









Button cell or coin batteries- Supplemental Protocol
(General use/ non-children’s products with battery compartment.
Sold with or without battery)


Number: BURL-106
Creation Date: 3/23/2024
Revision Date:
Created by: Legal Dept.

TEST DESCRIPTION	REGULATION/TEST METHOD	REQUIREMENTS
MANDATORY		
*Certificates of compliance	16 CFR 1110	<p>Manufacturers or importers of products subject to any of the requirements under Reese’s Law must issue a Children’s Product Certificate (CPC) for children’s products or a General Certificate of Compliance (GCC) for general-use products.</p> <p>Certificates for products subject to section 2 of Reese’s Law must include the citation “16 CFR part 1263 – Button cell or coin batteries and consumer products containing such batteries.” Certificates for products subject to section 3 of Reese’s Law must include the citation “P.L. 117-171 – Button cell or coin battery packages.”</p> <p>Note: 1: The valid test report and Certificate (GCC and or CPC, as applicable) are provided. 2: Children’s product shall be tested at a CPSC-accepted laboratory.</p>
Warning and statement requirements for product containing or designed to use button cell or coin Batteries	Reese’s Law (P.L.117-171) 16CFR 1263.3 UL 4200A-2023	<p>Each consumer product containing button cell or coin batteries shall comply with the marking, labeling and instructions requirement for ANSI/UL 4200A-2023.</p> <p>Exemption: 1: Any object designed, manufactured, or marketed as a plaything for children under 14 years of age that is in compliance with the battery accessibility and labeling requirements of 16 CFR part 1250 is exempt from the requirements of this part. 2: Batteries that do not present an ingestion hazard, such as zinc-air button cell or coin batteries.</p>
Warning and statement requirements for button cell or coin battery packaging.	Reese’s Law (P.L.117-171) 16CFR 1263.4	<p>Button cell or coin battery and such battery packaging included separately with a consumer product shall meet the requirement of 16CFR 1263.4.</p> <p>Note: 1: Products manufactured or imported after September 21, 2024, shall meet this requirement. 2: Not apply to batteries that do not present an ingestion hazard, such as zinc-air button cell or coin batteries.</p>

TEST DESCRIPTION	REGULATION/TEST METHOD	REQUIREMENTS				
Packaging Markings	Reese's Law (P.L.117-171) 16CFR 1263.3 UL 4200A-2023, Cls.7B	The packaging of consumer product containing or designed to use button cell or coin batteries shall meet one of the following when applicable: a) item 1.6.1 and 1.6.4; or b) Item 1.6.3 and 1.6.4 if space on the principal display panel of the consumer product packaging does not permit the warning label in Figure 7B.1 or Figure 7B.2; or c) Item 1.6.2 and 1.6.4 if no packaging.				
		Placement Cases	Principal Display Panel	Secondary Display Panel	Hang tag or a sticker label affixed to the consumer product	
		Items 1.6.1 and 1.6.4 General	Figure 7B.1 or Figure 7B.2 + Additional marking Or Figure 7B.1 or Figure 7B.2	NA Additional marking	NA	
		Items 1.6.3 and 1.6.4 When space on the principal display panel of the consumer product packaging does not permit the warning label in Figure 7B.1 or Figure 7B.2	Figure 7B.3 + Additional marking Or Figure 7B.3	Figure 7B.4 Figure 7B.4 + Additional marking	NA	
		Items 1.6.2 and 1.6.4 Products that are not contained in packaging	NA	NA	Figure 7B.1 or Figure 7B.2 + Additional marking	
Product Marking (continues)	Reese's Law (P.L.117-171) 16CFR 1263.3 UL 4200A-2023, Cls.7C.3	When the product itself is too small to include the warning with text in Figure 7C.1 or the icon in Figure 7C.2, the product shall: a) Have packaging containing the warning label following the requirements in Section 7B, Packaging Markings; or b) Contain a hangtag or sticker label with the full warning label using requirements in Section 7B, Packaging Markings.				

