

Vocabulary Definitions and Sentences

So you found the words and now you're ready to define them and write sentences for each word. Let me help you so we can make sure it's done right every time.

**First and foremost - Follow these directions.
If you don't...you won't get credit. Period. End of story.**

Remember, it must be turned in ON time, EVERY time or you WON'T get credit.

To help, we are going to use the same example that you will find when you find the actual word list.

1	Week 3		
2	9/10/14		
3	Incandescent	LT	4
	Adagio	MT	
	Ensembles	MT	
	Opera	MT	
	Chief Electrician	TJ	
	Adept	SAT	
	Eulogy	SAT	
	Jocular	SAT	
	Pacifist	SAT	
	Sporadic	SAT	

1. The first thing we need is the VOCABULARY FORM that is found on the website under YOUR class.
 - a. You will need to TYPE the sentences and definitions on this form. Handwritten is NOT accepted.
2. Our first word is *Incandescent* so you need to look that word up.
 - a. First - find the LT definition page. Again, located on the website under YOUR class.
 - b. Second - open that file
 - c. Third – find the word *Incandescent* and type the definition from that file on to the Vocab form.
 - d. Fourth - now write a sentence for that word.

Vocabulary Definitions and Sentences

Sample 1 & 2

1	Definition	Word	Incandescent	Light source consisting of a metal filament (Tungsten) which glows white hot when current is passed through.
	Sentence	Incandescent light bulbs were replaced by the more eco-friendly halogen lights all around the United States.		
2	Definition	Word	Incandescent	Light Bulb
	Sentence	I turned the incandescent light on.		

3. Sample 1

- a. The word is written inside the box.
- b. Notice that the FULL definition is typed out.
- c. Also notice that the sentence is COMPLETE.
 - i. It shows a complete understanding of the word AND is consistent with the ability and intellect of a high school student.

4. Sample 2

- a. The word is written inside the box
 - b. The definition is NOT complete and only gives a partial idea of what the word is or means.
 - c. Is the sentence complete? Yes. Is the word used in the sentence? Yes. Is it consistent with the intellect of a high school student? Absolutely not. That is a sentence I might expect from an elementary student.
5. Simply writing a sentence DOES NOT get you credit.
 6. If you copy and paste your friend's sentence you will BOTH get ZERO credit for the work. Even if the sentences are great, you still plagiarized the work so NEITHER of you will get credit.
 7. This is a very easy assignment. All you have to do is DO IT and do it correctly. That's it.

Lighting Terms

13A PLUG

Standard domestic power connector in the UK. Three rectangular metal contacts (live, neutral and earth) with a fuse built-in (2A, 3A, 5A, 7A, 10A or 13A fuses are interchangeable).

15A PLUG

Standard power connector in UK theatres. Three round metal contacts (live, neutral and earth); the principal difference from the domestic 13A connector is that the 15A version has no fuse.

A.J. / AJ

n. Jargon for an Adjustable Spanner. (UK) Known in the US as a C Wrench (short for Crescent Wrench).

A.L.D. / ALD

Association of Lighting Designers.(UK)
[ALD Website](#)

A1

Lighting Industry Forum code which identifies the (original) recommended usage of different lamp types. A1 coded lamps are for use in projection. See also CP, T, P2, K.

ABTT / A.B.T.T.

The Association of British Theatre Technicians.
[ABTT Website](#)

AC

Short for ALTERNATING CURRENT.

ADAPTOR

1) Connector which allows two or more electrical devices to be connected to a single power outlet. The connection is normally parallel, that is, each device is fed the same voltage, but the current is divided between them. Sometimes known as a 'Twofer'. A three-way splitter is known as a 'Threefer'. A Series splitter is also available where a voltage is shared equally between two loads.

2) Also an ADAPTOR can be the same as a JUMPER.
See SERIES SPLITTER, JUMPER and GRELCO.

ADDITIVE COLOUR MIXING

See COLOUR MIXING.

ADJUSTABLE SPANNER

See A.J.

ADVANCE BAR

Lighting bar positioned just downstage of the proscenium arch. Also known as ANTI PROSCENIUM.

ALTERNATING CURRENT*

An electric current that reverses direction in a circuit at regular intervals. Abbreviated to AC. UK mains electricity is AC and changes direction 50 times per second (that is, the frequency is 50Hz).
See also DIRECT CURRENT.

AMPERE

The standard unit for measurement of electrical current passing through a circuit (usually abbreviated to AMP). Written as 'I' in equations. Cables, fuses and switches are designated by their current carrying capacity. (Following phrase refers to UK standards). Square pin plugs are rated at 13 Amps maximum and Round pin plugs at either 5 Amps or 15 Amps maximum, depending on the size of the pins. If a cable rated at 5 Amps is used with a load of 15 Amps (for example), the cable will overheat and possibly catch fire.

ANIMATION DISC

See EFFECTS.

ATTRIBUTES

The controllable parameters of a moving light are known as the ATTRIBUTES. All moving lights will have pan & tilt, with many having colour wheels, gobo selection, gobo rotation etc. as additional attributes.

AUTOMATED FIXTURE

See MOVING LIGHT.

BACK PROJECTION

See PROJECTION.

BACK-UP

A section of a lighting control board (sometimes a separate unit) which provides an alternative method of control should the main board fail.

BACKLIGHT

Light coming from upstage, behind scenery or actors, to sculpt and separate them from the background

BALCONY RAIL

See CIRCLE FRONTS.

BAR

The horizontal metal (steel or alloy) tube (usually 48mm in external diameter, but can be up to 60mm) hung from flying lines (or forming part of a grid) from which lighting equipment and scenery etc. may be suspended. Also known as a BARREL. When vertical, known as a BOOM. Sometimes known as a PIPE in the US, although many curse that usage, and demand the use of Batten ; 'A pipe is what you smoke; a batten is what you hang your instruments from.'

Language, especially in theatre, is rarely universal! In German, ZUGSTANGE.

BARN DOORS

See BARNDOORS

BARNDOORS

A rotatable attachment consisting of two or four metal flaps (hinged) which is fixed to the front of a Fresnel or PC type lantern to cut off the beam in a particular direction(s).

Profile lanterns use SHUTTERS to achieve a greater degree of control and accuracy.

Barndoors are also available for parcans and birdies. BLACKWRAP can be used to reduce additional light spill where barndoors aren't doing the job.

BARREL

See BAR.

BATTENS

1) Timber at the top and bottom of a cloth. A **Sandwich** batten is used to carry a hanging cloth. It comprises two flat pieces of timber screwed together with the edge of the cloth between them.

2) Timber used for joining flats together for flying.

3) Compartmentalised floodlights set up to allow colour mixing. See also GROUNDROW. Low voltage battens are commonly used as light curtains & for colour washes. Known in the US as a STRIPLIGHT or BORDER LIGHT.

4) US term interchangeable with PIPE for a flying bar.

BC HOLDER

Type of UK domestic lampholder that has largely been replaced by the ES (Edison Screw) and the GES (Goliath Edison Screw) for general lighting applications in the theatre. Stage lighting equipment uses prefocus lamp bases. (Most types of Festoon still use BC holders.)

BEAM ANGLE

The angle of the cone of light produced by a lantern. Defined as the angle within which the lowest intensity in a beam of light from a lantern is not less than one-tenth of the maximum.

BEAMLIGHT

Flood lantern which uses a parabolic reflector and a low voltage high intensity lamp to produce an intense near-parallel beam. Also known as a Beam Projector.

A PARCAN is a special type of beamlight.

BEGINNERS

A call given by Stage Management to bring those actors who appear in the first part of a play to the stage. e.g. "Act One Beginners to the stage, please". The actors/actresses are then called by name.

A similar call is given after the interval (e.g. "Act Two Beginners to the stage please"). See also HALF, QUARTER.

BELTPACK

Part of the communication ('cans') system in a theatre, the Beltpack contains the controls and circuitry to drive the HEADSET worn by crew members. Each beltpack connects into the headset ring and back to a PSU (Power Supply Unit) which is powered from the mains.

See also CANS.

BIRDIE

A compact low voltage display luminaire containing a Par 16 or MR16 lamp. So called because it is similar to, but much smaller than, the Parcan, and is hence "one under Par". (In golf terminology, a birdie is a score one below the par for that particular hole).

Low voltage birdies require a 12 Volt external transformer. Mains voltage birdies are also available.

Due to its compactness, the birdie is ideal for concealing in pieces of set or as downstage uplights. The beam angle can be narrow - a range of different lamps are available with differing beam widths.

See also MR16.

BLACK HOLE

Accidentally unlit portion of the stage.

BLACK LIGHT

See ULTRA-VIOLET.

BLACKOUT

1) Complete absence of stage lighting. Blue working lights backstage should remain on and are not usually under the control of the board, except during a Dead Blackout (DBO), when there is no onstage light. Exit signs and other emergency lighting must remain on at all times.

2) The act of turning off (or fading out) stage lighting (e.g. "This is where we go to blackout")

BLACKWRAP

(Trade Name) Thin black aluminium product which is used to temporarily mask light coming out of a luminaire's body, or to control spill. A self-adhesive tape version is also available.

BlackWrap from GAM

BLEED THROUGH

Transformation from a scene downstage of a gauze to another scene upstage, by slowly crossfading lighting from downstage to upstage. If a gauze is lit steeply, or from the sides, it will appear solid. If this light is turned off and light added to the set upstage of it, it will disappear.

BLIND PLOTTING

The facility on some lighting control desks for the operator to make changes to the plot, without affecting the state on stage.

BLINDERS

Lamps arranged around the stage directed into the auditorium, originally to prevent spectators seeing the stage during scene changes when the house tabs were not lowered. Now used for effect in rock concerts etc.

BLUES

Blue lights used backstage in a performance situation. See also working lights.

BOARD

The main control for the stage lighting. Originally known as the switchboard or dimmer board, it is now usually remote from the dimmers. The lighting operator for a show is said to be "on the board", and is sometimes known as the "board op". In the US, the board operator is said to be "running the lights".

Known in the US as the Light Board. Also known as the Lighting Desk, LX desk, control desk, lighting console.

BOOM

1) Vertical scaffolding pole (usually 48mm diameter) on which horizontal boom arms can be mounted, carrying lanterns. Often used behind wings for side-lighting etc. Booms have a base plate (known as a TANK TRAP) or stand at the bottom and are tied off to the grid or fly floor at the top (not always necessary for short booms). Booms can also be fixed to the rear of the proscenium arch (Pros. Boom) or hanging from the ends of lighting bars. Sometimes known in the US as a light tree. A light tree mounted upstage of a Tormentor is known as a Torm Tree.

2) An arm mounted on a microphone stand.

BOOM ARM

See BOOM.

BOOM BASE

A wooden board with vertical scaffold tube adaptor used as a base for lighting booms. Although the base provides a degree of support (especially with added brace weights) booms often require additional support from above. Sometimes known as a TANK TRAP, as it's very hard to drive a tank over a boom base?

BOOTH

(US) Control Room.

BORDER

A narrow horizontal masking piece (flattage or cloth), normally of neutral colour (black) to mask the lighting rig and flown scenery from the audience, and to provide an upper limit to the scene. Often used in conjunction with LEGS.

