



MILLER
OUTDOOR
THEATRE
IN HERMANN PARK

Miller Outdoor Theatre

2024 Tech Pack



100 Years Of Wow!!

Map of Hermann Park





Miller Outdoor Theatre Tech Pack

2024

Miller Outdoor Theatre Stage & House Information		
Building Capacities	Maximum Building Occupancy	1583
	Seating Capacity in the Covered Seating Area	1704 seats + 20 wheelchair spaces
	Approximate Seating Capacity on the Hill	6000 (Blankets) / 9000 (Standing)
Stage Dimensions	Proscenium Width	58' 8"
	Proscenium Height	25' 10"
	Stage Width	65' 2"
	Stage Depth (Curtain to Back Wall)	42' 2"
	Apron Depth (Curtain to Upstage Edge of Pit)	8' 2"
	Deck to Grid	65' 8"
	Plaster Line @ Center to Front-of-House Control Booth	135' 5"
	Plaster Line @ Center to Front-of-House Lighting Catwalk	89' 9"
Fly Rail	System Pipes	54
	System Pipe Length	1½" Schedule 40; 63' long
	Pipe Trim #2-12 (Split Rail)	High trim 52' 1"; Low trim 3' 10" (Battens are pre-rigged to tail up 10'-0" if needed)
	Pipe Trim #1 & #13-54	High trim 60' 6"; Low trim 4' 0"
	Arbor Capacity	1750 lbs.
	Counter Weight (30,000 lbs. total)	(1) Brick = 20 lbs.
Loading Dock	Loading Dock Door Dimensions	W: 7' 9" H: 10' 0"
	Note: The Loading Dock is at street level. A ramp, fork lift, or lift gate is required for unloading trucks.	
Orchestra Pit	Orchestra Pit Width	74' 6"
	Orchestra Pit Depth	17' 10" at Center Line
	Total Sq. Footage	1,129 sq. ft.
	Orchestra Pit Rate of Travel (DOWN)	1 Minute 6 Seconds
	Orchestra Pit Rate of Travel (UP)	51 Seconds
	Maximum Low Trim	7' 7"
	Typical Low Trim for Orchestras	5' 11"
	Weight Capacity of Orchestra Pit	27,000 lbs.

Draperies					
Item	Linesets	Fabric	Size	Quantity	Weight
Grand Drape (2 Panels)	1	32 oz. Cherry IFR; 100% Fullness	30' H x 63' W (7' Overlap @ Center)	1	780 lbs.
Split Black (2 Panels)	20, 54	25 oz. Black IFR; Flat	30' H x 34' W (Each Panel)	2	390 lbs.
Black Border / Full Black	2	25 oz. Black IFR; Flat	30' H x 60' W	1	300 lbs.
Black Borders	11, 21, 31, 40, 45	25 oz. Black IFR; Flat	10' H x 60' W	6	120 lbs.
Black Legs (on Traveler Track)	3, 12, 22, 32, 41, 50	25 oz. Black IFR; Flat	30' H x 15' W	6 Pairs	150 lbs.
Sharktooth Scrim	42	Black IFR	30' H x 60' W	2	90 lbs.
Plastic / Projection Surface	44, 53	Rosco Twin White Plastic	30' H x 60' W	2	240 lbs.
Fiber Optic Star Drop	43	Black	30' H x 60' W (3 Vertical Panels; 2 Fiber Trunks per Panel)	1	465 lbs.
Rear Projection Screen	8	Da-Lite Curved Series 300 Lace and Grommet Frame	18' H x 32' W	1	240 lbs.