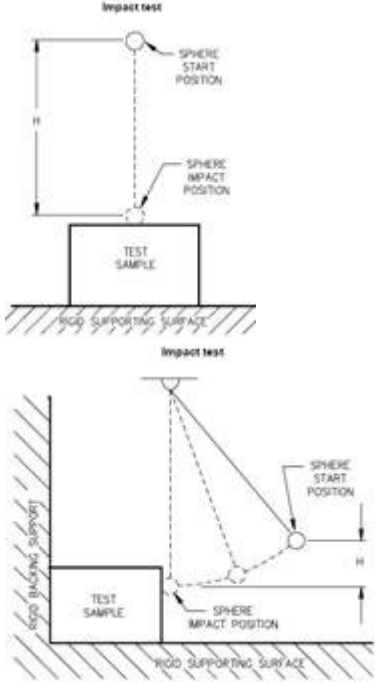
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Instructions	Reese's Law (P.L.117-171) 16CFR 1263.3 UL 4200A-2023, Cls.9	<table border="1"> <tr> <td colspan="4" data-bbox="880 289 1516 317">Shall meet</td> </tr> <tr> <td data-bbox="880 317 1052 390">Placement</td> <td data-bbox="1052 317 1224 390">Instructions and manual</td> <td data-bbox="1224 317 1380 390">Package (Principal display panel or secondary display panel)</td> <td data-bbox="1380 317 1516 390">Hang tag or a sticker label affixed to the consumer product</td> </tr> <tr> <td data-bbox="880 390 1052 464">Cases</td> <td data-bbox="1052 390 1224 464"></td> <td data-bbox="1224 390 1380 464"></td> <td data-bbox="1380 390 1516 464"></td> </tr> <tr> <td data-bbox="880 464 1052 638">Instructions and manual are provided</td> <td data-bbox="1052 464 1224 638">1.8.1 Figure 7B.1 or Figure 7B.2 + 1.8.2 + 1.8.3 or 1.8.4 as appropriate</td> <td data-bbox="1224 464 1380 638">NA</td> <td data-bbox="1380 464 1516 638">NA</td> </tr> <tr> <td data-bbox="880 638 1052 764">Instructions and manual are not provided. Has product packaging;</td> <td data-bbox="1052 638 1224 764">NA</td> <td data-bbox="1224 638 1380 764">1.8.2 + 1.8.3 or 1.8.4 as appropriate</td> <td data-bbox="1380 638 1516 764">NA</td> </tr> <tr> <td data-bbox="880 764 1052 886">Instructions and manual are not provided. No product packaging;</td> <td data-bbox="1052 764 1224 886">NA</td> <td data-bbox="1224 764 1380 886">NA</td> <td data-bbox="1380 764 1516 886">1.8.2 + 1.8.3 or 1.8.4 as appropriate</td> </tr> </table>				Shall meet				Placement	Instructions and manual	Package (Principal display panel or secondary display panel)	Hang tag or a sticker label affixed to the consumer product	Cases				Instructions and manual are provided	1.8.1 Figure 7B.1 or Figure 7B.2 + 1.8.2 + 1.8.3 or 1.8.4 as appropriate	NA	NA	Instructions and manual are not provided. Has product packaging;	NA	1.8.2 + 1.8.3 or 1.8.4 as appropriate	NA	Instructions and manual are not provided. No product packaging;	NA	NA	1.8.2 + 1.8.3 or 1.8.4 as appropriate
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Instructions (continues)	Reese's Law (P.L.117-171) 16CFR 1263.3 UL 4200A-2023, Cls.9.2	a) The statement "Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate."																											
