GEMINI MEMORY LIGHTING CONTROL



GEMINI

pening up new and challenging artistic opportunities, Gemini speaks the language of the creative lighting designer. It offers versatility without constraint . . . responds instantly to the most subtle commands. It provides the perfect link between a lighting concept and its practical realisation.

Gemini's compact, logical control panel gives sophisticated access to 180 channels, proportionally patched to 384 dimmers and is fully equipped with channel and memory keypads, two playbacks, eight submasters, a memory back-up system and informative LED and VDU colour displays. The unique special effects programming facility offers unlimited rein to the imagination. And there's much, much more – Gemini, the simple-to-use system that speaks your language.

AT level

To set a channel to a selected level on a keypad. Any combination of individual channels, groups, or channels and memories may be controlled by Gemini either by the fader wheel or set AT a level selected by the keypad.

AUDIO

A special effect which modulates three groups of lights in response to an audio input. In addition to the conventional sound to light effect, Gemini allows any programmed chase to progress through its steps in sympathy with an audio stimulus.

BLACKOUT

Switches the output to zero. A 'blackout' message appears on Gemini's VDU when the switch is used.

BLIND RECORDING

The ability to set up, modify and record a lighting state without affecting the current output. This is provided by any one of Gemini's eight submasters.

BUILDING BLOCK lighting

The style of lighting design which incorporates the use of pre-recorded, balanced groups of lights to produce a variety of cues. Gemini's sophisticated channel control and independent submasters are a powerful tool for this design method.

CHANNEL

An individual control path which is used to set or modify dimmer levels. Gemini offers 180 channels which are capable of controlling up to 384 dimmers via a proportional soft patch.

CHANNEL CONTROL

Part of a lighting system which is dedicated to the set up and modification of channel leveis. Gemini's sophisticated channel control offers comprehensive facilities to modify individual channels, or groups of channels, and the powerful latest-action-takes-precedence feature ensures that the operator can instantly capture any channel under control of a playback fade without referring to the active playback.

CHANNEL HISTORY

Visual indication of the channels which have been collected together for control. Gemini highlights the recently-used channel numbers on the VDU display, and in addition, a list of the channels currently selected by the channel control is also displayed.

CHANNEL USED DISPLAY

A VDU display of the channels in use in a show. Gemini can allocate space on the VDU for every channel as soon as it is used, thus providing a continuous display of the active channels.

CHASE

An effect which repeatedly steps through a series of lighting states. Gemini can chase through its recorded cue states or use the programmable effects system to chase channels and memories without limitation.

CLEAR MEMORY

To reset the memory to a blank state at the start of a lighting session. By using the memory number keypad, Gemini will clear the entire memory or a selected group of memories.

COLOUR VDU

The use of colour to clarify the information presented by the VDU. Gemini's monitor makes full use of colour to highlight channel levels and system status details.



Colour VDU display

COMBINING MEMORIES

To take several lighting states and add them together or subtract them to produce new composite scenes. By using the + and - buttons, Gemini will combine and subtract any number of, memories prior to use.

CONTROL HIER ARCHY

Is the definition of how the control system copes with conflicting information on channel levels. Using a manual fader desk as an example, if a channel is set at two different levels on two live presets, the highest level takes precedence (HTP). If the channel is adjusted by the fader of one preset only, the latest action takes priority (LTP). Gemini uses the advantages of both systems.

COPYING MEMORIES

Memories are copied if they are to be repeated several times in a sequence of memories. This is easily achieved with Gemini by transferring a memory to a submaster, and rerecording the same lighting using new numbers in the sequence.

CUT

To replace the lighting state instantly with another memory. Gemini has a specific CUT to output facility, which also may be used to randomly flash selected memories.

CYCLE

A chase effect, but one in which each step may have a different fade in and fade out time. Gemini can perform this effect using a continuous loop of memories on a playback, or by reproducing a programmed cycle effect.

DATA RETENTION

The period during which a show remains in the memory after mains power is disconnected. The miniature batteries in Gemini's semi-conductor memory maintain the information for over a month without power.

DECIMAL MEMORY NUMBERS

The ability to record using numbers with decimal points means that additional memories may be easily added in the middle of a prerecorded sequence. Gemini offers any number from 0.1 to 999.9 – a choice of nearly ten thousand possibilities!



Demultiplex interface unit

DEFAULT TIME

A preselected fade time which is automatically recorded if no other specific instruction is given. Gemini's default time for any memory is 10 seconds.

