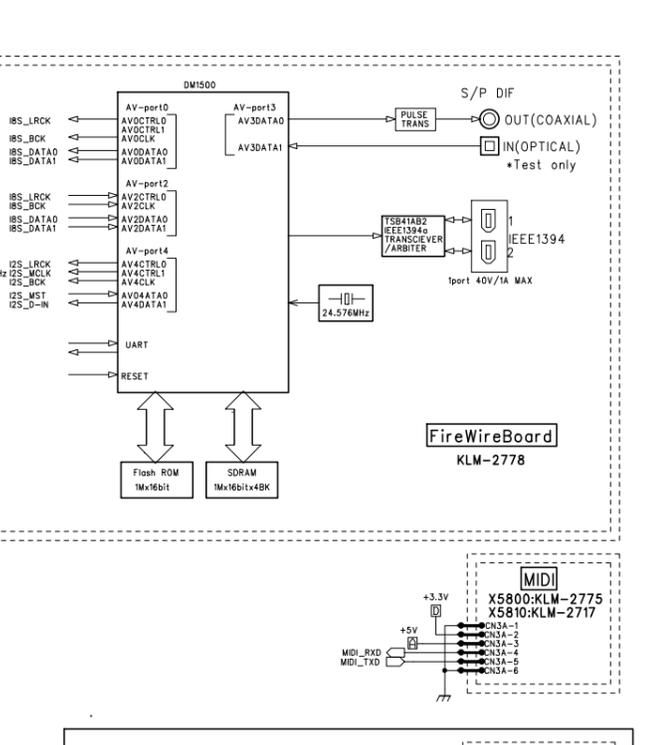
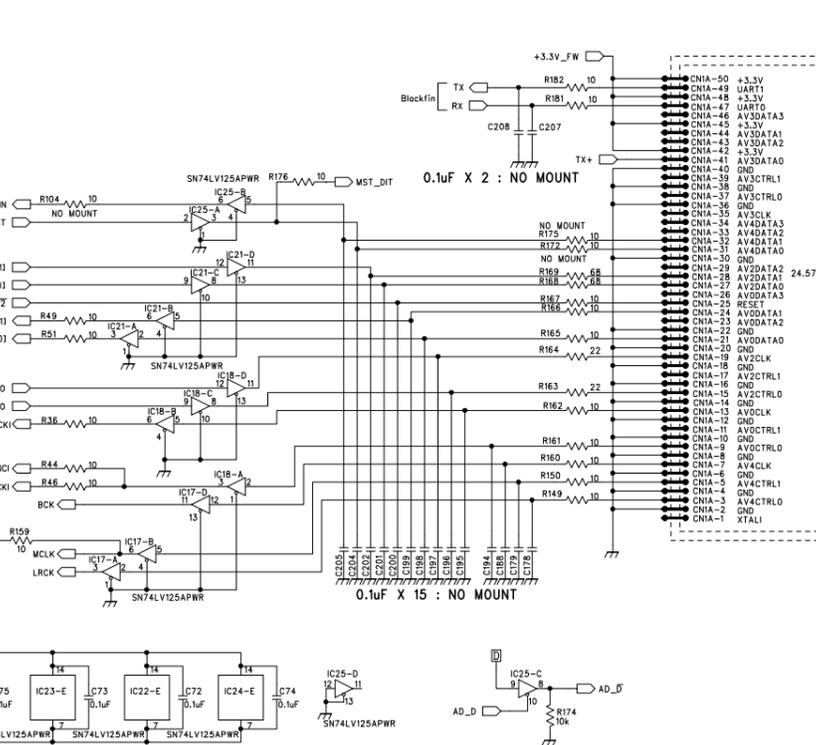
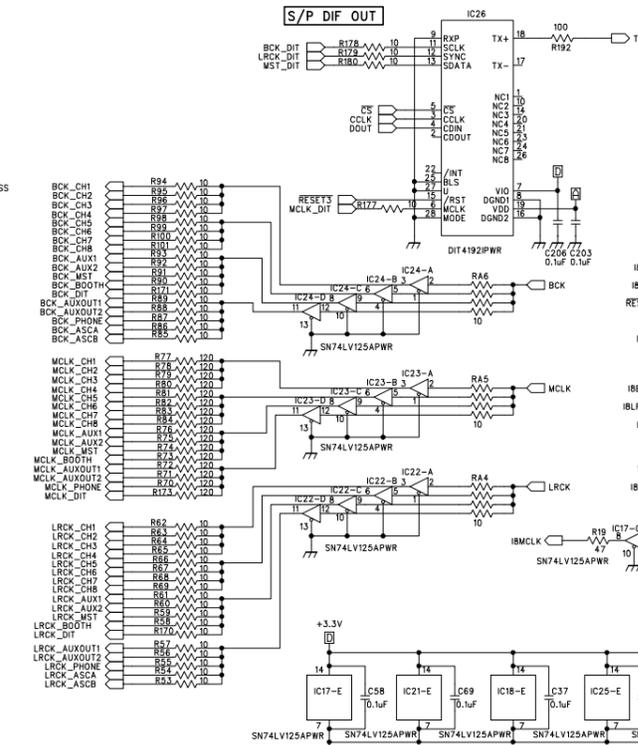
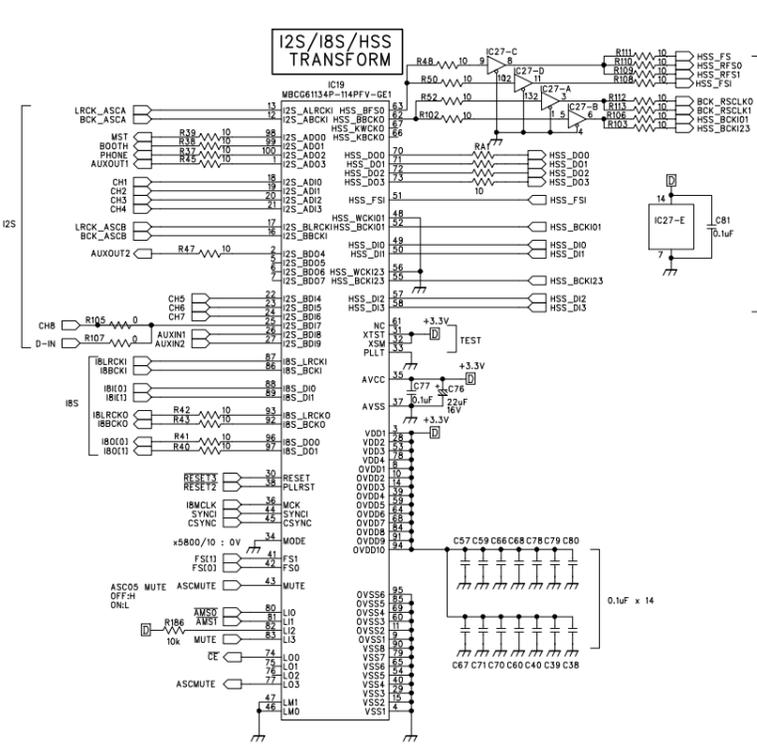
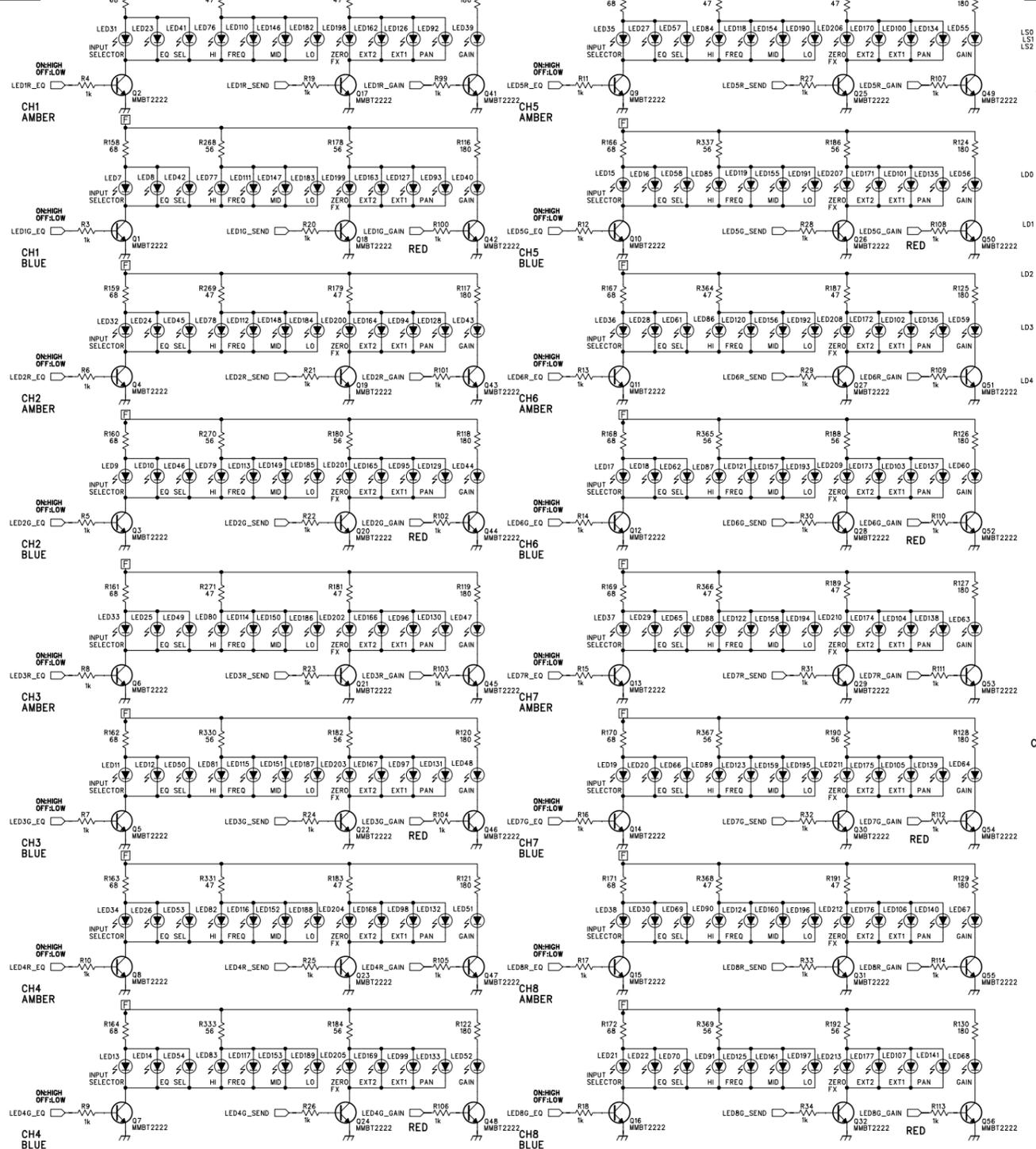


MARK	REVISION	REASON	DATE	REVISED	APPROVED

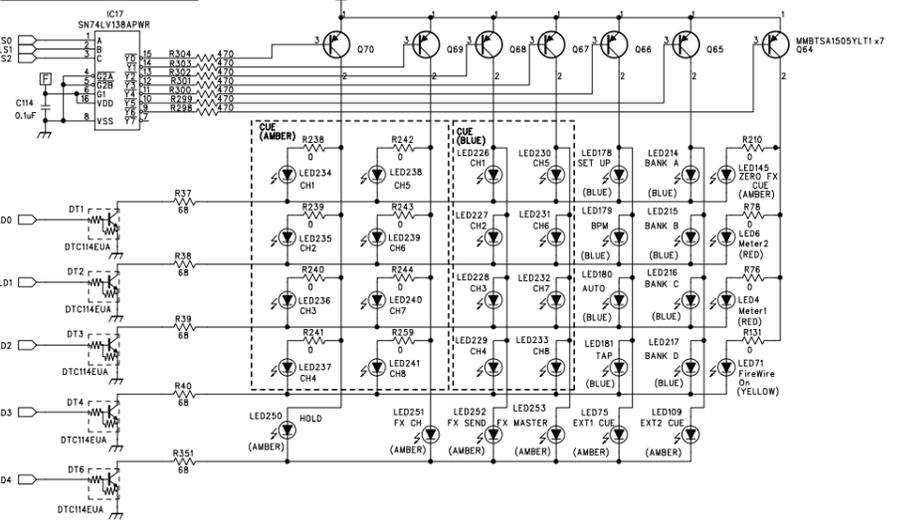
DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL	ZERO8(X-5810)
Miwako Sekimori	Miwako Sekimori	M.Oda	S.Yoshino	TITLE	SYSTEM BLOCK DIAGRAM
DRAWING NO.				KOD-B30104	DATE
KORG					'07. 2.21



