

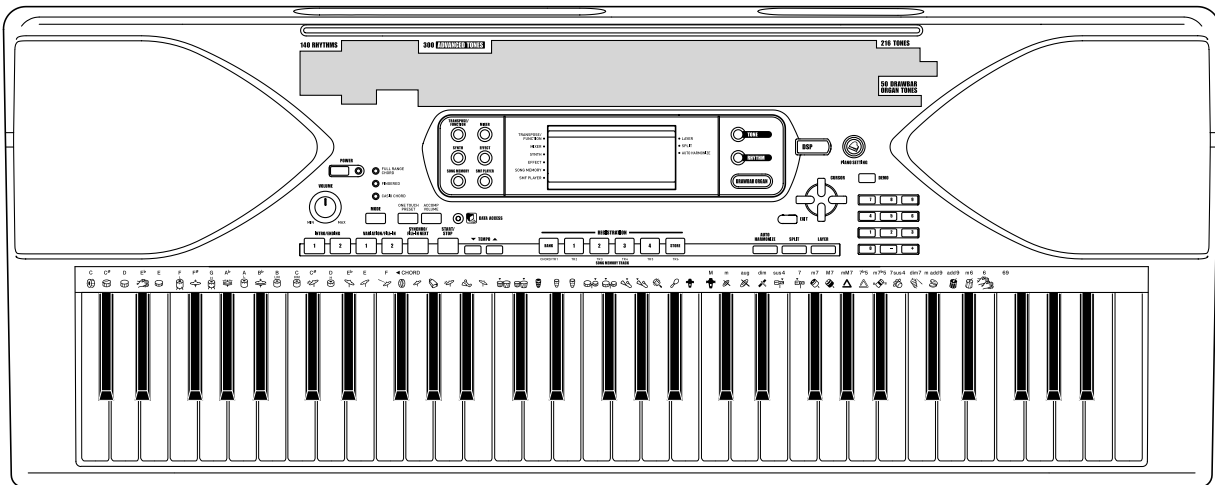
# CASIO®

# Service Manual

(without price)

## CTK-691

JUN. 2003



CTK-691

**ELECTRONIC KEYBOARD**

Ver.2 : Sep. 2006

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# SPECIFICATIONS

## GENERAL

Keyboard:	61 standard-size keys, 5 octaves with touch response (Off / 1 / 2 / 3)
Tones:	300 Advanced Tones + 200 Preset Tones + 16 Drum Sets + 100 standard user tones + 20 user tones with waves*: + 4 drum sets with waves* + 50 drawbar organ tones + 100 user drawbar organ tones (790 tones total); layer/split
Rhythm Instrument Tones:	61
Polyphony:	32 notes maximum (10 for certain tones)
Effects:	DSP (200 types: internal, 100 user areas) + Reverb (16 types) + Chorus (16 types) + Equalizer (10 types, 4 bands)
Auto Accompaniment	
Rhythm Patterns:	156 (internal, 16 user areas*)
Tempo:	Variable (226 steps, ♩ = 30 to 255)
Chords:	3 fingering methods (CASIO CHORD, FINGERED, FULL RANGE CHORD)
Rhythm Controller:	START/STOP, INTRO/ENDING 1 and 2, VARIATION/FILL-IN 1 and 2, SYNCHRO/FILL-IN NEXT
Accomp Volume:	0 to 127 (128 steps)
One Touch Presets:	Recalls settings for tone, tempo, layer on/off, and harmonize on/off in accordance with rhythm.
Auto Harmonize:	10 types: Automatic addition of notes that harmonize with melody note in accordance with specified Auto Accompaniment chords.
Memory Function	
Songs:	5
Recording Tracks:	6 (2 through 6 are melody tracks)
Recording Methods:	Real-time, step
Memory Capacity:	Approximately 10,000 notes (total for 5 songs)
Edit Function:	Equipped
Demo Tunes:	3

Tune Number	Name	Composer	Play time
0	Nora Park	TECH-NOTE INTERNATIONAL LTD.	2:06
1	Garage Flava	Steave Turner	2:15
2	Strut With Beauty	Edward Alstrom	1:52

Synthesizer Function	
Parameters:	Attack time; release time; resonance; cutoff frequency; vibrato type; vibrato delay; vibrato depth; vibrato rate; octave shift; level; touch sense; reverb send; chorus send; DSP line; DSP type and DSP parameter, DSP level.
Registration Memory	
Number of Setups:	32 (4 setups × 8 banks)
Memory Contents:	Tone, Rhythm, Tempo, Layer on/off, Split on/off, Split point, Harmonize on/off, Mixer settings (Channels 1 to 10), Effect settings, Touch Response settings, Assignable jack setting, Transpose, Tuning, Accompaniment volume setting, Auto Harmonize type, MODE button setting, Synchro standby state, Mixer Hold, DSP Hold, Synthesizer Mode parameters
Mixer Function	
Channels:	16
Parameters:	Tone; part on/off; volume; pan pot; octave shift; coarse tune; fine tune; reverb send; chorus send; DSP line; DSP level; DSP pan; DSP system reverb send; DSP system chorus send
MIDI:	16 multi-timbre receive, GM Level 1 standard

Other Functions	
Transpose:	49 steps (–24 semitones to +24 semitones)
Tuning:	Variable (A4 = approximately 440Hz ±100 cents)
LCD:	Adjustable contrast
SMF Player	Flash memory storage for up to 200 files* • Supported Format: SMF0
Flash Memory	Capacity: 2MB Shared Area: Approximately 1.5MB (waveform data, accompaniment data, SMF data) • Further storage of waveform, accompaniment, and SMF data becomes impossible after the total of such data reaches approximately 1.5MB.
Terminals	
MIDI Terminals:	IN, OUT
Sustain/Assignable Terminal:	Standard jack (sustain, sostenuto, soft, rhythm start/stop)
Headphone/Output Terminal:	Stereo standard jack Output Impedance: 140Ω Output Voltage: 4.5V (RMS) MAX
Power Supply Terminal:	9V DC
Power Supply:	Dual power supply system
Batteries:	6 D-size batteries
Battery Life:	Approximately 4 hours continuous operation on manganese batteries
AC Adaptor:	AD-5
Auto Power Off:	Turns power off approximately six minutes after last key operation. Enabled under battery power only, can be disabled manually.
Speaker Output:	3W + 3W
Power consumption:	9V ≐ 7.7W
Dimensions:	96.0 × 37.5 × 14.6 cm (37 <sup>13</sup> / <sub>16</sub> × 14 <sup>3</sup> / <sub>4</sub> × 5 <sup>3</sup> / <sub>4</sub> inch)
Weight:	Approximately 5.6 kg (12.3lbs) (without batteries)

\* The same memory area is used to store waveform data, accompaniment data, and SMF data.

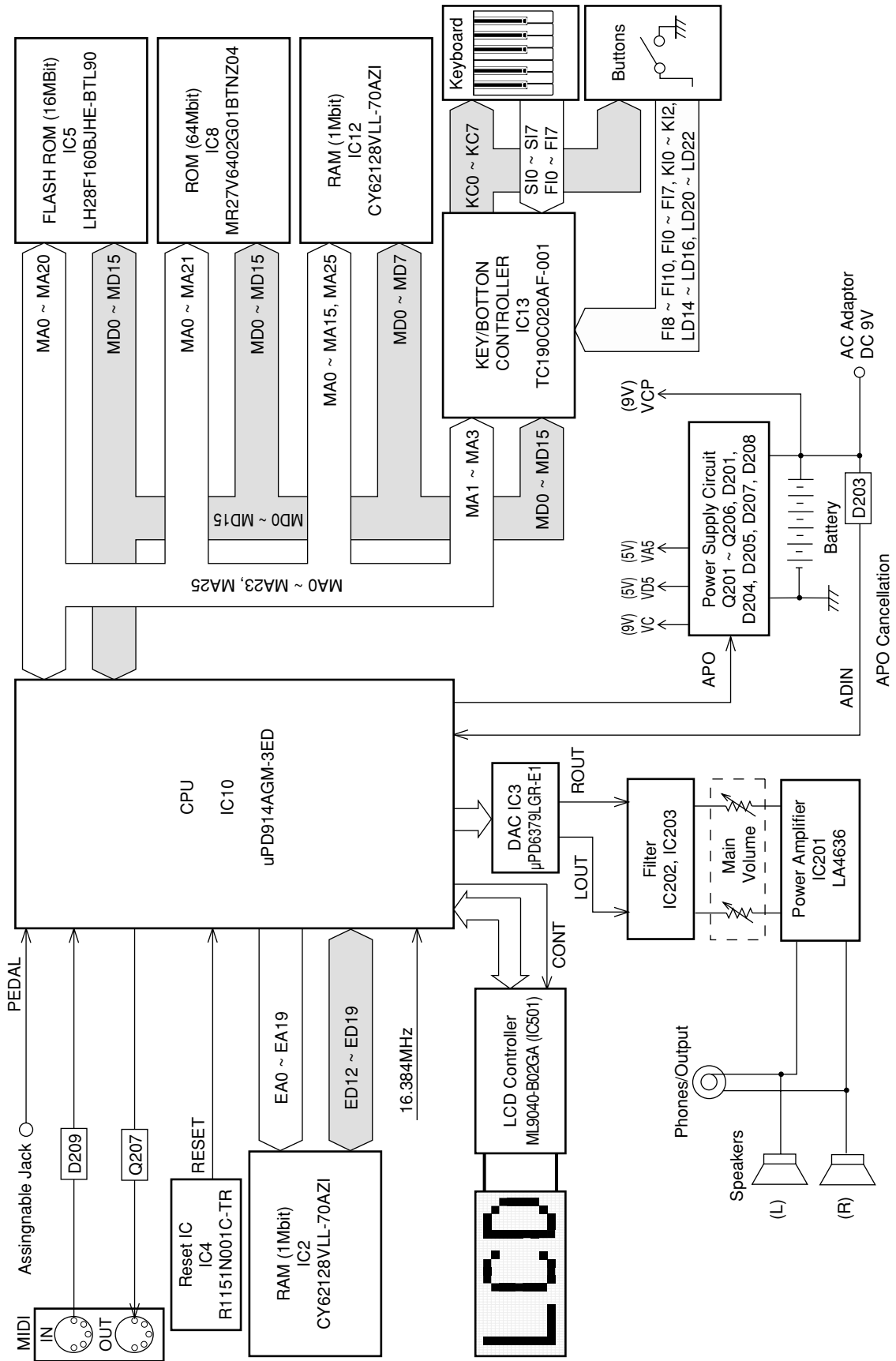
## ELECTRICAL

Current drain with 9 V DC:	
No sound output	1200 mA ± 20 %
Maximum volume	260 mA ± 20 %
with 16 keys from C1 to D#2 pressed in 193 BREATHY ALTO SAX (R channel)	
Volume: maximum, Velocity: maximum	
Speaker output level (V <sub>rms</sub> with 4 Ω load each channel):	
with key G1 in 193 BREATHY ALTO SAX (R channel)	
Volume: maximum, Velocity: maximum	L/R: 3700 mV ± 20 %
Phone output level (V <sub>rms</sub> with 32 Ω load each channel):	
with key, E1 in 193 BREATHY ALTO SAX (R channel)	
Volume: maximum, Velocity: maximum	L/R: 320 mV ± 20 %
Output level (V <sub>rms</sub> with 47 Ω load each channel):	
with key E1 in 193 BREATHY ALTO SAX (R channel)	
Volume: maximum, Velocity: maximum	L/R: 1750 mV ± 20 %

### About General MIDI

General MIDI standardizes MIDI data for all sound source types, regardless of manufacturer. General MIDI specifies such factors as tone numbering, drum sounds, and available MIDI channels for all sound sources. This standard makes it possible for all MIDI equipment to reproduce the same nuances when playing General MIDI data, regardless of the manufacturer of the sound source. This keyboard supports General MIDI, so it can be used to play commercially available pre-recorded General MIDI data and General MIDI data sent to it from a personal computer.

