



# HM9104/A/C

## TONE/PULSE SWITCHABLE & 4 MEMORY DIALER

### Features

- Tone/Pulse switchable Dialer.
- Four 16-digit Numbers for Emergency Calling Memory.
- One 31-Digit for last Number Redial Memory.
- Auto Pause Access; 3.6 sec. per pause.
- Key-Tone Output for valid keypad entry recognition for both pulse mode and tone mode.
- Minimum tone duration=100ms and minimum intertone pause=106ms for rapid key-in.
- Use 3.579545MHz crystal.
- Pin selectable for M/B rate, flash time and pulse rate.
- Keyboard switching from pulse to tone mode.
- M/B Rate, flash time, pulse rate can be selected by M/B & DRS pin.

	M/B	DRS	M/B rate	Flash time	Pulse rate
HM9104/A	1	1	40:60	600ms	10PPS
	0	1	33:66	100ms	10PPS
	0	0	33:66	600ms	20PPS
	M/B	DRS	M/B rate	Flash time	Pulse rate
HM9104C	1	1	40:60	100ms	10PPS
	0	1	33:66	600ms	10PPS
	0	0	33:66	600ms	20PPS

### Pin Assignment

#### HM9104/A/C

COL1	1	22	ROW5
COL2	2	21	ROW4
COL3	3	20	ROW3
COL4	4	19	ROW2
GND	5	18	ROW1
OSC.IN	6	17	V <sub>DD</sub>
OSC.OUT	7	16	M/B
T/P MUTE	8	15	DRS
HKS	9	14	MODE
PULSE OUT	10	13	TONE MUTE
TONE OUT	11	12	KEY TONE OUT

### Keyboard Scheme

COL1	COL2	COL3	COL4	
1	2	3	EM1	ROW1
4	5	6	EM2	ROW2
7	8	9	EM3	ROW3
*	0	#	EM4	ROW4
R/P	S	P→T	F	ROW5

S: Store  
 EM1-EM4: Emergency 1-4 F: Flash  
 R/P: First touch after off-hook is redial function.  
 Others execute pause function.  
 P→T: Pulse to tone switching (HM9104/C only)  
 EM4: With Pulse to Tone Function (HM9104A only)