CE Marking for Electronics and Batteries: A Practical Guide for Manufacturers, Importers, and Compliance Managers

Georgia & Molly | August *2026*

Introduction

Placing a product on the European market without the CE mark is not simply an administrative oversight — it is a regulatory violation that can result in market bans, product recalls, substantial fines, and in some jurisdictions criminal liability. Yet despite the mark's prevalence on consumer goods and industrial equipment alike, misconceptions about what it means, who is responsible for it, and how it is properly obtained remain widespread among commercial operators.

The CE mark — from the French *Conformité Européenne* — is a mandatory conformity marking that signifies a product meets the applicable health, safety, and environmental protection requirements established under EU harmonisation legislation. It is not a quality mark or a commercial certification; rather, it is a regulatory declaration by the manufacturer that the product conforms to all relevant EU legal requirements before it is placed on the market.

This guide provides a practical overview of the CE marking framework aimed at manufacturers, importers, and product compliance managers. It covers the legal foundation of the regime, the conformity assessment modules through which compliance is demonstrated, the obligations that fall on economic operators across the supply chain, the enforcement landscape, and the specific requirements that apply to two product categories where compliance complexity is particularly high: electronics and batteries. It also addresses the position of the UK Conformity Assessed (UKCA) mark and the distinct rules applying to Northern Ireland — both increasingly critical considerations for businesses operating across the UK and EU.

The Legal Framework

Regulatory Foundation

The general framework for CE marking is established under Regulation (EC) No 765/2008 — setting out accreditation and market surveillance requirements — and Decision No 768/2008/EC, which provides the common framework for the marketing of products. These instruments have been substantially consolidated into what is now known as the New Legislative Framework (NLF). Its annexes, particularly the conformity assessment modules, have been directly incorporated into sector-specific legislation; practitioners should refer to those instruments rather than to Decision 768/2008/EC itself.

CE marking applies across a broad range of product categories governed by sector-specific EU directives and regulations. The NLF provides the architecture; the sector legislation provides the detail and specifies which conformity assessment procedures manufacturers must follow for a given product type.

RMarket Access Rights — and Their Limits

A validly CE-marked product benefits from the principle of free movement of goods within the EU internal market under Article 34 TFEU, and may also be placed on the markets of EEA states — Norway, Iceland, and Liechtenstein — without further conformity requirements. Member states may not prohibit, restrict, or impede the placing on the market or putting into service of CE-marked products that comply with the applicable harmonisation legislation, except on limited grounds, such as a product presenting an unacceptable risk.

That market access right is, however, contingent on genuine compliance. Affixing the CE mark without meeting the underlying requirements does not confer market access rights and exposes the economic operator to enforcement action. The mark is a legal statement, not a commercial badge — and the consequences of making it incorrectly are serious.

Conformity Assessment: The Modular System

How the Modules Work

The framework's modular architecture was first formalised by Council Decision 93/465/EEC and significantly modernised by Decision No 768/2008/EC, which established a standardised "menu" of modules that individual sector directives and regulations can select from and incorporate by reference, ensuring consistency across the single market.

The modules divide broadly into two phases: design-phase assessment — does the product design meet the requirements? (primarily Module B and Module H/H1) — and production-phase assessment — does the manufactured product conform to the assessed design? (Modules C through G). Some modules cover both phases in a single integrated procedure.

Individual EU directives and regulations determine which modules are available for each product category or risk class. Manufacturers do not have unconstrained freedom of choice; the applicable legislation specifies permissible modules, often structured around risk tiers.

Risk Tiers and Module Selection

In practice, module availability maps to product risk:

- **Lower-risk products** — for example, simple electrical equipment under the Low Voltage Directive — Module A is commonly available and widely used.
- **Medium-risk products** — for example, PPE Category II equipment — typically require a Module B type examination combined with a production module such as C2 or D.
- **Higher-risk products** — for example, PPE Category III, Class III medical devices, and Pressure Equipment Directive Category IV — require mandatory Notified Body involvement at both design and production stages; modules such as B+D, B+E, B+F, G, or H/H1 are specified.

Where multiple modules are offered as alternatives, manufacturers select based on their existing quality management infrastructure (for example, an ISO 9001-certified manufacturer may favour a QMS-based (Quality Management System) module such as D or H), production volume (unit verification under Module G is impractical for mass production), commercial and cost considerations, and the availability of accredited Notified Bodies for the relevant product category.

