

Subject 817

September 7, 2018

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Cord Sets and Power-Supply Cords, UL 817, are being proposed:

1. Addition of Integral Latching Mechanisms on Cord Connectors, Revised 5.9, and Section 9.11; New Clause 8.7 and Section 19B

STP BALLOTS AND ALL COMMENTS DUE: OCTOBER 8, 2018

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. Addition of Integral Latching Mechanisms on Cord Connectors, Revised 5.9, and Section 9.11; New Clause 8.7 and Section 19B

RATIONALE

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There have been requests for integral restraint devices on cord connectors. UL 498, The Standard for Attachment Plugs and Receptacles, already has such requirements in the standard for integral latching mechanisms on cord connectors. In order to be in line with UL 498, requirements are being proposed to UL 817.

PROPOSAL

5.9 CORD RESTRAINT DEVICE – A device provided with retention means intended to reduce the likelihood of an attachment plug becoming unintentionally detached from a mating cord connector of a cord set or any outlet device. This is permitted to be a separate add-on device or integral to the cord connector. ~~device is not an integral or permanently attached component of a cord set or outlet device, but rather is a separate add-on device.~~

(NEW)

8.7 Manually- or Spring-activated latching cord connectors

8.7.1 A cord connector of the 1-15R, 5-15R, 5-20R, 6-15R, or 6-20R configuration is permitted to be provided with a manually- or spring-activated latching mechanism.

8.7.2 A cord connector with a manual or spring-activated latching mechanism shall be subjected to the applicable tests in Tests for Cord Connectors, Section 14, with the mechanism in place and defeated. In addition, a cord connector provided with a manual or spring-activated latching mechanism shall be subjected to the Latch Mechanism Tests, Section 19B.

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9.11.3 Cord restraint devices not employing a latching mechanism shall not be integral with or permanently attached to a cord set or outlet device. Cord restraint devices employing a latching mechanism are permitted to be integral with the cord connector and shall comply with the requirements as described in Manually- or Spring-activated latching cord connectors. 8.7.

19B Latch Mechanism Tests

19B.1 Tests for manually- or spring-activated latching cord connectors

19B.1.1 A cord connector of the 1-15R, 5-15R, 5-20R, 6-15R, or 6-20R configurations, employing a manually- or spring-actuated latching mechanism for locking a mated attachment plug in place after its blades have been inserted into the female contacts shall comply with the Cycling test, 19B.2 and the Pull test, 19B.3.

19B.2 Cycling test

19B.2.1 After completion of this test:

- a) The latching mechanism shall remain capable of functioning as intended.
- b) There shall not be any damage, arcing or dielectric breakdown of the attachment plug or cord connector during application of the test potential.
- c) The mating plug shall not displace more than 2.4 mm (3/32 in) from the cord connector outlet as a result of the test force as indicated in 19B.2.3.

19B.2.2 Each of six previously untested devices is to be tested. A mating attachment plug having rigidly mounted solid blades and standard detent holes shall be inserted and fully seated into the outlet of the device under test. For devices with the 1-15R, 5-15R, 5-20R, 6-15R, or 6-20R configurations, the mating plugs shall have the configurations specified in Table 19B.1. The latching mechanism is to be activated to lock the plug in place. The locking means is then to be de-activated to release the plug and the plug is to be withdrawn from the outlet. This sequence is to be repeated for a total of 1000 cycles.

(NEW TABLE)

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