BOUNCE

1) Diffuse light that has been reflected from the stage, walls, cyclorama etc.

2) 'Bounce' is sometimes used for a flat (non-curved) cyclorama. Strictly, a bounce is a white or light blue cloth onto which light is bounced to backlight another cloth. A bounce doesn't need to be seamless, whereas a cyclorama should be.

3) Describes the fast in/out movement of 'bouncing' flown house tabs, used during curtain calls. This can also apply to the fast blackout/lights up cues that happen at curtain calls.

4) This facility is available on many multitrack tape machines. Describes the mixing down of multiple sounds from different tracks onto one track, hence freeing up the other tracks to be re-used. Allows many sounds to be recorded onto one tape.

BRAIL

A horizontal rope, wire or chain attached at either end of a piece of scenery or lighting bar pulling it upstage or downstage of its naturally hanging position to allow another flying item to pass, or to improve its position. See also BREAST LINE.

BREAKOUT

A connection at the end of a multicore cable which allows the connection of many items to it. (e.g. there is a breakout box at the end of a sound multicore cable which allows you to plug microphone cables into it).

BREAKUP

A commonly used abstract GOBO which gives a textured effect to the light, without throwing a specific pattern onto the stage. Used to add interest to light beams. A leafy breakup is used for outdoor scenes / forests / spooky wood etc. to break up the light on the actors faces.

BRIDGE

1) A walkway, giving access to technical and service areas above the stage or auditorium, or linking fly-floors. See also CATWALK.

2) A lighting position above the auditorium, commonly with a catwalk above it to access lighting equipment and electrical systems is known in Dutch as a *Zaalbrug*.

BUILD

1) During lighting plotting, to construct a state from blackout, or to add to an existing state.

2) An increase in light or sound level. See CHECK.

3) A period of set construction ('The Build').

BULB

See LAMP.

BUMP

A flash or sudden jump in light level (a snap cue) (see also FLASH BUTTON).

BUMP CUE

A lighting cue that instantly bumps the lighting up to a brighter level. Usually at the end of a musical number to draw the applause.

BURNT OUT

A coloured gel that has lost its colour or melted through due to excessive heat in front of a lantern. Dark blues and greens etc. are most susceptible, and may need replacing during a long run.

C CLAMP / C-CLAMP

US equivalent of the UK Hook Clamp. Requires a spanner/wrench to tighten. Known as a PARROT CLAMP in the US film business.

C-WRENCH

US for SPANNER. (Abbreviation of Crescent Wrench).

See CRESCENT WRENCH

CABLE

Wiring, temporarily rigged, to carry electrical current. Depending on the size of the cable (current carrying capacity), cables are used to supply individual lanterns, whole dimmer racks, or carry signals from a microphone etc.

CABLE TIE

Lockable (and sometimes releasable) plastic strap used to tie a bundle of cables together, amongst many other

things.

CAD

Computer-Aided Design. Using a computer to help with 2D plans and drawings, or increasingly for 3D visualisation of how a set will look, and how lighting will affect it. See also WYSIWYG.

CALL

- 1) A notification of a working session (eg a Rehearsal Call, Band Call, Photo Call)
- 2) The period of time to which the above call refers. (eg "Your call for tomorrow nights show is 6.55pm")
- 3) A request for an actor to come to the stage because an entrance is imminent (these are courtesy calls and should not be relied on by actors - eg "This is your call for the finale Mr Smith and Miss Jones")
- 4) An acknowledgement of applause (eg Curtain Call)
- 5) The DSM on the book is said to be "calling the cues".
- 6) The Colour Call is a list of lighting gel required for the lighting rig.

CALLING THE SHOW

The process of giving verbal cues to the lighting, sound, fly operators and stage crew during the performance. Usually done from the prompt corner by the DSM or Stage Manager over cans.

CANS

- 1) Headset earpiece, microphone and belpack used for communication and co-ordination of technical departments during a performance. (e.g. "Electrics on cans", "Going off cans", "Quiet on cans!"). A commonly used system in the UK is produced by Canford Audio under the TechPro brand. In the USA, ClearCom is commonly used.
- 2) Any headphones.
- 3) Short for PARCANS.

CASUALS

Part-time temporary technicians (paid by the hour).

CHANNEL

A complete control path for signals in lighting or sound equipment.

In a lighting desk, the channels are directly controllable by the lighting operator. Within the desk, the channels are 'patched' to a dimmer or dimmers which the desk then sends a signal to depending on the level of the channel.

CHASE

A repeated sequence of changing lighting states. A chase can be produced easily by the effects functions of a computerized lighting desk. There are standalone units designed to chase lighting circuits electronically in time to music (sound to light) or mechanically as a repeated sequence (as used in early neon signs).

CHEAT SHEET

A smaller version of the lighting plan, used by the lighting designer during the lighting plot. Also known as a Dimmer Layout or Magic Sheet.

CHECK

- 1) Opposite of Build; a smooth diminishment of light or sound level (e.g. Lighting: 'I think we should check this

state down a touch as the song begins')
2) See Prefade Listen.

CHIEF ELECTRICIAN

The senior member of the theatre's stage lighting team, although not necessarily the lighting designer. Known in the US as MASTER ELECTRICIAN.

In common with many theatre jobs, the actual duties of the Chief Electrician vary from theatre to theatre. Some chiefs are responsible for electrical maintenance of the building, some design the lighting for nearly every in-house production, some design no lighting at all, some have a team of eight staff under them, some have two. Many theatres employ casual staff to assist on lighting rigging sessions. Some theatres have a separate sound department, smaller venues have the lighting team also running sound for shows (and doing sound design for some).

CHINAGRAPH PENCIL

Usually white, wax-based pencil used for marking magnetic tape prior to splicing. Also used for marking identifying numbers on lighting gels.

CINEMOID

Now obsolete term for lighting colour gel, produced by Rank Strand / Strand Electric in the UK. A much thicker (and less flexible) gel than that produced nowadays.

CIRCLE FRONTS

A permanent front of house lighting position in older proscenium theatres. A number of spotlights, sometimes fitted with colour changers, are recessed into the front of the circle balcony above the stalls. Sometimes known as the Balcony Rail position.

CIRCUIT

1) The means by which a lantern is connected to a dimmer or patch panel. Numbered for reference. In a fully patchable system, the circuit number (also known as socket number) can be connected to any of a wide range of dimmers.

2) A complete electrical 'loop' around which current can flow.

CIRCUIT BREAKER

An electro-mechanical 'fuse' that can be reset, rather than having to be replaced. Available in the same ratings as fuses. See MCB, RCD.

CLEANERS

Auditorium working lights. Used for cleaning and setting up the auditorium before the house lights (usually more atmospheric) are switched on.

CLOVE HITCH

Invaluable hitch that every technician should know.

[Video](#)

CMY

Cyan / Magenta / Yellow - the three secondary (additive) colours of light which are used in moving lights for colour

mixing. Some cheaper systems use three graduated colour scrolls (one of each colour) in front of a standard fixture, but these take a massive amount of intensity out of the beam, resulting in a dim light on stage. Many moving lights use a similar system with dichroic colours which are more efficient and longer-lasting.

COLOR

See COLOUR FILTER.

COLOR

See COLOUR FILTER.

COLOR CALL

A list compiled from the lighting plan of all the colours needed for the rig, and their size. This term also applies to the act of preparing colour filters and frames from such a listing.

COLOR CHANGER

1) **Scroller**, where a long string of up to 16 colours is passed horizontally in front of a lantern. Remotely controlled by the lighting desk. Some scrollers have cooling fans to prolong the life of the gel string. Stronger colours will burn out faster without cooling, or if the focus of the beam is concentrated on the gel. If colours aren't lasting very long in scrollers, try changing the focus of the lantern. HEAT SHIELD clear gel should be used between the lens and the colour scroller to absorb some of the heat.

2) **Wheel** : Electrically or manually operated disc which is fitted to the front of a lantern with several apertures holding different colour filters which can be selected to enable colour changes. Can also be selected to run continuously.

3) **Semaphore**, where framed colours are electrically lowered into place in front of the lantern. Remotely controllable. Can perform additive colour mixing by lowering two colours into position at the same time.

4) **Magazine** : Manual semaphore-type device used on the front of a followspot. Known in the USA as a BOOMERANG.

COLOR FILTER

A sheet of plastic usually composed of a coloured resin sandwiched between two clear pieces. The coloured filter absorbs all the colours of light except the colour of the filter itself, which it allows through. For this reason, denser colours get very hot, and can burn out very quickly.

There are a number of manufacturers of Colour Filters - Lee (UK), Rosco (US), Gam (Great American Market - US) and Apollo (US) are some of the more popular. Each manufacturer's range has a numbering system for the different colours. It's important to specify which range you're talking about when quoting numbers.

A colour filter is sometimes known as a Gel, after the animal material Gelatine, from which filters were originally made.

A colour frame is used to hold the colour filter, which slots into the colour runners in front of the lens of the lantern, just behind the barndoors (for a Fresnel or PC).

COLOR FRAME

(or Gel Frame) A frame which holds the colour filter in the guides at the front of a lantern. Many different sizes of frames are needed for the different lanterns.

COLOR MIXING

Combining the effects of two or more lighting gels:

1) **Additive** : Focusing two differently coloured beams of light onto the same area (eg Cyc Floods). Combining colours in this way adds the colours together, eventually arriving at white. The three primary colours additively mix

to form white, as do the complementary colours.

2) **Subtractive** : Placing two different gels in front of the same lantern. Subtractive mixing is used to obtain a colour effect that is not available from stock or from manufacturers. Because the ranges of colour are so wide, the need for subtractive mixing is reducing. Combining colours in this way reduces the light towards blackness. The three primary colours mix subtractively to form black (or to block all the light).

More on Colour Mixing

COLOR RUNNERS

A set of metal guides in front of the lens of a lantern into which a colour frame is slotted, containing a colour filter or gel. The colour runners are sometimes used to hold barndoors (or other accessories including colour scrollers) at the front of a lantern, and sometimes these accessories fit onto the lantern using a different method.

COLOR SCROLLER

See COLOUR CHANGER.

COLOUR TEMPERATURE

A measure of the 'warmth' or 'coolness' of light sources and colours. Measured in degrees Kelvin. A higher colour temperature light source will appear whiter (colder). The human brain automatically compensates for different colour temperatures - a film or video camera cannot, and thus what we see as white may appear to have a blue or green tint when no colour correction is used for video. Most video cameras have a 'White Balance' control to make colour temperature adjustments, to ensure white looks white on camera.

Daylight is approximately 5600°K, Tungsten Halogen is approx. 3200°K and standard incandescent lamps are 2800°K. Many discharge light sources are in use in modern theatrical productions using discharge followspots or moving lights - colour correction filters are used to balance the colour temperatures.

See also COLOUR CORRECTION.

COLOUR WHEEL

See COLOUR CHANGER.

COMPLEMENTARY COLOURS

Pairs of colours which, when additively mixed, combine to produce white light. Examples are red + cyan, green + magenta, and yellow + blue.

COMPOSITE GOBO

See GOBO.

COOKIE

See GOBO.

