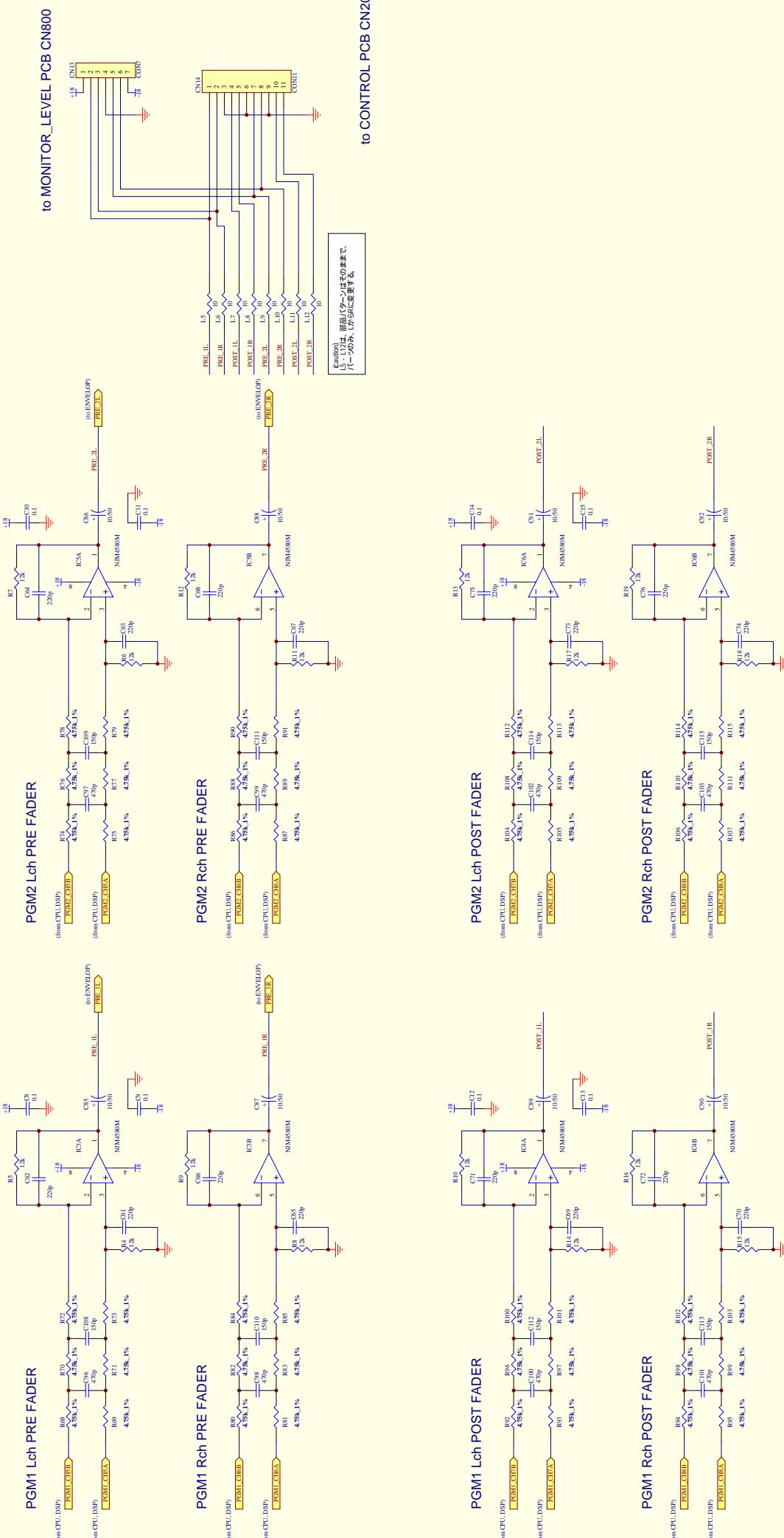
DSP PCB (CPUDSP)

YANO CIRCUIT LABO

28-Nov-2005

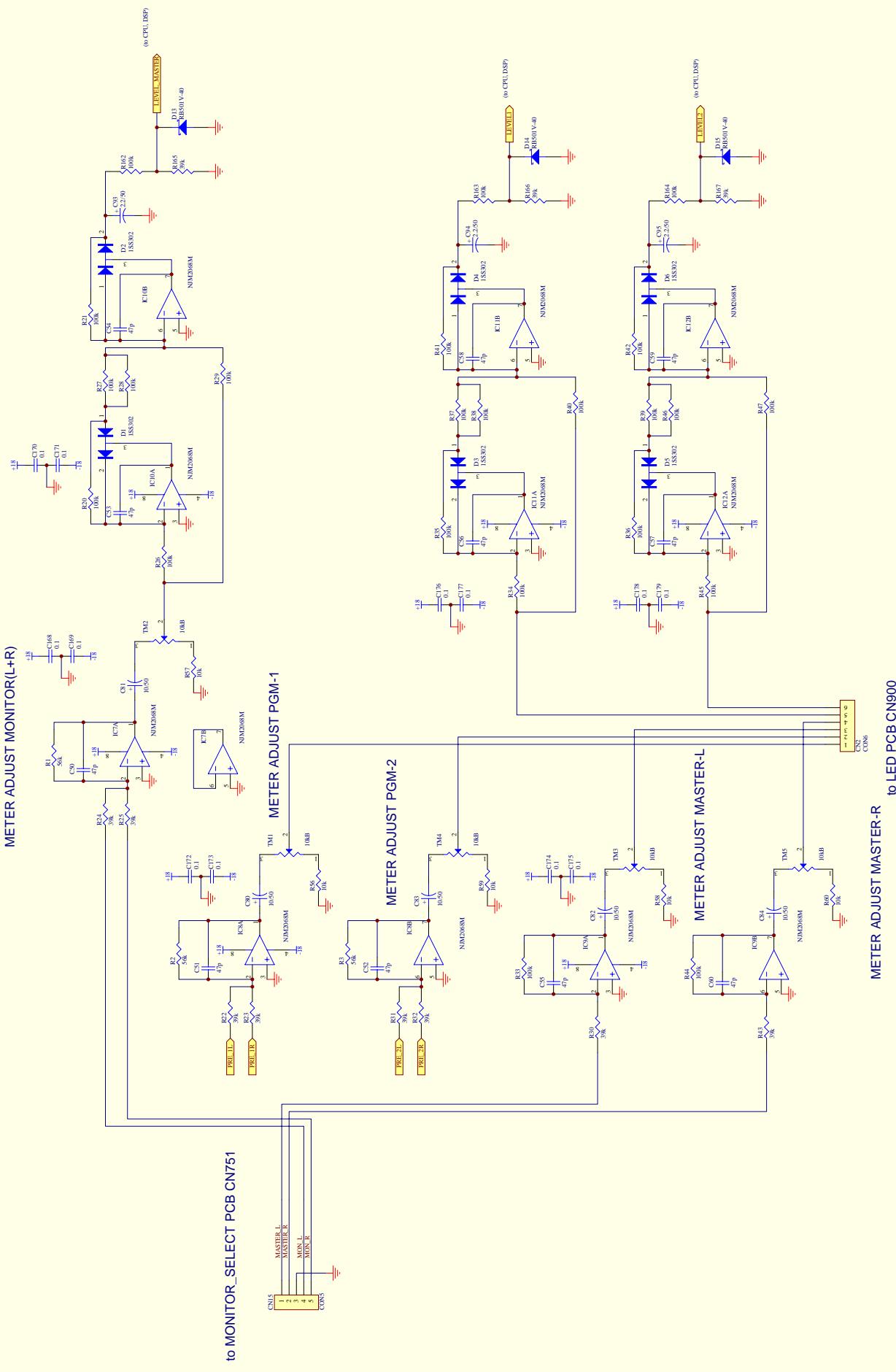
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Model	PMC-08		
Sheet	DSP PCB (OUT)		
	YANO CIRCUIT LABO		
	28-Nov-2005	3	/ 4

