



**ANSI E1.15 – 2006 (R2016)**  
**Entertainment Technology –**  
**Recommended Practices and Guidelines for**  
**the Assembly and Use of Theatrical Boom &**  
**Base Assemblies**

A reaffirmation of ANSI E1.15 - 2006

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Rig/1998-2032r12

Reaffirmed as an American National Standard by the ANSI Board of Standards Review  
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## **The ESTA Technical Standards Program**

The ESTA Technical Standards Program was created to serve the ESTA membership and the entertainment industry in technical standards related matters. The goal of the Program is to take a leading role regarding technology within the entertainment industry by creating recommended practices and standards, monitoring standards issues around the world on behalf of our members, and improving communications and safety within the industry. ESTA works closely with the technical standards efforts of other organizations within our industry, including USITT and VPLT, as well as representing the interests of ESTA members to ANSI, UL, and the NFPA. The Technical Standards Program is accredited by the American National Standards Institute.

The Technical Standards Council (TSC) was established to oversee and coordinate the Technical Standards Program. Made up of individuals experienced in standards-making work from throughout our industry, the Council approves all projects undertaken and assigns them to the appropriate working group. The Technical Standards Council employs a Technical Standards Manager to coordinate the work of the Council and its working groups as well as maintain a "Standards Watch" on behalf of members. Working groups include: Control Protocols, Electrical Power, Event Safety, Floors, Fog and Smoke, Followspot Position, Photometrics, Rigging, and Stage Lifts.

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The Rigging Working Group, which authored this standard, consists of a cross section of entertainment industry professionals representing a diversity of interests. ESTA is committed to developing consensus-based standards and recommended practices in an open setting.

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**Interest category codes:**

CP = custom-market producer      DE = designer  
DR = dealer rental company      G = general interest  
MP = mass-market producer      U = user



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## Foreword

The theatre and entertainment industry uses boom and base assemblies for the temporary attachment of lighting fixtures and their associated accessories. The assemblies usually consist of an assembly of pipe or tubing, and other fittings, attached to a weighted base. Often, the weighted bases are manufactured and supplied to others, who typically add components of their own selection to fabricate a finished assembly.

Before the publication of this standard, there was no uniformly accepted guideline or recommended practice that offered users of these assemblies a reliable reference concerning their manufacture, assembly, and use. Accidents, resulting in either injury to persons, or damage to property, have occurred due to the lack of such information. These guidelines have been written in an effort to reduce the potential for such incidents.

## 1 Scope

### 1.1 General

This document shall apply to the assembly and use of ground-supported variable and fixed-height lighting fixture suspension devices. These devices normally consist of a floor base (having a low center of mass or large included floor contact area), vertical members (often multiple short sections, sleeved to accommodate or otherwise allow extension to greater heights) and horizontal members for attachment of lighting fixtures or accessories or both.

### 1.2 Annex note references

This document uses annex notes to provide additional reference information about certain specific section requirements, concepts, or intent. Subject matter with a corresponding annex note reference is identified by the asterisk (\*) symbol, and the associated reference text is found in the Annex Notes, identified with the referring text section number – e.g. an Annex Note to section 3.2 will be identified in the Annex Notes as A.3.2.

### 1.3 Scope Exclusions

The following devices are not within the scope of this document:

- a. Towers, ground-support structures, lifts, and other devices that use winches (or similar mechanisms) to gain a mechanical lifting advantage;
- b. Tripod or other similar lightweight stands;
- c. Stands with bases using casters or other wheel assemblies as the primary load-supporting mechanism.
- d. Devices that are not ground-supported

### 1.4 Outdoor Use

This document shall apply to the use of boom & base assemblies in outdoor environments, but only in applications that have been evaluated and deemed acceptable by a qualified person.\*

## 2 Intent

The intent of this document is to establish minimum acceptable standards, guidelines, and recommended procedures for the following:

- a. Manufacturing of the assembly components, but only to the general extent of maximizing safety and stability for assemblers and users;
- b. Safe assembly, installation, and use of the assembly in order to minimize injury to persons or to property;