COSTUME PARADE

See DRESS PARADE.

CP

Lighting Industry Forum code which identifies the (original) recommended usage of different lamp types. CP coded lamps are for Film, Television and Photographic studio use and have a colour temperature of 3200°K. See also A1, T, P2, K.

CRACKED OIL

A smoke effect which creates a haze in the air to make light beams visible. This effect is rarely used now, because it has been found to be carcinogenic. See Water Cracker.

CRESCENT WRENCH

(US) A open ended adjustable hand wrench originally produced by the Crescent Tool Co. Known as a C-WRENCH.

CROSS FADE

Bringing another lighting state up to completely replace the current lighting state. Also applies to sound effects / music. Sometimes abbreviated to Xfade or XF.

CUE

1) The command given to technical departments to carry out a particular operation. E.g. Fly Cue or Sound Cue. Normally given by stage management, but may be taken directly from the action (i.e. a Visual Cue).
2) Any signal (spoken line, action or count) that indicates another action should follow (i.e. the actors' cue to enter is when the Maid says "I hear someone coming! Quick - Hide!")

CUE LIGHT

System for giving technical staff and actors silent cues by light. Cue lights ensure greater precision when visibility or audibility of actors is limited. Sometimes used for cueing actors onto the set. For technical cues, lights are normally now used just as a backup to cues given over the headset system. In the UK, a flashing Red light means stand-by or warn, green light means go. The actor / technician can acknowledge the standby by pressing a button which makes the light go steady. In the US, a red light means warn, and when the light goes off, it means GO. The UK system seems to be more secure, but it depends what you're used to.

CUE TO CUE

(also known as 'Topping and Tailing')

Cutting out action and dialogue between cues during a technical rehearsal, to save time. (e.g. "OK, can I stop you there - we'll now jump to the end of this scene. We'll pick it up from Simon's line "And from then on it was all downhill" in a moment. OK - we're all set - when you're ready please.")

CUEING

There is a standard sequence for giving verbal cues:

- 'Stand-by Sound Cue 19' (Stand-by first)

- 'Sound Cue 19 Go' (Go last).

CURRENT

The flow of electricity (electrical charge) through a circuit. Measured in Amperes (Amps)

CYC FLOOD

A floodlight, usually with an asymmetrical reflector, designed to light a cyc or backcloth from the top or bottom. The asymmetric reflector helps to throw light further down the cloth, producing a more even cover. In the US, a flood at the top of the cyc is a CYC OVER, and a flood at the bottom is a CYC UNDER.

Types of lantern

DANCE LIGHTING

Lighting design for Dance is reliant on a great deal of sidelight from BOOMS at the side of the stage. There are normally at least three lanterns on each boom, and three heights - SHINS (to light feet and lower legs), MIDS and HEADS.

DBO (Dead Blackout)

See BLACKOUT.

DC

Short for DIRECT CURRENT.

DE-RIG

The process of removing lanterns & cabling from flying bars or grid - returning the venue to it's normal state, or as preparation for the next production.

DEAD

1) A pre-plotted height for a piece of scenery or lighting bar - 'that bar's on its dead'. The positional indicators on the rope (either PVC tape, or more traditionally cotton tape passed through the strands of the rope) are called DEADS. Sometimes flying pieces are given a number of extra deads, that may be colour coded, in addition to the 'in dead' (lower) and 'out dead' (higher - out of view). In the US, TRIM has the same meaning.

2) Scenery or equipment not needed for current production - 'that table's dead'.

3) An electric circuit that has been switched off or has failed - 'the circuit's dead, you can change the lamp now'

Submitted by Chris Higgs

DEMUX BOX

Interface unit between the serial digital output of a memory lighting control desk to the parallel analogue signal understood by a non-digital dimmer. See MULTIPLEX SIGNAL for more.

DIAPHRAGM

1) See IRIS.

2) The part of a microphone which responds to sound waves.

DICHROIC FILTER

Glass colour filters which reflect all light except that which is the colour of the filter, which passes through. Normal plastic gels absorb the unwanted colours, turning the light into heat. Dichroic filters run cooler, and produce a much cooler beam of light. Longer lasting, but a lot more expensive, they are predominantly used in moving lights or architectural applications.

DICHROIC LAMP

A low voltage display lamp with a reflector that lets heat pass through it, rather than reflecting it. Results in a much 'cooler' light.

DIFFUSION

See FROST.

DIGITAL

Many electronic devices use digital logic. Information is handled in separate bits (either ON or OFF) rather than continuously variable analogue signals. Most computer lighting boards give a digital multiplexed output, and more and more sound equipment is going digital.

DIGITAL DIMMER

The new generation of dimmers that can respond directly to the digital multiplexed output of the lighting desk. The technology also permits the dimmer to report faults and other data back to the control board.

DIM OUT

Reduction of lighting level for a scene change, that isn't quite a BLACKOUT.

DIMMER

Electrical or electronic device which controls the amount of electricity passed to a lantern, and therefore the intensity of the lamp.

DIMMER LAYOUT

See CHEAT SHEET.

DIMMER PER CIRCUIT

A lighting installation where there is no patching system. Each lighting circuit / socket has a dimmer always connected to it. This has advantages in that you never run out of dimmers, but allows no flexibility and can have cost disadvantages in a large space.

DIMMER RACK

A number of individual lighting dimmer circuits built into a single case. Consists of a single power input, a lighting control (DMX512) input and sockets to connect lanterns. A dimmer rack can be set to respond to any control channel by setting its start address (known as "addressing" the rack).

DIP

- 1) Small covered trap at stage level containing electrical outlets. (US equivalent is FLOORPOCKET)
- 2) Any dimmer outlets at floor level around the stage (e.g. 'What's the nearest dip circuit to downstage left so I can plug the birdie in?')
- 3) Lighting equipment on stands at stage level. (e.g. 'We're just focussing the dips now')
- 4) Low lighting intensity when cross fading between two higher states - 'there's a dip between these two states'.
- 5) Transparent lacquer for colouring lamp bulbs - known as 'Lamp Dip'.

DIRECT CURRENT

Electric current that flows in one direction only (e.g. from a battery). Abbreviated to DC. See also ALTERNATING CURRENT.

DMX Terminator

A DMX terminator is a 3 or 5 pin XLR connector which is used at the end of a DMX run to absorb the data signal to stop it being reflected back along the DMX cable. The terminator is very easy to make, and consists of a 120 Ohm half-watt resistor soldered between pins 2 and 3 of the XLR connector. A DMX run should always be terminated, and although the system may work without one, continued operation cannot be guaranteed. A system

with poor quality DMX cable (or cable of a long run) will require termination in order to operate correctly.

DMX512

Short for Digital Multiplex. See MULTIPLEXED (MUX) SIGNAL.

DOUGHNUT

See DONUT.

DOWNLIGHT

A light from directly above the acting area.

DRESS LIGHTING

Providing a low level of lights to an open stage while the audience enter the house up until the performance starts. Also known as PRESET.

DRESS REHEARSAL

A full rehearsal, with all technical elements brought together. The performance as it will be 'on the night'.

DRY ICE

Frozen solid carbon dioxide (CO²) at a temperature of -78.5° centigrade which produces clouds of steam-loaded CO² gas forming a low-lying mist or fog when dropped into boiling water. Although non-toxic, caution is required in the storage and handling of dry ice because of its extreme cold. Water is boiled in a large tank offstage, into which the dry ice is lowered in a basket. Fans and ducts then direct the gas onto the stage. Dry ice does not support life, so care should be taken that small animals, actors etc. are not below the level of the dry ice for more than a few seconds.

See also LOW SMOKE.

E.R.S.

(ERS) Ellipsoidal Reflector Spotlight (US)

EDISON PLUG

Standard domestic power connector in the USA - a plastic body with two parallel metal contacts.

EDISON SCREW (ES)

Circular threaded lamp holder which is one of the standard fittings for domestic light bulbs. Other common types are BC (Bayonet Cap) and SES (Small Edison Screw). GES (Giant Edison Screw) is used for large wattage lamps.

EFFECTS PROJECTOR

Lantern used to project the image from a rotating glass effects disc. Used with an objective lens to produce the desired size of image. Commonly used discs are clouds, flames and rain.

EFFECTS, LIGHTING

Animation Disc: A slotted or perforated metal disc which rotates in front of a lantern to provide 'movement' in the

light. Most effective when used in front of a profile carrying a gobo.

Effect Disc: A painted glass disc rotating in front of an effects projector with an objective lens to focus the image (eg Flames, Rain, Snow).

Flicker Flame: Irregularly slotted rotating metal disc through which light is shone onto a prism-type piece of glass which scatters the beam of light and adds the 'dancing' effect of firelight to a scene.

Gobo Rotator: Motorised device inserted into the gate of a profile lantern that can be remotely controlled to rotate a gobo, usually with variable speed and direction.

KK Wheel: Slotted metal disc which rotates in front of a lantern to break up the light and provide movement. (Flicker Wheel)

Lightning: Created through the use of either strobe sources or photoflood lamps.

Tubular Wave Ripple: Horizontal linear lamp around which a slotted cylinder is rotated providing a rising light (as reflected from water onto the side of a ship).

See also Effects, Sound, pyrotechnics, smoke.

ELECTRIC

In the US, LX bars are ELECTRICs bars. LX1 in the UK (first bar upstage of the proscenium arch) is FIRST ELECTRIC in the US.

ELECTRICS

See LX.

ELEVATION

A working drawing usually drawn to scale, showing the side view of a set or lighting rig. See PLAN.

In the US, the term "elevation" refers to a Front elevation. A Rear elevation shows backs of scenic elements. A side view of a set is known as a "section".

See also PAINTERS' ELEVATION.

ELLIPSOIDAL

A profile lantern with an elliptical reflector and at least one lens. Referred to as a LEKO.

ER / E.R.

(US) Short for Ellipsoidal Reflector - type of fixed beam profile lantern common in the US. Also known as ERS / E.R.S. See also LEKO.

ERS / E.R.S.

(US) Short for Ellipsoidal Reflector Spot. See ER, also ERF.

ESTA

(US) Entertainment Services and Technology Association. See PLASA for the UK equivalent.

[ESTA website](#)

EXIT SIGN

Usually illuminated sign, of standard size, which should always be visible, showing an audience member and the company the nearest exit. New legislation in Europe means that the word 'EXIT' has been removed from these signs to be replaced by 'Running Man', known more politically correctly as 'Person moving purposefully'.

FADE

A fade is an increase, diminishment or change in lighting or sound level.

FADE DOWN

A slow dimming of the lights to a lower level, but not all the way to blackout. See also FADE OUT.

FADE OUT

A slow dimming of the lights, ending in blackout. See also FADE DOWN.

FADE TIMES

On computerised memory lighting control desks, a lighting fade can have two times - an up fade and a down fade. The Up fade time refers to the time it takes dimmer levels to rise to their new positions. The Down fade time refers to the time for dimmer levels falling to their new positions.

FADE UP

An increase in lighting or sound level, over a given time period. An increase in level from an existing state is known as a BUILD.

FADER

A vertical slider which is used to remotely set the level of a lighting or sound channel.

