



**ANSI E1.6-4 – 2013**  
**Portable Control of Fixed-Speed Electric**  
**Chain Hoists in the Entertainment Industry**

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# ANSI E1.6-4 – 2013

## Portable Control of Fixed-Speed Electric Chain Hoists in the Entertainment Industry

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ESTA has reverted to its original name, and this document has been rebranded with the current corporate  
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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

## TABLE OF CONTENTS

<b>Acknowledgments</b>	iv
<b>1 INTRODUCTION</b>	1
1.1 Scope	1
1.2 Intent	1
1.3 Mandatory Rules, Permissive Rules, and Explanatory Material	1
<b>2 DEFINITIONS</b>	1
<b>3 SYSTEM CLASSIFICATIONS</b>	3
3.1 Class A, Single Hoist Control System	3
3.2 Class B, Multiple Hoist Control System	3
3.3 Class C, Automated Multiple Hoist Control System	3
<b>4 SYSTEM REQUIREMENTS</b>	4
4.1 General	4
4.2 Class A Systems	4
4.3 Class B Systems	4
4.4 Class C Systems	4
<b>5 CONTROL DEVICES</b>	5
5.1 General	5
5.2 Class A Control Device (Pickles)	5
5.3 Class B & C Control Device (Remote Station)	6
<b>6 PINOUTS</b>	7
<b>7 CONNECTORS</b>	7
<b>8 CABLE</b>	7
8.1 General	7
8.2 Hoist Power/Control Cable	8
8.3 Input Power Supply Cable	8
<b>9 CONTROLLERS</b>	9
9.1 General	9
9.2 Class C Controllers	10
9.2.1 General	10
9.2.2 Positional Feedback Control	10
9.2.3 Load-Sensing Feedback Control	10
9.2.4 Motion feedback Control	11
9.2.5 Voltage Monitoring	11
9.2.6 Current Monitoring	11
<b>10 E-STOP SYSTEM</b>	11
10.1 General	11
10.2 Emergency Stop Actuator	12
10.3 E-Stop Methods	12
<b>11 INSTALLATION</b>	12
11.1 General	12
11.2 Location	13
11.3 Power Requirements	14
11.4 Verification of all operating features	15
<b>12 OPERATION</b>	15
<b>13 DOCUMENTATION</b>	16
<b>14 STORAGE</b>	16
<b>15 FIGURES</b>	17
<b>ANNEX A</b>	20
A.2 Dual Connectors	20
A.2.1 Connector choice	20
A.2.2 Pinout	20
A.2.3 Twistlock selection	20
A.2.4 Pin and Sleeve selection	21
A.3 Multi-pin	21

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ANSI E1.6-4 – 2013, Portable Control of Fixed-Speed Electric Chain Hoists in the Entertainment Industry

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A.3.3 Ground Location	22
A.4 Mults	22
ANNEX B	23

## 1 INTRODUCTION

### 1.1 Scope

This standard covers the minimum requirements for the selection and use of portable electric chain hoist control systems. These controllers are for use with electric link chain hoists having a capacity of 2 tons or less, fixed speed, used in the entertainment industry. Permanently installed systems are outside the scope of this standard. Construction or design of controllers is governed by standards such as UL508A and as such are outside the scope of this standard.

### 1.2 Intent

The intent of this document is to define and classify portable electric chain hoist control systems, establish guidelines for selection and use and establish operating protocol. These guidelines represent the minimal requirements for safe and dependable operation of chain hoist control systems in accordance with risk mitigation.

### 1.3 Mandatory Rules, Permissive Rules, and Explanatory Material

**1.3.1 Mandatory Rules:** Mandatory rules of this document are those that identify actions that are specifically required or prohibited and are characterized by the use of the terms *shall* or *shall not*.

**1.3.2 Permissive Rules:** Permissive rules of this document are those that identify actions that are allowed but not required, are normally used to describe options or alternative methods, and are characterized by the use of the terms *shall be permitted*, *shall not be permitted*, *should*, or *should not*.

**1.3.3 Explanatory Material:** Explanatory material such as references to other standards or related information to a rule is included in this document in the form of fine print notes (FPN). Fine print notes are not a requirement of this document.

## 2 DEFINITIONS

**2.1 automation:** Operations performed electro-mechanically from pre-programmed criteria defined by the operator or manufacturer.

**2.2 automated motion:** The movement of a load system to a specific position or sequence of positions by one or more pre-programmed moves.

**2.3 bumping:** The momentary operation of a hoist.

**2.4 Class A Controller:** A simple control system designed to operate 1 hoist.

**2.5 Class B Controller:** An elementary control system used to operate hoist(s) from a single control device. It optionally incorporates feedback.

**2.6 Class C Controller:** A complex controller incorporating feedback.

**2.7 closed loop:** A system that monitors the outcome of a process and uses that information to affect the process.

**2.8 competent person:** A person who is capable of identifying existing and predictable hazards in the workplace, and who is authorized to take prompt corrective measures to eliminate the hazards.