

# Technical Specifications

## Elisabeth Murdoch Hall

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## Venue Information

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Elisabeth Murdoch Hall is a modified shoebox shaped hall based on the classic proportions of the Vienna Musikvereinsaal. The hall has been specifically designed and built for the performance of acoustic music, but is also suitable for contemporary music, corporate events, and varied activities. The auditorium has a raked stalls level and a rear raked circle with split side balconies.

This document provides details of the services and equipment available from the Melbourne Recital Centre for the Elisabeth Murdoch Hall. Please refer to your contract for details of included services and equipment. Any services and equipment not included in your hire agreement will incur an additional charge, please contact your assigned Concert and Event Manager to discuss requirements.

Any additional equipment required but not specified in this document can be hired in through the Melbourne Recital Centre's preferred suppliers or alternative means.

Please note that information provided in this document is subject to change. The Melbourne Recital Centre is happy to provide production advice specific to your requirements at any point in order to help facilitate production planning.

## Auditorium Seating Capacity

The EMH auditorium consists of two levels of tiered seating: stalls and circle with side split balconies. The maximum seating capacity is 1000, with the optional stage extension maximum capacity is 915.

Stalls	without stage extension or orchestra pit	712 seats
	with stage extension or orchestra pit	617 seats
Circle		288 seats
Total		1000 seats

Utilising the FOH sound desk necessitates the removal of 13 seats at the rear of the stalls, if lighting control is to be operated from the rear of the stalls, then 21 seats are removed. For larger productions up to 34 seats total can be removed to accommodate additional equipment if necessary. Where ground stacked PA is in use it may be necessary to remove additional seats from sale.

## Accessibility

The auditorium is wheelchair accessible via the Front of House lift, to both Stalls and Circle levels. The stage is accessible via the goods lift.

## Assisted Hearing Facility

An Ampetronic Induction Loop system is available to the Stalls. Patrons are asked to turn their hearing aid to the T switch to pick up the program.

## Loading Dock and Stage Access

Equipment is brought into the building via the loading dock accessed via laneway from Sturt St, Access to the laneway is restricted and drivers must make themselves known to Stage Door personnel via an intercom located at the laneway entrance.

Please note it is not possible to back vehicles up to the loading dock doors, vehicles must park perpendicular to the dock door and items can be loaded onto a dock lift to access the dock, in some circumstances the dock lift can be used as a static ramp way from the back of a truck into the dock.

The stage is located one level above the Loading Dock and access is generally via a goods lift, size and weight limits apply, from the Goods lift to the stage is a flat surface to either OP (stage right) or PS (stage left). There is a limited amount of wing space for storage of items.

## Forestage Lift

The EMH is equipped with a forestage lift which allows for the bumping in of large items such as scenery or large quantities of production equipment from the dock / substage level. The lift can be used in several positions to act either as a stage extension or an orchestra pit. Its standard position is at stalls level where it forms the first three rows of audience seating. For practical use in any other position 95 seats need to be removed.

## Height and Weight Restrictions

Vehicle Height Clearance	N/A dock parking is open air	
Dock	Height	1000mm
	Door Width	3370mm
	Door Height	4000mm
Dock Lift:	Width	2800mm
	Length	3500mm
	WLL	4000kg
	Max height from ground	1500mm
Goods Lift	Width (internal)	2880mm
	Length (internal)	4000mm
	Height (internal)	2600mm
	Door Opening	2200mm
	WLL	4500kg
Stage Wings Door	Width	2570mm
	Height	2700mm
Forestage Lift	Width	3000mm
	Length	17000mm
	Door Width	2680mm
	Door Height	2400mm
	WLL	6000kg

Elisabeth Murdoch Hall and Primrose Potter Salon overhead truss WLL/ SWL are available on request.

## Vehicle Access

Access to the Loading Dock for pre-event deliveries is available during office hours 0830 – 1730, when Stage Door is attended, and approval has been given by Technical / Event Management in advance. Loading Dock access required for Event bump in/out or for deliveries outside office hours may be accommodated upon request, please contact Melbourne Recital Centre to discuss options.

## Parking

There is no parking available on the MRC site. There are several parking garages located nearby as well as metered on-street parking. Vehicles must leave site once unloaded.

## Workshop Space

MRC has limited workshop facilities. MRC staff may be able to assist with emergency repairs.

## Storage Space

MRC has very limited storage space. Some items may, by prior arrangement, be stored on the MRC site.

