

12. Theatre Sound System

- The sound system consists of:
 - 24 channel mixing desk
 - An effects rack
 - Dynacord 900 watt amplifier
 - 2 Dynacord 250 watt speakers
 - Microphones and leads
 - 2 stage monitors
 - 2 DI boxes
 - Clip on Mike
 - Transmitter

- The effects rack contains the following:

Unit	Manufacturer	Model Type
Digital Reverb	Yamaha	Rev 500
Compressor	Behringer	Audio Processor
CD / Cassette Player		
Graphic Equalizer	DOD 231Qx	3 band graphic equalizer
Mini Disc Player	Sony	MDS JE480
Dual CD Player	Numark	CDN – 22MK4

- Microphones / Stands / Leads:

Quantity	Type
1	Compact Portable Address System and stand
4	SM58 mics.
4	SM 853 rifle mics
6	Mic. stands
1	Sennheiser Clip-on Mic
5	5 metre mic leads
5	10 metre mic leads.

- A **mike box** is located stage left. It connects 16 mic sockets and 4 return sockets to the mixing desk.
- The **signal route** through a mono channel is described as follows and indicated in the pictures below.
 - The mike box is linked via a multi core cable to an EDAC connector located on the patch panel in the theatre box and also on the wall at the back of the auditorium under the theatre box.
 - From the EDAC connector the multicore cable is routed to the mixer channel inputs through XLR plugs.
The signal goes through the following:
 - Input gain controller
 - Band equalizer
 - Channel Fader
 - Route switcher
 - Master Fader
 - Mixer output
- The output from the mixer goes to the amplifier input.
- The output from the amplifier goes to the speaker patch panel where the output can be plugged into any 2 of 8 cables which connect to 8 speaker sockets.



Signal input into XLR connection at back of mixer desk.



Normally out.

This sends 48 v to directional microphones. Not needed normally .

Normally out.

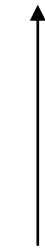
this reverses the wires on the i/P signal.

Normally out.

Must be out for microphone inputs.

Adjust this control for i/p signal level of approx 0 on LEDs below.

This removes low frequency hum. not too important.



4 Band equalliser.

This adjusts the tone of the input signal.



When in the equaliser is in circuit.
When out the equaliser is bypassed.



To Pan Pot

From 4 band Eq.



Normally set in middle.
Divides the signal for left and right speakers.

When pressed in, light comes on and channel is blocked.

Adjust i/p signal so that 0 amber light is on and +6 occasionally flashes.

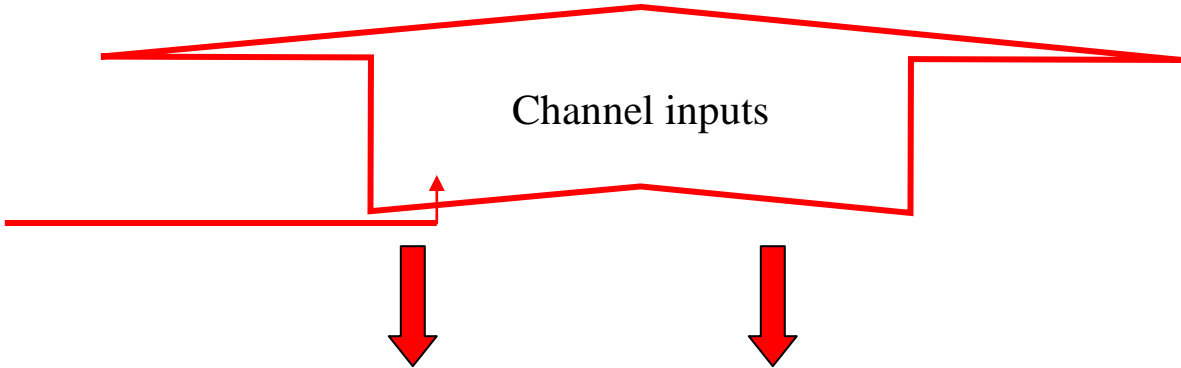
When pressed in the i/p signal can be monitored before being heard on the speakers.

Normally only L-R is pressed.
This switches the ip signal directly to left /Right speakers. (L-R)
or to group channels 1-2 or 3-4 wher effects can be added.

This fader is used to balance this channel with other channels.

To: L/R, Groups 1/2, Group 3/4

To Amplifier i/p



Amplifier



Patch Panel



This is used to supply a mix of i/p signals to other equipment.

To Speaker Sockets



When pre is pressed the signal level is controlled by the fader.

13. Theatre Lighting System

Theatre Lighting Control.



Control board communicates with Demux unit.



