Modular
Memory
System

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From MMS Brochure, 1973

Introducing a new Lighting Control

For nearly 60 years Rank Strand Electric have been pioneers in the field of lighting control, initially for the theatre only but for television as well ever since the first two studios at Alexandra Palace in 1936. Even at that date a memory device for storing groups of control channels was available from Strand and this was an important operational feature of various control systems for the next 30 years.

With the ever-increasing complexity of stage and studio lighting came the desire for a means of recording precise dimmer intensity levels in order to avoid time-consuming, hand-written plotting and the subsequent resetting of fader levers during the performance.

The first generation of dimmer level memory controls, such as Memocard and System MSR, were based upon the principle of adding a memory device to a more or less conventional fader lever control; for acceptable control facilities this involved an expensive mixture of digital and analogue control circuitry and the necessity to match the manual fader to the output of the memory if a modification of intensity level was required.

The second generation of dimmer memory controls, such as System DDM and the new Modular Memory System, take full advantage of the latest computer technology to provide far superior operational facilities. For example, the System DDM, installed at Stratford-upon-Avon and others in Australia and North America, is based upon software for a standard mini-computer which allows any degree of sophisticated facility to be programmed in, and indeed re-programmed if future artistic styles demand different facilities from the lighting control

The Modular Memory System, MMS, now being introduced is also unique in at least three different ways. The first feature is its price; in its basic form it is available for under half the price of previous dimmer memory systems with comparable facilities. A dimmer memory control is now a practical proposition for all theatres and studios, no longer the dream that once it was for many users. The second unique feature is its modular construction; a series of compatible, self-contained modules providing both complementary and alternative control facilities all of which plug into a common data-link. Control facilities can always be extended, or different ones substituted, at a later date.

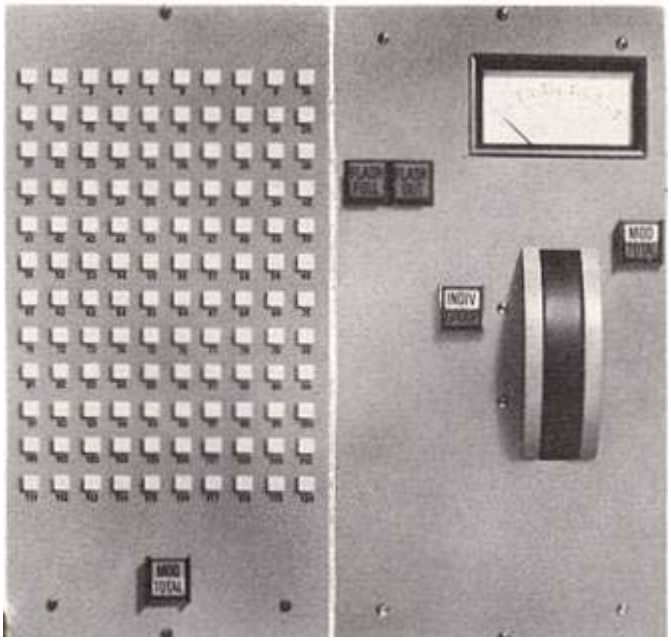
The final unique feature is the incorporation, in two alternative modules, of the digital fader wheel which has the "feel" of a fader lever in that it increases or decreases the intensity level of any control channel according to the amount, the rate, and the direction of movement. Yet it never has to be moved to match the existing intensity level

before taking over control.