DELETE EFFECT

To clear an effect, and reset all the recorded information to a blank state. With Gemini's programmable system, individual effects or a whole range of effects may be deleted.

DIM FADE

A special type of MOVE fade, whereby any channels which are on in the preset memory will fade to zero when the fade commences. Thus, with Gemini, any memory can be removed from a composite lighting state by simply adding a – prefix to the memory number.

DIMMERS

The devices which control the power to a lighting unit. Gemini can control up to 384 separate dimmers through its sophisticated proportional soft patch which couples any number of dimmers to each of the 180 channels.

DISPLAY

Visual information about the status of the control desk. Gemini follows the Strand philosophy of providing as much information as possible on the control panel such as active memory numbers, fade progress bargraphs, options selected etc.

To alter details in the memories without affecting



Designer's control



DEMULTIPLEX INTERFACE

An electronic circuit which decodes the multiplexed output of a control system for the dimmers. Strand offers a wide variety of demultiplex interface units for Gemini, including a range which is also capable of reversing the demultiplex process so that a manual fader desk may be multiplexed for Gemini to record.

DESIGNER'S CONTROL

A remote control system which provides all the primary functions of the main control for a lighting designer to use in rehearsal. Gemini's wire-link or infra-red Designer's Control offers channel control, recording and playback facilities in a rugged pocketcalculator size case.

EFFECTS

Automatic repeating lighting changes which enhance the lighting states. All effects can be divided into the categories of a chase, cycle, flash, random flicker, audio control or lightning flash, and Gemini offers unrestricted programming of every parameter of up to 99 of these effects.

FADE

The gradual replacement of one lighting state with another, on cue, in any chosen time. Gemini has the provision to record three fade types, separate fade times for the channels increasing and decreasing in intensity, automatic follow-on (wait) times, links to other memories, as well as being able to perform up to 24 simultaneous fades.

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FADE DURATION

The time taken for a fade to complete. Gemini can perform any fade in any chosen time from a dramatic instant change, to a subtle twenty minute.

FADE PROGRESS

A measure of the completion of a fade. Gemini provides an LED thermometer bargraph alongside the playback faders, and in addition, the VDU displays the fade progress numerically.

FADE TYPE

The rules governing the response of individual channels during a fade. With manual fader desks two types of fade are possible: a CROSSFADE from one preset to another for a complete change of lighting, and a MOVE fade where one preset is used and several faders are moved simultaneously but at different rates, to perform a subtle multipart cue. Gemini offers both crossfades and movefades as well as dimfades

FADER WHEEL

An endless controller wheel which alters the level of a channel by adding and subtracting increments of the channel level. If Gemini's wheel is used to control groups of channels at different levels, the wheel becomes a shaft master, adding the same increment to all channels to maintain their relative levels. When the wheel is used with memories, it changes to a proportional master to keep the lighting balance correct.

FLASH

An effect which repeatedly switches a light on and off. In addition to Gemini's effects capability, a separate flash facility is incorporated to identify a light on stage by flashing it from its current level to full or off.

FLICKER

A rapid pseudo-random flash effect often used for firelight and similar background effects. With eight separate random flicker generators, Gemini's 'firelight' effect also provides exciting lighting for music of all types.

FLIGHT CASES

Strong aluminium cases for protecting touring equipment during transport. Special flight cases have been designed for Gemini and are available to

FLOPPY DISC

A high density recording medium to copy the data held by the memory. Gemini's optional 31/2 inch hard-cased single sided, soft sectored micro floppy disc may be read or written at any time without degrading the system's performance.

GANG LOAD

To allocate a group of memories to the submasters in a single action. Gemini's eight submasters may be gang-loaded with eight memories either manually, at the press of a single button, or automatically by the effects unit.

GEOGRAPHIC CHANNEL NUMBERING

To number channels in relation to their physical location within a fixed theatre or TV studio installation. The software patch of Gemini enables its 180 channels to have any reference number in the range 1 to 999.

GROUP

A collection of channels. Gemini's channel control uses the +, – and 'thru' facilities to construct a group for simultaneous control. In addition, or alternatively, memories may be recalled as groups either with or without their recorded levels.

HANDBOOK

The document which describes the operation of the control system. Two copies of the comprehensive Operators' Handbook are provided with each Gemini.

HIGHEST LEVEL TAKES PRECEDENCE

An operational rule whereby the output from a channel which is being controlled by two or more sources is the highest of all the levels. Gemini uses this feature as the basis of the submasters to enable groups of memories (with common channels if necessary) to be easily combined.

