

IATSE Local 31 Stagehand Basics: Lighting

Electricians: Those that work in the Lighting Department. Responsible for receiving and hanging light plots, executing what the lighting team deems necessary for each production. This includes: Master and Deck Electricians, Light Board Operators, and Spot Operators.

Basic Lighting Tools: Crescent Wrench (6" with a Wide Mouth), Knife/Leatherman (or multibit screwdriver), Gloves

Basic Lighting Equipment

Leko - Ellipsoidal Reflector Spotlight

Sidearm
(Used to extend Light on Dance Booms)

Iris (Accessory Slot)

C-Clamp
(Most Common Clamp)

Powercon: 120v or 208v
(Leds/Moving Lights)

ETC - Luster LED Leko

Top Hat
(Reduces Flare)

Safety Cable
(Must Be Used on ANY Fixture that Hangs)

Powercon True1: 120v or 208v
(Leds/Moving Lights)
Make sure it Clicks

LED Par

Source Four Par

Gel Frame
(Comes in All Sizes)
Leko: 6.25"x6.25"
Par: 7.5"x7.5"
Etc...

Edison: 120v
(Leds/Moving Lights)

LED Par

HPL Lamp
Variety of Wattages
Lekos/Pars

Stagepin : 120v - Usually Dimmed
(Used for Most conventional Lighting)

L6-20 : 208v
(Moving Lights)

MR16 Strip & Cyc Lights
(Conventional Ways to Light Cycloramas)

Moving Light
(Many Varieties)

LED Striplight

Moving Light Whip
Powercon to L6-20
OR
Powercon True1 to L6-20
208v
(Most Common)

Mega Clamp
(Common on Moving Lights)

Cable

Cable Management is a large part an electrician's job. Running/Coiling/Connecting. Keeping things tidy and labeled is a big help to the Master Electricians

A Breakout will take a cable with 3 or 6 conductors and turn it into Circuits. Edison/L6-20/Stagepin

Soco
Soca
Socapex
Multicable
Multi

MALE

FEMALE

Stagepin Breakout
(Male Soca to Female Stagepin)

Stagepin BreakIN
(Male Stagepin to Female Soca)

L6-20 Breakout
(Male Soca to Female L6-20)

L21-30
3 Circuit Breakout
(Edison:120v)
(L6-20:208v)

Stagepin twofer
1 Male to 2 Female
L6-20 twofer
1 Male to 2 Female

Socapex is the workhorse for Lighting Power. It carries 6 circuits of 120v or 208v down one cable.

DMX

(Digital Multiplex Signal) Is how Data is sent from the Lighting Console to the Fixtures or Dimmers. Can be 3 or 5 pin XLR. The jacket is different than audio cable. Male end ALWAYS goes Home.

The Pins are Fragile, be careful with this connector.

*Learn how to coil cable:
Over/Under is most common*

Note: Cables home run to Dimmer Beach or A Power Rail where the Techs have all their power supplies and data distribution. Often these locations will be labeled.

Most Companies follow a similar Cable Labeling Guide for Lengths, but they can be unique. (Look for a "Key")
The Cable is usually labeled near the connectors in Stripes of Tape or Shrink Tube. Sometimes it is text.
This is also where companies put their labels to indicate ownership, remember to not mix up gear.
If the Cable is Longer than 100' Just count up the Stripes of color. 1 Yellow + 1 Orange = 150'

5'-Red	10'-Green	15'-Blue	25'-Purple	50'-Orange	75'-Grey	100'-Yellow	150'
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