

The Right Products & Proven Solutions

Welcome to **ECL Connect**, your go-to source for the latest updates, product innovations, and project insights from Electrical Connections. Read on as we highlight recent successes in the field, showcase key products designed to enhance efficiency, and share the latest industry trends. Whether you're looking for practical technical solutions or staying ahead of market developments, we've got you covered.

In this edition



New Product Launch! TerraConn



Project Showcase

- Auckland City Rail Link



Product Spotlight

- Earth Rods
- Earthing Accessories



Industry Insights:

- Earth Bonding Standards
- The Right Materials for a Geothermal Project



Product Updates

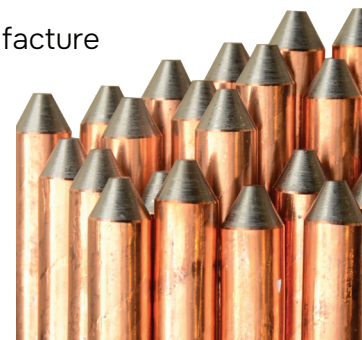
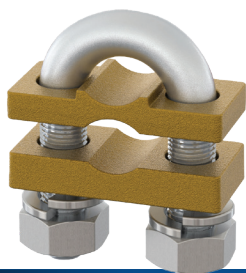
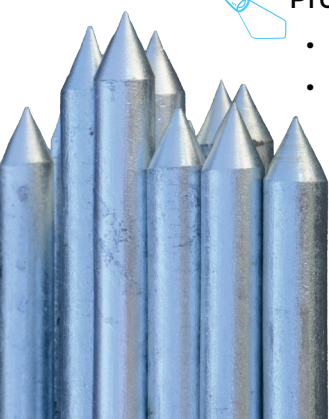