# BLOCK DIAGRAM



## CIRCUIT DESCRIPTION

### KEY MATRIX

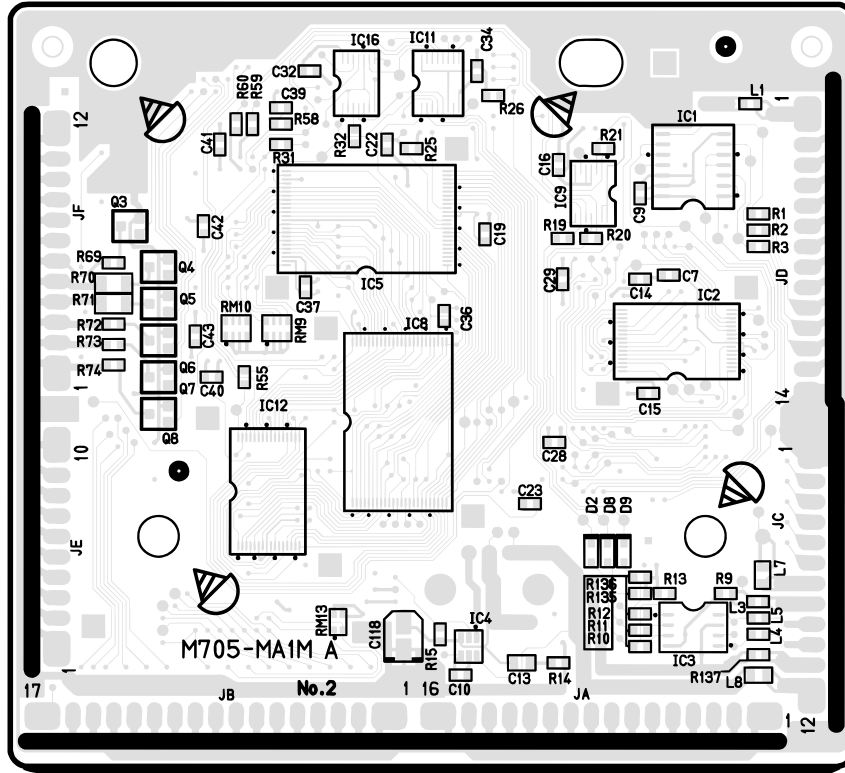
	KC0	KC1	KC2	KC3	KC4	KC5	KC6	KC7-
<b>FI0</b>	C2 (1)	C#2(1)	D2 (1)	D#2 (1)	E2 (1)	F2 (1)	F#2 (1)	G2 (1)
<b>SI0</b>	C2 (2)	C#2 (2)	D2 (2)	D#2 (2)	E2 (2)	F2 (2)	F#2 (2)	G2 (2)
<b>FI1</b>	G#2 (1)	A2 (1)	A#2 (1)	B2 (1)	C3 (1)	C#3 (1)	D3 (1)	D#3 (1)
<b>SI1</b>	G#2 (2)	A2 (2)	A#2 (2)	B2 (2)	C3 (2)	C#3 (2)	D3 (2)	D#3 (2)
<b>FI2</b>	E3 (1)	F3 (1)	F#3 (1)	G3 (1)	G#3 (1)	A3 (1)	A#3 (1)	B3 (1)
<b>SI2</b>	E3 (2)	F3 (2)	F#3 (2)	G3 (2)	G#3 (2)	A3 (2)	A#3 (2)	B3 (2)
<b>FI3</b>	C4 (1)	C#4 (1)	D4 (1)	D#4 (1)	E4 (1)	F4 (1)	F#4 (1)	G4 (1)
<b>SI3</b>	C4 (2)	C#4 (2)	D4 (2)	D#4 (2)	E4 (2)	F4 (2)	F#4 (2)	G4 (2)
<b>FI4</b>	G#4 (1)	A4 (1)	A#4 (1)	B4 (1)	C5 (1)	C#5 (1)	D5 (1)	D#5 (1)
<b>SI4</b>	G#4 (2)	A4 (2)	A#4 (2)	B4 (2)	C5 (2)	C#5 (2)	D5 (2)	D#5 (2)
<b>FI5</b>	E5 (1)	F5 (1)	F#5 (1)	G5 (1)	G#5 (1)	A5 (1)	A#5 (1)	B5 (1)
<b>SI5</b>	E5 (2)	F5 (2)	F#5 (2)	G5 (2)	G#5 (2)	A5 (2)	A#5 (2)	B5 (2)
<b>FI6</b>	C6 (1)	C#6 (1)	D6 (1)	D#6 (1)	E6 (1)	F6 (1)	F#6 (1)	G6 (1)
<b>SI6</b>	C6 (2)	C#6 (2)	D6 (2)	D#6 (2)	E6 (2)	F6 (2)	F#6 (2)	G6 (2)
<b>FI7</b>	G#6 (1)	A6 (1)	A#6 (1)	B6 (1)	C7 (1)			
<b>SI7</b>	G#6 (2)	A6 (2)	A#6 (2)	B6 (2)	C7 (2)			

### BUTTON MATRIX

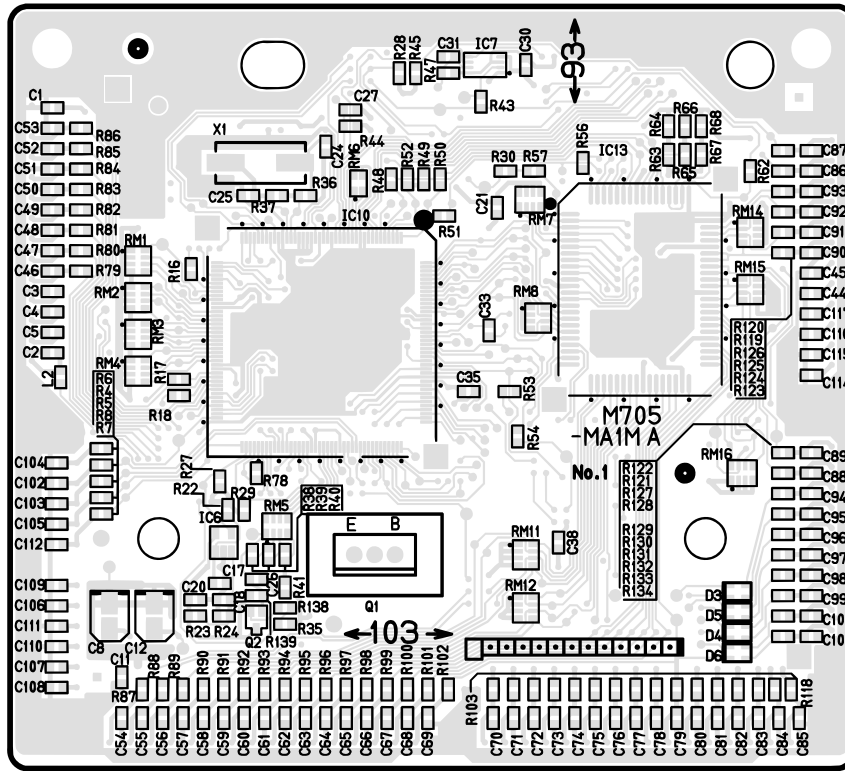
	KC0	KC1	KC2	KC3	KC4	KC5	KC6	KC7
<b>KI0</b>	9	8	DSP ON/OFF	CURSOR↓	PART EDIT	SEQ	STORE	SYNCRO/FILL-IN NEXT
<b>KI1</b>	6	0	PIANO SETTING	EXIT	TONE EDIT	ACCOMP VOLUME	INTRO/ENDING 2	VARIATION/FILL-IN 2
<b>KI2</b>	3	1	RHYTHM	CURSOR⇒	SETTING	ONE TOUCH PRESET	INTRO/ENDING 1	VARIATION/FILL-IN 1
<b>FI8</b>	+	2	CURSOR⇐	7	TEMPO UP	REGISTRATION 1	SPLIT	REGISTRATION 4
<b>FI9</b>	LAYER	—	CURSOR↑	4	BANK	TEMPO DOWN	AUTO HARMONIZE	REGISTRATION 3
<b>FI10</b>	DEMO	5	TONE	DRAWBAR	EFFECT EDIT	SMF PLAY	START/STOP	REGISTRATION 2