INFRA RED

An invisible radiation beyond the red end of the spectrum. It is used as the wireless communication medium for Gemini's Designer's Control.

INHIBIT

A restriction on the maximum level to which a channel may be controlled by any part of the lighting system. Any of Gemini's submasters may be used as an inhibit master to fade out the front-ofhouse or audience lighting, and Gemini's effects panel is equipped with a momentary kill facility, which inhibits all channels in a selected submaster.

INSTALLATION

Locating the control desk in a suitable operating position. Being a self-contained control, Gemini may be used on any table top, recessed into a flat surface or fitted to its optional metal stand. As it only measures 235mm (height) x 945mm (width) x 560mm (depth) and weighs less than 40Kg, Gemini is also ideal as a touring control system.

INSTANT

The means whereby any fade may be performed as a switch change to the new lighting state. Both of Gemini's playbacks are equipped to perform instant fades, or to instantly complete a current fade.

INTERROGATE

The process of checking on the status of the control system. The comprehensive controls with Gemini enable the user to momentarily display information on the VDU about any memory, the next memory in sequence on either playback, the contents of any submaster, the cue list, patch, programmed effect

KEYPAD

The collection of buttons used to enter numerical channel and memory information. To save any confusion between channels and memories (and also to expand the facilities which can be performed simultaneously) Gemini is equipped with two keypads - one for channels, the other to address memories. If the effects unit is included, there are three keypads.

KEYSWITCH

A security switch which can only be used with a key. A keyswitch is used on the Gemini to restrict access to the memory for recording and clearing operations. When the switch is disabled, Gemini is in 'show' mode and although memories can be recalled, and the patch and effects may be interrogated, no record actions are possible.

LATCH

A push button which is capable of an alternate action ON/OFF function. Gemini includes a 'latch' facility with the optional effects system to switch any submaster on and off for the control of practicals.

LATEST ACTION TAKES PRIORITY

An operational rule whereby the output for any channel may only be controlled by one section of the system at any time. Gemini uses this powerful feature for the channel control and playback sections to ensure that any channel can be quickly captured and modified even if it is taking part in a complex multipart fade.

LEVEL DISPLAY

An indication of the intensity of any channel. Gemini provides this as a percentage on the control panel and in two locations on the VDU to ensure that the information is readily available.

LIBRARY STORAGE

A copy of the lighting levels and cues which may be used for reference, or reproduction. A single micro floppy disc is all that is needed to transfer the lighting for a show to the next venue using a Gemini.



Floppy disc storage

LICHTNING

A rapid flashing effect to represent a flash of lightning usually produced by rapidly pressing a flash button or moving a fader. Although Gemini's various manual flash controls can reproduce the conventional effect, the programmable Lightning effect produces, on cue, a realistic, random burst of lightning.

LINK

An instruction to the control to jump to another number out of numerical sequence. Gemini's easy to use Link facility will produce a loop of memories for a playback chase, and can insert a new section of lighting changes between two previously recorded memories.

LIVE RECORDING

The action of recording the total output of the console. In addition to recording the complete output, Gemini can capture the contribution of individual submasters in separate memories if

LOAD OUTPUT

To transfer the output of the console to a backup system Gemini's memory backup can be loaded with the dimmer numbers in use at any time, to ensure that the backup is always ready to take over immediately.

MAINS SUPPLY

The main electrical supply to the desk. The supply to Gemini may be 220-240V AC or optionally 100-120V AC at 50-60Hz. The backup may be separately powered, and auxiliary socket outlets are provided to supply the VDU and other low-power peripheral units.

MANUAL FADES

To control the progress of a lighting change by the movement of faders. Manual fading is provided on both of the Gemini playbacks, which, when used in sequence, enable a series of manual fades to be progressed by repeated movement of the faders only.

MANUAL FADER DESK

A control system which sets the level of each light by a manual fader arranged in presets. The design of Gemini's multiplexing system enables the output from most manual desks to be displayed on the VDU, recorded, and reproduced by the memory system.

MEMORY

The part of a modern lighting control which records the lighting information. Gemini is equipped with 32K of CMOS memory which stores over 200 average lighting states.

MEMORY BACKUP

An auxiliary control system which is equipped with a memory to continue performance in the event of a main system failure. Every Gemini is supplied with a built-in 80 group matrix memory backup.



Memory backup

MEMORY FULL

The point at which the recorded lighting data equals the capacity of the memory. Gemini displays a warning when less than 10% of memory remains, in addition to a 'memory full' display.

