

CTRL UL101 Troubleshooter (for Boeing)

AMM Task 20-10-76-865-011 — “Ultrasonic Leak Detection Checks”
CTRL Part No. B00033 / Boeing Tool Tag SPL-1473



Applications on the Boeing 700 Series

INSTANTANEOUS

The CTRL UL101 Troubleshooter for Boeing is the approved instrument for minimizing cost of delay related to the applications listed in the BCA 700 Series AMM, Task 20-10-76-865-011. With the UL101, processes that used to take days can be accomplished in single hour.

SUPERIOR SOUND CLARITY

Easily distinguish the different sounds produced by systems leakage and quickly pinpoint the exact location of the fault using the UL101. No other ultrasound device on the market offers similar noise-to-signal ratio, ease of use, or sound quality. Never miss a fault with the UL101.

Pressurization Leak Tests

Air Conditioning Leak Checks

Bleed Air Checks (Airframe and Engine)

Hydraulic Bypassing

Pitot Static Check

Oxygen

Evacuation Slides, Tires & Other Pressure Components



UL101 Troubleshooter Specifications

Receiver / Transmitter Dimensions	8.75" x 1.26" x 1.26" (222 x 32 x 32 mm) 4.125" x 1.26" x 1.26" (105 x 32 x 32 mm)
Receiver / Transmitter Weight	11.6 oz (330 g) 6.2 oz (175 g)
Kit Shipping Dimensions	17" x 8" x 14" (43 x 20 x 35 cm)
Kit Shipping Weight	10 lbs (4.5 kg)
Housing	Extruded Aluminum, wall thickness .09" (2.3 mm)
Battery	9-Volt Alkaline (> 45 continuous hours use)
Distance of Reception	Up to 150 feet (45 m)
Sensitivity Threshold	Minimum Intensity: 10^{-12} W/m ² (0 dB SPL) Minimum Ultrasonic Pressure: 2.0×10^{-5} PA @ 40 kHz
Frequency Bandwidth	1.8 - 2.2 kHz @ level 0.7 (or -3 dB SPL)
Working Resonance Frequency	40 kHz +/- 1.5 kHz
Operating Temperature Range	-4° to +130° F (-20° to +54° C)
Headset	Industrial Grade/600-Ohm Impedance 21-24 dB External Noise Attenuation Over or Behind-the-Head (for use with hardhat)
Warranty	5-year parts & labor on all manufacturer's defects No calibration required Requalification of performance (once per year)
Intrinsically Safe (optional upgrade)	ANSI /UL 91 3-88, for DIVISION 1 , CLASS I , Groups A, B, C and D, CLASS II , Groups E, F, G and CLASS III It also complies with DIVISION 2, CLASS I, Groups A, B, C and D, CLASS II, Groups F, G, and CLASS III

The **CTRL UL101 Troubleshooter** converts ultrasound signals produced by industrial machinery and vehicles into easily recognizable audible sounds so the Aircraft Maintenance Technicians can quickly locate leaks in various systems on the BCA 700 Series. The CTRL UL101 is used worldwide for predictive maintenance, quality control, and for leak detection.

Features include:

- Fixed Frequency
- High Sensitivity to all turbulent flow air, gas, or vacuum leaks
- Easily adjustable sensitivity and gain
- Lightweight, one-handed operation
- Converts ultrasound to easily recognizable audible sounds

