

BLTU4

Automatic Bond & Loop Resistance Test Unit

1KHz | Equivalency to TS11194 loop tester approved by Airbus
Suitable for non-explosive environments



BLTU4

The ground bond specialist.



The BLTU4 (Bond and Loop Test Unit) is a portable bond and loop resistance tester with built-in operator guidance. It provides automatic testing of ground bonding points on aircraft and other large structures, and records the test data for full traceability.

"The BLTU4 revolutionises the testing environment offering automated, intelligent earth bond and loop testing."



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APPLICATIONS FOR BLTU4

Electrical bond, loop and joint test systems are used to detect high resistance ground circuits on aircraft and other large vehicles and structures for the following:

- Bond resistance between metallic elements
- Surface contamination, bad preparation
- Loop resistance in parallel circuits
- Loose bond straps, damaged shielding
- Joint Resistance measurement diagnostics

These tests are carried out at OEM Airframe stage and in MRO operations.



Measuring at 1KHz frequency means that the BLTU4 has proven equivalency to the TS11194 loop tester approved by Airbus. It is also suitable for use on Bombardier aircraft.

SOME OF OUR BLTU CUSTOMERS

AIRBUS





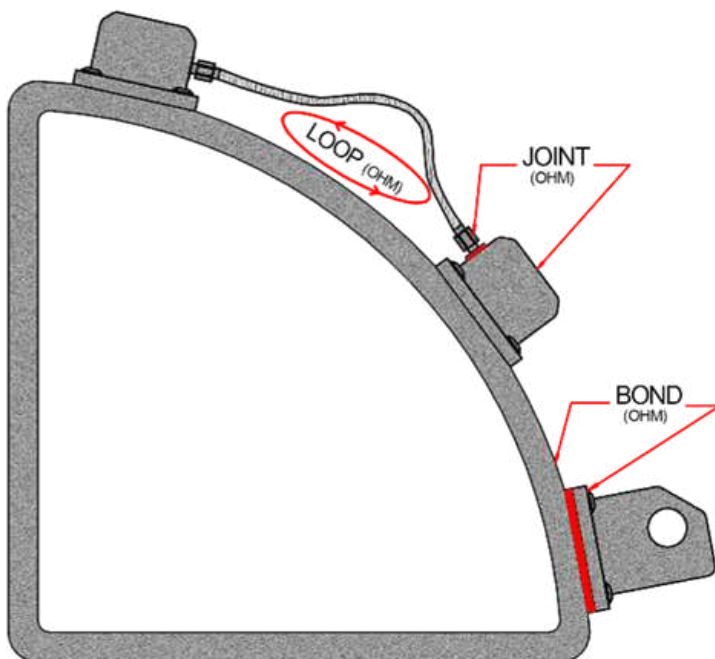
THIS PAGE CONTAINS SOME USEFUL INFORMATION ON WHAT BOND, LOOP AND JOINT RESISTANCE TESTING IS. OUR SALES TEAM CAN EXPLAIN THESE TOPICS IN MORE DETAIL IF NEEDED.

ELECTRICAL BOND TESTING

The electrical bonding on an aircraft protects aircraft and passengers by limiting the effects of lightning strikes, stray currents, HIRF, and EMC. The integrity of bonding circuits is critical to ensure they perform reliably to ensure normal and safe operation of the aircraft control and communication systems.

Bond test

- Measures the electrical resistance between two metallic elements, typically between a bracket and structure.
- BLTU4 uses the 4-wire (Kelvin) resistance measurement to ensure micro-ohm accuracy.



Loop test

- A “loop” is a complex structure comprising of series and parallel resistive elements. However, it’s the joint connections within this complex structure that is ultimately tested, as it’s the resistance between these elements which is critical in determining the total loop resistance.
- If any joint within the loop fails, it can cause the loop test to fail as well.
- The loop test uses a pair of clamps to inject and detect current flowing through the loop.
- BLTU4 controls the flowing current and frequency, combines this with the known voltage fed back from the internal power source, and automatically carries out a phase correction to accurately report the loop resistance.

BLTU4 performs simple, rapid and automatic test and measurement of:

- Bond resistance between structural elements
- Loop resistance and integrity of cable shields
- Loop resistance and integrity of bonding straps
- Joint resistance diagnostics



BLTU4 FEATURES & BENEFITS

Lightweight & robust

- Single operator use
- Battery powered and truly portable
- Weight 7kg (15.5lbs)
- Size 345mm length x 295mm width x 150mm depth (13.5 inches x 11.6 inches x 5.9 inches)

Automatic

- Integrated computer complete with MK software
- Automated test process, saving time and gaining efficiency
- Paperless process
- On screen graphical operator guidance
- Simple touchscreen control
- User login and access control
- Automatic pass and fail of measured value
- Automatic logging and upload of test results
- Guarantees traceability by user, UUT, measured result

Active probes & clamps

- Push button control enables full test control from the probes and loop clamps
- LED pass fail indication on probes and loop clamps improves test efficiency
- Integrated lights on probes for testing in dark areas
- Various probe and clamp formats and sizes available

Reliable & Accurate

- Integrated self test and validation toolset
- Automatically validates system performance during test and after clamp or probe change



About us

We've been designing and manufacturing automatic electrical test equipment for over 30 years. In that time, we've provided systems to customers around the world, in the following industries:

- Aerospace
- Defence
- Rail
- Industrial, Power & Control
- Subsea
- Automotive

Our range of products enable rapid, automatic testing of engines, wiring harnesses, slip rings and other vital components.

We can work with you wherever testing is undertaken, at any stage of the product lifecycle. This may be at component manufacture stage - providing quality assurance to subcontractors - or at the final assembly stage, ensuring complete confidence in the final product. Beyond this, we also provide testing solutions for MRO and servicing.

Talk to us

Our UK head office is supported by satellite locations in the US and Hong Kong. With our large global network of reps and distributors, you can be assured of local support, sales and training.

For your local contact details, please visit our website, www.mktest.com.

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