MICRO SWITCH

PRELIMINARY

product sheet **64SW1-12**

COMMUNICATIONS SOLID STATE KEYBOARD

The 64SW1-12 is a modestly priced keyboard, ideally suited to conversational time sharing terminals for online inquiry. The numeric block to the right provides rapid entry for operations which consist of mostly numeric data.

The keyboard combines the proven approach of MICRO SWITCH Hall effect solid state keys with solid state encoding, thus eliminating all moving parts except the key plunger. This design integrity means maximum reliability and maintenance-free operation.

The "Model 33" key arrangement, (similar to typewriter keyboards) is familiar to thousands of operators, thus trained touch typists will readily adapt. Every aspect of the keyboard is designed for maximum operator throughput. This includes operating force, key spacing, button shapes, legending, double shot molded buttons, and silent operation. In addition, an electronic two-key rollover is built into the keyboard circuit. It allows the operator to roll keys during "burst speed" typing of familiar words without entering an erroneous code.

The keyboard is encoded with the USASCII code plus odd parity. There are four modes of operation:

Mode 1, unshifted, the code for the characters appearing as the bottom characters on the keytop is generated.

Mode 2, shifted, the code for the characters appearing as the top characters on the keytop is generated.

Mode 3, control, the code for non-printing functions is generated.

Mode 4, control and shift, the code for special non-printing control functions is generated.

The code and character assignments are given on page 3.

features

Hall Effect Solid State Keys Combined With Solid State Encoding . . . Gives greater reliability and longer life.

Familiar "Model 33" Array . . . Ideally suited for on-line inquiries.

Numeric Pad . . . Rapid entry of numeric information.

USASCII Code Assignment, Plus Odd Parity . . . Four modes of operation.

Two-Key Rollover . . . Permits "burst" speed operation.

Quiet Operation . . . Only moving part is the key plunger.

Alternate-Action Shift Lock Key

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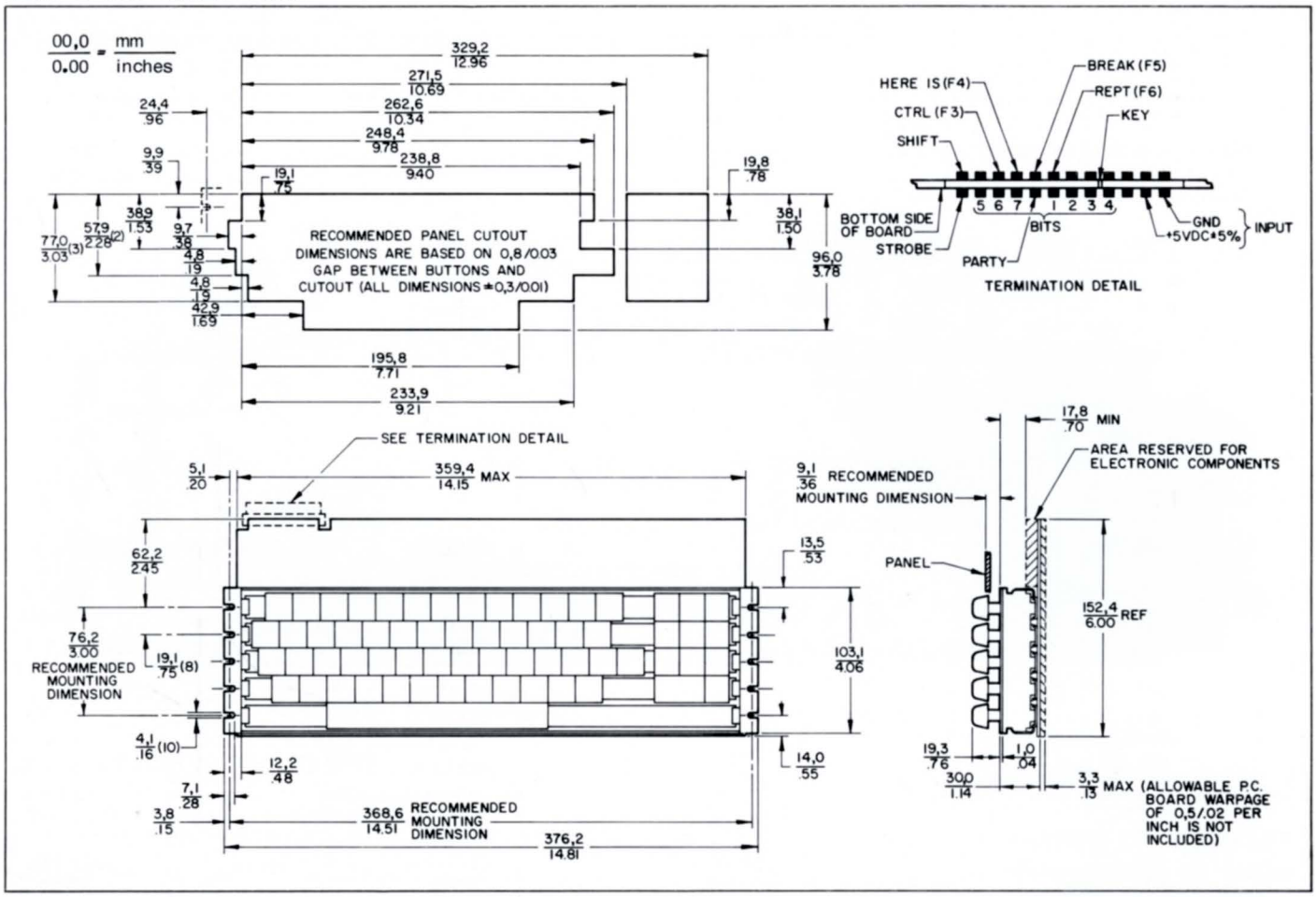
MOUNTING DIMENSIONS



