

# What these Certification Marks mean

Products with those logos meet rigorous standards for electrical safety and electromagnetic emissions.

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In operation for more than a century, Underwriters Laboratories Inc. is an independent nonprofit organization that writes and tests products for safety and certifies them. UL has developed more than 800 standards for safety, and millions of products and their components are tested to UL's safety standards. UL's web site is at <http://www.ul.com>. Information about UL standards can be found at <http://ulstandardsinfolinet.ul.com>. If a product is UL listed, you know it has passed UL's stringent tests for electrical safety.

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The Canadian Standards Association (CSA) is a nonprofit association serving business, industry, government and consumers in Canada and the global marketplace. Among many other activities, CSA develops standards that enhance public safety.

A Nationally Recognized Testing Laboratory, CSA is very familiar with U.S. requirements. According to OSHA regulations, the CSA-US Mark qualifies as an alternative to the UL Mark.

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The UL RoHS product certification means that products comply with UL's RoHS product certification program requirements. Representative samples of products are tested at the homogeneous materials level for the presence of six substances restricted by the EU RoHS Directive. The six substances must not exceed the limits set by the RoHS Directive.

## What these Certification Marks mean . . . continued



The ETL Listed Mark is an alternative to the CSA and UL marks.

ETL Testing Laboratories has been conducting electrical performance and reliability tests since 1896. It was founded by Thomas Edison. Intertek Testing Services (ITS) acquired ETL from Inchcape in 1996. ITS is recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL), just as Underwriters Laboratories (UL), Canadian Standards Association (CSA) and several other independent organizations are recognized.

ITS tests products according to nearly 200 safety and performance standards. The ETL Listed Mark and C-ETL Listed Mark are accepted throughout the United States and Canada when denoting compliance with nationally recognized standards such as ANSI, IEC, UL, and CSA.

This certification mark indicates that the product has been tested to and has met the minimum requirements of a widely recognized (consensus) U.S. product safety standard, that the manufacturing site has been audited, and that the applicant has agreed to a program of periodic factory follow-up inspections to verify continued conformance.

If the mark includes a small US and/or C, it follows product safety standards of United States and/or Canada, respectively.

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The FCC logo is probably the most common product safety label found on consumer electronics. All commercial electronic devices sold in the United States are regulated by the Federal Communications Commission (FCC) if they employ clocks or oscillators - operate at a frequency of greater than 9 kHz, and use digital techniques

This includes almost every product that contains a microprocessor. If an unintentional radiator is not controlled through proper design using grounding and shielding, the result may be high levels of energy radiated or conducted from the equipment causing unwanted effects upon another device.

## What these Certification Marks mean . . . continued



The European Commission describes the CE mark as a "passport" that allows manufacturers to circulate industrial products freely within the internal market of the EU. The CE mark certifies that the products have met EU health, safety and environmental requirements that ensure consumer and workplace safety. All manufacturers in the EU and abroad must affix the CE mark to those products covered by the "New Approach" directives in order to market their products in Europe. Once a product receives the CE mark, it can be marketed throughout the EU without undergoing further product modification. An important document related to CE is the **Declaration of Conformity** (D.O.C.). Basically it's a piece of paper which a company authority must sign to say that the device meets the requirements of the Directive. The D.O.C. must include a list of any standards used to justify the claim of compliance with the Directive. In summary, the certification marks on products are your assurance that the product meets rigorous standards for electrical safety and electromagnetic emissions. It poses no shock hazard (except as noted on the product or in the manual), and it will not cause electromagnetic interference with other devices beyond a certain distance.

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## DLC

The DesignLights™ Consortium (DLC) Qualified Product List (QPL) ([www.designlights.org](http://www.designlights.org)) provides a central place for manufacturers to submit products for qualification and for utilities and energy efficiency program administrators to distinguish high performing products for use in their incentive programs. Due to the rapid technological advances in the Solid State Lighting (SSL) industry, the DLC continues to update and improve its specification criteria and product categories.

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According to the U.S. Environmental Protection Agency (EPA), the label was first introduced in 1992 "to help reduce greenhouse gas emissions and other pollutants caused by the inefficient use of energy and make it easy for consumers to identify and purchase energy-efficient products that offer savings on energy bills without sacrificing performance, features and comfort." Products can earn the elite, bright blue ENERGY STAR label by meeting specific energy efficiency requirements, such as verified energy savings and performance.