

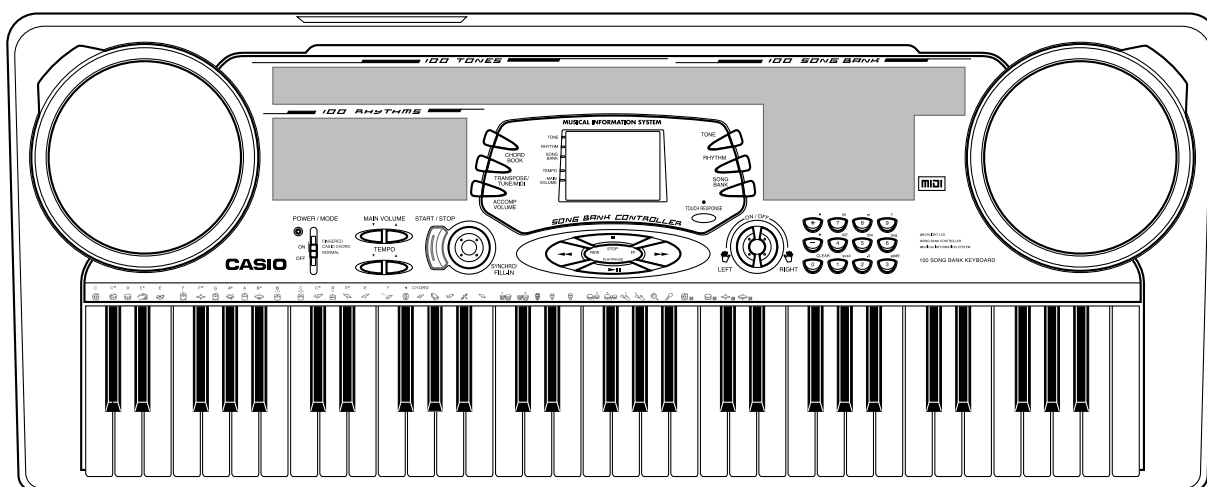
CASIO®

Service Manual

(without price)

CTK-541

JULY.1999



CTK-541

ELECTRONIC KEYBOARD

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SPECIFICATIONS

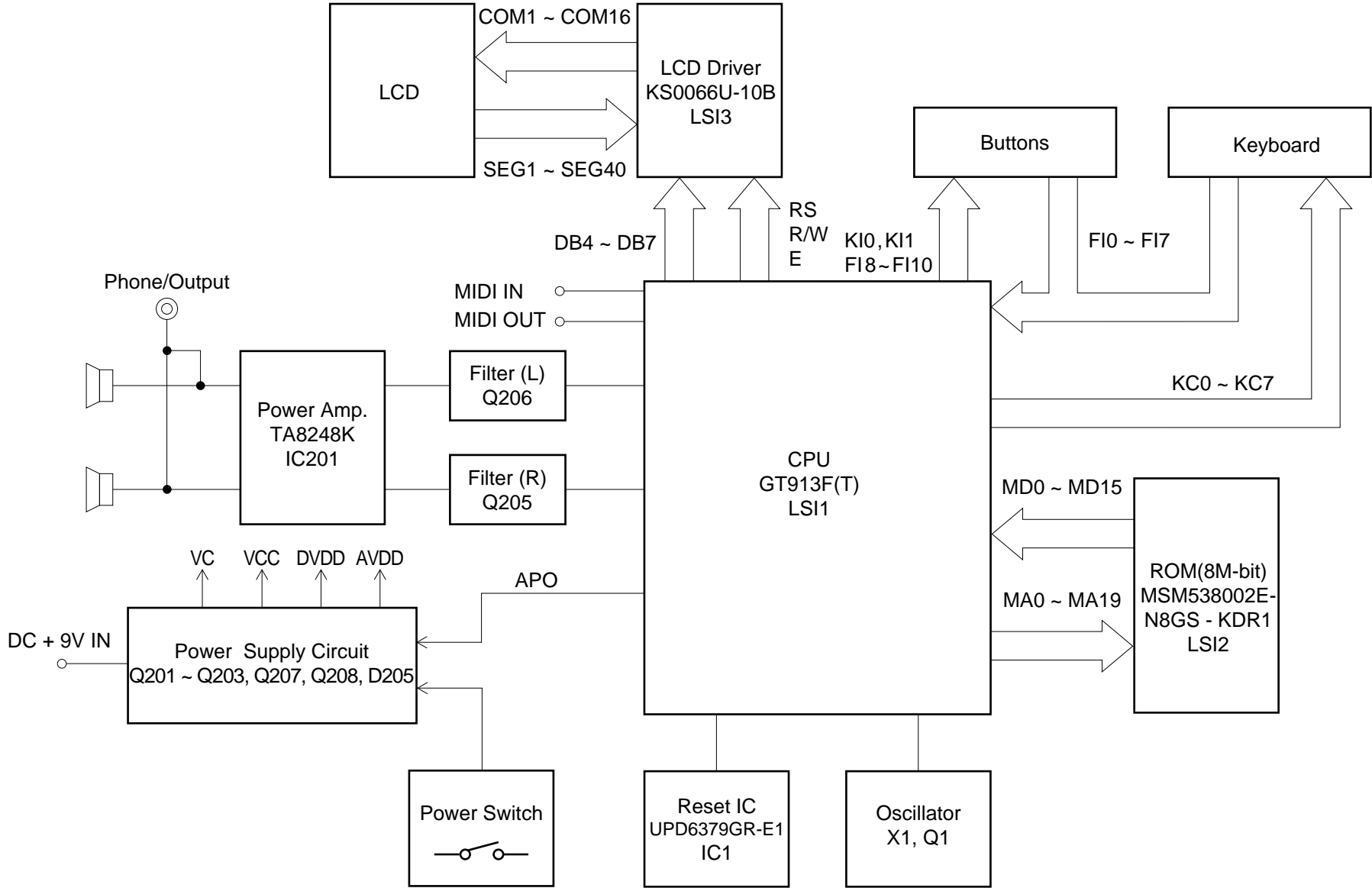
GENERAL

Keyboard:	61 standard-size keys, 5 octaves (with touch response on/off)
Tones:	100
Polyphony:	16 notes maximum (8 for certain tones)
Auto accompaniment	
Rhythm patterns:	100
Tempo:	Variable (236 steps, ♩ = 20 to 255)
Chords:	2 fingering methods (CASIO CHORD, FINGERED)
Rhythm controller:	START/STOP, SYNCHRO/FILL-IN
Accomp volume:	0 to 9 (10 steps)
Song bank	
Tunes:	100
Controllers:	PLAY/PAUSE, STOP, REW, FF, LEFT ON/OFF (ACCOMP), RIGHT ON/OFF (MELODY)
Display	
Name display:	TONE, RHYTHM, SONG BANK name/number, keyboard settings name/value
Tempo:	Tempo value, metronome, synchro standby, beat indicator
Chord:	Chord name, Chord form
Fingering:	Fingering indicators, parts, pedal
Song bank status:	PLAY, PAUSE, REW, FF
Staff:	5 octaves with sharp and flat indications
Keyboard:	5 octaves
MIDI:	5 multi-timbre receive
Other functions	
Transpose:	12 steps (-6 semitones to +5 semitones)
Tuning:	Variable (A4 = approximately 440 Hz ± 50 cents)
Volume:	0 to 9 (10 steps)
Terminals	
MIDI terminals:	IN, OUT
Sustain terminal:	Standard jack
Phones/Output terminal:	Stereo standard jack
	Output Impedance: 50 Ω
	Output Voltage: 3.5 V (RMS) MAX
Power supply terminal:	9 V DC
Power supply	DC 9 V
Batteries:	6 D-size batteries
Battery life:	Approximately 5 hours on manganese batteries
Auto power off:	Turns power off approximately six minutes after last key operation. Enabled under battery power only, can be disabled manually.
Speaker output:	2.0 W + 2.0 W
Power consumption:	9 V ≡ 7.7 W
Dimensions (HWD):	961 × 376 × 143 mm (37-7/8 × 14-13/16 × 5-5/8 inches)
Weight:	Approximately 5.7 kg (12.6 lbs) (without batteries)

ELECTRICAL

	Nominal	Limit
Current drain with 9 V DC:		
No sound output	330 mA	330 mA \pm 20%
Maximum volume	990 mA	990 mA \pm 20%
with 16 keys C1 to D3 pressed in Synth-Lead 1		
Volume: Maximum, Touch response: ON(Velocity MAX)		
Phone output level (Vrms with 8 Ω load each channel):	L 240mV	240 mV \pm 20%
with key C3 pressed in Synth-Lead 1	R 250mV	250 mV \pm 20%
Speaker output level (Vrms with 4 Ω load each channel):		
with key G1 pressed in Synth-Lead 1	L/R 2500mV	2500 mV \pm 20%
Output level (Vrms with 47 K Ω load each channel):	L 2300mV	2300 mV \pm 20%
with key C2 pressed in Synth-Lead 1	R 2400mV	2400 mV \pm 20%
Minimum operating voltage:	6.3V	7.0V

