



# Theatre Royal Technical Specification

## Theatre Royal Technical Specifications

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# Nottingham Theatre Royal Technical specifications



## Address

Theatre Royal  
Theatre Square  
Nottingham  
NG1 5ND

Technical Department (for all riders)

[technical@nottinghamcity.gov.uk](mailto:technical@nottinghamcity.gov.uk)

## Staff

Managing Director	Peter Ireson
Technical Director	Dave Guy
Acting Stage Manager	Andy Kind
Head Flyman	Shaquille Kerr
Head of Lighting and Sound	Michael Donoghue

## Telephone Numbers

Stage Door	0115 989 5500
Box Office	0115 989 5555
Company Managers Office	08458720773

## Seating Capacity

Stalls	528
Dress Circle	251
Upper Circle	226
Balcony	181
Total	1186

Sound Desk	– Deduct	12 Seats
Sound & LX desk	– Deduct	15 Seats
Auditorium Treads	– Deduct	6 Seats per Side.
Small Orchestra Pit	– Deduct	32 Seats (2 Rows)
Large Orchestra Pit	– Deduct	90 Seats (5 Rows)

Please inform the theatre at the earliest opportunity for the removal of any seats from the seating plan.

## Orchestra Pit

Small Orchestra Pit (46 sq.m [495sq.ft]) – Rows A & B Removed  
Large Orchestra Pit (75 sq.m [807sq.ft]) – Rows A – E Removed  
Both formats include 21sq.m [226sq.ft] under 3m deep stage overhang.  
The theatre owns 15 lit RAT stands. + Double MD Stand.

## Stage

### Access

Get in: - Loading bay on Goldsmith Street. Room for two trailers to back inside building for unloading.

**CAUTION** Due to tramlines outside building parking for trailers is strictly limited. Priority is given to the Concert Hall as their loading is on the street. There is No parking for private vehicles outside the building at any time. Parking of private vehicles is in various nearby public car parks.

### Stage Specifications

The Theatre's Stage floor is natural strip hardwood and can not be painted under any circumstances. It is however a working surface and therefore companies are more than welcome to screw floors/scenery into the floor.

Stage Rake	1:25	
Proscenium Opening Point to Point	8.52m	(27' 11")
Proscenium Opening Column to Column	9.29m	(30' 6")
Proscenium Height	8.50m	(27' 11")
Swaged Pelmet, Centre Point	6.03m	(19' 8")
Proscenium Boom Height	7.26m	(23' 10")
FoH Truss Width	8.70m	(28' 6")
Setting Line (Back edge of Iron) to Bar 59	11.96m	(39' 3")
Grid Height Down Stage	18.90m	(62')
Grid Height Up Stage	18.40m	(60')
Fly Bar Length	12.55m	(41' 2")
Fly Bar Diameter	50mm	(2")
Distance Between Fly Floors	13.90m	(45' 7")
Height Under Fly Floors Down Stage	7.97m	(26' 2")
Height Under Fly Floors Up Stage	7.55m	(24' 9")

Stage Right Scene Dock Area	9.80m x 13.00m (32' 2" x 42' 7")
Rear Stage Scene Dock Area	6.30m x 17.30m (20' 8" x 56' 9")

59 Single purchase counterweight sets at 200mm (8") centres operated from stage left Fly Floor.

Maximum Loading 450Kg per Set.

**Please note during fit up and get out a minimum of 3 in-house stage crew are required due to the location of the loading gallery when flying bars are used**

**Note: - Bars 48 & 53 are Up & Down bars. Max Loading 325Kg**

House Tabs	Motorised swaging curtain operated from DSR control panel (On C/W Bar 1) and can not be removed
Safety Curtain	Operated from DSR control panel
House Pelmet	Swaged Pelmet, average height 7.20m (23' 8")

### **Masking & Drapes**

4x Black Serge Borders	44' x 12'
3x Black Serge Deep Border	44' x 18'
1x Pair of Black Serge Legs	15' x 30'
5x Pairs of Black Serge Legs	12' x 26'
1x Black Serge Full Tabs	44' x 24'
3x Pairs Black Serge Split Tabs	25' x 30'

Assorted hard black masking.  
Assorted stage braces and weights.  
Assorted lengths of conduit.  
Assorted lengths of scaffold pipe.