FAR CYC

(US) Lighting instrument used to light cycloramas or drops (see also CYC FLOOD).

FEED

A power supply to a piece of equipment or installation is termed a 'feed'. Sound equipment and sensitive computer equipment should have a clean feed - that is, a supply that is free from interference from other equipment.

A signal from one system to another is also known as a feed (for example, an audio signal from the FOH desk to a TV company videoing a concert is known as a feed.)

FIBRE OPTICS

A method of directing light down a very thin glass fibre. Fibre Optics are used mostly in communication, but find theatre applications in star cloths which are black backcloths with the ends of optical fibres poked through, to create a mass of pin pricks of light. A large bundle or harness of fibres may be fed from one light source, sometimes with a motorised colour or flicker wheel.

New technology enables digital sound signals to be sent down optical fibres, replacing heavy and expensive multicore cables.

FILL LIGHT

(especially TV and Film lighting) Light which fills the shadows that key light creates.

FILTER

1) See Colour. 2) Electronic device to isolate and redirect specific frequencies in a speaker system.

FIRE EXTINGUISHER

Essential tools of the pyrotechnician's trade ! In the UK, they used to be colour-coded according to content (Carbon Dioxide (Black), Water (Red), Foam (Cream), Halon Gas (Green) Powder (Blue)) but now, they're all red with a small label saying what they are. Another great leap forward !.

FIRST ELECTRIC

(US) The first LX bar upstage of the proscenium arch. (Known in the UK as LX1).

FIT-UP

Initial assembly on stage of a production's hardware, including hanging scenery, building trucks etc.

FIXTURE

A single moving light unit. Used instead of "instrument", "lantern" or "luminaire" due to the added complexity of the equipment and the need for additional control connections.

FLAGGING

When focussing lighting, flagging means waving your hand in and out of the beam of a lantern/instrument in order to see where the beam is hitting on stage. Flagging is particularly useful in high ambient light levels. (e.g. 'Can you flag that please ?') Term probably originates from a FRENCH FLAG.

FLASH BOX

A small box containing the socket into which a pyro cartridge is plugged. Also known as a flash pod or firing pod.

FLASH BUTTON

A push switch on a lighting desk which flashes selected channels / memories / submasters to full (100%) while pressed. Some Flash buttons on submasters can be set to latch (ie they stay on when pushed, until they are pushed again).

Sometimes known as a Bump Button.

FLASH COTTON

See FLASH PAPER.

FLASH OUT / THROUGH

Method of checking whether lanterns are functioning properly by flashing them on one at a time. It is good practice to flash lanterns to 70%, rather than Full to preserve lamp life.

FLASH PAPER

Flash paper is fast-burning nitrocellulose (Cellulose Nitrate) which is used by stage magicians to produce a flash of flame safely. The paper (or cotton) made from nitrocellulose burns almost instantly leaving no ash or residue. Flash Cotton is cotton wool / string impregnated with nitrocellulose. It should be stored wet, and allowed to dry out just before use.

[Wikipedia entry](#)

FLIES

See FLY TOWER.

FLIGHTCASE / FLIGHT CASE

Metal framed wooden box on wheels with a removable lid used for transporting equipment between venues.

Flightcases are very strong, and have reinforced corners and edges. Care should be taken when lifting flightcases as they can be very heavy.

The term comes from their original use in protecting delicate equipment when being loaded into air transport and being both very strong and relatively lightweight.

Additional information by Chris Higgs

FLOOD

1) A lens less lantern that produces a broad non-variable spread of light. Floods are used in battens, or singly to light cycloramas or large areas of the stage.

See also CYC FLOOD.

2) To increase the beam angle of a Fresnel or PC by moving the lamp and reflector towards the lens. 'Flood that a bit, please!'. The opposite movement is called Spotting.

FLOORCANS

A PARCAN with an extra trunnion arm / yoke, and often a short nose, which is designed to sit on the floor.

FLY BARS

The metal bars to which scenery and lanterns are attached for flying above the stage.

FOCAL LENGTH

The focal length (property of a lens) is the point at which parallel rays from the sun will converge on passing through the lens. It follows that if a light source is placed at the focal point, the lens will produce parallel rays. If a light source is placed between the lens and the focal point, diverging beams will result. If a light source is placed beyond the focal point away from the lens, converging beams will result.

FOCUS

1) The session when all the lanterns in the rig are angled in the correct direction, with the correct beam size. 2) Description of how sharply defined a light beam is ('give that profile a sharp focus') 3) Control on projection equipment used to change the focus.

FOCUS CHART

Documentation produced by the lighting designer which shows graphically the exact focus of a particular lantern in the rig. Essential for long-running shows where the crew can use it as a reference when replacing lanterns or checking focus after cleaning etc. The charts can also be used to do a 'rough' focus before a lighting designer arrives at the venue. Touring shows sometimes use a floorcloth marked out with focus information to aid speedy focussing in a new venue.

FOCUS POINT

Function on some computerised lighting desks which allows the operator to specify a place on the stage to which moving lights can be made to move on cue. Once defined, the focus point can easily be recalled and used in multiple cues. If the location of that item is moved (e.g. the chair is moved to the right) all moving lights will automatically focus on the new location.

FOCUS SPOT

Term for both Fresnel and PC type lanterns with adjustable beam size.

FOCUSING

The process of adjusting the direction and beam size of lanterns. Does not necessarily result in a 'sharply focused' image.

FOG MACHINE

See SMOKE MACHINE.

FOH

See FRONT OF HOUSE.

FOLLOW-ON CUE / FOLLOW CUE

A cue that happens so soon after a previous cue, that it doesn't need to be cued separately. The follow-on can be taken by the operator once a previous cue is complete, or a lighting or sound cue can be programmed to happen a specific time after a previous cue. Fly follow-on cues are often taken as soon as the operator has completed a previous cue. Often abbreviated to F/O.

FOLLOWSPOT

Usually, a powerful profile lantern usually fitted with its own dimmer, iris, colour magazine and shutters mounted in or above the auditorium, used with an operator so that the light beam can be moved around the stage to follow an actor. Sometimes a beam light or other lantern may be used in the same way.

Powerful followspots use discharge lamps which cannot be dimmed, so these followspots have mechanical dimming shutters to dim the light output.

See LIMES, PICK-UP.

More about Followspotting

FOOT

1) The action of bracing the bottom of a ladder while a colleague climbs it (e.g. 'Can you foot this for me please? I'll only be a couple of minutes').

2) Holding the bottom edge of a flat with your foot while a colleague raises the top of it to a vertical position.

FOOTLIGHTS

A compartmentalised batten sometimes recessed into the front edge of the stage, used to neutralise shadows cast by overhead lighting. Modern lighting equipment renders footlights virtually obsolete except for period/special effects.

FRESNEL

(pronounced "Fre-nell")

A type of lantern which produces an even, soft-edged beam of light through a Fresnel lens. The lens is a series of stepped concentric circles on the front and pebbled on the back and is named after its French inventor, Augustin Jean Fresnel (1788-1827). He developed the lens for French lighthouses so that they could be seen further out to sea and could achieve a longer focal length with a lot less glass than a standard plano-convex lens.

Types of Lantern

FRONT OF HOUSE (FOH)

1) Every part of the theatre in front of the proscenium arch. Includes foyer areas open to the general public.

2) All lanterns which are on the audience side of the proscenium and are focussed towards the stage.

The backstage areas of the theatre are known as **Rear of House** (ROH).

FROST

A diffusing filter used to soften the edges of a light beam. Frosts are commonly used in profiles in front of house positions to achieve the same beam edge quality in all lanterns. Different strengths of diffusion frost are available from many colour filter manufacturers. See also SILK.

FULL UP

A bright lighting state with general cover lanterns at 'full' (100%) intensity. See also FULL UP FINISH.

FUSE

Protective device for electrical equipment (E.g. dimmers). The fuse link will melt when excess current flows, preventing damage to people or equipment. Every piece of electrical equipment has at least one fuse in its associated circuit.

GAFFER TAPE / GAFFA TAPE

Ubiquitous sticky cloth tape. Most common widths are .5 inch for marking out areas and 2 inch (usually black) for everything else. Used for temporarily securing almost anything. Should not be used on coiled cables or equipment. Originally known as Gaffer's Tape, from the Gaffer (Master Electrician) on a film set. Also known as Duct Tape. See PVC Tape.

GATE

- 1) The point of focus in a profile spot where the shutters are positioned and where an iris or gobo can be inserted.
- 2) A single base section of a folding rostrum system.
- 3) See NOISE GATE.

GAUZE

Cloth with a relatively coarse weave. Used unpainted to diffuse a scene played behind it. When painted, a gauze is opaque when lit obliquely from the front and becomes transparent when the scene behind it is lit. Many different types of gauze are available;

Sharktooth gauze is the most effective for transformations, because it is the most opaque.

Vision gauze is used for diffusing a scene and for supporting cut cloths.

Also known as a Scrim.

GEL or Gelatine

See COLOUR FILTER.

GENERAL COVER

Those lanterns in a rig which are set aside purely to light the acting areas. The stage is normally split into a number of areas for this purpose, which can then be isolated or blended together as required by the director. See Special.

GENERIC

Standard stage lighting instruments, rather than moving lights or other effects. (e.g. 'There are 40 instruments in the rig - 20 moving lights and 20 generics').

GET-OUT

Moving an entire production out of the venue, and into either a large waste-disposal skip, or into transport. Usually preceded by the strike. (aka Load out (USA) or Bump out (AUS.) or Pack Out (NZ).)

GLOVES

Used when lifting heavier lanterns or other equipment.

GOBO

A thin metal plate etched to produce a design which can then be projected by a profile spotlight. There are hundreds of gobo designs available - common examples are breakup (foliage), windows and scenic (neon signs, city scapes etc.). The image can be used soft focus to add texture, rather than a defined image. A number of composite gobos in different coloured lanterns can, with careful focusing, produce a coloured image (e.g. a stained glass window). Greater detail can be achieved using a glass gobo, which consists of a thin layer of aluminium etched onto glass.

There are a few possible origins for the word GOBO.

- 1) It came from the early days of Hollywood. When the Director of Photography wanted daylight excluded from some area of the set, he'd say 'GO BlackOut'. Loads of people would run around putting black material between the sun and the set.
- 2) It stands for Graphical Optical BlackOut.
- 3) It's short for Go-Between, as the gobo goes between the lamp and the lens.
- 4) It's short of GO Before Objective (i.e. it goes before the Objective lens).

Material from 1967 uses the word 'MASK', and no mention is made of 'GOBO', so we can assume the word wasn't in widespread use then. In the US TV/Film industry, a Gobo is a piece of material used to mask or block light, placed in front of a lantern (also known as a SHADOW MASK) and a Cookie (short for Cucaloris(from the Greek kukaloris: the breaking up of light)) is the same as a UK Gobo. PATTERN and TEMPLATE can also refer to a gobo in some areas.

In the film industry, the word gobo can be used as a verb (e.g. 'We need to gobo off that light so the camera doesn't see it').

GOBO HOLDER

A metal plate designed to hold a gobo of a particular size in a lantern of a particular type.

GOBO ROTATOR

See EFFECTS.

