

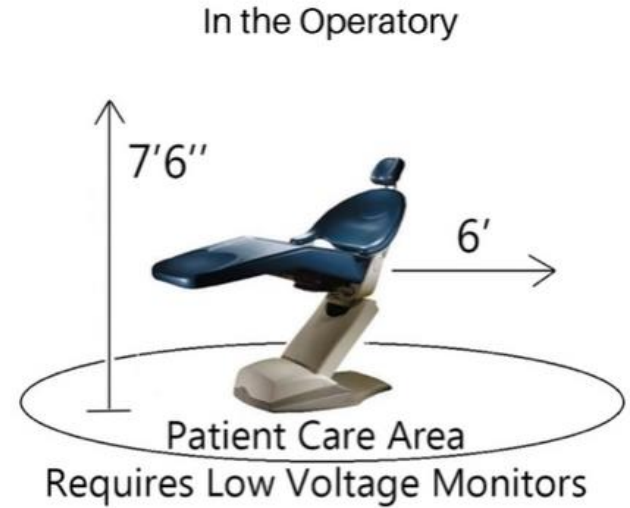
Why Use a Low-voltage Monitor in the Operator?

Code and regulations for electrical systems in the dental operator



Terminology

- **The National Fire Protection Association Code 70** - The standard that regulates electrical work in offices, homes, and healthcare facilities. It is sometimes referred to as the National Electrical Code (NEC70).
- **Health care facilities** - Buildings or portions of buildings in which medical, dental, psychiatric, nursing, obstetrical, or surgical care is provided.
- **Patient Care Area** - Any portion of a healthcare facility wherein patients are intended to be examined or treated. Since patient care areas are subject to the presence of liquids, they are also known as “wet locations.”
- **Patient Vicinity** (also called Patient Care Area) - An imaginary closed space which encompasses 6 feet horizontally from the patient and 7.5 feet above the floor.



Electrical Safety Codes That Apply to the Dental Operator

- All 120-volt power sources must have ground fault protection (*NEC70 Section 517-20*).
- Any connections and cables that are pulled into a 120-volt circuit in the same raceway (VGA, HDMI, video, audio, coaxial) must be enclosed within a 300-volt insulated cable (*NEC70 Article 300.3*).

The Problem

120-volt consumer monitors

Most consumer PC monitors are 120-volt. Many installers or integrators use consumer PC monitors in the operatory, but do not know or follow the safety codes required by the NEC70. This in turn poses a safety hazard and insurance risk to dental practices.

The Solution

A low-voltage dental monitor

Any wiring system that is under 50 volts is classified as a low-voltage. NEC70 Article 525, low-voltage wirings do not require a ground fault protection and all wiring can be run together including power cable to the monitor.



DENclarity

A 19-volt, 24" DENclarity operator monitor which complies with electrical safety regulations.

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