

KORG KP3 SERVICE MANUAL



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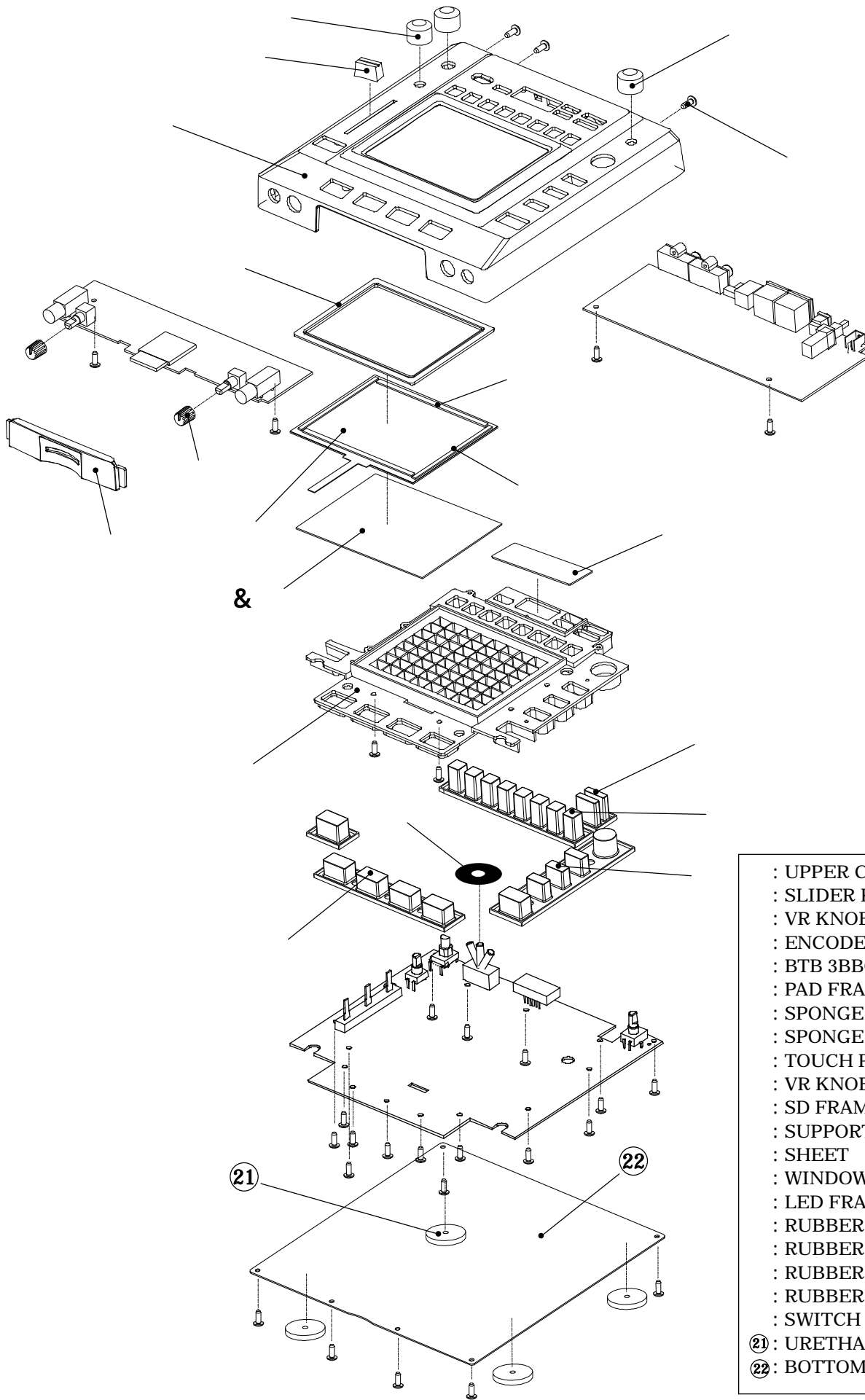
KORG