# PRINTED CIRCUIT BOARDS

## Main PCB M705-MA1M

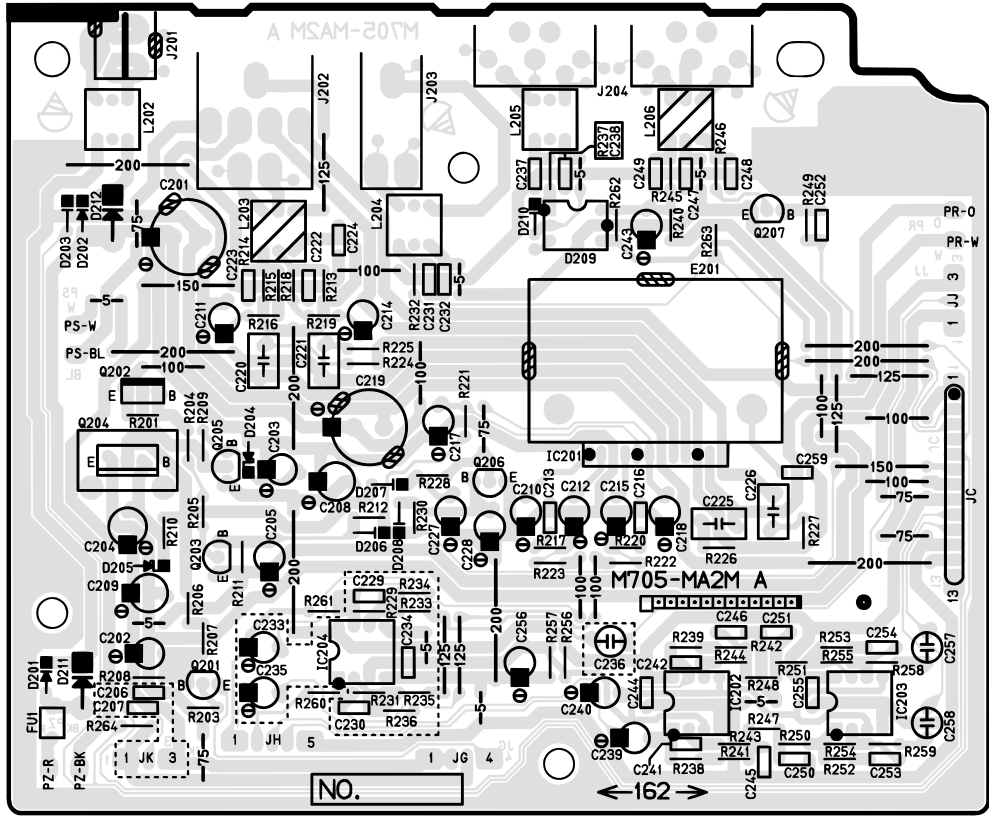


Top View



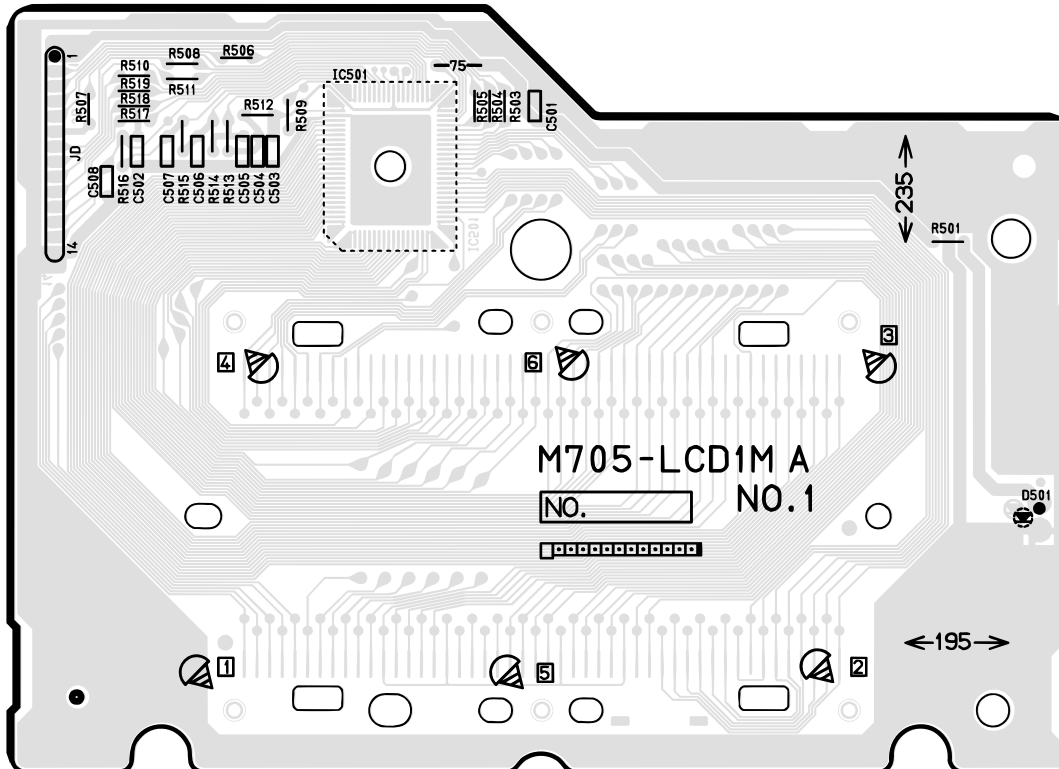
Bottom View

Sub PCB M705-MA2M



Top View

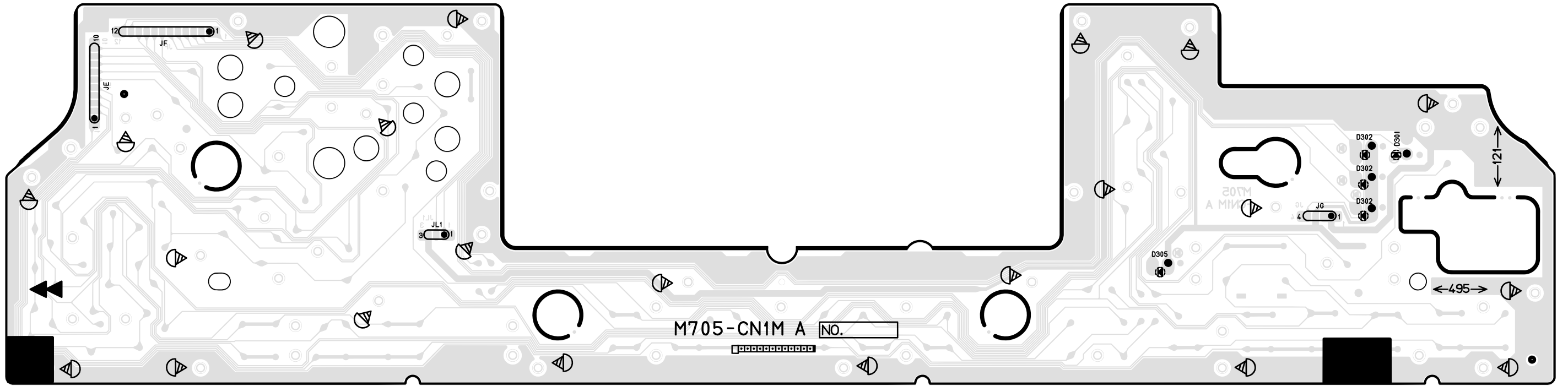
LCD PCB M705-LCD1M



Top View

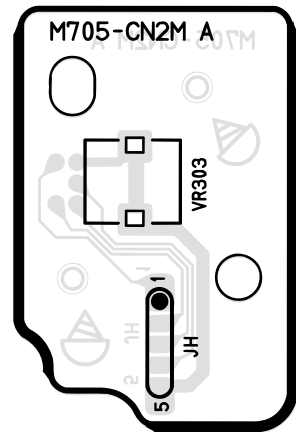


CONSOLE PCB M705-CN1M



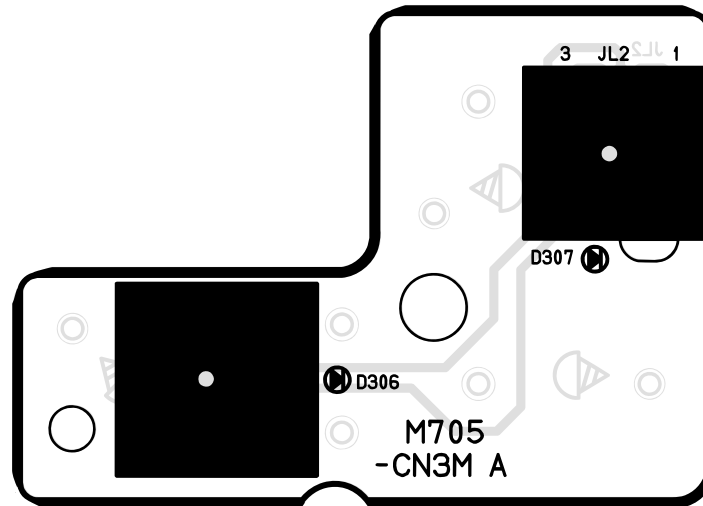
Top View

CONSOLE PCB M705-CN2M



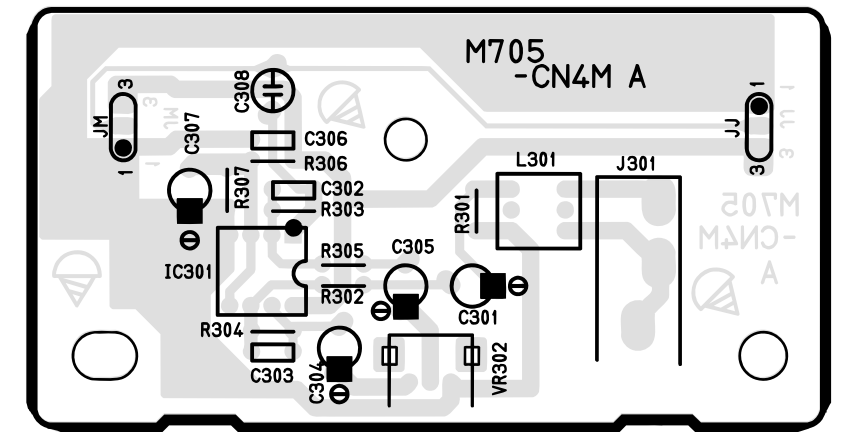
Top View

CONSOLE PCB M705-CN3M



Top View

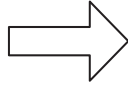
CONSOLE PCB M705-CN4M



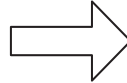
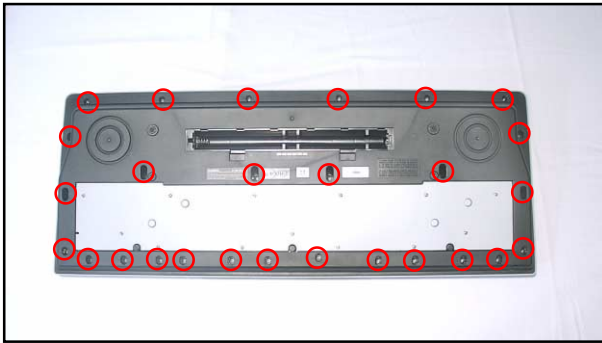
Top View

# DISASSEMBLY

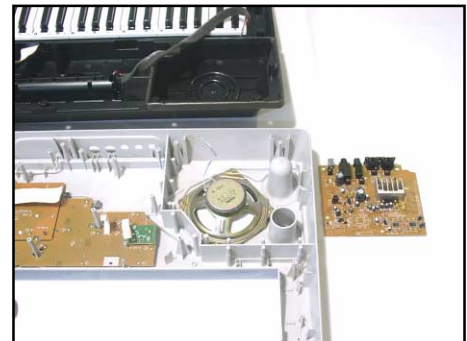
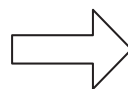
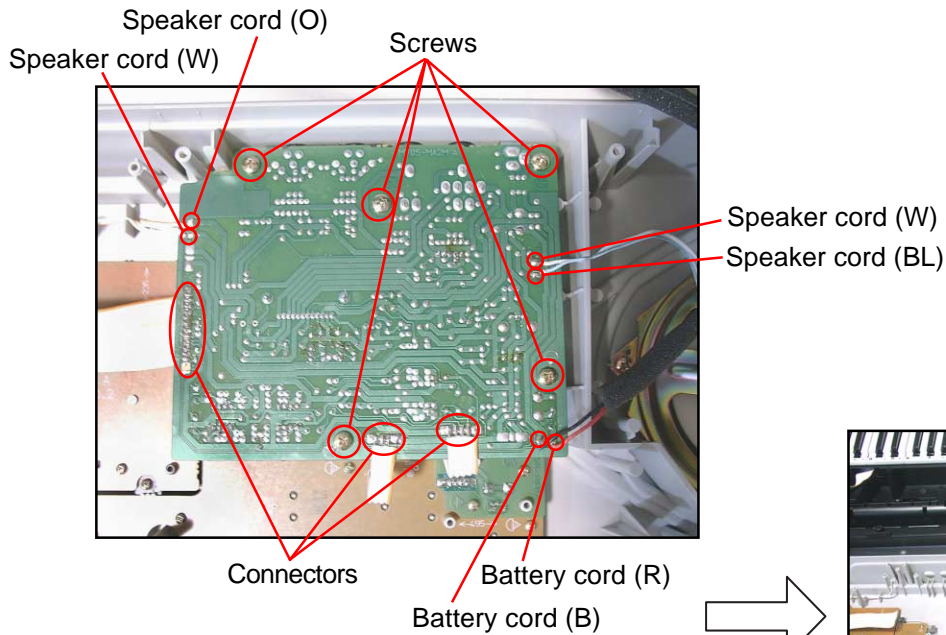
1. Remove the battery cover and then the battery.



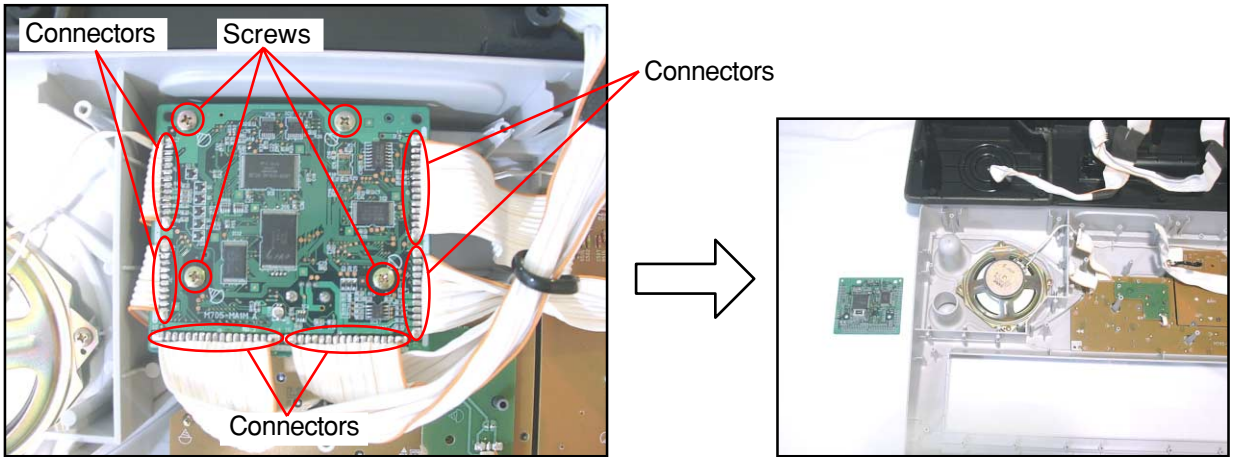
2. Remove 27 screws and then the upper case.



3. Remove 5 screws, 4 speaker cords, 2 battery cords, 3 connectors (JC, JG, JH) and then the PCB ASS'Y (MA2M).



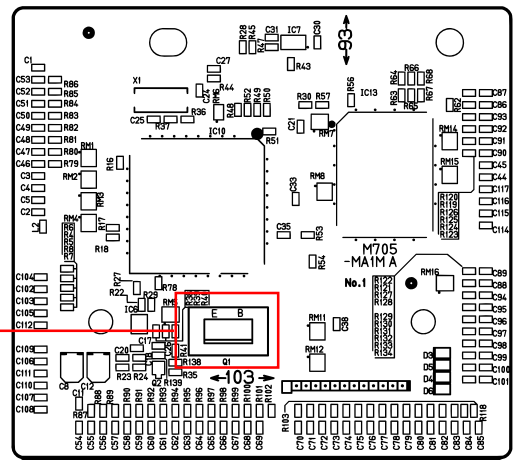
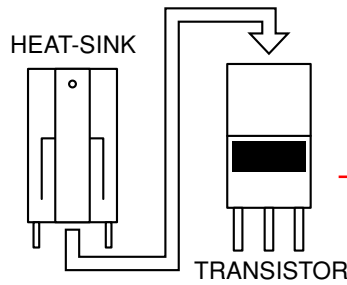
4. Remove 4 screws, 6 connectors (JA, JB, JC, JD, JE, JF) and then the PCB ASS'Y (MA1M).



