

STANDARD INFORMATION

Standard: UL 982

Standard ID: Motor-Operated Household Food Preparing Machines [UL 982:2019 Ed.8+R:23Oct2020]

Previous Standard ID: Motor-Operated Household Food Preparing Machines [UL 982:2019 Ed.8]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **July 1, 2023**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard.

Overview of Changes:

- Intentionally Defeating Interlocks
- Universal Serial Bus (USB) and Automotive Adapter Powered Appliances
- Food Processor Fill Line Marking
- Blender Blade Endurance Test

Specific details of new/revised requirements are found in table below.

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown lined-out below.</i>
	Info	CONSTRUCTION
5	Info	General
		<i>New clause added;</i>
		An appliance intended to be supplied by a Universal Serial Bus (USB) power source, whether the USB power supply is provided with the appliance or not, shall be considered as powered by a Class 2 power supply and shall be:
5.5		a) Provided with cable assemblies or wiring external to the unit, coiled or uncoiled, rated: 1) VW-1 or FT 1 or better in accordance with the Standard for Appliance Wire Material, UL 758, if not exceeding 3.05 m (10 ft) in length; or 2) CL2 or better in accordance with the Standard for Power-Limited Circuit Cables, UL 13, if longer than 3.05 m (10 ft) in length; b) Incapable of being supplied by other sources when powered from the USB source; c) Tested in accordance with 31.6 and 49.3; d) Rated and marked in accordance with 71.12 – 71.14; and e) Provided with user instructions in accordance with 76.33.
		<i>New clause added;</i>
		Appliances intended to be powered by an automotive adapter shall be:
5.6		a) Provided with a plug and cord complying with the Standard for Vehicle Battery Adapters, UL 2089; b) Incapable of being supplied by other sources when powered from the automotive adapter; and c) Tested in accordance with 31.7.
6	Info	Components
6.3	Info	Batteries and battery chargers
6.3.5		Class 2 battery charger shall comply with the Standard for Class 2 Power Units, UL 1310. <u>Limited Power Source (LPS) battery chargers shall comply with the Standard for Information Technology Equipment – Safety – Part 1: General Requirements, UL 60950-1 or the Standard for Audio/Video, Information and Communication Technology Equipment – Part 1: Safety Requirements, UL 62368-1.</u>




CLAUSE	VERDICT	COMMENT
6.13	Info	Power supplies
		<i>New clause added;</i>
6.13.3		Limited Power Source (LPS) power supplies shall comply with the Standard for Information Technology Equipment – Safety – Part 1: General Requirements, UL 60950-1 or the Standard for Audio/Video, Information and Communication Technology Equipment – Part 1: Safety Requirements, UL 62368-1.
6.19	Info	Switches, timers and interlocks
6.19.3	Info	Interlock systems
		An interlock system required for compliance with this standard shall be such that both of the following conditions are met:
6.19.3.3		<p>a) When the cover or guard is removed, the moving parts shall stop within 4 seconds when subjected to the Cutter Stopping Time Determination Test of 58.1. Exception: A centrifugal juicer shall not be subjected to the Cutter Stopping Time Determination Test.</p> <p>b) If the cover or guard <u>can be assembled for use to actuate the interlock switch</u> without being properly locked in place, any access opening to moving parts that can be created by the misalignment shall have a maximum vertical dimension of not more than 1 inch (25.4 mm) between the bowl and cover when subjected to the Cover/Guard Misalignment Test of 58.3.</p> <p>e) It shall not be possible to actuate an interlock with the probe indicated in Figure 7.1.</p>
27	Info	Switches, Controls, and Interlocks
		An interlock shall not be capable of being defeated readily :
27.10		<p>a) Without damaging the appliance;</p> <p>b) Without making wiring connections or alterations; or</p> <p>c) By using materials that are readily available <u>By the probe indicated in Figure 7.1.</u></p>
30	Info	Appliances
30.5	Info	Food processors including food choppers
30.5.3		The <u>maximum fill line or</u> rated capacity shall be marked on the bowl of food processors with a feed opening where the processed food is collected in the bowl under the slicing or shredding blade. <u>However, the marking is not necessary if the blades sit above the top edge of the bowl when fully assembled.</u> See 76.19.1(if).
	Info	PERFORMANCE
31	Info	General
		<i>New clause added;</i>
31.6		Unless otherwise specified, an appliance intended to be supplied by a Universal Serial Bus (USB) shall be tested with the appliance connected to a continuous independent DC source of supply with a voltage of 1.05 times the rated voltage and a current capacity of 8 A.