MRC takes all care, but no responsibility for the loss or damage of any presenters' property, including personal belongings. Presenters are encouraged to refrain from bringing personal belongings not required for their event.

## Laundry

MRC has no available laundry facilities. MRC staff may be able to assist with locating a suitable laundry nearby.

## Risk Management

Please note that:

- After completion and assessment of your event requirements form it may be required to undertake further detailed risk assessment or to supply a Safe Work Method Statement (SWMS). Your assigned Concert and Event Manager and suitably qualified MRC staff will be able to assist you in this process. Paperwork to be delivered no later than 28 days prior to your performance date.
- Equipment may be subject to safety checks by MRC Staff.
- All mains connected electrical equipment must have a current compliance tag from a suitably qualified person. Qualified MRC staff may, if time allows, be able to provide a compliance tag for the duration of your tenancy only. A small fee will apply per item checked. Untagged equipment will not be permitted use in the MRC.
- Overhead equipment must be rigged by a qualified rigger using appropriately certified equipment, supervised by qualified MRC staff.
- Additional equipment to be rigged overhead must have safety chains or similar precaution.
- Scenery, curtains and large props must be of a fire-resistant material or treated with fire retardant, certification of such treatment must be produced on request.

## Stage Specifications

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### Stage Dimensions

The EMH stage is an open concert platform (it does not have a safety curtain). Dimensions are approximate and vary with wall joinery; critical measurements should be confirmed on site. The setting (zero) line is drawn across the downstage edge of the main stage

Width	Downstage	17000mm
	Upstage	14000mm
Depth	from setting line	9000mm
	from downstage of extension	12000mm
Ceiling Height	above setting line	13050mm
	above LX4	9500mm
	above LX5	5660mm
	above stage extension	16700mm
Stage Height	above auditorium floor at Row A	1000mm
Throw	Follow spot	32500mm
	rear stalls to downstage edge	21580mm
	rear circle to downstage edge	29300mm

### Stage Floor

Surface	Matte clear polyurethane on compressed bamboo	
Rake	0° (flat)	
Material	Compressed Bamboo	
Wall surface	satin matte clear polyurethane on hoop pine ply	
Material	Hoop Pine Ply	
Stage Loading	Distributed	10,000kg/m <sup>2</sup>
	Point Load	6000kg

### Care of Timber Surfaces

- The use of tape on the stage is restricted to electrical, cloth (Tenacious) and cloth spike tapes. Nashua 357 tape is NOT permitted.
- It is not permitted to drill into or paint the stage floor **including use of cello or double bass spikes**.
- Equipment and Scenery can be weighted or clamped.
- A floor covering may be laid at the discretion of the venue.  
Any damage to the stage surface or walls during tenancy shall be the responsibility of the Presenter.



## Stage Machinery

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### Control

All hoisting and lifting systems within the EMH have a common control system. An E-stop on one system will shut down all hoists and lifting equipment and require a reset.

Lighting Bars, Backing Battens, Chandelier Hoists, Chain Hoists and Acoustic Banners are controlled via a custom Jands control unit located in the OP side stage

Speaker hoists are controlled via an ASM Genesis controller in the OP Side Stage, there are several pre-set positions for speakers, please see the Audio section for further details

The Forestage lift is controlled via a Jands pendant control in the OP side stage.

The Microphone winches are controlled from a Hyfax MHL R21 Located in the PS Side Stage.

The Panorama Drape bars are controlled via a Jands pendant control in the PS Side Stage.

For safety reasons hoisting and lifting gear installed in the MRC may only be operated by suitably qualified MRC staff or appointed competent person (as notified and agreed in advance).

### Stage Extension and Orchestra Pit

The forestage lift can be used as a stage extension or orchestra pit; this necessitates the removal of 95 seats from the stalls.

Stage Extension	Width	17000mm
	Depth	3000mm
Orchestra pit	Width	17000mm
	depth	4000mm (under hangs main stage)
	height below stalls	1600mm
	height below stage	2600mm

### Flying Facilities

The EMH has three backing battens located approximately 4800mm upstage. Each batten is approximately one third the width of the stage. These battens are unsuitable for flying during performance and fly independently of each other. Each batten has a lifting capacity of 250Kg.

LX Bar 5 can be used to fly scenery; Width is 13300mm and a max fly height of 5600mm. It has a lifting capacity of 500kg. It is unsuitable for fly moves in or out during performance.

Projection Screen Bar can be used to fly scenery or a temporary projection screen; the bar sits just upstage of LX4 and is the most suitable location for projection in the standard format. It has a lifting capacity of 500kg.

