PEARL

Professional Electrical Apparatus Reconditioning League

DON'T GET DUPED:

Busting Myths About Reconditioned Electrical Equipment

Know the difference between fact and fiction when it comes to how reconditioned electrical equipment can save you big bucks while helping your company meet environmental goals.

The myths are:

- Reconditioned electrical equipment could be counterfeit
- Reconditioned electrical equipment is not as safe as new
- Reconditioned electrical equipment is less reliable, lower quality than new product
- Reconditioned electrical equipment costs less to buy but more to operate
- Reconditioned electrical equipment increases liability concerns
- Only OEMs can properly recondition electrical equipment
- Reconditioning electrical equipment invalidates the Underwriter Laboratories (UL) mark
- Get It Straight: Myths make for bad business decisions

Busting Myths About Reconditioned Electrical Equipment

Know the difference between fact and fiction when it comes to how reconditioned electrical equipment can save you big bucks while helping your company meet environmental goals.

The world's largest corporations know it. Caterpillar knows it. The automotive industry knows it. And so does every major airline and global defense agency around the world.

Extending the lifetime of capital equipment through reconditioning and remanufacturing saves time and money.

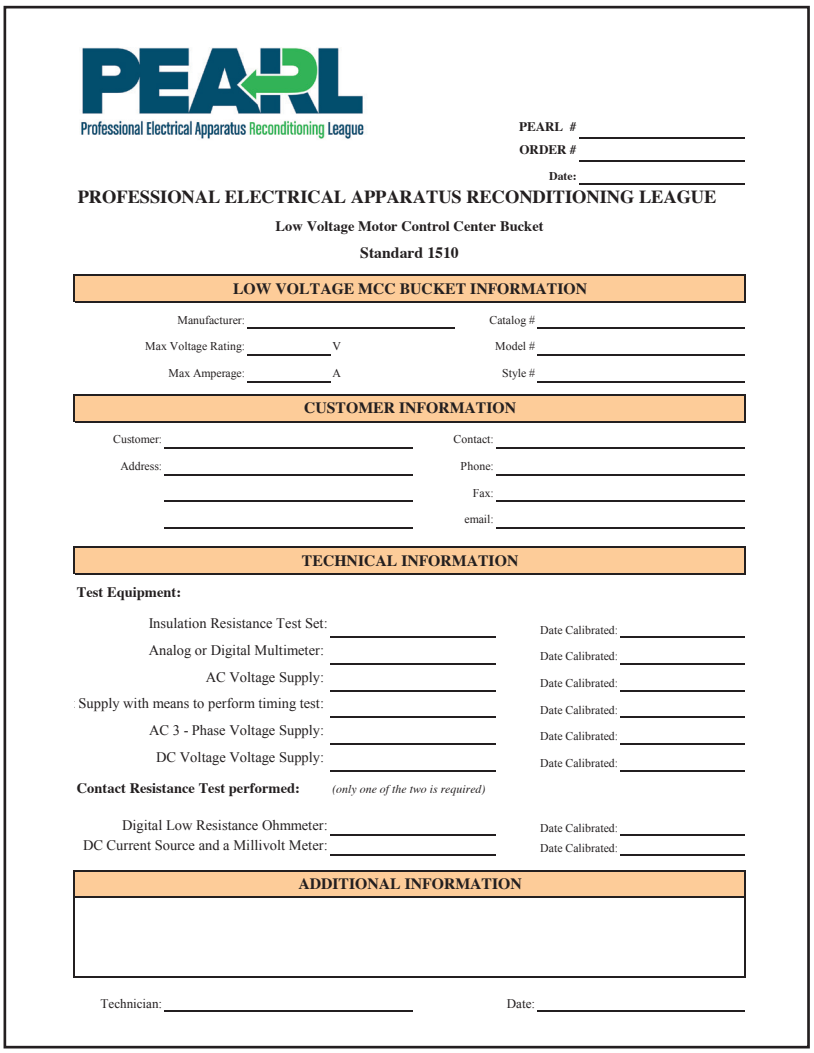
Reconditioning and remanufacturing require special knowledge on both sides of the transaction. This paper provides expert guidance about what to look for when shopping for reconditioned electrical equipment or reconditioning services. It tackles myths surrounding the billion-dollar electrical reconditioning industry, giving you the knowledge to make cost-effective decisions on how to keep the lights on and lines running with the least amount of downtime.

RECONDITIONED
≠
Counterfeit

Reconditioned electrical equipment could be counterfeit

Companies that make this argument, such as electrical original equipment manufacturers (OEMs) and their licensed distributors, lump reconditioned electrical equipment into the same "gray market" category as surplus and counterfeit to scare potential customers into buying their products. Their business reasons for making the argument are sound, even if their logic is not.

Reconditioned electrical product is limited to used, usually older, electrical components and systems — that is, equipment that is often no longer supported by the OEMs. Surplus equipment refers to new, unused electrical equipment, often still in the original packaging materials. Counterfeiter product is exclusively new-model equipment and generally limited to low-cost residential molded case circuit breakers (MCCBs). So while a customer might mistake a new-model counterfeit breaker with a surplus new-model breaker, a customer cannot mistake an older model reconditioned breaker with a new-model counterfeit breaker. And should a counterfeit breaker be brought to a certified electrical reconditioning shop, a standards-based reconditioning procedure would reveal its counterfeit origins.