O/P 1 ... Board ch. 1 to 6.

"

O/P 6 ... Board ch. 31 to 36.



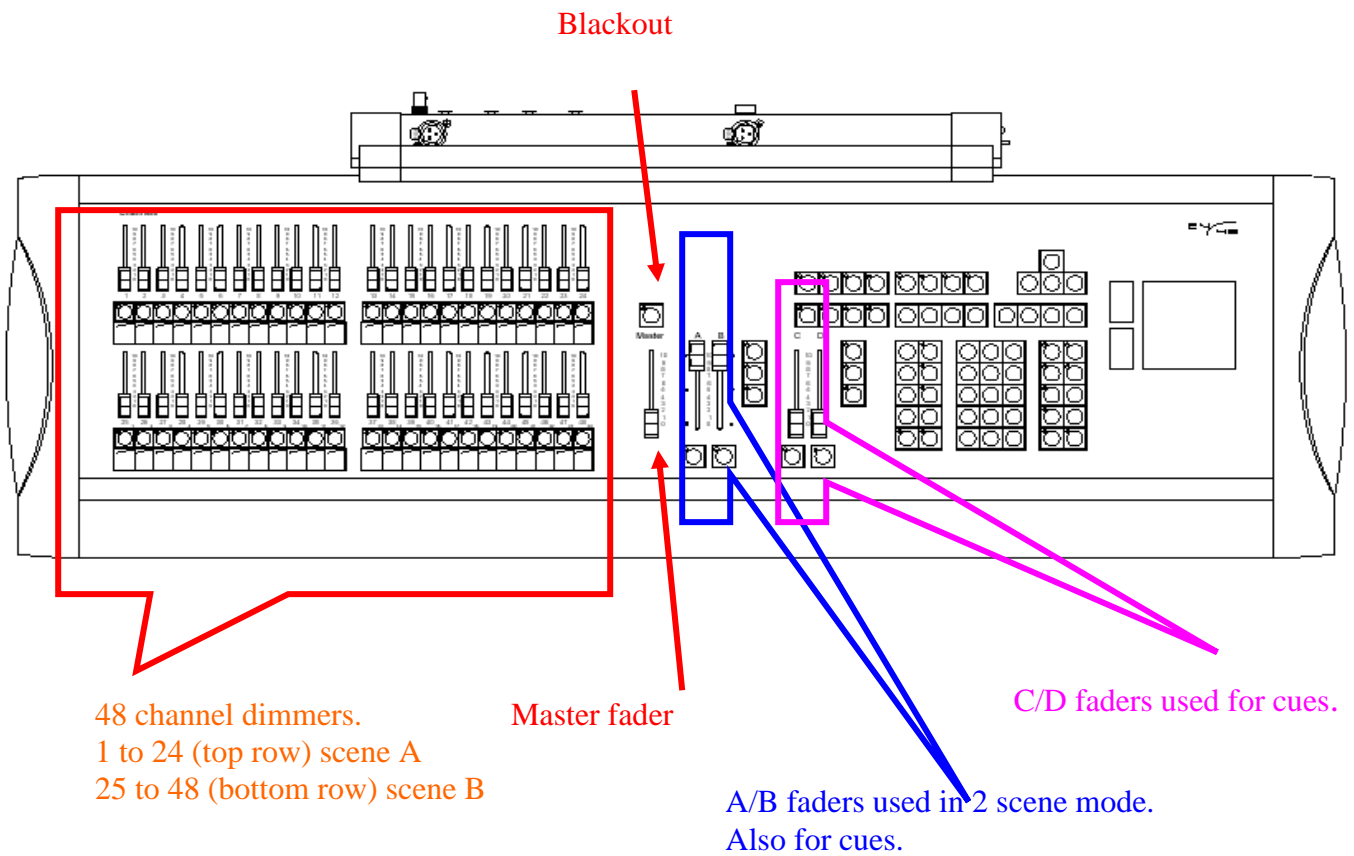
Demux unit communicates with 6 dimmer packs.



Lanterns are controlled by plugging in appropriate cables into appropriate dimmer pack channel.