Issued Nov.6, 2006

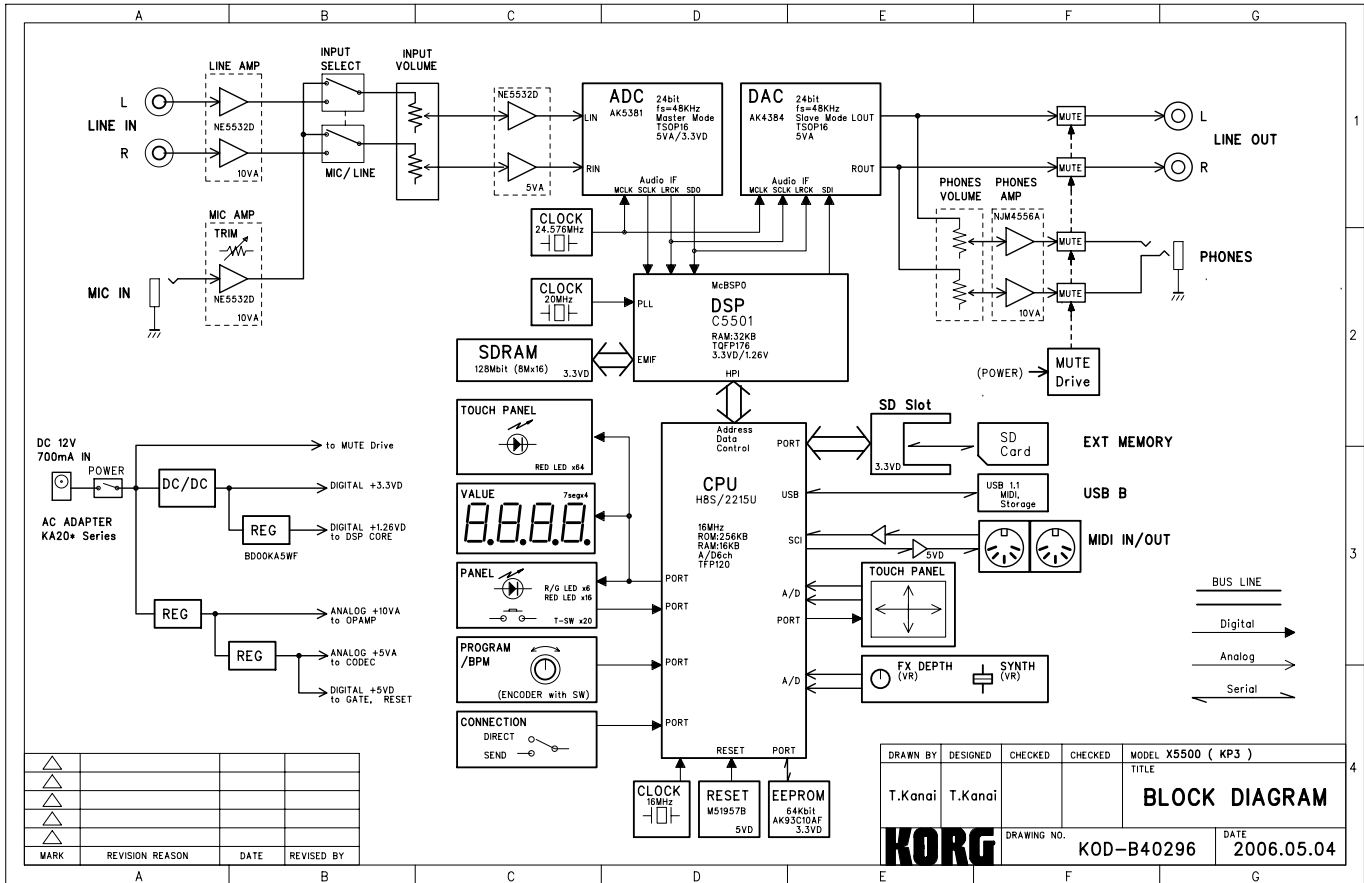
Ver.2 Changed P11

Added Pad Cal 3/13/08 - GA

X-5500 Hookup



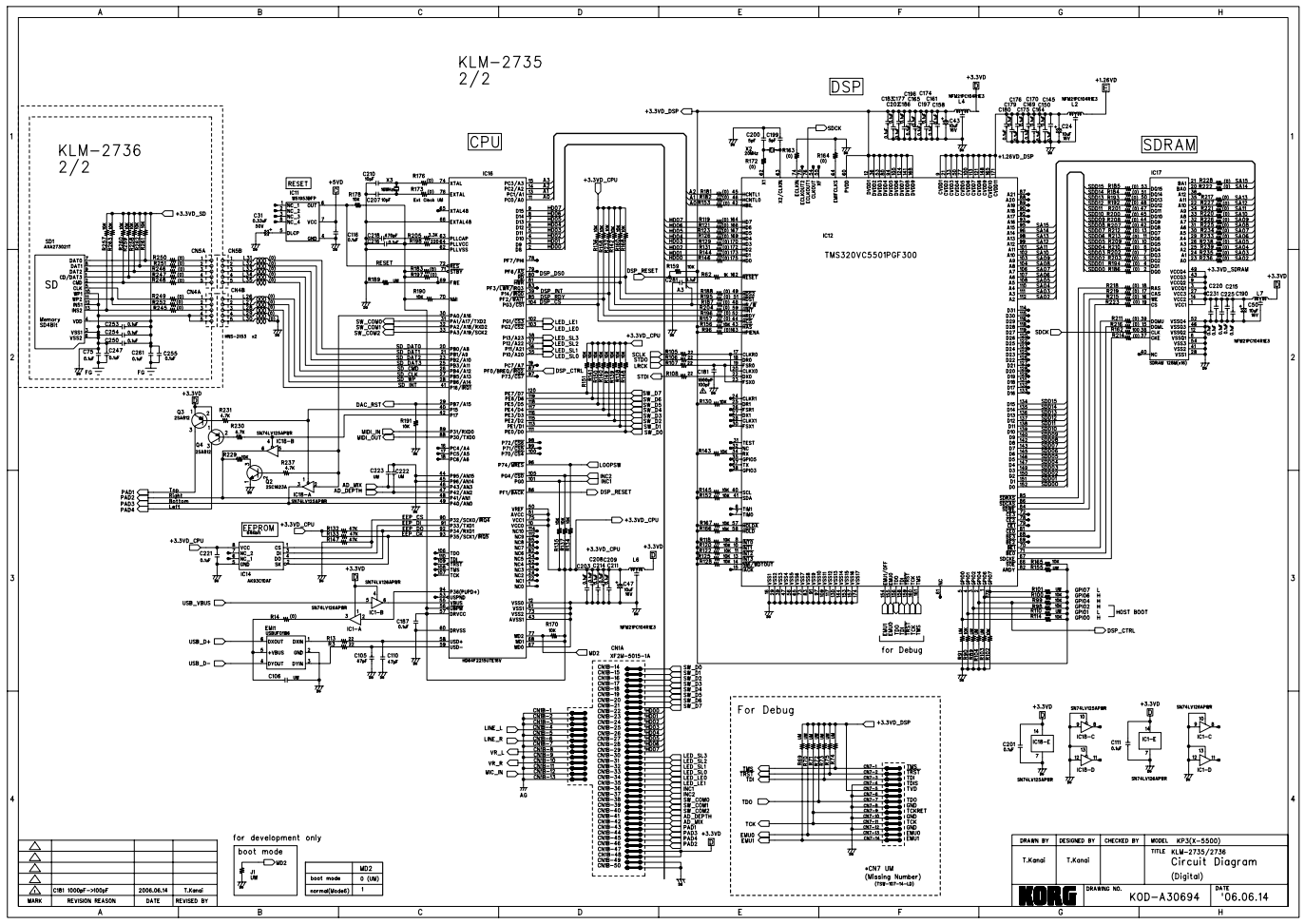
- : UPPER CASE
- : SLIDER KNOB
- : VR KNOB
- : ENCODER KNOB
- : BTB 3BBC 3 × 8
- : PAD FRAME
- : SPONGE SEAL A
- : SPONGE SEAL B
- : TOUCH PANEL
- : VR KNOB(2Color)
- : SD FRAME
- : SUPPORT PLATE
- : SHEET
- : WINDOW
- : LED FRAME
- : RUBBER KEY 1
- : RUBBER KEY 2
- : RUBBER KEY 3
- : RUBBER KEY 4
- : SWITCH MASK
- ②①: URETHANE LEG
- ②②: BOTTOM PLATE