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Model	PMC-08
Sheet	DSP PCB (ENVELOP)
YANO CIRCUIT LABO	
28-Nov-2005	4 / 4

Model	PMC-08
Sheet	DSP PCB (ENVELOP)
YANO CIRCUIT LABO	
28-Nov-2005	4 / 4

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C

D

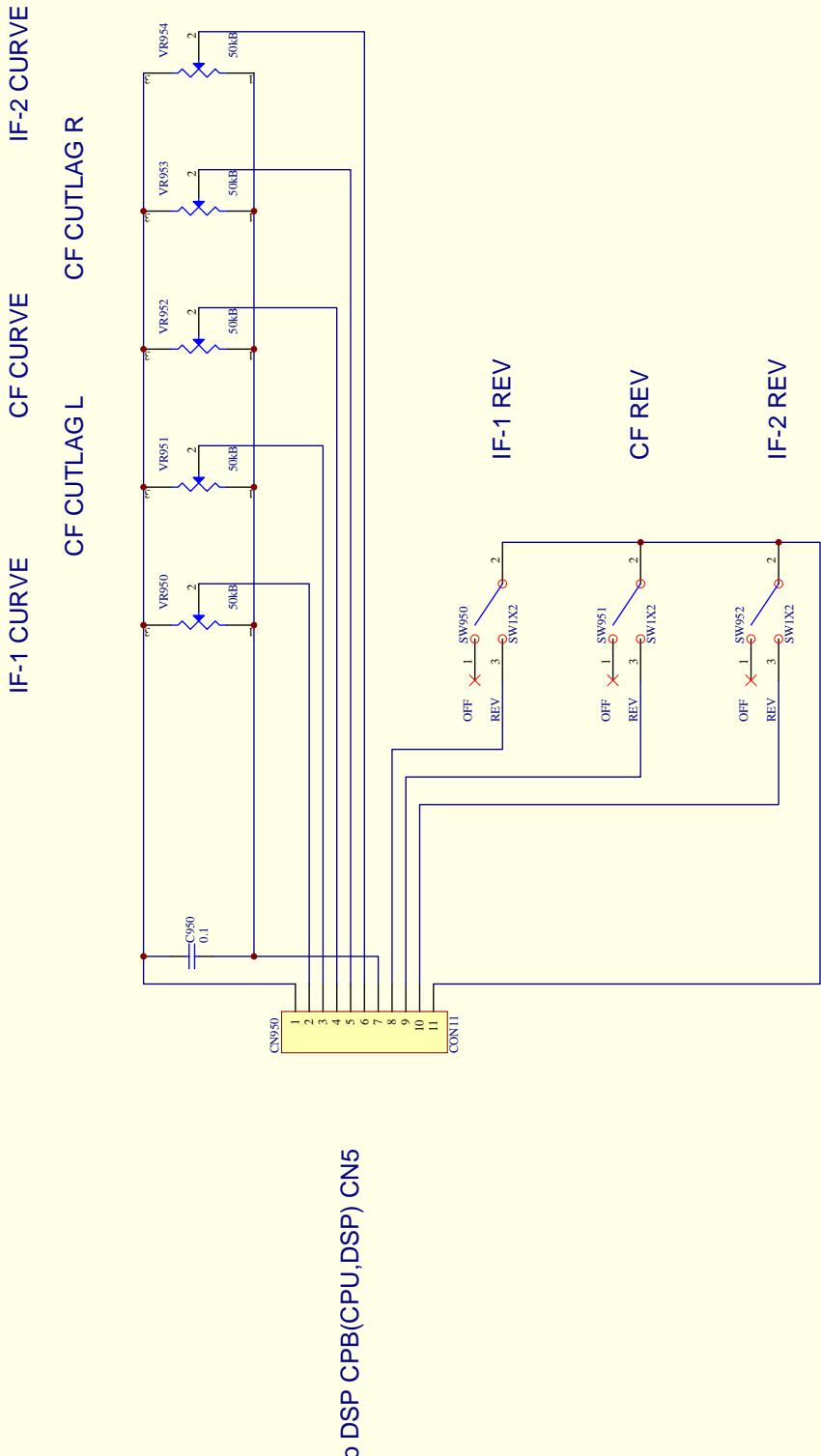
C

B

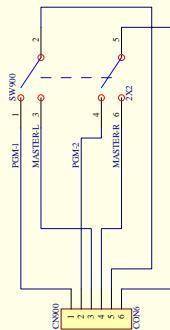
A

Model PMC-08  
Sheet FRONT PCB

YANO CIRCUIT LABO  
28-Nov-2005 1 / 1

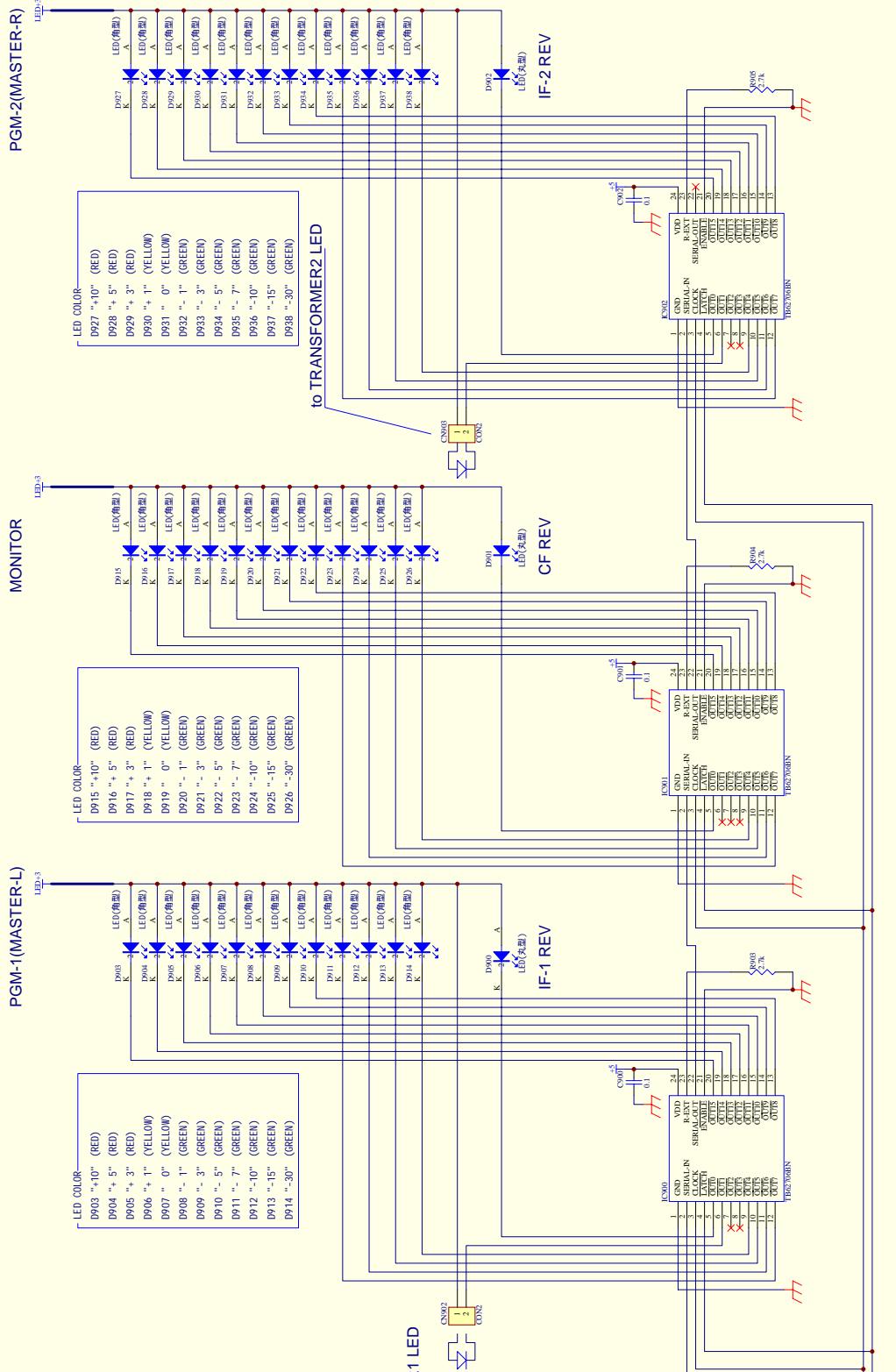


### METER SELECT



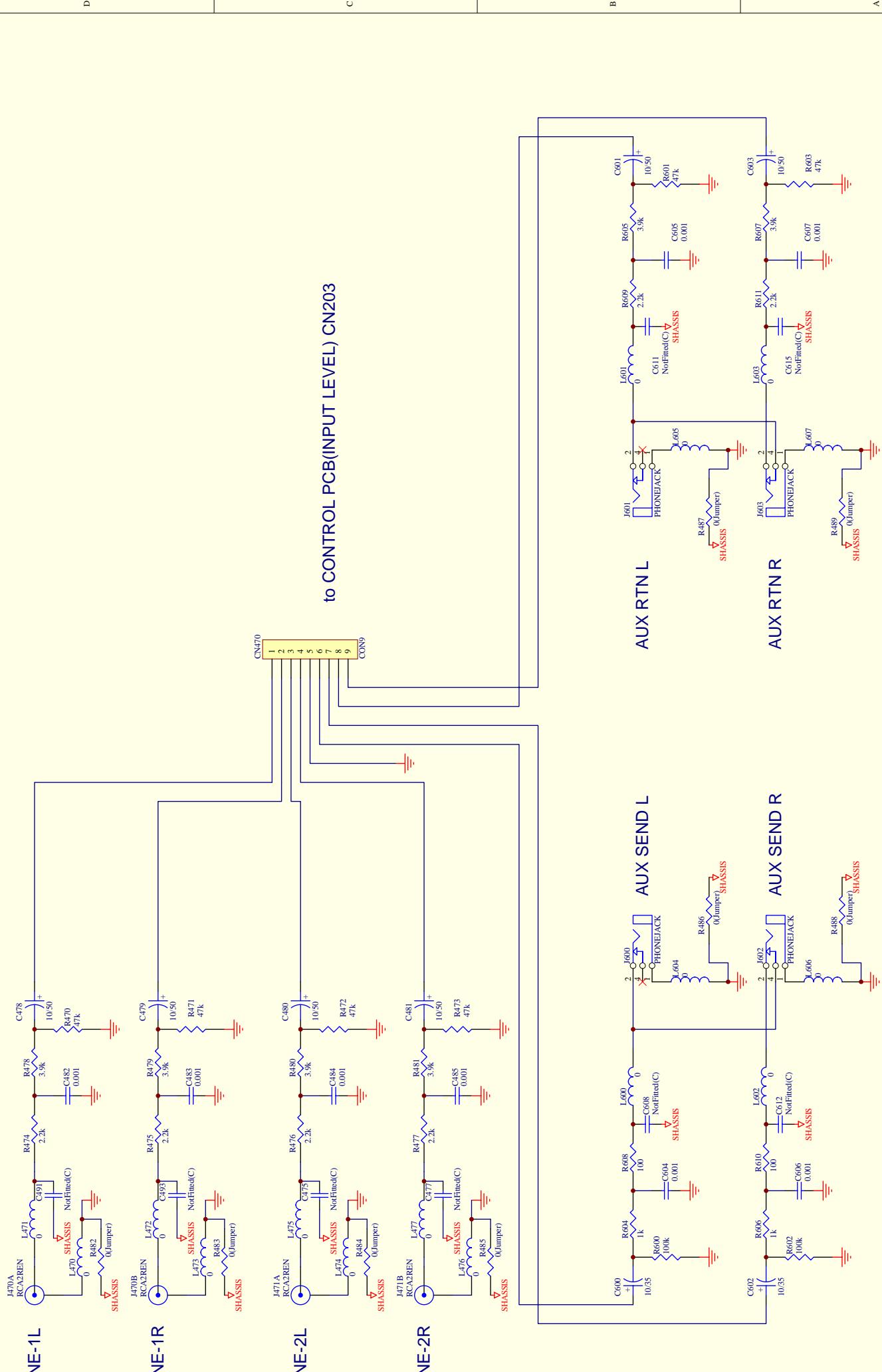
to DSP(ENVELOP) PCB CN2