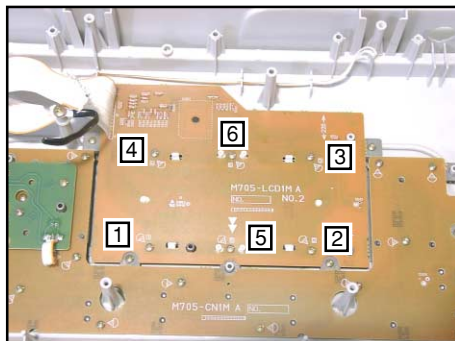
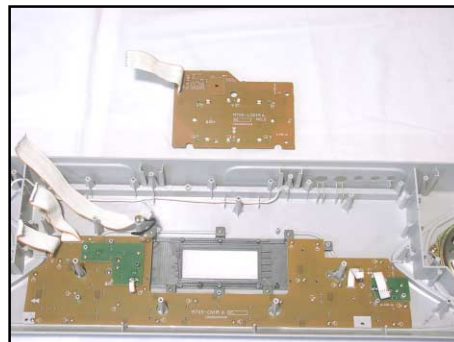
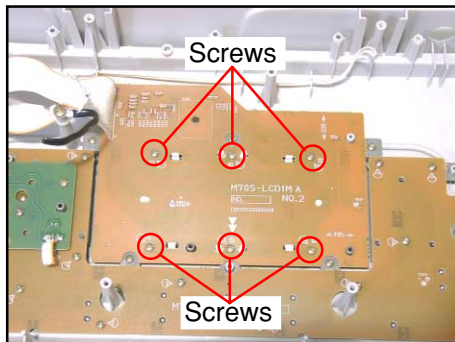
Note: How to attach a HEAT-SINK

Insert a TRANSISTOR into the PWB after attaching a HEAT-SINK to the TRANSISTOR.

Be soldering sfter that.

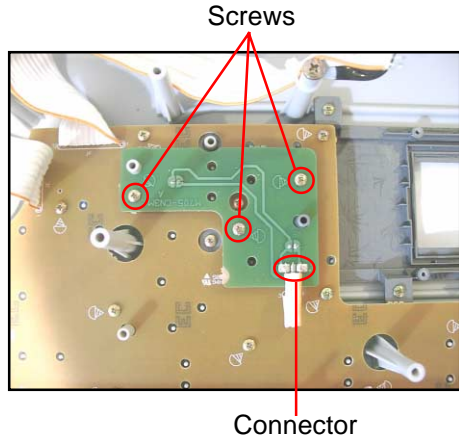


5. Remove 6 screws and then the LCD ASS'Y (LCD1M).

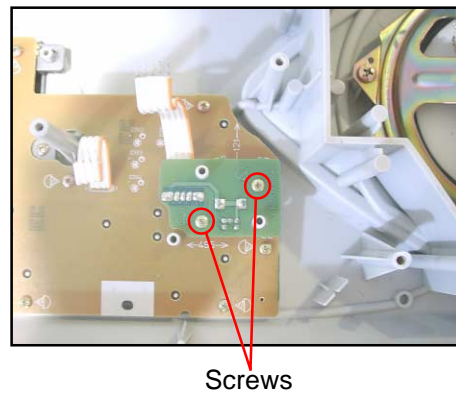
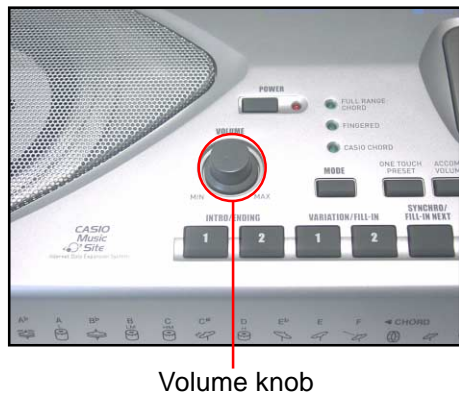


Note: Tighten the screws in the order from 1 to 6 when reassembling.

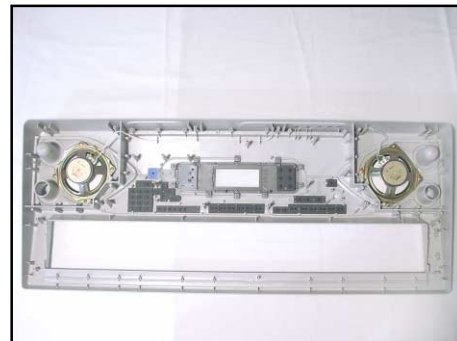
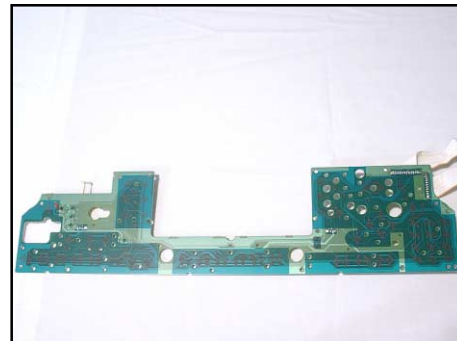
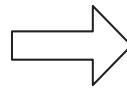
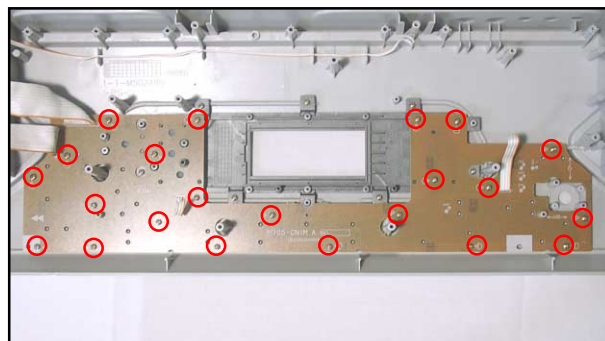
6. Remove 3 screws, connector (JL), and then the PCB ASS'Y (CN3M).



7. Remove 2 screws, the volume knob, and then the PCB ASS'Y (CN2M).



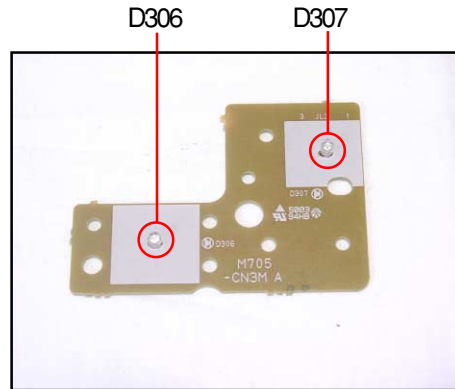
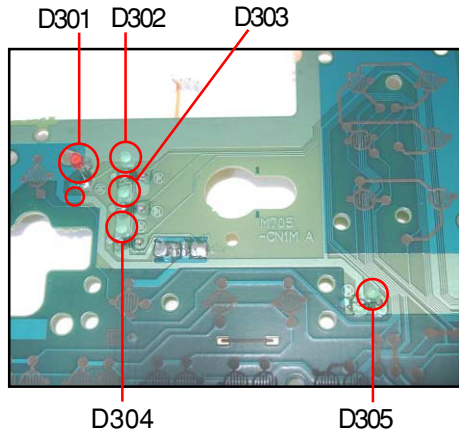
8. Remove 22 screws and then the PCB ASSY (CN1M).



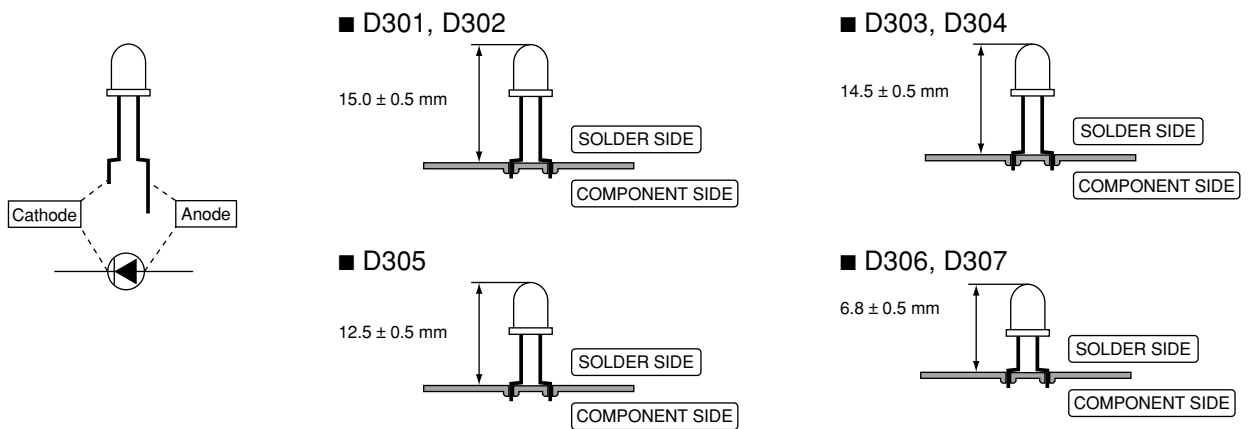


Note: Fix the LED (D301, D302, D303, D304, D305, D306, D307) to the PCB according to the height as shown in the figure below while paying attention to the polarity.

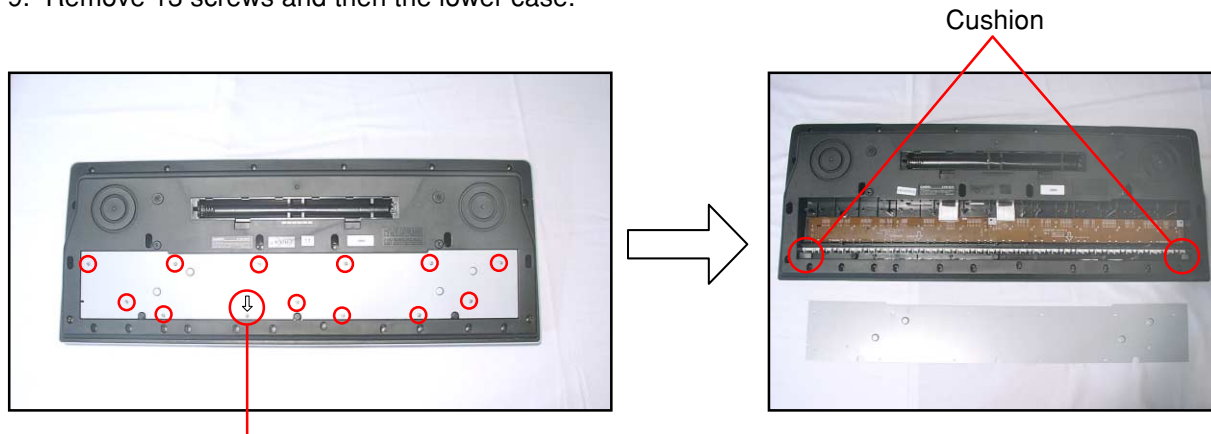
Refer to the illustration on the PCB for the details of the polarity.



Note: Mount LED on the PCB. (solder side)  
Correct polarity and height as follows.

