

**When your TS2 cabinets are in flash, you will want to check your BIUs
Quickly and reliably check any BIU with ATSI's**

NEMA TS2 BIU Tester

Model BIUT-800

Provides Comprehensive, Fully Automated Testing of NEMA TS2 Bus Interface Units in the Field or Shop

- Is the BIU's SDLC communication port functioning? Will the unit change modes in response to the location it is used in?
- Is there any hardware damage, such as blown drivers or pull-up resistors? Find out fast.
- Runs a fully automated test in less than 10 minutes and creates a report to be saved with your records.
- Rugged enclosure contains cables and optional report printer for ease of use and storage in trucks.
- Reduces the need for shipping BIUs back and forth to the manufacturer for evaluation.



Situation

The BIU (Bus Interface Unit) is a key component in a modern NEMA TS2 signal cabinet. The BIU is responsible for converting all the (formerly hardwired) inputs and outputs that need to be monitored by the controller into reliable, high-speed data packets. The only link between the BIU and the controller unit is the SDLC bus, which makes testing of individual BIUs extremely difficult outside of a fully functional TS2 cabinet. Even then, only cursory testing is possible because built-in TS2 controller diagnostic capabilities are extremely limited.

Solution

The BIUT-800 is designed to test TS2 BIUs quickly and easily and determine if they meet the NEMA Standard. The operator simply plugs in the BIU to test, enters the make, model, serial number, and selects the tests to be performed. The tester performs the test, interprets the results, and generates the test report automatically. Test reports are saved to the tester's memory and can be downloaded to a PC or printed on-site with an optional internal printer.



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“We swapped out all the BIUs, crossed our fingers, and the intersection finally came out of flash.”

NEMA TS2 installations are widely used across North America in some of the most demanding and critical applications. As the new equipment begins to age, maintenance will become an issue. If any one of the BIUs in a cabinet fail, knowing the mode of failure can lead you to the cause and the resolution of the problem. Lacking this information, the technician is reduced to swapping out components to get things working, without the ability to address the real problem. The **BIUT-800** tester provides the technician with this information right at the scene, reducing the costs of signal maintenance to the agency.

- **Are there random errors in the SDLC frame handling?**
If the BIU checks out, a faulty power supply could be generating EMF inside the cabinet.
- **Do all the T&F BIU input, output and I/O pins function properly?**
If not, a worn-out surge suppressor could be passing thru signal line surges.
- **Do the Detector BIUs recognize calls and provide resets to the detector units?**
If the BIU is working, a faulty backplane connection could be the cause.

The TS2 BIU specification is designed for interchangeability, but subtle differences that are not apparent during stop-and-go operation in the street can lead to compatibility problems. BIUs from one manufacturer may work improperly (or not at all) with another manufacturer’s controller or cabinet assembly. The **BIUT-800** is designed to test the basic capabilities and TS2 Standard compliance of individual BIUs. Detailed test reports yield not only thorough documentation, but also valuable performance data that can be used to evaluate various BIUs and help to detect actual and potential incompatibilities.

- **Will the opto inputs recognize a low-voltage AC ped call input?**
- **Is the detector fault status PWM signal decoded properly?**
- **What are the input logic level thresholds?**
- **Is the SDLC bus error checking circuitry functional?**
- **Does the BIU meet all specified NEMA TS2 timing specifications?**

The BIUT-800 can answer all these questions and more. It is the only tester available that can provide comprehensive testing of a BIU to the NEMA Standards.

Traffic Signal professionals all over North America count on ATSI to provide high-quality, reliable test equipment that is designed to meet their specialized needs. We back up our products with a commitment to prompt, competent, and courteous customer support. Contact ATSI or visit our website for further information on the **BIUT-800** and other products we can provide to improve your Traffic Signal and Traffic Data maintenance operations.



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