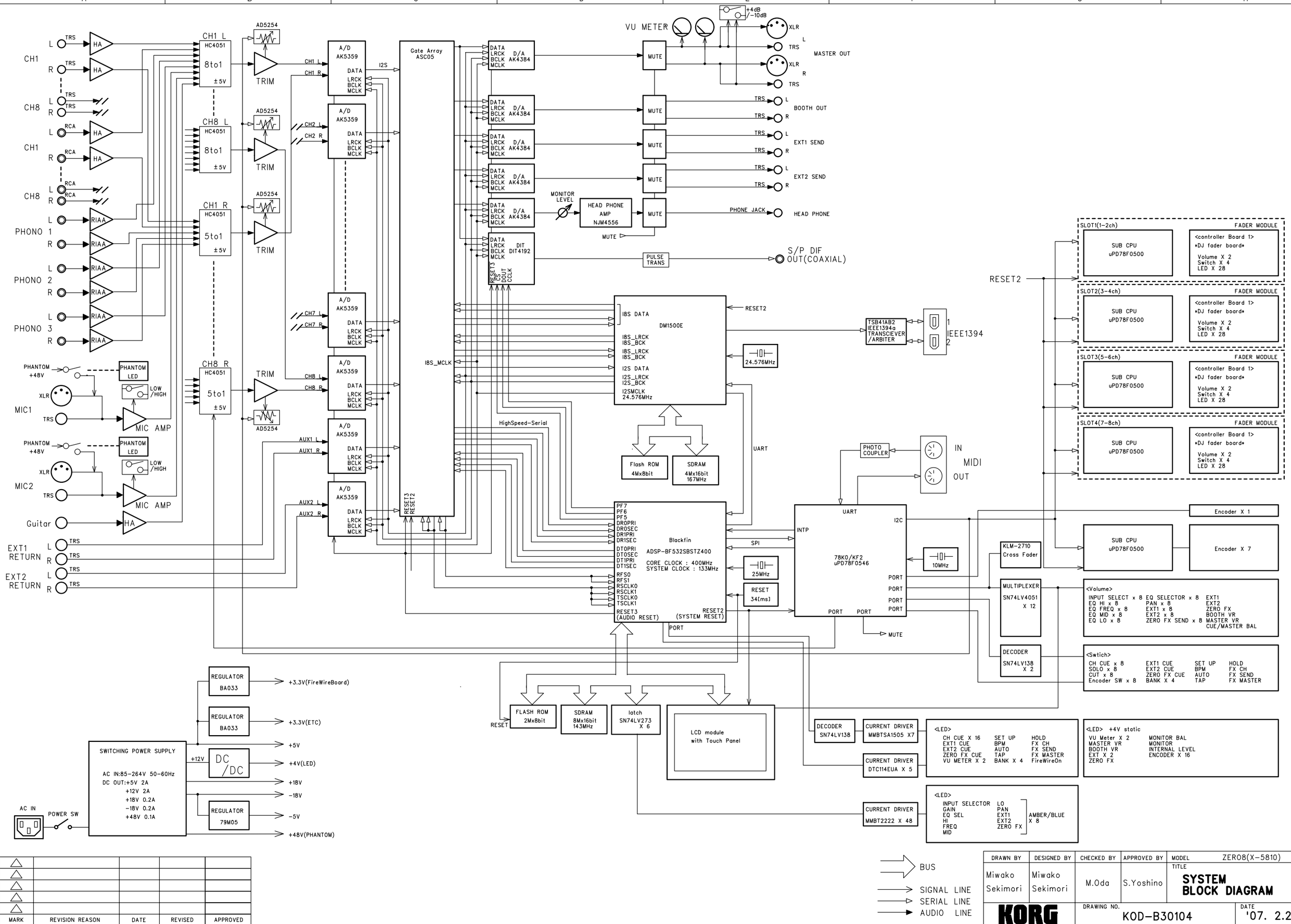

MARK	REVISION REASON	DATE	REVISED	APPROVED
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DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZER08(X−5810)
Miwako Sekimori	Miwako Sekimori	M.Oda	S.Yoshino	TITLE **SYSTEM BLOCK DIAGRAM**

KORG

DRAWING NO. KOD−B30104

DATE '07. 2.21

I2S/I8S/HSS TRANSFORM

S/P DIF OUT

DSP

FLASH

SDRAM

CH LED

SELECT/EQ

GAIN

EFF/SEND/PAN

EFF/SEND/PAN

LED_POWER

+12V to +4V

HOST CPU

CH ASSIGN

Tach Panel

Blockfin/Flash W

MIDI IN/OUT

MultiPlex Select

0.1uF X 2 : NO MOUNT

0.1uF X 15 : NO MOUNT

0.1uF x 14

0.1uF x 20

FireWireBoard
KLM-2778

MIDI
X5800:KLM-2775
X5810:KLM-2717

LCD board
KLM-2725

X5810only

JTAG port
302A-14PGAS003

Switching Power Supply Unit

INPUT:AC85-264V 50/60Hz
OUTPUT:+5V/2A
+18V/0.5A
-18V/0.5A
+48V/0.1A
+12V/1A

A:+5V B:+18V C:-18V D:+3.3V E:-5V F:+5V(LED)

MARK	REVISION REASON	DATE	REVISED	APPROVED
1	品名変更	'07.04.23	Sekimori	N.Satoh

DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZERO4/ZERO8(X-5800/5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE: KLM-2708B CIRCUIT DIAGRAM 1/2

