YMHE MKIV V.2.0 technical seminar 2007

Review of Previous Seminar

- 1. Overall diagram
- 2.Boot up sequence
- 3. Tools for servicing

YCJ E.P.S.D. (CS planning div.) Yokoyama Sep.27

Overall Diagram



Record Flow Chart



Playback Flow Chart



Quiet Mode Flow Chart



Boot up Sequence















Tools for Servicing

Maintenance Mode
 LED Diagnostics
 Start up Message of I/O Center

How to Enter Maintenance Mode



Press and hold keys [D], [M], and [P] in sequence within a second.

Important Maintenance Mode

Service Center Ver1.1.0	Service Center Ver1.1.0 ×	Service Center Ver1.1.0
Close Back	Close Back Top Clr Acoustic	Close Back Top Clr Acoustic
Service Center/	Maintenance Mode/	Disklavier Control System/
1: Post Delivery Check	1: Check All Connection.	1: Controller Testmode.
2: Program Versions	2: Disklavier Piano System/	2: Controller I/O Check.
3: Pedal Calibration	3: <database>/</database>	3: Controller Test Play.
	4: Disklavier Control System/	
	5: Audio Thru.	
	6: Factory Data Cleaning.	
Service Center Ver1.1.0 ×	Service Center Ver1.1.0	Service Center Ver1.1.0
Close Back Top Clr Acoustic	Close Back Top Clr Acoustic	Close Back Top Clr Acoustic
[System version]	All Connection Check	
CSP Ver 1.12 (20070718) LOADER Ver 1.00 FLASH In/Out Ver 1.01 HS-M4 Ver 1.00 PSMK4P5 1.22 DIR-Ver 1.10 MDMK4MD 1.20 PDL-MK4PD 1.30 PDS-MK4PD 1.30 Key table ver. : 0	Image: Constant of the second of the seco	I: Motherboard and Mediacenter Synthesizer card Audio process card q: End

Failure Diagnostics Using LED

1.PS Unit
 2.CSP Unit

LED on the PS Unit

Ref No.	Printed	What	Normal	
LD10 (1)	CPU ACTIVE	CPU running state	Lighting/Blinking pattern ① Piano Standby Status once / 3sec ② Time elapsing from status 1 to status 3. Fast blinking ③ On Status once /1 5sec	
			2 times /3 sec blinking or more during abnormal time.	
LD11 (2)		Power 5VSB (standby) output on	Lighting (green) When primary SW is ON,5VSB is alive. NOTE: In override mode,it is orange. (override mode is made by pushing the Test SW, and Primary SW ON))	
LD5 (3)	+12VOUT	12V output	Lighting (green)	
LD3 (4)	+48VIN	48V output	 Lighting (red) When some errors occureds, system will shutdown 48V intet. Control during abnormal time, but it takes some time until the LED is turned off because a large-volume chemical capacitor is connected. 	





LED on the CSP

Ref No.	Printed	What	Normal	
LD1	12Von		Lighting (green)	
LD2	5VSBon		Lighting (green)	
LD3	1000		Lighting (green)	
		. 6	Program started at DSP on CSP.	
LD4			Blinking (green)	
			Data on start-up is exchanged between CSP and other units.	
			Lighting (green)	
			Above-mentioned data exchange is completed.	
LD6		For design		
LD9	DSPrun	S é	Blinking (green)	
			DSP on CSP is working normally.	
LD10	DIR-H8run		Blinking with shorter light on time (green)	
No signal is coming from I/O cen			No signal is coming from I/O center. Power of the piano is turned off.	
			Blinking with the same lighting time as the extinguished time (light on time and light	
			off time are 50%/50%) (green)	
			Receiving signal from I/O center. Power of the piano is turned on.	
LD12	3.3VSBon	+3.3VSB	Lighting (green)	
LD13	5Von	+5V	Lighting (green)	
LD14	3.3Von	+3.3V	Lighting (green)	
LD15	1.26Von	+1.26V	Lighting (green)	
LD16	DIR-ALIVE	For design		



LD13

LD14

LD12

LD1 LD2

LD16

LD10

Start up message of I/O Center

Connection with I/O Center







RGB cable or RCA cable

Thank you for your attention

Let's have a 15min break.

From/To PC

From/To PC



- Connect the I/O Center to a LAN
- [Start] -> [My Network Places]
- Open [DKV****] folder.
- Copy the song files to [FromToPC] folder



Basic Internet Connection

Connecting the Disklavier to the Internet

Connection example 1:

Using a modem with router function



Connection example 2:

Using a modem without router function



Setting Up the Disklavier for Internet Connection





Field Case Analysis

- I/O No booting up
- No Disklavier
 - No Recording, No Playback, No Quiet Mode
- Power Supply (PS) click noise
- PRC unresponsive touch screen
- PRC reinstalling the OS
- etc

Normal Situation



Abnormal Situation



Abnormal Situation



Record Flow Chart



Playback Flow Chart



Quiet Mode Flow Chart



RCA cable

- The Green RCA cable is most important for working of the CSP Piano System .
- The Blue RCA cable is important for transmission of the signal from Piano System to I/O Center, especially in the recording mode.



PRC-100

Fixing the unresponsive Screen

• This procedure is done when the screen does not respond or tapping a specific icon gives us a different result.



Thank you for your attention

Replacing the CSP Board





着 🕩 🖬 💁 🚦 4:26

Direct Connection Between I/O and PC



Direct Connection Between I/O and PC



Example	
DNS1	:192.168.1.1
DNS2	:192.168.1.1
IP	:192.168.1. 2
Sub Masl	x :255.255.255.0
Gateway	:192.168.1.1



ンターネット ブロトコル (TCP/IP)の	170/57 ?
全般	
ネットワークでこの機能がサポートされてし きます。サポートされてしない場合は、ネ てください。	いる場合は、IP 設定を自動的に取得することがで ットワーク管理者に適切な IP 設定を問い合わせ
○IP アドレスを自動的に取得する(Q)
 ・ (シ) 次の IP アドレスを使う(S) ・ ・ ・	
IP アドレスΦ:	
サブネット マスク(山):	
デフォルト ゲートウェイ(型):	
○ DNS サーバーのアドレスを自動的	(取得する(B)
┌─⑧ 次の DNS サーバーのアドレスを使	-5(E):
優先 DNS サーバー(<u>P</u>):	
代替 DNS サーバー(<u>A</u>):	
	【詳細設定──」
	OK キャンセル

Example	
DNS1	:192.168.1.1
DNS2	:192.168.1.1
IP :192	2.168.1. 1
Sub Mask	:255.255.255.0
Gateway	:192.168.1.1

LEDs on the HS

Ref No.	Printed	What	Normal
LD1	+12VIN	+12V Power Income	lighting(green)
LD2	+3.3DIN	+3.3V Digital Power Income	lighting(green)
LD3	+3.3AIN	+3.3V Analog Power Income	lighting(green)
LD4	DSPCHK	DSP Running	blinking(green)

