

AN ANNEX PUBLISHING & PRINTING INC. PUBLICATION • VOLUME 47 • ISSUE 11

# Electrical Business

DECEMBER 2011

You are?  
**So are we.**

We're all on page 5.

## Opportunities in electric vehicles *surge!*



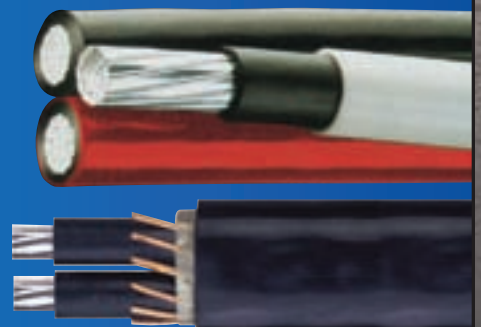
### Also in this issue...

- The BlueBook 2012 Buyers' Guide
- Time-delay switching versus arc flash
- Picking tool storage options

**USE175/90 & USEB**  
**SERVICE ENTRANCE**  
**LEAD FREE**



 **nexans**  
[www.nexans.ca](http://www.nexans.ca)





## LED solutions at your fingertips.



A19 Omni Directional



BR



PAR and MR



Downlights



Under Cabinet



Decorative

STANDARD offers a wide range of reliable LED solutions. Whether your application is commercial, industrial or retail focused, STANDARD has got you covered.

STANDARD's LED lamps allow you to obtain cost and energy efficiencies which makes it easy for you to do your part in creating a safer environment.

Sustainability no longer needs to suffer to obtain exceptional luminosity, consistent colour and significant savings.



## Lighting the Way for a Greener Tomorrow

Think about the future... choose energy efficient lighting today!

[www.standardpro.com](http://www.standardpro.com)







What do all these events have in common? I didn't see you there.

## Get out and get training

Rather than wait until our January edition, I thought now might be a good time to start thinking about New Year resolutions. Judging by the title above, you would think I'm referring to starting a new exercise regimen for getting into better shape... you know, work those muscles. And you'd be sort of correct.

No, the exercise regimen you should embark upon, in fact, is to work the most important muscle: your brain.

Those of you regularly follow Electrical Business and visit EBMag.com have a good sense of all the events we attend all across Canada. And we try to get out to as many events as possible because we feel it is our duty; one of the ways in which we serve, and show solidarity with, our electrical community.

We also go for the networking, and to learn about the latest and greatest initiatives and ideas in the market... information we then share with you.

And while we report live from these various events via our Twitter feed ([twitter.com/EBMag](https://twitter.com/EBMag)), and share photos, videos and/or commentary afterward, it is *simply no substitute* for being there.

Last month alone we attended: BCEA's Electrix Learning Expo; InfraMation infrared camera users' conference; APPrO's Power Networking Conference; Canadian Manufacturers and Exporters and NRCan's Energy 2011; Electro-Federation Canada's E-Tech Marketing Forum; and Construct Canada.

What do all these events have in common? I didn't see *you* there.

While I cannot claim to know everybody, I can say this: the events I attend are also attended by those I call the "usual suspects"... progressive-thinking people and organizations who understand the value derived from being in the same room with their peers and learning from both subject matter experts and each other.

The usual suspects understand this one simple premise: *knowledge is power*. The more you know—the more you work your brain—the better-equipped you are to tackle both current and future market conditions. You learn of tools and methodologies for running your business better *right now*, and you learn of possible new directions in which you can take your business *tomorrow*.

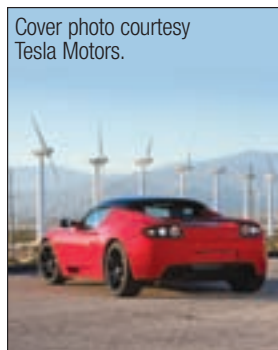
Please, do yourself a favour and check out our Calendar listings—both here and online at EBMag.com—and commit to attending at least one event next year. Where possible, pre-pay for the event, as this will help ensure you actually go... and then go with an open mind, ready to absorb and learn from various subject matter experts, as well as your peers. You won't be sorry.

Some of the events of particular interest in the new year include IEEE IAS' Electrical Safety Workshop in Daytona Beach and IEEE IAS' Electrical Safety, Technical, and Mega Projects Workshop in Edmonton. And EB will be there!

Meantime, from all of us here at Electrical Business, all the best for the New Year! **EB**

*Anthony Caplan*

Cover photo courtesy Tesla Motors.



On the cover and page 44

### Opportunities in electric vehicles surge!

The auto industry is charging ahead toward the electrification of the automobile, which means there's going to be a real surge in the need for the installation of dedicated chargers or, at the very least, high-voltage circuits. And that means new opportunities for electrical suppliers and contractors at all levels, and to a multiplicity of customers.

## Contents

### 12 Glen Cove parking structure shines with LEDs

(Case study) The city of Glen Cove, N.Y., now boasts a state-of-the-art LED lighting upgrade in its Brewster Street parking garage, which has dramatically reduced the city's energy consumption and positioned the town as a model of energy efficiency and environmental responsibility.

### 13 The BlueBook 2012 Buyers' Guide

Our comprehensive source guide for the electrical and communications markets in Canada!

### 41 Power from the sun is coming into its own... are you ready?

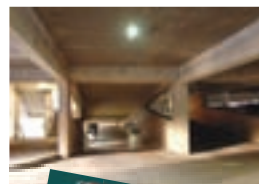
As professionals in the electrical industry, the best course of action is to be prepared for the reality that solar brings to our field of operations. Increasing our knowledge of applicable mandates and of the underlying electronics is an appropriate response to our changing reality.

### 49 Protecting personnel from arc flash with time-delay switching

(Case study) When a "non-approachable" arc flash situation was discovered at the HQ of a major health insurer, the engineering firm hired to assess and remedy the problem recommended the application of a utility-grade device: a time-delay switch.

### 52 Pick the right tool storage option for the job

Jobsite storage equipment is as important as the tools that are used to get the job done. The tools on the average contractor's jobsite are valued at thousands of dollars. Don't you want to protect that investment?



## DEPARTMENTS

- 4 Industry News
- 9 Personalities
- 11 Mind Your Safety  
Empty chairs at the table
- 47 Calendar
- 48 It's Your Business  
Articulating business values
- 54 Products
- 58 Code File  
Overhead powerlines and signs
- 58 The Code Conundrum



page 54



page 55

**RECALL — Conglom recalls Luminus 13W CFL**



The Electrical Safety Authority (ESA, [www.esaSAFE.com](http://www.esaSAFE.com)) is notifying the public that Conglom Inc. ([www.conglom.com](http://www.conglom.com)) has announced a voluntary recall of the following consumer product: Luminus # P-17713 with date codes FL06, DA07 and LA07.

These CFLs were sold by various retailers, home centres and bargain stores throughout Canada, from June 2006 to April 2007. About 40,000 units were sold in Ontario alone, and 80,000 units in the rest of Canada. The units are manufactured in China by Taean (Shanghai) Co. Ltd. China.

and imported by Conglom Inc. The product does not comply with UL's safety requirements, and is not eligible to bear the UL Mark. The lamp may overheat and melt the enclosure, exposing live parts and posing a risk of fire and/or electric shock. Four incidents have been reported, though no injuries nor property damage were recorded. Consumers who have purchased this unit should immediately stop using the product and contact Conglom for instructions on how to receive a replacement item. Contact consumer service at (877) 333-0098 ext. 450 or e-mail [cfl@conglom.com](mailto:cfl@conglom.com). Photo courtesy Electrical Safety Authority.

**New Brunswick, Ontario and British Columbia launch TradeLinks initiative**

The Trade School Initiative, a project to help students become tradespersons in the construction and renovation industry, recently launched in New Brunswick, Ontario and British Columbia. Provincial and federal officials marked the occasion while visiting the College communautaire du Nouveau-Brunswick, Dieppe campus.

"This initiative is a unique gateway to government information and resources developed exclusively for trade students," said post-secondary education, training and labour minister Martine Coulombe. "I encourage all students to make use of this essential business tool."

This federal-provincial-territorial educational pilot project provides relevant information about tax credits and financial resources, such as the tradesperson's deduction for tools, the apprenticeship incentive grant, and the apprenticeship completion grant.

"Our government believes in equipping the entrepreneurs of tomorrow with the tools they need to succeed," said Moncton-Riverview-Dieppe MP Robert Goguen. "This initiative will help them be fiscally responsible—adopting good business practices—as they embark on their career in the trades. It is important to educate students about their tax entitlements and responsibilities as well as the pitfalls of participating in the underground economy."

Goguen, who is also parliamentary secretary to the



minister of justice, was representing national revenue minister Gail Shea.

The information and a resource-based website, TradeLinks.ca, have links to career opportunities, bookkeeping, employee rights and employer responsibilities. Other provinces and territories may participate in this initiative in the future.

"TradeLinks.ca is a student's next step on the journey to becoming a reputable businessperson or to successful employment," said Liane Roy, president and CEO, College communautaire du Nouveau-Brunswick.

"This is a great tool for student success and leadership," said Marilyn Luscombe, president and CEO, New Brunswick Community College. "For those who are serious about entrepreneurship in the construction and renovation industry, TradeLinks.ca is a necessity."

**Mitsubishi Motors commences production of the North American i-MiEV**

Mitsubishi Motors Corp. has started producing the North American (Canada and U.S.) version of its i-MiEV electric vehicle (EV) at its Mizushima Plant. This version will first be available in Hawaii, California, Washington and Oregon from the end of November this year. From then on, Mitsubishi plans to expand sales throughout other parts of the States and Canada by the end of fiscal year 2012.

The North American version of the i-MiEV has been equipped with safety features such as an advanced airbag system that detects passengers' seating position and controls deployment force, and a tire pressure monitoring system (TPMS) to conform to North American safety requirements.

To better meet the needs of North American customers, its torque has also been increased in comparison to other versions of the i-MiEV. In addition, the North American version of the i-MiEV

features new front and rear bumpers for enhanced protection and stability along with a larger body.

Mitsubishi began sales of its i-MiEV in Japan in July 2009, then started full-scale export of the i-MiEV to European countries in 2010. As of the end of September 2011, the company's cumulative EV production volume has reached about 16,000 units. By adding the United States and Canada, MMC further expands its growing global EV presence.



Photo courtesy Mitsubishi.

# Electrical Business

December 2011 • Volume 47 • Issue 11

ELECTRICAL BUSINESS is the magazine of the Canadian electrical industry. It reports on the news and publishes articles in a manner that is informative and constructive.

**Editor**

Anthony Capkun - [acapkun@annexweb.com](mailto:acapkun@annexweb.com)

**Publisher**

John MacPherson - [jmacpherson@annexweb.com](mailto:jmacpherson@annexweb.com)

**Account Manager**

Scott Hoy - [shoy@annexweb.com](mailto:shoy@annexweb.com)

**Associate Editor**

Alyssa Dalton - [adalton@annexweb.com](mailto:adalton@annexweb.com)

**Art Director**

Svetlana Avrutin - [savrutin@annexweb.com](mailto:savrutin@annexweb.com)

**Production Manager**

Kathryn Nyenhuis - [knyenhuis@annexweb.com](mailto:knyenhuis@annexweb.com)

**Subscriber Customer Service Representative**

Karen Thomson - [kthomson@annexweb.com](mailto:kthomson@annexweb.com)

**President**

Mike Fredericks - [mfedericks@annexweb.com](mailto:mfedericks@annexweb.com)



Published by Annex Publishing & Printing Inc.  
222 Edward Street, Aurora, Ontario L4G 1W6  
Tel. 905-727-0077 • Fax 905-727-0017

Publication mail Agreement #40065710  
Return Undeliverable Canadian Addresses  
to Circulation Department  
P.O. Box 530, Simcoe, ON N3Y 4N5  
e-mail: [kthomson@annexweb.com](mailto:kthomson@annexweb.com)

United States Second Class Postage  
paid at Lewiston, NY  
(USPS-741-470) US POSTMASTER:  
Send address changes to  
ELECTRICAL BUSINESS,  
P.O. Box 8145, Lewiston, NY 14092

Printed in Canada  
ISSN 0013-4244

CIRCULATION: Karen Thomson  
e-mail: [kthomson@annexweb.com](mailto:kthomson@annexweb.com)  
Tel: 905-727-0077 • Fax: 905-727-0017  
Mail: P.O. Box 530, Simcoe, ON N3Y 4N5

**SUBSCRIPTION RATES:**

**Canada:** Single issue \$7.00  
Ten issues: \$35.00 (includes tax)  
**USA:** \$59.00 (US)  
**International:** \$75.00 (US) per year

Occasionally, *Electrical Business* will mail information on behalf of industry-related groups whose products and services we believe may be of interest to you. If you prefer not to receive this information, please contact our circulation department in any of the four ways listed above.

The contents of *Electrical Business* are copyright ©2011 by Annex Publishing & Printing Inc. and may not be reproduced in whole or part without written consent. Annex Publishing & Printing Inc. disclaims any warranty as to the accuracy, completeness or currency of the contents of this publication and disclaims all liability in respect of the results of any action taken or not taken in reliance upon information in this publication.

We acknowledge the financial support of the Government of Canada through the Canada Periodical Fund (CPF) for our publishing activities.

**Canada**





## 50 YEARS

### Rittal. Power and Vision!

#### Rittal celebrates its 50th anniversary

Rittal ([www.rittal.ca](http://www.rittal.ca)) says it revolutionized enclosure manufacturing when it began series production of four simple enclosure types in 1961. 50 years later, the family-owned company boasts a workforce of 10,000 and 1500 global patents, and is an international supplier of enclosures, power distribution, climate control, IT infrastructure, and software & services.

"I can look back over the last 50 years with pride and gratitude. We have achieved more than we ever could have imagined," says Rittal's owner, Friedhelm Loh. "As our slogan says, we have power and visions. I look forward to transforming these visions into reality with the management team and the entire workforce. We never lose sight of our customers' requirements."

Company founder Rudolf Loh came up with the idea of mass-producing enclosures rather than custom-making individual orders. Back in 1961, he decided to manufacture enclosures for electrical controllers in a range of standard, pre-defined sizes for off-the-shelf delivery. Industrial automation led to an expansion of Rittal's product portfolio, and the company moved into the areas of climate control, power distribution and IT infrastructure.

Today, Rittal has 10 production sites, 63 subsidiaries and 40 agencies worldwide. Congratulations!

#### Holland College signs MoU with Skills Canada PEI

Holland College ([www.hollandcollege.com](http://www.hollandcollege.com)) has signed a memorandum of understanding (MoU) with Skills Canada PEI (SCPEI, [www.skillsCanada.pe.ca](http://www.skillsCanada.pe.ca)), a non-profit organization funded by the Government of Canada that works to promote skilled trades and technology careers among Island youth. The agreement will bring SCPEI operations under the college umbrella.

SCPEI board president Collin Affleck said the new agreement is mutually beneficial.

"The partnership with Holland College is one of the most important events in the history of Skills Canada PEI," he said. "SCPEI and Holland College

have always worked closely together, so the decision to partner with Holland College was an easy one for the board of directors. This new relationship will help both organizations achieve their primary objectives; it will help Skills Canada PEI in its mission to increase awareness around careers in trades and technology."

Tawna MacLeod has been appointed executive director of SCPEI, after serving within both organizations and the working team during the 2009 National Skills Competition hosted in Charlottetown.

"The mandates of both the college and SCPEI are closely aligned; SCPEI to promote skilled trades and technology as a viable career option, and Holland College to deliver training in these areas," she said. "I'm really looking forward to the new challenges offered by the position. Though PEI is the smallest province in Canada, Island youth always do a spectacular job of representing our province at the national level."

# You're in the business of innovation.



## So are we.

From extraction to upgrading and all points in between, it takes a lot of products and resources to keep oil and gas facilities running safely and reliably. To remain competitive in the global market, it also takes continuous innovation.

At Thomas & Betts, our experience in meeting the electrical needs of Canadian industrial facilities for over eight decades has been the inspiration for many **"made in Canada, for Canada"** products. Over the years, input from engineer and installer customers has resulted in products that stand up to the harshest environments while simplifying installation and maintenance.

**Looking for an innovative source for your electrical components?**

**Talk to Thomas & Betts.**



[www.tnb.ca](http://www.tnb.ca)

**STAR TECH XP®**  
 Explosion Proof  
 Test Cable Fittings  
 Designed in Canada,  
 for Canada

## Eaton Canada graduates first class of EV-certified installers



To help homeowners locate electricians specializing in electric vehicle supply equipment (EVSE) installation, Eaton Canada ([www.eatoncanada.ca](http://www.eatoncanada.ca)) undertook an EV training program within its Eaton Certified Contractor Network ([www.eatoncertified.com](http://www.eatoncertified.com)) program. At a training session in Milton, Ont., last week, 45 electricians and 22 companies earned their ECCN certification for the installation of EVSE—the first in Canada to receive this designation.

Homeowners can arrange for an ECCN contractor to visit their home to determine whether it can support a charging station. During the inspection, the contractor will explain all the steps involved in the install (including required electrical upgrades when applicable). During the install, many contractors will use Eaton's new EV Simulator to test the functionality of the EVSE onsite.

## Atkore International launches into social media

Atkore International ([www.atkore.com](http://www.atkore.com)) announced an expanded launch into social media as a “new channel for reaching customers, suppliers, employees and all related company stakeholders”.

“We have leaped into Facebook, Twitter, LinkedIn and YouTube, and I am very excited about our direction,” said Dan Kuzniewski, director, marketing communications & branding. “We thought long and hard about the social media experience for our stakeholders and have built an environment that provides a useful stream of information.”

The Atkore social media sites provide some interactive opportunities for users, such as:

- “Show Us How You Do It” Facebook application that allows users to upload YouTube videos depicting their creative uses for Atkore products.
- “Atkore Bridge” Facebook application to test your Atkore IQ. Select the correct Atkore product name associated with the application image, submit your score, and post your results on your own Facebook page.

Visit Atkore in the following social channels:

- Facebook [www.facebook.com/atkore](http://www.facebook.com/atkore)
- Twitter [www.twitter.com/atkoreintl](http://www.twitter.com/atkoreintl)
- LinkedIn [www.linkedin.com/company/atkore-international](http://www.linkedin.com/company/atkore-international)
- YouTube [www.youtube.com/atkoreinternational](http://www.youtube.com/atkoreinternational)

## Siemens inaugurates Charlotte gas turbine plant

Siemens continues to expand its network of gas turbine manufacturing facilities, inaugurating a new gas turbine factory in Charlotte, N.C., yesterday, representing an investment of over \$350 million in the 42,000-m<sup>2</sup> plant.

“The Charlotte plant will not only supply the U.S. and other countries that use 60Hz grids, but will also export our advanced power plant technology around the world,” said Michael Suess, member of the Siemens AG managing board and CEO of the company's Energy Sector. “We project that exports from this location will increase to more than \$400 million annually.”

Charlotte is the only Siemens plant in the world that makes both gas and steam turbines, as well as generators.

Worldwide demand for high-efficiency gas power plants is driven by the high availability of natural gas, the aging power plant inventory, and the desire to reduce carbon dioxide emissions, says Siemens.

The average age of coal-fired power plants in the U.S. is about 40 years, says Siemens, meaning there is “great potential for replacing these with modern, more efficient power plants”.



## Advancing Canada's electric vehicle industry at Electric Vehicle & Infrastructure Summit 2012



Strategy Institute is hosting its first Electric Vehicle & Infrastructure Summit ([www.evehiclesummit.com](http://www.evehiclesummit.com)) in Toronto, Ont., February 2012, and Electrical Business will be there as a media partner.

“We are at a crucial time when market acceptance of this new technology will depend on the ability of leaders to work together across sectors in support of infrastructure developments,” said Andrew Bowerbank, special advisor of advanced energy systems at Magna Closures. “Consumers need to have confidence that EVs are the next big wave.”

The EV Summit will bring together those very leaders that are capable of shaping and accelerating the growth of Canada's electric vehicles industry: municipal, provincial, and federal leaders, utilities, charging station providers, and public and private fleet managers.

The speaker roster includes authorities such as Brian Beck from the City of Vancouver, Ivano Labricciosa of Toronto Hydro, and Mark Simon from NYC's Department of Transportation.

The conference promises to provide “real-world information”, says Kevin McLaughlin, president of AutoShare. “Because EVs are already here, this is no longer about ‘what might’ but about ‘what have we learned so far’.”

## Ski Hill Operator Loch Lomond fined \$70,000 after worker electrocuted, another injured

Loch Lomond Ski Area Ltd., operator of a Thunder Bay, Ont., ski hill, was fined \$70,000 for a violation of the Occupational Health and Safety (OHS) Act after one worker was

electrocuted and another was injured.

On September 2, 2009, two workers were replacing shingles on the roof of a ski chalet. The metal ladder they used to access the roof came into contact with a live overhead electrical conductor. One of the workers was fatally electrocuted and the other was injured.

Loch Lomond Ski Area Ltd. pleaded guilty to failing to ensure that the workers did not use a metal ladder while working in proximity to a live overhead electrical conductor. In addition to the fine, the court imposed a 25% victim fine surcharge, as required by the Provincial Offences Act. The surcharge is credited to a special provincial government fund to assist victims of crime.

## Worker suffers electrical burns; ThyssenKrupp/supervisor fined \$171,000

ThyssenKrupp Industrial Services Canada Inc., carrying on business as ThyssenKrupp Hearn Division (a provider of warehousing, packaging and transportation services), has been fined \$160,000 for a violation of the Occupational Health & Safety (OHS) Act after a worker was injured. Don Hearn Jr., a supervisor, was fined \$11,000 in relation to the same incident.

On February 25, 2009, a worker was doing electrical upgrades at the company's warehouse on Sprucewood Ave. in Windsor, Ont. As the worker was removing conductors from an electrical panel, a bare conductor touched the side of the electrical panel, causing an arc flash. According to the Ministry of Labour investigation, the individual sustained serious electrical burns.

The company and Hearn were both found guilty of failing to ensure that the electrical panel was disconnected, locked out and tagged prior to work being done on it. In addition to the fines, the court imposed a 25% victim fine surcharge, as required by the Provincial Offences Act. The surcharge is credited to a special provincial government fund to assist victims of crime.



### Hydro-Quebec proceeds with 3rd phase of all-electric i-MiEV project

Hydro-Quebec announced the 10 Boucherville businesses selected to participate in a trial of the all-electric Mitsubishi i-MiEV. The 10 vehicles will be delivered to their respective drivers in December.

The 10 businesses whose employees were selected to take part in the third phase of the trial (following a call for expression of interest issued last June) are: Astral, Boutique Mère & Mousses, Collège Édouard-Montpetit, Bell, La Résidence des Berges, Bombardier Transportation, Les Entreprises Hamelin, Metro, Pratt & Whitney Canada and Sandoz Canada.

Employees from the selected business will test the all-electric i-MiEV in their daily activities. Like the participants in the first two phases of the program, they must drive an average of 50 km per day using both highways and local streets. They will have access to charging stations at their homes and workplaces.

"Hydro-Québec is proud to welcome these businesses to its program and offer them the possibility to test the first i-MiEVs designed for the North American market," said Pierre-Luc Desgagné, senior director strategic planning at Hydro-Québec. "The needs and driving patterns of these 10 new participants will provide valuable information, in addition to what has already been obtained from the 20 current participants. All of this data will help us complete the Boucherville trial."

The program will continue until the end of 2013. The initiative follows the Action Plan for Electric Vehicles unveiled by the Quebec government last April 7.

"It is with great pride that the city of Boucherville will have welcomed, since the beginning of the trial program, a total of 30 electric

### Tempo Industries converts entire California HQ to LED lighting

Tempo Industries Inc. ([www.tempoindustries.com](http://www.tempoindustries.com)), a 25-year-old manufacturer of LED lighting, has converted its California U.S. headquarters facility completely to LED lighting, including offices and manufacturing areas.

"As a pioneer and leader in entertainment, architectural and commercial LED lighting, Tempo believes it has a responsibility to use the same LED technology which we promote to customer markets," said Tempo founder and chairman, Dennis Pearson. "It is important for us to 'put our money where our mouth is,' step up and embrace the most advanced LED technology for all of the energy and maintenance savings it delivers, as the epitome of sustainable 'green' lighting technology."

"Since its change this year to all LED illumination," he added, "Tempo has experienced a 42% reduction in lighting-related energy usage. The energy-saving benefit is ongoing, and Tempo will reap those benefits for years to come. Close to one-year in with the now completed changeover, lighting maintenance and lamp replacement costs have dropped from an ongoing, constant annual expense to zero."

Pearson pointed out that the main hurdle for a



company in an LED lighting conversion is the "natural skepticism" associated with adopting any new, different technology. However, according to Tempo, employees claimed to see a dramatic improvement in working conditions after the LEDs were installed.

"Both manufacturing and office employees experience less eyestrain and fewer headaches with LED lighting. Plant assembly and office tasks were improved because of a more diffuse, shadow-free workplace environment, with more efficient LED lighting products," it said.

Tempo was founded in 1986 as a developer and manufacturer of advanced specialty- and LED-based lighting systems for the cinema, theatre and other entertainment market segments, which today includes commercial, institutional and industrial markets as well.

vehicles to its streets, collecting data that will help evaluate the needs of drivers of this type of vehicle," said Jean Martel, mayor of Boucherville. "Boucherville will be the first city in Canada to take part in the country's largest electric vehicle trial, along with Hydro-Quebec and Mitsubishi. We are happy to have contributed to developing a greener economy"

In December 2010, as part of the first phase of the electric vehicle testing program, five i-MiEVs were delivered to the city of Boucherville, the Centre de santé et de services sociaux Pierre-Boucher and Hydro-Quebec. In June 2011, 13 Boucherville businesses took part in the second phase of the program and shared an additional 15 i-MiEVs.

Over the next three years, Hydro-Quebec will oversee road tests to evaluate the performance of 30 i-MiEV vehicles. The trials are designed to study charging needs, driving habits and driver satisfaction as well as the interaction between the vehicles and the electric grid.

The i-MiEV, which stands for Mitsubishi Innovative Electric Vehicle, is based on the Japanese i-Car platform. It is an all-electric, highway-capable, charge-at-home commuter car with zero tailpipe emissions. Capable of travelling 120 km on a single charge, Mitsubishi's i-MiEV can be recharged in 6 hours using a 240V outlet (or 13 hours using a 120V outlet).

**Canadian manufacturer specializing in  
AC90 (Cu & Al) ACWU90, TECK90, NMD90**

**The Armoured Cable Specialists**

northern  
cables

I N C O R P O R A T E D

P.O. Box 1564, 50 California Avenue, Brockville, ON K6V 6E6  
Tel: 613.345.1594 Fax: 613.345.3147 Toll Free: 1.888.524.5050



getwired.

[www.northerncables.com](http://www.northerncables.com)

### Source Atlantic celebrates grand opening in Cape Breton

Wholesale supplier Source Atlantic ([www.sourceatlantic.ca](http://www.sourceatlantic.ca)) recently celebrated “a major transformation—one that demonstrates its strength and commitment to customers in industrial Cape Breton”. The sign on the building may be Source Atlantic, but manager Kevin Brushett wants everyone to know that it's still Thornes—only better.

“We’ve changed our name and our location,” he says. “But it’s the same people and the same great service. And, even better still, we have so much more to offer.”

The Sydney branch of Source Atlantic has been operating out of Harbourside Commercial Park since June, though the official grand opening took place last month.

“Our building is new, modern and was built with the needs of our customers in mind,” said Brushett. “And, with the additional square footage, we have significantly expanded the products we carry in stock.”

Other highlights of the new building include the self-serve showroom, the outside yard for large items, and plentiful parking. Brushett says the decision to build on Wabana Court in the Harbourside Commercial Park was an easy one, as the park’s extensive infrastructure is ideal for commercial and industrial businesses. “We are in the middle of everything!” he says.

Gerry McCarron, lease manager at Harbourside Park, said local officials appreciate that Source Atlantic has chosen to grow its business in the new light industrial and commercial subdivision located in central Sydney.

“We couldn’t be more pleased to have Source Atlantic join us here,” he said. “Sydney’s landscape is undergoing a great transformation, and the 2009 opening of Harbourside Park on the cleanup site of the former steel plant is an exciting development that bodes well for the future of the area. Source Atlantic’s new location in the park is an investment in the region’s continuing business development and a testament to the company’s vision for supplying the changing industrial needs of Cape Breton.”

The Thornes brand has a longstanding history dating back to 1875, when it was established as W.H. Thorne & Co. Their doors opened to the wholesale market from a building in Saint John, N.B. One location grew to three and eventually became five. It was August of 1980 that the doors to Thornes Sydney opened at the corner of George and Prince streets.

In 2001, Source Atlantic was created through the consolidation of a number of independent and established companies, with Thornes Industrial being one of those companies.

Today, Source Atlantic is a wholesale distributor and supply chain solutions provider, serving the industrial, military, commercial and residential markets. Source Atlantic (an Irving-owned company), has 13 branches throughout Atlantic Canada and one in Ottawa, Ont. In addition to a diverse product offering, Source provides customers with a range of technical, business and energy solutions.

### OPA lauded for energy efficiency program at global energy awards

Green was the predominant colour as the 2011 Platts Global Energy Awards were presented to 21 companies and industry leaders at a gala dinner in New York, N.Y., last night. Among the winners this year was Canada’s Ontario Power Authority, lauded for Energy Efficiency Program of the Year in the Supplier category.

Judges praised OPA’s “saveONenergy” public-education initiative that began in 2004 for creating a culture of conservation in Canada’s most populous province. The program has been a “key part of the utility’s wide-ranging and innovative efforts to reduce peak demand and, thus, avoid building additional power plants”. By adopting aggressive conservation targets and investing in new conservation methods, “OPA has saved consumers money in the



short-term, while steering Ontario toward a coal-free future for the long-term”.

Clean energy and sustainability themes prevailed in the entries for this year’s awards, not only setting the criteria for honors in energy efficiency and technology categories, but also gaining points for companies vying for leadership and operational efficiency awards.

### \$17 million in funding to get BC drivers into clean cars right now!

Starting December 1, consumers in British Columbia, have access to \$17 million in funding that will help get them into clean energy vehicles and support the green-tech sector in the province as part of the “Canada Starts Here: The BC Jobs Plan”, which was announced last month by environment minister Terry Lake (on the right) and energy & mines minister Rich Coleman.

“The point-of-sale rebate program is key to attracting new clean energy vehicles to the B.C. market,” said Blair Qualey, CEO, New Car Dealers Association of B.C. “Manufacturers are eager to launch their new electric, plug-in hybrid electric and fuel cell cars in markets that demonstrate both high demand and with infrastructure in place... B.C. is now one of those markets.”

- The point-of-sale incentive program will provide up to \$5000 off the sticker price for qualifying new battery electric, fuel cell electric, plug-in hybrid electric and compressed natural gas vehicles.
- With over \$6 million in provincial funding for new charging stations and upgrades to hydrogen fuelling stations at existing facilities, owners of clean energy vehicles will have more charging and fuelling options.
- Homeowners who want to install dedicated charging stations in their homes for their clean energy vehicles will get a rebate of up to \$500 per qualifying station.

To access these rebates and learn more, log on to LiveSmartBC at: [www.livesmartbc.ca](http://www.livesmartbc.ca).

Also, \$2.5 million in BC SCRAP-IT Society funding will expand the non-profit group’s initiative to remove high-polluting vehicles from the road. These incentives are accessed via the BC SCRAP-IT website at [www.scrapit.ca](http://www.scrapit.ca).

In related green news, Mercedes-Benz Canada announced plans to build a new facility in Burnaby to manufacture fuel cell stacks for hydrogen fuel cell electric vehicles.

### Sanyo partners with PV Trackers to better serve utilities



Sanyo North America Corp. ([www.us.sanyo.com](http://www.us.sanyo.com)) announced a partnership with PV Trackers ([www.pvtrackers.com](http://www.pvtrackers.com)), a manufacturer of solar ground-mounted tracking systems. The combined systems, boast the partners, provide “the world’s most efficient solar PV system for large commercial and utility-scale systems”.

“We are focused on providing utilities the best opportunities to increase power production from renewable sources like Sanyo’s high-efficiency panels,” said Charles Hanasaki, president of the Solar & Smart Energy Division. “PV Trackers system, when combined with our panels, will add increased clean energy production by maximizing the energy of the sun for all hours of sunlight during the day.”

“We are very pleased about the partnership between PV Trackers and Sanyo. The bundling of our technologies will allow Panasonic/Sanyo PV power plants to deliver peak power all day long. This combination will produce the lowest cost MWh while maintaining the highest standards of reliability and efficiency,” said Bill Taylor, CEO of PV Trackers. **EB**



More **news** can  
be found online.

Visit us at **EBMag.com**





Dennis Gravette

**Dennis Gravette**, formerly of **Burndy**, has joined **Arlington Industries'** sales team. He will assume the position of western

regional manager currently held by **Larry Troxel** in January 2012, bringing with him 30 years of experience in the electrical industry, said Arlington ([www.aifittings.com](http://www.aifittings.com)). Troxel will remain with the company and assume a newly created market development role for Arlington, added the company.

#### **LumenOptix LLC**

([www.lumenoptix.com](http://www.lumenoptix.com)) has announced that **Govi Rao** has joined its board of directors. He presently serves as president and CEO of **Noveda Technologies** ([www.noveda.com](http://www.noveda.com)), a company specializing in web-based real-time energy monitoring systems. Prior to joining Noveda, Rao was most recently chair of Lighting Science Group Corp. In April 2011, he was honoured by the Liberty Science Center for his dedication to improving commercial-scale energy sustainability. Described as a "pioneering leader of sustainability across several industries" by LumenOptix, Rao brings more than 15 years of global business experience to the board, including leadership roles in the lighting industry, building products, specialty chemicals, and coatings.

**Serge Leblanc**, former vice-



Serge Leblanc

president of marketing for **Lumen** (a member of the **Sonepar Canada** family) has been appointed president of Lumen ([www.lumen.ca](http://www.lumen.ca)) in Quebec to succeed

**François Anquetil**. A graduate in marketing, Leblanc has 20 years of experience in the electrical industry. He joined Lumen in 1997 after 10 years with **Crouse-Hinds**, then became VP sales & marketing in 2002. **Sonepar Canada** ([www.soneparcanada.com](http://www.soneparcanada.com)) oversees over 90 branches within six operating companies: CenturyVallen, Gescan, Lumen, Osso Electric, Texcan and SESCO.

**Mr. Electric**, a residential and commercial electrical service and repair company with more than 200 franchises worldwide,

has named **Joel Worthington** the new vice-president of operations. Worthington has worked as a franchise consultant and in franchise development for Mr. Electric over the past 2.5 years. As a previous employee of The Dwyer Group, he has an "excellent track record for high quality performance" and has over 20 years of experience in sales, management, and training, said the company. The Dwyer Group is a franchise management company that provides a support staff

for the franchisees of Mr. Electric, Mr. Rooter, Mr. Appliance, Glass Doctor, The Grounds Guys, AireServ and Rainbow International. Worthington will be responsible for helping the franchise consultants and support staff provide a positive impact on the financial health of the Mr. Electric franchisees. Filling Worthington's shoes as the franchise consultant is **Kyle Miller**, who has worked for Mr. Electric over the past year in the Systems Accounts and Franchise Development Department.

**Ferraz Shawmut**  
is  
now

**merSEN**

We've shortened our name. And increased your expertise in the safe and reliable transmission, distribution, and control of power.



**What's in a name?** More products, solutions, and support than you've ever had before to keep everything running safely. Changing our name changes the game, giving you all of Ferraz Shawmut plus even more resources to increase your expertise in the protection of power electronics, controls, transmission, and distribution. Ready for the next level? It's waiting for you at [fsisnowmersen.com/us/CAEB2](http://fsisnowmersen.com/us/CAEB2)

[mersen.com](http://mersen.com)

Mersen  
Toronto, ON  
T: 416.252.9371



Perry Slevin

**Cate Gutowski**, sales development manager at **GE Lighting**, North America Professional Sales, announced the appointment of **Perry Slevin** as national field sales developer, **GE Lighting Canada**. In this newly created

position, Slevin is responsible for developing vertical market opportunities for lighting and LED products in the Canadian retail and property management sectors. Working with distribution partners, he will play a role in driving professional lighting sales in these areas. Slevin brings a solid lighting background to this new position, says GE, including his experience as national account manager at **Franklin Empire**, responsible for expanding the retail customer base. Prior to this, he fulfilled a variety of sales management roles at **Hubbell Canada** and the **Juno Lighting Group**.

**Con's Electric Company Ltd.** of Timmins, Ont., is one of four companies being recognized by the provincial government for its "outstanding contribution to training the next generation of skilled workers." The annual **Minister's Awards for Apprenticeship Training** celebrate employers that show leadership in training apprentices, support the apprenticeship training system, and promote careers in skilled trades. Con's Electric Company has been in business since 1985, and has trained more than 50 apprentices, it says. It has four construction and maintenance electrician apprentices, and hires and trains co-op students. The winners were selected from 16 nominees by a panel of apprenticeship experts from different sectors, including labour organizations, the Ontario Chamber of Commerce and community colleges. According to the Ontario government, there are more than 120,000 apprentices learning a skilled trade today—double the number from 2002-2003. Since these awards began in 2002, more than 200 employers have been nominated.



Michel Crochon

**Schneider Electric** ([www.schneider-electric.com](http://www.schneider-electric.com)) has joined forces with **Telvent** ([www.telvent.com](http://www.telvent.com)) to offer "more complete and efficient solutions to their customers", following the successful completion of the

acquisition of Telvent by Schneider. "I'm convinced that, together, Telvent and Schneider Electric will answer our customers' sustainability and efficiency challenges for today and tomorrow," said Michel Crochon, executive vice-president Energy Business, Schneider Electric. Telvent's positioning in infrastructure and software & IT capabilities fits particularly well with Schneider Electric energy and process management expertise and global presence, says Schneider, opening the way to enhancements and unique offerings in various markets, such as: smart grid; oil & gas and water infrastructure; transportation; and global coverage.

**The International Electrotechnical Commission** (IEC, [www.iec.ch](http://www.iec.ch))—a global organization that prepares and publishes international standards for electrotechnology—has presented **Schneider Electric's Jim Eichner** with its 1906 Recognition Award. Named for the year in which IEC was founded, the award recognizes the exceptional recent achievement of experts; Eichner was a key contributor on two recently released product safety standards for photovoltaic power conversion equipment. Eichner is the compliance engineering manager for Schneider Electric ([www.schneider-electric.ca](http://www.schneider-electric.ca))'s Renewable Energy Business, and is a career product safety engineer. After obtaining his Electrical Engineering degree at the University of Toronto, he began his career at the Canadian Standards Association in 1985, doing product safety work on power electronics. Since 1992 he has been in industry, working on product safety, standards compliance and standards development in the renewable energy and mobile power fields.



**Acuity Brands** ([www.acuitybrands.com](http://www.acuitybrands.com)) has acquired **Pathway Connectivity Inc.** ([www.pathwayconnect.com](http://www.pathwayconnect.com)), a manufacturer of networked data communications and interface equipment for architectural and entertainment lighting control applications. Established in 1985 and based in Calgary, Alta., Pathway designs and manufactures electronics that enable lighting control systems to communicate with intelligent lighting fixtures and power devices—even when they employ different communications protocols. "For over 25 years, we have stretched the realm of the possible, integrating disparate lighting and controls systems for demanding theatrical and 'architainment' customers," said Dave Higgins, Pathway founder, president and CEO. "The Pathway team brings advanced networking products and engineering capabilities to Acuity Brands that fits into our strategy of expanding the opportunities associated with integrating lighting and controls solutions. We welcome this talented team to the Acuity Brands family," added Vernon J. Nagel, chair, president and CEO of Acuity Brands.

**EGS Electrical Group** ([www.emersonindustrial.com](http://www.emersonindustrial.com)), a business unit of Emerson Industrial Automation, has promoted **Ricardo Mejia** to vice-president of performance excellence. Mejia will report directly to EGS CEO, Eric Meyer. Mejia began his career at Emerson in May 1999 as an operations planner with Hermetic Motor Division in St. Louis. In January 2002, he became the Lean Champion for the Hermetic facility in Reynosa, Mexico, and he progressed to positions of increasingly responsibilities within Hermetic to include materials manager, Division Lean Champion and director of Quality.



Nick Shkordoff

**Ideal Industries Inc.** has promoted **Nick Shkordoff** to group vice-president/general manager of the Electrical Division, replacing **Glenn Hollister**, who is launching a newly formed division that focuses on the health & safety market. Shkordoff previously served as president of **Anderson Power Products** (APP), a subsidiary of Ideal that designs and manufactures high-power interconnects and accessories. Previously, he served as president

of Ideal Industries Canada. In addition, **Jeffrey Burkhardt**, currently vice-president of global sales and marketing for Anderson has been appointed that company's new general manager, succeeding Shkordoff. "Nick's promotion is the product of the significant achievements he made at APP and Ideal Canada, as well as the respect he has earned from his peers, distributors and customers within the industry," said Jim James, president and CEO of Ideal.

**Eclipsall Energy** announced that **Joao Figueiredo**, an international business executive with "expertise in launching businesses and expanding them worldwide", has joined the Eclipsall Group ([www.eclipsall.com](http://www.eclipsall.com)) of companies as CEO of **Eclipsall Solar**. In 2011, the Eclipsall Energy Group became a vertically integrated solar company by adding an engineering, procurement, and construction (EPC) division: Eclipsall Solar. The company also has a project development and financing division: Eclipsall Development. The Eclipsall Energy Group has currently in excess of 400 MW of projects under development in North America, South America, Africa, India and Europe. Prior to joining the Eclipsall Group, Figueiredo held a senior position with a European multinational focusing on renewable energy, specifically in the solar photovoltaic (PV) sector. He has worked in all major European, PV markets and has most recently led business development efforts and negotiations for EPC activities in the Ontario market.

**Osram AG** ([www.osram.com](http://www.osram.com)) is acquiring a 100% interest in **Encelium Technologies** ([www.encelium.com](http://www.encelium.com)), announced the latter's president and CEO, Tony Marano. The 10-year-old manufacturer specializes in lighting control and energy management systems for commercial and industrial buildings. Osram previously held a 15% stake in Encelium. After closing, Encelium will become part of the Osram Lighting Management System division. "This transaction provides further validation of Encelium's position as a leader in lighting energy management systems," Marano noted. "The result will strengthen our already well-established sales force, distribution and go-to-market strategy. We look forward to continuing to work with our customers and channel partners to leverage the Osram relationship to grow our business on a global scale." **EB**





Dave Smith |

## Empty chairs at the table



Look around your dinner table and imagine the horror of tomorrow's empty chair, and the horror should it be your chair that's vacant.

I write this column following two of the most brutal weeks I've ever experienced. On a Monday night in Northern Cape Breton, five teenagers were travelling in a minivan, when Ainsley, 16, swerved to miss a fox, went off the road and hit a tree. Ainsley and Noah, 14, died instantly.

Canada Training Group is a small, connected company and these children were related to one of our Cape Breton staff; Noah the son of a first cousin; Ainsley, a sister's step-daughter. Two others, Alannah, 16, and her brother Logan, 13, went into intensive care in Halifax; Alannah with her vertebrae cracked in four places, and Logan with bleeding on the brain. The fifth child, Jesse, called 911 and, refusing to leave, stayed for four hours comforting Alannah and Logan.

Cape Breton is an amazing place for many reasons but mostly for its people. The fabric of their society has been woven over the centuries with people interconnected throughout the island and further. When the fabric tears anywhere, it ripples everywhere. The Cape Breton map reveals the small, close communities of Ingonish, Dingwall and Neil's Harbour that are equally close in friendship.

With only 200 students, their entire school—classmates, teammates, friends—grieved the loss of Ainsley and Noah. You can imagine communities in tears as Noah's wake was Thursday evening, Noah's funeral Friday afternoon, Ainsley's wake Friday evening, and Ainsley's funeral Saturday—all overlaid by the fact that nobody yet knew the results that would come from Halifax.

Every parent reading this article will know and understand the horror that the children's parents and stepparents—Marjorie, Frankie, Amanda, Michael, Robin and John—experienced upon hearing of the death of their children, as well as the fear of Danita and Robert for their children in Halifax.

Those were dark, terrible days of indescribable sorrow—and it was not over yet.

The following Friday my wife rushed to the hospital with her children. Their father, at the age of 55, had a massive, fatal heart attack. A bit out of shape, stressed and worried over harvest, his life also ended too early and abruptly. Robert was a remarkable father; amazing in his connectedness and devotion to his children. Sarah, 22, and Bruce, 16, have also had their hearts ripped out of them.

But it wasn't over yet as that same night a very dear friend, Shirley, passed away after surgery at 59, giving us two more funerals. Shirley was a devoted aunt and wonderful friend for many.

The sorrow of these other tragedies will be felt for decades as future harvests and Thanksgivings will be celebrations wrought with sadness. Even as I try to write this, the tears are flowing freely, and I have to stop continuously.

I write this column to give you a moment to think about your actions. I hope they can be used in your safety meetings or drive changes in your procedures and safe work practices. In a physical world, it is so easy to make a mistake. After years of working around machinery, my friend Ken, 58, got too close and was instantly mangled. We try to guard everything, but we humans are hard to guard.

Birth and death are the bookends of life; birth defines its wonder, death defines its value and both move us equally. So look around your dinner table and imagine the horror of tomorrow's empty chair, and the horror should it be your chair that's vacant. Robert's death has been a wakeup call for many of our community who are a little out of shape, prone to worry, or over-stressed.

For me, it prompted me to clarify my will, create a health directive dictating when I should be unplugged, powers of attorney for my property and affairs, and several personal letters. If you do not make your intentions clear, there will be painful confusion on a list of misinterpretations.

Rest in peace Ainsley, Noah, Robert and Shirley. Until next time, be ready, be careful and be safe. © **EB**

*Canada Training Group has been providing consulting services to industry since 1980; Dave Smith, the president, can be reached at [davesmith@canada-training-group.ca](mailto:davesmith@canada-training-group.ca). At [www.canada-training-group.ca](http://www.canada-training-group.ca), you will find this article (and others) available to you. Feel free to use them to support your own safety program and other initiatives.*

A tradition  
of innovation.



# STAR TECK®

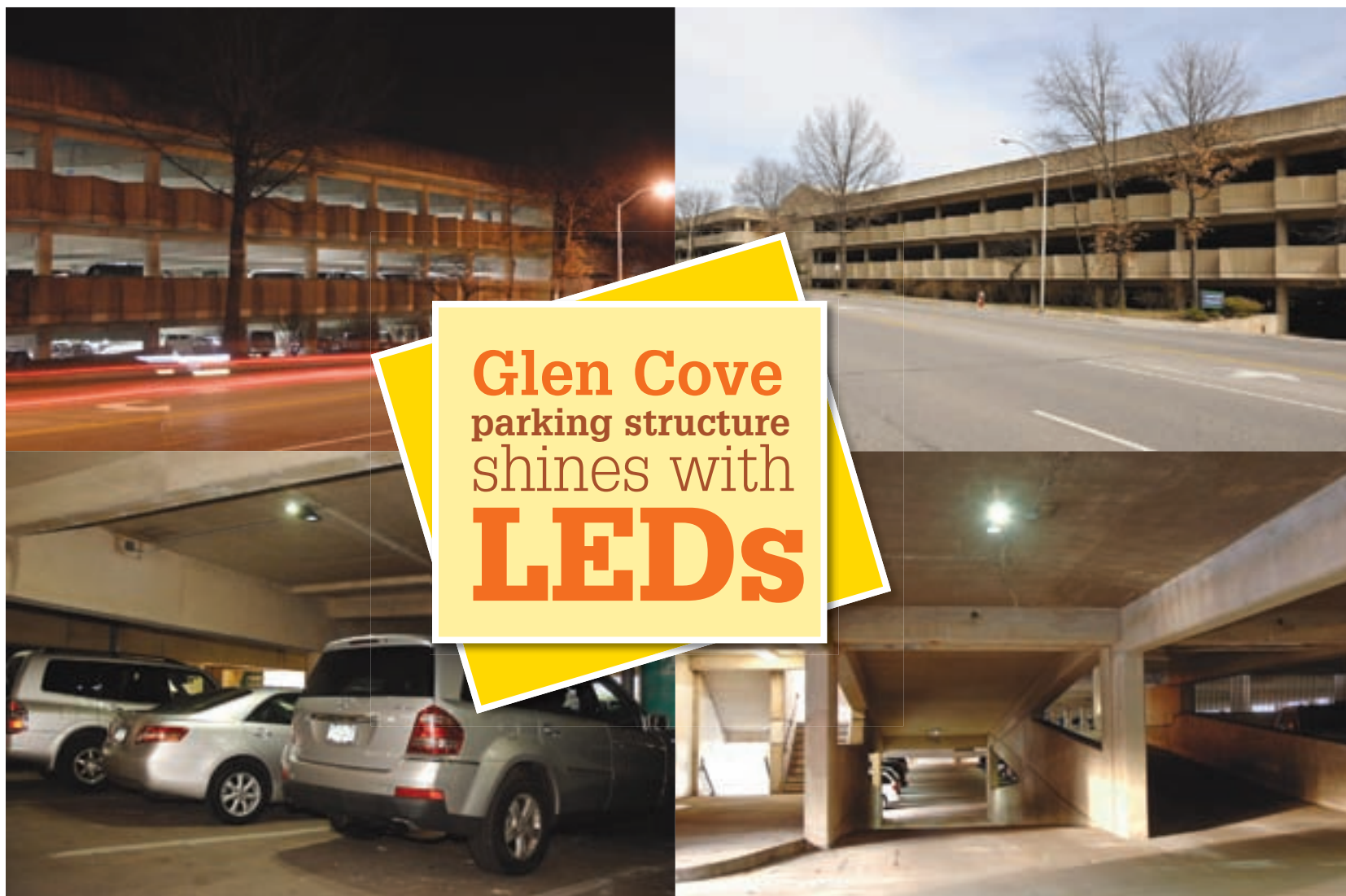
A pioneer in the design of teck cable fittings, the **Thomas & Betts STAR TECK®** product line remains an indisputable industry standard to this day.

All **STAR TECK®** fittings are designed and manufactured in Canada for Canada.

**STAR TECK®** cable fittings.  
A tradition of industry firsts.

**Thomas & Betts**





## Glen Cove parking structure shines with **LEDs**

**T**hough the city of Glen Cove, N.Y., has been an important and historical trading port dating back to the 1600s, it now boasts an exciting new 21st Century achievement to add to its history annals: a state-of-the-art LED lighting upgrade in its Brewster Street parking garage, which has dramatically reduced the city's energy consumption and positioned the waterside town as a model of energy efficiency and environmental responsibility throughout the New York region.

Concerned about the high energy consumption and excessive maintenance associated with the old high-pressure sodium (HPS) fixtures in their parking facility, officials sought a more energy-efficient and maintenance-free lighting option for the three-story structure.

"They were constantly changing lamps and repairing fixtures in the garage," confirms Joe Casalino, vice-president of Port Washington-based electrical distributor Duplex Electric, which supplied the new LED lighting fixtures for the project. "In addition, a lot of the light output from the old fixtures was getting wasted on the ceiling."

Following an analysis of their lighting options in November 2010, Glen Cove officials agreed on an upgrade using highly-efficient LED technology. The 264 bronze fixtures installed in December 2010 incorporate two 13-watt LED light engines in a fully shielded, full cutoff design that ensures that light output is focused downward to

highlight people and objects in the space. The fixtures' aluminum exterior with tempered glass and double gasketing is able to withstand the extreme conditions associated with outdoor applications like parking garages, while the their LED light engine is rated for 50,000 hours of life (which will help ensure long operation and significantly reduce maintenance costs for the city).