Answers to Your FAQ's



Behind the Wire

- Custom Manufacture



**We're working
to your timeline!**

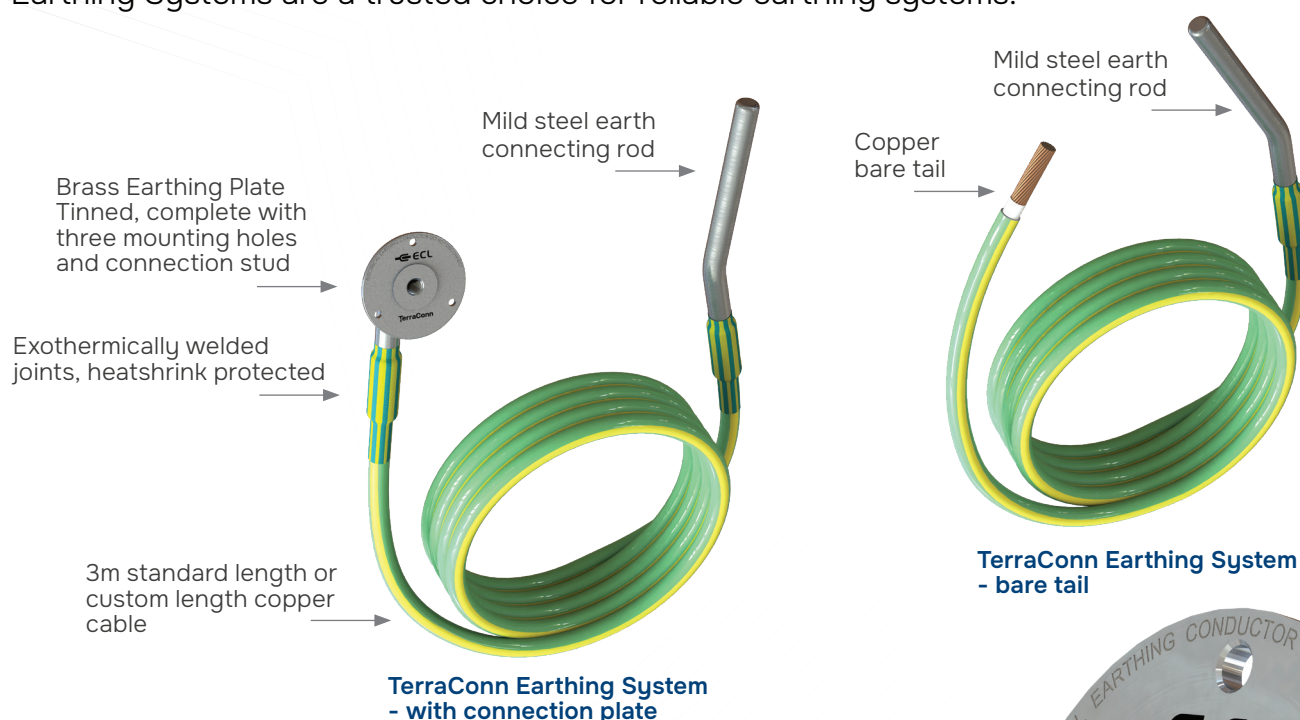
New Product

Scan QR code
to request
TerraConn
spec sheet



TerraConn™

The **NEW** TerraConn Earthing System provides a robust solution for grounding in commercial and industrial applications. TerraConn Earthing System is designed to be cast directly into the building's concrete structure and provide an easily accessible earthing point. The exothermically welded joints will not deteriorate and are fault current tested. The locally assembled TerraConn Earthing Systems are a trusted choice for reliable earthing systems.



AUCKLAND CITY RAIL LINK

The ECL team worked closely with engineers on multiple aspects of the Auckland City Rail Link (CRL) project, **providing expert guidance and high-quality electrical solutions** to support New Zealand's largest transport infrastructure development.

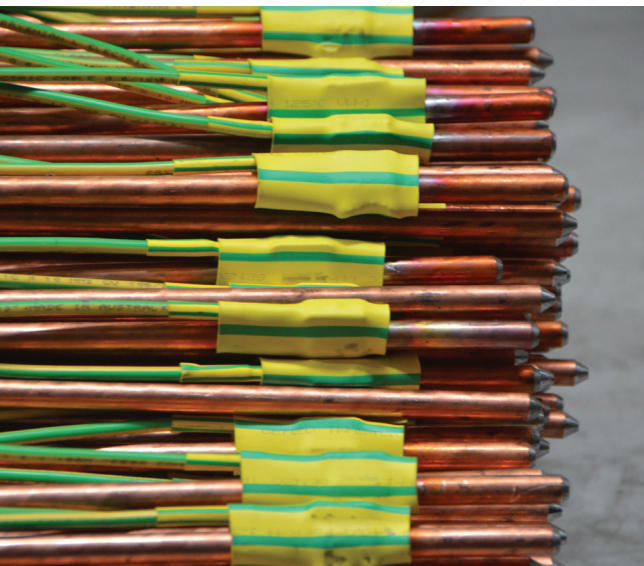
Collaborating with CRL engineers, ECL determined the correct sizing of tunnel cable clamps and also supplied pre-made earth leads and lighting leads. These **pre-assembled solutions significantly reduced onsite labour** by improving installation efficiency and minimising project downtime.

ECL supplied a range of light power, control, and instrumentation cables for the project's mechanical contractors, ensuring reliable electrical performance across critical systems.

ECL products supplied in various sizes:

- Control and Instrumentation Cable
- Pre-made Earth Leads
- Pre-made Lighting Leads
- Copper Crimp Lugs & Links
- Bimetal Lugs
- Stainless Steel Cable Clamps
- Stainless Steel Cable Glands

“The largest transport infrastructure project New Zealand has ever built, the City Rail Link will more than double Auckland's rail network capacity. The twin 3.45km long tunnels have been built up to 42m below the Auckland city centre.





Reliable Earthing Solutions

Correct earthing is crucial for electrical safety, system stability, and effective surge protection. ECL offers a range of quality Earth Rods designed to provide secure and lasting ground connections for commercial, industrial, and infrastructure applications.

Ensure your projects meet the highest earthing standards with ECL's premium Earth Rods.

Contact us today for technical support, product specifications, or to discuss bulk orders.

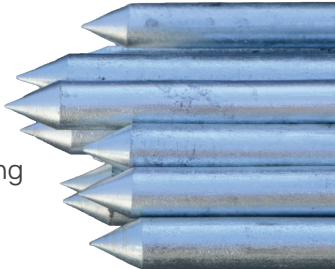
Galv Steel Earth Rods

This product provides a strong and economical grounding solution, widely used in commercial and domestic applications. These rods are made from high-strength steel to enhance corrosion resistance.

Key Features:

Durability & Strength: Steel provides mechanical toughness, ensuring long service life in standard soil conditions.

Cost-Effective: A more affordable option than copper bonded rods while still delivering effective earthing.



Copper Bonded Steel Earth Rods

These rods feature a low-resistance path to ground, helping to dissipate fault currents and protect electrical systems.

Key Features:

Superior Corrosion Resistance: A steel core offers durability and impact resistance, and the copper bonding prevents rust and degradation over time.