DRAWN BY	DESIGNED	CHECKED	CHECKED	MODEL X5500 (KP3)
T.Kanai	T.Kanai			TITLE
				BLOCK DIAGRAM
				DRAWING NO. KOD-B40296

KLM-2735
2/2

KLM-2736
2/2

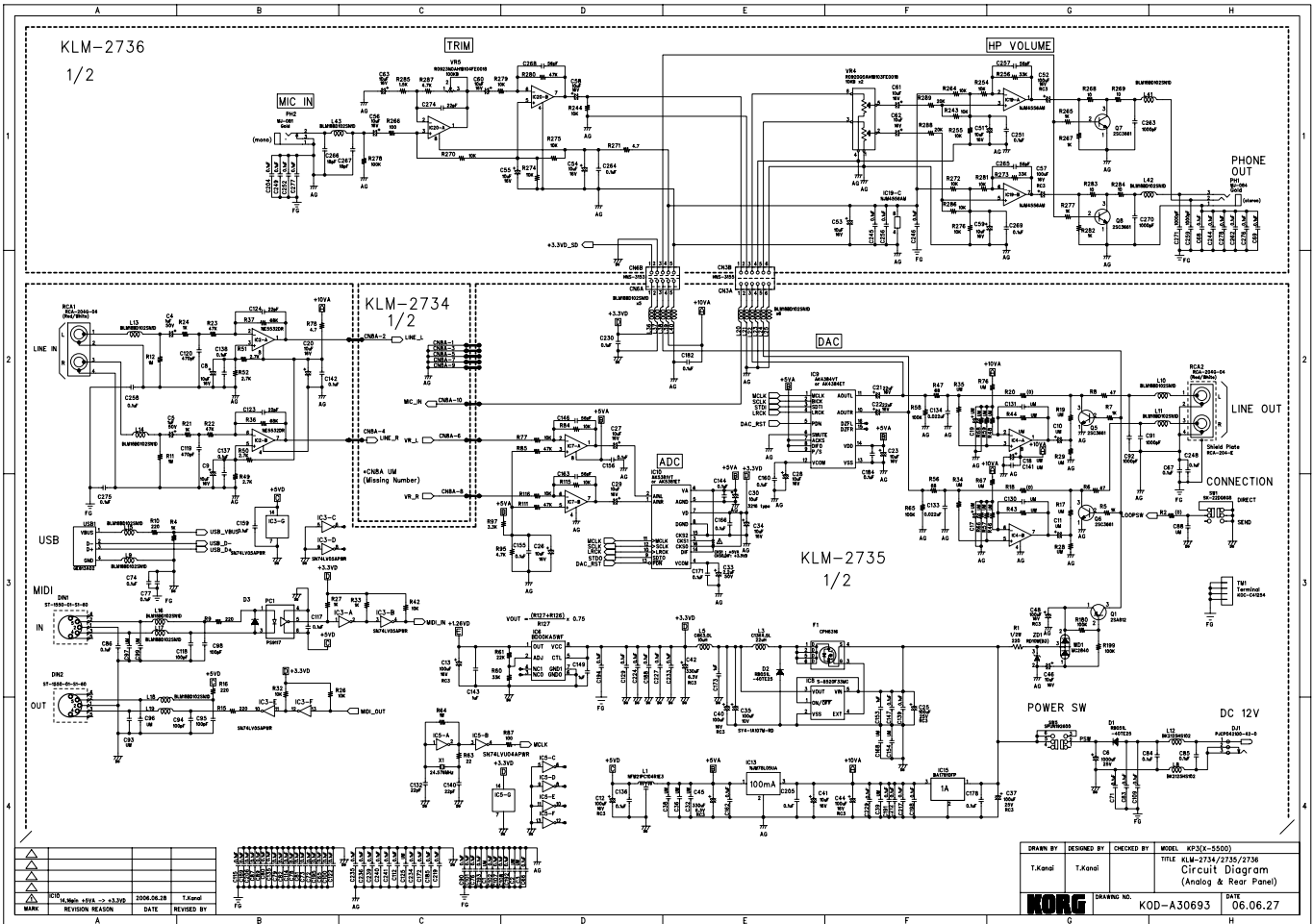


▲				
▲				
▲				
▲	081	100uf → 100V	2006.06.14	T.Kanal
▲	MARK	REVISION REASON	DATE	REVISED BY

for development only

boot mode	
<input type="checkbox"/> M0	<input type="checkbox"/> M02
test mode: 0 (DM)	normal (Mod0)
	1

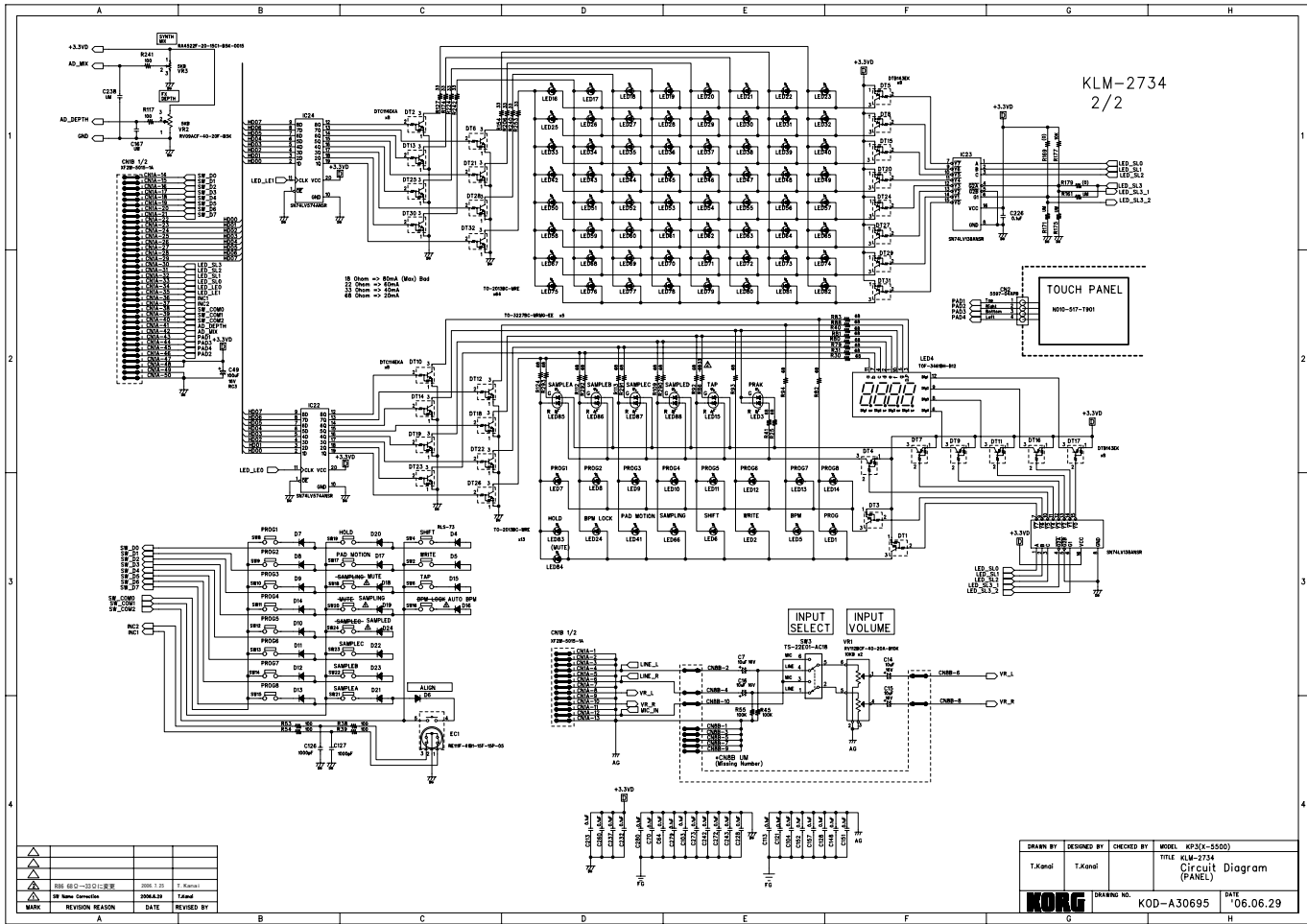
DRAWN BY	DESIGNED BY	CHECKED BY	MODEL	KP3(X-5500)
T.Kanal	T.Kanal		TITLE	KLM-2735/2736
				Circuit Diagram
				(Digital)
KORG	DRAWING NO.	KOD-A30694	DATE	'06.06.14