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<p>General requirements for labeling of button cell or coin battery packaging.</p>	<p>Reese's Law (P.L.117-171) 16CFR 1263.4 (a)</p>	<p>(1) All warning statements must be clearly visible, prominent, legible, and permanently marked. (2) Warning statements must be in contrasting color to the background onto which the warning statement is printed. (3) Warning statements must be in English. (4) The safety alert symbol, an exclamation mark in a triangle, when used with the signal word, must precede the signal word. The base of the safety alert symbol must be on the same horizontal line as the base of the letters of the signal word. The height of the safety alert symbol must equal or exceed the signal word letter height. (5) The signal word "WARNING" and safety alert symbol must be in black letters on an orange background unless this would conflict with paragraphs (a)(1) and (2) of this section or only one color is present, in which case, the signal word and safety alert symbol must contrast to the background on which they are printed. The signal word must appear in sans serif letters in upper case only. (6) Certain text in the message panel must be in bold and in capital letters as shown in the example warning labels (figure 1 to paragraph (b)(1) and figure 3 to paragraph (b)(2)) to get the attention of the reader. (7) For labels that are required to be on the packaging of button cell and coin batteries, text size must be dependent on the area of the principal display panel. Text size must be determined based on table 1 to this paragraph (a)(7).</p> <p style="text-align: center;">TABLE 1 TO PARAGRAPH (a)(7)—LETTER SIZE FOR RECOMMENDED WARNING LABELS [Information based on 16 CFR 1500.19(d)(7)]</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="8" style="text-align: center;">Letter size measurements in inches</th> </tr> <tr> <th style="text-align: left;">Display area: inches²</th> <th>0-2</th> <th>+2-5</th> <th>+5-10</th> <th>+10-15</th> <th>+15-30</th> <th>+30-100</th> <th>+100-400</th> </tr> </thead> <tbody> <tr> <td>Signal word (WARNING)</td> <td>3/64</td> <td>1/16</td> <td>3/32</td> <td>7/64</td> <td>1/8</td> <td>5/32</td> <td>1/4</td> </tr> <tr> <td>Statement of Hazard</td> <td>3/64</td> <td>3/64</td> <td>1/16</td> <td>3/32</td> <td>7/64</td> <td>5/32</td> <td>1/4</td> </tr> <tr> <td>Other Text</td> <td>1/32</td> <td>3/64</td> <td>1/16</td> <td>1/16</td> <td>5/64</td> <td>3/32</td> <td>7/64</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="8" style="text-align: center;">Letter size measurements in cm (for reference only)</th> </tr> <tr> <th style="text-align: left;">Display area: cm²</th> <th>0-13</th> <th>+13-32</th> <th>+32-65</th> <th>+65-97</th> <th>+97-194</th> <th>+194-645</th> <th>+645-2,581</th> </tr> </thead> <tbody> <tr> <td>Signal word (WARNING)</td> <td>0.119</td> <td>0.159</td> <td>0.238</td> <td>0.278</td> <td>0.318</td> <td>0.397</td> <td>0.635</td> </tr> <tr> <td>Statement of Hazard</td> <td>0.119</td> <td>0.119</td> <td>0.159</td> <td>0.238</td> <td>0.238</td> <td>0.278</td> <td>0.397</td> </tr> <tr> <td>Other Text</td> <td>0.079</td> <td>0.119</td> <td>0.159</td> <td>0.159</td> <td>0.198</td> <td>0.238</td> <td>0.278</td> </tr> </tbody> </table>	Letter size measurements in inches								Display area: inches ²	0-2	+2-5	+5-10	+10-15	+15-30	+30-100	+100-400	Signal word (WARNING)	3/64	1/16	3/32	7/64	1/8	5/32	1/4	Statement of Hazard	3/64	3/64	1/16	3/32	7/64	5/32	1/4	Other Text	1/32	3/64	1/16	1/16	5/64	3/32	7/64	Letter size measurements in cm (for reference only)								Display area: cm ²	0-13	+13-32	+32-65	+65-97	+97-194	+194-645	+645-2,581	Signal word (WARNING)	0.119	0.159	0.238	0.278	0.318	0.397	0.635	Statement of Hazard	0.119	0.119	0.159	0.238	0.238	0.278	0.397	Other Text	0.079	0.119	0.159	0.159	0.198	0.238	0.278