BLOCK DIAGRAM

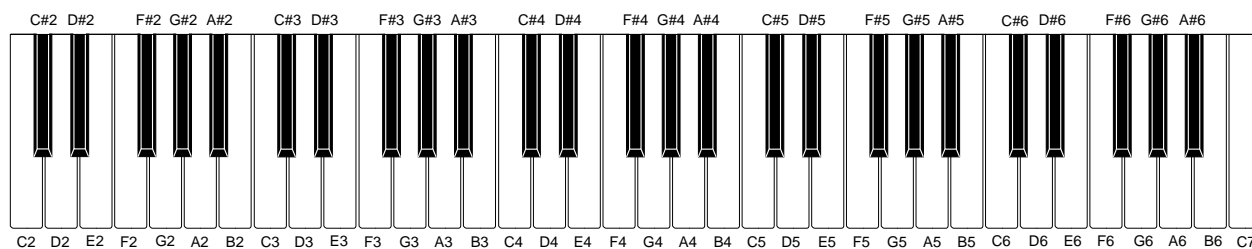


CIRCUIT DESCRIPTION

KEY MATRIX

	KI0	KI1	KI2	KI3	KI4	KI5	KI6	KI7
KO0	C2	G#2	E3	C4	G#4	E5	C6	G#6
KO1	C#2	A2	F3	C#4	A4	F5	C#6	A6
KO2	D2	A#2	F#3	D4	A#4	F#5	D6	A#6
KO3	D#2	B2	G3	D#4	B4	G5	D#6	B6
KO4	E2	C3	G#3	E4	C5	G#5	E6	C7
KO5	F2	C#3	A3	F4	C#5	A5	F6	
KO6	F#2	D3	A#3	F#4	D5	A#5	F#6	
KO7	G2	D#3	B3	G4	D#5	B5	G6	
KO8	—	+	0	Tempo Down	Tempo Up	Volume Down	Volume Up	
KO9	3	2	1	Start/ Stop	Synchro/ Fill-In	Chord Book	Accomp Volume	
KO10	6	5	4	Transpose/ Tune/MIDI	Song Bank	Rhythm	Tone	
KO11	9	8	7	Fingered	CASIO Chord	Normal	Off	
KO12	FF	Right	Play/ Pause	Stop	Left	REW		

NOMENCLATURE OF KEYS



CPU (LSI1: GT-913F)

The 16-bit CPU contains a 1k-byte RAM, three 8-bit I/O ports, two timers, a key controller and serial interfaces. The CPU detects key velocity by counting the time between first-key input signal FI and second-key SI from the keyboard. The CPU reads sound data and velocity data from the sound source ROM in accordance with the selected tone; the CPU can read rhythm data simultaneously when a rhythm pattern is selected. Then the CPU provides 16-bit serial sound data to the DSP. The CPU also controls MIDI input/output and stores sequencer data into the working storage RAM.

The following table shows the pin functions of LSI1.

Pin No.	Terminal	In/Out	Function
1	TXD0	Out	MIDI signal output
2	RXD0	In	MIDI signal input
3	SCK0	Out	APO (Auto Power Off) signal output
4, 5	TXD/P13, RXD/P14	In/Out	Data bus for the LCD driver
6	SCK1	Out	1 MHz synchronizing pulse output
7	AVCC	In	CVDD (+5 V) source
8	AN0	In	AC adaptor detection terminal. +5 V when the keyboard is powered by batteries and becomes 0 V to cancel the APO function when AC adaptor is connected.
9	AN1	In	Input from pitch bender
10	AGND	In	Ground (0 V) source
11	BCK	Out	Bit clock output
12	SO	Out	Serial sound data output
13	LRCK	Out	Word clock output
14	GND	In	Ground (0 V) source
15, 16	XLT0, XLT1	In/Out	30 MHz clock input/output
17	VCC	In	+5 V source
18, 19	MOD0, MOD1	In	Mode selection terminal
20	RSTB	In	Reset signal input
21	NMI	In	Power ON signal input
22	INT/P10	In/Out	Data bus for the LCD driver
23 ~ 30	FI0 ~ FI3 SI0 ~ SI3	In	Terminal for key input signal
31 ~ 38	KC0 ~ KC7	Out	Terminal for key scan signal
39 ~ 50	FI4 ~ FI9 SI4 ~ SI9	In	Terminal for key input signal
51	FI10	In	Terminal for button input signal
52	SI10/P23	Out	Chip enable signal for the LCD driver
53 ~ 55	KI0 ~ KI2	In	Terminal for button input signal
56	MWNB	Out	Write enable signal for the DSP
57 ~ 76	MA0 ~ MA19	Out	Address bus
77	MCSB0	Out	Chip enable signal output for the sound source ROM
78	MCSB1	Out	Not used
79	MCSB2	Out	Chip enable signal output for the DSP

Pin No.	Terminal	In/Out	Function
80	VCC	In	+5 V source
81	GND	In	Ground (0 V) source
82	MRDB	Out	Read enable signal output for the sound source ROM
83 ~ 98	MD0 ~ MD15	In/Out	Data bus
99	PLE	Out	Reset signal output for the DSP
100	P17	In/Out	Data bus for the LCD driver

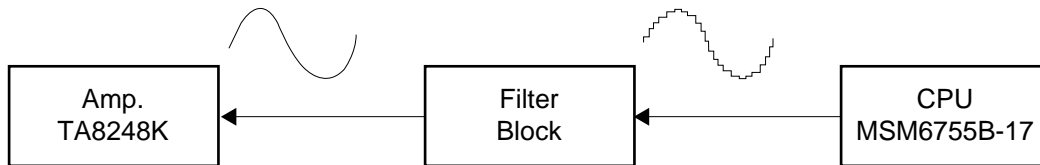
LCD DRIVER (LSI3: KS0066U-10B)

The LCD driver can drive a dot matrix LCD having 40 segment and 16 common lines. The LSI contains 240 graphic symbols in the built-in character generator ROM, and stores 80 characters in the built-in display data RAM. In accordance with command from the CPU, the LSI is capable of displaying up to 16 characters simultaneously. The following table shows the pin functions of KS0066U-10B.

Pin No.	Terminal	In/Out	Function
1 ~ 22, 63 ~ 80	SEG1 ~ SEG40	Out	Segment signal output
23	VSS	—	GND (0 V) source
24, 25	OSC1, OSC2	In/Out	Terminals for the built-in clock pulse generator. The external resistor connected determines the oscillation frequency.
26 ~ 30	V1 ~ V5	In	LCD drive voltage input. Those voltages are used for generating the stepped pulse of the LCD drive signals.
31, 32	LP, XCLS	—	Not used
33	VDD	In	DVDD (+5 V) source
34, 35	FR, DO	—	Not used
36	RS	In	Data/command determination terminal. High: data, Low: command
37	R/W	In	Read/Write terminal. High: read, Low: write
38	E	In	Chip enable signal. High: enable, the writing is done at fall edge. Low: disenable
39 ~ 42	DB0 ~ DB3	—	Not used. Connected to GND (0 V)
43 ~ 46	DB4 ~ DB7	In/Out	Data bus
47 ~ 62	COM1 ~ COM16	Out	Common signal/output

FILTER BLOCK

Since the sound signals from the CPU is stepped waveforms, the filter block is added to smooth the waveforms.



POWER AMPLIFIER (IC201: TA8248K)

The power amplifier is a two-channel amplifier with standby switch. The following table shows the pin function of IC201.

Pin No.	Terminal	In/Out	Function
1	NC	—	Not used
2	B.S.2	—	Terminal for a bootstrap capacitor
3	OUT2	Out	Channel 2 output
4	VCC	In	+9 V source
5	OUT1	Out	Channel 1 output
6	B.S.1	—	Terminal for a bootstrap capacitor
7	Power GND	In	Ground (0 V) source
8	Stand by	In	Power control signal input. 0 V: Off, +9 V: On
9	DC	—	Terminal for a decoupling capacitor
10	NF1	In	Negative feedback input
11	IN1	In	Channel 1 input
12	IN2	In	Channel 2 input
13	NF2	In	Negative feedback input
14, 15	Pre GND	In	Ground (0 V) source

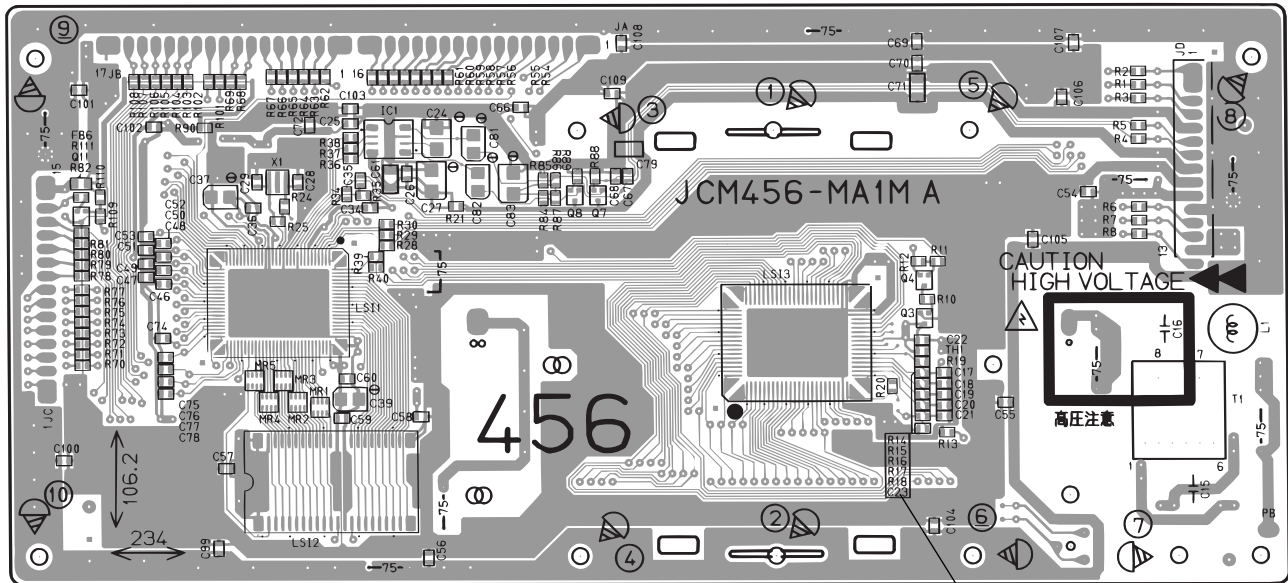
ADJUSTMENT

MAIN PCB

- Items to be adjusted:

