

Series 83/84/86 Specifications & Ordering

12/16/20 BUTTON
KEYBOARDS

Specifications

Rating Criteria

Rating At 24 Vdc: 10 milliamps, resistive.
Contact Resistance: Compatible with MOS, TTL and DTL.
Voltage Breakdown: 250 Vac between mutually insulated parts.
Life Expectancy: 3,000,000 operations per button.
Contact Bounce: Less than 4 milliseconds at make, 10 milliseconds at break.
Operating Temperature: -40°C to +80°C.

Materials and Finishes

Housing and Buttons: ABS plastic. Housing and molded-in legends are black; buttons are white.
Snap-On-Cap: Clear Polycarbonate.
Contact Dome: Stainless steel, selectively gold plated.
Terminals: Copper Alloy, CDA No. 725, Tin-Lead plated.

Operating Features

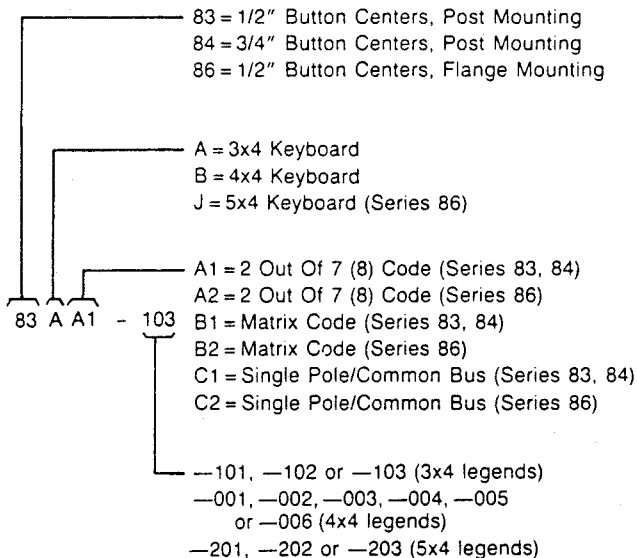
Button Travel: 0.015" nominal total travel.
Typical Operating Force: 350 grams.

Note:

The 2 of 7 (8) "Telephone Code" was developed primarily for audio tone generation. To discuss critical data input applications for this code, please contact Grayhill.

Ordering Information

Standard 83, 84 and 86 Keyboards



For legend choices, see page C-24.

Insertable Legends

Keyboards which have the insertable legend style buttons have part numbers which end —001, —101, or —201. To legend these keyboards, order the separate assortment of die-cut printed legend inserts below. Blank inserts are provided in the assortment, so that you can order the dry transfer lettering if needed.

Description	Part No.
Sheet of Legend Inserts	87AC2046
Dry Transfer Lettering, Small	87-DT-2096-088
Dry Transfer Lettering, Medium	87-DT-2096-125
Dry Transfer Lettering, Large	87-DT-2096-187

For prices and discounts, contact a local Sales Office, an authorized local Distributor, or Grayhill.

Available From Your Local GRAYHILL Distributor.

Special Legend Ordering Information

To order non-standard legends, information is required for the following areas:

1. Type of Keyboard:

Series	3x4	4x4	5x4
83 (1/2" Button Centers, Post Mounted)	✓	✓	
84 (3/4" Button Centers, Post Mounted)	✓	✓	
86 (1/2" Button Centers, Flange Mounted)	✓	✓	✓

2. Mounting Option: A or B—see drawings.

3. Circuitry: Specify single pole/common bus. (12, 16, and 20 button keyboards), matrix (12, 16, and 20 button keyboards), 2 out of 7 (12 button keyboards), or 2 out of 8 (16 button keyboards).

4. Housing Color: Standard housing is black. Other colors are available on special order.

5. Button Type: Flat or concave buttons are available for molded legends; flat, concave, and snap-on cap styles are available for printed legends.

6. Button Color: Unless otherwise specified, a black legend will be molded in a white button. A charge may be added for molding buttons from other stock button material colors: black, red, green, blue, and yellow. White legends are used with dark colors. Non-stocked colors are available by special order but may require a stock charge.

7. Legend Style: Two-shot molded or printed. Printed legends may be top or sub-surface printed.

8. Actual legend: Specify for each button using the button identification on drawings. For mounting B button identifications are not in numerical order.