### PGM-1(MASTER-L)



to DSP(CPU,DSP) PCB CN16

CON5 CON6 CON7



tel PMC-08

PMG-08

PMC-08

Mod

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YANO CIRCUIT LABO

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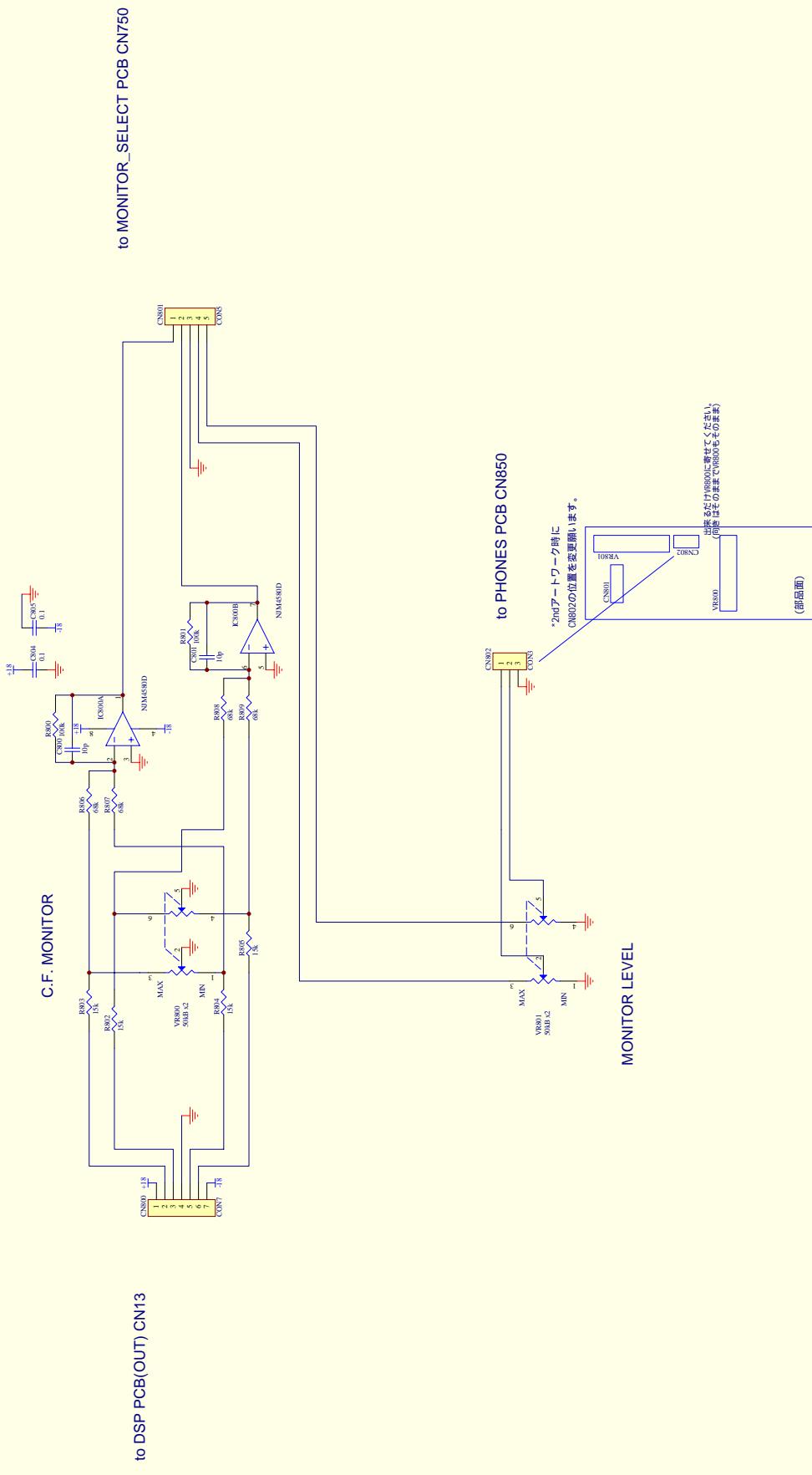
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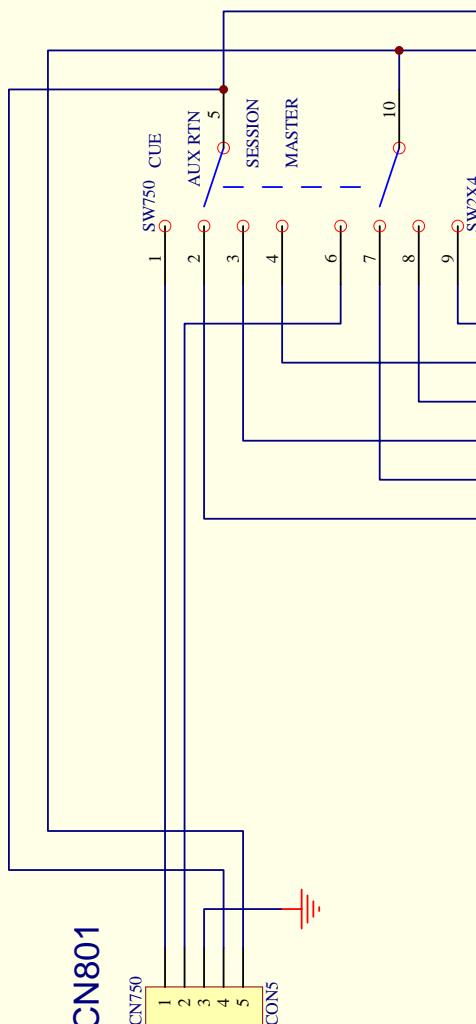
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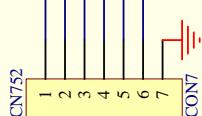
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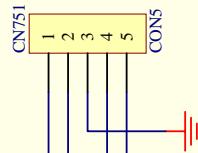
**to MONITOR\_LEVEL PCB CN801**