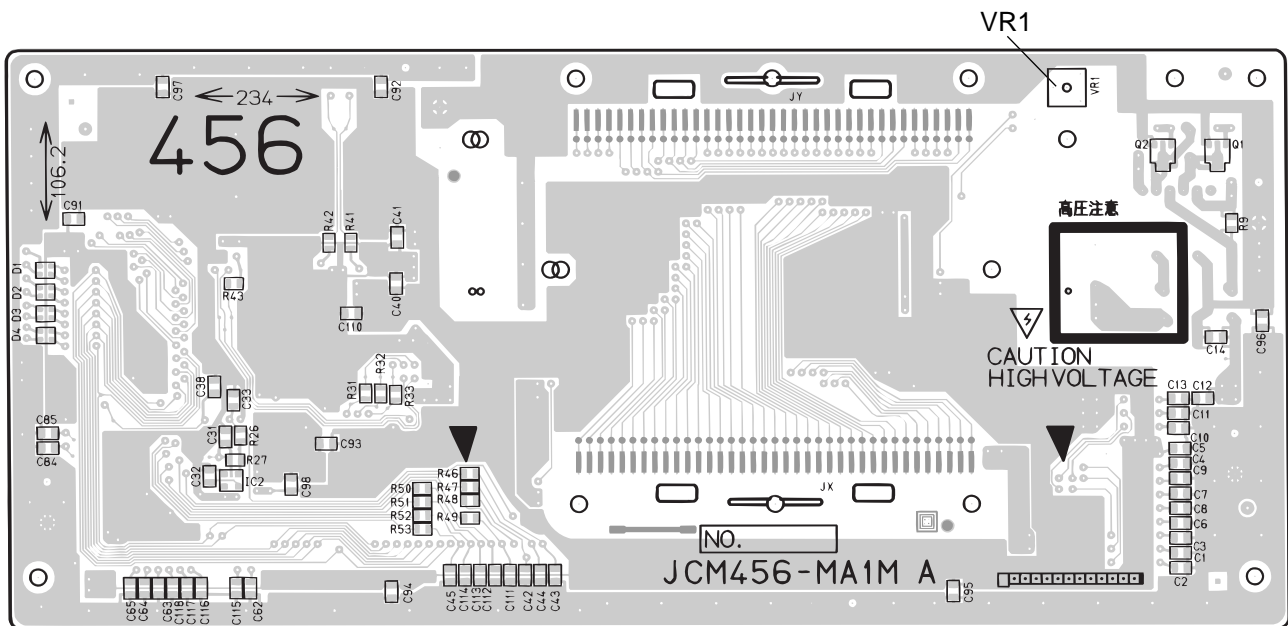
Item	Measuring Instrument
Vop voltage setting	Voltmeter

- Adjustment and Test Point Locations



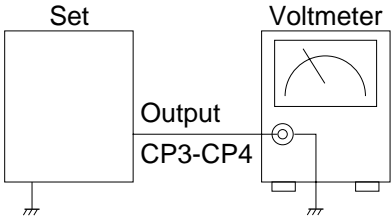
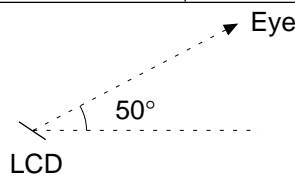
(TOP VIEW)

Test point

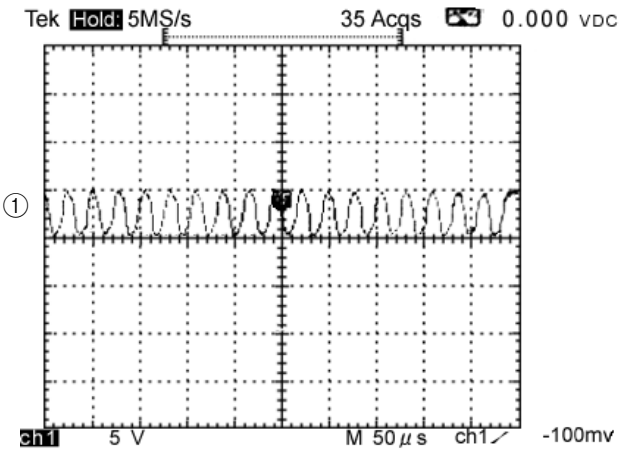


(BOTTOM VIEW)

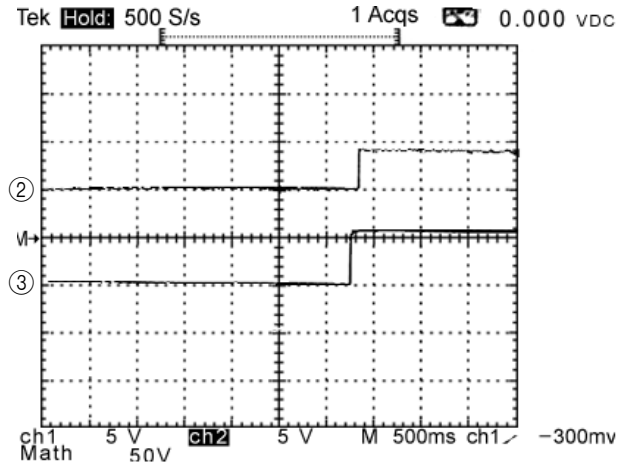
3) Equipment connection/Procedure

Vop voltage setting						
						
Input Connection	Input Point	Input Signal	Adjust	Output Connection	Output Point	Adjust for
—	—	—	VR1	Voltmeter	CP3-CP4	Adjust for 3.90 ~ 4.00V reading on voltmeter under the temperature 20 ~ 25 °C. Make fine adjustment according to the following instruction.
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div> <p>Watching the LCD at a 50° angle to the horizontal, adjust Vop voltage so that unenergized segments are seen dimly.</p> </div> </div>						

MAJOR WAVEFORMS

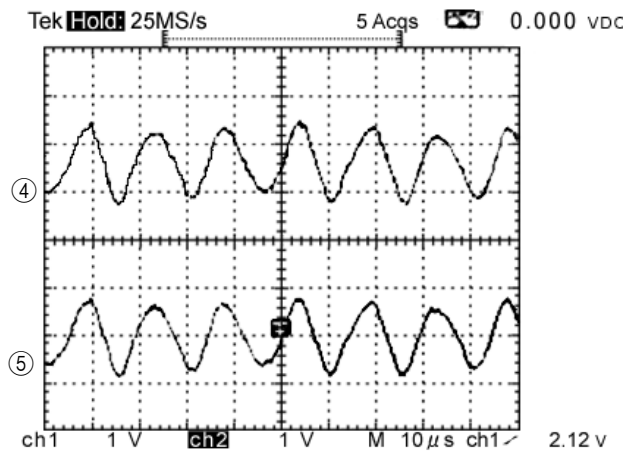


① Clock pulse
GT913F(T) pin 15



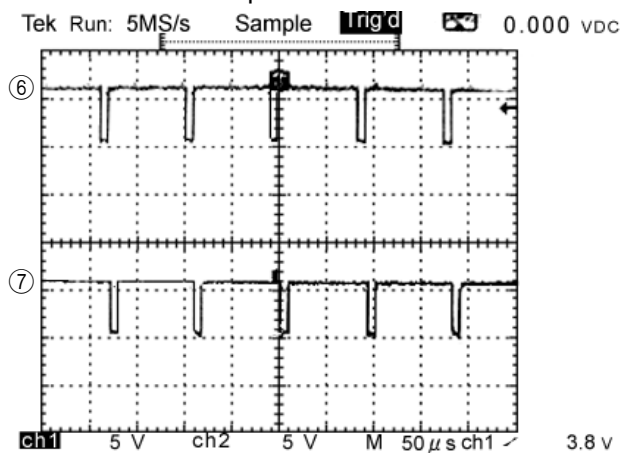
② Power source CVDD
JD connector pin 13

③ APO signal
JD connector pin 12



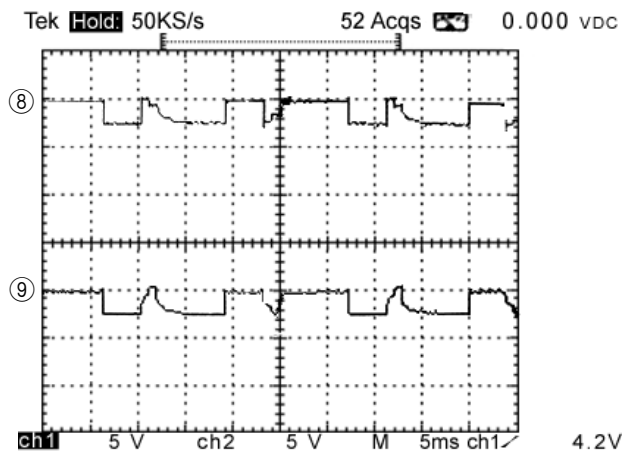
④ Sound waveform (R-ch) Tone: Whistle (59)
JD connector pin 6 Key: A4

