**Glossary**

The following are some common terms used in production lighting. These are the basic terms used. Always use the correct terms for the equipment you expect the learner to use or for the processes you are explaining. Note, it is expected that all lanterns can be named though these are not included in the glossary below.

**Active:** A patch circuit is ‘live’, i.e. it has power being supplied to it.

**AC:** Short for Alternating Current. An AC cord or cable is used to connect between a mains power socket and a piece of equipment. A range of different connectors are used to connect to the equipment. The 3-contact cable plug is common throughout Australia. A lighter cable is used on smaller equipment which is double-insulated and has just two connections. Powercon is used on heavier duty equipment and locks into place to prevent accidental disconnection.

**Backlight:** Light coming from upstage, behind scenery or performers. It is often used to separate performers from the background.

**Bar:** A horizontal metal tube hung from the rigging on which lighting equipment may be suspended. When vertical it is also known as a ‘boom’.

**Barndoors:** These are wings or hinged panels that are located on the outside of fixtures and are used to mask or cut out light from certain areas.

**Blackout:** The complete absence of light of stage lighting.

**Boom:** Vertical scaffolding which can carry luminaires. Often used in the wings of the performing area for side lighting.

**Bounce:** Light that has been diffused by being reflected from the stage, walls, cyc, etc.

**Bridge:** A walkway, giving access to technical and service areas above the stage or auditorium, or linking fly-floors. In this area,

**Cables**: All electrical components in a lighting system are interconnected with cables. Cables are the wiring that is temporarily rigged to carry electrical current. The size of the cable (i.e. the current carrying capacity) may vary depending on what load it is required to do. Cables are used to supply electricity to individual lanterns, whole dimmer racks, etc. Note the term cable is also used to describe the wiring used to support audio and audio-visual systems.

**CANS:** Headset earpiece, microphone and belt pack used for communication and co-ordination of technical departments during a performance. (e.g. "Electrics on cans", "Going off cans", "Quiet on cans!"). As many of the technical operators are tied to expensive pieces of equipment, headsets are often wired. However, stage management (and any other crew who move around) often wear wireless versions, often known as radio cans. There are interfaces between wired and wireless versions enabling both to be part of the same system. Many headset systems have multiple channels, enabling different sub-groups to communicate separately. [Named after the well-known usage of two tin cans connected by a piece of string being able to transmit and receive a sound mechanically]. Also called 'Comms' short for Communications - the same phrases can be used (e.g. 'LX Off Comms' when leaving the operating position).

**Channel:** A control path for managing a luminaire, i.e. the electrical circuit from the control board to the lantern.

**Colour call sheets:** Lists that are compiled from the lighting plan of all the colours needed for the lighting rig, and their size. This term also applies to the act of preparing colour filters and frames from these lists.

**Colour frame:** Two connected square pieces of metal or cardboard with a hollowed circle in the centre; this frame holds the gel in front of the fixture.

**Communication or Comms (or Cans):** ‘Comms’ or communication systems are used by lighting personnel so that each person can listen and speak to every other person using the system during a performance. ‘Comms” are usually wireless or wired systems. Personnel generally wear headsets with a small boom microphone when on ‘comms’. Note, the term ’cans’ is also used for this inhouse communication system.

**Cue:** The command given to technical departments to carry out a particular operation, e.g. Lighting Cue, Fly Cue or Sound Cue. Normally given by stage management but may be taken directly from the action (i.e. a Visual Cue). Departments are often abbreviated: Lighting is LX, Sound is SD (or sometimes SX, but this is too like LX, so SD should be used).

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!" - this is known as a Cue Line).

Cues given verbally may be known as 'audible cues', although as this is the normal type of cues, they're usually just called 'Cues'. Cues that technical operators take themselves, without an audible cue, are known as Visual Cues.