Miller Outdoor Theatre Tech Pack

2024




Lineset Schedule					
Lineset	Travel	Distance From Plaster Line	Name	Notes	Weight
1		0' 6"	Red Grand Drape	Titan Adjustable Speed Motor	39 wts.
2	Travel: 48'-3"	1' 3"	#1 Black Border / Full Stage Black	30' H x 60' W	16 wts.
3		1' 10"	#1 Black Legs	22' From Center on Traveler Track	10 wts.
4		2' 7"	#1 Electric + Audio Monitors - House Trim is 27'-0"	Power Assist Motors; Pipes Are Married	N/A
5		3' 4"	#2 Electric - House Trim is 27'-0"		
6		4' 3"			
7		4' 11"	Barco HDX-W20 Flex Projector		10 wts.
8		5' 7"			
9		6' 3"			
10		6' 11"			
11		7' 7"	#2 Black Border	10' H x 60' W	7 wts.
12		8' 3"	#2 Black Legs	22' From Center on Traveler Track	10 wts.
13		Travel: 56'-6"	9' 0"	#3 Electric - House Trim is 26'-0"	Power Assist Motors; Pipes Are Married
14	9' 9"		#4 Electric - House Trim is 27'-0"		
15	10' 8"		Spare Batten Storage		20 wts.
16	11' 4"				
17	12' 0"				
18	12' 8"				
19	13' 4"		Mid-Stage Split Black Curtain	2 Panels - 30' H x 34' W each	27 wts.
20	14' 0"				
21	14' 8"		#3 Black Border	10' H x 60' W	7 wts.
22	15' 4"		#3 Black Legs	22' From Center on Traveler Track	10 wts.
23	16' 1"		#5 Electric - House Trim is 26'-0"	Power Assist Motors; Pipes Are Married	N/A
24	16' 10"		#6 Electric - House Trim is 27'-0"		
25	17' 9"		Spare Batten Storage		19 wts.
26	18' 5"				
27	19' 1"				
28	19' 9"				
29	20' 5"				
30	21' 1"				
31	21' 9"		#4 Black Border	10' H x 60' W	7 wts.
32	22' 5"		#4 Black Legs	22' From Center on Traveler Track	10 wts.
33	23' 2"		#7 Electric - House Trim is 26'-0"	Power Assist Motors; Pipes Are Married	N/A
34	23' 11"		#8 Electric - House Trim is 27'-0"		
35	24' 10"		Spare Batten Storage		19 wts.
36	25' 6"				
37	26' 2"				
38	26' 10"				
39	27' 10"		#9 Electric (Moving Lights) - House Trim is 28'-0"	Power Assist Motor	N/A
40	28' 10"		#5 Black Border	10' H x 60' W	7 wts.
41	29' 6"		#5 Black Legs	22' From Center on Traveler Track	10 wts.
42	30' 2"		Black Sharktooth Scrim	30' H x 60' W	5 wts.
43	30' 11"		Fiber Optic Star Drop	30' H x 60' W	44 wts.
44	31' 8"		Rosco Twin White Plastic (Front Projection Screen)	30' H x 60' W	11 wts.
45	32' 4"		#6 Black Border	10' H x 60' W	7 wts.
46	33' 0"				
47	33' 9"	#10 Electric (Cyc Lights) - House Trim is 28'-0"	Power Assist Motor	N/A	
48	34' 6"				
49	35' 2"				
50	35' 10"	#6 Black Legs	22' From Center on Traveler Track	10 wts.	
51	36' 6"				
52	37' 2"	Rainbow Mylar		3 wts.	
53	37' 10"	Rosco Twin White Plastic (Bounce)	30' H x 60' W	11 wts.	
54	38' 6"	Black Crossover Curtain	2 Panels - 30' H x 34' W each	16 wts.	

Loft blocks are permanently installed (ie, kicking sheaves in the grid to adjust lineset spacing is not possible).
 Battens are 1½" Schedule 40 and are 63' long.
 Weights are ¾" Cut Steel: 20lbs. each.
 Maximum Arbor Capacity is 1750 lbs.
 House Electrics are on 22ft./min. Arbor Assist Motors.
 Linesets #1 and #13 through #54: Travel from 4'-0" to 60'-6" above the deck (ie, 56'-6" of maximum total travel distance)
 Linesets #2 through #12: Travel from 3'-10" to 52'-1" above the deck (ie, 48'-3" of maximum total travel distance)

Properties			
Item		Quantity	
5' x 4' Plywood Riser Lids w/ Parallel Steel Frames	1' Height	12	Wenger Roughneck Music Stands
	2' Height	12	
	3' Height	12	
Plastic Tables	8' x 3'	8	Wenger Padded Musician Chairs
	6' x 3'	8	
	4' x 3'	2	
			Aria LED Music Stand Lights
			Wenger Conductor's Podium, Stand, Chair & TechBridge
			Rosco Black/White Dance Floor (60' L x 63' W)
			10 ft. Ballet Barres