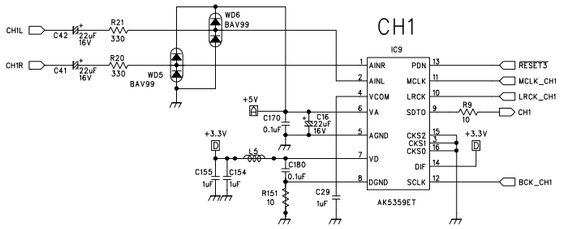
KORG

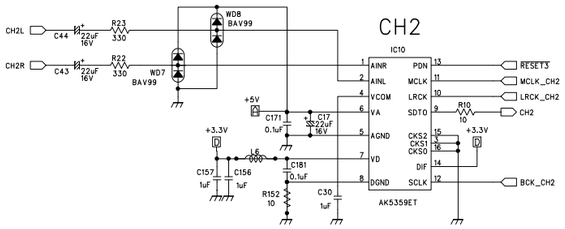
DRAWING NO. KOD-A30677

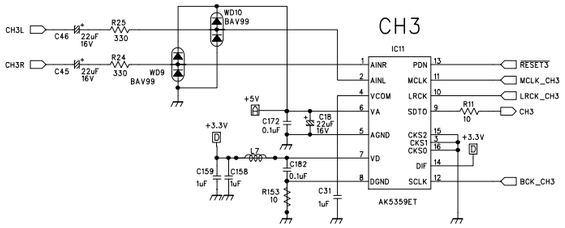
DATE '07. 2.22

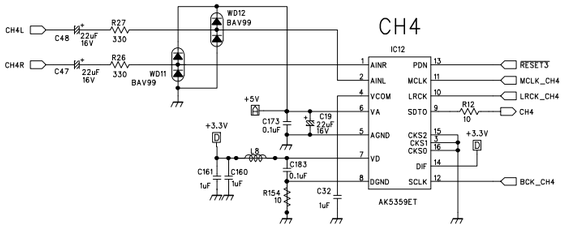
KLM-2708

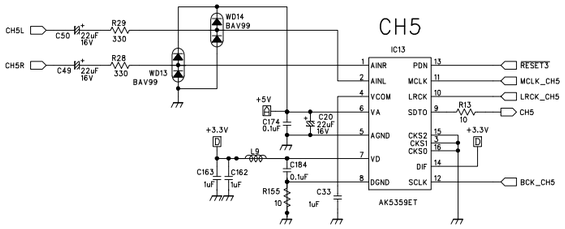
ADC

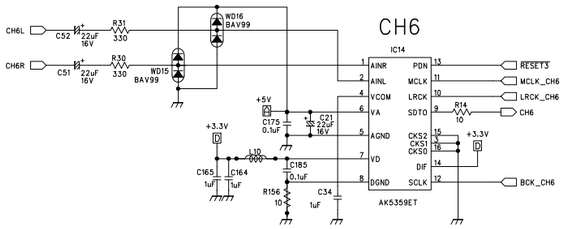


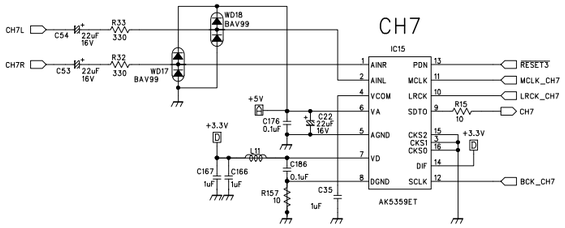


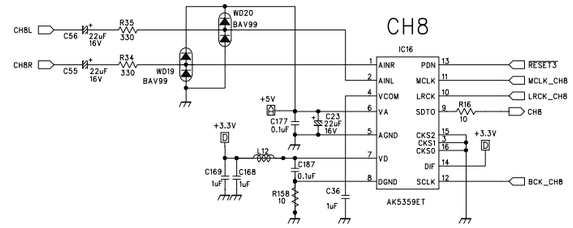




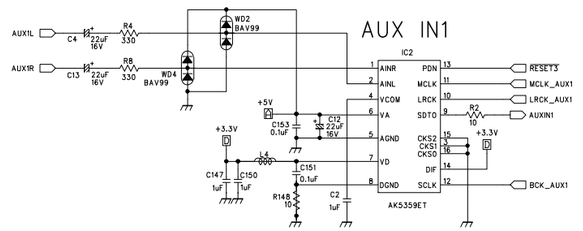


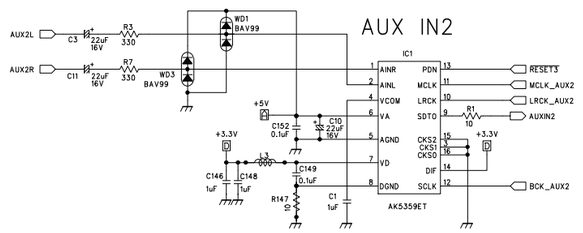




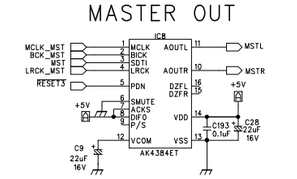


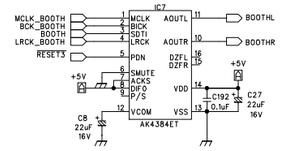
X5810 only

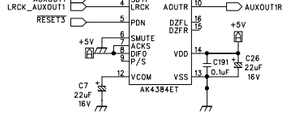


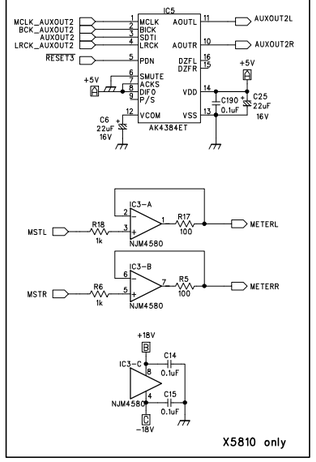


DAC

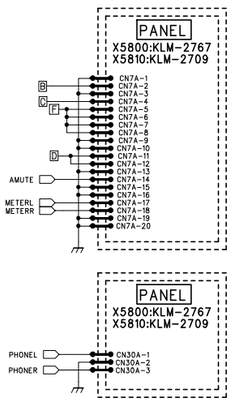


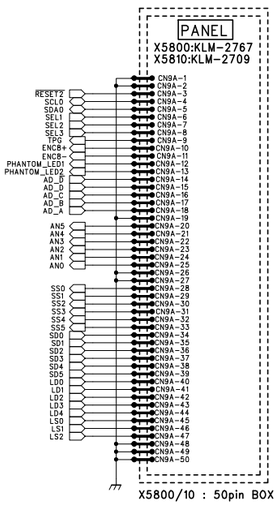




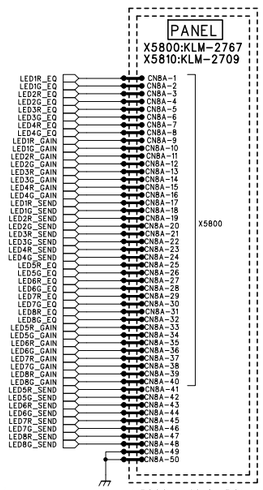


X5810 only

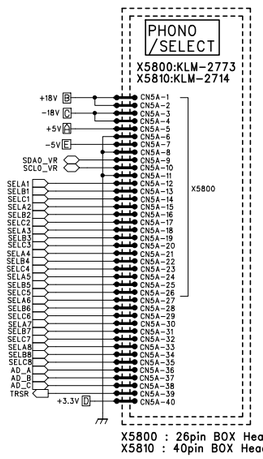




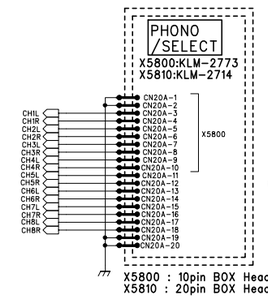
X5800/10 : 50pin BOX Header



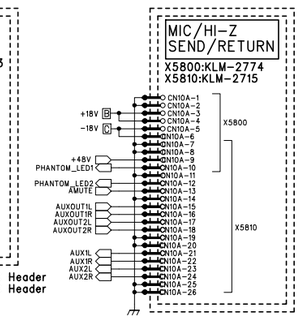
X5800 : 40pin BOX Header
X5810 : 50pin BOX Header



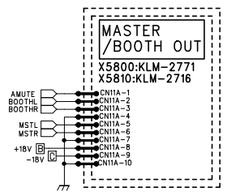
X5800 : 26pin BOX Header
X5810 : 40pin BOX Header



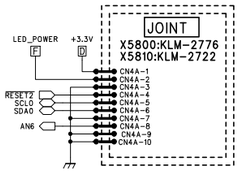
X5800 : 10pin BOX Header
X5810 : 20pin BOX Header

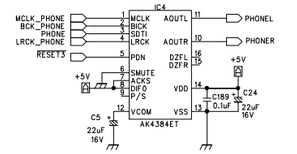


X5800 : 10pin BOX Header
X5810 : 20pin BOX Header



X5800/10 : PH 10pin





MARK	REVISION REASON	DATE	REVISED	APPROVED
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DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZERO4/ZER08(X-5800/5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE KLM-2708B CIRCUIT DIAGRAM 2/2
KORG	DRAWING NO. KOD-A30678			DATE '07. 2.22

VOLUME

HI
FREQ
MID
LO
ZERO FX SEND
EXT2
PAN
EXT1
INPUT SELECTOR
EQ SELECTOR
GAIN

MASTER BOOTH MONITOR BAL ZERO FX EXT2 EXT1

MONITOR LEVEL

MONITOR OUT
KLM-2711

X-Y PAD

PHANTOM LED

MARK	REVISION REASON	DATE	REVISED	APPROVED
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DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZER08(X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE KLM-2709-11/15/22/25B CIRCUIT DIAGRAM 1/4
KORG				DRAWING NO. KOD-A30679 / DATE '07. 2.22

KLM-2709

CH LED

CH1 AMBER — LED1R_EQ — Q2 MMBT2222 — LED1R_SEND — Q17 MMBT2222 — LED1R_GAN — Q41 MMBT2222
CH1 BLUE — LED1G_EQ — Q1 MMBT2222 — LED1G_SEND — Q18 MMBT2222 — LED1G_GAN — Q42 MMBT2222 — RED
CH2 AMBER — LED2R_EQ — Q4 MMBT2222 — LED2R_SEND — Q19 MMBT2222 — LED2R_GAN — Q43 MMBT2222
CH2 BLUE — LED2G_EQ — Q3 MMBT2222 — LED2G_SEND — Q20 MMBT2222 — LED2G_GAN — Q44 MMBT2222 — RED
CH3 AMBER — LED3R_EQ — Q6 MMBT2222 — LED3R_SEND — Q21 MMBT2222 — LED3R_GAN — Q45 MMBT2222
CH3 BLUE — LED3G_EQ — Q5 MMBT2222 — LED3G_SEND — Q22 MMBT2222 — LED3G_GAN — Q46 MMBT2222 — RED
CH4 AMBER — LED4R_EQ — Q8 MMBT2222 — LED4R_SEND — Q23 MMBT2222 — LED4R_GAN — Q47 MMBT2222
CH4 BLUE — LED4G_EQ — Q7 MMBT2222 — LED4G_SEND — Q24 MMBT2222 — LED4G_GAN — Q48 MMBT2222 — RED
CH5 AMBER — LED5R_EQ — Q9 MMBT2222 — LED5R_SEND — Q25 MMBT2222 — LED5R_GAN — Q49 MMBT2222
CH5 BLUE — LED5G_EQ — Q10 MMBT2222 — LED5G_SEND — Q26 MMBT2222 — LED5G_GAN — Q50 MMBT2222 — RED
CH6 AMBER — LED6R_EQ — Q11 MMBT2222 — LED6R_SEND — Q27 MMBT2222 — LED6R_GAN — Q51 MMBT2222
CH6 BLUE — LED6G_EQ — Q12 MMBT2222 — LED6G_SEND — Q28 MMBT2222 — LED6G_GAN — Q52 MMBT2222 — RED
CH7 AMBER — LED7R_EQ — Q13 MMBT2222 — LED7R_SEND — Q29 MMBT2222 — LED7R_GAN — Q53 MMBT2222
CH7 BLUE — LED7G_EQ — Q14 MMBT2222 — LED7G_SEND — Q30 MMBT2222 — LED7G_GAN — Q54 MMBT2222 — RED
CH8 AMBER — LED8R_EQ — Q15 MMBT2222 — LED8R_SEND — Q31 MMBT2222 — LED8R_GAN — Q55 MMBT2222
CH8 BLUE — LED8G_EQ — Q16 MMBT2222 — LED8G_SEND — Q33 MMBT2222 — LED8G_GAN — Q56 MMBT2222 — RED

ON:HIGH OFF:LOW — INPUT SELECTOR — EQ SEL — HI FREQ MID LO — ZERO FX — EXT2 EXT1 PAN GAIN

LED(DYNAMIC)

IC17 SN74LV138APWR — LS0 LS1 LS2 — C114 0.1uF — Q70 Q69 Q68 Q67 Q66 Q65 MMBTSA1505YLT1 x7 Q64

CUE (AMBER) — CUE (BLUE) — LED234 CH1 — LED238 CH5 — LED235 CH2 — LED239 CH6 — LED236 CH3 — LED240 CH7 — LED237 CH4 — LED241 CH8 — LED250 HOLD (AMBER) — LED251 FX CH (AMBER) — LED252 FX SEND (AMBER) — LED253 FX MASTER (AMBER) — LED226 CH1 — LED230 CH5 — LED227 CH2 — LED231 CH6 — LED228 CH3 — LED232 CH7 — LED229 CH4 — LED233 CH8 — LED178 SET UP (BLUE) — LED179 BPM (BLUE) — LED180 AUTO (BLUE) — LED181 TAP (BLUE) — LED75 EXT1 CUE (AMBER) — LED109 EXT2 CUE (AMBER) — LED214 BANK A (BLUE) — LED215 BANK B (BLUE) — LED216 BANK C (BLUE) — LED217 BANK D (BLUE) — LED145 ZERO FX CUE (AMBER) — LED6 Meter2 (RED) — LED4 Meter1 (RED) — LED71 FireWire On (YELLOW)

DT1 DTC114EUA — DT2 DTC114EUA — DT3 DTC114EUA — DT4 DTC114EUA — DT6 DTC114EUA — LD0 LD1 LD2 LD3 LD4

SWITCH

SW2 RETURN2 CUE — BPM SW6 — SW4 TAP — BANK B SW9 — BANK D SW11 — FX CH SW33 — FX MASTER SW35
WD6 MC2838 SW3 ZERO FX CUE — WD5 MC2838 SW1 RETURN1 CUE — WD7 MC2838 SW5 SETTING — WD8 MC2838 SW7 AUTO — WD9 MC2838 SW8 BANK A — WD10 MC2838 SW10 BANK C — WD20 MC2838 SW32 HOLD — WD21 MC2838 SW34 FX SEND

CUE
SW21 CH2 — SW23 CH4 — SW25 CH6 — SW27 CH8
WD13 MC2838 SW20 CH1 — WD14 MC2838 SW22 CH3 — WD15 MC2838 SW24 CH5 — WD16 MC2838 SW26 CH7

IC15 SN74LV138APWR — SD0 SD1 SD2 — C112 0.1uF — SSD0 SSD1 SSD2 SSD3 — SS3 SS2 SS1 SS0

SOLO/CUT

SOLO
SW16 CH5 — SW17 CH6 — SW18 CH7 — SW19 CH8 — TS-23E06-AC16-NI — D7 D8 D9 D10 1SS355
CUT Spring Return Momently
SW12 CH1 — SW13 CH2 — SW14 CH3 — SW15 CH4 — TS-23E06-AC16-NI — D3 D4 D5 D6 1SS355
10k x8 — C97 1000pF NO MOUNT — C98 1000pF NO MOUNT — SS4 SS5
IC16 SN74LV138APWR — SD3 SD4 SD5 — C113 0.1uF

ENCODER

Encoder x 7 MODE : [A:A]
SLOT : [***]

