



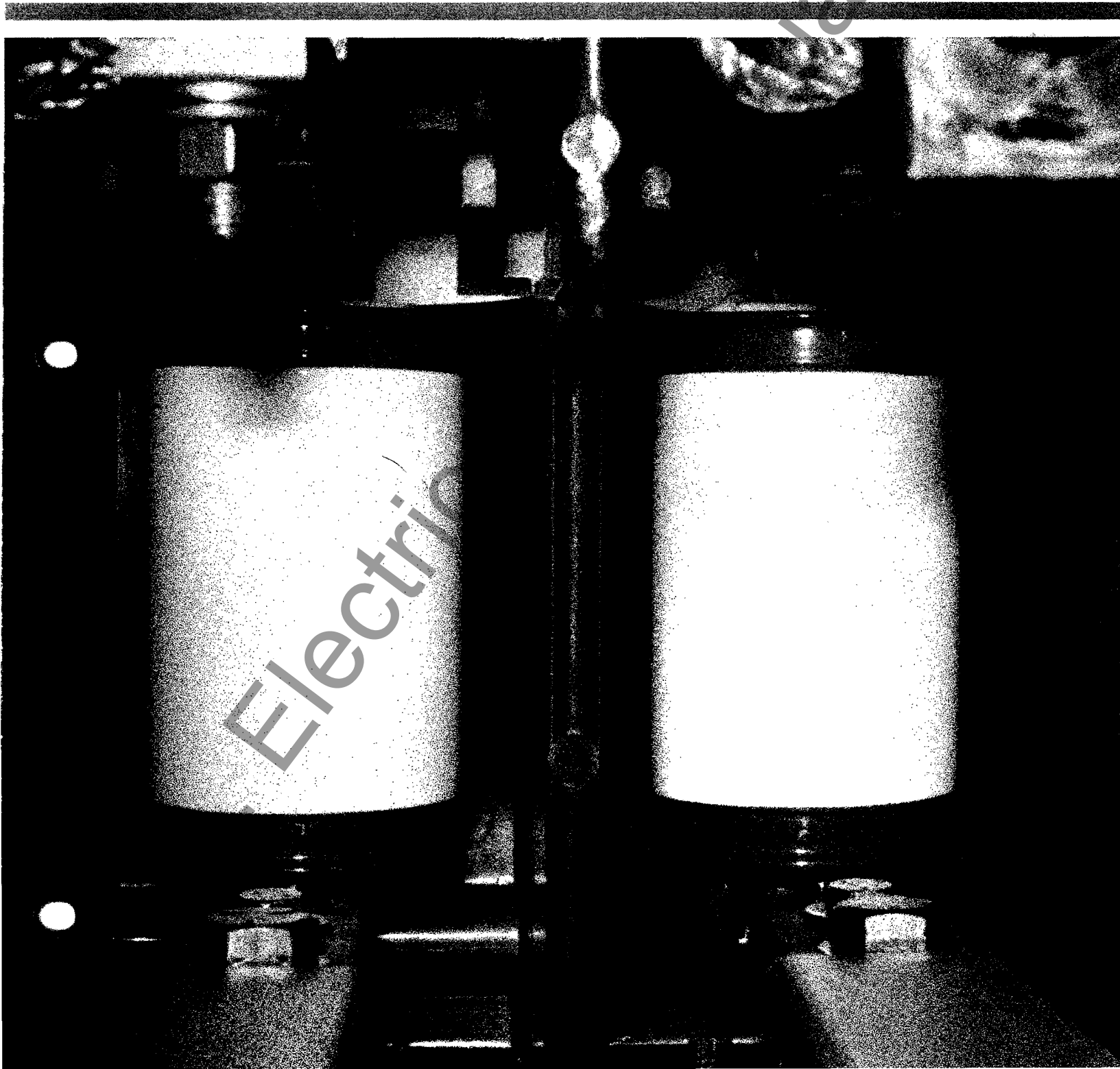
Westinghouse Electric Corporation
Engineering and Instrumentation
Services Division
875 Greentree Road, Bldg. No. 8
Pittsburgh, Pennsylvania 15220

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Medium Voltage Starter Retrofit

