

JUNIOR SLIDER SWITCHBOARD

INSTRUCTION BOOK

INTRODUCTION

The cost of a stage switchboard is considerably affected by the type and number of dimmers and the method of controlling them. The Junior Slider Stage Switchboard has been devised so that simple lighting changes can take place without dimmers, and so that when a few simple slider dimmers are obtained (purchased or hired) they can be shared out among the many stage lighting circuits to the best advantage.

These instructions should be read carefully and the various operations repeated on the board. Some quiet practice is advised so that in the usual uproar and excitement of rehearsals at least the board and its layout are familiar.

The board should be inaccessible to young children, but is potentially no more dangerous than the usual range of domestic electrical equipment, and requires the same common sense to use. A stage, however, employs much temporary flexible wiring and knowledgeable electrical supervision is essential.

This type of switchboard requires more thought before carrying out a lighting change than would be necessary with a switchboard which has a dimmer for each lighting circuit and some method of mechanical interlocking for collective operation. A limited number of simple dimmers have to be shared among the lighting circuits, and the switches, although for economy a standard domestic type, have more than one part to play.

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2 WAY SWITCHES
(TOP ROW) BROWN.

FUSES.

1 WAY SWITCHES
(BOTTOM ROW) GREEN.

DIMMER
PLUGS.

INDIVIDUAL
DIMMER.