IC18 UPD78F0500MC-608-5A4-A
ENC6− ENC6+ ENC7− ENC7+ — P21/ANI1 P20/ANI0 P07/TI010 P06/TI000 P120/INTP0 — P22/ANI2 P23/ANI3 — MODE1 MODE0
RESETZ FLMD0 X2 X1 — RESET FLMD0 P122/X2 P121/X1 REGC VSS VDD — P10/SCK10 P11/SI10 P12/SO10 P13/TXD6 P14/RXD6 P15/TOH0 P16/TOH1 P17/TI50 P30/INTP1 P31/INTP2 P32/INTP3 — ENC5+ ENC5− ENC4+ ENC4− ENC3+ ENC3− ENC2+ ENC2− ENC1+ (SLOT2) ENC1− (SLOT1)
SCL0 SDA0 FLMD0 (SLOT0) — P60/SCL0 P61/SDA0 P33/TI51
R46 10 R45 10 — R44 1k — C118 1uf — C119 0.1uF — C117 0.1uF — R47 1k

RESET_IN RESET_OUT FLMD0 VDD_IN X2 X1 GND RESERVED RESERVED — J1-1 … J1-10 — RESETZ RESET2A FLMD0A — X2 X1
RESETZ — R310 0 — RESET2Z
RESET2A — R309 0
MP:R310 NO MOUNT
MINI CUBE:R309 MOUNT
FLMD0 — R311 0 — FLMD0
FLMD0A — R312 0
MP:R311 NO MOUNT
MINI CUBE:R312 MOUNT

ENCODER with SW

ENC1+ ENC1− — R227 10k R246 10k R226 1k R247 1k R245 1k — C189 0.01uF C193 0.01uF — EC1 — WD11 MC2838 — SSD3 SS0 SS1
ENC2+ ENC2− — R230 10k R250 10k R231 1k R251 1k R229 1k R249 1k — C190 0.01uF C194 0.01uF — EC2 — WD11 MC2838
ENC3+ ENC3− — R233 10k R254 10k R234 1k R255 1k R232 1k R253 1k — C191 0.01uF C195 0.01uF — EC3 — WD12 MC2838 — SSD2 SS0 SS1
ENC4+ ENC4− — R236 10k R257 10k R237 1k R258 1k R235 1k R256 1k — C192 0.01uF C196 0.01uF — EC4 — WD12 MC2838
ENC5+ ENC5− — R275 10k R287 10k R276 1k R288 1k R274 1k R286 1k — C197 0.01uF C201 0.01uF — EC5 — WD17 MC2838 — SSD1 SS0 SS1
ENC6+ ENC6− — R278 10k R290 10k R279 1k R291 1k R277 1k R289 1k — C198 0.01uF C202 0.01uF — EC6 — WD17 MC2838
ENC7+ ENC7− — R281 10k R293 10k R282 1k R294 1k R280 1k R292 1k — C199 0.01uF C203 0.01uF — EC7 — WD18 MC2838 — SSD0 SS0 SS1
ENC8+ ENC8− — R284 10k R296 10k R285 1k R297 1k R283 1k R295 1k — C200 0.01uF C204 0.01uF — EC8 — WD18 MC2838

JOG+ JOG− ECC

R75 47 R77 47 R140 180 R139 180 R138 180 R193 180 R203 180 R205 180 R35 180
LED3 (WHITE) VU Meter1 — LED5 (WHITE) VU Meter2 — LED74 (AMBER) MASTER — LED73 (AMBER) BOOTH — LED72 (AMBER) EXT1 CUE — LED108 (AMBER) EXT2 CUE — LED142 (AMBER) ZERO FX CUE — LED143 (AMBER) MONITOR BAL — LED144 (AMBER) MONITOR

R222 82 R223 82 R224 82 R225 82 R43 82 R272 82 R273 82 R42 82
LED218 (BLUE) ENC1 — LED219 (BLUE) ENC2 — LED220 (BLUE) ENC3 — LED221 (BLUE) ENC4 — LED242 (BLUE) ENC5 — LED243 (BLUE) ENC6 — LED244 (BLUE) ENC7 — LED245 (BLUE) ENC8

R260 82 R261 82 R262 82 R263 82 R305 82 R306 82 R307 82 R308 82
LED222 (BLUE) ENC1 — LED223 (BLUE) ENC2 — LED224 (BLUE) ENC3 — LED225 (BLUE) ENC4 — LED246 (BLUE) ENC5 — LED247 (BLUE) ENC6 — LED248 (BLUE) ENC7 — LED249 (BLUE) ENC8

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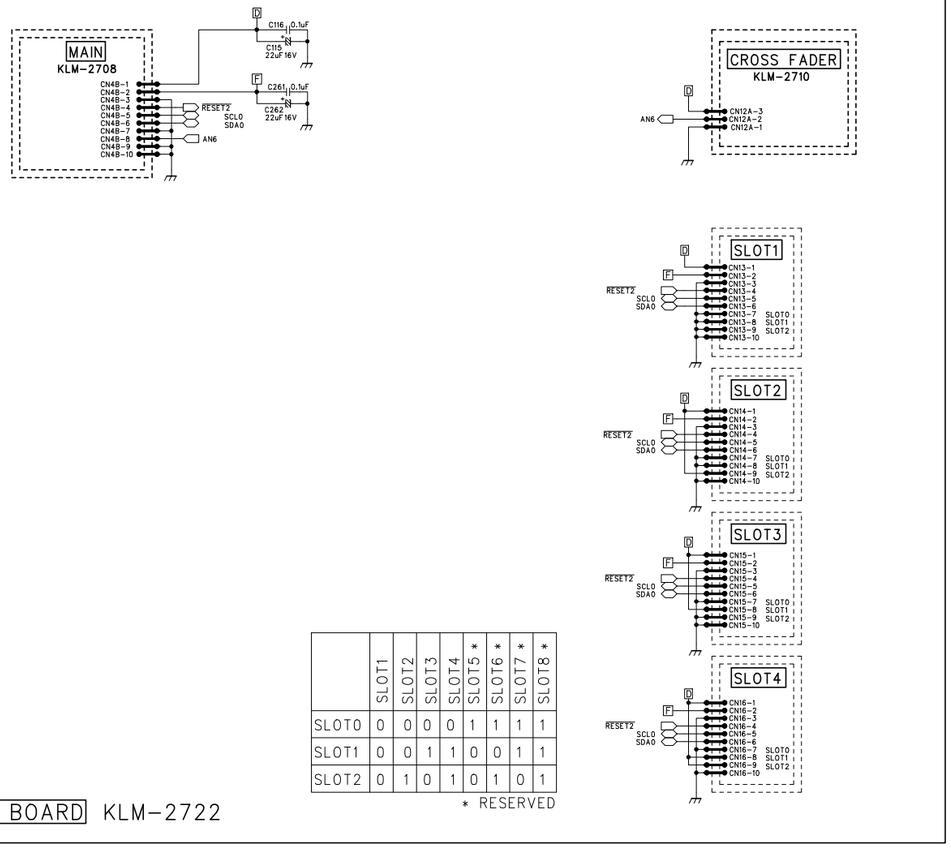
KLM-2709

DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZER08(X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE KLM-2709-11/15/22/25B CIRCUIT DIAGRAM 2/4

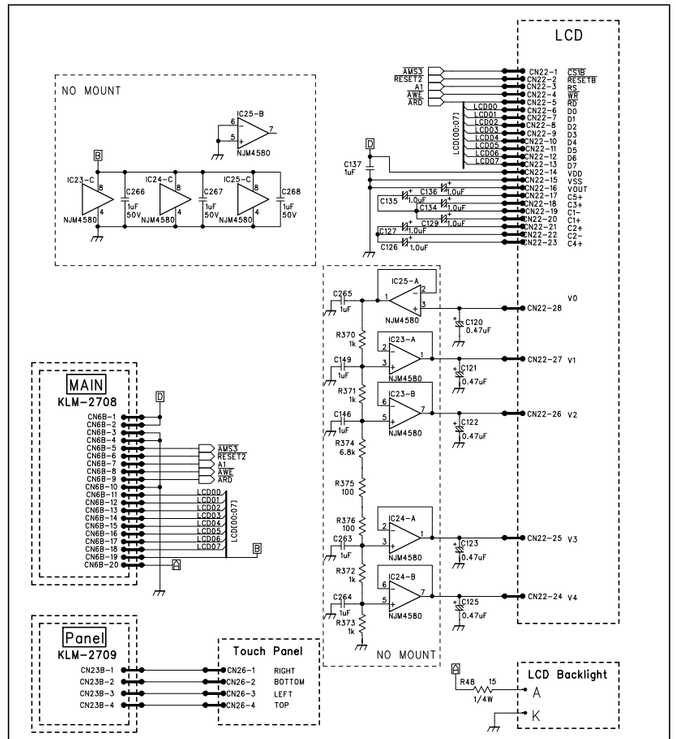
KORG — DRAWING NO. KOD-A30680 — DATE '07. 2.22



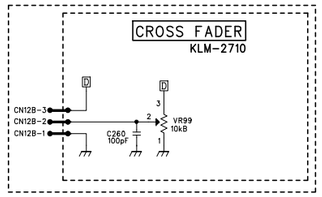
	SLOT1	SLOT2	SLOT3	SLOT4	*	*	*	*
SLOT0	0	0	0	0	1	1	1	1
SLOT1	0	0	1	1	0	0	1	1
SLOT2	0	1	0	1	0	1	0	1

* RESERVED

JOINT BOARD KLM-2722



LCD Board KLM-2725



MARK	REVISION REASON	DATE	REVISED	APPROVED
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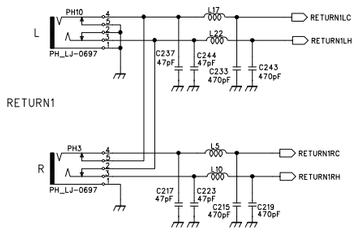
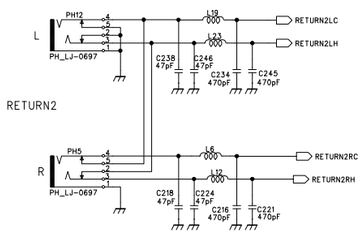
DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZER08(X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE KLM-2709-11/15/22/25B CIRCUIT DIAGRAM 3/4
KORG			DRAWING NO. KOD-A30681	DATE '07. 2.22

