

**AMERICAN NATIONAL
STANDARD**

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EIA SPECIFICATION

Sectional Specification for Full
and Short Stroke Keyboards of
Certified Quality

EIA-498A000

JULY 1989

ELECTRONIC INDUSTRIES ASSOCIATION
ENGINEERING DEPARTMENT



Approved For Use In
The NECQ System



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(From EIA Standards Proposal No. 1735, formulated under the cognizance of the EIA P-13.3 Subcommittee on Non-Sensitive Pushbutton and Keyboard Switches.)

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SECTIONAL SPECIFICATION
FOR
FULL AND SHORT STROKE KEYBOARDS
OF CERTIFIED QUALITY

1.0 SECTION ONE - GENERAL

1.1 Scope

This Sectional Specification covers alphanumeric keyboards having full stroke or short stroke key travel and intended for use in information handling systems by a trained operator. Both product qualification and capability approval requirements are included in this document.

1.2 Object

The object of this specification is:

- (a) to prescribe preferred ratings and characteristics,
- (b) to prescribe the appropriate test procedures,
- (c) to prescribe general performance requirements,
- (d) to prescribe capability approval requirements and test schedules,
- (e) to prescribe a fixed sample Qualification Approval test schedule, and
- (f) to prescribe a Quality Conformance Inspection test schedule.

2.0 SECTION TWO - GENERAL

2.1 Related Documents

The following documents of the issue in effect form a part of this specification to the extent specified herein:

IEC 68-2-38	Test Z/AD: Composite temperature/humidity cyclic test.
ANSI X3.64	Additional Controls for Use with the American National Standard Code for Information Interchange.
ANSI/EIA 476	Marking, Source and Date Code
ANSI/EIA 4980000	Generic specification for keyboard switches of certified quality

2.2 Units and Symbols

In addition to the requirements of EIA-4980000, the units and symbols marked on the individual keys shall be, when specified by the detail specification, in accordance with:

ANSI X3.64	Additional Controls for Use with the American National Standard Code for Information Interchange.
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Units or symbols peculiar to a detail specification shall be defined by the detail specification.

2.3 Terminology

The terminology shall be in accordance with the issue in effect of EIA-4980000. Terminology peculiar to the products covered by this specification is defined below. Terminology peculiar to a detail specification shall be defined by the detail specification.

Array

The format in which the letters, numbers and control keys are organized. These include communication (typewriter), batch (with numerics in the center), block (sometimes used for stock market boards) and numeric (12 or 16 key).

Codes

The binary language used to translate key movement to information. The two most common codes employed are:

ASCII

(American Standard Code for Information Interchange) - Consists of seven coding bits plus one parity bit. It is the most widely used code in the industry and is used primarily for communications terminals.

EBCDIC

(Extended Binary Coded Decimal Interchange Code) - Consists of eight coding bits used primarily with data preparation keyboards and IBM 360 and 370 computers.

Data Key Idle Signal

This signal is present at the keyboard output until one or more keys are depressed. Once a key is depressed, the signal changes to its off state prior to strobe coming true. The data key idle signal may be logically compared with strobe to produce a warning to an operator of a two-key down condition.

Encoding

The process of generating a binary coded signal when a key is depressed. The common methods rely on TTL or MOS memory circuits.

Interlock

An electronic means of preventing error due to actuating more than one key at a time.

Phantom Key - An erroneous code that may be sensed when three or more keys are operated, within any one scan period, on an unprotected mechanical contact keyboard with a scanned matrix switch array.

Phantom Key Lockout - Prevents the entry of erroneous codes from a sensed phantom key when three or more keys are operated on a mechanical contact keyboard with a scanned matrix switch array.

Two-Key Rollover (3 key lockout) - When the first key is depressed, the switch closure is encoded. While the first key is still active, a second key is depressed and the switch closure is encoded. If a third key is depressed, the third key is not encoded until either the



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