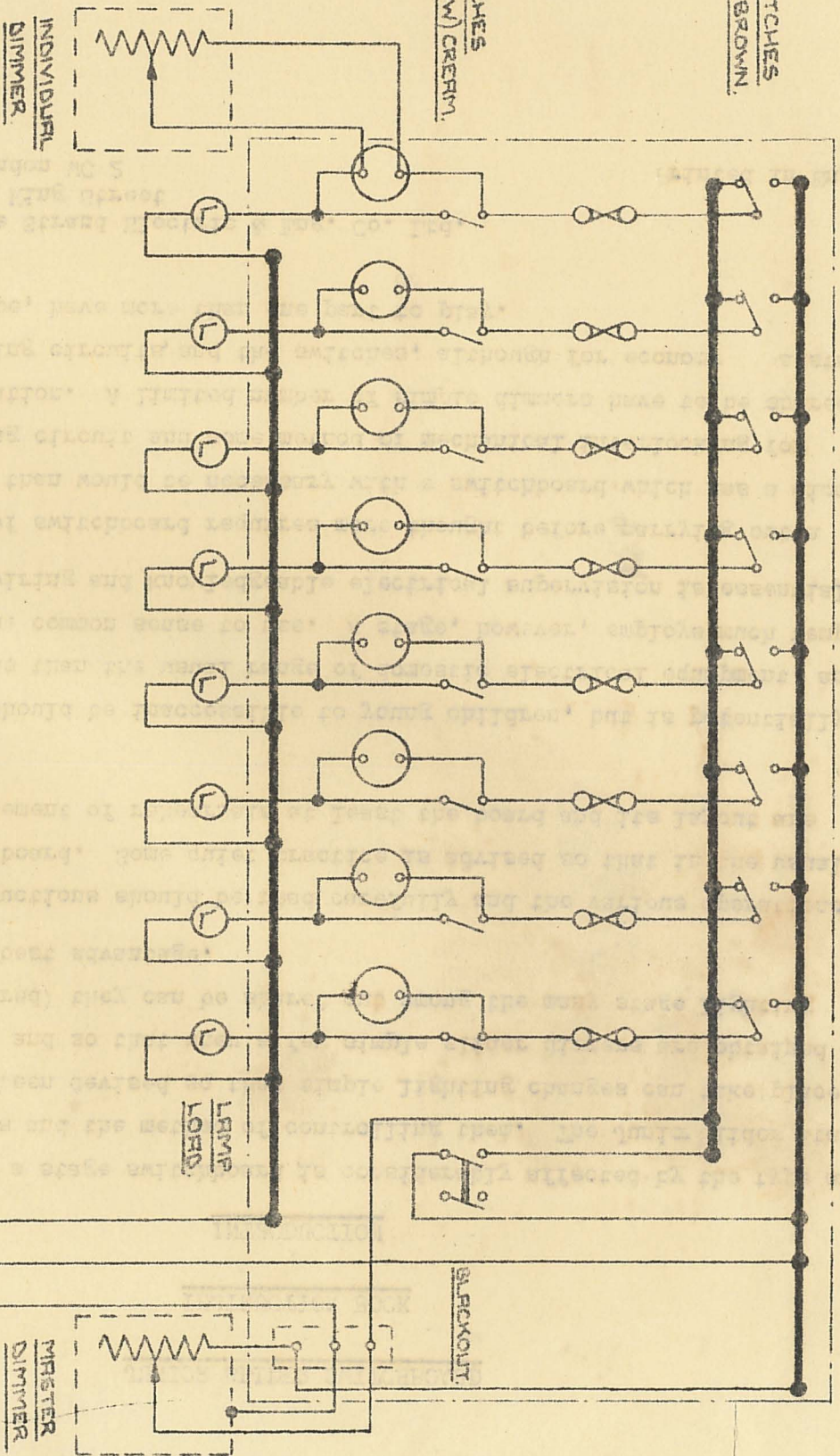


DIAGRAM OF CONNECTIONS

FOR

JUNIOR SLIDER BOARDS.

8 WAY TYPE HQ & SHOWN.

220/250 VOLT A.C. ONLY.

The wiring diagram for a Cat. Type H. A. 8 Switchboard for eight lighting circuits each rated at 1000 watts maximum is shown opposite. The Cat. Type H.A. 12 Switchboard is exactly the same except that there are 12 sets of lighting circuit controls. The remainder of the range consists of two of these basic types arranged side by side with one Master Blackout Switch common to both.

Each lighting circuit has a 2-way switch, a locking type rewirable fuse, a 1-way switch, and a 2-pin flush socket. This socket is for connecting a dimmer in circuit and is not for the connection of the stage lighting lanterns. Terminals are provided for these connections, or alternatively 3-pin socket and plugs are fitted to some variant of the basic design. If required these must be specified at the time of order.

The 2-way switches which have brown covers are arranged on the Switchboard in one horizontal row below the corresponding fuses. When these switches are in the down position ("MASTER") the circuits are fed through the Master Blackout Switch. If any of these switches are changed to the up position ("INDEP") then these circuits will be fed independently of the Master Blackout Switch.

Immediately below the 2-way switches is another row of 1-way switches which have cream covers for quick easy identification. When these switches are in the down position ("WITHOUT DIMMER") the 2-pin sockets for the dimmers are bridged and therefore the lighting circuits switched on to full intensity. If one of these switches is changed to the up position ("WITH DIMMER") this lighting circuit will be switched off unless the corresponding 2-pin socket has a dimmer plugged into it. If this is the case the circuit will be subject to the intensity setting of the dimmer.

The Master Blackout Switch is always on the right-hand end of the switchboard. It is always a two pole switch as shown in the wiring diagram. The second pole is used only where the switchboard consists of two of the basic types described above and then it switches the left-hand section. The terminal block concealed by a metal plate below the Master Blackout Switch is for the connection of a separate wall mounting Master Dimmer. The terminals are connected in

parallel with the Master Blackout Switch, so that a Master Dimmer can be used to control lighting circuits selected to "MASTER". The third terminal is to ensure a good earth connection.

DIMMERS

There are two Slider Dimmers specially designed for these Switchboards, and the panel (s) below the switches have tapped holes at the correct mounting centres for these dimmers to facilitate quick and simple fixing. Both these dimmers are provided with 2-ft. long leads and are fitted with a graduated scale.

Cat. Type. JLS.15 250/500 watt. Slider Dimmer

Cat. Type. JLS.21 500/1000 watt. Slider Dimmer

It is essential to quote the Catalogue Type when purchasing or hiring these dimmers as there are other dimmers of similar rating which have different specifications and mounting centres. Dimmers must not be overloaded, as overheating and serious damage would result. It is preferable to arrange dimmers of the same type side by side and adjacent to the lighting circuits which are within the permissible load variations of those dimmers.

MASTER DIMMERS

There are also two wall mounting Master Dimmers specially designed for these Switchboards and these are fitted with 6-ft. of cable contained in metallic hose for connection to the master dimmer terminal block provided beneath the Master Blackout Switch.

Cat. Type JG 2000/4000 watt. Sunset Dimmer

Cat. Type JJ 4000/8000 watt. Sunset Dimmer

INSTALLATION

The switchboard should be sited where the operator can have a tolerable view of the acting area. It must be fed from a separate single pole and neutral supply of ample capacity provided via an Isolator Switch (not supplied with the equipment), which should be mounted adjacent to the right hand end of the Switchboard.

The Isolator should be of the Silent A.C. slow break type and should be mounted at a reasonable height as it can be used to extend the facilities of the equipment by acting as a Dead Blackout Switch. On no account should the Isolator be mounted within the switchboard framework as this would prevent an additional dimmer panel being added at a later date.