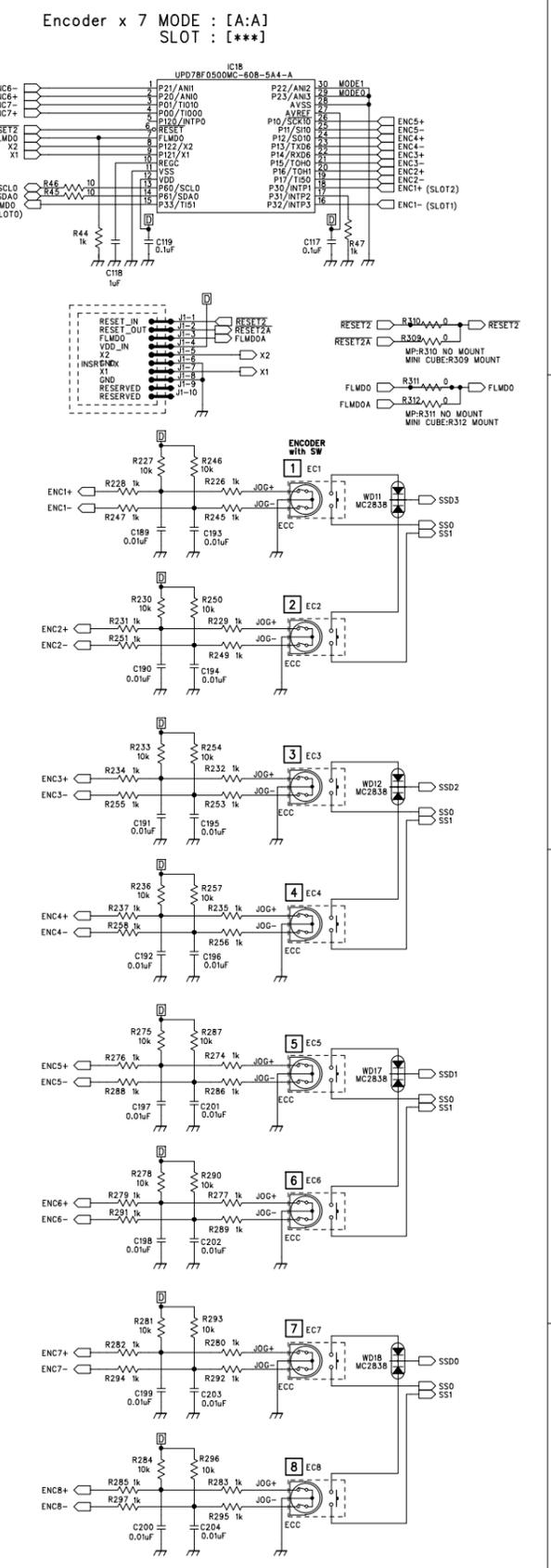
CH LED



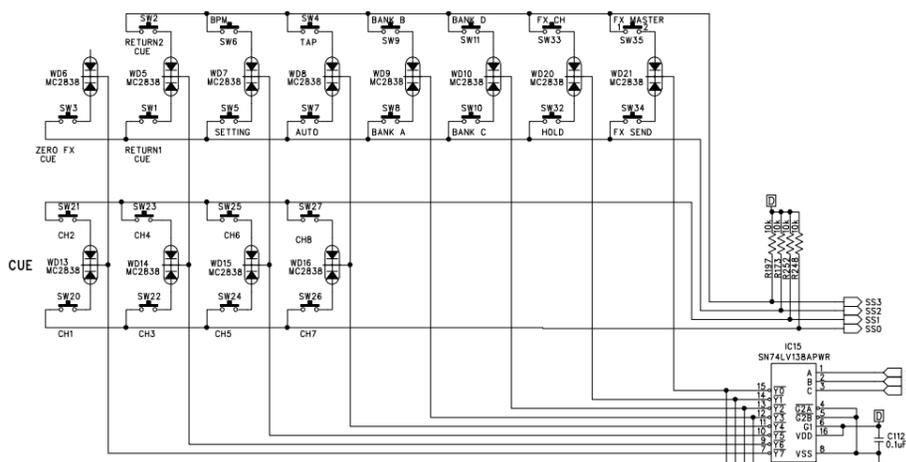
LED(DYNAMIC)



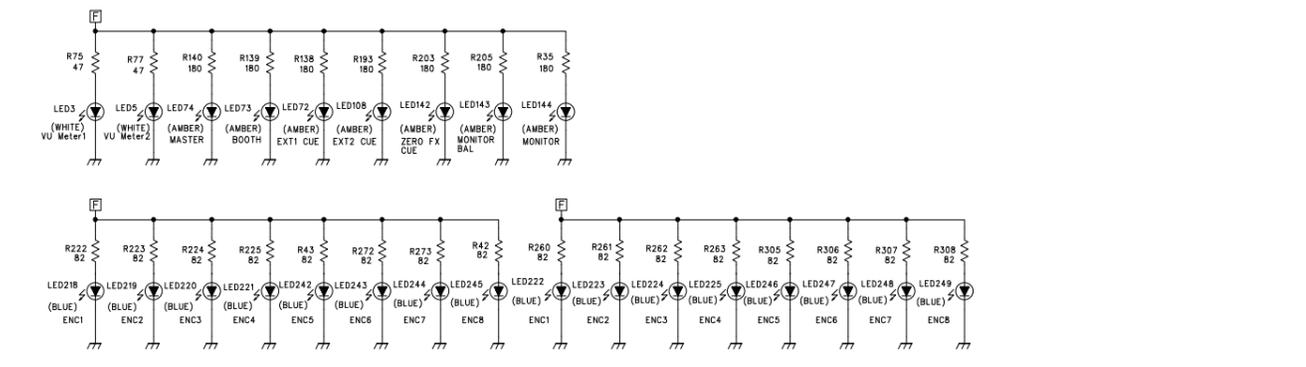
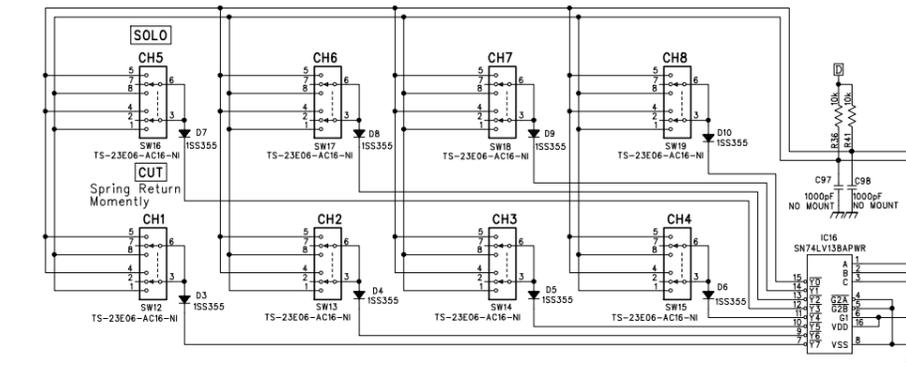
ENCODER



SWITCH



SOLO/CUT

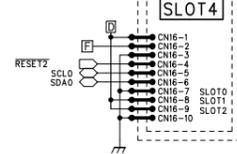
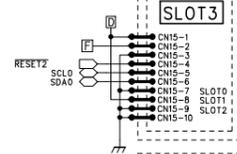
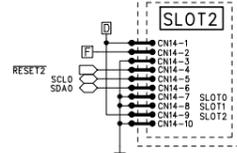
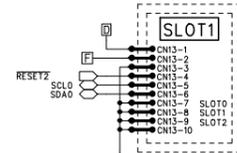
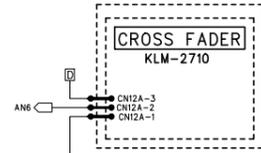
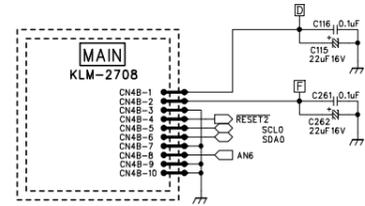


Revision table with columns for MARK, REVISION REASON, DATE, REVISED, and APPROVED.

Production information table including DRAWN BY (Miwako Sekimori), DESIGNED BY (Miwako Sekimori), CHECKED BY (Shigeru Ueda), APPROVED BY (S.Yoshino), MODEL (ZER08(X-5810)), TITLE (KLM-2709-11/15/22/25B CIRCUIT DIAGRAM 2/4), DRAWING NO. (KOD-A30680), and DATE (07. 2.22).

KLM-2709

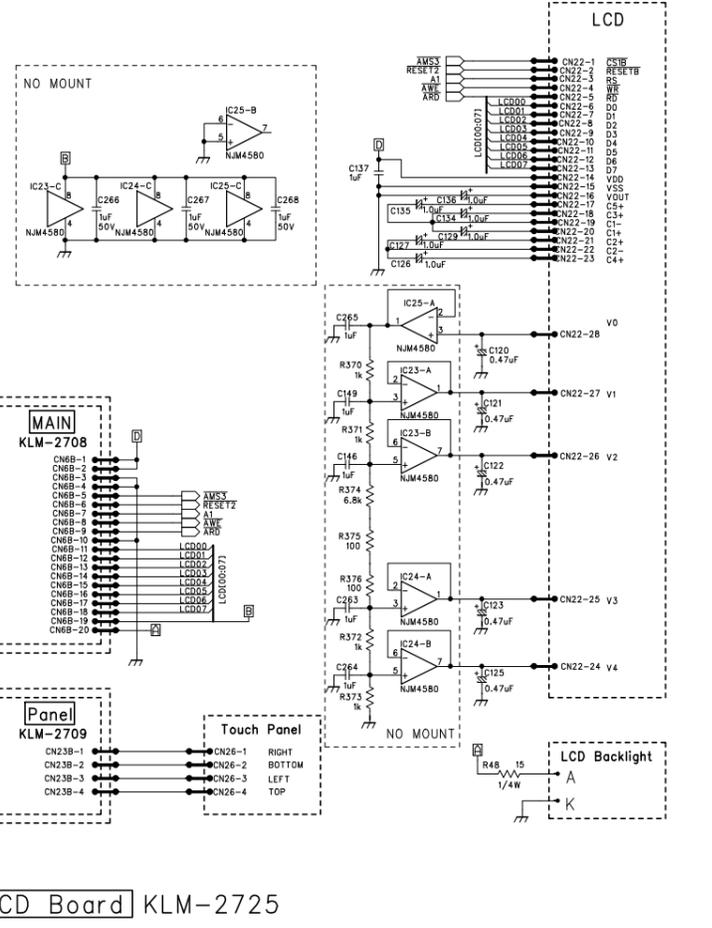




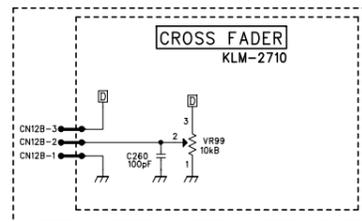
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SLOT0	0	0	0	0	1	1	1	1
SLOT1	0	0	1	1	0	0	1	1
SLOT2	0	1	0	1	0	1	0	1

* RESERVED

JOINT BOARD KLM-2722



LCD Board KLM-2725



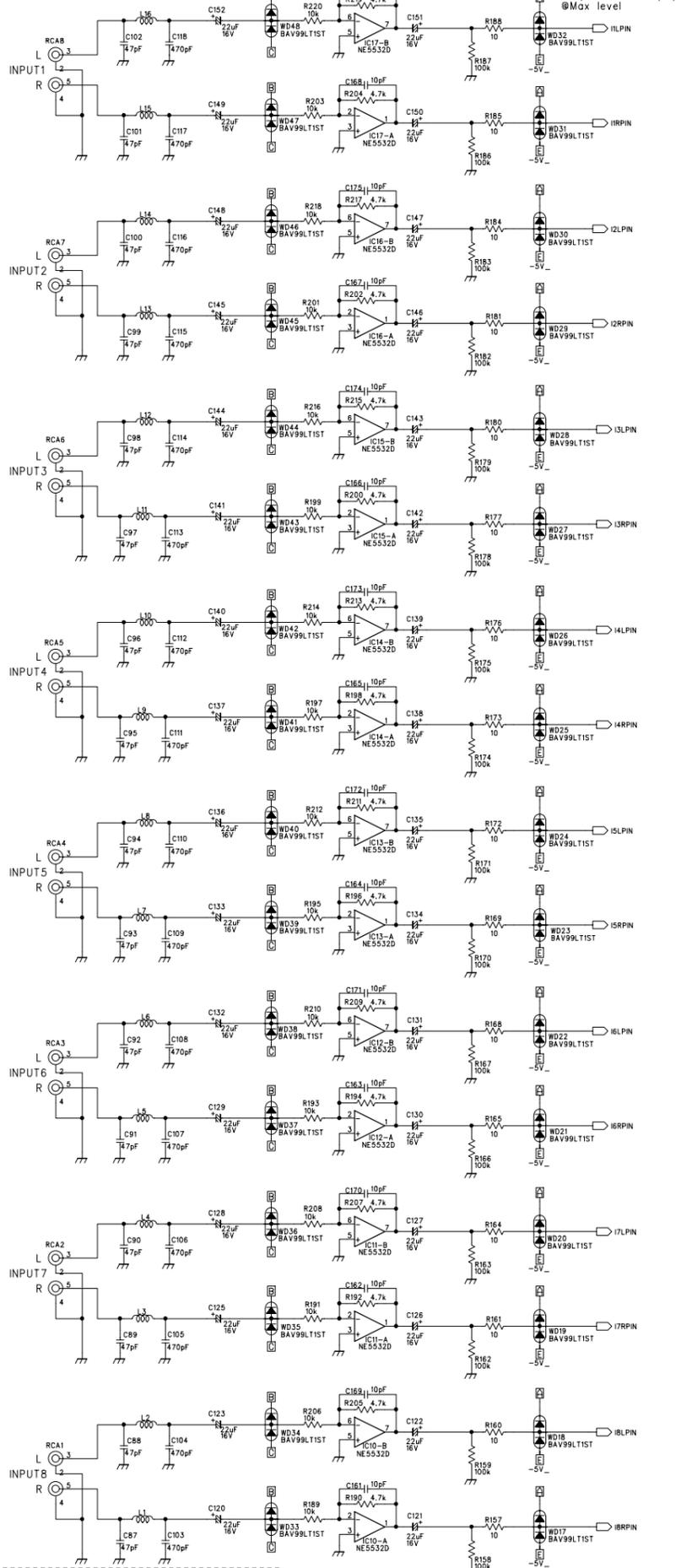
MARK	REVISION REASON	DATE	REVISED	APPROVED
△				
△				
△				
△				

DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL	TITLE
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	ZEROB(X-5810)	KLM-2709-11/15/22/25B
DRAWING NO.				KOD-A30681	DATE
					'07. 2.22



