

**THREE THINGS YOU NEED
TO KNOW ABOUT
ASME/IBC CODE UPDATES**



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20 Years
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ASME

Current Requirements

- Hands free device
- Two-way communications between elevator and authorized personnel
 - Onsite communication if over 60 ft of travel
- Answered 24/7 by live authorized personnel only
 - No automated answering

ASME Current Requirements

- Location identification
 - On demand from authorized personnel
 - Without voice communication
- Automatic answer when calling into elevator
- Automatic redirect if no answer onsite
- Offsite communications cannot interfere with onsite communications
- Local telephone line status monitoring

ASME 2019 Updates

2.27.1.1.1

A communications means between the car and a location staffed by authorized personnel **who can take appropriate action** shall be provided.

2.27.1.1.3

The communications means within the car shall comply with the following requirements:

- a) In jurisdictions enforcing NBCC, Appendix E of ASME A17.1/CSA B44, or in jurisdictions not enforcing NBCC, ICC/ ANSI A117.1, **ADAAG (ADA Accessibility Guideline) or ADA/ABAAG (Architectural Barriers Act Accessibility Guidelines)**.
- b) A push button to actuate the two-way communications means shall be provided in or adjacent to a car operating panel. The push button shall be visible and permanently identified with the "PHONE" symbol (see 2.26.12.1). The identification shall be on or adjacent to the phone push button. **The communications means shall be initiated when the push button is actuated.**



ASME 2019 Updates

What does this mean?

The person answering the phone needs to be able to **take appropriate action**.

The call button must initiate a call.

Rocket science, right? No, it's just the method for writing codes. Think ridiculous warning labels on very easy to use products.

ASME 2019 Updates

- c) On the same panel as the phone push button a message shall be displayed that is activated by authorized personnel to acknowledge that communications are established. The message shall be permitted to be extinguished where necessary to display a new message [see 2.27.1.1.3 (d) and (e)] or when the communications are terminated.
- d) On the same panel as the phone push button, messages shall be displayed which permit authorized personnel to communicate with and obtain responses from a trapped passenger(s) including a passenger(s) who cannot verbally communicate or cannot hear.



ASME 2019 Updates

- e) On the same panel as the phone push button a message shall be displayed that is activated by authorized personnel to indicate when help is on the way. The message shall continue to be displayed until a new message is displayed [see 2.27.1.1.4 (c)] or the communications are terminated.

What does this mean?

Elevator must have the ability for authorized personnel to send messages to as well as receive responses from trapped passengers. This includes passengers that cannot speak or hear.



ASME 2019 Updates

- j. Operating instructions shall be incorporated with or adjacent to the “PHONE” push button.
- k. A means to display video to observe passengers at any location on the car floor to authorized personnel for entrapment assessment shall be provided.

What does this mean?

Elevator must have video capabilities for the authorized personnel to view entire floor of the cab.



ASME 2019 Updates

2.27.1.1.4

Where the elevator rise is 18 m (60 ft) or more, a two-way voice communication means within the building accessible to emergency personnel shall be provided and comply with the following requirements:

- b) The communications, once established, shall be disconnected only when emergency personnel outside the car terminates the call or a timed termination occurs. A timed termination by the communications means in the elevator, with the ability to extend the call by emergency personnel, is permitted if voice notification is sent by the communications means to emergency personnel a minimum of 3 min after communication has been established. Upon notification, emergency personnel shall have the ability to extend the call; automatic disconnection shall be permitted if the means to extend are not enacted within 20s of the voice notification.



ASME 2019 Updates

- c) Once the communications have been established, a message shall be displayed on the same panel as the phone push button, that is activated by emergency personnel to indicate that help is on-site. The message shall be permitted to be extinguished where necessary to display a new message [see 2.27.1.1.4(e)] or when the communications are terminated.

Why is this important?

Currently, many elevators only have a light to indicate that help is on the way. The new indicator will provide clarity and additional reassurance to the entrapped passenger.



ASME 2019 Updates

- e) On the same panel as the phone push button, messages shall be displayed which permit emergency personnel to communicate with and obtain responses from a trapped passenger including a passenger who cannot verbally communicate or cannot hear.

Why is this important?

This provides additional support to those passengers who are speech or hearing impaired.



