

## IC DATA CHART

## 2. Tuning

Test Equipment	Tuning scope
Control Settings	<b>DUAL MODE</b> <b>PITCH I</b> and <b>PITCH II</b> set at "10 o'clock"
Adjustment Specification	$A_3 = 440\text{Hz}$
Adjustment point	Coil T1 ( <b>PITCH I</b> ) and T2 ( <b>PITCH</b> ) should both be adjusted.

### 3. Procedures for adjusting individual boards

- Test equipment  
tuning scope  
digital voltmeter  
oscilloscope
- Circuit Boards and Their Functions

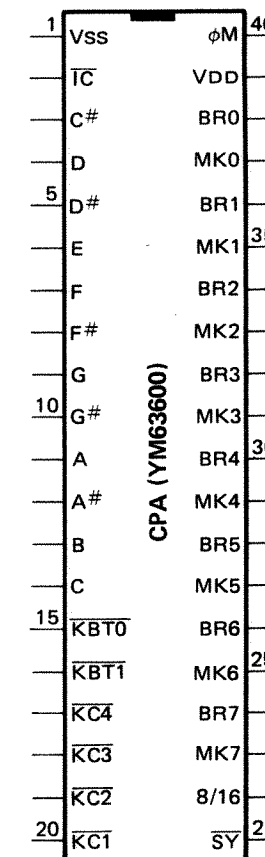
Circuit Board	Function
DM	Clock generator I&II Keyassigner Tone generator I&II FILTER 1 ~ 4 MODE select circuit
PN	INITIAL setting circuit MODE switch PITCH VOLUME I&II DECAY switch I&II TREMOLO SPEED TREMOLO DEPTH TREMOLO switch FLANGER switch WAVE selector switch FILTER 1~4 selector switches 5TH selector switch 8TH selector switch BALANCE VR circuit EQUALIZER BASS EQUALIZER TREBLE VOLUME circuit

Circuit Board	Function
EFT	<p>Flanger effect circuit</p> <p>Flanger oscillator circuit</p> <p>B.B.D. drive circuit</p> <p>Compander/expander circuit</p> <p>Tremolo effect circuit (x2)</p> <p>Tremolo oscillator circuit</p> <p>Photo cappler drive circuit (x2)</p>
DC	<p>+15, -15 regulator ( for digital circuitry)</p> <p>15V regulator ( for analog circuitry )</p>
JK	<p>PHONES, OUTPUT 1, 2 ,TREMOLO terminal</p> <p>SUSTAIN terminal, LINE ON/OFF switch</p>

Part Name	YM636000	Function Name	CPA (Combo Piano—A) Key Coder Channel Prossesor
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Terminal		I/O	Description
Pin No.	Name		
1	VSS	I	Ground (0V)
2	$\overline{IC}$	I	Initial Clear
3	C#	I/O	Note Block
4	D	I/O	— do. —
5	D#	I/O	— do. —
6	E	I/O	— do. —
7	F	I/O	— do. —
8	F#	I/O	— do. —
9	G	I/O	— do. —
10	G#	I/O	— do. —
11	A	I/O	— do. —
12	A#	I/O	— do. —
13	B	I/O	— do. —
14	C	I/O	— do. —
15	$\overline{KBT0}$	I	Keyboard Transposition Data ..... No use
16	$\overline{KBT1}$	I	— do. —
17	$\overline{KC4}$	O	Key Code Data
18	$\overline{KC3}$	O	— do. —
19	$\overline{KC2}$	O	— do. —
20	$\overline{KC1}$	O	— do. —

Terminal		I/O	Description
Pin No.	Name		
40	$\phi$ M	I	Master Clock (1MHz)
39	VDD	I	DC Supply (–15V)
38	BR0	O	Octave Block (Break)
37	MK0	O	Octave Block (Make)
36	BR1	O	– do. – (Break)
35	MK1	O	– do. – (Make)
34	BR2	O	– do. – (Break)
33	MK2	O	– do. – (Make)
32	BR3	O	– do. – (Break)
31	MK3	O	– do. – (Make)
30	BR4	O	– do. – (Break)
29	MK4	O	– do. – (Make)
28	BR5	O	– do. – (Break)
27	MK5	O	– do. – (Make)
26	BR6	O	– do. – (Break)
25	MK6	O	– do. – (Make)
24	BR7	O	– do. – (Break)
23	MK7	O	– do. – (Make)
22	8/16	I	8 Voice/16 Voice Select
21	SY	O	Synchro Data



Termin	
Pin No.	Na
1	VSS
2	IC
3	KC
4	KC
5	KC
6	KC
7	5th
8	8th
9	SY
10	CS
11	E0
12	E1
13	E2
14	AG
15	C1,
16	C1f
17	C2I
18	C2,
19	C3,
20	C3I
21	C4f
22	C4,
23	C5,
24	C5I