Wardrobe			
LG 4.5 ft³ Front-Loading Washing Machine with Steam Technology	1		Reliable G4 Professional Grade Fabric Steamer
LG 7.4 ft³ Ultra Large Capacity SteamDryer	1		CHI Steam Iron for clothes
6 ft. Rolling Clothes Rack	2		Singer Classic 44S Sewing Machine

Backline Inventory

Pianos	
Grand Piano Mason & Hamlin Model CC 9'-4" Grand Piano	Upright Piano Yamaha M112 PE 44" Acoustic Upright Piano
	
	

House Drum Kit

Items Listed May Not Be Correct - Contact Cliff Presswood for Current House Drum Kit Information

Drum Kit - Mapex Saturn Series Silver Sparkle Drums		Zildjian A-Custom Cymbals	
22" Diameter x 18" Depth Bass Drum	10" x 8" Mounted Tom	20" / 51cm Medium Ride Cymbal	20" / 51cm China Cymbal
18" Diameter x 14" Depth Bass Drum	12" x 10" Mounted Tom	18" / 45cm Medium Thin Crash Cymbal	10" / 25cm Fast Splash Cymbal
14" x 5" Snare with 2.3mm Power Hoops	16" x 16" Floor Tom	16" / 40cm Medium Thin Crash Cymbal	14" / 36cm New Beat High Hats
13" x 6" Black Panther Maple Snare Drum	14" x 14" Floor Tom	14" / 36cm High Hats	14" / 36cm Master Sound High Hats
14" x 6.5" Black Panther Hand-Hammered Brass "Sledgehammer" Snare Drum			
Drum Hardware		Additional Cymbals	
Mapex Falcon P1000TW Chain Drive Double Bass Drum Pedal	DW 9000 Double Bass Drum Pedal	Zildjian 19" K-Hybrid Crash Cymbal	Sabian 21" Ride Cymbal
Gibraltar Prowler 5611 Chain Drive Single Bass Drum Pedal	DW 9000 Single Bass Drum Pedal	Zildjian 17" K-Hybrid Crash Cymbal	Sabian Solaris 14" High Hats
Mapex Snare Stand	DW 5000 Single Bass Drum Pedal	Zildjian Avedis 16" Crash Cymbal	
Yamaha Snare Stand	DW 9000 Snare Drum Stand		
Percussion / Accessories		Cymbal Stands	
RhythmTech Hat Trick (High Hat Mounted Tambourine)		(4) Mapex Combination Straight/Boom Cymbal Stands	Mapex Heavey Duty High Hat Stand
LP 229 Mambo 9" Cowbell	Roc-N-Soc Drum Throne	DW 9000 2-Leg Hi-Hat Stand	"Dogbone" Boom Arm for Splash Cymbal
Zildjian Stick Bag	LP Microphone Claws	DW Combo Cymbal Stand	
8 ft. x 10ft. Drum Rugs	5 ft. x 7 ft. Drum Rugs		



Miller Outdoor Theatre Tech Pack

2024

Items Listed May Not Be Correct - Contact Cliff Presswood for Current Inventory Information

Sound System	
Mixing Console	
1	Solid State Logic L500 Plus 256 Channel Digital Mixing System
1	Solid State Logic Blacklight II Audio System Signal Router
Stereo Main Arrays	
10 Left / 10 Right	Electro-Voice XLC (with DVX Driver) Full Range Cabinet
5 Left / 5 Right	Electro-Voice XLC 2x15 Sub Enclosure
Stereo Delay Arrays	
6 Left / 6 Right	Electro-Voice XLC (with DVX Driver) Full Range Cabinet
Center Cluster	
6	Electro-Voice EVH-D15 Full Range Cabinet
6	Electro-Voice EVF 2151D Sub Enclosure
Pit Front Fill Speakers	
8	Electro-Voice EVU 1062/95
Amplifiers	
38	Electro-Voice TG-5
Processing	
FIR Processing via Electro-Voice IRIS-Net	
Near Field Mixing Monitors	
2	Genelec 8250A
1	Genelec Subwoofer
1	Genelec 8020C
Rack Gear / Playback	
1	Tascam CD01U CD Player
1	Tascam DV-RA1000HD Audio Recorder
1	Rational Acoustics Smaart I/O
2	MOTU Audio Express Digital I/O
1	MacBook Pro with MOTU 828x Audio Interface and QLab 3 Pro Bundle License