Terminals are provided at the rear of the insulated panel to receive the cables from the Isolator. The terminals for the outgoing lighting circuits will also be found here, with the exception of variants fitted with 3-pin sockets along the top. No lighting must exceed 1000 watts and care should be taken to arrange the circuits in a logical sequence to aid the operator, i.e. circuits in the same area of the stage or hall should be adjacent. Connections of the wiring from the switchboard to the heat resisting wiring of the lanterns should be through 3-pin sockets and plugs so as to permit the maximum flexibility in the use of the lighting equipment. The Switchboard and all lanterns must be efficiently earthed.

If the Switchboard is an H.A.8 (8 circuits and space for 4 dimmers) it is advisable to allow a clear space on the left hand side of the Switchboard, in order to permit a future extension. The capacity of the supply should also be large enough for an extension in this case.

A removable cover is provided over the Master Blackout Switch situated on the right hand side of the Switchboard to protect the switch dolly in transit.

All standard Junior Slider Boards are suitable only for an A.C. single phase 2 wire supply in the 220-250 volt range and each circuit is designed for 1000 watt. tungsten lamp load maximum.

The auditorium lighting should not be controlled by the Switchboard but by a separate circuit provided with a dimmer mounted adjacent.

OPERATION

All the switches are of the slow break A.C. type and should be worked silently. This type of switch prefers a deliberate somewhat slow action to allow the alternating current to quench any arc. Rapid flicking of a switch not only makes it noisy but will also shorten its life.

Switching Circuits Individually

At rehearsal the brown (top row) switches should be put in the down position ("MASTER") and the cream (bottom row) switches put in the up position ("WITH DIMMER") No dimmers should be plugged into the dimmer sockets at this stage, and therefore "WITH DIMMER" is equivalent to off. Ensure that the Isolator switch on the wall and the ~~Master~~ Blackout Switch are closed. Any lighting circuit can then be switched on by changing the cream switch to the down position ("WITHOUT DIMMER").

Switching Circuits in Groups

To switch off lighting circuits simultaneously i.e. Blackout, the Master Blackout Switch can be opened. If any circuits are required to remain on, then the brown switches for these should first be changed to the up position ("INDEP") i.e. independent of the ~~Master~~ Blackout Switch.

In this way sudden group changes of lighting can be executed. For example, when an actor pretends to switch off the general room lighting, the effect of the moonlight coming through the window and the table lamp must remain.

It is advisable to make a practice of using the separate Isolator switch on the wall to switch off all lighting circuits, i.e. Dead Blackout. If a Dead Blackout is required shortly after a group switching change the use of the Isolator could save much time which would otherwise be used in resetting the lighting circuit switches. The time saved could probably be used to advantage in preparing the lighting required later.

Dimming Circuits Individually

Dimmers are required for gradual changes of light intensity, for gradual changes from one lighting effect to the next, and less obviously, for balancing the relative intensities of the lanterns in use for a lighting effect, Where as on these switchboards, the number of dimmers is limited, balancing the lighting can be considerably simplified by careful selection of lamp wattage and colour filters.

When, however, a dimmer is essential one of sufficient rating is plugged into the dimmer socket and the cream switch put in the up position ("WITH DIMMER"). A dimmer can be under loaded if a switch from an intermediate intensity to off at the bottom of the scale can be tolerated, but on no account should a dimmer be overloaded as overheating and serious damage would result.

When plugging a dimmer in circuit a practice should be made, even at the earliest rehearsal, of matching the intensity setting of the dimmer to the position of the lower switch. If the switch is down ("WITHOUT DIMMER") and therefore the circuit switched 'on' ensure that the dimmer is also full (10) before plugging in and changing the switch to the top position ("WITH DIMMER").

On the other hand, if the switch is already up ("WITH DIMMER"), ensure that the dimmer is also off (0) before plugging it in. There is no electrical necessity to do this but if it is not made a regular drill there is likely to be some unwanted and unwelcome flashing on and off of lights when hastily changing a dimmer from one lighting circuit to another.

A dimmer can be used to fade in to full (10) one lighting circuit, the corresponding switch changed to the down position ("WITHOUT DIMMER"), the dimmer unplugged changed to the off position (0) and used to fade in another circuit to an intermediate intensity or to full. Alternatively, one circuit can be faded in to full, the switch changed and the dimmer replugged immediately to fade another circuit to zero as soon as that switch is changed to the top position ("WITH DIMMER").

Whether the lighting circuits are switched on, or are controlled by individual dimmers, they are still grouped to the Master Blackout Switch, or independent of this switch, by the brown (top row) switches as described previously.