**to CONTROL PCB(OUT) CN205**



**to DSP PCB(ENVELOP) CN15**



Model	PMC-08
Sheet	MONITOR_SELECT PCB

YANO CIRCUIT LABO  
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4

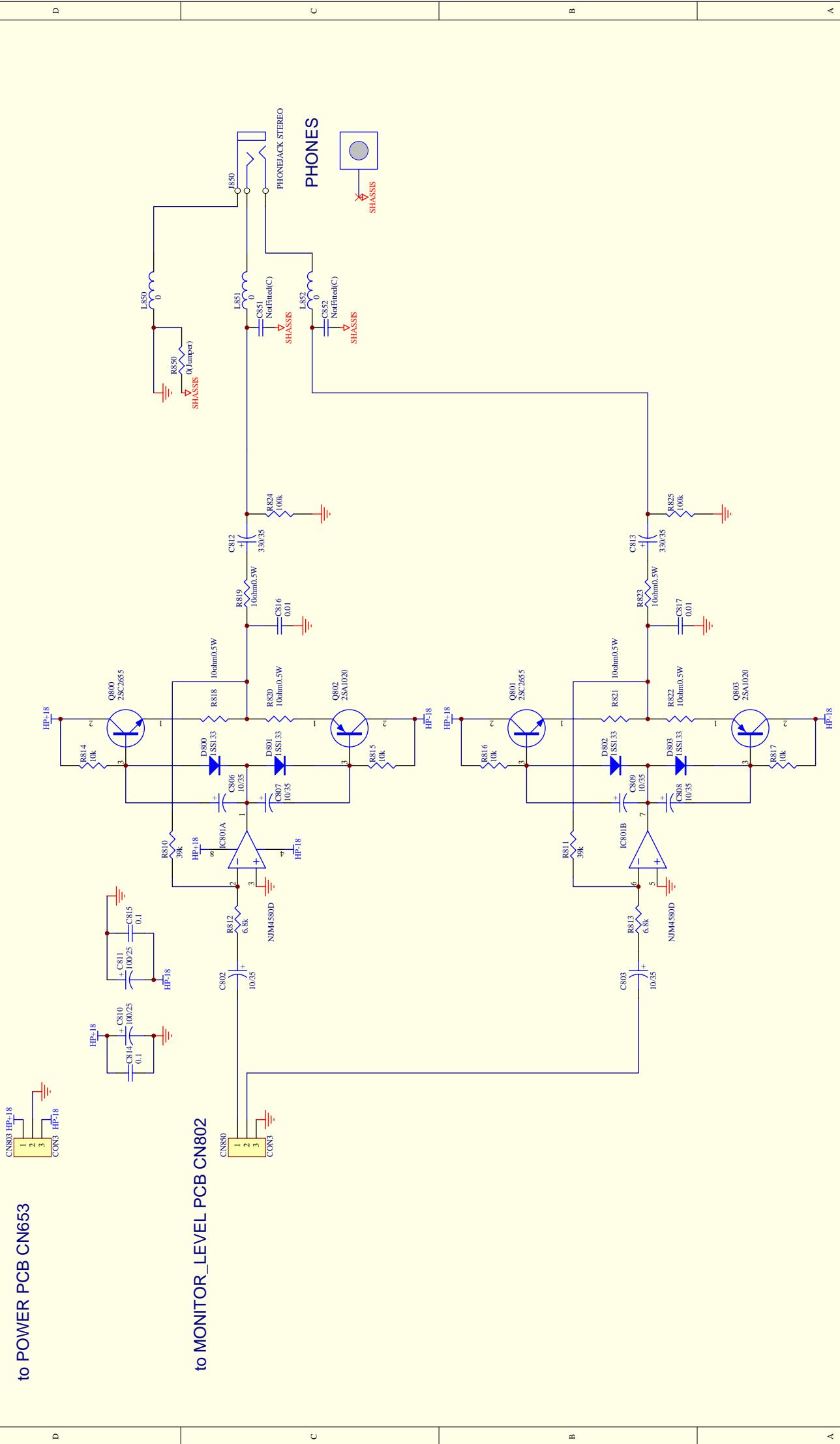
