

Drama Centre  
Theatre  
Technical  
Specifications



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100 Victoria Street #05-01  
National Library Building  
Singapore 188064

## HOUSE RULES

***\*For the safety of everyone, an in-house technician must be present in the theatre before any equipment is switched on or brought to use***

### **1. HEALTH AND SAFETY**

- 1.1. All works carried out must comply with the Workplace Safety and Health (WSH) Act.
- 1.2. It is **compulsory** for the Hiring company to conduct their own Risk Assessments with respect to their specific onstage activities, a copy of must be submitted to the Venue Technical Production on the **first day** of setup.
- 1.3. Personal Protective Equipment (PPE) should be worn at all times during technical setup and strike *i.e., Safety Shoes*.

### **2. EATING/DRINKING**

- 2.1. No Food or Drinks (aside to bottled plain water) allowed onstage.
- 2.2. If the performance requires consumption of food or drinks, please consult Venue Technical Production.

### **3. FIRE HAZARDS i.e., OBSTRUCTION OF FIRE CURTAIN/ FIRE RETARD SCENERY/ HANGINGS**

- 3.1. All cloth sceneries hung are required to be fire retarded and a copy of the certification to be submitted to Venue Technical Production.
- 3.2. Fire doors located near the edge of stage cannot be obstructed, if a set is required to be extended beyond the fire door, please consult Venue Technical Production.

### **4. PROFESSIONAL ENGINEER ENDORSEMENT**

- 4.1. LED Wall of 3.2m and above **must** be endorsed by a Professional Engineer.
- 4.2. Any flown sets may require additional endorsements subjected to Venue approval.
- 4.3. Endorsement for platforms may be required, subjected to construction drawings and/or activities on platform.
- 4.4. A Certificate of Supervision by the Professional Engineer is required for every structural set endorsed.

### **5. LICENSED ELECTRICAL WORKER**

- 5.1. The use of venue 3phase power or higher is necessary for our in-house Licensed Electrical Worker (LEW) to be present for power turn on; YIRUN, I2R Consulting & Engineering Services Pte Ltd - (65) 9783 4749
- 5.2. Additional Distribution Box (DB) brought in by hirer requires an endorsement from an LEW.  
***\*Hirer may engage our In-house LEW for all endorsements; in which charges are to be borne by hirer. Please consult Venue Technical Production.***

### **6. STAGE EFFECTS (PYRO/ FIRE/ SMOKING/ WEAPONS/ CONFETTI)**

- 6.1. Venue **MUST** be informed a week before bump-in or at the earliest opportunity that the hirer intends to use special effects. The full details along with risk assessments must be supplied:
  - *Letter of No Objection must be obtained from the venue prior to application of SPF Permit.*
  - *Layout of Safety Radius (Pyro/Fire).*
  - *License to operate from the Contractor or Vendor.*
- 6.2. The act of smoking is prohibited by Law in Singapore.
- 6.3. Weapons that cannot be bought off the shelf *i.e., replicas*, requires police permit. <https://bit.ly/2R9WfJ7>
- 6.4. Use of confetti is subjected to Venue approval.

### **7. HUMAN FLYING/ ACROBATIC PERFORMANCE**

- 7.1. Venue Technical Production must be consulted prior to any request for human flying.

### **8. DAMAGED STAGE PREMISES/ EQUIPMENT/ PAINTING OF STAGE**

- 8.1. Hirer will not make changes to the existing stage floors/ walls, without prior approvals from Venue Production.  
***\*Stage restoration to its original state shall be borne by hiring company.***
- 8.2. Any painting on stage requires a protective covering on stage floors or any venue equipment.
- 8.3. Certain type of tapes is not allowed on stage. Hirer is to inform venue of the type of tapes intended for use, subjected to approval by Venue Technical Production.
- 8.4. Strictly No Drilling on Orchestra pit allowed.
- 8.5. No tapes are allowed to be used on Venue soft goods.
- 8.6. Repairs for any damages to stage or venue equipment caused by hirer or hired contractors will be charged to hiring company accordingly.

## THEATRE TECHNICAL SPECIFICATIONS

## LEVEL 3

Total Seating Capacity	615 seats
Stalls (including orchestra pit)	353 seats
Circle 1 Seating Capacity	144 seats
Circle 2 Seating Capacity	118 seats

Capacity will be reduced by the use of the following.