REV	REVISION REASON	DATE	REVISED BY
001		2006.06.28	T.Kanai

IC	MARK	DESCRIPTION	REF. NO.	VALUE	UNIT
1	IC1	OPAMP	R27	10K	Ω
1	IC2	OPAMP	R28	10K	Ω
1	IC3	OPAMP	R29	10K	Ω
1	IC4	OPAMP	R30	10K	Ω
1	IC5	OPAMP	R31	10K	Ω
1	IC6	OPAMP	R32	10K	Ω
1	IC7	OPAMP	R33	10K	Ω
1	IC8	OPAMP	R34	10K	Ω
1	IC9	OPAMP	R35	10K	Ω
1	IC10	OPAMP	R36	10K	Ω
1	IC11	OPAMP	R37	10K	Ω
1	IC12	OPAMP	R38	10K	Ω
1	IC13	OPAMP	R39	10K	Ω
1	IC14	OPAMP	R40	10K	Ω
1	IC15	OPAMP	R41	10K	Ω
1	IC16	OPAMP	R42	10K	Ω
1	IC17	OPAMP	R43	10K	Ω
1	IC18	OPAMP	R44	10K	Ω
1	IC19	OPAMP	R45	10K	Ω
1	IC20	OPAMP	R46	10K	Ω
1	IC21	OPAMP	R47	10K	Ω
1	IC22	OPAMP	R48	10K	Ω
1	IC23	OPAMP	R49	10K	Ω
1	IC24	OPAMP	R50	10K	Ω
1	IC25	OPAMP	R51	10K	Ω
1	IC26	OPAMP	R52	10K	Ω
1	IC27	OPAMP	R53	10K	Ω
1	IC28	OPAMP	R54	10K	Ω
1	IC29	OPAMP	R55	10K	Ω
1	IC30	OPAMP	R56	10K	Ω
1	IC31	OPAMP	R57	10K	Ω
1	IC32	OPAMP	R58	10K	Ω
1	IC33	OPAMP	R59	10K	Ω
1	IC34	OPAMP	R60	10K	Ω
1	IC35	OPAMP	R61	10K	Ω
1	IC36	OPAMP	R62	10K	Ω
1	IC37	OPAMP	R63	10K	Ω
1	IC38	OPAMP	R64	10K	Ω
1	IC39	OPAMP	R65	10K	Ω
1	IC40	OPAMP	R66	10K	Ω
1	IC41	OPAMP	R67	10K	Ω
1	IC42	OPAMP	R68	10K	Ω
1	IC43	OPAMP	R69	10K	Ω
1	IC44	OPAMP	R70	10K	Ω
1	IC45	OPAMP	R71	10K	Ω
1	IC46	OPAMP	R72	10K	Ω
1	IC47	OPAMP	R73	10K	Ω
1	IC48	OPAMP	R74	10K	Ω
1	IC49	OPAMP	R75	10K	Ω
1	IC50	OPAMP	R76	10K	Ω
1	IC51	OPAMP	R77	10K	Ω
1	IC52	OPAMP	R78	10K	Ω
1	IC53	OPAMP	R79	10K	Ω
1	IC54	OPAMP	R80	10K	Ω
1	IC55	OPAMP	R81	10K	Ω
1	IC56	OPAMP	R82	10K	Ω
1	IC57	OPAMP	R83	10K	Ω
1	IC58	OPAMP	R84	10K	Ω
1	IC59	OPAMP	R85	10K	Ω
1	IC60	OPAMP	R86	10K	Ω
1	IC61	OPAMP	R87	10K	Ω
1	IC62	OPAMP	R88	10K	Ω
1	IC63	OPAMP	R89	10K	Ω
1	IC64	OPAMP	R90	10K	Ω
1	IC65	OPAMP	R91	10K	Ω
1	IC66	OPAMP	R92	10K	Ω
1	IC67	OPAMP	R93	10K	Ω
1	IC68	OPAMP	R94	10K	Ω
1	IC69	OPAMP	R95	10K	Ω
1	IC70	OPAMP	R96	10K	Ω
1	IC71	OPAMP	R97	10K	Ω
1	IC72	OPAMP	R98	10K	Ω
1	IC73	OPAMP	R99	10K	Ω
1	IC74	OPAMP	R100	10K	Ω

DRAWN BY	DESIGNED BY	CHECKED BY	MODEL
T.Kanai	T.Kanai		KP3(X-5500)
TITLE			KLM-2734/2735/2736
Circuit Diagram			(Analog & Rear Panel)
DRAWING NO.		KOD-A30693	
DATE		06.06.27	



KLM-2734
2/2

DRAWN BY	DESIGNED BY	CHECKED BY	MODEL	KPS(X-5506)
T.Kanai	T.Kanai		TITLE	KLM-2734 Circuit Diagram (PANEL)
			DRAWING NO.	KOD-A30695
			DATE	'06.06.29

KORG KP3 TEST MODE

2006.8.30 KORG PD3 T.Kanai
English by M.Y.

How to enter the simple TEST MODE

Pushing following switches, and turn the power ON.
 CONNECTION[SEND] & [7] + [TAP/RANGE] : Skipping the Audio Loop Back Inspection and the USB check
 CONNECTION[SEND] & [5] + [TAP/RANGE] : Skipping the MIDI Loop Back inspection and the USB check.