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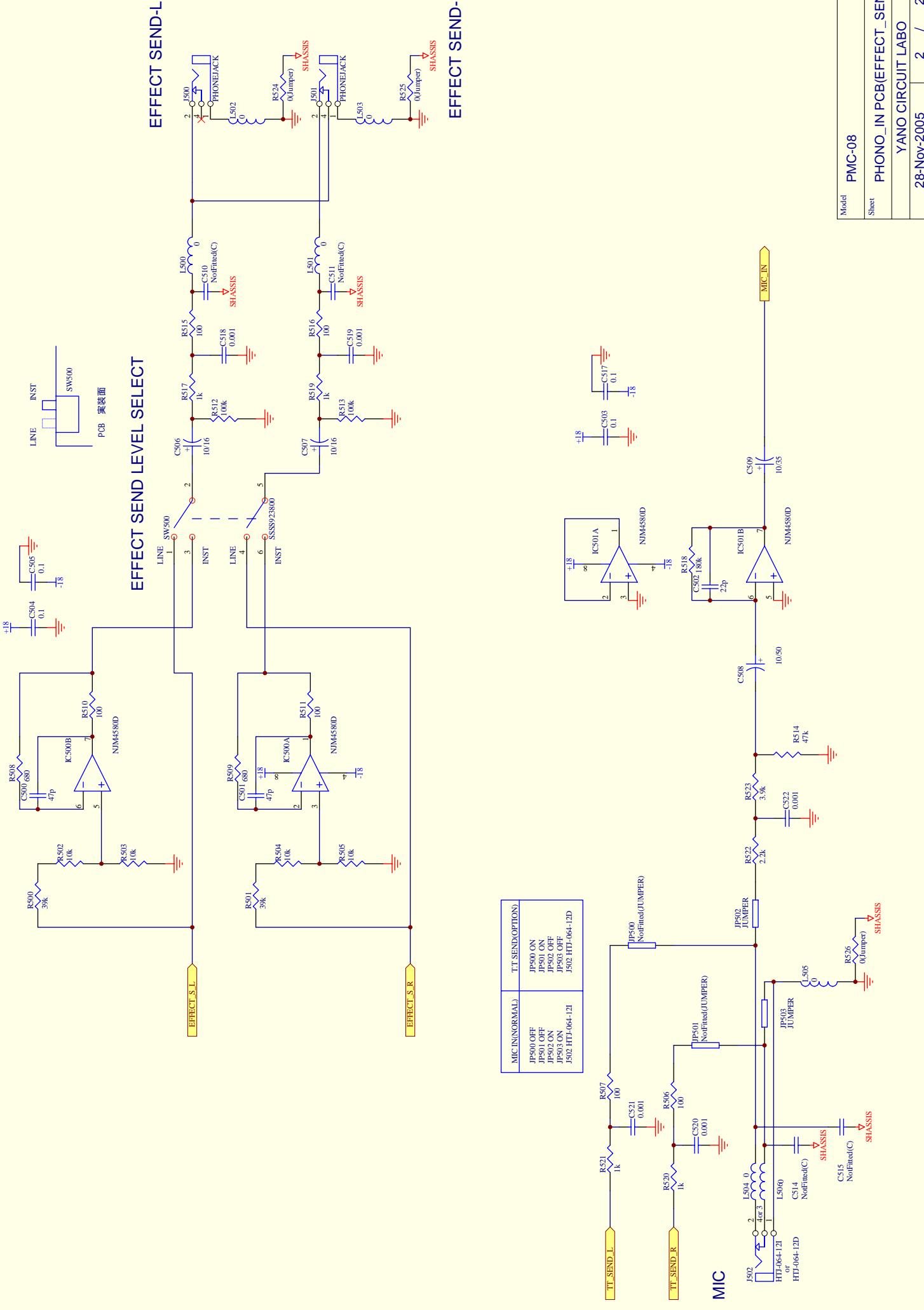
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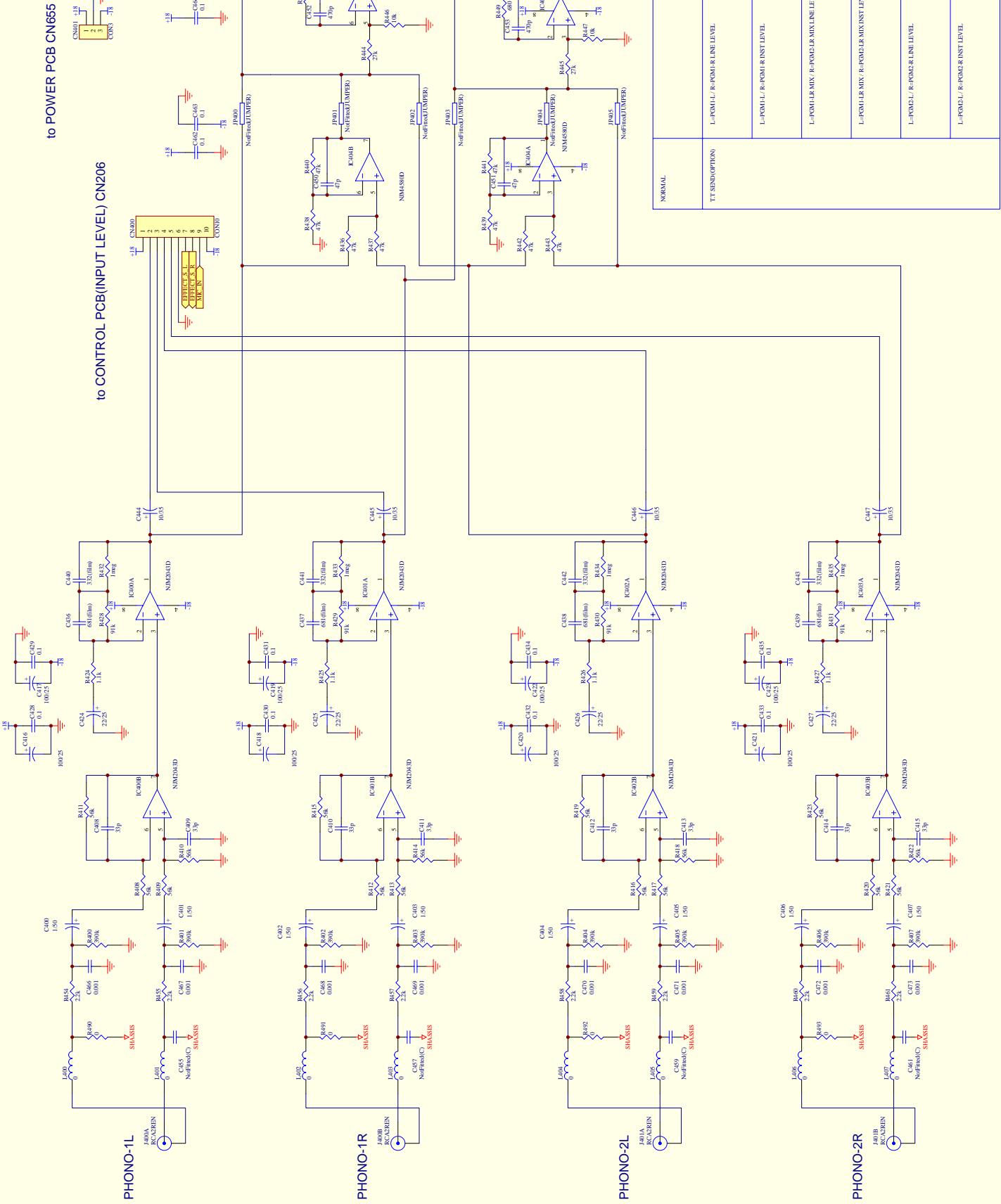
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Model	PMC-08
Sheet	PHONES PCB
	YANO CIRCUIT LABO

