



SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

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BART Use of the Interrogator™ 4210 ElectroChemical Battery Analyzer

The Bay Area Rapid Transit District (BART) is the largest rail commuter transit service in the San Francisco Bay Area with over 100 million passenger trips per year and servicing a population of over 6,000,000 people. The Bay Area relies on the BART rail system.

In order to deliver this service, BART depends on its backup battery power systems for logistical and emergency power for lighting, communications, signaling and IT operations.

Several months ago, BART was searching for a battery measurement solution that could reduce costs and further increase the reliability margins of our battery power systems. The existing approach used conventional electrical-property-only battery testers. That approach provided marginal results and could not accurately predict when a battery would fail. When a battery or battery string was replaced, there was little diagnostic information about why the batteries degraded or how our service teams might have better cared for the batteries.

Our service teams evaluated the Interrogator™ 4210 ElectroChemical Battery Analyzer and found that they could gather chemical information about the batteries as well as measure and collect data for the electrical properties. The chemical analysis provides information on how to service batteries more effectively and when to replace them more precisely before failure. The Interrogator™ could also reduce our dependence on load testing because the Interrogator™ provides much of the same charge capacity information. Using the Interrogator™ we hope to utilize the full service life of our batteries, replace them less often, and thereby reduce our costs while increasing reliability.

Based on the financial and logistical benefits of electrochemical measurements, BART Maintenance Teams have standardized on the Interrogator™ 4210 ElectroChemical Battery Analyzer.

Best Regards,

C.D. Allen
Superintendent, Systems Maintenance
BART, Bay Area Rapid Transit District
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