

INTERNATIONAL STANDARD



AMENDMENT 1

**Household and similar electrical appliances – Safety –
Part 2-110: Particular requirements for commercial microwave appliances with
insertion or contacting applicators**

IEC 60335-2-110:2013/AMD1:2019

<https://standards.iteh.ai/catalog/standards/sist/ae885e02-0a7b-42a1-9ffc-764bf727050/iec-60335-2-110-2013-amd1-2019>



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FOREWORD

This amendment has been prepared by subcommittee 61B: Safety of microwave appliances for household and commercial use, of IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this amendment is based on the following documents:

CDV	Report on voting
61B/613/CDV	61B/637/RVC
61B/614/CDV	61B/638/RVC

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations can need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

2 Normative references

Add the following references to the existing list:

ISO 3864-1, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings*

ISO 7010, *Graphical symbols – Safety colours and safety signs – Registered safety signs*

7 Marking and instructions

7.1

Add the following instruction before the existing addition:

7.1 Modification:

Add the following new dashed item and text before the last dashed item of Part 1:

- substance of the following warnings, if applicable:
 - WARNING: Switch off and remove plug from mains before adjusting, cleaning or if the cord is entangled or damaged.
 - WARNING: Read the instruction sheet.
 - WARNING: Keep the flexible supply cord away from the microwave-energised parts.

Where appropriate IEC/ISO symbols or pictograms are available, they may be used.

Add the following new text before the compliance paragraph of Part 2-110:

Where appropriate, appliances shall be marked with symbols ISO 7000-0434A (2004-01) and IEC 60417-6167 (2012-07).

Add the following new subclause:

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7.6 Addition:



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[symbol IEC 60417-6166
(2012-07)]

caution, non-ionizing radiation



[symbol IEC 60417-6167
(2012-07)]

keep out of microwave radiation



[symbol ISO 7010-P004
(2011-05)]

no thoroughfare

7.12

Delete the following existing text:

The substance of the following warnings, if applicable, shall be placed in a prominent position on the appliance. The letters, which may be in upper or lower case, shall be a minimum of 3 mm high, in black on a yellow background. Where appropriate IEC/ISO symbols or pictograms are available, they may be used. Markings or symbols giving cautionary information shall be located close to the hazard.

WARNING: Switch off and remove plug from mains before adjusting, cleaning or if the cord is entangled or damaged.

WARNING: Read the instruction sheet.

WARNING: Keep the flexible supply cord away from the microwave-energised parts.

A microwave warning sign (IEC 60417-5140 (2003-04)) of a size specified in IEC 60417, shall be placed in a location where any **microwave barrier** or **microwave guard** is visible, or near the opening in the **microwave barrier** of a **contacting applicator** under which there is a **load**.

The warning text shall include the substance of the following:

WARNING



MICROWAVE ENERGY

DO NOT INSERT THE HAND OR FOREIGN OBJECTS

The same type of warning sign shall be placed at **viewing openings** with holes larger than diameter 12 mm and which are not protected by visually transparent protective devices. A warning not to insert objects shall also be given.

7.14

Add the following new text after the last paragraph.

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The letters of the substance of the warnings of the penultimate dashed item of 7.1, which may be in upper or lower case, shall be a minimum of 5 mm high, in black on a yellow background.

The height of the triangle of symbol ISO 7000-0434A (2004-01) and the height of symbol IEC 60417-6167 (2012-07) shall be at least 50 mm.

The diameter of symbol ISO 7010-P004 (2011-05) and the height of the triangle of symbol IEC 60417-6166 (2012-07) required by 7.102 shall be at least 150 mm.

Symbols ISO 7000-0434A (2004-01), IEC 60417-6166 (2012-07) and ISO 7010-P004 (2011-05) shall comply with ISO 3864-1, but only with the specified colour requirements.

Add the following new subclause:

7.15 Addition:

The substance of the warnings of the penultimate dashed item shall be placed in a prominent position on the appliance.

Symbol ISO 7000-0434A (2004-01) and symbol IEC 60417-6167 (2012-07) shall be placed adjacent to each other in a location where any **microwave barrier** or **microwave guard** is visible, or near the opening in the **microwave barrier** of a **contacting applicator** under which there is a **load**.

The same symbols shall be placed at **viewing openings** with holes larger than diameter 12 mm and which are not protected by visually transparent protective devices.

Markings or symbols giving cautionary information shall be located close to the hazard.

7.102

Delete the last dashed item.

Delete the following symbol and text.



WARNING

MICROWAVE ENERGY

DO NOT ENTER

Add the following new last dashed item.

- The **restricted area** shall be made inaccessible and be clearly marked with symbol ISO 7010-P004 (2011-05) and symbol IEC 60417-6166 (2012-07).

22 Construction

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22.113

Replace the existing requirement with the following:

Lights, switches or push-buttons for the indication of danger, alarm or similar situations shall be coloured red.

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