EXT RETURN

Nominall level : +4dBu
Max level : +22dBu

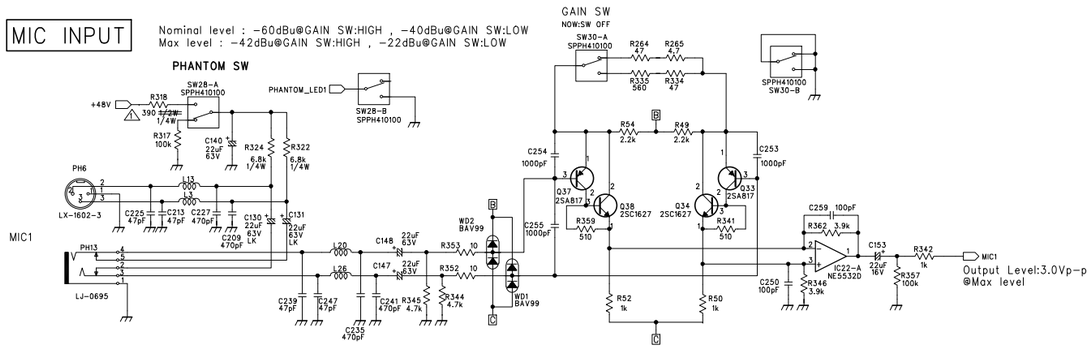


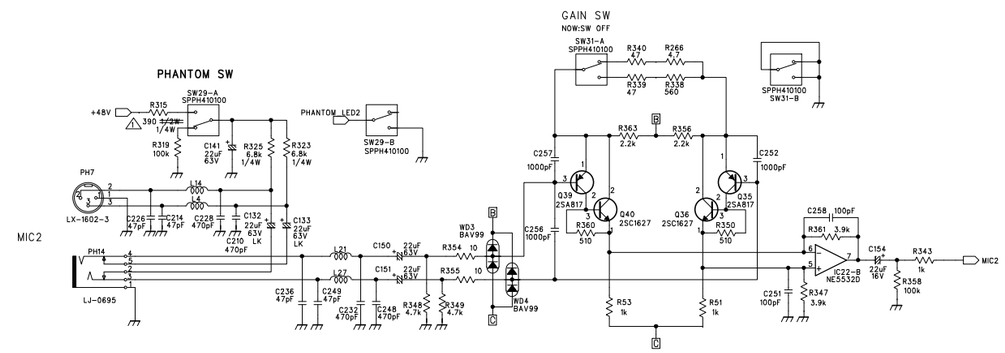
Nominal level : +4dBu
Max level : +22dBu



MIC INPUT

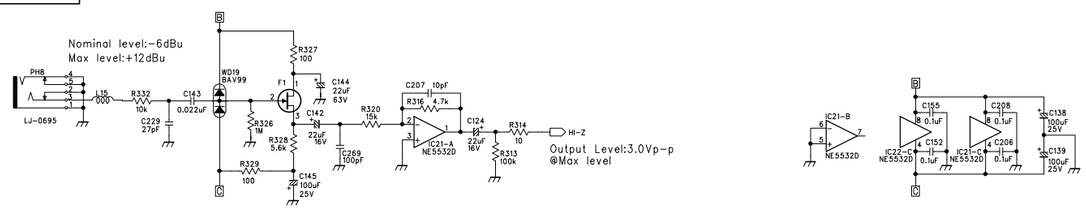
Nominal level : −60dBu@GAIN SW:HIGH , −40dBu@GAIN SW:LOW
Max level : −42dBu@GAIN SW:HIGH , −22dBu@GAIN SW:LOW





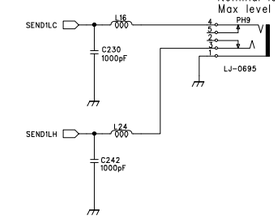
GUITAR INPUT

Nominal level:−6dBu
Max level:+12dBu

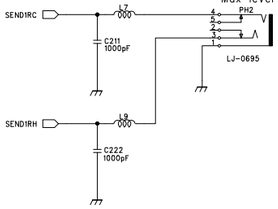


EXT SEND

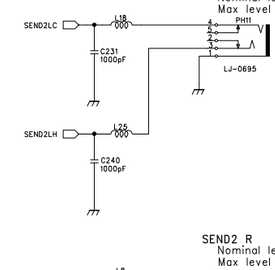
SEND1 L
Nominal level : +4dBu
Max level : +22dBu



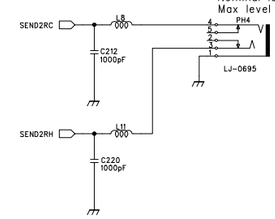
SEND1 R
Nominal level : +4dBu
Max level : +22dBu

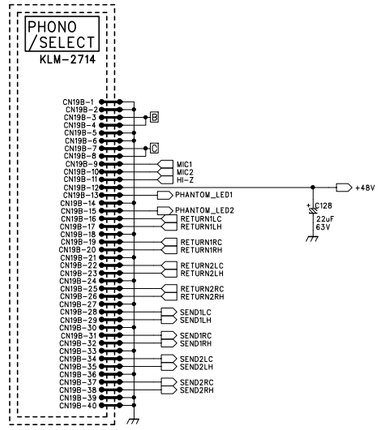


SEND2 L
Nominal level : +4dBu
Max level : +22dBu



SEND2 R
Nominal level : +4dBu
Max level : +22dBu





MARK	REVISION REASON	DATE	REVISED	APPROVED
1	誤記訂正	07.04.23	Sekimori	N.Satoh

DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZERO8(X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE **KLM-2709-11/15/22/25B CIRCUIT DIAGRAM 4/4**

KLM-2715

KORG

DRAWING NO. KOD-A30682

DATE '07. 2.22

RCA INPUT

Nominal level : −10dBu
Max level : +8dBu

Output level:3.0Vp-p
@Max level

INPUT1 (RCA8) — INPUT2 (RCA7) — INPUT3 (RCA6) — INPUT4 (RCA5) — INPUT5 (RCA4) — INPUT6 (RCA3) — INPUT7 (RCA2) — INPUT8 (RCA1)

TRS INPUT

Nominal level : +4dBu
Max level : +22dBu

Output level:3.0Vp-p
@Max level

INPUT1 — INPUT2 — INPUT3 — INPUT4 — INPUT5 — INPUT6 — INPUT7 — INPUT8

PHONO KLM-2714

L/MONO SCAN

KLM-2713

KLM-2712

LINE INPUT

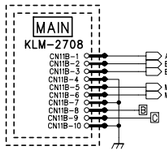
MARK	REVISION REASON	DATE	REVISED	APPROVED
△				
△				
△				
△				
△				

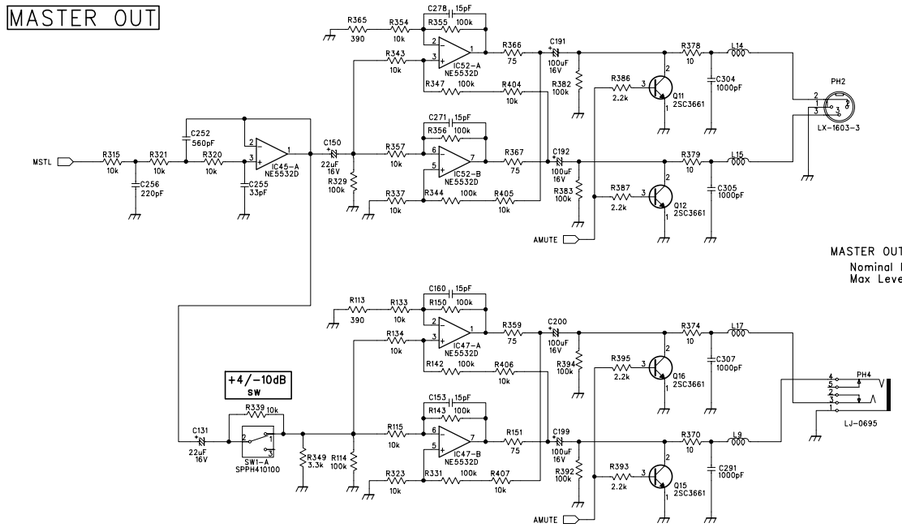
DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZER08(X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE **KLM-2712/13B CIRCUIT DIAGRAM**

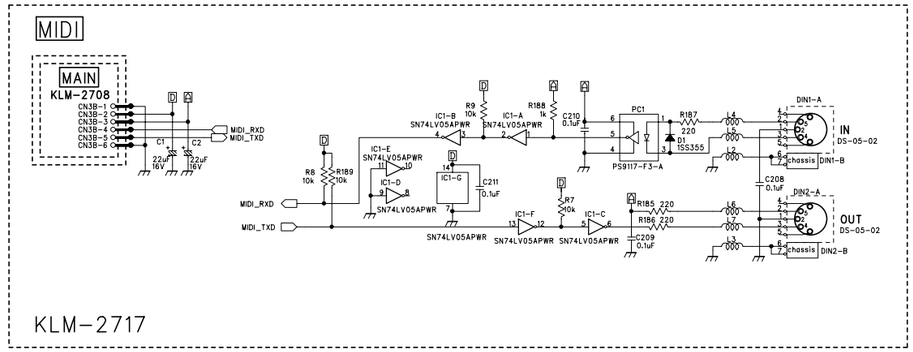
KORG

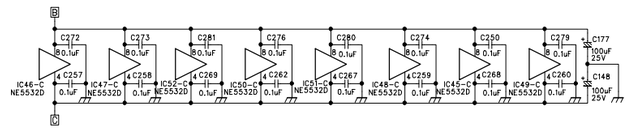
DRAWING NO. KOD-A30686

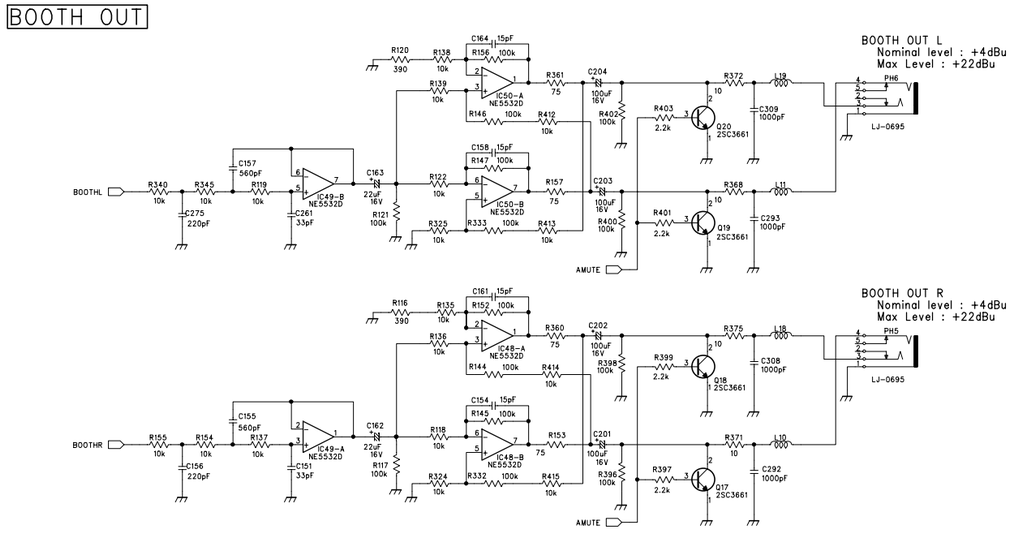
DATE '07. 2.22











MARK	REVISION REASON	DATE	REVISED	APPROVED
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△				

KLM-2716

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**
KORG				DRAWING NO. KOD-A30683 / DATE '07. 2.22

PHONO INPUT

Nominal level : −44dBu@1kHz

MAIN
KLM-2708

CN5B-1 … CN5B-40
SDA0_VR
SCL0_VR
SELA1 SELB1 SELC1 SELA2 SELB2 SELC2 SELA3 SELB3 SELC3 SELA4 SELB4 SELC4 SELA5 SELB5 SELC5 SELA6 SELB6 SELC6 SELA7 SELB7 SELC7 SELA8 SELB8 SELC8
AD_A
AD_B
AD_C
TRSR
+3.3V

