UL 150

STANDARD FOR SAFETY

Antenna Rotators

UL Standard for Safety for Antenna Rotators, UL 150

Fourth Edition, Dated November 9, 2004

Summary of Topics

This revision to ANSI/UL 150 dated September 1, 2020 is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The requirements are substantially in accordance with Proposal(s) on this subject dated June 26, 2020.

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UL 150

Standard for Antenna Rotators

First Edition – October, 1983
Second Edition – October, 1989
Third Edition – July, 1994

Fourth Edition

November 9, 2004

This ANSI/UL Standard for Safety consists of the Fourth Edition including revisions through September 1, 2020.

The most recent designation of ANSI/UL 150 as a Reaffirmed American National Standard (ANS) occurred on August 31, 2020. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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INTRODUCTION

1 Scope

1.1 These requirements cover antenna rotators intended for household and commercial use on supply circuits in accordance with the National Electrical Code, NFPA 70.

1.2 An antenna rotator generally consists of:

a) A mast-mounted (generally outdoors), motorized drive unit that rotates the antenna to the desired receiving azimuth,

b) An indoor-located (usually near television- or radio-receiving equipment) user-operated control unit that delivers operating power and direction signals to the drive unit, and,

c) A length of multiple-conductor Class-2 circuit cable to electrically interconnect the drive unit and the control unit.

Some antenna rotating units may control antenna elevation separately or in addition to azimuth. In some cases, the drive unit may be located indoors.

1.3 The power used to drive the motor of an antenna rotator is derived from a circuit complying with Class 2 limitations in accordance with Article 725 of the National Electrical Code, ANSI/NFPA 70.

1.4 These requirements do not cover systems that use a stationary antenna and change or rotate the receiving pattern by electronic or switching means. Such systems are covered by the Standard for Audio-Video Products and Accessories, UL 1492.

2 General

2.1 Components

2.1.1 A component shall be used in accordance with its rating established for the intended conditions of use. See Appendix A for a list of standards covering components generally used in the products covered by this standard.

2.1.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or

b) Is superseded by a requirement in this standard.

2.1.3 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

2.2 Units of measurement

2.2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

2.2.2 Alternating-current electrical measurements are in rms units unless otherwise stated.

2.3 Undated references

2.3.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

3 Glossary

3.1 For the purpose of this standard the following definitions apply.

3.2 ACCESSIBLE PART – A part located so that it can be contacted by means of a probe. See Accessibility of Parts, Section 10.

3.3 ADJUSTABLE CONTROL – A control provided for making adjustments necessary to render the product capable of performing its intended functions.

3.4 CONTROL UNIT – A user-operated, indoor-mounted unit with total output limited to Class 2 levels (see 1.3), the primary function of which is to deliver power to and control a drive unit.

3.5 DRIVE UNIT – A mast-mounted (generally outdoors), motorized unit that may be user-installed and is intended to position an antenna and that requires an energy source limited to Class 2 levels. See 1.3.

3.6 FIBER – Vulcanized fiber.

3.7 INSULATION, BASIC – The insulation necessary for the intended functioning of the product and for basic protection to reduce the risk of electric shock.

3.8 INSULATION, REINFORCED – An improved basic insulation with mechanical and electrical qualities such that it, in itself, provides the same degree of protection to reduce the risk of electric shock as an insulation system comprised of both basic insulation and supplementary insulation.

3.9 INSULATION, SUPPLEMENTARY – An independent insulation provided in addition to the basic insulation to provide protection to reduce the risk of electric shock in case of electrical breakdown of the basic insulation.

3.10 MAJOR ENCLOSURE PART – A part of the enclosure that:

a) Forms more than 50% of any one surface, and

b) Is needed to comply with the requirements to

1) Reduce the risk of fire, electric shock, or injury to persons, or

2) Reduce the risk of mechanical damage to internal parts.

3.11 MINOR DIMENSION OF OPENING – The diameter of the largest sphere that can pass through the opening.

3.12 OPERATING CONTROL – A control, usually a knob, pushbutton, or lever, provided to enable the user to cause the product to perform its intended function, without the use of tools, when the product is in normal operating condition.

3.13 ORDINARY TOOLS – Flat-bladed and cross-head screwdrivers, nut-drivers, pliers, and the like.

3.14 POWER-SUPPLY CORD – The cord provided to connect the control unit to the supply circuit.