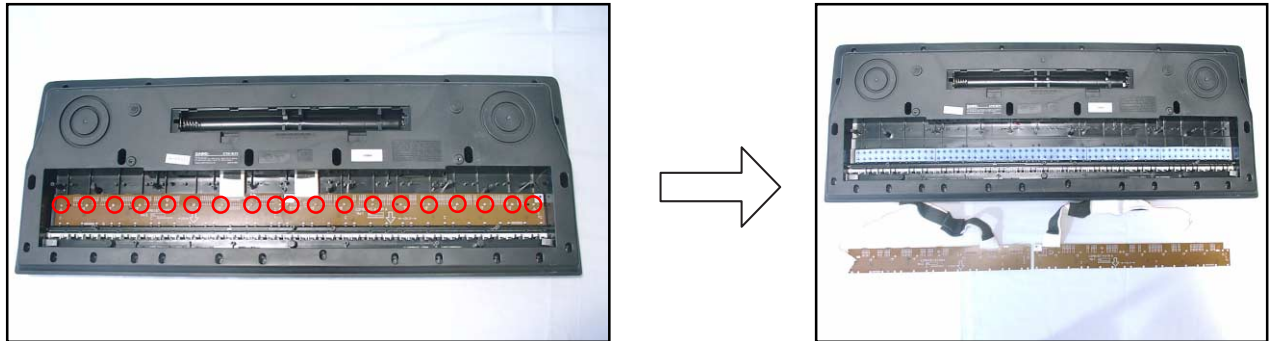


9. Remove 13 screws and then the lower case.

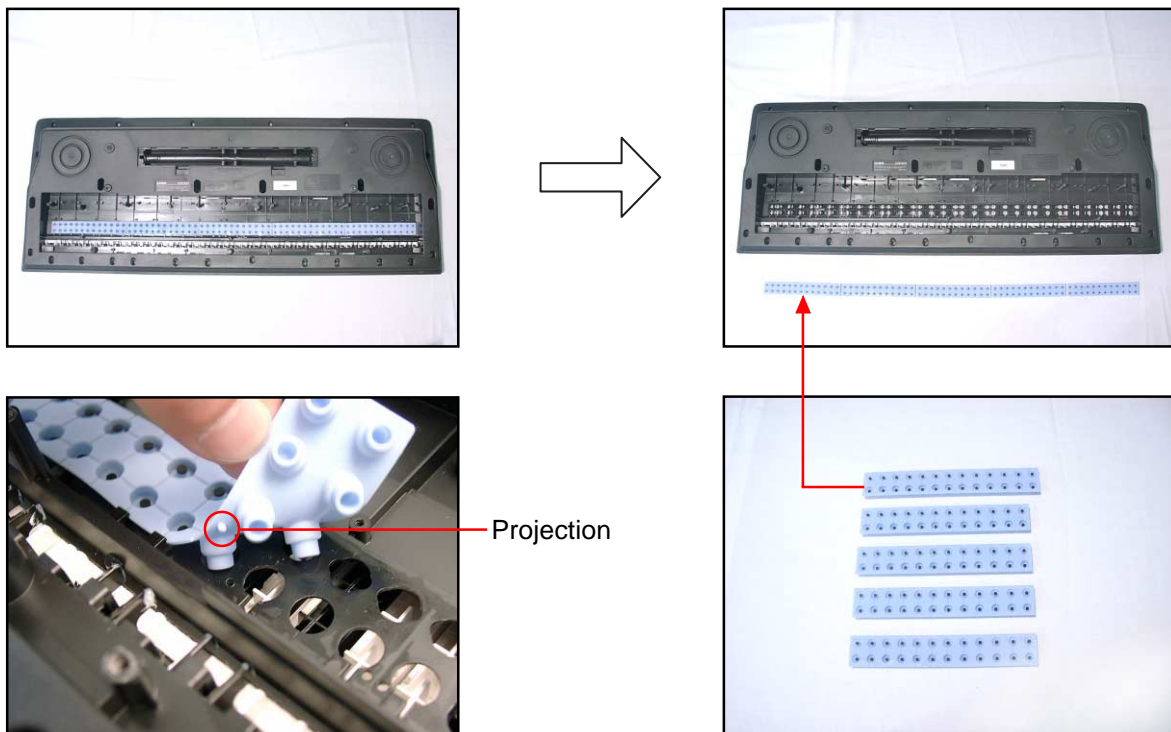


Note: Tighten the screw with the arrow mark in the figure first when reassembling.

10.Remove 19 screws and then the PCB ASSY (KY1M, KY2M).

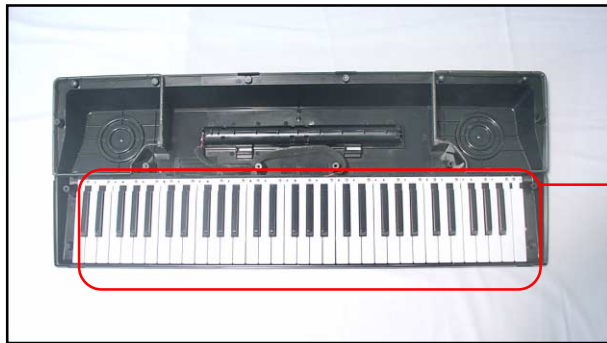


11.Remove the rubber keys.



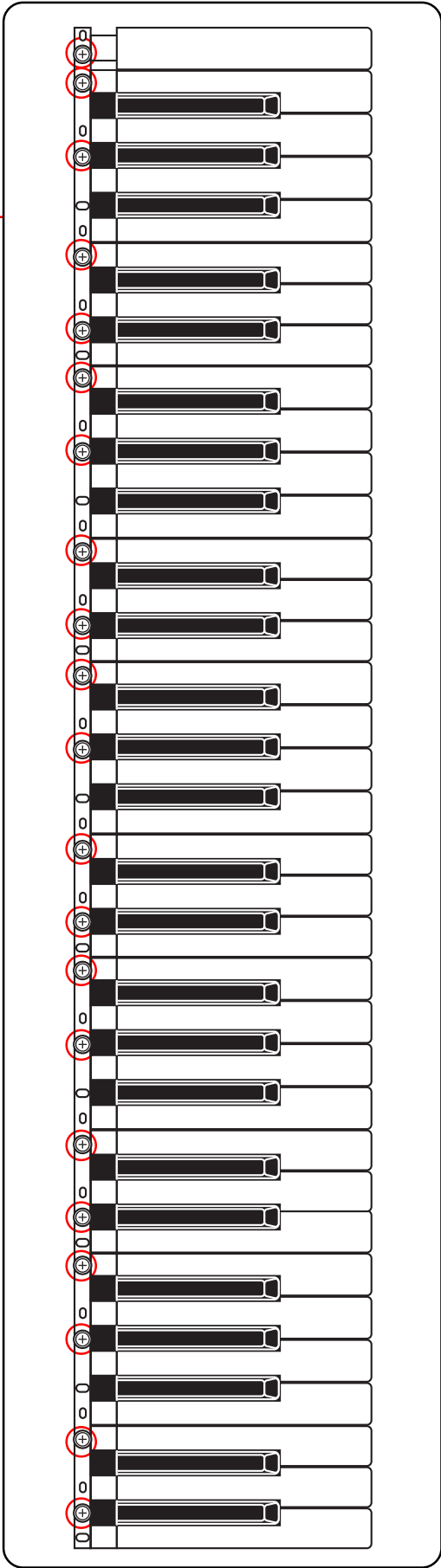
Note: Pay attention to the positions of the rubber keys as one of them has a different length.  
Match the projections of the rubber keys with the holes of the lower case when reassembling.

12.Remove 21 screws and then the white keys.



Note: Pay attention to the positions of the screw holes when reassembling.

13.Remove the black keys.



# DIAGNOSTIC PROGRAM

## Initial Setup

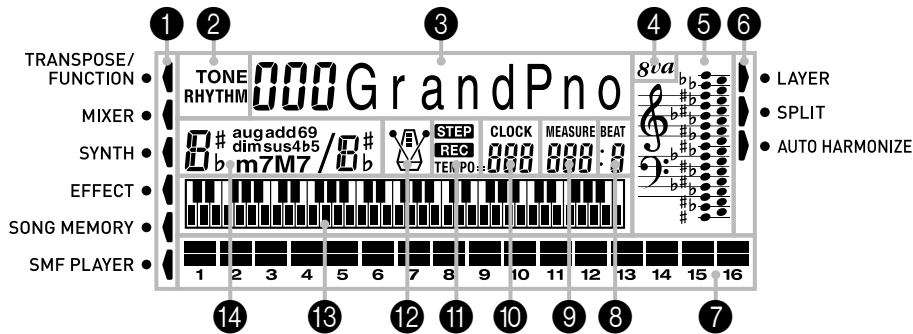
1. Connect an AC adaptor.
2. Connect a Sustain pedal.
3. "Main" volume: MAX.

**NOTE:** If there is no pedal or MIDI cable, pedal or MIDI check can be skipped.

## How to start diagnostic program

1. Press the "POWER" button while pressing the "Cursor key Up" and "Cursor key Down" buttons.
2. Release the "POWER" button first while still pressing the "Cursor key UP" and "Cursor key Down" buttons. After "000 Sy.Gr Pno" appears, release the "Cursor key UP" and "Cursor key Down" buttons. "TEST 705" appears on the LCD.

**NOTE:** Refer to the figure below for the LCD messages that appear during the diagnostic program.



## Diagnostic program

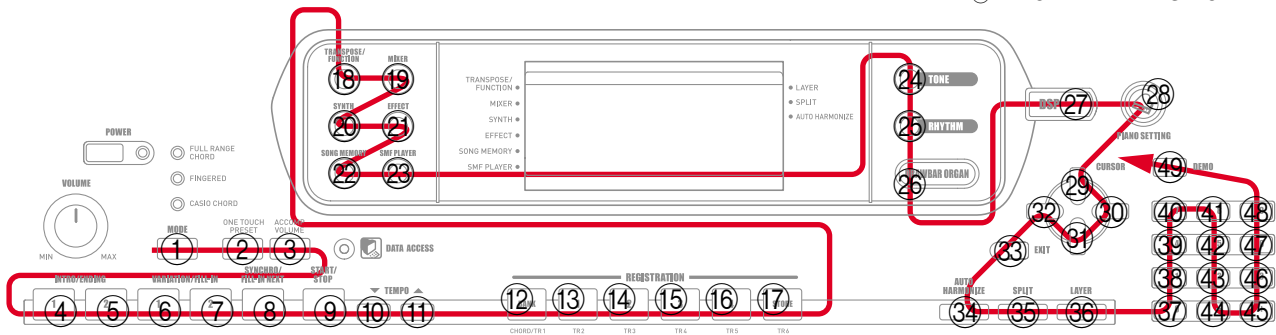
### 1. Button check

- ① Press "DSP" button. Display indicates ③ "MODE".
- ② Press buttons in the following order.

**NOTE:** NG sound sounds when a button is defective or buttons are pressed in a wrong order.

LCD message appears in the area ③

Message on LCD	Message on LCD	Message on LCD	Message on LCD
① MODE	⑬ REGISTRATION 1	⑲ RHYTHM	⑳ DRAWBAR
② ONE TOUCH PRESET	⑭ REGISTRATION 2	⑳ DRAWBAR ORGAN	㉑ 0 buttons
③ ACCOMP VOLUME	⑮ REGISTRATION 3	㉑ DSP	㉒ 1 buttons
④ INTRO/ENDING 1	⑯ REGISTRATION 4	㉒ PIANO	㉓ 4 buttons
⑤ INTRO/ENDING 2	⑰ STORE	㉒ PIANO SETTING	㉔ 7 buttons
⑥ VARIATION/FILL-IN 1	⑱ TRANSPOSE/FUNCTION	㉓ CURSOR key Up	㉕ 8 buttons
⑦ VARIATION/FILL-IN 2	⑲ MIXER	㉔ CURSOR key Right	㉖ 5 buttons
⑧ SYNCHRO/FILL-IN NEXT	⑳ SYNTH	㉕ CURSOR key Down	㉗ 2 buttons
⑨ START/STOP	㉑ EFFECT	㉖ CURSOR key Left	㉘ 2 buttons
⑩ TEMPO ▼	㉒ SONG MEMORY	㉗ EXIT	㉙ 4 buttons
⑪ TEMPO ▲	㉓ BANK	㉘ HARMO	㉚ 5 buttons
⑫ BANK	㉔ REGIST 1	㉙ SPLIT	㉛ 3 buttons
		㉚ LAYER	㉜ 6 buttons
		㉛ 0	㉝ 9 buttons
		㉜ DEMO	㉞ DEMO
		㉝ SW OK	





**2. AC adaptor detection check.**

- ① Press "TONE" button.
- ② When the instrument detects that an AC adaptor is plugged in, an OK sound sounds. "ACJ OFF" appears and an NG sound sounds when the AC adaptor is not plugged (when batteries are used).

Message on LCD

③ ACJ ON

**3. Sustain jack check. (If no pedal, this check can be skipped)**

- ① Press "RHYTHM" button.
- ② Press "Sustain pedal" .
- ③ Release "Sustain pedal" .
- ④ NG sound, "OFF" sound this case, must be audible.

③ SUS CHK  
 ③ SUS ON  
 ③ US OFF

**4. Low Voltage detection check.**

- ① Press "DRAWBAR ORGAN" button.
- ② OK sound must be audible.

③ VOLT HI

**5. MIDI IN/OUT check (If there is no MIDI cable, this check can be skipped)**

- ① Connect MIDI IN and MIDI OUT terminals with a MIDI cable.
- ② Press "3" button.
- ③ Disconnect the MIDI cable.

③ MIDI OK

**6. ROM check**

- ① Press "INTRO/ENDING1" button.
- ② OK sound must be audible.

④ ROM CHK  
 ↓  
 ③ ROM OK

**7. Flash memory bus check**

- ① Press "INTRO/ENDING2" button.
- ② OK sound must be audible.

③ FMB CHK  
 ↓  
 ③ FMB OK

**8. DSP RAM check**

- ① Press "VARIATION/FILL-IN 2" button

③ DRAM OK

**9. CPU RAM check**

- ① Press "SYNCHRO/FILL-IN NEXT" button.