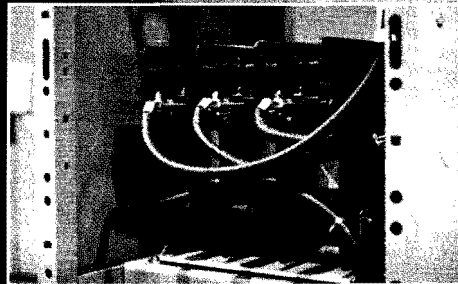
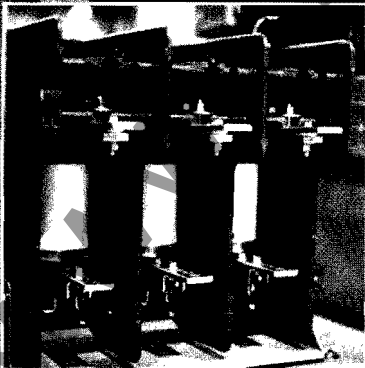
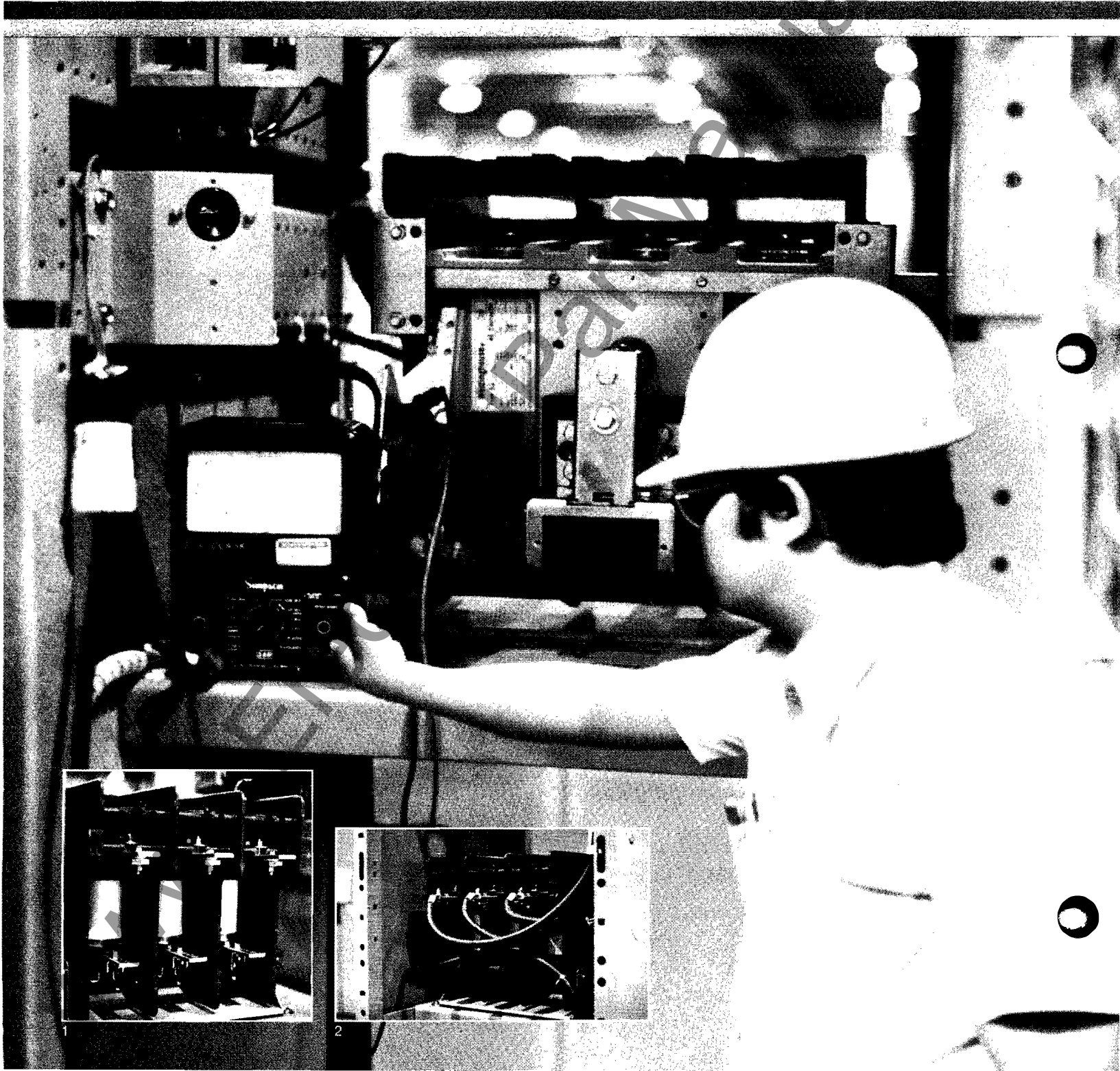




Medium Voltage Starter Retrofit

Main: Experienced Westinghouse engineers follow proven procedures to retrofit older type starters with state-of-the-art vacuum contactor technology.

