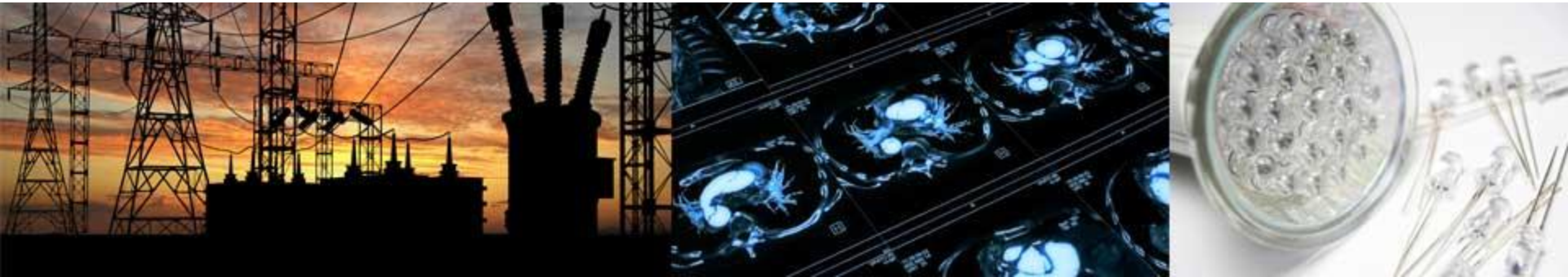


Nurse Call Systems & Emergency Call Systems

Overview of ANSI/UL 1069 and ANSI/UL 2560



The Association of Electrical and Medical Imaging Equipment Manufacturers





Overview

- National Consensus Standards
 - American National Standards Institute (ANSI)
- Nurse Call Systems
- Emergency Call Systems
 - Overview of new UL2560 Standard
- Differences between UL1069 and UL2560
- Applicability of Standards



Nurse Call Systems & UL1069





Consensus Standards

- UL1069 complies with all relevant articles of NFPA70 National Electrical Code and NFPA99 Health Care Facilities Code
- NFPA101 (Life Safety Code) 18.1.1.1.2/3 defines Healthcare facilities to be “...*where the occupants sleep there, but are not reasonably able to evacuate themselves in an emergency*”
 - As such, these facilities have 24-hour staff on duty



Nurse Call Systems

- UL1069 Hospital Signaling and Nurse Call Equipment
 - Created in 1977 by UL and Nurse Call industry
 - 7th edition (October 2007) clarifications/additions focused on three areas:
 - Wireless nurse call devices
 - Definition and verification of core system elements
 - Definition of oxygen-enriched testing for pendant controls



Nurse Call Systems

Wireless Nurse Call Devices

- Wireless initiating devices, as part of the fundamental system, have clear limitations:
 - 1) The intent of wireless devices is to extend the coverage of a hard-wired system, however, only initiating devices can be wireless
 - 2) The fundamental notification devices **MUST** be wired
 - 3) Wireless devices utilize a “shared” radio frequency (RF) space
 - Not guaranteed to be available or work in all real world environments
 - UL1069 adds requirements to assure best possible reliability



Nurse Call Systems

Wireless Nurse Call Devices

- Wireless initiating devices, as part of the fundamental system, have clear limitations:
 - 4) Devices are supervised. Loss of contact with receiver for more than 90 seconds (including interference, loss of battery power, damage, etc.) = a supervisory alarm
 - This requirement is based on testing the LARGEST possible system
 - Note: On systems listed prior to Ed 7, the supervision time may be 24 hours
- Extensive testing required to assure devices will work in predictable interference scenarios
 - Systems must have designs that “hop” or move frequencies to work around potential interferences



Nurse Call Systems

Fundamental System Requirements

- UL1069 defines the fundamental nurse call system devices:
 - Patient Station
 - Bath Station
 - Emergency Station
 - Corridor Light
 - Console
 - Power and Control

