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# PERFORMANCE CRITERIA FOR ACCESSIBLE COMMUNICATIONS ENTRY SYSTEMS

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DASMA 303-2017

**Door & Access Systems Manufacturers Association, International**

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Sponsor:



1300 Sumner Ave  
Cleveland, Ohio 44115-2851

# **Performance Criteria for Accessible Communications Entry Systems**

Sponsor

**Door & Access Systems Manufacturers Association, International**

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They should be sent to the Door & Access Systems Manufacturers Association,  
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**Foreword** (This foreword is included for information only and is not part of ANSI/DASMA 303-2017, *Performance Criteria for Accessible Communications Entry Systems*)

This standard was developed by the Accessible Communications Systems Committee of the DASMA Operator & Electronics Division. It provides a uniform means of evaluating the performance of accessible communication entry systems.

DASMA recognizes the need to periodically review and update this standard. Suggestions for improvement should be forwarded to the Door & Access Systems Manufacturers' Association, International, 1300 Sumner Avenue, Cleveland, Ohio, 44115-2851, [dasma@dasma.com](mailto:dasma@dasma.com).

## Performance Criteria for Accessible Communications Entry Systems

### 1.0 Scope

**1.1** This standard defines general requirements and performance-based criteria for evaluating accessible communications entry systems.

**1.2** Inclusions: This standard is intended to cover accessible communications entry systems generally used for public pedestrian access to controlled entry buildings for intercom or assistance purposes.

**1.3** Exclusions: This standard is not intended to cover communications entry systems generally used for emergency access or for vehicular entry.

### 2.0 Definitions

#### 2.1 Accessible Communications Entry

**System:** A communications system that allows individuals, including those with physical and/or sensory disabilities, to gain access to a building or facility.

**2.2 Call Status.** The indication of whether the call is disconnected, in the process of ringing, getting a busy signal, connected or on hold.

**2.3 Door Opening Device:** A device that is used to gain access through a door into a building.

**2.4 TTY:** An abbreviation for teletypewriter, also called text telephone. Represents machinery or equipment that employs interactive text based communications through the transmission of coded signals across the telephone network, and may include, for example, devices known as TDDs (telecommunication display

devices or telecommunication devices for deaf persons) or computers with special modems.

### 3.0 General Requirements

**3.1** Accessible communications entry systems shall comply with applicable sections of 47 CFR Parts 6,7, 15 and 68, ADA/ABA Accessibility Guidelines, and UL 294, UL 60950-1.

**3.2** Accessible communications entry systems shall be installed in accordance with the manufacturer's instructions.

**3.3** The provisions in this standard shall be dependent on a telephone company or the communications system providing call progress tones with no interfering voice messages.

### 4.0 Performance Criteria

**4.1 Location and Placement.** Accessible communications entry systems shall be located and placed in accordance with ADA/ABA Accessibility Guidelines.

**4.2 Visual User Directions.** Accessible communications entry systems shall be capable of providing visual directions for use.

**4.2.1** Visual directions on all displays shall be at a 10:1 contrast ratio.

**4.2.2** Visual directions on signage shall be eggshell, matte or other non-glare background finish upon which the lettering is fixed.

**4.2.3** Characters and symbols shall contrast with their background by utilizing either light characters and symbols on a dark background or dark characters and symbols on a light background. Red shall not be used for characters, symbols or background. Letters and numbers shall be smooth in appearance.

**4.2.4** Visual directions for accessible communications entry systems shall comply with UL 294. Exception: Visual user directions not including danger, warning and cautionary type markings shall be in a sans serif font, a minimum 5/16 inch (8 mm) in height based on the uppercase letter "I".

**4.2.5** Instructions and information for use shall be made accessible and independently usable by persons with or without physical and/or sensory disabilities. This shall include information printed on devices, labels and information that is presented on dynamic displays unless such information is not related to use of the system.

**4.2.6** LEDs shall comply with IEC 62471. LED, cathode ray, or other screen devices intended to be viewed by the user shall be positioned so they are readily visible to and usable by a person sitting in a wheelchair with approximate eye level of 45 inches (1143 mm), and shall comply with the following requirements.

**4.2.6.1** Vertically mounted screen devices. If mounted vertically or tipped no more than 30 degrees away from the viewer, the center line of screens and other screen devices shall be located a maximum of 52 inches (1321 mm) above grade.

