

INCH-POUND

MIL-DTL-12632/4B
25 April 2016
SUPERSEDING
MIL-L-12632/4A
10 June 1974

DETAIL SPECIFICATION SHEET

LOUDSPEAKER, PERMANENT MAGNET (ENCASED, 2-WATT, FUNGUS-, GUNBLAST-, AND IMMERSION-RESISTANT), TYPE LS-454/U

Inactive for new design after 30 March 1999.

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

The complete requirements for procuring the loudspeaker described herein shall consist of this document and the latest issue of MIL-DTL-12632.

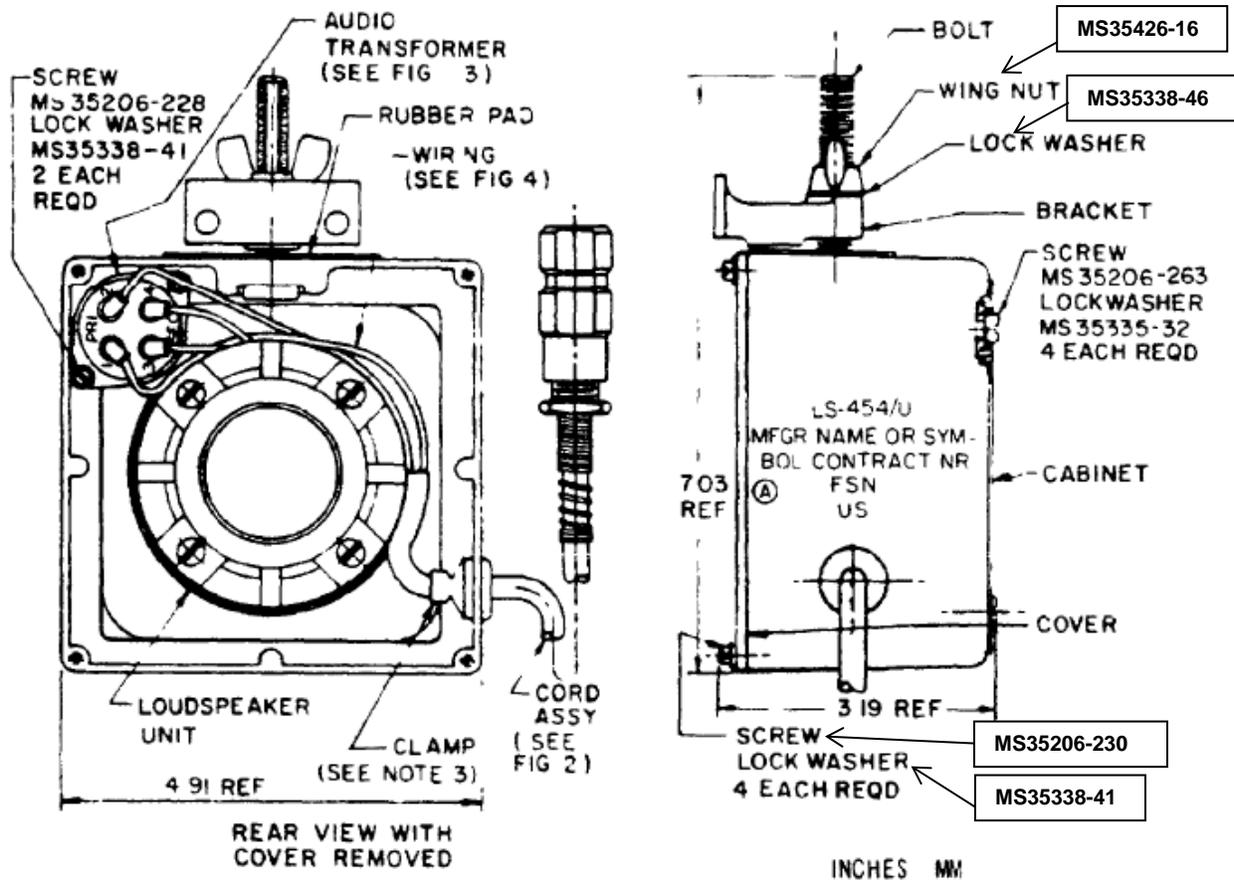


FIGURE 1. Loudspeaker LS-454/U.



Component name	Applicable document	Part number
Screw	AIA/NAS NASM35206	MS35206-228, -230, -263
Lock Washer	AIA/NAS NASM35335	MS35335-32
Lock Washer	AIA/NAS NASM35338	MS35338-41, 46
Wing nut	MS35426	MS35426-16

INCHES	MM
3.19	81.03
4.91	124.71
7.03	178.56

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Steel clamp firmly clamped on the cord jacket. Design is optional. A strain relief bushing (e.g. Heyco) is a suitable substitute for the grommet/clamp combination.

