



# The Corporation of Massey Hall & Roy Thomson Hall

## TECHNICAL INFORMATION

**ROY THOMSON HALL**  
**60 Simcoe Street**  
**Toronto, Ontario**  
**M5J 2H5**  
**Tel: (416) 593-4822**  
**Fax: (416) 593-4224**

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## **CONTACT**

Doug McKendrick  
Director of Production  
[doug.mckendrick@mh-rth.com](mailto:doug.mckendrick@mh-rth.com)  
416.593.6985

Dan Brooks  
Production Coordinator  
[dan.brooks@mh-rth.com](mailto:dan.brooks@mh-rth.com)  
416.593.0079

Alex Naylor  
Production Coordinator  
[alex.naylor@mh-rth.com](mailto:alex.naylor@mh-rth.com)  
416.593.1189

Megan Paquette  
Production Coordinator  
[megan.paquette@mh-trh.com](mailto:megan.paquette@mh-trh.com)  
416.593.0904

## **STAGE INFORMATION**

The facility is a classical concert hall configuration. It features a trapezoidal shaped stage area with natural hardwood floors. The auditorium is grey concrete with wood paneling in a clear maple finish. Drilling or screwing into the stage floor is not permitted.

The stage contains no masking and minimal stage left and stage right wing space. There is no proscenium. The entrance to the stage is via upstage and downstage double doors.

Due to building regulations the use of indoor pyrotechnics is forbidden.

### **Stage Dimensions**

45-feet wide upstage  
62-feet wide downstage  
82-feet wide downstage, full apron  
41-feet deep at center  
28-feet height clearance

## **LOADING AREA**

### **Loading Dock:**

Access must be prearranged, as there is an access gate. Loading ramp is inclined down from street level at an approximate 8-percent grade. Dock is at truck bed level. Two roll-up dock doors provide access to the hall. Loading doors are 100-inches high by 94-inches wide and lead directly on to the stage. Interior restrictions require that any stage material must fit through a 79-inch wide by 95-inch high door to reach the wing area, and 84-inches wide by 101-inches high to access the stage.

### **Parking Restrictions:**

Downtown parking is extremely limited; some production vehicle parking is available at the venue. Arrangements must be made in advance with venue management.

## **ELECTRICAL & LIGHTING**

### **Power Source**

Location.....Stage right  
Capacity.....400AMPS  
Phase.....3  
Voltage.....120/208  
Cycles.....60

Location.....Stage left  
Capacity.....200AMPS  
Phase.....3  
Voltage.....120/208  
Cycles.....60

### **Lighting Circuits**

Stage system: dimmers as required for house fixtures, plus:

2.4 k Dimmers:

48 in a Strand Supervisor rolling rack stage right

48 in a Strand Supervisor rolling rack stage left

Others accessible through permanent circuit installations throughout auditorium

Protocol: DMX 512

Pathport C-Series Nodes with 2 DMX ports

2 in the lighting control booth

1 in the followspot booth

1 in the Stage manager's booth, stage right

2 in the projection booth, centre, rear house

2 parterre seating, house left

2 parterre seating, house right

2 down stage right wing

1 offstage left utility room

Others in attic spaces in the auditorium, integral to circuit panels

### **Connectors**

New-style twist lock - 20 Amps, 120 Volt

### **Lighting Console**

Grand MA2 Full-size. Located in the house control booth on the mezzanine level and is operated by house technicians.

### **Touring Console**

Touring lighting consoles are typically located house left at the rear of the left parterre seating section. This position offers a clear view of the stage and is supported with ClearCom.

## **LIGHTING POSITIONS**

### **Permanent Installation:**

#### **FOH positions:**

House Right  
6 – 10-degree Source Four  
2 – 5-degree Source Four

Centre  
4 – 5-degree Source-Four

House left  
6 - 10 degree Source Four  
2 - 5 degree Source Four

#### **Spotlights:**

2 – 2.5K Xenon Gladiator IIs w/ 6 colour frames in a followspot booth house centre. *Throw is 130'*

#### **On-stage Lighting Positions:**

62 Vari-Lite VL1000 1k incandescent multi-use automated fixtures; 20 with iris, 42 with shutters – mounted on circular, permanent trusses integral to the acoustic canopy and on a semi-circular truss independent of and below the acoustic crescent canopy. See plot for exact placement.