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<p>Warning label requirements for button cell or coin battery packaging.</p>	<p>Reese's Law (P.L.117-171) 16CFR 1263.4 (b)</p>	<p>(1) The principal display panel of the packaging must include the warning label in figure 1 to this paragraph (b)(1). The icon must be at least 8 mm (0.3 inches) in diameter. The text must state the following warnings as shown in figure 1 to this paragraph (b)(1).</p> <p style="text-align: center;">Figure 1 to Paragraph (b)(1)</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;">⚠ WARNING</p> <ul style="list-style-type: none"> • INGESTION HAZARD: DEATH or serious injury can occur if ingested. • A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours. • KEEP new and used batteries OUT OF REACH OF CHILDREN • Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body. • For treatment information call: [phone number for the National Battery Ingestion Hotline, currently 1-(800) 498-8666].  </div> <p>(1) The principal display panel of the packaging must include the warning label in figure 1 to this paragraph (b)(1). The icon must be at least 8 mm (0.3 inches) in diameter. The text must state the following warnings as shown in figure 1 to this paragraph (b)(1).</p> <p style="text-align: center;">Figure 1 to Paragraph (b)(1)</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">⚠ WARNING</p> <ul style="list-style-type: none"> • INGESTION HAZARD: DEATH or serious injury can occur if ingested. • A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours. • KEEP new and used batteries OUT OF REACH OF CHILDREN • Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body. • For treatment information call: [phone number for the National Battery Ingestion Hotline, currently 1-(800) 498-8666].  </div>																																																																																

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		<p>(2) If space prohibits the full warning label shown in figure 1 to paragraph (b)(1), place the icon shown in figure 2 to this paragraph (b)(2) on the principal display panel with the text shown in figure 3 to this paragraph (b)(2) on the secondary display panel. The icon must be at least 20 mm in diameter. The text must state the following warnings as shown on figure 3 to this paragraph (b)(2).</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>Figure 2 to Paragraph (b)(2)</p>  </div> <div style="border: 1px solid black; padding: 5px; width: 200px;"> <p>Figure 3 to Paragraph (b)(2)</p> <p>▲WARNING INGESTION HAZARD • DEATH or serious injury can occur • A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours • KEEP new and used batteries OUT OF REACH OF CHILDREN • Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body • For treatment information call: [phone number for the National Battery Ingestion Hotline, currently 1-(800) 498-8666].</p> </div> </div> <p>(3) The following safety-related statements must be addressed on the principal display panel or secondary display panel:</p> <ul style="list-style-type: none"> (i) Keep in original package until ready to use. (ii) Immediately dispose of used batteries and keep away from children. Do NOT dispose of batteries in household trash. <p>(4) For button cell or coin battery packaging included separately with a consumer product, only paragraphs (b)(1) and (2) of this section apply.</p>
Accessibility Test	UL4200A-2023, Cls.5.1, 5.2,5.3, 5.4,	<p>To reduce the likelihood of unintentional access, products with removable or replaceable button/coin cell batteries shall not allow the button/coin cell to be contacted by Test Probe 11 of the Standard for Protection of Persons and Equipment by Enclosures – Probes for Verification, IEC 61032 when applied as described in 5.3.</p> <p>The probe shall be applied to any depth that the opening will permit and shall be rotated or angled before, during, and after insertion through the opening to any position that is necessary to examine the enclosure. The probe shall be used as a measuring instrument to judge the accessibility provided by an opening, and not as an instrument to judge the strength of a material. The probe shall be applied with the minimum force necessary to determine accessibility.</p> <p>During the examination of a product to determine whether it complies with the requirements in 5.3, a part of the enclosure that may be opened or removed by the user, either without using a tool or with less effort than two independent and simultaneous movements by hand, is to be opened or removed.</p>
	UL4200A-2023, Cls.5.4A	<p>If a part of the battery compartment enclosure is protected by pliable material such as fabric, paper, foam, or vinyl, or a pliable material with a seam, apply the Tension Test for Seams in Stuffed Toys and Beanbag-Type Toys test in the Standard Consumer Safety Specification for Toy Safety, ASTM F963, to determine whether the battery compartment enclosure can become exposed or accessible, using a force of at least 70.0 N (15.7 lbf). If a new part of the battery compartment enclosure becomes exposed or accessible, repeat 5.4 and remove any further pliable material that is then exposed until no new part of the battery compartment enclosure becomes exposed or accessible, and then conduct the test in 5.3.</p>