Orchestra Pit	36 seats (PA 1 – 18, PB 1 – 18)	
Wheelchair Space	House Left	6 Wheelchairs (L1 – L6, M1 – M3)
	House Right	6 Wheelchairs (L7 – L12, M4 – M6)

### **LOADING AREA**

The Loading Area is accessed by Bain Street. The Theatre's Back Stage area is accessed via the shared cargo lift located in the Basement 2 Car Park.

Loading Dock Entrance Height	3.9m
Dock Height from floor	0.48m
Loading Bay Opening	Width 4.2m, Height 2.7m
Door to Theatre Backstage	Width 2.6m, Height 2.8m

### **Loading Goods Lift (Shared)**

Height	3m
Width	2.6m
Depth	5.8m
SWL	4,000kg

### **FACILITIES**

#### **Laundry**

A shared Laundry Room is located at Level 5. It is equipped with 2 washers, 2 dryers, an Iron and an Ironing Board.

#### **Dressing Rooms**

All Dressing rooms are located at level 3.

Dressing Room 1	15 pax
Dressing Room 2	15 pax
Dressing Room 3	02 pax
Dressing Room 4	02 pax
Dressing Room 5	06 pax
Dressing Room 6	06 pax
Green Room	15 pax

## STAGING TECHNICAL SPECIFICATIONS

### 1. STAGE SPECIFICATIONS

<b>Floor</b>	Resilient floor with 36mm plywood top overlaid with Weathertex floorboards in 1.2m by 1.2m configuration	
	Loading of Stage Floor	5kN/m <sup>2</sup>
<b>Main Stage</b>	Main Performance Area	11m (width) by 12m (depth)
	Height of Apron	0.88m
	Depth of Cable Trough	0.34m
<b>Proscenium</b>	Hard Proscenium	10.98m (width) by 8m (height)
	False Proscenium*adjustable	Min. opening 8.9m (width)
<b>Depth from Downstage edge (Setting line) to:</b>	Last available Line Set (48)	13m
	Rear Stage Wall	14.9m
<b>Width from Centreline to:</b>	Wall Side Stage Left (PS)	17m
	Wall Side Stage Right (OP)	12m
<b>Wings (perimeter drape to wall)</b>	OP Wing Space	5m
	PS Wing Space	9m

#### 1.1 FORESTAGE ELEVATOR

Elevator may be used as - An extension to the stage floor, Part of auditorium seating area when used with seating wagons or, an orchestra pit.

Seat Numbers (number of seats)	PA 1 – 18, PB 1 – 18 (36 seats)
Width	10.9m
Depth from Setting Line to edge of forestage	3.15m
Static load	20000kg

### 2. RIGGING SPECIFICATION

<b>Operation</b>	Control	Raynok Motion Control System by Niscon Inc Joel Theatrical Power Flying System
	Location	Offstage DSL (PS)
<b>Fly Line Set</b> *refer to fly hanging plot for availability	Quantity	47 bars
	Distribution	0.25m (Starting at lineset 1)
	Dimension	11m (length) x 48mm (diameter) *Length may be extended up to 12.5m, however may cause restrictions on fly movements
	Maximum Capacity	500kg (Uniformly Distributed Load)
	Speed Variable	1.5m/sec
	Maximum Fly Height	16.50m (All the bar)

### 3. WIRE ROPE

1M X 6MM Black Coated	09
2M X 4MM Black Coated	07
3M X 6MM Black Coated	07
4M X 6MM Black Coated	05
5M X 6MM Black Coated	10
5M X 4MM Black Coated	10
6M X 6MM Black Coated	10

## STAGING TECHNICAL SPECIFICATIONS

### 4. PIANO

Arrangements are to be made prior to Get In dates. Drama Centre must have the piano tuned before every performance and the cost will be borne by the hiring company.