⑤ Sound waveform (L-ch) Volume: Max.
JD connector pin 5



⑥ JB connector pin 1

⑦ JB connector pin 2

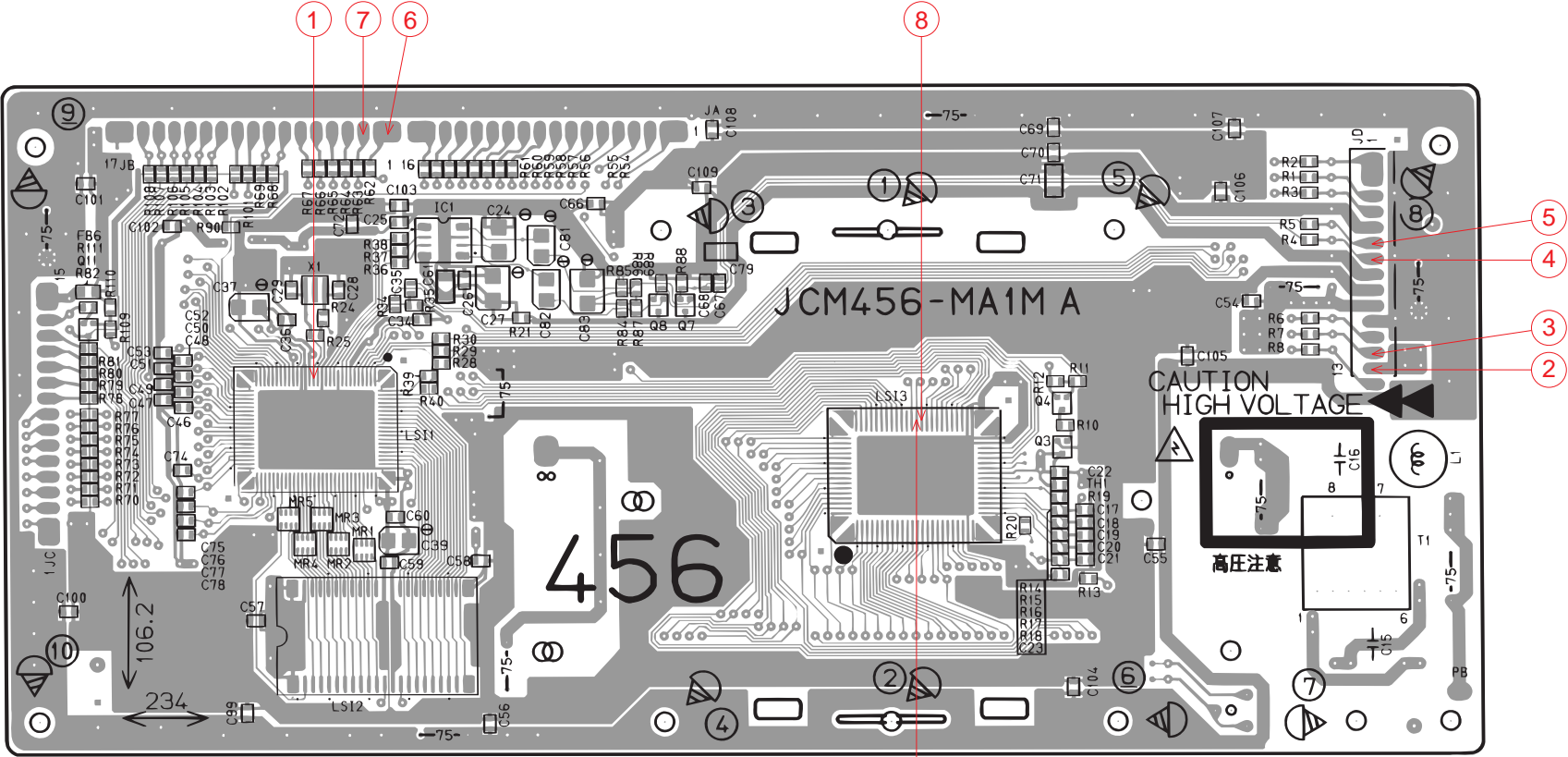


⑧ LCD common signal COM6
KS0066U-10B pin 52

⑨ LCD common signal COM7
KS0066U-10B pin 53

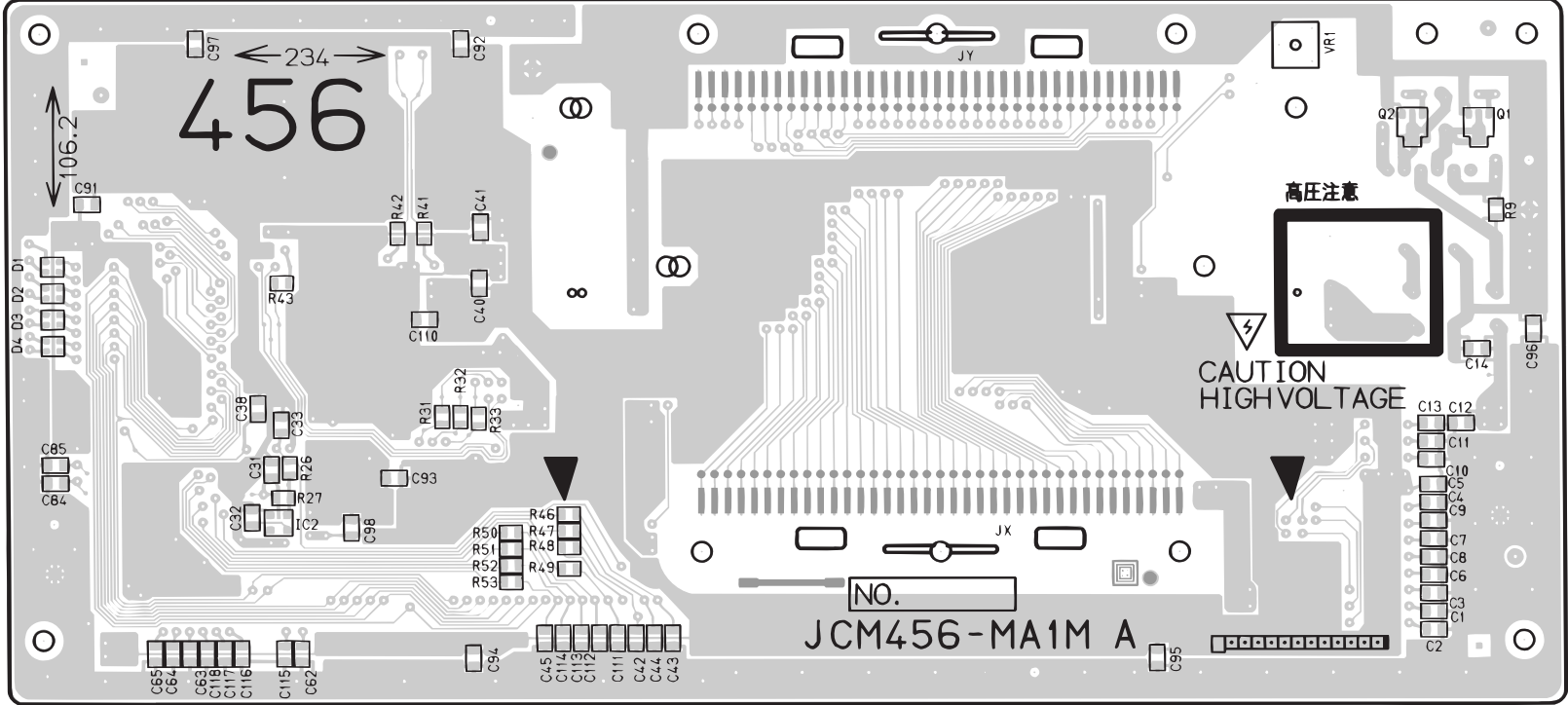
PRINTED CIRCUIT BOARDS

Main PCB JCM456-MA1M



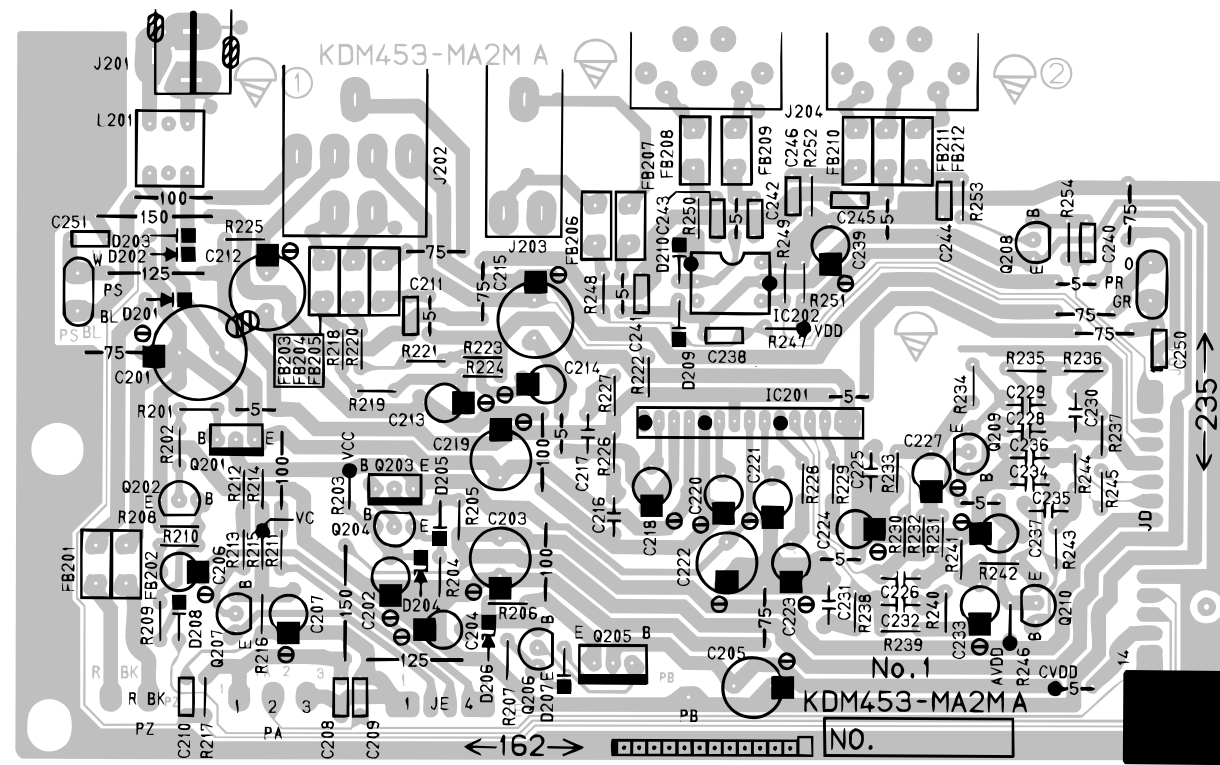
Top View

Main PCB JCM456-MA1M



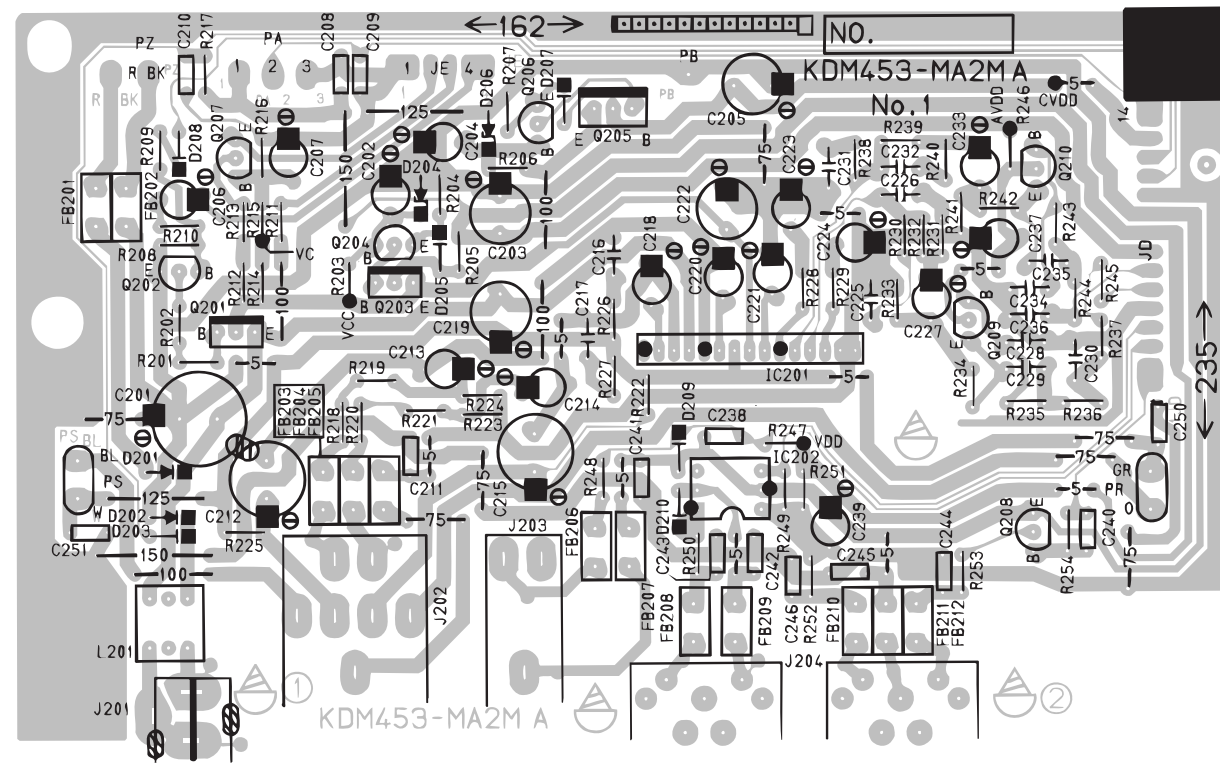
Bottom View

Sub PCB JCM453-MA2M



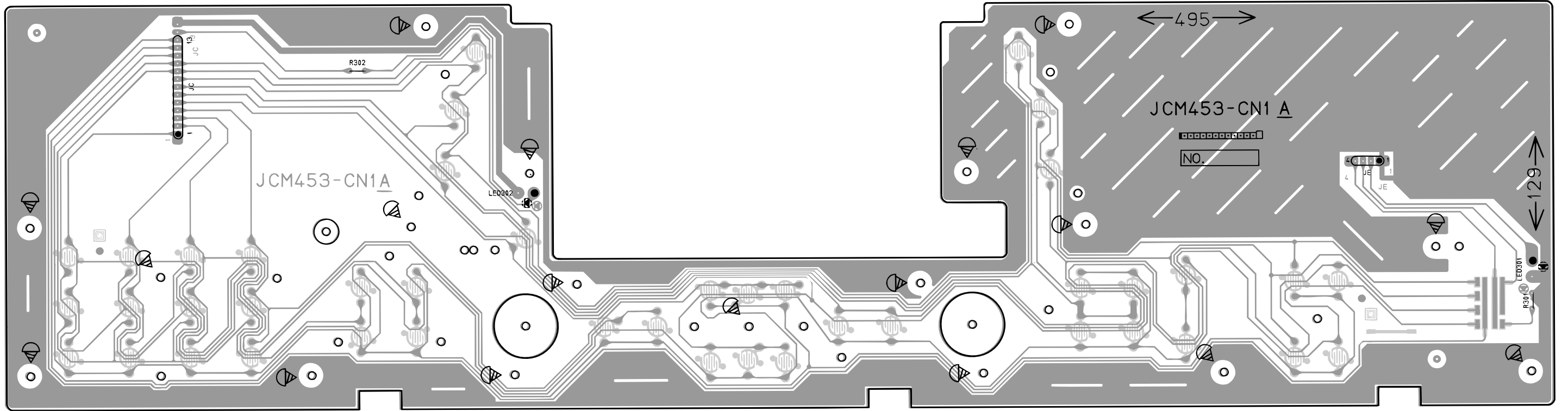
Top View

Sub PCB JCM453-MA2M



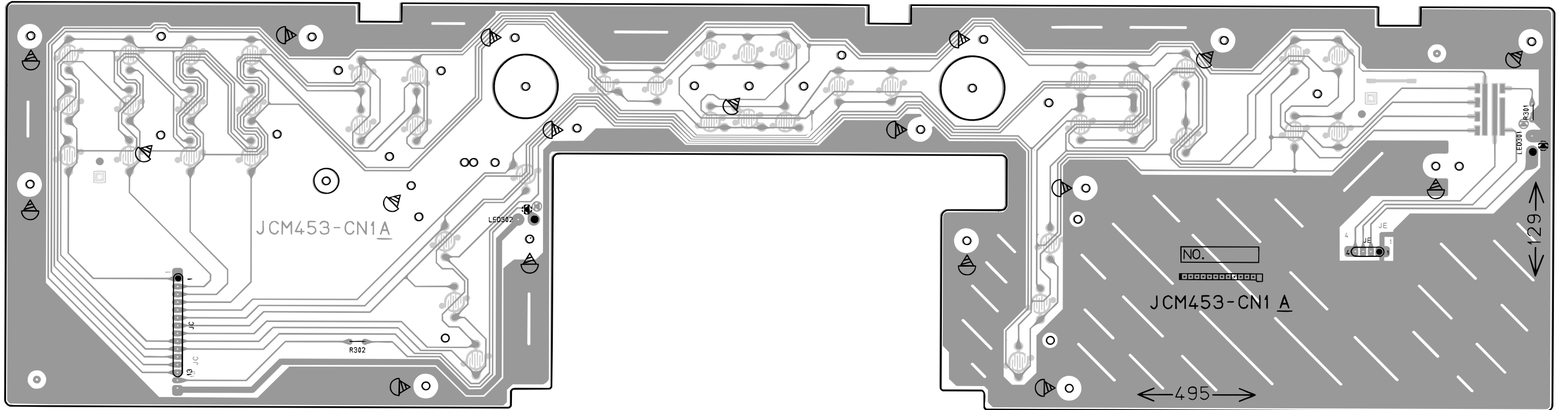
Bottom View

Console PCB JCM453-CN1



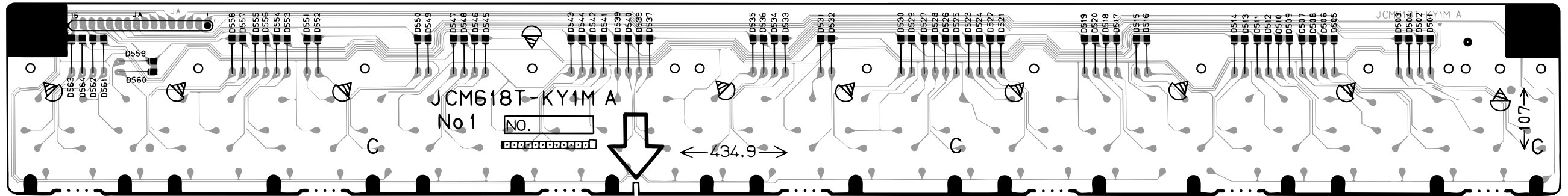
Top View

Console PCB JCM453-CN1



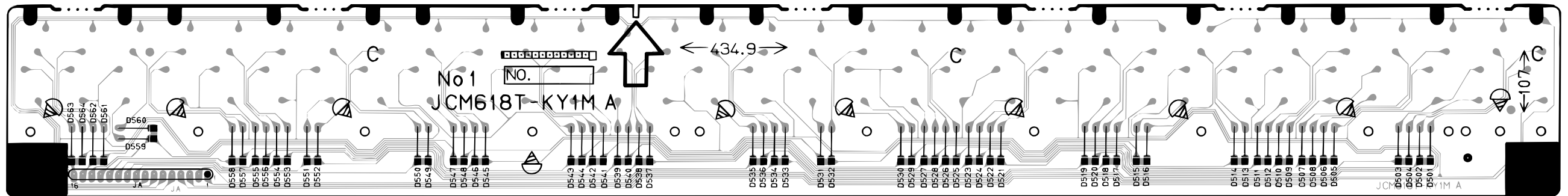
Bottom View

Keyboard PCB JCM618T-KY1M



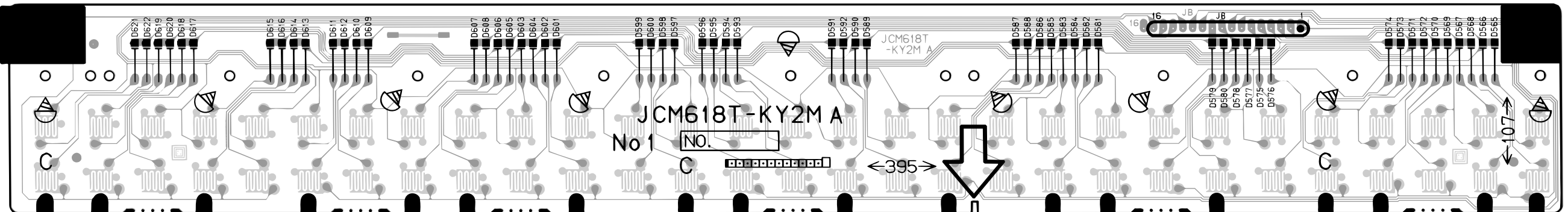
Top View

Keyboard PCB JCM618T-KY1M