## Standard hanging plot

<b>Bar/ Point</b>	<b>Distance from setting line/ front of stage</b>	<b>Trim</b>
LX bridge 2- fixed bridge position	14830mm	
Mic Hoist (mics 1-3)	9480mm	
LX bridge 1- fixed bridge position	5993mm	
#1 Truss	3104mm	
Mic Hoist (mics 4-5)	3104mm	
LX 1	1950mm	10.7m
#2Truss	137mm	
<i>Stage Edge/ Setting Line</i>		
Mic Hoist (mics 6-7)	570mm	
LX 2	1050mm	9.5m
#3 Truss	1570mm	
Mic Hoist (mics 8-10)	3120mm	
LX 3	3750mm	9.5m
Mic Hoist (mics 11-13)	4850mm	
Banner Bar	4280mm	
LX 3A	5105mm	9.5m
LX 4	6845mm	8.7m
Mic Hoist (mics 14-15)	7367mm	
Projection screen bar	7675mm	
LX 5 (no bar rigged in standard configuration)	8217mm	

## Additional Rigging

The EMH has 8 touring rig penetration points which allow for the rigging of truss from chain hoists. These points each host GIS 500kg Chain Motors with a 16-channel controller. 2 x 14m Flat Truss bars and 1 x 12m Tri Truss are installed for rigging applications. Venue plans with positions are available on request.

MRC owns various lengths of black 300mm flat truss & tri truss lengths that can be utilised upon request.

Please note that any plans for utilising any hoists must be signed off in advance and work carried out by suitably qualified persons, supervised by MRC technicians. All rigging works are considered High Risk Work and must be undertaken by a licensed rigger and appropriate SWMS produced prior to commencement of work.

## Stage Equipment

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### Drapery

The Centre has a selection of soft goods packages available and more detail on this is available upon request. A selection of the most frequently used is as follows:

<b>Drape</b>	<b>Qty</b>	<b>Details</b>
Black wool legs	8	Sufficient to cover the stage walls to a height of 9000mm on Stage Left, Stage Right and upstage.
White filled cloth	8	2000mm wide by 10,000mm high
Red velour	6	50% fullness, 3500mm wide by 10,000mm high
Black wool border	2	50% fullness, 8000mm wide by 6500mm high

### Carpet and Tarkett

MRC can cover the entire EMH stage including the Stage Extension with black wool carpet or black tarkett. A small piece of Black/White reversible Harlequin dancefloor (4150mm x 2000mm) is available for use with flamenco, tango and tap dance acts.

### Orchestral Furniture

There is sufficient equipment to furnish a large orchestra including, adjustable orchestral chairs, bass stools, music stands, adjustable rostra, cello risers and conductor's podium.

## Rostra

### Varnished Timber Finish

All adjustable in height from 200mm to 1000mm in 200mm increments. Please note that not all risers can be set at the same height

Item	Qty	Measurement
Stringybark topped Showtrek risers	20	2000mm x 1000mm
Corner risers	8	various dimensions that can be combined with the standard risers
Half riser	1	1000mm x 1000mm
String riser	2	660mm x 660mm
Harp riser	1	1750mm x 840mm

Please note - Showtrek risers are typically used in wood stage setting, not with black carpet or Tarkett.

Legs for Showtrek risers

- 200mm = 30 (7.5 decks or 6 + 2 small wedges)
- 400mm = 60 (15 decks)
- 600mm = 44 (11 decks)
- 800mm = 28 (7 decks)
- 1000mm = 28 (7 decks)

### Matte Black Megadeck

Various heights available; 200mm, 450mm and 600mm

Item	Qty	Measurement
Megadeck $\frac{3}{4}$ risers	14	1800mm x 1200mm
Megadeck $\frac{1}{2}$ risers	2	1200mm x 1200mm
Megadeck roll-away risers	6	2400mm x 1200mm
Treads	2	W1200mm x H400mm
Treads	1	W1200mm x H600mm

### Carpet Top Black

Item	Qty	Measurement
Megadeck full risers	2	2400mm x 1200mm
Megadeck $\frac{1}{2}$ risers	2	1200mm x 1200mm
Megadeck $\frac{1}{4}$ risers	4	1200mm x 1200mm – Triangle

## Recital Instruments

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The EMH houses the following instruments for use on stage:

- Two Steinway D Grand Pianos, tuned to A441
- Yamaha S6 Grand Piano, tuned to A441
- Double manual Flemish-style Harpsichord (after Ruckers)
- Hubbard single manual Harpsichord
- Klop Chamber Organ (4 stop)
- C4 Fortepiano (after Walter & Sohn), tuned to A430
- Yamaha S90-ES Synthesizer

Use of these instruments is not included in the hire of the venue and is at the discretion of Melbourne Recital Centre.