High Conductivity: Copper provides excellent electrical conductivity, ensuring efficient grounding.



Complete Earth Street Lighting

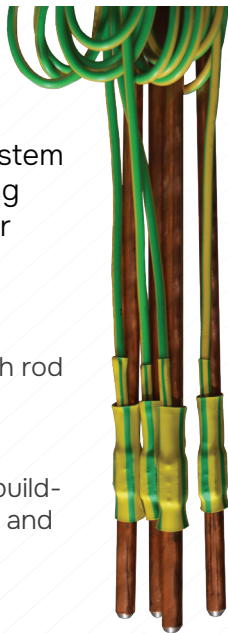
This solution is a fully integrated system designed for the effective grounding of streetlights, road signs, and other outdoor electrical infrastructure.

Key Features:

All-in-One Solution: Includes an earth rod and exothermically welded earth cable for easy installation.

Enhanced Safety: Prevents voltage build-up on poles, protecting both the public and maintenance workers.

Long-Term Reliability: Designed to withstand harsh weather conditions and soil environments.



Earthing Accessories



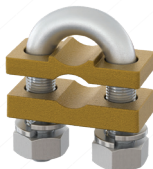
Earth Rod Couplers: High-strength connectors designed to securely join Earth Rods for extended grounding depth.



Earth Rod Driving Tips: Protects Earth Rods from impact damage, ensuring a stable and effective installation.



Earth Clamps: Corrosion-resistant clamps providing secure connections for earthing systems.



Stainless Steel U Bolt Earth Clamps: Heavy-duty clamps for high-performance grounding in industrial environments.

Industry Standards for Earth Bonding – What You Need to Know

AS/NZS 3000:2018

Why is earth bonding so important? Proper bonding ensures all metal parts in an electrical system stay at the same potential, preventing electric shock risks and ensuring compliance with safety regulations.

Key Takeaways:

Essential for Safety

Equipotential bonding ensures all conductive parts in an electrical system are at the same voltage potential, preventing electric shock risks. Proper bonding reduces the chance of dangerous voltage differences between metal parts.

Regulatory Compliance is Critical

Industry standards specify minimum requirements for earthing conductors, connection points, and bonding materials. Following these ensures compliance with safety regulations and reduces liability risks.

Material and Installation Matter

The effectiveness of an earthing system depends on using high-quality conductors, clamps, and connectors that resist corrosion and maintain conductivity over time. Poor materials or improper installation can compromise safety and performance.

Top Tips for Electrical Contractors:

Choose the Right Earthing Products

Use copper-bonded or galvanized steel earth rods for long-term durability and reliable performance. Ensure earth rod couplers and driving tips are used correctly for deep, stable installations.

Ensure Secure Bonding Connections

Use zinc-plated bolt earth clamps for general installations and stainless steel U-bolt clamps for harsh environments where corrosion resistance is essential. A secure, well-fitted connection prevents future failures.

Regular Testing & Maintenance

Verify earth bonding integrity using resistance testing and routine inspections. Over time, connections may degrade—replacing worn clamps and checking bonding continuity ensures ongoing safety and compliance.

How the Right Materials Save Costs & Reduce Downtime

In geothermal power generation, the right materials make all the difference.

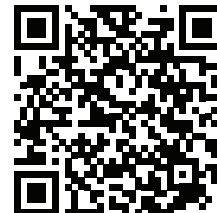
At a Central North Island Geothermal Power Station, ECL provided a range of high-performance Stainless Steel 316 products to withstand heat, moisture, and corrosion.

Read our latest article to see how choosing the right solutions can reduce downtime and future-proof your project.

LinkedIn

Scan QR code to read full article on LinkedIn





Redefining Performance - New & Improved Solutions

We're always refining our range to bring you the best in performance and reliability. Check out our latest additions and enhancements, designed to make your work easier, faster, and more efficient.

Self-Adjusting Ferrule Crimp Tools

These new Crimp Tools feature a new ergonomic handle for comfort, a unique self-adjusting crimp action, crimping ferrules ranging from 0.08 to 16mm².

Easy operation, simply insert the wire and ferrule and the tool will self-adjust and crimp.



HCDL-10A
0.08-0.10mm²



HCDL-16A
0.5-0.16mm²

Heatshrinkable Splice

This fantastic product is manufactured by co-extrusion of super high strength polymeric materials and hot-melt adhesive, is designed to provide both insulation and sealing for copper conductor.