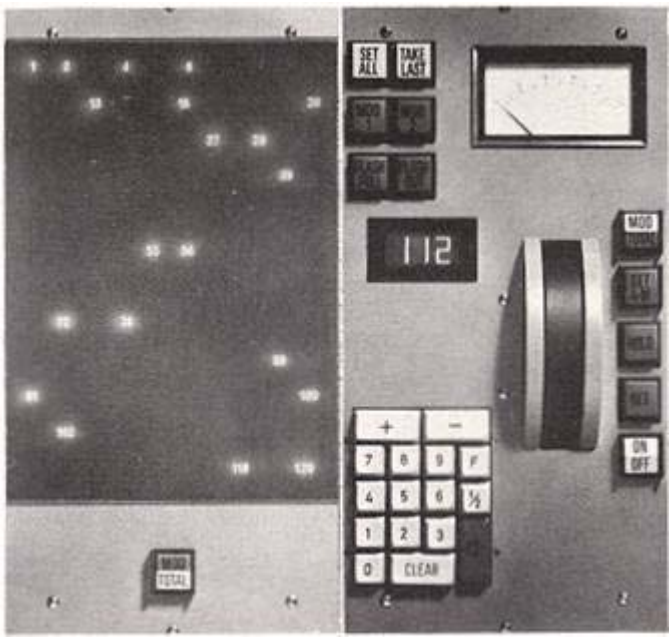
Choice of Modules

The control facilities provided by a Rank Strand Modular Memory System depend entirely on the choice of modules. The number of channels controlled can vary from 60 to 480. Many of the facility modules can be duplicated if required; for example two Playback Modules for fade within fade facilities, or two Core Store Modules for additional storage capacity, or two Channel Control Modules for dual operation. In addition, there are optional modules, and optional additional facilities available on some of the basic modules.
The principal areas of choice are summarised below.

Choice of Channel Control and Display



Channel Push & Channel Control Modules
Minimum of one of each type. Described below. These associated modules provide the means to set initially, and later modify, the intensity level of any one, or group, of control channels and also to indicate which channels are above zero intensity. There is a selector push button for each channel.



Display & Keyboard Channel Control Modules
Minimum of one of each type. Described below. These modules provide an alternative method to display which control channels are above zero intensity, and to set, and later modify, the intensity level of any individual channels. Channel selection is by a keystroke.

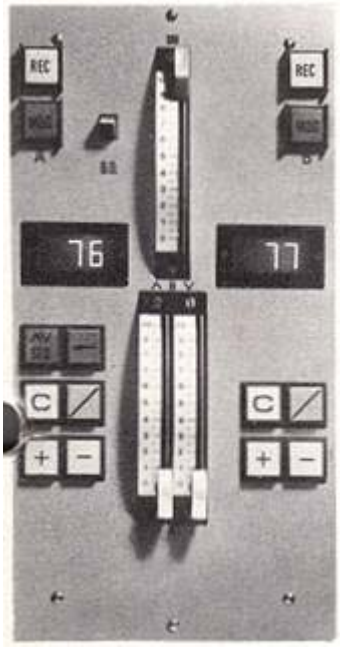
Memory Facilities required for all Desks

Core Address Module
One required. Described below. This is necessary to positively identify intensity level information in and out of the Core Store Module.

Core Store Module
Minimum of one required. Described below. This contains the fast access ferrite memory to store detailed intensity level information.

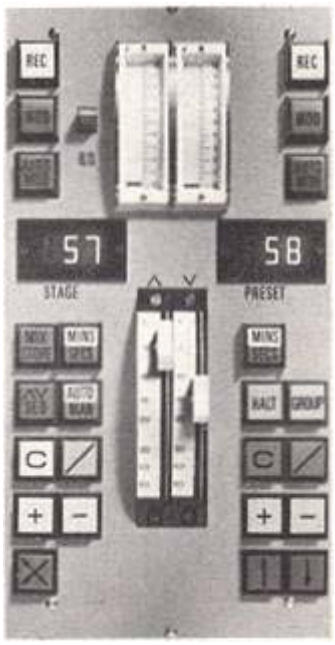
For more than 320 control channels another one is normally required.

Choice of Fade Change Facilities



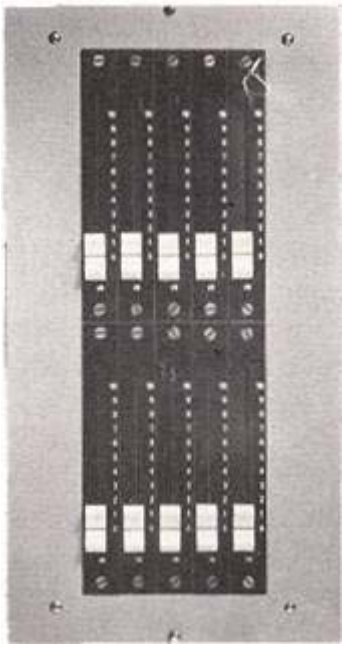
Manual Playback Module
Minimum of one required. Described below. This provides the means to execute a fade change between recorded lighting states by means of a manually-operated crossfader.