Type	Pitch	Tuning Cost
1 Unit Yamaha C3	A=441*	\$200.00

### 5. SOFT GOODS

ITEM	DIMENSION (Drop x width)	COLOUR	DESCRIPTION	Quantity
House Curtain	9m x 6m (x2)	Deep Blue	Velvet (50% fullness)	1 set
Tabs on Track	9m x 7m	Black	Wool Serge	2 sets
House Border	4.2m x 12m	Black	Wool Serge	1
House Legs	9m x 3m	Black	Wool Serge	2
Border	4.2m x 12m	Black	Wool Serge	3
Border	2.4m x 12m	Black	Wool Serge	2
Legs	9m x 3m	Black	Wool Serge	10
Gauze/Scrim	9m x 12m	White/Black	Sharkstooth	1 each
Full Black	9m x 12m	Black	Wool Serge	1
Side Masking (inner)	8m x 3m	Black	Wool Serge	10
Side Masking (Outer)	8m x 3m	Black	Wool Serge	8
Cyclorama	8m x 12m	Opera White	Seamless Plastic	1

### 6. ACCESSORIES

<b>MUSIC STANDS</b>	Quantity	05
	Brand	Hercules
<b>CHAIRS</b>	Quantity	16
	Brand	Mitylite Foldable
	Colour	Black
<b>TABLES</b>	Quantity	04
	Brand	Mitylite Foldable
	Colour	Black
<b>DANCE MATS</b> <i>(Available upon prior arrangement)</i>	Quantity <i>*Please refer to drawings for layout</i>	05 (12m by 2m) 01 (12m by 0.8m)
	Colour	Black (Vinyl)
	<b>WORK PLATFORM</b>	Electricity operated one-man elevated working platform
Maximum Height		9m

## SOUND TECHNICAL SPECIFICATIONS

### 7. CONSOLE & PLAYBACK

Mixing Console	Yamaha Rivage PM3 [CS-R3]	01 unit
Stage Rack 1 [For Stage I/O]	48 in/ 16 out	01 unit
Stage Rack 2 [For Radio-city]	32 in/ 16 out	01 unit
Position	Front of House mixing position *If a monitor desk is hired, cable run from FOH to Backstage left is 60m	
Playback	Hirer to provide their own playback device (e.g., laptop) *	

**\*Hirer must provide their own Playback Operator. Additional Venue crew may be called in to operate this task at additional costs to be borne by hirer. A detailed and accurate cue sheet should be provided along with a script or run-down.**

### 8. STANDARD RIG

A standard sound rig exists. All expenses related to varying, removing and restoring the House Rig are to be borne by the hiring company.

Proscenium Flown Cluster Left + Right	02x d&b Q7 per side
	02x d&b Q Sub per side
Proscenium Flown Cluster Centre	04x d&b Q1
	01x d&b Q7
Ground Stack Left + Right	02x d&b Q1 per side
Ground Stack Left + Right Sub	02x d&b Q Sub per side
	01x d&b B2 Sub per side
Front Fills	05x d&b E3
Monitors Rigged on Circle 1	02x d&b C690
Stage Monitors	04x d&b C690

**Onstage Monitoring powered by d&b E-PAC Amplifiers, total of 08 Amplifiers available.**

### 9. MICROPHONES & ACCESSORIES

Dynamic Microphones	Shure SM57	10
	Shure SM58	10
Condenser Microphones	Sennheiser Capsules ME62, ME64, ME66 and ME67	05
	Sennheiser K6P Powering Modules	10
Direct Injection Box	Countryman DI Box (Type 10)	04
	Countryman DI Box (Type 85)	06

**9.1 Drama Centre provides a standard quantity of microphones and transducers, additional units may be requested subject to availability as they are shared among venues. The hirer should bring in any microphone that cannot be catered for.**

## SOUND TECHNICAL SPECIFICATIONS

### 10. SHURE UR4D RF SYSTEM

Frequency Range 368.000 – 398.000MHz

SHURE UR4D Receivers	20
SHURE UR1M Micro Body Pack Transmitters	14
SHURE UR2 SM 58 Handheld Transmitters	10
MKE 2 with Shure connector (Black)	05

*\*Only 3M Transpore, Blenderm and Leukoplast surgical tape are allowed for use with the wireless microphones.*

#### 10.1 Charges for head-worn or head-set Microphones are as follows:

- \$45.00 daily rate (up to 3 days)
- \$135.00 weekly rate

### 11. SHURE PSM 900 WIRELESS IN-EAR MONITORING SYSTEM

Frequency Range 702.000 – 742.000MHz

Shure PSM 900	06
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*\*Earpieces are not provided. Hirer to bring their own.*

