



PREPARED
TO TAKE
THE RISK?

Did you know . . .
30% of worker electrocutions in
Ontario involve working on LIVE
electrical systems.



STILL
THINKING
ABOUT IT?

Did you know . . .
It's illegal to work on LIVE
electrical systems in Ontario.



IT'S NOT
A GOOD
IDEA.

Did you know . . .
Working on LIVE electrical
systems is the #1 cause of
injuries and fatalities in Ontario.

Don't work on LIVE electrical equipment!



Electrical
Safety
Authority

Work Safely Work to Live

85+% of electrical trades workers identify an above average risk with working on live electrical systems – but still work live!

If you need another reason to not work live - you should know it is against the law in Ontario ...

When conducting work on electrical installations, equipment or conductor systems these shall be disconnected, locked out of service and tagged before any work is done in accordance with Rule 2-304(1) of the Ontario Electrical Safety Code to protect electrical trades and maintenance workers.

If it is not practical to disconnect an electrical system workers should follow the rules outlined to protect them, which includes the use of: personal protective equipment, approved rubber gloves, mats and shields, and insulated tools.

Non-compliance with these requirements by facility owners and operators could lead to charges being laid under the Occupational Health and Safety legislation or the Criminal Code.



Keep Safe when Disconnecting Electrical Systems...

- 1 Identify the circuit you will be working on.
- 2 Disconnect the circuit.
- 3 Test the circuit with an approved meter with fused leads.
- 4 Always check the neutral once you disconnect.
- 5 Lock out the electrical system as per the Ontario Health and Safety Act (OHSA) requirements.
- 6 Use personal protective equipment – take precautions and protect yourself.



Special Considerations for 347-Volt Systems

347-volt system connections require special care when servicing to keep electricians safe from electrical shock hazards. Neutral wires are frequently shared in the construction of these systems, and can carry current in systems that workers may believe have been disconnected. Service work on 347-volt systems should only be conducted on de-energized circuits that have been tested.



Test Before You Touch

One in 5 electricians do not use multi-meters or testers when working on electrical systems. The use of multi-meters with fused leads or testers can reduce risk of electrical hazards.

The following identifies a 5 step safety work procedure for using meters:

1. Always use an approved meter
See www.esasafe.com for a list of recognized approval markings.
2. Use a properly rated meter with fused leads
3. Use personal protective equipment wear safety glasses, insulated gloves, and use insulated tools and mats.
4. Apply the “3 point test” to:
 - Test a circuit known to be live.
 - Measure the target circuit.
 - Re-test on the live circuit.
5. For 3-phase wire systems:
 - always connect the neutral lead first and the hot lead second.
 - always disconnect the hot lead first and the neutral lead second.

Due to working LIVE

- A 30-year old maintenance worker was killed working live on a 347-volt system where the wiring had no protective insulation.
- A 37-year old electrician sustained a shock working live on a system where an unapproved connector had been installed as a starter for a lighting string on a 347-volt system.
- An apprentice received a life threatening shock working on a 347-volt system prior to receiving foreman clearance to proceed.
- A labourer employed by a subcontractor replacing ballasts in a retail chain on an energized 347-volt system contacted the live conductor and was killed.
- A 56-year old electrician with 25 years of trades experience was killed when re-energizing and testing a 347-volt system without using personal protective equipment.

Who is the Electrical Safety Authority (ESA)?

The Electrical Safety Authority (ESA) was created in 1999 by the Ontario Government to assume responsibility for the electrical inspection activity previously held by Ontario Hydro; and to introduce a broader public electrical safety mandate for Ontario.

ESA tracks electrical incident statistics and is interested in working with the electrical trades to reduce the number of electrical workplace incidents by encouraging safe work procedures.

For more information on keeping safe at work call:

Electrical Safety Authority	1-877-esa-safe 1-877-372-7233
IBEW/ECAO	1-416-675-3226
Ontario Electrical League	905-238-1382
Industrial Accident Prevention Association	1-800-669-4939
Ministry of Labour (Occupational Health & Safety Information)	1-800-268-8013
WSIB	1-800-387-5540
Construction Safety Association of Ontario	1-800-781-2726

Visit
www.esasafe.com
for more information

