

Installation Instructions

KEYBOARDS

1. This keyboard has keyed termination. The key in the mating connector should be checked to insure that it is in the proper location. Further, the connector should be wired in accordance with the applicable keyboard specification.
2. Prior to installation of the keyboard, input voltages should be checked for proper levels and regulation.
3. If the keyboard has an MOS encoder, diode protection on inputs and outputs is provided. Additional care should be adopted to minimize possible damage from excessive electrostatic charges.
4. Keep all printed circuit board cleaning solvents away from switch modules.

MICRO SWITCH

FREEPORT, ILLINOIS 61032
A DIVISION OF HONEYWELL

POWER SUPPLY

- 5VDC ± 5%
- 12 VDC ± 20%
- Other _____

FUNCTION KEY OUTPUTS

- On + 2.8 VDC Min 1-10 MA
- Current Source
- Off 10.25 VDC Max with load
- Basis. of 2500 ohms or less
- Other _____

DATA KEY OUTPUTS

- Data Outputs, Strobe (Level _____) and Data Key Idle Signal.
- Positive Logic Standard
- Logic "0" 10.5 VDC Max @ 0.18 MA
- Sinking
- Logic "1" +2.55 VDC Min @ 10 MA
- Max Sourcing
- Logic "0" + 6 VDC Max @ 1.6 MA
- Sinking
- Logic "1" +2.55 VDC Min @ .12 MA
- Max Sourcing

- Other _____
- Logic "1" _____
- Logic "0" _____

INTERFACE DATA (Customer's System)

Logic Family Series _____
 Component Manufacturer _____
 Remarks _____

DATA OUTPUT DEFINITION

- Code Assigned
- USASCI
- IBCIDIC
- Other _____

Parity: None Odd Even
 NOTE: Specify data output number in table below

Data Output Assignment

Data Output Number	Assignment	Output Data Storage
0		
1	BIT 1	X
2	BIT 2	X
3	BIT 3	X
4	BIT 4	X
5	BIT 5	X
6	BIT 6	X
7	BIT 7	X
8	CONTROL TAG	X
9		

* Data bit number, parity, error signal and etc.

SPECIAL FEATURES

- Strobe
 - Level DC
 - pulsed
 - Data Key Idle Signal Output
 - Keyboard Enable Input
 - Flip Flop Enable Input
- NOTE: Two key roll over is standard for all MOS encoded keyboard.

SHIFT LOGIC DEFINITION

Shift Truth Table CONTROL TAG

Shift Line	S1	S2	Mode
0	0	0	1
0	0	1	3
0	1	0	3
0	1	1	3
1	0	0	2
1	0	1	2
1	1	0	2
1	1	1	2

Shift Line Assignment

Shift Key No. or System Input	Shift Line(s) Assigned
SHIFT 41,52	S1
SHIFT LOCK 27	S1
CONTROL 40	S2

1 = SHIFT KEY ACTIVE (1 = LOW OUTPUT)

- NOTES
1. A max of two shift lines can be assigned to one shift key.
 2. System inputs to shift line(s) shared with key(s) must be diode isolated current sources.