Rate Playback Module
Minimum of one required. Described below. This provides sophisticated cross-fade facilities between recorded lighting states



and also unique group-fade changes.

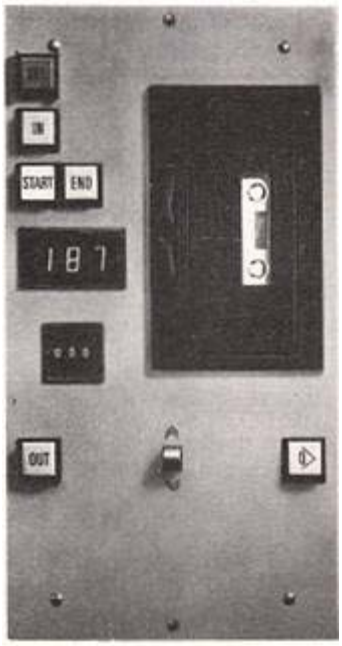
General Service Modules required for all Desks



General Services & Pin-Patch Modules
Minimum of one of each type. Described below.
These associated modules provide manually operated ancillary services, which always include independent back-up but also semi-permanent group and inhibitor masters. Selection of groups is by a pin-patch matrix for 120 control channels.

Optional Additional Facilities

Tape Cassette Module
Optional. Described below.

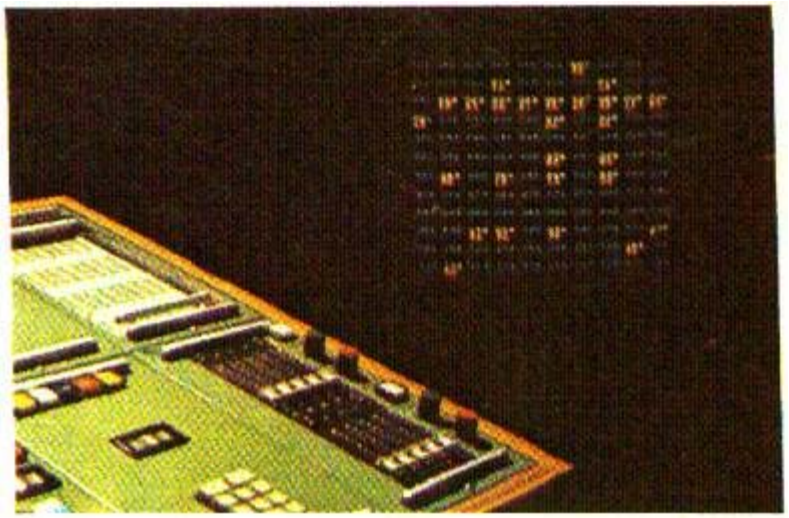


This allows the content of the entire Core Store module to be transferred to and from a magnetic tape cassette for repertoire storage.

Remote Control Module & Desk
Optional. Described below.
This module contains the necessary interface circuitry for a compact Remote Control Desk which provides the principal control facilities required for rigging and lighting design.

The Modular Memory System consists of a number of modules, each providing complementary or alternative operational facilities, which all plug into a common digital data link. For 80 up to 360 control channels, with only two module types repeating for each multiple of 120, or less, channels.

Virtually any operational facility required to suit the particular needs of each theatre or studio can be incorporated by selection from the many types of module that are now available; these include manual and/or sophisticated timed crossfades, cue-insert, group control, remote control, library storage, and print-out/type-in. All desks include fast, random-access high -density core storage and the Strand fader wheel for match-less intensity modification.



Active or preview mimic display can be either above-zero indication, or a colour and/or monochrome video display showing precise intensity