

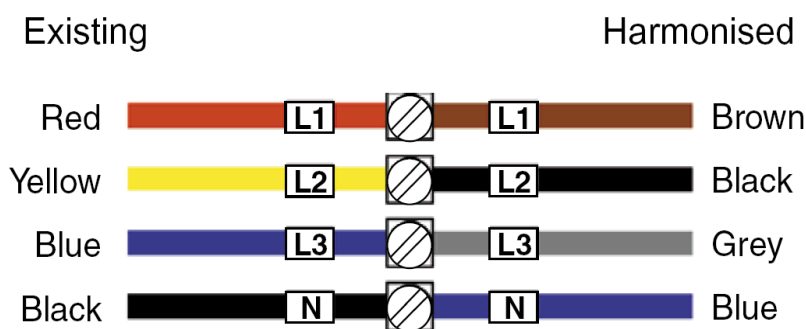
## Cautions

### The Little Theatre Stage Lighting system uses a 3-phase mains supply.

This means that **400v** can exist between different phase live conductors including separate conductors on the same lighting bar.

Each of the main dimmer units uses a separate single phase supply. Accordingly, the Neutral load conductors emanating from different units are at different phases and so a common neutral **MUST NOT** be used.

At the time of writing, **due to the age of the wiring, all of the existing 3-phase cables use the "old" colour code.** It is likely that as modifications are made then "new" (a.k.a. Harmonised) colour scheme will have to be used. This is permissible **PROVIDED** that a notice to this effect is attached to all relevant equipment **AND** that three phase conductors are labelled when joining old and new colour scheme coded cables (conductor labelling is not required for single phase extensions).



Colour coding within this document uses the schemes shown below under. Note the different backgrounds to denote old and new schemes. Anybody updating this document should ensure that the correct colour scheme is used as appropriate to the cabling installed.

Conductor	Old	New
Neutral	Black	Blue
Live 1	Red	Brown
Live 2	Yellow	Black
Live 3	Blue	Grey

For the sake of clarity, earth and neutral conductors are not shown in the mains wiring diagrams.

Only personnel authorised by a member of the committee are permitted to use the lighting equipment.

No additional or replacement cabling is to be made without the express permission of the Chairman.

## Introduction

The three phase supply enters the building in the corner "cupboard" of the rehearsal room via a 4-pole fused isolating switch. This supply then runs to the back stage corridor to a second 4-pole (non-fused) isolating switch.

From this latter switch single phase supplies are taken as follows:

- Phase 1 - 1st large "Chilli" dimmer unit, 19" rack power and lighting board.

- Phase 2 - 2nd large "Chilli" dimmer unit.

- Phase 3 - 3rd large "Chilli" dimmer unit and the "Breaker Datapack" which supports both Dimmer (for lighting) and Switching (for inductive circuits) modes.

DMX signals from the lighting console are fed into the 19" rack mounted Data Splitters.

Currently only the lower of these two units is in use. Output 1 uses a 5 pin XLR plug with:

- Pin 1: Chassis / Earth / Screen

- Pin 2: Blue: Signal -

- Pin 3: Red: Signal +

This cable is connected to a CAT5 cable with:

- Solid Green: Signal -

- Green/White: Signal +

- Orange/White: 0v

- Orange: Alarm (not connected to Data Splitters)

This Cat5 cable is fed to Chilli unit 1 and then daisy-chained to Chilli units 2 and 3 - this last unit having the Terminators enabled.

Output 2 will feed the Breaker Datapack.

Both the Chilli Dimmers and the Breaker Datapack support 3-phase supplies. We have chosen to feed a single phase to each unit in order to both reduce the shock hazard and simplify the cabling.

Each Chilli Dimmer supply feed (3 per unit) is protected by a trip. Internally the unit has 3 boards (1 for each supply feed) that controls 8 individually trip protected loads.

[illegible]

## Control Panel

1	2	3	4	5	6	7	8	9	10	11	12
Bar A											
	Bar B								Bar B		
37	38	39	40	41	42	43	44	45	46	47	48
				Bar E							
Bar D											

13	14	15	16	17	18	19	20	21	22	23	24
								Bar C			
Bar B											
49	50	51	52	53	54	55	56	57	58	59	60
							Bar G				
Bar F											

25	26	27	28	29	30	31	32	33	34	35	36
Bar C											
					Bar D						
61	62	63	64	65	66	67	68	69	70	71	72

1	2	3	4	5	6	7	8	9	10	11	12
SUBs											
13	14	15	16	17	18	19	20	21	22	23	24

Backstage