**Note:** - The theatre does not have a cyclorama in stock.

### **Access Equipment**

The theatre owns two tallscopes.

Large 4.60m (15') to 7.50m (24' 6")	250lb (115Kg) S.W.L.
Small 3.9m (12' 10") to 5.9m (19' 6")	250lb (115Kg) S.W.L.

We also own the following ladders

2 x	3 Tread Small A-Frame
1 x	7 Tread Medium A-Frame
1 x	8 Tread Medium A-Frame
1 x	12 Tread Tall A-Frame
2 x	10 rung Zarges ladders with maximum working height 6.90m
2 x	12 rung Zarges ladders with maximum working height 8.60m

### **Projectors and Screen**

1x	Christie DWU951 8,900 Lumen c/w Flying frame. Lens: 0.8~1.0:1
1x	Sanyo PLC –XP55L 4,500 Lumen c/w Flying bracket. Lens: 1.8~2.4/2.3~4.2:1
1x	12'x9' (4:3) Rear Projection Screen. Can be flown or floor mounted.

## Lighting

### Control

ETC Eos Ti 24,576 output. 3x 24" Dual Touch Screens

ETC Eos desk with 2x10 fader wing and

ETC Ion desk 3,072 Ch.

3x 4 way DMX gateways. Control room, SR Fly Floor with Swisson buffers, SL Perch with Swisson Buffers.

Strand 520i console 800 channels 800 attributes

Cat5 tie lines to various positions.

8x DMX tie lines from control room to SR touring dimmer position.

3x DMX lines are available from control box, patchable to points on the flyfloors and stage.

The control box is situated in the upper circle position.

### Dimming

174 in-house ETC Sensor dimmers (154 x 3k & 20 x 5k)

52 Situated FOH and a maximum of 122 on stage, (including patches).

The stage right fly floor is the main position for overhead plugging.

16 x 10/20Amp Independents at various points around the stage and auditorium, switched manually from the control room.

63A 3Ø Hard Power Distro S.R. Fly Floor. 18x 15a, 18x 16a, 3x Leci, 3x Socca.

### Mains Supplies

In addition to house dimming, we have various mains supplies to the stage area.

#### S.R. Wing

200A	3Ø	Powerlock (Camlock adapters available)	Normal LX Feed
63A	3Ø	Ceeform Socket (1Ø Socket Also Available)	Normal Sound Feed

#### U.S. Dock

500A Supply Split into: -

500A	3Ø`	Bus Bars (Lugs)	
315A	3Ø	Powerlock	
63A	3Ø`	Ceeform Socket (RCD Protected)	
63A	3Ø`	Ceeform Socket (Non RCD Protected)	
32A	3Ø`	Ceeform Socket (RCD Protected)	Normal Motor Feed

#### S.R. Fly Floor

63A	3Ø	Ceeform Socket (1Ø Socket Also Available)
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#### D.S.L.

63A	3Ø	Ceeform Socket (1Ø Socket Also Available)
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**Lantern Stock**

