

SP 2/O

OPERATORS HANDBOOK  
FOR  
SP 2-PRESET  
DESKS



**RANK STRAND ELECTRIC**

PO Box 70 Great West Road Brentford Middlesex TW8 9HR  
Telephone 01-568 9222 Telex 24408 Cables Rankaudio Bréntford

A DIVISION OF RANK AUDIO VISUAL LIMITED







OPERATORS  
HANDBOOK

SP 2/O

Page 1 of 6

SP 2-PRESET CONTROL DESKS  
WITH LEVER-SWITCH GROUPING

## CONTENTS

|                                                                     | Page |
|---------------------------------------------------------------------|------|
| <b>1. <u>Operation</u></b>                                          |      |
| 1.1 Basic Routine                                                   | 2    |
| 1.2 To Fade-in and Fade-out channels individually                   | 2    |
| 1.3 To Cross-Fade from one Preset to another                        | 3    |
| 1.4 To Add one Group of lighting to another                         | 3    |
| 1.5 To Subtract one Group of lighting from the remainder            | 3    |
| 1.6 To Cross-Fade from one Group to another                         | 3    |
| 1.7 To Add one Preset to another                                    | 4    |
| 1.8 To Fade all channels to Zero                                    | 4    |
| 1.9 To Switch off All channels (Dead Blackout)                      | 4    |
| 1.10 To Switch Off Channels Individually                            | 4    |
| 1.11 To Switch On Channels Individually                             | 4    |
| 1.12 To Switch Channels from one set of Intensity Levels to another | 4    |
| 1.13 Flash boxes and Pyrotechnic devices                            | 5    |
| <b>2. <u>Plotting</u></b>                                           |      |
| 2.1 General                                                         | 5    |
| 2.2 State and Running Plots                                         | 5    |
| 2.3 Plotsheets                                                      | 5    |
| 2.4 Abbreviations                                                   | 6    |
| 2.5 Other Information                                               | 6    |
| 2.6 Pre-Plotting                                                    | 6    |

## 1. OPERATION

### 1.1 Basic Routine

To set up the control desk for normal operation, first ensure that all dimmer levers for all control channels on both the red and the green preset are down to zero and that all three-position switches are in the top (A) position. The two red preset master faders (red scale) and the two green preset master faders (green scale) should be down to zero. Next check that all the dimmer racks are switched on; each rack has a neon indicator lamp to provide a quick visual indication that the supply is connected. Finally, insert the key in the control desk and turn it to the right; the adjacent indicator lamp will now light to show that the internal power unit is activated.

The control desk is now set to the state which can be assumed as the normal starting point for the lighting plot.

The first requirement of any new installation, or new production, is to light up the various control channels one by one to check the channel identification number, the setting, the focus and the colour filter of each lighting unit.

### 1.2 To Fade-in and Fade-out channels individually

The normal state, described above, has placed all dimmer levers under the control of the A master faders for each preset. Raise the A master fader for the Red Preset to full. Now when any dimmer lever on the red preset (those with red operating knobs) is moved above zero, the corresponding lighting load will change to the intensity level set on that individual lever. If the lever is moved rapidly the load will, in effect, be switched to that intensity; if it is moved slowly then it will be faded-in or out. For the present checking purposes the channel dimmer lever should be faded-in to full, because full intensity is necessary for checking the colour filter. When one channel has been checked, that lever is faded to zero and the next one faded-in to full.

When all the lighting units have been checked, the next requirement will usually be to build-up, channel by channel, the total lighting for each stage picture. This is done by setting the red preset dimmer levers, as described above, until the total lighting and balance of intensity for that stage picture has been determined. When the intensity levels of all channels above zero have been plotted against the channel identification numbers, establish the timing of the fade-in of this lighting collectively by using Red Preset A master fader. Also determine the time available before the next lighting change as this has a considerable influence on how the lighting change will be executed. At rehearsal the operator of some other person's lighting design is at a considerable disadvantage because then the operator rarely knows, in advance, the nature of the next lighting change. Is it a cross-fade to completely different lighting; or is it a general build, or general cut, of the intensity levels of the existing lighting? The general nature of the change and the time gap between the changes will determine the best method of operation.

### 1.3 To Cross-fade from one Preset to another

While one set of dimmer levers determines the intensity levels of the lighting in use, another set is available for presetting the levels required at the completion of the next change. The levels can be determined, at rehearsal, either by altering the red preset dimmer levers (in which case it will not be possible to rehearse the timing of the cross-fade) or, preferably, by setting the green preset levers with only the master fader for the Green Preset at full. In the latter case the cross-fade can be rehearsed by fading out Green Preset A master fader and fading in the Red Preset A master fader to full to restore the original lighting; then cross-fading the two master faders once again to effect the change from the red preset to the green preset. When cross-fading, always watch the visual result. The visual requirement, to coincide with the flow of the production, more often than not requires that the incoming lighting should either lead or lag the outgoing lighting; a point which should be noted in the plot.

### 1.4 To Add one Group of lighting to another

The group to be added can be formed into a separate group under the control of the B master fader for each preset. This is done by changing their three-position switches to the bottom (B) position. Set the dimmer levers on the same preset as the existing lighting and on cue fade-in the B master fader for the same preset to full.