MEMORY LIST

A list of the memories recorded by the control system. Gemini's memory list may be interrogated at any time and includes details of fade types and times, links and a cross reference to the effects memory list showing which effect is started by a memory number.

MOVEFADE

A lighting change in which the only channels to move are those having a different level recorded in the new memory; all other channels hold their previous levels. Gemini defines movefades by a + prefix and uses the facility to perform multiple, multipart or processional fades.

MULITIPART FADE

A lighting change which incorporates several individual fades, and all started by a single action. By using 'wait' times, Gemini can perform an infinite sequence of parts with up to 24 separate fades in progress simultaneously.

MULTIPLE EFFECTS

Performing several automatic effects simultaneously. Gemini can run up to ten programmed effects at the same time, at the touch of a single button.

MULTIPLE FADES

Fades in which groups of lights change levels at different speeds. Using the movefade facility, Gemini is capable of performing up to 24 simultaneous fades.

MULTIPLEX

A means of transmitting data from the control desk to dimmers by using a single cable and allocating its use to each dimmer in turn for a very short time. Gemini's two-wire multiplex standard uses a single conductor to transmit to 384 dimmers and another conductor to receive up to 180 fader inputs.

OFF

To reduce a single channel or lighting state to zero brightness. There are more than eight different methods with Gemini for switching lights off to meet every situation.

ON

To switch a channel or group of channels on to a level. Again, Gemini provides a variety of methods which include switching on to full, or to a reference level (which can optionally be updated when the channel is recorded) or to any level selected by the keypad.

ON AT ZERO

Channels recorded in a memory with a level of zero. Gemini uses this feature to fade channels out in multipart movefades.

OUTPUT DISPLAY

A VDU display which shows the total output of the system. Gemini's colour VDU can be set to display all channels in the system, or only those in use for the performance.

OUTPUT MASTER

A fader which sets the maximum level that any channel may reach. Sometimes known as the Grandmaster, Gemini's master fader also has control of the submasters and effects.

PAGE

The information displayed by a single VDU screen. In the case of memory list, where there may be several pages, Gemini assists by displaying a page of memories starting with the number selected by the keypad, thus eliminating the need to step through each page to reach the end of the list.

PATCH DISPLAY

A VDU display which shows the relationship of dimmers to the channels which control them. Gemini's advanced patch display includes a cross-reference facility which highlights all dimmers controlled by the same channel.

PAUSE

To temporarily halt a fade. Gemini's manual push pauses a running timed fade when pressed, and restarts the fade when deselected.

PLAYBACK

The part of a control system which recalls memories and controls the presentation of the lighting state. Gemini has two playbacks which may control single or multiple fades in separate sequences either manually or with automatic fade times.

POWERFAIL RESTORE

The method whereby the control system resets if the mains supply is interrupted. Gemini constantly checks and stores away its own output, so if power is interrupted, the last output state will instantly be restored.

PRELOAD SUBMASTERS

To transfer selected memories to the submasters prior to use. A powerful feature of Gemini's effects system enables the submasters to be preloaded in preparation for an effect. But, if no effect is programmed, the facility can be used to prepare the submasters, on cue, for a complex manual sequence.

PREVIEW

A VDU display showing the contents of a memory prior to its use in performance. Gemini offers preview facilities for any memory, submaster, playback or effect.

PRINTOUT

A means of producing a typed copy of the contents of the memory. When a print is selected from Gemini; there is a choice of printing the entire memory with the memory list, any selected memories, or any of the recorded effects.

PROCESSIONAL FADE

A sequence of individually timed, overlapping fades which proceeds after a single fade action. When move fades are recorded by Gemini, 'wait' times can be added to start each fade automatically to produce a processional fade.

PROGRAMMABLE EFFECTS

An automatic lighting effect where different channels may be programmed for control by each step of the effect. Gemini brings programmable effects up to date, offering six varieties of effect, which can be used to create 99 separate effects, chases with up to 255 steps, programmed times for each step, master control from the playback memories, control of channels and memories, up to ten simultaneous effects, and much, much more.



Programmable effects

PROPORTIONAL SOFT PATCH

A dimmer to channel software patch which permits dimmers to be set to a proportion of the channel level. Gemini's patch extends this idea by providing a 'boost' facility to enable any dimmer to rise above 100% of the current channel level.

RANDOM CUT

To switch memories to the output in random order. Using Gemini's dedicated memory keypad with the memory transfer button held down, numbers selected by the keypad are switched to the output at up to ten per second!