### 12. SHARED INVENTORY

*\*Please consult Technical Production on availability of the inventory below.*

Crown PCC 160	06
DPA 4066 Omni Directional Headset Microphones	02
SHURE KSM 32 Cardioid Studio Condenser Microphones	02
Shure KSM 141	04
DPA VO 4099 Stereo Microphones	1 pair
AKG C414 XLS	02
AKG C411 PP	04
Sennheiser MD 421	02
Sennheiser e906	02
Shure Beta WB 98 H/C	02
Shure Beta 52 A	02
Beta 98 AD/C	04
d&b MAX 12 Stage Monitor	04
<b>COUNTRYMAN WCE6 (Tan) Earset**</b>	<b>04</b>
<b>COUNTRYMAN WCB6 (Black) Omni Directional Lavalier**</b>	<b>10</b>
<b>COUNTRYMAN WCB6 (Tan) Omni Directional Lavalier**</b>	<b>05</b>

*\*\*IMPORTANT NOTE: Countryman is mainly for use in conferences/ speakers, not suitable for musicals or performance with singing.*

### 13. EXTERNAL WIRELESS SYSTEMS

**13.1 Do consult Technical Production where additional hired RF units are required as these should not conflict the ones provided by the Drama Centre.**

**13.2 It is necessary for hirers are to provide an RF operator if external RF systems are brought in.**

## SOUND TECHNICAL SPECIFICATIONS

### 14. COMMUNICATIONS

Stage Managers desk	Production Video Monitor
	Cue Light Master Station (FOH only)
	Foyer Chime Control
	Paging System (Stage Left)
	House & Work Lights control (Stage Left)
	Wireless Intercom Base Station (Stage Left)
	Wired Intercom Base Station (FOH)
	Show Relay Speaker (FOH)
	Ring intercom belt pack single channel (FOH)
Single channel speaker stations (FOH)	
Cue Lights & Accessories	Cue Light Out Station Units

#### 14.1 Accessories

ClearCom Matrix System
Ring Intercom belt packs single channel
Heavy-duty single ear headsets
Lightweight single ear headsets
Single channel speaker stations

### 15. PAGING & RELAY

Paging System	Paging System for Dressing Rooms & Corridors
Video Monitors	1 x 21" Video Monitor with static view of performance (Stage Left)
Audio Show Relay	Show Relay is routed to Dressing Rooms & Corridors
Latecomers Video Show Relay	Live video and audio relayed to TV monitors at Stalls and Circle foyers

### 16. ADDITIONAL INFORMATION

#### 16.1 Power

Located at Stage Right	<b>60A 3 phase (into Distribution Box) *</b>
	230 Volt 50 Hz
	16-amp C-form outlets from distribution box

**\*Lighting Power Source**

#### 16.2 Cable Runs

Cable Run (FOH Circle Rigging Position to Lighting Control Position)	20m
Cable Run (Backstage to Lighting Control Position)	70m
Cable Run (Backstage to SL SM Desk Position)	20m



## LIGHTING TECHNICAL SPECIFICATIONS

### 17. PRODUCTION LIGHTING

Upgrades and other design changes may alter venue specifications over time. This information is subjected to change, without notice. Hirers are urged to ensure they are in possession of the most recent documentation. Specific requirements must be verified on a show-by-show basis.

### 18. EQUIPMENT SET UP & OPERATION

All in-house equipment will be operated by Drama Centre staff, including consoles and Followspots. Concessions to this practice may be granted, under special circumstances, through prior consultation. All hired equipment will be setup under the direction of visiting personal but may be operated by either party.

### 19. ELECTRICAL SAFETY

All electrical equipment, brought on site, is expected to conform to local codes, be of good quality and good repair. Suspected equipment may be subjected to an Electrical Safety Test and the Drama Centre reserves the right to disallow its use.

