

Pulling the Plug on Counterfeit Electrical Goods in Africa

White Paper



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About CBi-electric: low voltage

- Established in 1949, [CBi-electric: low voltage](#) is a manufacturer and supplier of quality low voltage electrical distribution, protection, and control equipment. Previously known as Circuit Breaker Industries, the company specialises in the design, development, and manufacturing of circuit breakers, residual current devices, surge protection, wiring accessories, and metering products.
- Headquartered in Johannesburg, South Africa, the company is a subsidiary of renowned JSE listed industrial group Reunert, established in 1888, with international operations across Africa, Asia, Australia, Europe, and USA.
- CBi-electric: low voltage can be found in almost every home and has firmly become a market leader over the last 75 years while supplying products to authorities, utilities, manufacturers, commercial property developers, industrial, mining, telecommunications, and general power distribution applications.



The Authors



Ryno Jonker, Financial Director at CBI-electric: low voltage

Ryno is a distinguished Financial Director who qualified as a Chartered Accountant in 2009. With over 14 years of dedicated service at CBI-electric: low voltage, he has been instrumental in leading the financial functions for the group of companies across South Africa, Lesotho, USA, and Australia. His extensive experience encompasses financial strategy, budgeting, and international financial management.



Dr Andrew Dickson, Engineering Executive at CBI-electric: low voltage

Andrew is an electrical engineer with over 20 years' industry experience. He has a passion for electrical safety with particular reference to living beings. Areas of interest extend from power distribution through to lightning. He leads a multidisciplinary team of design engineers in innovations and product design.



Khensani Ndobe, International Export Sales Executive at CBI-electric: low voltage

Khensani is a seasoned quality specialist with over 15 years' experience in testing, certification and standards development. Her career has been dedicated to ensuring product quality. She spent 13 years at the South African Bureau of Standards (SABS) where she played a key role in product testing and certification to both national and international standards. Now, she leads efforts to guarantee all CBI-electric: low voltage products meet rigorous local and international standards in her role as International Export Sales Executive. Khensani is also pursuing her passion for quality through her studies towards a Doctoral Degree in Business Administration with a key focus on Total Quality Management.



Cameron Giraudeau, Regional Sales Manager for Africa at CBI-electric: low voltage

With over 19 years of experience in the African electrical distribution market, Cameron has managed sales for various operations and parastatals across the continent. He possesses a broad understanding of the diverse market dynamics that characterise Africa, making him a specialist in his field.



Amandus Mulder, SHE Risk Manager at CBI-electric: low voltage

Amandus brings a wealth of knowledge to his role as CBI-electric: low voltage's SHE Risk Manager, with over 30 years of experience. Prior to his 15-year tenure at CBI-electric: low voltage, he served as the Safety, Quality and Environmental Officer at Eskom, demonstrating his commitment to safety within the electrical sphere.

Executive Summary

Counterfeit Electrical Products: A challenge to safety and economic growth in Africa

Counterfeit electrical goods represent a pervasive and growing threat across African markets. This white paper explores the dangers and extensive economic impacts posed by these items, highlighting key areas of concern and proposing strategic solutions to mitigate this serious issue.

The growing market for these illicit products thrives on the continent due to a confluence of weaknesses including ineffective regulations, poor border controls, and limited enforcement capacity. Further fuelling the issue is the allure of their cheaper prices. Consumers in search of affordable electrical products invariably find imitations at discounted prices. With manufacturers of these items cutting corners, this translates to the use of substandard materials and a complete absence of essential safety checks, creating a recipe for disaster with malfunctions leading to electrical shocks, fires, and increased risk of fatalities.

The illicit industry also has devastating knock-on effects on the legitimate electrical goods sector. Additionally, counterfeits drain vital tax revenue from governments, weakening economies and therefore having an impact on countries' abilities to invest in their futures.

This white paper will discuss a multi-pronged approach to combatting counterfeiting on the continent. By implementing these recommendations,



Dr Andrew Dickson, Engineering Executive at CBI-electric: low voltage

governments, businesses, and consumers can work together to safeguard African markets and ensure the safety and economic well-being of the continent.

Introduction

Deadly Deception: The hidden dangers of counterfeit electrical goods in Africa

For over 75 years, CBI-electric: low voltage, a proudly South African manufacturer, has championed the power of safe, high-quality, and compliant electrical goods to not only change lives but save them.

