



# Elevator Safety Program - Technical Clarification

Equipment: Passenger/Freight Elevators	Topic: TC 18-04 Elevator Communication Devices
December 21, 2018	#: 18-04 Code/Rule: ASME A17.1-2016/CSA B44-16, 2.27.1

**Issue:** There is some confusion regarding the correct installation for communication devices used in passenger and freight elevators; particularly the use of wireless (cellular) systems in elevators (See T/C 18-08).

**Background and Concerns:** The elevator code does not refer to specific types of communication devices (e.g. telephone, intercom, etc.). The code stipulates that a “communication device” be provided and comply with certain operational requirements. Typically, a “telephone-type” device is installed in the elevator car to be compatible with conventional communication systems. In addition, an “intercom-type” device is provided to comply with different communication requirements. The terms “telephone” and “intercom” will be used here to distinguish between the two communication-systems.

**Clarification:** This information only pertains to new installations or when triggered by certain alterations to the elevator equipment.

## Telephone Device:

The code states (in part):

### 2.27.1.1 Emergency Communications

*2.27.1.1.1 A two-way communication means between the car and a location staffed by authorized personnel shall be provided.*

#### 2.27.1.1.2

*(a) Two-way communications shall be directed to a location(s) staffed by authorized personnel who can take appropriate action.*

*(b) If the call is not acknowledged [2.27.1.1.3(c)] within 45 s, the call shall be automatically directed to an alternate on- or off-site location.*

Typically, the telephone-device must be able to connect to a location that is continuously available (i.e. 24/7). The persons receiving the call from the individual(s) in the elevator car must be able to recognize that help is needed and shall take “appropriate” action. This action may simply be contacting emergency, elevator, or building personnel as directed by the building owner (see also T/C 18-07). In some cases, the connection is made directly to an elevator contractor’s answering service.

The recipient of the call must be able to ascertain the name and address of the building and the elevator ID. These two pieces of information must be readily available without the need to establish voice communication.

The code further states:

*(g) The two-way communication means shall not use a handset in the car.*

*(h) The two-way communications shall not be transmitted to an automated answering system. The call for help shall be answered by authorized personnel.*

*(i) Operating instructions shall be incorporated with or adjacent to the “PHONE” push button.*

**Important:** The elevator code does not require a dedicated telephone line to each elevator; nor does it require a dedicated telephone line to a group of elevators. This telephone line is for emergency use and needs to be considered as having priority over other devices that may share the same line (e.g. provide a line capture feature).

The telephone line associated with this communication device is required to be monitored (see ASME A17.1/CSA B44, 2.27.1.1.6). If the telephone line fails, a visual and audible signal is required to be activated at the main elevator lobby.

This device must be ADA compliant. Freight elevators are typically not required to be ADA compliant.

## Intercom Device:

This device is required when the rise of the elevator is 18 m (60 ft.) or more (about 6 floors or more). The device needs to provide a method for emergency personnel to communicate from an on-site location to the elevator car(s). Activation of this device is not required from inside the elevator car(s).

Intercoms are not prohibited with elevators of lesser rise. While not a code requirement, consideration should be given to the ambient noise level near the elevator(s). Ambient noise may impair effective communication with persons inside the elevator car even on an elevator that only serves two levels (e.g. 10-12 ft. rise) if an intercom is not provided.

There is no requirement for this communication device to comply with ADA requirements. Its purpose is for use by emergency personnel only!

**Action Required:** There is no need to comply with these requirements retroactively unless certain alterations are being performed on existing equipment. Upon failure of existing communication devices, they may be replaced with similar (like-for-like) equipment without triggering any of the above requirements.

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