Other test modes for repairing

Pushing following switches, and turn the power ON.
 CONNECTION[SEND] & [1] + [TAP/RANGE] : Skipping the Audio Measurements and PAD surface inspection
 CONNECTION[SEND] & [2] + [TAP/RANGE] : Audio Measurement only
 CONNECTION[SEND] & [3] + [TAP/RANGE] : PAD all surface inspection only
 CONNECTION[SEND] & [4] + [TAP/RANGE] : Full inspection (Internal and External)
 CONNECTION[SEND] & [6] + [TAP/RANGE] : External inspection

 [TAP/RANGE] + [SAMPLING] : Display of System Version
 [1] + [2] + [SAMPLING] : Load the Preset
 [SAMPLING] + [SAMPLE BANK C] + [SAMPLE BANK D] : IPL Mode

Functions of switches

[TAP/RANGE] : Step Up (When an error occurred in the internal inspection, retry the inspection.)
 [SAMPLE BANK A] : Step + (Move within the item)
 [SAMPLE BANK B] : Step - (Move within the item)
 [SAMPLE BANK C] : Item Number Up
 [SAMPLE BANK D] : Item Number Down
 [SAMPLE BANK A] + [TAP/RANGE] : When an error occurred in the internal inspection, skip the inspection

Error Code

KP3 displays the Error Code in the LED, when an error occurred in the internal inspection.
 4 digits of the LED indicates the error code.

[Er.**] * (Ten's digit) : Item number (item of the internal inspection)
 * (One's digit): Test number(In the internal inspection)

- | | | |
|------|----------------------------|--|
| Item | 1. DSP IF Check | Notice: When the start-up condition or the forwarding between CPU <-> DSP is NG, KP3 cannot start the test mode, because after the forwarding the Boot code, KP3 moves to the self check sequence (TEST MODE). |
| | 2. DSP - SDRAM Check | |
| | 3. CPU ROM Check | |
| | 4. EEPROM Check | |
| | 5. Loop Back Check (Audio) | |
| | 6. MIDI Loop Check | |
| | 7. Card Check | |
| | 8-USB Check | *USB check needs a special computer, so skip by [SAMPLE BANK A] + [TAP/RANGE] when an error occurred in the inspection. |

*** Initial Settings**

Set the volumes and the switches like followings.

CONNECTION : SEND
 INPUT Select : LINE
 INPUTVR : MAX
 Fx Depth : MIN
 Slider : MIN (0)
 PHONES VR : MAX
 MICTrim:MAX : MAX

Connection for the automatic inspections		Cable	
LINE OUT L	→	LINE IN L	RCA cable
LINE OUT R	→	LINE IN R	RCA cable
MIDI OUT	→	MIDI IN	MIDI cable

SD Card (Protect OFF)

(Caution:) Use the AC Adaptor of KA-20*series

Internal Inspection

1. DSP IF Check

When an error occurred, the inspection stops displaying [Er.11]-[Er.13] in the LED display.

2. DSP SDRAM Check

When "Data Error", the inspection stops displaying [Er.22] or [Er.23] in the LED display.
 When "Address Error", the inspection stops displaying [Er.21] in the LED display.

3. CPU ROM Check

When "Checksum Error", the inspection stops displaying [Er.31] in the LED display.

4. EEPROM Check

When "Verify Error", the inspection stops displaying [Er.41] in the LED display.

5. OVER LOAD Line Check (Audio LoopBack)

<<<In the simple TEST MODE, you can skip this.>>>

a: OUTPUT Lch(LINE IN (Rch: GND Level)

Connect the LINE OUT(L) to the LINE IN(L), when the level of the LINE IN(L) is out of the decided range, the inspection stops displaying [Er.51] in the LED display.

Connect the LINE OUT(L) to the LINE IN(L), when the level of the LINE IN(R) is more than the decided level, the inspection stops displaying [Er.52] in the LED display.

b: OUTPUT Rch(LINE IN (Lch: GND Level)

Connect the LINE OUT(R) to the LINE IN(R), when the level of the LINE IN(R) is out of the decided range, the inspection stops displaying [Er.53] in the LED display.

Connect the LINE OUT(R) to the LINE IN(R), when the level of the LINE IN(L) is more than the decided level, the inspection stops displaying [Er.54] in the LED display.

(Caution) *1 Before the internal inspection, connect LINE OUT(L) to LINE IN(L), LINE OUT(R)to LINE in (R) by two cables.

*2 Set INPUT VOLUME at MAX, INPUT SELECT (toggle) is LINE side.

6. MIDI Loop Check

<<<In the simple TEST MODE, you can skip this.>>>

When KP3 cannot receive the Data, the inspection stops displaying [Er.61] in the LED display.

During receiving the data when KP3 could not receive some data, the inspection stops displaying [Er.62] in the LED display.

When the received data is different value, the inspection stops displaying [Er.63] in the LED display.

(Caution) *3. Connect MIDI IN and MIDI OUT by a MIDI cable, before the internal inspection.

7. Card Check

After [C.Ins] is appeared in the LED display, insert a SD card.

When a SD card is not inserted and KP3 could not detect that a card is not inserted, [Er.71] is displayed in the LED.

After inserted a SD card and remove your hand from the card, then confirm that the card is rocked.

When KP3 could not detect that a SD card is inserted, [Er.72] is displayed in the LED.

When KP3 could not write or read the data, [Er.73] is displayed in the LED.

When the inspection has completed as OK, [C.Pul] is displayed in the LED, then pull out the SD card.

(Caution) *4 Use the SD card as protect OFF.

*5 Do not insert the SD card before [C.Ins] is displayed in the LED.

8. USB Check

<< Skip this inspection>>

* The special computer is needed for this inspection, so skip by [SAMPLE BANK A] + [TAP/RANGE].

* Errors are displayed as [Er.8*], ignore these errors.

9. All LEDs light

a. Confirm that all LEDs light.

All LEDs except followings light. : LEDs(8x8) of PAD, 7segments LED[8888], [SMPL]SW

LED of two colors are followings

.:PEAK, [TAP/RANGE], [SAMPLE BANK A], [SAMPLE BANK B], [SAMPLE BANK C], [SAMPLE BANK D]

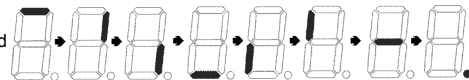
Confirm that there is not the uneven brightness, and that there is not slanted LED.

After the confirmation, push [TAP/RANGE] , then the inspection proceeds to 10 External Inspection.

10. 7 Segments LED, segments light one by one.

For each digit, segments light one by one like the right figure.