Monitor Mix System	
Mixing Console	
1	Solid State Logic L500 Plus 256 Channel Digital Mixing System
1	Midas PRO1 Digital Mixer (Back-up Console)
Wedge Monitors	
8	Electro-Voice XW12A 12" Wedge
8	Electro-Voice XW15A 15" Wedge
Overhead Monitors	
2	Electro-Voice EVF-1152D Full Range Cabinet
Side Fill Monitors	
2	Electro-Voice EVF-1152D Full Range and EVF-2151D Sub
Drum Fill Monitors	
2	Electro-Voice EVF-1122D Full Range and EVF-2121S Sub
Powered Monitors	
2	Galaxy Audio Hot Spot PA6S
4	Behringer B205-D
6	Anchor AN-130
Amplifiers	
15	Electro-Voice TG-5
6	Crown XTI6002
Processing	
FIR Processing via Electro-Voice IRIS-Net	
Electro-Voice DC-ONE Processor (Drum and Side Fill Monitors)	
Stage I/O Boxes	
8	Midas PRO SERIES DL451 Modular Stage Box
1	Midas PRO SERIES DL151 Mic/Line Input Stage Box
2	Midas PRO SERIES DL155 I/O Stage Box
3	Midas PRO SERIES DL431 Mic Splitter
Rack Gear / Playback	
1	Tascam CD01U CD Player
1	Tascam SS-CDR200 CF/SD Player

Microphones	
Dynamic Microphones	
2	Audix D6
2	AKG D112
8	Beyerdynamic M 88
10	Electro-Voice N/D468
3	Electro-Voice RE20
2	Neumann KMS 105
1	Sennheiser MD409
4	Sennheiser e 609
8	Sennheiser e 906
15	Sennheiser MD 421-II
8	Sennheiser MD 441
2	Shure SM48
2	Shure Beta 52A
12	Shure SM57
2	Shure Beta 57
6	Shure Beta 57A
1	Shure PG58 w/ switch
14	Shure SM58
3	Shure SM58 w/ switch
4	Shure Beta 58A
Small Diaphragm Condenser Microphones	
5	AKG C451
3	AKG C 460 B
5	AKG SE300 B
4	Audix SCX1
11	Neumann KM 184
16	Shure KSM137
9	Shure SM81
7	Shure Beta 98
2	Shure Beta 98A
Large Diaphragm Condenser Microphones	
6	Audio-Technica AT4050
11	AKG C414
Specialty Microphones	
13	AKG C519 - Instrument Clip-on Mic
8	Audio-Technica UA35A - Choir Mic
6	Bartlett Audio Stage Floor Mic
2	Shure Beta 91A
Direct Input Boxes	
17	Countryman Type 85 FET Active DI
2	Whirlwind Director Passive DI

Microphone Stands	
10	Atlas MS15 Tall Chrome Mic Stand
20	Atlas MS15 Tall Black Mic Stand
6	Atlas MS20 Tall Black Mic Stand
16	Atlas MS10 Tall Chrome Mic Stand
10	Atlas MS10 Tall Black Mic Stand
24	Atlas MS10 12" Short Black Mic Stand
2	Atlas MS10 6" Short Black Mic Stand
75	various telescopic boom arm

Paging & Show Program System	
1	TOA 9000M2 70v Mixer Amplifier for Paging System
1	TOA 900 Series II 70v Amplifier for Show Program
20	various 70v speakers

Wireless Microphones	
32	Shure Axient Wireless Receiver Channels running over Dante Digital I/O
32	Shure Axient Hand-Held transmitters w/ 14 Beta58; 12 KSM 8; 6 KSM 9 capsules w/ 32 charging slots with multiple battery changes available
32	Shure ADX 1 Body Packs w/ 32 charging slots with multiple battery changes available
32	DPA 4061 Omni directional lavalier microphones Rigging supplies for 4061 lavalier microphones to facilitate various deployment needs All channels equipped with Showlink parameter telemetry RF Venue low gain customizable multi element antenna system

Wireless In-Ear Monitors	
8	true stereo Shure PSM 1000 wireless in-ear monitor transmitter channels
16	true stereo Shure P 10R+ wireless in-ear body pack receivers w/ 16 charging slots with multiple battery changes available
16	Shure dual driver in-ear (earbud) monitors RF Venue antenna system

