The benefits of using LED video displays at a wide range of events and installations are well documented; they bring audiences closer to the action, heighten brand awareness, and broadcast information to a bigger audience than is possible by any other visual means.

LED displays are available at a wide variety of price points. For users to whom price is high on their list of priorities, low-cost LED screens can seem like an attractive proposition. However, they often do not comply with technical standards and certifications that guarantee safe and reliable operation.

Why is certification important?

Uncertified LED video screens can bring many potential problems. These range from the potentially life-threatening including fire, electrocution and physical screen collapse - to erratic or unstable operation, failure of the display, electrical damage to linked equipment, and failure to comply with local ordinances dictating safe use.

Certification helps to satisfy usage regulations and provides proof of the product's quality. Certification also helps create customer confidence that the product is from a reliable manufacturer, will operate reliably, and is guaranteed for







What types of certification are important when choosing a LED video screen?

Certification for LED screens falls into three basic categories, each covering different areas of emphasis. Certification proves that the product conforms to professional - and often legal - quality standards. These cover Functionality and Safety, Electromagnetic Compatibility (EMC) and **Environmental** standards.





How to recognize fake certification?

The importance of correct certification for LED screen equipment means that there are, inevitably, unscrupulous manufacturers who will issue low-cost solutions with fake or incomplete certification. But how can you tell if a certificate is genuine or not?

Here are a number of simple checks that you can carry out to be sure:

- Does the certificate show a clear description of the product, including model references, specifications and test reference?
- Does it include a manufacturer's name and address?
- Does it contain a date and body signature?
- Is it valid / current?
- Does the certificate state the type or standard of the examination?
- Does it clearly show the testing organisation and certification number?
- Does the certificate-issuing organisation exist and is it professionally recognize?
- Are there signs of tampering, such as differing fonts, type sizes, or changes in colour on

If you are in doubt about any of the above, you should check with the testing/inspection organization that issued the certificate. As a double check, you should employ a known, reliable inspection organization to authenticate the certificate.









































Location: A38, Birmingham, UK

Screen: 2 sets of Impact 12 each measuring 5.4m(17.72')

wide by 7m(22.97') high, 37.8sqm(406.88sq ft.)

Owner/ Customer: CBS

For further details of Lighthouse products , please visit our website www.lighthouse-tech.com or contact your nearest Lighthouse office.

Unit 301-306 & 316-320, 3/F, Photonics Centre, 2 Science Park East Avenue, Hong Kong Science Park, New Territories, HONG KONG T: +852 2192 1688 F: +852 2423 1092 E: info@lighthouse-tech.com

N. & S. America T:+86 4008 240128 T:+44 208 380 9500 T:+1 949 2650 534

T:+81 3 5462 1135

T:+82 10 7127 0235

Website: http://www.lighthouse-tech.com Facebook: http://www.facebook.com/LighthouseLED Twitter: http://twitter.com/LighthouseLED

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Functionality and Safety

- Physical requirements such as design, construction, and mechanical assembly.
- General product requirements, such as clear labelling and operating instructions.
- Correct wiring connection and supply.
- Protection from design and manufacturing hazards.
- ▶ Electrical requirements and satisfactory operation in simulated abnormal conditions.

Standards that prove LED screens comply with the relevant legislation for functionality and safety include CE-LVD, UL/ETL, CCC and TUV.

What can happen if you do not have a safety certified product?

- The possibility of structural failure.
- The potential for fire if the screen's outer protective structure and casing, wire, and cabling do not meet the relevant standard.
- Likelihood of electrical malfunction and shock from wiring, power supplies, and switching.
- Legal problems may arise in some countries regarding whether use of uncertified equipment is allowed.

Electromagnetic Compatibility (EMC)

EMC compliance for LED screens aims to ensure that they will not interfere with the operation of other equipment, or be compromised themselves, through spurious emission and absorption of electro-magnetic interference. This includes:

- Radiated Emissions
- Conducted Emissions
- Harmonic Emissions
- Voltage Fluctuations Immunity
- ▶ Electrostatic Discharge Immunity

Standards which prove LED screens comply with the relevant EMC legislation include CE-EMC, FCC and CCC.

What can happen if you do not have an EMC certified product?

- The screen may interfere with the operation of electronic devices nearby.
- It may interfere with key technology like avionics, telecommunications, and medical systems, resulting in the potential to cause accidents.
- Legal problems may arise in some countries regarding whether use of uncertified equipment is allowed.

Environmental Standard

'Green' certification is now an important standard for all electrical equipment. For LED screens, it includes:

- ▶ Environmentally friendly operation.
- ▶ Ensuring that restricted hazardous substances are not included in the product. These include lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers and others.
- Ensuring that the product can be safely disposed of and, wherever possible, recycled at the end of its working life.

Standards which prove LED screens comply with the relevant environmental legislation include RoHS and Reach.

What can happen if you do not have an environmentally certified product?

- Forbidded to import due to excessing the annual amount limit for importing restricted hazardous substances that enacted over indiviual company in some countries, such as EU.
- Potential health issues.
- Difficulties in safely and legally disposing of equipment at its end of life.
- Some countries require this certification as a mandatory definition of the sale.