**Cue List:** A list of sound, lighting, automation, scene change, video, followspot (etc) cues in order of their appearance in the show. Each cue is given a unique number, and the list includes a brief description of what it does (e.g. for Lighting: Blackout, Dim Downstage Wash, Red Spot Upstage; for Sound: Preshow Music, Fade Out, Snap Music to Quiet etc.) Cue is often abbreviated to 'Q". Also known as a Plot Sheet.

**Cyclorama:** Sometimes abbreviated to ‘cyc’ this is a curved piece of cloth or wall that serves as a backdrop. It may be painted with performance scenery or be left plain to project light and/or images onto it.

**Diffusion:** This is like gel and are sheets used to diffuse, or soften, the beam of light from a lantern. Generally diffusion does not change the colour of the light unless it is specifically a collared diffusion.

**Dimmers:** Dimmers are the devices that control the amount of electricity passed to a lantern, and therefore the intensity of the light from the lamp. Dimmers are simple active transformers, in that these equipment items respond to the instructions sent to them from lighting consoles and passing those power levels on to lanterns. Dimmers may often be grouped together into a housing or cabinet and this collection is called a “dimmer rack”.

**Documentation:** There are three core lighting documents:

1. Lighting schedule: A list of available lanterns within a theatre or location.
2. Colour call sheets: The list of required colours for a live performance/production.
3. Lighting plan: A scale drawing detailing the exact location of each lantern used in a production as well as any other relevant information (e.g. its dimmer number, focus position and colour number).

**Dress Rehearsal:** A full rehearsal, with all technical and creative elements brought together. The performance as it will be 'on the night'.

**Effects of colour:** Depending on where this is used it will refer to special lighting effects (gobos or strobe).

**Electrical safety:** This refers to the precautions and safety measures taken when using electricity or electrical devices. Safety management to avoid danger, damage, injury or death is not only common sense; it is also a legislative (mandatory) requirement of workplaces.

**Fade:** A fade is an increase, diminishment or change in lighting or sound level. A snap fade is an instant change. A slow fade could be anything from 5 seconds to a few minutes (or even more, for a naturalistic sunset lighting effect). A quick fade is a couple of seconds long. A fade out takes the lighting state to blackout (or a particular sound to silence). A fade in does the opposite. A crossfade smoothly transitions from one state to another, without going through darkness (or silence for sound).

**Fade Up:** An increase in lighting or sound level, over a given time. 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.

**Fat Finger:** A common problem among lighting & sound operators, when two buttons are accidentally pressed at the same time by a finger that's too large for the buttons.

**Feed:** A power supply to a piece of equipment or installation is termed a 'feed'.

**Flight case**: Metal framed wooden box on wheels with a removable lid used for transporting equipment between venues. Flight cases are very strong and have reinforced corners and edges. Care should be taken when lifting flight cases 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.

**Floats:** Early form of footlights using burning wicks floating in oil across the front of the stage. Now applies to anything rigged on the front edge of the stage (e.g. Float microphones, Uplights / footlights etc.)

**Front Of House (FOH):** The part of a performance venue that is open to the public.

**Gaffer Tape:** Ubiquitous sticky cloth tape. Most common widths are 6 mm for marking out areas and 50 mm (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.

**Gel:** Sometime known as colour media or filter, it is the plastic film placed in front of lights to change the colour of the light beam.

**Headset:** General term for theatre communication equipment - A headphone and microphone combination used in such communications systems with a belt pack.

**Intensity:** This is the term for the level of light output emerging from the lantern, that is, the brightness of the light. It is often measured in percentages on the lighting control board.

**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.

**Key:** A section on a layout plan, which denotes what the symbols on the plan refer to. Although many symbols are standardised, there are variations, and to avoid confusion (or errors) when rigging and laying out equipment, a key is essential to ensure the requirements of the design are correctly interpreted.

**Kill:** To switch off (a light/sound effect); to strike/remove (a prop). (e.g. Kill channel 6 please)

**Lanterns:** This is the broad traditional term used to cover all types of lights. They may also be referred to as ‘fixtures’. Refer to the more recognised term of ‘luminaires’.