20 Vari-Lite VL2402 wash-type automated fixtures mounted within same circular trusses as above & on 4 split-pipe structures – see plot for exact placement.

9 Vari-Lite VL2202 profile-type automated fixtures mounted within same circular trusses as above & on 4 split-pipe structures – see plot for exact placement.

#### **Rigging:**

Rigging points exist in a grid-like pattern above the stage and above the auditorium for additional lighting or other uses. Each point is rated for 1500 pounds. Please contact the Production Manager for exact plot.

## **SOUND SYSTEM AND COMMUNICATIONS**

### **Audio Power:**

Location.....stage left  
Capacity.....200AMPS  
Phase.....3  
Voltage.....120/208  
Cycles.....60  
Isolated ground.

### **Main Sound System**

#### **Centre Cluster:**

The cluster consists of the following:

- 11 – Meyer JM-1P Upper Main
- 3 – Meyer UPQ-1P Middle Main
- 1 – Meyer UPQ-1P Down Fill
- 1 – Meyer UPQ-1P Center Rear Fill
- 2 – Meyer UPQ-2P Center Corner Fill

Speakers are flown at a fixed height and are in a cluster array above downstage center.

#### **On-stage Speakers:**

On-stage speaker stacks on custom cart, stage right and stage left, each containing:

- 4 – Meyer JM-1P
- 2 – Meyer 700HP Subwoofers (Standard configuration is 1 Subwoofer per side)

#### **Distributed Support System:**

Stage apron front fill.....7 – D & B Audiotechnik F9  
Under Mezzanine (for rear Orchestra).....18 – Meyer UPM-1P Delay Fills

#### **Amplification:**

All speakers are self-powered excluding front fills.

## **Mixing Consoles:**

### **Front of House Console**

AVID S6L 32 with E6L 192 Engine (Movable between main booth and main floor mix)

### **Monitor Console**

AVID S6L 24 with E6L 144 Engine

### **Stage Rack System 1 – Control Booth Location**

- 1 - AVID Stage 64 I/O Rack
- 6 - AVID SRI-192 Analog Input Card
- 2 - AVID SRO-192 Analog Output Card
- 2 - AVID DSO-192 Digital Output Card

### **Stage Rack System 2 – Stage Left Rack Location**

- 1 - AVID Stage 64 I/O Rack
- 6 - AVID SRI-192 Analog Input Card
- 2 - AVID SRO-192 Analog Output Card
- 2 - AVID DSO-192 Digital Output Card

### **Stage Rack System 3 – Stage Right Location**

- 1 - AVID Stage 64 I/O Rack
- 1 - AVID DSI-192 Digital Input Card
- 1 - AVID DSO-192 Digital Output Card

## **Processing Equipment:**

- 6 – Meyer Galileo 616
- 6 – Opticore X6R

## **Monitors:**

12 – L’Acoustics X12 Single 12’ Monitor Wedge – Can be pole mounted

3 – L’Acoustics LAX4 4 Channel DSP Amplifier

Monitor System can be fed AES or Analog

## **Microphones:**

### **AKG:**

4- C621E (lectern mics)

### **CROWN:**

3 - PCC  
1 - PZM 6LP

### **CALREC:**

4 CARDIOD

### **MILAB:**

3 - DC96  
5 - DC 73  
3 - VM – 41

### **BEYER:**

4 - 160  
1 – M88

### **NUEMANN:**

5 – KM184

### **SENNHEISER:**

7 - MD421  
6 – E904  
4 - E906

### **RADIAL**

6 – Pro DI

### **SHURE:**

8 - SM 57  
4 - Beta 57  
2 – Beta 52  
5 - SM 58  
5 – Beta 58  
1 - SM 87  
4 – Beta 87  
1 - PE 85 - Switch  
1 - BG 3.1 Switch  
2 - Beta 91

### **AUDIO TECHNICA**

8 – 2020 Large Diaphragm Condenser

## **Other Sound Equipment:**

Assorted mic cables, multi's, adapters, y-cords, splitters, D.I.s, transformers & splitters.  
1 – US Audio Whirlwind media audio feed splitter.  
40 assorted mic stands.