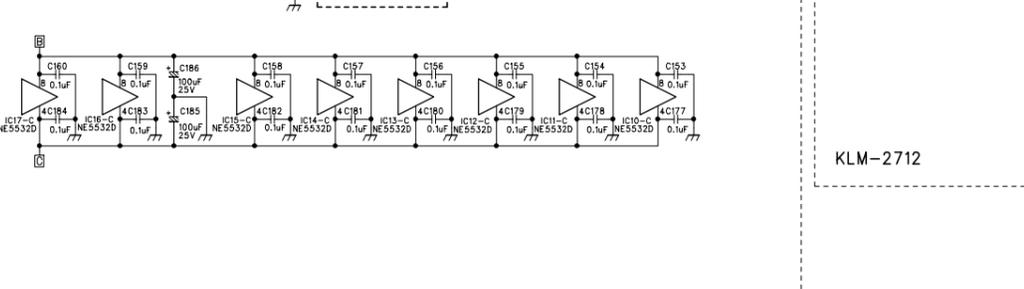
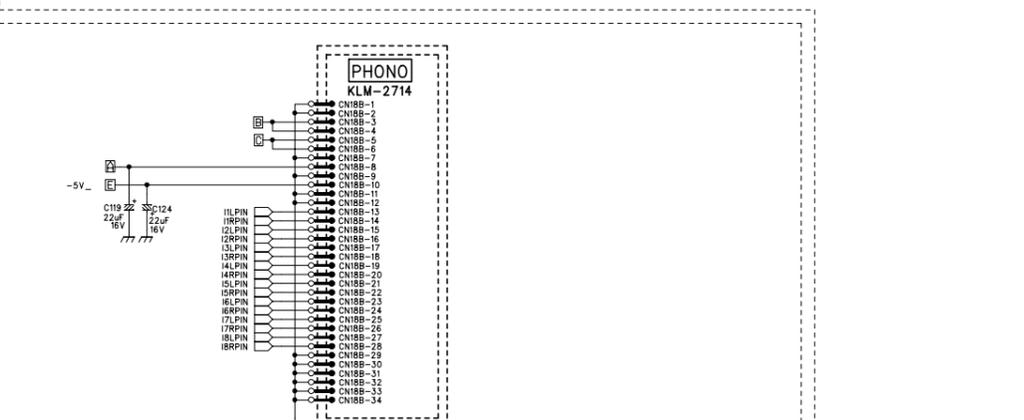
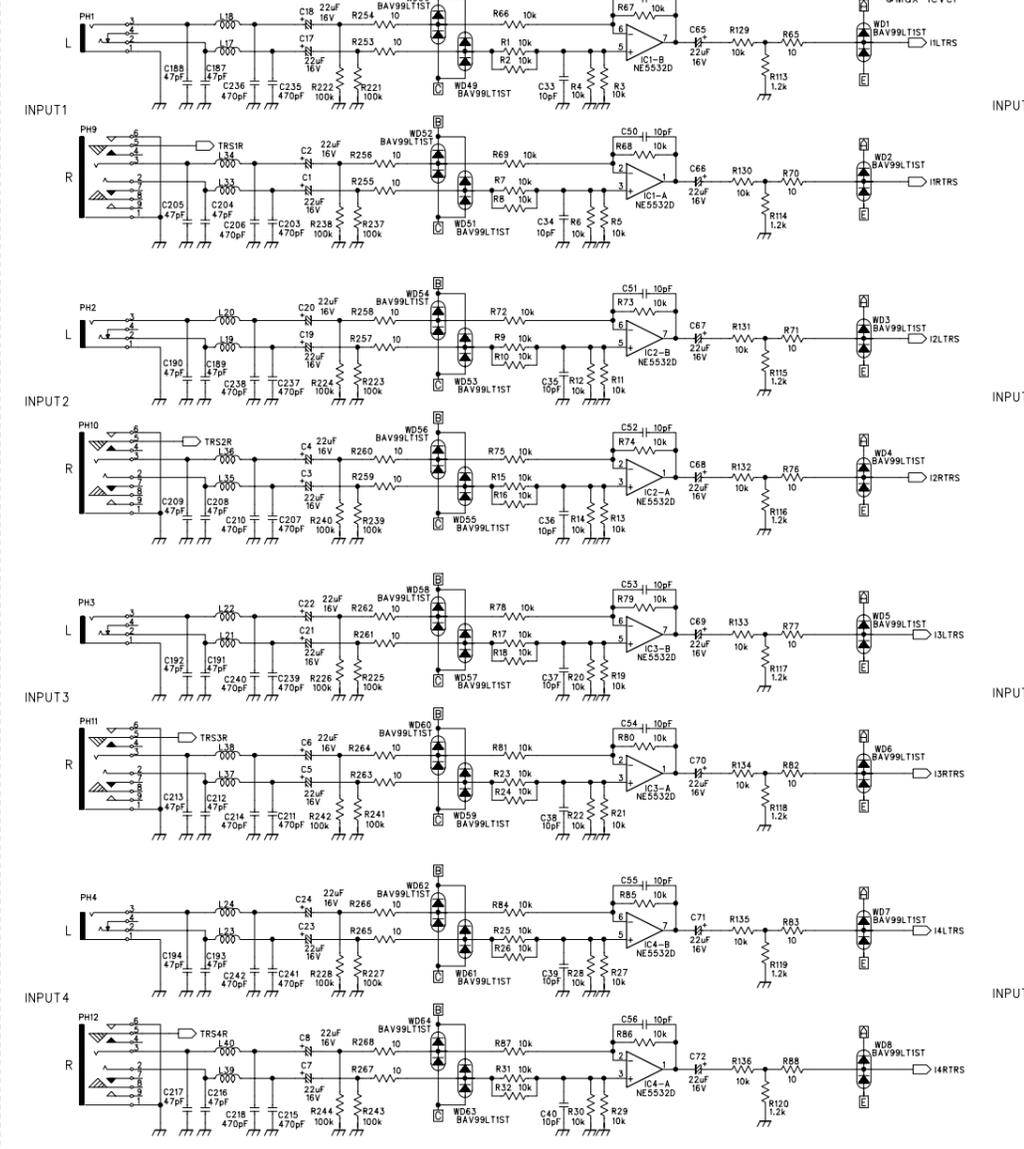
RCA INPUT

Nominal level : -10dBu
Max level : +8dBu
Output level: 3.0Vp-p
@Max level



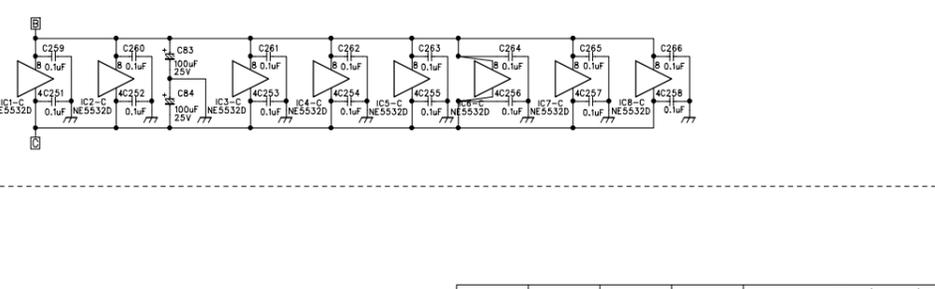
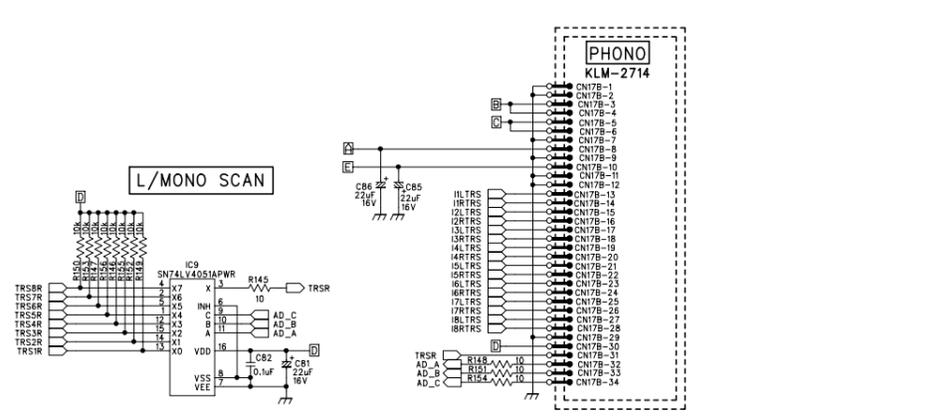
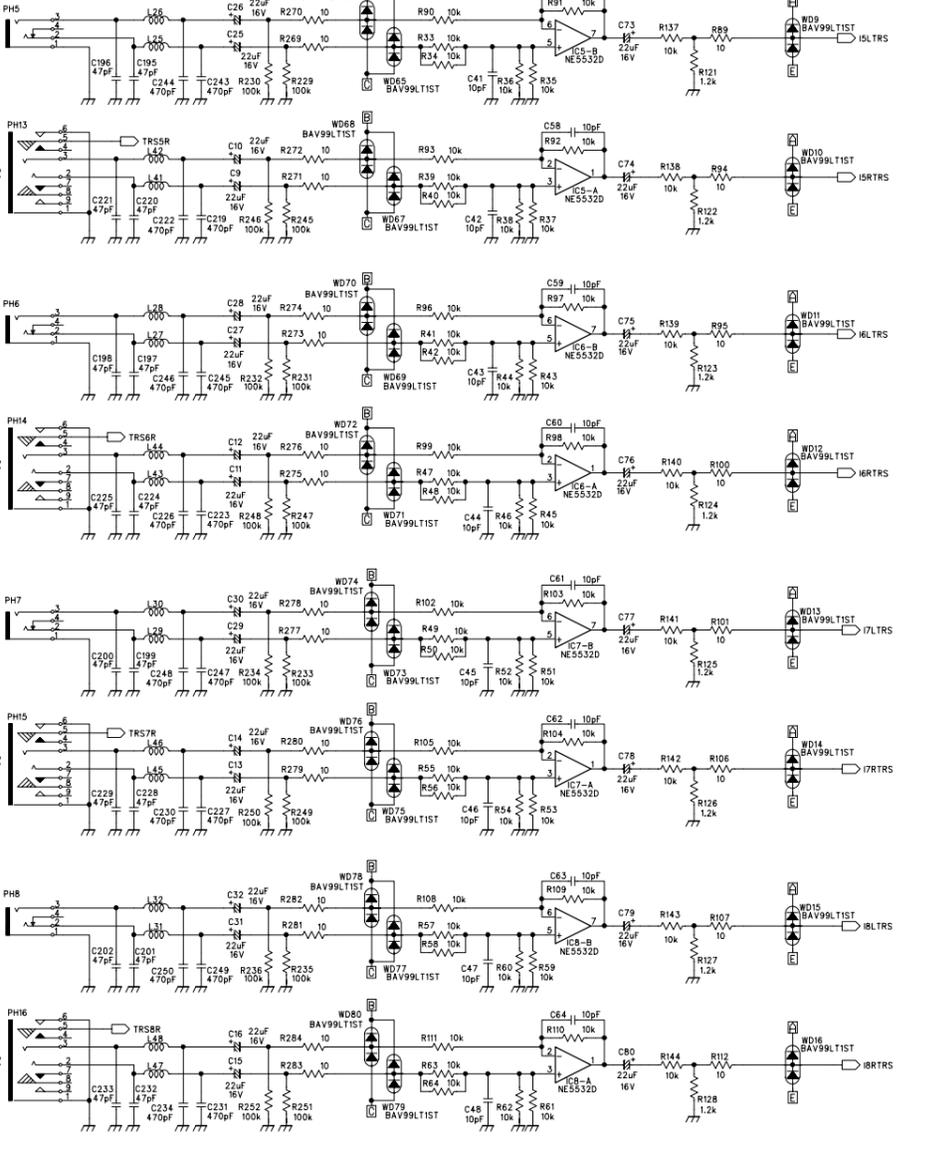
TRS INPUT

Nominal level : +4dBu
Max level : +22dBu
Output level: 3.0Vp-p
@Max level



PHONO

Nominal level : +4dBu
Max level : +22dBu
Output level: 3.0Vp-p
@Max level



MARK	REVISION	REASON	DATE	REVISED	APPROVED

DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL	ZER08(X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S. Yoshino	TITLE	KLM-2712/13B
DRAWING NO.					KOD-A30686
DATE					'07. 2.22

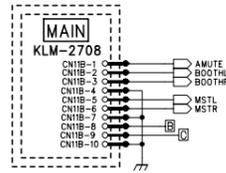
KLM-2713

LINE INPUT

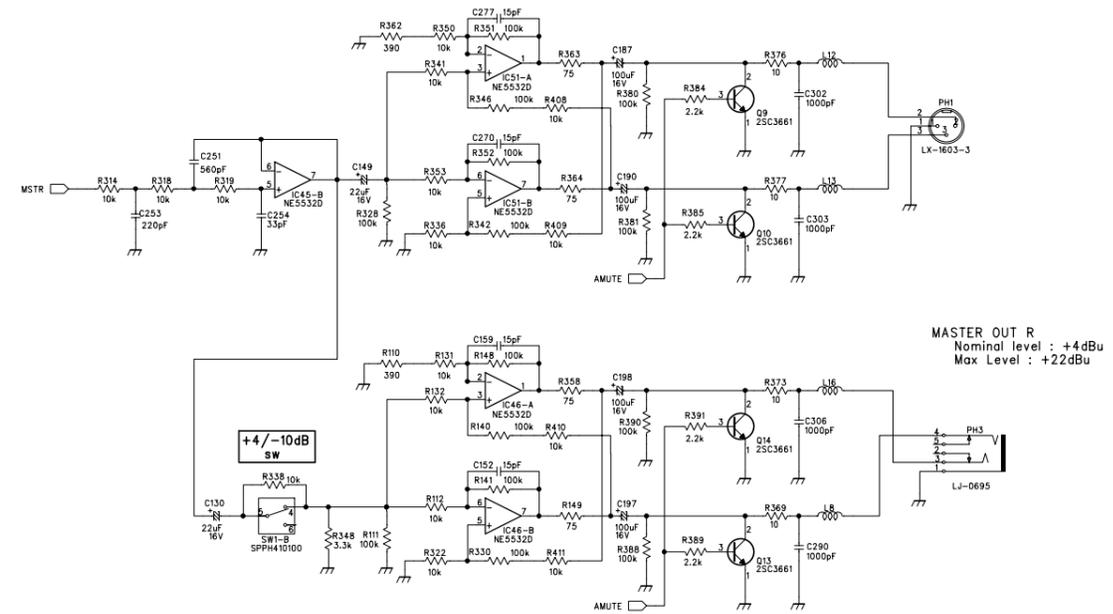
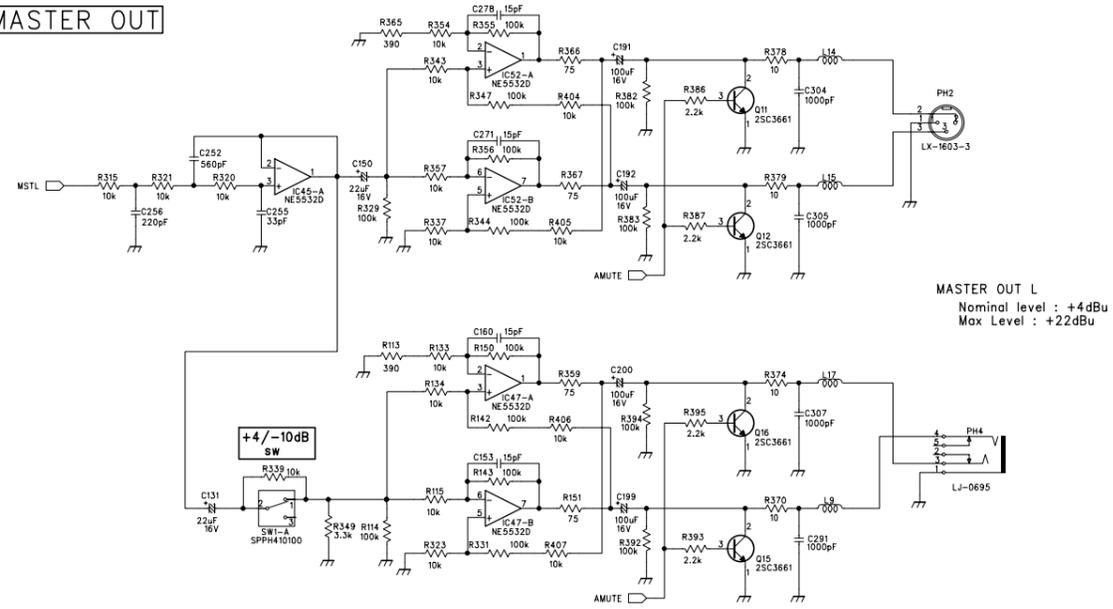