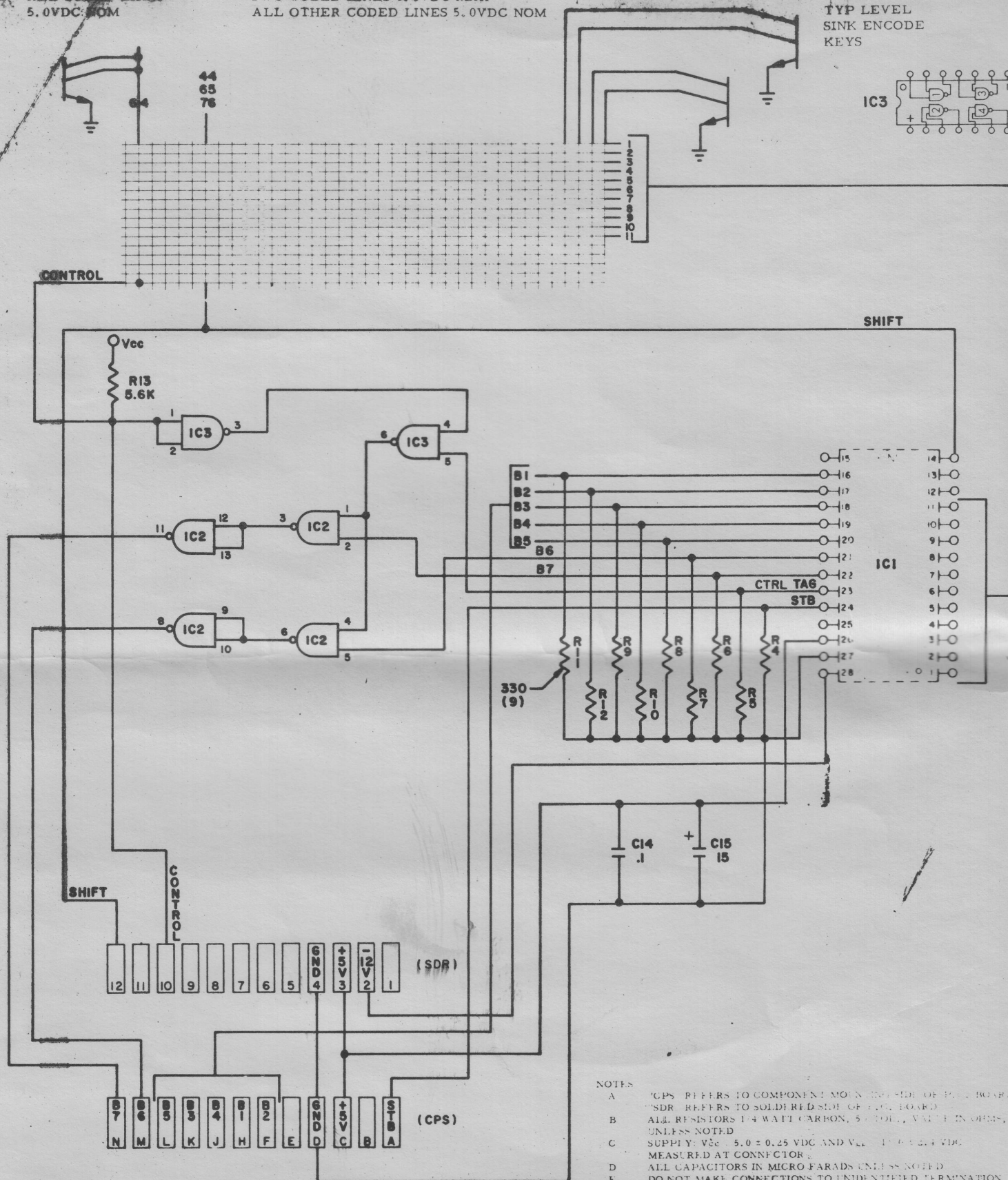
REMARKS

DATA OUTPUT NO. 8 IS A CONTROL TAG BIT. WHEN DATA OUTPUT NO. 8 IS '1' AND CONTROL KEY IS DEPRESSED, DATA BITS 6 AND 7 WILL BE '0'.

