



Online High School Technical Theater Course

Lighting at Bass Hall

A general lighting system consists of many parts and can be different in any theater you may be in. Get a glimpse at how the Bass Hall lighting system works and some of its key components as well as an in-depth example of how a stage may be lit using the fixtures we have covered in previous episodes. Maybe you'll learn something new about our system that can help you at your school or theater.

For full course video: <https://youtu.be/cYxaS8rXdsk>

For full course materials: <https://www.basshall.com/techcourselighting>

For questions and comments: <https://www.basshall.com/techquestions>

Timecodes:

Rigging Positions - [0:40](#)

Hanging Lights - [1:18](#)

Cables and Circuits - [2:01](#)

Counterweight and Rigging - [3:13](#)

Dimmers - [3:54](#)

DMX - [4:20](#)

Lighting Console - [5:15](#)

Practicum - [6:07](#)

Glossary

Stage Rigging - Generally, a system of rope lines, blocks (pulleys), counterweights and related devices within a theater that enables a stage crew to fly (hoist) quickly, quietly and safely components such as curtains, lights, scenery, stage effects and, sometimes, people. These systems can either be manually operated or motorized. Rigging can also be stationary, or dead hung, in the case of an overhead grid.

Box Boom - Originally a vertical pipe in a seating box used for stage lights, but now used to indicate any side lighting position.

Catwalk - An elevated service platform from which many of the technical functions of a theater, such as lighting and sound, may be manipulated.

Line Sets - The line set is the fundamental machine of a typical fly system. The function of a typical line set is to fly (raise and lower) a slender beam (typically a steel pipe) known as a batten by hoisting it with lift lines (typically synthetic rope or steel cable). By hanging scenery, lighting, or other equipment on a batten, they in turn may also be flown. A batten is said to be "flying in" when it is being lowered toward the stage, and "flying out" when it is being raised into the fly space. Battens may be just a few feet in length or may extend from one wing (side) of the stage to the other. A batten is suspended from above by at least two lift lines, but long battens may require six or more lift lines.

Circuit - The means by which an instrument is connected to a dimmer or patch panel. Numbered for reference.

Counterweight System - Method of flying scenery which uses a cradle containing weights to counterbalance the weight of flown scenery.

Pipe Weight - Part of the load in a counterweight system representing the weight of the empty batten; pipe weight should be left on the arbor when the load and its counterweight is removed.

Dimmer - Electrical or electronic device that controls the amount of electricity passed to a lamp, and therefore the intensity of the lamp.

Dimmer Rack - A number of individual dimmer circuits mounted in a cabinet.

Dimmer Room - The room backstage which contains the dimmer racks which power the lighting rig in the theatre.

DMX (Digital Multiplex) - The standard digital communication protocol that is used to remotely control dimmer rack and intelligent lighting fixtures.

DMX Universe - A set of channels, 512 to be precise, on which DMX signals operate.

XLR (External Line Return) Connector - A type of electrical connector primarily used in professional audio/visual and stage lighting equipment.

Lighting Console - An electronic device used in theatrical lighting design to control multiple lights at once, also known as a Light Board.

SolaFrame - A brand of moving light fixture.

Links

[Billy Elliot Lighting Check](#)

[Lighting with Matt Kizer](#)

[Color Lab](#)

[Gobo Lab](#)