Tuning is provided by the MRC's approved tuners only. Mechanisms of instruments shall not be tampered with (or "prepared") in any way without the permission of Melbourne Recital Centre. No food, liquid or other items are to be placed on the instruments.

## Stage Lighting

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### Main Control

Control in the EMH is provided by a MA Lighting GrandMA2 Light with a backup computer running MA on PC software. The system has 4096 parameters.

A wireless tablet is available for remote access.

The console is usually located in the control room for performances; however, the console can be located in the rear stalls, this necessitates 21 seats being removed from sale (and includes space for audio desk and racks).

Other consoles can be integrated into the EMH control system if required.

For the purposes of plotting the console can be relocated to a production desk in Stalls Row N.

Please advise in advance and allow for additional setup time if you intend to relocate the lighting console.

### Dimmers

Dimming in the EMH is provided by:

- 144 ETC Matrix MKII iSine 3kW Dimmers for FOH bridges, Box Boom, Circle Rail, Panorama and floor positions hard patched to outlets in these locations
- 48 LSC GenVI Dimmer/Distros for stage flown bars
- 60 LSC APS Distros for stage flown bars
- 12 State Automation VST sinewave dimmers for stage flown bars

## 3 Phase Power

All general and dimmed power supplies are 240V AC @ 50Hz. Additional 40A 3 phase power (Wilco) is available on the EMH motor deck, PS & OP, loading dock and sub-stage areas. Power distribution plans available on request.

## Standard Concert Lighting

The Standard Concert Lighting is designed to provide optimum coverage of the stage for soloists and orchestral performances and events that only require basic lighting. It incorporates a full stage open white wash of minimum 1000lux and a full colour mixing wash.

Position	Lamps	Notes
Stage	24x ETC Desire D60 Studio Tungsten	Open white wash
	24x ETC Desire D60 Vivid	Colour wash
	4x ETC Source 4 36° 750W on Apollo Right Arms with DMX Iris	Ensemble specials. Fitted with R119 – Half Hamburg Frost.
	8x ETC Source 4 26° 750W	Gobo wash R77805 – Leaf breakup medium with L107
	6x ETC Source 4 15-30° 750W	Upstage face light, Fitted with R119 – Half Hamburg Frost.
Stage Extension	7x ETC Desire D60 Studio Tungsten	Open white wash
	6x ETC Desire D60 Vivid	Colour wash
	4x ETC Source 4 19° 26-degree Profile 750W	Gobo wash R77805 – Leaf breakup medium with L107
Panorama Bars	4x ETC Source 4 LED Series 2 Lustr 36°	Wall gobo wash R79076 (Triangles 2) with R132
	6x ETC Source 4 LED Series 2 Lustr 26°	High side colour wash
	8x Source 4 Par WFL	Orchestra fill
Bridge 1*	6x ETC Source 4 14° 750W	Stage extension top light. Fitted with R119. Please note if LX1 is in use Bridge 1 will not get a clear shot of the stage.
Bridge 2	6x ETC Source 4 10° 750W	Stage face light open white with R132
	6x ETC Source 4 10° 750W	Stage lectern specials and DSC pool, with irises and R132
	6x ETC Source 4 14° 750W	Stage extension face light open white with R132
	6x ETC Source 4 14° 750W	Stage extension lectern specials and DSC pool, with irises and R132
	6x ETC Source 4 5° 750W	Specials
Box Booms	4x ETC Source 4 19° 750W 2x ETC Source 4 26° 750W	High-side fill and ensemble fill

\*Shot from Bridge 1, can be blocked when PA and/or LX 1 is in use

## Automated Fixtures

The following fixtures are included in the standard rig.

Fixture	Qty	Notes
Martin MAC TW1 80V	6	Standard position 2 each on LX 1, 2 and 3
Martin MAC Encore Profile	6	Standard position LX1

The following fixtures are available in the standard rig but occur additional charge.

