Issue 1 8/9/'71	SUMMARY SPECIFICATION DDM/D2 LIGHTING CONTROL SYSTEM D.D.M.

1. INTRODUCTION

System DDM is a dimmer level memory system for up to 360-channels. There are a number of options giving memory capacities to suit user's requirements. A magnetic tape cassette system for additional cue storage is also available as an option.

The number of channels and memory capacity are specified separately.

The system is basically digital and uses a computer with a software program to determine the operational functions. This gives the system unparalleled flexibility and has enabled a design to be produced without the normal limitations imposed by the use of conventional techniques.

2. EQUIPMENT

2.1. Control Room

A Master Desk and rocker wing or, depending on system size, a single desk containing all controls will be provided.
For large systems a second desk will be provided for the auxiliary controls and optional tape system.

2.2. Equipment Rack

The equipment cabinet should be accommodated in a reasonably clean and dust free area within nominally 200-metres of the control desk.
Size approx. 1830mm X 700mm X 600mm.

3. ENVIRONMENT AND POWER REQUIREMENTS

3.1. Temperature: +10°C to +30°C for optimum equipment life.

3.2. Typical dissipation for a 240-way system: 3,200 Watts.

3.3. Power Supply required for 240-way system.
220/240V 50c/s: 18A approx.
The equipment is also available for 100/120V 60c/s supplies.

4. TYPICAL CONTROL FACILITIES

4.1. Channel Control

a) Rocker with top, bottom and centre contacts in association with speed and level control levers for setting channel levels.

b) Meter indication of channel level whenever top, bottom or centre push of rocker is touched.

c) Momentary flash to full or flash to zero of channel output by touching rocker top or bottom respectively in conjunction with master flash push.

d) Red and Green mimic lamps in each rocker show which channels on Red and Green playbacks are in use on stage. Switches enable this display to show preview of next cue and content of a cut cue.

e) Amber centre push mimics show modified channels and AUTO MOD channels.

f) Rocker control normally affects the active playback but the operation can be limited to a specific playback.

4.2. Record and Cue Select

a) Cue selection is by push-button switches. Zeros are automatically inserted if only a unit, or ten and unit, is selected.
Cue numbers above the maximum capacity of the equipment will not select.

b) Record function subject to keyswitch.

c) Record is interlocked to prevent recording on a used cue number. An audible warning is provided to indicate when this occurs and a second attempt over-rides the interlock.

d) Individual record pushes are provided for each playback as well as an overall record control.

e) The record cue number is shown on a numerical display together with an indication when a recording has been made.

4.3. Playbacks

a) Two similar but independent playbacks are provided, the outputs of which pile together on a "highest takes precedence" basis.

b) Separate control of raise and dim speeds is possible for cues on each playback. Normal speed ranges are 1 second to 60 seconds and 10 seconds to 10 minutes.

c) Normal cue functions available are:
   i) CROSSFADE (memory levels substituted).
   ii) MOVE to new levels except zero.
   iii) DIM (subtract from existing state and fade to zero).
   iv) ALL DIM.
   v) REVERSE last cue action.
   vi) INSTANTANEOUS.
   When pressed in conjunction with (i) to (v) above completes the action instantaneously; i.e., cuts to new cue state.

d) Any change can be interrupted, stopped or started at will and the cue function changed during a cue.

e) The progress of cues on each playback is shown by 'travel' meters.

f) A CANCEL push clears the playback.

g) A new cue number may be selected either in or out of sequence by a NEXT push and this cue may be previewed and if necessary modified prior to being used.

h) Cues may be added together before starting, or during the progress of a cue.

i) In addition to fade cues, CUT IN and CUT OUT cues can be carried out on Green playback without affecting any fade in progress. Common channels retain their independent levels and add together on a highest takes precedence basis.

j) Transfer and copy facilities can be provided to enable cues to be combined or split at any time - including during a fade.

k) Playback cue numbers are shown on a numerical display for each playback together with an indication if the cue has been used.

4.4. Blind Setting and Record

Either playback may be used for setting, modifying and recording cues without bringing up lights on stage. The other playback may be used normally while this is occurring.

4.5. Modification

A channel can be modified at any time by means of the appropriate channel rocker control.
A modified channel is indicated by the amber rocker mimic.
The channel can be returned to the original level at any time without recalling the original cue.
AUTO MOD facility enables a channel level to be modified temporarily whenever that channel appears in a playback cue.

5. AUXILIARY CONTROLS

The auxiliary controls consist of 10 master faders together with a miniature pin matrix patch which enables any channel to be controlled by one or more of the master faders. This control is independent of the main system.

6. MAGNETIC TAPE CASSETTE SYSTEM

This optional facility is detailed in specification DDM/T1.

7. HANDBOOKS

Operators handbook, User's Guide and simple fault-finding guide are supplied.