KOD-A30686

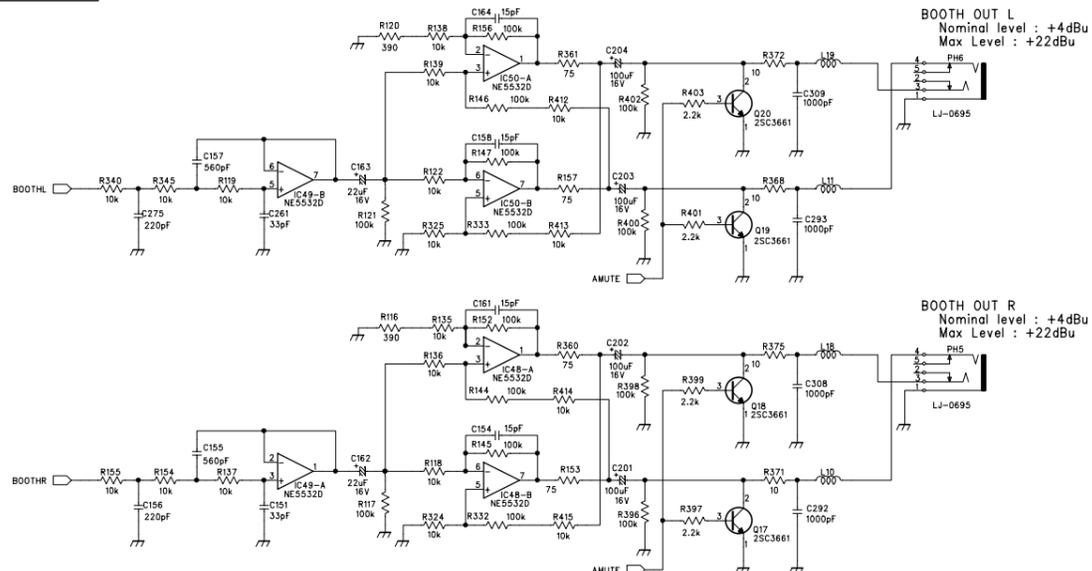
'07. 2.22



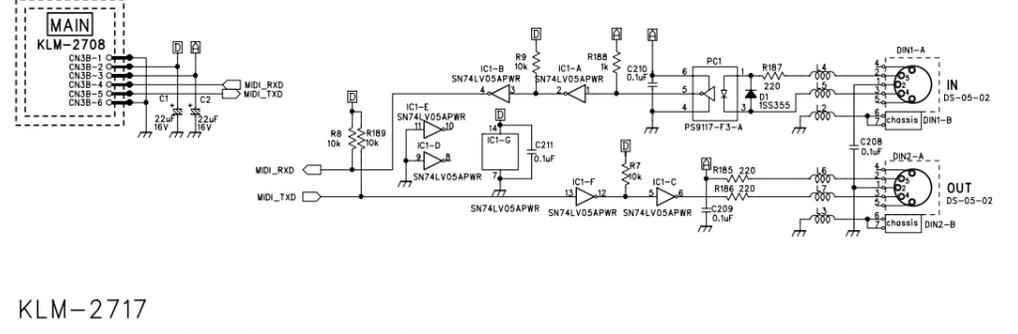
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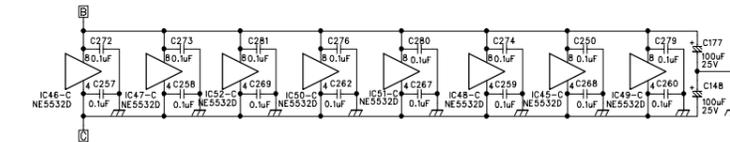
BOOTH OUT



MIDI



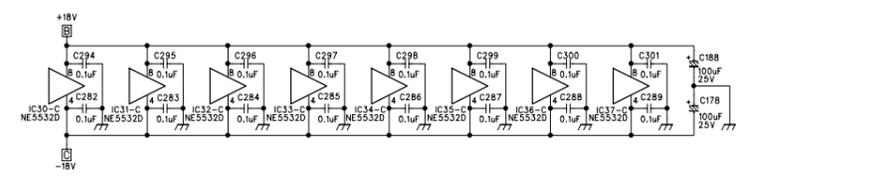
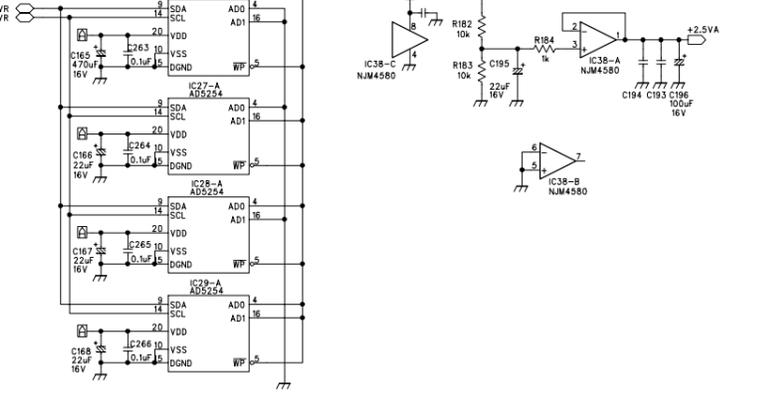
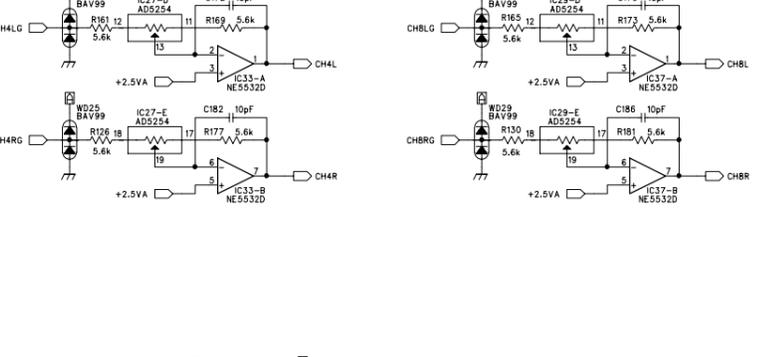
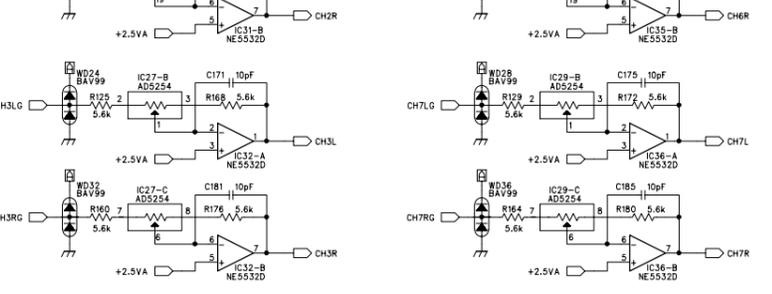
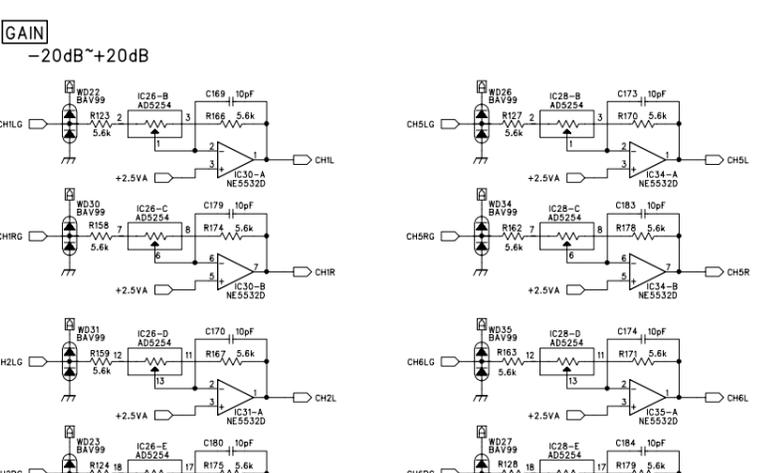
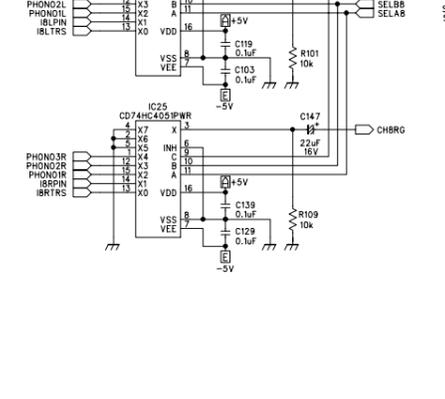
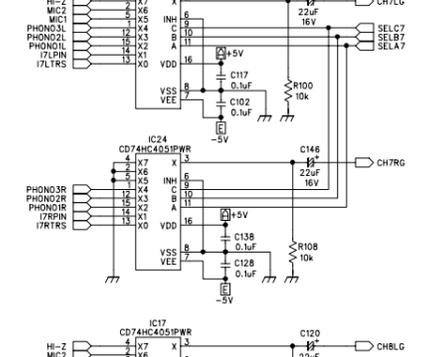
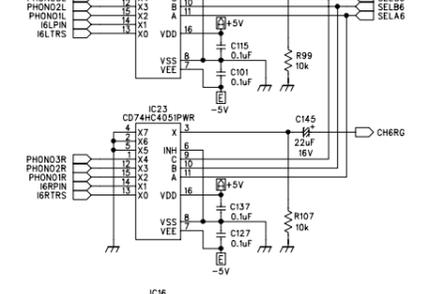
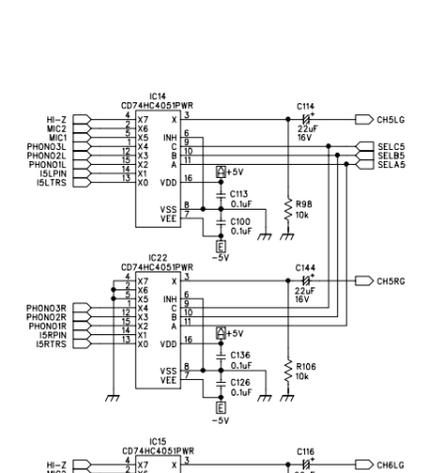
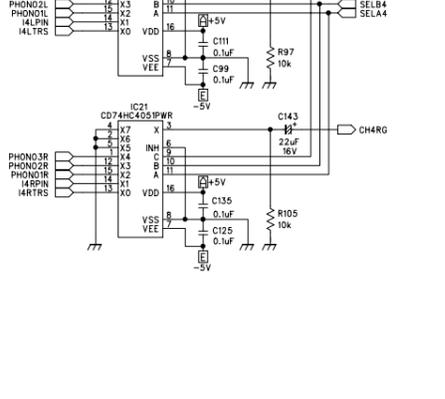
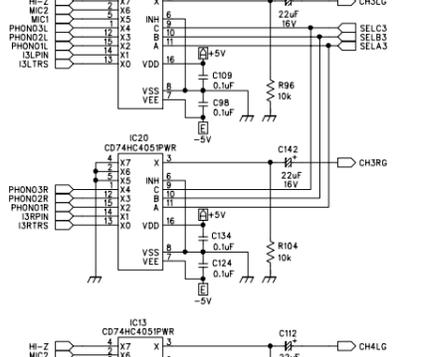
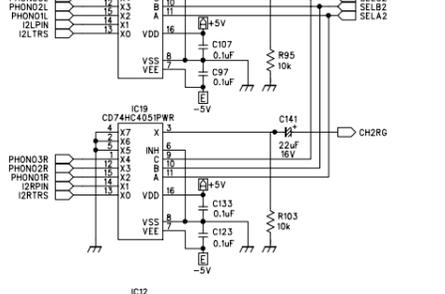
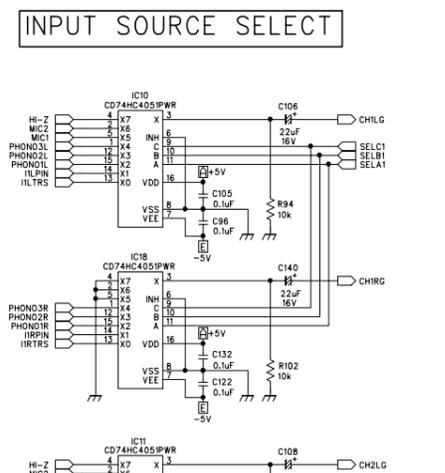
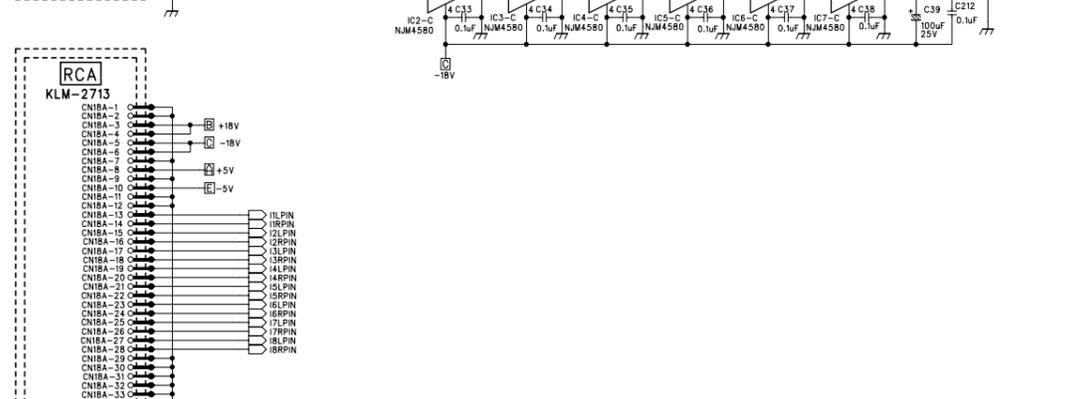
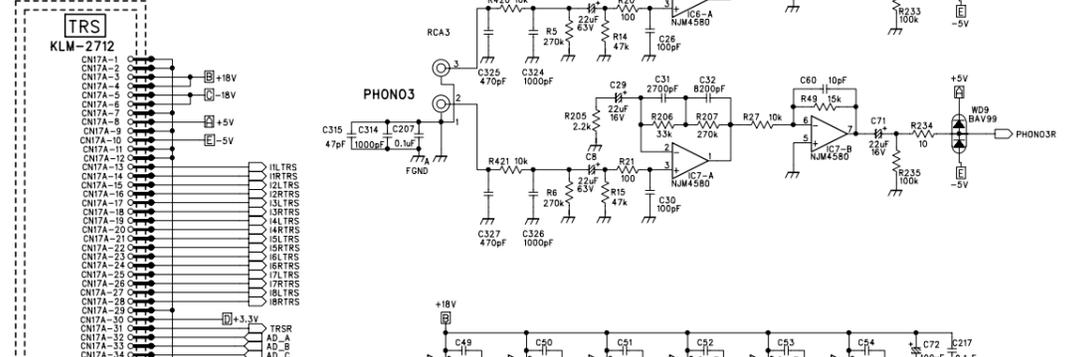
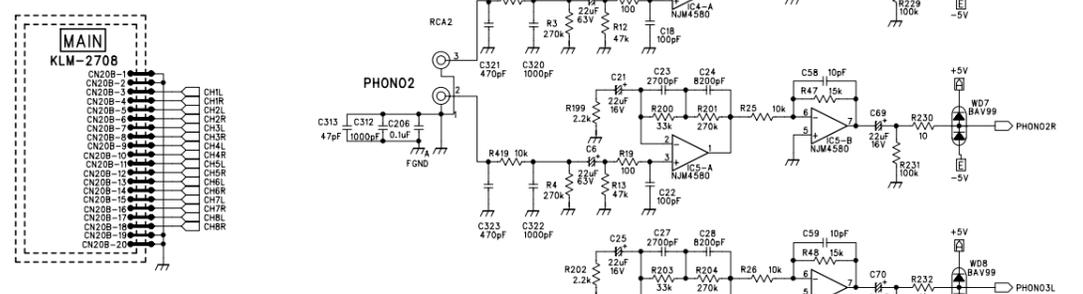
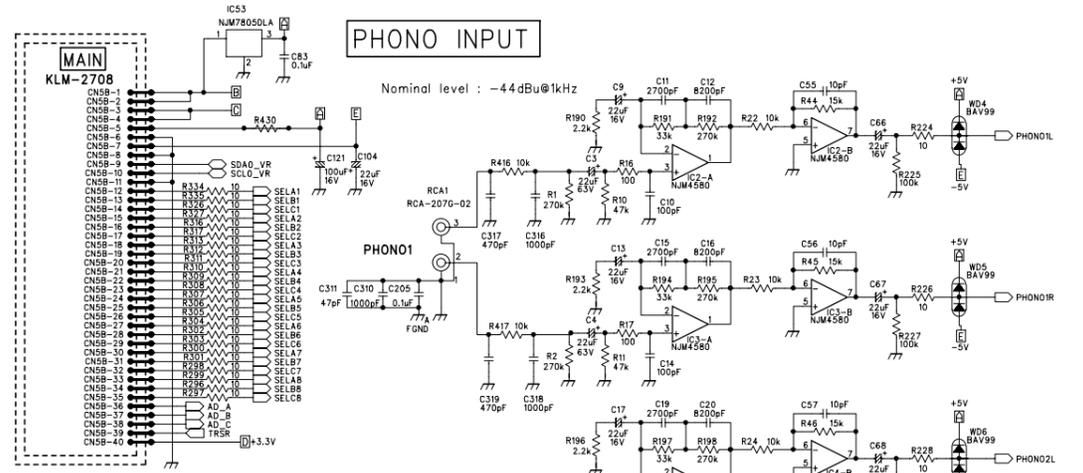
KLM-2717



DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL	ZER08(X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE	KLM-2714/16/17B
					CIRCUIT DIAGRAM 1/3
DRAWING NO.				KOD-A30683	DATE
					'07. 2.22

KLM-2716





MARK	REVISION	REASON	DATE	REVISED	APPROVED

DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL	ZER08(X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE	KLM-2714/16/17B
DRAWING NO.					KOD-A30684
DATE					'07. 2.22

KLM-2714



<controller Board 1> FADER MODULE

MODELA:BJ

MODE

	MODE1	MODE2	MODE3*	MODE4*	MODE5*	MODE6*	...	MODE16*
MODE0	A	A	A	A	B	B	-	D
MODE1	A	B	C	D	A	B	-	D

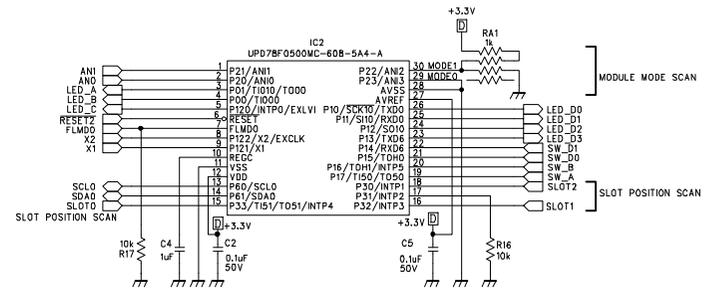
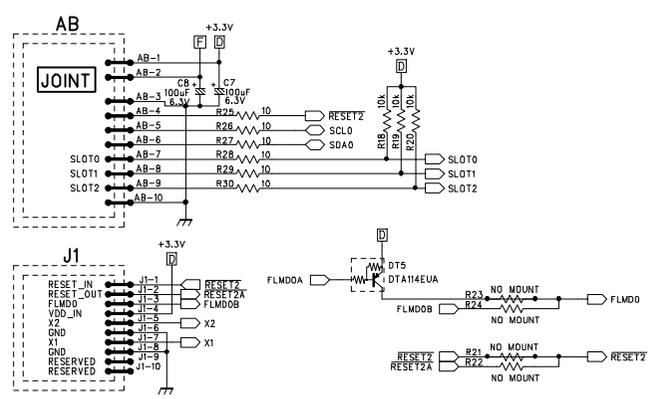
* RESERVED

* MODE1[A/A]の場合、X-5810パネルエンコーダー用
SLOTはSCANしない

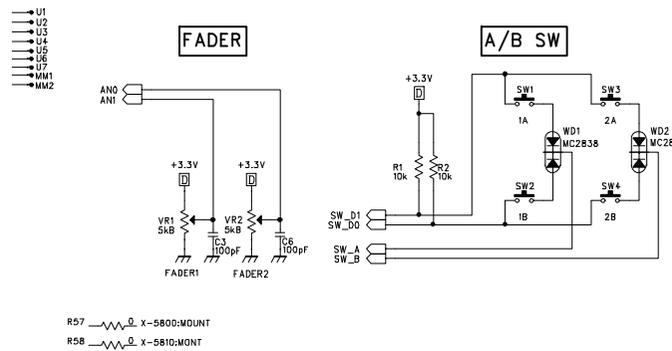
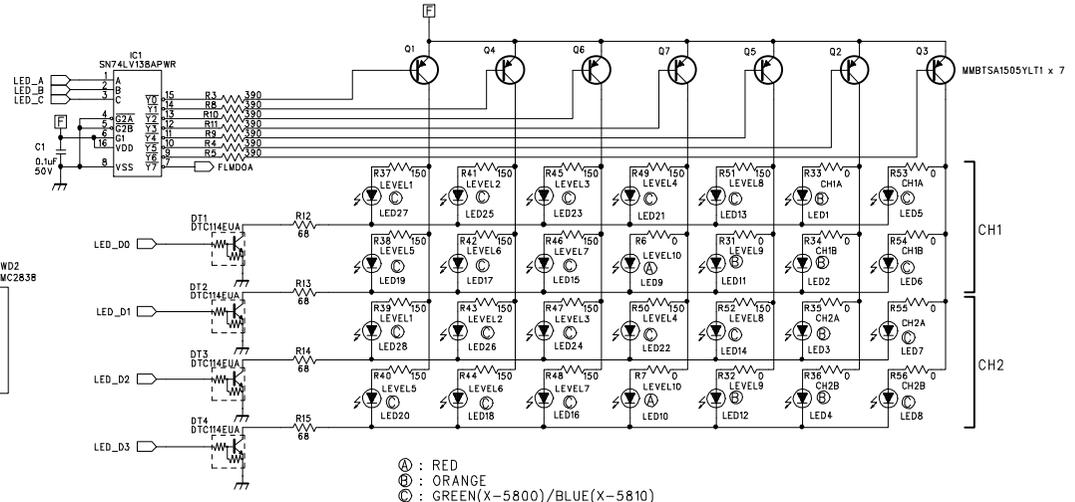
SLOT

	SLOT1	SLOT2	SLOT3	SLOT4	SLOT5*	SLOT6*	SLOT7*	SLOT8*
SLOT0	0	0	0	0	1	1	1	1
SLOT1	0	0	1	1	0	0	1	1
SLOT2	0	1	0	1	0	1	0	1

* RESERVED

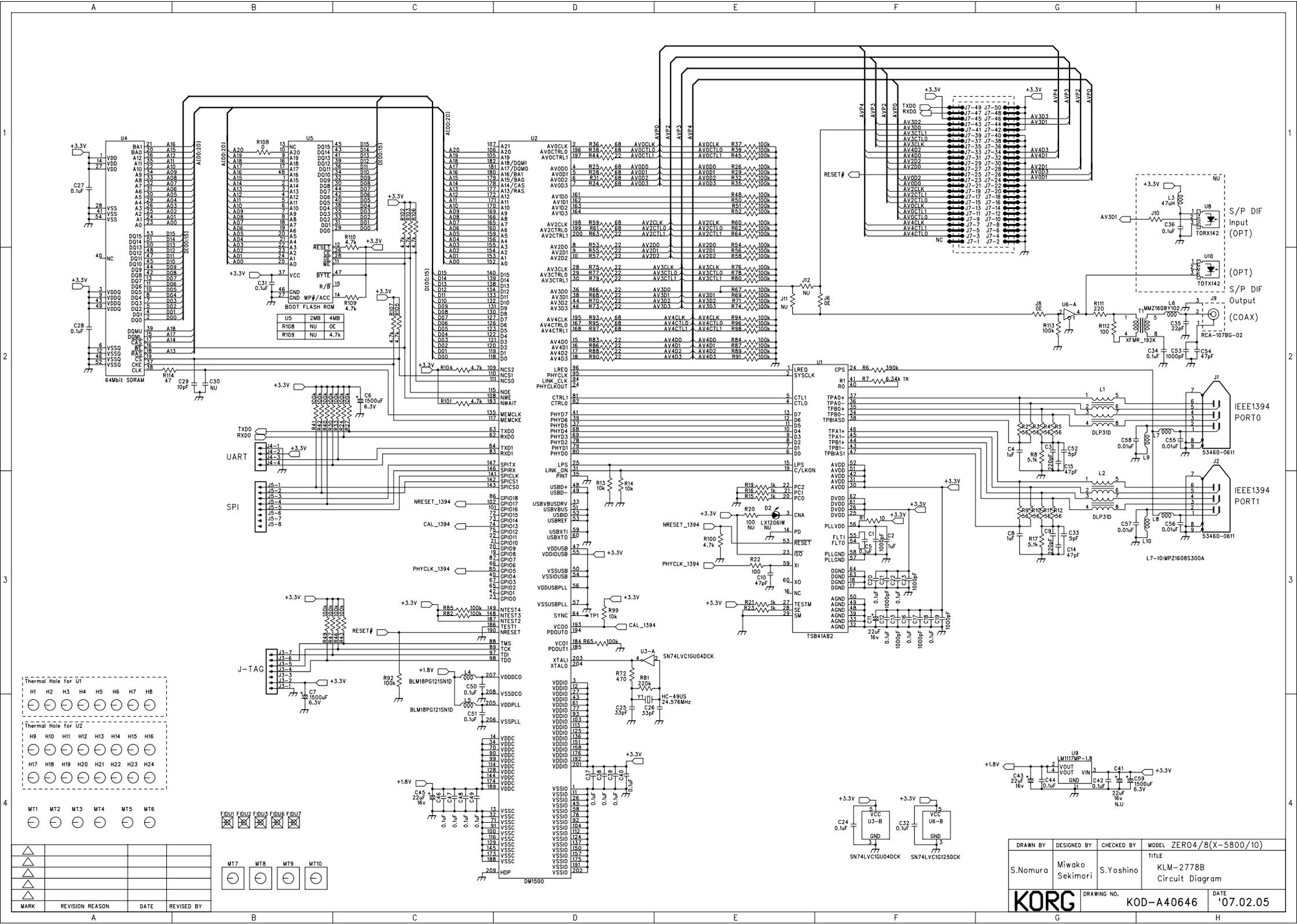


LEVEL METER



△				
△				
△				
△				
△				
MARK	REVISION REASON	DATE	REVISED	APPROVED

DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL	ZERO4/ZERO8(X-5800/5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE	KLM-2718B LCD CIRCUIT DIAGRAM
KORG		DRAWING NO.	KOD-A40618	DATE	'06.12.27



•About this check

After repairing, you need not do all these checks.
Please do the necessary checks corresponding to the repairing.

When you do the checks of Page1/14–Page5/14,
do the checks according to this manual.

Page6/14–Page14/14 are checks for INPUTs and OUTPUTs.
These do the checks that sound from INPUTs are correctly reproduced
from OUTPUTs.
You can use different equipments from this manual for these checks.