Fixture	Qty	Notes
Martin MAC Viper Profile	12	Standard positions 6 each on LX 3A and 4
Martin MAC Quantum Wash	12	Standard positions 6 each on LX 3A and 4

Plot available upon request

## Floating Stock

The following fixtures are available but may occur additional fees, please check with your allocated Concert and Event Manager

## Intelligent Fixtures

Fixture	Qty	Notes
Chauvet Maverick Mk1 Hybrid	8	Tri truss adaptors available
Chauvet Rogue R1 Beam wash	18	

## LED

Fixture	Qty	Notes
ETC Desire D40 Vivid	17	
Showpro Fusion bar Q XII	10	
Showpro Hercules	12	

## Conventional

Fixture	Qty	Notes
ETC Source 4	50	19°, 26°, 15-30° lenses available. 750W.
Selecon Pacific 23° - 50°	3	1000W
Selecon Rama Fresnel	22	
Selecon Rama PC	4	
Selecon Acclaim Fresnel	10	
ETC Source 4 PAR	45	VNSP, NSP, MFL, WFL lenses available, 750W.
Selecon Arena 2kW Fresnel	15	
par 16 (Birdies)	10	Mix of 240V and 12V

## Atmospherics

Atmospherics	Qty	Notes
MDG ATMe	1	
Look Solutions Unique 2.1 Hazer	2	
Martin AF1 Fan	2	

## Accessories

Accessory	Qty	Notes
ETC Source 4 LED Fresnel Adapter	2	
Jands DMX Quad pack	1	

## Rigging

Accessory	Qty	Notes
Tri Truss on rolling bases	8	2m
Modular ladder pieces	16	

## Follow spots

2 Robert Juliat 'Topaz' 1200W MSD Follow spots with manual colour changer permanently located either side of the control room. The angle to the front of the stage is approximately 22 degrees, the throw is 32.5m.

MRC's follow spots cannot be relocated and there is no accommodation for additional follow spots in the venue. Use of the follow spots is at additional cost.

## Houselights

When the venue is in 'Event Mode' Houselights are controlled via the Lighting Console. There is a limited capacity for isolating areas of houselights.

## Music Stand Lights

- Up to 33 hardwired sconce lights, dimmable.
- Up to 12 battery powered sconce lights, two fixed brightness levels.
- 2 Conductor stand lights

## Colour

MRC has a limited stock of gels available for conventional fixtures. Additional colours can be sourced upon request.



## **Additional Equipment**

A range of additional equipment is available subject to the demands of other venues within MRC. Availability is not guaranteed, so all requirements must be discussed well in advance of the event. Additional equipment can be hired in on a presenter's behalf.

## **Effects**

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### **Smoke, Fog and Haze**

MRC allows use of smoke, fog and haze effects by prior arrangement. Equipment must be pre-approved for use in the venue, when used in conjunction with MRC's Keyboard Instruments. Your Concert and Event Manager will be able to provide you with a list of approved smoke, fog or haze devices.

MRC has;

- MDG ATMe Hazer,
- 2 Look Solutions Unique 2.1 Hazers
- 2 Jem AF-1 DMX controlled fans.

Oil based smoke/haze other than the MDG is restricted.

### **Strobe**

Strobe use is permitted, notices to be displayed in foyer.

### **Naked Flame, Pyrotechnics and Lasers**

Naked flame, pyrotechnics and lasers may be used with prior approval by MRC and may be subject to local authority approval. Always discuss requirements well in advance to ensure that all legislative and safety obligations have been met.

## Audio

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A full audio setup can be provided for Presenters wanting to present an amplified concert, including a Front of House audio console and a side of stage monitor console. MRC has capable in-house engineers able to provide a complete setup and operation of these events.

Please note that any amplified concert in the EMH will require the use of MRC's public address system only. Under no circumstances will MRC permit any external PA to be used in the EMH, and this is a condition of entering into contract with MRC. Use of additional external equipment is permitted at the discretion of MRC.

### Speaker system

Two standard configurations are available, pending on requirements:

#### Option A

Position	Qty	Equipment
L/R Arrays Flown	7	d&b Audiotechnik T-10 per side
Centre array	8	d&b Audiotechnik T-10
L/R Stage	2 (4 total)	d&b Audiotechnik T-10 per side, stacked on subs
Subs L/R	1 (2 total)	d&b Audiotechnik B-4 Sub per side
Front Fill	6	d&b Audiotechnik E0
Lower Balcony Fill	1 (2 total)	d&b T-10 per side

#### Option B

Position	Qty	Equipment
L/R Arrays Flown	7	d&b Audiotechnik T-10 per side
L/R Stage	1 2	d&b Audiotechnik V12 d&b Audiotechnik V8 per side stacked on J-Sub DSL/R
Infill L/R	1 (2 total)	d&b Audiotechnik Y7P per side
Subs L/R	1 (2 total)	d&b Audiotechnik J-Sub per side
Front Fill	4	d&b Audiotechnik T-10
Lower Balcony Fill	1 (2 total)	d&b T-10 per side

### PA Management

Time alignment, EQ and Routing is managed by 2 Meyer Galileo 616AES units. Settings can be accessed at FOH, stalls and at PS wing.

