

PMPEA/SMPTE Working Groups on Standardization

Studio Lighting Hardware

The Professional Motion Picture Equipment Association (PMPEA) determined in 1978 that a standards study group should be formed to investigate the need for standardization of studio lighting hardware. In cooperative efforts, the SMPTE joined with the PMPEA to form the Working Group for Studio Lighting Hardware Standardization. Initial investigations began with the "lighting pin." The premise for such an investigation was to provide a universal nomenclature and proper adaptability of the pin size.

The proposed Standard Male Baby Pin, as illustrated in Fig. 1a, is compatible with existing equipment used in the U.S.A. in the motion picture, television, still photographic, and theatrical industries. This pin is characterized by a major diameter of .625 inches (15.88 mm).

The socket design shown in Fig. 1b will receive the proposed U.S.A. standard, as well as the British and German standard, male baby pins (see Table 1). This interchangeability, however, does not extend to the location of locking screws in relation to the safety groove in the male pin. It was not possible to find a universal configuration that satisfied this requirement. The proposed United States standard should meet the requirements of interchangeability for both pin diameter and clamping screw location for U.S.A. manufactured equipment.

The socket design shown in Fig. 1c will allow for the safe hanging of a luminaire or other equipment for all of the male baby pins as outlined in the "Baby Pins Standard Comparison" (see Table 1), except in the case of the German standard, Insertion Pivot. It is the opinion of the committee that, in the case of the German standard, the absence of a safety hole does not permit a completely secure overhead hanging method.

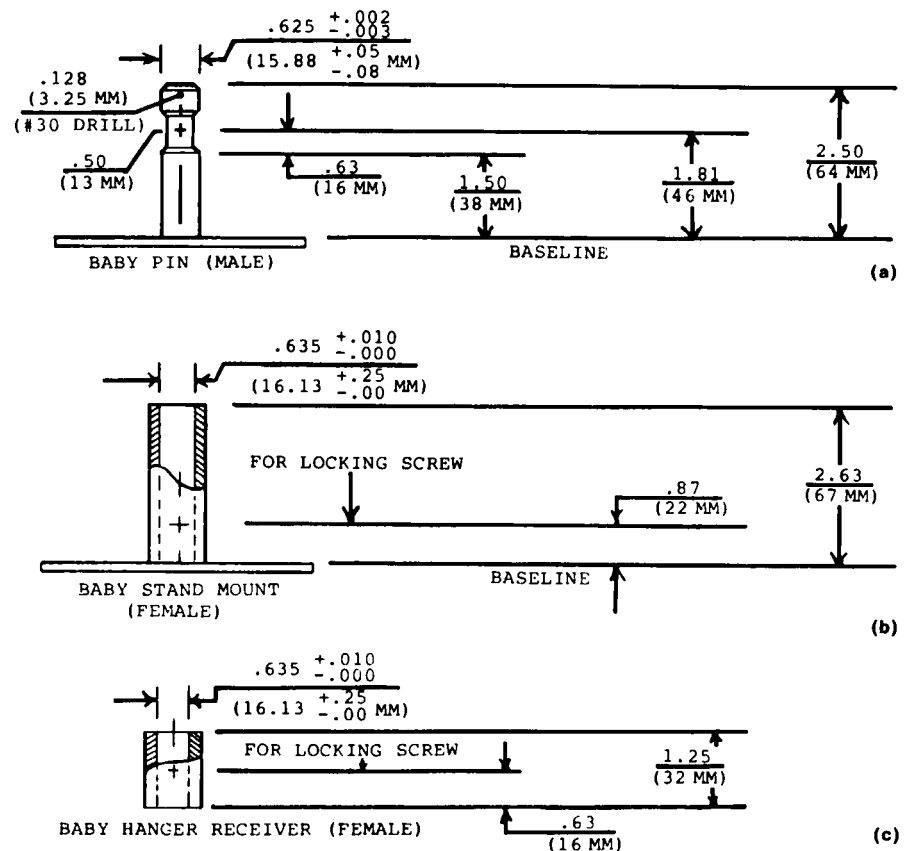
A proposed set of designs is offered for the male baby pin and the female baby stand mount and female baby hanging receivers. The proposed U.S.A. standard

provides compatibility with all presently known U.S.A. manufactured products.