Because the new fixtures with LED technology provide such a high light level and direct the light downward so effectively, says Casalino, they were able to replace the garage's previous 100-watt fixtures with the LED system that consumes only 26 watts for a 77% energy savings. In addition, because of the long life of LED technology, the city should enjoy over five years of maintenance-free, 24/7 operation out of these fixtures, which will further save on material and labour costs "and ensure a safer and more secure environment for visitors".

"Based on the city's interest in lowering its energy consumption and costs, this fixture will reduce annual energy usage by over 240,000 kWh, delivering the city annual energy savings of more than \$46,000, and driving a project payback of only one year," asserts RC Lighting's Nathan Drucker, applications engineering manager for the Northvale, N.J.-based lighting company.

Happily for the city, and on top of the attractive financial performance the LED fixtures delivered all on their own, the project

was also able to capitalize on a \$250 rebate per fixture extended by local utility, Long Island Power Authority (LIPA)—a financial incentive that helped to offset the city's upfront project costs by over \$68,000. In terms of benefiting the environment, Glen Cove and LIPA spokespeople estimate that the lighting upgrade "will have the equivalent effect of eliminating over 307,661 pounds of [carbon dioxide] from the air, or avoiding the consumption of 15,840 gallons of gasoline by cars each year".

Mike Paolillo, supervisor of Glen Cove-based contractor S. Paolillo & Sons Inc., was also pleased with the selection of the fixtures for this project. "It was an easy fixture to install and fit the specs of the project well," he says. "The whole installation went very quickly and smoothly, which ensured the completion of the project within the deadline for the utility rebate."

Seeing the impressive lighting performance and quick project payback and hearing positive feedback from city residents pleases no one more than Ralph Suozzi, Glen Cove's mayor, who championed the upgrade project.

"Overall, this project represented a great partnership between government, industry and our local utility," Suozzi says. "We're excited to have reduced our carbon footprint, removed strain from the power grid, created jobs, reduced cost to taxpayers, and decreased maintenance costs due to the long life and durability of the LED technology. At the end of the day, everybody wins." **EB**





# THE <sup>2012</sup> Blue Book

Canada's Electrical and Datacom Source Guide

The only comprehensive  
**BUYERS' GUIDE** for the  
electrical and communications  
markets in Canada



# ARCTIC TIE™

## Superior Ice & Sun Performance

- ❄ Special polymer additive prevents breakage in sub-zero temperatures
- ❄ UV additive for superior sunlight resistance
- ❄ Higher strength rating than regular ties (e.g. 80 lbs vs. 50 lbs) resistance
- ❄ Distinctive "ICE BLUE" colour

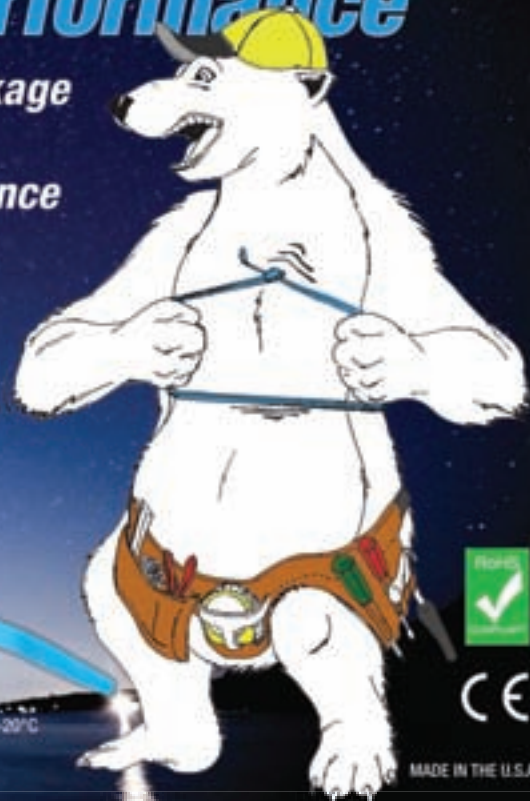
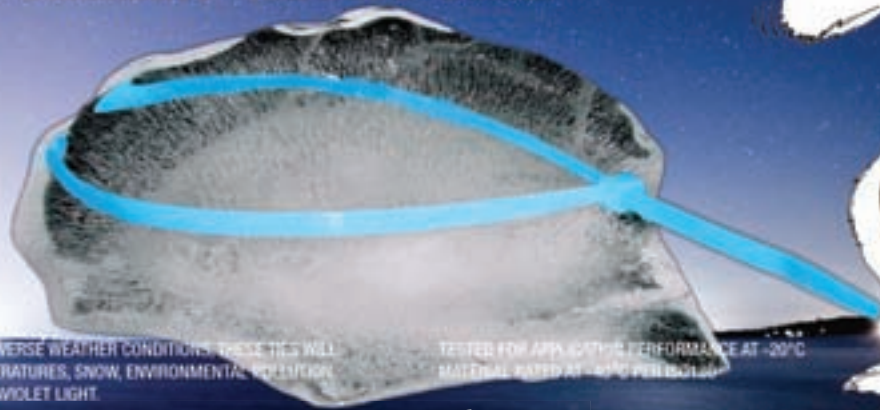


**ta**  
**TECHSPAN**

www.techspan.ca  
1-800-363-1588

DESIGNED TO PERFORM IN DIVERSE WEATHER CONDITIONS, THESE TIES WILL WITHSTAND SUB-ZERO TEMPERATURES, SNOW, ENVIRONMENTAL ACIDITY, ACIDITY IN THE AIR AND ULTRAVIOLET LIGHT.

TESTED FOR APPROPRIATE PERFORMANCE AT -20°C MATERIAL RATED AT +45°C PERMITS



CE

MADE IN THE U.S.A.

### Safety-Performance-Durability

#### Techspan IEC309 Pin & Sleeve connectors



**3 sizes**  
of non-metallic back boxes  
**now in stock**

- Watertight - IP67 (indoor/outdoor) 20-100amp
- Splashproof - IP44 (indoor) 20&30amp
- Quick and easy installation
- Rugged construction
- Single & 3 phase voltage ratings - 6 colour codes determines size
- 3, 4 & 5 wire connections, 4 amperage ranges available, -25°C to 90°C OTR

Use this link to for a complete listing of available items  
**www.techspan.ca**



**SCAME**



UL  
LISTED

### Stainless Steel Banding

#### We'll put YOU in the market!

Have you always wanted to get into the stainless steel banding market but couldn't find a reliable supplier? Look no further.



- Techspan has an expansive new line of stainless steel banding and cable ties to meet any application. • Coated and uncoated. • Colours. • 316 or 201 grade stainless steel.

Now you can secure that local sign business.  
Or maybe snag that marine or oil field contract.

Contact Techspan today for more information or go to



**www.techspan.ca**

MANAGING RISK  
DNV



LISTED

**1-800-363-1588 • www.techspan.ca**

Email: sales@techspan.ca





**Editor**

Anthony Capkun  
acapkun@annexweb.com

**Publisher**

John MacPherson  
jmacpherson@annexweb.com

**Account Manager**

Scott Hoy  
shoy@annexweb.com

**Associate Editor**

Alyssa Dalton  
adalton@annexweb.com

**Art Director**

Svetlana Avrutin  
savrutin@annexweb.com

**Production Manager**

Kathryn Nyenhuis  
knyenhuis@annexweb.com

**Subscriber Customer Service Representative**

Karen Thomson  
kthomson@annexweb.com

**President**

Mike Fredericks  
mfedericks@annexweb.com



Published by Annex Publishing & Printing Inc.  
222 Edward Street, Aurora, Ontario L4G 1W6  
Tel. 905-727-0077 • Fax 905-727-0017

The contents of The BlueBook are copyright ©2011 by Annex Publishing & Printing Inc. and may not be reproduced in whole or part without written consent. Annex Publishing & Printing Inc. disclaims any warranty as to the accuracy, completeness or currency of the contents of this publication and disclaims all liability in respect of the results of any action taken or not taken in reliance upon information in this publication.

Send address changes to:

**ELECTRICAL BUSINESS**

P.O. Box 530, Simcoe, ON N3Y 4N5

Printed in Canada

From the Publishers of:

**Electrical Business**

# Contents

16

## MANUFACTURERS

Want to find all the players who make the products we use and love? Check out the manufacturer pages to find them all.



25

## ASSOCIATIONS

What would our industry be without the various associations that bring us closer together. What groups could you belong to?



28

## PRODUCTS

Can't figure out who makes the products you need? Visit this section and peruse our product categories to find the job partner that's just right for you.



32

## DISTRIBUTORS

Where would we be without our distributor partners? Check out this section to find your distributor of choice in the areas where you live and work. This section is laid out according to province/territory, then alphabetically by distributor.



37

## SALES AGENTS

We rely on our manufacturer reps to help us find the solutions we need. Check them out here.



39

## TRAINING, EDUCATION & SERVICE PROVIDERS

The industry is ever evolving, always changing. Visit these pages to find the partners you need to stay at the top of your game.



40

## WEB PROFILES

Check out this page to find treasure troves of online information!



## Not here but think you should be?

We'll put out the call again for information for **The BlueBook** next year, **Summer 2012**.

At that point, be sure to fill out your particulars online at **EBmag.com** or use the **fax-back form** that appears in the pages of *Electrical Business* to be included in **The BlueBook 2013 edition**.



## 3M CANADA

PO Box 5757  
London, ON N6A 4T1  
T: 800-410-6880  
F: 519-452-6080  
W: www.3m.ca/electrical

## 3R TECHNOLOGIES

83 North Summit St.  
Tenafly NJ 07670  
T: 888-541-9971  
F: 888-541-3105  
W: www.3rtechnologies.com

## A

### ABB

2117, 32nd av.  
Lachine QC H8T 3J1  
T: 514-420-3100  
F: 514-420-3138  
W: www.abb.com/lowvoltage

### ABCO CUSTOM MANUFACTURING INC.

90 Baffin Place  
Waterloo ON N2V 1Z7  
T: 519-747-9794  
F: 519-747-9892

### ABEL ELECTRIC

187 York Rd.  
Dundas ON L9H 1M9  
T: 905-627-4811

### ABSPULSE ELECTRONICS LTD.

110 Walgreen Rd.  
Ottawa ON K0A 1L0  
T: 613-836-3511  
F: 613-836-7488  
W: www.abspulse.com

### ACC CABLES

3510 29th St. N.E.  
Calgary AB T1Y 7E5  
T: 403-291-5560  
F: 403-291-1112  
www.cablesbyacc.com

### ACCUBID SYSTEMS

7725 Jane St.  
Concord ON L4K 1X4  
T: 800-222-8243  
F: 866-511-1362  
W: www.accubid.com

### ACCULITE - JUNO LIGHTING GROUP

219 Shoemaker St.  
Kitchener ON N2E 3B3  
T: 519-893-1500  
F: 519-893-7101  
W: www.junolightinggroup.com

### ACE MANUFACTURING METALS LTD.

Box 500  
Bittern Lake AB T0C 0L0  
T: 780-352-7145  
F: 780-352-7147  
W: www.acemfg.com

### ACR SYSTEMS INC.

210-12960 84 Ave.  
Surrey BC V3W 1K7  
T: 604-591-1128  
F: 604-591-2252  
W: www.acrsystems.com

### ACUITY BRANDS LIGHTING CANADA, INC.

10-9040 Leslie St.  
Richmond Hill ON L4B 3M4  
T: 905-886-8967  
F: 905-886-7973  
W: www.abl-gtasales.com

### A-D TECHNOLOGIES

860 Garden St.  
Elyria OH 44035  
T: 800-321-7914  
F: 440-322-1001  
W: www.adtechnologies.com

## ADC TELECOMMUNICATIONS INC.

23 rue Oriole  
Kirkland QC H9H 4S2  
T: 514-249-3573  
W: www.adc.com

## ADVANCED ENERGY NETWORKS INC.

7131 Edwards Blvd.  
Mississauga ON L5S 1Z2  
T: 905-564-7615  
F: 905-564-7680  
W: www.advancedenergynetworks.com

## AEG POWER SOLUTIONS INC.

2680 Fourteenth Ave., Unit 1 & 2  
Markham ON L3R 5B2  
T: 905-480-5151  
F: 905-480-9356  
W: www.aegpowersolutions.com

## AEMC INSTRUMENTS

200 Foxborough Blvd.  
Foxborough MA 02035  
T: 508-698-2115  
F: 508-698-2118  
W: www.aemc.com

## AEROFLO INC.

12-205 Matheson Blvd. E.  
Mississauga ON L4Z 3E3  
T: 905-890-6192  
F: 905-890-6193  
W: www.aeroflo.com

## AERO-TECH LIGHT BULB CO.

534 Pratt Ave.  
Schaumburg IL 60193  
T: 847-352-4900  
F: 847-352-4999  
W: www.aerolights.com

## AES INTELLINET

285 Newbury St.  
Peabody MA 01960  
T: 978-535-7310  
F: 978-535-7313  
W: www.aes-intellinet.com

## AFOP

275 Gibraltar Dr.  
Sunnyvale CA 94089  
T: 408-736-6900  
F: 408-736-4882  
W: www.afop.com

## AGILENT TECHNOLOGIES

2660 Matheson Blvd. E.  
Mississauga ON L4W 5M2  
T: 877-894-4414  
W: www.agilent.com

## AIR KING LTD.

110 Glidden Rd.  
Brampton ON L6T 2J3  
T: 905-456-2033  
F: 905-456-1015  
W: www.airkinglimited.com

## AIR SYSTEMS INTERNATIONAL INC.

821 Juniper Cres.  
Chesapeake VA 23320  
T: 757-424-3967  
F: 757-424-5348  
W: www.airsystems.cc

## AIRTRON

65 Trottier Dr.  
Tillsonburg ON N4G 4S8  
T: 416-402-2067

## ALCAN CABLE

602-2700 Matheson Blvd. E.  
Mississauga ON L4W 5H7  
T: 905-206-6900  
F: 905-206-6907  
W: www.cable.alcan.com

## ALICO INDUSTRIES INC.

2750 John St., Unit 2  
Markham ON L3R 2W4  
T: 905-305-6606  
F: 866-305-6191  
W: www.alicoindustries.com

## ALPHA WIRE

711 Lidgerwood Ave.  
Elizabeth NJ 07202  
T: 908-587-4077  
W: www.alphawire.com

## ALTRONIX CORPORATION

140 58th St., Bldg. A, 3 W  
Brooklyn NY 11220  
T: 888-258-7669  
F: 718-567-9056

## AMAC EQUIPMENT LTD.

110 Industrial Rd.  
Richmond Hill ON L4C 2Y3  
T: 905-884-1423  
F: 905-884-1420  
W: www.amace.ca

## AMERCABLE

350 Bailey Rd.  
El Dorado AR 71730  
T: 870-862-4919  
F: 870-862-9613  
W: www.amercable.com

## AMERICAN ACCESS TECHNOLOGIES, INC.

6670 Spring Lake Rd.  
Keystone Heights FL 32656  
T: 352-473-6673  
F: 352-473-6572  
W: www.aatk.com

## AMERICAN FIBERTEK INC.

120 Belmont Dr.  
Somerset NJ 08873-1204  
T: 732-302-0660  
F: 732-302-0667  
W: www.americanfibertek.com

## AMERICAN INSULATED WIRE CORP. (A LEVITON COMPANY)

6595 Kitimat Rd.  
Mississauga ON L5N 4J4  
T: 905-826-5505  
F: 905-826-6501  
W: www.wirecableandcords.com

## AMT MACHINE TOOLS LIMITED

73 Galaxy Blvd., Unit 17  
Rexdale ON M9W 5T4  
T: 416-675-7760  
F: 416-675-6988  
W: www.amtmachine.com

## AMUNEAL MANUFACTURING CORP.

4737 Darrah St.  
Philadelphia PA 19124  
T: 800-755-9843  
F: 215-743-1715  
W: www.amuneal.com

## ANALYGAS SYSTEMS

450 Midwest Rd.  
Toronto ON M1P 3A9  
T: 416-759-2241  
F: 416-757-8096  
W: www.analgas.com

## ANALYTIC SYSTEMS

8128 River Way  
Delta BC V4G 1K5  
T: 604-946-9981  
F: 604-946-9983  
W: www.analyticsystems.com



## ANAMET CANADA INC.

PO Box 550  
Colborne ON K0K 1S0  
T: 905-355-2122  
F: 905-355-3110  
W: www.anametcanada.com

## ANDREW CANADA INC.

606 Beech St. W.  
Whitby ON L1N 5S2  
T: 905-668-3348

F: 905-668-8590  
W: www.andrew.com

## ANRITSU

100-1155 East Collins Blvd.  
Richardson TX 75081  
T: 972-644-1777  
F: 972-671-1877  
W: www.us.anritsu.com

## ANRITSU ELECTRONICS LTD.

120-700 Silver Seven Rd.  
Kanata ON K2V 1C3  
T: 800-267-4878  
F: 613-591-1006  
W: www.anritsu.com

## APCON, INC.

9255 SW Pioneer Ct.  
Wilsonville OR 97070  
T: 503-682-4050  
F: 503-682-4059  
W: www.apcon.com



## ARANI SYSTEMS CORP.

120-8925, Blvd. St. Laurent  
Montreal QC H2N 1M5  
T: 514-903-2296  
F: 514-903-2297  
W: www.arani.ca

## ARDRON-MACKIE LIMITED

6690 Columbus Rd.  
Mississauga ON L5T 2G1  
T: 905-670-0222  
F: 800-529-0225  
W: www.ardron.com

## A-RISE PIPE SUPPORT, INC.

B-1300 Alameda Ave,  
Fircrest WA 98466  
T: 253-565-1140  
F: 253-565-1700  
W: www.arisepipesupport.com

## ARLINGTON INDUSTRIES

1 Stauffer Industrial Park  
Scranton PA 18517  
T: 800-233-4717  
W: www.aifittings.com

## ARROW FASTENER COMPANY

271 Mayhill St.  
Saddle Brook NJ 07663  
T: 201-843-6906  
F: 201-843-3911

## ARTCRAFT ELECTRIC LTD.

8050 Torbram Rd.  
Bramalea ON L6T 3T2  
T: 905-791-1551  
F: 905-791-7381  
W: www.artcraftlighting.com

## ASB HEATING ELEMENTS LTD.

20 Bethridge Rd.  
Toronto ON M9W 1N1  
T: 416-743-9977  
F: 416-743-9424  
W: www.asbheat.com

## ASSOCIATED WIRE PRODUCTS INC.

2110 Matheson Blvd. E.  
Mississauga ON L4W 5E1  
T: 905-602-9181  
F: 905-602-9163  
W: www.awpinc.com

## ATKORE

6560 Northwest Dr.  
Mississauga ON L4V 1P2  
T: 905-362-0180  
F: 905-362-0186

## ATLAS TRANSFORMER INC.

7131 Edwards Blvd.  
Mississauga ON L5S 1Z2  
T: 905-795-0141

F: 905-795-9688  
W: www.atlastransformer.com

## AUBE TECHNOLOGIES

705 Montrichard  
Iberville QC J2X 5K8  
T: 450-358-4600  
F: 450-358-4650  
W: www.aubetech.com

## AUTAC INC.

2180 Foxon Rd.  
North Branford CT 06471  
T: 203-481-3444  
F: 203-488-0496  
W: www.autacusa.com

## AUTOMATION CONTROL INC.

2-100 Sheldon Dr.  
Cambridge ON N1R 7S7  
T: 519-622-8529  
F: 519-622-3929  
W: www.automationcontrolinc.com

## AVALAN WIRELESS SYSTEMS INC.

958 San Leandro Ave., Ste. 900  
Mountain View CA 94043  
W: www.avalanwireless.com

## AZCO TECHNOLOGIES INC.

41151-2529 Shaughnessy Street  
Port Coquitlam BC V3C 5Z9  
T: 877-420-2926  
F: 604-357-1114  
W: www.azcotechnology.com

## B

## B & M MANUFACTURING INC.

PO Box 1059  
Mitchell ON N0K 1N0  
T: 519-348-4410  
F: 519-348-4423  
W: www.bmgrp.ca

## B.L. INNOVATIVE LIGHTING

111-8838 Heather St.  
Vancouver BC V6P 3S8  
T: 604-874-4405  
F: 604-321-0445  
W: www.blilighting.com

## BACH SIMPSON CORPORATION

1255 Brydges St.  
London ON N5W 2C2  
T: 519-452-3200  
F: 519-452-3165  
W: www.bach-simpson.com

## BAND-N-GO INC.

4-8540 Keele St.  
Vaughan ON L4K 2N2  
T: 888-871-6573  
F: 905-669-1953  
W: www.bandngo.com

## BANNER GUARD, DIV OF REEF INDUSTRIES

9209 Alameda Genoa  
Houston TX 77075  
T: 713-507-4251  
F: 713-507-4295  
W: www.reefindustries.com

## BARTCO LIGHTING, INC.

5761 Research Dr.  
Huntington Beach CA 92649  
T: 714-230-3200  
F: 714-230-3222  
W: www.bartcolighting.com

## BAUMER ELECTRIC INC.

4046 Mainway Rd.  
Burlington ON L7M 4B9  
T: 905-335-8444  
F: 905-335-8320  
W: www.baumerelectric.ca

## BEAST CABLING SYSTEMS, INC.

6711 Lee Highway  
Arlington VA 22205  
T: 800-633-3114



F: 703-532-8955  
W: www.beastcablingsystems.com

**BEGHELLI CANADA INC.**  
3900 14th Avenue  
Markham ON L3R 4R3  
T: 905-948-9500  
F: 905-948-8673  
W: www.beghellicanada.com

**BEJED**  
14325 NE Airport Way, Ste. 101  
Portland OR 97230  
T: 503-281-8153  
F: 503-281-3339  
W: www.bejed.com

**BELDEN**  
200-2280 Alfred-Nobel Blvd.  
St-Laurent QC H4S 2A4  
T: 514-822-2345  
F: 514-822-7981  
W: www.belden.com

**BENSHAW CANADA CONTROLS INC.**  
550 Bright St.  
Listowel ON N4W 3W3  
T: 519-291-5112  
F: 519-291-2595  
W: www.benshaw.com

**BERKELEY VARITRONICS SYSTEMS INC.**  
255 Liberty Street  
Metuchen NJ 08840  
T: 732-548-3737  
F: 732-548-3404  
W: www.bvsystems.com

**BERK-TEK, A NEXANS COMPANY**  
132 White Oak Road  
New Holland PA 17557  
T: 800-237-5835  
W: www.berktek.com

**BERMIS INC.**  
6-236 Wilkinson Rd.  
Brampton ON L6T 4N7  
T: 905-454-4401  
F: 905-454-1240  
W: www.bermis.com

**BLACK BOX CANADA CORPORATION**  
2225 Sheppard Ave. E., 16th Floor  
Toronto ON M2J 5C2  
T: 416-490-7100  
F: 416-490-7720  
W: www.blackboxcanada.ca

**BODINE COMPANY INC., THE**  
PO Box 460  
Collierville TN 38027  
T: 901-853-7211  
F: 901-853-5009  
W: www.bodine.com

**BORDEN AGENCIES INC.**  
336 Bridlewood Ave. SW  
Calgary AB T2Y 4G2  
T: 403-254-0447  
F: 403-254-0477  
W: www.bordenagencies.com

**BRADY CANADA**  
50 Vogell Road, Units 3&4  
Richmond Hill ON L4B 3K6  
T: 905-764-1717  
F: 905-764-3670  
W: www.bradycanada.com

**BRITECH CORP.**  
17 Pullman Court  
Toronto ON M1X 1E4  
T: 416-335-7790  
F: 416-335-8071  
W: www.britech.ca

**BROAN-NUTONE CANADA INC.**  
1140 Tristar Dr.  
Mississauga ON L5T 1H9  
T: 888-882-7626  
F: W: www.broan.ca

**BROOK CROMPTON LTD.**  
264 Attwell Dr.  
Toronto ON M9W 5B2  
T: 416-675-3844  
F: 416-675-6885  
W: www.brookcromptonna.com

**BROTHER CANADA**  
1 Hotel De Ville  
Dollard Des Ormeaux QC H9B 3H6  
T: 514-685-0600  
W: www.brother.ca

**BROWNSBURG ELECTRONIK**  
741 Rue Lowe  
Lachute QC J8H 4N9  
T: 450-562-5211  
F: 450-562-1296  
W: www.bei.net

**BRUNELLE INSTRUMENTS INC.**  
16 Massiwiippi  
Hatley QC J0B 4B0  
T: 819-838-5995  
F: 819-838-1109  
W: www.brunelleinstruments.com

**BUD INDUSTRIES INC.**  
4605 East 355th St.  
Willoughby OH 44094  
T: 440-946-3200  
F: 440-951-4015  
W: www.budind.com

**BURNDY CANADA INC.**  
61 Amber St.  
Markham ON L3R 3J7  
T: 905-752-5400  
F: 905-752-5404

**C**

**CABLE MANAGEMENT SOLUTIONS, INC.**  
291 Skip Lane  
Bay Shore NY 11706  
T: 631-674-0004  
F: 631-674-0010  
W: www.snaketray.com

**CABLE PLUS**  
1-659 South Elmwood  
Aurora IL 60506  
T: 630-897-2299  
F: 630-897-1640  
W: www.cableplusinc.com

**CABLE SHOPPE INC., THE**  
1410 Birchmount Rd.  
Toronto ON M1P 2E3  
T: 416-293-3634

**CABLECO INC.**  
2975 Victoria St.  
Lachine QC H8S 1Z4  
T: 514-634-8024  
F: 514-634-8027

**CABLEORGANIZER.COM, INC.**  
6250 NW 27th Way  
Fort Lauderdale FL 33309  
T: 866-222-0030  
F: 954-861-2001  
W: www.cableorganizer.com

**CABLOFIL**  
9488 Hidden Valley Dr.  
Calgary AB T3A 5S9  
T: 403-295-1888  
F: 403-295-1886

**CAM TRAN CO. LTD.**  
203 Purdy Rd. E.  
Colborne ON K0K 1S0  
T: 905-355-3224  
F: 905-355-2273  
W: www.camtran.com

**CAMDEN DOOR CONTROLS**  
5502 Timberlea Blvd.  
Mississauga ON L4W2T7  
T: 877-226-3369  
W: www.camdencontrols.com

**CAMETOID LIMITED**  
1449 Hopkins St.  
Whitby ON L1N 2C2  
T: 905-666-3400  
F: 905-666-3413  
W: www.coating@cametoid.com

**CAN-AM INSTRUMENTS LTD.**  
2851 Brighton Rd.  
Oakville ON L6H 6C9  
T: 905-829-0030  
F: 905-829-4701  
W: www.can-am.net

**CANARM LTD.**  
2157 Parkedale Ave.  
Brockville ON K6V 5V6  
T: 613-342-5425  
F: 613-342-8437  
W: www.canarm.com

**CAN-D ELECTRIFICATION SYSTEMS LTD.**  
1400 Corporate Dr.  
Burlington ON L7L 6H4  
T: 905-335-5335  
F: 905-335-6469  
W: www.can-dsystems.com

**CANDURA INSTRUMENTS**  
26-775 Pacific Rd.  
Oakville ON L6L 6M4  
T: 905-847-6799  
F: 905-847-0306  
W: www.candura.com

**CANLYTE**  
91 Skyway Ave.  
Etobicoke ON M9W 6R5  
T: 416-674-6101  
F: 416-674-6201  
W: www.canlyte.com

**CAPITAL SAFETY GROUP**  
260 Export Blvd.  
Mississauga ON L5S 1Y9  
T: 905-795-9333  
F: 905-362-0134  
W: www.capitalsafety.com

**CAPPLUGS**  
2150 Elmwood Ave.  
Buffalo NY 14207  
T: 716-876-9855  
F: 716-874-1680  
W: www.capplugs.com

**CARLO GAVAZZI CANADA INC.**  
8-2660 Meadowvale Blvd.  
Mississauga ON L5N 6M6  
T: 905-542-0979  
F: 905-542-2248  
W: www.gavazzionline.com

**CARPENTER & COMPANY DESIGN INC.**  
110 Atlantic Ave.  
Toronto ON M6K 1X9  
T: 416-534-5497  
F: 416-530-0693

**CASSCO MACHINES**  
37 Prince Andrew Pl.  
Toronto ON M3C 2H2  
T: 416-445-6262  
F: 416-445-3790  
W: www.casscomachines.com

**CATERPILLAR INC.**  
PO Box 610  
Mossville IL 61552  
T: 800-321-7332  
F: 309-578-2559  
W: www.cat-electricpower.com

**CB ENGINEERING LTD.**  
5920 11th St. SE  
Calgary AB T2H 2M4  
T: 403-259-6220  
F: 888-259-1666  
W: www.cbeng.com

**CBS ELECTRIC INSULATION MATERIALS (EDM.) LTD.**  
10555-111 St.  
Edmonton AB T5H 3E8  
T: 780-423-4301  
F: 780-424-7127

**C-CAN POWER SYSTEMS INC.**  
38 Commerce Cres.  
Acton ON L7J 2X3  
T: 800-461-7017  
F: 519-853-3166  
W: www.c-can.com

**CCI THERMAL TECHNOLOGIES**  
5918 Roper Rd.  
Edmonton AB T6B 3E1  
T: 780-466-3178  
F: 780-468-5904  
W: www.ccithermal.com

**CERRO WIRE**  
1099 Thompson Road SE  
Hartsell AL 35640  
T: 256-773-2522  
W: www.cerrowire.com

**CERTIFIED INSULATED PRODUCTS CORP.**  
12102 Conway Rd.  
Beltsville MD 20705  
T: 301-210-0215  
F: 301-210-0217  
W: www.insulatedtools.com

**CHALFANT MANUFACTURING COMPANY**  
50 Pearl Rd. Suite 212  
Brunswick OH 44212  
T: 330-273-3510  
F: 330-273-8149  
W: www.chalfantcabletray.com

**CHANNEL VISION**  
234 Fischer Ave.  
Costa Mesa CA 92626  
T: 800-840-0288  
F: 714-424-6510  
W: www.channelvision.com

**CHANNELL CORP.**  
Unit 3-5  
Mississauga ON L5T 1X3  
T: 905-565-1700

**CHANNELLOCK**  
1306 South Main St.  
Meadville PA 16335  
T: 800-724-3018  
F: 814-337-3571  
W: www.channellock.com

**CHATSWORTH PRODUCTS, INC.**  
31425 Agoura Rd.  
Westlake Village CA 91361  
T: 800-834-4969  
W: www.chatsworth.com

**CHESS INDUSTRIAL POWER RECTIFIERS INC.**  
380 Armour Rd., Unit 110  
Peterborough ON K9H 7L7  
T: 705-755-1166  
F: 705-755-1174  
W: www.chessipr.com

**CHLORIDE SYSTEMS**  
272 W. Stag Park Service Rd.  
Burgaw NC 28425  
T: 910-259-1000  
F: 800-258-8803  
W: www.chloridesys.com

**CINEQUIPWHITE INC.**  
1040 Islington Ave.  
Toronto ON M8Z 6A4  
T: 416-467-7700  
F: 416-207-2757  
W: www.cinequipwhite.com

**CIPH (MECANEX/CLIMATEX)**  
295 The West Mall, Ste. 330  
Toronto ON M9C 4Z4  
T: 416-695-0447

F: 416-695-0450  
W: www.ciph.com

**CLEARFIELD, INC.**  
5480 Nathan Lane  
Plymouth MN 55442  
T: 763-476-6866  
F: 763-475-8457  
W: www.apacn.com

**CLEMTECH CONSULTATION**  
107-813 Beriault St.  
Longueuil QC J4G 1X7  
T: 450-651-4844  
F: 450-646-5950

**COAST LIGHTING (VI) LTD.**  
83 Burnside Rd. W.  
Victoria BC V9A 1B6  
T: 250-388-6688  
F: 250-361-9711  
W: www.coastlighting.ca

**COMAC CORPORATION**  
9620-B Ignace  
Brossard QC J4Y 2R4  
T: 450-659-9899  
F: 450-659-3412  
W: www.comaccorporation.com

**COMMSCOPE ENTERPRISE SOLUTIONS**  
350-1300 E. Lookout Dr.  
Richardson TX 75082  
T: 972-792-3000  
W: www.commscope.com

**COMPOSITE POWER GROUP**  
250 West Beaver Creek Rd.  
Richmond Hill ON L4B 1C7  
T: 905-763-7355  
F: 905-763-6550  
W: www.compow.com

**COMTEST COMMUNICATIONS PRODUCTS LTD.**  
100-1 Raymond St.  
Ottawa ON K1R 1A2  
T: 613-368-4600

**CONDEX/WATTCO INC.**  
55 Milton Ave.  
Lachine QC H8R 1K6  
T: 514-488-9124  
F: 514-488-9126  
W: www.wattco.com

**CONPORE INC.**  
101-1305 boul. Lebourgneuf  
Québec QC G2K 2E4  
T: 418-527-9996  
F: 418-527-7516  
W: www.conporec.com

**CONTRETRON INC.**  
6440 Notre Dame St. W.  
Montreal QC H4C 1V4  
T: 888-933-5752  
F: 514-933-4128  
W: www.cablelocators.com

**CONTROL TECHNOLOGY CORP.**  
25 South St.  
Hopkinton MA 01748  
T: 508-435-9595  
F: 508-435-2373  
W: www.ctc-control.com

**CONTROLES RL**  
894 rue Berlier  
Laval QC H7L 4K5  
T: 450-967-1703  
F: 450-967-1706  
W: www.controlesrl.com

**CONVEYERAIL SYSTEMS INC.**  
7-120 Newkirk Rd. N.  
Richmond Hill ON L4C 9S7  
T: 905-884-1633  
F: 905-884-7079  
W: www.conveyerail.com

**COOPER BUSSMANN**  
114 Old State Road  
Ellisville, MO 63021-5942  
T: 636-394-2877  
F: 800-544-2570  
W: www.cooperbussmann.com

**COOPER CONTROLS**  
203 Cooper Circle  
Peachtree City, GA 30269  
T: 770-631-2100  
F: 800-954-7016  
W: www.coopercontrol.com

**COOPER CROUSE-HINDS**  
Wolf & 7th North Streets  
Syracuse, NY 13221  
T: (866) 764-5454  
F: (315) 477-5179  
W: www.crouse-hinds.com

**COOPER INDUSTRIES**  
5925 McLaughlin Rd.  
Mississauga ON L5R 1B8  
T: 905-507-4000  
F: 905-568-7049  
W: www.cooperindustries.com

**COOPER LIGHTING**  
5925 McLaughlin Rd.  
Mississauga ON L5R 1B8  
T: 905-501-4142

**COOPER WIRING DEVICES**  
203 Cooper Circle  
Peachtree City, GA 30269  
T: 770-631-2100  
W: www.cooperwiringdevices.com

**COS PHI INC.**  
520 Huron St.  
Goderich ON N7A 3Y5

T: 519-440-0454  
F: 519-440-0446  
W: www.cosphi.com

**CRISTAL CONTROLS LTD.**  
2025 Lavoisier no. 135  
Quebec QC G1N 4L6  
T: 800-681-9590  
F: 418-681-7393  
W: www.cristalcontrols.com

**CRITERION INSTRUMENTS LTD.**  
30 Progress Ave.  
Toronto ON M1P 4W8

T: 416-299-6666  
F: 416-299-8398  
W: www.criterioninstr.com

**CUMMINS HYDRAULICS**  
1250 Gorham St.  
Newmarket ON L3Y 8W4  
T: 905-836-7750  
F: 905-836-2736  
W: www.cumminshydraulics.ca

**CUMMINS POWER GENERATION**  
1400 73rd Ave. NE  
Minneapolis MN 55432  
T: 763-574-5000  
F: 763-574-5298  
W: www.cumminspower.com

**CUSTOM LIGHTING LTD.**  
7923 Coronet Rd. N.W.  
Edmonton AB T6E 4N7  
T: 780-463-8014  
F: 780-463-2216  
W: www.customlightingltd.com

**CXTEC**  
5404 South Bay Rd.  
Syracuse NY 13221  
T: 800-767-3282  
F: 315-455-1800  
W: www.cxtec.com

**CZ LABS**  
143 Rte. 59  
Hillburn NY 10931  
T: 845-357-7510  
F: 845-357-7630  
W: www.czlabs.com

## D

**DANFOSS MOTOR CONTROLS**  
7880 Tranmere Dr.  
Mississauga ON L5S 1L9  
T: 905-676-6000  
F: 905-676-8980  
W: www.namc.danfoss.com

**DCD DESIGN & MANUFACTURING LIMITED**  
180-6620 McMillan Way  
Richmond BC V6W 1J7  
T: 604-232-4445  
F: 604-232-4446  
W: www.dcdesign.com

**DECA CABLES INC.**  
150 North Murray St.  
Trenton ON K8V 5W6  
T: 613-392-3585  
F: 613-392-7908  
W: www.decacables.com

**DELTA TRANSFORMERS**  
1311 A Ampere St.  
Boucherville QC J4B 5Z5  
T: 800-663-3582  
F: 877-449-9115  
W: www.delta.xfo.com

**DEMATIC LIMITED**  
200-6711 Mississauga Rd.  
Mississauga ON L5N 2W3  
T: 905-363-6970  
F: 905-363-6969  
W: www.dematic.us

**DIMONOFF**  
2025 Lavoisier, Suite 135  
Quebec QC G1N 4L6  
T: 418-682-3636  
F: 418-682-3636  
W: www.dimonoff.com

**DIMPLEX NORTH AMERICA**  
1367 Industrial Rd.  
Cambridge ON N1R 7G8  
T: 519-650-3630  
F: 519-650-3651  
W: www.dimplex.com

**EXTECH**  
INSTRUMENTS  
A FLIR COMPANY

# Outstanding Fall/Winter TOOL SAVINGS

## SPECIAL OFFER!

Buy a True RMS Digital  
Multimeter and Get a  
**FREE 12-Piece  
Test Lead Kit**

Part Number	List Price
EX570	300.00
TL831	120.00



**FREE**

Buy an AC Circuit Load  
Tester and Get a **FREE  
Wireless AC Circuit  
Identifier**

Part Number	List Price
CT70	229.00
RT30	129.00



**FREE**

Buy a Heavy Duty Industrial Multimeter Kit and Get a  
**FREE 400A AC/DC Clamp-On Adaptor  
with Built-In Non-Contact  
Voltage Detector**

Part Number	List Price
EX505-K	139.00
CA250	89.00



**FREE**

Get **25% off** a BR100 or a  
Detachable BR200  
Video Borescope

Part Number	Price
BR100	240.00
SALE PRICE!	180.00

Part Number	Price
BR200	360.00
SALE PRICE!	270.00



Buy a True RMS MultiMeter & Clamp Meter  
Kit and Get a **FREE AC Circuit Breaker  
Finder/ Receptacle Tester**

Part Number	List Price
TK430	144.00
CB10	48.00



**FREE**



Speak to an EXPERT TODAY!

# 1-800-613-0507 x24 / x25

[www.extech.com/instruments/](http://www.extech.com/instruments/)



## DOMTECH INC.

40 East Davis Street  
Trenton ON K8V 6S4  
T: 888-278-8258  
F: 613-394-5372  
W: www.domtech.net

## DOUGLAS LIGHTING CONTROLS INC.

4455 Juneau St.  
Burnaby BC V5C 4C4  
T: 604-873-2797  
F: 604-873-6939  
W: www.douglaslightingcontrols.com

## DRAKA CANADA

3-17 Woodyatt Drive  
Brantford ON N3R 7K3  
T: 800-488-5794  
F: 905-820-2922  
W: www.wirecableandcords.com

## DREXAN CORPORATION

101-7382 Winston St.  
Burnaby BC V5A 2G9  
T: 604-431-6400  
F: 604-431-6411  
W: www.drexan.com

## DROMEY DESIGN INC.

68 McDonagh Cres.  
Thorold ON L2V 4G5  
T: 905-685-3801  
F: 905-685-3119  
W: www.dromeydesign.com

## DUCT-O-WIRE CANADA LTD.

10-1445 Norjohn Court  
Burlington ON L7L 0E6  
T: 905-331-2612  
F: 905-331-6639  
W: www.ductowire.com

## DUPONT PERSONAL PROTECTION CANADA

7070 Mississauga Rd.  
Mississauga ON L5N 5M8  
T: 905-821-5057

## DURA-LINE CORP.

835 Innovation Dr.  
Knoxville TN 37932  
T: 865-218-3460  
F: 865-218-3461  
W: www.duraline.com

## E

## EASTERN WIRE & CONDUIT

28 Sims Cres.  
Richmond Hill ON L4B 1C9  
T: 905-731-0338  
F: 905-731-9570  
W: www.easternwire.com



## EATON

5050 Mainway  
Burlington ON L7L 5Z1  
T: 800-268-3578  
F: 905-333-2724  
W: www.eatoncanada.ca  
Delta BC ..... 604-519-1250  
Calgary AB ..... 403-252-3324  
Edmonton AB ..... 780-490-3280  
Winnipeg MB ..... 204-694-0569  
Mississauga ON ..... 905-820-0108  
Lachine QC ..... 514-633-9316  
Dartmouth NS ..... 902-481-3400

## EATON POWER QUALITY LTD.

380 Carlingview Dr.  
Toronto ON M9W 5X9  
T: 416-798-0112  
F: 416-798-3532  
W: www.powerware.com

## ECLAT LIGHTING LTD.

1395 Charlotte Rd.  
North Vancouver BC V7J 1H1  
T: 604-987-5116  
F: 604-987-5177  
W: www.eclat-lighting.com

## ECONOFROST REFLECTIVE NIGHT COVERS

PO Box 40  
Shawnigan Lake BC V0R 2W0  
T: 250-743-1222  
F: 250-743-1221  
W: www.econofrost.com

## EDISON LIGHTING GROUP LTD.

2-1303 Ringwell Dr  
Newmarket ON L3Y 8T9  
T: 905-830-0339  
F: 800-667-9302  
W: www.edisonlighting.ca

## EGAN AUTOMATION INC.

141 Washington St.  
Thamesford ON N0M 2M0  
T: 519-285-2514  
F: 519-285-2980  
W: www.eganautomation.ca

## EGS ELECTRICAL GROUP CANADA LTD.

99 Union St.  
Elmira ON N3B 3L7  
T: 519-669-9222  
F: 519-669-6389  
W: www.egscanada.com

## ELECTRIC MOTION COMPANY (EMC)

12 Tettenball Rd.  
Toronto ON M9A 2C3  
T: 416-234-90W:

## ELECTRIC POWER ACCESSORIES CORP.

558 Massey Rd., Units 7 & 8  
Guelph ON N2K 1B4  
T: 519-826-5790  
F: 519-826-5779  
W: www.epac.ca

## ELECTRIC PRODUCT SALES

122 8490-44 St. SE  
Calgary AB T2C 2P6  
T: 403-242-9883  
F: 403-242-9875

## ELECTRO CABLES INC.

9 Riverside Dr.  
Trenton ON K8V 5R5  
888-353-2876  
F: 613-394-4101  
W: www.electrocables.com

## ELECTRO-METERS

900 McKay Rd., Unit 2  
Pickering ON L1W 3X8  
T: 905-528-3413  
F: 905-428-6086  
W: www.electro-meters.com

## ELECTRONICS DIVERSIFIED INC.

1675 NW Cornelius Pass Rd.  
Hillsboro OR 97124  
T: 800-547-2690  
F: 503-629-9877  
W: www.edionline.com

## ELECTROTEK LTD.

1016 34 Ave. SE  
Calgary AB T2G 1V4  
T: 403-287-2200  
F: 403-287-3808  
W: www.electrotekltd.com

## EMERSON CONTROL TECHNIQUES

9999 Hwy. 48  
Markham ON L3P 3J3  
T: 905-201-4699  
F: 905-201-4694  
W: www.emersonct.com

## ENERGY INNOVATIONS CO.

705 Rye St., Unit 2  
Peterborough ON K9J 6X1

T: 800-661-4700  
F: 866-527-0087  
W: www.eiclighting.com

## ENERGY MANAGEMENT SYSTEMS EMS/DACS

1-225 Traders Blvd. E  
Mississauga ON L4Z 2E5  
T: 905-890-1233  
F: 905-890-7630  
W: www.emsdacs.com

## ENERVAC CORPORATION

700 Franklin Blvd.  
Cambridge ON N1R 5S9  
T: 519-623-9890  
F: 519-623-8250  
W: www.enervac.com

## ENGINEERED LIGHTING PRODUCTS

10768 Lower Azusa Rd.  
El Monte CA 91731  
T: 626-579-0943  
F: 626-579-6803  
W: www.elplighting.com

## ENSTAR

7-11460 Voyageur Way  
Richmond BC V6X 3E1  
T: 604-276-8641

## ERICO

34600 Solon Rd.  
Solon OH 44139  
T: 440-813-3378  
F: 440-248-0723  
W: www.erico.com

## ERICSON MANUFACTURING CO.

4215 Hamann Parkway  
Willoughby OH 44094  
T: 800-374-2766  
F: 440-951-1867  
W: www.ericson.com

## ERIKSON COMMERCIAL

21000 Trans-Canadienne  
Baie D'Urfé QC H9X 4B7  
T: 877-374-5266  
F: 888-918-2244  
W: www.eriksoncommercial.com

## ESIC TECHNOLOGIES

130-145 Renfrew Dr.  
Markham ON L3R 9R6  
T: 905-305-0923  
F: 905-305-0924

## ETCON CORP.

7750 S. Grant St.  
Burr Ridge IL 60521-5945  
T: 630-325-6100  
F: 630-325-6838

## EXFO

400 Godin Ave.  
Quebec City QC G1M 2K2  
T: 800-663-3936  
F: 418-683-2170

## EXIDE TECHNOLOGIES INDUSTRIAL ENERGY

3-6950 Creditview Rd.  
Mississauga ON L5N 0A6  
T: 905-286-3866  
W: www.exide.com

## EXM MANUFACTURING LTD.

870 Michele-Bohec  
Blainville QC J7C 5E2  
T: 450-979-4373  
F: 866-325-6485  
W: www.exmweb.com

## EXTECH INSTRUMENTS

9 Townsend West  
Nashua NH 03063  
T: 877-439-8324  
F: 603-324-7864  
W: www.extech.com

## F

## FALCON ELECTRIC, INC.

5106 Azusa Canyon Rd.  
Irwindale CA 91706  
T: 626-962-7770  
F: 626-962-7720  
W: www.falconups.com

## FEDERAL SIGNAL CORPORATION

2645 Federal Signal Dr.  
University Park IL 60466  
T: 708-534-3400  
F: 708-534-4852  
W: www.federalsignal-indust.com

## FIRWIN CORP.

1685 Flint Rd.  
North York ON M3J 2W8  
T: 416-745-9389  
F: 416-745-0782  
W: www.firwin.com

## FLASHFOG-ARIAS TECH LTD.

375 Brunel Rd.  
Mississauga ON L4Z 1Z5  
T: 416-944-8542  
F: 416-946-1334  
W: www.flashfogsecurity.com



**FLIR SYSTEMS CANADA LTD.**  
125-5230 South Service Rd.  
Burlington ON L7L 5K2  
T: 800-613-0507  
F: 905-639-5488  
W: www.flir.ca

## FLOOR BOX SYSTEMS

30 Via Amistosa #D  
Rancho Sta Margarita CA 92688  
T: 800.216.8307  
F: 800.216.8307  
W: www.Floorboxsystems.com



## FLUKE ELECTRONICS CANADA

1-400 Britannia Rd. E.  
Mississauga ON L4Z 1X9  
T: 800-363-5853  
W: www.flukecanada.ca  
Fluke Electronics Canada (www.flukecanada.ca) offers complete families of professional test tools, including power quality, thermography, digital multimeters, clamp meters, insulation resistance testers, portable oscilloscopes, thermometers, process testing equipment and accessories, as well as educational and training resources.



## FLUKE NETWORKS CANADA

1-400 Britannia Rd. E.  
Mississauga ON L4Z 1X9  
T: 800-363-5853  
F: 905-890-6866  
W: www.flukenetworks.ca  
Fluke Networks provides innovative solutions for the testing, monitoring and analysis of enterprise and telecommunications networks and the installation and certification of the fiber and copper foundation of those networks.