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*Battery compartment requirement		<p>Products that locate removable or replaceable button/coin cell batteries inside a battery compartment shall be designed to prevent children from removing the battery by one of the following methods in (a) or (b) below. Compliance is checked by the tests of Section 6.</p> <p>a) A tool, such as a screwdriver or monetary coin, is required to open the battery compartment. For a battery compartment secured by a screw or a twist-on access cover, a minimum torque of 0.5 Nm and a minimum angle of 90 degrees of rotation shall be required to open the compartment or the fastener shall engage a minimum of two full threads; or</p> <p>b) The battery compartment door or cover requires the application of a minimum of two independent and simultaneous movements to open by hand. The movements to open shall not be combinable to a single movement with a single finger or digit.</p>
*Captive screws		<p>If screws or similar fasteners are used to secure the door or cover providing access to a battery compartment, the fasteners shall be captive to the door, cover, or device.</p> <p>Exception No. 1: Applies to products containing button batteries or coin cell batteries not intended to be replaced by the consumer. Products containing button batteries or coin cell batteries that can only be accessed through the removal of multiple enclosures or panels using a tool do not need captive screws. Such products shall have instructions and warnings that clearly state the battery is not to be replaced by the consumer.</p> <p>Exception No. 2: Applies to products containing batteries not intended to be replaced by the consumer. Products that are only to be opened by a professional service center (where children are not present) are not required to have secured screws. Such products shall have instructions and warnings that clearly state the battery is not to be replaced by the consumer.</p>
*Construction requirement for non-replaceable button/coin cells		<p>Products that incorporate button/coin cells that are not intended for user removal or replacement shall effectively prevent removal of the battery by the user or children. The button/coin cell shall be:</p> <p>a) Made inaccessible by an enclosure or similar means that passes the applicable tests of 6.2 and 6.3; or</p> <p>b) Held fully captive by the use of soldering, fasteners such as rivets, or equivalent means. The securement method shall pass the Secureness Test of 6.4.</p>

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*Pre-conditioning		<p>One test sample shall be subjected to the following pre-conditioning conditions in sequence prior to testing in 6.3 and 6.4, as applicable:</p> <p>a) Stress Relief Test – A product with an enclosure, battery compartment door/cover or battery compartment door/cover opening mechanism made of molded or formed thermoplastic materials shall be subjected to a stress relief test. A sample of the complete product is to be placed in a circulating air oven for a period of 7 h. The oven temperature is to be set to the higher of (1) or (2) below. After removal from the oven, the sample is permitted to cool to room temperature.</p> <p>1) 70°C (158°F); or</p> <p>2) 10°C (18°F) higher than the maximum temperature of thermoplastic enclosures, battery compartment door/covers, or battery compartment door/cover mechanisms during the most stringent normal operation of the device.</p> <p>b) Battery Replacement Test – The battery compartment door/cover shall be opened and closed, and the battery removed and replaced, for a total of ten cycles. The process shall simulate replacement according to the manufacturer’s instructions. If the battery compartment is secured with a screw(s), the screw(s) is to be loosened and then tightened by means of a suitable screwdriver, applying a continuous linear torque according to the Torque to be Applied to Screws table, Table 20, of the Standard for Audio, Video and Similar Electronic Apparatus – Safety Requirements, UL 60065.</p>
*Abuse test	UL4200A-2023, Cls.6.3.1	The tests in 6.3.2 – 6.3.4 shall be performed sequentially, as applicable, on one pre-conditioned sample of the product. After all test conditions have been completed, compliance is checked by 6.3.5.