The designs described in Figs. 1a, 1b, and 1c represent a beginning approach to international compatibility. A single design is not presently available providing total compatibility between the German DIN and British Standard. Some further redesign will be necessary on the part of all

parties in order to achieve this compatibility. At present, the proposed U.S.A. standard for these elements will permit interchangeability for pin diameters and sockets only.

It is felt that the proposed U.S.A. standard offers the basic design which would require the least modification in order to achieve both national and international



3. METRIC DIMENSIONS ARE IN () PARENTHESES
2. TOLERANCE IS $\pm .010$ (.25 MM) EXCEPT AS NOTED
1. CHAMFERS SHALL BE $45^\circ \times .06$ ($45^\circ \times 1.5$ MM) EXCEPT AS NOTED

Figure 1. Proposed Baby Pin U.S. Standard.

Table 1 — Baby Pin Standard Comparison

	British Standard 2063:1963	German Standard Insertion Pivot AZ 16 DIN 15 560	Suggested American Standard
	Dec.	Dec.	Dec.
Major Diameter	.625 (15.88mm)	.6299 (16.0mm)	.625 (15.88mm)
Overall Length	2.375 (60.33mm)	1.3779 (35.0mm)	2.500 (63.5mm)
Base to Safety Groove	.187 (4.75mm)	.5118 (13.0mm)	1.500 (38.1mm)
Length of Safety Groove	.437 (11.1mm)	.3937 (10.0mm)	.625 (15.88mm)
Base to Center Line of Safety Groove	.405 (10.3mm)	.7026 (18.0mm)	1.812 (46.0mm)
Safety Groove Diameter	.437 (11.1mm)	.4723 (12.0mm)	.500 (12.7mm)
Base to Center Line of Safety Hole	2.000 (50.8mm)	none	2.375 (60.33mm)
* Safety Hole Diameter	.281 (7.15mm)	none	.128 (3.17mm)

* Not required when Baby Pin is permanently affixed to a Luminaire Stand.

compatibility for all of the important criteria required in the successful mating of the pins and sockets.

The proposed U.S.A. standards in Figs. 1a, 1b, and 1c are intended for use with luminaires and other equipment of lightweight design.

It is hoped that with international circulation of this proposed standard, sufficient additional dialogue can be initiated to achieve an internationally acceptable set of designs.

Additional information is available from

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Camera Mounting Plates

The Camera Mounting Plates Standardization Study Group held its first meeting April 14, 1981. M. J. Martin of W. Vinten Limited reviewed the proposals

developed by George Vinten of W. Vinten Limited, England.

Mr. Vinten developed a hole pattern to go between the camera plate and the camera. This hole pattern has been presented to the British Broadcasting Company and the Independent Broadcasters. Upon acceptance of this hole pattern for the bottom of British broadcast cameras, this pattern would be recommended as a standard to all camera manufacturers. Mr. Vinten requested that this hole pattern be considered by the manufacturers of lightweight cameras in the United States.

Discussions by manufacturers' representatives present from Arriflex Corporation, Sachtler GmbH, and O'Connor Engineering Laboratories concluded that this group should first concentrate their study on the hole pattern and the screw size.

The next step towards determining the U.S. acceptance of this hole pattern is to calculate the stresses involved to ascertain if it would be acceptable for the average lightweight camera in the United States. Mr. O'Connor volunteered the services of his engineers to calculate the stress involved, to see if it would hold the camera under normal and abnormal conditions. These calculations are now underway, and Mr. O'Connor will submit a report of his engineers' findings in the future.

This working group met in London during the BKSTS Conference for additional discussions.

CBS Executives Accept Emmy Award



Happiness is winning an Emmy Award. Above, from the left: Joseph Flaherty, Vice-President, Engineering and Development; William Connolly, Managing Director, Development; George Shannon, Vice-President, Production Facilities and Engineering; and James Rosenfield, President, are proudly displaying the Emmy that was awarded to CBS for the original concept of the ESS (Electronic Still Store System). The ESS is an advanced digital recording system that stores thousands of images and provides complete control in varying the video playback speed from still frame to normal play. The award was shared with Ampex Corp. (see Nov. 1981 *SMPTE JOURNAL*, p. 1108, for details).