



Empire Theatre Toowoomba

Technical Specifications

Updated
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STAGE

Brief Stage Description:

Unraked stage with a proscenium arch and flying facilities. Hardwood floor covered with Masonite sheets. Screwing into surface permitted but larger holes to be authorised by Technical Manager. Stage crossover behind US flies line.

Stage distributed load limit	750kpa
Stage point load limit	10kn
Stage rake	No

Stage Dimensions:

Proscenium

Width	13 m
Height	8.4 m

Setting Line - Directly behind House Curtain

Distance From (SL = Setting Line, CL = Centre Line)

SL to DS edge of apron	1915mm
SL to DS edge of Orchestra Lift/Pit	5185mm
SL to first fly line	75mm
SL to last upstage fly line	12115mm
SL to rear wall	17250mm
CL to OP wall (or obstruction)	12462mm
CL to PS wall (or obstruction)	17728mm
Stage to underside of grid	19200mm

Overhead obstructions **None**

Auditorium:

Auditorium consists of stalls and 1 balcony

Seating capacity with additional
Orchestra lift/pit seating installed **1565**

Seating capacity without
Orchestra lift/pit seating installed **1528**

Orchestra Lift / Pit:

Orchestra Pit - Motorized orchestra lift

Set positions for orchestra lift where lift at auditorium level is 0mm

Stage level at	1100mm above auditorium.
Orchestra pit level at	1400mm below auditorium.
Lift can be set at any height	YES
SWL of orchestra lift	750kpa
Point load	10kn
Dimensions of the orchestra pit	10.3m*3.4m.
Orchestra pit maximum capacity	30 people
Approx area	30 square metres
Note	front edge of pit is curved

Flying Facilities:

Fly System

Single purchase counterweight handline system

Fly System Details

Operating Position	OP stage level
Total number of Lines	80 lines
Panorama Lines	6 lines (3 lines op, 3 lines prompt) Operation lines are 72,73, 75,76,78,80.
Batten Drift	19 m
Batten Type	48mm OD pipe
Batten Length	16.4m
Batten Extensions	0.8m
Batten Pick-ups	6 (1.6m either side of centre 3.2 m intervals)
Batten Point Load	120kg
Batten W.L.L.	350kg
Cradle Capacity	350kg Refer tech manager for extra weight capacities.
LX bars can be swung	yes
Fly bars can be swung	yes

SEE HANGING PLOT FOR LINE ALLOCATIONS AND FURTHER INFO

Hanging Plot:

SL: Setting Line as indicated previously

Line Type: All lines are SP = Single purchase Hand Lines

W.L.L.: Maximum distributed load including bar weight

Line #	Distance from SL	Line Type	W.L.L	Venue Allocation	Intended Use (hiring company use)
	-5185			APRON / ORCHESTRA PIT EDGE	
	-1915			STAGE EDGE	
	-775			PROSCENIUM REAR EDGE	
	-485			FIRE CURTAIN (Rear Edge)	
HC	-75	SP		HOUSE CURTAIN	
	0			SETTING LINE	
1	150	SP	350kg	BORDER 1	
2	300	SP	350kg	LEGS1	
3	450	SP	350kg		
4	600	SP	350kg	LIGHTING BAR 1	
5	750	SP	350kg		
6	900	SP	350kg		
7	1050	SP	350kg		
8	1200	SP	350kg		
9	1350	SP	350kg		
10	1500	SP	350kg		
11	1650	SP	350kg	BORDER 2	
12	1800	SP	350kg	LEGS 2	
13	1950	SP	350kg		
14	2100	SP	350kg	LIGHTING BAR 2	
15	2250	SP	350kg		
16	2400	SP	350kg		
17	2550	SP	350kg		

