NFPA 70A

National Electrical Code® Requirements for One- and Two-Family Dwellings

2005 Edition



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NFPA 70A

National Electrical Code® Requirements for One- and Two-Family Dwellings

2005 Edition

Excerpted from the 2005 National Electrical Code® NFPA 70-2005

Preface

This 2005 edition of NFPA 70A is a compilation of electrical provisions for one- and two-family dwellings. The provisions assembled in this compilation have been extracted directly from the 2005 edition of NFPA 70, *National Electrical Code*® (*NEC*®), and have been editorially revised only where necessary to limit their application to one- and two-family dwellings. This compilation has been reviewed and approved by the National Electrical Code Committee through its Technical Correlating Committee. It is being provided for the convenience of inspectors, contractors, builders, and others who are primarily interested in only those *NEC* rules that apply to one- and two-family dwellings.

Only those wiring methods and materials commonly encountered in new construction at oneand two-family dwellings are included in NFPA 70A. In like manner, only current ratings up to and including 400 amperes (based on Table 310.15(B)(6)) and voltages up to and including 600 volts are covered in NFPA 70A. It is the intent that the rules covering wiring methods, any materials, or any type of equipment, such as motors, not specifically included in this document are to be covered by the applicable rules in the 2005 edition of the *National Electrical Code*.

Where a reference is made to an article or section not included in NFPA 70A, such as to Article 430 or 430.52, the reference is to that article or section as it appears in the 2005 edition of the *National Electrical Code*.

The numbering system for articles and sections of the 2005 edition of the *National Electrical Code* has been preserved in NFPA 70A, so that provisions in NFPA 70A bear the same numerical designation as they have in the *NEC*. The user of NFPA 70A should be aware, therefore, that there are gaps in the numerical sequence of provisions in NFPA 70A, and that these gaps are a natural consequence of the fact that NFPA 70A contains only selected provisions of the *NEC*.

This edition of NFPA 70A has been reviewed by the *NEC* Technical Correlating Committee, and the committee has determined, by way of an affirmative letter ballot, that the extracting and editorial revision of *NEC* text included in NFPA 70A has been achieved without altering the technical intent of the 2005 edition of the *National Electrical Code*.

As the 2005 edition of the *National Electrical Code* is the parent document for the extracted text contained in NFPA 70A, any request for a formal interpretation of any text in NFPA 70A will be processed in accordance with the NFPA Regulations Governing Committee Projects as a formal interpretation of the 2005 edition of the *National Electrical Code*.

Prior to this 2005 edition, the most recent previous edition of NFPA 70A was the 2002 edition.

2005 Edition

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This list represents the membership at the time the Technical Correlating Committee was balloted on the final text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the back of this book.

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CONTENTS 70A-iii

Contents

ARTICI	LE	ARTICLE	
90	Introduction	IV. Enclosure, Raceway, and Service Cable Grounding	
	Chapter 1 General	VI. Equipment Grounding and Equipment	- 4
100	Definitions	Grounding Conductors	
	I. General		
110	Requirements for Electrical Installations 70A –10	280 Surge Arresters	-39
110	I. General	285 Transient Voltage Surge Suppressors: TVSSs 70A -	
		I. General	
		II. Installation	-39
	Chapter 2 Wiring and Protection	Suppressors	-59
200	Use and Identification of Grounded		
	Conductors	Chapter 3 Wiring Methods and Materials	
210	Branch Circuits	300 Wiring Methods	-61
	I. General Provisions	I. General Requirements	-61
	II. Branch-Circuit Ratings	310 Conductors for General Wiring	-68
	III. Required Outlets	312 Cabinets, Cutout Boxes, and Meter Socket	
215	Feeders	Enclosures	-73
220	Branch-Circuit, Feeder, and Service	I. Installation	-73
	Calculations	314 Outlet, Device, Pull, and Junction Boxes; Conduit	
	I. General	Bodies; Fittings; and Handhole Enclosures 70A-	-76
	II. Branch Circuit Load Calculations	I. Scope and General	
	III. Feeder and Service Load Calculations 70A –27	II. Installation	-76
225	Outside Branch Circuits and Feeders	320 Armored Cable: Type AC	
	I. General	I. General	
	Structure	II. Installation	
230	Services	330 Metal-Clad Cable: Type MC	
230	I. General	I. General	
	II. Overhead Service-Drop Conductors 70A –35	II. Installation	-83
	III. Underground Service-Lateral	334 Nonmetallic-Sheathed Cable: Types NM and NMC	91
	Conductors	I. General	
	IV. Service-Entrance Conductors	II. Installation	
	VI. Service Equipment—Disconnecting	338 Service-Entrance Cable: Types SE and USE 70A -	
	Means	I. General	
	VII. Service Equipment—Overcurrent Protection	II. Installation	
		340 Underground Feeder and Branch-Circuit Cable:	
240	Overcurrent Protection	Type UF	-87
	I. General	I. General	
	III. Enclosures	II. Installation	-87
	V. Plug Fuses, Fuseholders, and Adapters 70A –43	342 Intermediate Metal Conduit: Type IMC 70A -	-87
250	Grounding and Bonding	I. General	
	I. General	II. Installation	
	II. System Grounding	344 Rigid Metal Conduit: Type RMC70A-	
	III. Grounding Electrode System and Grounding	I. General	
	Electrode Conductor	II. Installation	-89

