**Product Overview**

The TSB, or Trip Saver Box, is best suited for situations where a bucket truck is required to connect test cables to transformer bushings for performing Winding resistance and transformer ratio tests. Usually this requires multiple trips on a bucket to connect/disconnect test cables when switching between test equipment. The TSB eliminates these unnecessary trips by providing a central connection hub where both Vanguard winding resistance meters and turn ratio meters can connect. This results in increased safety and significant time savings.

The TSB has no effect on the accuracy specifications of the connected instrument.

The TSB is compatible with all Vanguard 3-phase TTR instruments and TRM-203/403 winding resistance meters.

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**ordering information**

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<th>Part No.</th>
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<td>9062-UC</td>
<td>TSB</td>
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Instruments designed and developed by the hearts and minds of utility electricians around the world.

Founded in 1991 and located in Ontario, California, USA, Vanguard Instruments™ offers a wide range of diagnostic test equipment that accurately and efficiently measures the health of critical substation equipment, such as transformers, circuit breakers, and protective relays.

Our first product was a computerized, extra high voltage (EHV) circuit breaker analyzer, which became the forerunner of an entire line of EHV circuit breaker test equipment. Over the years, our portfolio has grown tremendously to include microcomputer-based precision micro-ohmmeters; single- and three-phase transformer winding turns-ratio testers; transformer winding-resistance meters; mega-ohm resistance meters; and a variety of other application-specific products.

Our instruments are rugged, reliable, accurate, and user friendly. They eliminate tedious and time-consuming operations, while providing fast, complex test-result calculations. Using our equipment helps reduce errors and eliminates the need to memorize long sequences of procedural steps.

In 2017, Vanguard Instruments became a part of Doble Engineering Company, an energy industry leader in hardware, software, and services that diagnose and monitor the health of critical assets.