Furse Stage Equipment

A Crown House Company

W.J. Furse & Co Ltd
Traffic Street, Nottingham NG2 1N

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Technical Data

FURSE DELTA CONTROL SYSTEMS

Furse Delta control consists of a series of sliders arranged in two rows on a portable desk unit with masters at one end.

Combinations of controls and dimmer racks are available from 12 channels to 48 channels using standard desks.

It is possible to link desks together to operate a greater number of circuits using one single master position on one desk, the second desk acting as a slave unit.

Ability to use the control desk is linked to a knowledge of the positions and functions of the various switches and sliders. Once these have been memorised the preparation of a light plot and the use of the switchboard will be extremely simple.

Slider controls need little pressure to move the knobs up and down the scales, the indentation in the knob allows this movement to be carried out by a single finger. A light touch on the controls will ensure a long life to the sliders and switches.

There are two sliders for each dimmer channel mounted one above the other with the channel number in the centre and referred to as "top row" and "bottom row".

At the end of the desk below the Furse logo are situated the master controls.

Manual masters consist of two sliders mounted side by side, one per row, labelled "top" and "bottom" respectively. These sliders determine the strength of the control signal to the individual row sliders.

If the knob of the slider is set at position "0" on the scale, no signal can pass to the row slider knob and therefore no control is possible. If however, the master slider kob is set at position "10" on the scale, full signal strength is passed to the individual controls and lights can be dimmed by movement of the slider knob between "10" full brightness and "0" blackout.

Set top row master knob at "10" and set bottom row master knob at "0". Control over the dimmers and lighting will be via movement of the top row kobs only. Please check this on your control desk with lighting loads connected through dimmers. Reverse procedure by setting the top row master slider knob at "0" and the bottom row slider knob at "10" and control of the dimmers/lights will now be routed through the bottom row sliders only. Check on your own desk. Thus a situation has been created where when the top row master knob is at "10" the top row of individual sliders are in control of the lighting circuits. Along the bottom row individual sliders can be moved without affecting the lights set on the performance area, providing the bottom row master knob is set at "0".

In order to verify this statement set up a simple lighting arrangement on the control desk using the top row of individual controls and the top master, and then with the lighting working, set up an alternative contrasting range of

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settings on the bottom row. In this situation when the top master control is moved down to "0" and the bottom master control moved up to "10", the lighting levels will change to the new settings on the bottom row. When this operation is done with simultaneous movement of the two master slider knobs, then a CROSS FADE has taken place.

Please note that when the master sliders are operating the small arrowheads above each master slider light up to signify that the control system is working. These identify by different colours, red top row master and green bottom row master, when both master knobs are at "0", the indicator lights will not be illuminated, when at "10" both will be illuminated.

As an alternative to the cross fade sequence described above it is also possible to change lighting effects by adding to the lighting levels set on one row, top, by the light level set on the other, bottom. This is useful when an increase in general lighting intensity is required and avoids the problems of a cross fade.

To carry out the above operation bring the master knob not in operation, i.e. bottom row, to full scale "10" so that both masters are in use with indicator lights lit. Note when both masters are in operation and set at "10", then the individual dimmer control sliders will always respond to the knob set at the highest level regardless of the row position. I.e. channel 6 top row setting level 5, bottom row setting level 8; top row master only in operation channel will respond to setting 5, bottom row master in operation channel setting will respond to level 8; with both masters at "10" channel setting will be highest, level 8.

In the same manner it is possible to reverse the procedure by subtracting one row from the other when both masters are in use. By using a combination of add, subtract and cross fade it is possible to preset light changes from scene to scene and instroduce new lighting to suit the needs of the performance.

Each master dimmer knob has mounted above its position on the desk a blackout switch, also labelled top and bottom. When operated these switches will switch on or off the lights connected to the appropriate row of dimmer knobs, therefore it is possible not only to dim circuits but to blackout as and when required to create special effects. An additional third switch labelled "master" is also fitted which when operated will blackout all the lighting connected to the board independent of any dimmer setting or switch setting. Each switch has a built in indicator light so that when on and circuits illuminated a signal is passing and the light is illuminated, when off the circuits blackout and the indicator light goes out. The above functions can be checked simply by connecting a lighting load to the desk and pushing the appropriate switches.

A third slider and switch will be found positioned at the extreme right hand end of the desk labelled "dipless". This controls a facility which when in operation allows the lights and dimmers controlled by the top row to cross

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fade with the bottom row, or vice versa, on movement of a single master knob. This facility is provided so that where light levels on either top or bottom row are the same there is no movement or dip when the lights change which can be noticed when looking at the performance area. This drawback is always apparent when the manual cross fade is in use due to the momentary change between one row and another.

