

INCH-POUND

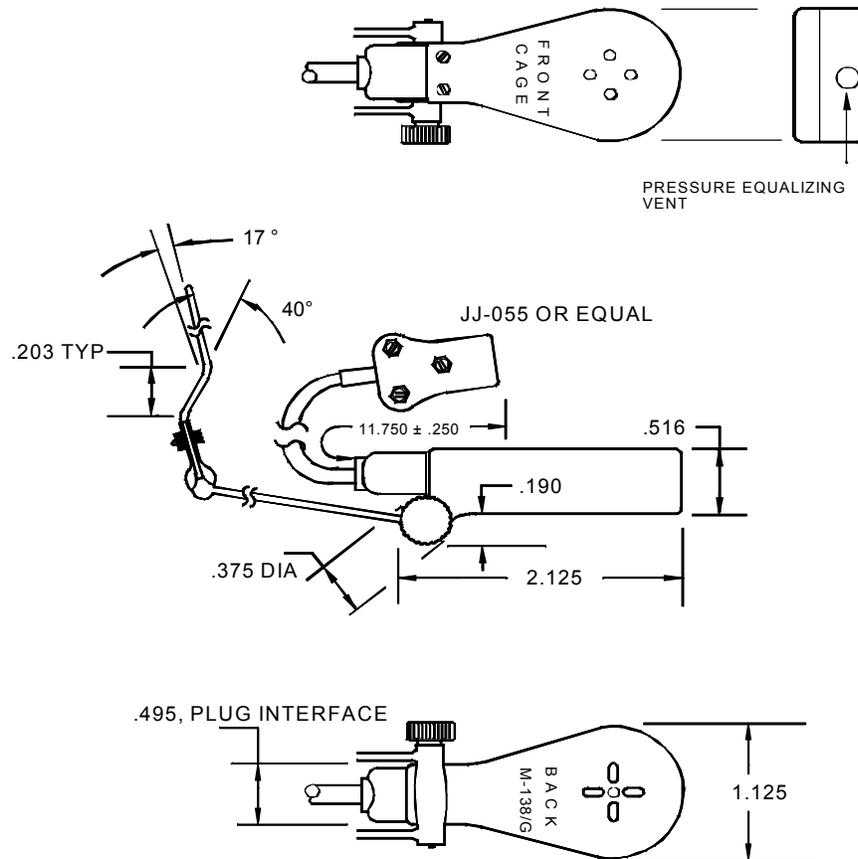
MIL-PRF-26542/10B
30 May 1997
SUPERSEDING
MIL-M-26542/10A
29 March 1985

PERFORMANCE SPECIFICATION SHEET

MICROPHONE ASSEMBLY, M-138/G

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-26542.



NOTES:

1. Dimensions are in inches. Tolerance is $\pm .015$ inches, unless otherwise specified.
2. Quantity and configuration of sound apertures is optional.
3. Location of marking on surface shown is optional.
4. Set-screws shall hold the microphone securely to the boom, of type slotted or allen, and recessed.

Ⓑ FIGURE 1. Microphone assembly

Ⓑ denotes changes.

AMSC N/A

1 of 4

FSC 5965

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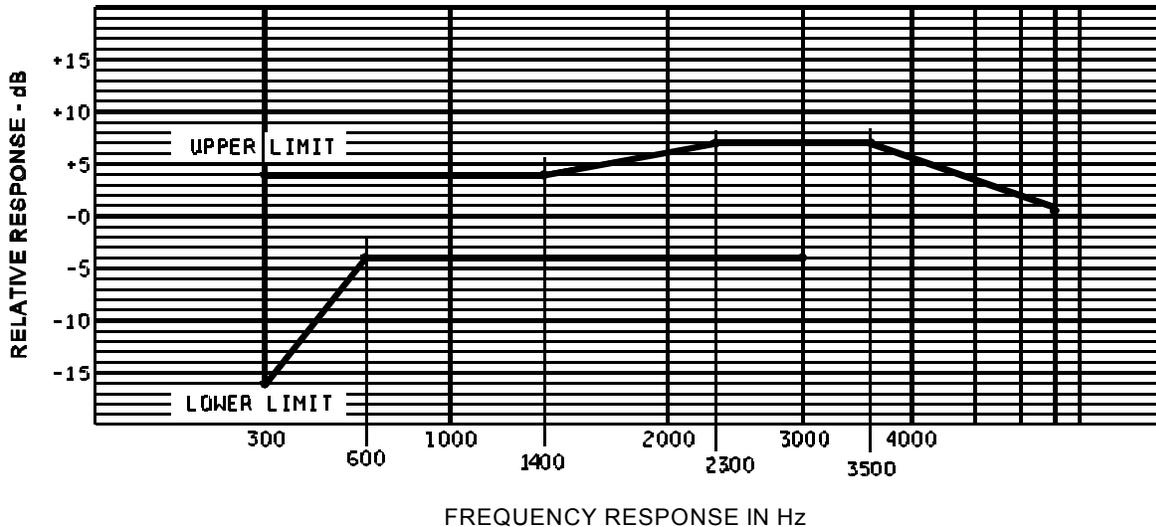