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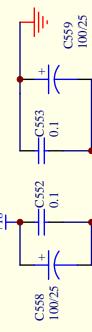


Model **PMC-38**  
Sheet **PHONO\_IN PCB(PHONO)**  
Page **1 / 2**

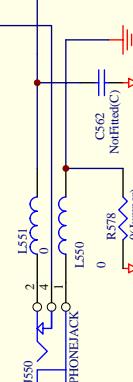
Model **PMC-38**  
Sheet **YANO CIRCUIT LABO**  
Page **28-Nov-2005**

D

D

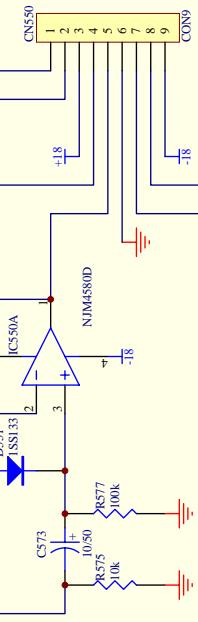
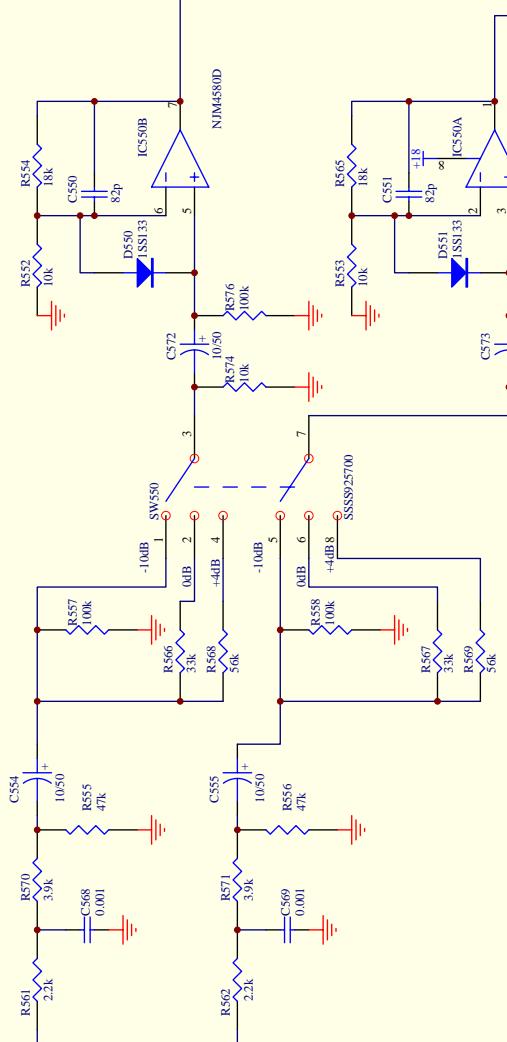