**Permanent FOH Rig**

24x	Source 4 14°	750W
20x	Source 4 19°	750W
8x	Source 4 36°	750W

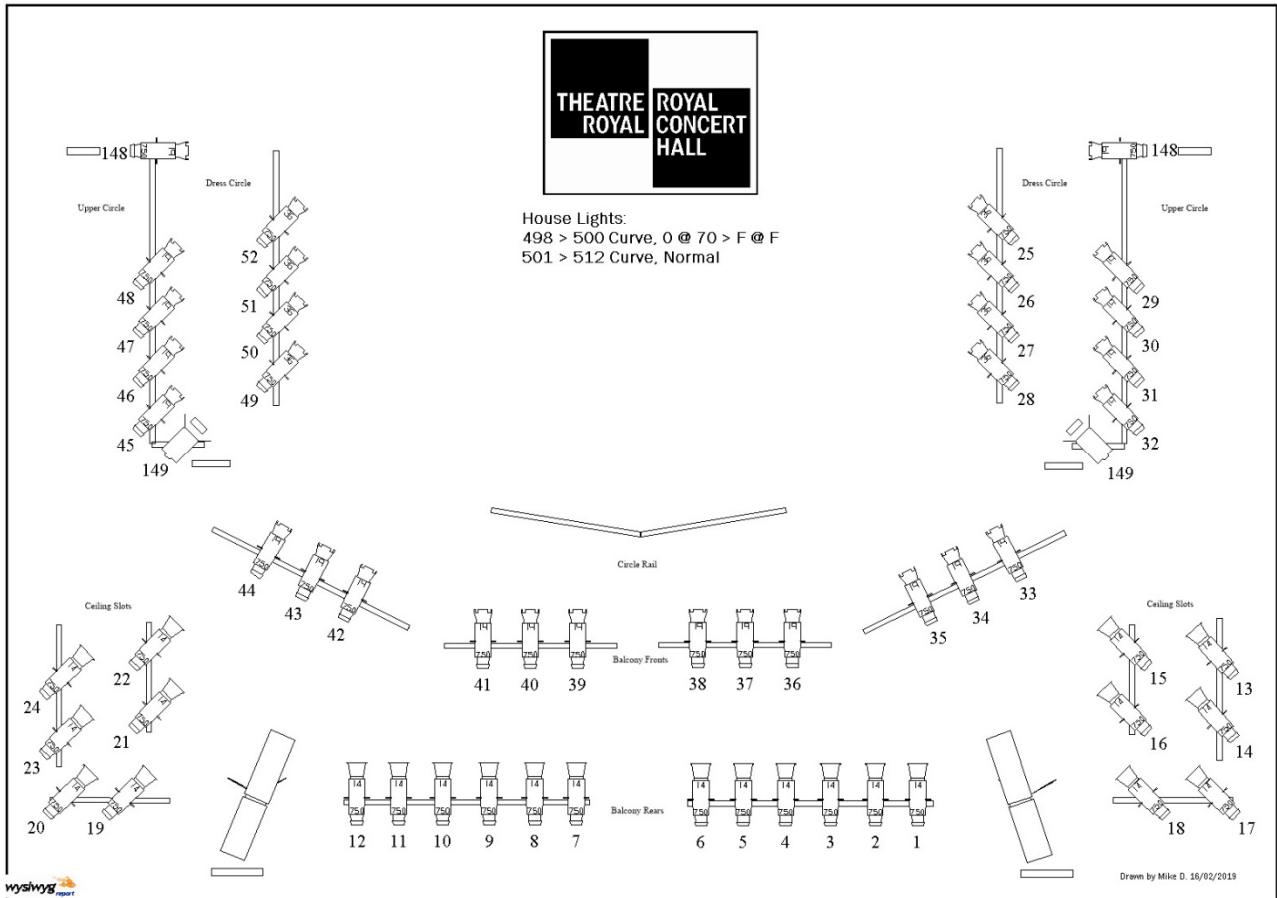
**Stage Stock**

27x	Source 4 bodies	750W
4x	19°, 6x 26°, 24x 36°, 12x 50° Lens tubes	
6x	Minulette 17/36°	650W
12x	Cantata F	1200W
36x	Patt 743	1000W
8x	Patt 828	2000W
80x	Par 64	1000W
10x	Par 16 Birdies	50/75W
6x	Iris 4	4x1000W
1x	Iris 2	2x1000W
4x	Coda 1	1x1000W
2x	R&J Victor Followspots 23m throw to Tab Line.	1800W (Situating to rear of balcony)
5x	18 Way I.W.B.	
1x	Iris 4 Flood Bar I.W.B.	

Various bench bases, 4'6" Stands

Large selection of Lee and Rosco gels.

**FoH Plan**



**FoH Truss Position and Prosc. Rigging**

**Prosc. Booms**

Trussing is installed vertically on both sides of the proscenium from stage level, up to the ceiling of the auditorium. It is split into 3 main sections. Dress, Upper and Balcony, each with a weight loading of 500Kg. There is a section of Ladder beam from stage floor to the Dress Circle truss with a loading of 150Kg and a section between Dress and Upper Circle with a loading of 100Kg. The Balcony Truss has a head block on top with a double braked motor rated at 400Kg for rigging / hanging Line Array or suspending the FoH Truss.