LEVEL FOR KEY OUTPUTS
 IDLE CONDITION:
 ALL CODED LINES
 5.0VDC NOM

ONE KEY OPERATED:
 TWO CODED LINES 0.6VDC MAX
 ALL OTHER CODED LINES 5.0VDC NOM

TYP LEVEL
 SINK ENCODE
 KEYS

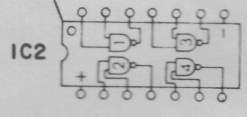
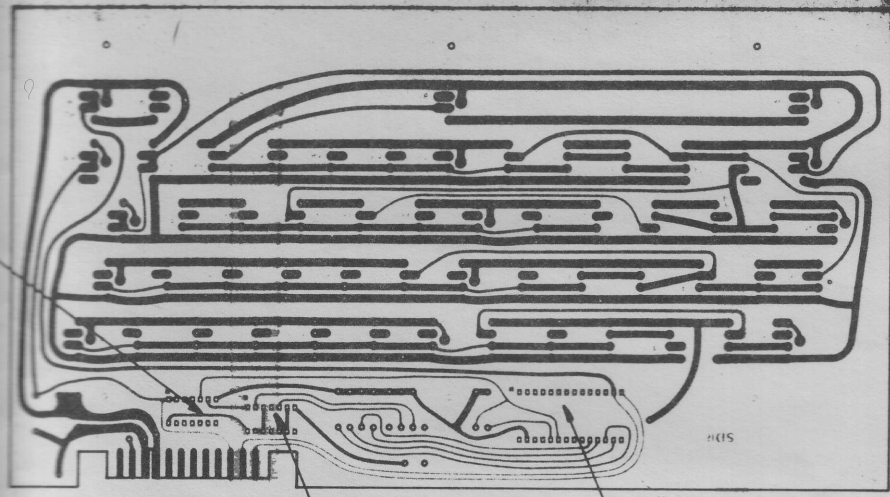


7 BIT MOS ENCODED
 POS., LOGIC
 POS STROBE
 2 KEY HOLLOWER
 4 MODES

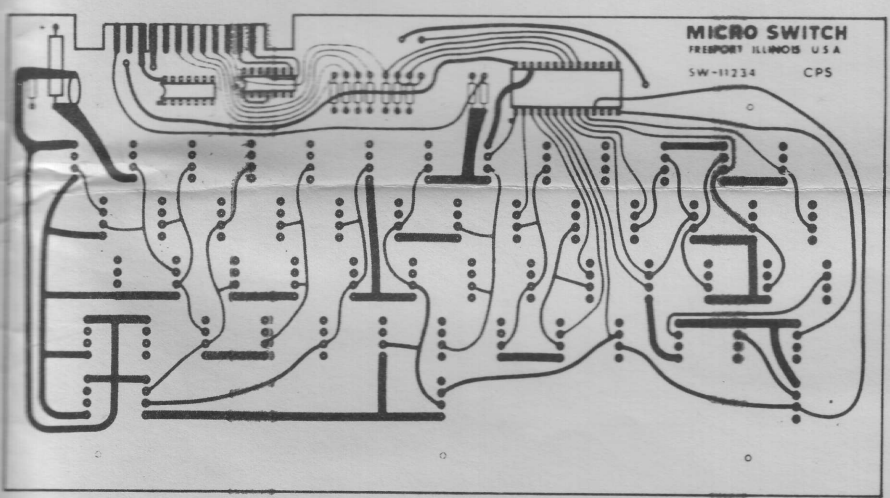
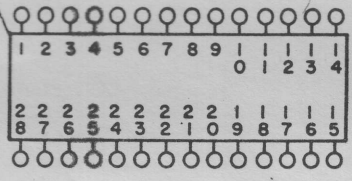
NOTES

- A ICPS REFERS TO COMPONENT MOUNTING SIDE OF PCB BOARD
- B SDR REFERS TO SOLDERED SIDE OF PCB BOARD
- C ALL RESISTORS 1/4 WATT CARBON, 5% TOL, VALUE IN OHMS, UNLESS NOTED
- D SUPPLY: VCC = 5.0 ± 0.25 VDC AND VEE = -12.0 ± 0.25 VDC MEASURED AT CONNECTOR
- E ALL CAPACITORS IN MICRO FARADS UNLESS NOTED
- F DO NOT MAKE CONNECTIONS TO UNIDENTIFIED TERMINATION PADS
- G CIRCLED PADS DENOTE FEED-THROUGH TYPE ELECTRICAL CONNECTION
- H ABBREVIATIONS: R - RESISTOR, C - CAPACITORS, IC - INTEGRATED CIRCUIT, B - BIT, F - FUNCTION, STB - STROBE, GND - GROUND, S - SHIFT, MK - DATA KEY IDLE OUTPUT, PAR - PARITY, CE - KEYBOARD ENABLE, Q - TRANSISTOR, FE - FLIP-FLOP ENABLE
- I EQUIVALENT COMPONENTS MAY BE SUBSTITUTED