GOING DARK

- 1) See DARK.
- 2) Warning to people on stage that the lights are about to be switched off. Normally said during lighting plotting sessions or technical rehearsals.

GRAND MASTER

See MASTER.

GRELCO

Brand name for a 2 way 5A or 15A electrical splitter. Another name is SNAPPER (another brand name) or in the US "TWOFER". Sometimes shortened to GRELLY. A three way splitter is known as a TRELLEY (or THREEFER in the US). These splitters are always wired parallel (voltage equal, current shared). See SERIES SPLITTER which enables (for example) two 115V lamps to be connected to a 230V supply.

GROUNDPLAN

A scaled plan (overhead) view of the theatre stage area or of a set design, to enable all technical departments to ensure that everything will fit correctly into the space available. The groundplan shows all items standing on the stage floor and any permanent items which will affect the production, and the position of any flown pieces. The set design groundplan enables the lighting designer to be clear about exact location of all items, and will have the walls of the stage drawn on it so that the stage management team and production manager can plan furniture and set moves offstage.

Typical scales are 1:24 (.5' to 1 foot) or, metrically 1:25 (1cm to .25m). Venues have a base plan showing proscenium, walls, seating etc on which individual set and lighting plans can be drawn.

GROUNDROW

1) A long piece of scenery positioned at the base of a backcloth usually to mask the very bottom of a cloth or lanterns lighting a cloth.

2) Compartmentalised floodlight battens at floor level used to light the bottom of skycloths etc.

HANG

The time when the lighting equipment is rigged and hung on the battens.

HAZER

See SMOKE MACHINE.

HEADS

The top lantern on a lighting boom. See SHINS and MIDS.

HEADS UP

A shouted warning (often just 'Heads Up !') for staff to be aware of activity above them. Also used when an object is being dropped from above.

HEADSET

1) General term for theatre communication equipment.

2) A headphone and microphone combination used in such communications systems with a backpack.

See also CANS.

HEATSHIELD

Made by Rosco, Heat Shield is a special clear gel which when placed between a lamp and a coloured gel, dissipates a large amount of heat to give the gel a longer life. There must be an air gap between the Heat Shield and the gel, or it will not be effective.

[Rosco website](#)

HOOK CLAMP

A clamp with a wing bolt for hanging a lantern on a horizontal lighting bar.

Introduced in the UK in 1959 by Strand, replacing the 2-bolt and 2-nut L Clamp.

See SAFETY CHAIN and BOOM ARM.

HOT SPOT

The brightest part of the beam from a lantern, usually showing the centre. Profile lanterns have a Field control

which enables a beam to be flattened so it has no hot spot.

HOUSE LIGHTS

The auditorium lighting which is commonly faded out when the performance starts.

INCANDESCENT

Light source consisting of a metal filament (Tungsten) which glows white hot when current is passed through. See also Discharge Lamp.

INDEPENDENT

- 1) An electrical power supply that is totally separate from the stage lighting control. Used for testing lanterns prior to connection to the lighting system and also for powering non-lighting equipment on stage and working lights. See NON DIM.
- 2) A channel within the stage lighting control which has been temporarily switched to become independent from the rest of the channels which remain under the control of the operator.

INFRA-RED

Invisible part of the electromagnetic spectrum with a longer wavelength than visible light. Infra-red remote controls are used for lighting desks and practicals. An infra-red-sensitive CCTV camera can pick up body heat activity even in a 'blackout'.

INHIBIT

A way of taking control of a rogue lantern (or lanterns) at the lighting desk during the operation of a show and removing them from any further lighting states, until the inhibit is removed. Can also be used for removing the front of house lighting from a curtain call state. See also SUBMASTER.

INSERT

- 1) An additional route into a sound desk.
- 2) An extra lighting state added into the sequence later. See POINT CUE.

INSTRUMENT

(US) Same as a LANTERN or LUMINAIRE in the UK/Europe.

INTELLIGENT LIGHT

See MOVING LIGHT.

INTERNALLY WIRED BAR (IWB)

A Scaffolding bar (aluminium) which has a number of sockets (usually 15A) positioned along its length, the wiring for which is contained within the bar. See SIX LAMP BAR.

IRIS

Adjustable aperture which, when placed in the gate of a profile lantern, varies the size of a beam of light. Originally, iris diaphragm. Most followspots have an iris permanently installed.

JUMPER

An adaptor from one type of electrical connector to another. For example, a 13 - 15A jumper has a 13A plug and a 15A socket at either end of a short cable. Also applicable to sound cables.

K

Lighting Industry Forum code which identifies the (original) recommended usage of different lamp types. K coded lamps are for use in general purpose flood lighting, and have a colour temperature of 2850°K. See also CP, A1, T, P2.

KELVIN

See COLOUR TEMPERATURE.

KEY LIGHT

(Esp. TV & Film lighting) The dominant light source/direction in a naturalistic lighting state. In a sunny drawing room, the key light would be through the window, for a naturalistic exterior scene the direction of the key light could change as the sun progressed across the sky. See FILL LIGHT.

KILL

To switch off (a light/sound effect); to strike/remove (a prop).

KILOWATT

1 kilowatt (1kW) is equal to 1000 Watts. The WATT is a measure of electrical power.

KIT

- 1) General name for equipment, especially nice shiny equipment, leading to the comment 'That's a nice bit of kit'
- 2) Short for Drum kit.

KK WHEEL

A type of animation disk which fits into the colour runners at the front of a lantern which rotates and breaks up the light beam to make it appear to be moving. Best used on a profile lantern containing a gobo. A KK Wheel is known in the US as LOBSTERSCOPE.

LADDER

- 1) Climbable piece of access equipment to reach a working platform or for short light-duty work at height. See ZARGES.
- 2) Non-climbable structure in the shape of a ladder from which lanterns can be hung in a vertical 'stack'.

LAMP

A light bulb is used in domestic situations (i.e. in the home). In the industry, we only use LAMPS. As the saying goes, 'Bulbs is what you put in the ground'.

Example usage: 'The lamp in the DSC fresnel has blown'. In the TV/Film world, a lamp is called a BUBBLE or GLOBE.

LAMP ROUND

Periodic inspection of all light fittings around the theatre, to replace dead lamps / bulbs. Usually takes place

before opening night.

LAMP TRAY

Lower section of the body of a theatre lantern on which the lamp holder is mounted. Some lamp trays are hinged, some are removable from the rest of the body. Modern safety legislation (UK) requires that the lamp tray cannot be opened until power is disconnected.

LAMPY

Theatre / Rock & Roll lighting technician. Distinct from a 'Techie' who may also be a carpenter or stage crew member. A lamy only concerns him/herself with lighting. See also JAFIE, TECHIE and NOISE BOY.

LANTERN

1) General term for unit of lighting equipment including spotlight, flood etc. Term now being replaced by the internationally recognised "luminaire" (esp. Europe) or "instrument" in the US.

See also FIXTURE.

2) Glazed section of roof usually in haystack form over the fly tower that automatically opens in the case of fire. An updraught is created which inhibits fire from spreading quickly into the auditorium, and prevents build-up of smoke at stage level.

LD / L.D.

Lighting Designer.

LECTRIFLEX

Multipin connector for carrying multiple lighting circuits down a multicore cable. See also SOCAPEX.

LEKO

A type of ellipsoidal profile spot, much used in the USA. Contraction of the original manufacturers names. Also known as LEKOLIGHT.

LENS

Optical glass with one or both sides curved, the purpose of which is to direct light by concentrating or dispersing light beams.

LIGHT

TO BE DEFINED

How Light Works

LIGHT BOARD

See BOARD.

LIGHT CURTAIN

A lighting effect which, when an area is diffused with smoke, produces a wall of light. Produced (usually) by a batten of low voltage PAR lamps wired in series.

Automated versions are available which have colour changers built-in and are able to tilt up and down. The original Light Curtain designed by Josef Svoboda is still made by ADB. (See SVOBODA, DIGITAL LIGHT

CURTAIN)

LIGHTING PLAN

A scale drawing detailing the exact location of each lantern used in a production and any other pertinent information (E.g. its dimmer number, focus position and colour number). Often drawn from the theatres' groundplan.

LIGHTING PLOT

The process of recording information about each lighting state either onto paper or into the memory of a computerised lighting board for subsequent playback. (in USA, this term is used for a lighting plan and a lights session is when lighting states are set up.)

LIGHTING STATE

The format of lighting used at a particular point in the production; a lighting 'picture'. A lighting cue is given by the stage manager which initiates the change from one lighting state to the next.

LIGHTING STENCIL

Plastic stencil containing a range of scale symbols for current lighting equipment. Greatly facilitates the drawing of lighting plans.

LIMELIGHT

An obsolete source of intensely bright light, most recently used in followspots. Derived from a burning jet of oxygen and hydrogen impinging on a rotatable cylinder of lime.
See LIMES.

LIMES

Followspots and their operators. This term is still in everyday use, although limelight is not. See also PICK-UP.

LOAD

1) The electrical power rating, in Watts, of the equipment connected to a particular lighting dimmer. 2) The equipment connected to a dimmer.

LOAD LAMP

See GHOST LOAD.

LOW VOLTAGE

Lower voltage lamps give more intense light than mains voltage lamps of the same wattage.

LUMINAIRE

The international term for lighting equipment. Not restricted to theatre lighting.

LX

Short for Electricians. The department in the theatre responsible for stage lighting and sometimes sound and maintenance of the building's electrical equipment. Lighting cues in the prompt book are referred to as LX cues

(abbreviated to LXQ).

LX TAPE

See PVC TAPE.

MAC

A range of professional moving lights made by Martin in Denmark.

[Martin website](#)

MAGIC SHEET

See CHEAT SHEET.

MANUAL DESK

A lighting desk where the interface between operator and dimmer is a fader, rather than a computer. Many modern manual desks have some memory facilities built in, but there are still a large number of venues with solely manual systems.

MASTER

1) An overall control fader or lever on a lighting or sound control board. The Grand Master takes precedence over all other controls and allows the operator to fade out the entire output of the lighting desk.

On a lighting desk the PRESET MASTER allows the control of a section of the desk independently from the rest.

See also SUBMASTER.

2) An original (e.g. Master tape, master plan) which should be used only to make a copy from which to work.

3) A Department Head (e.g. Master Carpenter, Master Electrician).

MASTER ELECTRICIAN

See CHIEF ELECTRICIAN.

MEMORY BOARD

An electronic storage device which enables recording and subsequent 'playback' of lighting states.

MIDS

The middle lantern on a lighting boom. See SHINS and HEADS.

MIRROR BALL

A lighting effect popular in discos, ballrooms etc. A large plastic ball covered with small mirror pieces. When a spotlight (usually a PINSPOT) is focused onto the ball, specks of light are thrown around the room. Usually motorised to rotate.

MOON BOX

Lighting effect. A large shallow circular box with calico cloth on one face and low wattage lamps arranged on the back. Can be flown behind a gauze or thin cyclorama to give the effect of the moon rising.

MOVING HEAD

See MOVING LIGHT.

MOVING LIGHT

Remotely controllable "intelligent" lighting instrument. Each instrument is capable of a massive variety of effects which are operated live via a moving light control desk, or can be pre-programmed by a standard memory lighting desk. The instruments require a power supply and a data cable (normally carrying DMX512 signal from the control desk).