ASME 2019 Updates

- f) A means to display video to observe passengers at any location on the car floor, to emergency personnel for entrapment assessment shall be provided.

Why is this important?

A video feed into the cab provides emergency personnel with additional information to better assess the situation. This includes verifying whether a passenger is unconscious, simply nonverbal or perhaps the call is a false alarm, and there is no one in the elevator.



ASME A17.1/CSA B-44 Code Requirements & Year

| | 2000 | 2004/07 | 2010/13/16 | 2019 |
|--|------|---------|------------|------|
| Two-way communication between elevator and authorized personnel | ✓ | ✓ | ✓ | ✓ |
| Machine room communications if over 60 ft of travel | ✓ | ● | ● | ● |
| Answer by live authorized personnel - no automated answering | ✓ | ✓ | ✓ | ✓ |
| Communication capability for onsite authorized/emergency personnel | ✓ | ✓ | ✓ | ✓ |
| On-site monitoring if staffed 24/7 by authorized personnel | ✓ | ✓ | ✓ | ✓ |
| Location identification on demand to authorized personnel | ✓ | ✓ | ✓ | ✓ |
| Location identification without voice communication (ADA compliance date 1994) | A | ✓ | ✓ | ✓ |
| Hands free devices only (handsets not approved) | | ✓ | ✓ | ✓ |
| Automatic answer when calling into elevator | | ✓ | ✓ | ✓ |
| Automatic redirect if no answer onsite | | ✓ | ✓ | ✓ |
| Offsite communications shall not interfere with on-site communications | | ✓ | ✓ | ✓ |
| Local telephone line status monitoring and local alert | | | ✓ | ✓ |
| Two-way message display in cab for hearing and/or speech impaired | | | | ✓ |
| Means for authorized personnel to view video of passengers anywhere in cab | | | | ✓ |
| Means activated by emergency personnel to change cab message to indicate help is on-site if over 60 ft of travel | | | | ✓ |

✓ Required by ASME A17.1/CSA B-44

A Required by ADA

● Only if remote machine room (2.7.8.4)

ASME 2019 Solution

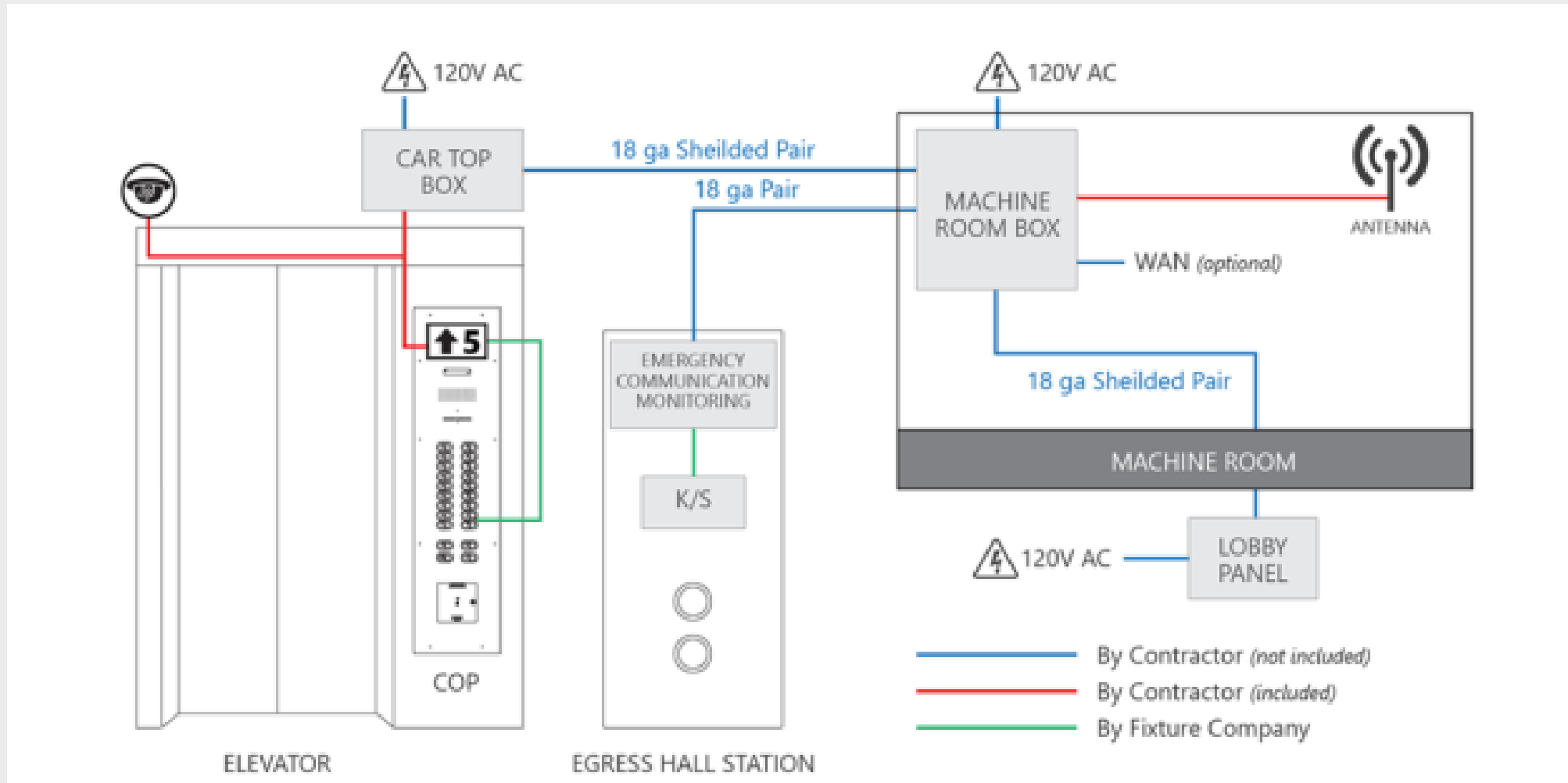
Essentially you will need:

- ✓ Emergency elevator phone
- ✓ Video messaging system
- ✓ Closed firewall and encrypted communications
- ✓ System access from local FCC panel and remote monitoring centers

Important to choose a code compliant system that is compatible with a range of video and messaging systems and will integrate with elevator fixtures from a variety of manufacturers

Elevator fixture company provides necessary hardware components. Kings III provides the monitoring solution.





ASME 2019 Solution



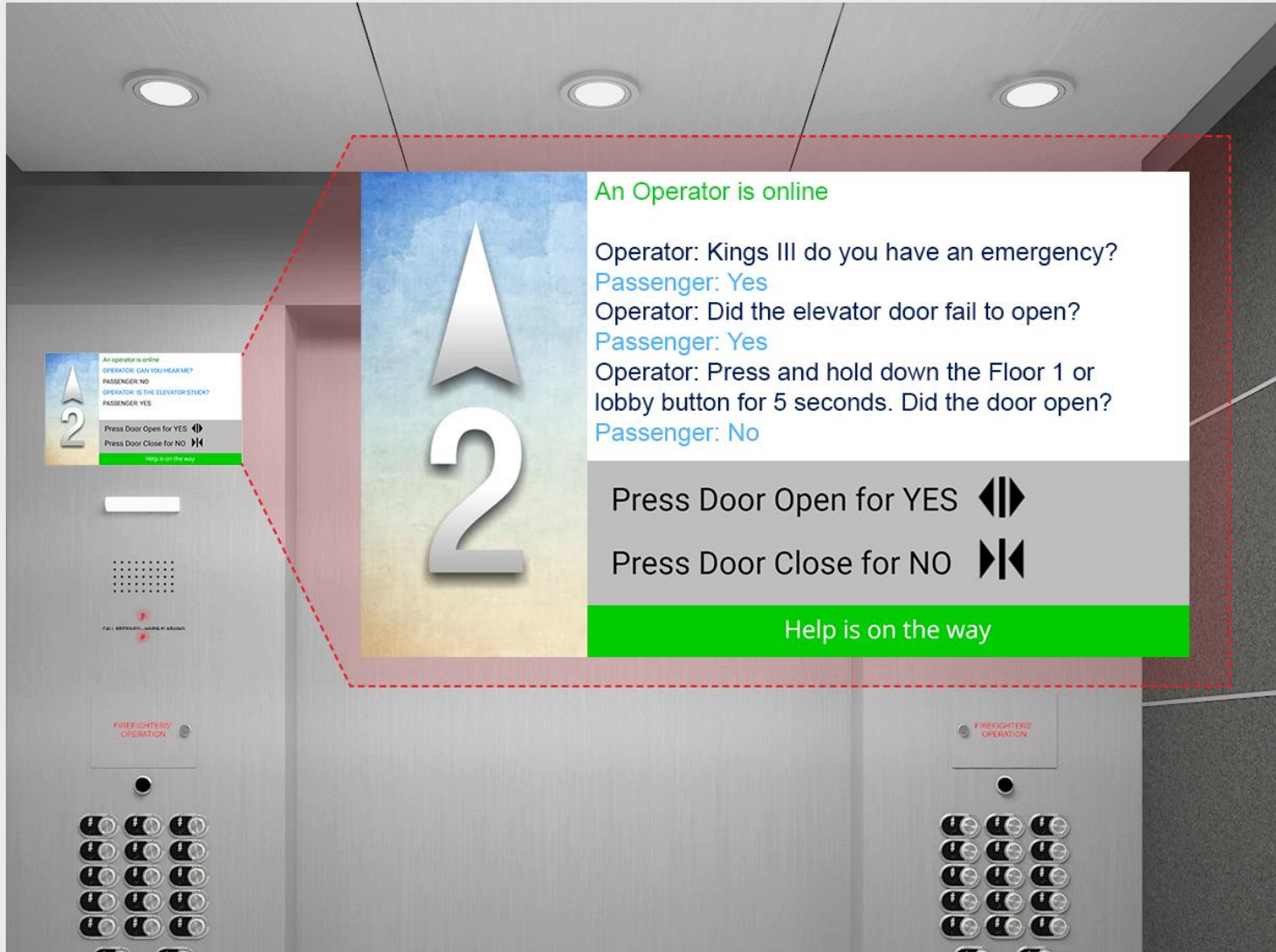
ASME 2019 Solution





ASME 2019 Solution





An Operator is online

Operator: Kings III do you have an emergency?

Passenger: Yes


Operator: Did the elevator door fail to open?

Passenger: Yes

Operator: Press and hold down the Floor 1 or lobby button for 5 seconds. Did the door open?

Passenger: No

Press Door Open for YES 

Press Door Close for NO 

Help is on the way

ASME 2019 Solution



KINGS III
EMERGENCY COMMUNICATIONS

Elevator Phone Monitoring Best Practices

Training

Answer and dispatch issues are typically the result of non-emergency personnel handling these duties.

Installation and repair issues are generally related to a lack of technical support and training.

Elevator Phone Monitoring Best Practices

Dispatch Center

Ensure entrapment calls

- are handled by highly trained personnel
- are handled in a consistent manner
- are recorded with date and time stamp
- can be responded to in multiple languages

Ensure dispatch center has fully redundant capabilities including separate power grid.

ASME Additions Recap

Elevator Communications Must:

1. Include two-way messaging capability for those who are hearing and/or speech impaired
2. Include video capability
3. Display message (not just a light) to indicate call has been received and help is on the way and/or onsite