18	2700	SP	350kg		
19	2850	SP	350kg		
20	3000	SP	350kg		
21	3150	SP	350kg	BORDER 3	
22	3300	SP	350kg	LEGS 3	
23	3450	SP	350kg		
24	3780	SP	350kg		
25	3930	SP	350kg		
26	4080	SP	350kg		
27	4230	SP	350kg		
28	4380	SP	350kg	LIGHTING BAR 3	
29	4530	SP	350kg		
30	4680	SP	350kg	BORDER 4	
31	4830	SP	350kg	LEGS 4	
32	4980	SP	350kg		
33	5130	SP	350kg		
34	5280	SP	350kg		
35	5430	SP	350kg	LIGHTING BAR 4	
36	5580	SP	350kg		
37	5730	SP	350kg		
38	5880	SP	350kg		
39	6020	SP	350kg		
40	6170	SP	350kg	BLACK TABS (FRENCH ACTION)	
41	6320	SP	350kg	BORDER 5	
42	6470	SP	350kg	LEGS 5	
43	6620	SP	350kg		
44	6770	SP	350kg		
45	6920	SP	350kg		
46	7070	SP	350kg	LIGHTING BAR 5	
47	7220	SP	350kg		
48	7380	SP	350kg		
49	7520	SP	350kg		
50	7670	SP	350kg		
51	7820	SP	350kg		
52	7970	SP	350kg	BORDER 6	
53	8120	SP	350kg	LEGS 6	
54	8265	SP	350kg		
55	8415	SP	350kg		
56	8750	SP	350kg		
57	8900	SP	350kg		
58	9050	SP	350kg		
59	9200	SP	350kg		
60	9350	SP	350kg		
61	9500	SP	350kg		
62	9650	SP	350kg	LIGHTING BAR 5A	
63	9800	SP	350kg		
64	9950	SP	350kg	BORDER 7	
65	10100	SP	350kg	LEGS 7	
66	10250	SP	350kg		
67	10400	SP	350kg		
68	10550	SP	350kg	LIGHTING BAR 6 (CYC FLOODS)	
69	10700	SP	350kg		
70	10850	SP	350kg		
71	11000	SP	350kg		
72		SP	350kg	OP Sidelight Ladders	
73		SP	350kg	PS Sidelight Ladders	
74	11440	SP	350kg		
75		SP	350kg	OP Side Mask Border	
76		SP	350kg	PS Side Mask Border	
77	11890	SP	350kg	CYCLORAMA	
78		SP	350kg	OP Side Mask Legs	
79	12190	SP	350kg	BLACK TABS	
80		SP	350kg	PS Side Mask Legs	

Drapery:

Type	Material	Colour	Width	Height	Quantity
House Curtain	Velour-	red	8m	9m	2
Borders	velour	black	16.5m	3.5m	7
Legs	velour	black	4m	8.3m	7 pair
Tabs	velour	black	8m	8.3m	3 pair
Cyclorama	Filled Cloth	white	16.5m	9m	1
Scrim	Sharks tooth	black	16.5m	9m	1
Smother	Flat wool	Black	16.5m	9m	1
Star Cloth	Velour w/ RGB LED – DMX	Black	9m	3m	5

Access Equipment:

Elevated Work Platform

Snorkel vertical lift push around - Maximum reach is **9.75mtr**

Ladders

- 1 bailey A frame 1.8mtr (fibreglass)
- 1 bailey A frame 2.4mtr (fibreglass)
- 2 baileys A frame 3.6mtr (fibreglass)
- 1 bailey extension ladder 2.3-3.6mtr (fibreglass)
- 1 bailey extension ladder 5.1-9.1mtr

Staging Units:

- 44 units pro stage (2000*1000mm)
- Various leg lengths 200mm-1200mm

Stage Traps: Perimeter of performance area

Safety Curtain: Safety Curtain installed **YES**
Must be unobstructed at all times **YES**
Thickness of Fire Curtain **90 mm**
Distance from setting line **400mm**

Note: Measurement is to the downstage edge of the Fire Curtain.

Loading Dock:

Access - Truck access via rear car park of Julia Street
Truck able to back up to loading dock doors
Truck Wheels at stage level
Loading dock has a goods lift
Door Dimensions **4.4m High 2.7m Wide**

Staging Notes:

- All flown items must be rigged with rated equipment.
- Limited rigging gear available from the venue.