### EFFECT RTN-L

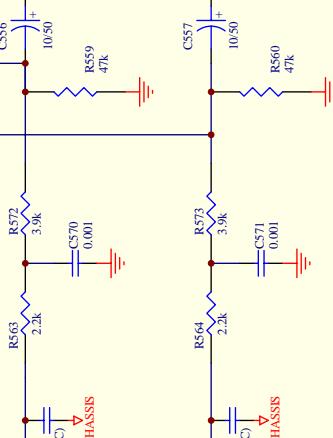
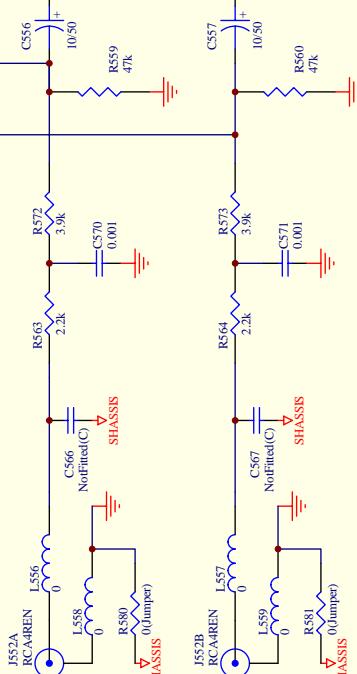


### EFFECT RTN-R

### EFFECT RTN LEVEL SELECT



### SESSION IN L



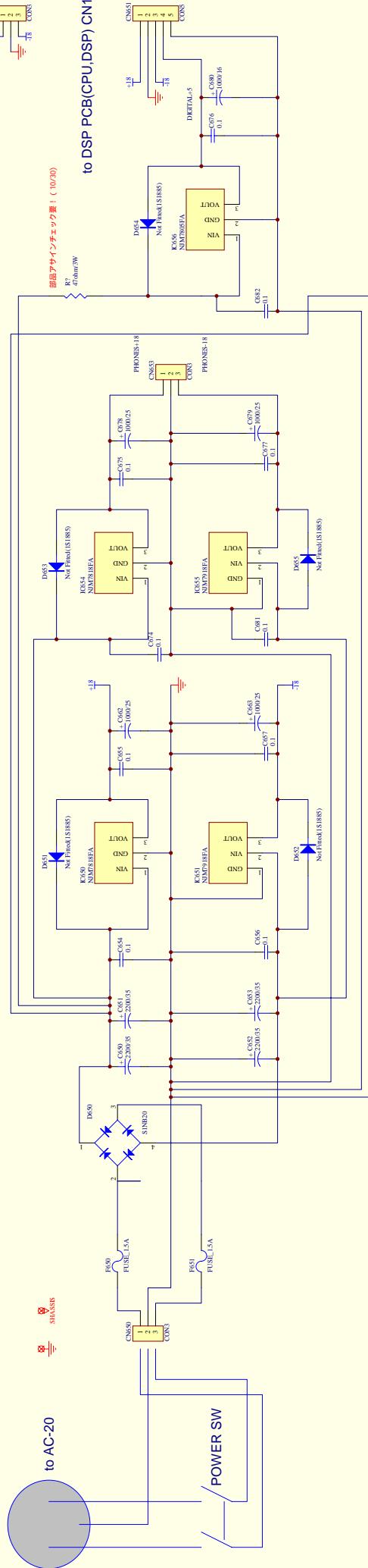
to CONTROL PCB(MIX) CN208

Model PMC-08

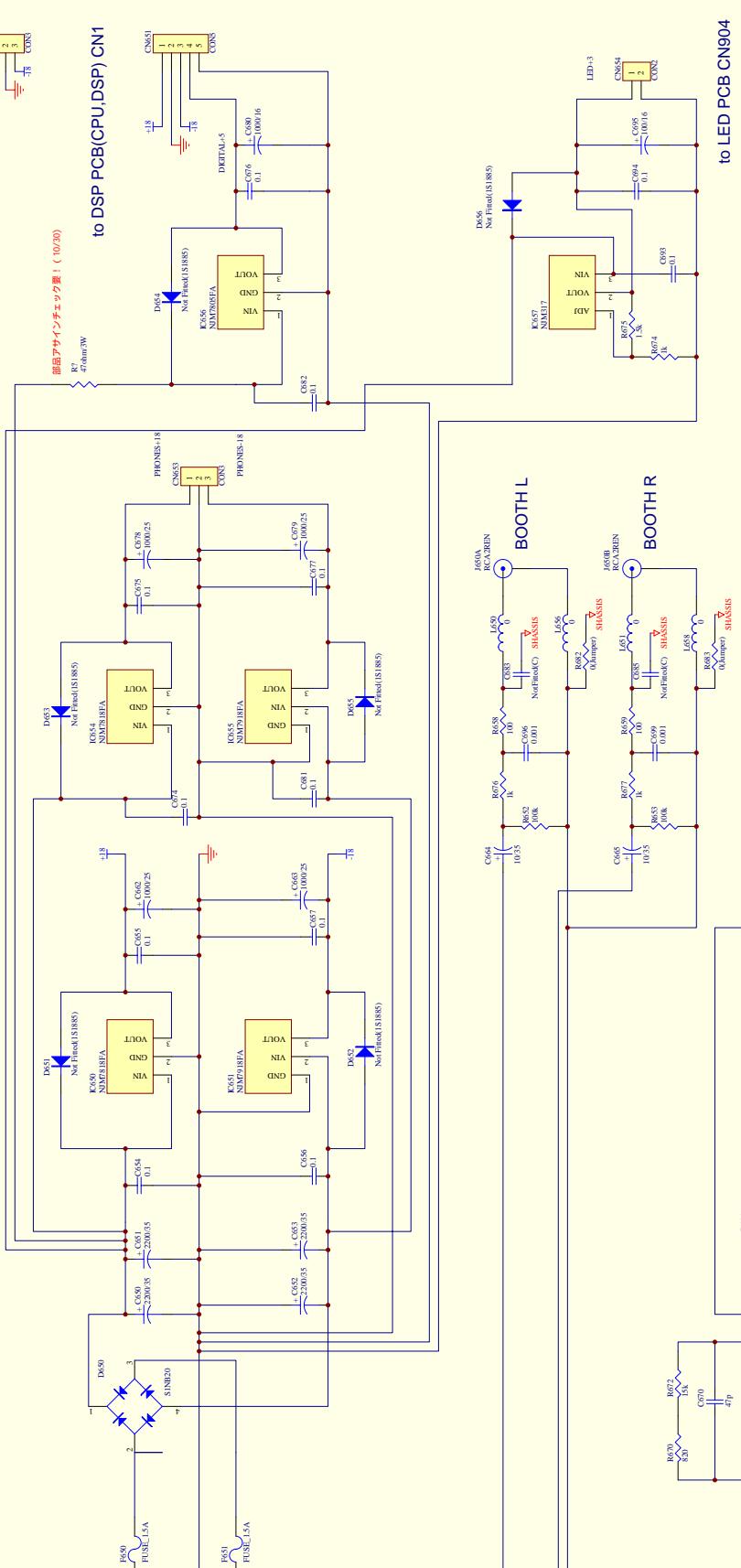
Sheet POWER PCB(EFFECT\_RTIN)