## FORESIGHT LIGHTING INC.

3940 Griffith  
Saint-Laurent QC H4T 1A7  
T: 514-595-7177  
F: 514-595-7277  
W: www.foresightlighting.com

## FULHAM COMPANY INC.

2967 Lotus Court  
Coquitlam BC V3B 7B3  
T: 604-288-2609  
F: 604-648-9065  
W: www.fulham.com

## FUSETEK

599 Norris Crt.  
Kingston ON K7P 2R9  
T: 800-479-3875  
F: 800-866-7690  
W: www.fusetek.com

## G

## GARDEL METAL PRODUCTS INC.

140 West Beaver Creek Rd.  
Richmond Hill ON L4B 1C2  
T: 905-881-7992  
F: 905-881-6413  
W: www.gardel.on.ca

## GDM ELECTRONICS AND CONTROLS

564259 Karn Rd.  
Beachville ON N0J 1A0  
T: 519-423-6743  
F: 519-423-9165



**GE ELECTRICAL DISTRIBUTION**  
2300 Meadowvale Blvd  
Mississauga ON L5N 5P9  
T: 800-GE 1STOP (800-431-7867)  
F: 905-858-5783  
W: www.ge-ed.ca  
Calgary AB ..... 403-214-4683  
Edmonton, AB ..... 780-432-8091  
Vancouver ..... 604-451-3209  
Winnipeg, MB ..... 204-958-9771  
Regina, SK ..... 306-790-9500  
St. Laurent, QC ..... 514-215-2658  
Toronto, ON ..... 905-858-5237



**GE LIGHTING**  
2300 Meadowvale Blvd  
Mississauga ON L5N 1P9  
905-858-6601  
W: www.gelighting.com  
GE Appliances & Lighting spans the globe as an industry leader in major appliances, lighting, systems and services for commercial, industrial and residential use. Technology innovation and the company's eomagination (SM) initiative enable GE Appliances & Lighting to aggressively bring to market products and solutions that help customers meet pressing environmental challenges.  
**Montreal:** 555 Dr-Frederick-Philips 3rd Floor, St. Laurent, PQ H4M 2X4  
**Calgary:** 530-8 Avenue SW Suite 2120, Calgary, AB T2P 3S8  
**Vancouver:** 100-8525 Baxter Place Burnaby, BC V5A 4V7

## GE MULTILIN

215 Anderson Ave.  
Markham ON L6E 1B3  
T: 905-294-6222  
F: 905-201-2098  
W: www.gemultilin.com

# MANUFACTURERS

## GE SECURITY

625 6th St. E.  
Owen Sound ON N4K 5P8  
T: 519-376-2430  
F: 519-372-1581  
W: [www.gesecurity.com](http://www.gesecurity.com)

## GENERAL MOTORS OF CANADA LTD.

1908 Colonel Sam Dr.  
Oshawa ON L1H 8P7

## GENERAL TRANSFORMER CORP.

717 Cooper Dr.  
Wylie TX 75098  
T: 972-442-1285  
F: 972-442-5764  
W: [www.generaltransformer.com](http://www.generaltransformer.com)

## GENSCO EQUIPMENT

53 Carlaw Ave.  
Toronto ON M4M 2R6  
T: 416-465-7521  
F: 416-465-4489  
W: [www.genscoequip.com](http://www.genscoequip.com)

## GENTEC INC.

2625 Dalton St.  
Ste Foy QC G1P 3S9  
T: 418-651-8002  
F: 418-651-6695  
W: [www.gentec.ca](http://www.gentec.ca)

## GLOBETRON CONTROLS

3185 Dundas St. W.  
Oakville ON L6M 4J4  
T: 905-825-1335  
F: 800-822-8111  
W: [www.globetron.com](http://www.globetron.com)

## GLOSNERGY

15-100 Leek Crescent  
Richmond Hill ON  
T: 647-293-2057  
F: 905-707-8863  
W: [www.glosnergyled.com](http://www.glosnergyled.com)

## GO LIGHTING TECHNOLOGIES INC.

258 Galaxy Blvd.  
Toronto ON M9W 5R8

## GRAFTON WEST

7705 Flint Rd. S.E.  
Calgary AB T2H 1G3  
T: 403-236-8662  
F: 403-252-9325  
W: [www.graftonutility.com](http://www.graftonutility.com)

## GREENLITE CORP.

102-115 Brunswick Blvd.  
Pointe Claire QC H9R 5N2  
T: 514-695-9090  
F: 514-695-9093  
W: [www.greenlite.ca](http://www.greenlite.ca)

## GUELPH TWINES LTD.

50 Crimea St.  
Guelph ON N1H 6J6  
T: 888-771-9140  
F: 519-821-9756  
W: [www.guelphtwines.com](http://www.guelphtwines.com)

## GUTH LIGHTING COMPANY

200-1324 Washington Ave.  
St. Louis MO  
63103-1940  
T: 314-533-3200  
F: 314-533-9127  
W: [www.guth.com](http://www.guth.com)

## H

## HAMMOND MANUFACTURING CO. LTD.

394 Edinburgh Rd. N.  
Guelph ON N1H 1E5  
T: 1-877-535-3282  
F: 519-822-0715  
W: [www.hammondmfg.com](http://www.hammondmfg.com)

## HAMMOND POWER SOLUTIONS INC.

595 Southgate Drive  
Guelph ON N1G 3W6  
T: 519-822-2441

F: 519-822-9701

W: [hammondpowersolutions.com](http://hammondpowersolutions.com)

## HARGER LIGHTING & GROUNDING

301 Zeigler Dr.  
Graysike IL 60030  
T: 800-842-7437  
W: [www.harger.com](http://www.harger.com)

## HARPER DETROIT DIESEL LTD.

10 Diesel Dr.  
Toronto ON M8W 2T8  
T: 416-259-1863

## HAWK IR INTERNATIONAL INC.

5309 Monroe Rd.  
Charlotte NC 28205  
W: [www.irwindows.com](http://www.irwindows.com)

## HB ETLIN/ETLIN-DANIELS

1850 Wilson Ave.  
Toronto ON M9M 1A1  
T: 416-741-7336  
F: 416-741-9104  
W: [www.etlin.com](http://www.etlin.com)

## HELIX ANALYTIX

#26-3113 County Rd.  
Brockville ON K6V 5T2  
T: 613-342-3439  
F: 613-342-2826  
W: [www.helixanalytix.ca](http://www.helixanalytix.ca)

## HELLERMANNTYTON CANADA

4-205 Industrial Pkwy. N.  
Aurora ON L4G 4C4  
T: 905-726-1221  
F: 905-726-8538  
W: [www.hellermann.tyton.com](http://www.hellermann.tyton.com)

## HEMCO ELECTRICAL MOTORS

10-80 Hale Rd.  
Brampton ON L6W 3L9  
T: 905-459-5454  
F: 905-459-5283  
W: [www.hemco.com](http://www.hemco.com)

## HENKELS & MCCOY, INC.

985 Jolly Rd.  
Blue Bell PA 19422-0900  
T: 215-283-7600  
F: 215-283-7659  
W: [www.henkels.com](http://www.henkels.com)

## HERITAGE CASTING & IRONWORKS

1280 Fewster Dr.  
Mississauga ON L4W 1A4  
T: 905-238-2648  
F: 905-238-9060  
W: [www.hcilighting.com](http://www.hcilighting.com)

## HID GLOBAL

620-115 George St.  
Oakville ON L6J 0A2  
T: 800-237-7769  
F: 905-842-4846  
W: [www.hidcorp.com](http://www.hidcorp.com)

## HITACHI CABLE MANCHESTER, INC.

900 Holt Ave.  
Manchester NH 03109  
T: 603-669-4347  
F: 603-669-9621  
W: [www.hcm.hitachi.com](http://www.hcm.hitachi.com)

## HOLOPHANE CANADA INC.

9040 Leslie St., Ste. 208-211  
Richmond Hil ON L4B 3M4  
T: 905-707-5830  
F: 905-707-5695  
W: [www.holophane.com](http://www.holophane.com)

## HOMACO INC.

8406 Holly Brook Lane  
Tinley Park IL 60477  
T: 860-405-2836  
W: [www.homaco.com](http://www.homaco.com)

## HUBBELL CANADA LP - LIGHTING DIVISION

870 Brock Rd. S.  
Pickering ON L1W 1Z8  
T: 905 839-1138

F: 905-839-9108

W: [www.hubbellonline.com](http://www.hubbellonline.com)

## HUBBELL CANADA LP - ELECTRICAL SYSTEMS

870 Brock Rd. S.  
Pickering ON L1W 1Z8  
T: 905-839-1138  
F: 905-839-9108  
W: [www.hubbellonline.com](http://www.hubbellonline.com)

## HYPERLINE SYSTEMS CANADA LTD.

1877 Mayors Way  
Metcalfe ON K0A 2P0  
T: 1-613-821-0065  
F: 1-613-821-9752  
W: [www.hyperlines.com](http://www.hyperlines.com)

## I

## ICC

16800 Edwards Rd.  
Cerritos CA 90703  
T: 888-275-4422  
F: 562-356-3100  
W: [www.icc.com](http://www.icc.com)

## ICONOPOWER LTD.

1230 Old Innes Rd., Units 411-412  
Ottawa ON K1B 3V3  
T: 613-744-3670  
F: 613-744-8452  
W: [www.iconopower.com](http://www.iconopower.com)

## IDEAL INDUSTRIES (CANADA) CORP.

33 Fuller Rd.  
Ajax ON L1S 2E1  
T: 905-683-3400  
F: 905-683-0209  
W: [www.idealindustries.ca](http://www.idealindustries.ca)

## IDEC CANADA LTD.

3155 Pepper Mill Court, Unit 4  
Mississauga ON L5L 4X7  
T: 905-890-8561  
F: 888-317-4332  
W: [www.idec.com](http://www.idec.com)

## IE POWER INC.

4170 Sladeview Cres., Unit 1  
Mississauga ON L5N 3L9  
T: 905-813-8900  
F: 905-813-8822  
W: [www.iepower.com](http://www.iepower.com)

## I-GARD CORPORATION

7615 Kimbel St., Unit 1  
Mississauga ON L5S 1A8  
T: 905-673-1553  
F: 905-673-8472  
W: [www.i-gard.com](http://www.i-gard.com)

## ILSCO OF CANADA CO.

1050 Lakeshore Rd. E.  
Mississauga ON L5E 1E4  
T: 905-274-2341  
F: 905-274-2689  
W: [www.ilsco.com](http://www.ilsco.com)

## INDUSTRIAL POWER & CONTROL INC.

2299 Kenmore Ave.  
Buffalo NY 14207  
T: 888-822-2024  
F: 519-822-2140  
W: [www.ipandc.com](http://www.ipandc.com)

## INOVONICS WIRELESS CORPORATION

315 CTC Blvd.  
Louisville CO 80027  
T: 303-939-9336  
F: 303-939-8977  
W: [www.inovonics.com](http://www.inovonics.com)

## INTERMEC TECHNOLOGIES CANADA LTD.

7065 Tranmere Dr.  
Mississauga ON L5S 1M2  
T: 905-673-9333  
F: 905-673-3974  
W: [www.intermec.ca](http://www.intermec.ca)

## INTERNATIONAL INNOVATIVE SYSTEMS

1-934 Queen St.  
Sault Ste. Marie ON P6A 2B9

T: 705-759-4862

F: 705-759-7083

W: [www.tpscanada.ca](http://www.tpscanada.ca)

## INTERPOWER CORPORATION

100 Interpower Ave.  
Oskaloosa IA 52577  
T: 641-673-5000  
F: 800-645-5360  
W: [www.interpower.com](http://www.interpower.com)

## INVENTRONICS LTD

1420 Van Horne Ave. E.  
Brandon MB R7A 7B6  
T: 204-728-2001  
F: 204-726-0807  
W: [www.inventronics.com](http://www.inventronics.com)

## IPC RESISTORS INC.

1B-7615 Kimbel St.  
Mississauga ON L5S 1A8  
T: 905-673-1553  
F: 905-673-8472  
W: [www.ipc-resistors.com](http://www.ipc-resistors.com)

## IPEX ELECTRICAL INC.

6810 Invader Cres.  
Mississauga ON L5T 2B6  
T: 800-268-4664  
F: 905-670-1512  
W: [www.ipexelectrical.com](http://www.ipexelectrical.com)

## IPLC VANTERA

PO Box 334  
Elie MB R0H 0H0  
T: 866-353-2785  
F: 204-353-2119  
W: [www.iplc.com](http://www.iplc.com)

## ITC INC.

89 Dolomite Drive  
Toronto ON M3J 2N1  
T: 416-663-7223  
F: 416-663-7224  
W: [www.itcproducts.com](http://www.itcproducts.com)

## ITS ENCLOSURES

271 Westech Dr.  
Mt. Pleasant PA 15666  
T: 800-423-9911  
F: 724-696-3333  
W: [www.itsenclosures.com](http://www.itsenclosures.com)

## J

## JACKSON POWER & ELECTRIC LTD.

9744-60 Ave.  
Edmonton AB T6E 0C5  
T: 780-435-9275  
F: 780-436-0308  
W: [www.jacksonpower.com](http://www.jacksonpower.com)

## JEFFERSON ELECTRIC

9650 Franklin Dr. S.  
Franklin WI 53132  
T: 414-209-1620  
F: 414-209-1621  
W: [www.jeffersonelectric.com](http://www.jeffersonelectric.com)

## JKOM TECHNOLOGIES

6198 Main St.  
Stouffville ON L4A 2S5  
T: 416-949-4940  
F: 905-640-5859  
W: [www.jkom.ca](http://www.jkom.ca)

## JOSLYN CANADA

1560-55th Ave.  
Lachine QC H8T 3J5  
T: 514-631-6145  
F: 514-631-1215  
W: [www.joslynhivoltage.com](http://www.joslynhivoltage.com)

## K

## K2C INDUSTRIAL AUTOMATION INC.

21 Hamptons Heath NW  
Calgary AB T3A 5E8  
T: 403-210-0699  
F: 403-243-3163  
W: [www.k2ciautomation.com](http://www.k2ciautomation.com)

## KCS

5410 Richmond Rd.  
Ottawa ON K2R 1G7  
T: 613-271-0988  
F: 613-271-0977  
W: [www.kingscross.net](http://www.kingscross.net)

## KIDDE CANADA INC.

340 Four Valley Dr.  
Vaughan ON L4K 5Z1  
T: 905-695-6060  
F: 905-660-4670  
W: [www.kiddecanada.com](http://www.kiddecanada.com)

## KING INNOVATION

3801 Lloyd King Dr.  
O'Fallon MO 63368  
T: 636.519.5400  
F: 636.519.5410  
W: [www.kinginnovation.com](http://www.kinginnovation.com)

## KLEIN TOOLS

450 Bond St  
Lincolnshire IL 60069-1418  
T: 847-821-5500  
F: 847-478-0625  
W: [www.kleintools.com](http://www.kleintools.com)

## KLEINHUIS N.A

7545 Pingue Dr.  
Worthington OH 43085  
T: 614-888-3331  
F: 614-888-0462

## KNAACK MANUFACTURING CO.

420 E. Terra Cotta Ave.  
Crystal Lake IL 60014  
T: 815-459-6020  
F: 800-334-2981  
W: [www.knaack.com](http://www.knaack.com)

## KRENZ & COMPANY INC.

PO Box 187  
Germantown WI 53022  
T: 262-255-2310  
F: 262-255-2904  
W: [www.krenzvent.com](http://www.krenzvent.com)

## KUBOTA CANADA LTD.

5900 14th Ave.  
Markham ON L3S 4K4  
T: 905-294-7477  
F: 905-294-1554  
W: [www.engine.kubota.ne.jp/english/](http://www.engine.kubota.ne.jp/english/)

## L

## LAMP SOURCE

P.O. Box 56612 Town Square  
Unionville ON L3R 0M6  
T: 905-470-7222  
F: 905-470-7222

## LAPP CANADA

10-3505 Laird Rd.  
Mississauga ON L5L 5Y7  
T: 905-820-5492  
F: 905-820-6516  
W: [www.lappcanada.com](http://www.lappcanada.com)

## LEDALITE ARCHITECTURAL PRODUCTS

19750 92A Ave.  
Langley BC V1M 3B2  
T: 604-888-6811  
F: 604-888-2003  
W: [www.ledalite.com](http://www.ledalite.com)

## LEDTRONICS, INC.

23105 Kashiwa CT  
Torrance CA 90505  
T: 310-534-1505  
F: 310-534-1424  
W: [www.ledtronics.com/](http://www.ledtronics.com/)

## LEGRAND CANADA INC.

570 Applewood Cres.  
Vaughan ON L4K 4B4  
T: 905-738-9195  
F: 905-760-8641  
W: [www.legrandna.com](http://www.legrandna.com)



## LEGRAND/WIREMOLD

570 Applewood Cres.  
Vaughan ON L4K 4B4  
T: 905-738-9195  
F: 905-738-9721  
W: www.legrand.ca

## LENOX

301 Chestnut St.  
East Longmeadow MA 01028  
T: 413-525-3961  
F: 800-223-7906  
W: www.lenoxsaw.com



## LEVITON MANUFACTURING OF CANADA LTD.

165 boul. Hymus  
Pointe-Claire QC H9R 1E9  
T: 514-954-1840  
F: 514-954-1853  
W: www.leviton.com

Leviton Manufacturing of Canada Ltd. is the only company in the Canadian marketplace to offer a complete range of products, from electrical wiring devices to lighting controls and telecom products.

## LEX TEC INC.

3251 Kennedy Rd., Unit 24  
Scarborough ON M1V 2J9  
T: 416-292-9979  
F: 416-292-1524  
W: www.lextec.com

## LGI LIGHTING GROUP INC.

9040 Leslie St., Units 10-12  
Richmond Hill ON L4B 3M4  
T: 905-886-8967  
F: 905-886-7973  
W: www.lightinggroup.ca

## LIGHT BRIGADE INC.

837 Industry Dr.  
Tukwila WA 98188  
T: 206-575-0404  
F: 206-575-0405  
W: www.lightbrigade.com

## LIGHTGUARD LIGHTING LTD.

14-5200 Dixie Rd.  
Mississauga ON L4W 1E4  
T: 905-602-1512  
F: 905-625-5970  
W: www.lightguard.com

## LIGHTING NELSON & GARRETT INC.

106 Birmingham St.  
Toronto ON M8V 4E6  
T: 416-463-0050  
F: 416-463-9882  
W: www.lightingnag.com

## LIGHTS OF CANADA INC.

2 Wilby Cres.  
Toronto ON M9N 1E5  
T: 416-235-1211  
F: 416-235-0866

## LIND EQUIPMENT LTD.

90B Centurian Drive  
Markham ON L3R 8C4  
T: 905-475-5086  
F: 905-475-4098  
W: www.lindequipment.net

## LINDSAY BROADBAND INC.

2035 Fisher Dr., R.R. 5  
Peterborough ONK9J 6X6  
T: 705-742-1350  
F: 705-742-7669  
W: www.lindsaybroadbandinc.com

## LINEAR

150-1950 Camino Vida Roble  
Carlsbad CA 92008  
T: 800-421-1587  
F: 760-931-1340  
W: www.linearcorp.com

## LITELINE CORPORATION

8 Abacus Road  
Brampton ON L6T 5B7  
T: 416-996-1856  
F: 905-794-1990  
W: www.liteline.com

## LITETRONICS INTERNATIONAL INC.

4101 W. 123rd St.  
Alsip IL 60803  
T: 708-389-8000  
F: 708-371-0627  
W: www.litetronics.com

## LO-COST NAMETAG & ENGRAVING INC.

17560 60 Ave.  
Surrey BC V3S 1T8  
T: 604-574-0006  
F: 604-576-0006  
W: www.locostnametag.com

## LOCWELD INC.

50 Iberville Ave.  
Candiac QC J5R 1J5  
T: 450-659-9661  
F: 450-444-3111  
W: www.locweld.com

## LOVATO ELECTRIC CORPORATION

3200 Jacques Bureau Ave.  
Laval QC H7P 0A9  
T: 450-681-9200  
F: 450-681-9884  
W: www.lovato.ca

## LUMAX INDUSTRIES INC.

Chestnut Ave. & Fourth St.  
Altoona PA 16603-0991  
T: 814-944-2537  
F: 814-944-6413  
W: www.lumaxlighting.com

## LUMCA INC.

2645 A Watt  
Québec QC G1P 3T2  
T: 418-650-1693  
F: 418-650-1896  
W: www.lumca.com

## LUMID

7940 Jean-Brillon St.  
Montreal QC H8N 2L5  
T: 514-524-1831  
F: 514-524-2409  
W: www.lumid.com

## LUTRON

7200 Suter Rd.  
Coopersburg PA 18036-1299  
T: 610-282-3800

## LUXO LAMP LTD.

1908 St Regis  
Dorval QC H9P 1H6  
T: 800-361-3993  
F: 800-567-9215  
W: www.luxo.ca

## LYNN VALLEY MANUFACTURING

140 Progress Dr., Units 2-4  
Gravenhurst ON P1P 1X4  
T: 705-687-8816  
F: 705-687-0196  
W: www.lynnvalleymfg.com

## M

## M. K. MORSE COMPANY

PO Box 8677  
Canton OH 44707  
T: 330-453-8187  
F: 330-453-1111  
W: www.mkmorse.com

## M.G.B. ELECTRIC INC.

51 St. Pierre  
St-Pie QC J0H 1W0  
T: 450-772-5608  
F: 450-772-6150  
W: www.mgbelectric.com

## MAGIC LITE LTD.

2526 Speers Rd., Units 4-9  
Oakville ON L6L 5M2  
T: 905-825-9592  
F: 905-825-8334  
W: www.magiclite.com

## MAGNA IV ENGINEERING (BC) LTD.

110-2071 Kingsway Ave.  
Port Coquitlam BC V3C 1T2  
T: 604-944-6697  
F: 604-944-1271  
W: www.magnaiv.ca

## MANTA TEST SYSTEMS

1-4060B Sladeview Cres.  
Mississauga ON L5L 5Y5  
T: 905-828-6469  
F: 905-828-6850  
W: www.mantatest.com

## MARCOMM FIBRE OPTICS INC.

29 Anteres Dr.  
Ottawa ON K2E 7V2  
T: 613-226-8866  
F: 613-226-8171  
W: www.dynatrol.com

## MARITEAM LIGHTING INC.

20 Crosbie Place  
St John's NF A1B 3Y8  
T: 709-753-2373  
F: 709-753-2180  
W: www.mariteam.com

## MATRIX ELECTRIC INC.

9534-123 Ave.  
Grande Prairie AB T8V 5Y5  
T: 780-538-2495  
F: 780-402-7066

## MAXIS TOOLS

4838 E. Baseline Rd.  
Mesa AZ 85206  
T: 480-633-9113  
F: 480-633-9114  
W: www.maxistools.com

## MELTRIC CORPORATION

4 Serpentine St.  
Copper Cliff ON POM 1N0  
T: 800-461-4076  
W: www.meltric.com

## MERCHANDISE MART PROPERTIES CANADA INC.

10 Alcorn Ave., Suite 100  
Toronto ON M4V 3A9  
T: 416-960-4517  
F: 416-921-2707  
W: www.iidexneocon.com

## MERSEN CANADA TORONTO INC.

88 Horner Ave.  
Toronto ON M8Z 5Y3  
T: 416-252-9371  
F: 416-252-6572  
W: www.mersen.com

## METALUMEN MANUFACTURING INC.

570 Southgate Dr., PO Box 1779  
Guelph ON N1H 6Z9  
T: 519-822-4381  
F: 519-822-4589  
W: www.metalumen.com

## METROBILITY OPTICAL SYSTEMS

7-101 Billerica Ave.  
Billerica MA 01862  
T: 781-255-5300  
F: 781-255-5398  
W: www.metrobility.com

## MGE UPS SYSTEMS, INC.

1660 Scenic Ave.  
Costa Mesa CA 92626

T: 714-557-1636  
F: 714-434-0865  
W: www.mgeups.com

## MICROMO

14881 Evergreen Ave.  
Clearwater FL 33762-3008  
T: 800-807-9166  
F: 727-573-5918  
W: www.micromo.com

## MIDDLE ATLANTIC PRODUCTS CANADA INC.

113 Iber Rd.  
Ottawa ON K2S 1E7  
T: 613-836-2501  
F: 613-836-2690  
W: www.middleatlantic.ca

## MILHAM INDUSTRIES

11-15620 Cliveden Ave.  
Delta BC V3M 6J8

## MILLS ARCHITECTURAL LIGHTING

106 Birmingham St.  
Toronto ON M4Y 2L7  
T: 800-268-1526  
F: 416-463-9882  
W: www.millslighting.com

## MILRAIL INC.

111 Gun Ave.  
Pointe-Claire QC H9R 3X2  
T: 514-697-4955  
F: 514-697-4125  
W: www.milrail.com

## MILWAUKEE ELECTRIC TOOL CANADA LTD.

202-7303 Warden Ave.  
Markham ON L3R 5Y6  
T: 905-479-4355  
F: 905-948-2348  
W: www.milwaukeeetool.com

## MINE SAFETY APPLIANCES CANADA

222-5535 Eglinton Ave. W.  
Toronto ON M9C 5K5  
T: 416-620-4225  
F: 416-620-9697  
W: www.msanet.com

## MINETEC CONTROLS

2825 Halpern  
St-Laurent QC H4S 1P8  
T: 514-337-1410  
F: 514-337-0636  
W: www.minetec.ca

## MODULAR POWER SYSTEMS INC.

103 Orenda Rd.  
Brampton ON L6W 1V7  
T: 905-457-8767  
F: 905-457-8767  
W: www.modular-power-systems.com

## MOELLER ELECTRIC LTD.

7275 Rapistan Crt.  
Mississauga ON L5N 5Z4  
T: 905-542-2323  
F: 905-542-2321  
W: www.moeller.ca

## MOLEX INCORPORATED

2222 Wellington Court  
Lisle IL 60515  
T: 630-527-4539  
W: www.molex.com

## MOLONEY ELECTRIC INC.

213 Sterling Rd.  
Toronto ON M6R 2B4  
T: 416-534-9226  
F: 416-534-6906  
W: www.moloney-electric.com

## MOMENTIVE PERFORMANCE MATERIALS INC.

22 Corporate Woods Boulevard  
Albany NY 12211  
T: 607-786-8131  
F: 607-786-8309

## MORGAN SCHAFFER SYSTEMS INC.

8300 Saint Patrick St.  
Montreal QC H8N 2H1  
T: 514-739-1967  
F: 514-739-0434  
W: www.morganschaffer.com

## MOSAK EMK

2300 Power  
Drummondville QC J2C 7Z4  
T: 819-477-6661  
F: 819-477-6898

## MP HUSKY CORP.

204 Old Piedmont Hwy.  
Greenville SC 29605  
T: 864-234-4800  
F: 864-234-4822  
W: www.mphusky.com

## MULTI-TECH SYSTEMS, INC.

2205 Woodale Dr.  
Mounds View MN 55112  
T: 763-785-3500  
F: 763-785-9874  
W: www.multitech.com

## MVA POWER INC.

1 Holly Rd.  
Montreal QC H3X 3K6  
T: 450-589-0445  
F: 450-589-0733  
W: www.mvapower.com

## N

## NELSON FIRESTOP PRODUCTS

4135 S. 100th East Ave.  
Tulsa OK 74146  
T: 800-331-7325  
F: 918-627-2941  
W: www.nelsonfirestop.com

## NEUTRON ELECTRONICS LTD.

450 Woodlawn Rd. W.  
Guelph ON N1K 1A6  
T: 519-836-9220  
F: 519-836-9221  
W: www.neutronelectronics.com

## NEWLINK CABLING SYSTEMS

21-11701 NW 102 Rd.  
Medley FL 33178  
T: 305-477-8262

## NEXANS CANADA INC.

140 Allstate Parkway  
Markham ON L3R 0Z7  
T: 905-944-4346  
F: 905-944-4330  
W: www.nexans.ca

## NICA-POWER BATTERY CORP.

14-5155 Spectrum Way  
Mississauga ON L4W 5A1  
T: 905-624-0000  
F: 905-624-5060  
W: www.nicapower.com

## NOREN PRODUCTS INC.

1010 O'Brien Dr.  
Menlo Park CA 94025  
T: 650-322-9500  
F: 650-324-1348  
W: www.norenproducts.com

## NORGAY ENTREPRISES LTD.

3 Watson Rd. S.  
Guelph ON N1L 1E3  
T: 519-763-4406  
F: 519-763-4462  
W: www.norgay.com

## NORTEL NETWORKS

195 The West Mall  
Toronto ON M9C 5K1  
T: 905-863-7000  
F: 905-863-2051  
W: www.nortelnetworks.com

## NORTH SAFETY PRODUCTS

10550 Parkway Blvd.  
Anjou QC H1J 2K4  
T: 514-351-7233  
F: 514-351-7127  
W: www.northsafety.com

## NORTHERN CABLES INC.

50 California Ave.  
Brockville ON K6V 6E6  
T: 613-345-1594  
F: 613-345-3147  
W: www.northerncables.com

## NORTHERN LIGHTS ENERGY SYSTEMS LTD.

#900 Hwy 548C  
Richards Landing ON P0R 1J0  
T: 705-246-2073  
W: www.sunlinksolartracker.com

## NORTHERN TECHNOLOGIES

95 Konrad Cres.  
Markham ON L3R 8T8  
T: 905-475-9320  
F: 905-475-5719  
W: www.northernstech.com

## NORTHERN TRANSFORMER INC.

163 Jardin Dr.  
Concord ON L4K 1X5  
T: 905-669-1853  
F: 905-669-9728  
W: www.northerntransformer.com

## NSI INDUSTRIES

9730 Northcross Center  
Huntersville NC 28078  
T: 800-321-5847  
F: 800-841-5566  
W: www.nsiindustries.com

## O

## O-M6 TECHNOLOGIES INC.

90-14163 Rte. 117  
Mirabel QC J7J 1M3  
T: 450-979-2275  
F: 450-979-4110  
W: www.om6.com

## OMEGA

976 Bregar St.  
Laval QC H7L 5A1  
T: 514-856-6928  
F: 514-856-6886  
W: www.omega.ca

## OMRON

885 Milner Ave.  
Toronto ON M1B 5V8  
T: 866-986-6766  
F: 416-286-6648  
W: www.omron.ca

## OPTIC-LIGHT INC.

4735 Kent Ave.  
Niagara Falls ON L2H 1J3  
T: 905-357-3866  
F: 905-357-6014  
W: www.opticlight.com

## OPTIMA ELECTRONIC PACKAGING SYSTEMS

2166 Mountain Industrial Blvd.  
Tucker GA 30084-5088  
T: 770-496-4000  
F: 770-496-4041  
W: www.optimaeps.com

## OPTIMUM ENERGY PRODUCTS LTD.

333, 11979-40 St. SE  
Calgary AB T2Z 4M3  
T: 403-256-3636  
F: 403-256-3431  
W: www.optimumenergy.com



**OSRAM SYLVANIA LTD.**  
2001 Drew Rd.  
Mississauga ON L5S 1S4  
T: 905-673-6171  
F: 905-671-5584  
W: www.sylvania.com

OSRAM SYLVANIA LTD. provides innovative and environmentally responsible lighting products that produce more light while consuming less power including; compact fluorescent, halogen, metal halide and high pressure sodium lamps, LED light sources and electronic and magnetic ballasts.

## OUELLET CANADA INC.

180 3rd Ave.  
L'Islet QC G0R 2C0  
T: 418-247-3947  
F: 800-662-7801  
W: www.ouellet.com

## P

## P & H COMPANY INC.

1405 North Congress Ave., Ste. 8  
Delray Beach FL 33445  
T: 561-330-8660  
F: 561-330-8665  
W: www.flexalite.com

## PACO LIGHTING INC.

780 Salaberry  
Laval QC H7S 1H3  
T: 450-668-9620  
F: 450-668-9625  
W: www.pacolighting.com

## PALADIN TOOLS

2559 Turkey Creek Rd.  
Olville VA 23129  
W: www.paladin-tools.com

## PANASONIC CANADA INC.

5770 Ambler Dr.  
Mississauga ON L4W 2T3  
T: 905-624-5010  
F: 905-238-2443  
W: www.panasonic.ca

## PANDUIT CANADA CORP.

400-85 Enterprise Blvd.  
Markham ON L3R 3J8  
T: 905-475-6922  
F: 905-475-6998  
W: www.panduit.com

## PANEL SHOP INC., THE

1925 Hanwell Rd.  
Fredericton NB E3C 1M4  
T: 506-455-1925  
F: 506-459-3400  
W: www.thepanelshop.com

## PARADOX SECURITY SYSTEMS, LTD.

780 Industrial Boulevard  
St-Eustache QC J7R 5V3  
T: 450-491-7444  
F: 450-491-2313  
W: www.paradox.com

## PASS & SEYMOUR LEGRAND CANADA

570 Applewood Cres.  
Vaughan ON L4K 4B4  
T: 905-738-9195  
F: 905-738-9721  
W: www.legrand.ca

## PEERLESS ELECTRIC CO. LTD.

9145 rue Boivin  
Lasalle QC H8R 2E5  
T: 514-595-1671  
F: 514-595-4411  
W: www.peerless-electric.com

## PHENIX TECHNOLOGIES INC.

75 Speicher Dr.  
Accident MD 21520  
T: 301-746-8118  
F: 301-895-5570  
W: www.phenixtech.com

## PHIFER WIRE PRODUCTS

PO Box 1700  
Tuscaloosa AL 35403-1700  
T: 205-345-2120  
F: 205-759-4450  
W: www.phifer.com

## PHILIPS LIGHTING CANADA

281 Hillmount Dr.  
Markham ON L6C 2S3  
T: 905-201-4500  
F: 905-887-7939  
W: www.philips.com

## PHOENIX CONTACT LTD.

235 Watline Ave.  
Mississauga ON L4Z 1P3  
T: 800-890-2820  
F: 905-890-0180  
W: www.phoenixcontact.ca

## PHOENIX MANUFACTURING LTD.

141 Fulton St.  
Milton ON L9T 2J8  
T: 905-878-2818  
F: 905-878-0051  
W: www.phnxfmfg.com

## PHOTONIX TECHNOLOGIES

48 Washington Ave.  
Endicott NY 13760  
T: 607-786-4600  
W: www.photonixtechnologies.com

## PINNACLE SYSTEMS INC.

PO Box 9305  
Pittsburgh PA 15225  
T: 412-262-3950  
F: 412-262-4055  
W: www.pinnaclesystems.com

## PIONEER LIGHTING

300 Dwight Ave.  
Toronto ON M8V 2W7  
T: 416-255-0405  
F: 416-255-4002  
W: www.pioneerlighting.com

## POWER SURVEY INTERNATIONAL

7880 Trans-Canada Hwy.  
Montreal QC H4T 1A5  
T: 514-333-8392  
F: 514-333-8395  
W: www.powersurvey.com

## POWERKURE SOLUTIONS LTD. (DIV. OF MILAN ELECTRIC LTD.)

812 Ridge Rd.  
Stoney Creek ON L8J 2Y8  
T: 905-643-3076  
F: 905-643-3381  
W: www.powerkure.com

## POWERSMITHS INTERNATIONAL CORP.

10 Devon Rd.  
Brampton ON L6T 5B5  
T: 905-791-1493  
F: 905-791-8870  
W: www.powersmiths.com

## PRIME INDUSTRIAL PRODUCTS INC.

118-14273 Knox Way  
Richmond BC V6V 2Z4  
T: 604-821-1758  
F: 604-821-1735  
W: www.prime-mfg.com

## PRIORITY ELECTRONICS

55 Trotter Bay  
Winnipeg MB R3T 3R3  
T: 204-284-0164

## PROCURVE NETWORKING BY HP

5150 Spectrum Way  
Mississauga ON L4W 5G1

T: 905-206-3433  
W: www.procure.com

## PROMOLUX LIGHTING INTERNATIONAL

PO Box 40  
Shawnigan Lake BC V0R 2W0  
T: 250-743-1222  
F: 250-743-1221  
W: www.promolux.com

## PULSAR TECHNOLOGIES INC.

2758 Ste-Hélène St.  
Longueuil QC J4K 3V4  
T: 450-442-1019  
F: 450-442-7610  
W: www.lampespulsar.com

## PYLON ELECTRONICS INC.

5598A McAdam Rd.  
Mississauga ON L4Z 1P1  
T: 905-712-0525  
F: 905-712-8761  
W: www.pylonelectronics.com

## Q

## QUABBIN WIRE & CABLE CO., INC.

10 Maple St.  
Ware MA 01082-1597  
T: 800-368-3311  
F: 416-967-7564  
W: www.quabbin.com

## QUADLOGIC METERS CANADA INC.

341-17 Fawcett Rd.  
Coquitlam BC V3K 6V2  
T: 604-526-5155  
F: 604-526-7667  
W: www.qmeters.com

## QUICK CABLE CANADA LTD.

6395 Kestrel Rd.  
Mississauga ON L5T 1Z5  
T: 905-362-1606  
F: 905-362-1614  
W: www.quickcable.com

## R

## R. STAHL LTD.

7003-56 Ave.  
Edmonton AB T6B 3L2  
T: 780-490-4912  
F: 780-469-5525  
W: www.rstahl.com

## R3&A LIMITED

1-3 Maplewood Blvd.  
Cobourg ON K9A 4J4  
T: 905-377-8577  
F: 905-377-8578  
W: www.r3alimited.com

## RAB DESIGN LIGHTING INC.

222 Islington Ave.  
Toronto ON M8V 3W7  
T: 416-252-9454  
F: 416-252-9664  
W: www.rabdesign.ca

## RAB LIGHTING

170 Ludlow Ave.  
Northvale NJ 07647  
T: 201-784-8600  
F: 201-784-0077  
W: www.rabweb.com

## RACK-A-TIERS

PO Box 24010  
Victoria BC V8Z 7E7  
T: 250-479-8124  
F: 250-479-1489  
W: www.rack-a-tiers.com

## RADIODETECTION CANADA

Unit 34, 34-344 Edgeley Blvd.,  
Concord ON L4K 4B7  
T: 905-660-9995  
F: 905-660-9579

## RALSTON METAL PRODUCTS LTD.

50 Watson Rd.  
Guelph ON N1L 1E2  
T: 519-836-2968  
F: 519-836-9763  
W: www.ralstonmetal.com

## RAY ELECTRIC LIMITED

20 Park Hill Rd. E.  
Cambridge ON N1R 1P2  
T: 519-623-0330  
F: 519-623-1286  
W: www.rayelectric.com

## RC ELECTRICAL SERVICES

273 Springside Rd.  
Maple ON L6A 2J3  
T: 905-303-7240

## RC LIGHTING

170 Ludlow Ave.  
Northvale NJ 07647  
W: www.rclighting.ca

## REBELLE ARCHITECTURAL LIGHTING

11475-201 A St.  
Maple Ridge BC V2X 0Y3  
T: 604-465-5739  
F: 604-465-9801  
W: www.rebelbelighting.com

## RENFREW ELECTRIC CO LTD.

1-1210 Birchmount Rd.  
Scarborough ON M1P 2C3  
T: 416-752-4611  
F: 416-752-4614  
W: www.renfrewelectric.com

## REV-AMP ELECTRICAL EQUIPMENT LTD.

345 Brunel Road  
Mississauga ON L4Z 1Z5  
T: 905-507-1376  
F: 905-507-8134  
W: www.revampelectrical.com

## REX POWER MAGNETICS

65 Basaltic Rd  
Concord ON L4K1G4  
T: 905-695-8844  
F: 905-695-8855  
W: www.rexpowermagnetics.com

## RHINO PROFESSIONAL LABELING TOOLS

44 Commerce Rd.  
Stamford CT 06902  
T: 203-355-9000  
F: 203-355-9070  
W: www.rhinolabeling.com

## RIT TECHNOLOGIES INC.

900 Corporate Dr.  
Mahwah NJ 07430  
T: 201-512-1970  
F: 201-512-1286  
W: www.rittech.com

## RITTAL SYSTEMS LTD

6485 Ordan Drive  
Mississauga ON L5T 1X2  
T: 905-795-0777  
F: 905-795-9548  
W: www.rittal.ca

## ROBERTSON BRIGHT INC.

1-2875 Argentinia Rd.  
Mississauga ON L5N 8G6  
T: 905-813-3005  
F: 905-813-8878  
W: www.rbgroup.net

## ROCKWELL AUTOMATION, INC.

1201 South 2nd St.  
Milwaukee WI 53204-2496  
T: 414-382-2000  
F: 414-382-4444  
W: www.rockwellautomation.com

## ROMLIGHT INTERNATIONAL (CANADA) INC.

11-178 Pennsylvania Ave.  
Concord ON L4K 4B1  
T: 905-660-6977



F: 905-669-6672  
W: [www.romlightintl.com](http://www.romlightintl.com)

## ROXTEC INC.

10127 E. Admiral Place  
Tulsa OK 74116  
T: 918-254-9872  
F: 918-254-2544  
W: [www.roxtec.com](http://www.roxtec.com)

## ROYAL PIPE SYSTEMS

131 Regalcrest Crt.  
Woodbridge ON L4L 8P3  
T: 905-856-7550  
F: 905-856-4367  
W: [www.royalpipe.com](http://www.royalpipe.com)

## RUUD LIGHTING CANADA / BETA LED

3-6889 Rexwood Rd.  
Mississauga ON L4V 1R2  
T: 800-473-1234  
F: 800-890-7507  
W: [www.ruud.ca](http://www.ruud.ca)

## S

## SAFE ENGINEERING SERVICES & TECHNOLOGIES

3055 Boul. des Oiseaux  
Laval QC H7L 6E8  
T: 450-622-5000  
F: 450-622-5053  
W: [www.sestech.com](http://www.sestech.com)

## SAFETY LIGHTING PRODUCTS

9757 45 Ave.  
Edmonton AB T6E 5V8  
T: 450-432-5116  
F: 450-432-4516  
W: [www.safetylightingproducts.com](http://www.safetylightingproducts.com)

## SALISBURY BY HONEYWELL

101 East Crossroads Parkway  
Bolingbrook IL 60440  
T: 630-343-3736  
F: 630-343-3839  
W: [www.salisburybyhoneywell.com](http://www.salisburybyhoneywell.com)

## SCHLEUNIGER, INC.

87 Colin Dr.  
Manchester NH 03103  
T: 603-668-6117  
F: 603-668-8119  
W: [www.schleuniger-na.com](http://www.schleuniger-na.com)



## SCHNEIDER ELECTRIC

5985 McLaughlin Road  
Mississauga ON L5R 1B8  
T: 800 565-6699  
F: 859-334-9948

W: [www.schneider-electric.ca](http://www.schneider-electric.ca)

As a global specialist in energy management, Schneider Electric offers integrated solutions across multiple market segments, including energy and infrastructure, industrial processes, building automation, data centres/networks, and residential applications.

## SELECTRON INC.

8195 Marco Polo St.  
Montreal QC H1E 5Y8  
T: 514-326-5261  
F: 514-321-9870  
W: [www.select-test.com](http://www.select-test.com)

## SERGE BARIL & ASSOCIATES INC.

5310 des Laurentides  
Laval QC H7K 2J8  
T: 450-622-7587  
F: 450-622-7869  
W: [www.baril.ca](http://www.baril.ca)

## SEW EURODRIVE CO. OF CANADA LTD.

210 Walker Dr.  
Bramalea ON L6T 3W1  
T: 905-791-1553  
F: 905-791-2999  
W: [www.sew-eurodrive.ca](http://www.sew-eurodrive.ca)

## SHAT-R-SHIELD INC.

116 Ryan Patrick Dr.  
Salisbury NC 28147  
T: 800-248-4911  
F: 704-633-3420  
W: [www.shatrshield.com](http://www.shatrshield.com)

## SHAWFLEX

25 Bethridge Rd.  
Toronto ON M9W 1M7  
T: 416 743 7111  
F: 416 743 2565  
W: [www.shawflex.com](http://www.shawflex.com)

## SIEMENS CANADA LIMITED

1550 Appleby Line  
Burlington ON L7L 6X7  
T: 905-315-6868  
W: [www.siemens.ca](http://www.siemens.ca)

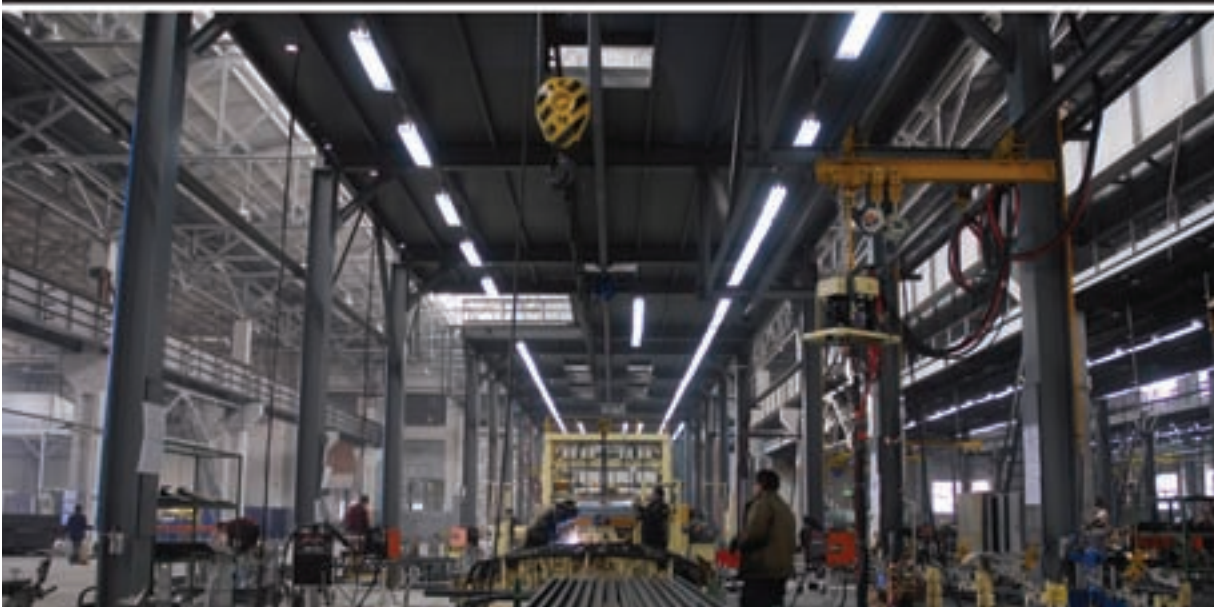
## SIEMENS INDUSTRY INC., BUILDING TECHNOLOGIES DIVISION

1000 Deerfield Parkway  
Buffalo Grove IL 60089-4513  
T: 847-215-1000  
F: 847-215-1093  
W: [www.usa.siemens.com/buildingtechnologies](http://www.usa.siemens.com/buildingtechnologies)

## SIEMENS INDUSTRY INC., SOLUTIONS, AUTOMATION & DRIVES


1000 Deerfield Parkway  
Buffalo Grove IL 60089-4513  
T: (847) 215-1000  
F: (678) 297-8316  
W: [www.sea.siemens.com](http://www.sea.siemens.com)

# BALLASTS ARE OUR BUSINESS






**ULTRASAVE** offers an extensive range of quality products for fluorescent, compact fluorescent, HID lighting, as well as drivers for LED systems.



**T8 ELECTRONIC BALLASTS**  
Energy efficient ballasts available in high, normal and low ballast factor. Meet most Canadian Hydro rebate program requirements.

**T5/T5HO ELECTRONIC BALLASTS**  
Programmed start ignition with lamp EOL protection circuit and 90°C case temperature rating.



**ULTRASAVE**  
[www.ultrasave.ca](http://www.ultrasave.ca)

**CFL ELECTRONIC BALLASTS**  
Operates 1 or 2 CFL 13/18/26/32/42W lamps of various types.



**ELECTRONIC HID BALLASTS**  
Complete range of 120-277 and 347V models, side/bottom mount versions.

ULTRASAVE LIGHTING LTD. | TEL 905.940.0888 | FAX 905.940.0338 | TOLL-FREE 1.866.733.9217

INDUSTRIAL    COMMERCIAL    INSTITUTIONAL    RETAIL    RESIDENTIAL

## SILVER FOX

Swallow Court, Swallowfields  
Hertfordshire, England INT AL7 1SA  
T: 1-707-373727  
F: 1-707-372193  
W: www.silfox.com

## SIMSON MAXWELL

8750-58 Ave.  
Edmonton AB T6E 6G6  
T: 780-434-6431  
F: 780-436-0394  
W: www.simson-maxwell.com

## SOLA CANADA LIGHTING & POWER INC.

7-171 Ambassador Dr.  
Mississauga  
ON L5T 2J1 905-670-0746  
T: 905-670-9689  
W: www.solacanada.com

## SOUTHWIRE CANADA COMPANY

5769 Main Street  
Stouffville ON L4A 8A2  
T: 905-642-7601  
F: 905-640-5607  
W: www.southwire.com

## SPECTRUM INSTRUMENTS LTD.

126 West Ridge Dr.  
Ottawa ON K2S 2H1  
T: 613-831-0007  
F: 613-831-0008  
W: www.spectrum-instruments.com

## SPI SYSTEMS LTD.

17- 82 Sandiford Dr.  
Stouffville ON L4A 7X5  
T: 905-642-3335  
F: 905-642-3360  
W: www.spicontrols.com

## STABLE TECHNICAL SERVICES INC.

10-155 McIntosh Dr.  
Markham ON L3R 0N6  
T: 905-477-4250  
F: 905-477-6147  
W: www.stablegroup.ca



## STANDARD PRODUCTS INC.

5905 Cote-de-Liesse  
Saint Laurent QC H4T 1C3  
T: 514-342-1199  
F: 514-342-6261  
W: www.standardpro.com  
STANDARD is Canada's leading supplier of lighting solutions to commercial, industrial and residential markets. STANDARD offers "innovative high quality products, vast inventories, friendly and informed customer service, fast and efficient shipping, training programs and innovative marketing.  
Ville St-Laurent QC .800-361-6965  
Mississauga ON.....800-268-7702  
Port Coquitlam BC ..800-945-4999  
Vanier QC.....866-686-3337

## STANPRO

5905 Chemin de la cote de Liesse  
Saint-Laurent QC H4T 1C3  
T: 514-739-9984  
F: 514-739-9912  
W: www.stanprols.com

## STATICON LTD.

5-390 Tapscott Rd.  
Scarborough ON M1B 2Y9  
T: 416-291-3723  
F: 416-291-3871  
W: www.staticon.ca

## STORM COPPER COMPONENTS, CO.

240 Industrial Dr.  
Decatur TN 37322  
T: 888-334-2177  
F: 423-334-3389  
W: www.stormcopper.com

## STRAND LIGHTING CANADA INC.

15-2430 Lucknow Dr.  
Mississauga ON L5S 1V3  
T: 905-677-7130  
905-677-6859

## STRESS CRETE GROUP

840 Walkers Line, PO Box 7  
Burlington ON L7R 3X9  
T: 800-268-7809  
F: 905-632-8116  
W: www.stresscrete.com

## SUNFIND SOLAR PRODUCTS INC.

20-7471 Edgar Industrial Bend  
Red Deer AB T4P 3Z5  
T: 403-343-6434  
F: 403-343-6455  
W: www.sunfindsolarproducts.com

## SUPERIOR ELECTRIC

3-28 Spring Lane  
Farmington CT 06032  
T: 860-507-2025  
F: 860-507-2050  
W: www.superiorelectric.com

## SUPERIOR ESSEX COMMUNICATIONS LP

6120 Powers Ferry Road, Suite 150  
Atlanta GA 30339  
T: 770-657-6000  
F: 770-657-6807  
W: SuperiorEssex.com/Comm



## SUPERIOR FLEXIBLE CONDUITS INC.

PO Box 665 Stn. Main  
Cobourg ON K9A 4R5  
T: 905-355-2959  
F: 905-355-3384  
W: www.superiorflex.com

## SURGEPURE CANADA

3932-3A Street NE  
Calgary AB T2E 6R4  
T: 403-277-5656  
F: 403-277-4253  
W: www.surgepure.ca

## SURPLEC INC.

149, Godin  
Sherbrooke QC J1R 0S6  
T: 819-821-3636  
F: 819-563-7517  
W: www.surplechv.com

## SUTTLE

1001 East Highway 212  
Hector MN 55342  
T: 800-852-8662  
F: 320-848-6218  
W: www.suttleonline.com

## SWIVELPOLE CANADA

9757 - 45 Ave.  
Edmonton AB T6E 5V8  
T: 877-434-1802  
F: 780-432-4516  
W: www.swivelpole.ca

## T

## TDI TRANSISTOR DEVICES

36 Newburgh Rd.  
Hackettstown NJ 07840  
T: 908-850-5088  
F: 908-850-1607  
W: www.tdi-power.com

## TECH PRODUCTS, INC.

105 Willow Avenue  
Staten Island NY 10305  
T: 800-221-1311  
F: 718-442-2124  
W: www.TechProducts.com

## TECHCON ENTERPRISES LTD.

PO Box 932  
Mount Pearl NF A1N 3C9  
T: 709-745-6464  
F: 709-745-8712

## TECHNEL ENGINEERING INC.

60 Marycroft Ave., Unit 2  
Woodbridge ON L4L 5Y5  
T: 905-851-4244  
F: 905-851-5743  
W: www.technel.com

## TECHSPAN INDUSTRIES INC.

3131 Pepper Mill Court  
Mississauga ON L5L 4X6  
T: 905-820-6150  
F: 905-820-6142  
W: www.techspan.ca

## TECNO-KEBEC

2777 de La salle  
Jonquiere QC G7S 2A5  
T: 418-548-8186  
F: T: 418-548-2950  
W: tecno-kebec.com

## TELCO SYSTEMS

3A-2 Hampshire St.  
Foxboro MA 02035-2897  
T: 781-551-0300  
F: 781-551-0538  
W: www.telco.com

## TEMPOTECH CONTROLS INC.

3-2400 Wyecroft Rd.  
Oakville ON L6L 6M8  
T: 905-847-0055  
F: 905-847-8876  
W: www.tempotechcontrols.com

## TERRA TAPE, DIV OF REEF INDUSTRIES

9209 Alameda Genoa  
Houston TX 77075  
T: 713-507-4251  
F: 713-507-4295  
W: www.reefindustries.com

## TESTWORX

7-555 California Ave.  
Brockville ON K6V 5V2  
T: 613-341-9502  
F: 613-341-9510  
W: www.testworx.ca

## TEVELEC LIMITED

5350 Timberlea Blvd.  
Mississauga ON L4W 2S6  
T: 905-624-5241  
F: 905-625-2462  
W: www.tevelec.com

## TEXTIT CANADA INC.

A19-481 North Service Rd. W.  
Oakville ON L6M 2V6  
T: 888-640-9909  
F: 905-829-1158  
W: www.textitmarkers.com

## THERMA-RAY INC.

6-670 Wilsey Rd.  
Fredericton NB E3B 7K4  
T: 866-457-4600  
F: 506-457-4699  
W: www.thermaray.com



## THOMAS & BETTS CANADA LTD.

700 Thomas Avenue  
Saint-Jean-sur-Richelieu QC J2X 2M9  
T: 450-347-5318  
F: 450-347-1976  
W: www.tnb.ca

Thomas & Betts is a global leader in the design, manufacture and marketing of essential components used to manage electrical power in industrial, construction and utility applications. Founded in 1928 to serve the unique requirements of the Canadian market, today Thomas & Betts Ltd. has more than 1,500 employees across Canada in nine ISO 9001 : 2000-certified manufacturing facilities; six regional sales offices; a Master Distribution Centre, and a head office in Saint-Jean-sur-Richelieu.