There are broadly two types:

- 1) **Moving Head:** A luminaire is mounted on a moving yoke.
- 2) **Moving Mirror:** A stationary luminaire directs light onto a motorized mirror.

Both types have in common:

- A discharge (non-dimmable) light source
- A dimming shutter
- Motorized rotating colour wheels. Some offer colour mixing using graduated red, green and blue wheels or prisms.
- Profile versions have motorized gobo wheels with rotation.
- Strobing effects and adjustable iris. Some also have shutters.

The term "intelligent" is used as the instrument has a processor chip and electronics built into it, not because it's able to interpret the designer's artistic intent! It can be incredibly frustrating trying to get moving lights to behave exactly as required in a dramatic situation. Musicals and live music performances are more forgiving.

Moving Head lanterns are sometimes known as NODDING BUCKETS, Moving Mirrors are sometimes known as WIGGLIES or SCANNERS.

MOVING MIRROR

See MOVING LIGHT.

MULTIPLEXED (MUX) SIGNAL

All modern lighting desks use this serial form of communication with dimmers and other equipment. Information from the desk is transmitted along a single pair of cables in sequence to the dimmer where a de-multiplexing unit (demux box) decodes the string of data and passes the correct piece of information to the correct dimmer.

The industry standard protocol (language/standard) for multiplexing is the digital USITT DMX512 (introduced in 1986, based on RS485 data protocol, and often shortened to DMX or DMX512). However, new protocols are continually being added to keep up with more demanding equipment.

Although the standard connector for DMX512 is a 5 pin XLR, as the system only uses 3 connections, a great deal of equipment uses the more common 3 pin XLR. Care should be taken when using standard microphone cables to connect devices using DMX512, as the cable is usually less capable of accurately transmitting the digital data than a more expensive DMX512 cable. Short runs with microphone cable are acceptable.

As the basic DMX512 standard is one-directional, there should be a DMX terminator at the end of the DMX run to absorb the data signals and stop them being 'reflected' back down the cable and causing communications errors and other problems.

SMX is a communications protocol which enables digital dimmers to "report back" to the desk on any faults (eg blown lamps).

RDM (Remote Device Management) is an emerging upgrade to DMX512 which will include bi-directional communication between controller and device.

DMX512-A (officially ANSI E1.11) is a new standard under development at ESTA which is backwards compatible with DMX512 but has stricter safety parameters and offers some upgrades of functionality.

Among the older protocols (pre DMX512) are D54 which uses a stream of analogue voltage levels and was the Strand standard, and AMX 192 (US Standard, introduced around 1975) which can control up to 192 channels and uses a 4-pin XLR connector. (AMX stands for Analogue Multiplex).

See also UNIVERSE.

NC / N.C. / N/C

- 1) (US) No Color (US equivalent of UK's OPEN WHITE).
- 2) Not Connected (in a circuit diagram).

NON DIMS

Channels, usually controlled from the lighting desk which are switched, rather than dimmed. This enables motors, slide projectors, smoke machines etc to be controlled from the lighting desk.

OFFSTAGE

- 1) A movement towards the nearest side of the stage from the centre. (e.g. 'Focus that spot offstage a bit please')
- 2) The area out of sight of the audience (e.g. 'Get that donkey offstage !')

ONSTAGE

A movement towards the centre of the stage from the sides. The opposite of OFFSTAGE.

OPEN WHITE

(o/w) Lighting with no colour filter. Known in the US as NC (no color).

OUTRIGGER

An extendible leg to increase the stability of access equipment (eg Tallescope, Scaffold tower).

P2

Lighting Industry Forum code which identifies the (original) recommended usage of different lamp types. P2 coded lamps are photofloods, and have a colour temperature of 3000°K. See also PHOTOFLOOD, CP, A1, T, K.

PAIRING

Connecting more than one lantern to one power outlet via an adaptor or splitter, or more than one speaker to one amplifier channel.

PAR

Short for **Parabolic Aluminised Reflector** lamp. A lamp containing a filament, reflector and lens in one sealed unit. Used in PARCANs to produce a high intensity narrow beam of light. Par lamps are available in many different sizes and powers. Par sizes available include 16, 36, 38, 56 and 64. (The number refers to the diameter of the lens, in eighths of an inch). The most common for theatre use are Par 64s rated at 1000W (1kW), although other wattages are available. 110V Par lamps are often used in large UK venues or for touring due to the increased light output. Because the current is greater, the lower voltage lamps have smaller thicker filaments which give a more focussed beam than the thinner 240V filaments.

In the film business, PAR lamps are known as 'bird's eyes' after the alleged inventor Clarence Birdseye.

PARCAN

Type of lantern which produces an intense beam of light, ideally suited to "punching" through strong colours, or for special effect. The Parcan is literally a cylinder of metal (the "can") within which sits the PAR lamp (PAR stands for Parabolic Aluminised Reflector) which consists of the bulb, a reflector and a lens in a sealed unit. The Parcan first appeared in the early 1970's in the Rock concert industry due to the intensity of the beam, and the light weight and near indestructibility of the lantern. The lens of the lamp is either clear (which produces a narrow beam), frosted (medium) or stippled (wide).

See also PAR and FLOORCAN.

Types of Lantern

PATCH

1) (verb) The act of plugging a lantern into a dimmer (e.g. 'Can you patch circuit 12 into dimmer 18 please').

2) (noun) The system for connecting lanterns to dimmers (The Patch).

The term also applies to sound - a PATCH BAY is used to connect outboard equipment into the sound desk and to connect sound desk outputs to amplifiers, and amplifiers to speakers.

PATCH PANEL

A board consisting of rows of sockets into which plugs can be connected to route sound signals or power for lighting circuits. Some American systems use a Pin Plug patching system. See also PATCH.

PATCHING

1) To cross-connect lighting circuits around the stage area to a chosen dimmer. Connecting lanterns to dimmers.

2) Using a cross-connect panel which enables any stage lighting channels to the control desk to control any dimmer or group of dimmers. Some large lighting boards have the facility for **soft patching** - a totally electronic way of patching. Some Rock Desks have a **pin patch** which allows groups of dimmers to be allocated to a particular control channel. Also applies to routing of sound signals.

PATTERN

1) See GOBO.

2) See PATTERN NUMBER.

PATTERN NUMBER

Many older Strand lanterns are identified by their Patt. number (eg Patt.23 is a 500W profile). The numbers bear no direct relation to their size or type (although lanterns of a similar design may have similar Pattern numbers.)

See <http://www.strandarchive.co.uk> for a complete listing.

Strand Archive website

PC

Originally short for plano-convex - the basic lens shape of many lanterns / projectors. Now short for Prism- or Pebble-convex: a type of lens with a pebbled flat surface which gives a slightly harder edge than a Fresnel, but not as hard as a Profile. PC refers to a lantern with a PC lens.

Types of Lantern

PEBBLE SPOT

See PC.

Types of lantern

PERCENT

Dimmer levels are expressed as a percentage of the supply voltage. (100% = 230 - 240 Volts(UK)).

PERCHES

Lighting positions (often on platforms) at each side of the stage, immediately behind the proscenium.

Some theatres use the term for vertical boom positions in front of the proscenium in the house.

PHASES

Electricity is generated and supplied to large installations as three separate supplies, known as phases, and labelled L1, L2 and L3 (for Line).

Until recently, the three lines were colour-coded Red, Yellow and Blue in the UK. Now, across Europe, the three lines are colour-coded brown, black and grey, with the neutral coloured blue.

Each of the phases and one neutral are supplied down a single multicore cable to the building, but effectively give three separate supplies. Because there is a potential difference (voltage) of 415 volts between any two phases and earth/ground, care must be taken that pieces of equipment powered by different phases are not capable of being touched at the same time in case of a fault.

PHOTOFLOOD

A lamp used by photographers which gives a bright white light. Because it has a thin filament, it gives a good flash effect (eg lightning), but has a relatively short life, so should not be left on for any length of time.

PICK-UP

1) Device which, when attached to an acoustic musical instrument, converts sound vibrations into an electrical signal.

2) A way of describing the directional sensitivity of a microphone. An **Omnidirectional** microphone has equal pick-up from all around, a **Cardoid** microphone is more sensitive from the front, a **Hypercardoid** has very strong directionality from the front. A **figure-of eight** microphone picks up front and rear, but rejects sound from the sides.

3) The action of turning a followspot on a performer. (e.g. 'that was a good pick-up', 'your next pick-up is downstage left'). A BLIND PICKUP is on a moving performer and requires good hand-eye co-ordination. A SET PICKUP is on a specific area, is preset, and is made on a cue from the stage manager. A SIGHT PICKUP is made visually by the operator to a preset position.

PINSPOT

1) A lantern focused very tightly on a small area (eg an actors head) - a pin spot.

2) A luminaire used widely in disco installations, consisting of a low voltage (6V) Par 36 lamp (lamp code is 4515) with a very narrow beam in a metal case with built in transformer.

Pinspots are ideal for lighting MIRRORBALLS.

PIPE ENDS

Lanterns hung at the very ends of lighting bars - used for crosslight and very common in dance or musical theatre.

PLAN

A scale drawing showing a piece of scenery, the whole set, lighting layout etc from above. Lighting plans are usually drawn onto the theatre's groundplan. A view from the side of the set (or a piece of scenery) is known as an ELEVATION.

PLASA / P.L.A.S.A.

Professional Lighting and Sound Association (UK).

See ESTA for the American equivalent.

[PLASA website](#)

PLAYBACK

The part of a computerised lighting control desk which enables the operator to recall cues from the electronic memory.

PLOT

- 1) List of preparations and actions required of technical crews during the performance (eg Sound Plot = list of sound cues and levels in running order.) In the US, the term plot refers to a plan. (eg Light Plot = scale plan showing lighting instruments). See also RUNNING PLOT, STATE PLOT.
- 2) The basic story thread running through a performance / play which gives the reason for the character's actions.

PLOTTING SESSION

Time during which the plot for each department is prepared (eg Lighting Plotting session)

POINT CUE

A cue inserted during / after plotting between two existing cues. (eg 8.5 is inserted between cues 8 and 9). Most computer lighting desks have the ability to either insert an additional cue in a sequence, or to link to another cue out of the sequence, and then link back again. Inserting cues into a plotted sequence on a manual lighting desk is more awkward, because it is a running plot (where only the changes between cues are noted down). Stage Management may prefer to call 8A instead of 8.5, but this is down to personal preference. Sound cues which relate to an already-running cue within a sequence should have lettered cues (e.g. 8A is a fade up of Cue 8 and 8B is the fade out).

POWERCON

Power connector rated at 20 Amps with the same body type as the SPEAKON speaker connector. Manufactured by Neutrik. Used extensively on lighting patch panels (at least in the UK) due to its smaller physical size and lower cost than the standard 15A socket.

The blue connector is for power inlet, the grey connector is power outlet. The types are not interchangeable, and cannot be plugged into Speakon sockets.

NB: The powerCON connector is not designed to be connected under load conditions, so should only be connected / disconnected with the power OFF.