## Control

Permanently installed in Prompt side wing, for basic voice / playback amplification requirements only.

- Allen & Heath SQ 5

Equipment available for the Stalls FOH mix position:

- DiGiCo SD5 Mixing Console
- DiGiCo SD11 (pending availability)

Our FOH outboard rack includes:

- 1 x Lexicon PCM 96 Stereo Reverb/Effects Processor
- 1 x TC M3000 Studio Reverb/Effect Processor
- 2 x Empirical Labs ELM-8X Distressor Compressors
- 1 x Avalon VT-747SP Stereo EQ & Compressor
- TC Electronic D-two Digital Delay

Equipment available for PS monitor mix position:

- DiGiCo Q338 Mixing Console
- DiGiCo SD11 (pending availability)

## Monitors/Wedges/In-ears

- 12 x D&B M4 wedges, powered by D12/D80 amps
- 4 Channels PSM1000 system (Frequency band J8E). System comprises 2x P10T dual transmitter & 4x P10R bodypack receivers, 1x PA412B antenna combiner.
- MRC does **not** provide in-ear headphones.

## Microphone Stock

<b>Condenser</b>	<b>Quantity</b>
AKG C414B	4
Neumann KM184	8
Neumann KM105	6
Shure B91A	1
Sennheiser E901	1
Audix Micro D	5
Schoeps CMC1-U microphone amplifier	5
Schoeps MK21 wide cardioid microphone capsule	4
Schoeps MK4 cardioid microphone capsule	3
DPA 4023 Cardioid Compact	12
DPA 4027 Wide Cardioid Compact	4
DPA 4051 Omni Compact	4
DPA 4099 microphone	5
DPA 4099 violin mount accessory	4
DPA 4099 cello mount accessory	1
DPA 4099 double Bas mount accessory	1
DPA 4099 Piano mount accessory	2
DPA 4099 Brass mount accessory	1
DPA 4099 universal mount accessory	1
DPA 4099 mic stand mount accessory	1
DPA 4061 Miniature Omni (Beige)	4
DPA 4061 Miniature Omni (Black)	6
DPA 4066 Omni Headset (Beige)	3
DPA 4088 Cardioid Headset (Beige)	2
DPA 4006-TL Omni mmp-A standard preamp (pending availability)	2
DPA 4006-TL Omni mmp-C compact preamp (pending availability)	2
DPA Compact Active Pole for 4023	6
DPA Flamingo Grand Twin Double Pole	4
ATM 350 (instrument clip)	2
AT 4050	4
Neumann U89	2
Sennheiser MKH 416 shotgun microphone	2
<b>Ribbon</b>	
Royer R-122 Ribbon Microphone	2
<b>Dynamic</b>	
Shure SM58	8
Shure SM58 Switched	2
Shure B58	6
Shure SM57	6
Shure B57	8
Shure B56	4
Shure B52A	1
Beyer M88	2
Sennheiser E935	6
Sennheiser MD421	6

Sennheiser E906	2
EV RE20	1
Audix D4	4
Audix D6	1
AKG D112	1
<b>DI</b>	
BSS AR133 DI	10
Radial JDI (passive)	2
ARX DI-Plus	4
ARX DI-Plus 2 Stereo	4
Avalon U5	2
<b>RX</b>	
Shure ULXD2 H51 Beta58 cartridge	8
Shure ULXD1 H51 Digital Bodypack Transmitter	6
DPA d:facto II cartridge	2
Shure KSM9 cartridge	1
Shure SM58 cartridge	4
ULXD8 H51 gooseneck base transmitter	1

## Audio Visual

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### Projectors

#### Panasonic PT-RZ21k DLP 3 x chip

- Output: 21,000 lumens centre
- Contrast: 20,000:1
- Native chip resolution: 1920x1080
- Supported resolutions: 1920x1080
- Inputs: SDI, HDMI, DVI
- Lens: ET-D75LE40 long medium throw (4.6-7.4:1)