IC53 NJM7805DLA
CB3 0.1uF
R430
C121 100uF 16V
C104 22uF 16V

RCA1 RCA-207G-02
PHONO1
C311 47pF
C310 1000pF
C205 0.1uF
FGND
C317 470pF
C316 1000pF
C319 470pF
C318 1000pF
R416 10k
R417 10k
R1 270k
R2 270k
R10 47k
R11 47k
C9 2700pF
C11 8200pF
C12 8200pF
C13 2700pF
C15 8200pF
C16 8200pF
R190 2.2k
R191 3.3k
R192 270k
R193 2.2k
R194 3.3k
R195 270k
R22 10k
R23 10k
C55 10pF
C56 10pF
R44 15k
R45 15k
C66 22uF 16V
C67 22uF 16V
R224 10
R226 10
R225 100k
R227 100k
IC2-A NJM4580
IC2-B NJM4580
IC3-A NJM4580
IC3-B NJM4580
+5V
−5V
WD4 BAV99
WD5 BAV99
PHONO1L
PHONO1R

RCA2
PHONO2
C313 47pF
C312 1000pF
C206 0.1uF
FGND
C321 470pF
C320 1000pF
C323 470pF
C322 1000pF
R418 10k
R419 10k
R3 270k
R4 270k
R12 47k
R13 47k
C17 2700pF
C19 8200pF
C20 8200pF
C21 2700pF
C23 8200pF
C24 8200pF
R196 2.2k
R197 3.3k
R198 270k
R199 2.2k
R200 3.3k
R201 270k
R24 10k
R25 10k
C57 10pF
C58 10pF
R46 15k
R47 15k
C68 22uF 16V
C69 22uF 16V
R228 10
R230 10
R229 100k
R231 100k
IC4-A NJM4580
IC4-B NJM4580
IC5-A NJM4580
IC5-B NJM4580
+5V
−5V
WD6 BAV99
WD7 BAV99
PHONO2L
PHONO2R

RCA3
PHONO3
C315 47pF
C314 1000pF
C207 0.1uF
FGND
C325 470pF
C324 1000pF
C327 470pF
C326 1000pF
R420 10k
R421 10k
R5 270k
R6 270k
R14 47k
R15 47k
C25 2700pF
C27 8200pF
C28 8200pF
C29 2700pF
C31 8200pF
C32 8200pF
R202 2.2k
R203 3.3k
R204 270k
R205 2.2k
R206 3.3k
R207 270k
R26 10k
R27 10k
C59 10pF
C60 10pF
R48 15k
R49 15k
C70 22uF 16V
C71 22uF 16V
R232 10
R234 10
R233 100k
R235 100k
IC6-A NJM4580
IC6-B NJM4580
IC7-A NJM4580
IC7-B NJM4580
+5V
−5V
WD8 BAV99
WD9 BAV99
PHONO3L
PHONO3R

IC2-C … IC7-C NJM4580
+18V
−18V
C49 … C54 0.1uF
C33 … C38 0.1uF
C72 100uF 25V
C217 0.1uF
C39 100uF 25V
C212 0.1uF

MAIN
KLM-2708

CN20B-1 … CN20B-20
CH1L CH1R CH2L CH2R CH3L CH3R CH4L CH4R CH5L CH5R CH6L CH6R CH7L CH7R CH8L CH8R

TRS
KLM-2712

CN17A-1 … CN17A-34
+18V
−18V
+5V
−5V
I1LTRS I1RTRS I2LTRS I2RTRS I3LTRS I3RTRS I4LTRS I4RTRS I5LTRS I5RTRS I6LTRS I6RTRS I7LTRS I7RTRS I8LTRS I8RTRS
+3.3V
TRSR
AD_A
AD_B
AD_C

RCA
KLM-2713

CN18A-1 … CN18A-34
+18V
−18V
+5V
−5V
I1LPIN I1RPIN I2LPIN I2RPIN I3LPIN I3RPIN I4LPIN I4RPIN I5LPIN I5RPIN I6LPIN I6RPIN I7LPIN I7RPIN I8LPIN I8RPIN

INPUT SOURCE SELECT

IC10 CD74HC4051PWR
HI-Z MIC2 MIC1 PHONO3L PHONO2L PHONO1L I1LPIN I1LTRS
PHONO3R PHONO2R PHONO1R I1RPIN I1RTRS
C105 0.1uF
C96 0.1uF
C106 22uF 16V
C140 22uF 16V
C132 0.1uF
C122 0.1uF
R94 10k
R102 10k
SELC1 SELB1 SELA1
CH1LG
CH1RG

IC11 CD74HC4051PWR
HI-Z MIC2 MIC1 PHONO3L PHONO2L PHONO1L I2LPIN I2LTRS
PHONO3R PHONO2R PHONO1R I2RPIN I2RTRS
C107 0.1uF
C97 0.1uF
C108 22uF 16V
C141 22uF 16V
C133 0.1uF
C123 0.1uF
R95 10k
R103 10k
SELC2 SELB2 SELA2
CH2LG
CH2RG

IC12 CD74HC4051PWR
HI-Z MIC2 MIC1 PHONO3L PHONO2L PHONO1L I3LPIN I3LTRS
PHONO3R PHONO2R PHONO1R I3RPIN I3RTRS
C109 0.1uF
C98 0.1uF
C110 22uF 16V
C142 22uF 16V
C134 0.1uF
C124 0.1uF
R96 10k
R104 10k
SELC3 SELB3 SELA3
CH3LG
CH3RG

IC13 CD74HC4051PWR
HI-Z MIC2 MIC1 PHONO3L PHONO2L PHONO1L I4LPIN I4LTRS
PHONO3R PHONO2R PHONO1R I4RPIN I4RTRS
C111 0.1uF
C99 0.1uF
C112 22uF 16V
C143 22uF 16V
C135 0.1uF
C125 0.1uF
R97 10k
R105 10k
SELC4 SELB4 SELA4
CH4LG
CH4RG

IC14 CD74HC4051PWR
HI-Z MIC2 MIC1 PHONO3L PHONO2L PHONO1L I5LPIN I5LTRS
PHONO3R PHONO2R PHONO1R I5RPIN I5RTRS
C113 0.1uF
C100 0.1uF
C114 22uF 16V
C144 22uF 16V
C136 0.1uF
C126 0.1uF
R98 10k
R106 10k
SELC5 SELB5 SELA5
CH5LG
CH5RG

IC15 CD74HC4051PWR
HI-Z MIC2 MIC1 PHONO3L PHONO2L PHONO1L I6LPIN I6LTRS
PHONO3R PHONO2R PHONO1R I6RPIN I6RTRS
C115 0.1uF
C101 0.1uF
C116 22uF 16V
C145 22uF 16V
C137 0.1uF
C127 0.1uF
R99 10k
R107 10k
SELC6 SELB6 SELA6
CH6LG
CH6RG

IC16 CD74HC4051PWR
HI-Z MIC2 MIC1 PHONO3L PHONO2L PHONO1L I7LPIN I7LTRS
PHONO3R PHONO2R PHONO1R I7RPIN I7RTRS
C117 0.1uF
C102 0.1uF
C118 22uF 16V
C146 22uF 16V
C138 0.1uF
C128 0.1uF
R100 10k
R108 10k
SELC7 SELB7 SELA7
CH7LG
CH7RG

IC17 CD74HC4051PWR
HI-Z MIC2 MIC1 PHONO3L PHONO2L PHONO1L I8LPIN I8LTRS
PHONO3R PHONO2R PHONO1R I8RPIN I8RTRS
C119 0.1uF
C103 0.1uF
C120 22uF 16V
C147 22uF 16V
C139 0.1uF
C129 0.1uF
R101 10k
R109 10k
SELC8 SELB8 SELA8
CH8LG
CH8RG

GAIN

−20dB~+20dB

WD22 BAY99
WD30 BAY99
WD31 BAY99
WD23 BAY99
WD24 BAY99
WD32 BAY99
WD33 BAY99
WD25 BAY99
R123 5.6k
R158 5.6k
R159 5.6k
R124 5.6k
R125 5.6k
R160 5.6k
R161 5.6k
R126 5.6k
IC26-B AD5254
IC26-C AD5254
IC26-D AD5254
IC26-E AD5254
IC27-B AD5254
IC27-C AD5254
IC27-D AD5254
IC27-E AD5254
C169 10pF
C179 10pF
C170 10pF
C180 10pF
C171 10pF
C181 10pF
C172 10pF
C182 10pF
R166 5.6k
R174 5.6k
R167 5.6k
R175 5.6k
R168 5.6k
R176 5.6k
R169 5.6k
R177 5.6k
IC30-A NE5532D
IC30-B NE5532D
IC31-A NE5532D
IC31-B NE5532D
IC32-A NE5532D
IC32-B NE5532D
IC33-A NE5532D
IC33-B NE5532D
CH1LG
CH5LG
CH1RG
CH5RG
CH2LG
CH6LG
CH2RG
CH6RG
CH3LG
CH7LG
CH3RG
CH7RG
CH4LG
CH8LG
CH4RG
CH8RG
CH1L
CH5L
CH1R
CH5R
CH2L
CH6L
CH2R
CH6R
CH3L
CH7L
CH3R
CH7R
CH4L
CH8L
CH4R
CH8R
+2.5VA

WD26 BAY99
WD34 BAY99
WD35 BAY99
WD27 BAY99
WD28 BAY99
WD36 BAY99
WD37 BAY99
WD29 BAY99
R127 5.6k
R162 5.6k
R163 5.6k
R128 5.6k
R129 5.6k
R164 5.6k
R165 5.6k
R130 5.6k
IC28-B AD5254
IC28-C AD5254
IC28-D AD5254
IC28-E AD5254
IC29-B AD5254
IC29-C AD5254
IC29-D AD5254
IC29-E AD5254
C173 10pF
C183 10pF
C174 10pF
C184 10pF
C175 10pF
C185 10pF
C176 10pF
C186 10pF
R170 5.6k
R178 5.6k
R171 5.6k
R179 5.6k
R172 5.6k
R180 5.6k
R173 5.6k
R181 5.6k
IC34-A NE5532D
IC34-B NE5532D
IC35-A NE5532D
IC35-B NE5532D
IC36-A NE5532D
IC36-B NE5532D
IC37-A NE5532D
IC37-B NE5532D
CH5LG
CH5RG
CH6LG
CH6RG
CH7LG
CH7RG
CH8LG
CH8RG
CH5L
CH5R
CH6L
CH6R
CH7L
CH7R
CH8L
CH8R
+2.5VA

IC26-A … IC28-A AD5254
SDA0_VR
SCL0_VR
C165 470uF 16V
C166 22uF 16V
C167 22uF 16V
C168 22uF 16V
C263 0.1uF
C264 0.1uF
C265 0.1uF
C266 0.1uF