FIGURE 1. Loudspeaker LS-454/U - Continued.

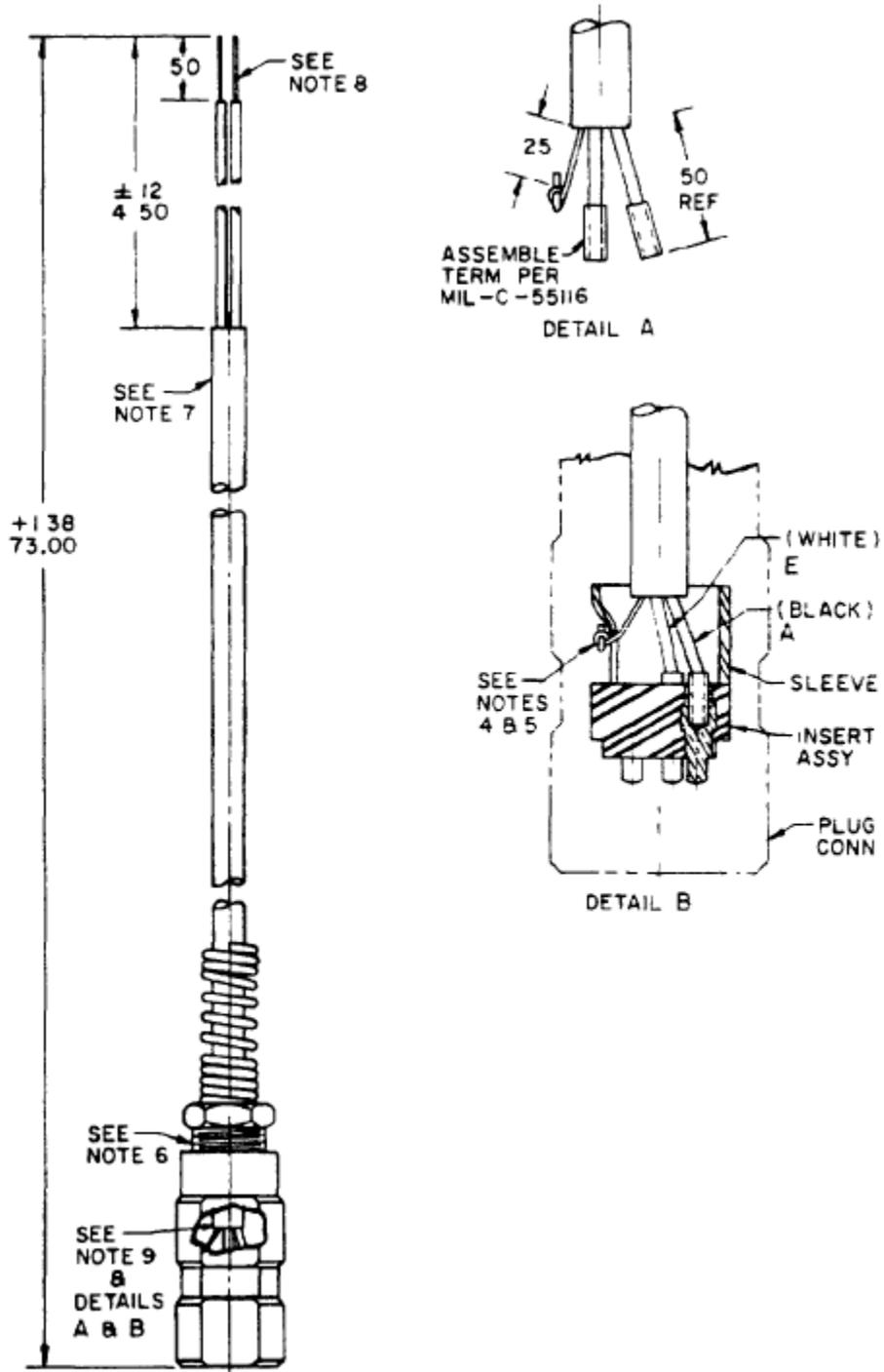


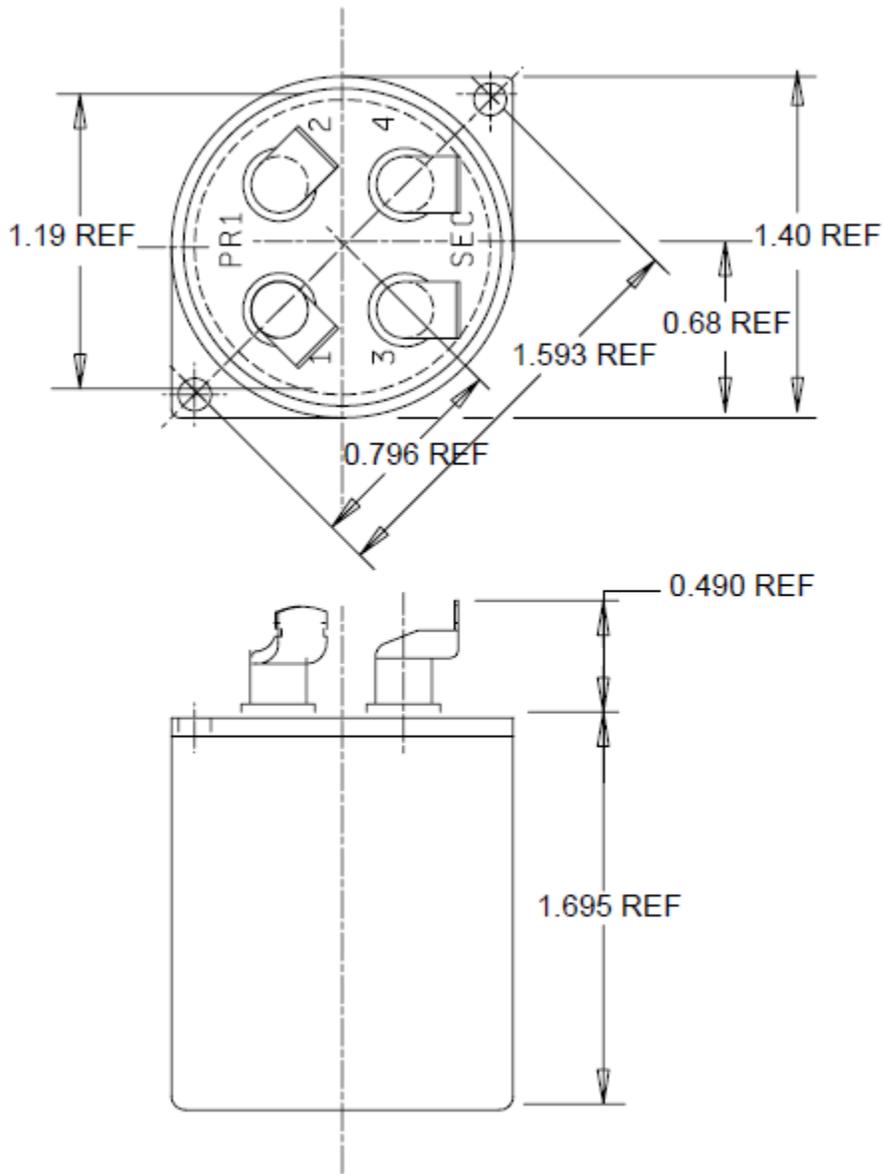
FIGURE 2. Cord assembly.

INCHES	MM
.12	3.03
.25	6.35
.50	10.70
1.38	35.05
4.50	114.30
73.00	1854.20

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Unless otherwise specified, tolerance is $\pm .06$ (1.52 mm).
4. Stay cord shall be securely knotted and excess length trimmed.
5. Seal stay cord knot with glyptal No. 2V3407 as supplied by General Electric Co., Inc, Schenectady, NY or equal.
6. Plug connector shall be type U-229/U conforming to MIL-DTL-55116. The U-229/U connector used on this item need not be re-gaged or first article tested, if Government source inspected or obtained from a Government approved vendor's plant for the U-229/U connector. Otherwise, gages are to be obtained from or approved by US Army Electronics Command, Directorate of Procurement and Production, Engineering Support Division, Gage Engineering Branch (AMSEL-PP-ES-6), Ft. Monmouth, NJ.
7. Cord shall conform to type COS-2123 of MIL-DTL-3885.
8. Skin back ends, twist and solder coat. Plug end leads shall be 50 (12.70 mm) long before assembly.
9. Connect white conductor to terminal E and black conductor to terminal A of plug U-229/U.

FIGURE 2. Cord assembly - Continued.



INCHES	MM
.005	.13
.06	1.52
.159	4.04
.38	9.65
.44	11.18
.66	16.76
.796	20.22
1.19	30.23
1.31	33.27
1.593	40.46
1.62	41.15

FIGURE 3. Audio transformer.