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
31.7		An appliance intended to be supplied by an automotive adapter shall be tested with the appliance connected to a continuous independent source of supply of 12 V dc.
46	Info	Blender Blade Endurance Test
46.6	Info	General
		<i>New clause added;</i>
46.6.1		Blender blades shall be subjected to the test of 46.7 or 46.8.
46.8	Info	<i>New section added;</i> Salt spray and 5 cycle endurance test
46.8.1		Three samples of the blade assembly shall be subjected to the salt spray conditioning in 46.8.2. Following the conditioning, the blade shall be assembled to the container and subjected to 5 operations with the blender container filled to 1/3 of its rated capacity with dried chickpeas. Each cycle consists of 30 seconds of operation and the container shall be emptied and refilled after each cycle.
46.8.2		Three samples of the blade assembly shall be subjected Salt Spray Resistance Testing as specified in the Standard Practice for Operating Salt Spray (Fog) Apparatus, ASTM B 117. The samples shall be exposed to the Salt Fog for 24 Hours. If the blade assembly cannot be removed from and reattached to the blender container without damaging the blades, the blade/container assembly may be subjected to the conditioning with the container positioned to prevent pooling of liquid in the container during conditioning.
49	Info	Abnormal Operation Test
		<i>New section added;</i>
49.3		Overvoltage of appliances Intended to be supplied by Universal Serial Bus (USB)
		Appliances intended to be supplied by a Universal Serial Bus (USB), shall be placed on a white tissue paper covered soft wood surface, draped loosely with a single layer of cheesecloth and subjected to the following conditions:
49.3.1		a) Apply sinusoidal input AC voltage to the USB connection from 5 – 30V in 5V increments starting at the rated voltage; and b) Apply DC voltage with less than 10% ripple to the USB connection from 10 – 60V in 10V increments starting at the rated voltage.
49.3.2		For appliances operated via the USB connection, each increment shall be maintained for 5 minutes unless the appliance achieves ultimate results. For appliances charged via the USB connection, each increment shall be started with a fully discharged battery and shall be continued for 7 hours or until twice the normal charging period has elapsed, whichever is greater, unless the appliance achieves ultimate results or returns to room temperature.



CLAUSE	VERDICT	COMMENT
49.3.3		<p>The test shall not result in:</p> <p>a) Exposure of moving parts capable of causing injury,</p> <p>b) Explosion or ignition of the cells,</p> <p>c) Ignition of the tissue paper, supporting surface, or cheesecloth, and</p> <p>d) For USB charging of lithium ion cells, the upper limit charging voltage of each cell shall not be exceeded by more than 150 mV unless the cell is permanently prevented from being recharged.</p>
	Info	MARKINGS
71	Info	General
		<i>New clause added;</i>
71.12		<p>Unless the appliance is intended to be connected to a USB configuration rated at 5 V, the input of an appliance intended to be supplied by Universal Serial Bus (USB) shall have a marked voltage rating corresponding to its intended USB configuration.</p>
		<i>New clause added;</i>
71.13		<p>An appliance intended to be supplied by a Universal Serial Bus (USB) shall be marked in proximity to the connection point either the USB symbol "  " or the abbreviation "USB".</p>
		<i>New clause added;</i>
71.14		<p>An appliance intended to be supplied by a Universal Serial Bus (USB) shall be permanently marked on the product with the following or equivalent: "Use only with Listed/Certified Information Technology (Computer) Equipment" or, "Use only with Listed/Certified ITE Power Supply" or "Listed Class 2 Power Unit", as applicable. The markings may be combined.</p> <p>Exception: This marking is not required if included in the Important Safeguard section of the instruction manual.</p>
72	Info	Cautionary
72.22	Info	Appliances with interlocks
		<i>New clause added;</i>
72.22.1		<p>Appliance with interlocks relied upon for compliance with this standard shall be marked with Item 5 of Table 72.1 unless it is marked with "Do not attempt to defeat the interlock". This marking may be located on the bottom of the appliance.</p>
76	Info	Specific Appliances
76.33	Info	Appliance intended to be supplied by a Universal Serial Bus (USB)
		<i>New clause added;</i>
76.33.1		<p>In accordance with the exception to 71.13, the important safeguard instructions of an appliance intended to be supplied by a Universal Serial Bus (USB) shall be provided with instructions that indicate the proper USB supply connection and warn against using unapproved sources.</p>