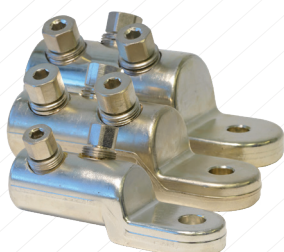
Part No.	Conductor Size	Colour	Pack Size
HSJ15	1.5mm ²	Red	50 and 100
HSJ25	2.5mm ²	Blue	50 and 100
HSJ6	6.0mm ²	Yellow	50 and 100



Shearhead Connector Lugs

For our 'Up to 6kV' Shearhead Connector Lugs we have made some changes to the range with a wider range selection for the Nominal Cable Size for the seven highlighted Part Numbers.

Our team is available to help with any technical questions regarding product suitability.



Part No.	Nominal Cable Size mm ²	Stud Size mm	Dimensions mm			
			D	L	Palm Width	Screws
ECKN8-1695	16-95mm ²	8	25	52	25	1
ECKN10-1695	16-95mm ²	10	25	52	25	1
ECKN12-1695	16-95mm ²	12	25	52	25	1
ECKN8-25185	25-185mm ²	8	33	95	33.5	2
ECKN10-25185	25-185mm ²	10	33	95	33.5	2
ECKN12-25185	25-185mm ²	12	33	95	33.5	2
ECKN16-25185	25-185mm ²	16	33	95	33.5	2
ECKN8-120300	120-300mm ²	8	38	104	38	2
ECKN10-120300	120-300mm ²	10	38	104	38	2
ECKN12-120300	120-300mm ²	12	38	104	38	2
ECKN16-120300	120-300mm ²	16	38	104	38	2



Got questions? We've got answers.

We know that when it comes to electrical connections, every detail matters. That's why we've compiled answers to some of the most common questions we receive. Whether you need product specifications, advice on selecting the right solution, or insights into our services, you'll find the information you need right here. If you don't see your question listed, our team is always ready to help - just reach out!

Can ECL manufacture custom earthing solutions?

Yes, we can manufacture custom earthing components to meet specific project requirements.

Whether you need specialised clamps, pre-welded earth rods, or bespoke grounding assemblies, custom TerraConn cable lengths - our in-house production team can deliver tailored solutions with fast turnaround times.

What type of earthing products do ECL offer?

1. Bare Copper 1.8m Rod - 12.8mm & 16mm
2. Galv Steel 2m Rod - 16mm plain, 2 Hole Tagged and Line Tap Tagged
3. Copper Earth Rods with exothermically welded earth tail
4. TerraConn Earthing Systems
5. Tinned or Untinned Copper Braid
6. Custom Copper Earth Bars
7. Earth Rod Couplers
8. Earth Driving Tips
9. Earth Clamps

What type of Copper Earth Rods do ECL supply?

We supply high-quality copper-bonded earth rods with a 99.9% pure electrolytic 254 micron copper coating bonded to a low-carbon steel core.

This ensures superior conductivity and corrosion resistance for reliable earthing performance. Our earth rods come in standard lengths and diameters, available in bundles of 20.

Have you got a burning question?

Then send it through to the ECL team at:

sales@electricalconnections.co.nz

We can provide technical advice and product specifications to support your commercial, industrial and utility projects.

Behind the Wire

Local Custom Manufacturing Built for Performance

We don't just supply electrical solutions - we manufacture and customise them in-house to meet the exact needs of our customers. From specialised components to fully assembled solutions, our local production capabilities give us the flexibility to adapt, refine, and deliver with speed and precision.

By manufacturing in New Zealand, we can respond faster to customer requirements, reducing lead times and ensuring critical projects stay on track. Our experienced team combines global engineering standards with local expertise, producing high-quality electrical components that perform in even the most demanding environments.

When reliability, speed, and customisation matter, ECL is ready to deliver. Need a tailored solution for your next project? Get in touch with our team today.



GET IN TOUCH TODAY!

+64 (0)3 543 8233

ECL is 100% New Zealand owned and operated and has been trusted in Australasia's electricity sector for over 30 years to deliver reliable, high-quality electrical termination products and cable. It's our people that make the difference in delivering exceptional service! And we are working to your timeline, with reliable electrical solutions, delivered fast - every time.

AUCKLAND | TAURANGA | NELSON | CHRISTCHURCH | SYDNEY | BRISBANE



HEAD OFFICE:
9 Tokomaru Place, Stoke, Nelson, 7011
New Zealand

FREE PHONE 0800 352666
PHONE +64 (0)3 543 8233
sales@electricalconnections.co.nz
www.electricalconnections.co.nz