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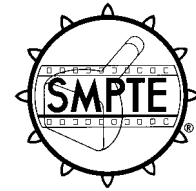
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SMPTE STANDARD**ANSI/SMPTE 220-1996**Revision of
ANSI/SMPTE 220-1991

for Motion-Picture and Television Equipment — Camera Mounting Connections — 1/4-Inch-20 Thread and 3/8-Inch-16 Thread Tripod Screws



Page 1 of 2 pages

1 Scope

1.1 This standard specifies the location of the head mounting sockets in the mounting plates of motion-picture and television cameras intended to mate with 1/4-inch-20 thread and 3/8-inch-16 thread locking screws.

1.2 The standard is not intended to prescribe design except for the dimensions affecting interchangeability; for this reason, the socket figures indicate two of many possible designs.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.

ANSI PH3.101-1983 (R1987), Photography (Cameras)— Tripod Connections for American Cameras (1/4-Inch-20 Thread)

ANSI PH3.102-1983 (R1987), Photography (Cameras) — Tripod Connections for Heavy-Duty or Imported Cameras (3/8-Inch-16 Thread with Adapter for 1/4-Inch-20 Thread Tripod Screws)

ANSI/ASME B1.1-1989, Unified Inch Screw Threads (UN and UNR Thread Form)

3 Tripod screws

3.1 One-quarter inch tripod screws shall be in accordance with ANSI PH3.101.

3.2 Three-eighth inch screws shall be in accordance with ANSI PH3.102.

3.3 The mounting area on the camera base shall have the following thickness:

	<u>Recommended</u>	<u>Minimum</u>
1/4-in screw	0.240 in	0.188 in
3/8-in screw	0.359 in	0.250 in

4 Mounting plate**4.1 Socket**

The head-mounting socket shall be on nominally 1-in (25.4-mm) centers and be located in line as shown in figures 1, 2, and 3.

4.2 1/4-in screw

The thread in the head-mounting socket shall be 1/4-inch-20 UNC-2A, in accordance with ANSI/ASME B1.1, with the following diameter specifications:

	<u>Minor dia (Inches)</u>	<u>Pitch dia (Inches)</u>	<u>Major dia (Inches)</u>
Min	0.196	0.2175	0.2500
Max	0.207	0.2223	—

4.3 3/8-in screw

The thread in the head-mounting socket shall be 3/8-inch-16 UNC-2A, in accordance with ANSI/ASME B1.1, with the following diameter specifications:

	<u>Minor dia (Inches)</u>	<u>Pitch dia (Inches)</u>	<u>Major dia (Inches)</u>
Min	0.307	0.3344	0.3750
Max	0.321	0.3401	—

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Center of gravity of camera with lens

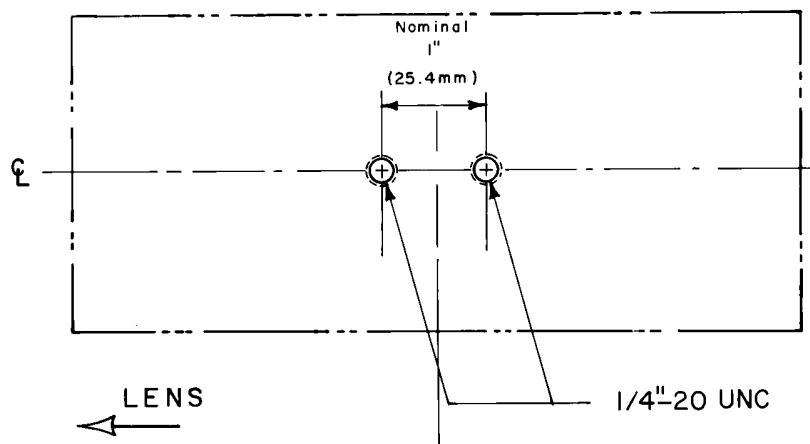


Figure 1 – 1/4-inch head-mounting socket

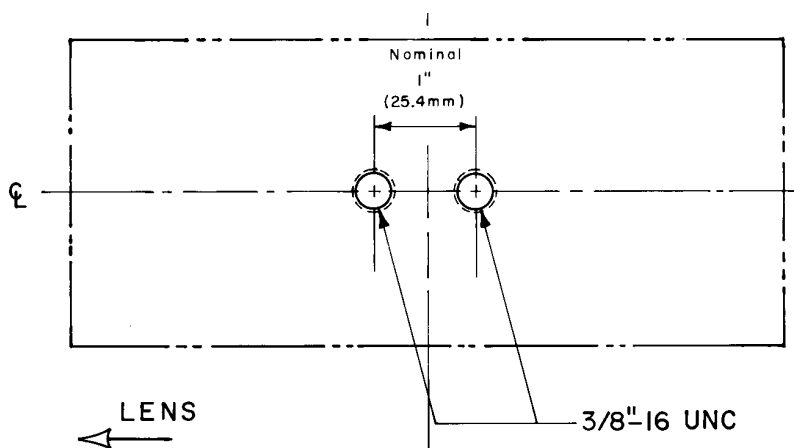


Figure 2 – 3/8-inch head-mounting socket

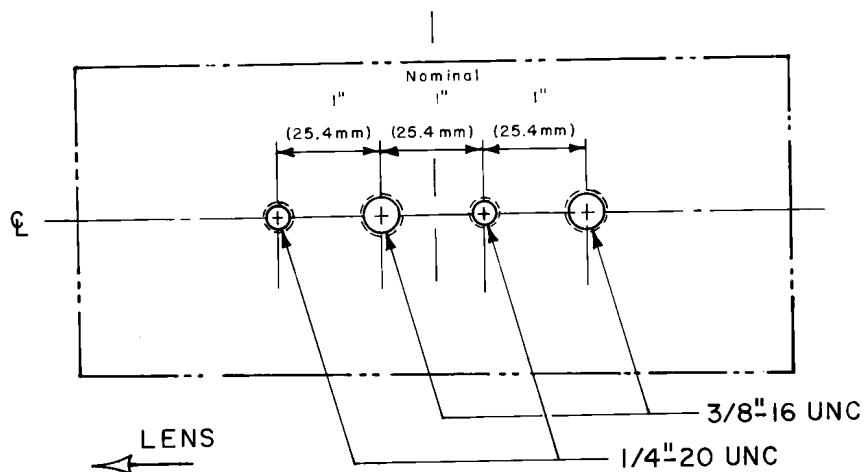


Figure 3 – Combined head-mounting socket