- Equipments :
- AC cord
 - MIDI cable × 1
 - TRS standard (unbalance)---TRS standard (unbalance) cable x2
 - TRS standard (unbalance)---RCA Pin cable x2
 - Headphones (both Standard plug and mini-plug)
 - Audio analyzer or oscillator
 - D3200 x1

1. Start of the Check

Appearance Check

(Translation omitted.)

Connection

Connect the AC cord.

Connect MIDI IN and MIDI OUT as a loop.

right phot

How to start the Test Mode.

Confirm that the ZERO8 is factory setting (see end of this manual).
Pressing the [SEND] of ZERO FX section and the [HOLD],
turn the power on.

2. Internal Check

• At first the Internal check starts in the test mode.(Fig1)

• SDRAM Check

- ① Check of SDRAM
- ② When an error (Address bus or data bus) occurred,
the check stops and the segments (see right) are blinking
- ③ When the check has passed normally, the check proceeds to the next.

• FlashROM Check

- ① Manufacturer ID and Device ID are read from the Flash ROM.
- ② When an error occurred, the check stops and the segments (see right) are blinking
- ③ When the check has passed normally, the check proceeds to the next.

• MIDI LOOP Check

- ① When an error occurred, the check stops and the segments (see right) are blinking
- ② When the check has passed normally, the system version is displayed.

3. Confirmation of the system version

the system version is displayed.

Confirm that the system version is 1.04 or after.

* Confirm that it is the newest version when some version-up has been done.

Press the [MASTER] to proceed to the next.

4. JACK SW Check

Fig.2 is displayed in the LCD display.

1.Connect a cable to CH1 LINE INPUT (TRS) R terminal.

The LCD display changes like following.

JACK IN 'LINE 2 CH-R'
JACK SW.2: ON

2.After confirmed the display, pull out the cable and connect to the CH2 LINE INPUT(TRS) R.

The LCD display changes like following.

JACK IN 'LINE 3 CH-R'
JACK SW.3: ON

After this, same as above, repeat to pull out the cable and connect it regarding following.
CH3-R, CH4-R, CH5-R, CH6-R, CH7-R, CH8-R

Fig.3 is displayed when the cable is connected to the CH8-R.

When the check passed normally, all LEDs of the ZERO8 are turned on.
Pull out the cable from the CH8-R.

Connection

- AC cord
- MIDI cable(IN-OUT LOOP)



Fig 1 Display of version

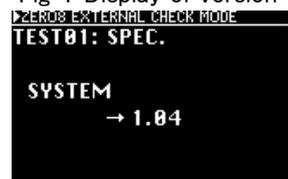


Fig 2 JACK SW Check

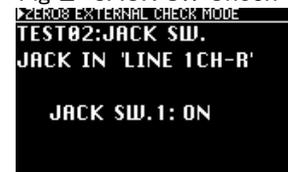
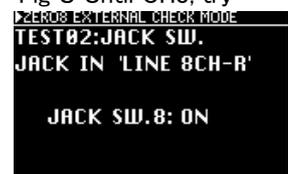


Fig 3 Until CH8, try



5. SW & LED Check

5-1. All LED light and individually light

Fig.4 is displayed.

Confirm that each LED light by the color of "all LED light 1" in the Table1.

Press the [MASTER].

Fig.5 is displayed.

Confirm that each LED light by the color of "all LED light 2" in the Table1.

All LED light 1

Fig 4

ZERO8 EXTERNAL CHECK MODE
TEST03: LED / SWITCH
STEP01: LED ALL-ON(1)

All LED light 2

Fig 5

ZERO8 EXTERNAL CHECK MODE
TEST03: LED / SWITCH
STEP02: LED ALL-ON(2)

Table1 LED light Check

LEDs which are checked.	All LEDs light 1	All LEDs light 2
1-8CH GAIN	Orange	Red
1-8CH INPUT SELECTOR - EQ SELECTOR-HI-FREQ-MID-LO each volume	Orange	Blue
1-8CH PAN-EXT1-EXT2-ZERO FX SEND each volume	Orange	Blue
1-8CH [CUE][A][B] each switch	Orange	Blue
1-8CH FADER meter LED	0-8: Blue,9: Orange10: Red	0-8: Blue,9: Orange10: Red
Meter Back light L&R	White	White
Meter Peak LED L&R	Red	Red
FIREWIRE LED	Yellow	Yellow
EXT1 [CUE] EXT2 [CUE] ZERO FX [CUE] each switch	Orange	Orange
EXT1-EXT2-ZERO FX each volume	Orange	Orange
BOOTH-MASTER-(MONITOR section)BAL-LEVEL each volume	Orange	Orange
[SET UP]-[BPM]-[AUTO]-[TAP] each switch	Blue	Blue
(CONTROLLER BANK section)[A]-[B]-[C]-[D] each switch	Blue	Blue
1-8 each ROTARY ENCODER	Blue	Blue
[HOLD]-(ZERO FX section) CHANNEL-[SEND]-[MASTER] each switch	Orange	Orange

After the confirmation,
press the [MASTER]

Fig.6 is displayed.

By each group "all LED light 1" and "all LED light 2" mutually light.

- Ch1 GAIN
- CH1 INPUT SELECTOR, EQ SELECTOR, HI, FREQ, MID, LO each volume
- CH1 PAN, EXT1, EXT2, ZERO FX SEND each volume

Same as above proceed the check , CH2, CH3,,,until CH8 by pressing the [MASTER].

After confirmed CH8 PAN, EXT1, EXT2, ZERO FX SEND each volume, press the [MASTER]
the meter LED beside the CH FADER begins to light.

Confirm that the meter LED lit from 0 to 10, and turned off from 10 to 0.

Press the [MASTER].

The meter LED of CH2 begins to light.

Same as above, confirm CH3,,,CH8.

Press the [MASTER] to proceed to the next.

Individually light

Fig 6

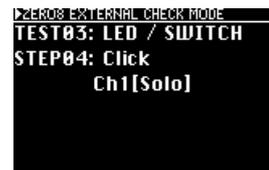
ZERO8 EXTERNAL CHECK MODE
TEST03: LED / SWITCH
STEP03: LED GROUP

5-2. SW Check

Fig.7 is displayed in the LCD.

Operate the switches like Table 2.

Fig 7 SW Check



B:Blue
R:Red
O:Orange

Table2 SW Check

Switches which are checked.	LED which lights.	Color	Notice
1-8ch toggle switch "SOLO" → "OFF" → "CUT"	-	-	"CUT" side is momentary.
1-8ch [CUE] x 2	[CUE]	O→B	Press twice each.
1-8ch [A] [B] each switch x 2	[A] or [B]	O→B	Press[A]twice,Press[B] twice
EXT1 [CUE]	[CUE]	O	
EXT1 [CUE]	Meter L Peak LED	R	
EXT1 [CUE]	Meter R Peak LED	R	
EXT1 [CUE]	FireWire LED	O	
EXT2 [CUE]	[CUE]	O	
ZERO FX [CUE]	[CUE]	B	
[SET UP]	[SET UP]	B	
[BPM]	[BPM]	B	
[AUTO]	[AUTO]	B	
[TAP]	[TAP]	B	
[A]	[A]	B	
[B]	[B]	B	
[C]	[C]	B	
[D]	[D]	B	
1-8ROTARY ENCODER Push Switch	-	-	Press the knob.
[HOLD]	[HOLD]	O	
[CHANNEL]	[CHANNEL]	O	
[SEND]	[SEND]	O	
[MASTER]	[MASTER]	O	

6. LCD Check

1. Confirm that all dots of LCD are lighting white.

2. Press the [MASTER].

Confirm that there is not uneven or lack of a dot.

3 Confirm that all dots of LCD are black.

Confirm that there is not a white dot or an alien substance, a scratch inside of the LCD.

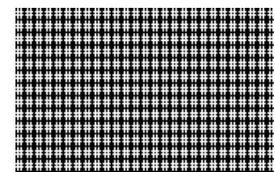
4 Press the.[MASTER].

As Fig.8 "#" is displayed in the LCD and it repeats to change light and shade.

Confirm that this changing is normal.

5. Press the [MASTER] to proceed to the next.

Fig 8 LCD Contrast Check



7. Touch Panel Check

1. Touch the top left white square of the LCD. (Fig 9)

2. Touch the top right white square of the LCD.(Fig 10)

3.Touch the center white square of the LCD.

4. The white square follows to the point which you touch and move.

•Confirm that that the point you are touching and the white square are same.

•It follows to your moving finger.

•Confirm that when you touch the top left and the bottom right, the white square is display

* When you want to repeat from 1, press the [HOLD].

5. Press the [MASTER] to proceed to the next.

Fig 9 After touched the top left.



Fig.10 After touched bottom right.



Fig.11 Touch and move Check



8. 1-8 Rotary Encoder Check

Set the pointer of the Encoder 1 knob to the reference position of bottom, push the Encoder knob and reset the count to "0"(Fig.12)

2. Rotate the Encoder 1 to the right for one around and confirm that the display is "30" and the characters of the display are reversed.

3. Press the [MASTER].

4. Rotate the Encoder 1 to the left for one around and confirm that the display is "-30" and the characters of the display are reversed.

5. Press the [MASTER] to proceed to the next encoder..

6. Same as above do the check of Encoder 2-8.(Fig.15)

7. After Encoder8 proceed to the next.

Fig 12 Encoder 1 start

ZERO8 EXTERNAL CHECK MODE		
TEST06:ROTARY ENC.		
ENC.1	00	Right
ENC.2	00	
ENC.3	00	
ENC.4	00	

Fig 13 Encoder 1 right

ZERO8 EXTERNAL CHECK MODE		
TEST06:ROTARY ENC.		
ENC.1	+30	Right
ENC.2	00	
ENC.3	00	
ENC.4	00	

Fig 14 Encoder 1 left

ZERO8 EXTERNAL CHECK MODE		
TEST06:ROTARY ENC.		
ENC.1	-30	Left
ENC.2	00	
ENC.3	00	
ENC.4	00	

Fig 15 Do until Encoder8

ZERO8 EXTERNAL CHECK MODE		
TEST06:ROTARY ENC.		
ENC.5	OK	
ENC.6	OK	
ENC.7	OK	
ENC.8	-30	Left

9. A/D (volume) Check (ch.1-8)

About the 1-8ch. each volume, do the check as the following order.
Confirm that you can move the volumes smoothly.

And confirm that the numeral is changes smoothly except the 11 clicks volume.

1.<<INPUT SELECTOR>>

(11points clicks are <left>1-2-3-4-5-6-7-8-9-10-11<right>).

(0) Confirm that the LCD display is Fig.16.

(1) Set the volume to the position of "11".

(2) After "WAIT", ">10" is displayed, then set the volume to the position of "10".

(3) Same as (2) set the volume 6->2->1.

(4) After "1", the check proceeds to the next volume.

2.<<EQ SELECTOR >> (11points clicks)

Same as the<<INPUT SELECTOR>> do the check.

3.<<GAIN>> → 4.<<HI>> → 5.<<FREQ>> → 6.<<MID>> → 7.<<LO>> → 8.<<PAN>> (VR with center click) (Fig. 17)

(1) Rotate the volume to MAX (right end).

(2) Rotate the volume to MIN (left end).

(3) Set the volume knob to the center position.

When the check is passed, the numeral of the LCD is reversed,
and the check proceeds to the next volume.

9.<<EXT1> → 10.<<EXT2>> → 11.<<ZERO FX SEND>>

(without center click) (Fig.18)

(1) Rotate the volume to MAX (right end).

(2) Rotate the volume to MIN (left end).

When the check is passed, the numeral of the LCD is reversed,
and the check proceeds to the next volume.

12. <<CH FADER>>

(1) Rotate the volume to MAX (right end).

(2) Rotate the volume to MIN (left end).

When the check is passed, the numeral of the LCD is reversed,
and the check proceeds to the next volume(Fig.19).

10. A/D (volume) Check (others)

1.<<EXT1> → 2.<<EXT2>> → 3.<<ZERO FX>> → 4.<<BOOTH>> → 5.<<MASTER>> → 6.<<BAL>> (without center click) (Fig 2 0)

(1) Rotate the volume to MAX (right end).

(2) Rotate the volume to MIN (left end).

When the check is passed, the numeral of the LCD is reversed,
and the check proceeds to the next volume.

*<LEVEL> is not checked here.

7.<< CROSS FADER>>

(1)Move the FADER knob to the right end.

Confirm that the display is "127".

(2)Move the FADER knob to the left end.

Confirm that the display is "000".

When the check is passed, the numeral of the LCD is reversed.(Fig.21)

Press the [MASTER].

After few seconds "fig.22" is displayed in the LCD.

Then turn the power off.

Pull out the MIDI cable from the MIDI IN and MIDI OUT.

Fig 16



Fig 17



Fig 18



Fig 19 CH1 completed



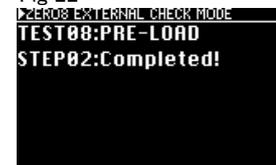
Fig 20 Others



Fig 21 CROSS FADER



Fig 22



Normal Mode Check**Preparation**

Turn the power on of D3200. Select the DemoSong "I'd Be A Fool".
Pressing the SONG switch of the D3200, and press the "+" "or" "-" for several times,
when "I'd Be A Fool" is displayed then release your fingers from the switches.

Set the MASTER FADER of the D3200 to "0".

Connect the ZERO8 and the D3200 like following.
ZERO8 CH1 LINE L/MONO — D3200 MASTER OUT L
ZERO8 CH1 LINE R — D3200 MASTER OUT R

Check

- Confirm that the setting of ZERO8 is factory setting.
- Turn the power on of the ZERO8.

Confirm that the TAP LED is blinking.

Set the ZERO8 like following.
BOOTH VOL, MASTER VOL → MAX (right end)
CH1-8 MODULE FADER → MAX (top)
MONITOR BAL → MAX (right end)
CH1-8 INPUT SELECTOR → LINE

• Confirmation of LINE(TRS) INPUT.

Press the PLAY switch of D3200. (Demosong starts.)
Connect the headphones to ZERO4 MONITOR.
Set the "LEVEL" to MAX (right end).

You can hear the demo song of the D3200, confirm that there is not noise and fragmentary sound.

Set the LEVEL (right bottom side) to MIN (left end).

Confirm that the sound disappeared.

Take out the headphone plug from the CH1 LINE L/MONO
and connect to the CH2 LINE L/MONO.

