



UL 464A

STANDARD FOR SAFETY

Audible Signal Appliances for General Signaling Use

ULNORM.COM : Click to view the full PDF of UL 464A 2021

ULNORM.COM : Click to view the full PDF of UL 464A 2021

UL Standard for Safety for Audible Signal Appliances for General Signaling Use, UL 464A

First Edition, Dated February 3, 2016

Summary of Topics

This revision of ANSI/UL 464A dated March 24, 2021 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 January 8, 2021.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical photocopying, recording, or otherwise without prior permission of UL.

UL provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will UL be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if UL or an authorized UL representative has been advised of the possibility of such damage. In no event shall UL's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold UL harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

No Text on This Page

ULNORM.COM : Click to view the full PDF of UL 464A 2021

FEBRUARY 3, 2016
(Title Page Reprinted: March 24, 2021)



ANSI/UL 464A-2016 (R2021)

1

UL 464A

Standard for Audible Signal Appliances for General Signaling Use

Prior to this first edition, the requirements for the products covered by this standard were included in the Standard for Audible Signaling Appliances, UL 464.

First Edition

February 3, 2016

This ANSI/UL Standard for Safety consists of the First Edition including revisions through March 24, 2021.

The most recent designation of ANSI/UL 464A as a Reaffirmed American National Standard (ANS) occurred on March 24, 2021. 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>.

UL's Standards for Safety are copyrighted by UL. Neither a printed nor electronic copy of a Standard should be altered in any way. All of UL's Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of UL.

COPYRIGHT © 2021 UNDERWRITERS LABORATORIES INC.

No Text on This Page

ULNORM.COM : Click to view the full PDF of UL 464A 2021

CONTENTS**INTRODUCTION**

1	Scope	7
---	-------------	---

CONSTRUCTION

2	General	7
2.1	Components	7
2.2	Units of measurement	7
2.3	Undated references	8
2.4	Electrical circuits terminology	8
3	Enclosures	8
3.1	General	8
3.2	Cast metal	9
3.3	Sheet metal	10
3.4	Nonmetallic	10
3.5	Ventilating openings	11
4	Electric Shock	12
5	Protection Against Corrosion	13
6	Field Wiring System Connections	13
6.1	General	13
6.2	Compartment	13
6.3	Terminals or leads	14
6.4	Grounding terminals and leads	14
6.5	Grounded supply terminals and leads	15
7	Internal Wiring	15
7.1	General	15
7.2	Wireways	16
7.3	Splices	16
7.4	Barriers	16
7.5	Bushings	16
7.6	Strain relief	17
8	Bonding for Grounding	17
9	Components	18
9.1	Mounting	18
9.2	Operating parts	19
9.3	Current carrying parts	19
9.4	Coil windings	19
9.5	Connectors and receptacles	19
9.6	Electrical insulating material	20
9.7	Motors	20
10	Spacings	21

PERFORMANCE**ALL APPLIANCES**

11	General	22
11.1	Test samples	22
11.2	Test voltages	22
11.3	Temperature measurements	23
11.4	Additional tests	24

12	Current Input Test	24
13	Overvoltage and Undervoltage (Current) Test	24
	13.1 Overvoltage (current) test	24
	13.2 Undervoltage (current) test	24
14	Variable Ambient Temperature Test	24
15	Polarity Reversal Test	24
16	Component Temperature Test	24
17	Electric Shock Current Test	27
18	Endurance Test	30
19	Transient Test	30
	19.1 General	30
	19.2 Supply-line transients (high-voltage appliances)	30
20	Jarring and Vibration Tests	31
	20.1 Jarring Test	31
	20.2 Vibration test	31
21	Dielectric Voltage-Withstand Test	31
22	Burnout Test	32
23	Polymeric Materials Test	33
	23.1 General	33
	23.2 Temperature test	33
	23.3 Flame test	33
	23.4 Impact test	34
24	Locked Rotor Test	34
	24.1 General	34
	24.2 Thermal or overcurrent protection	34
	24.3 Impedance protection	35
25	Elastomeric Materials Tests	36
	25.1 General	36
	25.2 Accelerated aging by oven-conditioning method	36
	25.3 Accelerated aging of flexible cellular materials	36
 INDOOR USE APPLIANCES		
26	Humidity Test	36
 OUTDOOR USE APPLIANCES		
27	General	37
28	Rain Test	37
29	Variable Ambient Temperature Test	41
30	Humidity Test	41
 MANUFACTURING AND PRODUCTION TESTS		
31	Production-Line Dielectric Voltage-Withstand Test	41
32	Production-Line Grounding-Continuity Test for High-Voltage, Cord-Connected Products	42
 RATING		
33	General	42
 INSTALLATION AND OPERATING INSTRUCTIONS		
34	General	42

MARKING

35 General 42

APPENDIX A

Standards for Components 44

ULNORM.COM : Click to view the full PDF of UL 464A 2021