FIGURE 2. Frequency response

REQUIREMENTS:

Component parts:

Microphone element: Shall be in accordance with figure 1.

Boom:

Dimensions: Dimensions of the boom shall be in accordance with USAF Drawing 67B1854, for interchangeability with the next-higher-assembly.

Color: Boom shall be the same color as the microphone element.

Finish: Shall be in accordance with MIL-PRF-26542, paragraph 3.5.28.

Operation: Shall be in accordance with MIL-PRF-26542, paragraph 3.5.29.

Material: Shall be constructed from a high-strength, corrosion-resistant metal, meeting or exceeding the environmental and durability requirements of MIL-PRF-26542.

Cable assembly: Shall be Part or identifying number (PIN) M22442/38-1, for interchangeability.

Plug assembly: U-173/U in accordance with USAF Drawing 57B12662 or electrically and mechanically compatible part, on microphone end, JJ-055 type or equal on the free end.

Performance:

Sensitivity at ground level: -56 dBm at 1,000 Hz with an input SPL of 28 dynes/cm

Sensitivity at altitude: Sensitivity shall be within 3 dB relative to the ground level sensitivity when tested at 15,000 feet.

Frequency response at ground level: Shall be in accordance with figure 2.

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Impedance: 150.0 ohms ±15 ohms.

Resistive load: 150.0 ohms.

The microphone assembly shall be tested in accordance with the tests listed in table I.

Ⓑ TABLE I. Parameter applicability

Inspection	Requirement paragraph	Test paragraph	Qualification tests	Group "A" tests	Group "B" tests	Group "C" tests
<u>Group I</u>						
Visual and mechanical inspection	3.1, 3.4, 3.5	4.5.1	X	X		
Sensitivity of ground level	3.5.1	4.5.2.2	X	X		
Sensitivity at altitude	3.5.2	4.5.2.3	X			X
Frequency response at ground level	3.5.3	4.5.2.4	X	X		
Frequency response at altitude	3.5.4	4.5.2.5				
Impedance	3.5.5	4.5.3	X	X		
Noise cancellation characteristics	3.5.7.1	4.5.5.1				
Effect of external magnetic field	3.5.8	4.5.6				
Stray magnetic field	3.5.9	4.5.7				
Linearity	3.5.10	4.5.8				
Talk-out	3.5.11	4.5.9				
Dielectric withstanding voltage	3.5.12	4.5.10	X			
Signal-to-noise	3.5.7	4.5.5	X		X	
Distortion	3.5.6	4.5.4	X		X	
Interchangeability	3.5.13	4.5.11	X			
<u>Group II</u>						
Thermal shock	3.5.14	4.5.12	X			X
Humidity	3.5.15	4.5.13	X			X
Drop	3.5.16	4.5.14	X			X
Pressure equalization	3.5.17	4.5.15				
Explosive decompression	3.5.18	4.5.16				
Salt fog	3.5.19	4.5.17	X			X
<u>Group III</u>						
Vibration	3.5.20	4.5.18	X			X
Bounce	3.5.21	4.5.19	X			X
Altitude	3.5.22	4.5.20	X			X
Moisture barrier seal	3.5.23	4.5.21				
Immersion	3.5.24	4.5.22	X			X
<u>Group IV</u>						
Fungus	3.5.25	4.5.23	X			
<u>Group V</u>						
Gun blast	3.5.26	4.5.24	X			

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CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85

Preparing activity:

Air Force - 85

Review activities:

Army - AR, AT, AV, ME
Navy - AS, OS
Air Force - 99
DLA - CC

(Project 5965-0238-10)