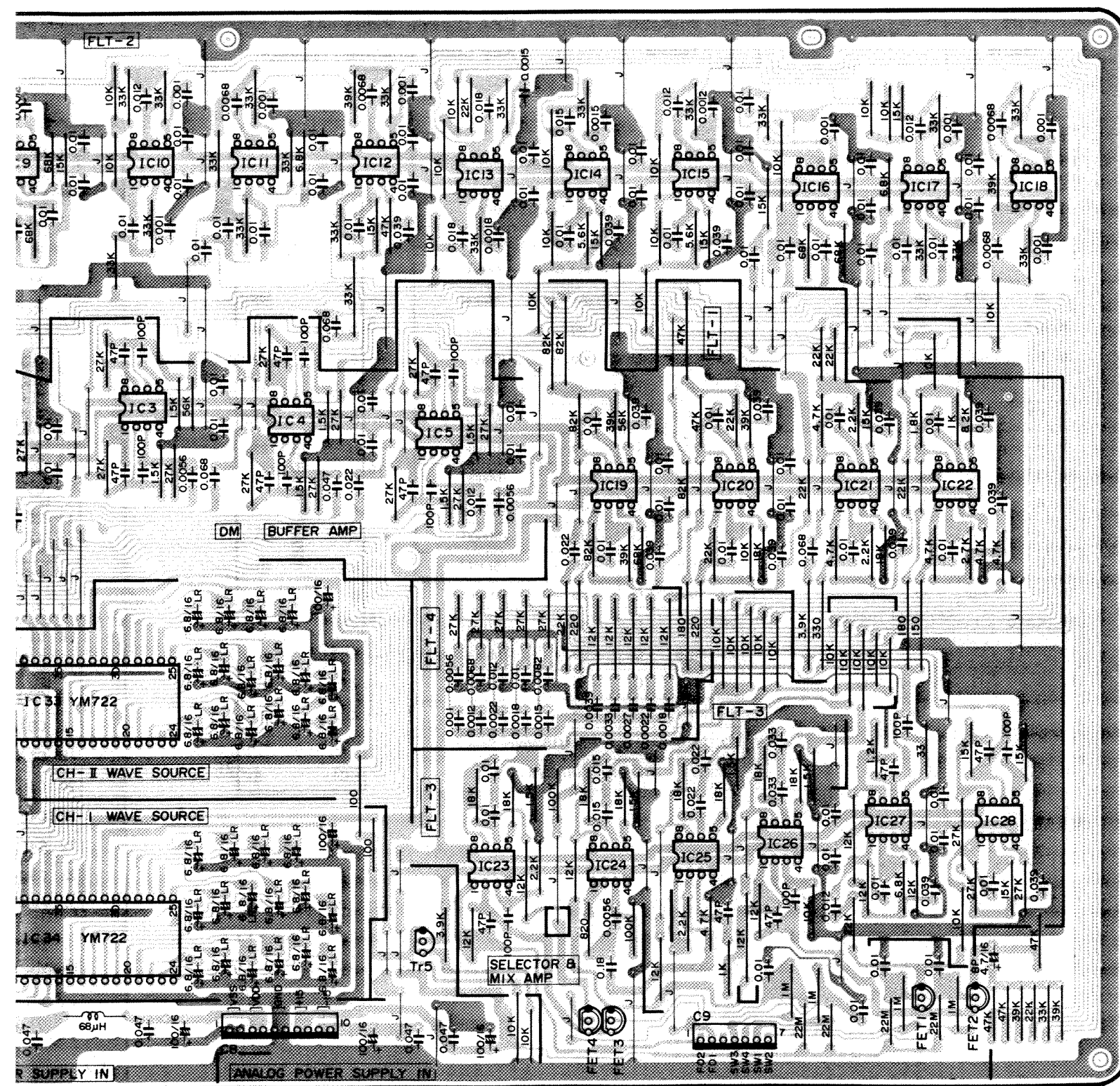
**MEMO**

[illegible]

**MEMC**

[illegible]

## DM Circuit Board &amp; Wining



## DM Circuit Board &amp; Wining

## • Connector

Pin No.	Pin Name	Wire Color	Destination
1	C*	BR	MK1-C* (C1-7)
2	D	RE	MK1-D (C1-6)
3	D*	OR	MK1-D* (C1-5)
4	E	YE	MK1-E (C1-4)
5	F	GR	MK1-F (C1-3)

Pin No.	Pin Name	Wire Color	Destination
1	MODE	BE	PN1-MODE (C3-2)
2	MODE	BL	PN1-MODE (C3-1)
3	2Q2	YE	PN1-2Q2 (C1-6)
4	1Q2	BR	PN1-1Q2 (C1-3)
5	2Q1	OR	PN1-2Q1 (C1-5)
6	1Q1	PK	PN1-1Q1 (C1-2)
7	2Q0	RE	PN1-2Q0 (C1-4)
8	1Q0	SB	PN1-1Q0 (C1-1)
9	5TH	WH	PN2-5TH (C5-3)
10	8TH	GR	PN2-8TH (C5-4)