**Lamps:** These are the light bulbs that are used in lanterns or ‘fixtures’.

**Lamp types:** There are several different types of lamps (domestically called a light bulb): incandescent bulbs, fluorescent bulbs, LEDs (Light Emitting Diodes) but all of them turn electrical energy into light (and almost invariably heat as well).

**Light beam accessories:** These are devices added onto a lantern or inserted into a lantern that are used to alter or manipulate the beam of light emanating from the lantern.

**Light theory:** This is the theory that incorporates the physics of light waves/beams and colour mixing. Colour mixing of light is different to colour mixing of pigments or paint. The colour Primaries of Light are RED, GREEN, BLUE, which, when mixed tend towards white; the Secondaries of Light are Magenta (Purple), Cyan (Light Blue) and Amber (Yellow).

**Lighting components:** This is the generic term used to refer to all components of a lighting system including lanterns, dimmers, cables, and lighting control boards. It may also the supporting components such as lighting bars, stands and accessories.

**Lighting control systems:** These include lighting control boards, light controllers and any other device that is used to control the lanterns being used.

**Lighting control board/desk:** This is the main control for the production’s lighting. The lighting operator for an event is often said to be ‘on the board’.

**Lighting equipment:** This includes everything from the lanterns to dimmers, controllers, accessories such as colour frames, donuts, barn doors and gobos, cables, stands, lighting bars, safety chains, hooks, clamps, gels and bubbles. This is used in the same way as the term lighting components.

**Lighting operations:** The term is used by personnel when preparing or carrying out the job of production lightning.

**Lighting personnel:** Used to describe all the people involved in lighting operations: lighting hands, lighting technicians, lighting operators, lighting designers and lighting directors.

**Lighting plan:** This is a scale drawing detailing the exact location of each lantern used in a production, as well as any other relevant information, such as its dimmer number, focus position and colour. The lighting plan is often based on the theatre’s ground plan.

**Lighting schedule:** This is a list of lanterns, other lighting components and accessories, available for use at a particular venue.

**Lighting technician**: This is the title conferred on the person with the knowledge, skill and expertise to rig, set up, replace lamps, focus and basically operate professional lighting equipment. This person is assisted by other workers often known as ‘lighting hands’.

**Loom**: A neatly organised bunch of cables. A wiring loom is used to avoid messy runs of cables by keeping the cables going in the same direction (to the same piece of equipment) tied together. This saves time when installing and packing-down equipment and ensures that a piece of cable can't be mislaid or left behind. The cables can be taped together (using PVC tape, never Gaffer Tape) or, for more long-lasting arrangements, with cable ties. More environmentally friendly companies use short lengths of rope for the same purpose, which are re-used repeatedly. Strips of rubber can be used for the same purpose. The looms are named according to their purpose (e.g. the Control Loom goes from the control desk to associated equipment, and may contain a power cable, a communication cable and a DMX512 cable for the control signals).

Luminaires: This is now the recognised international term that is used to describe the specialised lights used in theatres and other live productions. It is the replacement term for ‘lanterns’ or ‘fixtures’.

**Open-face fixture:** Any lighting fixture that has no lens, i.e. the blub is open to the environment.

**Patch location:** This is the specific location or position of a device as related to a patch panel to which it is connected. This is usually in the form of an alpha-numeric code such as B12.

**Patching:** This is the act of interconnecting devices in a lighting system, e.g. connecting lanterns to dimmers. Lighting circuits around the stage area can be cross connected to a chosen dimmer to enable a lighting channel on the control desk to control any dimmer or group of dimmers.

**Pattern holder:** A rectangular, metal frame with a circular hole in the centre. This piece holds a pattern and slides into a slot in an ellipsoidal lantern.

**Patterns:** These are also known as gobos. They are thin, steel, circular pieces with a design cut-out so that when placed into a slot in the ellipsoidal lantern, it projects patterns of light onto the stage.