After confirmation of the four digits, push [TAP/RANGE] SW and proceed to next inspection.

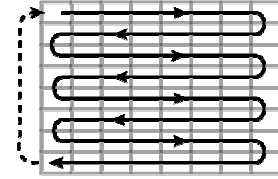


(Caution) *6. You need all digit's inspection to proceed to the next inspection.

11. PAD LEDs, LEDs light one by one.

LEDs light one by one, from upper left-upper right-next right-next left-like the right figure.

Push [TAP/RANGE] to proceed to next inspection.



(Caution) *7 You need one cycle of inspection to proceed to the next inspection.

12. Switch & LED Check

*In the 7segments LED, the switch you should push at first is displayed. {wrt} is displayed in the LED.

*Proceed the inspection as following order.

*When the waiting for pushing the switch, the switch which should be push is displayed in the and LED lights which is corresponding the switch.

PROG [WRITE] → WRITE [WRITE] → BPM [SHIFT] → SHIFT [SHIFT] → PEAK 赤 [PROGRAM/BPM] →
 PEAK 緑 [PROGRAM/BPM] → 1 [1] → 2 [2] → 3 [3] → 4 [4] → 5 [5] → 6 [6] → 7 [7] → 8 [8] →
 TAP/RANGE 赤 [TAP/RANGE] → TAP/RANGE 緑 [TAP/RANGE] → AUTO BPM [AUTO BPM] →
 PAD MO

*After switch's inspection, next is inspection of the [CONNECTION]SW. [dirE] is displayed in the LED, set [CONNECTION]SW to "DIRECT". [Send] is displayed in the LED, set [CONNECTION]SW to "SEND"

(Caution) *8 Confirm that the indicated LED lights in the indicated color. (No indication is red.)

*9 When other wrong) switch is pushed or plural switches are pushed, LED blinks.

*10 [SAMPLING]SW has no LED, so it does not light and {SMPL} is displayed in the LED.

*11 [CONNECTION]SW has no corresponding LED, so it is only in the 7 segments LED display.

SWITCH | 7SEG-LED | LED lights

	対応SW	7Seg LED	点灯LED	
1	[WRITE]	{wrt }	PROG	
2	[WRITE]	{wrt }	wrt	
3	[SHIFT]	{ShFt }	BPM	
4	[SHIFT]	{ShFt }	SHIFT	
5	[PROGRAM/BPM]	{Enod }	PEAK 赤	RED
6	[PROGRAM/BPM]	{Enod }	PEAK 緑	GREEN
7	[1]	{PG-1 }	1	
8	[2]	{PG-2 }	2	
9	[3]	{PG-3 }	3	
10	[4]	{PG-4 }	4	
11	[5]	{PG-5 }	5	
12	[6]	{PG-6 }	6	
13	[7]	{PG-7 }	7	
14	[8]	{PG-8 }	8	
15	[TAP/RANGE]	{TAP }	TAP/RANGE 赤	RED
16	[TAP/RANGE]	{TAP }	TAP/RANGE 緑	GREEN
17	[AUTO BPM]	{Auto }	AUTO BPM	
18	[PAD MOTION]	{Auto }	PAD MOTION	
19	[MUTE]	{Mute }	MUTE	
20	[SAMPLING]	{SMPL }	なし	
21	[HOLD]	{Hold }	HOLD	
22	[SAMPLE BANK A]	{Sb-A }	SAMPLE BANK A 赤	R
23	[SAMPLE BANK A]	{Sb-A }	SAMPLE BANK A 緑	G
24	[SAMPLE BANK B]	{Sb-b }	SAMPLE BANK B 赤	R
25	[SAMPLE BANK B]	{Sb-b }	SAMPLE BANK B 緑	G
26	[SAMPLE BANK C]	{Sb-c }	SAMPLE BANK C 赤	R
27	[SAMPLE BANK C]	{Sb-c }	SAMPLE BANK C 緑	G
28	[SAMPLE BANK D]	{Sb-d }	SAMPLE BANK D 赤	R
29	[SAMPLE BANK D]	{Sb-d }	SAMPLE BANK D 緑	G
30	[CONNECTION]	{dirE }	なし	
31	[CONNECTION]	{Send }	なし	

13. Encoder Check

[Enc.0] is displayed in the LED.

Pull out the knob, adjust the shaft of the Encoder(PROGRAM/BPM) at the start position.

After adjusting, push [TAP/RANGE]SW then [0] is displayed in the LED display.

a. Encoder right

Rotate the encoder to the right one cycle.

After one rotation, confirm [30] is displayed. Then push [TAP/RANGE] to proceed to next step.

After one rotation, [-30] is displayed or other display than[30] is displayed, it is NG.

During rotation,

[5]LED lights, at 1/4 position

[5],[6] LEDsi light at 2/4 position

[5],[6],[7] LEDs light 3/4 position

[5],[6],[7],[8] LEDs light after one rotation Rotate left and the display is less than 30, the corresponding LED lights.

When passed even if one click, [5],[6],[7],[8] LEDs turn OFF

b. Encoder left

Rotate the encoder to the left one cycle.

After one rotation, confirm [30] is displayed. Then push [TAP/RANGE] to proceed to next step.

After one rotation, [-30] is displayed or other display than[30] is displayed, it is NG.

During rotation,

[4]LED lights, at 1/4 position

[4],[3] LEDs light at 2/4 position

[4],[3],[2]LEDs light 3/4 position

[4],[3],[2],[1] LEDs light after one rotation Rotate left and the display is less than 30, the corresponding LED lights.

When passed even if one click, [4],[3],[2],[1] LEDs turn OFF

Confirm that there is no rubbing or feeling of not smooth when rotation.

14. FX DEPTH Check

[FX.dP] is displayed in the LED display.

Rotate FX DEPTH to the left end, all LEDs of [1]-[8] are OFF.

Rotate FX DEPTH to the right, [1], [2], [3], [4], [5], [6], [7], [8] LEDs turn ON (increasing one by one),

and at the right end all LEDs of [1]-[8] turn ON. Rotate to the left, LEDs turn OFF one by one (decreasing).

After finished, inspection proceeds to next.

Confirm that there is no rubbing or feeling of not smooth when rotation.

After the confirmation, proceed to next inspection.

15. LEVEL (Slider) Check

[SLdr] is displayed in the LED display.

Push [TAP/RANGE] to start the inspection.

Move LEVEL slider from MIN(lowest)->MAX(highest)->MIN(lowest)

At MIN(lowest) position, all LEDs of [1]-[8] are OFF.

Move to MAX(highest), [1], [2], [3], [4], [5], [6], [7], [8] LEDs turn ON (increasing one by one),

At MAX(highest) position all LEDs of [1]-[8] turn ON.