③ CRAM OK

**10. LED check**

- ① Press "TEMPO ▼" button.
- ② LEDs illuminate in the following order.
  - a. FULL RANGE
  - b. FINGERED
  - c. CASIO CHORD
  - d. DATA ACCESS
  - e. DRAWBAR ORGAN
  - f. DSP

③ LED CHK  
 ↓  
 ↓  
 ↓  
 ↓  
 ↓  
 ↓  
 ↓  
 ③ LED END

**11. LCD check**

- ① Press "TEMPO ▲" button.
- ② Turn on all segments of the LCD.
- ③ Press "BANK" button.
- ④ The area ③ turns as check pattern.
- ⑤ Press "REGISTRATION 1" button.
- ⑥ The area ③ turns as check pattern.
- ⑦ Press "REGISTRATION 2" button.
- ⑧ Half of characters in area ① to ⑭ turn on.
- ⑨ Press "REGISTRATION 3" button.

Except area ③  
 Except area ③

- ⑩ Rest of above characters turn on.
- ⑪ Press "REGISTRATION 4" button.
- ⑫ Each characters turn in order.  
There no lack of dots and characters

**12. TUNE check (If no TUNING METER, this check can be skipped)**

- ① Connect the TUNING METER to the phone jack.
- ② Press "8" button.
- ③ The TUNING METER must indicate "C".
- ④ Disconnect the TUNING METER from the phone jack.

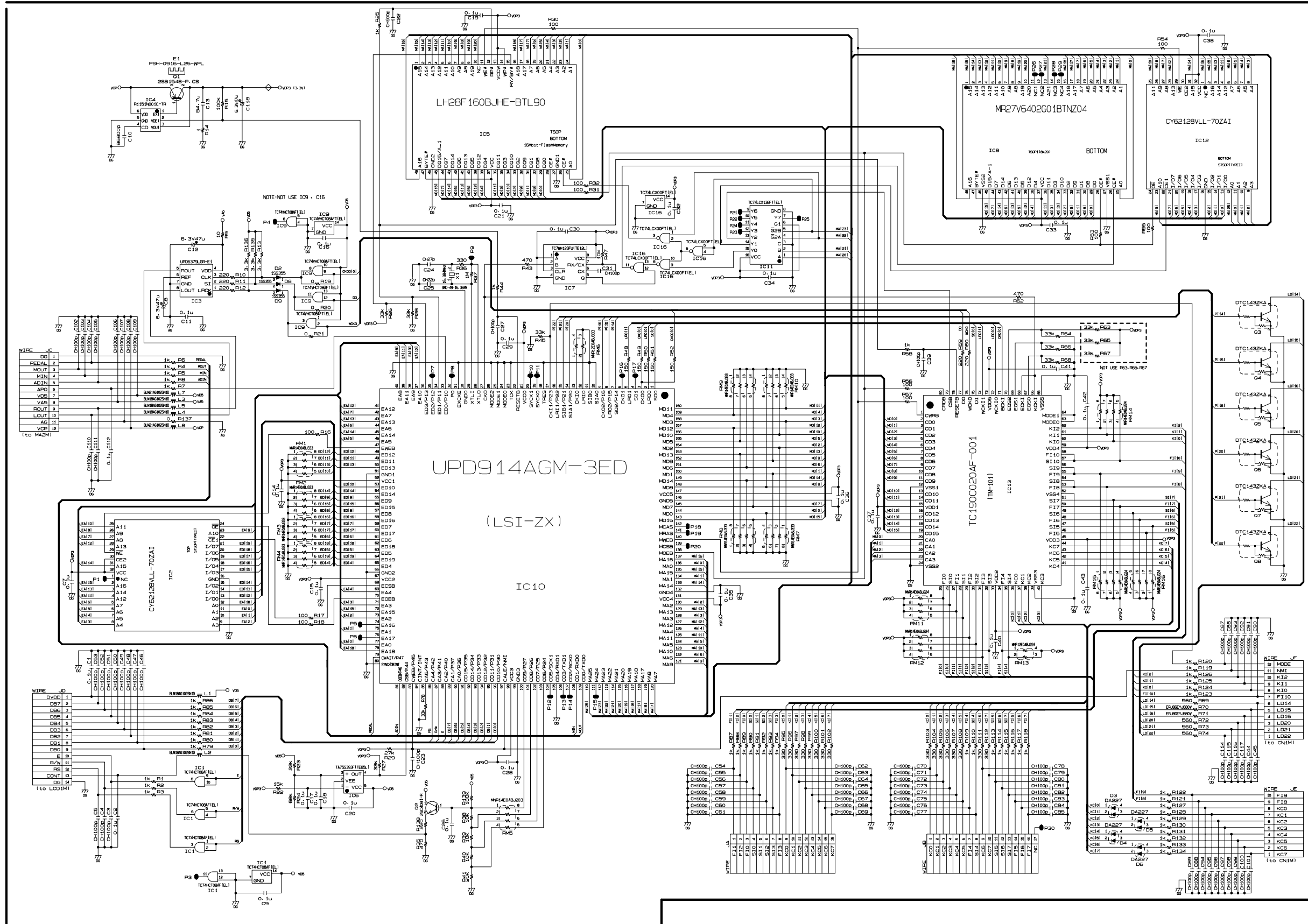
**13. APO check**

- ① Press "EXIT" button.
  - \* Go out from TEST mode (Power off).
  - \* The keyboard turns off after about 2 seconds.
  - \* The LCD turns off.