## Industrial and Commercial

### Products-Regional Sales Offices

Atlantic Region ..... 1-877-862-4357  
Quebec Region ..... 1-800-465-1399  
Ontario Region ..... 1-877-291-7771  
Mid-West Region ... 1-866-540-8220  
Alberta Region ..... 1-888-664-5666  
British Columbia ... 1-866-540-8220

### Industrial OEM/Alternate

Energies: 905-286-3775  
Distribution, Protection & Control Products: 1-800-466-1102 #234  
Roadway, Traffic & Area Lighting Structures: 1-888-687-1777  
Steel Structures:  
1-800-327-5582, #3783  
AMERACE Airfield Lighting:  
(416) 292-9782 #231  
HVAC-REZNOR: 1-800-465-1399 #238  
Emergency Lighting: (514) 685-2277

## THOMAS LIGHTING CANADA

189 Bullock Dr.  
Markham ON L3P 1W4  
T: 905-294-9570  
F: 905-294-8911  
W: www.thomaslightingcanada.com

## TII NETWORK TECHNOLOGIES INC.

141 Rodeo Dr.  
Edgewood NC 11717  
T: 709-834-0094

## TIMBERLAND EQUIPMENT LTD.

PO Box 490  
Woodstock ON N4S 7Z2  
T: 519-537-6262  
F: 519-539-5853  
W: www.timberland.on.ca

## TIMES FIBER CANADA LIMITED

580 OBrien Rd.  
Renfrew ON K7V 3Z2  
T: 613-432-8566  
F: 613-432-9373  
W: www.timesfiber.com

## TMP WORLDWIDE

3rd Flr., 152 King St. E.  
Toronto ON M5A 1J3  
T: 416-861-8679  
F: 416-861-0859  
W: www.tmp.com

## TMS LIGHTING

247A Summerlea Rd.  
Brampton ON L6T 4E1

## TORONTO FABRICATING & MFG. CO.

1020 Rangeview Rd.  
Mississauga ON L5E 1H2  
T: 905-891-2516  
F: 905-891-7446  
W: www.tfmc.com

## TR ELECTRONIC

955 Green Valley Rd.  
London ON N6A 4G9  
T: 519-452-1999  
F: 519-452-1177  
W: www.trelectronic.com

## TRANS CANADA ELECTRO LTD.

373 Mondor Ave.  
Saint-Hyacinthe QC J2S 5A6  
T: 800-363-5492  
F: 800-962-6361  
W: www.Transcanadaelectro.com

## TRANSGLOBAL SYSTEMS OF CANADA INC.

39-6635 Kitimat Road  
Mississauga ON L5N 6J2  
T: 905-813-8762  
F: 905-813-7329  
W: www.tsoc.com

## TRANSITION NETWORKS

6474 City West Parkway  
Eden Prairie MN 55344  
T: 952-941-2322  
F: 952-996-1526  
W: www.transition.com

## TRILITHIC

9710 Park Davis Dr.  
Indianapolis IN 46235  
T: 317-895-3600  
F: 317-895-3813  
W: www.trilithic.com

## TRILLIANT NETWORKS

610 Du Luxembourg St.  
Granby QC J2J 2V2  
T: 450-375-0556  
W: www.triliantinc.com

## TRITECH ELECTRIC LTD.

Bay 2, 6120-11 St. S.E.  
Calgary AB T2H 2L7  
T: 403-264-7090  
F: 403-265-8896

## TRIVISTA INC.

108 Whitetail Dr.  
Ottawa ON K0A 1L0  
T: 613-831-5536  
F: 613-831-5564  
W: www.trivista.ca

## TROJAN INC.

198 Trojan St.  
Mt. Sterling KY 40353-0850  
T: 859-498-0526  
F: 859-498-0528  
W: www.trojaninc.com

## TRT BUSINESS NETWORK SOLUTIONS, INC.

1240 Graphite Dr.  
Corona CA 92881  
T: 951-582-4000  
F: 951-582-4016

## TRUE NORTH TECHNOLOGY INC

5955 Airport Rd., Ste. 102  
Mississauga ON L4V 1R9  
T: 905-677-9788

## TUG-WISE MANUFACTURING 293386 ALBERTA LTD.

409 Balsam Rd. N.E.  
Slave Lake AB T0G 2A2  
T: 780-849-2771  
F: 780-849-6728

## TUROLIGHT INC.

820 Flint Rd.  
North York ON M3J 2J5  
T: 877-736-0447  
F: 416-736-4890  
W: www.turolight.com

## TYCO ELECTRONICS

308 Constitution Drive, Building H  
Menlo Park CA 94025  
T: 800-227-7040  
F: 650-361-2508



**TYCO ELECTRONICS CANADA**

20 Esna Park Dr.  
Markham ON L3R 1E1  
T: 905-706-5281

**TYCO THERMAL CONTROLS**

7433 Harwin Drive  
Houston TX 77036  
T: 650-216-1526  
F: 650-474-7711  
W: www.tycothermal.com

**U****UE SYSTEMS INC.**

14 Hayes St.  
Elmsford NY 10523  
T: 914-592-1220  
F: 914-347-2181  
W: www.uesystems.com

**UHI CANADA CORPORATION**

8-8241 Keele St.  
Concord ON L4K 1Z5  
T: 905-669-0053  
F: 905-669-7443

**ULTRASAVE LIGHTING LTD.**

140 Amber Street, Unit 12  
Markham ON L3R 3J8  
T: 905-940-0888  
F: 905-940-0338  
W: www.ultrasave.ca

**UNDERGROUND DEVICES INC.**

3304 Commercial Ave.  
Northbrook IL 60062  
T: 847-205-9000  
F: 847-205-9004  
W: www.udevices.com

**UNICELL BODY COMPANY**

50 Industrial St.  
Toronto ON M4G 1Y9  
W: www.unicell.com

**UNITED RENTALS OF CANADA**

924 South Service Rd.  
Stoney Creek ON L8E 6A2  
T: 905-643-0999  
F: 905-643-9048  
W: www.unitedrentals.com

**UNITED WIRE & CABLE INC.**

1 West Pearce St.  
Richmond Hill ON L4B 3K3  
T: 905-771-0099  
F: 905-771-1658  
W: www.unitedwc.com

**UNIVERSAL LIGHTING TECHNOLOGIES**

500-26 Century Blvd.  
Nashville TN 37214  
T: 615-316-5100  
W: www.unvlt.com

**USHIO CANADA INC.**

2730 Brighton Rd.  
Oakville ON L6H 5T4  
T: 905-829-3338  
F: 905-829-5343  
W: www.ushio.com

**V****VALUELIGHT**

612 Gordon Baker Rd.  
Toronto ON M2H 3B4  
T: 416-497-3039  
F: 416-352-5322  
W: www.valuelight.com

**VENTURE LIGHTING CANADA**

6889 Rexwood Rd., Units 6 & 7  
Mississauga ON L4V 1R2  
T: 905-678-6291  
F: 905-678-2879  
W: www.venturelighting.com

**VERITEQ INSTRUMENTS**

100-13775 Commerce Pkwy.  
Richmond BC V6V 2V4  
T: 800-683-8374  
F: 604-273-2874  
W: www.veriteq.com

**VERSATILE MEASURING INSTRUMENTS INC.**

7-1245 Maple Hill Cr.  
Newmarket ON L3Y 9E8  
T: 905-954-0841  
F: 905-954-0415  
W: www.aquametrix.com

**VICONICS**

9245 Langelier Blvd.  
St. Leonard QC H1P 3K9  
T: 800-563-5660 #243

**VIRELEC LTD.**

2-4020B Sladeview Cres.  
Mississauga ON L5L 6B1  
T: 905-569-8030  
F: 905-569-6364  
W: www.virelec.com

**VISIONEERING CORP.**

35 Oak St.  
Toronto ON M9N 1A1  
T: 416-245-7991

**VISTA ELECTRICAL PRODUCTS**

P.O. Box 178  
Montreal QC H9R 5P9  
T: 800-685-8518  
F: 800-357-3717

**VISTA PROFESSIONAL OUTDOOR LIGHTING**

1625 Surveyor Ave.  
Simi Valley CA 93063  
T: 705-431-0045  
F: 705-436-4555  
W: www.vistapro.com

**W****WAC LIGHTING COMPANY**

615 South St.  
Garden City NY 11530  
T: 516-515-5000  
F: 800-526-2585  
W: www.waclighting.com

**WAGO CORPORATION**

N120 W19129 Freistadt Rd.  
Germantown WI 53022  
T: 262-255-6222  
F: 262-255-3232  
W: www.wago.us

**WALDMANN LIGHTING**

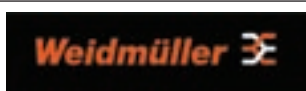
9 W Century Dr.  
Wheeling IL 60090  
T: 800-634-0007  
F: 847-520-1730  
W: www.waldmannlighting.com

**WAVELL ELECTRIC LTD.**

170 Sheldon Dr.  
Cambridge ON N1R 7K1  
T: 519-620-2085  
F: 519-620-2127  
W: www.wavell.com

**WEG MOTORS & DRIVES / VJ PAMENSKY CANADA INC.**

64 Samor Rd.  
Toronto ON M6A 1J7  
T: 877-726-3675  
F: 416-781-4352  
W: www.pamensky.com

**WEIDMULLER**

10 Spy Court  
Markham ON L3R 5H6  
T: 888-309-8541  
F: 877-300-5635  
W: www.weidmuller.ca

**WERA TOOLS**

3-730 South Service Rd.  
Stoney Creek ON L8E 5S7  
T: 800-267-5541  
F: 877-650-9372  
W: www.weratools.com

**WH SALISBURY & CO.**

7520 North Long Ave.  
Skokie IL 60077  
T: 877-406-4501  
F: 866-824-4922  
W: www.whsalisbury.com

**WHEATLAND TUBE COMPANY**

One Council Ave.  
Wheatland PA 16161  
T: 800-257-8182  
F: 724-346-7260  
W: www.wheatland.com

**WIDE LOYAL DEVELOPMENT LTD.**

3830 Jacombes Rd.  
Richmond BC V6V 1Y6  
T: 604-303-0931  
F: 604-303-0932  
W: www.wideloyal.com

**WIELAND ELECTRIC INC.**

2889 Brighton Rd.  
Oakville ON L6H 6C9  
T: 905-829-8414  
F: 905-829-8413  
W: www.wieland-electric.ca

**WIL-CAN ELECTRONICS CANADA LTD.**

8560 Torbram Rd., Units 34 & 35  
Brampton ON L6T 5C9  
T: 905-790-2711  
F: 888-866-7775  
W: www.powersurges.com

**WILLETT MANUFACTURING LTD.**

311B Kensington Ave.  
Estevan SK S4A 2A4  
T: 306-637-4420  
F: 306-634-9904  
W: www.willett.ca

**WILSON HIGH VOLTAGE INC.**

1271 Gorham St., Unit 9  
Newmarket ON L3Y 7V1  
T: 905-773-2400  
F: 905-836-6352  
W: www.wilsonhighvoltage.com

**WIREX CONTROLS LTD.**

27-9446 McLaughlin Rd. N.  
Brampton ON L6X 4H9  
T: 905-459-0742  
F: 905-450-8216  
W: www.wirexcontrols.com

**WISMER & RAWLINGS ELECTRIC LTD.**

118-1647 Broadway St.  
Port Coquitlam BC V3C 6P8  
T: 604-944-1117  
F: 604-944-1127  
W: www.wre.ca

**WOODHEAD, DIVISION OF MOLEX**

1090 Brevik Place  
Mississauga ON L4W 3Y5  
T: 905-624-6518  
F: 905-624-9151  
W: www.woodhead.ca

**X10 PRO**

10012 North Dale Mabry, #115  
Tampa FL 33618  
T: 813-265-2888  
F: 813-265-1011  
W: www.x10pro.com

**Y****YOKOGAWA CORPORATION OF AMERICA**

2 Dart Rd.  
Newnan GA 30265  
T: 770-254-0400  
F: 770-254-1337  
W: www.yokogawa.com/us

**Z****Z-TRAUQ INC.**

CP 2628  
Morin Heights QC J0R 1H0  
T: 450-226-6997  
F: 450-226-5837  
W: www.z-trauq.com

**A****AIEQ - ASSOC. DE L'INDUSTRIE ELECTRIQUE DU QUEBEC**

320-2000 Mansfield St.  
Montreal QC H3A 2Y9  
T: 514-281-0615  
F: 514-281-7965  
W: www.aieq.net

**ALBERTA ELECTRICAL LEAGUE**

Box 80091, Towerlane PO  
Airdrie, AB T4B 2V8  
T: 800-642-5508  
F: 403-280-6287  
W: www.elecleague.ab.ca

**APPRO**

1602-25 Adelaide St. E.  
Toronto, ON M5C 3A1

**ATOMIC ENERGY OF CANADA LTD**

Stn 260T  
Chalk River, ON K0J1J0  
T: 613-584-8811

**B****BCEA - BC ELECTRICAL ASSOCIATION**

224-3989 Henning Dr.  
Burnaby, BC V5C 6N5  
T: 604-291-7708  
F: 604-291-7795  
W: www.bcea.bc.ca

**BICSI**

8610 Hidden River Parkway  
Tampa, FL 33637-1000  
T: 813-979-1991  
F: 813-971-4311  
W: www.bicsi.org

**C****CANADIAN COPPER AND BRASS DEVELOPMENT ASSOCIATION**

415-49 The Donway W.  
Don Mills, ON M3C 3M9  
T: 877-640-0946  
F: 416-391-3823  
W: www.coppercanada.ca

**CANADIAN ELECTRICAL CONTRACTORS ASSOCIATION**

460-170 Attwell Dr.  
Toronto, ON M9W 5Z5  
T: 416-675-3226  
F: 416-675-7736  
W: www.ceca.org

**CONSTRUCTION ASSOCIATION OF NOVA SCOTIA**

Electrical Contractors Section  
Dartmouth, NS B3B 1V9  
T: 902-468-2267  
F: 902-468-2470  
W: www.cans.ns.ca

**CORPORATION DES MAÎTRES ÉLECTRICIENS DU QUÉBEC (CMEQ)**

5925 boul. Decarie  
Montreal, QC H3W 3C9  
T: 514-738-2184  
F: 514-738-2192  
W: www.cmeq.org

**E****ELECTRICAL CONTRACTORS ASSOC. OF ALBERTA**

11235 120 St.  
Edmonton, AB T5G 2X9  
T: 800-252-9375  
F: 780-455-9815  
W: www.ecaa.ab.ca

**ELECTRICAL CONTRACTORS ASSOC. OF BRITISH COLUMBIA**

201-3989 Henning Dr.  
Burnaby, BC V5C 6N5  
T: 604-294-4123  
F: 604-294-4120  
W: www.eca.bc.ca

**ELECTRICAL CONTRACTORS ASSOC. OF NEW BRUNSWICK**

PO Box 322  
Fredericton, NB E3B 4Y9  
T: 506-452-7627  
F: 506-452-1786  
W: www.eca.nb.ca

**ELECTRICAL CONTRACTORS ASSOC. OF ONTARIO**

460-170 Attwell Dr.  
Toronto, ON M9W 5Z5  
T: 416-675-3226  
F: 416-675-7736  
W: www.ecao.org

**ELECTRICAL CONTRACTORS ASSOCIATION**

**OF SASKATCHEWAN**  
1939 Elphinstone St.  
Regina, SK S4T 3N3  
T: 306-525-0171  
F: 306-347-8595  
W: www.ecas.ca

**ELECTRO-FEDERATION CANADA**

200-5800 Explorer Dr.  
Mississauga, ON L4W 5K9  
T: 905-602-8877  
F: 905-602-5686  
W: www.electrofed.com

**I****INDEPENDENT CONTRACTORS AND BUSINESSES ASSOCIATION OF BRITISH COLUMBIA**

211-3823 Henning Dr.  
Burnaby, BC V5C 6P3  
T: 604-298-7795  
W: www.icba.ca

**M****MANITOBA ELECTRICAL LEAGUE**

104-780 Wellington Ave.  
Winnipeg, MB R3H 1B3  
T: 204-783-4125  
F: 204-783-4216  
W: www.meleague.net

**N****NEW YORK STATE DEPT. OF ECONOMIC DEV'T.**

301-137 Main Street N.  
Markham, ON L3P 1Y2  
T: 905-209-7799  
F: 905-209-8753  
W: www.empire.state.ny.us

**NOVA SCOTIA ELECTRICAL CONTRACTORS ASSOCIATION**

PO Box 20125  
CSP Spayfield, Halifax, NS B3R 2K9  
T: 204-783-4125

**O****ONTARIO ELECTRICAL LEAGUE**

300-180 Attwell Drive  
Etobicoke, ON M9W 6A9  
T: 905-238-1382  
F: 905-238-1420  
W: www.oel.org

**ONTARIO ENERGY NETWORK**

38-19 Kenview Blvd.  
Brampton, ON L6T 5G6  
T: 905-602-6712  
W: www.ontarioenergynetwork.org

**S****SASKATCHEWAN ELECTRICAL LEAGUE**

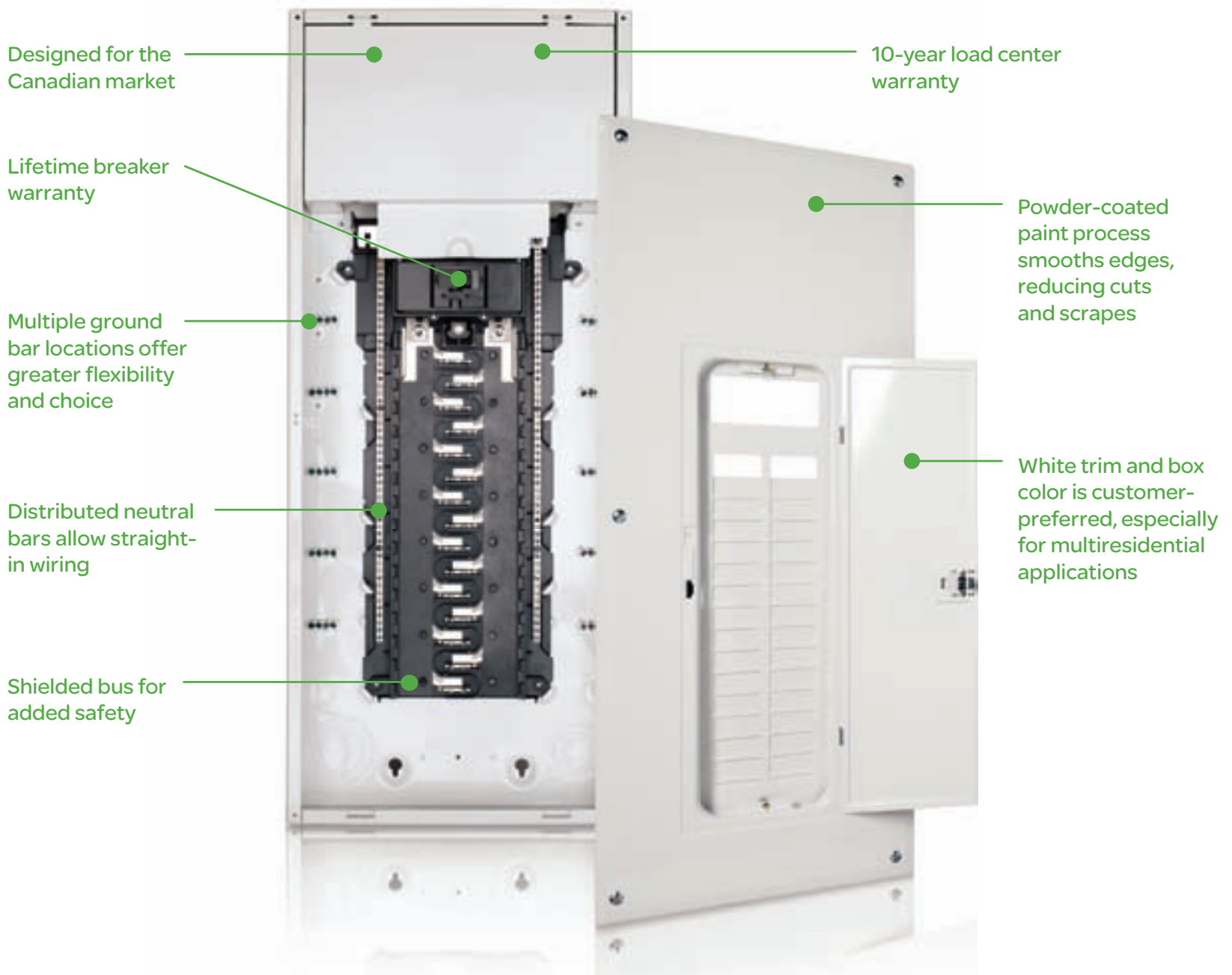
2909 Saskatchewan Drive  
Regina, SK S4T 1H4  
W: www.seleague.com





# HomeLine load centers

Reduce installation time. Increase your bottom line.



## Load centers designed with you in mind

You've got plenty to do, so HomeLine™ is designed for fast, easy installation. Distributed neutral bars positioned for straight-in wiring, multiple ground bar locations, and a self-leveling center keyhole increase flexibility. Our trim speed screws install three times faster than conventional screws. And Robertson® screws on neutral bars, ground bars, and breakers enable simple, one-tool installation.

## Safety and style your customers will appreciate

Safety should never be an afterthought, so HomeLine from Schneider Electric™ features a shielded, current-carrying bus to protect against accidental live contact. A powder-coated paint process ensures a smooth finish, preventing cuts and scrapes from sharp edges. HomeLine is stylish, too, with a white box and trim customers prefer, particularly for multiresidential applications. We've included a standard door on all double-row load centers as well.



## Learn more!

Download our **FREE** HomeLine brochure and enter the "Load Up to Win" prize contest!

Visit [www.SEreply.com/promo](http://www.SEreply.com/promo) Key Code **e995v**

**Schneider**  
**Electric**

AUTOMATION DEVICES
COMPUTERS
Dimonoff Omron Phoenix Contact Ltd. Rockwell Automation Inc. Siemens Canada Ltd.
COUNTER
Carlo Gavazzi Canada Inc. Omron Z-Trauq Inc.
ENCODERS
Cooper Industries International Innovative Systems LGI Lighting Group Inc. Omron
MOTION CONTROL DEVICES
Benshaw Canada Controls Inc. Control Technology Corp. Cooper Industries Eaton GE Electrical Distribution International Innovative Systems KCS LGI Lighting Group Inc. Ouellet Canada Inc. Pinnacle Systems Inc. Schneider Electric SEW Eurodrive Co. of Canada Ltd. Siemens Canada Ltd. WAGO Corp. WEG Motors & Drives / VJ Pamensky Canada Inc. Z-Trauq Inc.
PILOT DEVICES
ABB Automation Control Inc. Carlo Gavazzi Canada Inc. Cooper Industries Eaton GE Electrical Distribution Intermec Technologies Canada Ltd. International Innovative Systems Minetec Controls Omron Siemens Canada Ltd. Staticon Ltd.
PLC
Black Box Canada Corp. CCI Thermal Technologies Control Technology Corp. Eaton IPLC Vantera Omron Phoenix Contact Ltd. Robertson Bright Inc. Rockwell Automation Schneider Electric Siemens Canada Ltd. The Panel Shop Inc. WAGO Corp.
PROXIMITY DEVICES
Carlo Gavazzi Canada Inc. Control Technology Corp. Cooper Industries Eaton International Innovative Systems Omron Siemens Canada Ltd. Techspan Industries Inc. Z-Trauq Inc.
ROBOTICS
Control Technology Corp. Dematic Ltd. International Innovative Systems
SENSORS
Acme Engineering Products Ltd. Black Box Canada Corp. Carlo Gavazzi Canada Inc. CCI Thermal Technologies Eaton

Omron Schneider Electric Siemens Canada Ltd. TempoTech Controls Inc. Z-Trauq Inc.
TIMERS
Carlo Gavazzi Canada Inc. CCI Thermal Technologies GE Electrical Distribution Lovato Electric Corp. NSI Industries Omron Weidmuller Z-Trauq Inc.
VISION SYSTEMS
Cooper Industries International Innovative Systems Omron WAGO Corp.
BOXES & ENCLOSURES
CABINETS/TROUGHS/METER SOCKETS
Abel Electric Ace Manufacturing Metals Ltd. Cooper Industries Eaton EGS Electrical Group Canada Ltd. Gardel Metal Products Inc. Hammond Manufacturing Co. Ltd. International Innovative Systems Inventronics Ltd MVA Power Inc. Panduit Canada Corp. Power Survey International REX Power Magnetics Rittal Systems Ltd. Thomas & Betts Canada Ltd. Transglobal Systems of Canada Inc. Wavell Electric Ltd.
ITS RACKS/CABINETS/ENCLOSURES
Belden Black Box Canada Corp. Carlo Gavazzi Canada Inc. CCI Thermal Technologies Channel Vision Chatsworth Products Inc. EXM Manufacturing Ltd. Fusetek Gardel Metal Products Inc. Hammond Manufacturing Co. Ltd. Inventronics Ltd Linear Modular Power Systems Inc. Panduit Canada Corp. Power Survey International Ralston Metal Products Ltd. Rittal Systems Ltd. Storm Copper Components Co. Suttle Tevelec Ltd. Transglobal Systems of Canada Inc. WAGO Corp. Weidmuller Willett Manufacturing Ltd.
OUTLET BOXES/WALLPLATES
Belden Black Box Canada Corp. Ericson Manufacturing Co. Hubbell Canada LP - Electrical Systems Inventronics Ltd Legrand Canada Inc. Linear Lutron Electronics Co. Inc. Panduit Canada Corp. Rab Design Lighting Inc. Tevelec Ltd. Thomas & Betts Canada Ltd. Transglobal Systems of Canada Inc. Vista Electrical Products
PULL/SPLICE BOXES
ADC Telecommunications Inc. Belden Hammond Manufacturing Co. Ltd. Panduit Canada Corp. Transglobal Systems of Canada Inc.

CONDUIT & CONNECTORS
CABLE FITTINGS
Abel Electric CommScope Enterprise Solutions Cooper Industries Panduit Canada Corp. Rack-A-Tiers Staticon Ltd. Storm Copper Components, Co. Techspan Industries Inc. Thomas & Betts Canada Ltd. Vista Electrical Products
CONDUIT
A-D Technologies Anamet Canada Inc. ERICO Superior Flexible Conduits Inc. Techspan Industries Inc. Thomas & Betts Canada Ltd. Wavell Electric Ltd. Wheatland Tube Company
CONNECTORS
3M Canada AFOP Burndy Canada Inc. Channel Vision ERICO Ericson Manufacturing Co. HB Etlin/Etlin-Daniels Ideal Industries (Canada) Corp. Northern Technologies Panduit Canada Corp. Phoenix Contact Ltd. Storm Copper Components, Co. Techspan Industries Inc. Tevelec Ltd. Thomas & Betts Canada Ltd. Vista Electrical Products WAGO Corp. Weidmuller
GROUNDING DEVICES
Burndy Canada Inc. ERICO IlSCO of Canada Co. Lind Equipment Ltd. MVA Power Inc. NSI Industries Panduit Canada Corp. Storm Copper Components, Co. Techspan Industries Inc. Thomas & Betts Canada Ltd.
DISTRIBUTION
BREAKERS-ICI
ABB Eaton GE Electrical Distribution Schneider Electric Siemens Canada Ltd. Weidmuller
BREAKERS-RESIDENTIAL
Eaton GE Electrical Distribution Schneider Electric Siemens Canada Ltd.
PANELS-ICI
Eaton GE Electrical Distribution Jackson Power & Electric Ltd. Modular Power Systems Inc. Schneider Electric Siemens Canada Ltd.
PANELS-RESIDENTIAL
Channel Vision Cooper Industries Eaton GE Electrical Distribution Intermec Technologies Canada Ltd. Schneider Electric Siemens Canada Ltd.

SAFETY SWITCHES
Carlo Gavazzi Canada Inc. Cooper Industries Eaton EGS Electrical Group Canada Ltd. GE Electrical Distribution Intermec Technologies Canada Ltd. International Innovative Systems LGI Lighting Group Inc. S&C Electric Canada Ltd. Schneider Electric Siemens Canada Ltd. Staticon Ltd.
SERVICE ENTRANCE SWITCHES
Cooper Industries Eaton Ericson Manufacturing Co. GE Electrical Distribution Intermec Technologies Canada Ltd. S&C Electric Canada Ltd. Siemens Canada Ltd.
SERVICE MASTS
Cooper Industries Thomas & Betts Canada Ltd.
HVAC
HEATING CABLES
3M Canada Britech Corp. Cooper Industries EGS Electrical Group Canada Ltd. ERICO Rittal Systems Ltd Therma-Ray Inc. Tyco Thermal Controls
HEATING CONTROLS
Acme Engineering Products Ltd. Aube Technologies Britech Corp. Carlo Gavazzi Canada Inc. CCI Thermal Technologies Control Technology Corp. Cooper Industries Dimplex North America ERICO ESIC Technologies Thomas & Betts Canada Ltd. Tyco Thermal Controls
HEATING EQUIPMENT
Acme Engineering Products Ltd. Advanced Energy Networks Inc. ASB Heating Elements Ltd. CCI Thermal Technologies Cooper Industries Dimplex ERICO KCS Ouellet Canada Inc. Therma-Ray Inc. Thomas & Betts Canada Ltd. Vista Electrical Products
VENTILATING EQUIPMENT
ABB Advanced Energy Networks Inc. Aeroflo Inc. CCI Thermal Technologies Cooper Industries ERICO Manufacturers Marketing Group (R) Panasonic Canada Inc. Prime Industrial Products Inc. Staticon Ltd. Thomas & Betts Canada Ltd.
INFORMATION TECHNOLOGY SYSTEMS (ITS)
BALUNS/ADAPTERS & FILTERS
Azco Technologies Inc. Black Box Canada Corp. Channel Vision Suttle Transglobal Systems of Canada Inc.

CUSTOMIZED CABLE ASSEMBLIES
Abel Electric ADC Telecommunications Inc. Belden Black Box Canada Corp. Cooper Industries Tevelec Ltd. Transglobal Systems of Canada Inc.
ELECTRO-OPTIC INTERFACES
Cooper Industries Transglobal Systems of Canada Inc.
ENTRANCE TERMINALS
Abel Electric ADC Telecommunications Inc. Cooper Industries Transglobal Systems of Canada Inc.
HUBS; RIDGES & ROUTERS
Black Box Canada Corp. Channel Vision Multi-Tech Systems Inc. Transglobal Systems of Canada Inc.
MODEMS & TRANSCEIVERS
ADC Telecommunications Inc. Azco Technologies Inc. Black Box Canada Corp. Multi-Tech Systems Inc. Transglobal Systems of Canada Inc. Transition Networks
MULTIPLEXER EQUIPMENT
Cooper Industries Yokogawa Corp. of America
PUNCH-DOWN BLOCKS
ADC Telecommunications Inc. Belden Corning Cable Systems Transglobal Systems of Canada Inc.
SIGNAL REPEATER/CONVERTER/CONCENTRATOR/ MULTIPLEXERS
Black Box Canada Corp. Transition Networks Weidmuller
SPLICE CLOSURES
ADC Telecommunications Inc. Belden Cooper Industries Transglobal Systems of Canada Inc.
LIGHT SOURCES
DISCHARGE
GE Lighting Liteline Corp. Osram Sylvania Ltd. Philips Lighting Canada Pulsar Technologies Inc. Standard Products Inc. Turolight Inc. Venture Lighting Canada
FLUORESCENT
Bartco Lighting Inc. Cooper Industries EGS Electrical Group Canada Ltd. GE Lighting Lind Equipment Ltd. Liteline Corp. Osram Sylvania Ltd. Philips Lighting Canada Promolux Lighting International Pulsar Technologies Inc. Shat-R-Shield Inc. Standard Products Inc. Techspan Industries Inc. Turolight Inc. Valuelight Visioneering Corp. W.A.C. Lighting Company



## INCANDESCENT

Cooper Industries  
EGS Electrical Group Canada Ltd.  
GE Lighting  
Lind Equipment Ltd.  
Liteline Corp.  
Osram Sylvania Ltd.  
Philips Lighting Canada  
Pulsar Technologies Inc.  
Shat-R-Shield Inc.  
Standard Products Inc.  
Turolight Inc.  
W.A.C. Lighting Company

## LED

Advanced Energy Networks Inc.  
Arani Systems Corp.  
Cree Inc.  
Federal Signal Corp.  
GE Lighting  
Lind Equipment Ltd.  
Liteline Corp.  
Magic Lite Ltd.  
Osram Sylvania Ltd.  
Philips Lighting Canada  
Pulsar Technologies Inc.  
SPI Systems Ltd.  
Standard Products Inc.  
Techspan Industries Inc.  
Turolight Inc.

## SPECIALTY

Advanced Energy Networks Inc.  
Bartco Lighting Inc.  
Cooper Industries  
EGS Electrical Group Canada Ltd.  
GE Lighting  
Intermec Technologies Canada Ltd.  
Lind Equipment Ltd.  
Magic Lite Ltd.  
Osram Sylvania Ltd.  
Panasonic Canada Inc.  
Philips Lighting Canada  
Promolux Lighting International  
Pulsar Technologies Inc.  
Shat-R-Shield Inc.  
ShawFlex  
Standard Products Inc.  
Turolight Inc.  
USHIO Canada Inc.  
W.A.C. Lighting Company

## LIGHTING BALLASTS

## DISCHARGE

Acuity Brands Lighting Canada Inc.  
Brownsburg Electronik  
Osram Sylvania Ltd.  
Philips Lighting Canada  
SOLA Canada Lighting & Power Inc.  
Standard Products Inc.  
Universal Lighting Technologies  
Venture Lighting Canada

## ELECTRONIC

Brownsburg Electronik  
Cooper Industries  
HB Etlin/Etlin-Daniels  
Osram Sylvania Ltd.  
Philips Lighting Canada  
ROMLight International (Canada) Inc.  
SOLA Canada Lighting & Power Inc.  
Standard Products Inc.  
Ultrasave Lighting Ltd.  
Universal Lighting Technologies  
W.A.C. Lighting Company

## FLUORESCENT

Chloride Systems  
HB Etlin/Etlin-Daniels  
Osram Sylvania Ltd.  
Philips Lighting Canada  
SOLA Canada Lighting & Power Inc.  
Standard Products Inc.  
Ultrasave Lighting Ltd.  
Universal Lighting Technologies  
W.A.C. Lighting Company

## LIGHTING CONTROLS

### ICI

Acuity Brands Lighting Canada Inc.  
Aube Technologies  
Cristal Controls Ltd.  
Dimonoff  
NSI Industries  
Schneider Electric  
SPI Systems Ltd.  
Vigilant Technical Sales Ltd.

### RESIDENTIAL

Aube Technologies  
Caplugs  
Eaton  
George Kelk Corp.  
Legrand Canada Inc.  
Leviton Manufacturing of Canada Ltd.  
NSI Industries  
Ray Electric Ltd.  
Vista Electrical Products

### SENSING DEVICES

Cooper Industries  
Eaton  
HB Etlin/Etlin-Daniels  
Ledalite Architectural Products  
Ledtronics Inc.  
Legrand Canada Inc.  
Pinnacle Systems Inc.  
WAGO Corp.

## LIGHTING FIXTURES

### CUSTOM

B.L. Innovative Lighting  
Bartco Lighting Inc.  
Beghelli Canada Inc.  
Caplugs  
Cooper Industries  
Custom Lighting Ltd.  
Edison Lighting Group Ltd.  
EGS Electrical Group Canada Ltd.  
Gensco Equipment  
George Kelk Corp.  
Hubbell Canada LP - Lighting Division  
Ledalite Architectural Products  
Ledtronics Inc.  
Lighting Nelson & Garrett Inc.  
Lumax Industries Inc.  
Lumid  
Magic Lite Ltd.  
Mills Architectural Lighting  
Pulsar Technologies Inc.  
Rab Design Lighting Inc.  
Ray Electric Ltd.  
Valuelight  
Vigilant Technical Sales Ltd.  
Vioneering Corp.  
Waldmann Lighting

### ICI

Acuity Brands Lighting Canada Inc.  
Arani Systems Corp.  
Cree Inc.  
Custom Lighting Ltd.  
Foresight Lighting Inc.  
Jackson Power & Electric Ltd.  
Liteline Corp.  
Lumax Industries Inc.  
Luxo Lamp Ltd.  
Rebelle Architectural Lighting  
ROMLight International (Canada) Inc.  
Vista Professional Outdoor Lighting

### LANDSCAPE

Acuity Brands Lighting Canada Inc.  
Cooper Industries  
George Kelk Corp.  
HB Etlin/Etlin-Daniels  
Hubbell Canada LP - Lighting Division  
Magic Lite Ltd.  
Rab Design Lighting Inc.  
Rebelle Architectural Lighting  
Vista Professional Outdoor Lighting

### POLES

Acuity Brands Lighting Canada Inc.  
Cooper Industries  
Cree Inc.

EGS Electrical Group Canada Ltd.  
George Kelk Corp.  
Rab Design Lighting Inc.  
Rebelle Architectural Lighting  
Thomas & Betts Canada Ltd.  
Vigilant Technical Sales Ltd.

### RESIDENTIAL

Acuity Brands Lighting Canada Inc.  
Arani Systems Corp.  
Artcraft Electric Ltd.  
Engineered Lighting Products  
Hubbell Canada LP - Lighting Division  
Liteline Corp.  
Lumax Industries Inc.  
Magic Lite Ltd.  
Rab Design Lighting Inc.  
Turolight Inc.  
Vista Professional Outdoor Lighting  
W.A.C. Lighting Company

### ROADWAY

Acuity Brands Lighting Canada Inc.  
Arani Systems Corp.  
Cooper Industries  
Cree Inc.  
Rab Design Lighting Inc.  
SPI Systems Ltd.  
Turolight Inc.

### SECURITY/SAFETY

Acuity Brands Lighting Canada Inc.  
Bartco Lighting Inc.  
Beghelli Canada Inc.  
Chloride Systems  
Cooper Industries  
Cree Inc.  
EGS Electrical Group Canada Ltd.  
Federal Signal Corp.  
George Kelk Corp.  
Hubbell Canada LP - Lighting Division  
Hubbell Canada LP - Electrical Systems  
NSI Industries  
Rab Design Lighting Inc.  
Thomas & Betts Canada Ltd.  
Vista Electrical Products  
Vista Professional Outdoor Lighting

## LIGHTING MISCELLANEOUS

### LOUVERS

Cooper Industries  
Dimonoff  
Greenlite Corp.  
Promolux Lighting International  
Standard Products Inc.  
Vigilant Technical Sales Ltd.

### LOWERING DEVICES

Cooper Industries

### MOUNTING DEVICES

Cooper Industries  
Cristal Controls Ltd.  
HB Etlin/Etlin-Daniels

### REFLECTORS

Bartco Lighting Inc.  
Cooper Industries  
Custom Lighting Ltd.  
Philips Lighting Canada  
Standard Products Inc.  
Vioneering Corp.

## MOTORS & MOTOR CONTROLS

### FUSE BLOCKS

Automation Control Inc.  
Cooper Industries  
Eaton  
Fusetek  
GE Electrical Distribution  
Intermec Technologies Canada Ltd.  
Legrand Canada Inc.  
Rittal Systems Ltd  
Stacion Ltd.  
Techspan Industries Inc.  
Weidmuller  
Yokogawa Corp. of America

## MOTOR CONTACTOR/STARTER/CTRL.

Automation Control Inc.  
B & M Manufacturing Inc.  
Benshaw Canada Controls Inc.  
Cooper Industries  
Eaton  
EGS Electrical Group Canada Ltd.  
Ferraz Shawmut Canada Inc.  
GE Electrical Distribution  
Hubbell Canada LP - Electrical Systems  
Intermec Technologies Canada Ltd.  
International Innovative Systems  
Jackson Power & Electric Ltd.  
Legrand Canada Inc.  
Lovato Electric Corp.  
M.G.B. Electric Inc.  
Meltric Corp.  
Minetec Controls  
Modular Power Systems Inc.  
Phoenix Contact Ltd.  
Schneider Electric  
Siemens Canada Ltd.  
Stacion Ltd.  
Techspan Industries Inc.  
The Panel Shop Inc.  
WAGO Corp.  
WEG Motors & Drives / VJ Pamensky  
Canada Inc.  
Willett Manufacturing Ltd.

### MOTORS

Automation Control Inc.  
Brook Crompton Ltd.  
Cooper Industries  
Federal Signal Corp.  
Intermec Technologies Canada Ltd.  
International Innovative Systems  
KCS  
Micromo  
Minetec Controls  
Omron  
Rockwell Automation Inc.  
SEW Eurodrive Co. of Canada Ltd.  
WEG Motors & Drives / VJ Pamensky  
Canada Inc.

### PILOT DEVICES

Carlo Gavazzi Canada Inc.  
Eaton  
Fusetek  
GE Electrical Distribution  
Lovato Electric Corp.  
Siemens Canada Ltd.  
Techspan Industries Inc.  
Wavell Electric Ltd.

### RELAYS

Automation Control Inc.  
Carlo Gavazzi Canada Inc.  
Cooper Industries  
Eaton  
GE Electrical Distribution  
Intermec Technologies Canada Ltd.  
International Innovative Systems  
Mersen  
Omron  
Renfrew Electric Co Ltd.  
Schneider Electric  
Techspan Industries Inc.  
WAGO Corp.  
WEG Motors & Drives / VJ Pamensky  
Canada Inc.  
Weidmuller  
Yokogawa Corp. of America  
Z-Trauq Inc.

### VARIABLE FREQUENCY DRIVES

ABB  
Automation Control Inc.  
Cooper Industries  
Eaton  
GE Electrical Distribution  
Industrial Power & Control Inc.  
International Innovative Systems  
KCS  
LGI Lighting Group Inc.  
Lovato Electric Corp.  
Minetec Controls  
Omron  
Schneider Electric  
SEW Eurodrive Co. of Canada Ltd.  
Siemens Canada Ltd.  
WEG Motors & Drives / VJ Pamensky  
Canada Inc.

## PERSONAL PROTECTIVE EQUIPMENT

### BELTS/HARNESSES/LANYARDS, ETC.

3M Canada  
AMAC Equipment Ltd.  
Capital Safety Group  
Industrial Power & Control Inc.  
Lynn Valley Manufacturing

### CLOTHING/FOOTWEAR/GLOVES

Certified Insulated Products Corp.  
Lynn Valley Manufacturing  
PMMI International Ltd.  
Salisbury by Honeywell

### HEAD PROTECTION

3M Canada  
Certified Insulated Products Corp.  
Lynn Valley Manufacturing  
PMMI International Ltd.  
Salisbury by Honeywell

## POWER CONDITIONING/ QUALITY

### EMFS

### LINE CONDITIONERS

Cooper Industries  
Eaton  
Industrial Power & Control Inc.  
Intermec Technologies Canada Ltd.

### PEAK-LIMITING DEVICES

Cooper Industries  
Eaton  
Intermec Technologies Canada Ltd.

### POWER DISTURBANCE MONITORS

ACR Systems Inc.  
Cooper Industries  
Eaton  
Fluke Electronics Canada  
Intermec Technologies Canada Ltd.

### POWER FACTOR CORRECTORS

Advanced Energy Networks Inc.  
Cooper Industries  
Eaton  
GE Electrical Distribution  
Iconopower Ltd.  
Intermec Technologies Canada Ltd.  
Power Survey International  
Schneider Electric  
Vigilant Technical Sales Ltd.

### POWER LINE FILTERS

Cooper Industries  
GE Electrical Distribution  
Intermec Technologies Canada Ltd.  
Phoenix Contact Ltd.  
Power Survey International

### SPECIALTY TRANSFORMERS

Advanced Energy Networks Inc.  
Atlas Transformer Inc.  
Bemag Transformers  
Brownsburg Electronik  
Cooper Industries  
Eaton  
GE Electrical Distribution  
Intermec Technologies Canada Ltd.  
K2C Industrial Automation Inc.  
REX Power Magnetics  
Yokogawa Corp. of America  
Z-Trauq Inc.

### TRANSIENT SUPPRESSORS

Cooper Industries  
Eaton  
ERICO  
GE Electrical Distribution  
Intermec Technologies Canada Ltd.  
International Innovative Systems  
Phoenix Contact Ltd.  
R3&A Ltd.  
Roxtec Inc.

POWER SOURCES BACK-UP

BATTERIES/SUPPLIES

Advanced Energy Networks Inc.  
AEG Power Solutions Inc.  
Analytic Systems  
C-CAN Power Systems Inc.  
Cooper Industries  
Exide Technologies Industrial Energy  
Intermec Technologies Canada Ltd.  
NICA-Power Battery Corp.  
Omron  
Rittal Systems Ltd  
Stacion Ltd.  
Storm Copper Components, Co.

GENERATORS

Advanced Energy Networks Inc.  
Caterpillar Inc.  
Cooper Industries  
Eaton  
Intermec Technologies Canada Ltd.  
K2C Industrial Automation Inc.  
Kubota Canada Ltd.  
WEG Motors & Drives / VJ Pamensky  
Canada Inc.

UPS

AEG Power Solutions Inc.  
Black Box Canada Corp.  
Caterpillar Inc.  
Chloride Systems  
Eaton  
GE Electrical Distribution  
Rittal Systems Ltd  
Schneider Electric

PROTECTIVE DEVICES

BREAKERS

Eaton  
Fusetek  
GE Electrical Distribution  
MVA Power Inc.  
Weidmuller

FIRESTOP SYSTEMS

3M Canada  
Eaton  
Legrand Canada Inc.  
NSI Industries

FUSES/FUSE CLAMPS

ADC Telecommunications Inc.  
Eaton  
Fusetek  
Techspan Industries Inc.

PROTECTION RELAYS

Carlo Gavazzi Canada Inc.  
Cooper Industries  
Eaton  
GE Electrical Distribution  
International Innovative Systems  
Modular Power Systems Inc.  
Omron  
Renfrew Electric Co Ltd.  
Schneider Electric  
Virelec Ltd.  
Weidmuller  
Yokogawa Corp. of America  
Z-Trauq Inc.

PROTECTIVE COVERS

Cooper Industries  
Firwin Corp.  
Lind Equipment Ltd.  
Vista Electrical Products

SAFETY SWITCHES

Carlo Gavazzi Canada Inc.  
Eaton  
GE Electrical Distribution  
Industrial Power & Control Inc.  
Omron  
Schneider Electric  
Wavell Electric Ltd.

SURGE SUPPRESSORS

Cooper Industries  
Eaton  
EGS Electrical Group Canada Ltd.  
ERICO  
GE Electrical Distribution  
Hubbell Canada LP - Electrical Systems  
International Innovative Systems  
Legrand Canada Inc.  
LGI Lighting Group Inc.  
R3&A Ltd.  
Roxtec Inc.  
Stacion Ltd.  
Vista Electrical Products  
WAGO Corp.  
Weidmuller

RACEWAY & DUCT

BUS DUCT

Cooper Industries  
Eaton  
GE Electrical Distribution  
Industrial Power & Control Inc.  
MP Husky Corp.  
Panduit Canada Corp.  
United Wire & Cable Inc.

CABLE TRAY

Black Box Canada Corp.  
Chalfant Manufacturing Company  
Chatsworth Products Inc.  
Cooper Bussmann  
Fusetek  
Legrand Canada Inc.  
MP Husky Corp.  
Panduit Canada Corp.  
Ralston Metal Products Ltd.  
Thomas & Betts Canada Ltd.  
Trans Canada Electro Ltd.  
United Wire & Cable Inc.  
Wavell Electric Ltd.

FLOOR BOXES

Azco Technologies Inc.  
Cooper Industries  
Legrand Canada Inc.  
Thomas & Betts Canada Ltd.

INTEGRATED RACEWAY SYSTEMS

Cooper Industries  
Legrand Canada Inc.  
Panduit Canada Corp.  
Thomas & Betts Canada Ltd.

LAY-IN DUCT

Abel Electric  
Cooper Industries  
EXM Manufacturing Ltd.  
Hammond Manufacturing Co. Ltd.  
Legrand Canada Inc.  
Panduit Canada Corp.  
Ralston Metal Products Ltd.

RACEWAY

ADC Telecommunications Inc.  
Azco Technologies Inc.  
Belden  
Panduit Canada Corp.  
Techspan Industries Inc.

UNDERFLOOR DUCT

ADC Telecommunications Inc.  
Azco Technologies Inc.  
Cooper Industries  
Legrand Canada Inc.  
MVA Power Inc.  
Panduit Canada Corp.

WIRE MANAGEMENT SYSTEMS

Abel Electric  
Anamet Canada Inc.  
Azco Technologies Inc.  
Belden  
Black Box Canada Corp.  
Burdmy Canada Inc.  
Chatsworth Products Inc.  
Cooper Industries  
ERICO  
Firwin Corp.  
Fusetek

Hammond Manufacturing Co. Ltd.  
HB Etlin/Etlin-Daniels  
Hubbell Canada LP - Electrical Systems  
Industrial Power & Control Inc.  
Legrand Canada Inc.  
NSI Industries  
Panduit Canada Corp.  
Phoenix Contact Ltd.  
Stacion Ltd.  
Techspan Industries Inc.  
Thomas & Betts Canada Ltd.

SIGNALLING DEVICES

ANNUNCIATORS

Cooper Industries  
Federal Signal Corp.  
GE Security  
NSI Industries

CLOCKS

Cooper Industries  
GE Security

FIRE ALARM EQUIPMENT

Cooper Industries  
Federal Signal Corp.  
GE Security  
Kidde Canada Inc.  
Notifier

INTERCOMS

Camden Door Controls  
Cooper Industries  
Federal Signal Corp.  
GE Security  
Legrand Canada Inc.

MONITORING/SIGNALLING EQUIPMENT

Abel Electric  
ACR Systems Inc.  
Camden Door Controls  
Cooper Industries  
Federal Signal Corp.  
GE Electrical Distribution  
GE Security  
Mine Safety Appliances Canada  
Ralston Metal Products Ltd.  
Stacion Ltd.

SAFETY DEVICES

Abel Electric  
Carlo Gavazzi Canada Inc.  
Cooper Industries  
Federal Signal Corp.  
GE Security  
Industrial Power & Control Inc.  
International Innovative Systems  
Legrand Canada Inc.  
Mine Safety Appliances Canada  
NSI Industries  
Schneider Electric  
Siemens Canada Ltd.  
Tecno-Kebec

SOFTWARE & DATA

CABLE MANAGEMENT SOFTWARE

Cooper Industries  
Rittal Systems Ltd

EDI SOFTWARE

Cristal Controls Ltd.  
Federal Signal Corp.

ELECTRICAL MAINTENANCE

Eaton  
Yokogawa Corp. of America

ELECTRICAL SYSTEM DESIGN

Dromey Design Inc.  
Eaton  
Rockwell Automation Inc.

ELECTRICAL SYSTEM SIMULATION &

ANALYSIS

Dromey Design Inc.  
Eaton  
Yokogawa Corp. of America

ESTIMATING SOFTWARE

Accubid Systems  
McCormick Systems Inc.

INVENTORY SOFTWARE

Dematic Ltd.