#### Primary Projection Screen

6.1m x 3.4m (20' x 11'3") - 16:9 ratio Stumpfl fast fold screen

#### Alternative Projection Screens

Large	12m x 6.75m perforated screen (16:9 ratio), Cyc style surface (not stretched), with masking 9m x 6.75m (4:3 ratio) 6.1m x 4.6m (20' x 15') - 4:3 ratio
Medium	3.65m x 2.1m (12' x 6'9") 16:9 ratio 3m x 2.3m (10' x 7.5') 4:3 ratio
Small	2.4m x 1.8m (8' x 6') 4:3 ratio

#### Projector Rigging Points

Due to the lack of depth between the screen line and the back wall front projection only is recommended from the control booth on Level 3 (MRC Panasonic 21k projector).

## Video Distribution

Roland V600-UHD mixer  
Roland V60-HD mixer

## AV Equipment List

Description	Qty
24" Sony SDI/HDMI Video monitor	4
55" Monitor in rolling road case	2
Panasonic PT-RZ21K Projector	1
Panasonic PT-DZ870EK Projector	1
Panasonic AW-UE50KEJ PTZ Camera	3

Full vision mix, scaling and adaptor list available upon request.

## Recording – Audio and AV

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Options available on request, including a fixed show relay recording of your event onto Mpeg4 format.

## Outside Broadcast

A variety of interconnect and cable penetration options are available from EMH to OB position in the rear laneway. 3Phase shore power is available, 2 x 63A on Wilco & CEE form (63A3P red, five pin) , and 2 x 40A on Wilco.

## Communications

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### Closed Circuit Television

#### Longview

A colour image of the EMH stage is distributed to the Stage Managers Desk, Wings, Back of House Areas, Dressing rooms, Green room and Rehearsal room, MRC and Visiting Company Offices, Control Rooms and Foyers. Longview can be sent to most parts of the building by arrangement.

#### Short view

A fixed Conductor shot from Upstage of the Prompt Side Panorama Bar is distributed to the Stage Managers Desk.

### Stage Managers Desk

The Stage Managers Desk (SMD) is located in Opposite Prompt (OP) Wing. It can be relocated to Prompt Corner by request. As well as long and short view monitors, zoned paging system for front and back of house and headset communicators' master station. Cue light system by prior request, pending availability.

## Headset Communications

Riedel Artist 32 & Bolero communications system is available, which is also integrated in to the Clear-Com wired 2 channel system. Wired headset communications can be distributed to most back of house areas and wireless coverage is available across the full venue.

Wired: Riedel Artist Smart Panels x 4  
Wireless: Riedel Bolero Belt packs x 7  
Wired: Clear-Com IF4W4

Unit numbers are subject to availability. Please contact Technical / Event Management prior to the event to discuss requirements.

## Backstage Facilities

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Hire of the EMH comes with the exclusive use of the 4 dressing rooms, Green Room, Rehearsal Room and Visiting Company Office for the period of the tenancy. Extra space might be available, by prior arrangement.

### Dressing Rooms

Suited for Conductors and Soloists, Dressing Room One has a lounge area, balcony, writing/dressing table & Mirror, ensuite bathroom, television, stereo system and telephone. Guest Wi-Fi access is available on request. A Yamaha Model S6 Grand Piano (tuned to A441) can be placed in this room subject to venue requirements and additional costs. This room can alternately be used for a large group (up to 10) of performers.

Dressing Rooms 2 to 4 are most suitable for one or two performers each. Each of these rooms has a writing/dressing table & mirror, comfortable chair, ensuite bathroom, television and telephone. Internet access is available on request. Dressing Room 4 has an upright piano for practise/warm up. This room can alternately be used to accommodate up to 5 performers.

### Rehearsal Room

The Rehearsal Room can be used as a Dressing Room for up to 15 performers. It has an upright piano for practise/warm up. Stand Mirrors, Costume Racks, table and chairs can be provided on request.

### Green Room

The Green Room is available for the use of Presenters. It has comfortable couches, a television, sink, microwave, fridge, and zip tap for boiling water. On request tea, coffee and other catering can be served here. Alternately it can be used as a dressing room for 10 performers; Stand Mirrors, Costume Racks, table and chairs can be provided on request. Please discuss your requirements with your assigned Concert and Event Manager.