### 1.5 To Subtract one Group of lighting from the remainder

This is the reverse of that described above, but before using the three-position switch to transfer control from the A to the B master faders making sure that each pair are at the same setting; otherwise unwanted switch changes will result.

### 1.6 To Cross-Fade from one group to another

Group the incoming channels to the B master fader by means of the three-position switches. It is not an unusual requirement that some channels need to remain common to both groups. On this control this is quite simply done without squandering another preset for the purpose: if the three-position switches are put to the centre (A + B) position, the corresponding dimmer levers will be fed from both the A and the B master faders simultaneously, the highest setting always predominating. On cue the B master fader is brought to full and then the A master taken to zero.

### 1.7 To Add one Preset to another

This is achieved by fading in the appropriate Preset master fader without fading out the previous lighting. Where a channel is common to both presets in use the highest intensity level will prevail. Normally this type of operation should be avoided as it limits the resources of the control desk.

However, on some occasions adding one Preset to another can considerably simplify the operation of a series of lighting changes; for example if the background lighting must remain constant throughout a series of quick changes in the foreground lighting, then the constant lighting can be held on one preset and the foreground changes operated on another preset.

### 1.8 To Fade all channels to zero

On cue fade all master faders which are above zero to zero.

### 1.9 To Switch Off all channels (Dead Blackout)

On cue turn the key switch anti-clockwise. The lighting will be restored when the key is turned to the right again unless all master faders have subsequently been faded to zero, or otherwise altered, either of which actions should be noted in the lighting plot.

### 1.10 To Switch Off channels individually

Move the 'active' dimmer lever smartly to zero on cue.

### 1.11 To Switch On channels individually

On cue move the dimmer lever of the 'active' preset smartly to the intensity level required.

### 1.12 To Switch Channels from one set of intensity levels to another

This is simply a quick operated cross-fade from one preset to another. Any channels which have to remain unchanged need to be carefully matched for intensity levels on the two presets involved.



### 1.13 Flash Boxes and Pyrotechnic Devices

NEVER attempt to fire any flash box, or similar pyrotechnic device, from a circuit which includes a dimmer of any kind. Neither should they be fired from any remotely controlled circuit but should be under the control of someone as near to the device as is practical and with a direct view of it.

## 2. PLOTTING

### 2.1 General

The lighting plot must be a record of all the information necessary to the operator to reproduce the lighting design finalised at rehearsal. An illegible or incomplete lighting plot is a waste of valuable rehearsal time - a fact which impatient directors are apt to forget at the lighting rehearsal.

### 2.2 State and Running Plots

There are many methods of plotting, many of them highly individual. Basically, there are two types: a 'state' plot, in which the intensity levels of all channels at the completion of each lighting change are recorded; or a 'running' plot, in which only the intensity levels that have altered since the last change are recorded. The 'state' plot has the advantage that it is practicable to reproduce the lighting for any particular moment out of sequence as is often required by directors during rehearsals. The latter is very difficult, and therefore time-consuming, with a 'running' plot. The experienced operator, familiar with both the equipment and with the working methods of the other members of the production team, can often write a 'running' plot without first writing a 'state' plot. We recommend a 'state' plot initially; a technique suited to your particular circumstances will soon suggest itself. By using coloured pencils the 'state' plot can later be converted into a 'running' plot if necessary. Incidentally the prudent operator will only use a pencil at the lighting rehearsal, and arm himself with a rubber, as changes of mind are not unknown.

### 2.3 Plotsheets

To write down the intensity level of all channels is time-consuming if the channel numbers have to be written down as well. This can be avoided if the

channel numbers are pre-printed or a sheet of graph paper is numbered in advance. Either method has the advantage that the intensity levels for each particular channel are in line and therefore a change is apparent.

## 2.4 Abbreviations

Certain abbreviations and symbols can be used to reduce still further the amount to be written. The following are recommended:

- i Only write intensity levels above zero, except when a channel previously in use changes to zero; assume therefore that no entry equals zero.
- ii Write F for 10; it avoids confusion with 0 or 1 and is quicker to write.
- iii Write + for  $\frac{1}{2}$ ; it avoids confusion with 1 or 2 and is quicker to write.
- iv When a series of consecutive channel numbers are at the same intensity level link them with a line and write the level only once.
- v For a Dead Blackout link all channels with a line and write D.B.O. once; similarly with all fade.

## 2.5 Other Information

Plot also the cue number; plot the action, for example, cross-fade and whether to lead or lag the new lighting; plot the duration of the change and, between the cue numbers, plot the time available between cues.

## 2.6 Pre-Plotting

When the rehearsal time for lighting will be very limited, it is well worth considering the advantages of preparing a lighting plot at the planning stage before the lighting units are rigged and directed. The logic which determines the direction, setting and choice of colour filter for each and every lighting unit also determines the way in which the units will be used in combination with one another to provide each stage picture. Precise intensity levels cannot be predicted but tentative levels can be written in. The limited rehearsal time can then be used to establish precise levels and establish timing rather than be squandered on time-consuming trial and error methods. Pre-plot or not, planning is of prime importance; there are far too many variables in both stage and studio lighting for it all to be left to the inspiration of the moment.