**Plot:** List of preparations and actions required of technical crews during the performance (e.g. Sound Plot = list of light cues and levels in running order.) In the US, the term plot refers to a plan. (e.g. Light Plot = scale plan showing lighting instruments).

**Plotting Session:** Time during which the plot for each department is prepared (e.g. Audio Plotting session)

**Plug:** A power or signal connector with a pin or pins which is used to make a connection from a power or signal source (the socket) to a device or another connector. Plugs are not used as a source of power, because of the risk of electrocution by touching the fully exposed pin connections. Sockets, where the connection is shielded, are used as the source of power.

**Positioning point:** This is the physical position in which a lantern is hung or placed in a venue, whether on bars, stands or on the stage or floor.

**Rack:** A cabinet of standard width into which various components can be bolted. Racks are ideal for touring equipment, are neat, and they allow easy access to the rear and front panels.

**Reporting:** Reporting is the process of communicating within a team, crew, etc. All workers report to their supervisor.

**Rigging:** Rigging is the construction or arrangement of lighting equipment for a particular production as well as the act of installing lighting for that event.

**Safe work practices:** Safe work practices result from workers following the required WHS procedures with the purpose of ensuring the safety of all workers on the site. Safe work practices include turning off power and disconnecting lanterns when installing or repairing, using correct lifting techniques, wearing protective clothing, harnesses, shoes, gloves etc., and following correct procedures.

**Snap:** A lighting or sound cue with no fade time - the cue happens instantly. This can be achieved on a computerised lighting desk by using a fade time of zero seconds.

**Shutters:** A moveable piece within the ellipsoidal lantern that can shut out part or all of the light coming out.

**Snoot:** Sometimes called a ‘top hat’ this is an attachable accessory for lanterns that consists of a long cylindrical tube used to reduce flare, i.e. stray light beams.

**Socket:** A power or signal connection point where a plug can be inserted to make a connection from the source of power. Sockets can be used as signal outputs or inputs, and are usually used as power outputs, due to the shielded connections, making it impossible to touch the live connections with fingers.

Sockets are often wall or panel mounted, while plugs are used to connect portable equipment.

There are exceptions of course - Powercon connections which are panel mounted can be either power inputs OR outputs and are differently colour coded to make it clear which is which, and the connectors are designed so they cannot be used incorrectly.

**Stage Left / Right:** Left/ Right as seen from the Actor's point of view on stage when they are facing the auditorium. (i.e. Stage Left is the right side of the stage when looking from the auditorium.)

**Stand-By / Standby:** 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".

**Subtractive and additive colour mixing:** Colour mixing is combining the effects of two or more lighting gels and can be either subtractive or additive:

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 standard gels, although with the wide range of available colours the need for subtractive mixing is reducing. Combining colours in this way reduces the light towards blackness. The three primary colours of light - Red, Green and Blue - mix subtractively to form black or to block all the light.

Additive: This process is about focusing two differently coloured beams of light onto the same area. Combining colours in this way adds the colours together, eventually arriving at white.

**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 (e.g. 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.

Top and Tails Rehearsal is where the performers and tech staff run through the performance saving time by only treating with the dialogue or actions that relate to the activation of technical cues. Where there are no cues in the script, the dialogue is jumped/ignored and a focus is on each cue to ensure it is right.

**Upstage:** The part of the stage furthest from the audience. It's called Upstage because on a raked stage the stage slopes down towards the audience to improve sightlines. The furthest from the audience is literally higher due to the slope of the stage, so moving from close to the audience involves walking up the raked stage, towards 'Upstage'.

**Visual Cue:** A cue taken by a technician from the action on stage rather than being cued by the stage manager. Often abbreviated to "Viz" or "Vis".

**Voltage:** The pressure at which electric current is available. The Australian standard voltage is 240 Volts alternating current (AC).

**Workplace Health and Safety (WHS):** The relevant health and safety considerations for persons working in live production areas. These considerations are often set in standards that are mandatory and legally enforceable.