Move to MIN(lowest), LEDs turn OFF one by one (decreasing).

Confirm that there is no rubbing or feeling of not smooth when moving.

After the confirmation, proceed to next inspection.

16. Touch PAD Check

[Pd.1] is displayed in the LED display.

One LED upper left turns ON, push this part by your finger then [P_1] is displayed in the LED then remove the finger from the PAD. The next LED turns ON.

[P2.] is displayed in the LED display.

4 LEDs of upper left turn ON, push the center of these then [P_2] is displayed in the LED. then remove the finger from the PAD.

[P3.] is displayed in the LED display.

One LED lower right turns ON, push this part by your finger then [P_3] is displayed in the LED then remove the finger from the PAD.

After removing the finger from PAD, inspection proceeds to next.

17. Touch PAD Calibration

Complete steps 2 & 3 of "Calibrating the Touch Pad" on the next page; or push [SAMPLE BANK D] to skip this item.

18. Inspection of the PAD surface.

After audio measurement, push [SAMPLE BANK D] then [Pd.2] is displayed in the LED and start the inspection of the PAD surface. When you touch the PAD, KP3 sounds.

Stroke slowly all the surface of the PAD and confirm that the frequency of the sound does not change.

When the sound changed to high frequency sound, the inspection is NG because other part than the part you touch is pushed.

When stroking the PAD, confirm that there is not strange feeling.

Confirm that sound stops when you remove the finger from the PAD.

The inspection is NG when the sound does not stop after removed from the PAD.

Confirm that there are no dusts and etc. on the surface and beneath the PAD.

19.Preload

Move the {CONNECTION}SW to "DIRECT" to the status of waiting for the preload.

[PrLd] is displayed in the LED display, pushing [SAMPLE BANK A] sw and push [TAP/RANGE] to execute the preload.

After finished preload, KP3 restarts in normal operation and [LOAd] in the LED display changes to [FLE.1].

[FLE.1] is not displayed in the LED display after few while the preload is failed.

Calibrating the Touch Pad

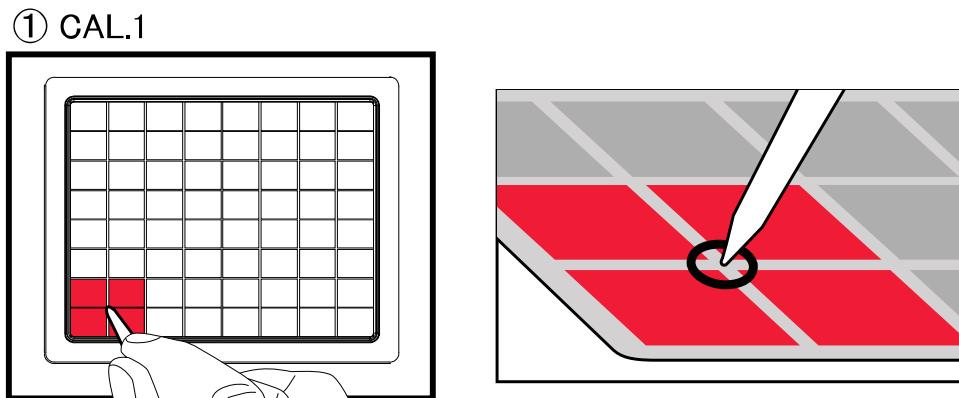
Depending on the operating environment, the touch pad segments that light when the pad is pressed might be out of position. When this happens, the following steps should be taken to re-calibrate the touch pad.

Please use a plastic pointing device such as a PDA stylus or a gaming device touch pen. using a sharp or metallic object will risk damaging the touch pad surface.

1. Turn on the power while pressing the PROGRAM MEMORY 7, PROGRAM MEMORY 8 and [SAMPLING] buttons.

"CAL.1" should appear on the display and the four bottom left touch pad segments should light up.

2. Using the pointing device, lightly touch the centre of the four lit segments where the grid lines cross as shown in the diagram below.



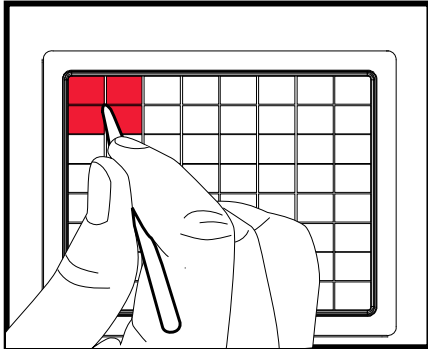
!NOTE! do not move the pointing device from this position while the pad is touched.

After touching this point for a short while, the calibration will move onto the next step: the next set of four segments will light and the display should read "CAL.2".

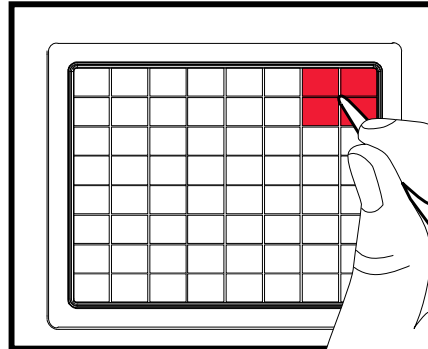
3. Remove the pointing device from the touch pad and repeat for the next position indicated by the segment lights.

Complete all four steps as shown in the following diagrams.

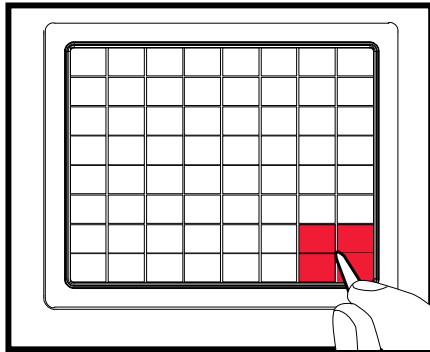
② CAL.2



③ CAL.3



④ CAL.4



4. After completing the four steps, the touch pad lights will go out and "P.oFF" will be displayed.

!NOTE! do not turn the power off until "P.oFF" is displayed.

