



*Member of the FM Global Group*

**Examination Standard  
for  
Land Mobile Radios  
for use in  
Class I, Division 1 Hazardous  
(Classified) Locations**

**Class Number 3640**

**May 2021**

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# Foreword

This standard is intended to verify that the products and services described will meet stated conditions of performance, safety and quality useful to the ends of property conservation. The purpose of this standard is to present the criteria for examination of various types of products and services.

Examination in accordance with this standard shall demonstrate compliance and verify that quality control in manufacturing shall ensure a consistent and reliable product.

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# 1 INTRODUCTION

## 1.1 Purpose

**1.1.1** This standard states testing and certification requirements for Land Mobile Radios for use in Class I, Division 1 Hazardous (Classified) Locations.

**1.1.2** Testing and certification criteria may include, but are not limited to, performance requirements, marking requirements, examination of manufacturing facility(ies), audit of quality assurance procedures, and a surveillance program.

## 1.2 Scope

**1.2.1** This standard specifies the particular requirements for construction, test and marking for Land Mobile Radio (LMR) equipment and accessories for use in Class I, Division 1, locations as defined by the National Electrical Code, ANSI/NFPA 70. This LMR equipment, within the operational parameters specified by the manufacturer, ensures a very high level of protection that includes rare malfunctions related to the equipment or two expected malfunctions occurring independently of each other.

NOTE 1: A malfunction may result from a failure of the component parts of the electrical equipment or from anticipated externally applied influences. Two independent expected malfunctions which, separately, would not create a source of ignition, but which, in combination, do create a source of ignition, are regarded as a single rare malfunction.

NOTE 2: This LMR equipment is intended for use in Class I, Division 1, locations where ignitable mixtures of flammable gases or vapors are present frequently during normal operations.

**1.2.2** This standard applies to equipment with a nominal battery voltage not exceeding 24 Vdc.

## 1.3 Basis for Requirements

For general basis of requirements, see FM Approvals Standard 3600.

## 1.4 Basis for Certification

See FM Approvals Standard 3600, Paragraph 1.3.

## 1.5 Basis for Continued Certification

See FM Approvals Standard 3600, Paragraph 1.4.

## 1.6 Effective Date

The effective date of this certification standard mandates that all products tested for certification after the effective date shall satisfy the requirements of this standard.

The effective date of this standard is eighteen (18) months after the publication date of the standard for compliance with all requirements.