Take out the headphone plug from the CH1 LINE R
and connect to the CH2 LINE R.

Set the "LEVEL" to MAX (right end).
You can hear the demo song of the D3200, confirm that there is not noise and fragmentary sound.

Same as above do the check about CH3-8 using headphones.

After CH8
Press the STOP switch of the D3200. Then the demo song stops.
Pressing the STOP of the D3200, press the REW. (the song returns to the top.)
Set the LEVEL to MIN (left end).
Pull out the cables which are connected with D3200.

*For example,
this explanation uses the D3200.
Any sound source is Ok which
can be connected to the ZERO4.

*Before CH8 the demo song
of the D3200 finished,
Pressing the STOP of D3200
Press the REW switch.
The song returns to the top.
Then press the PLAY.

• Confirmation of CD/LINE (RCA) INPUT

Connect the ZERO8 and the D3200 like following.
ZERO8 CH1 CD/LINE L/MONO - D3200 MASTER OUT L
ZERO8 CH1 CD/LINE R - D3200 MASTER OUT R

Set the CH1-8 INPUT SELECTORs to "CD/LINE".

Press the PLAY switch of D3200. (Demo song starts.)

Connect the headphones to ZERO8 MONITOR.
Set the "LEVEL" to MAX (right end).

You can hear the demo song of the D3200, confirm that there is not noise and fragmentary sound.

Same as above confirm regarding CH2-8 CD/LIN INPUTs.

After confirmation of the CH8,
Press the STOP switch of the D3200. Then the demo song stops.
Set the "LEVEL" to MIN (left end).
Pressing the STOP of the D3200, press the REW. (the song returns to the top.)
Pull out the cables which are connected.

Confirmation of PHONO INPUT1,2,3 (RCA)

Set all CH FADERS of ZERO8 to "0" position.
Set all GAINS of ZERO8 to "--"(left end).

Connect the ZERO8 and the D3200 like following.
ZERO8 CH1 PHONO L - D3200 MASTER OUT L
ZERO8 CH1 PHONO R - D3200 MASTER OUT R

Set the MASTER FADER of the D3200 to "60".

Set the CH1-8 INPUT SELECTORs to "PHONO 1".
Connect the headphones to MONITOR R of ZERO8.

Press the PLAY switch of D3200. (Demo song starts.)
Set the "LEVEL" to MAX(right end).
Set the CH1 GAIN of ZERO8 to the center.
Set the CH1 CH FADER to "10".

You can hear the demo song of the D3200 through the headphones,
confirm that there is not noise and fragmentary sound.

Set the CH1 CH FADER of ZERO8 to "0".
Set the CH1 GAIN of ZERO8 to "--"(left end).

Set the CH2 GAIN of ZERO8 to the center.
Set the CH2 CH FADER to "10".

You can hear the demo song of the D3200 through the headphones,
confirm that there is not noise and fragmentary sound.

Set the CH2 CH FADER of ZERO8 to "0".
Set the CH2 GAIN of ZERO8 to "--"(left end).

Same as above do the check of CH3-8.

After finished CH8,
press the STOP switch of the D3200. Then the demo song stops.
Pressing the STOP of the D3200, press the REW. (the song returns to the top.)

Confirm that all CH FADERS of ZERO8 are "0".
Confirm that all GAINS of ZERO8 are "--"(left end).

Connect the ZERO8 and the D3200 like following.
ZERO8 PHONO2 L — D3200 MASTER OUT L
ZERO8 PHONO2 R — D3200 MASTER OUT R

Set the CH1-8 INPUT SELECTORs to "PHONO 2".
Same way as the PHONO1, confirm that the sound from PHONO2 can be heard
by each channel.

After finished CH8 of PHONO2,
press the STOP switch of the D3200. Then the demo song stops.
Pressing the STOP of the D3200, press the REW. (the song returns to the top.)

Confirm that all CH FADERS of ZERO8 are "0".
Confirm that all GAINS of ZERO8 are "--"(left end).

Connect the ZERO8 and the D3200 like following.
ZERO8 PHONO3 L — D3200 MASTER OUT L
ZERO8 PHONO3 R — D3200 MASTER OUT R

Same way as the PHONO1, confirm that the sound from PHONO3 can be heard by each channel.

After finished CH8 of PHONO3,
Confirm that all CH FADERS of ZERO8 are "0".
Confirm that all GAINS of ZERO8 are "-" (left end).

press the STOP switch of the D3200. Then the demo song stops.
Pressing the STOP of the D3200, press the REW. (the song returns to the top.)

Pull out the cables which are connected.

• Confirmation of MIC INPUT1,2 (MIC GAIN HIGH/LOW)

Connect the ZERO8 and the D3200 like following.
ZERO8 MIC 1(TRS) terminal – D3200 MASTER L

Confirm that the MIC GAIN switch (under the MIC1 TRS) of ZERO8 is "HIGH".

Set the CH1-8 INPUT SELECTORs to "MIC 1".

Set the CH1-8 GAIN to the center.

Set the MASTER FADER of D3200 to "40".

Press the PLAY switch of D3200. (Demo song starts.)

Set the CH1 module FADER to "10".

You can hear the demo song of the D3200 through the headphones,
confirm that there is not noise and fragmentary sound.

Press the MIC GAIN (under the MIC1 TRS) and set it to "LOW".

Confirm that the sound of the headphones becomes smaller.

Set the CH1 module FADER to "0".

Press the MIC GAIN (under the MIC1 TRS) of ZERO8 and set it to "HIGH".

Set the CH2 module FADER to "10".

Confirm that there is not noise and fragmentary sound from the headphones.

Press the MIC GAIN (under the MIC1 TRS) and set it to "LOW".

Confirm that the sound of the headphones becomes smaller.

Set the CH2 module FADER to "0".

Press the MIC GAIN (under the MIC1 TRS) of ZERO8 and set it to "HIGH".

Same way confirm until CH8.

After confirmed CH8,
press the STOP switch of the D3200. Then the demo song stops.
Pressing the STOP of the D3200, press the REW. (the song returns to the top.)

Set the CH1-8 GAIN to "--"(left end).

Connect the ZERO8 and the D3200 like following.
ZERO8 MIC2(TRS) terminal – D3200 MASTER L

*This check uses D3200,
instead of a microphone
If you have a microphone, please use it.

Continued to the next

Confirm that the MIC GAIN switch (under the MIC2 TRS) of ZERO8 is "HIGH".

Set the CH1-8 INPUT SELECTORs to "MIC2".

Set the CH1-8 GAIN to the center.

Press the PLAY switch of D3200. (Demo song starts.)

Set the CH1 module FADER to "10".

You can hear the demo song of the D3200 through the headphones, confirm that there is not noise and fragmentary sound.

Press the MIC GAIN (under the MIC2 TRS) and set it to "LOW".

Confirm that the sound of the headphones becomes smaller.

Set the CH1 module FADER to "0".

Press the MIC GAIN (under the MIC2 TRS) and set it to "HIGH".

Same way confirm until CH8.

After confirmed CH8,
press the STOP switch of the D3200. Then the demo song stops.
Pressing the STOP of the D3200, press the REW. (the song returns to the top.)

Pull out the cables which are connected.

Press the PHANTOM (under MIC1 TRS MIC GAIN) of ZERO8.

Confirm that the "MIC1+48V" LED between INPUT SELECTOR1 and 2 light.

Press the PHANTOM switch again, "MIC1 +48V" LED turned off.

Press the PHANTOM (under MIC2 TRS MIC GAIN) of ZERO8.

Confirm that the "MIC 2 +48V" LED between INPUT SELECTOR1 and 2 light.

Press the MIC2 PHANTOM switch again, "MIC2 +48V" LED turned off.

press the STOP switch of the D3200. Then the demo song stops.
Pressing the STOP of the D3200, press the REW. (the song returns to the top.)

Pull out the cables which are connected.

• Confirmation of GUITAR INPUT(TRS)

Connect the ZERO8 and the D3200 like following.
ZERO8 GUITAR — D3200 MASTER L

Set the MASTER FADER of the D3200 to "20".

Set the CH1-8 INPUT SELECTORs to "GUITAR".
Set the CH1-8GAIN to the center.
Press the PLAY switch of D3200. (Demo song starts.)

Set the CH1 CH FADER to "10".

You can hear the demo song of the D3200 through the headphones,
confirm that there is not noise and fragmentary sound.

Set the CH1 CH FADER to "0".
Set the CH2 CH FADER to "10".

Confirm that there is not noise and fragmentary sound.

Set the CH2 CH FADER to "0".
Set the CH3 CH FADER to "10".

Confirm that there is not noise and fragmentary sound.

Same way confirm until CH8.

After confirmed CH8,
press the STOP switch of the D3200. Then the demo song stops.
Pressing the STOP of the D3200, press the REW. (the song returns to the top.)

Pull out the cables which are connected.

*This check uses D3200,
instead of a guitar.
If you have a guitar, please use it.

•Check of OUTPUT terminal

Setting and reading of the song (D3200)

Pressing the SONG switch of the D3200, press the "+" or "-" switch for several times and the song name which is made by next item is displayed then release your fingers from the switches.

After few seconds, the reading data is completed.

Set the CH1 and CH2 FADERS to "0".

Press the channel keys of CH1 and CH2 and let the red LED turned on.

Set the MONITOR LEVEL to "0".

Set the PAD to "ON"(under the INPUT 1,2 TRS)

Rotate the TRIM(under the PAD) to the left end.

Connect headphones to the PHONES.

Connect ZERO8, Audio-analyzer(or oscillator), D3200 like following.

ZERO8 CH1 LINE L/MONO(TRS) – Audio-analyzer

ZERO8 CH1 LINE R(TRS) – Audio-analyzer

ZERO8 MASTER OUT L(XLR) – D3200 INPUT1 XLR terminal

ZERO8 MASTER OUT R(XLR) – D3200 INPUT2 XLR terminal

Set the CH1 INPUT SELECTOR of ZERO8 to "LINE".

Set the CH1 GAIN of ZERO8 to the center (12o'clock)

Input the sine-wave 440Hz 0dBu from the Audio analyzer (or oscillator).

Set the CH1 module FADER to "10".

Confirm that the sine-wave can be heard from the headphones which is connected to D3200.

(Adjust the MASTER FADER and PHONES LEVEL of D3200 appropriately.)

Set the CH1 module FADER to "0".

Stop the input form the audio-analyzer (or osc).

Take out the following connection.

ZERO8 MASTER OUT L(XLR) D3200 INPUT1 XLR

ZERO8 MASTER OUT R(XLR) D3200 INPUT2 XLR

Connect the ZERO8 and D3200 like following.

ZERO8 MASTER OUT L(TRS) — D3200 INPUT1 TRS

ZERO8 MASTER OUT R(TRS) — D3200 INPUT2 TRS

Input the sine-wave 440Hz 0dBu from the Audio analyzer (or oscillator).

Set the CH1 module FADER to "10".

Confirm that the sine-wave can be heard from the headphones which is connected to D3200.

(Adjust the MASTER FADER and PHONES LEVEL of D3200 appropriately.)

Press the "+4dBu/-10dBu" switch (upper position of MASTER OUT (TRS)).

Confirm that the sound from the headphones becomes smaller.

Set the CH1 module FADER to "0".

Press the "+4dBu/-10dBu" switch again.

Stop the input form the audio-analyzer (or osc).

Take out the following connection.

ZERO8 MASTER OUT L(TRS) — D3200 INPUT1 TRS

ZERO8 MASTER OUT R(TRS) — D3200 INPUT2 TRS

*In this OUTPUT check,
you can use other equipments
instead of D3200 and Audio-analyzer.
Please use which you can prepare.



CH1,2FADER



CH1,2 key red LEDs turned ON.

Continued to the next.

Connect the ZERO8 and D3200 like following.

ZERO8 BOOTH OUT L(TRS) — D3200 INPUT1 TRS

ZERO8 BOOTH OUT R(TRS) — D3200 INPUT2 TRS

Input the sine-wave 440Hz 0dBu from the Audio analyzer (or oscillator).

Set the CH1 module FADER to "10".

Confirm that the sine-wave can be heard from the headphones which is connected to D3200.
(Adjust the MASTER FADER and PHONES LEVEL of D3200 appropriately.)

Set the CH1 module FADER to "0".

Take out the following connection.

ZERO8 BOOTH OUT L(TRS) — D3200 INPUT1 TRS

ZERO8 BOOTH OUT R(TRS) — D3200 INPUT2 TRS

Turn the power OFF of ZERO8.

The check has completed.

Set the ZERO8 as the factory setting.

Making of new SONG for D3200

Set the allow to "NEW" in the display using the clickable pointer of D3200.

Press the clickable pointer once.

Using the clickable pointer and set the allow to "OK"

Press the clickable pointer.

After few seconds, a new song has been made.

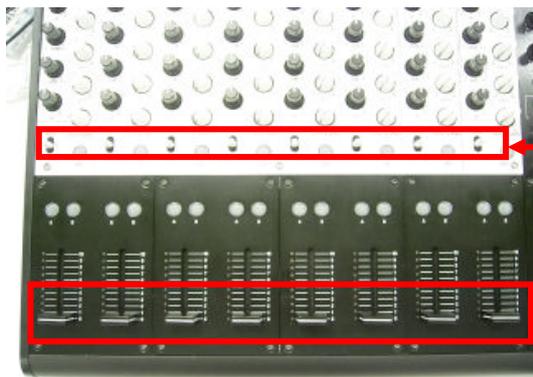
Remember the name of this song.

This new song is needed only one.

After this please use this song for the check of ZERO4 or ZERO8.

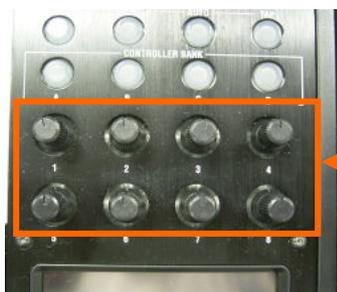


Clickable pointer



CH1-8 toggle SW
(from left CH1. . . CH8)

CH FADER (from left CH1. . . CH8)



1-8 Rotary Encoder



INPUT SELECTOR
(from left CH1. . . CH8)



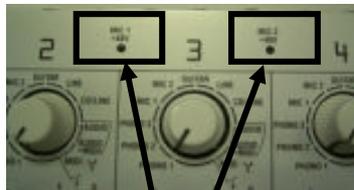
Headphones jack

LEVEL(Headphones level adjust)



MIC GAIN SWITCH

PHANTOM SWITCH



+48V LED(MIC PHANTOM ON: light)



MASTER OUT(TRS)
+4dBu/-10dBu SWITCH

ZERO4/ZERO8 Notice for the system update

2007.6.13 ootsu

(There may be some difference in the Windows display by translation from Japanese MY.)