Wired & Wireless Intercom	
1	Clear-Com 4-Channel, 12-Matrix Base Station SB-412 A
1	Clear-Com 4-Channel, 10-Matrix Base Station SB-704
4	Clear-Com RM-440 4-Channel Remote Station
2	Clear-Com RM-120A 2-Channel Remote Station
20	Clear-Com KB-111 "King Biscuit" Listening Station
24	Clear-Com Beltpack/Headset Clear-Com Freespeak II wireless intercom base station w/ distributed digital antenna
16	Clear-Com FSII-BP1G9 Belt pack transceivers
20	charging slots with multiple battery changes available
47	various Full-Sized and Lightweight Headsets

ADA Compliance	
2	Listen LT-800 F/M Transmitter
24	Listen Display Receiver Belt Pack

Dante	
Nixer RD 10 Dante Listening Station	
2	CISCO Catalyst 2960L configured for Dante I/O



Miller Outdoor Theatre Tech Pack

2024

Miller Outdoor Theatre Lighting Inventory

ETC Eos Multi-Console Lighting Control

RPU3 Primary (24,576 Outputs) and RPU3 Full Tracking Backup
Eos Ti (x2) and Gio Client Consoles for Programming
Puck for Front-of-House Designer Display
Eos Motorized Fader Wing 10 and 20 for Additional Playback / Busking

Personnel Lifts

Type	Weight	Quantity	Max. Platform Height
Genie Runabout GR-20	2,513 lbs.	1	19'-11"
Genie Aerial Work Platform AWP-30S	777 lbs.	1	29'-6"

Note: The GR-20 may not be used on the House Marley Dance Floor

House Plot Fixtures

Fixture Type		Quantity	Wattage
Lycian 1290XLT Follow Spots		2	2kW
ETC Source 4 ERS	5°	3	750w
	10°	22	750w
	14°	34	750w
	19°	43	750w
	26°	66	575w
	36°	132	575w
	15° - 25° Zoom	2	750w
ETC Source 4 PAR - WFL		72	750w
Selecon	4-Cell Cyc Unit	8	1kW per circuit
Aurora	4-Cell Groundrow Unit	8	1kW per circuit

Spare Fixtures

Fixture Type		Quantity	Wattage
ETC Source 4 ERS Fixture Body		42	575w
ETC Source4 Lenses	5°	4	
	10°	15	
	19°	30	
	26°	40	
	36°	28	
	50°	20	
	70°	2	
ETC Source 4 PAR (VNSP, NSP, MFL or WFL)		12	750w
ETC Source 4 Fresnel		3	750w
Lightwave Research Multiray		4	1kW
PAR 64 (VNSP, NSP, MFL or WFL)		12	1kW

Moving Lights & Intelligent Accessories

Fixture Type		Quantity	Wattage
Moving Lights	Vari-Lite VL4000 Spot	8	1200w
	Vari-Lite VL3000 Spot	12	1200w
	Vari-Lite VL2500 Spot	10	700w
	Vari-Lite VL2500 Wash	14	700w
S4 Accs.	Rosco I-Cue	13	17w, 24VDC
	City Theatrical DMX Iris	11	6w, 24VDC
	Apollo DMX Iris	2	14.5w, 24VDC
LEDs	ETC Selador Vivid-R 11" LED	8	125w
	Elation Sixpar 300IP	4	220w
	ElektraLite Stingray WW 12° - 30° Zoom	1	300w
	MiBoxer RGB+CCT LED Bulb	18	9w
Other	Martin Atomic 3000 Strobe	2	3000W
	Rosco iPro Image Projector	3	120w
	18" Mirror Ball w/ American DJ DMX Motor	1	360w

Star Drop

30' H x 60' W (3 Vertical Panels; 2 Fiber Trunks per Panel) on Lineset 43

Fixture Type	Quantity	Wattage
Martin RUSH FiberSource 1 LED Fiber Illuminator	3	78w
DiCon FiberLamp 5100	3	96w