### Visiting Company Office

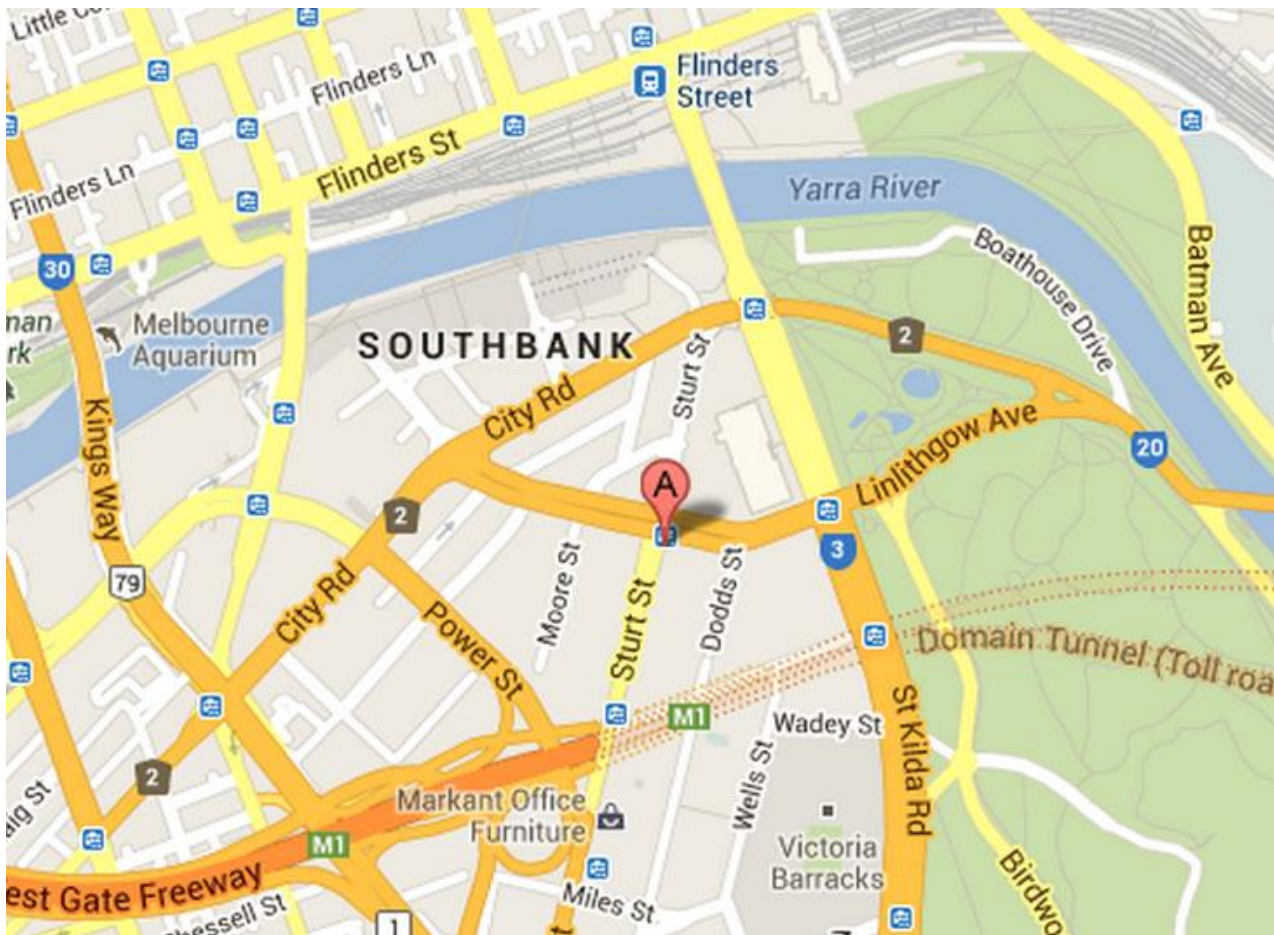
The visiting company office can accommodate up to 3 people. It contains a desk, office seating, show audio and vision relays and a lockable cabinet for valuables. Guest Wi-Fi access is available in this space. Alternately it can be used as a dressing room.

## Stage Door

The MRC's Stage Door services the backstage areas for both the Salon and Elisabeth Murdoch Hall. It is located on Sturt Street and attended from 08:00 until venue closedown each day. All presenters, staff, artists and visitors are required to report to Stage Door prior to entry to back of house areas

## Venue Location

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## Address

### Venue Address:

Cnr Sturt Street & Southbank Boulevard  
SOUTHBANK VIC 3006

### Stage Door:

31 Sturt St  
SOUTHBANK VIC 3006



**Postal Address:**

31 Sturt St  
Southbank VIC 3006