LIGHTING SOFTWARE

Cooper Industries  
Dimonoff

PRICING DATA

Allpriser Ltd.  
Eaton

TEST & MEASUREMENT

CALIBRATION SYSTEMS

Anritsu Electronics Ltd.  
Cooper Industries  
Criterion Instruments Ltd.  
Eaton  
Extech Instruments  
Fluke Electronics Canada  
GE Multilin  
Intermec Technologies Canada Ltd.  
TempoTech Controls Inc.  
Yokogawa Corp. of America

DETECTORS

Analygas Systems  
Anritsu Electronics Ltd.  
Cooper Industries  
Extech Instruments  
Fluke Electronics Canada  
Intermec Technologies Canada Ltd.  
Milwaukee Tool  
MVA Power Inc.  
TempoTech Controls Inc.  
UE Systems Inc.

LIGHT METERS

AEMC Instruments  
Cooper Industries  
Extech Instruments  
Intermec Technologies Canada Ltd.

MEASURING EQUIPMENT

ACR Systems Inc.  
AEMC Instruments  
Agilent Technologies  
Anritsu Electronics Ltd.  
Berkeley Varitronics Systems Inc.  
Cooper Industries  
Eaton  
Extech Instruments  
Fluke Electronics Canada  
Intermec Technologies Canada Ltd.  
Omron  
Phenix Technologies Inc.  
TempoTech Controls Inc.  
Timberland Equipment Ltd.  
Veriteq Instruments  
Yokogawa Corp. of America  
Z-Trauq Inc.

METERS

ACR Systems Inc.  
AEMC Instruments  
Agilent Technologies  
Anritsu Electronics Ltd.  
Brunelle Instruments Inc.  
Contron Inc.  
Eaton  
Extech Instruments  
FLIR Systems Canada Ltd.  
Fluke Electronics Canada  
Ideal Industries (Canada) Corp.  
Milwaukee Tool  
Quadlogic Meters Canada Inc.  
Quick Cable Canada Ltd.  
Z-Trauq Inc.

NETWORK TESTING EQUIPMENT

AEMC Instruments  
Anritsu Electronics Ltd.  
Berkeley Varitronics Systems Inc.  
Black Box Canada Corp.  
Exfo Inc.  
Fluke Electronics Canada  
Fluke Networks Canada  
Ideal Industries (Canada) Corp.

OSCILLOSCOPES

AEMC Instruments  
Agilent Technologies  
Extech Instruments  
Fluke Electronics Canada  
Intermec Technologies Canada Ltd.

SPECIALTY

3M Canada  
ACR Systems Inc.  
Anritsu Electronics Ltd.  
Fluke Electronics Canada  
Renfrew Electric Co Ltd.  
TempoTech Controls Inc.  
Z-Trauq Inc.

WAVEFORM ANALYZERS

Agilent Technologies  
Anritsu Electronics Ltd.  
Cooper Industries  
Intermec Technologies Canada Ltd.

TOOLS

ACCESSORIES

3M Canada  
Burdmy Canada Inc.  
Cooper Industries  
Fluke Electronics Canada  
Intermec Technologies Canada Ltd.  
NSI Industries  
RHINO Professional Labeling Tools  
Tevelec Ltd.  
Timberland Equipment Ltd.  
Wera Tools  
Yokogawa Corp. of America

HAND TOOLS

Abel Electric  
Aero-Tech Light Bulb Co.  
AMAC Equipment Ltd.  
Arrow Fastener Company  
Burdmy Canada Inc.  
Certified Insulated Products Corp.  
Channel Vision  
Channellock  
Cooper Industries  
Emerson Control Techniques  
GE Multilin  
Guth Lighting Company  
Ideal Industries (Canada) Corp.  
Klein Tools  
M. K. Morse Company  
Milwaukee Tool  
Panduit Canada Corp.  
Phoenix Contact Ltd.  
RAB Lighting  
Salisbury by Honeywell  
Stacion Ltd.  
Techspan Industries Inc.  
Thomas & Betts Canada Ltd.  
Transglobal Systems of Canada Inc.  
WAGO Corp.  
Weidmuller  
Wera Tools

POWER TOOLS

Aero-Tech Light Bulb Co.  
Burdmy Canada Inc.  
Cooper Industries  
Emerson Control Techniques  
GE Multilin  
M. K. Morse Company  
Milwaukee Tool  
Panasonic Canada Inc.  
RAB Lighting

SPECIALTY TOOLS

AMAC Equipment Ltd.  
Band-N-Go Inc.  
Burdmy Canada Inc.



Capital Safety Group  
Contretron Inc.  
FLIR Systems Canada Ltd.  
Fluke Electronics Canada  
Milwaukee Tool  
MVA Power Inc.  
PMMI International Ltd.  
Quick Cable Canada Ltd.  
Rack-A-Tiers  
Thomas & Betts Canada Ltd.  
Timberland Equipment Ltd.  
Transglobal Systems of Canada Inc.  
Weidmuller

## TRANSFORMERS

### ACCESSORIES

Advanced Energy Networks Inc.  
Brownsburg Elektronik  
Eaton  
HB Etlin/Etlin-Daniels  
Storm Copper Components, Co.  
Vista Professional Outdoor Lighting  
Z-Trauq Inc.

### SWITCHGEAR

Caterpillar Inc.  
Cooper Industries  
Eaton  
GE Electrical Distribution  
Intermec Technologies Canada Ltd.  
M.G.B. Electric Inc.  
MVA Power Inc.  
Thomas & Betts Canada Ltd.

### TRANSFORMERS

Advanced Energy Networks Inc.  
Atlas Transformer Inc.  
Bemag  
Brownsburg Elektronik  
Cam Tran Co. Ltd.  
Cooper Industries  
Delta Transformers  
Eaton  
EGS Electrical Group Canada Ltd.  
Ericson Manufacturing Co.  
GE Electrical Distribution  
Hammond Manufacturing Co. Ltd.  
Jefferson Electric  
M.G.B. Electric Inc.  
Northern Transformer Inc.  
REX Power Magnetics  
Schneider Electric  
Standard Products Inc.  
Surplec Inc.  
Vigilant Technical Sales Ltd.  
WEG Motors & Drives / VJ Pamensky  
Canada Inc.  
Willett Manufacturing Ltd.  
Yokogawa Corp. of America  
Z-Trauq Inc.

## UTILITY

### HARDWARE & POLES

Band-N-Go Inc.  
Locweld Inc.  
MVA Power Inc.  
Thomas & Betts Canada Ltd.

### INSTALLATION EQUIPMENT/DEVICES

AMAC Equipment Ltd.  
Industrial Power & Control Inc.  
MVA Power Inc.  
Timberland Equipment Ltd.  
Z-Trauq Inc.

### UTILITY PRODUCTS

3M Canada  
Band-N-Go Inc.  
Brady Canada  
Cooper Industries  
Eastern Wire & Conduit  
Eaton  
GE Multilin  
Guth Lighting Company  
Intermec Technologies Canada Ltd.  
Locweld Inc.  
Modular Power Systems Inc.  
MVA Power Inc.  
S&C Electric Canada Ltd.

ShawFlex  
Storm Copper Components, Co.  
Techspan Industries Inc.  
Thomas & Betts Canada Ltd.  
Timberland Equipment Ltd.  
Trans Canada Electro Ltd.  
Z-Trauq Inc.

## VEHICLES & EQUIPMENT

### ACCESSORIES

Timberland Equipment Ltd.

### EQUIPMENT

A-D Technologies  
AMAC Equipment Ltd.  
Kubota Canada Ltd.  
Schleuniger Inc.  
Timberland Equipment Ltd.

### VEHICLES

AMAC Equipment Ltd.  
Mercedes

## WIRE & CABLE

### BUILDING WIRE

Alcan Cable  
Alpha Wire  
Belden  
Cerro Wire  
Cooper Industries  
Domtech Inc.  
Electro Cables Inc.  
Industrial Power & Control Inc.  
Intermec Technologies Canada Ltd.  
Nexans Canada Inc.  
Northern Cables Inc.  
Southwire Canada Company  
Techspan Industries Inc.  
Tevelec Ltd.  
Transglobal Systems of Canada Inc.

### BUSBAR

Burndy Canada Inc.  
EXM Manufacturing Ltd.  
Hammond Manufacturing Co. Ltd.  
Iconopower Ltd.  
Industrial Power & Control Inc.  
Storm Copper Components, Co.  
Tevelec Ltd.

### CABLE ASSEMBLIES

ADC Telecommunications Inc.  
AFOP  
Alcan Cable  
Belden  
Berk-Tek, A Nexans Company  
CommScope Enterprise Solutions  
Cooper Industries  
Intermec Technologies Canada Ltd.  
Jackson Power & Electric Ltd.  
Quick Cable Canada Ltd.  
Southwire Canada Company  
Tevelec Ltd.  
Times Fiber Canada Ltd.  
Transglobal Systems of Canada Inc.

### COAXIAL CABLE

Alpha Wire  
Belden  
CommScope Enterprise Solutions  
Electro Cables Inc.  
Superior Essex Communications LP  
Tevelec Ltd.  
Times Fiber Canada Ltd.  
Trans Canada Electro Ltd.  
Transglobal Systems of Canada Inc.

### DATA CABLING

ADC Telecommunications Inc.  
Belden  
Berk-Tek, A Nexans Company  
Black Box Canada Corp.  
Corning Cable Systems  
Electro Cables Inc.  
Panduit Canada Corp.  
Siemens Canada Ltd.  
Silver Fox

Tevelec Ltd.  
Transglobal Systems of Canada Inc.

### FIBER OPTIC CABLING

ADC Telecommunications Inc.  
Alpha Wire  
Belden  
Berk-Tek, A Nexans Company  
CommScope Enterprise Solutions  
Corning Cable Systems  
CXtec  
O-m6  
Phoenix Contact Ltd.  
Superior Essex Communications LP  
Tevelec Ltd.  
Times Fiber Canada Ltd.  
Transglobal Systems of Canada Inc.  
United Wire & Cable Inc.

### HIGH-VOLTAGE CABLE

Alcan Cable  
Duct-O-Wire Canada Ltd.  
Nexans Canada Inc.  
Quick Cable Canada Ltd.  
Southwire Canada Company  
Tevelec Ltd.  
Trans Canada Electro Ltd.  
United Wire & Cable Inc.

### LINE CORDS & FEEDER CABLE

Alcan Cable  
Belden  
Jackson Power & Electric Ltd.  
Nexans Canada Inc.  
Quick Cable Canada Ltd.  
Southwire Canada Company  
Tevelec Ltd.  
Transglobal Systems of Canada Inc.

### OCTOPUS CABLES

Cooper Industries  
Tevelec Ltd.  
Transglobal Systems of Canada Inc.

### PORTABLE WIRE

Cooper Industries  
Cummins Power Generation  
Domtech Inc.  
Draka Canada  
Intermec Technologies Canada Ltd.  
Tevelec Ltd.  
Trans Canada Electro Ltd.

### PREMISE WIRE & CABLE

ADC Telecommunications Inc.  
Belden  
Berk-Tek, A Nexans Company  
CommScope Enterprise Solutions  
Corning Cable Systems  
CXtec  
Domtech Inc.  
Electro Cables Inc.  
Hubbell Canada LP - Electrical Systems  
Storm Copper Components, Co.  
Superior Essex Communications LP  
Tevelec Ltd.  
Times Fiber Canada Ltd.  
Transglobal Systems of Canada Inc.

### SPECIALTY CABLES

3M Canada  
Alcan Cable  
Alpha Wire  
Azco Technologies Inc.  
Belden  
Black Box Canada Corp.  
CommScope Enterprise Solutions  
Cooper Industries  
Cummins Power Generation  
CXtec  
Domtech Inc.  
Draka Canada  
Electro Cables Inc.  
Iconopower Ltd.  
Industrial Power & Control Inc.  
Intermec Technologies Canada Ltd.  
LGI Lighting Group Inc.  
Nexans Canada Inc.  
Northern Cables Inc.  
Quick Cable Canada Ltd.  
Southwire Canada Company  
Tevelec Ltd.

Times Fiber Canada Ltd.  
Trans Canada Electro Ltd.  
Transglobal Systems of Canada Inc.  
United Wire & Cable Inc.

### STRUCTURED CABLING SYSTEMS

Belden  
Black Box Canada Corp.  
Channel Vision  
Chatsworth Products Inc.  
CommScope Enterprise Solutions  
Cooper Industries  
Corning Cable Systems  
CXtec  
Electro Cables Inc.  
Hyperline Systems Canada Ltd.  
Industrial Power & Control Inc.  
Legrand Canada Inc.  
MP Husky Corp.  
Panduit Canada Corp.  
Tevelec Ltd.  
Transglobal Systems of Canada Inc.

### SYSTEMS CABLE

Belden  
CommScope Enterprise Solutions  
Cooper Industries  
Intermec Technologies Canada Ltd.  
Phoenix Contact Ltd.  
Southwire Canada Company  
Tevelec Ltd.  
Transglobal Systems of Canada Inc.  
United Wire & Cable Inc.  
Wiremold/Legrand

## WIRING DEVICES & ACCESSORIES

### CABLE TIES

3M Canada  
Band-N-Go Inc.  
Belden  
Chatsworth Products Inc.  
Eaton  
Fusetek  
HB Etlin/Etlin-Daniels  
Ideal Industries (Canada) Corp.  
NSI Industries  
Panduit Canada Corp.  
Quick Cable Canada Ltd.  
Techspan Industries Inc.  
Tevelec Ltd.  
Thomas & Betts Canada Ltd.  
Transglobal Systems of Canada Inc.  
Vista Electrical Products

### COMPOUNDS & SEALANT

3M Canada  
AMAC Equipment Ltd.  
Cooper Industries  
Thomas & Betts Canada Ltd.

### CONTACT CLEANERS

3M Canada  
Cooper Industries  
Thomas & Betts Canada Ltd.  
Transglobal Systems of Canada Inc.

### FASTENERS

Band-N-Go Inc.  
Chatsworth Products Inc.  
Cooper Industries  
ERICO  
HB Etlin/Etlin-Daniels  
Quick Cable Canada Ltd.  
Techspan Industries Inc.  
Thomas & Betts Canada Ltd.  
Transglobal Systems of Canada Inc.  
Vista Electrical Products

### INSULATING EQUIPMENT

3M Canada  
Cooper Industries  
Firwin Corp.  
Industrial Power & Control Inc.  
Storm Copper Components, Co.  
TEXT Canada Inc.  
Thomas & Betts Canada Ltd.

### MARKERS/DEVICES & LABELLING/ LABELS

3M Canada  
AMAC Equipment Ltd.  
Azco Technologies Inc.  
Banner Guard, Div of Reef Industries  
Belden  
Brady Canada  
Brother Canada  
Lo-Cost Nametag & Engraving Inc.  
NSI Industries  
Panduit Canada Corp.  
Phoenix Contact Ltd.  
RHINO Professional Labeling Tools  
Schleuniger Inc.  
Silver Fox  
Tech Products Inc.  
Techspan Industries Inc.  
TEXT Canada Inc.  
Thomas & Betts Canada Ltd.  
Transglobal Systems of Canada Inc.  
Weidmuller

### MISCELLANEOUS

3M Canada  
Burndy Canada Inc.  
Guelph Twines Ltd.  
Industrial Power & Control Inc.  
Lind Equipment Ltd.  
NSI Industries  
Pass & Seymour Legrand Canada  
Quick Cable Canada Ltd.  
Tevelec Ltd.  
Transglobal Systems of Canada Inc.

### RECEPTACLES/PLATES/SWITCHES; ETC.

Belden  
Channel Vision  
Ericson Manufacturing Co.  
Hubbell Canada LP - Electrical Systems  
Jackson Power & Electric Ltd.  
Legrand Canada Inc.  
Leviton Manufacturing of Canada Ltd.  
Lutron Electronics Co. Inc.  
Techspan Industries Inc.  
Thomas & Betts Canada Ltd.  
Transglobal Systems of Canada Inc.  
Vista Electrical Products

### SOLDER & RELATED DEVICES

Cooper Industries  
Intermec Technologies Canada Ltd.

### TAPES

3M Canada  
A-D Technologies  
Cooper Industries  
Guth Lighting Company  
NSI Industries  
Techspan Industries Inc.  
Thomas & Betts Canada Ltd.  
Transglobal Systems of Canada Inc.  
Vigilant Technical Sales Ltd.  
Vista Electrical Products

### TERMINATING EQUIPMENT

3M Canada  
Abel Electric  
Belden  
Black Box Canada Corp.  
Channel Vision  
Cooper Industries  
Fluke Electronics Canada  
Fluke Networks Canada  
Panduit Canada Corp.  
Schleuniger Inc.  
Station Ltd.  
Thomas & Betts Canada Ltd.  
Transglobal Systems of Canada Inc.  
Vigilant Technical Sales Ltd.  
WAGO Corp.

ALBERTA

**ANIXTER**  
Calgary AB.....403-250-9646  
Edmonton AB.....780-452-8171  
W: www.anixter.com

**ALLTRA ENGINEERING SERVICES LTD.**  
201, 334-53 Ave. S.E.  
Calgary AB T2H 0N3  
T: 403-287-1510  
F: 403-243-8623

**BARTLE & GIBSON CO. LTD.**  
13475 Fort Rd.  
Edmonton AB T5A 1C6  
T: 780-472-2850  
F: 780-476-6686  
Airdrie AB .....403-945-9481  
Barrhead AB .....780-674-4255  
Calgary AB.....403-291-1099  
Calgary AB.....403-216-6717  
Edmonton AB.....780-483-1411  
Edmonton AB.....780-437-7767  
Edson AB.....780-723-6180  
Fort McMurray AB.....780-743-4476  
Lethbridge AB.....403-320-0411  
Medicine Hat AB.....403-527-3565  
Spruce Grove AB .....780-962-4891  
W: www.bartlegibson.com

**BREWS SUPPLY LTD.**  
12203 40 St. SE  
Calgary AB T2Z 4E6  
T: 403-243-1144  
F: 403-243-2975  
Edmonton AB.....780-452-3730  
Grande Prairie AB .....780-814-8234  
Medicine Hat AB.....403-526-2773  
Red Deer AB .....403-343-6950  
W: www.brewssupply.com

**CENTURYVALLEN**  
4810-92 Ave.  
Edmonton AB T6B 2X4  
T: 780-468-3366  
Bonnyville AB .....780-826-3131  
Calgary AB .....403-287-1690  
Edmonton ES AB.....780-430-4000  
Edmonton WE AB.....780-454-0471  
Edmonton EG AB.....780-468-3366  
Fort McMurray AB .....780-743-4336  
Grande Prairie AB.....780-532-0843  
Lethbridge AB .....403-329-4747  
Medicine Hat AB .....403-526-6461  
Nisku AB .....780-986-1525  
Red Deer AB .....403-343-6671  
W: www.centuryvallen.com

**DELCO WIRE AND CABLE LTD.**  
Calgary AB.....800-649-7916  
W: www.delcowire.com

**ECS ELECTRICAL CABLE SUPPLY LTD.**  
13330 Maycrest Way  
Richmond BC V6V 2J7  
T: 604-276-9913  
F: 604-276-9915  
Calgary AB.....403-250-9211  
Edmonton AB.....780-436-9380  
W: www.ecswire.com

**EECOL ELECTRIC**  
63 Sunpark Dr. S.E.  
Calgary AB T2X 3V4  
T: 403-253-1952  
F: 403-252-6441  
Airdrie AB .....403-945-9761  
Bonnyville AB.....780-826-7220  
Brooks AB.....403-362-3008  
Calgary AB.....403-236-2182  
Calgary AB.....403-250-3330  
Calgary AB.....403-243-5594  
Edmonton AB.....780-451-6481  
Edmonton AB.....780-468-6141  
Fort McMurray AB.....780-791-1835  
Grande Prairie AB .....780-532-8750  
High Level AB .....780-926-4839  
Lethbridge AB.....403-328-2353  
Medicine Hat AB.....403-527-7189  
Red Deer AB .....403-343-3101  
Peace River AB .....780-624-2288  
Slave Lake AB .....780-805-8880  
W: www.eecol.com

**ELECTRIC POWER GENERATING EQUIPMENT INC.**  
14650-118 Ave.  
Edmonton AB T5L 2M8  
T: 800-385-4421  
W: www.raylewpower.com

**ELECTRICAL WHOLESALERS (CALGARY) LTD.**  
1224 34 Ave. N.E.  
Calgary AB T2E 6L9  
T: 403-250-7060  
F: 403-291-4898  
W: www.ewcl.net

**ELECTRO SONIC INC.**  
Calgary AB.....403-255-9550  
W: www.e-sonic.com



**ELECTRICAL WHOLESALERS EDMONTON LTD. (EWEL)**  
14830 124 Ave.  
Edmonton AB T5L 3B3  
T: 780-451-2311  
F: 780-455-1504  
Edmon South AB.....780-432-2400  
Sherwood Park AB.....780-417-9770  
W: www.ewel.ca

**ENGRAVER'S EXPRESS INC.**  
Calgary AB.....403-569-0400  
www.engraversexpress.com

**FALVO ELECTRICAL SUPPLY LTD.**  
5838-87A St.  
Edmonton AB T6E 5Z1  
T: 780-466-8078  
F: 780-468-1181  
W: www.falvo.com

**G2 SOLAR CORP.**  
2-1911 25A St. S.W.  
Calgary AB T3E 1Y6  
T: 403-451-9065  
F: 800-690-2392  
W: www.g2solarcorp.com

**GESCAN PRAIRIES**  
5005-12A St. S.E.  
Calgary AB T2G 5L5  
T: 403-253-7171  
F: 403-255-7141  
Airdrie AB.....403-945-9993  
Calgary AB .....403-253-7171  
Edmonton AB .....780-455-7171  
Fort McMurray AB.....780-743-8342  
Grande Prairie AB.....780-539-7750  
Lethbridge AB.....403-327-4184  
Red Deer AB .....403-343-9465  
W: www.gescan.com

**GRAYBAR**  
105-2765 48 Avenue NE  
Calgary AB T3J 5M9  
T: 403-250-5554  
F: 403-250-2050  
Calgary AB.....403-250-5554  
Edmonton AB .....780-701-4530  
W: www.graybar.com

**GUILLEVIN INTERNATIONAL COMPANY**  
Calgary AB.....403-287-0155  
Edmonton AB .....780-454-3535  
W: www.guillevin.com

**HALO METRICS INC.**  
Calgary AB.....800-667-9199  
W: www.halometrics.com

**HD SUPPLY LITEMOR**  
Calgary AB.....403.253.7033  
Edmonton AB.....780.451.6525  
W: www.litemor.com

**INTERFAST INC.**  
Calgary AB.....877-572-2893  
W: www.interfast.ca

**ITM INSTRUMENTS**  
Sherwood Park AB.....780-409-9278  
W: www.itm.com

**LORD ELECTRICAL INDUSTRIAL DISTRIBUTORS LTD.**  
9757 54 Ave.  
Edmonton AB T6E 5J4  
T: 708-438-5878  
F: 780-436-2405  
Calgary AB .....403-236-9893  
W: www.lordelec.com

**NEDCO HEAD OFFICE (DIV. OF REXEL ELECTRICAL INC.)**  
Calgary AB.....403-508-7999

Edmonton AB.....780-465-9511  
Fort McMurray AB.....780-743-3461  
Lloydminster AB .....780-875-1335  
Red Deer AB .....403-348-5162  
W: www.nedco.ca

**NORAMCO WIRE & CABLE**  
4130 101 Street  
Edmonton AB T6E 0A5  
T: 780-468-5678  
F: 780-465-5614  
Calgary AB.....403-291-2955  
W: www.noramco.ca

**ON POWER SYSTEMS INC.**  
Calgary AB.....403-568-6600  
W: www.onpower.com

**ONTOR LIMITED**  
Calgary AB.....403-585-5339  
Edmonton AB.....403 585-5339  
W: www.ontor.com

**TEXCAN**  
Calgary AB.....416-974-0830  
Edmonton AB.....780-944-9331  
W: www.texcan.com

**WAINBEE LIMITED**  
5789 Coopers Ave.  
Mississauga ON L4Z 3S6  
T: 905-568-1700  
F: 905-568-0083  
Calgary AB.....403-236-1133  
Edmonton AB.....780-434-9528  
W: www.wainbee.com

**WESCO DISTRIBUTION LP**  
Calgary AB.....403-253-7561  
Edmonton AB.....780-452-7920  
Grande Prairie AB .....780-539-2110  
Fort McMurray AB.....780-799-4337  
Red Deer AB .....403-343-2113  
W: www.wesco.ca

**WESTBURNE ELECTRIC**  
3724-8 St. SE  
Calgary AB T2G 3A7  
T: 403-243-4214  
F: 403-214-6238  
Calgary (Airport) AB .....403-250-9497  
Grande Prairie AB .....780-532-9021  
Edmonton (Projects) AB ...780-733-2249  
Edmonton (North) AB ....780-452-3131  
Edmonton (South) AB.....780-469-0475  
Fort McMurray AB.....780-743-0378  
Lloydminster AB .....780-875-6236  
Whitecourt AB.....780-778-3605  
W: www.westburne.ca

BRITISH COLUMBIA

**ANIXTER**  
Richmond BC .....604-276-0366  
W: www.anixter.com

**BARTLE & GIBSON CO. LTD.**  
Chilliwack, BC .....604-792-0866  
Courtenay, BC.....250-334-0645  
Kelowna, BC .....250-769-3101  
Langford, BC .....250-389-1073  
Maple Ridge, BC.....604-467-1535  
Nanaimo, BC .....250-758-1771  
North Vancouver, BC.....604-988-4141  
Prince George, BC .....250-562-5505  
Saanich, BC .....250-727-9976  
Surrey, BC .....604-502-9122  
Vancouver, BC .....604-253-2779  
Whistler, BC.....604-932-4871  
W: www.bartlegibson.com

**CENTURYVALLEN**  
Elkford BC.....250-865-7555  
Trail BC .....250-364-2573  
W: www.centuryvallen.com

**CESCO ELECTRICAL SUPPLY LTD.**  
110A-3430 Brighton Ave.  
Burnaby BC V5A 3H4  
T: 604-294-4604  
F: 604-294-2905  
W: www.cescoelectrical.com

**E.B. HORSMAN & SON**  
19295 25 Avenue  
Surrey, BC V3S 3X1  
T: 778-545-9916  
F: 778-545-3099  
Campbell River BC.....250-287-9265  
Courtenay BC .....250-334-0338  
Cranbrook BC.....250-489-4591  
Dawson Creek BC .....250-782-4896  
Duncan BC .....250-748-3377

Kamloops BC.....250-374-3191  
Langley BC .....604-533-1275  
Fort Nelson BC.....250-233-8570  
Prince George BC .....250-563-0575  
Parksville BC .....250-954-1797  
Penticton BC.....250-492-4032  
Richmond BC .....604-273-1981  
Surrey BC.....604-596-7111  
Terrace BC.....250-635-6379  
Vernon BC .....250-545-2191  
Williams Lake BC.....250-392-7795  
W: www.ebhorsman.com

**ECS ELECTRICAL CABLE SUPPLY LTD.**  
13330 Maycrest Way  
Richmond BC V6V 2J7  
T: 604-276-9913  
F: 604-276-9915  
Vancouver BC.....604-276-9473  
Victoria BC.....250-361-9199  
W: www.ecswire.com

**EECOL ELECTRIC**  
Chilliwack BC .....604-792-9244  
Courtenay BC .....250-338-5100  
Cranbrook BC.....250-426-2555  
Fort St. John BC.....250-261-6776  
Kamloops BC.....250-372-0630  
Kelowna BC.....250-762-0557  
Surrey BC.....604-502-5670  
W: www.eecol.com

**ELECTRO SONIC INC.**  
New Westminster BC.....604-273-2911  
W: www.e-sonic.com

**ENGRAVER'S EXPRESS INC.**  
705-20381 62 Ave.  
Langley BC V3A 5E6  
T: 604-533-3467  
F: 604-533-0229  
W: www.engraversexpress.com

**GESCAN**  
2441 United Blvd.  
Coquitlam BC V3K 6A8  
T: 604-472-7130  
F: 604-472-7150  
Abbotsford BC .....604-850-3550  
Chilliwack BC .....604-792-5554  
Coquitlam BC .....604-472-7130  
Langford BC .....250-391-4600  
Langley BC .....604-576-8544  
Kelowna BC.....250-860-2334  
North Vancouver BC.....604-984-2577  
Penticton BC.....250-490-8009  
Surrey BC .....604-596-5515  
Trail BC.....250-364-1221  
Vancouver BC.....604-874-8556  
Whistler BC.....604-938-1135  
Westbank BC.....250-769-6262  
W: www.gescan.com

**GRAYBAR**  
Burnaby BC.....604-676-4400  
W: www.graybar.com

**GUILLEVIN**  
Campbell River BC.....250-286-1055  
Coquitlam BC .....604-395-3000  
Cranbrook BC .....250-426-2267  
Fort St. John BC.....250-785-3375  
Kamloops BC.....250-374-0044  
Nanaimo BC .....250-758-3362  
Prince George BC .....250-960-4300  
Trail BC.....250-364-2526  
W: www.guillevin.com

**HALO METRICS INC.**  
Vancouver BC.....800-667-9199  
W: www.halometrics.com

**HD SUPPLY LITEMOR**  
Coquitlam BC .....604-945-7131  
W: www.litemor.com

**INTERFAST INC.**  
Vancouver BC.....800-663-0938  
W: www.interfast.ca

**LIGHT RESOURCE**  
24 West 2nd Ave.  
Vancouver BC V5Y 1B3  
T: 604-688-7541  
F: 604-688-7597  
W: www.light-resource.com

**NEDCO HEAD OFFICE (DIV. OF REXEL ELECTRICAL INC.)**  
4455 No. 6 Rd.  
Richmond BC V6V 1P8  
T: 604-231-4600  
F: 604-273-5567

Surrey BC .....604-501-2244  
Richmond BC .....604-231-4600  
Vernon BC .....250-545-5391  
Prince George BC .....250-563-1292  
Nanaimo BC .....250-756-1177  
Quesnel BC.....250-992-6008  
Victoria BC.....250-383-1116  
Vancouver BC.....604-899-0229  
Langley BC.....604-530-0771  
Chilliwack BC .....604-792-4233  
North Vancouver BC.....604-985-0466  
Penticton BC.....250-492-8365  
W: www.nedco.ca

**NORAMCO WIRE & CABLE**  
480 A Tennyson Place  
Victoria BC V8Z 6S8  
T: 250-389-6066  
F: 250-389-2824  
Vancouver BC .....604-606-6980  
W: www.noramco.ca

**ON POWER SYSTEMS INC.**  
Vancouver BC .....250-452-9913  
W: www.onpower.com

**TEXCAN**  
1420 Derwent Way  
Delta BC V3M 6H9  
T: 604-528-3600  
F: 604-528-3790  
Delta BC .....604-528-3600  
W: www.texcan.com

**WAINBEE LIMITED**  
Prince George BC .....250-564-3230  
Vancouver BC .....604-278-4288  
W: www.wainbee.com

**WESCO DISTRIBUTION LP**  
Abbotsford BC .....604-859-3111  
Castlegar BC .....250-365-0545  
Kelowna BC.....250-862-8200  
Prince George BC .....250-562-3306  
Surrey BC .....604-599-1100  
Fort St. John BC.....250-261-6738  
Burnaby BC .....604-299-5566  
Kamloops BC.....250-374-2112  
Nanaimo BC .....250-758-1777  
Richmond BC .....604-270-7873  
Victoria BC.....250-382-7265  
Vancouver BC.....604-215-2078  
W: www.wesco.ca

**WESTBURNE ELECTRIC**  
Abbotsford BC .....604-864-9444  
Burnaby BC .....604-205-2700  
Courtenay BC .....250-334-3148  
Kamloops BC.....250-374-1331  
Kelowna BC.....250-860-4988  
Kitimat BC .....250-632-2148  
Nanaimo BC .....250-716-1333  
Vancouver North BC .....604-985-9531  
Port Albernie BC .....250-723-2451  
Prince George BC .....250-562-3111  
Richmond BC .....604-270-0450  
Squamish BC.....604-892-9330  
Surrey BC .....604-574-7882  
Victoria BC.....250-475-1900  
W: www.westburne.ca

**WHITE RADIO**  
Burnaby BC .....800-667-7670  
W: www.whiteradio.com

MANITOBA

**ANIXTER**  
Winnipeg MB.....204-633-6631  
W: www.anixter.com

**B.A. ROBINSON CO. LTD. ELECTRICAL**  
590 King Edward St.  
Winnipeg MB R3H 0S2  
T: 204-452-2741  
F: 204-284-8495  
Brandon MB .....204-728-3560  
Steinbach MB.....204-326-2000  
Winkler MB.....204-331-4433  
Winnipeg MB.....204-452-2741  
Winnipeg MB.....204-452-4531  
W: www.barobinson.com/electrical

**CENTURYVALLEN**  
Winnipeg MB .....204-668-8886  
W: www.centuryvallen.com

**DEL'S DISTRIBUTORS LTD.**  
1400 Wall St.  
Winnipeg MB R3E 2S3  
T: 204-775-0696  
F: 204-772-1461  
W: www.delsdistributors.ca



**EG PENNER**

200 Park Rd. W.  
Steinbach MB R5G 1A1  
T: 204-326-1325  
F: 204-326-5590  
W: www.egpenner.com

**ELECTRO SONIC INC.**

Winnipeg MB ..... 204-783-3105  
W: www.e-sonic.com

**GESCAN PRAIRIES**

Winnipeg MB ..... 204-668-8886  
W: www.gescan.com

**HD SUPPLY LITEMOR**

Winnipeg MB ..... 204-633-1933  
W: www.litemor.com

**KVA DYNAMO INC.**

572 McTavish St.  
Winnipeg MB R2J 2W5  
T: 204-237-4490  
F: 204-233-5306  
W: www.kvadynamo.com

**NEDCO HEAD OFFICE**

(DIV. OF REXEL ELECTRICAL INC.)  
Winnipeg MB ..... 204-694-1313  
W: www.nedco.ca

**NORAMCO WIRE & CABLE**

1266 Border Street  
Winnipeg MB R3H 0M6  
W: www.noramco.ca

**TEXCAN**

Winnipeg MB ..... 204-982-9290  
W: www.texcan.com

**TOROMONT CAT POWER SYSTEMS**

Brandon MB ..... 204-571-2460  
Dryden MB ..... 807-223-4505  
Elie MB ..... 204-353-3850  
W: www.toromontpowersystems.com

**WAINBEE LIMITED**

Winnipeg MB ..... 204-632-4558  
W: www.wainbee.com

**WESTBURNE ELECTRIC (MIDWEST)**

1-1650 Notre Dame Ave.  
Winnipeg MB R3H 0Y7  
T: 204-954-9900  
F: 204-954-9898  
Brandon MB ..... 204-571-2333  
Dauphin MB ..... 204-638-5328  
St. Boniface (Winnipeg) MB ..... 204-954-9901  
Thompson MB ..... 204-778-7041  
Winnipeg MB ..... 204-954-9900  
W: www.westburne.ca

**NEW BRUNSWICK****BIRD-STAIRS**

670 Wilsey Rd.  
Fredericton NB E3B 7K4  
T: 506-453-9915  
F: 506-453-0513  
W: www.birdstairs.ca

**EDDY GROUP LIMITED**

662 Saint Anne St.  
Bathurst NB E2A 3Z1  
T: 506-546-6631  
F: 506-546-7322  
Fredericton NB ..... 506-443-5700  
Bathurst NB ..... 506-546-6631  
Miramichi NB ..... 506-622-1754  
Saint John NB ..... 506-634-3020  
W: www.eddygroup.com

**GRAYBAR/HARRIS & ROOME SUPPLY**

Bathurst NB ..... 506-548-2922  
Florenceville NB ..... 506-392-6084  
Fredericton NB ..... 506-458-8265  
Moncton NB ..... 506-853-8188  
Saint John NB ..... 506-634-2094  
W: www.graybar.com

**GREY-BRUCE ELECTRIC SUPPLY INC.**

Moncton NB ..... 506-386-5418  
W: www.greybruceelectric.com

**GUILLEVIN INTERNATIONAL COMPANY**

Bathurst NB ..... 506-546-8220  
Moncton NB ..... 506-856-9170  
Miramichi NB ..... 506-622-2846  
W: www.guillevin.com

**INVENTEX INC.**

Moncton NB ..... 506-386-7006  
W: www.inventex.com

**LITECO INC.**

351 Carleton St.  
Fredericton NB E3B 3T8  
T: 506-458-9333  
F: 506-458-9527  
Saint John NB ..... 506-458-1600  
Moncton NB ..... 506-857-4171  
Dieppe NB ..... 506-382-5713  
Sussex NB ..... 506-433-1334  
Charlottetown PE ..... 902-368-3013  
W: www.liteco.ca

**NEDCO ATLANTIC HQ**

Fredericton NB ..... 506-457-9020  
Moncton NB ..... 506-853-8676  
Saint John NB ..... 506-634-0497  
W: www.nedco.ca

**SOURCE ATLANTIC**

331 Chesley Dr.  
Saint John NB E2L 4E4  
T: 506-632-1000  
F: 506-633-1000  
Moncton NB ..... 506-635-5695  
Bathurst NB ..... 506-548-4411  
Saint John NB ..... 506-635-5695  
Tracy NB ..... 506-368-7311

W: www.sourceatlantic.ca

**WESCO DISTRIBUTION LP**

Moncton NB ..... 506-857-8600  
W: www.wesco.ca

**WESTBURNE ELECTRIC (QUEBEC)**

Edmunston NB ..... 506-737-8849  
W: www.westburne.ca

**NEWFOUNDLAND****ANIXTER**

St. John's NL ..... 709-754-0300  
W: www.anixter.com

## GE Energy



# The new infrastructure

Cleaner. Smarter. More efficient.



At GE, we've invested in the people, tools and technologies designed to help you keep pace with the new infrastructure. Equally important, our commitment to innovative solutions, such as our new WattStation™ electric vehicle charger, will help you capitalize on it.

Our full range of electrical distribution products required to support EV deployment can help you create an infrastructure that's equal to the demand for a cleaner, smarter and more efficient future, today.

What are you waiting for?

*GE is Leading the Future of Electrification.*

[www.geindustrial.com/EV](http://www.geindustrial.com/EV)

Follow us on twitter: @GE\_IndSolutions

Email us at: [marketingcdn@ge.com](mailto:marketingcdn@ge.com)

Tell Me More!



imagination at work

a product of  
**ecomagination**

WattStation™ is a trademark of General Electric Company

# DISTRIBUTORS

**ECS ELECTRICAL CABLE SUPPLY LTD.**  
St. John's NL ..... 709-754-0888  
W: www.ecswire.com

**GRAYBAR/HARRIS & ROOME SUPPLY**  
Corner Brook NL ..... 709-632-7315  
Grand Falls-Windsor NL... 709-489-4161  
St. John's NL ..... 709-722-6161  
Wabush NL ..... 709-282-3555"  
W: www.graybar.com

**GREY-BRUCE ELECTRIC SUPPLY INC.**  
St. John's NL ..... 709-727-2481  
W: www.greybruceelectric.com

**GUILLEVIN INTERNATIONAL COMPANY**  
Corner Brook NL ..... 709-639-7194  
Goose Bay NL ..... 709-896-3361  
Grand Falls NL ..... 709-489-5704  
St-John NL ..... 709-722-1420  
W: www.guillevin.com

**McLOUGHLAN SUPPLIES LTD.**  
22-24 Blackmarsh Rd., PO Box 877  
St. John's NF A1E 1S3  
T: 709-576-4091  
F: 709-576-0778  
Cornerbrook NL ..... 709-634-4712  
Grand Falls-Windsor NL. 709-489-9206  
W: www.mcloughlansupplies.com

**NEDCO ATLANTIC HQ**  
St. John's NL ..... 709-722-1301  
W: www.nedco.ca

**TOROMONT CAT POWER SYSTEMS**  
Corner Brook NL ..... 709-634-8258  
Grand Falls-Windsor NL... 709-489-2131  
St. John's NL ..... 709-722-5660  
W: www.toromontpowersystems.com

**WESCO DISTRIBUTION LP**  
St. John's NL ..... 709-726-9073  
W: www.wesco.ca

## NOVA SCOTIA

**ANIXTER**  
Dartmouth NS ..... 902-468-8411  
W: www.anixter.com

**BIRD-STAIRS**  
Dartmouth NS ..... 902-468-1218  
Halifax NS ..... 902-455-1663  
W: www.birdstairs.ca

**EDDY GROUP LIMITED**  
Amherst NS ..... 902-667-5125  
Halifax NS ..... 902-450-3033  
Truro NS ..... 902-895-2851  
W: www.eddygroup.com

**GRAYBAR /HARRIS & ROOME SUPPLY**  
3600 Joseph Howe Dr.  
Halifax NS B3K 5M7  
T: 902-457-8787  
F: 902-445-5808  
Bridgewater NS ..... 902-543-9155  
Dartmouth NS ..... 902-468-6665  
Halifax NS ..... 902-443-8311  
Kentville NS ..... 902-678-2800  
New Glasgow NS ..... 902-755-4673  
Sydney NS ..... 902-564-5504  
Truro NS ..... 902-893-4251  
Yarmouth NS ..... 902-742-6771  
W: www.graybar.com

**GUILLEVIN INTERNATIONAL COMPANY**  
Dartmouth NS ..... 902-468-7211  
Halifax NS ..... 902-454-7477  
Liverpool NS ..... 902-354-2886  
W: www.guillevin.com

**HARRIS & ROOME SUPPLY**  
3600 Joseph Howe Dr.  
Halifax NS B3K 5M7  
T: 902-457-8730  
F: 902-457-1558  
W: www.graybar.com

**HD SUPPLY LITEMOR**  
Dartmouth NS ..... 902-468-1043  
W: www.litemor.com

**McLOUGHLAN SUPPLIES LTD.**  
Dartmouth NS ..... 902-425-8533  
W: www.mcloughlansupplies.com

**LITECO INC.**  
Bridgewater NS ..... 902-543-6800  
Kentville NS ..... 902-678-2491  
Yarmouth NS ..... 902-742-9201

Halifax NS ..... 902-420-2300  
Truro NS ..... 902-893-4201  
Dartmouth NS ..... 902-482-1550  
W: www.liteco.ca

**NEDCO ATLANTIC HQ**  
19 Gurholt Dr.  
Dartmouth NS B3B 1J8  
T: 902-450-2100  
F: 902-450-5073  
Bridgewater NS ..... 902-543-1112  
Dartmouth NS ..... 902-481-2740  
Halifax NS ..... 902-484-3000  
Kentville NS ..... 902-679-4237  
New Glasgow NS ..... 902-753-2903  
Sydney NS ..... 902-564-2645  
W: www.nedco.ca

**POWRMATIC OF CANADA LTD.**  
Halifax NS ..... 902-454-8684  
W: www.powrmatic.ca

**SOURCE ATLANTIC**  
Dartmouth NS ..... 902-494-5054  
Halifax NS ..... 902-494-5266  
Truro NS ..... 902-897-0787  
Sydney NS ..... 902-567-3030  
W: www.sourceatlantic.ca

**WAINBEE LIMITED**  
Dartmouth NS ..... 902-468-1787  
W: www.wainbee.com

**WESCO DISTRIBUTION LP**  
Dartmouth NS ..... 902-468-5851  
Sydney NS ..... 902-562-5556  
W: www.wesco.ca

## NUNAVUT

**TOROMONT CAT POWER SYSTEMS**  
3131 Hwy 7 West, Bldg. A  
Concord ON L4K 1B7  
T: 416-667-5758  
F: 416-667-5514  
Cambridge Bay NU ..... 867-983-2041  
Iqaluit NU ..... 867-979-4178  
W: www.toromontpowersystems.com

## ONTARIO

**ABSOLUTE STAINLESS FASTENERS**  
1-2800 Argentia Rd.  
Mississauga ON L5N 8L2  
T: 905-567-8182  
F: 905-567-4664  
W: www.absofast.com

**ADVANCED MOTION & CONTROLS LTD.**  
26 Saunders Rd.  
Barrie ON L4N 9A8  
T: 705-726-2260  
F: 705-726-5829  
Mississauga ON ..... 905-501-8011  
Waterloo ON ..... 519-888-7844  
W: www.advancedmotion.com

**ALPHA CONTROLS & INSTRUMENTATION**  
361 Steelcase Road W, Suite 6  
Markham ON L3R 3V8  
T: 905-477-2133  
F: 905-477-4219  
Rosemere QC, 888-621-3626  
W: www.alphacontrols.com

**ALTECON DATA COMMUNICATIONS**  
7510 Bath Rd.  
Mississauga ON L4T 1L2  
T: 905-677-6500  
F: 905-677-6505  
W: www.altecon.com

**AMS ALLTRONICS INC.**  
1352 Sagewood Cres.  
Oakville ON L6M 4H4  
T: 905-844-5772  
F: 905-844-6263  
W: www.hard-to-find.net

**ANIXTER**  
200 Foster Cres.  
Mississauga ON L5R 3Y5  
T: 905-568-8999  
F: 905-568-4470  
Hamilton ON ..... 905-573-0446  
London ON ..... 519-681-5130  
Ottawa ON ..... 613-729-3611  
Sudbury ON ..... 705-560-4800  
Thunder Bay ON ..... 807-623-8666  
W: www.anixter.com

**ANOMET INC.**  
18 Regan Road, Unit 25  
Brampton ON L7A 1C2  
T: 905-840-6868  
F: 905-840-6862  
W: www.anomet.com

**APTOLUTION**  
19-9033 Leslie St.  
Richmond Hill ON L4B 4K3  
T: 905-907-8535  
F: 905-907-4775  
W: www.aptolution.com

**ARGO INTERNATIONAL**  
4391 Harvester R&D., Unit 1  
Burlington, ON L7L 4X1  
T: 800-449-3812  
F: 866-637-9968  
W: www.argointl.com

**ARMATEK AUTOMATION INC.**  
10-5716 Coopers Ave.  
Mississauga ON M8Z 1A4  
T: 416-251-3111  
F: 416-251-1951  
W: www.armatek.com

**AUTOMATION SUPPLY INC.**  
2-38 McBrine Place  
Kitchener ON N2R 1G8  
T: 519-579-8512  
F: 519-579-0671  
W: www.automationsupply.ca

**AUTOMATION SURPLUS INC.**  
2-100 Sheldon Dr.  
Cambridge ON N1R 7S7  
T: 519-622-8585  
F: 519-622-3929  
W: www.automationsurplusinc.com

**AVAD INDUSTRIAL SALES INC.**  
2925-2 Poole Court  
Val Caron ON P3N 1B3  
T: 705-897-2584  
F: 705-897-2913  
W: www.avad.ca

**BANVIL 2000**  
775 Main St. E.  
Milton ON L9T 3Z3  
T: 905-878-1080  
F: 905-878-0272  
W: www.banvil2000.com

**BEL VOLT SALES LTD.**  
1350 Birchmount Rd.  
Toronto ON M1P 2E4  
T: 416-757-2277  
F: 416-757-9595  
W: www.belvolt.com

**BREWS SUPPLY LTD. (UTILITIES)**  
Mississauga ON ..... 905-564-1116  
W: www.brewssupply.com

**CABLE PROTECTION SYSTEMS INC.**  
2A-50 Craig St.  
Brantford ON N3R 7J1  
T: 519-756-4600  
F: 519-756-3500  
W: www.cable-protection.com

**CABLEFLEX INC.**  
448 Dell St.  
Sudbury ON P3B 2M4  
T: 705-674-5887  
F: 705-674-5067  
W: www.cableflexinc

**CAPELLA TELECOMMUNICATIONS INC.**  
747 Monaghan Rd.  
Peterborough ON K9J 5K2  
T: 800-668-0175  
F: 705-748-4535  
W: www.capella.ca

**CENTURYVALLEN**  
Cambridge ON ..... 519-658-4182  
Mississauga ON ..... 905-565-1686  
St.Catharines ON ..... 905-688-1866  
W: www.centuryvallen.com

**CERCO CABLE**  
Mississauga ON ..... 905-670-3777  
W: www.cercocable.com

**CHADWICK ELECTRIC SUPPLY LIMITED**  
65 Nebo Rd.  
Hamilton ON L8W 2C9  
T: 905-318-6069  
F: 905-318-1158  
W: www.chadwickelectric.ca

**CHESS CONTROLS INC.**  
4 Serpentine St.  
Copper Cliff ON POM 1N0  
T: 705-682-2828  
F: 705-682-0847  
W: www.chesscontrols.com

**COMPREVAC INC.**  
3067 Jarrow Ave.  
Mississauga ON L4X 2C6  
T: 905-624-4096  
F: 905-624-4099  
W: www.comprevac.com

**CONNECTRIC SYSTEMS INC.**  
28-207 Edgeley Blvd.  
Concord ON L4K 4B5  
T: 905-669-0080  
F: 905-669-0082  
W: www.connectric.com

**CORDS LTD.**  
62 Densley Ave.  
Toronto ON M6M 5E1  
T: 416-242-6811  
F: 416-242-6819  
W: www.cordscanada.com

**CORNWALL POWER EQUIPMENT**  
17339 Cornwall Ctr. Rd.  
Cornwall ON K6K 1K6  
T: 613-938-8816  
F: 613-938-8802  
W: www.cpec.ca

**CSI POWER & ENVIRONMENTAL INC.**  
850 Brock Rd. S., Unit 3  
Pickering ON L1W 1Z8  
T: 800-465-1771  
W: www.csipower.com

**DAITCO ELECTRIC & SUPPLY (1979) LTD.**  
26 Lappan's Lane  
Kingston ON K7L 4X6  
T: 613-546-3677  
F: 613-547-4121  
Brockville ON ..... 613-345-1411  
Kanata ON ..... 613-592-5511  
W: www.daitco.com

**DAVIS CONTROLS LTD.**  
2200 Bristol Circle  
Oakville ON L6H 5R3  
T: 905-829-2000  
F: 905-829-2630  
W: www.daviscontrols.com

**DELCO WIRE AND CABLE LTD.**  
1 Saramia Cres.  
Concord ON L4K 3S6  
T: 905-669-2476  
F: 905-669-6869  
W: www.delcowire.com



**DIVERSIFIED VENTURES**  
13-100 Ironside Cres.  
Scarborough ON M1X 1M9  
T: 416-293-8989  
F: 416-293-8840  
W: www.dventures.ca

**DIXON ELECTRIC (1983) LTD.**  
1158 Lorne St.  
Sudbury ON P3C 4S9  
T: 705-674-1981  
F: 705-674-2428  
Timmins ON ..... 705-264-6100  
North Bay ON ..... 705-474-9797  
Sault Ste. Marie ON ..... 705-541-9503  
W: www.dixonelectric.ca

**DUKE ELECTRIC LTD.**  
986 Barton St. E.  
Hamilton ON L8L 3C7  
T: 905-547-9171  
F: 905-544-1522  
W: www.dukeelectric.com

**DURHAM CENTRAL FIRE SYSTEMS**  
Unit 12, 155 Wings Rd.  
Woodbridge ON L4L 6C7  
T: 905-265-0557  
F: 905-265-0558  
W: www.durhamfire.com

**EARL O'NEIL ELECTRIC SUPPLY LIMITED**  
150 Creditview Rd.  
Woodbridge ON L4L 9N4

T: 416-798-7722  
F: 416-798-7606

**ECS ELECTRICAL CABLE SUPPLY LTD.**  
Hamilton ON ..... 905-385-1777  
Ottawa ON ..... 613-282-4174  
Toronto ON ..... 905-607-3232  
W: www.ecswire.com

**EFSTON SCIENCE**  
3350 Dufferin St.  
Toronto ON M6A 3A4  
T: 416-787-4581  
F: 416-787-5140  
W: www.etool.ca

**ELECTRA SUPPLY INC.**  
29 Cherry Blossom Rd.  
Cambridge ON N3H 4R7  
T: 519-650-1182  
F: 519-650-1186  
London ON ..... 519-659-6117  
Windsor ON ..... 519-945-7550