5. The unit is now re-calibrated. Turn the power off and on as usual and confirm that the KP3 operates correctly.

KORG KP3 PARTS LIST

Part Number	Category	Part Name	QTY
510306510001	POWER MOS FET	CPH6316-TL-E (S)	1
510310510502	DOUBLE DIODES	MC2840-T112-1 (S)	1
510310511507	DIODE	RLS-73 TE-11 (S)	22
510310511506	SCHOTTKY DIODE	RB051L-40TE25 (S)	2
510310511001	ZENER DIODE	RD10M-T1B-A (B3) (S)	1
510300510503	TRANSISTOR	2SA812-T1B-A M5-7 M6 RANK(S)	3
510300510502	TRANSISTOR	2SC1623A-T1B AT	1
510300511504	TRANSISTOR	2SC3661-TB-E (S)	4
510300511009	DIGITAL TR	DTC114EKA T146 (TS) (S)	16
510300511015	DIGITAL TR	DTB143EK T146 (S)	16
510312513001	Chip LED	TO-2013BC-MRE (S)	80
510312513009	Chip LED	TO-3227BC-MRMG EE (S)	6
510316521502	SEGMENT LED	TOF-3461BH-B9	1
510646502093		X-5500 LED SPACER E10236-2(D)	1
510324021160	OPAMP	NE5532DR (TS)	3
510320511008	OPAMP	NJM4556AM-TE1-#ZZZB (S)	1
510320515502	Logic IC	SN74LVU04APWR	1
510320516029	Logic IC	SN74LV125APWR (S)	1
510320516013	Logic IC	SN74LV126APWR (S)	1
510320516016	Logic IC	IC SN74LV138ANSR (TS) (S)	2
510320516056	Logic IC	SN74LV574ANSR (S)	2
510320516010	Logic IC	SN74LV05APWR (S)	1
500324023008	IC	S-8520F33MC-BNST2G	1
510320511009	REGULATOR IC	NJM78L05UA-TE2 (TS)(S)	1
510320514025	REGULATOR IC	BA17810FP	1
510320514026	LDO IC	BD00KA5WF	1
500330003700	PHOTO COUPLER	PS9117-F3-A	1
510320512002	RESET IC	M51953BFP#CF1J (S)	1
500324018018	EEPROM	AK93C10AF-E1	1
500320004718	CPU	HD64F2215UTE16V (X5500)	1
510320516070	DSP	TMS320VC5501PGF300	1
500324026004	SDRAM	MT48LC8M16A2P-75:G TR	1
510324019513	A/D Converter	AK5381VT	1
510324038010	D/A Converter	AK4384ET-E2	1
510335520001	CRYSTAL	HC-49US 16MHZ (D)	1
510335520007	CRYSTAL	HC-49US 20.000MHZ (D)	1
510335552008	CRYSTAL	HC-49US 24.576MHZ SS (D)	1
510374524026	SLIDE VR	RA4522F-20-15C1-B5K-0015	1
510370521001	ROTARY ENCODER	RE111F-41B1-15F-15P-05	1
510374524027	ROTARY VR	RV112BCF-40-20A-B10K	1
510374524017	ROTARY VR	RV09ACF-40-20F-B5K-0057	1
510360521510	VR	R0923NOAH1B104FE0061 (D)	1
510360521511	VR	R0925GOAH1B103FE0061 (D)	1
510450520019	DIN JACK	ST-1550-01-S1-60	2
510474520501	USB CONNECTOR	GE813A02 (USB B TYPE) (D)	1
510450520008	PHONE JACK	MJ-081 (PHONE-J MONO GOLD) (D)	1
510450520009	PHONE JACK	MJ-084 (PHONE-J ST GOLD) (D)	1
510450520010	RCA PIN JACK	RCA-204G-04 (D)	2
510450522504	DC JACK	PJCP042100-42-0 (D)	1
510374522002	SLIDE SW	SK-22D06G8 2P2T (D)	1
510374522018	TOGGLE SW	TS-22E01-AC18-NI	1
510374520004	PUSH SW	SPUN192600 (D)	1
510450520011	RCA PIN JACK	SHIELD PLATE RCA-204-E (D)	2
510470521003	HARNESS	HNS-3153 FLATCABLE 5P 2MM (D)	3
510470521005	HARNESS	HNS-3155 6P 2MM BD-IN/HSG (D)	1
510474523003	CONNECTOR	5597-04APB7F (39532044)	1
500474043700	FFC CONNECTOR	XF2M-5015-1A	2
510470521552	FFC	HNS-3647	1
510474510501	CARD CONNECTOR	AXA273021T	1
500415004302	TOUCH PANEL	N010-0517-T902	1
510C33682734	PCB ASS'Y	KLM-2734-KP3 (ASS'Y)	(1)
510C33682735	PCB ASS'Y	KLM-2735/6-KP3 (ASS'Y)	(1)
510640507004	Mechanical Part	X-5500 UPPER CASE KOC-C10259	1
510640506510	Mechanical Part	X-5500 BOTTOM PLATE KOC-C30714	1
510500502531	Mechanical Part	X-5500 RUBBER KEY 1 KOC-E30429	1
510500502532	Mechanical Part	X-5500 RUBBER KEY 2 KOC-E30430	1
510500502533	Mechanical Part	X-5500 RUBBER KEY 3 KOC-E30431	1
510500502534	Mechanical Part	X-5500 RUBBER KEY 4 KOC-E30432	1
510500502535	Mechanical Part	X-5500 ENCORDER KNOB E30426	1
510646502094	Mechanical Part	X-5500 VR KNOB KOC-E30427	2
510646502095	Mechanical Part	X-5500 SLIDER KNOB KOC-E30428	1

Part Number	Category	Part Name	QTY
500620040700	Mechanical Part	KNOB P423-90F(X-9100) E40519-1	2
500620018201	Mechanical Part	PSW KNOB (ボウツ) E40224	1
510646502096	Mechanical Part	X-5500 SD FRAME KOC-E20275	1
510646502099	Mechanical Part	X-5500 LCD FRAME KOC-E20276	1
510646506504	Mechanical Part	X-5500 SUPORT PLATE KOC-F30119	1
510646506505	Mechanical Part	X-5500 WINDOW KOC-F41269	1
510646502097	Mechanical Part	X-5500 LED FRAME KOC-E10236-1	1
510500501515	Mechanical Part	X-5500 SWITCH MASK KOC-F41307	1
510500500008	Mechanical Part	X-332CHINA URETHANE-LEG F40709	4
510500501510	Mechanical Part	SHIELD FORM 10X10X60	1
510500501511	Mechanical Part	SHIELD FORM 10X10X12	1
510405540009	AC ADAPTER	KA-201 12V 700mA EIAJ-Plug(100JP)	(1)
510405540010	AC ADAPTER	KA-203 12V 700mA EIAJ-Plug(120US/CN/EX)	(1)
510405540011	AC ADAPTER	KA-209 12V 700mA EIAJ-Plug(230GE/FR/WG)	(1)
510405540012	AC ADAPTER	KA-206 12V 700mA EIAJ-Plug(230UK)	(1)