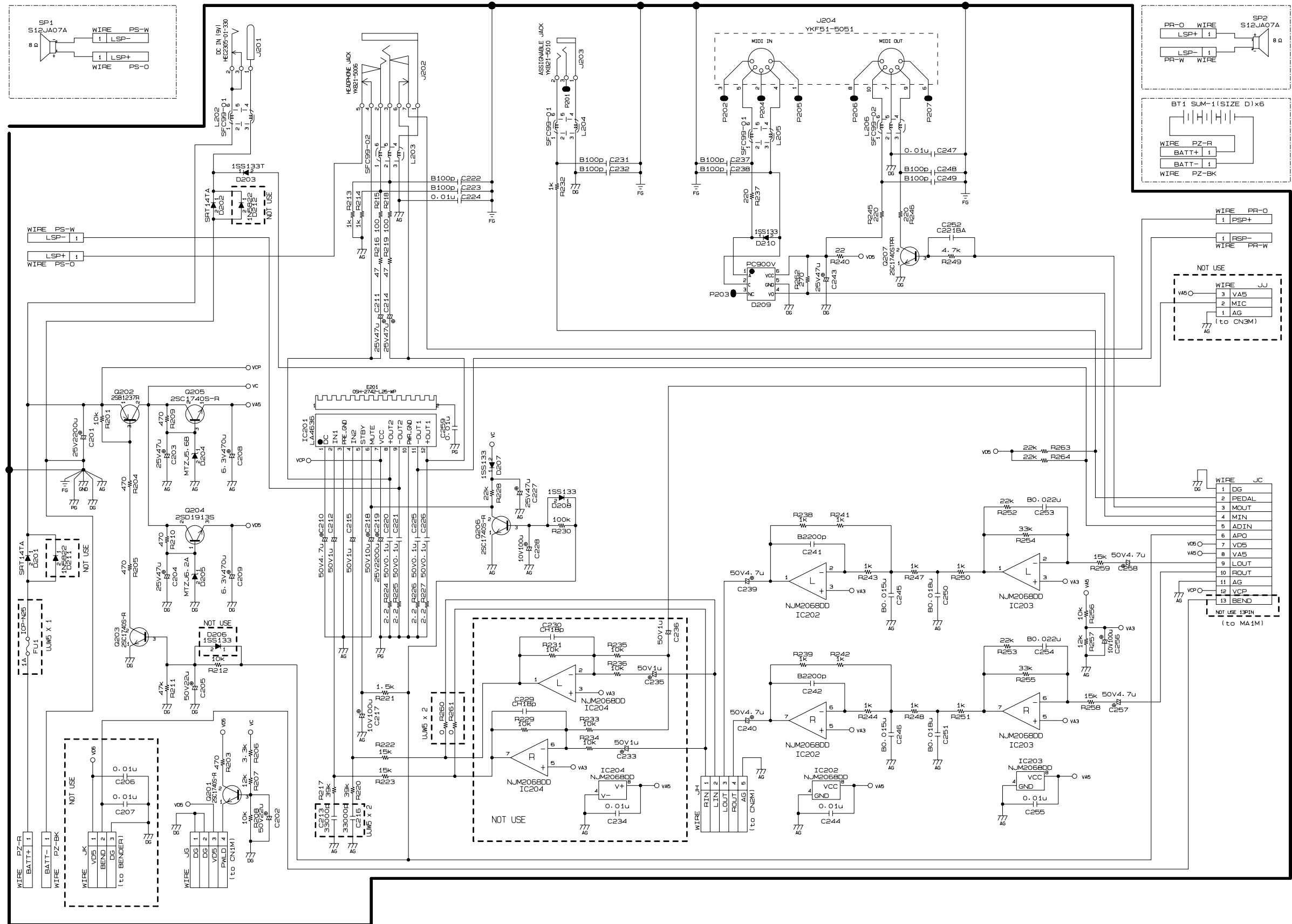
**DIAGNOSTIC PROGRAM IS FINISHED.**

# SCHEMATIC DIAGRAMS

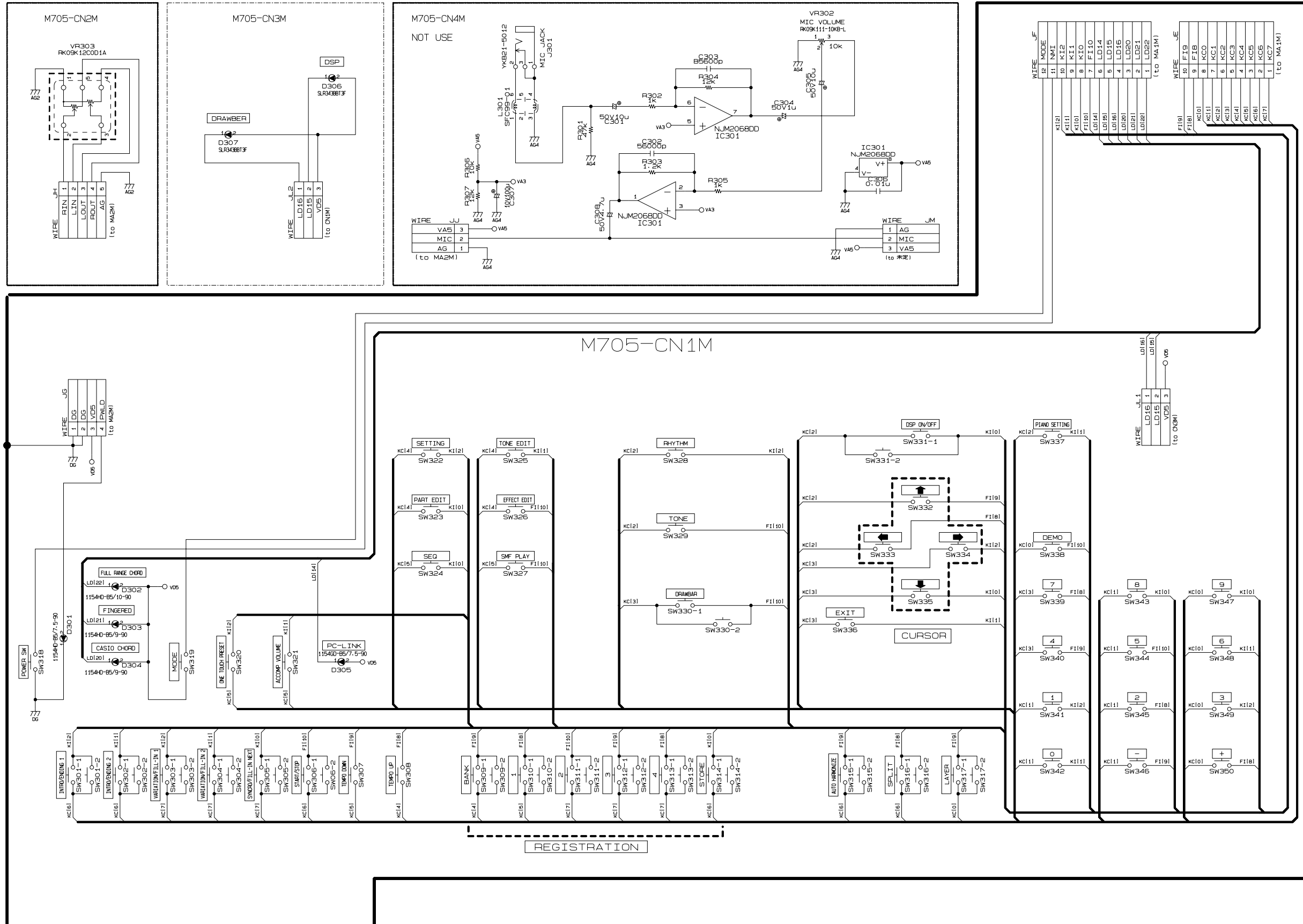
## Main PCB M705-MA1M



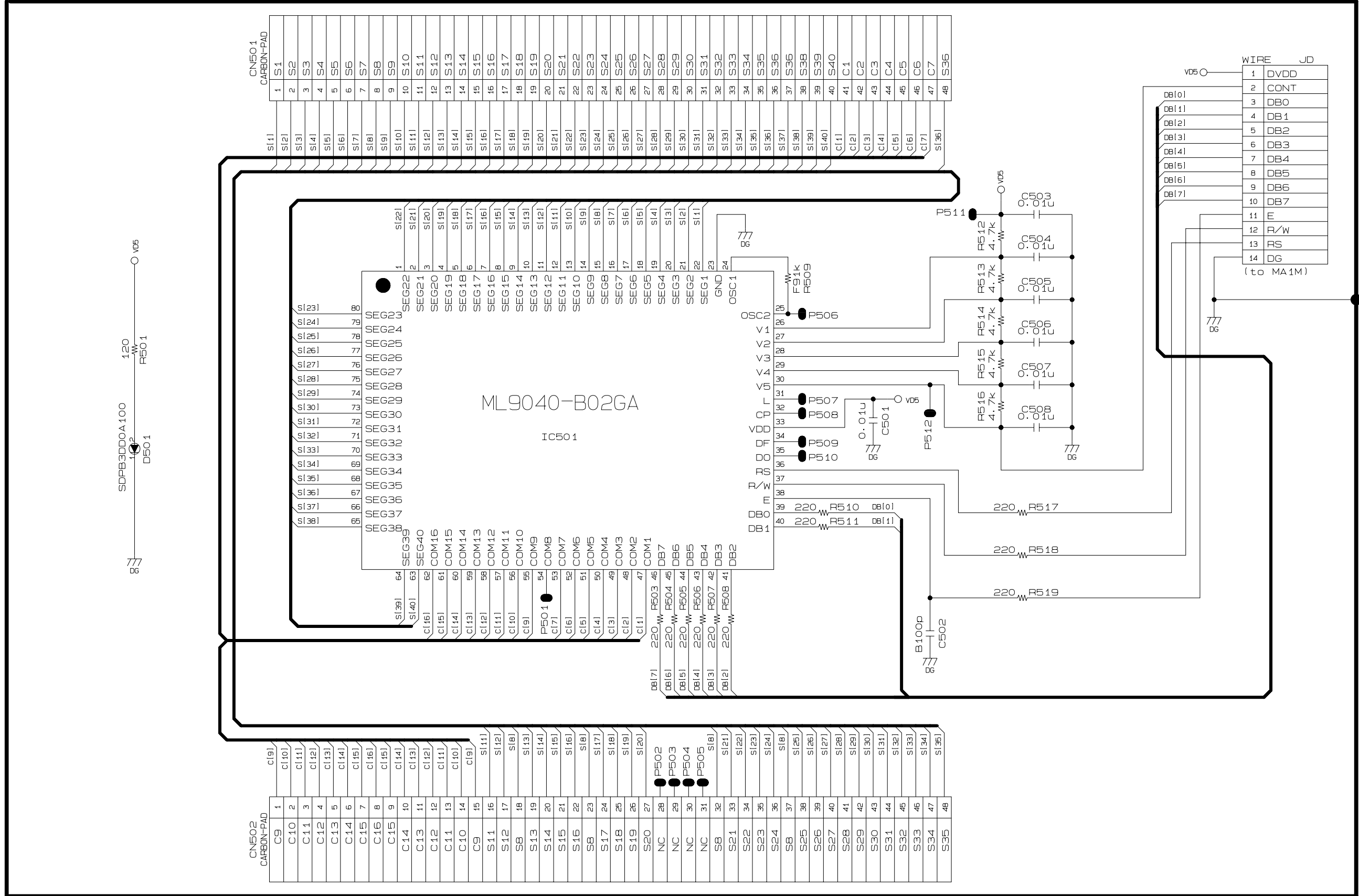
Sub PCB M705-MA2M



CONSOLE PCBs M705-CN1M/CN2M/CN3M/CN4M



Display PCB M705-LCD1M



Keyboard PCBs JCM618T-KY1M/KY2M

NOTE

▶<sup>PH</sup> : 1S2473T-77-T  
(1SS133T-77-T)

JCM618T-KY1M

JA  
JOINER

1	FI1
2	FI2
3	FI0
4	SI0
5	SI1
6	SI2
7	SI3
8	FI3
9	KC0
10	KC1
11	KC2
12	KC3
13	KC4
14	KC5
15	KC6
16	KC7

KC0	D501	DI	SW501	C2	FI0
KC0	D502	DI	SW502	C2	SI0
KC1	D503	DI	SW503	C2#	FI0
KC1	D504	DI	SW504	C2#	SI0
KC2	D505	DI	SW505	D2	FI0
KC2	D506	DI	SW506	D2	SI0
KC3	D507	DI	SW507	D2#	FI0
KC3	D508	DI	SW508	D2#	SI0
KC4	D509	DI	SW509	E2	FI0
KC4	D510	DI	SW510	E2	SI0
KC5	D511	DI	SW511	F2	FI0
KC5	D512	DI	SW512	F2	SI0
KC6	D513	DI	SW513	F2#	FI0
KC6	D514	DI	SW514	F2#	SI0
KC7	D515	DI	SW515	G2	FI0
KC7	D516	DI	SW516	G2	SI0
KC0	D517	DI	SW517	G2#	FI1
KC0	D518	DI	SW518	G2#	SI1
KC1	D519	DI	SW519	A2	FI1
KC1	D520	DI	SW520	A2	SI1
KC2	D521	DI	SW521	A2#	FI1
KC2	D522	DI	SW522	A2#	SI1
KC3	D523	DI	SW523	B2	FI1
KC3	D524	DI	SW524	B2	SI1
KC4	D525	DI	SW525	C3	FI1
KC4	D526	DI	SW526	C3	SI1
KC5	D527	DI	SW527	C3#	FI1
KC5	D528	DI	SW528	C3#	SI1
KC6	D529	DI	SW529	D3	FI1
KC6	D530	DI	SW530	D3	SI1
KC7	D531	DI	SW531	D3#	FI1
KC7	D532	DI	SW532	D3#	SI1
KC0	D533	DI	SW533	E3	FI2
KC0	D534	DI	SW534	E3	SI2
KC1	D535	DI	SW535	F3	FI2
KC1	D536	DI	SW536	F3	SI2
KC2	D537	DI	SW537	F3#	FI2
KC2	D538	DI	SW538	F3#	SI2
KC3	D539	DI	SW539	G3	FI2
KC3	D540	DI	SW540	G3	SI2
KC4	D541	DI	SW541	G3#	FI2
KC4	D542	DI	SW542	G3#	SI2
KC5	D543	DI	SW543	A3	FI2
KC5	D544	DI	SW544	A3	SI2
KC6	D545	DI	SW545	A3#	FI2
KC6	D546	DI	SW546	A3#	SI2
KC7	D547	DI	SW547	B3	FI2
KC7	D548	DI	SW548	B3	SI2
KC0	D549	DI	SW549	C4	FI3
KC0	D550	DI	SW550	C4	SI3
KC1	D551	DI	SW551	C4#	FI3
KC1	D552	DI	SW552	C4#	SI3
KC2	D553	DI	SW553	D4	FI3
KC2	D554	DI	SW554	D4	SI3
KC3	D555	DI	SW555	D4#	FI3
KC3	D556	DI	SW556	D4#	SI3
KC4	D557	DI	SW557	E4	FI3
KC4	D558	DI	SW558	E4	SI3
KC5	D559	DI	SW559	F4	FI3
KC5	D560	DI	SW560	F4	SI3
KC6	D561	DI	SW561	F4#	FI3
KC6	D562	DI	SW562	F4#	SI3
KC7	D563	DI	SW563	G4	FI3
KC7	D564	DI	SW564	G4	SI3

- C2
- C2#
- D2
- D2#
- E2
- F2
- F2#
- G2
- G2#
- A2
- A2#
- B2
- C3
- C3#
- D3
- D3#
- E3
- F3
- F3#
- G3
- G3#
- A3
- A3#
- B3
- C4
- C4#
- D4
- D4#
- E4
- F4
- F4#
- G4