LIGHTING

Positions:

Stage LX Bars

movable +/- 2000mm
See hanging plot for standard LX bar locations

FOH Bridge #1

Setting Line to lighting bar **16m**
Usable bar width **6m per side**
Notes **bars start 750mm either side of centre**

FOH Bridge #2

Setting Line to lighting bar **19m**
Usable bar width **5.7m per side**
Notes **bars start 600mm either side of centre**

FOH Bridge #3

Setting Line to lighting bar **21.5m**
Usable bar width **3.6m per side**
Notes **bars start 3800mm either side of centre**

Balcony Bar

Setting Line to lighting bar **18.5m**
Usable bar width **22m**

FOH Perches (PS & OP)

Setting Line to FOH Perch **15.6m**
Distances are to the highest downstage point of boom or perch.
Maximum lanterns per perch **10**

Control:

Lighting desk **GrandMA**
Control channels **2096**
Signal output **DMX and Ethernet**
Signal distribution **various points throughout the venue**
Remote riggers available onstage **yes**

GrandMA Control System includes a GrandMA Network Signal Processor (NSP), Network Nodes and multiple PC's operating in a networked environment for system redundancy.

Please contact the Technical Manager to check current software versions.

Dimmer Racks:

Total Dimmers	252 dimmer channels standard rig
Dimmer Locations	Gallery 2 PS & OP Basement PS & OP Bridge 2 FOH Juliet Balcony PS & OP
2.4Kw Dimmer Racks	15 x Jands HP12 2 x LSC E-pro24
Total dimmers @ 2.4kw per dimmer	228
5Kw Dimmer Racks	4 x Jands HP6
Total dimmers @ 5kw per dimmer	24

House Lights:

Independent control	yes
Control positions	control room, stage managers desk, stage, production desk, sound desk.
Fade time adjustable	yes

Stage Luminaires:

Profiles

Make	Model	Angle	Detail / Accessories	Watt	Total
ETC	Source4	10°		750	12
Selecon	SPX	14°		800	20
ETC	Source4	19°		750	64
ETC	Source4	26°		750	44
ETC	Source4	36°		575	6
Selecon	SPX	15°-30°		800	12
Selecon	SPX	25°-50°		800	24
Selecon	SPX	50°		800	20

Fresnel's

Make	Model	Detail / Accessories	Watt	Total
Selecon	Arena Fresnel	Barndoors to suit	2000	64

PC

Make	Model	Detail / Accessories	Watt	Total
Selecon	PC	Barndoors to suit	1200	24

Par Cans

Make	Model	Angle	Detail / Accessories	Watt	Total
	Par64	mfl	Nsp , vnsp , wfl available on request	1000	60

Wash

Make	Model	Detail / Accessories	Watt	Total
Selecon	Aurora	(4) cells per unit cyc units	1250	8
Selecon	Aurora	(4) cells per unit ground row units	1250	8

Movers

Make	Model	Control Channel	Detail / Accessories	Watt	Total
Martin	MAC 500		17 °	575	8
Martin	TW1 – 80v		Tungsten Wash	1200	12

Followspots:

Make	Model	Angle	Detail / Accessories	Watt	Total
Selecon	Performer	Long throw	6 colour magazine	1200	2
Robert Juliet	Korrigan	Long throw	6 colour magazine	1200	2

Additional Lighting:

Item	Make	Model	Detail / Accessories	Watt	Total
Lamp	ETC	Source 4 par	Vnsp,nsp,mfl,wfl lenses available	750	24
Lamp	Martin	Atomic 3000	Dmx controlled strobe	1500	2
Lamp		UV flood		400	4
Hazer	Unique	II	Dmx controlled		2
Smoke machine	Lightwave Research	F100	Dmx controlled		2
Mirror balls			36",24"		2
Boom stands					10
H stands					16
Telescopic stands					6

Additional equipment available, refer tech manager

Patching:

Distributed dimming system, Patch is local to each area

Power:

3 Phase Outlets

Basement	6 @ prompt, 4 @ opposite prompt
Stage	1 @ prompt, 1 @ opposite prompt
Gallery 2	16 @ prompt, 6 @ opposite prompt
Grid	4 @ prompt, 4 @ opposite prompt
Bridges	9 @ centre

Hardware

200 Amp Feed Available Upstage Prompt Stage Level (Lugs Required.)

200 Amp Feed Available Upstage Prompt Basement (Lugs Required.)

Cabling:

240v Extension Cable

The theatre has a good stock of 240v leads & power boards of various lengths

Looms

15 weilands various lengths 4 way

3 phase Extensions

7 extensions various lengths, (40 amp)

Standard Lighting Equipment Positions

Bridge 3

18 x Selecon SPX 14° 800watt spotlights

Bridge 2

6 x ETC Source Four 10° HPL 750 watt ellipsoidal spotlights
24 x ETC Source Four 19° HPL 750 watt ellipsoidal spotlights

Bridge 1

6 x ETC Source Four 10° HPL 750 watt ellipsoidal spotlights
24 x ETC Source Four 26° HPL 750 watt ellipsoidal spotlights

Perches

8 x ETC Source Four 19° HPL 575 watt spotlights rigged Prompt Side
8 x ETC Source Four 19° HPL 575 watt spotlights rigged O.P. Side

Balcony Rail

6 x Selecon 1200 watt 18°-34° Zoomspots
4 x Selecon 1200 watt PCs rigged as curtain warmers

Onstage Electrics Bars 1,2,4 & 5

4 x Martin TW1 Wash Lights (LX 1,2 & 4 only)
12 x Selecon Arena 2000 watt Fresnels
4 x Selecon SPX 800 watt 25°-50° Zoomspots
2 x Selecon SPX 800 watt 15°-30° Zoomspots

Onstage Electrics Bar 3

24 x ETC Par MFL 750 watt

Onstage Electrics Bar 5A

24 x Par64 MFL 1000watt 120volt

Sidelights

5 x flown ladders each side of stage,
each with 2 x 26° and 2 x 19° Source Four 575 watt ellipsoidal spotlights

Cyc Electrics

8 x four compartment linear Selecon Aurora 1250 watt cyclorama floods
8 x four compartment linear Selecon Aurora 1250 watt groundrow floods

Lighting Notes:

Additional equipment available, refer tech manager

AUDIO

Control Positions:

House location	Dedicated position at the centre rear of stalls
Auditorium	Centre of stalls Seats O18-O27, P18-P27, Q18-Q27, R18-R17. Total seat allocation 40 Seats
Other	Refer tech manager

Control & Amplification:

Primary Mixer	1 x Midas Pro6 Digital 56 channel console
Secondary Mixer	1 x 32 channel Midas Venice 320 console
Amplifiers	D&B Audio D12, D6 and E-pac amplifiers
EQ	16ch onboard Pro6 1 x Klark Teknik DN9331 Rapide Helix EQ Remote
FX	6 devices onboard Pro6 1 x Yamaha SPX 2000 1 x TC Electronics D2 Delay unit
Compression / Limiter / Gates	Available on every I/O onboard Pro6 2 x DBX 160A compressors 1 x Klark Teknik DN504Plus 4 channel compressor 1 x DBX 1066 2-channel expander/gate/compressor 1 x BSS DPR 504 Quad gate

Speakers:

FOH Speakers

Complete D&B Audio Ti series Line Array system
16 x Ti-10 (8 per side)
4 x Ti-Subs (2 per side)
4 x B4 cardioid subs (2 per side in Juliet)

Foldback

6 sends available as standard + 2 Side Fill Flown from LX Ladders
8 x Turbosound TQ315 (15" and Horn). passive
2 x JBL SoundPower SP212a foldback wedges (12" and horn)
4 x JBL MR905 foldback wedges (15" and horn)
5 x JBL SR4726 (15" & horn) side fill or drumfill
2 x Shure P4T/R – HF 722-746MHz In Ear Monitor System (no Buds)
2 x Klark Teknik DN370 dual channel equaliser
2 x Klark Teknik DN360 dual channel equaliser
4 x Crown XLS802D power amplifiers