ETC Express Lighting Control Board



- The Lighting Control Board can be configured to operate in three different modes:
 - Two scene mode
 - One scene mode without submasters
 - One scene with submasters

Type A: [Selecon Pacific Profile Spot](#)

600W Bulb Type GKV



Type B: [Robert Juliat Fresnel](#)

1000W Bulb Type T19



Type C: [CCT Starlette Flood](#)

1250W Bulb Type P2/12



Type D: [Selecon Acclaim Profile](#)

500W Bulb Type T18



Type E: [Selecon acclaim Fresnel](#)

500W Bulb Type T18



Type F: [Parcan](#)

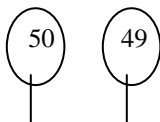
1000W Bulb Type CP/60/61/62...Spot/Med/Flood



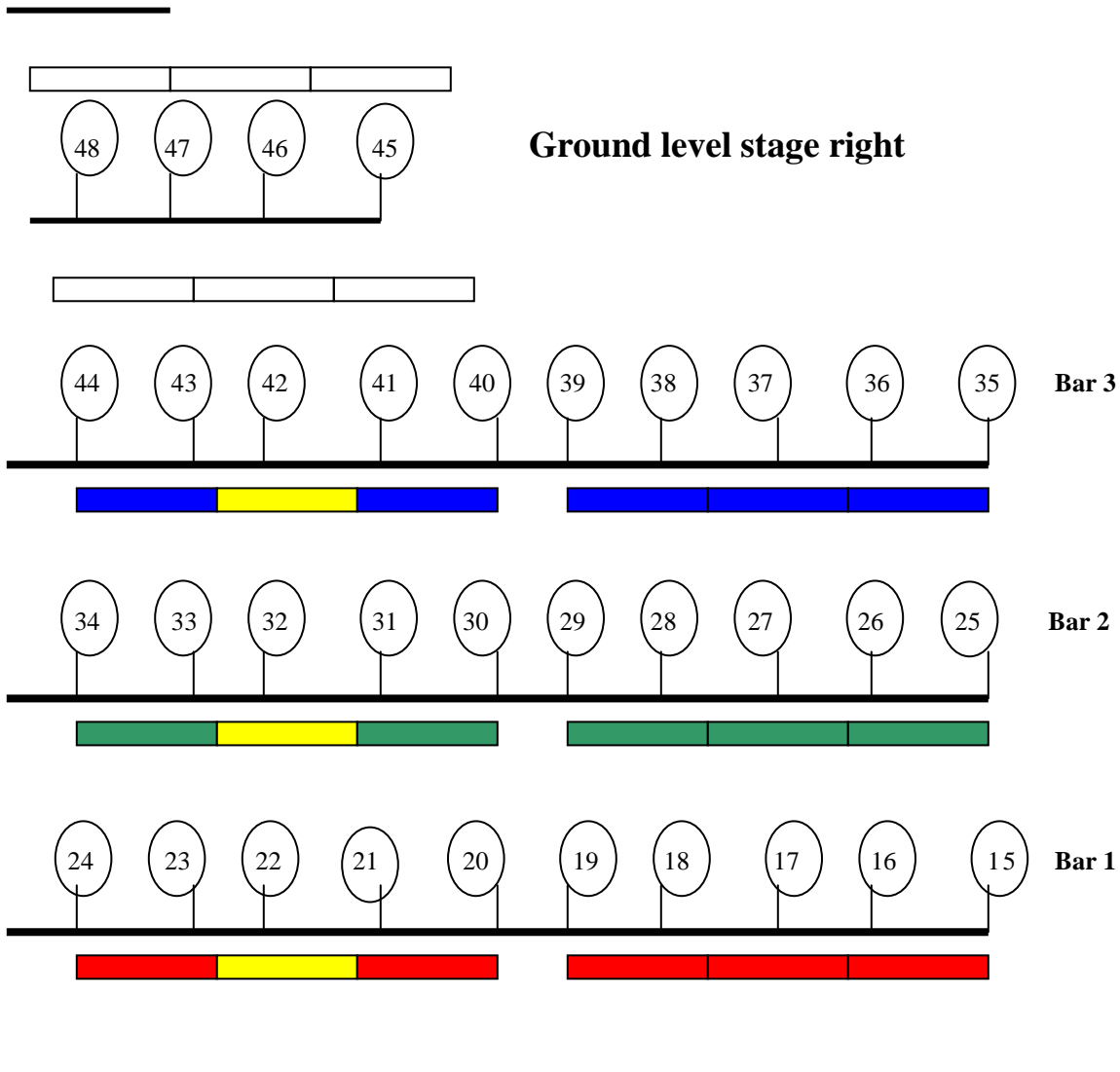
Identifying Lamps and Cables

- Refer to “lantern bars and cable identification” diagram on the following page. The diagram shows how the lamp cables and bar sockets are related.
- The colour codes are marked on the cable ends in the theatre box.
- Except for the FOH bar the bar socket number and cable number correspond exactly.
- With the FOH bar any 14 of the 20 FOH sockets can be connected to cables numbered 1 to 14. Thus, 6 sockets on the FOH bar will not be connected.