Module Reference Table

The table below summarises the principal conformity assessment modules available under the NLF:

Module	Notified Body Involvement	Phase Covered	Assessment Basis
A	None	Design + Production	Internal control
A1	Supervised testing only	Design + Production	Internal + supervised tests
A2	Random checks	Design + Production	Internal + random surveillance
B	Full (certificate issued)	Design only	Type examination
C / C1 / C2	None / Supervised / Random	Production (relies on Module B)	Internal production conformity
D / D1	QMS approval + surveillance	Production / Design + Production	Quality assurance (production QMS)
E / E1	QMS approval + surveillance	Production / Design + Production	Quality assurance (product inspection)
F / F1	Product/batch verification	Production / Design + Production	Direct product verification
G	Unit-by-unit verification	Design + Production	Individual unit examination
H / H1	Full QMS approval + surveillance	Design + Production	Full quality assurance (H1 adds design certificate)

Obligations Across the Supply Chain

Manufacturers

Manufacturers bear primary responsibility for CE marking compliance. Their core obligations cover four areas:

1. **Conformity Assessment.** Manufacturers must conduct the appropriate conformity assessment procedure as specified by the applicable directive(s). This may be carried out by the manufacturer alone — internal production control — or may require involvement of a Notified Body, an accredited third-party body designated by an EU member state, for higher-risk products.
2. **Technical Documentation**. Manufacturers must compile and maintain a technical file demonstrating conformity, including product specifications, design drawings, risk assessments, test reports, and a list of harmonised standards applied. Test reports used to support CE marking claims should, as best practice and in some cases mandatory practice, be issued by laboratories accredited under ISO/IEC 17025 by an EA member body. The technical file must be kept for a minimum of 10 years after the product is placed on the market, or longer as specified by sector legislation.
3. **EU Declaration of Conformity (DoC).** Manufacturers must draft, sign, and retain an EU Declaration of Conformity identifying the product, the manufacturer, applicable legislation, applied standards, and where relevant the Notified Body. The DoC must be made available to market surveillance authorities on request and, in many cases, to end users.
4. **Affixing the CE Mark.** The CE mark must be affixed to the product, or where not possible due to size or nature, to the packaging or accompanying documentation, before the product is placed on the EU market. The mark must conform to minimum dimensions and graphical requirements set out in applicable legislation, including a minimum height of 5 mm.

Authorised representatives established in the EU may fulfil certain obligations on behalf of non-EU manufacturers. For businesses based outside the EU, identifying and appointing a competent EU-based authorised representative is therefore a practical necessity — not an optional administrative step.

Importers and Distributors

Importers must verify technical documentation; ensure products bear CE marking and are accompanied by required documents; ensure a responsible manufacturer or EU authorised representative is identified on the product; keep copies of the DoC for 10 years; and ensure products are accompanied by instructions and safety information in the relevant member state language(s).

Distributors have parallel, if lighter, obligations, including language-of-instructions checks and immediate notification and corrective action duties.

A critical point frequently overlooked: an importer who places a product on the EU market under its own name or trademark assumes the full obligations of the manufacturer. Businesses that source products from outside the EU and rebrand them for the European market are, in regulatory terms, the manufacturer — and are exposed accordingly.

Enforcement and the Consequences of Non-Compliance

Market Surveillance

Market surveillance is carried out by designated national authorities in each member state, coordinated at EU level through the Market Surveillance Regulation (EU) 2019/1020. Enforcement measures available to authorities include requiring corrective action or withdrawal of the product from the market, ordering a recall where there is a serious risk, restricting or prohibiting the making available of the product, and referral to customs authorities to prevent importation.

The Digital Services Act (Regulation (EU) 2022/2065) imposes obligations on online platforms and marketplaces relating to unsafe and non-compliant products, and is increasingly enforced in parallel with market surveillance. In practice, this means that electronics or batteries without the CE mark and the required supporting documentation will not be accepted for sale on online marketplaces.

> For businesses that rely on e-commerce channels to reach European consumers, this is an acute operational risk — non-compliance can result in product listings being removed or accounts suspended, often with little advance warning.