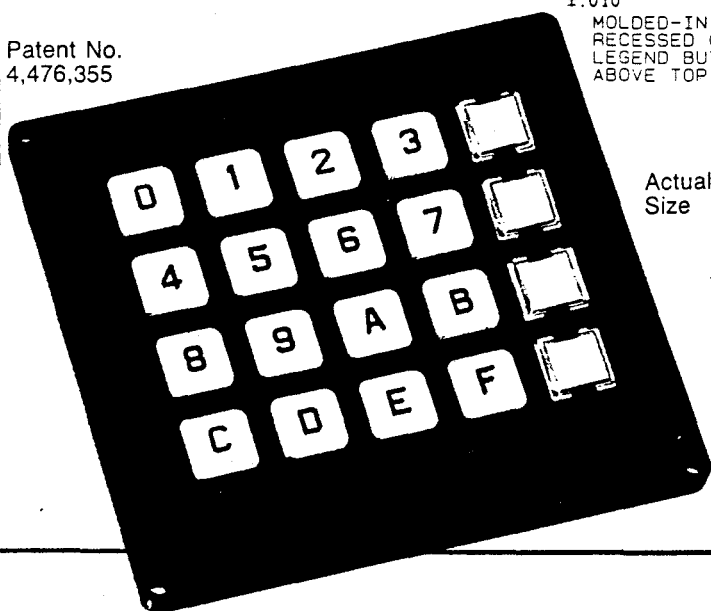
20 BUTTON KEYBOARDS

Series 86

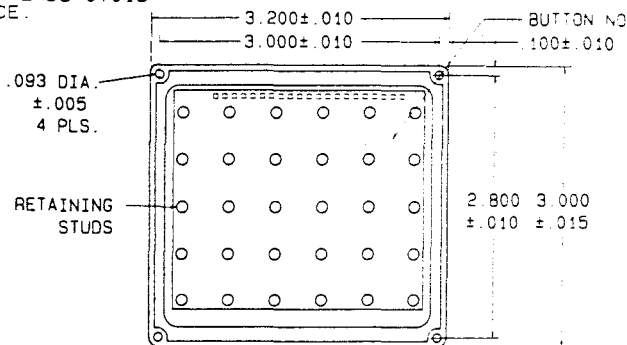
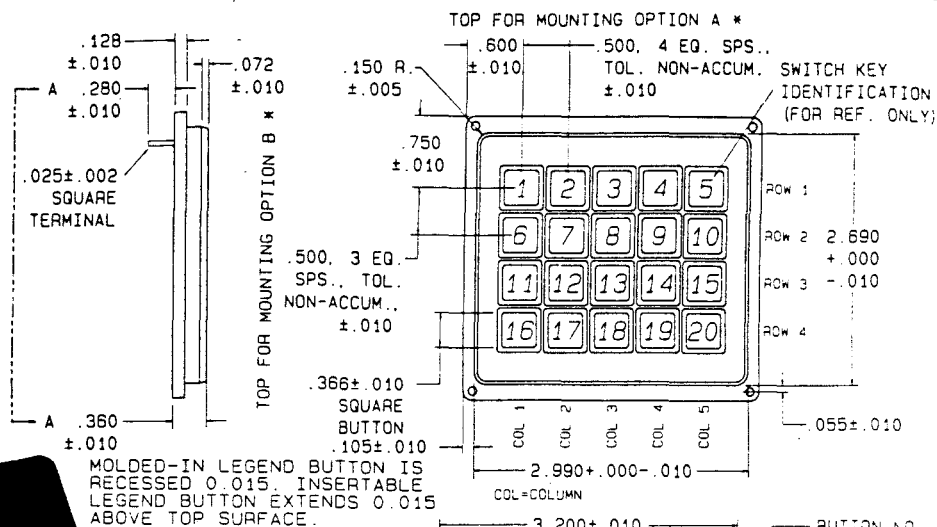
5x4 Keyboard

- 1/2" Button Centers
- Flange Mounted

Patent No.
4,476,355

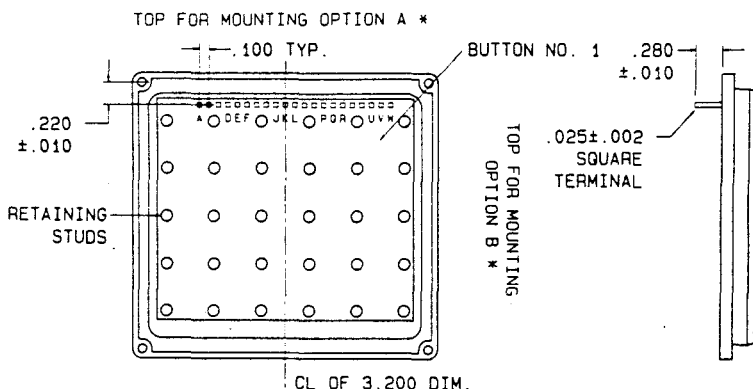


Actual Size



*See Mounting Note Below

Termination



Code and Truth Tables

Only the terminals indicated in the truth tables are supplied with keyboards.

5x4		CODES																											
		MATRIX	SINGLE POLE/COMMON BUS																										
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	P	N	K	B	F	J	L	M	H	T	P	N	H	O	U	Q	L	G	C	V	R	K	F	B	S	J	E	A	H
	BUTTON LOCATION																TERMINAL LOCATION												

*Mounting Option A and Mounting Option B are used to identify the top side of the keyboard and its relationship to custom legends and the terminal pinout. A 5x4 keyboard becomes a 4x5 keyboard

as seen in standard legend —202. When describing a custom legend, the mounting option must be identified.