ARTICLE			ARTICLE		
348	Flexible Metal Conduit: Type FMC	411	Lighting Systems Operating at 30 Volts or Less	. 70A –113	
250		422	Appliances	. 70A –113	
350	Liquidtight Flexible Metal Conduit: Type LFMC		I. General	. 70A –113	
			II. Installation	. 70A –114	
	I. General 70A –92 II. Installation 70A –92		III. Disconnecting Means	. 70A –116	
			V. Marking	. 70A –116	
352 356	Rigid Nonmetallic Conduit: Type RNC 70A –93	424	Fixed Electric Space-Heating Equipment	70A =117	
	I. General	121	I. General		
	II. Installation		II. Installation.		
	Liquidtight Flexible Nonmetallic Conduit: Type		III. Control and Protection of Fixed Electric	. 7011 111	
	LFNC 70A –95		Space-Heating Equipment	. 70A –118	
	I. General		IV. Marking of Heating Equipment	. 70A –119	
	II. Installation 70A –96		V. Electric Space-Heating Cables		
358	Electrical Metallic Tubing: Type EMT 70A –97		VI. Duct Heaters		
	I. General		VII. Resistance-Type Boilers	. 70A –122	
	II. Installation 70A –97		IX. Electric Radiant Heating Panels and	70 A 100	
362	Electrical Nonmetallic Tubing: Type ENT 70A –99		Heating Panel Sets	. /UA-122	
	I. General	440	Air-Conditioning and Refrigerating		
	II. Installation		Equipment	. 70A –124	
200	Multioutlet Assembly		I. General	. 70A –124	
380	Multioutiet Assembly		II. Disconnecting Means	. 70A –125	
	Charter A.E		III. Branch-Circuit Short-Circuit and		
	Chapter 4 Equipment for General Use		Ground-Fault Protection		
400	Flexible Cords and Cables		IV. Branch-Circuit Conductors		
	I. General		V. Controllers for Motor-Compressors	. 7 0A –127	
404	Switches		VI. Motor-Compressor and Branch-Circuit Overload Protection	704 129	
101	I. Installation		VII. Provisions for Room Air Conditioners		
			vii. Trovisions for Room 7th Conditioners	. 7011 12	
406	Receptacles, Cord Connectors, and Attachment Plugs (Caps)	445	Generators	. 70A –129	
408	Switchboards and Panelboards		Charter 5 Special Occurrencies		
	I. General		Chapter 5 Special Occupancies		
	III. Panelboards	550	Mobile Homes, Manufactured Homes, and		
410	Luminaires (Lighting Fixtures), Lampholders,		Mobile Home Parks		
	and Lamps		I. General		
	I. General		III. Services and Feeders	. 70A –131	
	II. Luminaire (Fixture) Locations 70A–107	590	Temporary Installations	. 70A –133	
	III. Provisions at Luminaire (Fixture) Outlet	2,0	Temperary mountainers.		
	Boxes, Canopies, and Pans				
	IV. Luminaire (Fixture) Supports		Chapter 6 Special Equipment		
	V. Grounding	690	Swimming Dools Fountains and Similar		
	VI. Wiring of Luminaires (Fixtures)	680	Swimming Pools, Fountains, and Similar Installations	70 A_133	
	XI. Special Provisions for Flush and Recessed				
	Luminaires (Fixtures)		I. General		
	XIII. Special Provisions for Electric-Discharge		II. Permanently Installed Pools		
	Lighting Systems of 1000 Volts or		IV. Spas and Hot Tubs		
	Less		VII. Hydromassage Bathtubs		
	XIV. Special Provisions for Electric-Discharge		•		
	Lighting Systems of More Than 1000	690	Solar Photovoltaic Systems	. 70A –149	
	Volts	602	Fuel Cell Systems	70 A 140	
	XV. Lighting Track	692	Fuel Cell Systems	. /UA-149	