Penalties

Penalties for non-compliance are determined by member states and vary by jurisdiction, but must be effective, proportionate, and dissuasive under EU law. The exposure can be substantial:

- **Administrative fines** — in some jurisdictions running to hundreds of thousands of euros.
- **Criminal liability** for individuals, in jurisdictions where fraudulent CE marking constitutes a criminal offense.
- **Civil liability** for damage caused by non-compliant products under the Product Liability Directive, (EU) 2024/2853.
- **Reputational and commercial consequences**, including public alerts through the RAPEX/Safety Gate rapid alert system, which notifies consumers and authorities across the EU of dangerous products.

Affixing the CE mark falsely or without completing the required conformity assessment constitutes a specific infringement distinct from substantive product non-compliance, and is treated as a serious regulatory violation across member states.

The UK Position: UKCA Mark and Northern Ireland

Businesses trading across both the EU and the UK need to consider a dual compliance landscape following Brexit. However, the UK government indefinitely extended the recognition of the CE mark for placing most manufactured goods (including electrical equipment, electronics, and machinery) on the market in Great Britain. This however need to be checked before market entry.

The UKCA mark (UK Conformity Assessed) is the UK government's equivalent to CE marking, introduced following the UK's departure from the EU. It serves the same conceptual purpose — indicating conformity with applicable UK product regulations — but applies specifically to products placed on the market in Great Britain (England, Wales, and Scotland). It does not apply to Northern Ireland.

Northern Ireland occupies a distinct position. Under the Windsor Framework, Northern Ireland remains aligned with EU single market rules for goods. Products placed on the Northern Ireland market must therefore generally carry the CE mark and, where third-party assessment is involved, may also require the UKNI indication if assessed by a UK Approved Body. The UKCA mark is not recognised in Northern Ireland.

CE Marking for Electronics

The Applicable Legislation

Electronics present one of the more complex compliance landscapes under the CE marking framework, because a single product may fall within the scope of several directives and regulations simultaneously. The key instruments are:

- **EMC Directive 2014/30/EU** — electromagnetic compatibility.
- **Low Voltage Directive (LVD) 2014/35/EU** — electrical safety for equipment operating within specified voltage ranges.
- **Radio Equipment Directive (RED) 2014/53/EU** — for products with radio functionality, replacing the earlier R&TTE Directive.
- **RoHS Directive 2011/65/EU (recast)** — restriction of hazardous substances in electrical and electronic equipment.
- **Cyber Resilience Act (CRA) 2024/2847/EU** — electronic products with digital elements.

The CRA deserves particular attention from compliance teams. It introduces mandatory cybersecurity requirements for products with digital elements — including hardware with embedded software — and will progressively reshape the compliance burden for connected devices across the electronics sector. For manufacturers of IoT devices, smart home equipment, and networked industrial hardware, the CRA is not a future consideration; it is a present regulatory reality that should be built into product development processes now. The reporting of vulnerabilities and safety incidents come into force September 11th 2026. The full CRA comes into force December 11th 2027.

The Conformity Assessment Process

Module availability varies by directive. For the LVD, Module A — internal production control — is primarily sufficient. For the EMC Directive, Module A is available, but Modules B+C and H are also options. For the RED, Module A applies where harmonised standards are fully applied; Modules B+C or Module H are required where standards are not fully applied or for certain product categories.

The standard conformity pathway for most electronics products involves: compiling a technical file including product description, design drawings, list of harmonised standards applied, risk assessment, and test reports; testing against relevant harmonised EN standards — for example, EN 55032 for EMC and EN 62368-1 for LVD/audio-video equipment, where application of harmonised standards creates a presumption of conformity with the essential requirements; the manufacturer or authorised representative drafting and signing an EU Declaration of Conformity identifying the product, applicable directives, and standards applied; and affixing the CE mark to the product, packaging, or accompanying documentation before placing on the EU market.

Category-Specific Obligations

Several additional requirements apply depending on the specific product and applicable legislation:

- **Notified Body involvement** is required for certain radio equipment under the RED where no harmonised standard covers all essential requirements, or where the manufacturer has not applied harmonised standards.
- **RoHS substance restrictions** — restricted substances including lead, mercury, and cadmium, as well as phthalates, must not exceed threshold concentrations in homogeneous materials.
- **RED pre-market obligations** — some categories require pre-market notification registration, and radio equipment must include information on radio frequency bands and maximum power output.
- **WEEE Directive 2012/19/EU** imposes producer registration and take-back and recycling obligations — these are separate from CE marking but apply to the same product category and must be addressed in parallel.