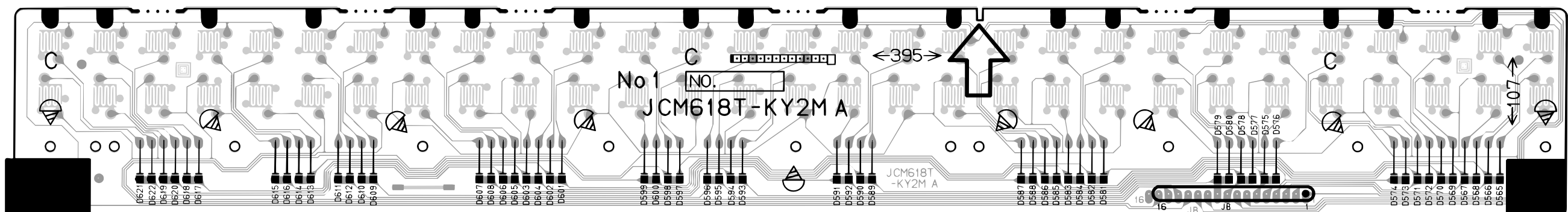
Bottom View

Keyboard PCB JCM618T-KY2M



Top View

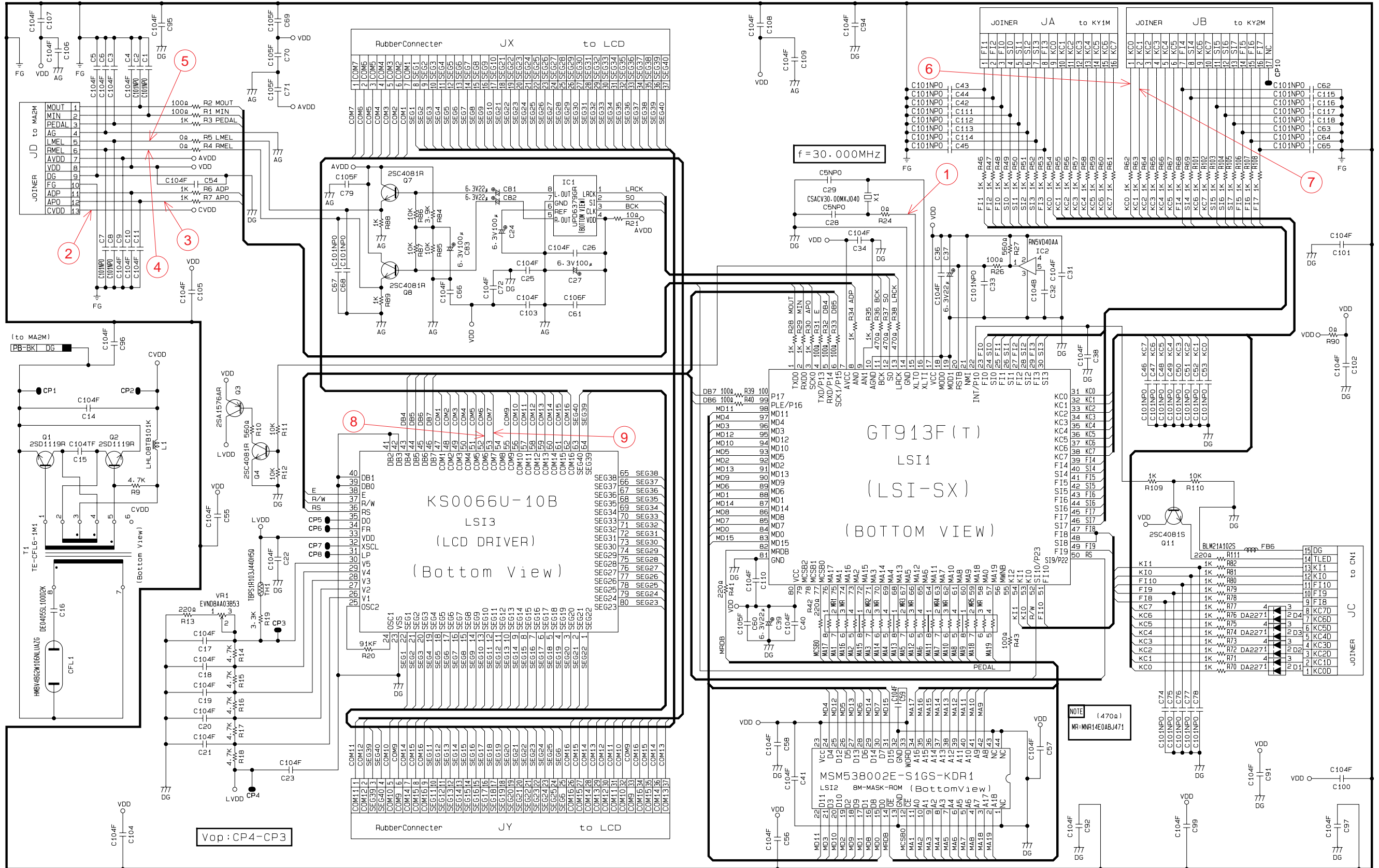
Keyboard PCB JCM618T-KY2M



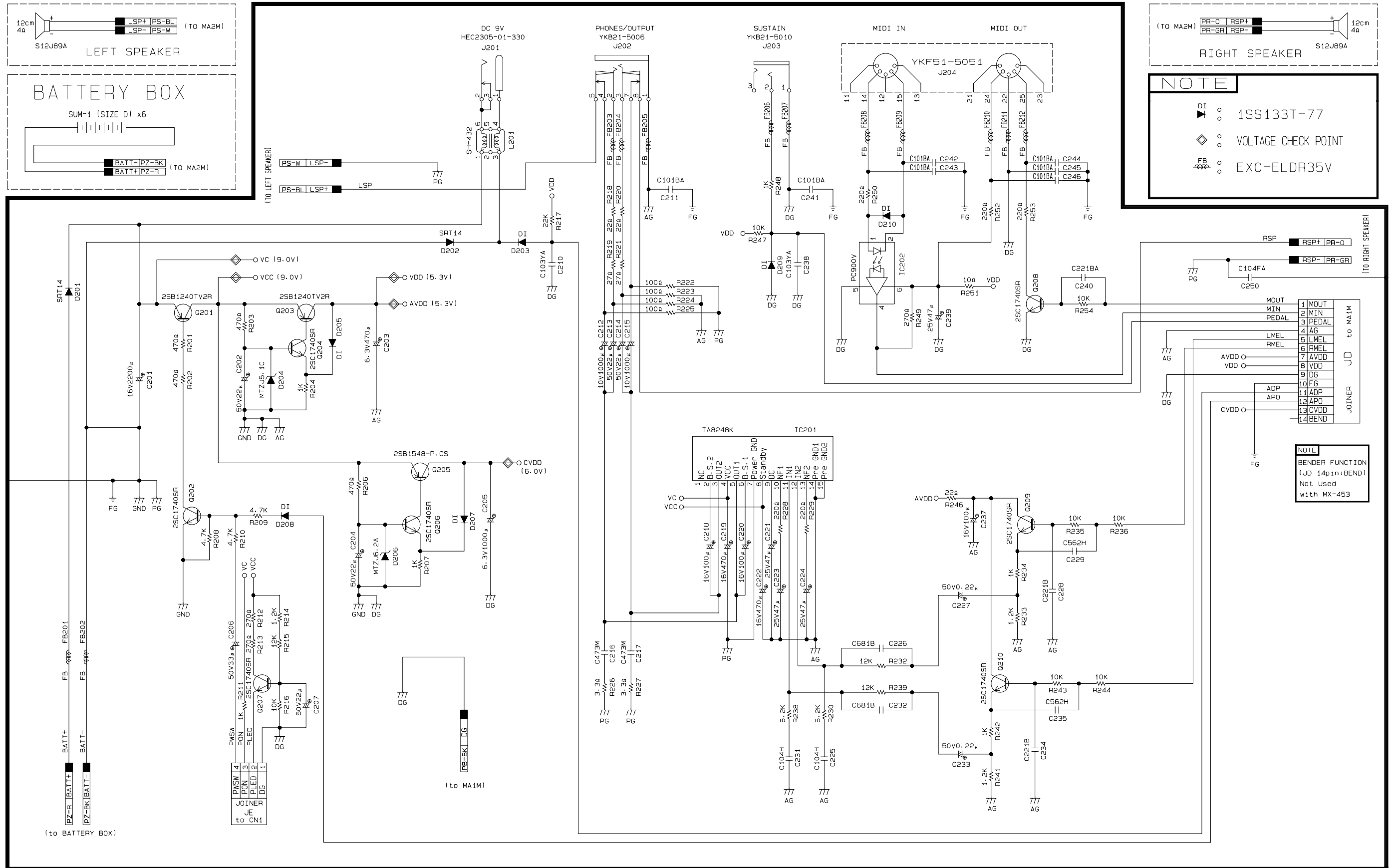
Bottom View

SCHEMATIC DIAGRAMS

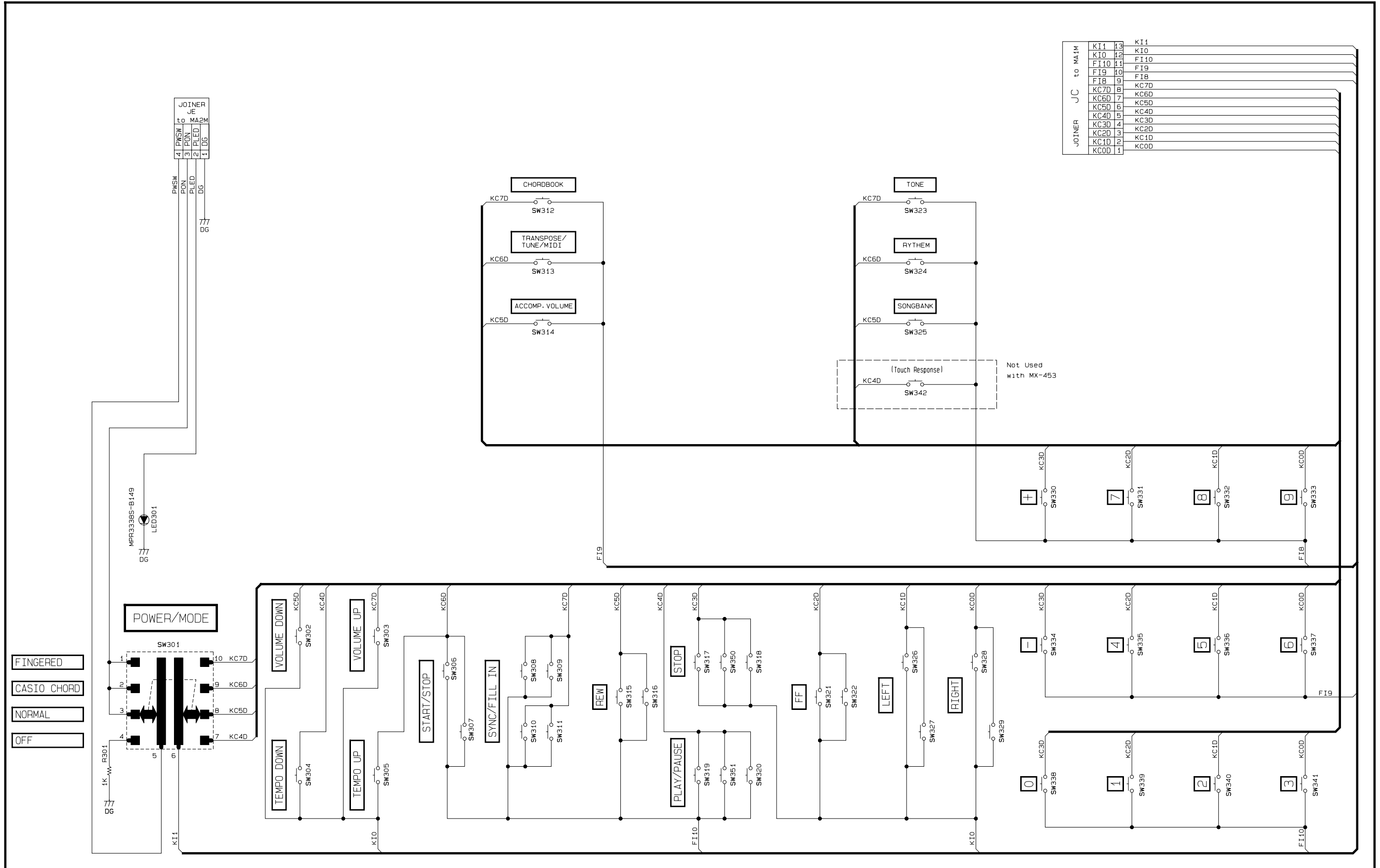
Main PCB JCM456-MA1M



Sub PCB KDM453-MA2M



Console PCBs JCM453-CN1



Keyboard PCBs JCM618T-KY1M / KY2M

NOTE

▶ P1 : 1S2473T-77-T
(1SS133T-77-T)

JCM618T-KY1M

JA
JOINER

1	F11
2	F12
3	F10
4	S10
5	S11
6	S12
7	S13
8	F13
9	KC0
10	KC1
11	KC2
12	KC3
13	KC4
14	KC5
15	KC6
16	KC7

KC0	D501	DI	SW501	C2	- ①	F10
KC1	D502	DI	SW502	C2	- ①	F10
KC1	D503	DI	SW503	C2#	- ①	F10
KC1	D504	DI	SW504	C2#	- ①	S10
KC2	D505	DI	SW505	D2	- ①	F10
KC2	D506	DI	SW506	D2	- ①	S10
KC3	D507	DI	SW507	D2#	- ①	F10
KC3	D508	DI	SW508	D2#	- ①	S10
KC4	D509	DI	SW509	E2	- ①	F10
KC4	D510	DI	SW510	E2	- ①	S10
KC5	D511	DI	SW511	F2	- ①	F10
KC5	D512	DI	SW512	F2	- ①	S10