**FoH Truss**

The FoH truss (Prolite H40R) is 8.7M wide and is hung from the motors on top of the Prosc. Booms from custom end brackets.

It has a maximum loading of 724Kg. This may be a centre point load for PA or evenly distributed over the width of the truss.

It is 40cm from the front edge of the stage.

Maximum truss height is 10.17m from stage level.

Please note there is no access to the FoH truss when it is at height.



## **Sound**

### **Control**

DiGiCo SD10T with Waves card.

2x SD Racks, 12x 32Bit 8way Mic cards, 5x 32Bit 8way Return cards, 2x AES In/Out cards, 1x AES Out card.

Soundcraft MH3 48+4ch 8 VCA, 8 Group, 12 Aux.

Soundcraft Delta 24ch 4 Group, 4 Aux.

3x Yamaha MG10/2 Mixers (Portable Small Mixer)

### **Outboard**

2x Klark Technik DN360 Dual Graphic EQ

2x Sony MDS-E12 Minidisc Recorder

2x Denon C-620 CD player

1x Yamaha SPX 2000 Effects Unit

1x Yamaha SPX 1000 Effects Unit

2x Drawmer DL241 Dual Compressor

1x Drawmer DS404 Quad Noise Gate

1x BSS Soundweb 9088i

1x BSS Soundweb 9008ii

### **Speaker System**

#### **Full d&b FOH System Comprising of**

2x Ci9 (Stalls)

6x Ci6 (Dress, Upper and Balcony)

4x Ci7 Sub (2 at Stalls, 2 at Balcony)

6x E0 (Stalls Delays)

All Cabling on Socapex with breakout boxes

#### **Stage Effects/ Foldback System**

4x d&b E12 Speakers

6x d&b E6 Speakers (Front Fills)

6x Martin CT2 Speakers

2x Amcron 600 Amplifiers

2x EV SX 200 Speakers

1x EV P1250 Amplifier

1x Bose 101 Speaker

All cabling on NL4 via Breakout boxes or Rack Front

All powered by D20/ Epac amplifiers D/S/R running ROPE

### **Microphones**

- 3x Crown PCC 160
  - 6x Beyer M201
  - 4x Shure SM57
  - 1x Shure PGDMK6 Drum Kit  
(Containing 1xPG52 (Kick), 4xPG56 (Snare/ Toms), 2xPG81 (OH/Instruments))
  - 3x Sennheiser MD421
  - 6x MTR DI-3 DI Box
  - 1x MTR DI-2 Dual DI Box
  - 4x AKG C747 Mic Kit
- Various Shure SM58/ AKG 451 shared with Concert Hall  
Various Boom/Short Mic Stands, Stand Clamps etc.

### **Multicores and Cabling**

Installed fibre from Stalls mix position to stage. Various loose fibre cables.

- 1x 48Way 36/12 50M Multicore loomed with 16 amp mains, 2 x BNC and 1 x CAT5 for Stalls Mix Position
- 1x 32Way 28/4 50M Multicore
- 2x 8Way 20M Stage Multicore Tails to Box
- 2x 8Way 10M Stage Multicore Tails to Box

Various Lengths of Mic Cabling available  
Various jack leads and XLR adapters available  
XLR Stage patches available across stage

### **Radio mics**

It is the responsibility of the Visiting Company to ensure that all radio equipment, except that provided by the venue, such as radio microphones and two-way radios are properly licensed. A copy of all applicable radio licenses should be available. The venue will refuse the use of radio equipment that cannot be shown to be licensed, or license free. For information on licensing please contact JFMG below

<http://www.jfmg.co.uk/>

4th Floor, UK House, 2 Great Titchfield Street, London, W1W 8BB, 020 7299 8660

### **Touring**

We are quite happy for touring companies to utilise our equipment where and if required.

The mixing position for touring desks is at the centre rear stalls.

The Multicore run is 27m to the front of stage and 50m to O.P. Wing (Normal Amp and Power Position)

Speakers are normally pros hung or in most cases the side boxes are held off the seating plan until after the fit up.

### **Communications**

Nottingham Theatre Royal has a very narrow S/L wing and main dressing room entrance is from S/R therefore the SM desk is normally housed in the O.P. Corner rather than P.S. but, the desk can be moved to the P.S. position if necessary.