However, the proliferation of counterfeit electrical goods on the continent has spurred the company to fight for safer homes and businesses across Africa.

This white paper exposes the devastating safety risks (fire hazards and electric shocks) and the economic impacts of these products, going beyond just raising awareness, by providing clear guidance and highlighting safe, compliant solutions to empower consumers and businesses to make smart choices.

The ultimate goal: Put the Power of Safe Electricity in Every African Home.

Section 1

The Scope of Africa's Counterfeit Electrical Goods Issue

Counterfeits are infiltrating 40% to 80% of African Markets



Counterfeit electrical goods pose a significant threat to the safety and well-being of millions of Africans. While quantifying the exact scope of the problem is challenging due to limited data (with the most recent [study](#) published in 2015), a concerning picture has emerged. Estimates suggest counterfeit goods infiltrate 40% to 80% of African markets.

What is driving the continent's counterfeit [crisis](#)?

Wherever there is demand, counterfeiters will find opportunities to profit. Fake solar power systems, for example, which are surging in popularity especially in South Africa. This has led to a flood of uncertified components and [substandard solar panels](#), raising concerns from the [electricity minister](#) and local solar companies.

The proliferation of counterfeit electrical goods in Africa is fuelled by a complex interplay of factors on both the demand and supply sides.

Demand-side drivers:

- **Affordability:** For many African consumers, the low price of counterfeit goods is attractive, especially in regions with limited disposable income.
- **Obliviousness:** Counterfeit electrical goods pose a double threat; they're not only ineffective, but also unsafe for consumers. Despite these risks, a critical lack of awareness about their safety hazards keeps them flying off the shelves.
- **Limited access to safe alternatives:** The lack of readily available quality and affordable alternatives from legitimate sources make counterfeit goods seem like a viable option.
- **Widespread availability:** [Research](#) shows that these are easily accessible from street vendors, retailers, individuals, electricians and installers.

Supply-side drivers:

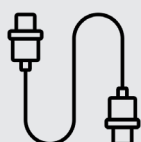
- **Weak intellectual property protections:** In some African countries, lax enforcement of intellectual property rights makes it easier for counterfeiters to operate without consequence.
- **Low production costs:** Counterfeit goods are often manufactured cheaply using inferior materials and processes. This allows counterfeiters to undercut the prices of legitimate products. Additionally, these items often do not undergo conformance testing or inspections by regulatory bodies, further reducing product costs.

Other contributing factors:

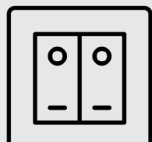
- **Corruption:** Compromised integrity within various compliance, administrative, and regulatory bodies can inadvertently enable the entry and distribution of counterfeit products by allowing such goods to evade critical inspection protocols, safety standards, and financial oversight measures.
- **Enforcement of regulations:** The lack of market regulation enforcement creates a space for counterfeiters to operate without the fear of ever being caught and their goods being seized.

The most commonly counterfeited goods

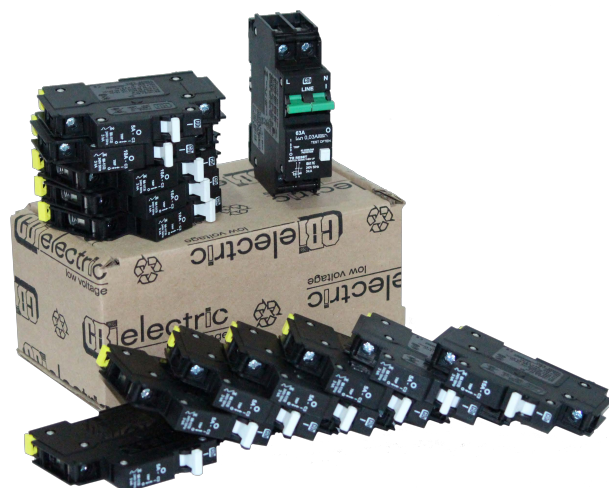
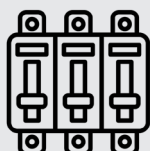
Cables
56%



Switches
42%



Circuit Breakers
40%



Where are fakes coming from?

Some [reports](#) suggest these goods may be rejected or deemed unfit for sale in their countries of manufacture and are subsequently dumped in Africa due to the economic environment. Recently, Uganda's Deputy Speaker of Parliament, Thomas Tayebwa, [challenged](#) the European Union to stop shipping counterfeit electrical accessories to Africa, arguing that the continent also needs quality and sustainable products.