### 20. CONTROL & DIMMER

Computerized Lighting Control	GrandMA2 Lite
House & Work Lights	ETC Unison 6-preset controller
Data Interface	DMX 512

#### 20.1 Dimmer

AF Euro Racks with patchable outputs		06
ETC Sensor Dimmers	ED15AF 3Kw/ 230w	528
	ED25AF 5Kw / 230v	24
	ER25AF 5Kw / 230v Relay Module	24

### 21. BASIC RIG

A basic rig exists. Any change is subject to prior agreement and charges for restoration will incur. Please peruse the standard rig plan which consists of:

Profile/Leko	ETC Source 4 fixed spot, 750w 10°	05
	ETC Source 4 fixed spot, 750w 19°	06
	ETC Source 4 fixed spot, 750w 26°	16
	ETC Source 4 fixed spot, 750w 36°	48
	ETC Source 4 zoom spot, 750w 15°- 30°	24
	ETC Source 4 zoom spot, 750w 25°- 50°	16
	ETC Source 4 fixed spot, 750w 26° <i>(Fitted with Auto Yokes, motorized IRIS &amp; scroller)</i>	06
Fresnels	Selecon Fresnel, 7-50° 1200w with barndoors	08
	Robert Juliat 329HF, 7°- 49° 2kw with barndoors	12
Parcan	Thomas PAR 64 (CP62 MFL), 1000w	04
CYC Units	Selecon Aurora CYC Floods, 1000w	06
Groundrow	Selecon Aurora Groundrow, 1000w	06
Followspot	Robert Juliat Aramis, 4.5° to 8° 2500w HMI	02
Moving Fixtures	<b>*Martin Mac 700 Profile</b>	12
	Martin Mac TW1	12

**\*\$15.00 daily or \$75.00 weekly charge per Martin Mac 700/Viper DX**

**\*Charge applicable only when fixtures are used**

## LIGHTING TECHNICAL SPECIFICATIONS

### 22. LED SURTITLE *\*Venue will provide template to be used for Surttitle.*

Input: composite, SDI, VGA, DVI and HDMI inputs	02 (Stage Left/Right)
Size: 1.152m (wide) and 2.304m (high)	
Pixel count: 192 pixels (wide) by 384 pixel (high) and total of 73728 pixels	

### 23. ADDITIONAL FIXTURES

Profile/Leko	ETC Source 4 fixed spot, 750w 19°	14
	ETC Source 4 fixed spot, 750w 50°	04
	ETC Source 4 19° lens only	06
	ETC Source 4 26° lens only	04
	ETC Source 4 36° lens only	04
	ETC Source 4 50° lens only	02
Parcan	Thomas PAR 64, 1000w fixture	20
	CP60 VNSP bulb only	10
	CP61 NSP bulb only	10
	CP62 MFL bulb only	20
	CP62 WFL bulb only	10
Fresnels	Selecon Fresnel 1200w with barndoors	12
Flood lights	Selecon Aurora Single cell flood (Symmetrical)	16
Moving Fixtures	<b>*Martin Mac 700 profile</b>	02
	<b>*Martin Mac Viper Wash DX</b>	14
	Martin Mac TW1	02
Strobe	Martin Atomic 3000	02
Haze	<b>*Smoke Factory Tour Hazer II</b>	02
Others	Striplights, 10 bulb, 5 circuits (MR16 bulb, 230V, 50W, 36°- 40°)	10
	Thomas Par 16(Birdie) (MR16 bulb, 230V, 50W, 36°- 40°)	10
	Ultraviolet Discharge Lamp 400W, non-dimmable	06

**\*\$15.00 daily or \$75.00 weekly charge per Martin Mac 700/Viper DX**

**\*\$25.00/day per haze machine**

**\*Charges applicable only when fixtures are used**

### 24. ACCESSORIES




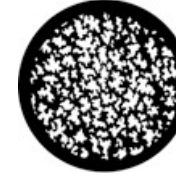














Iris Diaphragm for ETC Zoom and Fixed Spot	10
A size Gobo Holder for ETC Source 4	20
B size Gobo Holder for ETC Source 4	20
Floor Mount	10

### 25. POWER SUPPLY



Local Power Supply	230-volt, single phase, 50 Hz
Standard stage fixture connector	16 amps CEE17
	13-amp UK type
60A 3-phase supply on fly gallery	02
60A 3-phase supply on stage level	02

## LIGHTING TECHNICAL SPECIFICATIONS

### 26. GOBOS (Rosco, A size)

Rosco A size Gobos				
				
1) Blossoms 77774 Qty: 7	2) Foliage Medium 77779 Qty: 6	3) Jungle Leaves 77126 Qty: 2	4) Leaf Breakup Small 77119 Qty: 7	5) Leaf Breakup Medium 77805 Qty: 8
				