A system without corridor lights cannot be UL 1069 listed



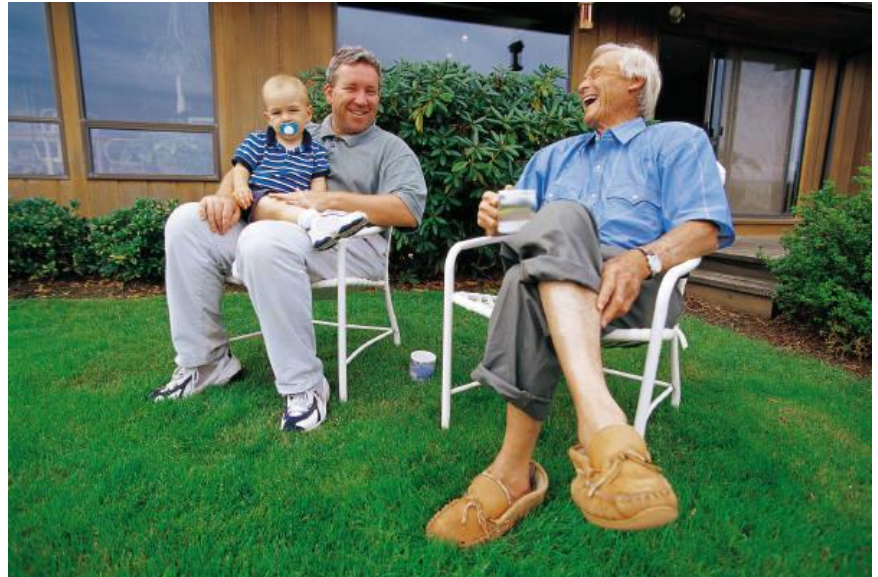
Nurse Call Systems

Oxygen-Enriched Environments

- UL1069-listed systems fully comply with NFPA99 for safety of pendant devices (call cords and pillow speakers) in oxygen-enriched environments



Emergency Call Systems & UL 2560





Emergency Call Systems

UL2560 Emergency Call Systems for Assisted Living and Independent Living Facilities

- 1st edition published September, 2011
- Addresses minimum performance of emergency call (e-call) systems in senior living communities



Emergency Call Systems

UL2560 Requirements

- Placement
 - Permanently fixed e-call station must be located in every resident bathroom
 - Additional optional stations at resident beds, elsewhere in living areas and common areas are allowed
- Pendants
 - Pendants are optional, but if included, must comply with the standard
 - Assigning pendants to residents does not remove requirements for at least one fixed e-call station in each resident bathroom



Emergency Call Systems

UL2560 Requirements

- **Call Indicator**
 - E-call stations and pendants must include call assurance indication
- **Central Notification Station**
 - There must be at least one notification station to receive all calls
 - Must be at a fixed location
 - Additional optional portable notification stations are allowed



Emergency Call Systems

UL2560 Requirements

- **Origination Reporting**
 - The origin of a resident call must be reported at a notification station
 - The origin must be specific
 - e.g. “Apt 117” or “3rd Floor Men’s Room”
- **Cancellation**
 - Call (from fixed station or pendant) must be canceled at the source of the call
 - Exception: If the system can separate *non-emergency* resident calls from *emergency* resident calls and there is voice communication between the e-call station and notification station
 - Non-emergency calls can be canceled from notification station after voice contact with resident has been made



Emergency Call Systems

Other UL2560 Requirements

- Connection Testing
- System Testing
- Back-up Power
- Low Battery Alarm
- Interference Testing

To obtain a copy of UL2560:

<http://ulstandardsinfonet.ul.com/catalog/stdscatframe.html>



Comparison of the Standards



Standards Comparison

	UL1069	UL2560
Required Call Notification	Wired - Console and corridor lights	Wired/Wireless – Console only
Supervision of Wireless Initiating Devices	Every 90 seconds	Every 24 hours
Mobility	Assumes patient is not mobile	Assumes resident is mobile
Nursing Staff 24/7	Required	Not required



Applicability of the Standards



Applicability of Standards

When UL1069 Applies

- Systems covered by the standard are intended to be installed in either **General** or **Critical Care areas** in accordance with:
 - National Electrical Code (NFPA70)
 - Health Care Facilities Code (NFPA99)
 - Life Safety Code (NFPA101- Chapter 18)



Applicability of Standards

When UL2560 Applies

- Systems covered by standard are intended to be installed in:
 - Assisted and independent living facilities
 - 24/7 staffing is not required
 - Residents can reasonably be assumed to evacuate themselves in an emergency



Importance of Listing



Importance of Listing

- When nurse call systems are listed to UL1069 and emergency call systems to UL2560, you can count on:
 - Product safety for all users
 - System reliability
 - Corporate integrity to design to the highest standards now and as new requirements are implemented
 - Peace of mind for staff, patients, residents, and relatives



Questions?

Thank You!