SPECIFICATIONS

ELECTRICAL DATA

Power Requirements	+5 VDC ±5% @ 700 mA max. Keyboard Ground @ 0 Volts Note: Tolerances include ripple
Data Key Outputs (Positive Logic)	*Logic "0":* +0.45 VDC max. @ 6.4 mA max. (sinking). *Logic "1":* +2.6 VDC min. @ 0.12 mA max. (sourcing). *Timing:* Data bits are held in memory until the next key is depressed.
Function Key Outputs	Station Key #17 Key Operated: +2.8 VDC min. @ 1-10 mA (sourcing). Key Unoperated: +0.25 VDC max. with load resistance of 2500 ohms or less
	Station # 56 and 57 Key Operated: +2.4 VDC min. @ .12 mA (sourcing) Key Unoperated: +0.7 VDC max. @ 1.6 mA (sinking)
Mode Selection Key Output	Key Operated: +2.4 VDC min. @ .12 mA (sourcing) Key Unoperated: +0.7 VDC max. @ .18 mA (sinking)

TERMINATION

Card edge output with gold plated terminals accepts standard connectors such as: Cinch 251-12-30-160 with Type 11 Key. (Connector is *not* furnished with this listing.)

BUTTONS

MICRO SWITCH double-shot molded truncated buttons, medium gray with white legends.

KEY ROW OFFSET

3/8 – 3/16 – 3/8 inch, plus block array.

KEY SPACING

Keys spaced 3/4 inch center-to-center.

BUTTON ORIENTATION

Sloped

WEIGHT

2.5 lbs. approximately

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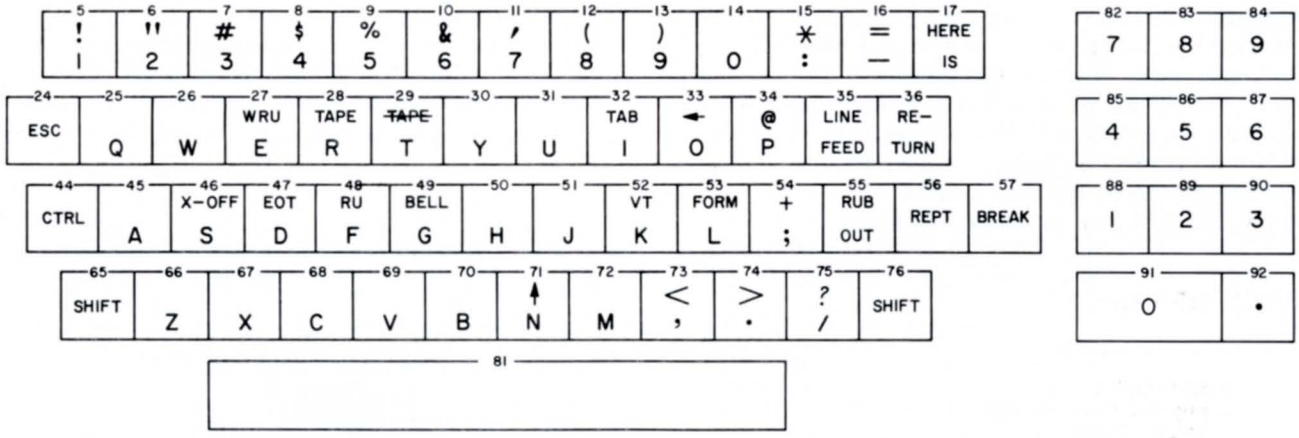
CHARACTER ASSIGNMENT