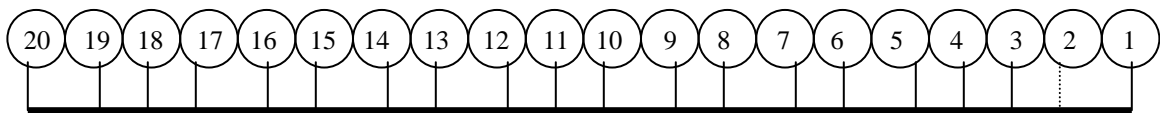
Lantern Bars and Cable Identification



Ground level stage left



Front Curtain.



14 cables

14. DVD / Projector Operation

To turn the system on:

- Open the door at the front of projector lens.
- Do this with stick provided inside the control box.
- Let down the screen using the switch marked 'SCREEN' on the wall.
- Turn the projector on by inserting the power lead located at the back of projector then select 'ON' and 'DVD/VCR' on the projector panel located on the wall.
- Turn on the sound desk using the button located at the back of the desk.
- Turn on two power amps located on the floor.
- In the 19 inch rack turn on the graphic equalizer and DVD player on the reverb unit.
- Insert a DVD into the DVD player.
- Sound is controlled from desk using channels 17, 18 and Aux 3, 4.
- Use the projector remote to FOCUS, ZOOM and LENS SHIFT.

To turn the system off:

- Mute the sound desk.

- Select 'OFF' on the projector panel.
- Lift the screen using the switch marked 'SCREEN' on the wall.
- Turn off the two power amps on the floor and anything on in the 19 inch rack.
- Turn off the sound desk using the button located at the back of the desk.
- Plug out the power lead from the back of the projector only when the fan in the projector has stopped making noise.
- Close the door in front of the projector lens with the stick provided inside the box.

15. Theatre Technical Specifications

Lighting

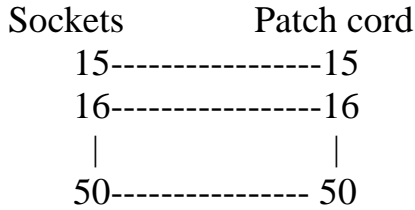
- An ETC Express 24/48 lighting control system is used to control 6 Betapack Zero 88 dimmer packs, through a Zero 88 Demux 48 unit.
This equipment is located in the theatre control box.
Thus there is a total of 24/48 dimmers, with each dimmer capable of controlling 2 lanterns.
- Connections between the dimmer packs and the lanterns is by means of patch cords.
The patch cords plug into the dimmer packs and the other end of the patch cords terminate in sockets on the wall beside the FOH gantry and lighting bars and at ground level as follows:

Beside FOH Gantry	Sockets 1 to 14
Beside Bar 1	Sockets 15 to 24
Beside Bar 2	Sockets 25 to 34
Beside Bar 3	Sockets 35 to 44
At Ground Level	Sockets 45 to 50

- The FOH gantry has 20 socket outlets which gives maximum flexibility in the positioning of lanterns.
Any 14 of these sockets may be connected to the dimmer packs by plugging up at the wall beside the FOH gantry.
Access to the FOH gantry is by means of a ladder.
- Each lighting bar has 10 socket outlets and these are all connected to the dimmer packs through sockets beside each bar.
Access to lighting bars is by means of lowering the bars or using scaffolding.
- 6 lighting sockets are located at ground level.
- All cables and sockets are numbered.

Any 14 of FOH sockets are connected to cables 1 to 14.

- There is a one to one correspondence between the sockets on the lighting bars and patch cords and the ground level sockets and patch cords as follows:



- Lantern List:

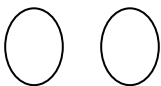
Quantity	Manufacturer	Rating	Type
8	Selecon	600 W	Pacific Profile Spot
8	Robert Juliat	1000 W	Fresnel Spot
4	Selecon	500 W	Fresnel Acclaim
4	Selecon	650 W	Profile Acclaim
6	CCT	1000 W	Starlette Flood
10	Parcan	1000 W	Parcan
1	Selecon		Follow spot

Total of 41 lanterns

- Gobo Holders

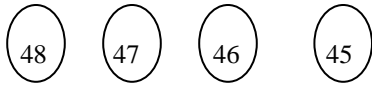
Quantity	Lamp
2	Selecon Pacific Profile
2	Selecon Acclaim Profile

