



SERVICE BULLETIN

Part No.: LSxxx

Description: Loud Speaker 300/600W External	
Service Manual: ASM-LS	Service Bulletin No.: ASM-LS-603-0003
ECO No.: ECO# 1180	Subject: Bell Stop Drill Procedure

Prepared By:	Checked By:	Approved By:
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1 Planning Information

1.2 Applicability

1.2.1 This service bulletin is applicable to all LSxxx products prior to serial number 105818.

1.3 Reason

1.3.1 AEM has identified that a suspect manufacturing process resulted in defects on some LSxxx products. This manufacturing process issue has now been corrected. AEM received a report of a speaker bell which cracked during service, shown in Figure 1. This service bulletin details stop drill repair and visual inspection requirements for continued airworthiness prior to replacement of bells with a crack. Stop drilling is a temporary measure to deal with time constraints of obtaining replacement bells, the permanent fix is to replace the cracked bells.

1.4 Compliance

1.4.1 AEM recommends bells with any structure cracks are replaced. During the bell replacement process, to continue temporary airworthiness prior to bell replacement, follow this in field service bulletin repair procedure to stop drill bell cracks in one or more corners of cracked bells. If a bell is found to be cracked, perform the stop drill repair, and AEM recommends inspection be accomplished after every flight until bell replacement. After bell replacement, inspection is no longer required. Further maintenance of the LSxxx products is 'on condition' only.

This service bulletin details a temporary repair, for permanent bell replacement see service bulletin ASM-LS-603-0004.

1.5 Approval

1.5.1 No change to existing approvals.

1.6 Costing

1.6.1 This repair corrects a failing component with suspected defects from manufacturing. This repair is therefore subject to warranty considerations if the affected unit is returned to AEM for replacement. Contact AEM for details.

1.7 Parts and Labour

1.7.1 Unaided, visual inspection is estimated to take ten (10) minutes after every flight.

1.7.2 Stop drill repair is estimated to take fifteen (15) minutes per each cracked bell.

1.8 Equipment Required

Part No.	Manufacturer	Description
Drill Bit *	N/A	0.10 ± 0.01 drill bit.
Drill Bit *	N/A	0.31 ± 0.02 drill bit.

* - an approved equivalent may be substituted.

1.9 Weight and Balance

Not affected.

1.10 Electrical Load Data

Not affected.

1.11 References

Not affected.

1.12 Other Publications Affected

Not affected.

2 Procedure Instructions

2.1 Inspection and Repair for Flaws/Cracks

2.1.1 Inspect the bell for flaws, example crack suitable for stop drill repair shown below in Figure 1.



Figure 1 - Cracked Bell

- 2.1.2 To complete the following repair, the crack must be ≤ 2 inches long. If the crack is > 2 inches, the bell must be replaced and cannot be repaired with a stop drill. See service bulletin ASM-LS-603-0004 for bell replacement.
- 2.1.3 Remove and discard any loose material, or material suspected to become loose as shown in Figure 2.
- 2.1.4 Locate the tip of the crack by unaided visual inspection. Drill a 0.1 inch diameter hole beyond the visible crack tip in the path of the crack as shown in Figure 3.

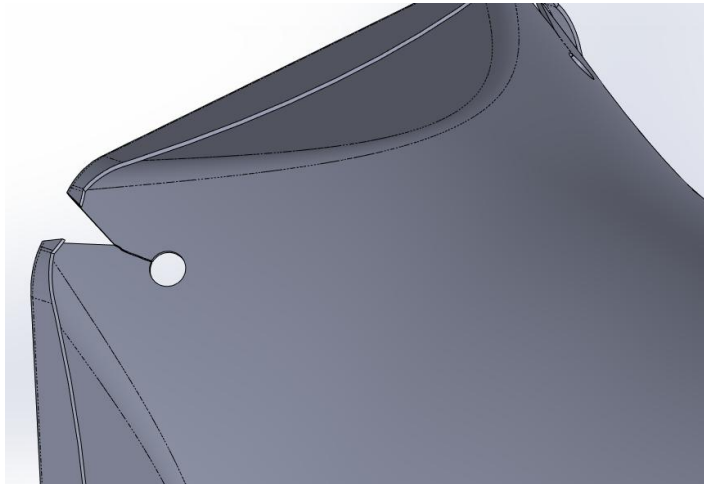


Figure 3 — Example of Stop Drill

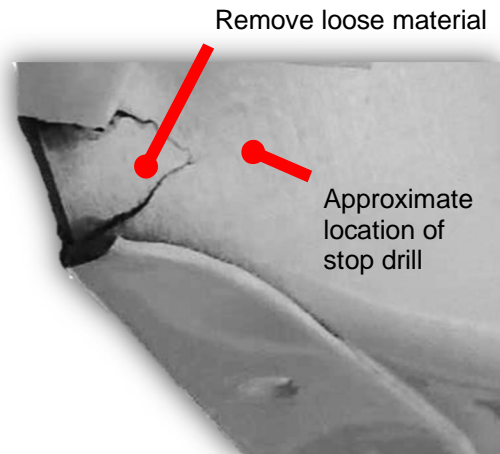


Figure 2 — Remove Material

- 2.1.5 Enlarge the 0.1 inch diameter hole to a 0.31 inch diameter hole (if restricted due to location of crack tip, drill the largest hole possible up to a maximum diameter of 0.31 inches).

2.2 Inspection Procedure

- 2.2.1 Complete a detailed unaided visual inspection after each flight, checking for new crack growth around existing crack edges and the stop drill. If new growth is found, repeat the stop drill procedure from 2.1.3 thru 2.1.5. to a maximum of 2 holes per crack. If the crack continues past 2 holes, the bell must be replaced. See service bulletin ASM-LS-603-0004 for bell replacement.

2.3 Acceptance Test Procedure

- 2.3.1 Ensure the unit functionally works by performing an audible system test on the aircraft.

WARNING:
The system can produce high sound pressure levels. Proper personal protective equipment is required to prevent hearing damage. Stand clear, this equipment operates at an intense sound level. Personnel must be kept away from the direct loud speaker beam. Do not operate the equipment in a hangar or in confined areas.



2.4 Modification Status Marking

Not applicable.

3 Material Information

Not applicable.

4 Reference Documents

Not applicable.

End of Service Bulletin