Set light levels on top and bottom rows by use of the individual row knobs, transfer between rows has this effect, as follows:

Energise the dipless system by pressing the switch above the knob, upon which the indicator light will illuminate to signify that control is now through the dipless section of the desk. Move the knob in the down direction from scale "10" to "0", arrowhead indicator light green will illuminate informing the operator that the movement of light levels is from top row to bottom row. Once the knob is moved to "0" the transfer has been effected and the lighting is operating in conjunction with the individual settings of the bottom row.

Move the slider knob upwards from "0" to "10", the green arrowhead indicator light will go out and the red arrowhead indicator light will illuminate to signify that a change has been effected from bottom row to top row. When the knob is on scale "10" all light levels will now be controled through the top row of sliders. The use of the arrowhead indicator light is to ensure that the operator is aware of which row of sliders on the control desk is in use at any time as the physical position of the dipless master knob is no longer helpful in this direction.

In order to fully grasp this function set up various combinations of circuits and experiment. Please note that to transfer from the dipless operation to manual dimmers all that is necessary is to depress the dipless master switch, the indicator light will go off and the arrow-heads above the masters labelled "top" and "bottom" will illuminate according to their position and the system will then be operational through the manual masters. Transfer from one function to the other, dipless to manual, means a definite change in the control with a corresponding movement of lighting on the performance area, therefore in use decisions as to which master system to use must be made so that the change is not noticable by the audience, between scenes, etc.

Situated along the top of the right-hand edge of the desk are two arrowhead indicator lights colour red.

The one labelled "supply" tells the board operator that a control signal is being received from the dimmers and the system is operational. Should this indicator light fail to illuminate then the dimmers must be checked as the system is not functioning correctly and may well not be switched on or the control line plugged into the desk or rack.

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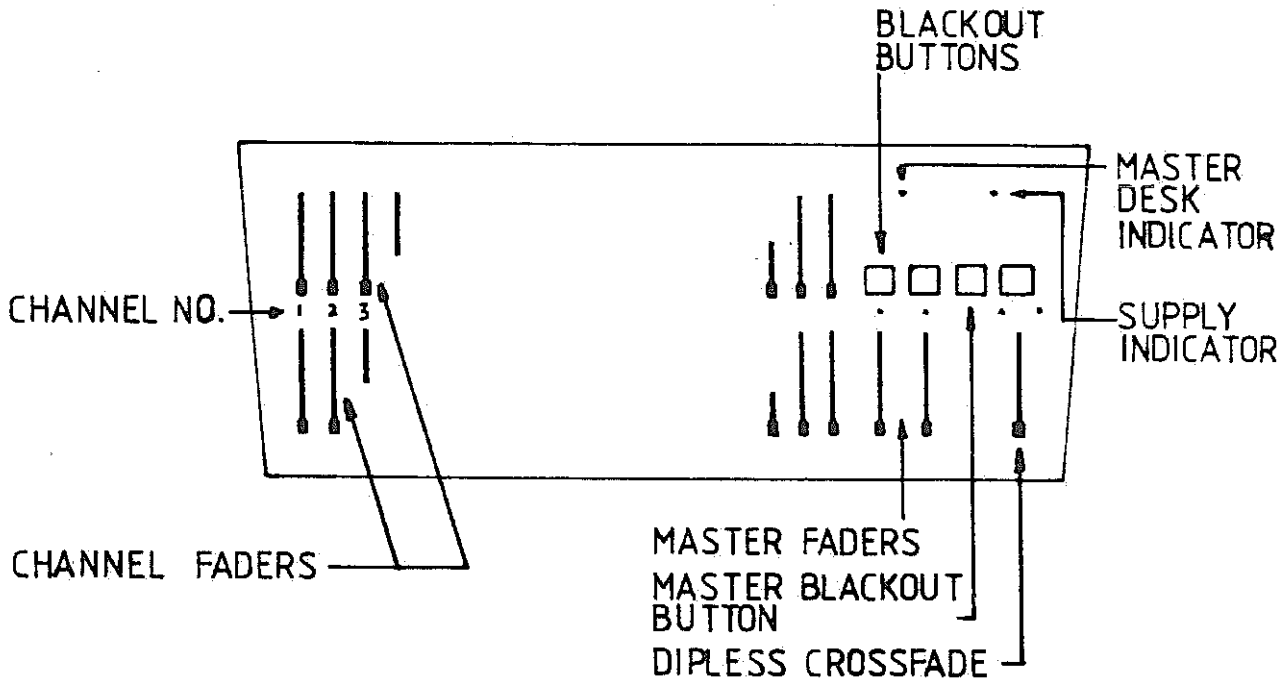
The second indicator light labelled "master" is only applicable where two desks are interlinked and when illuminated it tells the operator that that particular master section is in control, desks used as slave units when connected will not have the master indicator light illuminated.

CONTROL DESK LAYOUT

PLAN



REAR VIEW