ASME Additions Recap

When do these rules apply to me?

This code will ONLY apply to elevators permitted for construction or modernization (alteration) after the code is adopted by the state where the elevator is located. It will not impact existing elevators which are not undergoing modernization.

ASME does not enforce code. Individual states have adopted ASME as their standard and self-select their timeline for adoption.

To find out what is required in your state go to:

www.kingsiii.com/code-compliance/



IBC 2018

IBC 2021

2018

An emergency two-way communication shall be provided that:

1. Is a visual and text-based and a video-based 24/7 live interactive system.
2. Is fully accessible by the deaf, hard of hearing and speech impaired, and shall include voice-only options for hearing individuals.
3. Has the ability to communicate with emergency personnel utilizing existing video conferencing technology, chat/text software or other approved technology.

2021

An emergency two-way communication shall be provided. The system shall provide visible text and audible modes that meet all of the following requirements:

1. When operating in each mode, include a live interactive system that allows back and forth conversation between the elevator occupants and emergency personnel.
2. Is operational when the elevator is operational.
3. Allows elevator occupants to select the text-based or audible mode depending on their communication needs to interact with emergency personnel.



Adopted States

ASME / IBC

ASME 2019

Alabama

Colorado

Iowa

Maryland

Mississippi

Nevada

New Hampshire

North Carolina

Ohio

Oklahoma

IBC 2018

Arizona

California

Georgia

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