



Lightboard

RICHARD PILBROW

The problem: to choose a stage lighting control system for the new National Theatre.

Q-File, DDM, Auto Cue, DataLite, MMS and all, crowded through one's mind and all offered facilities to the lighting designer that would have only been dreamt of a few short years ago. Our brief as consultants to the National was to design or select equipment that would give the company the finest facilities available from an artistic and technical point of view, while taking every possible advantage of any labour saving techniques that might be practical to reduce the time and money spent on changeovers in repertoire.

The latest lighting control systems are clearly able to memorise lighting states and reproduce them accurately upon the stage—at least upon most occasions. The ability to thus memorise and recall pictures of lighting in an instant, seemed to me to almost entirely change the process by which the lighting designer worked. No longer was the business of lighting a matter of laboriously balancing a large number of individual circuits; now the designer could mix blocks, patterns and pictures of light with great ease; and with the frustrating manual or mechanical problems removed, the designer could spend more of his time thinking about the intentions and purpose of his design rather than the slavishly mundane problems of how to achieve it. However, the problems of repertoire remain. One can, with machinery, move scenery rapidly on or off the stage, but redirecting the dozens or hundreds of spotlights which presently form the basis

of any lighting is actually a more complex problem.

Moreover, one aspect of even the best of the new memory systems troubled me. The memory basically stores pictures of lighting and allows them to be played back very easily. Pictures can follow each other in rapid succession cross-fading one to another with wonderful accuracy. But in nature light is the most mobile substance. We speak of the speed of light. Light is seldom still and it changes with great fluidity or delicate subtlety. If, in the theatre, we are only going to plod from picture to picture, carved up into cue to cue to cue, this has little of the freedom and fluidity of light itself. Even worse, perhaps, for all our sophistication, we would find it difficult on a modern control to achieve the results that could be managed by two or three first class operators on a manual system. The miracles of subtle timing that can be performed with hands, knees, hips and feet on a piano board in New York City or by George Andrews on his Grand Master on a sunny day in Brighton, are sometimes hard to emulate on a modern memory system. So beyond the ability we have obtained of memorising lighting pictures, we needed to be able to break up these pictures into differing parts in order that they should travel at different speeds to allow greater flexibility of timing and movement of light.

Many, many years ago I stood up and gave a paper at the ABTT's international conference, and said that the ideal board might be one in which perhaps three hundred circuits could travel at three hundred different speeds to three hundred

different positions. Fred Bentham followed me and suggested that youth and impetuosity had slightly got the better of my reason! Well, he was right, as usual. It was an absurd thing to ask for, because I doubt any designer would be able to comprehend what he had under his control. Nevertheless, the ability to move lights at more differing speeds than is generally possible with the memory systems available to us, appeared to be most desirable. This is the first and perhaps principal difference between Lightboard and its predecessors.

Having gained the ability to break up a lighting picture into its component parts or "blocks" and move them at differing speeds, we wanted to be able to balance these blocks relative to each other. Also, to a large extent we are going to use these "blocks" to make up our lighting, rather than by the old method in which we always called up each individual circuit. The designer therefore needs equal access to either one circuit or a pre-recorded "block" of circuits. Having created a picture, he then wants to be able to transfer and hold this picture on a Sub-Master, so it can be balanced in turn relative to the other component parts of the lighting upon the stage.

The interface between the designer's or operator's brain and imagination and the lighting upon the stage has to be as perfect as possible. Ideally, the operator should be able to keep his eyes on the stage and "touch-type" his instructions to the control. This factor together with that of equal access to memory or solo circuit brought us to decide upon the numerical keyboard as