**ELECTRICAL TEST BOOKS**  
6 Kenmore Ave.  
Toronto ON M1K1B4  
T: 416-456-1827  
W: www.electricaltestbooks.com

**ELECTRO RENT CORPORATION**  
1-210 Brunel Rd.  
Mississauga ON L4Z 1T5  
T: 905-361-0943  
F: 905-361-0232  
W: www.electrorent.com

**ELECTRO SONIC INC.**  
1100 Gordon Baker Rd.  
Toronto ON M2H 3B3  
T: 416-494-1666  
F: 416-496-3030  
Ottawa ON ..... 613-728-8333  
W: www.e-sonic.com

**ELECTROMATE**  
39-4300 Steeles Ave. W.  
Woodbridge ON L4L 4C2  
T: 905-850-7447  
F: 905-850-7451  
W: www.electromate.com

**ELECTRONIC PACKAGING SYSTEMS LTD.**  
758 Fortune Cres.  
Kingston ON K7P 2T3  
T: 613-384-1142  
F: 613-384-6266  
W: www.eps.ca

**ELECTROWIND**  
2 Taggart Street  
Guelph ON N1H 6L3  
T: 519-836-2280  
F: 519-836-6629  
W: www.electro-wind.com

**ELECTROZAD SUPPLY COMPANY LIMITED**  
2900 Jefferson Blvd.  
Windsor ON N8N 2M4  
T: 519-944-2900  
F: 519-944-2221  
London ON ..... 519-452-3444  
London ON ..... 519-667-1442  
Sarnia ON ..... 519-336-8550  
Chatham ON ..... 519-351-9777  
W www.electrozad.com

**ENGRAVER'S EXPRESS INC.**  
Mississauga ON ..... 905-602-5900  
W: www.engraversexpress.com

**ESPO ELECTRICAL SUPPLY INC.**  
2-1182 South Service Rd. W.  
Oakville ON L6L 5T7  
T: 905-465-1662  
F: 905-465-1665  
W: www.espoelectric.com

**ESTATE LIGHTING & ELECTRICAL SUPPLY**  
190 Bovard Dr. W., Units 53-56  
Brampton ON L7A 1A2  
T: 905-874-1022  
F: 905-874-0095  
W: www.estatelighting.ca

**FRANKLIN EMPIRE INC.**  
Newmarket ON ..... 905-853-0911  
Ottawa ON ..... 613-596-1144  
Scarborough ON ..... 416-299-4443  
Toronto ON ..... 416-248-0176  
Hamilton ON ..... 905-578-3330  
W: www.feinc.com



**GEORGE M. FRASER LTD.**

3-900 McKay Rd.  
Pickering, ON L1W 3X8  
T: 905-420-6555  
F: 905-420-4333  
W: www.gmfraser.com

**GERRIE ELECTRIC WHOLESALE LIMITED**

4104 South Service Rd.  
Burlington ON L7L 4X5  
T: 905-681-3656  
F: 905-681-1774  
Bolton ON ..... 905-857-9288  
Brantford ON ..... 519-754-1166  
Burlington ON ..... 905-681-3660  
Cambridge ON ..... 519-740-2912  
Concord ON ..... 416-213-7111  
Georgetown ON ..... 905-877-2264  
Guelph ON ..... 519-823-8442  
Hamilton ON ..... 905-548-0388  
Kitchener ON ..... 519-893-1932  
Milton ON ..... 905-878-8406  
Mississauga ON ..... 905-625-3118  
London, (Tesco) ON ..... 519-659-1234  
London, (Hyde Park) ON ..... 519-641-4321  
Oakville ON ..... 905-845-2891  
Oakville ON ..... 905-845-2461  
Simcoe ON ..... 519-428-1514  
St. Catharines ON ..... 905-688-4212  
St Thomas ON ..... 519-633-1400  
Welland ON ..... 905-732-4473  
Woodstock ON ..... 519-539-4789  
W: www.gerrie.com

**GESCAN ONTARIO**

8160 Parkhill Dr.  
Milton ON L9T 5V7  
T: 905-693-6311  
F: 905-693-6315  
Thunder Bay ON ..... 807-623-8404  
W: www.gescanontario.com

**GORD GRANT ELECTRIC SUPPLY**

868 Falconbridge Rd.  
Sudbury ON P3A 5K7  
T: 705-560-4170  
F: 705-560-5447

**GRAYBAR**

130 Hayward Ave.  
Kitchener ON N2C 2E4  
T: 519-576-4050  
F: 519-576-2402  
Guelph ON ..... 519-821-2580  
Hamilton ON ..... 905-547-8040  
Kitchener ON ..... 519-576-4050  
Markham ON ..... 905-752-0767  
Mississauga ON ..... 905-507-0533  
Niagara Falls ON ..... 905-374-1113  
Ottawa ON ..... 613-688-0124  
Windsor ON ..... 519-944-4414  
W: www.graybar.com

**GREY-BRUCE ELECTRIC SUPPLY INC.**

1475 2nd Ave. E.  
Owen Sound ON N4K 5P3  
T: 519-376-4120  
F: 519-376-7203  
W: www.greybruceelectric.com

**GUILLEVIN**

175 Richmond Rd.  
Ottawa ON K1Z 6W3  
T: 613-722-4611  
F: 613-722-4550  
W: www.guillevin.com

**HALO METRICS INC.**

14-3600B Laird Rd.  
Mississauga ON L5L 6A7  
T: 905-828-2588  
F: 905-828-6131  
Toronto ON ..... 800-667-3390  
W: www.halometrics.com

**HARWELL ELECTRIC SUPPLY**

2525 Tedlo St.  
Mississauga ON L5A 4A8  
T: 905-848-0060  
F: 905-848-0059  
Aurora ON ..... 905-727-3661  
Brampton ON ..... 905-456-2622  
Rexdale ON ..... 416-749-1620  
W: www.harwellelectric.com

**HD SUPPLY LITEMOR**

100 Gcalat Dr.  
Vaughan ON L4L 0B9  
T: 905-264-5058  
London ON ..... 519-652-3550  
Ottawa ON ..... 613-726-6666  
Vaughan ON ..... 905-850-4345  
W: www.litemor.com

**HOUSE OF ELECTRICAL**

880 Milner Ave.  
Scarborough ON M1B 5N7  
T: 416-724-2033  
F: 416-724-4459  
Concord ON ..... 905-417-1311  
Mississauga ON ..... 905-670-5656  
W: www.houseofelectrical.com

**HUDCO ELECTRIC SUPPLY LTD.**

17-2901 Steeles Ave. W.  
Toronto ON M3J 3A5  
T: 416-663-5475  
F: 416-661-6885  
Barrie ON ..... 705-719-7555  
Toronto ON ..... 416-663-5475  
Mississauga ON ..... 905-362-2002  
W: www.hudco.ca

**IDEAL SUPPLY CO LTD.**

1045 Wallace Ave. N.  
Listowel ON N4W 3H7  
T: 519-291-1060  
F: 519-291-3170  
Barrie ON ..... 705-728-5911  
Collingwood ON ..... 705-445-9311  
Goderich ON ..... 519-524-8389  
Hanover ON ..... 519-364-2960  
Huntsville ON ..... 705-789-1818  
Kincardine ON ..... 519-396-3381  
Midland ON ..... 705-526-5488  
Orangeville ON ..... 519-941-1510  
Orillia ON ..... 705-325-1335  
Owen Sound ON ..... 519-371-0810  
Stratford ON ..... 519-273-0650  
Woodstock ON ..... 519-539-7483  
W: www.idealsupply.com

**IED LIMITED PARTNERSHIP II**

2195 Dunwin Dr.  
Mississauga ON L5L 1X2  
T: 905-607-6600  
F: 905-607-9201  
W: www.ied.ca

**INCINOLET PRODUCTS**

2022 7th Ave E.  
Owen Sound ON N4K 6R9  
T: 800-263-0379  
F: 519-938-9214  
W: www.incinolet.ca

**INDEPENDENT ELECTRIC SUPPLY INC.**

48 Milner Ave.  
Scarborough ON M1S 3P8  
T: 416-291-0048  
F: 416-291-0087  
Concord ON ..... 905-669-7448  
Scarborough ON ..... 416-291-0048  
W: www.independentelectric.ca

**INTERFAST INC.**

22 Worcester Road  
Toronto ON M9W 5X2  
T: 416-674-0770  
F: 416-674-5240  
W: www.interfast.ca

**INVENTEX INC.**

Rexdale ON ..... 416-743-3970  
W: www.inventex.com

**ITM INSTRUMENTS**

Newmarket ON ..... 905-947-1771  
W: www.itm.com

**JENALEX INC. ERGONOMIC PRODUCTS**

3230 Yonge St. # 1711  
Toronto ON M4N 3P6  
T: 416-485-9487  
F: 416-485-7417  
W: www.jenalex.ca

**JOMAR ELECTRIC CO. LTD.**

777 St. Clarens Ave.  
Toronto ON M6H 3X3  
T: 416-536-2194  
F: 416-536-6608  
W: www.jomarelectric.com

**KING CABLE CORP.**

58-812 Pitt St.  
Cornwall ON K6J 5R6  
T: 888-623-5060  
F: 613-932-7450  
W: www.kingcable.com

**L.J. FLEMING LTD.**

10 Windsor Ave.  
Leamington ON N8H 3W3  
T: 519-326-4496  
F: 519-326-5174

**MANUFACTURERS AUTOMATION INC.**

680 Davenport Rd.  
Waterloo ON N2V 2C3  
T: 800-387-6268  
F: 519-746-3047  
W: www.manuauto.com

**MARCHAND ELECTRICAL CO. LTD.**

1283 Algoma Rd.  
Ottawa ON K1B 3W7  
T: 613-749-2279  
F: 613-749-9952  
Gatineau QC ..... 819-561-0185  
W: www.marchandelectric.com

**MGM ELECTRIC LIMITED**

724 MacDonell St.  
Thunder Bay ON P7B 4A6  
T: 807-345-7767  
F: 807-345-7432  
Dryden ON ..... 807-223-5636  
W: www.mgm-electric.com

**MISSISSAUGA ELECTRICAL SUPPLY**

2550 Goldenridge Rd., Unit 2  
Mississauga ON L4X 2S3  
T: 905-896-4500  
F: 905-896-4570  
W: www.misselec.com

**NEDCO (DIV. OF REXEL ELECTRICAL INC.)**

5600 Keaton Cres.  
Mississauga ON L5R 3G3  
T: 905-568-2425  
F: 905-507-6612  
Barrie ON ..... 705-726-0211  
Belleville ON ..... 613-966-7777  
Bracebridge ON ..... 705-645-7200  
Brampton ON ..... 905-450-0310  
Brantford ON ..... 519-759-3595  
Brockville ON ..... 613-342-0600  
Burlington ON ..... 905-632-3088  
Cambridge ON ..... 519-624-8488  
Chatham ON ..... 519-354-5222  
Cobourg ON ..... 905-372-2297  
Concord ON ..... 905-738-4672  
Etobicoke ON ..... 416-252-5638  
Hamilton ON ..... 905-528-0261  
Kitchener ON ..... 519-624-8488  
Kingston ON ..... 613-546-2661  
Kirkland Lake ON ..... 705-567-2375  
Lindsay ON ..... 705-878-7000  
London ON ..... 519-438-3344  
Markham ON ..... 905-475-7602  
Milton ON ..... 905-876-3757  
Mississauga-LDC ON ..... 905-568-5044  
Mississauga-ON ..... 905-828-4525  
Newmarket ON ..... 905-836-0900  
W: www.nedco.ca

**NGI TECHNOLOGIES INC.**

2A-50 Craig St.  
Brantford ON N3R 7J1  
T: 519-756-4600  
F: 519-756-3500  
W: www.ngitech.com

**NORAMCO WIRE & CABLE**

300-D Kennedy Rd. South  
Brampton ON L6W 4V2  
T: 800-387-7622  
F: 905-654-8183  
Hamilton ON ..... 905-385-4188  
London ON ..... 519-649-1636  
W: www.noramco.ca

**NORONT ELECTRICAL SALES INC.**

448 Dell St.  
Sudbury ON P3B 2M4  
T: 705-674-3532

**ON POWER SYSTEMS INC.**

Ottawa ON ..... 613-795-3472  
Toronto ON ..... 905-881-6644  
W: www.onpower.com

**ONTOR LIMITED**

12 Leswyn Rd.  
Toronto ON M6A 1K3  
T: 416-781-5286  
F: 416-781-7680  
Kitchener ON ..... 519-579-4259  
Mississauga ON ..... 905-461-9535  
Burlington ON ..... 905-592-9858  
W: www.ontor.com

**OSSO ELECTRIC SUPPLIES**

725 Bloor St. W.  
Oshawa ON L1J 5Y6  
T: 905-576-1700  
Ajax ON ..... 905-428-2446  
Barrie ON ..... 705-726-7306  
Belleville ON ..... 613-968-5531

Cambridge ON ..... 519-658-4182  
Kingston ON ..... 613-546-4997  
Lindsay ON ..... 705-324-6500  
Markham ON ..... 905-752-0500  
Oshawa ON ..... 905-576-4166  
Peterborough ON ..... 705-741-3430  
W: www.ossoelectric.com

**PAUL WOLF ELECTRIC**

**& LIGHTING SUPPLY**  
425 Alliance Ave.  
Toronto ON M6N 2J1  
T: 416-504-8194  
F: 416-504-6891  
W: www.paulwolf.com

**POWRMATIC OF CANADA LTD.**

Toronto ON ..... 416-744-7206  
Ottawa ON ..... 613-230-7160  
W: www.powrmatic.ca

**POWERWRIGHT INC.**

25 Romina Dr  
Concord ON L4K 4Z9  
T: 905-790-3100  
F: 905-532-9196  
W: www.powerwright.com

**PRIMARY ELECTRICAL SUPPLY**

3163 Steeles Ave. W  
Milton, ON L9T 2V4  
T: 905-878-1695  
F: 905-878-1090  
W: www.primaryelectrical.com

**PROVINCE ELECTRIC SUPPLY LTD.**

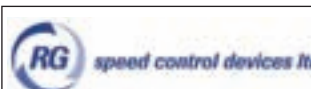
425-6 Superior Blvd.  
Mississauga ON L5T 2W5  
T: 905-795-1795  
F: 905-795-1796  
Concord ON ..... 905-760-1211  
Toronto ON ..... 416-213-9009  
W: www.province-electric.com



**RCC ELECTRONICS**  
101 - 1515 Matheson Blvd. E.  
Mississauga ON L4W2P5  
T: 905-238-6848  
F: 905-238-6849  
W: www.rcce.com  
RCC Electronics provides quality Test & Measurement solutions for Canada's Power Utilities, Industrial Mfg, Mining, Forestry and Contractors since 1983.

**RELAY ELECTRICAL SUPPLY INC.**

256 Hamilton Cres.  
Dorchester ON N0L 1G4  
T: 519-268-3588  
F: 519-268-2535  
W: www.relayelectrical.ca

**RG SPEED CONTROL DEVICES LTD.**

5-643 Chrislea Rd.  
Woodbridge ON L4L 8A3  
T: 905-856-6724  
F: 905-856-6725  
W: www.rgspeed.com  
RG Speed Control offers you a full range of products and services that has made us one of the most trusted names in power transmission, motion control, motors and controls. We've found through experience that every customer is different and every situation is unique.

**RHCTEST.COM INC.**

610 Ford Dr., Ste. 248.  
Oakville ON L6J 7W4  
T: 905-828-6221  
F: 905-828-6408  
W: www.rhctest.com

**ROBERTSON ELECTRIC WHOLESALE**

**2008 LIMITED**  
290 Vaughan Valley Blvd.  
Vaughan ON L4H 3C3  
T: 905-856-9311  
F: 905-856-9317  
W: www.robertson-electric.com

**ROBINSON SOLUTIONS INC.**

5-121 Granton Dr.  
Richmond Hill ON L4B 3N4  
T: 905-889-5852  
F: 905-889-6312  
Ottawa ON ..... 613-249-9674  
Kingston ON ..... 613-634-7552  
W: www.robinsonsolutions.com

**ROSEBUD ELECTRIC**

38 Seneca Hill Dr.  
North York ON M2J 2W4  
T: 416-494-7871  
F: 416-494-6253

**ROTATOR PRODUCTS LIMITED**

570 Alden Rd., Unit 6  
Markham ON L3R 8N5  
T: 905-479-9841  
F: 905-479-9850  
W: www.rotatorproducts.com

**RS ELECTRICAL SUPPLY**

5-150 Britannia Rd. E.  
Mississauga ON L4Z 2A2  
T: 905-501-1510  
F: 905-501-7471  
W: www.rselectricalsupply.com

**SESCO - A DIVISION OF SONEPAR CANADA**

51 Vinyl Court  
Vaughan, ON L4L 4A3  
T: 416-745-9292  
F: 416-745-7497  
Brampton ON ..... 905-451-4550  
Etobicoke ON ..... 416-259-4228  
Hamilton ON ..... 905-389-9292  
Toronto (Bathurst) ON ..... 416-961-4550  
W: www.sesco.ca

**SONEPAR INC.**

989 Derry Rd. E.  
Mississauga ON L5T 2J8  
T: 905-696-2838  
F: 905-696-6972

**STECK CONNECTIONS**

4060 Ridgeway Dr., Unit 5  
Mississauga ON L5L 5X9  
T: 905-608-2444  
F: 905-608-2895  
W: www.steckconnections.com

**STORED ENERGY BATTERIES & SYSTEMS INC.**

38 Commerce Cres.  
Acton ON L7J 2X3  
T: 519-853-4000  
F: 519-853-3166  
W: www.storedenergy.com

**SUPREME LIGHTING & ELECTRICAL SUPPLY LTD.**

9 Laidlaw Blvd.  
Markham ON L3P 1W5  
T: 905-477-3113  
F: 905-471-7360  
W: www.supremelighting.ca

**TECHNICAL SYSTEMS 2002 INC.**

PO Box 650  
Waterdown ON L0R 2H0  
T: 866-327-8731  
F: 905-575-0386  
W: www.technical-sys.com

**TELONIX COMMUNICATIONS INC.**

15-305 Industrial Parkway S.  
Aurora ON L4G 6X7  
T: 905-727-2991  
F: 905-727-3050  
W: www.telonix.ca

**TESCO ELECTRIC SUPPLY**

1183 Frances St.  
London ON N5W 2L9  
T: 519-659-1234  
F: 519-659-8338  
Hyde Park ON ..... 519-641-4321  
St. Thomas ON ..... 519-633-1400  
Woodstock ON ..... 519-539-4789  
W: www.tescoelectric.com

**TEXCAN**

Brampton ON ..... 905-595-3451  
Sarnia ON ..... 519-339-0144  
W: www.texcan.com

**TORBRAM ELECTRIC SUPPLY**  
2721 Markham Rd.  
Scarborough ON M1X 1L5  
T: 416-332-0112  
F: 416-332-0115  
Barrie ON ..... 705-725-0333  
Collingwood ON ..... 705-446-2661  
Downsview ON ..... 416-635-8448  
Huntsville ON ..... 705-788-0866  
Markham ON ..... 905-948-0441  
Newmarket ON ..... 905-953-9960  
Sarnia ON ..... 519-337-4799  
Woodbridge ON ..... 905-856-8824  
W: www.torbramelectric.com

**TOROMONT CAT POWER SYSTEMS**  
3131 Hwy 7 West, Bldg. A  
Concord ON L4K 1B7  
T: 416-667-5758  
F: 416-667-5514  
Barrie ON ..... 705-436-7770  
Cambridge ON ..... 519-650-1211  
Concord ON ..... 416-667-5758  
Hamilton ON ..... 905-561-5901  
London ON ..... 519-681-1900  
Orillia ON ..... 705-327-1801  
Ottawa ON ..... 613-836-5171  
Owen Sound ON ..... 519-376-2365  
Peterborough ON ..... 705-742-2436  
Sault Ste. Marie ON ..... 705-759-2444  
South Porcupine ON ..... 705-235-6504  
St. Catharines ON ..... 905-688-6224  
Sudbury ON ..... 705-692-4764  
W: www.toromontpowersystems.com

**TOTAL POWER LIMITED**  
6450 Kestrel Road  
Mississauga ON L5T 1Z7  
T: 905-670-1535  
F: 905-670-1317  
W: www.totalpower.ca

**TRADE ELECTRIC-DIVISION OF SONEPAR INC.**  
99 Sante Dr.  
Concord ON L4K 3C4  
T: 416-213-7111  
F: 416-213-7136  
Brampton ON ..... 905-595-1270  
W: www.tradeelectric.com

**TRADEPORT ELECTRONICS GROUP INC.**  
7-668 Millway Ave.  
Vaughan ON L4K 3V2  
T: 905-660-3797  
F: 905-660-3019  
W: www.tradeport.ca

**TRANS WIRE & CABLE CO.**  
56-812 Pitt St.  
Cornwall ON K6J 5R6  
T: 613-932-9450  
F: 613-932-7450  
W: www.transwireandcable.com

**TULLO-ZOFF ELECTRIC SUPPLY**  
7956 Torbram Rd.  
Brampton ON L6T 5A2  
T: 905-791-8444  
F: 905-791-8510

**TVC CORP.**  
280 Hillmount Rd.  
Markham ON L6C 3A1  
T: 905-477-7772  
F: 905-477-9665  
W: www.tvc.com

**VENTURE COMMUNICATIONS LTD.**  
302-179 John St.  
Toronto ON M5T 1X4

**VICKERS-WARNICK LTD.**  
342 Dewitt Rd. N.  
Stoney Creek ON L8E 2T2  
T: 905-662-7737  
F: 905-662-9424  
Mississauga ON ..... 905-507-6153  
Waterloo ON ..... 519-884-8946  
W: www.vickers-warnick.com

**WAINBEE LIMITED**  
5789 Coopers Ave.  
Mississauga ON L4Z 3S6  
T: 905-568-1700  
F: 905-568-0083  
Kitchener ON ..... 519-748-5391  
Mississauga ON ..... 905-568-1700  
North Bay ON ..... 705-472-4244  
W: www.wainbee.com

**WESCO DISTRIBUTION LP**  
475 Hood Rd.  
Markham ON L3R 0S8  
T: 866-937-2622  
W: www.wesco.ca

**WESTBURNE ELECTRIC ONTARIO**  
301 Ambassador Dr.  
Mississauga ON L5T 2J3  
T: 905-565-2985  
F: 905-565-6838  
Ajax ON ..... 905-426-7682  
Barrie ON ..... 705-726-2331  
Belleville ON ..... 613-968-5746  
Bracebridge ON ..... 705-645-8288  
Brampton ON ..... 905-796-6138  
Brantford ON ..... 519-759-7300  
Brockville ON ..... 613-345-1857  
Burlington ON ..... 905-681-7110  
Cambridge ON ..... 519-623-6710  
Cobourg ON ..... 905-373-1717  
Collingwood ON ..... 705-445-2582  
Cornwall ON ..... 613-933-1075  
Goderich ON ..... 519-524-9801  
Guelph ON ..... 519-821-4020  
Hamilton ON ..... 905-574-8688  
Toronto (Keele) ON ..... 416-635-2999  
Kenora ON ..... 807-548-4266  
Kingston ON ..... 613-546-5400  
Kitchener ON ..... 519-893-1711  
Lindsay ON ..... 705-324-6301  
London ON ..... 519-434-5755  
Midland ON ..... 705-526-3710  
Mississauga ON ..... 905-670-2800  
Mississauga (Laird) ON ..... 905-608-1010  
Thunder Bay ON ..... 807-344-3100  
W: www.westburne.ca

**WESTERN EQUIPMENT LIMITED**  
97 St. Clair St.  
Chatham ON N7M 5K4  
T: 888-352-0530  
F: 888-354-4220  
Windsor ON ..... 866-945-4520  
W: www.westernequipment.com

**WHITE RADIO**  
940 Gateway Dr.  
Burlington ON L7L 5K7  
T: 905-632-6894  
F: 905-632-6981  
Burnaby BC ..... 800-667-7670  
W: www.whiteradio.com

**WIRING MART LTD., THE**  
53 Bertrand Ave.  
Scarborough ON M1L 4P3  
T: 416-752-7360  
F: 416-752-2470  
Ajax ON ..... 905-683-4020  
W: www.wiringmart.com

PRINCE EDWARD ISLAND

**LITECO INC.**  
Charlottetown PE ..... 902-368-3013  
W: www.liteco.ca

**GRAYBAR/HARRIS & ROOME SUPPLY**  
Charlottetown PE ..... 902-566-1404  
W: www.graybar.com

**GUILLEVIN INTERNATIONAL COMPANY**  
Sherwood PE ..... 902-368-1363  
W: www.guillevin.com

**NEDCO ATLANTIC HQ**  
Charlottetown PE ..... 902-566-3434  
W: www.nedco.ca

QUEBEC

**ABSOLUTE STAINLESS FASTENERS**  
Montreal QC ..... 438-884-7849  
W: www.absofast.com

**ALPHA CONTROLS & INSTRUMENTATION**  
Rosemere QC ..... 888-621-3626  
W: www.alphacontrols.com

**ANIXTER**  
Lachine QC ..... 514-636-3636  
Rouyn-Noranda QC ..... 819-797-1942  
Ste-Foy QC ..... 418-657-5748  
W: www.anixter.com

**ARGO INTERNATIONAL**  
Pointe Claire QC ..... 514-426-3635  
W: www.argointl.com

**ARMATEK AUTOMATION INC.**  
St. Hubert QC ..... 514-898-2530  
W: www.armatek.com

**BENOIT JALBERT INC.**  
104-44 rue du saut  
Sainte-Helene-de-Breakeyville QC G0S 1E3  
T: 418-832-4016  
F: 418-832-0293  
W: www.benoitjalbert.com

**CENTRE DE DISTRIBUTION ELECTRIQUE LTD.**  
298, De Martigny O.  
Saint-Jerome QC J7Y 4C9  
T: 450-438-1263  
F: 450-438-3728  
Laval QC ..... 450-687-5795  
Montreal QC ..... 514-253-5844  
W: www.cde.qc.ca

**CERCO CABLE**  
1014 Cote de Liesse  
Montreal QC H9P 1A3  
T: 514-631-4331  
F: 514-631-0590  
W: www.cercocable.com

**CHESS CONTROLS INC.**  
Rouyn Noranda QC ..... 819-764-4157  
W: www.chesscontrols.com

**CHEVRIER INSTRUMENTS INC.**  
4850 boul. Grouin E.  
North Montreal QC H1G 1A2  
T: 514-328-2550  
F: 514-327-0604  
W: www.chevrierinstruments.com

**COMPONETICS LTD**  
1580 rue Beaulac  
St. Laurent QC H4R 1W8  
T: 514-331-9930  
F: 514-331-1498  
W: www.componetics.com

**DEK CANADA**  
1928 St-Regis Blvd.  
Dorval QC H9P 1H6  
T: 514-685-5800  
F: 514-685-5804  
W: www.dek.com

**DESCHENES & FILS LTEE**  
8335 Saint-Michel Blvd.  
Montreal QC H1Z 3E6  
T: 514-374-3110  
F: 514-374-5141  
Montreal QC ..... 514-932-3191  
Joliette QC ..... 450-759-8880  
Laval QC ..... 450-629-3939  
Pointe-Claire QC ..... 514-630-6330  
Saint-Hyacinthe QC ..... 450-773-4450  
Saint-Hubert QC ..... 450-656-2223  
Sherbrooke QC ..... 819-823-1000  
Saint-Jerome QC ..... 450-432-5550  
W: www.deschenes.ca

**DORVALEC INC.**  
2120, 32e av.  
Lachine QC H8T 3H7  
T: 800-361-0241  
F: 514-631-2432  
W: www.dorvalec.com

**DUBO ELECTRIQUE LIMITEE**  
5780 rue Ontario e.  
Montreal QC H1N 0A2  
T: 514-255-7711  
F: 514-255-1559  
Saint-Hubert QC ..... 450-656-7700  
Sainte-Adele QC ..... 450-229-4409  
Laval QC ..... 450-902-0137  
Trois-Rivieres QC ..... 819-840-1711  
W: www.dubo.qc.ca

**ECS ELECTRICAL CABLE SUPPLY LTD.**  
Montreal QC ..... 450-663-7995  
W: www.ecswire.com

**ELECTRIMAT LTEE**  
2180 Boul. Lapiniere  
Brossard QC J4W 1M2  
T: 450-462-2116  
F: 450-462-0155  
St-Hyacinthe QC ..... 450-773-8568  
W: www.electrimat.com

**ELECTRO BEAUCE INC.**  
2250, 90e rue Saint-Georges  
Quebec QC G5Y 7J7  
T: 418-228-5505  
F: 418-228-5630  
W: www.electrobeauce.com

**ELECTRO SONIC INC.**  
St. Laurent QC ..... 514-748-7942  
W: www.e-sonic.com

**ELECTROWIND**  
St Laurent QC ..... 800-361-6448  
W: www.electro-wind.com

**ENGRAVER'S EXPRESS INC.**  
Montreal QC ..... 514-339-5555  
W: www.engraversexpress.com

**FRANKLIN EMPIRE INC.**  
8421 Darnley Rd.  
Mont-Royal QC H4T 2B2  
T: 514-341-3720  
F: 514-341-3907  
Alma QC ..... 418-480-1950  
Chicoutimi QC ..... 418-545-8313  
Kahnawake QC ..... 450-632-4407  
Laval QC ..... 450-667-6400  
Longueuil QC ..... 450-928-0002  
Mont-Tremblant QC ..... 819-429-6010  
Quebec QC ..... 418-683-1725  
Sherbrooke QC ..... 819-780-1541  
Three-Rivers QC ..... 819-375-1613  
W: www.feinc.com

**FUTURPLUS**  
19925 ch Sainte-Marie  
Sainte-Anne-De-Bellevue QC H9X 3Y3  
T: 514-426-3635 ext. 229  
F: 514-428-7050

**GRAY ELECTRIC**  
3539 Thimens Blvd.  
Saint-Laurent QC H4R 1V5  
T: 514-849-6081  
F: 514-849-6622  
W: www.grayelectricquebec.com

**GUILLEVIN INTERNATIONAL COMPANY**  
6555 Metropolitan Blvd. E., Suite 301  
Montreal QC H1P 3H3  
T: 514-329-2100  
F: 514-329-2200  
Anjou QC ..... 514-355-7582  
Beauce QC ..... 418-228-7247  
W: www.guillevin.com

**INTERFAST INC.**  
Montreal QC ..... 800-363-7923  
W: www.interfast.ca

**INVENTEX INC.**  
12047 Laurentien  
Montreal QC H4K 1M8  
T: 514-334-6790  
F: 514-331-9190  
Quebec QC ..... 418-683-1292  
W: www.inventex.com

**ITM INSTRUMENTS**  
20800 boul. Industriel  
Ste Anne de Bellevue QC H9X 0A1  
T: 514-457-7280  
F: 514-457-4329  
W: www.itm.com

**J.D. PARE ELECTRIQUE INC.**  
2300 rue Bellefeuille  
Trois-Rivieres QC G9A 3Y9  
T: 819-373-4235  
F: 819-373-8148  
W: www.pareelectricquebec.com

**HALO METRICS INC.**  
Quebec QC ..... 514-603-3390  
W: www.halometrics.com

**HD SUPPLY LITEMOR**  
Ville St. Laurent QC ..... 514-738-2433  
Quebec City QC ..... 418-683-2244  
W: www.litemor.com

**LONGTEST**  
1405, Saint-Antoine  
Saint-Hyacinthe QC J2S 3L1  
T: 450-774-3661  
F: 450-773-8797  
W: www.longtest.com

**LUMEN**  
117 boul. Hymus  
Pointe-Claire QC H9R 1E5  
T: 514-426-9460  
F: 514-697-4293  
Alma QC ..... 418-668-8336  
Amos QC ..... 819-732-6436  
Anjou QC ..... 514-493-4127  
Baie-Comeau QC ..... 418-296-9320  
Chicoutimi QC ..... 418-693-1343  
Drummondville QC ..... 819-477-5933  
Gatineau QC ..... 819-771-7411  
Grandby QC ..... 450-776-6333  
Havre-Saint-Pierre QC ..... 418-538-0839  
Joliette QC ..... 450-759-8160  
Lachenaie QC ..... 450-471-4561  
Laval QC ..... 450-629-4561  
Levis QC ..... 418-833-1344  
Longueuil QC ..... 450-679-3460  
Montreal QC ..... 514-341-7711  
Quebec QC ..... 418-627-5943  
Rimouski QC ..... 418-723-0969  
Riviere du Loup QC ..... 418-867-8515  
Saint Eustache QC ..... 450-472-6160  
Saint-Jean QC ..... 450-346-1320

Saint-Jerome QC ..... 450-436-3225  
Sept-Iles QC ..... 418-962-7773  
Sherbrooke QC, ..... 819-566-096  
W: www.lumen.ca

**MARCHAND ELECTRICAL CO. LTD.**  
Gatineau QC ..... 819-561-0185  
W: www.marchandelectric.com

**NEDCO QUEBEC**  
505 Locke St.  
St-Laurent QC H4T 1X7  
T: 514-341-3700  
F: 514-739-4462  
St-Laurent QC ..... 514-341-3700  
Baie-Comeau QC ..... 418-296-0514  
Brossard QC ..... 450-444-2583  
Chicoutimi QC ..... 418-543-4418  
Drummondville Maska... 819-477-2147  
Gatineau QC ..... 819-771-8341  
Kanata QC ..... 613-836-7515  
Laval QC ..... 450-668-8140  
Ottawa QC ..... 613-247-7500  
Quebec QC ..... 418-624-2435  
Sept-Iles QC ..... 418-962-3421  
Sherbrooke QC ..... 819-569-9086  
St-Eustache QC ..... 450-491-7337  
St-Jean QC ..... 450-348-8750  
St-Jerome QC ..... 450-438-2000  
Trois-Rivieres QC ..... 819-691-3188  
Val d'Or QC ..... 819-825-2460  
Valleyfield QC ..... 450-371-5575  
W: www.nedco.ca

**NORAMCO WIRE & CABLE**  
3490 Griffith Street  
Montreal QC H4T 1A7  
T: 800-567-9595  
F: 514-595-9599  
W: www.noramco.ca

**ON POWER SYSTEMS INC.**  
1120 Blvd. Lafayette  
Longueuil QC J4K 3B3  
T: 450-442-0000  
F: 450-442-0980  
Montreal QC ..... 800-363-9133  
W: www.onpower.com

**ONTOR LIMITED**  
Quebec QC ..... 418-527-0227  
W: www.ontor.com

**PHENIX - GROUPE DISTRIBUTION ELECTRIQUE**  
1459, Cure Labelle  
Laval QC H7V-2V9  
T: 450-687-4449  
F: 450-687-3516  
  
**POWRMATIC OF CANADA LTD.**  
9500 Ray-Lawson Blvd.  
Montreal QC H1J 1L1  
T: 514-493-6400  
F: 514-493-8722  
Quebec QC ..... 418-683-2708  
W: www.powrmatic.ca

**PRIMASAT COMMUNICATIONS INC.**  
696, Montee Montrougeau  
Laval QC H7P 5L1  
T: 514-664-4697  
F: 514-664-4697  
W: www.primasat.ca

**PRIMO INSTRUMENT INC.**  
4407, Rue Charleroi  
Montreal QC H1H 1T6  
T: 888-774-6665  
F: 866-328-7835  
W: www.primoinc.com

**PROMARK ELECTRONICS INC.**  
245 Avro Ave.  
Pointe Claire QC H9R 6A9  
T: 514-426-4104  
F: 514-426-4105  
W: www.pmk.com

**PTS ELECTRIQUE LT**  
150 av. du Voyageur  
Pointe Claire QC H9R 6A8  
T: 514-429-6000  
F: 514-429-6787  
W: www.ptselectrique.com

**ROUSSEAU WALKER & ASSOCIATES INC.**  
101-1000 rue Fernand-Dufour  
Quebec QC G1M 3B1  
T: 418-527-5011  
F: 418-527-4680  
W: www.rousseauwalker.com

**TRADELCO INC.**  
266 Laval St. S.



Granby QC J2G 7H9  
T: 450-375-1551  
F: 450-375-0701  
W: www.tradelco.qc.ca

#### TRISPEC COMMUNICATIONS INC.

8500 Pascal-Gagnon  
St-Leonard QC H1P 1Y4  
T: 514-328-2025  
F: 514-328-6078  
W: www.trispec.com

#### WAINBEE LIMITED

Chicoutimi QC.....418-698-4884  
Pointe Claire QC.....514-697-8810  
Quebec QC.....418-683-1956  
W: www.wainbee.com

#### WESTBURNE ELECTRIC

10045 boul. Henri Bourassa o.  
St-Laurent QC H4S 1A1  
T: 514-337-5331  
F: 514-332-9177  
Anjou, QC .....514-788-5333  
Drummondville, QC .....819-477-6112  
Granby, QC .....450-375-7370  
Joliette, QC .....450-759-4313  
Jonquiere, QC .....418-547-2130  
Laval, QC .....450-663-5333  
Longueuil, QC .....450-651-9200  
New Richmond, QC .....418-392-4401  
Rosemont, QC .....514-729-5331  
Rouyn, QC .....819-764-6771  
St-Georges-de-Beauc...418-228-6421  
Saint-Jerome, QC .....450-436-5553  
Sherbrooke, QC .....819-562-2660  
Trois-Rivieres, QC .....819-378-4071  
Val-d'Or, QC .....819-825-7272  
Valleyfield, QC .....450-373-8573  
Vanier, QC .....418-627-7201  
W: www.westburne.ca

### SASKATCHEWAN

#### ANIXTER

Saskatoon SK.....306-931-8422  
W: www.anixter.com

#### CENTURYVALLEN

Regina SK.....306-721-2223  
Saskatoon SK.....306-242-1166  
W: www.centuryvallen.com

#### CHOICE ELECTRICAL SUPPLY

3238 Faithfull Ave.  
Saskatoon SK S7K 8H3  
T: 306-657-2424  
F: 306-955-3655  
Swift Current SK.....306-778-3959  
Regina SK.....306-545-7840  
Winnipeg MB.....204-783-2333

#### GESCAN

Estevan SK.....306-634-8655  
Regina SK.....306-569-0661  
Saskatoon SK.....306-931-0077  
W: www.gescan.com

#### HD SUPPLY LITEMOR

Saskatoon SK.....306-665-2852  
W: www.litemor.com

#### KVA DYNAMO INC.

Saskatoon, SK.....306-651-0400  
W: www.kvadynamo.com

#### NEDCO HEAD OFFICE (DIV. OF REXEL ELECTRICAL INC.)

Regina SK.....306-525-2531  
Saskatoon SK.....306-653-5020  
W: www.nedco.ca

#### TEXCAN

Saskatoon SK.....306-933-3169  
W: www.texcan.com

#### WAINBEE LIMITED

Saskatoon SK.....306-652-1433  
W: www.wainbee.com

#### WESCO DISTRIBUTION LP

Regina SK.....306-525-5841  
Saskatoon SK.....306-242-1296  
W: www.wesco.ca

#### WESTBURNE ELECTRIC (MIDWEST)

Estevan SK.....306-634-7225  
Esterhazy SK.....306-745-3603  
Prince Albert SK.....306-922-4545  
Regina SK.....306-721-2500  
Saskatoon SK.....306-933-2992  
W: www.westburne.ca

#### A.C. NELSON ELECTRICAL LTD.

19643 96 Ave.  
Langley BC V1M 3C9  
T: 604-888-1222  
F: 604-888-7760  
W: www.acnelson.com

#### ACCESS CONTROL SALES LTD.

161 Lakeshore Rd. E.  
Mississauga ON L5G 4T9  
T: 800-567-1041  
F: 905-274-5552  
W: www.accesscontrolsales.com

#### ADANAC SALES

3-2075 Brigantine Dr.  
Coquitlam BC V3K 7B8  
T: 604-540-0220  
F: 604-540-0124  
W: www.adanacsales.com

#### ADVANCED BATTERY SYSTEMS INC.

2346 Wyecroft Rd.  
Oakville ON L6L 6M1  
T: 905-829-8447  
F: 905-829-3211  
W: www.advancedbattery.ca

#### ALLIANCE MARKETING LTD.

114-3060 Norland Ave.  
Burnaby BC V5B 3A6  
T: 604-205-5284  
F: 604-205-5283  
Nanaimo BC.....888-992-2992  
W: www.alliancemarketing.ca

#### BIRDE MARKETING INC.

1-111 Esna Park Dr.  
Markham ON L3R 1H2  
T: 905-477-7722  
F: 905-477-7813  
Montreal QC.....514-335-4050  
Ottawa ON.....613-592-5411  
Vancouver BC.....604-634-0300  
W: www.birde.ca

#### CALBROOKE MARKETING INC.

P.O. Box 792  
Arthur ON N0G 1A0  
T: 519-848-3810  
F: 519-848-2555  
Montreal QC.....800-265-7283  
Toronto ON.....800-265-7283  
Vancouver BC.....800-265-7283  
W: www.calbrooke.com

#### CHESS ELECTRIC

4 Serpentine St.  
Copper Cliff ON P0M 1N0  
T: 705-682-2828  
F: 705-682-0847  
London ON .....519-494-1082  
N. Toronto, E. to Ottawa. 416-476-6333  
Peterborough ON.....705-755-1166  
Toronto ON .....416-574-6512  
Quebec QC .....418-878-8919  
W: www.chesselectric.ca

#### COLLINS SALES & ASSOCIATES

15-6400 Millcreek Dr., Ste. 620  
Mississauga ON L5N 3E7  
T: 866-556-2838  
F: 866-556-2907  
W: www.collinssales.com

#### CRITICAL POWER SYSTEMS INC.

14-5200 Dixie Road  
Mississauga ON L4W 1E4  
T: 905-625-9293  
F: 905-625-5970  
W: www.criticalpower.ca

#### D.A.D. SALES

2013 17th Ave.  
Didsbury AB T0M 0W0  
T: 403-335-3531  
F: 403-335-8347

#### DREW INITIATIVES INC.

110-1250 Mississauga Valley Blvd.  
Mississauga ON L5A 3R6  
T: 905-277-9816  
F: 905-277-8274

#### DTS MARKETING

160 Black Duck Terrace  
Halifax NS B4B 1Z6

T: 902-454-0283  
F: 902-454-4480  
W: www.dtsmarketing.ca

#### DUNCAN INSTRUMENTS CANADA LTD.

121 Milvan Dr.  
Toronto ON M9L 1Z8  
T: 416-742-4448  
F: 416-749-5053  
W: www.duncaninstr.com

#### ECLAIRAGE HI-TECH INC.

2758 Ste-Helene Street  
Longueuil QC J4K 3V4  
T: 450-442-7604  
F: 450-442-7610  
W: www.eclairagehitech.com

#### E.L.P. MARKETING LTD.

32 McQuade Lake Cres.  
Halifax NS B3S 1B6  
T: 902-450-5155  
F: 902-450-1222  
W: www.elp.ns.ca

#### ELECTRICAL AGENCY, THE

3481 Sanderling Cres.  
Mississauga ON L5L 3P4  
T: 905-820-6099  
F: 905-820-9414

#### ELECTRIXWEST AGENCIES LTD./ ALTASOUTH

5038-614 33 Heritage Way S.E.  
Calgary AB T2H 3B8  
T: 403-256-8649  
F: 866-680-1948

#### ELECTRO-TECH SALES INC.

4 Serpentine Ave.  
Dartmouth NS B2W 3X1  
T: 902-434-9269  
F: 902-434-8021  
W: www.electro-techsalesinc.com

#### EVERYTHING IN CONTROL INC.

5028 South Service Rd.  
Burlington ON L7L 5Y7  
T: 800-265-6263  
F: 905-681-7766  
W: www.everythingincontrol.ca

#### FOCUS ELECTRICAL SALES INC.

1666 Main St.  
Moncton NB E1E 1G7  
T: 506-852-9333  
F: 506-852-9118  
Bedford NS.....902-832-3991  
W: www.focus electrical.com

#### GETTY ASSOCIATES

1408 Hwy. 8  
Stoney Creek, ON L8E 5K7  
T: 905-643-9736  
F: 905-643-7294  
W: www.gettyassociates.ca

#### GT WOOD COMPANY LTD.

3354 Mavis Rd.  
Mississauga ON L5C 1T8  
T: 905-272-1696  
F: 905-272-1425  
W: www.gtwood.com

#### H.M. BROWN

P.O. Box 1140  
Dartmouth NS B2Y 4B8  
T: 902-468-2048  
F: 902-468-2140  
Moncton NB .....506-381-4330  
W: www.hmbrown.ca

#### HALLWOOD MILHAM TECHNOLOGIES

11-1520 Cliveden Ave. W.  
Delta BC V3M 5J8  
T: 604-526-4288  
F: 604-526-1850  
W: www.hallwood.ca

#### HENDERSON OLIVER SALES LTD.

45 Commercial Rd.  
Bolton ON L7E 1R6  
T: 905-857-2072  
F: 905-857-5715  
W: www.hendersonoliver.com

#### HUMELEC ASSOCIATES LTD.

755 The Queensway, Unit 25  
Mississauga, ON L4Y 4C5  
T: 905-276-3301  
F: 905-276-7013  
London ON .....519-495-1433  
W: www.humelec.ca

#### INTECH SOLUTIONS INC.

214-10836 24 St. S.E.  
Calgary AB T2Z 4C9  
T: 403-279-6520  
F: 403-279-6540  
Richmond BC .....604-244-1451  
W: www.intechsolutions.ca

#### INTERFAX SYSTEMS

45 Voyager Ct. N.  
Toronto ON M9W 4Y2  
T: 416-674-8970  
F: 416-674-8986  
W: www.interfaxsystems.com

#### INTRALEC ELECTRICAL PRODUCTS LTD.

1200 Cardiff Blvd.  
Mississauga ON L5S 1P6  
T: 905-670-0970  
F: 905-670-3098  
W: www.intralec.com

#### JEBCO AGENCIES INC.

19-1865 Sargent Ave.  
Winnipeg MB R3H 0E4  
T: 204-786-2604  
F: 204-786-4734  
Regina SK.....306-757-0707  
Saskatoon SK.....306-373-0771  
W: www.jebcoagencies.com

#### JFC SOLUTIONS

220 De L'Aubade  
Laval QC H7W 5K2  
T: 514-708-9504  
W: www.jfcsolutions.ca

#### K T SALES

224 Lee's Rd.  
North Bay ON P1B 8G4  
T: 705-495-6988  
F: 705-495-4300  
W: www.ktsales.ca

#### KEN WATT & ASSOCIATES INC.

8-17675 66 Ave.  
Surrey BC V3S 7X1  
T: 604-576-2838  
F: 604-576-2839  
W: www.kenwattassoc.com

#### KIRBY ELECTRIC

RR 1, 3782 Line 20  
St. Pauls Station ON N0K 1V0  
T: 519-271-4678  
F: 519-271-1817

#### KM ROBERTS & ASSOCIATES LTD.

20-18812 96 Ave.  
Surrey BC V4N 3R1  
T: 604-882-8488  
F: 604-882-8678  
W: www.kmroberts.com

#### KRISLIN AGENCIES LTD.

1490-2002 Victoria Ave.  
Regina SK S4P 0R7  
T: 306-565-3200  
F: 306-347-2888

#### LANGFORD & ASSOCIATES INC.

203-2175 Sheppard Ave. E.  
Toronto ON M2J 1W8  
T: 416-490-6546  
F: 416-490-6937  
W: www.langford-assoc.com

#### LAPLANTE & ASSOCIATES

1242 Labadie St.  
Longueuil QC J4N 1C7  
T: 450-670-8858  
F: 450-670-3958  
W: www.laplanthe-assoc.com

#### LEONARD SALES

385 Watline Avenue  
Mississauga ON L4Z 1T3  
T: 905-712-4313  
F: 905-712-4314

#### LES VENTES ELECTRASPEC INC.

807 Ch. Ste Anne des Lacs  
Ste-Anne-des-Lacs, QC J0R 1B0  
T: 450-224-9726  
F: 450-224-9729  
W: www.electraspec.ca

#### LUXTEC

120-445 St-Jean-Baptiste  
Quebec City QC G2E 5N7  
T: 418-871-8039  
F: 418-871-0932  
W: www.luxtec.ca

#### MADISON GROUP

1970 Alberta St.  
Vancouver BC V5Y 3X4  
T: 604-872-8155  
F: 604-872-4563  
W: www.madison-motors.com

#### MAC'S II AGENCIES LTD.

1851 Brigantine Dr., Unit 100  
Coquitlam BC V3K 7B4  
T: 604-540-6646  
F: 604-540-6602  
W: www.macsii.com

#### MACKENZIE ASSOCIATES

3-380 Sheldon Dr.  
Cambridge ON N1T 2C2  
T: 519-624-9901  
F: 519-624-1863  
W: www.mackenzieassociates.ca

#### MARITIME UTILITY AND INDUSTRIAL SALES LTD.

121 Old Bay Bulls Rd.  
St. John's NL A1S 1G3  
T: 709-368-4414  
F: 709-368-4415

#### MARTIN ELECTRICAL AGENCIES

1319 54 Street  
Edmonton AB T6L 2A7  
T: 780-463-1626  
F: 780-485-1704

#### MBS SALES & MARKETING LTD.

115 Hemlock Dr., RR 2  
Carleton Place ON K7C 3P2  
T: 613-257-8815  
F: 613-257-8526  
W: www.mbsales.com

#### MERIDIAN ELECTRIC LTD.

295 Alliance Rd., Unit 16  
Milton ON L9T 4W8  
T: 905-876-3333  
F: 905-876-4725  
W: www.meridianelectric.ca

#### MILHAM INDUSTRIES LTD.

11-1520 Cliveden Ave. W.  
Delta BC V3M 6J8  
T: 604-526-4288  
F: 604-526-1850

#### MILLER INSTRUMENTS LTD.

1-3871 North Fraser Way  
Burnaby BC V5J 5G6  
T: 604-431-8882  
F: 604-431-8714  
W: www.miller.bc.ca

#### MINITAURO SYSTEMS INC.

9482-51 Avenue  
Edmonton AB T6E 5A6  
T: 780-430-7954  
F: 780-438-2452  
W: www.minitaur.com

#### MOTION CANADA

1450 Meyerside Drive  
Mississauga ON L5T 2N5  
T: 800-526-9328  
F: 905-696-9308  
W: www.motionindustries.com

#### MTP INSTRUMENTS INC.

4409, Rue Charleroi  
Montreal QC H1H 1T6  
T: 888-326-7167  
F: 866-326-7835  
W: www.mtpinc.com

## SALES AGENTS

### MUNDEN ENTERPRISES LTD.

612-130 Solutions Dr.  
Halifax NS B3S 0B8  
T: 902-477-6666  
F: 902-477-5561  
Fredericton NB .....506-453-0635  
Maplewood NS.....902-644-1258  
Wolfville NS .....902-542-9796  
W: www.mundenenterprises.com

### NOBEL-TECK INC.

908, rue Berlier  
Laval QC H7L 4K5  
T: 450-667-8487  
W: www.nobelteck.com

### NORTH AMERICAN SALES CO. INC.

875 Via De La Paz, Ste. D & H  
Pacific Palisades CA 90272  
T: 310-459-8430  
F: 310-459-2884  
W: www.nasco-corp.com

### NORTHERN SALES AGENCY

3505 Falconbridge Hwy.  
Garson ON P3L 1E6  
T: 705-693-2066  
F: 705-693-3248

### NORTHWEST ELECTRICAL SOLUTIONS

Unit 496 - 7231 120 St.  
Delta BC V4C 6P5  
T: 604-630-5800  
F: 604-629-6145  
W: www.northwestelectricalsolutions.com

### NOVA POWER SAVINGS

5168 Hwy. 2  
Grand Lake NS B2T 1B5  
T: 902-860-4993  
F: 902-860-1253  
W: www.novapowersavings.com

### ONTECH ELECTRICAL SALES LTD.

750-2 Robert Speck Pkwy.  
Mississauga ON L4Z 1H8  
T: 905-277-2323  
F: 905-828-7172  
W: www.ontechsales.com

### PMC AGENCIES LTD.

163 Suzuki St.  
New Westminster BC V3M 6T5  
T: 604-644-3781  
F: 604-521-2326  
Calgary AB.....403-242-9883  
Delta BC .....604-526-4288  
London ON .....519-685-2059  
Passekeag NB .....506-832-3307  
St. Augustin QC .....418-878-8919  
Saskatoon SK.....306-244-7272  
Regina SK.....306-761-2860

### POWERCO CANADA INC.

10-2928 18 Street N.E.  
Calgary AB T2E 7B1  
T: 403-252-2444  
F: 403-252-2415  
Vancouver BC.....877-252-6565  
W: www.powerco.ca

### POWERCON

21 Gunton Dr.  
Etobicoke ON M9W 3G9  
T: 416-740-6140  
W: www.powercon.ca

### PRIMARY POWER DESIGNS INC.

205 Mackenzie Ave.  
Ajax ON L1S 2G1  
T: 905-426-2952  
F: 905-426-6016  
W: www.primarypowergroup.com

### PVE ASSOCIATES

190 Britannia Rd. E.  
Mississauga ON L4Z 1W6  
T: 905-890-3161  
F: 905-890-3501

### ROBLAN COOK AGENCIES LTD.

#19-503 13 St. S.E.  
Calgary AB T2G 5M9  
T: 403-214-2077  
F: 403-214-2081

### S & D MARKETING LTD.

48 Trider Cres., Unit 6  
Dartmouth NS B3B 1R6  
T: 902-835-1532  
F: 902-835-1402  
W: www.sdmarketing.ca

### SLS LIGHTING

22 West 2nd Ave.  
Vancouver BC V5Y 1B3  
T: 604-874-2226  
F: 604-874-4949  
W: www.sls-lighting.com

### STL LIGHTING GROUP

24 Hawthorne Rd.  
Cambridge ON N1S 3J9  
T: 519-620-9135  
F: 519-620-9137  
W: www.stllighting.com

### TECHNALINES MANUFACTURERS AGENCY

3212-115 St.  
Edmonton AB T6J 3H8  
T: 780-430-0330  
F: 780-437-4259  
W: www.technalines.com

### TMC SALES

PO Box 21021  
Winnipeg MB R3R 3R2  
T: 204-737-5036  
F: 204-888-6171  
W: www.tmcsales.ca

### TRELEC

1848 St-Ange  
Quebec QC G2G 0E3  
T: 418-809-8919  
F: 418-878-8920  
Montreal QC514-743-3888  
W: www.trelec.ca

### VIGILANT TECHNICAL SALES LTD.

28 Symonds Ave.  
St. John's NL A1E 5B1  
T: 709-753-6685  
F: 709-753-7759

### WALTECH ASSOCIATES

G3-2000 Appleby Line  
Burlington ON L7L 7H7  
T: 905-466-7417  
F: 905-315-8492  
W: www.waltechassociates.com

### WCD TECHNICAL SOLUTIONS INC.

897 St. Charles St. W.  
Woolwich ON N0B 1M0  
T: 519-588-9701  
F: 519-578-4798  
W: www.industronic.com

### W.G. MOORE & ASSOCIATES LTD.

1733 Wingrove Ave.  
Innisfil ON L9S 1S4  
T: 705-431-0045  
F: 705-436-4555  
W: www.wgmoorelighting.com

### WEBCO LIGHTING PRODUCTS INC.

1576 Kirkpatrick Way  
London ON N6K 5A3  
T: 519-657-2106  
F: 866-257-7711  
W: www.webcolighting.com

### WESTREP MARKETING INC.

152 Warrick Street  
Coquitlam BC V3K 5L4  
T: 604-544-4994  
W: www.westrepmarketing.com

### W.M. NIVEN ASSOCIATES LTD.

382 Centennial Rd.  
Scarborough ON M1C 2A3  
T: 416-449-1545  
F: 416-449-1025

## TRAINING, EDUCATION & SERVICE PROVIDERS

### A

#### ALGONQUIN COLLEGE OF APPLIED ARTS AND TECHNOLOGY

1385 Woodroffe Ave.  
Ottawa ON K2G 1V8  
T: 613-727-4723  
F: 613-727-7767  
W: www.algonquincollege.com

#### ALLPRISER LTD.

322 La Rose Ave.  
Etobicoke ON M9P 1B9  
T: 416-247-8219  
F: 416-247-4961  
W: www.allpriser.com

#### ATN INTERNATIONAL ENGINEERING SERVICES

1913-8 Lee Centre Dr.  
Scarborough, ON M1H 3H8  
T: 661-317-4580  
F: 661-951-7184

### B

#### BROSZ AND ASSOCIATES

64 Bullock Dr.  
Markham, ON L3P 3P2  
T: 905-472-6660  
F: 905-472-6665  
W: www.brosz.net

### C

#### C.S.A. ENTERPRISES LTD.

35 Ash Lake Crt.  
Halifax, NS B3S 1B7  
T: 902-450-5118  
F: 902-450-5097  
W: www.csarep.com

#### CAMBRIAN COLLEGE OF APPLIED ARTS AND TECHNOLOGY

1400 Barrydowne Rd.  
Sudbury, ON P3A 3V8  
T: 705-566-8101  
F: 705-525-2087  
W: www.cambrian.on.ca

#### CAMOSUN COLLEGE

3100 Foul Bay Rd.  
Victoria, BC V8P 5J2  
T: 250-592-1556  
F: 250-370-3551  
W: www.camosun.bc.ca

#### CANADA TRAINING GROUP

102 First Ave.  
Turtleford, SK S0M 2Y0  
T: 800-661-1663  
F: 306-845-3233  
W: www.canada-training-group.ca

#### CAPE BRETON UNIVERSITY

PO Box 5300, 1250 Grand Lake Rd.  
Sydney, NS B1P 6L2  
T: 902-539-5300  
F: 902-562-0119  
W: www.cbu.ca

#### COLLEGE OF NEW CALEDONIA

3330-22nd Ave.  
Prince George, BC V2N 1P8  
T: 250-562-2131  
F: 250-561-5861  
W: www.cnc.bc.ca

#### COLLEGE OF THE NORTH ATLANTIC (CNA)

432 Massachusetts Dr., PO Box 5400  
Stephenville, NF A2N 2Z6  
T: 709-643-7701  
F: 709-643-7808  
W: www.cna.nl.ca

#### CONESTOGA COLLEGE INSTITUTE OF TECH. AND ADV. LEARN.

299 Doon Valley Dr.  
Kitchener, ON N2G 4M4  
T: 519-748-5220  
F: 519-895-1097  
W: www.conestogac.on.ca

#### CONFEDERATION COLLEGE OF APPLIED ARTS AND TECHNOLOGY

1450 Nakina D., PO Box 398  
Thunder Bay, ON P7C 4W1  
T: 807-475-6112  
F: 807-623-3956  
W: www.confederationc.on.ca



**CSA**  
100-5060 Spectrum Way  
Mississauga, ON L4W 5N6  
T: 800-463-6727  
W: www.csa.ca  
CSA Standards (CSA) publishes over 3,000 standards for the safety, design and performance of a wide range of products and services spanning 54 industry sectors and provides training support to aid implementation.