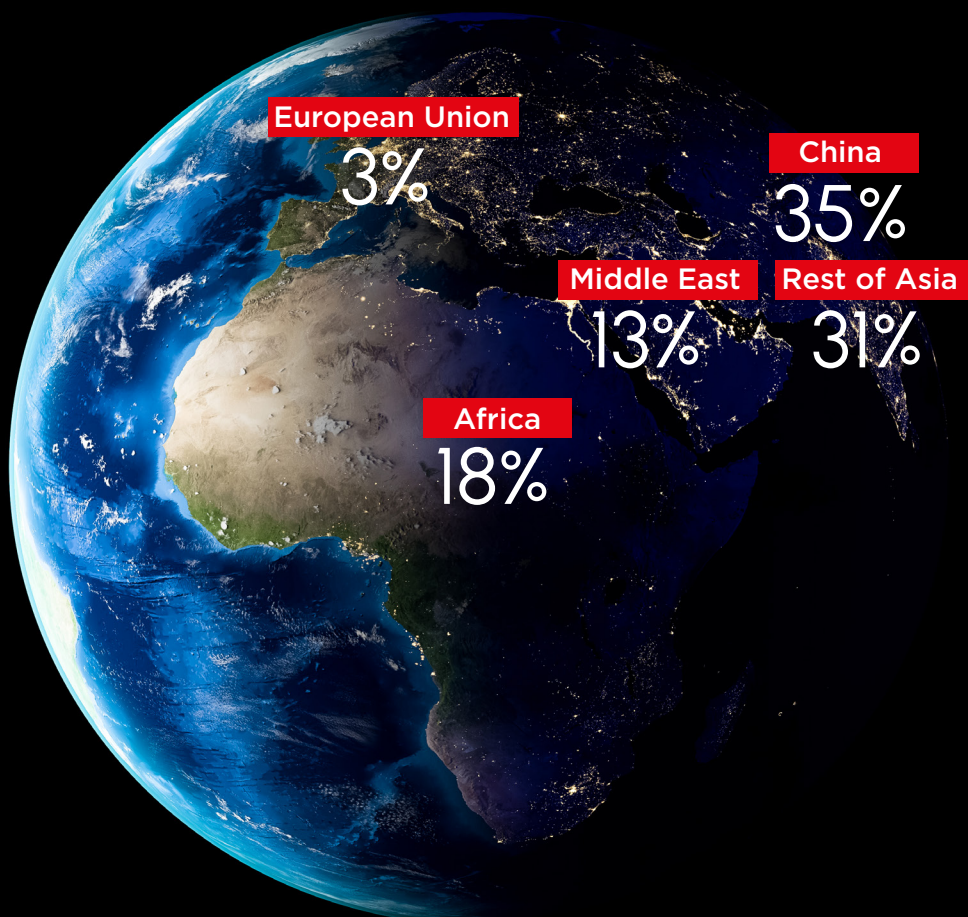
To ensure that only genuine products enter their countries, governments must:

- **Strengthen enforcement:** Implementing strict import regulations that enforce safety, quality, and environmental

standards is crucial. This includes strengthening mechanisms like customs inspections, product testing, and distribution channel monitoring.

- **Educate consumers:** Educating citizens about the dangers of counterfeit electrical goods and empowering them to make informed choices is crucial. This can be achieved through public awareness campaigns, educational initiatives, and partnerships with reputable manufacturers, retailers and installers.
- **Support legitimate businesses:** Governments and industry leaders can work together to create a more favourable environment for legitimate businesses by streamlining regulations, promoting fair competition, and fostering innovation in the electrical goods sector.

Where are counterfeits coming from?



Section 2

A Cheap Gamble with a High Price - The safety risk of using fakes

Composed of inferior materials and bypassing crucial safety checks, counterfeit electrical goods lack the safeguards and quality control of legitimate brands. This leaves them vulnerable to malfunctions and potentially catastrophic failures. At best, they might simply not operate. In the worst case, these devices may result in installations not being protected, with burns or electrical shocks being inflicted on users as a result. In severe circumstances, fires or fatalities occur.

Counterfeiters are becoming increasingly adept at mimicking genuine electrical goods, sometimes going so far as to replicate instruction manuals and packaging. This can make it challenging for consumers to distinguish between real and fake products. However, there are three ways to identify these imitations.