## **Wireless Microphone System:**

### **Receivers**

1 – Sennheiser EM 9046 SU System Unit Mainframe with Analog and AES Output Module  
8 – Sennheiser EM9046 DRX Digital Receiver Module  
2 – Sennheiser AD9000 Active Directional Antenna w 25ft cables

### **Transmitters**

8 – Sennheiser SKM 9000 Handheld Transmitter with MMK 965 Capsules  
8 – Sennheiser SK 9000 Body pack Transmitter with MKE 1-4 Lavalier Microphones  
4 – Sennheiser Lemo to Instrument cable adapters  
*Note body packs are equipped with Lemo connectors*

All transmitters are equipped with BA 60 and BA 61 rechargeable battery packs

## **Lobby and Portable Sound System**

**Lobby Main Sound:** 4 – Meyer UPJ-1P speakers. 2 located on North Platform, 2 located on South platform. Speakers can operate independently or in tandem via Crestron control  
4 – L’Acoustics 108P Powered Monitors. Can be used as monitors or pole mounted.  
2 - EV SX300 with stands

### **Portable Mixing Systems:**

2 complete systems each contained in a custom rolling rack with:  
1 - APB Dynasonics Pro Rack – House H1020 with 12 + 4 input stereo mixer with 6 switchable AUX sends  
1 – Denon DN-C635 CD Player  
1 – Sennheiser 2000 Series Wireless Handheld and Lavalier Combo Kit

### **Additional Mixers:**

1 - Soundcraft FX16, 16-input stereo mixer with reverb  
1 – Behringer X32 Producer with SD16 Stage Box for 32 Inputs

### **Lecterns:**

2 – custom gray lecterns with logo card rails  
2 – Podium Pro VH1 lecterns steel and maple  
1 – clear Lucite lectern

## **Intercom System:**

A two-channel ClearCom system with 12 locations: lighting control booth, sound mixing booth, spot booth x 2, stage-left wing area, stage-right wing area and 6 belt packs and headsets

## **Touring Consoles:**

Touring consoles are typically located house right at the rear of the right parterre seating section. This position offers a clear view of the stage. This position is 75’ from downstage center and is underneath the mezzanine over hang.



## **VIDEO PROJECTION**

### **Dual Screen 720p Video System:**

- Projectors:** 2 – Panasonic PT-DZ12000U 3-Chip DLP Projector, 12000 lumens  
2 – Panasonic ET-D75LE6 0.7:1 Wide Zoom Lens to create 16' x 9' image
- Screens:** 2 – Da-Lite 40398 16' wide x 9' high rear projection screens permanently hung upstage left and right of the organ.  
2 – TorkStar motorized screen mechanism to allow screens to disappear in to ceiling when not in use.

### **Centre Stage 1080p Video System:**

- Projector:** 1 – Barco HDX 20K Projector located in the projection booth in the back of house
- Screen** 1 – Da Lite 19' x 32' front projection screen with flying modification and floor stand

### **Playback**

- 2 – LG 26" LCD Display to preview video in Control Room located off stage left
- 1 – Sony SSSP32FWSK Speaker kit for above LCD Display
- 1 – Sony BDP-S550 Blu-ray Player for playback of DVD/Blu-ray Disk
- 1 – HHB UDP-89 Professional Universal DVD/CD Player
- 2 – 15 inch MacBook Pros with PowerPoint, Keynote and Playback Pro. Each machine has DVI, VGA and Ethernet adapter as well as an external optical drive.