### D

#### DURHAM COLLEGE

2000 Simcoe St. N.  
Oshawa, ON L1H 7L7  
T: 905-721-2000  
F: 905-721-3140  
W: www.durhamc.on.ca

### E

#### ELECTRICAL INDUSTRY TRAINING CENTRE

200-3623 29 Street Northeast  
Calgary, AB T1Y 5W4  
T: 403-291-2787  
F: 403-291-7027  
W: www.eitca.ca

#### ELECTRICAL SAFETY AUTHORITY

155A Matheson Blvd. W., Suite 200  
Mississauga ON L5R 3L5  
W: www.esasafe.com

#### ELECTRICIAN LICENSE

550 Eglinton Ave. W.  
Toronto, ON M5N 3A8  
T: 416-319-3299  
F: 416-849-4224  
W: www.electricianlicense.com

#### ENERGY ELECTRICAL SERVICES INC.

209 Wood St. E.  
Hamilton, ON L8L 3Z2  
T: 905-308-6727  
F: 866-356-2120

#### ESPS ELECTRICAL SAFETY PROGRAM SOLUTIONS INC.

363 West Ranch Place SW  
Calgary, AB T3H 5C3  
T: 403 532-9050  
W: www.esps.ca

#### EUCI

350-4643 S. Ulster St.  
Denver, CO 80237  
T: 303-770-8800 x 262  
F: 303-741-0849  
W: www.euci.com

### F

#### FANSHAWE COLLEGE OF APPLIED ARTS AND TECHNOLOGY

1001 Fanshawe College Blvd.,  
PO Box 7005  
London, ON N5Y 5R6  
T: 519-452-4430  
F: 519-452-4420  
W: www.fanshawec.ca

### G

#### GEORGE BROWN COLLEGE OF APPLIED ARTS AND TECHNOLOGY

500 MacPherson Ave.,  
PO Box 1015, Stn. B  
Toronto, ON M5T 2T9  
T: 416-415-2000  
F: 416-415-4993  
W: www.georgebrown.ca

#### GEORGIAN COLLEGE OF APPLIED ARTS AND TECHNOLOGY

One Georgian Dr.  
Barrie, ON L4M 3X9  
T: 705-728-1968  
F: 705-722-5123  
W: www.georgianc.on.ca

#### GREAT PLAINS COLLEGE

701 Dominion St.  
Biggar, SK S0K 0M0  
T: 306-948-3363  
F: 306-948-2094  
W: www.greatplainscollege.ca

### H

#### HOLLAND COLLEGE

140 Weymouth St.  
Charlottetown, PE C1A 4Z1  
T: 902-629-4217  
F: 902-629-4239  
W: www.hollandc.pe.ca

### I

#### ITS DESIGN AND AUDIT

8 The Cedars  
St. Catharines, ON L2M 6M8  
T: 416-254-1100

### K

#### K&S SERVICES

1273 N. Service Rd. E., Unit F10  
Oakville, ON L6H 1A7  
T: 905-465-1645  
F: 905-465-0412  
W: www.k-and-s.com

#### KEYANO COLLEGE

8115 Franklin Ave.  
Fort McMurray, AB T9H 2H7  
T: 403-791-4840  
F: 403-791-4841  
W: www.keyano.ca

### L

#### L. STOCH AND ASSOCIATES

4264 Flitter Crt.  
Mississauga, ON L5L 2H8  
T: 905-828-2262  
F: 905-828-2526  
W: www.lstoch.ca

#### LAKELAND COLLEGE

5707-47 Ave. W.  
Vermilion, AB T9X 1K5  
T: 780-853-8400  
F: 780-853-2955  
W: www.lakelandc.ab.ca



**LAMBTON COLLEGE OF APPLIED ARTS AND TECHNOLOGY**  
1457 London Rd., PO Box 969  
Sarnia, ON N7T 7K4  
T: 519-542-7751  
W: www.lambton.on.ca

**LETHBRIDGE COMMUNITY COLLEGE**  
3000 College Dr. S.  
Lethbridge, AB T1K 1L6  
T: 403-320-3200  
F: 403-320-1461  
W: www.lethbridgecollege.ab.ca

## M

**MEP JOBS**  
6200 Aurora Ave.  
Des Moines, IA 50322  
T: 888-482-2562 ext. 212  
F: 515-278-6025  
W: www.mepjobs.com

**MISSISSAUGA TRAINING CONSULTANTS**  
6117 Clover Ridge Cres.  
Mississauga, ON L5N 7B2  
T: 905-785-8012  
W: www.fiberoptictraining.com

**MOHAWK COLLEGE OF APPLIED ARTS AND TECHNOLOGY**  
Fennell Ave. & West 5th  
Hamilton, ON L8N 3T2  
T: 905-575-1212  
F: 905-575-2330  
W: www.mohawkc.on.ca

## N

**NEW BRUNSWICK COMMUNITY COLLEGE (NBCC)**  
PO Box 6000  
Fredericton, NB E3B 5H1  
T: 506-453-2597  
F: 506-453-7913  
W: www.nbcc.nb.ca

**NORTH ISLAND COLLEGE**  
2300 Ryan Rd.  
Courtenay, BC V9N 8N6  
T: 250-334-5000  
F: 250-334-5018  
W: www.nic.bc.ca

**NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY (NAIT)**  
11762-106 St.  
Edmonton, AB T5G 2R1  
T: 780-471-8874  
F: 780-471-8448  
W: www.nait.ca

**NORTHERN COLLEGE OF APPLIED ARTS AND TECHNOLOGY**  
Highway 101 E., PO Box 3211  
Timmins, ON P4N 8R6  
T: 705-235-3211  
F: 705-235-7279  
W: www.northernc.on.ca

**NORTHLANDS COLLEGE**  
PO Box 1000  
Air Ronge, SK S0J 1L0  
T: 306-425-4480  
F: 306-425-2696  
W: www.northlandscollege.sk.ca

**NOVA SCOTIA COMMUNITY COLLEGE (NSCC)**  
5685 Leeds St.  
Halifax, NS B3J 2X1  
T: 902-491-6722  
F: 902-491-4828  
W: www.nscc.ca

## P

**PRE-APPRENTICESHIP TRAINING INSTITUTE**  
100-10 Kodiak Cres.  
Toronto, ON M3J 3G5  
T: 416-638-1025  
F: 416-638-3993  
W: www.patnstitute.ca

## R

**RED DEER COLLEGE**  
56th Ave. - 32nd St.  
Red Deer, AB T4N 5H5  
T: 403-342-3300  
F: 403-340-8940  
W: www.rdc.ab.ca

**RED RIVER COLLEGE OF APPLIED ARTS, SCIENCE AND TECHNOLOGY**  
2055 Notre Dame Ave.  
Winnipeg, MB R3H 0J9  
T: 204-632-3960  
F: 204-632-9661  
W: www.rrc.mb.ca

## S

**SASKATCHEWAN INSTITUTE OF APPLIED SCIENCE AND TECHNOLOGY (SIASST)**  
400-119 4th Ave. S.  
Saskatoon, SK S7K 5X2  
T: 306-933-7331  
F: 306-933-5352  
W: www.goSIASST.com

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**  
PO Box 60  
Sault Ste Marie, ON P6A 5L3  
T: 705-759-6774  
F: 705-759-1319  
W: www.saultc.on.ca

**SELKIRK COLLEGE**  
2001 Silver King Rd.  
Nelson, BC V1L 1C8  
T: 250-352-6601  
F: 250-352-3180  
W: www.selkirk.ca

**SHERIDAN INSTITUTE OF TECHNOLOGY AND ADVANCED LEARNING**  
1430 Trafalgar Rd.  
Oakville, ON L6H 2L1  
T: 905-845-9430  
F: 905-815-4027  
W: www.sheridanc.on.ca

**SIR SANDFORD FLEMING COLLEGE**  
599 Brealey Dr.  
Peterborough, ON K9J 7B1  
T: 705-749-5530  
F: 705-749-5540  
W: www.flemingcollege.com

**SKIPWITH & ASSOC. INSURANCE AGENCY INC.**  
13330 Marsh Hill Rd.  
Port Perry, ON L9L 1Z5  
T: 800-661-9023  
F: 905-985-0848  
W: www.skipwith.ca

**ST. LAWRENCE COLLEGE**  
King & Portsmouth  
Kingston, ON K7L 5A6  
T: 613-544-5400  
F: 613-545-3920  
W: www.sl.on.ca

**SUDERMAN ESTIMATING SYSTEMS INC.**  
79 Dawn Cres.  
Cambridge, ON N3C 4A9  
T: 519-249-1748  
F: 519-249-1975  
W: www.electrical-estimating.net

## T

**THOMPSON RIVER UNIVERSITY**  
900 McGill Rd.  
Kamloops, BC V2C 5N3  
T: 250-828-5000  
F: 250-828-5159  
W: www.tru.ca

## U

**UNIVERSITY COLLEGE OF THE NORTH**  
436 Seventh St., PO Box 3000  
The Pas, MB R9A 1M7  
T: 204-627-8500  
F: 204-623-7316  
W: www.ucn.mb.ca

## W

**WALTER DOW ASSOCIATES LIMITED**  
139 Mulock Ave.  
Toronto, ON M6N 1G9  
T: 416-236-8880  
F: 416-236-9160  
W: www.walterdow.com

**WINNIPEG TECHNICAL COLLEGE**  
130 Henlow Bay  
Winnipeg, MB R3Y 1G4  
T: 204-989-6500  
F: 204-488-4152  
W: www.wtc.mb.ca

## Y

**YUKON COLLEGE**  
500 College Dr.  
Whitehorse, YT Y1A 5K4  
T: 867-668-8710  
F: 867-668-8890  
W: www.yukoncollege.yk.ca

# Here's your chance to Get Involved!

Get your news, information and articles into *Electrical Business* magazine... the only publication serving the Canadian electrical industry from coast to coast.

- Send us your new product / service announcements.
- Send us information about you and the people in your company; special promotions; company anniversaries, awards, and the like. Also send information about acquisitions, mergers, new projects / contracts, etc.
- Let us know about special events, such as conferences, tradeshow, open houses, seminars, etc.
- Submit your feature / technical articles and case studies. Topics can range from exploring industry issues and addressing the nuts-and-bolts of electrical products, to case studies highlighting the innovative use of a product or system.

We entertain all stories pertaining to Canada's electrical industry, but we specifically want to hear from electrical contractors and engineers, electricians, suppliers/distributors, manufacturers, inspectors and code officials. Not just for *Electrical Business* magazine, but for our website and newsletter, E-Line, too!

Contact the editor, and *Get Involved* with *Electrical Business*!



[www.csa.ca](http://www.csa.ca)



### CSA STANDARDS

Shop.csa.ca is your one-stop for purchasing standards, application tools and related training offered by CSA Standards, Canada's pre-eminent Standards Development Organization.

[www.flukenetworks.ca](http://www.flukenetworks.ca)



Fluke Networks provides innovative solutions for the installation and certification, testing, monitoring and analysis of copper, fiber and wireless networks used by enterprises and telecommunications carriers. The company's comprehensive line of Network SuperVision™ Solutions provide network installers, owners, and maintainers with superior vision, combining speed, accuracy and ease of use to optimize network performance.

[www.flukecanada.ca](http://www.flukecanada.ca)



Fluke Electronics Canada offers complete families of professional test tools, including power quality, thermography, digital multimeters, clamp meters, insulation resistance testers, portable oscilloscopes, thermometers, process testing equipment and accessories, as well as educational and training resources.

[www.leviton.com](http://www.leviton.com)



### LEVITON MANUFACTURING OF CANADA LTD.

Leviton Manufacturing of Canada Ltd. is the only company in the Canadian marketplace to offer a complete range of products, including switches, receptacles, connectors and lighting controls, as well as transient surge protectors and voice/data communication products.

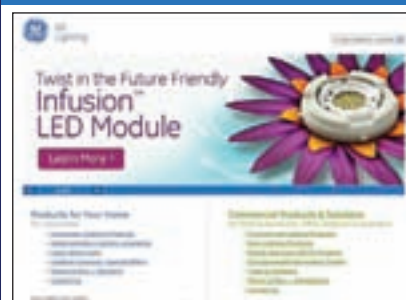
[www.ge-ed.ca](http://www.ge-ed.ca)



### GE ELECTRICAL DISTRIBUTION

Leading the future of electrification with an expanded focus on customer challenges, GE Energy – Industrial Solutions offers electrical distribution solutions for commercial, industrial, institutional and residential applications.

[www.gelighting.ca](http://www.gelighting.ca)



### GE LIGHTING

Discover GE Lighting's complete range of lighting products for commercial, industrial, residential and OEM applications. Explore lighting solutions for specific industry segments and access educational resources and tools.

[www.rcce.com](http://www.rcce.com)



### RCC ELECTRONICS

Test Equipment solutions provided by RCC Electronics are Recorders, Data Loggers, Power Analyzers, Breaker Timers, Transformer Ratiometers, Insulation Testers, Relay Testers, VLF Cable Diagnostics, Ultrasound.

[www.standardpro.com](http://www.standardpro.com)



### STANDARD PRODUCTS

Whether your application is commercial, industrial or retail driven, STANDARD has the answer. For a complete list of our innovative products, visit our website at [www.standardpro.com](http://www.standardpro.com).

[www.sylvania.com](http://www.sylvania.com)



### OSRAM SYLVANIA LTD.

OSRAM SYLVANIA LTD. provides innovative and environmentally responsible lighting products that produce more light while consuming less energy. Find comprehensive technical and application information for sustainable lighting solutions at [www.sylvania.com](http://www.sylvania.com).

# Electrical Business



EBMag's bi-weekly newsletter

## E-Line: Your Industry News Broadcast

E-Line delivers unique, timely information that "fills the void" between editions of Electrical Business.

**Sign up at [www.EBMag.com](http://www.EBMag.com) – it's FREE!**





# POWER

## from the sun is not new

And it's coming into its own... are you ready?

David Herres

We think of the PV system as a contemporary solution to the energy crisis and perhaps the wave of the future, but our knowledge of solar power as a source of electrical energy dates back to the 19th Century.

In 1839, Edmond Becquerel first used sunlight to make current flow through a conductor. Another century elapsed before researchers ascertained how this process occurred on an atomic level. The picture that emerged contains a fascinating insight regarding subatomic reality; it indicates that the underlying process may, in the future, provide an answer to our fossil fuel-based energy dilemma.

### How promising is solar power?

Over 89,000 terawatts of solar energy fall upon the surface of the earth. This is close to 6000 times the amount of power consumed by the people who populate our planet. Solar technology looks promising as a way to power our culture without harming our planet. Since mid 2008, the price of PV (photovoltaic) modules has declined 60%, and the slide appears to be ongoing. The solar option seems to become more favourable in contrast to fossil and nuclear power as time goes by. How does it compare to wind power?

Historically the two have followed similar trajectories and both are consolidating recent gains. When the economy gets back on track, both technologies will doubtless enjoy

accelerated growth.

Solar power enjoys two significant advantages over wind power: permitting is less difficult and community opposition less of an impediment since, by their very nature, wind turbines stand high above their occasionally indignant neighbours, whereas solar arrays lay flat on the ground.

### Solar technology

The solar cell is the individual unit that makes up solar modules and entire solar arrays, but how does it work?

It is a specialized type of diode—or solid-state one-way gate—that conducts in one direction but blocks the flow of electrons when reverse-biased. A solar cell has the additional property of generating electrical power when exposed to sunlight. It is a reverse counterpart to the light-emitting diode, or LED. Solar radiation that strikes a PV cell is reflected, absorbed or passes through. Only the portion that is absorbed results in electron flow, or usable electricity.

The most common PV cell consists of two layers of semi-conducting silicon placed in contact. The two layers are *n-type* and *p-type* silicon. One of the reasons that silicon is a useful material in this application is that it has four electrons in its outer, or valence, layer. It is that outer layer that is responsible for atomic interaction. (Adjacent atoms bond more or less strongly when their valence

electrons interact in various ways.)

Silicon (Si) has an atomic number of 14. It is the eighth most common element by mass in the universe. Silicate minerals comprise over 90% of the earth's crust. The material is widely used in such diverse applications as Portland cement, glass and silicone products. A small fraction of the total usage is in semiconductors for electronics products. Solar cells fall into this category.

*N-type* silicon has excess electrons while *p-type* silicon has excess holes, or lack of electrons. Nevertheless, both materials are electrically neutral unless they are bonded together and exposed to light. When that happens, the absorbed energy causes an electrical charge to appear across the barrier between the *n-* and *p-type* materials. When connected to a load, this voltage creates a flow of electrons, or electrical current, provided electrodes are attached to the PV cell.

The mechanism by which light is converted into electrical energy has been well-known since 1905, when Albert Einstein uncovered the key to this mystery. He described light as discrete quanta, now known as photons, and he outlined the basic principle of particle absorption. It is now known that by placing *n-type* silicon in contact with *p-type* silicon, a *p-n* junction is created. When this region absorbs light particles, excess electrons move from the *n-type* area to the *p-type* area, resulting in positive and negative charges.

A utility-interactive solar array. The alt-azimuth angle and southern orientation are arranged for maximum power generation and the installation does not harm our planet's environment. Photo © Judith Howcroft.

The n- and p-types of silicon are created by adding minute amounts of other substances—a process called doping. This produces radical changes in the electrical properties of the overall structure. Specifically, an n-type semiconductor is created by doping the silicon with a material that has five valence electrons, commonly phosphorus. A p-type semiconductor is created by doping the silicon with a material that has three valence electrons, commonly boron.

As mentioned, to extract usable energy from the PV cell, it is necessary to install electrodes on the cell and connect them to an external load. The back-side contact, away from the incoming light, is relatively simple. An aluminum or molybdenum plate is attached. But the front side, facing the light source, is more of a challenge because a solid plate, like on the back side, would block the light. So the front-side electrode, by necessity, consists of some sort of grid that spreads across the face of the cell and collects the electrical current. This grid must spread to all parts of the cell since the silicon has a relatively high resistance and current would not readily flow through it.

If the 'fingers' that form the grid are too large, they will block the incoming light, resulting in a loss of energy. If they are too small, there will be an ampacity problem—also resulting in energy loss. Various solutions are possible, such as making these front-side electrodes deep, rather than wide, and choosing a low-resistance metal. Top surface grids can be made by depositing metal vapours through a mask, or using a screen-printing procedure.

An efficient front-side grid shades only about 3% to 5% of the cell's surface, and minimizes resistance loss.

Another approach has been to employ a transparent conducting oxide layer. Tin oxide has been used successfully.

The output of a solar cell is direct current (DC), and this is fine for many stand-alone scenarios such as keeping batteries charged to power electronic equipment in remote locations where a utility connection is not available. Isolated homesteads use such a DC output to good effect for lighting and light-duty usage.

On a somewhat larger scale, individual homes and businesses with substantial solar arrays may co-generate along with a utility. During a sunny day when electrical demand is low, excess energy is fed back into the grid, and this fact is reflected in the metering. For this interaction to take place, the DC has to be processed by a synchronous inverter. Direct current is changed to alternating current, utility frequency is matched, and the waveform is synchronized, or locked in phase, so that a useful power transfer can occur. It is also necessary to provide transfer switch capability so that in an outage utility workers will not be exposed to danger.

### Constant innovation

Solar technology is characterized by constant innovation. One of the big stories is the (price) war between thin-film and crystal factions. *Thin-film* solar cells first appeared as small

strips used to power hand-held calculators, and stand in opposition to wafer and bulk silicon.

A thin-film solar cell is created by vapour deposition. The silicon is deposited on metal, glass or plastic, then coated with transparent conducting oxide to provide a top-side electrode with good characteristics for the collection of electrical current. Thin-film solar panels are being successfully used as integrated building materials, such as photovoltaic roofing shingles and building siding. We can visualize a time when commercial buildings and residences will come equipped with the capability to harvest their own energy supply from the solar radiation that strikes their outside finish surfaces. (The capability exists at present, but economic barriers still exist before this potential can become a reality.)

Thin-film has been less efficient than silicon crystal cells but, since it is generally cheaper to manufacture, it has made significant inroads prior to 2010. Then, without warning, the price of crystal silicon went into free fall. As a result, the market share of thin film declined by 30% that year.

(Some players remain undaunted. First Solar, the largest manufacturer of thin-film solar panels, offers turn-key power plants. In Canada and the United States, First Solar provides utility customers and independent power producers with complete solar PV system solutions, including project development, financing, engineering, procurement and construction, as well as operations and maintenance for the life of the project.)

### Market possibilities

It has been suggested that solar photovoltaic power generation may not be appropriate to Canada's more northern regions, where there are colder temperatures and less direct sunlight. Also, the presence of abundant hydropower has been seen as an economic obstacle to the development of a solar infrastructure.

These observations are not altogether valid, for several reasons. In the first place, colder ambient temperatures actually equate to higher electrical output on the part of a solar cell. The available power is a function of the temperature differential between the two sides of the p-n junction. As a matter of fact, electrical codes typically require correction factors for ambient temperatures below 25°C. In areas under National Electrical Code (NEC) jurisdiction, the open-circuit voltage must be multiplied by a factor of 1.25; for example, when the temperature drops below -36°C.

Secondly, direct sunlight is not absolutely required for PV generation of electrical power. Moreover, solar power is highly compatible with hydro since it contributes diversity to system capability. In a time of drought, when hydro production diminishes, solar output will increase dramatically, making a far better situation for the grid.

It is a fact that solar development in Canada has been extensive. For a period of time in 2010, Canada had the largest solar PV power station in the world: the 97 megawatt Sarnia PV power plant in Ontario. Far larger

solar utility installations are now being built in many parts of the world. Government subsidies play a decisive role but, when they are removed as a result of shifting political and/or economic winds, it is possible for solar development to experience a period of decline.

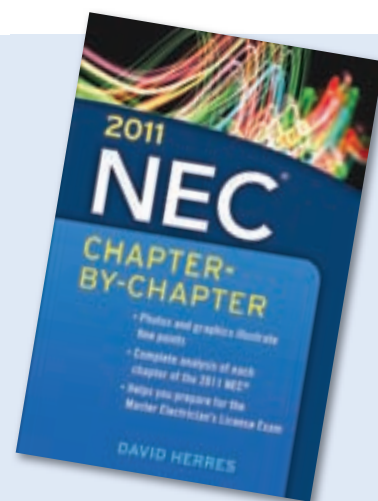
CanSIA (Canadian Solar Industries Association) is a national trade association that represents about 650 solar energy companies throughout Canada. The organization predicts that, by 2025, solar energy will be widely deployed throughout Canada and that the solar industry will support over 35,000 jobs and displace 15 to 31 million tons of greenhouse gas emissions per year.

No one knows for sure what the future may bring for Canada, the North American grid, or the world as a whole, to say nothing of outer space. However, a few generalizations are possible.

Fossil fuels are not going to be around forever. Nuclear power will always be problematic, unless that highly elusive goal of cold fusion is achieved. Biomass and similar solutions may be helpful, but will never be a complete answer. We probably need to moderate our need for energy, but it is hard to conceive that we will return to a pre-industrial existence.

It is likely, therefore, that wind and solar power will play increasingly significant roles. Both of these are abundant resources. The only impediment to full usage is economics, but that seems to diminish with the passage of time.

As professionals in the electrical industry, it appears that the best course of action is to be prepared for the altered reality that wind and solar will bring to our field of operations. Already, building and electrical codes are taking increasing notice of these sources of energy, and the ways in which they need to be harnessed so that they are safe for those who work with them, as well as the end users. Increasing our knowledge of applicable mandates and of the underlying electronics is certainly an appropriate response to our changing reality. **EB**



*A regular contributor to Electrical Business, David Herres is a Master electrician and author of nearly 40 articles on electrical and telecom wiring. He recently authored "2011 National Electrical Code: Chapter-by-Chapter", published by McGraw-Hill and available at Amazon.com.*



# IPEX NEW PRODUCTS FROM IPEX ELECTRICAL SYSTEMS

## Round Floor Box and Stand



Simple yet innovative, the new Round Floor Box Stand is designed to raise the Round Floor Box off the concrete form allowing the ENT or conduit to enter the Box in a flat and straight path. Installed together, the Floor Box and Stand accommodates the

different rebar and post-tensioned cable heights and slab depths found from job-site to job-site.

Sold as a kit, IPEX Electrical offers the Round Floor Box and Stand conveniently packaged together as one complete product offering.

## SceptaCon™ PVC Conduit for HDD



If you're running electrical and telecommunication cable conduit under a busy road or highway, then you need SceptaCon™. SceptaCon™ links seamlessly to existing PVC conduit infrastructure and allows utilities to standardize on PVC throughout

their entire electrical system. And because SceptaCon™ is made to the same high standards as our Scepter Rigid PVC Conduit, contractors and electrical utilities can be assured of the same level of quality – above ground and below.

## Save Time & Money with Kwikon® Concrete Wall Boxes



Kwikon® Single Gang Concrete Wall Boxes offer a fully assembled, PVC alternative for installing boxes in poured-in-place concrete walls.

Featuring a concrete-tight poly film covering the box opening and integral hubs, the Concrete Wall Box eliminates the time-consuming wrapping and taping work associated with traditional metal boxes.

The non-metallic, non-conductive and non-corroding boxes arrive at the jobsite ready to install saving you time and money!

## ENT Support for Concrete Slab Construction



Perfect for use in high-rise, post-tensioned buildings, the new ENT Support Unit (ESU) raises the tubing or conduit up off the concrete

form to maintain a level raceway during the concrete pour. With its minimal surface contact, the ESU allows for maximum aggregate flow and concrete consolidation. Constructed with an easy locking mechanism for any 1/2" to 2" sized ENT, the ESU saves installation time and labour compared to using traditional tie wire. The plastic material also eliminates corrosion on exposed surfaces.

## EPR Kit Adapters make Duct repairs quick and easy!



New Adapters for our EPR Conduit Repair Kits allow contractors to repair a broken section of DB-II duct while leaving the cables inside

and restoring the duct to its original form. The pre-cut adapters easily open around existing cabling to make repairs quickly and effectively, reducing end-user downtime and complaints, and saving contractors time, labour and money.

## DEMANDING ENVIRONMENTS ASK FOR SCEPTER UNIVERSAL F-SERIES



**Covers & Boxes  
Now Universally  
Compatible**

Contractors know that only Scepter's Universal F-Series double gang boxes and covers have them covered even in the most demanding areas like wash-downs, high corrosion and chemical environments. Our new Universal design works with any industry standard double gang box or cover offering greater ease and flexibility on the jobsite.

Visit [ipexelectrical.com](http://ipexelectrical.com) to watch our new product video.

Toll Free: 866-473-9462 | [www.ipexelectrical.com](http://www.ipexelectrical.com)

Products are manufactured by IPEX Electrical Inc.



**Scepter®**

Tough Products for Tough Environments®

For more information call  
Cdn. Toll Free: 1-866-473-9462  
or visit [www.ipexelectrical.com](http://www.ipexelectrical.com)

Products manufactured by IPEX Electrical Inc.  
Kwikon® and SceptaCon™ are trademarks of IPEX Branding Inc.



# Opportunities in electric vehicles surge



Photo courtesy Tesla Motors.



**There's no turning back as automakers drive toward electrification**

Gerry Malloy

**T**he auto industry, worldwide, is charging full speed ahead toward the electrification of the automobile.

Draconian fuel-economy regulations that will keep tightening from now until at least 2025 all but ensure that electrically driven vehicles will become a significant part of the product mix in Canada and the United States, as well as overseas.

Some of those vehicles will be conventional hybrids, with which we have become familiar over the past decade. But, increasingly, they will be plug-in hybrids (PHEVs) or battery-electric vehicles (BEVs). And what makes those vehicles different from anything we've

seen before, in any significant volume, is that they'll all need charging from the electrical grid. A lot of charging.

Which means there's going to be a real surge in the need for the installation of dedicated chargers or, at the very least, high-voltage circuits. And that need means new opportunities for electrical suppliers and contractors at all levels, and to a multiplicity of customers.

## **Volt and Leaf are the vanguard**

Two highly publicized new vehicles arriving on the Canadian scene this fall are at the cutting-edge of this change in direction. And they preview the type of infrastructure expansion that will become necessary over the next decade.

General Motors calls its Chevrolet Volt an "extended range electric vehicle" (EREV). In pure technical terms, it is a series hybrid, in which a small gasoline engine is used to drive a generator to keep its batteries charged and power its electric motor, until the gas tank runs dry—just like a normal car.

But the batteries can also be charged by plugging into the grid. Enough so that the Volt can be driven up to 56 km, depending on operating conditions, on battery power alone, before the gasoline engine ever kicks in. It is possible, then, that someone commuting less than 56 km/day, round-trip, would never use any



Photo courtesy Mitsubishi.



## Plug-in hybrids and electric vehicles available **NOW** or **EXPECTED SOON**

- 2011 Tesla Roadster
- 2012 Chevrolet Volt
- 2012 Fisker Karma S plug-in hybrid
- 2012 Ford Transit connect electric
- 2012 Mitsubishi i-MiEV
- 2012 Nissan Leaf
- 2012 Smart Fortwo electric drive
- 2012 Toyota hybrid plug-in
- 2012 Toyota Rav4 EV
- 2012 Volvo C30 electric
- 2013 Audi e-tron
- 2013 BMW i3
- 2013 Ford C-Max Energi
- 2013 Ford Escape plug-in hybrid
- 2013 Ford Focus electric
- 2013 Honda Fit EV
- 2013 Tesla Model S

gasoline. But the gasoline engine provides a backup to ensure the driver isn't stranded should the battery become discharged.

Nissan's Leaf is a pure BEV. It has no engine; just batteries. Its nominal driving range is about 117 km, which means it's capable of longer commutes than the Volt in EV mode but, when its battery is dead, it stops... until it's recharged, that is.

These two vehicles are the vanguard of a host of similar vehicles of both types that are now (or soon will be) in the pipeline, and they illustrate why there will be two different types of charging needs: private and public.

### Home charging

Both the Leaf and Volt can be recharged by plugging into a common 120-volt household outlet. Nothing more is required, which will make it easy for them to be charged at home, if one's home includes a parking place with access to an electrical output (not always the case, particularly in cities).

There's another problem with that scenario. Recharging either vehicle at 120 volts takes a long time for a full charge: 10 hours for the Volt; 20 hours for the Leaf.

Which is why a market for Level 2 (240-volt) chargers is quickly developing for both home and commercial use. Within North America, SAE J-1772 has been adopted as a standard for charging connectors to enable the same chargers to be used for multiple vehicles.

General Motors is marketing a Level 2 charger supplied by SPX Service Solutions to its Volt customers. It plugs directly into a 240-volt outlet and reduces the Volt's recharge time to about four hours.

Nissan has partnered with AeroVironment to

supply Leaf customers with hard-wired Level 2 chargers that cut its recharge time to somewhere around seven to eight hours.

Numerous other suppliers offer Level 2 EV chargers, including such well-known names as Schneider Electric, Coulomb Technologies, Leviton and General Electric, to name just a few, and their numbers continue to expand.

Beyond just home installations, a market is also developing among municipalities, government agencies, businesses—particularly those that want



# LONGEVITY LIKE ...

EVER WISH A LIGHTING  
SYSTEM COULD STAND  
THE TEST OF TIME?

INTRODUCING  
**SUPER PULSE START**  
**Long Life (SPL)**  
*Extended Life Lamp Series*

- **40,000 Hour Rated Life**
- Excellent Maintained Lumens
- Ultimate Retrofit Solution
- Reduction in Maintenance
- Patent Pending Design
- Available in 60-575 Watts



*Metal Halide Lasting This Long,  
It Had To Be Called "Super"!*



**Ballastronix inc.**  
by  **VENTURE**

THE SYSTEMS APPROACH: BALLASTRONIX®  
BALLASTS AND VENTURE LIGHTING™ LAMPS

**800-265-2690**

For more information about this new product, and how  
Venture can do an assessment of your facility, go to

**VentureLighting.com/SPL**



**VENTURE**  
**LIGHTING**

© 2011 Venture Lighting International.  
Venture Lighting and Ballastronix are registered trademarks of Venture Lighting International

VLC-0015A1-0611

## Electrification drive moves up to medium and heavy trucks

Hybrid-electric cars have been around for more than a decade and hybrid pickup trucks, plug-in hybrids and electric vehicles (EVs) are now making their mark as well.

Those technologies have been slower to infiltrate the medium and heavy truck markets, but they are also beginning to appear there in greater numbers. And that trend is expected to increase dramatically over the next five years.

A report released recently by Colorado-based Pike Research, a market research and consulting firm specializing in clean-technology markets, predicts that global sales of hybrid, plug-in hybrid and battery electric trucks will surpass 100,000 vehicles annually by 2017.

Truck manufacturers are looking for technologies that can help mitigate the rising cost of diesel fuel while meeting increasingly strict emissions requirements, the report says. And they got an additional incentive in September when American president Obama announced the first-ever fuel economy standards for medium- and heavy-duty vehicles.

The new rules are predicted to reduce fuel consumption by 10% to 15% between the 2014 and 2018 model years—a significant hurdle for truck-makers to overcome, but one that opens the door for greater electrification of those vehicles.

A broad range of hybrids are already offered in that market. Ford, via its originally Canadian partner, Azure Dynamics, offers a hybrid (E450) cargo van and chassis, as do Freightliner and Navistar. The latter has also developed a purpose-built battery-electric delivery van, for which Canada Post is a customer.

Mack and Volvo offer hybrids specifically for the refuse collection market and Smith Electric Vehicles provides battery-electric Class 5 and 6 units for such specialized applications as airport service.

Further up in Class 6 and 7 territory, Freightliner, Kenworth, Navistar and Peterbilt offer a variety of hybrids. Peterbilt even markets a hybrid long-haul tractor.

Hybrids and electric trucks are particularly well-suited to city delivery service, with frequent starts and stops as their electric motors provide maximum torque from start-up to aid acceleration and the use of regenerative braking when slowing down helps recharge their batteries. **EB**



Photo courtesy GM.

to demonstrate their environmental responsibility—and at auto dealerships that will be required to sell and service electric vehicles.

As an example of business involvement, Google in the United States has already installed over 220 charging stations, and is planning 250 more. The charging stations are used for staff-owned electric vehicles, as well as by GFleet, the company's employee car-sharing program.

### Fast chargers

The limited range of BEVs, in particular, is also driving the installation of commercial charging stations in areas where EV populations are growing rapidly, such as California. For that purpose, several companies, including Schneider and Eaton, are developing and offering so-called fast chargers (480-volt) that can achieve almost full-charge in some vehicles in as little as one-half to three hours.

One of the problems with that

approach is that there is as yet no single connector standard that has been adopted by all automakers. The Japanese are the furthest advanced in that regard, and agreement on a common standard is expected in the near future.

Looking a little further into that future, there is the real possibility of connector-free charging using wireless magnetic resonance devices. Delphi has demonstrated a system that comprises two metal plates about the size of a pizza box. One is attached to the floor, the other to the bottom of a vehicle and when the latter is driven over the former charging begins, at about the same rate as with a Level 2 connection.

It may be a while before EV charging stations are as common on street corners as gas stations are now. They'll probably even take a completely different format. But, rest assured, the day is coming when EVs of various types will no longer be a novelty but part of the mainstream. And, between now and then, there's a lot of *electrical business* to be done. **EB**



Photo courtesy Ford Motors.



Visit **EBMag.com**  
and click **Calendar** to  
see an extensive list of  
upcoming events.



**IEEE IAS Electrical  
Safety Workshop**  
*IEEE Industry  
Applications Society*

**January 30-February 3,**  
Daytona Beach, Fla.  
Visit [bit.ly/nviHyA](http://bit.ly/nviHyA)



**Renewable Energy Investment  
& Grid Development Strategy**  
*CI Energy Group*  
**January 30-31,** Toronto, Ont.  
Visit [www.renewablepowerconference.com](http://www.renewablepowerconference.com)

**BICSI Winter Conference & Exhibition**  
**February 12-16,** Orlando, Fla.  
Visit [www.bicsi.org](http://www.bicsi.org)



**Electric West**  
**February 21-23,** Las Vegas, Nev.  
Visit [www.electricshow.com](http://www.electricshow.com)

**Electric Vehicles & Infrastructure Summit**  
**February 22-23,** Toronto, Ont.  
Visit [www.evehiclesummit.com](http://www.evehiclesummit.com)



**PowerTest 2012**  
*InterNational Electrical Testing  
Association (NETA)*  
**February 27-March 1,** Fort Worth, Texas  
Visit [www.powertest.org](http://www.powertest.org)

**ECAA 50th Anniversary Convention**  
*Electrical Contractors Association of Alberta*  
**March 2-12,** Cabo San Lucas,  
Baja California  
Visit [www.ecaa.ab.ca](http://www.ecaa.ab.ca)



**IEEE IAS Electrical Safety,  
Technical and Mega  
Projects Workshop**  
**March 19-21,**  
Edmonton, Alta.

Visit [www.ieee.org/estmp](http://www.ieee.org/estmp)



**LEducation 6**  
*Designers Lighting Forum of New York*  
**March 21,** New York, N.Y.

**AEL Electrical Learning Expo**  
*Alberta Electrical League*  
**March 22,** Grande Prairie, Alta.  
Visit [www.elecleague.ab.ca/expo.aspx](http://www.elecleague.ab.ca/expo.aspx)



**Light+Building**  
**April 15-20,** Frankfurt am Main, Germany  
Visit [www.light-building.com](http://www.light-building.com)

**A-D Spring Network Meeting**  
*Affiliated Distributors*  
**April 23-25,** Phoenix, Ariz.  
Visit [www.adhq.com](http://www.adhq.com)

**BICSI Canadian Conference & Exhibition**  
**April 29-May 2,** Niagara Falls, Ont.  
Visit [www.bicsi.org](http://www.bicsi.org)



**MEET 2012**  
**May 2-3,** Moncton, N.B.  
Visit [www.masterpromotions.ca](http://www.masterpromotions.ca)



**Lightfair**  
**May 9-11,** Las Vegas, Nev.  
Visit <http://www.lightfair.com/lightfair/V40>



**Skills Canada National Competition**  
**May 13-16,** Edmonton, Alta.  
Visit [www.skillscanada.com](http://www.skillscanada.com)

**EFC Electrical Council Conference**  
*Electro-Federation Canada*  
**May 29-June 1,** Whistler, B.C.  
Visit [www.electrofed.com](http://www.electrofed.com)



**MEL Electrical Showcase**  
*Manitoba Electrical League*



**May 30-31,** Winnipeg, Man.  
Visit [www.meleague.net](http://www.meleague.net)

**A-D Clean Energy Summit**  
*Affiliated Distributors*  
**June 2012,** Chicago, Ill.  
Visit [www.adhq.com](http://www.adhq.com)

**CAF-FCA National Conference**  
*Canadian Apprenticeship Forum*  
**June 3-5,** Regina, Sask.  
Visit [www.caf-fca.org](http://www.caf-fca.org)



## From source to display

### Hubbell makes A/V integration easier



**NEW!**  
**Flat Panel TV Box**



**Innovative XEnd™  
Plug-n-Play System**



**End-to-End Delivery  
Wall, Ceiling, Table, Floor**



**Surge or Standard  
Power Kits**



**iStation A/V  
Modules**

**HUBBELL®**  
Premise Wiring

[www.hubbellonline.com/wiring](http://www.hubbellonline.com/wiring)





## Articulating business values

*If they will steal for you, they will steal from you.*

*If a customer overpaid me \$100 cash, would I tell my partner?*

**W**hat value systems do you espouse? How are you and your business perceived?

Your company should have a culture; a culture of which you are proud and that customers appreciate. Everyone in the company must subscribe to the same value system for the culture to prevail. When recruiting new people, it is essential that your value system be a part of the recruitment process.

Bid and spec contractors have to be quite ruthless when it comes to running their projects. They got the job because their price was low; now they have to find a way to make money. Ensuring they get paid properly for every extra, getting every possible extension and recommending changes that will generate more profit are common strategies that pay off for the successful bid and spec contractor. Contractors who do design-build, service



or specialty work usually get the work because of their perceived value. They must take a very different approach to winning and managing projects... a softer approach.

It's not my place to say which way you should go, but it is essential that you and

your team are on the same page, whatever that page may be. I will say this: whatever reason you have for making money, you want to make sure you are being ethical. A business built on unethical practices has no right to survive and prosper.

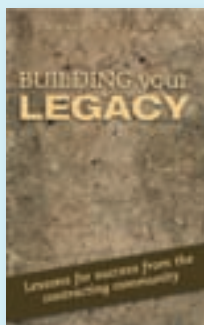
I ask my contractors whether they've ever padded their timesheets on work that is charged by the hour. When they have, it communicates the message throughout the company that it is okay to cheat the customer. Once employees learn this lesson, it doesn't take them long to start applying this same philosophy in their dealings with you.

The goal for you, your business and your employees is to achieve the desired results ethically. You need to instill an ethical corporate value system in your people and your dealings with everyone.

### The takeaways

- Understand and articulate the values you espouse.
- Instill these values in all your team members.
- Make sure your customers know you run an ethical business.
- Make ethical behaviour a part of everyone's job description. **EB**

*Ron Coleman, B. Comm., FCCA CMC, a member of the Institute of Certified Management Consultants of British Columbia, just published his latest book, "Building Your Legacy: Lessons for Success from the Contracting Community", which teaches you how to make more money while having more fun. A noted speaker, he has completed many interfirm financial comparisons of groups of construction companies in Canada and the United States. Ron's numerous published education programs include a 36-hour business management course specifically designed for the Electrical Contractors Association of British Columbia (ECABC). Visit [www.ronaldcoleman.ca](http://www.ronaldcoleman.ca).*



**KNOW THE CODE**  
**IT'S UP TO YOU**

**2012 CANADIAN ELECTRICAL CODE:**  
**NOW AVAILABLE FOR PRE-ORDER**

The Canadian Electrical Code, Part I, builds on an 80-year legacy as a key component of the Canadian electrical safety system. The 22<sup>nd</sup> edition of the CEC contains over 180 updates and revisions – the most comprehensive set of changes ever.

Extensive new and updated sections apply to emerging technology, renewable energy sources including solar & wind, new requirements for electric vehicles, and more.