Atmosphere

Note: Use of Atmosphere Requires a Permit and Fire Marshal to be present

Fixture Type	Fluid Type	Quantity	Wattage
Look Solutions Unique 2.1 Hazer	Triethylene Glycol (aka, TEG)	2	1500w
Reel EFX DF-50 DMX Hazer		2	480w
Barco FQ-100 Fog Machine		2	1500w
Chauvet Pro Vesuvio II		3	1488.5w
American DJ Entour Ice	Dry Ice	2	3000w
City Theatrical AquaFog 3300	(Frozen CO2)	1	3300w

Template Holders

Fixture Type		Quantity	Size
Sandwich-Style Gobo Holders	For Steel Gobos	87	A - 100mm
		44	B - 86mm
	For Glass Gobos	6	BG - 79mm
		2	B - 86mm
Rosco Universal Iris Slot Holder		2	B - 86mm

Top Hats, Color Extenders, Barndoors

Fixture Type		Size	Quantity	
Top Hats	For 5° Source4	14" x 14" x 12"	3	
	For 10° Source4	12" x 12" x 10"	22	
	For 14° Source4	7.5" x 7.5" x 6"	34	
	For 19°/26°/36° Source4	6.25" x 6.25" x 5"	16	
	For 50° Source4	6.25" x 6.25" x 3"	6	
Half Hats	For 19°/26°/36° Source4	6.25" x 6.25" x 5"	16	
Color Extenders	Color	For 19°/26°/36° Source4	6.25" x 6.25" x 5"	40
		For 50° Source4	6.25" x 6.25" x 3"	10
	4-Leaf Barn	For Source4 Pars	7.5" dia.	21
	For Source4 Fresnels	7.5" x 7.5"	3	

Other Accessories

Fixture Type		Quantity	Size
City Theatrical Safer Side Arm		16	24"
		8	18"
City Theatrical Source4 Follow-Spot Handle		1	
City Theatrical Drop-In Source4 Iris		14	

Miller Outdoor Theatre Video Inventory

Projector	Barco HDX-W20 FLEX 20,000 Lumen HD Projector	
	Lenses:	Barco 0.67 HD Fixed Lens Barco 0.68 – 0.87 HD Zoom Lens Christie 1.16 – 1.49 HD Zoom Lens
Projection Surfaces	Rear Projection:	Da-Lite Curved Series 300 (18'H x 32'W on Lineset 8)
	Front Projection:	Rosco Twin White Plastic (30'H x 60'W on Lineset 44 or 53)
Switchers	Barco PDS-902:	Video Inputs: (4) DVI-I (Supports both analog or DVI), (1) 3G-SDI (BNC Connector) (4) Analog Via HD-15 (VGA Connector) Video Outputs: (1) DVI-I and (1) 3G-SDI or BarcoLink (BNC Connector)
	Blackmagic ATEM SDI:	Video Inputs: (4) 3G-SDI Video Outputs: (2) 3G-SDI
Additional Rack Equipment	Denon DN-500BD MKII Blu-Ray Player	
	ADJ ArKaos Stage Server w/ Dual DVI Video Inputs Video Software: Resolume Avenue 7, ADJ ArKaos Media Master Express 4	
	Rackmount Mac Pro (2019) Video Software: Qlab 5 (Audio, Video, Lighting), Isadora 3, Keynote, PowerPoint	
Additional Notes	Maximum distance from switcher to projector is 150'. Signal is over HD-SDI cable.	
	When used for rear projection, projector typically rests on a floor stand upstage. Image is projected onto the Da-Lite 18'H x 32'W on Lineset 8.	
	When used for front projection, projector hangs on Lineset 7 (Linesets 6, & 8 - 10 CANNOT be used). Image is projected onto the Rosco Twin White Plastic on Lineset 44 or 53.	
	Image Size on Lineset 44:	22'-6"H x 38'-6"W
	Image Size on Lineset 53:	22'-8"H x 44'-0"W - the image does not stay true to its 16:9 aspect ratio
Preferred File Formats	Preferred Aspect Ratio: 16:9 Preferred Resolution: 1920 x 1080	
	Audio Files: AIFF or WAV are preferred over MP3 or M4A	
	Image Files: JPEG or PNG are preferred over PowerPoint or Keynote Video Files: ProRes 422 or HAP are preferred over H.264 or H.265	
Portable Video Equipment	Conductor Cameras Portable Video Monitors Converters	

Typical Front Projection Setup using the Plastic on Lineset 44