Knowing what to look for could save lives and property.

3 Ways to Spot CBI-electric: low voltage Fakes

1

Look at the date stamp

While counterfeit electrical goods may have a machine-applied date stamp, genuine products often undergo a quality inspection before the date is hand-stamped by an inspector. This means the placement of the date stamp on authentic items may vary slightly and could even be a bit skewed.



2

Check the manufacturer label

Authentic electrical goods will have a clear and accurate label displaying the manufacturer's logo, along with any relevant safety standards and certifications the product complies with. Fakes, on the other hand, tend to feature misspelled logos with the certifications missing.



3

Pay attention to the rivets

Legitimate manufacturers often use rivets with rounded heads during assembly. In contrast, counterfeiters use rivets with flat heads.



Section 3

Lost Revenue, Lost Jobs, Lost Lives - The true cost of counterfeiting in Africa

Globally, the counterfeit electrical goods market is booming, with estimates suggesting its value reaches a staggering [\\$250 billion](#) (R4500 billion) annually. This casts a long shadow on the legitimate electrical products industry, causing a ripple effect of financial losses totalling a further [\\$600 billion](#) (R10,800 billion) each year. These figures highlight the immense scale of the problem and the significant burden it places on bona fide businesses and economies.

While legal options exist for established businesses fighting counterfeiting in countries like South Africa (where [penalties](#) for first-time offenders include fines of up to R5,000 per item or three years imprisonment), the reality across the continent is far less uniform. In [Morocco](#), for example, criminal sanctions might be on the books, but law enforcement may be less willing to intervene. This uneven enforcement creates a significant hurdle for companies to protect their intellectual property.

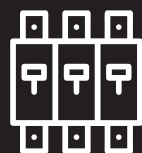
There could also be financial repercussions for installers who knowingly use counterfeit products. As these items are more likely to malfunction, leading to potential damage of customer property, this could result in costly insurance claims or even lawsuits if the damage is extensive. In addition, if the counterfeit item causes a fire, injury or loss of life, the installer could face legal consequences including hefty fines and or criminal charges.

The true cost of counterfeit electrical goods in Africa however extends far beyond revenue and economic loss. These dangerous products pose a significant threat to the public. Given the current economic climate, counterfeiters use substandard materials due to raw materials being more expensive. For example, instead of using tested and compliant plastic materials that are non-flammable or self-extinguishing to produce products and components, they use cheap, untested, and non-compliant alternatives. This poses a huge health and safety risk to consumers as they are highly flammable, do not self-extinguish and may also produce toxic smoke, making the overall electrical installation unsafe which puts people at risk of injury or death. These incidents can leave families devastated.

By taking a firm stance against counterfeiting, African nations can protect their citizens from a myriad of losses.



\$600 billion
(R10,800 billion)
Lost by the legitimate electrical products industry annually



\$250 billion
(R4500 billion)
Value of the global counterfeit electrical goods market

Knock-on Effects



Revenue Losses

Firstly, it siphons off substantial revenue from reputable businesses, hindering their ability to retain employees and sustain their product base.



Erosion of Trust

The poor quality and frequent failures of these knockoffs erode consumer trust in the very brands they imitate. This ultimately undermines the reputation of reputable businesses.



Community Impact

Companies forced to compete with these illegal products are often left with no choice but to lay off employees, leading to widespread job losses and financial hardship within local communities.



Broader Economic Implications

Governments lose tax revenue which hinders their ability to fund essential public services such as education, healthcare, and infrastructure development. Moreover, a [report](#) published by the Transnational Alliance to Combat Illicit Trade underscores the broader threat posed by counterfeiting – it's a significant obstacle to stability and economic growth.

Section 4

Safety, Performance, Savings - Why compliant electrical products pay off

The difference between life and death can hinge on a plug. Product certification and regulation ensure that electrical goods comply with strict safety, environmental and performance standards required both nationally and internationally. However, counterfeit electrical goods do not adhere to these because compliance costs time and money.

Legitimate businesses take time to follow the proper channels and protocols to launch products into the market and also incur costs related to testing, certification, and acquiring Letters of Authority (LoAs). Counterfeiters circumvent these requirements, accelerating their time-to-market and gaining an illegal competitive advantage. They even go to the extent of falsifying compliance documentation and certifications to deceive both retailers and consumers.

The true obstacle to enforcing safety standards for electrical goods in Africa is not a lack of regulations; it is the deliberate flouting of these safeguards by counterfeiters.