**4.2.6.2** Angle-mounted screen devices. If mounted at an angle between 30 degrees and 60 degrees tipped away from the viewer, the center line of screens and other screen devices shall be located a maximum of 44 inches (1118 mm) above grade.

**4.2.6.3** Horizontally mounted screen devices. If mounted at an angle between 60 degrees and 90 degrees tipped away from the viewer, the center line of screens and other screen devices shall be located a maximum of 34 inches (864 mm) above grade.

### **4.3 Audible User Instructions**

**4.3.1** Accessible communications entry systems shall have a means for audibly providing user instructions and audible presentation of displayed information related to system use by speech through a built-in speaker.

**4.3.2** Accessible communications entry systems shall have a means separate from the keypad, uniquely identifiable, to initiate audible instructions and information presentation.

**4.3.3** Audible directions for use shall be capable of being adjusted up to 95 dB SPL, at a distance of 1 foot (305 mm).

**4.3.4** A headphone jack shall be provided.

### **4.4 Volume Level**

**4.4.1** Accessible communications entry systems shall contain means of varying the audio output volume level associated with audible instructions.

#### **4.4.2 Telephone Handset**

**4.4.2.1** If a telephone handset is used, such handset shall be hearing aid compatible and shall allow door entry system controls to be operated with the same hand that holds such handset.

**4.4.2.2** A telephone handset shall include a handset cord with a minimum length of 29 inches (737 mm).

**4.4.2.3** Varying the receiver volume shall be in accordance with 47 CFR

#### **4.5 Call Status**

**4.5.1** Accessible communications entry systems shall be capable of audible and visual indication of call status.

**4.5.2** When either the door or the door opening device has been activated, an indication shall be made.

#### **4.6 Controls**

**4.6.1** Controls and operable parts shall be used with one hand and shall not require tight grasping, pinching or twisting of the wrist.

**4.6.2** Accessible communications entry systems shall not require simultaneous control switch actions.

#### **4.7 Input Devices**

**4.7.1** All keys used to operate a machine shall be tactually discernible. Key surfaces shall be raised above the surrounding surface by at least 1/25 inch (1 mm). The outer edge of key surfaces shall have a radius of 1/50 inch (0.5 mm) maximum.

**4.7.2** Any key surface shall be separated from other key surfaces by 1/8 inch (3.2 mm) minimum.

**4.7.3** Where provided, numeric keys shall be arranged in a 12-key telephone keypad layout, with the number one key in the upper left hand corner and the number five key containing a tactile marking on its top surface.

**4.7.4** A means for allowing all conversation to take place in text mixed with voice shall be provided. This may be done by providing a built-in real time text communication ability wherever there is voice communication or by providing a secured means for connecting a TTY compliant with V.18.

#### **4.8 Installation**

**4.8.1** Where located, the access communications entry system shall be provided with a level, unobstructed and clear floor or ground space 30 inches (760 mm) minimum by 48 inches (1220 mm) minimum.

**4.8.2** Where a forward reach is unobstructed, the access communications entry system shall be located so that the high forward reach shall be 48 inches (1220 mm) maximum, and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.



**REFERENCES:**

Code of Federal Regulations

CFR 47 Telecommunications: Part 6 – Access to telecommunications serviced, telecommunications equipment and customer premises equipment by persons with disabilities, Part 7 – Access to voicemail and interactive menu services and equipment by people with disabilities, Part 15 – Radio frequency devices and Part 68 – Connection of terminal equipment to the telephone network

ADA/ABA Accessibility Guidelines  
(Americans with Disabilities Act/Architectural

Barriers Act Accessibility Guidelines), 2010

International Electrotechnical Commission

IEC/EN 62471, Standards for Eye and Skin Safety

Underwriters Laboratories

UL 294-2013 – Access Control System Unit

UL 60950-1 (2007) – Standard for Safety for Information Technology Equipment

International Telecommunication Union /  
Telecommunication Standards Bureau  
V.18 New Modem Standard with TTY  
Capacity



**DASMA** – the Door & Access Systems Manufacturers Association, International – is North America’s leading trade association of manufacturers of garage doors, rolling doors, garage door operators, vehicular gate operators, and access control products. With Association headquarters based in Cleveland, Ohio, our 90 member companies manufacture products sold in virtually every county in America, in every U.S. state, every Canadian province, and in more than 50 countries worldwide. DASMA members’ products represent more than 95% of the U.S. market for our industry.

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