



Designation: F 2208 – 07

Standard Specification for Pool Alarms¹

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INTRODUCTION

According to CPSC data it is estimated each year on average, 280 children under five years of age drown in swimming pools with most deaths occurring in residential settings. Also each year, on average, 2200 children under five years of age are treated in hospital emergency rooms for pool submersion injuries.

1. Scope

1.1 This specification covers performance requirements for pool alarms for residential swimming pools and spas.

1.2 This specification is intended to describe devices intended to improve personal safety and reduce injuries or deaths.

1.3 This specification covers devices that provide for rapid and automatic detection and alarm in cases of unintentional, unsupervised or accidental entry of a child one year of age or older into the water of swimming pools or spas.

1.4 This specification is not intended to replace other standard safety requirements that should be in place, that is, adult supervision, fences, gates, locks, and so forth.

1.5 This specification covers four different types of alarms.

1.6 The detection criteria for this standard is for a child one year of age and older.

1.7 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.8 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Terminology

2.1 *Definitions of Terms Specific to This Standard:*

¹ This specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.49 on Pool Safety Standards.

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2.1.1 *pool alarm, n*—a device designed to provide a rapid detection and automatic alarm in incidents of accidental, unintentional or unsupervised entry of a child one year of age or older into the water of a swimming pool or spa.

3. Classification

3.1 *Types:*

3.1.1 *Type A, Surface*—Pool alarm floating on water surface.

3.1.2 *Type B, Subsurface*—Pool alarm located below the water surface.

3.1.3 *Type C, Pool Perimeter*—Pool alarm located such as to detect movement at the perimeter of or above the water surface.

3.1.4 *Type D, Personal Immersion Alarm*—Pool alarm device located on the person(s).

4. Performance Requirements

4.1 *General:*

4.1.1 Alarms shall sound both at poolside and inside any adjacent residence or building of occupancy via a remote receiver within 20 s or less when tested in accordance with Section 5.

4.1.2 The condition of a swimming pool alarm, either on or off, shall be indicated with an energized lamp or other distinctive indicator, visible from a distance of 10 ft (3.5 m) at angles of $\pm 45^\circ$ perpendicular to the unit, to indicate the operability of the product.

4.1.3 Pool alarms shall have a minimum sound pressure rating of 85 decibels at 10 ft (3.5 m) for 3 min.

4.1.4 If the device is battery operated, there must be a low battery indicator. A low battery condition is defined as an inability to meet the requirements of 4.1.3.

4.1.5 Pool alarms shall automatically reset.

4.2 *Type A, Surface Alarm:*