YANO CIRCUIT LABO  
28-Nov-2005 almi  
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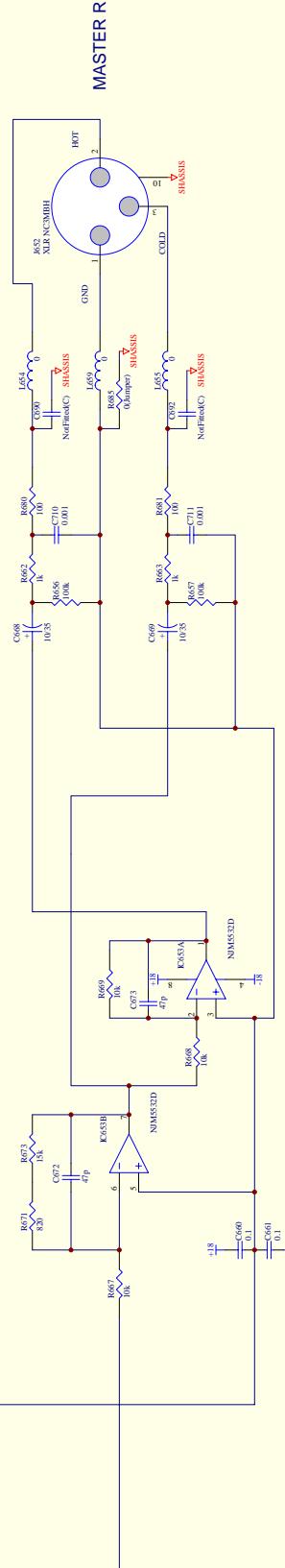
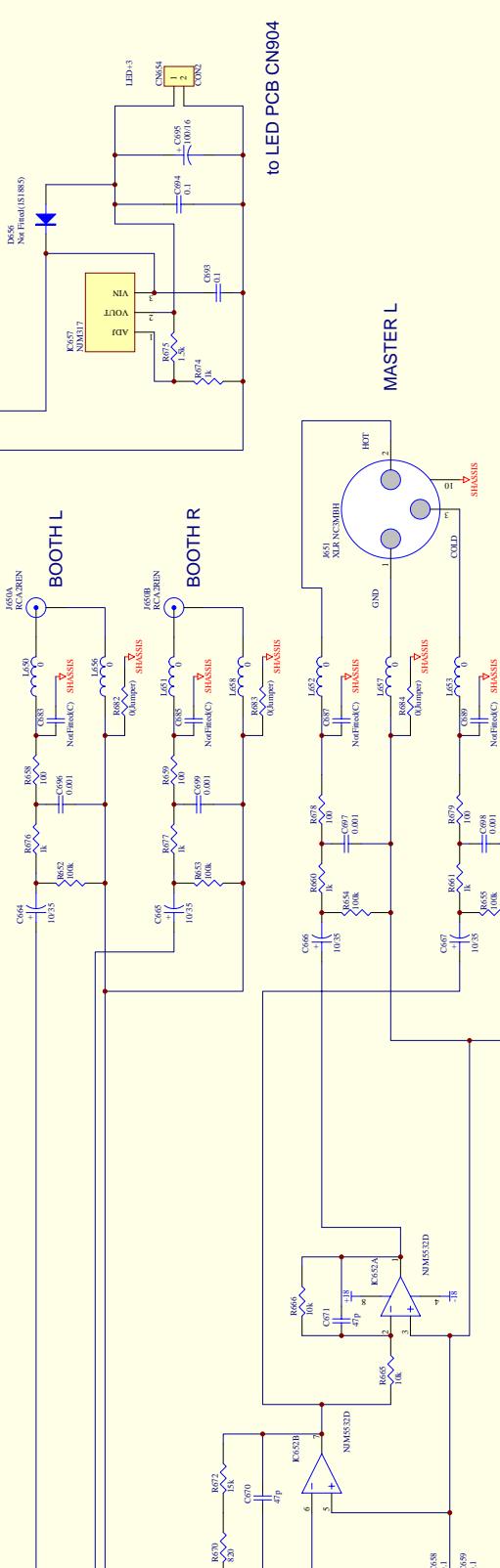
to PHONO\_IN PCB(CN401)



to MONITOR\_LEVEL PCB CN803



to LED PCB CN904



Model PMC-38

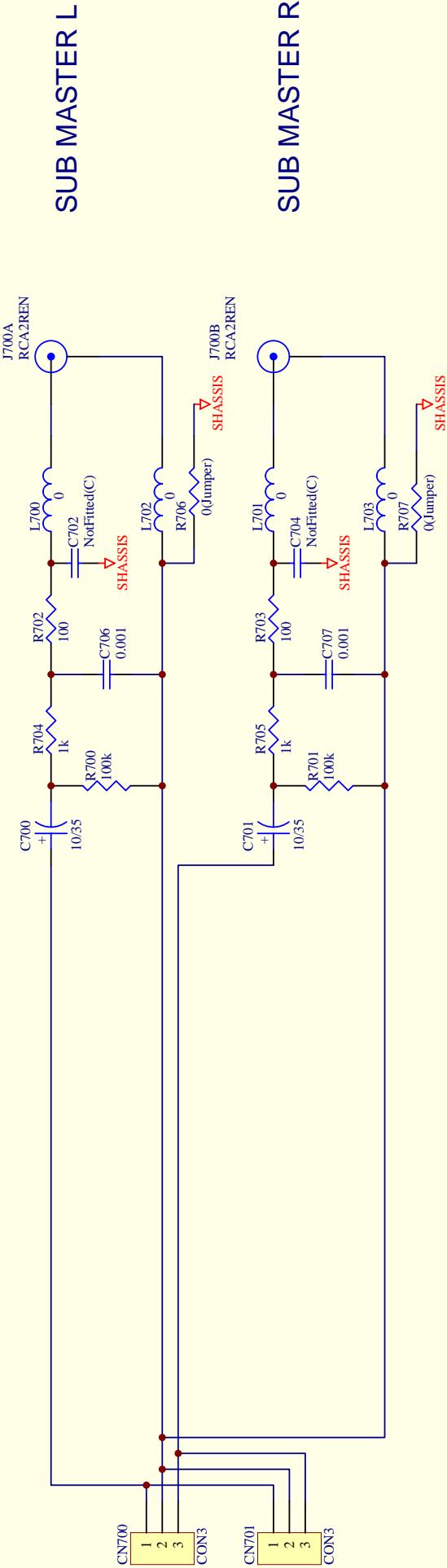
Sheet POWER PCB(POWER)

YANO CIRCUIT LABO

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to CONTROL PCB(OUT) CN209



PMC-08

SUB MASTER PCB

YANO CIRCUIT LABO

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