C189
R182 10k
R183 10k
C195 22uF 16V
R184 1k
C194 C193 C196 100uF 16V
IC38-A NJM4580
IC38-B NJM4580
IC38-C NJM4580
+2.5VA

+18V
−18V
C294 … C301 0.1uF
C282 … C289 0.1uF
C188 100uF 25V
C178 100uF 25V
IC30-C … IC37-C NE5532D

KLM-2714

MARK	REVISION REASON	DATE	REVISED	APPROVED
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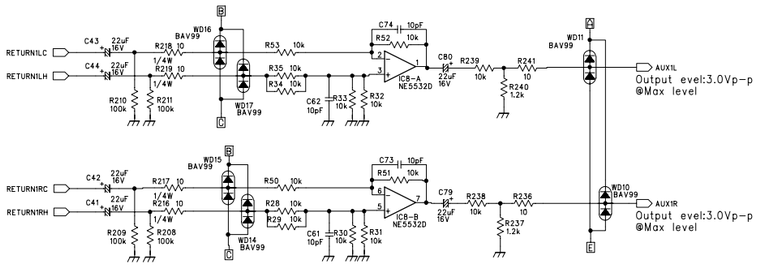
△				
△				
△				

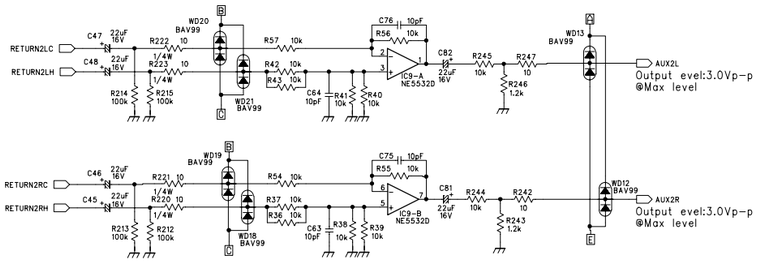
DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZER08(X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE KLM-2714/16/17B CIRCUIT DIAGRAM 2/3
KORG				DRAWING NO. KOD-A30684 DATE '07. 2.22

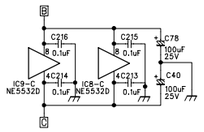
EXT RETURN

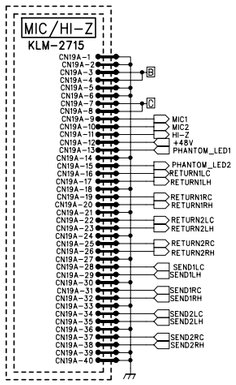
RETURN1

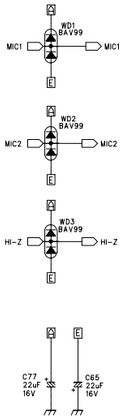


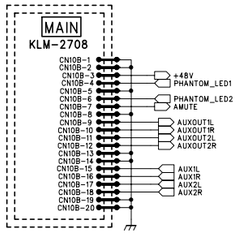
RETURN2



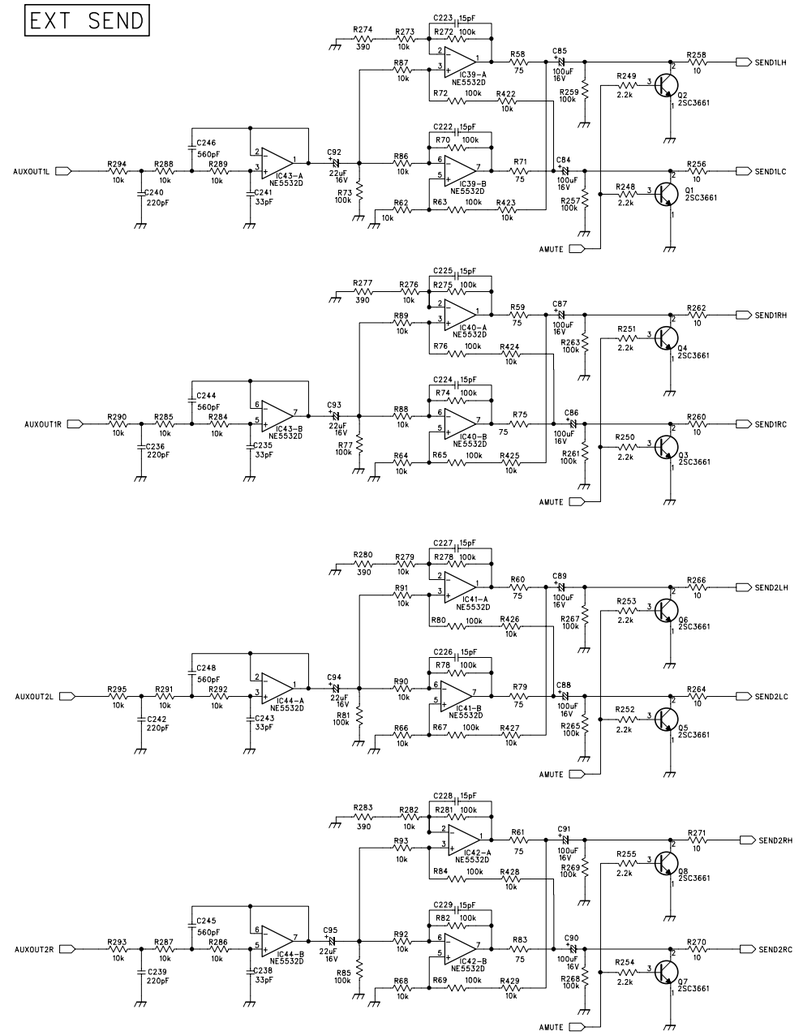


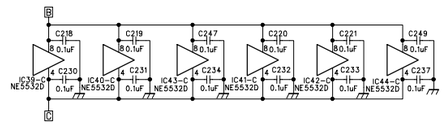






EXT SEND





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DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL (X-5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE: KLM-2714/16/17B CIRCUIT DIAGRAM 3/3
KORG			DRAWING NO. KOD-A30685	DATE '07. 2.22

<controller Board 1>
FADER MODULE

MODE[A:B]

MODE

	MODE1	MODE2	MODE3 *	MODE4 *	MODE5 *	MODE6 *	: :	MODE16 *
MODE0	A	A	A	A	B	B	–	D
MODE1	A	B	C	D	A	B	–	D

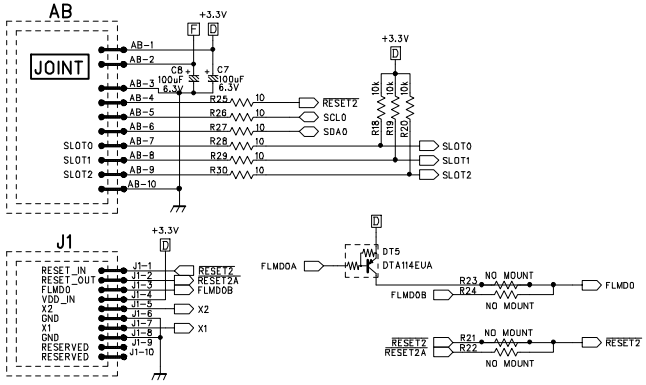
* RESERVED

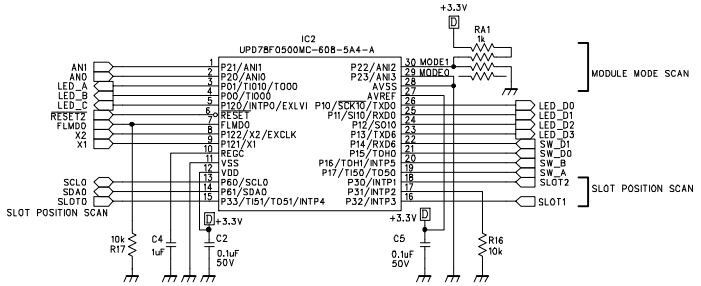
＊MODE1[AA]の場合、X-5810パネルエンコーダー用
SLOTはSCANしない

SLOT

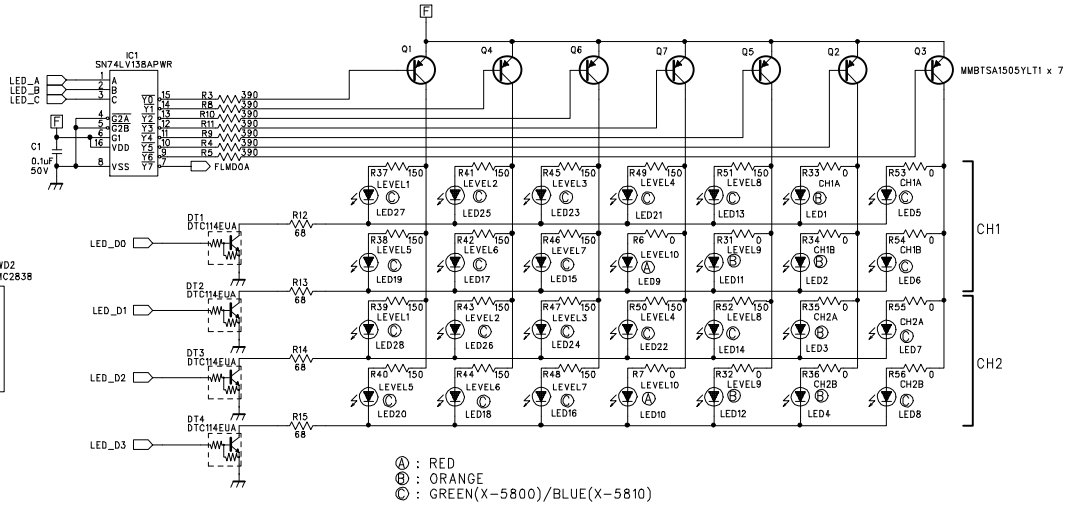
	SLOT1	SLOT2	SLOT3	SLOT4	SLOT5 *	SLOT6 *	SLOT7 *	SLOT8 *
SLOT0	0	0	0	0	1	1	1	1
SLOT1	0	0	1	1	0	0	1	1
SLOT2	0	1	0	1	0	1	0	1