RECORD

To copy a lighting state into the memory. If a memory already exists, Gemini produces an audible warning. This may be ignored, and the previous memory overwritten, if the record button is pressed twice.

RECORD EFFECT SPEED

When the speed of an effect is recorded as part of the effect and does not have to be set manually when the effect starts. Manual time controls are provided with Gemini for chase and flash effects, and when these controls are adjusted, the settings can be recorded for reproduction during performance.

REMOTE CONTROL

Operation of the control system from an external source. In addition to its "Rigger's" and "Designer's" Controls, Gemini is equipped with miniature relays to activate the green playback fade action, and the effects 'go' (or stop) push button from a remote switch.

REPERTOIRE RECORDING

The process of making a record of the memory for future re-use in repertoire or as security in case the memory is accidentally altered. Gemini uses a $3\frac{1}{2}$ inch hard-cased floppy disc to copy either individual, or a range of, memories.

RETURN

Resets a channel to its previous level following a modification by the channel control. If, by mistake, levels of channels or memories are altered by Gemini's channel control, 'Return' will rectify the error.

REVERSE

To change direction of a fade. Reverse buttons are provided for both of Gemini's playbacks to fade the output back to the previous state.

RIGGER'S CONTROL

A remote control unit used for controlling individual channels when focusing lights. The rugged, wire-link Rigger's Control available for Gemini will switch any selected channel to 70% or fade it up and down.

Rigger's control



SAVE EFFECT

To copy an effect onto disc. With Gemini's advanced effects system it is possible to transfer any selected effects to or from disc at any time without affecting the performance of the system.

SEOUENCE

The order in which memories are recalled to the playbacks. Each of Gemini's two playbacks have separate sequence buttons, to take full advantage of the Link and wait features for the more complex sequence of cues.

SHAFT MASTER

A master control which adds the same incremental level to all channels under control. This enables the Gemini wheel to collect a group of channels at different levels and increase or decrease the intensity of the whole group without destroying their relative levels.

SIMULTANEOUS CONTROL

A process whereby all actions in the control system can take place simultaneously without restriction. Gemini's advanced software ensures that any combination of actions including the use of the disc, remote controls, printer and multipart fades can proceed without complications or limitations.

SOURCE EFFECT

A programmed effect which forms the basis of a new effect. Part of Gemini's effects editing software provides the facility to create a new effect by editing a previous one.

SPECIAL FACILITIES

Auxiliary faders, intercom controls, cue lights etc. A blank control panel and spare rear socket panel are available with Gemini for installing special controls.

SPECIFICATION

The document that describes the technical details of the equipment. A separate data sheet is available for Gemini which provides details of the operation, size, weight, options and peripherals of the system.

STEP TYPE

An impulse which takes an effect to the next step of its program. In a chase, for example, Gemini offers a choice of: a manual step; automatic – with each step set to a different time; variable – by a panel control; beat – taking the impulse from a sound source; sync – which copies the rate of a manual step to synchronise exactly to the beat of music.

SUBMASTER

A fader that controls the levels of a collection of channels but which is itself controlled by a master fader. Gemini has eight submasters which may be selected to combine with the output from other submasters or inhibit control from elsewhere in the system.

SUBMASTER DISPLAY

Information about the contents of a Submaster. Comprehensive details are immediately available on the control panel of Gemini, and on the submaster section of the VDU, In addition, any submaster may be individually interrogated.

THRU

Used to define a range of channels or memories. Gemini uses Thru to define groups of channels, and to select a range of memories for transferring to the submasters, to disc or to the printer.

TIME

The duration of a fade. Up and down fade times are recorded by Gemini to produce a profiled fade by controlling the channels which are increasing at a different speed to those which are decreasing during the lighting change.

USE TIME

To take the fade time recorded with the memory. If 'Use Time' is selected on either of Gemini's playbacks, each fade will be performed at its recorded speed, and any wait times will be used. If 'Use Time' is deselected, the playback faders define the time of any fade.

VAMP

To recall the lighting states out of sequence, and often without rehearsal. Comprehensive submastering, easy to use manual controls and effects make Gemini ideal for one-night concerts and tours.

VDU

Visual display unit to provide details of the operation of the system. Gemini uses a colour monitor as the main display and also provides a monochrome output for a remote designer's desk.

WAIT TIME

The time between any fade and the automatic start of the following memory. Any memory which is recorded by Gemini with a wait time of between zero seconds and 20 minutes will automatically start when the wait time has elapsed after the start of the previous fade, thus creating a multipart cue.

The company reserves the right to make any variation in design or construction to the equipment described.



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