Auditorium Lantern Sockets Layout

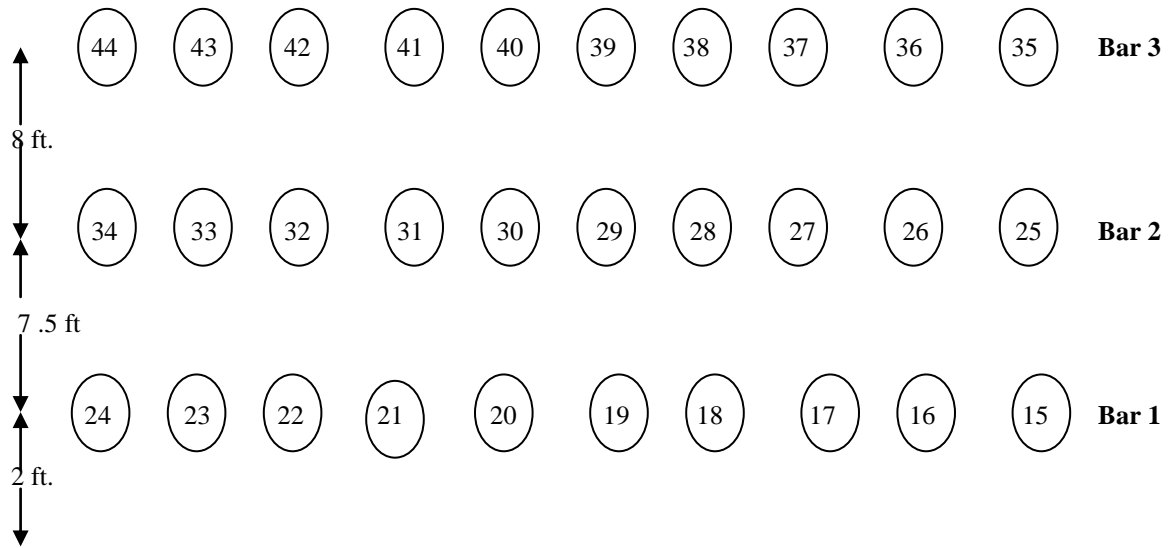


50 49

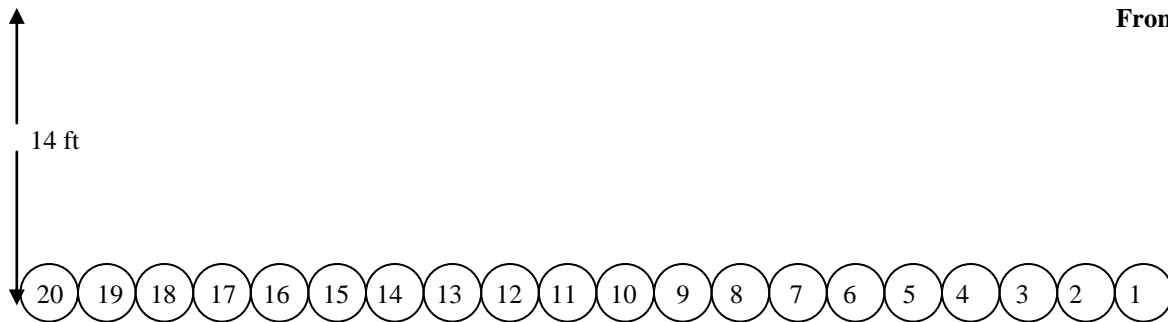
Ground level stage left



Ground level stage right



Front Curtain



FOH (18 ft. above stage level)

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 Moate,
 Co. Westmeath.
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Sound Equipment

Unit	Manufacturer	Model / Type
Mixer	Allen & Heath	24 channel
Amplifier	Dynacord	S900 900W
Wall mounted Speakers	Dynacord	250 W each
Stage Monitors	Professional Speaker System EV	PM 12B
2 x DI boxes	Behringer	DI 100

Fx Rack

Unit	Manufacturer	Model / Type
Digital Reverb	Yamaha	Rev 500
Compressor	Behringer	Audio processor
CD / Cassette player	Tascam	
Graphic Equaliser	DOD 231 Qx	3 band graphic equalizer
Mini-disc	Sony	MDS JE480
Dual CD Player	Numark	CDN-22

Microphones / Stands / Leads

Quantity	Type
1	Compact Portable Address System and stand
4	SM58 mics.
4	SM 853 rifle mics
6	Mic. stands
1	Sennheiser Clip-on Mic
5	5 metre mic leads
5	10 metre mic leads.

- The **Mic. Box** is located stage left.
There are 16 mic. sockets and 4 return sockets via multicore cable and EDAC connector to mixer.
- The orchestra pit is located at the front of the stage and measures approx. 24ft. x 4ft. x 4ft. (w x l x d). It can be accessed by removing the front sections of the stage floor.