### **Comfort Monitors**

- 2 – 28 inch Dell HD confidence monitors on low profile Ergomart stands

### **Switching & Control System**

**HD-SDI tie lines installed from the projection booth to the stage. There are 2 lines on each side of the stage running to the projection booth, and 2 cross-stage lines.**

- 1 – Analog Way Eikos 2 Switcher with 19 inch preview monitor
- 2 – Extron MAV 48 AV Matrix Switcher
- 1 – Crestron QM-DA4 1x4 QuickMedia Distribution Amplifier
- 1 – Crestron TPS-12B Active Matrix Interactive Touch Panel Control
- 4 – Crestron QuickMedia Universal Receiver to distribute Computer, Video, Audio
- 1 – Crestron CEN-UPS1250 Uninterrupted Power Supply 1250W, 120V. Incl Battery Pack for system
- 1 – Crestron C2N-SPWS300 QuickMedia Power Supply & QM Distribution Amplifier
- 1 – Crestron ST-CNB Crestnet Distribution Block
- 2 – Extron 60-439-01 MDA 3V Three Output Composite Video Amplifier for Camera feeds
- 2 – Aja HD-SDI to HDMI converters
- 1 – Aja HD-SDI 6 output DA

### **Remote Cueing**

- 1 – DSAN Perfect Cue for wireless remote AV cueing – 2 remotes available

## **Archival Video Recording**

### **Camera:**

1 – Panasonic AW-E650P motorized HD/SDI video camera located at the back of house below the centre balcony, capturing full stage shot with remote zooming and panning capability

1 - Static video camera located upstage left choir loft capturing conductor shot with 4:3 ratio SDI

1 – Panasonic AW-RP50 Remote Camera Controller located in SM booth on stage right

### **Recording**

Capability to record a digital video file from the house feed with program sound embedded. Please note this recording is for archival purposes only. Any other use of captured audio or video material will be subject to IATSE Recording Premium Fee.

# **PROPS**

## **Stage Drapes:**

Black legs:	2- 8' x 24' 2- 8' x 29'-9" 2- 16' x 45'4" velour
Black Borders:	1- 4' x 54' 1- 4' x 44' 1- 5'x 43' 1- 2' x 44' velour
Black Drape:	2- 22' x 23' 2- 24'6" x 50' velour
Grey Traveler:	2 - 27' x 25'9"
Pipe & Drape:	14- 4' x 12' velour

## **Risers:**

House choral seating risers are 72" x 34". There are 7 risers at each of 8", 23", 38", 53", and 68"  
In addition there are 6, 4'x 8' x 1' high risers

## **Music Stands:**

Music Stands.....	100
Conductor Stand.....	1
Music Stand Lights.....	60
Black Orchestra Chairs.....	200

## **Musical Instruments:**

- 1 - Steinway (Hamburg) grand 9-foot
- 1 - Heintzman upright piano (Pitch A440) in an artist dressing room
- 2 - Yamaha upright pianos in artist dressing rooms
- 1 - Full concert pipe organ with remote console option
- 1 - Heintzman Baby Grand 6'
- All other pianos by arrangement.

## **Piano Tuner:**

Pianos tuned by house tuner as required.

## **DRESSING ROOMS AND LOUNGE AREAS**

### **Dressing Rooms**

5 -Artist dressing rooms located at stage level

A - 13'6" x 12	2 people comfortably 3 max	Room A and B share a washroom
B - 14'6" x 13'6"	2 people comfortably 3 max	
C - 14'6 x 14'	2 people comfortably 4 max	Private washroom (Piano)
D - 20' x 11'	2 people comfortably 3 max	Private Washroom (Piano and Kitchenette)
E - 9'6" x 9'	2 people comfortably 2 max	Private Washroom (often used as a production office)

Each dressing room is equipped with a telephone for local calls only. Long-distance dialing via credit cards or dial-codes can be arranged.

### **Choir Change Rooms:**

There are six other large change areas for men and women. They are located on the stage level left and right and may be used based upon individual show needs

### **Lounges:**

Musicians lounge located at stage level, directly behind upstage center  
15' x 17'

Green Room \*\*  
37' x 17'

Pickering Room \*\*  
33' x 26'

Rehearsal room \*\*  
67' - 10" x 42' - 6"

## **UNION AFFILIATION**

Roy Thomson Hall operates within the jurisdiction of the International Alliance of Theatrical Stage Employees & Moving Picture Technicians, Artists and Allied Crafts (I.A.T.S.E. Local 58).  
For further information contact the Production Manager.