### **Q-Lites**

The theatre operates a totally patchable 12ch ASL TS120 Cuelight system, which is built into the stage management desk, with TS10 Outstations.

### **Comms**

The theatre operates a single ring Techpro system, capable of handling up to 16 outstations. We hold in house 15 headsets and beltacks, which can be patched in at most areas in the stage and auditorium, as well as comms built into the stage management desk.

For touring comms systems the system can be patched to most points in the stage and auditorium on 3pin XLR patches.

### **Prompt desk**

There is switchable show relay to all dressing rooms and greenroom, and paging to all areas including corridors and stagedoor.

The desk incorporates 2 switchable 17" monitors allowing 2 video-input feeds per screen, with patchable video distribution situated in the comms rack. We have HiRes colour and IR. cameras feeds to the desk for FoH pictures. We also have 2 spare ways of BNC to the dress circle front should you wish to use your own cameras or run in MD monitors / projectors.

**Backstage Facilities**

There are 16 Dressing rooms at the Theatre situated in the following areas

Basement	4 Chorus Rooms (Dr. Room 13-16)
Ground Floor	6 Principal Dressing Rooms (Dr. Room 1-6)
First Floor	6 Dressing Rooms (Dr. Room 7-12)

All Dressing Rooms have washing & shower facilities.  
 The following Dressing Rooms have toilets 1-6, 10-11. There is more information on dressing rooms below.

The Band Room and Green Room are situated in the Basement.

Wardrobe is situated in the basement (with lift access) and has industrial washer and dryer facilities. In addition the following mains supplies are available in the laundry room.

2x	16A	1Ø	Ceeform Socket
2x	13A		Sockets

Plumbing points are also available for a toured washing machine.

**Please note dogs are only allowed backstage if performing, and with the appropriate licensing documents**

Due to a number of dressing room keys going amiss / not returned, a replacement charge of £50 per item will be levied for any backstage keys not returned to the stage door.

Theatre Royal  
 Dressing room capacity guidelines

Dressing room number	Mirror positions	Shower	Toilet en suite	Max Capacity adults	Max Capacity children (under 12)
1	2	1	Y	6	7
2	2	1	Y	6	7
3	1	1	Y	4	5
4	2	1 accessible	Y accessible	6	7
5	1	1	Y	4	5
6	1	1	Y	4	7
7	5	1	N	10	12
8	5	1	N	10	12
9	5	1	N	10	12
10	2	1	Y	4	8
11	3	1	Y	6	12
12	4	1	N	8	12
13	10	3	N	20	35
14	11	3	N	22	35
15	11	3	N	22	35
16	10	3	N	20	35
Total	75	24	8	162	246

### **Backstage accessibility**

Please let us know of any access requirements that we may need to act upon so we can do our utmost to support these needs.

Dressing room 4 is accessible with level access via the Stage Door Lift and accessible toilet and shower.

There is an accessible toilet adjacent to the Cowens Suite in the Royal Concert Hall. Nelsons Suite and Dressing room 20 in the Royal Concert Hall have shared access to an accessible toilet and shower

Stage has level access via the loading bay entrance to stage or via stage right

Dressing rooms 1 to 6 have level access via stage

Dressing rooms 13 to 16 have level access via the Stage Door Lift.

Stage Door has level access via a platform lift and automatic door.

Stage Door and Box office counters have induction hearing loops installed.

Dogs with a recognised assistance dog id card are permitted backstage but please let us know in advance to prevent any confusion.

There is a changing place toilet in the Concert Hall Foyer for use by both public and visiting staff.

There is level access to the auditorium stalls via the stalls foyer.

Please advise on any strobe or flashing lights within performance.

The venue runs an access requirement register which details front of house access information for customers, this is available on our website.

### **Hearing Assistance & Audio Description**

The theatre does not operate a loop system as they can interfere with equipment within the building. Please note as a result some audience members may be using a phone during the performance.

The theatre has a stock of headsets and facilities for audio describers. There is good IR coverage in all levels, but due to the nature of the theatre's design the extremities of the auditorium are out of the radiators range.

Please contact the theatre sound department or access officer on 0115 989 5500 for further details.