CONTENTS 70A-v

ARTICL	E	ARTICLE	
702	Chapter 7 Special Conditions Optional Standby Systems. 70A-151 I. General. 70A-151 II. Circuit Wiring. 70A-151 III. Grounding. 70A-151	II. Cables Outside and Entering Buildings	
725	Class 1, Class 2, and Class 3 Remote-Control, Signaling, and Power-Limited Circuits	I. General	
760	Fire Alarm Systems 70A-155 I. General 70A-155 II. Non-Power-Limited Fire Alarm (NPLFA) 70A-156 III. Power-Limited Fire Alarm (PLFA) 70A-156 Circuits 70A-156 Chapter 8 Communications Systems	Chapter 9 Tables TABLE 1 Percent of Cross Section of Conduit and Tubing for Conductors	
800	Communications Circuits 70A-159 I. General 70A-159 II. Wires and Cables Outside and Entering Buildings 70A-159 III. Protection 70A-160 IV. Grounding Methods 70A-160 V. Communications Wires and Cables Within Buildings 70A-161	Combinations of Wires Permitted in Table 1, Chapter 9)	
820	Community Antenna Television and Radio Distribution Systems	Index	



NFPA 70A

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2005 Edition

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Throughout this document the term "this Code" refers to the compilation of requirements for electrical installations in one- and two-family dwelling units contained therein that have been extracted from NFPA 70-2005, National Electrical Code® (NEC®).

ARTICLE 90 Introduction

90.1 Purpose.

- **(A) Practical Safeguarding.** The purpose of the *NEC* is the practical safeguarding of persons and property from hazards arising from the use of electricity.
- **(B) Adequacy.** This *Code* contains provisions that are considered necessary for safety. Compliance therewith and proper maintenance results in an installation that is essentially free from hazard but not necessarily efficient, convenient, or adequate for good service or future expansion of electrical use.

FPN: Hazards often occur because of overloading of wiring systems by methods or usage not in conformity with this *Code*. This occurs because initial wiring did not provide for increases in the use of electricity. An initial adequate installation and reasonable provisions for system changes provide for future increases in the use of electricity.

- **(C) Intention.** This *Code* is not intended as a design specification or an instruction manual for untrained persons.
- **(D) Relation to Other International Standards.** The requirements in this *Code* address the fundamental principles of protection for safety contained in Section 131 of International Electrotechnical Commission Standard 60364-1, Electrical Installations of Buildings.

FPN: IEC 60364-1, Section 131, contains fundamental principles of protection for safety that encompass protection against electric shock, protection against thermal effects,

protection against overcurrent, protection against fault currents, and protection against overvoltage. All of these potential hazards are addressed by the requirements in this *Code*.

90.2 Scope.

(A) Covered. This *Code* covers only those wiring methods and materials most commonly encountered in new construction at one- and two-family dwellings.

(B) Not Covered.

- (1) This Code does not contain all of the rules necessary to cover mobile homes and manufactured homes, recreational vehicles, park trailers, floating dwelling units, buildings containing more than two dwelling units or buildings used for other than dwelling purposes. For those installations, the 2005 National Electrical Code (NFPA 70-2005) shall apply.
- (5) This *Code* does not cover installations under the exclusive control of an electric utility where such installations
 - a. Consist of service drops or service laterals, and associated metering, or
 - b. Are located in legally established easements, rightsof-way, or by other agreements either designated by or recognized by public service commissions, utility commissions, or other regulatory agencies having jurisdiction for such installations, or
 - c. Are on property owned or leased by the electric utility for the purpose of communications, metering, generation, control, transformation, transmission, or distribution of electric energy.

FPN to (5): Examples of utilities may include those entities that are typically designated or recognized by governmental law or regulation by public service/utility commissions and that install, operate, and maintain electric supply (such as generation, transmission, or distribution systems) or communication systems (such as telephone, CATV, Internet, satellite, or data services). Utilities may be subject to compliance with codes and standards covering their regulated activities as adopted under governmental law or regulation. Additional information can be found through consultation with the appropriate governmental bodies, such as state regulatory commissions, Federal Energy Regulatory Commission, and Federal Communications Commission.

- **(C) Special Permission.** The authority having jurisdiction for enforcing this *Code* may grant exception for the installation of conductors and equipment that are not under the exclusive control of the electric utilities and are used to connect the electric utility supply system to the service-entrance conductors of the premises served, provided such installations are outside a building or terminate immediately inside a building wall.
- **90.3** Code Arrangement. This *Code* is divided into the introduction and nine chapters, as shown in Figure 90.3.