LOC	1
	2-3
	4-11
	13
	14
	15



IC1

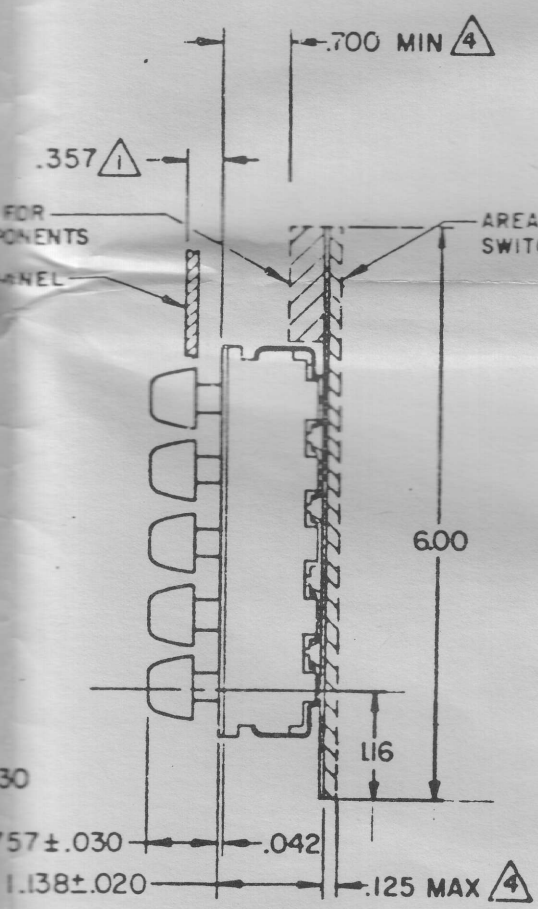
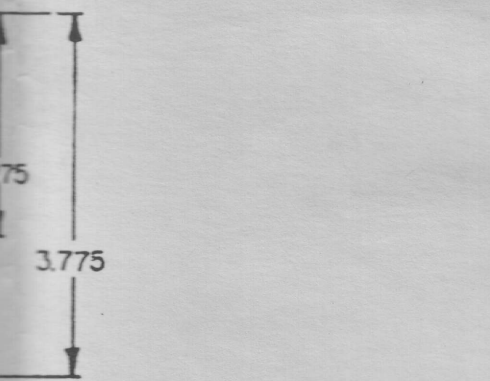


MICRO SWITCH
 FREEPORT ILLINOIS U.S.A.
 SW-11234 CPS

PARTS LIST

LOCATION NO.	DESCRIPTION
3	MICRO SWITCH SW-20306
12	MOTOROLA MC-846P
3	330
4	5.6K
5	.1 μf
	15 μf 35W VDC

IC1
 IC2-IC3
 R4-R12
 R13
 C14
 C15



NOTE -

- 1 RECOMMENDED MOUNTING DIMENSION
- 2 PANEL CUTOUT DIMENSIONS ARE ± .010. RECOMMENDED DIMENSIONS ARE BASED ON .030 GAP BETWEEN BUTTONS AND CUTOUT
- 3 TERMINATION WILL ACCEPT A CARD EDGE CONNECTOR, "CINCH 25I-12-30-160 WITH TYPE II KEY" OR EQUIVALENT
- 4 ALLOWABLE P.C. BOARD WARPAGE OF .015 PER INCH IS NOT INCLUDED

SCALE 1/2 TO 1	
DO NOT SCALE PRINT	
UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN INCHES	
TOLERANCES ARE:	
ONE PLACE (.0)	±.030
TWO PLACE (.00)	±.015
THREE PLACE (.000)	±.005
ANGLES	±
WEIGHT	

DESCRIPTION	DRAWING
ENCODING BOARD COMPONENT LAYOUT	C 55SW5-2
OPTION BOARD COMPONENT LAYOUT	C .
WIRING DIAGRAM	W 55SW5-2