[Neutrik Powercon page](#)

PRACTICAL

Any object which appears to do onstage the same job it would do in life, or any working apparatus (eg light switch or tap). Light fittings which have to light up on the set are called Practicals.

PRESET

- 1) Anything in position before the beginning of a scene or act (eg Props placed on stage before the performance, lighting state on stage as the audience are entering.)
- 2) An independently controllable section of a manual lighting board which allows the setting up of a lighting state before it is needed. Each preset has a master fader which selects the maximum level of dimmers controlled by that preset.

PREVIEW

- 1) A performance (or series of performances) before the 'official' opening night. Previews are used to run the show with an audience before the press are allowed in to review the show. This allows technical problems to be ironed out while ensuring the cast and creative team get audience feedback. Tickets are sold at reduced price and help to spread word of mouth interest in the show.
- 2) A function on some memory lighting control desks with video mimics. Preview enables the operator to see the levels of dimmers and other information in a lighting state other than that on stage.

PRIMARY COLOURS

The primary additive colours of light are red, green and blue, and the subtractive colours are cyan, magenta and yellow.

PRODUCTION DESK

Table in the auditorium at which director/designer etc sit during rehearsals (especially technical rehearsals). Usually has its own lighting and communications facilities.

PROFILE

1) A type of lantern with at least one plano-convex lens which projects the outline of any chosen shape placed in its gate, sometimes with a variable degree of hardness/softness. Profiles include four beam-shaping metal shutters, a gate to take an iris or gobo and an adjustment to make the beam smooth and even ('flat') or hot in the centre ('peaky'). See Bifocal Spot, Zoom Profile.

2) Shaped piece of scenery added to the edge of a flat instead of a straight edge. Also known as a cutout.

PROJECTION

1) **Slides** are used to project still archive images or textures. Libraries of slides contain images for every occasion. Kodak Carousel projectors are the industry standard, and some types can be linked to a controller to perform complex dissolves and fades from one projector to another. More powerful projectors are available using very intense discharge sources and large format glass slides to produce a massive image.

2) **Lighting effects** : Moving cloud / rain / fire effects can be achieved using a powerful lantern known as an effects projector with a motorised glass disc painted with the required effect. An objective lens is required in front of the disc to focus the image. See Effects.

3) **Gobos** : See GOBO.

4) **Film** : 35mm film projection is common in many theatres as a device for keeping the building open to the public when productions are in preparation. 16mm film projection is used in smaller venues. Film projection can, of course, also be integrated into a performance.

5) **Data**: Data or Video projection is now being used to bring video and computer images to the large screen. Data projectors are considerably cheaper and more versatile than other methods, and the quality is improving all of the time. Images can be front projected or back/rear projected depending on the amount of space and the effect required. For example, if actors are required to walk in front of the screen and not have the image appearing on them, back projection is the only answer. See LCD, DLP, SCREEN.

PULL

The amount of electrical power required by a touring show in a venue.

PVC TAPE

Plastic insulating tape used for taping cables to bars and for securing coiled cables. Neater and cheaper than Gaffa tape. Also known as LX tape.

PYRO

1) See PYROTECHNICS

2) Short for **Pyrotenax**, a brand name (UK) of Mineral Insulated Cable.

PYROTECHNICS

(Pyro) Chemical explosive or flammable firework effects with a manual detonation. Usually electrically fired with special designed fail-safe equipment.

There are many different variations of pyrotechnic effects available. The categories are as follows:

Theatrical Flash - a flash and a cloud of smoke

Maroon: produces a very loud bang. Must only be detonated inside a bomb tank covered with a protective mesh.

Gerb: version of the Roman Candle firework, throwing a shower of sparks into the air. Possibly named from the French 'Gerbe' meaning a sheaf of wheat, due to it's shape.

All pyrotechnics should be used with close reference to local licensing laws, and the manufacturers instructions. Professional advice should be sought before the first use of effects.

Some territories only permit licenced pyrotechnicians to use these devices.

RCD

Residual Current Device. Protects the user against short circuit (earth faults) and earth leakage caused by damaged cable or faulty equipment. A RCBO is a combined MCB and RCD, protecting against earth leakage/short circuit and overload. Known as a GFI (Ground Fault Interruptor) in the USA.

RE-RIG

To change the lighting rig after the last performance of one show to the positions for the next show.

REAR PROJECTION

See PROJECTION.

RECITATIVE

Musical terminology for a sung dialogue passage, in the rhythm of ordinary speech, during an opera, operetta or oratorio. Often shortened to RECIT.

REFLECTOR

Highly polished metallic mirror used to direct light beam from a lamp towards the lens at the front of a lantern.

RESISTANCE DIMMER

A now obsolete method of dimming which decreases the current available to the load by introducing a variable resistance between supply and load. The excess current is converted into heat. Based around a rheostat.

RESTORE

A cue to resume or return to any previous state, setting or function. (e.g. 'at the end of the dance number we restore to a warm general cover').

Submitted by Bert Morris.

RIG

1) The construction or arrangement of lighting equipment for a particular production.(noun)

2) Installing lighting, sound equipment and scenery etc for a particular show.(verb)

RIG CHECK

(also known as LAMP CHECK) The process of checking all lanterns in the rig are working correctly prior to each performance. Should be done daily in sufficient time to change a lamp if necessary.

Most venues do not have the electrical capacity to run all lanterns at full for a rig check, so a level of 25% is normally used.

N.B. this is NOT the same as preheating - a rig check happens before each performance and involves the whole rig, and preheating involves individual lanterns/dimmers and happens before a cue in which that lantern appears.

RUNNING LIGHTS

US term for the blue working lights used backstage during a performance.

RUNNING PLOT

A plot giving details of the changes between cues, as distinct from a state plot which gives the whole state of the system at any time. For example, a lighting plot on a manual board is normally a running plot. It is difficult to start a running plot half way through; often the operator has to go back to the beginning and work through until the required point is reached. However, it contains the minimum information necessary to perform the cues, and is therefore more efficient on a manual lighting desk or complex sound setup.

SAFETY CHAIN

Chain or wire fixed around lantern and lighting bar or boom to prevent danger in the event of failure of the primary support (eg Hook Clamp). A requirement of most licensing authorities. In the UK, current legislation

SATURATION RIG

An arrangement of lanterns in which to maximum number of spotlights is placed in every possible position.

SAVE

(US especially) To extinguish a particular lighting instrument (e.g. 'Save 14'). The instrument's lamp (and its colour filter) are thus saved for another occasion. Used when setting up lighting states.

Submitted by Peter Neilson

SCENE

1) A pre-programmed lighting state which can be faded in and out during a one night show when there's no time for plotting.

2) A subdivision of a play. See also ACT.

SCREEN (PROJECTION)

Many types of projection screen are available. Some are multi-purpose, some only for front projection, some only for back projection. If a screen is not self-supporting, it often has eyelets around the outside edge which are used to 'lace' the screen onto a larger frame.

See also PROJECTION.

SCRIM

1) A coarse gauze

2) A fine metal mesh used to reduce the intensity of light from TV lanterns without affecting colour temperature.

SCROLLER

See COLOUR CHANGER.

SEMAPHORE

See COLOUR CHANGER.

SERIES SPLITTER

An adaptor consisting of a plug and two sockets wired in series. Enables two identical 110 Volt loads to be safely

run from a 240 Volt supply (UK).

SHIFTER

The common Australian term for AJ's, c-wrenches, spanners etc.

SHINS

The lowest lantern on a lighting boom. Named because of the proximity of sharp parts of the lantern to the flesh of the lower leg. This especially applies to standard dance lighting, when the lanterns are positioned at optimum height to light dancers on the stage floor. When the boom is lighting scenic items or large groups, the lanterns may be higher up the boom and the term will no longer apply.

Also known as SHIN BUSTER. The other lanterns on the boom are known as MIDS and HEADS.

SHUTTER

Part of a profile lantern. Metal blade which can be used to shape the edge of the beam. Shutters (normally four) are located in the gate at the centre of the lantern. Similar in effect to barndoors on a Fresnel or PC lantern, but a lot more flexible.

SILK

A special type of diffusion frost filter which stretches the light in one direction. Especially useful for lighting large cycloramas with a limited number of lanterns, or for lighting an elongated object (eg a staircase) with one lantern.

SLIDE

See PROJECTION.

SMOKE DETECTORS

Many theatre buildings have complex fire alarm systems installed. Some theatre spaces have smoke detectors in them, which trigger a fire alarm when the space fills with smoke. The use of SMOKE MACHINES in these spaces can (and does) result in expensive call-outs of the fire department and evacuated auditoria.

There are special heat-sensitive detectors called RATE OF RISE detectors which trigger a fire alarm when the temperature rises faster than it should normally. Properly calibrated (and regularly tested) these can be as effective as the smoke detectors (which work by 'seeing' smoke particles in the air). If it's not possible to get Rate of Rise detectors installed in your theatre space instead of smoke detectors, you may be able (subject to local building regulations and local fire department advice) to isolate the smoke detectors for the duration of the performance when you use smoke effects. Properly designed alarm systems incorporate timed isolation, so that smoke detectors are only off for a specific period, and automatically come on after that period.

SMOKE MACHINE

A **Smoke Machine** or **Fogger** is an electrically powered unit which produces clouds of white non-toxic fog (available in different flavours/smells) by the vaporisation of mineral oil. It is specially designed for theatre & film use.

A **Haze machine**, **Hazer** or **Diffusion Fogger** is used to produce an atmospheric haze, rather than clouds of smoke, and is used by many lighting designers to reveal airborne light beams.

The first smoke machines came onto the market in the late 1970s.

See also CRACKED OIL, DRY ICE.

It's essential to know whether your venue uses SMOKE DETECTORS on the fire alarm system. See that entry for more information.

SNAP

A lighting or sound cue with no fade time - the cue happens instantly.

SOFT LIGHT

Asymmetric flood light used as a fill light in TV studios to eliminate shadows and balance the key light.

SPECIAL

A lantern within the lighting rig which is required for a specific moment or effect within the performance, and is not part of the general cover lighting. See GENERAL COVER.

SPIDER

Adaptor to connect many lanterns to one multicore cable. Consists of multipin connector (typically Socapex or Lectriflex), short length of cable, then a number of sockets related to the number of circuits in the cable.

SPIGOT

An adaptor screwed onto the hanging bolt of an instrument to enable it to be used on an upright stand.

SPILL

Unwanted light onstage.

SPILL RINGS

Concentric rings attached to the front of a beamlight (eg Strand Pageant) to contain spill.

SPLITTER

See ADAPTOR.

SPOT

To reduce the beam size of a fresnel or pc lantern by moving the lamp further from the lens. (e.g. 'Could you spot that down a touch, please?'). See also FLOOD.

SPOTLIGHT

General term for any lantern with a lens system. See Fresnel, PC, Profile.

STAGE BOX

A connection box at the end of a lighting or sound multicore cable.

STAGE ELECTRICIAN

Member of the electrics staff whose responsibility it is to set or clear electrics equipment during scene changes. May also carry out colour changes on booms etc.

STAGE LEFT / RIGHT

Left/ Right as seen from the Actor's point of view on stage. (ie Stage Left is the right side of the stage when looking from the auditorium.)

