

Introduction to Priority Electronics

Our History

Since its establishment in 1980 in Winnipeg, Manitoba, Canada, Priority Electronics Ltd. has been at the forefront of the communications industry, providing innovative yet practical solutions. Initially specializing in the production of copper cable assemblies, Priority swiftly evolved into a trailblazer into the new technology of fiber optics. The company has consistently served the Canadian Communications, Data Center, and Energy market for over four decades, offering exceptional products and technological expertise.

Priority Electronics expanded its focus in 2004 to support the Original Equipment Manufacturer (OEM) world. Today, the company specializes in providing wiring harnesses for the Automotive, Agricultural, Construction, Telecommunications, Energy, and Mining Industries. With a history rooted in communication solutions, Priority Electronics has evolved to become a key player in delivering high-quality, customized wiring solutions across diverse sectors, showcasing adaptability and commitment to manufacture quality products.

Our Mission

At Priority Electronics, we are not just in the business of selling product; we are committed to enhancing our customers experience through exceptional service, on-time delivery, and quality. Our mission is to provide solutions that best suit our customers needs and experience through our products.

Our Quality Standards

IPC/WHMA-A-620 & ISO 9001:2015 Quality Management System

Priority follows IPC/WHMA-A-620 to maintain consistent quality standards in our production process. By adhering to the standard, we ensure that cable and wire harness assemblies meet the necessary requirements for conformance, performance and safety.

ISO 9001:2015 allows Priority to improve its performance, meet customer expectations and demonstrate its commitment to quality.



Our Wire Processing Capabilities

Cut and Strip

- Wire Size: able to cut and strip 40 AWG to 4/0 AWG.
- Utilize Schleuniger programmable machines to ensure accurate cut and strip lengths and production efficiency.

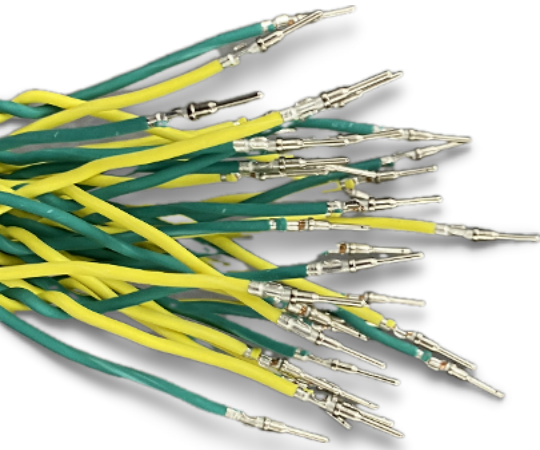
Cut and Strip Machinery

- Schleuniger PowerStrip 9550
- Schleuniger EcoCut with Hot-stamping
- Schleuniger EcoStrip
- Schleuniger CoaxStrip 5400



Termination Capabilities

- Wire Size: terminate 40 AWG to 4/0 AWG.
- Common terminal types: Deutsch, Tyco, Delphi (Aptiv), Amphenol, Molex, Panduit, Dillblox, Littelfuse, Optifuse, Hirose, and many more.



Terminal Crimping Machinery

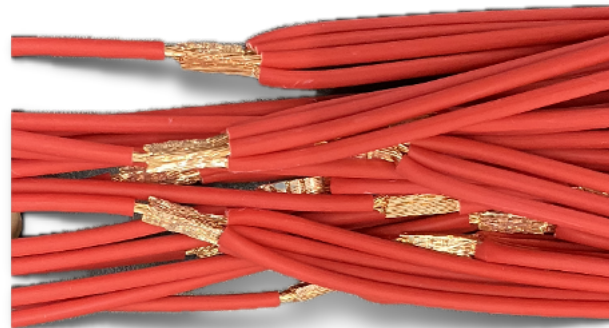
- Molex and Tyco Crimp Presses
- Rennsteig Pneumatic Crimp Press
- Hand Crimp Tools

Ultrasonic Splicing Capabilities

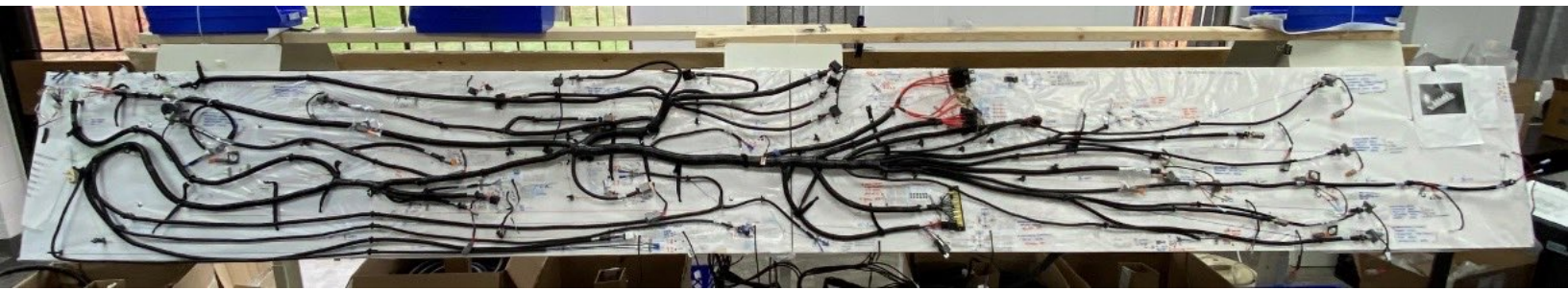
- Conductor Bond types: copper to copper, copper to tin, and tin to tin.
- Maximum splice size: a wire area of 45 mm².