Playback:

Make	Model	Item	Detail	Total
Sony	<i>MDS-E12</i>	<i>Mini-Disc</i>	<i>Mini disk player / recorder</i>	1
Marantz	CDR-510	CD	Dual cd player / recorder	1
Numark	Fitness	Ipod	IPod dock	1

Microphones:

Make	Model	Detail	Total
AKG	SE 300B	hyper-cardiod condenser	7
AKG	414 BXLS	Large Diaphragm Condenser	1
Beyer	Opus 88	Clip-on drum mic	4
Crown	PCC160	cardioid plate Mic	4
DPA	IMK-4061	Lapel Mic & Preamp (hard-wire)	2
EV	308		1
EV	ND 468		2
EV	CH 230	choral microphones	3
EV	RE90h	choral microphones	8
Rode	NT5	condenser mics	2
Rode	NT3	hyper-cardiod condenser	4
Rode	NT2a	Large Diaphragm mics	2
Sennheiser	MD421		2
Shure	SM58		4
Shure	Beta 58a		5
Shure	Beta 57a		1
Shure	Beta 87a		4
Shure	SM57		5
Shure	VP88	MS Stereo	1
Shure	588SDX	Switched	2
Shure	Beta 52	Kick drum microphone	1
Shure	Beta91	Plate kick mic	1
Shure	184 Goose-neck	Lectern Microphone	2
Various	Various	Microphone Clips for above	30

DI's:

Make	Model	Detail	Total
Klark Teknik	DN100	Single Channel Active DI	4
ARX	DI-1	Single Channel Active DI	4
ARX	DI-2	Stereo Channel Active DI	2
Pro-Co	DB-1	Single Channel Passive DI	1
Pro-Co	AV-1A	AV ISO Interface Passive	2
Pro-Co	IT-1	Isolation Transformer Passive	4

Radio Microphones:

Make	Model	Detail	Total
Shure	UR4D	Dual Receiver	5
Shure	UR1	Body Pak Transmitter	10
Shure	UR2-B87a	Hand Held Transmitter	4
Shure	U4D-MA	Dual Receiver	8
Shure	U4S-MA	Single Receiver	2
Shure	U1-MA	Body Pak Transmitter	15
Shure	U2-MA B58	Hand Held Transmitter	2
Shure	U2-MA B87a	Hand Held Transmitter	2
Shure	UA870a	Panel Antenna	4
Shure		Antenna Distribution Splitter	3
Sennheiser	MKE-2	Black & Flesh Lapel Mics	35
DPA	4066-F	Headset Microphones	12

Accessories:

Item	Model	Detail / Accessories	Total
Mic Stand	K&M	Tall Boom Mic Stand	15
Mic Stand	K&M	Short Boom Mic Stand	9
Drum Clamp	LP	Claw Drum Clamp	4

Line Patching:

Midas Digital AES-50 patch PS & OP for digital stage boxes (64 channels)
Also full analogue patching system through entire theatre back to the main control room central patch

Speaker Patching:

Foldback system from amp room to PS, OP and Trap positions on stage

Cabling:

Audio Cable

The theatre has a good stock of cable to accommodate the venue's equipment

Power:

Green Power System

Technical Earth System to service all installed audio equipment
40Amp 3 phase for touring use located Downstage Prompt

Audio Notes:

Additional equipment available, refer tech manager

AUDIO VISUAL

Projection Room: None

Projectors:

Make	Model	Detail / Accessories	Total
Sanyo	PLC-XF60	6500 ANSI - Short & Long throw lenses	1
Sanyo	PLC-XU105	4500 ANSI	1
Sanyo	PLC-XU48	3000 ANSI	1
Sony	VPL-PX30	2400 ANSI	1

Screens:

Projection Screen **16` x 12` - 12` x 9` - 8` x 6`**
Front & Rear projection surfaces available