Stage Right = OP (Opposite Prompt) French: Cote Jardin, Netherlands: Toneel Links (translates to Stage Left!)
Stage Left = PS (Prompt Side) French: Cote Cour, Netherlands: Toneel Rechts (translates to Stage Right!).
NB: The Netherlands, Portugal and Germany use the opposite to the rest of Europe; i.e. Stage Left UK = Stage Right. The directions are seen from the director's and audience's perspective, NOT the actors. In Portugal *Isquerda* (left) is the equivalent of UK Stage Right and *Direita* (right) is the equivalent of UK Stage Left.

STAND-BY / STANDBY

1) A warning given to technical staff by stage management that a cue is imminent. The member of the stage management team calling the cues will say "Standby Sound Cue 12". Technicians acknowledge by saying "Sound Standing By".

In the US, the word "Warning" replaces "Stand-by".

2) A member of the cast of a musical or play who understudies one (sometimes more) of the principal roles but is NOT also in the chorus. A standby often will not even be required to be at the venue at each performance unless he/she is called in to perform in the role for which he/she is an understudy.

See also ALTERNATE, SWING, UNDERSTUDY.

Additional information submitted by Pierce Peter Brandt

STATE

In lighting terms, a lighting 'picture' ; each lighting cue results in a different state (or a modified state).

STEEL

1) Refers to a steel blue / pale blue lighting gel. (Lee 117) (e.g. 'Use the Steel General Cover for the scene in the castle'). See also STRAW.

2) Many set construction now uses steel frames with timber cladding. Steel is stronger and lighter weight compared to timber of the same size.

3) Generic term used for a plain wire rope sling. Also used when referring to roof structural steel and individual steel beams or scaffold materials and so on.

Additional information submitted by Chris Higgs.

STRAW

Refers to a pale yellow lighting gel. (e.g. Use the Straw General Cover for the garden scene). See also STEEL.

STROBE

Device giving a fast series of very short intense light flashes which can have the effect of making action appear intermittent. Because strobe lighting can trigger an epileptic attack in sufferers, the use of a strobe must be communicated to the audience before the performance begins. Strobes should be synchronised so that they operate outside the dangerous frequency band 4 to 50 flashes per second. (i.e. a strobe should operate at less than 4 flashes per second, or more than 50 flashes per second). If the effect is momentary, this rule may be relaxed. Strobes must never be used in public areas where there are changes of level or steps.

Always seek the advice of the licensing authority if you are in any doubt about the safety of strobe effects.

SUBMASTER

Fader on a lighting desk which can have a lighting state recorded onto it for additional control, or to use when manually mixing lighting states for music concerts or one-off events. Lighting desks normally have a series of submasters (12 or 24 are common) which can have states, cues or effects loaded onto them. Some desks can have submasters set to inhibit the main output (known as INHIBITIVE SUBMASTER. For example, the FOH lighting can be loaded onto a submaster which is then brought down as the house tabs are flown in between curtain calls to block light spill onto the tabs).

Multiple cues can be recorded onto some submasters through the use of pages.

A PILE-ON submaster can be used to add it's contents to the existing lighting state. Any number of pile-on submasters can be used in combination to modify a state.

SUBTRACTIVE COLOUR MIXING

See COLOUR MIXING.

SUPER TROUPER

(Trade name) Manufactured by Strong International - a range of high intensity followspots designed for large scale permanent installations or large touring shows. The Super Troupers use Xenon lamps and vary from 1600 - 2000W.

The Super Trouper is the best known of all stage lighting instruments outside of the industry due to Abba's song 'Super Trouper'.

[Strong International website](#)

SWATCH

A sample of fabric to demonstrate the material to use on a costume or set design, or a sample of lighting gel. A catalogue of all the gel colours made by a particular manufacturer is called a SWATCH BOOK.

T

Lighting Industry Forum code which identifies the (original) recommended usage of different lamp types. T coded lamps are for theatrical use, and have a colour temperature of 3000°K. See also CP, A1, P2, K.

TAB DRESSING

See TAB WARMERS.

TAB WARMERS

Lighting focused onto the house tabs at the front of the stage to set a theatrical atmosphere before the show starts. May also involve a gobo with the show or company logo. Also known as TAB DRESSING.

TAILS

Also known as BARE ENDS, TAILS refers to a cable or set of cables with a connector at only one end which is used for connecting a company's equipment directly to the mains supply in a venue. The connection should only be made by a qualified electrician with the power off!

TALLESCOPE

(Trade Name) A retractable alloy vertical ladder on an adjustable wheeled base. The platform at the top is just large enough to hold one person. Used for rigging lanterns, focusing etc. Collapsible enough to fit through a standard doorway. Outriggers are used to stabilise the tower from falling sideways. Two people are used to move and steady the tallescope. Sometimes known as a 'TALLEY'.

TANK TRAP

See BOOM BASE.

TECHNICAL REHEARSAL

(also known as the TECH RUN, or just TECH). Usually the first time the show is rehearsed in the venue, with

lighting, scenery and sound. Costumes are sometimes used where they may cause technical problems (eg Quick changes). Often a very lengthy process. Often abbreviated to the Tech.

A **DRY TECH** is without actors to rehearse the integration of lighting, scenic changes etc. It follows that a **WET TECH** is a full technical rehearsal with actors and all technical elements, although this term isn't used as often as DRY TECH.

A **PAPER TECH** is a session without the set or actors when the technical and design team talk through the show ensuring everything's going to work as planned. Stage Managers can use this session to ensure all is written correctly in the Prompt Book.

TEMPLATE

See GOBO.

THROW

Distance between a light source (e.g. lantern or projector) and the actor or object being lit.

TILT

- 1) Up and down (vertical) movement of a lantern, camera or moving light. See also PAN.
- 2) Feature on pinball machines which detects excessive movement of the case. Only related to theatre in connection with the musical 'Tommy'.

TIME

The facility on memory lighting boards for playing back timed fades at the touch of a button.

TITLE BLOCK

Rectangular area in the corner of a lighting plan (often bottom right) containing the name of the show, director, scenic and LX designer names, date of the plan, scale, and other copyright information.

TRANSFORMATION

An instant scene change, often effected by exploiting the varying transparency of gauze under different lighting conditions.

TRIPE (bundle)

Bunch of cables tied or taped together into a single unit.

TRS

- 1) Tough **Rubber Sheath**. Jargon for any Rubber-sheathed power cable.
- 2) Tip Ring Sleeve. The three contacts on a stereo jack audio connector.

TRUNNION ARM

U-shaped bracket between the hook clamp and the main body of a lighting instrument, enabling it to be tilted to any angle.

TRUSS

A framework of alloy bars and triangular cross-bracing (usually of scaffolding diameter) providing a rigid structure, particularly useful for hanging lights where no permanent facility is available. Very often box-shaped in cross

section, so known as BOX TRUSS. This type of truss is useful for touring as lanterns / speakers etc can be hung inside the truss which protects them when loading and takes up less space in the truck.

TUBULAR WAVE RIPPLE

See EFFECTS.

TUNGSTEN HALOGEN

A standard tungsten filament lamp loses its brightness in its' lifetime. Tungsten Halogen lamps use a Quartz envelope ('bulb') filled with halogen gas to give an almost constant colour temperature. See Halogen Cycle.

ULTRA-VIOLET (UV)

Short wavelength source of light at the end of the visible light electromagnetic spectrum which causes specially treated materials to fluoresce on an otherwise blackened stage. Used for special effect and for lighting onstage technical areas (eg Fly Floors). Ultraviolet sources designed for stage use are known as Black Light sources (also known as UV-B) and have all harmful radiations filtered out.

Black Light is used extensively in the Czech Republic where stunning effects are achieved on stages lined with black velvet. See the Image Theatre website for more.

[Image Theatre website](#)

UPLIGHT

Light from below the actors - from a light source on the stage floor.



contre-plong

UPSTAGE

1) The part of the stage furthest from the audience.

2) When an actor moves upstage of another and causes the victim to turn away from the audience he is 'upstaging'. Also, an actor drawing attention to himself away from the main action (by moving around, or over-reacting to onstage events) is upstaging.

VISUAL CUE

A cue taken by a technician from the action on stage rather than being cued by the stage manager. Often abbreviated to "Vis".

VOLTAGE

The pressure at which electric current is available. The UK standard voltage is 230 Volts. The American standard is 110 Volts.

The scientific name for Voltage is Electromotive Force.

WASH

1) A lighting cover over the whole stage (e.g. 'We'll use the red wash for the hell scene')

2) A lantern which produces a large spread of softly focussed light (e.g. the VL4 and Mac 600 are wash luminaires).

WATTAGE

See WATTS.

WATTS

Unit of electrical power derived from the current (or 'quantity' of electricity) multiplied by the voltage (or 'pressure' at which the current is delivered). Stage lighting equipment is rated in Watts (or Kilowatts - 1kW being equal to 1000W). This refers to the amount of power required to light the lamp. A higher wattage lamp requires more power and gives a brighter light output.

WINGS

- 1) The out of view areas to the sides of the acting area (known as FLÜGEL in German)
- 2) Scenery standing where the acting area joins these technical areas.

WORKING LIGHTS

- 1) High wattage lights used in a venue when the stage / auditorium lighting is not on. Used for rehearsals, fit-up, strike and resetting.
- 2) Low wattage blue lights used to illuminate offstage obstacles and props tables etc. Known as Wing Workers.

WRENCH

American for SPANNER.

WYSIWYG

Acronym of 'What You See Is What You Get'. Mainly used in the context of a software tool for lighting design and production administration. Capable of stunning 3D rendering of lighting states, and direct connection to a lighting control desk. Enables accurate pre-visualisation of lighting designs and greatly increases the understanding between director / producer and lighting / scenic designer in the early stages of a production.

[WYSIWYG product details](#)

XFADE

See CROSS FADE.

XLR

Multipin metallic connector. (3 pin for normal sound use, 5 pin for DMX, Colour Scrollers etc). Sometimes called Cannons after the original manufacturer.

The UK standard for wiring the 3 pin connector is as follows : Pin 1 (Screen), Pin 2 (+ve / 'hot'), Pin 3 (-ve, 'cold'). (Xternal, Live, Return).

A 5 pin connector for DMX512 use has the following connections: pin 1 = screen, pin 2 = data -ve ('cold'), pin 3 = data +ve ('hot'), pin 4 and 5 are not used by many manufacturers. A comparison is made between the signals carried by the two data cables, and any differences are cancelled out, meaning that noise/data error reduction is very effective.

YOKE

The TRUNNION ARM of a lantern.

ZARGES

(Manufacturer) German manufacturer of a range of ladders. Commonly refers to the 3-part ladder used on many stages around Europe.

<http://www.zarges.de/>

ZOOM ELLIPSOIDAL

See ZOOM PROFILE.

ZOOM PROFILE

A type of profile lantern with two lenses enabling the adjustment of both size of the beam and whether it's hard or soft focus. This adjustment of focal length allows a single instrument to find many uses in various locations around the stage. The flexibility is also essential when working with gobos. Also known (in the US) as a Zoom Ellipsoidal.