What we require for access to our Distribution Boxes

To ensure your safety, the safety of our customers and the protection of our network assets, Orion has strict requirements for those wanting access to our Distribution Boxes.

In this document we outline the competencies and controls we require of those who seek access to Orion's Distribution Boxes (DBs), also known as Boundary Boxes.

Who can access Distribution Boxes

New Zealand registered electrical workers are permitted to access Orion DBs. These boxes are the network asset demarcation point between the Orion network and the customer's installation. Orion permits registered electrical workers to have access to our DBs to undertake work on behalf of customers. The boxes are designed to have no exposed live metalwork inside, but this does not remove the requirement for those accessing them to perform a risk assessment and using the hierarchy of control to mitigate against harm.

Access to any other Orion box or cabinet secured with a screw that requires an Orion tool to open it or is padlocked, is NOT permitted. Workers require specific Orion training and authorisation for access to these assets.

Your responsibilities

If your work requires access to Orion DBs, it is exclusively your work site. Orion has a duty to advise workers of the known hazards that exist within these boxes, however the supervisor in charge of the work site has a duty of care to ensure the safety of the workers undertaking the work, and others who may be present on or near the site.

What work is permitted within Orion Distribution Boxes?

The following work is permitted within Orion Distribution Boxes:

- **Removal of fuses** for the sole purpose of de-energising an installation for electrical work, this may include testing for Prescribed Electrical Work (PEW)
- **Re-livening of an installation after repairs**, providing the appropriate testing of the installation has been undertaken.
- **Placing of customer service mains ready for connection to the Orion network.** Note: Connection of phase or neutral conductors within these Orion DBs is NOT permitted.
- **Electrical connection** which may only be undertaken by an Orion Authorised Connection Agent.

The installation of customer service mains normally requires excavating up to the rear on the property side of the Orion DB. All cable ends shall be suitably insulated with for example, a heat shrink end cap, to prevent the risk of accidental livening or short circuit or damage to existing equipment. Note: insulation tape is not permitted to cover the exposed ends of the cables.

Your duty of care

Those arranging for electrical workers to access Orion DBs have a duty of care to ensure they have:

- Supervision, where required, including Safety Observer (Work and Apprentices)
- Managed work risks (Identify and Control)
- Testing to ensure safety (Active Identification)
- Use correct PPE (Arc Flash Potential and Electrical Work)
- Use approved work procedures (Safe System of Work)
- Monitor and review

Additional hazards

Other hazards do exist within Orion DBs.

These hazards include the risk of 230/400V electric shock caused by damage to insulated parts, and/or arc flash. Prospective Short Circuit Current (PSCC) levels are typically higher than domestic or commercial installations. Cables sizes may vary from 35mm2 to 300mm2 within Orion DBs. A PSCC can be between 10kA and 30kA that can result in a high arc flash energy should a short circuit occur.

Your site risk assessment will determine additional hazards with risks which must be controlled before you commence work.

Once work has been completed, Orion Distribution Boxes must be left safe and secure so that no risk is present. If this is not possible for any reason, or problems are found during the work please stop and make the situation safe then advise Orion by calling the Orion Customer Support team on 0800 363 9898.

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Requirements for accessing Orion's network infrastructure

SM-EI*/ EWRB (Compliance Minimum Requirements) and HSWA 2015

Requirement	Action	Reference document
Competency	For access	Current Electrical Licence and where required the Network Access Owners Approval/s
Section 3 – SMEI	Entry and Work Control Testing to Ensure Safety To meet health and safety duties, risks that arise from work must be effectively managed. Risks to health and safety arise from people being exposed to hazards. A hazard is anything that can cause harm. … Risks must be eliminated so far as is reasonably practicable. (HSWA 2015)	3.301 (Control of Entry) 3.302 (Control of Work) 3.303 (Hazard Identification and Risk Management / PPE) see also 1.110, 1.401, 1.402, 1.406, 1.502, Part 2 Section 13 (PPE) 3.304 (Worksite Safety Plan) AS/NZS 3000 Section 30 – Management of Risks HSWA 2015
Safety Observers (where required)	Monitor and Control	3.708 Safety Observers
Supervision (Part 2)	Plan, Implement, Do and Review (This section applies to the work to being undertaken safely and supervision of trainees and apprentices and protect the public)	1.404 (General Responsibilities of Supervisors) Also refer EEA or EWRB Guide for Supervision or WorkSafe Code of Practice
Safe Work Distances	Minimum Approach Distances (MADs)	Approved Electrical Code of Practice (34)
Live Low Voltage Work	Work Methodology	3.304 (Worksite Safety Plan) Safe Practices for Low Voltage Electrical Work (July 2012) Guide to Live LV Electrical Work (2013)

* Safety Manual – Electrical Industry (SM-EI) Parts 1&2 and 3 can be purchased from the Electrical Engineers Association WWW.EEA.CO.NZ
These documents provide a means of Electrical and OHS compliance as indicated in the above table.

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