



UL 814

STANDARD FOR SAFETY

Gas-Tube-Sign Cable

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UL Standard for Safety for Gas-Tube-Sign Cable, UL 814

Twelfth Edition, Dated July 6, 2011

SUMMARY OF TOPICS:

This revision to UL 814 changes the effective date for 5.1.1 and Table 5.1 from January 6, 2012 to October 1, 2012.

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. Changes in requirements are marked with a vertical line in the margin and are followed by an effective date note indicating the date of publication or the date on which the changed requirement becomes effective.

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The following table lists the future effective dates with corresponding reference.

Future Effective Date	References
October 1, 2012	5.1.1, Table 5.1

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This ANSI/UL Standard for Safety consists of the Twelfth Edition including revisions through March 1, 2012.

The most recent designation of ANSI/UL 814 as an American National Standard (ANSI) occurred on July 6, 2011. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, or effective date information.

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 <http://csds.ul.com>.

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INTRODUCTION

1 Scope

1.1 These requirements cover single-conductor, 18 – 10 AWG, gas-tube-sign cables with temperature ratings of 105°C – 250°C (221°F – 482°F), and ratings of 5000 volts, 10000 volts, or 15000 volts. The cables are for use with gas-tube systems for signs, outline lighting, and interior lighting in accordance with the National Electrical Code and the Standard for Electrical Signs, UL 48.

1.2 Assemblies that include these cables and are intended for use as components of gas-tube signs shall meet the requirements in the Standard for Electric-Sign Components, UL 879.

2 References

2.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

2.2 Wherever the designation "UL 1581" is used in this standard, reference is to be made to the designated parts of the Reference Standard for Electrical Wires, Cables, and Flexible Cords, UL 1581. Whenever the designation "UL 2556" is used in this standard, reference it to be made to the designated parts of the Standard for Wire and Cable Test Methods, UL 2556.

3 Units of Measurement

3.1 In addition to being stated in the inch/pound units that are customary in the USA, each of the requirements in this standard is also stated in units that make the requirement conveniently usable in countries employing the various metric systems (practical SI and customary). Equivalent – although not necessary exactly identical – results are to be expected from applying a requirement in USA or in metric terms. Equipment calibrated in metric units is to be used when a requirement is applied in metric terms.

4 Materials

4.1 Each material used in a cable shall be compatible with all of the other materials used in the cable.

5 Conductors

5.1 Materials, sizes, and ratings

5.1.1 The conductor shall be of soft-annealed copper. The conductor shall be 18 – 10 AWG in size. The conductor shall not be smaller in area than indicated in Table 5.1 and shall be continuous throughout without joints in the conductor as a whole. The voltage rating of the cable shall not exceed the rating shown in Table 5.1 based on conductor size.

Effective date for 5.1.1 changed from January 6, 2012 to October 1, 2012

5.1.2 The size of a conductor shall be verified either by determination of the d-c resistance or by determination of the cross-sectional area as described in 5.1.4. Measurement of the d-c resistance is to be as described in the test, D-C Resistance, in UL 2556. Determination of the conductor size by measurement of the direct-current resistance is the referee method in all cases. The d-c resistance shall not be higher than the maximum indicated for the size in Table 5.3 or 5.4, as applicable.