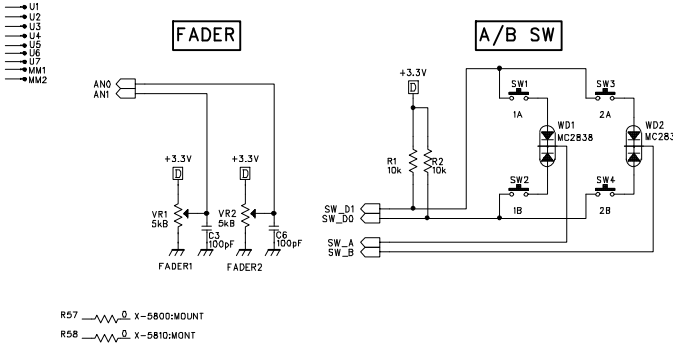
* RESERVED





LEVEL METER





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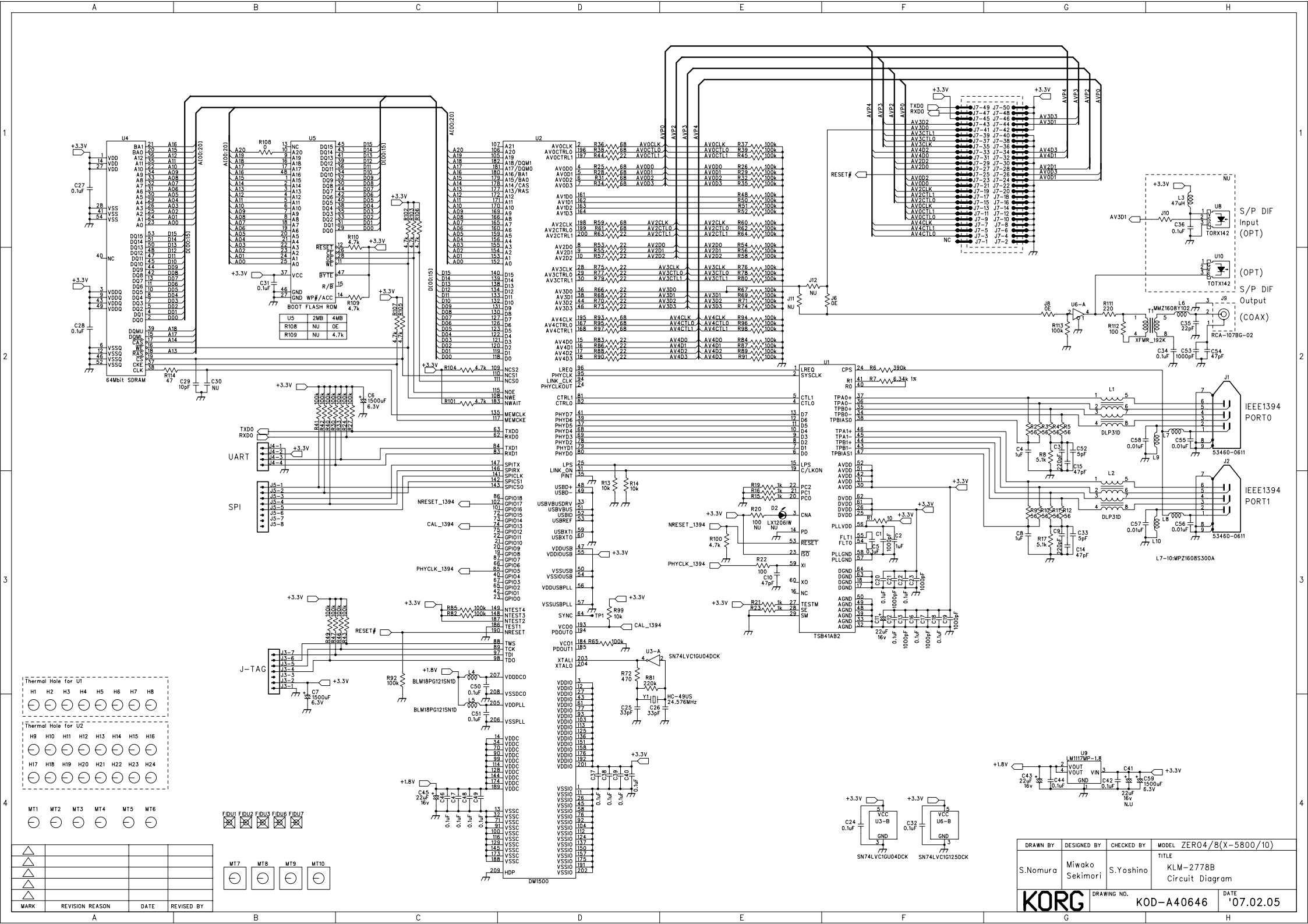
DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	MODEL ZERO4/ZERO8(X-5800/5810)
Miwako Sekimori	Miwako Sekimori	Shigeru Ueda	S.Yoshino	TITLE KLM-2718B LCD CIRCUIT DIAGRAM
KORG		DRAWING NO. KOD-A40618		DATE '06.12.27



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DRAWN BY	DESIGNED BY	CHECKED BY	MODEL ZER04/8(X-5800/10)
S.Nomura	Miwako Sekimori	S.Yoshino	TITLE KLM-2778B Circuit Diagram

KORG | DRAWING NO. KOD-A40646 | DATE '07.02.05

KORG	ZERO8 (X-5810) Check before Shipping	No. QCI-5810	Page
		Date 2007.6.18	1／1
		Revised	

・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.

Connection
・AC cord
・MIDI cable(IN-OUT 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 cheek has passed normally, the check proceeds to the next.
・FlashROM Check
① Manufacturer ID and Device ID are read from the Flash ROM.
②When an error occurred, the check stops and the segments (see right) are blinking
③When the cheek has passed normally, the check proceeds to the next.

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

Fig 1 Display of version

3. Confirmation of the system version

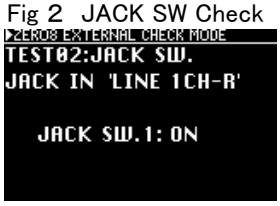
the system version is displayed.
Confirm that the system version is 1.04 or after.
＊Confirm that it is the newest version when some version-up has been done.

Press the [MASTER] to proceed to the next.

4. JACK SW Check

Fig.2 is displayed in the LCD display.

Fig 2 JACK SW Check



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 Until CH8, try

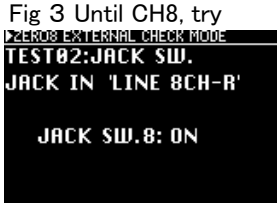


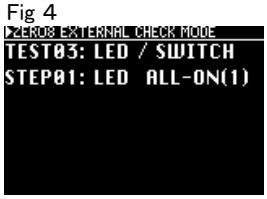
Fig.3 is displayed when the cable is connected to the CH8-R.
When the check passed normally, all LEDs of the ZERO8 are turned on.
Pull out the cable from the CH8-R.

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.

All LED light 1
Fig 4



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 2
Fig 5

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]

Individually light
Fig 6

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.

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

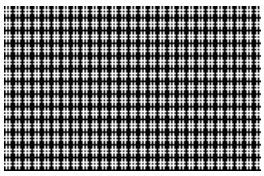


Fig 9 After touched the top left.

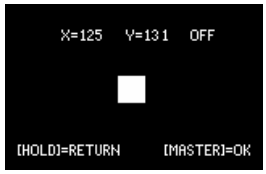
7. Touch Panel Check

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.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

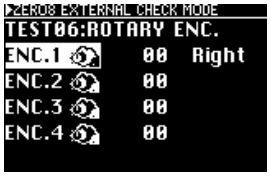


Fig 13 Encoder 1 right

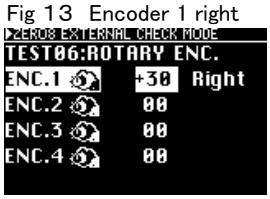


Fig 14 Encoder 1 left

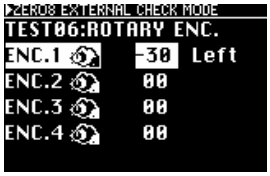
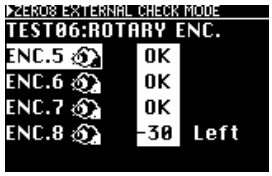


Fig 15 Do until Encoder8



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 20)

(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

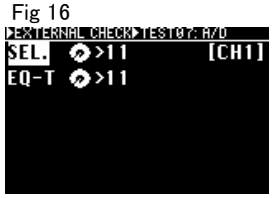


Fig 17

Fig 18

Fig 19 CH1 completed

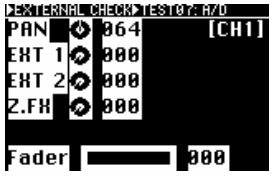


Fig 20 Others

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.

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

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.

*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.

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.

・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)

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

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

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)

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

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 theCH1 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.

・Check of OUTPUT terminal

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

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.


CH1,2FADER

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


CH1,2 key red LEDs turned ON.

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

Continued to the next.

Connect the ZERO8 and D3200 like following.
ZRO8 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

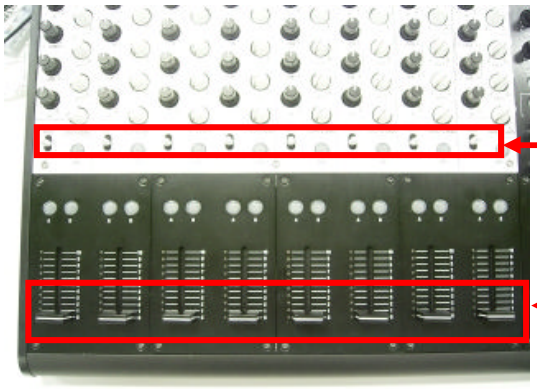
Set the allow to "NEW" in the display using the clickable pointer of D3200.
Press the clickable pointer once.
Using the clickable pointer and set the allow to "OK"
Press the clickable pointer.
After few seconds, a new song has been made.

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.

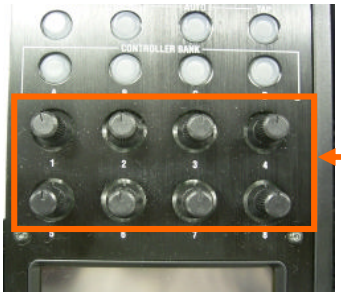
Clickable pointer

KORG	ZERO8 (X-5810) Check before Shipping	No. QCI-5810	Page
		Date 2007.4.25	Name
		Revised	1/1

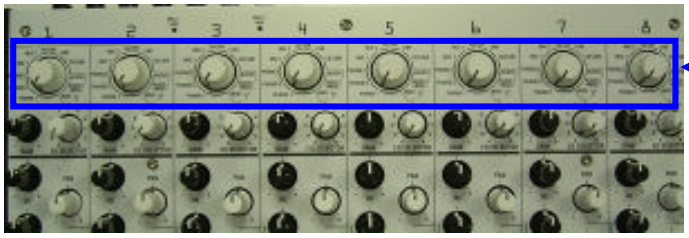


CH1-8 toggle SW
(from left CH1. . . CH8)

CH FADER (from left CH1. . . CH8)



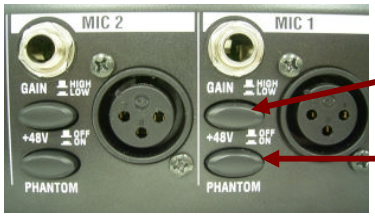
1-8 Rotary Encoder



INPUT SELECTOR
(from left CH1. . . CH8)

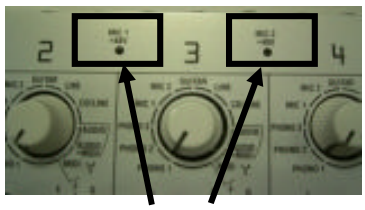
Headphones jack

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

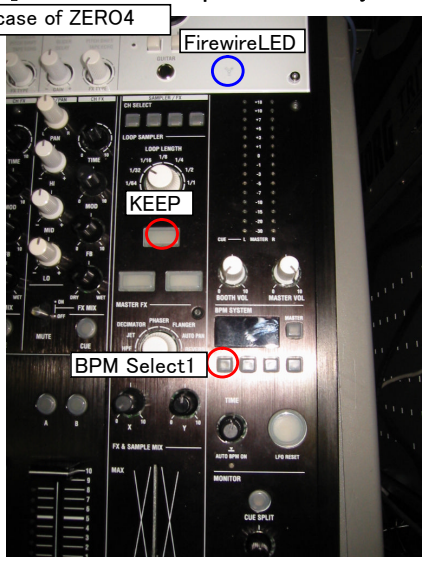
[1.1:Equipments and tool]

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 ofZERO8

[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.