ZERO4/ZERO8 uses several microcomputers, and these need each software which are written in the flash ROMs. When repairing in case of PCB changing, you need to do the update of softwares.

When the changing of the Firewire board, you need to assign the GUID.

This document is for the changing of the PCBs, [1] **System software update**
[2]**Firewire firmware update** [3] **GUID writing for the firewire board.**

PCBs on which microcomputers are mounted.

ZERO4

Main PCB	KLM-2708	1	ADI	Blackfin
		2	NEC	78K0/KF2
Fader PCB	KLM-2718	3	NEC	78K0/KB2 x 2
Firewire board	KLM-2778	5	BridgeCo	DM1500

ZERO8

Main PCB	KLM-2708	1	ADI	Blackfin
		2	NEC	78K0/KF2
Panel PCB	KLM-2709	3	NEC	78K0/KB2
Fader PCB	KLM-2718	4	NEC	78K0/KB2 x 4
Firewire board	KLM-2778	5	BridgeCo	DM1500

- Regarding 1-4, these are installed by the System update.
- Regarding 5, this is installed by the firewire update.

[1] System Update

[1.1:Equipments and tool]

- 1 WindowsXP computer (HomeEdition or ProfessionalEdition) with Firewire terminal
- 2 Firewire cable
- 3 KORG System update utility "kmupdate.exe" (software)
- 4 System file(*.vsb file)

*When system update KORG Firewire Audio/MIDI driver is needed for the WindowsPC (for the details see owner's manual.)

[1.2:ZERO4/ZERO8 process of the system update]

In case of ZERO4



In case of ZERO8



[ZERO4]

1	Connect ZERO4 and the WindowsPC by a Firewire cable.
2	Pressing the "BPM Select" and the "KEEP", turn the power on.
3	Confirm that "SYS.U" is displayed in the 7segments LED.
4	Wait until the "FirewireLED" lights (about 15seconds).
5	Double click the "kupdate.exe" and start.(Fig1)
6	Click the "Config" from the menu bar, and set like the "Fig2_1".
7	Click the "File" from the menu bar, select the system file (*.vsb).
8	Click the "Update" button in the "Fig3", then the system update starts.
9	After the status bar reached 100%, "Now Updating...(Writing 0)" is displayed.(Fig5) This display continues for about 5 minutes. During this display, never turn the power off.
10	"Fig6" is displayed, the system update has completed. This time the 7segments LED changes from blinking to lighting. Turn the power off of ZERO4.

[ZERO8]

1	Connect ZERO8 and the WindowsPC by a Firewire cable.
2	Pressing the "EXT1 CUE" and the "BANK C", turn the power on.
3	Confirm that "SYS.U" is displayed in the LCD.
4	Wait until the "FirewireLED" lights (about 15seconds).
5	Double click the "kupdate.exe" and start.(Fig1)
6	Click the "Config" from the menu bar, and set like the "Fig2_1".
7	Click the "File" from the menu bar, select the system file (*.vsb).
8	Click the "Update" button in the "Fig3", then the system update starts.
9	After the status bar reached 100%, "Now Updating...(Writing 0)" is displayed.(Fig5) This display continues for about 5 minutes. During this display, never turn the power off.
10	"Fig6" is displayed, the system update has completed. This time the LCD changes from blinking to lighting. Turn the power off of ZERO8.

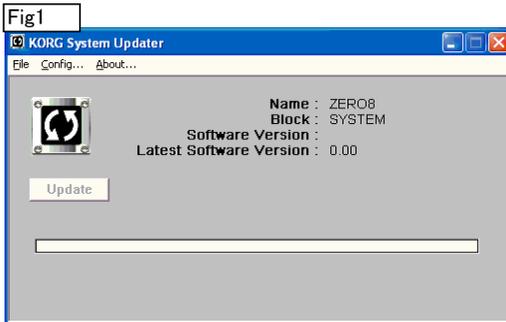


Fig2_1

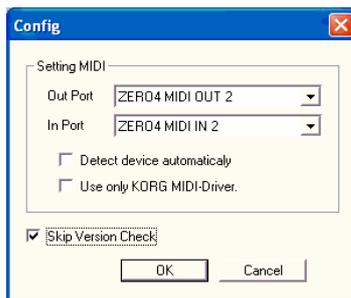
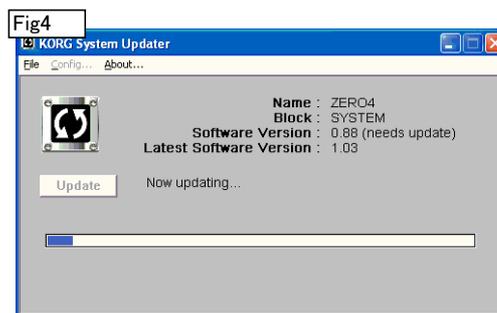
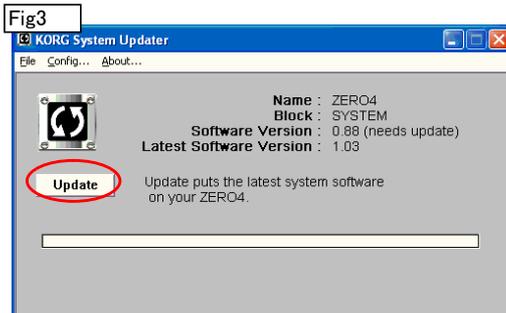
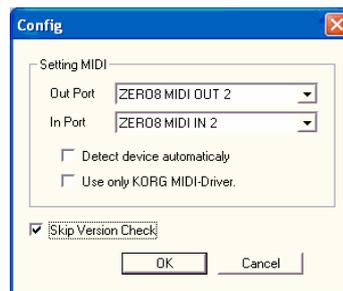
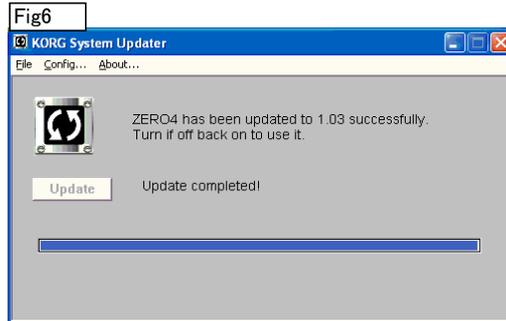
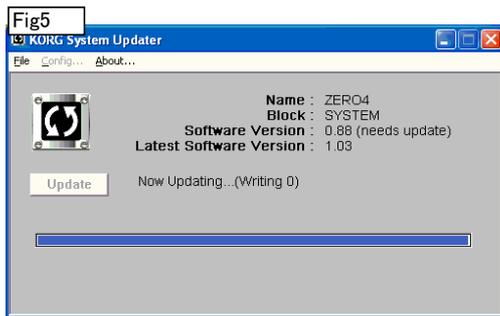


Fig2_2





[2] Firewire firmware update

[2.1: Equipments and tool]

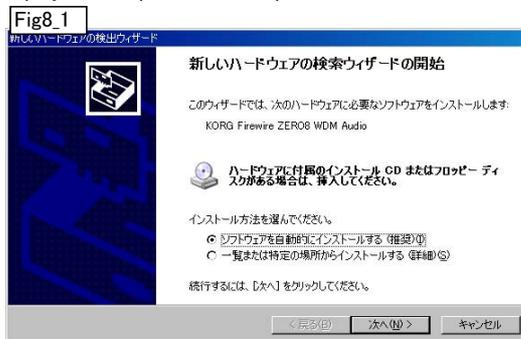
- 1 WindowsXP computer (HomeEdition or ProfessionalEdition) with Firewire terminal
- 2 Firewire cable
- 3 BridgeCo 1394 DownLoad Tool (software)
- 4 KORG DM1500 Updater (software)

[2.2: Preparation (Install of the software)]

- 1 Double click the BridgeCo 1394 DownLoad Tool ("setup_bcodl_tools_2_30_0.exe") and do the install.
 - 1_1 "New hardware device detected" is displayed, select "No, this time not connect".
 - 1_2 Dialog of "not passed the compatibility to Windows logo test" is displayed, click the "continue".
- 2 Double click the KORG DM1500 Updater("DM1500UpDaterSetup[e].exe"), and do the install. Do the install until the dialog of the install completed is displayed.

[2.3: Firewire firmware update]

- 1 Start the DM1500 Updater (Fig7).
- 2 Connect the WindowsPC and ZERO4/8 by a Firewire cable.
 - * This time for the written GUID, "New hardware device detected" is displayed then click "cancel". (Fig8.1)
 - Also DM1500 Updater clears the GUID, click the "Clear GUID" button.
 - After GUID cleared, the display becomes "Fig8.3", then turn the power off of ZER4/8. And turn the power on again.
- 3 The DM1500 Updater detects ZERO4/8, display becomes "Fig9".
- 4 Click the "Update" button, and start the update.(Fig10)
- 5 Wait for the completion of the update, Fig11 is displayed the update has completed.





[3] Writing of the Firewire GUID

The Firewire devices are needed to have a unique GUID for each device.

In the factory, there is a process to assign the GUID.

After changed the PCB by repairing, the new PCB's GUID is "0".

So you need to write the GUID before shipping.

[3.1:Equipments and tool]

- 1 WindowsXP computer (HomeEdition or ProfessionalEdition) with Firewire terminal
- 2 Firewire cable
- 3 BridgeCo 1394 DownLoad Tool (software): Same as the Firewire firmware update. Already installed?
- 4 DM15Jig (software)

[3.2:Preparation (install of the softwares)]

- 1 Install theBridgeCo 1394 DownLoadTool. When you already installed it, you need not.
- 2 Double click the DM15Jig(DM15JigSetup.msi) and install it.

[3.3:Process of the Firewire GUID writing]

- 1 Start the DM15Jig (Fig12).
- 2 Click the "Preference" button and the setting screen is appears.(Fig13).
- 3 Check in the "Skip Slave Device Check", then click "OK".
- 4 Connect the WindowsPC and ZERO4/ZERO8 (Fig14).
- 5 After detected ZERO4/8, "Fig15" is displayed, then click the "Start" button.
- 6 Click the "OK" button (Fig16).
- 7 GUID writing screen is displayed. (Fig17).
- 8 "Fig18" is displayed the writing has completed. Then turn the power off (ZERO4/8).

Fig12



Fig13

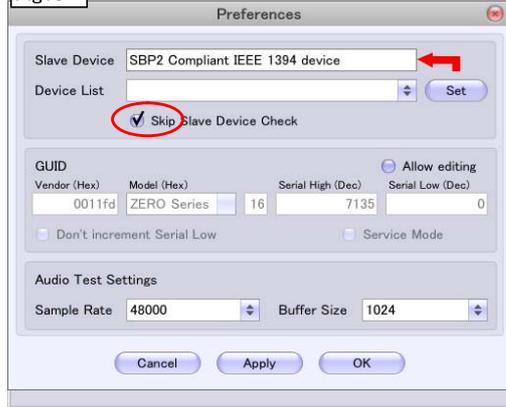


Fig14



Fig15



Fig16



Fig17

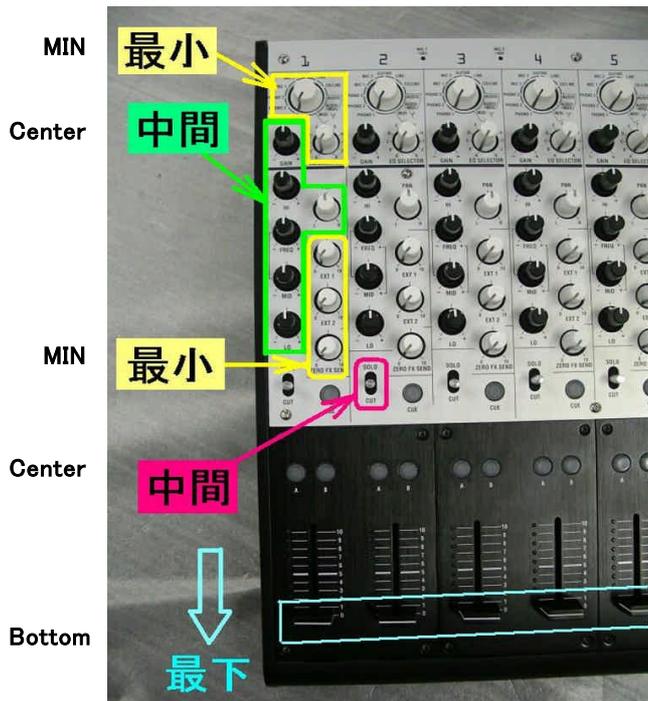


Fig18



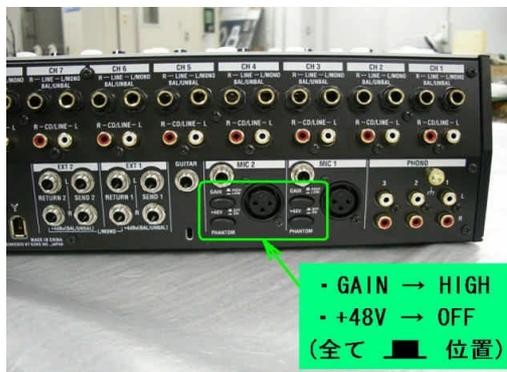
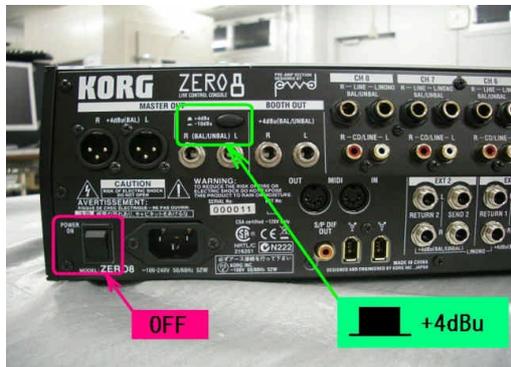
ZERO8 Factory Setting before shipping

PANEL



↑ Same as Ch1, set from Ch2 to Ch8.

REAR



GAIN:HIGH
+48V:OFF