Unfortunately, this is being driven by the willingness of people, businesses and even municipalities to buy non-complying products just to save a buck, disregarding the inherent risks and potential repercussions.

Immediate cost savings are prioritised over long-term safety when purchasing electrical products. The short-term focus on price and the absence of immediate consequences can lead to a preference for cheaper counterfeit goods. However, this short-sighted approach can result in severe repercussions, including property damage and personal injury when these products fail to perform as intended. People have a choice but seldom realise the consequences of their actions. The total cost of losses resulting from non-conforming products far exceeds the initial savings gained from their purchase.

Legitimate manufacturers, certification bodies, and distributors hold a shared responsibility to educate consumers about the hidden dangers of counterfeit electrical goods, so they understand that the lower cost is not worth the risk.

Beyond safety, investing in compliant electrical goods offers a wealth of benefits that far outweigh a cheaper version as these products typically:

- **Last longer:** Made with better materials and construction, compliant products offer an extended lifespan, saving you money on replacements. In addition to comprehensive safety assessments, these products undergo accelerated life tests which include exposure to harsh environmental conditions such as aging and salt spray.
- **Perform better:** They deliver consistent performance and efficiency as per the minimum requirements stated in the applicable national and international product standards.
- **Reduce maintenance costs:** Authentic and compliant products require less frequent maintenance and repairs.

While the initial price of authentic products might be higher, it pays off in the long run.

Section 5

Solutions and Recommendations

A multi-pronged approach is needed to combat counterfeiting and prioritise safety. This should encompass:

- **Enforcing rules and regulations:** Robust import regulations that enforce safety, quality, and environmental standards must be implemented.
- **Consumer protection:** Raising awareness about the dangers of counterfeit electrical goods is crucial. Consumers must be educated on how to identify genuine products, the importance of purchasing from reputable sources, and using certified and qualified electrical contractors to install them. Improving their knowledge about the economic impact and safety risks associated with counterfeits can also hopefully reduce their prevalence. Initiatives like public awareness campaigns, partnerships with consumer protection agencies, the inclusion of educational leaflets in products and talks at schools can all play a role.
- **Supplier responsibility:** Distributors must ensure the compliance of the products they sell, even without direct pressure from customers or regulators.
- **Pro-business policies:** Legal protections for intellectual property must be strengthened and uniformly enforced across the continent to help legitimate businesses protect their products and market share.
- **Support for legitimate businesses:** The relevant government ministries and entities, together with industry leaders can work together to create a more favourable environment for legitimate businesses by streamlining regulations, promoting fair competition, and fostering innovation in the electrical goods sector.

By working together to combat counterfeiting, governments, businesses, and consumers can create a safer and more prosperous future. This collaborative effort will empower consumers to make informed choices, protect legitimate businesses, and ultimately, save lives.



Section 6

CBi-electric: low voltage's Commitment to Safe and Ethical Practices

This white paper is one of the ways that CBi-electric: low voltage advocates for the use of safe and compliant products. Our ultimate goal is to put the power of safe electricity in the hands of every African consumer.

CBi-electric: low voltage products meet or exceed the rigorous safety standards established by the International Electrotechnical Commission (IEC) - a global benchmark guaranteeing a baseline level of protection. These items are also registered with the National Regulator of Compulsory Specifications (NRCS), which plays a vital role in promoting public health, safety, and environmental protection, along with ensuring fair trade in accordance with South African government policies and guidelines.

Additionally, CBi-electric: low voltage products are certified by third party certification bodies such as SABS, UL, CQC and VDE, to name a few. These certifications are recognised globally for safety, quality, and reliability. CBi-electric: low voltage's commitment to compliance is not only limited to product compliance but extends to ethical

sourcing practices. By complying with the EU Conflict Minerals Regulation, CBi-electric: low voltage ensures that products are free of minerals linked to conflict and human rights abuses.

This, combined with a relentless drive to continually develop new intellectual property, has enabled CBi-electric: low voltage to make the leap from local manufacturer to international exporter of quality products. This provides consumers around the world with complete peace of mind, knowing they're purchasing safe, high-quality products from a responsible company.

The journey towards a safer electrical future starts with a single step. Let us choose compliance, prioritise safety, and empower informed decision-making. Together, we can build a brighter future for Africa, one that fosters fair trade and competition, economic growth and protects the well-being of citizens.