KC6	D513	DI	SW513	F2#	- ①	F10
KC6	D514	DI	SW514	F2#	- ①	S10
KC7	D515	DI	SW515	G2	- ①	F10
KC7	D516	DI	SW516	G2	- ①	S10
KC0	D517	DI	SW517	G2#	- ①	F11
KC0	D518	DI	SW518	G2#	- ①	S11
KC1	D519	DI	SW519	A2	- ①	F11
KC1	D520	DI	SW520	A2	- ①	S11
KC2	D521	DI	SW521	A2#	- ①	F11
KC2	D522	DI	SW522	A2#	- ①	S11
KC3	D523	DI	SW523	B2	- ①	F11
KC3	D524	DI	SW524	B2	- ①	S11
KC4	D525	DI	SW525	C3	- ①	F11
KC4	D526	DI	SW526	C3	- ①	S11
KC5	D527	DI	SW527	C3#	- ①	F11
KC5	D528	DI	SW528	C3#	- ①	S11
KC6	D529	DI	SW529	D3	- ①	F11
KC6	D530	DI	SW530	D3	- ①	S11
KC7	D531	DI	SW531	D3#	- ①	F11
KC7	D532	DI	SW532	D3#	- ①	S11
KC0	D533	DI	SW533	E3	- ①	F12
KC0	D534	DI	SW534	E3	- ①	S12
KC1	D535	DI	SW535	F3	- ①	F12
KC1	D536	DI	SW536	F3	- ①	S12
KC2	D537	DI	SW537	F3#	- ①	F12
KC2	D538	DI	SW538	F3#	- ①	S12
KC3	D539	DI	SW539	G3	- ①	F12
KC3	D540	DI	SW540	G3	- ①	S12
KC4	D541	DI	SW541	G3#	- ①	F12
KC4	D542	DI	SW542	G3#	- ①	S12