ELECTRICAL CHARACTERISTICS
Rated power level 2 watts \pm 1 dB.
Frequency response range 250 to 5,000 Hz at rated power flat within 2 dB
Reference frequency 1,000 Hz
Primary impedance $600 \pm 60\Omega$
Secondary impedance 8Ω
Insertion loss 0.5 dB., max with 2 watts input at reference frequency
Temperature rise 40°C max above an ambient of 65°C with rated power at 300 Hz
Test voltage 500 volts rms
Duty cycle Continuous
Maximum altitude 10,000 feet
Harmonic distortion Not more than 1 percent at rated power
Polarity Additive, with terminals 2 and 3 connected

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Unless otherwise specified, tolerance is $\pm .02$ (.51 mm).
4. Solder lug terminals No. 18 AWG.
5. Markings shall be as shown.

FIGURE 3. Audio transformer - Continued.

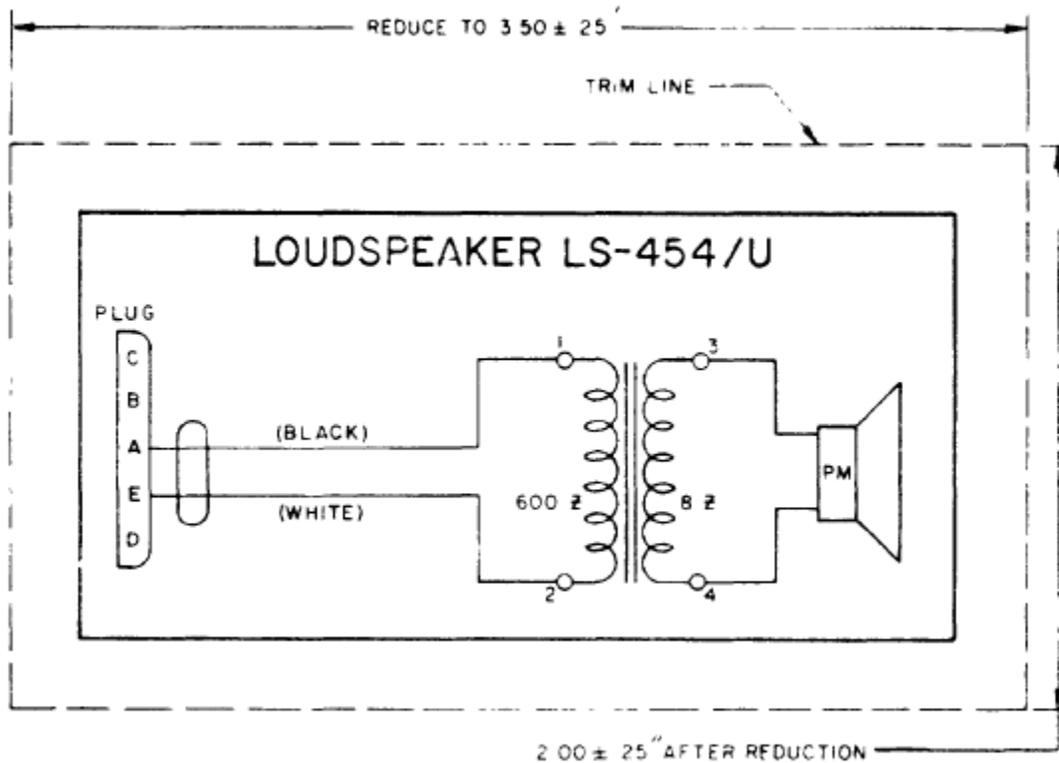


FIGURE 4. Schematic diagram and label size.

REQUIREMENTS:

Design and construction (see figure 1) Loudspeaker unit-Type LS-445 U of MIL-DTL-12606. Cabinet-In accordance with MIL-DTL-12632 Cord assembly-See figure 2 Cord-Type COS2(23) of MIL-DTL-3885 Plug-Type U-229 U of MIL-DTL-55116 Audio transformer-See figure 3. Wiring-See figure 4.	Schematic diagram label. In accordance with MIL-DTL-12632 and figure 4. Frequency response test voltage (rms) 36.0 volts
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The margins of this specification sheet are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based upon the entire content, regardless of the marginal notations and relationship to the last previous issue.

Referenced documents. In addition to MIL-DTL-12632, this document references the following:

AIA/NAS NASM35206
AIA/NAS NASM35335
AIA/NAS NASM35338
MIL-DTL-3885
MIL-DTL-12606
MIL-DTL-55116
MS35426

CONCLUDING MATERIAL

Custodians:
Army – CR
Navy – EC
Air Force – 85
DLA – CC

Preparing activity:
DLA - CC

(Project 5965-2016-005)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.