*Drop test for portable devices and hand-held products	UL4200A-2023, Cls.6.3.2	Portable devices are subjected to drop tests from a height of 1.0 m (39.4 in) onto a horizontal hardwood surface in positions likely to produce the maximum force on the battery compartment or enclosure. Portable devices are subjected to three drops, except hand-held products are subjected to ten drops. The hardwood surface shall be at least 13-mm (1/2-in) thick, mounted on two layers of nominal 19-mm (3/4-in) thick plywood, placed on a concrete or equivalent non-resilient surface.

TEST DESCRIPTION	REGULATION/TEST METHOD	REQUIREMENTS
*Impact test	UL4200A-2023, Cls.6.3.3	<p>The enclosure or battery compartment door/cover shall be subject to three, 2-J (1.5-ft·lbf) impacts. This impact is to be produced by dropping a steel sphere, 50.8 mm (2 inches) in diameter, and weighing approximately 0.5 kg (1.1 lb) from the height required to produce the specified impact, as shown in Figure 6.1, or the steel sphere is to be suspended by a cord and swung as a pendulum, dropping through the vertical distance required to cause it to strike the surface with the specified impact as shown in Figure 6.2. The steel sphere is to strike the battery compartment door/cover perpendicular to the enclosure surface.</p> 
*Crush test	UL4200A-2023, Cls.6.3.4	<p>The sample is to be supported by a fixed rigid supporting surface, in positions likely to produce the most adverse results as long as the position can be self-supported. A crushing force of 330 ± 5 N (74.2 ± 1.1 lbf) is applied for a period of 10 s to the exposed surfaces. The force is to be applied by a flat surface measuring approximately 100 by 250 mm (3.9 by 9.8 in).</p>
*Torque test	UL4200A-2023, Cls.6.3.4A	<p>If a child can grasp any part of the battery compartment enclosure on a consumer product, including the door or cover, with at least the thumb and forefinger, or using teeth, apply the Torque Test for Removal of Components from the Standard Consumer Safety Specification for Toy Safety, ASTM F963, to the battery compartment enclosure, using a torque of at least 0.50 Nm (4.4 in-lbf).</p>
*Tension test	UL4200A-2023, Cls.6.3.4B	<p>If a child can grasp any part of the battery compartment enclosure on a consumer product, including the door or cover, with at least the thumb and forefinger, or using teeth, apply the Tension Test for Removal of Components from the Standard Consumer Safety Specification for Toy Safety, ASTM F963, to the battery compartment enclosure, using a force of at least 72.0 N (16.2 lbf).</p>

TEST DESCRIPTION	REGULATION/TEST METHOD	REQUIREMENTS
*Compression test	UL4200A-2023, Cls.6.3.4C	If any surface of the battery compartment enclosure is accessible to a child and inaccessible to a flat surface contact during the Drop test in 6.3.2, apply the Compression Test from the Standard Consumer Safety Specification for Toy Safety, ASTM F963, to that surface, using a force of at least 136 N (30.6 lbf).
*Compliance	UL4200A-2023, Cls.6.3.5	After the tests of 6.3.2 – 6.3.4B, a force of 50 +10/-0 N (11.2 +2.2/-0 lbf) is applied for 10 s to the battery compartment door/cover or enclosure by a rigid test finger according to Test Probe 11 of the Standard for Protection of Persons and Equipment by Enclosures – Probes for Verification, IEC 61032. The probe is applied at the most unfavorable place and in the most unfavorable direction. The force shall be applied in only one direction. A battery compartment door/cover shall not open and shall remain functional. The battery shall not be accessible.
*Secureness test	UL4200A-2023, Cls.6.4	<p>Button/coin cells that are not intended for user removal or replacement, and are accessible based on 5.3 and 5.4, shall comply with the following test.</p> <p>Compliance is checked by application of a test hook as shown in Figure 6.3, with a force of 20 ±2 N (4.5 ±0.4 lbf), directed outwards, applied for 10 s at all points where this is possible. During the test, the button/coin cell shall not become separated from the product.</p> 