KC5	D543	DI	SW543	A3	- ①	F12
KC5	D544	DI	SW544	A3	- ①	S12
KC6	D545	DI	SW545	A3#	- ①	F12
KC6	D546	DI	SW546	A3#	- ①	S12
KC7	D547	DI	SW547	B3	- ①	F12
KC7	D548	DI	SW548	B3	- ①	S12
KC0	D549	DI	SW549	C4	- ①	F13
KC0	D550	DI	SW550	C4	- ①	S13
KC1	D551	DI	SW551	C4#	- ①	F13
KC1	D552	DI	SW552	C4#	- ①	S13
KC2	D553	DI	SW553	D4	- ①	F13
KC2	D554	DI	SW554	D4	- ①	S13
KC3	D555	DI	SW555	D4#	- ①	F13
KC3	D556	DI	SW556	D4#	- ①	S13
KC4	D557	DI	SW557	E4	- ①	F13
KC4	D558	DI	SW558	E4	- ①	S13
KC5	D559	DI	SW559	F4	- ①	F13
KC5	D560	DI	SW560	F4	- ①	S13
KC6	D561	DI	SW561	F4#	- ①	F13
KC6	D562	DI	SW562	F4#	- ①	S13
KC7	D563	DI	SW563	G4	- ①	F13
KC7	D564	DI	SW564	G4	- ①	S13

C2
C2#
D2
D2#
E2
F2
F2#
G2
G2#
A2
A2#
B2
C3
C3#
D3
D3#
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F3
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D4
D4#
E4
F4
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G4