1. High-reliability Westinghouse Type SJ vacuum contactors are an integral part of the retrofit process.
2. Starter retrofit allows for the retention of existing structures, cables and control schemes which represents a significant cost savings over purchasing a new starter.





Innovative Modernization Techniques from Westinghouse Engineering & Instrumentation Services

The Westinghouse Engineering & Instrumentation Services Division (E&ISD) is one of the largest and most experienced industrial service organizations in the nation. With more than 80 fully-staffed Engineering Service Offices throughout the continental U.S., E&ISD has complete local capabilities to provide a wide range of electrical and mechanical equipment services in three broad categories: installation, physical maintenance, and engineering advisory services.

At E&ISD, we have established an ongoing program to identify emerging customer needs, and evolve effective service technologies and procedures to meet them. Medium Voltage Starter and Breaker Retrofit is just one of many new capabilities we have developed in order to enhance both the quality and scope of service options available to our customers.

Medium Voltage Starter Retrofit by Westinghouse helps you significantly extend the working life of your contactor starter, at a cost substantially lower than that of a new starter. In addition, the Westinghouse starter retrofit package incorporates upgrades in both technology and capacity which add an extra margin of built-in protection for your electrical system.

State-of-the-Art Starter Retrofit for Enhanced Performance and Greater Reliability Features:

Performance of contactors and breakers in vintage medium voltage starter applications are degrading with time as a result of excessive mechanical operations, application, overstressing and lack of appropriate renewal parts and components.

The Westinghouse starter retrofit service replaces existing contactors with high-reliability Westinghouse Type SJ vacuum contactors. Engineered SJ contactor retrofit packages are designed to replace older Westinghouse Type H air break, Type K oil immersed, and other manufacturers contactors or breakers up to 800 amps-7200 volts.

Breaker retrofits may require the addition of current limiting fuses. If this is the case, contactor elements and fuses can usually be mounted in the same space as the original breaker element.

Upgrade starters to state-of-the-art vacuum components—Eliminates cost and availability problems associated with maintaining non-current renewal parts inventory. Increases starter reliability, while reducing maintenance requirements.

Extended working life—Retrofit adds 2.5 million mechanical operations and 250,000 electrical operations to starter life cycle.

Improved unit integrity—Sealed contacts eliminates the problem of environmental contaminants.

Permits increases in rated amperage—In some cases, amperage ratings can be increased to provide maximum starter capacity.

Retention of existing structure, cables and control scheme—Minimizes interruption of customer operations during conversion and affords significant costs savings over a new starter.

Upgrade momentary withstand capability—Helps maintain integrity of starter units despite increasing utility MVA, and enhances operating safety of the electrical system.



Westinghouse Engineering Service Locations*

Alabama Birmingham 35209 133 West Oxmoor Road Suite 205 205-942-7432	Illinois Lansing 60438 (Chicago) 16750 Chicago Avenue 312-895-7721	North Carolina Charlotte 28232 2001 W. Morehead Street P.O. Box 32817 704-377-7710
Mobile 36607 1125 N. Corporate Drive Suite 205 205-478-0713	Kansas Overland Park 66210 (Kansas City) 8900 Indian Creek Parkway Building 6, Suite 200 913-383-6538	Ohio Cincinnati 45237 7710 Reading Road 513-948-7277
Arizona Phoenix 85034 1825 E. Jefferson Street 602-271-9237	Louisiana Metairie 70011 (New Orleans) 3500 N. Causeway Boulevard Suite 118 504-832-9340	Cleveland 44135 4590 West 160th Street 216-267-6405
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Hawaii Honolulu 96804 1030 Mapunapuna Street 808-839-9260	Syracuse 13206-1683 4030 New Court Road 315-437-2279	Wisconsin Elm Grove 53122 (Milwaukee) 205 Bishops Way P.O. Box 1000 414-786-0260

* The offices which appear above represent a partial listing of Westinghouse Engineering Service offices located in the United States. For a complete list contact your closest office or call the Westinghouse Engineering Information Center at 800-441-3134. Outside of the continental U.S. call 412-928-2559.

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