Fig1

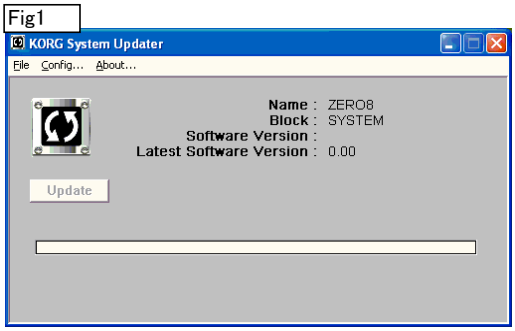


Fig2_1

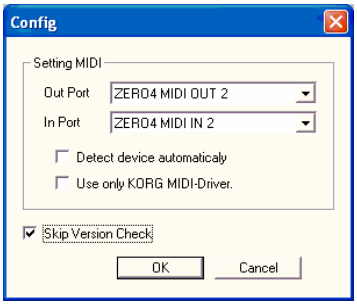


Fig2_2

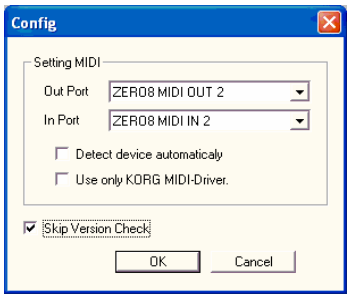


Fig3

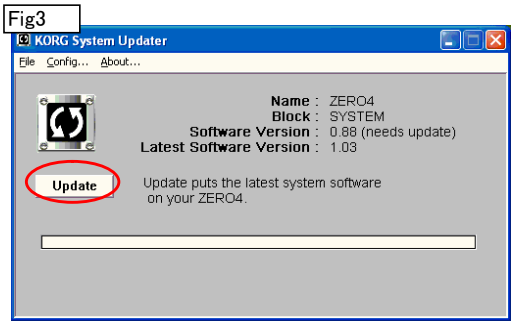


Fig4

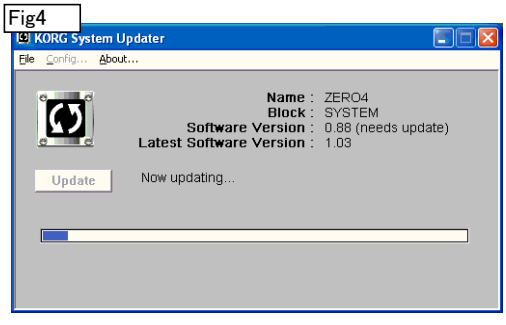


Fig5

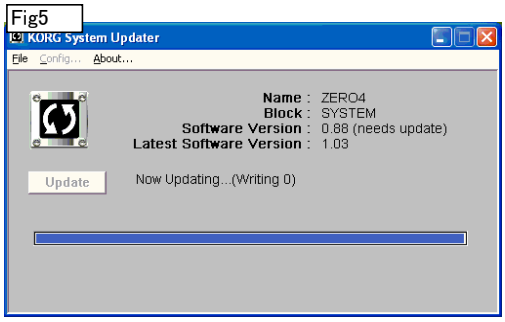
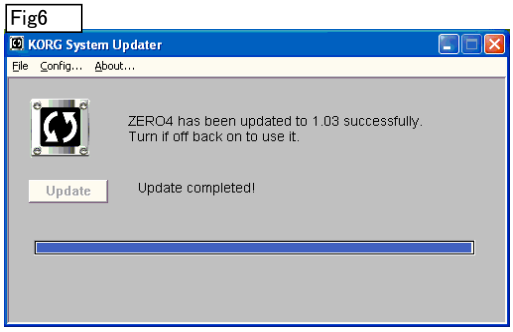


Fig6



[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(″DM1500UpdDaterSetup[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.

Fig7

Fig8_1

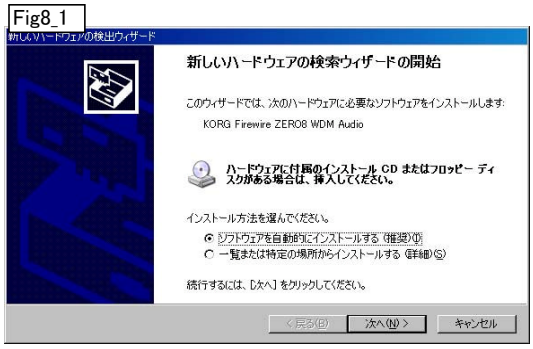


Fig8_2

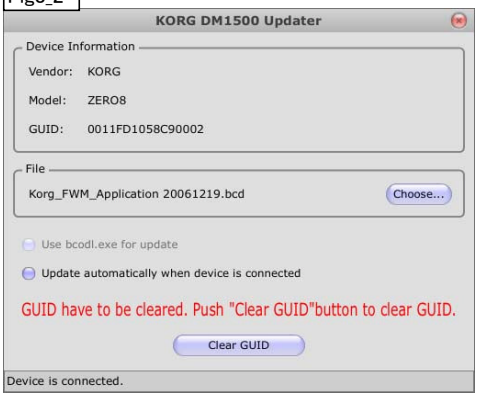


Fig8_3

Fig9

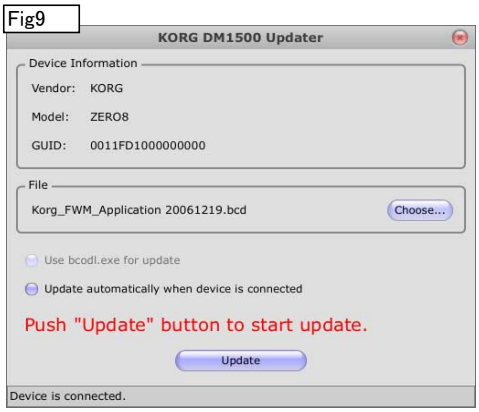


Fig10

Fig11

[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

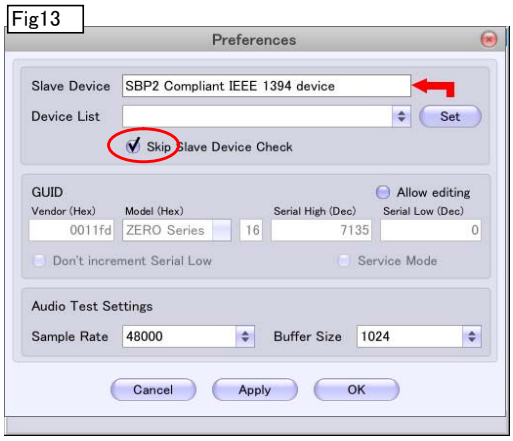


Fig14

Fig15

Fig16

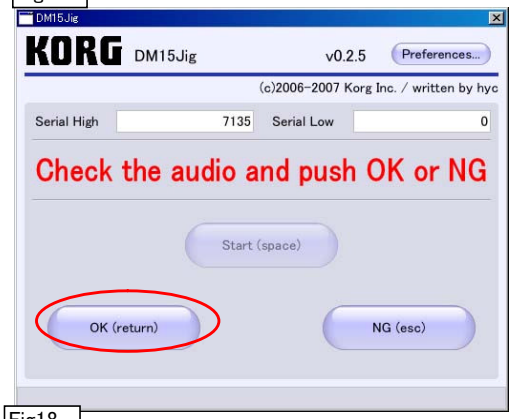
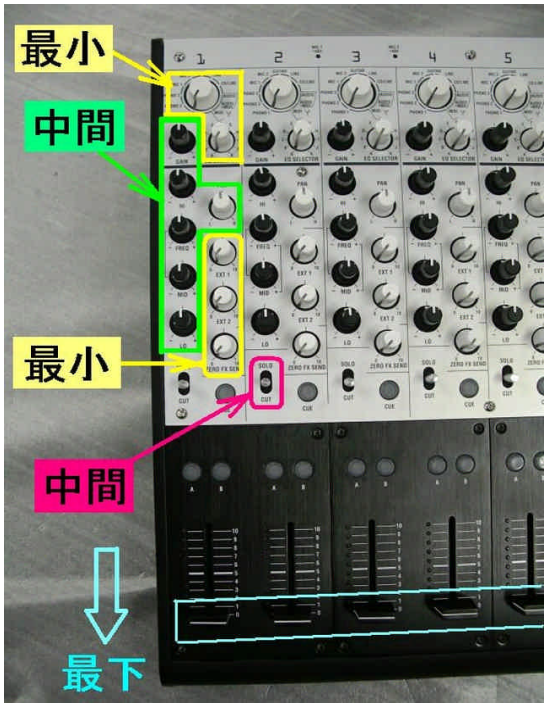


Fig17

Fig18

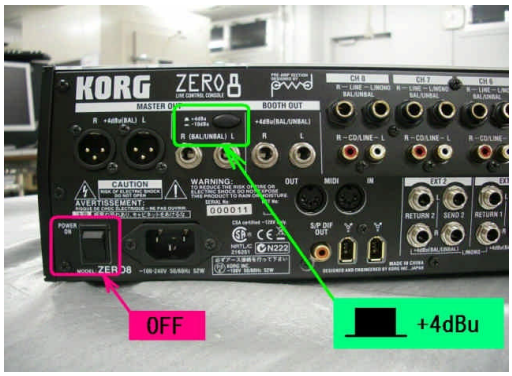
ZERO8 Factory Setting before shipping

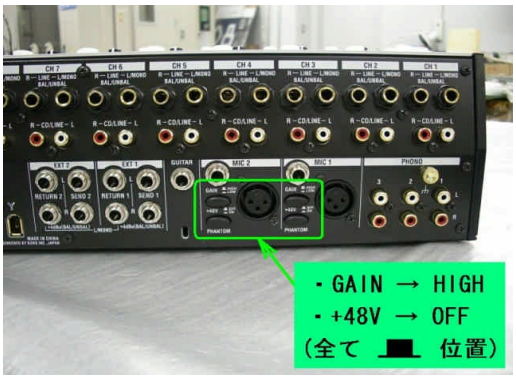
PANEL



↑
Same as Ch1, set from Ch2 to Ch8.

REAR





GAIN:HIGH
+48V:OFF