AV Playback Equipment:

Make	Model	Detail	Total
Tascam	DV-DO1U	DVD player	2
Kramer	Vp-7244ds	Seamless switcher scaler	1
Kramer	Tp100	Transmitter	2
Kramer	Tp200	Receiver	2
Kramer	705XL	Video line transmitter	1
Kramer	706XL	Video line receiver	1
Panasonic	WJ-AVE55	Digital AV mixer	1

Projector Rigging Points:

Projector has a mounting assembly and can be rigged from any horizontal bar

Cabling:

The theatre has a good stock of coaxial and RCA cable to accommodate the venue's own equipment

BACKSTAGE

Communications:

Stage Managers Desk

Stage managers console is located PS DS corner; it can be moved to O.P side
It has a light, clock, talkback master, Stage & Conductor view monitors and also has stage & house lighting controls

Talkback

Master Unit	Creative Audio 2ch Master
Total sub stations	17 x Creative Audio single channel Subs 1 x Creative Audio 2ch Sub 2 x Creative Audio Squawk Pac stations
Total headsets	4 x Beyer DT108 Single Muff Headset 13 x Beyer DT109 Dual Muff Headset 4 x MB Quart Single Muff Headset 1 x Telex PH88 mini single ear headset 2 x Telex (Big) Dual ear Headset
Radio Comms	1 x Telex BTR-800 2ch 4sub Master Station 4 x Telex BTR-800 2ch wireless Subs 5 x Rechargeable Battery Packs & Charger 4 x Standard Battery Packs

Talkback patching located at various positions throughout the venue

Paging / Show relay

Paging to the dressing rooms is available from the stage managers desk
Show relay is distributed to all dressing rooms, green room & rehearsal room

Stage Monitor

TV's set-up in green room, foyer, SM position & OP side of stage
Camera located centre of the Balcony Bar

Q Light System

Conductor Cue-light only

Dressing Rooms:

Dressing Room	Capacity	Toilets	Shower	Details
1	5	2	2	
2	6	2	2	
3	2	1	1	
4	2	1	1	
5	5	1	1	
6	5	1	1	
7	20	3	4	Male chorus
8	20	3	4	Female chorus

Laundry / Wardrobe:

Washing Machines	2
Dryers	2
Drying rooms	N/A
Iron / ironing board	2
Clothes racks	6
Steamer	1

Production Facilities:

Production Desk	Production desk set-up in the centre of the stalls. Table accommodates 2 people with dimmable lighting, DMX for the lighting desk, talkback, and house light control.
Production Office	Dressing room 6 is used for Production Office
Phone	Yes, advise tech manager if required
Fax	Yes, advise tech manager if required
Internet access	Yes, advise tech manager if required

Greenroom:

Tea / Coffee facilities	yes
Fridge / freezer	yes
Microwave	yes
Running water	yes

Stage Door:

Stage Door is located at the rear of the building. Access via Julia Street Access during bump-in / out will be controlled by the duty technician. During performance periods a staff member will be allocated to control access 90 minutes prior to a performance to 60mins after the completion of the show.

ADDITIONAL FACILITIES & INFORMATION

Orchestral:

Yamaha 7 foot grand piano (tuning by prior arrangement)
Yamaha 9 foot concert grand piano (tuning by prior arrangement)
Yamaha upright piano (tuning by prior arrangement)
Roland RD-700 electric piano
PDP EX series 5 piece drum kit
40 music stands & sconce lights
40 orchestral chairs

Rehearsal Space:

Rehearsal Room #1, 12.5m x 15m, sprung timber floor, bookings required for use.

VENUE:

Venue Contacts:

Venue Address **56 Neil Street Toowoomba Qld 4350**
Venue Postal Address **PO Box 1227 Toowoomba Qld 4350**

Staff Contacts:

Head of Lighting **Tim Panitz**
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Venue Plans:

Venue Plan and Section Available
YES, a PDF or DWG file emailed upon request. Plan is available for download on the APACA website