JCM618T-KY2M

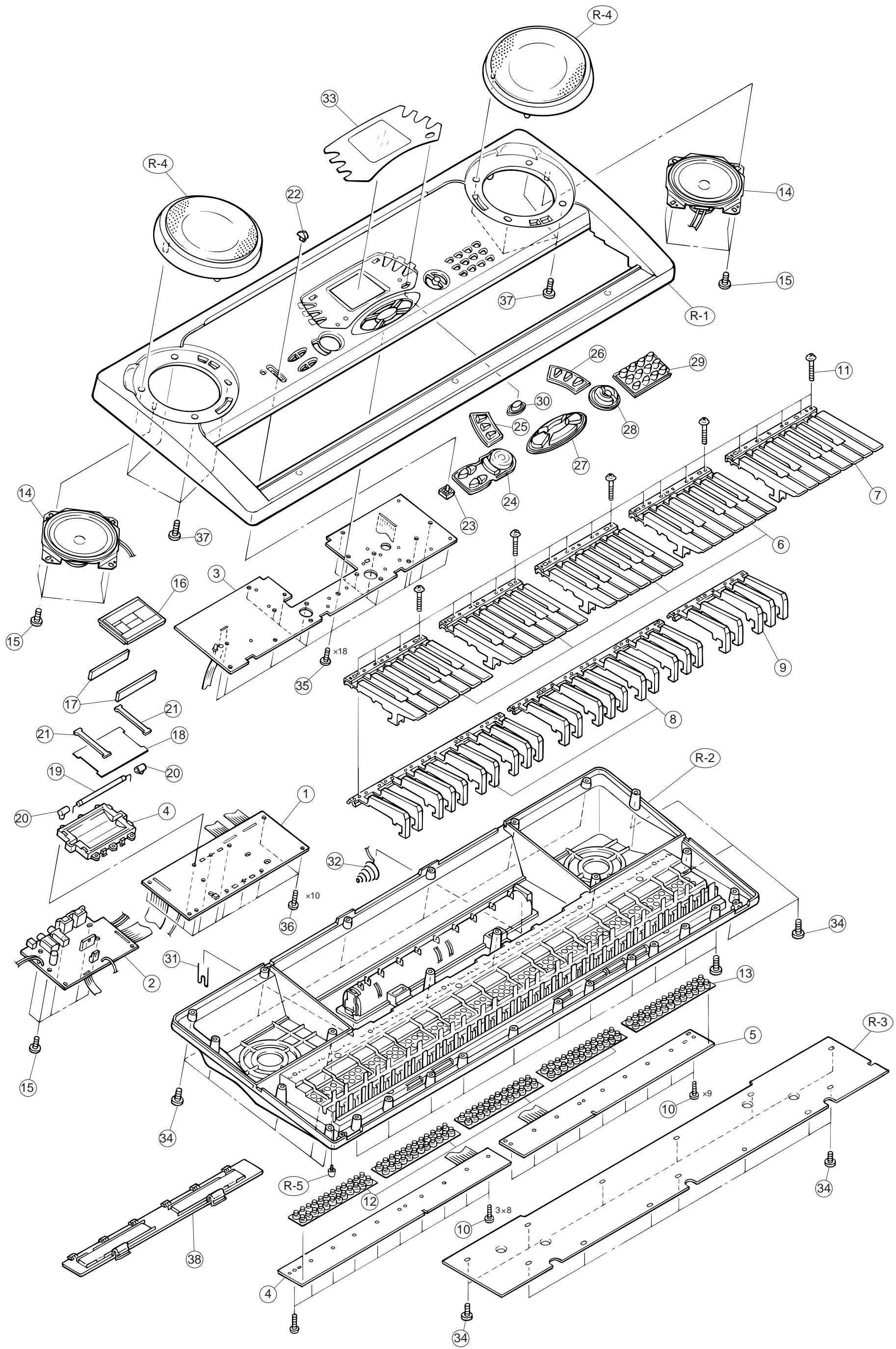
JB
JOINER

1	KC0
2	KC1
3	KC2
4	KC3
5	KC4
6	KC5
7	F14
8	S14
9	KC6
10	KC7
11	S15
12	S16
13	S17
14	F15
15	F16
16	F17
17	NC

KC0	D565	DI	SW565	G4#	- ①	F14
KC0	D566	DI	SW566	G4#	- ①	S14
KC1	D567	DI	SW567	A4	- ①	F14
KC1	D568	DI	SW568	A4	- ①	S14
KC2	D569	DI	SW569	A4#	- ①	F14
KC2	D570	DI	SW570	A4#	- ①	S14
KC3	D571	DI	SW571	B4	- ①	F14
KC3	D572	DI	SW572	B4	- ①	S14
KC4	D573	DI	SW573	C5	- ①	F14
KC4	D574	DI	SW574	C5	- ①	S14
KC5	D575	DI	SW575	C5#	- ①	F14
KC5	D576	DI	SW576	C5#	- ①	S14
KC6	D577	DI	SW577	D5	- ①	F14
KC6	D578	DI	SW578	D5	- ①	S14
KC7	D579	DI	SW579	D5#	- ①	F14
KC7	D580	DI	SW580	D5#	- ①	S14
KC0	D581	DI	SW581	E5	- ①	F15
KC0	D582	DI	SW582	E5	- ①	S15
KC1	D583	DI	SW583	F5	- ①	F15
KC1	D584	DI	SW584	F5	- ①	S15
KC2	D585	DI	SW585	F5#	- ①	F15
KC2	D586	DI	SW586	F5#	- ①	S15
KC3	D587	DI	SW587	G5	- ①	F15
KC3	D588	DI	SW588	G5	- ①	S15
KC4	D589	DI	SW589	G5#	- ①	F15
KC4	D590	DI	SW590	G5#	- ①	S15
KC5	D591	DI	SW591	A5	- ①	F16
KC5	D592	DI	SW592	A5	- ①	S16
KC6	D593	DI	SW593	A5#	- ①	F16
KC6	D594	DI	SW594	A5#	- ①	S16
KC7	D595	DI	SW595	B5	- ①	F16
KC7	D596	DI	SW596	B5	- ①	S16
KC0	D597	DI	SW597	C6	- ①	F16
KC0	D598	DI	SW598	C6	- ①	S16
KC1	D599	DI	SW599	C6#	- ①	F16
KC1	D600	DI	SW600	C6#	- ①	S16
KC2	D601	DI	SW601	D6	- ①	F16
KC2	D602	DI	SW602	D6	- ①	S16
KC3	D603	DI	SW603	D6#	- ①	F16
KC3	D604	DI	SW604	D6#	- ①	S16
KC4	D605	DI	SW605	E6	- ①	F16
KC4	D606	DI	SW606	E6	- ①	S16
KC5	D607	DI	SW607	F6	- ①	F16
KC5	D608	DI	SW608	F6	- ①	S16
KC6	D609	DI	SW609	F6#	- ①	F16
KC6	D610	DI	SW610	F6#	- ①	S16
KC7	D611	DI	SW611	G6	- ①	F16
KC7	D612	DI	SW612	G6	- ①	S16
KC0	D613	DI	SW613	G6#	- ①	F17
KC0	D614	DI	SW614	G6#	- ①	S17
KC1	D615	DI	SW615	A6	- ①	F17
KC1	D616	DI	SW616	A6	- ①	S17
KC2	D617	DI	SW617	A6#	- ①	F17
KC2	D618	DI	SW618	A6#	- ①	S17
KC3	D619	DI	SW619	B6	- ①	F17
KC3	D620	DI	SW620	B6	- ①	S17
KC4	D621	DI	SW621	C7	- ①	F17
KC4	D622	DI	SW622	C7	- ①	S17

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-541

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.

**PARTS PRICE LIST
CTK-541**

N	Item	Code No.	Part Name	Specification	Q	PRICE CODE	R
Main PCB							
N	1	6928 2120	PCB/ASSY (MA1M)	M241173*1	1	DE	B
	D1-D4	2775 2079	DIODE/CHIP	DA227TL	4	AA	C
	LSI1	2012 5005	LSI	GT913F(T)	1	BO	A
N	LSI2	2012 6501	LSI/MC	MSM538002E-S1GS-KDR1	1	AV	A
	LSI3	2012 5935	LSI/LCD DRIVER	KS0066U-10B	1	AV	A
	IC1	2105 4746	LSI	UPD6379GR-E1	1	AO	B
	IC2	2012 1883	IC/MOS	RN5VD40AA-TR	1	AE	B
	Q1,Q2	2253 0308	TRANSISTOR	2SD1119-R(TX)	2	AC	B
	Q3	2250 1169	TRANSISTOR	2SA1576AT106R	1	AA	B
	Q4,Q7,Q8,Q11	2252 0637	TRANSISTOR	2SC4081T106R	4	AA	B
	VR1	2775 0994	POTENTIOMETER	EVND8AA03B53	1	AA	B
	X1	2590 2774	OSCILLATOR/CERAMIC	CSACV30.00MXJ040	1	AE	B
SUB PCB ASSY							
	2	6927 3690	PCB/ASSY (MA2M)	M140841*1	1	DB	B
	IC201	2114 5775	IC/LINEAR (POWER AMP)	TA8248K	1	BI	A
	IC202	2114 1421	IC/PHOTO COUPLER	PC900V	1	AK	B
	Q201,Q203	2250 1595	TRANSISTOR	2SB1240TV2R	2	AB	B
	Q205	2251 0672	TRANSISTOR	2SB1548-P.CS	1	AD	B
	Q202, Q204, Q206-Q210	2250 1592	TRANSISTOR	2SC1740STPR	7	AA	B
	D201, D202	2390 3021	DIODE	SRT14	2	AF	B
	D203, D205, D207-D210	2390 1344	DIODE	1SS133T-77-T	6	AA	C
	D206	2360 2044	DIODE/ZENER	MTZJ6.2A-T77-T	1	AA	C
	D204	2360 1939	DIODE/ZENER	MTZJ5.1C-T77-T	1	AA	A
	J201	3501 7049	JACK (POWER)	HEC2305-01-330	1	AC	A
	J202	3612 0665	JACK (PHONE)	YKB21-5006	1	AG	B
	J203	3612 0789	JACK	YKB21-5010	1	AC	B
	J204	3501 4816	JACK/DIN	YKF51-5051	1	AH	B
Console PCBs							
N	3	6928 2130	PCB/ASSY (CN1M)	M241172*1	1	BP	C
	LED301	2370 1414	LED	MPR3338S-B149	1	AA	B
Keyboard PCBs							
N	4	6928 4500	PCB/ASSY (KY1M)	M140687*5	1	BG	B
	D501 - D564	2301 0101	DIODE	1S2473T-77-T	64	AA	B
N	5	6928 4510	PCB/ASSY (KY2M)	M140688*5	1	BE	B
	D565 - D622	2301 0101	DIODE	1S2473T-77-T	58	AA	B
Keyboard unit							
	6	6922 2720	KEY SET/LT WHITE	M312118*1	4	AP	A
	7	6922 2730	KEY SET/LT WHITE	M312118*2	1	AR	A
	8	6906 8481	KEY SET/LT BLACK 10P	M140369A-3	2	AL	A
	9	6906 8591	KEY SET/LT BLACK 5P	M140369A-4	1	AT	A
N	10	5860 0679	SCREW	3X8	19	AA	C
	11	1909 2637	SCREW	3X18	21	AA	C
	12	6922 2762	RUBBER/CONTACT	M211704B-1	4	AF	A
	13	6922 2772	RUBBER/CONTACT	M211705B-1	1	AF	A

N	Item	Code No.	Part Name	Specification	Q	PRICE CODE	R
Panel unit							
N	14	3831 1096	SPEAKER	S12J89A	2	BH	B
	15	1908 6418	SCREW	4X8	13	AA	C
	16	3335 6804	LCD	LD-B10427E	1	BO	B
	17	6927 3890	RUBBER/INTERCONNECTOR	M440759-1	2	AV	B
	18	6927 3920	REFLECTOR	M240922-1	1	AM	C
	19	3122 3698	CFL	HMBV4BG2W106NLUAZG	1	AX	C
	20	6927 3420	HOLDER/CFL	M440758-1	2	AA	C
	21	6927 3900	PACKING	M440760-1	2	AC	C
	22	6921 5031	KNOB	M311859A-1	1	AA	B
	23	6927 0510	SWITCH/SLIDE KNOB	CSB-08D	1	AD	B
	24	6927 3820	RUBBER/BUTTON	M140821-1	1	AI	B
	25	6927 3830	RUBBER/BUTTON	M240928-1	1	AD	B
	26	6927 3840	RUBBER/BUTTON	M240929-1	1	AD	B
	27	6927 3850	RUBBER/BUTTON	M140824-1	1	AG	B
	28	6927 3860	RUBBER/BUTTON	M240931-1	1	AC	B
	29	6927 3870	RUBBER/BUTTON	M240932-1	1	AK	B
	30	6903 2150	RUBBER/BUTTON	M341091-1	1	AA	B
	31	6903 2150	SPRING/BATTERY(+)	M41330-1	1	AA	B
N	32	6902 6141	SPRING/BATTERY(-)	M41226A-1	1	AB	B
	33	6928 4910	PLATE/DISPLAY	M241161-1	1	AW	C
N	34	5111 5163	SCREW	4X10	40	AA	C
N	35	5860 0679	SCREW	3X8	18	AA	C
N	36	5150 1640	SCREW	3X10	10	AA	C
N	37	5161 3171	SCREW	4X12	8	AA	C
	38	6906 9218	COVER/BATTERY	M311164H*17	1	AW	B
Accessory							
		6906 9043	STAND/NOTE	M340701*2	1	BK	B

Notes: Q : Quantity
R : Rank

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