Pin No.	Pin Name	Wire Color	Destination
1	PV1	GR	PN1-PV1 (C1-7)
2	VSS	—	—
3	VSS	VI	PN1-VSS (C1-9)
4	VDD	GG	PN1-VDD (C1-10)
5	PV2	BE	PN1-PV2 (C1-8)

Pin No.	Pin Name	Wire Color	Destination
1	BR0	—	—
2	—	—	—
3	BR1	BR	MK1-BR1 (C3-6)
4	MK1	RE	MK1-MK1 (C3-7)
5	BR2	OR	MK1-BR2 (C3-5)
6	MK2	YE	MK1-MK2 (C3-4)
7	BR3	GR	MK1-BR3 (C3-3)
8	MK3	BE	MK1-MK3 (C3-2)
9	BR4	VI	MK4-BR4 (C3-7)
10	MK4	GY	MK4-MK4 (C3-6)

Pin No.	Pin Name	Wire Color	Destination
1	BR5	WH	MK4-BR5 (C3-5)
2	MK5	GG	MK4-MK5 (C3-4)
3	BR6	SB	MK4-BR6 (C3-3)
4	MK6	PK	MK4-MK6 (C3-2)
5	BR7	—	—
6	MK7	—	—

Pin No.	Pin Name	Wire Color	Destination
1	SUST.	SB	JK-SUST. (C1-5)
2	CK	PK	PN1-CK (C3-3)
3	—	—	—
4	WAVE1	BR	PN2-WAVE1 (C4-5)
5	WAVE0	YE	PN2-WAVE0 (C4-4)

Pin No.	Pin Name	Wire Color	Destination
1	F#	BE	MK1-F# (C1-2)
2	G	VI	MK1-G (C1-1)
3	G#	GY	MK1-G# (C2-5)
4	A	WH	MK1-A (C2-4)
5	A#	GG	MK1-A# (C2-3)
6	B	SB	MK1-B (C2-2)
7	C	PK	MK1-C (C2-1)
8	—	—	—
9	—	—	—
10	—	—	—

Pin No.	Pin Name	Wire Color	Destination
1	VSS	GY	DC-VSS (C1-1)
2	VSS	GY	DC-VSS (C1-3)
3	VDD	RE	DC-VDD (C2-4)
4	VDD	RE	DC-VDD (C2-5)
5	GND	—	—
6	GND	BL	DC-GND (C4-6)
7	+15V	—	—
8	+15V	BR	DC+15V (C4-3)
9	-15V	—	—
10	-15V	YE	DC-15V (C3-3)

Pin No.	Pin Name	Wire Color	Destination
1	FO2	S BE	PN2-FO2 (C6-8)
2	FO1	S VI	PN2-FO1 (C6-6)
3	—	—	—
4	SW3	BR	PN2-SW3 (C5-1)
5	SW4	RE	PN2-SW4 (C5-2)
6	SW1	OR	PN2-SW1 (C4-2)
7	SW2	GR	PN2-SW2 (C4-3)

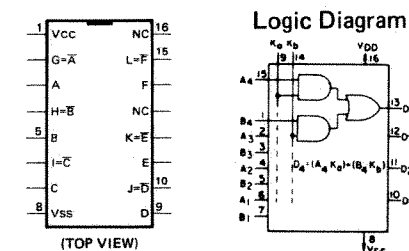
## Notes)

•YM63600: IC32 (See Page 16)

•YM72200: IC33, 34 (See Page 16)

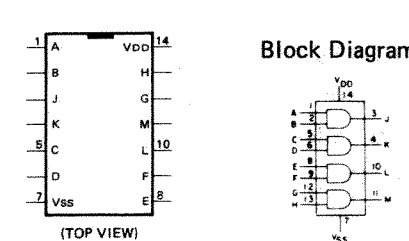
•TC4019BP: IC30, 31

Quadruple AND/OR Select Gate



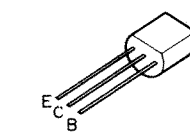
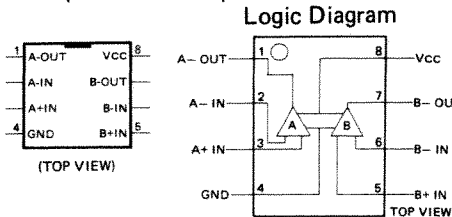
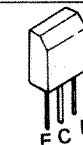
•TC4081BP: IC29

Quadruple 2-Input AND Gate

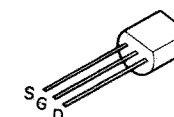


•NJM4558DV: IC1 ~ 28

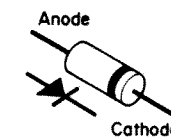
Dual Operational Amplifier

2SA1015(O,Y): Tr5  
2SC752(Y): Tr1, 3

2SC509(Y): Tr2, 4



2SK105(E): FET1 ~ 4



1S1555: D1 ~ 40