JCM618T-KY2M

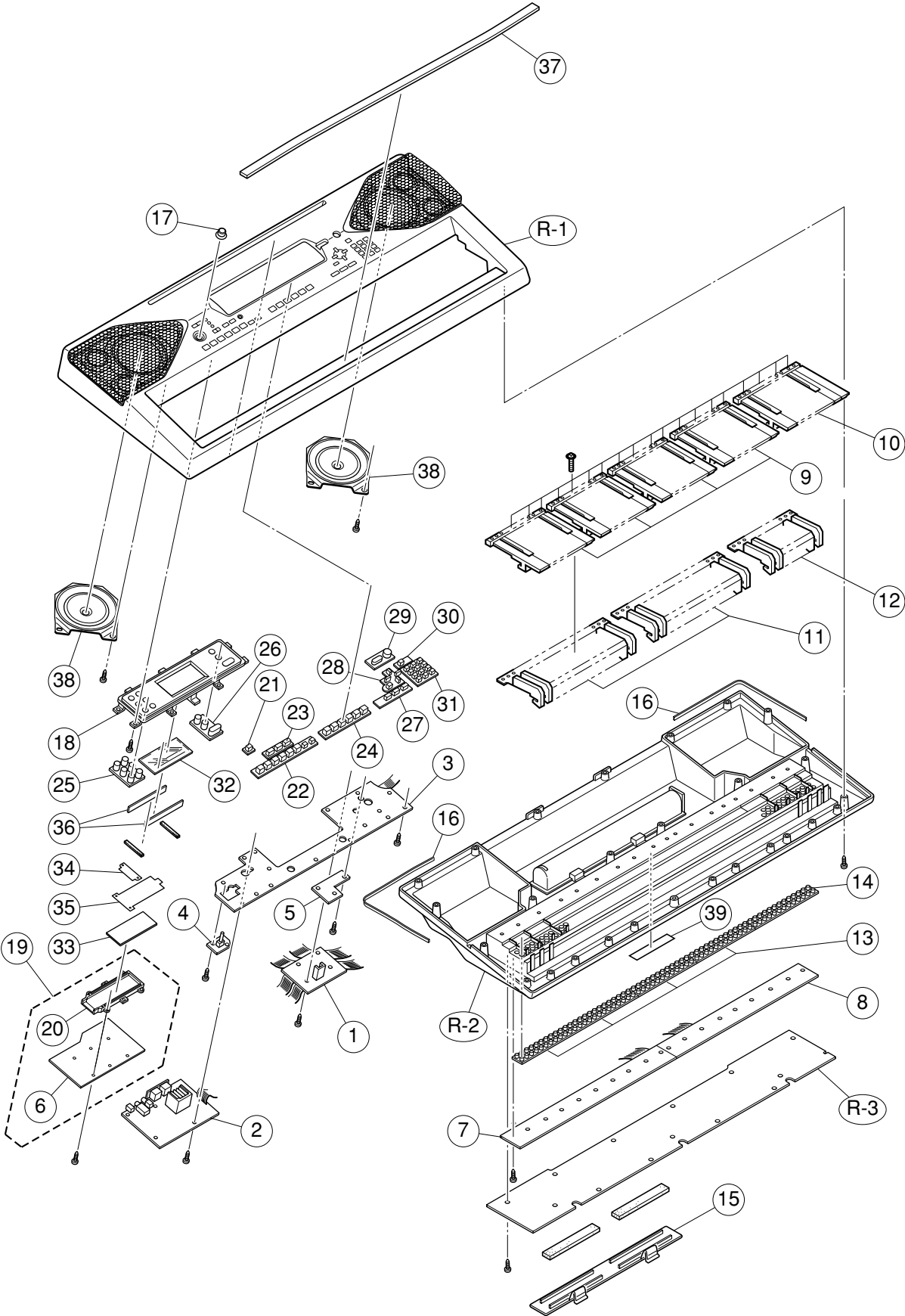
JB  
JOINER

1	KC0
2	KC1
3	KC2
4	KC3
5	KC4
6	KC5
7	FI4
8	SI4
9	KC6
10	KC7
11	SI5
12	SI6
13	SI7
14	FI5
15	FI6
16	FI7
17	NC

KC0	D565	DI	SW565	G4#	FI4
KC0	D566	DI	SW566	G4#	SI4
KC1	D567	DI	SW567	A4	FI4
KC1	D568	DI	SW568	A4	SI4
KC2	D569	DI	SW569	A4#	FI4
KC2	D570	DI	SW570	A4#	SI4
KC3	D571	DI	SW571	B4	FI4
KC3	D572	DI	SW572	B4	SI4
KC4	D573	DI	SW573	C5	FI4
KC4	D574	DI	SW574	C5	SI4
KC5	D575	DI	SW575	C5#	FI4
KC5	D576	DI	SW576	C5#	SI4
KC6	D577	DI	SW577	D5	FI4
KC6	D578	DI	SW578	D5	SI4
KC7	D579	DI	SW579	D5#	FI4
KC7	D580	DI	SW580	D5#	SI4
KC0	D581	DI	SW581	E5	FI5
KC0	D582	DI	SW582	E5	SI5
KC1	D583	DI	SW583	F5	FI5
KC1	D584	DI	SW584	F5	SI5
KC2	D585	DI	SW585	F5#	FI5
KC2	D586	DI	SW586	F5#	SI5
KC3	D587	DI	SW587	G5	FI5
KC3	D588	DI	SW588	G5	SI5
KC4	D589	DI	SW589	G5#	FI5
KC4	D590	DI	SW590	G5#	SI5
KC5	D591	DI	SW591	A5	FI5
KC5	D592	DI	SW592	A5	SI5
KC6	D593	DI	SW593	A5#	FI5
KC6	D594	DI	SW594	A5#	SI5
KC7	D595	DI	SW595	B5	FI5
KC7	D596	DI	SW596	B5	SI5
KC0	D597	DI	SW597	C6	FI6
KC0	D598	DI	SW598	C6	SI6
KC1	D599	DI	SW599	C6#	FI6
KC1	D600	DI	SW600	C6#	SI6
KC2	D601	DI	SW601	D6	FI6
KC2	D602	DI	SW602	D6	SI6
KC3	D603	DI	SW603	D6#	FI6
KC3	D604	DI	SW604	D6#	SI6
KC4	D605	DI	SW605	E6	FI6
KC4	D606	DI	SW606	E6	SI6
KC5	D607	DI	SW607	F6	FI6
KC5	D608	DI	SW608	F6	SI6
KC6	D609	DI	SW609	F6#	FI6
KC6	D610	DI	SW610	F6#	SI6
KC7	D611	DI	SW611	G6	FI6
KC7	D612	DI	SW612	G6	SI6
KC0	D613	DI	SW613	G6#	FI7
KC0	D614	DI	SW614	G6#	SI7
KC1	D615	DI	SW615	A6	FI7
KC1	D616	DI	SW616	A6	SI7
KC2	D617	DI	SW617	A6#	FI7
KC2	D618	DI	SW618	A6#	SI7
KC3	D619	DI	SW619	B6	FI7
KC3	D620	DI	SW620	B6	SI7
KC4	D621	DI	SW621	C7	FI7
KC4	D622	DI	SW622	C7	SI7

- G4#
- A4
- A4#
- B4
- C5
- C5#
- D5
- D5#
- E5
- F5
- F5#
- G5
- G5#
- A5
- A5#
- B5
- C6
- C6#
- D6
- D6#
- E6
- F6
- F6#
- G6
- G6#
- A6
- A6#
- B6
- C7

# EXPLODED VIEW





# PARTS LIST

## CTK-691

Notes: This parts list does not include the cosmetic parts, which parts are marked with item No. "R-X" in the exploded view.

Contact our spare parts department if you need these parts for refurbish.

1. Prices and specifications are subject to change without prior notice.
2. As for spare parts order and supply, refer to the "GUIDEBOOK for Spare parts Supply", published separately.
3. The numbers in item column correspond to the same numbers in drawing.

N	Item	Code No.	Part Name	Specification	Q	Price Code	R	Remark
<b>Main PCB</b>								
N	1	10123432	PCB ASSY/MA1M	TK-RJM502974*001	1	DL	A	
N	IC1	10122996	IC	TC74HCT08AF(EL)	1	AB	C	
	IC10	10054502	LSI	UPD914AGM-3ED	1	CK	B	
	IC11	21056621	IC	TC74LCX138FT(EL)	1	AF	C	
	IC13	20125987	LSI	TC190C020AF-001	1	BC	B	
N	IC16	10122999	IC	TC74LCX00FT(EL)	1	AB	C	
N	IC2,12	10126397	LSI	CY62128VLL-70ZAIT	2	AX	B	
	IC3	20125495	IC	UPD6379LGR-E1	1	AO	C	
	IC4	69320063	IC	R1151N001C-TR	1	AF	C	
N	IC5	10122526	LSI	LH28F160BJHE-BTL90	1	BD	B	
	IC6	21054158	IC	TA75S393F(TE85L)	1	AC	C	
N	IC7	10123005	IC	TC7WH123FU(TE12L)	1	AF	C	
N	IC8	10129990	LSI	MR27V6402G03FTNZ04	1	BQ	B	
	D2,8,9	23901820	DIODE	1SS355TE-17	3	AA	C	
	D3-6	27752079	DIODE	DA227-TL	4	AA	C	
	Q1	22510672	TRANSISTOR	2SB1548-P,CS	1	AD	C	
	Q2	22521169	TRANSISTOR	2SC4081T106S	1	AA	C	
	Q3-8	22500847	TRANSISTOR	DTC143ZS-TP	6	AA	C	
	L7,8	30132548	FUSE CHIP	BLM21A102SPT	2	AA	C	
	L1-5	30450235	FUSE CHIP	BLM11A102SPT	5	AA	C	
	X1	10059360	OSCILLATOR/CRYSTAL	SMD-49-16.384M	1	AI	C	
<b>Sub PCB</b>								
N	2	10123433	PCB ASSY/MA2M	TK-RJM502976*001	1	CL	A	
	IC201	10062671	IC	LA4636	1	AV	B	
	IC202,203	21210072	IC	NJM2068DD	2	AD	B	
	D201,202	23903021	DIODE	SRT14	2	AF	C	
	D203,207, 208,210	23153132	DIODE	1SS133T-77	4	AA	C	
	D204	10038115	DIODE	MTZJT-775.6B	1	AA	C	
	D205	10025044	DIODE	MTZJT-776.2A	1	AA	C	
	D209	21141421	IC/PHOTO COUPLER	PC900V	1	AK	C	
	Q201,203, 205-207	22501627	TRANSISTOR	2SC1740STPS	5	AA	C	
	Q202	22501591	TRANSISTOR	2SB1237TV2R	1	AB	C	
	Q204	10047397	TRANSISTOR	2SD1913S	1	AD	C	
	J201	19150373	JACK	HEC2305-01-330	1	AB	C	
	J202	36120665	JACK/PHONE	JYB21-5006	1	AG	C	
	J203	36120789	JACK	YKB21-5010	1	AC	C	
	J204	35014816	JACK/DIN	YKF51-5051	1	AH	C	
	L202,204,205	10056228	COIL	R2318-RB53-856397	3	AB	C	
	L203,206	10057360	COIL	R2318-RB53-856396	2	BB	C	
<b>Console PCBs</b>								
N	3	10123429	PCB ASSY/CN1M	TK-RJM502971*001	1	AZ	B	
N	4	10123430	PCB ASSY/CN2M	TK-RJM502972*001	1	BA	B	
N	5	10123431	PCB ASSY/CN3M	TK-RJM502973*001	1	BE	B	
	D301	10104646	LED	1154HD-B5/10-90	1	AA	C	CN1M
N	D302	10122221	LED	1154GD-B5/10-90	1	AA	C	CN1M
N	D303	10122220	LED	1154GD-B5/9.5-90	1	AA	C	CN1M
N	D304	10122219	LED	1154GD-B5/9-90	1	AD	C	CN1M
N	D305	10122218	LED	1154GD-B5/7.5-90	1	AA	C	CN1M
N	D306,307	10116376	LED	SLR343BBT3F	2	AJ	C	CN3M
N	VR303	10122556	VAERIALBLE R	RK09K12C0D1A	1	AL	C	CN2M

Notes : Q - Quantity per unit  
R - Rank

N	Item	Code No.	Part Name	Specification	Q	Price Code	R	Remark
<b>LCD PCB</b>								
N	6	10123434	PCB ASSY/LCD1M	TK-RJM502998*001	1	BE	C	
	IC501	10006502	LSI	ML9040-B02GA	1	AU	C	
<b>Keyboard PCBs</b>								
	7	10053891	PCB ASSY/KY1M	M140687*9	1	BK	B	
	D501-564	23010101	DIODE	1S2473T-77-T	64	AA	C	
	8	10053893	PCB ASSY/KY2M	M140688*9	1	BJ	B	
	D565-622	23010101	DIODE	1S2473T-77-T	58	AA	C	
<b>Keyboard Unit</b>								
	9	69222720	KEY SET/LT WHITE	M312118*1	4	AP	B	
	10	69222730	KEY SET/LT WHITE	M312118*2	1	AR	B	
	11	69068481	KEY SET/LT BLACK 10P	M140369A-3	2	AS	B	
	12	69068591	KEY SET/LT BLACK 5P	M140369A-4	1	AF	B	
	13	69222762	RUBBER/KEY	M211704B-1	4	AF	C	
	14	69222772	RUBBER/KEY	M211705B-1	1	AF	C	
<b>Panel Unit</b>								
	15	69306970	COVER/BATTERY	M341235*3	1	AT	C	
	16	69273030	PACKING	M440775-1	2	AA	C	
N	17	10123844	KNOB/ROTARY	RJM502503-001V01	1	AA	C	
N	18	10123847	PANEL/DISPLAY	RJM502491-001V01	1	AU	C	
N	19	10123897	BL ASSY	TK-RJM502643*001	1	BB	C	
	20	10116367	REFLECTOR	RJM502392-001V01	1	AC	C	
N	21	10128631	RUBBER/KEY/A	RJM502492-001V01	1	AA	C	
N	22	10123853	RUBBER/KEY/B	RJM502493-001V01	1	AE	C	
N	23	10123855	RUBBER/KEY/C	RJM502494-001V01	1	AB	C	
N	24	10123859	RUBBER/KEY/D	RJM502495-001V01	1	AE	C	
N	25	10123862	RUBBER/KEY/E	RJM502496-001V01	1	AC	C	
N	26	10123864	RUBBER/KEY/F	RJM502497-001V01	1	AC	C	
N	27	10123867	RUBBER/KEY/G	RJM502498-001V01	1	AB	C	
N	28	10123870	RUBBER/KEY/H	RJM502499-001V01	1	AC	C	
N	29	10123872	RUBBER/KEY/J	RJM502500-001V01	1	AB	C	
N	30	10123873	RUBBER/KEY/K	RJM502501-001V01	1	AA	C	
N	31	10123875	RUBBER/KEY/L	RJM502502-001V01	1	AE	C	
	32	10128521	LCD	TR8262N	1	AB	C	
N	33	10116369	PLATE/BACK LIGHT	RJM502395-001V01	1	AJ	C	
	34	10081190	PIECE/TOP	RJM501982-001V01	1	AA	C	
	35	10081189	FILM	RJM501963-001V01	1	AA	C	
N	36	10111048	CONNECTOR	RJM502397-001V01	2	AE	C	
	37	69224480	STOPPER	M412324-1	1	AE	C	
N	38	10127636	SPEAKER	S12JA07A	2	BB	C	
N	39	10123878	LABEL/RATING	M341248-029V01	1	AA	X	
<b>Accessory</b>								
		10107083	STAND/MUSIC	M141071-5	1	AW	C	
		<del>10038113</del>	<del>AC ADAPTOR</del>	<del>AD-5UI-TC2(D)</del>	<del>1</del>	<del>BQ</del>	<del>C</del>	<del>Japan only</del>
<b>Refurbish</b>								
N	R-1	10123894	PANEL SUB ASSY	TK-RJM502642*001	1	CP	X	
N	R-2	10123887	CASE SUB ASSY/MIDDLE	TK-M141274*013	1	BB	X	
	R-3	69069252	PLATE / BOTTOM	M240573-2	1	AS	X	

Notes : Q - Quantity per unit  
R - Rank

Ver.1 : Dec. 2005  
Replacement of the PARTS LIST (P25)

Ver.2 : Sep. 2006  
Replacement of the PARTS LIST (P25)

**CASIO COMPUTER CO.,LTD.**  
Overseas Service Division

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