- Ensure that your company and employees are in full compliance with local jurisdictions
- Minimize costly reworks due to use of out-of-date or incorrect installation practices
- Enhance your competitive advantage by expanding your understanding of emerging technologies



**LEARN MORE**

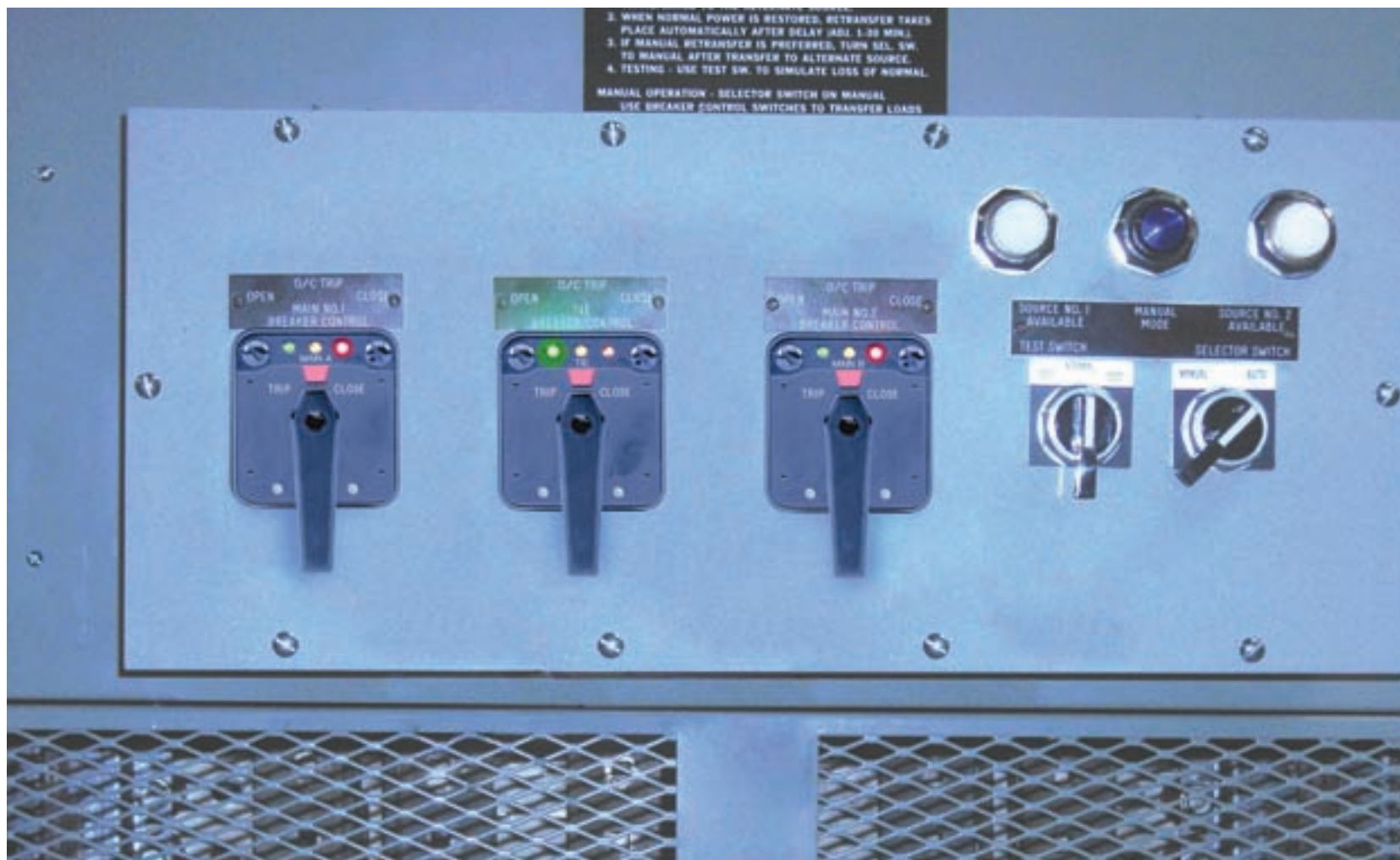
(877) 610-9055

[www.knowthecode2012.com](http://www.knowthecode2012.com)



# Protecting personnel from **arc flash** with **time-delay switching**

Glenn T. Keates and Justin S. Weinberg



**N**FPA 70E-2009, “Standard for Electrical Safety in the Workplace”, requires protection of electrical personnel against the hazards of arc flash. When applied to existing low-voltage installations, this standard can make areas previously considered safe “non-approachable”. Louvers, grates and other ventilation openings in the housings of certain switchgear commonly used in factories, office buildings, etc., tend to raise the risk level to the standard’s Category 4 or higher.

This case study deals with such a problem at the Michigan headquarters of a major healthcare insurer. Hired by the insurer to find a cost-effective solution, we conducted a study of this facility’s short-circuit device coordination and arc flash/shock hazard, and found its service entrance equipment to be “non-approachable” with respect to the NFPA standard.

## **The problem: “non-approachable” circuit breakers**

Since the energy released by an arc flash can be high enough to vapourize metal, some such events have been known to spew molten metal and hot gases, ultimately destroying the equipment.

In general, arc flash hazard is abated by deenergizing the electrical equipment involved, but the ideal solution is to design the equipment to reduce the risk from the outset.

Over the years, NFPA standards have required equipment warning labels as well as guidance for work practices, calculating danger zones, and other preventive measures in the ongoing quest to minimize the risk of arc flash injury.

Circuit breakers are complex mechanical devices that can, without warning, come apart violently upon failure. Rodent infestation, contamination and other such anomalies can lead to a breaker failure and produce an arc flash event.

As defined in the literature, an arc flash event can occur when there are “exposed, live parts”. In this case, the exposed parts are circuit breakers that are visible through expanded-metal ventilation louvers.

The equipment in question is a double-ended, 480Y/277-volt substation in a “main-tie-main” configuration, fed by a 2000kVA transformer. The available 3-phase fault current was calculated to be 42,712 amperes sym. The main breaker is 4000 amperes with the long time setting of 1.00. As a point of reference, the breakers in question are General Electric models TC-4000 and 4040 Power Break with GE MicroVersaTrip RMS-9 trip units.

Using the calculation method described in IEEE 1584-2002, “Guide for Performing Arc Flash Hazard Calculations”, we found that an energy level greater than 40.00 cal/cm<sup>2</sup> could be experienced during an arc flash event. Under Table 130.7(C)(10) of NFPA 70E-2009, this made the equipment “non-approachable”.

## **Proposed solutions**

After reviewing the conclusions of our study, the healthcare insurer requested that this situation be mitigated to achieve an NFPA 70E Category 2 environment or better. Among the measures we considered were the following:

1. **New switchgear.** This option would have cost considerably more than the healthcare insurer wished to spend.
2. **The addition of an instantaneous element on the main breaker.** This would have reduced the energy levels on the tie breaker and main bus, but not on the line sides of the main breakers. Nuisance tripping was also a concern, so the plan was discarded.

3. **Differential protection.** The use of overlapping bus differential protection was reviewed and found to be a viable solution on the basis that an arc flash event would result in a differential operation. Differential relays would be installed to monitor the currents flowing into and out of the bus. Under normal conditions, the two currents would be equal but, were a fault to occur at the bus, these relays would sense the imbalance and send a trip signal to the breaker. The cost of this option, however, was prohibitive.
4. **Arc flash/photo-optic relays.** With this solution, photo-optic sensors coupled with a conventional instantaneous over-current element would detect an arc flash as it occurred and would trip the corresponding breakers. Once again, the cost to implement this solution was greater than the amount budgeted for the project.
5. **Remote switching.** This option involved the installation of a remote switching panel located outside the switchgear room. Due to the costs of running the control cables, connecting the fabrication, and securing the cabinet in what would have been a public space, the idea was rejected.

We then explored less expensive alternatives. These included the use of mechanical remote operators placed over the handles of existing switches and operated by wire from a distance when an arc flash is anticipated. This idea was rejected for two reasons:

1. The concern that, in the heat of the moment, these switches would not be used; and
2. The fact that they were not easily adaptable to the existing switches.

#### A unique, cost-effective solution

The idea of using a permanent time-delay switch was then raised. Although it would not lower the risk category as originally planned, it would render the safety issue moot, since it would allow the operator to be out of the room when the breaker actually closed or opened. Another advantage was that it would not be in the tripping (protective) portion of the circuit.



All agreed the unit should be a utility-grade product. The first relays we considered under these criteria were too large; they would have either taken up too much space in the switchgear or required a separate panel and associated conduit and control wires.

We then evaluated a time delay control switch relay (Electroswitch TD-CSR) and found it to have the following advantages:

- a) It is a utility-grade switch with built-in time delay.
- b) It is suitable for permanent installation.
- c) It allows a manually initiated time-delayed trip or close operation with a flashing LED that warns the operator to evacuate the arc flash area. The unit delays a trip or close operation for 10 seconds following initiation, with an option to cancel the pending operation. To prevent inadvertent operation, buttons must be depressed for four continuous seconds to activate the 10-second delay. (Other settings are available.)
- d) Its pushbutton design simplifies personnel training.
- e) No special wiring is required for installation.
- f) Its self-cleaning, double-wiping contacts with silver or silver alloy surfaces provide very low contact resistance.
- g) Its screw-type terminals are rated for 30A/600V continuous current.
- h) It would replace some existing "low-end" switches with higher quality, more reliable switches.

With all these features in its favour, the time delay control switch relay was chosen as the solution by both management and the technical crew. Shortly thereafter, the new panel containing the time delay control switch relay was successfully tested in the Dymax Engineering shop in nearby Ann Arbor. During a scheduled downtime, it was installed and successfully tested onsite in August 2010. It has been in service ever since.

#### Conclusion

When a "non-approachable" arc flash situation was discovered at the headquarters of a major health insurer, the engineering firm hired to assess and remedy the problem recommended a unique application of a utility-grade device. The time-delay switch not only provided a cost-effective solution, but also required no change to the facility's existing relay protection. **EB**

*Glenn T. Keates, P.Eng., and Justin Weinberg, EIT, are chief engineer and electrical engineer, respectively, at Dymax Engineering in Ann Arbor, Mich.*

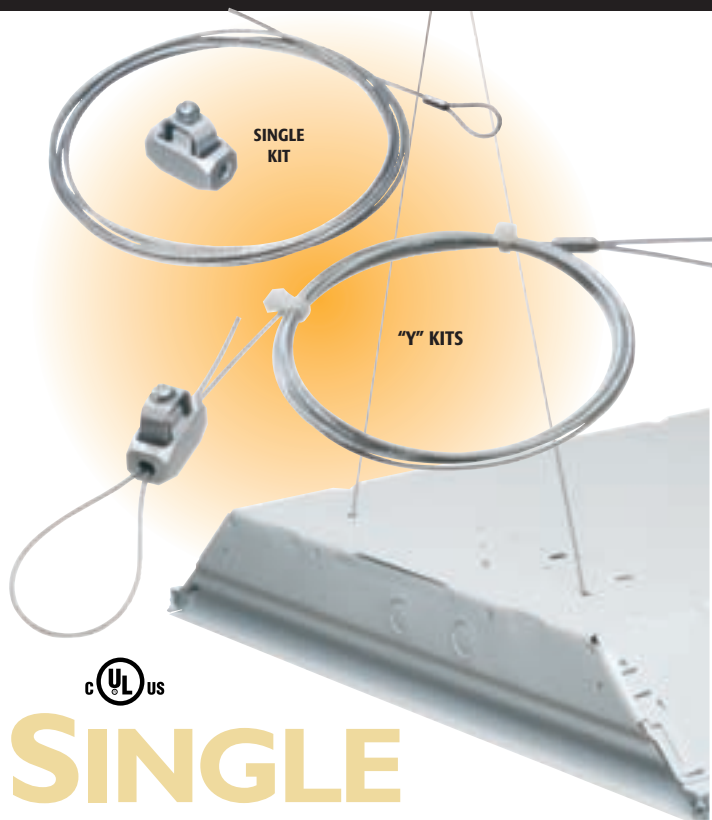


RELIABLE HANGING SUPPORT OF FIXTURES – AND MORE

# WIRE GRABBER™

HOLDS UP TO 100 LBS

NOW AVAILABLE IN CONVENIENT KITS!



## SINGLE AND Y KITS

### SINGLE w LOOP ON END

CATALOG NUMBER	WIRE LENGTH
DWB0805	5'
DWB0812	10'
DWB0815	15'
DWB0820	20'
DWB0830	30'

### "Y" w TOGGLES

CATALOG NUMBER	WIRE LENGTH
DWYT0805	5'
DWYT0810	10'
DWYT0810 (2 PK)	10'
DWYT0815	15'
DWYT0820	20'
DWYT0830	30'

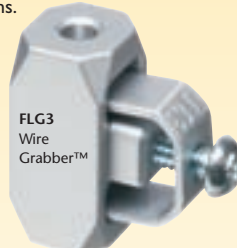
### "Y" w HOOKS

CATALOG NUMBER	WIRE LENGTH
DWYH0805	5'
DWYH0810	10'
DWYH0810 (2 PK)	10'
DWYH0815	15'
DWYH0820	20'
DWYH0830	30'

Here's reliable hanging support for fixtures, fixture boxes, cable tray and other static loads requiring drop wire support! **Better than traditional wire-hanging methods, Wire Grabber™ saves time and costs much less than competitive products.**

Wire Grabber's hold on braided wire is unaffected by oil or grease. It holds a static load up to 100 lbs, including high bay light fixtures – in dry or wet locations.

Tightening the screw engages six points of gripping contact on wire – no internal spring.



- Easy length adjustment with screwdriver
- Connector ships fully assembled
- **KITS** Single with loop, or "Ys" with toggles or hooks – with .080" braided wire in lengths from 5 to 30 ft (Bulk wire available)



View Video



Arlington

Wire Grabber Kits include FLG3 wire hanger, .080" galvanized braided wire

Patent pending

www.aifittings.com

Scranton, PA 18517 800/233-4717

FAN & FIXTURE

# MOUNTING BOX

FOR CATHEDRAL CEILINGS

NEW CONSTRUCTION



FB900GC Mounting box for cathedral ceilings (includes Ground Clip)

Get a safe, secure fan/fixture installation on cathedral ceilings with Arlington's FB900GC Mounting Box.

It installs quickly and easily next to a rafter, for easy centering. Taller sides on the FB900GC box allow it to fit cathedral ceiling angles greater than 80°.

- No loose parts – self-contained
- Large, 8" square mounting surface handles large fan canopies
- 14.5 cubic inch box for new construction
- **CSA Load Ratings** 50 lb fan or fixture (UL rating: 70 lb fan, 200 lb fixture)



Arlington

800/233-4717 • www.aifittings.com

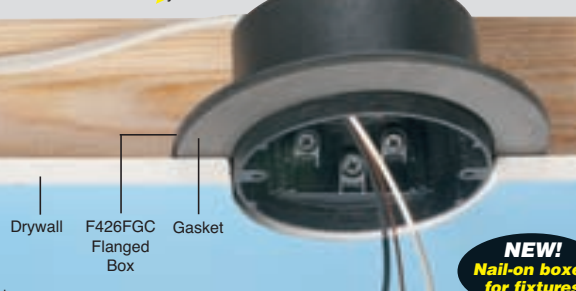
NON-METALLIC  
FIXTURE & DEVICE

# VAPOR BOXES

NEW

PROTECTS AGAINST AIR INFILTRATION

Screw-on F426FGC installation cutaway



Arlington's non-metallic **ONE-BOX™** fixture and device boxes feature built-in flanges and gaskets that form a protective barrier against air infiltration – to meet local codes where required.

Fast, easy, secure installation in new construction, they mount to joists with captive installation screws for wood or steel – or captive nails for wood.

### ONE-BOX Fixture & Device Vapor Boxes...

- Extra gasket material provided to seal knockouts during installation
- Non-metallic, non-conductive
- Available in round for fixtures, single-, two-, three-, and four-gang for devices – includes ground clip



F426FGC Round for fixtures 28.0 cu. in.



FN430FGC (single drywall)

FN440FGC (double drywall)



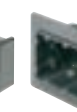
F101FGC Single-gang 22.0 cu. in.



F102FGC Two-gang 42.0 cu. in.



F103FGC Three-gang 63.3 cu. in.



F104FGC Four-gang 81.0 cu. in.



Arlington

800/233-4717 • www.aifittings.com

Patent pending

# EMT BUSHINGS

THE BEST in CABLE PROTECTION

- Fast & easy press-on installation
- Holds tight as cables are pulled
- Protects cable from abrasion
- Less expensive alternative to costly fittings when used just for wire



EMT400 Also for rigid, IMC and PVC rigid conduit



In a variety of sizes for 1/2" to 4" - EMT - Rigid - PVC

Listed for Air Handling Spaces



Arlington

800/233-4717 • www.aifittings.com

# Pick the right tool storage option for the job

Tom Schwalie

**J**obsites are busy, hectic places, with tools and equipment everywhere. With all the activity and project deadlines to meet, contractors are frequently too busy to think about properly organizing and securing their valuable tools and equipment.

Yet, jobsite storage equipment is as important as the tools that are used to get the job done. The tools on the average contractor's jobsite are valued at thousands of dollars. Don't you want to protect that investment?

Jobsite tool theft is a reality on today's jobsites and, unfortunately, most contractors have dealt with the impact of theft on the jobsite at some point. In the long run, making an investment to properly secure your tools pays off when you don't need to replace tools that were stolen, or experience unnecessary downtime when tools are missing. Having your tools organized and readily available where and when you need them also facilitates efficiency and profitability.

Picking the proper jobsite equipment is a critical element of jobsite security and organization. Before you begin reviewing the different types of jobsite storage units available, the first step is to assess your requirements.

Ultimately, choosing jobsite storage equipment is up to the individual's preference. When choosing jobsite tool storage equipment, however, you have to consider several factors, including security features, construction, organization and access options, portability and the need for a work area.

Consider the following tips when choosing jobsite tool storage options.

## Security features

The most basic security feature—the storage unit's lock system—is one that should be examined carefully before making a purchase decision. The lock system is the first line of defence against thieves and tool loss.

For optimum security, choose a strong, deadbolt-style locking mechanism; it is more secure and easier to use than other lock styles.

Contractors can choose to key all their jobsite storage equipment differently or to



key it all alike. The “key-alike” security option requires one standard lock so that when users need to access different storage units, different keys aren't needed. While this is more convenient, it also allows a manager to easily manage loss prevention and save money.

Permanently mounted locks that you do not have to remove save contractors valuable time by eliminating lost or stolen locks.

A recessed lock compartment eliminates the use of bolt cutters by potential thieves.

## Secure construction

Over and above the obvious quality locking system, certain construction features can help to keep thieves at bay. A lid with a hemmed edge prevents tools, such as a crow bar, from being wedged in between the lid and the bottom portion of the toolbox to pry it open.

Make sure the hinge is staked and welded. This helps stop thieves from being able to knock out the hinge pin. Avoid tool storage equipment that has a riveted hinge because rivets can be pried open. A hinge that is spot-and stitched-welded makes it more difficult to tamper with or remove, thereby adding extra security.

A heavy-duty reinforcing channel in the lid construction provides maximum strength to the lid and prevents anyone from damaging the lid to break into the tool storage equipment.

Jobsite storage equipment is constructed of various steel gauges. The smaller the gauge number, the thicker the steel. Pay particular attention to the steel gauge size near and around the cover to ensure the steel is strong enough to prevent would-be thieves from breaking into the equipment.

## Equipment design

The overall quality of the unit depends on extra steps the manufacturer takes when constructing the unit, from the quality of steel to attention to details that translate into a higher-quality, more secure storage unit.

The legs and skids should be constructed of heavy-gauge steel. When the storage unit is housing heavy tools and supplies, the legs have to be able to support this weight. They also need to withstand frequent forklift contact.

A U-shaped metal channel inside the lid helps reinforce lid strength. This not only makes the storage equipment more durable, but it also helps prevent thieves from being able to push in the lid and break into the storage equipment.

When you plan to manually move your chest or cabinet, make sure it has handles for easy gripping. A recessed handle design helps prevent damage to handles during transport.

Look for a storage unit that has either a baked-on enamel finish or a powder-coat paint finish for long product life.

## Access and organization

Every contractor has unique needs when it comes to jobsite storage. Before purchasing, contractors should evaluate the quantity and kinds of tools they need to store and how often they need to access them. Although it comes down to individual preference, contractors should think about the following when choosing between chest, cabinet, rolling workbench and portable field station:

- In general, a chest is best-suited for mobile users. When wheels are attached, the contractor can easily move equipment





from one part of the jobsite to another. When a large amount of storage space is not needed, then a chest is more appropriate.

- Cabinets, which are generally taller and offer more storage capacity, are useful when more storage space is required. Cabinets allow for easier access because tools are organized on shelves rather than in one open space.
- A field station is ideal for those who need some tool storage plus a work area (i.e. a surface to review drawings) in the middle of a jobsite. In essence, a field station is a portable office that can be used at strategic points around a large jobsite; it is transported with a forklift.
- A rolling workbench provides tool storage and a work surface. Because it has wheels, it is ideal for contractors who need an easily portable work area indoors or on hard, compact surfaces.

### Portability

As a contractor, you can be located on projects for months at a time, or maybe your work week frequently takes you to several project locations. Portability is an important aspect of choosing a job storage unit.

Consider wheels on your storage equipment when you have to transport it from one point to another on the jobsite. Caster wheels are designed to carry substantial weight and travel on hard, compact surfaces (i.e. hard dirt and concrete).

On softer surfaces (i.e. mud and work surfaces associated with newer construction sites), it is recommended that storage equipment be transported with a forklift.

Storage equipment is available with the flexibility of adding or removing wheels to meet specific jobsite requirements.

### The final say on storage

Investing in high-quality, dependable storage equipment will benefit you in the long run, making you more efficient and more profitable.

Many contractors pride themselves on buying the best and most expensive tools to accomplish their work, yet some contractors make the mistake of purchasing the cheapest storage equipment for those tools. That's like

leaving the garage door open on your house!

By choosing the most secure jobsite storage equipment, you are protecting your tools, your investment and your livelihood. **EB**

*Tom Schwalie has been a product manager at Knaack LLC for three years. He has 15 years of experience in developing products for the construction industry. For more information, visit [www.knaack.com](http://www.knaack.com).*



Residential



Commercial



DC Quick Charge



Eaton offers a full family of reliable, Electric Vehicle Supply Equipment (EVSE) for residential applications. We provide a wide range of innovative solutions to suit your individual needs.

In addition, the Eaton Certified Contractor Network (ECCN) can provide turnkey services, from design to installation.



Eaton congratulates the graduating members of its Certified Contractor Network who successfully completed EVSE Certified Installation courses held in Vancouver and Toronto.

To find out how to become an ECCN member, or to find a Certified Installer of Electric Vehicle Supply Equipment, visit: [myhome.EatonCanada.ca](http://myhome.EatonCanada.ca)



### Toshiba A19 LED lamp



Toshiba International Corp. has unveiled its 40W-equivalent A19 LED lamp that, says the company, “boasts a more traditional light bulb shape”. This feature, says Toshiba, is important to lighting designers, specifiers and consumers. The lamp is dimmable and comes in 2700K and 4000K colour temperatures. According to the company, the bulb lasts up to 40 times longer than similar incandescent lamps, and promises a reduction in energy use of over 75%. The bulb also boasts a 450-lumen output.

**TOSHIBA LIGHTING**  
[www.toshiba.com/lighting](http://www.toshiba.com/lighting)

### Hubbell Roadway RM LED Series and RF Retrofit Kit



Hubbell Lighting has introduced two new LED outdoor lighting products: the Roadway RM LED Series, which delivers a complete LED roadway solution producing 6087 lumens in a 3G-rated traditional cobra-head; and the Roadway RF LED retrofit kit, which helps upgrade existing 100-175W cobra heads in any NEMA-compliant fixture, it says. According to the company, the RM LED Series features 48 LEDs (68W) at 4800K to deliver 89 lumens-per-watt, while the RF retrofit kit promises an IP67-rated solution with more than four times the life of a 150W HPS with a 65% energy savings.

**HUBBELL LIGHTING**  
[www.hubbelloutdoor.com](http://www.hubbelloutdoor.com)

### Cooper Lighting Lumark Crosstour LED wallpack series



Cooper Lighting has introduced an internally developed wallmount luminaire featuring, it says, the industry’s first universal “all-in-one” product design to satisfy a myriad of application needs. Suitable for wall, surface, post (bollard), low-level and inverted installations—and designed to replace up to 175W metal halide fixtures—the series

features a universal back box design, which allows for simple installation to all standard junction boxes without the use of adaptor plates or loose hardware, says the company. The “contractor-friendly” installation and maintenance features include an interface hinge that locks the door in place, allowing stable handling when making the electrical connection. The Crosstour’s scalable optical design options include three LED lumen packages of 10W (720 lumens), 20W (1360 lumens) and 30W (2240 lumens). The luminaires are Dark Sky Friendly, cUL and UL wet location-listed and IP66 rated.

**COOPER LIGHTING**  
[www.cooperlighting.com](http://www.cooperlighting.com)

### Magnaray publishes 2011-12 eCatalogue



Magnaray International, a manufacturer of indoor high-/low-bay and outdoor area and street lighting, published its 2011-12 eCatalogue, which you can download as a PDF for free online (however, you will first have to register). The eCatalogue features a comparison chart of energy savings with Magnaray lighting products contrasted with typical MH, HPS, quartz halogen, and so on. Each product has its own application photo page and specification page.

**MAGNARAY**  
[www.magnaray.com](http://www.magnaray.com)

### Holophane launches Night Time Demo

Acuity Brands’ Holophane has launched its Night Time Demo—a demonstration program that enables customers to walk through a series of outdoor lighting environments and experience first-hand different outdoor lighting technologies in real-world settings. The demo allows visitors to walk among 2000K, 3000K, 4000K, 5000K and 6000K colour temperature sources and evaluate the lighting quality of LED, high pressure sodium and various types of metal halide sources. According to the company, every luminaire in the demo is outfitted with a ROAM node, allowing them to be turned On/Off and dimmed with the use of a tablet computer wirelessly connected to the internet and the ROAM network operations centre.

**HOLOPHANE**  
[www.holophane.com](http://www.holophane.com)

### Fulham expands Pony electronic transformer line



Fulham—a manufacturer of ballasts, transformers, drivers, lamps, etc.—has expanded its line of solid-state, dimmable Pony halogen electronic transformers from 60W and 75W models to 60W, 75W, 150W and 300W linear units, and 300W circular units. These 12V 50/60Hz transformers operate multiple dimming and non-dimming MR16 and MR11 lamps to stated wattage, provide short circuit, overload and thermal protection, operate at 50°C maximum ambient temperature, and use UL-recognized components.

**FULHAM**  
[www.fulhamcanada.ca](http://www.fulhamcanada.ca)

### Sollos WP0055 well light brackets



Sollos Landscape Lighting—a Halco Lighting Technologies company—has introduced its die-cast aluminum WPO055 brackets for well light applications.

According to the company, the bracket can replace the internal construction of existing well lights to accommodate the latest energy-efficient LEDs, adding that the lamp holder is designed to house both LED PAR36 lamps and standard incandescent PAR36 lamps. The bracket also features 360° lamp rotation, as well as adjustable height and angle within the well light fixture.

**SOLLOS LANDSCAPE LIGHTING**  
[www.solloslighting.com](http://www.solloslighting.com)

### Appleton FDBAES LED emergency luminaries



Appleton has introduced its new LED FDBAES series of flameproof, self-contained emergency luminaries, which deliver lighting and visual indication of safe access on exit routes during an evacuation in a hazardous industrial environment, including oil refineries, petrochemical plants, pulp and paper mills, it describes. According to Appleton,

the luminaries produce 55 lumens, and will run for a one-hour duration on the built-in battery pack in the event of an emergency. The FDBAES models engineered for space lighting applications produce 540 lumens, consuming a total of 0.95 watts, said Appleton, adding that both versions come equipped with 6 white LEDs rated for 60,000+ hours, or 6x-longer than standard fluorescent models.

**APPLETON**  
[www.appletonelec.com](http://www.appletonelec.com)

### RC Lighting LFlood39 floodlight

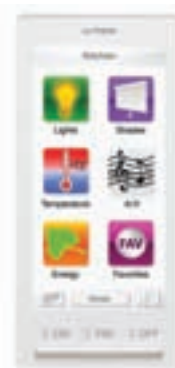


RC Lighting’s LFlood39—a 39W LED replacement for 150W metal halide floodlights—is now

available. According to the company, the floodlight delivers over 75% energy savings relative to metal halide counterparts while offering nearly 3,000 lumens of light. Designed with a highly-durable swivel arm and available in cool (5000K), neutral (4000K), and warm (2800K), the LFlood39 is cUL-listed for wet locations and has a minimum starting temperature of -40°C.

**RC LIGHTING**  
[www.rclighting.ca](http://www.rclighting.ca)

### Lutron begins shipping additional HomeWorks QS system components



Lighting control manufacturer Lutron Electronics has released additional system components for its energy-saving HomeWorks QS total home control system which include a Dynamic Keypad, and an auto-

adjusting, phase-adaptive dimmer that works with all popular load types, including dimmable CFLs and dimmable LEDs, it says. According to Lutron, the system offers convenient control of lights, shades and stand-by power from small appliances. New system components include: a Dynamic Keypad; wallbox power module; Grafik Eye QS; RF Maestro-style phase-adaptive dimmer; and integration with Sivoia QS Venetian blinds.

**LUTRON ELECTRONICS**  
[www.lutron.com](http://www.lutron.com)



### Dymo's CardScan Device reduces clutter, eliminates re-typing contact info



*(If, like us, you collect a ton of business cards, this may be for you — Ed.)* A new family of CardScan devices by Dymo claims to make managing contact information—from business cards, websites and emails—fast, accurate and portable. CardScan Executive is designed for users with advanced contact management needs, it says. The user is instructed to place the business card in the device where it will capture contact data and for online information, the user should highlight the email signature, webpage or other text file and drag it over to the CardScan software. According to the company, the device synchronizes with Outlook, Mac Address Book, Lotus Notes, ACT!, GoldMine, Palm and Windows Mobile devices, and scans in colour or monochrome.

**DYMO**  
[www.dymo.ca](http://www.dymo.ca)

### Fluke 430 Series II three-phase analyzers



Fluke claims its new 430 Series II three-phase power quality analyzers are the first to use a patented algorithm to measure energy waste and quantify its cost. According to the company, the tool helps facilities reduce electrical power consumption and improve the performance and lifespan of electro-mechanical equipment by providing the ROI justification to mitigate power quality distortion. New models have up to 32 GB (8 GB standard) memory, a swappable SD memory card and USB connectivity.

**FLUKE**  
[www.fluke.com](http://www.fluke.com)

### Edison Electric Institute guidebook preps electric utilities for plug-in EVs

Edison Electric Institute (EEI)'s new guidebook aims to help electric utilities get ready for the expanding production of plug-in electric vehicles (PEVs), it says, adding that the report "The Utility Guide to Plug-In Electric Vehicle Readiness" acts as a road map for electric utilities and their customers to get the most benefit from this

technology. The guide builds on the lessons learned by the electric utilities serving the cities and regions where the Nissan LEAF and Chevrolet Volt were introduced late last year, explains EEI. The guide focuses on getting the utility up to speed; enhancing the customer experience; key passengers to include; and plugging into the grid. **EDISON ELECTRIC INSTITUTE**  
[www.eei.org](http://www.eei.org)

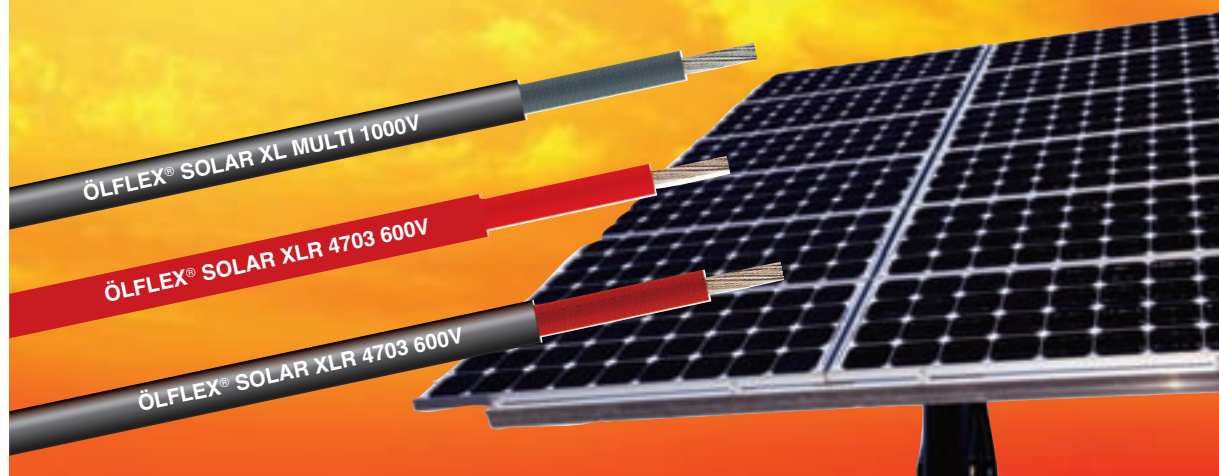


## ÖLFLEX® Solar Cables are the nervous system of every installation

**ÖLFLEX® SOLAR XL MULTI**  
**ÖLFLEX® SOLAR XLR 4703**

**MORE VALUE**  
**MORE BENEFIT**  
**MORE THAN YOU IMAGINE**

**RPV & RPVU**  
**Approval in**  
**Progress**



**ONE INSTALL AND**  
**YOU'LL UNDERSTAND**



## THE ÖLFLEX® SOLAR ADVANTAGE

**2kV**  
**Versions**  
**Available**  
**soon**

Lower DC resistance than other cables resulting in higher efficiencies and higher long term yield.

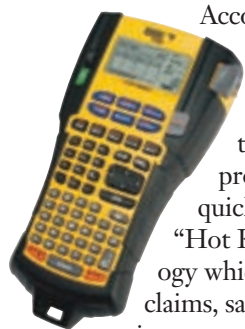
Easiest cables to install, in hot or cold working conditions resulting in quicker installation leading to faster on-line power generation.

[www.lappcanada.com](http://www.lappcanada.com)  
[info@lappcanada.com](mailto:info@lappcanada.com)  
**877-799-5277**



**LAPP GROUP**

**Dymo offers Rhino 5200 labelmaker**



According to Dymo, its Rhino 5200 label maker is an affordable solution that makes professional labels quickly. It features "Hot Key" technology which, the company claims, saves time and increases productivity on the jobsite by helping to format commonly used labels quickly with the touch of a button. It also automatically formats and sizes labels for the most-used applications such as patch panels, electrical panels, terminal-blocks, modules, wires, cables and flags, reducing the number of keystrokes and allowing the most common tasks to be performed much faster, it adds.

**DYMO**  
[www.dymo.ca](http://www.dymo.ca)

**CertainTeed Apollo Solar Roofing System debuts at Greenbuild 2011**



CertainTeed Corp. debuted its Apollo Solar Roofing System at Greenbuild 2011 last month. The system features "highly integrated" photovoltaic (PV) panels and is described by the company as lightweight, durable, resistant to wind uplift, and easily integrated into existing or new roof installations. According to the company, each 12-lb module features 14 high-efficiency polycrystalline silicon solar cells that absorb sunlight and converts it into electricity.

**CERTAINTEED**  
[www.certainteedsolar.com](http://www.certainteedsolar.com)

**Milwaukee unveils M18 and M12 multi-voltage charger**



Milwaukee has introduced the M18 and M12 multi-voltage charger (48-59-1812), which it says will charge all M18 and M12 lithium-ion batteries sequentially,

allowing the user to put both packs on the charger and walk away, confident they will be ready for the next job. "The combination of M18 performance and M12 productivity helps to make this a very valuable solution to the users who have invested in both systems. This charger will help them be better prepared and more productive," says the company. Available in March 2012, the unit will be included with the M18 fuel drill driver and hammer drill driver (sold as an optional accessory), and will also transition into several M18 kits throughout the year.

**MILWAUKEE**  
**ELECTRIC TOOL**  
[www.milwaukeetool.com](http://www.milwaukeetool.com)

**Schneider Electric EVlink outdoor electric vehicle charging stations**



Schneider Electric's EVlink outdoor electric vehicle (EV) charging stations are the newest addition to Schneider's EVlink portfolio, which consists of a line of residential and commercial EV charging solutions. Key features of the outdoor charging stations include: standards compliance; ground fault monitoring and protection; dual charging option (two charging circuits integrated into one pedestal); and availability in wall or pedestal mounts. Authentication using a RFID card scan ensures that only approved users can access the charging station. Schneider Electric new EcoXpert training and certification program for electrical contractors aims to help them to expand their business and increase sales opportunities through renewable and energy efficient products, such as EVlink charging stations. The program will assist contractors in advising, selling and installing a range of EV solutions across

commercial, industrial and residential applications.  
**SCHNEIDER ELECTRIC**  
[www.schneider-electric.ca](http://www.schneider-electric.ca)

**Toyota announces newly updated 2012 Tacoma**



Toyota plans to offer fresh new styling, additional standard features and updated option packages for the 2012 Tacoma—all at pricing that's lower than the 2011 model year, it says. The 2012 Tacoma is available in 4X2 and 4X4 configurations, with a choice of engine size, transmission and cab size. New features include: chiselled front fascia, including grille, headlamps, hood and bumpers; a redesigned steering wheel and shift knob; a centre stack with piano-black accents (4X4 only); two additional cargo tie-down hooks; and folding rear-seat headrests. The Tacoma is offered in eight different configurations.

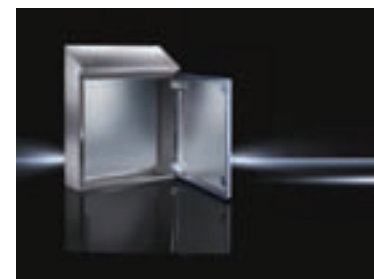
**TOYOTA**  
[www.toyota.ca](http://www.toyota.ca)

**"Using Ladders Safely" safety DVD now available through Electrolab**

"Using Ladders Safely" is a new safety DVD that discusses the proper use of step ladders, extension ladders and articulated or multi-purpose ladders, and uses scenarios both at work and at home. Topics covered include the proper way to inspect a ladder for damage, selecting the right ladder for the job and setting it up correctly, and tips for climbing and using a ladder safely. It is available in Canada through Electrolab Training Systems.  
**ELECTROLAB TRAINING SYSTEMS**  
[www.electrolab.ca](http://www.electrolab.ca)

**Rittal launches new Hygienic Design (HD) enclosures**

Rittal's new Hygienic Design (HD) enclosures are the "ultimate solution where cleanliness and sanitation are paramount", says the company, adding they are crafted of stainless steel, feature a smooth surface grain, internal hinges, washable gaskets, locks, and no crevices to trap debris or



contaminates. The new enclosures are available with screw covers for smaller, integrated applications or hinged doors for larger installations. According to Rittal, wall and door surfaces are angled to prevent objects from adhering to them so water runs off easily and, by using optional hardware, larger HD enclosures can be mounted on new HD levelling feet and fitted with a wire shelf to assist with cable routing.

**RITTAL**  
[www.rittal.ca](http://www.rittal.ca)

**Lenox bi-metal self-feed bits**

Lenox has launched a new bi-metal self-feed bit, saying it has the strength to endure "often catastrophic nail encounters" when drilling through wood. The bit has a high-speed steel cutting edge and screw tip that enable it to stay sharper longer, boasts the company, adding the chamfered edges and flutes help remove excess wood chips while drilling, and make it easy to remove the bit from the hole afterward. The company says its technology helps the bit last 2x longer than previous models. The bi-metal self-feed bits are available at Lenox distributors, with a suggested retail price ranging from \$29 to \$140.

**LENOX**  
[www.lenoxtools.com](http://www.lenoxtools.com)



More **products**  
can be found online.

Visit us at  
**EBMag.com.**



**P3** Proven  
Practical  
Performance

**New** Six high  
performance  
thermal imagers

**FLUKE**

**FLUKE**

**Vibration testing made easy with  
New Fluke 810 Vibration tester**

The 810 easily fits into your maintenance routine, so there's no more guessing your machine's condition. In three simple steps it identifies the problem root cause, its location and severity so you can prioritize repair actions.

ROI is possible in one diagnosis!

See for yourself at  
[www.flukecanada.ca/machinehealth](http://www.flukecanada.ca/machinehealth)

**BAND-N-GO Inc.**

Canadian Master Distributor for

**HAYATA**  
The strongest around.

- Stainless Steel Cable Ties
- Stainless Steel Banding
- Tools & Accessories

**New Distributors Welcome**

NEW WEBSITE: [www.bandngo.com](http://www.bandngo.com)

**Stoch  
Spotlight**

**on Engineering Services:**

- Electrical Utility Audits
- Professional Development & Training
- Electrical Fire & Accident Investigations
- Quality Management Consulting & Auditing

**L. Stoch and Associates**  
Mississauga, Ontario, Canada  
Tel: (905) 828-2262 Fax: (905) 828-2526  
Email: [info@lstoch.ca](mailto:info@lstoch.ca)  
Website: [www.lstoch.ca](http://www.lstoch.ca)

**Don't miss out**  
on your next issue of  
**Electrical Business**

**Sign up for your  
FREE SUBSCRIPTION**  
It's fast, it's easy and it's free!

**Here's how:**  
For fastest  
service visit  
[www.ebmag.com](http://www.ebmag.com)  
and click the  
subscribe button

**www.ebmag.com**

**T12 ballasts are still available!**

STANDARD offers a full line of electronic T12 ballasts for 4' and 8' lamps in 120V or 347V.

Although magnetic T12 ballasts are no longer available due to regulations, **electronic T12 ballasts are available**, and are more energy efficient! Whether you need a ballast to run a four foot T12, Slimline, or High Output lamp, the easiest solution is to convert to T12 electronic ballasts.

**STANDARD** LEADERS IN LIGHTING

Standard Products  
[www.standardpro.com](http://www.standardpro.com)

**WANTED**

**Molded Case Circuit Breakers. New & Used, All Brands.  
Motor Control & MCC. Buckets in A&B, S.D. & W.H. & C.H.**

*Please call, email or fax Ralph Falvo with your list.*

**FALVO ELECTRICAL SUPPLY LTD.**  
5838-87A St., Edmonton, Alberta  
1-800-661-8892  
780-466-8078 Fax 780-468-1181  
email: [rjf@falvo.com](mailto:rjf@falvo.com)

**Visit [www.EBMag.com](http://www.EBMag.com) and click  
the icon for our digital edition!**



## ADVERTISER INDEX

ADVERTISER.....	PAGE	ADVERTISER.....	PAGE	ADVERTISER.....	PAGE
Arlington Industries .....	51	Hammond Manufacturing .....	50	Schneider Electric .....	26,27
BandNGo .....	57	Hubbell Wiring .....	47	Southwire Canada .....	59
Canadian Standards Association .....	48	IED .....	60	Standard Products .....	2,57
Eaton .....	53	IPEX .....	43	Thomas & Betts .....	1,5,11
Falvo .....	57	Lapp .....	55	Ultrasave Lighting .....	23
FLIR Canada .....	18	Mersen Inc .....	9	Venture Lighting .....	45
Fluke Canada .....	57	Nexans .....	1		
GE Energy .....	33	Northern Cables .....	7		



# Overhead powerlines and signs (Rule 34-106)

This article discusses issues that can come up when billboard signs are located too near overhead lines passing horizontal to, or above, the signs. Signs installed too near electrical and communication lines can create safety hazards for the owners of the signs, the sign installers, sign maintainers and owners of the lines, who are most often electrical and communication utilities.

Based on the operating voltages of overhead lines, CSA C.22.3 No. 1, Overhead Systems, Clause 4.7.3 and Table 9 provides minimum horizontal and vertical clearances between utility lines and signs. The CSA standard is normally adopted into the standards of most utilities. To reduce the chance of electrical contacts, electrical and communication utilities take utmost care to conform to their own construction standards to ensure their lines are not located too close to immovable objects, such as signs.

Overhead pole lines are often used jointly by electrical and communication utilities, and billboard signs are frequently installed after the utility lines are in place. When a sign is found too near a utility line—in violation of the utility's standard for line clearances—it leaves the utility in a predicament as to what next to do next. Sometimes, removing the sign



is the only viable choice. Failure to deal with the situation is not an option, as accidents and near misses are commonplace among people working on signs.

The 2009 Canadian Electrical Code, Rule 34-106(1) provides requirements for the location of signs in the vicinity of overhead electricity lines. The rule specifies that signs must be located so that:

- Persons working on them are not likely to come into contact with overhead lines;
- No part of a sign or its support will interfere with normal work operations performed on electrical and communication lines as defined by the utility; and
- No part of a sign or its support is in such proximity to overhead lines as to create a hazard.

As you can appreciate, this rule identifies two distinct types of hazards concerning the proximity of signs to overhead lines: hazards to persons installing or maintaining the signs; and hazards to utility personnel maintaining or making modifications to the overhead systems.

The danger to people who risk contact with overhead lines is most obvious. The generally accepted limit of approach for unqualified persons to electrical lines up to 44 kV is 3.05 metres as specified in CSA Z462-08, Workplace Electrical Safety, Table 1. Sign installers or maintainers could also be in violation of the provincial or territorial worker safety regulations, risking injury or death.

What may not be quite as obvious to the sign installers, electrical and communications utilities use large, specialized equipment and employ complex safety procedures to work safely many feet above the ground. Should the location of a billboard sign interfere with properly setting up the equipment, or it becomes impossible to carry out the line work according to the established safety procedures, the well-being of utility personnel could also be at risk. **EB**

*Les Stoch is president of L. Stoch & Associates, specialists in quality management/engineering services. He is a member of PEO, OEL and IAEL, and develops and delivers electrical code and technical workshops for Dalhousie University. He also developed the Master Electrician training program and exam (Ontario) for the Electrical Contractor Registration Agency. Visit L. Stoch & Associates online at [www.lstoch.ca](http://www.lstoch.ca).*

Questions and answers compiled by the Electrical Safety Authority | VISIT [WWW.ESASAFE.COM](http://WWW.ESASAFE.COM)

## Tackle The Code Conundrum... if you dare

Answers to this month's questions in January's Electrical Business.

How did you do with the last quiz? Are you a...

Master Electrician ? (3 of 3)  
Journeyman ? (2 of 3)  
Apprentice ? (1 of 3)  
Plumber ?! (0 of 3)

### Question 1

The maximum voltage for a class 2 circuit is:

- a) 30 V      c) 115 V  
b) 48 V      d) 150 V

### Question 2

At least one duplex receptacle shall be provided in a porch of a house:

- a) True      b) False

### Question 3

Receptacles are permitted to be mounted facing up in a kitchen counter:

- a) True      b) False

### Answers to Code Conundrum EBMag November 2011

**Q-1:** For a mobile home, the minimum length of #6AWG power supply cord measured from the attachment plug to the point of entrance to the unit is:

- d) 7.5 m. Rule 70-108(1)(e)

**Q-2:** Does CEC permit the installation of communication jacks in bathrooms?

- b) No. Rule 60-400(2)

**Q-3:** When Type CFC system wiring is used, it shall be covered with abrasion-resistant tape and secured to the floor so that all cables, corners and bare conductor ends are completely covered.

- a) True. Rule 60-328

**Always** consult the electrical inspection authority in your province/territory for more specific interpretations.

**EB CAREERS**

**Looking for a new career opportunity?**

Look no further than **EBMag.com**. Visit our online "News" section to find the latest postings.



There is a ton of news and updates at **EBMag.com**.

And be sure to follow our Tweets ([twitter.com/ebmag](https://twitter.com/ebmag)) to find out whenever there's something new at **EBMag.com**.

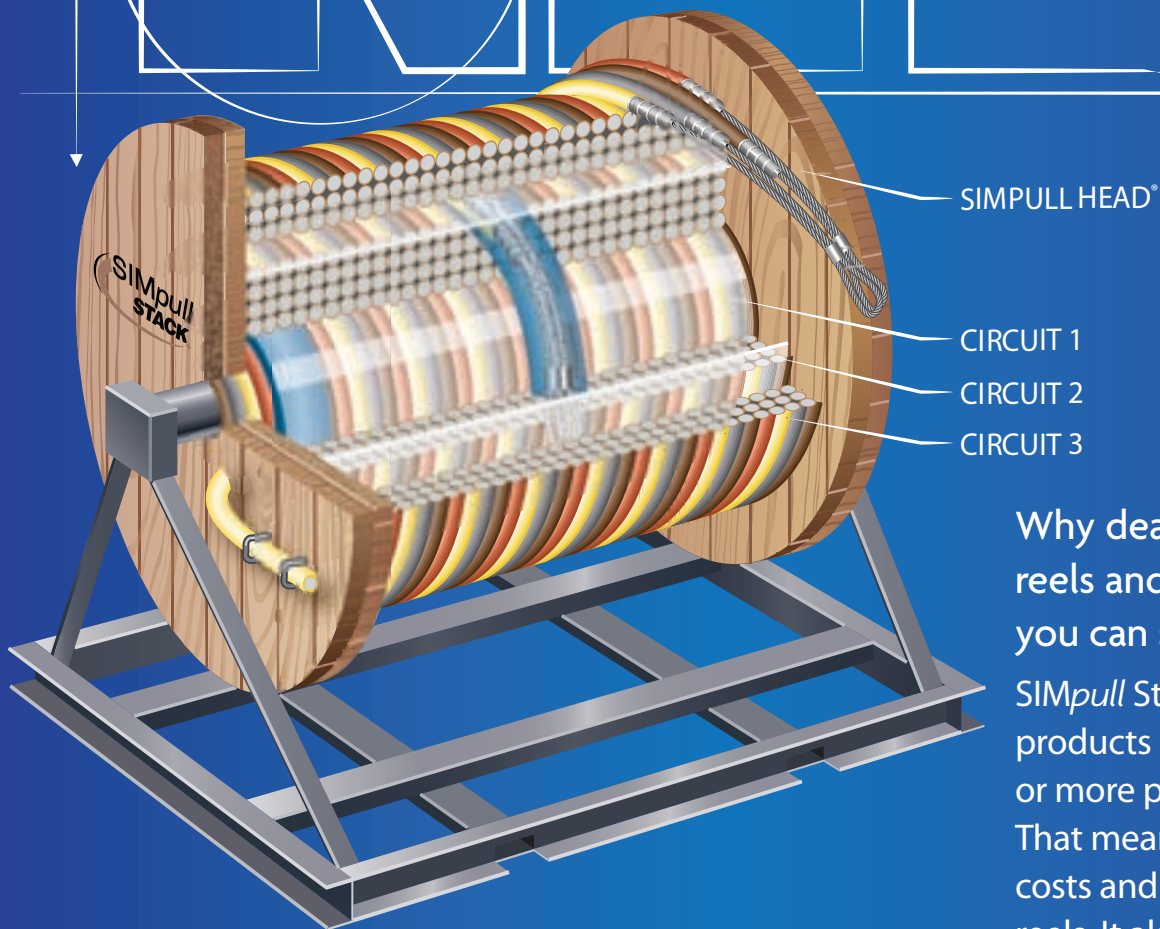
twitter





# WE'VE REINVENTED

# THE REEL



Why deal with setting up multiple reels and associated costs when you can simplify?

SIMpull Stack,™ part of SIMpull Solutions™ products and services, can join four, eight or more pulls together on a single reel. That means less installation time, lower costs and reduced waste from additional reels. It also means more of your crew is free to work on other parts of the project. Clearly, other products just don't stack up.

[www.southwire.com/simpullstackdemo](http://www.southwire.com/simpullstackdemo)  
1-800-668-0303

**SIMPULL  
STACK**



View the SIMpull Stack demo.



**Southwire**™  
CANADA



Get the things you've been *Wishing* for.

1972 Summit Series  
team signed print

Team Jerseys

Apple MacBook Pro

Panasonic Plasma TV

Paul Henderson  
signed puck

Xbox 360 Kinect

Gift Card

Team Canada replica jersey

Super Cheex bubble hockey



With IED Rewards, customers are rewarded for purchasing participating suppliers' products from an IED Distributor. You earn one point for every dollar spent<sup>(1)</sup> at any IED Distributor<sup>(2)</sup> across Canada. Your points are updated monthly and you can begin receiving rewards for as little as 700 points<sup>(3)</sup>. Plus, you may already have points from purchases and not even know it. It's the best rewards program in the industry. Isn't it time you started rewarding yourself today?

**To enroll, visit [iedrewards.ca](http://iedrewards.ca), click on register and then follow the prompts.**

**EXCLUSIVE PROMOS & GIVEAWAYS | NO CARDS, NO HASSELS | FAST DELIVERY | EASY ENROLLMENT**

(1) Points earned on purchases from participating IED Distributors and participating suppliers only. (2) Rules on website apply.  
(3) Points can be converted to charitable donations to ensure compliance with individual corporate policies.



**[iedrewards.ca](http://iedrewards.ca)**

**Visit [www.ied.ca](http://www.ied.ca) for the IED distributor nearest you.**

Beaulieu & Lamoureux • CDE • Del's Distributors • Deschênes & Fils • Diversified Ventures • Dixon Electric • Dubo Électrique  
Eddy Group • EECOL Electric • Electrimat Ltée • Espo Electric • EWS – Leamington • Gimpel Electric • Grey-Bruce Electric  
House of Electrical • J.D. Paré • J.W. Bird • Marcel Baril Ltée • Marchand Electrical • McLoughlan Supplies • Oscan Electrical Supplies  
Paul Wolf • E.G. Penner • Powrmatic • Province Electric • Robertson Electric • Source Atlantic • Top Gun • Tradelco Inc. • Western Equipment