CE Marking for Batteries

The New Regulatory Landscape

Battery compliance has been substantially transformed by the introduction of a comprehensive new regulatory instrument.

The Battery Regulation (EU) 2023/1542 replaced the Battery Directive 2006/66/EC and applies to all battery categories — portable, industrial, electric vehicle, and starting, lighting, and ignition batteries. It is directly applicable across all EU member states.

The shift from directive to regulation is operationally significant. A directive requires national transposition and can result in variation across member states; a regulation is directly binding in its entirety, meaning compliance obligations are uniform across the EU from the date each provision applies. Businesses that previously navigated battery compliance country by country should be aware that this option no longer exists.

The Conformity Assessment Process

The conformity pathway for batteries under the Battery Regulation involves: preparing technical documentation covering battery design, materials composition, electrochemical performance, safety data, and lifecycle information; testing against applicable harmonised standards for safety and performance, including meeting performance and durability thresholds such as capacity fade and internal resistance limits; the responsible economic operator issuing an EU Declaration of Conformity confirming compliance with the Battery Regulation's requirements; and affixing the CE mark to the battery or, where size does not permit, to the packaging and accompanying documents.

Category-Specific Obligations

The Battery Regulation introduces a set of obligations that go significantly beyond the traditional CE marking framework, reflecting the EU's broader sustainability and supply chain transparency objectives. Compliance teams should treat these not as peripheral requirements but as core deliverables:

- **Notified Body involvement** is mandatory for industrial batteries with a capacity above 2 kWh and for EV batteries, which must undergo a third-party conformity assessment.
- **Carbon footprint declaration** is mandatory for EV batteries and rechargeable industrial batteries above certain thresholds, phased in over time. This requires manufacturers to calculate and disclose the lifecycle carbon footprint of their batteries — a supply chain transparency obligation of considerable practical complexity that will require coordination with materials suppliers and logistics partners.
- **Battery passport (digital product passport)** is required for EV batteries, LMT batteries, industrial batteries with a capacity above 2 kWh from February 2027. The digital passport must contain detailed product and supply chain data accessible via QR code — an infrastructure investment that manufacturers should be planning for now.
- **Due diligence obligations** apply regarding the responsible sourcing of raw materials, including cobalt, lithium, and nickel. These obligations align the Battery Regulation with broader EU supply chain due diligence legislation and require documented supply chain mapping and risk assessment.
- **Labelling requirements** are extensive: batteries must carry information on capacity, hazardous substances, the crossed-out wheeled bin symbol, a QR code for the battery passport, and a minimum capacity rating.
- **Collection and recycling targets** — producers must register with national producer responsibility schemes and meet collection rate and material recovery targets.
- **Recycled content requirements** are phased in from 2031 for cobalt, lead, lithium, and nickel.

Closing Summary

The CE marking framework is one of the most consequential regulatory systems facing manufacturers and importers selling into Europe. Getting it right is not merely a compliance exercise — it is a prerequisite for market access and a material factor in commercial risk management.

For electronics, compliance requires navigating a convergence of directives (EMC, LVD, RED, RoHS) as well as the emerging Cyber Resilience Act (CRA), each with its own conformity assessment pathway, documentation requirements, and category-specific obligations. For batteries, the transition to the Battery Regulation (EU) 2023/1542 marks a step-change in regulatory expectations: the new regime reaches beyond traditional conformity assessment into carbon footprint transparency, supply chain due diligence, digital product passports, and end-of-life obligations.

Across both product categories, supply chain actors — manufacturers, importers, and distributors — all carry defined legal responsibilities. The obligations do not begin and end with the manufacturer; they extend to anyone who places a product on the EU market or makes it available to end users. Businesses operating across the UK and EU must additionally account for the parallel UKCA framework applying in Great Britain, and the distinct rules that apply to Northern Ireland under the Windsor Framework.

The cost of non-compliance — financial penalties, criminal exposure, product recalls, marketplace bans, and reputational damage — substantially exceeds the cost of building a robust compliance programme. For compliance managers, the practical takeaway is straightforward: document thoroughly, assess conformity correctly, keep technical files current, and ensure that every actor in your supply chain understands their obligations before a product reaches the market.