6) Realistic Leaves 79660 Qty: 7	7) Palm 77730 Qty: 2	8) Soft Breakup 77811 Qty: 8	9) Louvre 77215 Qty: 2	10) Venetian 77139 Qty: 2
				
11) lightning 1 77178 Qty: 1	12) Half Moon 77154 Qty: 2	13) Starry Sky 71054 Qty: 2	14) Windy Clouds 78229 Qty: 1	15) Stars 4 77752 Qty: 2
				
16) Skyline 1 77302 Qty: 2	17) Childish Clouds 78169 Qty: 2	18) Ripple Small 78129 Qty: 1		

### 26.1 *Various B size*

Various B size Gobos				
				
19) Pools of Light (GAM 779) Qty: 2	20) Breakup Rose Swirl Medium (Apollo 2232) Qty: 2	21) Star Group (Apollo 2420) Qty: 1	22) Starry Sky (Rosco 71054) Qty: 3	23) Nimbus (Rosco 77602) Qty: 2

## LIGHTING TECHNICAL SPECIFICATIONS

### 27. DC COLOUR FILTERS LIST

LEE FILTERS								
Lee	010	Medium Yellow	Lee	128	Bright Pink	Lee	164	Flame Red
Lee	061	Mist Blue	Lee	130	Clear	Lee	165	Daylight Blue
Lee	101	Yellow	Lee	132	Medium Blue	Lee	174	Dark Steel Blue
Lee	102	Light Amber	Lee	134	Golden Amber	Lee	180	Dark Lavender
Lee	103	Straw	Lee	135	Deep Golden Amber	Lee	181	Congo Blue
Lee	104	Deep Amber	Lee	136	Pale Lavender	Lee	182	Light Red
Lee	105	Orange	Lee	137	Special Lavender	Lee	191	Cosmetic Aqua Blue
Lee	106	Primary Red	Lee	138	Pale Green	Lee	195	Zenith Blue
Lee	109	Light Salmon	Lee	139	Primary Green	Lee	197	Alice Blue
Lee	110	Middle Rose	Lee	141	Bright Blue	Lee	200	Double C.T Blue
Lee	111	Dark Pink	Lee	142	Pale Violet	Lee	201	Full C.T Blue
Lee	115	Peacock Blue	Lee	143	Pale Navy	Lee	202	C.T Blue
Lee	116	Medium Blue Green	Lee	147	Apricot	Lee	203	1/4 C.T Blue
Lee	117	Steel Blue	Lee	151	Gold Tint	Lee	204	Full C.T Orange
Lee	118	Light Blue	Lee	152	Pale Gold	Lee	205	1/2 C.T Orange
Lee	119	Dark Blue	Lee	153	Pale Salmon	Lee	206	1/4 C.T Orange
Lee	120	Deep Blue	Lee	154	Pale Rose	Lee	241	Lee Fluorescent 5700
Lee	121	Lee Green	Lee	156	Chocolate	Lee	250	1/2 White Diffusion
Lee	122	Fern Green	Lee	158	Deep Orange	Lee	363	Special Medium Blue
Lee	124	Dark Green	Lee	161	Slate Blue			
Lee	126	Mauve	Lee	162	Bastard Amber			
ROSCO FILTERS								
Rosco	33	No Colour Pink						
Rosco	63	Pale Blue						
Rosco	114	Hamburg Frost						
Rosco	119	Light Hamburg Frost						
Rosco	132	1/4 Hamburg Frost						
Rosco	316	Gallo Gold						

### 28. DC SCROLLER STRING

Frame	Gel No.	Colour
1.	L130	CLEAR
2.	L147	APRICOT
3.	L147	MEDIUM YELLOW
4.	L010	PALE LAVENDER
5.	L136	MAUVE
6.	L126	FULL C.T BLUE
7.	L201	DARK BLUE
8.	L119	MEDIUM BLUE GREEN
9.	L116	DARK PINK
10.	L111	FLESH PINK
11.	L192	PRIMARY RED

All information above is subjected to changes and is correct as of date below – please contact venue for latest information.