PEARL
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PEARL #
ORDER #
Date:

PROFESSIONAL ELECTRICAL APPARATUS RECONDITIONING LEAGUE

Low Voltage Motor Control Center Bucket

Standard 1510

LOW VOLTAGE MCC BUCKET INFORMATION

Manufacturer: Catalog #
Max Voltage Rating: V Model #
Max Amperage: A Style #

CUSTOMER INFORMATION

Customer: Contact:
Address: Phone:
Fax:
email:

TECHNICAL INFORMATION

Test Equipment:

Insulation Resistance Test Set: Date Calibrated:
Analog or Digital Multimeter: Date Calibrated:
AC Voltage Supply: Date Calibrated:
Supply with means to perform timing test: Date Calibrated:
AC 3 - Phase Voltage Supply: Date Calibrated:
DC Voltage Voltage Supply: Date Calibrated:

Contact Resistance Test performed: *(only one of the two is required)*

Digital Low Resistance Ohmmeter: Date Calibrated:
DC Current Source and a Millivolt Meter: Date Calibrated:

ADDITIONAL INFORMATION

Technician: Date:

Reconditioned electrical equipment is not as safe as new

When you buy electrical equipment that is reconditioned to industry standards developed internally by the electrical OEMs or by the electrical industry at large, such as the Professional Electrical Apparatus Reconditioning League (PEARL) reconditioning standards, you can be sure your reconditioned electrical equipment will work just as well as it did when it was brand new. Why? Because both OEM reconditioning service centers and PEARL-certified companies use a multistep process that insures the equipment performs to the original OEM specifications. Standards-based reconditioning processes follow the same general procedure:

- Conduct initial test
- Disassemble, inspect, and clean
- Replace/recondition worn and aging components
- Reassemble
- Perform verification test
- Document
- Certify

In fact, the reconditioned equipment may be safer than the original. Why? Because OEMs are only required to batch test their products, while reconditioning standards require 100% device testing. And if the reconditioning procedure includes a retrofit — such as

converting a thermal magnetic breaker to a solid-state overcurrent protection system — the reconditioned device can be considerably safer than the original while allowing the customer to avoid the re-cabling, enclosure, and downtime costs that go along with upgrading electrical service equipment.

Reconditioned electrical equipment is less reliable and of lower quality than new product

If a piece of electrical equipment was reliable and high quality when it was new, then older electrical equipment reconditioned to perform as good as or better than the original must also be considered reliable and high quality. Quality isn't a question of new versus reconditioned, but rather, can you trust the source of the equipment?

If you're familiar with an OEM brand, you probably trust them to manufacture high-quality electrical equipment because it is in their business interests to do so and because they provide a warranty with new product that opens them to liability. Trusted electrical reconditioners that belong to industry trade groups like PEARL also have a compelling business interest and warranties to support. In addition, certified PEARL members also publicly sign a code of best business practices that includes minimum levels of revenue, insurance, test equipment, calibration procedures, and much more, as well as periodic site certification, complaint resolution procedures, and penalties in the event of noncompliance.

Reconditioned electrical equipment costs less to buy but more to operate

While a few types of electrical equipment such as high-efficiency electric motors and TP-1 transformers use less energy than their predecessors, the majority of electrical equipment does not reduce energy consumption. Most equipment used to supply electrical service is passive, meaning that it does not consume electric energy to do its job. Newer or upgraded equipment may consume electricity to enhance functionality, such as circuit breakers with solid-state trip technology or zone alarms. So, while this argument is valid for a few types of electrical equipment, it is not relevant for the majority of the 21

types of standard electrical equipment covered by PEARL's reconditioning standards.

Regardless of whether the equipment is new or reconditioned, both types will require regular maintenance and field-testing by qualified individuals. In fact, training maintenance professionals in the proper care and maintenance of new equipment means new electrical equipment can cost more to purchase and to operate.

Reconditioned electrical equipment increases liability concerns

Ask yourself: Does knowing that one out of the hundred circuit breakers that rolled off the line before yours was tested make you feel safer than knowing your circuit breaker was tested? Electrical equipment reconditioned to industry standards are tested twice — before and after reconditioning — 100% of the time. There is no better protection against liability than the testing built into industry-wide electrical reconditioning standards. Whether an OEM reconditioned the electrical equipment or a trusted source certified by an industry-wide association such as PEARL, customers can rest assured that their operations are protected to the highest level possible.

Only OEMs can properly recondition electrical equipment

OEMs that make this claim say that a company needs to understand the electrical engineering behind an electrical device to return it to its original operating condition, and this is why customers should only purchase reconditioned product or services from OEMs.

However, main difference between private OEM reconditioning services versus public PEARL reconditioning standards is that PEARL uses independent, third party electrical engineers to review its standards, while OEMs do not. Also, PEARL makes its standards available to the public for review and comment through an open and transparent process. OEMs do not.

Reconditioning electrical equipment invalidates the underwriter laboratories (UL) mark

According to official positions from UL, the independent testing and certification companies takes no position on equipment and the validity of UL marks after the equipment leaves the factory. A UL mark states that a device was manufactured using UL-listed designs and manufacturing processes.

Get It Straight: Myths make for bad business decisions

By debunking myths and focusing on facts, customers can be sure to develop the most competitive solution their electrical needs and purchase the highest-quality electrical equipment at the best possible price and with the least amount of lead-time. ■