

opposite directions for crossfading.



is for the **control** that a board gives over the intensity of each individual light source. In future this remote control from the board is likely to be increasingly extended to include the positioning, focussing and colouring of the lighting instruments.

Circuit and ways (qv) are words often used colloquially for the individual dimmer controlled paths between electricity supply and light, but **channel** is the formal designation.

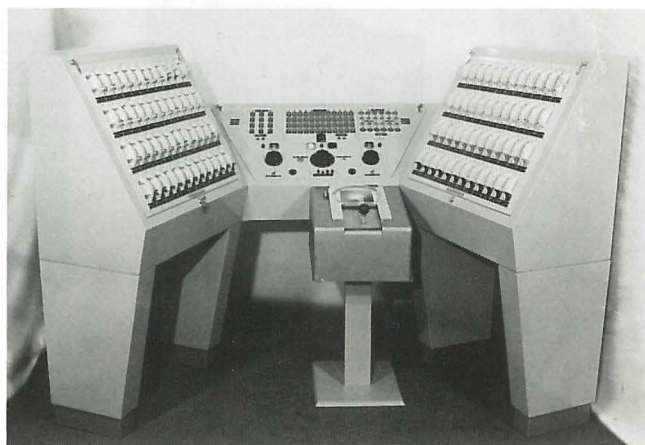
Channel Track is a facility, pioneered by Colortran, whereby a specified individual channel's level in every cue can be displayed simultaneously and adjusted.

This is the type of facility that can easily be programmed into a **computer** board. The earliest memory (qv) boards used hard-wired logic but the early availability of small computers quickly followed by micro-processors enabled the functions of the various operational keys in the desk to be determined by a software programme. The result is that a modern lighting control desk can be programmed to do anything. Whereas older boards could only perform the possible, new technology requires the user to determine the desirable. Like all decisions involving a blank sheet, this has not been, and still is not, easy.

Fred Bentham was the first to bring control of a large lighting installation under the fingers of a single operator. He adopted the **console** of a **Compton** organ, using the stopkeys (qv) to select the channels for movement and the keyboard to move the dimmers by motor on their remote dimmer bank. Speed was determined by the operator's foot on a pedal in the style of a car accelerator. Movement continued for as long as the operator's fingers pressed the keys, and so considerable dexterity was required to "drop off" individual dimmers at levels either than full or out. Selection of groups of channels to move was simplified by deploying the Compton organs piston (qv) memory. The Light Console was at its best for musicals involving bold fades, cuts and flashes rather than finely balanced levels. It had an operational flexibility, particularly for instant lighting, which was not repeated until the development much much later of Rockboards (qv).

The level difficulty was solved in the 1950s by fitting polarised relays (qv) to the clutches through which the single motor drove the individual dimmers. The keyboard of the organ console was replaced by presetting levers but the stopkeys for channel selection remained. These boards

Clemancon Jeu d'Orgue with two presets, cross-faders, and (separate unit on pedestal) chromo-selector which mixes primaries to produce colour selected by pointer).



were at first called **Console Preset** but became established as system **C D**. The most developed versions had two presets but they were only used to drive the dimmers since inertia (qv) took over between moves. Thus the preset could be immediately reset rather than, as in pure electronic systems, be required to hold the levels between moves. This coupled with the need only to preset levels on channels that were to move, together with the possibility of either manual or piston-memory selection of these channels, made the system very versatile and CD became the standard for over a decade for major British stages and studios.

Its main operational problems were lack of proportional fading (qv) and slowness in 'going back' during rehearsal.



C.D. preset console.

The prospect of an all-electric dimmer with no moving parts was always an attractive proposition and the earliest was the simple **choke**. All chokes however had a slow response and the simplest ones

required such heavy control currents as to make presetting difficult—or at least the crossfading between presets that was the unrealised dream of most operators as recently as thirty years ago.

Crossfading was demonstrated by J. T. Wood (qv) with his thyatron (qv) system at the beginning of the fifties, and his desk was adopted by **Clemancon**, the French equivalent of Strand. Clemancon was run by Georges Leblanc (qv) who, although quite different from Bentham, was cast in the same necessary mould of enthusiastic committed dictator.

A Leblanc speciality for Clemancon was a device to produce a specified **colour** by automatic mixing of primaries. Delicolor (qv) did this on grandmaster type manual boards, but normally colour control was limited to grouping colour circuits on colour coded banks on the manual systems, or under coloured submaster keys on the Light Console.

An "instant crossfade" is a contradiction and so it is called a **cut**.

Compact was a word that inevitably lent itself as a product name and was used for a compact packaging of the basic units of MMS (qv). In the early eighties, shrinking electronics encouraged manufacturers to make their desks so compact that operation became difficult except for those with the slenderest of fingers. Such systems were dubbed **cash registers** by Bentham.

For dim we often say **Check** and we used to call relays **contactors**, especially the big ones used for a switched black-out of the entire board's channels.

And **C** is also of course for **Cue**—which for a board operator is a change involving intensity alterations, and also the signal that initiates such a change.

to be continued