USASCII CODE ASSIGNMENT ODD PARITY

KEY NO.	MODE 1 UNSHIFTED 87654321	MODE 2 SHIFTED 87654321	MODE 3 CONTROL 87654321	MODE 4 SHIFT AND CONTROL 87654321
5	00110001	10100001	00110001	10100001
6	00110010	10100010	00110010	10100010
7	10110011	00100011	10110011	00100011
8	00110100	10100100	00110100	10100100
9	10110101	00100101	10110101	00100101
10	10110110	00100110	10110110	00100110
11	00110111	10100111	00110111	10100111
12	00111000	10101000	00111000	10101000
13	10111001	00101001	10111001	00101001
14	10110000	10110000	10110000	10110000
15	10111010	00101010	10111010	00101010
16	10101101	00111101	10101101	00111101
17	(F4)	(F4)	(F4)	(F4)
24	10011011	10011011	10011011	10011011
25	01010001	01010001	10010001	10010001
26	01010111	01010111	10010111	10010111
27	01000101	01000101	10000101	10000101
28	01010010	01010010	10010010	10010010
29	01010100	01010100	10010100	10010100
30	11011001	11011001	00011001	00011001
31	11010101	11010101	00010101	00010101
32	01001001	01001001	10001001	10001001
33	01001111	11011111	10001111	00011111
34	11010000	01000000	00010000	10000000
35	10001010	10001010	10001010	10001010
36	00001101	00001101	00001101	00001101
44	————	————	CTRL-(F3)	CTRL-(F3)
45	11000001	11000001	00000001	00000001
46	11010011	11010011	00010011	00010011
47	11000100	11000100	00000100	00000100
48	01000110	01000110	10000110	10000110
49	11000111	11000111	00000111	00000111
50	11001000	11001000	00001000	00001000
51	01001010	01001010	10001010	10001010
52	11001011	01011011	00001011	10011011
53	01001100	11011100	10001100	00011100

KEY NO.	MODE 1 UNSHIFTED 87654321	MODE 2 SHIFTED 87654321	MODE 3 CONTROL 87654321	MODE 4 SHIFT AND CONTROL 87654321
54	00111011	10101011	00111011	10101011
55	01111111	01111111	01111111	01111111
56	REPT-(F6)	REPT-(F6)	REPT-(F6)	REPT-(F6)
57	BREAK-(F5)	BREAK-(F5)	BREAK-(F5)	BREAK-(F5)
65	————	SHIFT-(F1)	————	SHIFT-(F1)
66	11011010	11011010	00011010	00011010
67	01011000	01011000	10011000	10011000
68	01000011	01000011	10000011	10000011
69	11010110	11010110	00010110	00010110
70	11000010	11000010	00000010	00000010
71	11001110	01011110	00001110	10011110
72	11001101	01011101	00001101	10011101
73	00101100	10111100	00101100	10111100
74	10101110	00111110	10101110	00111110
75	00101111	10111111	00101111	10111111
76	————	SHIFT-(F1)	————	SHIFT-(F1)
81	00100000	00100000	00100000	00100000
82	00110111	00110111	00110111	00110111
83	00111000	00111000	00111000	00111000
84	10111001	10111001	10111001	10111001
85	00110100	00110100	00110100	00110100
86	10110101	10110101	10110101	10110101
87	10110110	10110110	10110110	10110110
88	00110001	00110001	00110001	00110001
89	00110010	00110010	00110010	00110010
90	10110011	10110011	10110011	10110011
91	10110000	10110000	10110000	10110000
92	10101110	10101110	10101110	10101110

NOTE:
The keyboard is put into Mode 4 when both shift and control keys are operated, or when inputs are made from the system to both shift and control lines. (See termination detail.)

SYSTEM CONTROL

Shift and control lines are provided to permit programming of your system to initiate the keyboard shifts. These lines can also be used for mode indication within your system.

1. Shift Operation: Shift of the keyboard can be initiated from your system by providing a current source input of 2.6 Volts DC minimum @ 10 milliamperes maximum to the shift line termination pads. An open circuit (100 microamperes maximum leakage) is required for the unshifted mode. The shift lines must not be clamped to ground.
2. Mode Indication: The shift and control lines can also be used for mode identification to your system, provided the system circuit load resistance is greater than 2,000 ohms to ground or 200,000 ohms to the positive supply. (An external emitter follower circuit with a current sinking resistor can be used to increase the load driving capability.)

BRANCH OFFICES

. . . in the East

Boston Office
Bedford, Massachusetts 01730
4 Preston Court
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New York Office
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7400 Metro Blvd.
612/830-3516

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314/991-4100
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. . . down South

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. . . out West

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408/998-3131

Seattle Office
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9555 S.E. 36th Street
206/233-2010
In Portland, OR: 503/235-8411

ORDERING INFORMATION

Contact your nearest MICRO SWITCH Branch Office and an experienced Field Engineer will be happy to work with you in satisfying your keyboard requirements: proper selection, pricing, and delivery scheduling. These experienced keyboard experts will provide sound and practical answers to your needs.

MICRO SWITCH
FREEPORT, ILLINOIS 61032
A DIVISION OF HONEYWELL

IN CANADA: 740 Ellesmere Road, Scarborough, Ontario.
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84-07241-0 876 PRINTED IN USA