Ultrasonic Splicing Machinery

- Schunk Raptor II XL Ultrasonic Splicer
- Ultrasonic Splicer



Our Assembly Capabilities



Routing and Bundling Capabilities

- Arrange the wires and cables according to the design, grouping them into bundles based on the location requirements per the drawing or jig.
- Utilize electrical tape secure the wires together, either full wrap or spot wrapping.

Bundling Jig Capabilities

- Jig Design: Our engineering team designs jigs and fixtures that hold the wire harness in place during assembly. Jigs are customized to match the specific shape and routing of the wire harness.
- Fixturing: Use the jigs to hold the wire harness components in the correct position, making it easier for assemblers to work with and ensuring consistency.
- Assembly: Assemblers follow the predefined paths and connections specified by the jig, streamlining the assembly process.
- Quality Control: Incorporate checks within the jigging process to ensure that each wire is correctly routed, terminated, and bundled.
- Efficiency and Reproducibility: Jigging helps improve efficiency by reducing the time and effort required for manual assembly. It also ensures reproducibility, as each harness is assembled in a consistent manner.



Braiding Capability

- Braiding is abrasion resistant and cost effective
- Up to 2 inch Diameter of harness
- Variety of colours and tracer identification options

Braiding Machinery

- 3 Braiding Machines

Looming Capability

- Split loom conduit provides abrasion resistance to harnesses

Our Injection Molding Capabilities

Injection Molding Capabilities

- Over molding: Manufacture custom connector design to customers needs

Injection Molding Machinery

- 25 Ton Vertical Injection/Over Molder
- 3 Desktop Injection Molders

Our Testing Capabilities

Continuity Testing and Wire Mapping

- All harnesses are 100% tested for low voltage continuity and wire mapping.

Dielectric/Hi-pot Testing

- Electrical test performed to determine the effectiveness of a wire or parts insulation. Only tested upon request.

Temperature Testing

- Utilize our on site temperature chambers to evaluate the performance of over a range of -70°C to +200°C. Only tested upon request.

Pull Testing

- Utilized for crimp and splice quality to verify that Machinery is performing up to its specification.

Wire and Harness Identification Capabilities

Hot Stamping Capability

- Permanent wire identification stamped into the wire jackets to provided circuit identification.
- 21 character maximum
- Frequency of stamp is adjustable to customer requirements

Custom Heat Shrink Printing Capability

- Circuit identification
- Private Labelling – print you companies name, logo, phone number, and part number.



Labeling

- We utilize our Brady Label Printers to help customers identify their harness per our customers requirements.
- Connector labels - to distinguish connectors so our customers can install our harnesses with ease.
- Harness labels - to identify the harness and sign off inspection.
- Barcode or QR code - Serial number identification



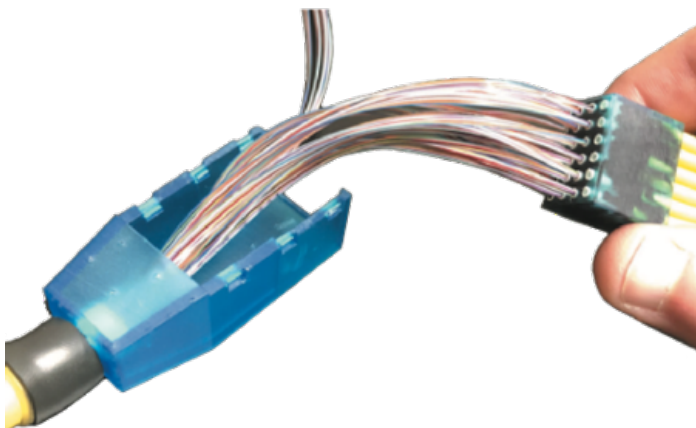
Engineering and Design Capabilities

Design Capabilities

- Priority's engineering group has more than fifty years of experience specific to our manufacturing capabilities and new product development. Priority can offer extensive design services. Solid Works & Shapr3D, CAD drawings, workmanship guidelines and testing parameters.

Rapid Prototyping

- Priority Electronics potential solutions maybe realized in extremely short timelines. We utilize our 3D printers to provide rapid solutions and prototypes to our customers. Our goal is to take a concept to actual functional products in a matter of days.



Cabinet and Metal Fabrication

- In partnership with our sister company, Malach Metal, we provide custom solutions for all of our customers electrical and communications cabinets and enclosures.

